00BREAK00

1) COUNTY: Macon

2) STUDY NAME: New Haven

3) WATERCOURSE: Salt River

4) DOCUMENT TYPE: Encroached floodway

00BREAK00

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$     $$  $$$$$$$$  $$    $$  $$$$$$$$   $$$$$ $  $$$$$$$$  $$
$$    $$  $$        $$    $$     $$     $$    $         $$  $$
$$$   $$  $$        $$    $$     $$     $$   $$$       $$   $$
$$$$  $$  $$$$$     $$$$$$$$     $$     $$  $ $$      $$    $$
$$ $$ $$  $$        $$    $$     $$     $$ $$ $$     $$     $$
$$  $$$$  $$        $$    $$     $$     $$ $  $$    $$      $$
$$   $$$  $$        $$    $$     $$     $$$   $$   $$       $$
$$    $$  $$        $$    $$  $$ $$      $    $$  $$        $$
$$    $$  $$$$$$$$  $$    $$   $$$      $ $$$$$   $$$$$$$$  $$$$$$$$
NEHJOZL  JANDA                12/20/78  13.41.04  7600   JO
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VILLAGE OF NEW HAVEN F.I.S.

JOB NO. 5850-05

SALT RIVER

MULTIPLE PROFILES FOR ENCROACHED FLOODWAY

JOHNSON AND ANDERSON, INC. 12-[illegible]-78

PRINTED IN U.S.A.
FORM 1411 GB PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

C
T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05
T2      10-YEAR FLOW
T3      SALT RIVER - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          1.         2.         0.         0.  0.000000       0.00       0.0         0.    601.100    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
     38.000     40.000     41.000     42.000     43.000      1.000      8.000     10.000     12.000      3.000

     33.000      4.000     25.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       .030       .030       .030      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT      4.000    650.000   1050.000   1200.000   1500.000      0.000      0.000      0.000      0.000      0.000

              26-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION A

X1      7.640     40.000   1471.500   1517.000    110.000    110.000    100.000      0.000      0.000      0.000
GR    607.400      0.000    607.300    100.000    606.500    200.000    605.900    300.000    606.500    400.000
GR    606.600    500.000    605.800    600.000    605.100    700.000    605.100    800.000    604.900    900.000
GR    605.100   1000.000    604.400   1100.000    604.000   1200.000    603.500   1300.000    603.700   1400.000
GR    604.200   1469.000    604.200   1471.500    599.000   1471.500    595.600   1494.000    594.500   1500.000
GR    595.300   1508.000    596.800   1517.000    604.200   1517.000    604.200   1519.000    603.700   1600.000
GR    603.900   1700.000    604.800   1800.000    606.300   1900.000    608.500   2000.000    609.500   2100.000
GR    610.100   2200.000    610.700   2300.000    611.200   2360.000    611.300   2400.000    611.300   2500.000
GR    612.000   2600.000    612.500   2700.000    612.900   2800.000    613.200   2900.000    613.200   3000.000
SB      0.000      1.910      3.020      0.000     32.010      0.000    224.100      0.000    595.000    594.500

              26-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION A

X1      7.644     40.000   1471.500   1517.000     25.000     25.000     25.000      0.000      0.000      0.000
X2      0.000      0.000      1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
BT     40.000      0.000    607.400      0.000    100.000    607.300      0.000    200.000    606.500      0.000
BT    300.000    605.900      0.000    400.000    606.500      0.000    500.000    606.600      0.000    600.000
BT    605.800      0.000    700.000    605.100      0.000    800.000    605.100      0.000    900.000    604.900
BT      0.000   1000.000    605.100      0.000   1100.000    604.400      0.000   1200.000    604.000      0.000
BT   1300.000    603.500      0.000   1400.000    603.700      0.000   1469.000    604.200      0.000   1469.000
BT    607.900      0.000   1471.500    607.900    600.500   1479.000    607.900    602.000   1494.000    609.900
BT    602.000   1510.000    607.900    602.000   1517.000    607.900    600.500   1519.000    607.900      0.000
BT   1519.000    604.200      0.000   1600.000    603.700      0.000   1700.000    603.900      0.000   1800.000
BT    604.800      0.000   1900.000    606.300      0.000   2000.000    608.500      0.000   2100.000    609.500
BT      0.000   2200.000    610.100      0.000   2300.000    610.700      0.000   2360.000    611.200      0.000
BT   2400.000    611.300      0.000   2500.000    611.300      0.000   2600.000    612.000      0.000   2700.000
BT    612.500      0.000   2800.000    612.900      0.000   2900.000    613.200      0.000   3000.000    613.200
BT      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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GR	606.600	500.000	605.800	600.000	605.100	700.000	605.100	800.000	604.900	900.000
GR	605.100	1000.000	604.400	1100.000	604.000	1200.000	603.500	1300.000	603.700	1400.000
GR	604.200	1469.000	604.200	1471.500	599.500	1471.500	596.100	1494.000	595.000	1500.000
GR	595.800	1508.000	597.300	1517.000	604.200	1517.000	604.200	1519.000	603.700	1600.000
GR	603.900	1700.000	604.800	1800.000	606.300	1900.000	608.500	2000.000	609.500	2100.000
GR	610.100	2200.000	610.700	2300.000	611.200	2360.000	611.300	2400.000	611.300	2500.000
GR	612.000	2600.000	612.500	2700.000	612.900	2800.000	613.200	2900.000	613.200	3000.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

FIELD SECTION TAKEN DOWNSTREAM OF 26-MILE ROAD AND ADJUSTED FOR

CHANNEL INVERT IN OVERBANKS - CHANNEL PORTION REPLACED BY CHANNEL

GEOMETRY OF BRIDGE SECTION

X1	7.645	33.000	1481.000	1534.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1487.500	0.000	1535.000	0.000	0.000	0.000	0.000
GR	607.900	0.000	610.900	100.000	608.400	200.000	606.700	250.000	603.300	300.000
GR	602.000	400.000	601.900	500.000	602.300	600.000	602.400	700.000	602.700	800.000
GR	602.000	900.000	602.800	1000.000	602.200	1050.000	606.200	1060.000	607.000	1100.000
GR	607.800	1200.000	608.600	1300.000	607.700	1400.000	607.900	1410.000	605.400	1420.000
GR	600.600	1481.000	596.100	1511.000	595.000	1517.000	595.800	1525.000	597.300	1534.000
GR	609.000	1600.000	609.600	1700.000	609.800	1800.000	610.500	1900.000	611.500	2000.000
GR	610.300	2100.000	609.900	2200.000	612.900	2278.000	0.000	0.000	0.000	0.000

SECTION B REPEATED AND ADJUSTED FOR CHANNEL INVERT

X1	7.650	21.000	323.000	360.000	25.000	25.000	25.000	0.000	.500	0.000
X3	0.000	0.000	0.000	291.000	0.000	391.000	0.000	0.000	0.000	0.000
GR	608.900	0.000	608.600	60.000	608.600	160.000	607.800	260.000	607.100	295.000
GR	603.500	305.000	604.300	323.000	600.100	333.000	596.300	339.000	594.600	342.000
GR	594.500	345.000	594.800	348.000	596.100	353.000	598.800	360.000	599.300	460.000
GR	599.400	560.000	600.100	660.000	600.400	745.000	604.600	770.000	605.900	860.000
GR	605.300	960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.080	323.000	.045	360.000	.080	460.000	.060	960.000	0.000

VALLEY SECTION B

X1	8.007	21.000	323.000	360.000	1180.000	1020.000	1884.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	670.000	0.000	0.000	0.000	0.000
GR	610.600	0.000	610.300	60.000	610.300	160.000	609.500	260.000	608.800	295.000
GR	605.200	305.000	606.000	323.000	601.800	333.000	598.000	339.000	596.300	342.000
GR	596.200	345.000	596.500	348.000	597.800	353.000	600.500	360.000	601.000	460.000
GR	601.100	560.000	601.800	660.000	602.100	745.000	606.300	770.000	607.600	860.000
GR	607.000	960.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CONFLUENCE WITH SHOOK DRAIN - SECTION B REPEATED AND ADJUSTED FOR

CHANNEL INVERT.

X1	8.035	0.000	0.000	0.000	120.000	160.000	150.000	0.000	1.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	630.000	0.000	0.000	0.000	0.000
NH	4.000	.060	230.000	.080	685.000	.050	728.000	.080	789.000	0.000
QT	4.000	440.000	740.000	840.000	995.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION C

X1	8.056	17.000	685.000	728.000	90.000	120.000	110.000	0.000	0.000	0.000
GR	609.600	0.000	609.500	100.000	609.600	200.000	609.000	300.000	610.200	400.000

GR	607.900	784.000	608.100	789.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.070	1300.000	.080	1500.000	.045	1537.000	.080	1650.000	.070
NH	2300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION D

X1	8.181	31.000	1500.000	1537.000	640.000	660.000	660.000	0.000	0.000	0.000
GR	611.400	0.000	611.300	100.000	611.900	200.000	612.000	300.000	612.000	400.000
GR	611.700	500.000	612.600	600.000	611.300	700.000	612.700	800.000	612.200	900.000
GR	611.900	1000.000	612.100	1100.000	611.700	1200.000	611.700	1215.000	603.800	1260.000
GR	603.300	1300.000	603.100	1400.000	601.500	1500.000	598.500	1505.000	597.900	1511.000
GR	598.800	1514.000	601.900	1537.000	603.200	1600.000	603.700	1675.000	608.500	1700.000
GR	609.400	1800.000	609.800	1900.000	608.100	2000.000	608.000	2100.000	612.500	2200.000
GR	613.000	2300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION E

X1	8.503	15.000	400.000	450.000	1670.000	1600.000	1700.000	0.000	0.000	0.000
GR	611.600	0.000	612.000	100.000	606.000	175.000	604.100	200.000	604.800	300.000
GR	603.700	400.000	603.100	403.000	602.600	408.000	603.100	415.000	604.500	425.000
GR	607.900	450.000	612.700	500.000	615.300	600.000	612.500	700.000	616.700	800.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION F

X1	8.774	17.000	503.000	534.000	1420.000	1390.000	1430.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	453.000	0.000	587.000	0.000	0.000	0.000	0.000
GR	619.000	0.000	619.000	100.000	619.500	200.000	619.400	300.000	616.900	400.000
GR	608.200	500.000	608.200	503.000	603.700	515.000	604.200	530.000	608.200	534.000
GR	607.500	600.000	607.700	800.000	607.700	875.000	610.000	900.000	614.600	950.000
GR	617.000	1000.000	616.400	1108.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

X1	8.807	0.000	0.000	0.000	190.000	150.000	179.000	0.000	.200	0.000
X3	0.000	0.000	0.000	498.000	0.000	542.000	0.000	0.000	0.000	0.000
NC	.030	.030	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE - SECTION G

X1	8.808	27.000	978.000	1022.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	24.000	0.000	621.200	0.000	100.000	620.600	0.000	200.000	619.800	0.000
BT	300.000	619.100	0.000	400.000	618.100	0.000	500.000	616.900	0.000	600.000
BT	614.600	0.000	700.000	614.800	0.000	800.000	614.800	0.000	900.000	614.400
BT	0.000	978.000	614.400	0.000	978.000	617.600	612.400	1022.000	617.600	612.400
BT	1022.000	614.400	0.000	1100.000	614.400	0.000	1200.000	614.500	0.000	1300.000
BT	614.500	0.000	1400.000	615.500	0.000	1500.000	616.400	0.000	1600.000	617.600
BT	0.000	1700.000	618.800	0.000	1800.000	620.000	0.000	1900.000	620.900	0.000
BT	2000.000	621.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	621.200	0.000	620.600	100.000	619.800	200.000	619.100	300.000	618.100	400.000
GR	616.900	500.000	614.600	600.000	614.800	700.000	614.800	800.000	614.400	900.000
GR	614.400	978.000	608.300	978.000	605.000	984.000	603.900	1000.000	605.000	1016.000
GR	607.400	1022.000	614.400	1022.000	614.400	1100.000	614.500	1200.000	614.500	1300.000
GR	615.500	1400.000	616.400	1500.000	617.600	1600.000	618.800	1700.000	620.000	1800.000
GR	620.900	1900.000	621.500	2000.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION G

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FORM 1611-AS PRINTED BY ROTARY MANIFOLD FORMS

X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

X1	8.819	17.000	503.000	534.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	497.000	0.000	543.000	0.000	0.000	0.000	0.000
GR	619.200	0.000	619.200	100.000	619.700	200.000	619.600	300.000	617.100	400.000
GR	608.400	500.000	608.400	503.000	603.900	515.000	604.400	530.000	608.400	534.000
GR	607.700	600.000	607.900	800.000	607.900	875.000	610.200	900.000	614.800	950.000
GR	617.200	1000.000	616.600	1108.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.040	168.000	.080	200.000	.045	214.000	.080	300.000	.040
NH	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	430.000	725.000	825.000	975.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION H

X1	8.947	21.000	200.000	214.000	670.000	740.000	678.000	0.000	0.000	0.000
GR	620.100	0.000	619.200	100.000	616.900	150.000	608.800	168.000	608.400	200.000
GR	607.000	202.000	605.700	205.000	606.700	210.000	608.200	214.000	609.000	300.000
GR	608.800	400.000	609.200	416.000	615.600	451.000	615.700	500.000	616.700	600.000
GR	618.100	700.000	618.800	800.000	619.000	900.000	619.400	1000.000	619.700	1100.000
GR	620.500	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.040	700.000	.080	704.000	.045	728.000	.080	741.000	.040
NH	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION I

X1	9.148	20.000	700.000	741.000	1100.000	990.000	1060.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	690.000	0.000	752.000	0.000	0.000	0.000	0.000
GR	622.700	0.000	622.500	100.000	622.000	200.000	621.800	300.000	621.700	400.000
GR	621.400	500.000	618.700	590.000	609.100	649.000	608.600	700.000	607.400	704.000
GR	604.100	719.000	607.400	728.000	607.700	735.000	609.300	741.000	609.300	800.000
GR	609.000	818.000	616.100	906.000	618.200	1000.000	620.000	1100.000	622.000	1200.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

X1	9.156	0.000	0.000	0.000	50.000	50.000	49.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	700.000	0.000	737.000	0.000	0.000	0.000	0.000
NC	.030	.030	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET/27-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

X1	9.157	39.000	1481.300	1518.300	1.000	1.000	1.000	0.000	0.000	0.000
BT	33.000	0.000	622.300	0.000	100.000	622.500	0.000	200.000	622.400	0.000
BT	300.000	622.800	0.000	400.000	622.600	0.000	500.000	622.500	0.000	600.000
BT	622.700	0.000	700.000	622.500	0.000	800.000	624.100	0.000	900.000	623.900
BT	0.000	1000.000	624.000	0.000	1100.000	623.800	0.000	1200.000	622.300	0.000
BT	1300.000	619.700	0.000	1400.000	617.400	0.000	1481.300	616.100	613.900	1500.000
BT	615.800	613.600	1518.300	615.800	613.600	1600.000	615.800	0.000	1700.000	616.400
BT	0.000	1800.000	618.700	0.000	1900.000	621.600	0.000	2000.000	623.500	0.000
BT	2100.000	624.200	0.000	2200.000	624.600	0.000	2300.000	624.800	0.000	2400.000
BT	625.600	0.000	2500.000	626.100	0.000	2600.000	626.800	0.000	2700.000	627.600
BT	0.000	2800.000	628.100	0.000	2900.000	629.100	0.000	3000.000	629.800	0.000
GR	622.300	0.000	622.500	100.000	622.400	200.000	622.800	300.000	622.600	400.000
GR	622.500	500.000	622.700	600.000	622.500	700.000	624.100	800.000	623.900	900.000
GR	624.000	1000.000	623.800	1100.000	622.300	1200.000	619.700	1300.000	617.400	1400.000
GR	616.100	1481.300	607.800	1481.300	607.000	1488.100	606.600	1494.400	606.000	1500.000
GR	605.500	1505.600	606.200	1511.800	606.900	1518.300	615.800	1518.300	615.800	1600.000
[illegible]	[illegible]	[illegible]	[illegible]	1800.000	621.600	1900.000	623.500	2000.000	624.200	2100.000

PRINTED IN U.S.A.
FORM 1411-SB PRINTED BY ROTARY MANIFOLD FORMS

GR	627.600	2700.000	628.100	2800.000	629.100	2900.000	629.800	3000.000	0.000	0.000

CLARK STREET/27-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION J

X1	9.162	39.000	1481.300	1518.300	29.000	29.000	29.000	0.000	0.000	0.000
BT	33.000	0.000	622.300	0.000	100.000	622.500	0.000	200.000	622.400	0.000
BT	300.000	622.800	0.000	400.000	622.600	0.000	500.000	622.500	0.000	600.000
BT	622.700	0.000	700.000	622.500	0.000	800.000	624.100	0.000	900.000	623.900
BT	0.000	1000.000	624.000	0.000	1100.000	623.800	0.000	1200.000	622.300	0.000
BT	1300.000	619.700	0.000	1400.000	617.400	0.000	1481.300	616.100	613.900	1500.000
BT	615.800	613.600	1518.300	615.800	613.600	1600.000	615.800	0.000	1700.000	616.400
BT	0.000	1800.000	618.700	0.000	1900.000	621.600	0.000	2000.000	623.500	0.000
BT	2100.000	624.200	0.000	2200.000	624.600	0.000	2300.000	624.800	0.000	2400.000
BT	625.600	0.000	2500.000	626.100	0.000	2600.000	626.800	0.000	2700.000	627.600
BT	0.000	2800.000	628.100	0.000	2900.000	629.100	0.000	3000.000	629.800	0.000
GR	622.300	0.000	622.500	100.000	622.400	200.000	622.800	300.000	622.600	400.000
GR	622.500	500.000	622.700	600.000	622.500	700.000	624.100	800.000	623.900	900.000
GR	624.000	1000.000	623.800	1100.000	622.300	1200.000	619.700	1300.000	617.400	1400.000
GR	616.100	1481.300	608.600	1481.300	607.800	1488.100	607.400	1494.400	606.800	1500.000
GR	606.300	1505.600	607.000	1511.800	607.700	1518.300	615.800	1518.300	615.800	1600.000
GR	616.400	1700.000	618.700	1800.000	621.600	1900.000	623.500	2000.000	624.200	2100.000
GR	624.600	2200.000	624.800	2300.000	625.600	2400.000	626.100	2500.000	626.800	2600.000
GR	627.600	2700.000	628.100	2800.000	629.100	2900.000	629.800	3000.000	0.000	0.000
NC	.075	.075	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

X1	9.163	20.000	700.000	741.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	699.000	0.000	738.000	0.000	0.000	0.000	0.000
GR	624.800	0.000	624.600	100.000	624.100	200.000	623.900	300.000	623.800	400.000
GR	623.500	500.000	620.800	590.000	611.200	649.000	610.700	700.000	609.500	704.000
GR	606.200	719.000	609.500	728.000	609.800	735.000	611.400	741.000	611.400	800.000
GR	611.100	818.000	618.200	906.000	620.300	1000.000	622.100	1100.000	624.100	1200.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

X1	9.167	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	679.000	0.000	758.000	0.000	0.000	0.000	0.000
NH	4.000	.035	80.000	.090	169.000	.045	195.000	.090	280.000	0.000
QT	4.000	425.000	715.000	815.000	965.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION K

X1	9.331	10.000	169.000	195.000	860.000	900.000	870.000	0.000	0.000	0.000
GR	623.700	0.000	612.200	30.000	611.000	80.000	611.000	169.000	607.700	171.000
GR	604.500	182.000	608.200	192.000	611.700	195.000	621.200	230.000	621.900	280.000
NH	5.000	.060	105.000	.090	196.000	.050	220.000	.090	400.000	.060
NH	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION L

X1	9.475	12.000	196.000	220.000	810.000	750.000	760.000	0.000	0.000	0.000
GR	623.900	0.000	619.900	105.000	612.000	150.000	612.000	196.000	608.100	199.000
GR	607.900	208.000	608.200	216.000	611.600	220.000	613.400	300.000	613.100	400.000
GR	620.400	500.000	623.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.090	338.000	.050	356.000	.090	500.000	.060	600.000	0.000

VALLEY SECTION M

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GR	628.700	0.000	621.900	100.000	615.900	200.000	615.600	300.000	615.100	338.000
GR	611.500	342.000	610.900	348.000	613.600	356.000	614.600	400.000	615.000	500.000
GR	620.200	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION M REPEATED AND ADJUSTED FOR CHANNEL INVERT. LOCATED AT

UPSTREAM VILLAGE OF NEW HAVEN CORPORATE LIMITS.

X1	9.807	0.000	0.000	0.000	630.000	630.000	630.000	0.000	1.700	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

*SECNO 7.640

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	26-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION A								
7.64	6.60	601.10	0.00	601.10	601.24	.14	0.00	0.00	604.20
650.	0.	650.	0.	0.	217.	0.	0.	0.	604.20
0.00	0.00	3.00	0.00	.030	.030	.030	0.000	594.50	1471.50
.000551	110.	100.	110.	0	0	0	0.00	45.50	1517.00
SPECIAL BRIDGE									
SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.91	3.02	0.00	32.01	0.00	224.10	0.00	595.00	594.50

*SECNO 7.644

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 601.740 ELLC= 602.000 PCWSE= 601.100 ELTRD= 603.500

3370 NORMAL BRIDGE,NRD= 40 MIN ELTRD= 603.50 MAX ELLC= 602.00

26-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION A

7.64	6.06	601.06	0.00	0.00	601.26	.19	.02	0.00	604.20
650.	0.	650.	0.	0.	184.	0.	0.	0.	604.20
.00	0.00	3.54	0.00	.030	.030	.030	.029	595.00	1471.50
.001158	25.	25.	25.	2	0	0	-8.92	45.50	1517.00

*SECNO 7.645

3470 ENCROACHMENT STATIONS= 1487.5 1535.0 TYPE= 1 TARGET= 47.500

FIELD SECTION TAKEN DOWNSTREAM OF 26-MILE ROAD AND ADJUSTED FOR

CHANNEL INVERT IN OVERBANKS - CHANNEL PORTION REPLACED BY CHANNEL

GEOMETRY OF BRIDGE SECTION

7.65	6.09	601.09	0.00	0.00	601.26	.17	.00	0.00100000.00	
650.	0.	648.	2.	0.	195.	4.	0.	0.	597.30
.00	0.00	3.31	.63	.080	.045	.080	.028	595.00	1487.50
.001569	1.	1.	1.	2	0	0	0.00	47.50	1535.00

*SECNO 7.650

3470 ENCROACHMENT STATIONS= 291.0 391.0 TYPE= 1 TARGET= 100.000

SECTION B REPEATED AND ADJUSTED FOR CHANNEL INVERT

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7.65	5.95	600.95	0.00	0.00	601.32	.37	.06	0.00	604.80
650.	0.	571.	79.	0.	110.	49.	0.	0.	599.30
.00	0.00	5.20	1.62	.080	.045	.080	.036	595.00	332.17
.004433	25.	25.	25.	2	0	0	0.00	58.83	391.00

1490 NH CARD USED
*SECNO 8.007

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= .0 670.0 TYPE= 1 TARGET= 669.999

VALLEY SECTION B

8.01	6.73	602.93	0.00	0.00	602.96	.02	1.64	0.00	606.00
650.	0.	241.	409.	0.	133.	569.	13.	5.	600.50
.39	0.00	1.82	.72	.080	.045	.067	.054	596.20	330.28
.000458	1180.	1884.	1020.	4	0	0	0.00	339.72	670.00

*SECNO 8.035

3470 ENCROACHMENT STATIONS= .0 630.0 TYPE= 1 TARGET= 629.999

CONFLUENCE WITH SHOOK DRAIN -- SECTION B REPEATED AND ADJUSTED FOR

CHANNEL INVERT.

8.04	5.76	602.96	0.00	0.00	603.09	.13	.14	0.00	607.00
650.	0.	387.	263.	0.	105.	255.	15.	6.	601.50
.40	0.00	3.70	1.03	.080	.045	.069	.053	597.20	332.62
.002337	120.	150.	160.	3	0	0	0.00	297.38	630.00

1490 NH CARD USED
*SECNO 8.056

3265 DIVIDED FLOW

VALLEY SECTION C

8.06	5.32	603.22	0.00	0.00	603.33	.11	.23	0.00	602.90
440.	2.	404.	34.	9.	146.	45.	15.	7.	601.80
.42	.23	2.77	.76	.080	.050	.080	.052	597.90	553.91
.001759	90.	110.	120.	2	0	0	0.00	147.78	774.99

1490 NH CARD USED
*SECNO 8.181

VALLEY SECTION D

8.18	5.96	603.86	0.00	0.00	603.89	.04	.57	0.00	601.50
440.	111.	279.	49.	234.	150.	113.	21.	11.	601.90
.55	.48	1.86	.44	.080	.045	.078	.050	597.90	1259.67
.000508	640.	660.	660.	3	0	0	0.00	416.16	1675.82

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VALLEY SECTION E

8.50	2.92	605.52	0.00	0.00	605.56	.04	1.67	0.00	603.70
440.	302.	138.	0.	247.	59.	0.	36.	24.	607.90
.85	1.22	2.32	0.00	.070	.050	.070	.050	602.60	181.30
.002745	1670.	1700.	1600.	2	0	0	0.00	251.20	432.51

*SECNO 8.774

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 453.0 587.0 TYPE= 1 TARGET= 134.000

VALLEY SECTION F

8.77	5.07	608.77	0.00	0.00	608.93	.17	3.37	0.00	608.20
440.	2.	400.	38.	4.	116.	45.	44.	30.	608.20
.97	.53	3.44	.85	.070	.045	.070	.049	603.70	493.49
.002061	1420.	1430.	1390.	4	0	0	0.00	93.51	587.00

*SECNO 8.807

3470 ENCROACHMENT STATIONS= 498.0 542.0 TYPE= 1 TARGET= 44.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.81	5.21	609.11	0.00	0.00	609.31	.20	.37	0.00	608.40
440.	2.	433.	5.	3.	121.	6.	44.	30.	608.40
.99	.72	3.59	.76	.070	.045	.070	.049	603.90	498.00
.002132	190.	179.	150.	2	0	0	0.00	44.00	542.00

*SECNO 8.808

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE - SECTION G

8.81	5.32	609.22	0.00	0.00	609.31	.09	.00	0.00	614.40
440.	0.	440.	0.	0.	186.	0.	44.	30.	614.40
.99	0.00	2.36	0.00	.030	.038	.030	.049	603.90	978.00
.000601	1.	1.	1.	2	0	0	0.00	44.00	1022.00

*SECNO 8.818

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION G

8.82	5.36	609.26	0.00	0.00	609.34	.09	.03	0.00	614.40
440.	0.	440.	0.	0.	188.	0.	45.	30.	614.40
1.00	0.00	2.34	0.00	.030	.038	.030	.049	603.90	978.00
.000586	56.	56.	56.	2	0	0	0.00	44.00	1022.00

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*SECNO 8.947

3470 ENCROACHMENT STATIONS= 497.0 543.0 TYPE= 1 TARGET= 46.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.82	5.25	609.15	0.00	0.00	609.34	.19	.00	0.00	608.40
440.	3.	433.	5.	4.	122.	7.	45.	30.	608.40
1.00	.63	3.55	.68	.080	.045	.080	.049	603.90	497.00
.002056	1.	1.	1.	2	0	0	0.00	46.00	543.00

1490 NH CARD USED

*SECNO 8.947

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

VALLEY SECTION H

8.95	4.50	610.20	0.00	0.00	610.22	.03	.88	0.00	608.40
430.	39.	98.	293.	53.	48.	289.	49.	32.	608.20
1.15	.74	2.06	1.01	.078	.045	.054	.048	605.70	164.90
.000844	670.	678.	740.	2	0	0	0.00	256.55	421.45

1490 NH CARD USED

*SECNO 9.148

3470 ENCROACHMENT STATIONS= 690.0 752.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION I

9.15	6.86	610.96	0.00	0.00	611.02	.06	.80	0.00	608.60
430.	35.	372.	23.	23.	175.	18.	56.	36.	609.30
1.30	1.51	2.12	1.26	.040	.079	.040	.048	604.10	690.00
.000708	1100.	1060.	990.	3	0	0	0.00	62.00	752.00

*SECNO 9.156

3470 ENCROACHMENT STATIONS= 700.0 737.0 TYPE= 1 TARGET= 37.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	5.36	610.86	0.00	0.00	611.09	.23	.07	0.00	610.00
430.	0.	430.	0.	0.	111.	0.	56.	36.	100000.00
1.30	0.00	3.87	0.00	.040	.079	.040	.048	605.50	700.00
.003389	50.	49.	50.	2	0	0	0.00	37.00	737.00

*SECNO 9.157

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

9.16	5.49	610.99	0.00	0.00	611.09	.10	.00	0.00	616.10
430.	0.	430.	0.	0.	167.	0.	56.	36.	615.80
1.30	0.00	2.57	0.00	.030	.040	.030	.048	605.50	1481.30
.000822	1.	1.	1.	2	0	0	0.00	37.00	1518.30

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*SECNO 9.162

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION J

9.16	4.67	610.97	0.00	0.00	611.12	.15	.03	0.00	616.10
430.	0.	430.	0.	0.	137.	0.	56.	36.	615.80
1.30	0.00	3.15	0.00	.030	.040	.030	.048	606.30	1481.30
.001525	29.	29.	29.	2	0	0	0.00	37.00	1518.30

*SECNO 9.163

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= 699.0 738.0 TYPE= 1 TARGET= 39.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	4.45	610.65	0.00	0.00	611.12	.47	.00	0.00	610.70
430.	0.	430.	0.	0.	78.	0.	56.	36.	100000.00
1.30	0.00	5.53	0.00	.075	.045	.075	.048	606.20	700.16
.011206	1.	1.	1.	3	0	0	0.00	37.84	738.00

*SECNO 9.167

3470 ENCROACHMENT STATIONS= 679.0 758.0 TYPE= 1 TARGET= 79.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.17	4.75	610.95	0.00	0.00	611.30	.36	.18	0.00	610.70
430.	1.	429.	0.	3.	89.	0.	56.	36.	611.40
1.30	.47	4.79	0.00	.075	.045	.075	.048	606.20	679.00
.007356	20.	20.	20.	2	0	0	0.00	60.31	739.31

1490 NH CARD USED
*SECNO 9.331

VALLEY SECTION K

9.33	7.96	612.46	0.00	0.00	612.52	.06	1.21	0.00	611.00
425.	105.	320.	0.	173.	145.	1.	60.	38.	611.70
1.44	.61	2.21	.20	.069	.045	.090	.048	604.50	29.33
.000565	860.	870.	900.	6	0	0	0.00	168.46	197.79

1490 NH CARD USED
*SECNO 9.475

3265 DIVIDED FLOW

VALLEY SECTION L

9.48	5.21	613.11	0.00	0.00	613.25	.14	.73	0.00	612.00
425.	41.	354.	30.	54.	108.	50.	65.	41.	611.60
1.51	.75	3.27	.60	.090	.050	.090	.047	607.90	143.72

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1490 NH CARD USED
*SECNO 9.688

VALLEY SECTION M

9.69	4.84	615.74	0.00	0.00	615.87	.12	2.62	0.00	615.10
425.	8.	237.	180.	19.	65.	172.	71.	46.	613.60
1.63	.43	3.64	1.05	.090	.050	.089	.047	610.90	251.48
.003091	1070.	1120.	1020.	3	0	0	0.00	262.86	514.34

*SECNO 9.807

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

SECTION M REPEATED AND ADJUSTED FOR CHANNEL INVERT. LOCATED AT

UPSTREAM VILLAGE OF NEW HAVEN CORPORATE LIMITS.

9.81	4.94	617.54	0.00	0.00	617.64	.10	1.77	0.00	616.80
425.	12.	226.	187.	28.	67.	188.	75.	50.	615.30
1.71	.41	3.38	1.00	.090	.050	.089	.047	612.60	219.48
.002574	630.	630.	630.	2	0	0	0.00	296.71	516.18

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05
T2      50-YEAR FLOW
T3      SALT RIVER - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       3.        0.        0.  0.000000      0.00      0.0       0.    601.900     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

*PROF 2

*SECNO 7.640
   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   0          OLOB      OCH       OROB      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

                  26-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION A

      7.64      7.40    601.90      0.00    601.90    602.17       .27      0.00      0.00    604.20
     1050.        0.    1050.        0.        0.       253.        0.        0.        0.    604.20
      0.00      0.00      4.15      0.00      .030      .030      .030     0.000    594.50    1471.50
   .000893      110.      100.      110.         0         0         0      0.00     45.50    1517.00

SPECIAL BRIDGE

SB  XK         XKOR       COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
      0.00      1.91      3.02       0.00     32.01      0.00     224.10      0.00    595.00    594.50

*SECNO 7.644

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   602.551  EGLWC=   602.667  ELLC=   602.000  PCWSE=   601.900  ELTRD=   603.500

3370 NORMAL BRIDGE,NRD= 40 MIN ELTRD=  603.50 MAX ELLC=  602.00

                  26-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION A

      7.64      6.79    601.79      0.00      0.00    602.20       .41       .03      0.00    604.20
     1050.        0.    1050.        0.        0.       205.        0.        0.        0.    604.20
      .00       0.00      5.11      0.00      .030      .030      .030      .029    595.00    1471.50
   .002151       25.       25.       25.         3         0         0    -20.39     45.50    1517.00

*SECNO 7.645
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FIELD SECTION TAKEN DOWNSTREAM OF 26-MILE ROAD AND ADJUSTED FOR

CHANNEL INVERT IN OVERBANKS - CHANNEL PORTION REPLACED BY CHANNEL

GEOMETRY OF BRIDGE SECTION

7.65	6.89	601.89	0.00	0.00	602.20	.31	.00	0.00100000.00	
1050.	0.	1046.	4.	0.	233.	4.	0.	0.	597.30
.00	0.00	4.50	.79	.080	.045	.080	.028	595.00	1487.50
.002344	1.	1.	1.	2	0	0	0.00	47.50	1535.00

*SECNO 7.650

3470 ENCROACHMENT STATIONS= 291.0 391.0 TYPE= 1 TARGET= 100.000

SECTION B REPEATED AND ADJUSTED FOR CHANNEL INVERT

7.65	6.71	601.71	0.00	0.00	602.29	.58	.09	0.00	604.80
1050.	0.	873.	177.	0.	132.	72.	0.	0.	599.30
.00	0.00	6.63	2.44	.080	.045	.080	.036	595.00	330.35
.006140	25.	25.	25.	2	0	0	0.00	60.65	391.00

1490 NH CARD USED
*SECNO 8.007

3301 HV CHANGED MORE THAN HVINS

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= .0 670.0 TYPE= 1 TARGET= 669.999

VALLEY SECTION B

8.01	7.63	603.83	0.00	0.00	603.86	.02	1.57	0.00	606.00
1050.	0.	299.	751.	0.	160.	844.	17.	5.	600.50
.36	0.00	1.87	.89	.080	.045	.067	.056	596.20	328.17
.000414	1180.	1884.	1020.	5	0	0	0.00	341.83	670.00

*SECNO 8.035

3470 ENCROACHMENT STATIONS= .0 630.0 TYPE= 1 TARGET= 629.999

CONFLUENCE WITH SHOOK DRAIN - SECTION B REPEATED AND ADJUSTED FOR

CHANNEL INVERT.

8.04	6.69	603.89	0.00	0.00	603.97	.08	.11	0.00	607.00
1050.	0.	413.	637.	0.	131.	507.	20.	7.	601.50
.38	0.00	3.15	1.25	.080	.045	.068	.055	597.20	330.39
.001393	120.	150.	160.	2	0	0	0.00	299.61	630.00

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*SECNO 8.050

VALLEY SECTION C

8.06	6.11	604.01	0.00	0.00	604.14	.13	.17	0.00	602.90
740.	73.	574.	93.	108.	180.	83.	22.	7.	601.80
.39	.68	3.19	1.12	.080	.050	.080	.054	597.90	549.55
.001757	90.	110.	120.	2	0	0	0.00	226.98	776.53

1490 NH CARD USED
*SECNO 8.181

VALLEY SECTION D

8.18	6.73	604.63	0.00	0.00	604.67	.03	.53	0.00	601.50
740.	256.	354.	130.	420.	179.	221.	31.	12.	601.90
.54	.61	1.98	.59	.079	.045	.077	.052	597.90	1255.30
.000460	640.	660.	660.	2	0	0	0.00	424.52	1679.82

*SECNO 8.503

VALLEY SECTION E

8.50	3.50	606.10	0.00	0.00	606.15	.05	1.48	0.00	603.70
740.	550.	190.	0.	376.	79.	0.	55.	25.	607.90
.81	1.46	2.39	0.00	.070	.050	.070	.051	602.60	173.79
.002347	1670.	1700.	1600.	2	0	0	0.00	262.96	436.74

*SECNO 8.774

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	OLOB	OCH	OROB	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= 453.0 587.0 TYPE= 1 TARGET= 134.000

VALLEY SECTION F

8.77	5.77	609.47	0.00	0.00	609.73	.25	3.58	0.00	608.20
740.	12.	609.	118.	13.	138.	82.	66.	31.	608.20
.91	.95	4.41	1.44	.070	.045	.070	.050	603.70	485.45
.002704	1420.	1430.	1390.	3	0	0	0.00	101.55	587.00

*SECNO 8.807

3470 ENCROACHMENT STATIONS= 498.0 542.0 TYPE= 1 TARGET= 44.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.81	5.98	609.88	0.00	0.00	610.24	.36	.52	0.00	608.40
740.	10.	713.	17.	7.	145.	12.	67.	31.	608.40
.92	1.36	4.93	1.40	.070	.045	.070	.050	603.90	498.00
.003171	190.	179.	150.	2	0	0	0.00	44.00	542.00

*SECNO 8.808

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

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8.81	6.18	610.08	0.00	0.00	610.25	.17	.00	0.00	614.40
740.	0.	740.	0.	0.	224.	0.	67.	31.	614.40
.92	0.00	3.31	0.00	.030	.038	.030	.050	603.90	978.00
.000964	1.	1.	1.	2	0	0	0.00	44.00	1022.00

*SECNO 8.818

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION G

8.82	6.23	610.13	0.00	0.00	610.30	.17	.05	0.00	614.40
740.	0.	740.	0.	0.	226.	0.	67.	31.	614.40
.93	0.00	3.27	0.00	.030	.038	.030	.049	603.90	978.00
.000932	56.	56.	56.	2	0	0	0.00	44.00	1022.00

*SECNO 8.819

3470 ENCROACHMENT STATIONS= 497.0 543.0 TYPE= 1 TARGET= 46.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.82	6.05	609.95	0.00	0.00	610.30	.35	.00	0.00	608.40
740.	11.	711.	18.	9.	147.	14.	67.	31.	608.40
.93	1.19	4.85	1.24	.080	.045	.080	.049	603.90	497.00
.003002	1.	1.	1.	2	0	0	0.00	46.00	543.00

1490 NH CARD USED
*SECNO 8.947

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

VALLEY SECTION H

8.95	5.35	611.05	0.00	0.00	611.08	.03	.78	0.00	608.40
725.	68.	117.	540.	84.	59.	468.	74.	34.	608.20
1.08	.81	1.96	1.16	.077	.045	.053	.049	605.70	163.00
.000567	670.	678.	740.	2	0	0	0.00	263.11	426.11

1490 NH CARD USED
*SECNO 9.148

3470 ENCROACHMENT STATIONS= 690.0 752.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION I

9.15	7.66	611.76	0.00	0.00	611.88	.12	.80	0.00	608.60
725.	68.	604.	53.	31.	208.	27.	84.	38.	609.30
1.19	2.20	2.90	1.96	.040	.079	.040	.048	604.10	690.00
.001104	1100.	1060.	990.	3	0	0	0.00	62.00	752.00

*SECNO 9.156

3470 ENCROACHMENT STATIONS= 700.0 737.0 TYPE= 1 TARGET= 37.000

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SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	6.04	611.54	0.00	0.00	611.98	.44	.10	0.00	610.00
725.	0.	725.	0.	0.	137.	0.	84.	38.	100000.00
1.19	0.00	5.31	0.00	.040	.079	.040	.048	605.50	700.00
.005271	50.	49.	50.	2	0	0	0.00	37.00	737.00

*SECNO 9.157

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

9.16	6.27	611.77	0.00	0.00	611.98	.21	.00	0.00	616.10
725.	0.	725.	0.	0.	196.	0.	84.	38.	615.80
1.19	0.00	3.70	0.00	.030	.040	.030	.048	605.50	1481.30
.001437	1.	1.	1.	2	0	0	0.00	37.00	1518.30

*SECNO 9.162

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION J

9.16	5.43	611.73	0.00	0.00	612.03	.30	.05	0.00	616.10
725.	0.	725.	0.	0.	165.	0.	84.	38.	615.80
1.19	0.00	4.39	0.00	.030	.040	.030	.048	606.30	1481.30
.002421	29.	29.	29.	2	0	0	0.00	37.00	1518.30

*SECNO 9.163

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= 699.0 738.0 TYPE= 1 TARGET= 39.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	5.02	611.22	0.00	0.00	612.04	.82	.00	0.00	610.70
725.	1.	724.	0.	1.	100.	0.	84.	38.	100000.00
1.19	1.16	7.27	0.00	.075	.045	.075	.048	606.20	699.00
.014285	1.	1.	1.	3	0	0	0.00	39.00	738.00

*SECNO 9.167

3470 ENCROACHMENT STATIONS= 679.0 758.0 TYPE= 1 TARGET= 79.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.17	5.57	611.77	0.00	0.00	612.23	.47	.19	0.00	610.70
725.	32.	688.	5.	20.	122.	6.	84.	38.	611.40
1.19	1.58	5.62	.84	.075	.045	.075	.048	606.20	679.00
.007039	20.	20.	20.	3	0	0	0.00	79.00	758.00

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1490 NH CARD USED
*SECNO 9.331

VALLEY SECTION K

9.33	8.90	613.40	0.00	0.00	613.46	.06	1.23	0.00	611.00
715.	291.	422.	2.	306.	169.	5.	91.	40.	611.70
1.32	.95	2.50	.35	.064	.045	.090	.048	604.50	26.87
.000583	860.	870.	900.	6	0	0	0.00	174.40	201.27

1490 NH CARD USED
*SECNO 9.475

VALLEY SECTION L

9.48	6.15	614.05	0.00	0.00	614.17	.12	.70	0.00	612.00
715.	109.	447.	159.	106.	131.	210.	99.	44.	611.60
1.41	1.03	3.41	.76	.090	.050	.089	.048	607.90	138.33
.001615	810.	760.	750.	3	0	0	0.00	274.67	413.00

1490 NH CARD USED
*SECNO 9.688

VALLEY SECTION M

9.69	5.44	616.34	0.00	0.00	616.45	.11	2.28	0.00	615.10
715.	70.	295.	349.	98.	76.	270.	110.	52.	613.60
1.54	.72	3.90	1.30	.090	.050	.088	.048	610.90	192.69
.002894	1070.	1120.	1020.	3	0	0	0.00	333.05	525.74

*SECNO 9.807

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	CORAR	TOPWID	ENDST

SECTION M REPEATED AND ADJUSTED FOR CHANNEL INVERT. LOCATED AT

UPSTREAM VILLAGE OF NEW HAVEN CORPORATE LIMITS.

9.81	5.49	618.09	0.00	0.00	618.19	.10	1.74	0.00	616.80
715.	76.	288.	351.	106.	77.	279.	116.	57.	615.30
1.62	.72	3.75	1.26	.090	.050	.088	.047	612.60	191.77
.002630	630.	630.	630.	2	0	0	0.00	335.04	526.80

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR    01,02
  MODIFICATION -  50,51,52,53
*************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05
T2      100-YEAR FLOW
T3      SALT RIVER - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10.      4.       0.       0.  0.000000    0.00     0.0      0.   602.400   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

*PROF 3

*SECNO 7.640
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

          26-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION A

     7.64     7.90   602.40     0.00   602.40   602.69      .29     0.00     0.00   604.20
    1200.       0.    1200.       0.       0.     276.       0.       0.       0.   604.20
     0.00     0.00     4.35     0.00     .030     .030     .030    0.000   594.50  1471.50
  .000897     110.     100.     110.        0        0        0     0.00    45.50  1517.00

SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     0.00     1.91     3.02     0.00     32.01    0.00     224.10   0.00     595.00   594.50

*SECNO 7.644
PRESSURE FLOW

 EGPRS     EGLWC     H3       QWEIR     QPR      BAREA   TRAPEZOID    ELLC     ELTRD
                                                           AREA
  603.25   603.19    0.00       0.     1200.     224.      224.     602.00   603.50

          26-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION A

     7.64     7.96   602.96     0.00     0.00   603.25      .29      .56     0.00   604.20
    1200.       0.    1200.       0.       0.     279.       0.       0.       0.   604.20
      .00     0.00     4.30     0.00     .030     .030     .030     .029   595.00  1471.50
  .000869      25.      25.      25.        2        0        0     0.00    45.50  1517.00

*SECNO 7.645
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3470 ENCROACHMENT STATIONS= 1487.5 1535.0 TYPE= 1 TARGET= 47.500

FIELD SECTION TAKEN DOWNSTREAM OF 26-MILE ROAD AND ADJUSTED FOR

CHANNEL INVERT IN OVERBANKS - CHANNEL PORTION REPLACED BY CHANNEL

GEOMETRY OF BRIDGE SECTION

7.65	7.97	602.97	0.00	0.00	603.25	.28	.00	0.00100000.00	
1200.	0.	1196.	4.	0.	283.	6.	0.	0.	597.30
.00	0.00	4.23	.68	.080	.045	.080	.028	595.00	1487.50
.001643	1.	1.	1.	1	0	0	0.00	47.50	1535.00

*SECNO 7.650

3470 ENCROACHMENT STATIONS= 291.0 391.0 TYPE= 1 TARGET= 100.000

SECTION B REPEATED AND ADJUSTED FOR CHANNEL INVERT

7.65	7.92	602.92	0.00	0.00	603.31	.39	.06	0.00	604.80
1200.	0.	939.	261.	0.	169.	110.	0.	0.	599.30
.00	0.00	5.56	2.38	.080	.045	.080	.036	595.00	327.49
.003497	25.	25.	25.	2	0	0	0.00	63.51	391.00

1490 NH CARD USED

*SECNO 8.007

SECNO	DEPTH	CWSEL	CRIWS	WSELK	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= .0 670.0 TYPE= 1 TARGET= 669.999

VALLEY SECTION B

8.01	8.19	604.39	0.00	0.00	604.41	.02	1.10	0.00	606.00
1200.	0.	304.	896.	0.	178.	1017.	21.	5.	600.50
.38	0.00	1.71	.88	.080	.045	.066	.057	596.20	326.84
.000316	1180.	1884.	1020.	4	0	0	0.00	343.16	670.00

*SECNO 8.035

3470 ENCROACHMENT STATIONS= .0 630.0 TYPE= 1 TARGET= 629.999

CONFLUENCE WITH SHOOK DRAIN - SECTION B REPEATED AND ADJUSTED FOR

CHANNEL INVERT.

8.04	7.23	604.43	0.00	0.00	604.49	.05	.08	0.00	607.00
1200.	0.	402.	798.	0.	147.	653.	25.	7.	601.50
.40	0.00	2.73	1.22	.080	.045	.067	.056	597.20	329.11
.000944	120.	150.	160.	2	0	0	0.00	300.89	630.00

1490 NH CARD USED

*SECNO 8.056

VALLEY SECTION C

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8.06	6.61	604.51	0.00	0.00	604.61	.10	.12	0.00	602.90
840.	136.	584.	119.	175.	201.	107.	26.	7.	601.80
.42	.78	2.90	1.12	.080	.050	.080	.055	597.90	546.86
.001257	90.	110.	120.	1	0	0	0.00	230.61	777.47

1490 NH CARD USED
*SECNO 8.181

VALLEY SECTION D

8.18	7.09	604.99	0.00	0.00	605.02	.03	.41	0.00	601.50
840.	313.	362.	165.	509.	192.	273.	37.	12.	601.90
.57	.62	1.88	.60	.079	.045	.076	.052	597.90	1253.23
.000376	640.	660.	660.	2	0	0	0.00	428.47	1681.71

*SECNO 8.503

VALLEY SECTION E

8.50	3.65	606.25	0.00	0.00	606.30	.05	1.28	0.00	603.70
840.	632.	208.	0.	410.	85.	0.	65.	25.	607.90
.84	1.54	2.45	0.00	.070	.050	.070	.052	602.60	171.90
.002330	1670.	1700.	1600.	2	0	0	0.00	265.95	437.85

*SECNO 8.774

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= 453.0 587.0 TYPE= 1 TARGET= 134.000

VALLEY SECTION F

8.77	5.97	609.67	0.00	0.00	609.95	.28	3.65	0.00	608.20
840.	18.	673.	149.	17.	144.	93.	77.	31.	608.20
.93	1.06	4.67	1.60	.070	.045	.070	.050	603.70	483.11
.002845	1420.	1430.	1390.	3	0	0	0.00	103.89	587.00

*SECNO 8.807

3470 ENCROACHMENT STATIONS= 498.0 542.0 TYPE= 1 TARGET= 44.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.81	6.18	610.08	0.00	0.00	610.51	.43	.56	0.00	608.40
840.	13.	805.	22.	8.	151.	14.	78.	32.	608.40
.94	1.55	5.34	1.58	.070	.045	.070	.050	603.90	498.00
.003508	190.	179.	150.	2	0	0	0.00	44.00	542.00

*SECNO 8.808

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE - SECTION G

8.81 6.

840.	0.	840.	0.	0.	234.	0.	78.	32.	614.40
.94	0.00	3.59	0.00	.030	.038	.030	.050	603.90	978.00
.001082	1.	1.	1.	2	0	0	0.00	44.00	1022.00

*SECNO 8.818

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION G

8.82	6.47	610.37	0.00	0.00	610.57	.20	.06	0.00	614.40
840.	0.	840.	0.	0.	237.	0.	79.	32.	614.40
.95	0.00	3.54	0.00	.030	.038	.030	.050	603.90	978.00
.001044	56.	56.	56.	2	0	0	0.00	44.00	1022.00

*SECNO 8.819

3470 ENCROACHMENT STATIONS= 497.0 543.0 TYPE= 1 TARGET= 46.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.82	6.26	610.16	0.00	0.00	610.57	.41	.00	0.00	608.40
840.	14.	803.	23.	10.	153.	16.	79.	32.	608.40
.95	1.35	5.24	1.40	.080	.045	.080	.050	603.90	497.00
.003302	1.	1.	1.	2	0	0	0.00	46.00	543.00

1490 NH CARD USED
*SECNO 8.947

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

VALLEY SECTION H

8.95	5.60	611.30	0.00	0.00	611.33	.03	.76	0.00	608.40
825.	78.	124.	624.	93.	63.	522.	86.	34.	608.20
1.10	.83	1.96	1.20	.077	.045	.052	.049	605.70	162.44
.000524	670.	678.	740.	3	0	0	0.00	265.06	427.50

1490 NH CARD USED
*SECNO 9.148

3470 ENCROACHMENT STATIONS= 690.0 752.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION I

9.15	7.88	611.98	0.00	0.00	612.12	.14	.79	0.00	608.60
825.	80.	681.	64.	33.	217.	29.	97.	38.	609.30
1.20	2.41	3.14	2.17	.040	.079	.040	.049	604.10	690.00
.001234	1100.	1060.	990.	2	0	0	0.00	62.00	752.00

*SECNO 9.156

3470 ENCROACHMENT STATIONS= 700.0 737.0 TYPE= 1 TARGET= 37.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

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9.16	6.22	611.72	0.00	0.00	612.24	.51	.11	0.00	610.00
825.	0.	825.	0.	0.	143.	0.	97.	38.	100000.00
1.20	0.00	5.75	0.00	.040	.079	.040	.049	605.50	700.00
.005904	50.	49.	50.	2	0	0	0.00	37.00	737.00

*SECNO 9.157

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

9.16	6.49	611.99	0.00	0.00	612.24	.25	.00	0.00	616.10
825.	0.	825.	0.	0.	204.	0.	97.	38.	615.80
1.20	0.00	4.04	0.00	.030	.040	.030	.049	605.50	1481.30
.001646	1.	1.	1.	2	0	0	0.00	37.00	1518.30

*SECNO 9.162

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION J

9.16	5.65	611.95	0.00	0.00	612.30	.35	.06	0.00	616.10
825.	0.	825.	0.	0.	173.	0.	97.	38.	615.80
1.20	0.00	4.77	0.00	.030	.040	.030	.049	606.30	1481.30
.002717	29.	29.	29.	2	0	0	0.00	37.00	1518.30

*SECNO 9.163

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= 699.0 738.0 TYPE= 1 TARGET= 39.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	5.12	611.32	0.00	0.00	612.31	.99	.01	0.00	610.70
825.	1.	824.	0.	1.	103.	0.	97.	38.	100000.00
1.20	1.34	7.99	0.00	.075	.045	.075	.049	606.20	699.00
.016509	1.	1.	1.	4	0	0	0.00	39.00	738.00

*SECNO 9.167

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 679.0 758.0 TYPE= 1 TARGET= 79.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.17	5.82	612.02	0.00	0.00	612.51	.49	.20	0.00	610.70
825.	45.	768.	12.	25.	133.	10.	97.	38.	611.40
1.20	1.78	5.79	1.14	.075	.045	.075	.049	606.20	679.00
.006706	20.	20.	20.	3	0	0	0.00	39.00	758.00

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1490 NH CARD USED
*SECNO 9.331

VALLEY SECTION K

9.33	9.17	613.67	0.00	0.00	613.73	.06	1.23	0.00	611.00
815.	358.	454.	3.	344.	176.	7.	104.	41.	611.70
1.33	1.04	2.58	.39	.063	.045	.090	.048	604.50	26.17
.000589	860.	870.	900.	6	0	0	0.00	176.08	202.25

1490 NH CARD USED
*SECNO 9.475

VALLEY SECTION L

9.48	6.41	614.31	0.00	0.00	614.42	.11	.69	0.00	612.00
815.	130.	468.	217.	122.	137.	262.	114.	45.	611.60
1.42	1.07	3.40	.83	.090	.050	.089	.048	607.90	136.82
.001513	810.	760.	750.	3	0	0	0.00	279.82	416.64

1490 NH CARD USED
*SECNO 9.688

VALLEY SECTION M

9.69	5.60	616.50	0.00	0.00	616.61	.11	2.18	0.00	615.10
815.	98.	313.	404.	121.	79.	297.	126.	52.	613.60
1.55	.81	3.98	1.36	.090	.050	.088	.048	610.90	190.05
.002870	1070.	1120.	1020.	3	0	0	0.00	338.75	528.79

*SECNO 9.807

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

SECTION M REPEATED AND ADJUSTED FOR CHANNEL INVERT. LOCATED AT

UPSTREAM VILLAGE OF NEW HAVEN CORPORATE LIMITS.

9.81	5.64	618.24	0.00	0.00	618.34	.10	1.73	0.00	616.80
815.	103.	306.	406.	129.	79.	306.	133.	57.	615.30
1.63	.80	3.85	1.33	.090	.050	.088	.048	612.60	189.20
.002640	630.	630.	630.	2	0	0	0.00	340.57	529.77

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR   01,02
  MODIFICATION -  50,51,52,53
*************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05
T2      500-YEAR FLOW
T3      SALT RIVER - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -10.       5.       0.       0.  0.000000    0.00      0.0       0.   603.000   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

*PROF 4

*SECNO 7.640
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA     LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

          26-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION A

     7.64     8.50   603.00     0.00   603.00   603.38      .38     0.00     0.00   604.20
    1500.       0.    1500.       0.       0.     303.       0.       0.       0.   604.20
     0.00     0.00     4.95     0.00     .030     .030     .030    0.000   594.50  1471.50
  .001053     110.     100.     110.        0        0        0     0.00    45.50  1517.00

SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     0.00     1.91     3.02     0.00     32.01    0.00    224.10    0.00    595.00   594.50

*SECNO 7.644

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3       QWEIR    QPR      BAREA   TRAPEZOID    ELLC     ELTRD
                                                          AREA
   604.33   603.88     0.00      182.    1319.     224.     224.     602.00   603.50

          26-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION A

     7.64     8.67   603.67     0.00     0.00   604.03      .36      .65     0.00   604.20
    1500.       3.    1497.       0.      10.     311.       0.       0.       0.   604.20
      .00      .30     4.81     0.00     .030     .030     .030     .029   595.00  1266.04
  .000973      25.      25.      25.        3        0        4     0.00   164.36  1517.00
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*SECNO 7.645

3470 ENCROACHMENT STATIONS= 1487.5 1535.0 TYPE= 1 TARGET= 47.500

FIELD SECTION TAKEN DOWNSTREAM OF 26-MILE ROAD AND ADJUSTED FOR

CHANNEL INVERT IN OVERBANKS - CHANNEL PORTION REPLACED BY CHANNEL

GEOMETRY OF BRIDGE SECTION

7.65	8.68	603.68	0.00	0.00	604.03	.35	.00	0.00100000.00	
1500.	0.	1495.	5.	0.	316.	6.	0.	0.	597.30
.00	0.00	4.74	.72	.080	.045	.080	.028	595.00	1487.50
.001814	1.	1.	1.	1	0	0	0.00	47.50	1535.00

*SECNO 7.650

3470 ENCROACHMENT STATIONS= 291.0 391.0 TYPE= 1 TARGET= 100.000

SECTION B REPEATED AND ADJUSTED FOR CHANNEL INVERT

7.65	8.65	603.65	0.00	0.00	604.09	.44	.06	0.00	604.80
1500.	0.	1145.	355.	0.	194.	132.	0.	0.	599.30
.00	0.00	5.92	2.68	.080	.045	.080	.036	595.00	325.74
.003550	25.	25.	25.	2	0	0	0.00	65.26	391.00

1490 NH CARD USED

*SECNO 8.007

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= .0 670.0 TYPE= 1 TARGET= 669.999

VALLEY SECTION B

8.01	8.87	605.07	0.00	0.00	605.09	.02	1.00	0.00	606.00
1500.	0.	341.	1159.	0.	201.	1227.	25.	6.	600.50
.36	0.00	1.70	.94	.080	.045	.066	.058	596.20	325.22
.000283	1180.	1884.	1020.	4	0	0	0.00	344.78	670.00

*SECNO 8.035

3470 ENCROACHMENT STATIONS= .0 630.0 TYPE= 1 TARGET= 629.999

CONFLUENCE WITH SHOOK DRAIN - SECTION B REPEATED AND ADJUSTED FOR

CHANNEL INVERT.

8.04	7.91	605.11	0.00	0.00	605.15	.05	.07	0.00	607.00
1500.	0.	432.	1068.	0.	169.	835.	29.	7.	601.50
.39	0.00	2.56	1.28	.080	.045	.067	.056	597.20	327.51
.000744	120.	150.	160.	2	0	0	0.00	302.49	630.00

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*SECNO 8.056

VALLEY SECTION C

8.06	7.27	605.17	0.00	0.00	605.24	.07	.09	0.00	602.90
995.	229.	612.	155.	267.	230.	140.	31.	7.	601.80
.41	.86	2.67	1.11	.080	.050	.080	.055	597.90	543.26
.000890	90.	110.	120.	0	0	0	0.00	235.47	778.73

1490 NH CARD USED
*SECNO 8.181

VALLEY SECTION D

8.18	7.63	605.53	0.00	0.00	605.55	.02	.31	0.00	601.50
995.	401.	375.	218.	644.	212.	352.	45.	12.	601.90
.58	.62	1.77	.62	.079	.045	.076	.053	597.90	1250.15
.000291	640.	660.	660.	2	0	0	0.00	434.38	1684.53

*SECNO 8.503

VALLEY SECTION E

8.50	3.93	606.53	0.00	0.00	606.59	.05	1.03	0.00	603.70
995.	762.	233.	0.	475.	96.	0.	79.	26.	607.90
.84	1.60	2.43	0.00	.070	.050	.070	.052	602.60	168.34
.002092	1670.	1700.	1600.	2	0	0	0.00	271.61	439.95

*SECNO 8.774

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= 453.0 587.0 TYPE= 1 TARGET= 134.000

VALLEY SECTION F

8.77	6.20	609.90	0.00	0.00	610.23	.33	3.64	0.00	608.20
995.	27.	775.	194.	22.	151.	105.	93.	32.	608.20
.93	1.23	5.11	1.84	.070	.045	.070	.050	603.70	480.45
.003206	1420.	1430.	1390.	2	0	0	0.00	106.55	587.00

*SECNO 8.807

3470 ENCROACHMENT STATIONS= 498.0 542.0 TYPE= 1 TARGET= 44.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.81	6.43	610.33	0.00	0.00	610.86	.53	.64	0.00	608.40
995.	17.	949.	29.	9.	159.	16.	94.	32.	608.40
.94	1.81	5.98	1.85	.070	.045	.070	.050	603.90	498.00
.004121	190.	179.	150.	2	0	0	0.00	44.00	542.00

*SECNO 8.808

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
.000744	120.	150.	160.	2	0	0	0.00	302.49	630.00

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GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE - SECTION G

8.81	6.71	610.61	0.00	0.00	610.87	.25	.00	0.00	614.40
995.	0.	995.	0.	0.	248.	0.	94.	32.	614.40
.94	0.00	4.02	0.00	.030	.038	.030	.050	603.90	978.00
.001282	1.	1.	1.	2	0	0	0.00	44.00	1022.00

*SECNO 8.818

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 614.40 MAX ELLC= 612.40

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION G

8.82	6.79	610.69	0.00	0.00	610.94	.24	.07	0.00	614.40
995.	0.	995.	0.	0.	251.	0.	94.	32.	614.40
.94	0.00	3.97	0.00	.030	.038	.030	.050	603.90	978.00
.001231	56.	56.	56.	2	0	0	0.00	44.00	1022.00

*SECNO 8.819

3470 ENCROACHMENT STATIONS= 497.0 543.0 TYPE= 1 TARGET= 46.000

SECTION F REPEATED AND ADJUSTED FOR CHANNEL INVERT

8.82	6.53	610.43	0.00	0.00	610.94	.51	.00	0.00	608.40
995.	19.	946.	30.	12.	162.	19.	94.	32.	608.40
.94	1.58	5.85	1.63	.080	.045	.080	.050	603.90	497.00
.003835	1.	1.	1.	2	0	0	0.00	46.00	543.00

1490 NH CARD USED

*SECNO 8.947

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

VALLEY SECTION H

8.95	5.95	611.65	0.00	0.00	611.68	.03	.74	0.00	608.40
975.	93.	134.	748.	107.	68.	597.	102.	35.	608.20
1.09	.87	1.98	1.25	.076	.045	.052	.049	605.70	161.66
.000481	670.	678.	740.	3	0	0	0.00	267.77	429.42

1490 NH CARD USED

*SECNO 9.148

3470 ENCROACHMENT STATIONS= 690.0 752.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION I

9.15	8.20	612.30	0.00	0.00	612.47	.17	.79	0.00	608.60
975.	98.	796.	81.	36.	230.	33.	115.	39.	609.30
1.17	2.69	3.45	2.46	.040	.079	.040	.049	604.10	690.00
.001403	1100.	1060.	990.	2	0	0	0.00	62.00	752.00

*SECNO 9.156

3470 ENCROACHMENT STATIONS= 708.0 737.0 TYPE= 1 TARGET= 32.000

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SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	6.47	611.97	0.00	0.00	612.60	.63	.13	0.00	610.00
975.	0.	975.	0.	0.	153.	0.	115.	39.	100000.00
1.18	0.00	6.39	0.00	.040	.079	.040	.049	605.50	700.00
.006850	50.	49.	50.	2	0	0	0.00	37.00	737.00

*SECNO 9.157

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

9.16	6.79	612.29	0.00	0.00	612.61	.32	.00	0.00	616.10
975.	0.	975.	0.	0.	215.	0.	115.	39.	615.80
1.18	0.00	4.53	0.00	.030	.040	.030	.049	605.50	1481.30
.001957	1.	1.	1.	2	0	0	0.00	37.00	1518.30

*SECNO 9.162

3370 NORMAL BRIDGE,NRD= 33 MIN ELTRD= 615.80 MAX ELLC= 613.90

CLARK STREET/27-MILE ROAD BRIDGE - UPSTREAM FACE - SECTION J

9.16	5.94	612.24	0.00	0.00	612.68	.44	.07	0.00	616.10
975.	0.	975.	0.	0.	184.	0.	115.	39.	615.80
1.18	0.00	5.30	0.00	.030	.040	.030	.049	606.30	1481.30
.003151	29.	29.	29.	2	0	0	0.00	37.00	1518.30

*SECNO 9.163

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

3470 ENCROACHMENT STATIONS= 699.0 738.0 TYPE= 1 TARGET= 39.000

SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.16	5.10	611.30	611.30	0.00	612.70	1.40	.01	0.00	610.70
975.	1.	974.	0.	1.	103.	0.	115.	39.	100000.00
1.18	1.58	9.50	0.00	.075	.045	.075	.049	606.20	699.00
.023502	1.	1.	1.	20	15	0	0.00	39.00	738.00

*SECNO 9.167

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 679.0 758.0 TYPE= 1 TARGET= 79.000

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SECTION I REPEATED AND ADJUSTED FOR CHANNEL INVERT.

9.17	6.22	612.42	0.00	0.00	612.91	.50	.21	0.00	610.70
975.	68.	882.	25.	34.	149.	17.	115.	39.	611.40
1.18	2.01	5.93	1.49	.075	.045	.075	.049	606.20	679.00
.006027	20.	20.	20.	3	0	0	0.00	79.00	758.00

1490 NH CARD USED
*SECNO 9.331

VALLEY SECTION K

9.33	9.55	614.05	0.00	0.00	614.12	.07	1.20	0.00	611.00
965.	462.	499.	4.	397.	186.	10.	123.	41.	611.70
1.30	1.16	2.68	.44	.062	.045	.090	.048	604.50	25.20
.000595	860.	870.	900.	5	0	0	0.00	178.42	203.62

1490 NH CARD USED
*SECNO 9.475

VALLEY SECTION L

9.48	6.79	614.69	0.00	0.00	614.79	.10	.67	0.00	612.00
965.	162.	496.	307.	144.	146.	336.	134.	46.	611.60
1.40	1.12	3.39	.91	.090	.050	.089	.048	607.90	134.68
.001377	810.	760.	750.	3	0	0	0.00	287.09	421.77

1490 NH CARD USED
*SECNO 9.688

VALLEY SECTION M

9.69	5.82	616.72	0.00	0.00	616.83	.11	2.04	0.00	615.10
965.	143.	336.	486.	156.	83.	337.	148.	53.	613.60
1.53	.92	4.07	1.44	.090	.050	.088	.048	610.90	186.24
.002795	1070.	1120.	1020.	1	0	0	0.00	346.94	533.18

*SECNO 9.807

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

SECTION M REPEATED AND ADJUSTED FOR CHANNEL INVERT. LOCATED AT

UPSTREAM VILLAGE OF NEW HAVEN CORPORATE LIMITS.

9.81	5.85	618.45	0.00	0.00	618.55	.10	1.72	0.00	616.80
965.	146.	332.	487.	160.	83.	342.	157.	58.	615.30
1.61	.91	4.00	1.42	.090	.050	.088	.048	612.60	185.78
.002680	630.	630.	630.	2	0	0	0.00	347.93	533.71

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****
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

SALT RIVER - PROJECT MAN

SUMMARY PRINTOUT

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
7.640	0.00	0.00	594.50	650.00	601.10	6.60	.14	0.00	601.24	0.00	45.50	216.85
7.640	0.00	0.00	594.50	1050.00	601.90	7.40	.27	0.00	602.17	0.00	45.50	253.25
7.640	0.00	0.00	594.50	1200.00	602.40	7.90	.29	0.00	602.69	0.00	45.50	276.00
7.640	0.00	0.00	594.50	1500.00	603.00	8.50	.38	0.00	603.38	0.00	45.50	303.30
7.644	603.50	602.00	595.00	650.00	601.06	6.06	.19	0.00	601.26	20.00	45.50	183.64
7.644	603.50	602.00	595.00	1050.00	601.79	6.79	.41	0.00	602.20	20.00	45.50	205.31
7.644	603.50	602.00	595.00	1200.00	602.96	7.96	.29	0.00	603.25	20.00	45.50	278.91
7.644	603.50	602.00	595.00	1500.00	603.67	8.67	.36	0.00	604.03	20.00	164.36	321.12
7.645	0.00	0.00	595.00	650.00	601.09	6.09	.17	0.00	601.26	0.00	47.50	199.18
7.645	0.00	0.00	595.00	1050.00	601.89	6.89	.31	0.00	602.20	0.00	47.50	237.13
7.645	0.00	0.00	595.00	1200.00	602.97	7.97	.28	0.00	603.25	0.00	47.50	288.42
7.645	0.00	0.00	595.00	1500.00	603.68	8.68	.35	0.00	604.03	0.00	47.50	321.98
7.650	0.00	0.00	595.00	650.00	600.95	5.95	.37	0.00	601.32	0.00	58.83	158.47
7.650	0.00	0.00	595.00	1050.00	601.71	6.71	.58	0.00	602.29	0.00	60.65	204.09
7.650	0.00	0.00	595.00	1200.00	602.92	7.92	.39	0.00	603.31	0.00	63.51	278.71
7.650	0.00	0.00	595.00	1500.00	603.65	8.65	.44	0.00	604.09	0.00	65.26	325.98
8.007	0.00	0.00	596.20	650.00	602.93	6.73	.02	0.00	602.96	.64	339.72	701.23
8.007	0.00	0.00	596.20	1050.00	603.83	7.63	.02	0.00	603.86	.64	341.83	1004.18
8.007	0.00	0.00	596.20	1200.00	604.39	8.19	.02	0.00	604.41	.64	343.16	1194.85
8.007	0.00	0.00	596.20	1500.00	605.07	8.87	.02	0.00	605.09	.64	344.78	1428.39
8.035	0.00	0.00	597.20	650.00	602.96	5.76	.13	0.00	603.09	6.67	297.38	359.97
8.035	0.00	0.00	597.20	1050.00	603.89	6.69	.08	0.00	603.97	6.67	299.61	638.62
8.035	0.00	0.00	597.20	1200.00	604.43	7.23	.05	0.00	604.49	6.67	300.89	800.23
8.035	0.00	0.00	597.20	1500.00	605.11	7.91	.05	0.00	605.15	6.67	302.49	1003.71
8.056	0.00	0.00	597.90	440.00	603.22	5.32	.11	0.00	603.33	6.36	147.78	199.16
8.056	0.00	0.00	597.90	740.00	604.01	6.11	.13	0.00	604.14	6.36	226.98	370.91
8.056	0.00	0.00	597.90	840.00	604.51	6.61	.10	0.00	604.61	6.36	230.61	483.36
8.056	0.00	0.00	597.90	995.00	605.17	7.27	.07	0.00	605.24	6.36	235.47	636.51
8.181	0.00	0.00	597.90	440.00	603.86	5.96	.04	0.00	603.89	0.00	416.16	497.53
8.181	0.00	0.00	597.90	740.00	604.63	6.73	.03	0.00	604.67	0.00	424.52	819.84
8.181	0.00	0.00	597.90	840.00	604.99	7.09	.03	0.00	605.02	0.00	428.47	974.64
8.181	0.00	0.00	597.90	995.00	605.53	7.63	.02	0.00	605.55	0.00	434.38	1208.22

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SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
8.503	0.00	0.00	602.60	440.00	605.52	2.92	.04	0.00	605.56	2.76	251.20	306.93
8.503	0.00	0.00	602.60	740.00	606.10	3.50	.05	0.00	606.15	2.76	262.96	455.08
8.503	0.00	0.00	602.60	840.00	606.25	3.65	.05	0.00	606.30	2.76	265.95	494.96
8.503	0.00	0.00	602.60	995.00	606.53	3.93	.05	0.00	606.59	2.76	271.61	571.59
8.774	0.00	0.00	603.70	440.00	608.77	5.07	.17	0.00	608.93	.77	93.51	164.75
8.774	0.00	0.00	603.70	740.00	609.47	5.77	.25	0.00	609.73	.77	101.55	233.02
8.774	0.00	0.00	603.70	840.00	609.67	5.97	.28	0.00	609.95	.77	103.89	253.93
8.774	0.00	0.00	603.70	995.00	609.90	6.20	.33	0.00	610.23	.77	106.55	278.22
8.807	0.00	0.00	603.90	440.00	609.11	5.21	.20	0.00	609.31	1.12	44.00	130.14
8.807	0.00	0.00	603.90	740.00	609.88	5.98	.36	0.00	610.24	1.12	44.00	163.98
8.807	0.00	0.00	603.90	840.00	610.08	6.18	.43	0.00	610.51	1.12	44.00	172.95
8.807	0.00	0.00	603.90	995.00	610.33	6.43	.53	0.00	610.86	1.12	44.00	183.90
8.808	614.40	612.40	603.90	440.00	609.22	5.32	.09	0.00	609.31	.00	44.00	186.21
8.808	614.40	612.40	603.90	740.00	610.08	6.18	.17	0.00	610.25	.00	44.00	223.85
8.808	614.40	612.40	603.90	840.00	610.31	6.41	.20	0.00	610.51	.00	44.00	234.18
8.808	614.40	612.40	603.90	995.00	610.61	6.71	.25	0.00	610.87	.00	44.00	247.60
8.818	614.40	612.40	603.90	440.00	609.26	5.36	.09	0.00	609.34	0.00	44.00	187.73
8.818	614.40	612.40	603.90	740.00	610.13	6.23	.17	0.00	610.30	0.00	44.00	226.33
8.818	614.40	612.40	603.90	840.00	610.37	6.47	.20	0.00	610.57	0.00	44.00	236.98
8.818	614.40	612.40	603.90	995.00	610.69	6.79	.24	0.00	610.94	0.00	44.00	250.94
8.819	0.00	0.00	603.90	440.00	609.15	5.25	.19	0.00	609.34	0.00	46.00	133.28
8.819	0.00	0.00	603.90	740.00	609.95	6.05	.35	0.00	610.30	0.00	46.00	170.06
8.819	0.00	0.00	603.90	840.00	610.16	6.26	.41	0.00	610.57	0.00	46.00	179.95
8.819	0.00	0.00	603.90	995.00	610.43	6.53	.51	0.00	610.94	0.00	46.00	192.36
8.947	0.00	0.00	605.70	430.00	610.20	4.50	.03	0.00	610.22	2.65	256.55	389.61
8.947	0.00	0.00	605.70	725.00	611.05	5.35	.03	0.00	611.08	2.65	263.11	610.95
8.947	0.00	0.00	605.70	825.00	611.30	5.60	.03	0.00	611.33	2.65	265.06	678.15
8.947	0.00	0.00	605.70	975.00	611.65	5.95	.03	0.00	611.68	2.65	267.77	771.82
9.148	0.00	0.00	604.10	430.00	610.96	6.86	.06	0.00	611.02	-1.51	62.00	216.76
9.148	0.00	0.00	604.10	725.00	611.76	7.66	.12	0.00	611.88	-1.51	62.00	266.26
9.148	0.00	0.00	604.10	825.00	611.98	7.88	.14	0.00	612.12	-1.51	62.00	279.83
9.148	0.00	0.00	604.10	975.00	612.30	8.20	.17	0.00	612.47	-1.51	62.00	299.79
9.156	0.00	0.00	605.50	430.00	610.86	5.36	.23	0.00	611.09	28.57	37.00	111.09
9.156	0.00	0.00	605.50	725.00	611.54	6.04	.44	0.00	611.98	28.57	37.00	136.54
9.156	0.00	0.00	605.50	825.00	611.72	6.22	.51	0.00	612.24	28.57	37.00	143.39
9.156	0.00	0.00	605.50	975.00	611.97	6.47	.63	0.00	612.60	28.57	37.00	152.62
9.157	615.80	613.90	605.50	430.00	610.99	5.49	.10	0.00	611.09	.00	37.00	167.03
9.157	615.80	613.90	605.50	725.00	611.77	6.27	.21	0.00	611.98	.00	37.00	195.98
9.157	615.80	613.90	605.50	825.00	611.99	6.49	.25	0.00	612.24	.00	37.00	204.10
9.157	615.80	613.90	605.50	975.00	612.29	6.79	.32	0.00	612.61	.00	37.00	215.29
9.162	615.80	613.90	606.30	430.00	610.97	4.67	.15	0.00	611.12	27.59	37.00	136.72
9.162	615.80	613.90	606.30	725.00	611.73	5.43	.30	0.00	612.03	27.59	37.00	165.12
9.162	615.80	613.90	606.30	825.00	611.95	5.65	.35	0.00	612.30	27.59	37.00	173.04
9.162	615.80	613.90	606.30	975.00	612.24	5.94	.44	0.00	612.68	27.59	37.00	183.92

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	SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
	9.163	0.00	0.00	606.20	430.00	610.65	4.45	.47	0.00	611.12	-100.00	37.84	77.82
	9.163	0.00	0.00	606.20	725.00	611.22	5.02	.82	0.00	612.04	-100.00	39.00	100.16
	9.163	0.00	0.00	606.20	825.00	611.32	5.12	.99	0.00	612.31	-100.00	39.00	103.80
*	9.163	0.00	0.00	606.20	975.00	611.30	5.10	1.40	0.00	612.70	-100.00	39.00	103.18
	9.167	0.00	0.00	606.20	430.00	610.95	4.75	.36	0.00	611.30	0.00	60.31	92.48
	9.167	0.00	0.00	606.20	725.00	611.77	5.57	.47	0.00	612.23	0.00	79.00	148.75
	9.167	0.00	0.00	606.20	825.00	612.02	5.82	.49	0.00	612.51	0.00	79.00	168.47
	9.167	0.00	0.00	606.20	975.00	612.42	6.22	.50	0.00	612.91	0.00	79.00	199.62
	9.331	0.00	0.00	604.50	425.00	612.46	7.96	.06	0.00	612.52	-1.95	168.46	318.48
	9.331	0.00	0.00	604.50	715.00	613.40	8.90	.06	0.00	613.46	-1.95	174.40	480.23
	9.331	0.00	0.00	604.50	815.00	613.67	9.17	.06	0.00	613.73	-1.95	176.08	526.99
	9.331	0.00	0.00	604.50	965.00	614.05	9.55	.07	0.00	614.12	-1.95	178.42	592.91
	9.475	0.00	0.00	607.90	425.00	613.11	5.21	.14	0.00	613.25	4.47	144.21	212.76
	9.475	0.00	0.00	607.90	715.00	614.05	6.15	.12	0.00	614.17	4.47	274.67	447.21
	9.475	0.00	0.00	607.90	815.00	614.31	6.41	.11	0.00	614.42	4.47	279.82	520.81
	9.475	0.00	0.00	607.90	965.00	614.69	6.79	.10	0.00	614.79	4.47	287.09	627.11
	9.688	0.00	0.00	610.90	425.00	615.74	4.84	.12	0.00	615.87	2.68	262.86	255.89
	9.688	0.00	0.00	610.90	715.00	616.34	5.44	.11	0.00	616.45	2.68	333.05	443.29
	9.688	0.00	0.00	610.90	815.00	616.50	5.60	.11	0.00	616.61	2.68	338.75	496.58
	9.688	0.00	0.00	610.90	965.00	616.72	5.82	.11	0.00	616.83	2.68	346.94	574.87
	9.807	0.00	0.00	612.60	425.00	617.54	4.94	.10	0.00	617.64	2.70	296.71	282.75
	9.807	0.00	0.00	612.60	715.00	618.09	5.49	.10	0.00	618.19	2.70	335.04	461.77
	9.807	0.00	0.00	612.60	815.00	618.24	5.64	.10	0.00	618.34	2.70	340.57	513.86
	9.807	0.00	0.00	612.60	965.00	618.45	5.85	.10	0.00	618.55	2.70	347.93	584.40

SUMMARY OF ERRORS

CAUTION SECNO= 9.163 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 9.163 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 9.163 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

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FORM 1411 SB PRINTED BY ROTARY MANIFOLD FORMS

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven
Salt River

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: Hydraulic Analysis

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
*****************************************


T1      SHELBY TOWNSHIP     5670-08     PROJECT MANAGER  WILLIAM ROSSO
T2      100 YEAR FLOOD
T3      NEWLAND DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        4.        0.        0.  0.000000      0.00       0.0       0.   725.300     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
```

Starting depends
elevation
on [illegible] adjustment
are [illegible] to the drop
structure analysis due
to the track [illegible]
[illegible]

CCHV= .300 CEHV= .500
1490 NH CARD USED

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 53.0 483.0 TYPE= 1 TARGET= -53.000

VALLEY SECTION A 373

77200.00	7.40	725.30	0.00	725.30	725.35	.05	0.00	0.00	720.30
675.	273.	186.	222.	268.	66.	124.	0.	0.	718.50
0.00	1.02	2.74	1.79	.070	.040	.040	0.000	717.90	98.86
.000463	1562.	1652.	1712.	0	0	1	0.00	130.63	223.49

CCHV= .100 CEHV= .300
1490 NH CARD USED

VALLEY SECTION B 374

77620.00	5.87	725.47	0.00	0.00	725.50	.03	.14	.00	722.00
675.	35.	181.	459.	44.	94.	448.	5.	2.	721.70
.08	.78	1.94	1.02	.050	.040	.050	.044	719.60	225.13
.000313	430.	420.	340.	1	0	1	0.00	236.70	451.63

CCHV= .500 CEHV= 1.000
1490 NH CARD USED

BRIDGE SECTION C 24 MILE ROAD DOWNSTREAM FACE

77632.00	7.09	725.49	0.00	0.00	725.51	.02	.00	.00	722.60
675.	19.	222.	435.	27.	177.	422.	5.	2.	721.80
.09	.69	1.26	1.03	.030	.040	.030	.044	718.40	232.51
.000118	12.	12.	12.	0	0	1	0.00	220.45	451.57

SPECIAL BRIDGE

SH XK	XKOR	CDFO	RDLEN	RWC	HWP	BAREA	SS	ELCHD	ELCHD
0.00	2.87	3.03	0.00	29.00	0.00	104.80	0.00	718.40	718.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
727.34	725.51	0.00	243.	432.	105.	724.40	724.90	30.00

BRIDGE SECTION C 24 MILE ROAD UPSTREAM FACE 375

77708.00	7.84	726.24	0.00	0.00	726.25	.01	.74	0.00	722.60
675.	28.	186.	461.	51.	199.	567.	6.	2.	721.80
.11	.54	.94	.81	.030	040	030	043	718.40	209.72

.000057	76.	76.	76.	1	0	4	0.00	276.24	485.96

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			175.0	310.0	TYPE=	1	TARGET=	135.000	
77808.00	7.55	726.25	0.00	0.00	726.30	.05	.01	.04	721.10
675.	121.	274.	261.	134.	124.	165.	7.	3.	721.60
.13	.90	2.21	1.52	.050	.040	.050	.042	718.70	181.49
.000284	100.	100.	100.	0	0	1	0.00	128.51	310.00

1490 NH CARD USED

SECNO	DEPTH	CNSEL	CHNS	WSELK	EG	HV	HL	QLOSS	PAIR FLOW
Q	QLOB	QC=	QROB	ALOB	ACH	AROB	VOL	TW2	EFFIARTEA
TIME	VLOB	VC=	VROB	XNL	XNCH	XNR	WTN	ELMTN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	TTRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=			175.0	310.0	TYPE=	1	TARGET=	135.000	
77908.00	7.28	725.25	0.00	0.00	725.34	.05	.03	.01	721.30
675.	110.	262.	283.	114.	119.	175.	3.	3.	721.10
.14	.97	2.38	1.62	.050	.040	.050	.042	719.00	189.73
.000346	100.	100.	100.	1	0	1	0.00	121.27	310.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	165.000	
78198.00	6.54	726.44	0.00	0.00	726.58	.18	.16	.03	723.20
675.	77.	409.	189.	54.	115.	106.	11.	4.	723.70
.17	1.43	3.55	1.78	.050	.040	.050	.041	719.99	207.36
.001019	290.	290.	290.	2	0	1	0.00	107.64	315.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	155.000	
78490.00	6.33	726.93	0.00	0.00	727.40	.47	.49	.34	725.20
675.	38.	621.	15.	22.	104.	17.	12.	4.	726.40
.19	1.78	5.74	.42	.050	.040	.050	.041	720.60	214.47
.003253	292.	292.	292.	2	0	1	0.00	55.03	315.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			120.0	336.0	TYPE=	1	TARGET=	216.000	
VALLEY SECTION D								37	
78780.00	6.58	727.88	0.00	0.00	728.48	.60	.95	.12	727.10
675.	8.	667.	0.	8.	107.	0.	13.	5.	729.10
.20	1.02	6.24	0.00	.045	.035	.050	.041	721.30	220.46
.003328	290.	290.	290.	2	0	1	0.00	47.13	268.19

CCHV= .100 CEHV= .300
1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	165.000	
79160.00	6.83	729.15	0.00	0.00	729.66	.50	1.17	.01	728.30
675.	13.	657.	5.	12.	114.	4.	14.	5.	728.30
.22	1.17	5.74	1.12	.045	.035	.045	.041	722.33	211.59
.002860	380.	380.	380.	2	0	1	0.00	65.23	276.82

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	165.000	
79540.00	6.87	730.24	0.00	0.00	730.70	.45	1.03	.00	729.50
675.	9.	630.	37.	9.	113.	16.	15.	6.	727.60
.24	.97	5.55	2.30	.045	.035	.145	.040	723.37	205.39
.002576	380.	380.	380.	2	0	1	0.00	64.24	273.68

CCHV= .300 CEHV= .500
1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			174.0	312.0	TYPE=	1	TARGET=	134.001	

VALLEY SECTION E 377

79920.00	7.43	731.43	0.00	0.00	731.80	.43	1.13	.01	730.50
675.	7.	612.	56.	8.	113.	14.	13.	5.	728.40
.26	.92	5.44	3.04	.045	.045	.045	.140	724.00	235.45
.003674	380.	380.	380.	2	0	1	0.00	57.54	284.54

1490 NH CARD USED

3265 DIVIDED FLOW

80112.00	5.93	732.33	0.00	0.00	732.75	.42	.08	.00	742.30
675.	0.	675.	0.	0.	130.	0.	17.	7.	742.30
.27	0.00	5.20	0.00	.045	.040	.045	.040	726.40	501.74
.005970	242.	142.	152.	2	0	1	0.00	35.34	543.62

1490 NH CARD USED

3265 DIVIDED FLOW

SECNO	DEPTH	CHSEL	CRITS	HSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	TOC	ICONT	CORAR	TOPWID	ENDST

NORMAL BRIDGE.NRD=18 MIN ELTRD= 740.60 MAX ELLC= 739.10

BRIDGE SECTION F GRAND TRUNK WESTERN R.R. DOWNSTREAM FACE

80113.00	5.93	732.33	0.00	0.00	732.75	.42	.08	.00	742.30
675.	0.	675.	0.	0.	130.	0.	17.	7.	742.30
.27	0.00	5.19	0.00	.045	.030	.045	.040	726.40	501.72
.003347	1.	1.	1.	0	0	1	0.00	38.92	543.64

3265 DIVIDED FLOW

NORMAL BRIDGE.NRD=18 MIN ELTRD= 740.60 MAX ELLC= 739.10

BRIDGE SECTION F GRAND TRUNK WESTERN R.R. UPSTREAM FACE 378

80127.00	6.00	732.40	0.00	0.00	732.80	.40	.05	.00	742.30
675.	0.	675.	0.	0.	133.	0.	17.	7.	742.30

.27	0.00	5.09	0.00	.045	.030	.045	.040	726.40	501.49
.003204	14.	14.	14.	0	0	1	0.00	39.39	543.88

1490 NH CARD USED

3265 DIVIDED FLOW

80128.00	6.00	732.40	0.00	0.00	732.40	.40	.00	.30	742.30
675.	0.	675.	0.	0.	133.	0.	17.	7.	742.30
.27	0.00	5.09	0.00	.045	.035	.045	.040	726.40	501.47
.004352	1.	1.	1.	0	0	1	0.00	39.41	544.-9

1490 NH CARD USED

VALLEY SECTION G 375

80490.00	5.52	734.62	0.00	0.00	735.49	.27	1.05	.04	730.[illegible]
675.	24.	392.	259.	18.	74.	179.	13.	7.	730.50
.30	1.35	5.37	1.45	.060	.035	.070	.040	726.10	38.29
.001939	242.	362.	442.	2	0	1	0.00	134.07	172.37

CCHV= .100 CEHV= .300
1490 NH CARD USED

VALLEY SECTION H 340

81190.00	3.43	735.43	0.00	0.00	735.71	.28	1.82	.00	735.00
675.	0.	642.	33.	1.	149.	23.	23.	9.	734.60
.35	.48	4.32	1.41	.065	.035	.050	.040	732.00	73.99
.003526	680.	700.	750.	2	0	1	0.00	104.52	154.61

1490 NH CARD USED

VALLEY SECTION I 341

82890.00	4.68	737.88	0.00	0.00	737.93	.05	2.20	.02	733.80
675.	157.	237.	282.	232.	87.	369.	33.	19.	736.70
.66	.68	2.72	.76	.070	.035	.070	.040	733.20	261.19
.000702	1750.	1700.	1400.	3	0	1	0.00	445.14	705.33

1490 NH CARD USED

SECNO	DEPTH	C SEL	CRIMS	WSELK	EG	FV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TW	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	TW	FLOW	SST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOP ID	EXIST
83210.00	3.82	738.12	0.10	0.00	738.49	.37	.47	.10	730.90
675.	240.	358.	77.	138.	55.	62.	41.	22.	736.90
.69	1.75	6.53	1.24	.065	.035	.065	.040	734.30	193.92
.005017	333.	320.	250.	3	0	1	0.00	266.01	454.92

1490 NH CARD USED

83530.00	4.22	739.52	0.00	0.00	739.70	.18	1.20	.02	737.10
675.	341.	221.	113.	168.	41.	73.	43.	23.	737.30
.71	2.03	5.35	1.51	.060	.035	.055	.040	735.30	102.14
.002891	333.	320.	280.	2	0	1	0.00	186.86	284.94

1490 NH CARD USED

83850.00	4.60	740.70	0.00	0.00	740.47	.27	1.24	.03	737.30
675.	357.	143.	175.	114.	20.	68.	45.	25.	737.60
.74	3.15	7.07	2.56	.055	.035	.060	.040	736.10	24.23
.005520	333.	320.	251.	2	0	1	0.00	114.04	134.27

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

NEWLAND DRAIN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
77200.00	1652.00	0.00	0.00	717.90	365.00	723.35	.11	0.00	0.00	142.33	5.45	164.42
77200.00	1652.00	0.00	0.00	717.90	580.00	724.80	.05	0.00	0.00	157.47	6.90	125.96
77200.00	1652.00	0.00	0.00	717.90	675.00	725.30	.03	0.00	0.00	180.15	7.40	130.63
77200.00	1652.00	0.00	0.00	717.90	985.00	726.00	.05	0.00	0.00	239.32	8.10	137.15
77620.00	420.00	0.00	0.00	719.60	365.00	723.74	.06	.35	.00	160.46	4.14	162.41
77620.00	420.00	0.00	0.00	719.60	580.00	725.00	.03	.17	.00	173.23	5.40	211.40
77620.00	420.00	0.00	0.00	719.60	675.00	725.47	.03	.14	.00	181.10	5.87	236.70
77620.00	420.00	0.00	0.00	719.60	985.00	726.21	.03	.16	.00	227.15	6.61	278.87
77632.00	12.00	0.00	0.00	718.40	365.00	723.79	.03	.01	.01	147.49	5.39	163.67
77632.00	12.00	0.00	0.00	718.40	580.00	725.02	.02	.00	.01	214.05	6.62	209.74
77632.00	12.00	0.00	0.00	718.40	675.00	725.49	.02	.00	.00	221.85	7.09	229.43
77632.00	12.00	0.00	0.00	718.40	985.00	725.22	.02	.00	.00	273.58	7.82	274.47
77708.00	76.00	724.90	724.40	718.40	365.00	723.83	.20	.05	.17	365.00	5.43	165.56
77708.00	76.00	724.90	724.40	718.40	580.00	725.96	.01	.93	0.00	170.48	7.56	259.47
77708.00	76.00	724.90	724.40	718.40	675.00	726.24	.01	.74	0.00	186.27	7.84	276.24
77708.00	76.00	724.90	724.40	718.40	985.00	725.71	.12	.48	0.00	244.95	8.31	383.20
77808.00	100.00	0.00	0.00	718.70	365.00	724.14	.05	.09	.07	197.54	5.44	74.58
77808.00	100.00	0.00	0.00	718.70	580.00	725.97	.04	.01	.03	242.08	7.27	121.48
77808.00	100.00	0.00	0.00	718.70	675.00	726.25	.03	.01	.04	273.80	7.55	128.51
77808.00	100.00	0.00	0.00	718.70	985.00	726.72	.06	.02	.06	378.94	8.02	135.00
77908.00	100.00	0.00	0.00	719.00	365.00	724.19	.06	.03	.01	193.17	5.19	72.81
77908.00	100.00	0.00	0.00	719.00	580.00	726.00	.03	.03	.01	249.54	7.00	114.06
77908.00	100.00	0.00	0.00	719.00	675.00	726.28	.06	.03	.01	281.98	7.28	121.27
77908.00	100.00	0.00	0.00	719.00	985.00	726.77	.09	.03	.01	390.76	7.77	134.03
78198.00	290.00	0.00	0.00	719.90	365.00	724.50	.28	.31	.22	325.33	4.60	74.99
78198.00	290.00	0.00	0.00	719.90	580.00	726.15	.13	.13	.04	359.53	6.25	99.53
78198.00	290.00	0.00	0.00	719.90	675.00	726.64	.14	.13	.03	409.42	6.74	107.04
78198.00	290.00	0.00	0.00	719.90	985.00	727.00	.19	.23	.10	544.87	7.10	121.19
78490.00	292.00	0.00	0.00	720.00	365.00	725.44	.42	.93	.14	354.43	4.94	26.96
78490.00	292.00	0.00	0.00	720.00	580.00	726.63	.26	.40	.33	525.44	6.13	81.53
78490.00	292.00	0.00	0.00	720.00	675.00	726.93	.47	.44	.34	621.40	6.33	95.03
78490.00	292.00	0.00	0.00	720.00	985.00	727.59	.53	.59	.35	813.44	6.99	113.04
78780.00	290.00	0.00	0.00	721.30	365.00	726.43	.42	.99	.00	365.00	5.13	22.92
78780.00	290.00	0.00	0.00	721.30	580.00	727.56	.54	.93	.08	578.16	6.26	38.00
78780.00	290.00	0.00	0.00	721.30	675.00	727.88	.50	.95	.12	667.03	6.58	47.13
78780.00	290.00	0.00	0.00	721.30	985.00	728.65	.77	1.07	.24	931.07	7.35	68.42
79160.00	380.00	0.00	0.00	722.33	365.00	727.69	.39	1.22	.00	365.00	5.36	26.49
79160.00	380.00	0.00	0.00	722.33	580.00	728.79	.48	1.17	.01	576.48	6.46	49.51
79160.00	380.00	0.00	0.00	722.33	675.00	729.16	.50	1.17	.01	656.70	6.83	65.23
79160.00	380.00	0.00	0.00	722.33	985.00	730.12	.50	1.17	.03	855.51	7.79	105.99

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
79540.00	380.00	0.00	0.00	723.37	365.00	728.68	.33	1.14	.01	359.94	5.51	31.44
79540.00	380.00	0.00	0.00	723.37	580.00	729.91	.42	1.35	.01	553.43	6.54	49.68
79540.00	380.00	0.00	0.00	723.37	675.00	730.24	.45	1.03	.00	629.76	6.87	64.28
79540.00	380.00	0.00	0.00	723.37	985.00	731.08	.52	.97	.01	839.11	7.71	102.01
79920.00	380.00	0.00	0.00	724.00	365.00	730.03	.29	1.09	.01	345.73	6.03	28.17
79920.00	380.00	0.00	0.00	724.00	580.00	731.09	.39	1.14	.01	534.59	7.09	43.76
79920.00	380.00	0.00	0.00	724.00	675.00	731.43	.43	1.15	.01	611.73	7.43	57.54
79920.00	380.00	0.00	0.00	724.00	985.00	732.41	.47	1.17	.01	801.49	8.41	88.44
80112.00	192.00	0.00	0.00	726.40	365.00	730.77	.34	.77	.02	355.03	4.37	27.59
80112.00	192.00	0.00	0.00	726.40	580.00	731.93	.39	.85	.00	550.00	5.53	36.05
80112.00	192.00	0.00	0.00	726.40	675.00	732.33	.42	.90	.00	675.00	5.93	38.84
80112.00	192.00	0.00	0.00	726.40	985.00	733.24	.53	.99	.03	985.00	6.83	42.00
80113.00	1.00	740.60	739.10	726.40	365.00	730.74	.34	.00	.00	355.00	4.38	27.72
80113.00	1.00	740.60	739.10	726.40	580.00	731.93	.39	.00	.00	550.00	5.53	36.09
80113.00	1.00	740.60	739.10	726.40	675.00	732.33	.42	.00	.00	675.00	5.93	38.92
80113.00	1.00	740.60	739.10	726.40	985.00	733.24	.53	.01	.00	985.00	6.84	42.00
80127.00	14.00	740.60	739.10	726.40	365.00	730.84	.36	.04	.00	355.00	4.44	28.15
80127.00	14.00	740.60	739.10	726.40	580.00	732.00	.38	.04	.00	530.00	5.60	36.54
80127.00	14.00	740.60	739.10	726.40	675.00	732.40	.40	.05	.00	675.00	6.00	39.39
80127.00	14.00	740.60	739.10	726.40	985.00	733.32	.51	.05	.01	985.00	6.92	42.00
80128.00	1.00	0.00	0.00	726.40	365.00	730.84	.36	.00	.00	355.00	4.44	28.17
80128.00	1.00	0.00	0.00	726.40	580.00	732.00	.39	.00	.00	580.00	5.60	36.20
80128.00	1.00	0.00	0.00	726.40	675.00	732.40	.40	.00	.00	675.00	6.00	39.41
80128.00	1.00	0.00	0.00	726.40	985.00	733.33	.51	.00	.00	985.00	6.93	42.00
80490.00	362.00	0.00	0.00	728.10	365.00	732.13	.40	1.33	.04	293.49	4.03	80.44
80490.00	362.00	0.00	0.00	728.10	580.00	733.21	.30	1.11	.02	366.72	5.11	119.53
80490.00	362.00	0.00	0.00	728.10	675.00	733.62	.27	1.05	.04	391.55	5.52	134.07
80490.00	362.00	0.00	0.00	728.10	985.00	734.65	.23	.95	.09	464.57	6.56	170.48
81190.00	700.00	0.00	0.00	732.00	365.00	734.74	.20	2.39	.02	359.20	2.74	84.59
81190.00	700.00	0.00	0.00	732.00	580.00	735.23	.26	1.97	.00	557.41	3.23	102.44
81190.00	700.00	0.00	0.00	732.00	675.00	735.44	.24	1.82	.00	641.34	3.44	109.62
81190.00	700.00	0.00	0.00	732.00	985.00	736.06	.32	1.46	.02	910.53	4.06	126.15
82890.00	1700.00	0.00	0.00	733.20	365.00	737.24	.05	2.34	.01	143.24	4.04	425.55
82890.00	1700.00	0.00	0.00	733.20	580.00	737.71	.15	2.24	.02	221.21	4.51	439.76
82890.00	1700.00	0.00	0.00	733.20	675.00	737.89	.15	2.21	.02	256.59	4.69	445.14
82890.00	1700.00	0.00	0.00	733.20	985.00	738.35	.15	2.03	.03	344.49	5.15	460.26
83210.00	320.00	0.00	0.00	734.30	365.00	737.62	.38	.49	0.00	264.79	3.32	194.29
83210.00	320.00	0.00	0.00	734.30	580.00	737.96	.40	.43	0.00	339.15	3.66	251.34
83210.00	320.00	0.00	0.00	734.30	675.00	738.12	.37	.47	.10	358.01	3.82	266.01
83210.00	320.00	0.00	0.00	734.30	985.00	738.65	.26	.41	.10	390.49	4.35	324.58

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
83530.00	320.00	0.00	0.00	735.30	365.00	738.93	.15	1.06	.02	153.34	3.63	152.24
83530.00	320.00	0.00	0.00	735.30	580.00	739.34	.17	1.17	.02	195.94	4.04	178.87
83530.00	320.00	0.00	0.00	735.30	675.00	739.52	.18	1.20	.02	221.17	4.22	186.50
83530.00	320.00	0.00	0.00	735.30	985.00	739.84	.25	1.18	.00	285.24	4.54	203.38
83850.00	320.00	0.00	0.00	736.10	365.00	739.59	.22	1.12	.03	103.73	3.49	95.19
83850.00	321.00	0.00	0.00	736.10	580.00	740.50	.26	1.14	.03	142.17	4.40	104.54
83850.00	321.00	0.00	0.00	736.10	675.00	740.70	.27	1.24	.04	163.03	4.60	114.04
83850.00	320.00	0.00	0.00	736.10	985.10	741.23	.41	1.44	.02	176.22	5.13	128.13

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH O	CWSEL DIFF EACH SECTION	CWSEL-WSEL	TOPWID	TOPWID DIFF	LENGTH
77200.000	365.000	723.351	0.000	0.000	0.000	104.415	0.000	1552.000
77200.000	580.000	724.800	1.450	0.000	0.000	125.958	-16.543	1552.000
77200.000	675.000	725.300	.500	0.000	0.000	130.626	-21.211	1552.000
77200.000	985.000	726.000	.700	0.000	0.000	147.158	-21.743	1552.000
77620.000	365.000	723.739	0.000	.389	0.000	162.413	0.000	420.000
77620.000	580.000	725.000	1.261	.200	0.000	211.404	-48.990	420.000
77620.000	675.000	725.473	.474	.173	0.000	235.633	-74.253	420.000
77620.000	985.000	726.209	.735	.209	0.000	278.471	-116.453	420.000
77632.000	365.000	723.789	0.000	.050	0.000	163.666	0.000	12.000
77632.000	580.000	725.018	1.230	.019	0.000	209.744	-46.078	12.000
77632.000	675.000	725.488	.470	.015	0.000	229.464	-65.798	12.000
77632.000	985.000	726.224	.735	.014	0.000	274.466	-111.800	12.000
77708.000	365.000	723.834	0.000	.046	0.000	165.560	0.000	76.000
77708.000	580.000	725.962	2.128	.944	0.000	259.471	-93.911	76.000
77708.000	675.000	726.237	.275	.749	0.000	276.237	-110.678	76.000
77708.000	985.000	726.709	.472	.486	0.000	383.145	-217.586	76.000
77808.000	365.000	724.142	0.000	.307	0.000	74.584	0.000	100.000
77808.000	580.000	725.972	1.831	.010	0.000	121.484	-45.900	100.000
77808.000	675.000	726.248	.275	.011	0.000	128.510	-53.926	100.000	
77808.000	985.000	726.725	.477	.015	0.000	134.999	-60.415	100.000
77908.000	365.000	724.192	0.000	.050	0.000	72.311	0.000	100.000
77908.000	580.000	725.001	1.809	.029	0.000	114.160	-41.849	100.000
77908.000	675.000	726.279	.279	.031	0.000	121.271	-48.960	100.000
77908.000	985.000	726.772	.493	.044	0.000	134.031	-61.720	100.000
78198.000	365.000	724.501	0.000	.321	0.000	74.491	0.000	290.000
78198.000	580.000	725.144	1.643	.149	0.000	95.033	-24.543	290.000
78198.000	675.000	725.439	.295	.190	0.000	107.534	-37.044	290.000
78198.000	985.000	727.000	.560	.227	0.000	121.140	-46.200	290.000
78490.000	365.000	725.436	0.000	.934	0.000	26.960	0.000	292.000
78490.000	580.000	726.631	1.194	.481	0.000	51.530	-54.570	292.000
78490.000	675.000	726.929	.298	.449	0.000	95.023	-98.063	292.000
78490.000	985.000	727.587	.658	.587	0.000	113.036	-86.076	292.000
78780.000	365.000	726.429	0.000	.993	0.000	22.415	0.000	290.000
78780.000	580.000	727.557	1.128	.926	0.000	37.998	-15.582	290.000
78780.000	675.000	727.883	.326	.954	0.000	47.127	-24.711	290.000
78780.000	985.000	728.657	.774	1.070	0.000	68.314	-45.903	290.000
79160.000	365.000	727.686	0.000	1.257	0.000	26.490	0.000	380.000
79160.000	580.000	728.789	1.103	1.232	0.000	49.507	-23.017	380.000
79160.000	675.000	729.162	.374	1.280	0.000	65.231	-38.741	380.000

79160.000	985.000	730.125	.952	1.468	0.000	105.985	-74.495	380.000
79540.000	365.000	728.864	0.000	1.198	0.000	31.433	0.000	380.000
79540.000	580.000	729.906	1.021	1.117	0.000	49.583	-18.245	380.000
79540.000	675.000	730.245	.339	1.052	0.000	64.283	-32.645	380.000
79540.000	985.000	731.077	.432	.952	0.000	102.005	-70.568	380.000
79920.000	365.000	730.032	0.000	1.147	0.000	28.172	0.000	380.000
79920.000	580.000	731.086	1.055	1.180	0.000	43.757	-15.585	380.000
79920.000	675.000	731.435	.349	1.190	0.000	57.943	-29.771	380.000
79920.000	985.000	732.311	.876	1.234	0.000	88.433	-60.261	380.000
80112.000	365.000	730.773	0.000	.742	0.000	27.686	0.000	192.000
80112.000	580.000	731.924	1.155	.842	0.000	35.052	-5.350	192.000
80112.000	675.000	732.325	.397	.891	0.000	38.482	-11.145	192.000
80112.000	985.000	733.235	.909	.924	0.000	42.000	-14.314	192.000
80113.000	365.000	730.774	0.000	.003	0.000	27.717	0.000	1.000
80113.000	580.000	731.934	1.155	.003	0.000	35.155	-5.365	1.000
80113.000	675.000	732.331	.397	.003	0.000	38.917	-11.200	1.000
80113.000	985.000	733.242	.910	.007	0.000	42.000	-14.283	1.000
80127.000	365.000	730.839	0.000	.060	0.000	28.151	0.000	14.000
80127.000	580.000	731.998	1.159	.064	0.000	36.542	-5.390	14.000
80127.000	675.000	732.398	.400	.067	0.000	39.390	-11.238	14.000
80127.000	985.000	733.321	.923	.080	0.000	42.000	-13.849	14.000
80128.000	365.000	730.843	0.000	.004	0.000	28.173	0.000	1.000
80128.000	580.000	732.002	1.159	.005	0.000	36.565	-8.391	1.000
80128.000	675.000	732.403	.400	.005	0.000	39.413	-11.240	1.000
80128.000	985.000	733.327	.924	.006	0.000	42.000	-13.827	1.000
80490.000	365.000	732.127	0.000	1.284	0.000	80.835	0.000	362.000
80490.000	580.000	733.209	1.082	1.207	0.000	119.533	-38.695	362.000
80490.000	675.000	733.616	.407	1.213	0.000	134.073	-53.237	362.000
80490.000	985.000	734.656	1.040	1.329	0.000	170.477	-89.641	362.000
81190.000	365.000	734.745	0.000	2.618	0.000	64.593	0.000	700.000
81190.000	580.000	735.234	.449	2.025	0.000	102.434	-17.849	700.000
81190.000	675.000	735.430	.196	1.814	0.000	108.622	-24.032	700.000
81190.000	985.000	736.063	.633	1.407	0.000	124.150	-44.560	700.000
82890.000	365.000	737.241	0.000	2.457	0.000	425.582	0.000	1700.000
82890.000	580.000	737.705	.464	2.472	0.000	439.739	-14.174	1700.000
82890.000	675.000	737.881	.177	2.457	0.000	445.143	-19.578	1700.000
82890.000	985.000	738.383	.502	2.320	0.000	460.263	-34.698	1700.000
83210.000	365.000	737.615	0.000	.375	0.000	194.291	0.000	320.000
83210.000	580.000	737.963	.346	.257	0.000	251.341	-57.051	320.000
83210.000	675.000	738.119	.156	.238	0.000	266.097	-71.806	320.000
83210.000	985.000	738.644	.524	.256	0.000	324.582	-130.291	320.000
83530.000	365.000	738.928	0.000	1.312	0.000	152.283	0.000	320.000
83530.000	580.000	739.387	.459	1.425	0.000	178.872	-26.589	320.000
83530.000	675.000	739.520	.133	1.401	0.000	185.858	-34.575	320.000
83530.000	985.000	739.838	.318	1.190	0.000	203.376	-51.093	320.000
83850.000	365.000	739.987	0.000	1.059	0.000	94.191	0.000	320.000
83850.000	580.000	740.503	.516	1.115	0.000	108.941	-14.750	320.000
83850.000	675.000	740.696	.194	1.176	0.000	114.045	-19.854	320.000
83850.000	985.000	741.231	.535	1.394	0.000	128.129	-33.938	320.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF

1	0.000	0.000	19.195	0.000
2	0.000	0.000	23.078	3.883
3	0.000	0.000	24.556	5.361
4	0.000	0.000	29.310	9.115

SALT RIVER
and
SHOOK DRAIN

Village of New Haven, Michigan

Hydraulic Analysis

Secno Chart

References

Bridge Sketches and Calculations

Project Manager, Ole Anderson

Hydraulic Analysis

A. Introduction

The Salt River and Shook Drain in the Village of New Haven, Macomb County, Michigan are the subjects of this report. For the Salt River, the study begins at the Village of New Haven/Chesterfield Township line and continues upstream for approximately 2.2 miles to the Village of New Haven/Lenox Township line. The Shook Drain study begins at the mouth of Shook Drain (at its confluence with the Salt River), and continues upstream for approximately 2.1 miles to the Village of New Haven/Lenox Township line. The drainage areas at the downstream ends of the Village of New Haven studies for the Salt River and Shook Drain are 13.60 and 3.00 square miles, respectively. The major floods on the Salt River and Shook Drain occur in the early spring months. The project manager for this study is Ole Anderson.

B. Hydrology

The 10-, 50-, 100-, and 500-year flood frequency flows used in this study were computed by the TR-20 computer program developed by the Soil Conservation Service. A summary of flows used in the Chesterfield Township F.I.S. (just downstream of the study area) was obtained from the U. S. Geological Survey. In order to match the flow estimates, the following modifications were made:

(1) Flows at the confluence of the Salt River and Shook Drain were reduced to match exactly with the U.S.G.S. estimates.
(2) Since the TR-20 program indicated that peak flows from the Salt River and Shook Drain reached their confluence at the same time, the peak flows from Shook Drain were subtracted directly from the corresponding estimates at the confluence to obtain peak flows for the Salt River above Shook Drain.
(3) Water Supply Paper 1677 (Reference 1) was used to reduce flows along the Salt River.

The discharges used in this study were approved by the Michigan Department of Natural Resources on January 12, 1978.

C. Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U. S. Army Corps of Engineers. On the Salt River, the Gratiot Avenue and Clark Street bridges have been modeled for the requirements of the normal bridge routine; the 26-Mile Road bridge has been modeled for the requirements of the special bridge routine. On the Shook Drain, all of the bridges have been modeled for the requirements of the special bridge routine.

D. Variables and Coefficients

The roughness factors (Manning's "n") were established by comparing the descriptions in Open-Channel Hydraulics (Reference 2) and Roughness Characteristics of Natural Channels (Reference 3) with photographs and field descriptions taken from survey crews and personal reconnaissance trips during 1978. Aerial photography of the Village of New Haven taken in 1974 was also used to determine the roughness coefficients and their extent. These roughness factors were determined assuming that flooding would occur during the early spring months. For the Salt River, the channel ranges from .045 to .050. The channel bottom consists mainly of

silty sand, with some areas of mud and sand. The overbanks range from .040 in areas of grassy residential yards to .090 in areas of dense woods. For Shook Drain, the channel "n" ranges generally from .040 in areas where the channel bottom is relatively clean to .060 in areas where debris and weeds are prevalent in the channel. In the area upstream from Section U (towards the headwaters of Shook Drain), the channel "n" was gradually increased to .070 to allow for the thick brush growing along the banks of the drain. The overbank "n" ranges from .040 in areas of grassy residential yards and cemeteries to .090 in areas of dense woods. Some larger Manning's "n" values were used to improve flow continuity patterns at the bridges. During the winter of 1977-78, brush and small diameter trees were cut along the stream banks (as evidenced by field pictures), creating improved conveyance conditions in the stream. The expansion and contraction coefficients chosen for this study were 0.5 and 0.3, respectively. Weir flow discharge coefficients (COFQ) were chosen from charts published in Hydraulics of Bridge Waterways (Reference 4). The calculations for "XKOR" values used in the special bridge routines are shown on special forms in the back of this booklet.

E. Starting Points

Starting water surface elevations for the 10-, 50-, 100-, and 500-year floods on the Salt River were obtained from the U. S. Geological Survey's Flood Insurance Study for Chesterfield Township, Michigan. Since the peak flows from Shook Drain and the Salt River reach their confluence at the same time, the starting water surface elevations for the Shook Drain were taken directly from the Salt River Flood Insurance Study at the confluence of the two streams.

F. Encroachments

In most cases, the encroachments for the 100-year natural floodway were based on a 1:1 convergence into, and a 1:4 expansion from bridges and other natural constrictions. However, on Shook Drain encroachments were added to model for homes near the stream. In the area just downstream from Gratiot Avenue, encroachments were added to model for a property fence line on the north side of Shook Drain.

G. Special Problems

During the past two years, two new bridges have been installed on Shook Drain. One of the new bridges has been installed at the Havenridge Road crossing. The large structural plate arch culvert is much more efficient than the previous bridge at this location. Yearly flooding problems had been reported by residents of the area before installation of the new bridge. The other bridge was installed at the Victoria Street crossing. The structural plate arch culvert installed at this crossing in August of 1978 replaced a badly deteriorated concrete bridge. The hydraulic model of Shook Drain includes field-surveyed data of these two new bridges.

The roadway profiles on two bridges were modified due to skewness. On Shook Drain, the Clark Street and Gratiot Avenue bridges were affected by the bridge skew modification. The Victoria Street bridge was also considered for roadway profile adjustment for skew; however, since all considered frequency flows pass through the bridge opening without weir flow, the adjustment was not made. Amvet Drive and Havenridge Road bridge skews were assumed to be small enough that they could be ignored.

References

1. U. S. Department of The Interior, Magnitude and Frequency of Floods in the United States, Part 4, St. Lawrence River Basin, Geological Survey Water-Supply Paper 1677, 1965.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959.

3. Barnes, Harry H., Jr., Roughness Characteristics of Natural Channels, Geological Survey Water-Supply Paper 1849, 1967.

4. U. S. Department of Transportation, Federal Highway Administration, Hydraulics of Bridge Waterways, Hydraulic Design Series, No. 1, 1973.

Macomb County Planning Commission, Aerial Photography of the Village of New Haven, Michigan, Scale 1 inch = 400 feet, 1974.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, Application of the HEC-2 Bridge Routines, Training Document No. 6, June 1974.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profile Users Manual, 1973

U. S. Department of Commerce, Bureau of Public Roads, Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, December 1965.

U. S. Department of Housing And Urban Development, Federal Insurance Administration, Flood Insurance Study, Township of Chesterfield, Macomb County, Michigan, Preliminary, July 1977.

U. S. Department of Interior, Measurement of Peak Discharge at Dams by Indirect Methods, Techniques of Water-Resources Investigations of the United States Geological Survey, Book 3, Chapter A5, 1976.

U. S. Geological Survey, New Haven, Michigan Quadrangle, 7.5 Minute Series (Topographic), Scale 1:24000, Contour Interval 5 feet, 1968 (Photorevised 1973).

Cross Section	Secno	Description
A	7.640, 7.644	26-Mile Road bridge
	7.645	Field valley section taken downstream of 26-Mile Road and adjusted for channel invert.
	7.650	Section B repeated and adjusted for channel invert.
B	8.007	Field valley section
	8.035	Section B repeated and adjusted for channel invert.
C	8.056	Field valley section; extreme right overbank portion removed and used as a field valley section for Shook Drain.
D	8.181	Field valley section
E	8.503	Field valley section
F	8.774	Field valley section
	8.807	Section F repeated and adjusted for channel invert.
G	8.808, 8.818	Gratiot Avenue bridge
	8.819	Section F repeated and adjusted for channel invert.
H	8.947	Field valley section
I	9.148	Field valley section
	9.156	Section I repeated and adjusted for channel invert.
J	9.157, 9.162	Clark Street/27-Mile Road bridge
	9.163	Section I repeated and adjusted for channel invert.
	9.167	Section I repeated and adjusted for channel invert.
K	9.331	Field valley section
L	9.475	Field valley section

Cross Section	Secno	Description
M	9.688	Field valley section
	9.807	Section M repeated and adjusted for channel invert.

Shook Drain
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Cross Section	Secno	Description
	0	Section A repeated and adjusted for channel invert
A	130	Field valley section taken from extreme right overbank portion of Section C from Salt River F.I.S.
	409	Section C repeated and adjusted for channel invert.
	410	Amvet Drive bridge - downstream face. Section C repeated and adjusted for channel invert.
B	446	Amvet Drive bridge - upstream face.
	447	Section C repeated and adjusted for channel invert.
	506	Section C repeated and adjusted for channel invert.
C	526	Field valley section
	576	Section C repeated and adjusted for channel invert.
D	1316	Field valley section
	1626	Section D repeated and adjusted for channel invert.
	1666	Section D repeated and adjusted for channel invert.
	1846	Section D repeated and adjusted for channel invert.
	1986	Section D repeated and adjusted for channel invert. Right bank adjusted for transition between Sections D and E.
E	2065	Field valley section
	2085	Section E repeated and adjusted for channel invert.
	2086	Gratiot Avenue bridge - downstream face. Section E repeated and adjusted for channel invert.

Cross Section	Secno	Description
F	2122	Gratiot Avenue bridge - upstream face.
	2123	Section E repeated and adjusted for channel invert.
	2291	Section E repeated and adjusted for channel invert.
G	2292, 2346	Gratiot Avenue exit ramp bridge to New Haven Road
	2347	Section E repeated and adjusted for channel invert.
	2627	Section H repeated and adjusted for channel invert.
	2907	Section H repeated and adjusted for channel invert.
	3187	Section H repeated and adjusted for channel invert.
H	3466	Field valley section (with swale removed)
I	5226	Field valley section
	5795	Section K repeated and adjusted for channel invert.
	5835	Section K repeated and adjusted for channel invert.
J	5836, 5892	Victoria Street bridge
K	5893	Field valley section (bank to bank only).
	5937	Section M repeated and adjusted for channel invert.
	5981	Section M repeated and adjusted for channel invert.
	5982	Grand Trunk Western Railroad bridge - downstream face. Section M repeated and adjusted for channel invert.
L	6056	Grand Trunk Western Railroad bridge - upstream face. Overbanks taken from Section M and adjusted for invert.
	6057	Section M repeated and adjusted for channel invert.

Cross Section	Secno	Description
M	6076	Field valley section
	6675	Section O repeated and adjusted for channel invert.
	6676	Havenridge Road bridge - downstream face. Section O repeated and adjusted for channel invert.
N	6754	Havenridge Road bridge - upstream face. Overbanks taken from Section O and adjusted for invert.
	6755	Section O repeated and adjusted for channel invert.
O	6784	Field valley section
	6964	Section O repeated and adjusted for channel invert.
	7144	Section P repeated and adjusted for channel invert.
P	7314	Field valley section
	7873	Section P repeated and adjusted for channel invert.
	7893	Section P repeated and adjusted for channel invert.
	7894	Clark Street bridge - downstream face. Section P repeated and adjusted for channel invert.
Q	7954	Clark Street bridge - upstream face. Overbanks taken from Section R and adjusted for invert.
	7955	Section R repeated and adjusted for channel invert.
R	7984	Field valley section
S	8544	Field valley section
	8563	Section S repeated and adjusted for invert.

Cross Section	Secno	Description
T	8564, 8583	Concrete walkway bridge
	8584	Section S repeated and adjusted for channel invert.
U	8613	Field valley section
	9163	Section V repeated and adjusted for channel invert.
	9703	Section V repeated and adjusted for channel invert.
	10253	Section V repeated and adjusted for channel invert.
V	10803	Field valley section

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S.S. 2

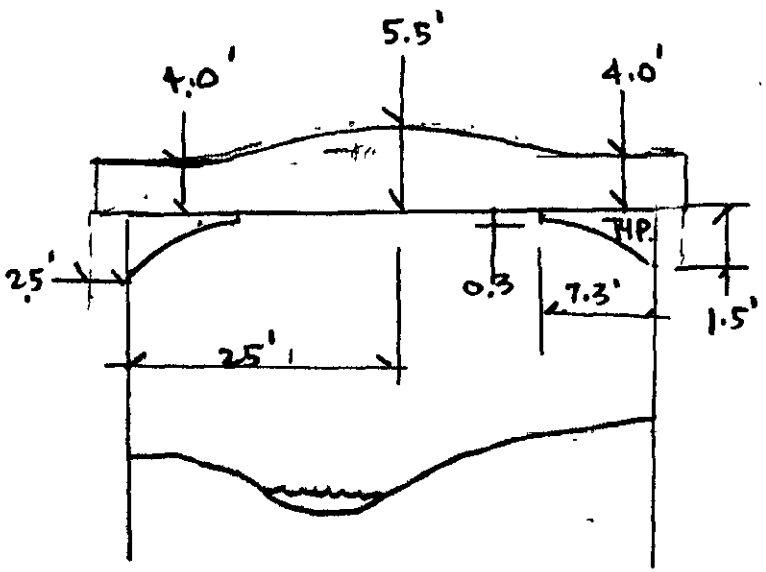
HYDRAULIC STRUCTURAL DATA

Code No. 3850-06

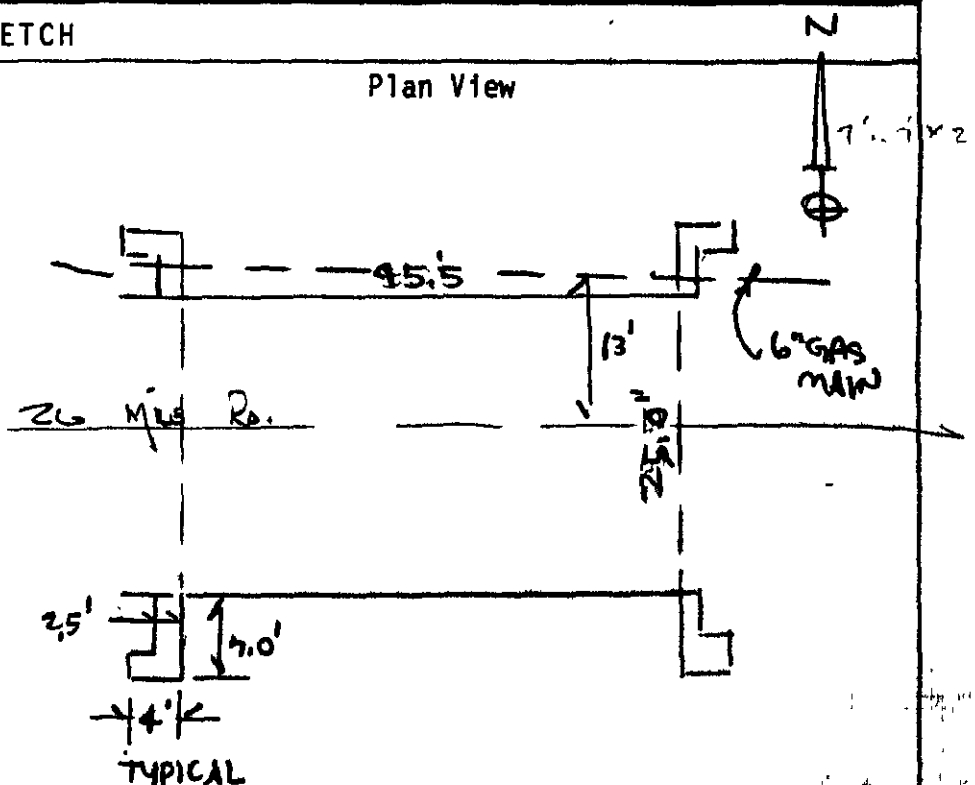
Job Name: New Haven F.I.S.			By: McInnes
Date: 1-20-78 / 8-2-78	Feature: 26 Mile Rd Bridge		Water Course: Salt River
Remarks: Concrete Bridge & Abutments Good Condition			
Width of Piers: —	Pier Shape: —	No. of Piers: 0	Area:
Water Elevation:	Length: 45.5'	Width of Deck: 25'	Skew: 0

FIELD SKETCH

Profile View



Plan View



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HYDRAULIC STRUCTURAL DATA

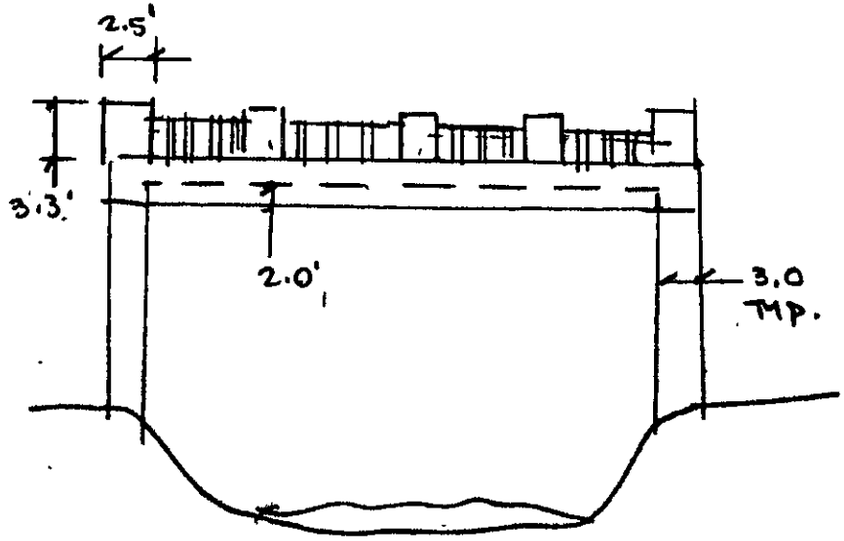
B.S. #8

Code No. _____

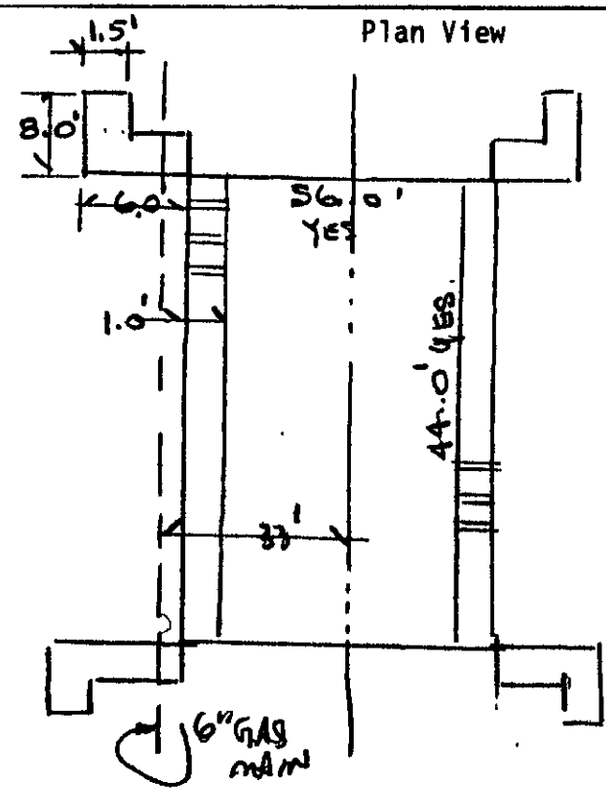
Job Name: NEW HAVEN F.I.S. SALT RIVER			By: R. KLEINERT
Date: 8-2-78	Feature: Gratiot Avenue		Water Course:
Remarks: ALL CONC. IN FAIR CONDITION CONST.			
Width of Piers: 3.0	Pier Shape: SQ.	No. of Piers: 4	Area:
Water Elevation:	Length: 44' YES.	Width of Deck: 56' YES.	Skew:

FIELD SKETCH

Profile View



Plan View





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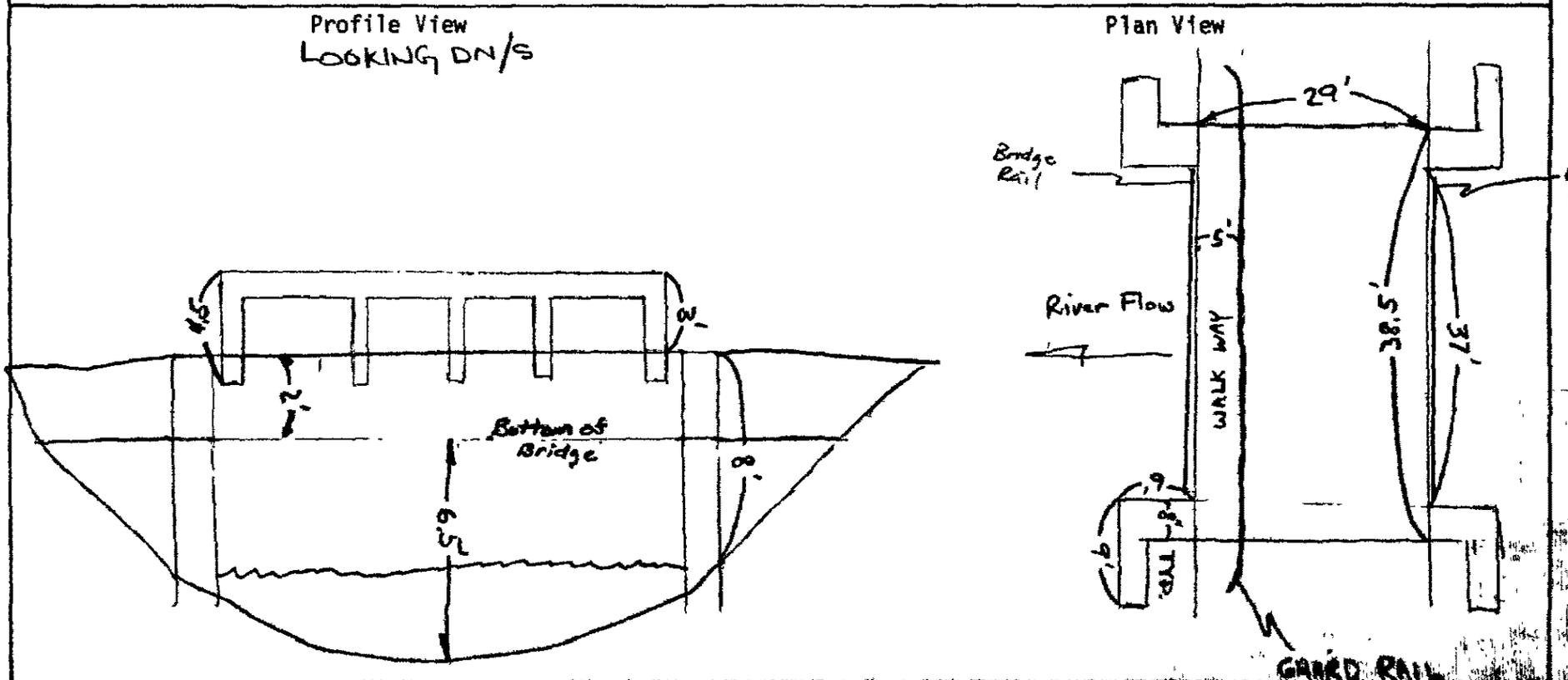
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

Job Name: NEW HAVEN F.I.S.			By: L. CUMBERWORTH / RK
Date: 5-18-78	Feature: N/A		Water Course: SALT RIVER
Remarks: CLARK ST. BRIDGE OVER SALT RIVER			
Width of Piers: 37'	Pier Shape: Rectangle	No. of Piers: 2	Area:
Water Elevation: SEE FIELD NOTES	Length: 38.5'	Width of Deck: 29'	Skew: NONE

FIELD SKETCH



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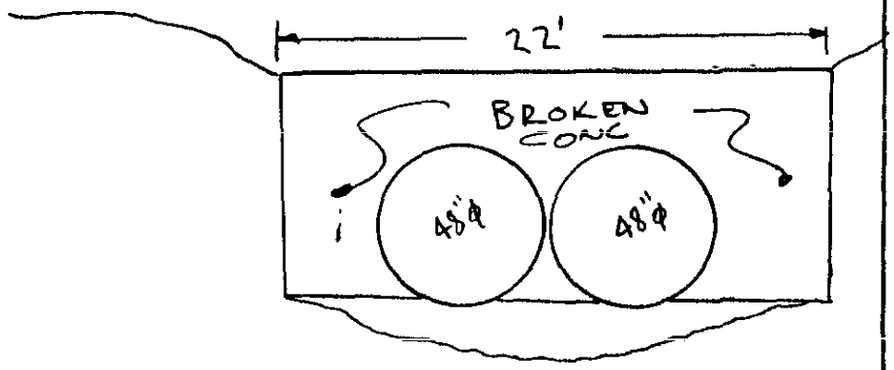
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

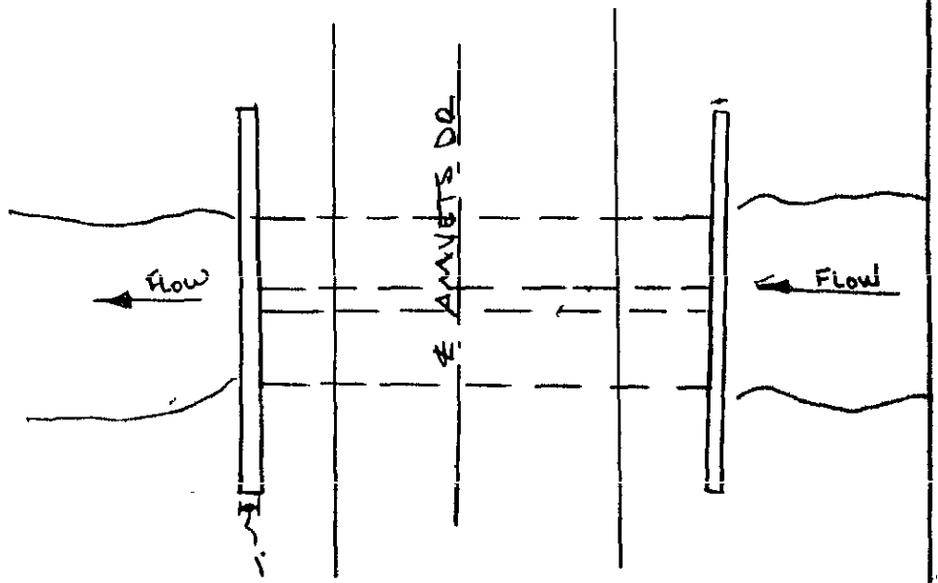
Job Name: NEW HAVEN FIS			By: JANETTE
Date: 1-25-78/7-29-78	Feature: AMVETS DR.		Water Course: SHOOK DRAIN
Remarks: TWIN 48" ϕ CMP'S			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: 36'	Width of Deck: —	Skew:

FIELD SKETCH

Profile View



Plan View



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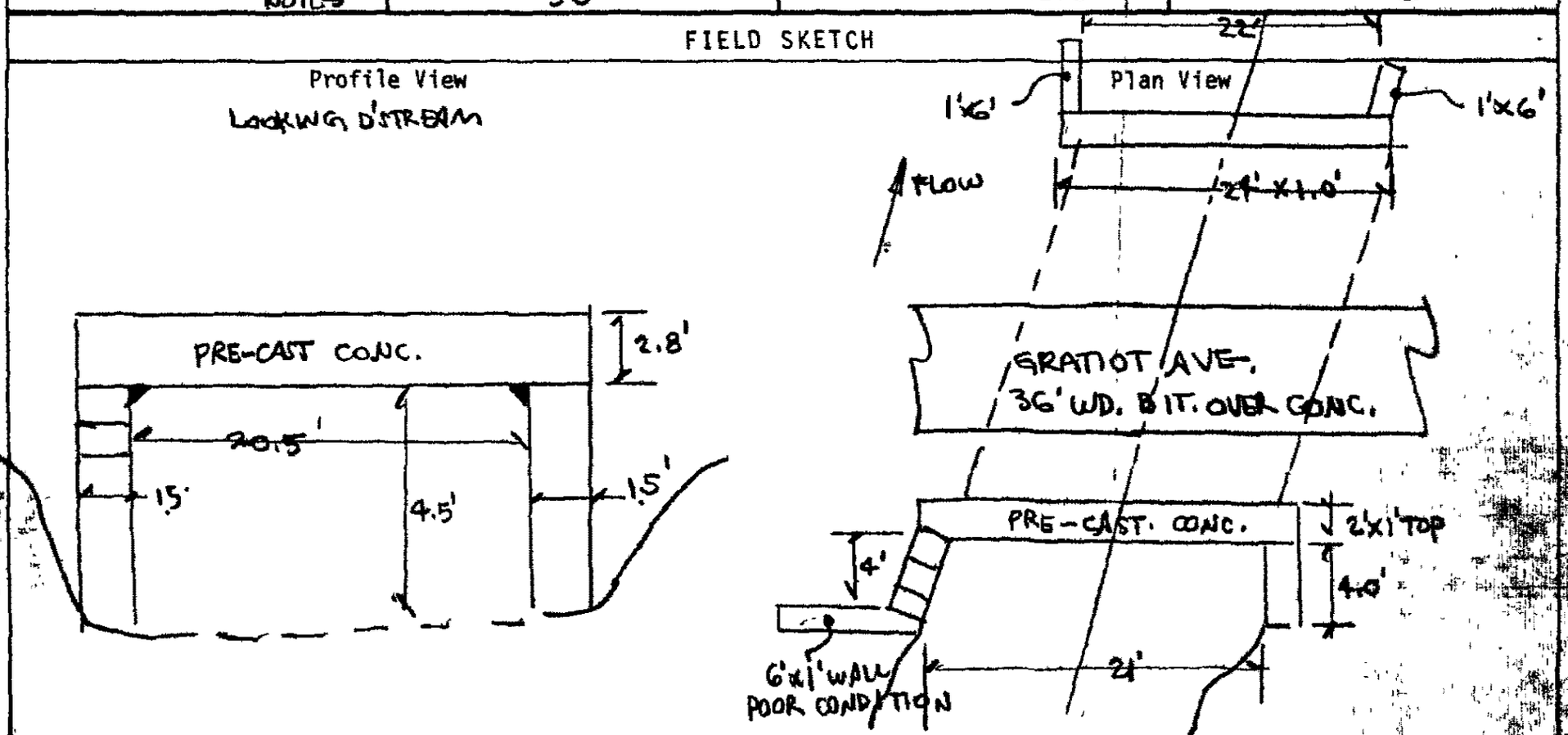
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

Job Name: NEW HAVEN F.I.S. B.S.#5			By: R. KLEINERT
Date: 5-10-78	Feature: Gratiot Avenue		Water Course: SHOOK DRAIN
Remarks:			
Width of Piers: 1.5'	Pier Shape: Sq.	No. of Piers: 4	Area:
Water Elevation: SEE K-SEC. NOTES	Length: 36'	Width of Deck: 20.5'	Skew: 18'

FIELD SKETCH



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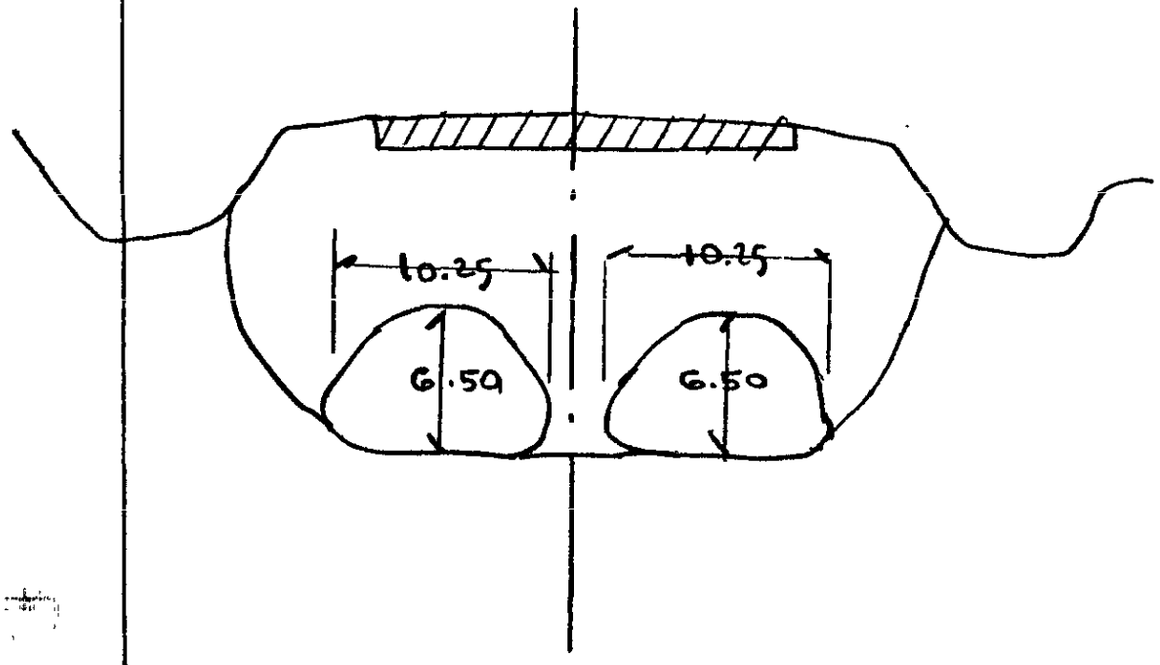
HYDRAULIC STRUCTURAL DATA
B.S.# 5

Code No. _____

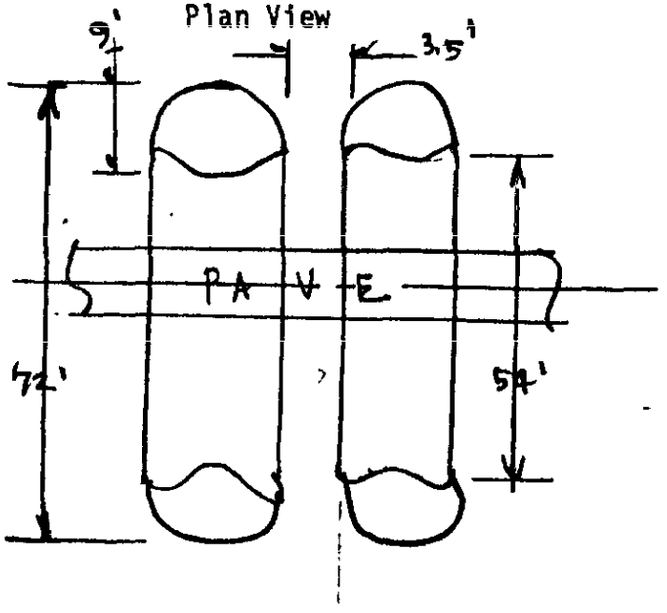
Job Name: NEW HAVEN F.I.S. SHOOK DRAIN			By: R. KLEINERT
Date: 7-29-78	Feature: GRATIOT AVE BY-PASS RD.		Water Course: SHOOK DRAIN
Remarks: TWIN ARCH CULVERTS			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: —	Width of Deck: —	Skew:

FIELD SKETCH

Profile View



Plan View



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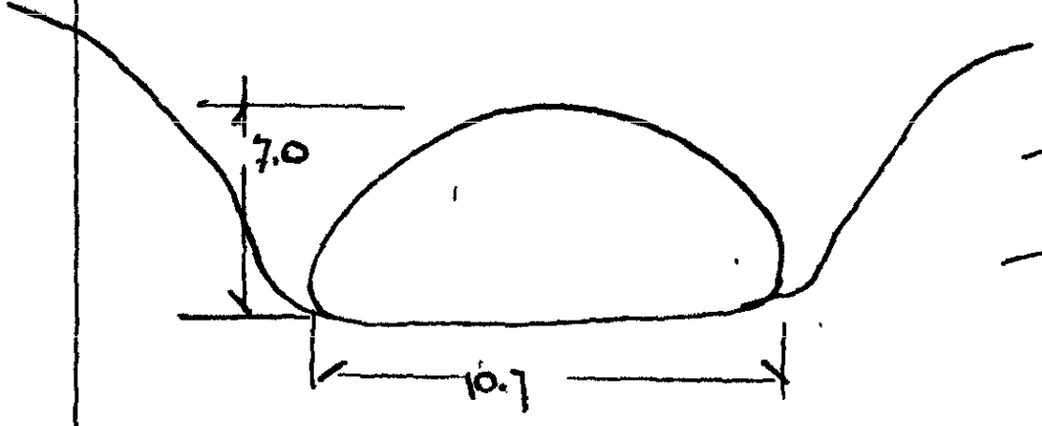
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

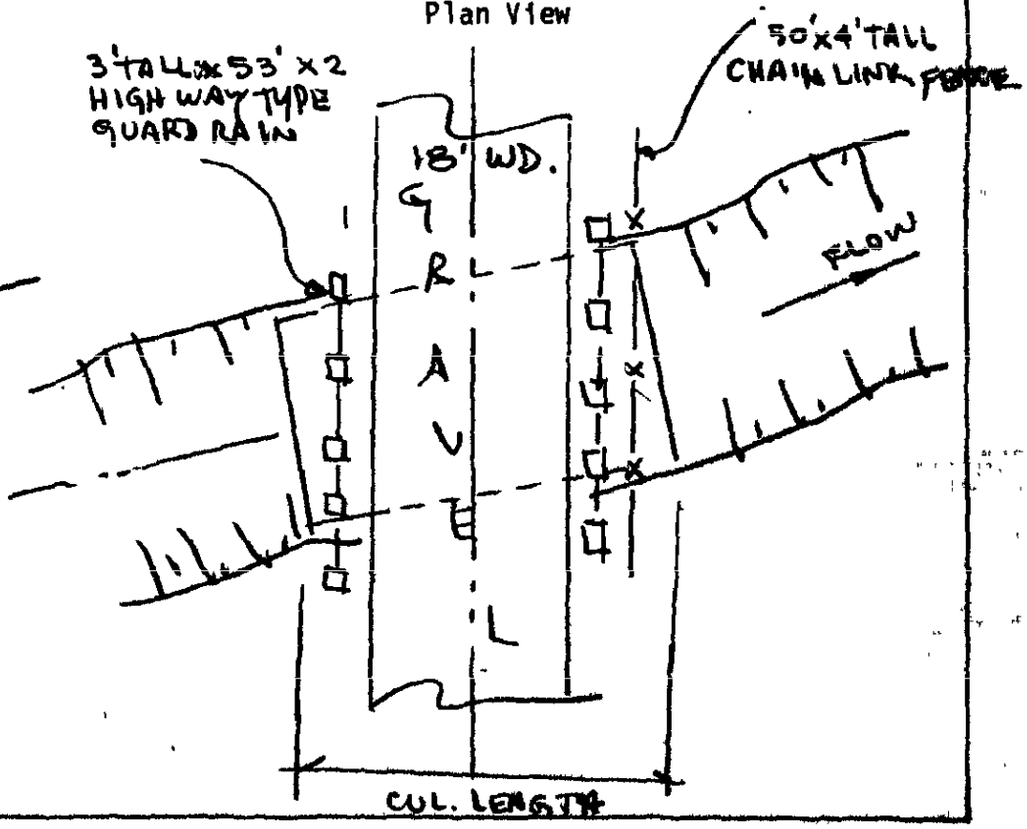
Job Name: NEW HAVEN F.I.S. B/S #9			By: KLEINERT
Date: 10-19-78	Feature: Victoria Street		Water Course: SHOOK DRAIN
Remarks: OLD BRIDGE HAS BEEN REPLACED BY MULTI-PLATE CULVERT			
Width of Piers: N/A	Pier Shape: N/A	No. of Piers: N/A	Area:
Water Elevation: CVL.B	Length: (52') recent construction plans indicate length = 56'	Width of Deck: N/A	Skew: 15°

FIELD SKETCH

Profile View



Plan View



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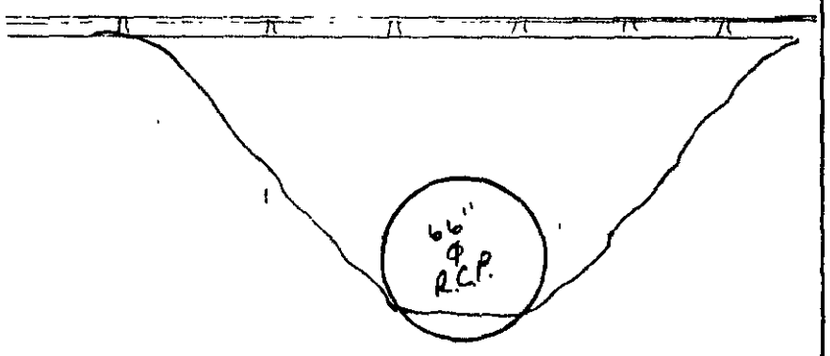
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

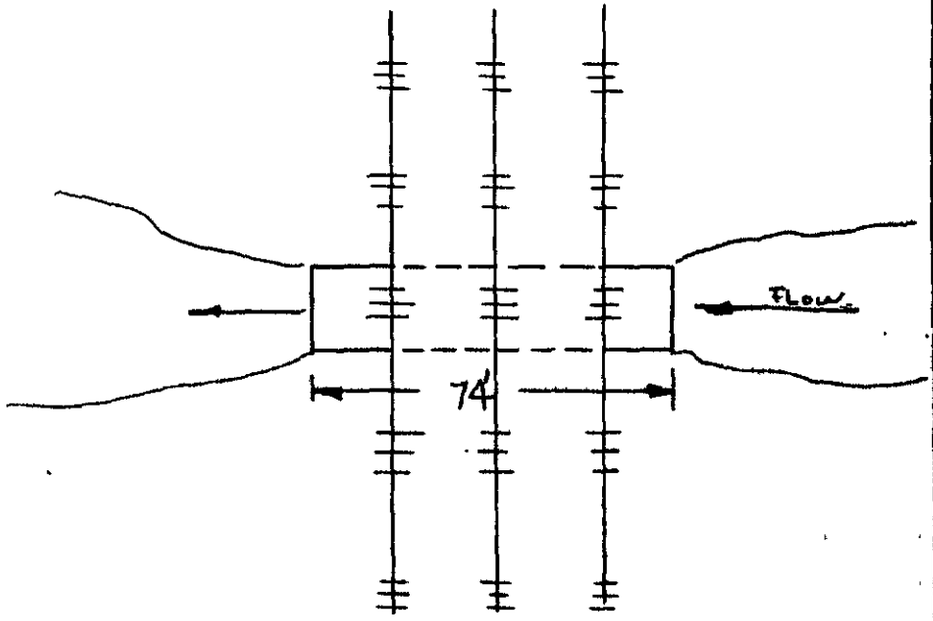
Job Name: NEW HAVEN FIS BS#10			By: JANETTE
Date: 1-25-78	Feature: R.R. CULV.		Water Course: SHOOK DRAIN
Remarks: 66" Φ R.C.P.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 74'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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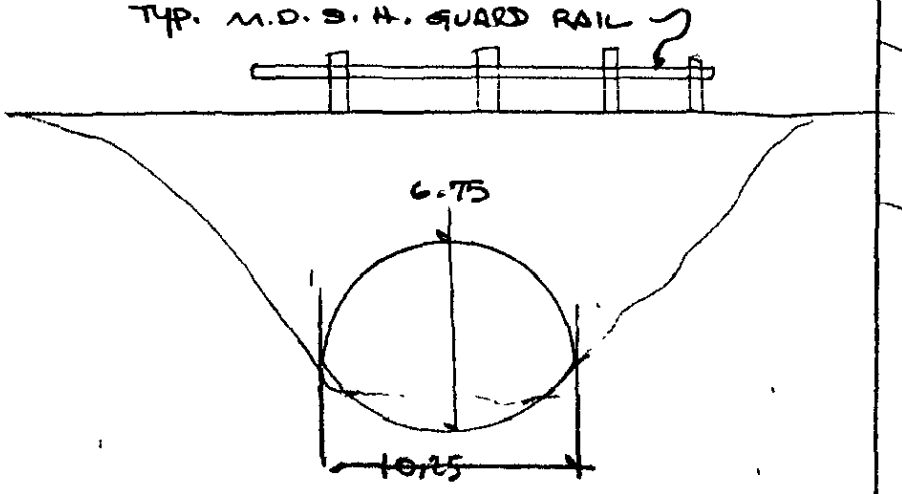
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

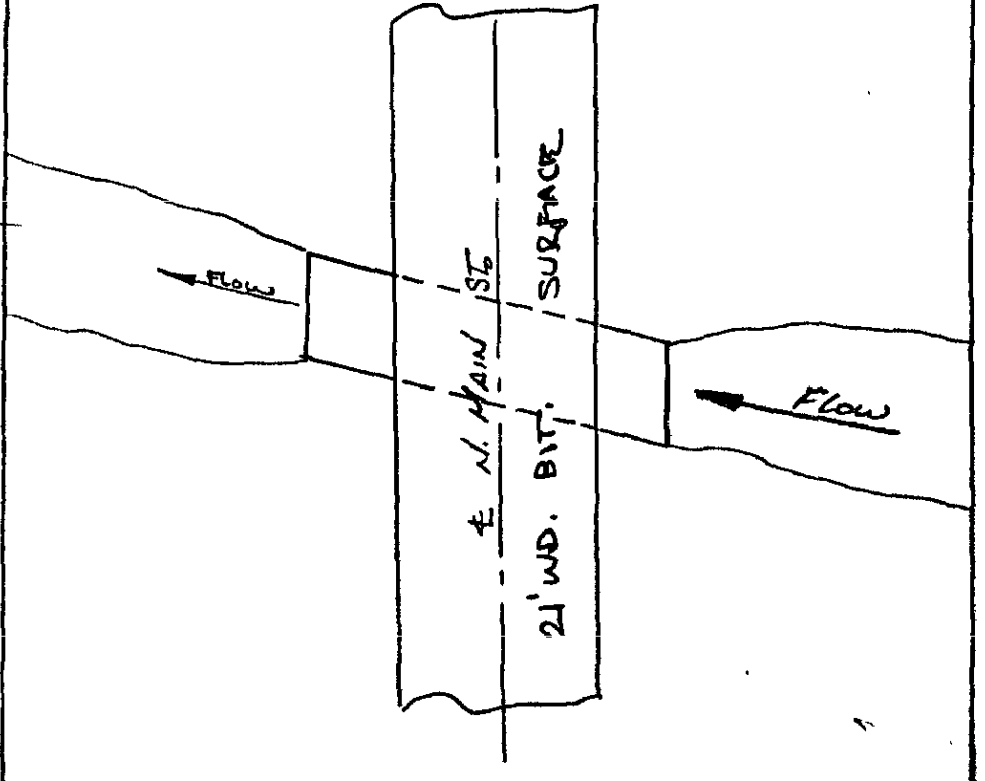
Job Name: NEW HAVEN FIS B.S.# 12			By: JANETTE
Date: 1-25-78	Feature: ~~N. MAIN STREET~~ HAVENRIDGE RD. CULV.		Water Course: SHOOK DRAIN
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: 78'	Width of Deck:	Skew: 12°

FIELD SKETCH

Profile View



Plan View



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HYDRAULIC STRUCTURAL DATA

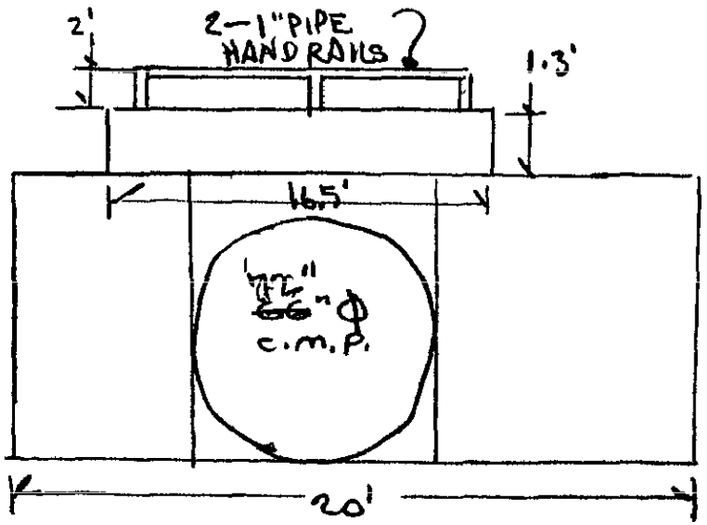
Code No. 5850-05

Job Name: NEW HAVEN F.I.S. B.S.#15			By: R. KLEINERT
Date: 5-10-78	Feature:		Water Course: SHOOK DRAIN
Remarks: CONC. BLOCK CONST.			
Width of Piers: /	Pier Shape: /	No. of Piers: /	Area:
Water Elevation: SEE X-SEC. NOTES	Length: 60'	Width of Deck: 36'	Skew: 26'

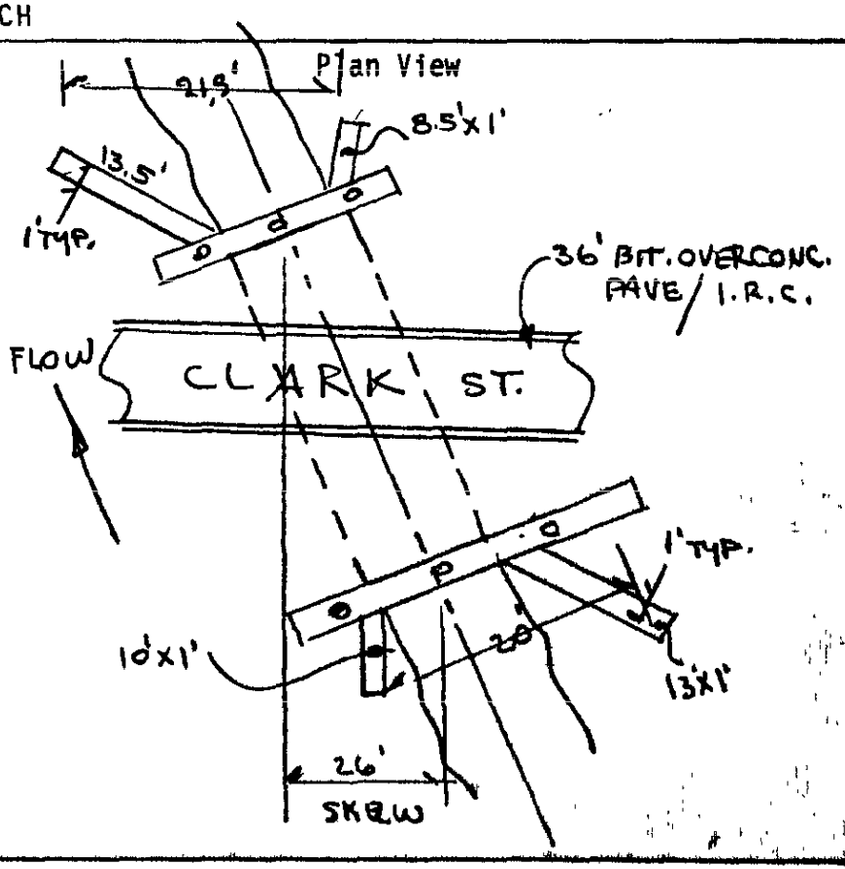
FIELD SKETCH

Profile View

LOOKING D'STREAM



Plan View



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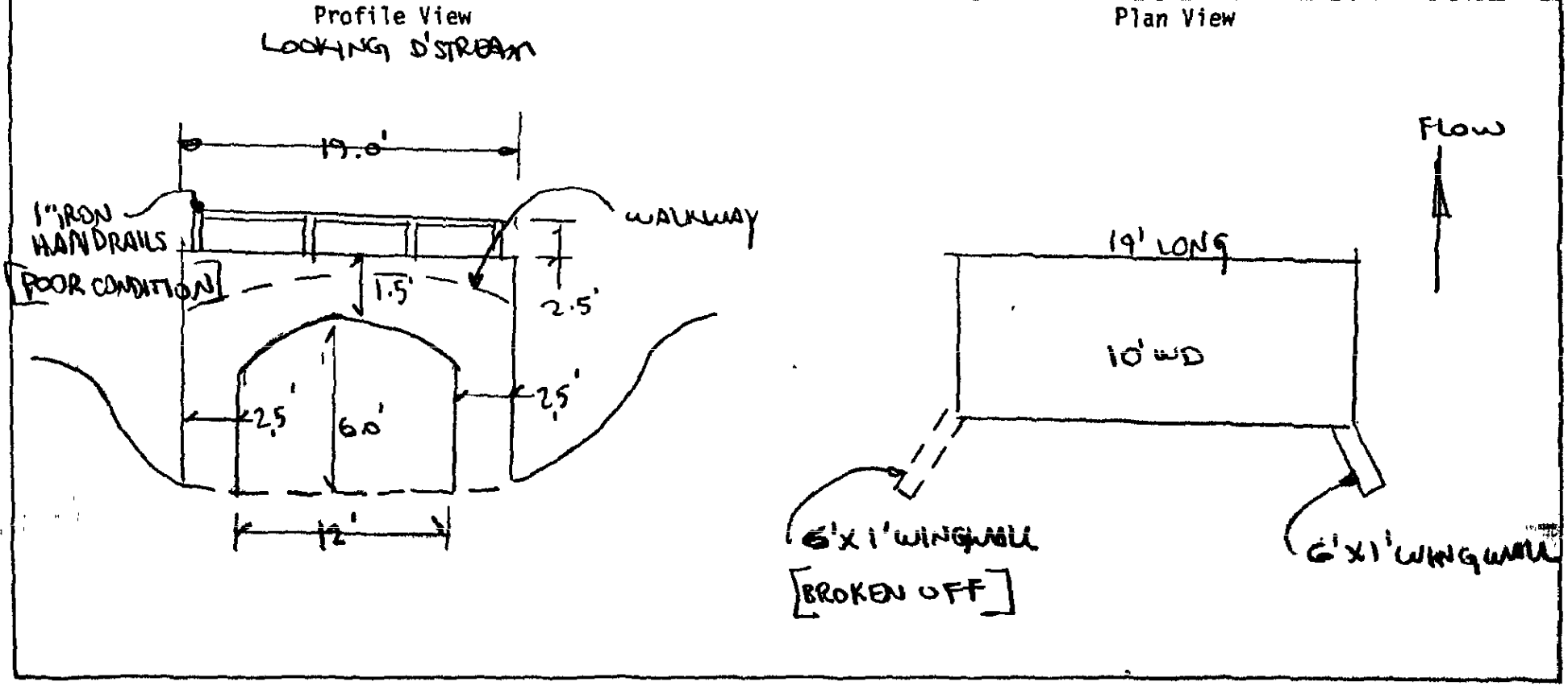
HYDRAULIC STRUCTURAL DATA

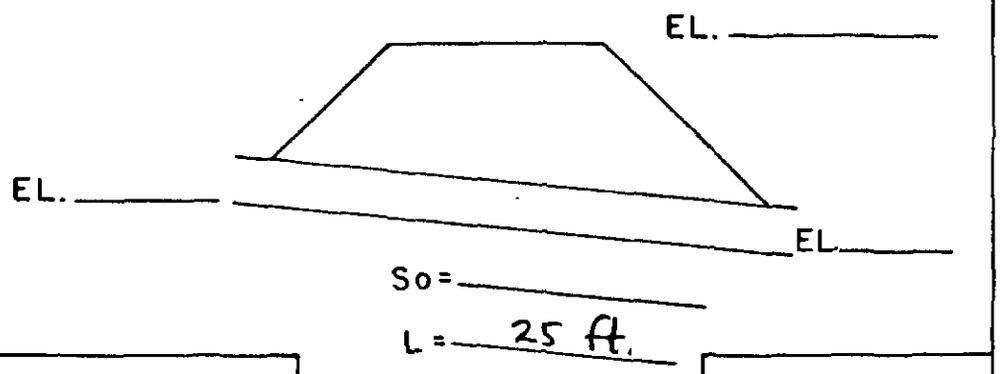
Code No. 5850-05

Job Name: NEW HAVEN F.I.S. B.S.# 17			By: R. FLENERT
Date: 5-10-78	Feature:		Water Course: SHOOK DRAIN
Remarks: CONC. & FIELD STONE PIERS & DECK / 1" PIPE HAND RAILS			
Width of Piers: 2.5	Pier Shape: SQ.	No. of Piers: 2	Area:
Water Elevation: SEE X-SEC. NOTES	Length: 19'	Width of Deck: 10'	Skew: NONE

FIELD SKETCH



JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Salt River	CULVERT LOCATION: 26-Mile Road				
CULVERT DESCRIPTION: Concrete bridge - no piers; wingwalls are an extension of barrel	BY RCD	DATE 11/13/78			
WEIR DESCRIPTION: Paved roadway					



A = 233.4 sq ft D = ____

WP = 106.7 ft Ke = 0.7

$\frac{29.1}{R^{4/3}}$ = ____ n = 0.040

CALCULATIONS AND COMMENTS:

VARIABLE XKOR :

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.040)^2(25)}{(233.4/106.7)^{4/3}} = 0.41$$

$K_e = 0.7$ (wingwalls are an extension of barrel)

$XKOR = 1 + Ke + K_f$

$XKOR = 1 + 0.70 + 0.41 = 2.11$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5'

From Measurement of Peak Discharge At Dams by Indirect Methods

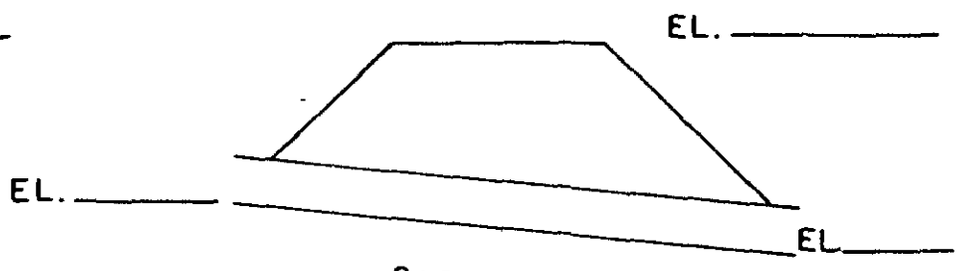
p. 27, fig. 23,

C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Amvet Drive				
CULVERT DESCRIPTION: Twin 48" C.M.P.'s	BY RCD	DATE 11/13/78			

w/stone and mortar headwall parallel to embankment - no wingwalls, Wood debris in culverts

WEIR DESCRIPTION: Dirt and gravel roadway



A = 12.566 ft² each D = ____

R = 1.0' Ke = 0.5

$\frac{29.1}{R^{4/3}}$ = ____ n = 0.030

So = ____

L = 36 ft.

Sta. Sta.

CALCULATIONS AND COMMENTS:

LOSS COEFFICIENT "K" - VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_{f\ 48"\ CMP} = \frac{29.2\,(.030)^2(36)}{(1)^{4/3}} = 0.95$

$XKOR_1 = 1 + K_e + K_f$

$XKOR_1 = 1 + 0.50 + 0.95 = 2.45$

$XKOR = K;\ K_1 = K_2 = 2.45$

$K_{equiv.} = \left[\frac{A_{TOTAL}}{\frac{A_1}{\sqrt{K_1}} + \frac{A_2}{\sqrt{K_2}}}\right]^2 = \left[\frac{12.566 + 12.566}{\frac{12.566}{\sqrt{2.45}} + \frac{12.566}{\sqrt{2.45}}}\right]^2 = 2.45$

COEFFICIENT OF DISCHARGE (COFA) "C"

Avg. H ≈ 1.0 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23.

C = 2.83 (gravel)

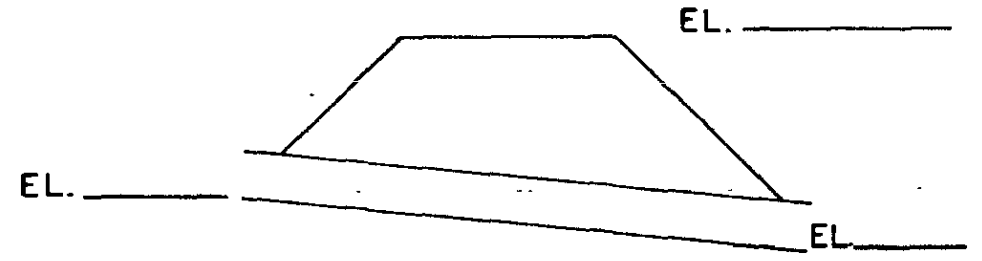
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 05 1 00

WATERCOURSE: Shook Drain CULVERT LOCATION: Gratiot Avenue

CULVERT DESCRIPTION: Concrete bridge w/ natural bottom. No piers; wingwalls are an extension of barrel.

BY RCD DATE 11/13/78

WEIR DESCRIPTION: Paved roadway.



A = 75.6 □'

WP = 45.6'

$\frac{29.1}{R^{4/3}}$ =

D =

Ke = 0.7

n = 0.025

So =

L = 36 ft.

Sta.

Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.025)^2(36)}{(75.6/45.6)^{4/3}} = 0.33$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.7 + 0.33 = 2.03$

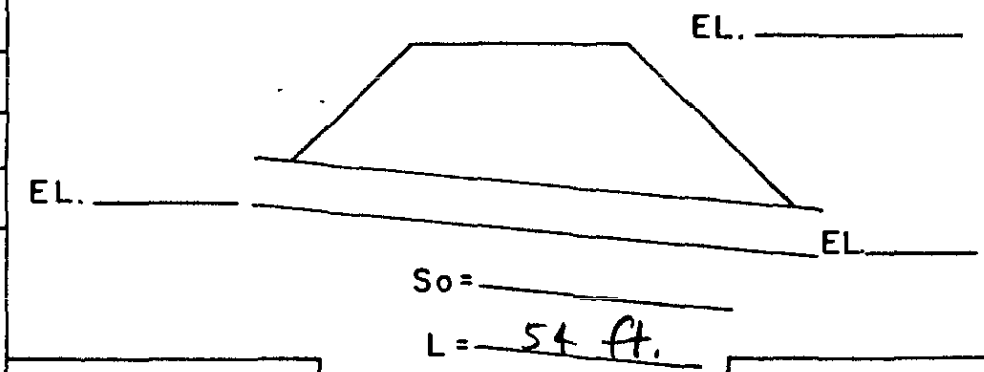
COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO. 5850 05 1 00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Gratiot Avenue exit ramp
CULVERT DESCRIPTION: Twin 6.50' x 10.25' multiplate arch culverts. No headwall; pipes projecting from fill.	BY RCD DATE 11/13/78
WEIR DESCRIPTION: Paved roadway.	



A = 55.0' x 2 = 110 sq ft. D = _____

WP = 27.5 x 2 = 55 ft. Ke = 0.9

$\frac{29.1}{R^{4/3}}$ = _____ n = 0.0318

So = _____

L = 54 ft.

Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0318)^2(54)}{(110.0/55.0)^{4/3}} = 0.63$$

XKOR = $1 + K_e + K_f$

XKOR = $1 + 0.9 + 0.63 = \underline{2.53}$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

Bridge dimensions assumed to be 10'-3" x 6'-9" for bridge area and wetted perimeter calculations.

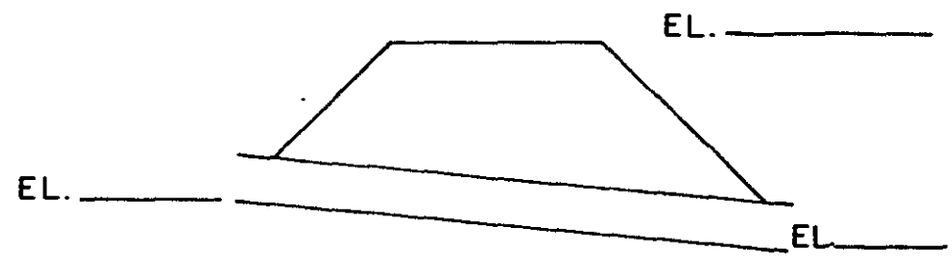
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 05 1

WATERCOURSE: Shook Drain CULVERT LOCATION: Victoria Street

CULVERT DESCRIPTION: 16-11" x 7'-1" BY RCD DATE 11/13/78

multiplate arch culvert projecting from "fill" (concrete bag slope protection)

WEIR DESCRIPTION: Gravel roadway



A = 60□'

R = 2.07

$\frac{29.1}{R^{4/3}}$ =

D =

Ke = 0.9

n = .0315

So =

L = 56 ft.

Sta.

Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0315)^2(56)}{(2.07)^{4/3}} = 0.62$$

XKOR = $1 + K_e + K_f$

XKOR = $1 + 0.9 + 0.62 = 2.52$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

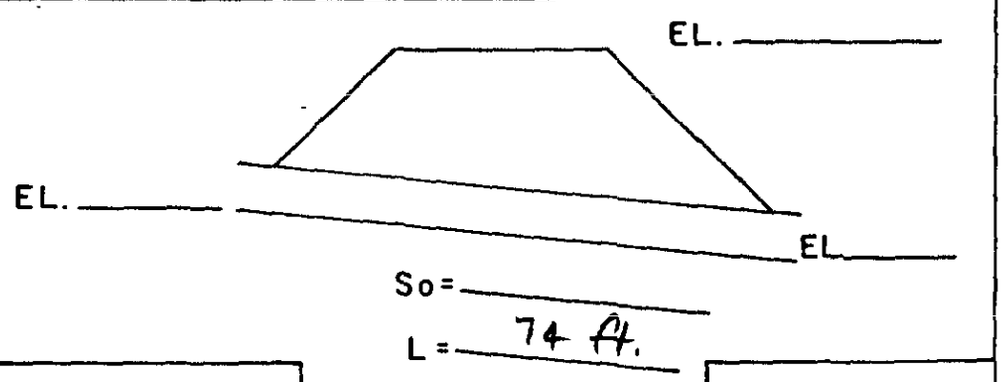
C = 3.02 (paved)

JOB NAME: Village of New Haven FIS	JOB NO. 5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Grand Trunk Western Railroad			
CULVERT DESCRIPTION: 66" R.C.P. projecting from fill.	BY RCD	DATE 11/13/78		
WEIR DESCRIPTION: Railroad tracks w/wood ties.				

A = 24.1 □' D = ____

WP = 17.6' Ke = 0.9

$\frac{29.1}{R^{4/3}}$ = ____ n = .015



CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_f = \frac{29.2\,(.015)^2(74)}{(24.1/17.6)^{4/3}} = 0.32$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.9 + 0.32 = 2.22$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Average H ≈ 0.1 for 100-year flow.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 2.54 (gravel)

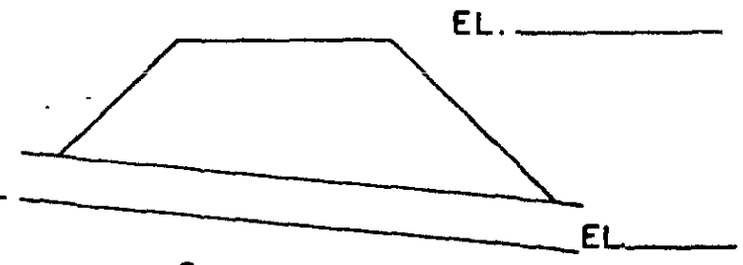
JOB NAME: Village of New Haven FIS | JOB NO. 5850 | 05 | 1 | 00

WATERCOURSE: Shook Drain | CULVERT LOCATION: Havenridge Road

CULVERT DESCRIPTION: 6.25' x 10.25' multi-plate arch culvert projecting from "fill" (concrete bag slope protection)

BY RCD | DATE 11/13/78

WEIR DESCRIPTION: Paved roadway



A = 54.9 □'

WP = 28.0'

$\frac{29.1}{R^{4/3}}$ =

D =

Ke = 0.9

n = .0319

So =

L = 78 ft.

Sta.

Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0319)^2(78)}{(54.9/28.0)^{4/3}} = 0.94$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.90 + 0.94 = 2.84$

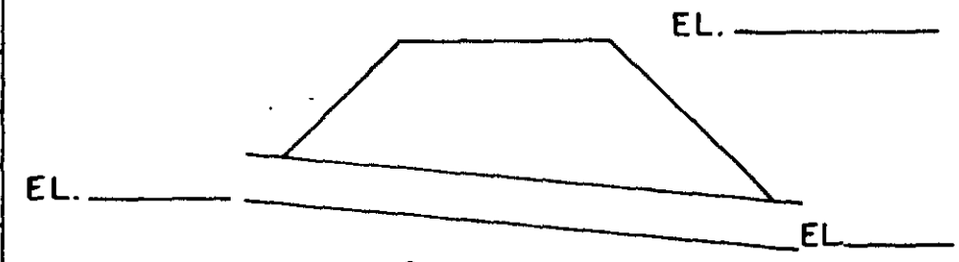
COEFFICIENT OF DISCHARGE "C" (COFQ)

Average H ≈ 0.5 ft. for 100-yr. flood

From Measurement of Peak Discharge At Dams by Indirect Methods, p.27, fig. 23,

C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO. 5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Clark Street			
CULVERT DESCRIPTION: 72" structural plate	BY RCD	DATE 11/14/78		
C.M.P. encased in concrete headwall & wingwalls @30°-75° to barrel (square edged @ crown)				
WEIR DESCRIPTION: paved roadway				



A = 28.27 □′ D = ____

B = 1.5′ Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = ____ n = .0324

So = ____

L = 60′

Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_f = \frac{29.2\,(.0324)^2(60)}{(1.5)^{4/3}} = 1.07$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.40 + 1.07 = 2.47$

COEFFICIENT OF DISCHARGE "C" (COFQ)

"H" for 100-yr. flow = 0.5′

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

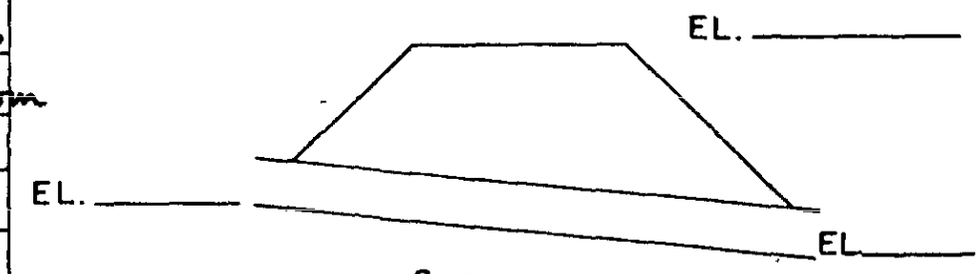
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 05 1 00

WATERCOURSE: Shook Drain CULVERT LOCATION: 610' ± u/s of Clark St.

CULVERT DESCRIPTION: Badly deteriorated concrete walkway bridge; wingwalls @ 30°-75° to barrel (square edged @ crown) - no piers, natural bottom

BY RCD DATE 11/14/78

WEIR DESCRIPTION: concrete for span of bridge only; overland flow on sides



A = 54.0 □' D = _____

WP = 31.4' Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = _____ n = .025

So = _____

L = 19'

Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.025)^2(19)}{(54.0/31.4)^{4/3}} = 0.17$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.40 + 0.17 = \underline{1.57}$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams By Indirect Methods, p. 27, fig. 23,

C = 2.68 (gravel)

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: 100 year Natural floodway

00BREAK00

```
$      $$  $$$$$$$$  $$     $$  $$$$$$$$   $$$$$ $  $$     $$  $$$$$$$$
$$     $$  $$        $$     $$      $$     $$    $   $$     $$  $$
$$$    $$  $$        $$     $$      $$     $$   $$$  $$     $$  $$
$$$$   $$  $$$$$     $$$$$$$$      $$     $$  $ $$  $$     $$  $$$$$
$$ $$  $$  $$        $$     $$      $$     $$ $$ $$  $$     $$  $$
$$  $$$$  $$        $$     $$      $$     $$ $  $$  $$     $$  $$
$$   $$$  $$        $$     $$      $$     $$$   $$   $$  $$   $$
$$     $$  $$        $$     $$  $$ $$      $    $$    $$$$    $$
$$     $$  $$$$$$$$  $$     $$   $$$      $ $$$$$      $$     $$
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VILLAGE OF NEW HAVEN F.I.S.

JOB NO. 5850-05

SHOCK DRAIN

100-YEAR NATURAL FLOODWAY

JOHNSON AND ANDERSON, INC.

FORM 1411-05 PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

C
T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      100-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.  0.000000      0.00      0.0       0.    804.430     0.000
J2  NPROF      IPLOT     PRFVS     XSELV     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
    38.000    40.000    41.000    42.000    43.000     1.000     8.000    10.000    12.000     5.000

    33.000     4.000    25.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      .080      .080      .050      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   210.000   310.000   360.000   505.000     0.000     0.000     0.000     0.000     0.000

MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A
REPEATED AND ADJUSTED FOR CHANNEL INVERT.
X1    0.000    11.000   981.000  1025.000     0.000     0.000     0.000     0.000     0.000     0.000
GR  605.900   917.000   601.400   930.000   601.700   981.000   598.400   986.000   597.200   991.000
GR  598.200   996.000   599.100  1000.000   606.100  1025.000   606.400  1100.000   607.300  1200.000
GR  610.100  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

VALLEY SECTION A
X1  130.000    11.000   981.000  1025.000   130.000   130.000   130.000     0.000     0.000     0.000
GR  607.700   917.000   603.200   930.000   603.500   981.000   600.200   986.000   599.000   991.000
GR  600.000   996.000   600.900  1000.000   607.900  1025.000   608.200  1100.000   609.100  1200.000
GR  611.900  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  409.000     9.000   205.000   213.000   280.000   280.000   279.000     0.000     0.000     0.000
X3    0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR  609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR  601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000

AMVET DRIVE BRIDGE - DOWNSTREAM FACE
X1  410.000     9.000   205.000   213.000     1.000     1.000     1.000     0.000     0.000     0.000
X3    0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR  609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR  601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000
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NC	.050	.050	.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000

AMVET DRIVE BRIDGE - UPSTREAM FACE, TWIN 48-INCH C.M.P. - SECTION B

X1	446.000	32.000	800.000	808.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	765.000	0.000	865.000	0.000	0.000	0.000	0.000
BT	17.000	765.000	607.000	0.000	790.000	606.700	0.000	800.000	606.600	602.000
BT	800.100	606.600	602.800	801.000	606.600	603.800	802.000	606.600	604.000	603.000
BT	606.600	603.800	803.900	606.600	602.800	804.000	606.600	602.000	804.100	606.600
BT	602.800	805.000	606.600	603.800	806.000	606.700	604.000	807.000	606.700	603.800
BT	807.900	606.700	602.800	808.000	606.700	602.000	830.000	606.800	0.000	865.000
BT	607.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.100	0.000	613.500	100.000	611.200	200.000	611.300	300.000	611.500	400.000
GR	610.900	500.000	610.200	600.000	607.600	700.000	607.000	765.000	606.700	790.000
GR	602.000	800.000	601.200	800.100	600.200	801.000	600.000	802.000	600.200	803.000
GR	601.200	803.900	602.000	804.000	601.200	804.100	600.200	805.000	600.000	806.000
GR	600.200	807.000	601.200	807.900	602.000	808.000	606.800	830.000	607.100	865.000
GR	607.300	900.000	608.100	1000.000	608.700	1100.000	610.000	1200.000	610.300	1300.000
GR	610.900	1400.000	612.300	1458.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	447.000	9.000	200.000	223.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	609.200	0.000	607.600	100.000	603.300	200.000	601.200	205.000	600.000	209.000
GR	601.100	213.000	603.800	223.000	604.300	300.000	607.600	400.000	0.000	0.000
NH	4.000	.040	150.000	.070	200.000	.050	223.000	.040	400.000	0.000

X1	506.000	0.000	0.000	0.000	50.000	70.000	59.000	0.000	2.400	0.000
X3	0.000	0.000	0.000	173.000	0.000	243.000	0.000	0.000	0.000	0.000

VALLEY SECTION C

X1	526.000	9.000	200.000	223.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	612.400	0.000	610.800	100.000	606.500	200.000	604.400	205.000	603.200	209.000
GR	604.300	213.000	607.000	223.000	609.500	300.000	610.800	400.000	0.000	0.000
NC	.080	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	576.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

VALLEY SECTION D

X1	1316.000	19.000	775.000	800.000	700.000	760.000	740.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.600	0.000	614.900	90.000	613.500	190.000	612.700	290.000	612.500	390.000
GR	612.500	390.000	612.300	490.000	610.800	590.000	610.100	620.000	607.100	627.000
GR	607.800	690.000	606.800	775.000	604.000	785.000	602.900	790.000	603.900	797.000
GR	605.300	800.000	605.100	840.000	611.100	869.000	611.500	890.000	0.000	0.000

X1	1626.000	0.000	0.000	0.000	320.000	300.000	310.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	755.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1666.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1846.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.800	0.000
X3	0.000	0.000	0.000	765.000	0.000	853.000	0.000	0.000	0.000	0.000

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NC	.040	.050	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1986.000	19.000	775.000	800.000	140.000	140.000	140.000	0.000	-.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	818.000	0.000	0.000	0.000	0.000
GR	618.700	0.000	618.000	90.000	616.600	190.000	615.800	290.000	615.600	390.000
GR	615.600	390.000	615.400	490.000	613.900	590.000	613.200	620.000	610.200	627.000
GR	610.900	690.000	609.900	775.000	607.100	765.000	606.000	790.000	607.100	797.000
GR	608.400	800.000	610.400	850.000	614.200	869.000	614.600	890.000	0.000	0.000
QT	4.000	205.000	305.000	355.000	500.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION E

X1	2065.000	35.000	1500.000	1524.000	80.000	80.000	79.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1497.000	0.000	1527.000	0.000	0.000	0.000	0.000
GR	620.600	0.000	620.300	100.000	620.600	200.000	620.500	300.000	619.600	400.000
GR	619.900	500.000	620.100	600.000	619.500	700.000	619.200	800.000	619.000	900.000
GR	618.100	1000.000	617.200	1100.000	616.600	1200.000	615.900	1300.000	614.800	1400.000
GR	611.000	1500.000	606.900	1512.000	606.200	1516.000	607.200	1520.000	611.000	1524.000
GR	610.100	1600.000	611.200	1700.000	612.800	1800.000	613.600	1900.000	614.200	2000.000
GR	614.900	2100.000	614.600	2200.000	614.300	2300.000	613.400	2400.000	614.000	2500.000
GR	614.000	2600.000	614.000	2700.000	613.800	2800.000	613.900	2900.000	614.000	3000.000

X1	2085.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	-.200	0.000
X3	0.000	0.000	0.000	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

X1	2086.000	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	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000
SB	0.000	2.030	3.020	0.000	16.450	0.000	75.600	0.000	605.700	606.000
NC	.035	.035	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

X1	2122.000	24.000	1220.000	1240.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1220.000	0.000	1240.000	0.000	0.000	0.000	0.000
BT	21.000	1200.000	613.200	0.000	1200.000	613.200	0.000	1220.000	613.600	0.000
BT	1220.000	616.600	610.300	1240.000	616.900	610.300	1240.000	613.900	0.000	1310.400
BT	614.900	0.000	1392.300	616.100	0.000	1474.200	617.600	0.000	1556.100	618.600
BT	0.000	1638.000	619.600	0.000	1719.900	620.300	0.000	1801.800	620.800	0.000
BT	1883.700	621.000	0.000	1965.600	621.100	0.000	2047.500	621.200	0.000	2129.400
BT	621.300	0.000	2211.300	621.400	0.000	2293.200	621.500	0.000	2375.100	621.600
BT	0.000	2457.000	621.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	613.200	1200.000	613.200	1200.000	610.300	1220.000	607.500	1220.000	606.700	1222.000
GR	605.700	1229.000	606.900	1237.000	608.000	1240.000	610.300	1240.000	614.900	1310.400
GR	616.100	1392.300	617.600	1474.200	618.600	1556.100	619.600	1638.000	620.300	1719.900
GR	620.800	1801.800	621.000	1883.700	621.100	1965.600	621.200	2047.500	621.300	2129.400
GR	621.400	2211.300	621.500	2293.200	621.600	2375.100	621.500	2457.000	0.000	0.000
NC	.080	.060	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2123.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1504.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.100	0.000	619.800	100.000	620.100	200.000	620.000	300.000	619.100	400.000
GR	619.400	500.000	619.600	600.000	619.000	700.000	618.700	800.000	618.500	900.000
GR	617.600	1000.000	616.700	1100.000	616.100	1200.000	615.400	1300.000	614.300	1400.000
GR	610.500	1500.000	606.400	1512.000	605.700	1516.000	606.700	1520.000	610.500	1524.000
GR	609.600	1600.000	610.700	1700.000	612.300	1800.000	613.100	1900.000	613.700	2000.000
GR	614.400	2100.000	614.100	2200.000	613.800	2300.000	612.900	2400.000	613.500	2500.000
GR	613.500	2600.000	613.500	2700.000	613.300	2800.000	613.400	2900.000	613.500	3000.000

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X1	2291.000	0.000	0.000	0.000	100.000	180.000	168.000	0.000	.300	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

X1	2292.000	20.000	248.000	271.500	1.000	1.000	1.000	0.000	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	607.000	248.000
GR	606.000	250.000	606.000	253.000	606.000	256.000	607.000	253.000	609.000	258.000
GR	609.200	261.500	607.200	261.500	606.200	263.500	606.200	266.500	606.200	269.500
GR	607.200	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
SB	0.000	2.530	3.020	0.000	14.850	0.000	109.900	0.000	605.800	606.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

X1	2346.000	20.000	248.000	271.500	54.000	54.000	54.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	616.000	0.000	60.000	615.800	0.000	160.000	615.600	0.000
BT	248.000	615.500	608.800	250.000	615.500	611.800	253.000	615.500	612.800	256.000
BT	615.500	611.800	258.000	615.500	608.800	261.500	615.500	609.100	263.500	615.500
BT	612.100	266.500	615.500	613.100	269.500	615.500	612.100	271.500	615.500	609.100
BT	360.000	615.700	0.000	460.000	616.000	0.000	505.000	616.600	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	606.800	248.000
GR	605.800	250.000	605.800	253.000	605.800	256.000	606.800	258.000	608.800	258.000
GR	609.100	261.500	607.100	261.500	606.100	263.500	606.100	266.500	606.100	269.500
GR	607.100	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2347.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.200	0.000	619.900	100.000	620.200	200.000	620.100	300.000	619.200	400.000
GR	619.500	500.000	619.700	600.000	619.100	700.000	618.800	800.000	618.600	900.000
GR	617.700	1000.000	616.800	1100.000	616.200	1200.000	615.500	1300.000	614.400	1400.000
GR	610.600	1500.000	606.500	1512.000	605.800	1516.000	606.800	1520.000	610.600	1524.000
GR	609.700	1600.000	610.800	1700.000	612.400	1800.000	613.200	1900.000	613.800	2000.000
GR	614.500	2100.000	614.200	2200.000	613.900	2300.000	613.900	2400.000	613.600	2500.000
GR	613.600	2600.000	613.600	2700.000	613.400	2800.000	613.500	2900.000	613.600	3000.000

X1	2627.000	14.000	265.000	300.000	275.000	290.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	615.200	0.000	614.000	100.000	613.200	200.000	612.500	265.000	609.200	275.000
GR	608.100	282.000	607.400	284.000	607.100	286.000	607.600	289.000	609.300	290.000
GR	609.800	294.000	612.200	300.000	613.300	500.000	615.500	600.000	0.000	0.000

X1	2907.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	356.000	0.000	0.000	0.000	0.000

X1	3187.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	366.000	0.000	0.000	0.000	0.000
NH	5.000	.065	265.000	.080	275.000	.045	290.000	.080	300.000	.065

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NH	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION H

X1	3466.000	14.000	265.000	300.000	275.000	290.000	279.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	386.000	0.000	0.000	0.000	0.000
GR	619.200	0.000	618.000	100.000	617.200	200.000	616.500	265.000	613.200	275.000
GR	612.100	282.000	611.400	284.000	611.100	286.000	611.600	289.000	613.300	290.000
GR	613.800	294.000	616.200	300.000	617.300	500.000	619.500	600.000	0.000	0.000
NH	5.000	.060	400.000	.080	405.000	.050	420.000	.060	426.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION I

X1	5226.000	16.000	400.000	426.000	1830.000	1710.000	1760.000	0.000	0.000	0.000
GR	625.400	0.000	625.600	100.000	626.000	200.000	624.300	300.000	619.600	400.000
GR	615.100	410.000	614.000	412.000	614.000	414.000	614.300	416.000	614.500	419.000
GR	619.000	426.000	619.400	500.000	619.600	550.000	623.400	600.000	625.700	700.000
GR	626.200	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5795.000	5.000	0.000	33.000	620.000	530.000	569.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1.600	0.000	32.000	0.000	0.000	0.000	0.000
GR	623.300	0.000	617.900	9.000	616.100	16.000	617.700	22.000	623.500	33.000
QT	4.000	195.000	290.000	355.000	475.000	0.000	0.000	0.000	0.000	0.000

X1	5835.000	5.000	0.000	53.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	11.000	0.000	22.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.200	16.000	617.800	22.000	623.600	33.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5836.000	19.000	494.500	505.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.200	494.500	616.200	497.000	615.200	500.000
GR	616.200	503.000	617.200	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000
SB	0.000	2.520	3.020	0.000	8.430	0.000	59.000	0.000	616.500	615.200

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5892.000	19.000	494.500	505.500	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
BT	17.000	0.000	626.900	0.000	100.000	627.200	0.000	200.000	627.500	0.000
BT	300.000	626.800	0.000	400.000	624.900	0.000	494.500	625.200	617.500	494.500
BT	625.200	619.500	497.000	625.200	622.500	500.000	625.200	623.500	503.000	625.200
BT	622.500	505.500	625.200	619.500	505.500	625.200	617.500	600.000	624.700	0.000
BT	700.000	626.300	0.000	800.000	627.600	0.000	900.000	628.700	0.000	1000.000
BT	629.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.500	494.500	616.500	497.000	615.500	500.000
GR	616.500	503.000	617.500	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000

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NC	.090	.090	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION K

X1	5893.000	5.000	0.000	33.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0.000	23.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.500	16.000	617.800	22.000	623.600	33.000
X1	5937.000	11.000	200.000	226.000	45.000	45.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	193.000	0.000	233.000	0.000	0.000	0.000	0.000
GR	625.800	0.000	623.100	100.000	622.000	200.000	619.200	205.000	618.200	207.000
GR	617.800	215.000	618.300	219.000	621.500	226.000	622.100	300.000	622.900	345.000
GR	626.500	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5981.000	11.000	200.000	226.000	40.000	40.000	44.000	0.000	0.000	0.000
GR	627.100	0.000	624.400	100.000	623.300	200.000	620.500	205.000	619.500	207.000
GR	619.100	215.000	619.600	219.000	622.800	226.000	623.400	300.000	624.200	345.000
GR	627.600	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

X1	5982.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.220	2.540	0.000	4.360	0.000	24.100	0.000	619.500	619.100
NC	1.000	1.000	.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

X1	6056.000	43.000	1490.000	1516.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1290.000	0.000	1690.000	0.000	0.000	0.000	0.000
BT	10.000	1290.000	629.200	0.000	1400.000	629.200	0.000	1500.000	629.200	623.000
BT	1501.000	629.200	624.400	1502.000	629.200	625.000	1503.500	629.200	625.000	1504.500
BT	629.200	624.400	1505.500	629.200	623.000	1600.000	629.400	0.000	1690.000	629.400
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	630.200	0.000	630.100	100.000	629.800	200.000	629.600	300.000	629.600	400.000
GR	629.400	500.000	629.100	600.000	629.000	700.000	628.900	800.000	629.000	873.000
GR	628.900	900.000	629.000	1000.000	629.000	1100.000	629.100	1200.000	627.500	1290.000
GR	624.800	1390.000	623.700	1490.000	623.000	1500.000	621.500	1500.000	620.100	1501.000
GR	619.500	1502.000	619.500	1503.500	620.100	1504.500	621.500	1505.500	623.000	1505.500
GR	623.200	1516.000	623.800	1590.000	624.600	1635.000	628.000	1690.000	629.500	1800.000
GR	629.800	1900.000	630.100	2000.000	630.000	2100.000	630.000	2200.000	629.800	2300.000
GR	629.500	2400.000	629.500	2500.000	630.000	2522.000	629.800	2600.000	629.900	2700.000
GR	629.900	2800.000	630.000	2900.000	629.900	3000.000	0.000	0.000	0.000	0.000
NC	1.000	1.000	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6057.000	11.000	200.000	226.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	627.500	0.000	624.800	100.000	623.700	200.000	620.900	205.000	619.900	207.000
GR	619.500	215.000	620.000	219.000	623.200	226.000	623.800	300.000	624.600	345.000
GR	628.000	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION M

X1	6076.000	11.000	200.000	226.000	30.000	30.000	19.000	0.000	0.000	0.000
GR	627.900	0.000	625.200	100.000	624.100	200.000	621.300	205.000	620.300	207.000
GR	619.900	215.000	620.400	219.000	623.600	226.000	624.200	300.000	625.000	345.000
GR	628.400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	6675.000	28.000	800.000	817.000	600.000	570.000	599.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

X1	6676.000	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	710.000	0.000	830.000	0.000	0.000	0.000	0.000
SB	0.000	2.840	3.020	0.000	7.840	0.000	54.900	0.000	621.900	621.900
NC	.105	.105	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

X1	6754.000	38.000	1495.000	1505.000	78.000	78.000	78.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1400.000	0.000	1520.000	0.000	0.000	0.000	0.000
BT	7.000	1400.000	629.400	0.000	1495.000	630.300	624.900	1497.000	630.300	627.900
BT	1500.000	630.300	628.500	1503.000	630.300	627.900	1505.000	630.200	624.900	1520.000
BT	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	645.000	0.000	644.000	100.000	643.100	200.000	641.000	300.000	640.400	400.000
GR	640.200	448.000	639.600	500.000	639.000	600.000	638.000	700.000	637.000	800.000
GR	636.100	900.000	635.400	980.000	635.300	1000.000	634.000	1100.000	631.900	1200.000
GR	630.500	1390.000	629.400	1400.000	626.700	1492.000	624.900	1495.000	622.900	1495.000
GR	621.900	1497.000	621.900	1500.000	621.900	1503.000	622.900	1505.000	624.900	1505.000
GR	626.900	1509.000	629.200	1600.000	630.200	1700.000	631.000	1800.000	632.100	1900.000
GR	631.400	2000.000	630.300	2100.000	629.700	2200.000	629.300	2300.000	628.900	2400.000
GR	628.100	2500.000	627.700	2600.000	627.700	2670.000	0.000	0.000	0.000	0.000
NC	.125	.125	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6755.000	28.000	805.000	815.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION 3

X1	6784.000	28.000	800.000	817.000	30.000	30.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.700	0.000	637.700	100.000	636.600	200.000	634.800	301.000	635.300	400.000
GR	634.100	500.000	631.600	600.000	630.000	700.000	626.500	800.000	624.500	805.000
GR	621.700	810.000	623.400	815.000	626.700	817.000	628.500	900.000	628.700	920.000
GR	630.500	1000.000	631.300	1100.000	631.800	1200.000	632.000	1250.000	631.600	1300.000
GR	630.300	1400.000	629.900	1462.000	629.600	1500.000	629.100	1600.000	628.900	1700.000
GR	628.200	1800.000	628.000	1900.000	628.400	1989.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6964.000	0.000	0.000	0.000	170.000	190.000	180.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	720.000	0.000	910.000	0.000	0.000	0.000	0.000

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X1	7144.000	13.000	300.000	330.000	170.000	190.000	180.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	201.000	0.000	470.000	0.000	0.000	0.000	0.000
GR	636.700	0.000	636.200	100.000	635.600	138.000	632.300	150.000	627.500	200.000
GR	626.500	300.000	625.000	304.000	624.500	311.000	625.000	326.000	626.700	330.000
GR	629.100	400.000	633.300	500.000	634.000	600.000	0.000	0.000	0.000	0.000

VALLEY SECTION P

X1	7314.000	13.000	300.000	330.000	170.000	160.000	170.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	59.000	0.000	459.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	637.500	100.000	636.900	138.000	633.600	150.000	628.800	200.000
GR	627.800	300.000	626.300	304.000	625.800	311.000	626.300	326.000	625.000	330.000
GR	630.400	400.000	634.000	500.000	635.300	600.000	0.000	0.000	0.000	0.000
NC	.200	.200	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7873.000	0.000	0.000	0.000	490.000	550.000	559.000	0.000	1.500	0.000
X3	0.000	0.000	0.000	199.000	0.000	319.000	0.000	0.000	0.000	0.000
NC	.500	.500	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7893.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.100	0.000
X3	0.000	0.000	0.000	204.000	0.000	314.000	0.000	0.000	0.000	0.000
NC	.600	.600	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

X1	7894.000	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	204.000	0.000	314.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.020	0.000	3.060	0.000	28.270	0.000	627.500	627.400
NC	.800	.060	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

X1	7954.000	25.000	662.000	376.000	60.600	60.000	60.000	0.600	0.000	0.000
X2	0.000	0.000	1.000	621.000	635.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	786.000	0.000	876.000	0.000	0.000	0.000	0.000
BT	20.000	766.000	635.000	0.000	788.700	635.100	0.000	870.000	637.000	630.500
BT	871.000	637.000	633.000	572.000	637.000	633.500	674.000	637.000	633.500	875.000
BT	637.000	633.000	376.000	537.000	550.500	923.700	639.700	0.000	956.500	640.200
BT	0.000	1040.400	642.500	0.000	1124.300	644.700	0.000	1208.200	646.200	0.000
BT	1292.100	646.600	0.000	1376.000	647.000	0.000	1459.900	647.300	0.000	1543.800
BT	647.600	0.000	1627.700	567.700	0.000	1711.600	648.900	0.000	1732.500	649.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	635.000	766.000	632.600	706.000	631.900	788.700	629.700	862.000	630.500	870.000
GR	629.500	870.000	628.000	871.000	627.500	872.000	627.500	874.000	628.000	875.000
GR	629.500	876.000	630.500	876.000	637.000	876.000	639.700	923.700	640.200	956.500
GR	642.900	1040.400	644.700	1124.300	646.200	1208.200	646.600	1292.100	647.000	1376.000
GR	647.300	1459.900	647.600	1543.800	647.700	1627.700	648.900	1711.600	649.000	1732.500
NC	1.000	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7955.000	12.000	300.000	325.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	207.000	0.000	318.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	635.200	100.000	632.800	200.000	629.700	300.000	627.900	308.000
GR	627.500	314.000	628.200	319.000	629.400	325.000	631.400	400.000	633.100	450.000
GR	642.600	500.000	643.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.500	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION R

X1	7984.000	12.000	300.000	325.000	40.000	40.000	29.000	0.000	0.000	0.000

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X3	0.000	0.000	0.000	214.000	0.000	347.000	0.000	0.000	0.000	0.000
GR	639.400	0.000	636.600	100.000	634.200	200.000	631.100	300.000	629.300	308.000
GR	628.900	314.000	629.600	319.000	630.800	325.000	632.800	400.000	634.500	450.000
GR	644.000	500.000	644.700	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.050	400.000	.080	408.000	.050	421.000	.080	427.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	403.000	425.000	0.000	0.000	0.000

VALLEY SECTION S

X1	8544.000	15.000	400.000	427.000	520.000	560.000	560.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.200	400.000	631.200	408.000	630.500	414.000	632.600	421.000	636.100	427.000
GR	635.600	500.000	637.500	555.000	643.100	600.000	646.200	700.000	649.000	800.000
ET	0.000	6.100	6.100	6.100	0.000	408.000	420.000	0.000	0.000	0.000

X1	8563.000	0.000	0.000	0.000	20.000	20.000	19.000	0.000	.300	0.000
NC	.060	.060	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	410.000	422.000	0.000	0.000	0.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

X1	8564.000	16.000	410.000	422.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.100	0.000	649.500	100.000	648.200	200.000	646.500	300.000	640.800	365.000
GR	637.500	400.000	638.300	410.000	630.800	410.000	630.800	416.000	630.800	422.000
GR	638.300	422.000	635.700	500.000	637.100	560.000	642.900	600.000	646.400	700.000
GR	648.700	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.680	0.000	9.000	0.000	54.000	0.000	631.000	630.800

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

X1	8583.000	16.000	410.000	422.000	19.000	19.000	19.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	410.000	638.500	634.000	410.000	638.500	634.000	416.000	638.500	637.000
BT	422.000	638.500	634.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.700	400.000	638.500	410.000	631.000	410.000	631.000	416.000	631.000	422.000
GR	638.500	422.000	635.900	500.000	637.300	560.000	643.100	600.000	646.600	700.000
GR	648.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	407.000	421.000	0.000	0.000	0.000

X1	8584.000	15.000	400.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.800	0.000	650.200	100.000	648.900	200.000	647.200	300.000	641.500	365.000
GR	637.700	400.000	631.700	408.000	631.000	414.000	633.100	421.000	636.600	427.000
GR	636.100	500.000	638.000	555.000	643.000	600.000	646.700	700.000	649.500	800.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	380.000	431.000	0.000	0.000	0.000

VALLEY SECTION U

X1	8613.000	14.000	400.000	431.000	30.000	30.000	29.000	0.000	0.000	0.000
GR	649.800	0.000	649.100	100.000	647.800	200.000	646.200	300.000	638.500	335.000
GR	636.100	400.000	630.700	408.000	630.800	414.000	631.200	424.000	637.300	431.000
GR	634.800	500.000	642.600	600.000	646.100	700.000	648.600	800.000	0.000	0.000
NC	.065	.065	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9163.000	26.000	1247.000	1266.000	550.000	550.000	550.000	0.000	-6.100	0.000
GR	656.000	0.000	656.400	100.000	655.200	200.000	654.800	300.000	654.300	400.000

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GR	553.300	500.000	652.000	600.000	650.500	700.000	650.900	800.000	651.400	900.000
GR	651.600	1000.000	650.300	1100.000	648.400	1150.000	644.400	1200.000	642.100	1247.000
GR	640.300	1252.000	638.800	1256.000	639.700	1260.000	642.500	1266.000	643.400	1300.000
GR	646.700	1400.000	650.700	1500.000	651.400	1600.000	652.400	1700.000	653.400	1800.000
GR	654.100	1900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9703.000	0.000	0.000	0.000	540.000	540.000	540.000	0.000	2.000	0.000
NC	.075	.075	.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10253.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.100	0.000
NC	.080	.080	.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	170.000	255.000	295.000	420.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION V

X1	10803.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.000	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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*PROF 1

CCHV=     .300 CEHV=     .500
*SECNO .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


            MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

            REPEATED AND ADJUSTED FOR CHANNEL INVERT.

       0.00       7.23     604.43       0.00     604.43     604.46       .03       0.00       0.00     601.70
       360.        116.       244.         0.       160.       163.         0.         0.         0.     606.10
       0.00        .72       1.50       0.00       .080       .050       .080      0.000     597.20     921.25
    .000395         0.         0.         0.          0          0          0       0.00      97.79    1019.04


*SECNO 130.000

            VALLEY SECTION A

     130.00       5.49     604.49       0.00       0.00     604.61       .12        .10        .05     603.50
       360.         57.       303.         0.         60.       101.         0.         1.         0.     607.90
        .01        .96       2.98       0.00       .080       .050       .080       .050     599.00     926.30
    .002306       130.       130.       130.          0          0          0       0.00      86.49    1012.79


*SECNO 409.000

3470 ENCROACHMENT STATIONS=      170.0      270.0  TYPE=      1  TARGET=      100.000
     409.00       5.17     605.27       0.00       0.00     605.50       .23        .84        .06     601.30
       360.         83.       188.         89.         52.         37.         56.         2.         1.     601.20
        .04       1.62       5.12       1.57       .080       .050       .080       .050     600.10     170.00
    .004084       280.       279.       280.          2          0          0       0.00      95.34     265.34


*SECNO 410.000

3470 ENCROACHMENT STATIONS=      170.0      270.0  TYPE=      1  TARGET=      100.000

            AMVET DRIVE BRIDGE - DOWNSTREAM FACE

     410.00       5.17     605.27       0.00       0.00     605.51       .23        .00        .00     601.30
       360.         83.       188.         88.         51.         37.         56.         2.         1.     601.20
        .04       1.62       5.12       1.57       .080       .050       .080       .050     600.10     170.00
    .004092         1.         1.         1.          0          0          0       0.00      95.30     265.30


SPECIAL BRIDGE

SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       2.27       2.83       0.00       5.90       0.00      24.80       0.00     600.00     600.10

*SECNO 446.000
   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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PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.70	605.83	0.00	163.	198.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.38	607.38	0.00	0.00	607.51	.13	2.01	0.00	602.00
360.	51.	204.	106.	44.	56.	81.	2.	1.	602.00
.04	1.16	3.67	1.31	.050	.027	.050	.048	600.00	765.00
.000621	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.52	607.52	0.00	0.00	607.54	.02	.00	.03	603.50
360.	59.	207.	94.	107.	133.	158.	2.	1.	603.80
.04	.55	1.56	.56	.080	.040	.080	.048	600.00	170.00
.000182	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED
*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.09	607.49	0.00	0.00	607.64	.15	.03	.06	605.70
360.	41.	265.	54.	33.	77.	24.	2.	1.	606.20
.05	1.27	3.46	2.20	.070	.050	.040	.047	602.40	173.00
.002896	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	4.19	607.39	0.00	0.00	607.95	.55	.11	.20	606.50
360.	13.	343.	4.	9.	56.	2.	2.	1.	607.00
.05	1.45	6.11	1.47	.070	.050	.040	.046	603.20	179.22
.013718	20.	20.	20.	2	0	0	0.00	55.91	235.12

*SECNO 576.000

576.00	4.98	608.18	0.00	0.00	608.39	.22	.35	.10	606.50
360.	35.	301.	24.	33.	74.	21.	2.	1.	607.00
.05	1.07	4.06	1.12	.080	.050	.060	.046	603.20	160.99
.004177	50.	50.	50.	3	0	0	0.00	98.27	259.26

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

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VALLEY SECTION D

1316.00	5.01	608.91	0.00	0.00	618.93	.02	.47	.06	606.80
360.	58.	145.	159.	149.	114.	184.	7.	3.	605.30
.27	.39	1.25	.86	.080	.050	.060	.048	602.90	680.00
.000245	700.	740.	780.	2	0	0	0.00	178.44	858.44

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	4.73	609.03	0.00	0.00	609.09	.06	.14	.02	603.20
360.	7.	184.	163.	14.	82.	113.	10.	4.	606.70
.31	.51	2.25	1.49	.080	.050	.060	.049	604.30	755.00
.001729	320.	370.	300.	2	0	0	0.00	97.25	852.25

*SECNO 1665.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1665.00	4.62	609.08	0.00	0.00	609.14	.06	.05	.00	508.30
360.	4.	187.	169.	7.	80.	110.	10.	5.	606.80
.32	.52	2.33	1.54	.080	.050	.060	.049	604.40	705.00
.001352	40.	40.	40.	1	3	0	0.00	86.95	851.95

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	4.19	609.39	0.00	0.00	609.49	.10	.33	.02	609.10
360.	1.	200.	159.	2.	69.	85.	10.	5.	607.60
.34	.36	2.92	1.87	.080	.050	.060	.049	605.20	705.00
.002630	180.	180.	180.	2	0	0	0.00	84.64	849.64

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.90	609.80	0.00	0.00	610.16	.36	.54	.13	609.80
360.	0.	310.	50.	0.	61.	20.	11.	5.	608.30
.35	0.00	5.11	2.45	.040	.040	.050	.048	605.90	775.01
.006073	140.	140.	140.	2	0	0	0.00	42.99	818.00

*SECNO 2065.000

SECNO	DEPTH	CWSEL	CRI#S	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= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.06	610.26	0.00	0.00	611.05	.76	.67	.20	611.00
355.	0.	355.	0.	0.	51.	0.	11.	5.	611.00
.35	0.00	7.02	0.00	.040	.040	.050	.048	606.20	1502.16
.012499	80.	79.	80.	2	0	0	0.00	21.07	1523.22

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

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     355.       0.      355.       0.       0.      65.       0.      11.       5. 100000.00
      .35      0.00      5.47      0.00     .040     .040     .050     .048   606.00  1502.00
  .005789       20.       20.       20.        3        0        0     0.00    20.00  1522.00
```

```
*SECNO 2086.000

3470 ENCROACHMENT STATIONS=     1502.0     1522.0  TYPE=      1  TARGET=       20.000

          GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

  2086.00      4.83   610.83      0.00      0.00   611.29      .46      .01      .00100000.00
     355.        0.     355.        0.        0.      65.       0.      11.       5. 100000.00
      .35      0.00      5.45      0.00     .040     .040     .050     .048   606.00  1502.00
  .005735        1.        1.        1.        0        0        0     0.00    20.00  1522.00
```

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SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RCLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.03      3.02      0.00      16.43     0.00      75.60     0.00      605.70    606.00
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*SECNO 2122.000
PRESSURE FLOW

 EGPRS      EGLWC      H3        QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                                AREA
  611.52    610.83     0.00        0.      355.       76.       76.       610.30    613.20
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3470 ENCROACHMENT STATIONS=     1220.0     1240.0  TYPE=      1  TARGET=       20.000

          GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

  2122.00      5.61   611.21      0.00      0.00   611.52      .21      .23      0.00    610.30
     355.        0.     355.        0.        0.      95.       0.      11.       5. 100000.00
      .35      0.00      3.71      0.00     .035     .025     .035     .047   605.70  1220.00
  .000744       36.       36.       36.        2        0        0     0.00    20.00  1240.00
```

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*SECNO 2123.000

3470 ENCROACHMENT STATIONS=     1504.0     1524.0  TYPE=      1  TARGET=       20.000
  2123.00      5.56   611.26      0.00      0.00   611.57      .31      .00      .05100000.00
     355.        0.     355.        0.        0.      60.       0.      11.       5. 100000.00
      .34      0.00      4.45      0.00     .080     .060     .060     .047   605.70  1504.00
  .006909        1.        1.        1.        2        0        0     0.00    20.00  1524.00
```

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*SECNO 2291.000
  SECNO     DEPTH     CMSEL     CPINS     WSELM     EG        HV        HL        QLOSS    BANK ELEV
  Q         QLOB      QCH       QPOB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VPOB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST
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3470 ENCROACHMENT STATIONS=     1500.0     1524.0  TYPE=      1  TARGET=       24.000
  2291.00      6.25   612.25      0.00      0.00   612.44      .19      .84      .04    610.80
     355.        0.     355.        0.        0.     102.       0.      11.       5. 100000.00
      .37      0.00      3.48      0.00     .080     .060     .060     .048   606.00  1500.00
  .003754      100.      168.      180.        2        0        0     0.00    24.00  1524.00
```

*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION 6

(DOWNSTREAM FACE)

2292.00	6.35	612.35	0.00	0.00	612.47	.11	.00	.02	615.50
355.	0.	355.	0.	0.	132.	0.	11.	5.	615.50
.37	0.00	2.68	0.00	.035	.032	.035	.048	600.00	248.00
.000643	1.	1.	1.	2	0	0	0.00	25.50	271.50

SPECIAL BRIDGE

SB	XK	XKCR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070:LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 612.268 ELLC= 613.100 PCWSE= 612.355 ELTRD= 615.500

3370 NORMAL BRIDGE;NRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION 6

(UPSTREAM FACE)

2346.00	6.58	612.38	0.00	0.00	612.55	.17	.06	.03	615.50
355.	0.	355.	0.	0.	107.	0.	12.	5.	615.50
.37	0.00	3.53	0.00	.035	.032	.035	.048	605.80	248.00
.002017	54.	54.	54.	2	0	0	-30.04	25.50	271.50

*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	6.60	612.40	0.00	0.00	612.56	.16	.00	.00	610.60
355.	0.	355.	0.	0.	110.	0.	12.	5.	100000.00
.37	0.00	3.22	0.00	.080	.045	.080	.048	605.80	1500.00
.001686	1.	1.	1.	1	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	5.81	612.91	0.00	0.00	613.03	.12	.45	.01	612.50
355.	2.	334.	19.	8.	118.	44.	12.	6.	612.20
.40	.26	2.82	.43	.080	.045	.080	.047	607.10	226.12
.001562	275.	260.	290.	0	0	0	0.00	173.86	400.00

*SECNO 2907.000

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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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 356.0 TYPE= 1 TARGET= 355.999

2907.00	5.02	613.52	0.00	0.00	613.76	.24	.67	.06	613.90
355.	0.	355.	0.	0.	91.	0.	13.	7.	613.60
.42	0.00	3.92	0.00	.080	.045	.080	.047	608.50	266.16
.004085	275.	280.	290.	2	0	0	0.00	35.64	299.75

*SECNO 3187.000

3470 ENCROACHMENT STATIONS= .0 366.0 TYPE= 1 TARGET= 365.999

3187.00	4.92	614.72	0.00	0.00	614.97	.26	1.21	.01	615.20
355.	0.	355.	0.	0.	87.	0.	14.	7.	614.90
.44	0.00	4.09	0.00	.080	.045	.080	.047	609.80	266.40
.004556	275.	280.	290.	2	0	0	0.00	35.05	299.53

1490 NH CARD USED

*SECNO 3466.000

3470 ENCROACHMENT STATIONS= .0 386.0 TYPE= 1 TARGET= 385.999

VALLEY SECTION H

3466.00	4.89	615.99	0.00	0.00	616.25	.26	1.28	.00	616.50
355.	0.	355.	0.	0.	85.	0.	14.	7.	616.20
.46	0.00	4.11	0.00	.080	.078	.080	.047	611.10	266.55
.004593	275.	279.	290.	2	0	0	0.00	32.92	299.47

1490 NH CARD USED

*SECNO 5226.000

VALLEY SECTION I

5226.00	6.30	620.30	0.00	0.00	620.36	.05	4.04	.06	619.60
355.	2.	238.	114.	5.	109.	125.	21.	11.	619.00
.74	.46	2.19	.91	.060	.080	.060	.046	614.00	364.97
.001383	1630.	1760.	1710.	3	0	0	0.00	174.32	559.29

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	5.34	621.44	0.00	0.00	621.73	.29	1.25	.12	100000.00
355.	0.	355.	0.	0.	82.	0.	23.	12.	100000.00
.77	0.00	4.33	0.00	.070	.045	.070	.046	616.10	3.11
.004177	620.	569.	530.	2	0	0	0.00	25.98	29.09

*SECNO 5835.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.29	621.49	0.00	0.00	622.18	.69	.25	.20	100000.00

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.011235	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	5.53	621.73	0.00	0.00	622.24	.51	.01	.05	617.20
335.	0.	335.	0.	0.	58.	0.	23.	12.	100000.00
.77	0.00	5.74	0.00	.040	.032	.040	.046	616.20	494.50
.003677	1.	1.	1.	2	0	0	0.00	11.00	505.50

SPECIAL BRIDGE

SB XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 622.545 ELLC= 623.500 PCWSE= 621.733 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	5.42	621.92	0.00	0.00	622.59	.67	.27	.08	617.50
335.	0.	335.	0.	0.	51.	0.	23.	12.	100000.00
.78	0.00	6.55	0.00	.040	.032	.040	.046	616.50	494.50
.006592	56.	56.	56.	2	0	0	0.00	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.78	622.28	0.00	0.00	622.68	.40	.01	.05	100000.00
335.	0.	335.	0.	0.	66.	0.	23.	12.	100000.00
.78	0.00	5.09	0.00	.090	.060	.090	.046	616.50	10.00
.009693	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	5.02	622.82	0.00	0.00	622.98	.16	.23	.07	622.00
335.	4.	322.	9.	5.	97.	9.	23.	13.	621.50
.78	.76	3.30	1.01	.090	.060	.090	.046	617.80	193.00

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.003322	45.	44.	45.	2	0	0	0.00	40.00	235.00

*SECNO 5981.000

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
5981.00	3.86	622.96	0.00	0.00	623.34	.38	.25	.11	623.30
335.	0.	334.	1.	0.	67.	2.	23.	13.	622.80
.78	0.00	4.96	.34	.090	.060	.090	.046	619.10	200.61
.011866	40.	44.	40.	2	0	0	0.00	45.20	245.87

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.68	622.98	0.00	0.00	623.30	.38	.01	.00	623.30
335.	0.	334.	1.	0.	68.	2.	23.	13.	622.80
.78	0.00	4.95	.34	.090	.060	.090	.046	619.10	200.59
.011760	1.	1.	1.	0	0	0	0.00	40.19	246.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
629.64	626.97	0.00	10.	326.	24.	24.	625.00	629.20

3470 ENCROACHMENT STATIONS= 1290.0 1690.0 TYPE= 1 TARGET= 400.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	9.72	629.22	0.00	0.00	629.27	.05	5.91	0.00	623.70
335.	12.	310.	13.	804.	175.	810.	25.	13.	623.20
.80	.01	1.79	.02	1.000	.010	1.000	.046	619.50	1290.00
.000014	74.	74.	74.	2	0	5	0.00	400.00	1690.00

*SECNO 6057.000

3280 CROSS SECTION 6057.00 EXTENDED 1.74 FEET

6057.00	9.74	629.24	0.00	0.00	629.27	.03	.00	.01	623.70
335.	11.	311.	13.	807.	220.	813.	25.	13.	623.20
.80	.01	1.41	.02	1.000	.015	1.000	.046	619.50	0.00
.000013	1.	1.	1.	1	0	0	0.00	400.00	400.00

*SECNO 6076.000

3280 CROSS SECTION 6076.00 EXTENDED 1.58 FEET

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6076.00	9.38	629.28	0.00	0.00	629.28	.00	.00	.01	624.10
335.	119.	80.	136.	736.	211.	751.	26.	13.	623.60
.83	.16	.38	.18	.060	.040	.060	.046	619.90	0.00
.000007	30.	19.	30.	2	0	0	0.00	400.00	400.00

*SECNO 6675.000
3280 CROSS SECTION 6675.00 EXTENDED .65 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	PLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	7.35	629.25	0.00	0.00	629.34	.09	.01	.04	626.70
335.	64.	245.	26.	93.	88.	29.	39.	17.	626.90
.90	.69	2.78	.90	.080	.045	.080	.046	621.90	727.13
.001001	600.	559.	570.	2	0	0	0.00	102.85	850.00

*SECNO 6676.000
3280 CROSS SECTION 6676.00 EXTENDED .65 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	7.35	629.25	0.00	0.00	629.34	.09	.00	.00	626.70
335.	64.	245.	26.	93.	88.	29.	39.	17.	626.90
.90	.69	2.78	.90	.080	.045	.080	.046	621.90	727.12
.001001	1.	1.	1.	0	0	0	0.00	102.85	850.00

SPECIAL BRIDGE

SS	XK	XKOR	LOFD	RDLEN	BWC	BWP	BAREA	SS	ELCHO	ELCHD
	0.00	2.84	5.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.65 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
630.89	629.43	0.00	75.	250.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.25	630.15	0.00	0.00	630.24	.09	.90	0.00	624.90

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	335.	77.	235.	23.	206.	80.	51.	39.	17.	624.90
	.91	.37	2.93	.45	.105	.025	.105	.045	621.90	1400.00
	.000246	78.	78.	78.	2	0	4	0.00	120.00	1520.00

*SECNO 6755.000

3280 CROSS SECTION 6755.00 EXTENDED 1.55 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.24	630.14	0.00	0.00	630.25	.11	.00	.01	624.70
335.	81.	230.	24.	191.	71.	50.	39.	17.	623.60
.91	.43	3.22	.42	.125	.035	.125	.045	621.90	710.00
.000478	1.	1.	1.	0	0	0	0.00	120.00	830.00

*SECNO 6784.000

3280 CROSS SECTION 6784.00 EXTENDED 1.65 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	8.55	630.25	0.00	0.00	630.28	.04	.01	.02	626.50
335.	102.	207.	27.	195.	108.	44.	40.	17.	626.70
.91	.52	1.91	.61	.080	.040	.080	.045	621.70	710.00
.000282	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000

3280 CROSS SECTION 6964.00 EXTENDED .52 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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.23	630.33	0.00	0.00	630.37	.04	.09	.00	627.90
335.	65.	179.	91.	84.	86.	115.	41.	17.	628.10
.95	.77	2.08	.81	.070	.060	.070	.046	623.10	750.80
.001031	170.	180.	190.	1	0	0	0.00	179.20	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	5.92	630.42	0.00	0.00	630.42	.00	.04	.01	626.50
335.	152.	115.	69.	339.	162.	197.	43.	18.	626.70
1.04	.45	.71	.35	.070	.060	.070	.046	624.50	201.00
.000090	170.	180.	190.	2	0	0	0.00	250.32	431.32

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	4.64	630.44	0.00	0.00	630.45	.01	.03	.00	627.80

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335.	148.	147.	40.	228.	125.	87.	45.	19.	823.00
1.10	.65	1.19	.46	.070	.060	.070	.046	625.80	182.93
.000361	170.	170.	180.	2	0	0	0.00	217.99	400.92

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	3.54	630.84	0.00	0.00	631.04	.24	.52	.12	629.30
335.	70.	265.	0.	106.	60.	0.	49.	21.	100000.00
1.14	.66	4.45	0.00	.200	.055	.200	.047	627.30	199.00
.007428	490.	559.	550.	2	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.46	630.86	630.65	0.00	631.54	.68	.24	.22	629.40
335.	41.	294.	0.	96.	42.	0.	49.	21.	100000.00
1.14	.43	7.08	0.00	.500	.055	.500	.047	627.40	204.00
.021959	20.	20.	20.	4	11	0	0.00	110.00	314.00

*SECNO 7894.000

SECNO	DEPTH	CWSEL	CRINS	WSELK	EG	EV	HL	OLOSS	BANK ELEV
0	CLOB	OCH	OROB	ALOB	ALCH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.44	630.84	630.63	0.00	631.60	.76	.02	.04	629.40
335.	31.	304.	0.	92.	41.	0.	49.	21.	100000.00
1.14	.34	7.36	0.00	.600	.050	.600	.047	627.40	204.00
.019732	1.	1.	1.	4	11	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	BHC	BHP	BAREA	SS	ELCHO	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPPS	EGLWC	HL	CREIN	CPR	EAREA	TRAPEZOID AREA	ELLC	ELTRD
636.23	633.77	0.00	24.	311.	26.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	7.80	635.50	0.00	0.00	635.49	.18	3.88	0.00	629.70
335.	38.	304.	0.	100.	85.	0.	49.	21.	100000.00

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1.15	.07	3.58	0.00	.800	.015	.060	.047	627.50	786.00
.000223	60.	60.	60.	2	0	4	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS=		267.0	318.0	TYPE=	1	TARGET=	111.000		
7955.00	7.94	635.44	0.00	0.00	635.52	.08	.00	.05	629.70
335.	33.	302.	0.	400.	130.	0.	49.	21.	100000.00
1.15	.08	2.32	0.00	1.000	.040	.080	.047	627.50	207.00
.000447	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 216.0 347.0 TYPE= 1 TARGET= 135.000

VALLEY SECTION R

7984.00	6.61	635.51	0.00	0.00	635.54	.03	.01	.01	631.10
335.	22.	255.	79.	265.	144.	97.	50.	22.	630.80
1.15	.08	1.62	.81	.500	.040	.060	.047	626.90	214.00
.000188	40.	29.	40.	2	0	0	0.00	153.00	347.00

1490 NH CARD USED
*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	5.17	635.67	0.00	0.00	635.95	.28	.29	.13	100000.00
335.	0.	335.	0.	0.	79.	0.	53.	23.	100000.00
1.19	0.00	4.27	0.00	.500	.078	.060	.046	630.50	403.00
.006287	520.	560.	560.	1	0	0	0.00	22.00	425.00

*SECNO 8563.000

SECNO	DEPTH	TWSEL	CRITS	*SELV	EG	HV	HL	OLOSS	BANK ELEV
Q	SLOP	SCH	SROB	ALOB	ACH	AROB	VOL	TW	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	WTN	ELMIN	SSTA
SLOPE	ALOBL	ALCH	ALROB	FIRIAL	ILL	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	4.80	635.60	0.00	0.00	636.30	.69	.14	.21	100000.00
335.	0.	335.	0.	0.	50.	0.	53.	23.	100000.00
1.19	0.00	6.68	0.00	.500	.050	.060	.046	630.80	408.00
.014372	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	5.11	635.91	0.00	0.00	636.37	.46	.00	.07	638.30
335.	0.	335.	0.	0.	61.	0.	53.	23.	100000.00
1.19	0.00	5.46	0.00	.060	.025	.060	.046	630.80	410.00
.002183	1.	1.	1.	2	0	0	0.00	12.00	422.00

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SPECIAL BRIDGE #

SB	XK	XKOR	COFG	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.558 ELLC= 637.000 PCWSE= 635.905 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.81	635.81	0.00	0.00	636.60	.79	.07	.17	638.50
335.	0.	335.	0.	0.	47.	0.	53.	23.	638.50
1.19	0.00	7.15	0.00	.060	.025	.060	.045	631.00	410.00
.007154	19.	19.	19.	2	0	0	-10.84	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	5.29	636.29	0.00	0.00	636.72	.43	.01	.11100000.00	
335.	0.	335.	0.	0.	63.	0.	53.	23.	100000.00
1.19	0.00	5.28	0.00	.060	.050	.060	.045	631.00	407.00
.007502	1.	1.	1.	3	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	6.10	636.80	0.00	0.00	636.68	.09	.06	.10	636.10
335.	3.	332.	0.	7.	139.	6.	54.	23.	100000.00
1.19	.29	2.39	0.00	.060	.050	.060	.046	630.70	381.14
.000989	30.	29.	30.	2	0	0	0.00	49.28	430.42

*SECNO 9163.000

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	YNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9163.00	5.04	637.74	0.00	0.00	637.92	.18	.99	.04	636.00
335.	42.	250.	43.	31.	65.	53.	55.	23.	636.40
1.24	1.36	3.83	1.30	.065	.055	.065	.047	632.70	1211.43
.004245	550.	550.	550.	3	0	0	0.00	101.93	1313.35

*SECNO 9703.000

9703.00	5.24	639.94	0.00	0.00	640.07	.13	2.14	.01	638.00
335.	48.	234.	53.	38.	69.	43.	57.	25.	638.40
1.30	1.26	3.40	1.25	.070	.060	.070	.048	634.70	1207.55
.003696	540.	540.	540.	3	0	0	0.00	111.55	1319.10

*SECNO 10253.000

10253.00	5.27	642.07	0.00	0.00	642.19	.12	2.12	.00	640.10
335.	49.	230.	56.	40.	70.	45.	59.	26.	640.50

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1.35	1.25	3.30	1.24	.075	.065	.075	.048	636.80	1206.72
.004039	550.	550.	550.	2	0	0	0.00	113.61	1520.34

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.33	644.13	0.00	0.00	644.22	.09	2.01	.01	642.10
295.	45.	198.	52.	42.	71.	48.	61.	28.	642.50
1.42	1.07	2.80	1.08	.080	.070	.080	.050	638.80	1205.51
.003288	550.	550.	550.	2	0	0	0.00	116.63	1522.15

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00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: 100 year Natural floodway

00BREAK00

VILLAGE OF NEW HAVEN F.I.S.

JOB NO. 5850-05

SHOCK DRAIN

100-YEAR NATURAL FLOODWAY

[illegible] AND [illegible], INC. [illegible]

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

C
T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      100-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.      4.        0.        0.   0.000000      0.00      0.0       0.   604.430     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
    38.000    40.000    41.000    42.000    43.000     1.000     8.000    10.000    12.000     5.000

    33.000     4.000    25.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      .080      .080      .050      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   210.000   310.000   360.000   505.000     0.000     0.000     0.000     0.000     0.000

MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A
REPEATED AND ADJUSTED FOR CHANNEL INVERT.
X1      0.000    11.000   981.000  1025.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    605.900   917.000   601.400   930.000   601.700   981.000   598.400   986.000   597.200   991.000
GR    598.200   996.000   599.100  1000.000   606.100  1025.000   606.400  1100.000   607.300  1200.000
GR    610.100  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

VALLEY SECTION A
X1    130.000    11.000   981.000  1025.000   130.000   130.000   130.000     0.000     0.000     0.000
GR    607.700   917.000   603.200   930.000   603.500   981.000   600.200   986.000   599.000   991.000
GR    600.000   996.000   600.900  1000.000   607.900  1025.000   608.200  1100.000   609.100  1200.000
GR    611.900  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    409.000     9.000   205.000   213.000   280.000   280.000   279.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR    609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR    601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000

AMVET DRIVE BRIDGE - DOWNSTREAM FACE
X1    410.000     9.000   205.000   213.000     1.000     1.000     1.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR    609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR    601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000
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NC	.050	.050	.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000

AMVET DRIVE BRIDGE - UPSTREAM FACE, TWIN 48-INCH C.M.P. - SECTION B

X1	446.000	32.000	800.000	808.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	765.000	0.000	865.000	0.000	0.000	0.000	0.000
BT	17.000	765.000	607.000	0.000	790.000	606.700	0.000	800.000	606.600	602.000
BT	800.100	606.600	602.800	801.000	606.600	603.800	802.000	606.600	604.000	603.000
BT	606.600	603.800	803.900	606.600	602.800	804.000	606.600	602.000	804.100	606.600
BT	602.800	805.000	606.600	603.800	806.000	606.700	604.000	807.000	606.700	603.800
BT	807.900	606.700	602.800	808.000	606.700	602.000	830.000	606.800	0.000	865.000
BT	607.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.100	0.000	613.500	100.000	611.200	200.000	611.300	300.000	611.500	400.000
GR	610.900	500.000	610.200	600.000	607.600	700.000	607.000	765.000	606.700	790.000
GR	602.000	800.000	601.200	800.100	600.200	801.000	600.000	802.000	600.200	803.000
GR	601.200	803.900	602.000	804.000	601.200	804.100	600.200	805.000	600.000	806.000
GR	600.200	807.000	601.200	807.900	602.000	808.000	605.800	830.000	607.100	865.000
GR	607.300	900.000	608.100	1000.000	608.700	1100.000	610.000	1200.000	610.300	1300.000
GR	610.900	1400.000	612.300	1458.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	447.000	9.000	200.000	223.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	609.200	0.000	607.600	100.000	603.300	200.000	601.200	205.000	600.000	209.000
GR	601.100	213.000	603.800	223.000	604.300	300.000	607.600	400.000	0.000	0.000
NH	4.000	.040	150.000	.070	200.000	.050	223.000	.040	400.000	0.000

X1	506.000	0.000	0.000	0.000	50.000	70.000	59.000	0.000	2.400	0.000
X3	0.000	0.000	0.000	173.000	0.000	243.000	0.000	0.000	0.000	0.000

VALLEY SECTION C

X1	526.000	9.000	200.000	223.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	612.400	0.000	610.800	100.000	606.500	200.000	604.400	205.000	603.200	209.000
GR	604.300	213.000	607.000	223.000	609.500	300.000	610.800	400.000	0.000	0.000
NC	.080	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	576.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

VALLEY SECTION D

X1	1316.000	19.000	775.000	800.000	700.000	760.000	740.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.600	0.000	614.900	90.000	613.500	190.000	612.700	290.000	612.500	390.000
GR	612.500	390.000	612.300	490.000	610.800	590.000	610.100	620.000	607.100	627.000
GR	607.800	690.000	606.800	775.000	604.000	785.000	602.900	790.000	603.900	797.000
GR	605.300	800.000	605.100	840.000	611.100	869.000	611.500	890.000	0.000	0.000

X1	1626.000	0.000	0.000	0.000	320.000	300.000	310.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	755.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1666.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1846.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.800	0.000
X3	0.000	0.000	0.000	765.000	0.000	853.000	0.000	0.000	0.000	0.000

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NC	.040	.030	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1986.000	19.000	775.000	800.000	140.000	140.000	140.000	0.000	-.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	818.000	0.000	0.000	0.000	0.000
GR	618.700	0.000	618.000	90.000	616.600	190.000	615.800	290.000	615.600	390.000
GR	615.600	390.000	615.400	490.000	613.900	590.000	613.200	620.000	610.200	627.000
GR	610.900	690.000	609.900	775.000	607.100	765.000	606.000	790.000	607.100	797.000
GR	608.400	800.000	610.400	850.000	614.200	869.000	614.600	890.000	0.000	0.000
QT	4.000	205.000	305.000	355.000	500.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION E

X1	2065.000	35.000	1500.000	1524.000	80.000	80.000	79.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1497.000	0.000	1527.000	0.000	0.000	0.000	0.000
GR	620.600	0.000	620.300	100.000	620.600	200.000	620.500	300.000	619.600	400.000
GR	619.900	500.000	620.100	600.000	619.500	700.000	619.200	800.000	619.000	900.000
GR	618.100	1000.000	617.200	1100.000	616.600	1200.000	615.900	1300.000	614.800	1400.000
GR	611.000	1500.000	606.900	1512.000	606.200	1516.000	607.200	1520.000	611.000	1524.000
GR	610.100	1600.000	611.200	1700.000	612.800	1800.000	613.600	1900.000	614.200	2000.000
GR	614.900	2100.000	614.600	2200.000	614.300	2300.000	613.400	2400.000	614.000	2500.000
GR	614.000	2600.000	614.000	2700.000	613.800	2800.000	613.900	2900.000	614.000	3000.000
X1	2085.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	-.200	0.000
X3	0.000	0.000	0.000	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

X1	2086.000	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	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000
SB	0.000	2.030	3.020	0.000	16.450	0.000	75.600	0.000	605.700	606.000
NC	.035	.035	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

X1	2122.000	24.000	1220.000	1240.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1220.000	0.000	1240.000	0.000	0.000	0.000	0.000
BT	21.000	1200.000	613.200	0.000	1200.000	613.200	0.000	1220.000	613.600	0.000
BT	1220.000	616.600	610.300	1240.000	616.900	610.300	1240.000	613.900	0.000	1310.400
BT	614.900	0.000	1392.300	616.100	0.000	1474.200	617.600	0.000	1556.100	618.600
BT	0.000	1638.000	619.600	0.000	1719.900	620.300	0.000	1801.800	620.800	0.000
BT	1883.700	621.000	0.000	1965.600	621.100	0.000	2047.500	621.200	0.000	2129.400
BT	621.300	0.000	2211.300	621.400	0.000	2293.200	621.500	0.000	2375.100	621.600
BT	0.000	2457.000	621.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	613.200	1200.000	613.200	1200.000	610.300	1220.000	607.500	1220.000	606.700	1222.000
GR	605.700	1229.000	606.900	1237.000	608.000	1240.000	610.300	1240.000	614.900	1310.400
GR	616.100	1392.300	617.600	1474.200	618.600	1556.100	619.600	1638.000	620.300	1719.900
GR	620.800	1801.800	621.000	1883.700	621.100	1965.600	621.200	2047.500	621.300	2129.400
GR	621.400	2211.300	621.500	2293.200	621.600	2375.100	621.500	2457.000	0.000	0.000
NC	.080	.060	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2123.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1504.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.100	0.000	619.800	100.000	620.100	200.000	620.000	300.000	619.100	400.000
GR	619.400	500.000	619.600	600.000	619.000	700.000	618.700	800.000	618.500	900.000
GR	617.600	1000.000	616.700	1100.000	616.100	1200.000	615.400	1300.000	614.300	1400.000
GR	610.500	1500.000	606.400	1512.000	605.700	1516.000	606.700	1520.000	610.500	1524.000
GR	609.600	1600.000	610.700	1700.000	612.300	1800.000	613.100	1900.000	613.700	2000.000
GR	614.400	2100.000	614.100	2200.000	613.800	2300.000	612.900	2400.000	613.500	2500.000
GR	613.500	2600.000	613.500	2700.000	613.300	2800.000	613.400	2900.000	613.500	3000.000

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X1	2291.000	0.000	0.000	0.000	100.000	180.000	168.000	0.000	.300	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

X1	2292.000	20.000	248.000	271.500	1.000	1.000	1.000	0.000	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	607.000	248.000
GR	606.000	250.000	606.000	253.000	606.000	256.000	607.000	253.000	609.000	258.000
GR	609.200	261.500	607.200	261.500	606.200	263.500	606.200	266.500	606.200	269.500
GR	607.200	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
SB	0.000	2.530	3.020	0.000	14.850	0.000	109.900	0.000	605.800	606.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

X1	2346.000	20.000	248.000	271.500	54.000	54.000	54.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	616.000	0.000	60.000	615.800	0.000	160.000	615.600	0.000
BT	248.000	615.500	608.800	250.000	615.500	611.800	253.000	615.500	612.800	256.000
BT	615.500	611.800	258.000	615.500	608.800	261.500	615.500	609.100	263.500	615.500
BT	612.100	266.500	615.500	613.100	269.500	615.500	612.100	271.500	615.500	609.100
BT	360.000	615.700	0.000	460.000	616.000	0.000	505.000	616.600	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	606.800	248.000
GR	605.800	250.000	605.800	253.000	605.800	256.000	606.800	258.000	608.800	258.000
GR	609.100	261.500	607.100	261.500	606.100	263.500	606.100	266.500	606.100	269.500
GR	607.100	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2347.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.200	0.000	619.500	100.000	620.200	200.000	620.100	300.000	619.200	400.000
GR	619.500	500.000	619.700	600.000	619.100	700.000	618.800	800.000	618.600	900.000
GR	617.700	1000.000	616.800	1100.000	616.200	1200.000	615.500	1300.000	614.400	1400.000
GR	610.600	1500.000	606.500	1512.000	605.800	1516.000	606.800	1520.000	610.600	1524.000
GR	609.700	1600.000	610.800	1700.000	612.400	1800.000	613.200	1900.000	613.800	2000.000
GR	614.500	2100.000	614.200	2200.000	613.900	2300.000	613.900	2400.000	613.600	2500.000
GR	613.600	2600.000	613.600	2700.000	613.400	2800.000	613.500	2900.000	613.600	3000.000

X1	2627.000	14.000	265.000	300.000	275.000	290.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	615.200	0.000	614.000	100.000	613.200	200.000	612.500	265.000	609.200	275.000
GR	608.100	282.000	607.400	284.000	607.100	286.000	607.600	289.000	609.300	290.000
GR	609.800	294.000	612.200	300.000	613.300	500.000	615.500	600.000	0.000	0.000

X1	2907.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	356.000	0.000	0.000	0.000	0.000

X1	3187.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	366.000	0.000	0.000	0.000	0.000
NH	5.000	.065	265.000	.080	275.000	.045	290.000	.080	300.000	.065

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NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION H

X1	3466.000	14.000	265.000	300.000	275.000	290.000	279.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	386.000	0.000	0.000	0.000	0.000
GR	619.200	0.000	618.000	100.000	617.200	200.000	616.500	265.000	613.200	275.000
GR	612.100	282.000	611.400	284.000	611.100	286.000	611.600	289.000	613.300	290.000
GR	613.800	294.000	616.200	300.000	617.300	500.000	619.500	600.000	0.000	0.000
NH	5.000	.060	400.000	.080	405.000	.050	420.000	.080	426.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION I

X1	5226.000	16.000	400.000	426.000	1830.000	1710.000	1760.000	0.000	0.000	0.000
GR	625.400	0.000	625.600	100.000	626.000	200.000	624.300	300.000	619.600	400.000
GR	615.100	410.000	614.000	412.000	614.000	414.000	614.300	416.000	614.500	419.000
GR	619.000	426.000	619.400	500.000	619.600	550.000	623.400	600.000	625.700	700.000
GR	626.200	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5795.000	5.000	0.000	33.000	620.000	550.000	569.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1.000	0.000	32.000	0.000	0.000	0.000	0.000
GR	623.300	0.000	617.900	9.000	616.100	16.000	617.700	22.000	623.500	33.000
QT	4.000	195.000	290.000	355.000	475.000	0.000	0.000	0.000	0.000	0.000

X1	5835.000	5.000	0.000	53.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	11.000	0.000	22.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.200	16.000	617.800	22.000	623.600	33.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5836.000	19.000	494.500	505.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.200	494.500	616.200	497.000	615.200	500.000
GR	616.200	503.000	617.200	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000
SB	0.000	2.520	3.020	0.000	8.430	0.000	59.000	0.000	616.500	616.200

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5892.000	19.000	494.500	505.500	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
BT	17.000	0.000	626.900	0.000	100.000	627.200	0.000	200.000	627.500	0.000
BT	300.000	626.800	0.000	400.000	624.900	0.000	494.500	625.200	617.500	494.500
BT	625.200	619.500	497.000	625.200	622.500	500.000	625.200	623.500	503.000	625.200
BT	622.500	505.500	625.200	619.500	505.500	625.200	617.500	600.000	624.700	0.000
BT	700.000	626.300	0.000	800.000	627.600	0.000	900.000	628.700	0.000	1000.000
BT	629.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.500	494.500	616.500	497.000	615.500	500.000
GR	616.500	503.000	617.500	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000

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NC	.090	.090	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION K

X1	5893.000	5.000	0.000	33.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0.000	23.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.500	16.000	617.800	22.000	623.600	33.000
X1	5937.000	11.000	200.000	226.000	45.000	45.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	193.000	0.000	233.000	0.000	0.000	0.000	0.000
GR	625.800	0.000	623.100	100.000	622.000	200.000	619.200	205.000	618.200	207.000
GR	617.800	215.000	618.300	219.000	621.500	226.000	622.100	300.000	622.900	345.000
GR	626.500	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5981.000	11.000	200.000	226.000	40.000	40.000	44.000	0.000	0.000	0.000
GR	627.100	0.000	624.400	100.000	623.300	200.000	620.500	205.000	619.500	207.000
GR	619.100	215.000	619.600	219.000	622.800	226.000	623.400	300.000	624.200	345.000
GR	627.600	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

X1	5982.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.220	2.540	0.000	4.360	0.000	24.100	0.000	619.500	619.100
NC	1.000	1.000	.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

X1	6056.000	43.000	1490.000	1516.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1290.000	0.000	1690.000	0.000	0.000	0.000	0.000
BT	10.000	1290.000	629.200	0.000	1400.000	629.200	0.000	1500.000	629.200	623.000
BT	1501.000	629.200	624.400	1502.000	629.200	625.000	1503.500	629.200	625.000	1504.500
BT	629.200	624.400	1505.500	629.200	623.000	1600.000	629.400	0.000	1690.000	629.400
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	630.200	0.000	630.100	100.000	629.800	200.000	629.600	300.000	629.600	400.000
GR	629.400	500.000	629.100	600.000	629.000	700.000	628.900	800.000	629.000	873.000
GR	628.900	900.000	629.000	1000.000	629.000	1100.000	629.100	1200.000	627.500	1290.000
GR	624.800	1390.000	625.700	1490.000	623.000	1500.000	621.500	1500.000	620.100	1501.000
GR	619.500	1502.000	619.500	1503.500	620.100	1504.500	621.500	1505.500	623.000	1505.500
GR	623.200	1516.000	623.800	1590.000	624.600	1635.000	628.000	1690.000	629.500	1600.000
GR	629.800	1900.000	630.100	2000.000	630.000	2100.000	630.000	2200.000	629.800	2300.000
GR	629.500	2400.000	629.500	2500.000	630.000	2522.000	629.800	2600.000	629.900	2700.000
GR	629.900	2800.000	630.000	2900.000	629.900	3000.000	0.000	0.000	0.000	0.000
NC	1.000	1.000	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6057.000	11.000	200.000	226.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	627.500	0.000	624.800	100.000	623.700	200.000	620.900	205.000	619.900	207.000
GR	619.500	215.000	620.000	219.000	623.200	226.000	623.800	300.000	624.600	345.000
GR	628.000	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION M

X1	6076.000	11.000	200.000	226.000	30.000	30.000	19.000	0.000	0.000	0.000
GR	627.900	0.000	625.200	100.000	624.100	200.000	621.300	205.000	620.300	207.000
GR	619.900	215.000	620.400	219.000	623.600	226.000	624.200	300.000	625.000	345.000
GR	628.400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	6675.000	28.000	800.000	817.000	600.000	570.000	599.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000

HAVENBRIDGE ROAD BRIDGE - DOWNSTREAM FACE

X1	6676.000	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	710.000	0.000	830.000	0.000	0.000	0.000	0.000
SB	0.000	2.840	3.020	0.000	7.840	0.000	54.900	0.000	621.900	621.900
NC	.105	.105	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

HAVENBRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

X1	6754.000	38.000	1495.000	1505.000	78.000	78.000	78.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1400.000	0.000	1520.000	0.000	0.000	0.000	0.000
BT	7.000	1400.000	629.400	0.000	1455.000	630.300	624.900	1497.000	630.300	627.900
BT	1500.000	630.300	628.500	1503.000	630.300	627.900	1505.000	630.200	624.900	1520.000
BT	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	645.000	0.000	624.000	100.000	643.100	200.000	641.000	300.000	640.400	400.000
GR	640.200	448.000	639.600	500.000	639.000	600.000	638.000	700.000	637.000	800.000
GR	636.100	900.000	635.400	980.000	635.300	1000.000	634.000	1100.000	631.900	1200.000
GR	630.500	1390.000	629.400	1400.000	626.700	1492.000	624.900	1495.000	622.900	1495.000
GR	621.900	1497.000	621.900	1500.000	621.900	1503.000	622.900	1505.000	624.900	1505.000
GR	626.900	1509.000	629.200	1600.000	630.200	1700.000	631.000	1800.000	632.100	1900.000
GR	631.400	2000.000	630.300	2100.000	629.700	2200.000	629.300	2300.000	628.900	2400.000
GR	628.100	2500.000	627.700	2600.000	627.700	2670.000	0.000	0.000	0.000	0.000
NC	.125	.125	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6755.000	28.000	805.000	815.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION 9

X1	6784.000	28.000	800.000	817.000	30.000	30.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.700	0.000	637.700	100.000	636.600	200.000	634.800	301.000	635.300	400.000
GR	634.100	500.000	631.600	600.000	630.000	700.000	626.500	800.000	624.500	805.000
GR	621.700	810.000	623.400	815.000	626.700	817.000	628.500	900.000	628.700	920.000
GR	630.500	1000.000	631.300	1100.000	631.800	1200.000	632.000	1250.000	631.600	1300.000
GR	630.300	1400.000	629.900	1462.000	629.600	1500.000	629.100	1600.000	628.900	1700.000
GR	628.200	1800.000	628.000	1900.000	628.400	1989.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6964.000	0.000	0.000	0.000	170.000	190.000	180.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	720.000	0.000	510.000	0.000	0.000	0.000	0.000

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X1	7144.000	13.000	301.000	330.000	170.000	190.000	180.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	201.000	0.000	470.000	0.000	0.000	0.000	0.000
GR	636.700	0.000	636.200	100.000	635.600	138.000	632.300	150.000	627.500	200.000
GR	626.500	300.000	625.000	304.000	624.500	311.000	625.000	326.000	626.700	330.000
GR	629.100	400.000	633.300	500.000	634.000	600.000	0.000	0.000	0.000	0.000

VALLEY SECTION P

X1	7314.000	13.000	300.000	330.000	170.000	160.000	170.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	59.000	0.000	459.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	637.500	100.000	636.900	158.000	633.000	150.000	628.800	200.000
GR	627.800	300.000	626.300	304.000	625.800	311.000	626.500	326.000	628.000	330.000
GR	630.400	400.000	634.000	500.000	635.300	600.000	0.000	0.000	0.000	0.000
NC	.200	.200	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7873.000	0.000	0.000	0.000	490.000	550.000	559.000	0.000	1.500	0.000
X3	0.000	0.000	0.000	199.000	0.000	319.000	0.000	0.000	0.000	0.000
NC	.500	.500	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7893.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.100	0.000
X3	0.000	0.000	0.000	204.000	0.000	314.000	0.000	0.000	0.000	0.000
NC	.600	.600	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

X1	7894.000	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	204.000	0.000	314.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.020	0.000	3.060	0.000	28.270	0.000	627.500	627.400
NC	.800	.060	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION 0

X1	7954.000	25.000	662.000	376.000	60.600	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	637.000	635.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	786.000	0.000	876.000	0.000	0.000	0.000	0.000
RT	20.000	766.000	635.000	0.000	789.700	635.100	0.000	870.000	637.000	630.500
BT	871.000	637.000	633.000	572.000	637.000	633.500	674.000	637.000	633.500	875.000
RT	637.000	633.000	376.000	537.000	630.500	923.700	639.700	0.000	956.500	640.200
BT	0.000	1040.400	642.500	0.000	1124.300	644.700	0.000	1208.200	646.200	0.000
BT	1292.100	646.600	0.000	1376.000	647.000	0.000	1459.900	647.300	0.000	1543.800
BT	647.600	0.000	1027.700	567.700	0.000	1711.600	648.900	0.000	1732.500	649.000
RT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	635.000	766.000	632.600	706.000	631.900	785.700	629.700	862.000	630.500	870.000
GR	629.500	870.000	628.000	871.000	627.500	872.000	627.500	874.000	628.000	875.000
GR	629.500	876.000	630.500	376.000	637.000	876.000	639.700	923.700	640.200	956.500
GR	642.900	1040.400	644.700	1124.300	646.200	1208.200	646.600	1292.100	647.000	1376.000
GR	647.300	1459.900	647.600	1543.800	647.700	1027.700	648.900	1711.600	649.000	1732.500
NC	1.000	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7955.000	12.000	300.000	325.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	207.000	0.000	318.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	635.200	100.000	632.800	200.000	629.700	300.000	627.900	308.000
GR	627.500	314.000	628.200	319.000	629.400	325.000	631.400	400.000	633.100	450.000
GR	642.600	500.000	643.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.500	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION R

X1	7984.000	12.000	300.000	325.000	40.000	40.000	29.000	0.000	0.000	0.000

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X5	0.000	0.000	0.000	214.000	0.000	5 7.000	0.000	0. 00	0.000	0.000
GR	639.400	0.000	636.600	100.000	634.200	200.000	631.100	300.000	629.300	308.000
GR	628.900	314.000	629.600	319.000	630.800	325.000	632.800	400.000	634.500	450.000
GR	644.000	500.000	644.700	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.050	400.000	.080	408.000	.050	421.000	.060	427.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	403.000	425.000	0.000	0.000	0.000

VALLEY SECTION S

X1	8544.000	15.000	400.000	427.000	520.000	560.000	560.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.200	400.000	631.200	408.000	630.500	414.000	632.600	421.000	636.100	427.000
GR	635.600	500.000	637.500	555.000	643.100	600.000	646.200	700.000	649.000	800.000
ET	0.000	6.100	6.100	6.100	0.000	408.000	420.000	0.000	0.000	0.000

X1	8563.000	0.000	0.000	0.000	20.000	20.000	19.000	0.000	.300	0.000
NC	.060	.060	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	410.000	422.000	0.000	0.000	0.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

X1	8564.000	16.000	410.000	422.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.100	0.000	649.500	100.000	648.200	200.000	646.500	300.000	640.800	365.000
GR	637.500	400.000	638.300	410.000	630.800	410.000	630.800	416.000	630.800	422.000
GR	638.300	422.000	635.700	500.000	637.100	560.000	642.900	600.000	646.400	700.000
GR	648.700	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.680	0.000	9.000	0.000	54.000	0.000	631.000	630.800

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

X1	8583.000	16.000	410.000	422.000	19.000	19.000	19.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	410.000	638.500	634.000	410.000	638.500	634.000	416.000	638.500	637.000
BT	422.000	638.500	634.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.700	400.000	638.500	410.000	631.000	410.000	631.000	416.000	631.000	422.000
GR	638.500	422.000	635.900	500.000	637.300	560.000	643.100	600.000	646.600	700.000
GR	648.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	407.000	421.000	0.000	0.000	0.000

X1	8584.000	15.000	400.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.800	0.000	650.200	100.000	648.900	200.000	647.200	300.000	641.500	365.000
GR	637.700	400.000	631.700	408.000	631.000	414.000	633.100	421.000	636.600	427.000
GR	636.100	500.000	638.000	555.000	643.600	600.000	646.700	700.000	649.500	800.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	380.000	431.000	0.000	0.000	0.000

VALLEY SECTION U

X1	8613.000	14.000	400.000	431.000	30.000	30.000	29.000	0.000	0.000	0.000
GR	649.800	0.000	649.100	100.000	647.800	200.000	646.200	300.000	638.500	335.000
GR	635.100	400.000	630.700	408.000	630.800	414.000	631.200	424.000	637.300	431.000
GR	634.800	500.000	642.600	600.000	646.100	700.000	648.000	600.000	0.000	0.000
NC	.065	.065	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9163.000	26.000	1247.000	1266.000	550.000	550.000	550.000	0.000	-6.100	0.000
GR	656.000	0.000	656.400	100.000	655.200	200.000	654.800	300.000	654.300	400.000

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GR	650.500	900.000	654.000	800.00	650.500	700.000	650.00	800.000	551.400	900.000
GR	651.600	1000.000	650.300	1100.000	648.400	1150.000	644.400	1200.000	642.100	1247.000
GR	640.300	1252.000	638.800	1256.000	639.700	1260.000	642.500	1266.000	643.400	1300.000
GR	646.700	1400.000	650.700	1500.000	651.400	1600.000	652.400	1700.000	653.400	1800.000
GR	654.100	1900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9703.000	0.000	0.000	0.000	540.000	540.000	540.000	0.000	2.000	0.000
NC	.075	.075	.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10253.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.100	0.000
NC	.080	.080	.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	170.000	255.000	295.000	420.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION V

X1	10803.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.000	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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*PROF 1

CCHV= .300 CEHV= .500

*SECNO .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
				MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A					
				REPEATED AND ADJUSTED FOR CHANNEL INVERT.					
0.00	7.23	604.43	0.00	604.43	604.46	.03	0.00	0.00	601.70
360.	116.	244.	0.	160.	163.	0.	0.	0.	606.10
0.00	.72	1.50	0.00	.080	.050	.080	0.000	597.20	921.25
.000395	0.	0.	0.	0	0	0	0.00	97.79	1019.04

*SECNO 130.000

VALLEY SECTION A

130.00	5.49	604.49	0.00	0.00	604.61	.12	.10	.05	603.50
360.	57.	303.	0.	60.	101.	0.	1.	0.	607.90
.01	.96	2.98	0.00	.080	.050	.080	.050	599.00	926.30
.002306	130.	130.	130.	0	0	0	0.00	86.49	1012.79

*SECNO 409.000

3470 ENCROACHMENT STATIONS=		170.0	270.0	TYPE=	1	TARGET=	100.000		
409.00	5.17	605.27	0.00	0.00	605.50	.23	.84	.06	601.30
360.	83.	188.	89.	52.	37.	56.	2.	1.	601.20
.04	1.62	5.12	1.57	.080	.050	.080	.050	600.10	170.00
.004084	280.	279.	280.	2	0	0	0.00	95.34	265.34

*SECNO 410.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	5.17	605.27	0.00	0.00	605.51	.23	.00	.00	601.30
360.	83.	188.	88.	51.	37.	56.	2.	1.	601.20
.04	1.62	5.12	1.57	.080	.050	.080	.050	600.10	170.00
.004092	1.	1.	1.	0	0	0	0.00	95.30	265.30

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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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PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.70	605.83	0.00	163.	198.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.38	607.38	0.00	0.00	607.51	.13	2.01	0.00	602.00
360.	51.	204.	106.	44.	56.	81.	2.	1.	602.00
.06	1.16	3.67	1.31	.050	.027	.050	.048	600.00	765.00
.000521	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.52	607.52	0.00	0.00	607.54	.02	.00	.03	603.30
360.	59.	207.	94.	107.	133.	168.	2.	1.	603.80
.04	.55	1.56	.56	.080	.040	.030	.048	600.00	170.00
.000182	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED
*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.09	607.49	0.00	0.00	607.64	.15	.03	.06	605.70
360.	41.	265.	54.	33.	77.	24.	2.	1.	606.20
.05	1.27	3.46	2.20	.070	.050	.040	.047	602.40	173.00
.002896	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	4.19	607.59	0.00	0.00	607.95	.55	.11	.20	606.50
360.	13.	345.	4.	9.	56.	2.	2.	1.	607.00
.05	1.45	6.11	1.47	.070	.050	.040	.046	603.20	179.22
.013718	20.	20.	20.	2	0	0	0.00	55.91	235.12

*SECNO 576.000

576.00	4.98	608.18	0.00	0.00	608.39	.22	.35	.10	606.50
360.	35.	301.	24.	33.	74.	21.	2.	1.	607.00
.05	1.07	4.06	1.12	.080	.050	.060	.046	603.20	160.99
.004177	50.	50.	50.	3	0	0	0.00	98.27	259.26

*SECNO 1316.000

SECNO	DEPTH	QWSEL	QRIWS	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= 680.0 890.0 TYPE= 1 TARGET= -680.000

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VALLEY SECTION D

1316.00	5.01	608.91	0.00	0.00	608.93	.02	.47	.00	606.80
360.	58.	145.	159.	149.	114.	164.	7.	3.	605.30
.27	.39	1.25	.96	.080	.050	.060	.048	602.90	680.00
.000245	700.	740.	700.	2	0	0	0.00	178.44	858.44

*SECNO 1625.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1625.00	5.73	609.03	0.00	0.00	609.09	.05	.14	.02	603.20
360.	7.	184.	163.	17.	82.	115.	10.	4.	606.70
.31	.51	2.25	1.49	.080	.050	.060	.049	604.30	755.00
.001229	320.	310.	300.	2	0	0	0.00	97.25	852.25

*SECNO 1665.000

3470 ENCROACHMENT STATIONS= 765.0 898.0 TYPE= 1 TARGET= -765.000

1665.00	4.62	609.08	0.00	0.00	609.14	.06	.05	.00	508.30
360	4.	187.	169.	7.	80	110.	10.	5.	606.80
.32	.52	2.37	1.54	.080	.050	.060	.049	604.40	705.00
.001357	270.	40.	40.	1	0	0	0.00	88.95	851.95

*SECNO 1945.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1946.00	4.19	609.39	0.00	0.00	609.49	.10	.33	.02	609.10
360.	1.	200.	159.	2.	69.	85.	10.	5.	607.60
.34	.36	2.92	1.87	.080	.050	.060	.049	605.20	705.00
.002630	180.	180.	180.	2	0	0	0.00	84.64	849.64

*SECNO 1985.000

3470 ENCROACHMENT STATIONS= 765.0 816.0 TYPE= 1 TARGET= 53.000

1986.00	3.90	609.80	0.00	0.00	610.16	.36	.54	.13	609.80
360.	0.	310.	50.	0.	61.	20.	11.	5.	608.30
.35	0.00	5.11	2.45	.040	.040	.050	.048	605.90	775.01
.006073	140.	140.	140.	2	0	0	0.00	42.99	818.00

*SECNO 2065.000

SECNO	DEPTH	CWSEL	CRI.S	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.06	610.26	0.00	0.00	611.03	.76	.67	.20	611.00
355.	0.	355.	0.	0.	51.	0.	11.	5.	611.00
.35	0.00	7.02	0.00	.040	.040	.050	.048	606.20	1502.16
.012499	80.	79.	80.	2	0	0	0.00	21.07	1523.22

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

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355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.47	0.00	.040	.040	.050	.048	606.00	1502.00
.005789	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	6.83	610.93	0.00	0.00	611.29	.46	.01	.001	00000.00
355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.45	0.00	.040	.040	.050	.048	606.00	1502.00
.005735	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000
PRESSURE FLOW

EGPRS	EGLWC	HS	DWEIR	CPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.52	610.83	0.00	0.	355.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION 1

2122.00	5.61	611.21	0.00	0.00	611.56	.21	.23	0.00	610.30
355.	0.	355.	0.	0.	90.	0.	11.	5.	100000.00
.35	0.00	3.71	0.00	.035	.025	.035	.047	605.70	1220.00
.000741	30.	30.	30.	2	0	0	0.00	20.00	1240.00

*SECNO 2163.000

3470 ENCROACHMENT STATIONS= 1504.0 1524.0 TYPE= 1 TARGET= 20.000

2123.00	5.56	611.26	0.00	0.00	611.57	.31	.00	.051	00000.00
355.	0.	355.	0.	0.	50.	0.	11.	5.	100000.00
.35	0.00	4.45	0.00	.080	.060	.060	.047	605.70	1504.00
.005051	1.	1.	1.	2	0	0	0.00	20.00	1524.00

*SECNO 2291.000

STNO	DEPTH	WSEL	CRITS	VSLOP	EG	HV	HL	OLOSS	BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	WPL	TWP	LEFT/RIGHT
TYPE	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	CLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ICC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2291.00	5.25	612.25	1.00	0.00	612.44	.19	.34	.04	610.80
355.	0.	355.	0.	0.	102.	0.	11.	5.	100000.00
.37	0.00	3.49	0.00	.080	.060	.060	.048	606.00	1500.00
.003754	100.	168.	180.	2	0	0	0.00	24.00	1524.00

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*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION 6

(DOWNSTREAM FACE)

2292.00	6.35	612.35	0.00	0.00	612.47	.11	.00	.02	615.50
355.	0.	355.	0.	0.	132.	0.	11.	5.	615.50
.37	0.00	2.68	0.00	.035	.032	.035	.048	605.00	248.00
.000643	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKCR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 612.268 ELLC= 613.100 PCWSE= 612.355 ELTRD= 615.500

3370 NORMAL BRIDGE;VRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION 6

(UPSTREAM FACE)

2346.00	6.58	612.38	0.00	0.00	612.55	.17	.06	.03	615.50
355.	0.	355.	0.	0.	107.	0.	12.	5.	615.50
.37	0.00	3.33	0.00	.035	.032	.035	.048	605.80	248.00
.002017	54.	54.	54.	2	0	0	-30.04	23.50	271.50

*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	5.60	612.40	0.00	0.00	612.56	.16	.00	.06	610.60
355.	0.	355.	0.	0.	110.	0.	12.	5.	100000.00
.37	0.00	3.22	0.00	.080	.045	.080	.048	605.80	1500.00
.001686	1.	1.	1.	1	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	5.81	612.91	0.00	0.00	613.03	.12	.45	.01	612.50
355.	2.	334.	19.	8.	118.	44.	12.	6.	612.20
.40	.26	2.82	.43	.080	.045	.080	.047	607.10	226.12
.001562	275.	260.	290.	0	0	0	0.00	173.88	400.00

*SECNO 2907.000

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HI	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	356.0	TYPE=	1	TARGET=	355.999	
2907.00	5.02	613.52	0.00	0.00	613.76	.24	.67	.06	615.90	
355.	0.	355.	0.	0.	91.	0.	13.	7.	615.60	
.42	0.00	3.92	0.00	.080	.045	.080	.047	608.50	266.16	
.004085	275.	280.	290.	2	0	0	0.00	35.64	299.75	
*SECNO 3187.000										
3470 ENCROACHMENT STATIONS=				.0	366.0	TYPE=	1	TARGET=	365.999	
3187.00	4.92	614.72	0.00	0.00	614.97	.26	1.21	.01	615.20	
355.	0.	355.	0.	0.	87.	0.	14.	7.	615.90	
.77	0.00	4.09	0.00	.080	.045	.080	.047	609.80	266.46	
.004556	275.	280.	290.	2	0	0	0.00	35.05	299.53	
1490 NH CARD USED										
*SECNO 3466.000										
3470 ENCROACHMENT STATIONS=				.0	386.0	TYPE=	1	TARGET=	385.999	
VALLEY SECTION H										
3466.00	4.89	615.95	0.00	0.00	616.25	.26	1.28	.00	615.50	
355.	0.	355.	0.	0.	85.	0.	14.	7.	616.20	
.46	0.00	4.11	0.00	.080	.078	.080	.047	611.10	266.55	
.004593	275.	279.	290.	2	0	0	0.00	32.92	299.47	
1490 NH CARD USED										
*SECNO 5226.000										
VALLEY SECTION I										
5226.00	6.30	620.50	0.00	0.00	620.56	.05	4.04	.00	619.00	
355.	2.	238.	114.	5.	109.	125.	21.	11.	619.00	
.74	.46	2.19	.91	.060	.080	.060	.046	614.00	364.97	
.001383	1830.	1760.	1710.	3	1	0	0.00	174.32	557.27	
*SECNO 5795.000										
3470 ENCROACHMENT STATIONS=				1.0	32.0	TYPE=	1	TARGET=	31.000	
5795.00	5.34	621.44	0.00	0.00	621.73	.29	1.25	.12	100000.00	
355.	0.	355.	0.	0.	82.	0.	23.	12.	100000.00	
.77	0.00	4.33	0.00	.070	.045	.070	.046	616.10	3.11	
.004177	620.	569.	530.	2	0	0	0.00	25.98	29.09	
*SECNO 5835.000										
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HI	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=				11.0	22.0	TYPE=	1	TARGET=	11.000	
5835.00	5.29	621.49	0.00	0.00	622.18	.69	.25	.20	100000.00	

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.77	0.00	6.67	0.00	.070	.045	.070	.046	616.20	11.00
.011235	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	5.53	621.73	0.00	0.00	622.24	.51	.01	.05	617.20
335.	0.	335.	0.	0.	58.	0.	23.	12.	100000.00
.77	0.00	5.74	0.00	.040	.032	.040	.046	616.20	494.50
.003677	1.	1.	1.	2	0	0	0.00	11.00	505.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEW	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 1.000 EGLWC= 622.545 ELLC= 623.500 PCWSL= 621.733 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 454.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	5.42	621.92	0.00	0.00	622.59	.67	.27	.08	617.50
335.	0.	335.	0.	0.	51.	0.	23.	12.	100000.00
.78	0.00	6.55	0.00	.040	.032	.040	.046	616.50	494.50
.006592	56.	56.	56.	2	0	0	0.00	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.78	622.28	0.00	0.00	622.68	.40	.01	.05	100000.00
335.	0.	335.	0.	0.	66.	0.	23.	12.	100000.00
.78	0.00	5.09	0.00	.090	.060	.090	.046	616.50	10.00
.009693	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	5.02	622.82	0.00	0.00	622.98	.16	.23	.07	622.00
335.	4.	322.	9.	5.	97.	9.	23.	13.	621.50
.78	.78	3.30	1.01	.090	.060	.090	.046	617.80	193.00

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.005522	43.	43.	45.	2	0	0	0.00	40.00	235.90

*SECNO 5981.000

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
5981.00	3.86	622.96	0.00	0.00	623.34	.38	.25	.11	623.50
335.	0.	334.	1.	0.	67.	2.	23.	13.	622.80
.78	0.00	4.96	.34	.090	.060	.090	.046	619.10	200.61
.011866	40.	44.	40.	2	0	0	0.00	45.20	245.67

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.68	622.98	0.00	0.00	623.30	.38	.01	.06	623.50
335.	0.	334.	1.	0.	68.	2.	23.	13.	622.80
.78	0.00	4.95	.34	.090	.060	.090	.046	619.10	200.59
.011760	1.	1.	1.	0	0	0	0.00	46.19	246.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HO	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
629.64	626.97	0.00	10.	326.	24.	24.	625.00	629.60

3470 ENCROACHMENT STATIONS= 1290.0 1690.0 TYPE= 1 TARGET= 400.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	9.72	629.22	0.00	0.00	629.27	.05	5.91	0.00	623.70
335.	12.	310.	13.	804.	175.	810.	25.	13.	623.60
.80	.01	1.79	.02	1.000	.010	1.000	.046	619.50	1290.00
.000014	74.	74.	74.	2	3	5	0.00	400.00	1690.00

*SECNO 6057.000

3280 CROSS SECTION 6057.00 EXTENDED 1.74 FEET

6057.00	9.74	629.24	0.00	0.00	629.27	.03	.00	.01	623.70
335.	11.	311.	13.	807.	220.	813.	25.	13.	623.20
.80	.01	1.41	.02	1.000	.015	1.000	.046	619.50	0.00
.000013	1.	1.	1.	1	0	0	0.00	400.00	400.00

*SECNO 6076.000

3280 CROSS SECTION 6076.00 EXTENDED 1.58 FEET

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VALLEY SECTION M

6676.00	9.38	629.28	0.00	0.00	629.28	.00	.00	.01	624.10
335.	119.	80.	136.	736.	211.	751.	26.	13.	623.00
.83	.16	.38	.18	.060	.040	.060	.046	619.90	0.00
.000007	30.	19.	30.	2	0	0	0.00	400.00	400.00

*SECNO 6675.000
3280 CROSS SECTION 6675.00 EXTENDED .65 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= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	7.35	629.25	0.00	0.00	629.34	.09	.01	.04	626.70
335.	64.	245.	26.	93.	88.	29.	39.	17.	626.90
.90	.69	2.78	.90	.080	.045	.080	.046	621.90	727.13
.001001	600.	559.	570.	2	0	0	0.00	102.86	830.00

*SECNO 6676.000
3280 CROSS SECTION 6676.00 EXTENDED .65 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6676.00	7.35	629.25	0.00	0.00	629.34	.09	.00	.00	626.70
335.	64.	245.	26.	93.	88.	29.	39.	17.	626.90
.90	.69	2.78	.90	.080	.045	.080	.046	621.90	727.12
.001001	1.	1.	1.	0	0	0	0.00	102.86	830.00

SPECIAL BRIDGE

SS	XR	XKOR	LOFD	RCLEN	BWC	BWP	BAREA	SS	ELCHD	ELCHD
	0.00	2.84	5.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.45 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLOC	HS	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
630.89	629.43	0.00	75.	250.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.25	630.15	0.00	0.00	630.24	.09	.90	0.00	624.90

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	335.	77.	255.	25.	200.	69.	31.	39.	17.	624.90
	.91	.37	2.93	.45	.105	.025	.105	.045	621.90	1400.00
.000246	78.	78.	78.	2	0	4	0.00	120.00	1520.00	

*SECNO 6755.000

3280 CROSS SECTION 6755.00 EXTENDED 7.55 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.24	630.14	0.00	0.00	630.25	.11	.00	.01	624.70
335.	81.	230.	24.	191.	71.	50.	39.	17.	625.60
.91	.43	3.22	.42	.125	.035	.125	.045	621.90	710.00
.000478	1.	1.	1.	0	0	0	0.00	120.00	830.00

*SECNO 6784.000

3280 CROSS SECTION 6784.00 EXTENDED 7.85 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION 0

6784.00	8.55	630.25	0.00	0.00	630.28	.04	.01	.02	626.50
335.	102.	207.	27.	195.	108.	44.	40.	17.	626.70
.91	.52	1.91	.61	.080	.040	.080	.045	621.70	710.00
.000282	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000

3280 CROSS SECTION 6964.00 EXTENDED .52 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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.23	630.33	0.00	0.00	630.37	.04	.09	.00	627.90
335.	65.	179.	91.	84.	86.	115.	41.	17.	628.10
.95	.77	2.08	.81	.070	.060	.070	.046	623.10	730.80
.001031	170.	180.	190.	1	0	0	0.00	179.20	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	5.92	630.42	0.00	0.00	630.42	.00	.04	.01	626.50
335.	152.	115.	69.	339.	162.	197.	43.	18.	626.70
1.04	.45	.71	.35	.070	.060	.070	.046	624.50	201.00
.000090	170.	180.	190.	2	0	0	0.00	250.32	431.32

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	4.64	630.44	0.00	0.00	630.45	.01	.03	.00	627.80

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     335.      143.      147.      40.      228.      123.      87.      43.      19.      625.00
     1.10       .65      1.19      .46      .070      .060      .070     .046   625.50    182.93
  .000361      170.      170.     180.         2         0         0     0.00   217.99    400.92

*SECNO 7873.000

3470 ENCROACHMENT STATIONS=      199.0      319.0  TYPE=      1  TARGET=      120.000
  7873.00      3.54    630.84     0.00      0.00    631.09      .24      .52      .12    629.30
     335.       70.      265.       0.      106.       60.       0.      49.      21.  100000.00
     1.14       .66      4.45     0.00      .200      .055      .200     .047   627.30    199.00
  .007428      490.      559.     550.         2         0         0     0.00   120.00    319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS=      204.0      314.0  TYPE=      1  TARGET=      110.000
  7893.00      3.46    630.86   630.55      0.00    631.54      .68      .24      .22    629.40
     335.       41.      294.       0.       94.       42.       0.      49.      21.  100000.00
     1.14       .43      7.08     0.00      .500      .055      .500     .047   627.40    204.00
  .021959       20.       20.      20.         4        11         0     0.00   110.00    314.00

*SECNO 7894.000
   SECNO     DEPTH     CWSEL     CPINS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         CLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       FLMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      204.0      314.0  TYPE=      1  TARGET=      110.000

          CLARK STREET BRIDGE - DOWNSTREAM FACE

  7894.00      3.44    630.84   630.63      0.00    631.60      .76      .02      .04    629.40
     335.       31.      304.       0.       92.       41.       0.      49.      21.  100000.00
     1.14       .34      7.36     0.00      .600      .050      .600     .047   627.40    204.00
  .019732        1.        1.       1.         4        11         0     0.00   110.00    314.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.47      3.02      0.00      8.08      0.00     28.27     0.00    627.50    627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

 EGPRS      ECLC      HL        QWEIN     QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                 AREA
  636.23    633.77     0.00       24.      311.       26.       28.       631.00    635.00

3470 ENCROACHMENT STATIONS=      766.0      876.0  TYPE=      1  TARGET=      110.000

          CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

  7954.00      7.80    635.30     0.00      0.00    635.49      .18      3.88     0.00    629.70
```

```
    1.15      .07      3.58      0.00      .500      .015      .060      .047    627.50    766.00
 .000223      60.      60.       60.         2         0         4      0.00    110.00    676.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS=      207.0      318.0  TYPE=      1  TARGET=      111.000
  7955.00      7.94    635.44      0.00      0.00    635.52       .08       .00       .03    629.70
     335.       33.      302.        0.      400.      130.        0.       49.       21. 100000.00
     1.15       .08      2.32      0.00     1.000      .040      .080      .047    627.50    207.00
 .000447        1.        1.        1.         2         0         0      0.00    111.00    318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS=      214.0      347.0  TYPE=      1  TARGET=      133.000

          VALLEY SECTION R

  7984.00      6.61    635.51      0.00      0.00    635.54       .03       .01       .01    631.10
     335.       22.      233.       79.      265.      144.       97.       50.       22.    630.80
     1.15       .08      1.62       .81      .500      .040      .060      .047    628.90    214.00
 .000188       40.       29.       40.         2         0         0      0.00    133.00    347.00

1490 NH CARD USED
*SECNO 8544.000

3470 ENCROACHMENT STATIONS=      403.0      425.0  TYPE=      1  TARGET=       22.000

          VALLEY SECTION S

  8544.00      5.17    635.67      0.00      0.00    635.95       .28       .29       .13100000.00
     335.        0.      335.        0.        0.       79.        0.       53.       23. 100000.00
     1.19      0.00      4.27      0.00      .500      .078      .060      .046    630.50    403.00
 .004287       520.      560.      560.         1         0         0      0.00     22.00    425.00

*SECNO 8563.000
  SECNO     DEPTH     CWSEL     CRIWS     SHLK      EG        HV        HL        OLOSS    BANK ELEV
  Q         SLOP      SCH       SRSB      ALOP      ACH       AROB      VOL       TWA      LEFT/RIGHT
  TIME      VLOP      VCH       VROB      WRL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOPL     XLCH      XLOPR     ITRIAL    IDL       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      408.0      420.0  TYPE=      1  TARGET=       12.000
  8563.00      4.80    635.60      0.00      0.00    636.30       .69       .14       .21100000.00
     335.        0.      335.        0.        0.       50.        0.       53.       23. 100000.00
     1.19      0.00      6.68      0.00      .500      .050      .060      .046    630.80    408.00
 .014372       20.       19.       20.         2         0         0      0.00     12.00    420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS=      410.0      422.0  TYPE=      1  TARGET=       12.000

          CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

  8564.00      5.11    635.91      0.00      0.00    636.37       .46       .00       .07    638.30
     335.        0.      335.        0.        0.       61.        0.       53.       23. 100000.00
     1.19      0.00      5.46      0.00      .060      .025      .060      .046    630.80    410.00
 .002183        1.        1.        1.         2         0         0      0.00     12.00    422.00
```

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SPECIAL BRIDGE #

SB XK	XKOR	COFC	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.558 ELLC= 637.000 PCWSE= 635.905 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.81	635.81	0.00	0.00	636.60	.79	.07	.17	638.50
335.	0.	335.	0.	0.	47.	0.	53.	23.	638.50
1.19	0.00	7.15	0.00	.060	.025	.060	.045	631.00	410.00
.007154	19.	19.	19.	2	0	0	-10.84	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	5.29	636.29	0.00	0.00	636.72	.43	.01	.11100000.00	
335.	0.	335.	0.	0.	63.	0.	53.	23.	100000.00
1.19	0.00	5.28	0.00	.060	.050	.060	.045	631.00	407.00
.007502	1.	1.	1.	3	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	6.10	636.80	0.00	0.00	636.86	.09	.06	.10	636.10
335.	3.	332.	0.	7.	13.	0.	54.	23.	100000.00
1.19	.39	2.59	0.00	.060	.050	.060	.045	630.70	381.14
.000989	30.	29.	30.	2	0	0	0.00	49.28	430.42

*SECNO 9163.000

SECNO	DEPTH	LWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	YNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	YLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9163.00	5.04	637.74	0.00	0.00	637.92	.18	.99	.04	636.00
335.	42.	250.	43.	31.	65.	53.	55.	23.	636.40
1.24	1.36	3.83	1.30	.065	.055	.065	.047	632.70	1211.43
.004245	550.	550.	550.	3	0	0	0.00	101.95	1313.35

*SECNO 9703.000

9703.00	5.24	639.94	0.00	0.00	640.07	.13	2.14	.01	638.00
335.	48.	234.	53.	38.	69.	43.	57.	25.	638.40
1.30	1.26	3.40	1.25	.070	.060	.070	.048	634.70	1207.55
.003696	540.	540.	540.	3	0	0	0.00	111.55	1319.10

*SECNO 10253.000

10253.00	5.27	642.07	0.00	0.00	642.19	.12	2.12	.00	640.10
335.	49.	230.	56.	40.	70.	45.	59.	26.	640.50

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1.33	1.23	3.30	1.24	.073	.063	.073	.040	330.60	1208.72
.004039	550.	550.	550.	2	0	0	0.00	115.61	1320.34

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.33	644.13	0.00	0.00	644.22	.09	2.01	.01	642.10
295.	45.	198.	52.	42.	71.	48.	61.	28.	642.50
1.42	1.07	2.80	1.08	.080	.070	.080	.050	636.80	1205.51
.003288	550.	550.	550.	2	0	0	0.00	116.63	1322.13

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00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven
Salt River

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: Hydraulic Analysis

00BREAK00

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**********************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,05,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1 SHELBY TOWNSHIP 5670-04 PROJECT MANAGER WILLIAM ROSSO
T2 100 YEAR FLOOD
T3 NEWLAND DRAIN

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS		#SEL	FQ
	0.	4.	7.	0.	0.000000	0.00	0.0	0.	725.30	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

CCHV= .300 CEHV= .500
1490 NH CARD USED

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= 53.0 483.0 TYPE= 1 TARGET= -53.000

VALLEY SECTION A 373

77200.00	7.40	725.30	0.00	725.30	725.35	.05	0.00	0.00	720.30
675.	273.	186.	222.	268.	66.	124.	0.	0.	713.50
0.00	1.02	2.74	1.79	.070	.040	.040	0.000	717.90	98.86
.000463	1562.	1652.	1712.	0	0	1	0.00	130.63	229.49

CCHV= .100 CEHV= .300
1490 NH CARD USED

VALLEY SECTION B 374

77620.00	5.87	725.47	0.00	0.00	725.50	.03	.14	.00	722.00
675.	35.	181.	459.	44.	94.	448.	5.	2.	721.70
.08	.78	1.94	1.02	.050	.040	.050	.044	719.60	225.13
.000313	430.	420.	340.	1	0	1	0.00	236.70	461.63

CCHV= .500 CEHV= 1.000
1490 NH CARD USED

BRIDGE SECTION C 24 MILE ROAD DOWNSTREAM FACE

77632.00	7.09	725.49	0.00	0.00	725.51	.02	.00	.00	722.60
675.	19.	222.	435.	27.	177.	422.	5.	2.	721.80
.09	.69	1.26	1.03	.030	.040	.030	.044	718.40	232.51
.000118	12.	12.	12.	0	0	1	0.00	220.45	451.57

SPECIAL BRIDGE

SH XK	XKOR	COFO	RDLEN	RWC	RHP	BAREA	SS	ELCHD	ELCHD
0.00	2.87	3.03	0.00	29.00	0.00	104.80	0.00	718.40	718.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
727.34	725.51	0.00	243.	432.	105.	724.40	724.90	30.00

BRIDGE SECTION C 24 MILE ROAD UPSTREAM FACE 375

77708.00	7.84	726.24	0.00	0.00	726.25	.01	.74	0.00	722.60
675.	28.	186.	461.	51.	199.	567.	6.	2.	721.80
.11	.54	.94	.81	.030	.040	.030	.043	718.40	209.72

.000057	76.	76.	76.	1	0	4	0.00	276.24	485.96

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			175.0	310.0	TYPE=	1	TARGET=	135.000	
77808.00	7.55	725.25	0.00	0.00	726.30	.05	.01	.04	721.10
675.	121.	274.	261.	134.	124.	165.	7.	3.	720.60
.13	.90	2.21	1.52	.050	.040	.050	.042	714.70	181.49
.000284	100.	100.	100.	0	0	1	0.00	128.51	310.00

1490 NH CARD USED

SECNO	DEPTH	CNSEL	CHWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QC=	QROB	ALOB	ACH	ANCH	VOL	TM2	LEFT/RIGHT
TIME	VLOB	VC=	VROB	XNL	XNCH	XNR	WTN	ELMIN	SST=
SLOPE	XLOBL	XLC=	XLOBR	TTRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=			175.0	310.0	TYPE=	1	TARGET=	135.000	
77908.30	7.28	725.25	0.00	0.00	725.34	.06	.03	.01	721.40
675.	110.	262.	288.	114.	119.	175.	3.	3.	721.10
.14	.97	2.38	1.52	.050	.040	.050	.042	719.00	189.73
.000346	100.	100.	100.	1	0	1	0.00	121.27	310.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	165.000	
78198.00	6.54	726.44	0.00	0.00	726.58	.14	.16	.03	723.20
675.	77.	409.	189.	54.	115.	106.	11.	4.	723.70
.17	1.43	3.55	1.78	.050	.040	.050	.041	719.99	207.46
.001019	290.	290.	290.	2	0	1	0.00	107.64	315.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	155.000	
78490.00	6.33	726.93	0.00	0.00	727.40	.47	.49	.34	725.20
675.	38.	621.	15.	22.	104.	17.	12.	4.	726.40
.19	1.78	5.74	.92	.050	.040	.050	.041	720.60	214.97
.003253	292.	292.	292.	2	0	1	0.00	95.03	315.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			120.0	336.0	TYPE=	1	TARGET=	216.000	
VALLEY SECTION D								376	
78780.00	6.58	727.88	0.00	0.00	728.48	.60	.95	.12	727.10
675.	8.	667.	0.	8.	107.	0.	13.	5.	729.10
.20	1.02	6.24	0.00	.045	.035	.050	.041	721.30	220.46
.003328	290.	290.	290.	2	0	1	0.00	47.13	258.19

CCHV= .100 CEHV= .300
1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			150.0	315.0	TYPE=	1	TARGET=	165.000	
79160.00	6.83	729.15	0.00	0.00	729.68	.50	1.17	.01	728.30
675.	13.	657.	5.	12.	114.	4.	14.	5.	728.30
.22	1.17	5.74	1.12	.045	.035	.045	.041	722.33	211.59
.002860	380.	380.	380.	2	0	1	0.00	65.23	276.42

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 150.0 315.0 TYPE= 1 TARGET= 165.000

79540.00	6.87	730.24	0.00	0.00	730.70	.45	1.03	.00	729.50
675.	9.	630.	37.	9.	113.	16.	15.	6.	727.60
.24	.97	5.55	2.30	.045	.035	.045	.040	723.37	204.39
.002576	380.	380.	380.	2	0	1	0.00	64.23	273.68

CCHV= .300 CEHV= .500
1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 174.0 312.0 TYPE= 1 TARGET= 134.000

VALLEY SECTION E 377

79920.00	7.43	731.43	0.00	0.00	731.80	.43	1.13	.01	730.50
675.	7.	612.	56.	8.	113.	14.	13.	5.	726.90
.26	.92	5.43	3.04	.045	.045	.045	.040	724.00	205.95
.003674	380.	380.	380.	2	0	1	0.00	57.94	284.54

1490 NH CARD USED

3265 DIVIDED FLOW

80112.00	5.93	732.33	0.00	0.00	732.75	.42	.88	.00	742.30
675.	0.	675.	0.	0.	130.	0.	17.	7.	742.30
.27	0.00	5.20	0.00	.045	.040	.045	.040	726.40	501.74
.005970	242.	192.	152.	2	0	1	0.00	35.34	543.52

1490 NH CARD USED

3265 DIVIDED FLOW

SECNO	DEPTH	CHSEL	CRIMS	HSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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	TOPWTD	ENDST

NORMAL BRIDGE.NRD=18 MIN ELTRD= 740.60 MAX ELLC= 739.10

BRIDGE SECTION F GRAND TRUNK WESTERN R.R. DOWNSTREAM FACE

80113.00	5.93	732.33	0.00	0.00	732.75	.42	.88	.00	742.30
675.	0.	675.	0.	0.	130.	0.	17.	7.	742.30
.27	0.00	5.19	0.00	.045	.030	.045	.040	726.40	501.72
.003347	1.	1.	1.	0	0	1	0.00	38.92	543.64

3265 DIVIDED FLOW

NORMAL BRIDGE.NRD=18 MIN ELTRD= 740.60 MAX ELLC= 739.10

BRIDGE SECTION F GRAND TRUNK & WESTERN R.R. UPSTREAM FACE 378

80127.00	6.00	732.40	0.00	0.00	732.80	.40	.05	.00	742.30
675.	0.	675.	0.	0.	133.	0.	17.	7.	742.30

```
     .27      0.00      5.09      0.00      .045      .030      .045      .040    726.40    501.49
  .003204      14.       14.       14.         0         0         1      0.00     39.39    543.88

1490 NH CARD USED

3265 DIVIDED FLOW

 80128.00      6.00    732.40      0.00      0.00    732.80       .40       .00       .00    742.30
     675.        0.      675.        0.        0.      133.        0.       17.        7.    742.30
     .27      0.00      5.09      0.00      .045      .035      .045      .040    726.40    501.47
  .004352        1.        1.        1.         0         0         1      0.00     39.41    543.59

1490 NH CARD USED

              VALLEY SECTION G                                                    379

 80490.00      5.52    733.62      0.00      0.00    733.89       .27      1.05       .04    730.50
     675.       24.      392.      259.       18.       73.      179.       14.        7.    730.50
     .30      1.35      5.37      1.45      .060      .035      .070      .040    728.10     38.29
  .001939       242.      362.      442.         2         0         1      0.00    134.07    172.37

CCHV=     .100 CEHV=     .300
1490 NH CARD USED

              VALLEY SECTION H                                                    380

 81190.00      3.43    735.43      0.00      0.00    735.71       .28      1.82       .00    735.00
     675.        0.      642.       33.        1.      149.       23.       23.        9.    734.00
     .35       .48      4.32      1.41      .065      .035      .050      .040    732.00     75.99
  .003526       680.      700.      750.         2         0         1      0.00    108.62    184.61

1490 NH CARD USED

              VALLEY SECTION I                                                    381

 82890.00      4.68    737.88      0.00      0.00    737.93       .05      2.20       .02    735.80
     675.      157.      237.      282.      232.       87.      369.       33.       19.    736.70
     .66       .68      2.72       .76      .070      .035      .070      .040    733.20    261.19
  .000702      1750.     1700.     1400.         3         0         1      0.00    445.14    706.33

1490 NH CARD USED
   SECNO     DEPTH     CASEL     CRIWS     WSELK     FG        FV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       TN        FLMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 83210.00      3.82    738.12      0.00      0.00    738.49       .37       .47       .10    736.90
     675.      240.      358.       77.      138.       55.       62.       41.       22.    736.90
     .69      1.75      6.53      1.24      .065      .035      .065      .040    734.30    193.92
  .005017       333.      320.      250.         3         0         1      0.00    266.01    459.92

1490 NH CARD USED
 83530.00      4.22    739.52      0.00      0.00    739.70       .18      1.20       .02    737.10
     675.      341.      221.      113.      168.       41.       75.       43.       23.    737.30
     .71      2.03      5.35      1.51      .060      .035      .055      .040    735.30    102.09
  .002891       333.      320.      280.         2         0         1      0.00    186.86    283.94

1490 NH CARD USED
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83850.00	4.60	740.70	0.00	0.00	740.97	.27	1.24	.03	737.30
675.	357.	143.	175.	114.	20.	68.	45.	25.	737.60
.74	3.15	7.07	2.56	.055	.035	.060	.040	736.10	24.23
.005520	333.	320.	281.	2	0	1	0.00	114.04	134.27

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

NEWLAND DRAIN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	C#SEL	HV	HL	OLOSS	QCH	DEPTH	TOP#ID
77200.00	1652.00	0.00	0.00	717.90	365.00	723.35	.05	0.00	0.00	142.33	5.45	104.42
77200.00	1652.00	0.00	0.00	717.90	580.00	724.80	.05	0.00	0.00	157.47	6.90	125.96
77200.00	1652.00	0.00	0.00	717.90	675.00	725.30	.05	0.00	0.00	180.19	7.40	130.63
77200.00	1652.00	0.00	0.00	717.90	985.00	726.00	.05	0.00	0.00	239.32	8.10	137.15
77620.00	420.00	0.00	0.00	719.60	365.00	723.74	.06	.36	.00	160.46	4.14	162.41
77620.00	420.00	0.00	0.00	719.60	580.00	725.00	.03	.17	.00	173.25	5.40	211.40
77620.00	420.00	0.00	0.00	719.60	675.00	725.47	.03	.14	.00	181.19	5.87	236.70
77620.00	420.00	0.00	0.00	719.60	985.00	726.21	.03	.16	.00	227.15	6.61	278.87
77632.00	12.00	0.00	0.00	718.40	365.00	723.79	.03	.01	.01	197.49	5.39	163.67
77632.00	12.00	0.00	0.00	718.40	580.00	725.02	.02	.00	.01	214.05	6.62	209.74
77632.00	12.00	0.00	0.00	718.40	675.00	725.49	.02	.00	.00	221.45	7.09	229.45
77632.00	12.00	0.00	0.00	718.40	985.00	726.22	.02	.00	.00	273.58	7.82	274.47
77708.00	76.00	724.90	724.40	718.40	365.00	723.83	.20	.05	.17	365.00	5.43	165.56
77708.00	76.00	724.90	724.40	718.40	580.00	725.96	.01	.93	0.00	170.48	7.56	259.47
77708.00	76.00	724.90	724.40	718.40	675.00	726.24	.01	.74	0.00	186.27	7.84	276.24
77708.00	76.00	724.90	724.40	718.40	985.00	726.71	.02	.48	0.00	244.95	8.31	383.20
77808.00	100.00	0.00	0.00	718.70	365.00	724.14	.05	.09	.07	197.54	5.44	74.58
77808.00	100.00	0.00	0.00	718.70	580.00	725.97	.04	.01	.03	242.08	7.27	121.48
77808.00	100.00	0.00	0.00	718.70	675.00	726.25	.05	.01	.04	273.80	7.55	128.51
77808.00	100.00	0.00	0.00	718.70	985.00	726.72	.06	.02	.06	378.94	8.02	135.00
77908.00	100.00	0.00	0.00	719.00	365.00	724.19	.06	.05	.01	193.17	5.19	72.81
77908.00	100.00	0.00	0.00	719.00	580.00	726.09	.05	.03	.01	249.54	7.00	114.06
77908.00	100.00	0.00	0.00	719.00	675.00	726.28	.06	.03	.01	281.98	7.28	121.27
77908.00	100.00	0.00	0.00	719.00	985.00	726.77	.09	.05	.01	390.75	7.77	134.03
78198.00	290.00	0.00	0.00	719.90	365.00	724.50	.28	.31	.22	325.39	4.60	74.99
78198.00	290.00	0.00	0.00	719.90	580.00	726.15	.13	.15	.08	359.53	6.25	99.53
78198.00	290.00	0.00	0.00	719.90	675.00	726.44	.14	.15	.08	409.42	6.54	107.64
78198.00	290.00	0.00	0.00	719.90	985.00	727.00	.19	.23	.10	544.87	7.10	121.19
78490.00	292.00	0.00	0.00	720.60	365.00	725.44	.42	.93	.14	354.43	4.94	26.96
78490.00	292.00	0.00	0.00	720.60	580.00	726.63	.26	.48	.33	555.44	6.13	81.53
78490.00	292.00	0.00	0.00	720.60	675.00	726.93	.27	.44	.34	621.49	6.33	95.03
78490.00	292.00	0.00	0.00	720.60	985.00	727.59	.33	.59	.35	803.44	6.99	113.04
78780.00	290.00	0.00	0.00	721.30	365.00	726.43	.42	.99	.00	365.00	5.13	22.92
78780.00	290.00	0.00	0.00	721.30	580.00	727.56	.54	.93	.08	578.16	6.26	38.00
78780.00	290.00	0.00	0.00	721.30	675.00	727.88	.50	.95	.12	667.03	6.58	47.13
78780.00	290.00	0.00	0.00	721.30	985.00	728.65	.77	1.07	.24	931.07	7.36	68.42
79160.00	380.00	0.00	0.00	722.33	365.00	727.69	.39	1.22	.00	365.00	5.36	26.49
79160.00	380.00	0.00	0.00	722.33	580.00	728.79	.48	1.17	.01	576.48	6.46	49.51
79160.00	380.00	0.00	0.00	722.33	675.00	729.16	.50	1.17	.01	656.70	6.83	65.23
79160.00	380.00	0.00	0.00	722.33	985.00	730.12	.50	1.17	.03	855.51	7.79	105.99

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	C*SEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
79540.00	380.00	0.00	0.00	723.37	365.00	728.68	.33	1.14	.01	359.94	5.51	31.44
79540.00	380.00	0.00	0.00	723.37	580.00	729.91	.42	1.05	.01	553.43	6.54	49.68
79540.00	380.00	0.00	0.00	723.37	675.00	730.24	.45	1.03	.00	629.76	6.87	64.28
79540.00	380.00	0.00	0.00	723.37	985.00	731.08	.52	.97	.01	839.11	7.71	102.01
79920.00	380.00	0.00	0.00	724.00	365.00	730.03	.29	1.09	.01	345.73	6.03	28.17
79920.00	380.00	0.00	0.00	724.00	580.00	731.09	.39	1.14	.01	534.59	7.09	43.76
79920.00	380.00	0.00	0.00	724.00	675.00	731.43	.43	1.15	.01	611.73	7.43	57.94
79920.00	380.00	0.00	0.00	724.00	985.00	732.31	.47	1.17	.01	801.45	8.31	88.43
80112.00	192.60	0.00	0.00	726.40	365.00	730.77	.34	.77	.02	355.01	4.37	27.69
80112.00	192.00	0.00	0.00	726.40	580.00	731.93	.39	.85	.00	550.00	5.53	36.05
80112.00	192.00	0.00	0.00	726.40	675.00	732.33	.42	.88	.00	675.00	5.93	38.83
80112.00	192.00	0.00	0.00	726.40	985.00	733.23	.50	.95	.03	985.00	6.83	42.00
80113.00	1.00	740.60	739.10	726.40	365.00	730.73	.34	.00	.00	355.00	4.38	27.72
80113.00	1.00	740.60	739.10	726.40	580.00	731.93	.39	.00	.00	550.00	5.53	36.09
80113.00	1.00	740.60	739.10	726.40	675.00	732.33	.42	.00	.00	675.00	5.93	38.92
80113.00	1.00	740.60	739.10	726.40	985.00	733.24	.50	.01	.00	985.00	6.84	42.00
80127.00	14.00	740.60	739.10	726.40	365.00	730.84	.36	.04	.00	355.00	4.44	28.15
80127.00	14.00	740.60	739.10	726.40	580.00	732.00	.45	.04	.00	550.00	5.60	36.54
80127.00	14.00	740.60	739.10	726.40	675.00	732.40	.48	.05	.00	675.00	6.00	39.39
80127.00	14.00	740.60	739.10	726.40	985.00	733.32	.55	.05	.01	985.00	6.92	42.00
80128.00	1.00	0.00	0.00	726.40	365.00	730.84	.32	.00	.00	355.00	4.44	28.17
80128.00	1.00	0.00	0.00	726.40	580.00	732.00	.39	.00	.00	550.00	5.60	36.50
80128.00	1.00	0.00	0.00	726.40	675.00	732.40	.40	.00	.00	675.00	6.00	39.41
80128.00	1.00	0.00	0.00	726.40	985.00	733.33	.51	.00	.00	985.00	6.93	42.00
80490.00	362.00	0.00	0.00	728.10	365.00	732.13	.40	1.33	.04	293.49	4.03	80.84
80490.00	362.00	0.00	0.00	728.10	580.00	733.21	.30	1.11	.02	366.72	5.11	119.53
80490.00	362.00	0.00	0.00	728.10	675.00	733.62	.27	1.05	.04	391.55	5.52	134.07
80490.00	362.00	0.00	0.00	728.10	985.00	734.65	.23	.95	.09	464.57	6.56	170.48
81190.00	700.00	0.00	0.00	732.00	365.00	734.74	.20	2.39	.02	359.20	2.74	84.59
81190.00	700.00	0.00	0.00	732.00	580.00	735.23	.26	1.97	.00	557.41	3.23	102.44
81190.00	700.00	0.00	0.00	732.00	675.00	735.43	.28	1.82	.00	641.34	3.43	108.62
81190.00	700.00	0.00	0.00	732.00	985.00	735.86	.31	1.45	.02	900.33	3.86	124.15
82890.00	1700.00	0.00	0.00	733.20	365.00	737.24	.05	2.34	.01	143.24	4.04	425.55
82890.00	1700.00	0.00	0.00	733.20	580.00	737.71	.05	2.24	.02	221.21	4.51	439.76
82890.00	1700.00	0.00	0.00	733.20	675.00	737.89	.05	2.21	.02	246.39	4.69	445.14
82890.00	1700.00	0.00	0.00	733.20	985.00	738.35	.15	2.03	.03	344.40	5.15	460.26
83210.00	320.00	0.00	0.00	734.30	365.00	737.62	.38	.49	0.00	264.73	3.32	194.29
83210.00	320.00	0.00	0.00	734.30	580.00	737.96	.40	.44	0.00	339.15	3.66	251.34
83210.00	320.00	0.00	0.00	734.30	675.00	738.12	.37	.47	.10	358.01	3.82	266.01
83210.00	320.00	0.00	0.00	734.30	985.00	738.65	.26	.41	.10	390.49	4.35	324.58

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
83530.00	320.00	0.00	0.00	735.30	365.00	738.93	.15	1.06	.02	153.38	3.63	152.24
83530.00	320.00	0.00	0.00	735.30	580.00	739.34	.17	1.17	.02	196.93	4.04	178.87
83530.00	320.00	0.00	0.00	735.30	675.00	739.52	.18	1.20	.02	221.17	4.22	186.56
83530.00	320.00	0.00	0.00	735.30	985.00	739.84	.25	1.18	.00	285.24	4.54	203.38
83850.00	320.00	0.00	0.00	736.10	365.00	739.59	.22	1.12	.03	103.73	3.49	94.19
83850.00	320.00	0.00	0.00	736.10	580.00	740.50	.26	1.14	.03	132.17	4.40	108.54
83850.00	320.00	0.00	0.00	736.10	675.00	740.70	.27	1.24	.03	143.03	4.60	114.04
83850.00	320.00	0.00	0.00	736.10	985.10	741.23	.31	1.44	.02	176.22	5.13	128.13

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH O	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	TOPWID DIFF	LENGTH
77200.000	365.000	723.361	0.000	0.000	0.000	105.415	0.000	1552.000
77200.000	580.000	724.800	1.439	0.000	0.000	125.958	-16.543	1552.000
77200.000	675.000	725.300	.500	0.000	0.000	130.626	-21.211	1552.000
77200.000	985.000	726.000	.700	0.000	0.000	147.158	-27.743	1552.000
77620.000	365.000	723.739	0.000	.389	0.000	162.413	0.000	420.000
77620.000	580.000	725.000	1.261	.200	0.000	211.404	-48.990	420.000
77620.000	675.000	725.473	.474	.173	0.000	235.668	-74.255	420.000
77620.000	985.000	726.209	.735	.209	0.000	278.871	-116.458	420.000
77632.000	365.000	723.789	0.000	.050	0.000	163.656	0.000	12.000
77632.000	580.000	725.018	1.230	.019	0.000	209.744	-46.088	12.000
77632.000	675.000	725.488	.470	.015	0.000	229.464	-65.808	12.000
77632.000	985.000	726.224	.735	.014	0.000	274.465	-110.809	12.000
77708.000	365.000	723.834	0.000	.046	0.000	165.560	0.000	76.000
77708.000	580.000	725.962	2.128	.944	0.000	259.471	-93.911	76.000
77708.000	675.000	726.237	.275	.749	0.000	276.237	-110.678	76.000
77708.000	985.000	726.709	.472	.446	0.000	383.195	-217.636	76.000
77808.000	365.000	724.142	0.000	.307	0.000	74.594	0.000	100.000
77808.000	580.000	725.972	1.831	.010	0.000	121.484	-46.900	100.000
77808.000	675.000	726.248	.275	.011	0.000	128.510	-53.926	100.000
77808.000	985.000	726.725	.477	.015	0.000	134.999	-60.415	100.000
77908.000	365.000	724.192	0.000	.050	0.000	72.811	0.000	100.000
77908.000	580.000	725.001	1.809	.024	0.000	114.060	-41.249	100.000
77908.000	675.000	726.279	.279	.031	0.000	121.271	-48.460	100.000
77908.000	985.000	726.772	.493	.044	0.000	134.031	-61.220	100.000
78198.000	365.000	724.503	0.000	.311	0.000	74.991	0.000	290.000
78198.000	580.000	725.144	1.641	.149	0.000	99.533	-24.543	290.000
78198.000	675.000	725.439	.295	.160	0.000	107.544	-32.554	290.000
78198.000	985.000	727.000	.560	.227	0.000	121.190	-46.200	290.000
78490.000	365.000	725.436	0.000	.934	0.000	26.960	0.000	292.000
78490.000	580.000	726.631	1.194	.481	0.000	81.530	-54.570	292.000
78490.000	675.000	726.929	.298	.439	0.000	95.028	-68.067	292.000
78490.000	985.000	727.587	.658	.587	0.000	113.036	-86.074	292.000
78780.000	365.000	726.429	0.000	.993	0.000	22.915	0.000	290.000
78780.000	580.000	727.557	1.128	.926	0.000	37.998	-15.082	290.000
78780.000	675.000	727.883	.326	.954	0.000	47.127	-24.211	290.000
78780.000	985.000	728.657	.774	1.070	0.000	68.819	-45.903	290.000
79160.000	365.000	727.686	0.000	1.257	0.000	26.490	0.000	380.000
79160.000	580.000	728.789	1.103	1.232	0.000	49.507	-23.017	380.000
79160.000	675.000	729.162	.374	1.280	0.000	65.231	-38.741	380.000

79160.000	985.000	730.125	.952	1.468	0.000	105.985	-74.495	380.000
79540.000	365.000	728.884	0.000	1.198	0.000	31.433	0.000	380.000
79540.000	580.000	729.906	1.021	1.117	0.000	49.583	-18.245	380.000
79540.000	675.000	730.245	.339	1.082	0.000	64.283	-32.645	380.000
79540.000	985.000	731.077	.832	.952	0.000	102.005	-70.568	380.000
79920.000	365.000	730.032	0.000	1.147	0.000	28.172	0.000	380.000
79920.000	580.000	731.085	1.055	1.180	0.000	43.757	-15.585	380.000
79920.000	675.000	731.435	.349	1.190	0.000	57.943	-29.771	380.000
79920.000	985.000	732.311	.876	1.234	0.000	88.433	-60.261	380.000
80112.000	365.000	730.773	0.000	.742	0.000	27.686	0.000	192.000
80112.000	580.000	731.928	1.155	.842	0.000	36.032	-5.350	192.000
80112.000	675.000	732.325	.397	.890	0.000	39.882	-11.195	192.000
80112.000	985.000	733.235	.909	.924	0.000	42.000	-14.314	192.000
80113.000	365.000	730.779	0.000	.005	0.000	27.717	0.000	1.000
80113.000	580.000	731.934	1.155	.005	0.000	36.185	-8.368	1.000
80113.000	675.000	732.331	.397	.005	0.000	38.917	-11.200	1.000
80113.000	985.000	733.242	.910	.007	0.000	42.000	-14.283	1.000
80127.000	365.000	730.839	0.000	.060	0.000	28.151	0.000	14.000
80127.000	580.000	731.998	1.159	.064	0.000	36.542	-5.390	14.000
80127.000	675.000	732.399	.400	.067	0.000	39.340	-11.238	14.000
80127.000	985.000	733.321	.923	.080	0.000	42.000	-13.849	14.000
80128.000	365.000	730.843	0.000	.004	0.000	28.173	0.000	1.000
80128.000	580.000	732.002	1.159	.005	0.000	36.565	-8.391	1.000
80128.000	675.000	732.403	.400	.005	0.000	39.413	-11.240	1.000
80128.000	985.000	733.327	.924	.006	0.000	42.000	-13.827	1.000
80490.000	365.000	732.127	0.000	1.284	0.000	80.835	0.000	362.000
80490.000	580.000	733.209	1.082	1.207	0.000	119.533	-38.695	362.000
80490.000	675.000	733.616	.407	1.213	0.000	134.073	-53.237	362.000
80490.000	985.000	734.656	1.040	1.329	0.000	170.477	-89.641	362.000
81190.000	365.000	734.745	0.000	2.618	0.000	84.590	0.000	700.000
81190.000	580.000	735.234	.489	2.025	0.000	102.434	-17.844	700.000
81190.000	675.000	735.430	.196	1.814	0.000	108.622	-24.032	700.000
81190.000	985.000	736.063	.633	1.407	0.000	124.150	-44.560	700.000
82890.000	365.000	737.241	0.000	2.457	0.000	425.582	0.000	1700.000
82890.000	580.000	737.705	.464	2.472	0.000	439.755	-14.174	1700.000
82890.000	675.000	737.881	.176	2.459	0.000	445.145	-19.564	1700.000
82890.000	985.000	738.383	.502	2.320	0.000	460.263	-34.682	1700.000
83210.000	365.000	737.615	0.000	.375	0.000	194.291	0.000	320.000
83210.000	580.000	737.963	.348	.257	0.000	251.341	-57.051	320.000
83210.000	675.000	738.119	.156	.238	0.000	266.007	-71.716	320.000
83210.000	985.000	738.643	.524	.256	0.000	324.542	-130.251	320.000
83530.000	365.000	738.928	0.000	1.312	0.000	152.283	0.000	320.000
83530.000	580.000	739.387	.459	1.425	0.000	178.872	-26.589	320.000
83530.000	675.000	739.520	.133	1.401	0.000	185.858	-34.575	320.000
83530.000	985.000	739.838	.318	1.190	0.000	203.376	-51.093	320.000
83850.000	365.000	739.987	0.000	1.059	0.000	94.191	0.000	320.000
83850.000	580.000	740.503	.516	1.115	0.000	108.941	-14.750	320.000
83850.000	675.000	740.696	.194	1.176	0.000	114.045	-19.854	320.000
83850.000	985.000	741.231	.535	1.394	0.000	128.129	-33.938	320.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF

1	0.000	0.000	19.145	0.000
2	0.000	0.000	23.078	3.8a3
3	0.000	0.000	24.556	5.361
4	0.000	0.000	2?.310	?.11?

SALT RIVER
and
SHOOK DRAIN

Village of New Haven, Michigan

Hydraulic Analysis

Secno Chart

References

Bridge Sketches and Calculations

Project Manager, Ole Anderson

Hydraulic Analysis

A. Introduction

The Salt River and Shook Drain in the Village of New Haven, Macomb County, Michigan are the subjects of this report. For the Salt River, the study begins at the Village of New Haven/Chesterfield Township line and continues upstream for approximately 2.2 miles to the Village of New Haven/Lenox Township line. The Shook Drain study begins at the mouth of Shook Drain (at its confluence with the Salt River), and continues upstream for approximately 2.1 miles to the Village of New Haven/Lenox Township line. The drainage areas at the downstream ends of the Village of New Haven studies for the Salt River and Shook Drain are 13.60 and 3.00 square miles, respectively. The major floods on the Salt River and Shook Drain occur in the early spring months. The project manager for this study is Ole Anderson.

B. Hydrology

The 10-, 50-, 100-, and 500-year flood frequency flows used in this study were computed by the TR-20 computer program developed by the Soil Conservation Service. A summary of flows used in the Chesterfield Township F.I.S. (just downstream of the study area) was obtained from the U. S. Geological Survey. In order to match the flow estimates, the following modifications were made:

(1) Flows at the confluence of the Salt River and Shook Drain were reduced to match exactly with the U.S.G.S. estimates.
(2) Since the TR-20 program indicated that peak flows from the Salt River and Shook Drain reached their confluence at the same time, the peak flows from Shook Drain were subtracted directly from the corresponding estimates at the confluence to obtain peak flows for the Salt River above Shook Drain.
(3) Water Supply Paper 1677 (Reference 1) was used to reduce flows along the Salt River.

The discharges used in this study were approved by the Michigan Department of Natural Resources on January 12, 1978.

C. Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U. S. Army Corps of Engineers. On the Salt River, the Gratiot Avenue and Clark Street bridges have been modeled for the requirements of the normal bridge routine; the 26-Mile Road bridge has been modeled for the requirements of the special bridge routine. On the Shook Drain, all of the bridges have been modeled for the requirements of the special bridge routine.

D. Variables and Coefficients

The roughness factors (Manning's "n") were established by comparing the descriptions in Open-Channel Hydraulics (Reference 2) and Roughness Characteristics of Natural Channels (Reference 3) with photographs and field descriptions taken from survey crews and personal reconnaissance trips during 1978. Aerial photography of the Village of New Haven taken in 1974 was also used to determine the roughness coefficients and their extent. These roughness factors were determined assuming that flooding would occur during the early spring months. For the Salt River, the channel ranges from .045 to .050. The channel bottom consists mainly of

silty sand, with some areas of mud and sand. The overbanks range from .040 in areas of grassy residential yards to .090 in areas of dense woods. For Shook Drain, the channel "n" ranges generally from .040 in areas where the channel bottom is relatively clean to .060 in areas where debris and weeds are prevalent in the channel. In the area upstream from Section U (towards the headwaters of Shook Drain), the channel "n" was gradually increased to .070 to allow for the thick brush growing along the banks of the drain. The overbank "n" ranges from .040 in areas of grassy residential yards and cemeteries to .090 in areas of dense woods. Some larger Manning's "n" values were used to improve flow continuity patterns at the bridges. During the winter of 1977-78, brush and small diameter trees were cut along the stream banks (as evidenced by field pictures), creating improved conveyance conditions in the stream. The expansion and contraction coefficients chosen for this study were 0.5 and 0.3, respectively. Weir flow discharge coefficients (COFQ) were chosen from charts published in Hydraulics of Bridge Waterways (Reference 4). The calculations for "XKOR" valves used in the special bridge routines are shown an special forms in the back of this booklet.

E. Starting Points ✓

Starting water surface elevations for the 10-, 50-, 100-, and 500-year floods on the Salt River were obtained from the U. S. Geological Survey's Flood Insurance Study for Chesterfield Township, Michigan. Since the peak flows from Shook Drain and the Salt River reach their confluence at the same time, the starting water surface elevations for the Shook Drain were taken directly from the Salt River Flood Insurance Study at the confluence of the two streams.

F. Encroachments

In most cases, the encroachments for the 100-year natural floodway were based on a 1:1 convergence into, and a 1:4 expansion from bridges and other natural constrictions. However, on Shook Drain encroachments were added to model for homes near the stream. In the area just downstream from Gratiot Avenue, encroachments were added to model for a property fence line on the north side of Shook Drain.

G. Special Problems

During the past two years, two new bridges have been installed on Shook Drain. One of the new bridges has been installed at the Havenridge Road crossing. The large structural plate arch culvert is much more efficient than the previous bridge at this location. Yearly flooding problems had been reported by residents of the area before installation of the new bridge. The other bridge was installed at the Victoria Street crossing. The structural plate arch culvert installed at this crossing in August of 1978 replaced a badly deteriorated concrete bridge. The hydraulic model of Shook Drain includes field-surveyed data of these two new bridges.

The roadway profiles on two bridges were modified due to skewness. On Shook Drain, the Clark Street and Gratiot Avenue bridges were affected by the bridge skew modification. The Victoria Street bridge was also considered for roadway profile adjustment for skew; however, since all considered frequency flows pass through the bridge opening without weir flow, the adjustment was not made. Amvet Drive and Havenridge Road bridge skews were assumed to be small enough that they could be ignored.

References

1. U. S. Department of The Interior, Magnitude and Frequency of Floods in the United States, Part 4, St. Lawrence River Basin, Geological Survey Water-Supply Paper 1677, 1965.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959.

3. Barnes, Harry H., Jr., Roughness Characteristics of Natural Channels, Geological Survey Water-Supply Paper 1849, 1967.

4. U. S. Department of Transportation, Federal Highway Administration, Hydraulics of Bridge Waterways, Hydraulic Design Series, No. 1, 1973.

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U. S. Army Corps of Engineers, Hydrologic Engineering Center, Application of the HEC-2 Bridge Routines, Training Document No. 6, June 1974.

U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profile Users Manual, 1973

U. S. Department of Commerce, Bureau of Public Roads, Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, December 1965.

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U. S. Department of Interior, Measurement of Peak Discharge at Dams by Indirect Methods, Techniques of Water-Resources Investigations of the United States Geological Survey, Book 3, Chapter A5, 1976.

U. S. Geological Survey, New Haven, Michigan Quadrangle, 7.5 Minute Series (Topographic), Scale 1:24000, Contour Interval 5 feet, 1968 (Photorevised 1973).

Salt River
Macomb County
5850-05-1

Cross Section	Secno	Description
A	7.640, 7.644	26-Mile Road bridge
	7.645	Field valley section taken downstream of 26-Mile Road and adjusted for channel invert.
	7.650	Section B repeated and adjusted for channel invert.
B	8.007	Field valley section
	8.035	Section B repeated and adjusted for channel invert.
C	8.056	Field valley section; extreme right overbank portion removed and used as a field valley section for Shook Drain.
D	8.181	Field valley section
E	8.503	Field valley section
F	8.774	Field valley section
	8.807	Section F repeated and adjusted for channel invert.
G	8.808, 8.818	Gratiot Avenue bridge
	8.819	Section F repeated and adjusted for channel invert.
H	8.947	Field valley section
I	9.148	Field valley section
	9.156	Section I repeated and adjusted for channel invert.
J	9.157, 9.162	Clark Street/27-Mile Road bridge
	9.163	Section I repeated and adjusted for channel invert.
	9.167	Section I repeated and adjusted for channel invert.
K	9.331	Field valley section
L	9.475	Field valley section

Cross Section	Secno	Description
M	9.688	Field valley section
	9.807	Section M repeated and adjusted for channel invert.

Shook Drain
Macomb County
5850-05-1

Cross Section	Secno	Description
	0	Section A repeated and adjusted for channel invert
A	130	Field valley section taken from extreme right overbank portion of Section C from Salt River F.I.S.
	409	Section C repeated and adjusted for channel invert.
	410	Amvet Drive bridge - downstream face. Section C repeated and adjusted for channel invert.
B	446	Amvet Drive bridge - upstream face.
	447	Section C repeated and adjusted for channel invert.
	506	Section C repeated and adjusted for channel invert.
C	526	Field valley section
	576	Section C repeated and adjusted for channel invert.
D	1316	Field valley section
	1626	Section D repeated and adjusted for channel invert.
	1666	Section D repeated and adjusted for channel invert.
	1846	Section D repeated and adjusted for channel invert.
	1986	Section D repeated and adjusted for channel invert. Right bank adjusted for transition between Sections D and E.
E	2065	Field valley section
	2085	Section E repeated and adjusted for channel invert.
	2086	Gratiot Avenue bridge - downstream face. Section E repeated and adjusted for channel invert.

Cross Section	Secno	Description
F	2122	Gratiot Avenue bridge - upstream face.
	2123	Section E repeated and adjusted for channel invert.
	2291	Section E repeated and adjusted for channel invert.
G	2292, 2346	Gratiot Avenue exit ramp bridge to New Haven Road
	2347	Section E repeated and adjusted for channel invert.
	2627	Section H repeated and adjusted for channel invert.
	2907	Section H repeated and adjusted for channel invert.
	3187	Section H repeated and adjusted for channel invert.
H	3466	Field valley section (with swale removed)
I	5226	Field valley section
	5795	Section K repeated and adjusted for channel invert.
	5835	Section K repeated and adjusted for channel invert.
J	5836, 5892	Victoria Street bridge
K	5893	Field valley section (bank to bank only).
	5937	Section M repeated and adjusted for channel invert.
	5981	Section M repeated and adjusted for channel invert.
	5982	Grand Trunk Western Railroad bridge - downstream face. Section M repeated and adjusted for channel invert.
L	6056	Grand Trunk Western Railroad bridge - upstream face. Overbanks taken from Section M and adjusted for invert.
	6057	Section M repeated and adjusted for channel invert.

Cross Section	Secno	Description
M	6076	Field valley section
	6675	Section O repeated and adjusted for channel invert.
	6676	Havenridge Road bridge - downstream face. Section O repeated and adjusted for channel invert.
N	6754	Havenridge Road bridge - upstream face. Overbanks taken from Section O and adjusted for invert.
	6755	Section O repeated and adjusted for channel invert.
O	6784	Field valley section
	6964	Section O repeated and adjusted for channel invert.
	7144	Section P repeated and adjusted for channel invert.
P	7314	Field valley section
	7873	Section P repeated and adjusted for channel invert.
	7893	Section P repeated and adjusted for channel invert.
	7894	Clark Street bridge - downstream face. Section P repeated and adjusted for channel invert.
Q	7954	Clark Street bridge - upstream face. Overbanks taken from Section R and adjusted for invert.
	7955	Section R repeated and adjusted for channel invert.
R	7984	Field valley section
S	8544	Field valley section
	8563	Section S repeated and adjusted for invert.

Cross Section	Secno	Description
T	8564, 8583	Concrete walkway bridge
	8584	Section S repeated and adjusted for channel invert.
U	8613	Field valley section
	9163	Section V repeated and adjusted for channel invert.
	9703	Section V repeated and adjusted for channel invert.
	10253	Section V repeated and adjusted for channel invert.
V	10803	Field valley section

B.S. 2

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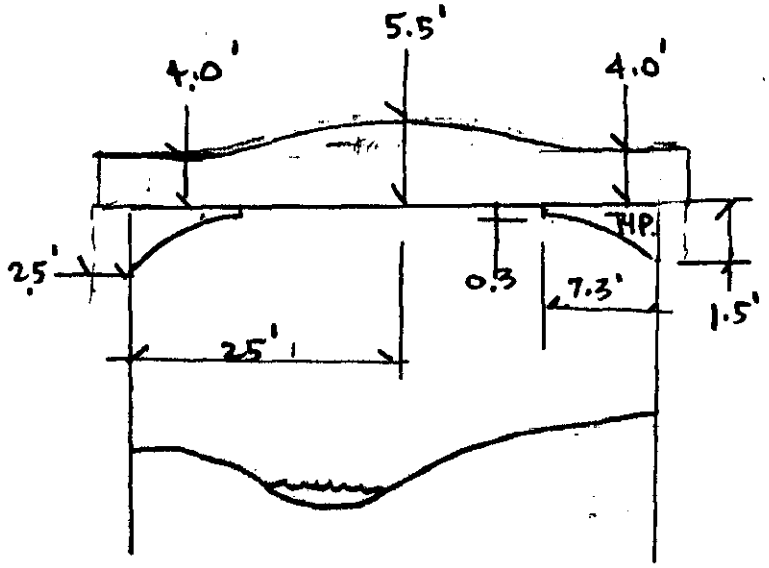
HYDRAULIC STRUCTURAL DATA

Code No. 5830-05

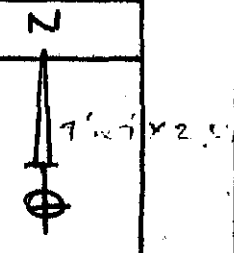
Job Name: New Haven F.I.S.			By: McInnes
Date: 1-20-78/8-2-78	Feature: 26 Mile Rd Bridge		Water Course: Salt River
Remarks: Cone Cast Bridge & Abutments Good Condition			
Width of Piers: —	Pier Shape: —	No. of Piers: 0	Area:
Water Elevation:	Length: 45.5'	Width of Deck: 25'	Skew: 0

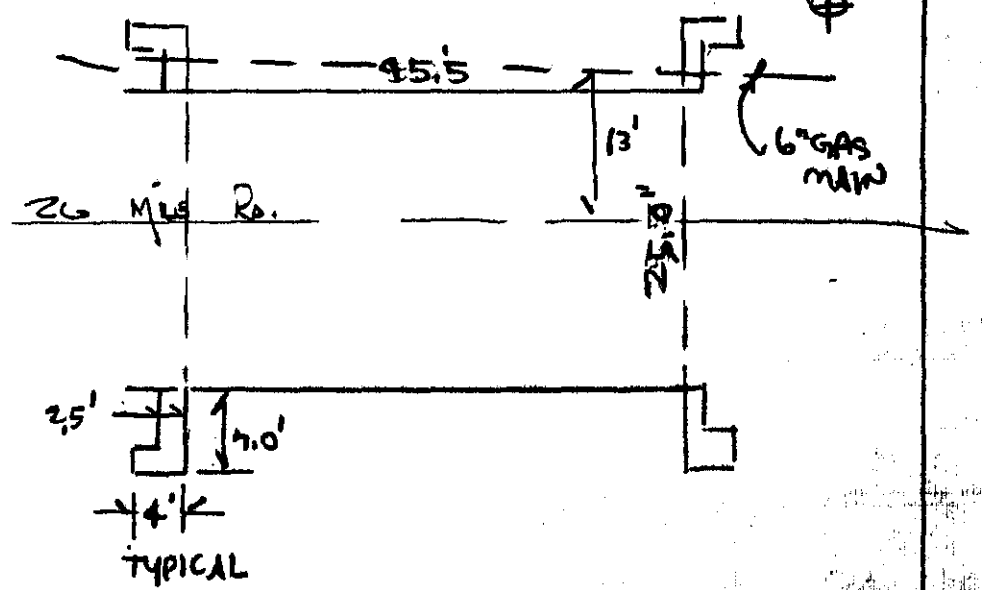
FIELD SKETCH

Profile View



Plan View





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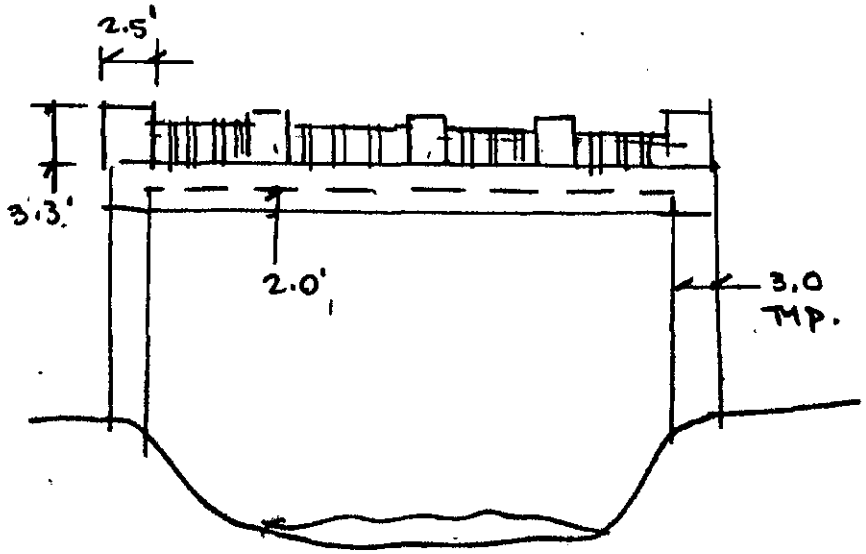
HYDRAULIC STRUCTURAL DATA
B.S. #8

Code No. _____

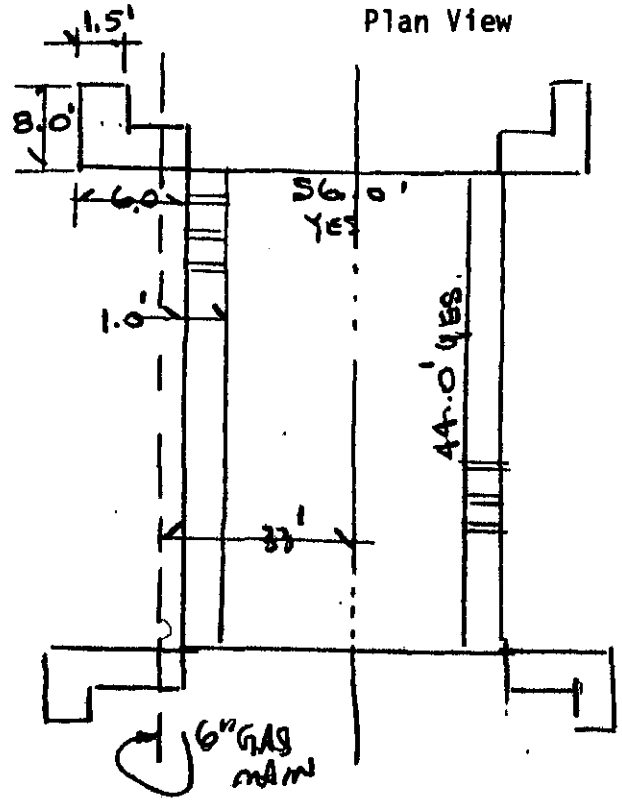
Job Name: NEWHAVEN F.I.S. SALT RIVER			By: R. KLEINERT
Date: 8-2-78	Feature: Gratiot Avenue		Water Course:
Remarks: ALL CONC. IN FAIR CONDITION CONST.			
Width of Piers: 3.0	Pier Shape: SQ.	No. of Piers: 4	Area:
Water Elevation:	Length: 44' YES.	Width of Deck: 56' YES.	Skew:

FIELD SKETCH

Profile View



Plan View



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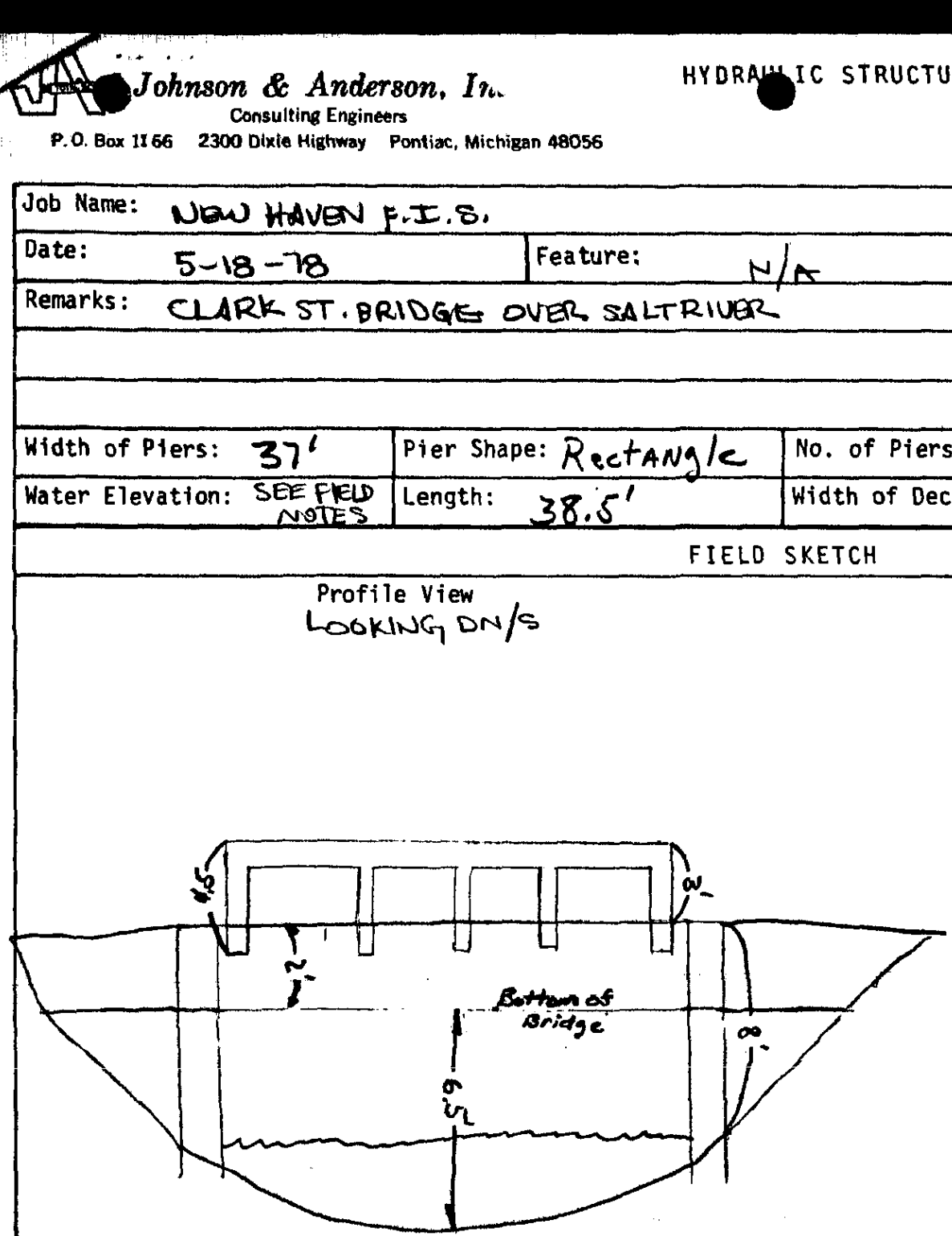
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

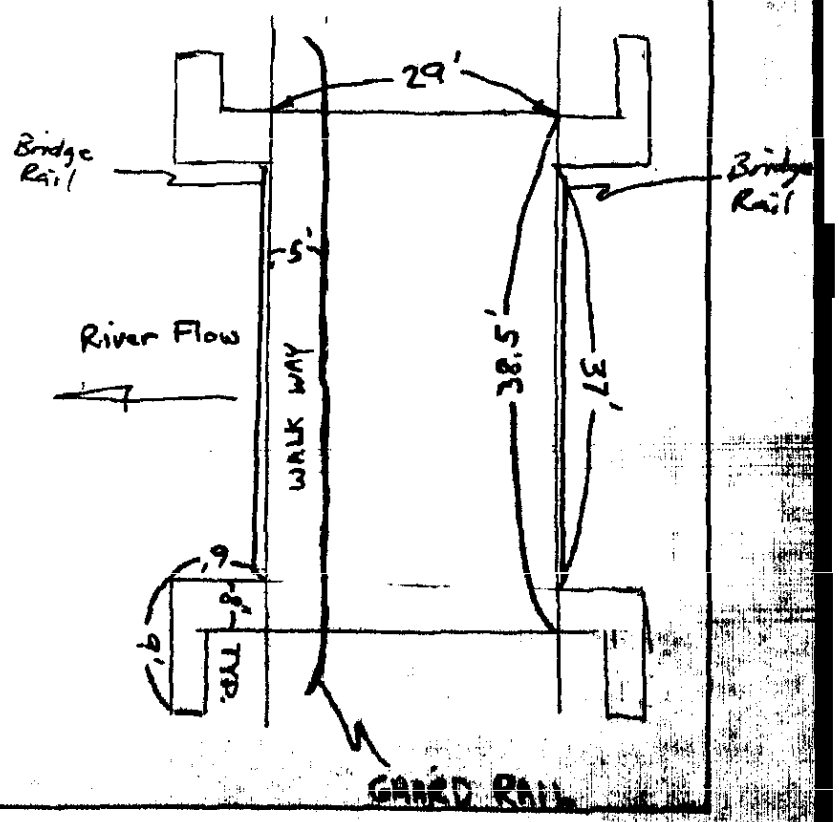
Job Name: NEW HAVEN F.I.S.			By: L. CUMBERWORTH / RVK
Date: 5-18-78	Feature: N/A		Water Course: SALT RIVER
Remarks: CLARK ST. BRIDGE OVER SALT RIVER			
Width of Piers: 37'	Pier Shape: Rectangle	No. of Piers: 2	Area:
Water Elevation: SEE FIELD NOTES	Length: 38.5'	Width of Deck: 29'	Skew: NONE

FIELD SKETCH

Profile View
LOOKING DN/S



Plan View



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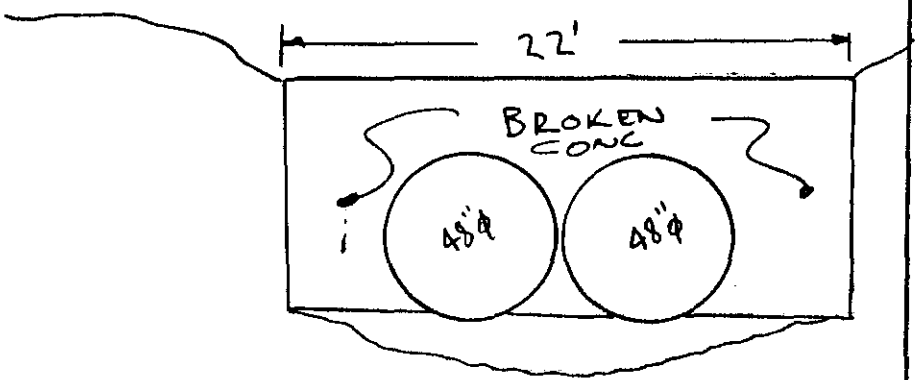
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

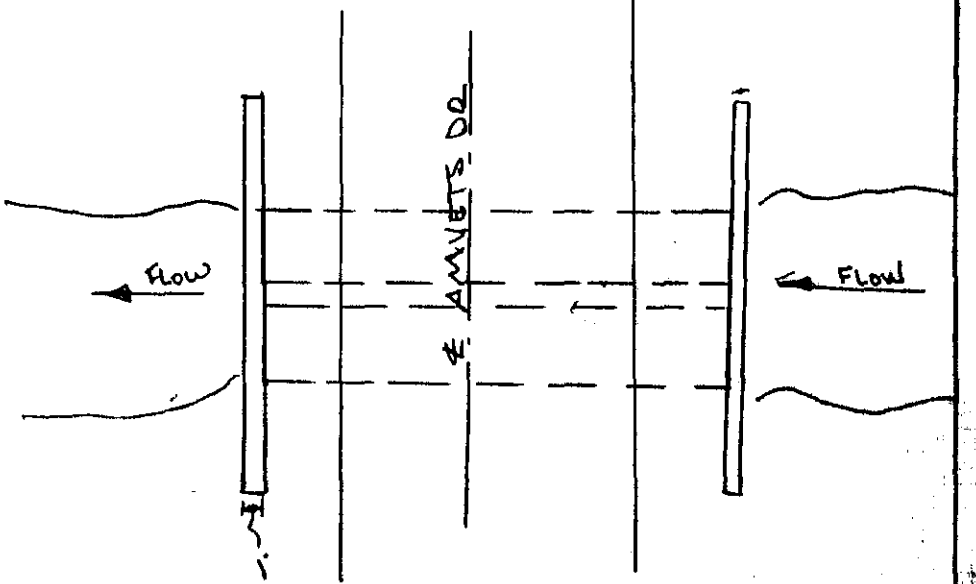
Job Name: NEW HAVEN F1S			By: JANETTE
Date: 1-25-78/7-29-78	Feature: AMVETS DR.		Water Course: SHOOK DRAIN
Remarks: TWIN 48" ϕ CMP'S			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: 36'	Width of Deck: —	Skew:

FIELD SKETCH

Profile View



Plan View



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HYDRAULIC STRUCTURAL DATA

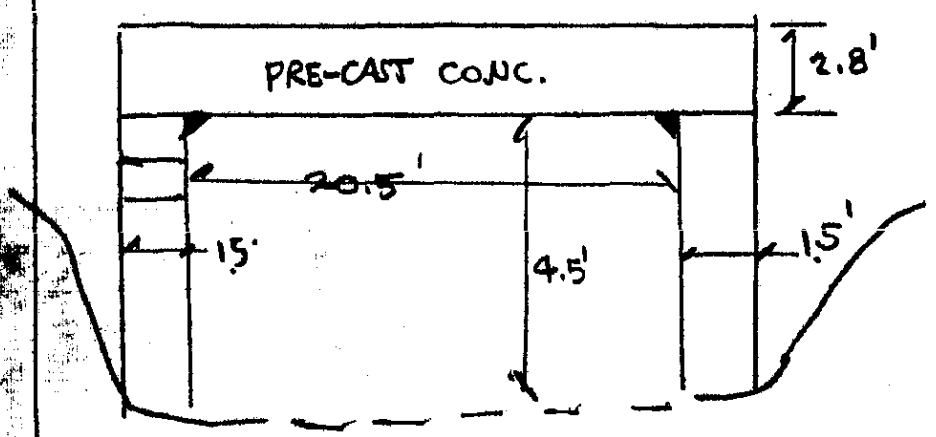
Code No. 5850-05

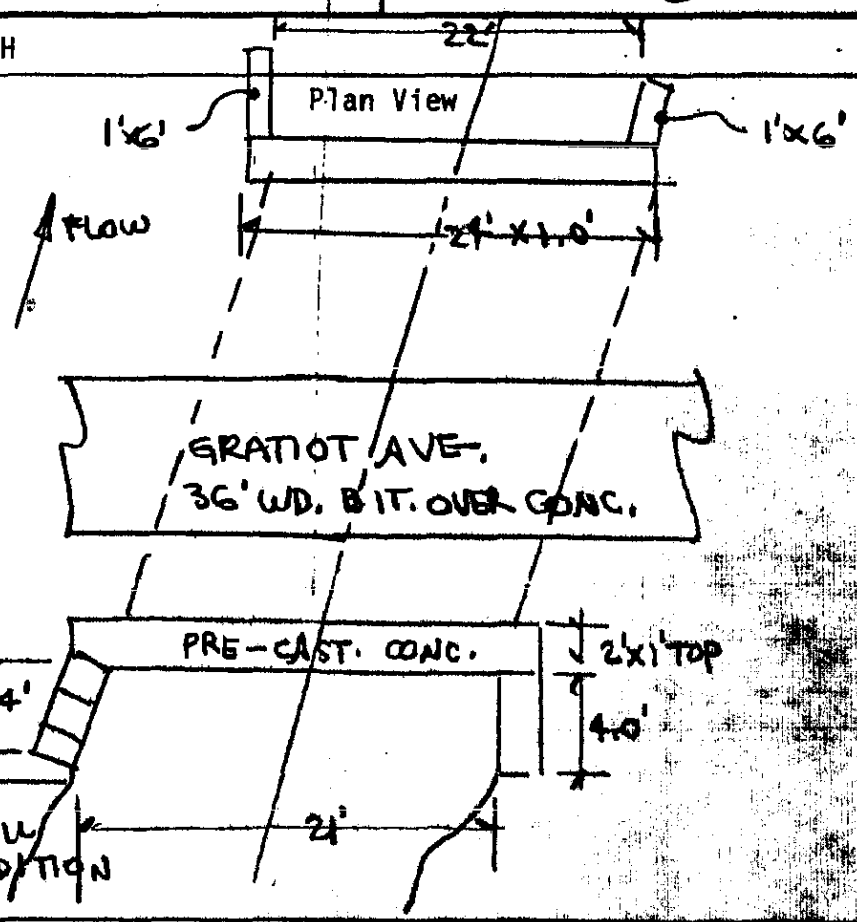
Job Name: NEW HAVEN F.I.S. B.S.#5			By: R. KLEINERT
Date: 5-10-78	Feature: Gratiot Avenue		Water Course: SHOOK DRAIN
Remarks:			
Width of Piers: 1.5'	Pier Shape: SQ.	No. of Piers: 4	Area:
Water Elevation: SEE K-SEC. NOTES	Length: 36'	Width of Deck: 20.5'	Skew: 18'

FIELD SKETCH

Profile View

LOOKING DOWNSTREAM





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HYDRAULIC STRUCTURAL DATA

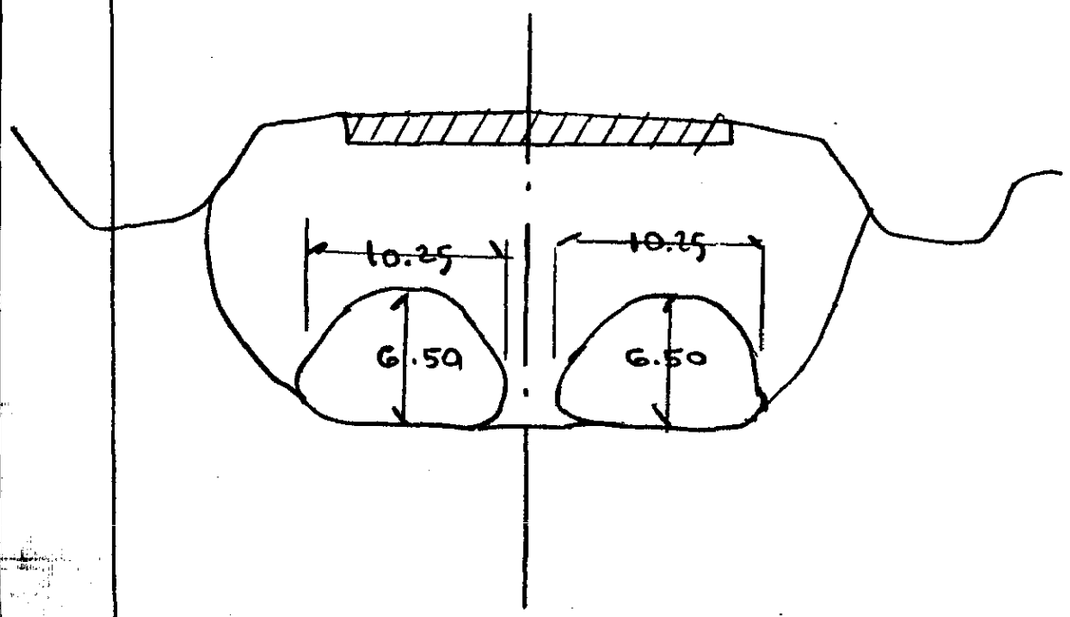
B.S. # 5

Code No. _____

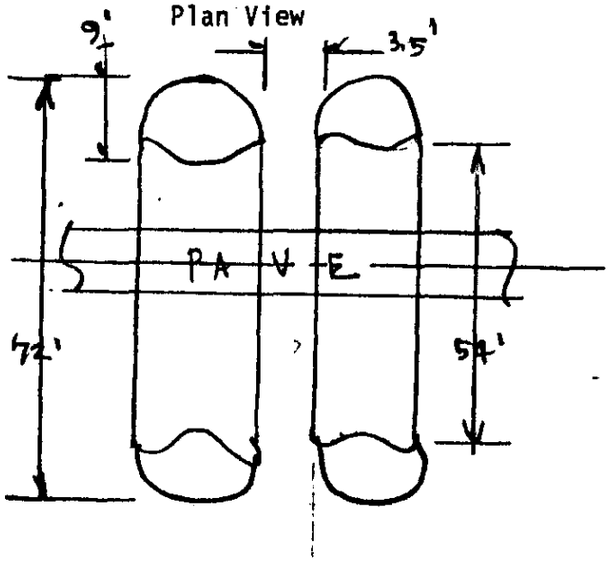
Job Name: NEW HAVEN F.I.S. SHOOK DRAIN			By: R. KLEINERT
Date: 7-29-78	Feature: GRATIOT AVE BY-PASS RD.		Water Course: SHOOK DRAIN
Remarks: TWIN ARCH CULVERTS			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: —	Width of Deck: —	Skew:

FIELD SKETCH

Profile View



Plan View



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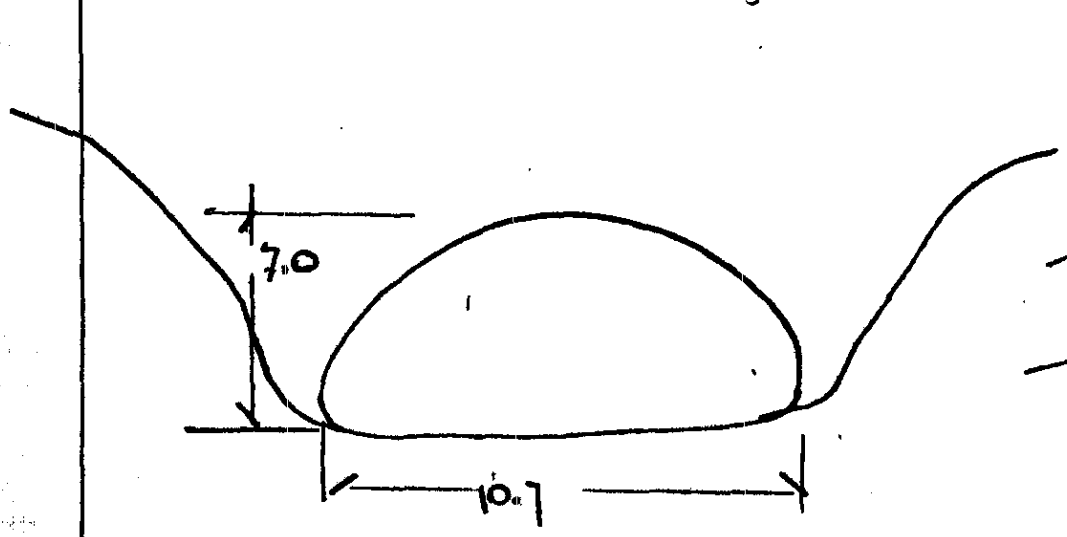
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

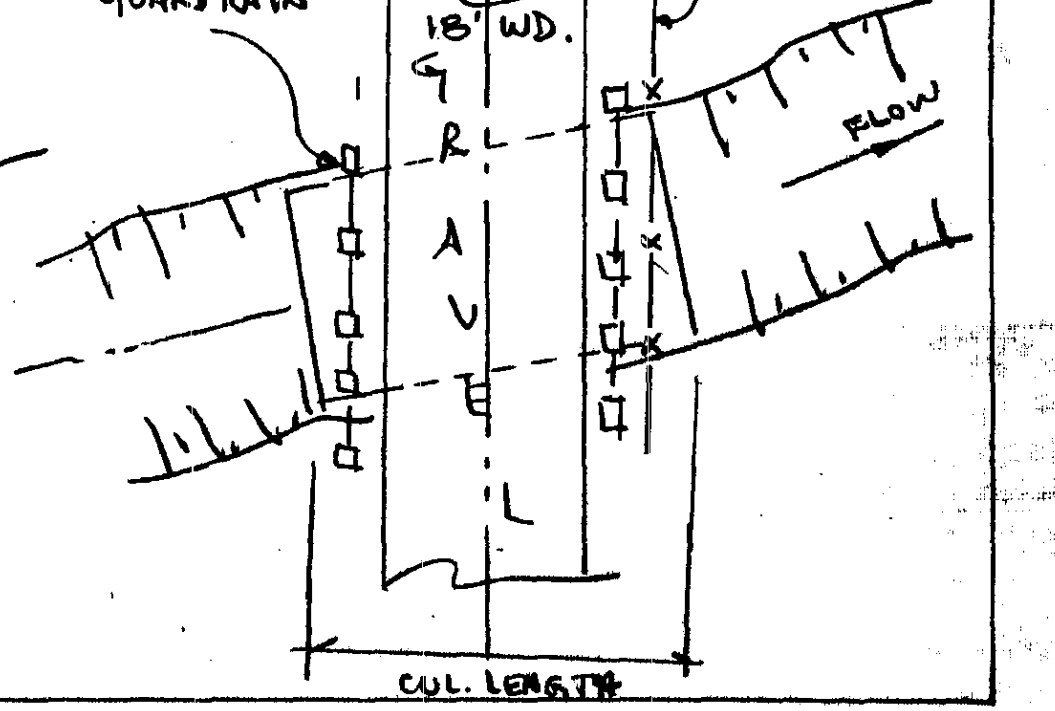
Job Name: NEW HAVEN F.I.S. B/S #9			By: KLEINERT
Date: 10-19-78	Feature: Victoria Street		Water Course: SHOOK DRAIN
Remarks: OLD BRIDGE HAS BEEN REPLACED BY MULT-PLATE CULVERT			
Width of Piers: N/A	Pier Shape: N/A	No. of Piers: N/A	Area:
Water Elevation: CV1.8	Length: (52') recent construction plans indicate length = 56'	Width of Deck: N/A	Skew: 15°

FIELD SKETCH

Profile View



Plan View



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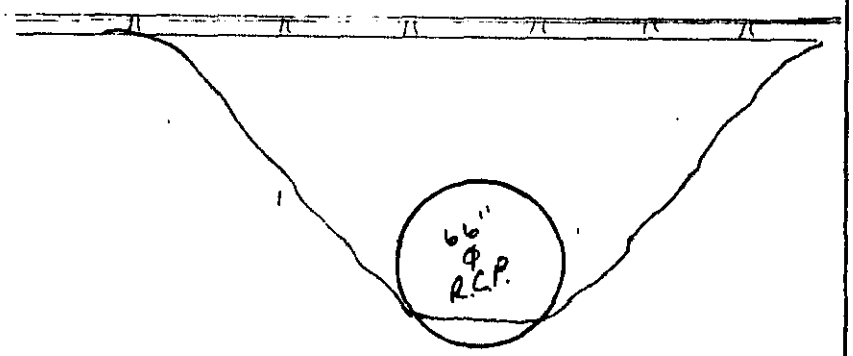
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

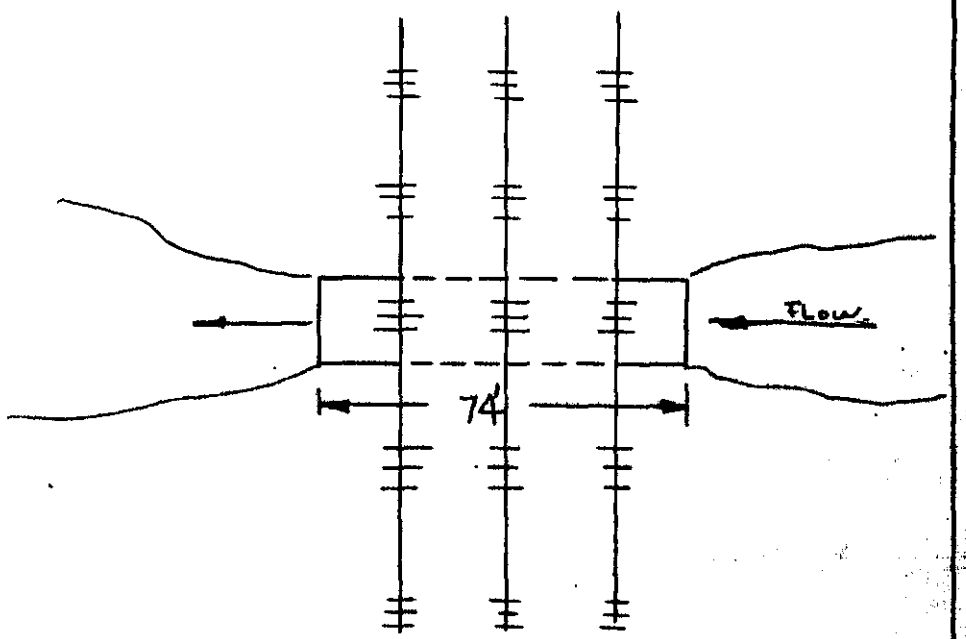
Job Name: NEW HAVEN FIS BS#10			By: JANETTE
Date: 1-25-78	Feature: R.R. CULV.		Water Course: SHOOK DRAIN
Remarks: 66" Φ R.C.P.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 74'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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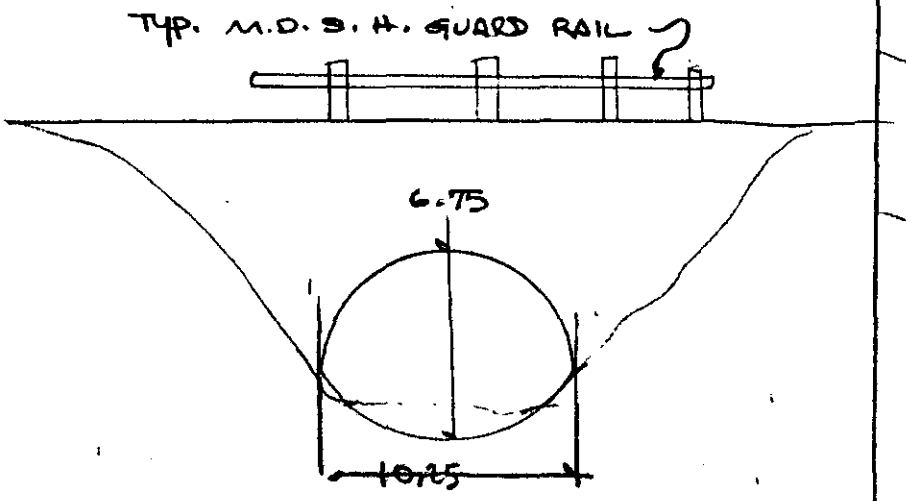
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

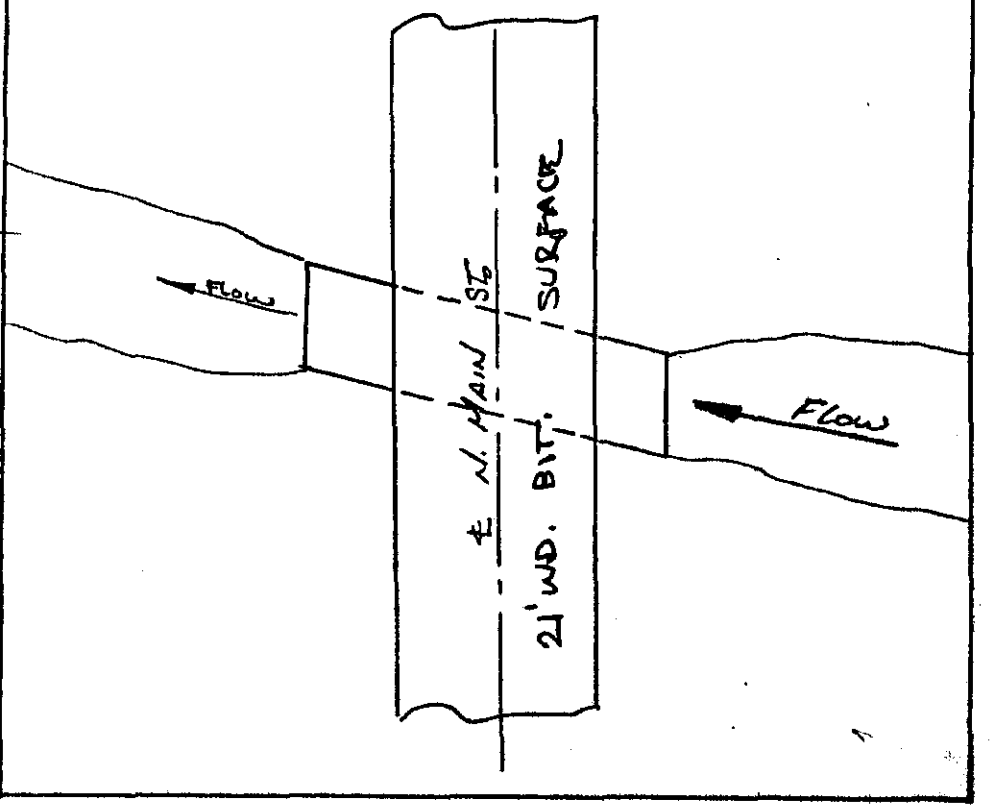
Job Name: NEW HAVEN FIS B.S.# 12			By: JANETTE
Date: 1-25-78	Feature: ~~N. MAIN STREET~~ HAVENRIDGE RD. CULV.		Water Course: SHOOK DRAIN
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation:	Length: 78'	Width of Deck:	Skew: 12°

FIELD SKETCH

Profile View



Plan View



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HYDRAULIC STRUCTURAL DATA

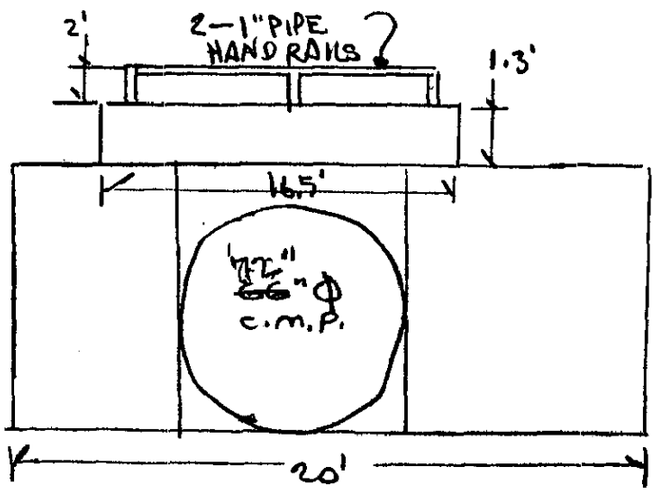
Code No. 5850-05

Job Name: NEW HAVEN F.I.S. B.S.#15			By: R.K LEINERT
Date: 5-10-78	Feature:		Water Course: SHOOK DRAIN
Remarks: CONC. BLOCK CONST.			
Width of Piers: /	Pier Shape: /	No. of Piers: /	Area:
Water Elevation: SEE X-SEC. NOTES	Length: 60'	Width of Deck: 36'	Skew: 26'

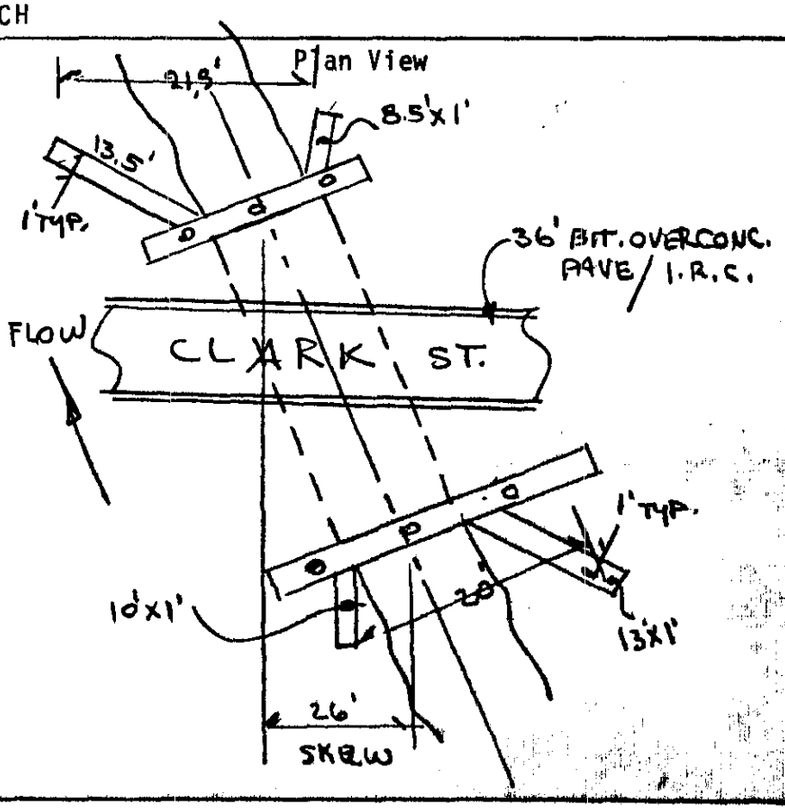
FIELD SKETCH

Profile View

LOOKING D'STREAM



Plan View



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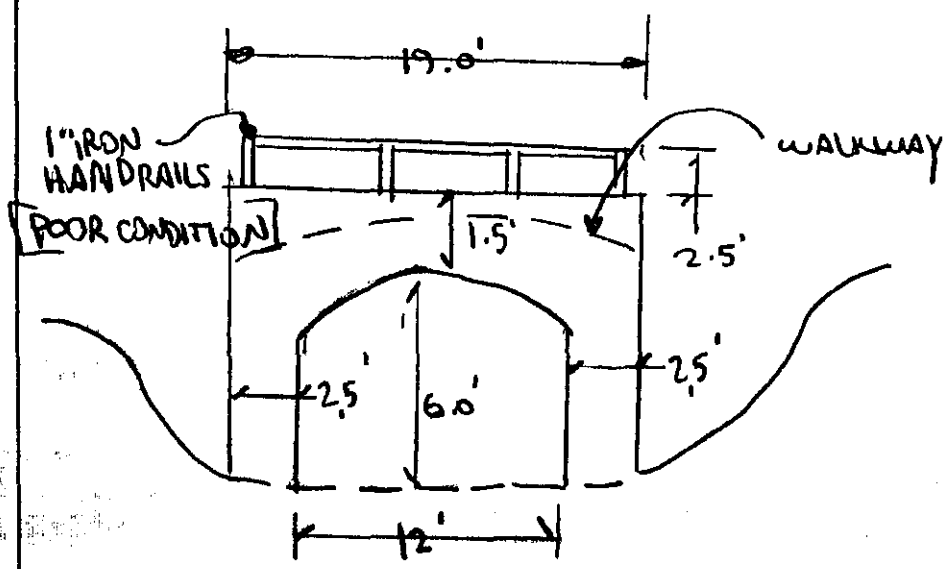
HYDRAULIC STRUCTURAL DATA

Code No. 5850-05

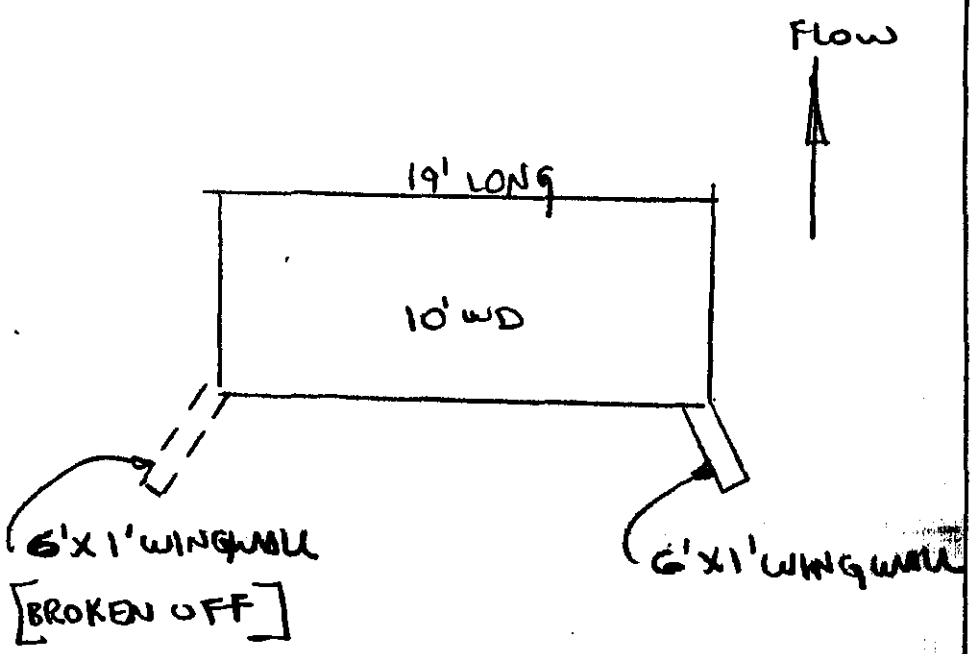
Job Name: NEW HAVEN F.I.S. B.S.# 17			By: R. KLEINERT
Date: 5-10-78	Feature:		Water Course: SHOOK DRAIN
Remarks: CONC. & FIELD STONE PIERS & DECK / 1" PIPE HAND RAILS			
Width of Piers: 2.5	Pier Shape: SQ.	No. of Piers: 2	Area:
Water Elevation: SEE X-SEC. NOTES	Length: 19'	Width of Deck: 10'	Skew: NONE

FIELD SKETCH

Profile View
LOOKING D'STREAM



Plan View

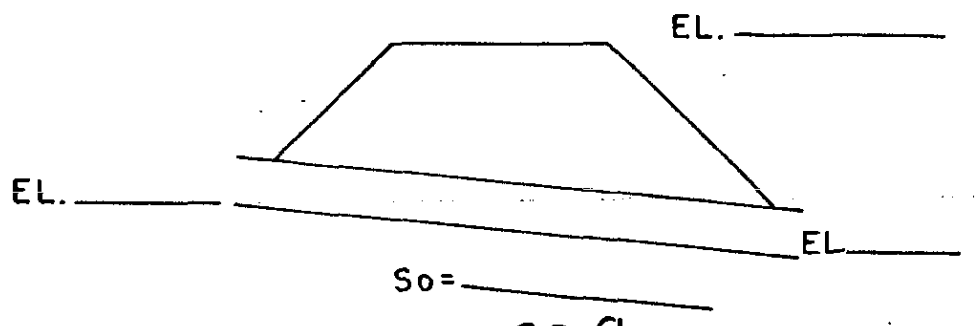


JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Salt River	CULVERT LOCATION: 26-Mile Road				
CULVERT DESCRIPTION: Concrete bridge – no piers; wingwalls are an extension of barrel	BY RCD	DATE 11/13/78			
WEIR DESCRIPTION: Paved roadway					

A = 233.4 sq ft D = ____

WP = 106.7 ft Ke = 0.7

29.1 / R^4/3 = ____ n = 0.040



So = ____

L = 25 ft.

Sta. ____ Sta. ____

CALCULATIONS AND COMMENTS:

VARIABLE XKOR :

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.040)^2(25)}{(233.4/106.7)^{4/3}} = 0.41$$

$K_e = 0.7$ (wingwalls are an extension of barrel)

$XKOR = 1 + Ke + K_f$

$XKOR = 1 + 0.70 + 0.41 = 2.11$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5'

From Measurement of Peak Discharge At Dams by Indirect Methods

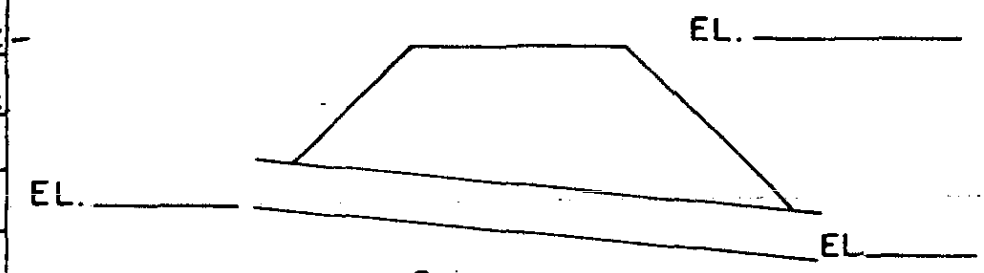
p. 27, fig. 23,

C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Amvet Drive				
CULVERT DESCRIPTION: Twin 48" C.M.P.'s	BY RCD	DATE 11/13/78			

w/stone and mortar headwall parallel to embankment - no wingwalls, Wood debris in culverts

WEIR DESCRIPTION: Dirt and gravel roadway



A = 12.566 ft² each D = _____

R = 1.0' Ke = 0.5

$\frac{29.1}{R^{4/3}}$ = _____ n = 0.030

So = _____

L = 36 ft.

Sta. Sta.

CALCULATIONS AND COMMENTS:

LOSS COEFFICIENT "K" - VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_{f\ 48"\ CMP.} = \frac{29.2\,(.030)^2(36)}{(1)^{4/3}} = 0.95$

$XKOR_1 = 1 + K_e + K_f$

$XKOR_1 = 1 + 0.50 + 0.95 = 2.45$

$XKOR = K_1 = K_2 = 2.45$

$K_{equiv.} = \left[\frac{A_{TOTAL}}{\frac{A_1}{\sqrt{K_1}} + \frac{A_2}{\sqrt{K_2}}}\right]^2 = \left[\frac{12.566 + 12.566}{\frac{12.566}{\sqrt{2.45}} + \frac{12.566}{\sqrt{2.45}}}\right]^2 = 2.45$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Avg. H ≈ 1.0 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23.

C = 2.83 (gravel)

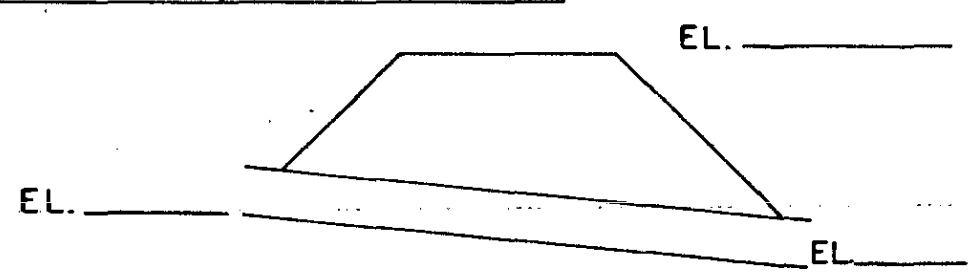
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 05 1 00

WATERCOURSE: Shook Drain CULVERT LOCATION: Gratiot Avenue

CULVERT DESCRIPTION: Concrete bridge w/ natural bottom. No piers; wingwalls are an extension of barrel.

BY RCD DATE 11/13/78

WEIR DESCRIPTION: Paved roadway.



A = 75.6 □' D = _____

WP = 45.6' Ke = 0.7

$\frac{29.1}{R^{4/3}}$ = _____ n = 0.025

So = _____

L = 36 ft.

Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.025)^2(36)}{(75.6/45.6)^{4/3}} = 0.33$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.7 + 0.33 = 2.03$

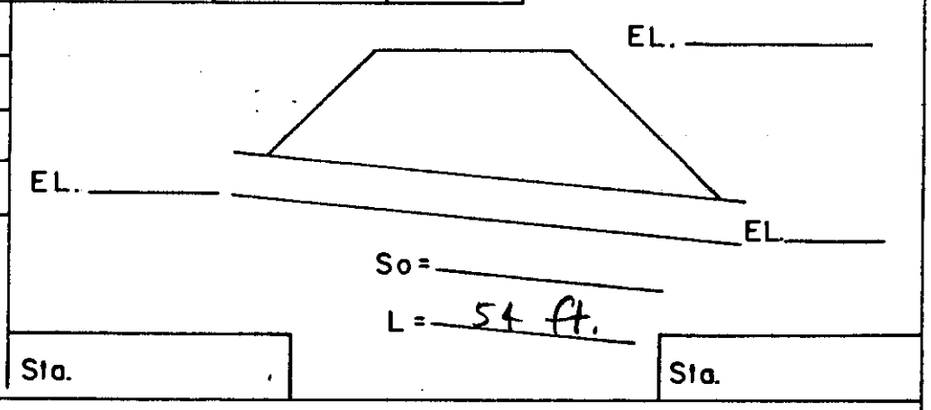
COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Gratiot Avenue exit ramp				
CULVERT DESCRIPTION: Twin 6.50' x 10.25' multiplate arch culverts. No headwall; pipes projecting from fill.	BY RCD	DATE 11/13/78			
WEIR DESCRIPTION: Paved roadway.					



A = 55.0' x 2 = 110 sq ft. D = _____

WP = 27.5 x 2 = 55 ft. Ke = 0.9

$\frac{29.1}{R^{4/3}}$ = _____ n = 0.0318

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0318)^2(54)}{(110.0/55.0)^{4/3}} = 0.63$$

XKOR = 1 + Ke + Kf

XKOR = 1 + 0.9 + 0.63 = **2.53**

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

Bridge dimensions assumed to be 10'-3" x 6'-9" for bridge area and wetted perimeter calculations.

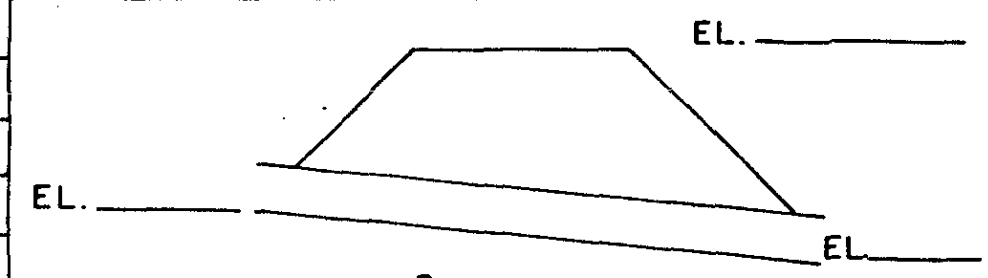
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 05 1

WATERCOURSE: Shook Drain CULVERT LOCATION: Victoria Street

CULVERT DESCRIPTION: 16-11" x 7'-1" multiplate arch culvert 10' projecting from "fill" (concrete bag slope protection)

BY RCD DATE 11/13/78

WEIR DESCRIPTION: Gravel roadway



A = 60 □'

R = 2.07

$\frac{29.1}{R^{4/3}}$ =

D =

Ke = 0.9

n = .0315

So =

L = 56 ft.

Sta.

Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0315)^2(56)}{(2.07)^{4/3}} = 0.62$$

XKOR = $1 + K_e + K_f$

XKOR = $1 + 0.9 + 0.62 = 2.52$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

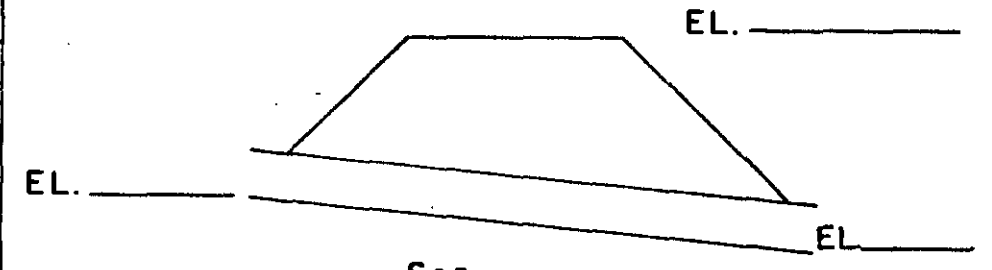
C = 3.02 (paved)

JOB NAME: Village of New Haven FIS	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Grand Trunk Western Railroad				
CULVERT DESCRIPTION: 66" R.C.P. projecting from fill.	BY RCD	DATE 11/13/78			
WEIR DESCRIPTION: Railroad tracks w/wood ties.					

A = 24.1 sq ft D = ____

WP = 17.6' Ke = 0.9

$\frac{29.1}{R^{4/3}}$ = ____ n = .015



CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.015)^2(74)}{(24.1/17.6)^{4/3}} = 0.32$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.9 + 0.32 = 2.22$

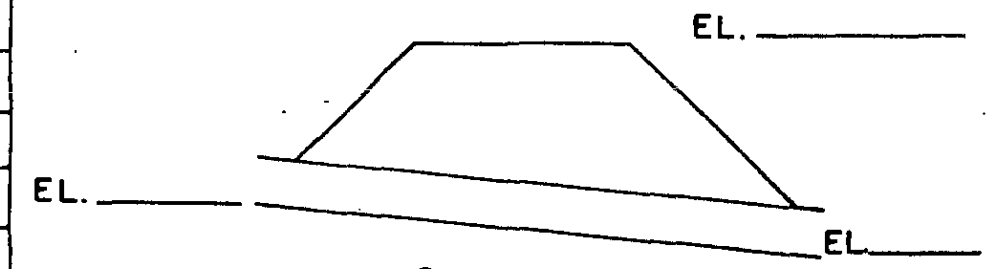
COEFFICIENT OF DISCHARGE "C" (COFQ)

Average H ≈ 0.1 for 100-year flow.

From Measurement of Peak Discharge At Dams by Indirect Methods, p.27, fig. 23,

C = 2.54 (gravel)

JOB NAME: Village of New Haven FIS	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Havenridge Road				
CULVERT DESCRIPTION: 6.25' x 10.25' multi-plate arch culvert projecting from "fill" (concrete bag slope protection)	BY RCD	DATE 11/13/78			
WEIR DESCRIPTION: Paved roadway					



A = 54.9 sq ft D = ____

WP = 28.0' Ke = 0.9

29.1/R^4/3 = ____ n = .0319

So = ____

L = 78 ft.

Sta. ____ Sta. ____

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$$K_f = \frac{29.2\,(.0319)^2(78)}{(54.9/28.0)^{4/3}} = 0.94$$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.90 + 0.94 = 2.84$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Average H x 0.5 ft. for 100-yr. flood

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

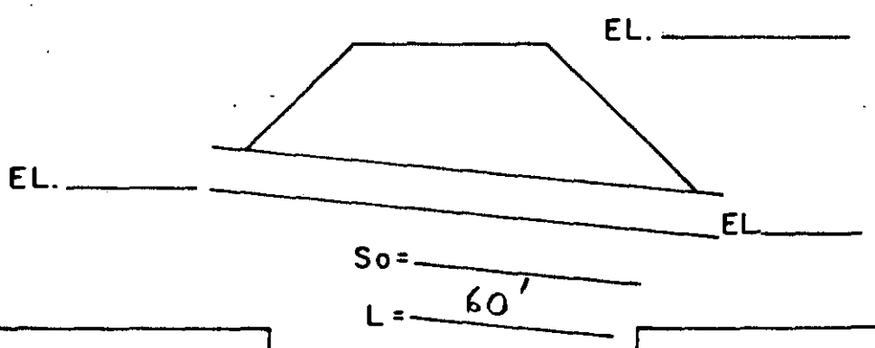
C = 3.02 (paved)

JOB NAME: Village of New Haven F.I.S.	JOB NO.	5850	05	1	00
WATERCOURSE: Shook Drain	CULVERT LOCATION: Clark Street				
CULVERT DESCRIPTION: 72" structural plate	BY RCD	DATE 11/14/78			
C.M.P. encased in concrete headwall & wingwalls @30°-75° to barrel (square edged @ crown)					
WEIR DESCRIPTION: paved roadway					

A = 28.27 □′ D = _____

R = 1.5′ Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = _____ n = .0324



Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_f = \frac{29.2\,(.0324)^2(60)}{(1.5)^{4/3}} = 1.07$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.40 + 1.07 = 2.47$

COEFFICIENT OF DISCHARGE "C" (COFQ)

"H" for 100-yr. flow = 0.5′

From Measurement of Peak Discharge At Dams by Indirect Methods, p. 27, fig. 23,

C = 3.02 (paved)

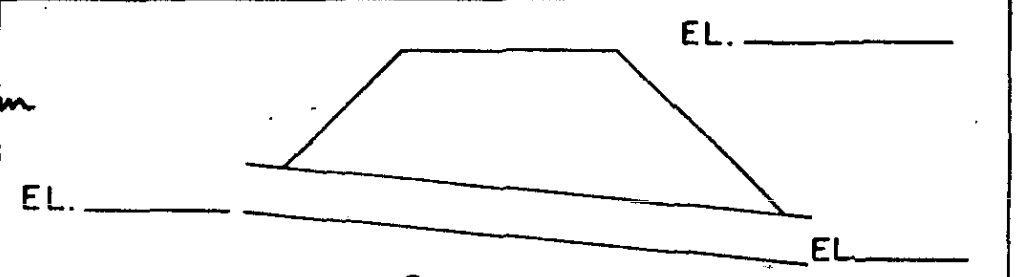
JOB NAME: Village of New Haven F.I.S. JOB NO. 5850 | 05 | 1 | 00

WATERCOURSE: Shook Drain CULVERT LOCATION: 610' ± u/s of Clark St.

CULVERT DESCRIPTION: Badly deteriorated concrete walkway bridge & wingwalls @ 30°-75° to barrel (square edged @ crown) - no piers, natural bottom

BY RCD DATE 11/14/78

WEIR DESCRIPTION: concrete for span of bridge only & overland flow on sides



A = 54.0 □' D = ____

WP = 31.4' Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = ____ n = .025

So = ____

L = 19'

Sta. Sta.

CALCULATIONS AND COMMENTS:

VARIABLE XKOR

Friction loss $K_f = 29.2\, n^2 L / R^{4/3}$

$K_f = \frac{29.2\,(.025)^2(19)}{(54.0/31.4)^{4/3}} = 0.17$

$XKOR = 1 + K_e + K_f$

$XKOR = 1 + 0.40 + 0.17 = \underline{1.57}$

COEFFICIENT OF DISCHARGE "C" (COFQ)

Assume H = 0.5 ft.

From Measurement of Peak Discharge At Dams By Indirect Methods, p. 27, fig. 23,

C = 2.68 (gravel)

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: Multiple Profiles for encroached floodway

00BREAK00

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$     $$  $$$$$$$$  $$    $$  $$$$$$$$   $$$$$ $   $$$$$$    $$$$$$
$$    $$  $$        $$    $$     $$     $$    $   $$    $$  $$    $$
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NEHJOOS JANDA 12/20/78 14.23.52 7600 JO

VILLAGE OF NEW HAVEN F.I.S.

J03 NO. 5850-05

RECEIVED
JAN 03 1979
WATER MANAGEMENT

SHOOK DRAIN

MULTIPLE PROFILES FOR ENCROACHED FLOODWAY

JOHNSON AND ANDERSON, INC. 12-28-78

PRINTED IN U.S.A.
FORM 1411 GS PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

C
T1      VILLAGE OF NEW HAVEN F.I.S.  JOB NO. 5850-05  MACOMB COUNTY, MICHIGAN
T2      10-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        1.        2.        0.        0.  0.000000      0.00      0.0       0.    602.960     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
     38.000    40.000    41.000    42.000    43.000     1.000     8.000    10.000    12.000     3.000

     33.000     4.000    25.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC     .080      .080      .050      .300      .500     0.000     0.000     0.000     0.000     0.000
QT    4.000   210.000   310.000   360.000   505.000     0.000     0.000     0.000     0.000     0.000

          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

X1      0.000    11.000   981.000  1025.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    605.900   917.000   601.400   930.000   601.700   981.000   598.400   986.000   597.200   991.000
GR    598.200   996.000   599.100  1000.000   606.100  1025.000   606.400  1100.000   607.300  1200.000
GR    610.100  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

          VALLEY SECTION A

X1    130.000    11.000   981.000  1025.000   130.000   130.000   130.000     0.000     0.000     0.000
GR    607.700   917.000   603.200   930.000   603.500   981.000   600.200   986.000   599.000   991.000
GR    600.000   996.000   600.900  1000.000   607.900  1025.000   608.200  1100.000   609.100  1200.000
GR    611.900  1300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    409.000     9.000   205.000   213.000   280.000   280.000   279.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR    609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR    601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000

          AMVET DRIVE BRIDGE - DOWNSTREAM FACE

X1    410.000     9.000   205.000   213.000     1.000     1.000     1.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   170.000     0.000   270.000     0.000     0.000     0.000     0.000
GR    609.300     0.000   607.700   100.000   603.400   200.000   601.300   205.000   600.100   209.000
GR    601.200   213.000   603.900   223.000   606.400   300.000   607.700   400.000     0.000     0.000
SB      0.000     2.270     2.830     0.000     5.900     0.000    24.800     0.000   600.000   600.100
NC       .050      .050      .027     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

X1	446.000	32.000	800.000	808.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	765.000	0.000	865.000	0.000	0.000	0.000	0.000
BT	17.000	765.000	607.000	0.000	790.000	606.700	0.000	800.000	606.600	602.000
BT	800.100	606.600	602.800	801.000	606.600	603.800	802.000	606.600	604.000	803.000
BT	606.600	603.800	803.900	606.600	602.800	804.000	606.600	602.000	804.100	606.600
BT	602.800	805.000	606.600	603.800	806.000	606.700	604.000	807.000	606.700	603.800
BT	807.900	606.700	602.800	808.000	606.700	602.000	830.000	606.800	0.000	865.000
BT	607.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.100	0.000	613.500	100.000	611.200	200.000	611.300	300.000	611.500	400.000
GR	610.900	500.800	610.200	600.000	607.600	700.000	607.000	765.000	606.700	790.000
GR	602.000	800.000	601.200	800.100	600.200	801.000	600.000	802.000	600.200	803.000
GR	601.200	803.900	602.000	804.000	601.200	804.100	600.200	805.000	600.000	806.000
GR	600.200	807.000	601.200	807.900	602.000	808.000	606.800	830.000	607.100	865.000
GR	607.300	900.000	608.100	1000.000	608.700	1100.000	610.000	1200.000	610.300	1300.000
GR	610.900	1400.000	612.300	1458.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	447.000	9.000	200.000	223.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	609.200	0.000	607.600	100.000	603.300	200.000	601.200	205.000	600.000	209.000
GR	601.100	213.000	603.800	223.000	604.300	300.000	607.600	400.000	0.000	0.000
NH	4.000	.040	150.000	.070	200.000	.050	223.000	.040	400.000	0.000
X1	506.000	0.000	0.000	0.000	50.000	70.000	59.000	0.000	2.400	0.000
X3	0.000	0.000	0.000	173.000	0.000	243.000	0.000	0.000	0.000	0.000

VALLEY SECTION C

X1	526.000	9.000	200.000	223.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	612.400	0.000	610.800	100.000	606.500	200.000	604.400	205.000	603.200	209.000
GR	604.300	213.000	607.000	223.000	609.500	300.000	610.800	400.000	0.000	0.000
NC	.080	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	576.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

VALLEY SECTION D

X1	1316.000	19.000	775.000	800.000	700.000	760.000	740.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.600	0.000	614.900	90.000	613.500	190.000	612.700	290.000	612.500	390.000
GR	612.500	390.000	612.300	490.000	610.800	590.000	610.100	620.000	607.100	627.000
GR	607.800	690.000	606.800	775.000	604.000	785.000	602.900	790.000	603.900	797.000
GR	605.300	800.000	605.100	840.000	611.100	869.000	611.500	890.000	0.000	0.000
X1	1626.000	0.000	0.000	0.000	320.000	300.000	310.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	755.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1666.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1846.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.800	0.000
X3	0.000	0.000	0.000	765.000	0.000	853.000	0.000	0.000	0.000	0.000
NC	.040	.050	.040	0.000	0.000	0.000				

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X1	1986.000	19.000	775.000	800.000	140.000	140.000	140.000	0.000	-.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	818.000	0.000	0.000	0.000	0.000
GR	618.700	0.000	618.000	90.000	616.600	190.000	615.800	290.000	615.600	390.000
GR	615.600	390.000	615.400	490.000	613.900	590.000	613.200	620.000	610.200	627.000
GR	610.900	690.000	609.900	775.000	607.100	785.000	606.000	790.000	607.100	797.000
GR	608.400	800.000	610.400	850.000	614.200	869.000	614.600	890.000	0.000	0.000
OT	4.000	205.000	305.000	355.000	500.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION E

X1	2065.000	35.000	1500.000	1524.000	80.000	80.000	79.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1497.000	0.000	1527.000	0.000	0.000	0.000	0.000
GR	620.600	0.000	620.300	100.000	620.600	200.000	620.500	300.000	619.600	400.000
GR	619.900	500.000	620.100	600.000	619.500	700.000	619.200	800.000	619.000	900.000
GR	618.100	1000.000	617.200	1100.000	616.600	1200.000	615.900	1300.000	614.800	1400.000
GR	611.000	1500.000	606.900	1512.000	606.200	1516.000	607.200	1520.000	611.000	1524.000
GR	610.100	1600.000	611.200	1700.000	612.800	1800.000	613.600	1900.000	614.200	2000.000
GR	614.900	2100.000	614.600	2200.000	614.300	2300.000	613.400	2400.000	614.000	2500.000
GR	614.000	2600.000	614.000	2700.000	613.800	2800.000	613.900	2900.000	614.000	3000.000

X1	2085.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	-.200	0.000
X3	0.000	0.000	0.000	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

X1	2086.000	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	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000
SB	0.000	2.030	3.020	0.000	16.430	0.000	75.600	0.000	605.700	606.000
NC	.035	.035	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

X1	2122.000	24.000	1220.000	1240.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1220.000	0.000	1240.000	0.000	0.000	0.000	0.000
BT	21.000	1200.000	613.200	0.000	1200.000	613.200	0.000	1220.000	613.600	0.000
BT	1220.000	616.600	610.300	1240.000	616.900	610.300	1240.000	613.900	0.000	1310.400
BT	614.900	0.000	1392.300	616.100	0.000	1474.200	617.600	0.000	1556.100	618.600
BT	0.000	1638.000	619.600	0.000	1719.900	620.300	0.000	1801.800	620.800	0.000
BT	1883.700	621.000	0.000	1965.600	621.100	0.000	2047.500	621.200	0.000	2129.400
BT	621.300	0.000	2211.300	621.400	0.000	2293.200	621.500	0.000	2375.100	621.600
BT	0.000	2457.000	621.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	613.200	1200.000	613.200	1200.000	610.300	1220.000	607.500	1220.000	606.700	1222.000
GR	605.700	1229.000	606.900	1237.000	608.000	1240.000	610.300	1240.000	614.900	1310.400
GR	616.100	1392.300	617.600	1474.200	618.600	1556.100	619.600	1638.000	620.300	1719.900
GR	620.800	1801.800	621.000	1883.700	621.100	1965.600	621.200	2047.500	621.300	2129.400
GR	621.400	2211.300	621.500	2293.200	621.600	2375.100	621.500	2457.000	0.000	0.000
NC	.080	.060	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2123.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1504.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.100	0.000	619.800	100.000	620.100	200.000	620.000	300.000	619.100	400.000
GR	619.400	500.000	619.600	600.000	619.000	700.000	618.700	800.000	618.500	900.000
GR	617.600	1000.000	616.700	1100.000	616.100	1200.000	615.400	1300.000	614.300	1400.000
GR	610.500	1500.000	606.400	1512.000	605.700	1516.000	606.700	1520.000	610.500	1524.000
GR	609.600	1600.000	610.700	1700.000	612.300	1800.000	613.100	1900.000	613.700	2000.000
GR	614.400	2100.000	614.100	2200.000	613.800	2300.000	612.900	2400.000	613.500	2500.000
GR	613.500	2600.000	613.500	2700.000	613.300	2800.000	613.400	2900.000	613.500	3000.000

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X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

X1	2292.000	20.000	248.000	271.500	1.000	1.000	1.000	0.000	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	607.000	248.000
GR	606.000	250.000	606.000	253.000	606.000	256.000	607.000	258.000	609.000	258.000
GR	609.200	261.500	607.200	261.500	606.200	263.500	606.200	266.500	606.200	269.500
GR	607.200	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
SB	0.000	2.530	3.020	0.000	14.850	0.000	109.900	0.000	605.800	606.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

X1	2346.000	20.000	248.000	271.500	54.000	54.000	54.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	616.000	0.000	60.000	615.800	0.000	160.000	615.600	0.000
BT	248.000	615.500	608.800	250.000	615.500	611.800	253.000	615.500	612.800	256.000
BT	615.500	611.800	258.000	615.500	608.800	261.500	615.500	609.100	263.500	615.500
BT	612.100	266.500	615.500	613.100	269.500	615.500	612.100	271.500	615.500	609.100
BT	360.000	615.700	0.000	460.000	616.000	0.000	505.000	616.600	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	606.800	248.000
GR	605.800	250.000	605.800	253.000	605.800	256.000	606.800	258.000	608.800	258.000
GR	609.100	261.500	607.100	261.500	606.100	263.500	606.100	266.500	606.100	269.500
GR	607.100	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2347.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.200	0.000	619.900	100.000	620.200	200.000	620.100	300.000	619.200	400.000
GR	619.500	500.000	619.700	600.000	619.100	700.000	618.800	800.000	618.600	900.000
GR	617.700	1000.000	616.800	1100.000	616.200	1200.000	615.500	1300.000	614.400	1400.000
GR	610.600	1500.000	606.500	1512.000	605.800	1516.000	606.800	1520.000	610.600	1524.000
GR	609.700	1600.000	610.800	1700.000	612.400	1800.000	613.200	1900.000	613.800	2000.000
GR	614.500	2100.000	614.200	2200.000	613.900	2300.000	613.000	2400.000	613.600	2500.000
GR	613.600	2600.000	613.600	2700.000	613.400	2800.000	613.500	2900.000	613.600	3000.000

X1	2627.000	14.000	265.000	300.000	275.000	290.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	615.200	0.000	614.000	100.000	613.200	200.000	612.500	265.000	609.200	275.000
GR	608.100	282.000	607.400	284.000	607.100	286.000	607.600	289.000	609.300	290.000
GR	609.800	294.000	612.200	300.000	613.300	500.000	615.500	600.000	0.000	0.000

X1	2907.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	356.000	0.000	0.000	0.000	0.000

X1	3187.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	366.000	0.000	0.000	0.000	0.000
NH	5.000	.065	265.000	.080	275.000	.045	290.000	.080	300.000	.065
NH	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

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VALLEY SECTION H

X1	3466.000	14.000	265.000	300.000	275.000	290.000	279.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	386.000	0.000	0.000	0.000	0.000
GR	619.200	0.000	618.000	100.000	617.200	200.000	616.500	265.000	613.200	275.000
GR	612.100	282.000	611.400	284.000	611.100	286.000	611.600	289.000	613.300	290.000
GR	613.800	294.000	616.200	300.000	617.300	500.000	619.500	600.000	0.000	0.000
NH	5.000	.060	400.000	.080	405.000	.050	420.000	.080	426.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION I

X1	5226.000	16.000	400.000	426.000	1830.000	1710.000	1760.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	625.400	0.000	625.800	100.000	626.000	200.000	624.300	300.000	619.600	400.000
GR	615.100	410.000	614.000	412.000	614.000	414.000	614.300	416.000	614.500	419.000
GR	619.000	426.000	619.400	500.000	619.600	550.000	623.400	600.000	625.700	700.000
GR	626.200	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5795.000	5.000	0.000	33.000	620.000	530.000	569.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1.000	0.000	32.000	0.000	0.000	0.000	0.000
GR	623.300	0.000	617.900	9.000	616.100	16.000	617.700	22.000	623.500	33.000
QT	4.000	195.000	290.000	335.000	475.000	0.000	0.000	0.000	0.000	0.000

X1	5835.000	5.000	0.000	33.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	11.000	0.000	22.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.200	16.000	617.800	22.000	623.600	33.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5836.000	19.000	494.500	505.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.200	494.500	616.200	497.000	616.200	500.000
GR	616.200	503.000	617.200	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000
SB	0.000	2.520	3.020	0.000	8.430	0.000	59.000	0.000	616.500	616.200

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5892.000	19.000	494.500	505.500	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
BT	17.000	0.000	626.900	0.000	100.000	627.200	0.000	200.000	627.500	0.000
BT	300.000	626.800	0.000	400.000	624.900	0.000	494.500	625.200	617.500	494.500
BT	625.200	619.500	497.000	625.200	622.500	500.000	625.200	623.500	503.000	625.200
BT	622.500	505.500	625.200	619.500	505.500	625.200	617.500	600.000	624.700	0.000
BT	700.000	626.300	0.000	800.000	627.600	0.000	900.000	628.700	0.000	1000.000
BT	629.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.500	494.500	616.500	497.000	616.500	500.000
GR	616.500	503.000	617.500	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000

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NC	.090	.090	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION K

X1	5893.000	5.000	0.000	33.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0.000	23.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.500	16.000	617.800	22.000	623.600	33.000
X1	5937.000	11.000	200.000	226.000	45.000	45.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	193.000	0.000	233.000	0.000	0.000	0.000	0.000
GR	625.800	0.000	623.100	100.000	622.000	200.000	619.200	205.000	618.200	207.000
GR	617.800	215.000	618.300	219.000	621.500	226.000	622.100	300.000	622.900	345.000
GR	626.500	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5981.000	11.000	200.000	226.000	40.000	40.000	44.000	0.000	0.000	0.000
GR	627.100	0.000	624.400	100.000	623.300	200.000	620.500	205.000	619.500	207.000
GR	619.100	215.000	619.600	219.000	622.800	226.000	623.400	300.000	624.200	345.000
GR	627.600	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

X1	5982.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.220	2.540	0.000	4.380	0.000	24.100	0.000	619.500	619.100
NC	1.000	1.000	.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

X1	6056.000	43.000	1490.000	1516.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1442.000	0.000	1562.000	0.000	0.000	0.000	0.000
BT	8.000	1442.000	629.200	0.000	1500.000	629.200	623.000	1501.000	629.200	624.400
BT	1502.000	629.200	625.000	1503.500	629.200	625.000	1504.500	629.200	624.400	1505.500
BT	629.200	623.000	1562.000	629.200	0.000	0.000	0.000	0.000	0.000	0.000
GR	630.200	0.000	630.100	100.000	629.800	200.000	629.600	300.000	629.600	400.000
GR	629.400	500.000	629.100	600.000	629.000	700.000	628.900	800.000	629.000	873.000
GR	628.900	900.000	629.000	1000.000	629.000	1100.000	629.100	1200.000	627.500	1290.000
GR	624.800	1390.000	623.700	1490.000	623.000	1500.000	621.500	1500.000	620.100	1501.000
GR	619.500	1502.000	619.500	1503.500	620.100	1504.500	621.500	1505.500	623.000	1505.500
GR	623.200	1516.000	623.800	1590.000	624.600	1635.000	628.000	1690.000	629.500	1800.000
GR	629.800	1900.000	630.100	2000.000	630.000	2100.000	630.000	2200.000	629.800	2300.000
GR	629.500	2400.000	629.500	2500.000	630.000	2522.000	629.800	2600.000	629.900	2700.000
GR	629.900	2800.000	630.000	2900.000	629.900	3000.000	0.000	0.000	0.000	0.000
NC	1.000	1.000	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6057.000	11.000	200.000	226.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	153.000	0.000	273.000	0.000	0.000	0.000	0.000
GR	627.500	0.000	624.800	100.000	623.700	200.000	620.900	205.000	619.900	207.000
GR	619.500	215.000	620.000	219.000	623.200	226.000	623.800	300.000	624.600	345.000
GR	628.000	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION M

X1	6076.000	11.000	200.000	226.000	30.000	30.000	19.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	153.000	0.000	273.000	0.000	0.000	0.000	0.000
GR	627.900	0.000	625.200	100.000	624.100	200.000	621.300	205.000	620.300	207.000
GR	619.900	215.000	620.400	219.000	623.600	226.000	624.200	300.000	625.000	345.000
GR	628.400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	6675.000	28.000	800.000	817.000	600.000	570.000	599.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

X1	6676.000	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	710.000	0.000	830.000	0.000	0.000	0.000	0.000
SB	0.000	2.840	3.020	0.000	7.840	0.000	54.900	0.000	621.900	621.900
NC	.105	.105	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

X1	6754.000	38.000	1495.000	1505.000	78.000	78.000	78.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1400.000	0.000	1520.000	0.000	0.000	0.000	0.000
BT	7.000	1400.000	629.400	0.000	1495.000	630.300	624.900	1497.000	630.300	627.900
BT	1500.000	630.300	628.900	1503.000	630.300	627.900	1505.000	630.200	624.900	1520.000
BT	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	645.000	0.000	644.000	100.000	643.100	200.000	641.600	300.000	640.400	400.000
GR	640.200	448.000	639.600	500.000	639.000	600.000	638.000	700.000	637.000	800.000
GR	636.100	900.000	635.400	980.000	635.300	1000.000	634.000	1100.000	631.900	1200.000
GR	630.500	1300.000	629.400	1400.000	626.700	1492.000	624.900	1495.000	622.900	1495.000
GR	621.900	1497.000	621.900	1500.000	621.900	1503.000	622.900	1505.000	624.900	1505.000
GR	626.900	1509.000	629.200	1600.000	630.200	1700.000	631.000	1800.000	632.100	1900.000
GR	631.400	2000.000	630.800	2100.000	629.700	2200.000	629.300	2300.000	628.900	2400.000
GR	628.100	2500.000	627.700	2600.000	627.700	2670.000	0.000	0.000	0.000	0.000
NC	.125	.125	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6755.000	28.000	805.000	815.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION O

X1	6784.000	28.000	800.000	817.000	30.000	30.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.700	0.000	637.700	100.000	636.600	200.000	634.800	301.000	635.300	400.000
GR	634.100	500.000	631.600	600.000	630.000	700.000	626.500	800.000	624.500	805.000
GR	621.700	810.000	623.400	815.000	626.700	817.000	628.500	900.000	628.700	920.000
GR	630.500	1000.000	631.300	1100.000	631.800	1200.000	632.000	1250.000	631.600	1300.000
GR	630.300	1400.000	629.900	1462.000	629.600	1500.000	629.100	1600.000	628.900	1700.000
GR	628.200	1800.000	628.000	1900.000	628.400	1989.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6964.000	0.000	0.000	0.000	170.000	190.000	180.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	720.000	0.000	910.000	0.000	0.000	0.000	0.000

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X1	7144.000	13.000	300.000	330.000	170.000	190.000	180.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	201.000	0.000	470.000	0.000	0.000	0.000	0.000
GR	636.700	0.000	636.200	100.000	635.600	138.000	632.300	150.000	627.500	200.000
GR	626.500	300.000	625.000	304.000	624.500	311.000	625.000	326.000	626.700	330.000
GR	629.100	400.000	633.300	500.000	634.000	600.000	0.000	0.000	0.000	0.000

VALLEY SECTION P

X1	7314.000	13.000	300.000	330.000	170.000	180.000	170.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	59.000	0.000	459.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	637.500	100.000	636.900	138.000	633.600	150.000	628.800	200.000
GR	627.800	300.000	626.300	304.000	625.800	311.000	626.300	326.000	628.000	330.000
GR	630.400	400.000	634.600	500.000	635.300	600.000	0.000	0.000	0.000	0.000
NC	.200	.200	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7873.000	0.000	0.000	0.000	490.000	550.000	559.000	0.000	1.500	0.000
X3	0.000	0.000	0.000	199.000	0.000	319.000	0.000	0.000	0.000	0.000
NC	.500	.500	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7893.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.100	0.000
X3	0.000	0.000	0.000	204.000	0.000	314.000	0.000	0.000	0.000	0.000
NC	.600	.600	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

X1	7894.000	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	204.000	0.000	314.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.020	0.000	8.080	0.000	28.270	0.000	627.500	627.400
NC	.800	.060	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

X1	7954.000	25.000	862.000	876.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	631.000	635.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	766.000	0.000	876.000	0.000	0.000	0.000	0.000
BT	20.000	766.000	635.000	0.000	788.700	635.100	0.000	870.000	637.000	630.500
BT	871.000	637.000	633.000	872.000	637.000	633.500	874.000	637.000	633.500	875.000
BT	637.000	633.000	876.000	637.000	630.500	923.700	639.700	0.000	956.500	640.200
BT	0.000	1040.400	642.900	0.000	1124.300	644.700	0.000	1206.200	646.200	0.000
BT	1292.100	646.600	0.000	1376.000	647.000	0.000	1459.900	647.300	0.000	1543.800
BT	647.600	0.000	1627.700	647.700	0.000	1711.600	648.900	0.000	1732.500	649.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	635.000	766.000	632.600	766.000	631.900	788.700	629.700	862.000	630.500	870.000
GR	629.500	870.000	628.000	871.000	627.500	872.000	627.500	874.000	628.000	875.000
GR	629.500	876.000	630.500	876.000	637.000	876.000	639.700	923.700	640.200	956.500
GR	642.900	1040.400	644.700	1124.300	646.200	1208.200	646.600	1292.100	647.000	1376.000
GR	647.300	1459.900	647.600	1543.800	647.700	1627.700	648.900	1711.600	649.000	1732.500
NC	1.000	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7955.000	12.000	300.000	325.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	207.000	0.000	318.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	635.200	100.000	632.800	200.000	629.700	300.000	627.900	308.000
GR	627.500	314.000	628.200	319.000	629.400	325.000	631.400	400.000	633.100	450.000
GR	642.600	500.000	643.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.500	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION R

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X1	7984.000	12.000	300.000	325.000	40.000	40.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	214.000	0.000	347.000	0.000	0.000	0.000	0.000
GR	639.400	0.000	636.600	100.000	634.200	200.000	631.100	300.000	629.300	308.000
GR	628.900	314.000	629.600	319.000	630.800	325.000	632.800	400.000	634.500	450.000
GR	644.000	500.000	644.700	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.050	400.000	.080	408.000	.050	421.000	.080	427.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	403.000	425.000	0.000	0.000	0.000

VALLEY SECTION S

X1	8544.000	15.000	400.000	427.000	520.000	560.000	560.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.200	400.000	631.200	408.000	630.500	414.000	632.600	421.000	636.100	427.000
GR	635.600	500.000	637.500	555.000	643.100	600.000	646.200	700.000	649.000	800.000
ET	0.000	6.100	6.100	6.100	0.000	408.000	420.000	0.000	0.000	0.000

X1	8563.000	0.000	0.000	0.000	20.000	20.000	19.000	0.000	.300	0.000
NC	.060	.060	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	410.000	422.000	0.000	0.000	0.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

X1	8564.000	16.000	410.000	422.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.100	0.000	649.500	100.000	648.200	200.000	646.500	300.000	640.800	365.000
GR	637.500	400.000	638.300	410.000	630.800	410.000	630.800	416.000	630.800	422.000
GR	638.300	422.000	635.700	500.000	637.100	560.000	642.900	600.000	646.400	700.000
GR	648.700	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.680	0.000	9.000	0.000	54.000	0.000	631.000	630.800

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

X1	8583.000	16.000	410.000	422.000	19.000	19.000	19.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	410.000	638.500	634.000	410.000	638.500	634.000	416.000	638.500	637.000
BT	422.000	638.500	634.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.700	400.000	638.500	410.000	631.000	410.000	631.000	416.000	631.000	422.000
GR	638.500	422.000	635.900	500.000	637.300	560.000	643.100	600.000	646.600	700.000
GR	648.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	407.000	421.000	0.000	0.000	0.000

X1	8584.000	15.000	400.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.800	0.000	650.200	100.000	648.900	200.000	647.200	300.000	641.500	365.000
GR	637.700	400.000	631.700	408.000	631.000	414.000	633.100	421.000	636.600	427.000
GR	636.100	500.000	638.000	555.000	643.600	600.000	646.700	700.000	649.500	800.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	380.000	431.000	0.000	0.000	0.000

VALLEY SECTION U

X1	8613.000	14.000	400.000	431.000	30.000	30.000	29.000	0.000	0.000	0.000
GR	649.800	0.000	649.100	100.000	647.800	200.000	646.200	300.000	638.500	335.000
GR	636.100	400.000	630.700	408.000	630.800	414.000	631.200	424.000	637.300	431.000
GR	634.800	500.000	642.600	600.000	646.100	700.000	648.600	800.000	0.000	0.000
NC	.065	.065	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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GR	656.000	0.000	656.400	100.000	655.200	200.000	654.800	300.000	654.300	400.000
GR	653.300	500.000	652.000	600.000	650.500	700.000	650.900	800.000	651.400	900.000
GR	651.600	1000.000	650.300	1100.000	648.400	1150.000	644.400	1200.000	642.100	1247.000
GR	640.300	1252.000	638.800	1256.000	639.700	1260.000	642.500	1266.000	643.400	1300.000
GR	646.700	1400.000	650.700	1500.000	651.400	1600.000	652.400	1700.000	653.400	1800.000
GR	654.100	1900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9703.000	0.000	0.000	0.000	540.000	540.000	540.000	0.000	2.000	0.000
NC	.075	.075	.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10253.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.100	0.000
NC	.080	.080	.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	170.000	255.000	295.000	420.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION V

X1	10803.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.000	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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*PROF 1

CCHV=     .300 CEHV=     .500
*SECNO .000
      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     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     CORAR     TOPWID      ENDST


               MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

               REPEATED AND ADJUSTED FOR CHANNEL INVERT.

          0.00      5.76    602.96      0.00    602.96    602.99       .03      0.00      0.00    601.70
          210.        41.       169.        0.      75.       110.        0.        0.        0.    606.10
          0.00       .55      1.53      0.00      .080      .050      .080     0.000    597.20    925.49
       .000563         0.        0.        0.         0         0         0      0.00     88.29   1013.79


   *SECNO 130.000

               VALLEY SECTION A

        130.00      4.04    603.04      0.00      0.00    603.24       .19       .16       .08    603.50
          210.         0.       210.        0.        0.       59.        0.        0.        0.    607.90
           .01      0.00      3.54      0.00      .080      .050      .080      .050    599.00    981.71
       .005050       130.      130.      130.         0         0         0      0.00     25.91   1007.62


   *SECNO 409.000

   3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000
        409.00      4.29    604.39      0.00      0.00    604.65       .26      1.38       .03    601.30
          210.        29.       144.       37.       22.       30.       22.        1.        0.    601.20
           .03      1.36      4.84      1.67      .080      .050      .080      .050    600.10    176.96
       .004855       280.      279.      280.         2         0         0      0.00     61.14    238.11

   *SECNO 410.000

   3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000

               AMVET DRIVE BRIDGE - DOWNSTREAM FACE

        410.00      4.30    604.40      0.00      0.00    604.66       .26       .00       .00    601.30
          210.        29.       144.       37.       22.       30.       22.        1.        0.    601.20
           .03      1.35      4.82      1.66      .080      .050      .080      .050    600.10    176.83
       .004815          1.        1.        1.         0         0         0      0.00     61.47    238.29


   SPECIAL BRIDGE

   SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
        0.00        2.27        2.83        0.00        5.90        0.00        24.80       0.00        600.00      600.10

   *SECNO 446.000
      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     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     CORAR     TOPWID      ENDST
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PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
606.93	604.74	0.00	5.	205.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	6.74	606.74	0.00	0.00	606.81	.08	2.16	0.00	602.00
210.	23.	135.	52.	24.	50.	51.	1.	0.	602.00
.04	.96	2.68	1.01	.050	.027	.050	.048	600.00	787.04
.000378	36.	36.	36.	2	0	4	0.00	42.67	829.70

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	6.82	606.82	0.00	0.00	606.83	.01	.00	.02	603.30
210.	32.	128.	50.	86.	117.	135.	1.	0.	603.80
.04	.37	1.10	.37	.080	.040	.080	.048	600.00	170.00
.000107	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	4.38	606.78	0.00	0.00	606.91	.13	.02	.06	605.70
210.	11.	186.	14.	14.	60.	10.	1.	1.	606.20
.04	.79	3.08	1.32	.070	.050	.040	.047	602.40	174.91
.003154	50.	59.	70.	2	0	0	0.00	68.09	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	3.56	606.76	0.00	0.00	607.15	.39	.11	.13	606.50
210.	1.	209.	0.	1.	42.	0.	1.	1.	607.00
.04	.63	5.02	0.00	.070	.050	.040	.046	603.20	193.89
.013072	20.	20.	20.	2	0	0	0.00	28.24	222.12

*SECNO 576.000

576.00	4.19	607.39	0.00	0.00	607.58	.19	.37	.06	606.50
210.	7.	202.	1.	9.	56.	2.	1.	1.	607.00
.05	.75	3.60	.57	.080	.050	.060	.046	603.20	179.31
.004773	50.	50.	50.	2	0	0	0.00	55.69	235.00

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

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VALLEY SECTION D

1316.00	5.18	608.08	0.00	0.00	608.09	.01	.45	.05	606.80
210.	16.	97.	97.	69.	93.	137.	4.	3.	605.30
.30	.23	1.05	.71	.080	.050	.060	.048	602.90	680.00
.000225	700.	740.	760.	5	0	0	0.00	174.39	854.39

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	3.90	608.20	0.00	0.00	608.25	.05	.14	.02	608.20
210.	0.	122.	88.	0.	61.	71.	6.	3.	606.70
.35	.01	1.99	1.24	.080	.050	.060	.049	604.30	774.85
.001430	320.	310.	300.	2	0	0	0.00	73.38	848.23

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	3.86	608.26	0.00	0.00	608.31	.05	.06	.00	608.30
210.	0.	123.	87.	0.	60.	69.	6.	4.	606.80
.35	0.00	2.05	1.26	.080	.050	.060	.049	604.40	775.15
.001530	40.	40.	40.	2	0	0	0.00	72.88	848.02

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	3.43	608.63	0.00	0.00	608.72	.09	.39	.02	609.10
210.	0.	137.	73.	0.	50.	49.	6.	4.	607.60
.37	0.00	2.75	1.50	.080	.050	.060	.049	605.20	776.69
.003276	180.	180.	180.	2	0	0	0.00	69.25	845.93

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.23	609.13	0.00	0.00	609.42	.29	.61	.10	609.80
210.	0.	198.	12.	0.	45.	9.	7.	4.	608.30
.38	0.00	4.42	1.39	.040	.040	.050	.048	605.90	777.38
.005961	140.	140.	140.	2	0	0	0.00	40.62	818.00

*SECNO 2065.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	3.42	609.62	0.00	0.00	610.08	.45	.57	.08	611.00
205.	0.	205.	0.	0.	38.	0.	7.	4.	611.00
.39	0.00	5.40	0.00	.040	.040	.050	.048	606.20	1504.03
.009074	80.	79.	80.	2	0	0	0.00	18.53	1522.55

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	3.97	609.97	0.00	0.00	610.26	.28	.13	.05100000-00	

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     205.       0.      205.       0.       0.      48.       0.       7.       4. 100000.00
      .39     0.00      4.25     0.00     .040     .040     .050     .048   606.00  1502.40
  .004647      20.       20.      20.        2        0        0     0.00    19.59  1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS=    1502.0    1522.0  TYPE=     1  TARGET=      20.000

          GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

  2086.00     3.98   609.98     0.00     0.00   610.26      .28      .00      .00100000.00
     205.       0.      205.       0.       0.      48.       0.       7.       4. 100000.00
      .39     0.00      4.25     0.00     .040     .040     .050     .048   606.00  1502.40
  .004632       1.        1.       1.        0        0        0     0.00    19.60  1522.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.03      3.02      0.00     16.43      0.00     75.60      0.00    605.70    606.00

*SECNO 2122.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   609.843  ELLC=   610.300  PCWSE=   609.980  ELTRD=   613.200

3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  613.20 MAX ELLC=  610.30

3470 ENCROACHMENT STATIONS=    1220.0    1240.0  TYPE=     1  TARGET=      20.000

          GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

  2122.00     4.53   610.23     0.00     0.00   610.35      .12      .04      .05   610.30
     205.       0.      205.       0.       0.      74.       0.       7.       4. 100000.00
      .39     0.00      2.76     0.00     .035     .025     .035     .047   605.70  1220.00
  .000515      36.       36.      36.        2        0        0     0.00    20.00  1240.00

*SECNO 2123.000

3470 ENCROACHMENT STATIONS=    1504.0    1524.0  TYPE=     1  TARGET=      20.000
  2123.00     4.50   610.20     0.00     0.00   610.39      .19      .00      .04100000.00
     205.       0.      205.       0.       0.      58.       0.       7.       4. 100000.00
      .39     0.00      3.51     0.00     .080     .060     .060     .047   605.70  1504.00
  .005706       1.        1.       1.        2        0        0     0.00    19.68  1523.68

*SECNO 2291.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   0        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=    1500.0    1524.0  TYPE=     1  TARGET=      24.000
  2291.00     5.02   611.02     0.00     0.00   611.14      .12      .74      .02   610.80
     205.       0.      205.       0.       0.      73.       0.       7.       4. 100000.00
      .41     0.00      2.83     0.00     .080     .060     .060     .048   606.00  1500.00
  .003473      100.      168.     180.        2        0        0     0.00    24.00  1524.00
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*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

2292.00	5.10	611.10	0.00	0.00	611.16	.06	.00	.02	615.50
205.	0.	205.	0.	0.	103.	0.	7.	4.	615.50
.41	0.00	1.99	0.00	.035	.032	.035	.048	606.00	248.00
.000453	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 610.966 ELLC= 613.100 PCWSE= 611.103 ELTRD= 615.500

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

2346.00	5.33	611.13	0.00	0.00	611.21	.08	.03	.01	615.50
205.	0.	205.	0.	0.	91.	0.	7.	4.	615.50
.42	0.00	2.26	0.00	.035	.032	.035	.048	605.80	248.00
.000803	54.	54.	54.	2	0	0	-16.32	23.50	271.50

*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	5.32	611.12	0.00	0.00	611.22	.10	.00	.01	610.60
205.	0.	205.	0.	0.	80.	0.	7.	4.	100000.00
.42	0.00	2.57	0.00	.080	.045	.080	.048	605.80	1500.00
.001470	1.	1.	1.	1	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	4.52	611.62	0.00	0.00	611.74	.12	.51	.01	612.50
205.	0.	205.	0.	0.	75.	0.	8.	4.	612.20
.44	0.00	2.75	0.00	.080	.045	.080	.047	607.10	267.67
.002332	275.	280.	290.	2	0	0	0.00	30.88	298.55

*SECNO 2907.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
	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=		.0	356.0	TYPE=	1	TARGET=	355.999		
2907.00	3.97	612.47	0.00	0.00	612.66	.19	.89	.04	613.90
205.	0.	205.	0.	0.	58.	0.	8.	5.	613.60
.47	0.00	3.51	0.00	.080	.045	.080	.047	608.50	269.33
.004576	275.	280.	290.	2	0	0	0.00	27.84	297.18

*SECNO 3187.000

3470 ENCROACHMENT STATIONS=		.0	366.0	TYPE=	1	TARGET=	365.999		
3187.00	3.96	613.76	0.00	0.00	613.95	.19	1.29	.00	615.20
205.	0.	205.	0.	0.	58.	0.	9.	5.	614.90
.49	0.00	3.53	0.00	.080	.045	.080	.047	609.80	269.36
.004643	275.	280.	290.	2	0	0	0.00	27.78	297.15

1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS=		.0	386.0	TYPE=	1	TARGET=	385.999		
VALLEY SECTION H									
3466.00	3.92	615.02	0.00	0.00	615.22	.20	1.26	.00	616.50
205.	0.	205.	0.	0.	57.	0.	9.	5.	616.20
.51	0.00	3.58	0.00	.080	.079	.080	.047	611.10	269.47
.004383	275.	279.	290.	1	0	0	0.00	27.60	297.07

1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS=		.0	500.0	TYPE=	1	TARGET=	499.999		
VALLEY SECTION I									
5226.00	5.58	619.58	0.00	0.00	619.64	.07	4.39	.04	619.60
205.	0.	190.	15.	0.	90.	28.	12.	7.	619.00
.75	0.00	2.12	.52	.060	.080	.060	.046	614.00	400.05
.001609	1830.	1760.	1710.	4	0	0	0.00	99.95	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS=		1.0	32.0	TYPE=	1	TARGET=	31.000		
5795.00	4.61	620.71	0.00	0.00	620.87	.16	1.18	.05	100000.00
205.	0.	205.	0.	0.	64.	0.	14.	8.	100000.00
.80	0.00	3.22	0.00	.070	.045	.070	.046	616.10	4.33
.002766	620.	569.	530.	2	0	0	0.00	23.35	27.69

*SECNO 5835.000

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=		11.0	22.0	TYPE=	1	TARGET=	11.000			
5835.00	4.58	620.78								

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195.	0.	195.	0.	0.	42.	0.	14.	8.	100000.00	
.80	0.00	4.59	0.00	.070	.045	.070	.046	616.20	11.00	
.006014	40.	40.	40.	1	0	0	0.00	11.00	22.00	

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	4.69	620.89	0.00	0.00	621.14	.25	.00	.02	617.20	
195.	0.	195.	0.	0.	49.	0.	14.	8.	100000.00	
.80	0.00	3.97	0.00	.040	.032	.040	.046	616.20	494.50	
.001981	1.	1.	1.	2	0	0	0.00	11.00	505.50	

SPECIAL BRIDGE

SD	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 621.435 ELLC= 623.500 PCWSE= 620.890 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	4.50	621.00	0.00	0.00	621.31	.32	.14	.04	617.50	
195.	0.	195.	0.	0.	43.	0.	14.	8.	100000.00	
.81	0.00	4.51	0.00	.040	.032	.040	.046	616.50	494.50	
.003484	56.	56.	56.	2	0	0	-3.75	11.00	505.50	

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	4.62	621.12	0.00	0.00	621.35	.23	.00	.03	100000.00	
195.	0.	195.	0.	0.	51.	0.	14.	8.	100000.00	
.81	0.00	3.85	0.00	.090	.060	.090	.046	616.50	10.00	
.006764	1.	1.	1.	2	0	0	0.00	13.00	23.00	

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	3.67	621.47	0.00	0.00	621.62	.15	.26	.02	622.00	
195.	0.	195.	0.	0.	63.	0.	14.	8.	621.50	
.81	0.00	3.11	0.00	.090	.060	.090	.046	617.80	200.01	

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.005024	45.	44.	45.	2	0	0	0.00	25.00	225.94

*SECNO 5981.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
5981.00	2.64	621.74	0.00	0.00	622.13	.39	.39	.12	623.30
195.	0.	195.	0.	0.	39.	0.	14.	8.	622.80
.81	0.00	5.01	0.00	.090	.060	.090	.046	619.10	202.79
.019038	40.	44.	40.	2	0	0	0.00	20.90	223.68

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	2.68	621.78	0.00	0.00	622.15	.37	.02	.00	623.30
195.	0.	195.	0.	0.	40.	0.	14.	8.	622.80
.81	0.00	4.90	0.00	.090	.060	.090	.046	619.10	202.71
.017937	1.	1.	1.	2	0	0	0.00	21.05	223.77

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 624.036 EGLWC= 626.615 ELLC= 625.000 PCWSE= 621.780 ELTRD= 629.200

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 629.20 MAX ELLC= 625.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1442.0 1562.0 TYPE= 1 TARGET= 120.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	3.80	623.30	623.30	0.00	625.25	1.95	.96	.79	623.70
195.	0.	195.	0.	0.	17.	0.	14.	8.	623.20
.82	0.00	11.21	0.00	1.000	.010	1.000	.046	619.50	1495.71
.009752	74.	74.	74.	20	18	0	-3.66	32.64	1528.35

*SECNO 6057.000

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3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	6.29	625.79	0.00	0.00	625.83	.03	.00	.58	623.70
195.	1.	192.	2.	86.	130.	113.	14.	8.	623.20
.82	.01	1.48	.01	1.000	.015	1.000	.046	619.50	153.00
.000028	1.	1.	1.	3	0	0	0.00	120.00	273.00

*SECNO 6076.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	5.92	625.82	0.00	0.00	625.83	.01	.00	.01	624.10
195.	24.	131.	40.	69.	121.	95.	14.	8.	623.60
.82	.34	1.09	.42	.060	.040	.060	.046	619.90	153.00
.000120	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	3.84	625.74	0.00	0.00	626.40	.66	.24	.32	626.70
195.	0.	195.	0.	0.	30.	0.	16.	9.	626.90
.85	0.00	6.52	0.00	.080	.045	.080	.046	621.90	802.40
.017396	600.	599.	570.	2	0	0	0.00	13.90	816.30

*SECNO 6676.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	3.91	625.81	0.00	0.00	626.43	.62	.02	.01	626.70
195.	0.	195.	0.	0.	31.	0.	16.	9.	626.90
.85	0.00	6.31	0.00	.080	.045	.080	.046	621.90	802.22
.015940	1.	1.	1.	2	0	0	0.00	14.12	816.34

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 626.236 ELLC= 628.900 PCWSE= 625.810 ELTRD= 629.400

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 629.40 MAX ELLC= 628.90

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3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	4.58	626.48	0.00	0.00	626.84	.36	.33	.08	624.90
195.	0.	195.	0.	0.	41.	0.	16.	9.	624.90
.85	0.00	4.79	0.00	.105	.025	.105	.045	621.90	1492.36
.001946	78.	78.	78.	2	0	0	-7.79	15.82	1508.17

*SECNO 6755.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	4.52	626.42	0.00	0.00	626.91	.48	.00	.06	624.70
195.	2.	191.	1.	4.	34.	2.	16.	9.	623.60
.85	.64	5.62	.60	.125	.035	.125	.045	621.90	800.69
.003901	1.	1.	1.	2	0	0	0.00	16.02	816.71

*SECNO 6784.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	5.16	626.86	0.00	0.00	627.08	.23	.10	.08	626.50
195.	1.	194.	0.	2.	51.	1.	16.	9.	626.70
.86	.33	3.82	.20	.080	.040	.080	.045	621.70	789.61
.003102	30.	29.	30.	2	0	0	0.00	34.95	824.55

*SECNO 6964.000

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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	4.69	627.79	0.00	0.00	628.11	.32	.98	.05	627.90
195.	0.	195.	0.	0.	43.	0.	16.	9.	628.10
.87	0.00	4.55	0.00	.070	.060	.070	.046	623.10	800.28
.011920	170.	180.	190.	2	0	0	0.00	16.54	816.81

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	3.89	628.39	0.00	0.00	628.40	.01	.20	.09	626.50
195.	71.	108.	15.	138.	101.	42.	17.	10.	626.70
.93	.52	1.07	.37	.070	.060	.070	.046	624.50	201.00
.000384	170.	180.	190.	3	0	0	0.00	178.31	379.31

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	2.70	628.50	0.00	0.00	628.60	.10	.16	.05	627.80
195.	17.	176.	2.	24.	65.	4.	18.	10.	628.00
.95	.70	2.70	.56	.070	.060	.070	.046	625.80	230.05
				3	0	0	0.00	114.51	344.57

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*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	3.33	630.63	0.00	0.00	630.75	.11	2.14	.00	629.30
195.	33.	162.	0.	84.	56.	0.	19.	12.	100000.00
1.01	.39	2.93	0.00	.200	.055	.200	.047	627.30	199.00
.003486	490.	559.	550.	4	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.25	630.65	0.00	0.00	630.95	.29	.11	.09	629.40
195.	18.	177.	0.	74.	39.	0.	19.	12.	100000.00
1.01	.25	4.57	0.00	.500	.055	.500	.047	627.40	204.00
.009903	20.	20.	20.	2	0	0	0.00	110.00	314.00

*SECNO 7894.000

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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE -- DOWNSTREAM FACE

7894.00	3.25	630.65	0.00	0.00	630.97	.31	.01	.01	629.40
195.	14.	181.	0.	75.	39.	0.	19.	12.	100000.00
1.01	.19	4.66	0.00	.600	.050	.600	.047	627.40	204.00
.008498	1.	1.	1.	0	0	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
632.48	631.97	0.00	0.	195.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	4.67	632.17	0.00	0.00	632.48	.31	1.51	0.00	629.70
195.	6.	189.	0.	102.	42.	0.	20.	12.	100000.00
1.01	.06	4.53	0.00	.800	.015	.060	.047	627.50	779.79
.000763	60.	60.	60.	2	0	0	0.00	96.21	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 307.0 318.0 TYPE= 1 TARGET= 111.000

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7955.00	4.95	632.45	0.00	0.00	632.54	.09	.00	.07	629.70
195.	7.	188.	0.	122.	76.	0.	20.	12.	100000.00
1.01	.05	2.46	0.00	1.000	.040	.080	.047	627.50	211.18
.000869	1.	1.	1.	2	0	0	0.00	106.82	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	3.60	632.50	0.00	0.00	632.58	.07	.03	.01	631.10
195.	2.	162.	30.	32.	69.	31.	20.	12.	630.80
1.02	.08	2.35	.98	.500	.040	.060	.047	628.90	254.72
.001058	40.	29.	40.	2	0	0	0.00	92.28	347.00

1490 NH CARD USED
*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	3.23	633.73	0.00	0.00	634.14	.41	1.39	.17	100000.00
195.	0.	195.	0.	0.	38.	0.	21.	13.	100000.00
1.05	0.00	5.16	0.00	.500	.079	.060	.046	630.50	404.63
.011418	520.	560.	560.	3	0	0	0.00	18.29	422.93

*SECNO 8563.000

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= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	3.09	633.89	0.00	0.00	634.56	.68	.29	.13	100000.00
195.	0.	195.	0.	0.	30.	0.	21.	13.	100000.00
1.05	0.00	6.60	0.00	.500	.050	.060	.046	630.80	408.00
.021912	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	3.55	634.35	0.00	0.00	634.67	.33	.00	.11	638.30
195.	0.	195.	0.	0.	43.	0.	21.	13.	100000.00
1.05	0.00	4.58	0.00	.060	.025	.060	.046	630.80	410.00
.002041	1.	1.	1.	3	0	0	0.00	12.00	422.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

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6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 634.873 ELLC= 637.000 PCWSE= 634.347 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	3.36	634.36	0.00	0.00	634.77	.41	.05	.04	638.50
195.	0.	195.	0.	0.	38.	0.	21.	13.	638.50
1.05	0.00	5.11	0.00	.060	.025	.060	.046	631.00	410.00
.004140	19.	19.	19.	2	0	0	-2.17	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	3.35	634.35	0.00	0.00	634.79	.44	.01	.02100000.00	
195.	0.	195.	0.	0.	36.	0.	21.	13. 100000.00	
1.05	0.00	5.35	0.00	.060	.050	.060	.046	631.00	407.00
.012399	1.	1.	1.	1	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	4.21	634.91	0.00	0.00	634.99	.08	.09	.11	636.10
195.	0.	195.	0.	0.	85.	0.	21.	13. 100000.00	
1.05	0.00	2.29	0.00	.060	.050	.060	.046	630.70	401.76
.001425	30.	29.	30.	2	0	0	0.00	26.50	428.26

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	OLOB	OCH	OROB	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
9163.00	3.80	636.50	0.00	0.00	636.83	.33	1.71	.12	636.00
195.	2.	193.	0.	3.	42.	0.	22.	13.	636.40
1.09	.96	4.64	.32	.065	.055	.065	.047	632.70	1236.88
.011361	550.	550.	550.	3	0	0	0.00	32.72	1269.60

*SECNO 9703.000

9703.00	4.76	639.46	0.00	0.00	639.55	.09	2.65	.07	638.00
195.	20.	159.	17.	22.	60.	21.	23.	14.	638.40
1.15	.90	2.66	.79	.070	.060	.070	.047	634.70	1217.19
.002725	540.	540.	540.	4	0	0	0.00	87.63	1304.82

*SECNO 10253.000

10253.00	4.55	641.35	0.00	0.00	641.47	.13	1.91	.02	640.10
195.	16.	169.	10.	16.	56.	14.	24.	15.	640.50
1.21	.98	3.03	.76	.075	.065	.075	.048	636.80	1221.46
.004553	550.	550.	550.	3	0	0	0.00	76.65	1298.11

*SECNO 10803.000

VALLEY SECTION V

10803.00	4.69	643.49	0.00	0.00	643.57	.08	2.08	.01	642.10
170.	16.	141.	13.	20.	59.	19.	25.	16.	642.50
1.28	.82	2.40	.69	.080	.070	.080	.049	638.80	1218.49
.003121	550.	550.	550.	2	0	0	0.00	84.40	1302.89

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      50-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK    INQ      NINV     IDIR      STRT      METRIC    HVINS     0         WSEL      FQ

      -10.       3.       0.       0.  0.000000      0.00      0.0       0.   603.890     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

*PROF 2

CCHV=    .300 CEHV=    .500
*SECNO .000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   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     CORAR     TOPWID     ENDST


          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

      0.00      6.69    603.89      0.00    603.89    603.92      .03      0.00      0.00    601.70
      310.       89.      221.        0.      128.      143.        0.        0.        0.    606.10
      0.00       .69      1.55      0.00      .080      .050      .080     0.000    597.20    922.81
   .000470        0.       0.        0.         0         0         0      0.00     94.30   1017.11

*SECNO 130.000

          VALLEY SECTION A

    130.00      4.95    603.95      0.00      0.00    604.12      .16       .13       .07    603.50
      310.       24.      286.        0.       31.       85.        0.        1.        0.    607.90
       .01       .77      3.36      0.00      .080      .050      .080      .050    599.00    927.83
   .003411      130.      130.      130.         0         0         0      0.00     83.07   1010.90

*SECNO 409.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=       1  TARGET=      100.000
    409.00      4.89    604.99      0.00      0.00    605.24      .25      1.08       .04    601.30
      310.       64.      177.       69.       42.       35.       43.       1.        1.    601.20
       .03      1.52      5.12      1.61      .080      .050      .080      .050    600.10    170.00
   .004449      280.      279.      280.         2         0         0      0.00     86.79    256.79

*SECNO 410.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=       1  TARGET=      100.000
```

AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	4.90	605.00	0.00	0.00	605.25	.25	.00	.00	601.30
310.	64.	177.	69.	42.	35.	43.	1.	1.	601.20
.03	1.52	5.12	1.61	.080	.050	.080	.050	600.10	170.00
.004451	1.	1.	1.	0	0	0	0.00	86.78	256.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV LEFT/RIGHT
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	
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	BAREA	TRAPEZOID AREA	ELLC	ELTRD
610.50	605.49	0.00	108.	202.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.23	607.23	0.00	0.00	607.34	.11	2.10	0.00	602.00
310.	41.	182.	87.	38.	54.	72.	1.	1.	602.00
.04	1.06	3.35	1.21	.050	.027	.050	.048	600.00	765.00
.000532	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.35	607.35	0.00	0.00	607.37	.02	.00	.03	603.30
310.	50.	181.	79.	102.	129.	160.	1.	1.	603.80
.04	.49	1.40	.50	.080	.040	.080	.048	600.00	170.00
.000153	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	4.92	607.32	0.00	0.00	607.45	.14	.02	.06	605.70
310.	32.	237.	41.	28.	73.	21.	2.	1.	606.20
.04	1.13	3.26	1.96	.070	.050	.040	.047	602.40	173.00
.002754	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	4.04	607.24	0.00	0.00	607.74	.49	.10	.18	606.50

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	.04	1.25	5.71	1.04	.070	.050	.040	.046	603.20	182.69
	.013035	20.	20.	20.	2	0	0	0.00	47.84	230.53

*SECNO 576.000

576.00	4.76	607.96	0.00	0.00	608.17	.21	.35	.08	606.50
310.	24.	271.	14.	25.	69.	14.	2.	1.	607.00
.05	.98	3.92	.99	.080	.050	.060	.046	603.20	166.02
.006279	50.	50.	50.	2	0	0	0.00	86.58	252.60

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	5.77	608.67	0.00	0.00	608.68	.01	.46	.06	606.80
310.	44.	128.	138.	126.	108.	170.	6.	3.	605.30
.28	.35	1.18	.81	.080	.050	.060	.048	602.90	680.00
.000236	700.	740.	760.	4	0	0	0.00	177.29	857.29

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	4.49	608.79	0.00	0.00	608.84	.05	.14	.02	608.20
310.	4.	164.	142.	9.	76.	100.	8.	4.	606.70
.32	.40	2.16	1.42	.080	.050	.060	.049	604.30	755.00
.001259	320.	310.	300.	2	0	0	0.00	96.08	851.08

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	4.44	608.84	0.00	0.00	608.90	.06	.05	.00	608.30
310.	2.	166.	142.	5.	75.	98.	9.	4.	606.80
.33	.41	2.22	1.45	.080	.050	.060	.049	604.40	765.00
.001361	40.	40.	40.	2	0	0	0.00	85.84	850.84

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	3.96	609.16	0.00	0.00	609.26	.09	.34	.02	609.10
310.	0.	178.	132.	0.	63.	74.	9.	5.	607.60
.35	.10	2.84	1.78	.080	.050	.060	.049	605.20	769.51
.002806	180.	180.	180.	2	0	0	0.00	79.02	848.53

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.70	609.60	0.00	0.00	609.94	.34	.56	.12	609.80
310.	0.	273.	37.	0.	56.	17.	10.	5.	608.30
.36	0.00	4.91	2.17	.040	.040	.050	.048	605.90	775.72
.006043	140.	140.	140.	2	0	0	0.00	42.28	818.00

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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

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	3.87	610.07	0.00	0.00	610.74	.66	.64	.16	611.00
305.	0.	305.	0.	0.	47.	0.	10.	5.	611.00
.36	0.00	6.53	0.00	.040	.040	.050	.048	606.20	1502.70
.011437	80.	79.	80.	2	0	0	0.00	20.32	1523.03

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	4.56	610.56	0.00	0.00	610.97	.40	.15	.08	100000.00
305.	0.	305.	0.	0.	60.	0.	10.	5.	100000.00
.36	0.00	5.09	0.00	.040	.040	.050	.048	606.00	1502.00
.005437	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	4.57	610.57	0.00	0.00	610.97	.40	.01	.00	100000.00
305.	0.	305.	0.	0.	60.	0.	10.	5.	100000.00
.36	0.00	5.08	0.00	.040	.040	.050	.048	606.00	1502.00
.005388	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.09	610.53	0.00	0.	305.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION E

2122.00	5.20	610.90	0.00	0.00	611.09	.19	.11	0.00	610.30
305.	0.	305.	0.	0.	88.	0.	10.	5.	100000.00
.37	0.00	3.48	0.00	.035	.025	.035	.047	605.70	1220.00
.000711	36.	36.	36.	2	0	0	0.00	20.00	1240.00

*SECNO 2123.000

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3470 ENCROACHMENT STATIONS=     1504.0     1524.0  TYPE=      1  TARGET=       20.000
  2123.00      5.15    610.85      0.00      0.00    611.13       .28       .00       .05100000.00
     305.        0.      305.        0.        0.       72.        0.       10.        5. 100000.00
      .37      0.00      4.27      0.00      .080      .060      .060      .047    605.70   1504.00
  .007006        1.        1.        1.         2         0         0      0.00     20.00   1524.00
```

```
*SECNO 2291.000
   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=     1500.0     1524.0  TYPE=      1  TARGET=       24.000
  2291.00      5.84    611.84      0.00      0.00    612.01       .17       .84       .03    610.80
     305.        0.      305.        0.        0.       92.        0.       10.        5. 100000.00
      .38      0.00      3.31      0.00      .080      .060      .060      .048    606.00   1500.00
  .003759       100.      168.      180.         2         0         0      0.00     24.00   1524.00
```

```
*SECNO 2292.000
```

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

```
  2292.00      5.94    611.94      0.00      0.00    612.03       .10       .00       .02    615.50
     305.        0.      305.        0.        0.      123.        0.       10.        5.    615.50
      .38      0.00      2.49      0.00      .035      .032      .035      .048    606.00    248.00
  .000596        1.        1.        1.         2         0         0      0.00     23.50    271.50
```

SPECIAL BRIDGE

```
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.53      3.02      0.00      14.85     0.00      109.90    0.00      605.80    606.00
```

```
*SECNO 2346.000
```

6070,LOW FLOW BY NORMAL BRIDGE

```
EGPRS=      0.000  EGLWC=    611.835  ELLC=    613.100  PCWSE=    611.937  ELTRD=    615.500
```

```
3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  615.50 MAX ELLC=  613.10
```

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

```
  2346.00      6.16    611.96      0.00      0.00    612.10       .13       .05       .02    615.50
     305.        0.      305.        0.        0.      103.        0.       10.        5.    615.50
      .39      0.00      2.95      0.00      .035      .032      .035      .048    605.80    248.00
  .001410        54.       54.       54.         2         0         0    -23.48     23.50    271.50
```

*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	6.16	611.96	0.00	0.00	612.11	.14	.00	.00	610.60	
305.	0.	305.	0.	0.	100.	0.	10.	5.	100000.00	
.39	0.00	3.05	0.00	.080	.045	.080	.048	605.80	1500.00	
.001655	1.	1.	1.	0	0	0	0.00	24.00	1524.00	

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	5.39	612.49	0.00	0.00	612.62	.13	.51	.00	612.50
305.	0.	303.	2.	0.	103.	8.	11.	5.	612.20
.41	0.00	2.94	.23	.080	.045	.080	.047	607.10	265.04
.002025	275.	280.	290.	2	0	0	0.00	87.31	352.34

*SECNO 2907.000

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= .0 356.0 TYPE= 1 TARGET= 355.999

2907.00	4.73	613.23	0.00	0.00	613.45	.22	.78	.04	613.90
305.	0.	305.	0.	0.	81.	0.	11.	6.	613.60
.43	0.00	3.76	0.00	.080	.045	.080	.047	608.50	267.04
.004098	275.	280.	290.	2	0	0	0.00	32.02	299.07

*SECNO 3187.000

3470 ENCROACHMENT STATIONS= .0 366.0 TYPE= 1 TARGET= 365.999

3187.00	4.63	614.43	0.00	0.00	614.67	.24	1.21	.01	615.20
305.	0.	305.	0.	0.	78.	0.	12.	6.	614.90
.45	0.00	3.92	0.00	.080	.045	.080	.047	609.80	267.34
.004574	275.	280.	290.	2	0	0	0.00	31.47	298.82

1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS= .0 386.0 TYPE= 1 TARGET= 385.999

VALLEY SECTION H

3466.00	4.60	615.70	0.00	0.00	615.94	.24	1.27	.00	616.50
305.	0.	305.	0.	0.	77.	0.	12.	6.	616.20
.47	0.00	3.96	0.00	.080	.078	.080	.047	611.10	267.43
.004538	275.	279.	290.	2	0	0	0.00	31.31	298.74

1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS= .0 500.0 TYPE= 1 TARGET= 499.999

VALLEY SECTION I

5226.00	6.18	620.18	0.00	0.00	620.24	.06	4.25	.05	619.60
305.	1.	236.	68.	4.	105.	72.	18.	9.	619.00

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.001501	1830.	1760.	1710.	4	0	0	0.00	112.23	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	5.22	621.32	0.00	0.00	621.55	.23	1.23	.08	100000.00
305.	0.	305.	0.	0.	79.	0.	19.	10.	100000.00
.76	0.00	3.87	0.00	.070	.045	.070	.046	616.10	3.30
.003421	620.	569.	530.	2	0	0	0.00	25.56	28.86

*SECNO 5835.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	OLOB	OCH	OROB	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= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.17	621.37	0.00	0.00	621.92	.55	.21	.16	100000.00
290.	0.	290.	0.	0.	49.	0.	19.	10.	100000.00
.77	0.00	5.93	0.00	.070	.045	.070	.046	616.20	11.00
.009053	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	5.35	621.55	0.00	0.00	621.96	.41	.00	.04	617.20
290.	0.	290.	0.	0.	56.	0.	19.	10.	100000.00
.77	0.00	5.14	0.00	.040	.032	.040	.046	616.20	494.50
.003021	1.	1.	1.	2	0	0	0.00	11.00	505.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 622.264 ELLC= 623.500 PCWSE= 621.554 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	5.21	621.71	0.00	0.00	622.25	.54	.22	.06	617.50

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.77	0.00	5.88	0.00	.040	.032	.040	.046	616.50	494.50
.005432	56.	56.	56.	2	0	0	-5.53	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.47	621.97	0.00	0.00	622.32	.34	.01	.06100000.00	
290.	0.	290.	0.	0.	62.	0.	19.	10. 100000.00	
.77	0.00	4.69	0.00	.090	.060	.090	.046	616.50	10.00
.008612	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	4.65	622.45	0.00	0.00	622.61	.16	.24	.06	622.00
290.	2.	283.	6.	3.	88.	6.	20.	10.	621.50
.77	.53	3.22	.87	.090	.060	.090	.046	617.80	193.00
.003642	45.	44.	45.	2	0	0	0.00	40.00	233.00

*SECNO 5981.000

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
5981.00	3.51	622.61	0.00	0.00	622.99	.38	.28	.11	623.30
290.	0.	290.	0.	0.	59.	0.	20.	10.	622.80
.77	0.00	4.94	0.00	.090	.060	.090	.046	619.10	201.23
.013322	40.	44.	40.	2	0	0	0.00	24.37	225.59

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.53	622.63	0.00	0.00	623.01	.38	.01	.00	623.30
290.	0.	290.	0.	0.	59.	0.	20.	10.	622.80
.78	0.00	4.92	0.00	.090	.060	.090	.046	619.10	201.21
.013197	1.	1.	1.	0	0	0	0.00	24.40	225.61

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESS FLOW BECAUSE EGLWC OF 627.98 EXCEEDS 1.5 DEPTH
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
627.62	627.98	0.00	0.	290.	24.	24.	625.00	629.20

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3470 ENCROACHMENT STATIONS

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	8.05	627.55	0.00	0.00	627.62	.07	4.62	0.00	623.70
290.	3.	283.	4.	172.	130.	191.	20.	10.	623.20
.78	.02	2.18	.02	1.000	.010	1.000	.046	619.50	1442.00
.000032	74.	74.	74.	2	0	0	0.00	120.00	1562.00

*SECNO 6057.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	8.09	627.59	0.00	0.00	627.63	.04	.00	.01	623.70
290.	3.	284.	3.	171.	177.	197.	20.	10.	623.20
.78	.02	1.60	.02	1.000	.015	1.000	.046	619.50	153.00
.000022	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	7.73	627.63	0.00	0.00	627.64	.01	.00	.01	624.10
290.	60.	153.	77.	154.	168.	181.	20.	10.	623.60
.79	.39	.91	.43	.060	.040	.060	.046	619.90	153.00
.000055	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	0LOB	0CH	0ROB	ALOB	ACH	AROB	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= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	5.68	627.58	0.00	0.00	627.90	.32	.11	.15	626.70
290.	8.	276.	6.	11.	60.	7.	24.	11.	626.90
.83	.73	4.62	.83	.080	.045	.080	.046	621.90	774.71
.004637	600.	599.	570.	2	0	0	0.00	55.29	830.00

*SECNO 6676.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	5.69	627.59	0.00	0.00	627.91	.32	.00	.00	626.70
290.	8.	276.	6.	11.	60.	7.	24.	11.	626.90
.83	.73	4.62	.83	.080	.045	.080	.046	621.90	774.65
.004625	1.	1.	1.	0	0	0	0.00	55.35	830.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000

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EGPRS= 0.000 EGLWC= 627.965 ELLC= 628.900 PCWSE= 627.590 ELTRD= 629.400
3280 CROSS SECTION 6754.00 EXTENDED .03 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 629.40 MAX ELLC= 628.90

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	5.83	627.73	624.95	0.00	628.24	.51	.23	.10	624.90
290.	0.	290.	0.	0.	51.	0.	24.	12.	624.90
.83	0.00	5.73	0.00	.105	.025	.105	.045	621.90	1457.05
.002081	78.	78.	78.	5	13	0	-44.20	62.95	1520.00

*SECNO 6755.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	5.93	627.83	0.00	0.00	628.26	.43	.00	.02	624.70
290.	17.	264.	9.	29.	48.	15.	24.	12.	623.60
.83	.58	5.50	.55	.125	.035	.125	.045	621.90	767.58
.002349	1.	1.	1.	2	0	0	0.00	62.42	830.00

*SECNO 6784.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	6.55	628.25	0.00	0.00	628.40	.15	.05	.08	626.50
290.	28.	247.	15.	44.	75.	18.	25.	12.	626.70
.84	.64	3.31	.82	.080	.040	.080	.045	621.70	749.71
.001394	30.	29.	30.	2	0	0	0.00	80.29	830.00

*SECNO 6964.000

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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	5.58	628.68	0.00	0.00	629.01	.33	.52	.09	627.90
290.	9.	274.	7.	9.	58.	8.	25.	12.	628.10
.85	1.07	4.73	.88	.070	.060	.070	.046	623.10	777.77
.009008	170.	180.	190.	2	0	0	0.00	65.88	843.65

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	4.73	629.23	0.00	0.00	629.24	.01	.13	.10	626.50
290.	125.	127.	38.	220.	126.	93.	26.	12.	626.70
.92	.57	1.01	.41	.070	.060	.070	.046	624.50	201.00
.000253	170.	180.	190.	2	0	0	0.00	201.89	402.89

*SECNO 7314.000

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3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	3.50	629.30	0.00	0.00	629.34	.05	.09	.02	627.80
290.	88.	186.	16.	101.	89.	25.	27.	13.	623.00
.94	.87	2.08	.66	.070	.060	.070	.046	625.80	194.79
.001704	170.	170.	180.	2	0	0	0.00	173.15	367.93

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	3.50	630.80	0.00	0.00	630.99	.20	1.57	.08	629.30
290.	57.	233.	0.	100.	59.	0.	30.	15.	100000.00
.99	.57	3.97	0.00	.200	.055	.200	.047	627.30	199.00
.006031	490.	559.	550.	3	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.42	630.82	0.00	0.00	631.35	.54	.19	.17	629.40
290.	34.	256.	0.	90.	41.	0.	30.	15.	100000.00
.99	.37	6.26	0.00	.500	.055	.500	.047	627.40	204.00
.017446	20.	20.	20.	2	0	0	0.00	110.00	314.00

*SECNO 7894.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.41	630.81	630.43	0.00	631.40	.59	.02	.03	629.40
290.	26.	264.	0.	89.	41.	0.	30.	15.	100000.00
.99	.29	6.48	0.00	.600	.050	.600	.047	627.40	204.00
.015489	1.	1.	1.	4	11	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELRD
634.84	633.12	0.00	0.	290.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

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7954.00	7.17	634.67	0.00	0.00	634.84	.17	3.44	0.00	629.70	
290.	23.	267.	0.	338.	77.	0.	30.	15.	100000.00	
1.00	.07	3.49	0.00	.800	.015	.060	.047	627.50	766.00	
.000237	60.	60.	60.	2	0	0	0.00	110.00	876.00	

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	7.30	634.80	0.00	0.00	634.87	.07	.00	.03	629.70	
290.	25.	265.	0.	340.	119.	0.	30.	15.	100000.00	
1.00	.07	2.23	0.00	1.000	.040	.080	.047	627.50	207.00	
.000452	1.	1.	1.	2	0	0	0.00	111.00	318.00	

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	5.96	634.86	0.00	0.00	634.89	.03	.01	.01	631.10	
290.	16.	207.	67.	209.	128.	83.	30.	15.	630.80	
1.00	.08	1.62	.80	.500	.040	.060	.047	628.90	214.00	
.000219	40.	29.	40.	2	0	0	0.00	133.00	347.00	

1490 NH CARD USED

*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	4.56	635.06	0.00	633.73	635.37	.31	.34	.14	100000.00	
290.	0.	290.	0.	0.	65.	0.	33.	16.	100000.00	
1.04	0.00	4.47	0.00	.500	.078	.060	.046	630.50	403.00	
.005519	520.	560.	560.	1	0	0	0.00	22.00	425.00	

*SECNO 8563.000

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= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	4.24	635.04	0.00	633.89	635.73	.69	.17	.19	100000.00	
290.	0.	290.	0.	0.	43.	0.	33.	16.	100000.00	
1.04	0.00	6.69	0.00	.500	.050	.060	.046	630.80	408.00	
.016121	20.	19.	20.	2	0	0	0.00	12.00	420.00	

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION I

8564.00	4.59	635.39	0.00	634.35	635.82	.43	.00	.08	638.30	
290.	0.	290.	0.	0.	55.	0.	33.	16.	100000.00	
1.04	0.00	5.26	0.00	.060	.025	.060	.046	630.80	410.00	
.002188	1.	1.	1.	2	0	0	0.00	12.00	422.00	

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.019 ELLC= 637.000 PCWSE= 635.388 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.33	635.33	0.00	634.36	636.01	.67	.07	.12	638.50	
290.	0.	290.	0.	0.	44.	0.	33.	16.	638.50	
1.04	0.00	6.59	0.00	.060	.025	.060	.046	631.00	410.00	
.006310	19.	19.	19.	2	0	0	-7.99	12.00	422.00	

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	4.65	635.65	0.00	634.35	636.08	.44	.01	.07100000.00	
290.	0.	290.	0.	0.	55.	0.	33.	16. 100000.00	
1.04	0.00	5.30	0.00	.060	.050	.060	.046	631.00	407.00
.008536	1.	1.	1.	2	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	5.47	636.17	0.00	634.91	636.26	.09	.07	.10	636.10
290.	0.	290.	0.	0.	121.	0.	33.	16.	100000.00
1.04	.01	2.40	0.00	.060	.050	.060	.046	630.70	398.05
.001173	30.	29.	30.	2	0	0	0.00	31.66	429.70

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST

9163.00	4.65	637.35	0.00	636.50	637.59	.24	1.25	.08	636.00
290.	26.	246.	19.	19.	58.	17.	35.	17.	636.40
1.08	1.38	4.26	1.12	.065	.055	.065	.047	632.70	1219.50
.006174	550.	550.	550.	3	0	0	0.00	81.89	1301.39

*SECNO 9703.000

9703.00	5.15	639.85	0.00	639.46	639.96	.11	2.33	.04	638.00
290.	39.	208.	42.	35.	67.	38.	36.	18.	638.40
1.14	1.13	3.11	1.11	.070	.060	.070	.048	634.70	1209.38
.003195	540.	540.	540.	3	0	0	0.00	107.02	1316.39

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10253.00	5.06	641.86	0.00	641.35	641.99	.13	2.02	.01	640.10
290.	38.	213.	39.	32.	66.	34.	38.	19.	640.50
1.20	1.19	3.26	1.14	.075	.065	.075	.048	636.80	1211.04
.004253	550.	550.	550.	3	0	0	0.00	102.90	1313.93

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.16	643.96	0.00	643.49	644.04	.08	2.04	.01	642.10
255.	35.	181.	39.	35.	67.	39.	40.	21.	642.50
1.27	1.00	2.68	.99	.080	.070	.080	.050	638.80	1208.99
.003222	550.	550.	550.	2	0	0	0.00	107.99	1316.98

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      100-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INO       NINV      IDIR      STRT      METRIC    HVINS     0         WSEL      FQ
      -10.       4.        0.        0.  0.000000      0.00      0.0       0.    604.430     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

*PROF 3

CCHV=    .300 CEHV=    .500
*SECNO .000
   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     CORAR     IOPWID      ENDST


          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

     0.00      7.23    604.43      0.00    604.43    604.46       .03      0.00      0.00    601.70
     360.       116.      244.        0.      160.      163.        0.        0.        0.     606.10
     0.00       .72      1.50      0.00      .080      .050      .080     0.000    597.20    921.25
  .000395         0.        0.        0.         0         0         0      0.00     97.79   1019.04


*SECNO 130.000

          VALLEY SECTION A

   130.00      5.49    604.49      0.00      0.00    604.61       .12       .10       .05    603.50
     360.       57.      303.        0.        60.      101.        0.        1.        0.     607.90
      .01       .96      2.98      0.00      .080      .050      .080      .050    599.00    926.30
  .002306       130.      130.      130.         0         0         0      0.00     86.49   1012.79

*SECNO 409.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000
   409.00      5.17    605.27      0.00      0.00    605.50       .23       .84       .06    601.30
     360.       83.      188.        89.       52.       37.       56.        2.        1.     601.20
      .04      1.62      5.12      1.57      .080      .050      .080      .050    600.10    170.00
  .004084       280.      279.      280.         2         0         0      0.00     95.34    265.34

*SECNO 410.000
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AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	5.17	605.27	0.00	0.00	605.51	.23	.00	.00	601.30
360.	83.	188.	88.	51.	37.	56.	2.	1.	601.20
.04	1.62	5.12	1.57	.080	.050	.080	.050	600.10	170.00
.004092	1.	1.	1.	0	0	0	0.00	95.30	265.30

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.70	605.83	0.00	163.	198.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.38	607.38	0.00	0.00	607.51	.13	2.01	0.00	602.00
360.	51.	204.	106.	44.	56.	81.	2.	1.	602.00
.04	1.16	3.67	1.31	.050	.027	.050	.048	600.00	765.00
.000621	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.52	607.52	0.00	0.00	607.54	.02	.00	.03	603.30
360.	59.	207.	94.	107.	133.	168.	2.	1.	603.80
.04	.55	1.56	.56	.080	.040	.080	.048	600.00	170.00
.000182	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.09	607.49	0.00	0.00	607.64	.15	.03	.06	605.70
360.	41.	265.	54.	33.	77.	24.	2.	1.	606.20
.05	1.27	3.46	2.20	.070	.050	.040	.047	602.40	173.00
.002896	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	4.19	607.39	0.00	0.00	607.95	.55	.11	.20	606.50

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.05	1.45	6.11	1.47	.070	.050	.040	.046	603.20	179.22
.013718	20.	20.	20.	2	0	0	0.00	55.91	235.12

*SECNO 576.000

576.00	4.98	608.18	0.00	0.00	608.39	.22	.35	.10	606.50
360.	35.	301.	24.	33.	74.	21.	2.	1.	607.00
.05	1.07	4.06	1.12	.080	.050	.060	.046	603.20	160.99
.004177	50.	50.	50.	3	0	0	0.00	98.27	259.26

*SECNO 1316.000

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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	6.01	608.91	0.00	0.00	608.93	.02	.47	.06	606.80
360.	58.	143.	159.	149.	114.	184.	7.	3.	605.30
.27	.39	1.25	.86	.080	.050	.060	.048	602.90	680.00
.000245	700.	740.	760.	4	0	0	0.00	178.44	858.44

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	4.73	609.03	0.00	0.00	609.09	.06	.14	.02	608.20
360.	7.	184.	168.	14.	82.	113.	10.	4.	606.70
.31	.51	2.25	1.49	.080	.050	.060	.049	604.30	755.00
.001229	320.	310.	300.	2	0	0	0.00	97.25	852.25

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	4.68	609.08	0.00	0.00	609.14	.06	.05	.00	608.30
360.	4.	187.	169.	7.	80.	110.	10.	5.	606.80
.32	.52	2.33	1.54	.080	.050	.060	.049	604.40	765.00
.001352	40.	40.	40.	1	0	0	0.00	86.95	851.95

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	4.19	609.39	0.00	0.00	609.49	.10	.33	.02	609.10
360.	1.	200.	159.	2.	69.	85.	10.	5.	607.60
.34	.36	2.92	1.87	.080	.050	.060	.049	605.20	765.00
.002630	180.	180.	180.	2	0	0	0.00	84.64	849.64

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.90	609.80	0.00	0.00	610.16	.36	.54	.13	609.80
360.	0.	310.	50.	0.	61.	20.	11.	5.	608.30
.35	0.00	5.11	2.45	.040	.040	.050	.048	605.90	775.01
.006073	140.	140.	140.	2	0	0	0.00	42.99	818.00

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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

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.06	610.26	0.00	0.00	611.03	.76	.67	.20	611.00
355.	0.	355.	0.	0.	51.	0.	11.	5.	611.00
.35	0.00	7.02	0.00	.040	.040	.050	.048	606.20	1502.16
.012499	80.	79.	80.	2	0	0	0.00	21.07	1523.22

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	4.82	610.82	0.00	0.00	611.28	.46	.16	.09	100000.00
355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.47	0.00	.040	.040	.050	.048	606.00	1502.00
.005789	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	4.83	610.83	0.00	0.00	611.29	.46	.01	.00	100000.00
355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.45	0.00	.040	.040	.050	.048	606.00	1502.00
.005735	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.52	610.83	0.00	0.	355.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

2122.00	5.61	611.31	0.00	0.00	611.52	.21	.23	0.00	610.30
355.	0.	355.	0.	0.	96.	0.	11.	5.	100000.00
.36	0.00	3.71	0.00	.035	.025	.035	.047	605.70	1220.00
.000744	36.	36.	36.	2	0	0	0.00	20.00	1240.00

*SECNO 2123.000

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3470 ENCROACHMENT STATIONS=     1504.0     1524.0  TYPE=      1  TARGET=       20.000
  2123.00      5.56   611.26      0.00      0.00   611.57       .31       .00       .05100000.00
     355.        0.     355.        0.        0.      80.        0.       11.        5. 100000.00
      .36      0.00     4.45      0.00      .080     .060      .060      .047    605.70   1504.00
  .006909        1.       1.        1.         2        0         0      0.00     20.00   1524.00

*SECNO 2291.000
   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=     1500.0     1524.0  TYPE=      1  TARGET=       24.000
  2291.00      6.25   612.25      0.00      0.00   612.44       .19       .84       .04    610.80
     355.        0.     355.        0.        0.     102.        0.       11.        5. 100000.00
      .37      0.00     3.48      0.00      .080     .060      .060      .048    606.00   1500.00
  .003754      100.     168.      180.         2        0         0      0.00     24.00   1524.00

*SECNO 2292.000

          EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

          6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

          (DOWNSTREAM FACE)

  2292.00      6.35   612.35      0.00      0.00   612.47       .11       .00       .02    615.50
     355.        0.     355.        0.        0.     132.        0.       11.        5.    615.50
      .37      0.00     2.68      0.00      .035     .032      .035      .048    606.00    248.00
  .000643        1.       1.        1.         2        0         0      0.00     23.50    271.50

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.53      3.02      0.00     14.85      0.00    109.90      0.00    605.80    606.00

*SECNO 2346.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=      0.000  EGLWC=    612.268  ELLC=    613.100  PCWSE=    612.355  ELTRD=    615.500

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  615.50 MAX ELLC=  613.10

          EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

          6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

          (UPSTREAM FACE)

  2346.00      6.58   612.38      0.00      0.00   612.55       .17       .06       .03    615.50
     355.        0.     355.        0.        0.     107.        0.       12.        5.    615.50
      .37      0.00     3.33      0.00      .035     .032      .035      .048    605.80    248.00
  .002017       54.      54.       54.         2        0         0    -30.04     23.50    271.50
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*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	6.60	612.40	0.00	0.00	612.56	.16	.00	.00	610.60
355.	0.	355.	0.	0.	110.	0.	12.	5.	100000.00
.37	0.00	3.22	0.00	.080	.045	.080	.048	605.80	1500.00
.001686	1.	1.	1.	1	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	5.81	612.91	0.00	0.00	613.03	.12	.45	.01	612.50
355.	2.	334.	19.	8.	118.	44.	12.	6.	612.20
.40	.26	2.82	.43	.080	.045	.080	.047	607.10	226.12
.001562	275.	280.	290.	0	0	0	0.00	173.88	400.00

*SECNO 2907.000

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= .0 356.0 TYPE= 1 TARGET= 355.999

2907.00	5.02	613.52	0.00	0.00	613.76	.24	.67	.06	613.90
355.	0.	355.	0.	0.	91.	0.	13.	7.	613.60
.42	0.00	3.92	0.00	.080	.045	.080	.047	608.50	266.16
.004085	275.	280.	290.	2	0	0	0.00	33.64	299.79

*SECNO 3187.000

3470 ENCROACHMENT STATIONS= .0 366.0 TYPE= 1 TARGET= 365.999

3187.00	4.92	614.72	0.00	0.00	614.97	.26	1.21	.01	615.20
355.	0.	355.	0.	0.	87.	0.	14.	7.	614.90
.44	0.00	4.08	0.00	.080	.045	.080	.047	609.80	266.48
.004556	275.	280.	290.	2	0	0	0.00	33.05	299.53

1490 NH CARD USED

*SECNO 3466.000

3470 ENCROACHMENT STATIONS= .0 386.0 TYPE= 1 TARGET= 385.999

VALLEY SECTION H

3466.00	4.89	615.99	0.00	0.00	616.25	.26	1.28	.00	616.50
355.	0.	355.	0.	0.	86.	0.	14.	7.	616.20
.46	0.00	4.11	0.00	.080	.078	.080	.047	611.10	266.55
.004593	275.	279.	290.	2	0	0	0.00	32.92	299.47

1490 NH CARD USED

*SECNO 5226.000

3470 ENCROACHMENT STATIONS= .0 500.0 TYPE= 1 TARGET= 499.999

VALLEY SECTION I

5226.00	6.42	620.42	0.00	0.00	620.48	.06	4.17	.06	619.60
355.	4.	255.	97.	7.	112.	90.	20.	10.	619.00

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.001452	1830.	1760.	1710.	4	0	0	0.00	117.47	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	5.46	621.56	0.00	0.00	621.83	.27	1.25	.10	100000.00
355.	0.	355.	0.	0.	85.	0.	22.	11.	100000.00
.75	0.00	4.17	0.00	.070	.045	.070	.046	616.10	2.90
.003756	620.	569.	530.	2	0	0	0.00	26.42	29.32

*SECNO 5835.000

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= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.40	621.60	0.00	0.00	622.26	.66	.23	.20	100000.00
335.	0.	335.	0.	0.	51.	0.	22.	11.	100000.00
.75	0.00	6.52	0.00	.070	.045	.070	.046	616.20	11.00
.010549	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	5.62	621.82	0.00	0.00	622.32	.49	.01	.05	617.20	
335.	0.	335.	0.	0.	59.	0.	22.	11.	100000.00	
.75	0.00	5.64	0.00	.040	.032	.040	.046	616.20	494.50	
.003522	1.	1.	1.	2	0	0	0.00	11.00	505.50	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 622.616 ELLC= 623.500 PCWSE= 621.821 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	5.50	622.00	0.00	0.00	622.65	.65	.26	.08	617.50	
335.	0.	335.	0.	0.	52.	0.	22.	11.	100000.00	

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.75	0.00	6.47	0.00	.040	.032	.040	.046	616.50	494.50
.006373	56.	56.	56.	2	0	0	-6.25	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.85	622.35	0.00	0.00	622.74	.39	.01	.08100000.00	
335.	0.	335.	0.	0.	67.	0.	22.	11. 100000.00	
.75	0.00	5.02	0.00	.090	.060	.090	.046	616.50	10.00
.009344	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	5.07	622.87	0.00	0.00	623.03	.16	.22	.07	622.00
335.	4.	321.	9.	6.	99.	9.	22.	11.	621.50
.76	.77	3.25	1.01	.090	.060	.090	.046	617.80	193.00
.003158	45.	44.	45.	2	0	0	0.00	40.00	233.00

*SECNO 5981.000

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
5981.00	3.90	623.00	0.00	0.00	623.37	.37	.24	.11	623.30
335.	0.	334.	1.	0.	69.	3.	23.	11.	622.80
.76	0.00	4.88	.38	.090	.060	.090	.046	619.10	200.53
.011251	40.	44.	40.	2	0	0	0.00	50.78	251.30

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.92	623.02	0.00	0.00	623.38	.37	.01	.00	623.30
335.	0.	334.	1.	0.	69.	3.	23.	11.	622.80
.76	0.00	4.86	.39	.090	.060	.090	.046	619.10	200.51
.011155	1.	1.	1.	0	0	0	0.00	51.65	252.17

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
629.68	626.72	0.00	10.	325.	24.	24.	625.00	629.20

3470 ENCROACHMENT STATIONS= 1442.0 1562.0 TYPE= 1 TARGET= 120.000

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GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	9.75	629.25	0.00	0.00	629.30	.05	5.92	0.00	623.70
335.	4.	326.	5.	254.	174.	270.	23.	11.	623.20
.77	.02	1.87	.02	1.000	.010	1.000	.046	619.50	1442.00
.000016	74.	74.	74.	2	0	4	0.00	120.00	1562.00

*SECNO 6057.000

3280 CROSS SECTION 6057.00 EXTENDED 1.28 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	9.78	629.28	0.00	0.00	629.31	.03	.00	.01	623.70
335.	4.	326.	5.	250.	221.	277.	23.	11.	623.20
.77	.02	1.48	.02	1.000	.015	1.000	.046	619.50	153.00
.000014	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000

3280 CROSS SECTION 6076.00 EXTENDED .91 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	9.41	629.31	0.00	0.00	629.32	.01	.00	.01	624.10
335.	81.	157.	96.	233.	212.	260.	24.	11.	623.60
.78	.35	.74	.37	.060	.040	.060	.046	619.90	153.00
.000027	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

3280 CROSS SECTION 6675.00 EXTENDED .73 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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	7.42	629.32	0.00	0.00	629.40	.08	.05	.04	626.70
335.	67.	242.	26.	98.	89.	30.	30.	13.	626.90
.86	.68	2.71	.89	.080	.045	.080	.046	621.90	724.99
.000930	600.	599.	570.	0	0	0	0.00	105.01	830.00

*SECNO 6676.000

3280 CROSS SECTION 6676.00 EXTENDED .72 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	7.42	629.32	0.00	0.00	629.41	.08	.00	.00	626.70
335.	67.	242.	26.	98.	89.	30.	30.	13.	626.90
.86	.68	2.71	.89	.080	.045	.080	.046	621.90	725.13

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.47 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
630.96	629.49	0.00	81.	254.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.27	630.17	0.00	0.00	630.26	.09	.86	0.00	624.90
335.	77.	235.	23.	208.	81.	52.	30.	13.	624.90
.87	.37	2.91	.45	.105	.025	.105	.045	621.90	1400.00
.000242	78.	78.	78.	2	0	4	0.00	120.00	1520.00

*SECNO 6755.000
3280 CROSS SECTION 6755.00 EXTENDED 1.57 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.26	630.16	0.00	0.00	630.27	.11	.00	.01	624.70
335.	82.	229.	24.	193.	71.	51.	30.	13.	623.60
.87	.42	3.20	.48	.125	.035	.125	.045	621.90	710.00
.000469	1.	1.	1.	0	0	0	0.00	120.00	830.00

*SECNO 6784.000
3280 CROSS SECTION 6784.00 EXTENDED 1.87 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	8.57	630.27	0.00	0.00	630.31	.04	.01	.02	626.50
335.	102.	206.	27.	197.	109.	45.	31.	13.	626.70
.88	.52	1.89	.60	.080	.040	.080	.045	621.70	710.00
.000276	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000
3280 CROSS SECTION 6964.00 EXTENDED .54 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

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3470 ENCROACHMENT STATIONS= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.25	630.35	0.00	0.00	630.39	.04	.08	.00	627.90
335.	65.	177.	93.	85.	86.	116.	32.	14.	628.10
.91	.77	2.05	.80	.070	.060	.070	.046	623.10	730.16
.000997	170.	180.	190.	1	0	0	0.00	179.84	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	5.94	630.44	0.00	0.00	630.44	.00	.04	.01	626.50
335.	152.	114.	69.	341.	162.	199.	34.	15.	626.70
1.01	.45	.71	.35	.070	.060	.070	.046	624.50	201.00
.000088	170.	180.	190.	2	0	0	0.00	230.79	431.79

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	4.66	630.46	0.00	0.00	630.47	.01	.03	.00	627.80
335.	148.	146.	41.	230.	124.	88.	36.	15.	628.00
1.06	.64	1.18	.46	.070	.060	.070	.046	625.80	182.73
.000351	170.	170.	180.	2	0	0	0.00	218.65	401.38

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	3.55	630.85	0.00	0.00	631.09	.24	.51	.12	629.30
335.	70.	265.	0.	106.	60.	0.	40.	17.	100000.00
1.10	.66	4.43	0.00	.200	.055	.200	.047	627.30	199.00
.007350	490.	559.	550.	2	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.47	630.87	630.65	0.00	631.55	.68	.24	.22	629.40
335.	41.	294.	0.	95.	42.	0.	40.	18.	100000.00
1.11	.43	7.06	0.00	.500	.055	.500	.047	627.40	204.00
.021754	20.	20.	20.	4	11	0	0.00	110.00	314.00

*SECNO 7894.000

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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.45	630.85	630.63	0.00	631.61	.76	.02	.04	629.40
335.	31.	304.	0.	93.	41.	0.	40.	18.	100000.00
1.11	.34	7.34	0.00	.600	.050	.600	.047	627.40	204.00
.019561	1.	1.	1.	4	11	0	0.00	110.00	314.00

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
636.23	633.76	0.00	24.	311.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	7.81	635.31	0.00	0.00	635.49	.18	3.88	0.00	629.70
335.	29.	306.	0.	400.	85.	0.	40.	18.	100000.00
1.11	.07	3.58	0.00	.800	.015	.060	.047	627.50	766.00
.000223	60.	60.	60.	2	0	4	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	7.95	635.45	0.00	0.00	635.52	.08	.00	.03	629.70
335.	33.	302.	0.	400.	130.	0.	40.	18.	100000.00
1.11	.08	2.32	0.00	1.000	.040	.080	.047	627.50	207.00
.000447	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	6.61	635.51	0.00	0.00	635.54	.03	.01	.01	631.10
335.	22.	233.	79.	265.	144.	97.	41.	18.	630.80
1.12	.08	1.62	.81	.500	.040	.060	.047	628.90	214.00
.000187	40.	29.	40.	2	0	0	0.00	133.00	347.00

1490 NH CARD USED

*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	5.17	635.67	0.00	633.73	635.95	.28	.29	.13	100000.00
335.	0.	335.	0.	0.	79.	0.	44.	19.	100000.00
1.15	0.00	4.27	0.00	.500	.078	.060	.046	630.50	403.00
.004281	520.	560.	560.	1	0	0	0.00	22.00	425.00

*SECNO 8563.000

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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= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	4.80	635.60	0.00	633.89	636.30	.69	.14	.21	100000.00
335.	0.	335.	0.	0.	50.	0.	45.	19.	100000.00
1.15	0.00	6.68	0.00	.500	.050	.060	.046	630.80	408.00
.014358	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	5.11	635.91	0.00	634.35	636.37	.46	.00	.07	638.30
335.	0.	335.	0.	0.	61.	0.	45.	19.	100000.00
1.15	0.00	5.46	0.00	.060	.025	.060	.046	630.80	410.00
.002182	1.	1.	1.	2	0	0	0.00	12.00	422.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.569 ELLC= 637.000 PCWSE= 635.907 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.81	635.81	0.00	634.36	636.60	.79	.07	.17	638.50
335.	0.	335.	0.	0.	47.	0.	45.	19.	638.50
1.16	0.00	7.15	0.00	.060	.025	.060	.046	631.00	410.00
.007152	19.	19.	19.	2	0	0	-10.85	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	5.29	636.29	0.00	634.35	636.72	.43	.01	.11	100000.00
335.	0.	335.	0.	0.	63.	0.	45.	19.	100000.00
1.16	0.00	5.28	0.00	.060	.050	.060	.046	631.00	407.00
.007497	1.	1.	1.	3	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	6.10	636.80	0.00	634.91	636.88	.09	.06	.10	636.10
335.	3.	332.	0.	7.	139.	0.	45.	19.	100000.00
1.16	.39	2.38	0.00	.060	.050	.060	.046	630.70	381.11

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.000988	30.	29.	30.	2	0	0	0.00	49.31	430.42

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
9163.00	5.04	637.74	0.00	636.50	637.92	.18	.99	.04	636.00
335.	42.	250.	43.	31.	65.	33.	46.	20.	636.40
1.21	1.36	3.83	1.30	.065	.055	.065	.047	632.70	1211.42
.004243	550.	550.	550.	3	0	0	0.00	101.94	1313.36

*SECNO 9703.000

9703.00	5.24	639.94	0.00	639.46	640.07	.13	2.14	.01	638.00
335.	48.	234.	53.	38.	69.	43.	48.	21.	638.40
1.26	1.26	3.40	1.25	.070	.060	.070	.048	634.70	1207.56
.003697	540.	540.	540.	3	0	0	0.00	111.54	1319.10

*SECNO 10253.000

10253.00	5.27	642.07	0.00	641.35	642.19	.12	2.12	.00	640.10
335.	49.	230.	56.	40.	70.	45.	50.	22.	640.50
1.32	1.25	3.30	1.24	.075	.065	.075	.048	636.80	1206.72
.004039	550.	550.	550.	2	0	0	0.00	113.62	1320.34

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.33	644.13	0.00	643.49	644.22	.09	2.01	.01	642.10
295.	45.	198.	52.	42.	71.	48.	52.	24.	642.50
1.39	1.07	2.80	1.08	.080	.070	.080	.050	638.80	1205.51
.003288	550.	550.	550.	2	0	0	0.00	116.63	1322.13

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR    01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      500-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       5.        0.        0.  0.000000      0.00      0.0       0.    605.110     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

*PROF 4

CCHV=    .300 CEHV=    .500
*SECNO .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


            MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

            REPEATED AND ADJUSTED FOR CHANNEL INVERT.

      0.00      7.91    605.11      0.00    605.11    605.14       .03      0.00      0.00    601.70
      505.      180.      325.        0.      201.      189.        0.        0.        0.     606.10
      0.00       .89      1.72      0.00      .080      .050      .080     0.000    597.20    919.28
   .000458        0.        0.        0.         0         0         0      0.00    102.18   1021.46


*SECNO 130.000

            VALLEY SECTION A

    130.00      6.18    605.18      0.00      0.00    605.30       .12       .11       .04    603.50
      505.      122.      383.        0.       98.      124.        0.        1.        0.     607.90
       .01      1.24      3.09      0.00      .080      .050      .080      .050    599.00    924.31
   .002080      130.      130.      130.         0         0         0      0.00     90.94   1015.25

*SECNO 409.000

3470 ENCROACHMENT STATIONS=      170.0     270.0  TYPE=       1  TARGET=      100.000
    409.00      5.78    605.88      0.00      0.00    606.09       .21       .75       .05    601.30
      505.      133.      218.      154.        73.       42.       91.        2.        1.     601.20
       .04      1.83      5.22      1.69      .080      .050      .080      .050    600.10    170.00
   .003608      280.      279.      280.         2         0         0      0.00    100.00    270.00

*SECNO 410.000
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AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	5.79	605.89	0.00	0.00	606.10	.21	.00	.00	601.30
505.	133.	218.	154.	73.	42.	91.	2.	1.	601.20
.04	1.83	5.22	1.69	.080	.050	.080	.050	600.10	170.00
.003602	1.	1.	1.	0	0	0	0.00	100.00	270.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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
620.50	606.62	0.00	322.	188.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.73	607.73	0.00	0.00	607.91	.18	1.81	0.00	602.00
505.	80.	263.	162.	56.	58.	101.	2.	1.	602.00
.04	1.44	4.51	1.61	.050	.027	.050	.048	600.00	765.00
.000878	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3280 CROSS SECTION 447.00 EXTENDED .32 FEET

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.92	607.92	0.00	0.00	607.96	.04	.00	.04	603.30
505.	85.	284.	136.	119.	142.	186.	2.	1.	603.80
.04	.72	2.00	.73	.080	.040	.080	.048	600.00	170.00
.000273	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.48	607.88	0.00	0.00	608.07	.20	.04	.08	605.70
505.	71.	343.	91.	43.	86.	32.	3.	1.	606.20
.05	1.64	4.01	2.82	.070	.050	.040	.046	602.40	173.00
.003361	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

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526.00	4.56	607.76	607.69	0.00	608.43	.67	.12	.24	606.50
505.	35.	448.	21.	19.	65.	9.	3.	1.	607.00
.05	1.89	6.93	2.37	.070	.050	.040	.046	603.20	170.52
.014557	20.	20.	20.	4	12	0	0.00	76.13	246.65

*SECNO 576.000

576.00	5.48	608.68	0.00	0.00	608.91	.23	.34	.13	606.50
505.	69.	376.	61.	55.	86.	43.	3.	1.	607.00
.05	1.24	4.38	1.40	.080	.050	.060	.046	603.20	149.30
.004008	50.	50.	50.	3	0	0	0.00	125.44	274.74

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	6.57	609.47	0.00	0.00	609.49	.02	.52	.06	606.80
505.	103.	184.	218.	202.	128.	217.	9.	4.	605.30
.24	.51	1.44	1.00	.080	.050	.060	.048	602.90	680.00
.000279	700.	740.	760.	4	0	0	0.00	181.13	861.13

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	5.30	609.60	0.00	0.00	609.67	.07	.16	.02	608.20
505.	19.	241.	245.	26.	96.	143.	12.	5.	606.70
.29	.74	2.51	1.71	.080	.050	.060	.049	604.30	755.00
.001238	320.	310.	300.	2	0	0	0.00	99.99	854.99

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	5.25	609.65	0.00	0.00	609.73	.08	.05	.00	608.30
505.	10.	247.	248.	13.	95.	140.	12.	5.	606.80
.29	.75	2.61	1.77	.080	.050	.060	.049	604.40	765.00
.001371	40.	40.	40.	1	0	0	0.00	89.70	854.70

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	4.75	609.95	0.00	0.00	610.06	.11	.32	.02	609.10
505.	6.	260.	239.	8.	82.	114.	13.	5.	607.60
.31	.74	3.16	2.10	.080	.050	.060	.049	605.20	765.00
.002406	180.	180.	180.	2	0	0	0.00	87.33	852.33

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	4.39	610.29	0.00	0.00	610.72	.42	.50	.16	609.80
505.	7.	410.	88.	4.	73.	29.	14.	5.	608.30
.32	1.58	5.62	2.98	.040	.040	.050	.048	605.90	765.00

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*SECNO 2065.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.46	610.66	0.00	0.00	611.77	1.10	.71	.34	611.00
500.	0.	500.	0.	0.	59.	0.	14.	6.	611.00
.32	0.00	8.42	0.00	.040	.040	.050	.048	606.20	1500.98
.016085	80.	75.	80.	2	0	0	0.00	22.67	1523.65

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	5.46	611.46	0.00	0.00	612.10	.64	.20	.14	100000.00
500.	0.	500.	0.	0.	78.	0.	14.	6.	100000.00
.32	0.00	6.44	0.00	.040	.040	.050	.048	606.00	1502.00
.006777	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	5.47	611.47	0.00	0.00	612.11	.64	.01	.00	100000.00
500.	0.	500.	0.	0.	78.	0.	14.	6.	100000.00
.32	0.00	6.41	0.00	.040	.040	.050	.048	606.00	1502.00
.006683	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.85	611.62	0.00	0.	500.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

2122.00	6.89	612.59	0.00	0.00	612.85	.26	.74	0.00	610.30

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500.	0.	500.	0.	0.	0.	105.	0.	14.	6. 100000.00
.32	0.00	4.12	0.00	.035	.025	.035	.047	605.70	1220.00
.000754	36.	36.	36.	2	0	0	0.00	20.00	1240.00

*SECNO 2123.000

3470 ENCROACHMENT STATIONS= 1504.0 1524.0 TYPE= 1 TARGET= 20.000

2123.00	6.85	612.55	0.00	0.00	612.90	.35	.00	.04100000.00	
500.	0.	500.	0.	0.	0.	105.	0.	14.	6. 100000.00
.32	0.00	4.74	0.00	.080	.060	.060	.047	605.70	1504.00
.006152	1.	1.	1.	2	0	0	0.00	20.00	1524.00

*SECNO 2291.000

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= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2291.00	7.48	613.48	0.00	0.00	613.70	.22	.77	.04	610.80
500.	0.	500.	0.	0.	131.	0.	15.	6. 100000.00	
.34	0.00	3.80	0.00	.080	.060	.060	.048	606.00	1500.00
.003557	100.	168.	180.	2	0	0	0.00	24.00	1524.00

*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

2292.00	7.58	613.58	0.00	0.00	613.73	.15	.00	.02	615.50
500.	0.	500.	0.	0.	161.	0.	15.	6.	615.50
.34	0.00	3.10	0.00	.035	.032	.035	.048	606.00	248.00
.000718	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
614.39	613.53	0.00	0.	500.	110.	108.	613.10	615.50

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

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          (UPSTREAM FACE)

  2346.00     8.47   614.27     0.00     0.00   614.39      .12      .66     0.00   615.50
     500.       0.     500.       0.       0.     181.       0.      15.       6.    615.50
      .34     0.00     2.76     0.00     .035     .032     .035     .048   605.80   248.00
  .000515      54.      54.      54.        2        0        0     0.00    23.50   271.50


*SECNO 2347.000
3280 CROSS SECTION   2347.00 EXTENDED       .65 FEET


3470 ENCROACHMENT STATIONS=    1500.0    1524.0  TYPE=      1  TARGET=      24.000
  2347.00     8.45   614.25     0.00     0.00   614.42      .16      .00      .02   610.60
     500.       0.     500.       0.       0.     155.       0.      15.       6. 100000.00
      .34     0.00     3.23     0.00     .080     .045     .080     .048   605.80  1500.00
  .001255       1.       1.       1.        2        0        0     0.00    24.00  1524.00


*SECNO 2627.000

3470 ENCROACHMENT STATIONS=        .0     400.0  TYPE=      1  TARGET=     399.999
  2627.00     7.49   614.59     0.00     0.00   614.61      .03      .16      .04   612.50
     500.      89.     296.     115.     226.     177.     211.      17.       7.    612.20
      .41      .39     1.67      .54     .080     .045     .080     .047   607.10    51.03
  .000323     275.     280.     290.        2        0        0     0.00   348.96   400.00


*SECNO 2907.000
   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       FLMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=        .0     356.0  TYPE=      1  TARGET=     355.999
  2907.00     6.21   614.71     0.00     0.00   614.86      .16      .18      .06   613.90
     500.      14.     444.      42.      30.     132.      53.      20.       9.    613.60
      .43      .47     3.37      .78     .080     .045     .080     .047   608.50   186.81
  .001924     275.     280.     290.        2        0        0     0.00   169.19   356.00


*SECNO 3187.000

3470 ENCROACHMENT STATIONS=        .0     366.0  TYPE=      1  TARGET=     365.999
  3187.00     5.60   615.40     0.00     0.00   615.69      .29      .76      .07   615.20
     500.       1.     487.      12.       2.     111.      21.      21.      10.    614.90
      .45      .26     4.39      .56     .080     .045     .080     .047   609.80   245.84
  .004129     275.     280.     290.        2        0        0     0.00   120.16   366.00


1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS=        .0     386.0  TYPE=      1  TARGET=     385.999

          VALLEY SECTION H

  3466.00     5.53   616.63     0.00     0.00   616.94      .31     1.24      .01   616.50
     500.       0.     490.      10.       1.     109.      17.      22.      10.    616.20
      .47      .27     4.51      .58     .065     .078     .065     .047   611.10   252.14
  .004810     275.     279.     290.        2        0        0     0.00   127.57   379.72
```

1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS= .0 500.0 TYPE= 1 TARGET= 499.999

VALLEY SECTION I

5226.00	7.02	621.02	0.00	0.00	621.08	.06	4.06	.07	619.60
500.	16.	304.	181.	21.	127.	135.	30.	15.	619.00
.72	.73	2.39	1.34	.060	.080	.060	.046	614.00	369.78
.001362	1830.	1760.	1710.	3	0	0	0.00	130.22	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	6.05	622.15	0.00	0.00	622.53	.38	1.29	.16100000.00	
500.	0.	500.	0.	0.	101.	0.	33.	16.	100000.00
.75	0.00	4.93	0.00	.070	.045	.070	.046	616.10	1.92
.004640	620.	569.	530.	2	0	0	0.00	28.52	30.44

*SECNO 5835.000

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= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.91	622.11	0.00	0.00	623.19	1.08	.31	.35100000.00	
475.	0.	475.	0.	0.	57.	0.	33.	17.	100000.00
.75	0.00	8.33	0.00	.070	.045	.070	.046	616.20	11.00
.016089	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	6.30	622.50	0.00	0.00	623.28	.79	.01	.09	617.20
475.	0.	475.	0.	0.	67.	0.	33.	17.	100000.00
.75	0.00	7.11	0.00	.040	.032	.040	.046	616.20	494.50
.005199	1.	1.	1.	3	0	0	0.00	11.00	505.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000
PRESSURE AND WEIR FLOW

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							AREA		
625.03	623.58	0.00	9.	467.	59.	59.	623.50	624.70	

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	7.97	624.47	0.00	0.00	624.95	.48	1.67	0.00	617.50
475.	0.	475.	0.	0.	85.	0.	33.	17.	100000.00
.75	0.00	5.58	0.00	.040	.032	.040	.046	616.50	494.50
.002787	56.	56.	56.	2	0	4	0.00	11.00	505.50

*SECNO 5893.000
3280 CROSS SECTION 5893.00 EXTENDED 1.01 FEET

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	8.11	624.61	0.00	0.00	624.99	.38	.00	.03	100000.00
475.	0.	475.	0.	0.	96.	0.	33.	17.	100000.00
.75	0.00	4.94	0.00	.090	.060	.090	.046	616.50	10.00
.007156	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	7.27	625.07	0.00	0.00	625.18	.11	.11	.08	622.00
475.	20.	429.	25.	21.	156.	25.	33.	17.	621.50
.76	.96	2.75	1.03	.090	.060	.090	.046	617.80	193.00
.001234	45.	44.	45.	2	0	0	0.00	40.00	233.00

*SECNO 5981.000

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
5981.00	6.11	625.21	0.00	0.00	625.24	.03	.04	.02	623.30
475.	80.	238.	157.	148.	126.	228.	33.	17.	622.80
.77	.54	1.89	.69	.090	.060	.090	.046	619.10	69.97
.000775	40.	44.	40.	2	0	0	0.00	291.39	361.35

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	6.11	625.21	0.00	0.00	625.24	.03	.00	.00	623.30
475.	80.	238.	157.	148.	126.	228.	33.	17.	622.80
.77	.54	1.89	.69	.090	.060	.090	.046	619.10	69.93
.000774	1.	1.	1.	0	0	0	0.00	291.44	361.37

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
638.60	626.14	0.00	197.	282.	24.	24.	625.00	629.20

3470 ENCROACHMENT STATIONS= 1442.0 1562.0 TYPE= 1 TARGET= 120.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	10.36	629.86	0.00	0.00	629.95	.09	4.70	0.00	623.70
475.	6.	462.	7.	283.	190.	298.	34.	17.	623.20
.78	.02	2.43	.02	1.000	.010	1.000	.046	619.50	1442.00
.000024	74.	74.	74.	2	0	5	0.00	120.00	1562.00

*SECNO 6057.000
3280 CROSS SECTION 6057.00 EXTENDED 1.90 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	10.40	629.90	0.00	0.00	629.96	.06	.00	.01	623.70
475.	6.	462.	7.	279.	237.	306.	34.	17.	623.20
.78	.02	1.95	.02	1.000	.015	1.000	.046	619.50	153.00
.000022	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000
3280 CROSS SECTION 6076.00 EXTENDED 1.56 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	10.06	629.96	0.00	0.00	629.97	.01	.00	.01	624.10
475.	120.	216.	139.	263.	229.	290.	35.	17.	623.60
.78	.45	.95	.48	.060	.040	.060	.046	619.90	153.00
.000039	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000
3280 CROSS SECTION 6675.00 EXTENDED 1.38 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= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	8.08	629.98	0.00	0.00	630.08	.10	.06	.04	626.70

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.86	.84	3.04	1.06	.080	.045	.080	.046	621.90	710.00
.001004	600.	599.	570.	0	0	0	0.00	120.00	830.00

*SECNO 6676.000
3280 CROSS SECTION 6676.00 EXTENDED 1.38 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	8.08	629.98	0.00	0.00	630.08	.10	.00	.00	626.70
475.	129.	305.	41.	154.	100.	38.	42.	19.	626.90
.86	.84	3.04	1.06	.080	.045	.080	.046	621.90	710.00
.001001	1.	1.	1.	0	0	0	0.00	120.00	830.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.86 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
633.29	630.08	0.00	254.	221.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.66	630.56	0.00	0.00	630.70	.15	.62	0.00	624.90
475.	126.	316.	34.	245.	85.	57.	43.	19.	624.90
.87	.51	3.73	.59	.105	.025	.105	.045	621.90	1400.00
.000375	78.	78.	78.	2	0	4	0.00	120.00	1520.00

*SECNO 6755.000
3280 CROSS SECTION 6755.00 EXTENDED 1.95 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.64	630.54	0.00	0.00	630.71	.17	.00	.01	624.70
475.	133.	307.	35.	229.	75.	56.	43.	19.	623.60
.87	.58	4.08	.63	.125	.035	.125	.045	621.90	710.00
.000712	1.	1.	1.	1	0	0	0.00	120.00	830.00

*SECNO 6784.000
3280 CROSS SECTION 6784.00 EXTENDED 2.31 FEET

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VALLEY SECTION O

6784.00	9.01	630.71	0.00	0.00	630.76	.05	.02	.04	626.50
475.	164.	272.	38.	237.	116.	50.	43.	19.	626.70
.87	.69	2.34	.76	.080	.040	.080	.045	621.70	710.00
.000387	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000

3280 CROSS SECTION 6964.00 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	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.73	630.83	0.00	0.00	630.87	.04	.11	.00	627.90
475.	109.	207.	158.	123.	95.	161.	45.	20.	628.10
.90	.89	2.19	.98	.070	.060	.070	.046	623.10	720.00
.001005	170.	180.	190.	2	0	0	0.00	190.00	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	6.42	630.92	0.00	0.00	630.93	.01	.05	.01	626.50
475.	215.	151.	109.	389.	177.	251.	47.	21.	626.70
.98	.55	.85	.43	.070	.060	.070	.046	624.50	201.00
.000115	170.	180.	190.	2	0	0	0.00	242.39	443.39

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	5.15	630.95	0.00	0.00	630.97	.02	.03	.00	627.80
475.	219.	182.	74.	289.	139.	126.	50.	22.	628.00
1.03	.76	1.31	.59	.070	.060	.070	.046	625.80	177.59
.000375	170.	170.	180.	2	0	0	0.00	235.52	413.12

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	4.06	631.36	0.00	0.00	631.63	.27	.53	.13	629.30
475.	136.	339.	0.	158.	69.	0.	54.	24.	100000.00
1.07	.87	4.88	0.00	.200	.055	.200	.047	627.30	199.00
.007518	490.	559.	550.	2	0	0	0.00	120.00	319.00

*SECNO 7893.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.91	631.31	631.14	0.00	632.18	.87	.25	.30	629.40
475.	82.	393.	0.	138.	48.	0.	55.	24.	100000.00
1.07	.60	8.31	0.00	.500	.055	.500	.047	627.40	304.00

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.025224	20.	20.	20.	4	11	0	0.00	110.00	314.00

*SECNO 7894.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	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= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.85	631.25	631.19	0.00	632.29	1.04	.02	.09	629.40
475.	62.	413.	0.	131.	47.	0.	55.	24.	100000.00
1.08	.47	8.78	0.00	.600	.050	.600	.047	627.40	204.00
.024361	1.	1.	1.	4	8	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
642.08	635.02	0.00	153.	323.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	8.45	635.95	0.00	0.00	636.24	.29	3.95	0.00	629.70
475.	44.	431.	0.	461.	94.	0.	55.	24.	100000.00
1.08	.10	4.56	0.00	.800	.015	.060	.047	627.50	766.00
.000328	60.	60.	60.	2	0	6	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	8.67	636.17	0.00	0.00	636.29	.12	.00	.05	629.70
475.	51.	424.	0.	468.	143.	0.	55.	24.	100000.00
1.08	.11	2.96	0.00	1.000	.040	.080	.047	627.50	207.00
.000662	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

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	475.	37.	324.	114.	331.	163.	114.	56.	24.	630.80
	1.08	.11	1.98	1.00	.500	.040	.060	.047	628.90	214.00
	.000238	40.	29.	40.	2	0	0	0.00	133.00	347.00

1490 NH CARD USED
*SECNO 8544.000

VALLEY SECTION S

8544.00	6.03	636.53	0.00	0.00	636.75	.22	.34	.09	637.20
475.	0.	406.	69.	0.	101.	62.	60.	26.	636.10
1.13	0.00	4.03	1.11	.500	.077	.060	.046	630.50	400.90
.003676	520.	560.	560.	0	0	0	0.00	125.98	526.88

*SECNO 8563.000

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
8563.00	5.77	636.57	0.00	0.00	636.88	.31	.08	.05	637.50
475.	0.	439.	36.	0.	94.	37.	60.	26.	636.40
1.13	0.00	4.65	.97	.500	.078	.060	.046	630.80	401.24
.005095	20.	19.	20.	0	0	0	0.00	118.23	519.47

*SECNO 8564.000

3265 DIVIDED FLOW

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	5.56	636.36	634.44	0.00	637.10	.73	.00	.21	638.30
475.	0.	464.	11.	0.	67.	16.	60.	26.	638.30
1.13	0.00	6.95	.68	.060	.025	.060	.046	630.80	410.00
.003328	1.	1.	1.	4	14	0	0.00	60.27	528.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
638.25	637.30	0.00	0.	475.	54.	54.	637.00	638.50

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

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8583.00	7.08	638.08	0.00	0.00	638.25	.17	1.15	0.00	638.50
475.	0.	332.	143.	2.	85.	162.	61.	26.	638.50
1.13	.25	3.91	.88	.060	.025	.060	.046	631.00	395.95
.000898	19.	19.	19.	2	0	0	0.00	151.65	565.39

*SECNO 8584.000

8584.00	7.24	638.24	0.00	0.00	638.29	.05	.00	.04	637.70
475.	0.	286.	189.	1.	133.	203.	61.	26.	636.60
1.13	.28	2.14	.93	.060	.050	.060	.046	631.00	395.04
.000721	1.	1.	1.	2	0	0	0.00	161.88	556.92

*SECNO 8613.000

VALLEY SECTION U

8613.00	7.58	638.28	0.00	0.00	638.31	.03	.01	.01	636.10
475.	29.	288.	159.	64.	185.	230.	61.	26.	637.30
1.14	.45	1.55	.69	.060	.050	.060	.046	630.70	341.20
.000297	30.	29.	30.	1	0	0	0.00	203.30	544.50

*SECNO 9163.000

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

9163.00	5.89	638.59	0.00	0.00	638.70	.11	.35	.04	636.00
475.	95.	265.	115.	68.	81.	85.	65.	28.	636.40
1.20	1.39	3.26	1.35	.065	.055	.065	.047	632.70	1196.33
.002290	550.	550.	550.	2	0	0	0.00	142.87	1339.20

*SECNO 9703.000

9703.00	5.55	640.25	0.00	0.00	640.42	.17	1.69	.03	638.00
475.	80.	298.	97.	52.	75.	61.	68.	30.	638.40
1.25	1.54	3.97	1.58	.070	.060	.070	.048	634.70	1200.97
.004520	540.	540.	540.	2	0	0	0.00	127.90	1328.87

*SECNO 10253.000

10253.00	5.77	642.57	0.00	0.00	642.69	.12	2.26	.01	640.10
475.	91.	274.	110.	62.	79.	76.	70.	31.	640.50
1.31	1.46	3.47	1.45	.075	.065	.075	.049	636.80	1197.86
.003758	550.	550.	550.	3	0	0	0.00	137.63	1335.49

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.77	644.57	0.00	0.00	644.66	.09	1.96	.01	642.10
420.	81.	241.	98.	62.	79.	76.	73.	33.	642.50
1.37	1.30	3.05	1.29	.080	.070	.080	.050	638.80	1197.84
.003371	550.	550.	550.	2	0	0	0.00	137.71	1335.55

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****
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

SHOOK DRAIN - PROJECT MA

SUMMARY PRINTOUT

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
0.000	0.00	0.00	597.20	210.00	602.96	5.76	.03	0.00	602.99	0.00	88.29	185.92
0.000	0.00	0.00	597.20	310.00	603.89	6.69	.03	0.00	603.92	0.00	94.30	270.83
0.000	0.00	0.00	597.20	360.00	604.43	7.23	.03	0.00	604.46	0.00	97.79	322.69
0.000	0.00	0.00	597.20	505.00	605.11	7.91	.03	0.00	605.14	0.00	102.18	390.68
130.000	0.00	0.00	599.00	210.00	603.04	4.04	.19	.08	603.24	13.85	25.91	59.37
130.000	0.00	0.00	599.00	310.00	603.95	4.95	.16	.07	604.12	13.85	83.07	116.61
130.000	0.00	0.00	599.00	360.00	604.49	5.49	.12	.05	604.61	13.85	86.49	161.57
130.000	0.00	0.00	599.00	505.00	605.18	6.18	.12	.04	605.30	13.85	90.94	222.62
409.000	0.00	0.00	600.10	210.00	604.39	4.29	.26	.03	604.65	3.94	61.14	73.45
409.000	0.00	0.00	600.10	310.00	604.99	4.89	.25	.04	605.24	3.94	86.79	119.38
409.000	0.00	0.00	600.10	360.00	605.27	5.17	.23	.06	605.50	3.94	95.34	144.66
409.000	0.00	0.00	600.10	505.00	605.88	5.78	.21	.05	606.09	3.94	100.00	205.33
410.000	0.00	0.00	600.10	210.00	604.40	4.30	.26	.00	604.66	0.00	61.47	73.81
410.000	0.00	0.00	600.10	310.00	605.00	4.90	.25	.00	605.25	0.00	86.78	119.35
410.000	0.00	0.00	600.10	360.00	605.27	5.17	.23	.00	605.51	0.00	95.30	144.53
410.000	0.00	0.00	600.10	505.00	605.89	5.79	.21	.00	606.10	0.00	100.00	205.45
446.000	606.60	604.00	600.00	210.00	606.74	6.74	.08	0.00	606.81	-2.78	42.67	125.62
446.000	606.60	604.00	600.00	310.00	607.23	7.23	.11	0.00	607.34	-2.78	100.00	165.07
446.000	606.60	604.00	600.00	360.00	607.38	7.38	.13	0.00	607.51	-2.78	100.00	180.06
446.000	606.60	604.00	600.00	505.00	607.73	7.73	.18	0.00	607.91	-2.78	100.00	214.76
447.000	0.00	0.00	600.00	210.00	606.82	6.82	.01	.02	606.83	0.00	100.00	337.57
447.000	0.00	0.00	600.00	310.00	607.35	7.35	.02	.03	607.37	0.00	100.00	390.83
447.000	0.00	0.00	600.00	360.00	607.52	7.52	.02	.03	607.54	0.00	100.00	407.61
447.000	0.00	0.00	600.00	505.00	607.92	7.92	.04	.04	607.96	0.00	100.00	447.23
506.000	0.00	0.00	602.40	210.00	606.78	4.38	.13	.06	606.91	40.68	68.09	84.17
506.000	0.00	0.00	602.40	310.00	607.32	4.92	.14	.06	607.45	40.68	70.00	121.89
506.000	0.00	0.00	602.40	360.00	607.49	5.09	.15	.06	607.64	40.68	70.00	133.56
506.000	0.00	0.00	602.40	505.00	607.88	5.48	.20	.08	608.07	40.68	70.00	160.97
526.000	0.00	0.00	603.20	210.00	606.76	3.56	.39	.13	607.15	40.00	28.24	42.50
526.000	0.00	0.00	603.20	310.00	607.24	4.04	.49	.18	607.74	40.00	47.84	60.04
526.000	0.00	0.00	603.20	360.00	607.39	4.19	.55	.20	607.95	40.00	55.91	67.78
526.000	0.00	0.00	603.20	505.00	607.76	4.56	.67	.24	608.43	40.00	76.13	92.48

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SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
576.000	0.00	0.00	603.20	210.00	607.39	4.19	.19	.06	607.58	0.00	55.69	67.56
576.000	0.00	0.00	603.20	310.00	607.96	4.76	.21	.08	608.17	0.00	86.58	108.20
576.000	0.00	0.00	603.20	360.00	608.18	4.98	.22	.10	608.39	0.00	98.27	128.18
576.000	0.00	0.00	603.20	505.00	608.68	5.48	.23	.13	608.91	0.00	125.44	184.42
1316.000	0.00	0.00	602.90	210.00	608.08	5.18	.01	.05	608.09	-.41	174.39	299.00
1316.000	0.00	0.00	602.90	310.00	608.67	5.77	.01	.06	608.68	-.41	177.29	404.38
1316.000	0.00	0.00	602.90	360.00	608.91	6.01	.02	.06	608.93	-.41	178.44	446.90
1316.000	0.00	0.00	602.90	505.00	609.47	6.57	.02	.06	609.49	-.41	181.13	547.05
1626.000	0.00	0.00	604.30	210.00	608.20	3.90	.05	.02	608.25	4.52	73.38	132.26
1626.000	0.00	0.00	604.30	310.00	608.79	4.49	.05	.02	608.84	4.52	96.08	185.81
1626.000	0.00	0.00	604.30	360.00	609.03	4.73	.06	.02	609.09	4.52	97.25	209.16
1626.000	0.00	0.00	604.30	505.00	609.60	5.30	.07	.02	609.67	4.52	99.99	265.18
1666.000	0.00	0.00	604.40	210.00	608.26	3.86	.05	.00	608.31	2.50	72.88	129.17
1666.000	0.00	0.00	604.40	310.00	608.84	4.44	.06	.00	608.90	2.50	85.84	177.38
1666.000	0.00	0.00	604.40	360.00	609.08	4.68	.06	.00	609.14	2.50	86.95	197.28
1666.000	0.00	0.00	604.40	505.00	609.65	5.25	.08	.00	609.73	2.50	89.70	247.46
1846.000	0.00	0.00	605.20	210.00	608.63	3.43	.09	.02	608.72	4.44	69.25	98.50
1846.000	0.00	0.00	605.20	310.00	609.16	3.96	.09	.02	609.26	4.44	79.02	137.05
1846.000	0.00	0.00	605.20	360.00	609.39	4.19	.10	.02	609.49	4.44	84.64	156.25
1846.000	0.00	0.00	605.20	505.00	609.95	4.75	.11	.02	610.06	4.44	87.33	204.22
1986.000	0.00	0.00	605.90	210.00	609.13	3.23	.29	.10	609.42	5.00	40.62	53.33
1986.000	0.00	0.00	605.90	310.00	609.60	3.70	.34	.12	609.94	5.00	42.28	72.56
1986.000	0.00	0.00	605.90	360.00	609.80	3.90	.36	.13	610.16	5.00	42.99	81.11
1986.000	0.00	0.00	605.90	505.00	610.29	4.39	.42	.16	610.72	5.00	53.00	106.73
2065.000	0.00	0.00	606.20	205.00	609.62	3.42	.45	.08	610.08	3.80	18.53	37.96
2065.000	0.00	0.00	606.20	305.00	610.07	3.87	.66	.16	610.74	3.80	20.32	46.72
2065.000	0.00	0.00	606.20	355.00	610.26	4.06	.76	.20	611.03	3.80	21.07	50.58
2065.000	0.00	0.00	606.20	500.00	610.66	4.46	1.10	.34	611.77	3.80	22.67	59.38
2085.000	0.00	0.00	606.00	205.00	609.97	3.97	.28	.05	610.26	-10.00	19.59	48.21
2085.000	0.00	0.00	606.00	305.00	610.56	4.56	.40	.08	610.97	-10.00	20.00	59.88
2085.000	0.00	0.00	606.00	355.00	610.82	4.82	.46	.09	611.28	-10.00	20.00	64.91
2085.000	0.00	0.00	606.00	500.00	611.46	5.46	.64	.14	612.10	-10.00	20.00	77.62
2086.000	0.00	0.00	606.00	205.00	609.98	3.98	.28	.00	610.26	0.00	19.60	48.27
2086.000	0.00	0.00	606.00	305.00	610.57	4.57	.40	.00	610.97	0.00	20.00	60.06
2086.000	0.00	0.00	606.00	355.00	610.83	4.83	.46	.00	611.29	0.00	20.00	65.12
2086.000	0.00	0.00	606.00	500.00	611.47	5.47	.64	.00	612.11	0.00	20.00	77.99
2122.000	613.20	610.30	605.70	205.00	610.23	4.53	.12	.05	610.35	-8.33	20.00	74.41
2122.000	613.20	610.30	605.70	305.00	610.90	5.20	.19	0.00	611.09	-8.33	20.00	87.60
2122.000	613.20	610.30	605.70	355.00	611.31	5.61	.21	0.00	611.52	-8.33	20.00	95.81
2122.000	613.20	610.30	605.70	500.00	612.59	6.89	.26	0.00	612.85	-8.33	20.00	121.42
2123.000	0.00	0.00	605.70	205.00	610.20	4.50	.19	.04	610.39	0.00	19.68	58.46
2123.000	0.00	0.00	605.70	305.00	610.85	5.15	.28	.05	611.13	0.00	20.00	71.50
2123.000	0.00	0.00	605.70	355.00	611.26	5.56	.31	.05	611.57	0.00	20.00	79.70
2123.000	0.00	0.00	605.70	500.00	612.55	6.85	.35	.04	612.90	0.00	20.00	105.39

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SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
2291.000	0.00	0.00	606.00	205.00	611.02	5.02	.12	.02	611.14	1.79	24.00	72.54
2291.000	0.00	0.00	606.00	305.00	611.84	5.84	.17	.03	612.01	1.79	24.00	92.04
2291.000	0.00	0.00	606.00	355.00	612.25	6.25	.19	.04	612.44	1.79	24.00	102.02
2291.000	0.00	0.00	606.00	500.00	613.48	7.48	.22	.04	613.70	1.79	24.00	131.49
2292.000	0.00	0.00	606.00	205.00	611.10	5.10	.06	.02	611.16	0.00	23.50	103.07
2292.000	0.00	0.00	606.00	305.00	611.94	5.94	.10	.02	612.03	0.00	23.50	122.67
2292.000	0.00	0.00	606.00	355.00	612.35	6.35	.11	.02	612.47	0.00	23.50	132.49
2292.000	0.00	0.00	606.00	500.00	613.58	7.58	.15	.02	613.73	0.00	23.50	161.27
2346.000	615.50	613.10	605.80	205.00	611.13	5.33	.08	.01	611.21	-3.70	23.50	90.82
2346.000	615.50	613.10	605.80	305.00	611.96	6.16	.13	.02	612.10	-3.70	23.50	103.45
2346.000	615.50	613.10	605.80	355.00	612.38	6.58	.17	.03	612.55	-3.70	23.50	106.59
2346.000	615.50	613.10	605.80	500.00	614.27	8.47	.12	0.00	614.39	-3.70	23.50	181.12
2347.000	0.00	0.00	605.80	205.00	611.12	5.32	.10	.01	611.22	0.00	24.00	79.71
2347.000	0.00	0.00	605.80	305.00	611.96	6.16	.14	.00	612.11	0.00	24.00	99.98
2347.000	0.00	0.00	605.80	355.00	612.40	6.60	.16	.00	612.56	0.00	24.00	110.14
2347.000	0.00	0.00	605.80	500.00	614.25	8.45	.16	.02	614.42	0.00	24.00	154.87
2627.000	0.00	0.00	607.10	205.00	611.62	4.52	.12	.01	611.74	4.64	30.88	74.52
2627.000	0.00	0.00	607.10	305.00	612.49	5.39	.13	.00	612.62	4.64	87.31	110.86
2627.000	0.00	0.00	607.10	355.00	612.91	5.81	.12	.01	613.03	4.64	173.88	170.91
2627.000	0.00	0.00	607.10	500.00	614.59	7.49	.03	.04	614.61	4.64	348.96	614.16
2907.000	0.00	0.00	608.50	205.00	612.47	3.97	.19	.04	612.66	5.00	27.84	58.41
2907.000	0.00	0.00	608.50	305.00	613.23	4.73	.22	.04	613.45	5.00	32.02	81.03
2907.000	0.00	0.00	608.50	355.00	613.52	5.02	.24	.06	613.76	5.00	33.64	90.60
2907.000	0.00	0.00	608.50	500.00	614.71	6.21	.16	.06	614.86	5.00	169.19	215.54
3187.000	0.00	0.00	609.80	205.00	613.76	3.96	.19	.00	613.95	4.64	27.78	58.11
3187.000	0.00	0.00	609.80	305.00	614.43	4.63	.24	.01	614.67	4.64	31.47	77.86
3187.000	0.00	0.00	609.80	355.00	614.72	4.92	.26	.01	614.97	4.64	33.05	87.07
3187.000	0.00	0.00	609.80	500.00	615.40	5.60	.29	.07	615.69	4.64	120.16	134.39
3466.000	0.00	0.00	611.10	205.00	615.02	3.92	.20	.00	615.22	4.66	27.60	57.18
3466.000	0.00	0.00	611.10	305.00	615.70	4.60	.24	.00	615.94	4.66	31.31	76.94
3466.000	0.00	0.00	611.10	355.00	615.99	4.89	.26	.00	616.25	4.66	32.92	86.32
3466.000	0.00	0.00	611.10	500.00	616.63	5.53	.31	.01	616.94	4.66	127.57	126.96
5226.000	0.00	0.00	614.00	205.00	619.58	5.58	.07	.04	619.64	1.65	99.95	117.70
5226.000	0.00	0.00	614.00	305.00	620.18	6.18	.06	.05	620.24	1.65	112.23	180.86
5226.000	0.00	0.00	614.00	355.00	620.42	6.42	.06	.06	620.48	1.65	117.47	209.14
5226.000	0.00	0.00	614.00	500.00	621.02	7.02	.06	.07	621.08	1.65	130.22	283.32
5795.000	0.00	0.00	616.10	205.00	620.71	4.61	.16	.05	620.87	3.69	23.35	63.76
5795.000	0.00	0.00	616.10	305.00	621.32	5.22	.23	.08	621.55	3.69	25.56	78.86
5795.000	0.00	0.00	616.10	355.00	621.56	5.46	.27	.10	621.83	3.69	26.42	85.19
5795.000	0.00	0.00	616.10	500.00	622.15	6.05	.38	.16	622.53	3.69	28.52	101.40
5835.000	0.00	0.00	616.20	195.00	620.78	4.58	.33	.08	621.11	2.50	11.00	42.44
5835.000	0.00	0.00	616.20	290.00	621.37	5.17	.55	.16	621.92	2.50	11.00	48.87
5835.000	0.00	0.00	616.20	335.00	621.60	5.40	.66	.20	622.26	2.50	11.00	51.39
5835.000	0.00	0.00	616.20	475.00	622.11	5.91	1.08	.35	623.19	2.50	11.00	56.99

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FORM 141-GB PRINTED BY ROTARY MANIFOLD FORMS

	SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
	5836.000	0.00	0.00	616.20	195.00	620.89	4.69	.25	.02	621.14	0.00	11.00	49.09
	5836.000	0.00	0.00	616.20	290.00	621.55	5.35	.41	.04	621.96	0.00	11.00	56.40
	5836.000	0.00	0.00	616.20	335.00	621.82	5.62	.49	.05	622.32	0.00	11.00	59.35
	5836.000	0.00	0.00	616.20	475.00	622.50	6.30	.79	.09	623.28	0.00	11.00	66.77
	5892.000	624.70	623.50	616.50	195.00	621.00	4.50	.32	.04	621.31	5.36	11.00	43.24
	5892.000	624.70	623.50	616.50	290.00	621.71	5.21	.54	.06	622.25	5.36	11.00	49.30
	5892.000	624.70	623.50	616.50	335.00	622.00	5.50	.65	.08	622.65	5.36	11.00	51.77
	5892.000	624.70	623.50	616.50	475.00	624.47	7.97	.48	0.00	624.95	5.36	11.00	85.19
	5893.000	0.00	0.00	616.50	195.00	621.12	4.62	.23	.03	621.35	0.00	13.00	50.68
	5893.000	0.00	0.00	616.50	290.00	621.97	5.47	.34	.06	622.32	0.00	13.00	61.87
	5893.000	0.00	0.00	616.50	335.00	622.35	5.85	.39	.08	622.74	0.00	13.00	66.75
	5893.000	0.00	0.00	616.50	475.00	624.61	8.11	.38	.03	624.99	0.00	13.00	96.08
	5937.000	0.00	0.00	617.80	195.00	621.47	3.67	.15	.02	621.62	29.55	25.00	62.68
	5937.000	0.00	0.00	617.80	290.00	622.45	4.65	.16	.06	622.61	29.55	40.00	97.05
	5937.000	0.00	0.00	617.80	335.00	622.87	5.07	.16	.07	623.03	29.55	40.00	114.06
	5937.000	0.00	0.00	617.80	475.00	625.07	7.27	.11	.08	625.18	29.55	40.00	201.92
	5981.000	0.00	0.00	619.10	195.00	621.74	2.64	.39	.12	622.13	29.55	20.90	38.95
	5981.000	0.00	0.00	619.10	290.00	622.61	3.51	.38	.11	622.99	29.55	24.37	58.71
	5981.000	0.00	0.00	619.10	335.00	623.00	3.90	.37	.11	623.37	29.55	50.78	71.11
	5981.000	0.00	0.00	619.10	475.00	625.21	6.11	.03	.02	625.24	29.55	291.39	502.01
	5982.000	0.00	0.00	619.10	195.00	621.78	2.68	.37	.00	622.15	0.00	21.05	39.78
	5982.000	0.00	0.00	619.10	290.00	622.63	3.53	.38	.00	623.01	0.00	24.40	58.91
	5982.000	0.00	0.00	619.10	335.00	623.02	3.92	.37	.00	623.38	0.00	51.65	71.47
	5982.000	0.00	0.00	619.10	475.00	625.21	6.11	.03	.00	625.24	0.00	291.44	502.30
*	6056.000	629.20	625.00	619.50	195.00	623.30	3.80	1.95	.79	625.25	5.41	32.64	17.40
	6056.000	629.20	625.00	619.50	290.00	627.55	8.05	.07	0.00	627.62	5.41	120.00	493.39
	6056.000	629.20	625.00	619.50	335.00	629.25	9.75	.05	0.00	629.30	5.41	120.00	697.55
	6056.000	629.20	625.00	619.50	475.00	629.86	10.36	.09	0.00	629.95	5.41	120.00	770.28
	6057.000	0.00	0.00	619.50	195.00	625.79	6.29	.03	.58	625.83	0.00	120.00	329.43
	6057.000	0.00	0.00	619.50	290.00	627.59	8.09	.04	.01	627.63	0.00	120.00	545.57
	6057.000	0.00	0.00	619.50	335.00	629.28	9.78	.03	.01	629.31	0.00	120.00	747.72
	6057.000	0.00	0.00	619.50	475.00	629.90	10.40	.06	.01	629.96	0.00	120.00	822.34
	6076.000	0.00	0.00	619.90	195.00	625.82	5.92	.01	.01	625.83	21.05	120.00	284.82
	6076.000	0.00	0.00	619.90	290.00	627.63	7.73	.01	.01	627.64	21.05	120.00	502.48
	6076.000	0.00	0.00	619.90	335.00	629.31	9.41	.01	.01	629.32	21.05	120.00	704.12
	6076.000	0.00	0.00	619.90	475.00	629.96	10.06	.01	.01	629.97	21.05	120.00	782.09
	6675.000	0.00	0.00	621.90	195.00	625.74	3.84	.66	.32	626.40	3.34	13.90	29.90
	6675.000	0.00	0.00	621.90	290.00	627.58	5.68	.32	.15	627.90	3.34	55.29	77.96
	6675.000	0.00	0.00	621.90	335.00	629.32	7.42	.08	.04	629.40	3.34	105.01	217.46
	6675.000	0.00	0.00	621.90	475.00	629.98	8.08	.10	.04	630.08	3.34	120.00	292.22
	6676.000	0.00	0.00	621.90	195.00	625.81	3.91	.62	.01	626.43	0.00	14.12	30.90
	6676.000	0.00	0.00	621.90	290.00	627.59	5.69	.32	.00	627.91	0.00	55.35	78.08
	6676.000	0.00	0.00	621.90	335.00	629.32	7.42	.08	.00	629.41	0.00	104.87	216.94
	6676.000	0.00	0.00	621.90	475.00	629.98	8.08	.10	.00	630.08	0.00	120.00	292.54

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FORM 1411-08 PRINTED BY HOTARY MANIFOLD FORMS

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
6754.000	629.40	628.90	621.90	195.00	626.48	4.58	.36	.08	626.84	0.00	15.82	40.69
6754.000	629.40	628.90	621.90	290.00	627.73	5.83	.51	.10	628.24	0.00	62.95	50.60
6754.000	629.40	628.90	621.90	335.00	630.17	8.27	.09	0.00	630.26	0.00	120.00	340.54
6754.000	629.40	628.90	621.90	475.00	630.56	8.66	.15	0.00	630.70	0.00	120.00	386.72
6755.000	0.00	0.00	621.90	195.00	626.42	4.52	.48	.06	626.91	0.00	16.02	40.13
6755.000	0.00	0.00	621.90	290.00	627.83	5.93	.43	.02	628.26	0.00	62.42	92.65
6755.000	0.00	0.00	621.90	335.00	630.16	8.26	.11	.01	630.27	0.00	120.00	315.09
6755.000	0.00	0.00	621.90	475.00	630.54	8.64	.17	.01	630.71	0.00	120.00	360.56
6784.000	0.00	0.00	621.70	195.00	626.86	5.16	.23	.08	627.08	-6.90	34.95	53.34
6784.000	0.00	0.00	621.70	290.00	628.25	6.55	.15	.08	628.40	-6.90	80.29	137.29
6784.000	0.00	0.00	621.70	335.00	630.27	8.57	.04	.02	630.31	-6.90	120.00	350.78
6784.000	0.00	0.00	621.70	475.00	630.71	9.01	.05	.04	630.76	-6.90	120.00	403.87
6964.000	0.00	0.00	623.10	195.00	627.79	4.69	.32	.05	628.11	7.78	16.54	42.82
6964.000	0.00	0.00	623.10	290.00	628.68	5.58	.33	.09	629.01	7.78	65.88	74.22
6964.000	0.00	0.00	623.10	335.00	630.35	7.25	.04	.00	630.39	7.78	179.84	287.11
6964.000	0.00	0.00	623.10	475.00	630.83	7.73	.04	.00	630.87	7.78	190.00	378.02
7144.000	0.00	0.00	624.50	195.00	628.39	3.89	.01	.09	628.40	7.78	178.31	280.66
7144.000	0.00	0.00	624.50	290.00	629.23	4.73	.01	.10	629.24	7.78	201.89	438.81
7144.000	0.00	0.00	624.50	335.00	630.44	5.94	.00	.01	630.44	7.78	230.79	701.43
7144.000	0.00	0.00	624.50	475.00	630.92	6.42	.01	.01	630.93	7.78	242.39	816.74
7314.000	0.00	0.00	625.80	195.00	628.50	2.70	.10	.05	628.60	7.65	114.51	93.18
7314.000	0.00	0.00	625.80	290.00	629.30	3.50	.05	.02	629.34	7.65	173.15	215.15
7314.000	0.00	0.00	625.80	335.00	630.46	4.66	.01	.00	630.47	7.65	218.65	442.05
7314.000	0.00	0.00	625.80	475.00	630.95	5.15	.02	.00	630.97	7.65	235.52	554.00
7873.000	0.00	0.00	627.30	195.00	630.63	3.33	.11	.00	630.75	2.68	120.00	139.29
7873.000	0.00	0.00	627.30	290.00	630.80	3.50	.20	.08	630.99	2.68	120.00	158.62
7873.000	0.00	0.00	627.30	335.00	630.85	3.55	.24	.12	631.09	2.68	120.00	166.03
7873.000	0.00	0.00	627.30	475.00	631.36	4.06	.27	.13	631.63	2.68	120.00	226.91
7893.000	0.00	0.00	627.40	195.00	630.65	3.25	.29	.09	630.95	5.00	110.00	112.86
7893.000	0.00	0.00	627.40	290.00	630.82	3.42	.54	.17	631.35	5.00	110.00	130.85
7893.000	0.00	0.00	627.40	335.00	630.87	3.47	.68	.22	631.55	5.00	110.00	136.41
7893.000	0.00	0.00	627.40	475.00	631.31	3.91	.87	.30	632.18	5.00	110.00	185.49
7894.000	0.00	0.00	627.40	195.00	630.65	3.25	.31	.01	630.97	0.00	110.00	113.57
7894.000	0.00	0.00	627.40	290.00	630.81	3.41	.59	.03	631.40	0.00	110.00	129.61
7894.000	0.00	0.00	627.40	335.00	630.85	3.45	.76	.04	631.61	0.00	110.00	134.33
7894.000	0.00	0.00	627.40	475.00	631.25	3.85	1.04	.09	632.29	0.00	110.00	178.49
7954.000	635.00	631.00	627.50	195.00	632.17	4.67	.31	0.00	632.48	1.67	96.21	143.63
7954.000	635.00	631.00	627.50	290.00	634.67	7.17	.17	0.00	634.84	1.67	110.00	414.84
7954.000	635.00	631.00	627.50	335.00	635.31	7.81	.18	0.00	635.49	1.67	110.00	485.19
7954.000	635.00	631.00	627.50	475.00	635.95	8.45	.29	0.00	636.24	1.67	110.00	555.98
7955.000	0.00	0.00	627.50	195.00	632.45	4.95	.09	.07	632.54	0.00	106.82	198.71
7955.000	0.00	0.00	627.50	290.00	634.80	7.30	.07	.03	634.87	0.00	111.00	459.18
7955.000	0.00	0.00	627.50	335.00	635.45	7.95	.08	.03	635.52	0.00	111.00	530.52
7955.000	0.00	0.00	627.50	475.00	636.17	8.67	.12	.05	636.29	0.00	111.00	611.31

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FORM 1411-GG PRINTED BY ROTARY MANIFOLD FORMS

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
7984.000	0.00	0.00	628.90	195.00	632.50	3.60	.07	.01	632.58	48.28	92.28	131.74
7984.000	0.00	0.00	628.90	290.00	634.86	5.96	.03	.01	634.89	48.28	133.00	419.83
7984.000	0.00	0.00	628.90	335.00	635.51	6.61	.03	.01	635.54	48.28	133.00	506.13
7984.000	0.00	0.00	628.90	475.00	636.28	7.38	.05	.02	636.33	48.28	133.00	608.65
8544.000	0.00	0.00	630.50	195.00	633.73	3.23	.41	.17	634.14	2.86	18.29	37.80
8544.000	0.00	0.00	630.50	290.00	635.06	4.56	.31	.14	635.37	2.86	22.00	64.81
8544.000	0.00	0.00	630.50	335.00	635.67	5.17	.28	.13	635.95	2.86	22.00	78.54
8544.000	0.00	0.00	630.50	475.00	636.53	6.03	.22	.09	636.75	2.86	125.98	162.94
8563.000	0.00	0.00	630.80	195.00	633.89	3.09	.68	.13	634.56	15.79	12.00	29.54
8563.000	0.00	0.00	630.80	290.00	635.04	4.24	.69	.19	635.73	15.79	12.00	43.36
8563.000	0.00	0.00	630.80	335.00	635.60	4.80	.69	.21	636.30	15.79	12.00	50.14
8563.000	0.00	0.00	630.80	475.00	636.57	5.77	.31	.05	636.88	15.79	118.23	131.68
8564.000	0.00	0.00	630.80	195.00	634.35	3.55	.33	.11	634.67	0.00	12.00	42.56
8564.000	0.00	0.00	630.80	290.00	635.39	4.59	.43	.08	635.82	0.00	12.00	55.13
8564.000	0.00	0.00	630.80	335.00	635.91	5.11	.46	.07	636.37	0.00	12.00	61.33
8564.000	0.00	0.00	630.80	475.00	636.36	5.56	.73	.21	637.10	0.00	60.27	82.74
8583.000	638.50	637.00	631.00	195.00	634.36	3.36	.41	.04	634.77	10.53	12.00	38.17
8583.000	638.50	637.00	631.00	290.00	635.33	4.33	.67	.12	636.01	10.53	12.00	43.99
8583.000	638.50	637.00	631.00	335.00	635.81	4.81	.79	.17	636.60	10.53	12.00	46.85
8583.000	638.50	637.00	631.00	475.00	638.08	7.08	.17	0.00	638.25	10.53	151.65	249.04
8584.000	0.00	0.00	631.00	195.00	634.35	3.35	.44	.02	634.79	0.00	14.00	36.47
8584.000	0.00	0.00	631.00	290.00	635.65	4.65	.44	.07	636.08	0.00	14.00	54.67
8584.000	0.00	0.00	631.00	335.00	636.29	5.29	.43	.11	636.72	0.00	14.00	63.48
8584.000	0.00	0.00	631.00	475.00	638.24	7.24	.05	.04	638.29	0.00	161.88	338.10
8613.000	0.00	0.00	630.70	195.00	634.91	4.21	.08	.11	634.99	-10.34	26.50	85.15
8613.000	0.00	0.00	630.70	290.00	636.17	5.47	.09	.10	636.26	-10.34	31.66	120.68
8613.000	0.00	0.00	630.70	335.00	636.80	6.10	.09	.10	636.88	-10.34	49.31	145.99
8613.000	0.00	0.00	630.70	475.00	638.28	7.58	.03	.01	638.31	-10.34	203.30	479.28
9163.000	0.00	0.00	632.70	195.00	636.50	3.80	.33	.12	636.83	3.64	32.72	44.19
9163.000	0.00	0.00	632.70	290.00	637.35	4.65	.24	.08	637.59	3.64	81.89	93.07
9163.000	0.00	0.00	632.70	335.00	637.74	5.04	.18	.04	637.92	3.64	101.94	129.39
9163.000	0.00	0.00	632.70	475.00	638.59	5.89	.11	.04	638.70	3.64	142.87	234.39
9703.000	0.00	0.00	634.70	195.00	639.46	4.76	.09	.07	639.55	3.70	87.63	102.66
9703.000	0.00	0.00	634.70	290.00	639.85	5.15	.11	.04	639.96	3.70	107.02	139.84
9703.000	0.00	0.00	634.70	335.00	639.94	5.24	.13	.01	640.07	3.70	111.54	149.58
9703.000	0.00	0.00	634.70	475.00	640.25	5.55	.17	.03	640.42	3.70	127.90	188.19
10253.000	0.00	0.00	636.80	195.00	641.35	4.55	.13	.02	641.47	3.82	76.65	85.45
10253.000	0.00	0.00	636.80	290.00	641.86	5.06	.13	.01	641.99	3.82	102.90	131.32
10253.000	0.00	0.00	636.80	335.00	642.07	5.27	.12	.00	642.19	3.82	113.62	154.19
10253.000	0.00	0.00	636.80	475.00	642.57	5.77	.12	.01	642.69	3.82	137.63	217.23
10803.000	0.00	0.00	638.80	170.00	643.49	4.69	.08	.01	643.57	3.64	84.40	97.18
10803.000	0.00	0.00	638.80	255.00	643.96	5.16	.08	.01	644.04	3.64	107.99	141.91
10803.000	0.00	0.00	638.80	295.00	644.13	5.33	.09	.01	644.22	3.64	116.63	161.02
10803.000	0.00	0.00	638.80	420.00	644.57	5.77	.09	.01	644.66	3.64	137.71	217.48

SUMMARY OF ERRORS

CAUTION SECNO= 6056.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
SECNO= 6054.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

PRINTED IN U.S.A.
FORM 1411 ER PRINTED BY ROTARY MANIFOLD FORMS

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Village of New Haven

3) WATERCOURSE: Shook Drain

4) DOCUMENT TYPE: Multiple Profiles for encroached floodway

00BREAK00

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NEHJOOS JANDA 12/20/78 14.23.52 7600 JO

VILLAGE OF NEW HAVEN F.I.S.

J03 NO. 5850-05

JUN 05 1979
WATER MANAGEMENT

SHOCK DRAIN

MULTIPLE PROFILES FOR ENCROACHED FLOODWAY

JOHNSON AND ANDERSON, INC. 12-28-78

PRINTED IN U.S.A.
FORM 1411 REVISED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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C
T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      10-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON
J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        1.         2.         0.         0.   0.000000      0.00       0.0        0.      602.960     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
     38.000     40.000     41.000     42.000     43.000      1.000      8.000     10.000     12.000      3.000

     33.000      4.000     25.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NC      .080       .080       .050       .300       .500      0.000      0.000      0.000      0.000      0.000
QT     4.000    210.000    310.000    360.000    505.000      0.000      0.000      0.000      0.000      0.000

MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A
REPEATED AND ADJUSTED FOR CHANNEL INVERT.
X1      0.000     11.000    981.000   1025.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    605.900    917.000    601.400    930.000    601.700    981.000    598.400    986.000    597.200    991.000
GR    598.200    996.000    599.100   1000.000    606.100   1025.000    606.400   1100.000    607.300   1200.000
GR    610.100   1300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

VALLEY SECTION A
X1    130.000     11.000    981.000   1025.000    130.000    130.000    130.000      0.000      0.000      0.000
GR    607.700    917.000    603.200    930.000    603.500    981.000    600.200    986.000    599.000    991.000
GR    600.000    996.000    600.900   1000.000    607.900   1025.000    608.200   1100.000    609.100   1200.000
GR    611.900   1300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X1    409.000      9.000    205.000    213.000    280.000    280.000    279.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    170.000      0.000    270.000      0.000      0.000      0.000      0.000
GR    609.300      0.000    607.700    100.000    603.400    200.000    601.300    205.000    600.100    209.000
GR    601.200    213.000    603.900    223.000    606.400    300.000    607.700    400.000      0.000      0.000

AMVET DRIVE BRIDGE - DOWNSTREAM FACE
X1    410.000      9.000    205.000    213.000      1.000      1.000      1.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    170.000      0.000    270.000      0.000      0.000      0.000      0.000
GR    609.300      0.000    607.700    100.000    603.400    200.000    601.300    205.000    600.100    209.000
GR    601.200    213.000    603.900    223.000    606.400    300.000    607.700    400.000      0.000      0.000
SB      0.000      2.270      2.830      0.000      5.900      0.000     24.800      0.000    600.000    600.100
NC       050        050        027      0.000      0.000      0.000      0.000      0.000      0.000
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AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

X1	446.000	32.000	800.000	808.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	765.000	0.000	865.000	0.000	0.000	0.000	0.000
BT	17.000	765.000	607.000	0.000	790.000	606.700	0.000	800.000	606.600	602.000
BT	800.100	606.600	602.800	801.000	606.600	603.800	802.000	606.600	604.000	803.000
BT	606.600	603.800	803.900	606.600	602.800	804.000	606.600	602.000	804.100	606.600
BT	602.800	805.000	606.600	603.800	806.000	606.700	604.000	807.000	606.700	603.800
BT	807.900	606.700	602.800	808.000	606.700	602.000	830.000	606.800	0.000	865.000
BT	607.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.100	0.000	613.500	100.000	611.200	200.000	611.300	300.000	611.500	400.000
GR	610.900	500.000	610.200	600.000	607.600	700.000	607.000	765.000	606.700	790.000
GR	602.000	800.000	601.200	800.100	600.200	801.000	600.000	802.000	600.200	803.000
GR	601.200	803.900	602.000	804.000	601.200	804.100	600.200	805.000	600.000	806.000
GR	600.200	807.000	601.200	807.900	602.000	808.000	606.800	830.000	607.100	865.000
GR	607.300	900.000	608.100	1000.000	608.700	1100.000	610.000	1200.000	610.300	1300.000
GR	610.900	1400.000	612.300	1458.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	447.000	9.000	200.000	223.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	609.200	0.000	607.600	100.000	603.300	200.000	601.200	205.000	600.000	209.000
GR	601.100	213.000	603.800	223.000	604.300	300.000	607.600	400.000	0.000	0.000
NH	4.000	.040	150.000	.070	200.000	.050	223.000	.040	400.000	0.000

X1	506.000	0.000	0.000	0.000	50.000	70.000	59.000	0.000	2.400	0.000
X3	0.000	0.000	0.000	173.000	0.000	243.000	0.000	0.000	0.000	0.000

VALLEY SECTION C

X1	526.000	9.000	200.000	223.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	612.400	0.000	610.800	100.000	606.500	200.000	604.400	205.000	603.200	209.000
GR	604.300	213.000	607.000	223.000	609.500	300.000	610.800	400.000	0.000	0.000
NC	.080	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	576.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

VALLEY SECTION D

X1	1316.000	19.000	775.000	800.000	700.000	760.000	740.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	615.600	0.000	614.900	90.000	613.500	190.000	612.700	290.000	612.500	390.000
GR	612.500	390.000	612.300	490.000	610.800	590.000	610.100	620.000	607.100	627.000
GR	607.800	690.000	606.800	775.000	604.000	785.000	602.900	790.000	603.900	797.000
GR	605.300	800.000	605.100	840.000	611.100	869.000	611.500	890.000	0.000	0.000

X1	1626.000	0.000	0.000	0.000	320.000	300.000	310.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	755.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1666.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	1846.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.800	0.000
X3	0.000	0.000	0.000	765.000	0.000	853.000	0.000	0.000	0.000	0.000
NC	.060	.050	.040	0.000						

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X1	1986.000	19.000	775.000	800.000	140.000	140.000	140.000	0.000	-.100	0.000
X3	0.000	0.000	0.000	765.000	0.000	818.000	0.000	0.000	0.000	0.000
GR	618.700	0.000	618.000	90.000	616.600	190.000	615.800	290.000	615.600	390.000
GR	615.600	390.000	615.400	490.000	613.900	590.000	613.200	620.000	610.200	627.000
GR	610.900	690.000	609.900	775.000	607.100	785.000	606.000	790.000	607.100	797.000
GR	608.400	800.000	610.400	850.000	614.200	869.000	614.600	890.000	0.000	0.000
QT	4.000	205.000	305.000	355.000	500.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION E

X1	2065.000	35.000	1500.000	1524.000	80.000	80.000	79.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1497.000	0.000	1527.000	0.000	0.000	0.000	0.000
GR	620.600	0.000	620.300	100.000	620.600	200.000	620.500	300.000	619.600	400.000
GR	619.900	500.000	620.100	600.000	619.500	700.000	619.200	800.000	619.000	900.000
GR	618.100	1000.000	617.200	1100.000	616.600	1200.000	615.900	1300.000	614.800	1400.000
GR	611.000	1500.000	606.900	1512.000	606.200	1516.000	607.200	1520.000	611.000	1524.000
GR	610.100	1600.000	611.200	1700.000	612.800	1800.000	613.600	1900.000	614.200	2000.000
GR	614.900	2100.000	614.600	2200.000	614.300	2300.000	613.400	2400.000	614.000	2500.000
GR	614.000	2600.000	614.000	2700.000	613.800	2800.000	613.900	2900.000	614.000	3000.000

X1	2085.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	-.200	0.000
X3	0.000	0.000	0.000	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

X1	2086.000	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	1502.000	0.000	1522.000	0.000	0.000	0.000	0.000
SB	0.000	2.030	3.020	0.000	16.430	0.000	75.600	0.000	605.700	606.000
NC	.035	.035	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

X1	2122.000	24.000	1220.000	1240.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1220.000	0.000	1240.000	0.000	0.000	0.000	0.000
BT	21.000	1200.000	613.200	0.000	1200.000	613.200	0.000	1220.000	613.600	0.000
BT	1220.000	616.600	610.300	1240.000	616.900	610.300	1240.000	613.900	0.000	1310.400
BT	614.900	0.000	1392.300	616.100	0.000	1474.200	617.600	0.000	1556.100	618.600
BT	0.000	1638.000	619.600	0.000	1719.900	620.300	0.000	1801.800	620.800	0.000
BT	1883.700	621.000	0.000	1965.600	621.100	0.000	2047.500	621.200	0.000	2129.400
BT	621.300	0.000	2211.300	621.400	0.000	2293.200	621.500	0.000	2375.100	621.600
BT	0.000	2457.000	621.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	613.200	1200.000	613.200	1200.000	610.300	1220.000	607.500	1220.000	606.700	1222.000
GR	605.700	1229.000	606.900	1237.000	608.000	1240.000	610.300	1240.000	614.900	1310.400
GR	616.100	1392.300	617.600	1474.200	618.600	1556.100	619.600	1638.000	620.300	1719.900
GR	620.800	1801.800	621.000	1883.700	621.100	1965.600	621.200	2047.500	621.300	2129.400
GR	621.400	2211.300	621.500	2293.200	621.600	2375.100	621.500	2457.000	0.000	0.000
NC	.080	.060	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2123.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1504.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.100	0.000	619.800	100.000	620.100	200.000	620.000	300.000	619.100	400.000
GR	619.400	500.000	619.600	600.000	619.000	700.000	618.700	800.000	618.500	900.000
GR	617.600	1000.000	616.700	1100.000	616.100	1200.000	615.400	1300.000	614.300	1400.000
GR	610.500	1500.000	606.400	1512.000	605.700	1516.000	606.700	1520.000	610.500	1524.000
GR	609.600	1600.000	610.700	1700.000	612.300	1800.000	613.100	1900.000	613.700	2000.000
GR	614.400	2100.000	614.100	2200.000	613.800	2300.000	612.900	2400.000	613.500	2500.000
GR	613.500	2600.000	613.500	2700.000	613.300	2800.000	613.400	2900.000	613.500	3000.000

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			0.000	0.000	100.000	180.000	168.000	0.000	.300	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

X1	2292.000	20.000	248.000	271.500	1.000	1.000	1.000	0.000	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	607.000	248.000
GR	606.000	250.000	606.000	253.000	606.000	256.000	607.000	258.000	609.000	258.000
GR	609.200	261.500	607.200	261.500	606.200	263.500	606.200	266.500	606.200	269.500
GR	607.200	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
SB	8.000	2.530	3.020	0.000	14.850	0.000	109.900	0.000	605.800	606.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

X1	2346.000	20.000	248.000	271.500	54.000	54.000	54.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	616.000	0.000	60.000	615.800	0.000	160.000	615.600	0.000
BT	248.000	615.500	608.800	250.000	615.500	611.800	253.000	615.500	612.800	256.000
BT	615.500	611.800	258.000	615.500	608.800	261.500	615.500	609.100	263.500	615.500
BT	612.100	266.500	615.500	613.100	269.500	615.500	612.100	271.500	615.500	609.100
BT	360.000	615.700	0.000	460.000	616.000	0.000	505.000	616.600	0.000	0.000
GR	616.000	0.000	615.800	60.000	615.600	160.000	615.500	248.000	606.800	248.000
GR	605.800	250.000	605.800	253.000	605.800	256.000	606.800	258.000	608.800	258.000
GR	609.100	261.500	607.100	261.500	606.100	263.500	606.100	266.500	606.100	269.500
GR	607.100	271.500	615.500	271.500	615.700	360.000	616.000	460.000	616.600	505.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	2347.000	35.000	1500.000	1524.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1500.000	0.000	1524.000	0.000	0.000	0.000	0.000
GR	620.200	0.000	619.900	100.000	620.200	200.000	620.100	300.000	619.200	400.000
GR	619.500	500.000	619.700	600.000	619.100	700.000	618.800	800.000	618.600	900.000
GR	617.700	1000.000	616.800	1100.000	616.200	1200.000	615.500	1300.000	614.400	1400.000
GR	610.600	1500.000	606.500	1512.000	605.800	1516.000	606.800	1520.000	610.600	1524.000
GR	609.700	1600.000	610.800	1700.000	612.400	1800.000	613.200	1900.000	613.800	2000.000
GR	614.500	2100.000	614.200	2200.000	613.900	2300.000	613.000	2400.000	613.600	2500.000
GR	613.600	2600.000	613.600	2700.000	613.400	2800.000	613.500	2900.000	613.600	3000.000

X1	2627.000	14.000	265.000	300.000	275.000	290.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	615.200	0.000	614.000	100.000	613.200	200.000	612.500	265.000	609.200	275.000
GR	608.100	282.000	607.400	284.000	607.100	286.000	607.600	289.000	609.300	290.000
GR	609.800	294.000	612.200	300.000	613.300	500.000	615.500	600.000	0.000	0.000

X1	2907.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	356.000	0.000	0.000	0.000	0.000

X1	3187.000	0.000	0.000	0.000	275.000	290.000	280.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	366.000	0.000	0.000	0.000	0.000
NH	5.000	.065	265.000	.080	275.000	.045	290.000	.080	300.000	.065

VALLEY SECTION H

X1	3466.000	14.000	265.000	300.000	275.000	290.000	279.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	386.000	0.000	0.000	0.000	0.000
GR	619.200	0.000	618.000	100.000	617.200	200.000	616.500	265.000	613.200	275.000
GR	612.100	282.000	611.400	284.000	611.100	286.000	611.600	289.000	613.300	290.000
GR	613.800	294.000	616.200	300.000	617.300	500.000	619.500	600.000	0.000	0.000
NH	5.000	.060	400.000	.080	405.000	.050	420.000	.080	426.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION I

X1	5226.000	16.000	400.000	426.000	1830.000	1710.000	1760.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	625.400	0.000	625.800	100.000	626.000	200.000	624.300	300.000	619.600	400.000
GR	615.100	410.000	614.000	412.000	614.000	414.000	614.300	416.000	614.500	419.000
GR	619.000	425.000	619.400	500.000	619.600	550.000	623.400	600.000	625.700	700.000
GR	626.200	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5795.000	5.000	0.000	33.000	620.000	530.000	569.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1.000	0.000	32.000	0.000	0.000	0.000	0.000
GR	623.300	0.000	617.900	9.000	616.100	16.000	617.700	22.000	623.500	33.000
OT	4.000	195.000	290.000	335.000	475.000	0.000	0.000	0.000	0.000	0.000

X1	5835.000	5.000	0.000	33.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	11.000	0.000	22.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.200	16.000	617.800	22.000	623.600	33.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5836.000	19.000	494.500	505.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.200	494.500	616.200	497.000	616.200	500.000
GR	616.200	503.000	617.200	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.000	628.700	900.000	629.200	1000.000	0.000	0.000
SB	0.000	2.520	3.020	0.000	8.430	0.000	59.000	0.000	616.500	616.200

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

X1	5892.000	19.000	494.500	505.500	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	494.500	0.000	505.500	0.000	0.000	0.000	0.000
BT	17.000	0.000	626.900	0.000	100.000	627.200	0.000	200.000	627.500	0.000
BT	300.000	626.800	0.000	400.000	624.900	0.000	494.500	625.200	617.500	494.500
BT	625.200	619.500	497.000	625.200	622.500	500.000	625.200	623.500	503.000	625.200
BT	622.500	505.500	625.200	619.500	505.500	625.200	617.500	600.000	624.700	0.000
BT	700.000	626.300	0.000	800.000	627.600	0.000	900.000	628.700	0.000	1000.000
BT	629.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	626.900	0.000	627.200	100.000	627.500	200.000	626.800	300.000	624.900	400.000
GR	623.400	484.000	618.000	493.000	617.500	494.500	616.500	497.000	616.500	500.000
GR	616.500	503.000	617.500	505.500	617.800	506.000	623.600	517.000	624.700	600.000
GR	626.300	700.000	627.600	800.00	628.700	900.00	629.200	1000.000	0.000	0.000

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NC	.090	.090	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION K

X1	5893.000	5.000	0.000	33.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0.000	23.000	0.000	0.000	0.000	0.000
GR	623.400	0.000	618.000	9.000	616.500	16.000	617.800	22.000	623.600	33.000
X1	5937.000	11.000	200.000	226.000	45.000	45.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	193.000	0.000	233.000	0.000	0.000	0.000	0.000
GR	625.800	0.000	623.100	100.000	622.000	200.000	619.200	205.000	618.200	207.000
GR	617.800	215.000	618.300	219.000	621.500	226.000	622.100	300.000	622.900	345.000
GR	626.500	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5981.000	11.000	200.000	226.000	40.000	40.000	44.000	0.000	0.000	0.000
GR	627.100	0.000	624.400	100.000	623.300	200.000	620.500	205.000	619.500	207.000
GR	619.100	215.000	619.600	219.000	622.800	226.000	623.400	300.000	624.200	345.000
GR	627.600	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

X1	5982.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.220	2.540	0.000	4.380	0.000	24.100	0.000	619.500	619.100
NC	1.000	1.000	.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

X1	6056.000	43.000	1490.000	1516.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1442.000	0.000	1562.000	0.000	0.000	0.000	0.000
BT	8.000	1442.000	629.200	0.000	1500.000	629.200	623.000	1501.000	629.200	624.400
BT	1502.000	629.200	625.000	1503.500	629.200	625.000	1504.500	629.200	624.400	1505.500
BT	629.200	623.000	1562.000	629.200	0.000	0.000	0.000	0.000	0.000	0.000
GR	630.200	0.000	630.100	100.000	629.800	200.000	629.600	300.000	629.600	400.000
GR	629.400	500.000	629.100	600.000	629.000	700.000	628.900	800.000	629.000	873.000
GR	628.900	900.000	629.000	1000.000	629.000	1100.000	629.100	1200.000	627.500	1290.000
GR	624.800	1390.000	623.700	1490.000	623.000	1500.000	621.500	1500.000	620.100	1501.000
GR	619.500	1502.000	619.500	1503.500	620.100	1504.500	621.500	1505.500	623.000	1505.500
GR	623.200	1516.000	623.800	1590.000	624.600	1635.000	628.000	1690.000	629.500	1800.000
GR	629.800	1900.000	630.100	2000.000	630.000	2100.000	630.000	2200.000	629.800	2300.000
GR	629.500	2400.000	629.500	2500.000	630.000	2522.000	629.800	2600.000	629.900	2700.000
GR	629.900	2800.000	630.000	2900.000	629.900	3000.000	0.000	0.000	0.000	0.000
NC	1.000	1.000	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6057.000	11.000	200.000	226.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	153.000	0.000	273.000	0.000	0.000	0.000	0.000
GR	627.500	0.000	624.800	100.000	623.700	200.000	620.900	205.000	619.900	207.000
GR	619.500	215.000	620.000	219.000	623.200	226.000	623.800	300.000	624.600	345.000
GR	628.000	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION M

X1	6076.000	11.000	200.000	226.000	30.000	30.000	19.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	153.000	0.000	273.000	0.000	0.000	0.000	0.000
GR	627.900	0.000	625.200	100.000	624.100	200.000	621.300	205.000	620.300	207.000
GR	619.900	215.000	620.400	219.000	623.600	226.000	624.200	300.000	625.000	345.000
GR	628.400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	6675.000	28.000	800.000	817.000	600.000	570.000	599.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

X1	6676.000	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	710.000	0.000	830.000	0.000	0.000	0.000	0.000
SB	0.000	2.840	3.020	0.000	7.840	0.000	54.900	0.000	621.900	621.900
NC	.105	.105	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

X1	6754.000	38.000	1495.000	1505.000	78.000	78.000	78.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1400.000	0.000	1520.000	0.000	0.000	0.000	0.000
BT	7.000	1400.000	629.400	0.000	1495.000	630.300	624.900	1497.000	630.300	627.900
BT	1500.000	630.300	628.900	1503.000	630.300	627.900	1505.000	630.200	624.900	1520.000
BT	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	645.000	0.000	644.000	100.000	643.100	200.000	641.600	300.000	640.400	400.000
GR	640.200	448.000	639.600	500.000	639.000	600.000	638.000	700.000	637.000	800.000
GR	636.100	900.000	635.400	980.000	635.300	1000.000	634.000	1100.000	631.900	1200.000
GR	630.500	1300.000	629.400	1400.000	626.700	1492.000	624.900	1495.000	622.900	1495.000
GR	621.900	1497.000	621.900	1500.000	621.900	1503.000	622.900	1505.000	624.900	1505.000
GR	626.900	1509.000	629.200	1600.000	630.200	1700.000	631.000	1800.000	632.100	1900.000
GR	631.400	2000.000	630.800	2100.000	629.700	2200.000	629.300	2300.000	628.900	2400.000
GR	628.100	2500.000	627.700	2600.000	627.700	2670.000	0.000	0.000	0.000	0.000
NC	.125	.125	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6755.000	28.000	805.000	815.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.900	0.000	637.900	100.000	636.800	200.000	635.000	301.000	635.500	400.000
GR	634.300	500.000	631.800	600.000	630.200	700.000	626.700	800.000	624.700	805.000
GR	621.900	810.000	623.600	815.000	626.900	817.000	628.700	900.000	628.900	920.000
GR	630.700	1000.000	631.500	1100.000	632.000	1200.000	632.200	1250.000	631.800	1300.000
GR	630.500	1400.000	630.100	1462.000	629.800	1500.000	629.300	1600.000	629.100	1700.000
GR	628.400	1800.000	628.200	1900.000	628.600	1989.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION O

X1	6784.000	28.000	800.000	817.000	30.000	30.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	0.000	830.000	0.000	0.000	0.000	0.000
GR	638.700	0.000	637.700	100.000	636.600	200.000	634.800	301.000	635.300	400.000
GR	634.100	500.000	631.600	600.000	630.000	700.000	626.500	800.000	624.500	805.000
GR	621.700	810.000	623.400	815.000	626.700	817.000	628.500	900.000	628.700	920.000
GR	630.500	1000.000	631.300	1100.000	631.800	1200.000	632.000	1250.000	631.600	1300.000
GR	630.300	1400.000	629.900	1462.000	629.600	1500.000	629.100	1600.000	628.900	1700.000
GR	628.200	1800.000	628.000	1900.000	628.400	1989.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6964.000	0.000	0.000	0.000	170.000	190.000	180.000	0.000	1.400	0.000
X3	0.000	0.000	0.000	720.000	0.000	910.000	0.000	0.000	0.000	0.000

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X1	7144.000	13.000	300.000	330.000	170.000	190.000	180.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	201.000	0.000	470.000	0.000	0.000	0.000	0.000
GR	636.700	0.000	636.200	100.000	635.600	138.000	632.300	150.000	627.500	200.000
GR	626.500	300.000	625.000	304.000	624.500	311.000	625.000	326.000	626.700	330.000
GR	629.100	400.000	633.300	500.000	634.000	600.000	0.000	0.000	0.000	0.000

VALLEY SECTION P

X1	7314.000	13.000	300.000	330.000	170.000	180.000	170.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	59.000	0.000	459.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	637.500	100.000	636.900	138.000	633.600	150.000	628.800	200.000
GR	627.800	300.000	626.300	304.000	625.800	311.000	626.300	326.000	628.000	330.000
GR	630.400	400.000	634.600	500.000	635.300	600.000	0.000	0.000	0.000	0.000
NC	.200	.200	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7873.000	0.000	0.000	0.000	490.000	550.000	559.000	0.000	1.500	0.000
X3	0.000	0.000	0.000	199.000	0.000	319.000	0.000	0.000	0.000	0.000
NC	.500	.500	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7893.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.100	0.000
X3	0.000	0.000	0.000	204.000	0.000	314.000	0.000	0.000	0.000	0.000
NC	.600	.600	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

X1	7894.000	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	204.000	0.000	314.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.020	0.000	8.080	0.000	28.270	0.000	627.500	627.400
NC	.800	.060	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

X1	7954.000	25.000	862.000	876.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	631.000	635.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	766.000	0.000	876.000	0.000	0.000	0.000	0.000
BT	20.000	766.000	635.000	0.000	788.700	635.100	0.000	870.000	637.000	630.500
BT	871.000	637.000	633.000	872.000	637.000	633.500	874.000	637.000	633.500	875.000
BT	637.000	633.000	876.000	637.000	630.500	923.700	639.700	0.000	956.500	640.200
BT	0.000	1040.400	642.900	0.000	1124.300	644.700	0.000	1208.200	646.200	0.000
BT	1292.100	646.600	0.000	1376.000	647.000	0.000	1459.900	647.300	0.000	1543.800
BT	647.600	0.000	1627.700	647.700	0.000	1711.600	648.900	0.000	1732.500	649.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	635.000	766.000	632.600	766.000	631.900	788.700	629.700	862.000	630.500	870.000
GR	629.500	870.000	628.000	871.000	627.500	872.000	627.500	874.000	628.000	875.000
GR	629.500	876.000	630.500	876.000	637.000	876.000	639.700	923.700	640.200	956.500
GR	642.900	1040.400	644.700	1124.300	646.200	1208.200	646.600	1292.100	647.000	1376.000
GR	647.300	1459.900	647.600	1543.800	647.700	1627.700	648.900	1711.600	649.000	1732.500
NC	1.000	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7955.000	12.000	300.000	325.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	207.000	0.000	318.000	0.000	0.000	0.000	0.000
GR	638.000	0.000	635.200	100.000	632.800	200.000	629.700	300.000	627.900	308.000
GR	627.500	314.000	628.200	319.000	629.400	325.000	631.400	400.000	633.100	450.000
GR	642.600	500.000	643.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.500	.060	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION R

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X1	7984.000	12.000	300.000	325.000	40.000	40.000	29.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	214.000	0.000	347.000	0.000	0.000	0.000	0.000
GR	639.400	0.000	636.600	100.000	634.200	200.000	631.100	300.000	629.300	308.000
GR	628.900	314.000	629.600	319.000	630.800	325.000	632.800	400.000	634.500	450.000
GR	644.000	500.000	644.700	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.050	400.000	.080	408.000	.050	421.000	.060	427.000	.060
NH	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	403.000	425.000	0.000	0.000	0.000

VALLEY SECTION S

X1	8544.000	15.000	400.000	427.000	520.000	560.000	560.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.200	400.000	631.200	408.000	630.500	414.000	632.600	421.000	636.100	427.000
GR	635.600	500.000	637.500	555.000	643.100	600.000	646.200	700.000	649.000	800.000
ET	0.000	6.100	6.100	6.100	0.000	408.000	420.000	0.000	0.000	0.000

X1	8563.000	0.000	0.000	0.000	20.000	20.000	19.000	0.000	.300	0.000
NC	.060	.060	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	410.000	422.000	0.000	0.000	0.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

X1	8564.000	16.000	410.000	422.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.100	0.000	649.500	100.000	648.200	200.000	646.500	300.000	640.800	365.000
GR	637.500	400.000	638.300	410.000	630.800	410.000	630.800	416.000	630.800	422.000
GR	638.300	422.000	635.700	500.000	637.100	560.000	642.900	600.000	646.400	700.000
GR	648.700	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.680	0.000	9.000	0.000	54.000	0.000	631.000	630.800

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

X1	8583.000	16.000	410.000	422.000	19.000	19.000	19.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	410.000	638.500	634.000	410.000	638.500	634.000	416.000	638.500	637.000
BT	422.000	638.500	634.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	648.300	0.000	649.700	100.000	648.400	200.000	646.700	300.000	641.000	365.000
GR	637.700	400.000	638.500	410.000	631.000	410.000	631.000	416.000	631.000	422.000
GR	638.500	422.000	635.900	500.000	637.300	560.000	643.100	600.000	646.600	700.000
GR	648.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	407.000	421.000	0.000	0.000	0.000

X1	8584.000	15.000	400.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	648.800	0.000	650.200	100.000	648.900	200.000	647.200	300.000	641.500	365.000
GR	637.700	400.000	631.700	408.000	631.000	414.000	633.100	421.000	636.600	427.000
GR	636.100	500.000	638.000	555.000	643.600	600.000	646.700	700.000	649.500	800.000
NC	.060	.060	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	380.000	431.000	0.000	0.000	0.000

VALLEY SECTION U

X1	8613.000	14.000	400.000	431.000	30.000	30.000	29.000	0.000	0.000	0.000
GR	649.800	0.000	649.100	100.000	647.800	200.000	646.200	300.000	638.500	335.000
GR	636.100	400.000	630.700	408.000	630.800	414.000	631.200	424.000	637.300	431.000
GR	634.800	500.000	642.600	600.000	646.100	700.000	648.600	800.000	0.000	0.000
NC	.065	.065	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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GR	656.000	0.000	656.400	100.000	655.200	200.000	654.800	300.000	654.300	400.000
GR	653.300	500.000	652.000	600.000	650.500	700.000	650.900	800.000	651.400	900.000
GR	651.600	1000.000	650.300	1100.000	648.400	1150.000	644.400	1200.000	642.100	1247.000
GR	640.300	1252.000	638.800	1256.000	639.700	1260.000	642.500	1266.000	643.400	1300.000
GR	646.700	1400.000	650.700	1500.000	651.400	1600.000	652.400	1700.000	653.400	1800.000
GR	654.100	1900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9703.000	0.000	0.000	0.000	540.000	540.000	540.000	0.000	2.000	0.000
NC	.075	.075	.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10253.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.100	0.000
NC	.080	.080	.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	170.000	255.000	295.000	420.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION V

X1	10803.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.000	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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*PROF 1

CCHV= .300 CEHV= .500

*SECNO .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
0.00	5.76	602.96	0.00	602.96	602.99	.03	0.00	0.00	601.70
210.	41.	169.	0.	75.	110.	0.	0.	0.	606.10
0.00	.55	1.53	0.00	.080	.050	.080	0.000	597.20	925.49
.000563	0.	0.	0.	0	0	0	0.00	88.29	1013.79

MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

REPEATED AND ADJUSTED FOR CHANNEL INVERT.

*SECNO 130.000

VALLEY SECTION A

130.00	4.04	603.04	0.00	0.00	603.24	.19	.16	.08	603.50
210.	0.	210.	0.	0.	59.	0.	0.	0.	607.90
.01	0.00	3.54	0.00	.080	.050	.080	.050	599.00	981.71
.005050	130.	130.	130.	0	0	0	0.00	25.91	1007.62

*SECNO 409.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

409.00	4.29	604.39	0.00	0.00	604.65	.26	1.38	.03	601.30
210.	29.	144.	37.	22.	30.	22.	1.	0.	601.20
.03	1.36	4.84	1.67	.080	.050	.080	.050	600.10	176.96
.004855	280.	279.	280.	2	0	0	0.00	61.14	238.11

*SECNO 410.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	4.30	604.40	0.00	0.00	604.66	.26	.00	.00	601.30
210.	29.	144.	37.	22.	30.	22.	1.	0.	601.20
.03	1.35	4.82	1.66	.080	.050	.080	.050	600.10	176.83
.004815	1.	1.	1.	0	0	0	0.00	61.47	238.29

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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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PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
606.93	604.74	0.00	5.	205.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	6.74	606.74	0.00	0.00	606.81	.08	2.16	0.00	602.00
210.	23.	135.	52.	24.	50.	51.	1.	0.	602.00
.04	.96	2.68	1.01	.050	.027	.050	.048	600.00	787.04
.000378	36.	36.	36.	2	0	4	0.00	42.67	829.70

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	6.82	606.82	0.00	0.00	606.83	.01	.00	.02	603.30
210.	32.	128.	50.	86.	117.	135.	1.	0.	603.80
.04	.37	1.10	.37	.080	.040	.080	.048	600.00	170.00
.000107	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED
*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	4.38	606.78	0.00	0.00	606.91	.13	.02	.06	605.70
210.	11.	186.	14.	14.	60.	10.	1.	1.	606.20
.04	.79	3.08	1.32	.070	.050	.040	.047	602.40	174.91
.003154	50.	59.	70.	2	0	0	0.00	68.09	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	3.56	606.76	0.00	0.00	607.15	.39	.11	.13	606.50
210.	1.	209.	0.	1.	42.	0.	1.	1.	607.00
.04	.63	5.02	0.00	.070	.050	.040	.046	603.20	193.89
.013072	20.	20.	20.	2	0	0	0.00	28.24	222.12

*SECNO 576.000

576.00	4.19	607.39	0.00	0.00	607.58	.19	.37	.06	606.50
210.	7.	202.	1.	9.	56.	2.	1.	1.	607.00
.05	.75	3.60	.57	.080	.050	.060	.046	603.20	179.31
.004773	50.	50.	50.	2	0	0	0.00	55.69	235.00

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

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VALLEY SECTION D

1316.00	5.18	608.08	0.00	0.00	608.09	.01	.45	.05	606.80
210.	16.	97.	97.	69.	93.	137.	4.	3.	605.30
.30	.23	1.05	.71	.080	.050	.060	.048	602.90	680.00
.000225	700.	740.	760.	5	0	0	0.00	174.39	854.39

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	3.90	608.20	0.00	0.00	608.25	.05	.14	.02	608.20
210.	0.	122.	88.	0.	61.	71.	6.	3.	606.70
.35	.01	1.99	1.24	.080	.050	.060	.049	604.30	774.85
.001430	320.	310.	300.	2	0	0	0.00	73.38	848.23

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	3.86	608.26	0.00	0.00	608.31	.05	.06	.00	608.30
210.	0.	123.	87.	0.	60.	69.	6.	4.	606.80
.35	0.00	2.05	1.26	.080	.050	.060	.049	604.40	775.15
.001530	40.	40.	40.	2	0	0	0.00	72.88	848.02

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	3.43	608.63	0.00	0.00	608.72	.09	.39	.02	609.10
210.	0.	137.	73.	0.	50.	49.	6.	4.	607.60
.37	0.00	2.75	1.50	.080	.050	.060	.049	605.20	776.69
.003276	180.	180.	180.	2	0	0	0.00	69.25	845.93

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.23	609.13	0.00	0.00	609.42	.29	.61	.10	609.80
210.	0.	198.	12.	0.	45.	9.	7.	4.	608.30
.38	0.00	4.42	1.39	.040	.040	.050	.048	605.90	777.38
.005961	140.	140.	140.	2	0	0	0.00	40.62	818.00

*SECNO 2065.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	3.42	609.62	0.00	0.00	610.08	.45	.57	.08	611.00
205.	0.	205.	0.	0.	38.	0.	7.	4.	611.00
.39	0.00	5.40	0.00	.040	.040	.050	.048	606.20	1504.03
.009074	80.	79.	80.	2	0	0	0.00	18.53	1522.55

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00 3.07 609.47 0.00 0.00 610.26 .28 .13 .05100000 .00

```
      205.       0.     205.       0.       0.      48.       0.       7.       4. 100000.00
       .39      0.00     4.25     0.00     .040     .040     .050     .048   606.00  1502.40
   .004647       20.      20.      20.        2        0        0     0.00    19.59  1522.00
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 *SECNO 2086.000

 3470 ENCROACHMENT STATIONS=     1502.0     1522.0  TYPE=       1  TARGET=       20.000

            GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

  2086.00     3.98   609.98     0.00     0.00   610.26      .28      .00      .00100000.00
      205.       0.     205.       0.       0.      48.       0.       7.       4. 100000.00
       .39      0.00     4.25     0.00     .040     .040     .050     .048   606.00  1502.40
   .004632       1.       1.       1.        0        0        0     0.00    19.60  1522.00


 SPECIAL BRIDGE

 SB   XK        XKOR      COFQ      RDLEN     PWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      2.03      3.02      0.00     16.43      0.00      75.60     0.00      605.70    606.00

 *SECNO 2122.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=      0.000  EGLWC=    609.843  ELLC=    610.300  PCWSE=    609.980  ELTRD=    613.200

 3370 NORMAL BRIDGE,NRD=  21 MIN ELTRD=   613.20 MAX ELLC=   610.30


 3470 ENCROACHMENT STATIONS=     1220.0     1240.0  TYPE=       1  TARGET=       20.000

            GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

  2122.00     4.53   610.23     0.00     0.00   610.35      .12      .04      .05   610.30
      205.       0.     205.       0.       0.      74.       0.       7.       4. 100000.00
       .39      0.00     2.76     0.00     .035     .025     .035     .047   605.70  1220.00
   .000515       36.      36.      36.        2        0        0     0.00    20.00  1240.00


 *SECNO 2123.000

 3470 ENCROACHMENT STATIONS=     1504.0     1524.0  TYPE=       1  TARGET=       20.000
  2123.00     4.50   610.20     0.00     0.00   610.39      .19      .00      .04100000.00
      205.       0.     205.       0.       0.      58.       0.       7.       4. 100000.00
       .39      0.00     3.51     0.00     .080     .060     .060     .047   605.70  1504.00
   .005706       1.       1.       1.        2        0        0     0.00    19.68  1523.68


 *SECNO 2291.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    0         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=     1500.0     1524.0  TYPE=       1  TARGET=       24.000
  2291.00     5.02   611.02     0.00     0.00   611.14      .12      .74      .02   610.80
      205.       0.     205.       0.       0.      73.       0.       7.       4. 100000.00
       .41      0.00     2.83     0.00     .080     .060     .060     .048   606.00  1500.00
   .003473       100.     168.     180.        2        0        0     0.00    24.00  1524.00
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*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

2292.00	5.10	611.10	0.00	0.00	611.16	.06	.00	.02	615.50
205.	0.	205.	0.	0.	103.	0.	7.	4.	615.50
.41	0.00	1.99	0.00	.035	.032	.035	.048	606.00	248.00
.000453	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 610.966 ELLC= 613.100 PCWSE= 611.103 ELTRD= 615.500

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

2346.00	5.33	611.13	0.00	0.00	611.21	.08	.03	.01	615.50
205.	0.	205.	0.	0.	91.	0.	7.	4.	615.50
.42	0.00	2.26	0.00	.035	.032	.035	.048	605.80	248.00
.000803	54.	54.	54.	2	0	0	-16.32	23.50	271.50

*SECNO 2347.000

3470 ENCROACHMENT STATIONS= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2347.00	5.32	611.12	0.00	0.00	611.22	.10	.00	.01	610.60
205.	0.	205.	0.	0.	80.	0.	7.	4.	100000.00
.42	0.00	2.57	0.00	.080	.045	.080	.048	605.80	1500.00
.001470	1.	1.	1.	1	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS= .0 400.0 TYPE= 1 TARGET= 399.999

2627.00	4.52	611.62	0.00	0.00	611.74	.12	.51	.01	612.50
205.	0.	205.	0.	0.	75.	0.	8.	4.	612.20
.44	0.00	2.75	0.00	.080	.045	.080	.047	607.10	267.67
.002332	275.	280.	290.	2	0	0	0.00	30.88	298.55

*SECNO 2907.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	OLOB	OCH	OROB	XLOB	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= .0 356.0 TYPE= 1 TARGET= 355.999

2907.00	3.97	612.47	0.00	0.00	612.66	.19	.89	.04	613.90
205.	0.	205.	0.	0.	58.	0.	8.	5.	613.60
.47	0.00	3.51	0.00	.080	.045	.080	.047	608.50	269.33
.004576	275.	280.	290.	2	0	0	0.00	27.84	297.18

*SECNO 3187.000

3470 ENCROACHMENT STATIONS= .0 366.0 TYPE= 1 TARGET= 365.999

3187.00	3.96	613.76	0.00	0.00	613.95	.19	1.29	.00	615.20
205.	0.	205.	0.	0.	58.	0.	9.	5.	614.90
.49	0.00	3.53	0.00	.080	.045	.080	.047	609.80	269.36
.004643	275.	280.	290.	2	0	0	0.00	27.78	297.15

1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS= .0 386.0 TYPE= 1 TARGET= 385.999

VALLEY SECTION H

3466.00	3.92	615.02	0.00	0.00	615.22	.20	1.26	.00	616.50
205.	0.	205.	0.	0.	57.	0.	9.	5.	616.20
.51	0.00	3.58	0.00	.080	.079	.080	.047	611.10	269.47
.004383	275.	279.	290.	1	0	0	0.00	27.60	297.07

1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS= .0 500.0 TYPE= 1 TARGET= 499.999

VALLEY SECTION I

5226.00	5.58	619.58	0.00	0.00	619.64	.07	4.39	.04	619.60
205.	0.	190.	15.	0.	90.	28.	12.	7.	619.00
.75	0.00	2.12	.52	.060	.080	.060	.046	614.00	400.05
.001609	1830.	1760.	1710.	4	0	0	0.00	99.95	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	4.61	620.71	0.00	0.00	620.87	.16	1.18	.05	100000.00
205.	0.	205.	0.	0.	64.	0.	14.	8.	100000.00
.80	0.00	3.22	0.00	.070	.045	.070	.046	616.10	4.33
.002766	620.	569.	530.	2	0	0	0.00	23.35	27.69

*SECNO 5835.000

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= 11.0 22.0 TYPE= 1 TARGET= 11.000

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     195.       0.     195.       0.       0.      42.       0.      14.       8. 100000.00
      .80     0.00     4.59     0.00     .070     .045     .070     .046   616.20    11.00
  .006014      40.      40.      40.        1        0        0     0.00    11.00    22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS=     494.5     505.5  TYPE=     1  TARGET=      11.000

          VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

          10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

  5836.00     4.69   620.89     0.00     0.00   621.14      .25      .00      .02   617.20
     195.       0.     195.       0.       0.      49.       0.      14.       8. 100000.00
      .80     0.00     3.97     0.00     .040     .032     .040     .046   616.20   494.50
  .001981       1.       1.       1.        2        0        0     0.00    11.00   505.50


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.52      3.02      0.00      8.43      0.00     59.00      0.00    616.50    616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   621.435  ELLC=   623.500  PCWSE=   620.890  ELTRD=   624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  624.70 MAX ELLC=  623.50


3470 ENCROACHMENT STATIONS=     494.5     505.5  TYPE=     1  TARGET=      11.000

          VICTORIA ROAD BRIDGE - UPSTREAM FACE  - SECTION J

          10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

  5892.00     4.50   621.00     0.00     0.00   621.31      .32      .14      .04   617.50
     195.       0.     195.       0.       0.      43.       0.      14.       8. 100000.00
      .81     0.00     4.51     0.00     .040     .032     .040     .046   616.50   494.50
  .003484      56.      56.      56.        2        0        0    -3.75    11.00   505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS=      10.0      23.0  TYPE=     1  TARGET=      13.000

          VALLEY SECTION K

  5893.00     4.62   621.12     0.00     0.00   621.35      .23      .00      .03100000.00
     195.       0.     195.       0.       0.      51.       0.      14.       8. 100000.00
      .81     0.00     3.85     0.00     .090     .060     .090     .046   616.50    10.00
  .006764       1.       1.       1.        2        0        0     0.00    13.00    23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS=     193.0     233.0  TYPE=     1  TARGET=      40.000
  5937.00     3.67   621.47     0.00     0.00   621.62      .15      .26      .02   622.00
     195.       0.     195.       0.       0.      63.       0.      14.       8.   621.50
      .81     0.00     3.11     0.00     [illegible]
```

.005024	45.	44.	45.	2	0	0	0.00	25.00	225.94

*SECNO 5981.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	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
5981.00	2.64	621.74	0.00	0.00	622.13	.39	.39	.12	623.30
195.	0.	195.	0.	0.	39.	0.	14.	8.	622.80
.81	0.00	5.01	0.00	.090	.060	.090	.046	619.10	202.79
.019038	40.	44.	40.	2	0	0	0.00	20.90	223.68

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	2.68	621.78	0.00	0.00	622.15	.37	.02	.00	623.30
195.	0.	195.	0.	0.	40.	0.	14.	8.	622.80
.81	0.00	4.90	0.00	.090	.060	.090	.046	619.10	202.71
.017937	1.	1.	1.	2	0	0	0.00	21.05	223.77

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 624.036 EGLWC= 626.615 ELLC= 625.000 PCWSE= 621.780 ELTRD= 629.200

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	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

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 629.20 MAX ELLC= 625.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1442.0 1562.0 TYPE= 1 TARGET= 120.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	3.80	623.30	623.30	0.00	625.25	1.95	.96	.79	623.70
195.	0.	195.	0.	0.	17.	0.	14.	8.	623.20
.82	0.00	11.21	0.00	1.000	.010	1.000	.046	619.50	1495.71
.009752	74.	74.	74.	20	18	0	-3.66	32.64	1528.35

*SECNO 6057.000

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3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	6.29	625.79	0.00	0.00	625.83	.03	.00	.58	623.70
195.	1.	192.	2.	86.	130.	113.	14.	8.	623.20
.82	.01	1.48	.01	1.000	.015	1.000	.046	619.50	153.00
.000028	1.	1.	1.	3	0	0	0.00	120.00	273.00

*SECNO 6076.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	5.92	625.82	0.00	0.00	625.83	.01	.00	.01	624.10
195.	24.	131.	40.	69.	121.	95.	14.	8.	623.60
.82	.34	1.09	.42	.060	.040	.060	.046	619.90	153.00
.000120	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	3.84	625.74	0.00	0.00	626.40	.66	.24	.32	626.70
195.	0.	195.	0.	0.	30.	0.	16.	9.	626.90
.85	0.00	6.52	0.00	.080	.045	.080	.046	621.90	802.40
.017396	600.	599.	570.	2	0	0	0.00	13.90	816.30

*SECNO 6676.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	3.91	625.81	0.00	0.00	626.43	.62	.02	.01	626.70
195.	0.	195.	0.	0.	31.	0.	16.	9.	626.90
.85	0.00	6.31	0.00	.080	.045	.080	.046	621.90	802.22
.015940	1.	1.	1.	2	0	0	0.00	14.12	816.34

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 626.236 ELLC= 628.900 PCWSE= 625.810 ELTRD= 629.400

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 629.40 MAX ELLC= 628.90

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	4.58	626.48	0.00	0.00	626.84	.36	.33	.08	624.90
195.	0.	195.	0.	0.	41.	0.	16.	9.	624.90
.85	0.00	4.79	0.00	.105	.025	.105	.045	621.90	1492.36
.001946	78.	78.	78.	2	0	0	-7.79	15.82	1508.17

*SECNO 6755.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	4.52	626.42	0.00	0.00	626.91	.48	.00	.06	624.70
195.	2.	191.	1.	4.	34.	2.	16.	9.	623.60
.85	.64	5.62	.60	.125	.035	.125	.045	621.90	800.69
.003901	1.	1.	1.	2	0	0	0.00	16.02	816.71

*SECNO 6784.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	5.16	626.86	0.00	0.00	627.08	.23	.10	.08	626.50
195.	1.	194.	0.	2.	51.	1.	16.	9.	626.70
.86	.33	3.82	.20	.080	.040	.080	.045	621.70	789.61
.003102	30.	29.	30.	2	0	0	0.00	34.95	824.55

*SECNO 6964.000

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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	4.69	627.79	0.00	0.00	628.11	.32	.98	.05	627.90
195.	0.	195.	0.	0.	43.	0.	16.	9.	628.10
.87	0.00	4.55	0.00	.070	.060	.070	.046	623.10	800.28
.011920	170.	180.	190.	2	0	0	0.00	16.54	816.81

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	3.89	628.39	0.00	0.00	628.40	.01	.20	.09	626.50
195.	71.	108.	15.	138.	101.	42.	17.	10.	626.70
.93	.52	1.07	.37	.070	.060	.070	.046	624.50	201.00
.000384	170.	180.	190.	3	0	0	0.00	178.31	379.31

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	2.70	628.50	0.00	0.00	628.60	.10	.16	.05	627.80
195.	17.	176.	2.	24.	65.	4.	18.	10.	628.00
.95	.70	2.70	.56	.070	.060	.070	.046	625.80	230.05
					0	0	0.00	114.51	344.57

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3470 ENCROACHMENT STATIONS=	199.0	319.0	TYPE=	1	TARGET=	120.000			
7873.00	3.33	630.63	0.00	0.00	630.75	.11	2.14	.00	629.30
195.	33.	162.	0.	84.	56.	0.	19.	12.	100000.00
1.01	.39	2.93	0.00	.200	.055	.200	.047	627.30	199.00
.003486	490.	559.	550.	4	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS=	204.0	314.0	TYPE=	1	TARGET=	110.000			
7893.00	3.25	630.65	0.00	0.00	630.95	.29	.11	.09	629.40
195.	18.	177.	0.	74.	39.	0.	19.	12.	100000.00
1.01	.25	4.57	0.00	.500	.055	.500	.047	627.40	204.00
.009903	20.	20.	20.	2	0	0	0.00	110.00	314.00

*SECNO 7894.000

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=	204.0	314.0	TYPE=	1	TARGET=	110.000			
CLARK STREET BRIDGE - DOWNSTREAM FACE									
7894.00	3.25	630.65	0.00	0.00	630.97	.31	.01	.01	629.40
195.	14.	181.	0.	75.	39.	0.	19.	12.	100000.00
1.01	.19	4.66	0.00	.600	.050	.600	.047	627.40	204.00
.008498	1.	1.	1.	0	0	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
632.48	631.97	0.00	0.	195.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS=	766.0	876.0	TYPE=	1	TARGET=	110.000			
CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q									
7954.00	4.67	632.17	0.00	0.00	632.48	.31	1.51	0.00	629.70
195.	6.	189.	0.	102.	42.	0.	20.	12.	100000.00
1.01	.06	4.53	0.00	.800	.015	.060	.047	627.50	779.79
.000763	60.	60.	60.	2	0	0	0.00	96.21	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

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7955.00	4.95	632.45	0.00	0.00	632.54	.09	.00	.07	629.70
195.	7.	188.	0.	122.	76.	0.	20.	12.	100000.00
1.01	.05	2.46	0.00	1.000	.040	.080	.047	627.50	211.18
.000869	1.	1.	1.	2	0	0	0.00	106.82	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	3.60	632.50	0.00	0.00	632.58	.07	.03	.01	631.10
195.	2.	162.	30.	32.	69.	31.	20.	12.	630.80
1.02	.08	2.35	.98	.500	.040	.060	.047	628.90	254.72
.001058	40.	29.	40.	2	0	0	0.00	92.28	347.00

1490 NH CARD USED
*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	3.23	633.73	0.00	0.00	634.14	.41	1.39	.17	100000.00
195.	0.	195.	0.	0.	38.	0.	21.	13.	100000.00
1.05	0.00	5.16	0.00	.500	.079	.060	.046	630.50	404.63
.011418	520.	560.	560.	3	0	0	0.00	18.29	422.93

*SECNO 8563.000

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= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	3.09	633.89	0.00	0.00	634.56	.68	.29	.13	100000.00
195.	0.	195.	0.	0.	30.	0.	21.	13.	100000.00
1.05	0.00	6.60	0.00	.500	.050	.060	.046	630.80	408.00
.021912	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	3.55	634.35	0.00	0.00	634.67	.33	.00	.11	638.30
195.	0.	195.	0.	0.	43.	0.	21.	13.	100000.00
1.05	0.00	4.58	0.00	.060	.025	.060	.046	630.80	410.00
.002041	1.	1.	1.	3	0	0	0.00	12.00	422.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

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6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 634.873 ELLC= 637.000 PCWSE= 634.347 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	3.36	634.36	0.00	0.00	634.77	.41	.05	.04	638.50
195.	0.	195.	0.	0.	38.	0.	21.	13.	638.50
1.05	0.00	5.11	0.00	.060	.025	.060	.046	631.00	410.00
.004140	19.	19.	19.	2	0	0	-2.17	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	3.35	634.35	0.00	0.00	634.79	.44	.01	.02100000.00	
195.	0.	195.	0.	0.	36.	0.	21.	13. 100000.00	
1.05	0.00	5.35	0.00	.060	.050	.060	.046	631.00	407.00
.012399	1.	1.	1.	1	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	4.21	634.91	0.00	0.00	634.99	.08	.09	.11	636.10
195.	0.	195.	0.	0.	85.	0.	21.	13. 100000.00	
1.05	0.00	2.29	0.00	.060	.050	.060	.046	630.70	401.76
.001425	30.	29.	30.	2	0	0	0.00	26.50	428.26

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	OROB	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
9163.00	3.80	636.50	0.00	0.00	636.83	.33	1.71	.12	636.00
195.	2.	193.	0.	3.	42.	0.	22.	13.	636.40
1.09	.96	4.64	.32	.065	.055	.065	.047	632.70	1236.88
.011361	550.	550.	550.	3	0	0	0.00	32.72	1269.60

*SECNO 9703.000

9703.00	4.76	639.46	0.00	0.00	639.55	.09	2.65	.07	638.00
195.	20.	159.	17.	22.	60.	21.	23.	14.	638.40
1.15	.90	2.66	.79	.070	.060	.070	.047	634.70	1217.19
.002725	540.	540.	540.	4	0	0	0.00	87.63	1304.82

*SECNO 10253.000

10253.00	4.55	641.35	0.00	0.00	641.47	.13	1.91	.02	640.10
195.	16.	169.	10.	16.	56.	14.	24.	15.	640.50
1.21	.98	3.03	.76	.075	.065	.075	.048	636.80	1221.46
.004553	550.	550.	550.	3	0	0	0.00	76.65	1298.11

*SECNO 10803.000

10803.00	4.69	643.49	0.00	0.00	643.57	.08	2.08	.01	642.10
170.	16.	141.	13.	20.	59.	19.	25.	16.	642.50
1.28	.82	2.40	.69	.080	.070	.080	.049	638.80	1218.49
.003121	550.	550.	550.	2	0	0	0.00	84.40	1302.89

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      50-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ

     -10.       3.       0.       0.  0.000000     0.00      0.0       0.   603.890    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

*PROF 2

CCHV=    .300 CEHV=    .500
*SECNO .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


          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

     0.00     6.69   603.89     0.00   603.89   603.92      .03     0.00     0.00   601.70
     310.      89.     221.       0.     128.     143.       0.       0.       0.   606.10
     0.00      .69     1.55     0.00     .080     .050     .080    0.000   597.20   922.81
  .000470       0.       0.       0.        0        0        0     0.00    94.30  1017.11


*SECNO 130.000

          VALLEY SECTION A

   130.00     4.95   603.95     0.00     0.00   604.12      .16      .13      .07   603.50
     310.      24.     286.       0.      31.      85.       0.       1.       0.   607.90
      .01      .77     3.36     0.00     .080     .050     .080     .050   599.00   927.83
  .003411     130.     130.     130.        0        0        0     0.00    83.07  1010.90


*SECNO 409.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000
   409.00     4.89   604.99     0.00     0.00   605.24      .25     1.08      .04   601.30
     310.      64.     177.      69.      42.      35.      43.       1.       1.   601.20
      .03     1.52     5.12     1.61     .080     .050     .080     .050   600.10   170.00
  .004449     280.     279.     280.        2        0        0     0.00    86.79   256.79


*SECNO 410.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000
```

AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	4.90	605.00	0.00	0.00	605.25	.25	.00	.00	601.30
310.	64.	177.	69.	42.	35.	43.	1.	1.	601.20
.03	1.52	5.12	1.61	.080	.050	.080	.050	600.10	170.00
.004451	1.	1.	1.	0	0	0	0.00	86.78	256.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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
610.50	605.49	0.00	108.	202.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.23	607.23	0.00	0.00	607.34	.11	2.10	0.00	602.00
310.	41.	182.	87.	38.	54.	72.	1.	1.	602.00
.04	1.06	3.35	1.21	.050	.027	.050	.048	600.00	765.00
.000532	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.35	607.35	0.00	0.00	607.37	.02	.00	.05	603.30
310.	50.	181.	79.	102.	129.	160.	1.	1.	603.80
.04	.49	1.40	.50	.080	.040	.080	.048	600.00	170.00
.000153	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	4.92	607.32	0.00	0.00	607.45	.14	.02	.06	605.70
310.	32.	237.	41.	28.	73.	21.	2.	1.	606.20
.04	1.13	3.26	1.96	.070	.050	.040	.047	602.40	173.00
.002754	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	4.04	607.24	0.00	0.00	607.74	.49	.10	.18	606.50

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.04	1.25	5.71	1.04	.070	.050	.040	.046	603.20	182.69
.013035	20.	20.	20.	2	0	0	0.00	47.84	230.53

*SECNO 576.000

576.00	4.76	607.96	0.00	0.00	608.17	.21	.35	.08	606.50
310.	24.	271.	14.	25.	69.	14.	2.	1.	607.00
.05	.98	3.92	.99	.080	.050	.060	.046	603.20	166.02
.004279	50.	50.	50.	2	0	0	0.00	86.58	252.60

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	5.77	608.67	0.00	0.00	608.68	.01	.46	.06	606.80
310.	44.	128.	138.	126.	108.	170.	6.	3.	605.30
.28	.35	1.18	.81	.080	.050	.060	.048	602.90	680.00
.000236	700.	740.	760.	4	0	0	0.00	177.29	857.29

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	4.49	608.79	0.00	0.00	608.84	.05	.14	.02	608.20
310.	4.	164.	142.	9.	76.	100.	8.	4.	606.70
.32	.40	2.16	1.42	.080	.050	.060	.049	604.30	755.00
.001259	320.	310.	300.	2	0	0	0.00	96.08	851.08

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	4.44	608.84	0.00	0.00	608.90	.06	.05	.00	608.30
310.	2.	166.	142.	5.	75.	98.	9.	4.	606.80
.33	.41	2.22	1.45	.080	.050	.060	.049	604.40	765.00
.001361	40.	40.	40.	2	0	0	0.00	85.84	850.84

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	3.96	609.16	0.00	0.00	609.26	.09	.34	.02	609.10
310.	0.	178.	132.	0.	63.	74.	9.	5.	607.60
.35	.10	2.84	1.78	.080	.050	.060	.049	605.20	769.51
.002806	180.	180.	180.	2	0	0	0.00	79.02	848.53

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.70	609.60	0.00	0.00	609.94	.34	.56	.12	609.80
310.	0.	273.	37.	0.	56.	17.	10.	5.	608.30
.36	0.00	4.91	2.17	.040	.040	.050	.048	605.90	775.72
.006043	140.	140.	140.	2	0	0	0.00	42.28	818.00

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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

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	3.87	610.07	0.00	0.00	610.74	.66	.64	.16	611.00
305.	0.	305.	0.	0.	47.	0.	10.	5.	611.00
.36	0.00	6.53	0.00	.040	.040	.050	.048	606.20	1502.70
.011437	80.	79.	80.	2	0	0	0.00	20.32	1523.03

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	4.56	610.56	0.00	0.00	610.97	.40	.15	.08100000.00	
305.	0.	305.	0.	0.	60.	0.	10.	5.	100000.00
.36	0.00	5.09	0.00	.040	.040	.050	.048	606.00	1502.00
.005437	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	4.57	610.57	0.00	0.00	610.97	.40	.01	.00100000.00	
305.	0.	305.	0.	0.	60.	0.	10.	5.	100000.00
.36	0.00	5.08	0.00	.040	.040	.050	.048	606.00	1502.00
.005388	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.09	610.53	0.00	0.	305.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION E

2122.00	5.20	610.90	0.00	0.00	611.09	.19	.11	0.00	610.30
305.	0.	305.	0.	0.	88.	0.	10.	5.	100000.00
.37	0.00	3.48	0.00	.035	.025	.035	.047	605.70	1220.00
.000711	36.	36.	36.	2	0	0	0.00	20.00	1240.00

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3470 ENCROACHMENT STATIONS=		1504.0	1524.0	TYPE=	1	TARGET=		20.000	
2123.00	5.15	610.85	0.00	0.00	611.13	.28	.00	.05100000.00	
305.	0.	305.	0.	0.	72.	0.	10.	5.	100000.00
.37	0.00	4.27	0.00	.080	.060	.060	.047	605.70	1504.00
.007006	1.	1.	1.	2	0	0	0.00	20.00	1524.00

*SECNO 2291.000

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=		1500.0	1524.0	TYPE=	1	TARGET=		24.000	
2291.00	5.84	611.84	0.00	0.00	612.01	.17	.84	.03	610.80
305.	0.	305.	0.	0.	92.	0.	10.	5.	100000.00
.38	0.00	3.31	0.00	.080	.060	.060	.048	606.00	1500.00
.003759	100.	168.	180.	2	0	0	0.00	24.00	1524.00

*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

2292.00	5.94	611.94	0.00	0.00	612.03	.10	.00	.02	615.50
305.	0.	305.	0.	0.	123.	0.	10.	5.	615.50
.38	0.00	2.49	0.00	.035	.032	.035	.048	606.00	248.00
.000596	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 611.835 ELLC= 613.100 PCWSE= 611.937 ELTRD= 615.500

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

2346.00	6.16	611.96	0.00	0.00	612.10	.13	.05	.02	615.50
305.	0.	305.	0.	0.	103.	0.	10.	5.	615.50
.39	0.00	2.95	0.00	.035	.032	.035	.048	605.80	248.00
.001410	54.	54.	54.	2	0	0	-23.48	23.50	271.50

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*SECNO 2347.000

3470 ENCROACHMENT STATIONS=	1500.0	1524.0	TYPE=	1	TARGET=	24.000			
2347.00	6.16	611.96	0.00	0.00	612.11	.14	.00	.00	610.60
305.	0.	305.	0.	0.	100.	0.	10.	5.	100000.00
.39	0.00	3.05	0.00	.080	.045	.080	.048	605.80	1500.00
.001655	1.	1.	1.	0	0	0	0.00	24.00	1524.00

*SECNO 2627.000

3470 ENCROACHMENT STATIONS=	.0	400.0	TYPE=	1	TARGET=	399.999			
2627.00	5.39	612.49	0.00	0.00	612.62	.13	.51	.00	612.50
305.	0.	303.	2.	0.	103.	8.	11.	5.	612.20
.41	0.00	2.94	.23	.080	.045	.080	.047	607.10	265.04
.002025	275.	280.	290.	2	0	0	0.00	87.31	352.34

*SECNO 2907.000

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	IOC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=	.0	356.0	TYPE=	1	TARGET=	355.999			
2907.00	4.73	613.23	0.00	0.00	613.45	.22	.78	.04	613.90
305.	0.	305.	0.	0.	81.	0.	11.	6.	613.60
.43	0.00	3.76	0.00	.080	.045	.080	.047	608.50	267.04
.004098	275.	280.	290.	2	0	0	0.00	32.02	299.07

*SECNO 3187.000

3470 ENCROACHMENT STATIONS=	.0	366.0	TYPE=	1	TARGET=	365.999			
3187.00	4.63	614.43	0.00	0.00	614.67	.24	1.21	.01	615.20
305.	0.	305.	0.	0.	78.	0.	12.	6.	614.90
.45	0.00	3.92	0.00	.080	.045	.080	.047	609.80	267.34
.004574	275.	280.	290.	2	0	0	0.00	31.47	298.82

1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS=	.0	386.0	TYPE=	1	TARGET=	385.999			

VALLEY SECTION H

3466.00	4.60	615.70	0.00	0.00	615.94	.24	1.27	.00	616.50
305.	0.	305.	0.	0.	77.	0.	12.	6.	616.20
.47	0.00	3.96	0.00	.080	.078	.080	.047	611.10	267.43
.004538	275.	279.	290.	2	0	0	0.00	31.31	298.74

1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS=	.0	500.0	TYPE=	1	TARGET=	499.999			

VALLEY SECTION I

5226.00	6.18	620.18	0.00	0.00	620.24	.06	4.25	.05	619.60
305.	1.	234.	68.	4.	105.	72.	18.	9.	619.00

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 .001501    1830.    1760.    1710.        4        0        0     0.00   112.23   500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS=       1.0      32.0  TYPE=      1  TARGET=      31.000
  5795.00     5.22   621.32     0.00     0.00   621.55      .23     1.23      .08100000.00
     305.       0.     305.       0.       0.      79.       0.      19.      10. 100000.00
      .76     0.00     3.87     0.00     .070     .045     .070     .046   616.10     3.30
 .003421     620.     569.     530.        2        0        0     0.00    25.56    28.86

*SECNO 5835.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   0         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=      11.0      22.0  TYPE=      1  TARGET=      11.000
  5835.00     5.17   621.37     0.00     0.00   621.92      .55      .21      .16100000.00
     290.       0.     290.       0.       0.      49.       0.      19.      10. 100000.00
      .77     0.00     5.93     0.00     .070     .045     .070     .046   616.20    11.00
 .009053      40.      40.      40.        2        0        0     0.00    11.00    22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS=     494.5     505.5  TYPE=      1  TARGET=      11.000

          VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

          10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

  5836.00     5.35   621.55     0.00     0.00   621.96      .41      .00      .04   617.20
     290.       0.     290.       0.       0.      56.       0.      19.      10. 100000.00
      .77     0.00     5.14     0.00     .040     .032     .040     .046   616.20   494.50
 .003021       1.       1.       1.        2        0        0     0.00    11.00   505.50

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.52      3.02      0.00      8.43      0.00      59.00     0.00     616.50    616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   622.264  ELLC=   623.500  PCWSE=   621.554  ELTRD=   624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  624.70 MAX ELLC=  623.50

3470 ENCROACHMENT STATIONS=     494.5     505.5  TYPE=      1  TARGET=      11.000

          VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

          10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

  5892.00     5.21   621.71     0.00     0.00   622.25      .54      .22      .06   617.50
```

.77	0.00	5.88	0.00	.040	.032	.040	.046	616.50	494.50
.005432	56.	56.	56.	2	0	0	-5.53	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.47	621.97	0.00	0.00	622.32	.34	.01	.06100000.00	
290.	0.	290.	0.	0.	62.	0.	19.	10. 100000.00	
.77	0.00	4.69	0.00	.090	.060	.090	.046	616.50	10.00
.008612	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	4.65	622.45	0.00	0.00	622.61	.16	.24	.06	622.00
290.	2.	283.	6.	3.	88.	6.	20.	10.	621.50
.77	.53	3.22	.87	.090	.060	.090	.046	617.80	193.00
.003642	45.	44.	45.	2	0	0	0.00	40.00	233.00

*SECNO 5981.000

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
5981.00	3.51	622.61	0.00	0.00	622.99	.38	.28	.11	623.30
290.	0.	290.	0.	0.	59.	0.	20.	10.	622.80
.77	0.00	4.94	0.00	.090	.060	.090	.046	619.10	201.23
.013322	40.	44.	40.	2	0	0	0.00	24.37	225.59

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.53	622.63	0.00	0.00	623.01	.38	.01	.00	623.30
290.	0.	290.	0.	0.	59.	0.	20.	10.	622.80
.78	0.00	4.92	0.00	.090	.060	.090	.046	619.10	201.21
.013197	1.	1.	1.	0	0	0	0.00	24.40	225.61

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESS FLOW BECAUSE EGLWC OF 627.98 EXCEEDS 1.5 DEPTH
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
627.62	627.98	0.00	0.	290.	24.	24.	625.00	629.20

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GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	8.05	627.55	0.00	0.00	627.62	.07	4.62	0.00	623.70
290.	3.	283.	4.	172.	130.	191.	20.	10.	623.20
.78	.02	2.18	.02	1.000	.010	1.000	.046	619.50	1442.00
.000032	74.	74.	74.	2	0	0	0.00	120.00	1562.00

*SECNO 6057.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	8.09	627.59	0.00	0.00	627.63	.04	.00	.01	623.70
290.	3.	284.	3.	171.	177.	197.	20.	10.	623.20
.78	.02	1.60	.02	1.000	.015	1.000	.046	619.50	153.00
.000022	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	7.73	627.63	0.00	0.00	627.64	.01	.00	.01	624.10
290.	60.	153.	77.	154.	168.	181.	20.	10.	623.60
.79	.39	.91	.43	.060	.040	.060	.046	619.90	153.00
.000055	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

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
6675.00	5.68	627.58	0.00	0.00	627.90	.32	.11	.15	626.70
290.	8.	276.	6.	11.	60.	7.	24.	11.	626.90
.83	.73	4.62	.83	.080	.045	.080	.046	621.90	774.71
.004637	600.	599.	570.	2	0	0	0.00	55.29	830.00

*SECNO 6676.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	5.69	627.59	0.00	0.00	627.91	.32	.00	.00	626.70
290.	8.	276.	6.	11.	60.	7.	24.	11.	626.90
.83	.73	4.62	.83	.080	.045	.080	.046	621.90	774.65
.004625	1.	1.	1.	0	0	0	0.00	55.35	830.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000

EGPRS= 0.000 EGLWC= 627.965 ELLC= 628.900 PCWSE= 627.590 ELTRD= 629.400
3280 CROSS SECTION 6754.00 EXTENDED .03 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 629.40 MAX ELLC= 628.90

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	5.83	627.73	624.95	0.00	628.24	.51	.23	.10	624.90
290.	0.	290.	0.	0.	51.	0.	24.	12.	624.90
.83	0.00	5.73	0.00	.105	.025	.105	.045	621.90	1457.05
.002081	78.	78.	78.	5	13	0	-44.20	62.95	1520.00

*SECNO 6755.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	5.93	627.83	0.00	0.00	628.26	.43	.00	.02	624.70
290.	17.	264.	9.	29.	48.	15.	24.	12.	623.60
.83	.58	5.50	.55	.125	.035	.125	.045	621.90	767.58
.002349	1.	1.	1.	2	0	0	0.00	62.42	830.00

*SECNO 6784.000

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION 0

6784.00	6.55	628.25	0.00	0.00	628.40	.15	.05	.08	626.50
290.	28.	247.	15.	44.	75.	18.	25.	12.	626.70
.84	.64	3.31	.82	.080	.040	.080	.045	621.70	749.71
.001394	30.	29.	30.	2	0	0	0.00	80.29	830.00

*SECNO 6964.000

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= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	5.58	628.68	0.00	0.00	629.01	.33	.52	.09	627.90
290.	9.	274.	7.	9.	58.	8.	25.	12.	628.10
.85	1.07	4.73	.88	.070	.060	.070	.046	623.10	777.77
.009008	170.	180.	190.	2	0	0	0.00	65.88	843.65

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	4.73	629.23	0.00	0.00	629.24	.01	.13	.10	626.50
290.	125.	127.	38.	220.	126.	93.	26.	12.	626.70
.92	.57	1.01	.41	.070	.060	.070	.046	624.50	201.00
.000253	170.	180.	190.	2	0	0	0.00	201.89	402.89

*SECNO 7314.000

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3470 ENCROACHMENT STATIONS=      59.0      459.0  TYPE=      1  TARGET=      400.000

          VALLEY SECTION P

  7314.00      3.50    629.30      0.00      0.00    629.34       .05       .09       .02    627.80
     290.       88.      186.       16.      101.       89.       25.       27.       13.    623.00
      .94       .87      2.08       .66      .070      .060      .070      .046    625.80    194.79
  .001704      170.      170.      180.         2         0         0      0.00    173.15    367.93

*SECNO 7873.000

3470 ENCROACHMENT STATIONS=     199.0      319.0  TYPE=      1  TARGET=      120.000
  7873.00      3.50    630.80      0.00      0.00    630.99       .20      1.57       .08    629.30
     290.       57.      233.        0.      100.       59.        0.       30.       15.  100000.00
      .99       .57      3.97      0.00      .200      .055      .200      .047    627.30    199.00
  .006031      490.      559.      550.         3         0         0      0.00    120.00    319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS=     204.0      314.0  TYPE=      1  TARGET=      110.000
  7893.00      3.42    630.82      0.00      0.00    631.35       .54       .19       .17    629.40
     290.       34.      256.        0.       90.       41.        0.       30.       15.  100000.00
      .99       .37      6.26      0.00      .500      .055      .500      .047    627.40    204.00
  .017446       20.       20.       20.         2         0         0      0.00    110.00    314.00

*SECNO 7894.000
   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=     204.0      314.0  TYPE=      1  TARGET=      110.000

          CLARK STREET BRIDGE - DOWNSTREAM FACE

  7894.00      3.41    630.81    630.43      0.00    631.40       .59       .02       .03    629.40
     290.       26.      264.        0.       89.       41.        0.       30.       15.  100000.00
      .99       .29      6.48      0.00      .600      .050      .600      .047    627.40    204.00
  .015489        1.        1.        1.         4        11         0      0.00    110.00    314.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.47      3.02      0.00      8.08      0.00      28.27     0.00     627.50    627.40

*SECNO 7954.000
PRESSURE FLOW

 EGPRS      EGLWC      H3        QWEIR      QPR       BAREA     TRAPEZOID      ELLC      ELTRD
                                                                  AREA
   634.84    633.12     0.00        0.       290.       28.        28.      631.00    635.00

3470 ENCROACHMENT STATIONS=     766.0      876.0  TYPE=      1  TARGET=      110.000

          CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q
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7954.00	7.17	634.67	0.00	0.00	634.84	.17	3.44	0.00	629.70
290.	23.	267.	0.	338.	77.	0.	30.	15.	100000.00
1.00	.07	3.49	0.00	.800	.015	.060	.047	627.50	766.00
.000237	60.	60.	60.	2	0	0	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	7.30	634.80	0.00	0.00	634.87	.07	.00	.03	629.70
290.	25.	265.	0.	340.	119.	0.	30.	15.	100000.00
1.00	.07	2.23	0.00	1.000	.040	.080	.047	627.50	207.00
.000452	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	5.96	634.86	0.00	0.00	634.89	.03	.01	.01	631.10
290.	16.	207.	67.	209.	128.	83.	30.	15.	630.80
1.00	.08	1.62	.80	.500	.040	.060	.047	628.90	214.00
.000219	40.	29.	40.	2	0	0	0.00	133.00	347.00

1490 NH CARD USED

*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	4.56	635.06	0.00	633.73	635.37	.31	.34	.14	100000.00
290.	0.	290.	0.	0.	65.	0.	33.	16.	100000.00
1.04	0.00	4.47	0.00	.500	.078	.060	.046	630.50	403.00
.005519	520.	560.	560.	1	0	0	0.00	22.00	425.00

*SECNO 8563.000

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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	4.24	635.04	0.00	633.89	635.73	.69	.17	.19	100000.00
290.	0.	290.	0.	0.	43.	0.	33.	16.	100000.00
1.04	0.00	6.69	0.00	.500	.050	.060	.046	630.80	408.00
.016121	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION I

8564.00	4.59	635.39	0.00	634.35	635.82	.43	.00	.08	638.30
290.	0.	290.	0.	0.	55.	0.	33.	16.	100000.00
1.04	0.00	5.26	0.00	.060	.025	.060	.046	630.80	410.00
.002188	1.	1.	1.	2	0	0	0.00	12.00	422.00

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SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.019 ELLC= 637.000 PCWSE= 635.388 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.33	635.33	0.00	634.36	636.01	.67	.07	.12	638.50
290.	0.	290.	0.	0.	44.	0.	33.	16.	638.50
1.04	0.00	6.59	0.00	.060	.025	.060	.046	631.00	410.00
.006310	19.	19.	19.	2	0	0	-7.99	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	4.65	635.65	0.00	634.35	636.08	.44	.01	.07	100000.00
290.	0.	290.	0.	0.	55.	0.	33.	16.	100000.00
1.04	0.00	5.30	0.00	.060	.050	.060	.046	631.00	407.00
.008536	1.	1.	1.	2	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	5.47	636.17	0.00	634.91	636.26	.09	.07	.10	636.10
290.	0.	290.	0.	0.	121.	0.	33.	16.	100000.00
1.04	.01	2.40	0.00	.060	.050	.060	.046	630.70	398.05
.001173	30.	29.	30.	2	0	0	0.00	31.66	429.70

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	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
9163.00	4.65	637.35	0.00	636.50	637.59	.24	1.25	.08	636.00
290.	26.	246.	19.	19.	58.	17.	35.	17.	636.40
1.08	1.38	4.26	1.12	.065	.055	.065	.047	632.70	1219.50
.006174	550.	550.	550.	3	0	0	0.00	81.89	1301.39

*SECNO 9703.000

9703.00	5.15	639.85	0.00	639.46	639.96	.11	2.33	.04	638.00
290.	39.	208.	42.	35.	67.	38.	36.	18.	638.40
1.14	1.13	3.11	1.11	.070	.060	.070	.048	634.70	1209.38
.003195	540.	540.	540.	3	0	0	0.00	107.02	1316.39

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10253.00	5.06	641.86	0.00	641.35	641.99	.13	2.02	.01	640.10
290.	38.	213.	39.	32.	66.	34.	38.	19.	640.50
1.20	1.19	3.26	1.14	.075	.065	.075	.048	636.80	1211.04
.004253	550.	550.	550.	3	0	0	0.00	102.90	1313.93

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.16	643.96	0.00	643.49	644.04	.08	2.04	.01	642.10
255.	35.	181.	39.	35.	67.	39.	40.	21.	642.50
1.27	1.00	2.68	.99	.080	.070	.080	.050	638.80	1208.99
.003222	550.	550.	550.	2	0	0	0.00	107.99	1316.98

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      100-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -10.       4.        0.        0.  0.000000      0.00       0.0       0.   604.430     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

*PROF 3

CCHV=    .300 CEHV=    .500
*SECNO .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

          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

     0.00      7.23    604.43      0.00    604.43    604.46       .03      0.00      0.00    601.70
     360.      116.      244.        0.      160.      163.        0.        0.        0.    606.10
     0.00       .72      1.50      0.00      .080      .050      .080     0.000    597.20    921.25
  .000395        0.        0.        0.         0         0         0      0.00     97.79   1019.04

*SECNO 130.000

          VALLEY SECTION A

   130.00      5.49    604.49      0.00      0.00    604.61       .12       .10       .05    603.50
     360.       57.      303.        0.       60.      101.        0.        1.        0.    607.90
      .01       .96      2.98      0.00      .080      .050      .080      .050    599.00    926.30
  .002306      130.      130.      130.         0         0         0      0.00     86.49   1012.79

*SECNO 409.000

3470 ENCROACHMENT STATIONS=      170.0      270.0  TYPE=      1  TARGET=      100.000
   409.00      5.17    605.27      0.00      0.00    605.50       .23       .84       .06    601.30
     360.       83.      188.       89.       52.       37.       56.        2.        1.    601.20
      .04      1.62      5.12      1.57      .080      .050      .080      .050    600.10    170.00
  .004084      280.      279.      280.         2         0         0      0.00     95.34    265.34

*SECNO 410.000
```

AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	5.17	605.27	0.00	0.00	605.51	.23	.00	.00	601.30
360.	83.	188.	88.	51.	37.	56.	2.	1.	601.20
.04	1.62	5.12	1.57	.080	.050	.080	.050	600.10	170.00
.004092	1.	1.	1.	0	0	0	0.00	95.30	265.30

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.70	605.83	0.00	163.	198.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.38	607.38	0.00	0.00	607.51	.13	2.01	0.00	602.00
360.	51.	204.	106.	44.	56.	81.	2.	1.	602.00
.04	1.16	3.67	1.31	.050	.027	.050	.048	600.00	765.00
.000621	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.52	607.52	0.00	0.00	607.54	.02	.00	.03	603.30
360.	59.	207.	94.	107.	133.	168.	2.	1.	603.80
.04	.55	1.56	.56	.080	.040	.080	.048	600.00	170.00
.000182	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.09	607.49	0.00	0.00	607.64	.15	.03	.06	605.70
360.	41.	265.	54.	33.	77.	24.	2.	1.	606.20
.05	1.27	3.46	2.20	.070	.050	.040	.047	602.40	173.00
.002896	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

VALLEY SECTION C

526.00	7.19	607.39	0.00	0.00	607.95	.55	.11	.20	606.50

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.05	1.45	6.11	1.47	.070	.050	.040	.046	603.20	179.22
.013718	20.	20.	20.	2	0	0	0.00	55.91	235.12

*SECNO 576.000

576.00	4.98	608.18	0.00	0.00	608.39	.22	.35	.10	606.50
360.	35.	301.	24.	33.	74.	21.	2.	1.	607.00
.05	1.07	4.06	1.12	.080	.050	.060	.046	603.20	160.99
.004177	50.	50.	50.	3	0	0	0.00	98.27	259.26

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	6.01	608.91	0.00	0.00	608.93	.02	.47	.06	606.80
360.	58.	143.	159.	149.	114.	184.	7.	3.	605.30
.27	.39	1.25	.86	.080	.050	.060	.048	602.90	680.00
.000245	700.	740.	760.	4	0	0	0.00	178.44	858.44

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	4.73	609.03	0.00	0.00	609.09	.06	.14	.02	608.20
360.	7.	184.	168.	14.	82.	113.	10.	4.	606.70
.31	.51	2.25	1.49	.080	.050	.060	.049	604.30	755.00
.001229	320.	310.	300.	2	0	0	0.00	97.25	852.25

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	4.68	609.08	0.00	0.00	609.14	.06	.05	.00	608.30
360.	4.	187.	169.	7.	80.	110.	10.	5.	606.80
.32	.52	2.33	1.54	.080	.050	.060	.049	604.40	765.00
.001352	40.	40.	40.	1	0	0	0.00	86.95	851.95

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	4.19	609.39	0.00	0.00	609.49	.10	.33	.02	609.10
360.	1.	200.	159.	2.	69.	85.	10.	5.	607.60
.34	.36	2.92	1.87	.080	.050	.060	.049	605.20	765.00
.002630	180.	180.	180.	2	0	0	0.00	84.64	849.64

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	3.90	609.80	0.00	0.00	610.16	.36	.54	.13	609.80
360.	0.	310.	50.	0.	61.	20.	11.	5.	608.30
.35	0.00	5.11	2.45	.040	.040	.050	.048	605.90	775.01
.006073	140.	140.	140.	2	0	0	0.00	42.99	818.00

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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

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.06	610.26	0.00	0.00	611.03	.76	.67	.20	611.00
355.	0.	355.	0.	0.	51.	0.	11.	5.	611.00
.35	0.00	7.02	0.00	.040	.040	.050	.048	606.20	1502.16
.012499	80.	79.	80.	2	0	0	0.00	21.07	1523.22

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	4.82	610.82	0.00	0.00	611.28	.46	.16	.09100000.00	
355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.47	0.00	.040	.040	.050	.048	606.00	1502.00
.005789	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	4.83	610.83	0.00	0.00	611.29	.46	.01	.00100000.00	
355.	0.	355.	0.	0.	65.	0.	11.	5.	100000.00
.35	0.00	5.45	0.00	.040	.040	.050	.048	606.00	1502.00
.005735	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.52	610.83	0.00	0.	355.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

2122.00	5.61	611.31	0.00	0.00	611.52	.21	.23	0.00	610.30
355.	0.	355.	0.	0.	96.	0.	11.	5.	100000.00
.36	0.00	3.71	0.00	.035	.025	.035	.047	605.70	1220.00
.000744	36.	36.	36.	2	0	0	0.00	20.00	1240.00

*SECNO 2123.000

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3470 ENCROACHMENT STATIONS= 1504.0 1524.0 TYPE= 1 TARGET= 20.000

2123.00	5.56	611.26	0.00	0.00	611.57	.31	.00	.05	100000.00
355.	0.	355.	0.	0.	80.	0.	11.	5.	100000.00
.36	0.00	4.45	0.00	.080	.060	.060	.047	605.70	1504.00
.006909	1.	1.	1.	2	0	0	0.00	20.00	1524.00

*SECNO 2291.000

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= 1500.0 1524.0 TYPE= 1 TARGET= 24.000

2291.00	6.25	612.25	0.00	0.00	612.44	.19	.84	.04	610.80
355.	0.	355.	0.	0.	102.	0.	11.	5.	100000.00
.37	0.00	3.48	0.00	.080	.060	.060	.048	606.00	1500.00
.003754	100.	168.	180.	2	0	0	0.00	24.00	1524.00

*SECNO 2292.000

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(DOWNSTREAM FACE)

2292.00	6.35	612.35	0.00	0.00	612.47	.11	.00	.02	615.50
355.	0.	355.	0.	0.	132.	0.	11.	5.	615.50
.37	0.00	2.68	0.00	.035	.032	.035	.048	606.00	248.00
.000643	1.	1.	1.	2	0	0	0.00	23.50	271.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.53	3.02	0.00	14.85	0.00	109.90	0.00	605.80	606.00

*SECNO 2346.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 612.268 ELLC= 613.100 PCWSE= 612.355 ELTRD= 615.500

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 615.50 MAX ELLC= 613.10

EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

(UPSTREAM FACE)

2346.00	6.58	612.38	0.00	0.00	612.55	.17	.06	.03	615.50
355.	0.	355.	0.	0.	107.	0.	12.	5.	615.50
.37	0.00	3.33	0.00	.035	.032	.035	.048	605.80	248.00
.002017	54.	54.	54.	2	0	0	-30.04	23.50	271.50

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*SECNO 2347.000

```
3470 ENCROACHMENT STATIONS=    1500.0    1524.0  TYPE=     1  TARGET=      24.000
  2347.00      6.60   612.40      0.00      0.00   612.56      .16       .00       .00    610.60
     355.         0.     355.        0.        0.     110.        0.       12.        5.  100000.00
      .37      0.00     3.22      0.00      .080      .045      .080      .048    605.80   1500.00
  .001686        1.       1.        1.         1         0         0      0.00     24.00   1524.00
```

*SECNO 2627.000

```
3470 ENCROACHMENT STATIONS=        .0     400.0  TYPE=     1  TARGET=     399.999
  2627.00      5.81   612.91      0.00      0.00   613.03      .12       .45       .01    612.50
     355.         2.     334.       19.        8.     118.       44.       12.        6.    612.20
      .40       .26     2.82       .43      .080      .045      .080      .047    607.10   226.12
  .001562       275.     280.      290.         0         0         0      0.00    173.88   400.00
```

*SECNO 2907.000

```
   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     CORAR     TOPWID     ENDST
```

```
3470 ENCROACHMENT STATIONS=        .0     356.0  TYPE=     1  TARGET=     355.999
  2907.00      5.02   613.52      0.00      0.00   613.76      .24       .67       .06    613.90
     355.         0.     355.        0.        0.      91.        0.       13.        7.    613.60
      .42      0.00     3.92      0.00      .080      .045      .080      .047    608.50   266.16
  .004085       275.     280.      290.         2         0         0      0.00     33.64   299.79
```

*SECNO 3187.000

```
3470 ENCROACHMENT STATIONS=        .0     366.0  TYPE=     1  TARGET=     365.999
  3187.00      4.92   614.72      0.00      0.00   614.97      .26      1.21       .01    615.20
     355.         0.     355.        0.        0.      87.        0.       14.        7.    614.90
      .44      0.00     4.08      0.00      .080      .045      .060      .047    609.80   266.48
  .004556       275.     280.      290.         2         0         0      0.00     33.05   299.53
```

1490 NH CARD USED

*SECNO 3466.000

```
3470 ENCROACHMENT STATIONS=        .0     386.0  TYPE=     1  TARGET=     385.999

                VALLEY SECTION H

  3466.00      4.89   615.99      0.00      0.00   616.25      .26      1.28       .00    616.50
     355.         0.     355.        0.        0.      86.        0.       14.        7.    616.20
      .46      0.00     4.11      0.00      .080      .078      .080      .047    611.10   266.55
  .004593       275.     279.      290.         2         0         0      0.00     32.92   299.47
```

1490 NH CARD USED

*SECNO 5226.000

```
3470 ENCROACHMENT STATIONS=        .0     500.0  TYPE=     1  TARGET=     499.999

                VALLEY SECTION I

  5226.00      6.42   620.42      0.00      0.00   620.48      .06      4.17       .06    619.60
     355          4      255.       97.        7.     112.       90.       20.       10.    619.00
```

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.001452	1830.	1760.	1710.	4	0	0	0.00	117.47	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	5.46	621.56	0.00	0.00	621.83	.27	1.25	.10	100000.00
355.	0.	355.	0.	0.	85.	0.	22.	11.	100000.00
.75	0.00	4.17	0.00	.070	.045	.070	.046	616.10	2.90
.003756	620.	569.	530.	2	0	0	0.00	26.42	29.32

*SECNO 5835.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.40	621.60	0.00	0.00	622.26	.66	.23	.20	100000.00
335.	0.	335.	0.	0.	51.	0.	22.	11.	100000.00
.75	0.00	6.52	0.00	.070	.045	.070	.046	616.20	11.00
.010549	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	5.62	621.82	0.00	0.00	622.32	.49	.01	.05	617.20	
335.	0.	335.	0.	0.	59.	0.	22.	11.	100000.00	
.75	0.00	5.64	0.00	.040	.032	.040	.046	616.20	494.50	
.003522	1.	1.	1.	2	0	0	0.00	11.00	505.50	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 622.616 ELLC= 623.500 PCWSE= 621.821 ELTRD= 624.700

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD= 624.70 MAX ELLC= 623.50

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1a TARGET= 11.000

VICTORIA ROAD BRIDGE - UPSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5892.00	5.50	622.00	0.00	0.00	622.65	.65	.26	.08	617.50
335	0	335	0	0	52	0	22	11	10 000 00

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.75	0.00	6.47	0.00	.040	.032	.040	.046	616.50	494.50
.006373	56.	56.	56.	2	0	0	-6.25	11.00	505.50

*SECNO 5893.000

3470 ENCROACHMENT STATIONS= 10.0 23.0 TYPE= 1 TARGET= 13.000

VALLEY SECTION K

5893.00	5.85	622.35	0.00	0.00	622.74	.39	.01	.08100000.00	
335.	0.	335.	0.	0.	67.	0.	22.	11. 100000.00	
.75	0.00	5.02	0.00	.090	.060	.090	.046	616.50	10.00
.009344	1.	1.	1.	2	0	0	0.00	13.00	23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS= 193.0 233.0 TYPE= 1 TARGET= 40.000

5937.00	5.07	622.87	0.00	0.00	623.03	.16	.22	.07	622.00
335.	4.	321.	9.	6.	99.	9.	22.	11.	621.50
.76	.77	3.25	1.01	.090	.060	.090	.046	617.80	193.00
.003158	45.	44.	45.	2	0	0	0.00	40.00	233.00

*SECNO 5981.000

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	IOPWID	ENDST
5981.00	3.90	623.00	0.00	0.00	623.37	.37	.24	.11	623.30
335.	0.	334.	1.	0.	69.	3.	23.	11.	622.80
.76	0.00	4.88	.38	.090	.060	.090	.046	619.10	200.53
.011251	40.	44.	40.	2	0	0	0.00	50.78	251.30

*SECNO 5982.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

5982.00	3.92	623.02	0.00	0.00	623.38	.37	.01	.00	623.30
335.	0.	334.	1.	0.	69.	3.	23.	11.	622.80
.76	0.00	4.86	.39	.090	.060	.090	.046	619.10	200.51
.011155	1.	1.	1.	0	0	0	0.00	51.65	252.17

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
629.68	626.72	0.00	10.	325.	24.	24.	625.00	629.20

1442.0 1562.0 TYPE= 1 TARGET= 120.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	9.75	629.25	0.00	0.00	629.30	.05	5.92	0.00	623.70
335.	4.	326.	5.	254.	174.	270.	23.	11.	623.20
.77	.02	1.87	.02	1.000	.010	1.000	.046	619.50	1442.00
.000016	74.	74.	74.	2	0	4	0.00	120.00	1562.00

*SECNO 6057.000

3280 CROSS SECTION 6057.00 EXTENDED 1.28 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	9.78	629.28	0.00	0.00	629.31	.03	.00	.01	623.70
335.	4.	326.	5.	250.	221.	277.	23.	11.	623.20
.77	.02	1.48	.02	1.000	.015	1.000	.046	619.50	153.00
.000014	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000

3280 CROSS SECTION 6076.00 EXTENDED .91 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	9.41	629.31	0.00	0.00	629.32	.01	.00	.01	624.10
335.	81.	157.	96.	233.	212.	260.	24.	11.	623.60
.78	.35	.74	.37	.060	.040	.060	.046	619.90	153.00
.000027	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000

3280 CROSS SECTION 6675.00 EXTENDED .73 FEET

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

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	7.42	629.32	0.00	0.00	629.40	.08	.05	.04	626.70
335.	67.	242.	26.	98.	89.	30.	30.	13.	626.90
.86	.68	2.71	.89	.080	.045	.080	.046	621.90	724.99
.000930	600.	599.	570.	0	0	0	0.00	105.01	830.00

*SECNO 6676.000

3280 CROSS SECTION 6676.00 EXTENDED .72 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	7.42	629.32	0.00	0.00	629.41	.08	.00	.00	626.70
335.	67.	242.	26.	98.	89.	30.	30.	13.	626.90
.86	.68	2.71	.89	.080	.045	.080	.046	621.90	725.13

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.47 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
630.96	629.49	0.00	81.	254.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.27	630.17	0.00	0.00	630.26	.09	.86	0.00	624.90
335.	77.	235.	23.	208.	81.	52.	30.	13.	624.90
.87	.37	2.91	.45	.105	.025	.105	.045	621.90	1400.00
.000242	78.	78.	78.	2	0	4	0.00	120.00	1520.00

*SECNO 6755.000
3280 CROSS SECTION 6755.00 EXTENDED 1.57 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.26	630.16	0.00	0.00	630.27	.11	.00	.01	624.70
335.	82.	229.	24.	193.	71.	51.	30.	13.	623.60
.87	.42	3.20	.48	.125	.035	.125	.045	621.90	710.00
.000469	1.	1.	1.	0	0	0	0.00	120.00	830.00

*SECNO 6784.000
3280 CROSS SECTION 6784.00 EXTENDED 1.87 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION O

6784.00	8.57	630.27	0.00	0.00	630.31	.04	.01	.02	626.50
335.	102.	206.	27.	197.	109.	45.	31.	13.	626.70
.88	.52	1.89	.60	.080	.040	.080	.045	621.70	710.00
.000276	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000
3280 CROSS SECTION 6964.00 EXTENDED .54 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

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3470 ENCROACHMENT STATIONS= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.25	630.35	0.00	0.00	630.39	.04	.08	.00	627.90
335.	65.	177.	93.	85.	86.	116.	32.	14.	628.10
.91	.77	2.05	.80	.070	.060	.070	.046	623.10	730.16
.000997	170.	180.	190.	1	0	0	0.00	179.84	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	5.94	630.44	0.00	0.00	630.44	.00	.04	.01	626.50
335.	152.	114.	69.	341.	162.	199.	34.	15.	626.70
1.01	.45	.71	.35	.070	.060	.070	.046	624.50	201.00
.000088	170.	180.	190.	2	0	0	0.00	230.79	431.79

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	4.66	630.46	0.00	0.00	630.47	.01	.03	.00	627.80
335.	148.	146.	41.	230.	124.	88.	36.	15.	628.00
1.06	.64	1.18	.46	.070	.060	.070	.046	625.80	182.73
.000351	170.	170.	180.	2	0	0	0.00	218.65	401.38

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	3.55	630.85	0.00	0.00	631.09	.24	.51	.12	629.30
335.	70.	265.	0.	106.	60.	0.	40.	17.	100000.00
1.10	.66	4.43	0.00	.200	.055	.200	.047	627.30	199.00
.007350	490.	559.	550.	2	0	0	0.00	120.00	319.00

*SECNO 7893.000

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.47	630.87	630.65	0.00	631.55	.68	.24	.22	629.40
335.	41.	294.	0.	95.	42.	0.	40.	18.	100000.00
1.11	.43	7.06	0.00	.500	.055	.500	.047	627.40	204.00
.021754	20.	20.	20.	4	11	0	0.00	110.00	314.00

*SECNO 7894.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.45	630.85	630.63	0.00	631.61	.76	.02	.04	629.40
335.	31.	304.	0.	93.	41.	0.	40.	18.	100000.00
1.11	.34	7.34	0.00	.600	.050	.600	.047	627.40	204.00
.019561	1.	1.	1.	4	11	0	0.00	110.00	314.00

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
636.23	633.76	0.00	24.	311.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	7.81	635.31	0.00	0.00	635.49	.18	3.88	0.00	629.70
335.	29.	306.	0.	400.	85.	0.	40.	18.	100000.00
1.11	.07	3.58	0.00	.800	.015	.060	.047	627.50	766.00
.000223	60.	60.	60.	2	0	4	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	7.95	635.45	0.00	0.00	635.52	.08	.00	.03	629.70
335.	33.	302.	0.	400.	130.	0.	40.	18.	100000.00
1.11	.08	2.32	0.00	1.000	.040	.080	.047	627.50	207.00
.000447	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

7984.00	6.61	635.51	0.00	0.00	635.54	.03	.01	.01	631.10
335.	22.	233.	79.	265.	144.	97.	41.	18.	630.80
1.12	.08	1.62	.81	.500	.040	.060	.047	628.90	214.00
.000187	40.	29.	40.	2	0	0	0.00	133.00	347.00

1490 NH CARD USED
*SECNO 8544.000

3470 ENCROACHMENT STATIONS= 403.0 425.0 TYPE= 1 TARGET= 22.000

VALLEY SECTION S

8544.00	5.17	635.67	0.00	633.73	635.95	.28	.29	.13	100000.00
335.	0.	335.	0.	0.	79.	0.	44.	19.	100000.00
1.15	0.00	4.27	0.00	.500	.078	.060	.046	630.50	403.00
.004281	520.	560.	560.	1	0	0	0.00	22.00	425.00

*SECNO 8563.000

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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= 408.0 420.0 TYPE= 1 TARGET= 12.000

8563.00	4.80	635.60	0.00	633.89	636.30	.69	.14	.21100000.00	
335.	0.	335.	0.	0.	50.	0.	45.	19. 100000.00	
1.15	0.00	6.68	0.00	.500	.050	.060	.046	630.80	408.00
.014358	20.	19.	20.	2	0	0	0.00	12.00	420.00

*SECNO 8564.000

3470 ENCROACHMENT STATIONS= 410.0 422.0 TYPE= 1 TARGET= 12.000

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION I

8564.00	5.11	635.91	0.00	634.35	636.37	.46	.00	.07	638.30
335.	0.	335.	0.	0.	64.	0.	45.	19. 100000.00	
1.15	0.00	5.46	0.00	.060	.025	.060	.046	630.80	410.00
.002182	1.	1.	1.	2	0	0	0.00	12.00	422.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 636.569 ELLC= 637.000 PCWSE= 635.907 ELTRD= 638.500

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 638.50 MAX ELLC= 637.00

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

8583.00	4.81	635.81	0.00	634.36	636.60	.79	.07	.17	638.50
335.	0.	335.	0.	0.	47.	0.	45.	19.	638.50
1.16	0.00	7.15	0.00	.060	.025	.060	.046	631.00	410.00
.007152	19.	19.	19.	2	0	0	-10.85	12.00	422.00

*SECNO 8584.000

3470 ENCROACHMENT STATIONS= 407.0 421.0 TYPE= 1 TARGET= 14.000

8584.00	5.29	636.29	0.00	634.35	636.72	.43	.01	.11100000.00	
335.	0.	335.	0.	0.	63.	0.	45.	19. 100000.00	
1.16	0.00	5.28	0.00	.060	.050	.060	.046	631.00	407.00
.007497	1.	1.	1.	3	0	0	0.00	14.00	421.00

*SECNO 8613.000

3470 ENCROACHMENT STATIONS= 380.0 431.0 TYPE= 1 TARGET= 51.000

VALLEY SECTION U

8613.00	6.10	636.80	0.00	634.91	636.88	.09	.06	.10	636.10
335.	3.	332.	0.	7.	139.	0.	45.	19. 100000.00	
1.16	30.	2.38	0.00	.060	.050	.060	.046	630.70	391.11

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.000988	30.	29.	30.	2	0	0	0.00	49.31	430.42

*SECNO 9163.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
9163.00	5.04	637.74	0.00	636.50	637.92	.18	.99	.04	636.00
335.	42.	250.	43.	31.	65.	33.	46.	20.	636.40
1.21	1.36	3.83	1.30	.065	.055	.065	.047	632.70	1211.42
.004243	550.	550.	550.	3	0	0	0.00	101.94	1313.36

*SECNO 9703.000

9703.00	5.24	639.94	0.00	639.46	640.07	.13	2.14	.01	638.00
335.	48.	234.	53.	38.	69.	43.	48.	21.	638.40
1.26	1.26	3.40	1.25	.070	.060	.070	.048	634.70	1207.56
.003697	540.	540.	540.	3	0	0	0.00	111.54	1319.10

*SECNO 10253.000

10253.00	5.27	642.07	0.00	641.35	642.19	.12	2.12	.00	640.10
335.	49.	230.	56.	40.	70.	45.	50.	22.	640.50
1.32	1.25	3.30	1.24	.075	.065	.075	.048	636.80	1206.72
.004039	550.	550.	550.	2	0	0	0.00	113.62	1320.34

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.33	644.13	0.00	643.49	644.22	.09	2.01	.01	642.10
295.	45.	198.	52.	42.	71.	48.	52.	24.	642.50
1.39	1.07	2.80	1.08	.080	.070	.080	.050	638.80	1205.51
.003288	550.	550.	550.	2	0	0	0.00	116.63	1322.13

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR    01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      VILLAGE OF NEW HAVEN F.I.S. - JOB NO. 5850-05   MACOMB COUNTY, MICHIGAN
T2      500-YEAR FLOW
T3      SHOOK DRAIN - PROJECT MANAGER, OLE ANDERSON

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -10.       5.        0.        0.  0.000000      0.00      0.0       0.   605.110     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

*PROF 4

CCHV=    .300 CEHV=    .500
*SECNO .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

          MOUTH OF SHOOK DRAIN AT CONFLUENCE WITH SALT RIVER - SECTION A

          REPEATED AND ADJUSTED FOR CHANNEL INVERT.

     0.00      7.91    605.11      0.00    605.11    605.14       .03      0.00      0.00    601.70
      505.      180.      325.        0.      201.      189.        0.        0.        0.    606.10
     0.00       .89      1.72      0.00      .080      .050      .080     0.000    597.20    919.28
  .000458        0.        0.        0.         0         0         0      0.00    102.18   1021.46

*SECNO 130.000

          VALLEY SECTION A

   130.00      6.18    605.18      0.00      0.00    605.30       .12       .11       .04    603.50
      505.      122.      383.        0.       98.      124.        0.        1.        0.    607.90
       .01      1.24      3.09      0.00      .080      .050      .080      .050    599.00    924.31
  .002080      130.      130.      130.         0         0         0      0.00     90.94   1015.25

*SECNO 409.000

3470 ENCROACHMENT STATIONS=     170.0     270.0  TYPE=     1  TARGET=     100.000
   409.00      5.78    605.88      0.00      0.00    606.09       .21       .75       .05    601.30
      505.      133.      218.      154.       73.       42.       91.        2.        1.    601.20
       .04      1.83      5.22      1.69      .080      .050      .080      .050    600.10    170.00
  .003608      280.      279.      280.         2         0         0      0.00    100.00    270.00

*SECNO 410.000
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AMVET DRIVE BRIDGE - DOWNSTREAM FACE

410.00	5.79	605.89	0.00	0.00	606.10	.21	.00	.00	601.30
505.	133.	218.	154.	73.	42.	91.	2.	1.	601.20
.04	1.83	5.22	1.69	.080	.050	.080	.050	600.10	170.00
.003602	1.	1.	1.	0	0	0	0.00	100.00	270.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.27	2.83	0.00	5.90	0.00	24.80	0.00	600.00	600.10

*SECNO 446.000

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
620.50	606.62	0.00	322.	188.	25.	24.	604.00	606.60

3470 ENCROACHMENT STATIONS= 765.0 865.0 TYPE= 1 TARGET= 100.000

AMVET DRIVE BRIDGE - UPSTREAM FACE. TWIN 48-INCH C.M.P. - SECTION B

446.00	7.73	607.73	0.00	0.00	607.91	.18	1.81	0.00	602.00
505.	80.	263.	162.	56.	58.	101.	2.	1.	602.00
.04	1.44	4.51	1.61	.050	.027	.050	.048	600.00	765.00
.000878	36.	36.	36.	2	0	5	0.00	100.00	865.00

*SECNO 447.000

3280 CROSS SECTION 447.00 EXTENDED .32 FEET

3470 ENCROACHMENT STATIONS= 170.0 270.0 TYPE= 1 TARGET= 100.000

447.00	7.92	607.92	0.00	0.00	607.96	.04	.00	.04	603.30
505.	85.	284.	136.	119.	142.	186.	2.	1.	603.80
.04	.72	2.00	.73	.080	.040	.080	.048	600.00	170.00
.000273	1.	1.	1.	2	0	0	0.00	100.00	270.00

1490 NH CARD USED

*SECNO 506.000

3470 ENCROACHMENT STATIONS= 173.0 243.0 TYPE= 1 TARGET= 70.000

506.00	5.48	607.88	0.00	0.00	608.07	.20	.04	.08	605.70
505.	71.	343.	91.	43.	86.	32.	3.	1.	606.20
.05	1.64	4.01	2.82	.070	.050	.040	.046	602.40	173.00
.003361	50.	59.	70.	2	0	0	0.00	70.00	243.00

*SECNO 526.000

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526.00	4.56	607.76	607.69	0.00	608.43	.67	.12	.24	606.50
505.	35.	448.	21.	19.	65.	9.	3.	1.	607.00
.05	1.89	6.93	2.37	.070	.050	.040	.046	603.20	170.52
.014557	20.	20.	20.	4	12	0	0.00	76.13	246.65

*SECNO 576.000

576.00	5.48	608.68	0.00	0.00	608.91	.23	.34	.13	606.50
505.	69.	376.	61.	55.	86.	43.	3.	1.	607.00
.05	1.24	4.38	1.40	.080	.050	.060	.046	603.20	149.30
.004008	50.	50.	50.	3	0	0	0.00	125.44	274.74

*SECNO 1316.000

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= 680.0 890.0 TYPE= 1 TARGET= -680.000

VALLEY SECTION D

1316.00	6.57	609.47	0.00	0.00	609.49	.02	.52	.06	606.80
505.	103.	184.	218.	202.	128.	217.	9.	4.	605.30
.24	.51	1.44	1.00	.080	.050	.060	.048	602.90	680.00
.000279	700.	740.	760.	4	0	0	0.00	181.13	861.13

*SECNO 1626.000

3470 ENCROACHMENT STATIONS= 755.0 890.0 TYPE= 1 TARGET= -755.000

1626.00	5.30	609.60	0.00	0.00	609.67	.07	.16	.02	608.20
505.	19.	241.	245.	26.	96.	143.	12.	5.	606.70
.29	.74	2.51	1.71	.080	.050	.060	.049	604.30	755.00
.001238	320.	310.	300.	2	0	0	0.00	99.99	854.99

*SECNO 1666.000

3470 ENCROACHMENT STATIONS= 765.0 890.0 TYPE= 1 TARGET= -765.000

1666.00	5.25	609.65	0.00	0.00	609.73	.08	.05	.00	608.30
505.	10.	247.	248.	13.	95.	140.	12.	5.	606.80
.29	.75	2.61	1.77	.080	.050	.060	.049	604.40	765.00
.001371	40.	40.	40.	1	0	0	0.00	89.70	854.70

*SECNO 1846.000

3470 ENCROACHMENT STATIONS= 765.0 853.0 TYPE= 1 TARGET= 88.000

1846.00	4.75	609.95	0.00	0.00	610.06	.11	.32	.02	609.10
505.	6.	260.	239.	8.	82.	114.	13.	5.	607.60
.31	.74	3.16	2.10	.080	.050	.060	.049	605.20	765.00
.002406	180.	180.	180.	2	0	0	0.00	87.33	852.33

*SECNO 1986.000

3470 ENCROACHMENT STATIONS= 765.0 818.0 TYPE= 1 TARGET= 53.000

1986.00	4.39	610.29	0.00	0.00	610.72	.42	.50	.16	609.80
505.	7.	410.	88.	4.	73.	29.	14.	5.	608.30
.32	1.58	5.62	2.98	.040	.040	.050	.048	605.90	765.00

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*SECNO 2065.000

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	SSIA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1497.0 1527.0 TYPE= 1 TARGET= 30.000

VALLEY SECTION E

2065.00	4.46	610.66	0.00	0.00	611.77	1.10	.71	.34	611.00
500.	0.	500.	0.	0.	59.	0.	14.	6.	611.00
.32	0.00	8.42	0.00	.040	.040	.050	.048	606.20	1500.98
.016085	80.	79.	80.	2	0	0	0.00	22.67	1523.65

*SECNO 2085.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

2085.00	5.46	611.46	0.00	0.00	612.10	.64	.20	.14	100000.00
500.	0.	500.	0.	0.	78.	0.	14.	6.	100000.00
.32	0.00	6.44	0.00	.040	.040	.050	.048	606.00	1502.00
.006777	20.	20.	20.	3	0	0	0.00	20.00	1522.00

*SECNO 2086.000

3470 ENCROACHMENT STATIONS= 1502.0 1522.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - DOWNSTREAM FACE

2086.00	5.47	611.47	0.00	0.00	612.11	.64	.01	.00	100000.00
500.	0.	500.	0.	0.	78.	0.	14.	6.	100000.00
.32	0.00	6.41	0.00	.040	.040	.050	.048	606.00	1502.00
.006683	1.	1.	1.	0	0	0	0.00	20.00	1522.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.03	3.02	0.00	16.43	0.00	75.60	0.00	605.70	606.00

*SECNO 2122.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
612.85	611.62	0.00	0.	500.	76.	76.	610.30	613.20

3470 ENCROACHMENT STATIONS= 1220.0 1240.0 TYPE= 1 TARGET= 20.000

GRATIOT AVENUE BRIDGE - UPSTREAM FACE - SECTION F

2122.00	6.89	612.59	0.00	0.00	612.85	.26	.74	0.00	610.30

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     .32      0.00      4.12      0.00      .035      .025      .035      .047    605.70   1220.00
  .000754      36.       36.       36.         2         0         0      0.00     20.00   1240.00

*SECNO 2123.000

3470 ENCROACHMENT STATIONS=     1504.0     1524.0  TYPE=      1  TARGET=       20.000
  2123.00      6.85    612.55      0.00      0.00    612.90       .35       .00       .04100000.00
     500.        0.      500.        0.        0.      105.        0.       14.        6. 100000.00
     .32      0.00      4.74      0.00      .080      .060      .060      .047    605.70   1504.00
  .006152        1.        1.        1.         2         0         0      0.00     20.00   1524.00

*SECNO 2291.000
   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=     1500.0     1524.0  TYPE=      1  TARGET=       24.000
  2291.00      7.48    613.48      0.00      0.00    613.70       .22       .77       .04    610.80
     500.        0.      500.        0.        0.      131.        0.       15.        6. 100000.00
     .34      0.00      3.80      0.00      .080      .060      .060      .048    606.00   1500.00
  .003557      100.      168.      180.         2         0         0      0.00     24.00   1524.00

*SECNO 2292.000

          EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

          6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G

          (DOWNSTREAM FACE)

  2292.00      7.58    613.58      0.00      0.00    613.73       .15       .00       .02    615.50
     500.        0.      500.        0.        0.      161.        0.       15.        6.    615.50
     .34      0.00      3.10      0.00      .035      .032      .035      .048    606.00    248.00
  .000718        1.        1.        1.         2         0         0      0.00     23.50    271.50

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.53      3.02      0.00     14.85      0.00    109.90      0.00    605.80    606.00

*SECNO 2346.000
PRESSURE FLOW

 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                AREA
  614.39    613.53     0.00        0.      500.      110.      108.      613.10    615.50

          EXIT RAMP FROM GRATIOT AVENUE TO NEW HAVEN ROAD (RT. 19). TWIN

          6.5 X 10.25 FT. MULTIPLATE ARCH CULVERTS - BRIDGE SECTION G
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          (UPSTREAM FACE)

  2346.00     8.47   614.27     0.00     0.00   614.39      .12      .66     0.00   615.50
     500.       0.     500.       0.       0.     181.       0.      15.       6.    615.50
      .34     0.00     2.76     0.00     .035     .032     .035     .048   605.80   248.00
  .000515      54.      54.      54.        2        0        0     0.00    23.50   271.50


*SECNO 2347.000
3280 CROSS SECTION   2347.00 EXTENDED       .65 FEET


3470 ENCROACHMENT STATIONS=    1500.0    1524.0  TYPE=     1  TARGET=      24.000
  2347.00     8.45   614.25     0.00     0.00   614.42      .16      .00      .02   610.60
     500.       0.     500.       0.       0.     155.       0.      15.       6. 100000.00
      .34     0.00     3.23     0.00     .080     .045     .080     .048   605.80  1500.00
  .001255       1.       1.       1.        2        0        0     0.00    24.00  1524.00


*SECNO 2627.000

3470 ENCROACHMENT STATIONS=        .0     400.0  TYPE=     1  TARGET=     399.999
  2627.00     7.49   614.59     0.00     0.00   614.61      .03      .16      .04   612.50
     500.      89.     296.     115.     226.     177.     211.      17.       7.    612.20
      .41      .39     1.67      .54     .080     .045     .080     .047   607.10    51.03
  .000323     275.     280.     290.        2        0        0     0.00   348.96   400.00


*SECNO 2907.000
   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      FLMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST


3470 ENCROACHMENT STATIONS=        .0     356.0  TYPE=     1  TARGET=     355.999
  2907.00     6.21   614.71     0.00     0.00   614.86      .16      .18      .06   613.90
     500.      14.     444.      42.      30.     132.      53.      20.       9.    613.60
      .43      .47     3.37      .78     .080     .045     .080     .047   608.50   186.81
  .001924     275.     280.     290.        2        0        0     0.00   169.19   356.00


*SECNO 3187.000

3470 ENCROACHMENT STATIONS=        .0     366.0  TYPE=     1  TARGET=     365.999
  3187.00     5.60   615.40     0.00     0.00   615.69      .29      .76      .07   615.20
     500.       1.     487.      12.       2.     111.      21.      21.      10.    614.90
      .45      .26     4.39      .56     .080     .045     .080     .047   609.80   245.84
  .004129     275.     280.     290.        2        0        0     0.00   120.16   366.00


1490 NH CARD USED
*SECNO 3466.000

3470 ENCROACHMENT STATIONS=        .0     386.0  TYPE=     1  TARGET=     385.999

          VALLEY SECTION H

  3466.00     5.53   616.63     0.00     0.00   616.94      .31     1.24      .01   616.50
     500.       0.     490.      10.       1.     109.      17.      22.      10.    616.20
      .47      .27     4.51      .58     .065     .078     .065     .047   611.10   252.14
  .004810     275.     279.     290.        2        0        0     0.00   127.57   379.72
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1490 NH CARD USED
*SECNO 5226.000

3470 ENCROACHMENT STATIONS= .0 500.0 TYPE= 1 TARGET= 499.999

VALLEY SECTION I

5226.00	7.02	621.02	0.00	0.00	621.08	.06	4.06	.07	619.60
500.	16.	304.	181.	21.	127.	135.	30.	15.	619.00
.72	.73	2.39	1.34	.060	.080	.060	.046	614.00	369.78
.001362	1830.	1760.	1710.	3	0	0	0.00	130.22	500.00

*SECNO 5795.000

3470 ENCROACHMENT STATIONS= 1.0 32.0 TYPE= 1 TARGET= 31.000

5795.00	6.05	622.15	0.00	0.00	622.53	.38	1.29	.16100000.00	
500.	0.	500.	0.	0.	101.	0.	33.	16.	100000.00
.75	0.00	4.93	0.00	.070	.045	.070	.046	616.10	1.92
.004640	620.	569.	530.	2	0	0	0.00	28.52	30.44

*SECNO 5835.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	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= 11.0 22.0 TYPE= 1 TARGET= 11.000

5835.00	5.91	622.11	0.00	0.00	623.19	1.08	.31	.35100000.00	
475.	0.	475.	0.	0.	57.	0.	33.	17.	100000.00
.75	0.00	8.33	0.00	.070	.045	.070	.046	616.20	11.00
.016089	40.	40.	40.	2	0	0	0.00	11.00	22.00

*SECNO 5836.000

3470 ENCROACHMENT STATIONS= 494.5 505.5 TYPE= 1 TARGET= 11.000

VICTORIA ROAD BRIDGE - DOWNSTREAM FACE - SECTION J

10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

5836.00	6.30	622.50	0.00	0.00	623.28	.79	.01	.09	617.20
475.	0.	475.	0.	0.	67.	0.	33.	17.	100000.00
.75	0.00	7.11	0.00	.040	.032	.040	.046	616.20	494.50
.005199	1.	1.	1.	3	0	0	0.00	11.00	505.50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.52	3.02	0.00	8.43	0.00	59.00	0.00	616.50	616.20

*SECNO 5892.000
PRESSURE AND WEIR FLOW

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                                                                AREA
  625.03    623.58      0.00        9.      467.       59.       59.      623.50    624.70


3470 ENCROACHMENT STATIONS=      494.5      505.5  TYPE=      1  TARGET=      11.000

          VICTORIA ROAD BRIDGE - UPSTREAM FACE  - SECTION J

          10.9 X 7.1 FT. MULTIPLATE ARCH CULVERT

  5892.00      7.97   624.47      0.00      0.00   624.95       .48      1.67      0.00   617.50
     475.        0.     475.        0.        0.      85.        0.       33.       17. 100000.00
      .75      0.00     5.58      0.00      .040     .032      .040      .046   616.50   494.50
  .002787       56.      56.       56.         2        0         4      0.00     11.00   505.50

*SECNO 5893.000
3280 CROSS SECTION   5893.00 EXTENDED      1.01 FEET


3470 ENCROACHMENT STATIONS=       10.0       23.0  TYPE=      1  TARGET=      13.000

          VALLEY SECTION K

  5893.00      8.11   624.61      0.00      0.00   624.99       .38       .00       .03100000.00
     475.        0.     475.        0.        0.      96.        0.       33.       17. 100000.00
      .75      0.00     4.94      0.00      .090     .060      .090      .046   616.50    10.00
  .007156        1.       1.        1.         2        0         0      0.00     13.00    23.00

*SECNO 5937.000

3470 ENCROACHMENT STATIONS=      193.0      233.0  TYPE=      1  TARGET=      40.000
  5937.00      7.27   625.07      0.00      0.00   625.18       .11       .11       .08   622.00
     475.       20.     429.       25.       21.     156.       25.       33.       17.    621.50
      .76       .96     2.75      1.03      .090     .060      .090      .046   617.80   193.00
  .001234       45.      44.       45.         2        0         0      0.00     40.00   233.00

*SECNO 5981.000
   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

  5981.00      6.11   625.21      0.00      0.00   625.24       .03       .04       .02   623.30
     475.       80.     238.      157.      148.     126.      228.       33.       17.    622.80
      .77       .54     1.89       .69      .090     .060      .090      .046   619.10    69.97
  .000775       40.      44.       40.         2        0         0      0.00    291.39   361.35

*SECNO 5982.000

          GRAND TRUNK WESTERN RAILROAD BRIDGE - DOWNSTREAM FACE

  5982.00      6.11   625.21      0.00      0.00   625.24       .03       .00       .00   623.30
     475.       80.     238.      157.      148.     126.      228.       33.       17.    622.80
      .77       .54     1.89       .69      .090     .060      .090      .046   619.10    69.93
  .000774        1.       1.        1.         0        0         0      0.00    291.44   361.37
```

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.54	0.00	4.38	0.00	24.10	0.00	619.50	619.10

*SECNO 6056.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
638.60	626.14	0.00	197.	282.	24.	24.	625.00	629.20

3470 ENCROACHMENT STATIONS= 1442.0 1562.0 TYPE= 1 TARGET= 120.000

GRAND TRUNK WESTERN RAILROAD BRIDGE - UPSTREAM FACE - SECTION L

6056.00	10.36	629.86	0.00	0.00	629.95	.09	4.70	0.00	623.70
475.	6.	462.	7.	283.	190.	298.	34.	17.	623.20
.78	.02	2.43	.02	1.000	.010	1.000	.046	619.50	1442.00
.000024	74.	74.	74.	2	0	5	0.00	120.00	1562.00

*SECNO 6057.000
3280 CROSS SECTION 6057.00 EXTENDED 1.90 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

6057.00	10.40	629.90	0.00	0.00	629.96	.06	.00	.01	623.70
475.	6.	462.	7.	279.	237.	306.	34.	17.	623.20
.78	.02	1.95	.02	1.000	.015	1.000	.046	619.50	153.00
.000022	1.	1.	1.	2	0	0	0.00	120.00	273.00

*SECNO 6076.000
3280 CROSS SECTION 6076.00 EXTENDED 1.56 FEET

3470 ENCROACHMENT STATIONS= 153.0 273.0 TYPE= 1 TARGET= 120.000

VALLEY SECTION M

6076.00	10.06	629.96	0.00	0.00	629.97	.01	.00	.01	624.10
475.	120.	216.	139.	263.	229.	290.	35.	17.	623.60
.78	.45	.95	.48	.060	.040	.060	.046	619.90	153.00
.000039	30.	19.	30.	2	0	0	0.00	120.00	273.00

*SECNO 6675.000
3280 CROSS SECTION 6675.00 EXTENDED 1.38 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= 710.0 830.0 TYPE= 1 TARGET= 120.000

6675.00	8.08	629.98	0.00	0.00	630.08	.10	.06	.04	626.70

.86	.84	3.04	1.06	.080	.045	.080	.046	621.90	710.00
.001004	600.	599.	570.	0	0	0	0.00	120.00	830.00

*SECNO 6676.000
3280 CROSS SECTION 6676.00 EXTENDED 1.38 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - DOWNSTREAM FACE

6676.00	8.08	629.98	0.00	0.00	630.08	.10	.00	.00	626.70
475.	129.	305.	41.	154.	100.	38.	42.	19.	626.90
.86	.84	3.04	1.06	.080	.045	.080	.046	621.90	710.00
.001001	1.	1.	1.	0	0	0	0.00	120.00	830.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.84	3.02	0.00	7.84	0.00	54.90	0.00	621.90	621.90

*SECNO 6754.000
3280 CROSS SECTION 6754.00 EXTENDED 2.86 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
633.29	630.08	0.00	254.	221.	55.	55.	628.90	629.40

3470 ENCROACHMENT STATIONS= 1400.0 1520.0 TYPE= 1 TARGET= 120.000

HAVENRIDGE ROAD BRIDGE - UPSTREAM FACE - SECTION N

6754.00	8.66	630.56	0.00	0.00	630.70	.15	.62	0.00	624.90
475.	126.	316.	34.	245.	85.	57.	43.	19.	624.90
.87	.51	3.73	.59	.105	.025	.105	.045	621.90	1400.00
.000375	78.	78.	78.	2	0	4	0.00	120.00	1520.00

*SECNO 6755.000
3280 CROSS SECTION 6755.00 EXTENDED 1.95 FEET

3470 ENCROACHMENT STATIONS= 710.0 830.0 TYPE= 1 TARGET= 120.000

6755.00	8.64	630.54	0.00	0.00	630.71	.17	.00	.01	624.70
475.	133.	307.	35.	229.	75.	56.	43.	19.	623.60
.87	.58	4.08	.63	.125	.035	.125	.045	621.90	710.00
.000712	1.	1.	1.	1	0	0	0.00	120.00	830.00

*SECNO 6784.000
3280 CROSS SECTION 6784.00 EXTENDED 2.31 FEET

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VALLEY SECTION O

6784.00	9.01	630.71	0.00	0.00	630.76	.05	.02	.04	626.50
475.	164.	272.	38.	237.	116.	50.	43.	19.	626.70
.87	.69	2.34	.76	.080	.040	.080	.045	621.70	710.00
.000387	30.	29.	30.	2	0	0	0.00	120.00	830.00

*SECNO 6964.000
3280 CROSS SECTION 6964.00 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	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 720.0 910.0 TYPE= 1 TARGET= 190.000

6964.00	7.73	630.83	0.00	0.00	630.87	.04	.11	.00	627.90
475.	109.	207.	158.	123.	95.	161.	45.	20.	628.10
.90	.89	2.19	.98	.070	.060	.070	.046	623.10	720.00
.001005	170.	180.	190.	2	0	0	0.00	190.00	910.00

*SECNO 7144.000

3470 ENCROACHMENT STATIONS= 201.0 470.0 TYPE= 1 TARGET= 269.000

7144.00	6.42	630.92	0.00	0.00	630.93	.01	.05	.01	626.50
475.	215.	151.	109.	389.	177.	251.	47.	21.	626.70
.98	.55	.85	.43	.070	.060	.070	.046	624.50	201.00
.000115	170.	180.	190.	2	0	0	0.00	242.39	443.39

*SECNO 7314.000

3470 ENCROACHMENT STATIONS= 59.0 459.0 TYPE= 1 TARGET= 400.000

VALLEY SECTION P

7314.00	5.15	630.95	0.00	0.00	630.97	.02	.03	.00	627.80
475.	219.	182.	74.	289.	139.	126.	50.	22.	628.00
1.03	.76	1.31	.59	.070	.060	.070	.046	625.80	177.59
.000375	170.	170.	180.	2	0	0	0.00	235.52	413.12

*SECNO 7873.000

3470 ENCROACHMENT STATIONS= 199.0 319.0 TYPE= 1 TARGET= 120.000

7873.00	4.06	631.36	0.00	0.00	631.63	.27	.53	.13	629.30
475.	136.	339.	0.	158.	69.	0.	54.	24.	100000.00
1.07	.87	4.88	0.00	.200	.055	.200	.047	627.30	199.00
.007518	490.	559.	550.	2	0	0	0.00	120.00	319.00

*SECNO 7893.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 204.0 314.0 TYPE= 1 TARGET= 110.000

7893.00	3.91	631.31	631.14	0.00	632.18	.87	.25	.30	629.40
475.	82.	393.	0.	138.	48.	0.	55.	24.	100000.00

.025224	20.	20.	20.	4	11	0	0.00	110.00	314.00

*SECNO 7894.000

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= 204.0 314.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - DOWNSTREAM FACE

7894.00	3.85	631.25	631.19	0.00	632.29	1.04	.02	.09	629.40
475.	62.	413.	0.	131.	47.	0.	55.	24.	100000.00
1.08	.47	8.78	0.00	.600	.050	.600	.047	627.40	204.00
.024361	1.	1.	1.	4	8	0	0.00	110.00	314.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.02	0.00	8.08	0.00	28.27	0.00	627.50	627.40

*SECNO 7954.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
642.08	635.02	0.00	153.	323.	28.	28.	631.00	635.00

3470 ENCROACHMENT STATIONS= 766.0 876.0 TYPE= 1 TARGET= 110.000

CLARK STREET BRIDGE - UPSTREAM FACE - SECTION Q

7954.00	8.45	635.95	0.00	0.00	636.24	.29	3.95	0.00	629.70
475.	44.	431.	0.	461.	94.	0.	55.	24.	100000.00
1.08	.10	4.56	0.00	.800	.015	.060	.047	627.50	766.00
.000328	60.	60.	60.	2	0	6	0.00	110.00	876.00

*SECNO 7955.000

3470 ENCROACHMENT STATIONS= 207.0 318.0 TYPE= 1 TARGET= 111.000

7955.00	8.67	636.17	0.00	0.00	636.29	.12	.00	.05	629.70
475.	51.	424.	0.	468.	143.	0.	55.	24.	100000.00
1.08	.11	2.96	0.00	1.000	.040	.080	.047	627.50	207.00
.000662	1.	1.	1.	2	0	0	0.00	111.00	318.00

*SECNO 7984.000

3470 ENCROACHMENT STATIONS= 214.0 347.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION R

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475.	37.	324.	114.	331.	163.	114.	56.	24.	630.80
1.08	.11	1.98	1.00	.500	.040	.060	.047	628.90	214.00
.000238	40.	29.	40.	2	0	0	0.00	133.00	347.00

1490 NH CARD USED
*SECNO 8544.000

VALLEY SECTION S

8544.00	6.03	636.53	0.00	0.00	636.75	.22	.34	.09	637.20
475.	0.	406.	69.	0.	101.	62.	60.	26.	636.10
1.13	0.00	4.03	1.11	.500	.077	.060	.046	630.50	400.90
.003676	520.	560.	560.	0	0	0	0.00	125.98	526.88

*SECNO 8563.000

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
8563.00	5.77	636.57	0.00	0.00	636.88	.31	.08	.05	637.50
475.	0.	439.	36.	0.	94.	37.	60.	26.	636.40
1.13	0.00	4.65	.97	.500	.078	.060	.046	630.80	401.24
.005095	20.	19.	20.	0	0	0	0.00	118.23	519.47

*SECNO 8564.000

3265 DIVIDED FLOW

CONCRETE WALKWAY BRIDGE - DOWNSTREAM FACE - SECTION T

8564.00	5.56	636.36	634.44	0.00	637.10	.73	.00	.21	638.30
475.	0.	464.	11.	0.	67.	16.	60.	26.	638.30
1.13	0.00	6.95	.68	.060	.025	.060	.046	630.80	410.00
.003328	1.	1.	1.	4	14	0	0.00	60.27	528.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.68	0.00	9.00	0.00	54.00	0.00	631.00	630.80

*SECNO 8583.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
638.25	637.30	0.00	0.	475.	54.	54.	637.00	638.50

CONCRETE WALKWAY BRIDGE - UPSTREAM FACE - SECTION T

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8583.00	7.08	638.08	0.00	0.00	638.25	.17	1.15	0.00	638.50
475.	0.	332.	143.	2.	85.	162.	61.	26.	638.50
1.13	.25	3.91	.88	.060	.025	.060	.046	631.00	395.95
.000898	19.	19.	19.	2	0	0	0.00	151.65	565.39

*SECNO 8584.000

8584.00	7.24	638.24	0.00	0.00	638.29	.05	.00	.04	637.70
475.	0.	286.	189.	1.	133.	203.	61.	26.	636.60
1.13	.28	2.14	.93	.060	.050	.060	.046	631.00	395.04
.000721	1.	1.	1.	2	0	0	0.00	161.88	556.92

*SECNO 8613.000

VALLEY SECTION U

8613.00	7.58	638.28	0.00	0.00	638.31	.03	.01	.01	636.10
475.	29.	288.	159.	64.	185.	230.	61.	26.	637.30
1.14	.45	1.55	.69	.060	.050	.060	.046	630.70	341.20
.000297	30.	29.	30.	1	0	0	0.00	203.30	544.50

*SECNO 9163.000

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
9163.00	5.89	638.59	0.00	0.00	638.70	.11	.35	.04	636.00
475.	95.	265.	115.	68.	81.	85.	65.	28.	636.40
1.20	1.39	3.26	1.35	.065	.055	.065	.047	632.70	1196.35
.002290	550.	550.	550.	2	0	0	0.00	142.87	1339.20

*SECNO 9703.000

9703.00	5.55	640.25	0.00	0.00	640.42	.17	1.69	.03	638.00
475.	80.	298.	97.	52.	75.	61.	68.	30.	638.40
1.25	1.54	3.97	1.58	.070	.060	.070	.048	634.70	1200.97
.004520	540.	540.	540.	2	0	0	0.00	127.90	1328.87

*SECNO 10253.000

10253.00	5.77	642.57	0.00	0.00	642.69	.12	2.26	.01	640.10
475.	91.	274.	110.	62.	79.	76.	70.	31.	640.50
1.31	1.46	3.47	1.45	.075	.065	.075	.049	636.80	1197.86
.003758	550.	550.	550.	3	0	0	0.00	137.63	1335.49

*SECNO 10803.000

VALLEY SECTION V

10803.00	5.77	644.57	0.00	0.00	644.66	.09	1.96	.01	642.10
420.	81.	241.	98.	62.	79.	76.	73.	33.	642.50
1.37	1.30	3.05	1.29	.080	.070	.080	.050	638.80	1197.84
.003371	550.	550.	550.	2	0	0	0.00	137.71	1335.55

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****
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

SHOOK DRAIN - PROJECT MA

SUMMARY PRINTOUT

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
0.000	0.00	0.00	597.20	210.00	602.96	5.76	.03	0.00	602.99	0.00	88.29	185.92
0.000	0.00	0.00	597.20	310.00	603.89	6.69	.03	0.00	603.92	0.00	94.30	270.83
0.000	0.00	0.00	597.20	360.00	604.43	7.23	.03	0.00	604.46	0.00	97.79	322.69
0.000	0.00	0.00	597.20	505.00	605.11	7.91	.03	0.00	605.14	0.00	102.18	390.68
130.000	0.00	0.00	599.00	210.00	603.04	4.04	.19	.08	603.24	13.85	25.91	59.37
130.000	0.00	0.00	599.00	310.00	603.95	4.95	.16	.07	604.12	13.85	83.07	116.61
130.000	0.00	0.00	599.00	360.00	604.49	5.49	.12	.05	604.61	13.85	86.49	161.57
130.000	0.00	0.00	599.00	505.00	605.18	6.18	.12	.04	605.30	13.85	90.94	222.62
409.000	0.00	0.00	600.10	210.00	604.39	4.29	.26	.03	604.65	3.94	61.14	73.45
409.000	0.00	0.00	600.10	310.00	604.99	4.89	.25	.04	605.24	3.94	86.79	119.38
409.000	0.00	0.00	600.10	360.00	605.27	5.17	.23	.06	605.50	3.94	95.34	144.66
409.000	0.00	0.00	600.10	505.00	605.88	5.78	.21	.05	606.09	3.94	100.00	205.33
410.000	0.00	0.00	600.10	210.00	604.40	4.30	.26	.00	604.66	0.00	61.47	73.81
410.000	0.00	0.00	600.10	310.00	605.00	4.90	.25	.00	605.25	0.00	86.78	119.35
410.000	0.00	0.00	600.10	360.00	605.27	5.17	.23	.00	605.51	0.00	95.30	144.53
410.000	0.00	0.00	600.10	505.00	605.89	5.79	.21	.00	606.10	0.00	100.00	205.45
446.000	606.60	604.00	600.00	210.00	606.74	6.74	.08	0.00	606.81	-2.78	42.67	125.62
446.000	606.60	604.00	600.00	310.00	607.23	7.23	.11	0.00	607.34	-2.78	100.00	165.07
446.000	606.60	604.00	600.00	360.00	607.38	7.38	.13	0.00	607.51	-2.78	100.00	180.06
446.000	606.60	604.00	600.00	505.00	607.73	7.73	.18	0.00	607.91	-2.78	100.00	214.76
447.000	0.00	0.00	600.00	210.00	606.82	6.82	.01	.02	606.83	0.00	100.00	337.57
447.000	0.00	0.00	600.00	310.00	607.35	7.35	.02	.03	607.37	0.00	100.00	390.83
447.000	0.00	0.00	600.00	360.00	607.52	7.52	.02	.03	607.54	0.00	100.00	407.61
447.000	0.00	0.00	600.00	505.00	607.92	7.92	.04	.04	607.96	0.00	100.00	447.23
506.000	0.00	0.00	602.40	210.00	606.78	4.38	.13	.06	606.91	40.68	68.09	84.17
506.000	0.00	0.00	602.40	310.00	607.32	4.92	.14	.06	607.45	40.68	70.00	121.89
506.000	0.00	0.00	602.40	360.00	607.49	5.09	.15	.06	607.64	40.68	70.00	133.56
506.000	0.00	0.00	602.40	505.00	607.88	5.48	.20	.08	608.07	40.68	70.00	160.97
526.000	0.00	0.00	603.20	210.00	606.76	3.56	.39	.13	607.15	40.00	28.24	42.50
526.000	0.00	0.00	603.20	310.00	607.24	4.04	.49	.18	607.74	40.00	47.84	60.04
526.000	0.00	0.00	603.20	360.00	607.39	4.19	.55	.20	607.95	40.00	55.91	67.78
526.000	0.00	0.00	603.20	505.00	607.70	4.56	.67	.24	608.43	40.00	76.13	92.48

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
576.000	0.00	0.00	603.20	210.00	607.39	4.19	.19	.06	607.58	0.00	55.69	67.56
576.000	0.00	0.00	603.20	310.00	607.96	4.76	.21	.08	608.17	0.00	86.58	108.20
576.000	0.00	0.00	603.20	360.00	608.18	4.98	.22	.10	608.39	0.00	98.27	128.18
576.000	0.00	0.00	603.20	505.00	608.68	5.48	.23	.13	608.91	0.00	125.44	184.42
1316.000	0.00	0.00	602.90	210.00	608.08	5.18	.01	.05	608.09	-.41	174.39	299.00
1316.000	0.00	0.00	602.90	310.00	608.67	5.77	.01	.06	608.68	-.41	177.29	404.38
1316.000	0.00	0.00	602.90	360.00	608.91	6.01	.02	.06	608.93	-.41	178.44	446.90
1316.000	0.00	0.00	602.90	505.00	609.47	6.57	.02	.06	609.49	-.41	181.13	547.05
1626.000	0.00	0.00	604.30	210.00	608.20	3.90	.05	.02	608.25	4.52	73.38	132.26
1626.000	0.00	0.00	604.30	310.00	608.79	4.49	.05	.02	608.84	4.52	96.08	185.81
1626.000	0.00	0.00	604.30	360.00	609.03	4.73	.06	.02	609.09	4.52	97.25	209.16
1626.000	0.00	0.00	604.30	505.00	609.60	5.30	.07	.02	609.67	4.52	99.99	265.18
1666.000	0.00	0.00	604.40	210.00	608.26	3.86	.05	.00	608.31	2.50	72.88	129.17
1666.000	0.00	0.00	604.40	310.00	608.84	4.44	.06	.00	608.90	2.50	85.84	177.38
1666.000	0.00	0.00	604.40	360.00	609.08	4.68	.06	.00	609.14	2.50	86.95	197.28
1666.000	0.00	0.00	604.40	505.00	609.65	5.25	.08	.00	609.73	2.50	89.70	247.46
1846.000	0.00	0.00	605.20	210.00	608.63	3.43	.09	.02	608.72	4.44	69.25	98.50
1846.000	0.00	0.00	605.20	310.00	609.16	3.96	.09	.02	609.26	4.44	79.02	137.05
1846.000	0.00	0.00	605.20	360.00	609.39	4.19	.10	.02	609.49	4.44	84.64	156.25
1846.000	0.00	0.00	605.20	505.00	609.95	4.75	.11	.02	610.06	4.44	87.33	204.22
1986.000	0.00	0.00	605.90	210.00	609.13	3.23	.29	.10	609.42	5.00	40.62	53.33
1986.000	0.00	0.00	605.90	310.00	609.60	3.70	.34	.12	609.94	5.00	42.28	72.56
1986.000	0.00	0.00	605.90	360.00	609.80	3.90	.36	.13	610.16	5.00	42.99	81.11
1986.000	0.00	0.00	605.90	505.00	610.29	4.39	.42	.16	610.72	5.00	53.00	106.73
2065.000	0.00	0.00	606.20	205.00	609.62	3.42	.45	.08	610.08	3.80	18.53	37.96
2065.000	0.00	0.00	606.20	305.00	610.07	3.87	.66	.16	610.74	3.80	20.32	46.72
2065.000	0.00	0.00	606.20	355.00	610.26	4.06	.76	.20	611.03	3.80	21.07	50.58
2065.000	0.00	0.00	606.20	500.00	610.66	4.46	1.10	.34	611.77	3.80	22.67	59.38
2085.000	0.00	0.00	606.00	205.00	609.97	3.97	.28	.05	610.26	-10.00	19.59	48.21
2085.000	0.00	0.00	606.00	305.00	610.56	4.56	.40	.08	610.97	-10.00	20.00	59.88
2085.000	0.00	0.00	606.00	355.00	610.82	4.82	.46	.09	611.28	-10.00	20.00	64.91
2085.000	0.00	0.00	606.00	500.00	611.46	5.46	.64	.14	612.10	-10.00	20.00	77.62
2086.000	0.00	0.00	606.00	205.00	609.98	3.98	.28	.00	610.26	0.00	19.60	48.27
2086.000	0.00	0.00	606.00	305.00	610.57	4.57	.40	.00	610.97	0.00	20.00	60.06
2086.000	0.00	0.00	606.00	355.00	610.83	4.83	.46	.00	611.29	0.00	20.00	65.12
2086.000	0.00	0.00	606.00	500.00	611.47	5.47	.64	.00	612.11	0.00	20.00	77.99
2122.000	613.20	610.30	605.70	205.00	610.23	4.53	.12	.05	610.35	-8.33	20.00	74.41
2122.000	613.20	610.30	605.70	305.00	610.90	5.20	.19	0.00	611.09	-8.33	20.00	87.60
2122.000	613.20	610.30	605.70	355.00	611.31	5.61	.21	0.00	611.52	-8.33	20.00	95.81
2122.000	613.20	610.30	605.70	500.00	612.59	6.89	.26	0.00	612.85	-8.33	20.00	121.42
2123.000	0.00	0.00	605.70	205.00	610.20	4.50	.19	.04	610.39	0.00	19.68	58.46
2123.000	0.00	0.00	605.70	305.00	610.85	5.15	.28	.05	611.13	0.00	20.00	71.50
2123.000	0.00	0.00	605.70	355.00	611.26	5.56	.31	.05	611.57	0.00	20.00	79.70
2123.000	0.00	0.00	605.70	500.00	612.55	6.85	.35	.04	612.90	0.00	20.00	105.39

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FORM 1411 GE PRINTED BY ROTARY MANIFOLD FORMS

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
2291.000	0.00	0.00	606.00	205.00	611.02	5.02	.12	.02	611.14	1.79	24.00	72.54
2291.000	0.00	0.00	606.00	305.00	611.84	5.84	.17	.03	612.01	1.79	24.00	92.04
2291.000	0.00	0.00	606.00	355.00	612.25	6.25	.19	.04	612.44	1.79	24.00	102.02
2291.000	0.00	0.00	606.00	500.00	613.48	7.48	.22	.04	613.70	1.79	24.00	131.49
2292.000	0.00	0.00	606.00	205.00	611.10	5.10	.06	.02	611.16	0.00	23.50	103.07
2292.000	0.00	0.00	606.00	305.00	611.94	5.94	.10	.02	612.03	0.00	23.50	122.67
2292.000	0.00	0.00	606.00	355.00	612.35	6.35	.11	.02	612.47	0.00	23.50	132.49
2292.000	0.00	0.00	606.00	500.00	613.58	7.58	.15	.02	613.73	0.00	23.50	161.27
2346.000	615.50	613.10	605.80	205.00	611.13	5.33	.08	.01	611.21	-3.70	23.50	90.82
2346.000	615.50	613.10	605.80	305.00	611.96	6.16	.13	.02	612.10	-3.70	23.50	103.45
2346.000	615.50	613.10	605.80	355.00	612.38	6.58	.17	.03	612.55	-3.70	23.50	106.59
2346.000	615.50	613.10	605.80	500.00	614.27	8.47	.12	0.00	614.39	-3.70	23.50	181.12
2347.000	0.00	0.00	605.80	205.00	611.12	5.32	.10	.01	611.22	0.00	24.00	79.71
2347.000	0.00	0.00	605.80	305.00	611.96	6.16	.14	.00	612.11	0.00	24.00	99.98
2347.000	0.00	0.00	605.80	355.00	612.40	6.60	.16	.00	612.56	0.00	24.00	110.14
2347.000	0.00	0.00	605.80	500.00	614.25	8.45	.16	.02	614.42	0.00	24.00	154.87
2627.000	0.00	0.00	607.10	205.00	611.62	4.52	.12	.01	611.74	4.64	30.88	74.52
2627.000	0.00	0.00	607.10	305.00	612.49	5.39	.13	.00	612.62	4.64	87.31	110.86
2627.000	0.00	0.00	607.10	355.00	612.91	5.81	.12	.01	613.03	4.64	173.88	170.91
2627.000	0.00	0.00	607.10	500.00	614.59	7.49	.03	.04	614.61	4.64	348.96	614.16
2907.000	0.00	0.00	608.50	205.00	612.47	3.97	.19	.04	612.66	5.00	27.84	58.41
2907.000	0.00	0.00	608.50	305.00	613.23	4.73	.22	.04	613.45	5.00	32.02	81.03
2907.000	0.00	0.00	608.50	355.00	613.52	5.02	.24	.06	613.76	5.00	33.64	90.60
2907.000	0.00	0.00	608.50	500.00	614.71	6.21	.16	.06	614.86	5.00	169.19	215.54
3187.000	0.00	0.00	609.80	205.00	613.76	3.96	.19	.00	613.95	4.64	27.78	58.11
3187.000	0.00	0.00	609.80	305.00	614.43	4.63	.24	.01	614.67	4.64	31.47	77.86
3187.000	0.00	0.00	609.80	355.00	614.72	4.92	.26	.01	614.97	4.64	33.05	87.07
3187.000	0.00	0.00	609.80	500.00	615.40	5.60	.29	.07	615.69	4.64	120.16	134.39
3466.000	0.00	0.00	611.10	205.00	615.02	3.92	.20	.00	615.22	4.66	27.60	57.18
3466.000	0.00	0.00	611.10	305.00	615.70	4.60	.24	.00	615.94	4.66	31.31	76.94
3466.000	0.00	0.00	611.10	355.00	615.99	4.89	.26	.00	616.25	4.66	32.92	86.32
3466.000	0.00	0.00	611.10	500.00	616.63	5.53	.31	.01	616.94	4.66	127.57	126.96
5226.000	0.00	0.00	614.00	205.00	619.58	5.58	.07	.04	619.64	1.65	99.95	117.70
5226.000	0.00	0.00	614.00	305.00	620.18	6.18	.06	.05	620.24	1.65	112.23	180.86
5226.000	0.00	0.00	614.00	355.00	620.42	6.42	.06	.06	620.48	1.65	117.47	209.14
5226.000	0.00	0.00	614.00	500.00	621.02	7.02	.06	.07	621.08	1.65	130.22	283.32
5795.000	0.00	0.00	616.10	205.00	620.71	4.61	.16	.05	620.87	3.69	23.35	63.76
5795.000	0.00	0.00	616.10	305.00	621.32	5.22	.23	.08	621.55	3.69	25.56	78.86
5795.000	0.00	0.00	616.10	355.00	621.56	5.46	.27	.10	621.83	3.69	26.42	85.19
5795.000	0.00	0.00	616.10	500.00	622.15	6.05	.38	.16	622.53	3.69	28.52	101.40
5835.000	0.00	0.00	616.20	195.00	620.78	4.58	.33	.08	621.11	2.50	11.00	42.44
5835.000	0.00	0.00	616.20	290.00	621.37	5.17	.55	.16	621.92	2.50	11.00	48.87
5835.000	0.00	0.00	616.20	335.00	621.60	5.40	.66	.20	622.26	2.50	11.00	51.39
5835.000	0.00	0.00	616.20	475.00	622.11	5.91	1.08	.35	623.19	2.50	11.00	56.99

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FORM 1411-GE PRINTED BY ROTARY MANIFOLD FORMS

	SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
	5836.000	0.00	0.00	616.20	195.00	620.89	4.69	.25	.02	621.14	0.00	11.00	49.09
	5836.000	0.00	0.00	616.20	290.00	621.55	5.35	.41	.04	621.96	0.00	11.00	56.40
	5836.000	0.00	0.00	616.20	335.00	621.82	5.62	.49	.05	622.32	0.00	11.00	59.35
	5836.000	0.00	0.00	616.20	475.00	622.50	6.30	.79	.09	623.28	0.00	11.00	66.77
	5892.000	624.70	623.50	616.50	195.00	621.00	4.50	.32	.04	621.31	5.36	11.00	43.24
	5892.000	624.70	623.50	616.50	290.00	621.71	5.21	.54	.06	622.25	5.36	11.00	49.30
	5892.000	624.70	623.50	616.50	335.00	622.00	5.50	.65	.08	622.65	5.36	11.00	51.77
	5892.000	624.70	623.50	616.50	475.00	624.47	7.97	.48	0.00	624.95	5.36	11.00	85.19
	5893.000	0.00	0.00	616.50	195.00	621.12	4.62	.23	.03	621.35	0.00	13.00	50.68
	5893.000	0.00	0.00	616.50	290.00	621.97	5.47	.34	.06	622.32	0.00	13.00	61.87
	5893.000	0.00	0.00	616.50	335.00	622.35	5.85	.39	.08	622.74	0.00	13.00	66.75
	5893.000	0.00	0.00	616.50	475.00	624.61	8.11	.38	.03	624.99	0.00	13.00	96.08
	5937.000	0.00	0.00	617.80	195.00	621.47	3.67	.15	.02	621.62	29.55	25.00	62.68
	5937.000	0.00	0.00	617.80	290.00	622.45	4.65	.16	.06	622.61	29.55	40.00	97.05
	5937.000	0.00	0.00	617.80	335.00	622.87	5.07	.16	.07	623.03	29.55	40.00	114.06
	5937.000	0.00	0.00	617.80	475.00	625.07	7.27	.11	.08	625.18	29.55	40.00	201.92
	5981.000	0.00	0.00	619.10	195.00	621.74	2.64	.39	.12	622.13	29.55	20.90	38.95
	5981.000	0.00	0.00	619.10	290.00	622.61	3.51	.38	.11	622.99	29.55	24.37	58.71
	5981.000	0.00	0.00	619.10	335.00	623.00	3.90	.37	.11	623.37	29.55	50.78	71.11
	5981.000	0.00	0.00	619.10	475.00	625.21	6.11	.03	.02	625.24	29.55	291.39	502.01
	5982.000	0.00	0.00	619.10	195.00	621.78	2.68	.37	.00	622.15	0.00	21.05	39.78
	5982.000	0.00	0.00	619.10	290.00	622.63	3.53	.38	.00	623.01	0.00	24.40	58.91
	5982.000	0.00	0.00	619.10	335.00	623.02	3.92	.37	.00	623.38	0.00	51.65	71.47
	5982.000	0.00	0.00	619.10	475.00	625.21	6.11	.03	.00	625.24	0.00	291.44	502.30
*	6056.000	629.20	625.00	619.50	195.00	623.30	3.80	1.95	.79	625.25	5.41	32.64	17.40
	6056.000	629.20	625.00	619.50	290.00	627.55	8.05	.07	0.00	627.62	5.41	120.00	493.39
	6056.000	629.20	625.00	619.50	335.00	629.25	9.75	.05	0.00	629.30	5.41	120.00	697.55
	6056.000	629.20	625.00	619.50	475.00	629.86	10.36	.09	0.00	629.95	5.41	120.00	770.28
	6057.000	0.00	0.00	619.50	195.00	625.79	6.29	.03	.58	625.83	0.00	120.00	329.43
	6057.000	0.00	0.00	619.50	290.00	627.59	8.09	.04	.01	627.63	0.00	120.00	545.57
	6057.000	0.00	0.00	619.50	335.00	629.28	9.78	.03	.01	629.31	0.00	120.00	747.72
	6057.000	0.00	0.00	619.50	475.00	629.90	10.40	.06	.01	629.96	0.00	120.00	822.34
	6076.000	0.00	0.00	619.90	195.00	625.82	5.92	.01	.01	625.83	21.05	120.00	284.82
	6076.000	0.00	0.00	619.90	290.00	627.63	7.73	.01	.01	627.64	21.05	120.00	502.48
	6076.000	0.00	0.00	619.90	335.00	629.31	9.41	.01	.01	629.32	21.05	120.00	704.12
	6076.000	0.00	0.00	619.90	475.00	629.96	10.06	.01	.01	629.97	21.05	120.00	782.09
	6675.000	0.00	0.00	621.90	195.00	625.74	3.84	.66	.32	626.40	3.34	13.90	29.90
	6675.000	0.00	0.00	621.90	290.00	627.58	5.68	.32	.15	627.90	3.34	55.29	77.96
	6675.000	0.00	0.00	621.90	335.00	629.32	7.42	.08	.04	629.40	3.34	105.01	217.46
	6675.000	0.00	0.00	621.90	475.00	629.98	8.08	.10	.04	630.08	3.34	120.00	292.22
	6676.000	0.00	0.00	621.90	195.00	625.81	3.91	.62	.01	626.43	0.00	14.12	30.90
	6676.000	0.00	0.00	621.90	290.00	627.59	5.69	.32	.00	627.91	0.00	55.35	78.08
	6676.000	0.00	0.00	621.90	335.00	629.32	7.42	.08	.00	629.41	0.00	104.87	216.94
	6676.000	0.00	0.00	621.90	475.00	629.98	8.08	.10	.00	630.08	0.00	120.00	292.54

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FORM 1411 SB PRINTED BY JOTTAY MANIFOLD FORMS

SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
6754.000	629.40	628.90	621.90	195.00	626.48	4.58	.36	.08	626.84	0.00	15.82	40.69
6754.000	629.40	628.90	621.90	290.00	627.73	5.83	.51	.10	628.24	0.00	62.95	50.60
6754.000	629.40	628.90	621.90	335.00	630.17	8.27	.09	0.00	630.26	0.00	120.00	340.54
6754.000	629.40	628.90	621.90	475.00	630.56	8.66	.15	0.00	630.70	0.00	120.00	386.72
6755.000	0.00	0.00	621.90	195.00	626.42	4.52	.48	.06	626.91	0.00	16.02	40.13
6755.000	0.00	0.00	621.90	290.00	627.83	5.93	.43	.02	628.26	0.00	62.42	92.65
6755.000	0.00	0.00	621.90	335.00	630.16	8.26	.11	.01	630.27	0.00	120.00	315.09
6755.000	0.00	0.00	621.90	475.00	630.54	8.64	.17	.01	630.71	0.00	120.00	360.56
6784.000	0.00	0.00	621.70	195.00	626.86	5.16	.23	.08	627.08	-6.90	34.95	53.34
6784.000	0.00	0.00	621.70	290.00	628.25	6.55	.15	.08	628.40	-6.90	80.29	137.29
6784.000	0.00	0.00	621.70	335.00	630.27	8.57	.04	.02	630.31	-6.90	120.00	350.78
6784.000	0.00	0.00	621.70	475.00	630.71	9.01	.05	.04	630.76	-6.90	120.00	403.87
6964.000	0.00	0.00	623.10	195.00	627.79	4.69	.32	.05	628.11	7.78	16.54	42.82
6964.000	0.00	0.00	623.10	290.00	628.68	5.58	.33	.09	629.01	7.78	65.88	74.22
6964.000	0.00	0.00	623.10	335.00	630.35	7.25	.04	.00	630.39	7.78	179.84	287.11
6964.000	0.00	0.00	623.10	475.00	630.83	7.73	.04	.00	630.87	7.78	190.00	378.02
7144.000	0.00	0.00	624.50	195.00	628.39	3.89	.01	.09	628.40	7.78	178.31	280.66
7144.000	0.00	0.00	624.50	290.00	629.23	4.73	.01	.10	629.24	7.78	201.89	438.81
7144.000	0.00	0.00	624.50	335.00	630.44	5.94	.00	.01	630.44	7.78	230.79	701.43
7144.000	0.00	0.00	624.50	475.00	630.92	6.42	.01	.01	630.93	7.78	242.39	816.74
7314.000	0.00	0.00	625.80	195.00	628.50	2.70	.10	.05	628.60	7.65	114.51	93.18
7314.000	0.00	0.00	625.80	290.00	629.30	3.50	.05	.02	629.34	7.65	173.15	215.15
7314.000	0.00	0.00	625.80	335.00	630.46	4.66	.01	.00	630.47	7.65	218.65	442.05
7314.000	0.00	0.00	625.80	475.00	630.95	5.15	.02	.00	630.97	7.65	235.52	554.00
7873.000	0.00	0.00	627.30	195.00	630.63	3.33	.11	.00	630.75	2.68	120.00	139.29
7873.000	0.00	0.00	627.30	290.00	630.80	3.50	.20	.08	630.99	2.68	120.00	158.62
7873.000	0.00	0.00	627.30	335.00	630.85	3.55	.24	.12	631.09	2.68	120.00	166.03
7873.000	0.00	0.00	627.30	475.00	631.36	4.06	.27	.13	631.63	2.68	120.00	226.91
7893.000	0.00	0.00	627.40	195.00	630.65	3.25	.29	.09	630.95	5.00	110.00	112.86
7893.000	0.00	0.00	627.40	290.00	630.82	3.42	.54	.17	631.35	5.00	110.00	130.85
7893.000	0.00	0.00	627.40	335.00	630.87	3.47	.68	.22	631.55	5.00	110.00	136.41
7893.000	0.00	0.00	627.40	475.00	631.31	3.91	.87	.30	632.18	5.00	110.00	185.49
7894.000	0.00	0.00	627.40	195.00	630.65	3.25	.31	.01	630.97	0.00	110.00	113.57
7894.000	0.00	0.00	627.40	290.00	630.81	3.41	.59	.03	631.40	0.00	110.00	129.61
7894.000	0.00	0.00	627.40	335.00	630.85	3.45	.76	.04	631.61	0.00	110.00	134.33
7894.000	0.00	0.00	627.40	475.00	631.25	3.85	1.04	.09	632.29	0.00	110.00	178.49
7954.000	635.00	631.00	627.50	195.00	632.17	4.67	.31	0.00	632.48	1.67	96.21	143.63
7954.000	635.00	631.00	627.50	290.00	634.67	7.17	.17	0.00	634.84	1.67	110.00	414.84
7954.000	635.00	631.00	627.50	335.00	635.31	7.81	.18	0.00	635.49	1.67	110.00	485.19
7954.000	635.00	631.00	627.50	475.00	635.95	8.45	.29	0.00	636.24	1.67	110.00	555.98
7955.000	0.00	0.00	627.50	195.00	632.45	4.95	.09	.07	632.54	0.00	106.82	198.71
7955.000	0.00	0.00	627.50	290.00	634.80	7.30	.07	.03	634.87	0.00	111.00	459.18
7955.000	0.00	0.00	627.50	335.00	635.45	7.95	.08	.03	635.52	0.00	111.00	530.52
7955.000	0.00	0.00	627.50	475.00	636.17	8.67	.12	.05	636.29	0.00	111.00	611.31

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SECNO	ELTRD	ELLC	ELMIN	Q	CWSEL	DEPTH	HV	OLOSS	EG	K*CHSL	TOPWID	AREA
7984.000	0.00	0.00	628.90	195.00	632.50	3.60	.07	.01	632.58	48.28	92.28	131.74
7984.000	0.00	0.00	628.90	290.00	634.86	5.96	.03	.01	634.89	48.28	133.00	419.83
7984.000	0.00	0.00	628.90	335.00	635.51	6.61	.03	.01	635.54	48.28	133.00	506.13
7984.000	0.00	0.00	628.90	475.00	636.28	7.38	.05	.02	636.33	48.28	133.00	608.65
8544.000	0.00	0.00	630.50	195.00	633.73	3.23	.41	.17	634.14	2.86	18.29	37.80
8544.000	0.00	0.00	630.50	290.00	635.06	4.56	.31	.14	635.37	2.86	22.00	64.81
8544.000	0.00	0.00	630.50	335.00	635.67	5.17	.28	.13	635.95	2.86	22.00	78.54
8544.000	0.00	0.00	630.50	475.00	636.53	6.03	.22	.09	636.75	2.86	125.98	162.94
8563.000	0.00	0.00	630.80	195.00	633.89	3.09	.68	.13	634.56	15.79	12.00	29.54
8563.000	0.00	0.00	630.80	290.00	635.04	4.24	.69	.19	635.73	15.79	12.00	43.36
8563.000	0.00	0.00	630.80	335.00	635.60	4.80	.69	.21	636.30	15.79	12.00	50.14
8563.000	0.00	0.00	630.80	475.00	636.57	5.77	.31	.05	636.88	15.79	118.23	131.68
8564.000	0.00	0.00	630.80	195.00	634.35	3.55	.33	.11	634.67	0.00	12.00	42.56
8564.000	0.00	0.00	630.80	290.00	635.39	4.59	.43	.08	635.82	0.00	12.00	55.13
8564.000	0.00	0.00	630.80	335.00	635.91	5.11	.46	.07	636.37	0.00	12.00	61.33
8564.000	0.00	0.00	630.80	475.00	636.36	5.56	.73	.21	637.10	0.00	60.27	82.74
8583.000	638.50	637.00	631.00	195.00	634.36	3.36	.41	.04	634.77	10.53	12.00	38.17
8583.000	638.50	637.00	631.00	290.00	635.33	4.33	.67	.12	636.01	10.53	12.00	43.99
8583.000	638.50	637.00	631.00	335.00	635.81	4.81	.79	.17	636.60	10.53	12.00	46.85
8583.000	638.50	637.00	631.00	475.00	638.08	7.08	.17	0.00	638.25	10.53	151.65	249.04
8584.000	0.00	0.00	631.00	195.00	634.35	3.35	.44	.02	634.79	0.00	14.00	36.47
8584.000	0.00	0.00	631.00	290.00	635.65	4.65	.44	.07	636.08	0.00	14.00	54.67
8584.000	0.00	0.00	631.00	335.00	636.29	5.29	.43	.11	636.72	0.00	14.00	63.48
8584.000	0.00	0.00	631.00	475.00	638.24	7.24	.05	.04	638.29	0.00	161.88	338.10
8613.000	0.00	0.00	630.70	195.00	634.91	4.21	.08	.11	634.99	-10.34	26.50	85.15
8613.000	0.00	0.00	630.70	290.00	636.17	5.47	.09	.10	636.26	-10.34	31.66	120.68
8613.000	0.00	0.00	630.70	335.00	636.80	6.10	.09	.10	636.88	-10.34	49.31	145.99
8613.000	0.00	0.00	630.70	475.00	638.28	7.58	.03	.01	638.31	-10.34	203.30	479.28
9163.000	0.00	0.00	632.70	195.00	636.50	3.80	.33	.12	636.83	3.64	32.72	44.19
9163.000	0.00	0.00	632.70	290.00	637.35	4.65	.24	.08	637.59	3.64	81.89	93.07
9163.000	0.00	0.00	632.70	335.00	637.74	5.04	.18	.04	637.92	3.64	101.94	129.39
9163.000	0.00	0.00	632.70	475.00	638.59	5.89	.11	.04	638.70	3.64	142.87	234.39
9703.000	0.00	0.00	634.70	195.00	639.46	4.76	.09	.07	639.55	3.70	87.63	102.66
9703.000	0.00	0.00	634.70	290.00	639.85	5.15	.11	.04	639.96	3.70	107.02	139.84
9703.000	0.00	0.00	634.70	335.00	639.94	5.24	.13	.01	640.07	3.70	111.54	149.58
9703.000	0.00	0.00	634.70	475.00	640.25	5.55	.17	.03	640.42	3.70	127.90	188.19
10253.000	0.00	0.00	636.80	195.00	641.35	4.55	.13	.02	641.47	3.82	76.65	85.45
10253.000	0.00	0.00	636.80	290.00	641.86	5.06	.13	.01	641.99	3.82	102.90	131.32
10253.000	0.00	0.00	636.80	335.00	642.07	5.27	.12	.00	642.19	3.82	113.62	154.19
10253.000	0.00	0.00	636.80	475.00	642.57	5.77	.12	.01	642.69	3.82	137.63	217.23
10803.000	0.00	0.00	638.80	170.00	643.49	4.69	.08	.01	643.57	3.64	84.40	97.18
10803.000	0.00	0.00	638.80	255.00	643.96	5.16	.08	.01	644.04	3.64	107.99	141.91
10803.000	0.00	0.00	638.80	295.00	644.13	5.33	.09	.01	644.22	3.64	116.63	161.02
10803.000	0.00	0.00	638.80	420.00	644.57	5.77	.09	.01	644.66	3.64	137.71	217.48

SUMMARY OF ERRORS

CAUTION SECNO= 6056.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 6056.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

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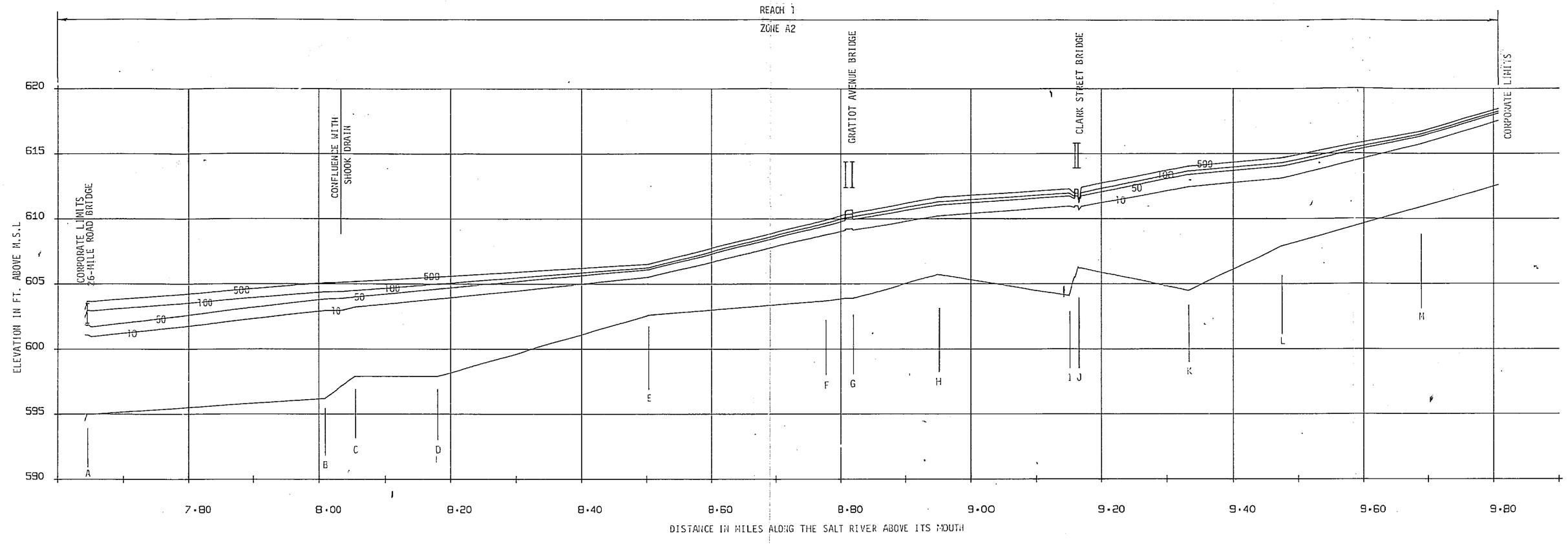
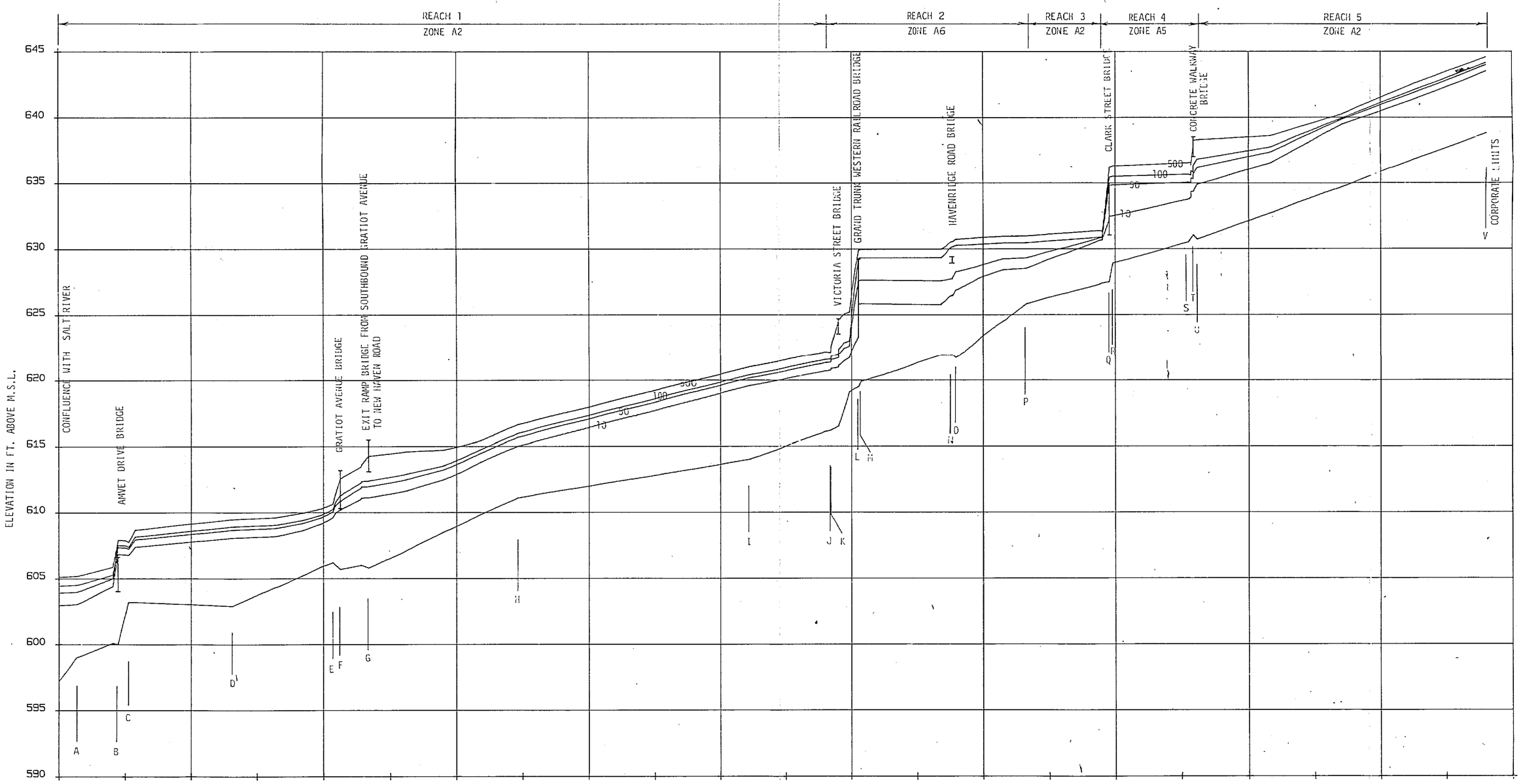
WATER MANAGEMENT

SALT RIVER



SHOOK DRAIN



Job No. | Contr. No. | Cost Trib No. | Type of Job No. | Sheet No. or Sheet No. of Sheets | As Built | Section | City No. in County | Twp. No. in County | Village No. in County | County No. or State | State | Construction Contract | Job Code No.

TOPOGRAPHIC INFORMATION
DATE OBTAINED
DATE UPDATED

OWNER
UTILITIES
TEL
ELEC
GAS
PIPE LINE
APPR. AGENCIES
BIDDERS

DRAWING ISSUE DATES

	DATE	BY
V.I.		

	DATE	BY
P.M.		
D.A.		
CONSTR.		

DRAWN:
DESIGN:

SCALE: VERT. 1" = 5'
HORIZ. SALT RIVER: 1" = 0.10 MI.
SHOOK DRAIN: 1" = 500 FT.

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

SALT RIVER & SHOOK DRAIN

VILLAGE OF NEW HAVEN, MI., F.I.S.

JOB NO. 58150-05-1-00

SHEET NO.

RECEIVED
JAN 03 1979
WATER MANAGEMENT

VILLAGE OF NEW HAVEN F.I.S.

JOB NO. 5850-05-1-00

SALT RIVER AND SHOOK DRAIN

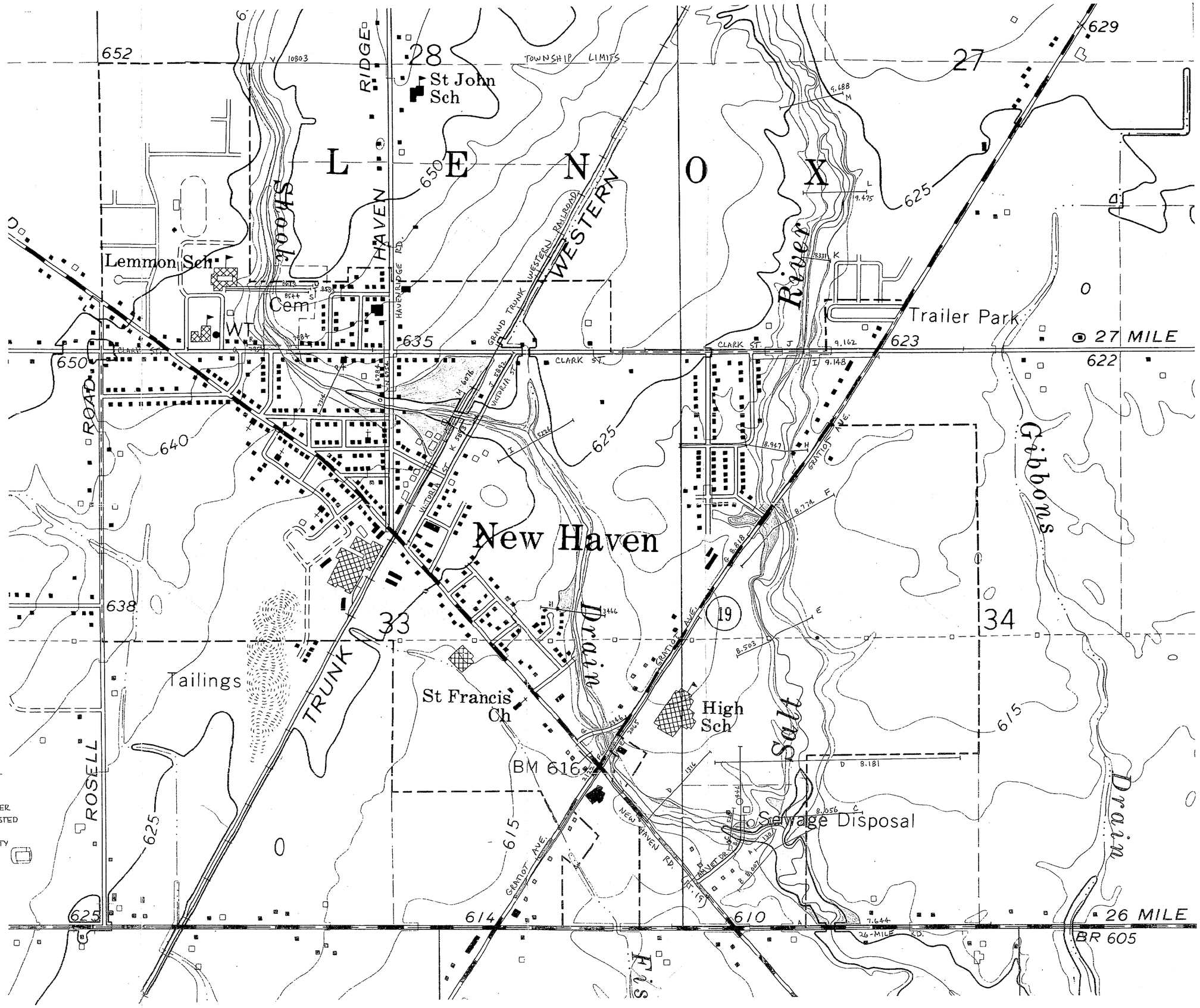
100-YEAR FLOODWAY

100-YEAR FLOOD FRINGE (FLOODED OUTLINE)

SCALE: 1" = 400 FT.

N

NOTE: STREAM CENTERLINES OF SALT RIVER AND SHOOK DRAIN HAVE BEEN ADJUSTED BASED ON 1974 AERIAL PHOTOGRAPHY (1" = 400') SUPPLIED BY MACOMB COUNTY PLANNING COMMISSION.



00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Healy Drain
Price Brook
Price Brook Trib #1

4) DOCUMENT TYPE: Hydraulic Analyses

00BREAK00

FLOOD INSURANCE STUDY HYDRAULIC REPORT
(Limited Detail Methods)

PROJECT: HUD-FIA-H-4705 - Washington Township

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Healy Drain, Price Brook and Price Brook Tributary #1

STUDY LIMITS:
1. Romeo City Limits (upstream limit) to GTWRR bridge (downstream Limit) for Healy Drain
2. Campground Road (upstream limit) to GTWRR bridge (downstream limit) for Price Brook
3. Campground Road (upstream limit) to Confluence with Price Brook (downstream limit) for Price Brook Tributary #1

DATE OF LAND SURVEY: April 1979 - June 1979

SOURCES OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 4/26/79

TOPOGRAPHIC INFORMATION: USGS topographic maps 1" = 800; 10' contours

METHOD OF ANALYSIS: Where no bridges or culverts are present, the 100-year flood elevation at each x-section was determined via the uniform flow method using the channel-bed slope to compute normal depth. Where bridges or culverts were present, appropriate standard techniques to establish the 100-year flood elevations at each bridge were used.

PHOTOGRAPHS: Enclosed for your review, please return.

CROSS-SECTIONS: See hydraulic notes for sections considered representative of each reach.

REFERENCES:

1. Concrete Pipe Design Manual, American Concrete Pipe Association, February 1974.
2. Handbook of Steel Drainage and Highway Construction Products. American Iron and Steel Institute, 1971.
3. Handbook of Hydraulics. H.W. King and E.F. Brater, McGraw Hill Book Company, 6th Ed., 1976.
4. Open Channel Hydraulics. Ven Te Chow, McGraw Hill Book Company, 1959.

TABLE 8

Summary of Proposed Discharges
Washington Twp. - Limited Detail

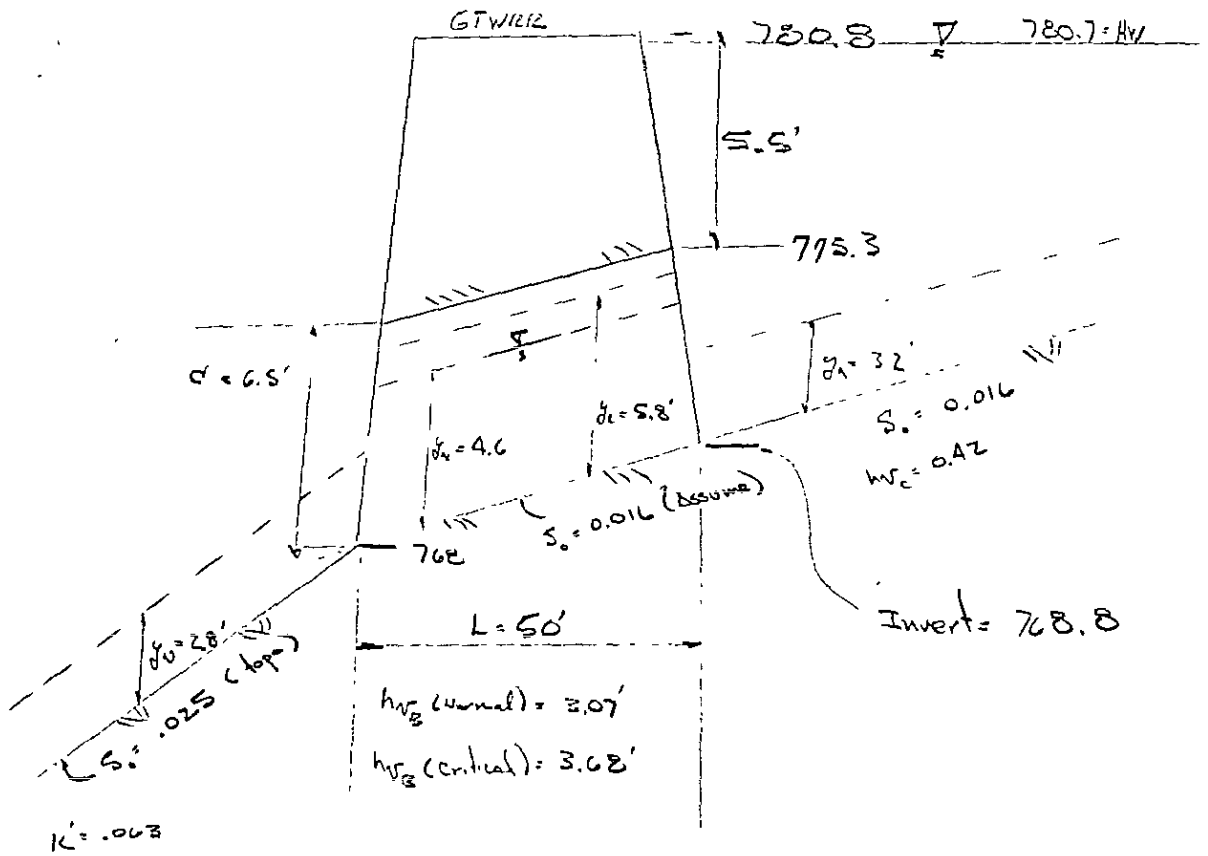
Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharge (cfs) 10-Yr.	50-Yr.	100-Yr.	500
Healy Drain					
Just d/s of GTWER bridge	2.5				
To		280	420	490	68
1 Mile Rd	1.9				
To		235	350	410	58
Romeo city limits	1.1				
Price Brook					
Jewell Rd	1.8				
To		190	275	325	4e
D/S of Unnamed Tributary (NE 1/4 S15)	1.4				
To		160	230	275	37
Campground Rd	0.8				
Unnamed Tributary (NE 1/4 S15)					
Just u/s Price Brook	0.5				
To		85	120	145	19
Campground Rd	0.2				

Hardy Drain - GTWIRE culvert

12/27/19

72" ϕ RCP

1/12



$K' = .063$

$y_N = 2.8'$

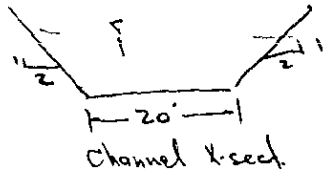
$K'_c = 0.27$

$y_c = 2.4$

⇒ M.H Channel

$Q_{100} = 490$ cfs

Assume: slope of culvert is same as channel u/s.



Channel x-sect.

Find critical depth: Table 8-10 Bradley

$Q = 490$ cfs ⇒ $K' = \frac{Q}{d^{5/2}} = 4.55$ ⇒ $\frac{D_c}{d} = 0.89$

$d = 6.5$ ft

⇒ $D_c = \underline{5.8'}$

Normal Depth: Flowing full - $Q = 680$ cfs

$\frac{Q}{Q_f} = \frac{490}{680} = 0.72$ ⇒ hydraulic elements $\frac{d}{d_{full}} = 0.7$

⇒ Normal depth = $0.7(6.5) = \underline{4.6}$ ft Steep channel

⇒ culvert will flow low flow whole length.

$V_{full} = 14.8$ fps $\frac{d}{d_{full}} = 0.7$ ⇒ $\frac{V}{V_{full}} = 0.95$ ⇒ $V_{normal} = 14.1$ fps

$hv_{normal} = 3.07'$

Hardy Drain - GTWRK Culvert

12/27/79

2/

Culvert is operating under inlet control conditions.

Consult Bureau Public Roads reference to compute headwater.

Concrete circular pipe - 78"ϕ. 50 ft long, Q_{100} = 490 cfs

pg 5-22 for grooved end projecting (no headwall) $\frac{HW}{D}$ = 1.8

$\Rightarrow$ HW = 1.8(6.5') = 11.7 ft

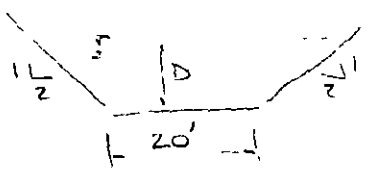
Weir flow occurs @ HW = 11.8 ft $\Rightarrow$ No weir flow

$\Rightarrow$ WSEL u/s = 11.7 + 769.0 = 780.7

Healy Drain

Reach between A & B

Check normal depth



$S_o = 0.016$ $Q_{100} = 490$ cfs

$n = 0.060$

$$K' = \frac{Qn}{b^{8/3}(S)^{1/2}} = \frac{490(.06)}{(20)^{8/3}(.016)^{1/2}} = 0.079 \Rightarrow \text{Bater 7-11} \quad \frac{D}{b} = 0.16$$

$D = 3.2$ ft

Extend WSEL u/s culvert back horizontally until depth = 3.2 ft.

Loss @ M-53 - 8' x 14' box RCP, 50' long. TW depth = 3.2 ft

Compute critical depth inside bridge: $\frac{Q}{b} = \frac{490}{14\text{ft}} = 35$ cfs/ft

$$y_c = \sqrt[3]{q^2/g} = \sqrt[3]{\frac{(35)^2}{32}} = 3.4 \text{ ft} \Rightarrow \text{TW depth is below critical}$$

$$V_{critical} = \frac{490 \text{ cfs}}{(3.2)(14\text{ft})} = 10.9 \text{ fps} \quad h_{v_{cr.}} = 1.86'$$

Critical depth @ outlet.

Compute normal depth in bridge:

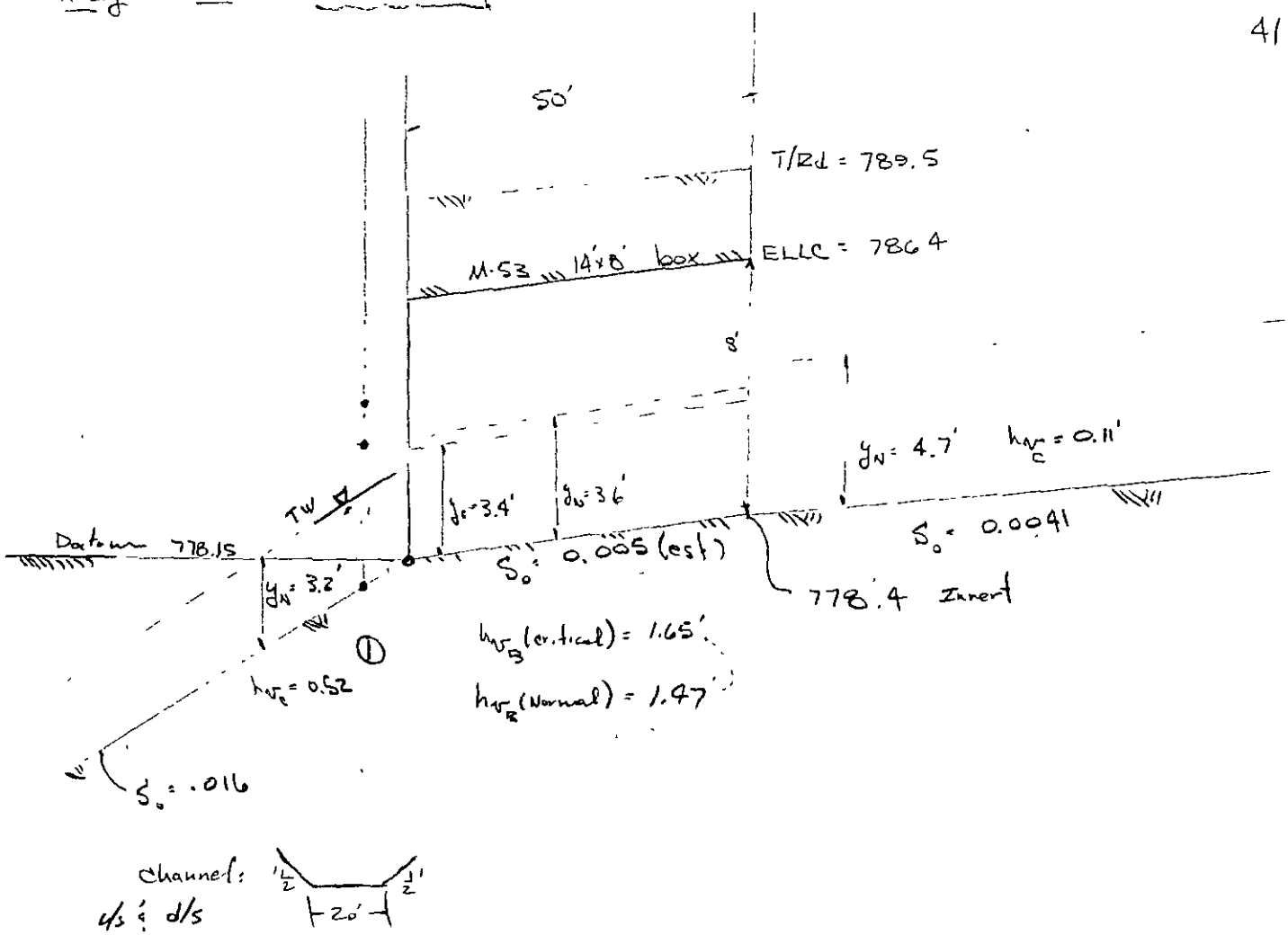
bottom slope d/s bridge = 0.016
" " u/s " = 0.0041
} use $S_o = 0.005$ thru bridge

$n_c = 0.020$

$$K' = \frac{490(.020)}{(14')^{8/3}(.005)^{1/2}} = 0.12 \Rightarrow \frac{D}{b} = 0.26$$

$D = 3.6$ ft

Healy Drain - M-53 bridge



Exit Loss: use $C_e = 0.5$

Energy in channel d/s entrance = 3.2 ft + 0.52 = 3.72'

Energy in bridge @ critical depth = 3.4' + 1.65 = 5.05'

Guess depth inside bridge = 3.6 ft ⇒ h_{v_2} = 1.47 ⇒ Energy = 3.6 + 1.47 = 5.07

if $\Delta h = .5 \Delta h_v = 0.5(1.47 - 0.52) = 0.48$ ⇒ Energy inside bridge = 0.48' + 3.72 = 4.2 which is below energy @ critical ⇒ energy necessary @ outlet is critical energy = 5.05'

Healy Drain - M-53 bridge

Friction loss thru bridge:

Guess average depth = 3.5 ft ($y_c = 3.4'$ $y_N = 3.6'$ thru bridge)

$$S_f = \left(\frac{Qn}{1.49 AR^{2/3}} \right)^2 = \left[\frac{490(.020)}{1.49(3.5 \cdot 14)(2.33)^{2/3}} \right]^2 \qquad R = \frac{A}{P} = \frac{(3.5)(14)}{7+14} = 2.33$$

$$S_f = 0.0058$$

$\Rightarrow$ Energy inside u/s face = $5.05' + (.0058)50' = 5.34'$

Entrance Loss: use $C_e = 0.3$ $h_e = 0.3 \Delta h_v$

Assume normal depth is reached @ the u/s face.

$\Rightarrow$ $y_N = 3.6'$ $\Rightarrow$ $h_{v_b} = 1.47$

Guess u/s depth = $5.7' \Rightarrow h_v = \left[\frac{490}{(20)57 + 2(5.7)^2} \right]^2 / 2g = 0.12'$

$\Rightarrow$ Energy outside face = $5.34 + 0.3(1.47 - 0.12) = 5.75'$

if u/s depth = $5.7' \Rightarrow$ u/s Energy = $5.7 + 0.12 = 5.82'$) close

Try u/s depth = $5.6' \Rightarrow h_v = 0.12$

Energy outside u/s face = $5.34 + 0.3(147 - 0.12) = 5.75$

if depth = $5.6' \Rightarrow$ u/s Energy = $5.6 + 0.12 = 5.72$) good

Energy u/s face = $5.75 + 778.15 = \underline{783.9}$

Hardy Drain

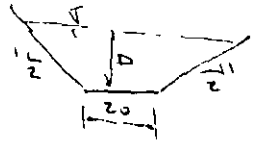
12/21/93

Reach Between B & C

6/

Extend WSEL @ 11.58 back and smooth into normal depth in the channel

Compute normal depth:



$Q = 420$ cfs

$S_o = 0.0041$

$n = 0.060$

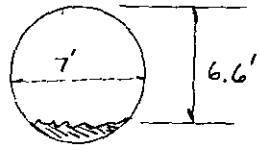
Field Measured 'C' $K' = \frac{Q_n}{b^{8/3} S^{1/2}} = 0.156 \Rightarrow$ Table 7-11 Brater

$D/b = 0.235 \Rightarrow D = 4.7'$

Reach Between C & D

same as B & C except $S_o = .002 \Rightarrow K' = 0.22 \Rightarrow \frac{D}{b} = .28 \Rightarrow D = 5.6'$

Loss @ 31 Mile Rd - 7'ϕ CMP 31' long, partially filled w/ dirt

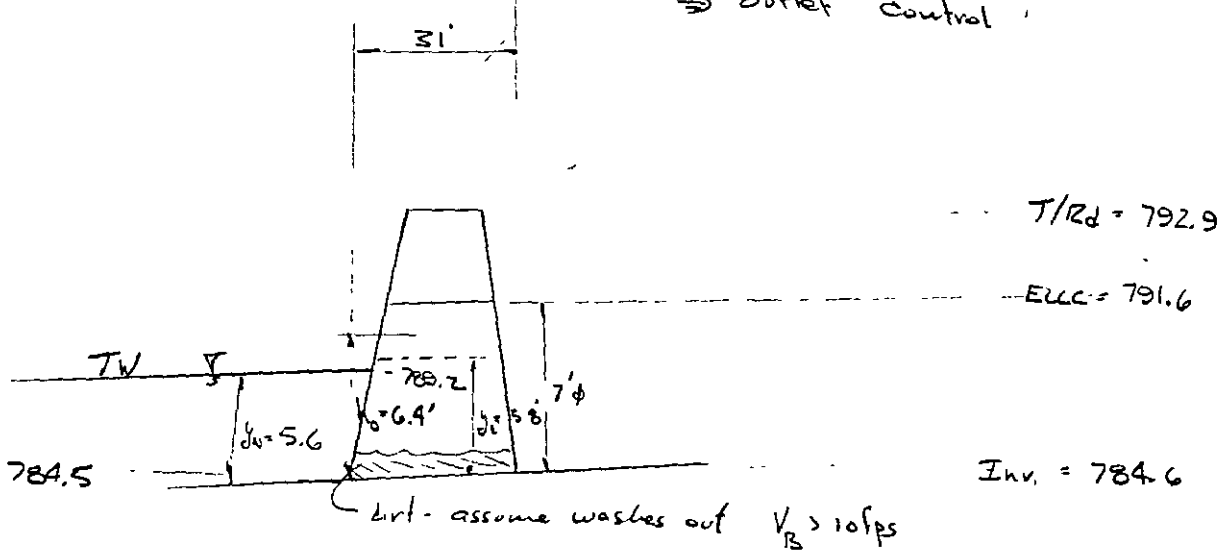


$Q_{100} = 410$ cfs ⇒ if not pressure, calculate Velocity

$A = 38.5 ft^2$ $V_{100} = 10.6$ fps ⇒ assume dirt in culvert will wash out.

$S_o = 0.002$ (downstream)
$= 0.005$ (upstream) use $S_o = 0.0035$ for culvert

Compute Normal depth: $Q_{full} = 380$ cfs ⇒ culvert capacity is exceeded ⇒ outlet control



Healy Brook - 31/Mile Culvert

12/27/79
71

Compute Critical depth in culvert:

Table 8-10 in Brater $K_c' = \frac{Q}{d^{5/2}} = \frac{410 \text{ cfs}}{(7)^{5/2}} = 3.78 \Rightarrow \frac{D_c}{d} = 0.83$

$D_c = 5.8$ ft TW depth = 5.6 ft $\Rightarrow$ Critical depth @ outlet.

Bureau of Public Roads Reference outlet control fig 2-C

$h_o = \frac{D + d_c}{2} = \frac{7.0 + 5.8}{2} = 6.4$ ft

$H = 3.2'$ for $L = 50'$ and $K_e = 0.5$

$\Rightarrow HW = h_o + H + L S_o = 6.4 \text{ ft} + 3.2 + (.0035)(31) = 9.7$ ft

Weir flow occurs @ HW = 792.9 - 784.6 = 8.3 ft

$\Rightarrow$ Weir flows.

Compute culvert flow when u/s water surface = 0.5' above rd.

$\Rightarrow HW = 8.3' + 0.5 = 8.8' \Rightarrow H = 8.8' - 6.4 - 0.1 = 2.3'$

BPR reference $\Rightarrow Q_p = 340$ cfs

$\Rightarrow Q_{weir} = 70$ cfs

Compute head over weir:

Use 40' weir $C = 2.8 \Rightarrow H = \left[\frac{70 \text{ cfs}}{(2.8)(40')}\right]^{2/3} = 0.73'$

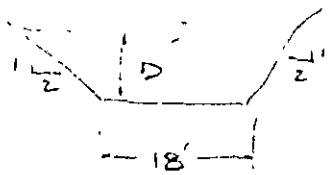
$\Rightarrow$ WSEL u/s = 792.9 + 0.7 = 793.6'

Healy Drain

12/21/79

8/

Reach Between D and E



$S_o = 0.005$ use $n_c = 0.060$

$b = 18'$ $Q_{100} = 410$ cfs

$z = 2$

Compute normal depth: $K' = \frac{490(.060)}{(18)^{8/3}(.005)^{1/2}} = 0.155 \Rightarrow \frac{D}{b} = 0.235$

$\Rightarrow D = \underline{4.2'}$

Extend WS from 31 Mile Rd horizontally and smooth into 4.2' depth.

Barbara Ann St - bridge 2 - 6' Dia CMP 37' long

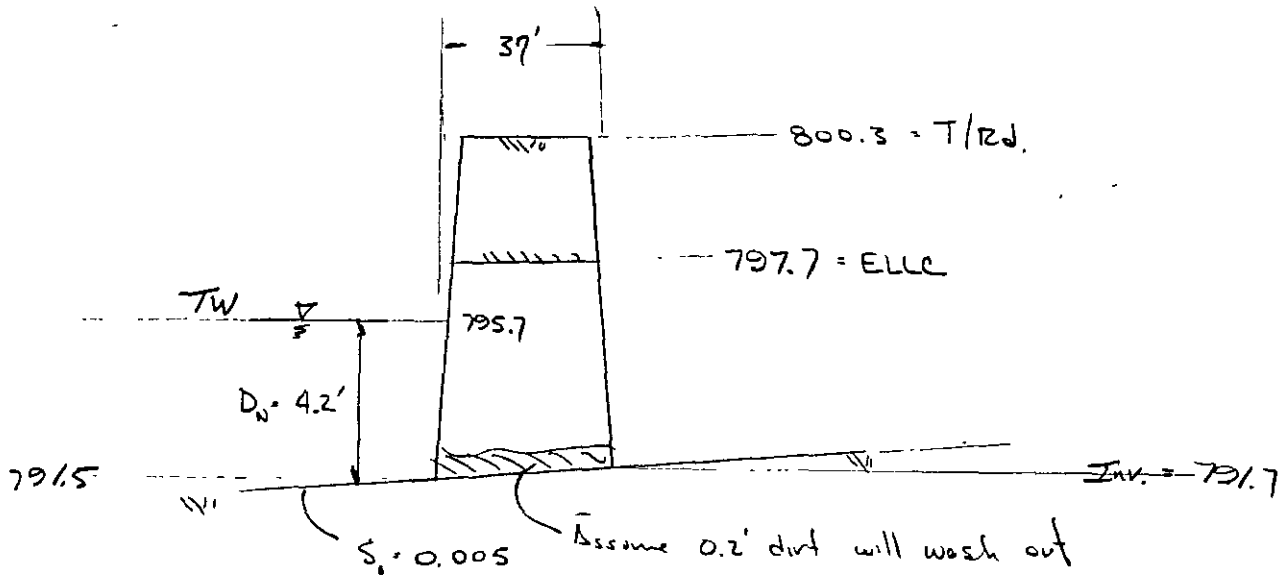
Bottom slope = 0.005 Area $= \frac{(6')^2\pi}{4} = 28.3\ ft^2$ each

Compute capacity @ normal depth thru culverts: use $n_c = 0.025$

$Q = \frac{1.49}{.025}(28.3 ft^2)\left(\frac{6}{4}\right)^{2/3}(.005)^{1/2} = \underline{156}$ cfs each $\Rightarrow Q_{tot} = \underline{313}$ cfs

$Q_{100} = 410$ cfs

$\Rightarrow$ culverts operate under outlet control conditions.



Hardy Drain Barbara Ann St bridge

Compute critical depth in each pipe:

$Q_{100} = 410 \text{ cfs} / 2 = 205 \text{ cfs}$

Table 8-10 Bater $K_c' = \frac{Q}{d^{5/2}} = \frac{205 \text{ cfs}}{(6\text{ft})^{5/2}} = 2.32 \Rightarrow \frac{D_c}{d} = 0.65$

$\Rightarrow D_c = .65(6\text{ft}) = 3.9'$ which is < TW of 4.2'.

Compute h_o : $h_o = \frac{d_c + D}{2} = \frac{3.9+6}{2} = 4.95 \sim \underline{5.0'}$

or $h_o = 4.2'$ (TW) whichever greater.

Bureau Public Rds. Reference: Table 11

compute necessary HW to pass 205 cfs/culvert.

$K_e = 0.5$, $L = 50'$ $H = 1.7'$

$HW = h_o + H + L S_o = 5.0 + 1.7 + 37(.005) = 6.89$

weir flow occurs @ $HW = 800.3 - 791.7 + (.005)31 = 8.6'$

$\Rightarrow$ Pressure flow only

WSEL u/s = $791.7 + 6.9' = 798.6$

Reach between E & F

This reach under the influence of Barbara St. backwater.

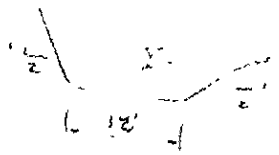
Healy Drain

Reach 1 fuse — F and G.

$S_o = 0.0063$

$b = 18'$

$n = .060$



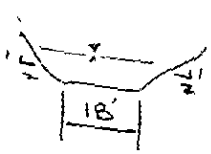
$K' = 0.138 \Rightarrow$ Brater 7-11 $\frac{D}{b} = 0.22$ $D = 4.0'$

Bridge @ Sisson St.

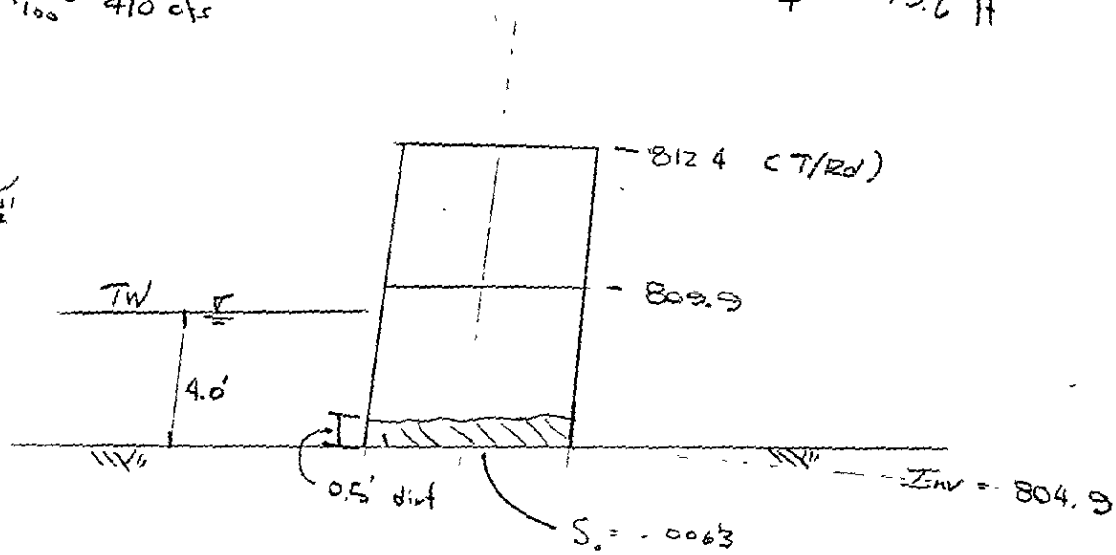
5' Dia CMP, 34' long

$Q_{100} = 410$ cfs

$Area = \frac{5^2 \pi}{4} = 19.6\ ft^2$



Channel X sect



Compute Capacity of culvert @ Normal depth:

$$Q_{full} = \frac{1.49}{.025}(19.6\ ft^2)\left[\frac{5}{4}\right]^{2/3}(.0063)^{1/2} = 110\ cfs \Rightarrow \text{Outlet control.}$$

Compute Critical depth: $K_c' = \frac{410\ cfs}{(5)^{5/2}} = 733 \Rightarrow$ Brater 8-10

$\frac{D_c}{d} = 0.98 \Rightarrow D_c = 4.9'$

MPG
12/27/17
1/

Healy Drain - Sisson Ln bridge

BPR reference - Compute $Q_{pressure}$

Guess ~ 1' of depth over rd $\Rightarrow$ HW = 813.4 - 804.5 = 8.5'

$h_o = 0.98D \cong 1D \cong 5.0'$

$HW = h_o + H + \cancel{L S_o} \Rightarrow H = 3.5'$
(~ 0.1)

use $K_e = .05$, $L = 50'$ $\Rightarrow$ Q @ 3.5' = 200 cfs

$\Rightarrow Q_{weir} = 410 - 200 = 210$ cfs

Compute head over weir: use C = 2.8, 50' length

$$H = \left(\frac{Q}{CL}\right)^{2/3} = \left[\frac{210 cfs}{(2.8)(50')}\right]^{2/3} = 1.3'$$

Compute weir length for Q = 210 cfs and H = 1.0'

$$L = \frac{Q}{C H^{3/2}} = \frac{210 cfs}{(2.8)(1.0)} = \underline{75 ft}$$

Floodplain width D/s (d ~ 8.0') width ≅ 450' using sec 'F'

U/s (d = 4.0') width ≅ 250' using sec. 'F'

$\Rightarrow$ Use larger weir length due to wide floodplain. Use L = 100'

$\Rightarrow H = \left(\frac{210 cfs}{2.8(100)}\right)^{2/3} \cdot 0.8' \Rightarrow$ WSEL u/s = 812.4 + 0.8' =

= 813.2'

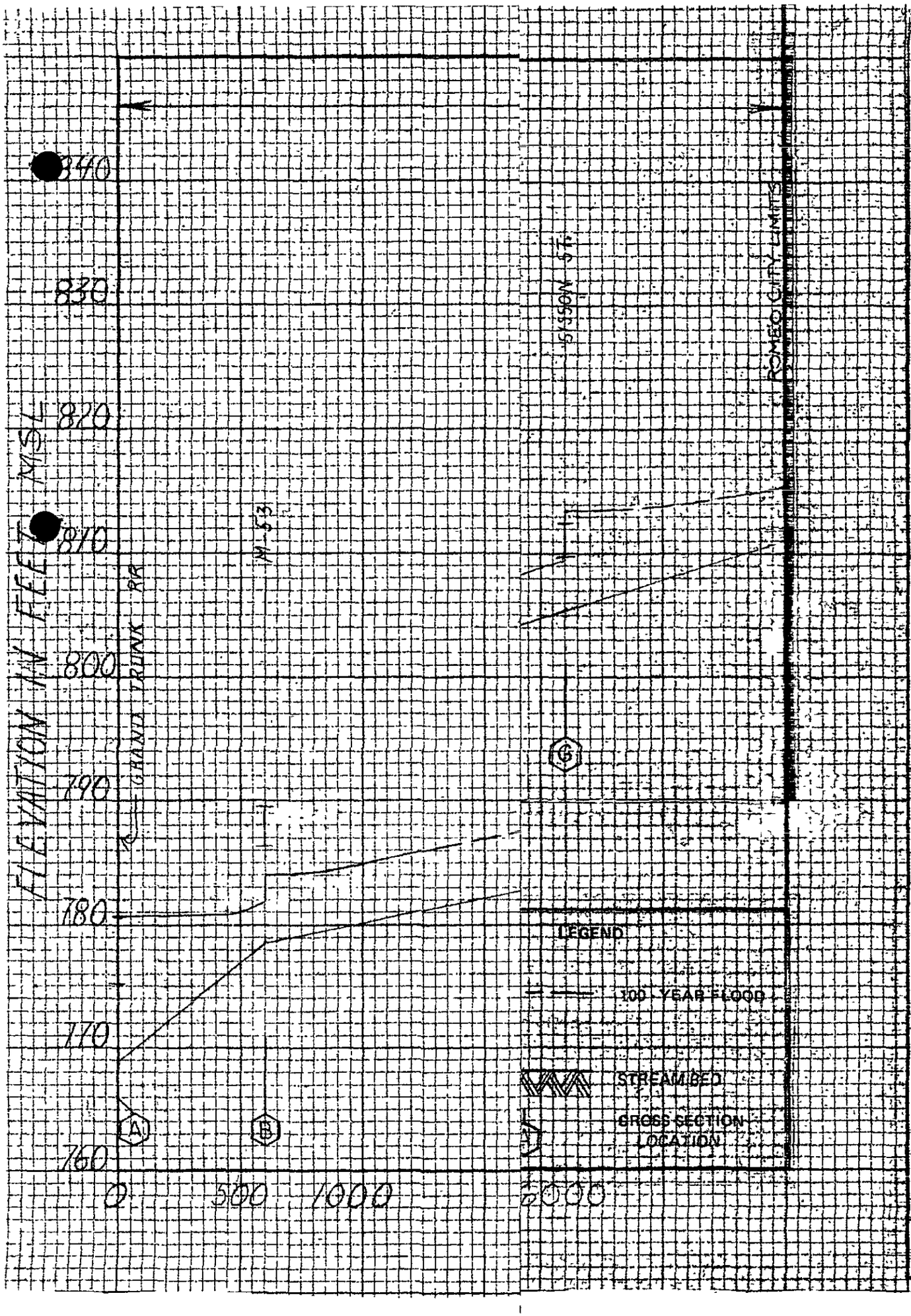
N10

Holy Drain 12/22/78

u/s Sisson St 12/12

Everything same as between F and G, $\Rightarrow y_N = 4.0'$

Bring backwater from Sisson St. back horizontally and smooth into 4.0' depth.



FLOOD PROFILES

HEALY DRAIN

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.
(MACOMB CO.)

OIP
EXHIBIT 1

HUD FIA. H 4/65 TOL
WASHINGTON T.P PRICE BRNK.
PVP MPE 12/27/79

1

PRICE BRNK

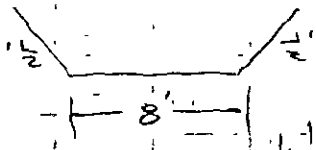
STARTING ELEVATION. (D/S OF GTWRR)

ASSUME NORMAL DEPTH D/S OF BRIDGE.
USING THE SAME SECTION AS AT B. ~~(PAGE 14)~~
NORMAL DEPTH FOR

b = 8'

SIDE SLOPES 2 ON 1

S = 0.53%



$$k' = \frac{Qn}{b^{8/3}S^{1/2}} = \frac{325 \times 0.06}{(8)^{8/3}(0.0053)^{1/2}} = 1.039$$

$D/b = 0.615$

NORMAL DEPTH = 4.92' ✓

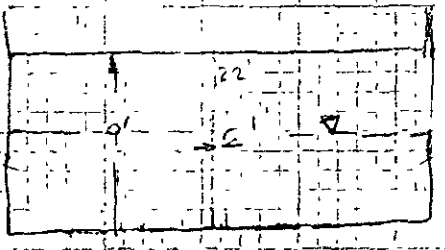
GTWRR SECTION

L = 12', D = 5' (ASSUME)

A = 5×22 = 110 sq ft

P = 22 + 5×4 = 42'

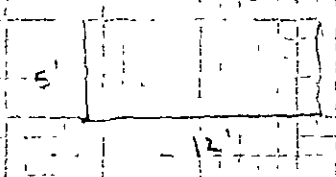
R = 2.62'



SECTION THROUGH BRIDGE FACE

FRICTION LOSS $S_f L = \frac{n^2 V^2 L}{2.22 R^{4/3}} = \frac{(0.06)^2 (2.95)^2 \times 12}{2.22 (2.62)^{4/3}}$

$= 0.05'$



ENTRANCE LOSS $0.15 V^2/2g = 0.02$

TOTAL $H_L = \underline{0.07'}$ ⇒ Guess of 5.0' OK

STARTING ELEVATION U/S OF GTWRR = 744 + 4.92 + 0.07

= $\underline{749}$

WASHINGTON TRIP - LIMITED DETAIL
PP 4/19/79 PRICE BRANCH
MPG 12/27/79

PRICE BRANCH

SECTION BETWEEN A AND B

CALCULATE NORMAL DEPTH FOR b = 8'
n = .06
s = 5%
Side Slopes 2 on 1
Q = 325 CFS

$$K = \frac{Qn}{b^{8/3}s^{1/2}} = \frac{325 \times .06}{(8)^{8/3}(.0053)^{1/2}}$$

$$= 1.039$$

$D/b = 0.615$

NORMAL DEPTH U/S OF CULVERT

= 4.92' ✓

Use 4.2' Normal depth and smooth into Normal depth of 4.2' between B and C.

$$V = \frac{325}{(8+2\times5)5} = 3.61 \text{ fps}$$

CALCULATE NORMAL DEPTH U/S OF SECTION B

FOR b = 8'
n = .06
SIDE SLOPES 2 ON 1
Q = 325 CFS
S = 1.0 %

$$K = \frac{Qn}{b^{8/3}s^{1/2}} = \frac{325 \times .06}{(8)^{8/3}(.01)^{1/2}} = .7565$$

$\frac{D}{b} = .53$

NORMAL DEPTH = .53 × 8 = 4.24'

V = 4.65 fps

$Y^2 = 0.134$

Price Brook - Reach between B and C

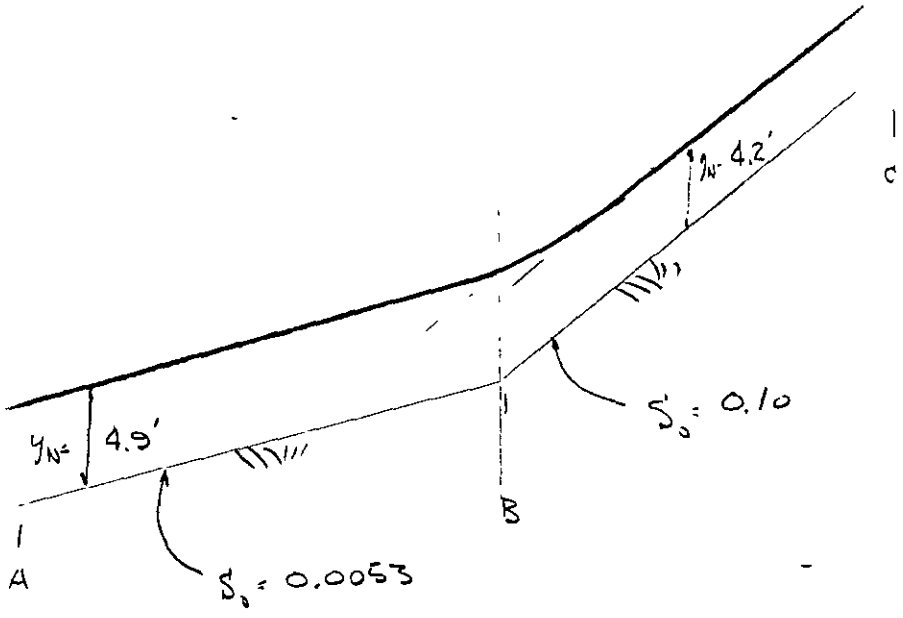
12/27/7-

3/

Per PVP computations:

Normal depth between A and B = 4.9'

" " " B and C = 4.2'

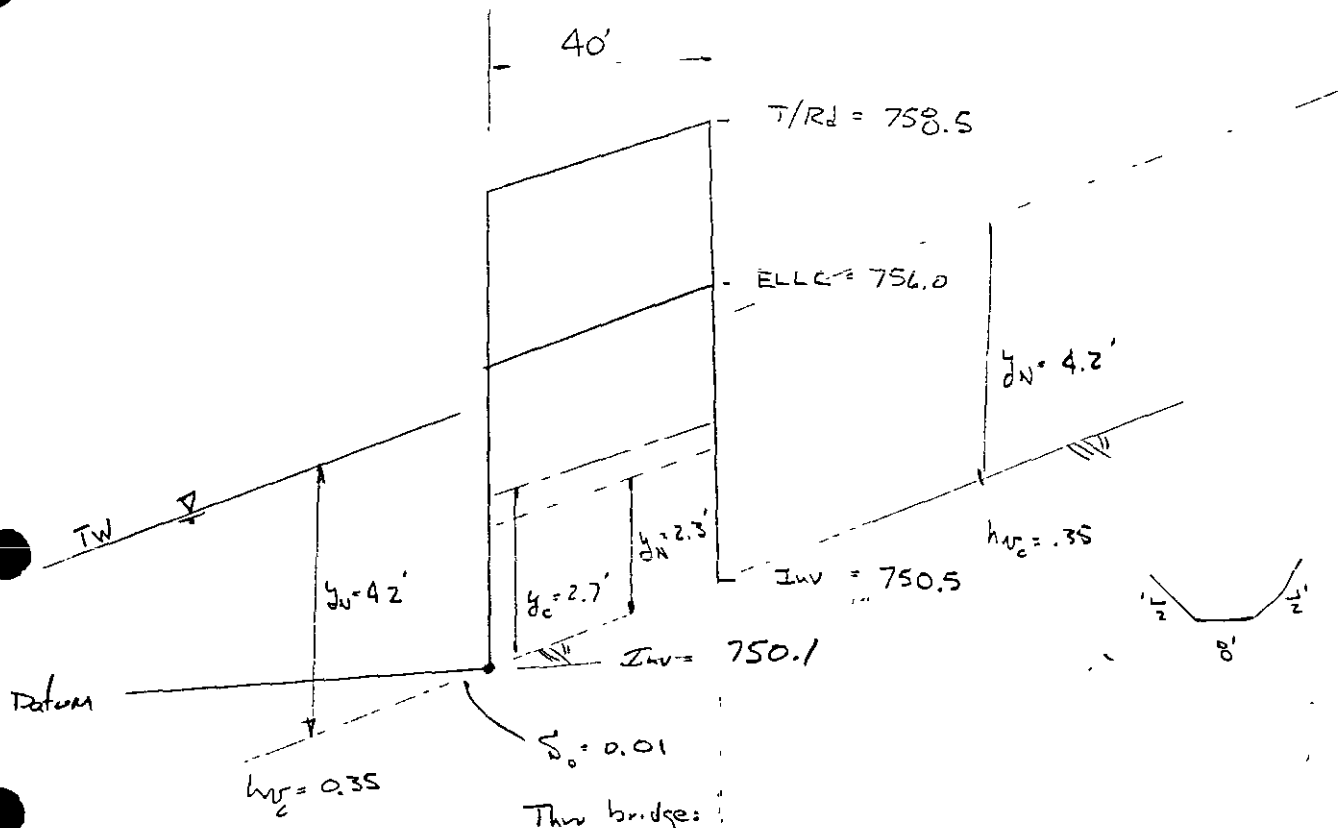


Use y_o = 4.9' up to 'B' and smooth into 4.2' u/s B.

Price Bridge M-53

13' box culvert 5½' [illegible], 40' long

Q_{100} = 325 cfs



Thru bridge:

h_{v_b} = 1.53 (critical depth)

h_{v_b} = 1.83 (Normal depth)

h_{v_b} = 0.55 (depth = 4.2')

Compute Normal depth inside bridge

$n = 0.020$ $\quad K' = \dfrac{325(.020)}{(13)^{8/3}(.010)^{1/2}} = 0.07 \Rightarrow$ 7-11 Bratton $\dfrac{D}{b} = 0.18$

$\Rightarrow D = 2.3$ ft

Compute Critical depth in bridge

$q = 325 \text{ cfs}/13' = 25 \text{ cfs/ft}$ $\quad y_c = \sqrt[3]{\dfrac{(25)^2}{g}} = 2.7$ ft

$\Rightarrow$ Steep slope thru bridge $\Rightarrow$ Low flow thru bridge.

Price Brook - M-53

Total loss = entrance/exit + friction

Exit Loss use $C_e = 0.5$

Energy outside face = 4.2 + 0.35 = 4.55'

Try depth inside = 4.2' ⇒ h_{v_b} = 0.55 and E_{inside} = 4.2 + .55 = 4.75

Loss = 0.5(0.55 - 0.35) = 0.1' ⇒ E_{inside} = 4.65' (depth too high)

Try depth = 4.1 ⇒ h_{v_b} = 0.58 ⇒ E_{inside} = 4.1' + .58 = 4.68

Loss = 0.5(.58 - .35) = .07' ⇒ E_{inside} = 4.55 + .07 = 4.62 } depth guess high

Try depth = 4.0 ⇒ h_{v_b} = 0.61 ⇒ E_{inside} = 4.61' — too low

Loss = 0.5(.61 - .35) = 0.13 ⇒ E_{inside} = 4.55 + .13 = 4.68

use depth inside = 4.1' ⇒ E_{inside} = 4.68

Friction Loss

Guess $d_{\Delta v}$: Δinvert = 0.4' over length ⇒ Max Δd would be 0.4'

chose Δd = 0.2' ⇒ $d_{\Delta v}$ = 4.1' - 0.2 = 3.9' $R = \left(\frac{39(13)}{(39)2+13}\right)$ = 2.44

$$S_f = \left[\frac{(325)(.020)}{1.49(3.5)13)(2.44)^{2/3}}\right]^2 = 0.002$$

⇒ Friction loss = .002(40) = 0.08 say 0.1'

Energy inside u/s face = 4.68 + 0.1' + 40(.01) = 5.18

Velocity in bridge @ d = 3.9' = 6.4 fps

h_{v_b} = 0.64

Price [illegible]

M.S.
12/27/79
41

Entrance Loss: Use [illegible]

Compute Velocity in channel @ d = 3.9' $h_{v_c} = 0.43$

Energy inside u/s face = 5.18

guess depth outside face = 5.0' ⇒ $h_{v_c} = 0.2$ ⇒ $E_{outside} = 5.2'$

Loss = 0.3(0.64 - .2) = 0.13 ⇒ $E_{outside}$ = 5.18 + .13 = 5.31 (depth low)

guess depth outside face = 5.1' ⇒ $h_{v_c} = 0.19$ ⇒ E_o = 5.29

Loss ⇒ 0.3(.64 - .19) = .13 E_o = 5.18 + .13 = 5.31 — good

⇒ WSEL u/s = 750.5 + 5.1 = 755.6'

Reach between 'C' and 'D'

Normal depth = 4.2' (same as between B and C)

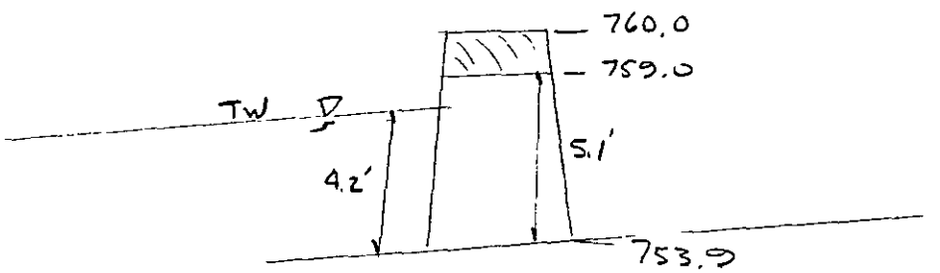
Extend backwater from C back and smooth into 4.2' depth.

Driveway Bridge @ D

$\frac{1}{2}$ - 9' RCP 16' long $V_b = \frac{325}{\frac{1}{2}\left(\frac{9^2\pi}{4}\right)} = 10.2$ fps

From inspection, outlet controls.

Compute discharge when HW is @ t/Rd.



Price Brook - Driveway @ D

[illegible] velocity in channel u/s ⇒ T/N e/o/.

$d = 6.1'$ $\quad A = 6.1(8.0) + 2(0.1)^2 = 12.5\ ft^2$ $\quad h_{v_c} = 0.11'$

$XKOR = K_e + K_f + 1$ $\quad K_e = 0.4$ $\quad$ use $K_f = 0.2 \Rightarrow XKOR = 1.6$

$h_L = 6.1 - 4.2 + 0.1 = 2.0'$

$h_L = XKOR\, h_{v_B} \Rightarrow h_{v_B} = \frac{2.0}{1.6} = 1.25' \Rightarrow V_B = 9.0\ fps$

$Area = \frac{1}{2}\left(\frac{9^2\pi}{4}\right) = 31.8\ ft^2 \Rightarrow Q_p = \underline{290\ cfs}$

$\Rightarrow$ Weir flow occurs $\quad Q_w = 325 - 290 = \underline{35\ cfs}$

Use $L = 50'$ $\quad c = 2.8$ $\quad H = \left[\frac{35}{(2.8)(50)}\right]^{2/3} = 0.4'$

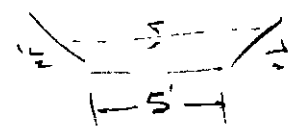
$\Rightarrow$ WSEL u/s $\underline{760.4}$

Reach between D & E

backwater from driveway influences stages here.

Reach between E & F

Channel section



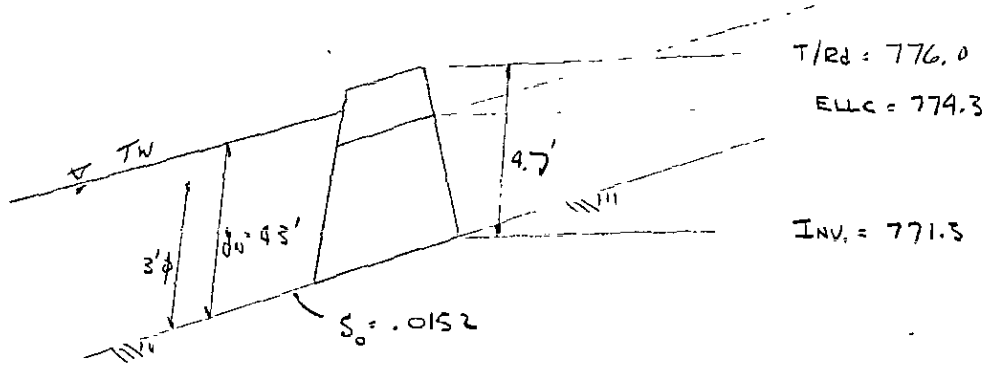
$Q = 325\ cfs$
$n = 060$
$S = 0.0152$

$K' = 2.15 \Rightarrow \frac{D}{b} = 0.86 \Rightarrow D = \underline{4.3'}$

Extend backwater from 'D' back and smooth into 4.3 depth.

Price Brook - Kilarney Hill

2' dia CMP ~50' long



Compute culvert capacity: HDS publ. Chart #11

$H = 0.4'$ with $K_e = 0.5$, $L = 50'$ $Q = 25$ cfs

$\Rightarrow Q_{weir} = 325 - 25 = 300$ cfs

Head over weir:

Use $C = 3.0$, L from topo = 150'

$$H = \left[\frac{300}{(3.0)(150)}\right]^{2/3} = 0.74 \text{ say } 0.8'$$

$\Rightarrow$ WSEL u/s = 776.0 + 0.8 = 776.8

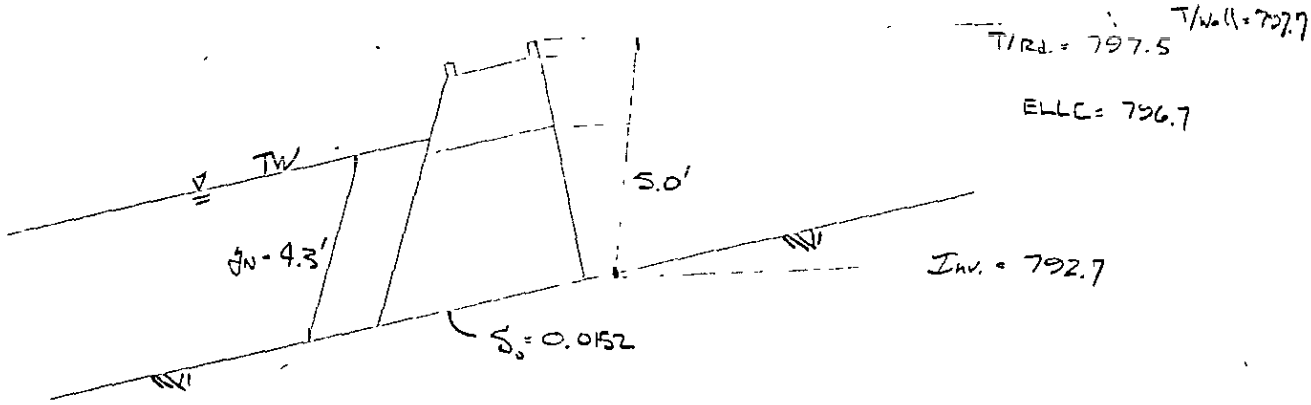
Reach between F and G

Same as between E and F, $y_N = 4.3'$

Smooth backwater @ F into 4.3' normal depth.

Price Brook - Driveway @ 6

4' ϕ dia CMP culvert



Per BPR ref Capacity of culvert @ T/wall elev. u/s:

$H = 5.0 - 4.3 = 0.7$ use $K_e = 0.5$ $L = 50'$ $\Rightarrow Q = 55$ cfs

$\Rightarrow Q_{weir} = 325$ cfs $- 55 = 270$ cfs

Head over weir: use $C = 2.9$ $L = 75'$ from plan

$$H = \left\{ \frac{270}{(2.9)(75)} \right\}^{2/3} = 1.2'$$

Revise length and Q for extra head

Add'l $Q_{press} \sim 30$ cfs $\Rightarrow$ $Q_{weir} = 240$ cfs

use Length = 100'

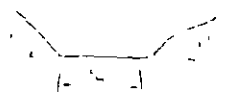
$$H = \left\{ \frac{240}{(100)(2.9)} \right\}^{2/3} = \underline{0.9'}$$

WSEL u/s = $797.7 + 0.9' = \underline{798.6}$

Prior Estimate - Reach between G & H

12/28/79

Channel Section



$Q_{100} = 275$ cfs

$b = 8'$

$S_0 = 0.017$ $\quad K' = \dfrac{275(.06)}{(8)^{8/3}(.017)^{1/2}} = .049 \quad \dfrac{D}{b} = 0.425$

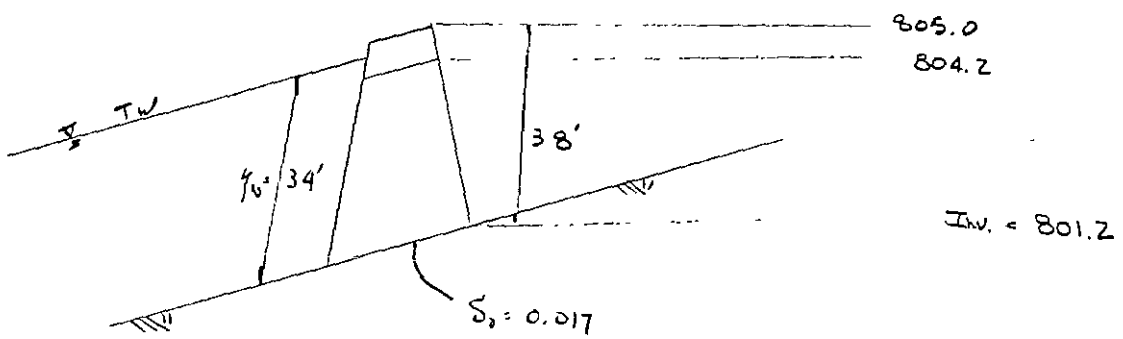
$n = .060$

$z = 2$ $\quad D = \underline{3.4'}$

Smooth backwater from driveway @ 'G' to 3.4' normal depth.

Bridge loss @ Limerick Lane 'H'

3' ϕ CMP 40' long



Estimate 1' weir flow

Compute flow thru culvert with $H = 0.4 + 1 = \underline{1.4'}$

use $K_c = 0.9$, 50' long. BPR ref. $\Rightarrow Q = 40$ cfs

$\Rightarrow Q_{weir} = 275 - 40 = \underline{235}$ cfs

Head over weir:

use $C = 2.8$, $L = 75'$ (topo)

$$H = \left[\frac{235}{2.8(75)}\right]^{2/3} = 1.1'$$

WSEL u/s $= 805.0 + 1.1 = \underline{806.1}$

P. [illegible] Reach between 4 & I

Same channel section, only bottom slope changed

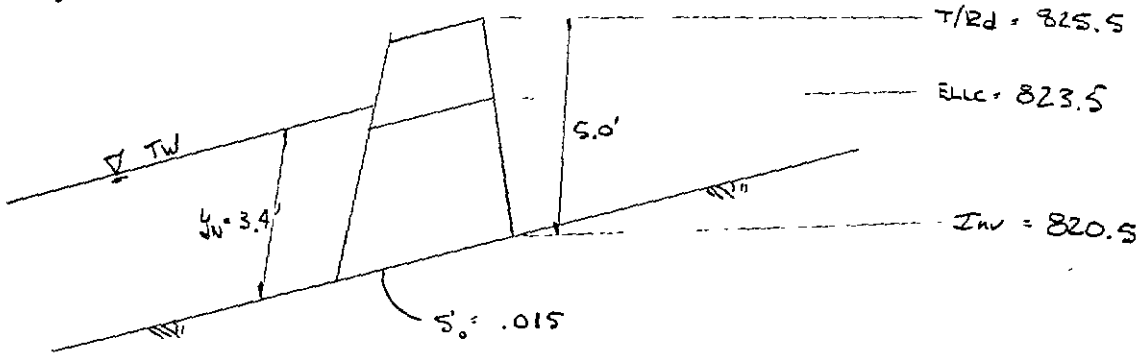
$S_o = 0155 \Rightarrow K' = 0.51 \quad \frac{D}{b} = .42 \quad D_f = 3.4'$

Smooth backwater into 3.4' depth.

Bridge Loss @ Kildare Lane (J)

3' ϕ dia CMP 45' long

$Q_{100} = 275$ cfs



Estimate ~ 1.0' depth over rd

Compute culvert capacity when HW is 10' above T/rd.

$H = 6 - 3.4 = 2.6'$

use $K_e = 0.9$, $L = 50'$ BPR chart # 11 $Q = 50$ cfs

$\Rightarrow Q_{weir} = 275 - 50 = 225$ cfs

Head over weir:

use $C = 2.8$, $L = 75'$

$$H = \left[\frac{225}{(2.8)(75)}\right]^{2/3} = 1.0'$$

WSEL = 825.5 + 1.0 = 826.5'

Price Brook - [illegible] between J & K

$Q_{100} = 2$ cfs

$S_o = 0.0[illegible]$

$n = .060$ $\quad K' = 0.50 \Rightarrow \frac{D}{b} = .47 \Rightarrow D = 3.7'$

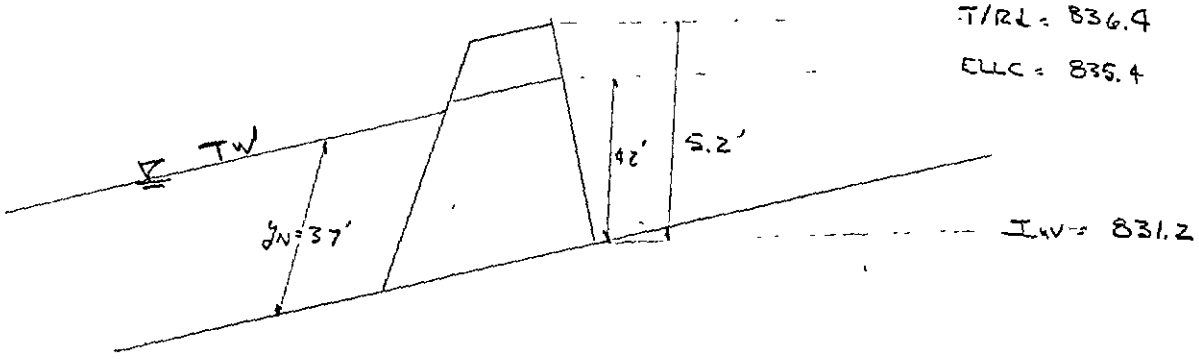
$z = 2$

Smooth backwater from Kildare into 3.7' depth.

Footbridge between J & K - per photo, loss is negligible.

30 Mile Rd -

5.5' CMP 40' long



Apparently either culvert is not round or there is ~1.3' of deposition

Area if 5.5'ϕ full $\quad A = \frac{5.5^2 \pi}{4} = 23.8\ ft^2$

" " 4.2'ϕ " : $\quad A = \frac{4.2^2 \pi}{4} = 13.9\ ft^2$

Approximate area by adjusting the 23.8 ft² figure by subtracting

$1.0'(5.5) = 5.5\ ft^2 \Rightarrow A \approx 23.8 - 5.5 = \underline{18.3\ ft^2}$

which is equivalent to a 58" ϕ so use 60" ϕ.

Price Bank - Pro Mil Rd Culvert

MFG
12/25/79

151

Compute culvert capacity with HW 0.5' above 1/1d

$H = 5.7' - 3.7 = 2.0'$

use $K_e = 0.9$, $L = 50'$ BPR publ. $Q = 140$ cfs

$\Rightarrow Q_{weir} = 275 - 140 = 135$ cfs

Head over weir: $Q_w = 135$ cfs

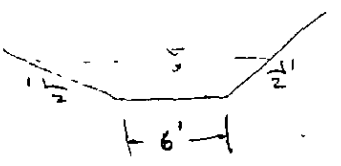
use $C = 2.9$ $L = 100'$ $\Rightarrow H = \left[\frac{135}{2.9(100)}\right]^{2/3} = \underline{0.6'}$

$\Rightarrow$ WSEL u/s $= 836.4 + 0.6 = \underline{837.0'}$

Reach between K and L

Channel section

$Q_{100} = 275$ cfs



$S_o = 0.015$

$K' = \frac{(275)(.06)}{(6)^{8/3}(.015)^{1/2}} = 1.13 \Rightarrow \frac{D}{b} = 0.64$

$D_N = 3.8'$

Smooth backwater into 3.8' depth.

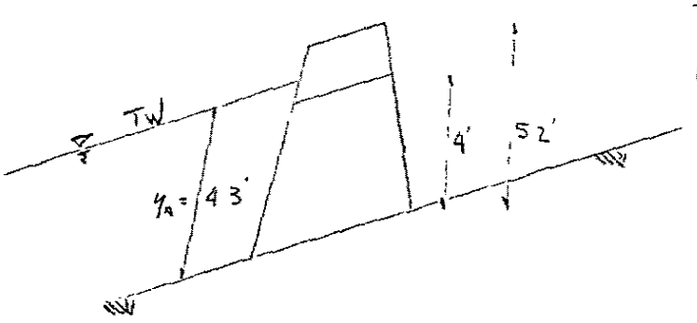
Reach between L and M

Same X-section shape as above, only bottom slope $= S_o = .0094$

$K' = \frac{(275)(0.06)}{(6)^{8/3}(.0094)^{1/2}} = 1.43 \Rightarrow \frac{D}{b} = 0.71 \Rightarrow D = \underline{4.3'}$

Price Brook - Driveway @ M'

4' Φ dia CMP 20' long



T/Rd = 851.5

ELLC = 850.3

Inv. = 846.3

Estimate 1.0' depth over rd

Compute culvert capacity with HW 1.0 above rd.

$H = 6.2 - 4.3 = 1.9'$

BPR publ. $K_e = 0.5$ use $L = 50'$ ⇒ $Q = 90$ cfs

⇒ $Q_{weir} = 275 - 90 = 185$ cfs

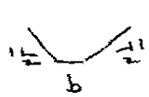
Head over weir: Q_{weir} 185 cfs

use $C = 2.8$ $L = 75'$

$$H = \left[\frac{185}{2.8(75)}\right]^{2/3} = 0.91 \text{ say } 0.9 \text{ (OK)}$$

WSEL u/s = 851.5 + 0.9 = 852.4

Reach between M & N

Channel: 

$b = 6$

$z = 2$

$S_o = .013$

$n = .060$

$Q_{100} = 275$ cfs

$K' = 1.22 \Rightarrow \frac{D}{b} = 0.66 \Rightarrow D = 4.0'$

Price Brook - Driveway u/s M

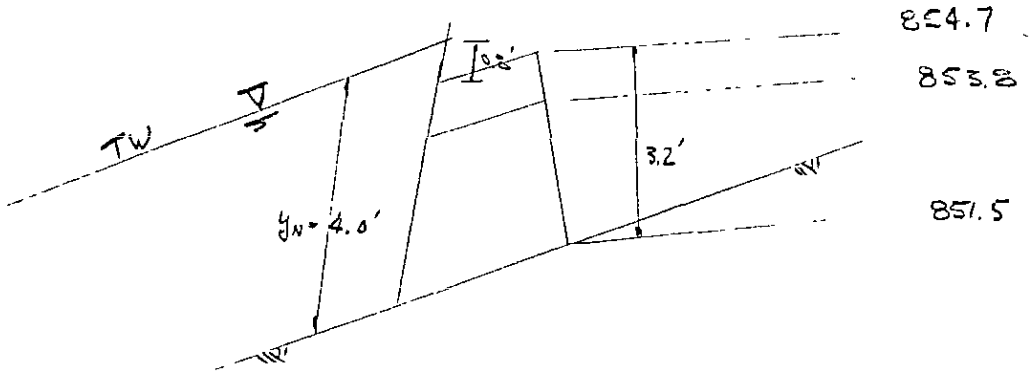
MPG
12/28/74

151

2.3' x 3.5' RCP elliptical 20' long
= 6 · 42'

Note rd is submerged by tailwater

Approximate loss using submerged sharp-crested weir graph.



Submergence = 0.8'

Compute capacity of culvert with H = 0.5'

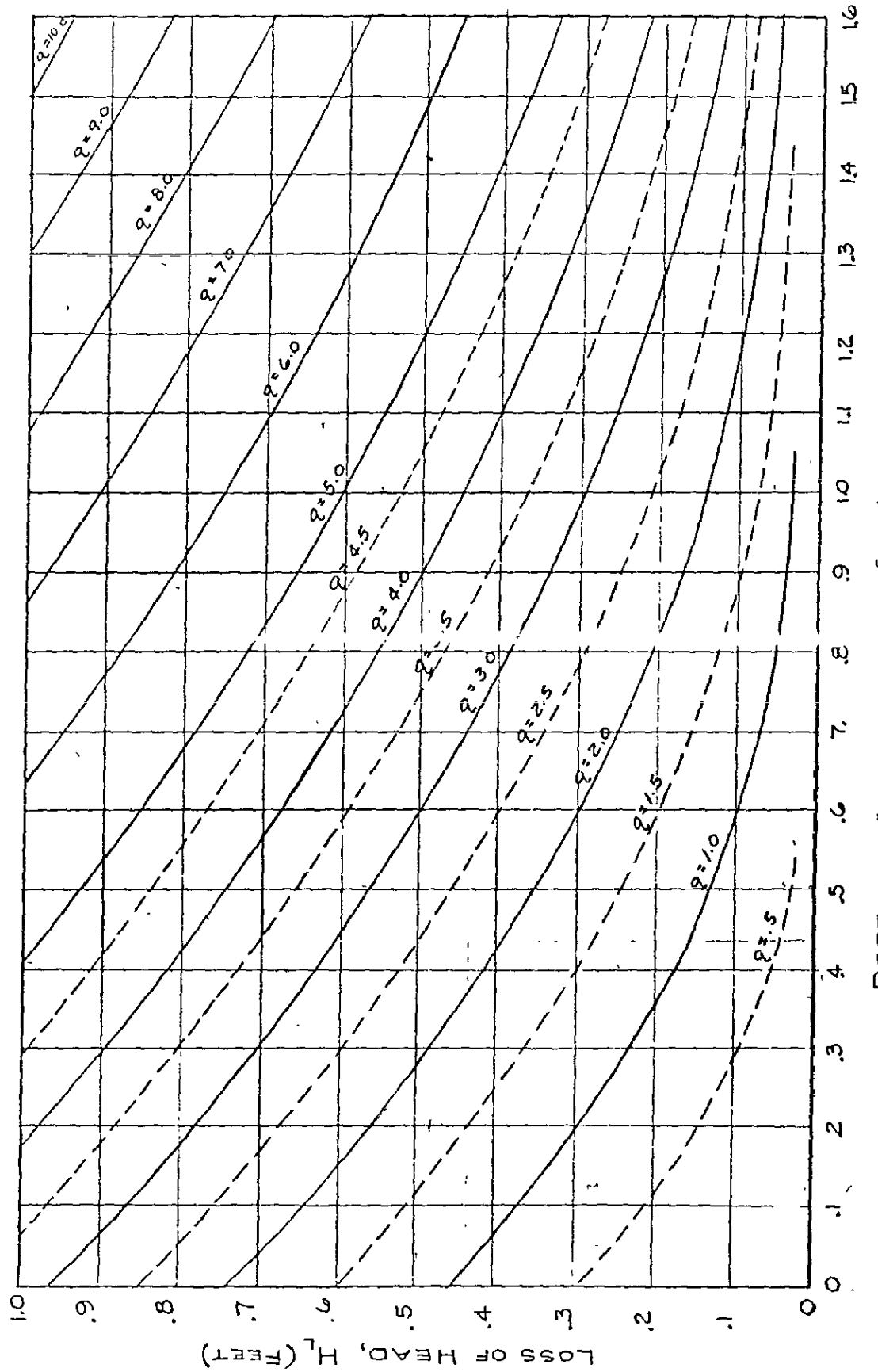
BPR K_e = 0.5 L = 50' ⇒ Q = 25 cfs

⇒ Q_{weir} = 275 - 25 = 250 cfs

Head on weir: use L = 75' ⇒ $q = \frac{250}{75} = 3.3$

see attached figure ⇒ h_L = 0.47 say 0.5'

WSEL u/s = 854.7 + 0.8 + 0.5 = 856.0



SUBMERGED - SHARP-CRESTED - RECTANGULAR WEIR

Reference: These curves were developed from equations found in the King and Brater's Handbook of Hydraulics, McGraw Hill, 3rd Ed, 1976 PP 5-17 - 5-23.

Fig. 3a

MTG
12/29/78
16/16

Price Brook - Driveway d/s 'N'

.5' x 2.3 RCP ellipse x 30' long.

Same as previous driveway except for ELLC - T/Rd. dimension

Flow thru culvert will be 25 cfs. per previous computation.

Submergence of road = 0.8'

Use Length of 75' ⇒ q = 33 cfs/ft

⇒ Δh = 0.5' (fig 3A from previous page)

WSEL d/s = 858.0 + 0.5 + 0.8' = 859.3

ELEVATION IN FEET MSL

740 750 760 770 780 790 800 810 820

GRAND TRUNK R.R.

M-59

DRIVEWAY

KILARNEY ROAD

DRIVEWAY
CONFLUENCE W/
TRIBUTARY NO. 1.

EMERICK LANE

(A) (B) (C) (D) (E) (F) (G) (H) (I)

5000 4000 3000 2000 1000

STREAM DISTANCE IN FEET

EXHIBIT 029

LEGEND

STREAM BED

100 YEAR FLOOD

CROSS SECTION LOCATION

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration
TOWNSHIP OF WASHINGTON, MI.

FLOOD PROFILES

PAGE 1 OF 2

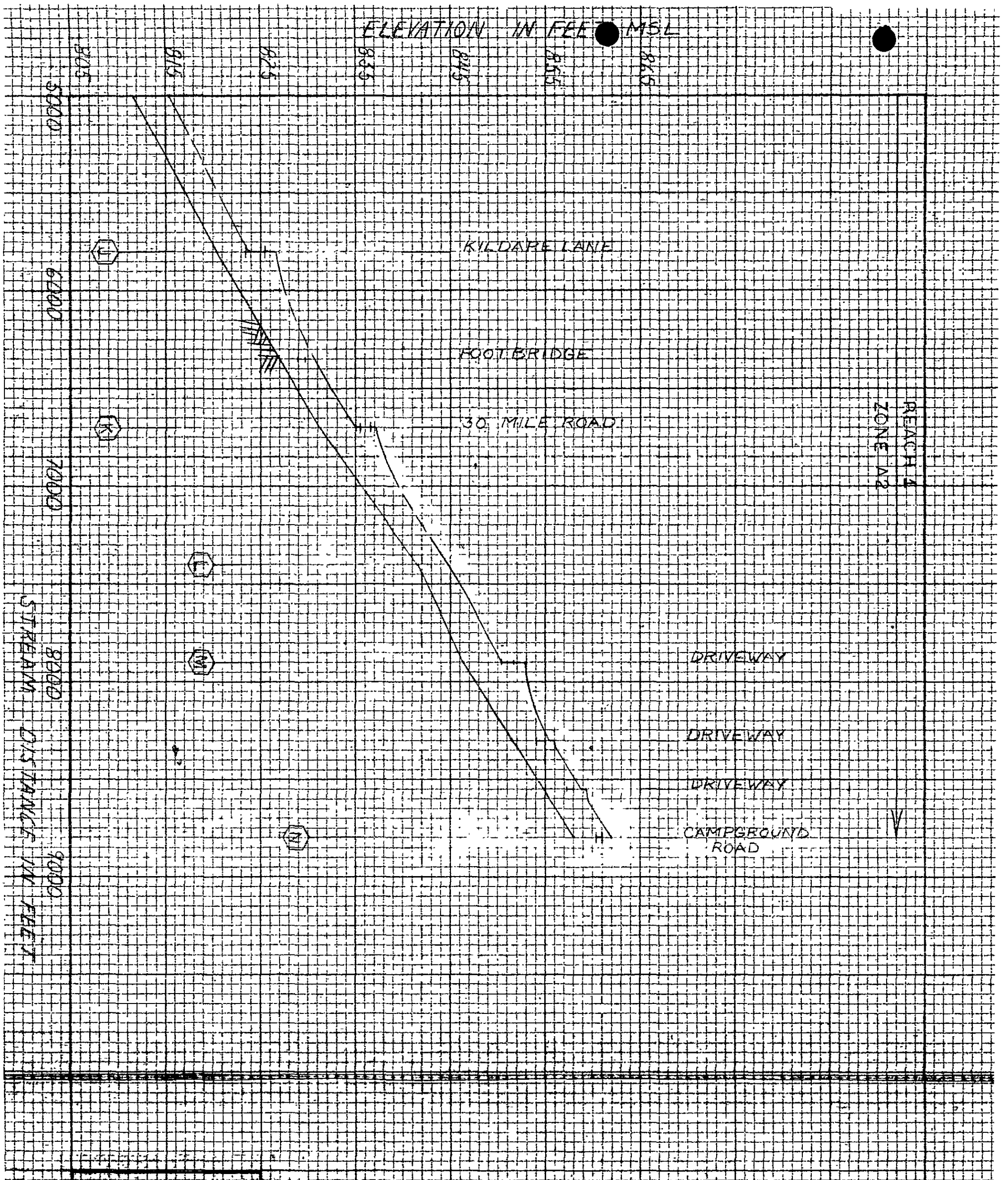


EXHIBIT 03

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.

FLOOD PROFILES

Price Brook - Tributary

Drainage Access Trib [illegible] = [illegible] mi²
Price Brook d/s cutoff = 1.4 mi²

1/8

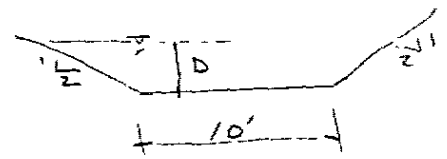
Starting elevation - coincidental peaks [illegible] ⇒ start @ normal depth

Q_{100} = 145 cfs

S_o = 0.002

b = 10'

Z = 2

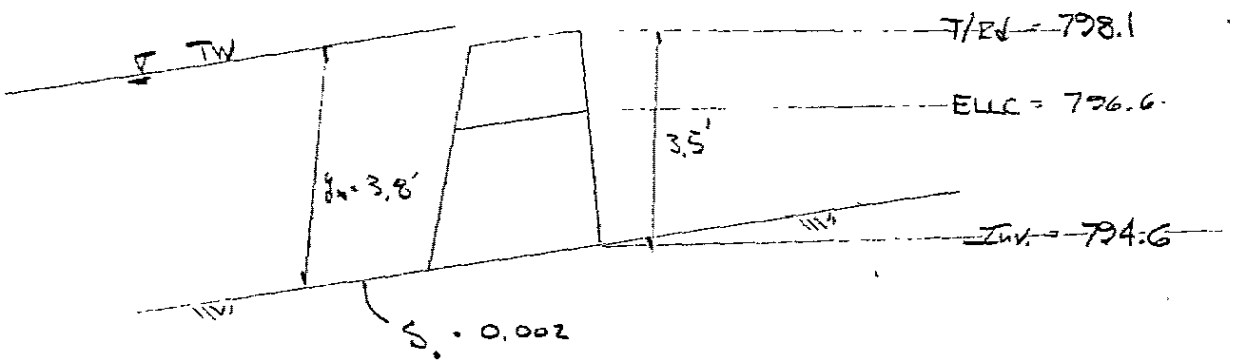


$K' = \frac{145(.06)}{(10)^{8/3}(.002)^{1/2}} = 0.42$

$\frac{D}{b} = 0.37$ D = 3.8'

Bridge @ Limerick Lane

2' dia ϕ CMP 40' long



Road is submerged by 0.8' ft

Guess 0.5' loss across ⇒ compute flow thru culvert @ H = 0.5'

BPR reference use K_e = 0.9, L = 50' ⇒ Q = 10 cfs

⇒ Q_{weir} = 145 − 10 = 135 cfs

use L = 50' ⇒ $q = \frac{135}{50}$ = 2.7 cfs/ft

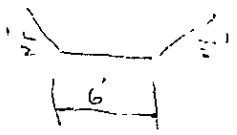
loss per Fig 3A (See page 15A of Price Brook notes) h_L = 0.35' say 0.4'

⇒ WSEL u/s = 798.1 + 0.8 + 0.4' = 799.2'

Price Branch Trib. Reach between A & B

$Q_{100} = 145$ cfs

Channel sect

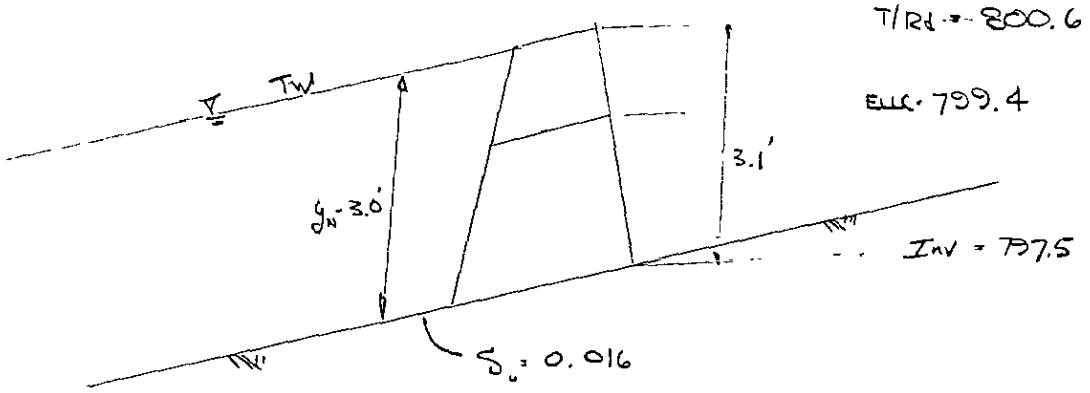


$S_o = 0.016$

Use $n_c = .065$ $\Rightarrow K' = 0.63$ $\rightarrow \frac{D}{b} = 0.49$ $D = \underline{3.0'}$

Driveway bridge just u/s A $\longrightarrow$

2' ϕ CMP 15' long



Estimate 0.5' loss over road. $\Rightarrow$ capacity of culvert when H = 5'

$K_e = 0.5$, $L = 50'$ $\Rightarrow$ BPR ref. = 10 cfs

$\Rightarrow Q_{weir} = 145 - 10 = 135$ cfs

Head over weir: use $C = 30$ $L = 50'$

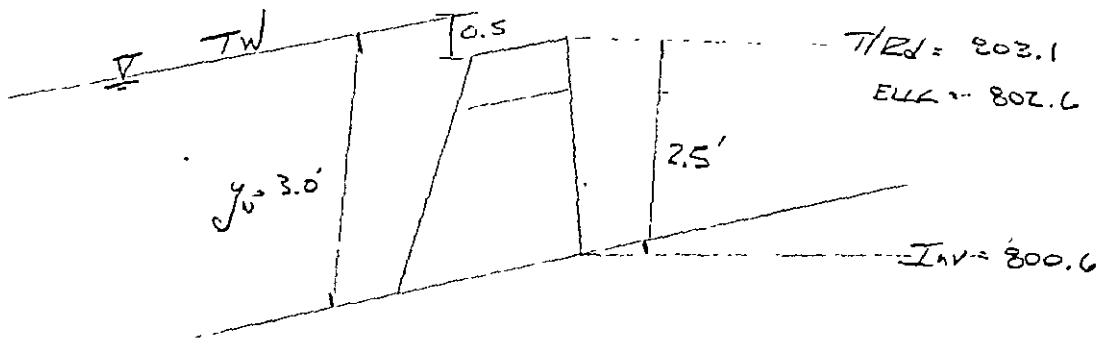
$$H = \left\{ \frac{135 \text{ cfs}}{30(50)} \right\}^{2/3} = \underline{0.9'}$$

$$\text{WSEL u/s} = 800.6 + 0.9 = \underline{801.5}$$

Price Brook - Trib

Middle driveway between A & B

2'4 dia CMP 20' long



Top of rd is 0.5' submerged

Guess 0.4' loss ⇒ per BPR ref $Q_{pressure} \doteq 10$ cfs

⇒ Q_{weir} = 135 cfs

q = 135/50' = 2.7 cfs/ft

Fig 3A ⇒ h_L = 0.5'

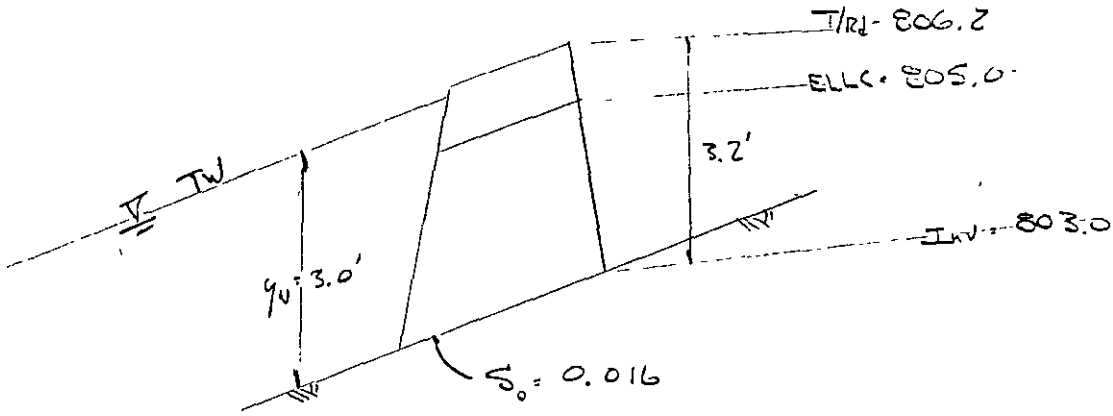
WSEL u/s = 803.1 + 0.5 + 0.5 = 804.1

AH
12/22/15
3/

Price Brook - Tributary

Driveway just u/s 'B'

2' ϕ CMP · 20' long



Per previous computations $Q_{pressure} \sim 10$ cfs ⇒

$Q_{weir} = 135$ cfs

For L = 50' C = 2.9

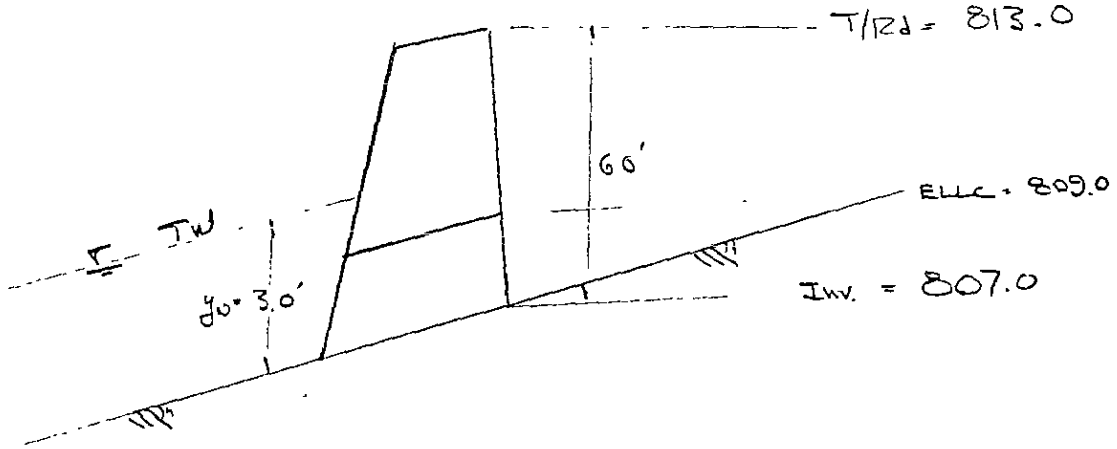
$$H = \left[\frac{135}{(2.9)(50)}\right]^{2/3} = 0.95 \text{, say } 1.0$$

WSEL u/s = 806.2 + 1.0 = <u>807.2</u>

Price Brook T:6

Bridge @ B - Kildare Lane

2'ϕ Dia CMP 59 long



Use BPR to compute culvert capacity with HW 0.5' above T/Rd elev.

$K_e = 0.9$ $L = 50'$ $H = 6.5 - 3 = 3.5'$

$\Rightarrow Q = 25$ cfs

$\Rightarrow Q_{weir} = 145 - 25 = 120$ cfs

Use $C = 2.8$, $L = 50'$

$$H = \left[\frac{120}{(2.8)(50)}\right]^{2/3} = 0.9'$$

WSEL $_{fs}$ = 813.9

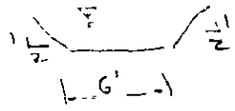
Pro Brook - Trib.

MPG
12/25/75

6

Reach between B & C

Channel sect.



$S_o = 0.033$

use $n = 0.065$

$Q_{100} = 145$ cfs $\Rightarrow K' = \dfrac{(145)(.065)}{(6)^{8/3}(.033)^{1/2}} = 0.44$ $\quad \dfrac{D}{b} = 0.42$

$\Rightarrow D = \underline{2.5'}$

Reach between C & D

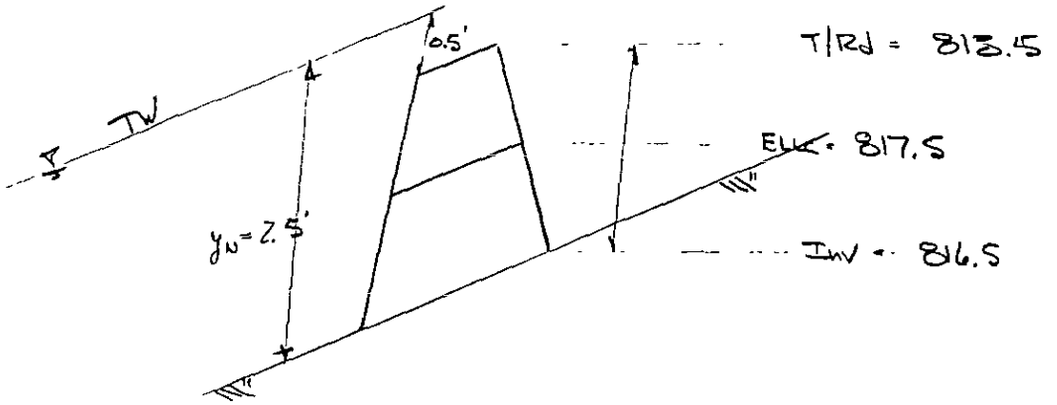
Same X-section as above

Bottom slope $S_o = 0.023$

$\Rightarrow K' = \dfrac{145(.065)}{(6)^{8/3}(.023)^{1/2}} = 0.52 \Rightarrow \dfrac{D}{b} = 0.44 \Rightarrow D = \underline{2.6}$

Bridge @ 'C'

1' ϕ CMP 24' long



Negligible flow thru 1' ϕ culvert. Weir is 0.5' submerged.

$Q_{weir} = 145$ cfs use $L = 50'$ $\Rightarrow q = 2.9$ cfs/ft

$\Rightarrow$ Fig 3A $h_L = 0.55'$ sg 0.6' $\Rightarrow$ WSEL cfs = 818.5 + 1.1 = $\underline{819.6}$

Prior Brook Trib

MFG

7/

Earth Dam @ D

Outlet pipe - 1.5' ϕ CMP

Top of outlet structure = 827.8

Note: Peak flow of 145 cfs could be attenuated by retention pond but due to the scope of study, no routing will be done here.

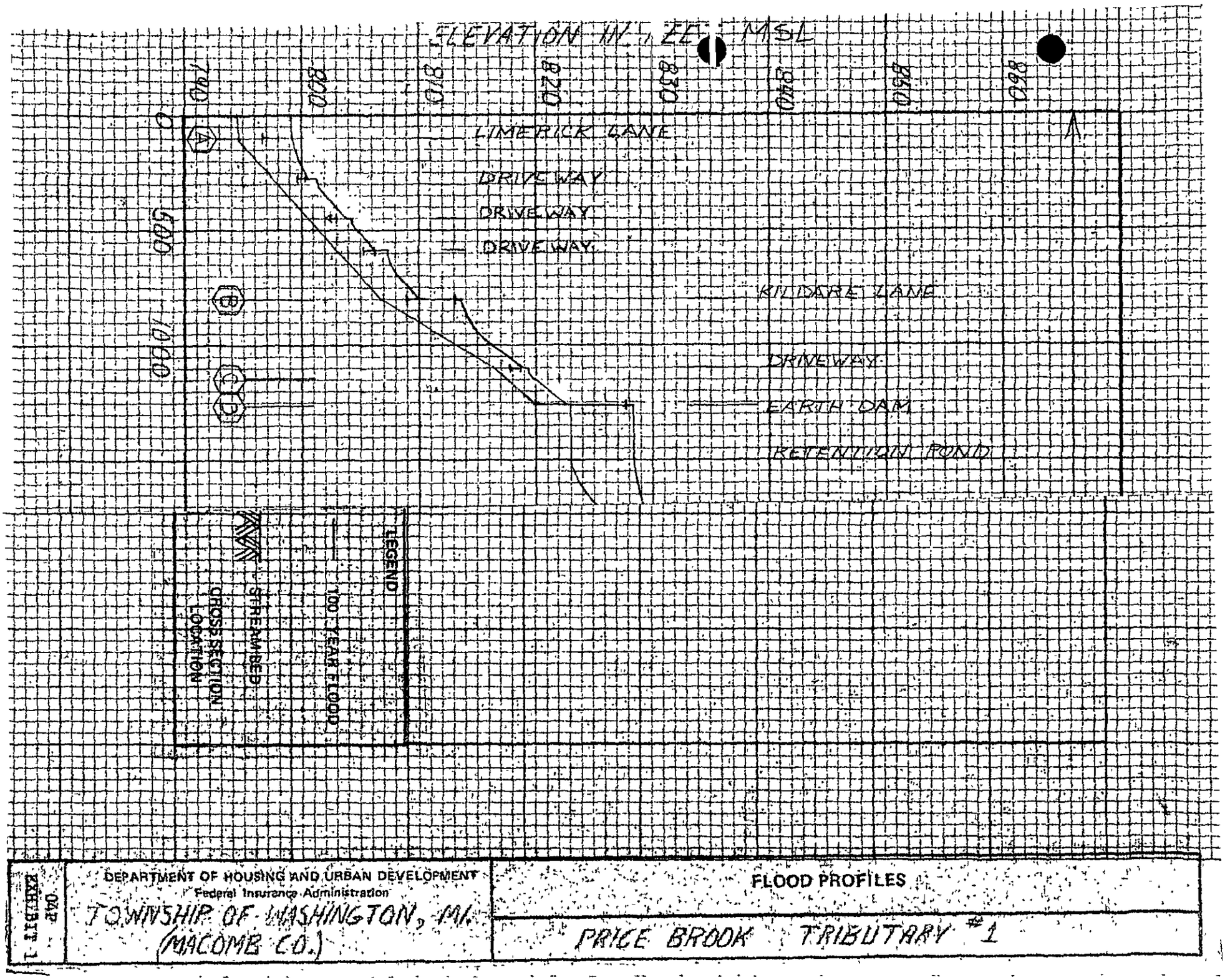
To take this into account somewhat, a longer weir length will be used. These results should be reasonable since the capacity of the outlet pipe is ~10 cfs and the height from culvert crown to weir elev. = 1.5 meaning weir flow will probably occur.

Head over outlet Structure:

use $C = 2.9$ $L = 100'$

$$\Rightarrow H = \left[\frac{135\ cfs}{(2.9)(100)}\right]^{2/3} = 0.6'$$

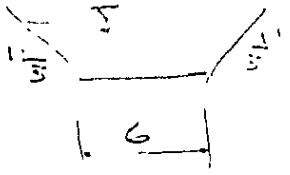
WSEL in pond = 827.8 + .6 = 828.4'


ELEVATION IN FEET MSL
790
800
810
820
830
840
850
860
5900
6000
LIMERICK LANE
DRIVE WAY
DRIVEWAY
DRIVE WAY
KILDARE LANE
DRIVEWAY
EARTH DAM
RETENTION POND
A
B
C
D
LEGEND
STREAMBED
100 YEAR FLOOD
CROSS SECTION LOCATION
EXHIBIT 1
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration
TOWNSHIP OF WASHINGTON, MI.
(MACOMB CO.)
FLOOD PROFILES
PRICE BROOK TRIBUTARY #1

Price Brook Trib.

Reach between E and F

Channel section



$S_o = 0.010$

$n = 0.065$

$Q_{100} = 145$ cfs

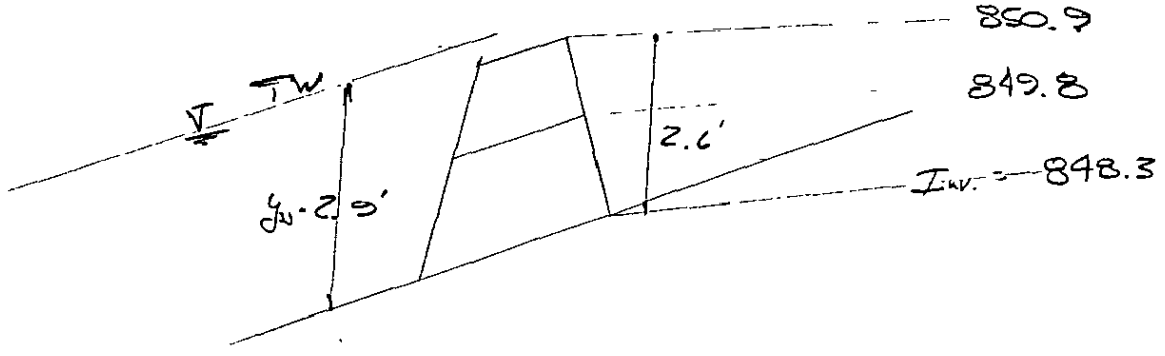
$\Rightarrow K' = 0.78 \quad \frac{D}{b} = .49 \Rightarrow D = 2.9$

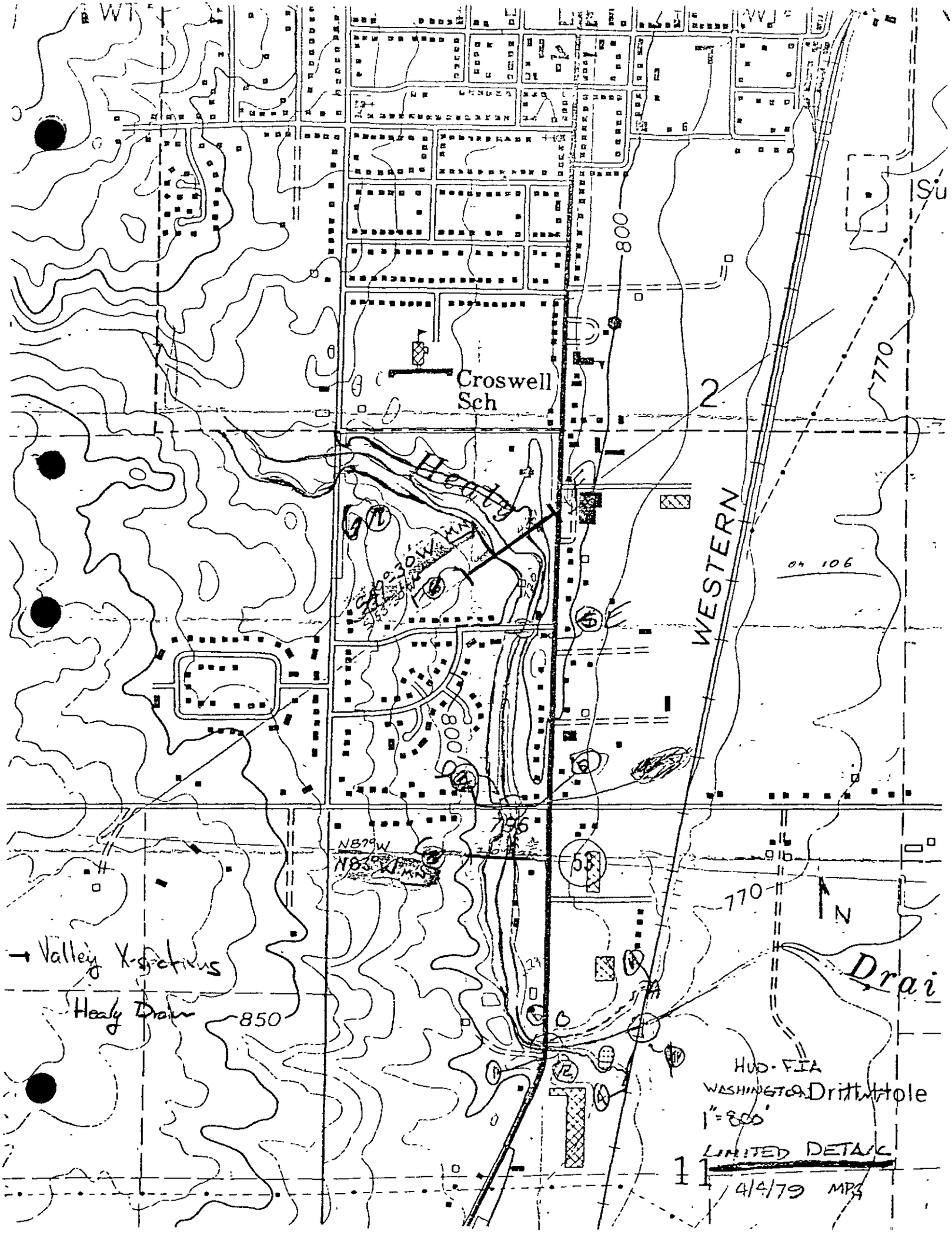
Note: neglect influence of small pond ~ 750' U/S 'F'.

Bridge @ F'

Limited detail ends here. Approximate study continues upstream. By inspection, Tailwater is above T/Rd $\Rightarrow$ Weir flow occurs.

1.5 ϕ CMP 28' long





Croswell Sch
Healy
WESTERN
800
770
2
on 106
796
N87°W
N83°W MN
53
770
N
Drai
Valley X-sections
Healy Drain
850
HUD-FIA
WASHINGTON Drill Hole
1"=800'
LIMITED DETAIL
11
4/4/79 MPG

480-A/27-K

Healy Drain

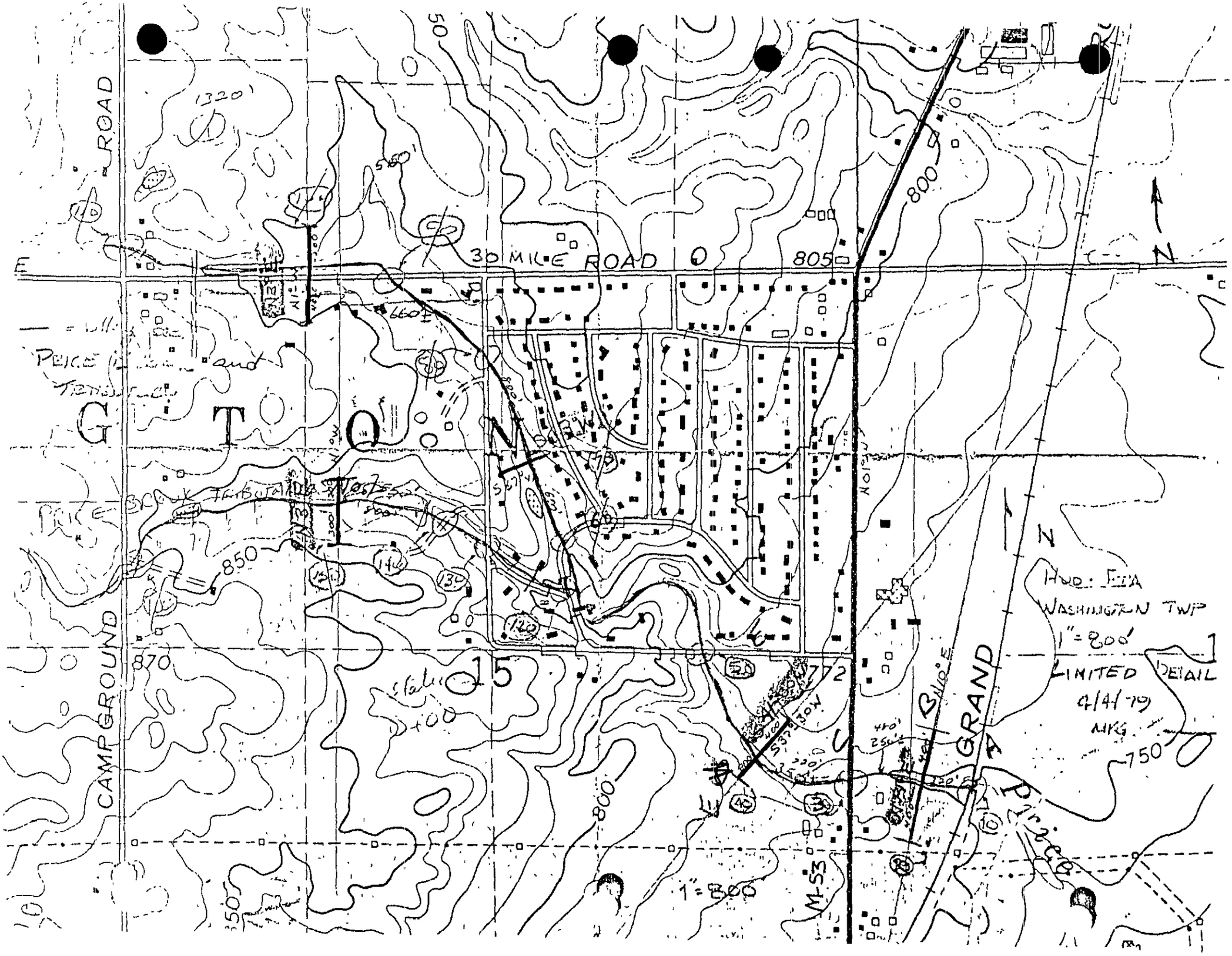
Limited Detail

4-12-79

Bridge Descriptions & details

#1	= 6.3' Dia RCP 50' long x = 6.3' y = 5.5' GTWRR	picture #19, Film 127
#2	= 14' x 8' box culvert 50' long x = 7.9' y = 3.2' z = 2.0'	picture #20, Film 127 wing walls stick out 2' each end
#4	= 7' Dia CMP, 31' long x = 6.6' y = 1.3' z = 3.0'	picture #1, Film 128 23' railing
#5	= 2-6' Dia CMP's, 37' long, 1' apart x = 5.8' y = 2.6'	picture #2, Film 128 headwall = 21' wing walls 3' forward, 6' to side
#7	= 5' Dia CMP, 34' long x = 4.5' y = 2.5' (to road)	picture #3, Film 128 18' long headwall

where X = invert to low chord
y = low chord to top of road
z = top of road to top of rail (if any)



30 MILE ROAD
805
800
850
870
CAMPGROUND
ROAD
G T O N
15
772
GRAND
Price
M-53
1"=800
HUD: FIA
WASHINGTON TWP
1"=800'
LIMITED DETAIL
4/4/79
MKG.
750
N

480-A / 42-K

Price Drain

Photos & Bridge Descriptions

4-17-79

#10 22'wX 12'long wood RR bridge
1 Column in E bridge
x = 9 y = 2.4

photo #3 Film 128
(wingwalls reach 7' forward & 6' to side) RR bridge

#30 13' X 40' box culvert
x = 5.5' y = 2.5' z = 1.7'

photo #4 "
(guardrails 40', wingwalls = 4' forward)

#30 4/5 from top of bridge
y =

photo #5 "

#30-A 9' Dia RCP, 16' long
x = 5' y = 1'

photo #6 "
(wingwalls 12' forward & 6' to sides)

#50 3' dia cmp, 29' long
x = 3' y = 1.7'

photo #7 "

#50-A 4' dia RCP, 20' long
x = 4' y = 0.8 z = 0.2

photo #8 "
(100' D/S from #120)

#60 3' Dia CMP, 40' long
x = 3' y = 0.8'

photo #9 "

Limerick Rd

where x = invert to low chord
y = low chord to top of road
z = top of road to railing

Price Drain 4-17-79 A80-A AA-A

Photos & Bridge Descriptions

#80	3' Dia CMP, 44' long X = 3' y = 2'	photo #10	Film 12 &
#80-A	4' x 17' foot bridge X = 1.7 y = 0.6	photo #11 (330' D/S from #90)	" "
#90	5.5' Dia CMP, 40' long X = 4.2' y = 1'	photo #12	" "
#100-A	4' Dia RCP, 20' long X = 4' y = 0' to 1.2'	photo #13 (500' D/S from #100)	" "
#100-B	3.5' x 2.3' RCP, 19' long X = 2.3' y = 0.9'	photo #14 (400' D/S from #100-A)	" "
#100-C	3.5' x 2.3' RCP, 30' long X = 2.3 y = 0.5'	photo #15 (270' D/S from #100-B)	" "
#110	2.4' Dia , 30' long X = 2.4' y = 0.5'	photo #16	" "
#160	1.5' Dia CMP, 28' long X = 1.5' y = 1.1'	photo #17	" "

Price Drain 4-17-79 480-A/44-A

Photos & Bridge Descriptions

#140	1' Dia CMP, 24' long x = 1' y = 1'	photo #18	Film 128
#140-A	1.5' Dia CMP, 19' long x = 1.5' y = 1' (earth Dam)	photo #19 (133' u/s from #140)	" "
#130	2' Dia, 59' long x = 2' y = 4'	photo #20	Film 128
#120	2' Dia CMP, 40' long x = 2' y = ~~3.5'~~ 1.5' — appears to be an error [illegible] Per photo y ~ 1.5'. Maybe even was reading x+y as [illegible]	photo #1	Film 129
#120-A	2' Dia RCP, 15' long x = 1.9 y = 1.2'	photo #2 (175' u/s from #120)	" "
#120-B	2' Dia CMP, 20' long x = 2' y = 0.5'	Photo #3 (175' u/s from #120-A)	" "
#120-C	2' Dia, 20' long x = 2' y = 1.2'	photo #4 (140' u/s from #120-B)	" "

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Healy Drain
Price Brook
Price Brook Trib #1

4) DOCUMENT TYPE: Hydraulic Analyses

00BREAK00

FLOOD INSURANCE STUDY HYDRAULIC REPORT
(Limited Detail Methods)

PROJECT: HUD-FIA-H-4705 - Washington Township

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Healy Drain, Price Brook and Price Brook Tributary #1

STUDY LIMITS:

1. Romeo City Limits (upstream limit) to GTWRR bridge (downstream Limit) for Healy Drain
2. Campground Road (upstream limit) to GTWRR bridge (downstream limit) for Price Brook
3. Campground Road (upstream limit) to Confluence with Price Brook (downstream limit) for Price Brook Tributary #1

DATE OF LAND SURVEY: April 1979 - June 1979

SOURCES OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 4/26/79

TOPOGRAPHIC INFORMATION: USGS topographic maps 1" = 800; 10' contours

METHOD OF ANALYSIS: Where no bridges or culverts are present, the 100-year flood elevation at each x-section was determined via the uniform flow method using the channel-bed slope to compute normal depth. Where bridges or culverts were present, appropriate standard techniques to establish the 100-year flood elevations at each bridge were used.

PHOTOGRAPHS: Enclosed for your review, please return.

CROSS-SECTIONS: See hydraulic notes for sections considered representative of each reach.

REFERENCES:

1. Concrete Pipe Design Manual, American Concrete Pipe Association, February 1974.
2. Handbook of Steel Drainage and Highway Construction Products. American Iron and Steel Institute, 1971.
3. Handbook of Hydraulics. H.W. King and E.F. Brater, McGraw Hill Book Company, 6th Ed., 1976.
4. Open Channel Hydraulics. Ven Te Chow, McGraw Hill Book Company, 1959.

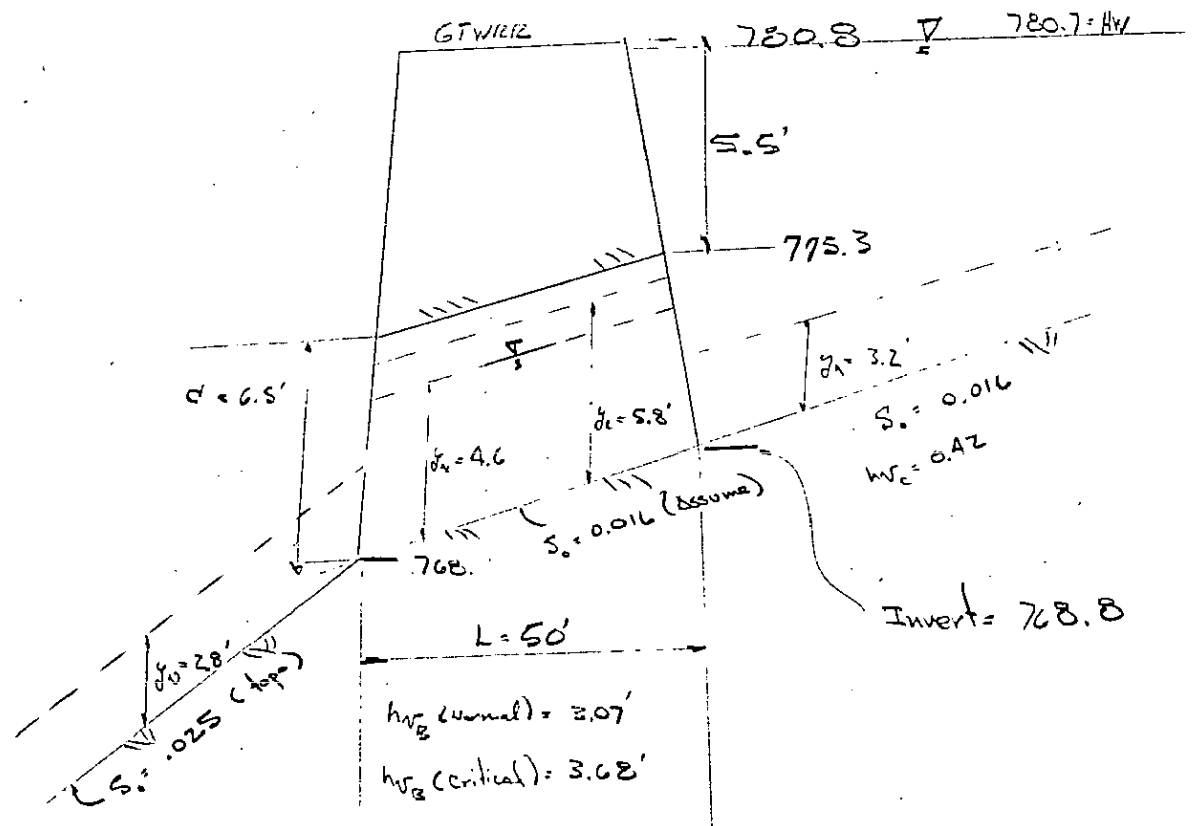
TABLE 8

Summary of Proposed Discharges
Washington Twp. - Limited Detail

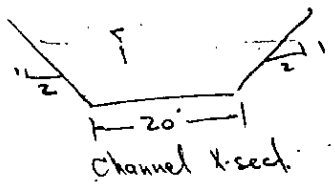
Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharge (cfs) 10-Yr.	50-Yr.	100-Yr.	500-
Healy Drain					
Just d/s of GTWRR bridge	2.5				
To		280	420	490	68
1 Mile Rd	1.9				
To		235	350	410	58
Romeo city limits	1.1				
Price Brook					
Jewell Rd	1.8				
To		190	275	325	46
D/s of Unnamed Tributary (NE 1/4 S15)	1.4				
To		160	230	275	37
Campground Rd	0.8				
Unnamed Tributary (NE 1/4 S15)					
Just u/s Price Brook	0.5				
To		85	120	145	19
Campground Rd	0.2				

Hardy Drain - GTWIRE culvert

78" ϕ RCP



K' = .063
y_N = 2.8'
K'c = 0.27
y_c = 2.4
⇒ Mild Channel



Channel X-sect.

Q_{100} = 490 cfs

Assume: slope of culvert is same as channel u/s.

Find critical depth: Table 8-10 Brater

Q = 490 cfs ⇒ $K' = \frac{Q}{d^{5/2}} = 4.55$ ⇒ $\frac{D_c}{d} = 0.89$

d = 6.5 ft

⇒ $D_c = \underline{5.8'}$

Normal Depth: Flowing full - Q = 680 cfs

$\frac{Q}{Q_f} = \frac{490}{680} = 0.72$ ⇒ hydraulic elements $\frac{d}{d_{full}} = 0.7$

⇒ Normal depth = 0.7(6.5) = 4.6 ft Steep channel.

⇒ Culvert will flow low flow whole length.

V_{full} = 14.8 fps $\frac{d}{d_{full}} = 0.7$ ⇒ $\frac{V}{V_{full}} = 0.95$ ⇒ V_{normal} = 14.1 fps

hv_{normal} = 3.07'

Hardy Drain - GTWICK culvert

Culvert is operating under inlet control conditions.

Consult Bureau Public Roads reference to compute headwater.

Concrete circular pipe - 78"ϕ. 50 ft long, Q_{100} = 490 cfs

Pg 5-22 for grooved end projecting (no headwall) $\frac{HW}{D}$ = 1.8

$\Rightarrow$ HW = 1.8(6.5') = 11.7 ft

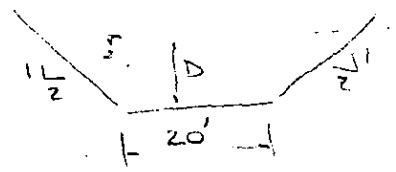
Weir flow occurs @ HW = 11.8 ft $\Rightarrow$ No weir flow

$\Rightarrow$ WSEL u/s = 11.7 + 769.0 = 780.7

Healy Drain

Reach between A & B

Check normal depth



$S_o = 0.016$ $Q_{100} = 490$ cfs

$n = 0.060$

$$K' = \frac{Qn}{b^{8/3} S^{1/2}} = \frac{490\,(.06)}{(20)^{8/3}(.016)^{1/2}} = 0.079 \Rightarrow \text{Bater } 7\text{-}11 \quad \frac{D}{b} = 0.16$$

$D = 3.2$ ft

Extend WSEL u/s culvert back horizontally until depth = 3.2 ft.

Loss @ M-53 - 8' x 14' box RCP, 50' long. TW depth = 3.2 ft

Compute critical depth inside bridge: $\frac{Q}{b} = \frac{490}{14\text{ft}} = 35$ cfs/ft

$$y_c = \sqrt[3]{b^2/g} = \sqrt[3]{\frac{(35)^2}{32}} = 3.4 \text{ ft} \Rightarrow \text{TW depth is below critical}$$

$$V_{critical} = \frac{490 \text{ cfs}}{(3.2)(14\text{ft})} = 10.9 \text{ fps} \quad h_{v_{crit}} = 1.86'$$

Critical depth @ outlet.

Compute normal depth in bridge:

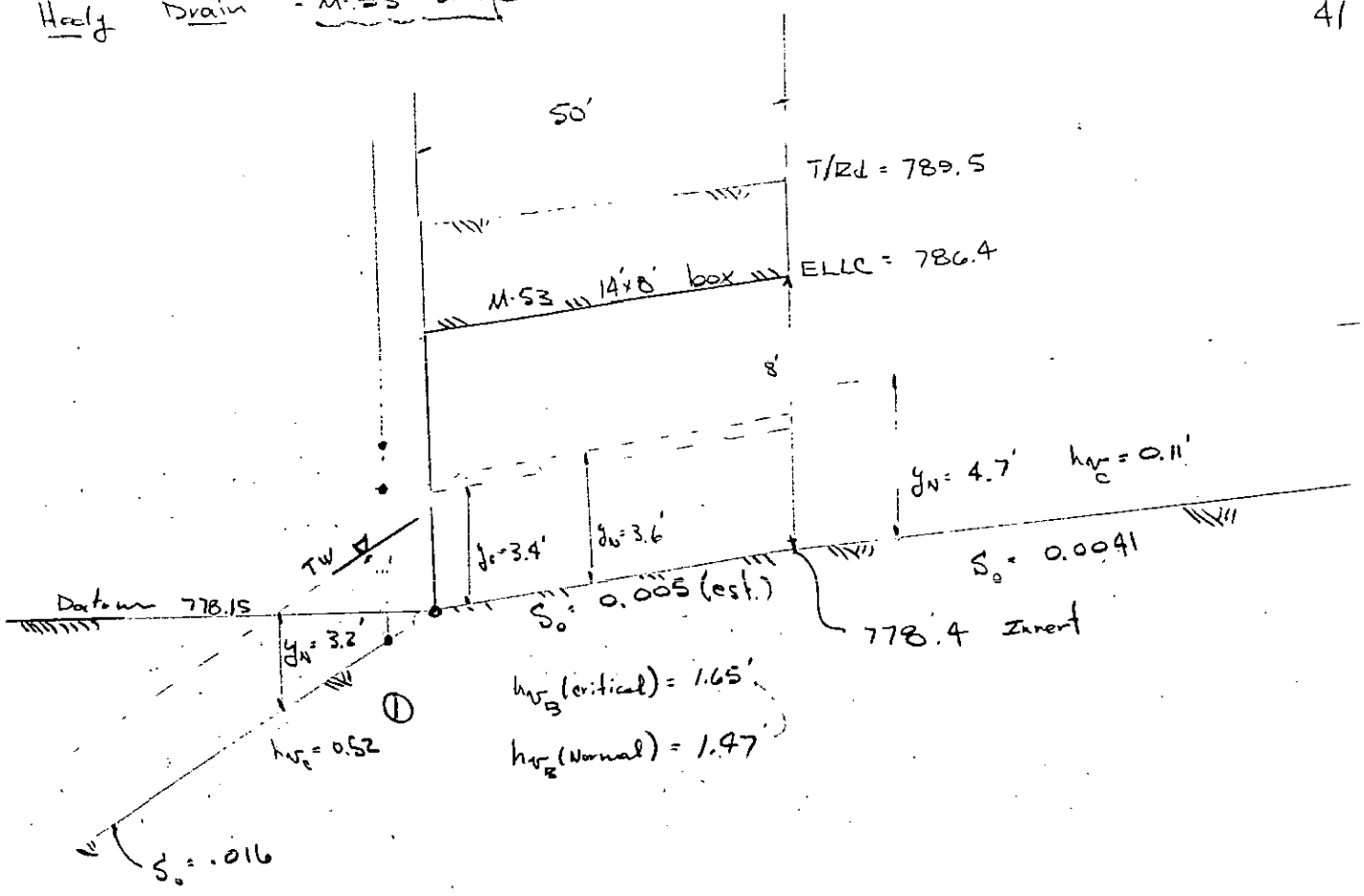
bottom slope d/s bridge = 0.016
" " u/s " = 0.0041
} use $S_o = 0.005$ thru bridge

$n_c = 0.020$

$$K' = \frac{490(.020)}{(14')^{8/3}(.005)^{1/2}} = 0.12 \Rightarrow \frac{D}{b} = 0.26$$

$D = 3.6$ ft

Healy Drain - M-53 bridge



Exit Loss: use $C_e = 0.5$

Energy in channel d/s entrance = 3.2 ft + 0.52 = 3.72'

Energy in bridge @ critical depth = 3.4' + 1.65 = 5.05'

Guess depth inside bridge = 3.6 ft ⇒ h_{v_B} = 1.47 ⇒ Energy = 3.6 + 1.47 = 5.07

if $\Delta h = 0.5\Delta h_v$ = 0.5(1.47 - 0.52) = 0.48 ⇒ Energy inside bridge = 0.48' + 3.72 = 4.2 which is below energy @ critical ⇒ energy necessary @ outlet is critical energy = 5.05'.

Healy Drain - 11.53 bridge

Friction loss thru bridge:

Guess average depth = 3.5 ft (y_c = 3.4' y_n = 3.6' thru bridge)

$$R = \frac{A}{P} = \frac{(3.5)(14)}{7+14} = 2.33$$

$$S_f = \left(\frac{Qn}{1.49 A R^{2/3}}\right)^2 = \left[\frac{190(.020)}{1.49(3.5\cdot 14)(2.33)^{2/3}}\right]^2$$

$$S_f = 0.0058$$

⇒ Energy inside u/s face = 5.05' + (.0058)50' = 5.34'

Entrance Loss: use $C_c = 0.3$ $h_e = 0.3\,\Delta h_v$

Assume normal depth is reached @ the u/s face.

⇒ y_n = 3.6' ⇒ h_{v_b} = 1.47

Guess u/s depth = 5.7' ⇒ $h_v = \left[\frac{490}{(20)5.7+2(5.7)^2}\right]^2/2g = 0.12'$

⇒ Energy outside face = 5.34 + 0.3(1.47 − 0.12) = 5.75'

if u/s depth = 5.7' ⇒ u/s Energy = 5.7 + 0.12 = 5.82') close

Try u/s depth = 5.6' ⇒ h_v = 0.12

Energy outside u/s face = 5.34 + 0.3(1.47 − 0.12) = 5.75

if depth = 5.6' ⇒ u/s Energy = 5.6 + 0.12 = 5.72) good

Energy u/s face = 5.75 + 778.15 = 783.9

Healy Drain

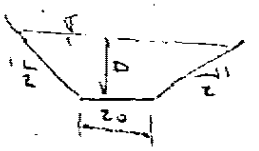
12/21/79

6/

Reach Between B & C

Extend WSEL @ 11.52 back and smooth into normal depth in the channel.

Compute normal depth:



Field Measured 'C'

$Q = 400$ cfs

$S_o = 0.0041$

$n = 0.060$

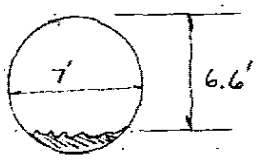
$K' = \frac{Qn}{(b^{8/3} S^{1/2})} = 0.156 \Rightarrow$ Table 7-11 Brater

$D/b = 0.235 \Rightarrow D = 4.7'$

Reach Between C & D

same as B & C except $S_o = .002 \Rightarrow K' = 0.22 \Rightarrow \frac{D}{b} = .28 \Rightarrow D = 5.6'$

Loss @ 31 Mile Rd. - 7' ϕ CMP 31' long, partially filled w/ dirt



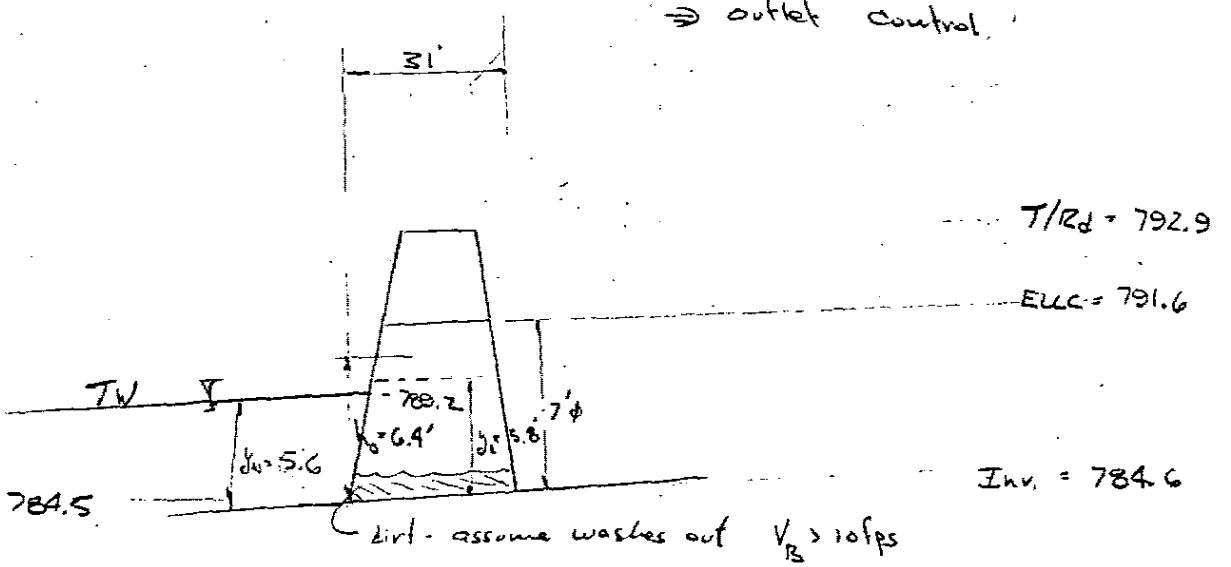
$Q_{100} = 410$ cfs ⇒ if not pressure, calculate Velocity

$A = 38.5 ft^2$ $V_{100} = 10.6$ fps ⇒ assume dirt in culvert will wash out.

$S_o = 0.002$ (downstream)
$= 0.005$ (upstream)

use $S_o = 0.0035$ for culvert

Compute Normal depth: $Q_{full} = 380$ cfs ⇒ culvert capacity is exceeded.
⇒ outlet control



Hooky Drain - 31 mile Culvert

12/27/00
7/

Compute Critical depth in culvert:

Table 8-10 in Brater $K_c' = \frac{Q}{d^{5/2}} = \frac{410 \text{ cfs}}{(7)^{5/2}} = 3.78 \Rightarrow \frac{D_c}{d} = 0.83$

$D_c = 5.8$ ft TW depth = 5.6 ft $\Rightarrow$ Critical depth @ outlet.

Bureau of Public Roads Reference Outlet control fig 2-C

$h_o = \frac{D + d_c}{2} = \frac{7.0 + 5.8}{2} = 6.4$ ft

$H = 3.2'$ for $L = 50'$ and $K_e = 0.5$

$\Rightarrow HW = h_o + H + L S_o = 6.4 \text{ ft} + 3.2 + (.0035)(31) = 9.7$ ft

Weir flow occurs @ HW = 792.9 - 784.6 = 8.3 ft

$\Rightarrow$ Weir flow.

Compute culvert flow when u/s water surface = 0.5' above rd.

$\Rightarrow HW = 8.3' + 0.5 = 8.8' \Rightarrow H = 8.8 - 6.4 - 0.1 = 2.3'$

BPR reference $\Rightarrow Q_p = 340$ cfs

$\Rightarrow Q_{weir} = 70$ cfs

Compute head over weir:

Use 40' Weir $C = 2.5 \Rightarrow H = \left[\frac{70 \text{ cfs}}{(2.8)(40')}\right]^{2/3} = 0.73'$

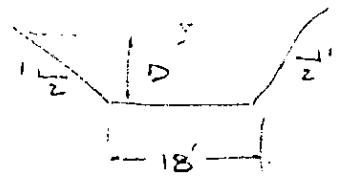
$\Rightarrow$ WSEL u/s = 792.9 + 0.7 = 793.6'

Healy Drain

12/21/79

8/

Reach Between D and E



$S_o = 0.005$ use $n_c = 0.060$

$b = 18'$ $Q_{100} = 410$ cfs

$z = z$

Compute normal depth: $K' = \frac{490(.060)}{(18)^{8/3}(.005)^{1/2}} = 0.155 \Rightarrow \frac{D}{b} = 0.255$

$\Rightarrow D = \underline{4.2'}$

Extend WS from 31 Mile Rd. horizontally and smooth into 4.2' depth.

Barbara Ann St - bridge 2- 6' Dia CMP 37' long

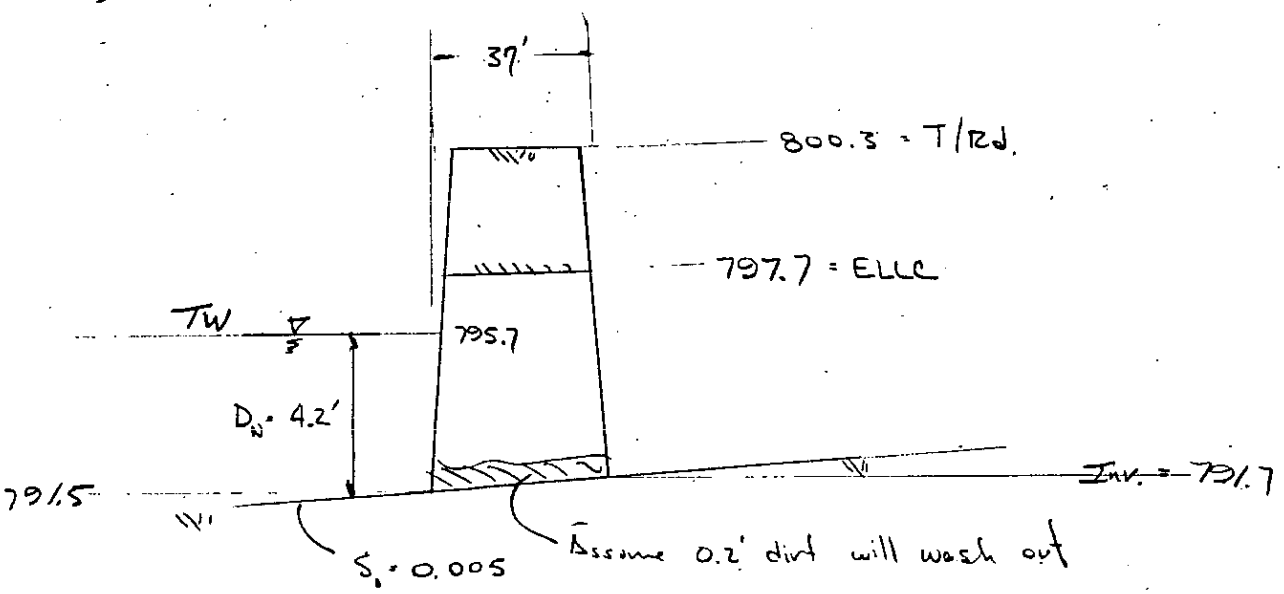
Bottom slope = 0.005 Area = $\frac{(6')^2\pi}{4} = 28.3\,ft^2$ each

Compute capacity @ normal depth thru culverts: use $n_c = 0.025$

$Q = \frac{1.49}{.025}(28.3\,ft^2)\left(\frac{6}{4}\right)^{2/3}(.005)^{1/2} = \underline{156}$ cfs each $\Rightarrow Q_{tot} = \underline{313}$ cfs

$Q_{100} = 410$ cfs

$\Rightarrow$ culverts operate under outlet control conditions



Hardy Drain Barbara Ann St bridge

Compute critical depth in each pipe:

$Q_{100} = 410 \text{ cfs} / 2 = 205 \text{ cfs}$

Table 8-10 Bater $K_c' = \frac{Q}{d^{5/2}} = \frac{205 \text{ cfs}}{(6\text{ft})^{5/2}} = 2.32 \Rightarrow \frac{D_c}{d} = 0.65$

$\Rightarrow D_c = .65(6\text{ft}) = 3.9'$ which is < TW of 4.2'.

Compute h_o: $h_o = \frac{d_c + D}{2} = \frac{3.9+6}{2} = 4.95 \sim \underline{5.0'}$

or $h_o = 4.2'$ (TW) whichever greater.

Bureau Public Rds. Reference: Table 11

compute necessary HW to pass 205 cfs/culvert.

$K_e = 0.5$, $L = 50'$ $H = 1.7'$

$HW = h_o + H + L \cdot S_o = 5.0 + 1.7 + 37(.005) = \underline{6.89}$

Weir flow occurs @ HW = $800.3 - 791.7 + (.005)31 = 8.6'$

$\Rightarrow$ Pressure flow only.

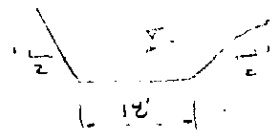
WSEL u/s = $791.7 + 6.9' = \underline{798.6}$

Reach between E & F

This reach under the influence of Barbara St. backwater.

Healy Drain

Reach between F and G:



$S_o = 0.0063$

$b = 12'$

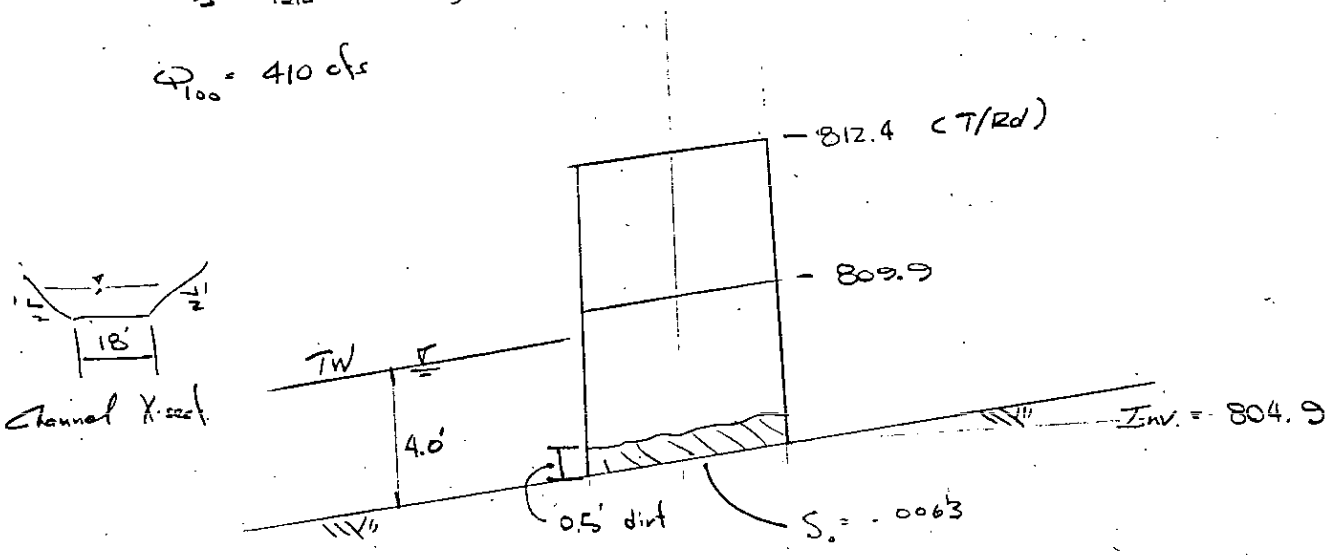
$n = .060$

$K' = 0.138 \Rightarrow$ Brater 7.11 $\frac{D}{b} = 0.22$ $D = 4.0'$

Bridge @ Sisson St.

5' Dia CMP, 34' long Area $= \frac{5^2 \pi}{4} = 19.6\ ft^2$

$Q_{100} = 410$ cfs



Compute Capacity of culvert @ Normal depth:

$$Q_{full} = \frac{1.49}{.025}(19.6\ ft^2)\left[\frac{5}{4}\right]^{2/3}(.0063)^{1/2} = 110\ cfs \Rightarrow \text{Outlet control.}$$

Compute Critical depth: $K_c' = \frac{410\ cfs}{(5)^{5/2}} = 7.33 \Rightarrow$ Brater 8-10

$\frac{D_c}{d} = 0.98 \Rightarrow D_c = 4.9'$.

MPG
12/27/79
11/

Healy Drain - Sisson Rd. bridge

BPR reference - Compute Q pressure

Guess ~ 1' of depth over rd ⇒ HW = 813.4 - 804.9 = 8.5'

$h_o = 0.98D \cong 1D \cong 5.0'$

$HW = h_o + H + \cancel{\Sigma S_o}$ ⇒ H = 3.5'
(~0.1)

use $K_e = .05$, L = 50' ⇒ Q @ 3.5' = 200 cfs

⇒ Q_{weir} = 410 - 200 = 210 cfs

Compute head over weir: use C = 2.8, 50' length

$$H = \left(\frac{Q}{CL}\right)^{2/3} = \left[\frac{210\,cfs}{(2.8)(50')}\right]^{2/3} = 1.3'$$

Compute weir length for Q = 210 cfs and H = 1.0'

$$L = \frac{Q}{C H^{3/2}} = \frac{210\,cfs}{(2.8)(1.0)} = 75\,ft$$

Floodplain width D/s (d ~ 8.0') width ≅ 450' using sec 'F'

U/s (d = 4.0') width ≅ 250' using sec. 'F'

⇒ Use larger weir length due to wide floodplain. Use L = 100'

⇒ $H = \left(\frac{210\,cfs}{2.8(100)}\right)^{2/3} = 0.8'$ ⇒ WSEL u/s = 812.4 + 0.8' = 813.2'

MIG

17/12/79

12/12

Holy Drain

u/s Sisson St.

Everything same as between F and G, $\Rightarrow y_N = 4.0'$

Bring backwater from Sisson St. back horizontally and smooth into 4.0' depth.

ELEVATION IN FEET MSL

700 710 720 730 740 750 760 770 780 790 800 810 820 830 840

GRAND TRUNK RR

M-53

SISSON ST.

ROMEO CITY LIMITS

LEGEND

STREAMBED

CROSS SECTION LOCATION

100 YEAR FLOOD

EXHIBIT 1

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.
(MACOMB CO.)

FLOOD PROFILES

HEALY DRAIN

HUD FIA. H 4705 706 1
WASHINGTON TWP PRICE BROOK.
PVP MPG 12/27/79

PRICE BROOK

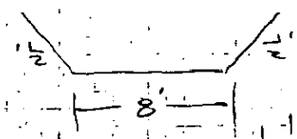
STARTING ELEVATION. (D/S OF GTWRR)

ASSUME NORMAL DEPTH D/S OF BRIDGE.
USING THE SAME SECTION AS AT B ~~(PAGE 14)~~
NORMAL DEPTH FOR

$b = 8'$

SIDE SLOPES 2 ON 1

$S = 0.53\%$



$$k' = \frac{Qn}{b^{8/3}S^{1/2}} = \frac{325 \times 0.06}{(8)^{8/3}(0.0053)^{1/2}} = 1.039$$

$D/b = 0.615$

NORMAL DEPTH = 4.92' ✓

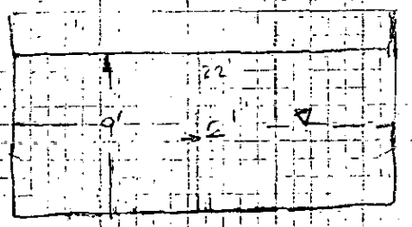
GTWRR SECTION

$L = 12'$, $D = 5'$ (ASSUME)

$A = 5 \times 22 = 110$ sq ft

$P = 22 + 5 \times 4 = 42'$

$R = 2.62'$



SECTION THROUGH BRIDGE FACE

FRICTION LOSS $S_f L = \frac{n^2 V^2 L}{2.22 R^{4/3}} = \frac{(0.06)^2 (2.95)^2 \times 12}{2.22 (2.62)^{4/3}}$

$= 0.05'$



ENTRANCE LOSS $0.15 V^2/2g = 0.02$

TOTAL $H_L = \underline{0.07'}$ ⇒ Guess of 5.0' OK

STARTING ELEVATION U/S OF GTWRR = 744 + 4.92 + 0.07

= $\underline{749}$

PRICE BROOK

SECTION BETWEEN A AND B

CALCULATE NORMAL DEPTH FOR b = 8'
n = .06
S = .53%
Side Slopes 2 ON 1
Q = 325 CFS

$$K' = \frac{Qn}{b^{8/3}S^{1/2}} = \frac{325 \times .06}{(8)^{8/3}(.0053)^{1/2}}$$

$$= 1.039$$

$D/b = 0.615$

NORMAL DEPTH U/S OF GTWRR

= 4.92' ✓

- Use 4.9 Normal depth and smooth into normal depth of 4.2' between B and C.

$$V = \frac{325}{(8 + 2 \times 5)5} = 3.6'/sec$$

CALCULATE NORMAL DEPTH U/S OF SECTION B

FOR b = 8'
n = .06
SIDE SLOPES 2 ON 1
Q = 325 CFS
S = 1.0 %

$$K' = \frac{Qn}{b^{8/3}S^{1/2}} = \frac{325 \times .06}{(8)^{8/3}(.01)^{1/2}} = .7565$$

$\frac{D}{b} = .53$

NORMAL DEPTH = .53 × 8 = 4.24'

V = 4.65'/sec

$\frac{V^2}{2g} = 0.34$

Price Brook - Reach between B and C

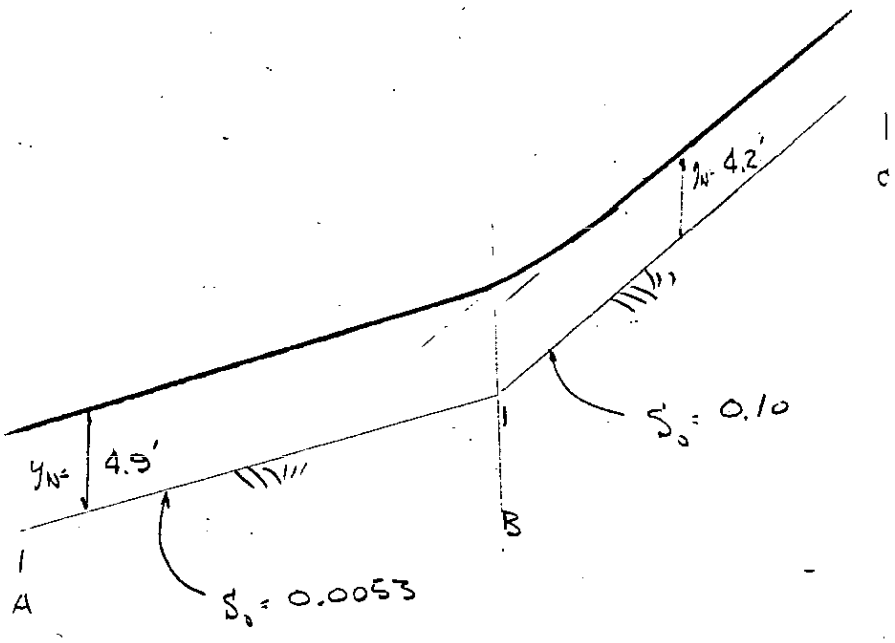
12/27/79

3/

Per PVP computations:

Normal depth between A and B = 4.9'

" " " B and C = 4.2'



Use y_o = 4.9 up to 'B' and smooth into 4.2' u/s B.

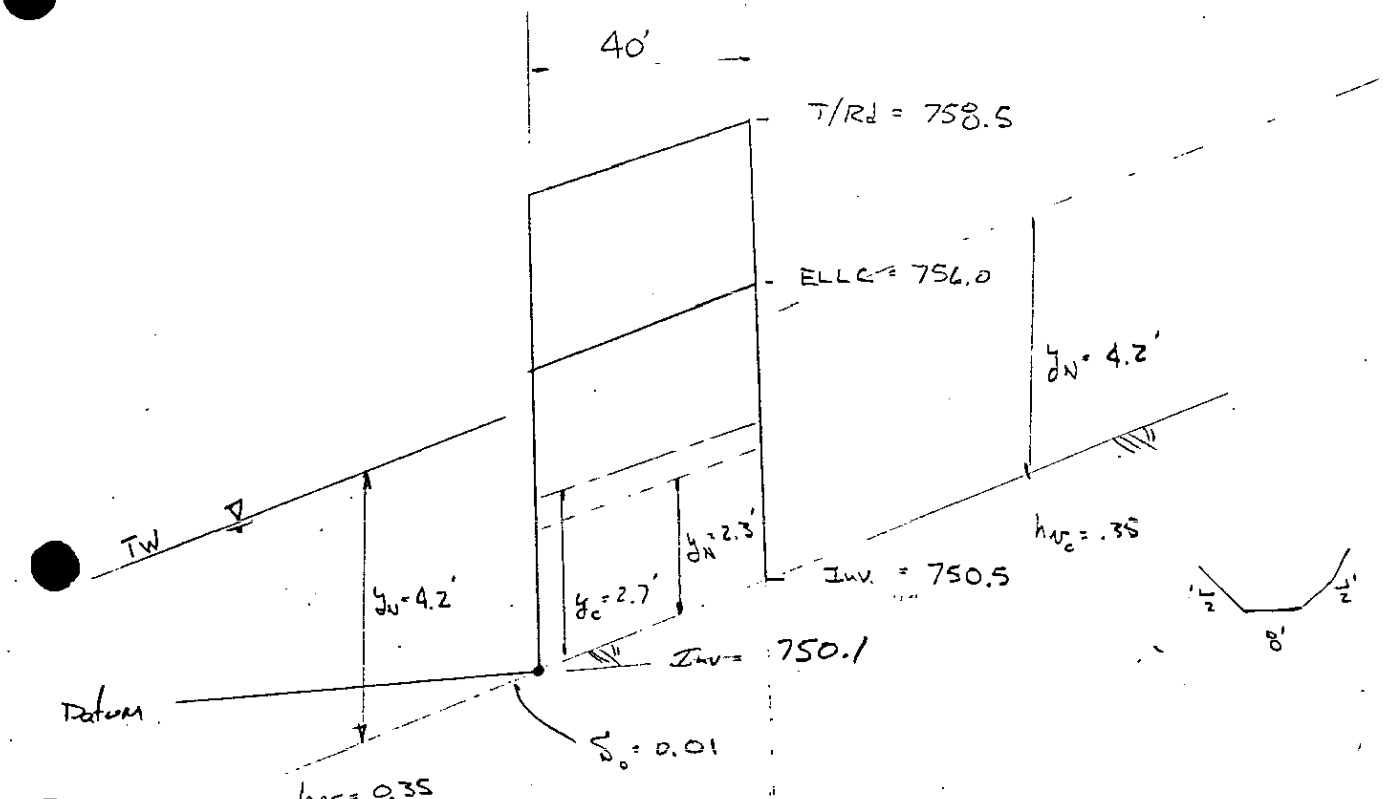
Price Bridge · M-53

12/27/79

41

13' box culvert 5' [illegible], 40' long

Q_{100} = 325 cfs



Compute Normal depth inside bridge

$n = 0.020$ $\quad K' = \dfrac{325(.020)}{(13)^{8/3}(.010)^{1/2}} = 0.07 \Rightarrow$ 7-11 Bureau $\dfrac{D}{b} = 0.18$

$\Rightarrow D = 2.3$ ft

Compute Critical depth in bridge

$q = 325 \text{ cfs}/13' = 25 \text{ cfs/ft}$ $\quad y_c = \sqrt[3]{\left(\dfrac{125}{g}\right)^2} = 2.7$ ft

$\Rightarrow$ Steep slope thru bridge. $\Rightarrow$ Low flow thru bridge.

MPG
12/27/75

S1

Price Brook - M-53

Total loss = entrance/exit + friction

Exit Loss: use $C_e = 0.5$

Energy outside face = 4.2 + 0.35 = 4.55'

Try depth inside = 4.2' ⇒ $h_{v_b} = 0.55$ and $E_{inside} = 4.2 + .55 = 4.75$

Loss = 0.5(0.55 - 0.35) = 0.1' ⇒ $E_{inside} = 4.65'$ (depth too high)

Try depth = 4.1 ⇒ $h_{v_b} = 0.58$ ⇒ $E_{inside} = 4.1' + .58 = 4.68$

Loss = 0.5(.58 - .35) = .07' ⇒ $E_{inside} = 4.55 + .07 = 4.62$

depth guess high

Try depth = 4.0 ⇒ $h_{v_B} = 0.61$ ⇒ $E_{inside} = 4.61'$ — too low

Loss = 0.5(.61 - .35) = 0.13 ⇒ $E_{inside} = 4.55 + .13 = 4.68$

use depth inside = 4.1' ⇒ $E_{inside} = 4.68$

Friction Loss

Guess $d_{\Delta V}$: Δinvert = 0.4' over length ⇒ Max Δd would be 0.4'

chose $\Delta d = 0.2'$ ⇒ $d_{\Delta V} = 4.1' - 0.2 = 3.9'$ $R = \left(\frac{3.9(13)}{(3.9)2 + 13}\right) = 2.44$

$$S_f = \left[\frac{(325)(.020)}{1.49((3.9)13)(2.44)^{2/3}}\right]^2 = 0.002$$

⇒ friction loss = .002(40) = 0.08 say 0.1'

Energy inside u/s face = 4.68 + 0.1' + 40(.01) = 5.18

Velocity in bridge @ d = 3.9' = 6.4 fps

$h_{v_b} = 0.64$

Price Brook - [illegible]

MJS
12/27/79
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Entrance Loss: Use [illegible]

Compute Velocity in channel @ d = 3.9' $h_{v_c} = 0.43$

Energy inside u/s face = 5.18

guess depth outside face = 5.0' ⇒ $h_{v_c} = 0.2$ ⇒ $E_{outside} = 5.2'$

Loss = 0.3(0.64 - .2) = 0.13 ⇒ $E_{outside}$ = 5.18 + .13 = 5.31 (depth low)

guess depth outside face = 5.1' ⇒ $h_{v_c} = 0.19$ ⇒ E_o = 5.29

Loss ⇒ 0.3(.64 - .19) = .13 E_o = 5.18 + .13 = 5.31 - good

⇒ WSEL u/s = 750.5 + 5.1 = 755.6'

Reach between C and D'

Normal depth = 4.2' (same as between B and C)

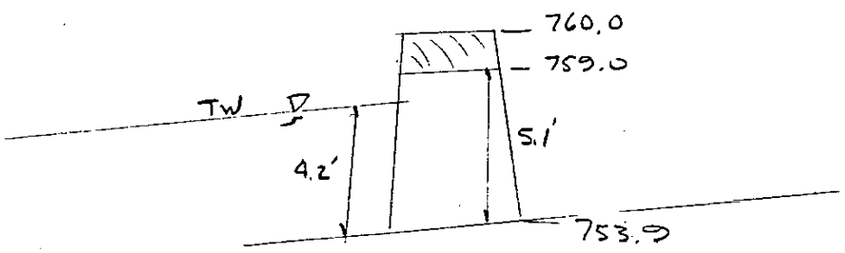
Extend backwater from C back and smooth into 4.2' depth.

Driveway Bridge @ D

$\frac{1}{2}$ - 9' RCP 16' long $V_b = \frac{325}{\frac{1}{2}\left(\frac{9^2\pi}{4}\right)} = 10.2$ fps

From inspection, outlet controls.

Compute discharge when HW is @ t/Rd.



Price Brook - Driveway @ D

Ch. 1 velocity in channel u/s @ T/W elev.

$d = 6.1'$ $A = 6.1(2.0) + 2(3.1)^2 \cdot 1/2 = 12.8\ ft^2$ $h_{v_c} = 0.11'$

$XKOR = K_e + K_f + 1$ $K_e = 0.4$ use $K_f = 0.2 \Rightarrow XKOR = 1.6$

$h_L = 6.1 - 4.2 + 0.1 = 2.0'$

$h_L = XKOR\, h_{v_B} \Rightarrow h_{v_B} = \frac{2.0}{1.6} = 1.25' \Rightarrow V_B = 9.0\ fps$

$Area = \frac{1}{2}\left(\frac{9^2 \pi}{4}\right) = 31.8\ ft^2 \Rightarrow Q_p = \underline{290\ cfs}$

$\Rightarrow$ Weir flow occurs $Q_w = 325 - 290 = \underline{35\ cfs}$

Use $L = 50'$ $c = 2.8$ $H = \left[\frac{35}{(2.8)(50)}\right]^{2/3} = 0.4'$

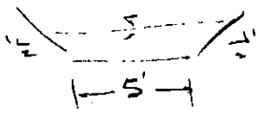
$\Rightarrow$ WSEL u/s $\underline{760.4}$

Reach between D & E

backwater from driveway influences stages here.

Reach between E & F

Channel section



$Q = 325\ cfs$
$n = .060$
$S = 0.0152$

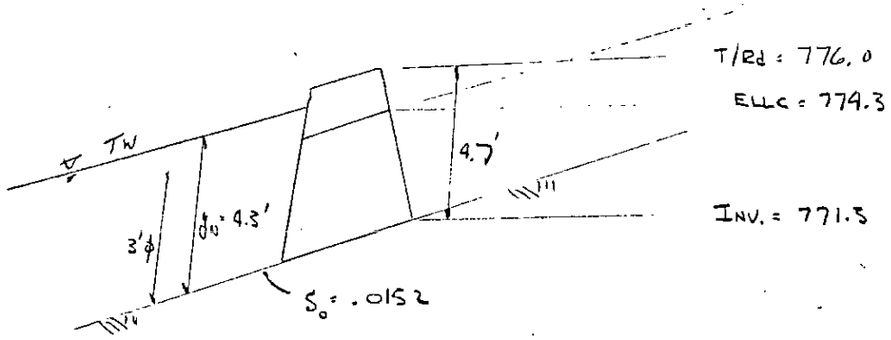
$K' = 2.15 \Rightarrow \frac{D}{b} = 0.86 \Rightarrow D = \underline{4.3'}$

Extend backwater from D back and smooth into 4.3 depth.

Price Brook - Kilarney Rd

MPG
12/27/79

2' dia. CMP ~50' long



Compute culvert capacity: BPR publ. Chart #11

$H = 0.4'$ with $K_e = 0.5$, $L = 50'$ $Q = 25$ cfs

$\Rightarrow Q_{weir} = 325 - 25 = 300$ cfs

Head over weir:

Use $C = 3.0$, L from topo = 150'

$$H = \left[\frac{300}{(3.0)(150)}\right]^{2/3} = 0.74 \text{ say } 0.8'$$

$\Rightarrow$ WSEL u/s = 776.0 + 0.8 = 776.8

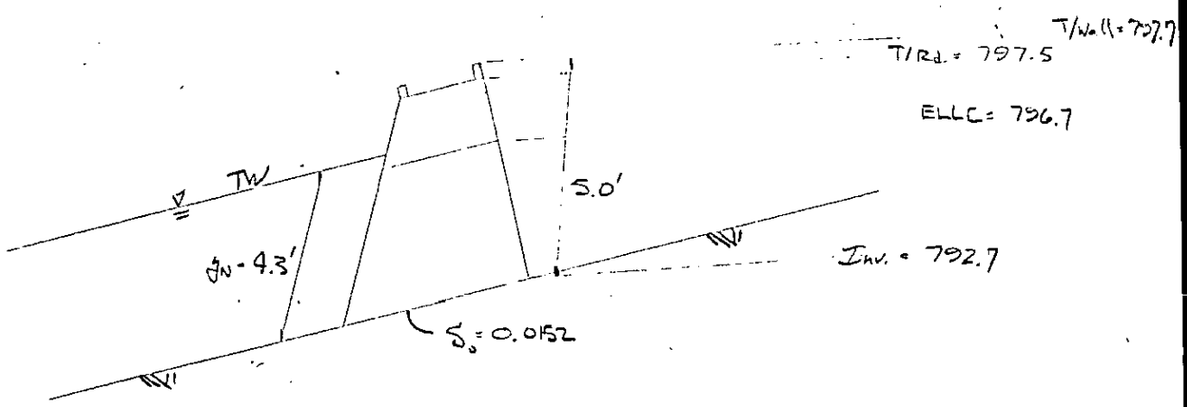
Reach between F and G

Same as between E and F, $y_N = 4.3'$

Smooth backwater @ F into 4.3' normal depth.

Price Brook - Driveway @ 6

4' ϕ dia CMP culvert



Per BPR ref. Capacity of culvert @ T/wall elev. u/s:

$H = 5.0 - 4.3 = 0.7$ use $K_e = 0.5$ $L = 50'$ $\Rightarrow Q = 55$ cfs

$\Rightarrow Q_{weir} = 325$ cfs $- 55 = 270$ cfs

Head over weir: use $C = 2.9$ $L = 75'$ from plan

$$H = \left\{ \frac{270}{(2.9)(75)} \right\}^{2/3} = 1.2'$$

Revise length and Q for extra head

Add'l $Q_{press.} \sim 30$ cfs $\Rightarrow$ $Q_{weir} = 240$ cfs

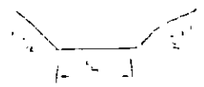
use Length = 100'

$$H = \left\{ \frac{240}{(100)(2.9)} \right\}^{2/3} = \underline{0.9'}$$

WSEL u/s = $797.7 + 0.9' = \underline{798.6}$

Prior [illegible] Reach between G & H

Channel Section



$Q_{100} = 275$ cfs

$b = 8'$

$S_0 = 0.017$ $\quad K' = \dfrac{275(.06)}{(8)^{8/3}(.017)^{1/2}} = 0.49$ $\quad \dfrac{D}{b} = 0.425$

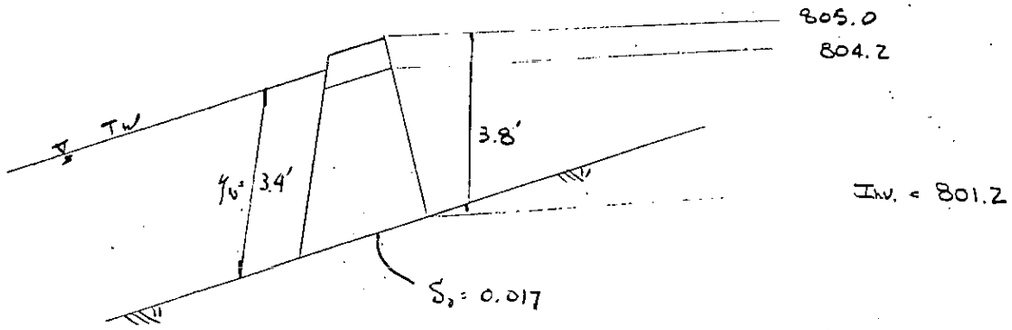
$n = .060$ $\quad D = \underline{3.4'}$

$z = 2$

Smooth backwater from driveway @ 'G' to 3.4' normal depth.

Bridge loss @ Limerick Lane 'H'

3' ϕ CMP 40' long



Estimate 1' weir flow

Compute flow thru culvert with $H = 0.4 + 1 = \underline{1.4'}$

use $K_c = 0.9$, 50' long. BPR ref. $\Rightarrow Q = 40$ cfs

$\Rightarrow Q_{weir} = 275 - 40 = \underline{235}$ cfs

Head over weir:

use $c = 2.8$, $L = 75'$ (topo)

$$H = \left[\frac{235}{2.8(75)}\right]^{2/3} = 1.1'$$

WSEL u/s $= 805.0 + 1.1 = \underline{806.1}$

Pine Creek - Reach below H & I

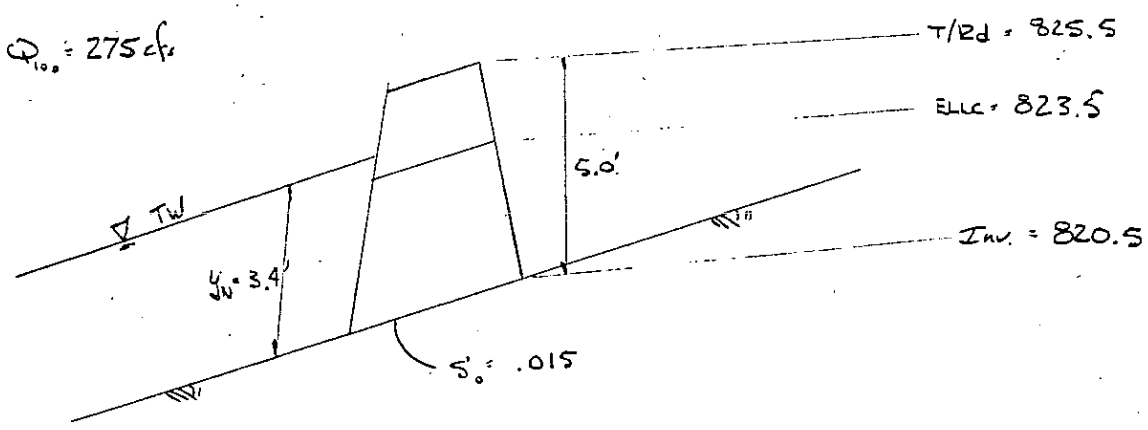
Same channel section, only bottom slope changed.

$S_o = .0155 \Rightarrow K' = 0.51 \quad \frac{D}{b} = .42 \quad D_f = 3.4'$

Smooth backwater into 3.4' depth.

Bridge Loss @ Kildare Lane (J)

3' ϕ dia CMP 45' long



Estimate ~ 1.0' depth over rd

Compute culvert capacity when HW is 1.0' above T/rd.

$H = 6 - 3.4 = 2.6'$

use $K_e = 0.9$, $L = 50'$ BPR chart # 11 $Q = 50$ cfs

$\Rightarrow Q_{weir} = 275 - 50 = 225$ cfs

Head over weir:

use $C = 2.8$, $L = 75'$

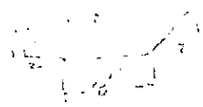
$$H = \left[\frac{225}{(2.8)(75)}\right]^{2/3} = 1.0'$$

WSEL = 825.5 + 1.0 = 826.5'

Price Brook - [illegible] between J & K

12/29/79

$Q_{100} = 2[illegible]$ cfs



$S_o = 0.[illegible]$

$n = .060$

$z = 2$

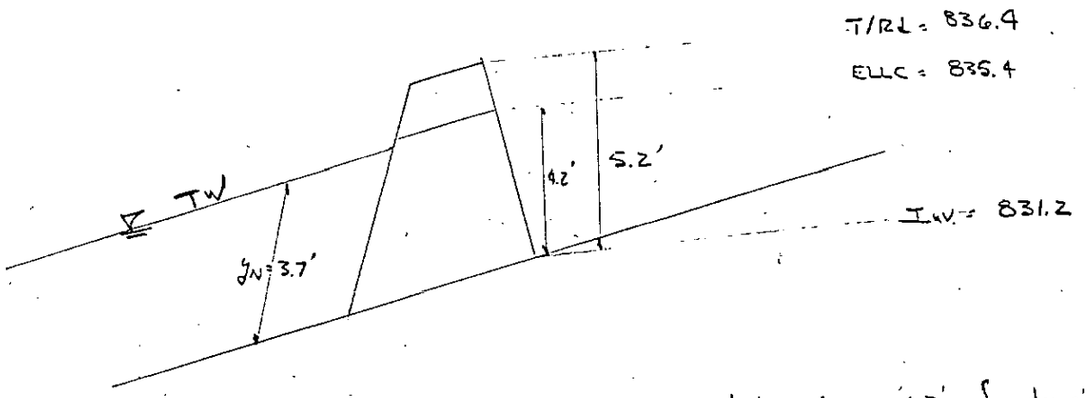
$K' = 0.59 \Rightarrow \frac{D}{b} = .47 \Rightarrow D = 3.7'$

Smooth backwater from Kildare into 3.7' depth.

Footbridge between J & K - per photo, loss is negligible.

30 Mile Rd. -

5.5' CMP 40' long



Apparently either culvert is not round or there is ~1.3' of deposition.

Area if 5.5' ϕ full: $A = \frac{5.5^2 \pi}{4} = 23.8\ ft^2$

" " 4.2' ϕ " : $A = \frac{4.2^2 \pi}{4} = 13.9\ ft^2$

Approximate area by adjusting the 23.8 ft^2 figure by subtracting

$1.0'(5.5) = 5.5\ ft^2 \Rightarrow A \cong 23.8 - 5.5 = \underline{18.3\ ft^2}$

which is equivalent to a 58" ϕ so use 60" ϕ.

Price Brook - 3.0 Mil. Rd Culvert

MPG
12/28/79

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Compute culvert capacity with HW 0.5' above l/rd.

$H = 5.7' - 3.7 = 2.0'$

use $K_e = 0.9$, $L = 50'$ BPR publ. $Q = 140$ cfs

$\Rightarrow Q_{weir} = 275 - 140 = 135$ cfs

Head over weir: $Q_w = 135$ cfs

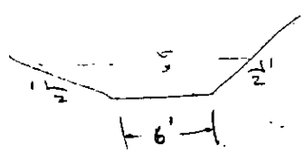
use $C = 2.9$ $L = 100'$ $\Rightarrow H = \left[\frac{135}{2.9(100)}\right]^{2/3} = \underline{0.6'}$

$\Rightarrow$ WSEL u/s $= 836.4 + 0.6 = \underline{837.0'}$

Reach between K and L

Channel section

$Q_{100} = 275$ cfs



$S_o = 0.015$

$K' = \frac{(275)(.06)}{(6)^{8/3}(.015)^{1/2}} = 1.13 \Rightarrow \frac{D}{b} = 0.64$

$D_N = 3.8'$

Smooth backwater into 3.8' depth.

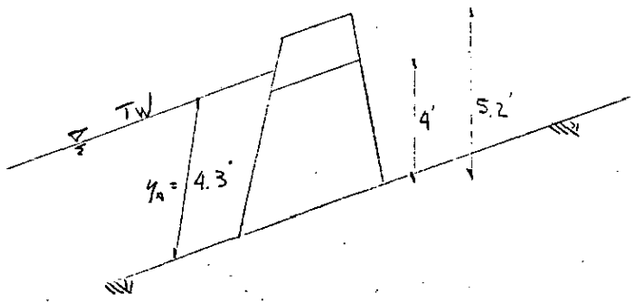
Reach between L and M

Same X-section shape as above, only bottom slope $= S_o = .0094$

$K' = \frac{(275)(0.06)}{(6)^{8/3}(.0094)^{1/2}} = 1.43 \Rightarrow \frac{D}{b} = 0.71 \Rightarrow D = \underline{4.3'}$

Price Brook - Driveway @ M

4' Φ dia CMP 20' long



T/Rd. = 851.5

ELLC = 850.3

Inv. = 846.3

Estimate 1.0' depth over rd.

Compute culvert capacity with HW 1.0 above rd.

$H = 6.2 - 4.3 = 1.9'$

BPR publ. $K_e = 0.5$ use $L = 50'$ ⇒ $Q = 90$ cfs

⇒ $Q_{weir} = 275 - 90 = 185$ cfs

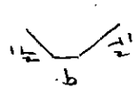
Head over weir: $Q_{weir} = 185$ cfs

use $C = 2.8$ $L = 75'$

$$H = \left[\frac{185}{2.8(75)}\right]^{2/3} = 0.91 \text{ say } 0.9 \text{ (OK)}$$

WSEL u/s = 851.5 + 0.9 = 852.4

Reach between M & N

Channel: 

$b = 6$

$z = 2$

$S_o = .013$

$n = .060$

$Q_{100} = 275$ cfs

$K' = 1.22 \Rightarrow \frac{D}{b} = 0.66 \Rightarrow D = 4.0'$

Price Brook - Driveway u/s #1

MPG
12/28/17

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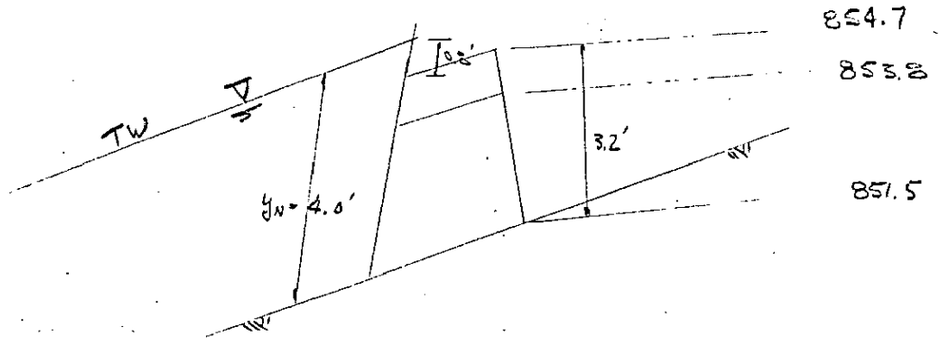
2.3' x 3.5' RCP elliptical 20' long
36" x 42"

Note rd is submerged by tailwater

Approximate loss using submerged sharp-crested weir graph.



Submergence = 0.8'

Compute capacity of culvert with H = 0.5'

BPR K_e = 0.5 L = 50' ⇒ Q = 25 cfs

⇒ Q_{weir} = 275 - 25 = 250 cfs

Head on weir: use L = 75' ⇒ $\frac{Q}{L} = \frac{250}{75} = 3.3$

see attached figure ⇒ h_L = 0.47 say 0.5'

WSEL u/s = 854.7 + 0.8 + 0.5 = 856.0

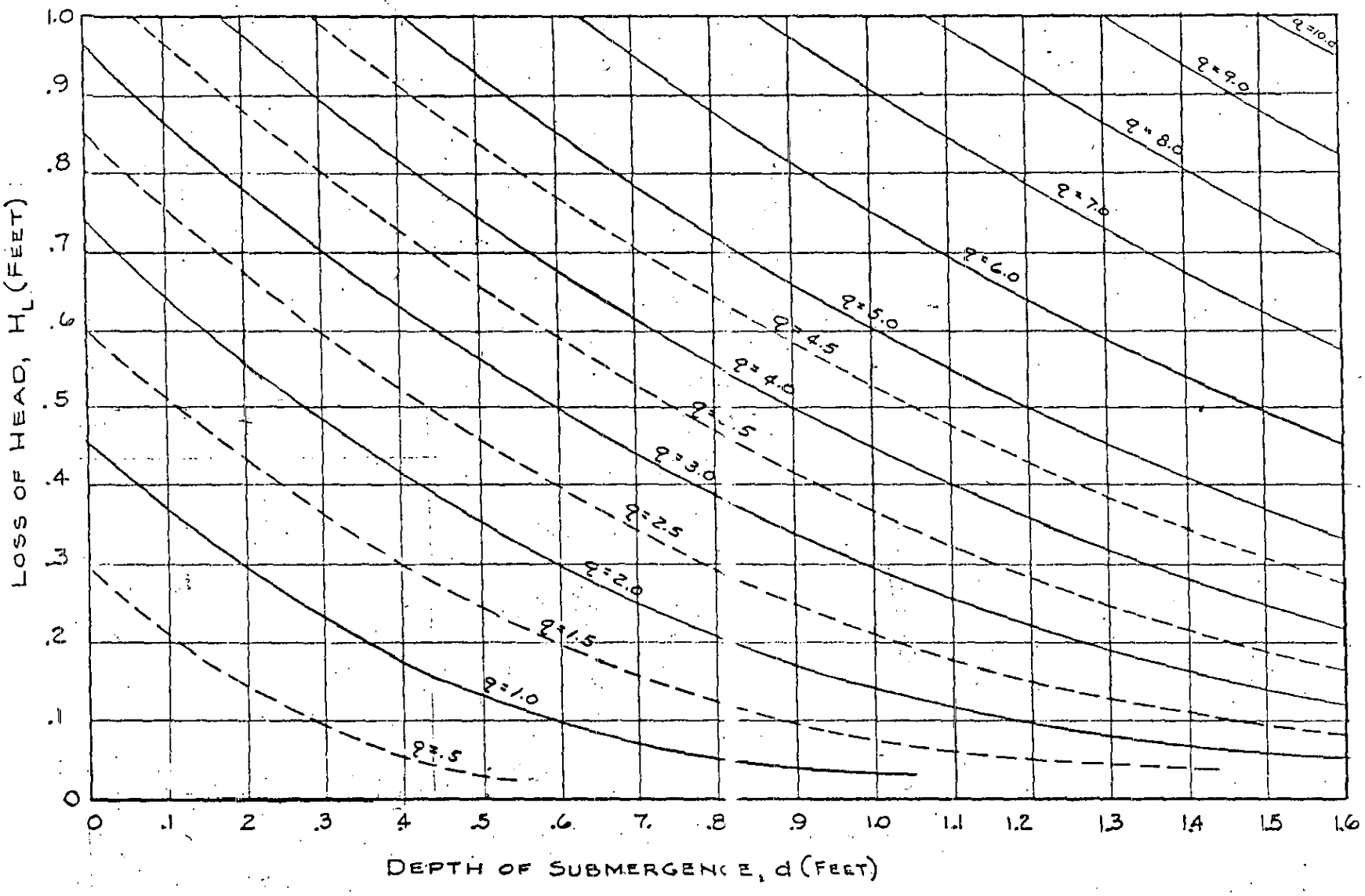


Fig. 3a

SUBMERGED - SHARP-CRESTED - RECTANGULAR WEIR

Reference: These curves were developed from equations found in the King and Brater's *Handbook of Hydraulics*, McGraw Hill, 3rd Ed., 1976 pp 5-17 – 5-23.

ISA/16

Price Brook - Driveway d/s 'N'

MFG
12/28/78

16/16

3.5' x 2.2' RCP elliptic & 30' long.

Same as previous driveway except for ELLC - T/Rd. dimension

Flow thru culvert will be 25 cfs. per previous computation.

Submergence of road = 0.8'

Use Length of 75' ⇒ q = 3.3 cfs/ft

⇒ Δh = 0.5' (Fig 3A from previous page)

WSEL d/s = 858.0 + 0.5 + 0.8' = 859.3

ELEVATION IN FEET MSL

0 400 800 1200 1600 2000 2400 2800

STREAM DISTANCE IN FEET

GRAND TRUNK R.R.

M-53

DRIVEWAY

KILARNEY ROAD

DRIVEWAY CONFLUENCE W/ TRIBUTARY NO. 1.

LIMERICK LANE

REACH 1
ZONE A2

A B C D E F G H I J

LEGEND

100 YEAR FLOOD

STREAM BED

CROSS SECTION LOCATION

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.

FLOOD PROFILES

PRICE BROOK

EXHIBIT 022

ELEVATION IN FEET MSL

825
820
815
810
805

7000
6000

KILDARE LANE

FOOT BRIDGE

30 MILE ROAD

REACH 2
ZONE A2

DRIVEWAY

DRIVEWAY

DRIVEWAY

CAMPGROUND
ROAD

8000

STREAM DISTANCE IN FEET

9000

LEGEND

100-YEAR FLOOD

STREAM BED

CROSS-SECTION LOCATION

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.

FLOOD PROFILES

Price Brook - Tributary

Drainage Areas: Trib [illegible] = 0.5 mi²
Price Brook d/s confl. = 1.4 mi²

1/8

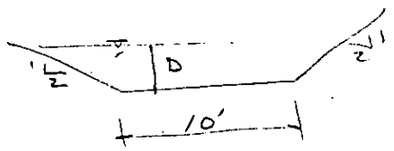
Starting elevation - coincidental peaks unlikely ⇒ start @ normal depth.

$Q_{100} = 145$ cfs

$S_o = 0.002$

$b = 10'$

$Z = 2$

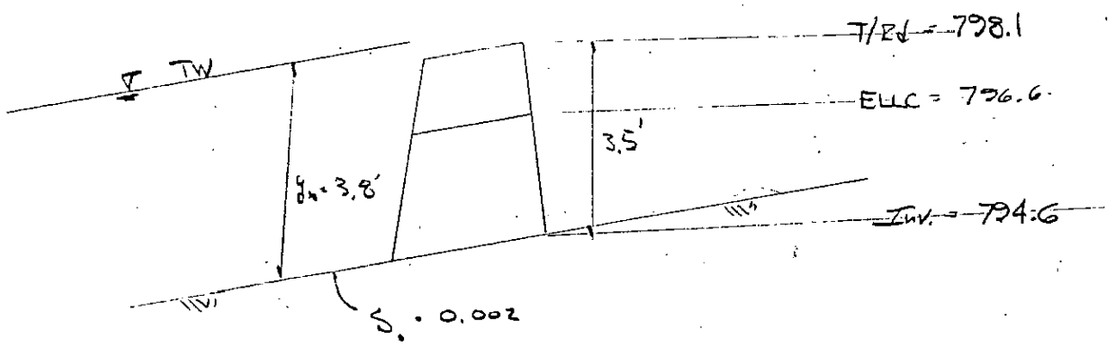


$$K' = \frac{(145)(.06)}{(10)^{8/3}(.002)^{1/2}} = 0.42$$

$\frac{D}{b} = 0.37$ $D = \underline{3.8'}$

Bridge @ Limerick Lane

2' dia ϕ CMP 40' long



Road is submerged by 0.8' ft.

Guess 0.5' loss across ⇒ compute flow thru culvert @ H = 0.5'

BPR reference use $K_e = 0.9$, $L = 50'$ ⇒ $Q = 10$ cfs

⇒ $Q_{weir} = 145 - 10 = 135$ cfs

use $L = 50'$ ⇒ $q = \frac{135}{50} = 2.7$ cfs/ft

loss per Fig 3A (See page 15A of Price Brook notes) $h_L = 0.35'$ say 0.4'

⇒ WSEL u/s = 798.1 + 0.8 + 0.4' = $\underline{799.2'}$

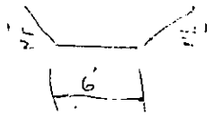
MPG

2/

Price Brook Trib. Reach between A & B

Q_{low} = 145 cfs

channel sect

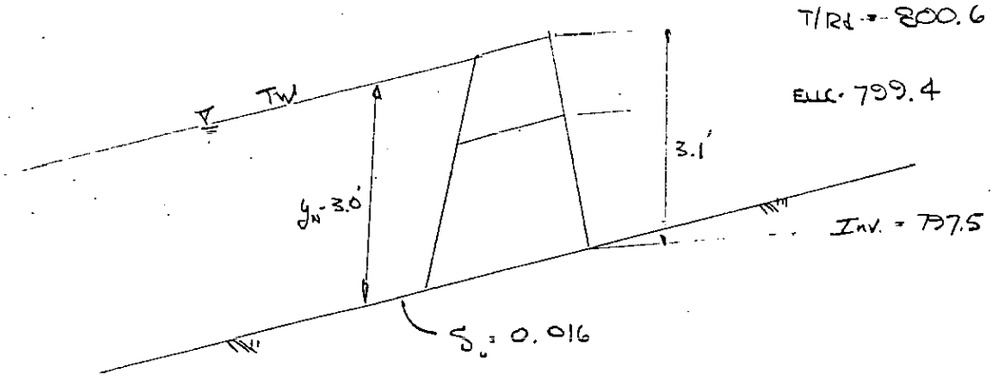


S_o = 0.016

Use k_c = .965 ⇒ K' = 0.63 → $\frac{D}{b}$ = 0.49 D = 3.0'

Driveway bridge just u/s A →

2' ϕ CMP 15' long



Estimate 0.5' loss over road. ⇒ capacity of culvert when H = 5'

K_e = 0.5, L = 50' ⇒ BPR ref. = 10 cfs

⇒ Q_{weir} = 145 − 10 = 135 cfs

Head over weir: use C = 3.0 L = 50'

$$H = \left\{\frac{135 \text{ cfs}}{3.0(50)}\right\}^{2/3} = 0.9'$$

WSEL u/s = 800.6 + 0.9 = 801.5

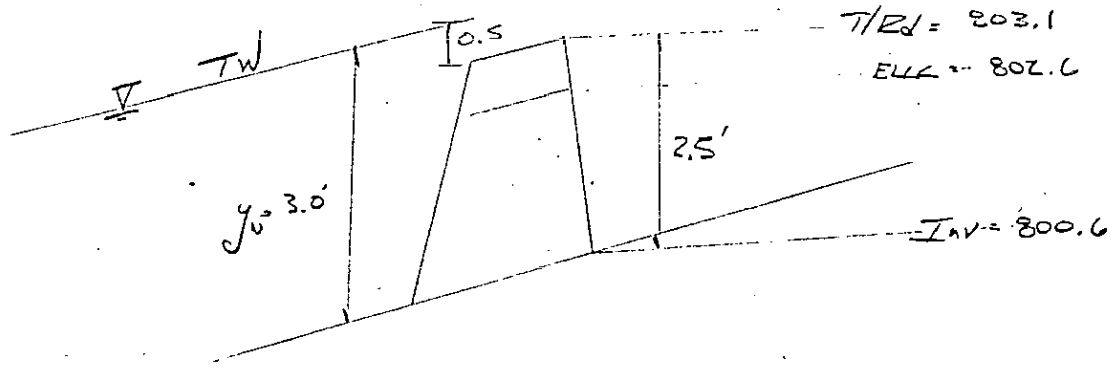
Price Brook - Trib.

12/28/79

3/

Middle driveway Lot [illegible] A & E

2'φ dia CMP 20' long



Top of rd. is 0.5' Submerged

Guess 0.4' loss ⇒ per BPR ref $Q_{pressure} \doteq 10$ cfs

⇒ Q_{weir} = 135 cfs

q = 135/50' = 2.7 cfs/ft

Fig 3A ⇒ h_L = 0.5'

WSEL y_s = 803.1 + 0.5 + 0.5 = 804.1

MTG
12/22/77

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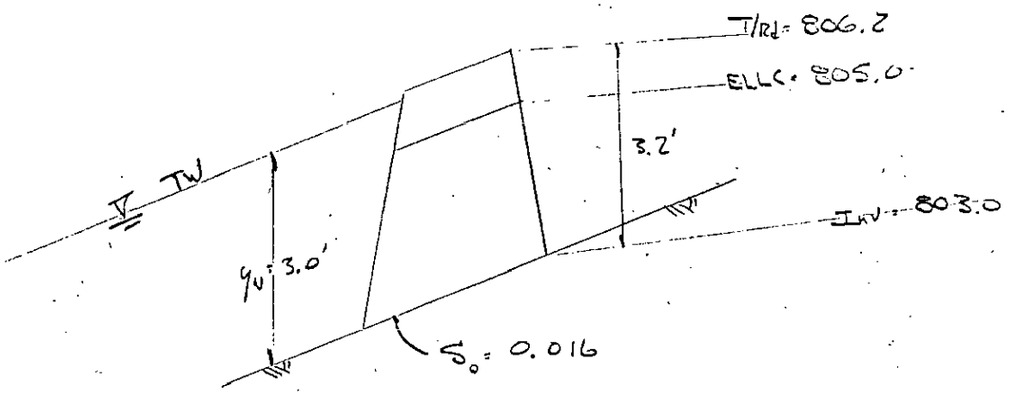
Price Brook - Tributary

Driveway just d/s 'B'

2' ϕ CMP · 20' long



Per previous computations $Q_{pressure} \sim 10$ cfs ⇒

$Q_{weir} = 135$ cfs

For L = 50' C = 2.9

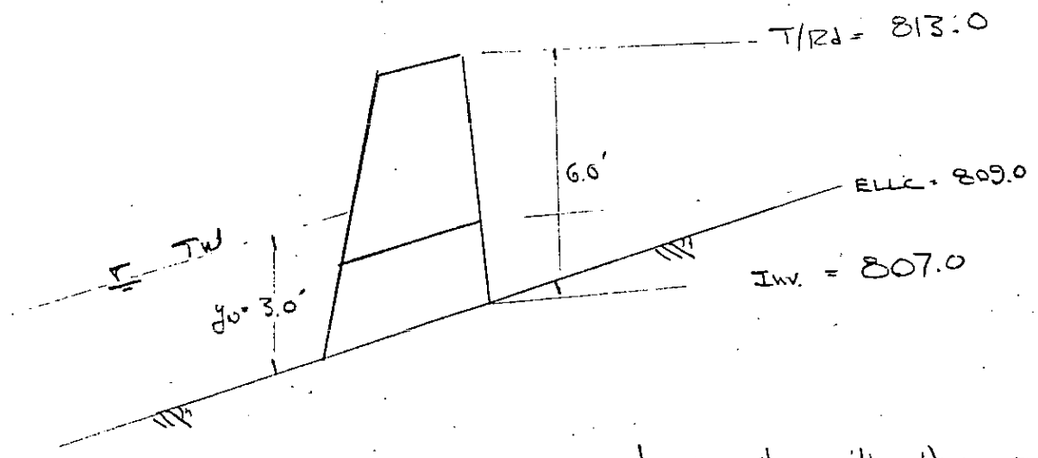
$$H = \left[\frac{135}{(2.9)(50)}\right]^{2/3} = 0.95 \text{ ; say } 1.0$$

WSEL u/s = 806.2 + 1.0 = <u>807.2</u>

Price Brook Trib.

Bridge @ B - Kildare Lane

2' ϕ Dia CMP 59' long



Use BPR to compute culvert capacity with HW 0.5' above T/Rd elev.

$K_e = 0.9$ $L = 50'$ $H = 6.5 - 3 = 3.5'$

$\Rightarrow Q = 25$ cfs

$\Rightarrow Q_{weir} = 145 - 25 = 120$ cfs

Use $C = 2.8$, $L = 50'$

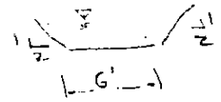
$$H = \left[\frac{120}{(2.8)(50)}\right]^{2/3} = \underline{0.9'}$$

WSEL cfs = $\underline{813.9}$

Price Brook - Trib.

Reach between B - C

Channel sect:



$S_o = 0.033$

Use $n = 0.065$

$Q_{100} = 145$ cfs $\Rightarrow K' = \dfrac{(145)(.065)}{(6)^{5/3}(.033)^{1/2}} = 0.44$ $\quad \dfrac{D}{b} = 0.42$

$\Rightarrow D = \underline{2.5'}$

Reach between C' - D

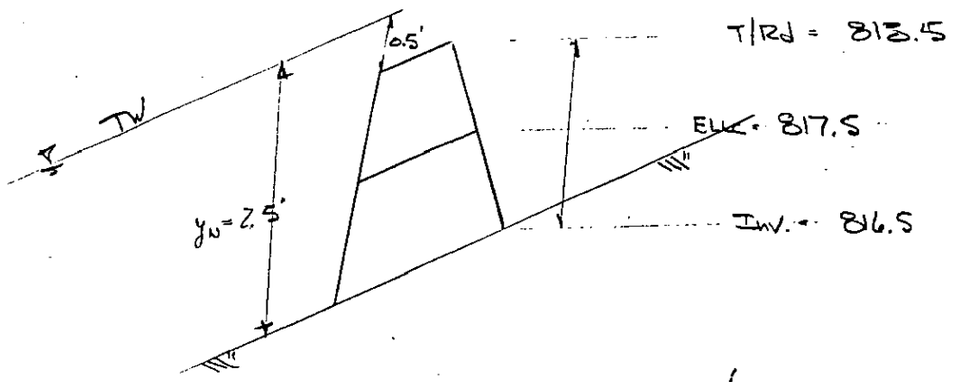
Same X-section as above

Bottom slope $S_o = 0.023$

$\Rightarrow K' = \dfrac{195(.065)}{(6)^{2/3}(.023)^{1/2}} = 0.52 \Rightarrow \dfrac{D}{b} = 0.44 \Rightarrow D = \underline{2.6}$

Bridge @ C'

1' ϕ CMP 24' long



Negligible flow thru 1' ϕ culvert. Weir is 0.5' submerged.

$Q_{weir} = 145$ cfs use $L = 50'$ $\Rightarrow q = 2.9$ cfs/ft

$\Rightarrow$ Fig. 3A $h_L = 0.55'$ sq $0.6' \Rightarrow$ WSEL $_{fs} = 818.5 + 1.1 = \underline{819.6}$

Privu Brook Trib.

Earth Dam D

Outlet pipe - 1.5' ϕ CMP

Top of outlet structure = 827.8

Note. Peak flow of 145 cfs could be attenuated by retention pond but due to the scope of study, no routing will be done here.

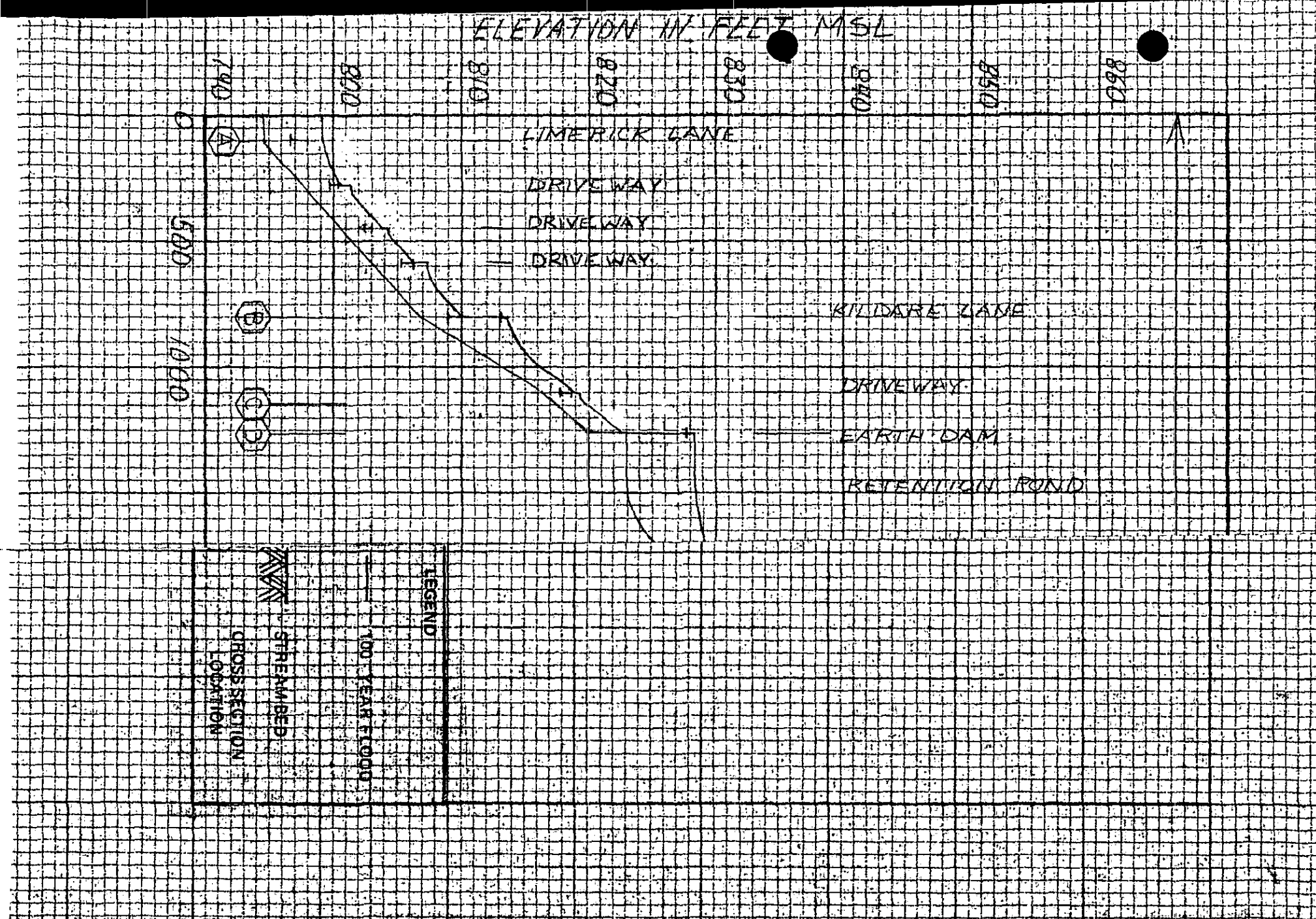
To take this into account somewhat, a longer weir length will be used. These results should be reasonable since the capacity of the outlet pipe is ≈ 10 cfs and the height from culvert crown to weir elev. = 1.5 meaning weir flow will probably occur.

Head over outlet Structure:

use $C = 2.9$ $L = 100'$

$$\Rightarrow H = \left[\frac{135 \text{ cfs}}{(2.9)(100)}\right]^{2/3} = 0.6'$$

WSEL in pond = 827.8 + .6 = 828.4'

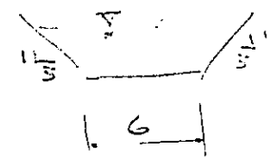


04P EXHIBIT 1	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration TOWNSHIP OF WASHINGTON, MI. (MACOMB CO.)	FLOOD PROFILES PRICE BROOK TRIBUTARY #1

Price Brook Trib

Reach between E and F

Channel section



$S_o = 0.010$

$n = 0.065$

$Q_{100} = 145$ cfs

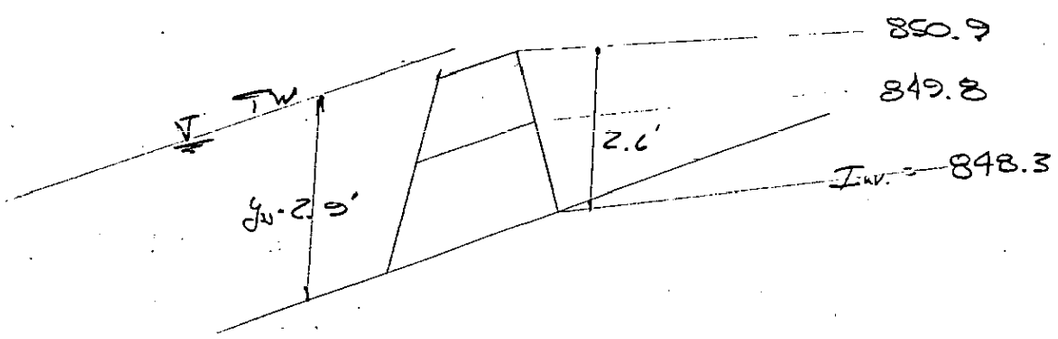
$\Rightarrow K' = 0.78$ $\quad \frac{D}{b} = .49 \Rightarrow D = 2.9$

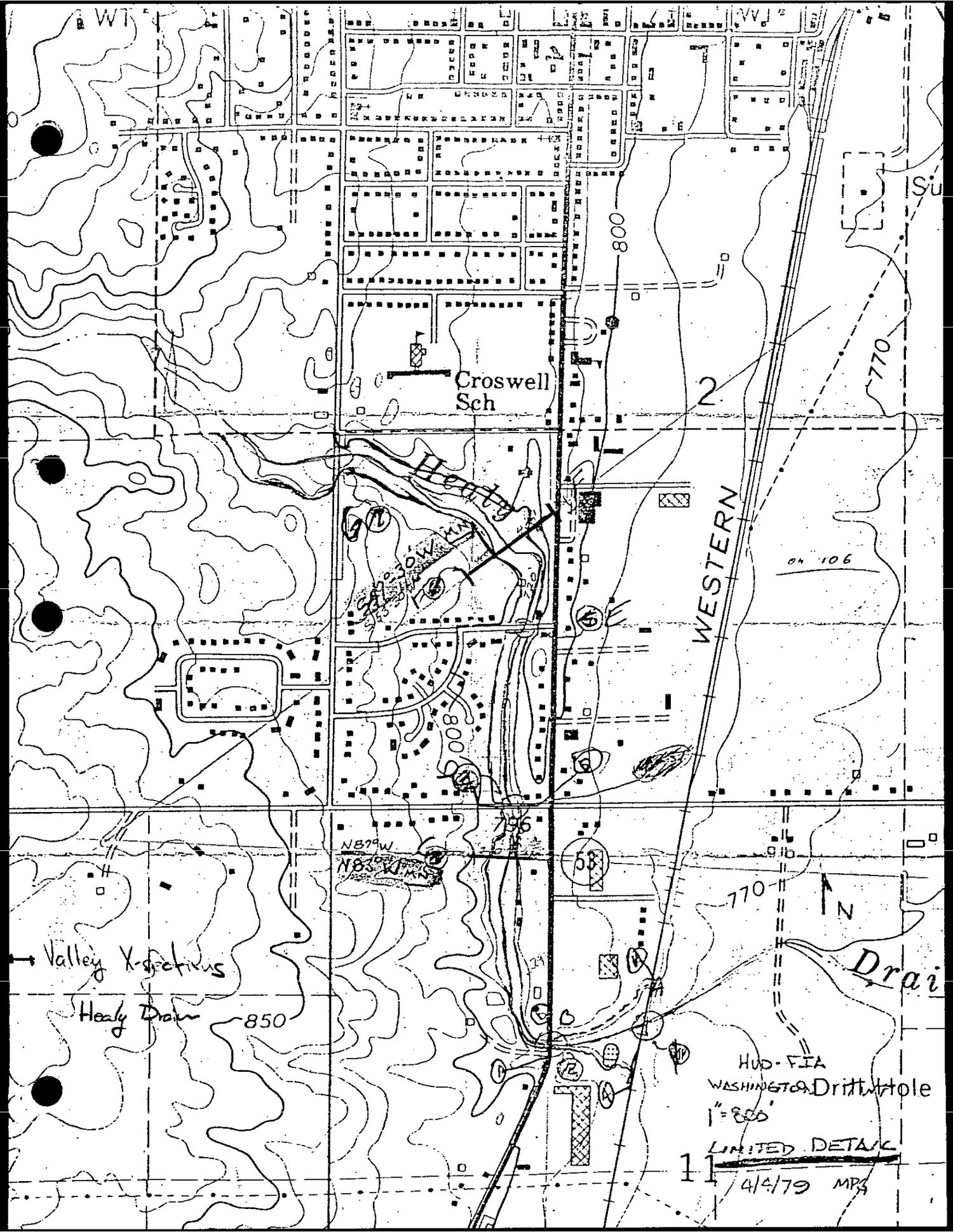
Note: neglect influence of small pond ~ 750' U/S 'F'.

Bridge @ 'F'

limited detail ends here. Approximate study continues upstream. By inspection, Tailwater is above T/Rd $\Rightarrow$ Weir flow occurs.

1.5 ϕ CMP 28' long





Croswell Sch
Healy
WESTERN
800
770
2
796
53
N87°W
N83°W MN
Valley X-sections
Healy Drain
850
N
Drai
HUD-FIA
WASHINGTON
Drill Hole
1"=800'
LIMITED DETAIL
4/4/79 MPG
11

480-A / 27-K

4-12-79

Healy Drain
Limited Detail
Bridge Descriptions & details

#1 = 6.3' dia RCP 50' long
x = 6.3' y = 5.5' GTWRR
picture #19, Film 127

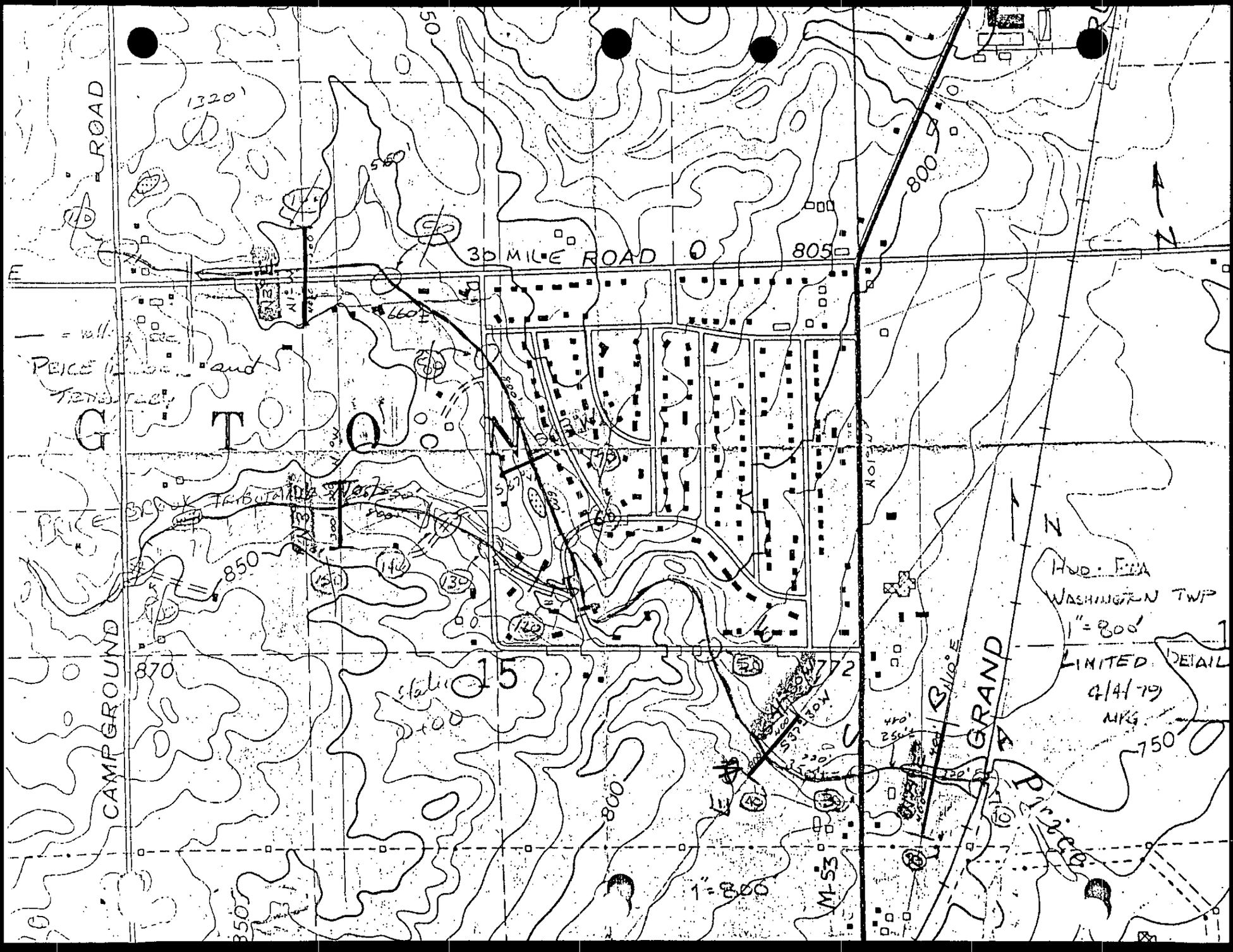
#2 = 14' x 8' box culvert 50' long
x = 7.9' y = 3.2' z = 2.0'
picture #20, Film 127
wing walls stick out 2' each end

#4 = 7' dia CMP, 31' long
x = 6.6' y = 1.3' z = 3.0'
picture #1, Film 128
23' railing

#5 = 2-6' dia CMP's, 37' long, 1' apart
x = 5.8' y = 2.6'
picture #2, Film 128
headwall = 21' wing walls 3' forward, 6' to side

#7 = 5' dia CMP, 34' long
x = 4.5' y = 2.5' (to road)
picture #3, Film 128
18' long headwall

where X = invert to low chord
y = low chord to top of road
z = top of road to top of rail (if any)



30 MILE ROAD
805
800
850
870
772
750
CAMPGROUND
GRAND
Price
15
1"=800
HUD - FHA
WASHINGTON TWP
1"=800'
LIMITED DETAIL
4/4/79
MFG
N

480-A / 42-K

Price Drain

Photos & Bridge Descriptions

4-17-79

#10	22' wx 12' long wood RR bridge 1' column in ℄ bridge x = 9 y = 2.4	photo #3 (wingwalls reach 7' forward & 6' to side)	Film 128 RR bridge
#30	13' x 40' box culvert x = 5.5' y = 2.5' z = 1.7'	photo #4 (guardrail = 40', wingwalls = 4' forward)	"
#30	u/s from top of bridge x =	photo #5	"
#30-A	9' Dia RCP, 16' long x = 5' y = 1'	photo #6 (wingwalls 12' forward & 6' to sides)	"
#50	3' Dia CMP, 29' long x = 3' y = 1.7'	photo #7	"
#50-A	4' Dia RCP, 20' long x = 4' y = 0.8 z = 0.2	photo #8 (100' D/s from #120)	"
#60	3' Dia CMP, 40' long x = 3' y = 0.8' Limerick [illegible]	photo #9	"

where x = invert to low chord
y = low chord to top of road
z = top of road to railing

4-17-79

A80-A AA-A

Price Drain

Photos & Bridge Descriptions

#80	3' Dia CMP, 44' long x = 3' y = 2'	photo #10	Film 12 8
#80-A	4' x 17' foot bridge x = 1.7 y = 0.6	photo #11 (330' D/s from #90)	" "
#90	5.5' Dia CMP, 40' long x = 4.2' y = 1'	photo #12	" "
#100-A	4' Dia RCP, 20' long x = 4' y = 0' to 1.2'	photo #13 (500' d/s from #100)	" "
#100-B	3.5' x 2.3' RCP, 19' long x = 2.3' y = 0.9'	photo #14 (400' d/s from #100-A)	" "
#100-C	3.5' x 2.3' RCP, 30' long x = 2.3 y = 0.5'	photo #15 (270' d/s from #100-B)	" "
#110	2.4' Dia, 30' long x = 2.4' y = 0.5'	photo #16	" "
#160	1.5' Dia CMP, 28' long x = 1.5' y = 1.1'	photo #17	" "

490-A/44-A

Price Drain 4-17-79

Photos & Bridge Descriptions

#140	1' Dia CMP, 24' long x = 1' y = 1'	photo #18	Film 128
#140-A	1.5' Dia CMP, 19' long x = 1.5' y = 1' (earth Dam)	photo #19 (133' u/s from #140)	" "
#130	2' Dia, 59' long x = 2' y = 4'	photo #20	Film 128
#120	2' Dia CMP, 40' long x = 2' y = ~~3.5'~~ 1.5' — appears to be an error here. Per photo y ~ 1.5'. Maybe ever was reading x+y as [illegible]	photo #1	Film 129
#120-A	2' Dia RCP, 15' long x = 1.9 y = 1.2'	photo #2 (175' u/s from #120)	" "
#120-B	2' Dia CMP, 20' long x = 2' y = 0.5'	Photo #3 (175' u/s from #120-A)	" "
#120-C	2' Dia, 20' long x = 2' y = 1.2'	photo #4 (140' u/s from #120-B)	" "

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Taft Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood

00BREAK00

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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     WASHINGTON TOWNSHIP  FIS
T3     TAFT DRAIN

J1  ICHECK    INQ       NINV      IDIR      STFT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00       .5        0.    676.260     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
     1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000

NC     .060      .060      .045      .100      .300     0.000     0.000     0.000     0.000     0.000
QT    5.000   225.000   320.000   375.000   520.000   375.000     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

X1    7.850    11.000   120.000   152.000     0.000     0.000     0.000     0.000    -1.700     0.000
GR  680.000    10.000   678.000    55.000   676.300   100.000   675.700   120.000   673.300   125.000
GR  672.000   127.000   671.900   133.000   674.600   136.000   677.100   146.000   677.800   152.000
GR  680.000   235.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    7.870     0.000     0.000     0.000   230.000   230.000   230.000     0.000      .800     0.000

X1    7.900     0.000     0.000     0.000   235.000   235.000   235.000     0.000      .900     0.000

X1    7.920     0.000     0.000     0.000   200.000   200.000   200.000     0.000      .900     0.000
NC     .065      .065      .050     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    7.950    18.000   641.000   664.000   199.000   199.000   199.000     0.000    -2.300     0.000
GR  684.000   316.000   683.200   392.000   682.800   446.000   682.600   478.000   682.300   524.000
GR  682.200   574.000   681.200   606.000   680.800   625.000   680.200   641.000   677.400   648.000
GR  676.900   649.000   676.300   652.000   676.000   654.000   676.000   656.000   676.700   657.000
GR  677.400   658.000   682.900   664.000   683.300   682.000     0.000     0.000     0.000     0.000

X1    8.000     0.000     0.000     0.000   500.000   500.000   500.000     0.000     2.300     0.000

X1    8.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000     2.100     0.000
NC     .060     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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X1	8.500	10.000	635.000	683.000	450.000	450.000	450.000	0.000	0.000	0.000
GR	685.700	615.000	684.900	635.000	682.600	652.000	680.100	654.000	680.200	663.000
GR	684.800	665.000	685.500	683.000	686.000	754.000	688.000	880.000	690.000	1060.000
X1	8.600	0.000	0.000	0.000	500.000	500.000	500.000	0.000	2.400	0.000
X1	9.100	20.000	350.000	374.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	691.300	280.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	361.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	420.000	692.400	458.000	692.600	516.000	693.300	548.000
GR	694.600	576.000	694.700	598.000	694.800	628.000	694.800	650.000	694.500	672.000
X1	9.200	12.000	350.000	374.000	283.000	283.000	283.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	9.280	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.700	0.000
X1	9.290	10.000	357.500	363.000	49.000	49.000	49.000	0.000	.700	0.000
X2	0.000	0.000	0.000	690.900	691.800	0.000	0.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.400	357.500	686.000	357.600	685.200	360.000
GR	685.300	362.900	690.400	363.000	691.200	374.000	691.400	388.000	691.800	400.000
X1	9.310	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	690.900	691.800	0.000	0.000	0.000	0.000	0.000
X1	9.320	12.000	350.000	374.000	1.000	1.000	1.000	0.000	.900	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.330	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X1	9.340	10.000	406.000	427.000	14.000	14.000	14.000	0.000	-.100	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.350	9.000	409.000	414.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	690.100	692.000	0.000	0.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	692.000	406.000	692.000	409.000	686.500	409.100
GR	686.700	411.000	686.900	413.900	692.000	414.000	693.400	438.000	0.000	0.000
X1	9.360	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	690.100	692.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9.370	10.000	406.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
X1	9.380	9.000	164.000	188.000	49.000	49.000	49.000	0.000	-.800	0.000
GR	693.400	90.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.390	0.000	0.000	0.000	92.000	92.000	92.000	0.000	.300	0.000
NC	0.000	0.000	0.000	.350	.700	0.000	0.000	0.000	0.000	0.000
X1	9.400	0.000	0.000	0.000	149.000	149.000	149.000	0.000	.500	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.410	12.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	692.600	165.000	692.100	168.500
GR	687.500	168.600	687.600	173.000	688.300	177.400	692.100	177.500	692.600	187.000
GR	693.100	188.000	693.800	200.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.420	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.430	9.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	693.400	50.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
X1	9.440	10.000	164.000	188.000	49.000	49.000	49.000	0.000	.200	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	688.800	168.000	687.500	170.000
GR	687.600	172.000	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.560	0.000	0.000	0.000	69.000	69.000	69.000	0.000	.300	0.000
NC	.100	.075	.055	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	9.580	12.000	129.500	138.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	694.500	0.000	694.500	15.000	692.900	20.000	694.500	27.000	694.600	50.000
GR	694.800	52.000	694.100	129.500	689.300	129.600	688.600	134.000	688.900	138.400
GR	694.100	138.500	694.900	206.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.600	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	8.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100
BT	138.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.100	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000

BT	8.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100	
BT	138.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000	
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X1	10.200	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000	
X1	10.500	19.000	350.000	380.000	50.000	50.000	50.000	0.000	-.400	0.000	
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000	
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000	
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000	
GR	691.800	368.000	694.900	380.000	695.400	414.000	695.100	444.000	0.000	0.000	
X1	10.900	0.000	0.000	0.000	56.000	56.000	56.000	0.000	-.400	0.000	
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X1	11.000	19.000	359.000	368.000	1.000	1.000	1.000	0.000	0.000	0.000	
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000	
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000	
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000	
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000	
GR	693.700	368.000	694.900	380.000	695.400	414.000	695.100	444.000	0.000	0.000	
X1	11.100	0.000	0.000	0.000	13.000	13.000	13.000	0.000	0.000	0.000	
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000	
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X1	11.200	19.000	350.000	380.000	1.000	1.000	1.000	0.000	0.000	0.000	
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000	
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000	
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000	
GR	691.800	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000	
X1	11.500	15.000	326.000	358.000	85.000	85.000	85.000	0.000	0.000	0.000	
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000	
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000	
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000	
QT	5.000	155.000	225.000	270.000	400.000	270.000	0.000	0.000	0.000	0.000	
X1	11.600	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000	
GR	694.500	294.000	694.500	300.000	694.500	310.000	694.400	326.000	690.800	336.000	
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000	
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000	
X1	11.700	0.000	0.000	0.000	19.000	19.000	19.000	0.000	.100	0.000	
X1	11.800	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000	
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000	
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000	
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000	

X1	11.900	0.000	0.000	0.000	50.000	50.000	50.000	0.000	-.400	0.000
X1	12.050	11.000	312.000	337.000	50.000	50.000	50.000	0.000	-.200	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.060	0.000	0.000	0.000	48.000	48.000	48.000	0.000	-.200	0.000
NC	0.000	0.000	-.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.070	15.000	323.000	327.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	694.800	322.000	692.800	323.000	691.400	323.600	690.800	325.000	691.400	326.400
GR	692.800	327.000	695.900	337.000	696.400	364.000	697.300	390.000	697.800	418.000
X1	12.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	-.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.100	11.000	312.000	337.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.050	15.000	295.000	305.000	30.000	30.000	30.000	0.000	-.300	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	696.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.060	0.000	0.000	0.000	30.000	30.000	30.000	0.000	.300	0.000
NC	0.000	0.000	-.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.070	17.000	298.000	302.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	695.700	297.000
GR	693.600	298.000	692.200	298.600	691.600	300.000	692.200	301.400	693.600	302.000
GR	695.700	303.000	695.700	305.000	696.000	314.000	696.200	328.000	696.400	350.000
GR	696.400	374.000	697.000	414.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	13.100	15.000	295.000	305.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	696.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.600	11.000	314.000	332.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	697.500	302.000	697.200	314.000	694.400	320.000	693.800	323.000	693.800	326.000
GR	694.400	330.000	696.300	332.000	696.800	346.000	696.800	360.000	697.200	384.000
GR	697.900	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.700	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	13.800	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	14.000	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.700	0.000
X1	14.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.200	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.300	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.400	0.000	0.000	0.000	120.000	120.000	120.000	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

*PROP 1

CCHV= .100 CEHV= .300

*SECNO 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.85	6.06	676.26	0.00	676.26	676.35	.09	0.00	0.00	674.00
375.	93.	282.	0.	76.	102.	0.	0.	0.	676.10
0.00	1.23	2.75	.19	.060	.045	.060	0.000	670.20	56.06
.001621	0.	0.	0.	0	0	0	0.00	101.98	158.04

*SECNO 7.870

7.87	5.69	676.69	0.00	0.00	676.83	.14	.46	.01	674.80
375.	75.	300.	0.	54.	91.	0.	1.	0.	676.90
.02	1.39	3.30	0.00	.060	.045	.060	.045	671.00	65.70
.002546	230.	230.	230.	2	0	0	0.00	84.55	150.25

*SECNO 7.900

7.90	5.44	677.34	0.00	0.00	677.53	.19	.69	.01	675.70
375.	61.	314.	0.	41.	83.	0.	2.	1.	677.80
.04	1.47	3.77	0.00	.060	.045	.060	.045	671.90	72.41
.003391	235.	235.	235.	2	0	0	0.00	75.66	148.08

*SECNO 7.920

7.92	5.26	678.06	0.00	0.00	678.29	.24	.75	.01	676.60
375.	50.	325.	0.	33.	78.	0.	2.	1.	678.70
.06	1.51	4.15	0.00	.060	.045	.060	.045	672.80	77.28
.004155	200.	200.	200.	2	0	0	0.00	69.22	146.50

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
7.95	5.26	678.96	0.00	0.00	679.31	.34	.98	.03	677.90
375.	21.	354.	0.	17.	73.	0.	3.	2.	680.60
.07	1.24	4.83	0.00	.065	.050	.065	.046	673.70	604.17
.005932	199.	199.	199.	0	0	0	0.00	58.04	662.21

*SECNO 8.000

8.00	5.55	681.55	0.00	0.00	681.80	.26	2.49	.01	680.20
375.	37.	338.	0.	29.	79.	0.	4.	2.	682.90
.10	1.27	4.26	0.00	.065	.050	.065	.047	676.00	594.88
.004230	500.	500.	500.	2	0	0	0.00	67.64	662.52

*SECNO 8.100

8.10	5.55	683.65	0.00	0.00	683.91	.25	2.11	.00	682.30

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    375.      37.     338.       0.      29.      80.       0.       5.       3.    685.00
     .14     1.27     4.24     0.00     .065     .050     .065     .048   678.10    594.67
 .004198     500.     500.     500.        1        0        0     0.00    67.86    662.53

*SECNO 8.500
3280 CROSS SECTION      8.50 EXTENDED      .04 FEET

    8.50     5.64   685.74     0.00     0.00   685.90      .17     1.99      .01    684.90
    375.       8.     365.       2.       9.     110.       4.       6.       4.    685.50
     .18      .97     3.32      .38     .060     .050     .065     .048   680.10    615.00
 .004651     450.     450.     450.        2        0        0     0.00   101.71    716.71

*SECNO 8.600
3280 CROSS SECTION      8.60 EXTENDED      .01 FEET

    8.60     5.61   688.11     0.00     0.00   688.28      .17     2.38      .00    687.30
    375.       8.     366.       1.       8.     109.       3.       8.       5.    687.90
     .22      .95     3.37      .36     .060     .050     .065     .049   682.50    615.00
 .004862     500.     500.     500.        2        0        0     0.00    97.94    712.94

*SECNO 9.100
   SECNO     DEPTH     CWSEL     CRIWS     WSEIK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALCB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNI       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

    9.10     5.95   689.55     0.00     0.00   689.85      .29     1.53      .04    688.80
    375.      17.     358.       0.      17.      80.       0.       8.       6.    689.50
     .24      .97     4.45      .16     .060     .050     .065     .049   683.60    291.92
 .005349     300.     300.     300.        2        0        0     0.00    86.21    378.12

*SECNO 9.200
    9.20     5.87   691.17     0.00     0.00   691.50      .33     1.64      .01    690.50
    375.      12.     363.       0.      13.      77.       0.       9.       6.    691.20
     .25      .94     4.71     0.00     .060     .050     .065     .049   685.30    310.95
 .006291     283.     283.     283.        2        0        0     0.00    63.01    373.96

CCHV=     .400 CEHV=     .800
*SECNO 9.280
    9.28     5.52   691.52     0.00     0.00   691.97      .45      .37      .10    691.20
    375.       2.     373.       0.       3.      69.       0.       9.       6.    691.90
     .26      .71     5.43     0.00     .060     .050     .065     .049   686.00    331.47
 .009485      49.      49.      49.        2        0        0     0.00    42.09    373.56

*SECNO 9.290
3280 CROSS SECTION      9.29 EXTENDED      .54 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

    9.29     6.64   692.54     0.00     0.00   692.74      .19      .66      .10    691.10
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      375.      194.      141.       40.       74.       30.       18.        9.        6.    691.10
       .26      2.62      4.71      2.19      .060      .050      .065      .049    685.90    240.00
 .020577       49.       49.       49.         7         0         0    -25.76    160.00    400.00

 *SECNO 9.310
 3280 CROSS SECTION      9.31 EXTENDED       .60 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

      9.31      6.71    692.61      0.00      0.00    692.77       .16       .02       .01    691.10
      375.      204.      129.       43.       82.       30.       20.        9.        6.    691.10
       .26      2.49      4.25      2.09      .060      .050      .065      .049    685.90    240.00
 .016454        1.        1.        1.         3         0         0    -25.76    160.00    400.00

 *SECNO 9.320
 3280 CROSS SECTION      9.32 EXTENDED       .45 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

      9.32      6.44    692.64      0.00      0.00    692.78       .14       .01       .01    691.40
      375.       69.       301.       5.       72.       91.        8.        9.        6.    692.10
       .26       .97      3.30       .60      .060      .050      .065      .049    686.20    240.00
 .002479         1.        1.        1.         2         0         0      0.00    158.57    398.57

 *SECNO 9.330
 3280 CROSS SECTION      9.33 EXTENDED       .47 FEET

      9.33      6.47    692.67      0.00      0.00    692.81       .13       .02       .00    691.40
      375.       71.       299.       5.       73.       92.        9.        9.        6.    692.10
       .26       .97      3.26       .60      .060      .050      .065      .049    686.20    240.00
 .002409        10.       10.       10.         2         0         0      0.00    159.07    399.07

 *SECNO 9.340
 3280 CROSS SECTION      9.34 EXTENDED       .19 FEET

      9.34      6.29    692.69      0.00      0.00    692.96       .27       .05       .11    691.00
      375.       30.       343.       2.       29.       79.        2.        9.        6.    691.90
       .26      1.03      4.33       .83      .060      .050      .065      .049    686.40    320.00
 .004569        14.       14.       14.         2         0         0      0.00    113.22    433.22

 *SECNO 9.350
 3280 CROSS SECTION      9.35 EXTENDED       .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
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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

9.35	6.70	693.10	693.10	0.00	693.51	.41	.01	.12	691.90
375.	188.	160.	27.	62.	23.	11.	9.	6.	691.90
.26	3.03	7.10	2.37	.060	.030	.065	.049	686.40	320.00
.023824	1.	1.	1.	8	10	0	-11.20	114.58	434.58

*SECNO 9.360
3280 CROSS SECTION 9.36 EXTENDED 1.19 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.36	7.29	693.69	0.00	0.00	693.79	.10	.15	.13	691.90
375.	241.	92.	42.	115.	26.	25.	9.	6.	691.90
.27	2.10	3.60	1.67	.060	.030	.065	.049	686.40	320.00
.005189	16.	16.	16.	4	0	0	-11.37	118.00	438.00

*SECNO 9.370
3280 CROSS SECTION 9.37 EXTENDED 1.13 FEET

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

9.37	7.23	693.73	0.00	0.00	693.80	.07	.00	.01	691.10
375.	112.	254.	9.	110.	99.	11.	9.	6.	692.00
.27	1.02	2.57	.79	.060	.050	.065	.049	686.50	320.00
.001195	1.	1.	1.	2	0	0	0.00	118.00	438.00

*SECNO 9.380
3280 CROSS SECTION 9.38 EXTENDED 1.19 FEET

9.38	7.09	693.79	0.00	0.00	693.87	.07	.06	.00	692.50
375.	93.	261.	22.	92.	102.	25.	10.	7.	692.30
.27	1.01	2.54	.87	.060	.050	.065	.049	686.70	90.00
.001267	49.	49.	49.	2	0	0	0.00	120.00	210.00

CCHV= .100 CEHV= .300
*SECNO 9.390
3280 CROSS SECTION 9.39 EXTENDED 1.01 FEET

9.39	6.91	693.91	0.00	0.00	694.00	.09	.13	.01	692.80
375.	81.	275.	19.	78.	98.	21.	10.	7.	692.60
.28	1.03	2.81	.88	.060	.050	.065	.049	687.00	90.00

```
.001637      92.      92.      92.       2        0        0     0.00   120.00   210.00

CCHV=    .350 CEHV=    .700
*SECNO 9.400
3280 CROSS SECTION      9.40 EXTENDED       .78 FEET

    9.40     6.68   694.18     0.00     0.00   694.31      .13      .29      .02   693.30
    375.      64.     296.      14.      62.      93.      16.      11.       7.   693.10
     .30     1.04     3.20      .88     .060     .050     .065     .049   687.50    90.00
 .002288     149.     149.     149.        2        0        0     0.00   120.00   210.00

*SECNO 9.410
3280 CROSS SECTION      9.41 EXTENDED       .68 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

    9.41     6.67   694.17     0.00     0.00   694.35      .17      .00      .03   693.30
    375.      79.     287.       9.      65.      76.       9.      11.       7.   693.10
     .30     1.21     3.78     1.05     .060     .030     .065     .049   687.50    80.00
 .003363       1.       1.       1.        1        0        0    -7.75   120.00   200.00

*SECNO 9.420
3280 CROSS SECTION      9.42 EXTENDED       .72 FEET

   SECNO    DEPTH    CWSEL    CRIWS    WSEIK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     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=  692.60 MAX ELLC=  692.10

    9.42     6.72   694.22     0.00     0.00   694.38      .16      .03      .00   693.30
    375.      83.     283.      10.      68.      77.       9.      11.       7.   693.10
     .30     1.21     3.67     1.05     .060     .030     .065     .049   687.50    80.00
 .003134      10.      10.      10.        2        0        0    -7.75   120.00   200.00

*SECNO 9.430
3280 CROSS SECTION      9.43 EXTENDED       .95 FEET

    9.43     6.85   694.35     0.00     0.00   694.42      .07      .00      .03   693.30
    375.     114.     244.      17.     114.      97.      20.      11.       7.   693.10
     .30     1.00     2.53      .85     .060     .055     .065     .049   687.50    50.00
 .001633       1.       1.       1.        2        0        0     0.00   160.00   210.00

*SECNO 9.440
3280 CROSS SECTION      9.44 EXTENDED       .73 FEET

    9.44     6.73   694.43     0.00     0.00   694.55      .11      .10      .03   693.50
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     375.      75.     284.      16.      70.      94.      17.      11.       7.     693.30
      .30     1.08     3.02      .95     .060     .055     .065     .049    687.70     80.00
  .002430      49.      49.      49.        2        0        0     0.00    130.00    210.00

CCHV=     .100 CEHV=     .300
*SECNO 9.560
3280 CROSS SECTION      9.56 EXTENDED       .60 FEET

     9.56     6.60   694.60     0.00     0.00   694.74      .14      .19      .01    693.80
     375.      63.     299.      13.      59.      91.      14.      11.       8.     693.60
      .31     1.07     3.29      .94     .060     .055     .065     .049    688.00     80.00
  .003018      69.      69.      69.        2        0        0     0.00    130.00    210.00

CCHV=     .300 CEHV=     .500
*SECNO 9.580
3280 CROSS SECTION      9.58 EXTENDED       .68 FEET

     9.58     6.58   695.18     0.00     0.00   695.34      .17      .59      .01    694.10
     375.      94.     230.      51.     100.      56.      46.      12.       8.     694.10
      .33      .94     4.09     1.11     .100     .055     .075     .049    688.60      0.00
  .005309     150.     150.     150.        2        0        0     0.00    206.00    206.00

*SECNO 9.600
3280 CROSS SECTION      9.60 EXTENDED       .39 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     XNI      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

     9.60     6.30   694.90   692.66     0.00   695.64      .74      .01      .29    694.10
     375.      36.     339.       0.      32.      47.       0.      12.       8.     694.10
      .33     1.12     7.26     0.00     .100     .030     .075     .049    688.60      0.00
  .010749       1.       1.       1.        4       16        0   -64.31    205.34    205.34

*SECNO 10.100
3280 CROSS SECTION     10.10 EXTENDED       .98 FEET

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

    10.10     6.88   695.48   692.66     0.00   695.84      .36      .09      .11    694.10
     375.      96.     265.      14.      86.      47.      20.      12.       8.     694.10
      .33     1.12     5.68      .70     .100     .030     .075     .049    688.60      0.00
  .006583      11.      11.      11.        8       16        0  -112.69    206.00    206.00
```

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.41 FEET

10.20	7.31	695.91	0.00	0.00	695.94	.04	.00	.10	694.10
375.	143.	144.	88.	194.	63.	95.	12.	8.	694.10
.33	.74	2.28	.93	.100	.055	.075	.049	688.60	0.00
.001430	1.	1.	1.	3	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 1.96 FEET

10.50	7.06	695.96	0.00	0.00	696.01	.04	.06	.00	694.50
375.	89.	249.	37.	137.	123.	59.	12.	9.	694.50
.34	.65	2.03	.62	.100	.055	.075	.049	688.90	266.00
.000966	50.	50.	50.	2	0	0	0.00	178.00	444.00

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.62 FEET

10.90	6.72	696.02	0.00	0.00	696.08	.07	.07	.01	694.90
375.	79.	273.	24.	108.	112.	38.	13.	9.	694.90
.34	.72	2.42	.63	.100	.055	.075	.049	689.30	266.00
.001549	56.	56.	56.	2	0	0	0.00	174.46	440.46

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.57 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELR	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.67	695.97	0.00	0.00	696.14	.17	.00	.05	690.10
375.	138.	185.	52.	124.	40.	47.	13.	9.	693.70
.34	1.11	4.63	1.10	.100	.030	.075	.049	689.30	266.00
.004193	1.	1.	1.	2	0	0	-24.00	172.28	438.28

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 1.65 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.10	6.75	696.05	0.00	0.00	696.20	.15	.05	.01	690.10
375.	141.	177.	57.	132.	41.	54.	13.	9.	693.70
.35	1.07	4.34	1.07	.100	.030	.075	.049	689.30	266.00
.003589	13.	13.	13.	2	0	0	-24.00	176.00	442.00

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.77 FEET

11.20	6.87	696.17	0.00	0.00	696.23	.06	.00	.03	694.90
375.	84.	261.	30.	121.	117.	47.	13.	9.	694.90
.35	.69	2.23	.62	.100	.055	.075	.049	689.30	266.00
.001245	1.	1.	1.	2	0	0	0.00	178.00	444.00

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.77 FEET

11.50	6.67	696.27	0.00	0.00	696.32	.05	.09	.00	694.40
375.	37.	270.	68.	57.	132.	90.	13.	9.	694.40
.36	.64	2.04	.75	.100	.055	.075	.049	689.60	294.00
.000928	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.80 FEET

11.60	6.70	696.30	0.00	0.00	696.33	.02	.00	.01	694.40
270.	27.	193.	50.	59.	133.	92.	13.	9.	694.40
.36	.46	1.45	.54	.100	.055	.075	.049	689.60	294.00
.000461	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.71 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11.70	6.61	696.31	0.00	0.00	696.34	.03	.01	.00	694.50
270.	26.	197.	47.	56.	130.	86.	13.	9.	694.50
.36	.47	1.51	.55	.100	.055	.075	.049	689.70	294.00
.000515	19.	19.	19.	2	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.82 FEET

11.80	6.72	696.32	0.00	0.00	696.34	.02	.00	.00	694.40
270.	27.	193.	50.	59.	134.	93.	13.	9.	694.40
.36	.46	1.44	.54	.100	.055	.075	.049	689.60	294.00
.000457	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED 1.44 FEET

```
   11.90     6.34   696.34     0.00     0.00   696.37      .04      .03      .01   694.80
    270.      23.    208.      38.      46.    122.      68.      14.       9.    694.80
     .37      .50     1.71      .56     .100     .055     .075     .049   690.00   294.00
 .000729      50.      50.      50.        2        0        0     0.00   131.00   425.00

*SECNO 12.050
3280 CROSS SECTION      12.05 EXTENDED       1.07 FEET

   12.05     5.97   696.37     0.00     0.00   696.43      .06      .05      .01   695.10
    270.      43.    222.       4.      75.    101.      12.      14.      10.    695.70
     .38      .57     2.19      .37     .100     .055     .075     .049   690.40   250.00
 .001159      50.      50.      50.        2        0        0     0.00   118.96   368.96

*SECNO 12.060
3280 CROSS SECTION      12.06 EXTENDED        .93 FEET

   12.06     5.83   696.43     0.00     0.00   696.50      .07      .06      .01   695.30
    270.      38.    229.       2.      66.     98.       7.      14.      10.    695.90
     .39      .58     2.35      .31     .100     .055     .075     .049   690.60   250.00
 .001390      48.      48.      48.        2        0        0     0.00   114.76   364.76

*SECNO 12.070
3280 CROSS SECTION      12.07 EXTENDED        .86 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    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

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   12.07     5.56   696.36   696.36     0.00   696.77      .41      .00      .17   692.80
    270.     152.    113.       5.      74.     15.       4.      14.      10.    692.80
     .39     2.06     7.58     1.40     .100     .030     .075     .049   690.80   250.00
 .019322       1.       1.       1.       20        6        0   -31.60   111.98   361.98

*SECNO 12.080
3280 CROSS SECTION      12.08 EXTENDED       1.43 FEET

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

   12.08     6.13   696.93     0.00     0.00   697.04      .10      .17      .09   692.80
    270.     166.     75.      28.     115.     17.      28.      14.      10.    692.80
     .39     1.45     4.37     1.03     .100     .030     .075     .049   690.80   250.00
 .005317      19.      19.      19.        4        0        0   -32.76   129.36   379.36
```

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.52 FEET

12.10	6.42	697.02	0.00	0.00	697.06	.04	.00	.02	695.30
270.	55.	202.	12.	103.	113.	29.	14.	10.	695.90
.39	.54	1.80	.42	.100	.055	.075	.049	690.60	250.00
.000673	1.	1.	1.	2	0	0	0.00	132.01	382.01

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED 1.14 FEET

13.05	5.74	697.04	0.00	0.00	697.10	.06	.03	.01	695.40
270.	49.	129.	92.	56.	47.	102.	14.	10.	695.40
.39	.88	2.73	.90	.100	.055	.075	.049	691.30	258.00
.002063	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED .90 FEET

13.06	5.50	697.10	0.00	0.00	697.20	.10	.08	.02	695.70
270.	46.	150.	73.	47.	45.	76.	14.	10.	695.70
.40	.99	3.34	.97	.100	.055	.075	.049	691.60	258.00
.003304	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED .88 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.48	697.08	0.00	0.00	697.23	.16	.00	.03	693.60
270.	75.	87.	109.	50.	17.	75.	14.	10.	693.60
.40	1.49	5.18	1.45	.100	.030	.075	.049	691.60	258.00
.007742	1.	1.	1.	2	0	0	-6.97	156.00	414.00

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED 1.07 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.08	5.68	697.28	0.00	0.00	697.37	.09	.11	.02	693.60
270.	73.	72.	124.	58.	17.	97.	14.	10.	693.60
.40	1.27	4.13	1.28	.100	.030	.075	.049	691.60	258.00
.004628	19.	19.	19.	3	0	0	-7.26	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.11 FEET

13.10	5.71	697.31	0.00	0.00	697.38	.07	.00	.01	695.70
270.	49.	132.	90.	54.	47.	99.	14.	10.	695.70
.40	.89	2.80	.91	.100	.055	.075	.049	691.60	258.00
.002193	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.66 FEET

13.60	5.36	697.46	0.00	0.00	697.49	.02	.10	.01	695.50
270.	10.	127.	133.	22.	79.	176.	15.	10.	694.60
.43	.47	1.60	.75	.100	.055	.075	.049	692.10	302.00
.000541	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.22 FEET

13.70	4.93	697.53	0.00	0.00	697.56	.04	.07	.01	696.00
270.	12.	140.	118.	16.	71.	139.	16.	11.	695.10
.45	.70	1.96	.85	.075	.055	.075	.049	692.60	302.00
.000930	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED .84 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	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
13.80	4.54	697.64	0.00	0.00	697.70	.06	.12	.01	696.50
270.	9.	158.	103.	12.	64.	105.	16.	11.	695.60
.46	.77	2.45	.98	.075	.055	.075	.049	693.10	302.00
.001674	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .41 FEET

14.00	4.11	697.91	0.00	0.00	698.03	.12	.31	.03	697.20
270.	5.	186.	79.	7.	57.	69.	17.	11.	696.30
.47	.78	3.27	1.14	.075	.055	.075	.050	693.80	302.00
.003504	132.	132.	132.	2	0	0	0.00	116.00	418.00

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .22 FEET

14.10	3.92	698.72	0.00	0.00	698.89	.17	.83	.02	698.20
270.	3.	200.	66.	4.	53.	53.	17.	12.	697.30
.49	.72	3.75	1.24	.075	.055	.075	.050	694.80	302.00
.005032	200.	200.	200.	2	0	0	0.00	107.39	409.39

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .22 FEET

14.20	3.93	699.73	0.00	0.00	699.90	.17	1.01	.00	699.20
270.	3.	200.	66.	4.	53.	53.	18.	12.	698.30
.51	.72	3.75	1.24	.075	.055	.075	.050	695.80	302.00
.005026	200.	200.	200.	0	0	0	0.00	107.42	409.42

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .23 FEET

14.30	3.93	700.73	0.00	0.00	700.90	.17	1.00	.00	700.20
270.	3.	200.	67.	5.	54.	54.	18.	13.	699.30
.53	.72	3.74	1.24	.075	.055	.075	.050	696.80	302.00
.004968	200.	200.	200.	0	0	0	0.00	107.71	409.71

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .23 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14.40	3.93	701.33	0.00	0.00	701.49	.17	.60	.00	700.80
270.	3.	200.	67.	5.	54.	54.	18.	13.	699.90
.54	.72	3.73	1.24	.075	.055	.075	.050	697.40	302.00
.004952	120.	120.	120.	0	0	0	0.00	107.79	409.79

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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      10 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        2.        0.        0.  0.000000      0.00      -1.0       0.   674.910    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
```

*PROF 2

CCHV= .100 CEHV= .300

*SECNO 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
7.85	4.71	674.91	0.00	674.91	675.07	.16	0.00	0.00	674.00
225.	12.	213.	0.	13.	65.	0.	0.	0.	676.10
0.00	.92	3.29	0.00	.060	.045	.060	0.000	670.20	91.79
.002992	0.	0.	0.	0	0	0	0.00	52.25	144.04

*SECNO 7.870

7.87	4.63	675.63	0.00	0.00	675.80	.18	.73	.00	674.80
225.	10.	215.	0.	11.	63.	0.	0.	0.	676.90
.02	.90	3.44	0.00	.060	.045	.060	.045	671.00	94.03
.003341	230.	230.	230.	2	0	0	0.00	49.67	143.70

*SECNO 7.900

7.90	4.54	676.44	0.00	0.00	676.63	.19	.83	.01	675.70
225.	8.	217.	0.	9.	61.	0.	1.	1.	677.80
.04	.86	3.58	0.00	.060	.045	.060	.045	671.90	96.25
.003725	235.	235.	235.	2	0	0	0.00	47.12	143.37

*SECNO 7.920

7.92	4.43	677.23	0.00	0.00	677.44	.22	.80	.01	676.60
225.	5.	220.	0.	7.	58.	0.	1.	1.	678.70
.05	.77	3.80	0.00	.060	.045	.060	.045	672.80	99.31
.004333	200.	200.	200.	2	0	0	0.00	43.59	142.90

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.95	4.46	678.16	0.00	0.00	678.40	.24	.95	.01	677.90
225.	0.	225.	0.	1.	57.	0.	1.	1.	680.60
.07	.42	3.97	0.00	.065	.050	.065	.046	673.70	634.15
.005271	199.	199.	199.	2	0	0	0.00	27.18	661.33

*SECNO 8.000

8.00	4.61	680.61	0.00	0.00	680.82	.22	2.42	.00	680.20
225.	1.	224.	0.	2.	60.	0.	2.	1.	682.90
.10	.53	3.75	0.00	.065	.050	.065	.047	676.00	630.19
.004456	500.	500.	500.	2	0	0	0.00	31.30	661.50

*SECNO 8.100

8.10	4.67	682.77	0.00	0.00	682.98	.21	2.15	.00	682.30

```
     225.      2.     223.      0.      3.      61.      0.      3.      2.     685.00
      .14     .56     3.67    0.00    .065     .050    .065    .048   678.10   628.55
  .004159    500.     500.    500.       1        0       0    0.00    33.02   661.56

*SECNO 8.500
     8.50    4.65   684.75    0.00    0.00   684.91     .16    1.93     .00   684.90
     225.      0.     225.      0.      0.      69.      0.      3.      2.     685.50
      .18    0.00     3.24    0.00    .060     .050    .065    .048   680.10   636.18
  .004416    450.     450.    450.       1        0       0    0.00    28.79   664.97

*SECNO 8.600
     8.60    4.55   687.05    0.00    0.00   687.23     .18    2.31     .00   687.30
     225.      0.     225.      0.      0.      67.      0.      4.      2.     687.90
      .22    0.00     3.36    0.00    .060     .050    .065    .049   682.50   636.85
  .004851    500.     500.    500.       2        0       0    0.00    28.09   664.93

*SECNO 9.100
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALCB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNI       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

     9.10    4.99   688.59    0.00    0.00   688.82     .24    1.58     .02   688.80
     225.      0.     225.      0.      0.      58.      0.      5.      2.     689.50
      .24    0.00     3.90    0.00    .060     .050    .065    .049   683.60   350.76
  .005735    300.     300.    300.       2        0       0    0.00    22.20   372.96

*SECNO 9.200
     9.20    4.97   690.27    0.00    0.00   690.52     .25    1.69     .00   690.50
     225.      0.     225.      0.      0.      56.      0.      5.      3.     691.20
      .26    0.00     4.01    0.00    .060     .050    .065    .049   685.30   350.83
  .006235    283.     283.    283.       2        0       0    0.00    22.11   372.94

CCHV=     .400 CEHV=     .800
*SECNO 9.280
     9.28    4.62   690.62    0.00    0.00   690.95     .33     .37     .07   691.20
     225.      0.     225.      0.      0.      49.      0.      5.      3.     691.90
      .27    0.00     4.63    0.00    .060     .050    .065    .049   686.00   352.08
  .009074     49.      49.     49.       2        0       0    0.00    20.46   372.54

*SECNO 9.290

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

     9.29    5.48   691.38  689.90    0.00   692.56    1.18     .93     .67   691.10
     225.      0.     225.      0.      0.      26.      0.      5.      3.     691.10
      .27    0.00     8.70    0.00    .060     .050    .065    .049   685.90   340.28
  .062278     49.      49.     49.       4       12       0   -5.64    26.63   366.91

*SECNO 9.310
```

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.31	5.54	691.44	689.90	0.00	692.62	1.18	.06	0.00	691.10
225.	0.	225.	0.	0.	26.	0.	5.	3.	691.10
.27	0.00	8.70	0.00	.060	.050	.065	.049	685.90	336.73
.062278	1.	1.	1.	4	12	0	-7.33	30.99	367.71

*SECNO 9.320
3280 CROSS SECTION 9.32 EXTENDED .85 FEET

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.32	6.85	693.05	0.00	0.00	693.08	.03	.00	.46	691.40
225.	64.	153.	7.	116.	101.	19.	5.	3.	692.10
.27	.56	1.52	.40	.060	.050	.065	.049	686.20	240.00
.000461	1.	1.	1.	3	0	0	0.00	160.00	400.00

*SECNO 9.330
3280 CROSS SECTION 9.33 EXTENDED .66 FEET

9.33	6.86	693.06	0.00	0.00	693.09	.03	.00	.00	691.40
225.	65.	153.	8.	117.	101.	19.	5.	3.	692.10
.27	.56	1.51	.40	.060	.050	.065	.049	686.20	240.00
.000454	10.	10.	10.	2	0	0	0.00	160.00	400.00

*SECNO 9.340
3280 CROSS SECTION 9.34 EXTENDED .57 FEET

9.34	6.66	693.06	0.00	0.00	693.12	.06	.01	.03	691.00
225.	39.	183.	3.	61.	87.	5.	5.	3.	691.90
.27	.64	2.10	.49	.060	.050	.065	.049	686.40	320.00
.000947	14.	14.	14.	0	0	0	0.00	116.16	436.16

*SECNO 9.350
3280 CROSS SECTION 9.35 EXTENDED .54 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.35	6.64	693.04	0.00	0.00	693.22	.18	.00	.10	691.90
225.	107.	103.	15.	57.	22.	10.	5.	3.	691.90
.27	1.88	4.63	1.50	.060	.030	.065	.049	686.40	320.00
.010318	1.	1.	1.	2	0	0	-11.15	113.54	433.54

*SECNO 9.360
3280 CROSS SECTION 9.36 EXTENDED .78 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.36	6.88	693.28	0.00	0.00	693.37	.09	.11	.04	691.90
225.	127.	79.	18.	78.	23.	15.	5.	3.	691.90
.27	1.63	3.37	1.21	.060	.030	.065	.049	686.40	320.00
.005099	16.	16.	16.	3	0	0	-11.36	117.71	437.71

*SECNO 9.370
3280 CROSS SECTION 9.37 EXTENDED .75 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
9.37	6.85	693.35	0.00	0.00	693.39	.04	.00	.02	691.10
225.	49.	172.	3.	77.	91.	7.	5.	3.	692.00
.27	.64	1.90	.47	.060	.050	.065	.049	686.50	320.00
.000730	1.	1.	1.	2	0	0	0.00	117.57	437.57

*SECNO 9.380
3280 CROSS SECTION 9.38 EXTENDED .78 FEET

9.38	6.68	693.38	0.00	0.00	693.43	.05	.04	.00	692.50
225.	38.	178.	8.	61.	93.	16.	6.	3.	692.30
.28	.63	1.92	.53	.060	.050	.065	.049	686.70	90.00
.000828	49.	49.	49.	2	0	0	0.00	120.00	210.00

CCHV= .100 CEHV= .300
*SECNO 9.390
3280 CROSS SECTION 9.39 EXTENDED .55 FEET

9.39	6.46	693.46	0.00	0.00	693.53	.07	.09	.01	692.80
225.	27.	192.	6.	45.	87.	11.	6.	3.	692.60
.30	.61	2.21	.50	.060	.050	.065	.049	687.00	90.00
.001182	92.	92.	92.	0	0	0	0.00	120.00	210.00

CCHV= .350 CEHV= .700
*SECNO 9.400
3280 CROSS SECTION 9.40 EXTENDED .27 FEET

9.40	6.17	693.67	0.00	0.00	693.77	.10	.22	.02	693.30
225.	12.	211.	2.	24.	80.	5.	6.	4.	693.10
.31	.50	2.63	.43	.060	.050	.065	.049	687.50	90.00
.001871	149.	149.	149.	2	0	0	0.00	115.87	205.87

*SECNO 9.410
3280 CROSS SECTION 9.41 EXTENDED .16 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.60 MAX ELLC= 692.10

9.41	6.15	693.65	0.00	0.00	693.81	.16	.00	.04	693.30
225.	13.	211.	2.	22.	64.	3.	6.	4.	693.10
.31	.59	3.31	.56	.060	.030	.065	.049	687.50	80.00
.003288	1.	1.	1.	1	0	0	-7.75	117.63	197.63

*SECNO 9.420
3280 CROSS SECTION 9.42 EXTENDED .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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.60 MAX ELLC= 692.10

9.42	6.19	693.69	0.00	0.00	693.85	.15	.03	.00	693.30
225.	14.	209.	2.	24.	64.	3.	6.	4.	693.10
.31	.61	3.26	.56	.060	.030	.065	.049	687.50	80.00
.003140	10.	10.	10.	1	0	0	-7.75	118.04	198.04

*SECNO 9.430
3280 CROSS SECTION 9.43 EXTENDED .41 FEET

9.43	6.31	693.81	0.00	0.00	693.88	.07	.00	.03	693.30
225.	31.	190.	4.	53.	84.	8.	6.	4.	693.10
.31	.59	2.27	.46	.060	.055	.065	.049	687.50	50.00
.001597	1.	1.	1.	2	0	0	0.00	160.00	210.00

*SECNO 9.440
3280 CROSS SECTION 9.44 EXTENDED .19 FEET

9.44	6.19	693.89	0.00	0.00	693.99	.10	.09	.02	693.50
225.	13.	210.	3.	24.	81.	6.	6.	4.	693.30
.32	.51	2.59	.48	.060	.055	.065	.049	687.70	80.00
.002183	49.	49.	49.	2	0	0	0.00	126.65	206.65

CCHV= .100 CEHV= .300
*SECNO 9.560
3280 CROSS SECTION 9.56 EXTENDED .05 FEET

9.56	6.05	694.05	0.00	0.00	694.17	.12	.17	.01	693.80
225.	5.	219.	1.	12.	77.	3.	7.	4.	693.60
.33	.38	2.83	.44	.060	.055	.065	.049	688.00	80.00
.002763	69.	69.	69.	2	0	0	0.00	122.01	202.01

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 CCHV=    .300 CEHV=    .500
 *SECNO 9.580

 3265 DIVIDED FLOW

 3280 CROSS SECTION      9.58 EXTENDED       .08 FEET

      9.58      5.97    694.57      0.00      0.00    694.80       .22       .58       .05    694.10
       225.       16.       203.        6.       25.       51.       10.        7.        4.    694.10
        .34       .66      3.98       .58      .100      .055      .075      .049    688.60      0.00
   .005778      150.      150.      150.         2         0         0      0.00    146.18    178.63


 *SECNO 9.600

 3265 DIVIDED FLOW

 3280 CROSS SECTION      9.60 EXTENDED       .03 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       ICCNT     CORAR   TOPWID      ENDST


 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

      9.60      5.93    694.53    691.56      0.00    694.85       .32       .01       .05    694.10
       225.       8.       217.        0.       11.       47.        0.        7.        4.    694.10
        .34       .81      4.64      0.00      .100      .030      .075      .049    688.60      0.00
   .004380        1.        1.        1.         4        15         0    -21.90    126.75    174.77


 *SECNO 10.100

 3265 DIVIDED FLOW

 3280 CROSS SECTION     10.10 EXTENDED       .09 FEET


 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

     10.10      5.98    694.58    691.56      0.00    694.90       .32       .05       .00    694.10
       225.       10.       215.        0.       13.       47.        0.        7.        4.    694.10
        .34       .76      4.61      0.00      .100      .030      .075      .049    688.60      0.00
   .004331       11.       11.       11.         0        15         0    -27.40    150.55    179.50


 *SECNO 10.200
 3280 CROSS SECTION     10.20 EXTENDED       .31 FEET

     10.20      6.21    694.81      0.00      0.00    694.96       .15       .00       .05    694.10
       225.       31.       181.       13.       52.       53.       21.        7.        4.    694.10
        .34       .59      3.40       .63      .100      .055      .075      .049    688.60      0.00
   .003980        1.        1.        1.         2         0         0      0.00    198.68    198.68
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*SECNO 10.500
3280 CROSS SECTION      10.50 EXTENDED      1.03 FEET

     10.50      6.14    695.04      0.00      0.00    695.09       .05       .11       .03    694.50
       225.       31.       192.        3.       59.       95.        9.        7.        5.    694.50
        .35       .52      2.02       .31      .100      .055      .075      .049    688.90    266.00
   .001352       50.       50.       50.         1         0         0      0.00    149.21    415.21

*SECNO 10.900

3265 DIVIDED FLOW

3280 CROSS SECTION      10.90 EXTENDED       .72 FEET

     10.90      5.82    695.12      0.00      0.00    695.20       .08       .09       .01    694.90
       225.       21.       204.        0.       35.       86.        2.        7.        5.    694.90
        .35       .59      2.38       .21      .100      .055      .075      .049    689.30    266.00
   .002159       56.       56.       56.         2         0         0      0.00    110.85    394.86

*SECNO 11.000

3265 DIVIDED FLOW

3280 CROSS SECTION      11.00 EXTENDED       .53 FEET

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

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

     11.00      5.62    694.92    692.94      0.00    695.40       .48       .00       .20    690.10
       225.       38.       186.        0.       35.       31.        0.        7.        5.    693.70
        .35      1.11      6.10       .16      .100      .030      .075      .049    689.30    266.00
   .010386         1.        1.        1.         4        13         0    -24.00     85.36    381.73

*SECNO 11.100

3265 DIVIDED FLOW

3280 CROSS SECTION      11.10 EXTENDED       .93 FEET

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

     11.10      6.04    695.34      0.00      0.00    695.57       .23       .09       .07    690.10
       225.       60.       158.        7.       65.       34.       12.        7.        5.    693.70
        .35       .92      4.60       .64      .100      .030      .075      .049    689.30    266.00
   .005084       13.       13.       13.         4         0         0    -24.00    139.13    409.43
```

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.19 FEET

11.20	6.28	695.58	0.00	0.00	695.63	.04	.00	.06	694.90
225.	36.	184.	6.	72.	100.	16.	7.	5.	694.90
.35	.49	1.85	.36	.100	.055	.075	.049	689.30	266.00
.001058	1.	1.	1.	2	0	0	0.00	155.98	421.98

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.17 FEET

11.50	6.07	695.67	0.00	0.00	695.71	.03	.07	.00	694.40
225.	17.	184.	24.	38.	113.	50.	8.	5.	694.40
.37	.44	1.63	.48	.100	.055	.075	.049	689.60	294.00
.000729	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.20 FEET

11.60	6.10	695.70	0.00	0.00	695.71	.02	.00	.01	694.40
155.	12.	126.	17.	39.	114.	52.	8.	5.	694.40
.37	.30	1.11	.33	.100	.055	.075	.049	689.60	294.00
.000333	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.11 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
11.70	6.00	695.70	0.00	0.00	695.72	.02	.01	.00	694.50
155.	11.	129.	15.	36.	111.	46.	8.	5.	694.50
.38	.31	1.16	.33	.100	.055	.075	.049	689.70	294.00
.000379	19.	19.	19.	0	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.20 FEET

11.80	6.10	695.70	0.00	0.00	695.72	.02	.00	.00	694.40
155.	12.	126.	17.	39.	114.	52.	8.	5.	694.40
.38	.30	1.11	.33	.100	.055	.075	.049	689.60	294.00
.000331	1.	1.	1.	0	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED .82 FEET

```
      11.90      5.72    695.72      0.00      0.00    695.75       .03       .02       .00    694.80
        155.         8.       137.         9.        27.       102.        28.         8.         5.    694.80
         .39        .31      1.35        .33       .100       .055       .075       .049    690.00    294.00
    .000572        50.        50.        50.          0          0          0      0.00    119.42    413.42

 *SECNO 12.050
 3280 CROSS SECTION     12.05 EXTENDED        .44 FEET

      12.05      5.35    695.75      0.00      0.00    695.79       .04       .03       .01    695.10
        155.        11.       144.         0.        36.        86.         0.         8.         5.    695.70
         .40        .31      1.68        .01       .100       .055       .075       .049    690.40    250.00
    .000848        50.        50.        50.          0          0          0      0.00     89.35    339.35

 *SECNO 12.060
 3280 CROSS SECTION     12.06 EXTENDED        .28 FEET

      12.06      5.19    695.79      0.00      0.00    695.84       .05       .04       .00    695.30
        155.         7.       148.         0.        26.        82.         0.         8.         6.    695.90
         .40        .28      1.81        0.00       .100       .055       .075       .049    690.60    250.00
    .001036        48.        48.        48.          0          0          0      0.00     86.75    336.75

 *SECNO 12.070
 3280 CROSS SECTION     12.07 EXTENDED        .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       XNI           XNCH        XNR         WTN      ELMIN      SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL        IDC         ICONT       CORAR    TOPWID     ENDST

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
      12.07      5.24    696.04    696.04      0.00    696.37       .33       .00       .14    692.80
        155.        70.        83.         2.        50.        14.         2.         8.         6.    692.80
         .40       1.39      6.12        .84       .100       .030       .075       .049    690.80    250.00
    .014201         1.         1.         1.         20         10          0    -24.79     94.78    344.78

 *SECNO 12.080
 3280 CROSS SECTION     12.08 EXTENDED        .99 FEET

 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

      12.08      5.69    696.49      0.00      0.00    696.58       .10       .14       .07    692.80
        155.        91.        59.         5.        83.        15.         8.         8.         6.    692.80
         .41       1.10      3.82        .63       .100       .030       .075       .049    690.80    250.00
    .004695        19.        19.        19.          2          0          0    -32.76    116.67    366.67
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*SECNO 12.100
3280 CROSS SECTION      12.10 EXTENDED      1.09 FEET

      12.10      5.99     696.59      0.00      0.00     696.61       .02       .00       .02     695.30
        155.       25.       127.        3.        76.       102.       12.        8.        6.     695.90
         .41       .33       1.25       .21       .100      .055      .075      .049    690.60     250.00
    .000375        1.         1.         1.         2          0         0      0.00    119.41     369.41


*SECNO 13.050
3280 CROSS SECTION      13.05 EXTENDED       .69 FEET

      13.05      5.29     696.59      0.00      0.00     696.65       .05       .02       .02     695.40
        155.       25.       99.        31.       39.       43.       53.        8.        6.     695.40
         .41       .63       2.31       .59       .100      .055      .075      .049    691.30     258.00
    .001684       30.       30.        30.         2          0         0      0.00    148.71     406.71


*SECNO 13.060
3280 CROSS SECTION      13.06 EXTENDED       .43 FEET

      13.06      5.03     696.63      0.00      0.00     696.73       .10       .07       .02     695.70
        155.       20.       117.       18.       29.       40.       29.        9.        6.     695.70
         .42       .69       2.91       .62       .100      .055      .075      .049    691.60     258.00
    .002913       30.       30.        30.         1          0         0      0.00    131.13     389.13


*SECNO 13.070
3280 CROSS SECTION      13.07 EXTENDED       .38 FEET

   SECNO      DEPTH     CWSEL     CRIWS     WSEIK      EG         HV        HL        OLOSS     BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH        AROB      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=  7 MIN ELTRD=  695.70 MAX ELLC=  695.60

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      13.07      4.98     696.58     696.58      0.00     696.88       .30       .01       .10     693.60
        155.       39.       85.        30.       30.       15.       26.        9.        6.     693.60
         .42       1.31      5.78       1.16      .100      .030      .075      .049    691.60     258.00
   .011418         1.         1.         1.         3          7         0     -6.22    128.02     386.02


*SECNO 13.080
3280 CROSS SECTION      13.08 EXTENDED       .78 FEET


3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.70 MAX ELLC=  695.60

      13.08      5.38     696.98      0.00      0.00     697.05       .07       .11       .07     693.60
        155.       43.       55.        57.       46.       16.       65.        9.        6.     693.60
         .42       .93       3.36       .89       .100      .030      .075      .049    691.60     258.00
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.003363	19.	19.	19.	3	0	0	-6.82	154.67	412.67

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED -.82 FEET

13.10	5.42	697.02	0.00	0.00	697.06	.04	.00	.01	695.70
155.	26.	91.	38.	44.	44.	67.	9.	6.	695.70
.42	.59	2.06	.57	.100	.055	.075	.049	691.60	258.00
.001285	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.31 FEET

13.60	5.01	697.11	0.00	0.00	697.12	.01	.05	.01	695.50
155.	5.	79.	70.	18.	73.	146.	9.	6.	694.60
.45	.30	1.09	.48	.100	.055	.075	.049	692.10	302.00
.000278	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED -.85 FEET

13.70	4.55	697.15	0.00	0.00	697.17	.02	.04	.00	696.00
155.	5.	90.	59.	12.	65.	106.	9.	6.	695.10
.48	.44	1.40	.56	.075	.055	.075	.049	692.60	302.00
.000543	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED -.41 FEET

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CHWS QROB VROB XLOBR	WSEIK ALCB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
13.80	4.11	697.21	0.00	0.00	697.25	.04	.08	.01	696.50
155.	3.	107.	45.	7.	57.	69.	10.	7.	695.60
.50	.45	1.88	.66	.075	.055	.075	.049	693.10	302.00
.001161	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
14.00	3.62	697.42	0.00	0.00	697.51	.10	.23	.03	697.20
155.	0.	130.	25.	1.	48.	32.	10.	7.	696.30
.51	.25	2.70	.79	.075	.055	.075	.050	693.80	305.31
.003018	132.	132.	132.	2	0	0	0.00	89.25	394.56

*SECNO 14.100
14.10	3.36	698.16	0.00	0.00	698.31	.15	.77	.03	698.20
155.	0.	141.	14.	0.	43.	17.	11.	7.	697.30
.53	0.00	3.27	.80	.075	.055	.075	.050	694.80	314.09
.005014	200.	200.	200.	2	0	0	0.00	67.35	381.44

*SECNO 14.200

14.20	3.36	699.16	0.00	0.00	699.31	.15	1.00	.00	699.20
155.	0.	141.	14.	0.	43.	17.	11.	8.	698.30
.55	0.00	3.27	.80	.075	.055	.075	.050	695.80	314.09
.005012	200.	200.	200.	2	0	0	0.00	67.36	381.45

*SECNO 14.300

14.30	3.36	700.16	0.00	0.00	700.31	.15	1.00	.00	700.20
155.	0.	141.	14.	0.	43.	17.	11.	8.	699.30
.57	0.00	3.26	.80	.075	.055	.075	.050	696.80	314.09
.004989	200.	200.	200.	0	0	0	0.00	67.53	381.61

*SECNO 14.400

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNE	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14.40	3.36	700.76	0.00	0.00	700.91	.15	.60	.00	700.80
155.	0.	141.	14.	0.	43.	17.	11.	8.	699.90
.58	0.00	3.26	.80	.075	.055	.075	.050	697.40	314.09
.005003	120.	120.	120.	0	0	0	0.00	67.43	381.52

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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 HJD-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.    676.070   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 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	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
7.85	5.87	676.07	0.00	676.07	676.15	.08	0.00	0.00	674.00
320.	72.	248.	0.	64.	96.	0.	0.	0.	676.10
0.00	1.13	2.57	0.00	.060	.045	.060	0.000	670.20	61.09
.001521	0.	0.	0.	0	0	0	0.00	90.65	151.74

*SECNO 7.870

7.87	5.47	676.47	0.00	0.00	676.60	.13	.43	.02	674.80
320.	53.	267.	0.	42.	84.	0.	1.	0.	676.90
.02	1.25	3.17	0.00	.060	.045	.060	.045	671.00	71.72
.002398	230.	230.	230.	2	0	0	0.00	76.58	148.30

*SECNO 7.900

7.90	5.19	677.09	0.00	0.00	677.27	.19	.65	.02	675.70
320.	39.	281.	0.	30.	76.	0.	1.	1.	677.80
.04	1.30	3.68	0.00	.060	.045	.060	.045	671.90	79.19
.003279	235.	235.	235.	2	0	0	0.00	66.76	145.95

*SECNO 7.920

7.92	4.99	677.79	0.00	0.00	678.03	.23	.74	.01	676.60
320.	30.	290.	0.	23.	72.	0.	2.	1.	678.70
.06	1.33	4.05	0.00	.060	.045	.060	.045	672.80	84.30
.004197	200.	200.	200.	2	0	0	0.00	60.87	145.17

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	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
7.95	5.01	678.71	0.00	0.00	679.02	.32	.97	.02	677.90
320.	9.	311.	0.	9.	68.	0.	2.	1.	680.60
.07	1.02	4.57	0.00	.065	.050	.065	.046	673.70	615.17
.005747	199.	199.	199.	2	0	0	0.00	46.77	661.93

*SECNO 8.000

8.00	5.26	681.26	0.00	0.00	681.51	.25	2.48	.01	680.20
320.	18.	302.	0.	17.	73.	0.	3.	2.	682.90
.10	1.06	4.12	0.00	.065	.050	.065	.047	676.00	604.17
.004319	500.	500.	500.	2	0	0	0.00	58.04	662.21

*SECNO 8.100

8.10	5.29	683.39	0.00	0.00	683.63	.24	2.12	.00	682.30

320.	19.	301.	0.	18.	74.	0.	4.	3.	685.00
.14	1.07	4.07	0.00	.065	.050	.065	.048	678.10	603.21
.004172	500.	500.	500.	2	0	0	0.00	59.03	662.24

*SECNO 8.500

8.50	5.42	685.52	0.00	0.00	685.67	.16	2.03	.01	684.90
320.	4.	316.	0.	5.	99.	0.	5.	3.	685.50
.18	.79	3.19	.02	.060	.050	.065	.048	680.10	619.62
.004907	450.	450.	450.	3	0	0	0.00	65.53	685.15

*SECNO 8.600

8.60	5.43	687.93	0.00	0.00	688.09	.15	2.41	.00	687.30
320.	4.	316.	0.	5.	100.	0.	6.	4.	687.90
.22	.79	3.16	.02	.060	.050	.065	.049	682.50	619.15
.004754	500.	500.	500.	3	0	0	0.00	68.67	687.82

*SECNO 9.100

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

9.10	5.73	689.33	0.00	0.00	689.60	.27	1.48	.03	688.80
320.	6.	314.	0.	8.	75.	0.	7.	4.	689.50
.24	.73	4.18	0.00	.060	.050	.065	.049	683.60	318.77
.005115	300.	300.	300.	2	0	0	0.00	55.04	373.81

*SECNO 9.200

9.20	5.60	690.90	0.00	0.00	691.21	.31	1.60	.01	690.50
320.	3.	317.	0.	5.	71.	0.	8.	5.	691.20
.26	.67	4.48	0.00	.060	.050	.065	.049	685.30	326.51
.006261	283.	283.	283.	2	0	0	0.00	47.15	373.66

CCHV= .400 CEHV= .800

*SECNO 9.280

9.28	5.25	691.25	0.00	0.00	691.66	.41	.37	.08	691.20
320.	0.	320.	0.	0.	63.	0.	8.	5.	691.90
.26	.02	5.11	0.00	.060	.050	.065	.049	686.00	346.86
.009358	49.	49.	49.	2	0	0	0.00	26.40	373.27

*SECNO 9.290

3280 CROSS SECTION 9.29 EXTENDED .42 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= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

7185 MINIMUM SPECIFIC ENERGY

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3720 CRITICAL DEPTH ASSUMED
      9.29      6.52    692.42    692.42      0.00    692.64       .23       .69       .07    691.10
       320.      146.      146.       28.       60.       29.       14.        8.        5.    691.10
        .27      2.44      5.00      2.07      .060      .050      .065      .049    685.90    240.00
   .023900       49.       49.       49.         5        13         0    -25.76    157.48    397.48

 *SECNO 9.310
3280 CROSS SECTION      9.31 EXTENDED       .59 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

      9.31      6.68    692.58      0.00      0.00    692.70       .12       .02       .04    691.10
       320.      172.      113.       36.       79.       30.       20.        8.        5.    691.10
        .27      2.16      3.74      1.81      .060      .050      .065      .049    685.90    240.00
   .012798        1.        1.        1.         4         0         0    -25.76    160.00    400.00

 *SECNO 9.320
3280 CROSS SECTION      9.32 EXTENDED       .40 FEET

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

      9.32      6.40    692.60      0.00      0.00    692.71       .11       .00       .00    691.40
       320.       54.      262.        3.       66.       90.        7.        8.        5.    692.10
        .27       .83      2.92       .50      .060      .050      .065      .049    686.20    240.00
   .001980        1.        1.        1.         0         0         0      0.00    156.95    396.95

 *SECNO 9.330
3280 CROSS SECTION      9.33 EXTENDED       .43 FEET

      9.33      6.42    692.62      0.00      0.00    692.73       .11       .02       .00    691.40
       320.       57.      259.        4.       69.       90.        8.        8.        5.    692.10
        .27       .83      2.87       .51      .060      .050      .065      .049    686.20    240.00
   .001890       10.       10.       10.         2         0         0      0.00    157.76    397.76

 *SECNO 9.340
3280 CROSS SECTION      9.34 EXTENDED       .15 FEET

      9.34      6.24    692.64      0.00      0.00    692.85       .21       .04       .08    691.00
       320.       22.      296.        2.       25.       78.        2.        8.        5.    691.90
        .27       .88      3.79       .70      .060      .050      .065      .049    686.40    320.00
   .003549       14.       14.       14.         1         0         0      0.00    112.86    432.86

 *SECNO 9.350
3280 CROSS SECTION      9.35 EXTENDED       .55 FEET

     SECNO     DEPTH     CWSEL     CRIWS     WSEIK     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

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    9.35     6.65   693.05   693.05     0.00   693.40      .36      .01      .12   691.90
    320.     153.     145.      22.      57.      22.      10.       8.       5.   691.90
     .27     2.67     6.51     2.12     .060     .030     .065     .049   686.40   320.00
 .020347       1.       1.       1.        6        6        0   -11.15   113.68   433.68

*SECNO 9.360
3280 CROSS SECTION      9.36 EXTENDED      1.07 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

    9.36     7.16   693.56     0.00     0.00   693.65      .09      .14      .11   691.90
    320.     200.      86.      33.     104.      25.      22.       8.       5.   691.90
     .27     1.93     3.46     1.51     .060     .030     .065     .049   686.40   320.00
 .004960      16.      16.      16.        2        0        0   -11.37   118.00   438.00

*SECNO 9.370
3280 CROSS SECTION      9.37 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

    9.37     7.10   693.60     0.00     0.00   693.67      .06      .00      .01   691.10
    320.      88.     226.       7.      99.      96.      10.       8.       5.   692.00
     .27      .89     2.34      .67     .060     .050     .065     .049   686.50   320.00
 .001032       1.       1.       1.        2        0        0     0.00   118.00   438.00

*SECNO 9.380
3280 CROSS SECTION      9.38 EXTENDED      1.05 FEET

    9.38     6.95   693.65     0.00     0.00   693.72      .06      .05      .00   692.50
    320.      72.     232.      17.      82.      99.      22.       8.       5.   692.30
     .28      .88     2.34      .75     .060     .050     .065     .049   686.70    90.00
 .001118      49.      49.      49.        2        0        0     0.00   120.00   210.00

CCHV=    .100 CEHV=    .300
*SECNO 9.390
3280 CROSS SECTION      9.39 EXTENDED       .85 FEET

    9.39     6.76   693.76     0.00     0.00   693.84      .08      .12      .01   692.80
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      320.       59.      247.       13.       67.       94.       18.        9.        5.    692.60
       .29       .89     2.62       .75      .060      .050      .065      .049   687.00     90.00
  .001500       92.      92.       92.         0         0         0      0.00   120.00    210.00


 CCHV=    .350 CEHV=    .700
 *SECNO 9.400
 3280 CROSS SECTION      9.40 EXTENDED       .61 FEET


      9.40      6.51   694.01      0.00      0.00   694.14       .12       .27       .03    693.30
       320.       43.      268.       9.       49.       89.       12.        9.        6.    693.10
        .31       .87     3.02       .72      .060      .050      .065      .049   687.50     90.00
  .002172       149.      149.      149.         2         0         0      0.00   120.00    210.00


 *SECNO 9.410
 3280 CROSS SECTION      9.41 EXTENDED       .51 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.41      6.50   694.00      0.00      0.00   694.17       .17       .00       .04    693.30
       320.       52.      262.       6.       51.       72.       7.        9.        6.    693.10
        .31      1.03     3.64       .89      .060      .030      .065      .049   687.50     80.00
  .003359         1.        1.        1.         1         0         0     -7.75   120.00    200.00


 *SECNO 9.420
 3280 CROSS SECTION      9.42 EXTENDED       .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


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.42      6.55   694.05      0.00      0.00   694.21       .16       .03       .00    693.30
       320.       55.      259.       6.       53.       73.       7.        9.        6.    693.10
        .31      1.03     3.57       .89      .060      .030      .065      .049   687.50     80.00
  .003191         10.       10.       10.         1         0         0     -7.75   120.00    200.00


 *SECNO 9.430
 3280 CROSS SECTION      9.43 EXTENDED       .78 FEET


      9.43      6.68   694.18      0.00      0.00   694.24       .07       .00       .03    693.30
       320.       82.      226.       12.       94.       93.       16.       9.        6.    693.10
        .31       .87     2.44       .73      .060      .055      .065      .049   687.50     50.00
  .001616         1.        1.        1.         2         0         0      0.00   160.00    210.00


 *SECNO 9.440
 3280 CROSS SECTION      9.44 EXTENDED       .56 FEET
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9.44	6.56	694.26	0.00	0.00	694.37	.11	.09	.03	693.50
320.	50.	259.	11.	55.	90.	13.	9.	6.	693.30
.31	.91	2.89	.79	.060	.055	.065	.049	687.70	80.00
.002367	49.	49.	49.	2	0	0	0.00	130.00	210.00

CCHV= .100 CEHV= .300
*SECNO 9.560
3280 CROSS SECTION 9.56 EXTENDED .42 FEET

9.56	6.42	694.42	0.00	0.00	694.56	.14	.18	.01	693.80
320.	38.	274.	8.	44.	86.	10.	10.	6.	693.60
.32	.88	3.17	.76	.060	.055	.065	.049	688.00	80.00
.002989	69.	69.	69.	2	0	0	0.00	130.00	210.00

CCHV= .300 CEHV= .500
*SECNO 9.580
3280 CROSS SECTION 9.58 EXTENDED .50 FEET

9.58	6.39	694.99	0.00	0.00	695.18	.19	.60	.03	694.10
320.	64.	225.	31.	76.	55.	34.	10.	7.	694.10
.33	.83	4.11	.93	.100	.055	.075	.049	688.60	0.00
.005576	150.	150.	150.	2	0	0	0.00	206.00	206.00

*SECNO 9.600
3280 CROSS SECTION 9.60 EXTENDED .30 FEET

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

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

9.60	6.21	694.81	692.28	0.00	695.38	.58	.01	.19	694.10
320.	24.	296.	0.	24.	47.	0.	10.	7.	694.10
.33	1.02	6.33	0.00	.100	.030	.075	.049	688.60	0.00
.008167	1.	1.	1.	4	20	0	-54.26	197.69	197.69

*SECNO 10.100
3280 CROSS SECTION 10.10 EXTENDED .49 FEET

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

10.10	6.40	695.00	692.28	0.00	695.49	.49	.09	.02	694.10
320.	39.	281.	1.	41.	47.	3.	10.	7.	694.10
.33	.94	6.01	.22	.100	.030	.075	.049	688.60	0.00
.007361	11.	11.	11.	4	20	0	-72.81	206.00	206.00

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.08 FEET

10.20	6.98	695.58	0.00	0.00	695.63	.05	.00	.13	694.10
320.	107.	149.	64.	152.	60.	73.	10.	7.	694.10
.33	.71	2.48	.88	.100	.055	.075	.049	688.60	0.00
.001796	1.	1.	1.	4	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 1.65 FEET

10.50	6.75	695.65	0.00	0.00	695.70	.05	.07	.00	694.50
320.	68.	231.	21.	111.	113.	40.	10.	7.	694.50
.34	.61	2.03	.54	.100	.055	.075	.049	688.90	266.00
.001076	50.	50.	50.	2	0	0	0.00	175.89	441.89

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.32 FEET

10.90	6.41	695.71	0.00	0.00	695.79	.07	.08	.01	694.90
320.	56.	252.	12.	84.	104.	22.	11.	7.	694.90
.35	.67	2.43	.54	.100	.055	.075	.049	689.30	266.00
.001741	56.	56.	56.	1	0	0	0.00	161.79	427.79

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.23 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= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.33	695.63	0.00	0.00	695.88	.25	.00	.09	690.10
320.	104.	190.	26.	93.	37.	26.	11.	7.	693.70
.35	1.12	5.16	1.00	.100	.030	.075	.049	689.30	266.00
.005792	1.	1.	1.	2	0	0	-24.00	157.73	423.73

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 1.39 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.10	6.49	695.79	0.00	0.00	695.97	.18	.06	.02	690.10
320.	111.	173.	35.	108.	38.	36.	11.	7.	693.70
.35	1.03	4.52	.98	.100	.030	.075	.049	689.30	266.00
.004208	13.	13.	13.	2	0	0	-24.00	164.85	430.85

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.55 FEET

11.20	6.65	695.95	0.00	0.00	696.01	.05	.00	.04	694.90
320.	65.	237.	18.	103.	111.	34.	11.	7.	694.90
.35	.63	2.14	.54	.100	.055	.075	.049	689.30	266.00
.001239	1.	1.	1.	2	0	0	0.00	171.65	437.65

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.55 FEET

11.50	6.45	696.05	0.00	0.00	696.10	.04	.09	.00	694.40
320.	29.	241.	50.	50.	125.	76.	11.	8.	694.40
.37	.58	1.93	.66	.100	.055	.075	.049	689.60	294.00
.000886	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.58 FEET

11.60	6.48	696.08	0.00	0.00	696.10	.02	.00	.01	694.40
225.	21.	168.	36.	51.	126.	78.	11.	8.	694.40
.37	.41	1.33	.46	.100	.055	.075	.049	689.60	294.00
.000420	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.49 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11.70	6.39	696.09	0.00	0.00	696.11	.02	.01	.00	694.50
225.	20.	171.	34.	49.	123.	72.	11.	8.	694.50
.37	.42	1.39	.47	.100	.055	.075	.049	689.70	294.00
.000470	19.	19.	19.	0	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.59 FEET

11.80	6.49	696.09	0.00	0.00	696.11	.02	.00	.00	694.40
225.	21.	168.	36.	51.	126.	78.	11.	8.	694.40
.37	.40	1.33	.46	.100	.055	.075	.049	689.60	294.00
.000417	1.	1.	1.	0	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED 1.22 FEET

11.90	6.11	696.11	0.00	0.00	696.15	.03	.03	.01	694.80
225.	17.	183.	25.	39.	114.	53.	12.	8.	694.80
.38	.44	1.59	.48	.100	.055	.075	.049	690.00	294.00
.000685	50.	50.	50.	0	0	0	0.00	131.00	425.00

*SECNO 12.050
3280 CROSS SECTION 12.05 EXTENDED .84 FEET

12.05	5.74	696.14	0.00	0.00	696.20	.06	.04	.01	695.10
225.	29.	194.	1.	61.	96.	5.	12.	8.	695.70
.39	.48	2.03	.24	.100	.055	.075	.049	690.40	250.00
.001074	50.	50.	50.	0	0	0	0.00	110.84	360.84

*SECNO 12.060
3280 CROSS SECTION 12.06 EXTENDED .69 FEET

12.06	5.60	696.20	0.00	0.00	696.26	.07	.06	.01	695.30
225.	25.	200.	0.	51.	92.	2.	12.	8.	695.90
.40	.48	2.18	.20	.100	.055	.075	.049	690.60	250.00
.001306	48.	48.	48.	0	0	0	0.00	102.49	352.49

*SECNO 12.070
3280 CROSS SECTION 12.07 EXTENDED .74 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

12.07	5.44	696.24	696.24	0.00	696.63	.39	.00	.16	692.80
225.	118.	103.	4.	65.	14.	3.	12.	8.	692.80
.40	1.83	7.15	1.21	.100	.030	.075	.049	690.80	250.00
.017991	1.	1.	1.	20	7	0	-28.32	105.33	355.33

*SECNO 12.080
3280 CROSS SECTION 12.08 EXTENDED 1.28 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.08	5.98	696.78	0.00	0.00	696.88	.10	.16	.09	692.80
225.	138.	69.	18.	104.	17.	20.	12.	8.	692.80
.40	1.33	4.18	.88	.100	.030	.075	.049	690.80	250.00
.005094	19.	19.	19.	3	0	0	-32.76	125.01	375.01

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.37 FEET

12.10	6.27	696.87	0.00	0.00	696.90	.03	.00	.02	695.30
225.	43.	174.	8.	94.	109.	23.	12.	8.	695.90
.40	.46	1.60	.35	.100	.055	.075	.049	690.60	250.00
.000557	1.	1.	1.	2	0	0	0.00	127.68	377.68

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED .99 FEET

13.05	5.59	696.89	0.00	0.00	696.95	.06	.03	.01	695.40
225.	39.	118.	67.	50.	46.	85.	12.	8.	695.40
.40	.79	2.58	.79	.100	.055	.075	.049	691.30	258.00
.001931	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED .73 FEET

13.06	5.34	696.94	0.00	0.00	697.04	.11	.07	.02	695.70
225.	36.	140.	49.	40.	43.	57.	12.	8.	695.70
.41	.90	3.23	.85	.100	.055	.075	.049	691.60	258.00
.003260	30.	30.	30.	1	0	0	0.00	151.45	409.45

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.30	696.90	0.00	0.00	697.09	.19	.01	.04	693.60
225.	62.	86.	76.	43.	16.	56.	12.	8.	693.60
.41	1.45	5.40	1.36	.100	.030	.075	.049	691.60	258.00
.008905	1.	1.	1.	2	0	0	-6.70	149.38	407.38

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED .96 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.08	5.55	697.15	0.00	0.00	697.24	.08	.11	.03	693.60
225.	62.	66.	97.	53.	17.	85.	12.	9.	693.60
.41	1.15	3.90	1.14	.100	.030	.075	.049	691.60	258.00
.004258	19.	19.	19.	2	0	0	-7.10	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED .99 FEET

13.10	5.59	697.19	0.00	0.00	697.25	.06	.00	.01	695.70
225.	40.	118.	67.	50.	46.	85.	12.	9.	695.70
.41	.79	2.58	.79	.100	.055	.075	.049	691.60	258.00
.001923	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.52 FEET

13.60	5.22	697.32	0.00	0.00	697.34	.02	.08	.01	695.50
225.	8.	109.	108.	20.	77.	164.	13.	9.	694.60
.44	.41	1.42	.65	.100	.055	.075	.049	692.10	302.00
.000445	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.08 FEET

13.70	4.78	697.38	0.00	0.00	697.41	.03	.06	.01	696.00
225.	9.	122.	94.	15.	69.	126.	14.	9.	695.10
.46	.61	1.77	.75	.075	.055	.075	.049	692.60	302.00
.000800	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED .67 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13.80	4.37	697.47	0.00	0.00	697.53	.05	.11	.01	696.50
225.	6.	140.	79.	10.	61.	91.	14.	9.	695.60
.47	.66	2.27	.86	.075	.055	.075	.049	693.10	302.00
.001529	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .23 FEET

14.00	3.93	697.73	0.00	0.00	697.85	.12	.29	.03	697.20
225.	3.	166.	56.	5.	54.	54.	14.	10.	696.30
.49	.60	3.11	1.03	.075	.055	.075	.050	693.80	302.00
.003432	132.	132.	132.	2	0	0	0.00	107.84	409.84

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .03 FEET

14.10	3.73	698.53	0.00	0.00	698.70	.16	.83	.02	698.20
225.	1.	180.	44.	2.	50.	40.	15.	10.	697.30
.51	.45	3.60	1.11	.075	.055	.075	.050	694.80	302.00
.005058	200.	200.	200.	2	0	0	0.00	98.18	400.18

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .04 FEET

14.20	3.74	699.54	0.00	0.00	699.70	.16	1.01	.00	699.20
225.	1.	180.	44.	2.	50.	40.	15.	11.	698.30
.52	.46	3.59	1.11	.075	.055	.075	.050	695.80	302.00
.005001	200.	200.	200.	2	0	0	0.00	98.46	400.46

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .04 FEET

14.30	3.74	700.54	0.00	0.00	700.70	.16	1.00	.00	700.20
225.	1.	180.	44.	2.	50.	40.	16.	11.	699.30
.54	.46	3.58	1.11	.075	.055	.075	.050	696.80	302.00
.004978	200.	200.	200.	1	0	0	0.00	98.57	400.57

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .04 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCE	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14.40	3.74	701.14	0.00	0.00	701.30	.16	.60	.00	700.80
225.	1.	180.	44.	2.	50.	40.	16.	11.	699.90
.55	.46	3.59	1.11	.075	.055	.075	.050	697.40	302.00
.005011	120.	120.	120.	0	0	0	0.00	98.41	400.41

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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      500 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STFT      METRIC    HVINS     Q         WSEL      FQ
       -1.       5.        0.        0.  0.000000      0.00     -1.0        0.   676.560     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
```

*PROP 4

CCHV= .100 CEHV= .300

*SECNO 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.85	6.36	676.56	0.00	676.56	676.69	.13	0.00	0.00	674.00
520.	148.	370.	2.	96.	112.	4.	0.	0.	676.10
0.00	1.55	3.31	.42	.060	.045	.060	0.000	670.20	49.15
.002074	0.	0.	0.	0	0	0	0.00	120.20	169.35

*SECNO 7.870

7.87	6.10	677.10	0.00	0.00	677.27	.17	.57	.01	674.80
520.	131.	388.	0.	78.	103.	1.	1.	1.	676.90
.02	1.69	3.76	.29	.060	.045	.060	.045	671.00	55.10
.002970	230.	230.	230.	2	0	0	0.00	104.29	159.40

*SECNO 7.900

7.90	5.94	677.84	0.00	0.00	678.05	.20	.77	.01	675.70
520.	123.	397.	0.	69.	99.	0.	2.	1.	677.80
.04	1.79	4.02	.01	.060	.045	.060	.045	671.90	58.96
.003618	235.	235.	235.	2	0	0	0.00	94.95	153.90

*SECNO 7.920

7.92	5.81	678.61	0.00	0.00	678.85	.24	.79	.01	676.60
520.	113.	407.	0.	60.	94.	0.	3.	2.	678.70
.05	1.87	4.32	0.00	.060	.045	.060	.045	672.80	62.72
.004307	200.	200.	200.	2	0	0	0.00	88.50	151.21

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.95	5.82	679.52	0.00	0.00	679.89	.37	1.00	.04	677.90
520.	73.	447.	0.	43.	85.	0.	3.	2.	680.60
.06	1.72	5.24	0.00	.065	.050	.065	.046	673.70	586.28
.005959	199.	199.	199.	2	0	0	0.00	76.53	662.82

*SECNO 8.000

8.00	6.11	682.11	0.00	0.00	682.38	.27	2.49	.01	680.20
520.	99.	421.	0.	61.	92.	0.	5.	3.	682.90
.10	1.63	4.58	0.00	.065	.050	.065	.047	676.00	576.52
.004210	500.	500.	500.	1	0	0	0.00	86.63	663.15

*SECNO 8.100

8.10	6.12	684.22	0.00	0.00	684.49	.27	2.11	.00	682.30

520.	99.	421.	0.	61.	92.	0.	7.	4.	685.00
.13	1.63	4.58	0.00	.065	.050	.065	.048	678.10	576.57
.004217	500.	500.	500.	2	0	0	0.00	86.58	663.15

*SECNO 8.500
3280 CROSS SECTION 8.50 EXTENDED .50 FEET

8.50	6.10	686.20	0.00	0.00	686.37	.18	1.87	.01	684.90
520.	26.	466.	28.	18.	132.	33.	8.	5.	685.50
.17	1.45	3.53	.84	.060	.050	.065	.048	680.10	615.00
.004112	450.	450.	450.	2	0	0	0.00	151.52	766.52

*SECNO 8.600
3280 CROSS SECTION 8.60 EXTENDED .37 FEET

8.60	5.97	688.47	0.00	0.00	688.68	.21	2.29	.01	687.30
520.	23.	480.	17.	15.	126.	23.	10.	7.	687.90
.21	1.47	3.82	.76	.060	.050	.065	.049	682.50	615.00
.005142	500.	500.	500.	2	0	0	0.00	143.22	758.22

*SECNO 9.100
3280 CROSS SECTION 9.10 EXTENDED .39 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCH	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.10	6.39	689.99	0.00	0.00	690.31	.32	1.60	.03	688.80
520.	69.	444.	6.	47.	91.	9.	12.	8.	689.50
.23	1.48	4.90	.74	.060	.050	.065	.049	683.60	280.00
.005524	300.	300.	300.	2	0	0	0.00	130.85	410.85

*SECNO 9.200
3280 CROSS SECTION 9.20 EXTENDED .31 FEET

9.20	6.31	691.61	0.00	0.00	691.95	.34	1.64	.00	690.50
520.	74.	442.	4.	56.	88.	5.	12.	9.	691.20
.25	1.33	5.04	.76	.060	.050	.065	.049	685.30	240.00
.006090	283.	283.	283.	1	0	0	0.00	154.28	394.28

CCHV= .400 CEHV= .800
*SECNO 9.280

9.28	5.95	691.95	690.94	0.00	692.54	.58	.39	.20	691.20
520.	24.	496.	0.	18.	79.	0.	13.	9.	691.90
.25	1.34	6.27	.22	.060	.050	.065	.049	686.00	271.07
.010790	49.	49.	49.	4	15	0	0.00	106.78	377.85

*SECNO 9.290
3280 CROSS SECTION 9.29 EXTENDED 1.09 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.29	7.18	693.08	0.00	0.00	693.18	.10	.45	.19	691.10
520.	338.	102.	80.	139.	33.	38.	13.	9.	691.10
.25	2.44	3.10	2.09	.060	.050	.065	.049	685.90	240.00
.007832	49.	49.	49.	3	0	0	-25.76	160.00	400.00

*SECNO 9.310
3280 CROSS SECTION 9.31 EXTENDED 1.09 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.31	7.19	693.09	0.00	0.00	693.19	.10	.01	.00	691.10
520.	338.	102.	80.	139.	33.	38.	13.	9.	691.10
.25	2.43	3.10	2.09	.060	.050	.065	.049	685.90	240.00
.007811	1.	1.	1.	0	0	0	-25.76	160.00	400.00

*SECNO 9.320
3280 CROSS SECTION 9.32 EXTENDED .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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.32	6.89	693.09	0.00	0.00	693.22	.13	.00	.02	691.40
520.	154.	348.	18.	120.	102.	20.	13.	9.	692.10
.25	1.28	3.42	.92	.060	.050	.065	.049	686.20	240.00
.002296	1.	1.	1.	0	0	0	0.00	160.00	400.00

*SECNO 9.330
3280 CROSS SECTION 9.33 EXTENDED .91 FEET

9.33	6.91	693.11	0.00	0.00	693.24	.13	.02	.00	691.40
520.	156.	346.	19.	122.	102.	20.	13.	9.	692.10
.26	1.27	3.38	.92	.060	.050	.065	.049	686.20	240.00
.002234	10.	10.	10.	2	0	0	0.00	160.00	400.00

*SECNO 9.340
3280 CROSS SECTION 9.34 EXTENDED .64 FEET

9.34	6.73	693.13	0.00	0.00	693.40	.28	.04	.12	691.00
520.	100.	413.	7.	67.	89.	6.	13.	9.	691.90
.26	1.49	4.66	1.12	.060	.050	.065	.049	686.40	320.00
.004566	14.	14.	14.	1	0	0	0.00	116.72	436.72

*SECNO 9.350

3280 CROSS SECTION 9.35 EXTENDED .78 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
9.35	6.88	693.28	693.28	0.00	693.75	.47	.01	.16	691.90
520.	293.	184.	42.	78.	23.	15.	13.	9.	691.90
.26	3.78	7.86	2.82	.060	.030	.065	.049	686.40	320.00
.027719	1.	1.	1.	20	10	0	-11.35	117.60	437.60

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

*SECNO 9.360
3280 CROSS SECTION 9.36 EXTENDED 1.45 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.36	7.54	693.94	0.00	0.00	694.07	.13	.18	.14	691.90
520.	349.	107.	64.	137.	27.	31.	13.	9.	691.90
.26	2.54	3.99	2.06	.060	.030	.065	.049	686.40	320.00
.005967	16.	16.	16.	2	0	0	-11.37	118.00	438.00

*SECNO 9.370
3280 CROSS SECTION 9.37 EXTENDED 1.36 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
9.37	7.47	693.97	0.00	0.00	694.08	.11	.00	.01	691.10
520.	175.	330.	15.	129.	104.	14.	13.	9.	692.00
.26	1.35	3.18	1.06	.060	.050	.065	.049	686.50	320.00
.001717	1.	1.	1.	0	0	0	0.00	118.00	438.00

*SECNO 9.380
3280 CROSS SECTION 9.38 EXTENDED 1.46 FEET

9.38	7.36	694.06	0.00	0.00	694.16	.10	.08	.00	692.50
520.	149.	335.	36.	112.	109.	31.	13.	9.	692.30
.26	1.33	3.08	1.15	.060	.050	.065	.049	686.70	90.00
.001711	49.	49.	49.	2	0	0	0.00	120.00	210.00

CCHV= .100 CEHV= .300

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*SECNO 9.390
3280 CROSS SECTION      9.39 EXTENDED      1.32 FEET

      9.39      7.22    694.22      0.00      0.00    694.34       .12       .17       .01    692.80
       520.       138.      349.       33.      101.      106.       28.       14.        9.    692.60
        .27       1.37      3.30      1.18      .060      .050      .065      .049    687.00     90.00
   .002056        92.       92.       92.         0         0         0      0.00    120.00    210.00

 CCHV=    .350 CEHV=    .700
 *SECNO 9.400
 3280 CROSS SECTION      9.40 EXTENDED      1.15 FEET

      9.40      7.05    694.55      0.00      0.00    694.70       .15       .34       .02    693.30
       520.       125.      366.       29.       89.      102.       24.       15.       10.    693.10
        .29       1.41      3.60      1.21      .060      .050      .065      .049    687.50     90.00
   .002569       149.      149.      149.         2         0         0      0.00    120.00    210.00

 *SECNO 9.410
 3280 CROSS SECTION      9.41 EXTENDED      1.05 FEET

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.41      7.04    694.54      0.00      0.00    694.73       .19       .00       .03    693.30
       520.       152.      349.       18.       96.       85.       13.       15.       10.    693.10
        .29       1.58      4.12      1.37      .060      .030      .065      .049    687.50     80.00
   .003450         1.        1.        1.         1         0         0     -7.75    120.00    200.00

 *SECNO 9.420
 3280 CROSS SECTION      9.42 EXTENDED      1.08 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      XNI        XNCH      XNB       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.42      7.09    694.59      0.00      0.00    694.77       .18       .03       .00    693.30
       520.       155.      346.       18.       99.       86.       14.       15.       10.    693.10
        .29       1.57      4.04      1.36      .060      .030      .065      .049    687.50     80.00
   .003289        10.       10.       10.         1         0         0     -7.75    120.00    200.00

 *SECNO 9.430
 3280 CROSS SECTION      9.43 EXTENDED      1.34 FEET

      9.43      7.23    694.73      0.00      0.00    694.81       .08       .00       .04    693.30
       520.       199.      290.       31.      158.      106.       28.       15.       10.    693.10
        .29       1.26      2.74      1.08      .060      .055      .065      .049    687.50     50.00
   .001703         1.        1.        1.         2         0         0      0.00    160.00    210.00
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*SECNO 9.440
3280 CROSS SECTION      9.44 EXTENDED      1.12 FEET

      9.44      7.12    694.82      0.00      0.00    694.94       .12       .10       .03    693.50
       520.      146.      342.       32.      102.      103.       26.       15.       10.    693.30
        .29      1.42      3.31      1.26      .060      .055      .065      .049    687.70     80.00
   .002579       49.       49.       49.         2         0         0      0.00    130.00    210.00


CCHV=    .100 CEHV=    .300
*SECNO 9.560
3280 CROSS SECTION      9.56 EXTENDED      1.00 FEET

      9.56      7.00    695.00      0.00      0.00    695.14       .14       .19       .01    693.80
       520.      134.      357.       30.      92.       100.       23.       15.       10.    693.60
        .30      1.45      3.55      1.28      .060      .055      .065      .049    688.00     80.00
   .003083       69.       69.       69.         2         0         0      0.00    130.00    210.00


CCHV=    .300 CEHV=    .500
*SECNO 9.580
3280 CROSS SECTION      9.58 EXTENDED      1.08 FEET

      9.58      6.98    695.58      0.00      0.00    695.71       .13       .56       .00    694.10
       520.      175.      241.      104.      152.       60.       73.       16.       11.    694.10
        .32      1.15      4.01      1.42      .100      .055      .075      .049    688.60      0.00
   .004698       150.      150.      150.         3         0         0      0.00    206.00    206.00


*SECNO 9.600

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF   694.100 EGLC=   695.951 EGC=   696.114 WSEL=   695.737
3280 CROSS SECTION      9.60 EXTENDED      .55 FEET


3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALCH      ACH       AROB      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=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

      9.60      6.45    695.05    693.96      0.00    696.27      1.22       .01       .55    694.10
       520.       71.      446.       3.       47.       47.       5.       16.       11.    694.10
        .32      1.52      9.56       .49      .100      .030      .075      .049    688.60      0.00
   .018609         1.        1.        1.         6        24         0    -77.78    206.00    206.00


*SECNO 10.100
3280 CROSS SECTION     10.10 EXTENDED      2.10 FEET
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3307 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

10.10	8.01	696.61	0.00	0.00	696.67	.07	.06	.35	694.10
520.	241.	177.	101.	221.	55.	88.	16.	11.	694.10
.32	1.09	3.23	1.16	.100	.030	.075	.049	688.60	0.00
.002497	11.	11.	11.	10	0	0	-130.40	206.00	206.00

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 2.16 FEET

10.20	8.06	696.66	0.00	0.00	696.69	.03	.00	.01	694.10
520.	231.	141.	148.	292.	70.	146.	16.	11.	694.10
.32	.79	2.02	1.02	.100	.055	.075	.049	688.60	0.00
.000974	1.	1.	1.	2	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 2.70 FEET

10.50	7.80	696.70	0.00	0.00	696.74	.04	.04	.01	694.50
520.	145.	292.	83.	199.	145.	107.	17.	11.	694.50
.33	.73	2.02	.78	.100	.055	.075	.049	688.90	266.00
.000765	50.	50.	50.	2	0	0	0.00	178.00	444.00

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 2.35 FEET

10.90	7.44	696.74	0.00	0.00	696.80	.06	.05	.01	694.90
520.	136.	314.	69.	170.	134.	84.	17.	11.	694.90
.34	.80	2.34	.82	.100	.055	.075	.049	689.30	266.00
.001139	56.	56.	56.	0	0	0	0.00	178.00	444.00

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 2.33 FEET

SECNO	DEPTH	CWSEL	CRIWS	HSEIK	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= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	7.43	696.73	0.00	0.00	696.82	.09	.00	.02	690.10
520.	212.	179.	128.	196.	47.	105.	17.	11.	693.70
.34	1.09	3.82	1.22	.100	.030	.075	.049	689.30	266.00
.002311	1.	1.	1.	1	0	0	-24.00	178.00	444.00

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*SECNO 11.100
3280 CROSS SECTION      11.10 EXTENDED      2.35 FEET

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

     11.10      7.46    696.76      0.00      0.00    696.85      .09      .03      .00    690.10
      520.       213.      178.       129.      157.      47.      106.      17.      11.     693.70
       .34       1.08      3.79      1.21      .100      .030      .075      .049    689.30    266.00
   .002267        13.       13.       13.         0         0         0   -24.00    178.00    444.00

*SECNO 11.200
3280 CROSS SECTION      11.20 EXTENDED      2.41 FEET

     11.20      7.51    696.81      0.00      0.00    696.86      .05      .00      .01    694.90
      520.       138.      310.       72.      175.      136.      88.      17.      11.     694.90
       .34       .79      2.28       .82      .100      .055      .075      .049    689.30    266.00
   .001059         1.        1.        1.         2         0         0      0.00    178.00    444.00

*SECNO 11.500
3280 CROSS SECTION      11.50 EXTENDED      2.39 FEET

     11.50      7.29    696.89      0.00      0.00    696.94      .05      .08      .00    694.40
      520.       59.      337.       124.       77.      152.      132.      18.      12.     694.40
       .35       .77      2.22       .94      .100      .055      .075      .049    689.60    294.00
   .000908        85.       85.       85.         2         0         0      0.00    131.00    425.00

*SECNO 11.600
3280 CROSS SECTION      11.60 EXTENDED      2.42 FEET

     11.60      7.32    696.92      0.00      0.00    696.95      .03      .00      .01    694.40
      400.       46.      258.       96.       78.      153.      134.      18.      12.     694.40
       .35       .59      1.68       .72      .100      .055      .075      .049    689.60    294.00
   .000519         1.        1.        1.         2         0         0      0.00    131.00    425.00

*SECNO 11.700
3280 CROSS SECTION      11.70 EXTENDED      2.33 FEET

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

     11.70      7.23    696.93      0.00      0.00    696.96      .03      .01      .00    694.50
      400.       46.      261.       93.       75.      150.      128.      18.      12.     694.50
       .36       .60      1.74       .73      .100      .055      .075      .049    689.70    294.00
   .000566        19.       19.       19.         0         0         0      0.00    131.00    425.00

*SECNO 11.800
3280 CROSS SECTION      11.80 EXTENDED      2.43 FEET
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11.80	7.33	696.93	0.00	0.00	696.96	.03	.00	.00	694.40
400.	46.	258.	96.	78.	153.	134.	18.	12.	694.40
.36	.58	1.68	.72	.100	.055	.075	.049	689.60	294.00
.000516	1.	1.	1.	0	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED 2.06 FEET

11.90	6.96	696.96	0.00	0.00	697.00	.04	.03	.01	694.80
400.	42.	274.	84.	66.	141.	110.	19.	12.	694.80
.37	.64	1.93	.77	.100	.055	.075	.049	690.00	294.00
.000759	50.	50.	50.	0	0	0	0.00	131.00	425.00

*SECNO 12.050
3280 CROSS SECTION 12.05 EXTENDED 1.69 FEET

12.05	6.59	696.99	0.00	0.00	697.06	.07	.05	.01	695.10
400.	87.	289.	23.	114.	117.	37.	19.	12.	695.70
.37	.77	2.48	.63	.100	.055	.075	.049	690.40	250.00
.001221	50.	50.	50.	0	0	0	0.00	136.84	386.84

*SECNO 12.060
3280 CROSS SECTION 12.06 EXTENDED 1.54 FEET

12.06	6.45	697.05	0.00	0.00	697.13	.08	.06	.01	695.30
400.	83.	298.	19.	105.	113.	30.	19.	12.	695.90
.38	.79	2.64	.63	.100	.055	.075	.049	690.60	250.00
.001442	48.	48.	48.	1	0	0	0.00	132.61	382.61

*SECNO 12.070
3280 CROSS SECTION 12.07 EXTENDED 1.49 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.07	6.19	696.99	0.00	0.00	697.19	.20	.00	.06	692.80
400.	247.	107.	47.	120.	17.	31.	19.	12.	692.80
.38	2.06	6.13	1.50	.100	.030	.075	.049	690.80	250.00
.010265	1.	1.	1.	2	0	0	-32.76	131.16	381.16

*SECNO 12.080
3280 CROSS SECTION 12.08 EXTENDED 1.75 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.08	6.44	697.24	0.00	0.00	697.37	.12	.15	.02	692.80
400.	245.	92.	64.	138.	18.	46.	19.	12.	692.80
.38	1.77	4.98	1.39	.100	.030	.075	.049	690.80	250.00
.006271	19.	19.	19.	2	0	0	-32.76	138.53	388.53

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.83 FEET

12.10	6.73	697.33	0.00	0.00	697.39	.06	.00	.02	695.30
400.	91.	281.	28.	122.	120.	44.	19.	12.	695.90
.38	.75	2.34	.62	.100	.055	.075	.049	690.60	250.00
.001050	1.	1.	1.	2	0	0	0.00	141.45	391.45

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED 1.47 FEET

13.05	6.07	697.37	0.00	0.00	697.44	.08	.05	.01	695.40
400.	75.	161.	164.	68.	51.	137.	20.	12.	695.40
.39	1.10	3.18	1.20	.100	.055	.075	.049	691.30	258.00
.002563	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED 1.23 FEET

13.06	5.84	697.44	0.00	0.00	697.55	.11	.09	.02	695.70
400.	73.	182.	144.	59.	48.	112.	20.	13.	695.70
.39	1.24	3.78	1.29	.100	.055	.075	.049	691.60	258.00
.003857	30.	30.	30.	1	0	0	0.00	156.00	414.00

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED 1.24 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.84	697.44	0.00	0.00	697.57	.13	.01	.01	693.60
400.	107.	94.	200.	65.	18.	116.	20.	13.	693.60
.39	1.65	5.15	1.73	.100	.030	.075	.049	691.60	258.00
.006838	1.	1.	1.	0	0	0	-7.45	156.00	414.00

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED 1.39 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.08	5.99	697.59	0.00	0.00	697.69	.10	.11	.01	693.60
400.	105.	84.	211.	71.	19.	133.	20.	13.	693.60
.39	1.48	4.47	1.59	.100	.030	.075	.049	691.60	258.00
.004941	19.	19.	19.	2	0	0	-7.45	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.40 FEET

13.10	6.01	697.61	0.00	0.00	697.69	.08	.00	.00	695.70
400.	74.	166.	160.	65.	50.	131.	20.	13.	695.70
.39	1.14	3.32	1.22	.100	.055	.075	.049	691.60	258.00
.002841	1.	1.	1.	1	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 2.01 FEET

13.60	5.71	697.81	0.00	0.00	697.85	.04	.14	.01	695.50
400.	16.	175.	208.	26.	86.	206.	21.	13.	694.60
.41	.63	2.05	1.01	.100	.055	.075	.049	692.10	302.00
.000801	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.60 FEET

13.70	5.30	697.90	0.00	0.00	697.95	.05	.10	.01	696.00
400.	20.	188.	192.	21.	78.	171.	21.	13.	695.10
.43	.93	2.41	1.12	.075	.055	.075	.049	692.60	302.00
.001248	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED 1.24 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13.80	4.94	698.04	0.00	0.00	698.12	.08	.16	.01	696.50
400.	17.	206.	176.	17.	72.	140.	22.	13.	695.60
.44	1.03	2.88	1.26	.075	.055	.075	.049	693.10	302.00
.001991	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .66 FEET

14.00	4.56	698.36	0.00	0.00	698.49	.13	.34	.03	697.20

400.	14.	232.	154.	12.	65.	107.	22.	14.	696.30	
.45	1.13	3.58	1.43	.075	.055	.075	.050	693.80	302.00	
.003531	132.	132.	132.	2	0	0	0.00	116.00	418.00	

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .66 FEET

14.10	4.36	699.16	0.00	0.00	699.34	.17	.83	.02	698.20
400.	11.	249.	139.	10.	61.	90.	23.	14.	697.30
.47	1.17	4.06	1.54	.075	.055	.075	.050	694.80	302.00
.004902	200.	200.	200.	2	0	0	0.00	116.00	418.00

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .65 FEET

14.20	4.35	700.15	0.00	0.00	700.33	.18	.99	.00	699.20
400.	11.	250.	138.	10.	61.	89.	24.	15.	698.30
.49	1.17	4.10	1.55	.075	.055	.075	.050	695.80	302.00
.005000	200.	200.	200.	2	0	0	0.00	116.00	418.00

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .65 FEET

14.30	4.35	701.15	0.00	0.00	701.33	.18	1.00	.00	700.20
400.	11.	250.	138.	10.	61.	89.	25.	15.	699.30
.51	1.17	4.10	1.55	.075	.055	.075	.050	696.80	302.00
.005009	200.	200.	200.	1	0	0	0.00	116.00	418.00

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .65 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14.40	4.35	701.75	0.00	0.00	701.93	.18	.60	.00	700.80
400.	11.	250.	139.	10.	61.	90.	25.	16.	699.90
.52	1.17	4.09	1.55	.075	.055	.075	.050	697.40	302.00
.004985	120.	120.	120.	0	0	0	0.00	116.00	418.00

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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

TAFT DRAIN

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
676.260	93.14	676.35	101.98	0.00	0.00	676.26
674.910	41.13	675.07	52.25	0.00	0.00	674.91
676.070	82.06	676.15	90.65	0.00	0.00	676.07
676.560	114.17	676.69	120.20	0.00	0.00	676.56
676.688	74.32	676.83	84.55	0.00	0.00	0.00
675.625	38.93	675.80	49.67	0.00	0.00	0.00
676.468	65.35	676.60	76.58	0.00	0.00	0.00
677.096	95.41	677.27	104.29	0.00	0.00	0.00
677.341	64.40	677.53	75.66	0.00	0.00	0.00
676.442	36.86	676.63	47.12	0.00	0.00	0.00
677.086	55.88	677.27	66.76	0.00	0.00	0.00
677.845	86.45	678.05	94.95	0.00	0.00	0.00
678.057	58.18	678.29	69.22	0.00	0.00	0.00
677.226	34.18	677.44	43.59	0.00	0.00	0.00
677.793	49.40	678.03	60.87	0.00	0.00	0.00
678.608	79.24	678.85	88.50	0.00	0.00	0.00
678.963	48.69	679.31	58.04	0.00	0.00	0.00
678.157	30.99	678.40	27.18	0.00	0.00	0.00
678.707	42.21	679.02	46.77	0.00	0.00	0.00
679.516	67.36	679.89	76.53	0.00	0.00	0.00
681.546	57.66	681.80	67.64	0.00	0.00	0.00
680.605	33.71	680.82	31.30	0.00	0.00	0.00
681.257	48.69	681.51	58.04	0.00	0.00	0.00
682.113	80.14	682.38	86.63	0.00	0.00	0.00
683.654	57.88	683.91	67.86	0.00	0.00	0.00
682.768	34.89	682.98	33.02	0.00	0.00	0.00
683.387	49.54	683.63	59.03	0.00	0.00	0.00
684.219	80.07	684.49	86.58	0.00	0.00	0.00
685.737	54.99	685.90	101.71	0.00	0.00	0.00
684.745	33.86	684.91	28.79	0.00	0.00	0.00
685.516	45.68	685.67	65.53	0.00	0.00	0.00
686.198	81.09	686.37	151.52	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	688.111	53.78	688.28	97.94	0.00	0.00	0.00
	687.050	32.30	687.23	28.09	0.00	0.00	0.00
	687.934	46.41	688.09	68.67	0.00	0.00	0.00
	688.466	72.51	688.68	143.22	0.00	0.00	0.00
	689.554	51.28	689.85	86.21	0.00	0.00	0.00
	688.587	29.71	688.82	22.20	0.00	0.00	0.00
	689.333	44.74	689.60	55.04	0.00	0.00	0.00
	689.986	69.97	690.31	130.85	0.00	0.00	0.00
	691.166	47.28	691.50	63.01	0.00	0.00	0.00
	690.269	28.49	690.52	22.11	0.00	0.00	0.00
	690.901	40.44	691.21	47.15	0.00	0.00	0.00
	691.615	66.63	691.95	154.28	0.00	0.00	0.00
	691.516	38.50	691.97	42.09	0.00	0.00	0.00
	690.618	23.62	690.95	20.46	0.00	0.00	0.00
	691.253	33.08	691.66	26.40	0.00	0.00	0.00
	691.955	50.06	692.54	106.78	0.00	0.00	0.00
	692.542	26.14	692.74	160.00	0.00	0.00	0.00
	691.380	9.02	692.56	26.63	0.00	0.00	0.00
*	692.416	20.70	692.64	157.48	0.00	0.00	0.00
	693.080	58.76	693.18	150.00	0.00	0.00	0.00
	692.612	29.23	692.77	160.00	0.00	0.00	0.00
	691.443	9.02	692.62	30.99	0.00	0.00	0.00
	692.580	28.29	692.70	160.00	0.00	0.00	0.00
	693.088	58.84	693.19	160.00	0.00	0.00	0.00
	692.642	75.32	692.78	158.57	0.00	0.00	0.00
	693.055	104.75	693.08	150.00	0.00	0.00	0.00
	692.599	71.92	692.71	156.95	0.00	0.00	0.00
	693.086	108.53	693.22	150.00	0.00	0.00	0.00
	692.672	76.41	692.81	159.07	0.00	0.00	0.00
	693.060	105.65	693.09	160.00	0.00	0.00	0.00
	692.625	73.61	692.73	157.76	0.00	0.00	0.00
	693.114	110.01	693.24	160.00	0.00	0.00	0.00
	692.691	55.48	692.96	113.22	0.00	0.00	0.00
	693.063	73.12	693.12	116.16	0.00	0.00	0.00
	692.640	53.72	692.85	112.86	0.00	0.00	0.00
	693.127	76.96	693.40	116.72	0.00	0.00	0.00
*	693.101	24.30	693.51	114.58	0.00	0.00	0.00
	693.040	22.15	693.22	113.54	0.00	0.00	0.00
*	693.048	22.43	693.40	113.68	0.00	0.00	0.00
*	693.276	31.23	693.75	117.60	0.00	0.00	0.00
	693.695	52.06	693.79	118.00	0.00	0.00	0.00
	693.284	31.51	693.37	117.71	0.00	0.00	0.00
	693.563	45.44	693.65	118.00	0.00	0.00	0.00
	693.943	67.31	694.07	118.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
693.730	108.47	693.80	118.00	0.00	0.00	0.00
693.346	83.26	693.39	117.57	0.00	0.00	0.00
693.602	99.60	693.67	118.00	0.00	0.00	0.00
693.969	125.48	694.08	118.00	0.00	0.00	0.00
693.791	105.35	693.87	120.00	0.00	0.00	0.00
693.383	78.18	693.43	120.00	0.00	0.00	0.00
693.655	95.71	693.72	120.00	0.00	0.00	0.00
694.060	125.72	694.16	120.00	0.00	0.00	0.00
693.909	92.70	694.00	120.00	0.00	0.00	0.00
693.460	65.44	693.53	120.00	0.00	0.00	0.00
693.759	82.63	693.84	120.00	0.00	0.00	0.00
694.220	114.69	694.34	120.00	0.00	0.00	0.00
694.185	78.39	694.31	120.00	0.00	0.00	0.00
693.668	52.01	693.77	115.87	0.00	0.00	0.00
694.015	68.66	694.14	120.00	0.00	0.00	0.00
694.553	102.59	694.70	120.00	0.00	0.00	0.00
694.174	64.66	694.35	120.00	0.00	0.00	0.00
693.653	39.24	693.81	117.63	0.00	0.00	0.00
694.002	55.21	694.17	120.00	0.00	0.00	0.00
694.544	88.53	694.73	120.00	0.00	0.00	0.00
694.221	66.98	694.38	120.00	0.00	0.00	0.00
693.694	40.15	693.85	118.04	0.00	0.00	0.00
694.046	56.65	694.21	120.00	0.00	0.00	0.00
694.588	90.68	694.77	120.00	0.00	0.00	0.00
694.350	92.79	694.42	150.00	0.00	0.00	0.00
693.811	56.31	693.88	150.00	0.00	0.00	0.00
694.176	79.60	694.24	160.00	0.00	0.00	0.00
694.734	126.01	694.81	150.00	0.00	0.00	0.00
694.434	76.08	694.55	130.00	0.00	0.00	0.00
693.893	48.15	693.99	126.65	0.00	0.00	0.00
694.259	65.77	694.37	130.00	0.00	0.00	0.00
694.821	102.39	694.94	130.00	0.00	0.00	0.00
694.602	68.26	694.74	130.00	0.00	0.00	0.00
694.046	42.80	694.17	122.01	0.00	0.00	0.00
694.422	58.53	694.56	130.00	0.00	0.00	0.00
695.000	93.65	695.14	130.00	0.00	0.00	0.00
695.177	51.46	695.34	206.00	0.00	0.00	0.00
694.574	29.60	694.80	146.18	0.00	0.00	0.00
694.994	42.85	695.18	206.00	0.00	0.00	0.00
695.585	75.87	695.71	206.00	0.00	0.00	0.00
694.895	36.17	695.64	205.34	0.00	0.00	0.00
694.530	34.00	694.85	126.75	0.00	0.00	0.00
694.806	35.41	695.38	197.69	0.00	0.00	0.00
695.047	38.12	696.27	206.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
695.484	46.22	695.84	206.00	0.00	0.00	0.00
694.585	34.19	694.90	150.55	0.00	0.00	0.00
694.999	37.30	695.49	206.00	0.00	0.00	0.00
696.606	104.06	696.67	206.00	0.00	0.00	0.00
695.906	99.17	695.94	206.00	0.00	0.00	0.00
694.812	35.66	694.96	198.68	0.00	0.00	0.00
695.580	75.50	695.63	206.00	0.00	0.00	0.00
696.662	166.61	696.69	206.00	0.00	0.00	0.00
695.961	120.63	696.01	178.00	0.00	0.00	0.00
695.037	61.19	695.09	149.21	0.00	0.00	0.00
695.650	97.57	695.70	175.89	0.00	0.00	0.00
696.698	188.01	696.74	178.00	0.00	0.00	0.00
696.017	95.29	696.08	174.46	0.00	0.00	0.00
695.119	48.43	695.20	110.85	0.00	0.00	0.00
695.713	76.69	695.79	161.79	0.00	0.00	0.00
696.742	154.10	696.80	178.00	0.00	0.00	0.00
695.966	57.91	696.14	172.28	0.00	0.00	0.00
694.922	22.08	695.40	85.36	0.00	0.00	0.00
695.626	42.05	695.88	157.73	0.00	0.00	0.00
696.725	108.17	696.82	178.00	0.00	0.00	0.00
696.051	62.60	696.20	176.00	0.00	0.00	0.00
695.336	31.56	695.57	139.13	0.00	0.00	0.00
695.786	49.33	695.97	164.85	0.00	0.00	0.00
696.757	109.21	696.85	178.00	0.00	0.00	0.00
696.172	106.29	696.23	178.00	0.00	0.00	0.00
695.585	69.16	695.63	155.98	0.00	0.00	0.00
695.951	90.91	696.01	171.65	0.00	0.00	0.00
696.808	159.75	696.86	178.00	0.00	0.00	0.00
696.272	123.11	696.32	131.00	0.00	0.00	0.00
695.671	83.33	695.71	131.00	0.00	0.00	0.00
696.051	107.48	696.10	131.00	0.00	0.00	0.00
696.890	172.58	696.94	131.00	0.00	0.00	0.00
696.304	125.70	696.33	131.00	0.00	0.00	0.00
695.696	84.89	695.71	131.00	0.00	0.00	0.00
696.083	109.80	696.10	131.00	0.00	0.00	0.00
696.921	175.60	696.95	131.00	0.00	0.00	0.00
696.312	118.97	696.34	131.00	0.00	0.00	0.00
695.701	79.66	695.72	131.00	0.00	0.00	0.00
696.090	103.83	696.11	131.00	0.00	0.00	0.00
696.930	168.13	696.96	131.00	0.00	0.00	0.00
696.316	126.37	696.34	131.00	0.00	0.00	0.00
695.704	85.14	695.72	131.00	0.00	0.00	0.00
696.093	110.15	696.11	131.00	0.00	0.00	0.00
696.933	176.13	696.96	131.00	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	696.339	99.97	696.37	131.00	0.00	0.00	0.00
	695.721	64.82	695.75	119.42	0.00	0.00	0.00
	696.114	85.95	696.15	131.00	0.00	0.00	0.00
	696.959	145.20	697.00	131.00	0.00	0.00	0.00
	696.371	79.32	696.43	118.96	0.00	0.00	0.00
	695.748	53.22	695.79	89.35	0.00	0.00	0.00
	696.145	68.65	696.20	110.84	0.00	0.00	0.00
	696.992	114.47	697.06	136.84	0.00	0.00	0.00
	696.426	72.41	696.50	114.76	0.00	0.00	0.00
	695.789	48.16	695.84	86.75	0.00	0.00	0.00
	696.196	62.26	696.26	102.49	0.00	0.00	0.00
	697.049	105.32	697.13	132.61	0.00	0.00	0.00
*	696.363	19.42	696.77	111.98	0.00	0.00	0.00
*	696.044	13.01	696.37	94.78	0.00	0.00	0.00
*	696.239	16.77	696.63	105.33	0.00	0.00	0.00
	695.994	39.48	697.19	131.16	0.00	0.00	0.00
	696.935	37.03	697.04	129.36	0.00	0.00	0.00
	696.486	22.62	696.58	116.67	0.00	0.00	0.00
	696.781	31.53	696.88	125.01	0.00	0.00	0.00
	697.245	50.51	697.37	138.53	0.00	0.00	0.00
	697.022	104.06	697.06	132.01	0.00	0.00	0.00
	696.587	80.09	696.61	119.41	0.00	0.00	0.00
	696.873	95.30	696.90	127.68	0.00	0.00	0.00
	697.326	123.43	697.39	141.45	0.00	0.00	0.00
	697.043	59.45	697.10	156.00	0.00	0.00	0.00
	696.591	37.77	696.65	143.71	0.00	0.00	0.00
	696.888	51.20	696.95	156.00	0.00	0.00	0.00
	697.366	79.01	697.44	156.00	0.00	0.00	0.00
	697.100	46.97	697.20	156.00	0.00	0.00	0.00
	696.633	28.72	696.73	131.13	0.00	0.00	0.00
	696.939	39.41	697.04	151.45	0.00	0.00	0.00
	697.440	64.41	697.55	156.00	0.00	0.00	0.00
	697.078	30.68	697.23	156.00	0.00	0.00	0.00
*	696.580	14.51	696.88	128.02	0.00	0.00	0.00
	696.900	23.84	697.09	149.38	0.00	0.00	0.00
	697.437	48.37	697.57	156.00	0.00	0.00	0.00
	697.276	39.69	697.37	156.00	0.00	0.00	0.00
	696.981	26.73	697.05	154.67	0.00	0.00	0.00
	697.154	34.48	697.24	156.00	0.00	0.00	0.00
	697.593	56.91	697.69	156.00	0.00	0.00	0.00
	697.310	57.65	697.38	156.00	0.00	0.00	0.00
	697.022	43.23	697.06	156.00	0.00	0.00	0.00
	697.190	51.30	697.25	156.00	0.00	0.00	0.00
	697.611	75.05	697.69	156.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STINCL	STENCR	WSELK
697.462	116.11	697.49	116.00	0.00	0.00	0.00
697.112	92.98	697.12	116.00	0.00	0.00	0.00
697.323	106.68	697.34	116.00	0.00	0.00	0.00
697.808	141.31	697.85	116.00	0.00	0.00	0.00
697.525	88.55	697.56	116.00	0.00	0.00	0.00
697.145	66.52	697.17	116.00	0.00	0.00	0.00
697.376	79.52	697.41	116.00	0.00	0.00	0.00
697.900	113.24	697.95	116.00	0.00	0.00	0.00
697.635	65.99	697.70	116.00	0.00	0.00	0.00
697.212	45.49	697.25	116.00	0.00	0.00	0.00
697.472	57.53	697.53	116.00	0.00	0.00	0.00
698.042	89.64	698.12	116.00	0.00	0.00	0.00
697.915	45.61	698.03	116.00	0.00	0.00	0.00
697.417	28.22	697.51	89.25	0.00	0.00	0.00
697.732	38.41	697.85	107.84	0.00	0.00	0.00
698.360	67.31	698.49	116.00	0.00	0.00	0.00
698.723	38.06	698.89	107.39	0.00	0.00	0.00
698.155	21.89	698.31	67.35	0.00	0.00	0.00
698.532	31.64	698.70	98.18	0.00	0.00	0.00
699.164	57.13	699.34	116.00	0.00	0.00	0.00
699.729	38.09	699.90	107.42	0.00	0.00	0.00
699.158	21.89	699.31	67.36	0.00	0.00	0.00
699.540	31.82	699.70	98.46	0.00	0.00	0.00
700.153	56.57	700.33	116.00	0.00	0.00	0.00
700.731	38.31	700.90	107.71	0.00	0.00	0.00
700.159	21.95	700.31	67.53	0.00	0.00	0.00
700.539	31.89	700.70	98.57	0.00	0.00	0.00
701.153	56.52	701.33	116.00	0.00	0.00	0.00
701.327	38.37	701.49	107.79	0.00	0.00	0.00
700.758	21.91	700.91	67.43	0.00	0.00	0.00
701.138	31.79	701.30	98.41	0.00	0.00	0.00
701.754	56.65	701.93	116.00	0.00	0.00	0.00

SUMMARY OF ERRORS

CAUTION SECN)= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECN)= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

CAUTION SECN)= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECN)= .000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECN)= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECN)= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY
CAUTION SECN)= .000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECN)= .000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECN)= .000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECN)= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED

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 CAUTION  SECNO=     .000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     .000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=     .000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     .000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     .000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION  SECNO=     .000  PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     .000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=     .000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=     .000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=     .000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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1) COUNTY: Macomb

2) STUDY NAME: Washington Twp.

3) WATERCOURSE: Tapt Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood encroached



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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      WASHINGTON TOWNSHIP  FIS
T3      TAFT DRAIN

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       4.       0.       0.   0.000000    0.00     -1.0      0.    676.260   0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSFCH    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

     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

NC      .060     .060     .045     .100     .300     0.000    0.000    0.000    0.000    0.000
QT     5.000  225.000  320.000  375.000  520.000  375.000    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

X1     7.850   11.000  120.000  152.000    0.000    0.000    0.000    0.000   -1.700    0.000
GR   680.000   10.000  678.000   55.000  676.300  100.000  675.700  120.000  673.300  125.000
GR   672.000  127.000  671.900  133.000  674.600  136.000  677.100  146.000  677.800  152.000
GR   680.000  235.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1     7.870    0.000    0.000    0.000  230.000  230.000  230.000    0.000     .800    0.000

X1     7.900    0.000    0.000    0.000  235.000  235.000  235.000    0.000     .900    0.000

X1     7.920    0.000    0.000    0.000  200.000  200.000  200.000    0.000     .900    0.000
NC      .065     .065     .050    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1     7.950   18.000  641.000  664.000  199.000  199.000  199.000    0.000   -2.300    0.000
GR   684.000  316.000  683.200  392.000  682.800  446.000  682.600  478.000  682.300  524.000
GR   682.200  574.000  681.200  606.000  680.800  625.000  680.200  641.000  677.400  648.000
GR   676.900  649.000  676.300  652.000  676.000  654.000  676.000  656.000  676.700  657.000
GR   677.400  658.000  682.900  664.000  683.300  682.000    0.000    0.000    0.000    0.000

X1     8.000    0.000    0.000    0.000  500.000  500.000  500.000    0.000    2.300    0.000

X1     8.100    0.000    0.000    0.000  500.000  500.000  500.000    0.000    2.100    0.000
NC      .060    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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X1	8.500	10.000	635.000	683.000	450.000	450.000	450.000	0.000	0.000	0.000
GR	685.700	615.000	684.900	635.000	682.600	652.000	680.100	654.000	680.200	663.000
GR	684.800	665.000	685.500	683.000	686.000	754.000	688.000	880.000	690.000	1060.000
X1	8.600	0.000	0.000	0.000	500.000	500.000	500.000	0.000	2.400	0.000
X1	9.100	20.000	350.000	374.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	691.300	280.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	361.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	685.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	420.000	692.400	458.000	692.600	516.000	693.300	548.000
GR	694.600	576.000	694.700	598.000	694.800	628.000	694.800	650.000	694.500	672.000
X1	9.200	12.000	350.000	374.000	283.000	283.000	283.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	685.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	9.280	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.700	0.000
X1	9.290	10.000	357.500	363.000	49.000	49.000	49.000	0.000	.700	0.000
X2	0.000	0.000	0.000	690.900	691.800	0.000	0.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.400	357.500	685.000	357.600	685.200	360.000
GR	685.300	362.900	690.400	363.000	691.200	374.000	691.400	388.000	691.800	400.000
X1	9.310	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	690.900	691.800	0.000	0.000	0.000	0.000	0.000
X1	9.320	12.000	350.000	374.000	1.000	1.000	1.000	0.000	.900	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.330	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X1	9.340	10.000	406.000	427.000	14.000	14.000	14.000	0.000	-.100	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.350	9.000	409.000	414.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	690.100	692.000	0.000	0.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	692.000	406.000	692.000	409.000	686.500	409.100
GR	686.700	411.000	686.900	413.900	692.000	414.000	693.400	438.000	0.000	0.000
X1	9.360	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	690.100	692.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9.370	10.000	406.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
X1	9.380	9.000	164.000	188.000	49.000	49.000	49.000	0.000	-.800	0.000
GR	693.400	90.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.390	0.000	0.000	0.000	92.000	92.000	92.000	0.000	.300	0.000
NC	0.000	0.000	0.000	.350	.700	0.000	0.000	0.000	0.000	0.000
X1	9.400	0.000	0.000	0.000	149.000	149.000	149.000	0.000	-.500	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.410	12.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	692.600	165.000	692.100	168.500
GR	687.500	168.600	687.600	173.000	688.300	177.400	692.100	177.500	692.600	187.000
GR	693.100	188.000	693.800	200.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.420	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.430	9.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	693.400	50.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
X1	9.440	10.000	164.000	188.000	49.000	49.000	49.000	0.000	.200	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	688.800	168.000	687.500	170.000
GR	687.500	172.000	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.560	0.000	0.000	0.000	69.000	69.000	69.000	0.000	.300	0.000
NC	.100	.075	.055	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	9.580	12.000	129.500	138.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	694.500	0.000	694.500	15.000	692.900	20.000	694.500	27.000	694.600	50.000
GR	694.800	52.000	694.100	129.500	689.300	129.600	688.600	134.000	688.900	138.400
GR	694.100	138.500	694.900	206.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.600	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	3.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100
BT	138.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.100	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000

BT	8.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100
BT	138.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.200	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	10.500	19.000	350.000	380.000	50.000	50.000	50.000	0.000	-.400	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	691.300	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000
X1	10.900	0.000	0.000	0.000	56.000	56.000	56.000	0.000	.400	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11.000	19.000	359.000	368.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	693.700	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000
X1	11.100	0.000	0.000	0.000	13.000	13.000	13.000	0.000	0.000	0.000
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11.200	19.000	350.000	380.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	691.800	368.000	694.900	380.000	695.400	414.000	695.100	444.000	0.000	0.000
X1	11.500	15.000	326.000	358.000	85.000	85.000	85.000	0.000	0.000	0.000
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000
QT	5.000	155.000	225.000	270.000	400.000	270.000	0.000	0.000	0.000	0.000
X1	11.600	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.500	294.000	694.500	300.000	694.500	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000
X1	11.700	0.000	0.000	0.000	19.000	19.000	19.000	0.000	.100	0.000
X1	11.800	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000

X1	11.900	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	12.050	11.000	312.000	337.000	50.000	50.000	50.000	0.000	-.200	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.060	0.000	0.000	0.000	48.000	48.000	43.000	0.000	-.200	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.070	15.000	323.000	327.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	694.800	322.000	692.800	323.000	691.400	323.600	690.800	325.000	691.400	326.400
GR	692.800	327.000	695.900	337.000	696.400	364.000	697.300	390.000	697.800	418.000
X1	12.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.100	11.000	312.000	337.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.050	15.000	295.000	305.000	30.000	30.000	30.000	0.000	-.300	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	696.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.060	0.000	0.000	0.000	30.000	30.000	30.000	0.000	.300	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.070	17.000	298.000	302.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	695.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	695.700	297.000
GR	693.600	298.000	692.200	298.600	691.600	300.000	692.200	301.400	693.600	302.000
GR	695.700	303.000	695.700	305.000	696.000	314.000	696.200	328.000	696.400	350.000
GR	695.400	374.000	697.000	414.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	13.100	15.000	295.000	305.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	695.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.600	11.000	314.000	332.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	697.500	302.000	697.200	314.000	694.400	320.000	693.800	323.000	693.800	326.000
GR	694.400	330.000	696.300	332.000	696.800	346.000	696.800	360.000	697.200	384.000
GR	697.900	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.700	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	13.800	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	14.000	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.700	0.000
X1	14.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.200	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.300	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.400	0.000	0.000	0.000	120.000	120.000	120.000	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 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.85	6.06	676.26	0.00	676.26	676.35	.09	0.00	0.00	674.00
375.	93.	282.	0.	76.	102.	0.	0.	0.	676.10
0.00	1.23	2.75	.19	.060	.045	.060	0.000	670.20	56.06
.001621	0.	0.	0.	0	0	0	0.00	101.98	158.04

*SECNO 7.870

7.87	5.69	676.69	0.00	0.00	676.83	.14	.46	.01	674.80
375.	75.	300.	0.	54.	91.	0.	1.	0.	676.90
.02	1.39	3.31	0.00	.060	.045	.060	.045	671.00	65.87
.002565	230.	230.	230.	2	0	0	0.00	84.32	150.19

*SECNO 7.900

7.90	5.44	677.34	0.00	0.00	677.53	.19	.69	.01	675.70
375.	61.	314.	0.	41.	83.	0.	2.	1.	677.80
.04	1.47	3.76	0.00	.060	.045	.060	.045	671.90	72.33
.003378	235.	235.	235.	2	0	0	0.00	75.78	148.10

*SECNO 7.920

7.92	5.26	678.06	0.00	0.00	678.30	.24	.75	.01	676.60
375.	50.	325.	0.	33.	78.	0.	2.	1.	678.70
.06	1.51	4.15	0.00	.060	.045	.060	.045	672.80	77.32
.004151	200.	200.	200.	2	0	0	0.00	69.17	146.49

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.95	5.26	678.96	0.00	0.00	679.30	.34	.98	.03	677.90
375.	22.	353.	0.	17.	73.	0.	3.	2.	680.60
.07	1.24	4.82	0.00	.065	.050	.065	.046	673.70	603.94
.005883	199.	199.	199.	2	0	0	0.00	58.28	662.22

*SECNO 8.000

8.00	5.54	681.54	0.00	0.00	681.80	.26	2.49	.01	680.20
375.	37.	338.	0.	29.	79.	0.	4.	2.	682.90
.10	1.27	4.27	0.00	.065	.050	.065	.047	676.00	595.06
.004258	500.	500.	500.	2	0	0	0.00	67.46	662.52

*SECNO 8.100

8.10	5.56	683.66	0.00	0.00	683.91	.25	2.11	.00	682.80

375.	37.	338.	01	29.	80.	0.	5.	3.	685.00
.14	1.27	4.24	0.00	.065	.050	.065	.048	678.10	594.60
.004187	500.	500.	500.	2	0	0	0.00	67.93	662.53

*SECNO 8.500
3280 CROSS SECTION 8.50 EXTENDED .04 FEET

8.50	5.64	685.74	0.00	0.00	685.90	.17	1.98	.01	684.90
375.	9.	365.	2.	5.	110.	4.	6.	4.	685.50
.18	.97	3.32	.38	.060	.050	.065	.048	680.10	615.00
.004649	450.	450.	450.	2	0	0	0.00	101.74	716.74

*SECNO 8.600
3280 CROSS SECTION 8.60 EXTENDED .01 FEET

8.60	5.61	688.11	0.00	0.00	688.28	.17	2.37	.00	687.30
375.	8.	366.	1.	8.	109.	3.	8.	5.	687.90
.22	.95	3.37	.36	.060	.050	.065	.049	682.50	615.00
.004850	500.	500.	500.	2	0	0	0.00	98.16	713.16

*SECNO 9.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	AICE	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.10	5.95	689.55	0.00	0.00	689.85	.30	1.54	.04	688.80
375.	16.	359.	0.	17.	80.	0.	8.	6.	689.50
.24	.97	4.47	.02	.060	.050	.065	.049	683.60	294.42
.005411	300.	300.	300.	1	0	0	0.00	83.10	377.52

*SECNO 9.200

9.20	5.87	691.17	0.00	0.00	691.50	.33	1.64	.01	690.50
375.	13.	362.	0.	13.	77.	0.	9.	6.	691.20
.25	.95	4.69	0.00	.060	.050	.065	.049	635.30	310.56
.006241	283.	283.	283.	2	0	0	0.00	63.41	373.97

CCHV= .400 CEHV= .800
*SECNO 9.280

9.28	5.52	691.52	0.00	0.00	691.97	.45	.37	.10	691.20
375.	2.	373.	0.	3.	69.	0.	9.	6.	691.90
.25	.71	5.42	0.00	.060	.050	.065	.049	636.00	331.19
.009433	49.	49.	49.	2	0	0	0.00	42.38	373.57

*SECNO 9.290
3280 CROSS SECTION 9.29 EXTENDED .54 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.29	6.64	692.54	0.00	0.00	692.74	.19	.66	.10	691.10

375.	194.	141.	40.	74.	30.	18.	9.	6.	691.10	
.26	2.62	4.72	2.19	.060	.050	.065	.049	685.90	240.00	
.020653	49.	49.	49.	6	0	0	-25.76	160.00	400.00	

*SECNO 9.310
3280 CROSS SECTION 9.31 EXTENDED .62 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.31	6.72	692.62	0.00	0.00	692.77	.15	.02	.02	691.10
375.	206.	126.	43.	83.	30.	21.	9.	6.	691.10
.26	2.46	4.15	2.07	.060	.050	.065	.049	685.90	240.00
.015640	1.	1.	1.	3	0	0	-25.76	160.00	400.00

*SECNO 9.320
3280 CROSS SECTION 9.32 EXTENDED .44 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	AICB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COBAR	TOPWID	ENDST
9.32	6.44	692.64	0.00	0.00	692.78	.14	.01	.00	691.40
375.	68.	302.	5.	70.	91.	8.	9.	6.	692.10
.26	.97	3.33	.60	.060	.050	.065	.049	686.20	240.00
.002528	1.	1.	1.	0	0	0	0.00	158.22	398.22

*SECNO 9.330
3280 CROSS SECTION 9.33 EXTENDED .48 FEET

9.33	6.48	692.68	0.00	0.00	692.81	.13	.02	.00	691.40
375.	72.	298.	5.	74.	92.	9.	9.	6.	692.10
.26	.97	3.25	.60	.060	.050	.065	.049	686.20	240.00
.002382	10.	10.	10.	2	0	0	0.00	159.27	399.27

*SECNO 9.340
3280 CROSS SECTION 9.34 EXTENDED .20 FEET

9.34	6.29	692.69	0.00	0.00	692.96	.26	.04	.11	691.00
375.	31.	342.	2.	30.	79.	3.	9.	6.	691.90
.25	1.03	4.31	.83	.060	.050	.065	.049	686.40	320.00
.004502	14.	14.	14.	1	0	0	0.00	113.30	433.30

*SECNO 9.350
3280 CROSS SECTION 9.35 EXTENDED .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

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    SLOPE     XLOBL     XLCH     XLOBR     ITRIAL     IDC      ICONT     CORAR     TOPWID     ENDST

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
      9.35      6.70    693.10    693.10      0.00    693.51      .41       .01       .12    691.90
       375.      188.      160.       27.       62.       23.       11.        9.        6.    691.90
       .25      3.03      7.10      2.37      .060      .030      .065      .049    686.40    320.00
  .023824        1.        1.        1.         8        10         0    -11.20    114.58    434.58


 *SECNO 9.360
 3280 CROSS SECTION      9.36 EXTENDED      1.20 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

      9.36      7.29    693.69      0.00      0.00    693.79      .10       .15       .13    691.90
       375.      242.       91.       42.      116.       26.       25.        9.        5.    691.90
       .27      2.09      3.57      1.67      .060      .030      .065      .049    686.40    320.00
  .005089        16.       16.       16.         2         0         0    -11.37    118.00    438.00


 *SECNO 9.370
 3280 CROSS SECTION      9.37 EXTENDED      1.12 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

      9.37      7.23    693.73      0.00      0.00    693.80      .08       .00       .01    691.10
       375.      111.      255.        9.      109.       99.       11.        9.        6.    692.00
       .27      1.02      2.59       .79      .060      .050      .065      .049    686.50    320.00
  .001216        1.        1.        1.         1         0         0      0.00    118.00    438.00


 *SECNO 9.380
 3280 CROSS SECTION      9.38 EXTENDED      1.19 FEET

      9.38      7.09    693.79      0.00      0.00    693.86      .07       .06       .00    692.50
       375.       92.      261.       22.       92.      102.       25.       10.        7.    692.30
       .27      1.01      2.55       .87      .060      .050      .065      .049    686.70     90.00
  .001271        49.       49.       49.         2         0         0      0.00    120.00    210.00


 CCHV=    .100 CEHV=    .300
 *SECNO 9.390
 3280 CROSS SECTION      9.39 EXTENDED      1.00 FEET

      9.39      6.91    693.91      0.00      0.00    694.00      .09       .13       .01    692.80
       375.       80.      276.       19.       78.       98.       21.       10.        7.    692.60
       .28      1.03      2.82       .88      .060      .050      .065      .049    687.00     90.00
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.001651      92.      92.      92.       0        0        0     0.00   120.00   210.00

CCHV=    .350 CEHV=    .700
*SECNO 9.400
3280 CROSS SECTION      9.40 EXTENDED       .78 FEET

     9.40     6.68   694.18     0.00     0.00   694.31      .13      .29      .02   693.30
     375.      64.     296.      14.      62.      93.      16.      11.       7.   693.10
      .30     1.04     3.20      .88     .060     .050     .065     .049   687.50    90.00
  .002287     149.     149.     149.        2        0        0     0.00   120.00   210.00

*SECNO 9.410
3280 CROSS SECTION      9.41 EXTENDED       .68 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

     9.41     6.67   694.17     0.00     0.00   694.35      .17      .00      .03   693.30
     375.      79.     287.       9.      65.      76.       9.      11.       7.   693.10
      .30     1.21     3.77     1.05     .060     .030     .065     .049   687.50    80.00
  .003356       1.       1.       1.        1        0        0    -7.75   120.00   200.00

*SECNO 9.420
3280 CROSS SECTION      9.42 EXTENDED       .71 FEET

    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOE     ACH      AROB     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=  692.60 MAX ELLC=  692.10

     9.42     6.72   694.22     0.00     0.00   694.38      .17      .03      .00   693.30
     375.      82.     284.      10.      68.      77.       9.      11.       7.   693.10
      .30     1.21     3.70     1.05     .060     .030     .065     .049   687.50    80.00
  .003190      10.      10.      10.        1        0        0    -7.75   120.00   200.00

*SECNO 9.430
3280 CROSS SECTION      9.43 EXTENDED       .95 FEET

     9.43     6.85   694.35     0.00     0.00   694.42      .07      .00      .03   693.30
     375.     114.     244.      17.     114.      97.      20.      11.       7.   693.10
      .30     1.00     2.53      .85     .060     .055     .065     .049   687.50    50.00
  .001633       1.       1.       1.        2        0        0     0.00   160.00   210.00

*SECNO 9.440
3280 CROSS SECTION      9.44 EXTENDED       .73 FEET

     9.44     6.73   694.43     0.00     0.00   694.55      .11      .10      .03   693.50
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     375.      75.     284.      16.      70.      94.      17.      11.       7.     693.30
      .30     1.08     3.02      .95     .060     .055     .065     .049    687.70      80.00
  .002430      49.      49.      49.        2        0        0     0.00    130.00     210.00

CCHV=     .100 CEHV=     .300
*SECNO 9.560
3280 CROSS SECTION      9.56 EXTENDED       .60 FEET

     9.56     6.60   694.60     0.00     0.00   694.74      .14      .19      .01     693.80
     375.      63.     299.      13.      59.      91.      14.      11.       8.     693.60
      .31     1.07     3.29      .94     .060     .055     .065     .049    688.00      80.00
  .003021      69.      69.      69.        2        0        0     0.00    130.00     210.00

CCHV=     .300 CEHV=     .500
*SECNO 9.580
3280 CROSS SECTION      9.58 EXTENDED       .68 FEET

     9.58     6.58   695.18     0.00     0.00   695.34      .16      .59      .01     694.10
     375.      94.     230.      51.     100.      56.      46.      12.       8.     694.10
      .33      .94     4.08     1.11     .100     .055     .075     .049    688.60       0.00
  .005286     150.     150.     150.        2        0        0     0.00    206.00     206.00

*SECNO 9.600
3280 CROSS SECTION      9.60 EXTENDED       .39 FEET


3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     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


3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

     9.60     6.29   694.89   692.66     0.00   695.64      .74      .01      .29     694.10
     375.      36.     339.       0.      32.      47.       0.      12.       8.     694.10
      .33     1.12     7.26     0.00     .100     .030     .075     .049    688.50       0.00
  .010754       1.       1.       1.        4       16        0   -64.20    205.27     205.27

*SECNO 10.100
3280 CROSS SECTION     10.10 EXTENDED      1.01 FEET


3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10

    10.10     6.90   695.50     0.00     0.00   695.85      .35      .09      .12     694.10
     375.      98.     262.      15.      88.      47.      20.      12.       8.     694.10
      .33     1.12     5.62      .71     .100     .030     .075     .049    688.60       0.00
  .006425      11.      11.      11.        6        0        0  -114.67    206.00     206.00
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*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.40 FEET

10.20	7.30	695.90	0.00	0.00	695.94	.04	.00	.09	694.10
375.	143.	144.	88.	194.	63.	95.	12.	8.	694.10
.33	.74	2.28	.93	.100	.055	.075	.049	688.60	0.00
.001433	1.	1.	1.	3	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 1.96 FEET

10.50	7.06	695.96	0.00	0.00	696.00	.04	.06	.00	694.50
375.	89.	249.	37.	137.	123.	59.	12.	3.	694.50
.34	.65	2.03	.62	.100	.055	.075	.049	688.90	266.00
.000964	50.	50.	50.	2	0	0	0.00	178.00	444.00

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.62 FEET

10.90	6.71	696.01	0.00	0.00	696.08	.07	.07	.01	694.90
375.	79.	272.	24.	109.	113.	38.	13.	9.	694.90
.34	.72	2.42	.63	.100	.055	.075	.049	689.30	266.00
.001541	56.	56.	56.	1	0	0	0.00	174.60	440.60

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.56 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	XNI	YNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.66	695.96	0.00	0.00	696.14	.17	.00	.05	690.10
375.	138.	185.	52.	124.	40.	47.	13.	9.	693.70
.34	1.11	4.64	1.10	.100	.030	.075	.049	689.30	266.00
.004210	1.	1.	1.	2	0	0	-24.00	172.19	438.19

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 1.65 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.10	6.75	696.05	0.00	0.00	696.20	.15	.05	.01	690.10
375.	141.	177.	57.	132.	41.	53.	13.	9.	693.70
.35	1.07	4.35	1.07	.100	.030	.075	.049	689.30	266.00
.003613	13.	13.	13.	2	0	0	-24.00	175.84	441.84

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.77 FEET

11.20	6.87	696.17	0.00	0.00	696.23	.06	.00	.03	694.90
375.	84.	261.	30.	121.	117.	47.	13.	9.	694.90
.35	.69	2.23	.62	.100	.055	.075	.049	689.30	266.00
.001247	1.	1.	1.	2	0	0	0.00	173.10	444.00

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.77 FEET

11.50	6.67	696.27	0.00	0.00	696.32	.05	.09	.00	694.40
375.	37.	270.	68.	57.	132.	90.	13.	9.	694.40
.36	.64	2.04	.75	.100	.055	.075	.049	689.50	294.00
.000929	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.80 FEET

11.60	6.70	696.30	0.00	0.00	696.33	.02	.00	.01	694.40
270.	27.	193.	50.	59.	133.	92.	13.	9.	694.40
.36	.46	1.45	.54	.100	.055	.075	.049	689.60	294.00
.000462	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.72 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	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
11.70	6.61	696.31	0.00	0.00	696.34	.03	.01	.00	694.50
270.	26.	196.	47.	56.	130.	87.	13.	9.	694.50
.36	.47	1.50	.55	.100	.055	.075	.049	689.70	294.00
.000512	19.	19.	19.	0	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.81 FEET

11.80	6.72	696.32	0.00	0.00	696.34	.02	.00	.00	694.40
270.	27.	193.	50.	58.	134.	93.	13.	9.	694.40
.36	.46	1.45	.54	.100	.055	.075	.049	689.60	294.00
.000459	1.	1.	1.	0	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED 1.44 FEET

11.90	6.34	696.34	0.00	0.00	696.37	.04	.03	.01	694.80
270.	23.	208.	38.	46.	122.	68.	14.	9.	694.80
.37	.50	1.71	.56	.100	.055	.075	.049	690.00	294.00
.000729	50.	50.	50.	0	0	0	0.00	131.00	425.00

*SECNO 12.050
3280 CROSS SECTION 12.05 EXTENDED 1.07 FEET

12.05	5.97	696.37	0.00	0.00	696.43	.06	.05	.01	695.10
270.	43.	223.	4.	75.	101.	12.	14.	9.	695.70
.38	.57	2.20	.37	.100	.055	.075	.049	690.40	250.00
.001165	50.	50.	50.	0	0	0	0.00	118.34	368.84

*SECNO 12.060
3280 CROSS SECTION 12.06 EXTENDED .92 FEET

12.06	5.83	696.43	0.00	0.00	696.50	.07	.06	.01	695.30
270.	38.	230.	2.	66.	98.	7.	14.	10.	695.90
.39	.58	2.35	.31	.100	.055	.075	.049	690.60	250.00
.001401	48.	48.	48.	1	0	0	0.00	114.59	364.59

*SECNO 12.070
3280 CROSS SECTION 12.07 EXTENDED .86 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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

12.07	5.56	696.36	696.36	0.00	696.77	.41	.00	.17	692.80
270.	152.	113.	5.	74.	15.	4.	14.	10.	692.80
.39	2.06	7.58	1.40	.100	.030	.075	.049	690.80	250.00
.019322	1.	1.	1.	20	6	0	-31.60	111.98	361.98

*SECNO 12.080
3280 CROSS SECTION 12.08 EXTENDED 1.44 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.08	6.14	696.94	0.00	0.00	697.04	.10	.17	.09	692.80
270.	166.	74.	29.	116.	17.	28.	14.	10.	692.80
.39	1.43	4.32	1.02	.100	.030	.075	.049	690.80	250.00
.005173	19.	19.	19.	2	0	0	-32.76	129.74	379.74

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.52 FEET

12.10	6.42	697.02	0.00	0.00	697.06	.04	.00	.02	695.30
270.	55.	202.	12.	103.	113.	29.	14.	10.	695.90
.39	.54	1.80	.42	.100	.055	.075	.049	690.60	250.00
.000677	1.	1.	1.	2	0	0	0.00	131.37	381.87

Channel limits changed

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED 1.14 FEET

13.05	5.74	697.04	0.00	0.00	697.10	.06	.03	.01	695.40
270.	49.	130.	92.	56.	47.	102.	14.	10.	695.40
.39	.88	2.74	.90	.100	.055	.075	.049	691.30	258.00
.002074	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED .89 FEET

13.06	5.50	697.10	0.00	0.00	697.20	.11	.08	.02	695.70
270.	46.	152.	72.	46.	45.	74.	14.	10.	695.70
.40	1.00	3.38	.97	.100	.055	.075	.049	691.60	258.00
.003399	30.	30.	30.	1	0	0	0.00	156.00	414.00

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED .98 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.48	697.08	0.00	0.00	697.23	.16	.00	.03	693.60
270.	75.	87.	109.	50.	17.	75.	14.	10.	693.60
.40	1.49	5.20	1.45	.100	.030	.075	.049	691.60	258.00
.007792	1.	1.	1.	2	0	0	-6.96	156.00	414.00

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED 1.08 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.08	5.68	697.28	0.00	0.00	697.36	.09	.11	.02	693.60
270.	73.	72.	125.	58.	18.	98.	14.	10.	693.60
.40	1.26	4.11	1.28	.100	.030	.075	.049	691.60	258.00
.004571	19.	19.	19.	2	0	0	-7.27	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.11 FEET

13.10	5.71	697.31	0.00	0.00	697.37	.07	.00	.01	695.70
270.	48.	132.	89.	54.	47.	98.	14.	10.	695.70
.40	.89	2.81	.91	.100	.055	.075	.049	691.60	258.00
.002200	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.66 FEET

13.60	5.36	697.46	0.00	0.00	697.48	.02	.10	.01	695.50
270.	10.	127.	133.	22.	79.	176.	15.	10.	694.60
.43	.47	1.60	.75	.100	.055	.075	.049	692.10	302.00
.000541	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.22 FEET

13.70	4.92	697.52	0.00	0.00	697.56	.04	.07	.01	696.00
270.	12.	140.	118.	16.	71.	139.	16.	11.	695.10
.45	.70	1.96	.85	.075	.055	.075	.049	692.60	302.00
.000931	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED .83 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	XNI	YNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13.80	4.53	697.63	0.00	0.00	697.69	.06	.12	.01	696.50
270.	9.	158.	103.	12.	64.	105.	16.	11.	695.60
.46	.77	2.46	.98	.075	.055	.075	.049	693.10	302.00
.001678	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .41 FEET

14.00	4.11	697.91	0.00	0.00	698.03	.12	.31	.03	697.20
270.	5.	186.	79.	7.	57.	69.	17.	11.	696.30
.47	.78	3.27	1.14	.075	.055	.075	.050	693.30	302.00
.003507	132.	132.	132.	2	0	0	0.00	116.00	418.00

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .22 FEET

14.10	3.92	698.72	0.00	0.00	698.89	.17	.83	.02	698.20	
270.	3.	200.	66.	4.	53.	53.	17.	12.	697.30	
.49	.72	3.75	1.24	.075	.055	.075	.050	694.80	302.00	
.005025	200.	200.	200.	2	0	0	0.00	107.42	409.42	

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .23 FEET

14.20	3.93	699.73	0.00	0.00	699.89	.17	1.00	.00	699.20
270.	3.	200.	67.	5.	53.	54.	18.	12.	698.30
.51	.72	3.75	1.24	.075	.055	.075	.050	695.80	302.00
.005002	200.	200.	200.	2	0	0	0.00	107.54	409.54

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .23 FEET

14.30	3.93	700.73	0.00	0.00	700.89	.17	1.00	.00	700.20
270.	3.	200.	67.	5.	54.	54.	18.	13.	699.30
.53	.72	3.74	1.24	.075	.055	.075	.050	696.80	302.00
.004963	200.	200.	200.	0	0	0	0.00	107.71	409.71

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .22 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSEIK	EG	HV	HL	OLOSS	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
14.40	3.92	701.32	0.00	0.00	701.49	.17	.60	.00	700.80
270.	3.	200.	66.	4.	53.	53.	18.	13.	699.90
.54	.72	3.75	1.24	.075	.055	.075	.050	697.40	302.00
.005028	120.	120.	120.	0	0	0	0.00	107.41	409.41

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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.      5.       0.       0.  0.000000     0.00    -1.0      0.  576.260  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 2

 CCHV=    .100 CEHV=    .300
 *SECNO 7.950
  2800 NAT Q1=      93.14  WSEL=     676.26  ENC Q1=      93.14  WSEL=     676.36  RATIO=    .0000
  NAT Q1=     100.  RATIOS LOB,CH,ROB=   .2610   .7382   .0008  WSEL=     676.36
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=      94.3      152.0  TYPE=     4  TARGET=      .066
       7.85      6.06   676.26      0.00   676.26   676.37      .11      0.00      0.00   674.00
       375.        76.      299.        0.      48.      102.        0.        0.        0.   676.10
       0.00      1.58      2.92      0.00     .060     .045     .060     0.000    570.20    94.28
    .001844        0.        0.        0.        0        0        0      0.00     57.72   152.00

 *SECNO 7.870
  2800 NAT Q1=      74.04  WSEL=     676.69  ENC Q1=      74.04  WSEL=     676.79  RATIO=  0.0000
  NAT Q1=      78.  RATIOS LOB,CH,ROB=   .2147   .7853  0.0000  WSEL=     676.79

 3470 ENCROACHMENT STATIONS=      98.3      152.0  TYPE=     4  TARGET=      .055
       7.37      5.74   676.74      0.00   676.69   676.90      .16      .51      .01   674.80
       375.        61.      314.        0.      35.      92.        0.        1.        0.   676.90
        .02      1.74      3.41      0.00     .060     .045     .060     .045    571.00    98.31
    .002713       230.      230.      230.        0        0        0      0.00     52.28   150.59

 *SECNO 7.900
  2800 NAT Q1=      64.52  WSEL=     677.34  ENC Q1=      64.52  WSEL=     677.44  RATIO=  0.0000
  NAT Q1=      68.  RATIOS LOB,CH,ROB=   .1774   .8226  0.0000  WSEL=     677.44

 3470 ENCROACHMENT STATIONS=     101.2      152.0  TYPE=     4  TARGET=      .054
       7.30      5.52   677.42      0.00   677.34   677.63      .20      .72      .01   675.70
       375.        48.      327.        0.      27.      86.        0.        1.        1.   677.80
        .04      1.78      3.82      0.00     .060     .045     .060     .045    671.90   101.17
    .003460       235.      235.      235.        1        0        0      0.00     47.56   148.73

 *SECNO 7.920
  2800 NAT Q1=      58.13  WSEL=     678.06  ENC Q1=      58.13  WSEL=     678.16  RATIO=    .0000
  NAT Q1=      61.  RATIOS LOB,CH,ROB=   .1483   .8517  0.0000  WSEL=     678.16

 3470 ENCROACHMENT STATIONS=     104.8      152.0  TYPE=     4  TARGET=      .055
       7.92      5.35   678.15      0.00   678.06   678.40      .25      .76      .01   676.60
       375.        37.      338.        0.      20.      81.        0.        2.        1.   678.70
        .05      1.84      4.18      0.00     .060     .045     .060     .045    572.80   104.76
    .004200       200.      200.      200.        1        0        0      0.00     42.51   147.26

 *SECNO 7.950
  2800 NAT Q1=      48.89  WSEL=     678.96  ENC Q1=      48.89  WSEL=     679.06  RATIO=  0.0000
  NAT Q1=      52.  RATIOS LOB,CH,ROB=   .0712   .9288  0.0000  WSEL=     679.06
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        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    COPAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=      637.9      664.0  TYPE=      4  TARGET=          .056
     7.95      5.36    679.06      0.00    678.96    679.42      .37       .99       .04    677.90
     375.        5.      370.        0.        3.       75.        0.        2.        1.    680.60
      .06      1.55      4.91      0.00      .065      .050      .065      .046    673.70    637.85
  .005943      199.      199.      199.         2         0         0      0.00     24.46    662.32

*SECNO 8.000
 2800 NAT Q1=      57.47  WSEL=     681.54  ENC Q1=      57.47  WSEL=     681.64  RATIO=    .0000
 NAT Q1=      51.  RATIOS LOB,CH,ROB=    .1132    .8868  0.0000  WSEL=     681.64

3470 ENCROACHMENT STATIONS=      629.5      664.0  TYPE=      4  TARGET=          .056
     8.00      5.65    681.65      0.00    681.54    681.92      .27      2.49       .01    680.20
     375.       23.      352.        0.       14.       82.        0.        3.        1.    682.90
      .10      1.61      4.31      0.00      .065      .050      .065      .047    676.00    629.49
  .004227      500.      500.      500.         2         0         0      0.00     33.14    662.63

*SECNO 8.100
 2800 NAT Q1=      57.95  WSEL=     683.66  ENC Q1=      57.95  WSEL=     683.76  RATIO=    .0000
 NAT Q1=      51.  RATIOS LOB,CH,ROB=    .1156    .8844  0.0000  WSEL=     683.76

3470 ENCROACHMENT STATIONS=      629.2      664.0  TYPE=      4  TARGET=          .057
     8.10      5.66    683.76      0.00    683.66    684.03      .27      2.10       .00    682.30
     375.       24.      351.        0.       15.       82.        0.        4.        2.    685.00
      .13      1.61      4.30      0.00      .065      .050      .065      .048    678.10    629.15
  .004192      500.      500.      500.         2         0         0      0.00     33.49    662.64

*SECNO 8.500
 2800 NAT Q1=      55.00  WSEL=     685.74  ENC Q1=      57.43  WSEL=     685.84  RATIO=   -.0443
 NAT Q1=      50.  RATIOS LOB,CH,ROB=    .0292    .9614    .0094  WSEL=     685.84
3280 CROSS SECTION       8.50 EXTENDED        .12 FEET

3470 ENCROACHMENT STATIONS=      635.0      683.0  TYPE=      4  TARGET=          .039
     8.50      5.72    685.82      0.00    685.74    685.99      .17      1.95       .01    684.90
     375.        0.      375.        0.        0.      114.        0.        5.        2.    685.50
      .17      0.00      3.29      0.00      .060      .050      .065      .048    630.10    635.00
  .004494      450.      450.      450.         2         0         0      0.00     48.00    683.00

*SECNO 8.600
 2800 NAT Q1=      53.85  WSEL=     688.11  ENC Q1=      56.25  WSEL=     688.21  RATIO=   -.0446
 NAT Q1=      58.  RATIOS LOB,CH,ROB=    .0273    .9652    .0075  WSEL=     688.21
3280 CROSS SECTION       8.60 EXTENDED        .06 FEET

3470 ENCROACHMENT STATIONS=      635.0      683.0  TYPE=      4  TARGET=          .035
     8.60      5.66    688.16      0.00    688.11    688.33      .18      2.34       .00    687.30
     375.        0.      375.        0.        0.      111.        0.        7.        3.    687.90
      .21      0.00      3.37      0.00      .060      .050      .065      .049    682.50    635.00
  .004838      500.      500.      500.         2         0         0      0.00     48.00    683.00
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 *SECNO 9.100
  2800 NAT Q1=     50.98  WSEL=     689.55  ENC Q1=     51.33  WSEL=     689.65  RATIO=   -.0068
  NAT Q1=     55.  RATIOS LOB,CH,ROB=    .0623    .9370    .0006  WSEL=     689.55
 3280 CROSS SECTION       9.10 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=      350.0      374.0  TYPE=     4  TARGET=       .063
      9.10      6.04    689.64      0.00    689.55    689.96      .32      1.58      .04    688.80
       375.       0.       375.       0.        0.       82.       0.        7.       3.    689.50
        .23      0.00      4.55      0.00      .060      .050      .065      .049    683.60    350.00
    .005723       300.      300.      300.         2         0         0      0.00     24.00    374.00

 *SECNO 9.200
  2800 NAT Q1=     47.47  WSEL=     691.17  ENC Q1=     48.23  WSEL=     691.27  RATIO=   -.0161
  NAT Q1=     51.  RATIOS LOB,CH,ROB=    .0488    .9511    .0001  WSEL=     691.27
 3280 CROSS SECTION       9.20 EXTENDED        .01 FEET

 3470 ENCROACHMENT STATIONS=      350.0      374.0  TYPE=     4  TARGET=       .049
      9.20      6.01    691.31      0.00    691.17    691.65      .34      1.68      .0    690.50
       375.       0.       375.       0.        0.       80.       0.        8.       3.    691.20
        .25      0.00      4.66      0.00      .060      .050      .065      .049    685.30    350.00
    .006157       283.      283.      283.         2         0         0      0.00     24.00    374.00

 CCHV=    .400 CEHV=    .800
 *SECNO 9.280
  2800 NAT Q1=     38.61  WSEL=     691.52  ENC Q1=     40.46  WSEL=     691.52  RATIO=   -.0479
  NAT Q1=     41.  RATIOS LOB,CH,ROB=    .0111    .9889  0.0000  WSEL=     691.62

 3470 ENCROACHMENT STATIONS=      350.0      374.0  TYPE=     4  TARGET=       .011
      9.28      5.64    691.64      0.00    691.52    692.07      .42       .35      .07    691.20
       375.       0.       375.       0.        0.       72.       0.        8.       3.    691.90
        .25      0.00      5.21      0.00      .060      .050      .065      .049    686.00    350.00
    .008528       49.       49.       49.         1         0         0      0.00     23.72    373.72

 *SECNO 9.290
  2800 NAT Q1=     26.09  WSEL=     692.54  ENC Q1=     26.09  WSEL=     692.64  RATIO=    .0000
  NAT Q1=     31.  RATIOS LOB,CH,ROB=    .5565    .3252    .1183  WSEL=     692.64
 3280 CROSS SECTION       9.29 EXTENDED        .48 FEET

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

 3470 ENCROACHMENT STATIONS=      260.7      370.7  TYPE=     4  TARGET=       .164
      9.29      6.59    692.49      0.00    692.54    692.84      .35       .74      .03    691.10
       375.       181.      178.       16.       57.       30.       5.        8.       3.    691.10
        .25      3.20      6.02      3.04      .060      .050      .065      .049    685.90    260.67
    .034076       49.       49.       49.         6         0         0    -25.13    109.98    370.66
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*SECNO 9.310
 2800 NAT Q1=      29.99  WSEL=     692.62  ENC Q1=      29.99  WSEL=     692.72  RATIO=    .0000
  NAT Q1=      36.  RATIOS LOB,CH,ROB=    .5804    .2926    .1269  WSEL=     692.72
 3280 CROSS SECTION       9.31 EXTENDED        .80 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90


 3470 ENCROACHMENT STATIONS=      258.5      373.1  TYPE=      4  TARGET=         .155
      9.31      6.90    692.80      0.00    692.62    692.94       .14       .02       .08    691.10
       375.       232.       120.        24.        89.        31.        10.        8.         3.    691.10
        .25       2.60       3.82       2.39       .060       .050       .065       .049    685.90    258.51
     .012728         1.         1.         1.          E          0          0    -25.43    114.58    373.08


 *SECNO 9.320
  2800 NAT Q1=      74.59  WSEL=     692.64  ENC Q1=      74.59  WSEL=     692.74  RATIO=    .0000
  NAT Q1=      31.  RATIOS LOB,CH,ROB=    .2097    .7731    .0172  WSEL=     692.74
 3280 CROSS SECTION       9.32 EXTENDED        .60 FEET


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

 3470 ENCROACHMENT STATIONS=      292.0      374.0  TYPE=      4  TARGET=         .080
      9.32      6.60    692.80      0.00    692.64    692.95       .14       .00       .00    691.40
       375.       65.       310.        0.        55.        95.        0.         8.         3.    692.10
        .25       1.19       3.27       0.00       .060       .050       .065       .049    686.20    291.96
     .002399         1.         1.         1.          0          0          0      0.00     82.04    374.00


 *SECNO 9.330
  2800 NAT Q1=      76.84  WSEL=     692.68  ENC Q1=      76.84  WSEL=     692.78  RATIO=    .0000
  NAT Q1=      84.  RATIOS LOB,CH,ROB=    .2194    .7616    .0190  WSEL=     692.78
 3280 CROSS SECTION       9.33 EXTENDED        .63 FEET


 3470 ENCROACHMENT STATIONS=      287.9      374.0  TYPE=      4  TARGET=         .081
      9.33      6.64    692.84      0.00    692.68    692.97       .13       .02       .00    691.40
       375.       69.       306.        0.        59.        95.        0.         8.         3.    692.10
        .25       1.17       3.20       0.00       .060       .050       .065       .049    686.20    287.87
     .002286         10.        10.        10.          1          0          0      0.00     86.13    374.00


 *SECNO 9.340
  2800 NAT Q1=      55.89  WSEL=     692.69  ENC Q1=      55.89  WSEL=     692.79  RATIO=    .0000
  NAT Q1=      50.  RATIOS LOB,CH,ROB=    .1048    .8882    .0070  WSEL=     692.79
 3280 CROSS SECTION       9.34 EXTENDED        .35 FEET


 3470 ENCROACHMENT STATIONS=      397.8      427.0  TYPE=      4  TARGET=         .065
      9.34      6.45    692.85      0.00    692.69    693.13       .27       .04       .11    691.00
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     375.      20.      355.       0.       11.       83.       0.        8.        3.     691.90
      .25      1.87      4.29     0.00      .060      .050      .065      .049    686.40    397.79
  .004478      14.       14.       14.         2         0         0      0.00     29.21    427.00

*SECNO 9.350
 2800 NAT Q1=      24.30  WSEL=     693.10  ENC Q1=      24.30  WSEL=     693.20  RATIO=    .0000
 NAT Q1=      28.  RATIOS LOB,CH,ROB=   .5398   .3829   .0773  WSEL=     693.20
3280 CROSS SECTION       9.35 EXTENDED        .68 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=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      333.6      415.0  TYPE=      4  TARGET=        .136
     9.35      6.78    693.18    693.18    693.10    693.66      .48       .01       .16    691.90
     375.      203.      169.        3.       60.       23.        1.        8.        3.    691.90
      .25      3.38      7.36      2.37      .060      .030      .065      .049    686.40    333.60
  .024971        1.        1.        1.         8        10         0    -10.24     81.41    415.00

*SECNO 9.360
 2800 NAT Q1=      52.57  WSEL=     693.69  ENC Q1=      52.57  WSEL=     693.79  RATIO=  0.0000
 NAT Q1=      58.  RATIOS LOB,CH,ROB=   .6557   .2274   .1169  WSEL=     693.79
3280 CROSS SECTION       9.36 EXTENDED       1.36 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

3470 ENCROACHMENT STATIONS=      326.9      423.4  TYPE=      4  TARGET=        .093
     9.36      7.46    693.86      0.00    693.69    693.96      .10       .14       .15    691.90
     375.      255.       90.       30.      120.       26.       15.        8.        3.    691.90
      .26      2.13      3.43      1.94      .060      .030      .065      .049    686.40    326.92
  .004505       16.       16.       16.         3         0         0    -10.64     96.47    423.39

*SECNO 9.370
 2800 NAT Q1=     107.55  WSEL=     693.73  ENC Q1=     107.55  WSEL=     693.83  RATIO=    .0000
 NAT Q1=     115.  RATIOS LOB,CH,ROB=   .3153   .6589   .0258  WSEL=     693.83
3280 CROSS SECTION       9.37 EXTENDED       1.29 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=      333.8      427.0  TYPE=      4  TARGET=        .068
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     9.37     7.39   693.89     0.00   693.73   693.97     .07      .00      .01   691.10
      375.     118.     257.       0.     106.     102.       0.       8.       3.   692.00
       .26     1.12     2.51     0.00     .060     .050     .065     .049   636.50   333.79
   .001207       1.       1.       1.        2        0        0     0.00    93.21   427.00

 *SECNO 9.380
  2800 NAT Q1=     105.19  WSEL=     693.79  ENC Q1=     105.19  WSEL=     693.39  RATIO=    .0000
   NAT Q1=     112.  RATIOS LOB,CH,ROB=    .2620    .6758    .0622  WSEL=     693.89
  3280 CROSS SECTION       9.38 EXTENDED       1.35 FEET


  3470 ENCROACHMENT STATIONS=       99.5      196.5  TYPE=       4  TARGET=         .065
       9.38     7.25   693.95     0.00   693.79   694.03     .07      .06      .00   692.50
       375.       96.     267.       12.       91.     106.       13.       9.       3.   692.30
        .26     1.05     2.51      .94     .060     .050     .065     .049   686.70    99.48
   .001180       49.       49.       49.        0        0        0     0.00    97.04   196.52


  CCHV=    .100 CEHV=    .300
  *SECNO 9.390
   2800 NAT Q1=      92.29  WSEL=     693.91  ENC Q1=      92.29  WSEL=     694.01  RATIO=    .0000
   NAT Q1=      99.  RATIOS LOB,CH,ROB=    .2330    .7127    .0544  WSEL=     694.01
  3280 CROSS SECTION       9.39 EXTENDED       1.17 FEET


  3470 ENCROACHMENT STATIONS=      101.9      193.5  TYPE=       4  TARGET=         .071
       9.39     7.06   694.06     0.00   693.91   694.16      .10      .12      .01   692.80
       375.       83.     284.       7.       76.     102.       8.       9.       3.   692.60
        .27     1.10     2.79      .97     .060     .050     .065     .049   687.00   101.85
   .001538       92.       92.       92.        1        0        0     0.00    91.69   193.55


  CCHV=    .350 CEHV=    .700
  *SECNO 9.400
   2800 NAT Q1=      78.42  WSEL=     694.18  ENC Q1=      78.42  WSEL=     694.28  RATIO=   0.0000
   NAT Q1=      85.  RATIOS LOB,CH,ROB=    .1921    .7645    .0434  WSEL=     694.28
  3280 CROSS SECTION       9.40 EXTENDED        .92 FEET


  3470 ENCROACHMENT STATIONS=      104.9      190.2  TYPE=       4  TARGET=         .073
       9.40     6.82   694.32     0.00   694.18   694.45      .13      .27      .03   693.30
       375.       66.     307.       2.       58.       96.       3.       10.       4.   693.10
        .29     1.13     3.20      .90     .060     .050     .065     .049   687.50   104.90
   .002187      149.      149.      149.        0        0        0     0.00    85.30   190.20


  *SECNO 9.410
   2800 NAT Q1=      64.74  WSEL=     694.17  ENC Q1=      64.74  WSEL=     694.27  RATIO=    .0000
   NAT Q1=      70.  RATIOS LOB,CH,ROB=    .2338    .7387    .0275  WSEL=     694.27
  3280 CROSS SECTION       9.41 EXTENDED        .82 FEET


  3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10


  3470 ENCROACHMENT STATIONS=      101.6      188.0  TYPE=       4  TARGET=         .080
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     9.41      6.81    694.31      0.00    694.17    694.49      .18       .00       .03    693.30
      375.       78.       297.       0.       58.       79.       0.       10.       4.    693.10
       .29      1.34      3.74      0.00      .060      .030      .065      .049    687.50    101.60
  .003232        1.        1.        1.         1         0         0     -7.75     86.40    188.00

 *SECNO 9.420
 2800 NAT Q1=     66.39  WSEL=    694.22  ENC Q1=     66.39  WSEL=    694.32  RATIO=    .0000
 NAT Q1=     73.  RATIOS LOB,CH,ROB=    .2440    .7272    .0288  WSEL=    694.32
 3280 CROSS SECTION      9.42 EXTENDED       .84 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


 3370 NORMAL BRIDGE,NBD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

 3470 ENCROACHMENT STATIONS=     104.4     188.0  TYPE=     4  TARGET=      .091
      9.42      6.84    694.34      0.00    694.22    694.52      .18       .03       .00    693.30
      375.       78.       297.       0.       57.       80.       0.       10.       4.    693.10
       .29      1.35      3.73      0.00      .060      .030      .065      .049    687.50    104.42
  .003179        10.       10.       10.         0         0         0     -7.75     83.57    188.00

 *SECNO 9.430
 2800 NAT Q1=     92.80  WSEL=    694.35  ENC Q1=     92.80  WSEL=    694.45  RATIO=    .0000
 NAT Q1=    101.  RATIOS LOB,CH,ROB=    .3265    .6246    .0489  WSEL=    694.45
 3280 CROSS SECTION      9.43 EXTENDED      1.09 FEET

 3470 ENCROACHMENT STATIONS=      64.6     190.9  TYPE=     4  TARGET=      .079
      9.43      6.99    694.49      0.00    694.35    694.56      .07       .00       .04    693.30
      375.      120.       251.       3.       114.      100.       4.       10.       4.    693.10
       .29      1.06      2.51       .86      .060      .055      .065      .049    687.50     64.58
  .001544         1.        1.        1.         2         0         0      0.00    126.36    190.94

 *SECNO 9.440
 2800 NAT Q1=     76.07  WSEL=    694.43  ENC Q1=     76.07  WSEL=    694.53  RATIO=    .0000
 NAT Q1=     82.  RATIOS LOB,CH,ROB=    .2229    .7282    .0489  WSEL=    694.53
 3280 CROSS SECTION      9.44 EXTENDED       .87 FEET

 3470 ENCROACHMENT STATIONS=      96.5     191.1  TYPE=     4  TARGET=      .077
      9.44      6.87    694.57      0.00    694.43    694.68      .12       .09       .03    693.50
      375.       78.       293.       4.       66.       97.       4.       10.       4.    693.30
       .29      1.17      3.02      1.01      .060      .055      .065      .049    687.70     96.62
  .002316        49.       49.       49.         1         0         0      0.00     94.45    191.07

 CCHV=    .100 CEHV=    .300
 *SECNO 9.560
 2800 NAT Q1=     68.22  WSEL=    694.60  ENC Q1=     68.22  WSEL=    694.70  RATIO=    .0000
 NAT Q1=     74.  RATIOS LOB,CH,ROB=    .1924    .7659    .0417  WSEL=    694.70
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 3280 CROSS SECTION      9.56 EXTENDED       .73 FEET


 3470 ENCROACHMENT STATIONS=      100.3      188.6  TYPE=     4  TARGET=          .030
       9.56      6.72    694.72      0.00    694.60    694.87      .14       .18       .01    693.80
        375.       65.       310.       0.       54.       94.       1.       10.       4.    693.60
         .30      1.19      3.30       .66      .060      .055      .065      .049    588.00    100.30
    .002897       69.       69.       69.         0         0         0      0.00     88.29    188.59


 CCHV=    .300 CEHV=    .500
 *SECNO 9.580
  2800 NAT Q1=      51.58  WSEL=    695.18  ENC Q1=      51.58  WSEL=     695.28  RATIO=    .0000
  NAT Q1=      57.  RATIOS LOB,CH,ROB=    .2752    .5710    .1538  WSEL=     695.28
 3280 CROSS SECTION      9.58 EXTENDED       .78 FEET


 3470 ENCROACHMENT STATIONS=       19.1      170.6  TYPE=     4  TARGET=          .093
       9.53      6.68    695.28      0.00    695.18    695.46      .17       .57       .02    694.10
        375.       94.       236.       45.       95.       57.       32.       11.       5.    694.10
         .31       .99      4.13      1.41      .100      .055      .075      .049    688.60     19.12
    .005304       150.      150.      150.         1         0         0      0.00    151.45    170.57


 *SECNO 9.600
  2800 NAT Q1=      36.16  WSEL=     694.89  ENC Q1=      36.16  WSEL=     694.99  RATIO=    .0000
  NAT Q1=      37.  RATIOS LOB,CH,ROB=    .1210    .8768    .0022  WSEL=     694.99
 3280 CROSS SECTION      9.60 EXTENDED       .51 FEET


 3301 HV CHANGED MORE THAN HVINS

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALCH      ACH       AROB      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=  8 MIN ELTRD=  693.90 MAX ELLC=  694.10


 3470 ENCROACHMENT STATIONS=       17.3      156.9  TYPE=     4  TARGET=          .031
       9.60      5.41    695.01    692.66    694.89    695.75      .73       .01       .28    694.10
        375.       37.       338.       0.       33.       47.       0.       11.       5.    694.10
         .31      1.12      7.24      0.00      .100      .030      .075      .049    588.60     17.25
    .010670         1.        1.        1.         4        16         0    -58.25    139.70    156.95


 *SECNO 10.100
  2800 NAT Q1=      46.78  WSEL=     695.50  ENC Q1=      46.78  WSEL=     695.50  RATIO=    .0000
  NAT Q1=      49.  RATIOS LOB,CH,ROB=    .2856    .6674    .0469  WSEL=     695.60
 3280 CROSS SECTION      10.10 EXTENDED      1.28 FEET


 3301 HV CHANGED MORE THAN HVINS
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3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  693.90 MAX ELLC=  694.10

3470 ENCROACHMENT STATIONS=        6.4      190.0  TYPE=      4  TARGET=          .046
     10.10      7.18    695.78      0.00    695.50    695.99      .21       .09       .16    694.10
      375.      134.      222.       19.      107.       47.      22.       11.        5.    694.10
       .31      1.25      4.69       .88      .100      .030     .075      .049    688.60      6.41
   .006354       11.       11.       11.         4         0        0   -125.23    183.59    190.00

*SECNO 10.200
 2800 NAT Q1=      99.05  WSEL=     695.90  ENC Q1=      99.05  WSEL=     696.00  RATIO=    .0000
 NAT Q1=     107.  RATIOS LOB,CH,ROB=    .3925    .3633    .2442  WSEL=     696.00
3280 CROSS SECTION      10.20 EXTENDED       1.51 FEET

3470 ENCROACHMENT STATIONS=       14.4      190.8  TYPE=      4  TARGET=          .075
     10.20      7.41    696.01      0.00    695.90    696.05      .04       .00       .05    694.10
      375.      144.      147.       84.      186.       64.      84.       11.        5.    694.10
       .32       .78      2.30      1.01      .100      .055     .075      .049    688.60     14.41
   .001425        1.        1.        1.         2         0        0      0.00    175.37    190.78

*SECNO 10.500
 2800 NAT Q1=     120.76  WSEL=     695.96  ENC Q1=     120.76  WSEL=     696.06  RATIO=  0.0000
 NAT Q1=     129.  RATIOS LOB,CH,ROB=    .2455    .6468    .1077  WSEL=     696.05
3280 CROSS SECTION      10.50 EXTENDED       2.06 FEET

3470 ENCROACHMENT STATIONS=      275.0      411.6  TYPE=      4  TARGET=          .053
     10.50      7.16    696.06      0.00    695.96    696.11      .05       .06       .00    694.50
      375.       86.      259.       31.      128.      126.      42.       11.        5.    694.50
       .32       .67      2.06       .73      .100      .055     .075      .049    688.90    275.02
   .000960       50.       50.       50.         0         0        0      0.00    136.60    411.62

*SECNO 10.900
 2800 NAT Q1=      95.52  WSEL=     696.01  ENC Q1=      95.52  WSEL=     696.11  RATIO=    .0000
 NAT Q1=     102.  RATIOS LOB,CH,ROB=    .2190    .7080    .0730  WSEL=     696.11
3280 CROSS SECTION      10.90 EXTENDED       1.72 FEET

3470 ENCROACHMENT STATIONS=      276.1      399.3  TYPE=      4  TARGET=          .064
     10.90      6.81    696.11      0.00    696.01    696.19      .07       .07       .01    694.90
      375.       75.      284.       16.      101.      116.      21.       11.        5.    694.90
       .33       .75      2.45       .79      .100      .055     .075      .049    689.30    276.09
   .001533       56.       56.       56.         1         0        0      0.00    123.23    399.32

*SECNO 11.000
 2800 NAT Q1=      57.80  WSEL=     695.96  ENC Q1=      57.80  WSEL=     696.06  RATIO=  0.0000
 NAT Q1=      53.  RATIOS LOB,CH,ROB=    .3770    .4687    .1543  WSEL=     696.06
3280 CROSS SECTION      11.00 EXTENDED       1.66 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALCB      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

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

3470 ENCROACHMENT STATIONS=      274.5      400.8  TYPE=      4  TARGET=          .085
    11.00      6.76    696.06      0.00    695.96    696.25      .19       .00       .06    690.10
     375.      137.      193.       46.      119.       41.       34.       11.        5.    693.70
      .33      1.15      4.72      1.33      .100      .030      .075      .049    689.30    274.55
  .004239        1.        1.        1.         2         0         0    -24.00    125.77    400.31

*SECNO 11.100
 2800 NAT Q1=      62.39  WSEL=     696.05  ENC Q1=      62.39  WSEL=     696.15  RATIO=    .0000
 NAT Q1=      58.  RATIOS LOB,CH,ROB=   .3833   .4487   .1680  WSEL=     696.15
3280 CROSS SECTION      11.10 EXTENDED       1.75 FEET

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

3470 ENCROACHMENT STATIONS=      274.3      403.8  TYPE=      4  TARGET=          .084
    11.10      6.85    696.15      0.00    696.05    696.31      .16       .05       .01    690.10
     375.      140.      184.       52.      127.       42.       41.       11.        5.    693.70
      .33      1.10      4.41      1.28      .100      .030      .075      .049    689.30    274.27
  .003610       13.       13.       13.         2         0         0    -24.00    129.49    403.76

*SECNO 11.200
 2800 NAT Q1=     106.21  WSEL=     695.17  ENC Q1=     106.21  WSEL=     696.27  RATIO=    .0000
 NAT Q1=     114.  RATIOS LOB,CH,ROB=   .2320   .6789   .0891  WSEL=     696.27
3280 CROSS SECTION      11.20 EXTENDED       1.88 FEET

3470 ENCROACHMENT STATIONS=      275.9      404.9  TYPE=      4  TARGET=          .056
    11.20      6.98    696.28      0.00    696.17    696.34      .06       .00       .03    694.90
     375.       80.      272.       23.      113.      120.       30.       11.        5.    694.90
      .33       .71      2.26       .76      .100      .055      .075      .049    689.30    275.93
  .001233        1.        1.        1.         2         0         0      0.00    128.92    404.85

*SECNO 11.500
 2800 NAT Q1=     123.03  WSEL=     696.27  ENC Q1=     123.03  WSEL=     696.37  RATIO=    .0000
 NAT Q1=     130.  RATIOS LOB,CH,ROB=   .1009   .7074   .1917  WSEL=     696.37
3280 CROSS SECTION      11.50 EXTENDED       1.87 FEET

3470 ENCROACHMENT STATIONS=      300.7      406.0  TYPE=      4  TARGET=          .057
    11.50      6.78    696.38      0.00    696.27    696.43      .05       .09       .00    694.40
     375.       29.      281.       65.       46.      135.       78.       12.        5.    694.40
      .35       .63      2.08       .83      .100      .055      .075      .049    689.60    300.67
  .000929       85.       85.       85.         1         0         0      0.00    105.38    406.05

*SECNO 11.600
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 2800 NAT Q1=    125.64  WSEL=    695.30  ENC Q1=    125.64  WSEL=    696.40  RATIO=    .0000
 NAT Q1=    133.  RATIOS LOB,CH,ROB=    .1034    .7019    .1947  WSEL=    696.40
3280 CROSS SECTION     11.60 EXTENDED      1.91 FEET


3470 ENCROACHMENT STATIONS=     302.5     406.6  TYPE=     4  TARGET=      .057
     11.60      5.81   696.41     0.00   696.30   696.44      .03       .00       .01   694.40
       270.       22.      201.       48.       46.      137.       81.       12.        5.   694.40
        .35       .47      1.47       .59       .100     .055      .075      .049   689.60   302.55
   .000457        1.        1.        1.         2         0         0      0.00   104.07   406.62


 *SECNO 11.700
 2800 NAT Q1=    119.28  WSEL=    696.31  ENC Q1=    119.28  WSEL=    696.41  RATIO=    0.0000
 NAT Q1=    126.  RATIOS LOB,CH,ROB=    .1007    .7141    .1853  WSEL=    696.41
3280 CROSS SECTION     11.70 EXTENDED      1.82 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     COBAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     302.6     405.5  TYPE=     4  TARGET=      .055
     11.70      5.72   696.42     0.00   696.31   696.45      .03       .01       .00   694.50
       270.       21.      204.       45.       43.      134.       75.       12.        5.   694.50
        .35       .48      1.52       .60       .100     .055      .075      .049   689.70   302.58
   .000507       19.       19.       19.         0         0         0      0.00   102.96   405.55


 *SECNO 11.800
 2800 NAT Q1=    126.06  WSEL=    696.32  ENC Q1=    126.06  WSEL=    696.42  RATIO=    .0000
 NAT Q1=    134.  RATIOS LOB,CH,ROB=    .1022    .7016    .1962  WSEL=    696.42
3280 CROSS SECTION     11.80 EXTENDED      1.92 FEET


3470 ENCROACHMENT STATIONS=     300.7     406.5  TYPE=     4  TARGET=      .058
     11.80      6.83   696.43     0.00   696.32   696.45      .03       .00       .00   694.40
       270.       21.      201.       48.       47.      137.       81.       12.        5.   694.40
        .35       .45      1.47       .59       .100     .055      .075      .049   689.60   300.74
   .000456        1.        1.        1.         0         0         0      0.00   105.72   406.45


 *SECNO 11.900
 2800 NAT Q1=     99.98  WSEL=    696.34  ENC Q1=     99.98  WSEL=    696.44  RATIO=    0.0000
 NAT Q1=    107.  RATIOS LOB,CH,ROB=    .0899    .7556    .1545  WSEL=    696.44
3280 CROSS SECTION     11.90 EXTENDED      1.55 FEET


3470 ENCROACHMENT STATIONS=     301.8     399.5  TYPE=     4  TARGET=      .062
     11.90      6.45   696.45     0.00   696.34   696.49      .04       .03       .01   694.80
       270.       17.      217.       36.       35.      125.       56.       12.        3.   694.80
        .36       .49      1.73       .64       .100     .055      .075      .049   690.00   301.76
   .000717       50.       50.       50.         0         0         0      0.00    97.70   399.46
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 *SECNO 12.050
  2800 NAT Q1=      79.11  WSEL=     696.37  ENC Q1=      79.11  WSEL=     696.47  RATIO=     .0000
   NAT Q1=      34.  RATIOS LOB,CH,ROB=    .1711    .8069    .0220  WSEL=     696.47
  3280 CROSS SECTION      12.05 EXTENDED       1.19 FEET


  3470 ENCROACHMENT STATIONS=      265.3      337.0  TYPE=      4  TARGET=        .051
       12.05      6.08    696.48      0.00   696.37   696.55      .07      .05      .01   695.10
       270.       39.     231.        0.     63.      104.        0.       13.       5.   695.70
        .37       .62     2.22       0.00    .100     .055      .075     .049   690.40   265.32
    .001188       50.     50.        50.      1        0         0       0.00   71.68   337.00


 *SECNO 12.060
  2800 NAT Q1=      72.14  WSEL=     696.43  ENC Q1=      72.14  WSEL=     696.53  RATIO=     .0000
   NAT Q1=      77.  RATIOS LOB,CH,ROB=    .1545    .8318    .0137  WSEL=     696.53
  3280 CROSS SECTION      12.06 EXTENDED       1.04 FEET


  3470 ENCROACHMENT STATIONS=      270.5      337.0  TYPE=      4  TARGET=        .064
       12.06      5.94    696.54      0.00   696.43   696.61      .08      .06      .01   695.30
       270.       31.     239.        0.     50.      100.        0.       13.       6.   695.90
        .37       .62     2.38       0.00    .100     .055      .075     .049   690.60   270.49
    .001430       48.     48.        48.      0        0         0       0.00   66.51   337.00


 *SECNO 12.070
  2800 NAT Q1=      19.42  WSEL=     695.36  ENC Q1=      19.42  WSEL=     696.46  RATIO=     .0000
   NAT Q1=      22.  RATIOS LOB,CH,ROB=    .5845    .3887    .0268  WSEL=     696.46
  3280 CROSS SECTION      12.07 EXTENDED        .85 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      XNI        XNCH      XNR       WTN      ELMIN      SSTA
      SLOPE    XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST


  3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80


  3470 ENCROACHMENT STATIONS=      262.5      327.0  TYPE=      4  TARGET=        .110
       12.07      5.55    696.35      0.00   696.36   696.81      .46      .00      .19   692.80
       270.      155.     115.        0.     62.      15.         0.       13.       6.   692.80
        .37       2.52    7.76       0.00    .100     .030      .075     .049   690.80   262.54
    .028334       1.      1.         1.       3        0         0      -9.51   64.46   327.00


 *SECNO 12.080
  2800 NAT Q1=      37.54  WSEL=     696.94  ENC Q1=      37.54  WSEL=     697.04  RATIO=     .0000
   NAT Q1=      41.  RATIOS LOB,CH,ROB=    .6162    .2602    .1236  WSEL=     697.04
  3280 CROSS SECTION      12.08 EXTENDED       1.49 FEET


  3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80
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 3470 ENCROACHMENT STATIONS=     255.8     350.7  TYPE=     4  TARGET=        .038
      12.08      6.19   696.99      0.00   696.94   697.11      .11       .20       .10   692.80
        270.       167.      78.       25.      111.      17.      20.       13.        6.   692.80
         .38       1.51     4.47      1.27     .100     .030     .075      .049   690.80   255.79
     .005449       19.      19.       19.        3        0        0    -29.44    94.93   350.72


  *SECNO 12.100
   2800 NAT Q1=     103.76  WSEL=    697.02  ENC Q1=     103.76  WSEL=    697.12  RATIO=    .0000
    NAT Q1=     110.  RATIOS LOB,CH,ROB=    .2129    .7342    .0529  WSEL=    697.12
   3280 CROSS SECTION     12.10 EXTENDED      1.59 FEET


 3470 ENCROACHMENT STATIONS=     259.2     349.4  TYPE=     4  TARGET=        .056
      12.10      6.49   697.09      0.00   697.02   697.13      .04       .00       .02   695.30
        270.       52.      211.       7.       93.      114.      13.       13.        6.   695.90
         .38       .56      1.85      .52     .100     .055     .075      .049   690.50   259.17
     .000698        1.       1.        1.        2        0        0      0.00    90.19   349.37


  *SECNO 13.050
   2800 NAT Q1=      59.28  WSEL=    697.04  ENC Q1=      59.28  WSEL=    697.14  RATIO=    .0000
    NAT Q1=      65.  RATIOS LOB,CH,ROB=    .1829    .4536    .3635  WSEL=    697.14
   3280 CROSS SECTION     13.05 EXTENDED      1.22 FEET


 3470 ENCROACHMENT STATIONS=     269.3     384.7  TYPE=     4  TARGET=        .088
      13.05      5.81   697.11      0.00   697.04   697.18      .07       .03       .01   695.40
        270.       41.      136.      93.       43.      48.      92.       13.        5.   695.40
         .38       .95      2.82     1.02     .100     .055     .075      .049   691.30   269.27
     .002159       30.      30.       30.        1        0        0      0.00   115.45   384.72


  *SECNO 13.060
   2800 NAT Q1=      46.31  WSEL=    697.10  ENC Q1=      46.31  WSEL=    697.20  RATIO=    .0000
    NAT Q1=      52.  RATIOS LOB,CH,ROB=    .1759    .5239    .3002  WSEL=    697.20
   3280 CROSS SECTION     13.06 EXTENDED      .97 FEET


 3470 ENCROACHMENT STATIONS=     271.9     373.1  TYPE=     4  TARGET=        .103
      13.06      5.57   697.17      0.00   697.10   697.29      .12       .08       .02   695.70
        270.       37.      159.      74.       33.      46.      64.       13.        6.   695.70
         .38       1.12     3.48      1.15     .100     .055     .075      .049   691.60   271.90
     .003527       30.      30.       30.        1        0        0      0.00   101.16   373.06


  *SECNO 13.070
   2800 NAT Q1=      30.59  WSEL=    697.08  ENC Q1=      30.59  WSEL=    697.18  RATIO=    .0000
    NAT Q1=      35.  RATIOS LOB,CH,ROB=    .2739    .2923    .4338  WSEL=    697.18
   3280 CROSS SECTION     13.07 EXTENDED      .93 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      XNI       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.70 MAX ELLC=  695.60


 3470 ENCROACHMENT STATIONS=     270.1     374.7  TYPE=     4  TARGET=        .126
      13.07     5.53   697.13     0.00   697.08   697.33     .19      .01      .04   693.60
        270.      65.      93.      112.      39.      17.      65.      13.       6.   693.60
         .38     1.66     5.51     1.73     .100     .030     .075     .049   691.50   270.10
    .008611       1.       1.       1.        2        0        0    -7.05   104.63   374.73


 *SECNO 13.080
  2800 NAT Q1=      39.94  WSEL=    697.28  ENC Q1=      39.94  WSEL=    697.38  RATIO=  0.0000
  NAT Q1=      45.  RATIOS LOB,CH,ROB=   .2684   .2462   .4853  WSEL=    697.38
 3280 CROSS SECTION     13.08 EXTENDED      1.18 FEET


 3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.70 MAX ELLC=  695.60


 3470 ENCROACHMENT STATIONS=     268.5     384.4  TYPE=     4  TARGET=        .109
      13.08     5.78   697.38     0.00   697.28   697.47     .10      .12      .03   693.60
        270.      64.      75.      131.      48.      18.      91.      13.       6.   693.60
         .39     1.34     4.17     1.44     .100     .030     .075     .049   691.60   268.50
    .004566       19.      19.      19.        2        0        0    -7.42   115.87   384.37


 *SECNO 13.100
  2800 NAT Q1=      57.56  WSEL=    697.31  ENC Q1=      57.56  WSEL=    697.41  RATIO=  0.0000
  NAT Q1=      53.  RATIOS LOB,CH,ROB=   .1822   .4616   .3562  WSEL=    697.41
 3280 CROSS SECTION     13.10 EXTENDED      1.21 FEET


 3470 ENCROACHMENT STATIONS=     269.5     383.5  TYPE=     4  TARGET=        .089
      13.10     5.81   697.41     0.00   697.31   697.48     .07      .00      .01   695.70
        270.      40.      137.      93.      42.      48.      90.      13.       6.   695.70
         .39      .95     2.84     1.03     .100     .055     .075     .049   691.60   269.48
    .002198       1.       1.       1.        2        0        0     0.00   114.03   383.51


 *SECNO 13.600
  2800 NAT Q1=     116.07  WSEL=    697.46  ENC Q1=     116.07  WSEL=    697.56  RATIO=   .0000
  NAT Q1=     123.  RATIOS LOB,CH,ROB=   .0389   .4605   .5006  WSEL=    697.56
 3280 CROSS SECTION     13.60 EXTENDED      1.77 FEET


 3470 ENCROACHMENT STATIONS=     310.7     408.7  TYPE=     4  TARGET=        .057
      13.60     5.47   697.57     0.00   697.46   697.59     .02      .10      .01   695.50
        270.       3.      132.      136.       7.      81.      172.      14.       5.   694.60
         .41      .40     1.62      .79     .100     .055     .075     .049   692.10   310.71
    .000537      100.      100.      100.        2        0        0     0.00    98.03   408.74


 *SECNO 13.700
  2800 NAT Q1=      88.50  WSEL=    697.52  ENC Q1=      88.50  WSEL=    697.62  RATIO=  .0000
  NAT Q1=      95.  RATIOS LOB,CH,ROB=   .0446   .5045   .4508  WSEL=    697.62
 3280 CROSS SECTION     13.70 EXTENDED      1.34 FEET
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3470 ENCROACHMENT STATIONS=      311.0      403.8  TYPE=     4  TARGET=          .067
      13.70      5.03    697.63       0.00    697.52    697.67       .04        .07         .01     696.00
        270.         3.       146.       121.         5.        73.       133.         14.          6.     695.10
         .43        .62       1.98        .91       .075       .055       .075        .049     692.60     310.98
    .000919       100.       100.       100.          0          0          0        0.00      92.85     403.82


 *SECNO 13.800
  2800 NAT Q1=      65.92  WSEL=     697.63  ENC Q1=      65.92  WSEL=     697.73  RATIO=     .0000
  NAT Q1=      71.  RATIOS LOB,CH,ROB=    .0362    .5665    .3973  WSEL=     697.73
 3280 CROSS SECTION      13.80 EXTENDED        .95 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=      314.0      395.2  TYPE=     4  TARGET=          .077
      13.80      4.64    697.74       0.00    697.63    697.80       .06        .12         .01     696.50
        270.         0.       162.       108.         0.        66.        97.         15.          6.     695.60
         .44       0.00       2.44       1.11       .075       .055       .075        .049     693.10     314.00
    .001739       100.       100.       100.          0          0          0        0.00      81.15     395.15


 *SECNO 14.000
  2800 NAT Q1=      45.59  WSEL=     697.91  ENC Q1=      45.59  WSEL=     698.01  RATIO=     0.0000
  NAT Q1=      50.  RATIOS LOB,CH,ROB=    .0234    .6607    .3160  WSEL=     698.01
 3280 CROSS SECTION      14.00 EXTENDED        .53 FEET


3470 ENCROACHMENT STATIONS=      314.0      376.2  TYPE=     4  TARGET=          .088
      14.00      4.23    698.03       0.00    697.91    698.16       .13        .32         .03     697.20
        270.         0.       193.        77.         0.        59.        56.         15.          7.     696.30
         .46       0.00       3.28       1.38       .075       .055       .075        .050     593.80     314.00
    .003589       132.       132.       132.          2          0          0        0.00      62.18     376.18


 *SECNO 14.100
  2800 NAT Q1=      38.08  WSEL=     698.72  ENC Q1=      38.08  WSEL=     698.82  RATIO=     .0000
  NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0160    .7136    .2704  WSEL=     698.82
 3280 CROSS SECTION      14.10 EXTENDED        .35 FEET


3470 ENCROACHMENT STATIONS=      314.0      366.7  TYPE=     4  TARGET=          .090
      14.10      4.05    698.85       0.00    698.72    699.03       .18        .85         .03     698.20
        270.         0.       210.        60.         0.        56.        39.         15.          7.     697.30
         .47       0.00       3.77       1.53       .075       .055       .075        .050     694.80     314.00
    .005048       200.       200.       200.          2          0          0        0.00      52.70     366.70


 *SECNO 14.200
  2800 NAT Q1=      38.18  WSEL=     699.73  ENC Q1=      38.18  WSEL=     699.83  RATIO=     .0000
  NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0162    .7125    .2713  WSEL=     699.83
 3280 CROSS SECTION      14.20 EXTENDED        .35 FEET
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 3470 ENCROACHMENT STATIONS=      314.0      366.6  TYPE=      4  TARGET=         .091
      14.20      4.05    699.85      0.00    699.73    700.03       .18      1.01       .00    699.20
        270.        0.       210.       60.        0.       56.       40.       16.        7.    698.30
         .49       0.00      3.76      1.53      .075      .055      .075      .050    695.80    314.00
     .005009       200.      200.      200.         2         0         0      0.00     52.61    366.61

 *SECNO 14.300
  2800 NAT Q1=      38.31  WSEL=     700.73  ENC Q1=      38.31  WSEL=     700.83  RATIO=     .0000
  NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0161    .7130    .2709  WSEL=     700.83
 3280 CROSS SECTION      14.30 EXTENDED         .35 FEET


 3470 ENCROACHMENT STATIONS=      314.0      367.7  TYPE=      4  TARGET=         .087
      14.30      4.06    700.86      0.00    700.73    701.03       .18      1.00       .00    700.20
        270.        0.       209.       61.        0.       56.       41.       16.        7.    699.30
         .51       0.00      3.74      1.51      .075      .055      .075      .050    696.80    314.00
     .004963       200.      200.      200.         2         0         0      0.00     53.71    367.71

 *SECNO 14.400
  2800 NAT Q1=      38.08  WSEL=     701.32  ENC Q1=      38.08  WSEL=     701.42  RATIO=     .0000
  NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0160    .7133    .2706  WSEL=     701.42
 3280 CROSS SECTION      14.40 EXTENDED         .35 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

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 3470 ENCROACHMENT STATIONS=      314.0      366.5  TYPE=      4  TARGET=         .091
      14.40      4.05    701.45      0.00    701.32    701.63       .18       .60       .00    700.80
        270.        0.       210.       60.        0.       56.       39.       17.        8.    699.90
         .52       0.00      3.76      1.53      .075      .055      .075      .050    697.40    314.00
     .005021       120.      120.      120.         2         0         0      0.00     52.52    366.52
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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

TAFT DRAIN

SUMMARY PRINTOUT

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	675.250	93.14	676.35	101.98	0.00	0.00	676.26
	676.260	87.33	676.37	57.72	94.28	152.00	676.26
	676.689	74.04	676.83	84.32	0.00	0.00	0.00
	676.733	71.99	676.90	52.28	98.31	152.00	676.69
	677.344	64.52	677.53	75.78	0.00	0.00	0.00
	677.424	63.76	677.63	47.56	101.17	152.00	677.34
	678.059	58.13	678.30	69.17	0.00	0.00	0.00
	678.152	57.86	678.40	42.51	104.76	152.00	678.06
	678.964	48.89	679.30	58.28	0.00	0.00	0.00
	679.056	48.64	679.42	24.46	637.85	664.00	678.96
	681.542	57.47	681.80	67.46	0.00	0.00	0.00
	681.643	57.68	681.92	33.14	629.49	664.00	681.54
	683.657	57.95	683.91	67.93	0.00	0.00	0.00
	683.755	57.92	684.03	33.49	629.15	664.00	683.66
	685.736	55.00	685.90	101.74	0.00	0.00	0.00
	685.822	55.94	685.99	48.00	635.00	683.00	685.74
	688.107	53.85	688.28	98.16	0.00	0.00	0.00
	688.158	53.64	688.33	48.00	635.00	683.00	688.11
	689.555	50.98	689.85	83.10	0.00	0.00	0.00
	689.641	49.57	689.96	24.00	350.00	374.00	689.55
	691.173	47.47	691.50	63.41	0.00	0.00	0.00
	691.309	47.79	691.65	24.00	350.00	374.00	691.17
	691.521	38.61	691.97	42.38	0.00	0.00	0.00
	691.645	40.61	692.07	23.72	350.00	374.00	691.52
	692.543	26.09	692.74	160.00	0.00	0.00	0.00
	692.487	20.31	692.84	109.98	260.67	370.66	692.54

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	692.623	29.99	692.77	150.00	0.00	0.00	0.00
	692.797	33.24	692.94	114.58	258.51	373.08	692.62
	692.639	74.59	692.78	158.22	0.00	0.00	0.00
	692.804	76.56	692.95	82.04	291.96	374.00	692.64
	692.675	76.84	692.81	159.27	0.00	0.00	0.00
	692.838	78.43	692.97	86.13	287.87	374.00	692.68
	692.693	55.89	692.96	113.30	0.00	0.00	0.00
	692.853	56.04	693.13	29.21	397.79	427.00	692.69
*	693.101	24.30	693.51	114.58	0.00	0.00	0.00
*	693.185	23.73	693.66	81.41	333.60	415.00	693.10
	693.695	52.57	693.79	118.00	0.00	0.00	0.00
	693.859	55.87	693.96	96.47	326.92	423.39	693.69
	693.726	107.55	693.80	118.00	0.00	0.00	0.00
	693.893	107.95	693.97	93.21	333.79	427.00	693.73
	693.789	105.19	693.86	120.00	0.00	0.00	0.00
	693.951	109.15	694.03	97.04	99.48	196.52	693.79
	693.907	92.29	694.00	120.00	0.00	0.00	0.00
	694.060	95.64	694.16	91.69	101.85	193.55	693.91
	694.185	78.42	694.31	120.00	0.00	0.00	0.00
	694.320	80.18	694.45	85.30	104.90	190.20	694.18
	694.174	64.74	694.35	120.00	0.00	0.00	0.00
	694.309	65.96	694.49	85.40	101.60	188.00	694.17
	694.217	66.39	694.38	120.00	0.00	0.00	0.00
	694.342	66.51	694.52	83.57	104.42	188.00	694.22
	694.350	92.80	694.42	160.00	0.00	0.00	0.00
	694.487	95.43	694.56	125.36	64.58	190.94	694.35
	694.434	76.07	694.55	130.00	0.00	0.00	0.00
	694.566	77.91	694.68	94.45	96.62	191.07	694.43
	694.602	68.22	694.74	130.00	0.00	0.00	0.00
	694.724	69.67	694.87	88.29	100.30	188.59	694.60
	695.177	51.58	695.34	206.00	0.00	0.00	0.00
	695.284	51.49	695.46	151.45	19.12	170.57	695.18
	694.895	36.16	695.64	205.27	0.00	0.00	0.00
	695.011	36.30	695.75	139.70	17.25	156.95	694.89
	695.499	46.78	695.85	206.00	0.00	0.00	0.00
	695.780	47.04	695.99	183.59	6.41	190.00	695.50
	695.905	99.05	695.94	206.00	0.00	0.00	0.00
	696.006	99.32	696.05	175.37	14.41	190.78	695.90

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	695.959	120.76	696.00	173.00	0.00	0.00	0.00
	696.060	121.04	696.11	136.60	275.02	411.62	695.96
	695.015	95.52	696.08	174.60	0.00	0.00	0.00
	695.114	95.79	696.19	123.23	276.09	399.32	696.01
	695.964	57.80	696.14	172.19	0.00	0.00	0.00
	696.059	57.60	696.25	125.77	274.55	400.31	695.96
	696.049	62.39	696.20	175.84	0.00	0.00	0.00
	696.149	62.41	696.31	129.49	274.27	403.76	696.05
	696.171	106.21	696.23	178.00	0.00	0.00	0.00
	696.279	106.79	696.34	128.92	275.93	404.85	696.17
	696.271	123.03	696.32	131.00	0.00	0.00	0.00
	696.379	123.06	696.43	105.38	300.67	406.05	696.27
	696.303	125.64	696.33	131.00	0.00	0.00	0.00
	696.414	126.31	696.44	104.07	302.55	406.62	696.30
	696.312	119.28	696.34	131.00	0.00	0.00	0.00
	696.422	119.95	696.45	102.96	302.58	405.55	696.31
	696.315	126.06	696.34	131.00	0.00	0.00	0.00
	696.425	126.48	696.45	105.72	300.74	406.45	696.32
	696.338	99.98	696.37	131.00	0.00	0.00	0.00
	696.447	100.86	696.49	97.70	301.76	399.46	696.34
	696.370	79.11	696.43	118.84	0.00	0.00	0.00
	696.479	78.33	696.55	71.68	265.32	337.00	696.37
	696.426	72.14	696.50	114.59	0.00	0.00	0.00
	696.535	71.41	696.61	66.51	270.49	337.00	696.43
*	696.363	19.42	696.77	111.98	0.00	0.00	0.00
	696.351	16.04	696.81	54.46	262.54	327.00	696.36
	696.936	37.54	697.04	129.74	0.00	0.00	0.00
	696.995	36.58	697.11	94.93	255.79	350.73	696.94
	697.018	103.76	697.06	131.87	0.00	0.00	0.00
	697.089	102.19	697.13	90.19	259.17	349.37	697.02
	697.040	59.28	697.10	156.00	0.00	0.00	0.00
	697.109	58.11	697.18	115.45	269.27	384.72	697.04
	697.096	46.31	697.20	156.00	0.00	0.00	0.00
	697.166	45.46	697.29	101.16	271.90	373.06	697.10
	697.075	30.59	697.23	156.00	0.00	0.00	0.00
	697.135	29.10	697.33	104.63	270.10	374.73	697.08
	697.277	39.94	697.36	156.00	0.00	0.00	0.00
	697.375	39.96	697.47	115.87	268.50	384.37	697.28

CWSEL	.01K	EG	TOPWID	STENCL	STENCE	WSELK
697.308	57.56	697.37	156.00	0.00	0.00	0.00
697.412	57.59	697.48	114.03	269.48	383.51	697.31
697.461	116.07	697.48	116.00	0.00	0.00	0.00
697.568	116.52	697.59	98.03	310.71	408.74	697.46
697.524	88.50	697.56	116.00	0.00	0.00	0.00
697.630	89.08	697.67	92.85	310.98	403.83	697.52
697.634	65.92	697.69	116.00	0.00	0.00	0.00
697.741	64.74	697.80	81.15	314.00	395.15	697.63
697.914	45.59	698.03	116.00	0.00	0.00	0.00
698.028	45.07	698.16	62.18	314.00	376.18	697.91
698.723	38.08	698.89	107.42	0.00	0.00	0.00
698.843	38.00	699.03	52.70	314.00	366.70	698.72
699.727	38.18	699.89	107.54	0.00	0.00	0.00
699.855	38.15	700.03	52.61	314.00	366.61	699.73
700.725	38.31	700.89	107.71	0.00	0.00	0.00
700.855	38.33	701.03	53.71	314.00	367.72	700.73
701.324	38.08	701.49	107.41	0.00	0.00	0.00
701.453	38.10	701.63	52.52	314.00	366.52	701.32

SUMMARY OF ERRORS

CAUTION SECNO= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Taft Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood
Sensitivity Run
Reviewed As Natural Run

00BREAK00

FLOW DISTRIBUTION FOR SECNO= 112.10 CWSEL= 690.38

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.0	18.9	16.1	.2	
AREA=	14.2	41.3	23.0	33.5	1.3	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10
285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.15

STA=	190.	206.	220.	235.	284.	292.
PER Q=	7.6	58.0	18.9	15.4	.2	
AREA=	13.6	40.8	22.5	32.0	1.0	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 693.91

STA=	190.	206.	220.	235.	284.	294.
PER Q=	7.9	56.4	18.9	16.5	.3	
AREA=	14.5	41.6	23.3	34.6	1.5	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.26

STA=	247.	252.	278.	304.	338.	350.
PER Q=	.1	69.8	20.5	9.1	.4	
AREA=	.6	58.2	30.0	20.5	2.1	
VEL=	.4	3.4	2.0	1.3	.6	

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

FLOW DISTRIBUTION FOR SECNO= 112.41 CWSEL= 694.64

STA=	247.	252.	278.	304.	338.	349.
PER Q=	.1	70.2	20.4	8.9	.4	
AREA=	.6	57.8	29.6	20.0	1.9	
VEL=	.4	3.5	2.0	1.3	.6	

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

FLOW DISTRIBUTION FOR SECNO= 112.42 CWSEL= 694.68

STA=	246.	252.	278.	304.	338.	351.
PER Q=	.2	57.7	28.5	13.0	.6	
AREA=	.8	51.6	30.6	21.3	2.4	
VEL=	.6	3.2	2.7	1.7	.8	

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

FLOW DISTRIBUTION FOR SECNO= 112.43 CWSEL= 694.79

STA=	244.	252.	278.	304.	338.	354.
PER Q=	.4	54.9	28.8	14.9	1.1	
AREA=	1.5	54.5	33.5	25.2	4.0	
VEL=	.7	2.9	2.4	1.7	.8	

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

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     .30      .52      3.04      1.50      .070      .060      .070      .056    690.40    243.98
 .005089       1.        1.        1.         0         0         0      0.00    110.71    354.69

FLOW DISTRIBUTION FOR SECNO=     112.44          CWSEL=     694.79

STA=      244.      252.      278.      304.      338.      355.
  PER Q=       .3      66.2      21.4      11.2       .9
   AREA=      1.6      62.0      33.8      25.5      4.2
    VEL=       .5       3.0       1.8       1.3       .6

*SECNO 112.500
   112.50     4.28    694.98      0.00      0.00    695.11       .13       .20       .01    694.70
     285.       0.      197.       87.        1.       59.       54.        8.        8.    693.50
      .31      .46      3.36      1.61      .070      .060      .070      .056    690.70    246.50
 .006668      35.       35.       35.         2         0         0      0.00    104.01    350.51

FLOW DISTRIBUTION FOR SECNO=     112.50          CWSEL=     694.98

STA=      246.      252.      278.      304.      338.      351.
  PER Q=       .1      69.3      20.7       9.5       .5
   AREA=       .8      58.8      30.6      21.3      2.3
    VEL=       .5       3.4       1.9       1.3       .6

*SECNO 113.200
   113.20     4.28    697.28      0.00      0.00    697.41       .13      2.30       .00    697.00
     285.       0.      197.       87.        1.       59.       54.        9.        8.    695.80
      .34      .46      3.36      1.61      .070      .060      .070      .057    693.00    246.52
 .006686     345.      345.      345.         3         0         0      0.00    103.95    350.47

FLOW DISTRIBUTION FOR SECNO=     113.20          CWSEL=     697.28

STA=      247.      252.      278.      304.      338.      350.
  PER Q=       .1      69.3      20.7       9.4       .5
   AREA=       .8      58.7      30.5      21.2      2.3
    VEL=       .5       3.4       1.9       1.3       .6

CCHV=     .400 CEHV=     .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

        ***D/S M-53

   113.28     5.14    698.44      0.00      0.00    699.09       .65      1.26       .41    698.80
     285.       0.      285.        0.        0.       44.        0.        9.        9.    698.80
      .35     0.00      6.48      0.00      .065      .055      .065      .057    693.30      7.51
 .017682     123.      123.      123.         2         0         0      0.00      9.98     17.49

FLOW DISTRIBUTION FOR SECNO=     113.28          CWSEL=     698.44

STA=        8.       18.
  PER Q=     100.0
   AREA=      44.0
    VEL=       6.5

CCHV=     .500 CEHV=    1.000
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*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.29 CWSEL= 698.81

STA= 0. 10.
PER Q= 100.0
AREA= 55.6
VEL= 5.1

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.30 CWSEL= 698.88

STA= 0. 10.
PER Q= 100.0
AREA= 55.2
VEL= 5.2

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.31 CWSEL= 698.96

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.33 CWSEL= 699.35

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.42 CWSEL= 699.36

STA= 0. 10.
PER Q= 100.0
AREA= 55.1
VEL= 5.2

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

FLOW DISTRIBUTION FOR SECNO= 113.80 CWSEL= 700.70

STA= 140. 160. 186.
PER Q= 90.9 9.1
AREA= 58.4 16.8
VEL= 4.4 1.5

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

FLOW DISTRIBUTION FOR SECNO= 113.81 CWSEL= 701.12

STA= 140. 160. 186.
PER Q= 92.3 7.7
AREA= 56.8 14.7

VEL= 4.6 1.5

*SECNO 113.820
3280 CROSS SECTION 113.82 EXTENDED .47 FEET

113.82	6.16	702.06	0.00	0.00	702.39	.33	.96	.01	702.20
285.	0.	266.	19.	0.	56.	13.	10.	9.	701.50
.37	0.00	4.76	1.45	.065	.055	.065	.055	695.90	140.40
.009973	100.	100.	100.	2	0	0	0.00	45.60	186.00

FLOW DISTRIBUTION FOR SECNO= 113.82 CWSEL= 702.06

STA=	140.	160.	186.
PER Q=	93.2	6.8	
AREA=	55.8	13.4	
VEL=	4.8	1.4	

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .46 FEET

113.83	6.16	703.56	0.00	0.00	703.89	.33	1.50	.00	703.70
285.	0.	266.	19.	0.	56.	13.	10.	9.	703.00
.38	0.00	4.76	1.45	.065	.055	.065	.055	697.40	140.41
.010006	150.	150.	150.	2	0	0	0.00	45.59	186.00

FLOW DISTRIBUTION FOR SECNO= 113.83 CWSEL= 703.56

STA=	140.	160.	186.
PER Q=	93.2	6.8	
AREA=	55.8	13.3	
VEL=	4.8	1.4	

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .46 FEET

113.90	6.17	705.57	0.00	0.00	705.90	.33	2.00	.00	705.70
285.	0.	266.	19.	0.	56.	13.	11.	9.	705.00
.40	0.00	4.77	1.45	.065	.055	.065	.055	699.40	140.41
.010038	200.	200.	200.	0	0	0	0.00	45.59	186.00

FLOW DISTRIBUTION FOR SECNO= 113.90 CWSEL= 705.57

STA=	140.	160.	186.
PER Q=	93.3	6.7	
AREA=	55.7	13.3	
VEL=	4.8	1.4	

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

FLOW DISTRIBUTION FOR SECNO= 113.91 CWSEL= 707.56

STA=	140.	160.	186.
PER Q=	93.1	6.9	
AREA=	55.9	13.5	
VEL=	4.7	1.5	

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.92 CWSEL= 708.05

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	9.6	10.6	8.1	5.0	5.3	8.1	8.1	5.3	5.0	17.2	8.1	9.6	
AREA=	17.2	13.0	8.5	4.9	5.7	6.3	6.3	5.7	4.9	20.7	14.4	22.6	
VEL=	1.6	2.3	2.7	2.9	2.7	3.7	3.7	2.7	2.9	2.4	1.6	1.2	

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.93 CWSEL= 708.53

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	6.7	10.7	9.7	6.4	7.2	11.3	11.3	7.2	6.4	18.1	3.8	1.2	
AREA=	9.1	8.9	6.5	3.9	4.7	5.2	5.2	4.7	3.9	14.6	6.3	4.3	
VEL=	2.1	3.4	4.3	4.7	4.4	6.2	6.2	4.4	4.7	3.5	1.7	.8	

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

FLOW DISTRIBUTION FOR SECNO= 114.00 CWSEL= 709.81

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	223.
PER Q=	5.6	10.4	10.0	6.7	7.7	12.2	12.2	7.7	6.7	17.9	2.7	
AREA=	7.3	8.1	6.0	3.7	4.5	5.0	5.0	4.5	3.7	13.3	5.2	
VEL=	2.2	3.7	4.7	5.2	4.9	7.0	7.0	4.9	5.2	3.8	1.5	

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

FLOW DISTRIBUTION FOR SECNO= 114.01 CWSEL= 710.37

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.6	10.1	10.1	6.9	8.1	12.9	12.9	8.1	6.9	17.6	1.8	
AREA=	6.1	7.5	5.7	3.5	4.3	4.9	4.9	4.3	3.5	12.4	3.3	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

FLOW DISTRIBUTION FOR SECNO= 114.02 CWSEL= 711.68

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.7	10.1	10.1	6.9	8.1	12.8	12.8	8.1	6.9	17.6	1.8	
AREA=	6.2	7.5	5.8	3.5	4.3	4.9	4.9	4.3	3.5	12.5	3.4	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

FLOW DISTRIBUTION FOR SECNO= 114.03 CWSEL= 714.34

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	211.
PER Q=	4.4	10.0	10.2	7.0	8.2	13.0	13.0	8.2	7.0	17.5	1.6	
AREA=	5.9	7.3	5.7	3.5	4.3	4.8	4.8	4.3	3.5	12.2	3.1	
VEL=	2.1	3.9	5.1	5.7	5.4	7.7	7.7	5.4	5.7	4.1	1.5	

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*SECNO 114.050
3280 CROSS SECTION    114.05 EXTENDED       .25 FEET

      114.05      4.85     717.05       0.00       0.00     717.40       .35       2.71        .00     716.80
       285.         0.         0.       285.         0.         0.       60.        12.        10.     716.80
        .47       0.00       0.00       4.75       .065       .055       .065       .055     712.20     178.00
    .013386       200.       200.       200.          2          0          0       0.00      33.59     211.59

 FLOW DISTRIBUTION FOR SECNO=    114.05          CWSEL=    717.05

 STA=     178.     186.     190.     192.     193.     194.     195.     196.     197.     198.     204.     212.
  PER Q=    4.5     10.1     10.1      7.0      8.1     12.9     12.9      8.1      7.0     17.6      1.7
    AREA=   6.0      7.4      5.7      3.5      4.3      4.9      4.9      4.3      3.5     12.3      3.2
     VEL=   2.1      3.9      5.1      5.7      5.4      7.6      7.6      5.4      5.7      4.1      1.5

*SECNO 114.070
3280 CROSS SECTION    114.07 EXTENDED       .24 FEET

      114.07      4.85     719.75       0.00       0.00     720.10       .36       2.70        .00     719.50
       285.         0.         0.       285.         0.         0.       60.        13.        10.     719.50
        .48       0.00       0.00       4.78       .065       .055       .065       .055     714.90     178.00
    .013623       200.       200.       200.          1          0          0       0.00      33.47     211.47

 FLOW DISTRIBUTION FOR SECNO=    114.07          CWSEL=    719.75

 STA=     178.     186.     190.     192.     193.     194.     195.     196.     197.     198.     204.     211.
  PER Q=    4.4     10.1     10.2      7.0      8.1     13.0     13.0      8.1      7.0     17.5      1.6
    AREA=   5.9      7.4      5.7      3.5      4.3      4.8      4.8      4.3      3.5     12.2      3.1
     VEL=   2.1      3.9      5.1      5.7      5.4      7.6      7.6      5.4      5.7      4.1      1.5

*SECNO 114.090
3280 CROSS SECTION    114.09 EXTENDED       .29 FEET

      114.09      4.89     721.09       0.00       0.00     721.42       .34       1.32        .00     720.80
       285.         0.         0.       285.         0.         0.       61.        13.        11.     720.80
        .48       0.00       0.00       4.65       .065       .055       .065       .055     716.20     178.00
    .012726       100.       100.       100.          1          0          0       0.00      33.93     211.93

 FLOW DISTRIBUTION FOR SECNO=    114.09          CWSEL=    721.09

 STA=     178.     186.     190.     192.     193.     194.     195.     196.     197.     198.     204.     212.
  PER Q=    4.8     10.2     10.1      6.9      8.0     12.8     12.8      8.0      6.9     17.7      1.9
    AREA=   6.3      7.6      5.8      3.5      4.3      4.9      4.9      4.3      3.5     12.6      3.5
     VEL=   2.1      3.8      5.0      5.6      5.3      7.4      7.4      5.3      5.6      4.0      1.5

*SECNO 115.200
3280 CROSS SECTION    115.20 EXTENDED       2.00 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
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      115.20     4.70   721.60     0.00     0.00   721.67      .07      .23      .03   719.60
        285.       80.      172.      33.      48.      69.      23.      13.      11.   719.70
         .49     1.66     2.51     1.47     .065     .055     .065     .055   716.90   146.00
     .002285      50.      50.      50.        2        0        0     0.00    61.00   207.00

 FLOW DISTRIBUTION FOR SECNO=    115.20          CWSEL=    721.60

 STA=     146.     152.     170.     194.     207.
   PER Q=     6.0     21.9     60.4     11.7
    AREA=    12.0     36.0     68.6     22.7
     VEL=     1.4      1.7      2.5      1.5

 CCHV=    .400 CEHV=    .800
 *SECNO 115.280

       ***D/S VAN DYKE RD

      115.28     5.13   721.93     0.00     0.00   722.16      .23      .36      .12   723.00
        285.       0.      285.      0.       0.       74.      0.       13.      11.   723.00
         .50     0.00     3.84     0.00     .065     .055     .065     .055   716.80     9.60
     .004416      116.     116.     116.        2        0        0     0.00    15.75    25.35

 FLOW DISTRIBUTION FOR SECNO=    115.28          CWSEL=    721.93

 STA=      10.      26.
   PER Q=    100.0
    AREA=     74.2
     VEL=      3.8

 CCHV=    .500 CEHV=   1.000
 *SECNO 115.320

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   725.90 MAX ELLC=   723.00

      115.32     5.13   721.93     0.00     0.00   722.16      .23      .00      .00   723.00
        285.       0.      285.      0.       0.       74.      0.       13.      11.   723.00
         .50     0.00     3.84     0.00     .065     .030     .065     .055   716.80     9.60
     .001310       1.       1.       1.        0        0        0     0.00    15.75    25.35

 FLOW DISTRIBUTION FOR SECNO=    115.32          CWSEL=    721.93

 STA=      10.      26.
   PER Q=    100.0
    AREA=     74.3
     VEL=      3.8

 *SECNO 115.380

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   725.90 MAX ELLC=   723.00

      115.38     5.20   722.00     0.00     0.00   722.22      .22      .06      .00   723.00
        285.       0.      285.      0.       0.       75.      0.       13.      11.   723.00
         .50     0.00     3.78     0.00     .065     .030     .065     .055   716.80     9.59
     .001260      45.      45.      45.        2        0        0     0.00    15.77    25.36

 FLOW DISTRIBUTION FOR SECNO=    115.38          CWSEL=    722.00
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 STA=      10.      26.
   PER Q=    100.0
    AREA=     75.3
     VEL=      3.8

  *SECNO 115.420
    115.42      5.20    722.00      0.00      0.00    722.22       .22       .00       .00    723.00
     285.        0.      285.        0.        0.      75.        0.        13.       11.     723.00
      .50       0.00      3.78      0.00      .065      .055      .065      .055    716.80      9.59
  .004231         1.        1.        1.         0         0         0      0.00     15.77     25.36


  FLOW DISTRIBUTION FOR SECNO=    115.42          CWSEL=    722.00

  STA=      10.      26.
    PER Q=    100.0
     AREA=     75.4
      VEL=      3.8

  CCHV=     .400 CEHV=     .800
  *SECNO 115.500
  3280 CROSS SECTION    115.50 EXTENDED       .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

    115.50      4.69    722.09      0.00      0.00    722.31       .22       .09       .00    721.20
     285.        7.      228.        50.        6.      56.       26.       13.       11.     720.80
      .50       1.14      4.10      1.92      .065      .055      .065      .055    717.40    194.00
  .006594        17.       17.       17.         2         0         0      0.00     56.00    250.00


  FLOW DISTRIBUTION FOR SECNO=    115.50          CWSEL=    722.09

  STA=      194.      206.      226.      250.
    PER Q=      2.3      80.1      17.5
     AREA=      5.8      55.8      26.1
      VEL=      1.1       4.1       1.9

  *SECNO 115.510
  3280 CROSS SECTION    115.51 EXTENDED      1.13 FEET

    115.51      4.93    722.33      0.00      0.00    722.49       .16       .16       .02    721.20
     285.       11.      217.        57.        9.      61.       32.       13.       11.     720.80
      .51       1.22      3.58      1.80      .065      .055      .065      .055    717.40    194.00
  .004523        29.       29.       29.         2         0         0      0.00     56.00    250.00


  FLOW DISTRIBUTION FOR SECNO=    115.51          CWSEL=    722.33

  STA=      194.      206.      226.      250.
    PER Q=      3.7      76.2      20.1
     AREA=      8.7      60.6      31.8
      VEL=      1.2       3.6       1.8
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*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.86	722.26	0.00	0.00	722.78	.52	.01	.28	728.90
285.	0.	285.	0.	0.	49.	0.	13.	11.	729.00
.51	0.00	5.77	0.00	.065	.030	.065	.055	718.40	190.55
.009989	1.	1.	1.	2	0	0	0.00	28.52	221.00

FLOW DISTRIBUTION FOR SECNO= 115.58 CWSEL= 722.26

STA= 191. 233.
PER Q= 100.0
AREA= 49.4
VEL= 5.8

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.27	722.67	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.61	0.00	.065	.030	.065	.055	718.40	187.10
.005771	20.	20.	20.	3	0	0	0.00	32.45	222.45

FLOW DISTRIBUTION FOR SECNO= 116.02 CWSEL= 722.67

STA= 187. 233.
PER Q= 100.0
AREA= 61.8
VEL= 4.6

*SECNO 116.080

116.08	4.22	722.62	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021751	1.	1.	1.	2	0	0	0.00	18.72	213.39

FLOW DISTRIBUTION FOR SECNO= 116.08 CWSEL= 722.62

STA= 195. 218.
PER Q= 100.0
AREA= 44.8
VEL= 6.4

CCHV= .100 CEHV= .300

*SECNO 116.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008737	49.	49.	49.	2	0	0	0.00	21.51	213.78

FLOW DISTRIBUTION FOR SECNO= 116.80 CWSEL= 723.60

STA=	192.	218.
PER Q=	100.0	
AREA=	62.4	
VEL=	4.6	

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.52	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000649	50.	50.	50.	2	0	0	0.00	123.99	272.00

FLOW DISTRIBUTION FOR SECNO= 116.81 CWSEL= 724.01

STA=	148.	176.	200.	212.	224.	240.	272.
PER Q=	4.4	18.4	14.5	27.9	16.2	18.6	
AREA=	23.9	53.1	34.9	48.3	41.8	61.1	
VEL=	.5	1.0	1.2	1.6	1.1	.9	

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.98	1.46	.065	.055	.065	.055	720.10	163.74
.003036	60.	60.	60.	2	0	0	0.00	108.26	272.00

FLOW DISTRIBUTION FOR SECNO= 116.82 CWSEL= 724.05

STA=	164.	176.	200.	212.	224.	240.	272.
PER Q=	1.1	15.4	16.1	38.4	16.3	12.8	
AREA=	4.6	30.0	23.4	36.7	26.4	30.4	
VEL=	.7	1.5	2.0	3.0	1.8	1.2	

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.53	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.45
.020199	50.	50.	50.	0	19	0	0.00	84.14	261.59

FLOW DISTRIBUTION FOR SECNO= 116.83 CWSEL= 724.13

STA=	177.	200.	212.	224.	240.	262.

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 PER Q=      7.3     17.0     59.3     13.6      2.8
 AREA=      10.6     13.7     27.0     13.4      5.8
  VEL=       2.0      3.5      6.3      2.9      1.4

*SECNO 116.840
   116.84     3.29   725.09     0.00     0.00   725.38      .29      .83      .01   723.60
      285.      75.      156.     54.      29.      29.      25.      14.      11.   723.80
      .54     2.56     5.41     2.16     .065     .055     .065     .055   721.80   174.66
  .013944      50.      50.      50.        2        0        0     0.00    92.63   267.29


FLOW DISTRIBUTION FOR SECNO=     116.84          CWSEL=    725.09

 STA=     175.     200.     212.     224.     240.     267.
 PER Q=     9.2     17.2     54.6     14.7      4.3
 AREA=     14.0     15.4     28.7     15.7      9.3
  VEL=      1.9      3.2      5.4      2.7      1.3

*SECNO 116.860
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA      LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST

   116.86     3.14   726.34   726.33     0.00   726.74      .40     1.32      .03   725.00
      285.      69.      169.     47.      24.      27.      19.      14.      11.   725.20
      .54     2.84     6.22     2.42     .065     .055     .065     .055   723.20   177.34
  .019954      80.      80.      80.        2       12        0     0.00    84.44   261.77


 FLOW DISTRIBUTION FOR SECNO=     116.86          CWSEL=    726.34

 STA=     177.     200.     212.     224.     240.     262.
 PER Q=     7.3     17.0     59.1     13.7      2.8
 AREA=     10.7     13.7     27.1     13.5      5.9
  VEL=      2.0      3.5      6.2      2.9      1.4

*SECNO 117.200
   117.20     3.24   727.84     0.00     0.00   728.16      .32     1.41      .01   726.40
      285.      73.      160.     52.      28.      28.      23.      14.      12.   726.60
      .55     2.64     5.67     2.25     .065     .055     .065     .055   724.60   175.41
  .015708      80.      80.      80.        2        0        0     0.00    90.05   265.45


 FLOW DISTRIBUTION FOR SECNO=     117.20          CWSEL=    727.84

 STA=     175.     200.     212.     224.     240.     265.
 PER Q=     8.5     17.2     56.1     14.4      3.8
 AREA=     12.9     14.8     28.2     15.0      8.1
  VEL=      1.9      3.3      5.7      2.7      1.3

*SECNO 117.210
3280 CROSS SECTION    117.21 EXTENDED       .25 FEET


        ***CAMPGROUND RD.

   117.21     3.65   728.85     0.00     0.00   728.98      .13      .80      .02   727.00
      285.      87.      126.     72.      44.      33.      42.      15.      12.   727.20
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.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66	
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00	

FLOW DISTRIBUTION FOR SECNO= 117.21 CWSEL= 728.85

STA=	169.	176.	200.	212.	224.	240.	272.
PER Q=	.4	13.3	16.7	44.3	16.0	9.4	
AREA=	1.6	22.8	19.8	33.1	21.6	20.8	
VEL=	.6	1.7	2.4	3.8	2.1	1.3	

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00	
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00	
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00	
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00	

FLOW DISTRIBUTION FOR SECNO= 117.79 CWSEL= 732.83

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.1	18.9	13.3	5.2	20.0	3.2	12.6	17.7	
AREA=	21.9	27.2	18.5	7.2	22.9	6.7	19.9	38.8	
VEL=	1.2	2.0	2.0	2.0	2.5	1.4	1.8	1.3	

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00	
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00	
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00	
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00	

FLOW DISTRIBUTION FOR SECNO= 117.80 CWSEL= 732.87

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.0	18.8	13.5	5.4	21.0	3.3	12.3	16.7	
AREA=	19.1	24.3	16.9	6.7	21.2	6.1	17.7	33.2	
VEL=	1.3	2.2	2.3	2.3	2.8	1.5	2.0	1.4	

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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.       6.       0.       0.   0.000000    0.00     -1.0      0.    674.120   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 2

CCHV=    .100 CEHV=    .300
*SECNO 110.100
 2800 NAT Q1=     64.04  WSEL=    674.12  ENC Q1=     64.04  WSEL=    674.22  RATIO=    .0000
 NAT Q1=     71.  RATIOS LOB,CH,ROB=    .1014   .5352   .3634  WSEL=    674.22
   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=     104.2     190.9  TYPE=     4  TARGET=        .099
    110.10      5.02   674.12      0.00   674.12   674.17     .05      0.00      0.00   673.30
       170.       9.    105.        56.     14.      48.      65.       0.        0.     672.80
      0.00       .64    2.19        .87     .055     .040     .055    0.000   669.10   104.25
   .000835        0.      0.         0.       0        0        0     0.00    86.65   150.89


 FLOW DISTRIBUTION FOR SECNO=    110.10          CWSEL=    674.12

 STA=     104.     114.     122.     136.     154.     180.     191.
   PER Q=     2.5      2.6     61.6     12.3     15.5      5.4
    AREA=     7.0      6.6     47.8     22.9     30.4     11.8
     VEL=      .6       .7      2.2       .9       .9       .8

 *SECNO 110.150
 2800 NAT Q1=     37.68  WSEL=    674.18  ENC Q1=     37.68  WSEL=    674.28  RATIO=    .0000
 NAT Q1=     42.  RATIOS LOB,CH,ROB=    .0262   .7072   .2667  WSEL=    674.28

 3470 ENCROACHMENT STATIONS=     122.0     177.6  TYPE=     4  TARGET=        .10C
    110.15      4.54   674.19      0.00   674.18   674.33     .14      .13       .03   673.85
       170.       0.    137.        33.      0.      41.      31.       0.        0.     673.35
       .01      0.00    3.34       1.08     .055     .040     .055     .040   669.65   122.00
   .002454       100.    100.       100.       2        0        0    0.00    55.57   177.57


 FLOW DISTRIBUTION FOR SECNO=    110.15          CWSEL=    674.19

 STA=     122.     136.     154.     178.
   PER Q=    80.6      9.5      9.9
    AREA=    41.0     14.2     16.3
     VEL=     3.3      1.1      1.0

 *SECNO 110.200
 2800 NAT Q1=     22.13  WSEL=    674.34  ENC Q1=     23.46  WSEL=    674.44  RATIO=   -.0600
 NAT Q1=     24.  RATIOS LOB,CH,ROB=    .0003   .9861   .0135  WSEL=    674.44

 3470 ENCROACHMENT STATIONS=     122.0     136.0  TYPE=     4  TARGET=        .C14
    110.20      4.21   674.41      0.00   674.34   674.75     .34      .36       .06   674.40
       170.       0.    170.        0.       0.      36.       0.       0.        0.     673.90
       .02      0.00    4.66       0.00     .055     .040     .055     .040   670.20   122.00
   .005774       100.    100.       100.       2        0        0    0.00    14.00   136.00


 FLOW DISTRIBUTION FOR SECNO=    110.20          CWSEL=    674.41

 STA=     122.     136.
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```
 PER Q=    100.0
  AREA=     36.5
   VEL=      4.7

 CCHV=    .400 CEHV=    .800
 *SECNO 110.280
  2800 NAT Q1=    25.53  WSEL=    674.99  ENC Q1=     26.66  WSEL=    675.09  RATIO=   -.0440
  NAT Q1=     27.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.09

 3470 ENCROACHMENT STATIONS=       2.9       14.0  TYPE=     4  TARGET=       0.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     678.00 ELREA=     676.00

        ***D/S JEWELL RD

   110.28      4.15    675.05      0.00    674.99    675.34      .29      .57      .02    674.80
    170.        0.      170.        0.        0.      39.        0.       0.       0.    674.80
     .02       0.00     4.34       0.00      .055     .040      .055     .040   670.90     2.90
 .004348       115.     115.       115.         2        0         0     0.00    11.10    14.00

 FLOW DISTRIBUTION FOR SECNO=    110.28        CWSEL=    675.05

 STA=       3.       14.
  PER Q=    100.0
   AREA=     39.2
    VEL=      4.3

 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      ROLEN      BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.39      2.80      50.00      11.00      0.00      37.00     0.00    670.90    670.90

 *SECNO 110.320

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=   675.504  EGLWC=   675.533  ELLC=   674.800  PCWSE=   675.048  ELTRD=   676.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS   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

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  676.00 MAX ELLC=  674.80

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     678.00 ELREA=     676.00

   110.32      4.33    675.23      0.00    675.17    675.57      .33      .19      .03    674.80
    170.        0.      170.        0.        0.      37.        0.       0.       0.    674.80
     .02       0.00     4.64       0.00      .055     .040      .055     .040   670.90     2.90
 .010590        30.      30.        30.         2        0         0    -5.04    11.10    14.00

 FLOW DISTRIBUTION FOR SECNO=    110.32        CWSEL=    675.23

 STA=       3.       14.
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 PER Q=    100.0
  AREA=     36.6
   VEL=      4.6

*SECNO 110.500
 2800 NAT Q1=     11.83  WSEL=    675.16  ENC Q1=     12.56  WSEL=    675.26  RATIO=  -.0612
 NAT Q1=    13.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.26

3470 ENCROACHMENT STATIONS=      30.0      42.0  TYPE=     4  TARGET=      0.000
   110.50      3.64   675.34      0.00   675.16   676.11      .77      .20      .35   676.20
     170.        0.     170.        0.       0.      24.       0.       0.       0.   675.80
      .03      0.00     7.04      0.00     .055     .040     .055     .039   671.70    31.38
  .016621       15.      15.       15.        2        0        0     0.00    10.45    41.83


FLOW DISTRIBUTION FOR SECNO=    110.50          CWSEL=    675.34

STA=      31.      42.
 PER Q=    100.0
  AREA=     24.1
   VEL=      7.0

*SECNO 110.580
 2800 NAT Q1=     28.02  WSEL=    676.21  ENC Q1=     29.17  WSEL=    676.31  RATIO=  -.0409
 NAT Q1=    29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=      0.000
        ***D/S 27 MILE RD

   110.58      4.19   676.19      0.00   676.21   676.44      .25      .12      .21   676.70
     170.        0.     170.        0.       0.      42.       0.       1.       0.   676.70
      .03      0.00     4.02      0.00     .055     .040     .055     .039   672.00     4.02
  .003729       18.      18.       18.        3        0        0     0.00    12.07    16.08


FLOW DISTRIBUTION FOR SECNO=    110.58          CWSEL=    676.19

STA=       4.      16.
 PER Q=    100.0
  AREA=     42.3
   VEL=      4.0

CCHV=    .500 CEHV=   1.000
*SECNO 110.590
 2800 NAT Q1=     37.57  WSEL=    676.21  ENC Q1=     38.97  WSEL=    676.31  RATIO=  -.0373
 NAT Q1=    39.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70


3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=      0.000
   110.59      4.20   676.20      0.00   676.21   676.45      .25      .00      .00   676.70
     170.        0.     170.        0.       0.      42.       0.       1.       0.   676.70
      .03      0.00     4.02      0.00     .055     .030     .055     .039   672.00     4.02
  .002091        1.       1.        1.        0        0        0     0.00    12.07    16.08
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 FLOW DISTRIBUTION FOR SECNO=    110.59          CWSEL=    676.20

 STA=        4.        16.
   PER Q=    100.0
    AREA=     42.3
     VEL=      4.0

 *SECNO 111.020
  2800 NAT Q1=      38.46  WSEL=    676.27  ENC Q1=      39.85  WSEL=    676.37  RATIO=  -.0362
  NAT Q1=     40.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.37

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70


 3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=       0.000
      111.02      4.25   676.25      0.00   676.27   676.50      .24       .05       .00    676.70
       170.        0.     170.        0.      0.       43.        0.        1.        0.     676.70
        .03       0.00    3.96       0.00    .055     .030      .055      .039    672.00     4.02
    .002007        23.     23.        23.      1        0         0      0.00     12.07     16.08


 FLOW DISTRIBUTION FOR SECNO=    111.02          CWSEL=    676.25

 STA=        4.        16.
   PER Q=    100.0
    AREA=     42.9
     VEL=      4.0

 *SECNO 111.030
  2800 NAT Q1=      23.03  WSEL=    676.28  ENC Q1=      23.94  WSEL=    676.38  RATIO=  -.0397
  NAT Q1=     24.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.38
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=       4.0      16.1  TYPE=     4  TARGET=       0.000
      111.03      4.26   676.26      0.00   676.28   676.50      .24       .00       .00    676.70
       170.        0.     170.        0.      0.       43.        0.        1.        0.     676.70
        .03       0.00    3.95       0.00    .055     .050      .055      .039    672.00     4.01
    .005529         1.      1.         1.       0        0         0      0.00     12.07     16.08


 FLOW DISTRIBUTION FOR SECNO=    111.03          CWSEL=    676.26

 STA=        4.        16.
   PER Q=    100.0
    AREA=     43.1
     VEL=      3.9

 CCHV=    .400 CEHV=    .800
 *SECNO 111.800
  2800 NAT Q1=      40.27  WSEL=    676.52  ENC Q1=      40.27  WSEL=    676.62  RATIO=   .0000
  NAT Q1=     47.  RATIOS LOB,CH,ROB=   .2723   .3226   .4050  WSEL=    676.62
 3280 CROSS SECTION    111.80 EXTENDED        .32 FEET


 3470 ENCROACHMENT STATIONS=      19.9      98.1  TYPE=     4  TARGET=       .136
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 111.80     4.42   676.42     0.00   676.52   676.60      .18      .07      .03   675.20
    285.       62.      118.      105.       27.       27.       42.        1.        0.   675.20
    .03     2.30     4.41     2.48     .055     .050     .055     .039   672.00    19.90
 .007946       10.       10.       10.        3         0         0     0.00    78.24    98.14

 FLOW DISTRIBUTION FOR SECNO=    111.80          CWSEL=    676.42

 STA=      20.      48.      58.      63.      72.      98.
   PER Q=     21.7     41.6      5.8     10.5     20.4
    AREA=     26.9     26.9      6.1     10.9     25.2
     VEL=      2.3      4.4      2.7      2.7      2.3

 *SECNO 111.810
  2800 NAT Q1=      46.12  WSEL=    676.80  ENC Q1=      46.12  WSEL=    676.90  RATIO=  0.0000
  NAT Q1=      52.  RATIOS LOB,CH,ROB=    .2789    .3036    .4175  WSEL=    676.90
 3280 CROSS SECTION    111.81 EXTENDED        .55 FEET


 3470 ENCROACHMENT STATIONS=       16.1      103.6  TYPE=      4  TARGET=        .111
    111.81     4.65   676.85     0.00   676.80   676.95      .10      .33      .03   675.40
    285.       71.      100.      115.       37.       29.       56.        1.        0.   675.40
    .04     1.91     3.42     2.03     .055     .050     .055     .040   672.20    16.12
 .004260       58.       58.       58.        2         0         0     0.00    87.43   103.56

 FLOW DISTRIBUTION FOR SECNO=    111.81          CWSEL=    676.85

 STA=      16.      48.      58.      63.      72.     104.
   PER Q=     24.7     35.0      5.8     10.4     24.1
    AREA=     36.9     29.2      7.3     13.1     36.2
     VEL=      1.9      3.4      2.3      2.3      1.9

 CCHV=    .100 CEHV=    .300
 *SECNO 111.820
  2800 NAT Q1=      31.22  WSEL=    676.89  ENC Q1=      31.22  WSEL=    676.99  RATIO=   .0000
  NAT Q1=      36.  RATIOS LOB,CH,ROB=    .2641    .3442    .3917  WSEL=    676.99
 3280 CROSS SECTION    111.82 EXTENDED        .45 FEET


 3470 ENCROACHMENT STATIONS=       19.6       97.8  TYPE=      4  TARGET=        .126
    111.82     4.54   676.94     0.00   676.89   677.09      .15      .12      .01   675.60
    285.       65.      114.      106.       31.       28.       47.        1.        0.   675.60
    .04     2.09     4.05     2.25     .070     .060     .070     .041   672.40    19.61
 .009029       20.       20.       20.        1         0         0     0.00    78.15    97.76

 FLOW DISTRIBUTION FOR SECNO=    111.82          CWSEL=    676.94

 STA=      20.      48.      58.      63.      72.      98.
   PER Q=     22.7     40.1      5.8     10.5     20.9
    AREA=     30.9     28.2      6.7     12.1     28.3
     VEL=      2.1      4.0      2.5      2.5      2.1

 *SECNO 111.830
  2800 NAT Q1=      34.27  WSEL=    677.67  ENC Q1=      34.27  WSEL=    677.77  RATIO=  .0000
  NAT Q1=      40.  RATIOS LOB,CH,ROB=    .2708    .3249    .4042  WSEL=    677.77
 3280 CROSS SECTION    111.83 EXTENDED        .56 FEET
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 3470 ENCROACHMENT STATIONS=      19.3      99.6  TYPE=      4  TARGET=        .133
    111.83      4.66    677.76      0.00    677.67    677.88       .12       .79       .00    676.30
       285.       67.       107.      111.       34.       29.       53.        1.        1.    676.30
       .05      1.95      3.65      2.08      .070      .060      .070      .044    673.10     19.27
   .006955       100.      100.      100.         2         0         0      0.00     80.32     99.60


 FLOW DISTRIBUTION FOR SECNO=     111.83          CWSEL=     677.76

 STA=      19.       48.       58.       63.       72.      100.
   PER Q=     23.6      37.5       5.8      10.5      22.5
    AREA=     34.4      29.3       7.3      13.2      33.0
     VEL=      2.0       3.6       2.3       2.3       1.9

 *SECNO 111.840
  2800 NAT Q1=      33.98  WSEL=     678.15  ENC Q1=      33.98  WSEL=     678.25  RATIO=     .0000
  NAT Q1=      39.  RATIOS LOB,CH,ROB=    .2698    .3279    .4023  WSEL=     678.25
 3280 CROSS SECTION     111.84 EXTENDED         .55 FEET


      SECNO     DEPTH     CWSEL      CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
      Q         QLOB      QCH        QROB      ALOB       ACH       ARCB      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=      18.7      99.9  TYPE=      4  TARGET=        .126
        ***FOOTBRIDGE
    111.84      4.65    678.25      0.00    678.15    678.37       .12       .49       .00    676.80
       285.       67.       107.      111.       35.       29.       53.        1.        1.    676.80
       .06      1.95      3.66      2.08      .070      .060      .070      .045    673.60     18.70
   .007037       70.       70.       70.         2         0         0      0.00     81.21     99.92


 FLOW DISTRIBUTION FOR SECNO=     111.84          CWSEL=     678.25

 STA=      19.       48.       58.       63.       72.      100.
   PER Q=     23.7      37.5       5.8      10.5      22.5
    AREA=     34.6      29.2       7.3      13.1      33.0
     VEL=      1.9       3.7       2.3       2.3       1.9

 *SECNO 111.850
  2800 NAT Q1=      16.42  WSEL=     678.14  ENC Q1=      16.42  WSEL=     678.24  RATIO=     .0000
  NAT Q1=      20.  RATIOS LOB,CH,ROB=    .1705    .2016    .6280  WSEL=     678.24
 3280 CROSS SECTION     111.85 EXTENDED         .50 FEET


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20


 3470 ENCROACHMENT STATIONS=      31.1     105.1  TYPE=      4  TARGET=        .158
    111.85      4.60    678.20      0.00    678.14    678.41       .21       .01       .03    676.80
       285.       24.       72.      189.       14.       21.       48.        1.        1.    676.80
       .06      1.70      3.47      3.96      .070      .060      .070      .045    673.60     31.09
   .035841         1.        1.        1.         2         0         0    -22.37     73.97    105.05
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 FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.20

 STA=      31.      48.      58.      63.      72.     105.
  PER Q=    8.5     25.2      1.4     12.7     52.2
  AREA=    14.3     20.7      3.0      9.0     35.7
   VEL=     1.7      3.5      1.4      4.0      4.2

*SECNO 111.860
 2800 NAT Q1=     19.71  WSEL=    678.25  ENC Q1=     19.71  WSEL=    678.35  RATIO=    .0000
 NAT Q1=     23.  RATIOS LOB,CH,ROB=    .1808    .1826    .6366  WSEL=    678.35
3280 CROSS SECTION    111.86 EXTENDED        .65 FEET


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

3470 ENCROACHMENT STATIONS=      30.1     108.5  TYPE=     4  TARGET=        .156
   111.86     4.75   678.35     0.00   678.25   678.50      .15      .08      .01   676.80
      285.     26.      64.     195.      18.      22.      58.       1.       1.   676.80
      .06     1.49     2.88     3.37     .070     .060     .070     .045   673.60    30.12
  .022447       3.       3.       3.        2        0        0   -22.75    78.41   108.54


 FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.35

 STA=      30.      48.      58.      63.      72.     109.
  PER Q=    9.2     22.4      1.7     12.7     54.1
  AREA=    17.6     22.2      3.7     10.3     43.7
   VEL=     1.5      2.9      1.3      3.5      3.5

*SECNO 111.870
 2800 NAT Q1=     40.38  WSEL=    678.29  ENC Q1=     40.38  WSEL=    678.39  RATIO=    .0000
 NAT Q1=     46.  RATIOS LOB,CH,ROB=    .2798    .2986    .4216  WSEL=    678.39
3280 CROSS SECTION    111.87 EXTENDED        .74 FEET


3470 ENCROACHMENT STATIONS=      16.8     104.5  TYPE=     4  TARGET=        .124
   111.87     4.84   678.44     0.00   678.29   678.52      .08      .01      .01   676.80
      285.     72.      95.     118.      42.      31.      66.       1.       1.   676.80
      .06     1.71     3.06     1.79     .070     .060     .070     .045   673.60    16.76
  .004531       1.       1.       1.        2        0        0     0.00    87.76   104.52


 FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.44

 STA=      17.      48.      58.      63.      72.     105.
  PER Q=    25.2     33.4      5.7     10.3     25.4
  AREA=     42.1     31.1      8.2     14.7     43.0
   VEL=      1.7      3.1      2.0      2.0      1.7

*SECNO 111.900
 2800 NAT Q1=     31.65  WSEL=    679.29  ENC Q1=     31.65  WSEL=    679.39  RATIO=    .0000
 NAT Q1=     36.  RATIOS LOB,CH,ROB=    .2647    .3424    .3929  WSEL=    679.39
3280 CROSS SECTION    111.90 EXTENDED        .48 FEET


3470 ENCROACHMENT STATIONS=      19.1      98.4  TYPE=     4  TARGET=        .121
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 111.90     4.58   679.38     0.00   679.29   679.52      .14      .99      .02   678.00
    285.       66.      111.      108.       32.       29.       49.        2.        1.   678.00
    .07     2.04     3.90     2.18     .070     .060     .070     .048   674.80    19.05
 .008259      165.      165.      165.        2         0         0     0.00    79.38    98.43

 FLOW DISTRIBUTION FOR SECNO=    111.90          CWSEL=    679.38

  STA=     19.      48.      58.      63.      72.      98.
   PER Q=    23.2     39.1      5.8     10.5     21.4
    AREA=    32.4     28.5      6.9     12.5     29.8
     VEL=     2.0      3.9      2.4      2.4      2.0

 *SECNO 111.910
  2800 NAT Q1=     19.80  WSEL=    679.86  ENC Q1=     19.80  WSEL=    679.96  RATIO=    .0000
  NAT Q1=     23.  RATIOS LOB,CH,ROB=    .3656    .2498    .3846  WSEL=    679.96
 3280 CROSS SECTION    111.91  EXTENDED        .66 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     TOC       ICONT     CORAR   TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=      12.4      91.6  TYPE=     4  TARGET=        .153

       ***CONCRETE WEIR

 111.91     3.25   679.95     0.00   679.86   680.17      .21      .62      .02   679.00
    285.       97.       85.      103.       34.       16.       35.        2.        1.   679.00
    .08     2.85     5.16     2.95     .070     .060     .070     .049   676.70    12.37
 .020996       50.       50.       50.         1         0         0     0.00    79.23    91.60

 FLOW DISTRIBUTION FOR SECNO=    111.91          CWSEL=    679.95

  STA=     12.      50.      55.      90.      92.
   PER Q=    34.2     29.7     35.0      1.1
    AREA=    34.2     16.4     33.4      1.5
     VEL=     2.8      5.2      3.0      2.2

 *SECNO 111.920
  2800 NAT Q1=     38.59  WSEL=    680.45  ENC Q1=     38.59  WSEL=    680.55  RATIO=    .0000
  NAT Q1=     44.  RATIOS LOB,CH,ROB=    .2771    .3067    .4162  WSEL=    680.55
 3280 CROSS SECTION    111.92  EXTENDED        .67 FEET


 3470 ENCROACHMENT STATIONS=      16.9     103.7  TYPE=     4  TARGET=        .121
 111.92     4.76   680.56     0.00   680.45   680.65      .09      .47      .01   679.00
    285.       71.       99.      116.       40.       30.       62.        2.        1.   679.00
    .08     1.78     3.25     1.87     .070     .060     .070     .049   675.80    16.85
 .005256       50.       50.       50.         1         0         0     0.00    86.82   103.67


 FLOW DISTRIBUTION FOR SECNO=    111.92          CWSEL=    680.56

  STA=     17.      48.      58.      72.     104.
   PER Q=    24.8     34.6     16.0     24.6
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      AREA=     39.8      30.4      21.9      39.9
       VEL=      1.8       3.2       2.1       1.8

  *SECNO 111.930
   2800 NAT QI=     33.37  WSEL=    680.75  ENC QI=     33.37  WSEL=    680.85  RATIO=    .0000
    NAT QI=    39.  RATIOS LOB,CH,ROB=    .2692    .3295    .4012  WSEL=    680.85
   3280 CROSS SECTION    111.93 EXTENDED       .53 FEET


   3470 ENCROACHMENT STATIONS=      19.7      98.8  TYPE=     4  TARGET=       .135
      111.93      4.64    680.84      0.00    680.75    680.97       .12       .31       .01    679.40
         285.       66.       109.       110.        33.        29.        52.         2.         1.    679.40
          .09      2.00      3.75      2.13       .070       .060       .070       .050    676.20     19.68
      .007449       50.       50.       50.          1          0          0      0.00     79.16     98.83


   FLOW DISTRIBUTION FOR SECNO=    111.93          CWSEL=    680.84

    STA=      20.       48.       58.       72.       99.
     PER Q=     23.3      38.2      16.4      22.1
      AREA=     33.2      29.0      20.1      31.5
       VEL=      2.0       3.8       2.3       2.0

   *SECNO 111.940
    2800 NAT QI=     35.21  WSEL=    681.87  ENC QI=     35.21  WSEL=    681.97  RATIO=   0.0000
    NAT QI=    40.  RATIOS LOB,CH,ROB=    .2716    .3226    .4057  WSEL=    681.97
   3280 CROSS SECTION    111.94 EXTENDED       .58 FEET


   3470 ENCROACHMENT STATIONS=      17.8      101.3  TYPE=     4  TARGET=       .121
      111.94      4.68    681.98      0.00    681.87    682.09       .11      1.12       .00    680.50
         285.       69.       104.       112.        36.        30.        56.         2.         2.    680.50
          .10      1.89      3.53      2.01       .070       .060       .070       .051    677.30     17.78
      .006442       162.      162.      162.          2          0          0      0.00     83.50    101.28


   FLOW DISTRIBUTION FOR SECNO=    111.94          CWSEL=    681.98

    STA=      18.       48.       58.       72.      101.
     PER Q=     24.1      36.5      16.1      23.2
      AREA=     36.4      29.5      20.8      35.1
       VEL=      1.9       3.5       2.2       1.9

   *SECNO 111.950
    2800 NAT QI=     37.23  WSEL=    683.62  ENC QI=     37.23  WSEL=    683.72  RATIO=    .0000
    NAT QI=    42.  RATIOS LOB,CH,ROB=    .2749    .3131    .4120  WSEL=    683.72
   3280 CROSS SECTION    111.95 EXTENDED       .61 FEET


   3470 ENCROACHMENT STATIONS=      17.1      102.9  TYPE=     4  TARGET=       .119
      111.95      4.72    683.72      0.00    683.62    683.82       .10      1.72       .00    682.20
         285.       70.       101.       114.        38.        30.        59.         3.         2.    682.20
          .14      1.83      3.40      1.94       .070       .060       .070       .053    679.00     17.06
      .005889       280.      280.      280.          3          0          0      0.00     85.80    102.86


   FLOW DISTRIBUTION FOR SECNO=    111.95          CWSEL=    683.72
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 STA=      17.      48.      58.      72.     103.
   PER Q=     24.5     35.6     16.0     24.0
    AREA=     38.0     29.8     21.2     37.5
     VEL=      1.8      3.4      2.1      1.8

*SECNO 111.970
 2800 NAT QI=     41.42  WSEL=    683.86  ENC QI=     41.42  WSEL=    683.96  RATIO=    .0000
 NAT QI=     46.  RATIOS LOB,CH,ROB=    .0916    .4983    .4101  WSEL=    683.96
3280 CROSS SECTION    111.97 EXTENDED        .96 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=      199.0      268.4  TYPE=      4  TARGET=        .095
    111.97     4.56   683.96     0.00   683.86   684.09      .13      .26      .01   682.60
     285.      14.      157.     114.       9.      45.      63.       3.       2.    681.70
      .14     1.55     3.48     1.80      .070     .060     .070     .053   679.40   198.96
   .004752     50.      50.      50.         0        0        0     0.00    69.43   268.40

 FLOW DISTRIBUTION FOR SECNO=    111.97          CWSEL=    683.96

 STA=     199.     206.     220.     235.     268.
   PER Q=     4.9     55.1     20.7     19.4
    AREA=     8.9     45.1     27.1     36.3
     VEL=     1.5      3.5      2.2      1.5

*SECNO 111.980
 2800 NAT QI=     34.65  WSEL=    684.39  ENC QI=     34.65  WSEL=    684.49  RATIO=    .0000
 NAT QI=     39.  RATIOS LOB,CH,ROB=    .0841    .5400    .3759  WSEL=    684.49
3280 CROSS SECTION    111.98 EXTENDED        .78 FEET

 3470 ENCROACHMENT STATIONS=      200.6      261.2  TYPE=      4  TARGET=        .102
    111.98     4.39   684.49     0.00   684.39   684.67      .18      .57      .02   683.30
     285.      10.      172.     103.       6.      43.      50.       4.       2.    682.40
      .15     1.68     4.03     2.06      .070     .060     .070     .053   680.10   200.57
   .006886     100.     100.     100.         1        0        0     0.00    60.64   261.22

 FLOW DISTRIBUTION FOR SECNO=    111.98          CWSEL=    684.49

 STA=     201.     206.     220.     235.     261.
   PER Q=     3.6     60.4     21.0     15.1
    AREA=     6.1     42.7     24.5     25.4
     VEL=     1.7      4.0      2.4      1.7

*SECNO 111.990
 2800 NAT QI=     33.97  WSEL=    685.77  ENC QI=     33.97  WSEL=    685.87  RATIO=    .0000
 NAT QI=     38.  RATIOS LOB,CH,ROB=    .0829    .5465    .3706  WSEL=    685.87
3280 CROSS SECTION    111.99 EXTENDED        .78 FEET

 3470 ENCROACHMENT STATIONS=      200.3      261.0  TYPE=      4  TARGET=        .097
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    111.99     4.37   685.87     0.00   685.77   686.05      .18     1.38      .00   684.70
       285.      11.      172.      102.       6.       43.      50.       4.       3.   683.80
        .17     1.69     4.04     2.06     .070     .060     .070     .054   681.50   200.30
    .006931     200.     200.     200.        1        0        0     0.00    60.69   260.99

 FLOW DISTRIBUTION FOR SECNO=    111.99          CWSEL=    685.87

 STA=     200.     206.     220.     235.     261.
  PER Q=     3.7     60.4     20.9     14.9
  AREA=      6.3     42.6     24.4     25.1
   VEL=      1.7      4.0      2.4      1.7

 *SECNO 112.000
  2800 NAT Q1=     34.17  WSEL=    688.27  ENC Q1=     34.17  WSEL=    688.37  RATIO=    .0000
  NAT Q1=     38.  RATIOS LOB,CH,ROB=    .0832    .5447    .3721  WSEL=    688.37
 3280 CROSS SECTION    112.00 EXTENDED        .77 FEET


 3470 ENCROACHMENT STATIONS=      200.4      261.1  TYPE=      4  TARGET=        .098
    112.00     4.37   688.37     0.00   688.27   688.55      .18     2.50      .00   687.20
       285.      10.      173.      102.       6.       42.      49.       5.       3.   686.30
        .20     1.70     4.06     2.07     .070     .060     .070     .055   684.00   200.37
    .007036     358.     358.     358.        3        0        0     0.00    60.71   261.07

 FLOW DISTRIBUTION FOR SECNO=    112.00          CWSEL=    688.37

 STA=     200.     206.     220.     235.     261.
  PER Q=     3.7     60.6     20.9     14.8
  AREA=      6.2     42.5     24.3     24.9
   VEL=      1.7      4.1      2.5      1.7

 *SECNO 112.100
  2800 NAT Q1=     34.42  WSEL=    690.38  ENC Q1=     34.42  WSEL=    690.48  RATIO=    .0000
  NAT Q1=     38.  RATIOS LOB,CH,ROB=    .0837    .5423    .3740  WSEL=    690.48
 3280 CROSS SECTION    112.10 EXTENDED        .79 FEET


 3470 ENCROACHMENT STATIONS=      200.5      261.1  TYPE=      4  TARGET=        .100
    112.10     4.39   690.49     0.00   690.38   690.66      .18     2.11      .00   689.30
       285.      10.      172.      103.       6.       43.      50.       6.       4.   688.40
        .22     1.68     4.02     2.06     .070     .060     .070     .056   686.10   200.47
    .006818     305.     305.     305.        3        0        0     0.00    60.68   261.15

 FLOW DISTRIBUTION FOR SECNO=    112.10          CWSEL=    690.49

 STA=     200.     206.     220.     235.     261.
  PER Q=     3.7     60.2     21.0     15.1
  AREA=      6.2     42.7     24.6     25.5
   VEL=      1.7      4.0      2.4      1.7

 *SECNO 112.200
  2800 NAT Q1=     33.22  WSEL=    692.15  ENC Q1=     33.22  WSEL=    692.25  RATIO=    .0000
  NAT Q1=     37.  RATIOS LOB,CH,ROB=    .0820    .5510    .3670  WSEL=    692.25
 3280 CROSS SECTION    112.20 EXTENDED        .75 FEET
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EGL       HV        HL       OLOSS   BANK ELEV
   Q       QLOB      QCH       QROB      ALOB      ACH       AROB      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=      200.8      259.7  TYPE=      4  TARGET=        .102
    112.20      4.35    692.25      0.00    692.15    692.44      .19      1.77      .00    691.10
       285.      10.       175.      100.       6.       42.       48.       6.       4.    690.20
        .25      1.71      4.14      2.11      .070      .060      .070      .056   687.90   200.83
    .007366      250.      250.      250.         2         0         0      0.00    58.85   259.68

 FLOW DISTRIBUTION FOR SECNO=    112.20          CWSEL=    692.25

 STA=     201.      206.      220.      235.      260.
  PER Q=     3.4      61.4      21.0      14.2
    AREA=    5.6      42.2      24.0      23.5
     VEL=    1.7       4.1       2.5       1.7

 *SECNO 112.300
  2800 NAT Q1=      35.20  WSEL=    693.91  ENC Q1=      35.20  WSEL=    694.01  RATIO=    .0000
  NAT Q1=     39.  RATIOS LOB,CH,ROB=    .0848    .5365    .3787  WSEL=    694.01
 3280 CROSS SECTION    112.30 EXTENDED        .81 FEET


 3470 ENCROACHMENT STATIONS=      200.3      262.0  TYPE=      4  TARGET=        .100
    112.30      4.40    694.00      0.00    693.91    694.17      .17      1.73      .00    692.80
       285.      11.       170.      104.       6.       43.       52.       7.       4.    691.90
        .27      1.67      3.95      2.02      .070      .060      .070      .056   689.60   200.30
    .006528      250.      250.      250.         2         0         0      0.00    61.71   262.01

 FLOW DISTRIBUTION FOR SECNO=    112.30          CWSEL=    694.00

 STA=     200.      206.      220.      235.      262.
  PER Q=     3.8      59.6      21.0      15.6
    AREA=    6.5      43.0      24.9      26.7
     VEL=    1.7       3.9       2.4       1.7

 *SECNO 112.400
  2800 NAT Q1=      34.06  WSEL=    694.26  ENC Q1=      34.06  WSEL=    694.36  RATIO=    .0000
  NAT Q1=     38.  RATIOS LOB,CH,ROB=    .0022    .6727    .3250  WSEL=    694.36

 3470 ENCROACHMENT STATIONS=      252.0      306.0  TYPE=      4  TARGET=        .106
    112.40      4.36    694.36      0.00    694.26    694.52      .16       .34      .00    694.00
       285.       0.       214.       71.       C.       61.       34.       7.       4.    692.80
        .27      0.00      3.52      2.05      .070      .060      .070      .056   690.00   252.00
    .007162       50.       50.       50.         2         0         0      0.00    53.97   305.97

 FLOW DISTRIBUTION FOR SECNO=    112.40          CWSEL=    694.36

 STA=     252.      278.      304.      306.
  PER Q=    75.2      23.9       .9
    AREA=   60.8      32.6      1.9
     VEL=    3.5       2.1       1.3

 *SECNO 112.410
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 2800 NAT Q1=     33.49  WSEL=    694.64  ENC Q1=     33.49  WSEL=    694.74  RATIO=    .0000
 NAT Q1=     38.  RATIOS LOB,CH,ROB=   .0021   .6754   .3225  WSEL=    694.74

 3470 ENCROACHMENT STATIONS=     252.0     304.6  TYPE=      4  TARGET=          .11C

      ***FOOTBRIDGE

    112.41     4.35   694.75     0.00   694.64   694.92     .17      .40      .00   694.40
     285.       0.     216.       69.      C.       61.      33.       7.       4.   693.20
      .28     0.00     3.56     2.09     .070     .060     .070     .056   690.40   252.00
  .007313      55.      55.       55.        2        0        0     0.00    52.61   304.61

 FLOW DISTRIBUTION FOR SECNO=    112.41          CWSEL=    694.75

 STA=     252.     278.     304.     305.
  PER Q=    75.8     24.0       .2
   AREA=    60.7     32.5       .6
    VEL=     3.6      2.1       .9

 *SECNO 112.420
  2800 NAT Q1=     25.42  WSEL=    694.68  ENC Q1=     25.42  WSEL=    694.78  RATIO=    .0000
  NAT Q1=     29.  RATIOS LOB,CH,ROB=   .0034   .5518   .4448  WSEL=    694.78

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40


 3470 ENCROACHMENT STATIONS=     252.0     310.8  TYPE=      4  TARGET=          .119
    112.42     4.38   694.78     0.00   694.68   694.93     .15      .01      .00   694.40
     285.       0.     178.      107.       0.       54.      40.       7.       4.   693.20
      .28     0.00     3.28     2.70     .070     .060     .070     .056   690.40   252.00
  .012633       1.       1.        1.        2        0        0    -7.20    58.81   310.81

 FLOW DISTRIBUTION FOR SECNO=    112.42          CWSEL=    694.78

 STA=     252.     278.     304.     311.
  PER Q=    62.5     32.8      4.7
   AREA=    54.3     33.3      6.3
    VEL=     3.3      2.8      2.1

 *SECNO 112.430
  2800 NAT Q1=     29.33  WSEL=    694.79  ENC Q1=     29.33  WSEL=    694.89  RATIO=    .0000
  NAT Q1=     33.  RATIOS LOB,CH,ROB=   .0060   .5257   .4683  WSEL=    694.89
 3280 CROSS SECTION    112.43 EXTENDED        .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


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40


 3470 ENCROACHMENT STATIONS=     252.0     315.7  TYPE=      4  TARGET=          .113
    112.43     4.50   694.90     0.00   694.79   695.02     .12      .09      .00   694.40
     285.       0.     168.      117.       0.       57.      48.       7.       4.   693.20
      .28     0.00     2.93     2.42     .070     .060     .070     .056   690.40   252.00
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 .009358      8.      8.      8.      2       0       0    -7.20    63.67   315.67

FLOW DISTRIBUTION FOR SECNO=    112.43          CWSEL=    694.90

STA=     252.     278.     304.     316.
  PER Q=     59.0     32.9      8.2
   AREA=     57.4     36.4     11.9
    VEL=      2.9      2.6      2.0

*SECNO 112.440
 2800 NAT Q1=      39.95  WSEL=    694.79  ENC Q1=      39.95  WSEL=    694.89  RATIO=   .0000
 NAT Q1=      44.  RATIOS LOB,CH,ROB=   .0046   .6416   .3538  WSEL=    694.89
3280 CROSS SECTION    112.44 EXTENDED       .01 FEET

3470 ENCROACHMENT STATIONS=      252.0     314.8  TYPE=      4  TARGET=        .089
   112.44     4.51   694.91     0.00   694.79   695.02      .12      .01      .00   694.40
     285.       0.     199.      86.       0.      65.      48.       7.       5.   693.20
      .28     0.00     3.08     1.79     .070     .060     .070     .056   690.40   252.00
  .005057       1.       1.       1.        0        0        0     0.00    62.85   314.85

FLOW DISTRIBUTION FOR SECNO=    112.44          CWSEL=    694.91

STA=     252.     278.     304.     315.
  PER Q=     70.0     24.3      5.7
   AREA=     64.8     36.6     11.1
    VEL=      3.1      1.9      1.5

*SECNO 112.500
 2800 NAT Q1=      34.90  WSEL=    694.98  ENC Q1=      34.90  WSEL=    695.08  RATIO=   .0000
 NAT Q1=      39.  RATIOS LOB,CH,ROB=   .0025   .6682   .3293  WSEL=    695.08

3470 ENCROACHMENT STATIONS=      252.0     307.5  TYPE=      4  TARGET=        .102
   112.50     4.38   695.08     0.00   694.98   695.24      .15      .20      .01   694.70
     285.       0.     211.      74.       0.      62.      37.       7.       5.   693.50
      .28     0.00     3.43     1.99     .070     .060     .070     .056   690.70   252.00
  .006654      35.      35.      35.        0        0        0     0.00    55.51   307.51

FLOW DISTRIBUTION FOR SECNO=    112.50          CWSEL=    695.08

STA=     252.     278.     304.     308.
  PER Q=     74.2     24.1      1.7
   AREA=     61.7     33.5      3.4
    VEL=      3.4      2.1      1.4

*SECNO 113.200
 2800 NAT Q1=      34.86  WSEL=    697.28  ENC Q1=      34.86  WSEL=    697.38  RATIO=   .0000
 NAT Q1=      39.  RATIOS LOB,CH,ROB=   .0026   .6674   .3300  WSEL=    697.38

3470 ENCROACHMENT STATIONS=      252.0     306.7  TYPE=      4  TARGET=        .107
   113.20     4.39   697.39     0.00   697.28   697.54      .15     2.31      .00   697.00
     285.       0.     212.      73.       0.      62.      36.       8.       5.   695.80
      .31     0.00     3.44     2.01     .070     .060     .070     .057   693.00   252.00
  .006716     345.     345.     345.        3        0        0     0.00    54.70   306.70

FLOW DISTRIBUTION FOR SECNO=    113.20          CWSEL=    697.39
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```
 STA=      252.      278.      304.      307.
  PER Q=    74.5      24.2       1.3
  AREA=     61.7      33.5       2.6
   VEL=      3.4       2.1       1.4

 CCHV=    .400 CEHV=    .800
 *SECNO 113.280
  2800 NAT Q1=     21.43  WSEL=    698.44  ENC Q1=     22.09  WSEL=    698.54  RATIO=   -.0308
  NAT Q1=     22.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.54

 3470 ENCROACHMENT STATIONS=      7.5      17.5  TYPE=     4  TARGET=      0.000

        ***D/S M-53

    113.28      5.23    698.53      0.00    698.44    699.16      .63      1.24      .38    698.80
      285.        0.      285.        0.        0.      45.        0.        8.        5.    698.80
       .32       0.00      6.35      0.00      .065      .055      .065      .057    693.30      7.51
   .016754       123.      123.      123.         2         0         0      0.00      9.99     17.49


 FLOW DISTRIBUTION FOR SECNO=    113.28          CWSEL=    698.53

 STA=        8.       18.
  PER Q=   100.0
  AREA=     44.9
   VEL=      6.3

 CCHV=    .500 CEHV=   1.000
 *SECNO 113.290
  2800 NAT Q1=     52.71  WSEL=    698.81  ENC Q1=     53.91  WSEL=    698.91  RATIO=   -.0228
  NAT Q1=     54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.91
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA      LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN    SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID   ENDST

    113.29      5.58    698.88      0.00    698.81    699.28      .40       .01       .11    699.50
      285.        0.      285.        0.        0.      56.        0.        8.        5.    699.50
       .32       0.00      5.05      0.00      .065      .030      .065      .057    693.30      .01
   .002821         1.        1.        1.         2         0         0      0.00     10.18     10.19


 FLOW DISTRIBUTION FOR SECNO=    113.29          CWSEL=    698.88

 STA=        0.       10.
  PER Q=   100.0
  AREA=     56.4
   VEL=      5.1

 *SECNO 113.300
  2800 NAT Q1=     52.20  WSEL=    698.88  ENC Q1=     53.58  WSEL=    698.98  RATIO=   -.0263
  NAT Q1=     54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.98
    113.30      5.55    698.95      0.00    698.88    699.36      .40       .07       .00    699.60
      285.        0.      285.        0.        0.      56.        0.        8.        5.    699.60
       .32       0.00      5.09      0.00      .065      .030      .065      .056    693.40      .01
   .002867        25.       25.       25.         0         0         0      0.00     10.18     10.19


 FLOW DISTRIBUTION FOR SECNO=    113.30          CWSEL=    698.95
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 STA=       0.      10.
   PER Q=    100.0
    AREA=     56.0
     VEL=      5.1

  *SECNO 113.310
   2800 NAT Q1=      51.97  WSEL=    698.96  ENC Q1=      53.26  WSEL=    699.06  RATIO=  -.0247
   NAT Q1=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.06

  3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.31     5.53   699.03     0.00   698.96   699.43      .41      .07      .00   699.70
     285.       0.     285.       0.      0.       56.       0.       8.       5.    699.70
      .32      0.00     5.11     0.00     .065     .030     .065     .056   693.50     .01
   .002906     25.      25.      25.       0        0        0     0.00    10.18    10.19

  FLOW DISTRIBUTION FOR SECNO=    113.31          CWSEL=    699.03

  STA=       0.      10.
   PER Q=    100.0
    AREA=     55.8
     VEL=      5.1

  *SECNO 113.330
   2800 NAT Q1=      51.92  WSEL=    699.35  ENC Q1=      53.22  WSEL=    699.45  RATIO=  -.0250
   NAT Q1=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.45

  3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.33     5.51   699.41     0.00   699.35   699.82      .41      .39      .00   700.10
     285.       0.     285.       0.      0.       56.       0.       8.       5.    700.10
      .33      0.00     5.13     0.00     .065     .030     .065     .055   693.90     .01
   .002932     132.     132.     132.       0        0        0     0.00    10.18    10.19

  FLOW DISTRIBUTION FOR SECNO=    113.33          CWSEL=    699.41

  STA=       0.      10.
   PER Q=    100.0
    AREA=     55.6
     VEL=      5.1

  *SECNO 113.420
   2800 NAT Q1=      28.36  WSEL=    699.36  ENC Q1=      29.07  WSEL=    699.46  RATIO=  -.0253
   NAT Q1=     29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.46
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52                    This run reviewed as natural run
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  T1      HUD-FIA H-4705
  T2      WASHINGTON TOWNSHIP  FIS
  T3      TAFT DRAIN

  J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL      FQ
        -1.       4.       0.       0.  0.000000    0.00       .5       0.   676.260    0.000

  J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    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

      1.000    34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

  NC     .060     .060     .045     .100     .300    0.000    0.000    0.000    0.000    0.000
  QT    5.000  225.000  320.000  375.000  520.000  375.000    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

  X1    7.850   11.000  120.000  152.000    0.000    0.000    0.000    0.000   -1.700    0.000
  GR  680.000   10.000  678.000   55.000  676.300  100.000  675.700  120.000  673.300  125.000
  GR  672.000  127.000  671.900  133.000  674.600  136.000  677.100  146.000  677.800  152.000
  GR  680.000  235.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

  X1    7.870    0.000    0.000    0.000  230.000  230.000  230.000    0.000     .800    0.000

  X1    7.900    0.000    0.000    0.000  235.000  235.000  235.000    0.000     .900    0.000

  X1    7.920    0.000    0.000    0.000  200.000  200.000  200.000    0.000     .900    0.000
  NC     .065     .065     .050    0.000    0.000    0.000    0.000    0.000    0.000    0.000

  X1    7.950   18.000  641.000  664.000  199.000  199.000  199.000    0.000   -2.300    0.000
  GR  684.000  316.000  683.200  392.000  682.800  446.000  682.600  478.000  682.300  524.000
  GR  682.200  574.000  681.200  606.000  680.800  625.000  680.200  641.000  677.400  648.000
  GR  676.900  649.000  676.300  652.000  676.000  654.000  676.000  656.000  676.700  657.000
  GR  677.400  658.000  682.900  664.000  683.300  682.000    0.000    0.000    0.000    0.000

  X1    8.000    0.000    0.000    0.000  500.000  500.000  500.000    0.000    2.300    0.000

  X1    8.100    0.000    0.000    0.000  500.000  500.000  500.000    0.000    2.100    0.000
  NC     .060    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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X1	8.500	10.000	635.000	683.000	450.000	450.000	450.000	0.000	0.000	0.000
GR	685.700	615.000	684.900	635.000	682.600	652.000	680.100	654.000	680.200	663.000
GR	684.800	665.000	685.500	683.000	686.000	754.000	688.000	880.000	690.000	1060.000
X1	8.600	0.000	0.000	0.000	500.000	500.000	500.000	0.000	2.400	0.000
X1	9.100	20.000	350.000	374.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	691.300	280.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	361.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	420.000	692.400	458.000	692.600	516.000	693.300	548.000
GR	694.600	576.000	694.700	598.000	694.800	628.000	694.800	650.000	694.500	672.000
X1	9.200	12.000	350.000	374.000	283.000	283.000	283.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	9.280	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.700	0.000
X1	9.290	10.000	357.500	363.000	49.000	49.000	49.000	0.000	.700	0.000
X2	0.000	0.000	0.000	690.900	691.800	0.000	0.000	0.000	0.000	0.000
GR	691.300	240.000	691.200	309.000	690.400	357.500	686.000	357.600	685.200	360.000
GR	685.300	362.900	690.400	363.000	691.200	374.000	691.400	388.000	691.800	400.000
X1	9.310	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	690.900	691.800	0.000	0.000	0.000	0.000	0.000
X1	9.320	12.000	350.000	374.000	1.000	1.000	1.000	0.000	.900	0.000
GR	691.300	240.000	691.200	309.000	690.500	350.000	687.700	360.000	686.300	362.000
GR	685.300	363.000	685.400	366.000	686.400	367.000	686.800	369.000	691.200	374.000
GR	691.400	388.000	691.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.330	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X1	9.340	10.000	406.000	427.000	14.000	14.000	14.000	0.000	-.100	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.350	9.000	409.000	414.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	690.100	692.000	0.000	0.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	692.000	406.000	692.000	409.000	686.500	409.100
GR	686.700	411.000	686.900	413.900	692.000	414.000	693.400	438.000	0.000	0.000
X1	9.360	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	690.100	692.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9.370	10.000	406.000	427.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	692.600	320.000	692.500	395.000	691.100	406.000	687.300	407.000	686.500	410.000
GR	686.800	412.000	688.100	414.000	688.800	416.000	692.000	427.000	693.400	438.000
X1	9.380	9.000	164.000	188.000	49.000	49.000	49.000	0.000	-.800	0.000
GR	693.400	90.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.390	0.000	0.000	0.000	92.000	92.000	92.000	0.000	.300	0.000
NC	0.000	0.000	0.000	.350	.700	0.000	0.000	0.000	0.000	0.000
X1	9.400	0.000	0.000	0.000	149.000	149.000	149.000	0.000	.500	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.410	12.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	692.600	165.000	692.100	168.500
GR	687.500	168.600	687.600	173.000	688.300	177.400	692.100	177.500	692.600	187.000
GR	693.100	188.000	693.800	200.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.420	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	692.100	692.600	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.430	9.000	164.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	693.400	50.000	693.300	164.000	688.800	168.000	687.500	170.000	687.600	172.000
GR	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000	0.000	0.000
X1	9.440	10.000	164.000	188.000	49.000	49.000	49.000	0.000	.200	0.000
GR	693.500	80.000	693.400	125.000	693.300	164.000	688.800	168.000	687.500	170.000
GR	687.600	172.000	689.200	174.000	690.200	178.000	693.100	188.000	693.800	210.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.560	0.000	0.000	0.000	69.000	69.000	69.000	0.000	.300	0.000
NC	.100	.075	.055	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	9.580	12.000	129.500	138.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	694.500	0.000	694.500	15.000	692.900	20.000	694.500	27.000	694.600	50.000
GR	694.800	52.000	694.100	129.500	689.300	129.600	688.600	134.000	688.900	138.400
GR	694.100	138.500	694.900	206.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.600	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	8.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100
BT	139.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.100	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000

BT	8.000	125.000	693.900	0.000	129.500	695.700	694.100	134.000	695.700	694.100
BT	138.500	695.700	694.100	152.000	695.700	0.000	176.000	695.100	0.000	206.000
BT	694.900	0.000	207.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.200	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	10.500	19.000	350.000	380.000	50.000	50.000	50.000	0.000	-.400	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	691.800	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000
X1	10.900	0.000	0.000	0.000	56.000	56.000	56.000	0.000	.400	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11.000	19.000	359.000	368.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	693.700	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000
X1	11.100	0.000	0.000	0.000	13.000	13.000	13.000	0.000	0.000	0.000
BT	2.000	350.000	694.900	693.700	380.000	694.900	693.700	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11.200	19.000	350.000	380.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.400	266.000	694.700	284.000	693.400	288.000	693.400	292.000	694.600	296.000
GR	694.900	318.000	695.400	332.000	694.900	350.000	691.800	358.000	690.100	359.000
GR	689.800	360.000	689.400	361.000	689.300	362.000	689.400	363.000	689.900	365.000
GR	691.800	368.000	694.900	380.000	695.400	414.000	696.100	444.000	0.000	0.000
X1	11.500	15.000	326.000	358.000	85.000	85.000	85.000	0.000	0.000	0.000
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000
QT	5.000	155.000	225.000	270.000	400.000	270.000	0.000	0.000	0.000	0.000
X1	11.600	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.500	294.000	694.500	300.000	694.500	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000
X1	11.700	0.000	0.000	0.000	19.000	19.000	19.000	0.000	.100	0.000
X1	11.800	15.000	326.000	358.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	694.500	294.000	693.900	300.000	694.900	310.000	694.400	326.000	690.800	336.000
GR	690.100	337.000	689.900	338.000	689.600	340.000	689.600	342.000	690.100	343.000
GR	690.800	344.000	693.800	352.000	694.400	358.000	695.000	400.000	695.600	425.000

X1	11.900	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	12.050	11.000	312.000	337.000	50.000	50.000	50.000	0.000	-.200	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.060	0.000	0.000	0.000	48.000	48.000	48.000	0.000	.200	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.070	15.000	323.000	327.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	694.800	322.000	692.800	323.000	691.400	323.600	690.800	325.000	691.400	326.400
GR	692.800	327.000	695.900	337.000	696.400	364.000	697.300	390.000	697.800	418.000
X1	12.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	312.000	695.300	0.000	323.000	695.400	692.800	323.600	695.400	694.200
BT	325.000	695.400	694.800	326.400	695.500	694.200	327.000	695.600	692.800	337.000
BT	696.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12.100	11.000	312.000	337.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	695.500	250.000	695.400	264.000	694.900	274.000	695.600	288.000	695.300	312.000
GR	690.600	320.000	690.600	326.000	695.900	337.000	696.400	364.000	697.300	390.000
GR	697.800	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.050	15.000	295.000	305.000	30.000	30.000	30.000	0.000	-.300	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	696.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.060	0.000	0.000	0.000	30.000	30.000	30.000	0.000	.300	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.070	17.000	298.000	302.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	695.700	297.000
GR	693.600	298.000	692.200	298.600	691.600	300.000	692.200	301.400	693.600	302.000
GR	695.700	303.000	695.700	305.000	696.000	314.000	696.200	328.000	696.400	350.000
GR	696.400	374.000	697.000	414.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.080	0.000	0.000	0.000	19.000	19.000	19.000	0.000	0.000	0.000
BT	7.000	297.000	695.700	0.000	298.000	695.700	693.600	298.600	695.700	695.000
BT	300.000	695.700	695.600	301.400	695.700	695.000	302.000	695.700	693.600	303.000
BT	697.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	13.100	15.000	295.000	305.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	696.200	258.000	695.800	272.000	695.700	290.000	695.700	295.000	692.100	297.000
GR	691.600	299.000	691.600	301.000	691.800	302.000	693.300	304.000	695.700	305.000
GR	696.000	314.000	696.200	328.000	696.400	350.000	696.400	374.000	697.000	414.000
X1	13.600	11.000	314.000	332.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	697.500	302.000	697.200	314.000	694.400	320.000	693.800	323.000	693.800	326.000
GR	694.400	330.000	696.300	332.000	696.800	346.000	696.800	360.000	697.200	384.000
GR	697.900	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13.700	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	13.800	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.500	0.000
X1	14.000	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.700	0.000
X1	14.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.200	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.300	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000
X1	14.400	0.000	0.000	0.000	120.000	120.000	120.000	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 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.85	6.06	676.26	0.00	676.26	676.35	.09	0.00	0.00	674.00
375.	93.	282.	0.	76.	102.	0.	0.	0.	676.10
0.00	1.23	2.75	.19	.060	.045	.060	0.000	670.20	56.06
.001621	0.	0.	0.	0	0	0	0.00	101.98	158.04

*SECNO 7.870

7.87	5.69	676.69	0.00	0.00	676.83	.14	.46	.01	674.80
375.	75.	300.	0.	54.	91.	0.	1.	0.	676.90
.02	1.39	3.30	0.00	.060	.045	.060	.045	671.00	65.70
.002546	230.	230.	230.	2	0	0	0.00	84.55	150.25

*SECNO 7.900

7.90	5.44	677.34	0.00	0.00	677.53	.19	.69	.01	675.70
375.	61.	314.	0.	41.	83.	0.	2.	1.	677.80
.04	1.47	3.77	0.00	.060	.045	.060	.045	671.90	72.41
.003391	235.	235.	235.	2	0	0	0.00	75.66	148.08

*SECNO 7.920

7.92	5.26	678.06	0.00	0.00	678.29	.24	.75	.01	676.60
375.	50.	325.	0.	33.	78.	0.	2.	1.	678.70
.06	1.51	4.15	0.00	.060	.045	.060	.045	672.80	77.28
.004155	200.	200.	200.	2	0	0	0.00	69.22	146.50

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.95	5.26	678.96	0.00	0.00	679.31	.34	.98	.03	677.90
375.	21.	354.	0.	17.	73.	0.	3.	2.	680.60
.07	1.24	4.83	0.00	.065	.050	.065	.046	673.70	604.17
.005932	199.	199.	199.	0	0	0	0.00	58.04	662.21

*SECNO 8.000

8.00	5.55	681.55	0.00	0.00	681.80	.26	2.49	.01	680.20
375.	37.	338.	0.	29.	79.	0.	4.	2.	682.90
.10	1.27	4.26	0.00	.065	.050	.065	.047	676.00	594.88
.004230	500.	500.	500.	2	0	0	0.00	67.64	662.52

*SECNO 8.100

8.10	5.55	683.65	0.00	0.00	683.91	.25	2.11	.00	682.30

```
     375.      37.     338.       0.      29.      80.       0.       5.       3.     685.00
      .14     1.27     4.24     0.00     .065     .050     .065     .048   678.10    594.67
  .004198     500.     500.     500.        1        0        0     0.00    67.86    662.53

*SECNO 8.500
3280 CROSS SECTION       8.50 EXTENDED        .04 FEET

     8.50     5.64   685.74     0.00     0.00   685.90      .17     1.99      .01    684.90
     375.       8.     365.       2.       9.     110.       4.       6.       4.     685.50
      .18      .97     3.32      .38     .060     .050     .065     .048   680.10    615.00
  .004651     450.     450.     450.        2        0        0     0.00   101.71    716.71

*SECNO 8.600
3280 CROSS SECTION       8.60 EXTENDED        .01 FEET

     8.60     5.61   688.11     0.00     0.00   688.28      .17     2.38      .00    687.30
     375.       8.     366.       1.       8.     109.       3.       8.       5.     687.90
      .22      .95     3.37      .36     .060     .050     .065     .049   682.50    615.00
  .004862     500.     500.     500.        2        0        0     0.00    97.94    712.94

*SECNO 9.100
   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

     9.10     5.95   689.55     0.00     0.00   689.85      .29     1.53      .04    688.80
     375.      17.     358.       0.      17.      80.       0.       8.       6.     689.50
      .24      .97     4.45      .16     .060     .050     .065     .049   683.60    291.92
  .005349     300.     300.     300.        2        0        0     0.00    86.21    378.12

*SECNO 9.200
     9.20     5.87   691.17     0.00     0.00   691.50      .33     1.64      .01    690.50
     375.      12.     363.       0.      13.      77.       0.       9.       6.     691.20
      .25      .94     4.71     0.00     .060     .050     .065     .049   685.30    310.95
  .006291     283.     283.     283.        2        0        0     0.00    63.01    373.96

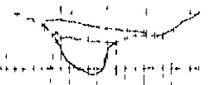
CCHV=     .400 CEHV=     .800
*SECNC 9.280
     9.28     5.52   691.52     0.00     0.00   691.97      .45      .37      .10    691.20
     375.       2.     373.       0.       3.      69.       0.       9.       6.     691.90
      .26      .71     5.43     0.00     .060     .050     .065     .049   686.00    331.47
  .009485      49.      49.      49.        2        0        0     0.00    42.09    373.56

*SECNO 9.290
3280 CROSS SECTION       9.29 EXTENDED        .54 FEET

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

     9.29     6.64   692.54     0.00     0.00   692.74      .19      .66      .10    691.10
```

375.	194.	141.	40.	74.	30.	18.	9.	6.	691.10
.26	2.62	4.71	2.19	.060	.050	.065	.049	685.90	240.00
.020577	49.	49.	49.	7	0	0	-25.76	160.00	400.00



#SECNO 9.310
3280 CROSS SECTION 9.31 EXTENDED .60 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.31	6.71	692.61	0.00	0.00	692.77	.16	.02	.01	691.10
375.	204.	129.	43.	82.	30.	20.	9.	6.	691.10
.26	2.49	4.25	2.09	.060	.050	.065	.049	685.90	240.00
.016454	1.	1.	1.	3	0	0	-25.76	160.00	400.00

#SECNO 9.320
3280 CROSS SECTION 9.32 EXTENDED .45 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLCBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.32	6.44	692.64	0.00	0.00	692.78	.14	.01	.01	691.40
375.	69.	301.	5.	72.	91.	8.	9.	6.	692.10
.26	.97	3.30	.60	.060	.050	.065	.049	686.20	240.00
.002479	1.	1.	1.	2	0	0	0.00	158.57	398.57

#SECNO 9.330
3280 CROSS SECTION 9.33 EXTENDED .47 FEET

9.33	6.47	692.67	0.00	0.00	692.81	.13	.02	.00	691.40
375.	71.	299.	5.	73.	92.	9.	9.	6.	692.10
.26	.97	3.26	.60	.060	.050	.065	.049	686.20	240.00
.002409	10.	10.	10.	2	0	0	0.00	159.07	399.07

#SECNO 9.340
3280 CROSS SECTION 9.34 EXTENDED .19 FEET

9.34	6.29	692.69	0.00	0.00	692.96	.27	.05	.11	691.00
375.	30.	343.	2.	29.	79.	2.	9.	6.	691.90
.26	1.03	4.33	.83	.060	.050	.065	.049	686.40	320.00
.004569	14.	14.	14.	2	0	0	0.00	113.22	433.22

#SECNO 9.350
3280 CROSS SECTION 9.35 EXTENDED .60 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	ARCB	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

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
      9.35      6.70    693.10    693.10      0.00    693.51      .41      .01       .12    691.90
      375.      188.      160.       27.       62.       23.      11.       9.        6.     691.90
       .26      3.03      7.10      2.37      .060      .030     .065      .049    686.40    320.00
  .023824        1.        1.        1.         8        10        0   -11.20    114.58    434.58

 *SECNO 9.360
 3280 CROSS SECTION      9.36 EXTENDED      1.19 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.00 MAX ELLC=  690.10

      9.36      7.29    693.69      0.00      0.00    693.79      .10      .15       .13    691.90
      375.      241.       92.       42.      115.       26.      25.       9.        6.     691.90
       .27      2.10      3.60      1.67      .060      .030     .065      .049    686.40    320.00
  .005189        16.       16.       16.         4         0        0   -11.37/   118.00    438.00


 *SECNO 9.370
 3280 CROSS SECTION      9.37 EXTENDED      1.13 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

      9.37      7.23    693.73      0.00      0.00    693.80      .07       .00       .01    691.10
      375.      112.      254.        9.      110.       99.      11.       9.        6.     692.00
       .27      1.02      2.57       .79      .060      .050     .065      .049    686.50    320.00
  .001195         1.        1.        1.         2         0        0      0.00    118.00    438.00

 *SECNO 9.380
 3280 CROSS SECTION      9.38 EXTENDED      1.19 FEET

      9.38      7.09    693.79      0.00      0.00    693.87      .07       .06       .00    692.50
      375.       93.      261.       22.       92.      102.      25.       10.       7.     692.30
       .27      1.01      2.54       .87      .060      .050     .065      .049    686.70    90.00
  .001267        49.       49.       49.         2         0        0      0.00    120.00    210.00

 CCHV=    .100 CEHV=    .300
 *SECNO 9.390
 3280 CROSS SECTION      9.39 EXTENDED      1.01 FEET

      9.39      6.91    693.91      0.00      0.00    694.00      .09       .13       .01    692.80
      375.       81.      275.       19.       78.       98.      21.       10.       7.     692.60
       .28      1.03      2.81       .88      .060      .050     .065      .049    687.00    90.00
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```
.001637      92.       92.       92.        2         0         0      0.00    120.00    210.00

 CCHV=    .350 CEHV=    .700
 *SECNO 9.400
 3280 CROSS SECTION      9.40 EXTENDED       .78 FEET

      9.40      6.68    694.18      0.00      0.00    694.31       .13       .29       .02    693.30
       375.       64.      296.       14.       62.       93.       16.       11.        7.    693.10
        .30      1.04      3.20       .88      .060      .050      .065      .049    687.50     90.00
     .002288       149.      149.      149.         2         0         0      0.00    120.00    210.00

 *SECNO 9.410
 3280 CROSS SECTION      9.41 EXTENDED       .68 FEET

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.41      6.67    694.17      0.00      0.00    694.35       .17       .00       .03    693.30
       375.       79.      287.        9.       65.       76.        9.       11.        7.    693.10
        .30      1.21      3.78      1.05      .060      .030      .065      .049    687.50     80.00
     .003363         1.        1.        1.         1         0         0     -7.75    120.00    200.00

 *SECNO 9.420
 3280 CROSS SECTION      9.42 EXTENDED       .72 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=   0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.42      6.72    694.22      0.00      0.00    694.38       .16       .03       .00    693.30
       375.       83.      283.       10.       68.       77.        9.       11.        7.    693.10
        .30      1.21      3.67      1.05      .060      .030      .065      .049    687.50     80.00
     .003134        10.       10.       10.         2         0         0     -7.75    120.00    200.00

 *SECNO 9.430
 3280 CROSS SECTION      9.43 EXTENDED       .95 FEET

      9.43      6.85    694.35      0.00      0.00    694.42       .07       .00       .03    693.30
       375.      114.      244.       17.      114.       97.       20.       11.        7.    693.10
        .30      1.00      2.53       .85      .060      .055      .065      .049    687.50     50.00
     .001633         1.        1.        1.         2         0         0      0.00    160.00    210.00

 *SECNO 9.440
 3280 CROSS SECTION      9.44 EXTENDED       .73 FEET

      9.44      6.73    694.43      0.00      0.00    694.55       .11       .10       .03    693.50
```

375.	75.	284.	16.	70.	94.	17.	11.	7.	693.30
.30	1.08	3.02	.95	.060	.055	.065	.049	687.70	80.00
.002430	49.	49.	49.	2	0	0	0.00	130.00	210.00

CCHV= .100 CEHV= .300
*SECNO 9.560
3280 CROSS SECTION 9.56 EXTENDED .60 FEET

9.56	6.60	694.60	0.00	0.00	694.74	.14	.19	.01	693.80
375.	63.	299.	13.	59.	91.	14.	11.	8.	693.60
.31	1.07	3.29	.94	.060	.055	.065	.049	688.00	80.00
.003018	69.	69.	69.	2	0	0	0.00	130.00	210.00

CCHV= .300 CEHV= .500
*SECNO 9.580
3280 CROSS SECTION 9.58 EXTENDED .68 FEET

9.58	6.58	695.18	0.00	0.00	695.34	.17	.59	.01	694.10
375.	94.	230.	51.	100.	56.	46.	12.	8.	694.10
.33	.94	4.09	1.11	.100	.055	.075	.049	688.60	0.00
.005309	150.	150.	150.	2	0	0	0.00	206.00	206.00

*SECNO 9.600
3280 CROSS SECTION 9.60 EXTENDED .39 FEET

3301 HV CHANGED MORE THAN HVINS

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

Jewell Rd

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

9.60	6.30	694.90	692.66	0.00	695.64	.74	.01	.29	694.10
375.	36.	339.	0.	32.	47.	0.	12.	8.	694.10
.33	1.12	7.26	0.00	.100	.030	.075	.049	688.60	0.00
.010749	1.	1.	1.	4	16	0	-64.31	205.34	205.34

*SECNO 10.100
3280 CROSS SECTION 10.10 EXTENDED .98 FEET

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

10.10	6.88	695.48	692.66	0.00	695.84	.36	.09	.11	694.10
375.	96.	265.	14.	86.	47.	20.	12.	8.	694.10
.33	1.12	5.68	.70	.100	.030	.075	.049	688.60	0.00
.006583	11.	11.	11.	8	16	0	-112.69	206.00	206.00

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.41 FEET

10.20	7.31	695.91	0.00	0.00	695.94	.04	.00	.10	694.10
375.	143.	144.	88.	194.	63.	95.	12.	8.	694.10
.33	.74	2.28	.93	.100	.055	.075	.049	688.60	0.00
.001430	1.	1.	1.	3	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 1.96 FEET

10.50	7.06	695.96	0.00	0.00	696.01	.04	.06	.00	694.50
375.	89.	249.	37.	137.	123.	59.	12.	9.	694.50
.34	.65	2.03	.62	.100	.055	.075	.049	688.90	266.00
.000966	50.	50.	50.	2	0	0	0.00	178.00	444.00

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.62 FEET

10.90	6.72	696.02	0.00	0.00	696.08	.07	.07	.01	694.90
375.	79.	273.	24.	108.	112.	38.	13.	9.	694.90
.34	.72	2.42	.63	.100	.055	.075	.049	689.30	266.00
.001549	56.	56.	56.	2	0	0	0.00	174.46	440.46

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.57 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

Jewell Rd. is LOB
stream is parallel

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.67	695.97	0.00	0.00	696.14	.17	.00	.05	690.10
375.	138.	185.	52.	124.	40.	47.	13.	9.	693.70
.34	1.11	4.63	1.10	.100	.030	.075	.049	689.30	266.00
.004193	1.	1.	1.	2	0	0	-24.00	172.28	438.28

64

different channel limitr

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 1.65 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.10	6.75	696.05	0.00	0.00	696.20	.15	.05	.01	690.10
375.	141.	177.	57.	132.	41.	54.	13.	9.	693.70
.35	1.07	4.34	1.07	.100	.030	.075	.049	689.30	266.00
.003589	13.	13.	13.	2	0	0	-24.00	176.00	442.00

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.77 FEET

11.20	6.87	696.17	0.00	0.00	696.23	.06	.00	.03	694.90
375.	84.	261.	30.	121.	117.	47.	13.	9.	694.90
.35	.69	2.23	.62	.100	.055	.075	.049	689.30	266.00
.001245	1.	1.	1.	2	0	0	0.00	178.00	444.00

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.77 FEET

11.50	6.67	696.27	0.00	0.00	696.32	.05	.09	.00	694.40
375.	37.	270.	68.	57.	132.	90.	13.	9.	694.40
.36	.64	2.04	.75	.100	.055	.075	.049	689.60	294.00
.000928	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.80 FEET

11.60	6.70	696.30	0.00	0.00	696.33	.02	.00	.01	694.40
270.	27.	193.	50.	59.	133.	92.	13.	9.	694.40
.36	.46	1.45	.54	.100	.055	.075	.049	689.60	294.00
.000461	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.71 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
11.70	6.61	696.31	0.00	0.00	696.34	.03	.01	.00	694.50
270.	26.	197.	47.	56.	130.	86.	13.	9.	694.50
.36	.47	1.51	.55	.100	.055	.075	.049	689.70	294.00
.000515	19.	19.	19.	2	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.82 FEET

11.80	6.72	696.32	0.00	0.00	696.34	.02	.00	.00	694.40
270.	27.	193.	50.	59.	134.	93.	13.	9.	694.40
.36	.46	1.44	.54	.100	.055	.075	.049	689.60	294.00
.000457	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.900
3280 CROSS SECTION 11.90 EXTENDED 1.44 FEET

11.90	6.34	696.34	0.00	0.00	696.37	.04	.03	.01	694.80
270.	23.	208.	38.	46.	122.	68.	14.	9.	694.80
.37	.50	1.71	.56	.100	.055	.075	.049	690.00	294.00
.000729	50.	50.	50.	2	0	0	0.00	131.00	425.00

*SECNO 12.050
3280 CROSS SECTION 12.05 EXTENDED 1.07 FEET

12.05	5.97	696.37	0.00	0.00	696.43	.06	.05	.01	695.10
270.	43.	222.	4.	75.	101.	12.	14.	10.	695.70
.38	.57	2.19	.37	.100	.055	.075	.049	690.40	250.00
.001159	50.	50.	50.	2	0	0	0.00	118.96	368.96

*SECNO 12.060
3280 CROSS SECTION 12.06 EXTENDED .93 FEET

12.06	5.83	696.43	0.00	0.00	696.50	.07	.06	.01	695.30
270.	38.	229.	2.	66.	98.	7.	14.	10.	695.90
.39	.58	2.35	.31	.100	.055	.075	.049	690.60	250.00
.001390	48.	48.	48.	2	0	0	0.00	114.76	364.76

*SECNO 12.070
3280 CROSS SECTION 12.07 EXTENDED .86 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

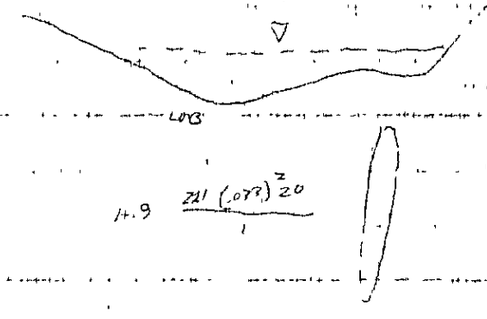
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

12.07	5.56	696.36	696.36	0.00	696.77	.41	.00	.17	692.80
270.	152. →	113.	5.	74.	15.	4.	14.	10.	692.80
.39	2.06	7.58	1.40	.100	.030	.075	.049	690.80	250.00
.019322	1.	1.	1.	20	6	0	-31.60	111.98	361.98

*SECNO 12.080
3280 CROSS SECTION 12.08 EXTENDED 1.43 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.08	6.13	696.93	0.00	0.00	697.04	.10	.17	.09	692.80
270.	166.	75.	28.	115.	17.	28.	14.	10.	692.80
.39	1.45	4.37	1.03	.100	.030	.075	.049	690.80	250.00
.005317	19.	19.	19.	4	0	0	-32.76	129.36	379.36



"n" values for road?

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.52 FEET

12.10	6.42	697.02	0.00	0.00	697.06	.04	.00	.02	695.30
270.	55.	202.	12.	103.	113.	29.	14.	10.	695.90
.39	.54	1.80	.42	.100	.055	.075	.049	690.60	250.00
.000673	1.	1.	1.	2	0	0	0.00	132.01	382.01

Channel limits changed.

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED 1.14 FEET

13.05	5.74	697.04	0.00	0.00	697.10	.06	.03	.01	695.40
270.	49.	129.	92.	56.	47.	102.	14.	10.	695.40
.39	.88	2.73	.90	.100	.055	.075	.049	691.30	258.00
.002063	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED .90 FEET

13.06	5.50	697.10	0.00	0.00	697.20	.10	.08	.02	695.70
270.	46.	150.	73.	47.	45.	76.	14.	10.	695.70
.40	.99	3.34	.97	.100	.055	.075	.049	691.60	258.00
.003304	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED .88 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.48	697.08	0.00	0.00	697.23	.16	.00	.03	693.60
270.	75.	87.	109.	50.	17.	75.	14.	10.	693.60
.40	1.49	5.18	1.45	.100	.030	.075	.049	691.60	258.00
.007742	1.	1.	1.	2	0	0	-6.97	156.00	414.00

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED 1.07 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

4' CMP

13.08	5.68	697.28	0.00	0.00	697.37	.09	.11	.02	693.60
270.	73.	72.	124.	58.	17.	97.	14.	10.	693.60
.40	1.27	4.13	1.28	.100	.030	.075	.049	691.60	258.00
.004628	19.	19.	19.	3	0	0	-7.26	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.11 FEET

13.10	5.71	697.31	0.00	0.00	697.38	.07	.00	.01	695.70
270.	49.	132.	90.	54.	47.	99.	14.	10.	695.70
.40	.89	2.80	.91	.100	.055	.075	.049	691.60	258.00
.002193	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.66 FEET

13.60	5.36	697.46	0.00	0.00	697.49	.02	.10	.01	695.50
270.	10.	127.	133.	22.	79.	176.	15.	10.	694.60
.43	.47	1.60	.75	.100	.055	.075	.049	692.10	302.00
.000541	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.22 FEET

13.70	4.93	697.53	0.00	0.00	697.56	.04	.07	.01	696.00
270.	12.	140.	118.	16.	71.	139.	16.	11.	695.10
.45	.70	1.96	.85	.075	.055	.075	.049	692.60	302.00
.000930	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED .84 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
13.80	4.54	697.64	0.00	0.00	697.70	.06	.12	.01	696.50
270.	9.	158.	103.	12.	64.	105.	16.	11.	695.60
.46	.77	2.45	.98	.075	.055	.075	.049	693.10	302.00
.001674	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .41 FEET

14.00	4.11	697.91	0.00	0.00	698.03	.12	.31	.03	697.20
270.	5.	186.	79.	7.	57.	69.	17.	11.	696.30
.47	.78	3.27	1.14	.075	.055	.075	.050	693.80	302.00
.003504	132.	132.	132.	2	0	0	0.00	116.00	418.00

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .22 FEET

14.10	3.92	698.72	0.00	0.00	698.89	.17	.83	.02	698.20
270.	3.	200.	66.	4.	53.	53.	17.	12.	697.30
.49	.72	3.75	1.24	.075	.055	.075	.050	694.80	302.00
.005032	200.	200.	200.	2	0	0	0.00	107.39	409.39

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .22 FEET

14.20	3.93	699.73	0.00	0.00	699.90	.17	1.01	.00	699.20
270.	3.	200.	66.	4.	53.	53.	18.	12.	698.30
.51	.72	3.75	1.24	.075	.055	.075	.050	695.80	302.00
.005026	200.	200.	200.	0	0	0	0.00	107.42	409.42

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .23 FEET

14.30	3.93	700.73	0.00	0.00	700.90	.17	1.00	.00	700.20
270.	3.	200.	67.	5.	54.	54.	18.	13.	699.30
.53	.72	3.74	1.24	.075	.055	.075	.050	696.80	302.00
.004968	200.	200.	200.	0	0	0	0.00	107.71	409.71

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .23 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

14.40	3.93	701.33	0.00	0.00	701.49	.17	.60	.00	700.80
270.	3.	200.	67.	5.	54.	54.	18.	13.	699.90
.54	.72	3.73	1.24	.075	.055	.075	.050	697.40	302.00
.004952	120.	120.	120.	0	0	0	0.00	107.79	409.79

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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      SENSITIVITY RUN  N* 0.7

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -1.       4.        0.        0.  0.000000      0.00     -1.0        0.   676.260     0.000

J2  NPROF     IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     0.000      .700     0.000     0.000     0.000     0.000
```

*PROF 2

CCHV= .100 CEHV= .300

*SECNO 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
7.85	6.06	676.26	0.00	676.26	676.35	.09	0.00	0.00	674.00
375.	93.	282.	0.	76.	102.	0.	0.	0.	676.10
0.00	1.23	2.75	.19	.042	.032	.042	0.000	670.20	56.06
.000794	0.	0.	0.	0	0	0	0.00	101.98	158.04

*SECNO 7.870

7.87	5.45	676.45	0.00	0.00	676.64	.19	.26	.03	674.80
375.	61.	314.	0.	41.	83.	0.	1.	0.	676.90
.02	1.47	3.77	0.00	.042	.032	.042	.031	671.00	72.40
.001660	230.	230.	230.	0	0	0	0.00	75.68	148.08

*SECNO 7.900

7.90	4.96	676.86	0.00	0.00	677.19	.33	.51	.04	675.70
375.	33.	342.	0.	21.	71.	0.	1.	1.	677.80
.03	1.56	4.84	0.00	.042	.032	.042	.031	671.90	85.23
.002954	235.	235.	235.	2	0	0	0.00	59.80	145.03

*SECNO 7.920

7.92	4.67	677.47	0.00	0.00	677.93	.46	.70	.04	676.60
375.	19.	356.	0.	12.	64.	0.	2.	1.	678.70
.04	1.52	5.59	0.00	.042	.032	.042	.031	672.80	92.76
.004270	200.	200.	200.	2	0	0	0.00	51.14	143.89

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
7.95	4.67	678.37	0.00	0.00	678.94	.58	.97	.03	677.90
375.	3.	372.	0.	3.	61.	0.	2.	1.	680.60
.05	.93	6.11	0.00	.046	.035	.046	.032	673.70	628.57
.005665	199.	199.	199.	2	0	0	0.00	33.00	661.56

*SECNO 8.000

8.00	4.92	680.92	0.00	0.00	681.39	.46	2.44	.01	680.20
375.	8.	367.	0.	7.	66.	0.	3.	2.	682.90
.08	1.16	5.53	0.00	.046	.035	.046	.033	676.00	618.97
.004233	500.	500.	500.	1	0	0	0.00	42.88	661.85

*SECNO 8.100

8.10	4.93	683.03	0.00	0.00	683.50	.46	2.11	.00	682.30

```
     375.       9.     366.       0.       7.      66.       0.       4.       2.     685.00
      .10     1.16     5.51     0.00     .046     .035     .046     .034   678.10    618.62
  .004198     500.     500.     500.        2        0        0     0.00    43.23    661.86

*SECNO 8.500
     8.50     5.08   685.18     0.00     0.00   685.49      .30     1.97      .02    684.90
     375.       1.     374.       0.       1.      85.       0.       5.       3.     685.50
      .13      .65     4.43     0.00     .042     .035     .046     .034   680.10    627.97
  .004586     450.     450.     450.        3        0        0     0.00    46.83    674.80

*SECNO 8.600
     8.60     5.02   687.52     0.00     0.00   687.84      .32     2.35      .01    687.30
     375.       0.     375.       0.       1.      82.       0.       6.       3.     687.90
      .16      .56     4.56     0.00     .042     .035     .046     .034   682.50    629.50
  .004815     500.     500.     500.        2        0        0     0.00    43.73    673.23

*SECNO 9.100
   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

     9.10     5.32   688.92     0.00     0.00   689.43      .51     1.54      .06    688.80
     375.       0.     375.       0.       0.      65.       0.       6.       3.     689.50
      .18      .42     5.72     0.00     .042     .035     .046     .034   683.60    342.54
  .005462     300.     300.     300.        0        0        0     0.00    30.81    373.35

*SECNO 9.200
     9.20     5.25   690.55     0.00     0.00   691.11      .56     1.66      .01    690.50
     375.       0.     375.       0.       0.      63.       0.       6.       4.     691.20
      .19      .03     5.99     0.00     .042     .035     .046     .034   685.30    346.88
  .006299     283.     283.     283.        2        0        0     0.00    26.39    373.27

CCHV=     .400 CEHV=     .800
*SECNO 9.280
     9.28     4.88   690.88     0.00     0.00   691.63      .74      .37      .15    691.20
     375.       0.     375.       0.       0.      54.       0.       7.       4.     691.90
      .19     0.00     6.92     0.00     .042     .035     .046     .034   686.00    351.14
  .009289      49.      49.      49.        2        0        0     0.00    21.71    372.84

*SECNO 9.290
3280 CROSS SECTION      9.29 EXTENDED       .45 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=  0 MIN ELTRD=  691.80 MAX ELLC=  690.90

7185 MINIMUM SPECIFIC ENERGY
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 3720 CRITICAL DEPTH ASSUMED
       9.29      6.55    692.45    692.45      0.00    692.72       .27       .55       .19    691.10
        375.      178.      162.       35.       64.       29.       15.        7.        4.    691.10
         .20      2.80      5.50      2.36      .042      .035      .046      .034    685.90    240.00
    .014041       49.       49.       49.         2        13         0    -25.76    158.54    398.54

  *SECNO 9.310
  3280 CROSS SECTION      9.31 EXTENDED       .64 FEET

  3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  691.80 MAX ELLC=  690.90

       9.31      6.74    692.64      0.00      0.00    692.78       .14       .01       .05    691.10
        375.      208.      123.       44.       86.       30.       22.        7.        4.    691.10
         .20      2.43      4.02      2.04      .042      .035      .046      .034    685.90    240.00
    .007170         1.        1.        1.         6         0         0    -25.76    160.00    400.00

  *SECNO 9.320
  3280 CROSS SECTION      9.32 EXTENDED       .45 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

       9.32      6.45    692.65      0.00      0.00    692.78       .14       .00       .00    691.40
        375.       69.       301.        5.       72.       91.        8.        7.        4.    692.10
         .20       .97      3.30       .60      .042      .035      .046      .034    686.20    240.00
    .001217         1.        1.        1.         0         0         0      0.00    158.53    398.53

  *SECNO 9.330
  3280 CROSS SECTION      9.33 EXTENDED       .46 FEET

       9.33      6.46    692.66      0.00      0.00    692.80       .14       .01       .00    691.40
        375.       70.       300.        5.       73.       91.        8.        7.        4.    692.10
         .20       .97      3.28       .60      .042      .035      .046      .034    686.20    240.00
    .001196        10.       10.       10.         2         0         0      0.00    158.84    398.84

  *SECNO 9.340
  3280 CROSS SECTION      9.34 EXTENDED       .15 FEET

       9.34      6.25    692.65      0.00      0.00    692.94       .28       .02       .12    691.00
        375.       27.       347.        2.       26.       78.        2.        7.        4.    691.90
         .20      1.03      4.42       .82      .042      .035      .046      .034    686.40    320.00
    .002358        14.       14.       14.         2         0         0      0.00    112.93    432.93

  *SECNO 9.350
  3280 CROSS SECTION      9.35 EXTENDED       .60 FEET

      SECNO     DEPTH     CWSEL     CRIWS    WSELK     EG        HV        HL       OLOSS    BANK ELEV
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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

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

9.35	6.70	693.10	693.10	0.00	693.51	.41	.00	.10	691.90
375.	188.	160.	27.	62.	23.	11.	7.	4.	691.90
.20	3.03	7.10	2.37	.042	.021	.046	.034	686.40	320.00
.011674	1.	1.	1.	9	10	0	-11.20	114.58	434.58

*SECNO 9.360
3280 CROSS SECTION 9.36 EXTENDED 1.10 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.36	7.20	693.60	0.00	0.00	693.72	.12	.09	.12	691.90
375.	236.	99.	40.	107.	25.	23.	7.	4.	691.90
.20	2.22	3.94	1.75	.042	.021	.046	.034	686.40	320.00
.003118	16.	16.	16.	4	0	0	-11.37	118.00	438.00

*SECNO 9.370
3280 CROSS SECTION 9.37 EXTENDED 1.05 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

9.37	7.15	693.65	0.00	0.00	693.73	.08	.00	.01	691.10
375.	106.	260.	8.	103.	97.	10.	7.	4.	692.00
.20	1.03	2.68	.79	.042	.035	.046	.034	686.50	320.00
.000651	1.	1.	1.	2	0	0	0.00	118.00	438.00

*SECNO 9.380
3280 CROSS SECTION 9.38 EXTENDED 1.08 FEET

9.38	6.98	693.68	0.00	0.00	693.77	.09	.03	.00	692.50
375.	86.	270.	20.	84.	100.	23.	7.	4.	692.30
.21	1.02	2.70	.88	.042	.035	.046	.034	686.70	90.00
.000725	49.	49.	49.	2	0	0	0.00	120.00	210.00

CCHV= .100 CEHV= .300
*SECNO 9.390
3280 CROSS SECTION 9.39 EXTENDED .85 FEET

9.39	6.74	693.74	0.00	0.00	693.86	.12	.08	.01	692.80

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      375.      69.      290.      16.      66.      94.      18.       7.       4.    692.60
       .22     1.04      3.08      .88     .042     .035     .046     .034   687.00     90.00
  .001019       92.       92.       92.        0        0        0     0.00   120.00    210.00

 CCHV=    .350 CEHV=    .700
 *SECNO 9.400
 3280 CROSS SECTION      9.40 EXTENDED       .51 FEET

      9.40     6.41   693.91     0.00     0.00   694.11      .19      .19      .05   693.30
      375.      41.      325.       8.      42.      86.      10.       8.       5.   693.10
       .23     1.00      3.78      .81     .042     .035     .046     .034   687.50    90.00
  .001726       149.      149.      149.        2        0        0     0.00   120.00    210.00

 *SECNO 9.410
 3280 CROSS SECTION      9.41 EXTENDED       .38 FEET


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.41     6.38   693.88     0.00     0.00   694.18      .30      .00      .07   693.30
      375.      47.      323.       5.      40.      69.       5.       8.       5.   693.10
       .23     1.17      4.68     1.00     .042     .021     .046     .034   687.50    80.00
  .002893         1.        1.        1.        2        0        0    -7.75   120.00    200.00

 *SECNO 9.420
 3280 CROSS SECTION      9.42 EXTENDED       .47 FEET

    SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL       OLOSS    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

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.60 MAX ELLC=  692.10

      9.42     6.47   693.97     0.00     0.00   694.22      .25      .03      .02   693.30
      375.      57.      311.       6.      48.      71.       6.       8.       5.   693.10
       .23     1.20      4.38     1.03     .042     .021     .046     .034   687.50    80.00
  .002427       10.       10.       10.        2        0        0    -7.75   120.00    200.00

 *SECNO 9.430
 3280 CROSS SECTION      9.43 EXTENDED       .78 FEET

      9.43     6.69   694.19     0.00     0.00   694.28      .09      .00      .06   693.30
      375.      97.      264.      14.      95.      93.      16.       8.       5.   693.10
       .23     1.02      2.84      .86     .042     .039     .046     .034   687.50    50.00
  .001074         1.        1.        1.        3        0        0     0.00   160.00    210.00

 *SECNO 9.440
 3280 CROSS SECTION      9.44 EXTENDED       .53 FEET
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      9.44      6.53    694.23      0.00      0.00    694.39       .15       .06       .04    693.50
       375.       56.      307.       12.       53.       89.       13.        8.        5.    693.30
        .23      1.06      3.45       .92      .042      .039      .046      .034    687.70     80.00
    .001669       49.       49.       49.         2         0         0      0.00    130.00    210.00

 CCHV=    .100 CEHV=    .300
 *SECNO 9.560
 3280 CROSS SECTION      9.56 EXTENDED       .33 FEET

      9.56      6.32    694.32      0.00      0.00    694.54       .22       .14       .02    693.80
       375.       35.      334.        7.       35.       84.        8.        8.        5.    693.60
        .24       .98      3.96       .83      .042      .039      .046      .034    688.00     80.00
    .002376       69.       69.       69.         0         0         0      0.00    130.00    210.00

 CCHV=    .300 CEHV=    .500
 *SECNO 9.580

 3265 DIVIDED FLOW

 3280 CROSS SECTION      9.58 EXTENDED       .24 FEET

      9.58      6.14    694.74    694.65      0.00    695.21       .47       .54       .12    694.10
       375.       43.      314.       18.       43.       52.       17.        9.        6.    694.10
        .25      1.00      5.98      1.04      .070      .039      .053      .034    688.60      0.00
    .006131       150.      150.      150.         4         8         0      0.00    185.55    192.62

 *SECNO 9.600

 3265 DIVIDED FLOW

 3280 CROSS SECTION      9.60 EXTENDED       .03 FEET

      SECNO     DEPTH     CWSEL     CRIWS    WSELK      EG        HV        HL       OLOSS    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     ICC       ICONT     CORAR    TOPWID   ENDST

 3370 NORMAL BRIDGE,NRD=   8 MIN ELTRD=  693.90 MAX ELLC=  694.10

      9.60      5.93    694.53    692.66      0.00    695.43       .89       .01       .21    694.10
       375.       14.      361.        0.       10.       47.        0.        9.        6.    694.10
        .25      1.35      7.73      0.00      .070      .021      .053      .034    688.60      0.00
    .005966          1.        1.        1.         4        16         0    -21.52    125.00    174.43

 *SECNO 10.100

 3265 DIVIDED FLOW

 3280 CROSS SECTION     10.10 EXTENDED       .14 FEET
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3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 693.90 MAX ELLC= 694.10

10.10	6.04	694.64	692.66	0.00	695.50	.86	.06	.01	694.10
375.	19.	356.	0.	16.	47.	0.	9.	6.	694.10
.25	1.21	7.63	0.00	.070	.021	.053	.034	688.60	0.00
.005809	11.	11.	11.	4	16	0	-33.52	165.13	184.22

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.19 FEET

3301 HV CHANGED MORE THAN HVINS

10.20	7.09	695.69	0.00	0.00	695.75	.05	.00	.24	694.10
375.	133.	162.	80.	166.	61.	81.	9.	6.	694.10
.25	.80	2.66	.99	.070	.039	.053	.034	688.60	0.00
.000992	1.	1.	1.	8	0	0	0.00	206.00	206.00

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 1.72 FEET

10.50	6.83	695.73	0.00	0.00	695.79	.06	.04	.00	694.50
375.	82.	265.	28.	117.	116.	44.	9.	6.	694.50
.25	.70	2.29	.63	.070	.039	.053	.034	688.90	266.00
.000652	50.	50.	50.	2	0	0	0.00	178.00	444.00

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.37 FEET

10.90	6.46	695.76	0.00	0.00	695.85	.10	.05	.02	694.90
375.	68.	292.	15.	87.	105.	24.	9.	6.	694.90
.26	.78	2.78	.63	.070	.039	.053	.034	689.30	266.00
.001096	56.	56.	56.	1	0	0	0.00	163.68	429.68

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.24 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

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.34	695.64	0.00	0.00	695.98	.34	.00	.12	690.10
375.	122.	221.	31.	94.	37.	27.	9.	6.	693.70
.26	1.30	5.98	1.17	.070	.021	.053	.034	689.30	266.00
.003797	1.	1.	1.	2	0	0	-24.00	158.31	424.31

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 *SECNO 11.100
 3280 CROSS SECTION     11.10 EXTENDED      1.39 FEET


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  694.90 MAX ELLC=  693.70

      11.10      6.50    695.80      0.00      0.00    696.05       .25       .04       .03    690.10
        375.      131.      203.       41.      108.      38.       36.       10.        6.     693.70
         .26      1.21      5.30      1.15      .070      .021      .053      .034    689.30    266.00
     .002840       13.       13.       13.         3         0         0    -24.00    164.79    430.79


 *SECNO 11.200
 3280 CROSS SECTION     11.20 EXTENDED      1.64 FEET

      11.20      6.73    696.03      0.00      0.00    696.10       .07       .00       .05    694.90
        375.       79.      271.       25.      110.     113.       39.       10.        6.     694.90
         .26       .72      2.40       .63      .070      .039      .053      .034    689.30    266.00
     .000737         1.        1.        1.         2         0         0      0.00    175.33    441.33


 *SECNO 11.500
 3280 CROSS SECTION     11.50 EXTENDED      1.60 FEET

      11.50      6.50    696.10      0.00      0.00    696.16       .06       .05       .00    694.40
        375.       35.      280.       61.       52.     127.       79.       10.        6.     694.40
         .28       .67      2.21       .77      .070      .039      .053      .034    689.60    294.00
     .000561       85.       85.       85.         2         0         0      0.00    131.00    425.00


 *SECNO 11.600
 3280 CROSS SECTION     11.60 EXTENDED      1.64 FEET

      11.60      6.54    696.14      0.00      0.00    696.17       .03       .00       .01    694.40
        270.       26.      199.       45.       53.     128.       81.       10.        6.     694.40
         .28       .48      1.56       .55      .070      .039      .053      .034    689.60    294.00
     .000276         1.        1.        1.         2         0         0      0.00    131.00    425.00


 *SECNO 11.700
 3280 CROSS SECTION     11.70 EXTENDED      1.55 FEET

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

      11.70      6.44    696.14      0.00      0.00    696.17       .03       .01       .00    694.50
        270.       25.      203.       42.       50.     125.       75.       10.        7.     694.50
         .28       .49      1.63       .56      .070      .039      .053      .034    689.70    294.00
     .000310       19.       19.       19.         0         0         0      0.00    131.00    425.00


 *SECNO 11.800
 3280 CROSS SECTION     11.80 EXTENDED      1.64 FEET
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      11.80      6.55    696.15      0.00      0.00    696.18       .03       .00       .00    694.40
      270.       25.       200.       45.       52.      128.      82.       10.        7.     694.40
       .28       .48      1.56       .55      .070      .039      .053      .034    689.60    294.00
   .000276        1.         1.        1.         0         0         0      0.00    131.00    425.00

 *SECNO 11.900
 3280 CROSS SECTION     11.90 EXTENDED       1.26 FEET

      11.90      6.16    696.16      0.00      0.00    696.20       .04       .02       .01    694.80
      270.       21.       217.       32.       41.      116.      56.       10.        7.     694.80
       .29       .52      1.87       .57      .070      .039      .053      .034    690.00    294.00
   .000454        50.       50.       50.         0         0         0      0.00    131.00    425.00

 *SECNO 12.050
 3280 CROSS SECTION     12.05 EXTENDED        .87 FEET

      12.05      5.77    696.17      0.00      0.00    696.25       .08       .03       .02    695.10
      270.       37.       232.        2.       63.       96.       6.       11.        7.     695.70
       .29       .58      2.40       .29      .070      .039      .053      .034    690.40    250.00
   .000727        50.       50.       50.         0         0         0      0.00    112.62    362.62

 *SECNO 12.060
 3280 CROSS SECTION     12.06 EXTENDED        .70 FEET

      12.06      5.60    696.20      0.00      0.00    696.29       .09       .04       .01    695.30
      270.       30.       240.        1.       52.       92.       2.       11.        7.     695.90
       .30       .57      2.61       .24      .070      .039      .053      .034    690.60    250.00
   .000911        48.       48.       48.         0         0         0      0.00    103.00    353.00

 *SECNO 12.070
 3280 CROSS SECTION     12.07 EXTENDED        .86 FEET

    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       ARGB      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=   7 MIN ELTRD=   695.30 MAX ELLC=   694.80

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
      12.07      5.56    696.36    696.36      0.00    696.77       .41       .00       .16    692.80
      270.      152.       113.        5.       74.       15.       4.       11.        7.     692.80
       .30      2.06      7.58      1.40      .070      .021      .053      .034    690.80    250.00
   .009467         1.         1.        1.        20         6         0    -31.60    111.98    361.98

 *SECNO 12.080
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3280 CROSS SECTION 12.08 EXTENDED 1.32 FEET

3370 NORMAL BRIDGE,NPD= 7 MIN ELTRD= 695.30 MAX ELLC= 694.80

12.08	6.02	696.82	0.00	0.00	696.96	.13	.10	.08	692.80
270.	166.	81.	23.	107.	17.	22.	11.	7.	692.80
.30	1.55	4.82	1.05	.070	.021	.053	.034	690.80	250.00
.003282	19.	19.	19.	4	0	0	-32.76	126.21	376.21

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED 1.44 FEET

12.10	6.34	696.94	0.00	0.00	696.98	.04	.00	.03	695.30
270.	53.	206.	11.	98.	111.	26.	11.	7.	695.90
.30	.54	1.86	.42	.070	.039	.053	.034	690.60	250.00
.000363	1.	1.	1.	2	0	0	0.00	129.65	379.65

*SECNO 13.050
3280 CROSS SECTION 13.05 EXTENDED 1.04 FEET

13.05	5.64	696.94	0.00	0.00	697.02	.08	.02	.02	695.40
270.	48.	137.	85.	52.	46.	91.	11.	7.	695.40
.31	.92	2.96	.93	.070	.039	.053	.034	691.30	258.00
.001222	30.	30.	30.	2	0	0	0.00	156.00	414.00

*SECNO 13.060
3280 CROSS SECTION 13.06 EXTENDED .77 FEET

13.06	5.36	696.96	0.00	0.00	697.10	.14	.05	.03	695.70
270.	44.	164.	62.	42.	44.	61.	11.	7.	695.70
.31	1.06	3.76	1.01	.070	.039	.053	.034	691.60	258.00
.002141	30.	30.	30.	0	0	0	0.00	153.79	411.79

*SECNO 13.070
3280 CROSS SECTION 13.07 EXTENDED .69 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

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.07	5.29	696.89	0.00	0.00	697.17	.29	.00	.07	693.60
270.	75.	105.	91.	43.	16.	55.	11.	7.	693.60
.31	1.75	6.56	1.65	.070	.021	.053	.034	691.60	258.00
.006455	1.	1.	1.	2	0	0	-6.69	148.77	406.77

*SECNO 13.080
3280 CROSS SECTION 13.08 EXTENDED .99 FEET

3370 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 695.70 MAX ELLC= 695.60

13.08	5.59	697.19	0.00	0.00	697.30	.11	.08	.05	693.60
270.	74.	78.	118.	55.	17.	88.	11.	7.	693.60
.31	1.35	4.53	1.35	.070	.021	.053	.034	691.60	258.00
.002804	19.	19.	19.	4	0	0	-7.14	156.00	414.00

*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.04 FEET

13.10	5.64	697.24	0.00	0.00	697.32	.08	.00	.01	695.70
270.	48.	138.	85.	52.	46.	91.	11.	7.	695.70
.31	.92	2.96	.93	.070	.039	.053	.034	691.60	258.00
.001226	1.	1.	1.	2	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.56 FEET

13.60	5.26	697.36	0.00	0.00	697.39	.03	.05	.02	695.50
270.	10.	130.	130.	21.	77.	168.	12.	8.	694.60
.34	.48	1.68	.78	.070	.039	.053	.034	692.10	302.00
.000300	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.09 FEET

13.70	4.79	697.39	0.00	0.00	697.43	.04	.04	.01	696.00
270.	11.	146.	114.	15.	69.	127.	12.	8.	695.10
.35	.72	2.11	.89	.053	.039	.053	.035	692.60	302.00
.000552	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED .64 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
13.80	4.35	697.45	0.00	0.00	697.53	.08	.08	.02	696.50
270.	7.	170.	93.	9.	61.	89.	13.	8.	695.60
.37	.79	2.78	1.05	.053	.039	.053	.035	693.10	302.00
.001138	100.	100.	100.	1	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .12 FEET

14.00	3.82	697.62	0.00	0.00	697.82	.20	.23	.06	697.20
270.	2.	209.	59.	3.	52.	46.	13.	8.	696.30
.38	.64	4.05	1.30	.053	.039	.053	.035	693.80	302.00
.003016	132.	132.	132.	2	0	0	0.00	102.34	404.34

*SECNO 14.100

14.10	3.53	698.33	0.00	0.00	698.67	.34	.78	.07	698.20
270.	0.	232.	37.	0.	46.	27.	13.	9.	697.30
.39	.34	5.01	1.39	.053	.039	.053	.035	694.80	308.65
.005295	200.	200.	200.	3	0	0	0.00	81.84	390.49

*SECNO 14.200

14.20	3.58	699.38	0.00	0.00	699.69	.31	1.01	.01	699.20
270.	0.	229.	41.	1.	47.	30.	14.	9.	698.30
.40	.39	4.84	1.38	.053	.039	.053	.035	695.80	306.81
.004832	200.	200.	200.	3	0	0	0.00	85.93	392.74

*SECNO 14.300

14.30	3.56	700.36	0.00	0.00	700.69	.33	.99	.01	700.20
270.	0.	230.	39.	1.	47.	28.	14.	10.	699.30
.42	.37	4.92	1.39	.053	.039	.053	.035	696.80	307.66
.005040	200.	200.	200.	2	0	0	0.00	84.05	391.70

*SECNO 14.400

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

14.40	3.57	700.97	0.00	0.00	701.29	.32	.60	.00	700.80
270.	0.	230.	39.	1.	47.	28.	14.	10.	699.90
.42	.37	4.91	1.39	.053	.039	.053	.035	697.40	307.60
.005025	120.	120.	120.	1	0	0	0.00	84.18	391.78

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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      SENSITIVITY RUN  N * 1.3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       4.       0.       0.  C.000000    0.00     -1.0      0.   676.260   0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15.000    0.000   -1.000    0.000    0.000    1.300    0.000    0.000    C.000    0.000
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*PROF 3

CCHV= .100 CEHV= .300

*SECNO 7.850

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.85	6.06	676.26	0.00	676.26	676.35	.09	0.00	0.00	674.00
375.	93.	282.	0.	76.	102.	0.	0.	0.	676.10
0.00	1.23	2.75	.19	.078	.059	.078	0.000	670.20	56.06
.002740	0.	0.	0.	0	0	0	0.00	101.98	158.04

*SECNO 7.870

7.87	5.94	676.94	0.00	0.00	677.04	.11	.68	.00	674.80
375.	88.	287.	0.	68.	98.	0.	1.	1.	676.90
.03	1.30	2.92	.01	.078	.059	.078	.058	671.00	59.35
.003245	230.	230.	230.	2	0	0	0.00	94.00	153.35

*SECNO 7.900

7.90	5.84	677.74	0.00	0.00	677.86	.12	.81	.00	675.70
375.	83.	292.	0.	62.	95.	0.	2.	1.	677.80
.05	1.34	3.07	0.00	.078	.059	.078	.058	671.90	61.98
.003666	235.	235.	235.	2	0	0	0.00	89.48	151.46

*SECNO 7.920

7.92	5.71	678.51	0.00	0.00	678.65	.14	.79	.01	676.60
375.	76.	299.	0.	55.	91.	0.	2.	1.	678.70
.07	1.38	3.28	0.00	.078	.059	.078	.058	672.80	65.32
.004234	200.	200.	200.	2	0	0	0.00	85.05	150.37

*SECNO 7.950

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.95	5.74	679.44	0.00	0.00	679.65	.21	.98	.02	677.90
375.	48.	327.	0.	38.	84.	0.	3.	2.	680.60
.08	1.25	3.91	0.00	.085	.065	.085	.060	673.70	588.86
.005746	199.	199.	199.	2	0	0	0.00	73.87	662.73

*SECNO 8.000

8.00	5.98	681.98	0.00	0.00	682.14	.16	2.49	.00	680.20
375.	63.	312.	0.	52.	89.	0.	5.	3.	682.90
.13	1.21	3.52	0.00	.085	.065	.085	.062	676.00	581.14
.004357	500.	500.	500.	2	0	0	0.00	81.86	662.99

*SECNO 8.100

8.10	6.02	684.12	0.00	0.00	684.28	.16	2.14	.00	682.30

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    375.      65.     310.       0.      54.      90.       0.       6.       4.     685.00
     .17     1.20     3.46     0.00     .085     .065     .085     .062   678.10    580.02
 .004187     500.     500.     500.        1        0        0     0.00    83.01    663.03

*SECNO 8.500
3280 CROSS SECTION      8.50 EXTENDED       .39 FEET

    8.50     5.99   686.09     0.00     0.00   686.20      .11     1.92      .01    684.90
    375.      17.     344.      14.      16.     127.      25.       8.       5.     685.50
     .22     1.06     2.71      .56     .078     .065     .085     .063   680.10    615.00
 .004331     450.     450.     450.        2        0        0     0.00   144.80    759.80

*SECNO 8.600
3280 CROSS SECTION      8.60 EXTENDED       .31 FEET

    8.60     5.91   688.41     0.00     0.00   688.53      .12     2.32      .00    687.30
    375.      15.     351.       9.      14.     123.      18.      10.       6.     687.90
     .27     1.06     2.85      .50     .078     .065     .085     .063   682.50    615.00
 .005002     500.     500.     500.        2        0        0     0.00   139.51    754.51

*SECNO 9.100
3280 CROSS SECTION      9.10 EXTENDED       .32 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

    9.10     6.32   689.92     0.00     0.00   690.10      .19     1.56      .02    688.80
    375.      44.     328.       3.      42.      89.       6.      11.       7.     689.50
     .30     1.05     3.68      .51     .078     .065     .085     .063   683.60    280.00
 .005400     300.     300.     300.        1        0        0     0.00   125.21    405.21

*SECNO 9.200
3280 CROSS SECTION      9.20 EXTENDED       .23 FEET

    9.20     6.23   691.53     0.00     0.00   691.73      .20     1.62      .00    690.50
    375.      45.     329.       2.      47.      86.       4.      12.       8.     691.20
     .32      .94     3.83      .50     .078     .065     .085     .064   685.30    240.00
 .006111     283.     283.     283.        2        0        0     0.00   151.95    391.95

CCHV=     .400 CEHV=     .800
*SECNO 9.280
    9.28     5.89   691.89     0.00     0.00   692.22      .33      .38      .10    691.20
    375.      13.     362.       0.      14.      78.       0.      12.       8.     691.90
     .32      .95     4.66     0.00     .078     .065     .085     .064   686.00    309.60
 .010343      49.      49.      49.        2        0        0     0.00    64.39    373.99

*SECNO 9.290
3280 CROSS SECTION      9.29 EXTENDED       .81 FEET
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3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.29	6.91	692.81	0.00	0.00	692.90	.09	.59	.09	691.10
375.	226.	98.	51.	106.	31.	28.	12.	8.	691.10
.33	2.13	3.13	1.80	.078	.065	.085	.064	685.90	240.00
.014328	49.	49.	49.	3	0	0	-25.76	160.00	400.00

*SECNO 9.310
3280 CROSS SECTION 9.31 EXTENDED .83 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 691.80 MAX ELLC= 690.90

9.31	6.93	692.83	0.00	0.00	692.92	.09	.01	.00	691.10
375.	227.	97.	51.	108.	31.	29.	12.	8.	691.10
.33	2.11	3.07	1.79	.078	.065	.085	.064	685.90	240.00
.013782	1.	1.	1.	0	0	0	-25.76	160.00	400.00

*SECNO 9.320
3280 CROSS SECTION 9.32 EXTENDED .64 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
9.32	6.63	692.83	0.00	0.00	692.94	.10	.01	.01	691.40
375.	89.	278.	8.	92.	96.	13.	12.	8.	692.10
.33	.96	2.91	.64	.078	.065	.085	.064	686.20	240.00
.003047	1.	1.	1.	1	0	0	0.00	160.00	400.00

*SECNO 9.330
3280 CROSS SECTION 9.33 EXTENDED .67 FEET

9.33	6.67	692.87	0.00	0.00	692.97	.10	.03	.00	691.40
375.	92.	274.	9.	96.	96.	14.	12.	9.	692.10
.33	.96	2.85	.65	.078	.065	.085	.063	686.20	240.00
.002893	10.	10.	10.	2	0	0	0.00	160.00	400.00

*SECNO 9.340
3280 CROSS SECTION 9.34 EXTENDED .41 FEET

9.34	6.51	692.91	0.00	0.00	693.10	.20	.05	.08	691.00
375.	51.	321.	3.	48.	84.	4.	12.	9.	691.90
.33	1.06	3.82	.83	.078	.065	.085	.063	686.40	320.00
.005576	14.	14.	14.	0	0	0	0.00	114.96	434.96

*SECNO 9.350

3280 CROSS SECTION 9.35 EXTENDED .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	TCC	ICONT	CORAR	TOPWID	ENDST
9.35	6.70	693.10	693.10	0.00	693.51	.41	.01	.17	691.90
375.	188.	160.	27.	62.	23.	11.	12.	9.	691.90
.33	3.03	7.10	2.37	.078	.039	.085	.063	686.40	320.00
.040262	1.	1.	1.	20	10	0	-11.20	114.58	434.58

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

*SECNO 9.360
3280 CROSS SECTION 9.36 EXTENDED 1.29 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.00 MAX ELLC= 690.10

9.36	7.39	693.79	0.00	0.00	693.87	.08	.23	.13	691.90
375.	246.	86.	44.	123.	26.	27.	12.	9.	691.90
.33	1.99	3.30	1.60	.078	.039	.085	.063	686.40	320.00
.007180	16.	16.	16.	2	0	0	-11.37	118.00	428.00

*SECNO 9.370
3280 CROSS SECTION 9.37 EXTENDED 1.21 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	TCC	ICONT	CORAR	TOPWID	ENDST
9.37	7.31	693.81	0.00	0.00	693.88	.07	.00	.01	691.10
375.	117.	248.	10.	117.	101.	12.	12.	9.	692.00
.33	1.00	2.47	.78	.078	.065	.085	.063	686.50	320.00
.001818	1.	1.	1.	0	0	0	0.00	118.00	438.00

*SECNO 9.380
3280 CROSS SECTION 9.38 EXTENDED 1.31 FEET

9.38	7.21	693.91	0.00	0.00	693.97	.06	.09	.00	692.50
375.	99.	252.	24.	100.	105.	28.	12.	9.	692.30
.34	.99	2.39	.85	.078	.065	.085	.063	686.70	90.00
.001832	49.	49.	49.	2	0	0	0.00	120.00	210.00

CCHV= .100 CEHV= .300

*SECNO 9.390
3280 CROSS SECTION 9.39 EXTENDED 1.18 FEET

9.39	7.08	694.08	0.00	0.00	694.16	.08	.18	.00	692.80
375.	92.	262.	22.	91.	102.	25.	13.	9.	692.60
.35	1.01	2.56	.87	.078	.065	.085	.063	687.00	90.00
.002190	92.	92.	92.	0	0	0	0.00	120.00	210.00

CCHV= .350 CEHV= .700
*SECNO 9.400
3280 CROSS SECTION 9.40 EXTENDED 1.04 FEET

9.40	6.94	694.44	0.00	0.00	694.53	.09	.36	.01	693.30
375.	83.	273.	19.	80.	99.	22.	13.	9.	693.10
.37	1.03	2.76	.88	.078	.065	.085	.063	687.50	80.00
.002657	149.	149.	149.	2	0	0	0.00	120.00	210.00

*SECNO 9.410
3280 CROSS SECTION 9.41 EXTENDED .94 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.60 MAX ELLC= 692.10

9.41	6.93	694.43	0.00	0.00	694.55	.12	.00	.02	693.30
375.	102.	261.	12.	87.	82.	12.	13.	9.	693.10
.37	1.17	3.18	1.01	.078	.039	.085	.063	687.50	80.00
.003622	1.	1.	1.	0	0	0	-7.75	120.00	200.00

*SECNO 9.420
3280 CROSS SECTION 9.42 EXTENDED .96 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= 0 MIN ELTRD= 692.60 MAX ELLC= 692.10

9.42	6.97	694.47	0.00	0.00	694.59	.11	.04	.00	693.30
375.	104.	259.	12.	89.	83.	12.	14.	9.	693.10
.37	1.16	3.13	1.01	.078	.039	.085	.063	687.50	80.00
.003479	10.	10.	10.	0	0	0	-7.75	120.00	200.00

*SECNO 9.430
3280 CROSS SECTION 9.43 EXTENDED 1.16 FEET

9.43	7.06	694.56	0.00	0.00	694.61	.05	.00	.02	693.30
375.	131.	224.	20.	138.	102.	24.	14.	9.	693.10
.37	.95	2.20	.82	.078	.072	.085	.063	687.50	50.00
.001962	1.	1.	1.	2	0	0	0.00	160.00	210.00

```
*SECNO 9.440
3280 CROSS SECTION      9.44 EXTENDED       .97 FEET

        9.44      6.97    694.67      0.00      0.00    694.74       .08       .11       .02    693.50
         375.       94.       260.       21.       89.       99.       22.       14.       10.    693.30
          .38      1.05      2.62       .93      .078      .072      .085      .063    687.70     80.00
      .002855       49.       49.       49.         2         0         0      0.00    130.00    210.00

 CCHV=     .100 CEHV=     .300
 *SECNO 9.560
 3280 CROSS SECTION      9.56 EXTENDED       .87 FEET

        9.56      6.87    694.87      0.00      0.00    694.96       .09       .21       .00    693.80
         375.       86.       270.       19.       81.       97.       20.       14.       10.    693.60
          .39      1.07      2.77       .94      .078      .072      .085      .063    688.00     80.00
      .003312       69.       69.       69.         2         0         0      0.00    130.00    210.00

 CCHV=     .300 CEHV=     .500
 *SECNO 9.580
 3280 CROSS SECTION      9.58 EXTENDED       .98 FEET

        9.58      6.88    695.48      0.00      0.00    695.57       .08       .60       .00    694.10
         375.       119.      186.       70.       138.      59.       66.       15.       10.    694.10
          .41       .86      3.15      1.06      .130      .072      .098      .064    688.60      0.00
      .005016       150.      150.      150.         2         0         0      0.00    206.00    206.00

 *SECNO 9.600
 3280 CROSS SECTION      9.60 EXTENDED       .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

 3370 NORMAL BRIDGE,NRD=   8 MIN ELTRD=   693.90 MAX ELLC=   694.10

        9.60      6.70    695.30    692.66      0.00    695.76       .46       .01       .19    694.10
         375.       77.       289.       8.       69.       47.       14.       15.       10.    694.10
          .41      1.12      6.20       .60      .130      .039      .098      .064    688.60      0.00
      .013232         1.        1.        1.         4        16         0    -98.10    206.00    206.00

 *SECNO 10.100
 3280 CROSS SECTION     10.10 EXTENDED       1.30 FEET

 3370 NORMAL BRIDGE,NRD=   8 MIN ELTRD=   693.90 MAX ELLC=   694.10

       10.10      7.20    695.80      0.00      0.00    695.97       .17       .12       .09    694.10
         375.       138.      206.       31.       118.      48.       34.       15.       10.    694.10
```

.41	1.17	4.33	.91	.130	.039	.098	.064	688.60	0.00	
.009126	11.	11.	11.	4	0	0	-130.40	206.00	206.00	

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 1.49 FEET

10.20	7.39	695.99	0.00	0.00	696.02	.03	.00	.04	694.10	
375.	146.	137.	91.	204.	64.	100.	15.	10.	694.10	
.41	.72	2.16	.91	.130	.072	.098	.064	688.60	0.00	
.002131	1.	1.	1.	2	0	0	0.00	206.00	206.00	

*SECNO 10.500
3280 CROSS SECTION 10.50 EXTENDED 2.07 FEET

10.50	7.17	696.07	0.00	0.00	696.11	.04	.09	.00	694.50	
375.	92.	242.	41.	146.	126.	66.	15.	11.	694.50	
.42	.63	1.92	.61	.130	.072	.098	.064	688.90	266.00	
.001415	50.	50.	50.	2	0	0	0.00	178.00	444.00	

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 1.76 FEET

10.90	6.86	696.16	0.00	0.00	696.21	.06	.10	.01	694.90	
375.	84.	262.	29.	121.	117.	47.	16.	11.	694.90	
.43	.69	2.24	.62	.130	.072	.098	.064	689.30	266.00	
.002135	56.	56.	56.	1	0	0	0.00	178.00	444.00	

*SECNO 11.000
3280 CROSS SECTION 11.00 EXTENDED 1.72 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= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.00	6.82	696.12	0.00	0.00	696.25	.13	.00	.04	690.10	
375.	143.	171.	61.	139.	41.	59.	16.	11.	693.70	
.43	1.03	4.12	1.04	.130	.039	.098	.064	689.30	266.00	
.005366	1.	1.	1.	2	0	0	-24.00	178.00	444.00	

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 1.81 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 694.90 MAX ELLC= 693.70

11.10	6.91	696.21	0.00	0.00	696.32	.11	.06	.01	690.10

375.	145.	163.	67.	147.	42.	66.	16.	11.	693.70
.43	.99	3.86	1.02	.130	.039	.098	.064	689.30	266.00
.004586	13.	13.	13.	2	0	0	-24.00	178.00	444.00

*SECNO 11.200
3280 CROSS SECTION 11.20 EXTENDED 1.90 FEET

11.20	7.00	696.30	0.00	0.00	696.34	.05	.00	.02	694.90
375.	88.	253.	34.	132.	121.	55.	16.	11.	694.90
.43	.67	2.09	.62	.130	.072	.098	.064	689.30	266.00
.001775	1.	1.	1.	2	0	0	0.00	178.00	444.00

*SECNO 11.500
3280 CROSS SECTION 11.50 EXTENDED 1.93 FEET

11.50	6.83	696.43	0.00	0.00	696.47	.04	.13	.00	694.40
375.	38.	262.	74.	62.	137.	101.	16.	11.	694.40
.45	.62	1.91	.73	.130	.072	.098	.064	689.60	294.00
.001302	85.	85.	85.	2	0	0	0.00	131.00	425.00

*SECNO 11.600
3280 CROSS SECTION 11.60 EXTENDED 1.96 FEET

11.60	6.86	696.46	0.00	0.00	696.48	.02	.00	.01	694.40
270.	28.	188.	54.	64.	138.	103.	16.	11.	694.40
.45	.45	1.36	.53	.130	.072	.098	.064	689.60	294.00
.000651	1.	1.	1.	2	0	0	0.00	131.00	425.00

*SECNO 11.700
3280 CROSS SECTION 11.70 EXTENDED 1.88 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
11.70	6.77	696.47	0.00	0.00	696.49	.02	.01	.00	694.50
270.	28.	190.	52.	61.	136.	97.	17.	11.	694.50
.45	.46	1.40	.53	.130	.072	.098	.064	689.70	294.00
.000715	19.	19.	19.	0	0	0	0.00	131.00	425.00

*SECNO 11.800
3280 CROSS SECTION 11.80 EXTENDED 1.97 FEET

11.80	6.87	696.47	0.00	0.00	696.50	.02	.00	.00	694.40
270.	28.	187.	55.	64.	139.	104.	17.	11.	694.40
.45	.44	1.35	.53	.130	.072	.098	.064	689.60	294.00
.000644	1.	1.	1.	0	0	0	0.00	131.00	425.00

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*SECNO 11.900
3280 CROSS SECTION      11.90 EXTENDED      1.61 FEET

      11.90      6.51    696.51      0.00      0.00    696.54       .03       .04       .00    694.80
        270.       25.       201.       44.       52.       127.       79.       17.       11.    694.80
         .46       .48      1.58       .55       .130      .072      .098      .064    690.00    254.00
    .000992       50.       50.       50.          0         0         0      0.00    131.00    425.00

*SECNO 12.050
3280 CROSS SECTION      12.05 EXTENDED      1.26 FEET

      12.05      6.16    696.56      0.00      0.00    696.61       .05       .06       .01    695.10
        270.       49.       214.       7.       87.       106.       18.       17.       12.    695.70
         .47       .56      2.02       .41       .130      .072      .098      .064    690.40    250.00
    .001562       50.       50.       50.          1         0         0      0.00    124.28    374.28

*SECNO 12.060
3280 CROSS SECTION      12.06 EXTENDED      1.13 FEET

      12.06      6.04    696.64      0.00      0.00    696.70       .06       .08       .00    695.30
        270.       45.       220.       5.       79.       103.       14.       17.       12.    695.90
         .48       .57      2.14       .39       .130      .072      .098      .064    690.60    250.00
    .001821       48.       48.       48.          1         0         0      0.00    120.65    370.65

*SECNO 12.070
3280 CROSS SECTION      12.07 EXTENDED      1.04 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

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

      12.07      5.74    696.54      0.00      0.00    696.80       .26       .00       .10    692.80
        270.       161.       99.       10.       87.       16.       10.       17.       12.    692.80
         .48       1.86      6.32      1.07       .130      .039      .098      .064    690.80    250.00
    .021281         1.        1.        1.          2         0         0    -32.76    118.17    368.17

*SECNO 12.080
3280 CROSS SECTION      12.08 EXTENDED      1.50 FEET

3370 NORMAL BRIDGE,NRD=  7 MIN ELTRD=  695.30 MAX ELLC=  694.80

      12.08      6.19    696.99      0.00      0.00    697.08       .09       .23       .05    692.80
        270.       166.       72.       32.       120.       17.       31.       17.       12.    692.80
         .48       1.39      4.12      1.01       .130      .039      .098      .064    690.80    250.00
    .007825       19.       19.       19.          2         0         0    -32.76    131.30    381.30
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 *SECNO 12.100
 3280 CROSS SECTION     12.10 EXTENDED      1.56 FEET

      12.10     6.46   697.06     0.00     0.00   697.10      .04      .00      .02   695.30
        270.       56.      201.       13.      106.      114.       31.       17.       12.   695.90
         .49       .53     1.76       .43      .130      .072      .098      .064   690.60   250.00
    .001086        1.        1.        1.        2         0         0      0.00   133.17   383.17


 *SECNO 13.050
 3280 CROSS SECTION     13.05 EXTENDED      1.21 FEET

      13.05     5.81   697.11     0.00     0.00   697.16      .05      .05      .01   695.40
        270.       49.      125.       96.       58.       48.      109.       18.       12.   695.40
         .49       .85     2.60       .88      .130      .072      .098      .064   691.30   258.00
    .003099       30.       30.       30.        2         0         0      0.00   156.00   414.00


 *SECNO 13.060
 3280 CROSS SECTION     13.06 EXTENDED      1.00 FEET

      13.06     5.60   697.20     0.00     0.00   697.29      .08      .11      .01   695.70
        270.       48.      141.       82.       51.       46.       87.       18.       12.   695.70
         .49       .94     3.06       .94      .130      .072      .098      .064   691.60   258.00
    .004553       30.       30.       30.        2         0         0      0.00   156.00   414.00


 *SECNO 13.070
 3280 CROSS SECTION     13.07 EXTENDED      1.01 FEET

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      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


 3370 NORMAL BRIDGE,NRD=   7 MIN ELTRD=   695.70 MAX ELLC=   695.60

      13.07     5.60   697.20     0.00     0.00   697.30      .11      .01      .01   693.60
        270.       74.       77.      120.       55.       17.       90.       18.       12.   693.60
         .49      1.34     4.45      1.33      .130      .039      .098      .064   691.60   258.00
    .009256        1.        1.        1.        0         0         0     -7.16   156.00   414.00


 *SECNO 13.080
 3280 CROSS SECTION     13.08 EXTENDED      1.19 FEET


 3370 NORMAL BRIDGE,NRD=   7 MIN ELTRD=   695.70 MAX ELLC=   695.60

      13.08     5.79   697.39     0.00     0.00   697.46      .07      .14      .01   693.60
        270.       72.       66.      132.       62.       18.      110.       18.       12.   693.60
         .49      1.16     3.67      1.20      .130      .039      .098      .064   691.60   258.00
    .005954       19.       19.       19.        2         0         0     -7.43   156.00   414.00
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*SECNO 13.100
3280 CROSS SECTION 13.10 EXTENDED 1.20 FEET

13.10	5.81	697.41	0.00	0.00	697.46	.06	.00	.00	695.70
270.	49.	125.	96.	58.	48.	109.	18.	12.	695.70
.49	.85	2.60	.88	.130	.072	.098	.064	691.60	258.00
.003123	1.	1.	1.	1	0	0	0.00	156.00	414.00

*SECNO 13.600
3280 CROSS SECTION 13.60 EXTENDED 1.79 FEET

13.60	5.49	697.59	0.00	0.00	697.61	.02	.14	.01	695.50
270.	11.	124.	136.	23.	82.	188.	18.	12.	694.60
.52	.45	1.51	.72	.130	.072	.098	.064	692.10	302.00
.000784	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.700
3280 CROSS SECTION 13.70 EXTENDED 1.39 FEET

13.70	5.09	697.69	0.00	0.00	697.72	.03	.10	.00	696.00
270.	12.	134.	124.	18.	74.	153.	19.	13.	695.10
.54	.67	1.80	.81	.098	.072	.098	.064	692.60	302.00
.001261	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 13.800
3280 CROSS SECTION 13.80 EXTENDED 1.04 FEET

SECNO	DEPTH	CWSEL	CRITWS	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
13.80	4.74	697.84	0.00	0.00	697.88	.05	.16	.01	696.50
270.	10.	148.	112.	14.	68.	123.	20.	13.	695.60
.56	.73	2.17	.91	.098	.072	.098	.064	693.10	302.00
.002064	100.	100.	100.	2	0	0	0.00	116.00	418.00

*SECNO 14.000
3280 CROSS SECTION 14.00 EXTENDED .68 FEET

14.00	4.38	698.18	0.00	0.00	698.26	.08	.36	.02	697.20
270.	8.	167.	95.	10.	62.	92.	20.	13.	696.30
.57	.79	2.72	1.03	.098	.072	.098	.064	693.80	302.00
.003683	132.	132.	132.	2	0	0	0.00	116.00	418.00

*SECNO 14.100
3280 CROSS SECTION 14.10 EXTENDED .51 FEET

14.10	4.21	699.01	0.00	0.00	699.12	.10	.85	.01	698.20	
270.	6.	178.	85.	8.	59.	78.	21.	14.	697.30	
.60	.79	3.04	1.10	.098	.072	.098	.065	694.80	302.00	
.004934	200.	200.	200.	2	0	0	0.00	116.00	418.00	

*SECNO 14.200
3280 CROSS SECTION 14.20 EXTENDED .51 FEET

14.20	4.21	700.01	0.00	0.00	700.11	.10	.99	.00	699.20
270.	6.	179.	85.	8.	59.	77.	22.	14.	698.30
.62	.79	3.06	1.10	.098	.072	.098	.065	695.80	302.00
.004997	200.	200.	200.	2	0	0	0.00	116.00	418.00

*SECNO 14.300
3280 CROSS SECTION 14.30 EXTENDED .51 FEET

14.30	4.21	701.01	0.00	0.00	701.11	.10	1.00	.00	700.20
270.	6.	179.	85.	8.	58.	77.	22.	15.	699.30
.64	.79	3.06	1.10	.098	.072	.098	.065	696.80	302.00
.005004	200.	200.	200.	1	0	0	0.00	116.00	418.00

*SECNO 14.400
3280 CROSS SECTION 14.40 EXTENDED .51 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
14.40	4.21	701.61	0.00	0.00	701.71	.10	.60	.00	700.80
270.	6.	179.	85.	8.	59.	77.	23.	15.	699.90
.66	.79	3.06	1.10	.098	.072	.098	.065	697.40	302.00
.004994	120.	120.	120.	0	0	0	0.00	116.00	418.00

****
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

TAFT DRAIN

SUMMARY PRINTOUT

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	676.260	93.14	676.35	101.98	0.00	0.00	676.26
	676.260	133.05	676.35	101.98	0.00	0.00	676.26
	676.260	71.64	676.35	101.98	0.00	0.00	676.26
	676.688	74.32	676.83	84.55	0.00	0.00	0.00
	676.448	92.03	676.64	75.68	0.00	0.00	0.00
	676.935	65.83	677.04	94.00	0.00	0.00	0.00
	677.341	64.40	677.53	75.66	0.00	0.00	0.00
	676.857	69.00	677.19	59.80	0.00	0.00	0.00
	677.736	61.93	677.86	89.48	0.00	0.00	0.00
	678.057	58.18	678.29	69.22	0.00	0.00	0.00
	677.472	57.39	677.93	51.14	0.00	0.00	0.00
	678.510	57.63	678.65	85.05	0.00	0.00	0.00
	678.963	48.69	679.31	58.04	0.00	0.00	0.00
	678.366	49.82	678.94	33.00	0.00	0.00	0.00
	679.436	49.47	679.65	73.87	0.00	0.00	0.00
	681.546	57.66	681.80	67.64	0.00	0.00	0.00
	680.924	57.64	681.39	42.88	0.00	0.00	0.00
	681.977	56.81	682.14	81.86	0.00	0.00	0.00
	683.654	57.88	683.91	67.86	0.00	0.00	0.00
	683.035	57.88	683.50	43.23	0.00	0.00	0.00
	684.119	57.95	684.28	83.01	0.00	0.00	0.00
	685.737	54.99	685.90	101.71	0.00	0.00	0.00
	685.182	55.38	685.49	46.83	0.00	0.00	0.00
	686.092	56.99	686.20	144.80	0.00	0.00	0.00
	688.111	53.78	688.28	97.94	0.00	0.00	0.00
	687.517	54.04	687.84	43.73	0.00	0.00	0.00
	688.407	53.02	688.53	139.51	0.00	0.00	0.00
	689.554	51.28	689.85	86.21	0.00	0.00	0.00
	688.925	50.74	689.43	30.81	0.00	0.00	0.00
	689.918	51.03	690.10	125.21	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	691.166	47.28	691.50	63.01	0.00	0.00	0.00
	690.548	47.25	691.11	26.39	0.00	0.00	0.00
	691.532	47.97	691.73	151.95	0.00	0.00	0.00
	691.516	38.50	691.97	42.09	0.00	0.00	0.00
	690.882	38.91	691.63	21.71	0.00	0.00	0.00
	691.890	36.87	692.22	64.39	0.00	0.00	0.00
	692.542	26.14	692.74	160.00	0.00	0.00	0.00
*	692.451	31.65	692.72	158.54	0.00	0.00	0.00
	692.814	31.33	692.90	160.00	0.00	0.00	0.00
	692.612	29.23	692.77	160.00	0.00	0.00	0.00
	692.641	44.29	692.78	160.00	0.00	0.00	0.00
	692.832	31.94	692.92	160.00	0.00	0.00	0.00
	692.642	75.32	692.78	158.57	0.00	0.00	0.00
	692.646	107.50	692.78	158.53	0.00	0.00	0.00
	692.835	67.93	692.94	160.00	0.00	0.00	0.00
	692.672	76.41	692.81	159.07	0.00	0.00	0.00
	692.661	108.43	692.80	158.84	0.00	0.00	0.00
	692.871	69.72	692.97	160.00	0.00	0.00	0.00
	692.691	55.48	692.96	113.22	0.00	0.00	0.00
	692.655	77.22	692.94	112.93	0.00	0.00	0.00
	692.906	50.22	693.10	114.96	0.00	0.00	0.00
*	693.101	24.30	693.51	114.58	0.00	0.00	0.00
*	693.101	34.71	693.51	114.58	0.00	0.00	0.00
*	693.101	18.69	693.51	114.58	0.00	0.00	0.00
	693.695	52.06	693.79	118.00	0.00	0.00	0.00
	693.601	67.16	693.72	118.00	0.00	0.00	0.00
	693.788	44.25	693.87	118.00	0.00	0.00	0.00
	693.730	108.47	693.80	118.00	0.00	0.00	0.00
	693.651	147.01	693.73	118.00	0.00	0.00	0.00
	693.814	87.95	693.88	118.00	0.00	0.00	0.00
	693.791	105.35	693.87	120.00	0.00	0.00	0.00
	693.684	139.25	693.77	120.00	0.00	0.00	0.00
	693.907	87.62	693.97	120.00	0.00	0.00	0.00
	693.909	92.70	694.00	120.00	0.00	0.00	0.00
	693.740	117.45	693.86	120.00	0.00	0.00	0.00
	694.083	80.14	694.16	120.00	0.00	0.00	0.00
	694.185	78.39	694.31	120.00	0.00	0.00	0.00
	693.911	90.25	694.11	120.00	0.00	0.00	0.00
	694.437	72.75	694.53	120.00	0.00	0.00	0.00
	694.174	64.66	694.35	120.00	0.00	0.00	0.00
	693.883	69.72	694.18	120.00	0.00	0.00	0.00
	694.433	62.31	694.55	120.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
694.221	66.98	694.38	120.00	0.00	0.00	0.00
693.970	76.12	694.22	120.00	0.00	0.00	0.00
694.474	63.58	694.59	120.00	0.00	0.00	0.00
694.350	92.79	694.42	160.00	0.00	0.00	0.00
694.185	114.41	694.28	160.00	0.00	0.00	0.00
694.559	84.67	694.61	160.00	0.00	0.00	0.00
694.434	76.08	694.55	130.00	0.00	0.00	0.00
694.231	91.80	694.39	130.00	0.00	0.00	0.00
694.665	70.18	694.74	130.00	0.00	0.00	0.00
694.602	68.26	694.74	130.00	0.00	0.00	0.00
694.323	76.93	694.54	130.00	0.00	0.00	0.00
694.869	65.16	694.96	130.00	0.00	0.00	0.00
695.177	51.46	695.34	206.00	0.00	0.00	0.00
694.740	47.89	695.21	185.55	0.00	0.00	0.00
695.483	52.95	695.57	206.00	0.00	0.00	0.00
694.895	36.17	695.64	205.34	0.00	0.00	0.00
694.533	48.55	695.43	125.00	0.00	0.00	0.00
695.300	32.60	695.76	206.00	0.00	0.00	0.00
695.484	46.22	695.84	206.00	0.00	0.00	0.00
694.643	49.20	695.50	165.13	0.00	0.00	0.00
695.804	39.25	695.97	206.00	0.00	0.00	0.00
695.906	99.17	695.94	206.00	0.00	0.00	0.00
695.691	119.09	695.75	206.00	0.00	0.00	0.00
695.986	81.23	696.02	206.00	0.00	0.00	0.00
695.961	120.63	696.01	178.00	0.00	0.00	0.00
695.728	146.88	695.79	178.00	0.00	0.00	0.00
696.068	99.68	696.11	178.00	0.00	0.00	0.00
696.017	95.29	696.08	174.46	0.00	0.00	0.00
695.757	113.25	695.85	163.68	0.00	0.00	0.00
696.156	81.16	696.21	178.00	0.00	0.00	0.00
695.966	57.91	696.14	172.28	0.00	0.00	0.00
695.637	60.86	695.98	158.31	0.00	0.00	0.00
696.123	51.19	696.25	178.00	0.00	0.00	0.00
696.051	62.60	696.20	176.00	0.00	0.00	0.00
695.799	70.37	696.05	164.79	0.00	0.00	0.00
696.213	55.37	696.32	178.00	0.00	0.00	0.00
696.172	106.29	696.23	178.00	0.00	0.00	0.00
696.034	138.10	696.10	175.33	0.00	0.00	0.00
696.295	89.00	696.34	178.00	0.00	0.00	0.00
696.272	123.11	696.32	131.00	0.00	0.00	0.00
696.099	158.27	696.16	131.00	0.00	0.00	0.00
696.432	103.94	696.47	131.00	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	696.304	125.70	696.33	131.00	0.00	0.00	0.00
	696.138	162.40	696.17	131.00	0.00	0.00	0.00
	696.460	105.79	696.48	131.00	0.00	0.00	0.00
	696.312	118.97	696.34	131.00	0.00	0.00	0.00
	696.142	153.27	696.17	131.00	0.00	0.00	0.00
	696.472	100.97	696.49	131.00	0.00	0.00	0.00
	696.316	126.37	696.34	131.00	0.00	0.00	0.00
	696.146	162.56	696.18	131.00	0.00	0.00	0.00
	696.475	106.37	696.50	131.00	0.00	0.00	0.00
	696.339	99.97	696.37	131.00	0.00	0.00	0.00
	696.156	126.72	696.20	131.00	0.00	0.00	0.00
	696.510	85.73	696.54	131.00	0.00	0.00	0.00
	696.371	79.32	696.43	118.96	0.00	0.00	0.00
	696.168	100.12	696.25	112.62	0.00	0.00	0.00
	696.561	68.32	696.61	124.28	0.00	0.00	0.00
	696.426	72.41	696.50	114.76	0.00	0.00	0.00
	696.199	89.47	696.29	103.00	0.00	0.00	0.00
	696.638	63.27	696.70	120.65	0.00	0.00	0.00
*	696.363	19.42	696.77	111.98	0.00	0.00	0.00
*	696.363	27.75	696.77	111.98	0.00	0.00	0.00
	696.542	18.51	696.80	118.17	0.00	0.00	0.00
	696.935	37.03	697.04	129.36	0.00	0.00	0.00
	696.823	47.13	696.96	126.21	0.00	0.00	0.00
	696.991	30.52	697.08	131.30	0.00	0.00	0.00
	697.022	104.06	697.06	132.01	0.00	0.00	0.00
	696.942	141.76	696.98	129.65	0.00	0.00	0.00
	697.063	81.92	697.10	133.17	0.00	0.00	0.00
	697.043	59.45	697.10	156.00	0.00	0.00	0.00
	696.943	77.22	697.02	156.00	0.00	0.00	0.00
	697.106	48.50	697.16	156.00	0.00	0.00	0.00
	697.100	46.97	697.20	156.00	0.00	0.00	0.00
	696.959	58.36	697.10	153.79	0.00	0.00	0.00
	697.204	40.02	697.29	156.00	0.00	0.00	0.00
	697.078	30.68	697.23	156.00	0.00	0.00	0.00
	696.889	33.61	697.17	148.77	0.00	0.00	0.00
	697.198	28.06	697.30	156.00	0.00	0.00	0.00
	697.276	39.69	697.37	156.00	0.00	0.00	0.00
	697.192	50.99	697.30	156.00	0.00	0.00	0.00
	697.389	34.99	697.46	156.00	0.00	0.00	0.00
	697.310	57.65	697.38	156.00	0.00	0.00	0.00
	697.241	77.10	697.32	156.00	0.00	0.00	0.00
	697.409	48.32	697.46	156.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
697.462	116.11	697.49	116.00	0.00	0.00	0.00
697.360	155.97	697.39	116.00	0.00	0.00	0.00
697.593	96.42	697.61	116.00	0.00	0.00	0.00
697.525	88.55	697.56	116.00	0.00	0.00	0.00
697.391	114.92	697.43	116.00	0.00	0.00	0.00
697.686	76.03	697.72	116.00	0.00	0.00	0.00
697.635	65.99	697.70	116.00	0.00	0.00	0.00
697.449	80.04	697.53	116.00	0.00	0.00	0.00
697.837	59.43	697.88	116.00	0.00	0.00	0.00
697.915	45.61	698.03	116.00	0.00	0.00	0.00
697.618	49.17	697.82	102.34	0.00	0.00	0.00
698.178	44.49	698.26	116.00	0.00	0.00	0.00
698.723	38.06	698.89	107.39	0.00	0.00	0.00
698.334	37.10	698.67	81.84	0.00	0.00	0.00
699.014	38.44	699.12	116.00	0.00	0.00	0.00
699.729	38.09	699.90	107.42	0.00	0.00	0.00
699.380	38.84	699.69	85.93	0.00	0.00	0.00
700.006	38.19	700.11	116.00	0.00	0.00	0.00
700.731	38.31	700.90	107.71	0.00	0.00	0.00
700.361	38.03	700.69	84.05	0.00	0.00	0.00
701.007	38.17	701.11	116.00	0.00	0.00	0.00
701.327	38.37	701.49	107.79	0.00	0.00	0.00
700.966	38.09	701.29	84.18	0.00	0.00	0.00
701.607	38.21	701.71	116.00	0.00	0.00	0.00

SUMMARY OF ERRORS

CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= .000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unnamed Trib NO. 1

4) DOCUMENT TYPE: Production Runs

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       4.       0.       0.  0.000000     0.00     -1.0      0.   674.120   0.000

J2  NPROF    IPLOT    PREVS    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

     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

NC      .055      .055      .040      .100      .300      0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

      ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***D/S 27 MILE RD									
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
	***FOOTBRIDGE									
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000

***CONCRETE WEIR

X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000

***FOOTBRIDGE

X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000
***D/S M-53										
X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.900	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
	***D/S VAN DYKE RD									
X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.000	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	QWETR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.21	676.21	0.00	0.00	676.46	.25	.13	.26	676.70
170.	0.	170.	0.	0.	42.	0.	1.	1.	676.70
.03	0.00	4.00	0.00	.055	.040	.055	.039	672.00	4.02
.003681	18.	18.	18.	3	0	0	0.00	12.07	16.08

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.21	676.21	0.00	0.00	676.46	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.99	0.00	.055	.030	.055	.039	672.00	4.02
.002047	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.27	676.27	0.00	0.00	676.51	.24	.05	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.92	0.00	.055	.030	.055	.039	672.00	4.01
.001954	23.	23.	23.	0	0	0	0.00	12.07	16.09

*SECNO 111.030

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	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
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60
285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE, NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.54	678.14	0.00	0.00	678.27	.13	.01	.01	676.80
285.	45.	63.	176.	28.	20.	58.	1.	1.	676.80
.06	1.60	3.13	3.03	.070	.060	.070	.045	673.60	0.00
.030130	1.	1.	1.	1	0	0	-30.80	136.29	136.29

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .55 FEET

3370 NORMAL BRIDGE, NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.65	678.25	0.00	0.00	678.35	.10	.07	.00	676.80
285.	49.	57.	179.	33.	21.	66.	1.	1.	676.80
.06	1.47	2.69	2.72	.070	.060	.070	.045	673.60	0.00
.020903	3.	3.	3.	2	0	0	-30.80	137.75	137.75

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .58 FEET

111.87	4.69	678.29	0.00	0.00	678.36	.07	.01	.00	676.80
285.	78.	92.	116.	50.	30.	76.	1.	1.	676.80
.06	1.56	3.10	1.53	.070	.060	.070	.045	673.60	0.00
.004980	1.	1.	1.	1	0	0	0.00	138.22	138.22

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .40 FEET

111.90	4.49	679.29	0.00	0.00	679.41	.11	1.03	.01	678.00
285.	73.	105.	107.	41.	28.	62.	2.	2.	678.00
.08	1.77	3.79	1.73	.070	.060	.070	.048	674.80	0.00
.008107	165.	165.	165.	3	0	0	0.00	135.52	135.52

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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
	***CONCRETE WEIR								
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58
*SECNO 111.920									
3280 CROSS SECTION	111.92 EXTENDED		.55 FEET						
111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70
*SECNO 111.930									
3280 CROSS SECTION	111.93 EXTENDED		.44 FEET						
111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08
*SECNO 111.940									
3280 CROSS SECTION	111.94 EXTENDED		.48 FEET						
111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66
*SECNO 111.950									
3280 CROSS SECTION	111.95 EXTENDED		.52 FEET						
111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29
*SECNO 111.970									
3280 CROSS SECTION	111.97 EXTENDED		.86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.99	4.29	684.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007038	200.	200.	200.	2	0	0	0.00	102.78	292.78

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10

285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

*SECNO 112.430

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

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

.30	.52	3.04	1.50	.070	.060	.070	.056	690.40	243.98
.005089	1.	1.	1.	0	0	0	0.00	110.71	354.69

*SECNO 112.500

112.50	4.28	694.98	0.00	0.00	695.11	.13	.20	.01	694.70
285.	0.	197.	87.	1.	59.	54.	8.	8.	693.50
.31	.46	3.36	1.61	.070	.060	.070	.056	690.70	246.50
.006668	35.	35.	35.	2	0	0	0.00	104.01	350.51

*SECNO 113.200

113.20	4.28	697.28	0.00	0.00	697.41	.13	2.30	.00	697.00
285.	0.	197.	87.	1.	59.	54.	9.	8.	695.80
.34	.46	3.36	1.61	.070	.060	.070	.057	693.00	246.52
.006686	345.	345.	345.	3	0	0	0.00	103.95	350.47

CCHV= .400 CEHV= .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.14	698.44	0.00	0.00	699.09	.65	1.26	.41	698.80
285.	0.	285.	0.	0.	44.	0.	9.	9.	698.80
.35	0.00	6.48	0.00	.065	.055	.065	.057	693.30	7.51
.017682	123.	123.	123.	2	0	0	0.00	9.98	17.49

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.35	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .47 FEET

113.82	6.16	702.06	0.00	0.00	702.39	.33	.96	.01	702.20
285.	0.	266.	19.	0.	56.	13.	10.	9.	701.50
.37	0.00	4.76	1.45	.065	.055	.065	.055	695.90	140.40
.009973	100.	100.	100.	2	0	0	0.00	45.60	186.00

*SECNO 113.830

3280 CROSS SECTION 113.83 EXTENDED .46 FEET

113.83	6.16	703.56	0.00	0.00	703.89	.33	1.50	.00	703.70

285.	0.	266.	19.	0.	56.	13.	10.	9.	703.00
.38	0.00	4.76	1.45	.065	.055	.065	.055	697.40	140.41
.010006	150.	150.	150.	2	0	0	0.00	45.59	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .46 FEET

113.90	6.17	705.57	0.00	0.00	705.90	.33	2.00	.00	705.70
285.	0.	266.	19.	0.	56.	13.	11.	9.	705.00
.40	0.00	4.77	1.45	.065	.055	.065	.055	699.40	140.41
.010038	200.	200.	200.	0	0	0	0.00	45.59	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .47 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	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
113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.85	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80

285.	0.	0.	285.	0.	0.	61.	13.	11.	720.80
.49	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012726	100.	100.	100.	1	0	0	0.00	33.93	211.93

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.00 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
115.20	4.70	721.60	0.00	0.00	721.67	.07	.23	.03	719.60
285.	80.	172.	33.	48.	69.	23.	13.	11.	719.70
.49	1.66	2.51	1.47	.065	.055	.065	.055	716.90	146.00
.002285	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.13	721.93	0.00	0.00	722.16	.23	.36	.12	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.055	.065	.055	716.80	9.60
.004416	116.	116.	116.	2	0	0	0.00	15.75	25.35

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.13	721.93	0.00	0.00	722.16	.23	.00	.00	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.030	.065	.055	716.80	9.60
.001310	1.	1.	1.	0	0	0	0.00	15.75	25.35

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.20	722.00	0.00	0.00	722.22	.22	.06	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.030	.065	.055	716.80	9.59
.001260	45.	45.	45.	2	0	0	0.00	15.77	25.36

*SECNO 115.420

115.42	5.20	722.00	0.00	0.00	722.22	.22	.00	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.055	.065	.055	716.80	9.59
.004231	1.	1.	1.	0	0	0	0.00	15.77	25.36

CCHV= .400 CEHV= .800

*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .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	ICC	ICONT	CORAR	TOPWID	ENDST
115.50	4.69	722.09	0.00	0.00	722.31	.22	.09	.00	721.20
285.	7.	228.	50.	6.	56.	26.	13.	11.	720.80
.50	1.14	4.10	1.92	.065	.055	.065	.055	717.40	194.00
.006594	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED 1.13 FEET

115.51	4.93	722.33	0.00	0.00	722.49	.16	.16	.02	721.20
285.	11.	217.	57.	9.	61.	32.	13.	11.	720.80
.51	1.22	3.58	1.80	.065	.055	.065	.055	717.40	194.00
.004523	29.	29.	29.	2	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.86	722.26	0.00	0.00	722.78	.52	.01	.28	728.90
285.	0.	285.	0.	0.	49.	0.	13.	11.	729.00
.51	0.00	5.77	0.00	.065	.030	.065	.055	718.40	190.55
.009989	1.	1.	1.	2	0	0	0.00	28.52	221.00

*SECND 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.27	722.67	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.61	0.00	.065	.030	.065	.055	718.40	187.10
.005771	20.	20.	20.	3	0	0	0.00	32.45	222.45

*SECNO 116.080

116.08	4.22	722.62	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021751	1.	1.	1.	2	0	0	0.00	18.72	213.39

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CCHV=     .100 CEHV=     .300
*SECNO 116.800
   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

   116.80      5.10    723.60      0.00      0.00    723.92       .32       .64       .03    728.40
    285.          0.      285.        0.        0.      62.         0.       13.       11.     728.80
      .51      0.00      4.56      0.00      .065      .055      .065      .055    718.50    192.27
  .008737       49.       49.       49.         2         0         0      0.00     21.51    213.78

*SECNO 116.810
3280 CROSS SECTION    116.81 EXTENDED      1.51 FEET

   116.81      4.91    724.01      0.00      0.00    724.03       .02       .08       .03    720.90
    285.        106.      80.       99.       112.      48.       103.      14.       11.     721.10
      .52       .95      1.65       .96       .065      .055      .065      .055    719.10    148.01
  .000648       50.       50.       50.         2         0         0      0.00    123.99    272.00

*SECNO 116.820
3280 CROSS SECTION    116.82 EXTENDED       .55 FEET

   116.82      3.95    724.05      0.00      0.00    724.12       .08       .07       .02    721.90
    285.        93.      109.       83.        58.      37.        57.      14.       11.     722.10
      .53      1.60      2.98      1.46       .065      .055      .065      .055    720.10    163.74
  .003036       60.       60.       60.         2         0         0      0.00    108.26    272.00

*SECNO 116.830
   116.83      3.13    724.13    724.11      0.00    724.54       .41       .32       .10    722.80
    285.        69.      169.       47.        24.      27.        19.      14.       11.     723.00
      .53      2.85      6.25      2.43       .065      .055      .065      .055    721.00    177.45
  .020199       50.       50.       50.         0        19         0      0.00     84.14    261.59

*SECNO 116.840
   116.84      3.29    725.09      0.00      0.00    725.38       .29       .83       .01    723.60
    285.        75.      156.       54.        29.      29.        25.      14.       11.     723.80
      .54      2.56      5.41      2.16       .065      .055      .065      .055    721.80    174.66
  .013944       50.       50.       50.         2         0         0      0.00     92.63    267.29

*SECNO 116.860
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

   116.86      3.14    726.34    726.33      0.00    726.74       .40      1.32       .03    725.00
    285.        69.      169.       47.        24.      27.        19.      14.       11.     725.20
      .54      2.84      6.22      2.42       .065      .055      .065      .055    723.20    177.34
  .019954       80.       80.       80.         2        12         0      0.00     84.44    261.77
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*SECNO 117.200

117.20	3.24	727.84	0.00	0.00	728.16	.32	1.41	.01	726.40
285.	73.	160.	52.	28.	28.	23.	14.	12.	726.60
.55	2.64	5.67	2.25	.065	.055	.065	.055	724.60	175.41
.015709	80.	80.	80.	2	0	0	0.00	90.05	265.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .25 FEET

***CAMPGROUND RD.

117.21	3.65	728.85	0.00	0.00	728.98	.13	.80	.02	727.00
285.	87.	126.	72.	44.	33.	42.	15.	12.	727.20
.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      10 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      -1.      2.       0.       0.  0.000000     0.00    -1.0      0.    673.470   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 110.100

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	IOC	ICONT	CORAR	TOPWID	ENDST
110.10	4.37	673.47	0.00	673.47	673.57	.10	0.00	0.00	673.30
135.	1.	110.	24.	2.	39.	32.	0.	0.	672.80
0.00	.31	2.84	.75	.055	.040	.055	0.000	669.10	105.50
.001861	0.	0.	0.	0	0	0	0.00	95.43	200.93

*SECNO 110.150

110.15	4.00	673.65	0.00	0.00	673.87	.22	.26	.04	673.85
135.	0.	130.	5.	0.	34.	10.	0.	0.	673.35
.01	0.00	3.86	.57	.055	.040	.055	.040	669.65	122.24
.004024	100.	100.	100.	0	0	0	0.00	73.84	196.08

*SECNO 110.200

110.20	3.87	674.07	0.00	0.00	674.35	.28	.46	.02	674.40
135.	0.	135.	0.	0.	32.	0.	0.	0.	673.90
.01	0.00	4.26	.37	.055	.040	.055	.040	670.20	122.42
.005208	100.	100.	100.	2	0	0	0.00	16.89	139.31

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.74	674.64	0.00	0.00	674.87	.24	.51	.02	674.80
135.	0.	135.	0.	0.	35.	0.	0.	0.	674.80
.02	0.00	3.90	0.00	.055	.040	.055	.040	670.90	2.97
.003825	115.	115.	115.	2	0	0	0.00	11.00	13.97

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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 FLOW

EGPRS	EGLWC	43	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
674.93	674.87	0.00	0.	135.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	3.80	674.70	0.00	0.00	674.93	.23	.05	0.00	674.80
135.	0.	135.	0.	0.	35.	0.	0.	0.	674.80
.02	0.00	3.82	0.00	.055	.040	.055	.040	670.90	2.94
.003624	30.	30.	30.	2	0	0	0.00	11.04	13.98

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	2.98	674.68	674.62	0.00	675.59	.91	.11	.55	676.20
135.	0.	135.	0.	0.	18.	0.	0.	0.	675.80
.02	0.00	7.66	0.00	.055	.040	.055	.039	671.70	32.46
.024302	15.	15.	15.	4	15	0	0.00	9.13	41.58

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	3.80	675.80	0.00	0.00	676.00	.20	.13	.28	676.70
135.	0.	135.	0.	0.	37.	0.	0.	0.	676.70
.03	0.00	3.60	0.00	.055	.040	.055	.039	672.00	4.03
.003301	18.	18.	18.	3	0	0	0.00	12.04	16.07

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	3.80	675.80	0.00	0.00	676.00	.20	.00	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.58	0.00	.055	.030	.055	.039	672.00	4.03
.001830	1.	1.	1.	0	0	0	0.00	12.04	16.07

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	3.85	675.85	0.00	0.00	676.05	.19	.04	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.53	0.00	.055	.030	.055	.039	672.00	4.03
.001749	23.	23.	23.	0	0	0	0.00	12.04	16.07

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
111.03	3.86	675.86	0.00	0.00	676.05	.19	.00	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.53	0.00	.055	.050	.055	.039	672.00	4.03
.004887	1.	1.	1.	0	0	0	0.00	12.04	16.07

CCHV= .400 CEHV= .800
*SECNO 111.800

111.80	3.92	675.92	0.00	0.00	676.14	.22	.07	.02	675.20
165.	21.	101.	43.	14.	22.	24.	0.	0.	675.20
.03	1.49	4.58	1.82	.055	.050	.055	.039	672.00	8.75
.011215	10.	10.	10.	2	0	0	0.00	100.72	109.46

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .17 FEET

111.81	4.27	676.47	0.00	0.00	676.54	.07	.34	.06	675.40
165.	37.	72.	56.	30.	25.	44.	0.	1.	675.40
.04	1.23	2.83	1.26	.055	.050	.055	.040	672.20	0.00
.003522	58.	58.	58.	2	0	0	0.00	127.22	127.22

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .04 FEET

111.82	4.14	676.54	0.00	0.00	676.65	.11	.10	.01	675.60
165.	31.	83.	51.	24.	24.	36.	1.	1.	675.60
.04	1.29	3.44	1.40	.070	.060	.070	.041	672.40	0.00
.008023	20.	20.	20.	2	0	0	0.00	120.80	120.80

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .10 FEET

111.83	4.19	677.29	0.00	0.00	677.38	.09	.73	.00	676.30
165.	33.	79.	53.	27.	25.	40.	1.	1.	676.30
.05	1.25	3.19	1.32	.070	.060	.070	.044	673.10	0.00
.006700	100.	100.	100.	1	0	0	0.00	123.69	123.69

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .08 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

***FOOTBRIDGE

111.84	4.18	677.78	0.00	0.00	677.87	.10	.49	.00	676.80
165.	32.	81.	52.	26.	24.	38.	1.	1.	676.80
.06	1.27	3.30	1.35	.070	.060	.070	.045	673.60	0.00
.007235	70.	70.	70.	2	0	0	0.00	122.45	122.45

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .05 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.15	677.75	0.00	0.00	677.90	.15	.01	.02	676.80
165.	16.	74.	75.	14.	19.	32.	1.	1.	676.80
.06	1.14	3.95	2.39	.070	.060	.070	.045	673.60	0.00
.032548	1.	1.	1.	2	0	0	-21.27	121.21	121.21

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .19 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.29	677.89	0.00	0.00	677.99	.10	.08	.01	676.80
165.	20.	61.	84.	18.	19.	39.	1.	1.	676.80
.06	1.12	3.25	2.13	.070	.060	.070	.045	673.60	0.00
.021993	3.	3.	3.	2	0	0	-26.62	128.39	128.39

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .24 FEET

111.87	4.34	677.94	0.00	0.00	678.00	.06	.01	.00	676.80
165.	38.	70.	57.	33.	26.	50.	1.	1.	676.80
.06	1.14	2.67	1.15	.070	.060	.070	.045	673.60	0.00
.004354	1.	1.	1.	2	0	0	0.00	130.98	130.98

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .00 FEET

111.90	4.10	678.90	0.00	0.00	679.02	.12	1.01	.02	678.00
165.	29.	86.	49.	22.	24.	34.	1.	2.	678.00
.08	1.33	3.63	1.46	.070	.060	.070	.048	674.80	0.00
.009141	165.	165.	165.	3	0	0	0.00	118.75	118.75

*SECNO 111.910
3280 CROSS SECTION 111.91 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
***CONCRETE WEIR									
111.91	2.84	679.54	679.51	0.00	679.74	.20	.70	.02	679.00
165.	46.	71.	48.	23.	14.	24.	1.	2.	679.00
.08	1.97	5.00	2.00	.070	.060	.070	.049	676.70	0.00
.023709	50.	50.	50.	5	17	0	0.00	108.69	108.69

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .23 FEET

111.92	4.34	680.14	0.00	0.00	680.20	.06	.44	.01	679.00
165.	38.	70.	57.	33.	26.	49.	1.	2.	679.00
.09	1.15	2.71	1.16	.070	.060	.070	.049	675.80	0.00
.004502	50.	50.	50.	2	0	0	0.00	130.39	130.39

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .08 FEET

111.93	4.19	680.39	0.00	0.00	680.48	.09	.28	.01	679.40
165.	33.	80.	52.	26.	25.	39.	2.	2.	679.40
.10	1.26	3.26	1.34	.070	.060	.070	.050	676.20	0.00
.007040	50.	50.	50.	2	0	0	0.00	122.89	122.89

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .10 FEET

111.94	4.20	681.50	0.00	0.00	681.59	.09	1.11	.00	680.50
165.	34.	79.	53.	27.	25.	40.	2.	2.	680.50
.12	1.25	3.18	1.32	.070	.060	.070	.051	677.30	0.00
.006643	162.	162.	162.	3	0	0	0.00	123.83	123.83

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .15 FEET

111.95	4.25	683.25	0.00	0.00	683.32	.08	1.73	.00	682.20
165.	35.	76.	54.	29.	25.	43.	2.	3.	682.20
.16	1.21	3.00	1.26	.070	.060	.070	.053	679.00	0.00
.005765	280.	280.	280.	3	0	0	0.00	126.17	126.17

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

111.97	4.07	683.47	0.00	0.00	683.55	.08	.23	.00	682.60
165.	10.	106.	49.	11.	38.	43.	3.	3.	681.70
.16	.97	7.76	1.14	.070	.060	.070	.053	679.40	190.00
.003730	50.	50.	50.	2	0	0	0.00	96.25	286.25

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .22 FEET

111.98	3.82	683.92	0.00	0.00	684.06	.14	.49	.02	683.30
165.	6.	120.	38.	7.	35.	28.	3.	4.	682.40
.17	.96	3.46	1.38	.070	.060	.070	.053	680.10	190.00
.006671	100.	100.	100.	2	0	0	0.00	82.86	272.86

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .19 FEET

111.99	3.79	685.29	0.00	0.00	685.44	.15	1.37	.00	684.70
165.	6.	122.	37.	6.	34.	26.	3.	4.	683.80
.19	.95	3.54	1.41	.070	.060	.070	.054	681.50	190.00
.007084	200.	200.	200.	2	0	0	0.00	81.27	271.27

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .20 FEET

112.00	3.80	687.80	0.00	0.00	687.95	.15	2.51	.00	687.20
165.	6.	121.	38.	6.	35.	27.	4.	5.	686.30
.22	.95	3.51	1.40	.070	.060	.070	.055	684.00	190.00
.006926	358.	358.	358.	2	0	0	0.00	81.87	271.87

*SECNO 112.100
3290 CROSS SECTION 112.10 EXTENDED .20 FEET

112.10	3.80	689.90	0.00	0.00	690.05	.15	2.10	.00	689.30
165.	6.	121.	38.	6.	35.	27.	4.	5.	688.40
.25	.96	3.50	1.40	.070	.060	.070	.056	686.10	190.00
.006877	305.	305.	305.	2	0	0	0.00	82.05	272.05

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .18 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
112.20	3.78	691.68	0.00	0.00	691.83	.16	1.78	.00	691.10
165.	6.	123.	37.	6.	34.	26.	5.	6.	690.20
.28	.94	3.60	1.43	.070	.060	.070	.056	687.90	190.00
.007363	250.	250.	250.	2	0	0	0.00	80.26	270.26

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .23 FEET

112.30	3.83	693.43	0.00	0.00	693.57	.14	1.73	.00	692.80
165.	7.	120.	39.	7.	35.	28.	5.	6.	691.90
.30	.96	3.44	1.37	.070	.060	.070	.056	689.60	190.00
.006539	250.	250.	250.	2	0	0	0.00	83.38	273.38

*SECNO 112.400

112.40	3.78	693.78	0.00	0.00	693.90	.12	.34	.00	694.00
165.	0.	138.	27.	0.	46.	23.	5.	6.	692.80
.31	0.00	3.00	1.19	.070	.060	.070	.056	690.00	253.32
.006898	50.	50.	50.	1	0	0	0.00	76.47	329.79

*SECNO 112.410

***FOOT BRIDGE

112.41	3.77	694.17	0.00	0.00	694.29	.13	.39	.00	694.40
165.	0.	139.	26.	0.	46.	22.	5.	6.	693.20
.31	0.00	3.05	1.20	.070	.060	.070	.056	690.40	253.43
.007171	55.	55.	55.	1	0	0	0.00	75.16	328.59

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	3.77	694.17	0.00	0.00	694.31	.13	.01	.00	694.40
165.	0.	123.	42.	0.	39.	22.	5.	6.	693.20
.31	0.00	3.17	1.89	.070	.060	.070	.056	690.40	253.35
.017475	1.	1.	1.	0	0	0	-7.20	76.13	329.48

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	3.93	694.33	0.00	0.00	694.42	.09	.11	.00	694.40
165.	0.	113.	52.	0.	43.	31.	5.	6.	693.20
.31	0.00	2.65	1.66	.070	.060	.070	.056	690.40	252.41
.011090	8.	8.	8.	?	0	0	-7.20	86.63	339.04

*SECNO 112.440

112.44	3.94	694.34	0.00	0.00	694.43	.09	.01	.00	694.40
165.	0.	130.	35.	0.	50.	32.	5.	6.	693.20
.31	0.00	2.58	1.10	.070	.060	.070	.056	690.40	252.33
.004787	1.	1.	1.	0	0	0	0.00	87.17	339.50

*SECNO 112.500

112.50	3.81	694.51	0.00	0.00	694.63	.11	.19	.01	694.70
165.	0.	136.	29.	0.	47.	24.	5.	6.	693.50
.32	0.00	2.91	1.17	.070	.060	.070	.056	690.70	253.11
.006374	35.	35.	35.	2	0	0	0.00	79.13	332.24

*SECNO 113.200

113.20	3.79	696.79	0.00	0.00	696.91	.12	2.28	.00	697.00
165.	0.	138.	27.	0.	46.	23.	6.	7.	695.80
.35	0.00	2.99	1.19	.070	.060	.070	.057	693.00	253.30
.006833	345.	345.	345.	3	0	0	0.00	76.79	330.08

CCHV= .400 CEHV= .800

*SECNO 113.280

***D/S M-53

113.28	4.43	697.73	0.00	0.00	698.04	.31	.98	.15	698.80
165.	0.	165.	0.	0.	37.	0.	6.	7.	698.80
.36	0.00	4.46	0.00	.065	.055	.065	.057	693.30	7.53
.009496	123.	123.	123.	2	0	0	0.00	9.95	17.48

CCHV= .500 CEHV= 1.000

*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	4.60	697.90	0.00	0.00	698.10	.20	.00	.06	699.50
165.	0.	165.	0.	0.	46.	0.	6.	7.	699.50
.36	0.00	3.56	0.00	.065	.030	.065	.057	693.30	.03
.001591	1.	1.	1.	2	0	0	0.00	10.15	10.17

*SECNO 113.300

113.30	4.54	697.94	0.00	0.00	698.15	.20	.04	.01	699.60
165.	0.	165.	0.	0.	46.	0.	6.	7.	699.60
.36	0.00	3.61	0.00	.065	.030	.065	.056	693.40	.03
.001655	25.	25.	25.	2	0	0	0.00	10.15	10.17

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	4.49	697.99	0.00	0.00	698.19	.21	.04	.00	699.70
165.	0.	165.	0.	0.	45.	0.	6.	7.	699.70
.36	0.00	3.65	0.00	.065	.030	.065	.056	693.50	.03
.001710	25.	25.	25.	0	0	0	0.00	10.14	10.17

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	4.32	698.22	0.00	0.00	698.45	.22	.24	.02	700.10

165.	0.	165.	0.	0.	43.	0.	6.	7.	700.10
.37	0.00	3.80	0.00	.065	.030	.065	.055	693.90	.03
.001898	132.	132.	132.	1	0	0	0.00	10.14	10.17

*SECNO 113.420

113.42	4.33	698.23	0.00	0.00	698.45	.22	.00	.00	700.10
165.	0.	165.	0.	0.	44.	0.	6.	7.	700.10
.37	0.00	3.79	0.00	.065	.055	.065	.055	693.90	.03
.006342	1.	1.	1.	0	0	0	0.00	10.14	10.17

CCHV= .400 CEHV= .800

*SECNO 113.800

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
113.80	4.94	699.34	0.00	0.00	699.70	.36	1.14	.11	700.70
165.	0.	165.	0.	0.	34.	0.	6.	7.	700.00
.38	0.00	4.80	0.00	.065	.055	.065	.055	694.40	144.02
.014221	125.	125.	125.	2	0	0	0.00	15.07	159.09

CCHV= .100 CEHV= .300

*SECNO 113.810

113.81	5.14	700.04	0.00	0.00	700.34	.30	.64	.01	701.20
165.	0.	165.	0.	0.	37.	0.	6.	7.	700.50
.38	0.00	4.41	0.00	.065	.055	.065	.055	694.90	143.44
.011418	50.	50.	50.	2	0	0	0.00	15.93	159.37

*SECNO 113.820

113.82	5.25	701.15	0.00	0.00	701.42	.28	1.08	.00	702.20
165.	0.	165.	0.	0.	39.	0.	6.	7.	701.50
.39	0.00	4.22	0.00	.065	.055	.065	.055	695.90	143.13
.010192	100.	100.	100.	2	0	0	0.00	16.38	159.51

*SECNO 113.830

113.83	5.26	702.66	0.00	0.00	702.94	.27	1.51	.00	703.70
165.	0.	165.	0.	0.	39.	0.	6.	7.	703.00
.40	0.00	4.18	0.00	.065	.055	.065	.055	697.40	143.07
.009992	150.	150.	150.	2	0	0	0.00	16.46	159.54

*SECNO 113.900

113.90	5.26	704.66	0.00	0.00	704.93	.27	2.00	.00	705.70
165.	0.	165.	0.	0.	39.	0.	7.	7.	705.00
.41	0.00	4.18	0.00	.065	.055	.065	.055	699.40	143.07
.009983	200.	200.	200.	1	0	0	0.00	16.47	159.54

*SECNO 113.910

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

113.91	5.26	706.66	0.00	0.00	706.94	.27	2.00	.00	707.70
165.	0.	165.	0.	0.	39.	0.	7.	7.	707.00
.43	0.00	4.19	0.00	.065	.055	.065	.055	701.40	143.09
.010045	200.	200.	200.	0	0	0	0.00	16.44	159.53

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED .71 FEET

113.92	5.31	707.11	0.00	0.00	707.17	.06	.22	.02	706.40
165.	0.	0.	165.	0.	0.	81.	7.	8.	759.40
.43	0.00	0.00	2.03	.065	.055	.065	.055	701.80	178.00
.002421	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930

113.93	4.33	707.63	0.00	0.00	707.85	.22	.63	.05	707.90
165.	0.	0.	165.	0.	0.	44.	7.	8.	707.90
.44	0.00	0.00	3.73	.065	.055	.065	.055	703.30	180.08
.009032	150.	150.	150.	2	0	0	0.00	26.94	207.02

*SECNO 114.000

114.00	4.23	709.03	0.00	0.00	709.28	.25	1.41	.01	709.40
165.	0.	0.	165.	0.	0.	41.	7.	8.	709.40
.45	0.00	0.00	4.00	.065	.055	.065	.055	704.80	180.98
.010575	145.	145.	145.	2	0	0	0.00	25.04	206.02

*SECNO 114.010

114.01	4.08	709.58	0.00	0.00	709.88	.30	.59	.01	710.10
165.	0.	0.	165.	0.	0.	38.	7.	8.	710.10
.46	0.00	0.00	4.37	.065	.055	.065	.055	705.50	182.16
.013067	50.	50.	50.	2	0	0	0.00	22.55	204.71

*SECNO 114.020

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
114.02	4.08	710.88	0.00	0.00	711.18	.29	1.30	.00	711.40
165.	0.	0.	165.	0.	0.	38.	7.	8.	711.40
.46	0.00	0.00	4.36	.065	.055	.065	.055	706.80	182.13
.012993	100.	100.	100.	2	0	0	0.00	22.61	204.74

*SECNO 114.030

114.03	4.05	713.55	0.00	0.00	713.85	.31	2.67	.00	714.10
165.	0.	0.	165.	0.	0.	37.	7.	8.	714.10
.48	0.00	0.00	4.46	.065	.055	.065	.055	709.50	182.43
.013730	200.	200.	200.	2	0	0	0.00	21.97	204.41

*SECNO 114.050

114.05	4.06	716.26	0.00	0.00	716.56	.30	2.71	.00	716.80
165.	0.	0.	165.	0.	0.	37.	8.	8.	716.80

.49	0.00	0.00	4.41	.065	.055	.065	.055	712.20	182.29
.013371	200.	200.	200.	2	0	0	0.00	22.28	204.57

*SECNO 114.070

114.07	4.05	718.95	0.00	0.00	719.26	.31	2.69	.00	719.50
165.	0.	0.	165.	0.	0.	37.	8.	8.	719.50
.50	0.00	0.00	4.43	.065	.055	.065	.055	714.90	182.37
.013565	200.	200.	200.	2	0	0	0.00	22.11	204.48

*SECNO 114.090

114.09	4.09	720.29	0.00	0.00	720.58	.29	1.32	.00	720.80
165.	0.	0.	165.	0.	0.	38.	8.	8.	720.80
.51	0.00	0.00	4.34	.065	.055	.065	.055	716.20	182.07
.012843	100.	100.	100.	1	0	0	0.00	22.75	204.82

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 1.20 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	YLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
115.20	3.91	720.81	0.00	0.00	720.87	.06	.26	.02	719.60
165.	39.	112.	14.	29.	50.	12.	8.	8.	719.70
.52	1.35	2.26	1.14	.065	.055	.065	.055	716.90	146.00
.002869	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.31	721.11	0.00	0.00	721.22	.11	.31	.04	723.00
165.	0.	165.	0.	0.	61.	0.	8.	8.	723.00
.53	0.00	2.69	0.00	.065	.055	.065	.055	716.80	9.67
.002536	116.	116.	116.	2	0	0	0.00	15.56	25.23

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.31	721.11	0.00	0.00	721.22	.11	.00	.00	723.00
165.	0.	165.	0.	0.	61.	0.	8.	8.	723.00
.53	0.00	2.69	0.00	.065	.030	.065	.055	716.80	9.67
.000751	1.	1.	1.	0	0	0	0.00	15.56	25.23

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	4.35	721.15	0.00	0.00	721.26	.11	.03	.00	723.00

165.	0.	165.	0.	0.	62.	0.	8.	8.	723.00
.53	0.00	2.66	0.00	.065	.030	.065	.055	716.80	9.67
.000732	45.	45.	45.	2	0	0	0.00	15.57	25.24

*SECNO 115.420

115.42	4.35	721.15	0.00	0.00	721.26	.11	.00	.00	723.00
165.	0.	165.	0.	0.	62.	0.	8.	8.	723.00
.53	0.00	2.66	0.00	.065	.055	.065	.055	716.80	9.67
.002460	1.	1.	1.	0	0	0	0.00	15.57	25.24

CCHV= .400 CEHV= .800

*SECNO 115.500

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
115.50	3.79	721.19	0.00	0.00	721.47	.28	.08	.14	721.20
165.	0.	161.	4.	0.	38.	4.	8.	8.	720.80
.53	0.00	4.28	.83	.065	.055	.065	.055	717.40	206.09
.012104	17.	17.	17.	1	0	0	0.00	42.83	248.92

*SECNO 115.510

3280 CROSS SECTION 115.51 EXTENDED .40 FEET

115.51	4.20	721.60	0.00	0.00	721.74	.14	.22	.05	721.20
165.	1.	147.	17.	1.	46.	14.	8.	8.	720.80
.54	.57	3.20	1.16	.065	.055	.065	.055	717.40	199.95
.005191	29.	29.	29.	2	0	0	0.00	50.05	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.15	721.55	0.00	0.00	721.98	.43	.01	.23	728.90
165.	0.	165.	0.	0.	31.	0.	8.	8.	729.00
.54	0.00	5.25	0.00	.065	.030	.065	.055	718.40	196.58
.009951	1.	1.	1.	2	0	0	0.00	21.22	219.76

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	3.53	721.93	0.00	0.00	722.19	.26	.15	.07	728.90
165.	0.	165.	0.	0.	40.	0.	8.	8.	729.00

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      .54       0.00      4.09      0.00      .065      .030      .065      .055    718.40    193.37
   .005592       20.       20.       20.         3         0         0      0.00     25.69    221.00

 *SECNO 116.080
    116.09      3.51    721.91      0.00      0.00    722.32       .41       .01       .12    728.30
     165.         0.     165.         0.        0.      32.         0.        8.        8.     728.70
      .54       0.00      5.12      0.00      .065      .055      .065      .055    718.40    196.61
   .018127         1.        1.        1.         2         0         0      0.00     16.47    213.07

 CCHV=     .100 CEHV=     .300
 *SECNO 116.800
    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

    116.80      4.17    722.67      0.00      0.00    722.89       .22       .56       .02    728.40
     165.         0.     165.         0.        0.      44.         0.        8.        8.     728.80
      .54       0.00      3.77      0.00      .065      .055      .065      .055    718.50    194.81
   .007749       49.       49.       49.         2         0         0      0.00     18.56    213.36

 *SECNO 116.810
 3280 CROSS SECTION    116.81 EXTENDED       .50 FEET

    116.81      3.90    723.00      0.00      0.00    723.03       .03       .12       .02    720.90
     165.        53.       65.       47.       56.      36.        54.        8.        8.     721.10
      .55        .96      1.79       .87      .065      .055      .065      .055    719.10    164.58
   .001126       50.       50.       50.         2         0         0      0.00    107.42    272.00

 *SECNO 116.820
    116.82      2.91    723.01      0.00      0.00    723.25       .24       .16       .06    721.90
     165.        34.       111.      20.       17.      24.        12.        9.        9.     722.10
      .56       2.00      4.57      1.66      .065      .055      .065      .055    720.10    182.82
   .012376       60.       60.       60.         3         0         0      0.00     69.82    252.64

 *SECNO 116.830
    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB         ACH       AROB      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
    116.83      2.76    723.76    723.76      0.00    724.11       .35       .76       .03    722.80
     165.        29.       121.      14.       13.      22.        8.        9.        9.     723.00
      .56       2.27      5.40      1.81      .065      .055      .065      .055    721.00    186.53
   .019259       50.       50.       50.         4        10         0      0.00     59.91    246.45

 *SECNO 116.840
    116.84      2.87    724.67      0.00      0.00    724.94       .26       .81       .01    723.60
     165.        33.       114.      18.       16.      24.        11.        9.        9.     723.80
      .56       2.07      4.78      1.70      .065      .055      .065      .055    721.80    183.84
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.013949	50.	50.	50.	2	0	0	0.00	67.10	250.94

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.86	2.76	725.96	725.96	0.00	726.31	.36	1.31	.03	725.00
165.	29.	122.	14.	13.	22.	8.	9.	9.	725.20
.57	2.28	5.43	1.81	.065	.055	.065	.055	723.20	186.65
.019535	80.	80.	80.	1	10	0	0.00	59.60	246.25

*SECNO 117.200

117.20	2.83	727.43	0.00	0.00	727.72	.30	1.40	.01	726.40
165.	32.	117.	17.	15.	23.	9.	9.	9.	726.60
.57	2.15	5.02	1.75	.065	.055	.065	.055	724.60	184.93
.015867	80.	80.	80.	2	0	0	0.00	64.20	249.12

*SECNO 117.210

***CAMPGROUND RD.

117.21	3.22	728.42	0.00	0.00	728.53	.11	.79	.02	727.00
165.	42.	94.	29.	27.	28.	22.	9.	9.	727.20
.58	1.55	3.35	1.32	.065	.055	.065	.055	725.20	175.72
.005535	90.	90.	90.	3	0	0	0.00	88.97	264.69

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 728.936 ELLC= 729.200 PCWSE= 728.416 ELTRD= 732.300

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 732.30 MAX ELLC= 729.20

117.79	3.27	728.47	0.00	0.00	728.95	.49	.31	.11	780.00
165.	0.	0.	165.	0.	0.	29.	9.	9.	780.00
.58	0.00	0.00	5.59	.065	.055	.065	.055	725.20	97.46
.026034	30.	30.	30.	2	0	0	0.00	19.19	116.65

*SECNO 117.800

117.80	3.76	729.56	0.00	0.00	729.82	.26	.85	.02	730.00
165.	0.	0.	165.	0.	0.	40.	9.	9.	730.00
.59	0.00	0.00	4.08	.065	.055	.065	.055	725.80	96.15
.011917	50.	50.	50.	2	0	0	0.00	26.03	122.18

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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      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.   673.940     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 110.100

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	XICH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
110.10	4.84	673.94	0.00	673.94	673.99	.05	0.00	0.00	673.30
160.	9.	100.	51.	19.	45.	64.	0.	0.	672.80
0.00	.46	2.22	.79	.055	.040	.055	0.000	669.10	67.07
.000920	0.	0.	0.	0	0	0	0.00	140.13	207.20

*SECNO 110.150

110.15	4.37	674.02	0.00	0.00	674.16	.14	.14	.03	673.85
160.	1.	130.	29.	2.	39.	33.	0.	0.	673.35
.01	.37	3.35	.89	.055	.040	.055	.040	669.65	105.20
.002580	100.	100.	100.	1	0	0	0.00	95.81	201.01

*SECNO 110.200

110.20	4.06	674.26	0.00	0.00	674.59	.33	.37	.06	674.40
160.	0.	159.	1.	0.	34.	1.	0.	0.	673.90
.02	0.00	4.64	.65	.055	.040	.055	.040	670.20	122.18
.005711	100.	100.	100.	2	0	0	0.00	20.95	143.13

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLFA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.99	674.89	0.00	0.00	675.17	.28	.57	.02	674.80
160.	0.	160.	0.	0.	37.	0.	0.	0.	674.80
.02	0.00	4.27	0.00	.055	.040	.055	.040	670.90	2.90
.004289	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SR	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.29	675.18	0.00	0.	160.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.13	675.03	0.00	0.00	675.29	.26	.12	0.00	674.80
160.	0.	160.	0.	0.	39.	0.	0.	0.	674.80
.03	0.00	4.10	0.00	.055	.040	.055	.040	670.90	2.90
.003779	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.59	3.32	675.02	0.00	0.00	675.93	.92	.11	.52	676.20
160.	0.	160.	0.	0.	21.	0.	0.	0.	675.80
.03	0.00	7.68	0.00	.055	.040	.055	.039	671.70	31.91
.021797	15.	15.	15.	2	0	0	0.00	9.80	41.71

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.59	4.10	676.10	0.00	0.00	676.33	.24	.13	.27	676.70
160.	0.	160.	0.	0.	41.	0.	1.	0.	676.70
.03	0.00	3.89	0.00	.055	.040	.055	.039	672.00	4.02
.003568	18.	18.	18.	3	0	0	0.00	12.06	16.08

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.10	676.10	0.00	0.00	676.34	.23	.00	.00	676.70
160.	0.	160.	0.	0.	41.	0.	1.	0.	676.70
.03	0.00	3.87	0.00	.055	.030	.055	.039	672.00	4.02
.001983	1.	1.	1.	0	0	0	0.00	12.06	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.16	676.16	0.00	0.00	676.39	.23	.04	.00	676.70
160.	0.	160.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	3.81	0.00	.055	.030	.055	.039	672.00	4.02
.001893	23.	23.	23.	0	0	0	0.00	12.06	16.08

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.16	676.16	0.00	0.00	676.39	.23	.00	.00	676.70
160.	0.	160.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	3.82	0.00	.055	.050	.055	.039	672.00	4.02
.005284	1.	1.	1.	0	0	0	0.00	12.06	16.08

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .28 FEET

111.80	4.39	676.39	0.00	0.00	676.49	.10	.05	.05	675.20
240.	59.	95.	86.	35.	27.	53.	1.	0.	675.20
.03	1.66	3.58	1.64	.055	.050	.055	.039	672.00	0.00
.005319	10.	10.	10.	3	0	0	0.00	133.00	133.00

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .39 FEET

111.81	4.48	676.68	0.00	0.00	676.76	.08	.26	.01	675.40
240.	62.	86.	92.	41.	28.	61.	1.	1.	675.40
.04	1.53	3.12	1.51	.055	.050	.055	.040	672.20	0.00
.003837	58.	58.	58.	1	0	0	0.00	135.34	135.34

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .28 FEET

111.82	4.37	676.77	0.00	0.00	676.88	.11	.11	.01	675.60
240.	57.	99.	84.	35.	26.	52.	1.	1.	675.60
.04	1.63	3.73	1.61	.070	.060	.070	.041	672.40	0.00
.008316	20.	20.	20.	0	0	0	0.00	132.79	132.79

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .34 FEET

111.83	4.44	677.54	0.00	0.00	677.64	.09	.76	.00	676.30
240.	59.	93.	87.	38.	27.	57.	1.	1.	676.30
.05	1.56	3.45	1.53	.070	.060	.070	.044	673.10	0.00
.006895	100.	100.	100.	1	0	0	0.00	134.59	134.59

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .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	IDC	ICONT	CORAR	TOPWID	ENDST

***FOOTBRIDGE

111.84	4.43	678.03	0.00	0.00	678.13	.10	.49	.00	676.80
240.	59.	94.	87.	38.	27.	56.	1.	1.	676.80
.06	1.57	3.48	1.54	.070	.060	.070	.045	673.60	0.00
.007072	70.	70.	70.	2	0	0	0.00	134.47	134.47

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .33 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.42	678.02	0.00	0.00	678.15	.13	.01	.01	676.80
240.	34.	62.	144.	23.	19.	49.	1.	1.	676.80
.06	1.49	3.27	2.95	.070	.060	.070	.045	673.60	0.00
.035537	1.	1.	1.	1	0	0	-30.80	134.48	134.48

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.55	678.15	0.00	0.00	678.24	.09	.08	.00	676.80
240.	38.	54.	148.	28.	20.	58.	1.	1.	676.80
.06	1.35	2.67	2.57	.070	.060	.070	.045	673.60	0.00
.021910	3.	3.	3.	2	0	0	-30.80	136.19	136.19

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .47 FEET

111.87	4.58	678.18	0.00	0.00	678.25	.07	.01	.00	676.80
240.	63.	83.	93.	45.	28.	67.	1.	1.	676.80
.06	1.41	2.94	1.39	.070	.060	.070	.045	673.60	0.00
.004691	1.	1.	1.	0	0	0	0.00	136.61	136.61

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .27 FEET

111.90	4.37	679.17	0.00	0.00	679.28	.11	1.02	.01	678.00
240.	57.	99.	84.	35.	26.	52.	2.	2.	678.00
.08	1.64	3.75	1.62	.070	.060	.070	.048	674.80	0.00
.008472	165.	165.	165.	3	0	0	0.00	132.46	132.46

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .45 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
	***CONCRETE WEIR								
111.91	3.06	679.76	0.00	0.00	679.94	.18	.64	.02	679.00
240.	80.	77.	83.	34.	15.	36.	2.	2.	679.00
.08	2.39	4.99	2.31	.070	.060	.070	.049	676.70	0.00
.021484	50.	50.	50.	3	0	0	0.00	115.89	115.89
*SECNO 111.920									
3280 CROSS SECTION	111.92 EXTENDED		.44 FEET						
111.92	4.54	680.34	0.00	0.00	680.42	.07	.46	.01	679.00
240.	62.	86.	92.	43.	28.	65.	2.	2.	679.00
.09	1.45	3.05	1.42	.070	.060	.070	.049	675.80	0.00
.005144	50.	50.	50.	2	0	0	0.00	136.11	136.11
*SECNO 111.930									
3280 CROSS SECTION	111.93 EXTENDED		.32 FEET						
111.93	4.43	680.63	0.00	0.00	680.73	.10	.30	.01	679.40
240.	59.	95.	86.	37.	27.	56.	2.	2.	679.40
.10	1.58	3.53	1.55	.070	.060	.070	.050	676.20	0.00
.007287	50.	50.	50.	2	0	0	0.00	134.32	134.32
*SECNO 111.940									
3280 CROSS SECTION	111.94 EXTENDED		.36 FEET						
111.94	4.46	681.76	0.00	0.00	681.84	.09	1.12	.00	680.50
240.	60.	92.	88.	39.	27.	58.	3.	3.	680.50
.12	1.54	3.37	1.51	.070	.060	.070	.051	677.30	0.00
.006519	162.	162.	162.	2	0	0	0.00	134.88	134.88
*SECNO 111.950									
3280 CROSS SECTION	111.95 EXTENDED		.39 FEET						
111.95	4.49	683.49	0.00	0.00	683.57	.08	1.73	.00	682.20
240.	61.	89.	90.	41.	28.	61.	3.	4.	682.20
.15	1.49	3.22	1.47	.070	.060	.070	.053	679.00	0.00
.005857	280.	280.	280.	3	0	0	0.00	135.42	135.42
*SECNO 111.970									
3280 CROSS SECTION	111.97 EXTENDED		.73 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
111.97	4.33	683.73	0.00	0.00	683.83	.10	.25	.01	682.60
240.	19.	134.	87.	15.	42.	61.	4.	4.	681.70
.16	1.30	3.19	1.42	.070	.060	.070	.053	679.40	190.00
.004396	50.	50.	50.	2	0	0	0.00	104.68	294.68

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .54 FEET

111.98	4.13	684.23	0.00	0.00	684.39	.15	.54	.01	683.30
240.	16.	148.	76.	12.	39.	48.	4.	4.	682.40
.17	1.39	3.77	1.59	.070	.060	.070	.053	680.10	190.00
.006731	100.	100.	100.	1	0	0	0.00	98.46	288.46

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .52 FEET

111.99	4.11	685.61	0.00	0.00	685.77	.16	1.38	.00	684.70
240.	16.	150.	74.	11.	39.	46.	4.	4.	683.80
.19	1.40	3.85	1.61	.070	.060	.070	.054	681.50	190.00
.007099	200.	200.	200.	2	0	0	0.00	97.72	287.72

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .53 FEET

112.00	4.12	688.12	0.00	0.00	688.28	.15	2.51	.00	687.20
240.	16.	149.	75.	12.	39.	47.	5.	5.	686.30
.22	1.40	3.81	1.60	.070	.060	.070	.055	684.00	190.00
.006914	358.	358.	358.	2	0	0	0.00	98.08	288.08

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .53 FEET

112.10	4.13	690.23	0.00	0.00	690.38	.15	2.10	.00	689.30
240.	16.	149.	75.	12.	39.	47.	6.	6.	688.40
.25	1.40	3.80	1.60	.070	.060	.070	.056	686.10	190.00
.006875	305.	305.	305.	2	0	0	0.00	98.16	288.16

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
112.20	4.10	692.00	0.00	0.00	692.16	.16	1.78	.00	691.10

240.	16.	151.	73.	11.	39.	45.	6.	6.	690.20
.27	1.41	3.91	1.63	.070	.060	.070	.056	687.90	190.00
.007365	250.	250.	250.	2	0	0	0.00	97.20	287.20

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .55 FEET

112.30	4.15	693.75	0.00	0.00	693.90	.15	1.73	.00	692.80
240.	17.	147.	76.	12.	39.	48.	7.	7.	691.90
.30	1.39	3.73	1.58	.070	.060	.070	.056	689.60	190.00
.006537	250.	250.	250.	2	0	0	0.00	98.88	288.88

*SECNO 112.400

112.40	4.11	694.11	0.00	0.00	694.24	.13	.34	.00	694.00
240.	0.	177.	63.	0.	54.	42.	7.	7.	692.80
.30	.02	3.28	1.49	.070	.060	.070	.056	690.00	250.03
.007070	50.	50.	50.	0	0	0	0.00	94.60	344.62

*SECNO 112.410

***FOOTBRIDGE

112.41	4.10	694.50	0.00	0.00	694.63	.13	.39	.00	694.40
240.	0.	178.	62.	0.	54.	41.	7.	7.	693.20
.31	.02	3.30	1.50	.070	.060	.070	.056	690.40	250.19
.007208	55.	55.	55.	1	0	0	0.00	94.16	344.35

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.12	694.52	0.00	0.00	694.64	.12	.01	.00	694.40
240.	0.	150.	90.	0.	47.	43.	7.	7.	693.20
.31	.36	3.17	2.11	.070	.060	.070	.056	690.40	249.77
.013923	1.	1.	1.	1	0	0	-7.20	95.27	345.04

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.25	694.65	0.00	0.00	694.74	.09	.09	.00	694.40
240.	0.	140.	99.	1.	51.	52.	7.	7.	693.20
.31	.51	2.77	1.91	.070	.060	.070	.056	690.40	247.09
.009671	8.	8.	8.	2	0	0	-7.20	102.41	349.51

*SECNO 112.440

112.44	4.25	694.65	0.00	0.00	694.75	.10	.01	.00	694.40
240.	0.	167.	72.	1.	58.	53.	7.	7.	693.20

.31	.38	2.87	1.37	.070	.060	.070	.056	690.40	246.86
.004924	1.	1.	1.	0	0	0	0.00	103.03	349.90

*SECNO 112.500

112.50	4.13	694.83	0.00	0.00	694.95	.12	.20	.01	694.70
240.	0.	176.	64.	0.	55.	44.	7.	7.	693.50
.31	.28	3.20	1.47	.070	.060	.070	.056	690.70	249.44
.006590	35.	35.	35.	2	0	0	0.00	96.16	345.60

*SECNO 113.200

113.20	4.12	697.12	0.00	0.00	697.25	.13	2.30	.00	697.00
240.	0.	176.	64.	0.	55.	43.	8.	8.	695.80
.35	.27	3.22	1.48	.070	.060	.070	.057	693.00	249.60
.006725	345.	345.	345.	3	0	0	0.00	95.73	345.33

CCHV= .400 CEHV= .800

*SECNO 113.290

***D/S M-53

113.29	4.92	698.22	0.00	0.00	698.73	.51	1.17	.31	698.80
240.	0.	240.	0.	0.	42.	0.	8.	8.	698.80
.35	0.00	5.74	0.00	.065	.055	.065	.057	693.30	7.51
.014401	123.	123.	123.	2	0	0	0.00	9.97	17.49

CCHV= .500 CEHV= 1.000

*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
113.29	5.20	698.50	0.00	0.00	698.83	.32	.00	.09	699.50
240.	0.	240.	0.	0.	52.	0.	8.	8.	699.50
.35	0.00	4.57	0.00	.065	.030	.065	.057	693.30	.02
.002420	1.	1.	1.	2	0	0	0.00	10.17	10.18

*SECNO 113.300

113.30	5.16	698.56	0.00	0.00	698.89	.33	.06	.01	699.60
240.	0.	240.	0.	0.	52.	0.	8.	8.	699.60
.35	0.00	4.62	0.00	.065	.030	.065	.056	693.40	.02
.002484	25.	25.	25.	2	0	0	0.00	10.17	10.18

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.13	698.63	0.00	0.00	698.96	.34	.06	.00	699.70
240.	0.	240.	0.	0.	52.	0.	8.	8.	699.70
.36	0.00	4.65	0.00	.065	.030	.065	.056	693.50	.02
.002523	25.	25.	25.	0	0	0	0.00	10.17	10.18

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.06	698.96	0.00	0.00	699.31	.34	.34	.01	700.10
240.	0.	240.	0.	0.	51.	0.	8.	8.	700.10
.36	0.00	4.71	0.00	.065	.030	.065	.055	693.90	.02
.002616	132.	132.	132.	0	0	0	0.00	10.16	10.18

*SECNO 113.420

113.42	5.07	698.97	0.00	0.00	699.31	.34	.00	.00	700.10
240.	0.	240.	0.	0.	51.	0.	8.	8.	700.10
.36	0.00	4.70	0.00	.065	.055	.065	.055	693.90	.02
.008739	1.	1.	1.	0	0	0	0.00	10.16	10.18

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .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
113.80	5.81	700.21	0.00	0.00	700.57	.36	1.24	.01	700.70
240.	0.	237.	3.	0.	49.	4.	8.	8.	700.00
.37	0.00	4.83	.72	.065	.055	.065	.055	694.40	141.45
.011438	125.	125.	125.	3	0	0	0.00	44.55	186.00

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .19 FEET

113.81	5.89	700.79	0.00	0.00	701.12	.33	.54	.00	701.20
240.	0.	234.	6.	0.	51.	6.	9.	8.	700.50
.37	0.00	4.64	.89	.065	.055	.065	.055	694.90	141.22
.010324	50.	50.	50.	2	0	0	0.00	44.78	186.00

*SECNO 113.820
3280 CROSS SECTION 113.82 EXTENDED .21 FEET

113.82	5.91	701.81	0.00	0.00	702.13	.32	1.01	.00	702.20
240.	0.	234.	6.	0.	51.	7.	9.	9.	701.50
.38	0.00	4.58	.93	.065	.055	.065	.055	695.90	141.14
.009976	100.	100.	100.	2	0	0	0.00	44.86	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .22 FEET

113.83	5.91	703.31	0.00	0.00	703.63	.32	1.49	.00	703.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	703.00
.39	0.00	4.57	.94	.065	.055	.065	.055	697.40	141.14

.009942	150.	150.	150.	1	0	0	0.00	44.86	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .21 FEET

113.90	5.91	705.31	0.00	0.00	705.63	.32	2.00	.00	705.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	705.00
.40	0.00	4.60	.92	.065	.055	.065	.055	699.40	141.16
.010064	200.	200.	200.	1	0	0	0.00	44.84	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .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	IOC	ICONT	CORAR	TOPWID	ENDST
113.91	5.91	707.31	0.00	0.00	707.63	.32	2.00	.00	707.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	707.00
.41	0.00	4.58	.93	.065	.055	.065	.055	701.40	141.15
.009981	200.	200.	200.	1	0	0	0.00	44.85	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.39 FEET

113.92	5.99	707.79	0.00	0.00	707.86	.07	.20	.03	706.40
240.	0.	0.	240.	0.	0.	117.	10.	9.	759.40
.42	0.00	0.00	2.06	.065	.055	.065	.055	701.80	178.00
.002151	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .35 FEET

113.93	4.95	708.25	0.00	0.00	708.47	.22	.57	.05	707.90
240.	0.	0.	240.	0.	0.	63.	10.	9.	707.90
.43	0.00	0.00	3.79	.065	.055	.065	.055	703.30	178.00
.008359	150.	150.	150.	3	0	0	0.00	38.47	216.47

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .18 FEET

114.00	4.77	709.57	0.00	0.00	709.84	.27	1.36	.01	709.40
240.	0.	0.	240.	0.	0.	57.	10.	9.	709.40
.44	0.00	0.00	4.18	.065	.055	.065	.055	704.80	178.00
.010525	145.	145.	145.	2	0	0	0.00	32.90	210.90

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .02 FEET

114.01	4.62	710.12	0.00	0.00	710.44	.33	.58	.02	710.10
240.	0.	0.	240.	0.	0.	52.	10.	9.	710.10
.44	0.00	0.00	4.59	.065	.055	.065	.055	705.50	178.00
.013057	50.	50.	50.	2	0	0	0.00	31.49	209.49

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .02 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
114.02	4.62	711.42	0.00	0.00	711.75	.33	1.30	.00	711.40
240.	0.	0.	240.	0.	0.	52.	10.	10.	711.40
.45	0.00	0.00	4.58	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	31.52	209.52

*SECNO 114.030
114.03	4.58	714.08	0.00	0.00	714.42	.34	2.67	.00	714.10
240.	0.	0.	240.	0.	0.	51.	10.	10.	714.10
.46	0.00	0.00	4.69	.065	.055	.065	.055	709.50	178.16
.013729	200.	200.	200.	2	0	0	0.00	31.00	209.16

*SECNO 114.050
114.05	4.60	716.80	0.00	0.00	717.13	.33	2.71	.00	716.80
240.	0.	0.	240.	0.	0.	52.	11.	10.	716.80
.47	0.00	0.00	4.63	.065	.055	.065	.055	712.20	178.00
.013376	200.	200.	200.	2	0	0	0.00	31.33	209.33

*SECNO 114.070
114.07	4.59	719.49	0.00	0.00	719.83	.34	2.69	.00	719.50
240.	0.	0.	240.	0.	0.	51.	11.	10.	719.50
.49	0.00	0.00	4.66	.065	.055	.065	.055	714.90	178.08
.013557	200.	200.	200.	2	0	0	0.00	31.16	209.24

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .03 FEET

114.09	4.63	720.83	0.00	0.00	721.15	.32	1.32	.00	720.80
240.	0.	0.	240.	0.	0.	53.	11.	10.	720.80
.49	0.00	0.00	4.55	.065	.055	.065	.055	716.20	178.00
.012840	100.	100.	100.	1	0	0	0.00	31.59	209.59

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 1.74 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	ICC	ICONT	CORAR	TOPWID	ENDST
115.20	4.44	721.34	0.00	0.00	721.41	.07	.23	.03	719.60
240.	64.	149.	26.	42.	62.	19.	11.	10.	719.70
.50	1.55	2.40	1.36	.065	.055	.065	.055	716.90	146.00
.002376	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.85	721.65	0.00	0.00	721.84	.18	.34	.09	723.00
240.	0.	240.	0.	0.	70.	0.	11.	10.	723.00
.51	0.00	3.43	0.00	.065	.055	.065	.055	716.80	9.62
.003705	116.	116.	116.	2	0	0	0.00	15.68	25.31

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.86	721.66	0.00	0.00	721.84	.18	.00	.00	723.00
240.	0.	240.	0.	0.	70.	0.	11.	10.	723.00
.51	0.00	3.43	0.00	.065	.030	.065	.055	716.80	9.62
.001099	1.	1.	1.	0	0	0	0.00	15.69	25.31

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	4.91	721.71	0.00	0.00	721.89	.18	.05	.00	723.00
240.	0.	240.	0.	0.	71.	0.	11.	10.	723.00
.51	0.00	3.39	0.00	.065	.030	.065	.055	716.80	9.62
.001062	45.	45.	45.	2	0	0	0.00	15.70	25.32

*SECNO 115.420

115.42	4.91	721.71	0.00	0.00	721.89	.18	.00	.00	723.00
240.	0.	240.	0.	0.	71.	0.	11.	10.	723.00
.51	0.00	3.39	0.00	.065	.055	.065	.055	716.80	9.62
.003567	1.	1.	1.	0	0	0	0.00	15.70	25.32

CCHV= .400 CEHV= .800
*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .59 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST
115.50	4.39	721.79	0.00	0.00	722.02	.23	.08	.04	721.20

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      240.       2.     206.      32.       3.      50.      19.      12.      10.    720.80
       .51       .89    4.13      1.70      .065    .055     .065     .055   717.40   197.21
   .007827       17.    17.       17.       2          0        0     0.00    52.79   250.00

  *SECNO 115.510
  3280 CROSS SECTION    115.51 EXTENDED        .87 FEET

    115.51      4.67   722.07     0.00      0.00   722.23      .16      .18      .03   721.20
      240.       5.    193.      41.        6.      55.      26.      12.      10.    720.80
       .52       .95   3.49      1.62      .065    .055     .065     .055   717.40   194.00
   .004833       29.    29.       29.       2          0        0     0.00    56.00   250.00

  *SECNO 115.580

  3265 DIVIDED FLOW

  3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  731.90 MAX ELLC=  728.70

        ***RAILROAD BRIDGE

    115.58      3.60   722.00     0.00      0.00   722.50      .50      .01      .27   728.90
      240.       0.    240.       0.        0.      42.       0.      12.      10.    729.00
       .52       0.00   5.67      0.00      .065    .030     .065     .055   718.40   192.73
   .010463        1.     1.        1.        2          0        0     0.00    26.34   221.00

  *SECNO 116.020

  3265 DIVIDED FLOW

  3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  731.90 MAX ELLC=  728.70

    116.02      4.03   722.43     0.00      0.00   722.73      .31      .15      .08   728.90
      240.       0.    240.       0.        0.      54.       0.      12.      10.    729.00
       .52       0.00   4.44      0.00      .065    .030     .065     .055   718.40   189.19
   .005655       20.    20.       20.       3          0        0     0.00    29.94   222.04

  *SECNO 116.080
    116.09      3.99   722.39     0.00      0.00   722.93      .55      .01      .19   728.30
      240.       0.    240.       0.        0.      40.       0.      12.      10.    728.70
       .52       0.00   5.93      0.00      .065    .055     .065     .055   718.40   195.31
   .020418        1.     1.        1.        2          0        0     0.00    17.98   213.28

  CCHV=    .100 CEHV=    .300
  *SECNO 116.800
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     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

    116.80      4.78   723.28     0.00      0.00   723.57      .29      .61      .03   728.40
      240.       0.    240.       0.        0.      56.       0.      12.      10.    728.80
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.52	0.00	4.30	0.00	.065	.055	.065	.055	718.50	193.13
.008426	49.	49.	49.	2	0	0	0.00	20.51	213.64

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.16 FEET

116.81	4.56	723.66	0.00	0.00	723.69	.02	.09	.03	720.90
240.	86.	74.	80.	91.	44.	86.	12.	10.	721.10
.53	.95	1.67	.93	.065	.055	.065	.055	719.10	153.70
.000752	50.	50.	50.	2	0	0	0.00	118.30	272.00

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .21 FEET

116.82	3.60	723.70	0.00	0.00	723.80	.10	.09	.02	721.90
240.	72.	109.	59.	42.	33.	40.	12.	11.	722.10
.54	1.70	3.33	1.47	.065	.055	.065	.055	720.10	169.37
.004470	60.	60.	60.	2	0	0	0.00	102.63	272.00

*SECNO 116.830

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.83	3.02	724.02	724.02	0.00	724.40	.38	.41	.08	722.80
240.	54.	152.	34.	20.	26.	15.	12.	11.	723.00
.54	2.66	5.94	2.23	.065	.055	.065	.055	721.00	180.28
.019598	50.	50.	50.	2	10	0	0.00	76.58	256.86

*SECNO 116.840

116.84	3.15	724.95	0.00	0.00	725.23	.28	.82	.01	723.60
240.	59.	141.	40.	25.	27.	20.	12.	11.	723.80
.55	2.37	5.19	2.02	.065	.055	.065	.055	721.80	177.12
.013817	50.	50.	50.	2	0	0	0.00	85.03	262.14

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.86	3.02	726.22	726.22	0.00	726.60	.38	1.31	.03	725.00
240.	54.	152.	34.	20.	26.	15.	12.	11.	725.20
.55	2.66	5.94	2.23	.065	.055	.065	.055	723.20	180.27
.019565	80.	80.	80.	1	10	0	0.00	76.62	256.88

*SECNO 117.200

117.20	3.10	727.70	0.00	0.00	728.02	.32	1.41	.01	726.40
240.	57.	145.	38.	23.	27.	18.	12.	11.	726.60
.56	2.48	5.48	2.10	.065	.055	.065	.055	724.60	178.38
.015856	80.	80.	80.	2	0	0	0.00	81.65	260.03

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .11 FEET

***CAMPGROUND RD.

117.21	3.51	728.71	0.00	0.00	728.83	.12	.79	.02	727.00
240.	70.	115.	55.	38.	31.	36.	13.	11.	727.20
.57	1.83	3.65	1.55	.065	.055	.065	.055	725.20	170.95
.005611	90.	90.	90.	3	0	0	0.00	101.05	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.40 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
738.06	729.47	0.00	83.	157.	13.	16.	729.20	732.30

117.79	7.50	732.70	0.00	0.00	732.73	.04	3.90	0.00	780.00
240.	0.	0.	240.	0.	0.	159.	13.	11.	780.00
.57	0.00	0.00	1.51	.065	.055	.065	.055	725.20	95.00
.000608	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.83 FEET

117.80	6.93	732.73	0.00	0.00	732.77	.05	.04	.00	730.00
240.	0.	0.	240.	0.	0.	141.	13.	11.	730.00
.58	0.00	0.00	1.71	.065	.055	.065	.055	725.80	95.00
.000877	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      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.   674.460   0.000

J2  NPROF     IPLOT    PREVS    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 110.100

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
110.10	5.36	674.46	0.00	674.46	674.49	.03	0.00	0.00	673.30
215.	31.	101.	84.	57.	53.	107.	0.	0.	672.80
0.00	.53	1.92	.78	.055	.040	.055	0.000	669.10	28.93
.000562	0.	0.	0.	0	0	0	0.00	238.27	280.00

*SECNO 110.150

110.15	4.86	674.51	0.00	0.00	674.60	.09	.09	.02	673.85
215.	13.	133.	70.	20.	46.	66.	0.	0.	673.35
.01	.62	2.91	1.05	.055	.040	.055	.040	669.65	65.15
.001568	100.	100.	100.	0	0	0	0.00	142.40	207.55

*SECNO 110.200

110.20	4.34	674.54	0.00	0.00	675.00	.46	.29	.11	674.40
215.	1.	210.	4.	1.	38.	4.	1.	1.	673.90
.02	.58	5.49	1.06	.055	.040	.055	.040	670.20	113.30
.007047	100.	100.	100.	2	0	0	0.00	35.48	148.78

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.29	4.42	675.32	0.00	0.00	675.72	.40	.71	.02	674.80
215.	0.	215.	0.	0.	42.	0.	1.	1.	674.80
.02	0.00	5.10	0.00	.055	.040	.055	.040	670.90	2.90
.005384	115.	115.	115.	3	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320
3280 CROSS SECTION 110.32 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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
676.05	675.72	0.00	1.	213.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.80	675.70	0.00	0.00	676.04	.33	.31	0.00	674.80
215.	0.	215.	0.	0.	46.	0.	1.	1.	674.80
.03	0.00	4.63	0.00	.055	.040	.055	.040	670.90	2.90
.004025	30.	30.	30.	3	0	2	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	4.00	675.70	0.00	0.00	676.61	.92	.11	.47	676.20
215.	0.	215.	0.	0.	28.	0.	1.	1.	675.80
.03	0.00	7.69	0.00	.055	.040	.055	.039	671.70	30.81
.017986	15.	15.	15.	2	0	0	0.00	11.15	41.96

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.68	676.68	0.00	0.00	676.99	.31	.14	.24	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70
.03	0.00	4.46	0.00	.055	.040	.055	.039	672.00	4.00
.004133	18.	18.	18.	3	0	0	0.00	12.10	16.10

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.69	676.69	0.00	0.00	677.00	.31	.00	.00	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70
.03	0.00	4.45	0.00	.055	.030	.055	.039	672.00	4.00
.002303	1.	1.	1.	0	0	0	0.00	12.10	16.10

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.76	676.76	0.00	0.00	677.07	.31	.07	.00	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70

.03	0.00	4.44	0.00	.055	.030	.055	.039	672.00	3.83
.004422	23.	23.	23.	0	0	0	-.80	12.59	16.42

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
111.03	4.79	676.79	0.00	0.00	677.08	.29	.01	.01	676.70
215.	0.	215.	0.	0.	49.	0.	1.	1.	676.70
.03	.02	4.35	.02	.055	.050	.055	.039	672.00	3.77
.005933	1.	1.	1.	2	0	0	0.00	12.76	16.53

CCHV= .400 CEHV= .800

*SECNO 111.800

3280 CROSS SECTION 111.80 EXTENDED 1.08 FEET

111.80	5.17	677.17	0.00	0.00	677.21	.04	.02	.10	675.20
315.	95.	73.	147.	74.	34.	117.	1.	1.	675.20
.03	1.29	2.11	1.25	.055	.050	.055	.039	672.00	0.00
.001297	10.	10.	10.	2	0	0	0.00	145.64	145.64

*SECNO 111.810

3280 CROSS SECTION 111.81 EXTENDED .95 FEET

111.81	5.05	677.25	0.00	0.00	677.30	.04	.08	.01	675.40
315.	94.	77.	144.	68.	33.	107.	1.	1.	675.40
.04	1.39	2.32	1.35	.055	.050	.055	.040	672.20	0.00
.001658	58.	58.	58.	2	0	0	0.00	143.80	143.80

CCHV= .100 CEHV= .300

*SECNO 111.820

3280 CROSS SECTION 111.82 EXTENDED .78 FEET

111.82	4.89	677.29	0.00	0.00	677.35	.06	.05	.01	675.60
315.	90.	89.	136.	59.	32.	92.	1.	1.	675.60
.04	1.51	2.81	1.48	.070	.060	.070	.041	672.40	0.00
.003756	20.	20.	20.	0	0	0	0.00	141.25	141.25

*SECNO 111.830

3280 CROSS SECTION 111.83 EXTENDED .55 FEET

111.83	4.65	677.75	0.00	0.00	677.85	.10	.49	.01	676.30
315.	85.	103.	127.	48.	29.	74.	2.	1.	676.30
.06	1.76	3.54	1.72	.070	.060	.070	.044	673.10	0.00
.006562	100.	100.	100.	2	0	0	0.00	137.78	137.78

*SECNO 111.840

3280 CROSS SECTION 111.84 EXTENDED .52 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
				***FOOTBRIDGE					
111.84	4.62	678.22	0.00	0.00	678.33	.10	.48	.00	676.80
315.	84.	106.	125.	47.	29.	71.	2.	2.	676.80
.06	1.79	3.65	1.76	.070	.060	.070	.045	673.60	0.00
.007075	70.	70.	70.	2	0	0	0.00	137.35	137.35

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .52 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.62	678.22	0.00	0.00	678.35	.13	.01	.01	676.80
315.	53.	65.	197.	32.	21.	64.	2.	2.	676.80
.06	1.66	3.10	3.09	.070	.060	.070	.045	673.60	0.00
.028086	1.	1.	1.	1	0	0	-30.80	137.36	137.36

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .62 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.71	678.31	0.00	0.00	678.42	.11	.07	.00	676.80
315.	56.	59.	200.	36.	22.	71.	2.	2.	676.80
.06	1.54	2.72	2.81	.070	.060	.070	.045	673.60	0.00
.020413	3.	3.	3.	2	0	0	-30.80	138.73	138.73

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .65 FEET

111.87	4.75	678.35	0.00	0.00	678.43	.08	.01	.00	676.80
315.	87.	97.	131.	53.	30.	81.	2.	2.	676.80
.06	1.65	3.21	1.61	.070	.060	.070	.045	673.60	0.00
.005178	1.	1.	1.	1	0	0	0.00	139.19	139.19

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .48 FEET

111.90	4.58	679.38	0.00	0.00	679.49	.11	1.04	.01	678.00
315.	93.	109.	123.	45.	29.	68.	2.	2.	678.00
.08	1.84	3.82	1.81	.070	.060	.070	.048	674.80	0.00
.007916	165.	165.	165.	3	0	0	0.00	136.72	136.72

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .63 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
	***CONCRETE WEIR								
111.91	3.23	679.93	0.00	0.00	680.11	.18	.60	.02	679.00
315.	114.	82.	119.	42.	16.	47.	3.	2.	679.00
.09	2.69	5.03	2.54	.070	.060	.070	.049	676.70	0.00
.020243	50.	50.	50.	3	0	0	0.00	121.90	121.90

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .61 FEET

111.92	4.72	680.52	0.00	0.00	680.60	.08	.48	.01	679.00
315.	87.	99.	130.	51.	30.	79.	3.	2.	679.00
.09	1.68	3.31	1.65	.070	.060	.070	.049	675.80	0.00
.005606	50.	50.	50.	2	0	0	0.00	138.71	138.71

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .51 FEET

111.93	4.62	680.82	0.00	0.00	680.92	.10	.32	.01	679.40
315.	84.	106.	125.	46.	29.	70.	3.	3.	679.40
.10	1.80	3.69	1.77	.070	.060	.070	.050	676.20	0.00
.007290	50.	50.	50.	2	0	0	0.00	137.18	137.18

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .55 FEET

111.94	4.65	681.95	0.00	0.00	682.04	.10	1.12	.00	680.50
315.	85.	103.	127.	48.	29.	74.	3.	3.	680.50
.12	1.76	3.54	1.72	.070	.060	.070	.051	677.30	0.00
.006577	162.	162.	162.	2	0	0	0.00	137.77	137.77

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .60 FEET

111.95	4.70	683.70	0.00	0.00	683.78	.09	1.74	.00	682.20
315.	86.	100.	129.	51.	30.	77.	4.	4.	682.20
.15	1.70	3.37	1.67	.070	.060	.070	.053	679.00	0.00
.005855	280.	280.	280.	3	0	0	0.00	138.45	138.45

*SECNO 111.970

3280 CROSS SECTION 111.97 EXTENDED .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
111.97	4.54	683.94	0.00	0.00	684.06	.12	.27	.01	682.60
315.	29.	158.	128.	18.	45.	78.	5.	4.	681.70
.16	1.57	3.53	1.65	.070	.060	.070	.053	679.40	190.00
.004926	50.	50.	50.	2	0	0	0.00	111.46	301.46

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .78 FEET

111.99	4.39	684.49	0.00	0.00	684.65	.16	.58	.01	683.30
315.	26.	171.	118.	16.	43.	65.	5.	4.	682.40
.17	1.68	4.01	1.81	.070	.060	.070	.053	680.10	190.00
.006825	100.	100.	100.	0	0	0	0.00	106.27	296.27

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .77 FEET

111.99	4.37	685.87	0.00	0.00	686.03	.16	1.38	.00	684.70
315.	26.	172.	117.	16.	42.	64.	5.	5.	683.80
.19	1.68	4.05	1.82	.070	.060	.070	.054	681.50	190.00
.006973	200.	200.	200.	2	0	0	0.00	105.94	295.94

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .77 FEET

112.00	4.37	688.37	0.00	0.00	688.53	.16	2.50	.00	687.20
315.	26.	172.	117.	16.	42.	64.	6.	6.	686.30
.22	1.68	4.05	1.82	.070	.060	.070	.055	684.00	190.00
.006996	358.	358.	358.	2	0	0	0.00	105.89	295.89

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .78 FEET

112.10	4.38	690.48	0.00	0.00	690.64	.16	2.11	.00	689.30
315.	26.	171.	118.	16.	43.	65.	7.	6.	688.40
.25	1.68	4.02	1.81	.070	.060	.070	.056	686.10	190.00
.006837	305.	305.	305.	2	0	0	0.00	106.24	296.24

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .75 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
112.20	4.34	692.24	0.00	0.00	692.41	.17	1.77	.00	691.10
315.	26.	174.	115.	15.	42.	62.	8.	7.	690.20
.27	1.70	4.13	1.85	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	105.12	295.12

*SECNO 112.300

3280 CROSS SECTION 112.30 EXTENDED .80 FEET

112.30	4.40	694.00	0.00	0.00	694.15	.15	1.74	.00	692.80
315.	27.	169.	119.	16.	43.	66.	9.	8.	691.90
.29	1.66	3.95	1.79	.070	.060	.070	.056	689.60	190.00
.006564	250.	250.	250.	2	0	0	0.00	106.87	296.87

*SECNO 112.400

112.40	4.35	694.35	0.00	0.00	694.49	.14	.34	.00	694.00
315.	1.	213.	102.	1.	61.	59.	9.	8.	692.80
.30	.55	3.51	1.71	.070	.060	.070	.056	690.00	245.05
.006961	50.	50.	50.	0	0	0	0.00	107.87	352.92

*SECNO 112.410

***FOOTBRIDGE

112.41	4.34	694.74	0.00	0.00	694.88	.15	.39	.00	694.40
315.	1.	214.	100.	1.	60.	58.	9.	8.	693.20
.30	.54	3.56	1.73	.070	.060	.070	.056	690.40	245.43
.007255	55.	55.	55.	1	0	0	0.00	106.84	352.28

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.37	694.77	0.00	0.00	694.89	.13	.01	.00	694.40
315.	1.	174.	140.	1.	54.	61.	9.	8.	693.20
.30	.76	3.23	2.28	.070	.060	.070	.056	690.40	244.61
.012119	1.	1.	1.	2	0	0	-7.20	109.05	353.66

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.48	694.88	0.00	0.00	694.98	.10	.08	.00	694.40
315.	2.	166.	147.	2.	57.	70.	9.	8.	693.20
.30	.79	2.92	2.11	.070	.060	.070	.056	690.40	242.41
.009289	8.	8.	8.	2	0	0	-7.20	114.91	357.32

*SECNO 112.440

112.44	4.48	694.88	0.00	0.00	694.99	.11	.01	.00	694.40
315.	1.	203.	111.	2.	64.	70.	9.	8.	693.20
.30	.60	3.15	1.58	.070	.060	.070	.056	690.40	242.30
.005223	1.	1.	1.	1	0	0	0.00	115.19	357.49

*SECNO 112.500

112.50	4.37	695.07	0.00	0.00	695.21	.14	.21	.01	694.70
315.	1.	211.	103.	1.	61.	61.	9.	8.	693.50
.31	.56	3.45	1.69	.070	.060	.070	.056	690.70	244.66
.006677	35.	35.	35.	2	0	0	0.00	108.91	353.57

*SECNO 113.200

113.20	4.37	697.37	0.00	0.00	697.51	.14	2.30	.00	697.00
315.	1.	211.	103.	1.	61.	61.	10.	9.	695.80
.34	.56	3.45	1.69	.070	.060	.070	.057	693.00	244.65
.006673	345.	345.	345.	3	0	0	0.00	108.92	353.58

CCHV= .400 CEHV= .800

*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.27	698.57	0.00	0.00	699.32	.75	1.32	.49	698.80
315.	0.	315.	0.	0.	45.	0.	10.	9.	698.80
.35	0.00	6.96	0.00	.065	.055	.065	.057	693.30	7.51
.019982	123.	123.	123.	2	0	0	0.00	9.99	17.49

CCHV= .500 CEHV= 1.000

*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.70	699.00	0.00	0.00	699.47	.46	.01	.14	699.50
315.	0.	315.	0.	0.	58.	0.	10.	9.	699.50
.35	0.00	5.46	0.00	.065	.030	.065	.057	693.30	.01
.003250	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.69	699.09	0.00	0.00	699.56	.47	.08	.01	699.60
315.	0.	315.	0.	0.	57.	0.	10.	9.	699.60
.35	0.00	5.50	0.00	.065	.030	.065	.056	693.40	.01
.003302	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.67	699.17	0.00	0.00	699.64	.47	.08	.00	699.70
315.	0.	315.	0.	0.	57.	0.	10.	9.	699.70
.35	0.00	5.51	0.00	.065	.030	.065	.056	693.50	.01
.003319	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.84	699.74	0.00	0.00	700.22	.48	.57	.01	700.10
315.	0.	315.	0.	0.	57.	0.	11.	9.	700.10
.36	0.00	5.57	0.00	.065	.030	.065	.055	693.90	.01
.005871	132.	132.	132.	2	0	0	-2.42	10.19	10.19

*SECNO 113.420

113.42	5.92	699.82	0.00	0.00	700.26	.43	.01	.03	700.10
315.	0.	315.	0.	0.	60.	0.	11.	9.	700.10
.36	0.00	5.27	0.00	.065	.055	.065	.055	693.90	.00
.009920	1.	1.	1.	2	0	0	0.00	10.19	10.20

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .97 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
113.80	6.67	701.07	0.00	0.00	701.30	.23	.96	.08	700.70
315.	0.	268.	47.	0.	66.	27.	11.	9.	700.00
.37	0.00	4.07	1.77	.065	.055	.065	.055	694.40	140.00
.006107	125.	125.	125.	2	0	0	0.00	46.00	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .78 FEET

113.81	6.48	701.38	0.00	0.00	701.66	.28	.35	.02	701.20
315.	0.	277.	38.	0.	62.	22.	11.	9.	700.50
.37	0.00	4.46	1.76	.065	.055	.065	.055	694.90	140.00
.007876	50.	50.	50.	2	0	0	0.00	46.00	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .62 FEET

113.82	6.32	702.22	0.00	0.00	702.55	.33	.88	.02	702.20
315.	0.	285.	30.	0.	59.	17.	11.	9.	701.50
.37	0.00	4.84	1.71	.065	.055	.065	.055	695.90	140.00
.009898	100.	100.	100.	2	0	0	0.00	46.00	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .61 FEET

113.83	6.31	703.71	0.00	0.00	704.05	.34	1.50	.00	703.70
315.	0.	286.	29.	0.	59.	17.	11.	9.	703.00
.38	0.00	4.87	1.71	.065	.055	.065	.055	697.40	140.00
.010043	150.	150.	150.	2	0	0	0.00	46.00	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .62 FEET

113.90	6.32	705.72	0.00	0.00	706.05	.34	2.00	.00	705.70
315.	0.	285.	30.	0.	59.	17.	12.	10.	705.00
.40	0.00	4.85	1.71	.065	.055	.065	.055	699.40	140.00
.009953	200.	200.	200.	1	0	0	0.00	46.00	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .61 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
113.91	6.31	707.71	0.00	0.00	708.04	.34	1.99	.00	707.70
315.	0.	285.	30.	0.	59.	17.	12.	10.	707.00
.41	0.00	4.85	1.71	.065	.055	.065	.055	701.40	140.00
.009979	200.	200.	200.	0	0	0	0.00	46.00	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.81 FEET

113.92	6.40	708.20	0.00	0.00	708.28	.08	.21	.03	706.40
315.	0.	0.	315.	0.	0.	138.	12.	10.	759.40
.41	0.00	0.00	2.28	.065	.055	.065	.055	701.80	178.00
.002343	50.	50.	50.	0	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .80 FEET

113.93	5.40	708.70	0.00	0.00	708.91	.21	.59	.04	707.90
315.	0.	0.	315.	0.	0.	86.	13.	10.	707.90
.43	0.00	0.00	3.67	.065	.055	.065	.055	703.30	178.00
.007790	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .57 FEET

114.00	5.16	709.96	0.00	0.00	710.25	.28	1.32	.02	709.40

315.	0.	0.	315.	0.	0.	74.	13.	10.	709.40
.43	0.00	0.00	4.28	.065	.055	.065	.055	704.80	178.00
.010756	145.	145.	145.	2	0	0	0.00	52.00	230.00

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .41 FEET

114.01	5.01	710.51	0.00	0.00	710.87	.36	.60	.02	710.10
315.	0.	0.	315.	0.	0.	66.	13.	10.	710.10
.44	0.00	0.00	4.78	.065	.055	.065	.055	705.50	178.00
.013293	50.	50.	50.	2	0	0	0.00	43.88	221.88

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .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
114.02	5.03	711.83	0.00	0.00	712.18	.35	1.31	.00	711.40
315.	0.	0.	315.	0.	0.	67.	13.	10.	711.40
.44	0.00	0.00	4.72	.065	.055	.065	.055	706.80	178.00
.012964	100.	100.	100.	2	0	0	0.00	45.57	223.57

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .39 FEET

114.03	4.99	714.49	0.00	0.00	714.85	.37	2.67	.01	714.10
315.	0.	0.	315.	0.	0.	65.	13.	11.	714.10
.46	0.00	0.00	4.86	.065	.055	.065	.055	709.50	178.00
.013725	200.	200.	200.	2	0	0	0.00	41.72	219.72

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .41 FEET

114.05	5.00	717.20	0.00	0.00	717.56	.36	2.71	.00	716.80
315.	0.	0.	315.	0.	0.	66.	14.	11.	716.80
.47	0.00	0.00	4.79	.065	.055	.065	.055	712.20	178.00
.013364	200.	200.	200.	2	0	0	0.00	43.52	221.52

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .39 FEET

114.07	5.00	719.90	0.00	0.00	720.26	.36	2.70	.00	719.50
315.	0.	0.	315.	0.	0.	65.	14.	11.	719.50
.48	0.00	0.00	4.84	.065	.055	.065	.055	714.90	178.00
.013636	200.	200.	200.	1	0	0	0.00	42.16	220.16

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .45 FEET

114.09	5.04	721.24	0.00	0.00	721.58	.34	1.31	.00	720.80
315.	0.	0.	315.	0.	0.	68.	14.	11.	720.80
.48	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012611	100.	100.	100.	0	0	0	0.00	47.43	225.43

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.15 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
115.20	4.85	721.75	0.00	0.00	721.83	.08	.23	.03	719.60
315.	90.	187.	38.	52.	72.	25.	14.	11.	719.70
.49	1.74	2.60	1.54	.065	.055	.065	.055	716.90	146.00
.002292	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.29	722.09	0.00	0.00	722.35	.26	.38	.15	723.00
315.	0.	315.	0.	0.	77.	0.	15.	11.	723.00
.50	0.00	4.11	0.00	.065	.055	.065	.055	716.80	9.58
.004914	116.	116.	116.	2	0	0	0.00	15.79	25.37

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.29	722.09	0.00	0.00	722.35	.26	.00	.00	723.00
315.	0.	315.	0.	0.	77.	0.	15.	11.	723.00
.50	0.00	4.10	0.00	.065	.030	.065	.055	716.80	9.58
.001458	1.	1.	1.	0	0	0	0.00	15.79	25.37

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.37	722.17	0.00	0.00	722.42	.25	.06	.00	723.00
315.	0.	315.	0.	0.	78.	0.	15.	11.	723.00
.50	0.00	4.04	0.00	.065	.030	.065	.055	716.80	9.58
.001397	45.	45.	45.	2	0	0	0.00	15.81	25.38

*SECNO 115.420

115.42	5.37	722.17	0.00	0.00	722.42	.25	.00	.00	723.00
315.	0.	315.	0.	0.	78.	0.	15.	11.	723.00

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      .50      0.00      4.04      0.00      .065      .055      .065      .055    716.80      9.58
  .004691       1.        1.        1.         0         0         0      0.00    15.81     25.38

 CCHV=    .400 CEHV=    .800
 *SECNO 115.500
 3280 CROSS SECTION    115.50 EXTENDED      1.13 FEET

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

    115.50      4.93    722.33      0.00      0.00    722.53       .20       .08       .02    721.20
      315.       12.       240.       64.       9.       61.       32.       15.       11.     720.80
       .50      1.35      3.95      1.99      .065      .055      .065      .055    717.40    194.00
  .005478       17.       17.       17.         2         0         0      0.00     56.00    250.00

 *SECNO 115.510
 3280 CROSS SECTION    115.51 EXTENDED      1.32 FEET

    115.51      5.12    722.52      0.00      0.00    722.68       .16       .14       .01    721.20
      315.       15.       231.       69.       11.       64.       37.       15.       11.     720.80
       .51      1.36      3.59      1.88      .065      .055      .065      .055    717.40    194.00
  .004173       29.       29.       29.         2         0         0      0.00     56.00    250.00

 *SECNO 115.580

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   731.90 MAX ELLC=   728.70

        ***RAILROAD BRIDGE

    115.59      4.06    722.46      0.00      0.00    722.96       .51       .01       .28    728.90
      315.        0.       315.        0.        0.       55.        0.       15.       11.     729.00
       .51      0.00      5.71      0.00      .065      .030      .065      .055    718.40    188.90
  .009288          1.        1.        1.         2         0         0      0.00     30.28    222.10

 *SECNO 116.020

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   731.90 MAX ELLC=   728.70

    116.02      4.44    722.84      0.00      0.00    723.18       .34       .15       .07    728.90
      315.        0.       315.        0.        0.       68.        0.       15.       11.     729.00
       .51      0.00      4.66      0.00      .065      .030      .065      .055    718.40    182.87
  .005982       20.       20.       20.         3         0         0      0.00     35.97    222.74

 *SECNO 116.080
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116.08	4.39	722.79	0.00	0.00	723.46	.67	.01	.27	728.30
315.	0.	315.	0.	0.	48.	0.	15.	11.	728.70
.51	0.00	6.58	0.00	.065	.055	.065	.055	718.40	194.22
.022113	1.	1.	1.	2	0	0	0.00	19.24	213.46

CCHV= .100 CEHV= .300

*SECNO 116.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
116.80	5.30	723.80	0.00	0.00	724.14	.35	.65	.03	728.40
315.	0.	315.	0.	0.	67.	0.	15.	11.	728.80
.51	0.00	4.72	0.00	.065	.055	.065	.055	718.50	191.87
.008842	49.	49.	49.	2	0	0	0.00	21.99	213.87

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED 1.73 FEET

116.81	5.13	724.23	0.00	0.00	724.25	.02	.08	.03	720.90
315.	120.	84.	111.	126.	51.	113.	15.	12.	721.10
.52	.95	1.64	.98	.065	.055	.065	.055	719.10	144.49
.000599	50.	50.	50.	2	0	0	0.00	127.51	272.00

*SECNO 116.820

3280 CROSS SECTION 116.82 EXTENDED .76 FEET

116.82	4.16	724.26	0.00	0.00	724.33	.07	.06	.01	721.90
315.	106.	111.	98.	69.	39.	67.	15.	12.	722.10
.53	1.55	2.82	1.46	.065	.055	.065	.055	720.10	160.26
.002497	60.	60.	60.	2	0	0	0.00	111.74	272.00

*SECNO 116.830

116.83	3.34	724.34	0.00	0.00	724.65	.31	.25	.07	722.80
315.	86.	166.	63.	32.	29.	28.	16.	12.	723.00
.53	2.72	5.66	2.29	.065	.055	.065	.055	721.00	173.74
.014773	50.	50.	50.	0	0	0	0.00	95.78	269.52

*SECNO 116.840

116.84	3.30	725.10	0.00	0.00	725.44	.34	.78	.01	723.60
315.	84.	171.	61.	30.	29.	26.	16.	12.	723.80
.54	2.80	5.90	2.37	.065	.055	.065	.055	721.80	174.43
.016449	50.	50.	50.	3	0	0	0.00	93.40	267.83

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

116.86	3.26	726.46	0.00	0.00	726.83	.37	1.38	.01	725.00
315.	82.	175.	58.	28.	28.	24.	16.	12.	725.20
.54	2.88	6.14	2.44	.065	.055	.065	.055	723.20	175.07
.018182	80.	80.	80.	2	0	0	0.00	91.21	266.28

*SECNO 117.200

117.20	3.28	727.88	0.00	0.00	728.23	.35	1.40	.00	726.40
315.	83.	172.	60.	30.	29.	25.	16.	12.	726.60
.55	2.82	5.96	2.38	.065	.055	.065	.055	724.60	174.59
.016856	80.	80.	80.	1	0	0	0.00	92.86	267.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .34 FEET

***CAMPGROUND RD.

117.21	3.74	728.94	0.00	0.00	729.07	.13	.82	.02	727.00
315.	98.	133.	84.	48.	34.	47.	16.	12.	727.20
.56	2.03	3.88	1.79	.065	.055	.065	.055	725.20	167.12
.005668	90.	90.	90.	3	0	0	0.00	104.88	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.61 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
745.05	729.91	0.00	158.	157.	13.	16.	729.20	732.30

117.79	7.71	732.91	0.00	0.00	732.97	.06	3.89	0.00	780.00
315.	0.	0.	315.	0.	0.	166.	16.	13.	780.00
.56	0.00	0.00	1.90	.065	.055	.065	.055	725.20	95.00
.000923	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 3.06 FEET

117.80	7.16	732.96	0.00	0.00	733.03	.07	.05	.00	730.00
315.	0.	0.	315.	0.	0.	148.	16.	13.	730.00
.57	0.00	0.00	2.13	.065	.055	.065	.055	725.80	95.00
.001298	50.	50.	50.	2	0	0	0.00	32.00	127.00

****
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

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
674.120	64.04	674.16	155.73	0.00	0.00	674.12
673.470	31.29	673.57	95.43	0.00	0.00	673.47
673.940	52.76	673.99	140.13	0.00	0.00	673.94
674.460	90.69	674.49	238.27	0.00	0.00	674.46
674.179	37.68	674.29	110.63	0.00	0.00	0.00
673.651	21.28	673.87	73.84	0.00	0.00	0.00
674.019	31.50	674.16	95.81	0.00	0.00	0.00
674.509	54.29	674.60	142.40	0.00	0.00	0.00
674.336	22.13	674.69	22.42	0.00	0.00	0.00
674.065	18.71	674.35	16.89	0.00	0.00	0.00
674.256	21.17	674.59	20.95	0.00	0.00	0.00
674.539	25.61	675.00	35.48	0.00	0.00	0.00
674.991	25.53	675.29	11.10	0.00	0.00	0.00
674.639	21.83	674.87	11.00	0.00	0.00	0.00
674.891	24.43	675.17	11.10	0.00	0.00	0.00
675.320	29.30	675.72	11.10	0.00	0.00	0.00
675.174	27.64	675.45	11.10	0.00	0.00	0.00
674.699	22.42	674.93	11.04	0.00	0.00	0.00
675.034	26.03	675.29	11.10	0.00	0.00	0.00
675.703	33.89	676.04	11.10	0.00	0.00	0.00
675.159	11.83	676.06	10.08	0.00	0.00	0.00
674.675	8.66	675.59	9.13	0.00	0.00	0.00
675.016	10.84	675.93	9.80	0.00	0.00	0.00
675.697	16.03	676.61	11.15	0.00	0.00	0.00
676.209	28.02	676.46	12.07	0.00	0.00	0.00
675.797	23.50	676.00	12.04	0.00	0.00	0.00
676.098	26.79	676.33	12.06	0.00	0.00	0.00
676.685	33.44	676.99	12.10	0.00	0.00	0.00
676.215	37.57	676.46	12.07	0.00	0.00	0.00
675.802	31.55	676.00	12.04	0.00	0.00	0.00
676.104	35.93	676.34	12.06	0.00	0.00	0.00
676.691	44.80	677.00	12.10	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
676.273	38.46	676.51	12.07	0.00	0.00	0.00
675.853	32.28	676.05	12.04	0.00	0.00	0.00
676.160	36.77	676.39	12.06	0.00	0.00	0.00
676.763	32.33	677.07	12.59	0.00	0.00	0.00
676.276	23.03	676.52	12.07	0.00	0.00	0.00
675.856	19.31	676.05	12.04	0.00	0.00	0.00
676.163	22.01	676.39	12.06	0.00	0.00	0.00
676.788	27.91	677.08	12.76	0.00	0.00	0.00
676.521	40.27	676.62	135.74	0.00	0.00	0.00
675.925	15.58	676.14	100.72	0.00	0.00	0.00
676.387	32.91	676.49	133.00	0.00	0.00	0.00
677.170	87.46	677.21	145.64	0.00	0.00	0.00
676.804	46.12	676.88	137.20	0.00	0.00	0.00
676.469	27.80	676.54	127.22	0.00	0.00	0.00
676.685	38.75	676.76	135.34	0.00	0.00	0.00
677.254	77.37	677.30	143.80	0.00	0.00	0.00
676.888	31.22	677.00	135.38	0.00	0.00	0.00
676.544	18.42	676.65	120.80	0.00	0.00	0.00
676.769	26.32	676.88	132.79	0.00	0.00	0.00
677.290	51.40	677.35	141.25	0.00	0.00	0.00
677.665	34.27	677.76	136.37	0.00	0.00	0.00
677.295	20.16	677.38	123.69	0.00	0.00	0.00
677.545	28.90	677.64	134.59	0.00	0.00	0.00
677.751	38.89	677.85	137.78	0.00	0.00	0.00
678.152	33.98	678.25	136.28	0.00	0.00	0.00
677.777	19.40	677.87	122.45	0.00	0.00	0.00
678.032	28.54	678.13	134.47	0.00	0.00	0.00
678.224	37.45	678.33	137.35	0.00	0.00	0.00
678.144	16.42	678.27	136.29	0.00	0.00	0.00
677.752	9.15	677.90	121.21	0.00	0.00	0.00
678.023	12.73	678.15	134.48	0.00	0.00	0.00
678.216	18.80	678.35	137.36	0.00	0.00	0.00
678.250	19.71	678.35	137.75	0.00	0.00	0.00
677.889	11.13	677.99	128.39	0.00	0.00	0.00
678.145	16.21	678.24	136.19	0.00	0.00	0.00
678.315	22.05	678.42	138.73	0.00	0.00	0.00
678.289	40.38	678.36	138.22	0.00	0.00	0.00
677.941	25.01	678.00	130.98	0.00	0.00	0.00
678.183	35.04	678.25	136.61	0.00	0.00	0.00
678.355	43.77	678.43	139.19	0.00	0.00	0.00
679.294	31.65	679.41	135.52	0.00	0.00	0.00
678.903	17.26	679.02	118.75	0.00	0.00	0.00
679.167	26.08	679.28	132.46	0.00	0.00	0.00
679.375	35.40	679.49	136.72	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
679.860	19.80	680.04	119.58	0.00	0.00	0.00
679.542	10.72	679.74	108.69	0.00	0.00	0.00
679.759	16.37	679.94	115.89	0.00	0.00	0.00
679.927	22.14	680.11	121.90	0.00	0.00	0.00
680.448	38.59	680.53	137.70	0.00	0.00	0.00
680.135	24.59	680.20	130.39	0.00	0.00	0.00
680.344	33.46	680.42	136.11	0.00	0.00	0.00
680.515	42.07	680.60	138.71	0.00	0.00	0.00
680.746	33.37	680.85	136.08	0.00	0.00	0.00
680.390	19.67	680.48	122.89	0.00	0.00	0.00
680.629	28.11	680.73	134.32	0.00	0.00	0.00
680.819	36.89	680.92	137.18	0.00	0.00	0.00
681.875	35.21	681.97	136.66	0.00	0.00	0.00
681.503	20.24	681.59	123.83	0.00	0.00	0.00
681.755	29.73	681.84	134.88	0.00	0.00	0.00
681.950	38.84	682.04	137.77	0.00	0.00	0.00
683.618	37.23	683.70	137.29	0.00	0.00	0.00
683.247	21.73	683.32	126.17	0.00	0.00	0.00
683.493	31.36	683.57	135.42	0.00	0.00	0.00
683.696	41.17	683.78	138.45	0.00	0.00	0.00
683.861	41.42	683.97	108.86	0.00	0.00	0.00
683.472	27.02	683.55	96.25	0.00	0.00	0.00
683.731	36.20	683.83	104.68	0.00	0.00	0.00
683.942	44.88	684.06	111.46	0.00	0.00	0.00
684.392	34.65	684.55	103.37	0.00	0.00	0.00
683.918	20.20	684.06	82.86	0.00	0.00	0.00
684.235	29.25	684.39	98.46	0.00	0.00	0.00
684.489	38.13	684.65	106.27	0.00	0.00	0.00
685.768	33.97	685.93	102.78	0.00	0.00	0.00
685.287	19.60	685.44	81.27	0.00	0.00	0.00
685.612	28.49	685.77	97.72	0.00	0.00	0.00
685.867	37.72	686.03	105.94	0.00	0.00	0.00
688.275	34.17	688.43	102.95	0.00	0.00	0.00
687.798	19.83	687.95	81.87	0.00	0.00	0.00
688.124	28.86	688.28	98.08	0.00	0.00	0.00
688.367	37.66	688.53	105.89	0.00	0.00	0.00
690.384	34.42	690.54	103.17	0.00	0.00	0.00
689.904	19.90	690.05	82.05	0.00	0.00	0.00
690.228	28.94	690.38	98.16	0.00	0.00	0.00
690.480	38.10	690.64	106.24	0.00	0.00	0.00
692.152	33.22	692.32	102.12	0.00	0.00	0.00
691.675	19.23	691.83	80.26	0.00	0.00	0.00
691.999	27.96	692.16	97.20	0.00	0.00	0.00
692.245	36.72	692.41	105.12	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
693.905	35.20	694.06	103.84	0.00	0.00	0.00
693.427	20.40	693.57	83.38	0.00	0.00	0.00
693.751	29.68	693.90	98.88	0.00	0.00	0.00
693.999	38.88	694.15	106.87	0.00	0.00	0.00
694.256	34.06	694.40	102.83	0.00	0.00	0.00
693.784	19.87	693.90	76.47	0.00	0.00	0.00
694.107	28.54	694.24	94.60	0.00	0.00	0.00
694.348	37.75	694.49	107.87	0.00	0.00	0.00
694.645	33.49	694.79	102.03	0.00	0.00	0.00
694.168	19.48	694.29	75.16	0.00	0.00	0.00
694.498	28.27	694.63	94.16	0.00	0.00	0.00
694.735	36.98	694.88	106.84	0.00	0.00	0.00
694.676	25.42	694.80	104.08	0.00	0.00	0.00
694.175	12.48	694.31	76.13	0.00	0.00	0.00
694.520	20.34	694.64	95.27	0.00	0.00	0.00
694.770	28.61	694.89	109.05	0.00	0.00	0.00
694.790	29.33	694.89	110.13	0.00	0.00	0.00
694.331	15.67	694.42	86.63	0.00	0.00	0.00
694.645	24.41	694.74	102.41	0.00	0.00	0.00
694.879	32.68	694.98	114.91	0.00	0.00	0.00
694.791	39.95	694.90	110.71	0.00	0.00	0.00
694.341	23.85	694.43	87.17	0.00	0.00	0.00
694.648	34.20	694.75	103.03	0.00	0.00	0.00
694.879	43.59	694.99	115.19	0.00	0.00	0.00
694.975	34.90	695.11	104.01	0.00	0.00	0.00
694.515	20.67	694.63	79.13	0.00	0.00	0.00
694.828	29.54	694.95	96.16	0.00	0.00	0.00
695.067	38.55	695.21	108.91	0.00	0.00	0.00
697.278	34.86	697.41	103.95	0.00	0.00	0.00
696.786	19.96	696.91	76.79	0.00	0.00	0.00
697.125	29.27	697.25	95.73	0.00	0.00	0.00
697.370	38.56	697.51	108.92	0.00	0.00	0.00
698.436	21.43	699.09	9.98	0.00	0.00	0.00
697.732	16.93	698.04	9.95	0.00	0.00	0.00
698.215	20.00	698.73	9.97	0.00	0.00	0.00
698.566	22.28	699.32	9.99	0.00	0.00	0.00
698.808	52.71	699.22	10.18	0.00	0.00	0.00
697.904	41.36	698.10	10.15	0.00	0.00	0.00
698.501	48.79	698.83	10.17	0.00	0.00	0.00
699.004	55.26	699.47	10.18	0.00	0.00	0.00
698.882	52.20	699.30	10.18	0.00	0.00	0.00
697.945	40.56	698.15	10.15	0.00	0.00	0.00
698.563	48.15	698.89	10.17	0.00	0.00	0.00
699.086	54.82	699.56	10.18	0.00	0.00	0.00

CWSEL	.OIK	EG	TOPWID	STENCL	STENCR	WSELK
698.957	51.97	699.37	10.18	0.00	0.00	0.00
697.987	39.91	698.19	10.14	0.00	0.00	0.00
698.625	47.78	698.96	10.17	0.00	0.00	0.00
699.169	54.67	699.64	10.18	0.00	0.00	0.00
699.354	51.92	699.77	10.18	0.00	0.00	0.00
698.224	37.87	698.45	10.14	0.00	0.00	0.00
698.964	46.93	699.31	10.16	0.00	0.00	0.00
699.740	41.11	700.22	10.19	0.00	0.00	0.00
699.361	28.36	699.78	10.18	0.00	0.00	0.00
698.229	20.72	698.45	10.14	0.00	0.00	0.00
698.971	25.67	699.31	10.16	0.00	0.00	0.00
699.825	31.63	700.26	10.19	0.00	0.00	0.00
700.695	31.18	700.98	45.99	0.00	0.00	0.00
699.342	13.84	699.70	15.07	0.00	0.00	0.00
700.212	22.44	700.57	44.55	0.00	0.00	0.00
701.070	40.31	701.30	46.00	0.00	0.00	0.00
701.116	29.54	701.43	45.75	0.00	0.00	0.00
700.039	15.44	700.34	15.93	0.00	0.00	0.00
700.788	23.62	701.12	44.78	0.00	0.00	0.00
701.379	35.49	701.66	46.00	0.00	0.00	0.00
702.065	28.54	702.39	45.60	0.00	0.00	0.00
701.145	16.34	701.42	16.38	0.00	0.00	0.00
701.814	24.03	702.13	44.86	0.00	0.00	0.00
702.220	31.66	702.55	46.00	0.00	0.00	0.00
703.563	28.49	703.89	45.59	0.00	0.00	0.00
702.663	16.51	702.94	16.46	0.00	0.00	0.00
703.309	24.07	703.63	44.86	0.00	0.00	0.00
703.713	31.43	704.05	46.00	0.00	0.00	0.00
705.566	28.45	705.90	45.59	0.00	0.00	0.00
704.661	16.51	704.93	16.47	0.00	0.00	0.00
705.307	23.92	705.63	44.84	0.00	0.00	0.00
705.715	31.57	706.05	46.00	0.00	0.00	0.00
707.564	28.64	707.89	45.62	0.00	0.00	0.00
706.663	16.46	706.94	16.44	0.00	0.00	0.00
707.314	24.02	707.63	44.85	0.00	0.00	0.00
707.708	31.53	708.04	46.00	0.00	0.00	0.00
708.049	60.08	708.12	52.00	0.00	0.00	0.00
707.110	33.53	707.17	52.00	0.00	0.00	0.00
707.791	51.75	707.86	52.00	0.00	0.00	0.00
708.201	65.08	708.28	52.00	0.00	0.00	0.00
708.530	31.88	708.74	52.00	0.00	0.00	0.00
707.635	17.36	707.85	26.94	0.00	0.00	0.00
708.250	26.25	708.47	38.47	0.00	0.00	0.00
708.698	35.69	708.91	52.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
709.814	27.47	710.10	44.60	0.00	0.00	0.00
709.027	16.04	709.28	25.04	0.00	0.00	0.00
709.571	23.39	709.84	32.90	0.00	0.00	0.00
709.964	30.37	710.25	52.00	0.00	0.00	0.00
710.367	24.86	710.71	33.71	0.00	0.00	0.00
709.580	14.43	709.88	22.55	0.00	0.00	0.00
710.117	21.00	710.44	31.49	0.00	0.00	0.00
710.510	27.32	710.87	43.88	0.00	0.00	0.00
711.677	25.00	712.02	33.79	0.00	0.00	0.00
710.884	14.48	711.18	22.61	0.00	0.00	0.00
711.421	21.05	711.75	31.52	0.00	0.00	0.00
711.833	27.67	712.18	45.57	0.00	0.00	0.00
714.335	24.34	714.69	33.43	0.00	0.00	0.00
713.546	14.08	713.85	21.97	0.00	0.00	0.00
714.080	20.48	714.42	31.00	0.00	0.00	0.00
714.486	26.89	714.85	41.72	0.00	0.00	0.00
717.052	24.63	717.40	33.59	0.00	0.00	0.00
716.263	14.27	716.56	22.28	0.00	0.00	0.00
716.799	20.75	717.13	31.33	0.00	0.00	0.00
717.205	27.25	717.56	43.52	0.00	0.00	0.00
719.750	24.42	720.10	33.47	0.00	0.00	0.00
718.954	14.17	719.26	22.11	0.00	0.00	0.00
719.490	20.61	719.83	31.16	0.00	0.00	0.00
719.899	26.98	720.26	42.16	0.00	0.00	0.00
721.088	25.26	721.42	33.93	0.00	0.00	0.00
720.288	14.56	720.58	22.75	0.00	0.00	0.00
720.826	21.18	721.15	31.59	0.00	0.00	0.00
721.241	28.05	721.58	47.43	0.00	0.00	0.00
721.600	59.62	721.67	61.00	0.00	0.00	0.00
720.805	30.80	720.87	61.00	0.00	0.00	0.00
721.337	49.24	721.41	61.00	0.00	0.00	0.00
721.748	65.79	721.83	61.00	0.00	0.00	0.00
721.928	42.89	722.16	15.75	0.00	0.00	0.00
721.108	32.77	721.22	15.56	0.00	0.00	0.00
721.654	39.43	721.84	15.68	0.00	0.00	0.00
722.087	44.94	722.35	15.79	0.00	0.00	0.00
721.931	78.73	722.16	15.75	0.00	0.00	0.00
721.110	60.21	721.22	15.56	0.00	0.00	0.00
721.656	72.39	721.84	15.69	0.00	0.00	0.00
722.090	82.49	722.35	15.79	0.00	0.00	0.00
721.998	80.30	722.22	15.77	0.00	0.00	0.00
721.146	60.98	721.26	15.57	0.00	0.00	0.00
721.711	73.65	721.89	15.70	0.00	0.00	0.00
722.166	84.28	722.42	15.81	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	722.000	43.82	722.22	15.77	0.00	0.00	0.00
	721.147	33.27	721.26	15.57	0.00	0.00	0.00
	721.713	40.18	721.89	15.70	0.00	0.00	0.00
	722.169	45.99	722.42	15.81	0.00	0.00	0.00
	722.090	35.10	722.31	56.00	0.00	0.00	0.00
	721.191	15.00	721.47	42.83	0.00	0.00	0.00
	721.786	27.13	722.02	52.79	0.00	0.00	0.00
	722.330	42.56	722.53	56.00	0.00	0.00	0.00
	722.326	42.38	722.49	56.00	0.00	0.00	0.00
	721.599	22.90	721.74	50.05	0.00	0.00	0.00
	722.066	34.52	722.23	56.00	0.00	0.00	0.00
	722.521	48.76	722.68	56.00	0.00	0.00	0.00
	722.262	28.52	722.78	28.52	0.00	0.00	0.00
	721.549	16.54	721.98	21.22	0.00	0.00	0.00
	722.005	23.46	722.50	26.34	0.00	0.00	0.00
	722.457	32.69	722.96	30.28	0.00	0.00	0.00
	722.673	37.52	723.00	32.45	0.00	0.00	0.00
	721.931	22.07	722.19	25.69	0.00	0.00	0.00
	722.426	31.92	722.73	29.94	0.00	0.00	0.00
	722.842	40.73	723.18	35.97	0.00	0.00	0.00
	722.623	19.32	723.25	18.72	0.00	0.00	0.00
	721.911	12.26	722.32	16.47	0.00	0.00	0.00
	722.387	16.80	722.93	17.98	0.00	0.00	0.00
	722.786	21.18	723.46	19.24	0.00	0.00	0.00
	723.600	30.49	723.92	21.51	0.00	0.00	0.00
	722.671	18.74	722.89	18.56	0.00	0.00	0.00
	723.285	26.15	723.57	20.51	0.00	0.00	0.00
	723.795	33.50	724.14	21.99	0.00	0.00	0.00
	724.012	112.00	724.03	123.99	0.00	0.00	0.00
	723.001	49.16	723.03	107.42	0.00	0.00	0.00
	723.665	87.50	723.69	118.30	0.00	0.00	0.00
	724.227	128.69	724.25	127.51	0.00	0.00	0.00
	724.048	51.73	724.12	108.26	0.00	0.00	0.00
	723.015	14.83	723.25	69.82	0.00	0.00	0.00
	723.702	35.90	723.80	102.63	0.00	0.00	0.00
	724.261	63.04	724.33	111.74	0.00	0.00	0.00
	724.131	20.05	724.54	84.14	0.00	0.00	0.00
*	723.761	11.89	724.11	59.91	0.00	0.00	0.00
*	724.021	17.14	724.40	76.58	0.00	0.00	0.00
	724.341	25.92	724.65	95.78	0.00	0.00	0.00
	725.092	24.14	725.38	92.63	0.00	0.00	0.00
	724.673	13.97	724.94	67.10	0.00	0.00	0.00
	724.953	20.42	725.23	85.03	0.00	0.00	0.00
	725.097	24.56	725.44	93.40	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	726.337	20.18	726.74	84.44	0.00	0.00	0.00
*	725.956	11.81	726.31	59.60	0.00	0.00	0.00
*	726.222	17.16	726.60	76.62	0.00	0.00	0.00
	726.457	23.36	726.83	91.21	0.00	0.00	0.00
	727.835	22.74	728.16	90.05	0.00	0.00	0.00
	727.428	13.10	727.72	64.20	0.00	0.00	0.00
	727.701	19.06	728.02	81.65	0.00	0.00	0.00
	727.885	24.26	728.23	92.86	0.00	0.00	0.00
	728.847	37.72	728.98	103.34	0.00	0.00	0.00
	728.416	22.18	728.53	88.97	0.00	0.00	0.00
	728.708	32.04	728.83	101.05	0.00	0.00	0.00
	728.942	41.84	729.07	104.88	0.00	0.00	0.00
	732.832	101.28	732.88	32.00	0.00	0.00	0.00
	728.466	10.23	728.95	19.19	0.00	0.00	0.00
	732.698	97.30	732.73	32.00	0.00	0.00	0.00
	732.912	103.67	732.97	32.00	0.00	0.00	0.00
	732.870	85.01	732.93	32.00	0.00	0.00	0.00
	729.564	15.11	729.82	26.03	0.00	0.00	0.00
	732.727	81.04	732.77	32.00	0.00	0.00	0.00
	732.956	87.44	733.03	32.00	0.00	0.00	0.00

SUMMARY OF ERRORS

CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unnamed Trib No. 1

4) DOCUMENT TYPE: Revised 100 year Flood

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.   674.120    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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

       ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***D/S 27 MILE RD									
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
	***FOOTBRIDGE									
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

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X1    111.870      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000

X1    111.900      0.000      0.000      0.000    165.000    165.000    165.000      0.000      1.200      0.000

      ***CONCRETE WEIR

X1    111.910      8.000     50.000     55.100     50.000     50.000     50.000      0.000      3.000      0.000
GR    676.300      0.000    676.100     10.000    676.000     50.000    673.700     50.100    673.700     55.000
GR    676.000     55.100    676.000     90.000    677.800    152.000      0.000      0.000      0.000      0.000

X1    111.920     14.000     48.000     58.000     50.000     50.000     50.000      0.000      3.600      0.000
GR    676.300      0.000    676.100     10.000    675.400     48.000    675.000     50.000    674.400     52.000
GR    673.200     53.000    672.700     54.000    672.200     55.000    672.500     56.000    674.000     57.000
GR    675.400     58.000    675.400     72.000    676.600    134.000    677.800    152.000      0.000      0.000

X1    111.930      0.000      0.000      0.000     50.000     50.000     50.000      0.000      -.400      0.000

X1    111.940      0.000      0.000      0.000    162.000    162.000    162.000      0.000      1.100      0.000

X1    111.950      0.000      0.000      0.000    280.000    280.000    280.000      0.000      1.700      0.000

X1    111.970     14.000    206.000    220.000     50.000     50.000     50.000      0.000     -4.600      0.000
GR    687.600    190.000    687.200    206.000    686.200    210.000    684.600    212.000    684.500    213.000
GR    684.400    214.000    684.000    215.000    684.400    216.000    684.300    217.000    684.600    218.000
GR    686.300    220.000    687.200    235.000    688.000    284.000    688.900    313.000      0.000      0.000

X1    111.980      0.000      0.000      0.000    100.000    100.000    100.000      0.000      .700       0.000

X1    111.990      0.000      0.000      0.000    200.000    200.000    200.000      0.000      1.400      0.000

X1    112.000      0.000      0.000      0.000    358.000    358.000    358.000      0.000      2.500      0.000

X1    112.100      0.000      0.000      0.000    305.000    305.000    305.000      0.000      2.100      0.000

X1    112.200      0.000      0.000      0.000    250.000    250.000    250.000      0.000      1.800      0.000

X1    112.300      0.000      0.000      0.000    250.000    250.000    250.000      0.000      1.700      0.000

X1    112.400     15.000    252.000    278.000     50.000     50.000     50.000      0.000     -3.000      0.000
GR    697.500    242.000    697.000    252.000    696.000    258.000    695.200    266.000    693.600    268.000
GR    693.200    269.000    693.000    270.000    693.000    271.000    693.000    272.000    693.200    273.000
GR    693.600    274.000    695.800    278.000    696.400    304.000    696.900    338.000    697.800    368.000

      ***FOOTBRIDGE

X1    112.410      0.000      0.000      0.000     55.000     55.000     55.000      0.000      .400       0.000
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X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S M-53

X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	212.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S VAN DYKE RD

X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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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*PROF 1

CCHV=    .100 CEHV=    .300
*SECNO 110.100
   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

   110.10      5.02    674.12      0.00    674.12    674.16      .04      0.00      0.00    673.30
     170.       14.       96.       59.       30.       48.       77.       0.        0.     672.80
     0.00       .48      2.01       .77       .055      .040      .055    0.000    669.10     53.87
  .000705        0.        0.        0.         0         0         0     0.00    155.73    209.60


FLOW DISTRIBUTION FOR SECNO=    110.10          CWSEL=    674.12

STA=       54.       70.      104.      114.      122.      136.      154.      180.      196.      210.
  PER Q=     .2       3.4       2.4       2.4      56.6      11.3      14.3       7.6       1.9
   AREA=    1.8      14.3       7.2       6.6      47.8      22.9      30.4      17.1       6.9
    VEL=     .2        .4        .6        .6       2.0        .8        .8        .8        .5

*SECNO 110.150
   110.15      4.53    674.18      0.00      0.00    674.29      .11       .11       .02    673.85
     170.       3.       127.       40.        6.       41.       43.       0.        0.     673.35
      .01       .49      3.09       .94       .055      .040      .055      .040    669.65     92.51
  .002035      100.      100.      100.         1         0         0     0.00    110.63    203.14


FLOW DISTRIBUTION FOR SECNO=    110.15          CWSEL=    674.18

STA=       93.      104.      114.      122.      136.      154.      180.      196.      203.
  PER Q=     .1        .6        .9      74.5       8.6       9.9       4.7        .6
   AREA=     .8       2.4       2.7      41.0      14.1      17.8       9.4       1.9
    VEL=     .2        .5        .6       3.1       1.0        .9        .9        .5

*SECNO 110.200
   110.20      4.14    674.34      0.00      0.00    674.69      .35       .32       .07    674.40
     170.       0.       169.       1.        0.       35.       2.        0.        0.     673.90
      .02      0.00      4.78       .74       .055      .040      .055      .040    670.20    122.09
  .005902      100.      100.      100.         1         0         0     0.00     22.42    144.51


FLOW DISTRIBUTION FOR SECNO=    110.20          CWSEL=    674.34

STA=      122.      136.      145.
  PER Q=    99.2        .8
   AREA=    35.3       1.8
    VEL=     4.8        .7

CCHV=    .400 CEHV=    .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

        ***D/S JEWELL RD
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110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

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STA=       32.       42.
  PER Q=    100.0
   AREA=     22.3
    VEL=      7.6

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS


        ***D/S 27 MILE RD

   110.58      4.21    676.21      0.00      0.00    676.46       .25       .13       .26    676.70
    170.         0.      170.         0.        0.      42.         0.        1.        1.    676.70
     .03      0.00      4.00      0.00      .055      .040      .055      .039    672.00      4.02
 .003681        18.       18.       18.         3         0         0      0.00     12.07     16.08


FLOW DISTRIBUTION FOR SECNO=     110.58          CWSEL=     676.21

STA=       4.       16.
  PER Q=    100.0
   AREA=     42.4
    VEL=      4.0

CCHV=     .500 CEHV=    1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   678.20 MAX ELLC=   676.70

   110.59      4.21    676.21      0.00      0.00    676.46       .25       .00       .00    676.70
    170.         0.      170.         0.        0.      43.         0.        1.        1.    676.70
     .03      0.00      3.99      0.00      .055      .030      .055      .039    672.00      4.02
 .002047         1.        1.        1.         0         0         0      0.00     12.07     16.08


FLOW DISTRIBUTION FOR SECNO=     110.59          CWSEL=     676.21

STA=       4.       16.
  PER Q=    100.0
   AREA=     42.6
    VEL=      4.0

*SECNO 111.020

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   678.20 MAX ELLC=   676.70

   111.02      4.27    676.27      0.00      0.00    676.51       .24       .05       .00    676.70
    170.         0.      170.         0.        0.      43.         0.        1.        1.    676.70
     .03      0.00      3.92      0.00      .055      .030      .055      .039    672.00      4.01
 .001954        23.       23.       23.         0         0         0      0.00     12.07     16.09


FLOW DISTRIBUTION FOR SECNO=     111.02          CWSEL=     676.27

STA=       4.       16.
  PER Q=    100.0
   AREA=     43.3
    VEL=      3.9
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*SECNO 111.030
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

   111.03      4.28    676.28      0.00      0.00    676.52       .24       .00       .00    676.70
     170.        0.      170.        0.        0.       43.        0.        1.        1.    676.70
      .03      0.00      3.93      0.00      .055      .050      .055      .039    672.00      4.01
  .005451        1.        1.        1.         0         0         0      0.00     12.07     16.09

FLOW DISTRIBUTION FOR SECNO=    111.03          CWSEL=    676.28

STA=       4.       16.
  PER Q=    100.0
   AREA=     43.3
    VEL=      3.9

CCHV=     .400 CEHV=     .800
*SECNO 111.800
3280 CROSS SECTION    111.80 EXTENDED       .42 FEET

   111.80      4.52    676.52      0.00      0.00    676.62       .10       .05       .06    675.20
     285.       75.      100.      110.        42.       28.       63.        1.        1.    675.20
      .03      1.79      3.59      1.75      .055      .050      .055      .039    672.00      0.00
  .005009       10.        10.       10.         3         0         0      0.00    135.74    135.74

FLOW DISTRIBUTION FOR SECNO=    111.80          CWSEL=    676.52

STA=       0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=      2.2      24.1      35.1       5.3       9.5      23.8        .0
   AREA=      5.2      36.7      27.9       6.6      11.8      44.4        .1
    VEL=      1.2       1.9       3.6       2.3       2.3       1.5        .3

*SECNO 111.810
3280 CROSS SECTION    111.81 EXTENDED       .51 FEET

   111.81      4.60    676.80      0.00      0.00    676.88       .08       .25       .01    675.40
     285.       77.       92.      115.        47.       29.       71.        1.        1.    675.40
      .04      1.66      3.21      1.63      .055      .050      .055      .040    672.20      0.00
  .003819       58.        58.       58.         1         0         0      0.00    137.20    137.20

FLOW DISTRIBUTION FOR SECNO=    111.81          CWSEL=    676.80

STA=       0.       10.       48.       58.       63.       72.      134.      137.
  PER Q=      2.5      24.7      32.5       5.2       9.4      25.7        .0
   AREA=      6.1      40.4      28.8       7.1      12.7      50.4        .3
    VEL=      1.2       1.7       3.2       2.1       2.1       1.5        .4

CCHV=     .100 CEHV=     .300
*SECNO 111.820
3280 CROSS SECTION    111.82 EXTENDED       .39 FEET

   111.82      4.49    676.89      0.00      0.00    677.00       .12       .11       .01    675.60
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     285.       72.      106.      107.       41.       28.       61.        1.        1.    675.60
      .04      1.78      3.84      1.75      .070      .060      .070      .041    672.40      0.00
  .008336       20.       20.       20.         0         0         0      0.00    135.38    135.38

FLOW DISTRIBUTION FOR SECNO=     111.82          CWSEL=     676.89

STA=        0.       10.       48.       58.       63.       72.      134.      135.
  PER Q=       2.0      23.4      37.2       5.2       9.4      22.8        .0
   AREA=       4.9      35.8      27.6       6.5      11.6      42.9        .1
    VEL=       1.2       1.9       3.8       2.3       2.3       1.5        .0

*SECNC 111.830
3280 CROSS SECTION     111.83 EXTENDED        .46 FEET

   111.83      4.57    677.67      0.00      0.00    677.76       .10       .76       .00    676.30
     285.       74.       100.      110.       44.       28.       66.        1.        1.    676.30
      .05      1.70      3.55      1.66      .070      .060      .070      .044    673.10      0.00
  .006917       100.      100.      100.         1         0         0      0.00    136.37    136.37

FLOW DISTRIBUTION FOR SECNO=     111.83          CWSEL=     677.67

STA=        0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=       2.3      23.8      35.2       5.2       9.3      24.2        .0
   AREA=       5.6      38.3      28.3       6.8      12.2      47.0        .2
    VEL=       1.2       1.8       3.6       2.2       2.2       1.5        .3

*SECNO 111.840
3280 CROSS SECTION     111.84 EXTENDED        .45 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

        ***FOOTBRIDGE

   111.84      4.55    678.15      0.00      0.00    678.25       .10       .49       .00    676.80
     285.       74.       101.      110.       44.       28.       66.        1.        1.    676.80
      .06      1.70      3.58      1.67      .070      .060      .070      .045    673.60      0.00
  .007034       70.       70.       70.         2         0         0      0.00    136.28    136.28

FLOW DISTRIBUTION FOR SECNO=     111.84          CWSEL=     678.15

STA=        0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=       2.3      23.8      35.4       5.2       9.3      24.1        .0
   AREA=       5.5      38.1      28.2       6.8      12.2      46.6        .2
    VEL=       1.2       1.8       3.6       2.2       2.2       1.5        .3

*SECNO 111.850
3280 CROSS SECTION     111.85 EXTENDED        .45 FEET

3370 NORMAL BRIDGE,NRD=   2 MIN ELTRD=   678.00 MAX ELLC=   677.20
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  111.85      4.54    678.14      0.00      0.00    678.27       .13       .01       .01    676.80
   285.       45.       63.      176.       28.       20.       58.       1.        1.     676.80
    .06      1.60      3.13      3.03      .070      .060      .070      .045    673.60      0.00
 .030130       1.        1.        1.         1         0         0    -30.80    136.29    136.29

FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.14

STA=       0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=       4.7      11.3      22.2       1.2      10.7      49.9        .0
   AREA=       5.5      22.9      20.2       2.8       8.6      46.7        .2
    VEL=       2.4       1.4       3.1       1.2       3.6       3.0        .7

*SECNO 111.860
3280 CROSS SECTION    111.86 EXTENDED       .55 FEET


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

  111.86      4.65    678.25      0.00      0.00    678.35       .10       .07       .00    676.80
   285.       49.       57.      179.      -33.       21.       66.       1.        1.     676.80
    .06      1.47      2.69      2.72      .070      .060      .070      .045    673.60      0.00
 .020903       3.        3.        3.         2         0         0    -30.80    137.75    137.75

FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.25

STA=       0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=       5.1      12.0      20.0       1.3      10.5      50.9        .1
   AREA=       6.5      26.6      21.2       3.3       9.5      52.7        .5
    VEL=       2.2       1.3       2.7       1.1       3.2       2.8        .8

*SECNO 111.870
3280 CROSS SECTION    111.87 EXTENDED       .58 FEET


  111.87      4.69    678.29      0.00      0.00    678.36       .07       .01       .00    676.80
   285.       78.       92.      116.       50.       30.       76.       1.        1.     676.80
    .06      1.56      3.10      1.53      .070      .060      .070      .045    673.60      0.00
 .004980       1.        1.        1.         1         0         0      0.00    138.22    138.22

FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.29

STA=       0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=       2.7      24.5      32.1       5.1       9.1      26.4        .1
   AREA=       6.8      43.0      29.5       7.4      13.3      54.7        .6
    VEL=       1.1       1.6       3.1       1.9       1.9       1.4        .4

*SECNO 111.900
3280 CROSS SECTION    111.90 EXTENDED       .40 FEET


  111.90      4.49    679.29      0.00      0.00    679.41       .11      1.03       .01    678.00
   285.       73.      105.      107.       41.       28.       62.       2.        2.     678.00
    .08      1.77      3.79      1.73      .070      .060      .070      .048    674.80      0.00
 .008107     165.      165.      165.         3         0         0      0.00    135.52    135.52
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FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	43.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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
***CONCRETE WEIR									
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

STA=	0.	10.	48.	58.	72.	134.	136.
PER Q=	2.2	23.7	35.8	14.5	23.8	.0	
AREA=	5.4	37.6	28.1	18.7	45.8	.1	
VEL=	1.2	1.8	3.6	2.2	1.5	.3	

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

FLOW DISTRIBUTION FOR SECNO= 111.94 CWSEL= 681.87

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.3	24.0	34.7	14.4	24.6	.0	
AREA=	5.8	39.0	28.5	19.3	48.2	.2	
VEL=	1.2	1.7	3.5	2.1	1.5	.3	

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

FLOW DISTRIBUTION FOR SECNO= 111.95 CWSEL= 683.62

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.5	24.2	33.6	14.3	25.3	.0	
AREA=	6.2	40.6	28.9	19.9	50.8	.4	
VEL=	1.1	1.7	3.3	2.1	1.4	.4	

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

FLOW DISTRIBUTION FOR SECNO= 111.97 CWSEL= 683.86

STA=	190.	206.	220.	235.	284.	299.
PER Q=	8.7	52.2	18.8	19.6	.7	
AREA=	17.0	43.8	25.7	42.2	3.4	

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    VEL=      1.5       3.4       2.1       1.3       .5

*SECNO 111.980
3280 CROSS SECTION    111.98 EXTENDED       .69 FEET


   111.98      4.29    684.39      0.00      0.00    684.55      .15      .56      .01    683.30
     285.       22.       162.      101.       14.      41.       58.       4.       4.     682.40
      .17      1.57      3.92      1.72      .070      .060      .070      .053   680.10   190.00
  .006763      100.      100.      100.         0         0         0      0.00   103.37   293.37


FLOW DISTRIBUTION FOR SECNO=    111.98          CWSEL=    684.39

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.9      56.8      18.9      16.2        .2
   AREA=     14.3      41.4      23.1      33.9       1.4
    VEL=      1.6       3.9       2.3       1.4        .5

*SECNO 111.990
3280 CROSS SECTION    111.99 EXTENDED       .67 FEET


   111.99      4.27    685.77      0.00      0.00    685.93      .16     1.38      .00    684.70
     285.       22.       164.       99.       14.      41.       57.       5.       5.     683.80
      .18      1.58      3.98      1.74      .070      .060      .070      .054   681.50   190.00
  .007038      200.      200.      200.         2         0         0      0.00   102.78   292.78


FLOW DISTRIBUTION FOR SECNO=    111.99          CWSEL=    685.77

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.7      57.4      18.9      15.8        .2
   AREA=     14.0      41.1      22.8      33.0       1.2
    VEL=      1.6       4.0       2.4       1.4        .5

*SECNO 112.000
3280 CROSS SECTION    112.00 EXTENDED       .68 FEET


   112.00      4.27    688.27      0.00      0.00    688.43      .16     2.50      .00    687.20
     285.       22.       163.      100.       14.      41.       57.       6.       5.     686.30
      .22      1.58      3.96      1.74      .070      .060      .070      .055   684.00   190.00
  .006957      358.      358.      358.         2         0         0      0.00   102.95   292.95


FLOW DISTRIBUTION FOR SECNO=    112.00          CWSEL=    688.27

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.8      57.2      18.9      15.9        .2
   AREA=     14.0      41.2      22.9      33.2       1.2
    VEL=      1.6       4.0       2.3       1.4        .5

*SECNO 112.100
3280 CROSS SECTION    112.10 EXTENDED       .68 FEET


   112.10      4.28    690.38      0.00      0.00    690.54      .16     2.11      .00    689.30
     285.       22.       163.      100.       14.      41.       58.       7.       6.     688.40
      .25      1.57      3.94      1.73      .070      .060      .070      .056   686.10   190.00
  .006857      305.      305.      305.         2         0         0      0.00   103.17   293.17
```

FLOW DISTRIBUTION FOR SECNO= 112.10 CWSEL= 690.38

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.0	18.9	16.1	.2	
AREA=	14.2	41.3	23.0	33.5	1.3	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10
285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.15

STA=	190.	206.	220.	235.	284.	292.
PER Q=	7.6	58.0	18.9	15.4	.2	
AREA=	13.6	40.8	22.5	32.0	1.0	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 693.91

STA=	190.	206.	220.	235.	284.	294.
PER Q=	7.9	56.4	18.9	16.5	.3	
AREA=	14.5	41.6	23.3	34.6	1.5	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.26

STA=	247.	252.	278.	304.	338.	350.
PER Q=	.1	69.8	20.5	9.1	.4	
AREA=	.6	58.2	30.0	20.5	2.1	
VEL=	.4	3.4	2.0	1.3	.6	

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

FLOW DISTRIBUTION FOR SECNO= 112.41 CWSEL= 694.64

STA=	247.	252.	278.	304.	338.	349.
PER Q=	.1	70.2	20.4	8.9	.4	
AREA=	.6	57.8	29.6	20.0	1.9	
VEL=	.4	3.5	2.0	1.3	.6	

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

FLOW DISTRIBUTION FOR SECNO= 112.42 CWSEL= 694.68

STA=	246.	252.	278.	304.	338.	351.
PER Q=	.2	57.7	28.5	13.0	.6	
AREA=	.8	51.6	30.6	21.3	2.4	
VEL=	.6	3.2	2.7	1.7	.8	

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

FLOW DISTRIBUTION FOR SECNO= 112.43 CWSEL= 694.79

STA=	244.	252.	278.	304.	338.	354.
PER Q=	.4	54.9	28.8	14.9	1.1	
AREA=	1.5	54.5	33.5	25.2	4.0	
VEL=	.7	2.9	2.4	1.7	.8	

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

```
      .30        .52       3.04       1.50       .070       .060       .070       .056     690.40     243.98
  .005089         1.         1.         1.          0          0          0       0.00     110.71     354.69

FLOW DISTRIBUTION FOR SECNO=     112.44          CWSEL=     694.79

STA=      244.       252.       278.       304.       338.       355.
  PER Q=          .3       66.2       21.4       11.2         .9
   AREA=         1.6       62.0       33.8       25.5        4.2
    VEL=          .5        3.0        1.8        1.3         .6

*SECNO 112.500
   112.50       4.28     698.98       0.00       0.00     695.11        .13        .20        .01     694.70
     285.         0.        197.        87.         1.        59.        54.         8.         8.      693.50
      .31        .46       3.36       1.61       .070       .060       .070       .056     690.70     246.50
  .006668         35.        35.        35.          2          0          0       0.00     104.01     350.51


FLOW DISTRIBUTION FOR SECNO=     112.50          CWSEL=     694.98

STA=      246.       252.       278.       304.       338.       351.
  PER Q=          .1       69.3       20.7        9.5         .5
   AREA=          .8       58.8       30.6       21.3        2.3
    VEL=          .5        3.4        1.9        1.3         .6

*SECNO 113.200
   113.20       4.28     697.28       0.00       0.00     697.41        .13       2.30        .00     697.00
     285.         0.        197.        87.         1.        59.        54.         9.         8.      695.80
      .34        .46       3.36       1.61       .070       .060       .070       .057     693.00     246.52
  .006686         345.       345.       345.          3          0          0       0.00     103.95     350.47


FLOW DISTRIBUTION FOR SECNO=     113.20          CWSEL=     697.28

STA=      247.       252.       278.       304.       338.       350.
  PER Q=          .1       69.3       20.7        9.4         .5
   AREA=          .8       58.7       30.5       21.2        2.3
    VEL=          .5        3.4        1.9        1.3         .6

CCHV=     .400 CEHV=     .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS


        ***D/S M-53

   113.28       5.14     698.44       0.00       0.00     699.09        .65       1.26        .41     698.80
     285.         0.        285.         0.         0.        44.         0.         9.         9.      698.80
      .35       0.00       6.48       0.00       .065       .055       .065       .057     693.30       7.51
  .017682         123.       123.       123.          2          0          0       0.00       9.98      17.49


FLOW DISTRIBUTION FOR SECNO=     113.28          CWSEL=     698.44

STA=        8.        18.
  PER Q=    100.0
   AREA=     44.0
    VEL=      6.5

CCHV=     .500 CEHV=    1.000
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*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WS ELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.29 CWSEL= 698.81

STA=	0.	10.
PER Q=	100.0	
AREA=	55.6	
VEL=	5.1	

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.30 CWSEL= 698.88

STA=	0.	10.
PER Q=	100.0	
AREA=	55.2	
VEL=	5.2	

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.31 CWSEL= 698.96

STA=	0.	10.
PER Q=	100.0	
AREA=	55.0	
VEL=	5.2	

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

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FLOW DISTRIBUTION FOR SECNO=    113.33          CWSEL=    699.35

STA=        0.       10.
  PER Q=    100.0
   AREA=     55.0
    VEL=      5.2

*SECNO 113.420
   113.42      5.46    699.36      0.00      0.00    699.78       .42       .01       .00    700.10
    285.         0.      285.        0.        0.      55.         0.       10.        9.    700.10
     .36       0.00      5.18      0.00      .065      .055      .065      .055    693.90       .01
 .010101         1.        1.        1.         0         0         0      0.00     10.18     10.19


FLOW DISTRIBUTION FOR SECNO=    113.42          CWSEL=    699.36

STA=        0.       10.
  PER Q=    100.0
   AREA=     55.1
    VEL=      5.2

CCHV=     .400 CEHV=     .800
*SECNO 113.800
3280 CROSS SECTION    113.80 EXTENDED        .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     TOPWID      ENDST

   113.80      6.30    700.70      0.00      0.00    700.98       .28      1.15       .05    700.70
    285.         0.      259.       26.        0.      58.        17.       10.        9.     700.00
     .36       0.00      4.44      1.54      .065      .055      .065      .055    694.40    140.01
 .008357       125.      125.      125.         3         0         0      0.00     45.99    186.00

FLOW DISTRIBUTION FOR SECNO=    113.80          CWSEL=    700.70

STA=      140.      160.      186.
  PER Q=     90.9       9.1
   AREA=     58.4      16.8
    VEL=      4.4       1.5

CCHV=     .100 CEHV=     .300
*SECNO 113.810
3280 CROSS SECTION    113.81 EXTENDED        .52 FEET

   113.81      6.22    701.12      0.00      0.00    701.43       .31       .44       .01    701.20
    285.         0.      263.       22.        0.      57.        15.       10.        9.     700.50
     .37       0.00      4.63      1.49      .065      .055      .065      .055    694.90    140.25
 .009306        50.       50.       50.         2         0         0      0.00     45.75    186.00

FLOW DISTRIBUTION FOR SECNO=    113.81          CWSEL=    701.12

STA=      140.      160.      186.
  PER Q=     92.3       7.7
   AREA=     56.8      14.7
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    VEL=      4.6       1.5

*SECNO 113.820
3280 CROSS SECTION    113.82 EXTENDED       .47 FEET


   113.82      6.16    702.06      0.00      0.00    702.39       .33       .96       .01    702.20
     285.        0.       266.       19.        0.       56.       13.       10.        9.    701.50
      .37      0.00      4.76      1.45      .065      .055      .065      .055    695.90    140.40
  .009973      100.      100.      100.         2         0         0      0.00     45.60    186.00


FLOW DISTRIBUTION FOR SECNO=    113.82          CWSEL=    702.06

STA=     140.      160.      186.
  PER Q=     93.2       6.8
   AREA=     55.8      13.4
    VEL=      4.8       1.4

*SECNO 113.830
3280 CROSS SECTION    113.83 EXTENDED       .46 FEET


   113.83      6.16    703.56      0.00      0.00    703.89       .33      1.50       .00    703.70
     285.        0.       266.       19.        0.       56.       13.       10.        9.    703.00
      .38      0.00      4.76      1.45      .065      .055      .065      .055    697.40    140.41
  .010006      150.      150.      150.         2         0         0      0.00     45.59    186.00


FLOW DISTRIBUTION FOR SECNO=    113.83          CWSEL=    703.56

STA=     140.      160.      186.
  PER Q=     93.2       6.8
   AREA=     55.8      13.3
    VEL=      4.8       1.4

*SECNO 113.900
3280 CROSS SECTION    113.90 EXTENDED       .46 FEET


   113.90      6.17    705.57      0.00      0.00    705.90       .33      2.00       .00    705.70
     285.        0.       266.       19.        0.       56.       13.       11.        9.    705.00
      .40      0.00      4.77      1.45      .065      .055      .065      .055    699.40    140.41
  .010038      200.      200.      200.         0         0         0      0.00     45.59    186.00


FLOW DISTRIBUTION FOR SECNO=    113.90          CWSEL=    705.57

STA=     140.      160.      186.
  PER Q=     93.3       6.7
   AREA=     55.7      13.3
    VEL=      4.8       1.4

*SECNO 113.910
3280 CROSS SECTION    113.91 EXTENDED       .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      XNR       WTN      ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID       ENDST
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113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

FLOW DISTRIBUTION FOR SECNO= 113.91 CWSEL= 707.56

STA=	140.	160.	186.
PER Q=	93.1	6.9	
AREA=	55.9	13.5	
VEL=	4.7	1.5	

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.62 FEET

113.92	6.22	708.02	0.00	0.00	708.11	.09	.19	.02	706.40
285.	0.	260.	25.	0.	107.	22.	11.	10.	706.70
.41	0.00	2.44	1.13	.065	.055	.065	.055	701.80	178.00
.002042	50.	50.	50.	2	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.92 CWSEL= 708.02

STA=	178.	212.	230.
PER Q=	91.2	8.8	
AREA=	106.6	22.0	
VEL=	2.4	1.1	

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .58 FEET

113.93	5.17	708.47	0.00	0.00	708.72	.24	.56	.05	707.90
285.	0.	283.	2.	0.	71.	3.	11.	10.	708.20
.42	0.00	3.98	.68	.065	.055	.065	.055	703.30	178.00
.008990	150.	150.	150.	2	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.93 CWSEL= 708.47

STA=	178.	212.	230.
PER Q=	99.2	.8	
AREA=	71.1	3.2	
VEL=	4.0	.7	

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .48 FEET

114.00	5.07	709.87	0.00	0.00	710.14	.27	1.42	.01	709.40
285.	0.	284.	1.	0.	68.	1.	12.	10.	709.70
.43	0.00	4.20	.47	.065	.055	.065	.055	704.80	178.00
.010648	145.	145.	145.	2	0	0	0.00	50.09	228.09

FLOW DISTRIBUTION FOR SECNO= 114.00 CWSEL= 709.87

△ = .03

.06

.07

```
STA=      178.      212.      228.
  PER Q=     99.8        .2
   AREA=     67.7       1.4
    VEL=      4.2        .5

*SECNO 114.010
3280 CROSS SECTION     114.01 EXTENDED        .34 FEET


   114.01      4.94    710.44      0.00      0.00    710.76       .32       .60       .01    710.10
    285.         0.     285.         0.        0.      63.         0.       12.       10.     710.40
     .44      0.00      4.53       .03      .065      .055      .065      .055    705.50    178.00
 .013552       50.       50.       50.         2         0         0      0.00     37.58    215.58

FLOW DISTRIBUTION FOR SECNO=    114.01          CWSEL=    710.44

STA=      178.      212.      216.
  PER Q=    100.0        .0
   AREA=     63.0        .1
    VEL=      4.5        .0

*SECNO 114.020
3280 CROSS SECTION     114.02 EXTENDED        .37 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


   114.02      4.97    711.77      0.00      0.00    712.08       .31      1.32       .00    711.40
    285.         0.     285.         0.        0.      64.         0.       12.       10.     711.70
     .44      0.00      4.46       .27      .065      .055      .065      .055    706.80    178.00
 .012880      100.      100.      100.         2         0         0      0.00     40.17    218.17

FLOW DISTRIBUTION FOR SECNO=    114.02          CWSEL=    711.77

STA=      178.      212.      218.
  PER Q=    100.0        .0
   AREA=     63.9        .2
    VEL=      4.5        .3

*SECNO 114.030
3280 CROSS SECTION     114.03 EXTENDED        .33 FEET


   114.03      4.93    714.43      0.00      0.00    714.75       .32      2.67       .00    714.10
    285.         0.     285.         0.        0.      63.         0.       12.       10.     714.40
     .46      0.00      4.56       .03      .065      .055      .065      .055    709.50    178.00
 .013833      200.      200.      200.         2         0         0      0.00     36.53    214.53

FLOW DISTRIBUTION FOR SECNO=    114.03          CWSEL=    714.43

STA=      178.      212.      215.
  PER Q=    100.0        .0
   AREA=     62.6        .0
    VEL=      4.6        .0
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.07

.09

.09

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .35 FEET

114.05	4.95	717.15	0.00	0.00	717.46	.31	2.71	.00	716.80
285.	0.	285.	0.	0.	63.	0.	12.	10.	717.10
.47	0.00	4.50	.23	.065	.055	.065	.055	712.20	178.00
.013291	200.	200.	200.	2	0	0	0.00	38.56	216.56

FLOW DISTRIBUTION FOR SECNO= 114.05 CWSEL= 717.15

STA=	178.	212.	217.
PER Q=	100.0	.0	
AREA=	63.3	.1	
VEL=	4.5	.2	

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .34 FEET

114.07	4.94	719.84	0.00	0.00	720.16	.32	2.69	.00	719.50
285.	0.	285.	0.	0.	63.	0.	13.	11.	719.80
.48	0.00	4.53	.03	.065	.055	.065	.055	714.90	178.00
.013625	200.	200.	200.	2	0	0	0.00	37.30	215.30

FLOW DISTRIBUTION FOR SECNO= 114.07 CWSEL= 719.84

STA=	178.	212.	215.
PER Q=	100.0	.0	
AREA=	62.8	.1	
VEL=	4.5	.0	

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .37 FEET

114.09	4.97	721.17	0.00	0.00	721.48	.31	1.32	.00	720.80
285.	0.	285.	0.	0.	64.	0.	13.	11.	721.10
.49	0.00	4.45	.28	.065	.055	.065	.055	716.20	178.00
.012807	100.	100.	100.	1	0	0	0.00	40.46	218.46

FLOW DISTRIBUTION FOR SECNO= 114.09 CWSEL= 721.17

STA=	178.	212.	218.
PER Q=	100.0	.0	
AREA=	64.0	.2	
VEL=	4.4	.3	

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.04 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

.10

.09

.08

115.20	4.75	721.65	0.00	0.00	721.72	.07	.22	.02	719.60
285.	80.	171.	34.	49.	70.	23.	13.	11.	719.70
.49	1.63	2.46	1.45	.065	.055	.065	.055	716.90	146.00
.002150	50.	50.	50.	2	0	0	0.00	61.00	207.00

FLOW DISTRIBUTION FOR SECNO= 115.20 CWSEL= 721.65

STA=	146.	152.	170.	194.	207.
PER Q=	6.0	22.0	60.1	11.8	
AREA=	12.3	36.8	69.7	23.3	
VEL=	1.4	1.7	2.5	1.4	

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.16	721.96	0.00	0.00	722.18	.23	.34	.12	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.82	0.00	.065	.055	.065	.055	716.80	9.59
.004337	116.	116.	116.	2	0	0	0.00	15.76	25.35

FLOW DISTRIBUTION FOR SECNO= 115.28 CWSEL= 721.96

STA=	10.	26.
PER Q=	100.0	
AREA=	74.7	
VEL=	3.8	

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.16	721.96	0.00	0.00	722.19	.23	.00	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.81	0.00	.065	.030	.065	.055	716.80	9.59
.001287	1.	1.	1.	0	0	0	0.00	15.76	25.35

FLOW DISTRIBUTION FOR SECNO= 115.32 CWSEL= 721.96

STA=	10.	26.
PER Q=	100.0	
AREA=	74.8	
VEL=	3.8	

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.23	722.03	0.00	0.00	722.25	.22	.06	.00	723.00
285.	0.	285.	0.	0.	76.	0.	13.	11.	723.00
.50	0.00	3.76	0.00	.065	.030	.065	.055	716.80	9.59
.001239	45.	45.	45.	2	0	0	0.00	15.77	25.36

FLOW DISTRIBUTION FOR SECNO= 115.38 CWSEL= 722.03

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STA=      10.      26.
  PER Q=    100.0
   AREA=     75.8
    VEL=      3.8

*SECNO 115.420
   115.42      5.23    722.03      0.00      0.00    722.25       .22       .00       .00    723.00
     285.        0.       285.        0.        0.       76.        0.       13.       11.    723.00
      .50      0.00      3.76      0.00      .065      .055      .065      .055    716.80      9.59
  .004161        1.        1.        1.         0         0         0      0.00     15.77     25.36


FLOW DISTRIBUTION FOR SECNO=    115.42          CWSEL=    722.03

STA=      10.      26.
  PER Q=    100.0
   AREA=     75.8
    VEL=      3.8

CCHV=    .400 CEHV=    .800
*SECNO 115.500
3280 CROSS SECTION    115.50 EXTENDED       .92 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

   115.50      4.73    722.13      0.00      0.00    722.34       .21       .08       .00    721.20
     285.        7.       227.       51.        6.       56.       27.       13.       11.    720.80
      .51      1.16      4.02      1.90      .065      .055      .065      .055    717.40    194.00
  .006240        17.       17.       17.         2         0         0      0.00     56.00    250.00


FLOW DISTRIBUTION FOR SECNO=    115.50          CWSEL=    722.13

STA=      194.      206.      226.      250.
  PER Q=      2.5      79.5      17.9
   AREA=      6.2      56.4      26.9
    VEL=      1.2       4.0       1.9

*SECNO 115.510
3280 CROSS SECTION    115.51 EXTENDED      1.15 FEET

   115.51      4.95    722.35      0.00      0.00    722.51       .16       .15       .02    721.20
     285.       11.       216.       58.        9.       61.       32.       13.       11.    720.80
      .51      1.22      3.54      1.79      .065      .055      .065      .055    717.40    194.00
  .004382        29.       29.       29.         2         0         0      0.00     56.00    250.00


FLOW DISTRIBUTION FOR SECNO=    115.51          CWSEL=    722.35

STA=      194.      206.      226.      250.
  PER Q=      3.8      75.8      20.3
   AREA=      9.0      61.0      32.4
    VEL=      1.2       3.5       1.8
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*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= .0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.88	722.28	0.00	0.00	722.79	.50	.01	.28	728.90
285.	0.	285.	0.	0.	50.	0.	13.	11.	729.00
.51	0.00	5.70	0.00	.065	.030	.065	.055	718.40	190.36
.009661	1.	1.	1.	2	0	0	0.00	28.72	221.00

.02

FLOW DISTRIBUTION FOR SECNO= 115.58 CWSEL= 722.28

STA= 190. 233.
PER Q= 100.0
AREA= 50.0
VEL= 5.7

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.28	722.68	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.60	0.00	.065	.030	.065	.055	718.40	187.06
.005743	20.	20.	20.	3	0	0	0.00	32.49	222.46

.01

FLOW DISTRIBUTION FOR SECNO= 116.02 CWSEL= 722.68

STA= 187. 233.
PER Q= 100.0
AREA= 61.9
VEL= 4.6

*SECNO 116.080

116.08	4.23	722.63	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021666	1.	1.	1.	2	0	0	0.00	18.73	213.39

.01

FLOW DISTRIBUTION FOR SECNO= 116.08 CWSEL= 722.63

STA= 195. 218.
PER Q= 100.0
AREA= 44.8
VEL= 6.4

CCHV= .100 CEHV= .300
*SECNO 116.800

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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008733	49.	49.	49.	2	0	0	0.00	21.51	213.78

FLOW DISTRIBUTION FOR SECNO= 116.80 CWSEL= 723.60

STA=	192.	218.
PER Q=	100.0	
AREA=	62.4	
VEL=	4.6	

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.53	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000647	50.	50.	50.	2	0	0	0.00	123.99	272.00

FLOW DISTRIBUTION FOR SECNO= 116.81 CWSEL= 724.01

STA=	148.	176.	200.	212.	224.	240.	272.
PER Q=	4.4	18.4	14.5	27.9	16.2	18.6	
AREA=	23.9	53.1	34.9	48.3	41.8	61.1	
VEL=	.5	1.0	1.2	1.6	1.1	.9	

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.97	1.46	.065	.055	.065	.055	720.10	163.73
.003034	60.	60.	60.	2	0	0	0.00	108.27	272.00

FLOW DISTRIBUTION FOR SECNO= 116.82 CWSEL= 724.05

STA=	164.	176.	200.	212.	224.	240.	272.
PER Q=	1.1	15.4	16.1	38.4	16.3	12.8	
AREA=	4.6	30.0	23.4	36.7	26.4	30.4	
VEL=	.7	1.5	2.0	3.0	1.8	1.2	

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.54	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.44
.020187	50.	50.	50.	0	19	0	0.00	84.15	261.59

FLOW DISTRIBUTION FOR SECNO= 116.83 CWSEL= 724.13

STA=	177.	200.	212.	224.	240.	262.

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  PER Q=       7.3       17.0       59.3       13.6        2.8
   AREA=      10.6       13.7       27.0       13.4        5.8
    VEL=       2.0        3.5        6.3        2.9        1.4

*SECNO 116.840
   116.84       3.29     725.09       0.00       0.00     725.38        .29        .83        .01     723.60
     285.         75.        156.        54.        29.        29.        25.        14.        11.      723.80
      .54       2.56       5.41       2.16        .065       .055       .065       .055     721.80     174.66
  .013951         50.        50.        50.          2          0          0       0.00      92.62     267.28


FLOW DISTRIBUTION FOR SECNO=     116.84          CWSEL=     725.09

STA=      175.       200.       212.       224.       240.       267.
  PER Q=       9.2       17.2       54.6       14.7        4.3
   AREA=      14.0       15.4       28.7       15.7        9.3
    VEL=       1.9        3.2        5.4        2.7        1.3

*SECNO 116.860
   SECNO      DEPTH      CWSEL      CRIWS      WSELK         EG         HV         HL      OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB          ACH        AROB       VOL      TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL           XNCH       XNR        WTN      ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL        IDC        ICONT      CORAR    TOPWID     ENDST

   116.86       3.14     726.34     726.33       0.00     726.74        .40       1.32        .03     725.00
     285.         69.        169.        47.        24.        27.        19.        14.        12.      725.20
      .54       2.84       6.22       2.42        .065       .055       .065       .055     723.20     177.33
  .019948         80.        80.        80.          2         12          0       0.00      84.45     261.78


FLOW DISTRIBUTION FOR SECNO=     116.86          CWSEL=     726.34

STA=      177.       200.       212.       224.       240.       262.
  PER Q=       7.3       17.0       59.1       13.7        2.8
   AREA=      10.7       13.7       27.1       13.5        5.9
    VEL=       2.0        3.5        6.2        2.9        1.4

*SECNO 117.200
   117.20       3.24     727.84       0.00       0.00     728.16        .32       1.41        .01     726.40
     285.         73.        160.        52.        28.        28.        23.        14.        12.      726.60
      .55       2.64       5.67       2.25        .065       .055       .065       .055     724.60     175.41
  .015710         80.        80.        80.          2          0          0       0.00      90.04     265.45


FLOW DISTRIBUTION FOR SECNO=     117.20          CWSEL=     727.84

STA=      175.       200.       212.       224.       240.       265.
  PER Q=       8.5       17.2       56.1       14.4        3.8
   AREA=      12.9       14.8       28.2       15.0        8.1
    VEL=       1.9        3.3        5.7        2.7        1.3

*SECNO 117.210
3280 CROSS SECTION    117.21 EXTENDED       .25 FEET


        ***CAMPGROUND RD.

   117.21       3.65     728.85       0.00       0.00     728.98        .13        .80        .02     727.00
     285.         87.        126.        72.        44.        33.        42.        15.        12.      727.20
```

.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

FLOW DISTRIBUTION FOR SECNO= 117.21 CWSEL= 728.85

STA=	169.	176.	200.	212.	224.	240.	272.
PER Q=	.4	13.3	16.7	44.3	16.0	9.4	
AREA=	1.6	22.8	19.8	33.1	21.6	20.8	
VEL=	.6	1.7	2.4	3.8	2.1	1.3	

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.79 CWSEL= 732.83

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.1	18.9	13.3	5.2	20.0	3.2	12.6	17.7	
AREA=	21.9	27.2	18.5	7.2	22.9	6.7	19.9	38.8	
VEL=	1.2	2.0	2.0	2.0	2.5	1.4	1.8	1.3	

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.80 CWSEL= 732.87

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.0	18.8	13.5	5.4	21.0	3.3	12.3	16.7	
AREA=	19.1	24.3	16.9	6.7	21.2	6.1	17.7	33.2	
VEL=	1.3	2.2	2.3	2.3	2.8	1.5	2.0	1.4	

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Unnamed Trib No. 2

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood Production Run

00BREAK00

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1      JOB HUD FIA H-4705 T 06
T2      WASHINGTON TWP FIS
T3      UNNAMED TRIB. NO.2 100 YEAR FLOW

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -1.       4.        0.        0.  0.000000      0.00       0.0       0.   658.050     0.000

J3      1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000
NC       .070      .070      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT      5.000   180.000   265.000   310.000   435.000   310.000     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

X1    199.500    24.000   280.000   324.000     0.000     0.000     0.000     0.000    -3.100     0.000
GR    668.200     0.000   668.400    40.000   668.400    80.000   668.300   112.000   668.000   138.000
GR    666.000   160.000   665.600   176.000   665.400   190.000   662.800   206.000   661.200   228.000
GR    660.800   256.000   660.500   280.000   660.000   288.000   658.800   294.000   658.700   294.500
GR    657.300   295.000   656.600   296.000   657.000   297.000   658.300   297.500   658.800   298.000
GR    659.700   304.000   660.300   324.000   660.000   358.000   660.600   380.000     0.000     0.000

X1    199.700     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1    200.000     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1    200.050    17.000   280.000   314.000   330.000   330.000   330.000     0.000     2.000     0.000
GR    662.800   206.000   661.200   228.000   660.800   256.000   660.500   280.000   660.000   288.000
GR    658.800   294.000   658.700   294.500   657.300   295.000   656.600   296.000   657.000   297.000
GR    658.300   297.500   658.800   298.000   659.700   304.000   660.500   314.000   661.500   340.000
GR    661.700   410.000   663.500   480.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    200.100    25.000   270.000   294.000   330.000   330.000   330.000     0.000    -2.000     0.000
GR    673.000     0.000   672.600    24.000   672.200    54.000   670.200    96.000   669.400   138.000
GR    668.700   188.000   667.500   226.000   667.300   256.000   667.200   270.000   666.100   278.000
GR    664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR    663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   667.700   366.000
GR    668.300   402.000   668.500   428.000   669.200   464.000   670.200   492.000   670.600   522.000

X1    200.200     0.000     0.000     0.000   352.000   352.000   352.000     0.000     2.000     0.000

X1    200.400    15.000   270.000   294.000   150.000   150.000   150.000     0.000      .800     0.000
GR    670.000   250.000   669.300   255.000   668.600   260.000   667.200   270.000   666.100   278.000
GR    664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR    663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   670.000   366.000
NC      0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

X1    201.300     8.000     5.000    14.000   160.000   160.000   160.000     0.000    -1.100     0.000
GR    671.000     6.000   666.400     6.100   665.600     7.000   665.400     8.000   665.600    10.000
GR    666.700    11.000   668.300    13.900   671.000    14.000     0.000     0.000     0.000     0.000
SB      2.000     2.400     3.000   100.000     9.000     0.000    37.000     0.000   665.400   664.300

X1    201.700     0.000     0.000     0.000   190.000   190.000   190.000     0.000     1.100     0.000
X2      0.000     0.000     1.000   668.000   676.300     0.000     0.000     0.000     0.000     0.000

X1    201.800    16.000   228.000   266.000    50.000    50.000    50.000     0.000    -1.600     0.000
GR    676.000   154.000   673.200   184.000   673.100   210.000   672.800   228.000   673.000   240.000
GR    670.500   244.000   669.200   250.000   668.300   251.000   667.600   251.500   667.200   252.000
GR    667.600   252.500   668.300   253.000   669.200   254.000   672.000   260.000   673.300   266.000
GR    674.000   284.000     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00

3280 CROSS SECTION 199.70 EXTENDED .56 FEET

199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00

3280 CROSS SECTION 200.00 EXTENDED .56 FEET

200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.08	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

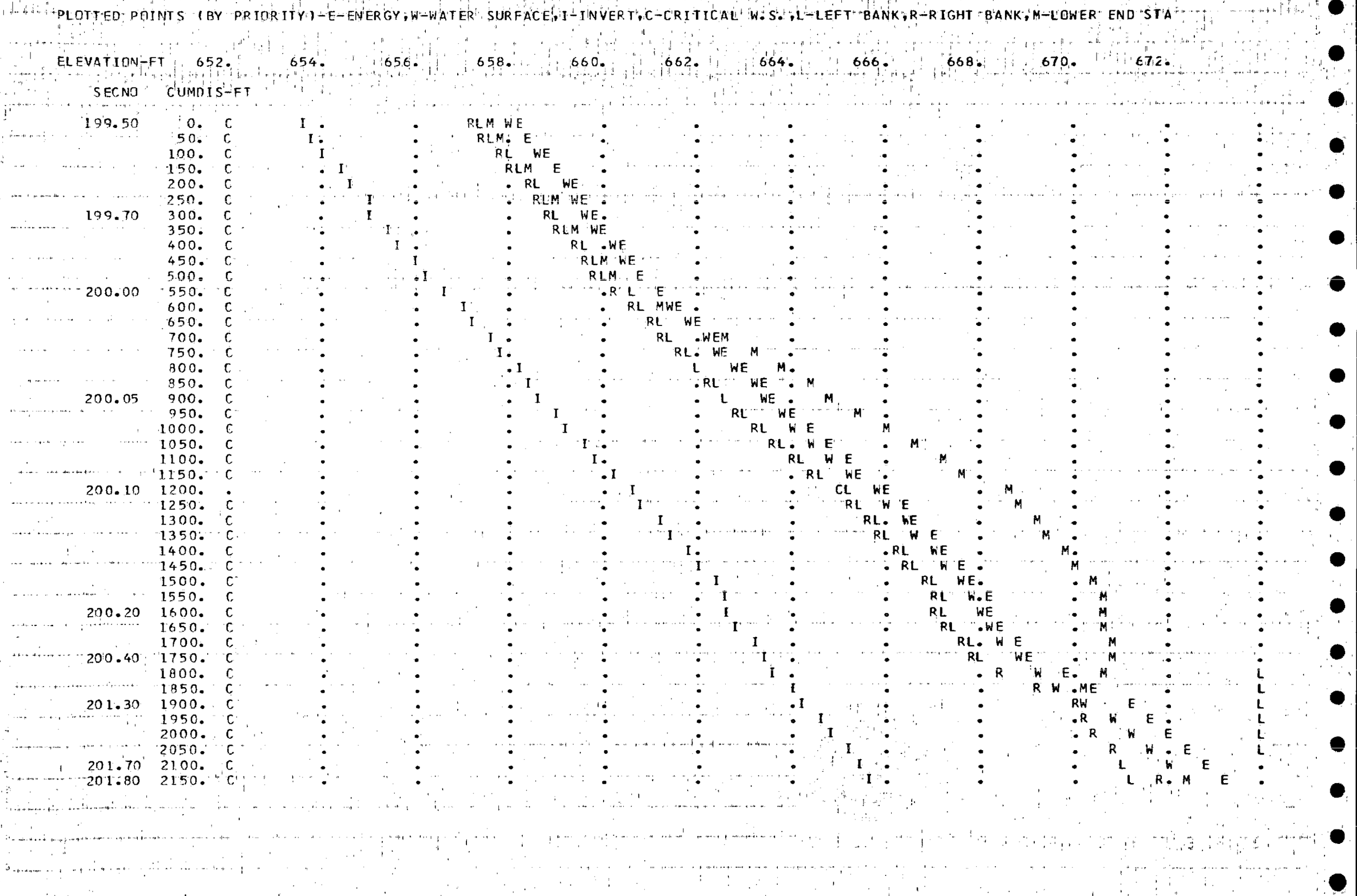
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      10 YEAR FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -1.       2.        0.        0.   .005900      0.00      0.0       0.   658.050     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .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
199.50	4.21	657.71	0.00	658.05	657.80	.09	0.00	0.00	657.40
180.	2.	139.	39.	4.	51.	33.	0.	0.	657.20
0.00	.47	2.71	1.17	.070	.045	.070	0.000	653.50	255.52
.005905	0.	0.	0.	0	0	9	0.00	124.48	380.00

3280 CROSS SECTION 199.70 EXTENDED .22 FEET

199.70	4.22	659.27	0.00	0.00	659.36	.09	1.56	.00	658.95
180.	2.	138.	40.	4.	52.	34.	1.	1.	658.75
.03	.49	2.66	1.16	.070	.045	.070	.045	655.05	254.61
.005634	270.	270.	270.	2	0	1	0.00	125.39	380.00

3280 CROSS SECTION 200.00 EXTENDED .21 FEET

200.00	4.21	660.81	0.00	0.00	660.90	.09	1.54	.00	660.50
180.	2.	139.	39.	4.	52.	34.	1.	2.	660.30
.06	.48	2.69	1.16	.070	.045	.070	.045	656.60	255.20
.005807	270.	270.	270.	2	0	1	0.00	124.80	380.00
200.05	4.38	662.98	0.00	0.00	663.17	.18	2.23	.03	662.50
180.	8.	170.	2.	9.	48.	3.	2.	2.	662.50
.09	.84	3.54	.73	.070	.045	.070	.045	658.60	243.57
.007990	330.	330.	330.	3	0	1	0.00	82.84	326.42
200.10	4.67	665.27	0.00	0.00	665.50	.23	2.32	.02	665.20
180.	0.	179.	1.	0.	47.	1.	2.	3.	665.00
.12	.18	3.84	.44	.070	.045	.070	.045	660.60	260.04
.006210	330.	330.	330.	2	0	1	0.00	44.80	304.84

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
200.20	4.74	667.34	0.00	0.00	667.55	.21	2.05	.00	667.20
180.	0.	178.	1.	1.	48.	2.	2.	3.	667.00
.14	.30	3.69	.48	.070	.045	.070	.045	662.60	249.78
.005465	352.	352.	352.	3	0	1	0.00	57.88	307.66

200.40	4.76	668.16	0.00	0.00	668.36	.21	.81	.00	668.00	
180.	0.	179.	1.	0.	49.	3.	3.	3.	667.80	
.15	.02	3.67	.49	.070	.045	.070	.045	663.40	268.89	
.005364	150.	150.	150.	2	0	1	0.00	39.31	308.20	

CCHV= .400 CEHV= .800

201.30	5.00	669.30	0.00	0.00	669.80	.51	1.20	.24	721.00
180.	0.	180.	0.	0.	32.	0.	3.	3.	669.90
.16	0.00	5.71	0.00	.070	.045	.070	.045	664.30	6.01
.011220	160.	160.	160.	2	0	1	0.00	7.96	13.98

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

PRESS FLOW BECAUSE EGLWC OF 670.90 EXCEEDS 1.5 DEPTH
3685 20 TRIALS USED WSEL,CWSEL
5730. WSEL ASSUMED BASED ON MIN DIFF + .1

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 FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
670.18	670.90	0.00	0.	180.	37.	668.00	676.30	10.00

201.70	3.63	669.03	0.00	0.00	670.20	1.17	3.47	0.00	671.00
180.	0.	180.	0.	0.	21.	0.	3.	4.	671.00
.17	0.00	8.67	0.00	.070	.045	.070	.045	665.40	6.04
.034720	190.	190.	190.	30	0	1	0.00	7.88	13.93

3301 HV CHANGED MORE THAN HVINS

201.80	5.31	670.91	0.00	0.00	671.12	.22	.54	.38	671.20
180.	0.	180.	0.	0.	48.	0.	3.	4.	671.70
.17	0.00	3.72	0.00	.070	.045	.070	.045	665.60	240.79
.005166	50.	50.	50.	2	0	1	0.00	21.55	262.34

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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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.   .005900      0.00      0.0       0.   658.050     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .44 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
199.50	4.44	657.94	0.00	658.05	658.05	.11	0.00	0.00	657.40
265.	9.	189.	67.	11.	62.	47.	0.	0.	657.20
0.00	.79	3.06	1.45	.070	.045	.070	0.000	653.50	239.14
.005898	0.	0.	0.	0	0	7	0.00	140.86	380.00

3280 CROSS SECTION 199.70 EXTENDED .45 FEET

199.70	4.45	659.50	0.00	0.00	659.61	.11	1.56	.00	658.95
265.	9.	188.	68.	12.	62.	47.	1.	1.	658.75
.03	.78	3.01	1.43	.070	.045	.070	.045	655.05	238.16
.005655	270.	270.	270.	2	0	1	0.00	141.84	380.00

3280 CROSS SECTION 200.00 EXTENDED .45 FEET

200.00	4.45	661.05	0.00	0.00	661.16	.11	1.54	.00	660.50
265.	9.	188.	68.	12.	62.	47.	1.	2.	660.30
.06	.79	3.04	1.44	.070	.045	.070	.045	656.60	238.68
.005782	270.	270.	270.	2	0	1	0.00	141.32	380.00

200.05	4.65	663.25	0.00	0.00	663.48	.23	2.28	.04	662.50
265.	25.	233.	7.	21.	57.	7.	2.	3.	662.50
.08	1.18	4.07	1.01	.070	.045	.070	.045	658.60	227.38
.008389	330.	330.	330.	3	0	1	0.00	105.98	333.37

200.10	5.05	665.65	0.00	0.00	665.94	.29	2.44	.02	665.20
265.	10.	248.	7.	13.	56.	8.	3.	3.	665.00
.11	.78	4.44	.81	.070	.045	.070	.045	660.60	221.26
.006554	330.	330.	330.	2	0	1	0.00	98.73	319.99

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.16	667.76	0.00	0.00	667.99	.23	2.05	.01	667.20
265.	16.	239.	10.	19.	58.	14.	4.	4.	667.00
.13	.83	4.09	.73	.070	.045	.070	.045	662.60	217.76
.005218	352.	352.	352.	3	0	1	0.00	151.87	369.62

200.40	5.16	668.56	0.00	0.00	668.84	.28	.83	.02	668.00
265.	1.	254.	10.	1.	58.	12.	4.	5.	667.80
.14	.69	4.34	.90	.070	.045	.070	.045	663.40	265.99
.005892	150.	150.	150.	2	0	1	0.00	57.17	323.16

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .03 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	5.63	669.93	0.00	0.00	670.74	.81	1.48	.43	721.00
265.	0.	265.	0.	0.	37.	0.	4.	5.	669.90
.15	0.00	7.24	.03	.070	.045	.070	.045	664.30	6.00
.016434	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

PRESS FLOW BECAUSE EGLWC OF 671.84 EXCEEDS 1.5 DEPTH
3280 CROSS SECTION 201.70 EXTENDED .03 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
671.84	671.84	0.00	0.	265.	37.	668.00	676.30	10.00

201.70	5.63	671.03	0.00	0.00	671.84	.81	1.10	0.00	671.00
265.	0.	265.	0.	0.	37.	0.	4.	5.	671.00
.15	0.00	7.24	.03	.070	.045	.070	.045	665.40	6.00
.016434	190.	190.	190.	3	0	1	0.00	8.00	14.00

3301 HV CHANGED MORE THAN HVINS

201.80	6.66	672.26	0.00	0.00	672.35	.09	.22	.29	671.20
265.	29.	234.	2.	37.	93.	4.	4.	5.	671.70
.16	.78	2.51	.40	.070	.045	.070	.045	665.60	176.97
.001955	50.	50.	50.	2	0	1	0.00	103.33	280.30

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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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.    .005900     0.00      0.0       0.     658.050    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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .81 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
199.50	4.81	658.31	0.00	658.05	658.45	.14	0.00	0.00	657.40
435.	35.	277.	123.	30.	78.	67.	0.	0.	657.20
0.00	1.17	3.56	1.84	.070	.045	.070	0.000	653.50	225.17
.005888	0.	0.	0.	0	0	5	0.00	154.83	380.00

3280 CROSS SECTION 199.70 EXTENDED .82 FEET

199.70	4.82	659.87	0.00	0.00	660.01	.14	1.56	.00	658.95
435.	36.	276.	124.	31.	78.	68.	1.	1.	658.75
.03	1.16	3.52	1.82	.070	.045	.070	.045	655.05	224.96
.005675	270.	270.	270.	2	0	1	0.00	155.04	380.00

3280 CROSS SECTION 200.00 EXTENDED .81 FEET

200.00	4.81	661.41	0.00	0.00	661.55	.14	1.54	.00	660.50
435.	35.	276.	123.	30.	78.	68.	2.	2.	660.30
.05	1.16	3.54	1.83	.070	.045	.070	.045	656.60	225.05
.005765	270.	270.	270.	2	0	1	0.00	154.95	380.00
200.05	5.04	663.64	0.00	0.00	663.92	.28	2.31	.05	662.50
435.	73.	336.	25.	43.	70.	20.	3.	3.	662.50
.08	1.72	4.77	1.28	.070	.045	.070	.045	658.60	222.01
.008718	330.	330.	330.	3	0	1	0.00	165.50	387.50
200.10	5.50	666.10	0.00	0.00	666.40	.30	2.48	.01	665.20
435.	52.	333.	50.	39.	67.	44.	4.	4.	665.00
.10	1.33	4.99	1.13	.070	.045	.070	.045	660.60	206.79
.006521	330.	330.	330.	2	0	1	0.00	183.60	390.40

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
200.20	5.61	668.21	0.00	0.00	668.45	.24	2.04	.01	667.20
435.	59.	316.	60.	46.	69.	54.	6.	6.	667.00
.12	1.28	4.56	1.11	.070	.045	.070	.045	662.60	203.48
.005192	352.	352.	352.	3	0	1	0.00	193.20	396.68

200.40	5.62	669.02	0.00	0.00	669.46	.43	.94	.07	668.00	
435.	4.	387.	44.	4.	70.	27.	6.	6.	667.80	
.13	1.18	5.56	1.61	.070	.045	.070	.045	663.40	262.69	
.007670	150.	150.	150.	2	0	1	0.00	69.33	332.02	

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .96 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	6.56	670.86	0.00	0.00	672.38	1.51	2.05	.87	721.00
435.	0.	435.	0.	0.	44.	0.	6.	7.	669.90
.14	0.00	9.88	.03	.070	.045	.070	.045	664.30	6.00
.025724	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 4.45 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
676.01	673.47	0.00	0.	435.	37.	668.00	676.30	10.00

201.70	10.04	675.44	0.00	0.00	676.01	.57	3.64	0.00	671.00
435.	0.	435.	0.	0.	72.	0.	7.	7.	671.00
.15	0.00	6.05	.02	.070	.045	.070	.045	665.40	6.00
.006402	190.	190.	190.	2	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED 3.84 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
201.80	10.64	676.24	0.00	0.00	676.25	.01	.01	.22	671.20
435.	155.	242.	38.	307.	245.	75.	7.	7.	671.70
.16	.50	.99	.50	.070	.045	.070	.045	665.60	154.00
.000083	50.	50.	50.	1	0	1	0.00	130.00	284.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

500 YEAR FLOW

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	#	D	#	D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05		-I		-I	658.05
199.500	180.00	657.71	657.71	23.42	657.80	124.48	0.00	0.00	658.05		0.00		0.00	658.05
199.500	265.00	657.94	657.94	34.51	658.05	140.86	0.00	0.00	658.05		0.00		0.00	658.05
199.500	435.00	658.31	658.31	56.69	658.45	154.83	0.00	0.00	658.05		0.00		0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00		658.05		658.05	0.00
199.700	180.00	659.27	659.27	23.98	659.36	125.39	0.00	0.00	0.00		658.05		658.05	0.00
199.700	265.00	659.50	659.50	35.24	659.61	141.84	0.00	0.00	0.00		658.05		658.05	0.00
199.700	435.00	659.87	659.87	57.74	660.01	155.04	0.00	0.00	0.00		658.05		658.05	0.00
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00		0.00		0.00	0.00
200.000	180.00	660.81	660.81	23.62	660.90	124.80	0.00	0.00	0.00		0.00		0.00	0.00
200.000	265.00	661.05	661.05	34.85	661.16	141.32	0.00	0.00	0.00		0.00		0.00	0.00
200.000	435.00	661.41	661.41	57.29	661.55	154.95	0.00	0.00	0.00		0.00		0.00	0.00
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00		0.00		0.00	0.00
200.050	180.00	662.98	662.98	20.14	663.17	82.84	0.00	0.00	0.00		0.00		0.00	0.00
200.050	265.00	663.25	663.25	28.93	663.48	105.98	0.00	0.00	0.00		0.00		0.00	0.00
200.050	435.00	663.64	663.64	46.59	663.92	165.50	0.00	0.00	0.00		0.00		0.00	0.00
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00		0.00		0.00	0.00
200.100	180.00	665.27	665.27	22.84	665.50	44.80	0.00	0.00	0.00		0.00		0.00	0.00
200.100	265.00	665.65	665.65	32.73	665.94	98.73	0.00	0.00	0.00		0.00		0.00	0.00
200.100	435.00	666.10	666.10	53.87	666.40	183.60	0.00	0.00	0.00		0.00		0.00	0.00
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00		0.00		0.00	0.00
200.200	180.00	667.34	667.34	24.35	667.55	57.88	0.00	0.00	0.00		0.00		0.00	0.00
200.200	265.00	667.76	667.76	36.69	667.99	151.87	0.00	0.00	0.00		0.00		0.00	0.00
200.200	435.00	668.21	668.21	60.37	668.45	193.20	0.00	0.00	0.00		0.00		0.00	0.00
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00		0.00		0.00	0.00
200.400	180.00	668.16	668.16	24.58	668.36	39.31	0.00	0.00	0.00		0.00		0.00	0.00
200.400	265.00	668.56	668.56	34.52	668.84	57.17	0.00	0.00	0.00		0.00		0.00	0.00
200.400	435.00	669.02	669.02	49.67	669.46	69.33	0.00	0.00	0.00		0.00		0.00	0.00
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.300	180.00	669.30	669.30	16.99	669.80	7.96	0.00	0.00	0.00		0.00		0.00	0.00
201.300	265.00	669.93	669.93	20.67	670.74	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.300	435.00	670.86	670.86	27.12	672.38	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	180.00	669.03	669.03	9.66	670.20	7.88	0.00	0.00	0.00		0.00		0.00	0.00
201.700	265.00	671.03	671.03	20.67	671.84	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	435.00	675.44	675.44	54.37	676.01	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00		0.00		0.00	0.00
201.800	180.00	670.91	670.91	25.04	671.12	21.55	0.00	0.00	0.00		0.00		0.00	0.00
201.800	265.00	672.26	672.26	59.94	672.35	103.33	0.00	0.00	0.00		0.00		0.00	0.00
201.800	435.00	676.24	676.24	476.38	676.25	130.00	0.00	0.00	0.00		0.00		0.00	0.00

SECTION	DISCHARGE	CWSEL	CWSEL DIFF	CWSEL DIFF	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH

NUMBER	CFS		EACH Q	EACH SECTION				
199.500	310.000	658.050	0.000	0.000	0.000	148.500	0.000	0.000
199.500	180.000	657.707	-.343	0.000	0.000	124.480	24.020	0.000
199.500	265.000	657.941	.234	0.000	0.000	140.865	7.636	0.000
199.500	435.000	658.306	.365	0.000	0.000	154.827	-6.327	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	180.000	659.268	-.343	1.561	0.000	125.394	23.904	270.000
199.700	265.000	659.504	.236	1.563	0.000	141.837	7.461	270.000
199.700	435.000	659.871	.367	1.565	0.000	155.037	-5.739	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	0.000	270.000
200.000	180.000	660.811	-.345	1.543	0.000	124.803	24.105	270.000
200.000	265.000	661.047	.236	1.543	0.000	141.324	7.585	270.000
200.000	435.000	661.414	.367	1.543	0.000	154.947	-6.039	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	180.000	662.984	-.380	2.173	0.000	82.844	27.782	330.000
200.050	265.000	663.248	.265	2.202	0.000	105.984	4.642	330.000
200.050	435.000	663.636	.387	2.222	0.000	165.495	-54.869	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	180.000	665.271	-.524	2.287	0.000	44.802	110.318	330.000
200.100	265.000	665.648	.377	2.400	0.000	98.734	56.386	330.000
200.100	435.000	666.098	.450	2.462	0.000	183.604	-28.485	330.000
200.200	310.000	667.909	0.000	2.114	0.000	165.617	0.000	352.000
200.200	180.000	667.341	-.568	2.070	0.000	57.885	107.732	352.000
200.200	265.000	667.760	.419	2.112	0.000	151.867	13.750	352.000
200.200	435.000	668.210	.450	2.111	0.000	193.199	-27.582	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000
200.400	180.000	668.155	-.551	.814	0.000	39.306	21.689	150.000
200.400	265.000	668.561	.406	.801	0.000	57.169	3.825	150.000
200.400	435.000	669.024	.463	.814	0.000	69.328	-8.333	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	180.000	669.295	-.907	1.140	0.000	7.964	.036	160.000
201.300	265.000	669.930	.634	1.369	0.000	8.000	.000	160.000
201.300	435.000	670.861	.931	1.837	0.000	8.000	-.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	180.000	669.034	-3.048	-.261	0.000	7.884	.116	190.000
201.700	265.000	671.027	1.993	1.098	0.000	8.000	.000	190.000
201.700	435.000	675.444	4.417	4.583	0.000	8.001	-.001	190.000
201.800	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.800	180.000	670.907	-2.239	1.872	0.000	21.547	94.999	50.000
201.800	265.000	672.260	1.354	1.233	0.000	103.327	13.220	50.000
201.800	435.000	676.238	3.978	.794	0.000	130.001	-13.454	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	0.000	0.000	3.540	-2.216
3	0.000	0.000	5.057	-.699
4	0.000	0.000	6.688	.932

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: UN named Trib No. 2

4) DOCUMENT TYPE: Floodway

00BREAK00

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1       JOB HUD FIA H-4705 T 06
T2       WASHINGTON TWP FIS
T3       UNNAMED TRIB. NO.2 100 YEAR FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        4.        0.        0.  0.000000      0.00       0.0       0.   658.050     0.000

J3      1.000     34.000      3.000      4.000     27.000     28.000      9.000      0.000      0.000      0.000
NC       .070       .070       .045       .150       .350      0.000      0.000      0.000      0.000      0.000
QT      5.000    180.000    265.000    310.000    435.000    310.000      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

X1    199.500     24.000    280.000    324.000      0.000      0.000      0.000      0.000     -3.100      0.000
GR    668.200      0.000    668.400     40.000    668.400     80.000    668.300    112.000    668.000    138.000
GR    666.000    160.000    665.600    176.000    665.400    190.000    662.800    206.000    661.200    228.000
GR    660.800    256.000    660.500    280.000    660.000    288.000    658.800    294.000    658.700    294.500
GR    657.300    295.000    656.600    296.000    657.000    297.000    658.300    297.500    658.800    298.000
GR    659.700    304.000    660.300    324.000    660.000    358.000    660.600    380.000      0.000      0.000

X1    199.700      0.000      0.000      0.000    270.000    270.000    270.000      0.000      1.550      0.000

X1    200.000      0.000      0.000      0.000    270.000    270.000    270.000      0.000      1.550      0.000

X1    200.050     17.000    280.000    314.000    330.000    330.000    330.000      0.000      2.000      0.000
GR    662.800    206.000    661.200    228.000    660.800    256.000    660.500    280.000    660.000    288.000
GR    658.800    294.000    658.700    294.500    657.300    295.000    656.600    296.000    657.000    297.000
GR    658.300    297.500    658.800    298.000    659.700    304.000    660.500    314.000    661.500    340.000
GR    661.700    410.000    663.500    480.000      0.000      0.000      0.000      0.000      0.000      0.000

X1    200.100     25.000    270.000    294.000    330.000    330.000    330.000      0.000     -2.000      0.000
GR    673.000      0.000    672.600     24.000    672.200     54.000    670.200     96.000    669.400    138.000
GR    668.700    188.000    667.500    226.000    667.300    256.000    667.200    270.000    666.100    278.000
GR    664.300    284.000    663.800    285.000    663.200    286.000    662.600    287.000    663.100    288.000
GR    663.800    289.000    664.300    290.000    667.000    294.000    667.700    322.000    667.700    366.000
GR    668.300    402.000    668.500    428.000    669.200    464.000    670.200    492.000    670.600    522.000

X1    200.200      0.000      0.000      0.000    352.000    352.000    352.000      0.000      2.000      0.000

X1    200.400     15.000    270.000    294.000    150.000    150.000    150.000      0.000       .800      0.000
GR    670.000    250.000    669.300    255.000    668.600    260.000    667.200    270.000    666.100    278.000
GR    664.300    284.000    663.800    285.000    663.200    286.000    662.600    287.000    663.100    288.000
GR    663.800    289.000    664.300    290.000    667.000    294.000    667.700    322.000    670.000    366.000
NC      0.000      0.000      0.000       .400       .800      0.000      0.000      0.000      0.000      0.000

X1    201.300      8.000      5.000     14.000    160.000    160.000    160.000      0.000     -1.100      0.000
GR    671.000      6.000    666.400      6.100    665.600      7.000    665.400      8.000    665.600     10.000
GR    666.700     11.000    668.300     13.900    671.000     14.000      0.000      0.000      0.000      0.000
SB      2.000      2.400      3.000    100.000      9.000      0.000     37.000      0.000    665.400    664.300

X1    201.700      0.000      0.000      0.000    190.000    190.000    190.000      0.000      1.100      0.000
X2      0.000      0.000      1.000    668.000    676.300      0.000      0.000      0.000      0.000      0.000

X1    201.800     16.000    228.000    266.000     50.000     50.000     50.000      0.000     -1.600      0.000
GR    676.000    154.000    673.200    184.000    673.100    210.000    672.800    228.000    673.000    240.000
GR    670.500    244.000    669.200    250.000    668.300    251.000    667.600    251.500    667.200    252.000
GR    667.600    252.500    668.300    253.000    669.200    254.000    672.000    260.000    673.300    266.000
GR    674.000    284.000      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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00

Slope area start, appears this has been done in a previous run, and WSEL input.

3280 CROSS SECTION 199.70 EXTENDED .56 FEET

199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00

3280 CROSS SECTION 200.00 EXTENDED .56 FEET

200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.08	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

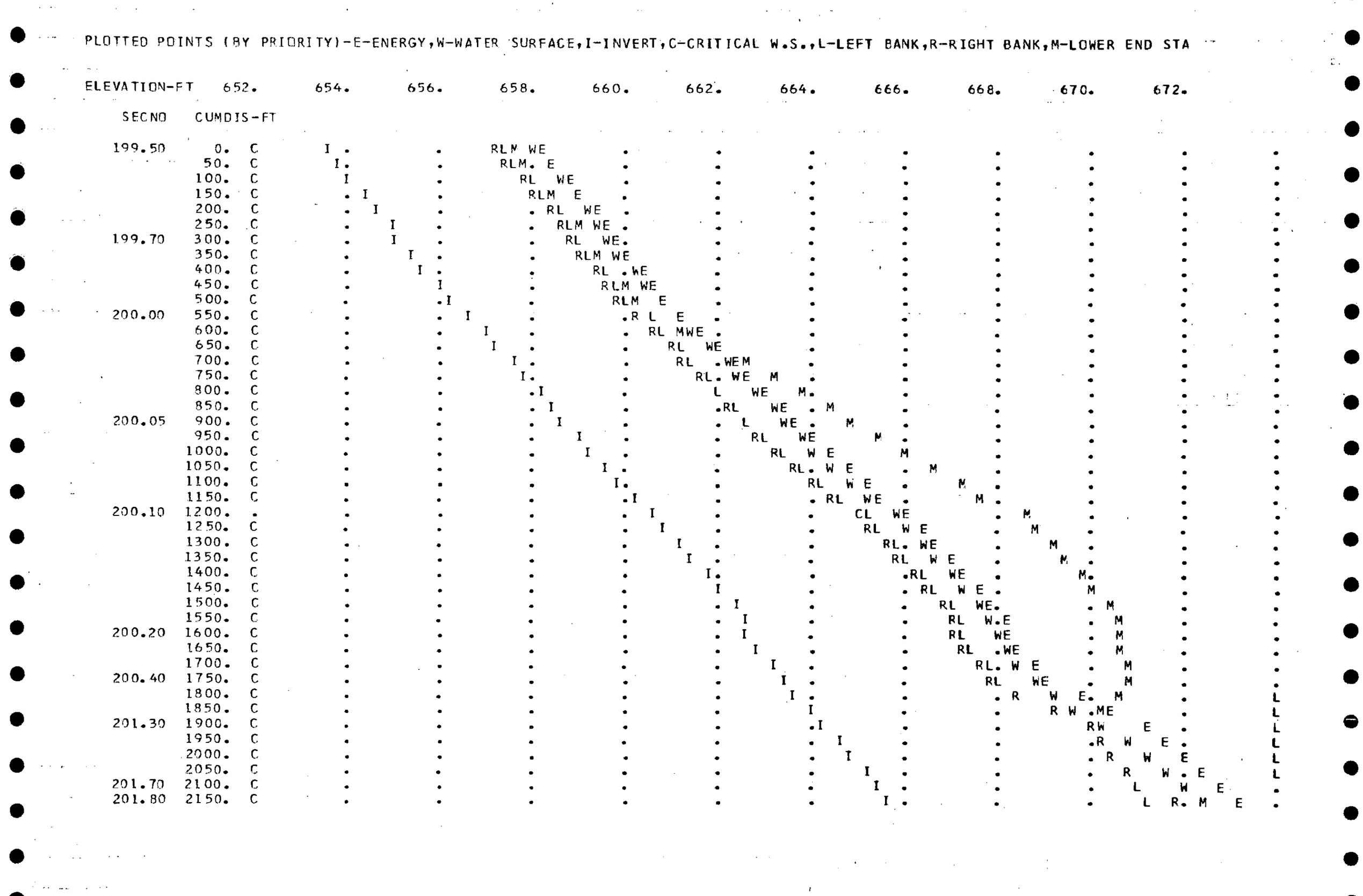
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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**********************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
**********************************************


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      0.0       0.      658.050   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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 CCHV=    .150 CEHV=    .350
  2800 NAT Q1=      40.48  WSEL=     658.05  ENC Q1=      40.48  WSEL=     658.15  RATIO=    .0000
  NAT Q1=     46.  RATIOS LOB,CH,ROB=    .0595    .6662    .2743  WSEL=     658.15
 3280 CROSS SECTION     199.50 EXTENDED        .55 FEET

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     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    ICC       ICONT     CORAR     TOPWID      ENDST

 3470 ENCROACHMENT STATIONS=      280.0      363.5  TYPE=      4  TARGET=         .129
    199.50      4.55    658.05      0.00    658.05    658.21       .16      0.00      0.00    657.40
     310.        0.       237.       73.        0.       66.       40.        0.        0.     657.20
      0.00       .02      3.57      1.82       .070      .045      .070     0.000    653.50    280.00
  .007273        0.        0.        0.          0         0         1      0.00     83.50    363.50

  2800 NAT Q1=      41.14  WSEL=     659.61  ENC Q1=      41.14  WSEL=     659.71  RATIO=    .0000
  NAT Q1=     47.  RATIOS LOB,CH,ROB=    .0610    .6639    .2751  WSEL=     659.71
 3280 CROSS SECTION     199.70 EXTENDED        .69 FEET


 3470 ENCROACHMENT STATIONS=      280.0      364.2  TYPE=      4  TARGET=         .128
    199.70      4.69    659.74      0.00    659.61    659.87       .13      1.65       .00    658.95
     310.        0.       232.       78.        0.       73.       46.        1.        1.     658.75
       .03       .02      3.20      1.68       .070      .045      .070      .045    655.05    280.00
  .005208      270.      270.      270.          4         0         1      0.00     84.17    364.17

  2800 NAT Q1=      40.82  WSEL=     661.16  ENC Q1=      40.82  WSEL=     661.26  RATIO=    .0000
  NAT Q1=     47.  RATIOS LOB,CH,ROB=    .0602    .6651    .2747  WSEL=     661.26
 3280 CROSS SECTION     200.00 EXTENDED        .63 FEET


 3470 ENCROACHMENT STATIONS=      280.0      363.9  TYPE=      4  TARGET=         .128
    200.00      4.63    661.23      0.00    661.16    661.37       .14      1.50       .00    660.50
     310.        0.       234.       76.        0.       70.       44.        1.        1.     660.30
       .05       .02      3.34      1.74       .070      .045      .070      .045    656.60    280.00
  .005950      270.      270.      270.          4         0         1      0.00     83.92    363.92

  2800 NAT Q1=      33.59  WSEL=     663.36  ENC Q1=      33.59  WSEL=     663.46  RATIO=    .0000
  NAT Q1=     38.  RATIOS LOB,CH,ROB=    .1391    .8195    .0414  WSEL=     663.46
    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

 3470 ENCROACHMENT STATIONS=      264.0      314.0  TYPE=      4  TARGET=         .117
    200.05      4.86    663.46      0.00    663.36    663.74       .28      2.32       .05    662.50
     310.       24.       286.       0.        14.       65.       0.        2.        2.     662.50
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     .07       1.76       4.43        .02       .070       .045       .070       .045    658.60    263.96
 .008440        330.       330.       330.          4          0          1       0.00     50.04    314.00

 2800 NAT Q1=       38.13  WSEL=     665.80  ENC Q1=       38.13  WSEL=     665.90  RATIO=    .0000
 NAT Q1=      43.  RATIOS LOB,CH,ROB=    .0842    .8494    .0664  WSEL=     665.90

3470 ENCROACHMENT STATIONS=      256.7      301.8  TYPE=       4  TARGET=         .104
   200.10       5.28    665.88       0.00    665.80    666.21       .33      2.45       .02    665.20
     310.         11.       290.         9.         8.        61.         6.         3.         2.    665.00
      .09       1.27       4.73       1.46       .070       .045       .070       .045    660.60    256.68
 .006568        330.       330.       330.          4          0          1       0.00     45.16    301.84

 2800 NAT Q1=       43.31  WSEL=     667.91  ENC Q1=       43.31  WSEL=     668.01  RATIO=    .0000
 NAT Q1=      48.  RATIOS LOB,CH,ROB=    .1037    .8041    .0922  WSEL=     668.01

3470 ENCROACHMENT STATIONS=      249.4      312.3  TYPE=       4  TARGET=         .104
   200.20       5.39    667.99       0.00    667.91    668.25       .26      2.03       .01    667.20
     310.         18.       274.        18.        15.        64.        14.         3.         2.    667.00
      .12       1.22       4.29       1.26       .070       .045       .070       .045    662.60    249.38
 .005095        352.       352.       352.          4          0          1       0.00     62.92    312.30

 2800 NAT Q1=       38.88  WSEL=     668.71  ENC Q1=       38.88  WSEL=     668.81  RATIO=    .0000
 NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0064    .9223    .0713  WSEL=     668.81

3470 ENCROACHMENT STATIONS=      270.0      294.6  TYPE=       4  TARGET=         .076
   200.40       5.38    668.78       0.00    668.71    669.15       .36       .86       .04    668.00
     310.          0.       309.         1.         0.        64.         1.         4.         2.    667.80
      .13        .02       4.85       1.69       .070       .045       .070       .045    663.40    270.00
 .006531        150.       150.       150.          3          0          1       0.00     24.57    294.57

CCHV=     .400 CEHV=     .800
 2800 NAT Q1=       22.56  WSEL=     670.20  ENC Q1=       23.20  WSEL=     670.30  RATIO=   -.0286
 NAT Q1=      23.  RATIOS LOB,CH,ROB=  0.0000  1.0000    .0000  WSEL=     670.30
3280 CROSS SECTION     201.30 EXTENDED        .42 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=        6.0       14.0  TYPE=       4  TARGET=         .000
   201.30       6.02    670.32       0.00    670.20    671.27       .94      1.66       .47    669.90
     310.          0.       310.         0.         0.        40.         0.         4.         3.    669.90
      .13       0.00       7.80        .03       .070       .045       .070       .045    664.30      6.00
 .018838        160.       160.       160.          3          0          1       0.00      8.00     14.00

SPECIAL BRIDGE

SB   XK          XKOR        COEQ       RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      2.00        2.40        3.00      100.00       9.00        0.00        37.00       0.00      665.40      664.30

 2800 NAT Q1=       28.01  WSEL=     672.08  ENC Q1=       28.73  WSEL=     672.18  RATIO=   -.0257
 NAT Q1=      29.  RATIOS LOB,CH,ROB=  0.0000  1.0000    .0000  WSEL=     672.18
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION     201.70 EXTENDED       1.20 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= 6.0 14.0 TYPE= 4 TARGET= .000

201.70	6.80	672.20	0.00	672.08	672.91	.71	3.03	.10	671.00
310.	0.	310.	0.	0.	46.	0.	4.	3.	671.00
.14	0.00	6.74	.02	.070	.045	.070	.045	665.40	6.00
.013683	190.	190.	190.	0	0	1	0.00	8.00	14.00

2800 NAT Q1= 117.56 WSEL= 673.15 ENC Q1= 117.56 WSEL= 673.25 RATIO= 0.0000
NAT Q1= 125. RATIOS LOB,CH,ROB= .2159 .7431 .0410 WSEL= 673.25
3280 CROSS SECTION 201.80 EXTENDED .82 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 186.4 270.2 TYPE= 4 TARGET= .063

201.80	7.62	673.22	0.00	673.15	673.27	.05	.09	.26	671.20
310.	60.	245.	4.	73.	130.	6.	4.	3.	671.70
.15	.83	1.89	.72	.070	.045	.070	.045	665.60	186.44
.000711	50.	50.	50.	2	0	1	0.00	83.77	270.20

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

FLOODWAY DETERMINATION

SECTION / SECTION	DISCHARGE / DISCHARGE	CWSEL / CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	#	D	#	D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05		-I		-I	658.05
199.500	310.00	658.05	658.05	36.35	658.21	83.50	280.00	363.50	658.05		0.00		0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00		658.05		658.05	0.00
199.700	310.00	659.74	659.74	42.96	659.87	84.17	280.00	364.17	659.61		658.05		658.05	659.61
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00		0.00		0.00	0.00
200.000	310.00	661.23	661.23	40.19	661.37	83.92	280.00	363.92	661.16		659.61		659.61	661.16
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00		0.00		0.00	0.00
200.050	310.00	663.46	663.46	33.74	663.74	50.04	263.96	314.00	663.36		661.16		661.16	663.36
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00		0.00		0.00	0.00
200.100	310.00	665.88	665.88	38.25	666.21	45.16	256.68	301.84	665.80		663.36		663.36	665.80
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00		0.00		0.00	0.00
200.200	310.00	667.99	667.99	43.43	668.25	62.92	249.38	312.30	667.91		665.80		665.80	667.91
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00		0.00		0.00	0.00
200.400	310.00	668.78	668.78	38.36	669.15	24.57	270.00	294.57	668.71		667.91		667.91	668.71
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.300	310.00	670.32	670.32	22.59	671.27	8.00	6.00	14.00	670.20		668.71		668.71	670.20
→ 201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	310.00	672.20	672.20	26.50	672.91	8.00	6.00	14.00	672.08		670.20		670.20	672.08
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00		0.00		0.00	0.00
201.800	310.00	673.22	673.22	116.29	673.27	83.77	186.44	270.20	673.15		672.08		672.08	673.15

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
199.500	310.000	658.050	0.000	0.000	0.000	148.500	0.000	0.000
199.500	310.000	658.050	0.000	0.000	0.000	83.502	64.998	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	310.000	659.738	.127	1.688	.127	84.166	65.132	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	0.000	270.000
200.000	310.000	661.232	.076	1.493	.076	83.916	64.993	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	310.000	663.460	.096	2.229	.096	50.036	60.590	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	310.000	665.879	.084	2.419	.084	45.156	109.964	330.000
200.200	310.000	667.909	0.000	2.114	0.000	165.617	0.000	352.000
200.200	310.000	667.990	.081	2.111	.081	62.920	102.697	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000

200.400	310.000	668.782	.076	.792	.076	24.571	36.423	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	310.000	670.322	.119	1.540	.119	8.000	.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	310.000	672.202	.119	1.880	.119	8.000	.000	190.000
201.800	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.800	310.000	673.220	.075	1.018	.075	83.767	32.780	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	4.000	.063	2.643	-3.113

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unamed Trib No. 2

4) DOCUMENT TYPE: Sensisitivity

00BREAK00

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1       JOB HUD FIA H-4705 T 06
T2       WASHINGTON TWP FIS
T3       UNNAMED TRIB. NO.2 100 YEAR FLOW

J1  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -1.        4.        0.        0.  0.000000      0.00      0.0       0.   658.050    0.000

J3       1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000
NC        .070      .070      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT       5.000   180.000   265.000   310.000   435.000   310.000     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

X1     199.500    24.000   280.000   324.000     0.000     0.000     0.000     0.000    -3.100     0.000
GR     668.200     0.000   668.400    40.000   668.400    80.000   668.300   112.000   668.000   138.000
GR     666.000   160.000   665.600   176.000   665.400   190.000   662.800   206.000   661.200   228.000
GR     660.800   256.000   660.500   280.000   660.000   288.000   658.800   294.000   658.700   294.500
GR     657.300   295.000   656.600   296.000   657.000   297.000   658.300   297.500   658.800   298.000
GR     659.700   304.000   660.300   324.000   660.000   358.000   660.600   380.000     0.000     0.000

X1     199.700     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1     200.000     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1     200.050    17.000   280.000   314.000   330.000   330.000   330.000     0.000     2.000     0.000
GR     662.800   206.000   661.200   228.000   660.800   256.000   660.500   280.000   660.000   288.000
GR     658.800   294.000   658.700   294.500   657.300   295.000   656.600   296.000   657.000   297.000
GR     658.300   297.500   658.800   298.000   659.700   304.000   660.500   314.000   661.500   340.000
GR     661.700   410.000   663.500   480.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     200.100    25.000   270.000   294.000   330.000   330.000   330.000     0.000    -2.000     0.000
GR     673.000     0.000   672.600    24.000   672.200    54.000   670.200    96.000   669.400   138.000
GR     668.700   188.000   667.500   226.000   667.300   256.000   667.200   270.000   666.100   278.000
GR     664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR     663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   667.700   366.000
GR     668.300   402.000   668.500   428.000   669.200   464.000   670.200   492.000   670.600   522.000

X1     200.200     0.000     0.000     0.000   352.000   352.000   352.000     0.000     2.000     0.000

X1     200.400    15.000   270.000   294.000   150.000   150.000   150.000     0.000      .800     0.000
GR     670.000   250.000   669.300   255.000   668.600   260.000   667.200   270.000   666.100   278.000
GR     664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR     663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   670.000   366.000
NC       0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

X1     201.300     8.000     5.000    14.000   160.000   160.000   160.000     0.000    -1.100     0.000
GR     671.000     6.000   666.400     6.100   665.600     7.000   665.400     8.000   665.600    10.000
GR     666.700    11.000   668.300    13.900   671.000    14.000     0.000     0.000     0.000     0.000
SB       2.000     2.400     3.000   100.000     9.000     0.000    37.000     0.000   665.400   664.300

X1     201.700     0.000     0.000     0.000   190.000   190.000   190.000     0.000     1.100     0.000
X2       0.000     0.000     1.000   668.000   676.300     0.000     0.000     0.000     0.000     0.000

X1     201.800    16.000   228.000   266.000    50.000    50.000    50.000     0.000    -1.600     0.000
GR     676.000   154.000   673.200   184.000   673.100   210.000   672.800   228.000   673.000   240.000
GR     670.500   244.000   669.200   250.000   668.300   251.000   667.600   251.500   667.200   252.000
GR     667.600   252.500   668.300   253.000   669.200   254.000   672.000   260.000   673.300   266.000
GR     674.000   284.000     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00

3280 CROSS SECTION 199.70 EXTENDED .56 FEET

199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00

3280 CROSS SECTION 200.00 EXTENDED .56 FEET

200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.08	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

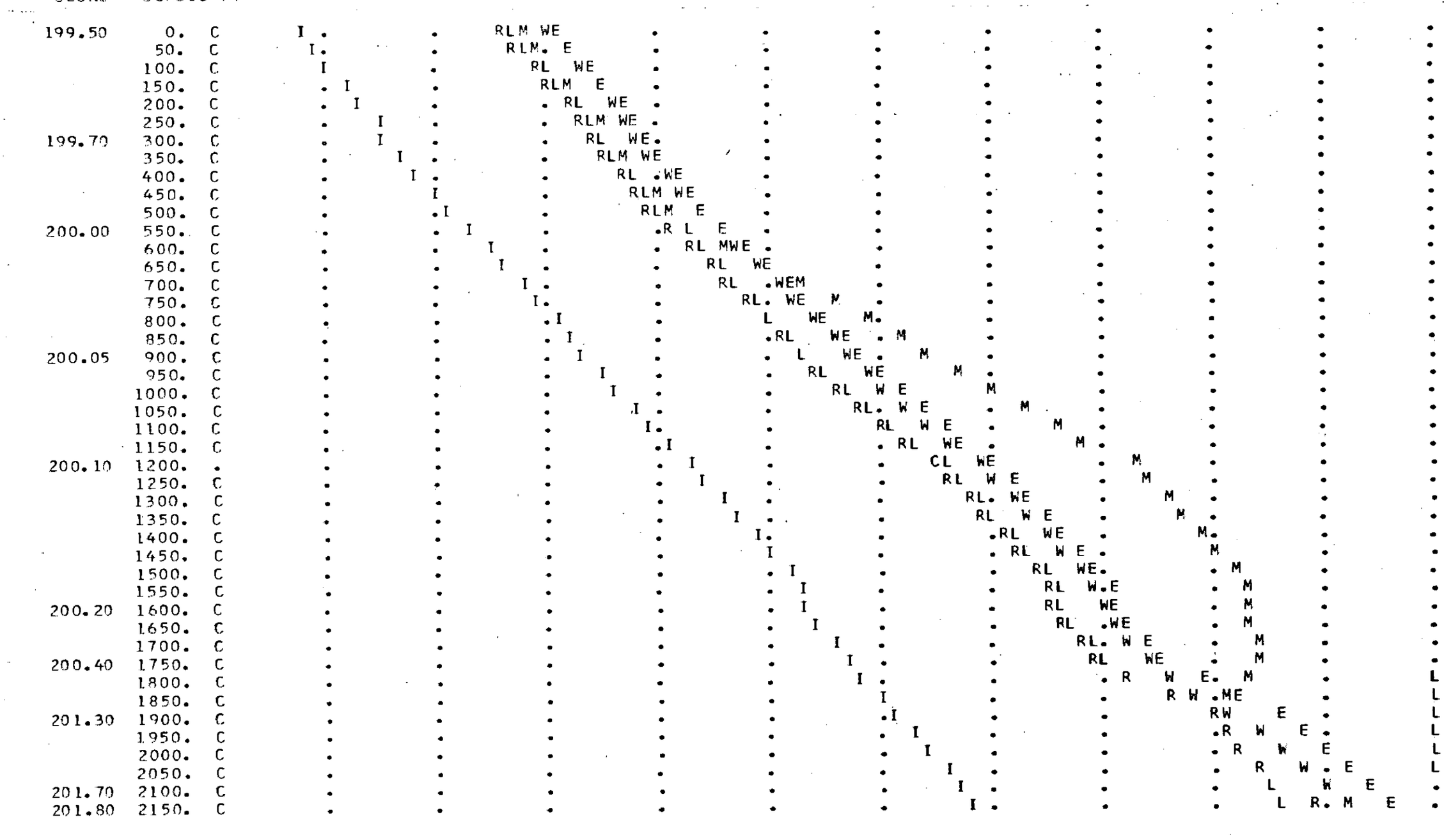
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1       JOB HUD-FIA H-4705   T06
T2       FLOOD INSURANCE STUDIES
T3       SENSITIVITY RUN  N* 0.7
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.    .005900      0.00      0.0       0.    658.050     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     0.000      .700     0.000     0.000     0.000     0.000
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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .31 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
199.50	4.31	657.81	0.00	658.05	658.02	.21	0.00	0.00	657.40
310.	6.	230.	73.	7.	56.	40.	0.	0.	657.20
0.00	.92	4.10	1.86	.049	.032	.049	0.000	653.50	247.97
.005905	0.	0.	0.	0	0	8	0.00	132.03	380.00

3280 CROSS SECTION 199.70 EXTENDED .33 FEET

199.70	4.33	659.38	0.00	0.00	659.58	.20	1.56	.00	658.95
310.	7.	229.	74.	7.	57.	40.	1.	1.	658.75
.02	.92	4.04	1.84	.049	.032	.049	.031	655.05	246.93
.005623	270.	270.	270.	2	0	1	0.00	133.07	380.00

3280 CROSS SECTION 200.00 EXTENDED .32 FEET

200.00	4.32	660.92	0.00	0.00	661.12	.20	1.54	.00	660.50
310.	6.	230.	74.	7.	56.	40.	1.	2.	660.30
.04	.92	4.08	1.85	.049	.032	.049	.031	656.60	247.62
.005809	270.	270.	270.	2	0	1	0.00	132.38	380.00
200.05	4.48	663.08	663.01	0.00	663.52	.44	2.32	.08	662.50
310.	19.	286.	5.	13.	52.	4.	2.	2.	662.50
.06	1.43	5.52	1.24	.049	.032	.049	.031	658.60	236.13
.008640	330.	330.	330.	5	8	1	0.00	93.05	329.18
200.10	4.86	665.46	664.94	0.00	665.99	.53	2.44	.03	665.20
310.	3.	303.	4.	5.	51.	4.	2.	3.	665.00
.08	.69	5.91	.91	.049	.032	.049	.031	660.60	232.14
.006384	330.	330.	330.	4	5	1	0.00	80.22	312.36

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	4.97	667.57	667.01	0.00	668.02	.45	2.01	.01	667.20
310.	8.	296.	6.	10.	54.	6.	3.	4.	667.00
.10	.82	5.50	.94	.049	.032	.049	.031	662.60	223.81
.005157	352.	352.	352.	4	5	1	0.00	92.95	316.77

200.40	4.95	668.35	0.00	0.00	668.84	.50	.81	.02	668.00
310.	0.	304.	6.	0.	53.	6.	3.	4.	667.80
.10	.70	5.71	.96	.049	.032	.049	.031	663.40	267.54
.005640	150.	150.	150.	2	0	1	0.00	48.27	315.80

CCHV= .400 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

201.30	5.23	669.53	0.00	0.00	670.87	1.34	1.35	.67	721.00
310.	0.	310.	0.	0.	33.	0.	3.	4.	669.90
.11	0.00	9.28	0.00	.049	.032	.049	.031	664.30	6.01
.014021	160.	160.	160.	2	0	1	0.00	7.98	13.99

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED .05 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.14	671.97	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	5.64	671.04	0.00	0.00	672.14	1.10	1.28	0.00	671.00
310.	0.	310.	0.	0.	37.	0.	4.	4.	671.00
.11	0.00	8.43	.03	.049	.032	.049	.031	665.40	6.00
.010882	190.	190.	190.	3	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED .17 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	6.97	672.57	0.00	0.00	672.65	.08	.10	.41	671.20
310.	47.	258.	5.	54.	105.	9.	4.	4.	671.70
.12	.87	2.45	.55	.049	.032	.049	.031	665.60	173.60
.000778	50.	50.	50.	3	0	1	0.00	110.40	284.00

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1       JOB HUD-FIA H-4705  T06
T2       FLOOD INSURANCE STUDIES
T3       SENSITIVITY RUN  N * 1.3

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -1.       4.        0.        0.    .005900      0.00      0.0       0.    658.050     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     1.300     0.000     0.000     0.000     0.000
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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .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
199.50	4.74	658.24	0.00	658.05	658.32	.08	0.00	0.00	657.40
310.	22.	201.	87.	26.	75.	64.	0.	0.	657.20
0.00	.84	2.68	1.37	.091	.059	.091	0.000	653.50	226.02
.005890	0.	0.	0.	0	0	5	0.00	153.98	380.00

3280 CROSS SECTION 199.70 EXTENDED .76 FEET

199.70	4.76	659.81	0.00	0.00	659.89	.08	1.56	.00	658.95
310.	23.	200.	87.	27.	76.	64.	1.	1.	658.75
.03	.84	2.64	1.35	.091	.059	.091	.058	655.05	225.82
.005680	270.	270.	270.	2	0	1	0.00	154.18	380.00

3280 CROSS SECTION 200.00 EXTENDED .75 FEET

200.00	4.75	661.35	0.00	0.00	661.43	.08	1.54	.00	660.50
310.	23.	200.	87.	27.	75.	64.	2.	2.	660.30
.07	.84	2.66	1.36	.091	.059	.091	.058	656.60	225.90
.005763	270.	270.	270.	2	0	1	0.00	154.10	380.00

200.05	4.98	663.58	0.00	0.00	663.74	.16	2.28	.03	662.50
310.	50.	244.	16.	40.	69.	16.	3.	3.	662.50
.10	1.25	3.55	.98	.091	.059	.091	.058	658.60	222.73
.008465	330.	330.	330.	3	0	1	0.00	146.30	369.03

200.10	5.42	666.02	0.00	0.00	666.20	.18	2.45	.01	665.20
310.	33.	246.	30.	34.	65.	37.	4.	4.	665.00
.13	.97	3.79	.82	.091	.059	.091	.058	660.60	209.11
.006579	330.	330.	330.	2	0	1	0.00	176.90	386.01

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
200.20	5.53	668.13	0.00	0.00	668.27	.14	2.07	.01	667.20
310.	38.	234.	38.	41.	67.	47.	5.	6.	667.00
.16	.94	3.47	.80	.091	.059	.091	.058	662.60	205.91
.005267	352.	352.	352.	3	0	1	0.00	186.14	392.06

200.40	5.58	668.98	0.00	0.00	669.21	.23	.91	.03	668.00
310.	3.	278.	29.	3.	69.	25.	6.	6.	667.80
.17	.85	4.05	1.15	.091	.059	.091	.058	663.40	262.99
.007014	150.	150.	150.	2	0	1	0.00	68.21	331.20

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .84 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	6.44	670.74	0.00	0.00	671.55	.80	1.88	.46	721.00
310.	0.	310.	0.	0.	43.	0.	6.	6.	669.90
.18	0.00	7.19	.03	.091	.059	.091	.058	664.30	6.00
.023529	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.79 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
673.36	672.65	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	7.38	672.78	0.00	0.00	673.36	.58	1.81	0.00	671.00
310.	0.	310.	0.	0.	51.	0.	6.	6.	671.00
.19	0.00	6.12	.02	.091	.059	.091	.058	665.40	6.00
.014741	190.	190.	190.	2	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED 1.24 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	8.04	673.64	0.00	0.00	673.67	.03	.09	.22	671.20
310.	76.	218.	16.	118.	146.	29.	6.	6.	671.70
.20	.64	1.49	.56	.091	.059	.091	.058	665.60	162.10
.000641	50.	50.	50.	2	0	1	0.00	121.91	284.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SENSITIVITY RUN N * 1.3

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	# D	# D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05	-1	-1	658.05
199.500	310.00	657.81	657.81	40.34	658.02	132.03	0.00	0.00	658.05	0.00	0.00	658.05
199.500	310.00	658.24	658.24	40.39	658.32	153.98	0.00	0.00	658.05	0.00	0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00	658.05	658.05	0.00
199.700	310.00	659.38	659.38	41.34	659.58	133.07	0.00	0.00	0.00	658.05	658.05	0.00
199.700	310.00	659.81	659.81	41.13	659.89	154.18	0.00	0.00	0.00	658.05	658.05	0.00
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00	0.00	0.00	0.00
200.000	310.00	660.92	660.92	40.67	661.12	132.38	0.00	0.00	0.00	0.00	0.00	0.00
200.000	310.00	661.35	661.35	40.84	661.43	154.10	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.08	663.08	33.35	663.52	93.05	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.58	663.58	33.69	663.74	146.30	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	665.46	665.46	38.80	665.99	80.22	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	666.02	666.02	38.22	666.20	176.90	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	667.57	667.57	43.17	668.02	92.95	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	668.13	668.13	42.71	668.27	186.14	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.35	668.35	41.28	668.84	48.27	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.98	668.98	37.01	669.21	68.21	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	669.53	669.53	26.18	670.87	7.98	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	670.74	670.74	20.21	671.55	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	671.04	671.04	29.72	672.14	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	672.78	672.78	25.53	673.36	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	672.57	672.57	111.17	672.65	110.40	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	673.64	673.64	122.47	673.67	121.91	0.00	0.00	0.00	0.00	0.00	0.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
199.500	310.000	658.050	0.000	0.000	0.000	148.500	0.000	0.000
199.500	310.000	657.815	-.235	0.000	0.000	132.031	16.469	0.000
199.500	310.000	658.244	.429	0.000	0.000	153.979	-5.479	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	310.000	659.379	-.232	1.564	0.000	133.065	16.232	270.000
199.700	310.000	659.808	.429	1.564	0.000	154.177	-4.879	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	0.000	270.000

200.000	310.000	660.919	-.237	1.540	0.000	132.376	16.533	270.000
200.000	310.000	661.352	.433	1.544	0.000	154.098	-5.190	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	310.000	663.082	-.282	2.163	0.000	93.055	17.571	330.000
200.050	310.000	663.584	.502	2.232	0.000	146.300	-35.674	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	310.000	665.459	-.336	2.377	0.000	80.224	74.895	330.000
200.100	310.000	666.024	.565	2.440	0.000	176.904	-21.784	330.000
200.200	310.000	667.905	0.000	2.114	0.000	165.617	0.000	352.000
200.200	310.000	667.568	-.341	2.109	0.000	92.955	72.662	352.000
200.200	310.000	668.130	.562	2.106	0.000	186.142	-20.525	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000
200.400	310.000	668.345	-.361	.778	0.000	48.269	12.725	150.000
200.400	310.000	668.981	.636	.851	0.000	68.212	-7.218	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	310.000	669.529	-.674	1.183	0.000	7.978	.022	160.000
201.300	310.000	670.745	1.216	1.764	0.000	8.000	-.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	310.000	671.040	-1.042	1.512	0.000	8.000	.000	190.000
201.700	310.000	672.779	1.739	2.034	0.000	8.000	-.000	190.000
201.800	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.800	310.000	672.572	-.574	1.531	0.000	110.402	6.144	50.000
201.800	310.000	673.645	1.073	.865	0.000	121.905	-5.359	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	0.000	0.000	4.303	-1.453
3	0.000	0.000	6.427	.671

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unnamed Trib No. 1

4) DOCUMENT TYPE: floodway

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.  0.000000      0.00     -1.0       0.     674.120     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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
OT     5.000   135.000   160.000   170.000   215.000   170.000     0.000     0.000     0.000     0.000
FT     0.000     0.000     0.000     0.000     0.000     1.400     0.000     0.000     0.000     0.000

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   675.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

     ***D/S JEWELL PD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***D/S 27 MILE RD

X1	110.590	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000

***FOOTBRIDGE

X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000	
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000	
	***CONCRETE WEIR										
X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000	
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000	
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000	
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000	
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000	
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000	
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000	
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000	
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000	
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000	
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000	
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000	
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000	
GR	684.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000	
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000	
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000	
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000	
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000	
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000	
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000	
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000	
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000	
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000	
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000	
	***FOOTBRIDGE										
X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000	

	X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
	X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
	X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
	X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
	X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
	X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
	NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000
		***D/S M-53									
	X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
	GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
	GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
	NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
	X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
	GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
	X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
	X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
	X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
	X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
	X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
	NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
	NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
	X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
	GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
	GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
	GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
	X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	709.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
***D/S VAN DYKE RD										
X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	724.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.900	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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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*PROF 1

CCHV=    .100 CEHV=    .300
*SECNO 110.100
   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      TIRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

    110.10       5.02     674.12       0.00     674.12     674.16       .04       0.00       0.00     673.30
     170.         14.         96.         59.         30.         48.         77.          0.          0.     672.80
      0.00         .48        2.01         .77         .055        .040        .055       0.000     669.10      53.87
    .000705         0.          0.          0.          0           0           0        0.00      155.73     209.60

FLOW DISTRIBUTION FOR SECNO=     110.10          CWSEL=     674.12

STA=       54.        70.       104.       114.       122.       136.       154.       180.       196.       210.
  PER Q=     .2        3.4        2.4        2.4       56.6       11.3       14.3        7.6        1.9
   AREA=    1.8       14.3        7.2        6.6       47.8       22.9       30.4       17.1        6.9
    VEL=     .2         .4         .6         .6        2.0         .8         .8         .8         .5

*SECNO 110.150
    110.15       4.53     674.18       0.00       0.00     674.29       .11        .11        .02     673.85
     170.         3.         127.         40.          6.         41.         43.          0.          0.     673.35
      .01         .49        3.09         .94         .055        .040        .055        .040     669.65      92.51
    .002035      100.       100.       100.          1           0           0        0.00      110.63     203.14

FLOW DISTRIBUTION FOR SECNO=     110.15          CWSEL=     674.18

STA=       93.       104.       114.       122.       136.       154.       180.       196.       203.
  PER Q=     .1         .6         .9        74.5        8.6        9.9        4.7         .6
   AREA=     .8        2.4        2.7        41.0       14.1       17.8        9.4        1.9
    VEL=     .2         .5         .6        3.1         1.0         .9         .9         .5

*SECNO 110.200
    110.20       4.14     674.34       0.00       0.00     674.69       .35        .32        .07     674.40
     170.         0.         169.          1.          0.         35.          2.          0.          0.     673.90
      .02         0.00       4.78         .74         .055        .040        .055        .040     670.20     122.09
    .005902      100.       100.       100.          1           0           0        0.00       22.42     144.51


FLOW DISTRIBUTION FOR SECNO=     110.20          CWSEL=     674.34

STA=       122.       136.       145.
  PER Q=    99.2         .8
   AREA=    35.3        1.8
    VEL=     4.8         .7

CCHV=    .400 CEHV=    .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

      ***D/S JEWELL RD
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110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

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 STA=      22.      42.
  PER Q=   100.0
  AREA=     22.3
   VEL=      7.6

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

         ***D/S 27 MILE RD

   110.58     4.21   676.21     0.00     0.00   676.46      .25      .13      .26   676.70
    170.        0.    170.        0.       0.     42.        0.       1.       1.   676.70
     .03     0.00     4.00     0.00     .055     .040     .055     .039   672.00     4.02
 .003681       18.      18.      18.        3        0        0     0.00    12.07    16.08


 FLOW DISTRIBUTION FOR SECNO=    110.58          CWSEL=    676.21

 STA=       4.      16.
  PER Q=   100.0
  AREA=     42.4
   VEL=      4.0

 CCHV=    .500 CEHV=  1.000
 *SECNO 110.590

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   110.59     4.21   676.21     0.00     0.00   676.46      .25      .00      .00   676.70
    170.        0.    170.        0.       0.     43.        0.       1.       1.   676.70
     .03     0.00     3.99     0.00     .055     .030     .055     .039   672.00     4.02
 .002047        1.       1.       1.        0        0        0     0.00    12.07    16.08


 FLOW DISTRIBUTION FOR SECNO=    110.59          CWSEL=    676.21

 STA=       4.      16.
  PER Q=   100.0
  AREA=     42.6
   VEL=      4.0

 *SECNO 111.020

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   111.02     4.27   676.27     0.00     0.00   676.51      .24      .05      .00   676.70
    170.        0.    170.        0.       0.     43.        0.       1.       1.   676.70
     .03     0.00     3.92     0.00     .055     .030     .055     .039   672.00     4.01
 .001954       23.      23.      23.        0        0        0     0.00    12.07    16.09


 FLOW DISTRIBUTION FOR SECNO=    111.02          CWSEL=    676.27

 STA=       4.      16.
  PER Q=   100.0
  AREA=     43.3
   VEL=      3.9
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*SECNO 111.030

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	IOC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

Diversion of flow has been allow into Yates (TAFT) Drain across Jewell Road.

FLOW DISTRIBUTION FOR SECNO= 111.03 CWSEL= 676.28

STA=	4.	16.
PER Q=	100.0	
AREA=	43.3	
VEL=	3.9	

CCHV= .400 CEHV= .800

*SECNO 111.800

3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

FLOW DISTRIBUTION FOR SECNO= 111.80 CWSEL= 676.52

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.2	24.1	35.1	5.3	9.5	23.8	.0	
AREA=	5.2	36.7	27.9	6.6	11.8	44.4	.1	
VEL=	1.2	1.9	3.6	2.3	2.3	1.5	.3	

*SECNO 111.810

3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 676.80

STA=	0.	10.	48.	58.	63.	72.	134.	137.
PER Q=	2.5	24.7	32.5	5.2	9.4	25.7	.0	
AREA=	6.1	40.4	28.8	7.1	12.7	50.4	.3	
VEL=	1.2	1.7	3.2	2.1	2.1	1.5	.4	

CCHV= .100 CEHV= .300

*SECNO 111.820

3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60

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      285.      72.     106.     107.      41.      28.      61.       1.       1.   675.60
       .04     1.78     3.84     1.75     .070     .060     .070     .041   672.40     0.00
  .008336      20.      20.      20.        .0        0        0     0.00   135.38   135.38

 FLOW DISTRIBUTION FOR SECNO=    111.82          CWSEL=    676.89

 STA=       0.      10.      48.      58.      63.      72.     134.     135.
   PER Q=     2.0     23.4     37.2      5.2      9.4     22.8       .0
    AREA=     4.9     35.8     27.6      6.5     11.6     42.9       .1
     VEL=     1.2      1.9      3.8      2.3      2.3      1.5       .0

 *SECNO 111.830
 3280 CROSS SECTION    111.83 EXTENDED       .46 FEET

   111.83     4.57   677.67     0.00     0.00   677.76      .10      .76      .00   676.30
      285.      74.      100.     110.      44.      28.      66.       1.       1.   676.30
       .05     1.70     3.55     1.66     .070     .060     .070     .044   673.10     0.00
  .006917      100.     100.     100.        1        0        0     0.00   136.37   136.37

 FLOW DISTRIBUTION FOR SECNO=    111.83          CWSEL=    677.67

 STA=       0.      10.      48.      58.      63.      72.     134.     136.
   PER Q=     2.3     23.8     35.2      5.2      9.3     24.2       .0
    AREA=     5.6     38.3     28.3      6.8     12.2     47.0       .2
     VEL=     1.2      1.8      3.6      2.2      2.2      1.5       .3

 *SECNO 111.840
 3280 CROSS SECTION    111.84 EXTENDED       .45 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

       ***FOOTBRIDGE

   111.84     4.55   678.15     0.00     0.00   678.25      .10      .49      .00   676.80
      285.      74.      101.     110.      44.      28.      66.       1.       1.   676.80
       .06     1.70     3.58     1.67     .070     .060     .070     .045   673.60     0.00
  .007034      70.      70.      70.         2        0        0     0.00   136.28   136.28

 FLOW DISTRIBUTION FOR SECNO=    111.84          CWSEL=    678.15

 STA=       0.      10.      48.      58.      63.      72.     134.     136.
   PER Q=     2.3     23.8     35.4      5.2      9.3     24.1       .0
    AREA=     5.5     38.1     28.2      6.8     12.2     46.6       .2
     VEL=     1.2      1.8      3.6      2.2      2.2      1.5       .3

 *SECNO 111.850
 3280 CROSS SECTION    111.85 EXTENDED       .45 FEET

 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20
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    111.85      4.54    678.14      0.00      0.00    678.27       .13       .01       .01    676.80
      285.       45.       63.       176.       28.       20.       58.        1.        1.    676.80
       .06      1.60      3.13      3.03      .070      .060      .070      .045    673.60      0.00
  .030130         1.        1.        1.         1         0         0    -30.80    136.29    136.29

 FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.14

 STA=        0.       10.       48.       58.       63.       72.      134.      136.
   PER Q=    4.7      11.3      22.2       1.2      10.7      49.9        .0
    AREA=    5.5      22.9      20.2       2.8       8.6      46.7        .2
     VEL=    2.4       1.4       3.1       1.2       3.6       3.0        .7

 *SECNO 111.860
 3280 CROSS SECTION    111.86 EXTENDED       .55 FEET


 3370 NORMAL BRIDGE.NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

    111.86      4.65    678.25      0.00      0.00    678.35       .10       .07       .00    676.80
      285.       49.       57.       179.       33.       21.       66.        1.        1.    676.80
       .06      1.47      2.69      2.72      .070      .060      .070      .045    673.60      0.00
  .020903         3.        3.        3.         2         0         0    -30.80    137.75    137.75


 FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.25

 STA=        0.       10.       48.       58.       63.       72.      134.      138.
   PER Q=    5.1      12.0      20.0       1.3      10.5      50.9        .1
    AREA=    6.5      26.6      21.2       3.3       9.5      52.7        .5
     VEL=    2.2       1.3       2.7       1.1       3.2       2.8        .8

 *SECNO 111.870
 3280 CROSS SECTION    111.87 EXTENDED       .58 FEET


    111.87      4.69    678.29      0.00      0.00    678.36       .07       .01       .00    676.80
      285.       78.       92.       116.       50.       30.       76.        1.        1.    676.80
       .06      1.56      3.10      1.53      .070      .060      .070      .045    673.60      0.00
  .004980         1.        1.        1.         1         0         0      0.00    138.22    138.22


 FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.29

 STA=        0.       10.       48.       58.       63.       72.      134.      138.
   PER Q=    2.7      24.5      32.1       5.1       9.1      26.4        .1
    AREA=    6.8      43.0      29.5       7.4      13.3      54.7        .6
     VEL=    1.1       1.6       3.1       1.9       1.9       1.4        .4

 *SECNO 111.900
 3280 CROSS SECTION    111.90 EXTENDED       .40 FEET


    111.90      4.49    679.29      0.00      0.00    679.41       .11      1.03       .01    678.00
      285.       73.       105.      107.       41.       28.       62.        2.        2.    678.00
       .08      1.77      3.79      1.73      .070      .060      .070      .048    674.80      0.00
  .008107       165.      165.      165.         3         0         0      0.00    135.52    135.52
```

FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	43.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.09	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020709	50.	50.	50.	3	0	0	0.00	119.58	119.58

***CONCRETE WEIR

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 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
111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 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
111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

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 STA=        0.       10.       48.       58.       72.      134.      136.
  PER Q=      2.2      23.7      35.8      14.5      23.8        .0
    AREA=     5.4      37.6      28.1      18.7      45.8        .1
     VEL=     1.2       1.8       3.6       2.2       1.5        .3

 *SECNO 111.940
 3280 CROSS SECTION    111.94 EXTENDED       .48 FEET

   111.94      4.57    681.87      0.00      0.00    681.97       .09      1.12       .00    680.50
    285.        75.        99.       111.        45.        28.        68.         3.         3.    680.50
     .12      1.67      3.47      1.64      .070      .060      .070      .051    677.30      0.00
 .006551       162.       162.       162.         2          0          0      0.00    136.66    136.66

 FLOW DISTRIBUTION FOR SECNO=    111.94          CWSEL=    681.87

 STA=        0.       10.       48.       58.       72.      134.      137.
  PER Q=      2.3      24.0      34.7      14.4      24.6        .0
    AREA=     5.8      39.0      28.5      19.3      48.2        .2
     VEL=     1.2       1.7       3.5       2.1       1.5        .3

 *SECNO 111.950
 3280 CROSS SECTION    111.95 EXTENDED       .52 FEET

   111.95      4.62    683.62      0.00      0.00    683.70       .08      1.73       .00    682.20
    285.        76.        96.       113.        47.        29.        71.         4.         4.    682.20
     .15      1.62      3.32      1.59      .070      .060      .070      .053    679.00      0.00
 .005859       280.       280.       280.         3          0          0      0.00    137.29    137.29

 FLOW DISTRIBUTION FOR SECNO=    111.95          CWSEL=    683.62

 STA=        0.       10.       48.       58.       72.      134.      137.
  PER Q=      2.5      24.2      33.6      14.3      25.3        .0
    AREA=     6.2      40.6      28.9      19.9      50.8        .4
     VEL=     1.1       1.7       3.3       2.1       1.4        .4

 *SECNO 111.970
 3280 CROSS SECTION    111.97 EXTENDED       .86 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

   111.97      4.46    683.86      0.00      0.00    683.97       .11       .26       .01    682.60
    285.        25.       149.       111.        17.        44.        71.         4.         4.    681.70
     .16      1.47      3.40      1.56      .070      .060      .070      .053    679.40    190.00
 .004735        50.        50.        50.         2          0          0      0.00    108.86    298.86

 FLOW DISTRIBUTION FOR SECNO=    111.97          CWSEL=    683.86

 STA=      190.      206.      220.      235.      284.      299.
  PER Q=      8.7      52.2      18.8      19.6        .7
    AREA=    17.0      43.8      25.7      42.2       3.4
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VEL=      1.5      3.4      2.1      1.3      .5

*SECNO 111.980
3280 CROSS SECTION    111.98 EXTENDED       .69 FEET

  111.98     4.29   684.39     0.00     0.00   684.55      .15      .56      .01   683.30
     285.      22.     162.     101.      14.      41.      58.       4.       4.   682.40
     .17     1.57     3.92     1.72     .070     .060     .070     .053   680.10   190.00
 .006763     100.     100.     100.        0        0        0     0.00   103.37   293.37

FLOW DISTRIBUTION FOR SECNO=    111.98        CWSEL=    684.39

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.9     56.8     18.9     16.2       .2
   AREA=     14.3     41.4     23.1     33.9      1.4
    VEL=      1.6      3.9      2.3      1.4       .5

*SECNO 111.990
3280 CROSS SECTION    111.99 EXTENDED       .67 FEET

  111.99     4.27   685.77     0.00     0.00   685.93      .16     1.38      .00   684.70
     285.      22.     164.      99.      14.      41.      57.       5.       5.   683.80
     .18     1.58     3.98     1.74     .070     .060     .070     .054   681.50   190.00
 .007038     200.     200.     200.        2        0        0     0.00   102.78   292.78

FLOW DISTRIBUTION FOR SECNO=    111.99        CWSEL=    685.77

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.7     57.4     18.9     15.8       .2
   AREA=     14.0     41.1     22.8     33.0      1.2
    VEL=      1.6      4.0      2.4      1.4       .5

*SECNO 112.000
3280 CROSS SECTION    112.00 EXTENDED       .68 FEET

  112.00     4.27   688.27     0.00     0.00   688.43      .16     2.50      .00   687.20
     285.      22.     163.     100.      14.      41.      57.       6.       5.   686.30
     .22     1.58     3.96     1.74     .070     .060     .070     .055   684.00   190.00
 .006957     358.     358.     358.        2        0        0     0.00   102.95   292.95

FLOW DISTRIBUTION FOR SECNO=    112.00        CWSEL=    688.27

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.8     57.2     18.9     15.9       .2
   AREA=     14.0     41.2     22.9     33.2      1.2
    VEL=      1.6      4.0      2.3      1.4       .5

*SECNO 112.100
3280 CROSS SECTION    112.10 EXTENDED       .68 FEET

  112.10     4.28   690.38     0.00     0.00   690.54      .16     2.11      .00   689.30
     285.      22.     163.     100.      14.      41.      58.       7.       6.   688.40
     .25     1.57     3.94     1.73     .070     .060     .070     .056   686.10   190.00
 .006857     305.     305.     305.        2        0        0     0.00   103.17   293.17
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FLOW DISTRIBUTION FOR SECNO= 112.10 CWSEL= 690.38

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.0	18.9	16.1	.2	
AREA=	14.2	41.3	23.0	33.5	1.3	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10
285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.15

STA=	190.	206.	220.	235.	284.	292.
PER Q=	7.6	58.0	18.9	15.4	.2	
AREA=	13.6	40.8	22.5	32.0	1.0	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 693.91

STA=	190.	206.	220.	235.	284.	294.
PER Q=	7.9	56.4	18.9	16.5	.3	
AREA=	14.5	41.6	23.3	34.6	1.5	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.26

STA=	247.	252.	278.	304.	338.	350.
PER Q=	.1	69.8	20.5	9.1	.4	
AREA=	.6	58.2	30.0	20.5	2.1	
VEL=	.4	3.4	2.0	1.3	.6	

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*SECNO 112.410

      ***FOOTBRIDGE

    112.41      4.24    694.64      0.00      0.00    694.79      .14       .39       .00    694.40
      285.        0.      200.       85.        1.       58.       51.        8.        8.     693.20
       .30        .44     3.46      1.64       .070     .060      .070      .056    690.40    247.24
   .007242        55.       55.       55.         1         0         0      0.00    102.03    349.27

 FLOW DISTRIBUTION FOR SECNO=     112.41          CWSEL=     694.64

 STA=      247.      252.      278.      304.      338.      349.
   PER Q=     .1      70.2      20.4       8.9       .4
    AREA=     .6      57.8      29.6      20.0      1.9
     VEL=     .4       3.5       2.0       1.3       .6

 *SECNO 112.420

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40

    112.42      4.28    694.68      0.00      0.00    694.80      .12       .01       .00    694.40
      285.        0.      164.       120.       1.       52.       54.        8.        8.     693.20
       .30        .64     3.19      2.21       .070     .060      .070      .056    690.40    246.47
   .012567         1.        1.        1.         2         0         0     -7.20    104.08    350.55

 FLOW DISTRIBUTION FOR SECNO=     112.42          CWSEL=     694.68

 STA=      246.      252.      278.      304.      338.      351.
   PER Q=     .2      57.7      28.5      13.0       .6
    AREA=     .8      51.6      30.6      21.3      2.4
     VEL=     .6       3.2       2.7       1.7       .8

 *SECNO 112.430
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      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


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40

    112.43      4.39    694.79      0.00      0.00    694.89      .10       .09       .00    694.40
      285.        1.      156.       128.       2.       55.       63.        8.        8.     693.20
       .30        .69     2.87      2.04       .070     .060      .070      .056    690.40    244.20
   .009439         8.        8.        8.         2         0         0     -7.20    110.13    354.33

 FLOW DISTRIBUTION FOR SECNO=     112.43          CWSEL=     694.79

 STA=      244.      252.      278.      304.      338.      354.
   PER Q=     .4      54.9      28.8      14.9       1.1
    AREA=    1.5      54.5      33.5      25.2       4.0
     VEL=     .7       2.9       2.4       1.7       .8

 *SECNO 112.440
    112.44      4.39    694.79      0.00      0.00    694.90      .11       .01       .00    694.40
      285.        1.      189.       95.        2.       62.       64.        8.        8.     693.20
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     .30      .52     3.04     1.50     .070     .060     .070     .056   690.40   243.98
  .005089       1.       1.       1.        0        0        0     0.00   110.71   354.69

FLOW DISTRIBUTION FOR SECNO=     112.44          CWSEL=     694.79

STA=      244.      252.      278.      304.      338.      355.
  PER Q=        .3      66.2      21.4      11.2        .9
   AREA=       1.6      62.0      33.8      25.5       4.2
    VEL=        .5       3.0       1.8       1.3        .6

*SECNO 112.500
   112.50      4.28    694.98      0.00      0.00    695.11       .13       .20       .01    694.70
     285.        0.      197.       87.        1.       59.       54.        8.        8.    693.50
      .31       .46      3.36      1.61      .070      .060      .070      .056    690.70    246.50
  .006668       35.       35.       35.         2         0         0     0.00    104.01    350.51

FLOW DISTRIBUTION FOR SECNO=     112.50          CWSEL=     694.98

STA=      246.      252.      278.      304.      338.      351.
  PER Q=        .1      69.3      20.7       9.5        .5
   AREA=        .8      58.8      30.6      21.3       2.3
    VEL=        .5       3.4       1.9       1.3        .6

*SECNO 113.200
   113.20      4.28    697.28      0.00      0.00    697.41       .13      2.30       .00    697.00
     285.        0.      197.       87.        1.       59.       54.        9.        8.    695.80
      .34       .46      3.36      1.61      .070      .060      .070      .057    693.00    246.52
  .006686      345.      345.      345.         3         0         0     0.00    103.95    350.47

FLOW DISTRIBUTION FOR SECNO=     113.20          CWSEL=     697.28

STA=      247.      252.      278.      304.      338.      350.
  PER Q=        .1      69.3      20.7       9.4        .5
   AREA=        .8      58.7      30.5      21.2       2.3
    VEL=        .5       3.4       1.9       1.3        .6

CCHV=     .400 CEHV=     .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

        ***D/S M-53

   113.28      5.14    698.44      0.00      0.00    699.09       .65      1.26       .41    698.80
     285.        0.      285.        0.        0.       44.        0.        9.        9.    698.80
      .35      0.00      6.48      0.00      .065      .055      .065      .057    693.30      7.51
  .017682      123.      123.      123.         2         0         0     0.00      9.98     17.49

FLOW DISTRIBUTION FOR SECNO=     113.28          CWSEL=     698.44

STA=        8.       18.
  PER Q=     100.0
   AREA=      44.0
    VEL=       6.5

CCHV=     .500 CEHV=    1.000
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*SECNO 113.290
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG         HV        HL       OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH        AROB      VOL      TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH       XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC        ICONT     CORAR    TOPWID     ENDST

    113.29      5.51    698.81      0.00      0.00    699.22       .41       .01       .12    699.50
    285.           0.      285.        0.        0.       56.        0.        9.        9.    699.50
     .35         0.00      5.12      0.00      .065      .030      .065      .057    693.30       .01
  .002923          1.        1.        1.         2         0         0      0.00     10.18     10.19

 FLOW DISTRIBUTION FOR SECNO=    113.29          CWSEL=    698.81

 STA=        0.       10.
   PER Q=  100.0
    AREA=   55.6
     VEL=    5.1

*SECNO 113.300
    113.30      5.48    698.88      0.00      0.00    699.30       .41       .07       .01    699.60
    285.           0.      285.        0.        0.       55.        0.        9.        9.    699.60
     .35         0.00      5.16      0.00      .065      .030      .065      .056    693.40       .01
  .002980          25.       25.       25.         2         0         0      0.00     10.18     10.19

 FLOW DISTRIBUTION FOR SECNO=    113.30          CWSEL=    698.88

 STA=        0.       10.
   PER Q=  100.0
    AREA=   55.2
     VEL=    5.2

*SECNO 113.310

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.31      5.46    698.96      0.00      0.00    699.37       .42       .07       .00    699.70
    285.           0.      285.        0.        0.       55.        0.        9.        9.    699.70
     .35         0.00      5.18      0.00      .065      .030      .065      .056    693.50       .01
  .003007          25.       25.       25.         0         0         0      0.00     10.18     10.19

 FLOW DISTRIBUTION FOR SECNO=    113.31          CWSEL=    698.96

 STA=        0.       10.
   PER Q=  100.0
    AREA=   55.0
     VEL=    5.2

*SECNO 113.330

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.33      5.45    699.35      0.00      0.00    699.77       .42       .40       .00    700.10
    295.           0.      285.        0.        0.       55.        0.       10.        9.    700.10
     .36         0.00      5.18      0.00      .065      .030      .065      .055    693.90       .01
  .003013         132.      132.      132.         0         0         0      0.00     10.18     10.19
```

FLOW DISTRIBUTION FOR SECNO= 113.33 CWSEL= 699.35

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.42 CWSEL= 699.36

STA= 0. 10.
PER Q= 100.0
AREA= 55.1
VEL= 5.2

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .60 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
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

FLOW DISTRIBUTION FOR SECNO= 113.80 CWSEL= 700.70

STA= 140. 160. 186.
PER Q= 90.9 9.1
AREA= 58.4 16.8
VEL= 4.4 1.5

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

FLOW DISTRIBUTION FOR SECNO= 113.81 CWSEL= 701.12

STA= 140. 160. 186.
PER Q= 92.3 7.7
AREA= 56.8 14.7

```
 VEL=      4.6      1.5

*SECNO 113.820
3280 CROSS SECTION    113.82 EXTENDED       .47 FEET

    113.82     6.16   702.06     0.00     0.00   702.39      .33      .96      .01   702.20
       285.       0.      266.      19.       0.      56.      13.      10.       9.   701.50
       .37     0.00     4.76     1.45     .065     .055     .065     .055   695.90   140.40
   .009973      100.      100.      100.        2        0        0     0.00    45.60   186.00

 FLOW DISTRIBUTION FOR SECNO=   113.82        CWSEL=    702.06

 STA=     140.     160.     186.
   PER Q=    93.2      6.8
    AREA=    55.8     13.4
     VEL=     4.8      1.4

*SECNO 113.830
3280 CROSS SECTION    113.83 EXTENDED       .46 FEET

    113.83     6.16   703.56     0.00     0.00   703.89      .33     1.50      .00   703.70
       285.       0.      266.      19.       0.      56.      13.      10.       9.   703.00
       .39     0.00     4.76     1.45     .065     .055     .065     .055   697.40   140.41
   .010006      150.      150.      150.        2        0        0     0.00    45.59   186.00

 FLOW DISTRIBUTION FOR SECNO=    113.83        CWSEL=    703.56

 STA=     140.     160.     186.
   PER Q=    93.2      6.8
    AREA=    55.8     13.3
     VEL=     4.8      1.4

*SECNO 113.900
3280 CROSS SECTION    113.90 EXTENDED       .46 FEET

    113.90     6.17   705.57     0.00     0.00   705.90      .33     2.00      .00   705.70
       285.       0.      266.      19.       0.      56.      13.      11.       9.   705.00
       .40     0.00     4.77     1.45     .065     .055     .065     .055   699.40   140.41
   .010038      200.      200.      200.        0        0        0     0.00    45.59   186.00

 FLOW DISTRIBUTION FOR SECNO=   113.90        CWSEL=    705.57

 STA=     140.     160.     186.
   PER Q=    93.3      6.7
    AREA=    55.7     13.3
     VEL=     4.8      1.4

*SECNO 113.910
3280 CROSS SECTION    113.91 EXTENDED       .47 FEET

    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    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      XLCBR     ITRIAL     ICC       ICONT     CORAR    TOPWID     ENDST
```

113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.0C	7C7.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.0C

FLOW DISTRIBUTION FOR SECNO= 113.91 CWSEL= 707.56

STA=	140.	160.	186.
PER Q=	93.1	6.9	
AREA=	55.9	13.5	
VEL=	4.7	1.5	

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.92 CWSEL= 708.05

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	9.6	10.6	8.1	5.0	5.3	8.1	8.1	5.3	5.0	17.2	8.1	9.6	
AREA=	17.2	13.0	8.5	4.9	5.7	6.3	6.3	5.7	4.9	20.7	14.4	22.6	
VEL=	1.6	2.3	2.7	2.9	2.7	3.7	3.7	2.7	2.9	2.4	1.6	1.2	

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

Appears that correct n values have been used, the output is not what is happening.

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.93 CWSEL= 708.53

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	6.7	10.7	9.7	6.4	7.2	11.3	11.3	7.2	6.4	18.1	3.8	1.2	
AREA=	9.1	8.9	6.5	3.9	4.7	5.2	5.2	4.7	3.9	14.6	6.3	4.3	
VEL=	2.1	3.4	4.3	4.7	4.4	6.2	6.2	4.4	4.7	3.5	1.7	.8	

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

FLOW DISTRIBUTION FOR SECNO= 114.00 CWSEL= 709.81

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	223.
PER Q=	5.6	10.4	10.0	6.7	7.7	12.2	12.2	7.7	6.7	17.9	2.7	
AREA=	7.3	8.1	6.0	3.7	4.5	5.0	5.0	4.5	3.7	13.3	5.2	
VEL=	2.2	3.7	4.7	5.2	4.9	7.0	7.0	4.9	5.2	3.8	1.5	

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

FLOW DISTRIBUTION FOR SECNO= 114.01 CWSEL= 710.37

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.6	10.1	10.1	6.9	8.1	12.9	12.9	8.1	6.9	17.6	1.8	
AREA=	6.1	7.5	5.7	3.5	4.3	4.9	4.9	4.3	3.5	12.4	3.3	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

FLOW DISTRIBUTION FOR SECNO= 114.02 CWSEL= 711.68

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.7	10.1	10.1	6.9	8.1	12.8	12.8	8.1	6.9	17.6	1.8	
AREA=	6.2	7.5	5.8	3.5	4.3	4.9	4.9	4.3	3.5	12.5	3.4	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 EEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

FLOW DISTRIBUTION FOR SECNO= 114.03 CWSEL= 714.34

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	211.
PER Q=	4.4	10.0	10.2	7.0	8.2	13.0	13.0	8.2	7.0	17.5	1.6	
AREA=	5.9	7.3	5.7	3.5	4.3	4.8	4.8	4.3	3.5	12.2	3.1	
VEL=	2.1	3.9	5.1	5.7	5.4	7.7	7.7	5.4	5.7	4.1	1.5	

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

FLOW DISTRIBUTION FOR SECNO= 114.05 CWSEL= 717.05

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.5	10.1	10.1	7.0	8.1	12.9	12.9	8.1	7.0	17.6	1.7	
AREA=	6.0	7.4	5.7	3.5	4.3	4.9	4.9	4.3	3.5	12.3	3.2	
VEL=	2.1	3.9	5.1	5.7	5.4	7.6	7.6	5.4	5.7	4.1	1.5	

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.85	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

FLOW DISTRIBUTION FOR SECNO= 114.07 CWSEL= 719.75

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	211.
PER Q=	4.4	10.1	10.2	7.0	8.1	13.0	13.0	8.1	7.0	17.5	1.6	
AREA=	5.9	7.4	5.7	3.5	4.3	4.8	4.8	4.3	3.5	12.2	3.1	
VEL=	2.1	3.9	5.1	5.7	5.4	7.6	7.6	5.4	5.7	4.1	1.5	

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80
285.	0.	0.	285.	0.	0.	61.	13.	11.	720.80
.48	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012726	100.	100.	100.	1	0	0	0.00	33.93	211.93

FLOW DISTRIBUTION FOR SECNO= 114.09 CWSEL= 721.09

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.8	10.2	10.1	6.9	8.0	12.8	12.8	8.0	6.9	17.7	1.9	
AREA=	6.3	7.6	5.8	3.5	4.3	4.9	4.9	4.3	3.5	12.6	3.5	
VEL=	2.1	3.8	5.0	5.6	5.3	7.4	7.4	5.3	5.6	4.0	1.5	

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.00 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	ICC	ICONT	CORAR	TOPWID	ENDST

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     115.20      4.70    721.60      0.00      0.00    721.67       .07       .23       .03    719.60
       285.       80.      172.       33.       48.       69.       23.       13.       11.    719.70
        .49      1.66      2.51      1.47      .065      .055      .065      .055    716.90    146.00
   .002285       50.       50.       50.         2         0         0      0.00     61.00    207.00

 FLOW DISTRIBUTION FOR SECNO=     115.20          CWSEL=     721.60

 STA=      146.      152.      170.      194.      207.
  PER Q=     6.0      21.9      60.4      11.7
  AREA=     12.0      36.0      68.6      22.7
   VEL=      1.4       1.7       2.5       1.5

 CCHV=     .400 CEHV=     .800
 *SECNO 115.280
        ***D/S VAN DYKE RD

     115.28      5.13    721.93      0.00      0.00    722.16       .23       .36       .12    723.00
       285.        0.      285.        0.        0.       74.        0.       13.       11.    723.00
        .50      0.00      3.84      0.00      .065      .055      .065      .055    716.80      9.60
   .004416       116.      116.      116.         2         0         0      0.00     15.75     25.35

 FLOW DISTRIBUTION FOR SECNO=     115.28          CWSEL=     721.93

 STA=       10.       26.
  PER Q=    100.0
  AREA=      74.2
   VEL=       3.8

 CCHV=     .500 CEHV=    1.000
 *SECNO 115.320

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  725.90 MAX ELLC=  723.00

     115.32      5.13    721.93      0.00      0.00    722.16       .23       .00       .00    723.00
       285.        0.      285.        0.        0.       74.        0.       13.       11.    723.00
        .50      0.00      3.84      0.00      .065      .030      .065      .055    716.80      9.60
   .001310         1.        1.        1.         0         0         0      0.00     15.75     25.35

 FLOW DISTRIBUTION FOR SECNO=     115.32          CWSEL=     721.93

 STA=       10.       26.
  PER Q=    100.0
  AREA=      74.3
   VEL=       3.8

 *SECNO 115.380

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  725.90 MAX ELLC=  723.00

     115.38      5.20    722.00      0.00      0.00    722.22       .22       .06       .00    722.00
       285.        0.      285.        0.        0.       75.        0.       13.       11.    723.00
        .50      0.00      3.78      0.00      .065      .030      .065      .055    716.80      9.59
   .001260        45.       45.       45.         2         0         0      0.00     15.77     25.36

 FLOW DISTRIBUTION FOR SECNO=     115.38          CWSEL=     722.00
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 STA=      10.       26.
   PER Q=    100.0
    AREA=     75.3
     VEL=      3.8

 *SECNO 115.420
    115.42      5.20    722.00      0.00      0.00    722.22       .22       .00       .00    723.00
      285.        0.       285.        0.        0.       75.        0.       13.       11.    723.00
       .50       0.00      3.78      0.00      .065      .055      .065      .055    716.80      9.59
  .004231          1.        1.        1.         0         0         0      0.00     15.77     25.36

 FLOW DISTRIBUTION FOR SECNO=     115.42          CWSEL=    722.00

 STA=      10.       26.
   PER Q=    100.0
    AREA=     75.4
     VEL=      3.8

 CCHV=     .400 CEHV=     .800
 *SECND 115.500
 3280 CROSS SECTION    115.50 EXTENDED       .89 FEET

     SECNO     DEPTH     CWSEL     CRTWS     WSELK     EG        HV        HL        OLOSS    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    ICC       ICONT     CORAR     TOPWID      ENDST
   115.50      4.69    722.09      0.00      0.00    722.31       .22       .09       .00    721.20
      285.        7.       228.       50.        6.       56.       26.       13.       11.    720.80
       .50       1.14      4.10      1.92      .065      .055      .065      .055    717.40    194.00
  .006594         17.       17.       17.         2         0         0      0.00     56.00    250.00

 FLOW DISTRIBUTION FOR SECNO=     115.50          CWSEL=    722.09

 STA=      194.      206.      226.      250.
   PER Q=      2.3      80.1      17.5
    AREA=      5.8      55.8      26.1
     VEL=      1.1       4.1       1.9

 *SECNO 115.510
 3280 CROSS SECTION     115.51 EXTENDED       1.13 FEET

   115.51      4.93    722.33      0.00      0.00    722.49       .16       .16       .02    721.20
      285.       11.       217.       57.        9.       61.       32.       13.       11.    720.80
       .51       1.22      3.58      1.80      .065      .055      .065      .055    717.40    194.00
  .004523         29.       29.       29.         2         0         0      0.00     56.00    250.00

 FLOW DISTRIBUTION FOR SECNO=     115.51          CWSEL=    722.33

 STA=      194.      206.      226.      250.
   PER Q=      3.7      76.2      20.1
    AREA=      8.7      60.6      31.8
     VEL=      1.2       3.6       1.8
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 *SECNO 115.580
 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  731.90 MAX ELLC=  728.70

          ***RAILROAD BRIDGE

    115.58     3.86   722.26     0.00     0.00   722.78      .52      .01      .28   728.90
    285.        0.     285.        0.       0.     49.        0.      13.      11.    729.00
     .51       0.00    5.77      0.00      .065    .030      .065     .055   718.40   190.55
 .009989         1.      1.        1.        2       0         0     0.00    28.52   221.00

 FLOW DISTRIBUTION FOR SECNO=  115.58      CWSEL=  722.26

 STA=   191.    233.
   PER Q=   100.0
    AREA=    49.4
     VEL=     5.8

 *SECNO 116.020
 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  731.90 MAX ELLC=  728.70

    116.02     4.27   722.67     0.00     0.00   723.00      .33      .15      .07   728.90
    285.        0.     285.        0.       0.     62.        0.      13.      11.    729.00
     .51       0.00    4.61      0.00      .065    .030      .065     .055   718.40   187.10
 .005771        20.     20.       20.        3       0         0     0.00    32.45   222.45

 FLOW DISTRIBUTION FOR SECNO=  116.02      CWSEL=  722.67

 STA=   187.    233.
   PER Q=   100.0
    AREA=    61.8
     VEL=     4.6

 *SECNO 116.080
    116.08     4.22   722.62     0.00     0.00   723.25      .63      .01      .24   728.30
    285.        0.     285.        0.       0.     45.        0.      13.      11.    728.70
     .51       0.00    6.36      0.00      .065    .055      .065     .055   718.40   194.66
 .021751         1.      1.        1.        2       0         0     0.00    18.72   213.39

 FLOW DISTRIBUTION FOR SECNO=  116.08      CWSEL=  722.62

 STA=   195.    218.
   PER Q=   100.0
    AREA=    44.8
     VEL=     6.4

 CCHV=   .100 CEHV=   .300
 *SECNO 116.800
    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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008737	49.	49.	49.	2	0	0	0.00	21.51	213.78

FLOW DISTRIBUTION FOR SECNO= 116.80 CWSEL= 723.60

STA= 192. 218.
PER Q= 100.0
AREA= 62.4
VEL= 4.6

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.52	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000648	50.	50.	50.	2	0	0	0.00	123.99	272.00

FLOW DISTRIBUTION FOR SECNO= 116.81 CWSEL= 724.01

STA=	148.	176.	200.	212.	224.	240.	272.
PER Q=	4.4	18.4	14.5	27.9	16.2	18.6	
AREA=	23.9	53.1	34.9	48.3	41.8	61.1	
VEL=	.5	1.0	1.2	1.6	1.1	.9	

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.98	1.46	.065	.055	.065	.055	720.10	163.74
.003036	60.	60.	60.	2	0	0	0.00	108.26	272.00

FLOW DISTRIBUTION FOR SECNO= 116.82 CWSEL= 724.05

STA=	164.	176.	200.	212.	224.	240.	272.
PER Q=	1.1	15.4	16.1	38.4	16.3	12.8	
AREA=	4.6	30.0	23.4	36.7	26.4	30.4	
VEL=	.7	1.5	2.0	3.0	1.8	1.2	

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.53	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.45
.020199	50.	50.	50.	0	19	0	0.00	84.14	261.59

FLOW DISTRIBUTION FOR SECNO= 116.83 CWSEL= 724.13

STA=	177.	200.	212.	224.	240.	262.

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    PER Q=      7.3      17.0      59.3      13.6       2.8
     AREA=     10.6      13.7      27.0      13.4       5.8
      VEL=      2.0       3.5       6.3       2.9       1.4

 *SECNO 116.840
   116.84      3.29    725.09      0.00      0.00    725.38       .29       .83       .01    723.60
      285.       75.       156.       54.       29.       29.       25.       14.       11.     723.80
      .54      2.56      5.41      2.16      .065      .055      .065      .055    721.80    174.66
  .013944       50.       50.       50.         2         0         0      0.00     92.63    267.29


 FLOW DISTRIBUTION FOR SECNO=    116.84          CWSEL=    725.09

 STA=     175.      200.      212.      224.      240.      267.
   PER Q=     9.2      17.2      54.6      14.7       4.3
    AREA=    14.0      15.4      28.7      15.7       9.3
     VEL=     1.9       3.2       5.4       2.7       1.3

 *SECNO 116.860
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    LOC       ICONT     CORAR     TOPWID      ENDST

   116.86      3.14    726.34    726.33      0.00    726.74       .40      1.32       .03    725.00
      285.       69.       169.       47.       24.       27.       19.       14.       11.     725.20
      .54      2.84      6.22      2.42      .065      .055      .065      .055    723.20    177.34
  .019954       80.       80.       80.         2        12         0      0.00     84.44    261.77


 FLOW DISTRIBUTION FOR SECNO=    116.86          CWSEL=    726.34

 STA=     177.      200.      212.      224.      240.      262.
   PER Q=     7.3      17.0      59.1      13.7       2.8
    AREA=    10.7      13.7      27.1      13.5       5.9
     VEL=     2.0       3.5       6.2       2.9       1.4

 *SECNO 117.200
   117.20      3.24    727.84      0.00      0.00    728.16       .32      1.41       .01    726.40
      285.       73.       160.       52.       28.       28.       23.       14.       12.     726.60
      .55      2.64      5.67      2.25      .065      .055      .065      .055    724.60    175.41
  .015708       80.       80.       80.         2         0         0      0.00     90.05    265.45


 FLOW DISTRIBUTION FOR SECNO=    117.20          CWSEL=    727.84

 STA=     175.      200.      212.      224.      240.      265.
   PER Q=     8.5      17.2      56.1      14.4       3.8
    AREA=    12.9      14.8      28.2      15.0       8.1
     VEL=     1.9       3.3       5.7       2.7       1.3

 *SECNO 117.210
 3280 CROSS SECTION    117.21 EXTENDED        .25 FEET


          ***CAMPGROUND RD.

   117.21      3.65    728.85      0.00      0.00    728.98       .13       .80       .02    727.00
      285.       87.       126.       72.       44.       33.       42.       15.       12.     727.20
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      .56      1.96      3.81      1.71      .065      .055      .065      .055    725.20    168.66
   .005707      90.       90.       90.         3         0         0      0.00    103.34    272.00

 FLOW DISTRIBUTION FOR SECNO=   117.21        CWSEL=   728.85

 STA=     169.     176.     200.     212.     224.     240.     272.
   PER Q=    .4     13.3     16.7     44.3     16.0      9.4
    AREA=   1.6     22.8     19.8     33.1     21.6     20.8
     VEL=    .6      1.7      2.4      3.8      2.1      1.3

 SPECIAL BRIDGE

 SB   XK        XKOR      COEQ      RDLEN      BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      1.66      2.90    100.00      4.00      0.00      12.60     0.00    725.20    725.20

 *SECNO 117.790
 3280 CROSS SECTION    117.79 EXTENDED     3.53 FEET

 PRESSURE AND WEIR FLOW

  EGPRS      EGLWC       H3       QWEIR     QPR       BAREA    TRAPEZOID     ELLC      ELTRD
                                                               AREA
    742.04    729.74     0.00      128.      158.      13.       16.        729.20    732.30

     117.79     7.63   732.83      0.00      0.00    732.88       .05      3.90      0.00    780.00
       285.       0.       0.       285.       0.       0.      163.       15.       12.    780.00
        .56      0.00     0.00      1.75      .065     .055      .065      .055    725.20     95.00
   .000792       30.      30.       30.         2        0         6      0.00     32.00    127.00

 FLOW DISTRIBUTION FOR SECNO=    117.79          CWSEL=    732.83

 STA=      95.     100.     105.     108.     109.     112.     113.     117.     127.
   PER Q=    9.1     18.9     13.3      5.2     20.0      3.2     12.6     17.7
    AREA=   21.9     27.2     18.5      7.2     22.9      6.7     19.9     38.8
     VEL=    1.2      2.0      2.0      2.0      2.5      1.4      1.8      1.3

 *SECNO 117.800
 3280 CROSS SECTION    117.80 EXTENDED      2.97 FEET

     117.80     7.07   732.87      0.00      0.00    732.93       .06       .05       .00    730.00
       285.       0.       0.       285.       0.       0.      145.       15.       12.    730.00
        .57      0.00     0.00      1.96      .065     .055      .065      .055    725.80     95.00
   .001124       50.      50.       50.         2        0         0      0.00     32.00    127.00

 FLOW DISTRIBUTION FOR SECNO=   117.80        CWSEL=   732.87

 STA=      95.     100.     105.     108.     109.     112.     113.     117.     127.
   PER Q=    9.0     18.8     13.5      5.4     21.0      3.3     12.3     16.7
    AREA=   19.1     24.3     16.9      6.7     21.2      6.1     17.7     33.2
     VEL=    1.3      2.2      2.3      2.3      2.8      1.5      2.0      1.4
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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     C        WSEL      FQ

     -1.       6.       0.       0.  0.000000     0.00     -1.0      0.   674.120     0.000

J2  NPROF     IPLOT    PREVS    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 2

CCHV=    .100 CEHV=    .300
*SECNO 110.100
 2800 NAT Q1=      64.04  WSEL=    674.12  ENC Q1=      64.04  WSEL=    674.22  RATIO=    .0000
 NAT Q1=     71.  RATIOS LOB,CH,ROB=   .1014   .5352   .3634  WSEL=    674.22
   SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG        HV        HL       OLOSS   BANK ELEV
   Q        QLOB     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=     104.2     190.9  TYPE=     4  TARGET=        .099
   110.10     5.02   674.12     0.00   674.12   674.17     .05      0.00     0.00   673.30
      170.       9.      105.      56.      14.      48.      65.       0.       0.   672.80
     0.00      .64     2.19      .87     .055     .040     .055    0.000   669.10   104.25
  .000835       0.       0.       0.        0        0        0     0.00    86.65   190.89


FLOW DISTRIBUTION FOR SECNO=    110.10          CWSEL=    674.12

STA=     104.     114.     122.     136.     154.     180.     191.
  PER Q=     2.5      2.6     61.6     12.3     15.5      5.4
   AREA=     7.0      6.6     47.8     22.9     30.4     11.8
    VEL=      .6       .7      2.2       .9       .9       .8

*SECNO 110.150
 2800 NAT Q1=      37.68  WSEL=    674.18  ENC Q1=      37.68  WSEL=    674.28  RATIO=    .0000
 NAT Q1=     42.  RATIOS LOB,CH,ROB=   .0262   .7072   .2667  WSEL=    674.28

3470 ENCROACHMENT STATIONS=     122.0     177.6  TYPE=     4  TARGET=        .100
   110.15     4.54   674.19     0.00   674.18   674.33     .14      .13      .03   673.85
      170.       0.      137.      33.       0.      41.      31.       0.       0.   673.35
      .01     0.00     3.34     1.08     .055     .040     .055     .040   669.65   122.00
  .002454      100.      100.      100.        2        0        0     0.00    55.57   177.57


FLOW DISTRIBUTION FOR SECNO=    110.15          CWSEL=    674.19

STA=     122.     136.     154.     178.
  PER Q=     80.6      9.5      9.9
   AREA=     41.0     14.2     16.3
    VEL=      3.3      1.1      1.0

*SECNO 110.200
 2800 NAT Q1=      22.13  WSEL=    674.34  ENC Q1=      23.46  WSEL=    674.44  RATIO=   -.0600
 NAT Q1=     24.  RATIOS LOB,CH,ROB=   .0003   .9861   .0135  WSEL=    674.44

3470 ENCROACHMENT STATIONS=     122.0     136.0  TYPE=     4  TARGET=        .014
   110.20     4.21   674.41     0.00   674.34   674.75     .34      .36      .06   674.40
      170.       0.      170.       0.       0.      36.       0.       0.       0.   673.90
      .02     0.00     4.66     0.00     .055     .040     .055     .040   670.20   122.00
  .005774      100.      100.      100.        2        0        0     0.00    14.00   136.00


FLOW DISTRIBUTION FOR SECNO=    110.20          CWSEL=    674.41

STA=     122.     136.
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 PER Q=   100.0
  AREA=    36.5
   VEL=     4.7

 CCHV=    .400 CEHV=    .800
 *SECNO 110.280
 2800 NAT Q1=     25.53  WSEL=    674.99  ENC Q1=    26.66  WSEL=    675.09  RATIO=  -.0440
  NAT Q1=     27.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.09

 3470 ENCROACHMENT STATIONS=       2.9      14.0  TYPE=     4  TARGET=       0.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

       ***D/S JEWELL RD

   110.28     4.15   675.05     0.00   674.99   675.34     .29     .57     .02   674.80
    170.       0.     170.       0.      0.      39.       0.      0.      0.    674.80
     .02      0.00    4.34      0.00    .055     .040     .055    .040   670.90   2.90
 .004348      115.    115.      115.       2        0        0    0.00    11.10   14.00

 FLOW DISTRIBUTION FOR SECNO=   110.28   CWSEL=   675.05

 STA=      3.      14.
  PER Q=   100.0
   AREA=    39.2
    VEL=     4.3
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 SPECIAL BRIDGE

 SB  XK       XKOR      COEQ     RDLEN     BWC      BWP      BAREA     SS      ELCHU     ELCHD
      0.00     1.39      2.80     50.00    11.00     0.00     37.00     0.00   670.90    670.90

 *SECNO 110.320

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=   675.504  EGLWC=   675.533  ELLC=   674.800  PCWSE=   675.048  ELTRD=   676.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    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   ICC      ICONT    CORAR    TOPWID     ENDST


 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  676.00 MAX ELLC=  674.80

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

   110.32     4.33   675.23     0.00   675.17   675.57     .33     .19     .03   674.80
    170.       0.     170.       0.      0.      37.       0.      0.      0.    674.80
     .02      0.00    4.64      0.00    .055     .040     .055    .040   670.90   2.90
 .010590       30.     30.       30.       2        0        0   -5.04   11.10   14.00

 FLOW DISTRIBUTION FOR SECNO=   110.32   CWSEL=   675.23

 STA=      3.      14.
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     PER Q=    100.0
      AREA=     36.6
       VEL=      4.6

  *SECNO 110.500
   2800 NAT Q1=      11.83  WSEL=    675.16  ENC Q1=     12.56  WSEL=    675.26  RATIO=  -.0612
   NAT Q1=    13.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.26

  3470 ENCROACHMENT STATIONS=      30.0      42.0  TYPE=     4  TARGET=       0.000
     110.50     3.64   675.34     0.00   675.16   676.11      .77      .20      .35   676.20
      170.       0.     170.       0.      0.       24.        0.       0.       0.    675.80
       .03      0.00     7.04     0.00     .055     .040     .055     .039   671.70    31.38
   .016621       15.      15.      15.        2        0        0     0.00    10.45    41.83


  FLOW DISTRIBUTION FOR SECNO=    110.50          CWSEL=    675.34

  STA=      31.      42.
    PER Q=    100.0
     AREA=     24.1
      VEL=      7.0

  *SECNO 110.580
   2800 NAT Q1=      28.02  WSEL=    676.21  ENC Q1=     29.17  WSEL=    676.31  RATIO=  -.0409
   NAT Q1=     29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

  3301 HV CHANGED MORE THAN HVINS


  3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=       0.000

       ***D/S 27 MILE RD

     110.58     4.19   676.19     0.00   676.21   676.44      .25      .12      .21   676.70
      170.       0.     170.       0.      0.       42.        0.       1.       0.    676.70
       .03      0.00     4.02     0.00     .055     .040     .055     .039   672.00     4.02
   .003729       18.      18.      18.        3        0        0     0.00    12.07    16.08


  FLOW DISTRIBUTION FOR SECNO=    110.58          CWSEL=    676.19

  STA=       4.       16.
    PER Q=    100.0
     AREA=     42.3
      VEL=      4.0

  CCHV=    .500 CEHV=   1.000
  *SECNO 110.590
   2800 NAT Q1=      37.57  WSEL=    676.21  ENC Q1=     38.97  WSEL=    676.31  RATIO=  -.0373
   NAT Q1=     39.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

  3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70


  3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=       0.000
     110.59     4.20   676.20     0.00   676.21   676.45      .25      .00      .00   676.70
      170.       0.     170.       0.      0.       42.        0.       1.       0.    676.70
       .03      0.00     4.02     0.00     .055     .030     .055     .039   672.00     4.02
   .002091        1.       1.       1.        0        0        0     0.00    12.07    16.08
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FLOW DISTRIBUTION FOR SECNO=     110.59          CWSEL=     676.20

STA=        4.       16.
  PER Q=     100.0
   AREA=      42.3
    VEL=       4.0

*SECNO 111.020
 2800 NAT Q1=      38.46  WSEL=     676.27  ENC Q1=      39.85  WSEL=     676.37  RATIO=  -.0362
 NAT Q1=      40.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     676.37

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

3470 ENCROACHMENT STATIONS=        4.0       16.1  TYPE=      4  TARGET=        0.000
   111.02      4.25    676.25      0.00    676.27    676.50       .24       .05       .00    676.70
     170.        0.      170.        0.        0.       43.        0.        1.        0.    676.70
      .03      0.00      3.96      0.00      .055      .030      .055      .039    672.00      4.02
  .002007       23.       23.       23.         1         0         0      0.00     12.07     16.08

FLOW DISTRIBUTION FOR SECNO=     111.02          CWSEL=     676.25

STA=        4.       16.
  PER Q=     100.0
   AREA=      42.9
    VEL=       4.0

*SECNO 111.030
 2800 NAT Q1=      23.03  WSEL=     676.28  ENC Q1=      23.94  WSEL=     676.38  RATIO=  -.0397
 NAT Q1=      24.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     676.38
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    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    ICC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=        4.0       16.1  TYPE=      4  TARGET=        0.000
   111.03      4.26    676.26      0.00    676.28    676.50       .24       .00       .00    676.70
     170.        0.      170.        0.        0.       43.        0.        1.        0.    676.70
      .03      0.00      3.95      0.00      .055      .050      .055      .039    672.00      4.01
  .005529        1.        1.        1.         0         0         0      0.00     12.07     16.08

FLOW DISTRIBUTION FOR SECNO=     111.03          CWSEL=     676.26

STA=        4.       16.
  PER Q=     100.0
   AREA=      43.1
    VEL=       3.9

CCHV=    .400 CEHV=    .800
*SECNO 111.800
 2800 NAT Q1=      40.27  WSEL=     676.52  ENC Q1=      40.27  WSEL=     676.62  RATIO=    .0000
 NAT Q1=      47.  RATIOS LOB,CH,ROB=    .2723    .3226    .4050  WSEL=     676.62
3280 CROSS SECTION     111.80 EXTENDED        .32 FEET

3470 ENCROACHMENT STATIONS=       19.9       98.1  TYPE=      4  TARGET=        .136
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```
 111.80    4.42   676.42    0.00   676.52   676.60     .18     .07     .03   675.20
    285.     62.      118.     105.     27.     27.     42.      1.      0.   675.20
     .03    2.30     4.41     2.48    .055    .050    .055    .039  672.00    19.90
.007946     10.      10.      10.       3       0       0    0.00   78.24    98.14

FLOW DISTRIBUTION FOR SECNO=   111.80        CWSEL=   676.42

STA=      20.     48.     58.     63.     72.     98.
 PER Q=   21.7    41.6     5.8    10.5    20.4
  AREA=   26.9    26.9     6.1    10.9    25.2
   VEL=    2.3     4.4     2.7     2.7     2.3

*SECNO 111.810
 2800 NAT Q1=     46.12  WSEL=   676.80  ENC Q1=     46.12  WSEL=   676.90  RATIO=  0.0000
 NAT Q1=     52.  RATIOS LOB,CH,ROB=   .2789   .3036   .4175  WSEL=   676.90
3280 CROSS SECTION   111.81 EXTENDED      .55 FEET


3470 ENCROACHMENT STATIONS=     16.1    103.6  TYPE=    4  TARGET=      .111
   111.81    4.65   676.85    0.00   676.80   676.95     .10     .33     .03   675.40
      285.     71.      100.     115.     37.     29.     56.      1.      0.   675.40
      .04    1.91     3.42     2.03    .055    .050    .055    .040  672.20    16.12
  .004260     58.      58.      58.       2       0       0    0.00   87.43   103.56


FLOW DISTRIBUTION FOR SECNO=   111.81        CWSEL=   676.85

STA=      16.     48.     58.     63.     72.    104.
 PER Q=   24.7    35.0     5.8    10.4    24.1
  AREA=   36.9    29.2     7.3    13.1    36.2
   VEL=    1.9     3.4     2.3     2.3     1.9

CCHV=    .100 CEHV=    .300
*SECNO 111.820
 2800 NAT Q1=     31.22  WSEL=   676.89  ENC Q1=     31.22  WSEL=   676.99  RATIO=   .0000
 NAT Q1=     36.  RATIOS LOB,CH,ROB=   .2641   .3442   .3917  WSEL=   676.99
3280 CROSS SECTION   111.82 EXTENDED      .45 FEET


3470 ENCROACHMENT STATIONS=     19.6     97.8  TYPE=    4  TARGET=      .126
   111.82    4.54   676.94    0.00   676.89   677.09     .15     .12     .01   675.60
      285.     65.      114.     106.     31.     28.     47.      1.      0.   675.60
      .04    2.09     4.05     2.25    .070    .060    .070    .041  672.40    19.61
  .009029     20.      20.      20.       1       0       0    0.00   78.15    97.76


FLOW DISTRIBUTION FOR SECNO=   111.82        CWSEL=   676.94

STA=      20.     48.     58.     63.     72.     98.
 PER Q=   22.7    40.1     5.8    10.5    20.9
  AREA=   30.9    28.2     6.7    12.1    28.3
   VEL=    2.1     4.0     2.5     2.5     2.1

*SECNO 111.830
 2800 NAT Q1=     34.27  WSEL=   677.67  ENC Q1=     34.27  WSEL=   677.77  RATIO=   .0000
 NAT Q1=     40.  RATIOS LOB,CH,ROB=   .2708   .3249   .4042  WSEL=   677.77
3280 CROSS SECTION   111.83 EXTENDED      .56 FEET
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3470 ENCROACHMENT STATIONS=      19.3      99.6  TYPE=      4  TARGET=        .133
   111.83      4.66    677.76      0.00    677.67    677.88       .12       .79       .00    676.30
      285.       67.       107.      111.       34.       29.       53.       1.        1.     676.30
      .05      1.95      3.65      2.08      .070      .060      .070      .044    673.10     19.27
  .006955       100.      100.      100.         2         0         0      0.00     80.32     99.60

FLOW DISTRIBUTION FOR SECNO=    111.83          CWSEL=    677.76

STA=      19.      48.      58.      63.      72.     100.
  PER Q=     23.6     37.5      5.8     10.5     22.5
    AREA=    34.4     29.3      7.3     13.2     33.0
     VEL=     2.0      3.6      2.3      2.3      1.9

#SECNO 111.840
 2800 NAT Q1=      33.98  WSEL=    678.15  ENC Q1=      33.98  WSEL=    678.25  RATIO=    .0000
 NAT Q1=     39.  RATIOS LOB,CH,ROB=   .2698   .3279   .4023  WSEL=    678.25
3280 CROSS SECTION    111.84 EXTENDED        .55 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=      18.7      99.9  TYPE=      4  TARGET=        .126
      ***FOOTBRIDGE
   111.84      4.65    678.25      0.00    678.15    678.37       .12       .49       .00    676.80
      285.       67.       107.      111.       35.       29.       53.       1.        1.     676.80
      .06      1.95      3.66      2.08      .070      .060      .070      .045    673.60     18.70
  .007037       70.       70.       70.         2         0         0      0.00     81.21     99.92

FLOW DISTRIBUTION FOR SECNO=    111.84          CWSEL=    678.25

STA=      19.      48.      58.      63.      72.     100.
  PER Q=     23.7     37.5      5.8     10.5     22.5
    AREA=    34.6     29.2      7.3     13.1     33.0
     VEL=     1.9      3.7      2.3      2.3      1.9

*SECNO 111.850
 2800 NAT Q1=      16.42  WSEL=    678.14  ENC Q1=      16.42  WSEL=    678.24  RATIO=    .0000
 NAT Q1=     20.  RATIOS LOB,CH,ROB=   .1705   .2016   .6280  WSEL=    678.24
3280 CROSS SECTION    111.85 EXTENDED        .50 FEET


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

3470 ENCROACHMENT STATIONS=      31.1     105.1  TYPE=      4  TARGET=        .158
   111.85      4.60    678.20      0.00    678.14    678.41       .21       .01       .03    676.80
      285.       24.       72.      189.       14.       21.       48.       1.        1.     676.80
      .06      1.70      3.47      3.96      .070      .060      .070      .045    673.60     31.09
  .035841         1.        1.        1.         2         0         0    -22.37     73.97    105.05
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 FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.20

 STA=      31.      48.      58.      63.      72.     105.
  PER Q=    8.5     25.2      1.4     12.7     52.2
  AREA=    14.3     20.7      3.0      9.0     35.7
   VEL=     1.7      3.5      1.4      4.0      4.2

 *SECNO 111.860
  2800 NAT Q1=      19.71  WSEL=    678.25  ENC Q1=      19.71  WSEL=    678.35  RATIO=    .0000
  NAT Q1=    23.  RATIOS LOB,CH,ROB=   .1808   .1826   .6366  WSEL=    678.35
 3280 CROSS SECTION     111.86 EXTENDED        .65 FEET


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

 3470 ENCROACHMENT STATIONS=      30.1     108.5  TYPE=     4  TARGET=         .156
    111.86     4.75   678.35     0.00   678.25   678.50      .15      .08      .01   676.80
     285.      26.      64.     195.      18.      22.      58.       1.       1.   676.80
      .06     1.49     2.88     3.37     .070     .060     .070     .045   673.60    30.12
  .022447        3.       3.       3.       2        0        0   -22.75    78.41   108.54

 FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.35

 STA=      30.      48.      58.      63.      72.     109.
  PER Q=    9.2     22.4      1.7     12.7     54.1
  AREA=    17.6     22.2      3.7     10.3     43.7
   VEL=     1.5      2.9      1.3      3.5      3.5

 *SECNO 111.870
  2800 NAT Q1=      40.38  WSEL=    678.29  ENC Q1=      40.38  WSEL=    678.39  RATIO=    .0000
  NAT Q1=    46.  RATIOS LOB,CH,ROB=   .2798   .2986   .4216  WSEL=    678.39
 3280 CROSS SECTION     111.87 EXTENDED        .74 FEET


 3470 ENCROACHMENT STATIONS=      16.8     104.5  TYPE=     4  TARGET=         .124
    111.87     4.84   678.44     0.00   678.29   678.52      .08      .01      .01   676.80
     285.      72.      95.     118.      42.      31.      66.       1.       1.   676.80
      .06     1.71     3.06     1.79     .070     .060     .070     .045   673.60    16.76
  .004531        1.       1.       1.        2        0        0     0.00    87.76   104.52

 FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.44

 STA=      17.      48.      58.      63.      72.     105.
  PER Q=    25.2     33.4      5.7     10.3     25.4
  AREA=     42.1     31.1      8.2     14.7     43.0
   VEL=     1.7      3.1      2.0      2.0      1.7

 *SECNO 111.900
  2800 NAT Q1=      31.65  WSEL=    679.29  ENC Q1=      31.65  WSEL=    679.39  RATIO=    .0000
  NAT Q1=    36.  RATIOS LOB,CH,ROB=   .2647   .3424   .3929  WSEL=    679.39
 3280 CROSS SECTION     111.90 EXTENDED        .48 FEET


 3470 ENCROACHMENT STATIONS=      19.1      98.4  TYPE=     4  TARGET=         .121
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   111.90     4.58   679.38     0.00   679.29   679.52      .14      .99      .02   678.00
      285.       66.      111.      108.       32.       29.       49.        2.        1.   678.00
      .07     2.04     3.90     2.18     .070     .060     .070     .048   674.80    19.05
  .008259      165.      165.      165.        2        0        0     0.00    79.38    98.43

 FLOW DISTRIBUTION FOR SECNO=   111.90     CWSEL=   679.38

 STA=     19.     48.     58.     63.     72.     98.
   PER Q=    23.2    39.1     5.8    10.5    21.4
    AREA=    32.4    28.5     6.9    12.5    29.8
     VEL=     2.0     3.9     2.4     2.4     2.0

 *SECNO 111.910
  2800 NAT Q1=     19.80  WSEL=   679.86  ENC Q1=     19.80  WSEL=   679.96  RATIO=   .0000
  NAT Q1=     23.  RATIOS LOB,CH,ROB=   .3656   .2498   .3846  WSEL=   679.96
 3280 CROSS SECTION   111.91 EXTENDED     .66 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=     12.4      91.6  TYPE=     4  TARGET=      .153

       ***CONCRETE WEIR
   111.91     3.25   679.95     0.00   679.86   680.17      .21      .62      .02   679.00
      285.       97.      85.      103.       34.       16.       35.        2.        1.   679.00
      .08     2.85     5.16     2.95     .070     .060     .070     .049   676.70    12.37
  .020996      50.      50.      50.        1        0        0     0.00    79.23    91.60

 FLOW DISTRIBUTION FOR SECNO=   111.91     CWSEL=   679.95

 STA=     12.     50.     55.     90.     92.
   PER Q=    34.2    29.7    35.0     1.1
    AREA=    34.2    16.4    33.4     1.5
     VEL=     2.8     5.2     3.0     2.2

 *SECNO 111.920
  2800 NAT Q1=     38.59  WSEL=   680.45  ENC Q1=     38.59  WSEL=   680.55  RATIO=   .0000
  NAT Q1=     44.  RATIOS LOB,CH,ROB=   .2771   .3067   .4162  WSEL=   680.55
 3280 CROSS SECTION   111.92 EXTENDED     .67 FEET

 3470 ENCROACHMENT STATIONS=     16.9     103.7  TYPE=     4  TARGET=      .121
   111.92     4.76   680.56     0.00   680.45   680.65      .09      .47      .01   679.00
      285.       71.      99.      116.       40.       30.       62.        2.        1.   679.00
      .08     1.78     3.25     1.87     .070     .060     .070     .049   675.80    16.85
  .005256      50.      50.      50.        1        0        0     0.00    86.82   103.67

 FLOW DISTRIBUTION FOR SECNO=   111.92     CWSEL=   680.56

 STA=     17.     48.     58.     72.    104.
   PER Q=    24.8    34.6    16.0    24.6
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     AREA=     39.8     30.4     21.9     39.9
      VEL=      1.9      3.2      2.1      1.8

  *SECNO 111.930
   2800 NAT QI=     33.37  WSEL=    680.75  ENC QI=     33.37  WSEL=    680.85  RATIO=   .0000
   NAT QI=     39.  RATIOS LOB,CH,ROB=   .2692   .3295   .4012  WSEL=    680.85
  3280 CROSS SECTION    111.93 EXTENDED       .53 FEET


  3470 ENCROACHMENT STATIONS=     19.7     98.8  TYPE=     4  TARGET=      .135
    111.93     4.64   680.84     0.00   680.75   680.97      .12      .31      .01   679.40
       285.     66.      109.     110.     33.      29.      52.       2.       1.    679.40
       .09     2.00     3.75     2.13     .070     .060     .070     .050   676.20    19.68
   .007449      50.      50.      50.        1        0        0     0.00    79.16    98.83

  FLOW DISTRIBUTION FOR SECNO=    111.93          CWSEL=    680.84

  STA=      20.      48.      58.      72.      99.
    PER Q=    23.3     38.2     16.4     22.1
     AREA=    33.2     29.0     20.1     31.5
      VEL=     2.0      3.8      2.3      2.0

  *SECNO 111.940
   2800 NAT QI=     35.21  WSEL=    681.87  ENC QI=     35.21  WSEL=    681.97  RATIO=  0.0000
   NAT QI=     40.  RATIOS LOB,CH,ROB=   .2716   .3226   .4057  WSEL=    681.97
  3280 CROSS SECTION    111.94 EXTENDED       .58 FEET


  3470 ENCROACHMENT STATIONS=     17.8    101.3  TYPE=     4  TARGET=      .121
    111.94     4.68   681.98     0.00   681.87   682.09      .11     1.12      .00   680.50
       285.     69.      104.     112.     36.      30.      56.       2.       2.    680.50
       .10     1.89     3.53     2.01     .070     .060     .070     .051   677.30    17.78
   .006442      162.     162.     162.        2        0        0     0.00    83.50   101.28

  FLOW DISTRIBUTION FOR SECNO=    111.94          CWSEL=    681.98

  STA=      18.      48.      58.      72.     101.
    PER Q=    24.1     36.5     16.1     23.2
     AREA=    36.4     29.5     20.8     35.1
      VEL=     1.9      3.5      2.2      1.9

  *SECNO 111.950
   2800 NAT QI=     37.23  WSEL=    683.62  ENC QI=     37.23  WSEL=    683.72  RATIO=   .0000
   NAT QI=     42.  RATIOS LOB,CH,ROB=   .2749   .3131   .4120  WSEL=    683.72
  3280 CROSS SECTION    111.95 EXTENDED       .61 FEET


  3470 ENCROACHMENT STATIONS=     17.1    102.9  TYPE=     4  TARGET=      .119
    111.95     4.72   683.72     0.00   683.62   683.82      .10     1.72      .00   682.20
       285.     70.      101.     114.     38.      30.      59.       3.       2.    682.20
       .14     1.83     3.40     1.94     .070     .060     .070     .053   679.00    17.06
   .005889      280.     280.     280.        3        0        0     0.00    85.80   102.86

  FLOW DISTRIBUTION FOR SECNO=    111.95          CWSEL=    683.72
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STA=      17.      48.      58.      72.     1.03.
  PER Q=    24.5     35.6     16.0     24.0
  AREA=     38.0     29.8     21.2     37.5
   VEL=      1.8      3.4      2.1      1.8

*SECNO 111.970
 2800 NAT Q1=     41.42  WSEL=    683.86  ENC Q1=     41.42  WSEL=    683.96  RATIO=    .0000
 NAT Q1=    46.  RATIOS LOB,CH,RCB=    .0916    .4983    .4101  WSEL=    683.96
3280 CROSS SECTION    111.97 EXTENDED      .96 FEET

    SECNO     DEPTH     CWSEL     CRTWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
    Q         QLOB      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     CCRAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=     199.0     268.4  TYPE=      4  TARGET=        .095
   111.97      4.56    683.96      0.00    683.86    684.09       .13       .26       .01    682.60
     285.       14.       157.      114.        9.       45.       63.        3.        2.    681.70
      .14      1.55      3.48      1.80      .070      .060      .070      .053    679.40    198.96
  .004752       50.       50.       50.         0         0         0      0.00     69.43    268.40

FLOW DISTRIBUTION FOR SECNO=     111.97          CWSEL=     683.96

STA=      199.      206.      220.      235.      268.
  PER Q=     4.9      55.1      20.7      19.4
  AREA=      8.9      45.1      27.1      36.3
   VEL=      1.5       3.5       2.2       1.5

*SECNO 111.980
 2800 NAT Q1=     34.65  WSEL=    684.39  ENC Q1=     34.65  WSEL=    684.49  RATIO=    .0000
 NAT Q1=    39.  RATIOS LOB,CH,ROB=    .0841    .5400    .3759  WSEL=    684.49
3280 CROSS SECTION    111.98 EXTENDED      .78 FEET

3470 ENCROACHMENT STATIONS=     200.6     261.2  TYPE=      4  TARGET=        .102
   111.98      4.39    684.49      0.00    684.39    684.67       .18       .57       .02    683.30
     285.       10.       172.      103.        6.       43.       50.        4.        2.    682.40
      .15      1.68      4.03      2.06      .070      .060      .070      .053    680.10    200.57
  .006886       100.      100.      100.         1         0         0      0.00     60.64    261.22

FLOW DISTRIBUTION FOR SECNO=     111.98          CWSEL=     684.49

STA=      201.      206.      220.      235.      261.
  PER Q=     3.6      60.4      21.0      15.1
  AREA=      6.1      42.7      24.5      25.4
   VEL=      1.7       4.0       2.4       1.7

*SECNO 111.990
 2800 NAT Q1=     33.97  WSEL=    685.77  ENC Q1=     33.97  WSEL=    685.87  RATIO=   0.0000
 NAT Q1=    38.  RATIOS LOB,CH,ROB=    .0829    .5465    .3706  WSEL=    685.87
3280 CROSS SECTION    111.99 EXTENDED      .78 FEET

3470 ENCROACHMENT STATIONS=     200.3     261.0  TYPE=      4  TARGET=        .097
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  111.99     4.37   685.87     0.00   685.77   686.05      .18     1.38      .00   684.70
     285.      11.     172.     102.       6.      43.      50.       4.       3.   683.80
     .17     1.69     4.04     2.06     .070     .060     .070     .054   681.50   200.30
 .006931     200.     200.     200.        1        0        0     0.00    60.69   260.99

FLOW DISTRIBUTION FOR SECNO=     111.99          CWSEL=     685.87

STA=      200.      206.      220.      235.      261.
  PER Q=      3.7      60.4      20.9      14.9
   AREA=      6.3      42.6      24.4      25.1
    VEL=      1.7       4.0       2.4       1.7

*SECNO 112.000
 2800 NAT Q1=      34.17  WSEL=     688.27  ENC Q1=      34.17  WSEL=     688.37  RATIO=    .0000
 NAT Q1=      38.  RATIOS LOB,CH,ROB=    .0832    .5447    .3721  WSEL=     688.37
3280 CROSS SECTION     112.00 EXTENDED        .77 FEET


3470 ENCROACHMENT STATIONS=      200.4      261.1  TYPE=      4  TARGET=        .098
  112.00     4.37   688.37     0.00   688.27   688.55      .18     2.50      .00   687.20
     285.      10.     173.     102.       6.      42.      49.       5.       3.   686.30
     .20     1.70     4.06     2.07     .070     .060     .070     .055   684.00   200.37
 .007036     358.     358.     358.        3        0        0     0.00    60.71   261.07

FLOW DISTRIBUTION FOR SECNO=     112.00          CWSEL=     688.37

STA=      200.      206.      220.      235.      261.
  PER Q=      3.7      60.6      20.9      14.8
   AREA=      6.2      42.5      24.3      24.9
    VEL=      1.7       4.1       2.5       1.7

*SECNO 112.100
 2800 NAT Q1=      34.42  WSEL=     690.38  ENC Q1=      34.42  WSEL=     690.48  RATIO=    .0000
 NAT Q1=      38.  RATIOS LOB,CH,ROB=    .0837    .5423    .3740  WSEL=     690.48
3280 CROSS SECTION     112.10 EXTENDED        .79 FEET


3470 ENCROACHMENT STATIONS=      200.5      261.1  TYPE=      4  TARGET=        .100
  112.10     4.39   690.49     0.00   690.38   690.66      .18     2.11      .00   689.30
     285.      10.     172.     103.       6.      43.      50.       6.       4.   688.40
     .22     1.68     4.02     2.06     .070     .060     .070     .056   686.10   200.47
 .006818     305.     305.     305.        3        0        0     0.00    60.68   261.15

FLOW DISTRIBUTION FOR SECNO=     112.10          CWSEL=     690.49

STA=      200.      206.      220.      235.      261.
  PER Q=      3.7      60.2      21.0      15.1
   AREA=      6.2      42.7      24.6      25.5
    VEL=      1.7       4.0       2.4       1.7

*SECNO 112.200
 2800 NAT Q1=      33.22  WSEL=     692.15  ENC Q1=      33.22  WSEL=     692.25  RATIO=    .0000
 NAT Q1=      37.  RATIOS LOB,CH,ROB=    .0820    .5510    .3670  WSEL=     692.25
3280 CROSS SECTION     112.20 EXTENDED        .75 FEET
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALCB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLCBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


 3470 ENCROACHMENT STATIONS=      200.8      259.7  TYPE=      4  TARGET=          .102
    112.20      4.35    692.25      0.00    692.15    692.44      .19      1.77      .00    691.10
       285.       10.       175.      100.       6.       42.       48.       6.       4.    690.20
        .25      1.71      4.14      2.11      .070      .060      .070      .056   687.90    200.83
    .007366       250.      250.      250.         2         0         0      0.00    58.85    259.68

 FLOW DISTRIBUTION FOR SECNO=     112.20          CWSEL=    692.25

 STA=     201.      206.      220.      235.      260.
   PER Q=      3.4      61.4      21.0      14.2
    AREA=      5.6      42.2      24.0      23.5
     VEL=      1.7       4.1       2.5       1.7

 *SECNO 112.300
  2800 NAT Q1=      35.20  WSEL=    693.91  ENC Q1=     35.20  WSEL=    694.01  RATIO=    .0000
  NAT Q1=      39.  RATIOS LOB,CH,ROB=    .0848    .5365    .3787  WSEL=    694.01
 3280 CROSS SECTION     112.30 EXTENDED        .81 FEET


 3470 ENCROACHMENT STATIONS=      200.3      262.0  TYPE=      4  TARGET=          .100
    112.30      4.40    694.00      0.00    693.91    694.17      .17      1.73      .00    692.80
       285.       11.       170.      104.       6.       43.       52.       7.       4.    691.90
        .27      1.67      3.95      2.02      .070      .060      .070      .056   689.60    200.30
    .006528       250.      250.      250.         2         0         0      0.00    61.71    262.01

 FLOW DISTRIBUTION FOR SECNO=     112.30          CWSEL=    694.00

 STA=     200.      206.      220.      235.      262.
   PER Q=      3.8      59.6      21.0      15.6
    AREA=      6.5      43.0      24.9      26.7
     VEL=      1.7       3.9       2.4       1.7

 *SECNO 112.400
  2800 NAT Q1=      34.06  WSEL=    694.26  ENC Q1=     34.06  WSEL=    694.36  RATIO=    .0000
  NAT Q1=      38.  RATIOS LOB,CH,ROB=    .0022    .6727    .3250  WSEL=    694.36

 3470 ENCROACHMENT STATIONS=      252.0      306.0  TYPE=      4  TARGET=          .106
    112.40      4.36    694.36      0.00    694.26    694.52      .16      .34      .00    694.00
       285.       0.       214.       71.       0.       61.       34.       7.       4.    692.80
        .27      0.00      3.52      2.05      .070      .060      .070      .056   690.00    252.00
    .007162       50.       50.       50.         2         0         0      0.00    53.97    305.97

 FLOW DISTRIBUTION FOR SECNO=     112.40          CWSEL=    694.36

 STA=     252.      278.      304.      306.
   PER Q=     75.2      23.9       .9
    AREA=     60.8      32.6      1.9
     VEL=      3.5       2.1       1.3

 *SECNO 112.410
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 2800 NAT Q1=     33.49  WSEL=    694.64  ENC Q1=     33.49  WSEL=    694.74  RATIO=    .0000
 NAT Q1=      38.  RATIOS LOB,CH,ROB=    .0021    .6754    .3225  WSEL=    694.74

3470 ENCROACHMENT STATIONS=      252.0      304.6  TYPE=      4  TARGET=         .110

        ***FOOTBRIDGE

   112.41      4.35    694.75      0.00    694.64    694.92       .17       .40       .00    694.40
      285.        0.       216.       69.        0.       61.       33.        7.        4.    693.20
      .28      0.00      3.56      2.09      .070      .060      .070      .056    690.40    252.00
  .007313       55.       55.       55.         2         0         0      0.00     52.61    304.61


FLOW DISTRIBUTION FOR SECNO=     112.41          CWSEL=    694.75

STA=      252.      278.      304.      305.
 PER Q=    75.8      24.0        .2
  AREA=    60.7      32.5        .6
   VEL=     3.6       2.1        .9

*SECNO 112.420
 2800 NAT Q1=      25.42  WSEL=    694.68  ENC Q1=      25.42  WSEL=    694.78  RATIO=    .0000
 NAT Q1=      29.  RATIOS LOB,CH,ROB=    .0034    .5518    .4448  WSEL=    694.78

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40


3470 ENCROACHMENT STATIONS=      252.0      310.8  TYPE=      4  TARGET=         .119
   112.42      4.38    694.78      0.00    694.68    694.93       .15       .01       .00    694.40
      285.        0.       178.      107.        0.       54.       40.        7.        4.    693.20
       .28      0.00      3.28      2.70      .070      .060      .070      .056    690.40    252.00
  .012633         1.        1.        1.         2         0         0     -7.20     58.81    310.81


FLOW DISTRIBUTION FOR SECNO=     112.42          CWSEL=    694.78

STA=      252.      278.      304.      311.
 PER Q=    62.5      32.8       4.7
  AREA=    54.3      33.3       6.3
   VEL=     3.3       2.8       2.1

*SECNO 112.430
 2800 NAT Q1=      29.33  WSEL=    694.79  ENC Q1=      29.33  WSEL=    694.89  RATIO=    .0000
 NAT Q1=      33.  RATIOS LOB,CH,ROB=    .0060    .5257    .4683  WSEL=    694.89
3280 CROSS SECTION    112.43 EXTENDED       .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


3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40


3470 ENCROACHMENT STATIONS=      252.0      315.7  TYPE=      4  TARGET=         .113
   112.43      4.50    694.90      0.00    694.79    695.02       .12       .09       .00    694.40
      285.        0.       168.      117.        0.       57.       48.        7.        4.    693.20
       .28      0.00      2.93      2.42      .070      .060      .070      .056    690.40    252.00
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 .009358      8.      8.      8.      2       0       0     7.20    63.67   315.67

FLOW DISTRIBUTION FOR SECNO=    112.43          CWSEL=    694.90

STA=     252.     278.     304.     316.
  PER Q=     59.0     32.9      8.2
   AREA=     57.4     36.4     11.9
    VEL=      2.9      2.6      2.0

*SECNO 112.440
 2800 NAT Q1=     39.95  WSEL=    694.79  ENC Q1=     39.95  WSEL=    694.89  RATIO=   .0000
 NAT Q1=     44.  RATIOS LOB,CH,ROB=   .0046   .6416   .3538  WSEL=    694.89
3280 CROSS SECTION    112.44 EXTENDED       .01 FEET


3470 ENCROACHMENT STATIONS=     252.0     314.8  TYPE=     4  TARGET=        .089
   112.44     4.51   694.91     0.00   694.79   695.02      .12      .01      .00   694.40
     285.       0.     199.      86.       0.      65.      48.       7.       5.    693.20
      .28     0.00     3.08     1.79     .070     .060     .070     .056   690.40   252.00
  .005057       1.       1.       1.        0        0        0     0.00    62.85   314.85

FLOW DISTRIBUTION FOR SECNO=    112.44          CWSEL=    694.91

STA=     252.     278.     304.     315.
  PER Q=     70.0     24.3      5.7
   AREA=     64.8     36.6     11.1
    VEL=      3.1      1.9      1.5

*SECNO 112.500
 2800 NAT Q1=     34.90  WSEL=    694.98  ENC Q1=     34.90  WSEL=    695.08  RATIO=   .0000
 NAT Q1=     39.  RATIOS LOB,CH,ROB=   .0025   .6682   .3293  WSEL=    695.08

3470 ENCROACHMENT STATIONS=     252.0     307.5  TYPE=     4  TARGET=        .102
   112.50     4.38   695.08     0.00   694.98   695.24      .15      .20      .01   694.70
     285.       0.     211.      74.       0.      62.      37.       7.       5.    693.50
      .28     0.00     3.43     1.99     .070     .060     .070     .056   690.70   252.00
  .006654      35.      35.      35.        0        0        0     0.00    55.51   307.51

FLOW DISTRIBUTION FOR SECNO=    112.50          CWSEL=    695.08

STA=     252.     278.     304.     308.
  PER Q=     74.2     24.1      1.7
   AREA=     61.7     33.5      3.4
    VEL=      3.4      2.1      1.4

*SECNO 113.200
 2800 NAT Q1=     34.86  WSEL=    697.28  ENC Q1=     34.86  WSEL=    697.38  RATIO=   .0000
 NAT Q1=     39.  RATIOS LOB,CH,ROB=   .0026   .6674   .3300  WSEL=    697.38

3470 ENCROACHMENT STATIONS=     252.0     306.7  TYPE=     4  TARGET=        .107
   113.20     4.39   697.39     0.00   697.28   697.54      .15     2.31      .00   697.00
     285.       0.     212.      73.       0.      62.      36.       8.       5.    695.80
      .31     0.00     3.44     2.01     .070     .060     .070     .057   693.00   252.00
  .006716     345.     345.     345.        3        0        0     0.00    54.70   306.70

FLOW DISTRIBUTION FOR SECNO=    113.20          CWSEL=    697.39
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 STA=     252.      278.      304.      307.
   PER Q=     74.5      24.2       1.3
    AREA=     61.7      33.5       2.6
     VEL=      3.4       2.1       1.4

 CCHV=    .400  CEHV=    .800
 *SECNO 113.280
  2800 NAT Q1=      21.43  WSEL=    698.44  ENC Q1=      22.09  WSEL=    698.54  RATIO=   -.0308
  NAT Q1=     22.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.54

 3470 ENCROACHMENT STATIONS=       7.5       17.5  TYPE=     4  TARGET=       0.000

         ***D/S M-53

    113.29      5.23    698.53      0.00    698.44    699.16       .63      1.24       .38    698.80
       285.        0.      285.        0.        0.       45.        0.        8.        5.    698.80
       .32       0.00      6.35      0.00      .065      .055      .065      .057    693.30      7.51
   .016754       123.      123.      123.         2         0         0      0.00      9.99     17.49


 FLOW DISTRIBUTION FOR SECNO=    113.28          CWSEL=    698.53

 STA=       8.       18.
   PER Q=    100.0
    AREA=     44.9
     VEL=      6.3

 CCHV=    .500  CEHV=   1.000
 *SECNO 113.290
  2800 NAT Q1=      52.71  WSEL=    698.81  ENC Q1=      53.91  WSEL=    698.91  RATIO=   -.0228
  NAT Q1=     54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.91
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

    113.29      5.58    698.88      0.00    698.81    699.28       .40       .01       .11    699.50
       285.        0.      285.        0.        0.       56.        0.        8.        5.    699.50
       .32       0.00      5.05      0.00      .065      .030      .065      .057    693.30       .01
   .002821         1.        1.        1.         2         0         0      0.00     10.18     10.19

 FLOW DISTRIBUTION FOR SECNO=    113.29          CWSEL=    698.88

 STA=       0.       10.
   PER Q=    100.0
    AREA=     56.4
     VEL=      5.1

 *SECNO 113.300
  2800 NAT Q1=      52.20  WSEL=    698.88  ENC Q1=      53.58  WSEL=    698.98  RATIO=   -.0263
  NAT Q1=     54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    698.98
    113.30      5.55    698.95      0.00    698.88    699.36       .40       .07       .00    699.60
       285.        0.      285.        0.        0.       56.        0.        8.        5.    699.60
       .32       0.00      5.09      0.00      .065      .030      .065      .056    693.40       .01
   .002867        25.       25.       25.         0         0         0      0.00     10.18     10.19

 FLOW DISTRIBUTION FOR SECNO=    113.30          CWSEL=    698.95
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 STA=       0.      10.
  PER Q=   100.0
  AREA=     56.0
   VEL=      5.1

 *SECNO 113.310
  2800 NAT Q1=      51.97  WSEL=     698.96  ENC Q1=      53.26  WSEL=     699.06  RATIO=  -.0247
  NAT Q1=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     699.06

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.31      5.53   699.03      0.00   698.96   699.43      .41      .07      .00   699.70
       285.        0.      285.        0.       0.       56.       0.       8.       5.   699.70
       .32      0.00     5.11      0.00     .065     .030     .065     .056   693.50      .01
   .002906       25.      25.       25.        0        0        0     0.00    10.18    10.19

 FLOW DISTRIBUTION FOR SECNO=   113.31     CWSEL=   699.03

 STA=       0.      10.
  PER Q=   100.0
  AREA=     55.8
   VEL=      5.1

 *SECNO 113.330
  2800 NAT Q1=      51.92  WSEL=     699.35  ENC Q1=      53.22  WSEL=     699.45  RATIO=  -.0250
  NAT Q1=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     699.45

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.33      5.51   699.41      0.00   699.35   699.82      .41      .39      .00   700.10
       285.        0.      285.        0.       0.       56.       0.       8.       5.   700.10
       .33      0.00     5.13      0.00     .065     .030     .065     .055   693.90      .01
   .002932       132.     132.      132.        0        0        0     0.00    10.18    10.19

 FLOW DISTRIBUTION FOR SECNO=   113.33     CWSEL=   699.41

 STA=       0.      10.
  PER Q=   100.0
  AREA=     55.6
   VEL=      5.1

 *SECNO 113.420
  2800 NAT Q1=      28.36  WSEL=     699.36  ENC Q1=      29.07  WSEL=     699.46  RATIO=  -.0253
  NAT Q1=     29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     699.46
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1) COUNTY: Macomb

2) STUDY NAME: Washington Twp Unnamed

3) WATERCOURSE: Trib NO. 1

4) DOCUMENT TYPE: Production Runs



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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    C        WSEL     FQ

     -1.       4.       0.       0.  0.000000    0.00     -1.0      0.   674.120   0.000

J2  NPROF     IPLOT    PREVS    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

     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

NC      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

      ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GP	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
***D/S 27 MILE RD										
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GP	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
***FOOTBRIDGE										
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.970	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000
***CONCRETE WEIR										
X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000
***FOOTBRIDGE										
X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S M-53

X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.900	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.900	0.000	0.000	0.000	0.000	0.000
	***D/S VAN DYKE RD									
X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.600	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	729.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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

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*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 110.100
   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

    110.10      5.02    674.12      0.00    674.12    674.16       .04      0.00      0.00    673.30
       170.       14.       96.       59.       30.       48.       77.       0.        0.     672.80
      0.00       .48      2.01       .77      .055      .040      .055     0.000    669.10     53.87
   .000705        0.        0.        0.         0         0         0      0.00    155.73    209.60

*SECNO 110.150
    110.15      4.53    674.18      0.00      0.00    674.29       .11       .11       .02    673.85
       170.       3.       127.       40.       6.       41.       43.       0.        0.     673.35
       .01       .49      3.09       .94      .055      .040      .055      .040    669.65     92.51
   .002035      100.      100.      100.         1         0         0      0.00    110.63    203.14

*SECNO 110.200
    110.20      4.14    674.34      0.00      0.00    674.69       .35       .32       .07    674.40
       170.       0.       169.       1.        0.       35.       2.        0.        0.     673.90
       .02      0.00      4.78       .74      .055      .040      .055      .040    670.20    122.09
   .005902      100.      100.      100.         1         0         0      0.00     22.42    144.51

CCHV=     .400 CEHV=     .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      678.00 ELREA=      676.00

         ***D/S JEWELL RD

    110.28      4.09    674.99      0.00      0.00    675.29       .30       .59       .02    674.80
       170.       0.       170.       0.        0.       39.       0.        1.        1.     674.80
       .02      0.00      4.41      0.00      .055      .040      .055      .040    670.90      2.90
   .004433       115.      115.      115.         2         0         0      0.00     11.10     14.00


SPECIAL BRIDGE

SB   XK          XKOR        COEQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
       0.00        1.39        2.80       50.00      11.00        0.00       37.00        0.00      670.90      670.90

*SECNO 110.320
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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
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EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.59	4.21	676.21	0.00	0.00	676.46	.25	.13	.26	676.70
170.	0.	170.	0.	0.	42.	0.	1.	1.	676.70
.03	0.00	4.00	0.00	.055	.040	.055	.039	672.00	4.02
.003681	18.	18.	18.	3	0	0	0.00	12.07	16.08

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.21	676.21	0.00	0.00	676.46	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.99	0.00	.055	.030	.055	.039	672.00	4.02
.002047	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.27	676.27	0.00	0.00	676.51	.24	.05	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.92	0.00	.055	.030	.055	.039	672.00	4.01
.001954	23.	23.	23.	0	0	0	0.00	12.07	16.09

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	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
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	C.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60
285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	C.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	C.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.54	678.14	0.00	0.00	678.27	.13	.01	.01	676.80
285.	45.	63.	176.	28.	20.	58.	1.	1.	676.80
.06	1.60	3.13	3.03	.070	.060	.070	.045	673.60	0.00
.030130	1.	1.	1.	1	0	0	-30.80	136.29	136.29

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .55 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.65	678.25	0.00	0.00	678.35	.10	.07	.00	676.80
285.	49.	57.	179.	33.	21.	66.	1.	1.	676.80
.06	1.47	2.69	2.72	.070	.060	.070	.045	673.60	0.00
.020903	3.	3.	3.	2	0	0	-30.80	137.75	137.75

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .58 FEET

111.87	4.69	678.29	0.00	0.00	678.36	.07	.01	.00	676.80
285.	78.	92.	116.	50.	30.	76.	1.	1.	676.80
.06	1.56	3.10	1.53	.070	.060	.070	.045	673.60	0.00
.004980	1.	1.	1.	1	0	0	0.00	138.22	138.22

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .40 FEET

111.90	4.49	679.29	0.00	0.00	679.41	.11	1.03	.01	678.00
285.	73.	105.	107.	41.	28.	62.	2.	2.	678.00
.09	1.77	3.79	1.73	.070	.060	.070	.048	674.80	0.00
.008107	165.	165.	165.	3	0	0	0.00	135.52	135.52

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 FEET

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
	***CONCRETE WEIR								
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58
*SECNO 111.920									
3280 CROSS SECTION	111.92 EXTENDED		.55 FEET						
111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70
*SECNO 111.930									
3280 CROSS SECTION	111.93 EXTENDED		.44 FEET						
111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08
*SECNO 111.940									
3280 CROSS SECTION	111.94 EXTENDED		.48 FEET						
111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66
*SECNO 111.950									
3280 CROSS SECTION	111.95 EXTENDED		.52 FEET						
111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29
*SECNO 111.970									
3280 CROSS SECTION	111.97 EXTENDED		.86 FEET						
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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.99	4.29	694.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007039	200.	200.	200.	2	0	0	0.00	102.78	292.78

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10

285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

*SECNO 112.430

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

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

.30	.52	3.04	1.50	.070	.060	.070	.056	690.40	243.98
.005089	1.	1.	1.	0	0	0	0.00	110.71	354.69

*SECNO 112.500

112.50	4.28	694.98	0.00	0.00	695.11	.13	.20	.01	694.70
285.	0.	197.	87.	1.	59.	54.	8.	8.	693.50
.31	.46	3.36	1.61	.070	.060	.070	.056	690.70	246.50
.006668	35.	35.	35.	2	0	0	0.00	104.01	350.51

*SECNO 113.200

113.20	4.28	697.28	0.00	0.00	697.41	.13	2.30	.00	697.00
285.	0.	197.	87.	1.	59.	54.	9.	8.	695.80
.34	.46	3.36	1.61	.070	.060	.070	.057	693.00	246.52
.006686	345.	345.	345.	3	0	0	0.00	103.95	350.47

CCHV= .400 CEHV= .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.14	698.44	0.00	0.00	699.09	.65	1.26	.41	698.80
285.	0.	285.	0.	0.	44.	0.	9.	9.	698.80
.35	0.00	6.48	0.00	.065	.055	.065	.057	693.30	7.51
.017682	123.	123.	123.	2	0	0	0.00	9.98	17.49

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .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	ICC	ICONT	CORAR	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .47 FEET

113.82	6.16	702.06	0.00	0.00	702.39	.33	.96	.01	702.20
285.	0.	266.	19.	0.	56.	13.	10.	9.	701.50
.37	0.00	4.76	1.45	.065	.055	.065	.055	695.90	140.40
.009973	100.	100.	100.	2	0	0	0.00	45.60	186.00

*SECNO 113.830

3280 CROSS SECTION 113.83 EXTENDED .46 FEET

113.83	6.16	703.56	0.00	0.00	703.89	.33	1.50	.00	703.70

285.	0.	266.	19.	0.	56.	13.	10.	9.	703.00
.38	0.00	4.76	1.45	.065	.055	.065	.055	697.40	140.41
.010006	150.	150.	150.	2	0	0	0.00	45.59	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .46 FEET

113.90	6.17	705.57	0.00	0.00	705.90	.33	2.00	.00	705.70
285.	0.	266.	19.	0.	56.	13.	11.	9.	705.00
.40	0.00	4.77	1.45	.065	.055	.065	.055	699.40	140.41
.010039	200.	200.	200.	0	0	0	0.00	45.59	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .47 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	OLOB	OCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XML	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.91	6.16	707.55	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.95	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80

285.	0.	0.	285.	0.	0.	61.	13.	11.	720.80
.49	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012726	100.	100.	100.	1	0	0	0.00	33.93	211.93

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.00 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCH	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
115.20	4.70	721.60	0.00	0.00	721.67	.07	.23	.03	719.60
285.	80.	172.	33.	48.	69.	23.	13.	11.	719.70
.49	1.66	2.51	1.47	.065	.055	.065	.055	716.90	146.00
.002285	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.13	721.93	0.00	0.00	722.16	.23	.36	.12	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.055	.065	.055	716.80	9.60
.004416	116.	116.	116.	2	0	0	0.00	15.75	25.35

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NPD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.13	721.93	0.00	0.00	722.16	.23	.00	.00	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.030	.065	.055	716.80	9.60
.001310	1.	1.	1.	0	0	0	0.00	15.75	25.35

*SECNO 115.380

3370 NORMAL BRIDGE,NPD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.20	722.00	0.00	0.00	722.22	.22	.06	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.030	.065	.055	716.80	9.59
.001260	45.	45.	45.	2	0	0	0.00	15.77	25.36

*SECNO 115.420

115.42	5.20	722.00	0.00	0.00	722.22	.22	.00	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.055	.065	.055	716.80	9.59
.004231	1.	1.	1.	0	0	0	0.00	15.77	25.36

CCHV= .400 CEHV= .800

*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .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	ICC	ICONT	CORAR	TOPWID	ENDST
115.50	4.69	722.09	0.00	0.00	722.31	.22	.09	.00	721.20
285.	7.	228.	50.	6.	56.	26.	13.	11.	720.80
.50	1.14	4.10	1.92	.065	.055	.065	.055	717.40	194.00
.006594	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED 1.13 FEET

115.51	4.93	722.33	0.00	0.00	722.49	.16	.16	.02	721.20
285.	11.	217.	57.	9.	61.	32.	13.	11.	720.80
.51	1.22	3.58	1.80	.065	.055	.065	.055	717.40	194.00
.004523	29.	29.	29.	2	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.86	722.26	0.00	0.00	722.78	.52	.01	.28	728.90
285.	0.	285.	0.	0.	49.	0.	13.	11.	729.00
.51	0.00	5.77	0.00	.065	.030	.065	.055	718.40	190.55
.009989	1.	1.	1.	2	0	0	0.00	28.52	221.00

*SECND 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.27	722.67	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.61	0.00	.065	.030	.065	.055	718.40	187.10
.005771	20.	20.	20.	3	0	0	0.00	32.45	222.45

*SECNO 116.080

116.08	4.22	722.62	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021751	1.	1.	1.	2	0	0	0.00	18.72	213.39

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 CCHV=     .100 CEHV=     .300
 *SECNO 116.800
    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

     116.80      5.10    723.60      0.00      0.00    723.92       .32       .64       .03    728.40
      285.         0.      285.        0.        0.      62.         0.       13.       11.     728.80
       .51      0.00      4.56      0.00      .065      .055      .065      .055    718.50    192.27
   .008737       49.       49.       49.         2         0         0      0.00     21.51    213.78

 *SECNO 116.810
 3280 CROSS SECTION    116.81 EXTENDED      1.51 FEET

     116.81      4.91    724.01      0.00      0.00    724.03       .02       .08       .03    720.90
      285.       106.      80.        99.       112.      48.       103.       14.       11.     721.10
       .52        .95      1.65       .96       .065      .055      .065      .055    719.10    148.01
   .000649       50.       50.       50.         2         0         0      0.00    123.99    272.00

 *SECNO 116.820
 3280 CROSS SECTION    116.82 EXTENDED       .55 FEET

     116.82      3.95    724.05      0.00      0.00    724.12       .08       .07       .02    721.90
      285.        93.      109.       83.        58.       37.       57.       14.       11.     722.10
       .53       1.60      2.98      1.46       .065      .055      .065      .055    720.10    163.74
   .003036       60.       60.       60.         2         0         0      0.00    108.26    272.00

 *SECNO 116.830
     116.83      3.13    724.13    724.11      0.00    724.54       .41       .32       .10    722.80
      285.        69.      169.       47.        24.       27.       19.       14.       11.     723.00
       .53       2.85      6.25      2.43       .065      .055      .065      .055    721.00    177.45
   .020199       50.       50.       50.         0        19         0      0.00     84.14    261.59

 *SECNO 116.840
     116.84      3.29    725.09      0.00      0.00    725.38       .29       .83       .01    723.60
      285.        75.      156.       54.        29.       29.       25.       14.       11.     723.80
       .54       2.56      5.41      2.16       .065      .055      .065      .055    721.80    174.66
   .013944       50.       50.       50.         2         0         0      0.00     92.63    267.29

 *SECNO 116.860
    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

     116.86      3.14    726.34    726.33      0.00    726.74       .40      1.32       .03    725.00
      285.        69.      169.       47.        24.       27.       19.       14.       11.     725.20
       .54       2.84      6.22      2.42       .065      .055      .065      .055    723.20    177.34
   .019954       80.       80.       80.         2        12         0      0.00     84.44    261.77
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*SECNO 117.200

117.20	3.24	727.84	0.00	0.00	728.16	.32	1.41	.01	726.40
285.	73.	160.	52.	28.	28.	23.	14.	12.	726.60
.55	2.64	5.67	2.25	.065	.055	.065	.055	724.60	175.41
.015709	80.	80.	80.	2	0	0	0.00	90.05	265.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .25 FEET

***CAMPGROUND RD.

117.21	3.65	728.85	0.00	0.00	728.98	.13	.80	.02	727.00
285.	87.	126.	72.	44.	33.	42.	15.	12.	727.20
.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

SPECIAL BRIDGE

SB	XK	XKOR	CDFO	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      10 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q         WSEL      FQ

      -1.      2.       0.       0.  0.000000     0.00     -1.0       0.    673.470    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     C.000     0.000
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*PROF 2

CCHV= .100 CEHV= .300

*SECNO 110.100

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	IOC	ICONT	CORAR	TOPWID	ENDST
110.10	4.37	673.47	0.00	673.47	673.57	.10	0.00	0.00	673.30
135.	1.	110.	24.	2.	39.	32.	0.	0.	672.80
0.00	.31	2.84	.75	.055	.040	.055	0.000	669.10	105.50
.001861	0.	0.	0.	0	0	0	0.00	95.43	200.93

*SECNO 110.150

110.15	4.00	673.65	0.00	0.00	673.87	.22	.26	.04	673.85
135.	0.	130.	5.	0.	34.	10.	0.	0.	673.35
.01	0.00	3.86	.57	.055	.040	.055	.040	669.65	122.24
.004024	100.	100.	100.	0	0	0	0.00	73.84	196.08

*SECNO 110.200

110.20	3.87	674.07	0.00	0.00	674.35	.28	.46	.02	674.40
135.	0.	135.	0.	0.	32.	0.	0.	0.	673.90
.01	0.00	4.26	.37	.055	.040	.055	.040	670.20	122.42
.005208	100.	100.	100.	2	0	0	0.00	16.89	139.31

CCHV= .400 CEHV= .900

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.74	674.64	0.00	0.00	674.87	.24	.51	.02	674.80
135.	0.	135.	0.	0.	35.	0.	0.	0.	674.80
.01	0.00	3.90	0.00	.055	.040	.055	.040	670.90	2.97
.003825	115.	115.	115.	2	0	0	0.00	11.00	13.97

SPECIAL BRIDGE

SB XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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 FLOW

EGPRS	EGLWC	43	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
674.93	674.87	0.00	0.	135.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	3.80	674.70	0.00	0.00	674.93	.23	.05	0.00	674.80
135.	0.	135.	0.	0.	35.	0.	0.	0.	674.80
.02	0.00	3.82	0.00	.055	.040	.055	.040	670.90	2.94
.003624	30.	30.	30.	2	0	0	0.00	11.04	13.98

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	2.98	674.68	674.62	0.00	675.59	.91	.11	.55	676.20
135.	0.	135.	0.	0.	18.	0.	0.	0.	675.80
.02	0.00	7.66	0.00	.055	.040	.055	.039	671.70	32.46
.024302	15.	15.	15.	4	15	0	0.00	9.13	41.58

*SECNO 110.590

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	3.80	675.80	0.00	0.00	676.00	.20	.13	.28	676.70
135.	0.	135.	0.	0.	37.	0.	0.	0.	676.70
.03	0.00	3.60	0.00	.055	.040	.055	.039	672.00	4.03
.003301	18.	18.	18.	3	0	0	0.00	12.04	16.07

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	3.80	675.80	0.00	0.00	676.00	.20	.00	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.58	0.00	.055	.030	.055	.039	672.00	4.03
.001830	1.	1.	1.	0	0	0	0.00	12.04	16.07

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	3.85	675.85	0.00	0.00	676.05	.19	.04	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.53	0.00	.055	.030	.055	.039	672.00	4.03
.001749	23.	23.	23.	0	0	0	0.00	12.04	16.07

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRTWS	WSELK	EG	HV	HL	OLOSS	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
111.03	3.86	675.86	0.00	0.00	676.05	.19	.00	.00	676.70
135.	0.	135.	0.	0.	38.	0.	0.	0.	676.70
.03	0.00	3.53	0.00	.055	.050	.055	.039	672.00	4.03
.004887	1.	1.	1.	0	0	0	0.00	12.04	16.07

CCHV= .400 CEHV= .800
*SECNO 111.800

111.80	3.92	675.92	0.00	0.00	676.14	.22	.07	.02	675.20
165.	21.	101.	43.	14.	22.	24.	0.	0.	675.20
.03	1.49	4.58	1.82	.055	.050	.055	.039	672.00	8.75
.011215	10.	10.	10.	2	0	0	0.00	100.72	109.46

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .17 FEET

111.81	4.27	676.47	0.00	0.00	676.54	.07	.34	.06	675.40
165.	37.	72.	56.	30.	25.	44.	0.	1.	675.40
.04	1.23	2.83	1.26	.055	.050	.055	.040	672.20	0.00
.003522	58.	58.	58.	2	0	0	0.00	127.22	127.22

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .04 FEET

111.82	4.14	676.54	0.00	0.00	676.65	.11	.10	.01	675.60
165.	31.	83.	51.	24.	24.	36.	1.	1.	675.60
.04	1.29	3.44	1.40	.070	.060	.070	.041	672.40	0.00
.008023	20.	20.	20.	2	0	0	0.00	120.80	120.80

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .10 FEET

111.83	4.19	677.29	0.00	0.00	677.38	.09	.73	.00	676.30
165.	33.	79.	53.	27.	25.	40.	1.	1.	676.30
.05	1.25	3.19	1.32	.070	.060	.070	.044	673.10	0.00
.006700	100.	100.	100.	1	0	0	0.00	123.69	123.69

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .08 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

***FOOTBRIDGE

111.84	4.18	677.78	0.00	0.00	677.87	.10	.49	.00	676.80
165.	32.	81.	52.	26.	24.	38.	1.	1.	676.80
.06	1.27	3.30	1.35	.070	.060	.070	.045	673.60	0.00
.007235	70.	70.	70.	2	0	0	0.00	122.45	122.45

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .05 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.15	677.75	0.00	0.00	677.90	.15	.01	.02	676.80
165.	16.	74.	75.	14.	19.	32.	1.	1.	676.80
.06	1.14	3.95	2.39	.070	.060	.070	.045	673.60	0.00
.032548	1.	1.	1.	2	0	0	-21.27	121.21	121.21

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .19 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.29	677.89	0.00	0.00	677.99	.10	.08	.01	676.80
165.	20.	61.	84.	18.	19.	39.	1.	1.	676.80
.06	1.12	3.25	2.13	.070	.060	.070	.045	673.60	0.00
.021993	3.	3.	3.	2	0	0	-26.62	128.39	128.39

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .24 FEET

111.87	4.34	677.94	0.00	0.00	678.00	.06	.01	.00	676.80
165.	38.	70.	57.	33.	26.	50.	1.	1.	676.80
.06	1.14	2.67	1.15	.070	.060	.070	.045	673.60	0.00
.004354	1.	1.	1.	2	0	0	0.00	130.98	130.98

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .00 FEET

111.90	4.10	678.90	0.00	0.00	679.02	.12	1.01	.02	678.00
165.	29.	86.	49.	22.	24.	34.	1.	2.	678.00
.08	1.33	3.63	1.46	.070	.060	.070	.048	674.80	0.00
.009141	165.	165.	165.	3	0	0	0.00	118.75	118.75

*SECNO 111.910
3280 CROSS SECTION 111.91 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
***CONCRETE WEIR									
111.91	2.84	679.54	679.51	0.00	679.74	.20	.70	.02	679.00
165.	46.	71.	48.	23.	14.	24.	1.	2.	679.00
.09	1.97	5.00	2.00	.070	.060	.070	.049	676.70	0.00
.023709	50.	50.	50.	5	17	0	0.00	108.69	108.69

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .23 FEET

111.92	4.34	680.14	0.00	0.00	680.20	.06	.44	.01	679.00
165.	38.	70.	57.	33.	26.	49.	1.	2.	679.00
.09	1.15	2.71	1.16	.070	.060	.070	.049	675.80	0.00
.004502	50.	50.	50.	2	0	0	0.00	130.39	130.39

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .08 FEET

111.93	4.19	680.39	0.00	0.00	680.48	.09	.28	.01	679.40
165.	33.	80.	52.	26.	25.	39.	2.	2.	679.40
.10	1.26	3.26	1.34	.070	.060	.070	.050	676.20	0.00
.007040	50.	50.	50.	2	0	0	0.00	122.89	122.89

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .10 FEET

111.94	4.20	681.50	0.00	0.00	681.59	.09	1.11	.00	680.50
165.	34.	79.	53.	27.	25.	40.	2.	2.	680.50
.12	1.25	3.18	1.32	.070	.060	.070	.051	677.30	0.00
.006643	162.	162.	162.	3	0	0	0.00	123.83	123.83

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .15 FEET

111.95	4.25	683.25	0.00	0.00	683.32	.08	1.73	.00	682.20
165.	35.	76.	54.	29.	25.	43.	2.	3.	682.20
.16	1.21	3.00	1.26	.070	.060	.070	.053	679.00	0.00
.005765	280.	280.	280.	3	0	0	0.00	126.17	126.17

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

111.97	4.07	683.47	0.00	0.00	683.55	.08	.23	.00	682.60
165.	10.	106.	49.	11.	38.	43.	3.	3.	681.70
.16	.97	2.76	1.14	.070	.060	.070	.053	679.40	190.00
.003730	50.	50.	50.	2	0	0	0.00	96.25	286.25

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .22 FEET

111.99	3.82	683.92	0.00	0.00	684.06	.14	.49	.02	683.30
165.	6.	120.	38.	7.	35.	28.	3.	4.	682.40
.17	.96	3.46	1.38	.070	.060	.070	.053	680.10	190.00
.006671	100.	100.	100.	2	0	0	0.00	82.86	272.86

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .19 FEET

111.99	3.79	685.29	0.00	0.00	685.44	.15	1.37	.00	684.70
165.	6.	122.	37.	6.	34.	26.	3.	4.	683.80
.19	.95	3.54	1.41	.070	.060	.070	.054	681.50	190.00
.007084	200.	200.	200.	2	0	0	0.00	81.27	271.27

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .20 FEET

112.00	3.80	687.80	0.00	0.00	687.95	.15	2.51	.00	687.20
165.	6.	121.	38.	6.	35.	27.	4.	5.	686.30
.22	.95	3.51	1.40	.070	.060	.070	.055	684.00	190.00
.006926	358.	358.	358.	2	0	0	0.00	81.87	271.87

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .20 FEET

112.10	3.80	689.90	0.00	0.00	690.05	.15	2.10	.00	689.30
165.	6.	121.	38.	6.	35.	27.	4.	5.	688.40
.25	.96	3.50	1.40	.070	.060	.070	.056	686.10	190.00
.006877	305.	305.	305.	2	0	0	0.00	82.05	272.05

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .18 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	CORAR	TOPWID	ENDST
112.20	3.78	691.68	0.00	0.00	691.83	.16	1.78	.00	691.10
165.	6.	123.	37.	6.	34.	26.	5.	6.	690.20
.28	.94	3.60	1.43	.070	.060	.070	.056	687.90	190.00
.007363	250.	250.	250.	2	0	0	0.00	80.26	270.26

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .23 FEET

112.30	3.83	693.43	0.00	0.00	693.57	.14	1.73	.00	692.80
165.	7.	120.	39.	7.	35.	28.	5.	6.	691.90
.30	.96	3.44	1.37	.070	.060	.070	.056	689.60	190.00
.006539	250.	250.	250.	2	0	0	0.00	83.38	273.38

*SECNO 112.400

112.40	3.78	693.78	0.00	0.00	693.90	.12	.34	.00	694.00
165.	0.	138.	27.	0.	46.	23.	5.	6.	692.80
.31	0.00	3.00	1.19	.070	.060	.070	.056	690.00	253.32
.006898	50.	50.	50.	1	0	0	0.00	76.47	329.79

*SECNO 112.410

***FOOTBRIDGE

112.41	3.77	694.17	0.00	0.00	694.29	.13	.39	.00	694.40
165.	0.	139.	26.	0.	46.	22.	5.	6.	693.20
.31	0.00	3.05	1.20	.070	.060	.070	.056	690.40	253.43
.007171	55.	55.	55.	1	0	0	0.00	75.16	328.59

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	3.77	694.17	0.00	0.00	694.31	.13	.01	.00	694.40
165.	0.	123.	42.	0.	39.	22.	5.	6.	693.20
.31	0.00	3.17	1.89	.070	.060	.070	.056	690.40	253.35
.017475	1.	1.	1.	0	0	0	-7.20	76.13	329.48

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	3.93	694.33	0.00	0.00	694.42	.09	.11	.00	694.40
165.	0.	113.	52.	0.	43.	31.	5.	6.	693.20
.31	0.00	2.65	1.66	.070	.060	.070	.056	690.40	252.41
.011090	8.	8.	8.	2	0	0	-7.20	86.63	339.04

*SECNO 112.440

112.44	3.94	694.34	0.00	0.00	694.43	.09	.01	.00	694.40
165.	0.	130.	35.	0.	50.	32.	5.	6.	693.20
.31	0.00	2.58	1.10	.070	.060	.070	.056	690.40	252.33
.004787	1.	1.	1.	0	0	0	0.00	87.17	339.50

*SECNO 112.500

112.50	3.81	694.51	0.00	0.00	694.63	.11	.19	.01	694.70
165.	0.	136.	29.	0.	47.	24.	5.	6.	693.50
.32	0.00	2.91	1.17	.070	.060	.070	.056	690.70	253.11
.006374	35.	35.	35.	2	0	0	0.00	79.13	332.24

*SECNO 113.200

113.20	3.79	696.79	0.00	0.00	696.91	.12	2.28	.00	697.00
165.	0.	138.	27.	0.	46.	23.	6.	7.	695.80
.35	0.00	2.99	1.19	.070	.060	.070	.057	693.00	253.30
.006833	345.	345.	345.	3	0	0	0.00	76.79	330.08

CCHV= .400 CEHV= .800
*SECNO 113.280

***D/S M-53

113.28	4.43	697.73	0.00	0.00	698.04	.31	.98	.15	698.80
165.	0.	165.	0.	0.	37.	0.	6.	7.	698.80
.36	0.00	4.46	0.00	.065	.055	.065	.057	693.30	7.53
.009496	123.	123.	123.	2	0	0	0.00	9.95	17.48

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	4.60	697.90	0.00	0.00	698.10	.20	.00	.06	699.50
165.	0.	165.	0.	0.	46.	0.	6.	7.	699.50
.36	0.00	3.56	0.00	.065	.030	.065	.057	693.30	.03
.001591	1.	1.	1.	2	0	0	0.00	10.15	10.17

*SECNO 113.300

113.30	4.54	697.94	0.00	0.00	698.15	.20	.04	.01	699.60
165.	0.	165.	0.	0.	46.	0.	6.	7.	699.60
.36	0.00	3.61	0.00	.065	.030	.065	.056	693.40	.03
.001655	25.	25.	25.	2	0	0	0.00	10.15	10.17

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	4.49	697.99	0.00	0.00	698.19	.21	.04	.00	699.70
165.	0.	165.	0.	0.	45.	0.	6.	7.	699.70
.36	0.00	3.65	0.00	.065	.030	.065	.056	693.50	.03
.001710	25.	25.	25.	0	0	0	0.00	10.14	10.17

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	4.32	698.22	0.00	0.00	698.45	.22	.24	.02	700.10

165.	0.	165.	0.	0.	43.	0.	6.	7.	700.10
.37	0.00	3.80	0.00	.065	.030	.065	.055	693.90	.03
.001898	132.	132.	132.	1	0	0	0.00	10.14	10.17

*SECNO 113.420

113.42	4.33	698.23	0.00	0.00	698.45	.22	.00	.00	700.10
165.	0.	165.	0.	0.	44.	0.	6.	7.	700.10
.37	0.00	3.79	0.00	.065	.055	.065	.055	693.90	.03
.006342	1.	1.	1.	0	0	0	0.00	10.14	10.17

CCHV= .400 CEHV= .800

*SECNO 113.800

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
113.80	4.94	699.34	0.00	0.00	699.70	.36	1.14	.11	700.70
165.	0.	165.	0.	0.	34.	0.	6.	7.	700.00
.38	0.00	4.80	0.00	.065	.055	.065	.055	694.40	144.02
.014221	125.	125.	125.	2	0	0	0.00	15.07	159.09

CCHV= .100 CEHV= .300

*SECNO 113.810

113.81	5.14	700.04	0.00	0.00	700.34	.30	.64	.01	701.20
165.	0.	165.	0.	0.	37.	0.	6.	7.	700.50
.38	0.00	4.41	0.00	.065	.055	.065	.055	694.90	143.44
.011418	50.	50.	50.	2	0	0	0.00	15.93	159.37

*SECNO 113.820

113.82	5.25	701.15	0.00	0.00	701.42	.28	1.08	.00	702.20
165.	0.	165.	0.	0.	39.	0.	6.	7.	701.50
.39	0.00	4.22	0.00	.065	.055	.065	.055	695.90	143.13
.010192	100.	100.	100.	2	0	0	0.00	16.38	159.51

*SECNO 113.830

113.83	5.26	702.66	0.00	0.00	702.94	.27	1.51	.00	703.70
165.	0.	165.	0.	0.	39.	0.	6.	7.	703.00
.40	0.00	4.18	0.00	.065	.055	.065	.055	697.40	143.07
.009992	150.	150.	150.	2	0	0	0.00	16.46	159.54

*SECNO 113.900

113.90	5.26	704.66	0.00	0.00	704.93	.27	2.00	.00	705.70
165.	0.	165.	0.	0.	39.	0.	7.	7.	705.00
.41	0.00	4.18	0.00	.065	.055	.065	.055	699.40	143.07
.009983	200.	200.	200.	1	0	0	0.00	16.47	159.54

*SECNO 113.910

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

113.91	5.26	706.66	0.00	0.00	706.94	.27	2.00	.00	707.70
165.	0.	165.	0.	0.	39.	0.	7.	7.	707.00
.43	0.00	4.19	0.00	.065	.055	.065	.055	701.40	143.09
.010045	200.	200.	200.	0	0	0	0.00	16.44	159.53

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED .71 FEET

113.92	5.31	707.11	0.00	0.00	707.17	.06	.22	.02	706.40
165.	0.	0.	165.	0.	0.	81.	7.	8.	759.40
.43	0.00	0.00	2.03	.065	.055	.065	.055	701.80	178.00
.002421	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930

113.93	4.33	707.63	0.00	0.00	707.85	.22	.63	.05	707.90
165.	0.	0.	165.	0.	0.	44.	7.	8.	707.90
.44	0.00	0.00	3.73	.065	.055	.065	.055	703.30	180.08
.009032	150.	150.	150.	2	0	0	0.00	26.94	207.02

*SECNO 114.000

114.00	4.23	709.03	0.00	0.00	709.28	.25	1.41	.01	709.40
165.	0.	0.	165.	0.	0.	41.	7.	8.	709.40
.45	0.00	0.00	4.00	.065	.055	.065	.055	704.80	180.98
.010575	145.	145.	145.	2	0	0	0.00	25.04	206.02

*SECNO 114.010

114.01	4.08	709.58	0.00	0.00	709.88	.30	.59	.01	710.10
165.	0.	0.	165.	0.	0.	38.	7.	8.	710.10
.46	0.00	0.00	4.37	.065	.055	.065	.055	705.50	182.16
.013067	50.	50.	50.	2	0	0	0.00	22.55	204.71

*SECNO 114.020

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VIOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
114.02	4.08	710.88	0.00	0.00	711.18	.29	1.30	.00	711.40
165.	0.	0.	165.	0.	0.	38.	7.	8.	711.40
.46	0.00	0.00	4.36	.065	.055	.065	.055	706.80	182.13
.012993	100.	100.	100.	2	0	0	0.00	22.61	204.74

*SECNO 114.030

114.03	4.05	713.55	0.00	0.00	713.85	.31	2.67	.00	714.10
165.	0.	0.	165.	0.	0.	37.	7.	8.	714.10
.48	0.00	0.00	4.46	.065	.055	.065	.055	709.50	182.43
.013730	200.	200.	200.	2	0	0	0.00	21.97	204.41

*SECNO 114.050

114.05	4.06	716.26	0.00	0.00	716.56	.30	2.71	.00	716.80
165.	0.	0.	165.	0.	0.	37.	8.	8.	716.80

.49	0.00	0.00	4.41	.065	.055	.065	.055	712.20	182.29
.013371	200.	200.	200.	2	0	0	0.00	22.28	204.57

*SECNO 114.070

114.07	4.05	718.95	0.00	0.00	719.26	.31	2.69	.00	719.50
165.	0.	0.	165.	0.	0.	37.	8.	8.	719.50
.50	0.00	0.00	4.43	.065	.055	.065	.055	714.90	182.37
.013565	200.	200.	200.	2	0	0	0.00	22.11	204.48

*SECNO 114.090

114.09	4.09	720.29	0.00	0.00	720.58	.29	1.32	.00	720.80
165.	0.	0.	165.	0.	0.	38.	8.	8.	720.80
.51	0.00	0.00	4.34	.065	.055	.065	.055	716.20	182.07
.012843	100.	100.	100.	1	0	0	0.00	22.75	204.82

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 1.20 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	ICC	ICONT	CORAR	TOPWID	ENDST
115.20	3.91	720.81	0.00	0.00	720.87	.06	.26	.02	719.60
165.	39.	112.	14.	29.	50.	12.	8.	8.	719.70
.52	1.35	2.26	1.14	.065	.055	.065	.055	716.90	146.00
.002869	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.31	721.11	0.00	0.00	721.22	.11	.31	.04	723.00
165.	0.	165.	0.	0.	61.	0.	8.	8.	723.00
.53	0.00	2.69	0.00	.065	.055	.065	.055	716.80	9.67
.002536	116.	116.	116.	2	0	0	0.00	15.56	25.23

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.31	721.11	0.00	0.00	721.22	.11	.00	.00	723.00
165.	0.	165.	0.	0.	61.	0.	8.	8.	723.00
.53	0.00	2.69	0.00	.065	.030	.065	.055	716.80	9.67
.000751	1.	1.	1.	0	0	0	0.00	15.56	25.23

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.39	4.35	721.15	0.00	0.00	721.26	.11	.03	.00	723.00

165.	0.	165.	0.	0.	62.	0.	8.	8.	723.00
.53	0.00	2.66	0.00	.065	.030	.065	.055	716.80	9.67
.000732	45.	45.	45.	2	0	0	0.00	15.57	25.24

*SECNO 115.420

115.42	4.35	721.15	0.00	0.00	721.26	.11	.00	.00	723.00
165.	0.	165.	0.	0.	62.	0.	8.	8.	723.00
.53	0.00	2.66	0.00	.065	.055	.065	.055	716.80	9.67
.002460	1.	1.	1.	0	0	0	0.00	15.57	25.24

CCHV= .400 CEHV= .800

*SECNO 115.500

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
115.50	3.79	721.19	0.00	0.00	721.47	.28	.08	.14	721.20
165.	0.	161.	4.	0.	38.	4.	8.	8.	720.80
.53	0.00	4.28	.83	.065	.055	.065	.055	717.40	206.09
.012104	17.	17.	17.	1	0	0	0.00	42.83	248.92

*SECNO 115.510

3280 CROSS SECTION 115.51 EXTENDED .40 FEET

115.51	4.20	721.60	0.00	0.00	721.74	.14	.22	.05	721.20
165.	1.	147.	17.	1.	46.	14.	8.	8.	720.80
.54	.57	3.20	1.16	.065	.055	.065	.055	717.40	199.95
.005191	29.	29.	29.	2	0	0	0.00	50.05	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.15	721.55	0.00	0.00	721.98	.43	.01	.23	728.90
165.	0.	165.	0.	0.	31.	0.	8.	8.	729.00
.54	0.00	5.25	0.00	.065	.030	.065	.055	718.40	196.58
.009951	1.	1.	1.	2	0	0	0.00	21.22	219.76

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	3.53	721.93	0.00	0.00	722.19	.26	.15	.07	728.90
165.	0.	165.	0.	0.	40.	0.	8.	8.	729.00

.54	0.00	4.09	0.00	.065	.030	.065	.055	718.40	193.37
.005592	20.	20.	20.	3	0	0	0.00	25.69	221.00

*SECNO 116.080

116.09	3.51	721.91	0.00	0.00	722.32	.41	.01	.12	728.30
165.	0.	165.	0.	0.	32.	0.	8.	8.	728.70
.54	0.00	5.12	0.00	.065	.055	.065	.055	718.40	196.61
.018127	1.	1.	1.	2	0	0	0.00	16.47	213.07

CCHV= .100 CEHV= .300

*SECNO 116.800

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
116.80	4.17	722.67	0.00	0.00	722.89	.22	.56	.02	728.40
165.	0.	165.	0.	0.	44.	0.	8.	8.	728.80
.54	0.00	3.77	0.00	.065	.055	.065	.055	718.50	194.81
.007749	49.	49.	49.	2	0	0	0.00	18.56	213.36

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED .50 FEET

116.81	3.90	723.00	0.00	0.00	723.03	.03	.12	.02	720.90
165.	53.	65.	47.	56.	36.	54.	8.	8.	721.10
.55	.96	1.79	.87	.065	.055	.065	.055	719.10	164.58
.001126	50.	50.	50.	2	0	0	0.00	107.42	272.00

*SECNO 116.820

116.82	2.91	723.01	0.00	0.00	723.25	.24	.16	.06	721.90
165.	34.	111.	20.	17.	24.	12.	9.	9.	722.10
.56	2.00	4.57	1.66	.065	.055	.065	.055	720.10	182.82
.012376	60.	60.	60.	3	0	0	0.00	69.82	252.64

*SECNO 116.830

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.83	2.76	723.76	723.76	0.00	724.11	.35	.76	.03	722.80
165.	29.	121.	14.	13.	22.	8.	9.	9.	723.00
.56	2.27	5.40	1.81	.065	.055	.065	.055	721.00	186.53
.019259	50.	50.	50.	4	10	0	0.00	59.91	246.45

*SECNO 116.840

116.84	2.87	724.67	0.00	0.00	724.94	.26	.81	.01	723.60
165.	33.	114.	18.	16.	24.	11.	9.	9.	723.80
.56	2.07	4.78	1.70	.065	.055	.065	.055	721.80	183.84

.013949	50.	50.	50.	2	0	0	0.00	67.10	250.94

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

7195 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

116.86	2.76	725.96	725.96	0.00	726.31	.36	1.31	.03	725.00
165.	29.	122.	14.	13.	22.	8.	9.	9.	725.20
.57	2.28	5.43	1.81	.065	.055	.065	.055	723.20	186.65
.019535	80.	80.	80.	1	10	0	0.00	59.60	246.25

*SECNO 117.200

117.20	2.83	727.43	0.00	0.00	727.72	.30	1.40	.01	726.40
165.	32.	117.	17.	15.	23.	9.	9.	9.	726.60
.57	2.15	5.02	1.75	.065	.055	.065	.055	724.60	184.93
.015867	80.	80.	80.	2	0	0	0.00	64.20	249.12

*SECNO 117.210

***CAMPGROUND RD.

117.21	3.22	728.42	0.00	0.00	728.53	.11	.79	.02	727.00
165.	42.	94.	29.	27.	28.	22.	9.	9.	727.20
.58	1.55	3.35	1.32	.065	.055	.065	.055	725.20	175.72
.005535	90.	90.	90.	3	0	0	0.00	88.97	264.69

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 728.936 ELLC= 729.200 PCWSE= 728.416 ELTRD= 732.300

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 732.30 MAX ELLC= 729.20

117.79	3.27	728.47	0.00	0.00	728.95	.49	.31	.11	780.00
165.	0.	0.	165.	0.	0.	29.	9.	9.	780.00
.58	0.00	0.00	5.59	.065	.055	.065	.055	725.20	97.46
.026034	30.	30.	30.	2	0	0	0.00	19.19	116.65

*SECNO 117.800

117.80	3.76	729.56	0.00	0.00	729.82	.26	.85	.02	730.00
165.	0.	0.	165.	0.	0.	40.	9.	9.	730.00
.59	0.00	0.00	4.08	.065	.055	.065	.055	725.80	96.15
.011917	50.	50.	50.	2	0	0	0.00	26.03	122.18

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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      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.    673.940     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 110.100

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	XICH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
110.10	4.84	673.94	0.00	673.94	673.99	.05	0.00	0.00	673.30
160.	9.	100.	51.	19.	45.	64.	0.	0.	672.80
0.00	.46	2.22	.79	.055	.040	.055	0.000	669.10	67.07
.000920	0.	0.	0.	0	0	0	0.00	140.13	207.20

*SECNO 110.150

110.15	4.37	674.02	0.00	0.00	674.16	.14	.14	.03	673.85
160.	1.	130.	29.	2.	39.	33.	0.	0.	673.35
.01	.37	3.35	.89	.055	.040	.055	.040	669.65	105.20
.002580	100.	100.	100.	1	0	0	0.00	95.81	201.01

*SECNO 110.200

110.20	4.06	674.26	0.00	0.00	674.59	.33	.37	.06	674.40
160.	0.	159.	1.	0.	34.	1.	0.	0.	673.90
.02	0.00	4.64	.65	.055	.040	.055	.040	670.20	122.18
.005711	100.	100.	100.	2	0	0	0.00	20.95	143.13

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.99	674.89	0.00	0.00	675.17	.28	.57	.02	674.80
160.	0.	160.	0.	0.	37.	0.	0.	0.	674.80
.02	0.00	4.27	0.00	.055	.040	.055	.040	670.90	2.90
.004289	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SP	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.90	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

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

PRESSURE FLOW

EGPRS	EGLWC	43	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.29	675.18	0.00	0.	160.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.13	675.03	0.00	0.00	675.29	.26	.12	0.00	674.80
160.	0.	160.	0.	0.	39.	0.	0.	0.	674.80
.03	0.00	4.10	0.00	.055	.040	.055	.040	670.90	2.90
.003779	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.59	3.32	675.02	0.00	0.00	675.93	.92	.11	.52	676.20
160.	0.	160.	0.	0.	21.	0.	0.	0.	675.80
.03	0.00	7.68	0.00	.055	.040	.055	.039	671.70	31.91
.021797	15.	15.	15.	2	0	0	0.00	9.80	41.71

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.59	4.10	676.10	0.00	0.00	676.33	.24	.13	.27	676.70
160.	0.	160.	0.	0.	41.	0.	1.	0.	676.70
.03	0.00	3.89	0.00	.055	.040	.055	.039	672.00	4.02
.003568	18.	18.	18.	3	0	0	0.00	12.06	16.08

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.10	676.10	0.00	0.00	676.34	.23	.00	.00	676.70
160.	0.	160.	0.	0.	41.	0.	1.	0.	676.70
.03	0.00	3.87	0.00	.055	.030	.055	.039	672.00	4.02
.001983	1.	1.	1.	0	0	0	0.00	12.06	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.16	676.16	0.00	0.00	676.39	.23	.04	.00	676.70
160.	0.	160.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	3.81	0.00	.055	.030	.055	.039	672.00	4.02
.001893	23.	23.	23.	0	0	0	0.00	12.06	16.08

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.16	676.16	0.00	0.00	676.39	.23	.00	.00	676.70
160.	0.	160.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	3.82	0.00	.055	.050	.055	.039	672.00	4.02
.005284	1.	1.	1.	0	0	0	0.00	12.06	16.08

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .28 FEET

111.80	4.39	676.39	0.00	0.00	676.49	.10	.05	.05	675.20
240.	59.	95.	86.	35.	27.	53.	1.	0.	675.20
.03	1.66	3.58	1.64	.055	.050	.055	.039	672.00	0.00
.005319	10.	10.	10.	3	0	0	0.00	133.00	133.00

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .39 FEET

111.81	4.48	676.68	0.00	0.00	676.76	.08	.26	.01	675.40
240.	62.	86.	92.	41.	28.	61.	1.	1.	675.40
.04	1.53	3.12	1.51	.055	.050	.055	.040	672.20	0.00
.003837	58.	58.	58.	1	0	0	0.00	135.34	135.34

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .28 FEET

111.82	4.37	676.77	0.00	0.00	676.88	.11	.11	.01	675.60
240.	57.	99.	84.	35.	26.	52.	1.	1.	675.60
.04	1.63	3.73	1.61	.070	.060	.070	.041	672.40	0.00
.008316	20.	20.	20.	0	0	0	0.00	132.79	132.79

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .34 FEET

111.83	4.44	677.54	0.00	0.00	677.64	.09	.76	.00	676.30
240.	59.	93.	87.	38.	27.	57.	1.	1.	676.30
.05	1.56	3.45	1.53	.070	.060	.070	.044	673.10	0.00
.006895	100.	100.	100.	1	0	0	0.00	134.59	134.59

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .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	IDC	ICONT	CORAR	TOPWID	ENDST

***FOOTBRIDGE

111.84	4.43	678.03	0.00	0.00	678.13	.10	.49	.00	676.80
240.	59.	94.	87.	38.	27.	56.	1.	1.	676.80
.06	1.57	3.48	1.54	.070	.060	.070	.045	673.60	0.00
.007077	70.	70.	70.	2	0	0	0.00	134.47	134.47

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .33 FEET

3370 NORMAL BRIDGE,NPD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.42	678.02	0.00	0.00	678.15	.13	.01	.01	676.80
240.	34.	62.	144.	23.	19.	49.	1.	1.	676.80
.06	1.49	3.27	2.95	.070	.060	.070	.045	673.60	0.00
.035537	1.	1.	1.	1	0	0	-30.80	134.48	134.48

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NPD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.55	678.15	0.00	0.00	678.24	.09	.08	.00	676.80
240.	38.	54.	148.	28.	20.	58.	1.	1.	676.80
.06	1.35	2.67	2.57	.070	.060	.070	.045	673.60	0.00
.021910	3.	3.	3.	2	0	0	-30.80	136.19	136.19

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .47 FEET

111.87	4.58	678.18	0.00	0.00	678.25	.07	.01	.00	676.80
240.	63.	83.	93.	45.	28.	67.	1.	1.	676.80
.06	1.41	2.94	1.39	.070	.060	.070	.045	673.60	0.00
.004691	1.	1.	1.	0	0	0	0.00	136.61	136.61

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .27 FEET

111.90	4.37	679.17	0.00	0.00	679.28	.11	1.02	.01	678.00
240.	57.	99.	84.	35.	26.	52.	2.	2.	678.00
.09	1.64	3.75	1.62	.070	.060	.070	.048	674.80	0.00
.008472	165.	165.	165.	3	0	0	0.00	132.46	132.46

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .45 FEET

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	YLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***CONCRETE WEIR								
111.91	3.06	679.76	0.00	0.00	679.94	.18	.64	.02	679.00
240.	80.	77.	83.	34.	15.	36.	2.	2.	679.00
.08	2.39	4.99	2.31	.070	.060	.070	.049	676.70	C.00
.021484	50.	50.	50.	3	0	0	0.00	115.89	115.89
*SECNO 111.920									
3280 CROSS SECTION	111.92 EXTENDED		.44 FEET						
111.92	4.54	680.34	0.00	0.00	680.42	.07	.46	.01	679.00
240.	62.	86.	92.	43.	28.	65.	2.	2.	679.00
.09	1.45	3.05	1.42	.070	.060	.070	.049	675.80	0.00
.005144	50.	50.	50.	2	0	0	0.00	136.11	136.11
*SECNO 111.930									
3280 CROSS SECTION	111.93 EXTENDED		.32 FEET						
111.93	4.43	680.63	0.00	0.00	680.73	.10	.30	.01	679.40
240.	59.	95.	86.	37.	27.	56.	2.	2.	679.40
.10	1.58	3.53	1.55	.070	.060	.070	.050	676.20	0.00
.007287	50.	50.	50.	2	0	0	0.00	134.32	134.32
*SECNO 111.940									
3280 CROSS SECTION	111.94 EXTENDED		.36 FEET						
111.94	4.46	681.76	0.00	0.00	681.84	.09	1.12	.00	680.50
240.	60.	92.	88.	39.	27.	58.	3.	3.	680.50
.12	1.54	3.37	1.51	.070	.060	.070	.051	677.30	0.00
.006519	162.	162.	162.	2	0	0	0.00	134.88	134.88
*SECNO 111.950									
3280 CROSS SECTION	111.95 EXTENDED		.39 FEET						
111.95	4.49	683.49	0.00	0.00	683.57	.08	1.73	.00	682.20
240.	61.	89.	90.	41.	28.	61.	3.	4.	682.20
.15	1.49	3.22	1.47	.070	.060	.070	.053	679.00	0.00
.005857	280.	280.	280.	3	0	0	0.00	135.42	135.42
*SECNO 111.970									
3280 CROSS SECTION	111.97 EXTENDED		.73 FEET						

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
111.97	4.33	683.73	0.00	0.00	683.83	.10	.25	.01	682.60
240.	19.	134.	87.	15.	42.	61.	4.	4.	681.70
.16	1.30	3.19	1.42	.070	.060	.070	.053	679.40	190.00
.004396	50.	50.	50.	2	0	0	0.00	104.68	294.68

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .54 FEET

111.98	4.13	684.23	0.00	0.00	684.39	.15	.54	.01	683.30
240.	16.	148.	76.	12.	39.	48.	4.	4.	682.40
.17	1.39	3.77	1.59	.070	.060	.070	.053	680.10	190.00
.006731	100.	100.	100.	1	0	0	0.00	98.46	288.46

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .52 FEET

111.99	4.11	685.61	0.00	0.00	685.77	.16	1.38	.00	684.70
240.	16.	150.	74.	11.	39.	46.	4.	4.	683.80
.19	1.40	3.85	1.61	.070	.060	.070	.054	681.50	190.00
.007099	200.	200.	200.	2	0	0	0.00	97.72	287.72

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .53 FEET

112.00	4.12	688.12	0.00	0.00	688.28	.15	2.51	.00	687.20
240.	16.	149.	75.	12.	39.	47.	5.	5.	686.30
.22	1.40	3.81	1.60	.070	.060	.070	.055	684.00	190.00
.006914	358.	358.	358.	2	0	0	0.00	98.08	288.08

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .53 FEET

112.10	4.13	690.23	0.00	0.00	690.38	.15	2.10	.00	689.30
240.	16.	149.	75.	12.	39.	47.	6.	6.	688.40
.25	1.40	3.80	1.60	.070	.060	.070	.056	686.10	190.00
.006875	305.	305.	305.	2	0	0	0.00	98.16	288.16

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
112.20	4.10	692.00	0.00	0.00	692.16	.16	1.78	.00	691.10

240.	16.	151.	73.	11.	39.	45.	6.	6.	690.20
.27	1.41	3.91	1.63	.070	.060	.070	.056	687.90	190.00
.007365	250.	250.	250.	2	0	0	0.00	97.20	287.20

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .55 FEET

112.30	4.15	693.75	0.00	0.00	693.90	.15	1.73	.00	692.80
240.	17.	147.	76.	12.	39.	48.	7.	7.	691.90
.30	1.39	3.73	1.58	.070	.060	.070	.056	689.60	190.00
.006537	250.	250.	250.	2	0	0	0.00	98.88	288.88

*SECNO 112.400

112.40	4.11	694.11	0.00	0.00	694.24	.13	.34	.00	694.00
240.	0.	177.	63.	0.	54.	42.	7.	7.	692.80
.30	.02	3.28	1.49	.070	.060	.070	.056	690.00	250.03
.007070	50.	50.	50.	0	0	0	0.00	94.60	344.62

*SECNO 112.410

***FOOTBRIDGE

112.41	4.10	694.50	0.00	0.00	694.63	.13	.39	.00	694.40
240.	0.	178.	62.	0.	54.	41.	7.	7.	693.20
.31	.02	3.30	1.50	.070	.060	.070	.056	690.40	250.19
.007208	55.	55.	55.	1	0	0	0.00	94.16	344.35

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.12	694.52	0.00	0.00	694.64	.12	.01	.00	694.40
240.	0.	150.	90.	0.	47.	43.	7.	7.	693.20
.31	.36	3.17	2.11	.070	.060	.070	.056	690.40	249.77
.013923	1.	1.	1.	1	0	0	-7.20	95.27	345.04

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.25	694.65	0.00	0.00	694.74	.09	.09	.00	694.40
240.	0.	140.	99.	1.	51.	52.	7.	7.	693.20
.31	.51	2.77	1.91	.070	.060	.070	.056	690.40	247.09
.009671	8.	8.	8.	2	0	0	-7.20	102.41	349.51

*SECNO 112.440

112.44	4.25	694.65	0.00	0.00	694.75	.10	.01	.00	694.40
240.	0.	167.	72.	1.	58.	53.	7.	7.	693.20

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        .31       .38      2.87      1.37      .070      .060      .070      .056    690.40    246.86
    .004924        1.        1.        1.         0         0         0      0.00    103.03    349.90

 *SECNO 112.500
      112.50      4.13    694.83      0.00      0.00    694.95       .12       .20       .01    694.70
         240.        0.       176.       64.        0.       55.       44.        7.        7.    693.50
         .31       .28      3.20      1.47      .070      .060      .070      .056    690.70    249.44
    .006590        35.       35.       35.         2         0         0      0.00     96.16    345.60

 *SECNO 113.200
      113.20      4.12    697.12      0.00      0.00    697.25       .13      2.30       .00    697.00
         240.        0.       176.       64.        0.       55.       43.        8.        8.    695.80
         .35       .27      3.22      1.48      .070      .060      .070      .057    693.00    249.60
    .006725        345.      345.      345.         3         0         0      0.00     95.73    345.33

 CCHV=     .400 CEHV=     .800
 *SECNO 113.290

        ***D/S M-53

      113.29      4.92    698.22      0.00      0.00    698.73       .51      1.17       .31    698.80
         240.        0.       240.       0.        0.       42.       0.        8.        8.    698.80
         .35       0.00      5.74      0.00      .065      .055      .065      .057    693.30      7.51
    .014401        123.      123.      123.         2         0         0      0.00      9.97     17.49

 CCHV=     .500 CEHV=    1.000
 *SECNO 113.290
    SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
    Q          QLOB      OCH       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

      113.29      5.20    698.50      0.00      0.00    698.83       .32       .00       .09    699.50
         240.        0.       240.       0.        0.       52.       0.        8.        8.    699.50
         .35       0.00      4.57      0.00      .065      .030      .065      .057    693.30      .02
    .002420         1.        1.        1.         2         0         0      0.00     10.17     10.18

 *SECNO 113.300
      113.30      5.16    698.56      0.00      0.00    698.89       .33       .06       .01    699.60
         240.        0.       240.       0.        0.       52.       0.        8.        8.    699.60
         .35       0.00      4.62      0.00      .065      .030      .065      .056    693.40      .02
    .002484        25.       25.       25.         2         0         0      0.00     10.17     10.18

 *SECNO 113.310

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  702.40 MAX ELLC=  699.50

      113.31      5.13    698.63      0.00      0.00    698.96       .34       .06       .00    699.70
         240.        0.       240.       0.        0.       52.       0.        8.        8.    699.70
         .36       0.00      4.65      0.00      .065      .030      .065      .056    693.50      .02
    .002523        25.       25.       25.         0         0         0      0.00     10.17     10.18

 *SECNO 113.330
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3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.06	698.96	0.00	0.00	699.31	.34	.34	.01	700.10
240.	0.	240.	0.	0.	51.	0.	8.	8.	700.10
.36	0.00	4.71	0.00	.065	.030	.065	.055	693.90	.02
.002616	132.	132.	132.	0	0	0	0.00	10.16	10.18

*SECNO 113.420

113.42	5.07	698.97	0.00	0.00	699.31	.34	.00	.00	700.10
240.	0.	240.	0.	0.	51.	0.	8.	8.	700.10
.36	0.00	4.70	0.00	.065	.055	.065	.055	693.90	.02
.008739	1.	1.	1.	0	0	0	0.00	10.16	10.18

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .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
113.80	5.81	700.21	0.00	0.00	700.57	.36	1.24	.01	700.70
240.	0.	237.	3.	0.	49.	4.	8.	8.	700.00
.37	0.00	4.83	.72	.065	.055	.065	.055	694.40	141.45
.011438	125.	125.	125.	3	0	0	0.00	44.55	186.00

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .19 FEET

113.81	5.99	700.79	0.00	0.00	701.12	.33	.54	.00	701.20
240.	0.	234.	6.	0.	51.	6.	9.	8.	700.50
.37	0.00	4.64	.89	.065	.055	.065	.055	694.90	141.22
.010324	50.	50.	50.	2	0	0	0.00	44.78	186.00

*SECNO 113.820
3280 CROSS SECTION 113.82 EXTENDED .21 FEET

113.82	5.91	701.81	0.00	0.00	702.13	.32	1.01	.00	702.20
240.	0.	234.	6.	0.	51.	7.	9.	9.	701.50
.38	0.00	4.58	.93	.065	.055	.065	.055	695.90	141.14
.009976	100.	100.	100.	2	0	0	0.00	44.86	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .22 FEET

113.83	5.91	703.31	0.00	0.00	703.63	.32	1.49	.00	703.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	703.00
.39	0.00	4.57	.94	.065	.055	.065	.055	697.40	141.14

.009942	150.	150.	150.	1	0	0	0.00	44.86	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .21 FEET

113.90	5.91	705.31	0.00	0.00	705.63	.32	2.00	.00	705.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	705.00
.40	0.00	4.60	.92	.065	.055	.065	.055	699.40	141.16
.010064	200.	200.	200.	1	0	0	0.00	44.84	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .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	IOC	ICONT	CORAR	TOPWID	ENDST
113.91	5.91	707.31	0.00	0.00	707.63	.32	2.00	.00	707.70
240.	0.	234.	6.	0.	51.	7.	9.	9.	707.00
.41	0.00	4.58	.93	.065	.055	.065	.055	701.40	141.15
.009981	200.	200.	200.	1	0	0	0.00	44.85	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.39 FEET

113.92	5.99	707.79	0.00	0.00	707.86	.07	.20	.03	706.40
240.	0.	0.	240.	0.	0.	117.	10.	9.	759.40
.42	0.00	0.00	2.06	.065	.055	.065	.055	701.80	178.00
.002151	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .35 FEET

113.93	4.95	708.25	0.00	0.00	708.47	.22	.57	.05	707.90
240.	0.	0.	240.	0.	0.	63.	10.	9.	707.90
.43	0.00	0.00	3.79	.065	.055	.065	.055	703.30	178.00
.008359	150.	150.	150.	3	0	0	0.00	38.47	216.47

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .18 FEET

114.00	4.77	709.57	0.00	0.00	709.84	.27	1.36	.01	709.40
240.	0.	0.	240.	0.	0.	57.	10.	9.	709.40
.44	0.00	0.00	4.18	.065	.055	.065	.055	704.80	178.00
.010525	145.	145.	145.	2	0	0	0.00	32.90	210.90

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .02 FEET

114.01	4.62	710.12	0.00	0.00	710.44	.33	.58	.02	710.10
240.	0.	0.	240.	0.	0.	52.	10.	9.	710.10
.44	0.00	0.00	4.59	.065	.055	.065	.055	705.50	178.00
.013057	50.	50.	50.	2	0	0	0.00	31.49	209.49

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .02 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
114.02	4.62	711.42	0.00	0.00	711.75	.33	1.30	.00	711.40
240.	0.	0.	240.	0.	0.	52.	10.	10.	711.40
.45	0.00	0.00	4.58	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	31.52	209.52

*SECNO 114.030
114.03	4.58	714.08	0.00	0.00	714.42	.34	2.67	.00	714.10
240.	0.	0.	240.	0.	0.	51.	10.	10.	714.10
.46	0.00	0.00	4.69	.065	.055	.065	.055	709.50	178.16
.013729	200.	200.	200.	2	0	0	0.00	31.00	209.16

*SECNO 114.050
114.05	4.60	716.80	0.00	0.00	717.13	.33	2.71	.00	716.80
240.	0.	0.	240.	0.	0.	52.	11.	10.	716.80
.47	0.00	0.00	4.63	.065	.055	.065	.055	712.20	178.00
.013376	200.	200.	200.	2	0	0	0.00	31.33	209.33

*SECNO 114.070
114.07	4.59	719.49	0.00	0.00	719.83	.34	2.69	.00	719.50
240.	0.	0.	240.	0.	0.	51.	11.	10.	719.50
.49	0.00	0.00	4.66	.065	.055	.065	.055	714.90	178.08
.013557	200.	200.	200.	2	0	0	0.00	31.16	209.24

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .03 FEET

114.09	4.63	720.83	0.00	0.00	721.15	.32	1.32	.00	720.80
240.	0.	0.	240.	0.	0.	53.	11.	10.	720.80
.49	0.00	0.00	4.55	.065	.055	.065	.055	716.20	178.00
.012840	100.	100.	100.	1	0	0	0.00	31.59	209.59

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 1.74 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	ICC	ICONT	CORAR	TOPWID	ENDST
115.20	4.44	721.34	0.00	0.00	721.41	.07	.23	.03	719.60
240.	64.	149.	26.	42.	62.	19.	11.	10.	719.70
.50	1.55	2.40	1.36	.065	.055	.065	.055	716.90	146.00
.002376	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.85	721.65	0.00	0.00	721.84	.18	.34	.09	723.00
240.	0.	240.	0.	0.	70.	0.	11.	10.	723.00
.51	0.00	3.43	0.00	.065	.055	.065	.055	716.80	9.62
.003705	116.	116.	116.	2	0	0	0.00	15.68	25.31

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.86	721.66	0.00	0.00	721.84	.18	.00	.00	723.00
240.	0.	240.	0.	0.	70.	0.	11.	10.	723.00
.51	0.00	3.43	0.00	.065	.030	.065	.055	716.80	9.62
.001099	1.	1.	1.	0	0	0	0.00	15.69	25.31

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	4.91	721.71	0.00	0.00	721.89	.18	.05	.00	723.00
240.	0.	240.	0.	0.	71.	0.	11.	10.	723.00
.51	0.00	3.39	0.00	.065	.030	.065	.055	716.80	9.62
.001062	45.	45.	45.	2	0	0	0.00	15.70	25.32

*SECNO 115.420

115.42	4.91	721.71	0.00	0.00	721.89	.18	.00	.00	723.00
240.	0.	240.	0.	0.	71.	0.	11.	10.	723.00
.51	0.00	3.39	0.00	.065	.055	.065	.055	716.80	9.62
.003567	1.	1.	1.	0	0	0	0.00	15.70	25.32

CCHV= .400 CEHV= .800
*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .59 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST
115.50	4.39	721.79	0.00	0.00	722.02	.23	.08	.04	721.20

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      240.       2.     206.      32.       3.      50.      19.      12.      10.    720.80
       .51       .99    4.13      1.70      .065    .055     .065     .055   717.40   197.21
   .007827      17.     17.       17.       2        0        0      0.00    52.79   250.00

  *SECNO 115.510
  3280 CROSS SECTION    115.51 EXTENDED       .87 FEET

    115.51      4.67   722.07     0.00      0.00   722.23      .16      .18      .03   721.20
      240.       5.     193.      41.       6.      55.      26.      12.      10.    720.80
       .52       .95    3.49      1.62      .065    .055     .065     .055   717.40   194.00
   .004833      29.     29.       29.       2        0        0      0.00    56.00   250.00

  *SECNC 115.580

  3265 DIVIDED FLOW

  3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  731.90 MAX ELLC=  728.70

       ***RAILROAD BRIDGE

    115.58      3.60   722.00     0.00      0.00   722.50      .50      .01      .27   728.90
      240.       0.     240.       0.       0.      42.       0.      12.      10.    729.00
       .52      0.00    5.67      0.00      .065    .030     .065     .055   718.40   192.73
   .010463       1.      1.        1.       2        0        0      0.00    26.34   221.00

  *SECNO 116.020

  3265 DIVIDED FLOW

  3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  731.90 MAX ELLC=  728.70

    116.02      4.03   722.43     0.00      0.00   722.73      .31      .15      .08   728.90
      240.       0.     240.       0.       0.      54.       0.      12.      10.    729.00
       .52      0.00    4.44      0.00      .065    .030     .065     .055   718.40   189.19
   .005655      20.     20.       20.       3        0        0      0.00    29.94   222.04

  *SECNO 116.080
    116.08      3.99   722.39     0.00      0.00   722.93      .55      .01      .19   728.30
      240.       0.     240.       0.       0.      40.       0.      12.      10.    728.70
       .52      0.00    5.93      0.00      .065    .055     .065     .055   718.40   195.31
   .020418       1.      1.        1.       2        0        0      0.00    17.98   213.28

  CCHV=    .100 CEHV=    .300
  *SECNO 116.800
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     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

    116.80      4.78   723.28     0.00      0.00   723.57      .29      .61      .03   728.40
      240.       0.     240.       0.       0.      56.       0.      12.      10.    728.80
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.52	0.00	4.30	0.00	.065	.055	.065	.055	718.50	193.13
.009426	49.	49.	49.	2	0	0	0.00	20.51	213.64

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.16 FEET

116.81	4.56	723.66	0.00	0.00	723.69	.02	.09	.03	720.90
240.	86.	74.	80.	91.	44.	86.	12.	10.	721.10
.53	.95	1.67	.93	.065	.055	.065	.055	719.10	153.70
.000752	50.	50.	50.	2	0	0	0.00	118.30	272.00

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .21 FEET

116.82	3.60	723.70	0.00	0.00	723.80	.10	.09	.02	721.90
240.	72.	109.	59.	42.	33.	40.	12.	11.	722.10
.54	1.70	3.33	1.47	.065	.055	.065	.055	720.10	169.37
.004470	60.	60.	60.	2	0	0	0.00	102.63	272.00

*SECNO 116.830

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.83	3.02	724.02	724.02	0.00	724.40	.38	.41	.08	722.80
240.	54.	152.	34.	20.	26.	15.	12.	11.	723.00
.54	2.66	5.94	2.23	.065	.055	.065	.055	721.00	180.28
.019598	50.	50.	50.	2	10	0	0.00	76.58	256.86

*SECNO 116.840

116.84	3.15	724.95	0.00	0.00	725.23	.28	.82	.01	723.60
240.	59.	141.	40.	25.	27.	20.	12.	11.	723.80
.55	2.37	5.19	2.02	.065	.055	.065	.055	721.80	177.12
.013817	50.	50.	50.	2	0	0	0.00	85.03	262.14

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.86	3.02	726.22	726.22	0.00	726.60	.38	1.31	.03	725.00
240.	54.	152.	34.	20.	26.	15.	12.	11.	725.20
.55	2.66	5.94	2.23	.065	.055	.065	.055	723.20	180.27
.019565	80.	80.	80.	1	10	0	0.00	76.62	256.88

*SECNO 117.200

117.20	3.10	727.70	0.00	0.00	728.02	.32	1.41	.01	726.40
240.	57.	145.	38.	23.	27.	18.	12.	11.	726.60
.56	2.48	5.48	2.10	.065	.055	.065	.055	724.60	178.38
.015856	80.	80.	80.	2	0	0	0.00	81.65	260.03

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .11 FEET

***CAMPGROUND RD.

117.21	3.51	728.71	0.00	0.00	728.83	.12	.79	.02	727.00
240.	70.	115.	55.	38.	31.	36.	13.	11.	727.20
.57	1.83	3.65	1.55	.065	.055	.065	.055	725.20	170.95
.005611	90.	90.	90.	3	0	0	0.00	101.05	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.40 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
738.06	729.47	0.00	83.	157.	13.	16.	729.20	732.30

117.79	7.50	732.70	0.00	0.00	732.73	.04	3.90	0.00	780.00
240.	0.	0.	240.	0.	0.	159.	13.	11.	780.00
.57	0.00	0.00	1.51	.065	.055	.065	.055	725.20	95.00
.000608	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.83 FEET

117.80	6.93	732.73	0.00	0.00	732.77	.05	.04	.00	730.00
240.	0.	0.	240.	0.	0.	141.	13.	11.	730.00
.58	0.00	0.00	1.71	.065	.055	.065	.055	725.80	95.00
.000877	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      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.    674.460   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 110.100

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
110.10	5.36	674.46	0.00	674.46	674.49	.03	0.00	0.00	673.30
215.	31.	101.	84.	57.	53.	107.	0.	0.	672.80
0.00	.53	1.92	.78	.055	.040	.055	0.000	669.10	28.93
.000562	0.	0.	0.	0	0	0	0.00	238.27	280.00
110.15	4.86	674.51	0.00	0.00	674.60	.09	.09	.02	673.85
215.	13.	133.	70.	20.	46.	66.	0.	0.	673.35
.01	.62	2.91	1.05	.055	.040	.055	.040	669.65	65.15
.001568	100.	100.	100.	0	0	0	0.00	142.40	207.55
110.20	4.34	674.54	0.00	0.00	675.00	.46	.29	.11	674.40
215.	1.	210.	4.	1.	38.	4.	1.	1.	673.90
.02	.58	5.49	1.06	.055	.040	.055	.040	670.20	113.30
.007047	100.	100.	100.	2	0	0	0.00	35.48	148.78

*SECNO 110.150

*SECNO 110.200

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.29	4.42	675.32	0.00	0.00	675.72	.40	.71	.02	674.80
215.	0.	215.	0.	0.	42.	0.	1.	1.	674.80
.02	0.00	5.10	0.00	.055	.040	.055	.040	670.90	2.90
.005384	115.	115.	115.	3	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320
3280 CROSS SECTION 110.32 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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
676.05	675.72	0.00	1.	213.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.80	675.70	0.00	0.00	676.04	.33	.31	0.00	674.80
215.	0.	215.	0.	0.	46.	0.	1.	1.	674.80
.03	0.00	4.63	0.00	.055	.040	.055	.040	670.90	2.90
.004025	30.	30.	30.	3	0	2	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	4.00	675.70	0.00	0.00	676.61	.92	.11	.47	676.20
215.	0.	215.	0.	0.	28.	0.	1.	1.	675.80
.03	0.00	7.69	0.00	.055	.040	.055	.039	671.70	30.81
.017986	15.	15.	15.	2	0	0	0.00	11.15	41.96

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.68	676.68	0.00	0.00	676.99	.31	.14	.24	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70
.03	0.00	4.46	0.00	.055	.040	.055	.039	672.00	4.00
.004133	18.	18.	18.	3	0	0	0.00	12.10	16.10

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.69	676.69	0.00	0.00	677.00	.31	.00	.00	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70
.03	0.00	4.45	0.00	.055	.030	.055	.039	672.00	4.00
.002303	1.	1.	1.	0	0	0	0.00	12.10	16.10

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.76	676.76	0.00	0.00	677.07	.31	.07	.00	676.70
215.	0.	215.	0.	0.	48.	0.	1.	1.	676.70

.03	0.00	4.44	0.00	.055	.030	.055	.039	672.00	3.83
.004427	23.	23.	23.	0	0	0	-.80	12.59	16.42

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
111.03	4.79	676.79	0.00	0.00	677.08	.29	.01	.01	676.70
215.	0.	215.	0.	0.	49.	0.	1.	1.	676.70
.03	.02	4.35	.02	.055	.050	.055	.039	672.00	3.77
.005933	1.	1.	1.	2	0	0	0.00	12.76	16.53

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED 1.08 FEET

111.80	5.17	677.17	0.00	0.00	677.21	.04	.02	.10	675.20
315.	95.	73.	147.	74.	34.	117.	1.	1.	675.20
.03	1.29	2.11	1.25	.055	.050	.055	.039	672.00	0.00
.001297	10.	10.	10.	2	0	0	0.00	145.64	145.64

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .95 FEET

111.81	5.05	677.25	0.00	0.00	677.30	.04	.08	.01	675.40
315.	94.	77.	144.	68.	33.	107.	1.	1.	675.40
.04	1.39	2.32	1.35	.055	.050	.055	.040	672.20	0.00
.001658	58.	58.	58.	2	0	0	0.00	143.80	143.80

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .78 FEET

111.82	4.89	677.29	0.00	0.00	677.35	.06	.05	.01	675.60
315.	90.	89.	136.	59.	32.	92.	1.	1.	675.60
.04	1.51	2.81	1.48	.070	.060	.070	.041	672.40	0.00
.003756	20.	20.	20.	0	0	0	0.00	141.25	141.25

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .55 FEET

111.83	4.65	677.75	0.00	0.00	677.85	.10	.49	.01	676.30
315.	85.	103.	127.	48.	29.	74.	2.	1.	676.30
.06	1.76	3.54	1.72	.070	.060	.070	.044	673.10	0.00
.006562	100.	100.	100.	2	0	0	0.00	137.78	137.78

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .52 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
***FOOTBRIDGE									
111.84	4.62	678.22	0.00	0.00	678.33	.10	.48	.00	676.80
315.	84.	106.	125.	47.	29.	71.	2.	2.	676.80
.06	1.79	3.65	1.76	.070	.060	.070	.045	673.60	0.00
.007075	70.	70.	70.	2	0	0	0.00	137.35	137.35

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .52 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.62	678.22	0.00	0.00	678.35	.13	.01	.01	676.80
315.	53.	65.	197.	32.	21.	64.	2.	2.	676.80
.06	1.66	3.10	3.09	.070	.060	.070	.045	673.60	0.00
.028086	1.	1.	1.	1	0	0	-30.80	137.36	137.36

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .62 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.71	678.31	0.00	0.00	678.42	.11	.07	.00	676.80
315.	56.	59.	200.	36.	22.	71.	2.	2.	676.80
.06	1.54	2.72	2.81	.070	.060	.070	.045	673.60	0.00
.020413	3.	3.	3.	2	0	0	-30.80	138.73	138.73

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .65 FEET

111.87	4.75	678.35	0.00	0.00	678.43	.08	.01	.00	676.80
315.	87.	97.	131.	53.	30.	81.	2.	2.	676.80
.06	1.65	3.21	1.61	.070	.060	.070	.045	673.60	0.00
.005178	1.	1.	1.	1	0	0	0.00	139.19	139.19

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .48 FEET

111.90	4.58	679.38	0.00	0.00	679.49	.11	1.04	.01	678.00
315.	93.	109.	123.	45.	29.	68.	2.	2.	678.00
.08	1.84	3.82	1.81	.070	.060	.070	.048	674.80	0.00
.007916	165.	165.	165.	3	0	0	0.00	136.72	136.72

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .63 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
	***CONCRETE WEIR								
111.91	3.23	679.93	0.00	0.00	680.11	.18	.60	.02	679.00
315.	114.	82.	119.	42.	16.	47.	3.	2.	679.00
.09	2.69	5.03	2.54	.070	.060	.070	.049	676.70	0.00
.020243	60.	50.	50.	3	0	0	0.00	121.90	121.90

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .61 FEET

111.92	4.72	680.52	0.00	0.00	680.60	.08	.48	.01	679.00
315.	87.	99.	130.	51.	30.	79.	3.	2.	679.00
.09	1.68	3.31	1.65	.070	.060	.070	.049	675.80	0.00
.005606	50.	50.	50.	2	0	0	0.00	138.71	138.71

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .51 FEET

111.93	4.62	680.82	0.00	0.00	680.92	.10	.32	.01	679.40
315.	84.	106.	125.	46.	29.	70.	3.	3.	679.40
.10	1.80	3.69	1.77	.070	.060	.070	.050	676.20	0.00
.007290	50.	50.	50.	2	0	0	0.00	137.18	137.18

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .55 FEET

111.94	4.65	681.95	0.00	0.00	682.04	.10	1.12	.00	680.50
315.	85.	103.	127.	48.	29.	74.	3.	3.	680.50
.12	1.76	3.54	1.72	.070	.060	.070	.051	677.30	0.00
.006577	162.	162.	162.	2	0	0	0.00	137.77	137.77

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .60 FEET

111.95	4.70	683.70	0.00	0.00	683.78	.09	1.74	.00	682.20
315.	86.	100.	129.	51.	30.	77.	4.	4.	682.20
.15	1.70	3.37	1.67	.070	.060	.070	.053	679.00	0.00
.005855	280.	280.	280.	3	0	0	0.00	138.45	138.45

*SECNO 111.970

3280 CROSS SECTION 111.97 EXTENDED .94 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
111.97	4.54	683.94	0.00	0.00	684.06	.12	.27	.01	682.60
315.	29.	158.	128.	18.	45.	78.	5.	4.	681.70
.16	1.57	3.53	1.65	.070	.060	.070	.053	679.40	190.00
.004926	50.	50.	50.	2	0	0	0.00	111.46	301.46

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .78 FEET

111.98	4.39	684.49	0.00	0.00	684.65	.16	.58	.01	683.30
315.	26.	171.	118.	16.	43.	65.	5.	4.	682.40
.17	1.68	4.01	1.81	.070	.060	.070	.053	680.10	190.00
.006825	100.	100.	100.	0	0	0	0.00	106.27	296.27

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .77 FEET

111.99	4.37	685.87	0.00	0.00	686.03	.16	1.38	.00	684.70
315.	26.	172.	117.	16.	42.	64.	5.	5.	683.80
.19	1.68	4.05	1.82	.070	.060	.070	.054	681.50	190.00
.006973	200.	200.	200.	2	0	0	0.00	105.94	295.94

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .77 FEET

112.00	4.37	688.37	0.00	0.00	688.53	.16	2.50	.00	687.20
315.	26.	172.	117.	16.	42.	64.	6.	6.	686.30
.22	1.68	4.05	1.82	.070	.060	.070	.055	684.00	190.00
.006996	358.	358.	358.	2	0	0	0.00	105.89	295.89

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .78 FEET

112.10	4.38	690.48	0.00	0.00	690.64	.16	2.11	.00	689.30
315.	26.	171.	118.	16.	43.	65.	7.	6.	688.40
.25	1.68	4.02	1.81	.070	.060	.070	.056	686.10	190.00
.006837	305.	305.	305.	2	0	0	0.00	106.24	296.24

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .75 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
112.20	4.34	692.24	0.00	0.00	692.41	.17	1.77	.00	691.10
315.	26.	174.	115.	15.	42.	62.	8.	7.	690.20
.27	1.70	4.13	1.85	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	105.12	295.12

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .80 FEET

112.30	4.40	694.00	0.00	0.00	694.15	.15	1.74	.00	692.80
315.	27.	169.	119.	16.	43.	66.	9.	8.	691.90
.29	1.66	3.95	1.79	.070	.060	.070	.056	689.60	190.00
.006564	250.	250.	250.	2	0	0	0.00	106.87	296.87

*SECNO 112.400

112.40	4.35	694.35	0.00	0.00	694.49	.14	.34	.00	694.00
315.	1.	213.	102.	1.	61.	59.	9.	8.	692.80
.30	.55	3.51	1.71	.070	.060	.070	.056	690.00	245.05
.006961	50.	50.	50.	0	0	0	0.00	107.87	352.92

*SECNO 112.410

***FOOTBRIDGE

112.41	4.34	694.74	0.00	0.00	694.88	.15	.39	.00	694.40
315.	1.	214.	100.	1.	60.	58.	9.	8.	693.20
.30	.54	3.56	1.73	.070	.060	.070	.056	690.40	245.43
.007255	55.	55.	55.	1	0	0	0.00	106.84	352.28

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.37	694.77	0.00	0.00	694.89	.13	.01	.00	694.40
315.	1.	174.	140.	1.	54.	61.	9.	8.	693.20
.30	.76	3.23	2.28	.070	.060	.070	.056	690.40	244.61
.012119	1.	1.	1.	2	0	0	-7.20	109.05	353.66

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.48	694.88	0.00	0.00	694.98	.10	.08	.00	694.40
315.	2.	166.	147.	2.	57.	70.	9.	8.	693.20
.30	.79	2.92	2.11	.070	.060	.070	.056	690.40	242.41
.009289	8.	8.	8.	2	0	0	-7.20	114.91	357.32

*SECNO 112.440

112.44	4.48	694.88	0.00	0.00	694.99	.11	.01	.00	694.40
315.	1.	203.	111.	2.	64.	70.	9.	8.	693.20
.30	.60	3.15	1.58	.070	.060	.070	.056	690.40	242.30
.005223	1.	1.	1.	1	0	0	0.00	115.19	357.49

*SECNO 112.500

112.50	4.37	695.07	0.00	0.00	695.21	.14	.21	.01	694.70
315.	1.	211.	103.	1.	61.	61.	9.	8.	693.50
.31	.56	3.45	1.69	.070	.060	.070	.056	690.70	244.66
.006677	35.	35.	35.	2	0	0	0.00	108.91	353.57

*SECNO 113.200

113.20	4.37	697.37	0.00	0.00	697.51	.14	2.30	.00	697.00
315.	1.	211.	103.	1.	61.	61.	10.	9.	695.80
.34	.56	3.45	1.69	.070	.060	.070	.057	693.00	244.65
.006673	345.	345.	345.	3	0	0	0.00	108.92	353.58

CCHV= .400 CEHV= .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.27	698.57	0.00	0.00	699.32	.75	1.32	.49	698.80
315.	0.	315.	0.	0.	45.	0.	10.	9.	698.80
.35	0.00	6.96	0.00	.065	.055	.065	.057	693.30	7.51
.019982	123.	123.	123.	2	0	0	0.00	9.99	17.49

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.70	699.00	0.00	0.00	699.47	.46	.01	.14	699.50
315.	0.	315.	0.	0.	58.	0.	10.	9.	699.50
.35	0.00	5.46	0.00	.065	.030	.065	.057	693.30	.01
.003250	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.69	699.09	0.00	0.00	699.56	.47	.08	.01	699.60
315.	0.	315.	0.	0.	57.	0.	10.	9.	699.60
.35	0.00	5.50	0.00	.065	.030	.065	.056	693.40	.01
.003302	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.67	699.17	0.00	0.00	699.64	.47	.08	.00	699.70
315.	0.	315.	0.	0.	57.	0.	10.	9.	699.70
.35	0.00	5.51	0.00	.065	.030	.065	.056	693.50	.01
.003319	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.84	699.74	0.00	0.00	700.22	.48	.57	.01	700.10
315.	0.	315.	0.	0.	57.	0.	11.	9.	700.10
.36	0.00	5.57	0.00	.065	.030	.065	.055	693.90	.01
.005871	132.	132.	132.	?	0	0	-2.42	10.19	10.19

*SECNO 113.420

113.42	5.92	699.82	0.00	0.00	700.26	.43	.01	.03	700.10
315.	0.	315.	0.	0.	60.	0.	11.	9.	700.10
.35	0.00	5.27	0.00	.065	.055	.065	.055	693.90	.00
.009920	1.	1.	1.	?	0	0	0.00	10.19	10.20

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .97 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
113.80	6.67	701.07	0.00	0.00	701.30	.23	.96	.08	700.70
315.	0.	268.	47.	0.	66.	27.	11.	9.	700.00
.37	0.00	4.07	1.77	.065	.055	.065	.055	694.40	140.00
.006107	125.	125.	125.	2	0	0	0.00	46.00	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .78 FEET

113.81	6.48	701.38	0.00	0.00	701.66	.28	.35	.02	701.20
315.	0.	277.	38.	0.	62.	22.	11.	9.	700.50
.37	0.00	4.46	1.76	.065	.055	.065	.055	694.90	140.00
.007876	50.	50.	50.	2	0	0	0.00	46.00	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .62 FEET

113.82	6.32	702.22	0.00	0.00	702.55	.33	.88	.02	702.20
315.	0.	285.	30.	0.	59.	17.	11.	9.	701.50
.37	0.00	4.84	1.71	.065	.055	.065	.055	695.90	140.00
.009898	100.	100.	100.	2	0	0	0.00	46.00	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .61 FEET

113.83	6.31	703.71	0.00	0.00	704.05	.34	1.50	.00	703.70
315.	0.	286.	29.	0.	59.	17.	11.	9.	703.00
.38	0.00	4.87	1.71	.065	.055	.065	.055	697.40	140.00
.010043	150.	150.	150.	2	0	0	0.00	46.00	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .62 FEET

113.90	6.32	705.72	0.00	0.00	706.05	.34	2.00	.00	705.70
315.	0.	285.	30.	0.	59.	17.	12.	10.	705.00
.40	0.00	4.85	1.71	.065	.055	.065	.055	699.40	140.00
.009953	200.	200.	200.	1	0	0	0.00	46.00	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .61 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
113.91	6.31	707.71	0.00	0.00	708.04	.34	1.99	.00	707.70
315.	0.	285.	30.	0.	59.	17.	12.	10.	707.00
.41	0.00	4.85	1.71	.065	.055	.065	.055	701.40	140.00
.009979	200.	200.	200.	0	0	0	0.00	46.00	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.81 FEET

113.92	6.40	708.20	0.00	0.00	708.28	.08	.21	.03	706.40
315.	0.	0.	315.	0.	0.	138.	12.	10.	759.40
.41	0.00	0.00	2.28	.065	.055	.065	.055	701.80	178.00
.002343	50.	50.	50.	0	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .80 FEET

113.93	5.40	708.70	0.00	0.00	708.91	.21	.59	.04	707.90
315.	0.	0.	315.	0.	0.	86.	13.	10.	707.90
.43	0.00	0.00	3.67	.065	.055	.065	.055	703.30	178.00
.007790	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .57 FEET

114.00	5.16	709.96	0.00	0.00	710.25	.28	1.32	.02	709.40

315.	0.	0.	315.	0.	0.	74.	13.	10.	709.40
.43	0.00	0.00	4.28	.065	.055	.065	.055	704.80	178.00
.010756	145.	145.	145.	2	0	0	0.00	52.00	230.00

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .41 FEET

114.01	5.01	710.51	0.00	0.00	710.87	.36	.60	.02	710.10
315.	0.	0.	315.	0.	0.	66.	13.	10.	710.10
.44	0.00	0.00	4.78	.065	.055	.065	.055	705.50	178.00
.013293	50.	50.	50.	2	0	0	0.00	43.88	221.88

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .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
114.02	5.03	711.83	0.00	0.00	712.18	.35	1.31	.00	711.40
315.	0.	0.	315.	0.	0.	67.	13.	10.	711.40
.44	0.00	0.00	4.72	.065	.055	.065	.055	706.80	178.00
.012964	100.	100.	100.	2	0	0	0.00	45.57	223.57

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .39 FEET

114.03	4.99	714.49	0.00	0.00	714.85	.37	2.67	.01	714.10
315.	0.	0.	315.	0.	0.	65.	13.	11.	714.10
.46	0.00	0.00	4.86	.065	.055	.065	.055	709.50	178.00
.013725	200.	200.	200.	2	0	0	0.00	41.72	219.72

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .41 FEET

114.05	5.00	717.20	0.00	0.00	717.56	.36	2.71	.00	716.80
315.	0.	0.	315.	0.	0.	66.	14.	11.	716.80
.47	0.00	0.00	4.79	.065	.055	.065	.055	712.20	178.00
.013364	200.	200.	200.	2	0	0	0.00	43.52	221.52

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .39 FEET

114.07	5.00	719.90	0.00	0.00	720.26	.36	2.70	.00	719.50
315.	0.	0.	315.	0.	0.	65.	14.	11.	719.50
.48	0.00	0.00	4.84	.065	.055	.065	.055	714.90	178.00
.013636	200.	200.	200.	1	0	0	0.00	42.16	220.16

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .45 FEET

114.09	5.04	721.24	0.00	0.00	721.58	.34	1.31	.00	720.80
315.	0.	0.	315.	0.	0.	68.	14.	11.	720.80
.48	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012611	100.	100.	100.	0	0	0	0.00	47.43	225.43

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.15 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
115.20	4.85	721.75	0.00	0.00	721.83	.08	.23	.03	719.60
315.	90.	187.	38.	52.	72.	25.	14.	11.	719.70
.49	1.74	2.60	1.54	.065	.055	.065	.055	716.90	146.00
.002299	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.29	722.09	0.00	0.00	722.35	.26	.38	.15	723.00
315.	0.	315.	0.	0.	77.	0.	15.	11.	723.00
.50	0.00	4.11	0.00	.065	.055	.065	.055	716.80	9.58
.004914	116.	116.	116.	2	0	0	0.00	15.79	25.37

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.29	722.09	0.00	0.00	722.35	.26	.00	.00	723.00
315.	0.	315.	0.	0.	77.	0.	15.	11.	723.00
.50	0.00	4.10	0.00	.065	.030	.065	.055	716.80	9.58
.001458	1.	1.	1.	0	0	0	0.00	15.79	25.37

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.37	722.17	0.00	0.00	722.42	.25	.06	.00	723.00
315.	0.	315.	0.	0.	78.	0.	15.	11.	723.00
.50	0.00	4.04	0.00	.065	.030	.065	.055	716.80	9.58
.001397	45.	45.	45.	2	0	0	0.00	15.81	25.38

*SECNO 115.420

115.42	5.37	722.17	0.00	0.00	722.42	.25	.00	.00	723.00
315.	0.	315.	0.	0.	78.	0.	15.	11.	723.00

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      .50       0.00      4.04      0.00      .065      .055      .065      .055    716.80      9.58
  .004691         1.        1.        1.         0         0         0      0.00     15.81     25.38

 CCHV=    .400 CEHV=    .800
 *SECNO 115.500
 3280 CROSS SECTION    115.50 EXTENDED      1.13 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

    115.50      4.93    722.33      0.00      0.00    722.53       .20       .08       .02    721.20
      315.       12.       240.       64.        9.       61.       32.       15.       11.     720.80
       .50      1.35      3.95      1.99      .065      .055      .065      .055    717.40    194.00
  .005478       17.       17.       17.         2         0         0      0.00     56.00    250.00

 *SECNO 115.510
 3280 CROSS SECTION    115.51 EXTENDED      1.32 FEET

    115.51      5.12    722.52      0.00      0.00    722.68       .16       .14       .01    721.20
      315.       15.       231.       69.       11.       64.       37.       15.       11.     720.80
       .51      1.36      3.59      1.88      .065      .055      .065      .055    717.40    194.00
  .004173       29.       29.       29.         2         0         0      0.00     56.00    250.00

 *SECNO 115.580

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   731.90 MAX ELLC=   728.70

       ***RAILROAD BRIDGE

    115.59      4.06    722.46      0.00      0.00    722.96       .51       .01       .28    728.90
      315.         0.       315.         0.        0.       55.         0.       15.       11.     729.00
       .51      0.00      5.71      0.00      .065      .030      .065      .055    718.40    188.90
  .009288         1.        1.        1.         2         0         0      0.00     30.28    222.10

 *SECNO 116.020

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   731.90 MAX ELLC=   728.70

    116.02      4.44    722.84      0.00      0.00    723.18       .34       .15       .07    728.90
      315.         0.       315.         0.        0.       68.         0.       15.       11.     729.00
       .51      0.00      4.66      0.00      .065      .030      .065      .055    718.40    182.87
  .005982       20.       20.       20.         3         0         0      0.00     35.97    222.74

 *SECNO 116.080
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116.08	4.39	722.79	0.00	0.00	723.46	.67	.01	.27	728.30
315.	0.	315.	0.	0.	48.	0.	15.	11.	728.70
.51	0.00	6.58	0.00	.065	.055	.065	.055	718.40	194.22
.022113	1.	1.	1.	2	0	0	0.00	19.24	213.46

CCHV= .100 CEHV= .300

*SECNO 116.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
116.80	5.30	723.80	0.00	0.00	724.14	.35	.65	.03	728.40
315.	0.	315.	0.	0.	67.	0.	15.	11.	728.80
.51	0.00	4.72	0.00	.065	.055	.065	.055	718.50	191.87
.008842	49.	49.	49.	2	0	0	0.00	21.99	213.87

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED 1.73 FEET

116.81	5.13	724.23	0.00	0.00	724.25	.02	.08	.03	720.90
315.	120.	84.	111.	126.	51.	113.	15.	12.	721.10
.52	.95	1.64	.98	.065	.055	.065	.055	719.10	144.49
.000599	50.	50.	50.	2	0	0	0.00	127.51	272.00

*SECNO 116.820

3280 CROSS SECTION 116.82 EXTENDED .76 FEET

116.82	4.16	724.26	0.00	0.00	724.33	.07	.06	.01	721.90
315.	106.	111.	98.	69.	39.	67.	15.	12.	722.10
.53	1.55	2.82	1.46	.065	.055	.065	.055	720.10	160.26
.002497	60.	60.	60.	2	0	0	0.00	111.74	272.00

*SECNO 116.830

116.83	3.34	724.34	0.00	0.00	724.65	.31	.25	.07	722.80
315.	86.	166.	63.	32.	29.	28.	16.	12.	723.00
.53	2.72	5.66	2.29	.065	.055	.065	.055	721.00	173.74
.014773	50.	50.	50.	0	0	0	0.00	95.78	269.52

*SECNO 116.840

116.84	3.30	725.10	0.00	0.00	725.44	.34	.78	.01	723.60
315.	84.	171.	61.	30.	29.	26.	16.	12.	723.80
.54	2.80	5.90	2.37	.065	.055	.065	.055	721.80	174.43
.016449	50.	50.	50.	3	0	0	0.00	93.40	267.83

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

116.86	3.26	726.46	0.00	0.00	726.83	.37	1.38	.01	725.00
315.	82.	175.	58.	28.	28.	24.	16.	12.	725.20
.54	2.88	6.14	2.44	.065	.055	.065	.055	723.20	175.07
.018182	80.	80.	80.	2	0	0	0.00	91.21	266.28

*SECNO 117.200

117.20	3.28	727.88	0.00	0.00	728.23	.35	1.40	.00	726.40
315.	83.	172.	60.	30.	29.	25.	16.	12.	726.60
.55	2.82	5.96	2.38	.065	.055	.065	.055	724.60	174.59
.016854	80.	80.	80.	1	0	0	0.00	92.86	267.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .34 FEET

***CAMPGROUND RD.

117.21	3.74	728.94	0.00	0.00	729.07	.13	.82	.02	727.00
315.	98.	133.	84.	48.	34.	47.	16.	12.	727.20
.56	2.03	3.88	1.79	.065	.055	.065	.055	725.20	167.12
.005668	90.	90.	90.	3	0	0	0.00	104.88	272.00

SPECIAL BRIDGE

SB XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.61 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
745.05	729.91	0.00	158.	157.	13.	16.	729.20	732.30

117.79	7.71	732.91	0.00	0.00	732.97	.06	3.89	0.00	780.00
315.	0.	0.	315.	0.	0.	166.	16.	13.	780.00
.56	0.00	0.00	1.90	.065	.055	.065	.055	725.20	95.00
.000923	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 3.06 FEET

117.80	7.16	732.96	0.00	0.00	733.03	.07	.05	.00	730.00
315.	0.	0.	315.	0.	0.	148.	16.	13.	730.00
.57	0.00	0.00	2.13	.065	.055	.065	.055	725.80	95.00
.001298	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
674.120	64.04	674.16	155.73	0.00	0.00	674.12
673.470	31.29	673.57	95.43	0.00	0.00	673.47
673.940	52.76	673.99	140.13	0.00	0.00	673.94
674.460	90.69	674.49	238.27	0.00	0.00	674.46
674.179	37.68	674.29	110.63	0.00	0.00	0.00
673.651	21.28	673.87	73.84	0.00	0.00	0.00
674.019	31.50	674.16	95.81	0.00	0.00	0.00
674.509	54.29	674.60	142.40	0.00	0.00	0.00
674.336	22.13	674.69	22.42	0.00	0.00	0.00
674.065	18.71	674.35	16.89	0.00	0.00	0.00
674.256	21.17	674.59	20.95	0.00	0.00	0.00
674.539	25.61	675.00	35.48	0.00	0.00	0.00
674.991	25.53	675.29	11.10	0.00	0.00	0.00
674.639	21.83	674.87	11.00	0.00	0.00	0.00
674.891	24.43	675.17	11.10	0.00	0.00	0.00
675.320	29.30	675.72	11.10	0.00	0.00	0.00
675.174	27.64	675.45	11.10	0.00	0.00	0.00
674.699	22.42	674.93	11.04	0.00	0.00	0.00
675.034	26.03	675.29	11.10	0.00	0.00	0.00
675.703	33.89	676.04	11.10	0.00	0.00	0.00
675.159	11.83	676.06	10.08	0.00	0.00	0.00
674.675	8.66	675.59	9.13	0.00	0.00	0.00
675.016	10.84	675.93	9.80	0.00	0.00	0.00
675.697	16.03	676.61	11.15	0.00	0.00	0.00
676.209	28.02	676.46	12.07	0.00	0.00	0.00
675.797	23.50	676.00	12.04	0.00	0.00	0.00
676.098	26.79	676.33	12.06	0.00	0.00	0.00
676.685	33.44	676.99	12.10	0.00	0.00	0.00
676.215	37.57	676.46	12.07	0.00	0.00	0.00
675.802	31.55	676.00	12.04	0.00	0.00	0.00
676.104	35.93	676.34	12.06	0.00	0.00	0.00
676.691	44.80	677.00	12.10	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
676.273	38.46	676.51	12.07	0.00	0.00	0.00
675.853	32.28	676.05	12.04	0.00	0.00	0.00
676.160	36.77	676.39	12.06	0.00	0.00	0.00
676.763	32.33	677.07	12.59	0.00	0.00	0.00
676.276	23.03	676.52	12.07	0.00	0.00	0.00
675.856	19.31	676.05	12.04	0.00	0.00	0.00
676.163	22.01	676.39	12.06	0.00	0.00	0.00
676.788	27.91	677.08	12.76	0.00	0.00	0.00
676.521	40.27	676.62	135.74	0.00	0.00	0.00
675.925	15.58	676.14	100.72	0.00	0.00	0.00
676.387	32.91	676.49	133.00	0.00	0.00	0.00
677.170	87.46	677.21	145.64	0.00	0.00	0.00
676.804	46.12	676.88	137.20	0.00	0.00	0.00
676.469	27.80	676.54	127.22	0.00	0.00	0.00
676.685	38.75	676.76	135.34	0.00	0.00	0.00
677.254	77.37	677.30	143.80	0.00	0.00	0.00
676.898	31.22	677.00	135.38	0.00	0.00	0.00
676.544	18.42	676.65	120.80	0.00	0.00	0.00
676.769	26.32	676.88	132.79	0.00	0.00	0.00
677.290	51.40	677.35	141.25	0.00	0.00	0.00
677.665	34.27	677.76	136.37	0.00	0.00	0.00
677.295	20.16	677.38	123.69	0.00	0.00	0.00
677.545	28.90	677.64	134.59	0.00	0.00	0.00
677.751	38.89	677.85	137.78	0.00	0.00	0.00
678.152	33.98	678.25	136.28	0.00	0.00	0.00
677.777	19.40	677.87	122.45	0.00	0.00	0.00
678.032	28.54	678.13	134.47	0.00	0.00	0.00
678.224	37.45	678.33	137.35	0.00	0.00	0.00
678.144	16.42	678.27	136.29	0.00	0.00	0.00
677.752	9.15	677.90	121.21	0.00	0.00	0.00
678.023	12.73	678.15	134.48	0.00	0.00	0.00
678.216	18.80	678.35	137.36	0.00	0.00	0.00
678.250	19.71	678.35	137.75	0.00	0.00	0.00
677.889	11.13	677.99	128.39	0.00	0.00	0.00
678.145	16.21	678.24	136.19	0.00	0.00	0.00
678.315	22.05	678.42	138.73	0.00	0.00	0.00
678.289	40.38	678.36	138.22	0.00	0.00	0.00
677.941	25.01	678.00	130.98	0.00	0.00	0.00
678.183	35.04	678.25	136.61	0.00	0.00	0.00
678.355	43.77	678.43	139.19	0.00	0.00	0.00
679.294	31.65	679.41	135.52	0.00	0.00	0.00
678.903	17.26	679.02	118.75	0.00	0.00	0.00
679.167	26.08	679.28	132.46	0.00	0.00	0.00
679.375	35.40	679.49	136.72	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
679.860	19.80	680.04	119.58	0.00	0.00	0.00
679.542	10.72	679.74	108.69	0.00	0.00	0.00
679.759	16.37	679.94	115.89	0.00	0.00	0.00
679.927	22.14	680.11	121.90	0.00	0.00	0.00
680.448	38.59	680.53	137.70	0.00	0.00	0.00
680.135	24.59	680.20	130.39	0.00	0.00	0.00
680.344	33.46	680.42	136.11	0.00	0.00	0.00
680.515	42.07	680.60	138.71	0.00	0.00	0.00
680.746	33.37	680.85	136.08	0.00	0.00	0.00
680.390	19.67	680.48	122.89	0.00	0.00	0.00
680.629	28.11	680.73	134.32	0.00	0.00	0.00
680.819	36.89	680.92	137.18	0.00	0.00	0.00
681.875	35.21	681.97	136.66	0.00	0.00	0.00
681.503	20.24	681.59	123.83	0.00	0.00	0.00
681.755	29.73	681.84	134.88	0.00	0.00	0.00
681.950	38.84	682.04	137.77	0.00	0.00	0.00
683.618	37.23	683.70	137.29	0.00	0.00	0.00
683.247	21.73	683.32	126.17	0.00	0.00	0.00
683.493	31.36	683.57	135.42	0.00	0.00	0.00
683.696	41.17	683.78	138.45	0.00	0.00	0.00
683.861	41.42	683.97	108.86	0.00	0.00	0.00
683.472	27.02	683.55	96.25	0.00	0.00	0.00
683.731	36.20	683.83	104.68	0.00	0.00	0.00
683.942	44.88	684.06	111.46	0.00	0.00	0.00
684.392	34.65	684.55	103.37	0.00	0.00	0.00
683.918	20.20	684.06	82.86	0.00	0.00	0.00
684.235	29.25	684.39	98.46	0.00	0.00	0.00
684.489	38.13	684.65	106.27	0.00	0.00	0.00
685.768	33.97	685.93	102.78	0.00	0.00	0.00
685.287	19.60	685.44	81.27	0.00	0.00	0.00
685.612	28.49	685.77	97.72	0.00	0.00	0.00
685.867	37.72	686.03	105.94	0.00	0.00	0.00
688.275	34.17	688.43	102.95	0.00	0.00	0.00
687.798	19.83	687.95	81.87	0.00	0.00	0.00
688.124	28.86	688.28	98.08	0.00	0.00	0.00
688.367	37.66	688.53	105.89	0.00	0.00	0.00
690.384	34.42	690.54	103.17	0.00	0.00	0.00
689.904	19.90	690.05	82.05	0.00	0.00	0.00
690.228	28.94	690.38	98.16	0.00	0.00	0.00
690.480	38.10	690.64	106.24	0.00	0.00	0.00
692.152	33.22	692.32	102.12	0.00	0.00	0.00
691.675	19.23	691.83	80.26	0.00	0.00	0.00
691.999	27.96	692.16	97.20	0.00	0.00	0.00
692.245	36.72	692.41	105.12	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
693.905	35.20	694.06	103.84	0.00	0.00	0.00
693.427	20.40	693.57	83.38	0.00	0.00	0.00
693.751	29.68	693.90	98.88	0.00	0.00	0.00
693.999	38.88	694.15	106.87	0.00	0.00	0.00
694.256	34.06	694.40	102.83	0.00	0.00	0.00
693.784	19.87	693.90	76.47	0.00	0.00	0.00
694.107	28.54	694.24	94.60	0.00	0.00	0.00
694.348	37.75	694.49	107.87	0.00	0.00	0.00
694.645	33.49	694.79	102.03	0.00	0.00	0.00
694.168	19.48	694.29	75.16	0.00	0.00	0.00
694.498	28.27	694.63	94.16	0.00	0.00	0.00
694.735	36.98	694.88	106.84	0.00	0.00	0.00
694.676	25.42	694.80	104.08	0.00	0.00	0.00
694.175	12.48	694.31	76.13	0.00	0.00	0.00
694.520	20.34	694.64	95.27	0.00	0.00	0.00
694.770	28.61	694.89	109.05	0.00	0.00	0.00
694.790	29.33	694.89	110.13	0.00	0.00	0.00
694.331	15.67	694.42	86.63	0.00	0.00	0.00
694.645	24.41	694.74	102.41	0.00	0.00	0.00
694.879	32.68	694.98	114.91	0.00	0.00	0.00
694.791	39.95	694.90	110.71	0.00	0.00	0.00
694.341	23.85	694.43	87.17	0.00	0.00	0.00
694.648	34.20	694.75	103.03	0.00	0.00	0.00
694.879	43.59	694.99	115.19	0.00	0.00	0.00
694.975	34.90	695.11	104.01	0.00	0.00	0.00
694.515	20.67	694.63	79.13	0.00	0.00	0.00
694.828	29.54	694.95	96.16	0.00	0.00	0.00
695.067	38.55	695.21	108.91	0.00	0.00	0.00
697.278	34.86	697.41	103.95	0.00	0.00	0.00
696.786	19.96	696.91	76.79	0.00	0.00	0.00
697.125	29.27	697.25	95.73	0.00	0.00	0.00
697.370	38.56	697.51	108.92	0.00	0.00	0.00
698.436	21.43	699.09	9.98	0.00	0.00	0.00
697.732	16.93	698.04	9.95	0.00	0.00	0.00
698.215	20.00	698.73	9.97	0.00	0.00	0.00
698.566	22.28	699.32	9.99	0.00	0.00	0.00
698.808	52.71	699.22	10.18	0.00	0.00	0.00
697.904	41.36	698.10	10.15	0.00	0.00	0.00
698.501	48.79	698.83	10.17	0.00	0.00	0.00
699.004	55.26	699.47	10.18	0.00	0.00	0.00
698.882	52.20	699.30	10.18	0.00	0.00	0.00
697.945	40.56	698.15	10.15	0.00	0.00	0.00
698.563	48.15	698.89	10.17	0.00	0.00	0.00
699.086	54.82	699.56	10.18	0.00	0.00	0.00

CWSEL	.DIK	EG	TOPWID	STENCL	STENCR	WSELK
698.957	51.97	699.37	10.18	0.00	0.00	0.00
697.987	39.91	698.19	10.14	0.00	0.00	0.00
698.625	47.78	698.96	10.17	0.00	0.00	0.00
699.169	54.67	699.64	10.18	0.00	0.00	0.00
699.354	51.92	699.77	10.18	0.00	0.00	0.00
698.224	37.87	698.45	10.14	0.00	0.00	0.00
698.964	46.93	699.31	10.16	0.00	0.00	0.00
699.740	41.11	700.22	10.19	0.00	0.00	0.00
699.361	28.36	699.78	10.18	0.00	0.00	0.00
698.229	20.72	698.45	10.14	0.00	0.00	0.00
698.971	25.67	699.31	10.16	0.00	0.00	0.00
699.825	31.63	700.26	10.19	0.00	0.00	0.00
700.695	31.18	700.98	45.99	0.00	0.00	0.00
699.342	13.84	699.70	15.07	0.00	0.00	0.00
700.212	22.44	700.57	44.55	0.00	0.00	0.00
701.070	40.31	701.30	46.00	0.00	0.00	0.00
701.116	29.54	701.43	45.75	0.00	0.00	0.00
700.039	15.44	700.34	15.93	0.00	0.00	0.00
700.788	23.62	701.12	44.78	0.00	0.00	0.00
701.379	35.49	701.66	46.00	0.00	0.00	0.00
702.065	28.54	702.39	45.60	0.00	0.00	0.00
701.145	16.34	701.42	16.38	0.00	0.00	0.00
701.814	24.03	702.13	44.86	0.00	0.00	0.00
702.220	31.66	702.55	46.00	0.00	0.00	0.00
703.563	28.49	703.89	45.59	0.00	0.00	0.00
702.663	16.51	702.94	16.46	0.00	0.00	0.00
703.309	24.07	703.63	44.86	0.00	0.00	0.00
703.713	31.43	704.05	46.00	0.00	0.00	0.00
705.566	28.45	705.90	45.59	0.00	0.00	0.00
704.661	16.51	704.93	16.47	0.00	0.00	0.00
705.307	23.92	705.63	44.84	0.00	0.00	0.00
705.715	31.57	706.05	46.00	0.00	0.00	0.00
707.564	28.64	707.89	45.62	0.00	0.00	0.00
706.663	16.46	706.94	16.44	0.00	0.00	0.00
707.314	24.02	707.63	44.85	0.00	0.00	0.00
707.708	31.53	708.04	46.00	0.00	0.00	0.00
708.049	60.08	708.12	52.00	0.00	0.00	0.00
707.110	33.53	707.17	52.00	0.00	0.00	0.00
707.791	51.75	707.86	52.00	0.00	0.00	0.00
708.201	65.08	708.28	52.00	0.00	0.00	0.00
708.530	31.88	708.74	52.00	0.00	0.00	0.00
707.635	17.36	707.85	26.94	0.00	0.00	0.00
708.250	26.25	708.47	38.47	0.00	0.00	0.00
708.698	35.69	708.91	52.00	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
709.814	27.47	710.10	44.60	0.00	0.00	0.00
709.027	16.04	709.28	25.04	0.00	0.00	0.00
709.571	23.39	709.84	32.90	0.00	0.00	0.00
709.964	30.37	710.25	52.00	0.00	0.00	0.00
710.367	24.86	710.71	33.71	0.00	0.00	0.00
709.580	14.43	709.88	22.55	0.00	0.00	0.00
710.117	21.00	710.44	31.49	0.00	0.00	0.00
710.510	27.32	710.87	43.88	0.00	0.00	0.00
711.677	25.00	712.02	33.79	0.00	0.00	0.00
710.884	14.48	711.18	22.61	0.00	0.00	0.00
711.421	21.05	711.75	31.52	0.00	0.00	0.00
711.833	27.67	712.18	45.57	0.00	0.00	0.00
714.335	24.34	714.69	33.43	0.00	0.00	0.00
713.546	14.08	713.85	21.97	0.00	0.00	0.00
714.080	20.48	714.42	31.00	0.00	0.00	0.00
714.486	26.89	714.85	41.72	0.00	0.00	0.00
717.052	24.63	717.40	33.59	0.00	0.00	0.00
716.263	14.27	716.56	22.28	0.00	0.00	0.00
716.799	20.75	717.13	31.33	0.00	0.00	0.00
717.205	27.25	717.56	43.52	0.00	0.00	0.00
719.750	24.42	720.10	33.47	0.00	0.00	0.00
718.954	14.17	719.26	22.11	0.00	0.00	0.00
719.490	20.61	719.83	31.16	0.00	0.00	0.00
719.899	26.98	720.26	42.16	0.00	0.00	0.00
721.088	25.26	721.42	33.93	0.00	0.00	0.00
720.288	14.56	720.58	22.75	0.00	0.00	0.00
720.826	21.18	721.15	31.59	0.00	0.00	0.00
721.241	28.05	721.58	47.43	0.00	0.00	0.00
721.600	59.62	721.67	61.00	0.00	0.00	0.00
720.805	30.80	720.87	61.00	0.00	0.00	0.00
721.337	49.24	721.41	61.00	0.00	0.00	0.00
721.748	65.79	721.83	61.00	0.00	0.00	0.00
721.928	42.89	722.16	15.75	0.00	0.00	0.00
721.108	32.77	721.22	15.56	0.00	0.00	0.00
721.654	39.43	721.84	15.68	0.00	0.00	0.00
722.087	44.94	722.35	15.79	0.00	0.00	0.00
721.931	78.73	722.16	15.75	0.00	0.00	0.00
721.110	60.21	721.22	15.56	0.00	0.00	0.00
721.656	72.39	721.84	15.69	0.00	0.00	0.00
722.090	82.49	722.35	15.79	0.00	0.00	0.00
721.998	80.30	722.22	15.77	0.00	0.00	0.00
721.146	60.98	721.26	15.57	0.00	0.00	0.00
721.711	73.65	721.89	15.70	0.00	0.00	0.00
722.166	84.28	722.42	15.81	0.00	0.00	0.00

	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
	722.000	43.82	722.22	15.77	0.00	0.00	0.00
	721.147	33.27	721.26	15.57	0.00	0.00	0.00
	721.713	40.18	721.89	15.70	0.00	0.00	0.00
	722.169	45.99	722.42	15.81	0.00	0.00	0.00
	722.090	35.10	722.31	56.00	0.00	0.00	0.00
	721.191	15.00	721.47	42.83	0.00	0.00	0.00
	721.786	27.13	722.02	52.79	0.00	0.00	0.00
	722.330	42.56	722.53	56.00	0.00	0.00	0.00
	722.326	42.38	722.49	56.00	0.00	0.00	0.00
	721.599	22.90	721.74	50.05	0.00	0.00	0.00
	722.066	34.52	722.23	56.00	0.00	0.00	0.00
	722.521	48.76	722.68	56.00	0.00	0.00	0.00
	722.262	28.52	722.78	28.52	0.00	0.00	0.00
	721.549	16.54	721.98	21.22	0.00	0.00	0.00
	722.005	23.46	722.50	26.34	0.00	0.00	0.00
	722.457	32.69	722.96	30.28	0.00	0.00	0.00
	722.673	37.52	723.00	32.45	0.00	0.00	0.00
	721.931	22.07	722.19	25.69	0.00	0.00	0.00
	722.426	31.92	722.73	29.94	0.00	0.00	0.00
	722.842	40.73	723.18	35.97	0.00	0.00	0.00
	722.623	19.32	723.25	18.72	0.00	0.00	0.00
	721.911	12.26	722.32	16.47	0.00	0.00	0.00
	722.387	16.80	722.93	17.98	0.00	0.00	0.00
	722.786	21.18	723.46	19.24	0.00	0.00	0.00
	723.600	30.49	723.92	21.51	0.00	0.00	0.00
	722.671	18.74	722.89	18.56	0.00	0.00	0.00
	723.285	26.15	723.57	20.51	0.00	0.00	0.00
	723.795	33.50	724.14	21.99	0.00	0.00	0.00
	724.012	112.00	724.03	123.99	0.00	0.00	0.00
	723.001	49.16	723.03	107.42	0.00	0.00	0.00
	723.665	87.50	723.69	118.30	0.00	0.00	0.00
	724.227	128.69	724.25	127.51	0.00	0.00	0.00
	724.048	51.73	724.12	108.26	0.00	0.00	0.00
	723.015	14.83	723.25	69.82	0.00	0.00	0.00
	723.702	35.90	723.80	102.63	0.00	0.00	0.00
	724.261	63.04	724.33	111.74	0.00	0.00	0.00
	724.131	20.05	724.54	84.14	0.00	0.00	0.00
*	723.761	11.89	724.11	59.91	0.00	0.00	0.00
*	724.021	17.14	724.40	76.58	0.00	0.00	0.00
	724.341	25.92	724.65	95.78	0.00	0.00	0.00
	725.092	24.14	725.38	92.63	0.00	0.00	0.00
	724.673	13.97	724.94	67.10	0.00	0.00	0.00
	724.953	20.42	725.23	85.03	0.00	0.00	0.00
	725.097	24.56	725.44	93.40	0.00	0.00	0.00

	CWSEL	.OIK	EG	TOPWID	STENCL	STENCR	WSELK
	726.337	20.18	726.74	84.44	0.00	0.00	0.00
*	725.956	11.81	726.31	59.60	0.00	0.00	0.00
*	726.222	17.16	726.60	76.62	0.00	0.00	0.00
	726.457	23.36	726.83	91.21	0.00	0.00	0.00
	727.835	22.74	728.16	90.05	0.00	0.00	0.00
	727.428	13.10	727.72	64.20	0.00	0.00	0.00
	727.701	19.06	728.02	81.65	0.00	0.00	0.00
	727.885	24.26	728.23	92.86	0.00	0.00	0.00
	728.847	37.72	728.98	103.34	0.00	0.00	0.00
	728.416	22.18	728.53	88.97	0.00	0.00	0.00
	728.708	32.04	728.83	101.05	0.00	0.00	0.00
	728.942	41.84	729.07	104.88	0.00	0.00	0.00
	732.832	101.28	732.88	32.00	0.00	0.00	0.00
	728.466	10.23	728.95	19.19	0.00	0.00	0.00
	732.698	97.30	732.73	32.00	0.00	0.00	0.00
	732.912	103.67	732.97	32.00	0.00	0.00	0.00
	732.870	85.01	732.93	32.00	0.00	0.00	0.00
	729.564	15.11	729.82	26.03	0.00	0.00	0.00
	732.727	81.04	732.77	32.00	0.00	0.00	0.00
	732.956	87.44	733.03	32.00	0.00	0.00	0.00

SUMMARY OF ERRORS

CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= .000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 2 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= .000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= .000 PROFILE= 3 MINIMUM SPECIFIC ENERGY

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unnamed Trib No. 1

4) DOCUMENT TYPE: Revised 100 year flood

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
     -1.        4.        0.        0.   0.000000      0.00     -1.0       0.    674.120     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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

          ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***D/S 27 MILE RD									
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
	***FOOTBRIDGE									
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000
	***CONCRETE WEIR									
X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000
	***FOOTBRIDGE									
X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000
	***D/S M-53									
X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	212.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S VAN DYKE RD

X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

FLOW DISTRIBUTION FOR SECNO= 110.10 CWSEL= 674.12

STA=	54.	70.	104.	114.	122.	136.	154.	180.	196.	210.
PER Q=	.2	3.4	2.4	2.4	56.6	11.3	14.3	7.6	1.9	
AREA=	1.8	14.3	7.2	6.6	47.8	22.9	30.4	17.1	6.9	
VEL=	.2	.4	.6	.6	2.0	.8	.8	.8	.5	

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

FLOW DISTRIBUTION FOR SECNO= 110.15 CWSEL= 674.18

STA=	93.	104.	114.	122.	136.	154.	180.	196.	203.
PER Q=	.1	.6	.9	74.5	8.6	9.9	4.7	.6	
AREA=	.8	2.4	2.7	41.0	14.1	17.8	9.4	1.9	
VEL=	.2	.5	.6	3.1	1.0	.9	.9	.5	

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

FLOW DISTRIBUTION FOR SECNO= 110.20 CWSEL= 674.34

STA=	122.	136.	145.
PER Q=	99.2	.8	
AREA=	35.3	1.8	
VEL=	4.8	.7	

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

```
STA=      32.      42.
  PER Q=    100.0
   AREA=     22.3
    VEL=      7.6

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS


        ***D/S 27 MILE RD

   110.58      4.21   676.21      0.00      0.00   676.46       .25       .13       .26   676.70
    170.         0.    170.         0.        0.     42.         0.        1.        1.   676.70
     .03      0.00     4.00      0.00      .055     .040      .055      .039    672.00     4.02
 .003681       18.      18.       18.         3        0         0      0.00     12.07    16.08


FLOW DISTRIBUTION FOR SECNO=    110.58          CWSEL=    676.21

STA=      4.      16.
  PER Q=    100.0
   AREA=     42.4
    VEL=      4.0

CCHV=    .500 CEHV=   1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   110.59      4.21   676.21      0.00      0.00   676.46       .25       .00       .00   676.70
    170.         0.    170.         0.        0.     43.         0.        1.        1.   676.70
     .03      0.00     3.99      0.00      .055     .030      .055      .039    672.00     4.02
 .002047        1.       1.        1.         0        0         0      0.00     12.07    16.08


FLOW DISTRIBUTION FOR SECNO=    110.59          CWSEL=    676.21

STA=      4.      16.
  PER Q=    100.0
   AREA=     42.6
    VEL=      4.0

*SECNO 111.020

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   111.02      4.27   676.27      0.00      0.00   676.51       .24       .05       .00   676.70
    170.         0.    170.         0.        0.     43.         0.        1.        1.   676.70
     .03      0.00     3.92      0.00      .055     .030      .055      .039    672.00     4.01
 .001954       23.      23.       23.         0        0         0      0.00     12.07    16.09


FLOW DISTRIBUTION FOR SECNO=    111.02          CWSEL=    676.27

STA=      4.      16.
  PER Q=    100.0
   AREA=     43.3
    VEL=      3.9
```

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

FLOW DISTRIBUTION FOR SECNO= 111.03 CWSEL= 676.28

STA=	4.	16.
PER Q=	100.0	
AREA=	43.3	
VEL=	3.9	

CCHV= .400 CEHV= .800

*SECNO 111.800

3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

FLOW DISTRIBUTION FOR SECNO= 111.80 CWSEL= 676.52

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.2	24.1	35.1	5.3	9.5	23.8	.0	
AREA=	5.2	36.7	27.9	6.6	11.8	44.4	.1	
VEL=	1.2	1.9	3.6	2.3	2.3	1.5	.3	

*SECNO 111.810

3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

FLOW DISTRIBUTION FOR SECNO= 111.81 CWSEL= 676.80

STA=	0.	10.	48.	58.	63.	72.	134.	137.
PER Q=	2.5	24.7	32.5	5.2	9.4	25.7	.0	
AREA=	6.1	40.4	28.8	7.1	12.7	50.4	.3	
VEL=	1.2	1.7	3.2	2.1	2.1	1.5	.4	

CCHV= .100 CEHV= .300

*SECNO 111.820

3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60

285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

FLOW DISTRIBUTION FOR SECNO= 111.82 CWSEL= 676.89

STA=	0.	10.	48.	58.	63.	72.	134.	135.
PER Q=	2.0	23.4	37.2	5.2	9.4	22.8	.0	
AREA=	4.9	35.8	27.6	6.5	11.6	42.9	.1	
VEL=	1.2	1.9	3.8	2.3	2.3	1.5	.0	

*SECNC 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

FLOW DISTRIBUTION FOR SECNO= 111.83 CWSEL= 677.67

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.2	5.2	9.3	24.2	.0	
AREA=	5.6	38.3	28.3	6.8	12.2	47.0	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

FLOW DISTRIBUTION FOR SECNO= 111.84 CWSEL= 678.15

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.4	5.2	9.3	24.1	.0	
AREA=	5.5	38.1	28.2	6.8	12.2	46.6	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

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   111.85      4.54    678.14      0.00      0.00    678.27       .13       .01       .01    676.80
     285.       45.       63.      176.       28.       20.       58.        1.        1.     676.80
      .06      1.60      3.13      3.03      .070      .060      .070      .045    673.60      0.00
  .030130        1.        1.        1.         1         0         0    -30.80    136.29    136.29

FLOW DISTRIBUTION FOR SECNO=     111.85          CWSEL=     678.14

STA=        0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=       4.7      11.3      22.2       1.2      10.7      49.9        .0
   AREA=       5.5      22.9      20.2       2.8       8.6      46.7        .2
    VEL=       2.4       1.4       3.1       1.2       3.6       3.0        .7

*SECNO 111.860
3280 CROSS SECTION    111.86 EXTENDED       .55 FEET


3370 NORMAL BRIDGE,NRO=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

   111.86      4.65    678.25      0.00      0.00    678.35       .10       .07       .00    676.80
     285.       49.       57.      179.       33.       21.       66.        1.        1.     676.80
      .06      1.47      2.69      2.72      .070      .060      .070      .045    673.60      0.00
  .020903        3.        3.        3.         2         0         0    -30.80    137.75    137.75

FLOW DISTRIBUTION FOR SECNO=     111.86          CWSEL=     678.25

STA=        0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=       5.1      12.0      20.0       1.3      10.5      50.9        .1
   AREA=       6.5      26.6      21.2       3.3       9.5      52.7        .5
    VEL=       2.2       1.3       2.7       1.1       3.2       2.8        .8

*SECNO 111.870
3280 CROSS SECTION    111.87 EXTENDED       .58 FEET


   111.87      4.69    678.29      0.00      0.00    678.36       .07       .01       .00    676.80
     285.       78.       92.      116.       50.       30.       76.        1.        1.     676.80
      .06      1.56      3.10      1.53      .070      .060      .070      .045    673.60      0.00
  .004980        1.        1.        1.         1         0         0      0.00    138.22    138.22

FLOW DISTRIBUTION FOR SECNO=     111.87          CWSEL=     678.29

STA=        0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=       2.7      24.5      32.1       5.1       9.1      26.4        .1
   AREA=       6.8      43.0      29.5       7.4      13.3      54.7        .6
    VEL=       1.1       1.6       3.1       1.9       1.9       1.4        .4

*SECNO 111.900
3280 CROSS SECTION    111.90 EXTENDED       .40 FEET


   111.90      4.49    679.29      0.00      0.00    679.41       .11      1.03       .01    678.00
     285.       73.      105.      107.       41.       28.       62.        2.        2.     678.00
      .08      1.77      3.79      1.73      .070      .060      .070      .048    674.80      0.00
  .008107       165.      165.      165.         3         0         0      0.00    135.52    135.52
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FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	43.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
		***CONCRETE WEIR							
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

STA=	0.	10.	48.	58.	72.	134.	136.
PER Q=	2.2	23.7	35.8	14.5	23.8	.0	
AREA=	5.4	37.6	28.1	18.7	45.8	.1	
VEL=	1.2	1.8	3.6	2.2	1.5	.3	

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

FLOW DISTRIBUTION FOR SECNO= 111.94 CWSEL= 681.87

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.3	24.0	34.7	14.4	24.6	.0	
AREA=	5.8	39.0	28.5	19.3	48.2	.2	
VEL=	1.2	1.7	3.5	2.1	1.5	.3	

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

FLOW DISTRIBUTION FOR SECNO= 111.95 CWSEL= 683.62

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.5	24.2	33.6	14.3	25.3	.0	
AREA=	6.2	40.6	28.9	19.9	50.8	.4	
VEL=	1.1	1.7	3.3	2.1	1.4	.4	

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	150.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

FLOW DISTRIBUTION FOR SECNO= 111.97 CWSEL= 683.86

STA=	190.	206.	220.	235.	284.	299.
PER Q=	8.7	52.2	18.8	19.6	.7	
AREA=	17.0	43.8	25.7	42.2	3.4	

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    VEL=      1.5       3.4       2.1       1.3       .5

*SECNO 111.980
3280 CROSS SECTION    111.98 EXTENDED       .69 FEET


   111.98      4.29    684.39      0.00      0.00    684.55       .15       .56       .01    683.30
     285.       22.      162.      101.       14.      41.        58.        4.        4.     682.40
      .17      1.57      3.92      1.72      .070      .060      .070      .053    680.10    190.00
  .006763      100.      100.      100.         0         0         0      0.00    103.37    293.37


FLOW DISTRIBUTION FOR SECNO=    111.98          CWSEL=    684.39

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.9      56.8      18.9      16.2        .2
   AREA=     14.3      41.4      23.1      33.9       1.4
    VEL=      1.6       3.9       2.3       1.4        .5

*SECNO 111.990
3280 CROSS SECTION    111.99 EXTENDED       .67 FEET


   111.99      4.27    685.77      0.00      0.00    685.93       .16      1.38       .00    684.70
     285.       22.      164.       99.       14.      41.        57.        5.        5.     683.80
      .18      1.58      3.98      1.74      .070      .060      .070      .054    681.50    190.00
  .007038      200.      200.      200.         2         0         0      0.00    102.78    292.78


FLOW DISTRIBUTION FOR SECNO=    111.99          CWSEL=    685.77

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.7      57.4      18.9      15.8        .2
   AREA=     14.0      41.1      22.8      33.0       1.2
    VEL=      1.6       4.0       2.4       1.4        .5

*SECNO 112.000
3280 CROSS SECTION    112.00 EXTENDED       .68 FEET


   112.00      4.27    688.27      0.00      0.00    688.43       .16      2.50       .00    687.20
     285.       22.      163.      100.       14.      41.        57.        6.        5.     686.30
      .22      1.58      3.96      1.74      .070      .060      .070      .055    684.00    190.00
  .006957      358.      358.      358.         2         0         0      0.00    102.95    292.95


FLOW DISTRIBUTION FOR SECNO=    112.00          CWSEL=    688.27

STA=     190.      206.      220.      235.      284.      293.
  PER Q=      7.8      57.2      18.9      15.9        .2
   AREA=     14.0      41.2      22.9      33.2       1.2
    VEL=      1.6       4.0       2.3       1.4        .5

*SECNO 112.100
3280 CROSS SECTION    112.10 EXTENDED       .68 FEET


   112.10      4.28    690.38      0.00      0.00    690.54       .16      2.11       .00    689.30
     285.       22.      163.      100.       14.      41.        58.        7.        6.     688.40
      .25      1.57      3.94      1.73      .070      .060      .070      .056    686.10    190.00
  .006857      305.      305.      305.         2         0         0      0.00    103.17    293.17
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FLOW DISTRIBUTION FOR SECNO= 112.10 CWSEL= 690.38

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.0	18.9	16.1	.2	
AREA=	14.2	41.3	23.0	33.5	1.3	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10
285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.15

STA=	190.	206.	220.	235.	284.	292.
PER Q=	7.6	58.0	18.9	15.4	.2	
AREA=	13.6	40.8	22.5	32.0	1.0	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 693.91

STA=	190.	206.	220.	235.	284.	294.
PER Q=	7.9	56.4	18.9	16.5	.3	
AREA=	14.5	41.6	23.3	34.6	1.5	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.26

STA=	247.	252.	278.	304.	338.	350.
PER Q=	.1	69.8	20.5	9.1	.4	
AREA=	.6	58.2	30.0	20.5	2.1	
VEL=	.4	3.4	2.0	1.3	.6	

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

FLOW DISTRIBUTION FOR SECNO= 112.41 CWSEL= 694.64

STA=	247.	252.	278.	304.	338.	349.
PER Q=	.1	70.2	20.4	8.9	.4	
AREA=	.6	57.8	29.6	20.0	1.9	
VEL=	.4	3.5	2.0	1.3	.6	

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

FLOW DISTRIBUTION FOR SECNO= 112.42 CWSEL= 694.68

STA=	246.	252.	278.	304.	338.	351.
PER Q=	.2	57.7	28.5	13.0	.6	
AREA=	.8	51.6	30.6	21.3	2.4	
VEL=	.6	3.2	2.7	1.7	.8	

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

FLOW DISTRIBUTION FOR SECNO= 112.43 CWSEL= 694.79

STA=	244.	252.	278.	304.	338.	354.
PER Q=	.4	54.9	28.8	14.9	1.1	
AREA=	1.5	54.5	33.5	25.2	4.0	
VEL=	.7	2.9	2.4	1.7	.8	

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

```
     .30       .52      3.04      1.50      .070      .060      .070      .056    690.40    243.98
 .005089        1.         1.        1.         0         0         0      0.00    110.71    354.69

FLOW DISTRIBUTION FOR SECNO=    112.44          CWSEL=    694.79

STA=     244.     252.     278.     304.     338.     355.
  PER Q=          .3      66.2     21.4     11.2       .9
   AREA=         1.6      62.0     33.8     25.5      4.2
    VEL=          .5       3.0      1.8      1.3       .6

*SECNO 112.500
   112.50      4.28    694.98      0.00      0.00    695.11       .13       .20       .01    694.70
     285.        0.      197.      87.         1.      59.       54.        8.        8.     693.50
      .31       .46      3.36      1.61      .070      .060      .070      .056    690.70    246.50
 .006668        35.       35.       35.         2         0         0      0.00    104.01    350.51

FLOW DISTRIBUTION FOR SECNO=    112.50          CWSEL=    694.98

STA=     246.     252.     278.     304.     338.     351.
  PER Q=          .1      69.3     20.7      9.5       .5
   AREA=          .8      58.8     30.6     21.3      2.3
    VEL=          .5       3.4      1.9      1.3       .6

*SECNO 113.200
   113.20      4.28    697.28      0.00      0.00    697.41       .13      2.30       .00    697.00
     285.        0.      197.      87.         1.      59.       54.        9.        8.     695.80
      .34       .46      3.36      1.61      .070      .060      .070      .057    693.00    246.52
 .006686       345.      345.      345.         3         0         0      0.00    103.95    350.47

FLOW DISTRIBUTION FOR SECNO=    113.20          CWSEL=    697.28

STA=     247.     252.     278.     304.     338.     350.
  PER Q=          .1      69.3     20.7      9.4       .5
   AREA=          .8      58.7     30.5     21.2      2.3
    VEL=          .5       3.4      1.9      1.3       .6

CCHV=    .400 CEHV=    .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS


        ***D/S M-53

   113.28      5.14    698.44      0.00      0.00    699.09       .65      1.26       .41    698.80
     285.        0.      285.        0.        0.      44.        0.        9.        9.     698.80
      .35       0.00     6.48      0.00      .065      .055      .065      .057    693.30      7.51
 .017682       123.      123.      123.         2         0         0      0.00      9.98     17.49

FLOW DISTRIBUTION FOR SECNO=    113.28          CWSEL=    698.44

STA=       8.       18.
  PER Q=    100.0
   AREA=     44.0
    VEL=      6.5

CCHV=    .500 CEHV=   1.000
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*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.29 CWSEL= 698.81

STA= 0. 10.
PER Q= 100.0
AREA= 55.6
VEL= 5.1

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.30 CWSEL= 698.88

STA= 0. 10.
PER Q= 100.0
AREA= 55.2
VEL= 5.2

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.31 CWSEL= 698.96

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.33 CWSEL= 699.35

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.42 CWSEL= 699.36

STA= 0. 10.
PER Q= 100.0
AREA= 55.1
VEL= 5.2

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

FLOW DISTRIBUTION FOR SECNO= 113.80 CWSEL= 700.70

STA= 140. 160. 186.
PER Q= 90.9 9.1
AREA= 58.4 16.8
VEL= 4.4 1.5

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

FLOW DISTRIBUTION FOR SECNO= 113.81 CWSEL= 701.12

STA= 140. 160. 186.
PER Q= 92.3 7.7
AREA= 56.8 14.7

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    VEL=      4.6       1.5

*SECNO 113.820
3280 CROSS SECTION    113.82 EXTENDED       .47 FEET


   113.82      6.16   702.06      0.00      0.00   702.39      .33      .96       .01   702.20
    285.         0.     266.       19.        0.     56.       13.      10.        9.    701.50
     .37      0.00     4.76      1.45      .065     .055      .065     .055    695.90   140.40
 .009973      100.     100.      100.         2        0         0     0.00     45.60   186.00

FLOW DISTRIBUTION FOR SECNO=    113.82          CWSEL=    702.06

STA=     140.      160.      186.
  PER Q=     93.2       6.8
   AREA=     55.8      13.4
    VEL=      4.8       1.4

*SECNO 113.830
3280 CROSS SECTION    113.83 EXTENDED       .46 FEET


   113.83      6.16   703.56      0.00      0.00   703.89      .33     1.50       .00   703.70
    285.         0.     266.       19.        0.     56.       13.      10.        9.    703.00
     .38      0.00     4.76      1.45      .065     .055      .065     .055    697.40   140.41
 .010006      150.     150.      150.         2        0         0     0.00     45.59   186.00

FLOW DISTRIBUTION FOR SECNO=    113.83          CWSEL=    703.56

STA=     140.      160.      186.
  PER Q=     93.2       6.8
   AREA=     55.8      13.3
    VEL=      4.8       1.4

*SECNO 113.900
3280 CROSS SECTION    113.90 EXTENDED       .46 FEET


   113.90      6.17   705.57      0.00      0.00   705.90      .33     2.00       .00   705.70
    285.         0.     266.       19.        0.     56.       13.      11.        9.    705.00
     .40      0.00     4.77      1.45      .065     .055      .065     .055    699.40   140.41
 .010038      200.     200.      200.         0        0         0     0.00     45.59   186.00

FLOW DISTRIBUTION FOR SECNO=    113.90          CWSEL=    705.57

STA=     140.      160.      186.
  PER Q=     93.3       6.7
   AREA=     55.7      13.3
    VEL=      4.8       1.4

*SECNO 113.910
3280 CROSS SECTION    113.91 EXTENDED       .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      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL    XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST
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113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

FLOW DISTRIBUTION FOR SECNO= 113.91 CWSEL= 707.56

STA=	140.	160.	186.
PER Q=	93.1	6.9	
AREA=	55.9	13.5	
VEL=	4.7	1.5	

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.62 FEET

113.92	6.22	708.02	0.00	0.00	708.11	.09	.19	.02	706.40
285.	0.	260.	25.	0.	107.	22.	11.	10.	706.70
.41	0.00	2.44	1.13	.065	.055	.065	.055	701.80	178.00
.002042	50.	50.	50.	2	0	0	0.00	52.00	230.00

Δ = .03

FLOW DISTRIBUTION FOR SECNO= 113.92 CWSEL= 708.02

STA=	178.	212.	230.
PER Q=	91.2	8.8	
AREA=	106.6	22.0	
VEL=	2.4	1.1	

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .58 FEET

113.93	5.17	708.47	0.00	0.00	708.72	.24	.56	.05	707.90
285.	0.	283.	2.	0.	71.	3.	11.	10.	708.20
.42	0.00	3.98	.68	.065	.055	.065	.055	703.30	178.00
.008990	150.	150.	150.	2	0	0	0.00	52.00	230.00

.06

FLOW DISTRIBUTION FOR SECNO= 113.93 CWSEL= 708.47

STA=	178.	212.	230.
PER Q=	99.2	.8	
AREA=	71.1	3.2	
VEL=	4.0	.7	

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .48 FEET

114.00	5.07	709.87	0.00	0.00	710.14	.27	1.42	.01	709.40
285.	0.	284.	1.	0.	68.	1.	12.	10.	709.70
.43	0.00	4.20	.47	.065	.055	.065	.055	704.80	178.00
.010648	145.	145.	145.	2	0	0	0.00	50.09	228.09

.07

FLOW DISTRIBUTION FOR SECNO= 114.00 CWSEL= 709.87

```
STA=      178.      212.      228.
  PER Q=     99.8        .2
   AREA=     67.7       1.4
    VEL=      4.2        .5

*SECNO 114.010
3280 CROSS SECTION     114.01 EXTENDED        .34 FEET


   114.01      4.94    710.44      0.00      0.00    710.76       .32       .60       .01    710.10
     285.        0.      285.        0.        0.        63.       0.        12.       10.    710.40
      .44       0.00     4.53       .03       .065      .055      .065      .055    705.50    178.00
  .013552       50.      50.        50.          2         0         0      0.00     37.58    215.58

FLOW DISTRIBUTION FOR SECNO=     114.01          CWSEL=     710.44

STA=      178.      212.      216.
  PER Q=    100.0        .0
   AREA=     63.0        .1
    VEL=      4.5        .0

*SECNO 114.020
3280 CROSS SECTION     114.02 EXTENDED        .37 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

   114.02      4.97    711.77      0.00      0.00    712.08       .31      1.32       .00    711.40
     285.        0.      285.        0.        0.        64.       0.        12.       10.    711.70
      .44       0.00     4.46       .27       .065      .055      .065      .055    706.80    178.00
  .012880      100.     100.       100.          2         0         0      0.00     40.17    218.17

FLOW DISTRIBUTION FOR SECNO=     114.02          CWSEL=     711.77

STA=      178.      212.      218.
  PER Q=    100.0        .0
   AREA=     63.9        .2
    VEL=      4.5        .3

*SECND 114.030
3280 CROSS SECTION     114.03 EXTENDED        .33 FEET


   114.03      4.93    714.43      0.00      0.00    714.75       .32      2.67       .00    714.10
     285.        0.      285.        0.        0.        63.       0.        12.       10.    714.40
      .46       0.00     4.56       .03       .065      .055      .065      .055    709.50    178.00
  .013833      200.     200.       200.          2         0         0      0.00     36.53    214.53

FLOW DISTRIBUTION FOR SECNO=     114.03          CWSEL=     714.43

STA=      178.      212.      215.
  PER Q=    100.0        .0
   AREA=     62.6        .0
    VEL=      4.6        .0
```

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .35 FEET

114.05	4.95	717.15	0.00	0.00	717.46	.31	2.71	.00	716.80
285.	0.	285.	0.	0.	63.	0.	12.	10.	717.10
.47	0.00	4.50	.23	.065	.055	.065	.055	712.20	178.00
.013291	200.	200.	200.	2	0	0	0.00	38.56	216.56

FLOW DISTRIBUTION FOR SECNO= 114.05 CWSEL= 717.15

STA=	178.	212.	217.
PER Q=	100.0	.0	
AREA=	63.3	.1	
VEL=	4.5	.2	

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .34 FEET

114.07	4.94	719.84	0.00	0.00	720.16	.32	2.69	.00	719.50
285.	0.	285.	0.	0.	63.	0.	13.	11.	719.80
.48	0.00	4.53	.03	.065	.055	.065	.055	714.90	178.00
.013625	200.	200.	200.	2	0	0	0.00	37.30	215.30

FLOW DISTRIBUTION FOR SECNO= 114.07 CWSEL= 719.84

STA=	178.	212.	215.
PER Q=	100.0	.0	
AREA=	62.8	.1	
VEL=	4.5	.0	

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .37 FEET

114.09	4.97	721.17	0.00	0.00	721.48	.31	1.32	.00	720.80
285.	0.	285.	0.	0.	64.	0.	13.	11.	721.10
.49	0.00	4.45	.28	.065	.055	.065	.055	716.20	178.00
.012807	100.	100.	100.	1	0	0	0.00	40.46	218.46

FLOW DISTRIBUTION FOR SECNO= 114.09 CWSEL= 721.17

STA=	178.	212.	218.
PER Q=	100.0	.0	
AREA=	64.0	.2	
VEL=	4.4	.3	

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.04 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

115.20	4.75	721.65	0.00	0.00	721.72	.07	.22	.02	719.60
285.	80.	171.	34.	49.	70.	23.	13.	11.	719.70
.49	1.63	2.46	1.45	.065	.055	.065	.055	716.90	146.00
.002150	50.	50.	50.	2	0	0	0.00	61.00	207.00

FLOW DISTRIBUTION FOR SECNO= 115.20 CWSEL= 721.65

STA=	146.	152.	170.	194.	207.
PER Q=	6.0	22.0	60.1	11.8	
AREA=	12.3	36.8	69.7	23.3	
VEL=	1.4	1.7	2.5	1.4	

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.16	721.96	0.00	0.00	722.18	.23	.34	.12	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.82	0.00	.065	.055	.065	.055	716.80	9.59
.004337	116.	116.	116.	2	0	0	0.00	15.76	25.35

FLOW DISTRIBUTION FOR SECNO= 115.28 CWSEL= 721.96

STA=	10.	26.
PER Q=	100.0	
AREA=	74.7	
VEL=	3.8	

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.16	721.96	0.00	0.00	722.19	.23	.00	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.81	0.00	.065	.030	.065	.055	716.80	9.59
.001287	1.	1.	1.	0	0	0	0.00	15.76	25.35

FLOW DISTRIBUTION FOR SECNO= 115.32 CWSEL= 721.96

STA=	10.	26.
PER Q=	100.0	
AREA=	74.8	
VEL=	3.8	

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.23	722.03	0.00	0.00	722.25	.22	.06	.00	723.00
285.	0.	285.	0.	0.	76.	0.	13.	11.	723.00
.50	0.00	3.76	0.00	.065	.030	.065	.055	716.80	9.59
.001239	45.	45.	45.	2	0	0	0.00	15.77	25.36

FLOW DISTRIBUTION FOR SECNO= 115.38 CWSEL= 722.03

```
STA=       10.       26.
  PER Q=     100.0
   AREA=      75.8
    VEL=       3.8

*SECNO 115.420
   115.42       5.23    722.03       0.00       0.00    722.25       .22        .00        .00    723.00
     285.          0.       285.          0.          0.       76.          0.       13.        11.    723.00
      .50       0.00       3.76       0.00       .065       .055       .065       .055    716.80      9.59
  .004161          1.          1.          1.          0          0          0       0.00     15.77     25.36


FLOW DISTRIBUTION FOR SECNO=     115.42          CWSEL=     722.03

STA=       10.       26.
  PER Q=     100.0
   AREA=      75.8
    VEL=       3.8

CCHV=     .400 CEHV=     .800
*SECNO 115.500
3280 CROSS SECTION     115.50 EXTENDED        .92 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

   115.50       4.73    722.13       0.00       0.00    722.34       .21        .08        .00    721.20
     285.          7.       227.         51.          6.       56.         27.       13.        11.    720.80
      .51       1.16       4.02       1.90       .065       .055       .065       .055    717.40    194.00
  .006240         17.         17.         17.          2          0          0       0.00     56.00    250.00


FLOW DISTRIBUTION FOR SECNO=     115.50          CWSEL=     722.13

STA=      194.       206.       226.       250.
  PER Q=          2.5        79.5       17.9
   AREA=          6.2        56.4       26.9
    VEL=          1.2         4.0        1.9

*SECNO 115.510
3280 CROSS SECTION     115.51 EXTENDED       1.15 FEET


   115.51       4.95    722.35       0.00       0.00    722.51       .16        .15        .02    721.20
     285.         11.       216.         58.          9.       61.         32.       13.        11.    720.80
      .51       1.22       3.54       1.79       .065       .055       .065       .055    717.40    194.00
  .004382         29.         29.         29.          2          0          0       0.00     56.00    250.00


FLOW DISTRIBUTION FOR SECNO=     115.51          CWSEL=     722.35

STA=      194.       206.       226.       250.
  PER Q=          3.8        75.8       20.3
   AREA=          9.0        61.0       32.4
    VEL=          1.2         3.5        1.8
```

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= .0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.88	722.28	0.00	0.00	722.79	.50	.01	.28	728.90
285.	0.	285.	0.	0.	50.	0.	13.	11.	729.00
.51	0.00	5.70	0.00	.065	.030	.065	.055	718.40	190.36
.009661	1.	1.	1.	2	0	0	0.00	28.72	221.00

FLOW DISTRIBUTION FOR SECNO= 115.58 CWSEL= 722.28

STA= 190. 233.
PER Q= 100.0
AREA= 50.0
VEL= 5.7

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.28	722.68	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.60	0.00	.065	.030	.065	.055	718.40	187.06
.005743	20.	20.	20.	3	0	0	0.00	32.49	222.46

FLOW DISTRIBUTION FOR SECNO= 116.02 CWSEL= 722.68

STA= 187. 233.
PER Q= 100.0
AREA= 61.9
VEL= 4.6

*SECNO 116.080

116.08	4.23	722.63	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021666	1.	1.	1.	2	0	0	0.00	18.73	213.39

FLOW DISTRIBUTION FOR SECNO= 116.08 CWSEL= 722.63

STA= 195. 218.
PER Q= 100.0
AREA= 44.8
VEL= 6.4

CCHV= .100 CEHV= .300
*SECNO 116.800

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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008733	49.	49.	49.	2	0	0	0.00	21.51	213.78

FLOW DISTRIBUTION FOR SECNO= 116.80 CWSEL= 723.60

STA=	192.	218.
PER Q=	100.0	
AREA=	62.4	
VEL=	4.6	

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.53	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000647	50.	50.	50.	2	0	0	0.00	123.99	272.00

FLOW DISTRIBUTION FOR SECNO= 116.81 CWSEL= 724.01

STA=	148.	176.	200.	212.	224.	240.	272.
PER Q=	4.4	18.4	14.5	27.9	16.2	18.6	
AREA=	23.9	53.1	34.9	48.3	41.8	61.1	
VEL=	.5	1.0	1.2	1.6	1.1	.9	

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.97	1.46	.065	.055	.065	.055	720.10	163.73
.003034	60.	60.	60.	2	0	0	0.00	108.27	272.00

FLOW DISTRIBUTION FOR SECNO= 116.82 CWSEL= 724.05

STA=	164.	176.	200.	212.	224.	240.	272.
PER Q=	1.1	15.4	16.1	38.4	16.3	12.8	
AREA=	4.6	30.0	23.4	36.7	26.4	30.4	
VEL=	.7	1.5	2.0	3.0	1.8	1.2	

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.54	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.44
.020187	50.	50.	50.	0	19	0	0.00	84.15	261.59

FLOW DISTRIBUTION FOR SECNO= 116.83 CWSEL= 724.13

STA=	177.	200.	212.	224.	240.	262.

PER Q=	7.3	17.0	59.3	13.6	2.8
AREA=	10.6	13.7	27.0	13.4	5.8
VEL=	2.0	3.5	6.3	2.9	1.4

*SECNO 116.840

116.84	3.29	725.09	0.00	0.00	725.38	.29	.83	.01	723.60
285.	75.	156.	54.	29.	29.	25.	14.	11.	723.80
.54	2.56	5.41	2.16	.065	.055	.065	.055	721.80	174.66
.013951	50.	50.	50.	2	0	0	0.00	92.62	267.28

FLOW DISTRIBUTION FOR SECNO= 116.84 CWSEL= 725.09

STA=	175.	200.	212.	224.	240.	267.
PER Q=	9.2	17.2	54.6	14.7	4.3	
AREA=	14.0	15.4	28.7	15.7	9.3	
VEL=	1.9	3.2	5.4	2.7	1.3	

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
116.86	3.14	726.34	726.33	0.00	726.74	.40	1.32	.03	725.00
285.	69.	169.	47.	24.	27.	19.	14.	12.	725.20
.54	2.84	6.22	2.42	.065	.055	.065	.055	723.20	177.33
.019948	80.	80.	80.	2	12	0	0.00	84.45	261.78

FLOW DISTRIBUTION FOR SECNO= 116.86 CWSEL= 726.34

STA=	177.	200.	212.	224.	240.	262.
PER Q=	7.3	17.0	59.1	13.7	2.8	
AREA=	10.7	13.7	27.1	13.5	5.9	
VEL=	2.0	3.5	6.2	2.9	1.4	

*SECNO 117.200

117.20	3.24	727.84	0.00	0.00	728.16	.32	1.41	.01	726.40
285.	73.	160.	52.	28.	28.	23.	14.	12.	726.60
.55	2.64	5.67	2.25	.065	.055	.065	.055	724.60	175.41
.015710	80.	80.	80.	2	0	0	0.00	90.04	265.45

FLOW DISTRIBUTION FOR SECNO= 117.20 CWSEL= 727.84

STA=	175.	200.	212.	224.	240.	265.
PER Q=	8.5	17.2	56.1	14.4	3.8	
AREA=	12.9	14.8	28.2	15.0	8.1	
VEL=	1.9	3.3	5.7	2.7	1.3	

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .25 FEET

***CAMPGROUND RD.

117.21	3.65	728.85	0.00	0.00	728.98	.13	.80	.02	727.00
285.	87.	126.	72.	44.	33.	42.	15.	12.	727.20

.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

FLOW DISTRIBUTION FOR SECNO= 117.21 CWSEL= 728.85

STA=	169.	176.	200.	212.	224.	240.	272.
PER Q=	.4	13.3	16.7	44.3	16.0	9.4	
AREA=	1.6	22.8	19.8	33.1	21.6	20.8	
VEL=	.6	1.7	2.4	3.8	2.1	1.3	

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.79 CWSEL= 732.83

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.1	18.9	13.3	5.2	20.0	3.2	12.6	17.7	
AREA=	21.9	27.2	18.5	7.2	22.9	6.7	19.9	38.8	
VEL=	1.2	2.0	2.0	2.0	2.5	1.4	1.8	1.3	

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.80 CWSEL= 732.87

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.0	18.8	13.5	5.4	21.0	3.3	12.3	16.7	
AREA=	19.1	24.3	16.9	6.7	21.2	6.1	17.7	33.2	
VEL=	1.3	2.2	2.3	2.3	2.8	1.5	2.0	1.4	

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: UN named Trib No. 2

4) DOCUMENT TYPE: Floodway

00BREAK00

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1       JOB HUD FIA H-4705 T 06
T2       WASHINGTON TWP FIS
T3       UNNAMED TRIB. NO.2 100 YEAR FLOW

JI  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.        4.        0.        0.  0.000000      0.00      0.0       0.   658.050   0.000

J3      1.000    34.000     3.000     4.000    27.000    28.000     9.000    0.000     0.000     0.000
NC       .070      .070      .045      .150      .350     0.000     0.000    0.000     0.000     0.000
QT      5.000   180.000   265.000   310.000   435.000   310.000     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

X1    199.500    24.000   280.000   324.000     0.000     0.000     0.000    0.000    -3.100     0.000
GR    668.200     0.000   668.400    40.000   668.400    80.000   668.300  112.000   668.000   138.000
GR    666.000   160.000   665.600   176.000   665.400   190.000   662.800  206.000   661.200   228.000
GR    660.800   256.000   660.500   280.000   660.000   288.000   658.800  294.000   658.700   294.500
GR    657.300   295.000   656.600   296.000   657.000   297.000   658.300  297.500   658.800   298.000
GR    659.700   304.000   660.300   324.000   660.000   358.000   660.600  380.000     0.000     0.000

X1    199.700     0.000     0.000     0.000   270.000   270.000   270.000    0.000     1.550     0.000

X1    200.000     0.000     0.000     0.000   270.000   270.000   270.000    0.000     1.550     0.000

X1    200.050    17.000   280.000   314.000   330.000   330.000   330.000    0.000     2.000     0.000
GR    662.800   206.000   661.200   228.000   660.800   256.000   660.500  280.000   660.000   288.000
GR    658.800   294.000   658.700   294.500   657.300   295.000   656.600  296.000   657.000   297.000
GR    658.300   297.500   658.800   298.000   659.700   304.000   660.500  314.000   661.500   340.000
GR    661.700   410.000   663.500   480.000     0.000     0.000     0.000    0.000     0.000     0.000

X1    200.100    25.000   270.000   294.000   330.000   330.000   330.000    0.000    -2.000     0.000
GR    673.000     0.000   672.600    24.000   672.200    54.000   670.200   96.000   669.400   138.000
GR    668.700   188.000   667.500   226.000   667.300   256.000   667.200  270.000   666.100   278.000
GR    664.300   284.000   663.800   285.000   663.200   286.000   662.600  287.000   663.100   288.000
GR    663.800   289.000   664.300   290.000   667.000   294.000   667.700  322.000   667.700   366.000
GR    668.300   402.000   668.500   428.000   669.200   464.000   670.200  492.000   670.600   522.000

X1    200.200     0.000     0.000     0.000   352.000   352.000   352.000    0.000     2.000     0.000

X1    200.400    15.000   270.000   294.000   150.000   150.000   150.000    0.000     .800      0.000
GR    670.000   250.000   669.300   255.000   668.600   260.000   667.200  270.000   666.100   278.000
GR    664.300   284.000   663.800   285.000   663.200   286.000   662.600  287.000   663.100   288.000
GR    663.800   289.000   664.300   290.000   667.000   294.000   667.700  322.000   670.000   366.000
NC      0.000     0.000     0.000      .400      .800     0.000     0.000    0.000     0.000     0.000

X1    201.300     8.000     5.000    14.000   160.000   160.000   160.000    0.000    -1.100     0.000
GR    671.000     6.000   666.400     6.100   665.600     7.000   665.400    8.000   665.600    10.000
GR    666.700    11.000   668.300    13.900   671.000    14.000     0.000    0.000     0.000     0.000
SB      2.000     2.400     3.000   100.000     9.000     0.000    37.000    0.000   665.400   664.300

X1    201.700     0.000     0.000     0.000   190.000   190.000   190.000    0.000     1.100     0.000
X2      0.000     0.000     1.000   668.000   676.300     0.000     0.000    0.000     0.000     0.000

X1    201.800    16.000   228.000   266.000    50.000    50.000    50.000    0.000    -1.600     0.000
GR    676.000   154.000   673.200   184.000   673.100   210.000   672.800  228.000   673.000   240.000
GR    670.500   244.000   669.200   250.000   668.300   251.000   667.600  251.500   667.200   252.000
GR    667.600   252.500   668.300   253.000   669.200   254.000   672.000  260.000   673.300   266.000
GR    674.000   284.000     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00

Slope area start, appears this has been done in a previous run, and WSEL input.

3280 CROSS SECTION 199.70 EXTENDED .56 FEET

199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00

3280 CROSS SECTION 200.00 EXTENDED .56 FEET

200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.08	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWETR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

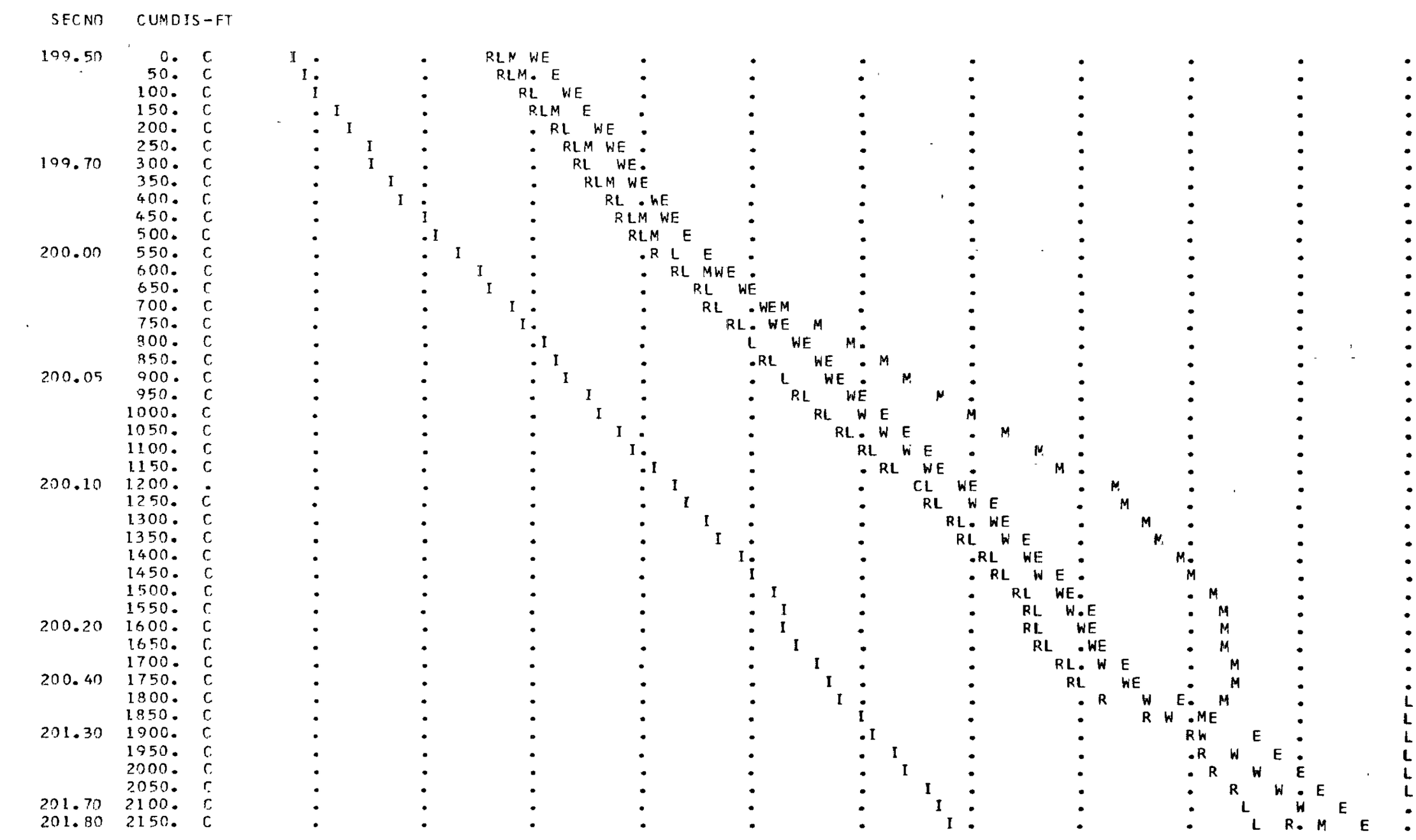
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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**********************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
**********************************************


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       0.0         0.    658.050      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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CCHV=    .150 CEHV=    .350
 2800 NAT Q1=      40.48  WSEL=     658.05  ENC Q1=      40.48  WSEL=     658.15  RATIO=    .0000
 NAT Q1=     46.  RATIOS LOB,CH,ROB=    .0595    .6662    .2743  WSEL=     658.15
3280 CROSS SECTION     199.50 EXTENDED        .55 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    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    ICC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      280.0      363.5  TYPE=      4  TARGET=         .129
   199.50      4.55    658.05      0.00    658.05    658.21       .16      0.00      0.00    657.40
    310.         0.       237.       73.       0.       66.       40.       0.        0.     657.20
     0.00       .02      3.57      1.82      .070      .045      .070    0.000    653.50    280.00
  .007273        0.        0.        0.         0         0         1     0.00     83.50    363.50

 2800 NAT Q1=      41.14  WSEL=     659.61  ENC Q1=      41.14  WSEL=     659.71  RATIO=    .0000
 NAT Q1=     47.  RATIOS LOB,CH,ROB=    .0610    .6639    .2751  WSEL=     659.71
3280 CROSS SECTION     199.70 EXTENDED        .69 FEET


3470 ENCROACHMENT STATIONS=      280.0      364.2  TYPE=      4  TARGET=         .128
   199.70      4.69    659.74      0.00    659.61    659.87       .13      1.65       .00    658.95
    310.         0.       232.       78.       0.       73.       46.       1.        1.     658.75
      .03       .02      3.20      1.68      .070      .045      .070      .045    655.05    280.00
 .005208       270.      270.      270.         4         0         1     0.00     84.17    364.17

 2800 NAT Q1=      40.82  WSEL=     661.16  ENC Q1=      40.82  WSEL=     661.26  RATIO=    .0000
 NAT Q1=     47.  RATIOS LOB,CH,ROB=    .0602    .6651    .2747  WSEL=     661.26
3280 CROSS SECTION     200.00 EXTENDED        .63 FEET


3470 ENCROACHMENT STATIONS=      280.0      363.9  TYPE=      4  TARGET=         .128
   200.00      4.63    661.23      0.00    661.16    661.37       .14      1.50       .00    660.50
    310.         0.       234.       76.       0.       70.       44.       1.        1.     660.30
      .05       .02      3.34      1.74      .070      .045      .070      .045    656.60    280.00
 .005950       270.      270.      270.         4         0         1     0.00     83.92    363.92

 2800 NAT Q1=      33.59  WSEL=     663.36  ENC Q1=      33.59  WSEL=     663.46  RATIO=    .0000
 NAT Q1=     38.  RATIOS LOB,CH,ROB=    .1391    .8195    .0414  WSEL=     663.46
   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


3470 ENCROACHMENT STATIONS=      264.0      314.0  TYPE=      4  TARGET=         .117
   200.05      4.86    663.46      0.00    663.36    663.74       .28      2.32       .05    662.50
    310.        24.       286.       0.       14.       65.       0.        2.        2.     662.50
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     .07      1.76      4.43       .02      .070      .045      .070      .045    658.60    263.96
 .008440      330.      330.      330.         4         0         1      0.00     50.04    314.00


 2800 NAT Q1=      38.13  WSEL=    665.80  ENC Q1=      38.13  WSEL=    665.90  RATIO=    .0000
 NAT Q1=      43.  RATIOS LOB,CH,ROB=    .0842    .8494    .0664  WSEL=    665.90

3470 ENCROACHMENT STATIONS=      256.7      301.8  TYPE=      4  TARGET=        .104
   200.10      5.28    665.88      0.00    665.80    666.21       .33      2.45       .02    665.20
      310.       11.       290.       9.        8.       61.        6.        3.        2.     665.00
      .09      1.27      4.73      1.46      .070      .045      .070      .045    660.60    256.68
 .006568      330.      330.      330.         4         0         1      0.00     45.16    301.84


 2800 NAT Q1=      43.31  WSEL=    667.91  ENC Q1=      43.31  WSEL=    668.01  RATIO=    .0000
 NAT Q1=      48.  RATIOS LOB,CH,ROB=    .1037    .8041    .0922  WSEL=    668.01

3470 ENCROACHMENT STATIONS=      249.4      312.3  TYPE=      4  TARGET=        .104
   200.20      5.39    667.99      0.00    667.91    668.25       .26      2.03       .01    667.20
      310.       18.       274.      18.       15.       64.       14.        3.        2.     667.00
      .12      1.22      4.29      1.26      .070      .045      .070      .045    662.60    249.38
 .005096      352.      352.      352.         4         0         1      0.00     62.92    312.30


 2800 NAT Q1=      38.88  WSEL=    668.71  ENC Q1=      38.88  WSEL=    668.81  RATIO=    .0000
 NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0064    .9223    .0713  WSEL=    668.81

3470 ENCROACHMENT STATIONS=      270.0      294.6  TYPE=      4  TARGET=        .076
   200.40      5.38    668.78      0.00    668.71    669.15       .36       .86       .04    668.00
      310.        0.       309.       1.        0.       64.        1.        4.        2.     667.80
      .13       .02      4.85      1.69      .070      .045      .070      .045    663.40    270.00
 .006531      150.      150.      150.         3         0         1      0.00     24.57    294.57


CCHV=     .400 CEHV=     .800
 2800 NAT Q1=      22.56  WSEL=    670.20  ENC Q1=      23.20  WSEL=    670.30  RATIO=   -.0286
 NAT Q1=      23.  RATIOS LOB,CH,ROB=  0.0000  1.0000    .0000  WSEL=    670.30
3280 CROSS SECTION    201.30 EXTENDED        .42 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=        6.0       14.0  TYPE=      4  TARGET=        .000
   201.30      6.02    670.32      0.00    670.20    671.27       .94      1.66       .47    669.90
      310.        0.       310.       0.        0.       40.        0.        4.        3.     669.90
      .13      0.00      7.80       .03      .070      .045      .070      .045    664.30      6.00
 .018838      160.      160.      160.         3         0         1      0.00      8.00     14.00


SPECIAL BRIDGE

SB   XK         XKOR       COEQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     2.00       2.40       3.00     100.00       9.00       0.00      37.00       0.00     665.40     664.30

 2800 NAT Q1=      28.01  WSEL=    672.08  ENC Q1=      28.73  WSEL=    672.18  RATIO=   -.0257
 NAT Q1=      29.  RATIOS LOB,CH,ROB=  0.0000  1.0000    .0000  WSEL=    672.18
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION    201.70 EXTENDED       1.20 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	IOC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 6.0 14.0 TYPE= 4 TARGET= .000

201.70	6.80	672.20	0.00	672.09	672.91	.71	3.03	.10	671.00
310.	0.	310.	0.	0.	46.	0.	4.	3.	671.00
.14	0.00	6.74	.02	.070	.045	.070	.045	665.40	6.00
.013683	190.	190.	190.	0	0	1	0.00	8.00	14.00

2800 NAT Q1= 117.56 WSEL= 673.15 ENC Q1= 117.56 WSEL= 673.25 RATIO= 0.0000
NAT Q1= 125. RATIOS LOB,CH,ROB= .2159 .7431 .0410 WSEL= 673.25
3280 CROSS SECTION 201.80 EXTENDED .82 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 186.4 270.2 TYPE= 4 TARGET= .063

201.80	7.62	673.22	0.00	673.15	673.27	.05	.09	.26	671.20
310.	60.	245.	4.	73.	130.	6.	4.	3.	671.70
.15	.83	1.89	.72	.070	.045	.070	.045	665.60	186.44
.000711	50.	50.	50.	2	0	1	0.00	83.77	270.20

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

FLOODWAY DETERMINATION

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	# D	# D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05	-I	-I	658.05
199.500	310.00	658.05	658.05	36.35	658.21	83.50	280.00	363.50	658.05	0.00	0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00	658.05	658.05	0.00
199.700	310.00	659.74	659.74	42.96	659.87	84.17	280.00	364.17	659.61	658.05	658.05	659.61
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00	0.00	0.00	0.00
200.000	310.00	661.23	661.23	40.19	661.37	83.92	280.00	363.92	661.16	659.61	659.61	661.16
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.46	663.46	33.74	663.74	50.04	263.96	314.00	663.36	661.16	661.16	663.36
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	665.88	665.88	38.25	666.21	45.16	256.68	301.84	665.80	663.36	663.36	665.80
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	667.99	667.99	43.43	668.25	62.92	249.38	312.30	667.91	665.80	665.80	667.91
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.78	668.78	38.36	669.15	24.57	270.00	294.57	668.71	667.91	667.91	668.71
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	670.32	670.32	22.59	671.27	8.00	6.00	14.00	670.20	668.71	668.71	670.20
→ 201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	672.20	672.20	26.50	672.91	8.00	6.00	14.00	672.08	670.20	670.20	672.08
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	673.22	673.22	116.29	673.27	83.77	186.44	270.20	673.15	672.08	672.08	673.15

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
199.500	310.000	658.050	0.000	0.000	0.000	148.500	0.000	0.000
199.500	310.000	658.050	0.000	0.000	0.000	83.502	64.998	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	310.000	659.738	.127	1.688	.127	84.166	65.132	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	0.000	270.000
200.000	310.000	661.232	.076	1.493	.076	83.916	64.993	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	310.000	663.460	.096	2.229	.096	50.036	60.590	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	310.000	665.879	.084	2.419	.084	45.156	109.964	330.000
200.200	310.000	667.909	0.000	2.114	0.000	165.617	0.000	352.000
200.200	310.000	667.990	.081	2.111	.081	62.920	102.697	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000

200.400	310.000	668.782	.076	.792	.076	24.571	36.423	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	310.000	670.322	.119	1.540	.119	8.000	.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	310.000	672.202	.119	1.880	.119	8.000	.000	190.000
201.800	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.800	310.000	673.220	.075	1.018	.075	83.767	32.780	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	4.000	.063	2.643	-3.113

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unamed Trib NO.2

4) DOCUMENT TYPE: Sensisitivity

00BREAK00

```
1       JOB HUD FIA H-4705 T 06
T2       WASHINGTON TWP F1S
T3       UNNAMED TRIB. NO.2 100 YEAR FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        4.        0.        0.  0.000000      0.00       0.0       0.   658.050     0.000

J3      1.000     34.000      3.000      4.000     27.000     28.000      9.000      0.000      0.000      0.000
NC       .070       .070       .045       .150       .350      0.000      0.000      0.000      0.000      0.000
QT      5.000    180.000    265.000    310.000    435.000    310.000      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

X1    199.500     24.000    280.000    324.000      0.000      0.000      0.000      0.000     -3.100      0.000
GR    668.200      0.000    668.400     40.000    668.400     80.000    668.300    112.000    668.000    138.000
GR    666.000    160.000    665.600    176.000    665.400    190.000    662.800    206.000    661.200    228.000
GR    660.800    256.000    660.500    280.000    660.000    288.000    658.800    294.000    658.700    294.500
GR    657.300    295.000    656.600    296.000    657.000    297.000    658.300    297.500    658.800    298.000
GR    659.700    304.000    660.300    324.000    660.000    358.000    660.600    380.000      0.000      0.000

X1    199.700      0.000      0.000      0.000    270.000    270.000    270.000      0.000      1.550      0.000

X1    200.000      0.000      0.000      0.000    270.000    270.000    270.000      0.000      1.550      0.000

X1    200.050     17.000    280.000    314.000    330.000    330.000    330.000      0.000      2.000      0.000
GR    662.800    206.000    661.200    228.000    660.800    256.000    660.500    280.000    660.000    288.000
GR    658.800    294.000    658.700    294.500    657.300    295.000    656.600    296.000    657.000    297.000
GR    658.300    297.500    658.800    298.000    659.700    304.000    660.500    314.000    661.500    340.000
GR    661.700    410.000    663.500    480.000      0.000      0.000      0.000      0.000      0.000      0.000

X1    200.100     25.000    270.000    294.000    330.000    330.000    330.000      0.000     -2.000      0.000
GR    673.000      0.000    672.600     24.000    672.200     54.000    670.200     96.000    669.400    138.000
GR    669.700    188.000    667.500    226.000    667.300    256.000    667.200    270.000    666.100    278.000
GR    664.300    284.000    663.800    285.000    663.200    286.000    662.600    287.000    663.100    288.000
GR    663.800    289.000    664.300    290.000    667.000    294.000    667.700    322.000    667.700    366.000
GR    668.300    402.000    668.500    428.000    669.200    464.000    670.200    492.000    670.600    522.000

X1    200.200      0.000      0.000      0.000    352.000    352.000    352.000      0.000      2.000      0.000

X1    200.400     15.000    270.000    294.000    150.000    150.000    150.000      0.000       .800      0.000
GR    670.000    250.000    669.300    255.000    668.600    260.000    667.200    270.000    666.100    278.000
GR    664.300    284.000    663.800    285.000    663.200    286.000    662.600    287.000    663.100    288.000
GR    663.800    289.000    664.300    290.000    667.000    294.000    667.700    322.000    670.000    366.000
NC      0.000      0.000      0.000       .400       .800      0.000      0.000      0.000      0.000      0.000

X1    201.300      8.000      5.000     14.000    160.000    160.000    160.000      0.000     -1.100      0.000
GR    671.000      6.000    666.400      6.100    665.600      7.000    665.400      8.000    665.600     10.000
GR    666.700     11.000    668.300     13.900    671.000     14.000      0.000      0.000      0.000      0.000
SB      2.000      2.400      3.000    100.000      9.000      0.000     37.000      0.000    665.400    664.300

X1    201.700      0.000      0.000      0.000    190.000    190.000    190.000      0.000      1.100      0.000
X2      0.000      0.000      1.000    668.000    676.300      0.000      0.000      0.000      0.000      0.000

X1    201.800     16.000    228.000    266.000     50.000     50.000     50.000      0.000     -1.600      0.000
GR    676.000    154.000    673.200    184.000    673.100    210.000    672.800    228.000    673.000    240.000
GR    670.500    244.000    669.200    250.000    668.300    251.000    667.600    251.500    667.200    252.000
GR    667.600    252.500    668.300    253.000    669.200    254.000    672.000    260.000    673.300    266.000
GR    674.000    284.000      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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00

3280 CROSS SECTION 199.70 EXTENDED .56 FEET

199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00

3280 CROSS SECTION 200.00 EXTENDED .56 FEET

200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.09	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

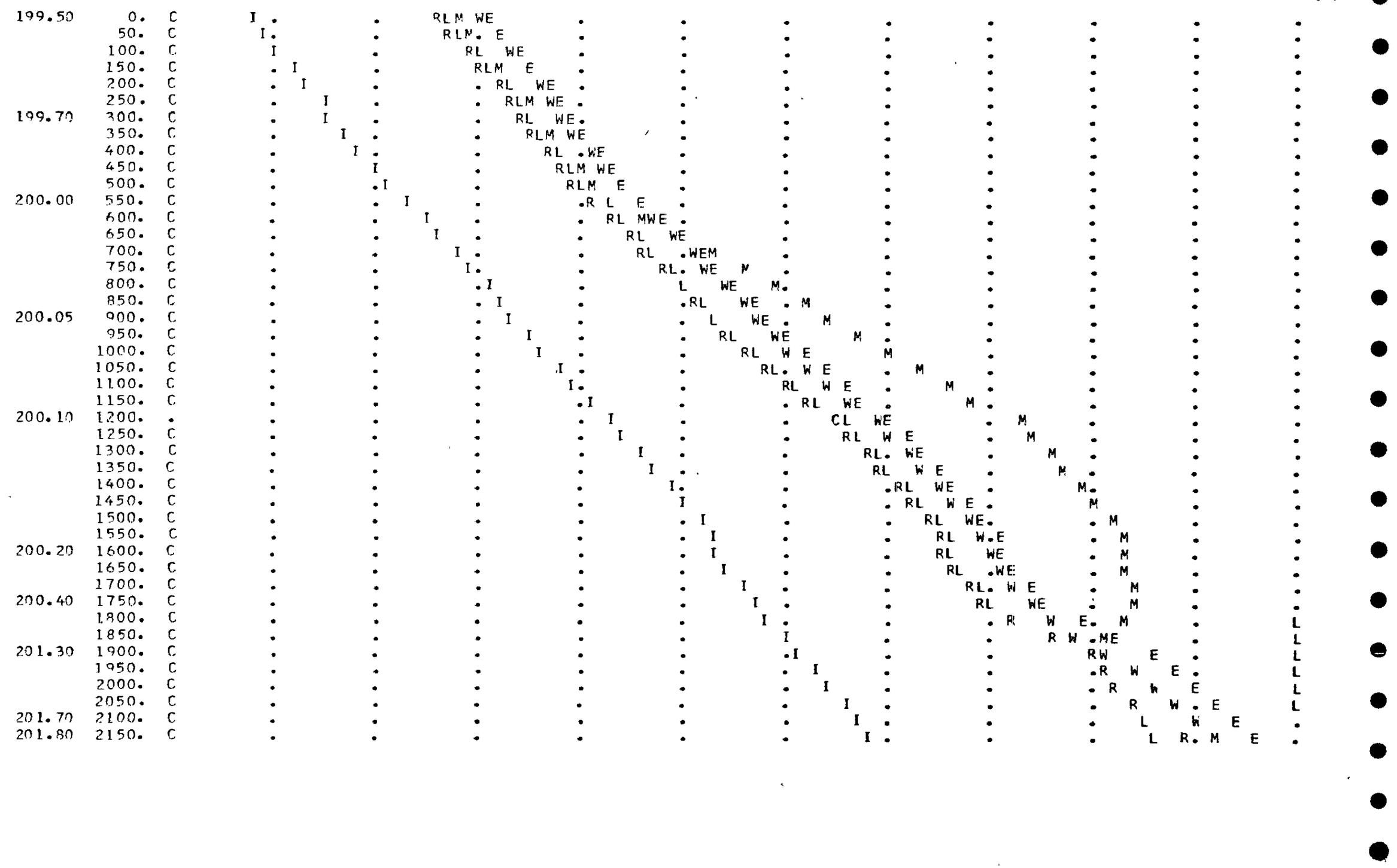
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1       JOB HUD-FIA H-4705   T06
T2       FLOOD INSURANCE STUDIES
T3       SENSITIVITY RUN  N* 0.7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.    .005900      0.00      0.0       0.    658.050     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000     0.000    -1.000     0.000     0.000      .700     0.000     0.000     0.000     0.000
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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .31 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
199.50	4.31	657.81	0.00	658.05	658.02	.21	0.00	0.00	657.40
310.	6.	230.	73.	7.	56.	40.	0.	0.	657.20
0.00	.92	4.10	1.86	.049	.032	.049	0.000	653.50	247.97
.005905	0.	0.	0.	0	0	8	0.00	132.03	380.00

3280 CROSS SECTION 199.70 EXTENDED .33 FEET

199.70	4.33	659.38	0.00	0.00	659.58	.20	1.56	.00	658.95
310.	7.	229.	74.	7.	57.	40.	1.	1.	658.75
.02	.92	4.04	1.84	.049	.032	.049	.031	655.05	246.93
.005623	270.	270.	270.	2	0	1	0.00	133.07	380.00

3280 CROSS SECTION 200.00 EXTENDED .32 FEET

200.00	4.32	660.92	0.00	0.00	661.12	.20	1.54	.00	660.50
310.	6.	230.	74.	7.	56.	40.	1.	2.	660.30
.04	.92	4.08	1.85	.049	.032	.049	.031	656.60	247.62
.005809	270.	270.	270.	2	0	1	0.00	132.38	380.00
200.05	4.48	663.08	663.01	0.00	663.52	.44	2.32	.08	662.50
310.	19.	286.	5.	13.	52.	4.	2.	2.	662.50
.06	1.43	5.52	1.24	.049	.032	.049	.031	658.60	236.13
.008640	330.	330.	330.	5	8	1	0.00	93.05	329.18
200.10	4.86	665.46	664.94	0.00	665.99	.53	2.44	.03	665.20
310.	3.	303.	4.	5.	51.	4.	2.	3.	665.00
.08	.69	5.91	.91	.049	.032	.049	.031	660.60	232.14
.006384	330.	330.	330.	4	5	1	0.00	80.22	312.36

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	4.97	667.57	667.01	0.00	668.02	.45	2.01	.01	667.20
310.	8.	296.	6.	10.	54.	6.	3.	4.	667.00
.10	.82	5.50	.94	.049	.032	.049	.031	662.60	223.81
.005157	352.	352.	352.	4	5	1	0.00	92.95	316.77

200.40	4.95	668.35	0.00	0.00	668.84	.50	.81	.02	668.00
310.	0.	304.	6.	0.	53.	6.	3.	4.	667.80
.10	.70	5.71	.96	.049	.032	.049	.031	663.40	267.54
.005640	150.	150.	150.	2	0	1	0.00	48.27	315.80

CCHV= .400 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

201.30	5.23	669.53	0.00	0.00	670.87	1.34	1.35	.67	721.00
310.	0.	310.	0.	0.	33.	0.	3.	4.	669.90
.11	0.00	9.28	0.00	.049	.032	.049	.031	664.30	6.01
.014021	160.	160.	160.	2	0	1	0.00	7.98	13.99

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED .05 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.14	671.97	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	5.64	671.04	0.00	0.00	672.14	1.10	1.28	0.00	671.00
310.	0.	310.	0.	0.	37.	0.	4.	4.	671.00
.11	0.00	8.43	.03	.049	.032	.049	.031	665.40	6.00
.010882	190.	190.	190.	3	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED .17 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	6.97	672.57	0.00	0.00	672.65	.08	.10	.41	671.20
310.	47.	258.	5.	54.	105.	9.	4.	4.	671.70
.12	.87	2.45	.55	.049	.032	.049	.031	665.60	173.60
.000778	50.	50.	50.	3	0	1	0.00	110.40	284.00

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1       JOB HUD-FIA H-4705  T06
T2       FLOOD INSURANCE STUDIES
T3       SENSITIVITY RUN  N * 1.3

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       -1.        4.         0.         0.    .005900       0.00       0.0         0.    658.050      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     15.000      0.000     -1.000      0.000      0.000      1.300      0.000      0.000      0.000      0.000
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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .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
199.50	4.74	658.24	0.00	658.05	658.32	.08	0.00	0.00	657.40
310.	22.	201.	87.	26.	75.	64.	0.	0.	657.20
0.00	.84	2.68	1.37	.091	.059	.091	0.000	653.50	226.02
.005890	0.	0.	0.	0	0	5	0.00	153.98	380.00

3280 CROSS SECTION 199.70 EXTENDED .76 FEET

199.70	4.76	659.81	0.00	0.00	659.89	.08	1.56	.00	658.95
310.	23.	200.	87.	27.	76.	64.	1.	1.	658.75
.03	.84	2.64	1.35	.091	.059	.091	.058	655.05	225.82
.005680	270.	270.	270.	2	0	1	0.00	154.18	380.00

3280 CROSS SECTION 200.00 EXTENDED .75 FEET

200.00	4.75	661.35	0.00	0.00	661.43	.08	1.54	.00	660.50
310.	23.	200.	87.	27.	75.	64.	2.	2.	660.30
.07	.84	2.66	1.36	.091	.059	.091	.058	656.60	225.90
.005763	270.	270.	270.	2	0	1	0.00	154.10	380.00
200.05	4.98	663.58	0.00	0.00	663.74	.16	2.28	.03	662.50
310.	50.	244.	16.	40.	69.	16.	3.	3.	662.50
.10	1.25	3.55	.98	.091	.059	.091	.058	658.60	222.73
.008465	330.	330.	330.	3	0	1	0.00	146.30	369.03
200.10	5.42	666.02	0.00	0.00	666.20	.18	2.45	.01	665.20
310.	33.	246.	30.	34.	65.	37.	4.	4.	665.00
.13	.97	3.79	.82	.091	.059	.091	.058	660.60	209.11
.006579	330.	330.	330.	2	0	1	0.00	176.90	386.01

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
200.20	5.53	668.13	0.00	0.00	668.27	.14	2.07	.01	667.20
310.	38.	234.	38.	41.	67.	47.	5.	6.	667.00
.16	.94	3.47	.80	.091	.059	.091	.058	662.60	205.91
.005267	352.	352.	352.	3	0	1	0.00	186.14	392.06

200.40	5.58	668.98	0.00	0.00	669.21	.23	.91	.03	668.00
310.	3.	278.	29.	3.	69.	25.	6.	6.	667.80
.17	.85	4.05	1.15	.091	.059	.091	.058	663.40	262.99
.007014	150.	150.	150.	2	0	1	0.00	68.21	331.20

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .84 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	6.44	670.74	0.00	0.00	671.55	.80	1.88	.46	721.00
310.	0.	310.	0.	0.	43.	0.	6.	6.	669.90
.18	0.00	7.19	.03	.091	.059	.091	.058	664.30	6.00
.023529	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.79 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
673.36	672.65	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	7.38	672.78	0.00	0.00	673.36	.58	1.81	0.00	671.00
310.	0.	310.	0.	0.	51.	0.	6.	6.	671.00
.19	0.00	6.12	.02	.091	.059	.091	.058	665.40	6.00
.014741	190.	190.	190.	2	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED 1.24 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	8.04	673.64	0.00	0.00	673.67	.03	.09	.22	671.20
310.	76.	218.	16.	118.	146.	29.	6.	6.	671.70
.20	.64	1.49	.56	.091	.059	.091	.058	665.60	162.10
.000641	50.	50.	50.	2	0	1	0.00	121.91	284.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SENSITIVITY RUN N * 1.3

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	# D	# D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05	-I	-I	658.05
199.500	310.00	657.81	657.81	40.34	658.02	132.03	0.00	0.00	658.05	0.00	0.00	658.05
199.500	310.00	658.24	658.24	40.39	658.32	153.98	0.00	0.00	658.05	0.00	0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00	658.05	658.05	0.00
199.700	310.00	659.38	659.38	41.34	659.58	133.07	0.00	0.00	0.00	658.05	658.05	0.00
199.700	310.00	659.81	659.81	41.13	659.89	154.18	0.00	0.00	0.00	658.05	658.05	0.00
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00	0.00	0.00	0.00
200.000	310.00	660.92	660.92	40.67	661.12	132.38	0.00	0.00	0.00	0.00	0.00	0.00
200.000	310.00	661.35	661.35	40.84	661.43	154.10	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.08	663.08	33.35	663.52	93.05	0.00	0.00	0.00	0.00	0.00	0.00
200.050	310.00	663.58	663.58	33.69	663.74	146.30	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	665.46	665.46	38.80	665.99	80.22	0.00	0.00	0.00	0.00	0.00	0.00
200.100	310.00	666.02	666.02	38.22	666.20	176.90	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	667.57	667.57	43.17	668.02	92.95	0.00	0.00	0.00	0.00	0.00	0.00
200.200	310.00	668.13	668.13	42.71	668.27	186.14	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.35	668.35	41.28	668.84	48.27	0.00	0.00	0.00	0.00	0.00	0.00
200.400	310.00	668.98	668.98	37.01	669.21	68.21	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	669.53	669.53	26.18	670.87	7.98	0.00	0.00	0.00	0.00	0.00	0.00
201.300	310.00	670.74	670.74	20.21	671.55	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	671.04	671.04	29.72	672.14	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.700	310.00	672.78	672.78	25.53	673.36	8.00	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	672.57	672.57	111.17	672.65	110.40	0.00	0.00	0.00	0.00	0.00	0.00
201.800	310.00	673.64	673.64	122.47	673.67	121.91	0.00	0.00	0.00	0.00	0.00	0.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
199.500	310.000	658.050	0.000	0.000	0.000	148.500	C.CCC	0.000
199.500	310.000	657.815	-.235	0.000	0.000	132.031	16.469	0.000
199.500	310.000	658.244	.429	0.000	0.000	153.979	-5.479	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	310.000	659.379	-.232	1.564	0.000	133.065	16.232	270.000
199.700	310.000	659.808	.429	1.564	0.000	154.177	-4.879	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	C.CCC	270.000

200.000	310.000	660.919	-.237	1.540	0.000	132.376	16.533	270.000
200.000	310.000	661.352	.433	1.544	0.000	154.098	-5.190	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	310.000	663.082	-.282	2.163	0.000	93.055	17.571	330.000
200.050	310.000	663.584	.502	2.232	0.000	146.300	-35.674	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	310.000	665.459	-.336	2.377	0.000	80.224	74.895	330.000
200.100	310.000	666.024	.565	2.440	0.000	176.904	-21.784	330.000
200.200	310.000	667.909	0.000	2.114	0.000	165.617	0.000	352.000
200.200	310.000	667.568	-.341	2.109	0.000	92.955	72.662	352.000
200.200	310.000	668.130	.562	2.106	0.000	186.142	-20.525	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000
200.400	310.000	668.345	-.361	.778	0.000	48.269	12.725	150.000
200.400	310.000	668.981	.636	.851	0.000	68.212	-7.218	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	310.000	669.529	-.674	1.183	0.000	7.978	.022	160.000
201.300	310.000	670.745	1.216	1.764	0.000	8.000	-.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	310.000	671.040	-1.042	1.512	0.000	8.000	.000	190.000
201.700	310.000	672.779	1.739	2.034	0.000	8.000	-.000	190.000
201.800	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.800	310.000	672.572	-.574	1.531	0.000	110.402	6.144	50.000
201.800	310.000	673.645	1.073	.865	0.000	121.905	-5.359	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	0.000	0.000	4.303	-1.453
3	0.000	0.000	6.427	.671

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp.

3) WATERCOURSE: Yates

4) DOCUMENT TYPE: 100 year & Floodway

00BREAK00

JOB NO. UM7542 UNIVERSITY OF MICHIGAN TERMINAL SYSTEM MERIT NET 15:08:21 09-21-79

NEW!

T

J2/15

100 yr & floodway
[in submittal
to DNR
J2.10=0

PARAMETERS: ,ID=XSNL,PW=,ROUTE=NUBS

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MM          MM  NN          NN  EEEEEEEEEEEE  TTTTTTTTTTTT
MMM        MMM  NNN         NN  EEEEEEEEEEEE  TTTTTTTTTTTT
MMMM      MMMM  NNNN        NN  EE                    TT
MM MM    MM MM  NN NN       NN  EE                    TT
MM  MMMM  MM  NN  NN      NN  EE                    TT
MM   MM   MM  NN   NN     NN  EEEEEEEE              TT
MM        MM  NN    NN    NN  EEEEEEEE              TT
MM        MM  NN     NN   NN  EE                    TT
MM        MM  NN      NNNN  EE                    TT
MM        MM  NN       NNN  EE                    TT
MM        MM  NN        NN  EEEEEEEEEEEE          TT
MM        MM  NN         N  EEEEEEEEEEEE          TT

XX        XX   SSSSSSSSS   NN        NN  LL
XX        XX  SSSSSSSSSSS  NNN       NN  LL
 XX      XX   SS       SS  NNNN      NN  LL
  XX    XX    SS           NN NN     NN  LL
   XX  XX     SSS          NN  NN    NN  LL
    XXXX       SSSSSSSSS   NN   NN   NN  LL
    XXXX         SSSSSSSS  NN    NN  NN  LL
   XX  XX              SSS  NN     NN NN  LL
  XX    XX             SS  NN      NNNN  LL
 XX      XX   SS       SS  NN       NNN  LL
XX        XX  SSSSSSSSSSS  NN        NN  LLLLLLLLLLLL
XX        XX   SSSSSSSSS   NN         N  LLLLLLLLLLLL
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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.  0.000000      0.00     -1.0       0.    674.120     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      .055      .055      .040      .100      .300    0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

          ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***D/S 27 MILE RD

X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000

***FOOTBRIDGE

X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000
***CONCRETE WEIR										
X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000
***FOOTBRIDGE										
X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000
***D/S M-53										
X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S VAN DYKE RD

X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	719.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

FLOW DISTRIBUTION FOR SECNO= 110.10 CWSEL= 674.12

STA=	54.	70.	104.	114.	122.	136.	154.	180.	196.	210.
PER Q=	.2	3.4	2.4	2.4	56.6	11.3	14.3	7.6	1.9	
AREA=	1.8	14.3	7.2	6.6	47.8	22.9	30.4	17.1	6.9	
VEL=	.2	.4	.6	.6	2.0	.8	.8	.8	.5	

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

FLOW DISTRIBUTION FOR SECNO= 110.15 CWSEL= 674.18

STA=	93.	104.	114.	122.	136.	154.	180.	196.	203.
PER Q=	.1	.6	.9	74.5	8.6	9.9	4.7	.6	
AREA=	.8	2.4	2.7	41.0	14.1	17.8	9.4	1.9	
VEL=	.2	.5	.6	3.1	1.0	.9	.9	.5	

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

FLOW DISTRIBUTION FOR SECNO= 110.20 CWSEL= 674.34

STA=	122.	136.	145.
PER Q=	99.2	.8	
AREA=	35.3	1.8	
VEL=	4.8	.7	

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80	
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80	
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90	
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00	

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

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 STA=      32.       42.
   PER Q=    100.0
    AREA=     22.3
     VEL=      7.6

 *SECNO 110.580

 3301 HV CHANGED MORE THAN HVINS

        ***D/S 27 MILE RD

   110.58     4.21   676.21     0.00     0.00   676.46      .25      .13      .26   676.70
    170.        0.      170.       0.       0.      42.       0.       1.       1.   676.70
     .03       0.00     4.00     0.00     .055     .040     .055     .039   672.00     4.02
 .003681        18.      18.      18.        3        0        0     0.00    12.07    16.08

 FLOW DISTRIBUTION FOR SECNO=    110.58        CHSEL=    676.21

 STA=      4.       16.
   PER Q=    100.0
    AREA=     42.4
     VEL=      4.0

 CCHV=    .500 CEHV=   1.000
 *SECNO 110.590

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   110.59     4.21   676.21     0.00     0.00   676.46      .25      .00      .00   676.70
    170.        0.      170.       0.       0.      43.       0.       1.       1.   676.70
     .03       0.00     3.99     0.00     .055     .030     .055     .039   672.00     4.02
 .002047         1.       1.       1.        0        0        0     0.00    12.07    16.08

 FLOW DISTRIBUTION FOR SECNO=    110.59        CHSEL=    676.21

 STA=      4.       16.
   PER Q=    100.0
    AREA=     42.6
     VEL=      4.0

 *SECNO 111.020

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70

   111.02     4.27   676.27     0.00     0.00   676.51      .24      .05      .00   676.70
    170.        0.      170.       0.       0.      43.       0.       1.       1.   676.70
     .03       0.00     3.92     0.00     .055     .030     .055     .039   672.00     4.01
 .001954        23.      23.      23.        0        0        0     0.00    12.07    16.09

 FLOW DISTRIBUTION FOR SECNO=    111.02        CHSEL=    676.27

 STA=      4.       16.
   PER Q=    100.0
    AREA=     43.3
     VEL=      3.9
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*SECNO 111.030
     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

    111.03      4.28     676.28       0.00       0.00     676.52       .24        .00        .00      676.70
     170.         0.       170.         0.         0.        43.         0.         1.         1.      676.70
      .03        0.00       3.93       0.00       .055       .050       .055       .039     672.00       4.01
   .005451         1.         1.         1.          0          0          0       0.00      12.07      16.09

  FLOW DISTRIBUTION FOR SECNO=    111.03          CWSEL=    676.28

  STA=        4.        16.
    PER Q=    100.0
     AREA=     43.3
      VEL=      3.9

  CCHV=    .400 CEHV=    .800
  *SECNO 111.800
  3280 CROSS SECTION    111.80 EXTENDED       .42 FEET

    111.80      4.52     676.52       0.00       0.00     676.62       .10        .05        .06      675.20
     285.         75.       100.       110.         42.        28.         63.         1.         1.      675.20
      .03        1.79       3.59       1.75       .055       .050       .055       .039     672.00       0.00
   .005009        10.        10.        10.          3          0          0       0.00     135.74     135.74

  FLOW DISTRIBUTION FOR SECNO=    111.80          CWSEL=    676.52

  STA=        0.        10.       48.       58.       63.       72.      134.      136.
    PER Q=     2.2       24.1      35.1       5.3       9.5      23.8        .0
     AREA=     5.2       36.7      27.9       6.6      11.8      44.4        .1
      VEL=     1.2        1.9       3.6       2.3       2.3       1.5        .3

  *SECNO 111.810
  3280 CROSS SECTION    111.81 EXTENDED       .51 FEET

    111.81      4.60     676.80       0.00       0.00     676.88       .08        .25        .01      675.40
     285.         77.        92.       115.         47.        29.         71.         1.         1.      675.40
      .04        1.66       3.21       1.63       .055       .050       .055       .040     672.20       0.00
   .003819         58.        58.        58.          1          0          0       0.00     137.20     137.20

  FLOW DISTRIBUTION FOR SECNO=    111.81          CWSEL=    676.80

  STA=        0.        10.       48.       58.       63.       72.      134.      137.
    PER Q=     2.5       24.7      32.5       5.2       9.4      25.7        .0
     AREA=     6.1       40.4      28.8       7.1      12.7      50.4        .3
      VEL=     1.2        1.7       3.2       2.1       2.1       1.5        .4

  CCHV=    .100 CEHV=    .300
  *SECNO 111.820
  3280 CROSS SECTION    111.82 EXTENDED       .39 FEET

    111.82      4.49     676.89       0.00       0.00     677.00       .12        .11        .01      675.60
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      285.      72.     106.     107.      41.      28.      61.       1.       1.   675.60
       .04     1.78     3.84     1.75     .070     .060     .070     .041   672.40     0.00
  .008336      20.      20.      20.        0        0        0     0.00   135.38   135.38

 FLOW DISTRIBUTION FOR SECNO=    111.82      CWSEL=    676.89

 STA=      0.      10.      48.      58.      63.      72.     134.     135.
  PER Q=     2.0     23.4     37.2      5.2      9.4     22.8       .0
    AREA=    4.9     35.8     27.6      6.5     11.6     42.9       .1
     VEL=    1.2      1.9      3.8      2.3      2.3      1.5       .0

 *SECNO 111.830
 3280 CROSS SECTION    111.83 EXTENDED       .46 FEET

  111.83     4.57   677.67     0.00     0.00   677.76      .10      .76      .00   676.30
     285.      74.      100.     110.      44.      28.      66.       1.       1.   676.30
      .05     1.70     3.55     1.66     .070     .060     .070     .044   673.10     0.00
  .006917      100.     100.     100.        1        0        0     0.00   136.37   136.37

 FLOW DISTRIBUTION FOR SECNO=    111.83      CWSEL=    677.67

 STA=      0.      10.      48.      58.      63.      72.     134.     136.
  PER Q=     2.3     23.8     35.2      5.2      9.3     24.2       .0
    AREA=    5.6     38.3     28.3      6.8     12.2     47.0       .2
     VEL=    1.2      1.8      3.6      2.2      2.2      1.5       .3

 *SECNO 111.840
 3280 CROSS SECTION    111.84 EXTENDED       .45 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

        ***FOOTBRIDGE

  111.84     4.55   678.15     0.00     0.00   678.25      .10      .49      .00   676.80
     285.      74.      101.     110.      44.      28.      66.       1.       1.   676.80
      .06     1.70     3.58     1.67     .070     .060     .070     .045   673.60     0.00
  .007034      70.      70.      70.        2        0        0     0.00   136.28   136.28

 FLOW DISTRIBUTION FOR SECNO=    111.84      CWSEL=    678.15

 STA=      0.      10.      48.      58.      63.      72.     134.     136.
  PER Q=     2.3     23.8     35.4      5.2      9.3     24.1       .0
    AREA=    5.5     38.1     28.2      6.8     12.2     46.6       .2
     VEL=    1.2      1.8      3.6      2.2      2.2      1.5       .3

 *SECNO 111.850
 3280 CROSS SECTION    111.85 EXTENDED       .45 FEET

 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20
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   111.85     4.54   678.14     0.00     0.00   678.27      .13      .01      .01   676.80
      285.      45.      63.      176.      28.      20.      58.       1.       1.   676.80
      .06     1.60     3.13     3.03     .070     .060     .070     .045   673.60     0.00
  .030130       1.       1.       1.        1        0        0   -30.80   136.29   136.29

 FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.14

 STA=       0.      10.      48.      58.      63.      72.     134.     136.
  PER Q=    4.7     11.3     22.2      1.2     10.7     49.9       .0
  AREA=     5.5     22.9     20.2      2.8      8.6     46.7       .2
   VEL=     2.4      1.4      3.1      1.2      3.6      3.0       .7

 *SECNO 111.860
 3280 CROSS SECTION    111.86 EXTENDED       .55 FEET

 3370 NORMAL BRIDGE,NPD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

   111.86     4.65   678.25     0.00     0.00   678.35      .10      .07      .00   676.80
      285.      49.      57.      179.      33.      21.      66.       1.       1.   676.80
      .06     1.47     2.69     2.72     .070     .060     .070     .045   673.60     0.00
  .020903       3.       3.       3.        2        0        0   -30.80   137.75   137.75

 FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.25

 STA=       0.      10.      48.      58.      63.      72.     134.     138.
  PER Q=    5.1     12.0     20.0      1.3     10.5     50.9       .1
  AREA=     6.5     26.6     21.2      3.3      9.5     52.7       .5
   VEL=     2.2      1.3      2.7      1.1      3.2      2.8       .8

 *SECNO 111.870
 3280 CROSS SECTION    111.87 EXTENDED       .58 FEET

   111.87     4.69   678.29     0.00     0.00   678.36      .07      .01      .00   676.80
      285.      78.      92.      116.      50.      30.      76.       1.       1.   676.80
      .06     1.56     3.10     1.53     .070     .060     .070     .045   673.60     0.00
  .004980       1.       1.       1.        1        0        0     0.00   138.22   138.22

 FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.29

 STA=       0.      10.      48.      58.      63.      72.     134.     138.
  PER Q=    2.7     24.5     32.1      5.1      9.1     26.4       .1
  AREA=     6.8     43.0     29.5      7.4     13.3     54.7       .6
   VEL=     1.1      1.6      3.1      1.9      1.9      1.4       .4

 *SECNO 111.900
 3280 CROSS SECTION    111.90 EXTENDED       .40 FEET

   111.90     4.49   679.29     0.00     0.00   679.41      .11     1.03      .01   678.00
      285.      73.      105.     107.      41.      28.      62.       2.       2.   678.00
      .08     1.77     3.79     1.73     .070     .060     .070     .048   674.80     0.00
  .008107      165.     165.     165.        3        0        0     0.00   135.52   135.52
```

FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	43.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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.
				***CONCRETE WEIR					
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	35.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

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STA=        0.       10.       48.       58.       72.      134.      136.
  PER Q=      2.2      23.7      35.8      14.5      23.8        .0
   AREA=      5.4      37.6      28.1      18.7      45.8        .1
    VEL=      1.2       1.8       3.6       2.2       1.5        .3

*SECNO 111.940
3280 CROSS SECTION    111.94 EXTENDED        .48 FEET

   111.94      4.57    681.87      0.00      0.00    681.97       .09      1.12       .00    680.50
     285.       75.       99.      111.       45.       28.       68.        3.        3.    680.50
      .12      1.67      3.47      1.64      .070      .060      .070      .051    677.30      0.00
  .006551      162.      162.      162.         2         0         0      0.00    136.66    136.66

FLOW DISTRIBUTION FOR SECNO=     111.94          CWSEL=     681.87

STA=        0.       10.       48.       58.       72.      134.      137.
  PER Q=      2.3      24.0      34.7      14.4      24.6        .0
   AREA=      5.8      39.0      28.5      19.3      48.2        .2
    VEL=      1.2       1.7       3.5       2.1       1.5        .3

*SECNO 111.950
3280 CROSS SECTION    111.95 EXTENDED        .52 FEET

   111.95      4.62    683.62      0.00      0.00    683.70       .08      1.73       .00    682.20
     285.       76.       96.      113.       47.       29.       71.        4.        4.    682.20
      .15      1.62      3.32      1.59      .070      .060      .070      .053    679.00      0.00
  .005859      280.      280.      280.         3         0         0      0.00    137.29    137.29

FLOW DISTRIBUTION FOR SECNO=     111.95          CWSEL=     683.62

STA=        0.       10.       48.       58.       72.      134.      137.
  PER Q=      2.5      24.2      33.6      14.3      25.3        .0
   AREA=      6.2      40.6      28.9      19.9      50.8        .4
    VEL=      1.1       1.7       3.3       2.1       1.4        .4

*SECNO 111.970
3280 CROSS SECTION    111.97 EXTENDED        .86 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

   111.97      4.46    683.86      0.00      0.00    683.97       .11       .26       .01    682.60
     285.       25.      149.      111.       17.       44.       71.        4.        4.    681.70
      .16      1.47      3.40      1.56      .070      .060      .070      .053    679.40    190.00
  .004735       50.       50.       50.         2         0         0      0.00    108.86    298.86

FLOW DISTRIBUTION FOR SECNO=     111.97          CWSEL=     683.86

STA=      190.      206.      220.      235.      284.      299.
  PER Q=      8.7      52.2      18.8      19.6        .7
   AREA=     17.0      43.8      25.7      42.2       3.4
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VEL=	1.5	3.4	2.1	1.2	.5				

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.98	4.29	684.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

FLOW DISTRIBUTION FOR SECNO= 111.98 CWSEL= 684.39

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.9	56.8	18.9	16.2	.2	
AREA=	14.3	41.4	23.1	33.9	1.4	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007038	200.	200.	200.	2	0	0	0.00	102.78	292.78

FLOW DISTRIBUTION FOR SECNO= 111.99 CWSEL= 685.77

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.7	57.4	18.9	15.8	.2	
AREA=	14.0	41.1	22.8	33.0	1.2	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

FLOW DISTRIBUTION FOR SECNO= 112.00 CWSEL= 688.27

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.2	18.9	15.9	.2	
AREA=	14.0	41.2	22.9	33.2	1.2	
VEL=	1.6	4.0	2.3	1.4	.5	

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Yates Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood Production Run

00BREAK00

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************


C
T1       JOB HUD-FIA H-4705  T06
T2       WASHINGTON TWP FIS
T3       YATES DRAIN 100 YEAR FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.        4.        0.        0.  0.000000      0.00      0.0       0.   651.970     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

     1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000

NC      .060      .060      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT     4.000   475.000   700.000   810.000  1090.000   810.000     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

X1     2.000    30.000   194.000   242.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   656.600   132.000   656.600   142.000   657.800   152.000   655.800   162.000   653.800   180.000
GR   653.000   194.000   651.400   202.000   649.800   206.000   649.000   216.000   648.400   222.000
GR   645.900   224.000   645.000   225.000   644.100   226.000   643.500   229.000   644.300   232.000
GR   644.600   233.000   645.900   234.000   650.400   238.000   651.000   242.000   651.100   278.000
GR   651.200   306.000   651.300   322.000   651.400   350.000   651.600   378.000   652.000   406.000
GR   652.300   424.000   653.500   444.000   656.700   460.000   658.000   474.000   659.000   486.000

X1     3.200    25.000   226.000   342.000  1080.000  1000.000  1080.000      .800     0.000     0.000
GR   660.000     0.000   657.800     8.000   657.000    34.000   656.000    66.000   655.600    98.000
GR   655.600   130.000   655.400   166.000   655.200   200.000   652.800   226.000   651.600   238.000
GR   650.900   258.000   649.400   264.000   648.400   270.000   647.700   273.000   647.100   274.000
GR   646.900   276.000   647.100   280.000   647.800   282.000   648.400   284.000   650.900   290.000
GR   651.600   302.000   652.000   320.000   652.800   342.000   655.000   360.000   660.000   550.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

       ***26 MILE RCAD   ELLC = 657.4

X1     3.400    10.000    25.500   100.000    90.000    90.000    90.000     0.000     0.000     0.000
GR   657.500    25.500   649.100    27.000   649.500    41.000   649.600    57.000   648.600    65.000
GR   648.200    69.000   648.100    76.000   648.200    85.000   648.600    88.000   657.500    89.500
NC     0.000     0.000      .020     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     3.600     0.000     0.000     0.000    60.000    60.000    60.000     0.000     0.000     0.000
NC      .070      .070      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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X1	3.800	20.000	604.000	640.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	663.000	442.000	659.400	462.000	657.200	484.000	655.000	524.000	653.300	560.000
GR	653.200	586.000	653.000	604.000	649.000	622.000	648.800	623.000	648.200	624.000
GR	647.800	628.000	647.900	630.000	648.500	631.000	649.000	632.000	652.100	640.000
GR	653.600	666.000	655.000	692.000	658.000	700.000	661.000	714.000	662.300	732.000
NC	.090	.090	.050	.150	.350	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION F

X1	3.900	9.000	150.000	168.000	700.000	700.000	800.000	0.000	0.000	0.000
GR	661.000	0.000	656.000	120.000	652.900	150.000	650.600	156.000	650.400	160.000
GR	650.700	164.000	654.400	168.000	656.000	240.000	660.000	270.000	0.000	0.000
QT	4.000	360.000	520.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

X1	3.950	11.000	410.000	430.000	500.000	500.000	660.000	0.000	-2.200	0.000
GR	662.600	194.000	658.500	410.000	655.400	418.000	655.200	420.000	654.900	422.000
GR	654.800	423.000	654.900	424.000	655.200	426.000	655.400	428.000	657.600	430.000
GR	664.400	596.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.970	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	3.980	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	4.000	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.800	0.000
X1	4.100	6.000	129.000	146.000	470.000	470.000	520.000	0.000	-2.000	0.000
GR	665.200	0.000	662.200	129.000	659.600	134.000	660.000	143.000	662.000	146.000
GR	668.000	384.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION L

X1	4.200	0.000	0.000	0.000	470.000	470.000	520.000	0.000	2.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.300	28.000	644.000	684.000	300.000	300.000	300.000	0.000	-2.000	0.000
GR	674.300	426.000	673.900	478.000	672.800	520.000	671.900	564.000	670.200	598.000
GR	669.700	622.000	669.600	644.000	667.800	656.000	662.600	670.000	662.300	671.000
GR	661.900	672.000	661.600	673.000	661.900	674.000	662.300	675.000	662.600	676.000
GR	665.800	684.000	666.400	706.000	667.400	800.000	670.000	892.000	671.800	930.000
GR	671.900	970.000	671.900	1014.000	672.600	1060.000	672.500	1110.000	673.500	1168.000
GR	673.600	1212.000	673.800	1248.000	673.500	1310.000	0.000	0.000	0.000	0.000
X1	4.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000
X1	4.960	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	5.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.800	0.000
	***3 FT. DIA. CULVERT									
X1	5.100	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.100	0.000
SB	0.000	1.600	2.900	150.000	3.000	0.000	7.100	0.000	661.700	661.700
X1	5.300	0.000	0.000	0.000	41.000	41.000	41.000	0.000	.200	0.000
X2	0.000	0.000	1.000	664.800	666.800	0.000	0.000	0.000	0.000	0.000
	***FOOTBRIDGE									
X1	5.400	0.000	0.000	0.000	172.000	172.000	172.000	0.000	.100	0.000
SB	0.000	1.600	2.900	110.000	10.000	0.000	57.000	0.000	661.900	661.900
X1	5.500	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	666.100	667.300	0.000	0.000	0.000	0.000	0.000
X1	6.200	20.000	360.000	386.000	1135.000	1135.000	1135.000	0.000	0.000	0.000
GR	673.400	275.000	671.700	280.000	670.000	360.000	665.600	374.000	664.900	375.000
GR	664.300	376.000	664.300	377.000	664.300	378.000	665.000	379.000	665.600	380.000
GR	669.200	386.000	669.000	414.000	669.600	450.000	671.400	455.000	671.800	514.000
GR	672.600	554.000	673.000	590.000	673.300	624.000	673.700	668.000	673.800	702.000
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000
X1	6.100	10.000	0.000	50.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	672.500	0.000	667.600	3.000	667.200	5.000	666.700	12.000	666.400	17.000
GR	666.900	23.000	667.500	30.000	668.400	33.000	667.900	42.000	672.500	50.000
NC	0.000	0.000	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***JEWELL ROAD									
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	671.700	672.400	0.000	0.000	0.000	0.000	0.000
X1	6.800	0.000	0.000	0.000	31.000	31.000	31.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	671.700	672.400	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000
X1	6.500	25.000	404.000	442.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	675.600	198.000	673.000	234.000	672.300	262.000	671.700	288.000	671.500	332.000
GR	671.200	372.000	671.200	404.000	669.000	414.000	668.400	420.000	667.400	426.000
GR	666.300	428.000	665.800	429.000	666.700	430.000	666.900	431.000	667.100	432.000
GR	667.400	434.000	670.800	442.000	670.900	454.000	670.800	486.000	670.800	514.000
GR	673.400	528.000	673.600	556.000	674.700	568.000	674.500	604.000	675.400	658.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000

X1	6.600	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.200	0.000

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

X1	6.700	19.000	372.000	398.000	350.000	350.000	350.000	0.000	-.500	0.000
GR	677.000	365.000	674.800	369.000	672.600	372.000	670.200	382.000	669.300	383.000
GR	669.000	384.000	668.800	385.000	669.000	386.000	669.300	387.000	670.200	388.000
GR	673.400	398.000	673.700	418.000	674.300	460.000	674.600	484.000	674.500	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
QT	5.000	330.000	510.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000

360 520

X1	7.200	0.000	0.000	0.000	150.000	150.000	150.000	0.000	.500	0.000

X1	7.100	24.000	371.000	388.000	36.000	36.000	36.000	0.000	.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.300	674.000	0.000
GR	682.400	162.000	681.900	198.000	680.300	230.000	677.300	266.000	674.600	302.000
GR	673.200	332.000	673.200	360.000	672.500	371.000	670.900	374.000	669.600	375.000
GR	669.900	379.000	669.700	383.000	669.800	386.000	669.900	387.000	670.900	388.000
GR	673.400	393.000	673.700	418.000	674.300	460.000	674.600	484.000	674.600	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
SB	0.000	1.430	3.000	0.000	17.000	0.000	56.000	0.000	669.800	669.800

X1	7.700	19.000	402.000	419.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	672.000	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	676.400	675.800	0.000
BT	13.000	16.000	681.600	0.000	190.000	678.600	0.000	282.000	677.400	0.000
BT	336.000	676.900	0.000	378.000	676.800	0.000	404.000	676.500	0.000	440.000
BT	676.400	0.000	496.000	675.800	0.000	572.000	675.800	0.000	630.000	675.900
BT	0.000	674.000	676.200	0.000	708.000	677.000	0.000	748.000	677.700	0.000
GR	677.100	335.000	675.700	350.000	674.600	352.000	674.100	376.000	672.500	402.000
GR	670.900	405.000	669.800	406.000	669.800	410.000	669.700	414.000	670.900	419.000
GR	673.900	436.000	674.300	448.000	673.000	480.000	672.700	500.000	674.800	522.000
GR	675.900	630.000	676.200	674.000	677.000	708.000	677.700	748.000	0.000	0.000
QT	4.000	275.000	395.000	465.000	640.000	465.000	0.000	0.000	0.000	0.000

X1	7.800	21.000	572.000	646.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	677.100	543.000	675.700	556.000	674.600	568.000	674.100	572.000	672.500	588.000
GR	670.400	600.000	669.700	601.000	669.700	607.000	670.400	608.000	672.700	614.000
GR	673.300	622.000	672.800	628.000	670.400	632.000	670.200	633.000	669.900	634.000
GR	669.700	635.000	669.900	636.000	670.200	637.000	670.400	638.000	673.900	646.000
GR	677.100	658.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	225.000	320.000	375.000	520.000	375.000	0.000	0.000	0.000	0.000

X1	7.850	11.000	120.000	152.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	680.000	10.000	678.000	55.000	676.300	100.000	675.700	120.000	673.300	125.000
GR	672.000	127.000	671.900	133.000	674.600	136.000	677.100	146.000	677.800	152.000
GR	680.000	235.000	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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*PROF 1

 CCHV=    .150 CEHV=    .350
 *SECNO 2.000
   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

      2.00       8.47     651.97       0.00     651.97     652.22       .25       0.00       0.00     653.00
      810.          0.       688.       122.         0.       159.       103.          0.         0.     651.00
      0.00       0.00       4.34       1.18       .060       .045       .060      0.000     643.50     199.15
   .003523          0.         0.         0.          0          0          0       0.00     204.75     403.90


 *SECNO 3.200
      3.20       7.36     654.26       0.00       0.00     654.36       .10       2.12        .02     652.80
      810.          7.       798.         5.         9.       309.         7.          7.         4.     652.80
       .12        .71       2.58        .71       .060       .045       .060       .045     646.90     168.11
   .001261       1080.      1080.      1000.          3          0          0       0.00     115.07     283.18


 CCHV=    .400 CEHV=    .800
 *SECNO 3.400

          ***26 MILE ROAD   ELLC = 657.4

      3.40       6.28     654.38       0.00       0.00     654.47       .09        .10        .01     657.50
      810.          0.         0.       810.         0.         0.       338.          8.         4.     707.50
       .13       0.00       0.00       2.40       .060       .045       .060       .045     648.10      26.06
   .000995         90.        90.        90.          2          0          0       0.00      62.92      88.97


 *SECNO 3.600
      3.60       6.34     654.44       0.00       0.00     654.53       .09        .06        .00     657.50
      810.          0.         0.       810.         0.         0.       342.          8.         4.     657.50
       .13       0.00       0.00       2.37       .060       .020       .060       .044     648.10      26.04
   .000955         60.        60.        60.          0          0          0       0.00      62.94      88.99


 *SECNO 3.800
   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

      3.80       6.69     654.49       0.00       0.00     654.71       .23        .07        .11     653.00
      810.         82.       662.        66.        72.       157.        50.          9.         4.     652.10
       .14       1.14       4.21       1.32       .070       .045       .070       .044     647.80     534.77
   .002401         50.        50.        50.          0          0          0       0.00     147.79     682.56


 CCHV=    .150 CEHV=    .350
 *SECNO 3.900

          ***MCS X-SECTION F
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3.90	6.38	656.78	0.00	0.00	657.07	.30	2.33	.02	652.90
810.	130.	520.	160.	77.	97.	116.	14.	7.	654.40
.19	1.69	5.35	1.38	.090	.050	.090	.047	650.40	101.33
.003913	700.	800.	700.	2	0	0	0.00	144.50	245.83

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.22	658.82	0.00	0.00	658.95	.13	1.85	.03	656.30
605.	117.	366.	122.	167.	101.	143.	18.	9.	655.40
.26	.70	3.64	.85	.120	.055	.120	.050	652.60	277.24
.002331	500.	660.	500.	2	0	0	0.00	236.25	513.49

*SECNO 3.970

3.97	6.07	659.37	0.00	0.00	659.52	.15	.57	.01	657.00
605.	108.	379.	118.	148.	98.	131.	20.	10.	656.10
.28	.73	3.88	.90	.120	.055	.120	.051	653.30	284.92
.002751	200.	240.	200.	2	0	0	0.00	225.00	509.93

*SECNO 3.980

3.98	6.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	385.	116.	141.	96.	126.	22.	11.	656.80
.30	.74	3.99	.92	.120	.055	.120	.051	654.00	288.31
.002962	200.	240.	200.	2	0	0	0.00	220.05	508.36

*SECNO 4.000

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
4.00	5.91	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	23.	12.	657.60
.32	.76	4.17	.96	.120	.055	.120	.052	654.80	293.74
.003340	200.	240.	200.	2	0	0	0.00	212.10	505.84

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.00	660.20
605.	124.	340.	141.	129.	73.	139.	27.	14.	660.00
.37	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.70
.004608	470.	520.	470.	2	0	0	0.00	227.37	251.07

*SECNO 4.200

***MCS X-SECTION L

4.20	5.18	664.78	0.00	0.00	664.94	.16	2.10	.00	662.20
605.	131.	327.	147.	143.	76.	153.	31.	17.	662.00
.42	.91	4.33	.96	.120	.055	.120	.053	659.60	18.03
.003865	470.	520.	470.	2	0	0	0.00	238.27	256.30

*SECNO 4.300

4.30	6.27	665.87	0.00	0.00	666.11	.24	1.14	.03	667.60
605.	0.	457.	148.	0.	101.	134.	33.	18.	663.80
.44	0.00	4.51	1.11	.090	.045	.090	.052	659.60	655.56
.003734	300.	300.	300.	2	0	0	0.00	160.95	816.51

*SECNO 4.940

4.94	6.40	666.60	0.00	0.00	666.80	.20	.69	.01	668.20
605.	0.	440.	165.	0.	105.	152.	34.	19.	664.40
.46	0.00	4.18	1.09	.090	.045	.090	.052	660.20	654.66
.003179	200.	200.	200.	2	0	0	0.00	166.60	821.26

*SECNO 4.960

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

4.96	6.43	667.23	0.00	0.00	667.43	.19	.62	.00	668.80
605.	0.	436.	169.	0.	106.	156.	35.	20.	665.00
.48	0.00	4.11	1.08	.090	.045	.090	.052	660.80	654.44
.003055	200.	200.	200.	2	0	0	0.00	168.02	822.45

*SECNO 5.000

5.00	6.28	667.88	0.00	0.00	668.12	.24	.67	.02	669.60
605.	0.	456.	149.	0.	101.	134.	37.	21.	665.80
.49	0.00	4.51	1.11	.090	.045	.090	.052	661.60	655.55
.003730	200.	200.	200.	1	0	0	0.00	161.00	816.55

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.41	668.11	0.00	0.00	668.31	.20	.19	.01	669.70
605.	0.	438.	167.	0.	106.	153.	37.	21.	665.90
.50	0.00	4.15	1.09	.090	.045	.090	.051	661.70	654.57
.003131	55.	55.	55.	2	0	0	0.00	167.15	821.72

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.51	668.31	0.00	584.	21.	7.	9.	664.80	666.80

5.30	6.14	668.04	0.00	0.00	668.33	.29	.01	0.00	669.90
605.	0.	473.	132.	0.	98.	117.	37.	21.	666.10
.50	0.00	4.84	1.13	.090	.045	.090	.051	661.90	656.16

.004391	41.	41.	41.	3	0	9	0.00	155.82	811.99

*SECNO 5.400

***FOOTBRIDGE

5.40	6.73	668.73	0.00	0.00	668.86	.13	.51	.02	670.00
605.	0.	403.	202.	0.	115.	199.	38.	22.	666.20
.52	0.00	3.50	1.02	.090	.045	.090	.051	662.00	652.46
.002155	172.	172.	172.	2	0	0	0.00	180.50	832.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.53	668.76	0.00	445.	160.	57.	42.	666.10	667.30

5.50	6.81	668.81	0.00	0.00	668.93	.12	.06	0.00	670.00
605.	0.	395.	210.	0.	118.	211.	38.	22.	666.20
.52	0.00	3.36	1.00	.090	.045	.090	.051	662.00	651.94
.001971	8.	8.	8.	2	0	5	0.00	183.74	835.69

*SECNO 6.200

6.20	6.89	671.19	0.00	0.00	671.37	.17	2.42	.02	670.00
605.	19.	425.	162.	34.	109.	130.	46.	26.	669.20
.62	.56	3.89	1.24	.090	.045	.090	.050	664.30	303.78
.002315	1135.	1135.	1135.	2	0	0	0.00	150.65	454.43

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.27	671.67	0.00	0.00	671.83	.16	.46	.01	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.045	.090	.050	666.40	.51
.001669	234.	234.	234.	2	0	0	0.00	48.05	48.56

*SECNO 6.000

3370 NORMAL BRIDGE,NRO= 0 MIN ELTRO= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.27	671.67	0.00	0.00	671.83	.16	.00	.00	672.50	
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50	
.64	0.00	3.20	0.00	.090	.020	.090	.050	666.40	.51	
.000329	1.	1.	1.	0	0	0	0.00	48.05	48.56	

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.28	671.68	0.00	0.00	671.84	.16	.01	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.090	.020	.090	.050	666.40	.50
.000326	31.	31.	31.	3	0	0	0.00	48.08	48.58

*SECNO 6.400

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
6.40	5.28	671.68	0.00	0.00	671.84	.16	.00	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.055	.040	.055	.050	666.40	.50
.001306	1.	1.	1.	0	0	0	0.00	48.08	48.58

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	6.26	672.06	0.00	0.00	672.18	.12	.34	.01	671.20
605.	65.	427.	113.	79.	131.	93.	49.	27.	670.80
.67	.83	3.27	1.22	.055	.040	.055	.049	665.80	272.46
.001596	234.	234.	234.	2	0	0	0.00	248.31	520.78

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.78	672.78	0.00	0.00	673.06	.28	.82	.05	672.40
605.	17.	512.	76.	22.	112.	56.	51.	29.	672.00
.69	.75	4.55	1.36	.055	.040	.055	.049	667.00	313.58
.003767	350.	350.	350.	2	0	0	0.00	204.64	518.22

*SECNO 6.700

***JUST O/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.82	674.12	673.35	0.00	674.53	.41	1.43	.05	672.10
605.	4.	515.	85.	3.	93.	67.	52.	31.	672.90
.71	1.57	5.55	1.27	.055	.040	.055	.049	668.30	369.23
.004441	350.	350.	350.	4	12	0	0.00	231.64	600.87

*SECNO 7.200

7.20	6.02	674.82	0.00	0.00	675.11	.29	.56	.02	672.60
605.	5.	476.	125.	3.	98.	108.	53.	32.	673.40
.72	1.42	4.87	1.15	.055	.040	.055	.048	668.80	368.97
.003184	150.	150.	150.	2	0	0	0.00	255.84	624.81

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	5.04	674.84	674.24	0.00	675.31	.46	.14	.06	672.70
605.	0.	467.	138.	0.	76.	84.	53.	32.	671.10
.72	0.00	6.15	1.64	.055	.040	.055	.048	669.80	371.00
.004593	36.	36.	36.	4	16	0	0.00	232.13	603.13

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.44	675.80	0.00	159.	451.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.55	676.25	0.00	0.00	676.29	.04	.98	0.00	672.50
605.	0.	218.	387.	0.	101.	404.	53.	32.	670.90
.73	0.00	2.16	.96	.055	.040	.055	.048	669.70	402.00
.000409	24.	24.	24.	2	0	4	0.00	274.17	676.17

*SECNO 7.800

7.80	6.57	676.27	0.00	0.00	676.30	.03	.01	.00	674.10
465.	11.	450.	5.	23.	320.	10.	53.	32.	673.90
.73	.47	1.41	.43	.055	.040	.055	.048	669.70	550.75
.000214	27.	27.	27.	2	0	0	0.00	104.12	654.87

*SECNO 7.850

7.85	6.06	676.26	0.00	0.00	676.36	.10	.04	.02	674.00
375.	91.	284.	0.	76.	102.	0.	54.	32.	676.10
.75	1.20	2.77	.18	.055	.040	.055	.048	670.20	56.00
.001297	100.	100.	100.	2	0	0	0.00	102.11	158.11

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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     10 YEAR FLOW

   J1  ICHECK     INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
         -1.       2.        0.        0.    .003400     0.00     -1.0       0.     651.570    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=    .150 CEHV=    .350
 *SECNO 2.000
    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

      2.00      7.63    651.13      0.00    651.97    651.35      .23      0.00      0.00    653.00
      475.        0.      474.        1.        0.      124.        3.        0.        0.    651.00
      0.00      0.00      3.82       .26      .060      .045      .060     0.000    643.50    202.68
    .003403       0.        0.        0.         0         0         6      0.00     83.30    285.98


 *SECNO 3.200
      3.20      6.49    653.39      0.00      0.00    653.45       .07      2.08       .02    652.80
      475.        1.      474.        0.        1.      228.        1.        4.        2.    652.80
       .14       .38      2.08       .38      .060      .045      .060      .045    646.90    175.72
    .001233    1080.    1080.     1000.         3         0         0      0.00    101.72    277.44


 CCHV=    .400 CEHV=    .800
 *SECNO 3.400

        ***26 MILE ROAD   ELLC = 657.4

      3.40      5.40    653.50      0.00      0.00    653.54       .04       .08       .01    657.50
      475.        0.        0.      475.        0.        0.      282.        5.        2.    707.50
       .16      0.00      0.00      1.68      .060      .045      .060      .045    648.10     26.22
    .000616       90.       90.       90.         2         0         0      0.00     62.61     88.83


 *SECNO 3.600
      3.60      5.43    653.53      0.00      0.00    653.58       .04       .04       .00    657.50
      475.        0.        0.      475.        0.        0.      285.        5.        3.    657.50
       .17      0.00      0.00      1.67      .060      .020      .060      .044    648.10     26.21
    .000596       60.       60.       60.         1         0         0      0.00     62.63     88.83


 *SECNO 3.800
    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

      3.80      5.76    653.56      0.00      0.00    653.75       .19       .05       .12    653.00
      475.        9.      450.       16.       17.      124.       19.        6.        3.    652.10
       .17       .55      3.63       .85      .070      .045      .070      .044    647.80    554.43
    .002462       50.       50.       50.         0         0         0      0.00    110.93    665.36


 CCHV=    .150 CEHV=    .350
 *SECNO 3.900

        ***MCS X-SECTION F
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3.90	5.48	655.88	0.00	0.00	656.15	.27	2.37	.03	652.90
475.	57.	377.	41.	43.	81.	49.	9.	4.	654.40
.23	1.32	4.66	.83	.090	.050	.090	.046	650.40	121.16
.003785	700.	800.	700.	2	0	0	0.00	113.46	234.61

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	5.34	657.94	0.00	0.00	658.06	.12	1.89	.02	656.30
360.	37.	267.	56.	71.	83.	79.	11.	6.	655.40
.30	.53	3.21	.70	.120	.055	.120	.049	652.60	323.35
.002340	500.	660.	500.	2	0	0	0.00	168.77	492.12

*SECNO 3.970

3.97	5.21	658.51	0.00	0.00	658.65	.14	.58	.01	657.00
360.	33.	275.	52.	60.	81.	71.	12.	7.	656.10
.32	.54	3.41	.74	.120	.055	.120	.050	653.30	330.19
.002758	200.	240.	200.	2	0	0	0.00	158.76	488.95

*SECNO 3.980

3.98	5.17	659.17	0.00	0.00	659.31	.15	.66	.00	657.70
360.	31.	278.	51.	57.	80.	68.	13.	8.	656.80
.34	.55	3.49	.75	.120	.055	.120	.050	654.00	332.77
.002936	200.	240.	200.	2	0	0	0.00	154.98	487.75

*SECNO 4.000

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
4.00	5.07	659.87	0.00	0.00	660.04	.16	.72	.01	658.50
360.	28.	284.	49.	50.	78.	63.	14.	8.	657.60
.36	.55	3.64	.77	.120	.055	.120	.051	654.80	337.59
.003302	200.	240.	200.	2	0	0	0.00	147.93	485.52

*SECNO 4.100

4.10	4.28	661.88	0.00	0.00	662.08	.20	2.03	.01	660.20
360.	47.	254.	59.	61.	60.	70.	16.	10.	660.00
.41	.78	4.21	.84	.120	.055	.120	.051	657.60	56.61
.004933	470.	520.	470.	2	0	0	0.00	164.10	220.71

*SECNO 4.200

***MCS X-SECTION L

4.20	4.47	664.07	0.00	0.00	664.22	.15	2.14	.01	662.20
360.	54.	240.	66.	76.	64.	85.	19.	12.	662.00
.46	.72	3.77	.77	.120	.055	.120	.052	659.60	48.33
.003683	470.	520.	470.	2	0	0	0.00	180.03	228.35

*SECNO 4.300

4.30	5.51	665.11	0.00	0.00	665.34	.23	1.09	.03	667.60	
360.	0.	326.	34.	0.	81.	46.	20.	13.	663.80	
.48	0.00	4.03	.74	.090	.045	.090	.052	659.60	657.85	
.003608	300.	300.	300.	2	0	0	0.00	115.27	773.12	

*SECNO 4.940

4.94	5.62	665.82	0.00	0.00	666.02	.20	.67	.00	668.20	
360.	0.	319.	41.	0.	84.	56.	21.	14.	664.40	
.50	0.00	3.82	.72	.090	.045	.090	.051	660.20	657.57	
.003147	200.	200.	200.	2	0	0	0.00	125.38	782.95	

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	5.64	666.44	0.00	0.00	666.64	.20	.62	.00	668.80
360.	0.	318.	42.	0.	84.	59.	21.	14.	665.00
.51	0.00	3.77	.72	.090	.045	.090	.051	660.80	657.50
.003042	200.	200.	200.	2	0	0	0.00	127.90	785.39

*SECNO 5.000

5.00	5.49	667.09	0.00	0.00	667.33	.24	.67	.01	669.60
360.	0.	327.	33.	0.	80.	44.	22.	15.	665.80
.53	0.00	4.08	.74	.090	.045	.090	.051	661.60	657.91
.003723	200.	200.	200.	2	0	0	0.00	112.94	770.86

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	5.62	667.32	0.00	0.00	667.52	.20	.19	.00	669.70
360.	0.	320.	40.	0.	84.	56.	22.	15.	665.90
.53	0.00	3.83	.72	.090	.045	.090	.051	661.70	657.57
.003157	55.	55.	55.	2	0	0	0.00	125.14	782.71

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
731.19	667.52	0.00	334.	27.	7.	9.	664.80	666.80

5.30	5.55	667.45	0.00	0.00	667.67	.22	.15	0.00	669.90
360.	0.	324.	36.	0.	82.	50.	22.	15.	666.10
.54	0.00	3.96	.74	.090	.045	.090	.051	661.90	657.75

.003444	41.	41.	41.	2	0	8	0.00	118.72	776.47	

*SECNO 5.400

***FOOTBRIDGE

5.40	5.99	667.99	0.00	0.00	668.11	.13	.43	.01	670.00	
360.	0.	293.	67.	0.	93.	98.	23.	15.	666.20	
.55	0.00	3.13	.69	.090	.045	.090	.050	662.00	656.57	
.001913	172.	172.	172.	2	0	0	0.00	150.03	806.60	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
668.98	668.01	0.00	211.	149.	57.	42.	666.10	667.30

5.50	6.04	668.04	0.00	0.00	668.16	.12	.04	0.00	670.00
360.	0.	289.	71.	0.	95.	105.	23.	15.	666.20
.55	0.00	3.04	.68	.090	.045	.090	.050	662.00	656.43
.001776	8.	8.	8.	2	0	4	0.00	152.10	808.53

*SECNO 6.200

6.20	6.04	670.34	0.00	0.00	670.49	.15	2.32	.01	670.00
360.	1.	295.	64.	3.	87.	73.	27.	19.	669.20
.66	.25	3.40	.87	.090	.045	.090	.050	664.30	343.80
.002384	1135.	1135.	1135.	2	0	0	0.00	108.27	452.07

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	4.41	670.81	0.00	0.00	670.90	.09	.39	.03	672.50
360.	0.	360.	0.	0.	149.	0.	28.	19.	672.50
.69	0.00	2.42	0.00	.090	.045	.090	.049	666.40	1.03
.001215	234.	234.	234.	1	0	0	0.00	46.05	47.08

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	4.41	670.81	0.00	0.00	670.90	.09	.00	.00	672.50	
360.	0.	360.	0.	0.	149.	0.	28.	19.	672.50	
.69	0.00	2.42	0.00	.090	.020	.090	.049	666.40	1.03	
.000241	1.	1.	1.	0	0	0	0.00	46.04	47.07	

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	4.42	670.82	0.00	0.00	670.91	.09	.01	.00	672.50	
360.	0.	360.	0.	0.	149.	0.	28.	19.	672.50	
.69	0.00	2.41	0.00	.090	.020	.090	.049	666.40	1.02	
.000238	31.	31.	31.	1	0	0	0.00	46.07	47.09	

*SECNO 6.400

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
6.40	4.42	670.82	0.00	0.00	670.91	.09	.00	.00	672.50	
360.	0.	360.	0.	0.	149.	0.	28.	19.	672.50	
.69	0.00	2.42	0.00	.055	.040	.055	.049	666.40	1.03	
.000958	1.	1.	1.	0	0	0	0.00	46.06	47.08	

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	5.32	671.12	0.00	0.00	671.32	.20	.37	.04	671.20	
360.	0.	346.	14.	0.	95.	21.	29.	20.	670.80	
.71	0.00	3.65	.65	.055	.040	.055	.049	665.80	404.37	
.003004	234.	234.	234.	2	0	0	0.00	111.35	515.72	

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.23	672.23	0.00	0.00	672.45	.22	1.12	.01	672.40	
360.	0.	352.	8.	0.	92.	15.	30.	21.	672.00	
.74	0.00	3.84	.55	.055	.040	.055	.049	667.00	404.76	
.003439	350.	350.	350.	2	0	0	0.00	110.48	515.25	

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.17	673.47	0.00	0.00	673.79	.32	1.30	.03	672.10	
360.	1.	349.	9.	1.	76.	11.	31.	21.	672.90	
.76	1.16	4.63	.84	.055	.040	.055	.048	668.30	370.14	
.004055	350.	350.	350.	2	0	0	0.00	66.48	436.61	

*SECNO 7.200

7.20	5.28	674.08	0.00	0.00	674.32	.24	.52	.01	672.60	
330.	2.	316.	12.	1.	78.	15.	31.	22.	673.40	
.77	1.03	4.03	.80	.055	.040	.055	.048	668.80	369.99	
.002929	150.	150.	150.	2	0	0	0.00	74.35	444.34	

*SECNO 7.100

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
	7.10	4.34	674.14	0.00	0.00	674.46	.32	.11	.03	672.70
	330.	0.	302.	28.	0.	64.	21.	31.	22.	671.10
	.77	0.00	4.73	1.34	.055	.040	.055	.048	669.80	371.00
	.003301	36.	36.	36.	2	0	0	0.00	63.59	434.59

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

SPECIAL BRIDGE

SB	XK	XKCR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
674.91	674.53	0.00	0.	330.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	4.89	674.59	0.00	0.00	674.91	.32	.45	0.00	672.50
330.	0.	330.	0.	0.	73.	0.	31.	22.	670.90
.77	0.00	4.53	0.00	.055	.040	.055	.048	669.70	402.00
.002536	24.	24.	24.	2	0	0	0.00	17.00	419.00

*SECNO 7.800

7.80	5.25	674.95	0.00	0.00	674.97	.02	.02	.04	674.10
275.	1.	274.	1.	3.	222.	2.	31.	22.	673.90
.78	.27	1.23	.28	.055	.040	.055	.048	669.70	564.22
.000267	27.	27.	27.	2	0	0	0.00	85.71	649.93

*SECNO 7.850

7.85	4.71	674.91	0.00	0.00	675.07	.16	.05	.05	674.00
225.	12.	213.	0.	14.	65.	0.	32.	22.	676.10
.79	.89	3.29	0.00	.055	.040	.055	.048	670.20	91.71
.002362	100.	100.	100.	2	0	0	0.00	52.35	144.05

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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     50 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       3.        0.        0.   .003400      0.00     -1.0        0.   651.970    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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T*PROF 3

   CCHV=    .150 CEHV=    .350
   *SECNO 2.000
        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

          2.00      8.27    651.77      0.00    651.97     652.01      .25      0.00      0.00     653.00
          700.        0.      630.       70.       0.        150.      71.       0.        0.      651.00
          0.00      0.00      4.20       .98      .060       .045      .060    0.000     643.50    200.17
        .003459       0.        0.        0.         0          0         5     0.00     189.38    389.56

   *SECNO 3.200
          3.20      7.12    654.02      0.00      0.00     654.11      .09      2.07       .02     652.80
          700.        4.      693.        3.        6.       286.       5.        6.        4.      652.80
           .12       .62      2.42       .62      .060       .045      .060      .045    646.90    170.22
        .001225     1080.     1080.     1000.        3          0         0     0.00     111.36    281.59

   CCHV=    .400 CEHV=    .800
   *SECNO 3.400

          ***26 MILE ROAD   ELLC = 657.4

          3.40      6.03    654.13      0.00      0.00     654.21      .07       .09       .01     657.50
          700.        0.        0.      700.        0.         0.      322.       7.        4.      707.50
           .14      0.00      0.00      2.17      .060       .045      .060      .045    648.10     26.10
        .000867       90.       90.       90.         2          0         0     0.00     62.83     88.93

   *SECNO 3.600
          3.60      6.09    654.19      0.00      0.00     654.26      .07       .05       .00     657.50
          700.        0.        0.      700.        0.         0.      326.       7.        4.      657.50
           .14      0.00      0.00      2.15      .060       .020      .060      .044    648.10     26.09
        .000833       60.       60.       60.         0          0         0     0.00     62.85     88.94

   *SECNO 3.800
        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

          3.80      6.42    654.22      0.00      0.00     654.44      .22       .07       .12     653.00
          700.       55.      597.       48.       55.       148.      40.       8.        4.      652.10
           .15      1.00      4.04      1.21      .070       .045      .070      .044    647.80    540.31
        .002403       50.       50.       50.         0          0         0     0.00     137.39    677.70

   CCHV=    .150 CEHV=    .350
   *SECNO 3.900

          ***MCS X-SECTION F
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3.90	6.12	656.52	0.00	0.00	656.81	.29	2.34	.03	652.90
700.	105.	477.	118.	65.	92.	96.	12.	6.	654.40
.20	1.60	5.16	1.23	.090	.050	.090	.047	650.40	107.52
.003885	700.	800.	700.	2	0	0	0.00	136.38	243.90

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	5.97	658.57	0.00	0.00	658.69	.13	1.86	.02	656.30
520.	87.	334.	99.	134.	95.	122.	16.	8.	655.40
.27	.65	3.50	.81	.120	.055	.120	.050	652.60	290.96
.002320	500.	660.	500.	1	0	0	0.00	216.18	507.13

*SECNO 3.970

3.97	5.82	659.12	0.00	0.00	659.27	.15	.57	.01	657.00
520.	80.	345.	95.	118.	93.	111.	17.	9.	656.10
.29	.67	3.73	.85	.120	.055	.120	.050	653.30	298.26
.002730	200.	240.	200.	2	0	0	0.00	205.48	503.75

*SECNO 3.980

3.98	5.76	659.76	0.00	0.00	659.91	.16	.64	.00	657.70
520.	76.	351.	93.	111.	91.	107.	19.	10.	656.80
.31	.68	3.83	.87	.120	.055	.120	.051	654.00	301.64
.002947	200.	240.	200.	2	0	0	0.00	200.54	502.18

*SECNO 4.000

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
4.00	5.66	660.46	0.00	0.00	660.63	.18	.71	.01	658.50
520.	71.	359.	90.	101.	89.	100.	20.	11.	657.60
.33	.70	4.02	.91	.120	.055	.120	.051	654.80	306.97
.003328	200.	240.	200.	2	0	0	0.00	192.74	499.71

*SECNO 4.100

4.10	4.81	662.41	0.00	0.00	662.61	.20	1.97	.01	660.20
520.	96.	313.	111.	106.	69.	116.	24.	13.	660.00
.38	.91	4.51	.96	.120	.055	.120	.052	657.60	33.73
.004695	470.	520.	470.	2	0	0	0.00	208.10	241.82

*SECNO 4.200

***MCS X-SECTION L

4.20	4.96	664.56	0.00	0.00	664.72	.16	2.11	.01	662.20
520.	103.	299.	118.	120.	72.	131.	27.	16.	662.00
.43	.86	4.16	.90	.120	.055	.120	.053	659.60	27.29
.003814	470.	520.	470.	2	0	0	0.00	220.46	247.75

*SECNO 4.300

4.30	6.04	665.64	0.00	0.00	665.88	.24	1.13	.03	667.60	
520.	0.	417.	103.	0.	95.	104.	29.	17.	663.80	
.45	0.00	4.40	.99	.090	.045	.090	.052	659.60	656.44	
.003725	300.	300.	300.	2	0	0	0.00	151.94	808.38	

*SECNO 4.940

4.94	6.16	666.36	0.00	0.00	666.57	.21	.68	.01	668.20	
520.	0.	404.	116.	0.	98.	120.	30.	18.	664.40	
.47	0.00	4.10	.97	.090	.045	.090	.052	660.20	656.10	
.003134	200.	200.	200.	2	0	0	0.00	156.80	812.90	

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.19	666.99	0.00	0.00	667.19	.20	.62	.00	668.80
520.	0.	401.	119.	0.	99.	123.	31.	18.	665.00
.49	0.00	4.05	.96	.090	.045	.090	.052	660.80	656.03
.003036	200.	200.	200.	2	0	0	0.00	157.71	813.74

*SECNO 5.000

5.00	6.03	667.63	0.00	0.00	667.88	.25	.67	.02	669.60
520.	0.	418.	102.	0.	95.	103.	32.	19.	665.80
.50	0.00	4.41	.99	.090	.045	.090	.051	661.60	656.45
.003753	200.	200.	200.	2	0	0	0.00	151.74	808.19

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.17	667.87	0.00	0.00	668.07	.21	.19	.01	669.70
520.	0.	403.	117.	0.	98.	120.	32.	19.	665.90
.50	0.00	4.10	.97	.090	.045	.090	.051	661.70	656.09
.003125	55.	55.	55.	2	0	0	0.00	156.88	812.97

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
801.13	668.07	0.00	499.	21.	7.	9.	664.80	666.80
5.30	5.89	667.79	0.00	0.00	668.09	.30	.02	0.00	669.90
520.	0.	433.	87.	0.	91.	87.	32.	19.	666.10
.51	0.00	4.77	1.00	.090	.045	.090	.051	661.90	656.82

.004535	41.	41.	41.	3	0	10	0.00	146.52	803.34

*SECNO 5.400

***FOOTBRIDGE

5.40	6.49	668.49	0.00	0.00	668.63	.13	.51	.02	670.00
520.	0.	369.	151.	0.	108.	165.	33.	20.	666.20
.53	0.00	3.41	.92	.090	.045	.090	.051	662.00	654.04
.002102	172.	172.	172.	2	0	0	0.00	170.54	824.57

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
670.56	668.53	0.00	365.	157.	57.	42.	666.10	667.30

5.50	6.56	668.56	0.00	0.00	668.68	.12	.06	0.00	670.00
520.	0.	362.	158.	0.	110.	174.	33.	20.	666.20
.53	0.00	3.29	.91	.090	.045	.090	.051	662.00	653.59
.001940	8.	8.	8.	2	0	4	0.00	173.38	826.96

*SECNO 6.200

6.20	6.64	670.94	0.00	0.00	671.10	.16	2.40	.02	670.00
520.	10.	382.	128.	21.	102.	113.	40.	24.	669.20
.63	.48	3.73	1.13	.090	.045	.090	.050	664.30	315.93
.002320	1135.	1135.	1135.	2	0	0	0.00	137.78	453.71

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.01	671.41	0.00	0.00	671.55	.13	.43	.01	672.50
520.	0.	520.	0.	0.	177.	0.	41.	25.	672.50
.65	0.00	2.95	0.00	.090	.045	.090	.050	666.40	.67
.001510	234.	234.	234.	2	0	0	0.00	47.44	48.11

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.01	671.41	0.00	0.00	671.55	.13	.00	.00	672.50
520.	0.	520.	0.	0.	177.	0.	41.	25.	672.50
.65	0.00	2.94	0.00	.090	.020	.090	.050	666.40	.66
.000298	1.	1.	1.	0	0	0	0.00	47.45	48.11

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.02	671.42	0.00	0.00	671.56	.13	.01	.00	672.50
520.	0.	520.	0.	0.	178.	0.	41.	25.	672.50
.66	0.00	2.93	0.00	.090	.020	.090	.050	666.40	.65
.000293	31.	31.	31.	1	0	0	0.00	47.49	48.14

*SECNO 6.400

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
6.40	5.02	671.42	0.00	0.00	671.56	.13	.00	.00	672.50
520.	0.	520.	0.	0.	177.	0.	41.	25.	672.50
.66	0.00	2.94	0.00	.055	.040	.055	.050	666.40	.66
.001182	1.	1.	1.	0	0	0	0.00	47.47	48.13

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	5.97	671.77	0.00	0.00	671.92	.15	.35	.01	671.20
520.	29.	411.	80.	42.	120.	70.	42.	25.	670.80
.68	.68	3.44	1.14	.055	.040	.055	.049	665.80	285.03
.001984	234.	234.	234.	2	0	0	0.00	234.18	519.22

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.62	672.62	0.00	0.00	672.88	.26	.93	.04	672.40
520.	6.	464.	51.	11.	106.	44.	44.	27.	672.00
.70	.54	4.36	1.15	.055	.040	.055	.049	667.00	341.96
.003707	350.	350.	350.	2	0	0	0.00	175.41	517.37

*SECNO 6.700

3265 DIVIDED FLOW

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.64	673.94	0.00	0.00	674.34	.40	1.41	.05	672.10
520.	3.	468.	49.	2.	88.	38.	45.	28.	672.90
.72	1.47	5.32	1.30	.055	.040	.055	.048	668.30	369.49
.004382	350.	350.	350.	2	0	0	0.00	126.11	575.52

*SECNO 7.200

7.20	5.82	674.62	0.00	0.00	674.91	.30	.56	.01	672.60

510.	4.	486.	70.	3.	92.	64.	46.	29.	673.40	
.73	1.34	4.72	1.08	.055	.040	.055	.048	668.80	369.25	
.003227	150.	150.	150.	2	0	0	0.00	229.84	599.09	

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	4.86	674.66	0.00	0.00	675.09	.43	.13	.05	672.70
510.	0.	419.	91.	0.	73.	56.	46.	29.	671.10
.73	0.00	5.75	1.64	.055	.040	.055	.048	669.80	371.00
.004199	36.	36.	36.	2	0	0	0.00	125.13	578.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
676.50	675.40	0.00	62.	448.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.36	676.06	0.00	0.00	676.09	.03	1.00	0.00	672.50
510.	0.	196.	314.	0.	98.	355.	46.	29.	670.90
.74	0.00	2.00	.88	.055	.040	.055	.048	669.70	402.00
.000364	24.	24.	24.	2	0	4	0.00	250.81	652.81

*SECNO 7.800

7.80	6.37	676.07	0.00	0.00	676.10	.02	.01	.00	674.10
395.	7.	384.	3.	19.	305.	9.	46.	29.	673.90
.74	.40	1.26	.38	.055	.040	.055	.048	669.70	552.55
.000182	27.	27.	27.	2	0	0	0.00	101.59	654.14

*SECNO 7.850

7.85	5.87	676.07	0.00	0.00	676.15	.09	.03	.02	674.00
320.	71.	249.	0.	64.	96.	0.	47.	30.	676.10
.76	1.11	2.60	0.00	.055	.040	.055	.048	670.20	61.21
.001224	100.	100.	100.	2	0	0	0.00	90.50	151.70

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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      500 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       5.       0.       0.   .003400    0.00     -1.0      0.   651.970   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= .150 CEHV= .350

*SECNO 2.000

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
2.00	8.94	652.44	0.00	651.97	652.68	.24	0.00	0.00	653.00
1090.	0.	802.	288.	0.	179.	185.	0.	0.	651.00
0.00	0.00	4.48	1.55	.060	.045	.060	0.000	643.50	196.80
.003391	0.	0.	0.	0	0	5	0.00	229.53	426.33

*SECNO 3.200

3.20	7.87	654.77	0.00	0.00	654.91	.14	2.21	.02	652.80
1090.	15.	1063.	12.	17.	356.	13.	9.	4.	652.80
.10	.91	2.99	.91	.060	.045	.060	.045	646.90	163.71
.001393	1080.	1080.	1000.	3	0	0	0.00	122.80	286.51

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	6.79	654.89	0.00	0.00	655.03	.13	.12	.00	657.50
1090.	0.	0.	1090.	0.	0.	370.	10.	4.	707.50
.11	0.00	0.00	2.95	.060	.045	.060	.045	648.10	25.97
.001336	90.	90.	90.	2	0	0	0.00	63.10	89.06

*SECNO 3.600

3.60	6.88	654.98	0.00	0.00	655.11	.13	.08	.00	657.50
1090.	0.	0.	1090.	0.	0.	375.	10.	4.	657.50
.12	0.00	0.00	2.91	.060	.020	.060	.044	648.10	25.95
.001277	60.	60.	60.	0	0	0	0.00	63.12	89.07

*SECNO 3.800

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
3.80	7.24	655.04	0.00	0.00	655.29	.25	.09	.10	653.00
1090.	160.	812.	117.	114.	177.	76.	11.	5.	652.10
.12	1.41	4.59	1.54	.070	.045	.070	.044	647.80	523.21
.002434	50.	50.	50.	0	0	0	0.00	168.91	692.12

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	6.94	657.34	0.00	0.00	657.66	.31	2.34	.02	652.90
1090.	200.	618.	272.	109.	107.	161.	17.	7.	654.40
.17	1.84	5.76	1.69	.090	.050	.090	.047	650.40	87.74
.003966	700.	800.	700.	2	0	0	0.00	162.35	250.08

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.78	659.38	0.00	0.00	659.52	.13	1.83	.03	656.30
825.	201.	440.	184.	250.	112.	194.	23.	10.	655.40
.24	.80	3.93	.95	.120	.055	.120	.050	652.60	247.57
.002359	500.	660.	500.	2	0	0	0.00	279.67	527.24

*SECNO 3.970

3.97	6.63	659.93	0.00	0.00	660.09	.15	.56	.01	657.00
825.	190.	455.	180.	227.	109.	179.	25.	11.	656.10
.26	.84	4.17	1.00	.120	.055	.120	.051	653.30	255.41
.002758	200.	240.	200.	2	0	0	0.00	268.20	523.60

*SECNO 3.980

3.98	6.56	660.56	0.00	0.00	660.73	.17	.64	.00	657.70
825.	185.	462.	178.	216.	108.	173.	28.	12.	656.80
.28	.86	4.29	1.03	.120	.055	.120	.052	654.00	259.16
.002975	200.	240.	200.	2	0	0	0.00	262.70	521.86

*SECNO 4.000

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
4.00	6.45	661.25	0.00	0.00	661.44	.19	.70	.01	658.50
825.	177.	474.	174.	200.	105.	163.	30.	14.	657.60
.30	.89	4.50	1.07	.120	.055	.120	.052	654.80	264.98
.003352	200.	240.	200.	2	0	0	0.00	254.19	519.17

*SECNO 4.100

4.10	5.56	663.16	0.00	0.00	663.35	.19	1.91	.00	660.20
825.	201.	402.	221.	188.	82.	198.	35.	16.	660.00
.35	1.07	4.91	1.12	.120	.055	.120	.053	657.60	1.87
.004452	470.	520.	470.	1	0	0	0.00	269.34	271.21

*SECNO 4.200

3280 CROSS SECTION 4.20 EXTENDED .05 FEET

***MCS X-SECTION L

4.20	5.65	665.25	0.00	0.00	665.42	.17	2.07	.00	662.20
825.	209.	391.	225.	200.	84.	210.	41.	19.	662.00
.40	1.04	4.68	1.08	.120	.055	.120	.053	659.60	0.00
.003944	470.	520.	470.	2	0	0	0.00	274.98	274.98

*SECNO 4.300

4.30	6.77	666.37	0.00	0.00	666.61	.23	1.16	.02	667.60
825.	0.	543.	282.	0.	117.	205.	43.	21.	663.80
.42	0.00	4.66	1.37	.090	.045	.090	.053	659.60	652.17
.003814	300.	300.	300.	2	0	0	0.00	182.29	834.47

*SECNO 4.940

4.94	6.92	667.12	0.00	0.00	667.31	.19	.70	.01	668.20
825.	0.	524.	301.	0.	121.	228.	45.	22.	664.40
.44	0.00	4.32	1.32	.090	.045	.090	.053	660.20	651.21
.003233	200.	200.	200.	2	0	0	0.00	188.38	839.59

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.96	667.76	0.00	0.00	667.95	.18	.63	.00	668.80
825.	0.	519.	306.	0.	123.	234.	47.	23.	665.00
.46	0.00	4.23	1.31	.090	.045	.090	.052	660.80	650.93
.003082	200.	200.	200.	2	0	0	0.00	190.17	841.09

*SECNO 5.000

5.00	6.81	668.41	0.00	0.00	668.63	.22	.67	.01	669.60
825.	0.	539.	286.	0.	117.	210.	48.	24.	665.80
.47	0.00	4.59	1.36	.090	.045	.090	.052	661.60	651.99
.003696	200.	200.	200.	1	0	0	0.00	183.44	835.43

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.94	668.64	0.00	0.00	668.83	.19	.19	.01	669.70
825.	0.	522.	303.	0.	122.	230.	49.	24.	665.90
.48	0.00	4.28	1.32	.090	.045	.090	.052	661.70	651.09
.003170	55.	55.	55.	2	0	0	0.00	189.11	840.20

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
1004.08	668.83	0.00	806.	21.	7.	9.	664.80	666.80

5.30	6.69	668.59	0.00	0.00	668.84	.26	.02	0.00	669.90

825.	0.	554.	271.	0.	114.	194.	49.	24.	666.10	
.48	0.00	4.86	1.40	.090	.045	.090	.052	661.90	652.69	
.004173	41.	41.	41.	2	0	10	0.00	179.02	831.72	

*SECNO 5.400

***FOOTBRIDGE

5.40	7.25	669.25	0.00	0.00	669.38	.13	.51	.02	670.00	
825.	0.	486.	339.	0.	132.	280.	50.	25.	666.20	
.50	0.00	3.67	1.21	.090	.045	.090	.052	662.00	649.03	
.002252	172.	172.	172.	2	0	0	0.00	202.13	851.16	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
674.45	669.28	0.00	653.	172.	57.	42.	666.10	667.30

5.50	7.36	669.36	0.00	0.00	669.47	.12	.09	0.00	670.00
825.	0.	474.	351.	0.	136.	299.	50.	25.	666.20
.50	0.00	3.48	1.17	.090	.045	.090	.052	662.00	648.29
.002000	8.	8.	8.	2	0	4	0.00	206.79	855.08

*SECNO 6.200

6.20	7.45	671.75	0.00	0.00	671.94	.19	2.44	.02	670.00
825.	53.	523.	248.	72.	124.	178.	61.	30.	669.20
.60	.74	4.24	1.40	.090	.045	.090	.050	664.30	279.85
.002323	1135.	1135.	1135.	1	0	0	0.00	226.80	506.65

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.86	672.26	0.00	0.00	672.48	.22	.51	.03	672.50
825.	0.	825.	0.	0.	218.	0.	63.	31.	672.50
.62	0.00	3.79	0.00	.090	.045	.090	.050	666.40	.15
.002029	234.	234.	234.	0	0	0	0.00	49.43	49.58

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

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***JEWELL ROAD
    6.00      5.85    672.25      0.00      0.00    672.54       .28       .00       .05    672.50
    825.        0.      825.        0.        0.      193.        0.       63.       31.    672.50
     .62      0.00      4.28      0.00      .090      .020      .090      .050    666.40       .15
 .001295        1.        1.        1.         0         0         0    -24.75     49.43     49.58

*SECNO 6.800

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  672.40 MAX ELLC=  671.70

    6.80      5.89    672.29      0.00      0.00    672.58       .28       .04       .00    672.50
    825.        0.      825.        0.        0.      193.        0.       63.       31.    672.50
     .62      0.00      4.27      0.00      .090      .020      .090      .050    666.40       .12
 .001294       31.       31.       31.         1         0         0    -26.52     49.53     49.65

*SECNO 6.400
   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

    6.40      6.00    672.40      0.00      0.00    672.61       .21       .00       .03    672.50
    825.        0.      825.        0.        0.      225.        0.       63.       31.    672.50
     .62      0.00      3.67      0.00      .055      .040      .055      .050    666.40       .06
 .001456        1.        1.        1.         2         0         0      0.00     49.77     49.83

CCHV=     .150 CEHV=     .350
*SECNO 6.500
    6.50      7.02    672.82      0.00      0.00    672.90       .07       .26       .02    671.20
    825.      186.      447.      192.      191.      159.      154.       65.       32.    670.80
     .65       .97      2.80      1.25      .055      .040      .055      .050    665.80    241.17
 .000895      234.      234.      234.         2         0         0      0.00    283.71    524.88

CCHV=     .150 CEHV=     .350
*SECNO 6.600
    6.60      6.24    673.24      0.00      0.00    673.48       .24       .53       .06    672.40
    825.       86.      587.      152.       76.      130.       91.       68.       34.    672.00
     .68      1.13      4.52      1.67      .055      .040      .055      .049    667.00    273.33
 .003072      350.      350.      350.         1         0         0      0.00    247.34    520.67

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

    6.70      6.14    674.44    674.25      0.00    674.87       .43      1.32       .07    672.10
    825.        7.      611.      207.        4.      101.      136.       70.       36.    672.90
     .70      1.85      6.06      1.52      .055      .040      .055      .049    668.30    368.74
 .004730      350.      350.      350.         5         9         0      0.00    261.44    630.18

*SECNO 7.200
    7.20      6.38    675.18      0.00      0.00    675.45       .27       .56       .02    672.60
    825.        8.      541.      277.        5.      107.      195.       71.       37.    673.40
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.71	1.64	5.04	1.42	.055	.040	.055	.049	668.80	368.29
.003007	150.	150.	150.	2	0	0	0.00	272.88	641.17

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	5.41	675.21	0.00	0.00	675.64	.42	.13	.05	672.70
825.	0.	525.	300.	0.	82.	172.	71.	37.	671.10
.71	0.00	6.39	1.74	.055	.040	.055	.049	669.80	371.00
.004536	36.	36.	36.	2	0	0	0.00	262.61	633.61

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
680.03	676.73	0.00	392.	441.	56.	-11387.	0.00	675.80

7.70	6.86	676.56	0.00	0.00	676.59	.03	.96	0.00	672.50
825.	141.	239.	445.	144.	106.	485.	71.	38.	670.90
.72	.98	2.25	.92	.055	.040	.055	.049	669.70	340.80
.000344	24.	24.	24.	2	0	5	0.00	348.43	689.23

*SECNO 7.800

7.80	6.86	676.56	0.00	0.00	676.61	.05	.01	.01	674.10
640.	18.	614.	8.	29.	341.	13.	72.	38.	673.90
.72	.63	1.80	.57	.055	.040	.055	.049	669.70	548.04
.000321	27.	27.	27.	2	0	0	0.00	107.92	655.96

*SECNO 7.850

7.85	6.36	676.56	0.00	0.00	676.69	.13	.06	.03	674.00
520.	145.	373.	2.	96.	112.	4.	72.	38.	676.10
.73	1.51	3.34	.41	.055	.040	.055	.048	670.20	49.18
.001671	100.	100.	100.	2	0	0	0.00	120.12	169.30

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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

YATES DRAIN 100 YEAR FLO

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
651.970	136.46	652.22	204.75	0.00	0.00	651.97
651.128	81.43	651.35	83.30	0.00	0.00	651.97
651.765	119.03	652.01	189.38	0.00	0.00	651.97
652.440	187.19	652.68	229.53	0.00	0.00	651.97
654.263	228.08	654.36	115.07	0.00	0.00	0.00
653.387	135.29	653.45	101.72	0.00	0.00	0.00
654.019	200.04	654.11	111.36	0.00	0.00	0.00
654.771	292.02	654.91	122.80	0.00	0.00	0.00
654.381	256.77	654.47	62.92	0.00	0.00	0.00
653.495	191.40	653.54	62.61	0.00	0.00	0.00
654.134	237.76	654.21	62.83	0.00	0.00	0.00
654.895	298.17	655.03	63.10	0.00	0.00	0.00
654.443	262.08	654.53	62.94	0.00	0.00	0.00
653.533	194.64	653.58	62.63	0.00	0.00	0.00
654.188	242.53	654.26	62.85	0.00	0.00	0.00
654.978	305.00	655.11	63.12	0.00	0.00	0.00
654.486	165.30	654.71	147.79	0.00	0.00	0.00
653.556	95.73	653.75	110.93	0.00	0.00	0.00
654.224	142.78	654.44	137.39	0.00	0.00	0.00
655.040	220.92	655.29	168.91	0.00	0.00	0.00
656.775	129.49	657.07	144.50	0.00	0.00	0.00
655.880	77.21	656.15	113.46	0.00	0.00	0.00
656.516	112.31	656.81	136.38	0.00	0.00	0.00
657.344	173.09	657.66	162.35	0.00	0.00	0.00
658.820	125.30	658.95	236.25	0.00	0.00	0.00
657.944	74.42	658.06	168.77	0.00	0.00	0.00
658.566	107.96	658.69	216.18	0.00	0.00	0.00
659.384	169.85	659.52	279.67	0.00	0.00	0.00
659.374	115.34	659.52	225.00	0.00	0.00	0.00
658.515	68.56	658.65	158.76	0.00	0.00	0.00
659.121	99.52	659.27	205.48	0.00	0.00	0.00
659.934	157.10	660.09	268.20	0.00	0.00	0.00

CWSEL	-01K	EG	TOPWID	STENCL	STENCR	WSELK
660.010	111.16	660.17	220.05	0.00	0.00	0.00
659.166	66.44	659.31	154.98	0.00	0.00	0.00
659.757	95.80	659.91	200.54	0.00	0.00	0.00
660.563	151.25	660.73	262.70	0.00	0.00	0.00
660.707	104.68	660.89	212.10	0.00	0.00	0.00
659.874	62.65	660.04	147.93	0.00	0.00	0.00
660.456	90.14	660.63	192.74	0.00	0.00	0.00
661.253	142.50	661.44	254.19	0.00	0.00	0.00
662.648	89.13	662.84	227.37	0.00	0.00	0.00
661.880	51.25	662.08	164.10	0.00	0.00	0.00
662.414	75.89	662.61	208.10	0.00	0.00	0.00
663.158	123.64	663.35	269.34	0.00	0.00	0.00
664.778	97.32	664.94	238.27	0.00	0.00	0.00
664.073	59.32	664.22	180.03	0.00	0.00	0.00
664.562	84.20	664.72	220.46	0.00	0.00	0.00
665.251	131.37	665.42	274.98	0.00	0.00	0.00
665.866	99.00	666.11	160.95	0.00	0.00	0.00
665.115	59.94	665.34	115.27	0.00	0.00	0.00
665.638	85.20	665.88	151.94	0.00	0.00	0.00
666.374	133.59	666.61	182.29	0.00	0.00	0.00
666.601	107.29	666.80	166.60	0.00	0.00	0.00
665.819	64.17	666.02	125.38	0.00	0.00	0.00
666.364	92.89	666.57	156.80	0.00	0.00	0.00
667.119	145.10	667.31	188.38	0.00	0.00	0.00
667.234	109.47	667.43	168.02	0.00	0.00	0.00
666.445	65.28	666.64	127.90	0.00	0.00	0.00
666.989	94.38	667.19	157.71	0.00	0.00	0.00
667.761	148.62	667.95	190.17	0.00	0.00	0.00
667.876	99.07	668.12	161.00	0.00	0.00	0.00
667.090	59.00	667.33	112.94	0.00	0.00	0.00
667.632	84.89	667.88	151.74	0.00	0.00	0.00
668.409	135.71	668.63	183.44	0.00	0.00	0.00
668.114	108.12	668.31	167.15	0.00	0.00	0.00
667.316	64.07	667.52	125.14	0.00	0.00	0.00
667.866	93.02	668.07	156.88	0.00	0.00	0.00
668.636	146.53	668.83	189.11	0.00	0.00	0.00
668.038	91.30	668.33	155.82	0.00	0.00	0.00
667.446	61.35	667.67	118.72	0.00	0.00	0.00
667.794	77.22	668.09	146.52	0.00	0.00	0.00
668.589	127.71	668.84	179.02	0.00	0.00	0.00
668.731	130.33	668.86	180.50	0.00	0.00	0.00
667.987	82.30	668.11	150.03	0.00	0.00	0.00
668.494	113.43	668.63	170.54	0.00	0.00	0.00
669.246	173.86	669.38	202.13	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
668.808	136.26	668.93	183.74	0.00	0.00	0.00
668.040	85.43	668.16	152.10	0.00	0.00	0.00
668.561	118.05	668.68	173.38	0.00	0.00	0.00
669.356	184.48	669.47	206.79	0.00	0.00	0.00
671.195	125.74	671.37	150.65	0.00	0.00	0.00
670.342	73.73	670.49	108.27	0.00	0.00	0.00
670.936	107.96	671.10	137.78	0.00	0.00	0.00
671.754	171.18	671.94	226.80	0.00	0.00	0.00
671.669	148.09	671.83	48.05	0.00	0.00	0.00
670.813	103.29	670.90	46.05	0.00	0.00	0.00
671.412	133.81	671.55	47.44	0.00	0.00	0.00
672.257	183.16	672.48	49.43	0.00	0.00	0.00
671.670	333.46	671.83	48.05	0.00	0.00	0.00
670.814	231.83	670.90	46.04	0.00	0.00	0.00
671.413	301.30	671.55	47.45	0.00	0.00	0.00
672.253	229.22	672.54	49.43	0.00	0.00	0.00
671.682	334.86	671.84	48.08	0.00	0.00	0.00
670.822	233.41	670.91	46.07	0.00	0.00	0.00
671.424	303.61	671.56	47.49	0.00	0.00	0.00
672.294	229.34	672.58	49.53	0.00	0.00	0.00
671.682	167.41	671.84	48.08	0.00	0.00	0.00
670.823	116.32	670.91	46.06	0.00	0.00	0.00
671.424	151.28	671.56	47.47	0.00	0.00	0.00
672.403	216.21	672.61	49.77	0.00	0.00	0.00
672.060	151.46	672.18	248.31	0.00	0.00	0.00
671.118	65.69	671.32	111.35	0.00	0.00	0.00
671.767	116.74	671.92	234.18	0.00	0.00	0.00
672.821	275.71	672.90	283.71	0.00	0.00	0.00
672.780	98.57	673.06	204.64	0.00	0.00	0.00
672.225	61.39	672.45	110.48	0.00	0.00	0.00
672.618	85.40	672.88	175.41	0.00	0.00	0.00
673.245	148.85	673.48	247.34	0.00	0.00	0.00
674.121	90.78	674.53	231.64	0.00	0.00	0.00
673.466	56.53	673.79	66.48	0.00	0.00	0.00
673.940	78.55	674.34	126.11	0.00	0.00	0.00
674.436	119.96	674.87	261.44	0.00	0.00	0.00
674.817	107.22	675.11	255.84	0.00	0.00	0.00
674.076	60.97	674.32	74.35	0.00	0.00	0.00
674.615	89.78	674.91	229.84	0.00	0.00	0.00
675.182	150.45	675.45	272.88	0.00	0.00	0.00
674.843	89.27	675.31	232.13	0.00	0.00	0.00
674.137	57.44	674.46	63.59	0.00	0.00	0.00
674.663	78.71	675.09	125.13	0.00	0.00	0.00
675.215	122.49	675.64	262.61	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
676.251	299.29	676.29	274.17	0.00	0.00	0.00
674.590	65.52	674.91	17.00	0.00	0.00	0.00
676.055	267.21	676.09	250.81	0.00	0.00	0.00
676.558	444.82	676.59	348.43	0.00	0.00	0.00
676.265	317.73	676.30	104.12	0.00	0.00	0.00
674.947	168.40	674.97	85.71	0.00	0.00	0.00
676.071	292.72	676.10	101.59	0.00	0.00	0.00
676.557	357.26	676.61	107.92	0.00	0.00	0.00
676.262	104.13	676.36	102.11	0.00	0.00	0.00
674.912	46.30	675.07	52.35	0.00	0.00	0.00
676.066	91.46	676.15	90.50	0.00	0.00	0.00
676.559	127.20	676.69	120.12	0.00	0.00	0.00

SUMMARY OF ERRORS

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Yates Drain

4) DOCUMENT TYPE: ~~10, 50, 100, 500 Year Flood~~
SENSISITIVITY Run

00BREAK00

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

C
T1      JOB HUD-FIA H-4705  T06
T2      WASHINGTON TWP FIS
T3      YATES DRAIN 100 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       4.       0.       0.  0.000000    0.00      0.0      0.   651.970   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

     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

NC      .060      .060      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT     4.000   475.000   700.000   810.000  1090.000   810.000     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

X1     2.000    30.000   194.000   242.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   656.600   132.000   656.600   142.000   657.800   152.000   655.800   162.000   653.800   180.000
GR   653.000   194.000   651.400   202.000   649.800   206.000   649.000   216.000   648.400   222.000
GR   645.900   224.000   645.000   225.000   644.100   226.000   643.500   229.000   644.300   232.000
GR   644.600   233.000   645.900   234.000   650.400   238.000   651.000   242.000   651.100   278.000
GR   651.200   306.000   651.300   322.000   651.400   350.000   651.600   378.000   652.000   406.000
GR   652.300   424.000   653.500   444.000   656.700   460.000   658.000   474.000   659.000   486.000

X1     3.200    25.000   226.000   342.000  1080.000  1000.000  1080.000      .800     0.000     0.000
GR   660.000     0.000   657.800     8.000   657.000    34.000   656.000    66.000   655.600    98.000
GR   655.600   130.000   655.400   166.000   655.200   200.000   652.800   226.000   651.600   238.000
GR   650.900   258.000   649.400   264.000   648.400   270.000   647.700   273.000   647.100   274.000
GR   646.900   276.000   647.100   280.000   647.800   282.000   648.400   284.000   650.900   290.000
GR   651.600   302.000   652.000   320.000   652.800   342.000   655.000   360.000   660.000   550.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

        ***26 MILE ROAD   ELLC = 657.4

X1     3.400    10.000    25.500   100.000    90.000    90.000    90.000     0.000     0.000     0.000
GR   657.500    25.500   649.100    27.000   649.500    41.000   649.600    57.000   648.600    65.000
GR   648.200    69.000   648.100    76.000   648.200    85.000   648.600    88.000   657.500    89.500
NC     0.000     0.000      .020     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     3.600     0.000     0.000     0.000    60.000    60.000    60.000     0.000     0.000     0.000
NC      .070      .070      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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X1	3.800	20.000	604.000	640.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	663.000	442.000	659.400	462.000	657.200	484.000	655.000	524.000	653.300	560.000
GR	653.200	586.000	653.000	604.000	649.000	622.000	648.800	623.000	648.200	624.000
GR	647.800	628.000	647.900	630.000	648.500	631.000	649.000	632.000	652.100	640.000
GR	653.600	666.000	655.000	692.000	658.000	700.000	661.000	714.000	662.300	732.000
NC	.090	.090	.050	.150	.350	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION F

X1	3.900	9.000	150.000	168.000	700.000	700.000	800.000	0.000	0.000	0.000
GR	661.000	0.000	656.000	120.000	652.900	150.000	650.600	156.000	650.400	160.000
GR	650.700	164.000	654.400	168.000	656.000	240.000	660.000	270.000	0.000	0.000
QT	4.000	360.000	520.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

X1	3.950	11.000	410.000	430.000	500.000	500.000	660.000	0.000	-2.200	0.000
GR	662.600	194.000	658.500	410.000	655.400	418.000	655.200	420.000	654.900	422.000
GR	654.800	423.000	654.900	424.000	655.200	426.000	655.400	428.000	657.600	430.000
GR	664.400	596.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	3.970	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000

X1	3.980	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000

X1	4.000	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.800	0.000

X1	4.100	6.000	129.000	146.000	470.000	470.000	520.000	0.000	-2.000	0.000
GR	665.200	0.000	662.200	129.000	659.600	134.000	660.000	143.000	662.000	146.000
GR	668.000	384.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION L

X1	4.200	0.000	0.000	0.000	470.000	470.000	520.000	0.000	2.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	4.300	28.000	644.000	684.000	300.000	300.000	300.000	0.000	-2.000	0.000
GR	674.300	426.000	673.900	478.000	672.800	520.000	671.900	564.000	670.200	598.000
GR	669.700	622.000	669.600	644.000	667.800	656.000	662.600	670.000	662.300	671.000
GR	661.900	672.000	661.600	673.000	661.900	674.000	662.300	675.000	662.600	676.000
GR	665.800	684.000	666.400	706.000	667.400	800.000	670.000	892.000	671.800	930.000
GR	671.900	970.000	671.900	1014.000	672.600	1060.000	672.500	1110.000	673.500	1168.000
GR	673.600	1212.000	673.800	1248.000	673.500	1310.000	0.000	0.000	0.000	0.000

X1	4.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	4.960	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	5.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.800	0.000

***3 FT. DIA. CULVERT

X1	5.100	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.100	0.000
SB	0.000	1.600	2.900	150.000	3.000	0.000	7.100	0.000	661.700	661.700
X1	5.300	0.000	0.000	0.000	41.000	41.000	41.000	0.000	.200	0.000
X2	0.000	0.000	1.000	664.800	666.800	0.000	0.000	0.000	0.000	0.000

***FOOTBRIDGE

X1	5.400	0.000	0.000	0.000	172.000	172.000	172.000	0.000	.100	0.000
SB	0.000	1.600	2.900	110.000	10.000	0.000	57.000	0.000	661.900	661.900
X1	5.500	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	666.100	667.300	0.000	0.000	0.000	0.000	0.000
X1	6.200	20.000	360.000	386.000	1135.000	1135.000	1135.000	0.000	0.000	0.000
GR	673.400	275.000	671.700	280.000	670.000	360.000	665.600	374.000	664.900	375.000
GR	664.300	376.000	664.300	377.000	664.300	378.000	665.000	379.000	665.600	380.000
GR	669.200	386.000	669.000	414.000	669.600	450.000	671.400	455.000	671.800	514.000
GR	672.600	554.000	673.000	590.000	673.300	624.000	673.700	668.000	673.800	702.000
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000
X1	6.100	10.000	0.000	50.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	672.500	0.000	667.600	3.000	667.200	5.000	666.700	12.000	666.400	17.000
GR	666.900	23.000	667.500	30.000	668.400	33.000	667.900	42.000	672.500	50.000
NC	0.000	0.000	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JEWELL ROAD

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	671.700	672.400	0.000	0.000	0.000	0.000	0.000
X1	6.800	0.000	0.000	0.000	31.000	31.000	31.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	671.700	672.400	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000
X1	6.500	25.000	404.000	442.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	675.600	198.000	673.000	234.000	672.300	262.000	671.700	288.000	671.500	332.000
GR	671.200	372.000	671.200	404.000	669.000	414.000	668.400	420.000	667.400	426.000
GR	666.300	428.000	665.800	429.000	666.700	430.000	666.900	431.000	667.100	432.000
GR	667.400	434.000	670.800	442.000	670.900	454.000	670.800	486.000	670.800	514.000
GR	673.400	528.000	673.600	556.000	674.700	568.000	674.500	604.000	675.400	658.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000

X1	6.600	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.200	0.000

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

X1	6.700	19.000	372.000	398.000	350.000	350.000	350.000	0.000	-.500	0.000
GR	677.000	365.000	674.800	369.000	672.600	372.000	670.200	382.000	669.300	383.000
GR	669.000	384.000	668.800	385.000	669.000	386.000	669.300	387.000	670.200	388.000
GR	673.400	398.000	673.700	418.000	674.300	460.000	674.600	484.000	674.500	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
QT	5.000	330.000	510.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000

X1	7.200	0.000	0.000	0.000	150.000	150.000	150.000	0.000	.500	0.000

X1	7.100	24.000	371.000	388.000	36.000	36.000	36.000	0.000	.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.300	674.000	0.000
GR	682.400	162.000	681.900	198.000	680.300	230.000	677.300	266.000	674.600	302.000
GR	673.200	332.000	673.200	360.000	672.500	371.000	670.900	374.000	669.600	375.000
GR	669.900	379.000	669.700	383.000	669.800	386.000	669.900	387.000	670.900	388.000
GR	673.400	393.000	673.700	418.000	674.300	460.000	674.600	484.000	674.600	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
SB	0.000	1.430	3.000	0.000	17.000	0.000	56.000	0.000	669.800	669.800

X1	7.700	19.000	402.000	419.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	672.000	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	676.400	675.800	0.000
BT	13.000	16.000	681.600	0.000	190.000	678.600	0.000	282.000	677.400	0.000
BT	336.000	676.900	0.000	378.000	676.800	0.000	404.000	676.500	0.000	440.000
BT	676.400	0.000	496.000	675.800	0.000	572.000	675.800	0.000	630.000	675.900
BT	0.000	674.000	676.200	0.000	708.000	677.000	0.000	748.000	677.700	0.000
GR	677.100	335.000	675.700	350.000	674.600	352.000	674.100	376.000	672.500	402.000
GR	670.900	405.000	669.800	406.000	669.800	410.000	669.700	414.000	670.900	419.000
GR	673.900	436.000	674.300	448.000	673.000	480.000	672.700	500.000	674.800	522.000
GR	675.900	630.000	676.200	674.000	677.000	708.000	677.700	748.000	0.000	0.000
QT	4.000	275.000	395.000	465.000	640.000	465.000	0.000	0.000	0.000	0.000

X1	7.800	21.000	572.000	646.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	677.100	543.000	675.700	556.000	674.600	568.000	674.100	572.000	672.500	588.000
GR	670.400	600.000	669.700	601.000	669.700	607.000	670.400	608.000	672.700	614.000
GR	673.300	622.000	672.800	628.000	670.400	632.000	670.200	633.000	669.900	634.000
GR	669.700	635.000	669.900	636.000	670.200	637.000	670.400	638.000	673.900	646.000
GR	677.100	658.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	225.000	320.000	375.000	520.000	375.000	0.000	0.000	0.000	0.000

X1	7.850	11.000	120.000	152.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	680.000	10.000	678.000	55.000	676.300	100.000	675.700	120.000	673.300	125.000
GR	672.000	127.000	671.900	133.000	674.600	136.000	677.100	146.000	677.800	152.000
GR	680.000	235.000	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 1

CCHV= .150 CEHV= .350

*SECNO 2.000

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
2.00	8.47	651.97	0.00	651.97	652.22	.25	0.00	0.00	653.00
810.	0.	688.	122.	0.	159.	103.	0.	0.	651.00
0.00	0.00	4.34	1.18	.060	.045	.060	0.000	643.50	199.15
.003523	0.	0.	0.	0	0	0	0.00	204.75	403.90

*SECNO 3.200

3.20	7.36	654.26	0.00	0.00	654.36	.10	2.12	.02	652.80
810.	7.	798.	5.	9.	309.	7.	7.	4.	652.80
.12	.71	2.58	.71	.060	.045	.060	.045	646.90	168.11
.001261	1080.	1080.	1000.	3	0	0	0.00	115.07	283.18

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	6.28	654.38	0.00	0.00	654.47	.09	.10	.01	657.50
810.	0.	0.	810.	0.	0.	338.	8.	4.	707.50
.13	0.00	0.00	2.40	.060	.045	.060	.045	648.10	26.06
.000995	90.	90.	90.	2	0	0	0.00	62.92	88.97

*SECNO 3.600

3.60	6.34	654.44	0.00	0.00	654.53	.09	.06	.00	657.50
810.	0.	0.	810.	0.	0.	342.	8.	4.	657.50
.13	0.00	0.00	2.37	.060	.020	.060	.044	648.10	26.04
.000955	60.	60.	60.	0	0	0	0.00	62.94	88.99

*SECNO 3.800

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
3.80	6.69	654.49	0.00	0.00	654.71	.23	.07	.11	653.00
810.	82.	662.	66.	72.	157.	50.	9.	4.	652.10
.14	1.14	4.21	1.32	.070	.045	.070	.044	647.80	534.77
.002401	50.	50.	50.	0	0	0	0.00	147.79	682.56

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	6.38	656.78	0.00	0.00	657.07	.30	2.33	.02	652.90
810.	130.	520.	160.	77.	97.	116.	14.	7.	654.40
.19	1.69	5.35	1.38	.090	.050	.090	.047	650.40	101.33
.003913	700.	800.	700.	2	0	0	0.00	144.50	245.83

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.22	658.82	0.00	0.00	658.95	.13	1.85	.03	656.30
605.	117.	366.	122.	167.	101.	143.	18.	9.	655.40
.26	.70	3.64	.85	.120	.055	.120	.050	652.60	277.24
.002331	500.	660.	500.	2	0	0	0.00	236.25	513.49

*SECNO 3.970

3.97	6.07	659.37	0.00	0.00	659.52	.15	.57	.01	657.00
605.	108.	379.	118.	148.	98.	131.	20.	10.	656.10
.28	.73	3.88	.90	.120	.055	.120	.051	653.30	284.92
.002751	200.	240.	200.	2	0	0	0.00	225.00	509.93

*SECNO 3.980

3.98	6.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	385.	116.	141.	96.	126.	22.	11.	656.80
.30	.74	3.99	.92	.120	.055	.120	.051	654.00	288.31
.002962	200.	240.	200.	2	0	0	0.00	220.05	508.36

*SECNO 4.000

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
4.00	5.91	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	23.	12.	657.60
.32	.76	4.17	.96	.120	.055	.120	.052	654.80	293.74
.003340	200.	240.	200.	2	0	0	0.00	212.10	505.84

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.00	660.20
605.	124.	340.	141.	129.	73.	139.	27.	14.	660.00
.37	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.70
.004608	470.	520.	470.	2	0	0	0.00	227.37	251.07

*SECNO 4.200

***MCS X-SECTION L

4.20	5.18	664.78	0.00	0.00	664.94	.16	2.10	.00	662.20
605.	131.	327.	147.	143.	76.	153.	31.	17.	662.00
.42	.91	4.33	.96	.120	.055	.120	.053	659.60	18.03
.003865	470.	520.	470.	2	0	0	0.00	238.27	256.30

*SECNO 4.300

4.30	6.27	665.87	0.00	0.00	666.11	.24	1.14	.03	667.60
605.	0.	457.	148.	0.	101.	134.	33.	18.	663.80
.44	0.00	4.51	1.11	.090	.045	.090	.052	659.60	655.56
.003734	300.	300.	300.	2	0	0	0.00	160.95	816.51

*SECNO 4.940

4.94	6.40	666.60	0.00	0.00	666.80	.20	.69	.01	668.20
605.	0.	440.	165.	0.	105.	152.	34.	19.	664.40
.46	0.00	4.18	1.09	.090	.045	.090	.052	660.20	654.66
.003179	200.	200.	200.	2	0	0	0.00	166.60	821.26

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.43	667.23	0.00	0.00	667.43	.19	.62	.00	668.80
605.	0.	436.	169.	0.	106.	156.	35.	20.	665.00
.48	0.00	4.11	1.08	.090	.045	.090	.052	660.80	654.44
.003055	200.	200.	200.	2	0	0	0.00	168.02	822.45

*SECNO 5.000

5.00	6.28	667.88	0.00	0.00	668.12	.24	.67	.02	669.60
605.	0.	456.	149.	0.	101.	134.	37.	21.	665.80
.49	0.00	4.51	1.11	.090	.045	.090	.052	661.60	655.55
.003730	200.	200.	200.	1	0	0	0.00	161.00	816.55

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.41	668.11	0.00	0.00	668.31	.20	.19	.01	669.70
605.	0.	438.	167.	0.	106.	153.	37.	21.	665.90
.50	0.00	4.15	1.09	.090	.045	.090	.051	661.70	654.57
.003131	55.	55.	55.	2	0	0	0.00	167.15	821.72

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.51	668.31	0.00	584.	21.	7.	9.	664.80	666.80

5.30	6.14	668.04	0.00	0.00	668.33	.29	.01	0.00	669.90
605.	0.	473.	132.	0.	98.	117.	37.	21.	666.10
.50	0.00	4.84	1.13	.090	.045	.090	.051	661.90	656.16

.004391	41.	41.	41.	3	0	9	0.00	155.82	811.99	

*SECNO 5.400

***FOOTBRIDGE

5.40	6.73	668.73	0.00	0.00	668.86	.13	.51	.02	670.00	
605.	0.	403.	202.	0.	115.	199.	38.	22.	666.20	
.52	0.00	3.50	1.02	.090	.045	.090	.051	662.00	652.46	
.002155	172.	172.	172.	2	0	0	0.00	180.50	832.95	

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.53	668.76	0.00	445.	160.	57.	42.	666.10	667.30

5.50	6.81	668.81	0.00	0.00	668.93	.12	.06	0.00	670.00
605.	0.	395.	210.	0.	118.	211.	38.	22.	666.20
.52	0.00	3.36	1.00	.090	.045	.090	.051	662.00	651.94
.001971	8.	8.	8.	2	0	5	0.00	183.74	835.69

*SECNO 6.200

6.20	6.89	671.19	0.00	0.00	671.37	.17	2.42	.02	670.00
605.	19.	425.	162.	34.	109.	130.	46.	26.	669.20
.62	.56	3.89	1.24	.090	.045	.090	.050	664.30	303.78
.002315	1135.	1135.	1135.	2	0	0	0.00	150.65	454.43

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.27	671.67	0.00	0.00	671.83	.16	.46	.01	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.045	.090	.050	666.40	.51
.001669	234.	234.	234.	2	0	0	0.00	48.05	48.56

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.27	671.67	0.00	0.00	671.83	.16	.00	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.020	.090	.050	666.40	.51
.000329	1.	1.	1.	0	0	0	0.00	48.05	48.56

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.28	671.68	0.00	0.00	671.84	.16	.01	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.090	.020	.090	.050	666.40	.50
.000326	31.	31.	31.	3	0	0	0.00	48.08	48.58

*SECNO 6.400

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
6.40	5.28	671.68	0.00	0.00	671.84	.16	.00	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.055	.040	.055	.050	666.40	.50
.001306	1.	1.	1.	0	0	0	0.00	48.08	48.58

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	6.26	672.06	0.00	0.00	672.18	.12	.34	.01	671.20
605.	65.	427.	113.	79.	131.	93.	49.	27.	670.80
.67	.83	3.27	1.22	.055	.040	.055	.049	665.80	272.46
.001596	234.	234.	234.	2	0	0	0.00	248.31	520.78

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.78	672.78	0.00	0.00	673.06	.28	.82	.05	672.40
605.	17.	512.	76.	22.	112.	56.	51.	29.	672.00
.69	.75	4.55	1.36	.055	.040	.055	.049	667.00	313.58
.003767	350.	350.	350.	2	0	0	0.00	204.64	518.22

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.82	674.12	673.35	0.00	674.53	.41	1.43	.05	672.10
605.	4.	515.	85.	3.	93.	67.	52.	31.	672.90
.71	1.57	5.55	1.27	.055	.040	.055	.049	668.30	369.23
.004441	350.	350.	350.	4	12	0	0.00	231.64	600.87

*SECNO 7.200

7.20	6.02	674.82	0.00	0.00	675.11	.29	.56	.02	672.60
605.	5.	476.	125.	3.	98.	108.	53.	32.	673.40
.72	1.42	4.87	1.15	.055	.040	.055	.048	668.80	368.97
.003184	150.	150.	150.	2	0	0	0.00	255.84	624.81

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	5.04	674.84	674.24	0.00	675.31	.46	.14	.06	672.70
605.	0.	467.	138.	0.	76.	84.	53.	32.	671.10
.72	0.00	6.15	1.64	.055	.040	.055	.048	669.80	371.00
.004593	36.	36.	36.	4	16	0	0.00	232.13	603.13

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.44	675.80	0.00	159.	451.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.55	676.25	0.00	0.00	676.29	.04	.98	0.00	672.50
605.	0.	218.	387.	0.	101.	404.	53.	32.	670.90
.73	0.00	2.16	.96	.055	.040	.055	.048	669.70	402.00
.000409	24.	24.	24.	2	0	4	0.00	274.17	676.17

*SECNO 7.800

7.80	6.57	676.27	0.00	0.00	676.30	.03	.01	.00	674.10
465.	11.	450.	5.	23.	320.	10.	53.	32.	673.90
.73	.47	1.41	.43	.055	.040	.055	.048	669.70	550.75
.000214	27.	27.	27.	2	0	0	0.00	104.12	654.87

*SECNO 7.850

7.85	6.06	676.26	0.00	0.00	676.36	.10	.04	.02	674.00
375.	91.	284.	0.	76.	102.	0.	54.	32.	676.10
.75	1.20	2.77	.18	.055	.040	.055	.048	670.20	56.00
.001297	100.	100.	100.	2	0	0	0.00	102.11	158.11

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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      SENSITIVITY RUN  N* 0.7

J1  ICHECK     INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
        -1.      4.       0.       0.   .003400     0.00    -1.0      0.   651.970   0.000

J2  NPROF      IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
     2.000      0.000   -1.000    0.000    0.000     .700    0.000    0.000    0.000    0.000
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*PROF 2

CCHV= .150 CEHV= .350

*SECNO 2.000

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
2.00	7.94	651.44	0.00	651.97	651.94	.50	0.00	0.00	653.00
810.	0.	784.	26.	0.	136.	28.	0.	0.	651.00
0.00	0.00	5.74	.93	.042	.032	.042	0.000	643.50	201.80
.003415	0.	0.	0.	0	0	6	0.00	153.75	355.55

*SECNO 3.200

3.20	6.86	653.76	0.00	0.00	653.90	.15	1.92	.05	652.80
810.	3.	805.	2.	4.	262.	3.	5.	3.	652.80
.10	.71	3.07	.71	.042	.032	.042	.032	646.90	172.48
.001086	1080.	1080.	1000.	3	0	0	0.00	107.41	279.89

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	5.79	653.89	0.00	0.00	653.99	.11	.08	.01	657.50
810.	0.	0.	810.	0.	0.	306.	6.	3.	707.50
.11	0.00	0.00	2.64	.042	.032	.042	.031	648.10	26.15
.000669	90.	90.	90.	2	0	0	0.00	62.75	88.89

*SECNO 3.600

3.60	5.83	653.93	0.00	0.00	654.03	.11	.04	.00	657.50
810.	0.	0.	810.	0.	0.	310.	6.	3.	657.50
.11	0.00	0.00	2.62	.042	.014	.042	.031	648.10	26.14
.000646	60.	60.	60.	0	0	0	0.00	62.76	88.90

*SECNO 3.800

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
3.80	6.13	653.93	0.00	0.00	654.32	.39	.05	.23	653.00
810.	41.	726.	43.	37.	137.	29.	7.	3.	652.10
.12	1.12	5.31	1.47	.049	.032	.049	.031	647.80	546.75
.002253	50.	50.	50.	2	0	0	0.00	125.29	672.05

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	5.71	656.11	0.00	0.00	656.73	.62	2.33	.08	652.90
810.	105.	611.	93.	50.	85.	66.	10.	6.	654.40
.15	2.11	7.19	1.42	.063	.035	.063	.033	650.40	117.37
.004127	700.	800.	700.	3	0	0	0.00	123.45	240.82

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	5.76	658.36	0.00	0.00	658.57	.21	1.78	.06	656.30
605.	89.	408.	108.	111.	91.	107.	13.	7.	655.40
.21	.80	4.46	1.01	.084	.039	.084	.035	652.60	301.62
.001954	500.	660.	500.	2	0	0	0.00	200.57	502.19

*SECNO 3.970

3.97	5.53	658.83	0.00	0.00	659.10	.28	.51	.02	657.00
605.	74.	430.	100.	88.	87.	91.	15.	8.	656.10
.22	.85	4.96	1.10	.084	.039	.084	.035	653.30	313.76
.002583	200.	240.	200.	2	0	0	0.00	182.80	496.56

*SECNO 3.980

3.98	5.43	659.43	0.00	0.00	659.74	.31	.63	.01	657.70
605.	68.	440.	97.	79.	85.	85.	16.	9.	656.80
.24	.87	5.18	1.14	.084	.039	.084	.035	654.00	318.75
.002904	200.	240.	200.	2	0	0	0.00	175.50	494.25

*SECNO 4.000

*SECNO 4.000

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
4.00	5.32	660.12	0.00	0.00	660.47	.35	.71	.01	658.50
605.	61.	451.	92.	69.	83.	77.	17.	10.	657.60
.25	.89	5.46	1.19	.084	.039	.084	.036	654.80	324.72
.003347	200.	240.	200.	2	0	0	0.00	166.76	491.48

*SECNO 4.100

4.10	4.51	662.11	0.00	0.00	662.51	.41	2.02	.02	660.20
605.	93.	399.	112.	78.	64.	88.	20.	12.	660.00
.28	1.20	6.23	1.28	.084	.039	.084	.036	657.60	47.07
.004879	470.	520.	470.	2	0	0	0.00	182.45	229.51

*SECNO 4.200

***MCS X-SECTION L

4.20	4.71	664.31	0.00	0.00	664.62	.30	2.09	.02	662.20
605.	106.	375.	124.	96.	68.	106.	23.	14.	662.00
.32	1.10	5.54	1.17	.084	.039	.084	.037	659.60	38.10
.003598	470.	520.	470.	2	0	0	0.00	199.70	237.79

*SECNO 4.300

4.30	5.70	665.30	0.00	0.00	665.81	.52	1.12	.07	667.60
605.	0.	528.	77.	0.	86.	65.	24.	15.	663.80
.33	0.00	6.15	1.19	.063	.032	.063	.036	659.60	657.34
.003900	300.	300.	300.	2	0	0	0.00	133.52	790.86

*SECNO 4.940

4.94	5.92	666.12	0.00	0.00	666.50	.39	.67	.02	668.20
605.	0.	502.	103.	0.	92.	89.	25.	16.	664.40
.35	0.00	5.48	1.16	.063	.032	.063	.036	660.20	656.77
.002920	200.	200.	200.	2	0	0	0.00	147.33	804.10

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	5.90	666.70	0.00	0.00	667.10	.40	.59	.00	668.80
605.	0.	504.	101.	0.	91.	87.	26.	16.	665.00
.36	0.00	5.54	1.16	.063	.032	.063	.036	660.80	656.82
.002998	200.	200.	200.	2	0	0	0.00	146.61	803.43

*SECNO 5.000

5.00	5.71	667.31	0.00	0.00	667.82	.52	.68	.04	669.60
605.	0.	528.	77.	0.	86.	64.	26.	17.	665.80
.37	0.00	6.16	1.19	.063	.032	.063	.036	661.60	657.35
.003919	200.	200.	200.	1	0	0	0.00	133.16	790.51

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	5.96	667.66	0.00	0.00	668.02	.36	.18	.02	669.70
605.	0.	494.	111.	0.	93.	96.	27.	17.	665.90
.37	0.00	5.30	1.15	.063	.032	.063	.036	661.70	656.61
.002693	55.	55.	55.	2	0	0	0.00	149.56	806.17

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.06	668.02	0.00	576.	28.	7.	9.	664.80	666.80

5.30	5.54	667.44	0.00	0.00	668.06	.63	.04	0.00	669.90
605.	0.	545.	60.	0.	81.	48.	27.	17.	666.10
.37	0.00	6.69	1.24	.063	.032	.063	.036	661.90	657.78

.004835	41.	41.	41.	4	0	0	0.00	117.66	775.44	

*SECNO 5.400

***FOOTBRIDGE

5.40	6.36	668.36	0.00	0.00	668.58	.21	.45	.06	670.00	
605.	0.	445.	160.	0.	104.	146.	27.	18.	666.20	
.39	0.00	4.27	1.10	.063	.032	.063	.036	662.00	654.92	
.001631	172.	172.	172.	2	0	0	0.00	164.99	819.91	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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	

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.16	668.48	0.00	418.	189.	57.	42.	666.10	667.30

5.50	6.45	668.45	0.00	0.00	668.64	.19	.06	0.00	670.00
605.	0.	434.	171.	0.	107.	158.	28.	18.	666.20
.39	0.00	4.07	1.08	.063	.032	.063	.035	662.00	654.33
.001469	8.	8.	8.	2	0	4	0.00	168.67	823.00

*SECNO 6.200

6.20	6.22	670.52	0.00	0.00	670.87	.35	2.17	.05	670.00
605.	3.	480.	122.	6.	92.	85.	33.	22.	669.20
.46	.49	5.25	1.43	.063	.032	.063	.035	664.30	335.49
.002602	1135.	1135.	1135.	1	0	0	0.00	117.07	452.56

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	4.72	671.12	0.00	0.00	671.34	.21	.41	.06	672.50
605.	0.	605.	0.	0.	163.	0.	34.	22.	672.50
.48	0.00	3.71	0.00	.063	.032	.063	.035	666.40	.84
.001276	234.	234.	234.	2	0	0	0.00	46.76	47.61

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	4.72	671.12	0.00	0.00	671.34	.21	.00	.00	672.50
605.	0.	605.	0.	0.	163.	0.	34.	22.	672.50
.48	0.00	3.71	0.00	.063	.014	.063	.035	666.40	.84
.000252	1.	1.	1.	0	0	0	0.00	46.77	47.61

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	4.74	671.14	0.00	0.00	671.35	.21	.01	.00	672.50
605.	0.	605.	0.	0.	164.	0.	34.	22.	672.50
.48	0.00	3.69	0.00	.063	.014	.063	.035	666.40	.83
.000248	31.	31.	31.	1	0	0	0.00	46.81	47.64

*SECNO 6.400

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
6.40	4.74	671.14	0.00	0.00	671.35	.21	.00	.00	672.50
605.	0.	605.	0.	0.	164.	0.	34.	22.	672.50
.48	0.00	3.70	0.00	.039	.028	.039	.035	666.40	.84
.000998	1.	1.	1.	0	0	0	0.00	46.79	47.63

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	5.58	671.38	0.00	0.00	671.77	.38	.36	.06	671.20
605.	5.	546.	54.	8.	105.	41.	35.	23.	670.80
.49	.58	5.20	1.33	.039	.028	.039	.034	665.80	347.22
.002639	234.	234.	234.	2	0	0	0.00	169.93	517.15

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.39	672.39	0.00	0.00	672.89	.51	1.08	.04	672.40
605.	0.	573.	32.	0.	98.	27.	36.	24.	672.00
.51	0.00	5.86	1.19	.039	.028	.039	.034	667.00	404.02
.003687	350.	350.	350.	2	0	0	0.00	112.11	516.13

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.33	673.63	673.35	0.00	674.40	.77	1.42	.09	672.10
605.	3.	575.	27.	2.	80.	18.	37.	25.	672.90
.52	1.87	7.19	1.49	.039	.028	.039	.034	668.30	369.91
.004453	350.	350.	350.	4	9	0	0.00	78.52	448.43

*SECNO 7.200

3265 DIVIDED FLOW

7.20	5.62	674.42	673.83	0.00	674.97	.55	.54	.03	672.60

605.	4.	546.	55.	2.	87.	36.	38.	25.	673.40	
.53	1.72	6.24	1.53	.039	.028	.039	.034	668.80	369.51	
.002973	150.	150.	150.	4	9	0	0.00	115.42	573.39	

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	4.54	674.34	674.22	0.00	675.21	.88	.13	.12	672.70
605.	0.	536.	69.	0.	67.	31.	38.	25.	671.10
.53	0.00	7.96	2.21	.039	.028	.039	.034	669.80	371.00
.004306	36.	36.	36.	4	15	0	0.00	77.73	448.73

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
676.93	675.55	0.00	98.	509.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.43	676.13	0.00	0.00	676.17	.04	.96	0.00	672.50
605.	0.	227.	378.	0.	99.	374.	38.	25.	670.90
.54	0.00	2.29	1.01	.039	.028	.039	.034	669.70	402.00
.000230	24.	24.	24.	2	0	4	0.00	262.03	664.03

*SECNO 7.800

7.80	6.45	676.15	0.00	0.00	676.18	.03	.00	.00	674.10
465.	9.	451.	4.	20.	311.	9.	38.	25.	673.90
.54	.47	1.45	.44	.039	.028	.039	.034	669.70	551.86
.000116	27.	27.	27.	2	0	0	0.00	102.57	654.42

*SECNO 7.850

7.85	5.92	676.12	0.00	0.00	676.23	.11	.02	.03	674.00
375.	85.	290.	0.	67.	98.	0.	39.	26.	676.10
.55	1.28	2.97	.01	.039	.028	.039	.034	670.20	59.85
.000774	100.	100.	100.	2	0	0	0.00	92.78	152.63

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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      SENSITIVITY RUN  N * 1.3

J1  ICHECK     INC       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.   .003400      0.00     -1.0        0.   651.970     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.000     0.000    -1.000     0.000     0.000     1.300     0.000     0.000     0.000     0.000
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*PROF 3

CCHV= .150 CEHV= .350

*SECNO 2.000

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
2.00	8.89	652.39	0.00	651.97	652.53	.14	0.00	0.00	653.00
810.	0.	606.	204.	0.	177.	176.	0.	0.	651.00
0.00	0.00	3.42	1.16	.078	.059	.078	0.000	643.50	197.06
.003391	0.	0.	0.	0	0	5	0.00	228.40	425.46

*SECNO 3.200

3.20	7.79	654.69	0.00	0.00	654.76	.08	2.23	.01	652.80
810.	11.	791.	8.	15.	348.	12.	9.	4.	652.80
.13	.68	2.27	.68	.078	.059	.078	.059	646.90	164.45
.001406	1080.	1080.	1000.	3	0	0	0.00	121.50	285.95

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	6.71	654.81	0.00	0.00	654.89	.08	.12	.00	657.50
810.	0.	0.	810.	0.	0.	365.	10.	4.	707.50
.14	0.00	0.00	2.22	.078	.059	.078	.059	648.10	25.98
.001307	90.	90.	90.	2	0	0	0.00	63.07	89.05

*SECNO 3.600

3.60	6.79	654.89	0.00	0.00	654.97	.07	.08	.00	657.50
810.	0.	0.	810.	0.	0.	370.	10.	4.	657.50
.15	0.00	0.00	2.19	.078	.026	.078	.057	648.10	25.97
.001249	60.	60.	60.	0	0	0	0.00	63.09	89.06

*SECNO 3.800

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
3.80	7.16	654.96	0.00	0.00	655.11	.15	.09	.06	653.00
810.	113.	613.	84.	107.	174.	72.	11.	5.	652.10
.16	1.06	3.52	1.17	.091	.059	.091	.057	647.80	524.96
.002489	50.	50.	50.	0	0	0	0.00	166.19	691.16

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	6.89	657.29	0.00	0.00	657.48	.18	2.35	.01	652.90
810.	147.	464.	199.	106.	106.	157.	17.	7.	654.40
.23	1.39	4.36	1.27	.117	.065	.117	.061	650.40	88.91
.003882	700.	800.	700.	2	0	0	0.00	160.81	249.72

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.66	659.26	0.00	0.00	659.34	.08	1.85	.01	656.30
605.	141.	331.	133.	231.	110.	182.	22.	10.	655.40
.31	.61	3.03	.73	.156	.072	.156	.065	652.60	254.04
.002439	500.	660.	500.	2	0	0	0.00	270.19	524.24

*SECNO 3.970

3.97	6.53	659.83	0.00	0.00	659.93	.09	.58	.00	657.00
605.	134.	341.	130.	211.	107.	170.	25.	11.	656.10
.34	.63	3.19	.76	.156	.072	.156	.066	653.30	260.77
.002794	200.	240.	200.	2	0	0	0.00	260.35	521.12

*SECNO 3.980

3.98	6.47	660.47	0.00	0.00	660.57	.10	.64	.00	657.70
605.	131.	346.	128.	202.	106.	165.	27.	12.	656.80
.37	.65	3.27	.78	.156	.072	.156	.067	654.00	263.98
.002984	200.	240.	200.	2	0	0	0.00	255.65	519.63

*SECNO 4.000

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
4.00	6.37	661.17	0.00	0.00	661.28	.11	.70	.00	658.50
605.	125.	354.	126.	188.	104.	155.	29.	13.	657.60
.39	.67	3.42	.81	.156	.072	.156	.068	654.80	269.42
.003341	200.	240.	200.	2	0	0	0.00	247.69	517.11

*SECNO 4.100

4.10	5.48	663.08	0.00	0.00	663.19	.11	1.91	.00	660.20
605.	144.	301.	159.	178.	81.	188.	34.	16.	660.00
.45	.81	3.74	.85	.156	.072	.156	.069	657.60	5.29
.004466	470.	520.	470.	2	0	0	0.00	262.76	268.05

*SECNO 4.200

***MCS X-SECTION L

4.20	5.57	665.17	0.00	0.00	665.27	.10	2.08	.00	662.20
605.	148.	294.	163.	190.	82.	200.	39.	19.	662.00
.52	.78	3.57	.82	.156	.072	.156	.069	659.60	1.18
.003968	470.	520.	470.	2	0	0	0.00	270.66	271.84

*SECNO 4.300

4.30	6.71	666.31	0.00	0.00	666.44	.14	1.16	.01	667.60	
605.	0.	405.	200.	0.	114.	195.	42.	21.	663.80	
.55	0.00	3.54	1.02	.117	.059	.117	.069	659.60	652.63	
.003754	300.	300.	300.	2	0	0	0.00	179.39	832.03	

*SECNO 4.940

4.94	6.83	667.03	0.00	0.00	667.14	.12	.70	.00	668.20
605.	0.	393.	212.	0.	118.	213.	43.	21.	664.40
.57	0.00	3.32	.99	.117	.059	.117	.068	660.20	651.82
.003263	200.	200.	200.	2	0	0	0.00	184.50	836.33

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.87	667.67	0.00	0.00	667.78	.11	.64	.00	668.80
605.	0.	389.	216.	0.	120.	220.	45.	22.	665.00
.59	0.00	3.25	.98	.117	.059	.117	.068	660.80	651.53
.003105	200.	200.	200.	2	0	0	0.00	186.33	837.87

*SECNO 5.000

5.00	6.73	668.33	0.00	0.00	668.46	.13	.67	.01	669.60
605.	0.	403.	202.	0.	115.	199.	46.	23.	665.80
.62	0.00	3.50	1.02	.117	.059	.117	.067	661.60	652.48
.003653	200.	200.	200.	2	0	0	0.00	180.39	832.86

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.84	668.54	0.00	0.00	668.65	.12	.19	.00	669.70
605.	0.	392.	213.	0.	119.	215.	47.	23.	665.90
.62	0.00	3.31	.99	.117	.059	.117	.067	661.70	651.76
.003226	55.	55.	55.	2	0	0	0.00	184.92	836.68

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.93	668.65	0.00	588.	17.	7.	9.	664.80	666.80

5.30	6.62	668.52	0.00	0.00	668.67	.15	.02	0.00	669.90
605.	0.	414.	191.	0.	112.	183.	47.	24.	666.10
.63	0.00	3.70	1.04	.117	.059	.117	.067	661.90	653.16

.004121	41.	41.	41.	2	0	12	0.00	176.04	829.20	

*SECNO 5.400

***FOOTBRIDGE

5.40	7.13	669.13	0.00	0.00	669.21	.08	.52	.01	670.00	
605.	0.	366.	239.	0.	128.	260.	48.	24.	666.20	
.65	0.00	2.85	.92	.117	.059	.117	.067	662.00	649.83	
.002333	172.	172.	172.	2	0	0	0.00	197.08	846.91	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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
671.92	669.11	0.00	467.	138.	57.	42.	666.10	667.30

5.50	7.20	669.20	0.00	0.00	669.27	.08	.06	0.00	670.00
605.	0.	360.	245.	0.	131.	272.	48.	24.	666.20
.65	0.00	2.76	.90	.117	.059	.117	.067	662.00	649.36
.002159	8.	8.	8.	2	0	7	0.00	200.05	849.40

*SECNO 6.200

6.20	7.39	671.69	0.00	0.00	671.79	.11	2.51	.01	670.00
605.	36.	389.	180.	67.	122.	170.	58.	30.	669.20
.78	.54	3.19	1.06	.117	.059	.117	.065	664.30	280.64
.002267	1135.	1135.	1135.	2	0	0	0.00	216.59	497.23

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.78	672.18	0.00	0.00	672.30	.12	.49	.02	672.50
605.	0.	605.	0.	0.	213.	0.	60.	30.	672.50
.80	0.00	2.83	0.00	.117	.059	.117	.065	666.40	.20
.001952	234.	234.	234.	2	0	0	0.00	49.24	49.44

*SECNO 6.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.77	672.17	0.00	0.00	672.33	.15	.00	.03	672.50
605.	0.	605.	0.	0.	192.	0.	60.	30.	672.50
.80	0.00	3.14	0.00	.117	.026	.117	.065	666.40	.20
.001180	1.	1.	1.	0	0	0	-21.11	49.24	49.44

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.81	672.21	0.00	0.00	672.37	.15	.04	.00	672.50
605.	0.	605.	0.	0.	193.	0.	60.	31.	672.50
.81	0.00	3.14	0.00	.117	.026	.117	.065	666.40	.17
.001179	31.	31.	31.	1	0	0	-22.87	49.34	49.51

*SECNO 6.400

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
6.40	5.86	672.26	0.00	0.00	672.38	.12	.00	.01	672.50
605.	0.	605.	0.	0.	218.	0.	60.	31.	672.50
.81	0.00	2.78	0.00	.072	.052	.072	.065	666.40	.15
.001455	1.	1.	1.	2	0	0	0.00	49.44	49.58

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	6.83	672.63	0.00	0.00	672.68	.05	.29	.01	671.20
605.	121.	348.	136.	161.	152.	139.	62.	31.	670.80
.85	.75	2.29	.98	.072	.052	.072	.065	665.80	248.79
.001072	234.	234.	234.	2	0	0	0.00	275.06	523.85

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	6.17	673.17	0.00	0.00	673.31	.14	.60	.03	672.40
605.	55.	442.	107.	67.	127.	86.	65.	33.	672.00
.88	.82	3.48	1.25	.072	.052	.072	.064	667.00	276.29
.003149	350.	350.	350.	2	0	0	0.00	244.01	520.30

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	6.11	674.41	0.00	0.00	674.66	.24	1.31	.04	672.10
605.	5.	454.	146.	4.	100.	130.	67.	35.	672.90
.91	1.37	4.54	1.12	.072	.052	.072	.063	668.30	368.79
.004521	350.	350.	350.	3	0	0	0.00	260.18	628.98

*SECNO 7.200

7.20	6.27	675.07	0.00	0.00	675.25	.18	.58	.01	672.60
605.	5.	420.	179.	4.	104.	167.	68.	36.	673.40
.92	1.27	4.03	1.08	.072	.052	.072	.063	668.80	368.51
.003384	150.	150.	150.	2	0	0	0.00	267.43	635.93

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	5.36	675.16	0.00	0.00	675.42	.25	.14	.02	672.70
605.	0.	397.	208.	0.	81.	159.	68.	37.	671.10
.92	0.00	4.88	1.31	.072	.052	.072	.063	669.80	371.00
.004531	36.	36.	36.	2	0	0	0.00	260.26	631.26

SPECIAL BRIDGE

SB	XK	XKQR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.76	676.00	0.00	197.	409.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.61	676.31	0.00	0.00	676.35	.03	.93	0.00	672.50
605.	0.	214.	391.	0.	102.	420.	68.	37.	670.90
.93	0.00	2.09	.93	.072	.052	.072	.063	669.70	402.00
.000642	24.	24.	24.	2	0	5	0.00	276.86	678.86

*SECNO 7.800

7.80	6.63	676.33	0.00	0.00	676.36	.03	.01	.00	674.10
465.	11.	449.	5.	24.	325.	11.	68.	37.	673.90
.93	.47	1.38	.43	.072	.052	.072	.063	669.70	550.13
.000343	27.	27.	27.	2	0	0	0.00	104.98	655.12

140 cfs gained from Trib #1 diversion

*SECNO 7.850

7.85	6.16	676.36	0.00	0.00	676.44	.09	.06	.02	674.00
375.	96.	279.	0.	82.	105.	1.	69.	37.	676.10
.94	1.17	2.65	.23	.072	.052	.072	.063	670.20	53.73
.001927	100.	100.	100.	2	0	0	0.00	107.94	161.67

WS confluence

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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.

YATES DRAIN 100 YEAR FLO

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
651.970	136.46	652.22	204.75	0.00	0.00	651.97
651.440	138.61	651.94	153.75	0.00	0.00	651.97
652.388	139.09	652.53	228.40	0.00	0.00	651.97
654.263	228.08	654.36	115.07	0.00	0.00	0.00
653.758	245.84	653.90	107.41	0.00	0.00	0.00
654.686	215.99	654.76	121.50	0.00	0.00	0.00
654.381	256.77	654.47	62.92	0.00	0.00	0.00
653.886	313.24	653.99	62.75	0.00	0.00	0.00
654.811	224.04	654.89	63.07	0.00	0.00	0.00
654.443	262.08	654.53	62.94	0.00	0.00	0.00
653.928	318.76	654.03	62.76	0.00	0.00	0.00
654.891	229.21	654.97	63.09	0.00	0.00	0.00
654.486	165.30	654.71	147.79	0.00	0.00	0.00
653.925	170.66	654.32	125.29	0.00	0.00	0.00
654.961	162.36	655.11	166.19	0.00	0.00	0.00
656.775	129.49	657.07	144.50	0.00	0.00	0.00
656.113	126.08	656.73	123.45	0.00	0.00	0.00
657.295	130.00	657.48	160.81	0.00	0.00	0.00
658.820	125.30	658.95	236.25	0.00	0.00	0.00
658.358	136.88	658.57	200.57	0.00	0.00	0.00
659.261	122.51	659.34	270.19	0.00	0.00	0.00
659.374	115.34	659.52	225.00	0.00	0.00	0.00
658.826	119.04	659.10	182.80	0.00	0.00	0.00
659.833	114.45	659.93	260.35	0.00	0.00	0.00
660.010	111.16	660.17	220.05	0.00	0.00	0.00
659.432	112.27	659.74	175.50	0.00	0.00	0.00
660.472	110.75	660.57	255.65	0.00	0.00	0.00
660.707	104.68	660.89	212.10	0.00	0.00	0.00
660.118	104.58	660.47	166.76	0.00	0.00	0.00
661.168	104.67	661.28	247.69	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
662.648	89.13	662.84	227.37	0.00	0.00	0.00
662.105	86.62	662.51	182.45	0.00	0.00	0.00
663.076	90.53	663.19	262.76	0.00	0.00	0.00
664.778	97.32	664.94	238.27	0.00	0.00	0.00
664.314	100.86	664.62	199.70	0.00	0.00	0.00
665.170	96.04	665.27	270.66	0.00	0.00	0.00
665.866	99.00	666.11	160.95	0.00	0.00	0.00
665.299	96.87	665.81	133.52	0.00	0.00	0.00
666.305	98.74	666.44	179.39	0.00	0.00	0.00
666.601	107.29	666.80	166.60	0.00	0.00	0.00
666.115	111.96	666.50	147.33	0.00	0.00	0.00
667.027	105.91	667.14	184.50	0.00	0.00	0.00
667.234	109.47	667.43	168.02	0.00	0.00	0.00
666.700	110.49	667.10	146.61	0.00	0.00	0.00
667.670	108.58	667.78	186.33	0.00	0.00	0.00
667.876	99.07	668.12	161.00	0.00	0.00	0.00
667.306	96.64	667.82	133.16	0.00	0.00	0.00
668.329	100.10	668.46	180.39	0.00	0.00	0.00
668.114	108.12	668.31	167.15	0.00	0.00	0.00
667.664	116.58	668.02	149.56	0.00	0.00	0.00
668.536	106.51	668.65	184.92	0.00	0.00	0.00
668.038	91.30	668.33	155.82	0.00	0.00	0.00
667.436	87.01	668.06	117.66	0.00	0.00	0.00
668.524	94.25	668.67	176.04	0.00	0.00	0.00
668.731	130.33	668.86	180.50	0.00	0.00	0.00
668.362	149.81	668.58	164.99	0.00	0.00	0.00
669.126	125.27	669.21	197.08	0.00	0.00	0.00
668.808	136.26	668.93	183.74	0.00	0.00	0.00
668.447	157.82	668.64	168.67	0.00	0.00	0.00
669.196	130.20	669.27	200.05	0.00	0.00	0.00
671.195	125.74	671.37	150.65	0.00	0.00	0.00
670.520	118.60	670.87	117.07	0.00	0.00	0.00
671.687	127.05	671.79	216.59	0.00	0.00	0.00
671.669	148.09	671.83	48.05	0.00	0.00	0.00
671.124	169.35	671.34	46.76	0.00	0.00	0.00
672.176	136.95	672.30	49.24	0.00	0.00	0.00
671.670	333.46	671.83	48.05	0.00	0.00	0.00
671.125	381.34	671.34	46.77	0.00	0.00	0.00
672.175	176.14	672.33	49.24	0.00	0.00	0.00
671.682	334.86	671.84	48.08	0.00	0.00	0.00
671.135	384.10	671.35	46.81	0.00	0.00	0.00
672.212	176.23	672.37	49.34	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
671.682	167.41	671.84	48.08	0.00	0.00	0.00
671.136	191.48	671.35	46.79	0.00	0.00	0.00
672.261	158.61	672.38	49.44	0.00	0.00	0.00
672.060	151.46	672.18	248.31	0.00	0.00	0.00
671.384	117.76	671.77	169.93	0.00	0.00	0.00
672.630	184.79	672.68	275.06	0.00	0.00	0.00
672.780	98.57	673.06	204.64	0.00	0.00	0.00
672.387	99.63	672.89	112.11	0.00	0.00	0.00
673.170	107.80	673.31	244.01	0.00	0.00	0.00
674.121	90.78	674.53	231.64	0.00	0.00	0.00
673.634	90.67	674.40	78.52	0.00	0.00	0.00
674.413	89.98	674.66	260.18	0.00	0.00	0.00
674.817	107.22	675.11	255.84	0.00	0.00	0.00
674.422	110.95	674.97	115.42	0.00	0.00	0.00
675.070	104.00	675.25	267.43	0.00	0.00	0.00
674.843	89.27	675.31	232.13	0.00	0.00	0.00
674.336	92.20	675.21	77.73	0.00	0.00	0.00
675.165	89.88	675.42	260.26	0.00	0.00	0.00
676.251	299.29	676.29	274.17	0.00	0.00	0.00
676.132	399.11	676.17	262.03	0.00	0.00	0.00
676.314	238.77	676.35	276.86	0.00	0.00	0.00
676.265	317.73	676.30	104.12	0.00	0.00	0.00
676.146	431.84	676.18	102.57	0.00	0.00	0.00
676.332	251.18	676.36	104.98	0.00	0.00	0.00
676.262	104.13	676.36	102.11	0.00	0.00	0.00
676.117	134.77	676.23	92.78	0.00	0.00	0.00
676.356	85.42	676.44	107.94	0.00	0.00	0.00

SUMMARY OF ERRORS



1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Yates Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 Year Floodway



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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1     JOB HUD-FIA H-4705  T06
T2     WASHINGTON TWP FIS
T3     YATES DRAIN 100 YEAR FLOW
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      -1.      4.       0.       0.  0.000000    0.00     0.0      0.     651.970   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
     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000
NC     .060     .060     .045     .150     .350    0.000    0.000    0.000    0.000    0.000
QT    4.000  475.000  700.000  810.000 1090.000  810.000    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
X1    2.000   30.000  194.000  242.000    0.000    0.000    0.000    0.000    0.000    0.000
GR  656.600  132.000  656.600  142.000  657.800  152.000  655.800  162.000  653.800  180.000
GR  653.000  194.000  651.400  202.000  649.800  206.000  649.000  216.000  648.400  222.000
GR  645.900  224.000  645.000  225.000  644.100  226.000  643.500  229.000  644.300  232.000
GR  644.600  233.000  645.900  234.000  650.400  238.000  651.000  242.000  651.100  278.000
GR  651.200  306.000  651.300  322.000  651.400  350.000  651.600  378.000  652.000  406.000
GR  652.300  424.000  653.500  444.000  656.700  460.000  658.000  474.000  659.000  486.000

X1    3.200   25.000  226.000  342.000 1080.000 1000.000 1080.000    .800    0.000    0.000
GR  660.000    0.000  657.800    8.000  657.000   34.000  656.000   66.000  655.600   98.000
GR  655.600  130.000  655.400  166.000  655.200  200.000  652.800  226.000  651.600  238.000
GR  650.900  258.000  649.400  264.000  648.400  270.000  647.700  273.000  647.100  274.000
GR  646.900  276.000  647.100  280.000  647.800  282.000  648.400  284.000  650.900  290.000
GR  651.600  302.000  652.000  320.000  652.800  342.000  655.000  360.000  660.000  550.000
NC    0.000    0.000    0.000     .400     .800    0.000    0.000    0.000    0.000    0.000

      ***26 MILE ROAD   ELLC = 657.4

X1    3.400   10.000   25.500  100.000   90.000   90.000   90.000    0.000    0.000    0.000
GR  657.500   25.500  649.100   27.000  649.500   41.000  649.600   57.000  648.600   65.000
GR  648.200   69.000  648.100   76.000  648.200   85.000  648.600   88.000  657.500   89.500
NC    0.000    0.000     .020    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1    3.600    0.000    0.000    0.000   60.000   60.000   60.000    0.000    0.000    0.000
NC     .070     .070     .045    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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X1	3.800	20.000	604.000	640.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	663.000	442.000	659.400	462.000	657.200	484.000	655.000	524.000	653.300	560.000
GR	653.200	586.000	653.000	604.000	649.000	622.000	648.800	623.000	648.200	624.000
GR	647.800	628.000	647.900	630.000	648.500	631.000	649.000	632.000	652.100	640.000
GR	653.600	666.000	655.000	692.000	658.000	700.000	661.000	714.000	662.300	732.000
NC	.090	.090	.050	.150	.350	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION F

X1	3.900	9.000	150.000	168.000	700.000	700.000	800.000	0.000	0.000	0.000
GR	661.000	0.000	656.000	120.000	652.900	150.000	650.600	156.000	650.400	160.000
GR	650.700	164.000	654.400	168.000	656.000	240.000	660.000	270.000	0.000	0.000
QT	4.000	360.000	520.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

X1	3.950	11.000	410.000	430.000	500.000	500.000	660.000	0.000	-2.200	0.000
GR	662.600	194.000	658.500	410.000	655.400	418.000	655.200	420.000	654.900	422.000
GR	654.800	423.000	654.900	424.000	655.200	426.000	655.400	428.000	657.600	430.000
GR	664.400	596.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.970	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	3.980	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	4.000	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.800	0.000
X1	4.100	6.000	129.000	146.000	470.000	470.000	520.000	0.000	-2.000	0.000
GR	665.200	0.000	662.200	129.000	659.600	134.000	660.000	143.000	662.000	146.000
GR	668.000	384.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION L

X1	4.200	0.000	0.000	0.000	470.000	470.000	520.000	0.000	2.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.300	28.000	644.000	684.000	300.000	300.000	300.000	0.000	-2.000	0.000
GR	674.300	426.000	673.900	478.000	672.800	520.000	671.900	564.000	670.200	598.000
GR	669.700	622.000	669.600	644.000	667.800	656.000	662.600	670.000	662.300	671.000
GR	661.900	672.000	661.600	673.000	661.900	674.000	662.300	675.000	662.600	676.000
GR	665.800	684.000	666.400	706.000	667.400	800.000	670.000	892.000	671.800	930.000
GR	671.900	970.000	671.900	1014.000	672.600	1060.000	672.500	1110.000	673.500	1168.000
GR	673.600	1212.000	673.800	1248.000	673.500	1310.000	0.000	0.000	0.000	0.000
X1	4.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000
X1	4.960	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	5.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.800	0.000

***3 FT. DIA. CULVERT

X1	5.100	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.100	0.000
SB	0.000	1.600	2.900	150.000	3.000	0.000	7.100	0.000	661.700	661.700
X1	5.300	0.000	0.000	0.000	41.000	41.000	41.000	0.000	.200	0.000
X2	0.000	0.000	1.000	664.800	666.800	0.000	0.000	0.000	0.000	0.000

***FOOTBRIDGE

X1	5.400	0.000	0.000	0.000	172.000	172.000	172.000	0.000	.100	0.000
SB	0.000	1.600	2.900	110.000	10.000	0.000	57.000	0.000	661.900	661.900
X1	5.500	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	666.100	667.300	0.000	0.000	0.000	0.000	0.000
X1	6.200	20.000	360.000	386.000	1135.000	1135.000	1135.000	0.000	0.000	0.000
GR	673.400	275.000	671.700	280.000	670.000	360.000	665.600	374.000	664.900	375.000
GR	664.300	376.000	664.300	377.000	664.300	378.000	665.000	379.000	665.600	380.000
GR	669.200	386.000	669.000	414.000	669.600	450.000	671.400	455.000	671.800	514.000
GR	672.600	554.000	673.000	590.000	673.300	624.000	673.700	668.000	673.800	702.000
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000
X1	6.100	10.000	0.000	50.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	672.500	0.000	667.600	3.000	667.200	5.000	666.700	12.000	666.400	17.000
GR	666.900	23.000	667.500	30.000	668.400	33.000	667.900	42.000	672.500	50.000
NC	0.000	0.000	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JEWELL ROAD

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	671.700	672.400	0.000	0.000	0.000	0.000	0.000
X1	6.800	0.000	0.000	0.000	31.000	31.000	31.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	671.700	672.400	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000
X1	6.500	25.000	404.000	442.000	234.000	234.000	234.000	0.000	0.000	0.000
GR	675.600	198.000	673.000	234.000	672.300	262.000	671.700	288.000	671.500	332.000
GR	671.200	372.000	671.200	404.000	669.000	414.000	668.400	420.000	667.400	426.000
GR	666.300	428.000	665.800	429.000	666.700	430.000	666.900	431.000	667.100	432.000
GR	667.400	434.000	670.800	442.000	670.900	454.000	670.800	486.000	670.800	514.000
GR	673.400	528.000	673.600	556.000	674.700	568.000	674.500	604.000	675.400	658.000
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000

X1	6.600	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.200	0.000

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

X1	6.700	19.000	372.000	398.000	350.000	350.000	350.000	0.000	-.500	0.000
GR	677.000	365.000	674.800	369.000	672.600	372.000	670.200	382.000	669.300	383.000
GR	669.000	384.000	668.800	385.000	669.000	386.000	669.300	387.000	670.200	388.000
GR	673.400	398.000	673.700	418.000	674.300	460.000	674.600	484.000	674.500	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
QT	5.000	330.000	510.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000

X1	7.200	0.000	0.000	0.000	150.000	150.000	150.000	0.000	.500	0.000

X1	7.100	24.000	371.000	388.000	36.000	36.000	36.000	0.000	.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.300	674.000	0.000
GR	682.400	162.000	681.900	198.000	680.300	230.000	677.300	266.000	674.600	302.000
GR	673.200	332.000	673.200	360.000	672.500	371.000	670.900	374.000	669.600	375.000
GR	669.900	379.000	669.700	383.000	669.800	386.000	669.900	387.000	670.900	388.000
GR	673.400	393.000	673.700	418.000	674.300	460.000	674.600	484.000	674.600	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
SB	0.000	1.430	3.000	0.000	17.000	0.000	56.000	0.000	669.800	669.800

X1	7.700	19.000	402.000	419.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	672.000	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	676.400	675.800	0.000
BT	13.000	16.000	681.600	0.000	190.000	678.600	0.000	282.000	677.400	0.000
BT	336.000	676.900	0.000	378.000	676.800	0.000	404.000	676.500	0.000	440.000
BT	676.400	0.000	496.000	675.800	0.000	572.000	675.800	0.000	630.000	675.900
BT	0.000	674.000	676.200	0.000	708.000	677.000	0.000	748.000	677.700	0.000
GR	677.100	335.000	675.700	350.000	674.600	352.000	674.100	376.000	672.500	402.000
GR	670.900	405.000	669.800	406.000	669.800	410.000	669.700	414.000	670.900	419.000
GR	673.900	436.000	674.300	448.000	673.000	480.000	672.700	500.000	674.800	522.000
GR	675.900	630.000	676.200	674.000	677.000	708.000	677.700	748.000	0.000	0.000
QT	4.000	275.000	395.000	465.000	640.000	465.000	0.000	0.000	0.000	0.000

X1	7.800	21.000	572.000	646.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	677.100	543.000	675.700	556.000	674.600	568.000	674.100	572.000	672.500	588.000
GR	670.400	600.000	669.700	601.000	669.700	607.000	670.400	608.000	672.700	614.000
GR	673.300	622.000	672.800	628.000	670.400	632.000	670.200	633.000	669.900	634.000
GR	669.700	635.000	669.900	636.000	670.200	637.000	670.400	638.000	673.900	646.000
GR	677.100	658.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	225.000	320.000	375.000	520.000	375.000	0.000	0.000	0.000	0.000

X1	7.850	11.000	120.000	152.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	680.000	10.000	678.000	55.000	676.300	100.000	675.700	120.000	673.300	125.000
GR	672.000	127.000	671.900	133.000	674.600	136.000	677.100	146.000	677.800	152.000
GR	680.000	235.000	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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*PROF 1

CCHV=    .150 CEHV=    .350
*SECNO 2.000
   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

      2.00      8.47    651.97      0.00    651.97    652.22      .25      0.00      0.00    653.00
      810.         0.      688.      122.        0.      159.      103.         0.         0.    651.00
      0.00      0.00      4.34      1.18      .060      .045      .060     0.000    643.50    199.15
   .003523         0.        0.         0         0         0         0      0.00    204.75    403.90


*SECNO 3.200
      3.20      7.36    654.26      0.00      0.00    654.36      .10      2.12       .02    652.80
      810.         7.      798.         5.        9.      309.         7.         7.         4.    652.80
       .12       .71      2.58       .71      .060      .045      .060      .045    646.90    168.11
   .001261      1080.     1080.     1000.         3         0         0      0.00    115.07    283.18


CCHV=     .400 CEHV=     .800
*SECNO 3.400

          ***26 MILE ROAD   ELLC = 657.4

      3.40      6.28    654.38      0.00      0.00    654.47      .09      .10       .01    657.50
      810.         0.        0.      810.        0.        0.      338.         8.         4.    707.50
       .13      0.00      0.00      2.40      .060      .045      .060      .045    648.10     26.06
   .000995        90.       90.       90.         2         0         0      0.00     62.92     88.97


*SECNO 3.600
      3.60      6.34    654.44      0.00      0.00    654.53      .09      .06       .00    657.50
      810.         0.        0.      810.        0.        0.      342.         8.         4.    657.50
       .13      0.00      0.00      2.37      .060      .020      .060      .044    648.10     26.04
   .000955        60.       60.       60.         0         0         0      0.00     62.94     88.99


*SECNO 3.800
   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

      3.80      6.69    654.49      0.00      0.00    654.71      .23      .07       .11    653.00
      810.        82.      662.        66.       72.      157.        50.        9.         4.    652.10
       .14      1.14      4.21      1.32      .070      .045      .070      .044    647.80    534.77
   .002401        50.       50.       50.         0         0         0      0.00    147.79    682.56


CCHV=     .150 CEHV=     .350
*SECNO 3.900

          ***MCS X-SECTION F
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negligible effect
may lower .05 ft

3.90	6.38	656.78	0.00	0.00	657.07	.30	2.33	.02	652.90
810.	130.	520.	160.	77.	97.	116.	14.	7.	654.40
.19	1.69	5.35	1.38	.090	.050	.090	.047	650.40	101.33
.003913	700.	800.	700.	2	0	0	0.00	144.50	245.83

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.22	658.82	0.00	0.00	658.95	.13	1.85	.03	656.30
605.	117.	366.	122.	167.	101.	143.	18.	9.	655.40
.26	.70	3.64	.85	.120	.055	.120	.050	652.60	277.24
.002331	500.	660.	500.	2	0	0	0.00	236.25	513.49

*SECNO 3.970

3.97	6.07	659.37	0.00	0.00	659.52	.15	.57	.01	657.00
605.	108.	379.	118.	148.	98.	131.	20.	10.	656.10
.28	.73	3.88	.90	.120	.055	.120	.051	653.30	284.92
.002751	200.	240.	200.	2	0	0	0.00	225.00	509.93

*SECNO 3.980

3.98	6.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	385.	116.	141.	96.	126.	22.	11.	656.80
.30	.74	3.99	.92	.120	.055	.120	.051	654.00	288.31
.002962	200.	240.	200.	2	0	0	0.00	220.05	508.36

*SECNO 4.000

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
4.00	5.51	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	23.	12.	657.60
.32	.76	4.17	.96	.120	.055	.120	.052	654.80	293.74
.003340	200.	240.	200.	2	0	0	0.00	212.10	505.84

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.00	660.20
605.	124.	340.	141.	129.	73.	139.	27.	14.	660.00
.37	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.70
.004608	470.	520.	470.	2	0	0	0.00	227.37	251.07

*SECNO 4.200

***MCS X-SECTION L

4.20	5.18	664.78	0.00	0.00	664.94	.16	2.10	.00	662.20
605.	131.	327.	147.	143.	76.	153.	31.	17.	662.00
.42	.91	4.33	.96	.120	.055	.120	.053	659.60	18.03
.003865	470.	520.	470.	2	0	0	0.00	238.27	256.30

*SECNO 4.300

4.30	6.27	665.87	0.00	0.00	666.11	.24	1.14	.03	667.60	
605.	0.	457.	148.	0.	101.	134.	33.	18.	663.80	
.44	0.00	4.51	1.11	.090	.045	.090	.052	659.60	655.56	
.003734	300.	300.	300.	2	0	0	0.00	160.95	816.51	

*SECNO 4.940

4.94	6.40	666.60	0.00	0.00	666.80	.20	.69	.01	668.20
605.	0.	440.	165.	0.	105.	152.	34.	19.	664.40
.46	0.00	4.18	1.09	.090	.045	.090	.052	660.20	654.66
.003179	200.	200.	200.	2	0	0	0.00	166.60	821.26

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.43	667.23	0.00	0.00	667.43	.19	.62	.00	668.80
605.	0.	436.	169.	0.	106.	156.	35.	20.	665.00
.48	0.00	4.11	1.08	.090	.045	.090	.052	660.80	654.44
.003055	200.	200.	200.	2	0	0	0.00	168.02	822.45

*SECNO 5.000

5.00	6.28	667.88	0.00	0.00	668.12	.24	.67	.02	669.60
605.	0.	456.	149.	0.	101.	134.	37.	21.	665.80
.49	0.00	4.51	1.11	.090	.045	.090	.052	661.60	655.55
.003730	200.	200.	200.	1	0	0	0.00	161.00	816.55

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.41	668.11	0.00	0.00	668.31	.20	.19	.01	669.70
605.	0.	438.	167.	0.	106.	153.	37.	21.	665.90
.50	0.00	4.15	1.09	.090	.045	.090	.051	661.70	654.57
.003131	55.	55.	55.	2	0	0	0.00	167.15	821.72

SPECIAL BRIDGE

Normal Bridge

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.51	668.31	0.00	584.	21.	7.	9.	664.80	666.80

5.30	6.14	668.04	0.00	0.00	668.33	.29	.01	0.00	669.90
605.	0.	473.	132.	0.	98.	117.	37.	21.	666.10
.50	0.00	4.84	1.13	.090	.045	.090	.051	661.90	656.16

.004391	41.	41.	41.	3	0	9	0.00	155.82	811.99

*SECNO 5.400

***FOOTBRIDGE

5.40	6.73	668.73	0.00	0.00	668.86	.13	.51	.02	670.00
605.	0.	403.	202.	0.	115.	199.	38.	22.	666.20
.52	0.00	3.50	1.02	.090	.045	.090	.051	662.00	652.46
.002155	172.	172.	172.	2	0	0	0.00	180.50	832.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.53	668.76	0.00	445.	160.	57.	42.	666.10	667.30

Normal Bridge may be better

5.50	6.81	668.81	0.00	0.00	668.93	.12	.06	0.00	670.00
605.	0.	395.	210.	0.	118.	211.	38.	22.	666.20
.52	0.00	3.36	1.00	.090	.045	.090	.051	662.00	651.94
.001971	8.	8.	8.	2	0	5	0.00	183.74	835.69

36% sub

*SECNO 6.200

6.20	6.89	671.19	0.00	0.00	671.37	.17	2.42	.02	670.00
605.	19.	425.	162.	34.	109.	130.	46.	26.	669.20
.62	.56	3.89	1.24	.090	.045	.090	.050	664.30	303.78
.002315	1135.	1135.	1135.	2	0	0	0.00	150.65	454.43

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.27	671.67	0.00	0.00	671.83	.16	.46	.01	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.045	.090	.050	666.40	.51
.001669	234.	234.	234.	2	0	0	0.00	48.05	48.56

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.27	671.67	0.00	0.00	671.83	.16	.00	.00	672.50	
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50	
.64	0.00	3.20	0.00	.090	.020	.090	.050	666.40	.51	
.000329	1.	1.	1.	0	0	0	0.00	48.05	48.56	

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.28	671.68	0.00	0.00	671.84	.16	.01	.00	672.50	
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50	
.64	0.00	3.19	0.00	.090	.020	.090	.050	666.40	.50	
.000326	31.	31.	31.	3	0	0	0.00	48.08	48.58	

*SECNO 6.400

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
6.40	5.28	671.68	0.00	0.00	671.84	.16	.00	.00	672.50	
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50	
.64	0.00	3.19	0.00	.055	.040	.055	.050	666.40	.50	
.001306	1.	1.	1.	0	0	0	0.00	48.08	48.58	

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	6.26	672.06	0.00	0.00	672.18	.12	.34	.01	671.20
605.	65.	427.	113.	79.	131.	93.	49.	27.	670.80
.67	.83	3.27	1.22	.055	.040	.055	.049	665.80	272.46
.001596	234.	234.	234.	2	0	0	0.00	248.31	520.78

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.78	672.78	0.00	0.00	673.06	.28	.82	.05	672.40
605.	17.	512.	76.	22.	112.	56.	51.	29.	672.00
.69	.75	4.55	1.36	.055	.040	.055	.049	667.00	313.58
.003767	350.	350.	350.	2	0	0	0.00	204.64	518.22

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.82	674.12	673.35	0.00	674.53	.41	1.43	.05	672.10
605.	4.	515.	85.	3.	93.	67.	52.	31.	672.90
.71	1.57	5.55	1.27	.055	.040	.055	.049	668.30	369.23
.004441	350.	350.	350.	4	12	0	0.00	231.64	600.87

*SECNO 7.200

7.20	6.02	674.82	0.00	0.00	675.11	.29	.56	.02	672.60
605.	5.	476.	125.	3.	98.	108.	53.	32.	673.40
.72	1.42	4.87	1.15	.055	.040	.055	.048	668.80	368.97
.003184	150.	150.	150.	2	0	0	0.00	255.84	624.81

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

7.10	5.04	674.84	674.24	0.00	675.31	.46	.14	.06	672.70
605.	0.	467.	138.	0.	76.	84.	53.	32.	671.10
.72	0.00	6.15	1.64	.055	.040	.055	.048	669.80	371.00
.004593	36.	36.	36.	4	16	0	0.00	232.13	603.13

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.44	675.80	0.00	159.	451.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.55	676.25	0.00	0.00	676.29	.04	.98	0.00	672.50
605.	0.	218.	387.	0.	101.	404.	53.	32.	670.90
.73	0.00	2.16	9.96	.055	.040	.055	.048	669.70	402.00
.000409	24.	24.	24.	2	0	4	0.00	274.17	676.17

*SECNO 7.800

7.80	6.57	676.27	0.00	0.00	676.30	.03	.01	.00	674.10
465.	11.	450.	5.	23.	320.	10.	53.	32.	673.90
.73	.47	1.41	.43	.055	.040	.055	.048	669.70	550.75
.000214	27.	27.	27.	2	0	0	0.00	104.12	654.87

*SECNO 7.850

7.85	6.06	676.26	0.00	0.00	676.36	.10	.04	.02	674.00
375.	91.	284.	0.	76.	102.	0.	54.	32.	676.10
.75	1.20	2.77	.18	.055	.040	.055	.048	670.20	56.00
.001297	100.	100.	100.	2	0	0	0.00	102.11	158.11

ws 8 & 17 = -11306.6
no effect

all weir flow in ROB
negligable effect

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**************************************************
  HEC 2 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.	6.	0.	0.	0.000000	0.00	-1.0	0.	651.970	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 2

 CCHV=    .150 CEHV=    .350
 *SECNO 2.000
  2800 NAT Q1=     136.46  WSEL=     651.97  ENC Q1=     136.46  WSEL=     652.07  RATIO=     .0000
  NAT Q1=     146.  RATIOS LOB,CH,ROB=  0.0000    .8246    .1754  WSEL=     652.07
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICCNT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=      194.0      310.6  TYPE=     4  TARGET=        .065
      2.00      8.47    651.97      0.00    651.97    652.27       .30      0.00      0.00    653.00
      810.        0.       726.       84.       0.      159.       60.        0.        0.    651.00
      0.00      0.00      4.58      1.41      .060      .045      .060     0.000    643.50    199.15
    .003922        0.        0.        0.         0         0         0      0.00    111.45    310.60


 *SECNO 3.200
  2800 NAT Q1=     228.08  WSEL=     654.26  ENC Q1=     235.99  WSEL=     654.36  RATIO=    -.0347
  NAT Q1=     240.  RATIOS LOB,CH,ROB=   .0092    .9838    .0069  WSEL=     654.36

 3470 ENCROACHMENT STATIONS=      180.8      273.6  TYPE=     4  TARGET=        .016
      3.20      7.47    654.37      0.00    654.26    654.47       .10      2.17       .03    652.80
      810.        0.       810.       0.        0.      319.        0.        7.        2.    652.80
       .12      0.00      2.54      0.00      .060      .045      .060      .045    646.90    180.80
    .001227     1080.     1080.     1000.         2         0         0      0.00     92.80    273.60


 CCHV=    .400 CEHV=    .800
 *SECNO 3.400
  2800 NAT Q1=     256.77  WSEL=     654.38  ENC Q1=     256.77  WSEL=     654.48  RATIO=   0.0000
  NAT Q1=     265.  RATIOS LOB,CH,ROB=  0.0000    .0000   1.0000  WSEL=     654.48

 3470 ENCROACHMENT STATIONS=       25.5       88.1  TYPE=     4  TARGET=        .030

        ***26 MILE ROAD   ELLC = 657.4

      3.40      6.38    654.48      0.00    654.38    654.57       .09       .10       .01    657.50
      810.        0.        0.       810.       0.        0.       341.        7.        3.    657.50
       .13      0.00      0.00      2.38      .060      .045      .060      .045    648.10     26.04
    .000945       90.       90.       90.         1         0         0      0.00     62.03     88.07


 *SECNO 3.600
  2800 NAT Q1=     262.08  WSEL=     654.44  ENC Q1=     262.08  WSEL=     654.54  RATIO=   0.0000
  NAT Q1=     270.  RATIOS LOB,CH,ROB=  0.0000    .0000   1.0000  WSEL=     654.54

 3470 ENCROACHMENT STATIONS=       25.5       88.2  TYPE=     4  TARGET=        .028
      3.60      6.44    654.54      0.00    654.44    654.62       .09       .06       .00    657.50
      810.        0.        0.       810.       0.        0.       345.        8.        3.    657.50
       .14      0.00      0.00      2.34      .060      .020      .060      .044    648.10     26.03
    .000909       60.       60.       60.         0         0         0      0.00     62.19     88.22


 *SECNO 3.800
  2800 NAT Q1=     165.30  WSEL=     654.49  ENC Q1=     165.30  WSEL=     654.59  RATIO=    .0000
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NAT Q1=    174.  RATIOS LOB,CH,ROB=   .1098   .8039   .0863  WSEL=    654.59
  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


3470 ENCROACHMENT STATIONS=      564.0      656.9  TYPE=      4  TARGET=        .050
     3.80      6.78    654.58     0.00    654.49   654.82      .25       .07       .13    653.00
     810.       72.      686.      52.       56.     160.      34.        8.        3.    652.10
      .14      1.28      4.28     1.56      .070     .045     .070      .044    647.80    563.95
  .002419       50.       50.      50.         2        0        0      0.00     92.95    656.90


CCHV=    .150 CEHV=    .350
*SECNO 3.900
 2800 NAT Q1=    129.49  WSEL=    656.78  ENC Q1=    129.49  WSEL=    656.88  RATIO=    .0000
 NAT Q1=    136.  RATIOS LOB,CH,ROB=   .1648   .6273   .2079  WSEL=    656.88

3470 ENCROACHMENT STATIONS=      128.9      221.4  TYPE=      4  TARGET=        .051

        ***MCS X-SECTION F

     3.90      6.48    656.88     0.00    656.78   657.19      .32      2.35       .02    652.90
     810.      120.      534.     156.       61.      99.     101.       12.        4.    654.40
      .19      1.97      5.40     1.55      .090     .050     .090      .047    650.40    128.90
  .003894      700.      800.     700.         2        0        0      0.00     92.48    221.38


*SECNO 3.950
 2800 NAT Q1=    125.30  WSEL=    658.82  ENC Q1=    125.30  WSEL=    658.92  RATIO=   0.0000
 NAT Q1=    133.  RATIOS LOB,CH,ROB=   .2024   .5917   .2060  WSEL=    658.92

3470 ENCROACHMENT STATIONS=      353.4      466.3  TYPE=      4  TARGET=        .054

        ***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

     3.95      6.33    658.93     0.00    658.82   659.07      .14      1.85       .03    656.30
     605.      113.      378.     115.      118.     103.     101.       16.        6.    655.40
      .25       .96      3.67     1.13      .120     .055     .120      .050    652.60    353.38
  .002310      500.      660.     500.         2        0        0      0.00    112.89    466.27


*SECNO 3.970
 2800 NAT Q1=    115.34  WSEL=    659.37  ENC Q1=    115.34  WSEL=    659.47  RATIO=    .0000
 NAT Q1=    122.  RATIOS LOB,CH,ROB=   .1884   .6119   .1996  WSEL=    659.47

3470 ENCROACHMENT STATIONS=      357.7      464.4  TYPE=      4  TARGET=        .055
     3.97      6.18    659.48     0.00    659.37   659.64      .16       .57       .01    657.00
     605.      104.      391.     110.      104.     100.      92.       18.        6.    656.10
      .27      1.00      3.91     1.20      .120     .055     .120      .050    653.30    357.73
  .002730      200.      240.     200.         2        0        0      0.00    106.63    464.36


*SECNO 3.980
 2800 NAT Q1=    111.16  WSEL=    660.01  ENC Q1=    111.16  WSEL=    660.11  RATIO=    .0000
 NAT Q1=    118.  RATIOS LOB,CH,ROB=   .1822   .6211   .1967  WSEL=    660.11

3470 ENCROACHMENT STATIONS=      359.7      463.5  TYPE=      4  TARGET=        .056
     3.98      6.11    660.11     0.00    660.01   660.28      .17       .64       .00    657.70
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      605.      100.      397.      108.       97.       99.       88.       19.       7.     656.80
       .30      1.02      4.03      1.23      .120      .055      .120      .051   654.00     359.66
   .002947      200.      240.      200.         2         0         0      0.00   103.84     463.50


 *SECNO 4.000
  2800 NAT Q1=     104.68  WSEL=     660.71  ENC Q1=     104.68  WSEL=     660.81  RATIO=    .0000
  NAT Q1=     111.  RATIOS LOB,CH,ROB=    .1720    .6362    .1918  WSEL=     660.81
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLCBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=      362.8     462.1  TYPE=      4  TARGET=       .057
      4.00      6.01   660.81      0.00   660.71   661.00       .19       .71       .01   658.50
      605.        93.      407.      105.       88.       96.       82.       20.        7.   657.60
       .31      1.06      4.22      1.28      .120      .055      .120      .051   654.80   362.79
   .003328      200.      240.      200.         2         0         0      0.00    99.34   462.13


 *SECNO 4.100
  2800 NAT Q1=      89.13  WSEL=     662.65  ENC Q1=      89.13  WSEL=     662.75  RATIO=    .0000
  NAT Q1=      95.  RATIOS LOB,CH,ROB=    .2132    .5461    .2406  WSEL=     662.75

 3470 ENCROACHMENT STATIONS=       85.1     191.1  TYPE=      4  TARGET=       .064
      4.10      5.14   662.74      0.00   662.65   662.96       .21      1.95       .01   660.20
      605.       118.      352.      135.       89.       75.       98.       23.        8.   660.00
       .36      1.32      4.70      1.38      .120      .055      .120      .052   657.60    85.12
   .004602      470.      520.      470.         2         0         0      0.00   106.01   191.13


 *SECNO 4.200
  2800 NAT Q1=      97.32  WSEL=     664.78  ENC Q1=      97.32  WSEL=     664.88  RATIO=   0.0000
  NAT Q1=     104.  RATIOS LOB,CH,ROB=    .2237    .5264    .2500  WSEL=     664.88

 3470 ENCROACHMENT STATIONS=       81.8     194.1  TYPE=      4  TARGET=       .062

          ***MCS X-SECTION L

      4.20      5.27   664.87      0.00   664.78   665.05       .18      2.09       .01   662.20
      605.       125.      338.      142.      101.       77.      109.       26.        9.   662.00
       .40      1.24      4.38      1.30      .120      .055      .120      .053   659.60    81.84
   .003836      470.      520.      470.         1         0         0      0.00   112.28   194.12


 *SECNO 4.300
  2800 NAT Q1=      99.00  WSEL=     665.87  ENC Q1=      99.00  WSEL=     665.97  RATIO=    .0000
  NAT Q1=     105.  RATIOS LOB,CH,ROB=  0.0000    .7340    .2660  WSEL=     665.97

 3470 ENCROACHMENT STATIONS=      644.0     750.3  TYPE=      4  TARGET=       .058
      4.30      6.36   665.96      0.00   665.87   666.22       .26      1.14       .03   667.60
      605.         0.      472.      133.        0.      104.       99.       28.       10.   663.80
       .42      0.00      4.55      1.34      .090      .045      .090      .052   659.60   654.96
   .003772      300.      300.      300.         1         0         0      0.00    95.31   750.27


 *SECNO 4.940
  2800 NAT Q1=     107.29  WSEL=     666.60  ENC Q1=     107.29  WSEL=     666.70  RATIO=    .0000
  NAT Q1=     114.  RATIOS LOB,CH,ROB=  0.0000    .7075    .2925  WSEL=     666.70
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 3470 ENCROACHMENT STATIONS=     644.0     757.7  TYPE=      4  TARGET=      .058
      4.94      6.50    666.70     0.00    666.60    666.92      .21       .69       .01    668.20
       605.       0.      454.      151.       0.      108.      118.       29.       11.    664.40
        .44      0.00      4.19     1.28      .090      .045      .090      .052    660.20    653.97
   .003166      200.      200.      200.         2         0         0      0.00    103.73    757.70


  *SECNO 4.960
   2800 NAT Q1=     109.47  WSEL=     667.23  ENC Q1=     109.47  WSEL=     667.33  RATIO=    0.0000
   NAT Q1=     116.  RATIOS LOB,CH,ROB=  0.0000    .7011    .2989  WSEL=     667.33
     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
      Q        QLOB      QCH       QROB      ALOB      ACH       AROB      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=     644.0     759.5  TYPE=      4  TARGET=      .057
      4.96      6.54    667.34     0.00    667.23    667.54      .20       .62       .00    668.80
       605.       0.      450.      155.       0.      109.      122.       30.       11.    665.00
        .46      0.00      4.12     1.27      .090      .045      .090      .052    660.80    653.76
   .003049      200.      200.      200.         2         0         0      0.00    105.74    759.50


  *SECNO 5.000
   2800 NAT Q1=      99.07  WSEL=     667.88  ENC Q1=      99.07  WSEL=     667.98  RATIO=    0.0000
   NAT Q1=     106.  RATIOS LOB,CH,ROB=  0.0000    .7321    .2679  WSEL=     667.98

 3470 ENCROACHMENT STATIONS=     644.0     748.3  TYPE=      4  TARGET=      .063
      5.00      6.38    667.98     0.00    667.88    668.23      .26       .67       .02    669.60
       605.       0.      473.      132.       0.      104.       98.       31.       12.    665.80
        .47      0.00      4.54     1.35      .090      .045      .090      .051    661.60    654.87
   .003755      200.      200.      200.         0         0         0      0.00     93.39    748.27


  *SECNO 5.100
   2800 NAT Q1=     108.12  WSEL=     668.11  ENC Q1=     108.12  WSEL=     668.21  RATIO=    .0000
   NAT Q1=     115.  RATIOS LOB,CH,ROB=  0.0000    .7051    .2949  WSEL=     668.21

 3470 ENCROACHMENT STATIONS=     644.0     758.5  TYPE=      4  TARGET=      .057

        ***3 FT. DIA. CULVERT

      5.10      6.52    668.22     0.00    668.11    668.43      .21       .19       .01    669.70
       605.       0.      452.      153.       0.      109.      120.       31.       12.    665.90
        .48      0.00      4.16     1.27      .090      .045      .090      .051    661.70    653.86
   .003108       55.       55.       55.         2         0         0      0.00    104.60    758.46


  SPECIAL BRIDGE

 SB    XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      1.60      2.90    150.00      3.00      0.00      7.10      0.00    661.70    661.70


  *SECNO 5.300
 6870 D.S. ENERGY OF  668.43 HIGHER THAN COMPUTED ENERGY OF  668.41
   2800 NAT Q1=      91.30  WSEL=     668.04  ENC Q1=      91.30  WSEL=     668.14  RATIO=    .0000
   NAT Q1=      97.  RATIOS LOB,CH,ROB=  0.0000    .7608    .2392  WSEL=     668.14
   WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
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3470 ENCROACHMENT STATIONS=      644.0      740.5  TYPE=      4  TARGET=      .062
     5.30      6.25    668.15      0.00    668.04    668.45      .30       .15       .03    669.90
      605.        0.      490.      115.        0.      101.      82.       32.       12.    666.10
       .48      0.00      4.87      1.40      .090      .045      .090      .051   661.90    655.70
  .004360       41.       41.       41.         0         0         9      0.00    84.80    740.49


 *SECNO 5.400
  2800 NAT Q1=     130.33  WSEL=     668.73  ENC Q1=     130.33  WSEL=     668.83  RATIO=   0.0000
  NAT Q1=     138.  RATIOS LOB,CH,ROB=  0.0000    .6490    .3510  WSEL=     668.83

 3470 ENCROACHMENT STATIONS=      644.0      773.2  TYPE=      4  TARGET=      .056

       ***FOOTBRIDGE

      5.40      6.85    668.85      0.00    668.73    668.98      .14       .51       .03    670.00
      605.        0.      415.      190.        0.      119.      165.      33.       12.    666.20
       .50      0.00      3.49      1.15      .090      .045      .090      .051   662.00    651.70
  .002125       172.      172.      172.         2         0         0      0.00   121.54    773.24


 SPECIAL BRIDGE

 SB  XK          XKOR       COFQ      RDLEN       BWC       BWP       BAREA      SS         ELCHU     ELCHD
      0.00       1.60       2.90     110.00     10.00      0.00      57.00      0.00      661.90    661.90

 *SECNO 5.500
  2800 NAT Q1=     136.26  WSEL=     668.81  ENC Q1=     136.26  WSEL=     668.91  RATIO=    .0000
  NAT Q1=     144.  RATIOS LOB,CH,ROB=  0.0000    .6368    .3632  WSEL=     668.91
 WATER EL=CHANGE FROM NATURAL PROFILES 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


 3470 ENCROACHMENT STATIONS=      644.0      776.5  TYPE=      4  TARGET=      .055
      5.50      6.92    668.92      0.00    668.81    669.05      .12       .02       .00    670.00
      605.        0.      407.      198.        0.      121.      176.      33.       12.    666.20
       .50      0.00      3.35      1.12      .090      .045      .090      .051   662.00    651.19
  .001944         8.        8.        8.         0         0         5      0.00   125.35    776.54


 *SECNO 6.200
  2800 NAT Q1=     125.74  WSEL=     671.19  ENC Q1=     125.74  WSEL=     671.29  RATIO=    .0000
  NAT Q1=     133.  RATIOS LOB,CH,ROB=  .0366    .6893    .2741  WSEL=     671.29

 3470 ENCROACHMENT STATIONS=      354.5      444.1  TYPE=      4  TARGET=      .055
      6.20      6.99    671.29      0.00    671.19    671.47      .18      2.40       .02    670.00
      605.        5.      441.      158.        7.      112.      123.      40.       15.    669.20
       .59       .80      3.95      1.29      .090      .045      .090      .050   664.30    354.54
  .002317      1135.     1135.     1135.         1         0         0      0.00    89.57    444.11


 CCHV=     .450 CEHV=     .900
 *SECNO 6.100
  2800 NAT Q1=     148.09  WSEL=     671.67  ENC Q1=     153.81  WSEL=     671.77  RATIO=   -.0386
  NAT Q1=     154.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     671.77
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      6.10      5.37    671.77      0.00    671.67    671.92       .15       .44       .01    672.50
       605.        0.       605.        0.        0.      194.        0.       41.       15.    672.50
        .62      0.00      3.12      0.00      .090      .045      .090      .050    666.40       .45
   .001544      234.      234.      234.         2         0         0      0.00     48.29     48.73

 *SECNO 6.000

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  672.40 MAX ELLC=  671.70

          ***JEWELL ROAD

      6.00      5.37    671.77      0.00    671.67    671.93       .16       .00       .00    672.50
       605.        0.       605.        0.        0.      191.        0.       41.       15.    672.50
        .62      0.00      3.17      0.00      .090      .020      .090      .050    666.40       .45
   .000705        1.        1.        1.         0         0         0     -3.06     48.28     48.73

 *SECNO 6.800

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  672.40 MAX ELLC=  671.70

      6.80      5.39    671.79      0.00    671.68    671.95       .16       .02       .00    672.50
       605.        0.       605.        0.        0.      191.        0.       41.       15.    672.50
        .62      0.00      3.17      0.00      .090      .020      .090      .050    666.40       .43
   .000705       31.       31.       31.         2         0         0     -4.12     48.34     48.77


 *SECNO 6.400
  2800 NAT Q1=     167.41  WSEL=     671.68  ENC Q1=     173.87  WSEL=     671.78  RATIO=   -.0386
  NAT Q1=     174.  RATIOS LOB,CH,ROB=   0.0000   1.0000   0.0000  WSEL=     671.78
    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

      6.40      5.40    671.80      0.00    671.68    671.95       .15       .00       .00    672.50
       605.        0.       605.        0.        0.      195.        0.       41.       15.    672.50
        .62      0.00      3.10      0.00      .055      .040      .055      .050    666.40       .43
   .001199        1.        1.        1.         0         0         0      0.00     48.34     48.77

 CCHV=    .150 CEHV=    .350
 *SECNO 6.500
  2800 NAT Q1=     151.46  WSEL=     672.06  ENC Q1=     151.46  WSEL=     672.16  RATIO=   .0000
  NAT Q1=     165.  RATIOS LOB,CH,ROB=   .1251   .6794   .1955  WSEL=     672.16

 3470 ENCROACHMENT STATIONS=     344.0     501.9  TYPE=     4  TARGET=        .083
      6.50      6.35    672.15      0.00    672.06    672.28       .14       .33       .00    671.20
       605.        54.      450.      101.        54.      134.        78.       42.       16.    670.80
        .64      1.01      3.36      1.29      .055      .040      .055      .049    665.80    344.02
   .001629      234.      234.      234.         2         0         0      0.00    157.88    501.91

 CCHV=    .150 CEHV=    .350
 *SECNO 6.600
  2800 NAT Q1=      98.57  WSEL=     672.78  ENC Q1=      98.57  WSEL=     672.88  RATIO=   .0000
  NAT Q1=     108.  RATIOS LOB,CH,ROB=   .0412   .8180   .1407  WSEL=     672.88
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3470 ENCROACHMENT STATIONS=      404.0      494.8  TYPE=      4  TARGET=        .084
      6.60      5.87    672.87      0.00    672.78    673.18       .30        .84        .06    672.40
       605.        0.      540.       65.        0.       116.       44.        44.        17.    672.00
        .66      0.00      4.66      1.47      .055      .040      .055      .049    667.00    404.00
     .003864      350.      350.      350.         2         0         0      0.00     90.82    494.82


 *SECNO 6.700
  2800 NAT Q1=      90.78  WSEL=     674.12  ENC Q1=      90.78  WSEL=     674.22  RATIO=     .0000
  NAT Q1=      98.  RATIOS LOB,CH,ROB=    .0076    .8206    .1718  WSEL=     674.22

 3470 ENCROACHMENT STATIONS=      372.0      431.4  TYPE=      4  TARGET=        .076

          ***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

       6.70      5.97    674.27      0.00    674.12    674.69       .42       1.47        .04    672.10
       605.        0.      531.       74.        0.       96.       38.        45.        18.    672.90
        .68      0.00      5.51      1.97      .055      .040      .055      .049    668.30    372.00
     .004602      350.      350.      350.         2         0         0      0.00     59.43    431.43


 *SECNO 7.200
  2800 NAT Q1=     107.22  WSEL=     674.82  ENC Q1=     107.22  WSEL=     674.92  RATIO=     .0000
  NAT Q1=     117.  RATIOS LOB,CH,ROB=    .0083    .7495    .2422  WSEL=     674.92

 3470 ENCROACHMENT STATIONS=      372.0      462.8  TYPE=      4  TARGET=        .087
       7.20      6.19    674.99      0.00    674.82    675.28       .29        .57        .02    672.60
       605.        0.      483.      122.        0.       102.       73.        46.        18.    673.40
        .69      0.00      4.72      1.67      .055      .040      .055      .048    668.80    372.00
     .003162      150.      150.      150.         2         0         0      0.00     90.78    462.78


 *SECNO 7.100
  2800 NAT Q1=      89.27  WSEL=     674.84  ENC Q1=      89.27  WSEL=     674.94  RATIO=     .0000
  NAT Q1=      97.  RATIOS LOB,CH,ROB=  0.0000    .7385    .2615  WSEL=     674.94
    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


 3470 ENCROACHMENT STATIONS=      371.0      429.4  TYPE=      4  TARGET=        .075

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      676.30 ELREA=      674.00

       7.10      5.22    675.02      0.00    674.84    675.47       .46        .13        .06    672.70
       605.        0.      475.      130.        0.       79.       57.        46.        18.    671.10
        .70      0.00      6.02      2.29      .055      .040      .055      .048    669.80    371.00
     .004446       36.       36.       36.         2         0         0      0.00     58.42    429.42


 SPECIAL BRIDGE

 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       1.43       3.00       0.00      17.00       0.00      56.00       0.00     669.80     669.80

 *SECNO 7.700
  2800 NAT Q1=     299.29  WSEL=     676.25  ENC Q1=     299.29  WSEL=     676.35  RATIO=     0.0000
  NAT Q1=     317.  RATIOS LOB,CH,ROB=  0.0000    .3491    .6509  WSEL=     676.35
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 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

 3470 ENCROACHMENT STATIONS=      402.0      550.5  TYPE=     4  TARGET=          .056
      7.70      6.72    676.42      0.00    676.25    676.46       .04       .02       .06    672.50
       605.       0.       215.       390.       0.       104.       357.       46.       18.    670.90
        .70      0.00      2.07      1.09      .055      .040      .055      .048    669.70    402.00
   .000392       24.       24.       24.         0         0         5      0.00    148.47    550.47


 *SECNO 7.800
  2800 NAT Q1=     317.73  WSEL=     676.27  ENC Q1=     319.36  WSEL=     676.37  RATIO=  -.0051
 -NAT Q1=     331.  RATIOS LOB,CH,ROB=    .0248    .9648    .0105  WSEL=     676.37

 3470 ENCROACHMENT STATIONS=      572.0      646.0  TYPE=     4  TARGET=          .035
      7.80      6.74    676.44      0.00    676.27    676.47       .03       .01       .00    674.10
       465.       0.       465.       0.       0.       332.       0.       46.       18.    673.90
        .71      0.00      1.40      0.00      .055      .040      .055      .048    669.70    572.00
   .000220       27.       27.       27.         0         0         0      0.00     74.00    646.00


 *SECNO 7.850
  2800 NAT Q1=     104.13  WSEL=     676.26  ENC Q1=     104.13  WSEL=     676.36  RATIO=    .0000
  NAT Q1=     111.  RATIOS LOB,CH,ROB=    .2554    .7438    .0008  WSEL=     676.36

 3470 ENCROACHMENT STATIONS=       94.5      152.0  TYPE=     4  TARGET=          .066
      7.85      6.23    676.43      0.00    676.26    676.53       .10       .04       .02    674.00
       375.       78.       297.       0.       52.       108.       0.       47.       18.    676.10
        .72      1.49      2.76      0.00      .055      .040      .055      .048    670.20     94.48
   .001221       100.       100.       100.         2         0         0      0.00     57.52    152.00
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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

  YATES DRAIN 100 YEAR FLO

  SUMMARY PRINTOUT
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CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
651.970	136.46	652.22	204.75	0.00	0.00	651.97
651.970	129.34	652.27	111.45	194.00	310.60	651.97
654.263	228.08	654.36	115.07	0.00	0.00	0.00
654.366	231.23	654.47	92.80	180.80	273.60	654.26
654.381	256.77	654.47	62.92	0.00	0.00	0.00
654.480	263.46	654.57	62.03	25.50	88.07	654.38
654.443	262.08	654.53	62.94	0.00	0.00	0.00
654.539	268.59	654.62	62.19	25.50	88.22	654.44
654.486	165.30	654.71	147.79	0.00	0.00	0.00
654.577	164.71	654.82	92.95	563.95	656.90	654.49
656.775	129.49	657.07	144.50	0.00	0.00	0.00
656.878	129.80	657.19	92.48	128.90	221.38	656.78
658.820	125.30	658.95	236.25	0.00	0.00	0.00
658.928	125.88	659.07	112.89	353.38	466.28	658.82
659.374	115.34	659.52	225.00	0.00	0.00	0.00
659.478	115.79	659.64	106.63	357.73	464.36	659.37
660.010	111.16	660.17	220.05	0.00	0.00	0.00
660.111	111.45	660.28	103.84	359.66	463.50	660.01
660.707	104.68	660.89	212.10	0.00	0.00	0.00
660.806	104.88	661.00	99.34	362.79	462.13	660.71
662.648	89.13	662.84	227.37	0.00	0.00	0.00
662.744	89.18	662.96	106.01	85.12	191.13	662.65
664.778	97.32	664.94	238.27	0.00	0.00	0.00
664.873	97.69	665.05	112.28	81.84	194.12	664.78
665.866	99.00	666.11	160.95	0.00	0.00	0.00
665.963	98.51	666.22	95.31	644.00	750.27	665.87

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
666.601	107.29	666.80	166.60	0.00	0.00	0.00
666.705	107.52	666.92	103.73	644.00	757.70	666.60
667.234	109.47	667.43	168.02	0.00	0.00	0.00
667.336	109.56	667.54	105.74	644.00	759.50	667.23
667.876	99.07	668.12	161.00	0.00	0.00	0.00
667.976	98.73	668.23	93.39	644.00	748.27	667.88
668.114	108.12	668.31	167.15	0.00	0.00	0.00
668.221	108.52	668.43	104.60	644.00	758.46	668.11
668.038	91.30	668.33	155.82	0.00	0.00	0.00
668.145	91.62	668.45	84.80	644.00	740.49	668.04
668.731	130.33	668.86	180.50	0.00	0.00	0.00
668.845	131.26	668.98	121.54	644.00	773.24	668.73
668.808	136.26	668.93	183.74	0.00	0.00	0.00
668.922	137.21	669.05	125.35	644.00	776.54	668.81
671.195	125.74	671.37	150.65	0.00	0.00	0.00
671.286	125.70	671.47	89.57	354.54	444.11	671.19
671.669	148.09	671.83	48.05	0.00	0.00	0.00
671.772	153.96	671.92	48.29	0.00	50.00	671.67
671.670	333.46	671.83	48.05	0.00	0.00	0.00
671.772	227.78	671.93	48.28	0.00	0.00	671.67
671.682	334.86	671.84	48.08	0.00	0.00	0.00
671.794	227.85	671.95	48.34	0.00	0.00	671.68
671.682	167.41	671.84	48.08	0.00	0.00	0.00
671.805	174.73	671.95	48.34	0.00	50.00	671.68
672.060	151.46	672.18	248.31	0.00	0.00	0.00
672.145	149.90	672.28	157.88	344.02	501.91	672.06
672.780	98.57	673.06	204.64	0.00	0.00	0.00
672.874	97.33	673.18	90.82	404.00	494.82	672.78
674.121	90.78	674.53	231.64	0.00	0.00	0.00
674.272	89.19	674.69	59.43	372.00	431.44	674.12
674.817	107.22	675.11	255.84	0.00	0.00	0.00
674.994	107.58	675.28	90.78	372.00	462.78	674.82
674.843	89.27	675.31	232.13	0.00	0.00	0.00
675.015	90.73	675.47	58.42	371.00	429.42	674.84
676.251	299.29	676.29	274.17	0.00	0.00	0.00
676.423	305.44	676.46	148.47	402.00	550.47	676.25
676.265	317.73	676.30	104.12	0.00	0.00	0.00
676.437	313.67	676.47	74.00	572.00	646.00	676.27

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
676.262	104.13	676.36	102.11	0.00	0.00	0.00
676.431	107.30	676.53	57.52	94.48	152.00	676.26

SUMMARY OF ERRORS

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp.

3) WATERCOURSE: Yates

4) DOCUMENT TYPE: 100 year & Floodway

00BREAK00

NEW!

T

J2 / 15

100 yr & floodway
(in submittal
to DNR
J2.10 = 0

PARAMETERS: ,ID=XSNL,PW=,ROUTE=NUBS

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MM          MM  NN          NN  EEEEEEEEEEEE  TTTTTTTTTTTT
MMM        MMM  NNN         NN  EEEEEEEEEEEE  TTTTTTTTTTTT
MMMM      MMMM  NNNN        NN  EE                TT
MM MM    MM MM  NN NN       NN  EE                TT
MM  MMMM  MM  MM  NN NN     NN  EE                TT
MM   MM   MM  MM  NN  NN    NN  EEEEEEEE          TT
MM         MM  NN   NN NN  NN  EEEEEEEE          TT
MM         MM  NN    NNNN  NN  EE                TT
MM         MM  NN     NNN  NN  EE                TT
MM         MM  NN      NN  NN  EEEEEEEEEEEE      TT
MM         MM  NN       N  NN  EEEEEEEEEEEE      TT
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XX        XX   SSSSSSSSS   NN        NN  LL
XX        XX  SSSSSSSSSSS  NNN       NN  LL
 XX      XX   SS       SS  NNNN      NN  LL
  XX    XX    SS           NN NN     NN  LL
   XX  XX     SSS          NN  NN    NN  LL
    XXXX       SSSSSSSSS   NN   NN   NN  LL
    XXXX         SSSSSSSS  NN    NN  NN  LL
   XX  XX            SSS  NN     NN NN  LL
  XX    XX           SS   NN      NNNN  LL
 XX      XX   SS       SS  NN       NNN  LL
XX        XX  SSSSSSSSSSS  NN        NN  LLLLLLLLLLL
XX        XX   SSSSSSSSS   NN         N  LLLLLLLLLLL
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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -1.      4.        0.        0.  0.000000      0.00     -1.0       0.     674.120     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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     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

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

      ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
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X2	0.000	0.000	1.000	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***D/S 27 MILE RD

X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000

***FOOTBRIDGE

X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000
	***CONCRETE WEIR									
X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000
	***FOOTBRIDGE									
X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S M-53

X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	708.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S VAN DYKE RD

X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	719.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

FLOW DISTRIBUTION FOR SECNO= 110.10 CWSEL= 674.12

STA=	54.	70.	104.	114.	122.	136.	154.	180.	196.	210.
PER Q=	.2	3.4	2.4	2.4	56.6	11.3	14.3	7.6	1.9	
AREA=	1.8	14.3	7.2	6.6	47.8	22.9	30.4	17.1	6.9	
VEL=	.2	.4	.6	.6	2.0	.8	.8	.8	.5	

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

FLOW DISTRIBUTION FOR SECNO= 110.15 CWSEL= 674.18

STA=	93.	104.	114.	122.	136.	154.	180.	196.	203.
PER Q=	.1	.6	.9	74.5	8.6	9.9	4.7	.6	
AREA=	.8	2.4	2.7	41.0	14.1	17.8	9.4	1.9	
VEL=	.2	.5	.6	3.1	1.0	.9	.9	.5	

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

FLOW DISTRIBUTION FOR SECNO= 110.20 CWSEL= 674.34

STA=	122.	136.	145.
PER Q=	99.2	.8	
AREA=	35.3	1.8	
VEL=	4.8	.7	

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80	
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80	
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90	
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00	

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

STA= 32. 42.
PER Q= 100.0
AREA= 22.3
VEL= 7.6

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.21	676.21	0.00	0.00	676.46	.25	.13	.26	676.70
170.	0.	170.	0.	0.	42.	0.	1.	1.	676.70
.03	0.00	4.00	0.00	.055	.040	.055	.039	672.00	4.02
.003681	18.	18.	18.	3	0	0	0.00	12.07	16.08

FLOW DISTRIBUTION FOR SECNO= 110.58 CWSEL= 676.21

STA= 4. 16.
PER Q= 100.0
AREA= 42.4
VEL= 4.0

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.21	676.21	0.00	0.00	676.46	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.99	0.00	.055	.030	.055	.039	672.00	4.02
.002047	1.	1.	1.	0	0	0	0.00	12.07	16.08

FLOW DISTRIBUTION FOR SECNO= 110.59 CWSEL= 676.21

STA= 4. 16.
PER Q= 100.0
AREA= 42.6
VEL= 4.0

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.27	676.27	0.00	0.00	676.51	.24	.05	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.92	0.00	.055	.030	.055	.039	672.00	4.01
.001954	23.	23.	23.	0	0	0	0.00	12.07	16.09

FLOW DISTRIBUTION FOR SECNO= 111.02 CWSEL= 676.27

STA= 4. 16.
PER Q= 100.0
AREA= 43.3
VEL= 3.9

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

FLOW DISTRIBUTION FOR SECNO= 111.03 CWSEL= 676.28

STA=	4.	16.
PER Q=	100.0	
AREA=	43.3	
VEL=	3.9	

CCHV= .400 CEHV= .800

*SECNO 111.800

3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

FLOW DISTRIBUTION FOR SECNO= 111.80 CWSEL= 676.52

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.2	24.1	35.1	5.3	9.5	23.8	.0	
AREA=	5.2	36.7	27.9	6.6	11.8	44.4	.1	
VEL=	1.2	1.9	3.6	2.3	2.3	1.5	.3	

*SECNO 111.810

3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

FLOW DISTRIBUTION FOR SECNO= 111.81 CWSEL= 676.80

STA=	0.	10.	48.	58.	63.	72.	134.	137.
PER Q=	2.5	24.7	32.5	5.2	9.4	25.7	.0	
AREA=	6.1	40.4	28.8	7.1	12.7	50.4	.3	
VEL=	1.2	1.7	3.2	2.1	2.1	1.5	.4	

CCHV= .100 CEHV= .300

*SECNO 111.820

3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60

285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60	
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00	
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38	

FLOW DISTRIBUTION FOR SECNO= 111.82 CWSEL= 676.89

STA=	0.	10.	48.	58.	63.	72.	134.	135.
PER Q=	2.0	23.4	37.2	5.2	9.4	22.8	.0	
AREA=	4.9	35.8	27.6	6.5	11.6	42.9	.1	
VEL=	1.2	1.9	3.8	2.3	2.3	1.5	.0	

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

FLOW DISTRIBUTION FOR SECNO= 111.83 CWSEL= 677.67

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.2	5.2	9.3	24.2	.0	
AREA=	5.6	38.3	28.3	6.8	12.2	47.0	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

FLOW DISTRIBUTION FOR SECNO= 111.84 CWSEL= 678.15

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.4	5.2	9.3	24.1	.0	
AREA=	5.5	38.1	28.2	6.8	12.2	46.6	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

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  111.85      4.54   678.14      0.00      0.00   678.27       .13       .01       .01   676.80
    285.       45.      63.      176.       28.      20.       58.        1.        1.   676.80
     .06      1.60     3.13      3.03      .070     .060      .070      .045   673.60     0.00
 .030130        1.       1.        1.         1        0         0    -30.80   136.29   136.29

FLOW DISTRIBUTION FOR SECNO=     111.85          CWSEL=     678.14

STA=        0.       10.       48.       58.       63.       72.      134.      136.
  PER Q=      4.7      11.3      22.2       1.2      10.7      49.9        .0
   AREA=      5.5      22.9      20.2       2.8       8.6      46.7        .2
    VEL=      2.4       1.4       3.1       1.2       3.6       3.0        .7

*SECNO 111.860
3280 CROSS SECTION     111.86 EXTENDED        .55 FEET


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

  111.86      4.65   678.25      0.00      0.00   678.35       .10       .07       .00   676.80
    285.       49.      57.      179.       33.      21.       66.        1.        1.   676.80
     .06      1.47     2.69      2.72      .070     .060      .070      .045   673.60     0.00
 .020903        3.       3.        3.         2        0         0    -30.80   137.75   137.75

FLOW DISTRIBUTION FOR SECNO=     111.86          CWSEL=     678.25

STA=        0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=      5.1      12.0      20.0       1.3      10.5      50.9        .1
   AREA=      6.5      26.6      21.2       3.3       9.5      52.7        .5
    VEL=      2.2       1.3       2.7       1.1       3.2       2.8        .8

*SECNO 111.870
3280 CROSS SECTION     111.87 EXTENDED        .58 FEET


  111.87      4.69   678.29      0.00      0.00   678.36       .07       .01       .00   676.80
    285.       78.      92.      116.       50.      30.       76.        1.        1.   676.80
     .06      1.56     3.10      1.53      .070     .060      .070      .045   673.60     0.00
 .004980        1.       1.        1.         1        0         0      0.00   138.22   138.22

FLOW DISTRIBUTION FOR SECNO=     111.87          CWSEL=     678.29

STA=        0.       10.       48.       58.       63.       72.      134.      138.
  PER Q=      2.7      24.5      32.1       5.1       9.1      26.4        .1
   AREA=      6.8      43.0      29.5       7.4      13.3      54.7        .6
    VEL=      1.1       1.6       3.1       1.9       1.9       1.4        .4

*SECNO 111.900
3280 CROSS SECTION     111.90 EXTENDED        .40 FEET


  111.90      4.49   679.29      0.00      0.00   679.41       .11      1.03       .01   678.00
    285.       73.     105.      107.       41.      28.       62.        2.        2.   678.00
     .08      1.77     3.79      1.73      .070     .060      .070      .048   674.80     0.00
 .008107      165.     165.      165.         3        0         0      0.00   135.52   135.52
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FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	42.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ICC	ICONT	CORAR	TOPWID	ENDST.
	***CONCRETE WEIR								
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

STA=	0.	10.	48.	58.	72.	134.	136.			
PER Q=	2.2	23.7	35.8	14.5	23.8	.0				
AREA=	5.4	37.6	28.1	18.7	45.8	.1				
VEL=	1.2	1.8	3.6	2.2	1.5	.3				

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

FLOW DISTRIBUTION FOR SECNO= 111.94 CWSEL= 681.87

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.3	24.0	34.7	14.4	24.6	.0	
AREA=	5.8	39.0	28.5	19.3	48.2	.2	
VEL=	1.2	1.7	3.5	2.1	1.5	.3	

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

FLOW DISTRIBUTION FOR SECNO= 111.95 CWSEL= 683.62

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.5	24.2	33.6	14.3	25.3	.0	
AREA=	6.2	40.6	28.9	19.9	50.8	.4	
VEL=	1.1	1.7	3.3	2.1	1.4	.4	

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

FLOW DISTRIBUTION FOR SECNO= 111.97 CWSEL= 683.86

STA=	190.	206.	220.	235.	284.	299.
PER Q=	8.7	52.2	18.8	19.6	.7	
AREA=	17.0	43.8	25.7	42.2	3.4	

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   VEL=      1.5      3.4      2.1      1.3      .5

*SECNO 111.980
3280 CROSS SECTION    111.98 EXTENDED       .69 FEET

  111.98     4.29   684.39     0.00     0.00   684.55      .15      .56      .01   683.30
    285.      22.     162.     101.      14.      41.      58.       4.       4.   682.40
     .17     1.57     3.92     1.72     .070     .060     .070     .053   680.10   190.00
 .006763     100.     100.     100.        0        0        0     0.00   103.37   293.37

FLOW DISTRIBUTION FOR SECNO=    111.98          CWSEL=    684.39

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.9     56.8     18.9     16.2       .2
   AREA=     14.3     41.4     23.1     33.9      1.4
    VEL=      1.6      3.9      2.3      1.4       .5

*SECNO 111.990
3280 CROSS SECTION    111.99 EXTENDED       .67 FEET

  111.99     4.27   685.77     0.00     0.00   685.93      .16     1.38      .00   684.70
    285.      22.     164.      99.      14.      41.      57.       5.       5.   683.80
     .18     1.58     3.98     1.74     .070     .060     .070     .054   681.50   190.00
 .007038     200.     200.     200.        2        0        0     0.00   102.78   292.78

FLOW DISTRIBUTION FOR SECNO=    111.99          CWSEL=    685.77

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.7     57.4     18.9     15.8       .2
   AREA=     14.0     41.1     22.8     33.0      1.2
    VEL=      1.6      4.0      2.4      1.4       .5

*SECNO 112.000
3280 CROSS SECTION    112.00 EXTENDED       .68 FEET

  112.00     4.27   688.27     0.00     0.00   688.43      .16     2.50      .00   687.20
    285.      22.     163.     100.      14.      41.      57.       6.       5.   686.30
     .22     1.58     3.96     1.74     .070     .060     .070     .055   684.00   190.00
 .006957     358.     358.     358.        2        0        0     0.00   102.95   292.95

FLOW DISTRIBUTION FOR SECNO=    112.00          CWSEL=    688.27

STA=     190.     206.     220.     235.     284.     293.
  PER Q=      7.8     57.2     18.9     15.9       .2
   AREA=     14.0     41.2     22.9     33.2      1.2
    VEL=      1.6      4.0      2.3      1.4       .5

*SECNO 112.100
3280 CROSS SECTION    112.10 EXTENDED       .68 FEET

  112.10     4.28   690.38     0.00     0.00   690.54      .16     2.11      .00   689.30
    285.      22.     163.     100.      14.      41.      58.       7.       6.   688.40
     .25     1.57     3.94     1.73     .070     .060     .070     .056   686.10   190.00
 .006857     305.     305.     305.        2        0        0     0.00   103.17   293.17
```

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Yowes Drain

4) DOCUMENT TYPE: Convergence Rpt

00BREAK00

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR   01
  MODIFICATION - 50,51,52
**************************************************

C
T1      JOB HJD FIA H 4705  T06
T2      WASHINGTON TWP FIS
T3      YATES DRAIN 100 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -1.       4.        0.        0.  0.000000      0.00      0.0       0.   651.970     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

        1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000

NC       .060      .060      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT      4.000   475.000   700.000   810.000  1090.000   810.000     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

X1      2.000    30.000   194.000   242.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    656.600   132.000   656.600   142.000   657.800   152.000   655.800   162.000   653.800   180.000
GR    653.000   194.000   651.400   202.000   649.800   206.000   649.000   216.000   648.400   222.000
GR    645.900   224.000   645.000   225.000   644.100   226.000   643.500   229.000   644.300   232.000
GR    644.500   233.000   645.900   234.000   650.400   238.000   651.000   242.000   651.100   278.000
GR    651.200   306.000   651.300   322.000   651.400   350.000   651.600   378.000   652.000   406.000
GR    652.300   424.000   653.500   444.000   656.700   460.000   658.000   474.000   659.000   486.000

X1      3.200    25.000   226.000   342.000  1080.000  1000.000  1080.000      .800     0.000     0.000
GR    660.000     0.000   657.800     8.000   657.000    34.000   656.000    66.000   655.600    98.000
GR    655.600   130.000   655.400   166.000   655.200   200.000   652.800   226.000   651.600   238.000
GR    650.900   258.000   649.400   264.000   648.400   270.000   647.700   273.000   647.100   274.000
GR    646.900   276.000   647.100   280.000   647.800   282.000   648.400   284.000   650.900   290.000
GR    651.500   302.000   652.000   320.000   652.800   342.000   655.000   360.000   660.000   550.000
NC      0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

     ***25 MILE ROAD  ELLC = 657.4

X1      3.400    10.000    25.500   100.000    90.000    90.000    90.000     0.000     0.000     0.000
GR    657.500    25.500   649.100    27.000   649.500    41.000   649.600    57.000   648.600    65.000
GR    648.200    69.000   648.100    76.000   648.200    85.000   648.600    88.000   657.500    89.500
NC      0.000     0.000      .020     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      3.600     0.000     0.000     0.000    60.000    60.000    60.000     0.000     0.000     0.000
NC       .070      .070      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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X1	3.800	20.000	604.000	640.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	663.000	442.000	659.400	462.000	657.200	484.000	655.000	524.000	653.300	560.000
GR	653.200	586.000	653.000	604.000	649.000	622.000	648.800	623.000	648.200	624.000
GR	647.800	628.000	647.900	630.000	648.500	631.000	649.000	632.000	652.100	640.000
GR	653.600	666.000	655.000	692.000	658.000	700.000	661.000	714.000	662.300	732.000
NC	.090	.090	.050	.150	.350	0.000	0.000	0.000	0.000	0.000

***MC3 X SECTION F

X1	3.900	9.000	150.000	168.000	700.000	700.000	800.000	0.000	0.000	0.000
GR	661.000	0.000	656.000	120.000	652.900	150.000	650.600	156.000	650.400	160.000
GR	650.700	164.000	654.400	168.000	656.000	240.000	660.000	270.000	0.000	0.000
QT	4.000	360.000	520.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

X1	3.950	11.000	410.000	430.000	500.000	500.000	660.000	0.000	-2.200	0.000
GR	662.600	194.000	658.500	410.000	655.400	418.000	655.200	420.000	654.900	422.000
GR	654.800	423.000	654.900	424.000	655.200	426.000	655.400	428.000	657.600	430.000
GR	664.400	596.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.970	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	3.980	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000
X1	4.000	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.800	0.000
X1	4.100	6.000	129.000	146.000	470.000	470.000	520.000	0.000	-2.000	0.000
GR	665.200	0.000	662.200	129.000	659.600	134.000	660.000	143.000	662.000	146.000
GR	668.000	334.000	[illegible]000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	[illegible]000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROP 1

CCHV= .150 CEHV= .350

*SECNO 2.000

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	COFAR	TOPWID	ENDST
2.00	8.47	651.97	0.00	651.97	652.22	.25	0.00	0.00	653.00
810.	0.	688.	122.	0.	159.	103.	0.	0.	651.00
0.00	0.00	4.34	1.18	.060	.045	.060	0.000	643.50	199.15
.003523	0.	0.	0.	0	0	0	0.00	204.75	403.90

*SECNO 3.200

3.20	7.36	654.26	0.00	0.00	654.36	.10	2.12	.02	652.80
810.	7.	798.	5.	9.	309.	7.	7.	4.	652.80
.12	.71	2.58	.71	.060	.045	.060	.045	646.90	168.11
.001261	1080.	1080.	1000.	3	0	0	0.00	115.07	283.18

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

channel limits defined, n_{ch} = .045

3.40	6.28	654.38	0.00	0.00	654.47	.09	.10	.01	657.50
810.	0.	0.	810.	0.	0.	338.	8.	4.	707.50
.13	0.00	0.00	2.40	.060	.045	.060	.045	648.10	26.06
.000995	90.	90.	90.	2	0	0	0.00	62.92	88.97

Input as restricted XSEC

*SECNO 3.600

3.60	5.34	654.44	0.00	0.00	654.53	.09	.06	.00	657.50
810.	0.	0.	810.	0.	0.	342.	8.	4.	657.50
.13	0.00	0.00	2.37	.060	.020	.060	.044	648.10	26.04
.000955	60.	60.	60.	0	0	0	0.00	62.94	88.99

Difference may be $\approx .05$ ft (negligible)

*SECNO 3.800

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
3.80	5.69	654.49	0.00	0.00	654.71	.23	.07	.11	653.00
810.	82.	662.	66.	72.	157.	50.	9.	4.	652.10
.14	1.14	4.21	1.32	.070	.045	.070	.044	647.80	534.77
.002401	50.	50.	50.	0	0	0	0.00	147.79	682.56

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	6.38	656.78	0.00	0.00	657.07	.30	2.33	.02	652.90
810.	130.	520.	160.	77.	97.	116.	14.	7.	654.40
.19	1.69	5.35	1.38	.090	.050	.090	.047	650.40	101.33
.003913	700.	800.	700.	2	0	0	0.00	144.50	245.83

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	5.22	658.82	0.00	0.00	658.95	.13	1.85	.03	656.30
605.	117.	366.	122.	167.	101.	143.	18.	9.	655.40
.26	.70	3.64	.85	.120	.055	.120	.050	652.60	277.24
.002331	500.	660.	500.	2	0	0	0.00	236.25	513.49

*SECNO 3.970

3.97	5.07	659.37	0.00	0.00	659.52	.15	.57	.01	657.00
605.	108.	379.	118.	148.	98.	131.	20.	10.	656.10
.28	.73	3.88	.90	.120	.055	.120	.051	653.30	284.92
.002751	200.	240.	200.	2	0	0	0.00	225.00	509.93

*SECNO 3.980

3.98	5.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	385.	116.	141.	96.	126.	22.	11.	656.80
.30	.74	3.99	.92	.120	.055	.120	.051	654.00	288.31
.002962	200.	240.	200.	2	0	0	0.00	220.05	508.36

*SECNO 4.000

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
4.00	5.91	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	23.	12.	657.60
.32	.76	4.17	.96	.120	.055	.120	.052	654.80	293.74
.003340	200.	240.	200.	2	0	0	0.00	212.10	505.84

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.00	660.20
605.	124.	340.	141.	129.	73.	139.	27.	14.	660.00
.37	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.70
.004608	470.	520.	470.	2	0	0	0.00	227.37	251.07

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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      STARTING ELEVATION CONV.  D * 1.15

J1  ICHECK    INQ      NINV     IDIR     STPT     METRIC    HVINS     Q        WSEL     FQ

      1.       4.       0.       0.   0.000000    0.00     -1.0      0.    653.240   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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 *PROP 2

 CCHV=    .150 CEHV=    .350
 *SECNO 2.000
    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      XNI        XNCH      XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

      2.00      9.74    653.24      0.00    653.24    653.29      .05      0.00      0.00    653.00
      810.         0.      480.      330.         1.      217.      338.         0.         0.    651.00
      0.00       .16      2.21       .98       .060      .045      .060     0.000    643.50    189.80
   .000692         0.         0.         0.         0         0         0      0.00    249.37    439.67

 *SECNO 3.200
      3.20      7.30    654.20      0.00      0.00    654.31       .11      1.00       .02    652.80
      810.         6.      799.         5.         9.      303.         6.        11.         4.    652.80
       .11       .71      2.64       .71       .060      .045      .060      .046    646.90    168.66
   .001347      1080.      1080.      1000.         2         0         0      0.00    114.12    282.77

 CCHV=    .400 CEHV=    .800
 *SECNO 3.400

          ***26 MILE ROAD   ELLC = 657.4

      3.40      6.23    654.33      0.00      0.00    654.42       .09       .11       .01    657.50
      810.         0.         0.      810.         0.         0.      334.        11.         5.    707.50
       .12      0.00      0.00      2.42       .060      .045      .060      .046    648.10     26.07
   .001027        90.        90.        90.         2         0         0      0.00     62.90     88.97

 *SECNO 3.600
      3.60      6.29    654.39      0.00      0.00    654.48       .09       .06       .00    657.50
      810.         0.         0.      810.         0.         0.      339.        12.         5.    657.50
       .13      0.00      0.00      2.39       .060      .020      .060      .044    648.10     26.05
   .000983        60.        60.        60.         0         0         0      0.00     62.92     88.98

 *SECNO 3.800
    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      XNI        XNCH      XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

      3.80      6.64    654.44      0.00      0.00    654.68       .24       .07       .12    653.00
      810.        79.      667.        64.        69.      156.        48.        12.         5.    652.10
       .13      1.14      4.29      1.34       .070      .045      .070      .044    647.80    535.79
   .002531        50.        50.        50.         0         0         0      0.00    145.88    681.66

 CCHV=    .150 CEHV=    .350
 *SECNO 3.900

          ***MCS X SECTION F
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3.90	6.39	656.79	0.00	0.00	657.08	.29	2.39	.02	652.90
810.	131.	518.	161.	78.	97.	117.	17.	7.	654.40
.19	1.68	5.32	1.38	.090	.050	.090	.047	650.40	101.00
.003856	700.	800.	700.	2	0	0	0.00	144.93	245.94

*SECNO 3.950

***JUST D/S OF CONFLUENCE WITH 2ND UNNAMED TEIBUTARY

3.95	6.22	658.82	0.00	0.00	658.95	.13	1.84	.02	656.30
605.	117.	366.	122.	167.	101.	143.	21.	9.	655.40
.25	.70	3.64	.86	.120	.055	.120	.050	652.60	277.33
.002336	500.	660.	500.	2	0	0	0.00	236.12	513.45

*SECNO 3.970

3.97	5.07	659.37	0.00	0.00	659.52	.15	.57	.01	657.00
605.	108.	379.	118.	148.	98.	131.	23.	10.	656.10
.28	.73	3.88	.90	.120	.055	.120	.051	653.30	284.97
.002754	200.	240.	200.	2	0	0	0.00	224.94	509.91

*SECNO 3.980

3.98	6.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	385.	116.	141.	96.	126.	25.	11.	656.80
.30	.74	3.99	.92	.120	.055	.120	.051	654.00	288.33
.002964	200.	240.	200.	2	0	0	0.00	220.02	508.35

*SECNO 4.000

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
4.00	5.91	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	27.	12.	657.60
.32	.75	4.17	.96	.120	.055	.120	.052	654.80	293.75
.003341	200.	240.	200.	2	0	0	0.00	212.09	505.84

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.00	660.20
605.	124.	340.	141.	129.	73.	139.	30.	15.	660.00
.37	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.70
.004608	470.	520.	470.	2	0	0	0.00	227.37	251.07

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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      STARTING ELEVATION CONV.  D * 0.85

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      -1.       4.       0.       0.  0.000000    0.00     1.0      0.   650.700   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 3

CCHV=    .150 CEHV=    .350
*SECNO 2.000
     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

      2.00      7.20    650.70      0.00    650.70    651.58       .88      0.00      0.00    653.00
      810.        0.      810.        0.        0.      108.        0.        0.        0.    651.00
      0.00      0.00      7.51      0.00      .060      .045      .060     0.000    643.50    203.75
   .014386        0.        0.        0.         0         0         0      0.00     36.25    240.00

*SECNO 3.200

3301 HV CHANGED MORE THAN HVINS

      3.20      7.54    654.44      0.00      0.00    654.53       .09      2.83       .12    652.80
      810.        8.      796.        6.       12.      325.        9.        6.        2.    652.80
       .12       .70      2.45       .70      .060      .045      .060      .045    646.90    166.63
   .001060      1080.     1080.     1000.         8         0         0      0.00    117.67    284.30

CCHV=    .400 CEHV=    .800
*SECNO 3.400
      ***26 MILE ROAD   ELLC = 657.4

      3.40      5.43    654.53      0.00      0.00    654.62       .08       .09       .00    657.50
      810.        0.        0.      810.        0.        0.      347.        6.        2.    707.50
       .13      0.00      0.00      2.33      .060      .045      .060      .045    648.10     26.03
   .000908        90.       90.       90.         2         0         0      0.00     62.97     89.00

*SECNO 3.600
      3.60      5.49    654.59      0.00      0.00    654.67       .08       .05       .00    657.50
      810.        0.        0.      810.        0.        0.      351.        7.        2.    657.50
       .14      0.00      0.00      2.31      .060      .020      .060      .044    648.10     26.02
   .000877        60.       60.       60.         0         0         0      0.00     62.99     89.01

*SECNO 3.800
     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

      3.80      5.83    654.63      0.00      0.00    654.83       .20       .06       .09    653.00
      810.        92.     646.        72.       82.      162.        56.       7.        2.    652.10
       .15      1.12      3.98      1.27      .070      .045      .070      .044    647.80    531.75
   .002057        50.       50.       50.         0         0         0      0.00    153.45    685.20

CCHV=    .150 CEHV=    .350
*SECNO 3.900
```

***MCS X-SECTION F

3.90	5.34	656.74	0.00	0.00	657.05	.31	2.18	.04	652.90
810.	129.	525.	157.	75.	96.	113.	12.	5.	654.40
.20	1.72	5.45	1.39	.090	.050	.090	.047	650.40	102.36
.004098	700.	800.	700.	3	0	0	0.00	143.16	245.51

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.23	658.83	0.00	0.00	658.96	.13	1.89	.03	656.30
605.	117.	366.	122.	168.	101.	143.	17.	7.	655.40
.27	.70	3.63	.85	.120	.055	.120	.050	652.60	276.81
.002310	500.	660.	500.	1	0	0	0.00	236.88	513.69

*SECNO 3.970

3.97	6.08	659.38	0.00	0.00	659.53	.15	.56	.01	657.00
605.	109.	378.	118.	149.	98.	131.	18.	8.	656.10
.29	.73	3.86	.90	.120	.055	.120	.050	653.30	284.51
.002727	200.	240.	200.	2	0	0	0.00	225.61	510.12

*SECNO 3.980

3.98	6.01	660.01	0.00	0.00	660.17	.16	.64	.00	657.70
605.	104.	384.	116.	141.	97.	126.	20.	9.	656.80
.31	.74	3.98	.92	.120	.055	.120	.051	654.00	288.14
.002951	200.	240.	200.	2	0	0	0.00	220.30	508.44

*SECNO 4.000

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	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.00	5.91	660.71	0.00	0.00	660.89	.18	.71	.01	658.50
605.	98.	394.	113.	128.	94.	118.	22.	10.	657.60
.33	.76	4.17	.96	.120	.055	.120	.052	654.80	293.68
.003336	200.	240.	200.	2	0	0	0.00	212.19	505.87

*SECNO 4.100

4.10	5.05	662.65	0.00	0.00	662.84	.19	1.95	.01	660.20
605.	124.	340.	141.	129.	73.	139.	26.	13.	660.00
.38	.96	4.64	1.01	.120	.055	.120	.052	657.60	23.71
.004609	470.	520.	470.	2	0	0	0.00	227.36	251.06

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

YATES DRAIN 100 YEAR FLO

SUMMARY PRINTOUT
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CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
651.970	136.46	652.22	204.75	0.00	0.00	651.97
653.240	307.98	653.29	249.87	0.00	0.00	653.24
650.700	67.53	651.58	35.25	0.00	0.00	650.70
654.263	228.08	654.36	115.07	0.00	0.00	0.00
654.202	220.69	654.31	114.12	0.00	0.00	0.00
654.435	248.74	654.53	117.67	0.00	0.00	0.00
654.381	256.77	654.47	52.92	0.00	0.00	0.00
654.330	252.75	654.42	62.90	0.00	0.00	0.00
654.533	268.86	654.62	52.97	0.00	0.00	0.00
654.443	262.08	654.53	52.94	0.00	0.00	0.00
654.393	258.30	654.48	62.92	0.00	0.00	0.00
654.589	273.50	654.67	62.99	0.00	0.00	0.00
654.486	165.30	654.71	147.79	0.00	0.00	0.00
654.438	160.99	654.68	145.88	0.00	0.00	0.00
654.630	178.58	654.83	153.45	0.00	0.00	0.00
656.775	129.49	657.07	144.50	0.00	0.00	0.00
656.791	130.44	657.08	144.93	0.00	0.00	0.00
656.735	126.53	657.05	143.16	0.00	0.00	0.00
658.820	125.30	658.95	235.25	0.00	0.00	0.00
658.819	125.18	658.95	236.12	0.00	0.00	0.00
658.833	125.88	658.96	235.88	0.00	0.00	0.00
659.374	115.34	659.52	225.00	0.00	0.00	0.00
659.373	115.29	659.52	224.94	0.00	0.00	0.00
659.382	115.86	659.53	225.61	0.00	0.00	0.00
660.010	111.16	660.17	220.05	0.00	0.00	0.00
660.010	111.14	660.17	220.02	0.00	0.00	0.00
660.013	111.36	660.17	220.30	0.00	0.00	0.00
660.707	104.68	660.89	212.10	0.00	0.00	0.00
660.707	104.68	660.89	212.09	0.00	0.00	0.00
660.708	104.75	660.89	212.19	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
662.648	89.13	662.84	227.37	0.00	0.00	0.00
662.648	89.13	662.84	227.37	0.00	0.00	0.00
662.648	89.11	662.84	227.36	0.00	0.00	0.00

SUMMARY OF ERRORS

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Twp
Yates Drain
Taft Drain

3) WATERCOURSE: Unnamed Trib 1 & 2

4) DOCUMENT TYPE: Analysis

00BREAK00

FLOOD INSURANCE STUDY HYDRAULIC REPORT

PROJECT: HUD-FIA-H-4705 Washington Township FIS, Macomb County, Michigan

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Yates Drain, Unnamed Tributary No. 1, Unnamed Tributary No. 2, Taft Drain

STUDY LIMITS: (see revised map of study limits sent to Mr. Morgan 3/27/79)

DATE OF AERIAL SURVEY: 11/78

DATE OF LAND SURVEY: 12/78 - 6/79

CAUTION
Sections A-D of Yates Drain & portions of Trib #2 & unnamed Trib have been changed. See July 20, 1981 transmittal

SOURCE OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 4/26/79

TOPOGRAPHIC INFORMATION: USGS topographic maps; 5 contours. 1"=400'
In southern portion, strip contours 2'-4' 1"=400'

METHOD OF ANALYSIS: HEC-2 water surface profile computer program (enclosed)

VARIABLES AND COEFFICIENTS:

Channel "n"	.040-0.060
Overbank "n"	.055-.10
n values thru bridges	.02-.03
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.

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 Washington Township.

A previous study was done for Yates Drain from 26 Mile Road to midway between 26 and 27 Mile Roads by Municipal Consultant Service in January, 1978. Some cross section data was used from this study. It appears that differences between the studies were mainly due to differences in flows.

Does not appear to have been submitted to our office

Starting Conditions

Field information was obtained 1200 ft. downstream of the corporate limits of Washington Township in order to establish a good starting elevation at the corporate limits. The slope-area method was used to determine the starting elevation. Convergence runs were made for Yates Drain using ± 15% depth. The profiles were within 0.2 foot of the starting elevation used at the community boundary. Taft Drain and Unnamed Tributary No. 1 were started at the Yates Drain elevation, since peaks were expected to occur almost coincidentally. Unnamed Tributary No. 2 was started at normal depth (as per FIS specifications) using the slope-area method.

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 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).

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 for your review.

Remarks

Several minor changes were made in the hydrology for Washington Township. On Taft Drain a change was made in the flows at the tributary upstream of Jewell Road in accordance with the discharge versus drainage area curve used for Taft Drain.

On Tributary No. 1, it was found that weir flow would occur across Jewell Rd. north of 27 Mile Rd. Therefore, rating curves were developed to determine how much flow would remain in the channel and how much would overflow to Yates Drain north of 27 Mile Rd. The rating curves used for determining the flow split are included.

On Taft Drain, it was found that downstream of Jewell Road the channel is so constricted that the left overbank would carry a significant portion of the flow. However, the drainage boundary divide appears to be low enough that overland flow may occur across the divide. If the delineation by Abrams Aerial Survey finds this to be the case, then the flood plain delineation will be stopped at the drainage divide. It does not appear that the storage due to this would be significant enough to reduce the peak flows.

DOES HAPPEN -

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 computed water surface differentials were less than 0.2 foot. Since this would not significantly affect the flood insurance study, no changes were made to the HEC-2 runs nor to the profiles. The 0.2 foot differential would dissipate within a short distance with no accumulative effect.

A mistake was noticed in the Tributary No. 1 profile after all the runs were made. Between sections 113.92 and 114.09 an overbank station was input incorrectly causing a roughness of .065 to be used rather than .055. The 100 year profile was rerun after correcting the mistake. It was found that a maximum change of 0.10 foot occurred. Therefore, no changes were made to the other runs.

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.

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than IMPS 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 LETTER

	Section No.	Section Type	Remarks
	110.1, 110.15	4	
A	110.2	2	
	110.25	3	Repeat of 110.32
B			Jewell Rd.
	110.32	1	Jewell Rd.
C	110.5	2	
	110.55, 110.59	3	Repeat of 111.02
			27 Mile Rd
D	111.02	1	27 Mile Rd
	111.05	3	Repeat of 111.02
E	111.8	2	
	111.81, 111.82	3	Repeats of 111.8
	111.83, 111.9		
	111.91	4	Concrete Weir
	111.92, 111.93	3	Repeats of 111.8
	111.94, 111.95		

COMMUNITY: WASHINGTON TWP

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types:	Description
1	Surveyed (See Remarks if Other Than IMPS 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 LETTER	SECTION NO.	SECTION TYPE	REMARKS
	111.97, 111.98	3	Repeats of 112.0
	111.99		
F	112.0	2	
	112.1, 112.2	3	Repeats of 112.0
	112.3		
	112.4, 112.5	3	Repeats of 113.2
G	113.2	1	
H	113.28, 113.29	4	M-53 bridge
	113.30, 113.31		
	113.33		
	113.42	1	M-53 bridge
I	113.8	1	
	113.81, 113.82	3	Repeats of 113.8
	113.89, 113.90		
	113.91		
	113.92, 113.93	3	Repeats of 114.0

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than M.P.S. 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 LETTER	SECTION NO	SECTION TYPE	REMARKS
J	114.0	2	
	114.01, 114.02 114.03, 114.05 114.07, 114.09	3	Repeats of 114.0
K	115.2	2	
L	115.28, 115.32	3	Repeats of 115.38 VanDyke bridge
	115.38	1	
	115.42	3	Repeat of 115.38
M	115.50	2	
	115.51	3	Repeat of 115.50
N	115.98, 116.02	4	Railroad bridge
	116.08	3	Repeat of 116.80
O	116.80	1	
	116.81, 116.82 116.83, 116.84 116.86	3	Repeats of 117.2

McNAMEE, PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB: HUD-FIA L-4705 SHEET NO.
COMMUNITY: WASHINGTON TWP FILE NO.
WATERCOURSE: TRIBUTARY NO. 1 CHK BY DATE

HUD-FIA-LETTE - P G

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
117.20	2	
117.21	3	Repeat of 117.20 Campground Rd. bridge.
117.79	3	Repeat of 117.8 Campground Rd. bridge
117.8	4	

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TRIBUTARY NO. 2

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than IMPS 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

	Section No.	Section Type	Remarks
	199.5, 199.7	3	Repeats of 200.0
A	200.0	2	
	200.05	4	
	200.10	3	Repeat of 200.2
B	200.2	2	
D	200.4	4	
	201.3	4	
C	201.7	1	
	201.8	1	

McGAMEE PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO
COMMUNITY: WASHINGTON TOWNSHIP FILE NO
WATERCOURSE: YATES 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

HUD-FIA

	Section No.	Section Type	Remarks
	2.0	2	Localized overbank dips and mounds eliminated.
	3.2	2	Overbanks assumed ineffective because of bridge upstream.
A	3.4, 3.6	1	26 Mile Road - deck very high, therefore not included.
B	3.8	1	
	3.9	1	Cross-section taken from MCS study on Yates Drain, 1978. Matched 4' contour map well.
	4.1	3	Section 4.0 dropped 2.2'.
C	4.0	1	
	4.2	1	MCS cross-section.
D	5.0	2	Localized dip on overbank eliminated.
E	5.1, 5.3, 5.4, 5.5	3	Repeats of 5.0
F	6.2	2	Localized dip on overbank eliminated. Overbanks shortened because of bridge upstream.
	6.1	3	Repeat of 6.4
	6.0	3	Repeat of 6.4
	6.8	3	Repeat of 6.4

McAMEE, PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO
COMMUNITY: WASHINGTON TWP. FILE NO
WATERCOURSE: YATES CH. DRAIN DATE

HUD-FIA

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 LETTER

	Section No.	Section Type	Remarks
	6.4	1	
G	6.5	2	Localized dip on overbank eliminated.
	6.6, 6.7	3	Repeats of 6.5
H	7.2	1	
	7.1	4	Used 7.2, topo, and surveyed bridge information.
I	171 - bridge 27 ft.		
	7.7	4	Used 7.8, topo, and surveyed bridge information.
J	7.8	1	Overbank modified because of bridge downstream.
	7.85	4	Underwater surveyed further upstream and lowered. Extended using 2' topo information.

JOB HUD-FIA H-4705 SHT. NO. 1

COMMUNITY: WASHINGTON TWP

WATERCOURSE: TAFT DRAIN

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 near-by surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from topo, surveyed sections, or other information

HUD-FIA

A

SECTION NO.	SECTION TYPE	REMARKS
7.8		U/S 27 Mile Rd
7.85, 7.87	3	Repeat of 7.9
7.9	4	Underwater surveyed by field crew. Extended using 2' topo
7.92	3	Repeat of 7.9
7.95	3	Repeat of 8.0
8.0	2	
8.1	3	Repeat of 8.0
8.5	4	Same as 7.9
8.6	3	Repeat of 8.5
9.1	3	Repeat of 9.2. Right overbank not restricted
9.2	2	Right overbank restricted due to structures
9.28, 9.29, 9.31, 9.32	3	Repeats of 9.2. Modified to model small footbridge.
9.33	3	Repeat of 9.2

xB

xC

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TAFT DRAIN

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

	Section No.	Section Type	Remarks
	9.34	3	Repeat of 9.35.
D ←	(9)		
	9.35	1	Driveway bridge.
	9.36, 9.37	3	Repeats of 9.35 Driveway bridge.
	9.38, 9.39	3	Repeats of 9.4.
	9.4	1	Driveway bridge.
	9.41, 9.42	3	Repeats of 9.4. Driveway bridge.
	9.43		
E ←	(9.5)		
	9.44, 9.56	3	Repeats of 9.4.
	9.58	2	Jewell Road. Ditch on east side of road included.
	9.6, 10.1	3	Repeats of 9.58 Jewell Road bridge.
	10.2		
F ←	(10)		
	10.5, 10.9	3	Repeat of 11.0
G ←	(11.0)	1	Driveway bridge.
	11.1, 11.2	3	Repeats of 11.0 Driveway bridge.

COMMUNITY: WASHINGTON TWP.

WATER COURSE: TAFT DRAIN

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

	Section No.	Section Type	Remarks
H	11.5	1	
	11.6, 11.7	3	Repeats of 11.5. Ditch on west side filled to account for driveway.
	11.8, 11.9	3	Repeat of 11.5.
I	← 12		
	12.05, 12.06	3	Repeats of 12.07
	12.07	1	Driveway bridge.
	12.08, 12.1	3	Repeats of 12.07 Driveway bridge.
J	← 13		
	13.05, 13.06	3	Repeats of 13.07.
	13.07	1	Driveway bridge.
	13.08, 13.1	3	Repeats of 13.07.
	13.6, 13.7	3	Repeats of 14.0
	13.8		
K	← 14.0	1	
	14.1, 14.2	3	Repeats of 14.0
	14.3, 14.4		

COMMUNITY: Washington Twp.

WATERCOURSE:

TABLE – XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F$ $\quad K_f = \frac{29n^2l}{R^{4/3}}$ $\quad R = A/P$

Cross Section Location	K_e	A	P	R	n	l	K_F	XKOR	REMARKS
Yates Drain									
Footbridge (5.4)	submerged footbridge, just used to see if losses would be significant, found loss to be negligible							XKOR = 1.6	
3' culvert (5.1)	"				"			"	
21 Mile Rd.	.1	56	42		.025	24	.33	1.43	
Tributary #2									
M-53	.2	37	23		.020	192	1.2	2.4	
Tributary #1									
Jewell Rd.	.3	38	29	1.39	.013	30	.09	1.39	
Campground Rd.	.1	12.6		1.0	.025	31	.56	1.66	
Taft Drain									
NO SES									

COMMUNITY: Washington Twp.

WATERCOURSE:

TABLE - XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F$ $\quad K_F = \frac{29n^2l}{R^{4/3}}$ $\quad R = A/P$

Cross Section Location	K_e	A	P	R	n	l	K_F	XKOR	REMARKS
Yates Drain									
$h_{v_{100}}$ $\Delta_{max_{100}}$ Footbridge (5.4)	submerged footbridge, just used XKOR=1.6 to see if losses would be significant, found loss to be negligible								
3' culvert (5.1)		11			11			11	
	.5				.020		.21	1.7	
1.01 .30 Freeflow 27 Mile Rd. V=451/56	~~1~~	56	42		~~.025~~	24	~~.33~~	~~1.83~~	
Tributary #2									
	.35	37	23					2.5	
1.04 .16 Freeflow M-53 V=310/37	~~2~~	~~41~~	~~27~~		.020	192	1.2	~~3.4~~	
Tributary #1									
	.5							1.6	
.50 .10 Orifice Tawell Rd. V=170/30	~~.3~~	38	29	1.39	.013	30	.09	~~1.99~~	
	.5							2.1	
2.3 > 1.01 Weir flow Campground Rd. V=150/13	~~.4~~	12.6		1.0	.025	31	.56	~~1.66~~	D/S effect → tailwater, weir flow => OK
Taft Drain									
	NO SES								
	Revisions are based on higher Velocity of K_e.								

McNAMEE PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB HUD - FIA #-4705 SHEET NO
SUBJECT XKOR revision - Washington Twp.
COMPUTED BY YPK DATE 10/3/79 CHK BY DATE

Yates Drain

29 Mile Rd

w/ new XKOR $h_v \rightarrow \frac{676.29 - 674.84}{1.7} = .85$

$\Rightarrow$ QPR = 415

Q additional over weir = 451 - 415 = 36

$L \approx \frac{159}{3.0 \times .45^{1.5}} = 175'$

$\Delta h_w = \left(\frac{36}{3.0 \times 175}\right)^{2/3} = .17$

Trib #2

M-53

$\Delta = .16$

Trib #1

Jewell Rd

$\Delta = .10$

Campground Rd

w/ new XKOR $h_v \rightarrow \frac{732.88 - 728.85}{2.1} = 1.92$

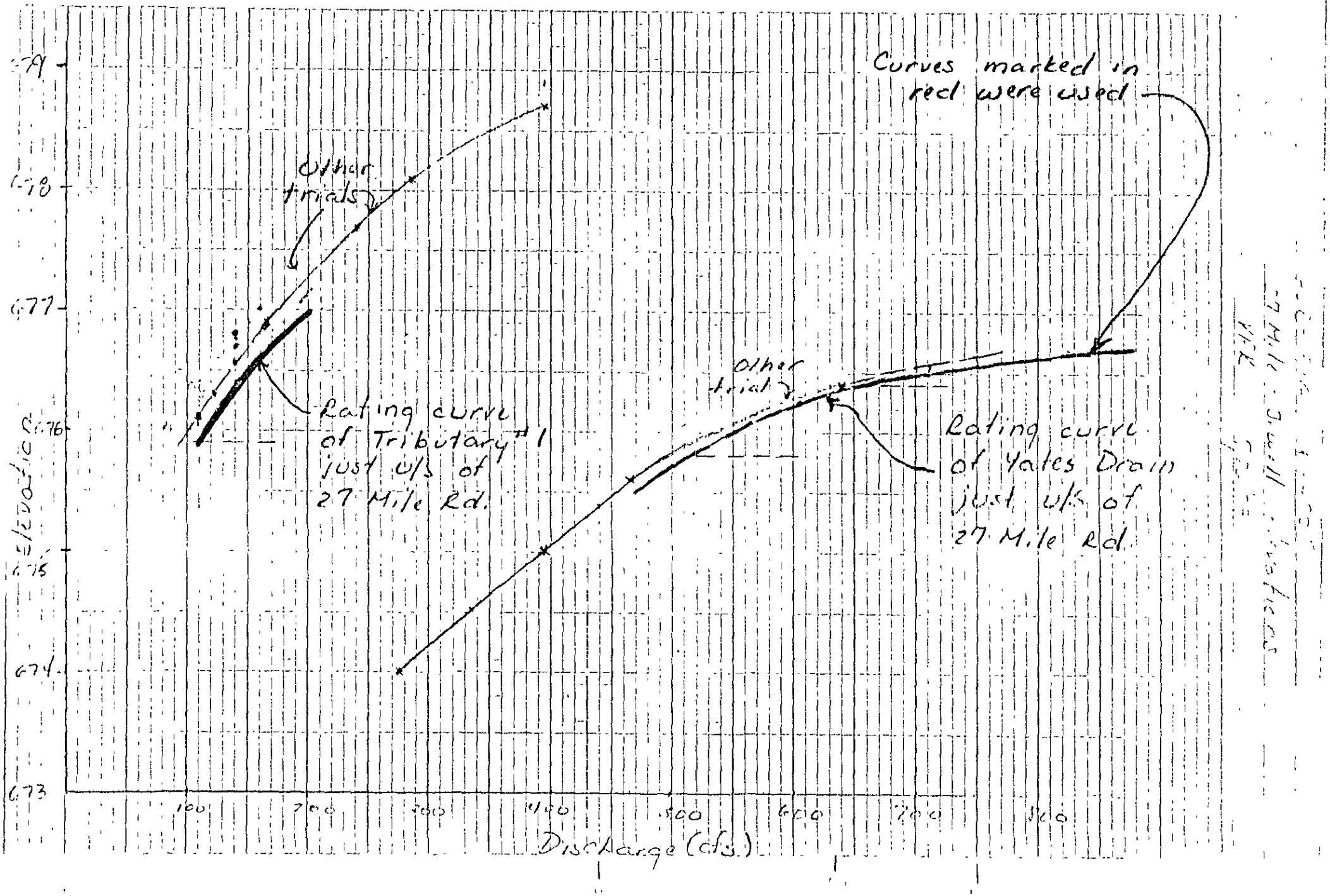
$\Rightarrow$ QPR = 140

Q add. over weir = 158 - 140 = 18

$L \approx \frac{123}{2.9 \times .53^{1.5}} = 114'$

$\Delta h_w = \left(\frac{18}{2.9 \times 114}\right)^{2/3} = .14$

All changes < .20' $\Rightarrow$ for FIS work will not change profiles


Curves marked in red were used
other trials
Rating curve of Tributary #1 just u/s of 27 Mile Rd.
other trial
Rating curve of Yates Drain just u/s of 27 Mile Rd.
Discharge (cfs.)

Washington T-06
VPK 5-28-79

Rating curve for overflow from tributary to Yates Drain over Jewell Rd. just north of 27 Mile Rd.

100 year $Q_T = 285$

If $Q_{OFLOW} = 140$ cfs $Q_{YATES} = 605$ cfs

=> Yates elev u/s of 27 Mile = 676.3

Approximate Jewell Rd by two weirs?

$Elev_1 = 675.9$ $C_1 = 3.0$ $L_1 = 55$

$Elev_2 = 676.4$ $C_2 = 3.0$ $L_2 = 80$

Try 676.8

Weir, slightly submerged

For weir, $d_1 = 0.4'$ assume $h_{L_1} \approx .5$ => $q_1 = 2.4$ $Q_1 = 13$

weir$_2$ $Q_2 = 3.0 \times 80 \times 0.4^{3/2} = 61$

$Q_T = 193$ cfs

Try 676.7

$d_1 = 0.3'$ $h_L = 0.4$ => $q_1 = 1.6$ $Q_1 = 88$

$Q_2 = 3.0 \times \underset{80}{3.0} \times 0.3^{3/2} = 39$

$Q_T = 127$ cfs

@ 767.7 $Q_{CH} \approx 170$ cfs $Q_W \approx 127$ => $Q_T = 297$

$Q_{ACTUAL} = 285$ OK

~~Q = 140 Elev 676.7~~

~~$Q_{channel} = 140$ for elev 676.8~~

~~$Q_T = 280$ $Q_{TOT} = 285$~~

~~=> use $Elev_{100}$ 676.5~~

$\boxed{Q_{CH} = 170}$

$Q_{OFLOW} = 115$

$\boxed{Q_{YATES_{100}} = 580 \text{ cfs}}$

Washington T-06
[illegible] 5-25-79

50 year

Q_{YATES} = 520 cfs if Q_{TRIB} (thru channel) = 0
Elev u/s 27 Mile Rd = 675.8
⇒ free flow on Jewell Rd weir

Try Elev = 676.5

Q_{CH} = ~~120~~ cfs 150

Q_W = 3.0 × 55 × 0.6 $^{3/2}$ = 77 cfs
+ 3.0 × 80 × 0.1 $^{3/2}$ = 8 cfs

Q_T = ~~205~~ cfs
235

Try Elev = 676.6

Q_{CH} = ~~125~~ 160 cfs

Q_W = 3.0 × 55 × 0.7 $^{3/2}$ = 97 cfs
+ 3.0 × 80 × 0.2 $^{3/2}$ = 21 cfs] 118

Q_T = ~~24~~ 278 OK

$Elev_{50}$ = 676.6

Q_{CH} = 160
Q_{YATES} = 125 + 395 = 520

10 year

Try Elev = 676.4

Q_{CH} = ~~140~~ 140 cfs

Q_W = 3.0 × 55 × 0.5 $^{3/2}$ = 58 cfs

Q_T = ~~165~~ 198 cfs ~~OK~~

$Elev_{10}$ = 676.~~4~~3

Try 676.3

Q_{CH} = 135
Q_W = 42
177 OK

Q_{CH} = 135
Q_Y = 45 + 275 = 320

HUD-FIA [illegible]
Washington [illegible]
VPK 8/28/79

500 Year

500 year elev on Yates u/s of 27 Mile if trib were to all overflow here = 676.7 (Q = 825 cfs)

Try 677.0 u/s of Jewell

Q_{CH} = ~~[illegible]~~ 200 cfs

Q_W = $d_1 = 1.1$ $h_{L_1} = 0.3$ $q_1 = 3.3$ $Q_1 = 182$

$d_2 = 0.3$ $h_{L_2} = 0.3$ $q_2 = 1.2$ $Q_2 = 96$

278

Q_T = ~~[illegible]~~ 478 cfs

Try 676.9

Q_{CH} = ~~[illegible]~~ 190

Q_W =

$d_1 = 1.1$ $h_{L_1} = 0.2$ $q_1 = 2.6$ $Q_1 = 143$

$d_2 = 0.3$ $h_{L_2} = 0.2$ $q_2 = 0.9$ $Q_2 = 72$

215

Q_T = ~~[illegible]~~ 405 OK

Use $Elev_{500}$ = ~~677.0~~ 676.9

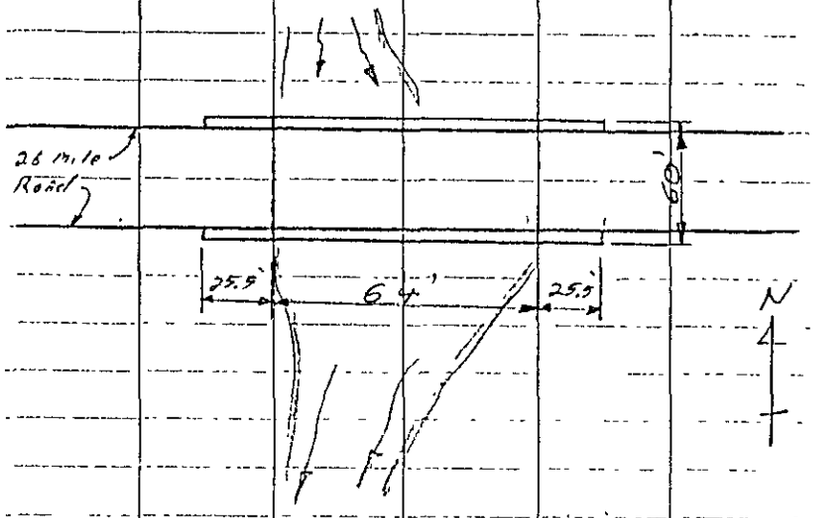
Q_{CH} = 215 cfs
Q_y = 180 cfs + 640 = 820

480/53

Yates Drain

X-Sections 3, 3.2 & 3.8

Bridge at 26 mile Road



Start X-Section #3

at U/S face of bridge

Sta	+S	HI	-S	Elev
BM 61				661.99
	3.77	665.76		
			4.3	661.5
			0.4	665.4
			3.8	662.0
			8.4	657.4
0+00			4.7	661.1

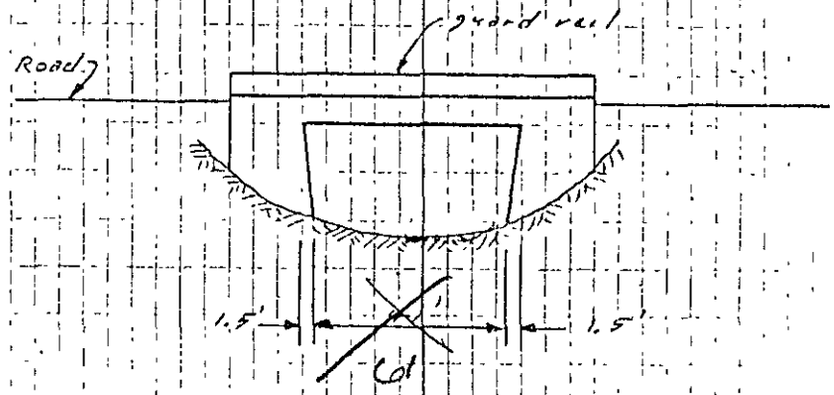
4-4-79

cldy - 40°

D. Cain

N. Shahart

D. Jeffries



Pictures 12, 13 & 14

Film 125

12 = U/S
13 = D/S
14 = at face

Description

℄ road over ℄ bridge

Top guardrail

Top curbing

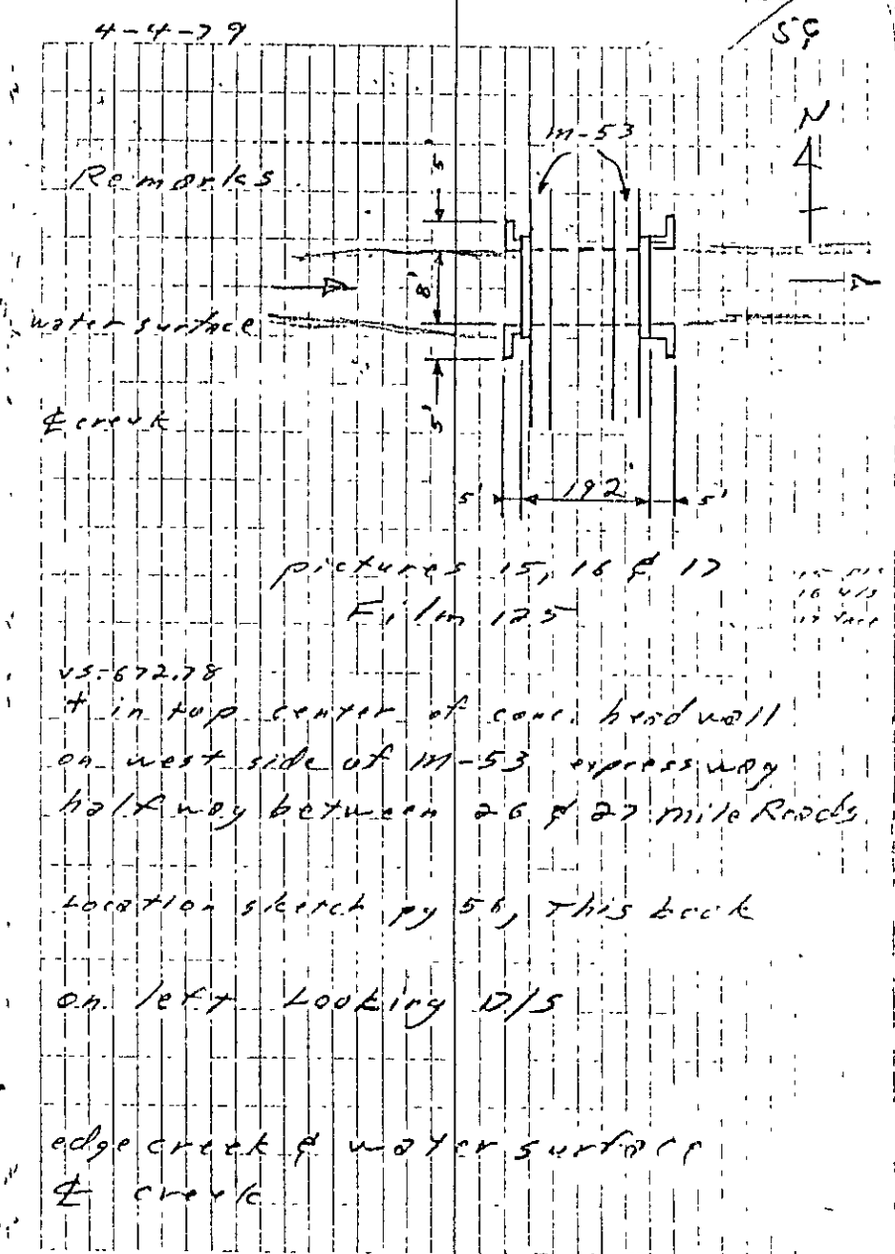
Bottom steel

on left looking D/S

Yates Drain

X-section #201 Continued

Sta	+s	HI	-s	Elev	Adj Elev	Remarks
		679.09				
		676.09				
0+06			12.0		667.1	
~~0+06~~			12.7	663.4	666.4	water surface
0+07			43.5		665.6	
0+08			13.7		665.4	℄ creek
0+10			13.5		665.6	
0+10			12.4		666.7	
0+14			10.8		668.3	
Set BM100		677.36	6.27	667.82	672.82	vs-672.78
	4.54	674.36				+ in top center of conc. headwall
						on west side of IM-53 expressway
						halfway between 26 & 27 mile Reads.
	Start	X-section #201.8				Location sketch pg 56, This book
0+00			4.5		672.9	on left looking D/S
0+03			5.7		671.7	
0+05			7.9		669.5	
0+10			9.3	665.1	668.1	edge creek & water surface
0+12			9.9		667.5	℄ creek
0+14			9.5		667.9	



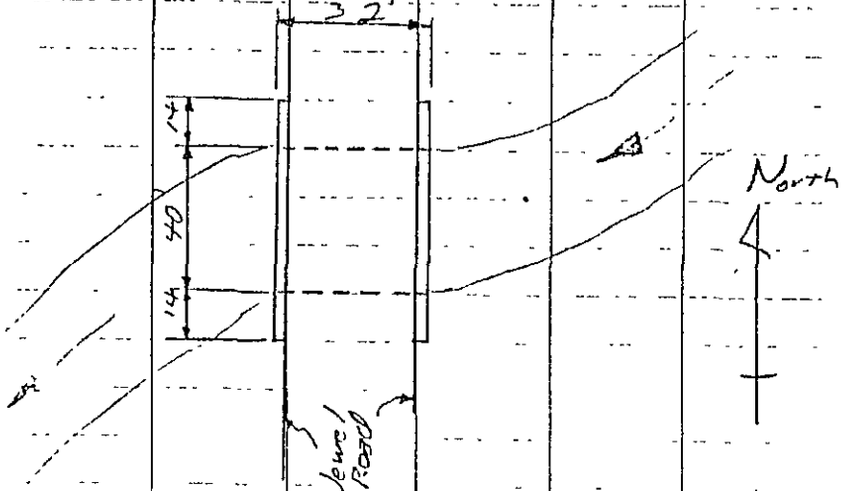
pictures 15, 16 & 17

Film 125

Yates Drain

X-Sections 6, 6.2, & 6.5

Bridge at Jewel Rd



Sta	+ S	HI	- S	Elev
Bm 57				673.20
	3.70	676.90		
TP			3.11	673.79
	4.14	677.93		
Set Bm 102			3.36	674.57
	3.08	677.65		
Bm 57			4.03	673.62
				(.42 h.g.)

Rerun on next Page

4-10-79 D. Cain

Clear - 50° N. Shamart

D. Jeffries

Pictures 4, 5, & 6

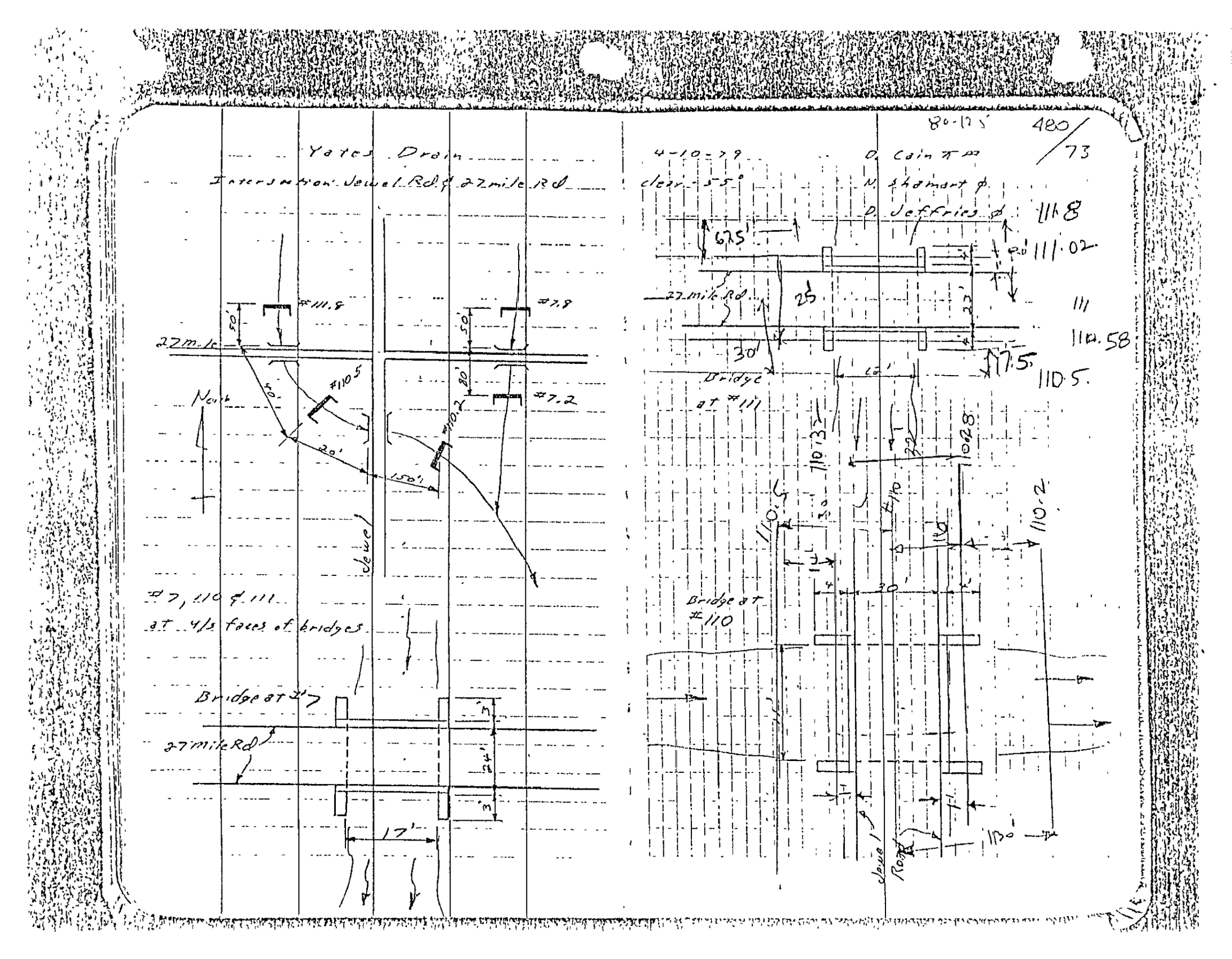
Film 126

Remarks

rail in tree on Jewel Rd,

Chis. square on top of northeast corner of south east wing wall on bridge over Yates Drain at Jewel Rd. Approx ¼ mile south of 27 mile Rd.

490/68


Yates Drain
Intersection Jewel Rd & 27 mile Rd
#111.8
#7.8
#110.5
#110.2
#7.2
27 mile Rd
50'
80'
30'
150'
North
Jewel
#7, 110 & 111
at 4/s faces of bridges
Bridge at #7
27 mile Rd
3'
24'
17'
4-10-79
clear 3-5°
D. Cain #
N. Shamart #
D. Jeffries #
675'
27 mile Rd
25'
23'
30'
Bridge at #111
Bridge at #110
Jewel Road
80-12 S
480/73
111.8
111.02
111
110.58
110.5
110.28
110.13
110.2
110.5
30'
22'
11'
11'
11

480-A 2-A

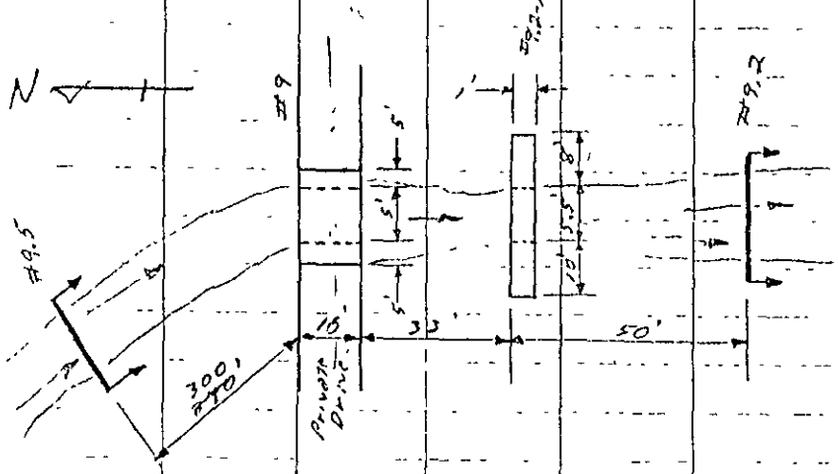
Yates Drain

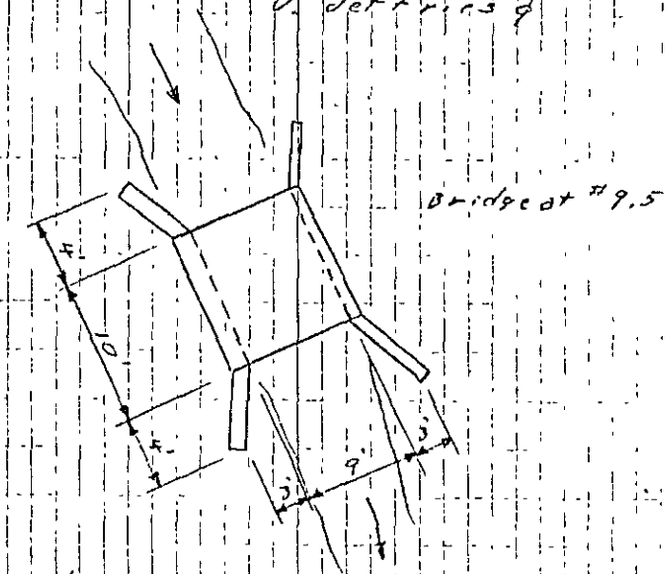
X-sections 9, 9.2 & 9.5

4-11-79 D. Cain ▭

clear - 45° N. Shamart ⊼

D. Jeffries ⊕





Sta	+S	HI	-S	Elev	
Bm 83				694.03	
	4.20	698.23			
Set Bm103			6.23	692.00	692.00
	4.79	696.79			

Remarks

Top of northwest corner of conc slab bridge at private drive at X-section #9, 6' east & 4' south of actual corner of slab

Start X-Section #9.2

0+00			8.9	687.9	
0+02			10.5	686.3	
0+03			11.4	685.4	

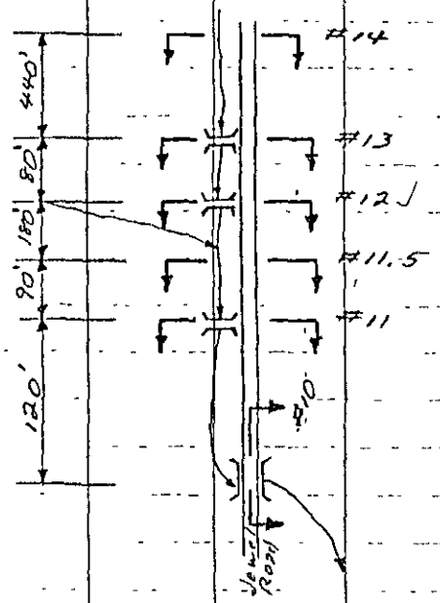
on left looking D/S

edge creek & water surface

480-A / 5-A

Yates Drain

X-Sections 10, 11, 11.5, 12, 13, & 14



Culvert @ #12 is 4' Dia cmp, 20' long

Culvert @ #13 is 4' Diacmp, 20' long

Bridge & culvert X-sections are at u/s faces

4-11-79

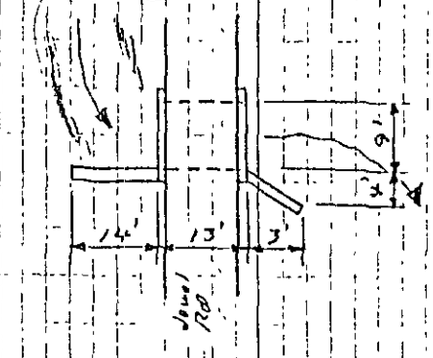
Pty Cldg - 40°

D. Cain ⊞

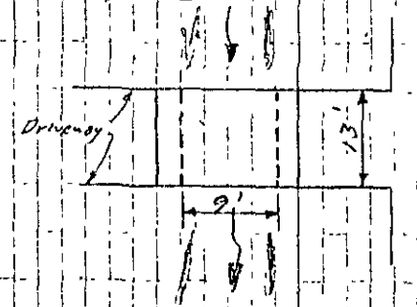
D. Jeffries ⊼

N. Shanart ⌀

Bridge @ #10



Bridge @ #11



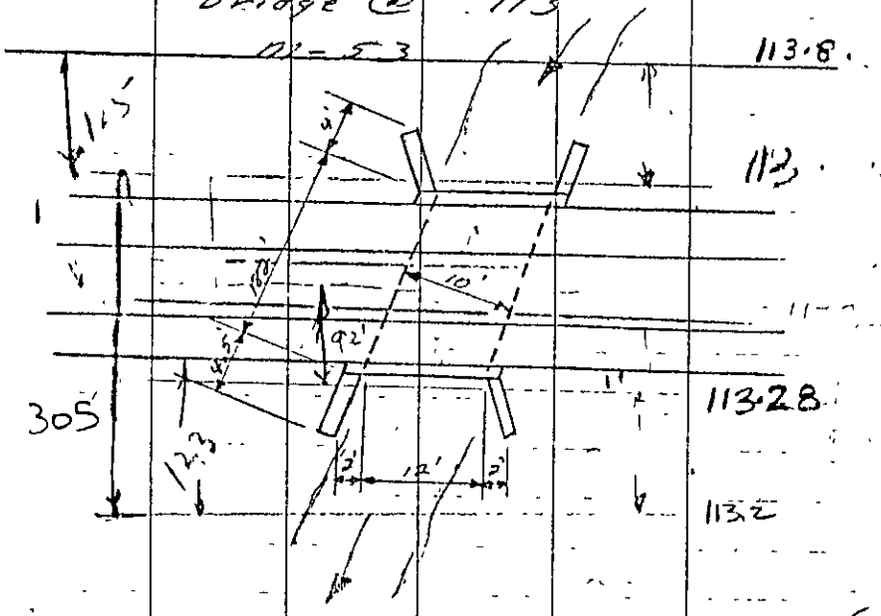
Pictures 2, 3, 4, 5, 6 & 7
Film 127

480-A / 19-A

Yates Drain
Bridge sketches

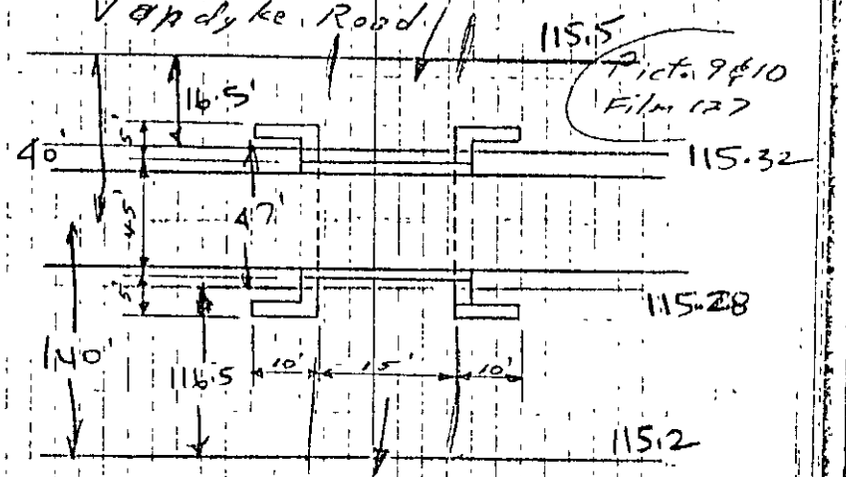
4-11-79

Bridge @ # 113
M-53

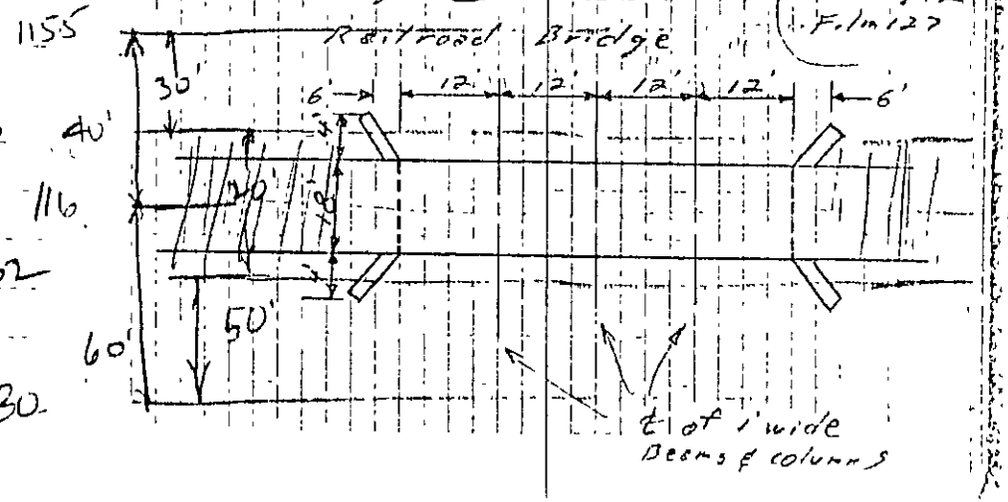


pictures 16, 17 & 18
Film 127

Bridge @ # 115
Vandyke Road



Bridge @ # 116
Railroad Bridge



Verification for Trib. #1

MP&S
SH&G

2223 Packard Road
Ann Arbor, Michigan
48104
(313) 769-9220

455 W. Fort St.
Detroit, Michigan
48226
(313) 964-3000

A Joint Venture

FLOOD INSURANCE STUDY

H-4705

TRANSMITTAL

To: Michigan DNR
Water Management Division
P.O.Box 30028
Lansing, Michigan 48909

Date: 1-24-80

Re: Washington Twp. FIS

Attn: Mr. Daniel Morgan, P.E.

Gentlemen:

RECEIVED
JAN 25 1980
WATER MANAGEMENT

We are enclosing herewith ✓

We are sending under separate cover ___

We acknowledge receipt of ___

The following: ✓ Drawings ___ Specifications ___

Profiles of 27 Mile Rd. and Jewell Rd. near the Yates' Drain and Tributary No. 1

For ___ Your approval ___ Your corrections ___ Your comments

✓ Your use ___ Your files

Remarks: Please forward to Suzanne Elms

Distribution:

Very truly yours,

MP&S/SH&G, A JOINT VENTURE

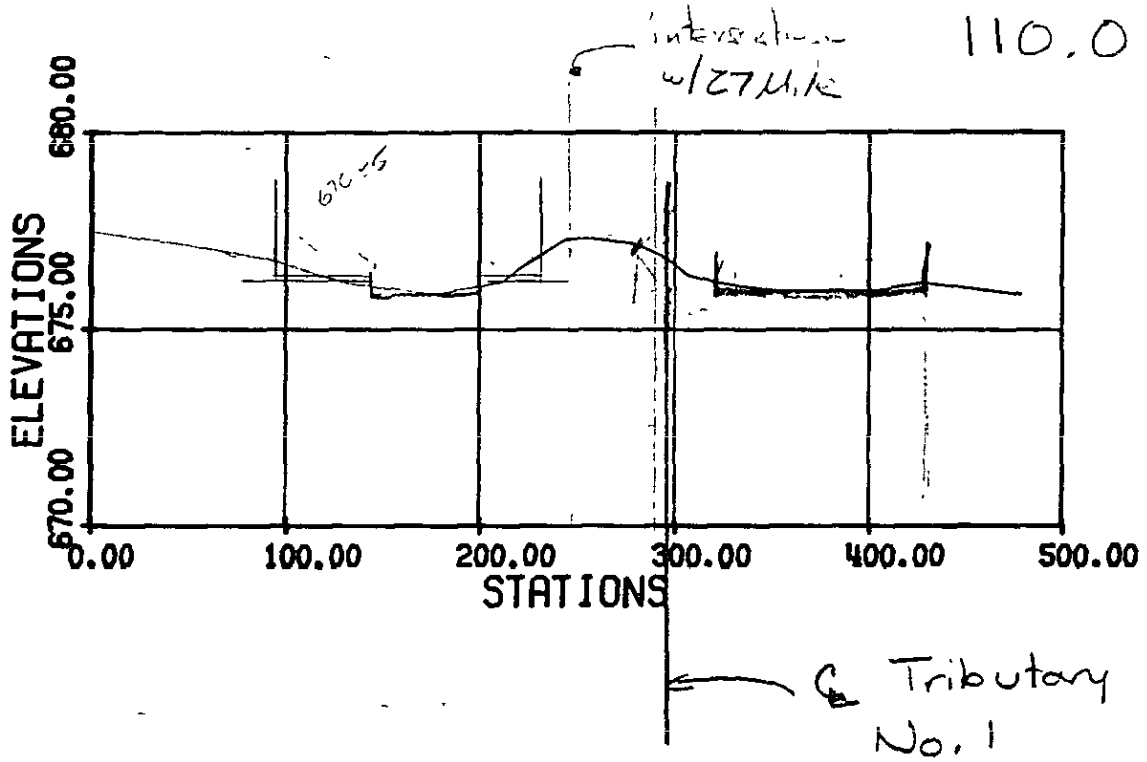
Duane R. Meyer, P.E.

Duane R. Meyer, P.E.
Project Engineer for
McNamee, Porter and Seeley

HUD-FIA H-4705

UNNAMED TRIB. NO.1

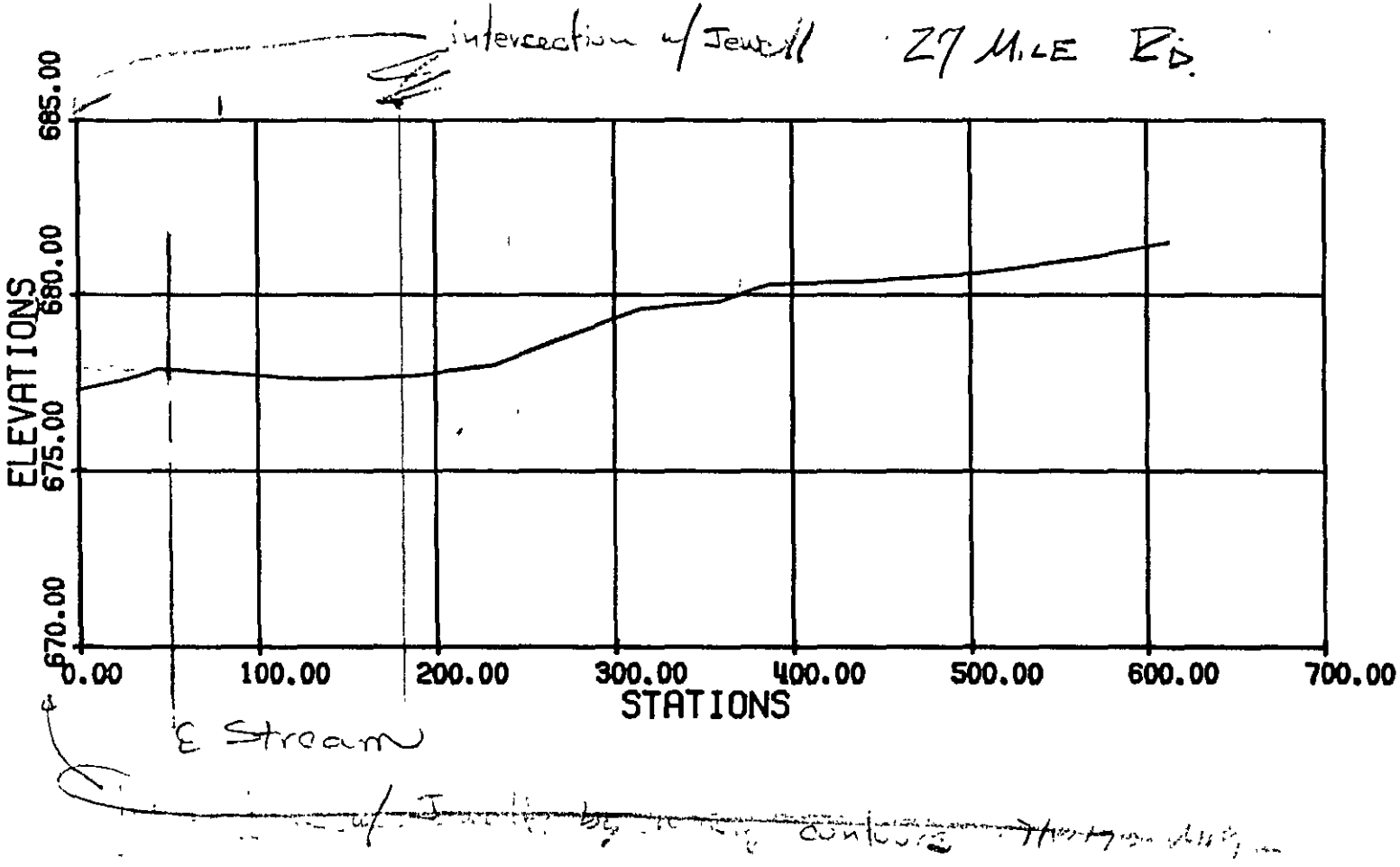
SECTION 110.0



RECEIVED
JAN 25 1980
WATER MANAGEMENT

HUD-FIA H-4705

UNNAMED TRIB. NO.1 SECTION 111.00



JAN 25 1980
MANAGEMENT

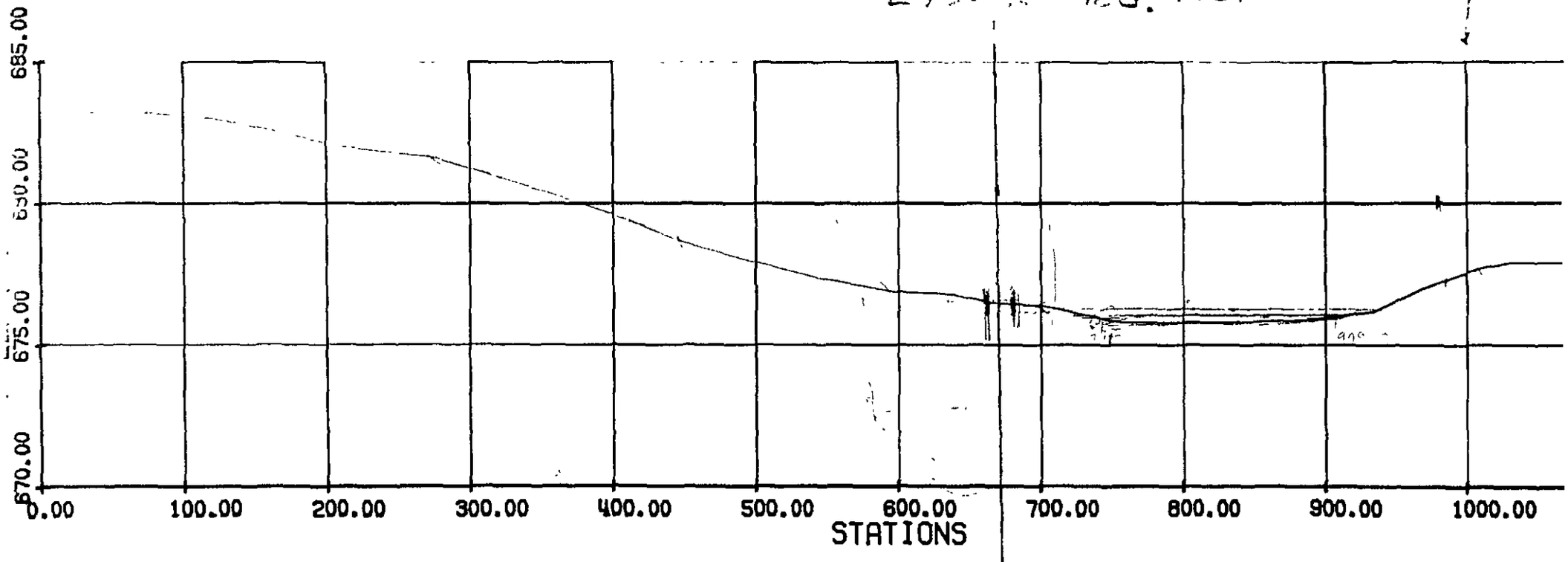
HUD-FIA H-4705

TAFT DRAIN SECTION 7.00

JAN 25 1980
WATER MANAGEMENT

℄ Yates Drain

27 [illegible] Td. Profile





1) COUNTY: Macomb

2) STUDY NAME: Washington Twp

3) WATERCOURSE: Unnamed Trib NO. 1

4) DOCUMENT TYPE: floodway



```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1      HUD-FIA  H-4705
T2      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          -1.       4.        0.        0.  0.000000      0.00     -1.0        0.   674.120     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       .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
OT      5.000   135.000   160.000   170.000   215.000   170.000     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

X1    110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR    675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR    671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR    671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR    674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR    675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1    110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1    110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR    675.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR    671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR    671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC      0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

        ***D/S JEWELL RD

X1    110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR    676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR    671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB      0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1    110.320     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	674.800	676.000	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	678.000	676.000	0.000
X1	110.500	11.000	30.000	42.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
***D/S 27 MILE RD										
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
***FOOTBRIDGE										
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000

X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000

***CONCRETE WEIR

X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000

***FOOTBRIDGE

X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000

X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000
***D/S M-53										
X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000

X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	709.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
	***D/S VAN DYKE RD									
X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.700	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000
SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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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*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 110.100
   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

    110.10       5.02     674.12       0.00     674.12     674.16       .04       0.00       0.00     673.30
     170.         14.         96.         59.         30.         48.         77.         0.          0.      672.80
      0.00        .48        2.01        .77        .055        .040        .055      0.000     669.10      53.87
   .000705         0.          0.          0.          0           0           0       0.00     155.73     209.60

FLOW DISTRIBUTION FOR SECNO=     110.10          CWSEL=     674.12

STA=        54.         70.        104.        114.        122.        136.        154.        180.        196.        210.
  PER Q=      .2         3.4         2.4         2.4        56.6        11.3        14.3         7.6         1.9
   AREA=     1.8        14.3         7.2         6.6        47.8        22.9        30.4        17.1         6.9
    VEL=      .2          .4          .6          .6         2.0          .8          .8          .8          .5

*SECNO 110.150
    110.15       4.53     674.18       0.00       0.00     674.29       .11         .11         .02     673.85
     170.         3.         127.         40.         6.         41.         43.         0.          0.      673.35
      .01         .49        3.09        .94        .055        .040        .055        .040     669.65      92.51
   .002035        100.        100.        100.          1           0           0       0.00     110.63     203.14

FLOW DISTRIBUTION FOR SECNO=     110.15          CWSEL=     674.18

STA=        93.        104.        114.        122.        136.        154.        180.        196.        203.
  PER Q=      .1          .6          .9        74.5         8.6         9.9         4.7          .6
   AREA=      .8         2.4         2.7        41.0        14.1        17.8         9.4         1.9
    VEL=      .2          .5          .6         3.1         1.0          .9          .9          .5

*SECNO 110.200
    110.20       4.14     674.34       0.00       0.00     674.69       .35         .32         .07     674.40
     170.         0.         169.         1.         0.         35.         2.          0.          0.      673.90
      .02        0.00        4.78        .74        .055        .040        .055        .040     670.20     122.09
   .005902        100.        100.        100.          1           0           0       0.00      22.42     144.51

FLOW DISTRIBUTION FOR SECNO=     110.20          CWSEL=     674.34

STA=       122.        136.        145.
  PER Q=     99.2          .8
   AREA=     35.3         1.8
    VEL=      4.8          .7

CCHV=     .400 CEHV=     .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       678.00 ELREA=       676.00

        ***D/S JEWELL RD
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110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.28 CWSEL= 674.99

STA= 3. 14.
PER Q= 100.0
AREA= 38.5
VEL= 4.4

SPECIAL BRIDGE

SB XK	XKOR	COEQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

FLOW DISTRIBUTION FOR SECNO= 110.32 CWSEL= 675.17

STA= 3. 14.
PER Q= 100.0
AREA= 40.6
VEL= 4.2

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

FLOW DISTRIBUTION FOR SECNO= 110.50 CWSEL= 675.16

```
 STA=      22.      42.
   PER Q=   100.0
    AREA=    22.3
     VEL=     7.6

*SECND 110.580

3301 HV CHANGED MORE THAN HVINS

         ***D/S 27 MILE RD

   110.58     4.21   676.21     0.00     0.00   676.46      .25      .13      .26   676.70
    170.        0.    170.        0.       0.     42.        0.       1.       1.   676.70
     .03     0.00     4.00     0.00     .055     .040     .055     .039   672.00     4.02
 .003681      18.      18.      18.        3        0        0     0.00    12.07    16.08

 FLOW DISTRIBUTION FOR SECNO=     110.58          CWSEL=     676.21

 STA=       4.      16.
   PER Q=   100.0
    AREA=    42.4
     VEL=     4.0

 CCHV=    .500 CEHV=   1.000
 *SECND 110.590

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   678.20 MAX ELLC=   676.70

   110.59     4.21   676.21     0.00     0.00   676.46      .25      .00      .00   676.70
    170.        0.    170.        0.       0.     43.        0.       1.       1.   676.70
     .03     0.00     3.99     0.00     .055     .030     .055     .039   672.00     4.02
 .002047       1.       1.       1.        0        0        0     0.00    12.07    16.08

 FLOW DISTRIBUTION FOR SECNO=     110.59          CWSEL=     676.21

 STA=       4.      16.
   PER Q=   100.0
    AREA=    42.6
     VEL=     4.0

 *SECND 111.020

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=   678.20 MAX ELLC=   676.70

   111.02     4.27   676.27     0.00     0.00   676.51      .24      .05      .00   676.70
    170.        0.    170.        0.       0.     43.        0.       1.       1.   676.70
     .03     0.00     3.92     0.00     .055     .030     .055     .039   672.00     4.01
 .001954      23.      23.      23.        0        0        0     0.00    12.07    16.09

 FLOW DISTRIBUTION FOR SECNO=     111.02          CWSEL=     676.27

 STA=       4.      16.
   PER Q=   100.0
    AREA=    43.3
     VEL=     3.9
```

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

Diversion of flow has been allow into Yates (TAFT) Drain across Jewell Road.

FLOW DISTRIBUTION FOR SECNO= 111.03 CWSEL= 676.28

STA=	4.	16.
PER Q=	100.0	
AREA=	43.3	
VEL=	3.9	

CCHV= .400 CEHV= .800

*SECNO 111.800

3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

FLOW DISTRIBUTION FOR SECNO= 111.80 CWSEL= 676.52

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.2	24.1	35.1	5.3	9.5	23.8	.0	
AREA=	5.2	36.7	27.9	6.6	11.8	44.4	.1	
VEL=	1.2	1.9	3.6	2.3	2.3	1.5	.3	

*SECNO 111.810

3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

FLOW DISTRIBUTION FOR SECNO= 111.81 CWSEL= 676.80

STA=	0.	10.	48.	58.	63.	72.	134.	137.
PER Q=	2.5	24.7	32.5	5.2	9.4	25.7	.0	
AREA=	6.1	40.4	28.8	7.1	12.7	50.4	.3	
VEL=	1.2	1.7	3.2	2.1	2.1	1.5	.4	

CCHV= .100 CEHV= .300

*SECNO 111.820

3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60

285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

FLOW DISTRIBUTION FOR SECNO= 111.82 CWSEL= 676.89

STA=	0.	10.	48.	58.	63.	72.	134.	135.
PER Q=	2.0	23.4	37.2	5.2	9.4	22.8	.0	
AREA=	4.9	35.8	27.6	6.5	11.6	42.9	.1	
VEL=	1.2	1.9	3.8	2.3	2.3	1.5	.0	

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

FLOW DISTRIBUTION FOR SECNO= 111.83 CWSEL= 677.67

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.2	5.2	9.3	24.2	.0	
AREA=	5.6	38.3	28.3	6.8	12.2	47.0	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

FLOW DISTRIBUTION FOR SECNO= 111.84 CWSEL= 678.15

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.3	23.8	35.4	5.2	9.3	24.1	.0	
AREA=	5.5	38.1	28.2	6.8	12.2	46.6	.2	
VEL=	1.2	1.8	3.6	2.2	2.2	1.5	.3	

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.54	678.14	0.00	0.00	678.27	.13	.01	.01	676.80
285.	45.	63.	176.	28.	20.	58.	1.	1.	676.80
.06	1.60	3.13	3.03	.070	.060	.070	.045	673.60	0.00
.030130	1.	1.	1.	1	0	0	-30.80	136.29	136.29

FLOW DISTRIBUTION FOR SECNO= 111.85 CWSEL= 678.14

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	4.7	11.3	22.2	1.2	10.7	49.9	.0	
AREA=	5.5	22.9	20.2	2.8	8.6	46.7	.2	
VEL=	2.4	1.4	3.1	1.2	3.6	3.0	.7	

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .55 FEET

3370 NORMAL BRIDGE.NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.65	678.25	0.00	0.00	678.35	.10	.07	.00	676.80
285.	49.	57.	179.	33.	21.	66.	1.	1.	676.80
.06	1.47	2.69	2.72	.070	.060	.070	.045	673.60	0.00
.020903	3.	3.	3.	2	0	0	-30.80	137.75	137.75

FLOW DISTRIBUTION FOR SECNO= 111.86 CWSEL= 678.25

STA=	0.	10.	48.	58.	63.	72.	134.	138.
PER Q=	5.1	12.0	20.0	1.3	10.5	50.9	.1	
AREA=	6.5	26.6	21.2	3.3	9.5	52.7	.5	
VEL=	2.2	1.3	2.7	1.1	3.2	2.8	.8	

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .58 FEET

111.87	4.69	678.29	0.00	0.00	678.36	.07	.01	.00	676.80
285.	78.	92.	116.	50.	30.	76.	1.	1.	676.80
.06	1.56	3.10	1.53	.070	.060	.070	.045	673.60	0.00
.004980	1.	1.	1.	1	0	0	0.00	138.22	138.22

FLOW DISTRIBUTION FOR SECNO= 111.87 CWSEL= 678.29

STA=	0.	10.	48.	58.	63.	72.	134.	138.
PER Q=	2.7	24.5	32.1	5.1	9.1	26.4	.1	
AREA=	6.8	43.0	29.5	7.4	13.3	54.7	.6	
VEL=	1.1	1.6	3.1	1.9	1.9	1.4	.4	

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .40 FEET

111.90	4.49	679.29	0.00	0.00	679.41	.11	1.03	.01	678.00
285.	73.	105.	107.	41.	28.	62.	2.	2.	678.00
.08	1.77	3.79	1.73	.070	.060	.070	.048	674.80	0.00
.008107	165.	165.	165.	3	0	0	0.00	135.52	135.52

FLOW DISTRIBUTION FOR SECNO= 111.90 CWSEL= 679.29

STA=	0.	10.	48.	58.	63.	72.	134.	136.
PER Q=	2.1	23.5	36.9	5.2	9.4	23.0	.0	
AREA=	5.0	36.2	27.7	6.5	11.7	43.5	.1	
VEL=	1.2	1.8	3.8	2.3	2.3	1.5	.0	

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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
111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.09	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

***CONCRETE WEIR

FLOW DISTRIBUTION FOR SECNO= 111.91 CWSEL= 679.86

STA=	0.	10.	50.	55.	90.	120.
PER Q=	5.2	30.1	28.0	29.0	7.7	
AREA=	6.6	32.4	15.9	30.0	12.7	
VEL=	2.2	2.7	5.0	2.8	1.7	

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

FLOW DISTRIBUTION FOR SECNO= 111.92 CWSEL= 680.45

STA=	0.	10.	48.	58.	72.	134.	138.
PER Q=	2.6	24.4	32.9	14.2	25.8	.1	
AREA=	6.5	41.7	29.2	20.3	52.5	.5	
VEL=	1.1	1.7	3.2	2.0	1.4	.4	

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

FLOW DISTRIBUTION FOR SECNO= 111.93 CWSEL= 680.75

STA=	0.	10.	48.	58.	72.	134.	136.
PER Q=	2.2	23.7	35.8	14.5	23.8	.0	
AREA=	5.4	37.6	28.1	18.7	45.8	.1	
VEL=	1.2	1.8	3.6	2.2	1.5	.3	

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

FLOW DISTRIBUTION FOR SECNO= 111.94 CWSEL= 681.87

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.3	24.0	34.7	14.4	24.6	.0	
AREA=	5.8	39.0	28.5	19.3	48.2	.2	
VEL=	1.2	1.7	3.5	2.1	1.5	.3	

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

FLOW DISTRIBUTION FOR SECNO= 111.95 CWSEL= 683.62

STA=	0.	10.	48.	58.	72.	134.	137.
PER Q=	2.5	24.2	33.6	14.3	25.3	.0	
AREA=	6.2	40.6	28.9	19.9	50.8	.4	
VEL=	1.1	1.7	3.3	2.1	1.4	.4	

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

FLOW DISTRIBUTION FOR SECNO= 111.97 CWSEL= 683.86

STA=	190.	206.	220.	235.	284.	299.
PER Q=	8.7	52.2	18.8	19.6	.7	
AREA=	17.0	43.8	25.7	42.2	3.4	

VEL= 1.5 3.4 2.1 1.3 .5

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.98	4.29	684.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

FLOW DISTRIBUTION FOR SECNO= 111.98 CWSEL= 684.39

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.9	56.8	18.9	16.2	.2	
AREA=	14.3	41.4	23.1	33.9	1.4	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007038	200.	200.	200.	2	0	0	0.00	102.78	292.78

FLOW DISTRIBUTION FOR SECNO= 111.99 CWSEL= 685.77

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.7	57.4	18.9	15.8	.2	
AREA=	14.0	41.1	22.8	33.0	1.2	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

FLOW DISTRIBUTION FOR SECNO= 112.00 CWSEL= 688.27

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.2	18.9	15.9	.2	
AREA=	14.0	41.2	22.9	33.2	1.2	
VEL=	1.6	4.0	2.3	1.4	.5	

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

FLOW DISTRIBUTION FOR SECNO= 112.10 CWSEL= 690.38

STA=	190.	206.	220.	235.	284.	293.
PER Q=	7.8	57.0	18.9	16.1	.2	
AREA=	14.2	41.3	23.0	33.5	1.3	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10
285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.15

STA=	190.	206.	220.	235.	284.	292.
PER Q=	7.6	58.0	18.9	15.4	.2	
AREA=	13.6	40.8	22.5	32.0	1.0	
VEL=	1.6	4.0	2.4	1.4	.5	

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 693.91

STA=	190.	206.	220.	235.	284.	294.
PER Q=	7.9	56.4	18.9	16.5	.3	
AREA=	14.5	41.6	23.3	34.6	1.5	
VEL=	1.6	3.9	2.3	1.4	.5	

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.26

STA=	247.	252.	278.	304.	338.	350.
PER Q=	.1	69.8	20.5	9.1	.4	
AREA=	.6	58.2	30.0	20.5	2.1	
VEL=	.4	3.4	2.0	1.3	.6	

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

FLOW DISTRIBUTION FOR SECNO= 112.41 CWSEL= 694.64

STA=	247.	252.	278.	304.	338.	349.
PER Q=	.1	70.2	20.4	8.9	.4	
AREA=	.6	57.8	29.6	20.0	1.9	
VEL=	.4	3.5	2.0	1.3	.6	

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

FLOW DISTRIBUTION FOR SECNO= 112.42 CWSEL= 694.68

STA=	246.	252.	278.	304.	338.	351.
PER Q=	.2	57.7	28.5	13.0	.6	
AREA=	.8	51.6	30.6	21.3	2.4	
VEL=	.6	3.2	2.7	1.7	.8	

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

FLOW DISTRIBUTION FOR SECNO= 112.43 CWSEL= 694.79

STA=	244.	252.	278.	304.	338.	354.
PER Q=	.4	54.9	28.8	14.9	1.1	
AREA=	1.5	54.5	33.5	25.2	4.0	
VEL=	.7	2.9	2.4	1.7	.8	

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

```
      .30       .52      3.04      1.50      .070      .060      .070      .056    690.40    243.98
   .005089       1.        1.        1.         0         0         0      0.00    110.71    354.69

 FLOW DISTRIBUTION FOR SECNO=   112.44        CWSEL=   694.79

 STA=     244.      252.      278.      304.      338.      355.
   PER Q=     .3      66.2      21.4      11.2       .9
    AREA=    1.6      62.0      33.8      25.5      4.2
     VEL=     .5       3.0       1.8       1.3       .6

*SECNO 112.500
   112.50      4.28    694.98      0.00      0.00    695.11       .13       .20       .01    694.70
    285.        0.       197.        87.        1.        59.       54.        8.        8.    693.50
      .31       .46      3.36      1.61      .070      .060      .070      .056    690.70    246.50
   .006668       35.       35.       35.         2         0         0      0.00    104.01    350.51

 FLOW DISTRIBUTION FOR SECNO=   112.50        CWSEL=   694.98

 STA=     246.      252.      278.      304.      338.      351.
   PER Q=     .1      69.3      20.7       9.5       .5
    AREA=     .8      58.8      30.6      21.3      2.3
     VEL=     .5       3.4       1.9       1.3       .6

*SECNO 113.200
   113.20      4.28    697.28      0.00      0.00    697.41       .13      2.30       .00    697.00
    285.        0.       197.        87.        1.        59.       54.        9.        8.    695.80
      .34       .46      3.36      1.61      .070      .060      .070      .057    693.00    246.52
   .006686       345.      345.      345.         3         0         0      0.00    103.95    350.47

 FLOW DISTRIBUTION FOR SECNO=   113.20        CWSEL=   697.28

 STA=     247.      252.      278.      304.      338.      350.
   PER Q=     .1      69.3      20.7       9.4       .5
    AREA=     .8      58.7      30.5      21.2      2.3
     VEL=     .5       3.4       1.9       1.3       .6

 CCHV=    .400 CEHV=    .800
*SECNO 113.280

 3301 HV CHANGED MORE THAN HVINS


          ***D/S M-53

   113.28      5.14    698.44      0.00      0.00    699.09       .65      1.26       .41    698.80
    285.        0.       285.        0.        0.        44.       0.        9.        9.    698.80
      .35      0.00      6.48      0.00      .065      .055      .065      .057    693.30      7.51
   .017682       123.      123.      123.         2         0         0      0.00      9.98     17.49

 FLOW DISTRIBUTION FOR SECNO=   113.28        CWSEL=   698.44

 STA=       8.       18.
   PER Q=   100.0
    AREA=    44.0
     VEL=     6.5

 CCHV=    .500 CEHV=   1.000
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*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.29 CWSEL= 698.81

STA= 0. 10.
PER Q= 100.0
AREA= 55.6
VEL= 5.1

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.30 CWSEL= 698.88

STA= 0. 10.
PER Q= 100.0
AREA= 55.2
VEL= 5.2

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.31 CWSEL= 698.96

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.33 CWSEL= 699.35

STA= 0. 10.
PER Q= 100.0
AREA= 55.0
VEL= 5.2

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

FLOW DISTRIBUTION FOR SECNO= 113.42 CWSEL= 699.36

STA= 0. 10.
PER Q= 100.0
AREA= 55.1
VEL= 5.2

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

FLOW DISTRIBUTION FOR SECNO= 113.80 CWSEL= 700.70

STA= 140. 160. 186.
PER Q= 90.9 9.1
AREA= 58.4 16.8
VEL= 4.4 1.5

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

FLOW DISTRIBUTION FOR SECNO= 113.81 CWSEL= 701.12

STA= 140. 160. 186.
PER Q= 92.3 7.7
AREA= 56.8 14.7

```
      VEL=      4.6       1.5

   *SECNO 113.820
   3280 CROSS SECTION     113.82 EXTENDED        .47 FEET

    113.82      6.16    702.06      0.00      0.00    702.39       .33       .96       .01    702.20
     285.         0.       266.       19.        0.       56.       13.       10.        9.     701.50
      .37      0.00      4.76      1.45      .065      .055      .065      .055    695.90    140.40
  .009973      100.      100.      100.         2         0         0      0.00     45.60    186.00

   FLOW DISTRIBUTION FOR SECNO=    113.82          CWSEL=     702.06

   STA=      140.      160.      186.
     PER Q=     93.2       6.8
      AREA=     55.8      13.4
       VEL=      4.8       1.4

   *SECNO 113.830
   3280 CROSS SECTION     113.83 EXTENDED        .46 FEET

    113.83      6.16    703.56      0.00      0.00    703.89       .33      1.50       .00    703.70
     285.         0.       266.       19.        0.       56.       13.       10.        9.     703.00
      .38      0.00      4.76      1.45      .065      .055      .065      .055    697.40    140.41
  .010006      150.      150.      150.         2         0         0      0.00     45.59    186.00

   FLOW DISTRIBUTION FOR SECNO=    113.83          CWSEL=     703.56

   STA=      140.      160.      186.
     PER Q=     93.2       6.8
      AREA=     55.8      13.3
       VEL=      4.8       1.4

   *SECNO 113.900
   3280 CROSS SECTION     113.90 EXTENDED        .46 FEET

    113.90      6.17    705.57      0.00      0.00    705.90       .33      2.00       .00    705.70
     285.         0.       266.       19.        0.       56.       13.       11.        9.     705.00
      .40      0.00      4.77      1.45      .065      .055      .065      .055    699.40    140.41
  .010038      200.      200.      200.         0         0         0      0.00     45.59    186.00

   FLOW DISTRIBUTION FOR SECNO=    113.90          CWSEL=     705.57

   STA=      140.      160.      186.
     PER Q=     93.3       6.7
      AREA=     55.7      13.3
       VEL=      4.8       1.4

   *SECNO 113.910
   3280 CROSS SECTION     113.91 EXTENDED        .47 FEET

      SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    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      XLCBR     ITRIAL     ICC       ICONT     CORAR    TOPWID      ENDST
```

113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

FLOW DISTRIBUTION FOR SECNO= 113.91 CWSEL= 707.56

STA=	140.	160.	186.
PER Q=	93.1	6.9	
AREA=	55.9	13.5	
VEL=	4.7	1.5	

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

1215.3
1028.3

$\frac{679.9}{.096} = 7082.3$
.172
1218

FLOW DISTRIBUTION FOR SECNO= 113.92 CWSEL= 708.05

n.055
K=679.9
n = 575.3

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	9.6	10.6	8.1	5.0	5.3	8.1	8.1	5.3	5.0	17.2	8.1	9.6	
AREA=	17.2	13.0	8.5	4.9	5.7	6.3	6.3	5.7	4.9	20.7	14.4	22.6	
VEL=	1.6	2.3	2.7	2.9	2.7	3.7	3.7	2.7	2.9	2.4	1.6	1.2	

n=.055

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

Appears that correct
n values have been used,
The output is not what is happening

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

FLOW DISTRIBUTION FOR SECNO= 113.93 CWSEL= 708.53

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.	230.
PER Q=	6.7	10.7	9.7	6.4	7.2	11.3	11.3	7.2	6.4	18.1	3.8	1.2	
AREA=	9.1	8.9	6.5	3.9	4.7	5.2	5.2	4.7	3.9	14.6	6.3	4.3	
VEL=	2.1	3.4	4.3	4.7	4.4	6.2	6.2	4.4	4.7	3.5	1.7	.8	

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

FLOW DISTRIBUTION FOR SECNO= 114.00 CWSEL= 709.81

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	223.
PER Q=	5.6	10.4	10.0	6.7	7.7	12.2	12.2	7.7	6.7	17.9	2.7	
AREA=	7.3	8.1	6.0	3.7	4.5	5.0	5.0	4.5	3.7	13.3	5.2	
VEL=	2.2	3.7	4.7	5.2	4.9	7.0	7.0	4.9	5.2	3.8	1.5	

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

FLOW DISTRIBUTION FOR SECNO= 114.01 CWSEL= 710.37

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.6	10.1	10.1	6.9	8.1	12.9	12.9	8.1	6.9	17.6	1.8	
AREA=	6.1	7.5	5.7	3.5	4.3	4.9	4.9	4.3	3.5	12.4	3.3	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

FLOW DISTRIBUTION FOR SECNO= 114.02 CWSEL= 711.68

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.7	10.1	10.1	6.9	8.1	12.8	12.8	8.1	6.9	17.6	1.8	
AREA=	6.2	7.5	5.8	3.5	4.3	4.9	4.9	4.3	3.5	12.5	3.4	
VEL=	2.1	3.9	5.0	5.6	5.3	7.5	7.5	5.3	5.6	4.0	1.5	

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

FLOW DISTRIBUTION FOR SECNO= 114.03 CWSEL= 714.34

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	211.
PER Q=	4.4	10.0	10.2	7.0	8.2	13.0	13.0	8.2	7.0	17.5	1.6	
AREA=	5.9	7.3	5.7	3.5	4.3	4.8	4.8	4.3	3.5	12.2	3.1	
VEL=	2.1	3.9	5.1	5.7	5.4	7.7	7.7	5.4	5.7	4.1	1.5	

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

FLOW DISTRIBUTION FOR SECNO= 114.05 CWSEL= 717.05

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.5	10.1	10.1	7.0	8.1	12.9	12.9	8.1	7.0	17.6	1.7	
AREA=	6.0	7.4	5.7	3.5	4.3	4.9	4.9	4.3	3.5	12.3	3.2	
VEL=	2.1	3.9	5.1	5.7	5.4	7.6	7.6	5.4	5.7	4.1	1.5	

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.85	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

FLOW DISTRIBUTION FOR SECNO= 114.07 CWSEL= 719.75

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	211.
PER Q=	4.4	10.1	10.2	7.0	8.1	13.0	13.0	8.1	7.0	17.5	1.6	
AREA=	5.9	7.4	5.7	3.5	4.3	4.8	4.8	4.3	3.5	12.2	3.1	
VEL=	2.1	3.9	5.1	5.7	5.4	7.6	7.6	5.4	5.7	4.1	1.5	

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80
285.	0.	0.	285.	0.	0.	61.	13.	11.	720.80
.48	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012726	100.	100.	100.	1	0	0	0.00	33.93	211.93

FLOW DISTRIBUTION FOR SECNO= 114.09 CWSEL= 721.09

STA=	178.	186.	190.	192.	193.	194.	195.	196.	197.	198.	204.	212.
PER Q=	4.8	10.2	10.1	6.9	8.0	12.8	12.8	8.0	6.9	17.7	1.9	
AREA=	6.3	7.6	5.8	3.5	4.3	4.9	4.9	4.3	3.5	12.6	3.5	
VEL=	2.1	3.8	5.0	5.6	5.3	7.4	7.4	5.3	5.6	4.0	1.5	

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.00 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST

115.20	4.70	721.60	0.00	0.00	721.67	.07	.23	.03	719.60
285.	80.	172.	33.	48.	69.	23.	13.	11.	719.70
.49	1.66	2.51	1.47	.065	.055	.065	.055	716.90	146.00
.002285	50.	50.	50.	2	0	0	0.00	61.00	207.00

FLOW DISTRIBUTION FOR SECNO= 115.20 CWSEL= 721.60

STA=	146.	152.	170.	194.	207.
PER Q=	6.0	21.9	60.4	11.7	
AREA=	12.0	36.0	68.6	22.7	
VEL=	1.4	1.7	2.5	1.5	

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.13	721.93	0.00	0.00	722.16	.23	.36	.12	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.055	.065	.055	716.80	9.60
.004416	116.	116.	116.	2	0	0	0.00	15.75	25.35

FLOW DISTRIBUTION FOR SECNO= 115.28 CWSEL= 721.93

STA=	10.	26.
PER Q=	100.0	
AREA=	74.2	
VEL=	3.8	

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.13	721.93	0.00	0.00	722.16	.23	.00	.00	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.030	.065	.055	716.80	9.60
.001310	1.	1.	1.	0	0	0	0.00	15.75	25.35

FLOW DISTRIBUTION FOR SECNO= 115.32 CWSEL= 721.93

STA=	10.	26.
PER Q=	100.0	
AREA=	74.3	
VEL=	3.8	

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.50 MAX ELLC= 723.00

115.38	5.20	722.00	0.00	0.00	722.22	.22	.06	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.030	.065	.055	716.80	9.59
.001260	45.	45.	45.	2	0	0	0.00	15.77	25.36

FLOW DISTRIBUTION FOR SECNO= 115.38 CWSEL= 722.00

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 STA=      10.      26.
   PER Q=   100.0
    AREA=    75.3
     VEL=     3.8

 *SECNO 115.420
    115.42      5.20   722.00      0.00      0.00   722.22      .22       .00       .00   723.00
     285.         0.     285.        0.        0.     75.         0.       13.       11.   723.00
      .50      0.00     3.78      0.00      .065     .055      .065      .055    716.80     9.59
  .004231         1.       1.        1.         0        0         0      0.00     15.77    25.36

 FLOW DISTRIBUTION FOR SECNO=     115.42          CWSEL=    722.00

 STA=      10.      26.
   PER Q=   100.0
    AREA=    75.4
     VEL=     3.8

 CCHV=    .400 CEHV=    .800
 *SECNO 115.500
 3280 CROSS SECTION    115.50 EXTENDED        .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

    115.50      4.69   722.09      0.00      0.00   722.31      .22       .09       .00   721.20
     285.         7.     228.        50.        6.     56.        26.       13.       11.    720.80
      .50      1.14     4.10      1.92      .065     .055      .065      .055    717.40   194.00
  .006594        17.      17.       17.         2        0         0      0.00     56.00   250.00

 FLOW DISTRIBUTION FOR SECNO=     115.50          CWSEL=    722.09

 STA=      194.      206.      226.      250.
   PER Q=    2.3      80.1      17.5
    AREA=    5.8      55.8      26.1
     VEL=    1.1       4.1       1.9

 *SECNO 115.510
 3280 CROSS SECTION    115.51 EXTENDED       1.13 FEET

    115.51      4.93   722.33      0.00      0.00   722.49      .16       .16       .02   721.20
     285.        11.     217.        57.        9.     61.        32.       13.       11.    720.80
      .51      1.22     3.58      1.80      .065     .055      .065      .055    717.40   194.00
  .004523        29.      29.       29.         2        0         0      0.00     56.00   250.00

 FLOW DISTRIBUTION FOR SECNO=     115.51          CWSEL=    722.33

 STA=      194.      206.      226.      250.
   PER Q=    3.7      76.2      20.1
    AREA=    8.7      60.6      31.8
     VEL=    1.2       3.6       1.8
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*SECNO 115.580
3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  731.90 MAX ELLC=  728.70

        ***RAILROAD BRIDGE

    115.59      3.86    722.26      0.00      0.00    722.78       .52       .01       .28    728.90
    285.          0.     285.         0.        0.      49.         0.        13.       11.     729.00
     .51        0.00      5.77      0.00      .065      .030      .065      .055    718.40    190.55
 .009989          1.        1.        1.         2         0         0      0.00     28.52    221.00

FLOW DISTRIBUTION FOR SECNO=    115.58          CWSEL=    722.26

STA=     191.      233.
  PER Q=    100.0
   AREA=     49.4
    VEL=      5.8

*SECNO 116.020
3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  731.90 MAX ELLC=  728.70

    116.02      4.27    722.67      0.00      0.00    723.00       .33       .15       .07    728.90
    285.          0.     285.         0.        0.      62.         0.        13.       11.     729.00
     .51        0.00      4.61      0.00      .065      .030      .065      .055    718.40    187.10
 .005771         20.       20.       20.         3         0         0      0.00     32.45    222.45


FLOW DISTRIBUTION FOR SECNO=    116.02          CWSEL=    722.67

STA=     187.      233.
  PER Q=    100.0
   AREA=     61.8
    VEL=      4.6

*SECNO 116.080
    116.09      4.22    722.62      0.00      0.00    723.25       .63       .01       .24    728.30
    285.          0.     285.         0.        0.      45.         0.        13.       11.     728.70
     .51        0.00      6.36      0.00      .065      .055      .065      .055    718.40    194.66
 .021751          1.        1.        1.         2         0         0      0.00     18.72    213.39


FLOW DISTRIBUTION FOR SECNO=    116.08          CWSEL=    722.62

STA=     195.      218.
  PER Q=    100.0
   AREA=     44.8
    VEL=      6.4

CCHV=     .100 CEHV=     .300
*SECNO 116.800
   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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008737	49.	49.	49.	2	0	0	0.00	21.51	213.78

FLOW DISTRIBUTION FOR SECNO= 116.80 CWSEL= 723.60

STA= 192. 218.
PER Q= 100.0
AREA= 62.4
VEL= 4.6

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.52	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000648	50.	50.	50.	2	0	0	0.00	123.99	272.00

FLOW DISTRIBUTION FOR SECNO= 116.81 CWSEL= 724.01

STA= 148. 176. 200. 212. 224. 240. 272.
PER Q= 4.4 18.4 14.5 27.9 16.2 18.6
AREA= 23.9 53.1 34.9 48.3 41.8 61.1
VEL= .5 1.0 1.2 1.6 1.1 .9

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.98	1.46	.065	.055	.065	.055	720.10	163.74
.003036	60.	60.	60.	2	0	0	0.00	108.26	272.00

FLOW DISTRIBUTION FOR SECNO= 116.82 CWSEL= 724.05

STA= 164. 176. 200. 212. 224. 240. 272.
PER Q= 1.1 15.4 16.1 38.4 16.3 12.8
AREA= 4.6 30.0 23.4 36.7 26.4 30.4
VEL= .7 1.5 2.0 3.0 1.8 1.2

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.53	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.45
.020199	50.	50.	50.	0	19	0	0.00	84.14	261.59

FLOW DISTRIBUTION FOR SECNO= 116.83 CWSEL= 724.13

STA= 177. 200. 212. 224. 240. 262.

```
 PER Q=     7.3     17.0     59.3     13.6      2.8
 AREA=     10.6     13.7     27.0     13.4      5.8
  VEL=      2.0      3.5      6.3      2.9      1.4

*SECNO 116.840
  116.84     3.29   725.09     0.00     0.00   725.38      .29      .83      .01   723.60
   285.       75.      156.      54.      29.      29.      25.      14.      11.   723.80
    .54     2.56     5.41     2.16     .065     .055     .065     .055   721.80   174.66
 .013944      50.      50.      50.        2        0        0     0.00    92.63   267.29


 FLOW DISTRIBUTION FOR SECNO=     116.84          CWSEL=     725.09

 STA=     175.     200.     212.     224.     240.     267.
  PER Q=     9.2     17.2     54.6     14.7      4.3
  AREA=     14.0     15.4     28.7     15.7      9.3
   VEL=      1.9      3.2      5.4      2.7      1.3

 *SECNO 116.860
    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS   BANK ELEV
        Q     QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA  LEFT/RIGHT
     TIME     VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN       SSTA
    SLOPE    XLOBL     XLCH    XLOBR    ITRIAL     IDC    ICONT    CORAR   TOPWID      ENDST

  116.86     3.14   726.34   726.33     0.00   726.74      .40     1.32      .03   725.00
   285.       69.      169.      47.      24.      27.      19.      14.      11.   725.20
    .54     2.84     6.22     2.42     .065     .055     .065     .055   723.20   177.34
 .019954      80.      80.      80.        2       12        0     0.00    84.44   261.77


 FLOW DISTRIBUTION FOR SECNO=     116.86          CWSEL=     726.34

 STA=     177.     200.     212.     224.     240.     262.
  PER Q=     7.3     17.0     59.1     13.7      2.8
  AREA=     10.7     13.7     27.1     13.5      5.9
   VEL=      2.0      3.5      6.2      2.9      1.4

 *SECNO 117.200
  117.20     3.24   727.84     0.00     0.00   728.16      .32     1.41      .01   726.40
   285.       73.      160.      52.      28.      28.      23.      14.      12.   726.60
    .55     2.64     5.67     2.25     .065     .055     .065     .055   724.60   175.41
 .015708      80.      80.      80.        2        0        0     0.00    90.05   265.45


 FLOW DISTRIBUTION FOR SECNO=     117.20          CWSEL=     727.84

 STA=     175.     200.     212.     224.     240.     265.
  PER Q=     8.5     17.2     56.1     14.4      3.8
  AREA=     12.9     14.8     28.2     15.0      8.1
   VEL=      1.9      3.3      5.7      2.7      1.3

 *SECNO 117.210
 3280 CROSS SECTION    117.21  EXTENDED        .25 FEET


         ***CAMPGROUND RD.

  117.21     3.65   728.85     0.00     0.00   728.98      .13      .80      .02   727.00
   285.       87.      126.      72.      44.      33.      42.      15.      12.   727.20
```

.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

FLOW DISTRIBUTION FOR SECNO= 117.21 CWSEL= 728.85

STA=	169.	176.	200.	212.	224.	240.	272.
PER Q=	.4	13.3	16.7	44.3	16.0	9.4	
AREA=	1.6	22.8	19.8	33.1	21.6	20.8	
VEL=	.6	1.7	2.4	3.8	2.1	1.3	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.79 CWSEL= 732.83

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.1	18.9	13.3	5.2	20.0	3.2	12.6	17.7	
AREA=	21.9	27.2	18.5	7.2	22.9	6.7	19.9	38.8	
VEL=	1.2	2.0	2.0	2.0	2.5	1.4	1.8	1.3	

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

FLOW DISTRIBUTION FOR SECNO= 117.80 CWSEL= 732.87

STA=	95.	100.	105.	108.	109.	112.	113.	117.	127.
PER Q=	9.0	18.8	13.5	5.4	21.0	3.3	12.3	16.7	
AREA=	19.1	24.3	16.9	6.7	21.2	6.1	17.7	33.2	
VEL=	1.3	2.2	2.3	2.3	2.8	1.5	2.0	1.4	

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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    C        WSEL     FQ

     -1.       6.       0.       0.  0.000000     0.00     -1.0     0.    674.120   0.000

J2  NPROF     IPLOT    PREVS    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 2

CCHV=     .100 CEHV=     .300
*SECNO 110.100
 2800 NAT Q1=      64.04  WSEL=     674.12  ENC Q1=      64.04  WSEL=     674.22  RATIO=    .0000
 NAT Q1=      71.  RATIOS LOB,CH,ROB=    .1014    .5352    .3634  WSEL=     674.22
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      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=      104.2     190.9  TYPE=      4  TARGET=         .099
   110.10      5.02   674.12      0.00   674.12   674.17      .05      0.00      0.00   673.30
    170.         9.     105.       56.      14.      48.      65.         0.        0.   672.80
     0.00       .64     2.19       .87      .055     .040     .055     0.000   669.10   104.25
  .000835        0.       0.        0.        0        0        0      0.00    86.65   190.89


FLOW DISTRIBUTION FOR SECNO=     110.10          CWSEL=     674.12

STA=      104.      114.      122.      136.      154.      180.      191.
  PER Q=      2.5       2.6      61.6      12.3      15.5       5.4
   AREA=      7.0       6.6      47.8      22.9      30.4      11.8
    VEL=       .6        .7       2.2        .9        .9        .8

*SECNO 110.150
 2800 NAT Q1=      37.68  WSEL=     674.18  ENC Q1=      37.68  WSEL=     674.28  RATIO=    .0000
 NAT Q1=      42.  RATIOS LOB,CH,ROB=    .0262    .7072    .2667  WSEL=     674.28

3470 ENCROACHMENT STATIONS=      122.0     177.6  TYPE=      4  TARGET=         .100
   110.15      4.54   674.19      0.00   674.18   674.33      .14      .13       .03   673.85
    170.         0.     137.       33.       0.      41.      31.         0.        0.   673.35
     .01       0.00     3.34       1.08      .055     .040     .055     .040   669.65   122.00
  .002454       100.     100.      100.        2        0        0      0.00    55.57   177.57


FLOW DISTRIBUTION FOR SECNO=     110.15          CWSEL=     674.19

STA=      122.      136.      154.      178.
  PER Q=     80.6       9.5       9.9
   AREA=     41.0      14.2      16.3
    VEL=      3.3       1.1       1.0

*SECNO 110.200
 2800 NAT Q1=      22.13  WSEL=     674.34  ENC Q1=      23.46  WSEL=     674.44  RATIO=   -.0600
 NAT Q1=      24.  RATIOS LOB,CH,ROB=    .0003    .9861    .0135  WSEL=     674.44

3470 ENCROACHMENT STATIONS=      122.0     136.0  TYPE=      4  TARGET=         .014
   110.20      4.21   674.41      0.00   674.34   674.75      .34      .36       .06   674.40
    170.         0.     170.       0.        0.      36.       0.        0.        0.   673.90
     .02       0.00     4.66       0.00      .055     .040     .055     .040   670.20   122.00
  .005774       100.     100.      100.        2        0        0      0.00    14.00   136.00


FLOW DISTRIBUTION FOR SECNO=     110.20          CWSEL=     674.41

STA=      122.      136.
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```
 PER Q=    100.0
  AREA=     36.5
   VEL=      4.7

CCHV=    .400 CEHV=    .800
*SECNO 110.280
2800 NAT QI=     25.53  WSEL=    674.99  ENC QI=     26.66  WSEL=    675.09  RATIO=  -.0440
 NAT QI=     27.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.09

3470 ENCROACHMENT STATIONS=       2.9       14.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

        ***D/S JEWELL RD

  110.28     4.15   675.05     0.00   674.99   675.34      .29      .57      .02   674.80
   170.        0.     170.        0.       0.      39.       0.       0.       0.   674.80
    .02     0.00     4.34     0.00     .055     .040     .055     .040   670.90     2.90
 .004348     115.     115.     115.        2        0        0     0.00    11.10    14.00

FLOW DISTRIBUTION FOR SECNO=   110.28        CWSEL=   675.05

STA=       3.       14.
  PER Q=    100.0
  AREA=     39.2
   VEL=      4.3

SPECIAL BRIDGE

SB  XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.39      2.80     50.00     11.00      0.00     37.00      0.00    670.90    670.90

*SECNO 110.320

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   675.504  EGLWC=   675.533  ELLC=   674.800  PCWSE=   675.048  ELTRD=   676.000
   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    ICC       ICONT     CORAR     TOPWID      ENDST


3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  676.00 MAX ELLC=  674.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      678.00 ELREA=      676.00

  110.32     4.33   675.23     0.00   675.17   675.57      .33      .19      .03   674.80
   170.        0.     170.        0.       0.      37.       0.       0.       0.   674.80
    .02     0.00     4.64     0.00     .055     .040     .055     .040   670.90     2.90
 .010590      30.      30.      30.        2        0        0    -5.04    11.10    14.00

FLOW DISTRIBUTION FOR SECNO=   110.32        CWSEL=   675.23

STA=       3.       14.
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```
 PER Q=    100.0
  AREA=     36.6
   VEL=      4.6

*SECNO 110.500
 2800 NAT Q1=      11.83  WSEL=    675.16  ENC Q1=      12.56  WSEL=    675.26  RATIO=  -.0612
 NAT Q1=    13.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    675.26

3470 ENCROACHMENT STATIONS=      30.0      42.0  TYPE=     4  TARGET=       0.000
   110.50      3.64    675.34      0.00    675.16    676.11       .77       .20       .35    676.20
    170.        0.      170.        0.        0.       24.        0.        0.        0.    675.80
     .03      0.00      7.04      0.00      .055      .040      .055      .039    671.70     31.38
 .016621       15.       15.       15.         2         0         0      0.00     10.45     41.83


FLOW DISTRIBUTION FOR SECNO=    110.50          CWSEL=    675.34

STA=      31.       42.
 PER Q=    100.0
  AREA=     24.1
   VEL=      7.0

*SECNO 110.580
 2800 NAT Q1=      28.02  WSEL=    676.21  ENC Q1=      29.17  WSEL=    676.31  RATIO=  -.0409
 NAT Q1=    29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=       0.000

       ***D/S 27 MILE RD

   110.58      4.19    676.19      0.00    676.21    676.44       .25       .12       .21    676.70
    170.        0.      170.        0.        0.       42.        0.        1.        0.    676.70
     .03      0.00      4.02      0.00      .055      .040      .055      .039    672.00      4.02
 .003729       18.       18.       18.         3         0         0      0.00     12.07     16.08


FLOW DISTRIBUTION FOR SECNO=    110.58          CWSEL=    676.19

STA=       4.       16.
 PER Q=    100.0
  AREA=     42.3
   VEL=      4.0

CCHV=    .500 CEHV=   1.000
*SECNO 110.590
 2800 NAT Q1=      37.57  WSEL=    676.21  ENC Q1=      38.97  WSEL=    676.31  RATIO=  -.0373
 NAT Q1=    39.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.31

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70


3470 ENCROACHMENT STATIONS=       4.0      16.1  TYPE=     4  TARGET=       0.000
   110.59      4.20    676.20      0.00    676.21    676.45       .25       .00       .00    676.70
    170.        0.      170.        0.        0.       42.        0.        1.        0.    676.70
     .03      0.00      4.02      0.00      .055      .030      .055      .039    672.00      4.02
 .002091        1.        1.        1.         0         0         0      0.00     12.07     16.08
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 FLOW DISTRIBUTION FOR SECNO=    110.59          CWSEL=   676.20

 STA=       4.      16.
   PER Q=   100.0
    AREA=    42.3
     VEL=     4.0

 *SECNO 111.020
  2800 NAT Q1=     38.46  WSEL=    676.27  ENC Q1=     39.85  WSEL=    676.37  RATIO=  -.0362
  NAT Q1=     40.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.37

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  678.20 MAX ELLC=  676.70


 3470 ENCROACHMENT STATIONS=      4.0      16.1  TYPE=     4  TARGET=      0.000
    111.02      4.25   676.25      0.00   676.27   676.50      .24       .05       .00   676.70
     170.        0.     170.        0.      0.       43.        0.        1.        0.    676.70
      .03       0.00    3.96       0.00    .055     .030      .055      .039   672.00     4.02
   .002007       23.     23.        23.      1        0         0      0.00    12.07     16.08

 FLOW DISTRIBUTION FOR SECNO=    111.02          CWSEL=   676.25

 STA=       4.      16.
   PER Q=   100.0
    AREA=    42.9
     VEL=     4.0

 *SECNO 111.030
  2800 NAT Q1=     23.03  WSEL=    676.28  ENC Q1=     23.94  WSEL=    676.38  RATIO=  -.0397
  NAT Q1=     24.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    676.38
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   ME        VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3470 ENCROACHMENT STATIONS=      4.0      16.1  TYPE=     4  TARGET=      0.000
    111.03      4.26   676.26      0.00   676.28   676.50      .24       .00       .00   676.70
     170.        0.     170.        0.      0.       43.        0.        1.        0.    676.70
      .03       0.00    3.95       0.00    .055     .050      .055      .039   672.00     4.01
   .005529       1.      1.         1.       0        0         0      0.00    12.07     16.08


 FLOW DISTRIBUTION FOR SECNO=    111.03          CWSEL=   676.26

 STA=       4.      16.
   PER Q=   100.0
    AREA=    43.1
     VEL=     3.9

 CCHV=   .400 CEHV=   .800
 *SECNO 111.800
  2800 NAT Q1=     40.27  WSEL=    676.52  ENC Q1=     40.27  WSEL=    676.62  RATIO=   .0000
  NAT Q1=     47.  RATIOS LOB,CH,ROB=   .2723   .3226   .4050  WSEL=    676.62
 3280 CROSS SECTION    111.80 EXTENDED      .32 FEET


 3470 ENCROACHMENT STATIONS=     19.9      98.1  TYPE=     4  TARGET=      .136
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  111.80     4.42   676.42     0.00   676.52   676.60     .18      .07      .03   675.20
    285.       62.      118.      105.       27.       27.       42.       1.        0.   675.20
     .03     2.30     4.41     2.48     .055     .050     .055     .039   672.00    19.90
 .007946       10.       10.       10.        3         0         0     0.00    78.24    98.14

 FLOW DISTRIBUTION FOR SECNO=    111.80          CWSEL=    676.42

 STA=      20.      48.      58.      63.      72.      98.
   PER Q=    21.7     41.6      5.8     10.5     20.4
    AREA=    26.9     26.9      6.1     10.9     25.2
     VEL=     2.3      4.4      2.7      2.7      2.3

 *SECNO 111.810
  2800 NAT QI=      46.12  WSEL=    676.80  ENC QI=      46.12  WSEL=    676.90  RATIO=  0.0000
  NAT QI=      52.  RATIOS LOB,CH,ROB=    .2789    .3036    .4175  WSEL=    676.90
 3280 CROSS SECTION    111.81 EXTENDED        .55 FEET


 3470 ENCROACHMENT STATIONS=      16.1     103.6  TYPE=      4  TARGET=        .111
   111.81     4.65   676.85     0.00   676.80   676.95      .10      .33      .03   675.40
    285.       71.      100.      115.       37.       29.       56.       1.        0.   675.40
     .04     1.91     3.42     2.03     .055     .050     .055     .040   672.20    16.12
 .004260       58.       58.       58.        2         0         0     0.00    87.43   103.56

 FLOW DISTRIBUTION FOR SECNO=    111.81          CWSEL=    676.85

 STA=      16.      48.      58.      63.      72.     104.
   PER Q=    24.7     35.0      5.8     10.4     24.1
    AREA=    36.9     29.2      7.3     13.1     36.2
     VEL=     1.9      3.4      2.3      2.3      1.9

 CCHV=    .100 CEHV=    .300
 *SECNO 111.820
  2800 NAT QI=      31.22  WSEL=    676.89  ENC QI=      31.22  WSEL=    676.99  RATIO=    .0000
  NAT QI=      36.  RATIOS LOB,CH,ROB=    .2641    .3442    .3917  WSEL=    676.99
 3280 CROSS SECTION    111.82 EXTENDED        .45 FEET


 3470 ENCROACHMENT STATIONS=      19.6      97.8  TYPE=      4  TARGET=        .126
   111.82     4.54   676.94     0.00   676.89   677.09      .15      .12      .01   675.60
    285.       65.      114.      106.       31.       28.       47.       1.        0.   675.60
     .04     2.09     4.05     2.25     .070     .060     .070     .041   672.40    19.61
 .009029       20.       20.       20.        1         0         0     0.00    78.15    97.76

 FLOW DISTRIBUTION FOR SECNO=    111.82          CWSEL=    676.94

 STA=      20.      48.      58.      63.      72.      98.
   PER Q=    22.7     40.1      5.8     10.5     20.9
    AREA=    30.9     28.2      6.7     12.1     28.3
     VEL=     2.1      4.0      2.5      2.5      2.1

 *SECNO 111.830
  2800 NAT QI=      34.27  WSEL=    677.67  ENC QI=      34.27  WSEL=    677.77  RATIO=    .0000
  NAT QI=      40.  RATIOS LOB,CH,ROB=    .2708    .3249    .4042  WSEL=    677.77
 3280 CROSS SECTION    111.83 EXTENDED        .56 FEET
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3470 ENCROACHMENT STATIONS=       19.3       99.6  TYPE=      4  TARGET=          .133
   111.83      4.66    677.76      0.00    677.67    677.88       .12       .79       .00    676.30
     285.       67.      107.      111.       34.       29.       53.        1.        1.    676.30
      .05      1.95      3.65      2.08      .070      .060      .070      .044    673.10     19.27
  .006955      100.      100.      100.         2         0         0      0.00     80.32     99.60

FLOW DISTRIBUTION FOR SECNO=     111.83          CWSEL=     677.76

STA=       19.       48.       58.       63.       72.      100.
  PER Q=      23.6      37.5       5.8      10.5      22.5
   AREA=      34.4      29.3       7.3      13.2      33.0
    VEL=       2.0       3.6       2.3       2.3       1.9

*SECNO 111.840
 2800 NAT Q1=      33.98  WSEL=     678.15  ENC Q1=      33.98  WSEL=     678.25  RATIO=    .0000
 NAT Q1=      39.  RATIOS LOB,CH,ROB=   .2698   .3279   .4023  WSEL=     678.25
3280 CROSS SECTION     111.84 EXTENDED        .55 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=       18.7       99.9  TYPE=      4  TARGET=          .126

        ***FOOTBRIDGE

   111.84      4.65    678.25      0.00    678.15    678.37       .12       .49       .00    676.80
     285.       67.      107.      111.       35.       29.       53.        1.        1.    676.80
      .06      1.95      3.66      2.08      .070      .060      .070      .045    673.60     18.70
  .007037       70.       70.       70.         2         0         0      0.00     81.21     99.92

FLOW DISTRIBUTION FOR SECNO=     111.84          CWSEL=     678.25

STA=       19.       48.       58.       63.       72.      100.
  PER Q=      23.7      37.5       5.8      10.5      22.5
   AREA=      34.6      29.2       7.3      13.1      33.0
    VEL=       1.9       3.7       2.3       2.3       1.9

*SECNO 111.850
 2800 NAT Q1=      16.42  WSEL=     678.14  ENC Q1=      16.42  WSEL=     678.24  RATIO=    .0000
 NAT Q1=      20.  RATIOS LOB,CH,ROB=   .1705   .2016   .6280  WSEL=     678.24
3280 CROSS SECTION     111.85 EXTENDED        .50 FEET


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

3470 ENCROACHMENT STATIONS=       31.1      105.1  TYPE=      4  TARGET=          .158
   111.85      4.60    678.20      0.00    678.14    678.41       .21       .01       .03    676.80
     285.       24.       72.      189.       14.       21.       48.        1.        1.    676.80
      .06      1.70      3.47      3.96      .070      .060      .070      .045    673.60     31.09
  .035841        1.        1.        1.         2         0         0    -22.37     73.97    105.05
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 FLOW DISTRIBUTION FOR SECNO=    111.85          CWSEL=    678.20

 STA=      31.      48.      58.      63.      72.     105.
   PER Q=     8.5     25.2      1.4     12.7     52.2
    AREA=    14.3     20.7      3.0      9.0     35.7
     VEL=     1.7      3.5      1.4      4.0      4.2

 *SECNO 111.860
  2800 NAT Q1=     19.71  WSEL=    678.25  ENC Q1=     19.71  WSEL=    678.35  RATIO=   .0000
  NAT Q1=    23.  RATIOS LOB,CH,ROB=   .1808   .1826   .6366  WSEL=    678.35
 3280 CROSS SECTION    111.86 EXTENDED       .65 FEET


 3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  678.00 MAX ELLC=  677.20

 3470 ENCROACHMENT STATIONS=      30.1     108.5  TYPE=     4  TARGET=        .156
    111.86     4.75   678.35     0.00   678.25   678.50      .15      .08      .01   676.80
       285.      26.      64.     195.      18.      22.      58.       1.       1.   676.80
       .06     1.49     2.88     3.37     .070     .060     .070     .045   673.60    30.12
  .022447       3.       3.       3.        2        0        0   -22.75    78.41   108.54


 FLOW DISTRIBUTION FOR SECNO=    111.86          CWSEL=    678.35

 STA=      30.      48.      58.      63.      72.     109.
   PER Q=     9.2     22.4      1.7     12.7     54.1
    AREA=    17.6     22.2      3.7     10.3     43.7
     VEL=     1.5      2.9      1.3      3.5      3.5

 *SECNO 111.870
  2800 NAT Q1=     40.38  WSEL=    678.29  ENC Q1=     40.38  WSEL=    678.39  RATIO=   .0000
  NAT Q1=    46.  RATIOS LOB,CH,ROB=   .2798   .2986   .4216  WSEL=    678.39
 3280 CROSS SECTION    111.87 EXTENDED       .74 FEET


 3470 ENCROACHMENT STATIONS=      16.8     104.5  TYPE=     4  TARGET=        .124
    111.87     4.84   678.44     0.00   678.29   678.52      .08      .01      .01   676.80
       285.      72.      95.     118.      42.      31.      66.       1.       1.   676.80
       .06     1.71     3.06     1.79     .070     .060     .070     .045   673.60    16.76
  .004531       1.       1.       1.        2        0        0     0.00    87.76   104.52


 FLOW DISTRIBUTION FOR SECNO=    111.87          CWSEL=    678.44

 STA=      17.      48.      58.      63.      72.     105.
   PER Q=    25.2     33.4      5.7     10.3     25.4
    AREA=    42.1     31.1      8.2     14.7     43.0
     VEL=     1.7      3.1      2.0      2.0      1.7

 *SECNO 111.900
  2800 NAT Q1=     31.65  WSEL=    679.29  ENC Q1=     31.65  WSEL=    679.39  RATIO=   .0000
  NAT Q1=    36.  RATIOS LOB,CH,ROB=   .2647   .3424   .3929  WSEL=    679.39
 3280 CROSS SECTION    111.90 EXTENDED       .48 FEET


 3470 ENCROACHMENT STATIONS=      19.1      98.4  TYPE=     4  TARGET=        .121
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  111.90     4.58   679.38     0.00   679.29   679.52      .14      .99      .02   678.00
  285.       66.    111.       108.    32.      29.        49.       2.       1.    678.00
  .07        2.04   3.90       2.18    .070     .060       .070     .048   674.80   19.05
 .008259     165.   165.       165.    2        0          0        0.00    79.38    98.43

 FLOW DISTRIBUTION FOR SECNO=   111.90        CWSEL=   679.38

 STA=      19.     48.     58.     63.     72.     98.
  PER Q=   23.2    39.1     5.8    10.5    21.4
  AREA=    32.4    28.5     6.9    12.5    29.8
  VEL=      2.0     3.9     2.4     2.4     2.0

 *SECNO 111.910
  2800 NAT Q1=     19.80  WSEL=   679.86  ENC Q1=     19.80  WSEL=   679.96  RATIO=   .0000
  NAT Q1=    23.  RATIOS LOB,CH,ROB=   .3656   .2498   .3846  WSEL=   679.96
 3280 CROSS SECTION   111.91 EXTENDED      .66 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=     12.4      91.6  TYPE=     4  TARGET=       .153

       ***CONCRETE WEIR

  111.91     3.25   679.95     0.00   679.86   680.17      .21      .62      .02   679.00
  285.       97.    85.        103.    34.      16.        35.       2.       1.    679.00
  .08        2.85   5.16       2.95    .070     .060       .070     .049   676.70   12.37
 .020996     50.    50.        50.     1        0          0        0.00    79.23    91.60

 FLOW DISTRIBUTION FOR SECNO=   111.91        CWSEL=   679.95

 STA=      12.     50.     55.     90.     92.
  PER Q=   34.2    29.7    35.0     1.1
  AREA=    34.2    16.4    33.4     1.5
  VEL=      2.8     5.2     3.0     2.2

 *SECNO 111.920
  2800 NAT Q1=     38.59  WSEL=   680.45  ENC Q1=     38.59  WSEL=   680.55  RATIO=   .0000
  NAT Q1=    44.  RATIOS LOB,CH,ROB=   .2771   .3067   .4162  WSEL=   680.55
 3280 CROSS SECTION   111.92 EXTENDED      .67 FEET


 3470 ENCROACHMENT STATIONS=     16.9     103.7  TYPE=     4  TARGET=       .121
  111.92     4.76   680.56     0.00   680.45   680.65      .09      .47      .01   679.00
  285.       71.    99.        116.    40.      30.        62.       2.       1.    679.00
  .08        1.78   3.25       1.87    .070     .060       .070     .049   675.80   16.85
 .005256     50.    50.        50.     1        0          0        0.00    86.82   103.67


 FLOW DISTRIBUTION FOR SECNO=   111.92        CWSEL=   680.56

 STA=      17.     48.     58.     72.    104.
  PER Q=   24.8    34.6    16.0    24.6
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     AREA=      39.8      30.4      21.9      39.9
      VEL=       1.8       3.2       2.1       1.8

  *SECNO 111.930
   2800 NAT Q1=      33.37  WSEL=     680.75  ENC Q1=      33.37  WSEL=     680.85  RATIO=    .0000
   NAT Q1=      39.  RATIOS LOB,CH,ROB=    .2692    .3295    .4012  WSEL=     680.85
  3280 CROSS SECTION     111.93 EXTENDED        .53 FEET


  3470 ENCROACHMENT STATIONS=       19.7      98.8  TYPE=       4  TARGET=         .135
     111.93      4.64    680.84      0.00    680.75    680.97       .12       .31       .01    679.40
      285.       66.       109.      110.       33.       29.       52.        2.        1.    679.40
       .09      2.00      3.75      2.13      .070      .060      .070      .050    676.20     19.68
   .007449       50.       50.       50.         1         0         0      0.00     79.16     98.83


  FLOW DISTRIBUTION FOR SECNO=     111.93          CWSEL=     680.84

  STA=       20.       48.       58.       72.       99.
    PER Q=      23.3      38.2      16.4      22.1
     AREA=      33.2      29.0      20.1      31.5
      VEL=       2.0       3.8       2.3       2.0

  *SECNO 111.940
   2800 NAT Q1=      35.21  WSEL=     681.87  ENC Q1=      35.21  WSEL=     681.97  RATIO=   0.0000
   NAT Q1=      40.  RATIOS LOB,CH,ROB=    .2716    .3226    .4057  WSEL=     681.97
  3280 CROSS SECTION     111.94 EXTENDED        .58 FEET


  3470 ENCROACHMENT STATIONS=       17.8     101.3  TYPE=       4  TARGET=         .121
     111.94      4.68    681.98      0.00    681.87    682.09       .11      1.12       .00    680.50
      285.       69.       104.      112.       36.       30.       56.        2.        2.    680.50
       .10      1.89      3.53      2.01      .070      .060      .070      .051    677.30     17.78
   .006442       162.      162.      162.         2         0         0      0.00     83.50    101.28


  FLOW DISTRIBUTION FOR SECNO=     111.94          CWSEL=     681.98

  STA=       18.       48.       58.       72.      101.
    PER Q=      24.1      36.5      16.1      23.2
     AREA=      36.4      29.5      20.8      35.1
      VEL=       1.9       3.5       2.2       1.9

  *SECNO 111.950
   2800 NAT Q1=      37.23  WSEL=     683.62  ENC Q1=      37.23  WSEL=     683.72  RATIO=    .0000
   NAT Q1=      42.  RATIOS LOB,CH,ROB=    .2749    .3131    .4120  WSEL=     683.72
  3280 CROSS SECTION     111.95 EXTENDED        .61 FEET


  3470 ENCROACHMENT STATIONS=       17.1     102.9  TYPE=       4  TARGET=         .119
     111.95      4.72    683.72      0.00    683.62    683.82       .10      1.72       .00    682.20
      285.       70.       101.      114.       38.       30.       59.        3.        2.    682.20
       .14      1.83      3.40      1.94      .070      .060      .070      .053    679.00     17.06
   .005889       280.      280.      280.         3         0         0      0.00     85.80    102.86


  FLOW DISTRIBUTION FOR SECNO=     111.95          CWSEL=     683.72
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STA=      17.      48.      58.      72.     103.
  PER Q=    24.5     35.6     16.0     24.0
   AREA=    38.0     29.8     21.2     37.5
    VEL=     1.8      3.4      2.1      1.8

*SECNO 111.970
 2800 NAT Q1=     41.42  WSEL=   683.86  ENC Q1=    41.42  WSEL=   683.96  RATIO=   .0000
 NAT Q1=    46.  RATIOS LOB,CH,RCB=   .0916   .4983   .4101  WSEL=   683.96
3280 CROSS SECTION   111.97 EXTENDED      .96 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=    199.0    268.4  TYPE=     4  TARGET=      .095
   111.97     4.56   683.96     0.00   683.86   684.09      .13      .26      .01   682.60
     285.      14.      157.     114.       9.      45.      63.       3.       2.    681.70
      .14     1.55     3.48     1.80     .070     .060     .070     .053   679.40   198.96
  .004752      50.      50.      50.        0        0        0     0.00    69.43   268.40


FLOW DISTRIBUTION FOR SECNO=    111.97          CWSEL=    683.96

STA=     199.     206.     220.     235.     268.
  PER Q=    4.9     55.1     20.7     19.4
   AREA=    8.9     45.1     27.1     36.3
    VEL=    1.5      3.5      2.2      1.5

*SECNO 111.980
 2800 NAT Q1=     34.65  WSEL=   684.39  ENC Q1=    34.65  WSEL=   684.49  RATIO=   .0000
 NAT Q1=    39.  RATIOS LOB,CH,ROB=   .0841   .5400   .3759  WSEL=   684.49
3280 CROSS SECTION   111.98 EXTENDED      .78 FEET


3470 ENCROACHMENT STATIONS=    200.6    261.2  TYPE=     4  TARGET=      .102
   111.98     4.39   684.49     0.00   684.39   684.67      .18      .57      .02   683.30
     285.      10.      172.     103.       6.      43.      50.       4.       2.    682.40
      .15     1.68     4.03     2.06     .070     .060     .070     .053   680.10   200.57
  .006886      100.     100.     100.        1        0        0     0.00    60.64   261.22


FLOW DISTRIBUTION FOR SECNO=    111.98          CWSEL=    684.49

STA=     201.     206.     220.     235.     261.
  PER Q=    3.6     60.4     21.0     15.1
   AREA=    6.1     42.7     24.5     25.4
    VEL=    1.7      4.0      2.4      1.7

*SECNO 111.990
 2800 NAT Q1=     33.97  WSEL=   685.77  ENC Q1=    33.97  WSEL=   685.87  RATIO=  0.0000
 NAT Q1=    38.  RATIOS LOB,CH,ROB=   .0829   .5465   .3706  WSEL=   685.87
3280 CROSS SECTION   111.99 EXTENDED      .78 FEET


3470 ENCROACHMENT STATIONS=    200.3    261.0  TYPE=     4  TARGET=      .097
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 111.99     4.37   685.87     0.00   685.77   686.05     .18     1.38     .00   684.70
 285.       11.    172.       102.     6.       43.      50.       4.       3.    683.80
   .17      1.69   4.04       2.06   .070     .060     .070     .054   681.50   200.30
.006931     200.   200.       200.     1        0        0      0.00    60.69   260.99

 FLOW DISTRIBUTION FOR SECNO=    111.99          CWSEL=    685.87

 STA=     200.     206.     220.     235.     261.
  PER Q=    3.7     60.4     20.9     14.9
  AREA=     6.3     42.6     24.4     25.1
   VEL=     1.7      4.0      2.4      1.7

*SECNO 112.000
 2800 NAT Q1=      34.17  WSEL=    688.27  ENC Q1=      34.17  WSEL=    688.37  RATIO=    .0000
 NAT Q1=     38.  RATIOS LOB,CH,ROB=    .0832    .5447    .3721  WSEL=    688.37
3280 CROSS SECTION    112.00 EXTENDED        .77 FEET


3470 ENCROACHMENT STATIONS=     200.4     261.1  TYPE=     4  TARGET=        .098
 112.00     4.37   688.37     0.00   688.27   688.55     .18     2.50     .00   687.20
 285.       10.    173.       102.     6.       42.      49.       5.       3.    686.30
   .20      1.70   4.06       2.07   .070     .060     .070     .055   684.00   200.37
.007036     358.   358.       358.     3        0        0      0.00    60.71   261.07

 FLOW DISTRIBUTION FOR SECNO=    112.00          CWSEL=    688.37

 STA=     200.     206.     220.     235.     261.
  PER Q=    3.7     60.6     20.9     14.8
  AREA=     6.2     42.5     24.3     24.9
   VEL=     1.7      4.1      2.5      1.7

*SECNO 112.100
 2800 NAT Q1=      34.42  WSEL=    690.38  ENC Q1=      34.42  WSEL=    690.48  RATIO=    .0000
 NAT Q1=     38.  RATIOS LOB,CH,ROB=    .0837    .5423    .3740  WSEL=    690.48
3280 CROSS SECTION    112.10 EXTENDED        .79 FEET


3470 ENCROACHMENT STATIONS=     200.5     261.1  TYPE=     4  TARGET=        .100
 112.10     4.39   690.49     0.00   690.38   690.66     .18     2.11     .00   689.30
 285.       10.    172.       103.     6.       43.      50.       6.       4.    688.40
   .22      1.68   4.02       2.06   .070     .060     .070     .056   686.10   200.47
.006818     305.   305.       305.     3        0        0      0.00    60.68   261.15

 FLOW DISTRIBUTION FOR SECNO=    112.10          CWSEL=    690.49

 STA=     200.     206.     220.     235.     261.
  PER Q=    3.7     60.2     21.0     15.1
  AREA=     6.2     42.7     24.6     25.5
   VEL=     1.7      4.0      2.4      1.7

*SECNO 112.200
 2800 NAT Q1=      33.22  WSEL=    692.15  ENC Q1=      33.22  WSEL=    692.25  RATIO=    .0000
 NAT Q1=     37.  RATIOS LOB,CH,ROB=    .0820    .5510    .3670  WSEL=    692.25
3280 CROSS SECTION    112.20 EXTENDED        .75 FEET
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	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= 200.8 259.7 TYPE= 4 TARGET= .102

112.20	4.35	692.25	0.00	692.15	692.44	.19	1.77	.00	691.10
285.	10.	175.	100.	6.	42.	48.	6.	4.	690.20
.25	1.71	4.14	2.11	.070	.060	.070	.056	687.90	200.83
.007366	250.	250.	250.	2	0	0	0.00	58.85	259.68

FLOW DISTRIBUTION FOR SECNO= 112.20 CWSEL= 692.25

STA=	201.	206.	220.	235.	260.
PER Q=	3.4	61.4	21.0	14.2	
AREA=	5.6	42.2	24.0	23.5	
VEL=	1.7	4.1	2.5	1.7	

*SECNO 112.300
2800 NAT Q1= 35.20 WSEL= 693.91 ENC Q1= 35.20 WSEL= 694.01 RATIO= .0000
NAT Q1= 39. RATIOS LOB,CH,ROB= .0848 .5365 .3787 WSEL= 694.01
3280 CROSS SECTION 112.30 EXTENDED .81 FEET

3470 ENCROACHMENT STATIONS= 200.3 262.0 TYPE= 4 TARGET= .100

112.30	4.40	694.00	0.00	693.91	694.17	.17	1.73	.00	692.80
285.	11.	170.	104.	6.	43.	52.	7.	4.	691.90
.27	1.67	3.95	2.02	.070	.060	.070	.056	689.60	200.30
.006528	250.	250.	250.	2	0	0	0.00	61.71	262.01

FLOW DISTRIBUTION FOR SECNO= 112.30 CWSEL= 694.00

STA=	200.	206.	220.	235.	262.
PER Q=	3.8	59.6	21.0	15.6	
AREA=	6.5	43.0	24.9	26.7	
VEL=	1.7	3.9	2.4	1.7	

*SECNO 112.400
2800 NAT Q1= 34.06 WSEL= 694.26 ENC Q1= 34.06 WSEL= 694.36 RATIO= .0000
NAT Q1= 38. RATIOS LOB,CH,ROB= .0022 .6727 .3250 WSEL= 694.36

3470 ENCROACHMENT STATIONS= 252.0 306.0 TYPE= 4 TARGET= .106

112.40	4.36	694.36	0.00	694.26	694.52	.16	.34	.00	694.00
285.	0.	214.	71.	0.	61.	34.	7.	4.	692.80
.27	0.00	3.52	2.05	.070	.060	.070	.056	690.00	252.00
.007162	50.	50.	50.	2	0	0	0.00	53.97	305.97

FLOW DISTRIBUTION FOR SECNO= 112.40 CWSEL= 694.36

STA=	252.	278.	304.	306.
PER Q=	75.2	23.9	.9	
AREA=	60.8	32.6	1.9	
VEL=	3.5	2.1	1.3	

*SECNO 112.410

```
 2800 NAT Q1=      33.49  WSEL=     694.64  ENC Q1=      33.49  WSEL=     694.74  RATIO=    .0000
 NAT Q1=      38.  RATIOS LOB,CH,ROB=    .0021    .6754    .3225  WSEL=     694.74

3470 ENCROACHMENT STATIONS=      252.0      304.6  TYPE=      4  TARGET=          .110

        ***FOOTBRIDGE

   112.41      4.35    694.75      0.00    694.64    694.92       .17       .40       .00    694.40
     285.        0.      216.       69.        0.       61.       33.        7.        4.    693.20
      .28      0.00      3.56      2.09      .070      .060      .070      .056    690.40    252.00
  .007313       55.       55.       55.         2         0         0      0.00     52.61    304.61

FLOW DISTRIBUTION FOR SECNO=     112.41          CWSEL=     694.75

STA=      252.      278.      304.      305.
  PER Q=      75.8      24.0        .2
   AREA=      60.7      32.5        .6
    VEL=       3.6       2.1        .9

*SECNO 112.420
 2800 NAT Q1=      25.42  WSEL=     694.68  ENC Q1=      25.42  WSEL=     694.78  RATIO=    .0000
 NAT Q1=      29.  RATIOS LOB,CH,ROB=    .0034    .5518    .4448  WSEL=     694.78

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40

3470 ENCROACHMENT STATIONS=      252.0      310.8  TYPE=      4  TARGET=          .119
   112.42      4.38    694.78      0.00    694.68    694.93       .15       .01       .00    694.40
     285.        0.      178.      107.        0.       54.       40.        7.        4.    693.20
      .28      0.00      3.28      2.70      .070      .060      .070      .056    690.40    252.00
  .012633        1.        1.        1.         2         0         0     -7.20     58.81    310.81

FLOW DISTRIBUTION FOR SECNO=     112.42          CWSEL=     694.78

STA=      252.      278.      304.      311.
  PER Q=      62.5      32.8       4.7
   AREA=      54.3      33.3       6.3
    VEL=       3.3       2.8       2.1

*SECNO 112.430
 2800 NAT Q1=      29.33  WSEL=     694.79  ENC Q1=      29.33  WSEL=     694.89  RATIO=    .0000
 NAT Q1=      33.  RATIOS LOB,CH,ROB=    .0060    .5257    .4683  WSEL=     694.89
3280 CROSS SECTION     112.43 EXTENDED        .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

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  692.20 MAX ELLC=  691.40

3470 ENCROACHMENT STATIONS=      252.0      315.7  TYPE=      4  TARGET=          .113
   112.43      4.50    694.90      0.00    694.79    695.02       .12       .09       .00    694.40
     285.        0.      168.      117.        0.       57.       48.        7.        4.    693.20
      .28      0.00      2.93      2.42      .070      .060      .070      .056    690.40    252.00
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 .009358      8.      8.      8.      2       0       0     -7.20    63.67   315.67

FLOW DISTRIBUTION FOR SECNO=    112.43          CWSEL=    694.90

STA=     252.     278.     304.     316.
  PER Q=     59.0     32.9      8.2
   AREA=     57.4     36.4     11.9
    VEL=      2.9      2.6      2.0

*SECNO 112.440
 2800 NAT Q1=      39.95  WSEL=    694.79  ENC Q1=      39.95  WSEL=    694.89  RATIO=    .0000
 NAT Q1=     44.  RATIOS LOB,CH,ROB=   .0046   .6416   .3538  WSEL=    694.89
3280 CROSS SECTION    112.44 EXTENDED       .01 FEET


3470 ENCROACHMENT STATIONS=      252.0     314.8  TYPE=      4  TARGET=        .089
   112.44     4.51   694.91     0.00   694.79   695.02      .12      .01      .00   694.40
     285.       0.     199.      86.       0.      65.      48.       7.       5.    693.20
      .28     0.00     3.08     1.79     .070     .060     .070     .056   690.40   252.00
  .005057       1.       1.       1.        0        0        0     0.00    62.85   314.85

FLOW DISTRIBUTION FOR SECNO=    112.44          CWSEL=    694.91

STA=     252.     278.     304.     315.
  PER Q=     70.0     24.3      5.7
   AREA=     64.8     36.6     11.1
    VEL=      3.1      1.9      1.5

*SECNO 112.500
 2800 NAT Q1=      34.90  WSEL=    694.98  ENC Q1=      34.90  WSEL=    695.08  RATIO=    .0000
 NAT Q1=     39.  RATIOS LOB,CH,ROB=   .0025   .6682   .3293  WSEL=    695.08

3470 ENCROACHMENT STATIONS=      252.0     307.5  TYPE=      4  TARGET=        .102
   112.50     4.38   695.08     0.00   694.98   695.24      .15      .20      .01   694.70
     285.       0.     211.      74.       0.      62.      37.       7.       5.    693.50
      .28     0.00     3.43     1.99     .070     .060     .070     .056   690.70   252.00
  .006654      35.      35.      35.        0        0        0     0.00    55.51   307.51

FLOW DISTRIBUTION FOR SECNO=    112.50          CWSEL=    695.08

STA=     252.     278.     304.     308.
  PER Q=     74.2     24.1      1.7
   AREA=     61.7     33.5      3.4
    VEL=      3.4      2.1      1.4

*SECNO 113.200
 2800 NAT Q1=      34.86  WSEL=    697.28  ENC Q1=      34.86  WSEL=    697.38  RATIO=    .0000
 NAT Q1=     39.  RATIOS LOB,CH,ROB=   .0026   .6674   .3300  WSEL=    697.38

3470 ENCROACHMENT STATIONS=      252.0     306.7  TYPE=      4  TARGET=        .107
   113.20     4.39   697.39     0.00   697.28   697.54      .15     2.31      .00   697.00
     285.       0.     212.      73.       0.      62.      36.       8.       5.    695.80
      .31     0.00     3.44     2.01     .070     .060     .070     .057   693.00   252.00
  .006716     345.     345.     345.        3        0        0     0.00    54.70   306.70

FLOW DISTRIBUTION FOR SECNO=    113.20          CWSEL=    697.39
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 STA=      252.      278.      304.      307.
   PER Q=     74.5      24.2       1.3
    AREA=     61.7      33.5       2.6
     VEL=      3.4       2.1       1.4

 CCHV=     .400  CEHV=     .800
 *SECNO 113.280
  2800 NAT Q1=      21.43  WSEL=     698.44  ENC Q1=      22.09  WSEL=     698.54  RATIO=   -.0308
  NAT Q1=      22.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     698.54

 3470 ENCROACHMENT STATIONS=        7.5       17.5  TYPE=      4  TARGET=       0.000

        ***D/S M-53

    113.28      5.23    698.53      0.00    698.44    699.16       .63      1.24       .38    698.80
     285.         0.     285.         0.        0.       45.        0.        8.        5.    698.80
      .32      0.00      6.35      0.00      .065      .055      .065      .057    693.30      7.51
  .016754      123.      123.      123.         2         0         0      0.00      9.99     17.49


 FLOW DISTRIBUTION FOR SECNO=     113.28          CWSEL=     698.53

 STA=        8.       18.
   PER Q=    100.0
    AREA=     44.9
     VEL=      6.3

 CCHV=     .500  CEHV=    1.000
 *SECNO 113.290
  2800 NAT Q1=      52.71  WSEL=     698.81  ENC Q1=      53.91  WSEL=     698.91  RATIO=   -.0228
  NAT Q1=      54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     698.91
    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL      OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

    113.29      5.58    698.88      0.00    698.81    699.28       .40       .01       .11    699.50
     285.         0.     285.         0.        0.       56.        0.        8.        5.    699.50
      .32      0.00      5.05      0.00      .065      .030      .065      .057    693.30       .01
  .002821         1.        1.        1.         2         0         0      0.00     10.18     10.19


 FLOW DISTRIBUTION FOR SECNO=     113.29          CWSEL=     698.88

 STA=        0.       10.
   PER Q=    100.0
    AREA=     56.4
     VEL=      5.1

 *SECNO 113.300
  2800 NAT Q1=      52.20  WSEL=     698.88  ENC Q1=      53.58  WSEL=     698.98  RATIO=   -.0263
  NAT Q1=      54.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     698.98
    113.30      5.55    698.95      0.00    698.88    699.36       .40       .07       .00    699.60
     285.         0.     285.         0.        0.       56.        0.        8.        5.    699.60
      .32      0.00      5.09      0.00      .065      .030      .065      .056    693.40       .01
  .002867        25.       25.       25.         0         0         0      0.00     10.18     10.19


 FLOW DISTRIBUTION FOR SECNO=     113.30          CWSEL=     698.95
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 STA=        0.       10.
   PER Q=    100.0
    AREA=     56.0
     VEL=      5.1

 *SECNO 113.310
  2800 NAT QI=      51.97  WSEL=    698.96  ENC QI=      53.26  WSEL=    699.06  RATIO=  -.0247
  NAT QI=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.06

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.31      5.53   699.03      0.00   698.96   699.43      .41      .07      .00   699.70
     285.         0.     285.        0.       0.      56.        0.       8.       5.   699.70
      .32      0.00     5.11      0.00     .065     .030     .065     .056   693.50      .01
   .002906       25.      25.       25.        0        0        0     0.00    10.18    10.19

 FLOW DISTRIBUTION FOR SECNO=    113.31          CWSEL=    699.03

 STA=        0.       10.
   PER Q=    100.0
    AREA=     55.8
     VEL=      5.1

 *SECNO 113.330
  2800 NAT QI=      51.92  WSEL=    699.35  ENC QI=      53.22  WSEL=    699.45  RATIO=  -.0250
  NAT QI=     53.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.45

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  702.40 MAX ELLC=  699.50

    113.33      5.51   699.41      0.00   699.35   699.82      .41      .39      .00   700.10
     285.         0.     285.        0.       0.      56.        0.       8.       5.   700.10
      .33      0.00     5.13      0.00     .065     .030     .065     .055   693.90      .01
   .002932       132.     132.      132.        0        0        0     0.00    10.18    10.19

 FLOW DISTRIBUTION FOR SECNO=    113.33          CWSEL=    699.41

 STA=        0.       10.
   PER Q=    100.0
    AREA=     55.6
     VEL=      5.1

 *SECNO 113.420
  2800 NAT QI=      28.36  WSEL=    699.36  ENC QI=      29.07  WSEL=    699.46  RATIO=  -.0253
  NAT QI=     29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    699.46
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00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Unnamed Trib No. 1

3) WATERCOURSE:

4) DOCUMENT TYPE: Sensitivity

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.    674.120   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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     0.000     0.000     0.000     0.000

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

       ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     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   674.800   676.000     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   678.000   676.000     0.000

X1   110.500    11.000    30.000    42.000    15.000    15.000    15.000     0.000     0.000     0.000
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GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***D/S 27 MILE RD									
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
	***FOOTBRIDGE									
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000

***CONCRETE WEIR

X1	111.910	8.000	50.000	55.100	50.000	50.000	50.000	0.000	3.000	0.000
GR	676.300	0.000	676.100	10.000	676.000	50.000	673.700	50.100	673.700	55.000
GR	676.000	55.100	676.000	90.000	677.800	152.000	0.000	0.000	0.000	0.000
X1	111.920	14.000	48.000	58.000	50.000	50.000	50.000	0.000	3.600	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	72.000	676.600	134.000	677.800	152.000	0.000	0.000
X1	111.930	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.400	0.000
X1	111.940	0.000	0.000	0.000	162.000	162.000	162.000	0.000	1.100	0.000
X1	111.950	0.000	0.000	0.000	280.000	280.000	280.000	0.000	1.700	0.000
X1	111.970	14.000	206.000	220.000	50.000	50.000	50.000	0.000	-4.600	0.000
GR	687.600	190.000	687.200	206.000	686.200	210.000	684.600	212.000	684.500	213.000
GR	684.400	214.000	684.000	215.000	684.400	216.000	684.300	217.000	684.600	218.000
GR	686.300	220.000	687.200	235.000	688.000	284.000	688.900	313.000	0.000	0.000
X1	111.980	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
X1	111.990	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.400	0.000
X1	112.000	0.000	0.000	0.000	358.000	358.000	358.000	0.000	2.500	0.000
X1	112.100	0.000	0.000	0.000	305.000	305.000	305.000	0.000	2.100	0.000
X1	112.200	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.800	0.000
X1	112.300	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.700	0.000
X1	112.400	15.000	252.000	278.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	697.500	242.000	697.000	252.000	696.000	258.000	695.200	266.000	693.600	268.000
GR	693.200	269.000	693.000	270.000	693.000	271.000	693.000	272.000	693.200	273.000
GR	693.600	274.000	695.800	278.000	696.400	304.000	696.900	338.000	697.800	368.000

***FOOTBRIDGE

X1	112.410	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.400	0.000
X1	112.420	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	691.400	692.200	0.000	0.000	0.000	0.000	0.000

X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S M-53

X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000
X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000

X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	709.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
***D/S VAN DYKE RD										
X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	716.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000

SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200	
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000	
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000	
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000	
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000	
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.21	676.21	0.00	0.00	676.46	.25	.13	.26	676.70
170.	0.	170.	0.	0.	42.	0.	1.	1.	676.70
.03	0.00	4.00	0.00	.055	.040	.055	.039	672.00	4.02
.003681	18.	18.	18.	3	0	0	0.00	12.07	16.08

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.21	676.21	0.00	0.00	676.46	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.99	0.00	.055	.030	.055	.039	672.00	4.02
.002047	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.27	676.27	0.00	0.00	676.51	.24	.05	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.92	0.00	.055	.030	.055	.039	672.00	4.01
.001954	23.	23.	23.	0	0	0	0.00	12.07	16.09

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

Remainder of flow has diverted into Yates Drain (115cfs)

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60
285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.54	678.14	0.00	0.00	678.27	.13	.01	.01	676.80
285.	45.	63.	176.	28.	20.	58.	1.	1.	676.80
.06	1.60	3.13	3.03	.070	.060	.070	.045	673.60	0.00
.030130	1.	1.	1.	1	0	0	-30.80	136.29	136.29

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .55 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.65	678.25	0.00	0.00	678.35	.10	.07	.00	676.80
285.	49.	57.	179.	33.	21.	66.	1.	1.	676.80
.06	1.47	2.69	2.72	.070	.060	.070	.045	673.60	0.00
.020903	3.	3.	3.	2	0	0	-30.80	137.75	137.75

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .58 FEET

111.87	4.69	678.29	0.00	0.00	678.36	.07	.01	.00	676.80
285.	78.	92.	116.	50.	30.	76.	1.	1.	676.80
.06	1.56	3.10	1.53	.070	.060	.070	.045	673.60	0.00
.004980	1.	1.	1.	1	0	0	0.00	138.22	138.22

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .40 FEET

111.90	4.49	679.29	0.00	0.00	679.41	.11	1.03	.01	678.00
285.	73.	105.	107.	41.	28.	62.	2.	2.	678.00
.08	1.77	3.79	1.73	.070	.060	.070	.048	674.80	0.00
.008107	165.	165.	165.	3	0	0	0.00	135.52	135.52

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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

***CONCRETE WEIR

111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.98	4.29	684.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007038	200.	200.	200.	2	0	0	0.00	102.78	292.78

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10

285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

.30	.52	3.04	1.50	.070	.060	.070	.056	690.40	243.98
.005089	1.	1.	1.	0	0	0	0.00	110.71	354.69

*SECNO 112.500

112.50	4.28	694.98	0.00	0.00	695.11	.13	.20	.01	694.70
285.	0.	197.	87.	1.	59.	54.	8.	8.	693.50
.31	.46	3.36	1.61	.070	.060	.070	.056	690.70	246.50
.006668	35.	35.	35.	2	0	0	0.00	104.01	350.51

*SECNO 113.200

113.20	4.28	697.28	0.00	0.00	697.41	.13	2.30	.00	697.00
285.	0.	197.	87.	1.	59.	54.	9.	8.	695.80
.34	.46	3.36	1.61	.070	.060	.070	.057	693.00	246.52
.006686	345.	345.	345.	3	0	0	0.00	103.95	350.47

CCHV= .400 CEHV= .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.14	698.44	0.00	0.00	699.09	.65	1.26	.41	698.80
285.	0.	285.	0.	0.	44.	0.	9.	9.	698.80
.35	0.00	6.48	0.00	.065	.055	.065	.057	693.30	7.51
.017682	123.	123.	123.	2	0	0	0.00	9.98	17.49

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .47 FEET

113.82	6.16	702.06	0.00	0.00	702.39	.33	.96	.01	702.20
285.	0.	266.	19.	0.	56.	13.	10.	9.	701.50
.37	0.00	4.76	1.45	.065	.055	.065	.055	695.90	140.40
.009973	100.	100.	100.	2	0	0	0.00	45.60	186.00

*SECNO 113.830

3280 CROSS SECTION 113.83 EXTENDED .46 FEET

113.83	6.16	703.56	0.00	0.00	703.89	.33	1.50	.00	703.70

285.	0.	266.	19.	0.	56.	13.	10.	9.	703.00
.38	0.00	4.76	1.45	.065	.055	.065	.055	697.40	140.41
.010006	150.	150.	150.	2	0	0	0.00	45.59	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .46 FEET

113.90	6.17	705.57	0.00	0.00	705.90	.33	2.00	.00	705.70
285.	0.	266.	19.	0.	56.	13.	11.	9.	705.00
.40	0.00	4.77	1.45	.065	.055	.065	.055	699.40	140.41
.010038	200.	200.	200.	0	0	0	0.00	45.59	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.85	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80

285.	0.	0.	285.	0.	0.	61.	13.	11.	720.80
.48	0.00	0.00	4.65	.065	.055	.065	.055	716.20	178.00
.012726	100.	100.	100.	1	0	0	0.00	33.93	211.93

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.00 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
115.20	4.70	721.60	0.00	0.00	721.67	.07	.23	.03	719.60
285.	80.	172.	33.	48.	69.	23.	13.	11.	719.70
.49	1.66	2.51	1.47	.065	.055	.065	.055	716.90	146.00
.002285	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.13	721.93	0.00	0.00	722.16	.23	.36	.12	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.055	.065	.055	716.80	9.60
.004416	116.	116.	116.	2	0	0	0.00	15.75	25.35

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.13	721.93	0.00	0.00	722.16	.23	.00	.00	723.00
285.	0.	285.	0.	0.	74.	0.	13.	11.	723.00
.50	0.00	3.84	0.00	.065	.030	.065	.055	716.80	9.60
.001310	1.	1.	1.	0	0	0	0.00	15.75	25.35

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.20	722.00	0.00	0.00	722.22	.22	.06	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.030	.065	.055	716.80	9.59
.001260	45.	45.	45.	2	0	0	0.00	15.77	25.36

*SECNO 115.420

115.42	5.20	722.00	0.00	0.00	722.22	.22	.00	.00	723.00
285.	0.	285.	0.	0.	75.	0.	13.	11.	723.00
.50	0.00	3.78	0.00	.065	.055	.065	.055	716.80	9.59
.004231	1.	1.	1.	0	0	0	0.00	15.77	25.36

CCHV= .400 CEHV= .800

*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .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
115.50	4.69	722.09	0.00	0.00	722.31	.22	.09	.00	721.20
285.	7.	228.	50.	6.	56.	26.	13.	11.	720.80
.50	1.14	4.10	1.92	.065	.055	.065	.055	717.40	194.00
.006594	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED 1.13 FEET

115.51	4.93	722.33	0.00	0.00	722.49	.16	.16	.02	721.20
285.	11.	217.	57.	9.	61.	32.	13.	11.	720.80
.51	1.22	3.58	1.80	.065	.055	.065	.055	717.40	194.00
.004523	29.	29.	29.	2	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.86	722.26	0.00	0.00	722.78	.52	.01	.28	728.90
285.	0.	285.	0.	0.	49.	0.	13.	11.	729.00
.51	0.00	5.77	0.00	.065	.030	.065	.055	718.40	190.55
.009989	1.	1.	1.	2	0	0	0.00	28.52	221.00

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.27	722.67	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.61	0.00	.065	.030	.065	.055	718.40	187.10
.005771	20.	20.	20.	3	0	0	0.00	32.45	222.45

*SECNO 116.080

116.08	4.22	722.62	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021751	1.	1.	1.	2	0	0	0.00	18.72	213.39

CCHV= .100 CEHV= .300

*SECNO 116.800

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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008737	49.	49.	49.	2	0	0	0.00	21.51	213.78

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.52	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000648	50.	50.	50.	2	0	0	0.00	123.99	272.00

*SECNO 116.820

3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.98	1.46	.065	.055	.065	.055	720.10	163.74
.003036	60.	60.	60.	2	0	0	0.00	108.26	272.00

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.53	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.45
.020199	50.	50.	50.	0	19	0	0.00	84.14	261.59

*SECNO 116.840

116.84	3.29	725.09	0.00	0.00	725.38	.29	.83	.01	723.60
285.	75.	156.	54.	29.	29.	25.	14.	11.	723.80
.54	2.56	5.41	2.16	.065	.055	.065	.055	721.80	174.66
.013944	50.	50.	50.	2	0	0	0.00	92.63	267.29

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
116.86	3.14	726.34	726.33	0.00	726.74	.40	1.32	.03	725.00
285.	69.	169.	47.	24.	27.	19.	14.	11.	725.20
.54	2.84	6.22	2.42	.065	.055	.065	.055	723.20	177.34
.019954	80.	80.	80.	2	12	0	0.00	84.44	261.77

*SECNO 117.200

117.20	3.24	727.84	0.00	0.00	728.16	.32	1.41	.01	726.40
285.	73.	160.	52.	28.	28.	23.	14.	12.	726.60
.55	2.64	5.67	2.25	.065	.055	.065	.055	724.60	175.41
.015708	80.	80.	80.	2	0	0	0.00	90.05	265.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .25 FEET

***CAMPGROUND RD.

117.21	3.65	728.85	0.00	0.00	728.98	.13	.80	.02	727.00
285.	87.	126.	72.	44.	33.	42.	15.	12.	727.20
.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      SENSITIVITY RUN  N* 0.7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.  0.000000      0.00     -1.0        0.   674.120     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     0.000      .700     0.000     0.000     0.000     0.000
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*PROF 2

CCHV= .100 CEHV= .300
*SECNO 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.039	.028	.039	0.000	669.10	53.87
.000345	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.46	674.11	0.00	0.00	674.25	.13	.06	.03	673.85
170.	2.	132.	36.	4.	40.	38.	0.	0.	673.35
.01	.46	3.30	.95	.039	.028	.039	.028	669.65	98.74
.001176	100.	100.	100.	2	0	0	0.00	103.41	202.16

*SECNO 110.200

110.20	3.90	674.10	0.00	0.00	674.53	.43	.20	.09	674.40
170.	0.	170.	0.	0.	32.	0.	0.	0.	673.90
.02	0.00	5.28	.51	.039	.028	.039	.028	670.20	122.38
.003876	100.	100.	100.	2	0	0	0.00	17.59	139.97

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.65	674.55	0.00	0.00	674.95	.40	.41	.01	674.80
170.	0.	170.	0.	0.	34.	0.	0.	0.	674.80
.02	0.00	5.06	0.00	.039	.028	.039	.028	670.90	3.00
.003237	115.	115.	115.	2	0	0	0.00	10.94	13.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.01	674.95	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	3.74	674.64	0.00	0.00	675.01	.37	.06	0.00	674.80
170.	0.	170.	0.	0.	35.	0.	1.	0.	674.80
.02	0.00	4.91	0.00	.039	.028	.039	.028	670.90	2.96
.002963	30.	30.	30.	2	0	0	0.00	11.00	13.97

*SECNO 110.500

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

110.50	3.28	674.98	674.98	0.00	676.05	1.06	.08	.55	676.20
170.	0.	170.	0.	0.	21.	0.	1.	0.	675.80
.02	0.00	8.28	0.00	.039	.028	.039	.028	671.70	31.96
.012547	15.	15.	15.	2	11	0	0.00	9.74	41.70

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.19	676.19	0.00	0.00	676.44	.25	.07	.32	676.70
170.	0.	170.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	4.03	0.00	.039	.028	.039	.028	672.00	4.02
.001839	18.	18.	18.	3	0	0	0.00	12.06	16.08

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.20	676.20	0.00	0.00	676.45	.25	.00	.00	676.70
170.	0.	170.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	4.02	0.00	.039	.021	.039	.027	672.00	4.02
.001022	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.23	676.23	0.00	0.00	676.47	.25	.02	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	0.	676.70
.03	0.00	3.98	0.00	.039	.021	.039	.027	672.00	4.02
.000998	23.	23.	23.	0	0	0	0.00	12.07	16.08

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.23	676.23	0.00	0.00	676.47	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	0.	676.70
.03	0.00	3.98	0.00	.039	.035	.039	.027	672.00	4.02
.002776	1.	1.	1.	0	0	0	0.00	12.07	16.08

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .31 FEET

111.80	4.41	676.41	0.00	0.00	676.55	.14	.03	.04	675.20
285.	71.	110.	104.	37.	27.	55.	1.	1.	675.20
.03	1.93	4.10	1.90	.039	.035	.039	.027	672.00	0.00
.003363	10.	10.	10.	4	0	0	0.00	134.16	134.16

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .30 FEET

111.81	4.41	676.61	0.00	0.00	676.75	.14	.20	.00	675.40
285.	71.	111.	103.	36.	27.	54.	1.	1.	675.40
.03	1.95	4.14	1.91	.039	.035	.039	.028	672.20	0.00
.003452	58.	58.	58.	1	0	0	0.00	134.03	134.03

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .15 FEET

111.82	4.25	676.65	0.00	0.00	676.88	.23	.10	.03	675.60
285.	61.	130.	94.	29.	25.	43.	1.	1.	675.60
.04	2.09	5.17	2.17	.049	.042	.049	.029	672.40	0.00
.008379	20.	20.	20.	2	0	0	0.00	126.27	126.27

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .24 FEET

111.83	4.34	677.44	0.00	0.00	677.62	.18	.73	.01	676.30
285.	66.	121.	98.	33.	26.	49.	1.	1.	676.30
.04	1.98	4.65	1.99	.049	.042	.049	.031	673.10	0.00
.006473	100.	100.	100.	2	0	0	0.00	130.68	130.68

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .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
	***FOOTBRIDGE								
111.84	4.30	677.90	0.00	0.00	678.10	.20	.48	.01	676.80
285.	64.	125.	96.	32.	26.	47.	1.	1.	676.80
.05	2.03	4.85	2.06	.049	.042	.049	.032	673.60	0.00
.007195	70.	70.	70.	2	0	0	0.00	128.85	128.85

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .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

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

111.85	4.24	677.84	677.84	0.00	678.18	.34	.01	.04	676.80
285.	32.	113.	140.	16.	19.	36.	1.	1.	676.80
.05	1.95	6.03	3.84	.049	.042	.049	.032	673.60	0.00
.037101	1.	1.	1.	20	17	0	-24.68	125.78	125.78

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .43 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.54	678.14	0.00	0.00	678.27	.14	.07	.02	676.80
285.	45.	65.	175.	27.	20.	57.	1.	1.	676.80
.05	1.63	3.25	3.11	.049	.042	.049	.032	673.60	0.00
.016072	3.	3.	3.	3	0	0	-30.80	135.97	135.97

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .50 FEET

111.87	4.60	678.20	0.00	0.00	678.28	.09	.01	.00	676.80
285.	75.	97.	112.	46.	29.	69.	1.	1.	676.80
.05	1.65	3.40	1.62	.049	.042	.049	.032	673.60	0.00

.003050	1.	1.	1.	2	0	0	0.00	136.55	136.95

*SECNO 111.900
3280 CROSS SECTION 111.90 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
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
111.90	4.14	678.94	678.94	0.00	679.26	.33	.89	.07	678.00
285.	53.	145.	87.	24.	24.	36.	2.	2.	678.00
.06	2.25	6.01	2.44	.049	.042	.049	.034	674.80	0.00
.012061	165.	165.	165.	3	13	0	0.00	120.36	120.36

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .39 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
***CONCRETE WEIR									
111.91	2.99	679.69	0.00	0.00	680.01	.32	.74	.00	679.00
285.	91.	99.	95.	31.	15.	32.	2.	2.	679.00
.06	2.99	6.56	2.94	.049	.042	.049	.034	676.70	0.00
.018692	50.	50.	50.	3	0	0	0.00	113.81	113.81

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .39 FEET

111.92	4.49	680.29	0.00	0.00	680.41	.12	.38	.02	679.00
285.	72.	106.	106.	41.	28.	61.	2.	2.	679.00
.07	1.78	3.85	1.75	.049	.042	.049	.035	675.80	0.00
.004107	50.	50.	50.	2	0	0	0.00	135.35	135.35

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .20 FEET

111.93	4.30	680.50	0.00	0.00	680.70	.20	.27	.02	679.40
285.	64.	125.	96.	32.	26.	47.	2.	2.	679.40
.07	2.03	4.85	2.06	.049	.042	.049	.035	676.20	0.00
.007187	50.	50.	50.	2	0	0	0.00	128.87	128.87

*SECNO 111.940

3280 CROSS SECTION 111.94 EXTENDED .23 FEET

111.94	4.33	681.63	0.00	0.00	681.81	.18	1.11	.00	680.50
285.	66.	121.	98.	33.	26.	49.	2.	3.	680.50
.09	1.99	4.65	1.99	.049	.042	.049	.036	677.30	0.00
.006495	162.	162.	162.	2	0	0	0.00	130.62	130.62

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .27 FEET

111.95	4.37	683.37	0.00	0.00	683.53	.16	1.72	.00	682.20
285.	68.	118.	100.	35.	26.	52.	3.	4.	682.20
.11	1.94	4.45	1.92	.049	.042	.049	.037	679.00	0.00
.005838	280.	280.	280.	3	0	0	0.00	132.51	132.51

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .59 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
111.97	4.19	683.59	0.00	0.00	683.78	.19	.24	.01	682.60
285.	21.	171.	94.	13.	40.	51.	3.	4.	681.70
.12	1.63	4.26	1.83	.049	.042	.049	.037	679.40	190.00
.004108	50.	50.	50.	2	0	0	0.00	100.23	290.23

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .34 FEET

111.98	3.93	684.03	0.00	0.00	684.37	.33	.54	.04	683.30
285.	15.	196.	74.	9.	36.	34.	3.	4.	682.40
.13	1.70	5.39	2.16	.049	.042	.049	.037	680.10	190.00
.007445	100.	100.	100.	2	0	0	0.00	90.05	280.05

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .38 FEET

111.99	3.98	685.48	0.00	0.00	685.78	.30	1.41	.00	684.70
285.	16.	192.	78.	9.	37.	37.	4.	4.	683.80
.14	1.70	5.17	2.08	.049	.042	.049	.038	681.50	190.00
.006683	200.	200.	200.	2	0	0	0.00	92.97	282.97

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .35 FEET

112.00	3.95	687.95	0.00	0.00	688.27	.32	2.48	.01	687.20
285.	15.	195.	75.	9.	37.	35.	4.	5.	686.30

.16	1.70	5.32	2.14	.049	.042	.049	.039	684.00	190.00
.007201	358.	358.	358.	2	0	0	0.00	90.95	280.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .38 FEET

112.10	3.98	690.08	0.00	0.00	690.38	.30	2.11	.00	689.30
285.	16.	191.	78.	9.	37.	37.	5.	6.	688.40
.18	1.70	5.16	2.08	.049	.042	.049	.039	686.10	190.00
.006666	305.	305.	305.	2	0	0	0.00	93.04	283.04

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .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	IDC	ICONT	CORAR	TOPWID	ENDST
112.20	3.93	691.83	0.00	0.00	692.16	.33	1.77	.01	691.10
285.	14.	196.	74.	9.	36.	34.	6.	6.	690.20
.20	1.70	5.40	2.17	.049	.042	.049	.039	687.90	190.00
.007497	250.	250.	250.	1	0	0	0.00	89.86	279.86

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .41 FEET

112.30	4.00	693.60	0.00	0.00	693.89	.29	1.72	.00	692.80
285.	16.	189.	79.	10.	37.	39.	6.	7.	691.90
.22	1.70	5.07	2.05	.049	.042	.049	.039	689.60	190.00
.006357	250.	250.	250.	1	0	0	0.00	94.16	284.16

*SECNO 112.400

112.40	3.97	693.97	0.00	0.00	694.21	.24	.32	.00	694.00
285.	0.	221.	64.	0.	51.	34.	6.	7.	692.80
.22	0.00	4.34	1.88	.049	.042	.049	.039	690.00	252.15
.006543	50.	50.	50.	2	0	0	0.00	88.35	340.50

*SECNO 112.410

***FOOTBRIDGE

112.41	3.94	694.34	0.00	0.00	694.60	.26	.38	.01	694.40
285.	0.	225.	60.	0.	50.	31.	6.	7.	693.20
.22	0.00	4.53	1.92	.049	.042	.049	.040	690.40	252.42
.007245	55.	55.	55.	0	0	0	0.00	86.56	338.99

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	3.96	694.36	0.00	0.00	694.61	.25	.01	.00	694.40
285.	0.	193.	92.	0.	43.	32.	6.	7.	693.20
.22	0.00	4.49	2.84	.049	.042	.049	.040	690.40	252.31
.015396	1.	1.	1.	1	0	0	-7.20	87.32	339.63

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.15	694.55	0.00	0.00	694.71	.16	.09	.01	694.40
285.	0.	174.	111.	0.	48.	46.	6.	7.	693.20
.22	.51	3.59	2.42	.049	.042	.049	.040	690.40	248.88
.008495	8.	8.	8.	2	0	0	-7.20	97.66	346.53

*SECNO 112.440

112.44	4.15	694.55	0.00	0.00	694.72	.17	.01	.00	694.40
285.	0.	206.	79.	0.	56.	46.	6.	7.	693.20
.22	.36	3.70	1.72	.049	.042	.049	.039	690.40	248.82
.004245	1.	1.	1.	1	0	0	0.00	97.81	346.63

*SECNO 112.500

112.50	3.99	694.69	0.00	0.00	694.92	.23	.18	.02	694.70
285.	0.	220.	65.	0.	51.	35.	6.	7.	693.50
.23	0.00	4.29	1.88	.049	.042	.049	.040	690.70	252.08
.006369	35.	35.	35.	2	0	0	0.00	88.83	340.90

*SECNO 113.200

113.20	3.95	696.95	0.00	0.00	697.20	.25	2.28	.01	697.00
285.	0.	223.	62.	0.	50.	33.	7.	8.	695.80
.25	0.00	4.43	1.90	.049	.042	.049	.040	693.00	252.28
.006866	345.	345.	345.	3	0	0	0.00	87.51	339.79

CCHV= .400 CEHV= .800

*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	4.63	697.93	0.00	0.00	698.76	.83	1.10	.46	698.80
285.	0.	285.	0.	0.	39.	0.	7.	8.	698.80
.26	0.00	7.31	0.00	.046	.039	.046	.040	693.30	7.52
.012012	123.	123.	123.	2	0	0	0.00	9.96	17.48

CCHV= .500 CEHV= 1.000

*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.19	698.49	0.00	0.00	698.95	.46	.00	.18	699.50
285.	0.	285.	0.	0.	52.	0.	7.	8.	699.50
.26	0.00	5.45	0.00	.046	.021	.046	.040	693.30	.02
.001684	1.	1.	1.	3	0	0	0.00	10.17	10.18

*SECNO 113.300

113.30	5.13	698.53	0.00	0.00	699.00	.47	.04	.01	699.60
285.	0.	285.	0.	0.	52.	0.	7.	8.	699.60
.26	0.00	5.50	0.00	.046	.021	.046	.040	693.40	.02
.001733	25.	25.	25.	3	0	0	0.00	10.17	10.18

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.08	698.58	0.00	0.00	699.06	.48	.04	.01	699.70
285.	0.	285.	0.	0.	51.	0.	7.	8.	699.70
.26	0.00	5.57	0.00	.046	.021	.046	.039	693.50	.02
.001787	25.	25.	25.	0	0	0	0.00	10.16	10.18

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	4.92	698.82	0.00	0.00	699.34	.51	.25	.03	700.10
285.	0.	285.	0.	0.	50.	0.	7.	8.	700.10
.27	0.00	5.75	0.00	.046	.021	.046	.039	693.90	.02
.001947	132.	132.	132.	1	0	0	0.00	10.16	10.18

*SECNO 113.420

113.42	4.93	698.83	0.00	0.00	699.34	.51	.00	.00	700.10
285.	0.	285.	0.	0.	50.	0.	7.	8.	700.10
.27	0.00	5.74	0.00	.046	.039	.046	.039	693.90	.02
.006515	1.	1.	1.	0	0	0	0.00	10.16	10.18

CCHV= .400 CEHV= .800

*SECNO 113.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
113.80	5.47	699.87	0.00	0.00	700.55	.69	1.07	.14	700.70
285.	0.	285.	0.	0.	43.	0.	7.	8.	700.00
.27	0.00	6.65	0.00	.046	.039	.046	.039	694.40	142.47
.011767	125.	125.	125.	2	0	0	0.00	17.35	159.82

CCHV= .100 CEHV= .300

*SECNO 113.810

113.81	5.59	700.49	0.00	0.00	701.11	.62	.55	.01	701.20

285.	0.	285.	0.	0.	45.	0.	8.	8.	700.50
.27	0.00	6.33	0.00	.046	.039	.046	.039	694.90	142.11
.010373	50.	50.	50.	3	0	0	0.00	17.87	159.98

*SECNO 113.820

113.82	5.62	701.52	0.00	0.00	702.13	.61	1.02	.00	702.20
285.	0.	285.	0.	0.	46.	0.	8.	8.	701.50
.28	0.00	6.24	.03	.046	.039	.046	.039	695.90	142.00
.009976	100.	100.	100.	2	0	0	0.00	24.16	166.17

*SECNO 113.830

113.83	5.62	703.02	0.00	0.00	703.63	.61	1.50	.00	703.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	703.00
.28	0.00	6.25	.03	.046	.039	.046	.039	697.40	142.01
.010004	150.	150.	150.	2	0	0	0.00	23.50	165.51

*SECNO 113.900

113.90	5.62	705.02	0.00	0.00	705.63	.61	2.00	.00	705.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	705.00
.29	0.00	6.25	.03	.046	.039	.046	.039	699.40	142.02
.010023	200.	200.	200.	0	0	0	0.00	23.06	165.07

*SECNO 113.910

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
113.91	5.62	707.02	0.00	0.00	707.63	.60	2.00	.00	707.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	707.00
.30	0.00	6.24	.03	.046	.039	.046	.039	701.40	142.00
.009945	200.	200.	200.	0	0	0	0.00	24.88	166.88

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.34 FEET

3301 HV CHANGED MORE THAN HVINS

113.92	5.94	707.74	0.00	0.00	707.84	.10	.16	.05	706.40
285.	0.	0.	285.	0.	0.	114.	8.	8.	759.40
.31	0.00	0.00	2.50	.046	.039	.046	.039	701.80	178.00
.001572	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .07 FEET

113.93	4.67	707.97	0.00	0.00	708.40	.43	.46	.10	707.90
285.	0.	0.	285.	0.	0.	54.	9.	9.	707.90
.31	0.00	0.00	5.28	.046	.039	.046	.039	703.30	178.00
.008405	150.	150.	150.	3	0	0	0.00	31.95	209.95

*SECNO 114.000

114.00	4.47	709.27	0.00	0.00	709.82	.55	1.39	.03	709.40
285.	0.	0.	285.	0.	0.	48.	9.	9.	709.40
.32	0.00	0.00	5.94	.046	.039	.046	.039	704.80	179.02
.010983	145.	145.	145.	3	0	0	0.00	29.19	208.20

*SECNO 114.010

114.01	4.30	709.80	0.00	0.00	710.48	.68	.62	.04	710.10
285.	0.	0.	285.	0.	0.	43.	9.	9.	710.10
.32	0.00	0.00	6.60	.046	.039	.046	.039	705.50	180.39
.013943	50.	50.	50.	2	0	0	0.00	26.28	206.67

*SECNO 114.020

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
114.02	4.39	711.19	0.00	0.00	711.80	.61	1.32	.01	711.40
285.	0.	0.	285.	0.	0.	45.	9.	9.	711.40
.33	0.00	0.00	6.29	.046	.039	.046	.039	706.80	179.77
.012503	100.	100.	100.	2	0	0	0.00	27.60	207.37

*SECNO 114.030

114.03	4.30	713.80	0.00	0.00	714.48	.69	2.66	.02	714.10
285.	0.	0.	285.	0.	0.	43.	9.	9.	714.10
.34	0.00	0.00	6.65	.046	.039	.046	.039	709.50	180.49
.014184	200.	200.	200.	1	0	0	0.00	26.07	206.57

*SECNO 114.050

114.05	4.36	716.56	0.00	0.00	717.19	.63	2.70	.01	716.80
285.	0.	0.	285.	0.	0.	45.	9.	9.	716.80
.35	0.00	0.00	6.37	.046	.039	.046	.039	712.20	179.92
.012849	200.	200.	200.	2	0	0	0.00	27.27	207.19

*SECNO 114.070

114.07	4.30	719.20	0.00	0.00	719.88	.68	2.67	.01	719.50
285.	0.	0.	285.	0.	0.	43.	10.	9.	719.50
.35	0.00	0.00	6.60	.046	.039	.046	.039	714.90	180.39
.013931	200.	200.	200.	2	0	0	0.00	26.29	206.68

*SECNO 114.090

114.09	4.39	720.59	0.00	0.00	721.20	.61	1.31	.01	720.80
285.	0.	0.	285.	0.	0.	45.	10.	9.	720.80
.36	0.00	0.00	6.26	.046	.039	.046	.039	716.20	179.71
.012373	100.	100.	100.	2	0	0	0.00	27.73	207.44

*SECNO 115.200

3280 CROSS SECTION 115.20 EXTENDED 1.73 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
115.20	4.43	721.33	0.00	0.00	721.42	.10	.18	.05	719.60
285.	76.	177.	31.	41.	62.	19.	10.	9.	719.70
.36	1.84	2.86	1.62	.046	.039	.046	.039	716.90	146.00
.001664	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.74	721.54	0.00	0.00	721.81	.27	.24	.14	723.00
285.	0.	285.	0.	0.	68.	0.	10.	9.	723.00
.37	0.00	4.19	0.00	.046	.039	.046	.039	716.80	9.63
.002757	116.	116.	116.	2	0	0	0.00	15.66	25.29

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.74	721.54	0.00	0.00	721.81	.27	.00	.00	723.00
285.	0.	285.	0.	0.	68.	0.	10.	9.	723.00
.37	0.00	4.18	0.00	.046	.021	.046	.039	716.80	9.63
.000819	1.	1.	1.	0	0	0	0.00	15.66	25.29

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	4.78	721.58	0.00	0.00	721.85	.27	.04	.00	723.00
285.	0.	285.	0.	0.	69.	0.	10.	9.	723.00
.37	0.00	4.14	0.00	.046	.021	.046	.038	716.80	9.63
.000796	45.	45.	45.	2	0	0	0.00	15.67	25.30

*SECNO 115.420

115.42	4.78	721.58	0.00	0.00	721.85	.27	.00	.00	723.00
285.	0.	285.	0.	0.	69.	0.	10.	9.	723.00
.37	0.00	4.14	0.00	.046	.039	.046	.038	716.80	9.63
.002673	1.	1.	1.	0	0	0	0.00	15.67	25.30

CCHV= .400 CEHV= .800
*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .41 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
115.50	4.22	721.62	0.00	0.00	722.05	.42	.07	.13	721.20
285.	1.	254.	30.	1.	46.	15.	10.	9.	720.80
.38	.98	5.49	2.01	.046	.039	.046	.038	717.40	199.80
.007440	17.	17.	17.	0	0	0	0.00	50.20	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED .83 FEET

115.51	4.63	722.03	0.00	0.00	722.27	.24	.14	.07	721.20
285.	6.	232.	48.	5.	55.	25.	10.	9.	720.80
.38	1.10	4.25	1.94	.046	.039	.046	.038	717.40	194.00
.003576	29.	29.	29.	3	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.52	721.92	721.90	0.00	722.70	.78	.01	.43	728.90
285.	0.	285.	0.	0.	40.	0.	10.	9.	729.00
.38	0.00	7.08	0.00	.046	.021	.046	.038	718.40	193.40
.008219	1.	1.	1.	4	23	0	0.00	25.66	221.00

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.23	722.63	0.00	0.00	722.97	.34	.09	.17	728.90
285.	0.	285.	0.	0.	61.	0.	10.	9.	729.00
.38	0.00	4.70	0.00	.046	.021	.046	.038	718.40	187.41
.002963	20.	20.	20.	5	0	0	0.00	32.08	222.39

*SECNO 116.080

116.08	4.17	722.57	0.00	0.00	723.23	.66	.01	.25	728.30
285.	0.	285.	0.	0.	44.	0.	10.	9.	728.70
.38	0.00	6.51	0.00	.046	.039	.046	.038	718.40	194.82
.011365	1.	1.	1.	2	0	0	0.00	18.55	213.36

CCHV= .100 CEHV= .300
*SECNO 116.800

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
116.80	4.73	723.23	0.00	0.00	723.65	.42	.40	.02	728.40
285.	0.	285.	0.	0.	55.	0.	10.	9.	728.80
.38	0.00	5.20	0.00	.046	.039	.046	.038	718.50	193.26
.006111	49.	49.	49.	2	0	0	0.00	20.35	213.62

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.22 FEET

116.81	4.62	723.72	0.00	0.00	723.75	.03	.06	.04	720.90
285.	103.	86.	96.	94.	45.	89.	10.	9.	721.10
.39	1.09	1.93	1.08	.046	.039	.046	.038	719.10	152.82
.000480	50.	50.	50.	2	0	0	0.00	119.18	272.00

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .20 FEET

116.82	3.60	723.70	0.00	0.00	723.84	.14	.06	.03	721.90
285.	86.	129.	70.	42.	33.	40.	11.	10.	722.10
.40	2.03	3.97	1.75	.046	.039	.046	.038	720.10	169.42
.003108	60.	60.	60.	2	0	0	0.00	102.58	272.00

*SECNO 116.830

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.83	3.11	724.11	724.11	0.00	724.55	.44	.26	.09	722.80
285.	68.	172.	45.	23.	27.	18.	11.	10.	723.00
.40	2.93	6.45	2.49	.046	.039	.046	.038	721.00	178.20
.010739	50.	50.	50.	20	9	0	0.00	82.14	260.34

*SECNO 116.840

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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

116.84	3.12	724.92	724.92	0.00	725.35	.43	.53	.00	723.60
285.	68.	171.	45.	23.	27.	18.	11.	10.	723.80
.40	2.91	6.40	2.47	.046	.039	.046	.038	721.80	177.99
.010500	50.	50.	50.	20	5	0	0.00	82.69	260.68

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
116.86	3.11	726.31	726.31	0.00	726.75	.43	.84	.00	725.00
285.	68.	171.	45.	23.	27.	18.	11.	10.	725.20
.41	2.92	6.42	2.47	.046	.039	.046	.038	723.20	178.07
.010586	80.	80.	80.	20	5	0	0.00	82.49	260.56

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

*SECNO 117.200

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

117.20	3.12	727.72	727.72	0.00	728.15	.43	.85	.00	726.40
285.	68.	171.	45.	23.	27.	18.	11.	10.	726.60
.41	2.91	6.41	2.47	.046	.039	.046	.038	724.60	178.04
.010554	80.	80.	80.	20	5	0	0.00	82.57	260.60

*SECNO 117.210

***CAMPGROUND RD.

117.21	3.39	728.59	0.00	0.00	728.81	.23	.65	.02	727.00
285.	79.	146.	59.	33.	30.	30.	11.	10.	727.20
.42	2.37	4.87	1.99	.046	.039	.046	.038	725.20	172.92
.005230	90.	90.	90.	2	0	0	0.00	98.60	271.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.52 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
741.78	729.83	0.00	123.	162.	13.	16.	729.20	732.30

117.79	7.62	732.82	0.00	0.00	732.86	.05	4.05	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	11.	10.	780.00
.42	0.00	0.00	1.75	.046	.039	.046	.038	725.20	95.00
.000391	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.93 FEET

117.80	7.03	732.83	0.00	0.00	732.89	.06	.02	.00	730.00
285.	0.	0.	285.	0.	0.	144.	11.	10.	730.00
.43	0.00	0.00	1.98	.046	.039	.046	.038	725.80	95.00
.000565	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      SENSITIVITY RUN  N * 1.3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00      -1.0        0.    674.120   0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.000    0.000    -1.000     0.000     0.000     1.300     0.000     0.000     0.000     0.000
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*PROF 3

CCHV= .100 CEHV= .300
*SECNO 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.072	.052	.072	0.000	669.10	53.87
.001191	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.61	674.26	0.00	0.00	674.36	.10	.18	.02	673.85
170.	4.	122.	44.	8.	42.	47.	0.	0.	673.35
.01	.49	2.92	.92	.072	.052	.072	.051	669.65	87.16
.002988	100.	100.	100.	1	0	0	0.00	116.82	203.98

*SECNO 110.200

110.20	4.37	674.57	0.00	0.00	674.85	.28	.44	.05	674.40
170.	1.	165.	4.	1.	39.	5.	0.	0.	673.90
.02	.52	4.27	.85	.072	.052	.072	.051	670.20	113.13
.007091	100.	100.	100.	2	0	0	0.00	36.33	149.46

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.43	675.33	0.00	0.00	675.58	.25	.72	.01	674.80
170.	0.	170.	0.	0.	42.	0.	1.	1.	674.80
.03	0.00	4.02	0.00	.072	.052	.072	.052	670.90	2.90
.005631	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320
3280 CROSS SECTION 110.32 EXTENDED .17 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 FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.79	675.58	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.67	675.57	0.00	0.00	675.79	.22	.20	0.00	674.80
170.	0.	170.	0.	0.	45.	0.	1.	1.	674.80
.03	0.00	3.79	0.00	.072	.052	.072	.051	670.90	2.90
.004699	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

110.50	3.92	675.62	0.00	0.00	676.23	.61	.13	.31	676.20
170.	0.	170.	0.	0.	27.	0.	1.	1.	675.80
.03	0.00	6.28	0.00	.072	.052	.072	.051	671.70	30.94
.020706	15.	15.	15.	2	0	0	0.00	10.99	41.93

*SECNO 110.580

***D/S 27 MILE RD

110.58	4.32	676.32	0.00	0.00	676.56	.23	.18	.15	676.70
170.	0.	170.	0.	0.	44.	0.	1.	1.	676.70
.03	0.00	3.87	0.00	.072	.052	.072	.051	672.00	4.01
.005642	18.	18.	18.	2	0	0	0.00	12.08	16.09

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.33	676.33	0.00	0.00	676.56	.23	.00	.00	676.70
170.	0.	170.	0.	0.	44.	0.	1.	1.	676.70
.03	0.00	3.86	0.00	.072	.039	.072	.051	672.00	4.01
.003161	1.	1.	1.	0	0	0	0.00	12.08	16.09

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.41	676.41	0.00	0.00	676.64	.22	.07	.01	676.70
170.	0.	170.	0.	0.	45.	0.	1.	1.	676.70
.03	0.00	3.77	0.00	.072	.039	.072	.050	672.00	4.01
.002962	23.	23.	23.	1	0	0	0.00	12.08	16.09

*SECNO 111.030

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

111.03	4.42	676.42	0.00	0.00	676.64	.22	.00	.00	676.70
170.	0.	170.	0.	0.	45.	0.	1.	1.	676.70
.03	0.00	3.78	0.00	.072	.065	.072	.050	672.00	4.01
.008257	1.	1.	1.	0	0	0	0.00	12.08	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .60 FEET

111.80	4.70	676.70	0.00	0.00	676.76	.07	.06	.06	675.20
285.	79.	87.	119.	51.	30.	77.	1.	1.	675.20
.03	1.57	2.93	1.54	.072	.065	.072	.050	672.00	0.00
.005182	10.	10.	10.	3	0	0	0.00	138.46	138.46

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .68 FEET

111.81	4.78	676.98	0.00	0.00	677.04	.06	.27	.00	675.40
285.	81.	82.	122.	55.	31.	84.	1.	1.	675.40
.04	1.48	2.69	1.45	.072	.065	.072	.052	672.20	0.00
.004198	58.	58.	58.	2	0	0	0.00	139.73	139.73

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .58 FEET

111.82	4.69	677.09	0.00	0.00	677.16	.07	.12	.01	675.60
285.	77.	92.	116.	50.	29.	76.	1.	1.	675.60
.05	1.56	3.12	1.53	.091	.078	.091	.053	672.40	0.00
.008538	20.	20.	20.	0	0	0	0.00	138.14	138.14

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .66 FEET

111.83	4.77	677.87	0.00	0.00	677.93	.06	.77	.00	676.30
285.	79.	87.	119.	53.	30.	82.	1.	1.	676.30
.06	1.48	2.87	1.45	.091	.078	.091	.057	673.10	0.00
.006963	100.	100.	100.	1	0	0	0.00	139.37	139.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .66 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

***FOOTBRIDGE

111.84	4.76	678.36	0.00	0.00	678.42	.06	.49	.00	676.80
285.	79.	87.	119.	53.	30.	82.	2.	1.	676.80
.07	1.48	2.87	1.45	.091	.078	.091	.059	673.60	0.00
.006997	70.	70.	70.	2	0	0	0.00	139.34	139.34

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .66 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.76	678.36	0.00	0.00	678.43	.08	.01	.00	676.80
285.	52.	51.	182.	39.	22.	75.	2.	1.	676.80
.07	1.35	2.30	2.42	.091	.078	.091	.059	673.60	0.00
.024112	1.	1.	1.	0	0	0	-30.80	139.45	139.45

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .73 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.83	678.43	0.00	0.00	678.50	.07	.06	.00	676.80
285.	53.	49.	183.	42.	23.	81.	2.	1.	676.80
.07	1.28	2.11	2.27	.091	.078	.091	.059	673.60	0.00
.019394	3.	3.	3.	2	0	0	-30.80	140.50	140.50

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .75 FEET

111.87	4.86	678.46	0.00	0.00	678.51	.05	.01	.00	676.80
285.	81.	82.	122.	58.	31.	90.	2.	1.	676.80
.07	1.39	2.61	1.36	.091	.078	.091	.059	673.60	0.00
.005543	1.	1.	1.	0	0	0	0.00	140.82	140.82

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .62 FEET

111.90	4.72	679.52	0.00	0.00	679.58	.07	1.07	.00	678.00
285.	78.	89.	118.	52.	30.	79.	2.	2.	678.00
.09	1.52	2.98	1.49	.091	.078	.091	.063	674.80	0.00
.007635	165.	165.	165.	3	0	0	0.00	138.81	138.81

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .76 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
***CONCRETE WEIR									
111.91	3.36	680.06	0.00	0.00	680.16	.10	.57	.01	679.00
285.	107.	64.	114.	49.	17.	56.	2.	2.	679.00
.10	2.18	3.81	2.02	.091	.078	.091	.063	676.70	0.00
.018567	50.	50.	50.	2	0	0	0.00	126.50	126.50

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .71 FEET

111.92	4.81	680.61	0.00	0.00	680.66	.06	.50	.00	679.00
285.	80.	84.	121.	56.	31.	86.	3.	2.	679.00
.11	1.43	2.74	1.40	.091	.078	.091	.064	675.80	0.00
.006199	50.	50.	50.	2	0	0	0.00	140.10	140.10

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .63 FEET

111.93	4.74	680.94	0.00	0.00	681.00	.07	.34	.00	679.40
285.	79.	88.	118.	52.	30.	80.	3.	2.	679.40
.11	1.50	2.94	1.47	.091	.078	.091	.065	676.20	0.00
.007394	50.	50.	50.	2	0	0	0.00	139.00	139.00

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .68 FEET

111.94	4.78	682.08	0.00	0.00	682.14	.06	1.13	.00	680.50
285.	80.	86.	120.	54.	30.	84.	3.	3.	680.50
.14	1.46	2.81	1.43	.091	.078	.091	.067	677.30	0.00
.006625	162.	162.	162.	2	0	0	0.00	139.68	139.68

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .73 FEET

111.95	4.83	683.83	0.00	0.00	683.88	.05	1.74	.00	682.20
285.	80.	83.	122.	57.	31.	88.	5.	4.	682.20
.18	1.41	2.68	1.38	.091	.078	.091	.069	679.00	0.00
.005870	280.	280.	280.	3	0	0	0.00	140.45	140.45

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED 1.09 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

111.97	4.69	684.09	0.00	0.00	684.16	.07	.27	.01	682.60
285.	27.	134.	123.	21.	47.	90.	5.	4.	681.70
.19	1.33	2.86	1.37	.091	.078	.091	.069	679.40	190.00
.005147	50.	50.	50.	2	0	0	0.00	116.19	306.19

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .95 FEET

111.98	4.56	684.66	0.00	0.00	684.75	.09	.58	.01	683.30
285.	26.	143.	116.	18.	45.	79.	5.	4.	682.40
.20	1.41	3.17	1.48	.091	.078	.091	.069	680.10	190.00
.006682	100.	100.	100.	1	0	0	0.00	111.78	301.78

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .93 FEET

111.99	4.53	686.03	0.00	0.00	686.12	.10	1.37	.00	684.70
285.	26.	144.	115.	18.	45.	77.	6.	5.	683.80
.23	1.43	3.23	1.50	.091	.078	.091	.070	681.50	190.00
.007015	200.	200.	200.	2	0	0	0.00	110.98	300.98

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .93 FEET

112.00	4.53	688.53	0.00	0.00	688.63	.10	2.50	.00	687.20
285.	26.	144.	115.	18.	45.	77.	7.	6.	686.30
.27	1.42	3.22	1.50	.091	.078	.091	.072	684.00	190.00
.006962	358.	358.	358.	2	0	0	0.00	111.11	301.11

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .94 FEET

112.10	4.54	690.64	0.00	0.00	690.73	.10	2.11	.00	689.30
285.	26.	144.	116.	18.	45.	77.	8.	6.	688.40
.30	1.42	3.20	1.49	.091	.078	.091	.072	686.10	190.00
.006866	305.	305.	305.	2	0	0	0.00	111.34	301.34

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .91 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
112.20	4.51	692.41	0.00	0.00	692.51	.10	1.77	.00	691.10
285.	25.	146.	114.	18.	44.	75.	9.	7.	690.20
.33	1.44	3.28	1.52	.091	.078	.091	.073	687.90	190.00
.007319	250.	250.	250.	2	0	0	0.00	110.30	300.30

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .96 FEET

112.30	4.56	694.16	0.00	0.00	694.25	.09	1.74	.00	692.80
285.	26.	142.	117.	18.	45.	79.	9.	8.	691.90
.36	1.41	3.16	1.48	.091	.078	.091	.073	689.60	190.00
.006631	250.	250.	250.	2	0	0	0.00	111.91	301.91

*SECNO 112.400
3280 CROSS SECTION 112.40 EXTENDED .00 FEET

112.40	4.50	694.50	0.00	0.00	694.59	.09	.34	.00	694.00
285.	1.	182.	102.	3.	65.	72.	10.	8.	692.80
.37	.55	2.81	1.42	.091	.078	.091	.073	690.00	242.00
.006943	50.	50.	50.	0	0	0	0.00	116.15	358.15

*SECNO 112.410

***FOOTBRIDGE

112.41	4.49	694.89	0.00	0.00	694.98	.09	.39	.00	694.40
285.	1.	183.	100.	2.	64.	70.	10.	8.	693.20
.37	.54	2.86	1.44	.091	.078	.091	.073	690.40	242.36
.007270	55.	55.	55.	1	0	0	0.00	115.03	357.39

*SECNO 112.420
3280 CROSS SECTION 112.42 EXTENDED .00 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.51	694.91	0.00	0.00	694.99	.08	.01	.00	694.40
285.	2.	149.	134.	3.	57.	72.	10.	8.	693.20
.38	.72	2.59	1.88	.091	.078	.091	.073	690.40	242.00
.012172	1.	1.	1.	1	0	0	-7.20	116.09	358.09

*SECNO 112.430
3280 CROSS SECTION 112.43 EXTENDED .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

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.43	4.61	695.01	0.00	0.00	695.08	.07	.09	.00	694.40
285.	3.	142.	140.	4.	60.	80.	10.	8.	693.20
.38	.80	2.36	1.74	.091	.078	.091	.073	690.40	242.00
.009462	8.	8.	8.	2	0	0	-7.20	119.74	361.74

*SECNO 112.440
3280 CROSS SECTION 112.44 EXTENDED .12 FEET

112.44	4.61	695.01	0.00	0.00	695.09	.07	.01	.00	694.40
285.	2.	175.	108.	4.	68.	81.	10.	8.	693.20
.38	.62	2.58	1.33	.091	.078	.091	.073	690.40	242.00
.005478	1.	1.	1.	0	0	0	0.00	120.10	362.10

*SECNO 112.500
3280 CROSS SECTION 112.50 EXTENDED .02 FEET

112.50	4.52	695.22	0.00	0.00	695.30	.09	.21	.00	694.70
285.	1.	181.	102.	3.	65.	73.	10.	8.	693.50
.38	.56	2.79	1.41	.091	.078	.091	.073	690.70	242.00
.006768	35.	35.	35.	2	0	0	0.00	116.56	358.56

*SECNO 113.200
3280 CROSS SECTION 113.20 EXTENDED .03 FEET

113.20	4.53	697.53	0.00	0.00	697.61	.09	2.31	.00	697.00
285.	2.	181.	103.	3.	65.	74.	11.	9.	695.80
.42	.56	2.76	1.40	.091	.078	.091	.074	693.00	242.00
.006625	345.	345.	345.	3	0	0	0.00	116.92	358.92

CCHV= .400 CEHV= .800
*SECNO 113.280

***D/S.M-53

113.28	5.53	698.83	0.00	0.00	699.38	.55	1.39	.37	698.80
285.	0.	285.	0.	0.	48.	0.	11.	9.	698.80
.43	.03	5.95	.03	.085	.072	.085	.074	693.30	7.43
.023648	123.	123.	123.	2	0	0	0.00	10.13	17.56

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.81	699.11	0.00	0.00	699.48	.37	.01	.09	699.50
285.	0.	285.	0.	0.	59.	0.	11.	9.	699.50
.43	0.00	4.86	0.00	.085	.039	.085	.074	693.30	.01
.004292	1.	1.	1.	2	0	0	0.00	10.19	10.19

*SECNO 113.300

113.30	5.82	699.22	0.00	0.00	699.59	.37	.11	.00	699.60
285.	0.	285.	0.	0.	59.	0.	11.	9.	699.60
.43	0.00	4.85	0.00	.085	.039	.085	.073	693.40	.01
.004277	25.	25.	25.	2	0	0	0.00	10.19	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.83	699.33	0.00	0.00	699.69	.36	.11	.00	699.70
285.	0.	285.	0.	0.	59.	0.	11.	9.	699.70
.43	0.00	4.84	0.00	.085	.039	.085	.073	693.50	.01
.004266	25.	25.	25.	0	0	0	0.00	10.19	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	6.19	700.09	0.00	0.00	700.49	.39	.77	.03	700.10
285.	0.	285.	0.	0.	57.	0.	12.	9.	700.10
.44	0.00	5.04	0.00	.085	.039	.085	.072	693.90	.00
.008351	132.	132.	132.	2	0	0	-6.01	10.20	10.20

*SECNO 113.420
3280 CROSS SECTION 113.42 EXTENDED .13 FEET

113.42	6.33	700.23	0.00	0.00	700.54	.31	.01	.04	700.10
285.	0.	285.	0.	0.	64.	0.	12.	9.	700.10
.44	0.00	4.45	0.00	.085	.072	.085	.072	693.90	0.00
.011513	1.	1.	1.	2	0	0	0.00	10.20	10.20

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED 1.34 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
113.80	7.04	701.44	0.00	0.00	701.57	.13	.95	.07	700.70
285.	0.	229.	56.	0.	73.	36.	12.	9.	700.00
.45	0.00	3.13	1.55	.085	.072	.085	.072	694.40	140.00
.005408	125.	125.	125.	2	0	0	0.00	46.00	186.00

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED 1.12 FEET

113.81	6.82	701.72	0.00	0.00	701.88	.16	.31	.01	701.20
285.	0.	237.	48.	0.	69.	30.	12.	9.	700.50
.46	0.00	3.43	1.59	.085	.072	.085	.072	694.90	140.00
.006981	50.	50.	50.	2	0	0	0.00	46.00	186.00

*SECNO 113.820
3280 CROSS SECTION 113.82 EXTENDED .89 FEET

113.82	6.59	702.49	0.00	0.00	702.70	.20	.80	.01	702.20
285.	0.	246.	39.	0.	64.	25.	12.	9.	701.50
.46	0.00	3.82	1.60	.085	.072	.085	.072	695.90	140.00
.009329	100.	100.	100.	2	0	0	0.00	46.00	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .84 FEET

113.83	6.54	703.94	0.00	0.00	704.15	.21	1.45	.00	703.70
285.	0.	248.	37.	0.	63.	23.	12.	10.	703.00
.48	0.00	3.92	1.60	.085	.072	.085	.072	697.40	140.00
.010064	150.	150.	150.	2	0	0	0.00	46.00	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .84 FEET

113.90	6.54	705.94	0.00	0.00	706.16	.21	2.00	.00	705.70
285.	0.	248.	37.	0.	63.	23.	13.	10.	705.00
.49	0.00	3.91	1.60	.085	.072	.085	.072	699.40	140.00
.009972	200.	200.	200.	2	0	0	0.00	46.00	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .84 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
113.91	6.54	707.94	0.00	0.00	708.15	.21	2.00	.00	707.70
285.	0.	248.	37.	0.	63.	23.	13.	10.	707.00
.51	0.00	3.92	1.60	.085	.072	.085	.072	701.40	140.00
.010015	200.	200.	200.	1	0	0	0.00	46.00	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.95 FEET

113.92	6.55	708.35	0.00	0.00	708.41	.06	.24	.02	706.40
285.	0.	0.	285.	0.	0.	146.	13.	10.	759.40
.51	0.00	0.00	1.96	.085	.072	.085	.072	701.80	178.00
.002798	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED 1.06 FEET

113.93	5.66	708.96	0.00	0.00	709.08	.13	.65	.02	707.90
285.	0.	0.	285.	0.	0.	99.	14.	10.	707.90
.53	0.00	0.00	2.88	.085	.072	.085	.072	703.30	178.00

.007726	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .83 FEET

114.00	5.42	710.22	0.00	0.00	710.39	.17	1.29	.01	709.40
285.	0.	0.	285.	0.	0.	87.	14.	10.	709.40
.54	0.00	0.00	3.27	.085	.072	.085	.072	704.80	178.00
.010421	145.	145.	145.	2	0	0	0.00	52.00	230.00

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .68 FEET

114.01	5.28	710.78	0.00	0.00	710.98	.20	.58	.01	710.10
285.	0.	0.	285.	0.	0.	79.	14.	11.	710.10
.54	0.00	0.00	3.59	.085	.072	.085	.072	705.50	178.00
.012799	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .66 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
114.02	5.26	712.06	0.00	0.00	712.27	.20	1.29	.00	711.40
285.	0.	0.	285.	0.	0.	79.	14.	11.	711.40
.55	0.00	0.00	3.62	.085	.072	.085	.072	706.80	178.00
.013014	100.	100.	100.	2	0	0	0.00	52.00	230.00

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .63 FEET

114.03	5.23	714.73	0.00	0.00	714.94	.21	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	77.	15.	11.	714.10
.57	0.00	0.00	3.71	.085	.072	.085	.072	709.50	178.00
.013698	200.	200.	200.	2	0	0	0.00	52.00	230.00

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .64 FEET

114.05	5.24	717.44	0.00	0.00	717.65	.21	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	78.	15.	11.	716.80
.58	0.00	0.00	3.67	.085	.072	.085	.072	712.20	178.00
.013405	200.	200.	200.	2	0	0	0.00	52.00	230.00

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .63 FEET

114.07	5.23	720.13	0.00	0.00	720.35	.21	2.69	.00	719.50
285.	0.	0.	285.	0.	0.	77.	15.	11.	719.50
.60	0.00	0.00	3.69	.085	.072	.085	.072	714.90	178.00
.013542	200.	200.	200.	.2	0	0	0.00	52.00	230.00

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .67 FEET

114.09	5.27	721.47	0.00	0.00	721.67	.20	1.32	.00	720.80
285.	0.	0.	285.	0.	0.	79.	16.	11.	720.80
.60	0.00	0.00	3.60	.085	.072	.085	.072	716.20	178.00
.012892	100.	100.	100.	1	0	0	0.00	52.00	230.00

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.28 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
115.20	4.98	721.88	0.00	0.00	721.94	.06	.25	.01	719.60
285.	82.	168.	35.	55.	75.	26.	16.	12.	719.70
.61	1.50	2.23	1.34	.085	.072	.085	.072	716.90	146.00
.002698	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.50	722.30	0.00	0.00	722.50	.20	.45	.11	723.00
285.	0.	285.	0.	0.	80.	0.	16.	12.	723.00
.62	0.00	3.56	0.00	.085	.072	.085	.072	716.80	9.56
.006034	116.	116.	116.	2	0	0	0.00	15.84	25.40

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.50	722.30	0.00	0.00	722.50	.20	.00	.00	723.00
285.	0.	285.	0.	0.	80.	0.	16.	12.	723.00
.62	0.00	3.55	0.00	.085	.039	.085	.072	716.80	9.56
.001790	1.	1.	1.	0	0	0	0.00	15.84	25.40

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.59	722.39	0.00	0.00	722.58	.19	.08	.00	723.00

285.	0.	285.	0.	0.	82.	0.	16.	12.	723.00
.62	0.00	3.49	0.00	.085	.039	.085	.071	716.80	9.56
.001706	45.	45.	45.	2	0	0	0.00	15.86	25.41

*SECNO 115.420

115.42	5.59	722.39	0.00	0.00	722.58	.19	.00	.00	723.00
285.	0.	285.	0.	0.	82.	0.	16.	12.	723.00
.62	0.00	3.49	0.00	.085	.072	.085	.071	716.80	9.56
.005731	1.	1.	1.	0	0	0	0.00	15.86	25.41

CCHV= .400 CEHV= .800

*SECNO 115.500

3280 CROSS SECTION 115.50 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
115.50	5.18	722.58	0.00	0.00	722.70	.12	.09	.03	721.20
285.	14.	207.	64.	12.	66.	38.	16.	12.	720.80
.63	1.22	3.15	1.68	.085	.072	.085	.071	717.40	194.00
.005323	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510

3280 CROSS SECTION 115.51 EXTENDED 1.54 FEET

115.51	5.34	722.74	0.00	0.00	722.85	.10	.14	.01	721.20
285.	17.	202.	67.	14.	69.	42.	16.	12.	720.80
.63	1.21	2.93	1.60	.085	.072	.085	.071	717.40	194.00
.004311	29.	29.	29.	0	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	4.31	722.71	0.00	0.00	723.02	.32	.01	.17	728.90
285.	0.	285.	0.	0.	63.	0.	16.	12.	729.00
.63	0.00	4.53	0.00	.085	.039	.085	.071	718.40	186.79
.009321	1.	1.	1.	2	0	0	0.00	32.82	222.51

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.58	722.98	0.00	0.00	723.22	.24	.16	.03	728.90
285.	0.	285.	0.	0.	73.	0.	16.	12.	729.00
.63	0.00	3.91	0.00	.085	.039	.085	.071	718.40	175.86
.007164	20.	20.	20.	3	0	0	0.00	39.22	222.97

*SECNO 116.080

116.08	4.54	722.94	0.00	0.00	723.43	.49	.01	.20	728.30
285.	0.	285.	0.	0.	51.	0.	16.	12.	728.70
.63	0.00	5.59	0.00	.085	.072	.085	.071	718.40	193.79
.025740	1.	1.	1.	2	0	0	0.00	19.74	213.53

CCHV= .100 CEHV= .300

*SECNO 116.800

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
116.80	5.46	723.96	0.00	0.00	724.22	.25	.77	.02	728.40
285.	0.	285.	0.	0.	70.	0.	16.	12.	728.80
.63	0.00	4.05	0.00	.085	.072	.085	.071	718.50	191.66
.010479	49.	49.	49.	2	0	0	0.00	22.27	213.94

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED 1.81 FEET

116.81	5.22	724.32	0.00	0.00	724.34	.02	.09	.02	720.90
285.	110.	74.	101.	132.	52.	118.	17.	12.	721.10
.65	.83	1.43	.86	.085	.072	.085	.071	719.10	143.03
.000743	50.	50.	50.	2	0	0	0.00	128.97	272.00

*SECNO 116.820

3280 CROSS SECTION 116.82 EXTENDED .88 FEET

116.82	4.28	724.38	0.00	0.00	724.42	.05	.08	.01	721.90
285.	98.	96.	91.	75.	41.	72.	17.	12.	722.10
.66	1.31	2.37	1.25	.085	.072	.085	.071	720.10	158.38
.002831	60.	60.	60.	2	0	0	0.00	113.62	272.00

*SECNO 116.830

3280 CROSS SECTION 116.83 EXTENDED .16 FEET

116.83	3.56	724.56	0.00	0.00	724.71	.16	.26	.03	722.80
285.	84.	133.	68.	40.	32.	38.	17.	12.	723.00
.66	2.10	4.14	1.79	.085	.072	.085	.071	721.00	170.16
.011925	50.	50.	50.	2	0	0	0.00	101.84	272.00

*SECNO 116.840

3280 CROSS SECTION 116.84 EXTENDED .02 FEET

116.84	3.42	725.22	0.00	0.00	725.43	.21	.70	.02	723.60
285.	80.	144.	61.	35.	30.	31.	17.	12.	723.80
.67	2.32	4.73	1.95	.085	.072	.085	.071	721.80	172.44
.016756	50.	50.	50.	3	0	0	0.00	99.56	272.00

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
116.86	3.39	726.59	0.00	0.00	726.81	.22	1.38	.00	725.00
285.	80.	146.	60.	34.	30.	30.	17.	12.	725.20
.67	2.37	4.85	1.98	.085	.072	.085	.071	723.20	172.83
.017795	80.	80.	80.	2	0	0	0.00	98.92	271.75

*SECNO 117.200

3280 CROSS SECTION 117.20 EXTENDED .00 FEET

117.20	3.40	728.00	0.00	0.00	728.22	.22	1.41	.00	726.40
285.	80.	145.	60.	34.	30.	31.	18.	13.	726.60
.68	2.35	4.80	1.96	.085	.072	.085	.071	724.60	172.68
.017381	80.	80.	80.	2	0	0	0.00	99.32	272.00

*SECNO 117.210

3280 CROSS SECTION 117.21 EXTENDED .44 FEET

***CAMPGROUND RD.

117.21	3.84	729.04	0.00	0.00	729.13	.09	.89	.01	727.00
285.	91.	115.	79.	53.	35.	51.	18.	13.	727.20
.69	1.72	3.25	1.54	.085	.072	.085	.071	725.20	165.56
.006415	90.	90.	90.	3	0	0	0.00	106.44	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790

3280 CROSS SECTION 117.79 EXTENDED 3.54 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.22	729.74	0.00	131.	154.	13.	16.	729.20	732.30

117.79	7.64	732.84	0.00	0.00	732.89	.05	3.76	0.00	780.00
285.	0.	0.	285.	0.	0.	164.	18.	13.	780.00
.70	0.00	0.00	1.74	.085	.072	.085	.071	725.20	95.00
.001330	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 3.01 FEET

117.80	7.11	732.91	0.00	0.00	732.97	.06	.08	.00	730.00
285.	0.	0.	285.	0.	0.	147.	18.	13.	730.00
.70	0.00	0.00	1.94	.085	.072	.085	.071	725.80	95.00
.001847	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	7.05	2.01	154.93	64.04
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	3.45	2.01	154.93	91.48
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	11.91	2.01	154.93	49.26
	110.150	100.00	0.00	0.00	669.65	170.00	674.18	0.00	674.29	20.35	3.09	90.02	37.68
	110.150	100.00	0.00	0.00	669.65	170.00	674.11	0.00	674.25	11.76	3.30	82.17	49.57
	110.150	100.00	0.00	0.00	669.65	170.00	674.26	0.00	674.36	29.88	2.92	97.18	31.10
	110.200	100.00	0.00	0.00	670.20	170.00	674.34	0.00	674.69	59.02	4.78	37.07	22.13
	110.200	100.00	0.00	0.00	670.20	170.00	674.10	0.00	674.53	38.76	5.28	32.53	27.31
	110.200	100.00	0.00	0.00	670.20	170.00	674.57	0.00	674.85	70.91	4.27	44.71	20.19
	110.280	115.00	0.00	0.00	670.90	170.00	674.99	0.00	675.29	44.33	4.41	38.53	25.53
	110.280	115.00	0.00	0.00	670.90	170.00	674.55	0.00	674.95	32.37	5.06	33.57	29.88
	110.280	115.00	0.00	0.00	670.90	170.00	675.33	0.00	675.58	56.31	4.02	42.31	22.65
	110.320	30.00	676.00	674.80	670.90	170.00	675.17	0.00	675.45	37.84	4.19	40.58	27.64
	110.320	30.00	676.00	674.80	670.90	170.00	674.64	0.00	675.01	29.63	4.91	34.66	31.23
	110.320	30.00	676.00	674.80	670.90	170.00	675.57	0.00	675.79	46.99	3.79	44.91	24.80
	110.500	15.00	0.00	0.00	671.70	170.00	675.16	0.00	676.06	206.42	7.64	22.26	11.83
*	110.500	15.00	0.00	0.00	671.70	170.00	674.98	674.98	676.05	125.47	8.28	20.53	15.18
	110.500	15.00	0.00	0.00	671.70	170.00	675.62	0.00	676.23	207.06	6.28	27.09	11.81
	110.580	18.00	0.00	0.00	672.00	170.00	676.21	0.00	676.46	36.81	4.00	42.45	28.02
	110.580	18.00	0.00	0.00	672.00	170.00	676.19	0.00	676.44	18.39	4.03	42.16	39.64
	110.580	18.00	0.00	0.00	672.00	170.00	676.32	0.00	676.56	56.42	3.87	43.96	22.63
	110.590	1.00	678.20	676.70	672.00	170.00	676.21	0.00	676.46	20.47	3.99	42.62	37.57
	110.590	1.00	678.20	676.70	672.00	170.00	676.20	0.00	676.45	10.22	4.02	42.34	53.18
	110.590	1.00	678.20	676.70	672.00	170.00	676.33	0.00	676.56	31.61	3.86	44.01	30.23
	111.020	23.00	678.20	676.70	672.00	170.00	676.27	0.00	676.51	19.54	3.92	43.34	38.46
	111.020	23.00	678.20	676.70	672.00	170.00	676.23	0.00	676.47	9.98	3.98	42.71	53.83
	111.020	23.00	678.20	676.70	672.00	170.00	676.41	0.00	676.64	29.62	3.77	45.06	31.24
	111.030	1.00	0.00	0.00	672.00	170.00	676.28	0.00	676.52	54.51	3.93	43.27	23.03
	111.030	1.00	0.00	0.00	672.00	170.00	676.23	0.00	676.47	27.76	3.98	42.68	32.27
	111.030	1.00	0.00	0.00	672.00	170.00	676.42	0.00	676.64	82.57	3.78	45.00	18.71

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	111.800	10.00	0.00	0.00	672.00	285.00	676.52	0.00	676.62	50.09	3.59	132.63	40.27
	111.800	10.00	0.00	0.00	672.00	285.00	676.41	0.00	676.55	33.63	4.10	118.40	49.15
	111.800	10.00	0.00	0.00	672.00	285.00	676.70	0.00	676.76	51.82	2.93	157.48	39.59
	111.810	58.00	0.00	0.00	672.20	285.00	676.80	0.00	676.88	38.19	3.21	145.93	46.12
	111.810	58.00	0.00	0.00	672.20	285.00	676.61	0.00	676.75	34.52	4.14	117.28	48.51
	111.810	58.00	0.00	0.00	672.20	285.00	676.98	0.00	677.04	41.98	2.69	169.30	43.99
	111.820	20.00	0.00	0.00	672.40	285.00	676.89	0.00	677.00	83.36	3.84	129.36	31.22
	111.820	20.00	0.00	0.00	672.40	285.00	676.65	0.00	676.88	83.79	5.17	97.53	31.14
	111.820	20.00	0.00	0.00	672.40	285.00	677.09	0.00	677.16	85.38	3.12	154.56	30.84
	111.830	100.00	0.00	0.00	673.10	285.00	677.67	0.00	677.76	69.17	3.55	138.33	34.27
	111.830	100.00	0.00	0.00	673.10	285.00	677.44	0.00	677.62	64.73	4.65	108.50	35.42
	111.830	100.00	0.00	0.00	673.10	285.00	677.87	0.00	677.93	69.63	2.87	165.92	34.16
	111.840	70.00	0.00	0.00	673.60	285.00	678.15	0.00	678.25	70.34	3.58	137.50	33.98
	111.840	70.00	0.00	0.00	673.60	285.00	677.90	0.00	678.10	71.95	4.85	103.90	33.60
	111.840	70.00	0.00	0.00	673.60	285.00	678.36	0.00	678.42	69.97	2.87	165.65	34.07
	111.850	1.00	678.00	677.20	673.60	285.00	678.14	0.00	678.27	301.30	3.13	106.82	16.42
*	111.850	1.00	678.00	677.20	673.60	285.00	677.84	677.84	678.18	371.01	6.03	71.66	14.80
	111.850	1.00	678.00	677.20	673.60	285.00	678.36	0.00	678.43	241.12	2.30	135.85	18.35
	111.860	3.00	678.00	677.20	673.60	285.00	678.25	0.00	678.35	209.03	2.69	120.20	19.71
	111.860	3.00	678.00	677.20	673.60	285.00	678.14	0.00	678.27	160.72	3.25	103.92	22.48
	111.860	3.00	678.00	677.20	673.60	285.00	678.43	0.00	678.50	193.94	2.11	145.63	20.47
	111.870	1.00	0.00	0.00	673.60	285.00	678.29	0.00	678.36	49.80	3.10	155.34	40.38
	111.870	1.00	0.00	0.00	673.60	285.00	678.20	0.00	678.28	30.50	3.40	143.61	51.60
	111.870	1.00	0.00	0.00	673.60	285.00	678.46	0.00	678.51	55.43	2.61	179.48	38.28
	111.900	165.00	0.00	0.00	674.80	285.00	679.29	0.00	679.41	81.07	3.79	130.68	31.65
*	111.900	165.00	0.00	0.00	674.80	285.00	678.94	678.94	679.26	120.61	6.01	83.42	25.95
	111.900	165.00	0.00	0.00	674.80	285.00	679.52	0.00	679.58	76.35	2.98	160.70	32.62
	111.910	50.00	0.00	0.00	676.70	285.00	679.86	0.00	680.04	207.08	5.02	97.50	19.80
	111.910	50.00	0.00	0.00	676.70	285.00	679.69	0.00	680.01	186.92	6.56	77.93	20.85
	111.910	50.00	0.00	0.00	676.70	285.00	680.06	0.00	680.16	185.67	3.81	122.20	20.92
	111.920	50.00	0.00	0.00	675.80	285.00	680.45	0.00	680.53	54.53	3.22	150.48	38.59
	111.920	50.00	0.00	0.00	675.80	285.00	680.29	0.00	680.41	41.07	3.85	129.11	44.47
	111.920	50.00	0.00	0.00	675.80	285.00	680.61	0.00	680.66	61.99	2.74	172.71	36.20
	111.930	50.00	0.00	0.00	676.20	285.00	680.75	0.00	680.85	72.93	3.63	135.73	33.37
	111.930	50.00	0.00	0.00	676.20	285.00	680.50	0.00	680.70	71.87	4.85	103.94	33.62
	111.930	50.00	0.00	0.00	676.20	285.00	680.94	0.00	681.00	73.94	2.94	162.50	33.14
	111.940	162.00	0.00	0.00	677.30	285.00	681.87	0.00	681.97	65.51	3.47	141.03	35.21
	111.940	162.00	0.00	0.00	677.30	285.00	681.63	0.00	681.81	64.95	4.65	108.35	35.36
	111.940	162.00	0.00	0.00	677.30	285.00	682.08	0.00	682.14	66.25	2.81	168.80	35.02
	111.950	280.00	0.00	0.00	679.00	285.00	683.62	0.00	683.70	58.59	3.32	146.72	37.23
	111.950	280.00	0.00	0.00	679.00	285.00	683.37	0.00	683.53	58.38	4.45	113.14	37.30
	111.950	280.00	0.00	0.00	679.00	285.00	683.83	0.00	683.88	58.70	2.68	175.98	37.20

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
111.970	50.00	0.00	0.00	679.40	285.00	683.86	0.00	683.97	47.35	3.40	132.04	41.42
111.970	50.00	0.00	0.00	679.40	285.00	683.59	0.00	683.78	41.08	4.26	104.02	44.46
111.970	50.00	0.00	0.00	679.40	285.00	684.09	0.00	684.16	51.47	2.86	157.63	39.73
111.980	100.00	0.00	0.00	680.10	285.00	684.39	0.00	684.55	67.63	3.92	113.95	34.65
111.980	100.00	0.00	0.00	680.10	285.00	684.03	0.00	684.37	74.45	5.39	79.31	33.03
111.980	100.00	0.00	0.00	680.10	285.00	684.66	0.00	684.75	66.82	3.17	142.03	34.86
111.990	200.00	0.00	0.00	681.50	285.00	685.77	0.00	685.93	70.38	3.98	112.06	33.97
111.990	200.00	0.00	0.00	681.50	285.00	685.48	0.00	685.78	66.83	5.17	83.67	34.86
111.990	200.00	0.00	0.00	681.50	285.00	686.03	0.00	686.12	70.15	3.23	139.28	34.03
112.000	358.00	0.00	0.00	684.00	285.00	688.27	0.00	688.43	69.57	3.96	112.61	34.17
112.000	358.00	0.00	0.00	684.00	285.00	687.95	0.00	688.27	72.01	5.32	80.64	33.59
112.000	358.00	0.00	0.00	684.00	285.00	688.53	0.00	688.63	69.62	3.22	139.70	34.16
112.100	305.00	0.00	0.00	686.10	285.00	690.38	0.00	690.54	68.57	3.94	113.30	34.42
112.100	305.00	0.00	0.00	686.10	285.00	690.08	0.00	690.38	66.66	5.16	83.78	34.91
112.100	305.00	0.00	0.00	686.10	285.00	690.64	0.00	690.73	68.66	3.20	140.49	34.40
112.200	250.00	0.00	0.00	687.90	285.00	692.15	0.00	692.32	73.59	4.05	109.97	33.22
112.200	250.00	0.00	0.00	687.90	285.00	691.83	0.00	692.16	74.97	5.40	79.04	32.91
112.200	250.00	0.00	0.00	687.90	285.00	692.41	0.00	692.51	73.19	3.28	136.91	33.31
112.300	250.00	0.00	0.00	689.60	285.00	693.91	0.00	694.06	65.55	3.87	115.46	35.20
112.300	250.00	0.00	0.00	689.60	285.00	693.60	0.00	693.89	63.57	5.07	85.73	35.75
112.300	250.00	0.00	0.00	689.60	285.00	694.16	0.00	694.25	66.31	3.16	142.46	35.00
112.400	50.00	0.00	0.00	690.00	285.00	694.26	0.00	694.40	70.02	3.42	111.39	34.06
112.400	50.00	0.00	0.00	690.00	285.00	693.97	0.00	694.21	65.43	4.34	84.86	35.23
112.400	50.00	0.00	0.00	690.00	285.00	694.50	0.00	694.59	69.43	2.81	138.91	34.20
112.410	55.00	0.00	0.00	690.40	285.00	694.64	0.00	694.79	72.42	3.46	109.84	33.49
112.410	55.00	0.00	0.00	690.40	285.00	694.34	0.00	694.60	72.45	4.53	80.87	33.48
112.410	55.00	0.00	0.00	690.40	285.00	694.89	0.00	694.98	72.70	2.86	136.30	33.43
112.420	1.00	692.20	691.40	690.40	285.00	694.68	0.00	694.80	125.67	3.19	106.61	25.42
112.420	1.00	692.20	691.40	690.40	285.00	694.36	0.00	694.61	153.96	4.49	75.35	22.97
112.420	1.00	692.20	691.40	690.40	285.00	694.91	0.00	694.99	121.72	2.59	131.51	25.83
112.430	8.00	692.20	691.40	690.40	285.00	694.79	0.00	694.89	94.39	2.87	118.75	29.33
112.430	8.00	692.20	691.40	690.40	285.00	694.55	0.00	694.71	84.95	3.59	94.46	30.92
112.430	8.00	692.20	691.40	690.40	285.00	695.01	0.00	695.08	94.62	2.36	144.44	29.30
112.440	1.00	0.00	0.00	690.40	285.00	694.79	0.00	694.90	50.89	3.04	127.15	39.95
112.440	1.00	0.00	0.00	690.40	285.00	694.55	0.00	694.72	42.45	3.70	101.94	43.74
112.440	1.00	0.00	0.00	690.40	285.00	695.01	0.00	695.09	54.78	2.58	152.93	38.51
112.500	35.00	0.00	0.00	690.70	285.00	694.98	0.00	695.11	66.68	3.36	113.68	34.90
112.500	35.00	0.00	0.00	690.70	285.00	694.69	0.00	694.92	63.69	4.29	85.92	35.71
112.500	35.00	0.00	0.00	690.70	285.00	695.22	0.00	695.30	67.68	2.79	140.36	34.64
113.200	345.00	0.00	0.00	693.00	285.00	697.28	0.00	697.41	66.86	3.36	113.55	34.86
113.200	345.00	0.00	0.00	693.00	285.00	696.95	0.00	697.20	68.66	4.43	82.96	34.40
113.200	345.00	0.00	0.00	693.00	285.00	697.53	0.00	697.61	66.25	2.76	141.60	35.02

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
113.280	123.00	0.00	0.00	693.30	285.00	698.44	0.00	699.09	176.82	6.48	43.99	21.43
113.280	123.00	0.00	0.00	693.30	285.00	697.93	0.00	698.76	120.12	7.31	38.99	26.00
113.280	123.00	0.00	0.00	693.30	285.00	698.83	0.00	699.38	236.48	5.95	47.94	18.53
113.290	1.00	0.00	0.00	693.30	285.00	698.81	0.00	699.22	29.23	5.12	55.63	52.71
113.290	1.00	0.00	0.00	693.30	285.00	698.49	0.00	698.95	16.84	5.45	52.34	69.45
113.290	1.00	0.00	0.00	693.30	285.00	699.11	0.00	699.48	42.92	4.86	58.69	43.50
113.300	25.00	0.00	0.00	693.40	285.00	698.88	0.00	699.30	29.80	5.16	55.23	52.20
113.300	25.00	0.00	0.00	693.40	285.00	698.53	0.00	699.00	17.33	5.50	51.77	68.46
113.300	25.00	0.00	0.00	693.40	285.00	699.22	0.00	699.59	42.77	4.85	58.77	43.58
113.310	25.00	702.40	699.50	693.50	285.00	698.96	0.00	699.37	30.07	5.18	55.04	51.97
113.310	25.00	702.40	699.50	693.50	285.00	698.58	0.00	699.06	17.87	5.57	51.18	67.42
113.310	25.00	702.40	699.50	693.50	285.00	699.33	0.00	699.69	42.66	4.84	58.83	43.64
113.330	132.00	702.40	699.50	693.90	285.00	699.35	0.00	699.77	30.13	5.18	55.00	51.92
113.330	132.00	702.40	699.50	693.90	285.00	698.82	0.00	699.34	19.47	5.75	49.56	64.58
113.330	132.00	702.40	699.50	693.90	285.00	700.09	0.00	700.49	83.51	5.04	56.56	31.19
113.420	1.00	0.00	0.00	693.90	285.00	699.36	0.00	699.78	101.01	5.18	55.05	28.36
113.420	1.00	0.00	0.00	693.90	285.00	698.83	0.00	699.34	65.15	5.74	49.65	35.31
113.420	1.00	0.00	0.00	693.90	285.00	700.23	0.00	700.54	115.13	4.45	63.99	26.56
113.800	125.00	0.00	0.00	694.40	285.00	700.70	0.00	700.98	83.57	4.44	75.19	31.18
113.800	125.00	0.00	0.00	694.40	285.00	699.87	0.00	700.55	117.67	6.65	42.88	26.27
113.800	125.00	0.00	0.00	694.40	285.00	701.44	0.00	701.57	54.08	3.13	109.24	38.76
113.810	50.00	0.00	0.00	694.90	285.00	701.12	0.00	701.43	93.06	4.63	71.54	29.54
113.810	50.00	0.00	0.00	694.90	285.00	700.49	0.00	701.11	103.73	6.33	45.01	27.98
113.810	50.00	0.00	0.00	694.90	285.00	701.72	0.00	701.88	69.81	3.43	99.38	34.11
113.820	100.00	0.00	0.00	695.90	285.00	702.06	0.00	702.39	99.73	4.76	69.22	28.54
113.820	100.00	0.00	0.00	695.90	285.00	701.52	0.00	702.13	99.76	6.24	45.73	28.53
113.820	100.00	0.00	0.00	695.90	285.00	702.49	0.00	702.70	93.29	3.82	88.95	29.51
113.830	150.00	0.00	0.00	697.40	285.00	703.56	0.00	703.89	100.06	4.76	69.11	28.49
113.830	150.00	0.00	0.00	697.40	285.00	703.02	0.00	703.63	100.04	6.25	45.67	28.49
113.830	150.00	0.00	0.00	697.40	285.00	703.94	0.00	704.15	100.64	3.92	86.34	28.41
113.900	200.00	0.00	0.00	699.40	285.00	705.57	0.00	705.90	100.38	4.77	69.00	28.45
113.900	200.00	0.00	0.00	699.40	285.00	705.02	0.00	705.63	100.23	6.25	45.63	28.47
113.900	200.00	0.00	0.00	699.40	285.00	705.94	0.00	706.16	99.72	3.91	86.65	28.54
113.910	200.00	0.00	0.00	701.40	285.00	707.56	0.00	707.89	98.99	4.74	69.47	28.64
113.910	200.00	0.00	0.00	701.40	285.00	707.02	0.00	707.63	99.45	6.24	45.79	28.58
113.910	200.00	0.00	0.00	701.40	285.00	707.94	0.00	708.15	100.15	3.92	86.50	28.48
113.920	50.00	0.00	0.00	701.80	285.00	708.05	0.00	708.12	22.50	0.00	130.30	60.08
113.920	50.00	0.00	0.00	701.80	285.00	707.74	0.00	707.84	15.72	0.00	114.05	71.87
113.920	50.00	0.00	0.00	701.80	285.00	708.35	0.00	708.41	27.98	0.00	145.59	53.88
113.930	150.00	0.00	0.00	703.30	285.00	708.53	0.00	708.74	79.90	0.00	77.31	31.88
113.930	150.00	0.00	0.00	703.30	285.00	707.97	0.00	708.40	84.05	0.00	53.98	31.09
113.930	150.00	0.00	0.00	703.30	285.00	708.96	0.00	709.08	77.26	0.00	99.10	32.42

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
114.000	145.00	0.00	0.00	704.80	285.00	709.81	0.00	710.10	107.66	0.00	66.23	27.47
114.000	145.00	0.00	0.00	704.80	285.00	709.27	0.00	709.82	109.83	0.00	47.96	27.19
114.000	145.00	0.00	0.00	704.80	285.00	710.22	0.00	710.39	104.21	0.00	87.22	27.92
114.010	50.00	0.00	0.00	705.50	285.00	710.37	0.00	710.71	131.41	0.00	60.50	24.86
114.010	50.00	0.00	0.00	705.50	285.00	709.80	0.00	710.48	139.43	0.00	43.18	24.14
114.010	50.00	0.00	0.00	705.50	285.00	710.78	0.00	710.98	127.99	0.00	79.34	25.19
114.020	100.00	0.00	0.00	706.80	285.00	711.68	0.00	712.02	129.94	0.00	60.79	25.00
114.020	100.00	0.00	0.00	706.80	285.00	711.19	0.00	711.80	125.03	0.00	45.29	25.49
114.020	100.00	0.00	0.00	706.80	285.00	712.06	0.00	712.27	130.14	0.00	78.71	24.98
114.030	200.00	0.00	0.00	709.50	285.00	714.34	0.00	714.69	137.10	0.00	59.42	24.34
114.030	200.00	0.00	0.00	709.50	285.00	713.80	0.00	714.48	141.84	0.00	42.86	23.93
114.030	200.00	0.00	0.00	709.50	285.00	714.73	0.00	714.94	136.98	0.00	76.77	24.35
114.050	200.00	0.00	0.00	712.20	285.00	717.05	0.00	717.40	133.86	0.00	60.03	24.63
114.050	200.00	0.00	0.00	712.20	285.00	716.56	0.00	717.19	128.49	0.00	44.75	25.14
114.050	200.00	0.00	0.00	712.20	285.00	717.44	0.00	717.65	134.05	0.00	77.59	24.62
114.070	200.00	0.00	0.00	714.90	285.00	719.75	0.00	720.10	136.23	0.00	59.58	24.42
114.070	200.00	0.00	0.00	714.90	285.00	719.20	0.00	719.88	139.31	0.00	43.20	24.15
114.070	200.00	0.00	0.00	714.90	285.00	720.13	0.00	720.35	135.42	0.00	77.20	24.49
114.090	100.00	0.00	0.00	716.20	285.00	721.09	0.00	721.42	127.26	0.00	61.33	25.26
114.090	100.00	0.00	0.00	716.20	285.00	720.59	0.00	721.20	123.73	0.00	45.50	25.62
114.090	100.00	0.00	0.00	716.20	285.00	721.47	0.00	721.67	128.92	0.00	79.07	25.10
115.200	50.00	0.00	0.00	716.90	285.00	721.60	0.00	721.67	22.85	2.51	139.36	59.62
115.200	50.00	0.00	0.00	716.90	285.00	721.33	0.00	721.42	16.64	2.86	122.76	69.87
115.200	50.00	0.00	0.00	716.90	285.00	721.88	0.00	721.94	26.98	2.23	156.22	54.87
115.280	116.00	0.00	0.00	716.80	285.00	721.93	0.00	722.16	44.16	3.84	74.21	42.89
115.280	116.00	0.00	0.00	716.80	285.00	721.54	0.00	721.81	27.57	4.19	68.08	54.27
115.280	116.00	0.00	0.00	716.80	285.00	722.30	0.00	722.50	60.34	3.56	80.09	36.69
115.320	1.00	725.90	723.00	716.80	285.00	721.93	0.00	722.16	13.10	3.84	74.28	78.73
115.320	1.00	725.90	723.00	716.80	285.00	721.54	0.00	721.81	8.19	4.18	68.13	99.60
115.320	1.00	725.90	723.00	716.80	285.00	722.30	0.00	722.50	17.90	3.55	80.17	67.36
115.380	45.00	725.90	723.00	716.80	285.00	722.00	0.00	722.22	12.60	3.78	75.34	80.30
115.380	45.00	725.90	723.00	716.80	285.00	721.58	0.00	721.85	7.96	4.14	68.82	101.03
115.380	45.00	725.90	723.00	716.80	285.00	722.39	0.00	722.58	17.06	3.49	81.56	68.99
115.420	1.00	0.00	0.00	716.80	285.00	722.00	0.00	722.22	42.31	3.78	75.35	43.82
115.420	1.00	0.00	0.00	716.80	285.00	721.58	0.00	721.85	26.73	4.14	68.83	55.12
115.420	1.00	0.00	0.00	716.80	285.00	722.39	0.00	722.58	57.31	3.49	81.59	37.65
115.500	16.50	0.00	0.00	717.40	285.00	722.09	0.00	722.31	65.94	4.10	87.69	35.10
115.500	16.50	0.00	0.00	717.40	285.00	721.62	0.00	722.05	74.40	5.49	62.30	33.04
115.500	16.50	0.00	0.00	717.40	285.00	722.58	0.00	722.70	53.23	3.15	115.30	39.06
115.510	29.00	0.00	0.00	717.40	285.00	722.33	0.00	722.49	45.23	3.58	101.13	42.38
115.510	29.00	0.00	0.00	717.40	285.00	722.03	0.00	722.27	35.76	4.25	84.27	47.66
115.510	29.00	0.00	0.00	717.40	285.00	722.74	0.00	722.85	43.11	2.93	124.21	43.40

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	115.580	1.00	731.90	728.70	718.40	285.00	722.26	0.00	722.78	99.89	5.77	49.38	28.52
	115.580	1.00	731.90	728.70	718.40	285.00	721.92	721.90	722.70	82.19	7.08	40.27	31.44
	115.580	1.00	731.90	728.70	718.40	285.00	722.71	0.00	723.02	93.21	4.53	62.97	29.52
	116.020	20.00	731.90	728.70	718.40	285.00	722.67	0.00	723.00	57.71	4.61	61.80	37.52
	116.020	20.00	731.90	728.70	718.40	285.00	722.63	0.00	722.97	29.63	4.70	60.61	52.36
	116.020	20.00	731.90	728.70	718.40	285.00	722.98	0.00	723.22	71.64	3.91	72.92	33.67
	116.080	1.00	0.00	0.00	718.40	285.00	722.62	0.00	723.25	217.51	6.36	44.78	19.32
	116.080	1.00	0.00	0.00	718.40	285.00	722.57	0.00	723.23	113.65	6.51	43.75	26.73
	116.080	1.00	0.00	0.00	718.40	285.00	722.94	0.00	723.43	257.40	5.59	50.97	17.76
	116.800	49.00	0.00	0.00	718.50	285.00	723.60	0.00	723.92	87.37	4.56	62.44	30.49
	116.800	49.00	0.00	0.00	718.50	285.00	723.23	0.00	723.65	61.11	5.20	54.82	36.46
	116.800	49.00	0.00	0.00	718.50	285.00	723.96	0.00	724.22	104.79	4.05	70.38	27.84
	116.810	50.00	0.00	0.00	719.10	285.00	724.01	0.00	724.03	6.48	1.65	263.09	112.00
	116.810	50.00	0.00	0.00	719.10	285.00	723.72	0.00	723.75	4.80	1.93	227.34	130.12
	116.810	50.00	0.00	0.00	719.10	285.00	724.32	0.00	724.34	7.43	1.43	301.58	104.55
	116.820	60.00	0.00	0.00	720.10	285.00	724.05	0.00	724.12	30.36	2.98	151.49	51.73
	116.820	60.00	0.00	0.00	720.10	285.00	723.70	0.00	723.84	31.08	3.97	114.89	51.12
	116.820	60.00	0.00	0.00	720.10	285.00	724.38	0.00	724.42	28.31	2.37	187.80	53.56
	116.830	50.00	0.00	0.00	721.00	285.00	724.13	724.11	724.54	201.99	6.25	70.56	20.05
*	116.830	50.00	0.00	0.00	721.00	285.00	724.11	724.11	724.55	107.39	6.45	67.96	27.50
	116.830	50.00	0.00	0.00	721.00	285.00	724.56	0.00	724.71	119.25	4.14	110.23	26.10
	116.840	50.00	0.00	0.00	721.80	285.00	725.09	0.00	725.38	139.44	5.41	83.17	24.14
*	116.840	50.00	0.00	0.00	721.80	285.00	724.92	724.92	725.35	105.00	6.40	68.67	27.81
	116.840	50.00	0.00	0.00	721.80	285.00	725.22	0.00	725.43	167.56	4.73	96.22	22.02
	116.860	80.00	0.00	0.00	723.20	285.00	726.34	726.33	726.74	199.54	6.22	70.95	20.18
*	116.860	80.00	0.00	0.00	723.20	285.00	726.31	726.31	726.75	105.86	6.42	68.41	27.70
	116.860	80.00	0.00	0.00	723.20	285.00	726.59	0.00	726.81	177.95	4.85	93.85	21.36
	117.200	80.00	0.00	0.00	724.60	285.00	727.84	0.00	728.16	157.08	5.67	78.98	22.74
*	117.200	80.00	0.00	0.00	724.60	285.00	727.72	727.72	728.15	105.54	6.41	68.51	27.74
	117.200	80.00	0.00	0.00	724.60	285.00	728.00	0.00	728.22	173.81	4.80	94.79	21.62
	117.210	90.00	0.00	0.00	725.20	285.00	728.85	0.00	728.98	57.07	3.81	119.66	37.72
	117.210	90.00	0.00	0.00	725.20	285.00	728.59	0.00	728.81	52.30	4.87	93.30	39.41
	117.210	90.00	0.00	0.00	725.20	285.00	729.04	0.00	729.13	64.15	3.25	139.51	35.58
	117.790	30.00	732.30	729.20	725.20	285.00	732.83	0.00	732.88	7.92	0.00	163.16	101.28
	117.790	30.00	732.30	729.20	725.20	285.00	732.82	0.00	732.86	3.91	0.00	162.69	144.06
	117.790	30.00	732.30	729.20	725.20	285.00	732.84	0.00	732.89	13.30	0.00	163.51	78.15
	117.800	50.00	0.00	0.00	725.80	285.00	732.87	0.00	732.93	11.24	0.00	145.18	85.01
	117.800	50.00	0.00	0.00	725.80	285.00	732.83	0.00	732.89	5.65	0.00	143.94	119.89
	117.800	50.00	0.00	0.00	725.80	285.00	732.91	0.00	732.97	18.47	0.00	146.54	66.31

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT TABLE 150

	SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.150	170.00	674.18	0.00	.06	0.00	110.63	100.00
	110.150	170.00	674.11	0.00	-.01	0.00	103.41	100.00
	110.150	170.00	674.26	0.00	.14	0.00	116.82	100.00
	110.200	170.00	674.34	0.00	.16	0.00	22.42	100.00
	110.200	170.00	674.10	0.00	-.01	0.00	17.59	100.00
	110.200	170.00	674.57	0.00	.32	0.00	36.33	100.00
	110.280	170.00	674.99	0.00	.66	0.00	11.10	115.00
	110.280	170.00	674.55	0.00	.46	0.00	10.94	115.00
	110.280	170.00	675.33	0.00	.76	0.00	11.10	115.00
	110.320	170.00	675.17	0.00	.18	0.00	11.10	30.00
	110.320	170.00	674.64	0.00	.08	0.00	11.00	30.00
	110.320	170.00	675.57	0.00	.23	0.00	11.10	30.00
	110.500	170.00	675.16	0.00	-.02	0.00	10.08	15.00
*	110.500	170.00	674.98	0.00	.35	0.00	9.74	15.00
	110.500	170.00	675.62	0.00	.05	0.00	10.99	15.00
	110.580	170.00	676.21	0.00	1.05	0.00	12.07	18.00
	110.580	170.00	676.19	0.00	1.21	0.00	12.06	18.00
	110.580	170.00	676.32	0.00	.71	0.00	12.08	18.00
	110.590	170.00	676.21	0.00	.01	0.00	12.07	1.00
	110.590	170.00	676.20	0.00	.00	0.00	12.07	1.00
	110.590	170.00	676.33	0.00	.01	0.00	12.08	1.00
	111.020	170.00	676.27	0.00	.06	0.00	12.07	23.00
	111.020	170.00	676.23	0.00	.03	0.00	12.07	23.00
	111.020	170.00	676.41	0.00	.09	0.00	12.08	23.00
	111.030	170.00	676.28	0.00	.00	0.00	12.07	1.00
	111.030	170.00	676.23	0.00	.00	0.00	12.07	1.00
	111.030	170.00	676.42	0.00	.00	0.00	12.08	1.00
	111.800	285.00	676.52	0.00	.24	0.00	135.74	10.00
	111.800	285.00	676.41	0.00	.19	0.00	134.16	10.00
	111.800	285.00	676.70	0.00	.28	0.00	138.46	10.00
	111.810	285.00	676.80	0.00	.28	0.00	137.20	58.00
	111.810	285.00	676.61	0.00	.20	0.00	134.03	58.00
	111.810	285.00	676.98	0.00	.28	0.00	139.73	58.00
	111.820	285.00	676.89	0.00	.08	0.00	135.38	20.00
	111.820	285.00	676.65	0.00	.04	0.00	126.27	20.00
	111.820	285.00	677.09	0.00	.10	0.00	138.14	20.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	111.830	285.00	677.67	0.00	.78	0.00	136.37	100.00
	111.830	285.00	677.44	0.00	.79	0.00	130.68	100.00
	111.830	285.00	677.87	0.00	.78	0.00	139.37	100.00
	111.840	285.00	678.15	0.00	.49	0.00	136.28	70.00
	111.840	285.00	677.90	0.00	.46	0.00	128.85	70.00
	111.840	285.00	678.36	0.00	.49	0.00	139.34	70.00
	111.850	285.00	678.14	0.00	-.01	0.00	136.29	1.00
*	111.850	285.00	677.84	0.00	-.06	0.00	125.78	1.00
	111.850	285.00	678.36	0.00	.00	0.00	139.45	1.00
	111.860	285.00	678.25	0.00	.11	0.00	137.75	3.00
	111.860	285.00	678.14	0.00	.30	0.00	135.97	3.00
	111.860	285.00	678.43	0.00	.08	0.00	140.50	3.00
	111.870	285.00	678.29	0.00	.04	0.00	138.22	1.00
	111.870	285.00	678.20	0.00	.06	0.00	136.95	1.00
	111.870	285.00	678.46	0.00	.03	0.00	140.82	1.00
	111.900	285.00	679.29	0.00	1.01	0.00	135.52	165.00
*	111.900	285.00	678.94	0.00	.74	0.00	120.36	165.00
	111.900	285.00	679.52	0.00	1.06	0.00	138.81	165.00
	111.910	285.00	679.86	0.00	.57	0.00	119.58	50.00
	111.910	285.00	679.69	0.00	.75	0.00	113.81	50.00
	111.910	285.00	680.06	0.00	.54	0.00	126.50	50.00
	111.920	285.00	680.45	0.00	.59	0.00	137.70	50.00
	111.920	285.00	680.29	0.00	.61	0.00	135.35	50.00
	111.920	285.00	680.61	0.00	.55	0.00	140.10	50.00
	111.930	285.00	680.75	0.00	.30	0.00	136.08	50.00
	111.930	285.00	680.50	0.00	.21	0.00	128.87	50.00
	111.930	285.00	680.94	0.00	.33	0.00	139.00	50.00
	111.940	285.00	681.87	0.00	1.13	0.00	136.66	162.00
	111.940	285.00	681.63	0.00	1.13	0.00	130.62	162.00
	111.940	285.00	682.08	0.00	1.14	0.00	139.68	162.00
	111.950	285.00	683.62	0.00	1.74	0.00	137.29	280.00
	111.950	285.00	683.37	0.00	1.74	0.00	132.51	280.00
	111.950	285.00	683.83	0.00	1.75	0.00	140.45	280.00
	111.970	285.00	683.86	0.00	.24	0.00	108.86	50.00
	111.970	285.00	683.59	0.00	.22	0.00	100.23	50.00
	111.970	285.00	684.09	0.00	.26	0.00	116.19	50.00
	111.980	285.00	684.39	0.00	.53	0.00	103.37	100.00
	111.980	285.00	684.03	0.00	.44	0.00	90.05	100.00
	111.980	285.00	684.66	0.00	.57	0.00	111.78	100.00
	111.990	285.00	685.77	0.00	1.38	0.00	102.78	200.00
	111.990	285.00	685.48	0.00	1.44	0.00	92.97	200.00
	111.990	285.00	686.03	0.00	1.37	0.00	110.98	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
112.000	285.00	688.27	0.00	2.51	0.00	102.95	358.00
112.000	285.00	687.95	0.00	2.47	0.00	90.95	358.00
112.000	285.00	688.53	0.00	2.50	0.00	111.11	358.00
112.100	285.00	690.38	0.00	2.11	0.00	103.17	305.00
112.100	285.00	690.08	0.00	2.14	0.00	93.04	305.00
112.100	285.00	690.64	0.00	2.11	0.00	111.34	305.00
112.200	285.00	692.15	0.00	1.77	0.00	102.12	250.00
112.200	285.00	691.83	0.00	1.74	0.00	89.86	250.00
112.200	285.00	692.41	0.00	1.77	0.00	110.30	250.00
112.300	285.00	693.91	0.00	1.75	0.00	103.84	250.00
112.300	285.00	693.60	0.00	1.78	0.00	94.16	250.00
112.300	285.00	694.16	0.00	1.75	0.00	111.91	250.00
112.400	285.00	694.26	0.00	.35	0.00	102.83	50.00
112.400	285.00	693.97	0.00	.37	0.00	88.35	50.00
112.400	285.00	694.50	0.00	.34	0.00	116.15	50.00
112.410	285.00	694.64	0.00	.39	0.00	102.03	55.00
112.410	285.00	694.34	0.00	.36	0.00	86.56	55.00
112.410	285.00	694.89	0.00	.39	0.00	115.03	55.00
112.420	285.00	694.68	0.00	.03	0.00	104.08	1.00
112.420	285.00	694.36	0.00	.02	0.00	87.32	1.00
112.420	285.00	694.91	0.00	.02	0.00	116.09	1.00
112.430	285.00	694.79	0.00	.11	0.00	110.13	8.00
112.430	285.00	694.55	0.00	.19	0.00	97.66	8.00
112.430	285.00	695.01	0.00	.10	0.00	119.74	8.00
112.440	285.00	694.79	0.00	.00	0.00	110.71	1.00
112.440	285.00	694.55	0.00	-.00	0.00	97.81	1.00
112.440	285.00	695.01	0.00	.00	0.00	120.10	1.00
112.500	285.00	694.98	0.00	.18	0.00	104.01	35.00
112.500	285.00	694.69	0.00	.13	0.00	88.83	35.00
112.500	285.00	695.22	0.00	.20	0.00	116.56	35.00
113.200	285.00	697.28	0.00	2.30	0.00	103.95	345.00
113.200	285.00	696.95	0.00	2.27	0.00	87.51	345.00
113.200	285.00	697.53	0.00	2.31	0.00	116.92	345.00
113.280	285.00	698.44	0.00	1.16	0.00	9.98	123.00
113.280	285.00	697.93	0.00	.98	0.00	9.96	123.00
113.280	285.00	698.83	0.00	1.30	0.00	10.13	123.00
113.290	285.00	698.81	0.00	.37	0.00	10.18	1.00
113.290	285.00	698.49	0.00	.56	0.00	10.17	1.00
113.290	285.00	699.11	0.00	.28	0.00	10.19	1.00
113.300	285.00	698.88	0.00	.07	0.00	10.18	25.00
113.300	285.00	698.53	0.00	.04	0.00	10.17	25.00
113.300	285.00	699.22	0.00	.11	0.00	10.19	25.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
113.310	285.00	698.96	0.00	.07	0.00	10.18	25.00
113.310	285.00	698.58	0.00	.04	0.00	10.16	25.00
113.310	285.00	699.33	0.00	.11	0.00	10.19	25.00
113.330	285.00	699.35	0.00	.40	0.00	10.18	132.00
113.330	285.00	698.82	0.00	.25	0.00	10.16	132.00
113.330	285.00	700.09	0.00	.77	0.00	10.20	132.00
113.420	285.00	699.36	0.00	.01	0.00	10.18	1.00
113.420	285.00	698.83	0.00	.01	0.00	10.16	1.00
113.420	285.00	700.23	0.00	.14	0.00	10.20	1.00
113.800	285.00	700.70	0.00	1.33	0.00	45.99	125.00
113.800	285.00	699.87	0.00	1.04	0.00	17.35	125.00
113.800	285.00	701.44	0.00	1.20	0.00	46.00	125.00
113.810	285.00	701.12	0.00	.42	0.00	45.75	50.00
113.810	285.00	700.49	0.00	.62	0.00	17.87	50.00
113.810	285.00	701.72	0.00	.29	0.00	46.00	50.00
113.820	285.00	702.06	0.00	.95	0.00	45.60	100.00
113.820	285.00	701.52	0.00	1.04	0.00	24.16	100.00
113.820	285.00	702.49	0.00	.77	0.00	46.00	100.00
113.830	285.00	703.56	0.00	1.50	0.00	45.59	150.00
113.830	285.00	703.02	0.00	1.50	0.00	23.50	150.00
113.830	285.00	703.94	0.00	1.44	0.00	46.00	150.00
113.900	285.00	705.57	0.00	2.00	0.00	45.59	200.00
113.900	285.00	705.02	0.00	2.00	0.00	23.06	200.00
113.900	285.00	705.94	0.00	2.01	0.00	46.00	200.00
113.910	285.00	707.56	0.00	2.00	0.00	45.62	200.00
113.910	285.00	707.02	0.00	2.00	0.00	24.88	200.00
113.910	285.00	707.94	0.00	2.00	0.00	46.00	200.00
113.920	285.00	708.05	0.00	.48	0.00	52.00	50.00
113.920	285.00	707.74	0.00	.72	0.00	52.00	50.00
113.920	285.00	708.35	0.00	.41	0.00	52.00	50.00
113.930	285.00	708.53	0.00	.48	0.00	52.00	150.00
113.930	285.00	707.97	0.00	.22	0.00	31.95	150.00
113.930	285.00	708.96	0.00	.61	0.00	52.00	150.00
114.000	285.00	709.81	0.00	1.28	0.00	44.60	145.00
114.000	285.00	709.27	0.00	1.31	0.00	29.19	145.00
114.000	285.00	710.22	0.00	1.27	0.00	52.00	145.00
114.010	285.00	710.37	0.00	.55	0.00	33.71	50.00
114.010	285.00	709.80	0.00	.53	0.00	26.28	50.00
114.010	285.00	710.78	0.00	.55	0.00	52.00	50.00
114.020	285.00	711.68	0.00	1.31	0.00	33.79	100.00
114.020	285.00	711.19	0.00	1.39	0.00	27.60	100.00
114.020	285.00	712.06	0.00	1.29	0.00	52.00	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
114.030	285.00	714.34	0.00	2.66	0.00	33.43	200.00
114.030	285.00	713.80	0.00	2.61	0.00	26.07	200.00
114.030	285.00	714.73	0.00	2.66	0.00	52.00	200.00
114.050	285.00	717.05	0.00	2.72	0.00	33.59	200.00
114.050	285.00	716.56	0.00	2.76	0.00	27.27	200.00
114.050	285.00	717.44	0.00	2.72	0.00	52.00	200.00
114.070	285.00	719.75	0.00	2.70	0.00	33.47	200.00
114.070	285.00	719.20	0.00	2.64	0.00	26.29	200.00
114.070	285.00	720.13	0.00	2.69	0.00	52.00	200.00
114.090	285.00	721.09	0.00	1.34	0.00	33.93	100.00
114.090	285.00	720.59	0.00	1.38	0.00	27.73	100.00
114.090	285.00	721.47	0.00	1.33	0.00	52.00	100.00
115.200	285.00	721.60	0.00	.51	0.00	61.00	50.00
115.200	285.00	721.33	0.00	.74	0.00	61.00	50.00
115.200	285.00	721.88	0.00	.41	0.00	61.00	50.00
115.280	285.00	721.93	0.00	.33	0.00	15.75	116.00
115.280	285.00	721.54	0.00	.21	0.00	15.66	116.00
115.280	285.00	722.30	0.00	.42	0.00	15.84	116.00
115.320	285.00	721.93	0.00	.00	0.00	15.75	1.00
115.320	285.00	721.54	0.00	.00	0.00	15.66	1.00
115.320	285.00	722.30	0.00	.00	0.00	15.84	1.00
115.380	285.00	722.00	0.00	.07	0.00	15.77	45.00
115.380	285.00	721.58	0.00	.04	0.00	15.67	45.00
115.380	285.00	722.39	0.00	.09	0.00	15.86	45.00
115.420	285.00	722.00	0.00	.00	0.00	15.77	1.00
115.420	285.00	721.58	0.00	.00	0.00	15.67	1.00
115.420	285.00	722.39	0.00	.00	0.00	15.86	1.00
115.500	285.00	722.09	0.00	.09	0.00	56.00	16.50
115.500	285.00	721.62	0.00	.04	0.00	50.20	16.50
115.500	285.00	722.58	0.00	.18	0.00	56.00	16.50
115.510	285.00	722.33	0.00	.24	0.00	56.00	29.00
115.510	285.00	722.03	0.00	.41	0.00	56.00	29.00
115.510	285.00	722.74	0.00	.16	0.00	56.00	29.00
115.580	285.00	722.26	0.00	-.06	0.00	28.52	1.00
115.580	285.00	721.92	0.00	-.10	0.00	25.66	1.00
115.580	285.00	722.71	0.00	-.04	0.00	32.82	1.00
116.020	285.00	722.67	0.00	.41	0.00	32.45	20.00
116.020	285.00	722.63	0.00	.70	0.00	32.08	20.00
116.020	285.00	722.98	0.00	.28	0.00	39.22	20.00
116.080	285.00	722.62	0.00	-.05	0.00	18.72	1.00
116.080	285.00	722.57	0.00	-.06	0.00	18.55	1.00
116.080	285.00	722.94	0.00	-.04	0.00	19.74	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	116.800	285.00	723.60	0.00	.98	0.00	21.51	49.00
	116.800	285.00	723.23	0.00	.66	0.00	20.35	49.00
	116.800	285.00	723.96	0.00	1.02	0.00	22.27	49.00
	116.810	285.00	724.01	0.00	.41	0.00	123.99	50.00
	116.810	285.00	723.72	0.00	.49	0.00	119.18	50.00
	116.810	285.00	724.32	0.00	.35	0.00	128.97	50.00
	116.820	285.00	724.05	0.00	.04	0.00	108.26	60.00
	116.820	285.00	723.70	0.00	-.02	0.00	102.58	60.00
	116.820	285.00	724.38	0.00	.06	0.00	113.62	60.00
	116.830	285.00	724.13	0.00	.08	0.00	84.14	50.00
*	116.830	285.00	724.11	0.00	.41	0.00	82.14	50.00
	116.830	285.00	724.56	0.00	.18	0.00	101.84	50.00
	116.840	285.00	725.09	0.00	.96	0.00	92.63	50.00
*	116.840	285.00	724.92	0.00	.81	0.00	82.69	50.00
	116.840	285.00	725.22	0.00	.66	0.00	99.56	50.00
	116.860	285.00	726.34	0.00	1.25	0.00	84.44	80.00
*	116.860	285.00	726.31	0.00	1.40	0.00	82.49	80.00
	116.860	285.00	726.59	0.00	1.37	0.00	98.92	80.00
	117.200	285.00	727.84	0.00	1.50	0.00	90.05	80.00
*	117.200	285.00	727.72	0.00	1.40	0.00	82.57	80.00
	117.200	285.00	728.00	0.00	1.41	0.00	99.32	80.00
	117.210	285.00	728.85	0.00	1.01	0.00	103.34	90.00
	117.210	285.00	728.59	0.00	.87	0.00	98.60	90.00
	117.210	285.00	729.04	0.00	1.03	0.00	106.44	90.00
	117.790	285.00	732.83	0.00	3.98	0.00	32.00	30.00
	117.790	285.00	732.82	0.00	4.23	0.00	32.00	30.00
	117.790	285.00	732.84	0.00	3.81	0.00	32.00	30.00
	117.800	285.00	732.87	0.00	.04	0.00	32.00	50.00
	117.800	285.00	732.83	0.00	.01	0.00	32.00	50.00
	117.800	285.00	732.91	0.00	.07	0.00	32.00	50.00

SUMMARY OF ERRORS

CAUTION SECNO= 110.500 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 110.500 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 111.850 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 111.850 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 111.850 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 111.900 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 111.900 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 116.830 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 116.830 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY

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 CAUTION  SECNO=  116.830  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  116.840  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  116.840  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  116.840  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  116.860  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  116.860  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  116.860  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  117.200  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  117.200  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  117.200  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Unnamed Trib No. 2

4) DOCUMENT TYPE: Analyses



McNamee Porter & Seeley

Transmittal

RECEIVED
JUL 20 1981
WATER MANAGEMENT

RECEIVED
JUL 20 1981
WATER MANAGEMENT

CONSULTING ENGINEERS
3131 South State Street • Ann Arbor, Michigan 48104 • Phone (313) 665-6000

To: Greenhorne & O'Mara, Inc.
6715 Kenilworth Avenue
Riverdale, Maryland 20840

Date: July 17, 1981

Project: HUD-FIA-H-4705
Township of Washington FIS

Attn: Cliff Nelson

Contract No.:

Agency No.:

Gentlemen:

☒ We are enclosing ☐ We are sending under separate cover

The following:

☒ Drawings ☐ Specifications ☐ Change Orders

☐ Pay Estimate ☐ Contract Documents ☒ _____

Flood boundary map overlay with revised delineations, revised computer output summary for Yates Drain, hydraulic calculations for Tributary 2.

For:

☐ Your approval ☐ Your corrections ☐ Your comments

☐ Your execution ☐ Your file ☐ Your signature

Remarks: The enclosed overlay shows all flood boundary delineation revisions to Yates Drain, Tributary 2 and the unnamed tributary for the Township of Washington FIS due to the trailer park development bounded on the north by the USGS section line, on the east by Yates Drain, on the south by 26 Mile Road and on the west by M-53. The enclosed computer output for Yates Drain compares the new computer results with the previous results. The only change to the Yates Drain model was to input the flow contribution from Tributary 2 at its new location (approximate computer cross-section 4.3, previous computer cross section 3.95). The profiles should be revised to show the new elevations in this reach, which varied from 0.1 to 0.5 feet higher than the prevous profile. The unnamed tributary has been deleted as an approximate study as it is now enclosed (72 inch circular storm sewer). Tributary 2 has been changed to an approximate study as the 100 and 500 year frequency flows will be contained within the banks (see attached calculations). If you have any questions, please give me a call.

CC: Norb Schwartz-FEMA
Daniel Morgan - MDNR ✓
File - 2

By: John S. Wise, P.E.

mps

HUD-FIA H-4705 Washington TWP 1/

Hydrology Review

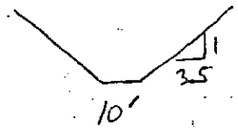
JSW 7/13/81

RECEIVED
JUL 20 1981
WATER MANAGEMENT

MPS

Trib 2 Relocation + Modification

New Drain:



$Q_{100} = 310$ cfs

$Q_{500} = 435$ cfs

$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

$Q = \frac{1.49}{n} S^{1/2} \frac{A^{5/3}}{P^{2/3}}$

$S = .0026$

$n = .045$

$A = 10 \times y + y \times y \times 3.5$

$P = \sqrt{y^2 + (y \times 3.5)^2} \times 2 + 10'$

$= 12.25$

$$Q = \frac{1.49}{.045} (.0026)^{1/2} \frac{(10y + 3.5y^2)^{5/3}}{[2 \times \sqrt{13.25y^2} + 10']^{2/3}}$$

$\frac{1.49}{.045} (.0026)^{1/2} = 1.69$

y (Ft)	A_T (Ft²)	P	Q (cfs)	width (Ft)	
2'	34	24.6	717	24	
3'	61.5	31.8	161	31	
4'	96	39.1	295	38	310 – 4.1 → 4.2'
5'	137.5	46.4	479	45'	435 – 4.8 → 4.9'

New Trib 2 channel banks are greater than 5 Feet in depth from channel bottom from a point 100 Feet upstream of its junction with Yates Drain.

Y PRINTOUT TABLE 150 — 100 Yr Floodway — 2/

SECNO	O	Previous Flow CWSEL	Previous Elev DIFWSP	Diff. DIFWSX	DIFKWS	Previous TW TOPWID	XLCH
2.000	810.00	651.97	0.00	0.00	0.00	204.75	0.00
2.000	810.00	651.97	0.00	0.00	0.00	111.45	0.00
3.200	810.00	654.26	0.00	2.29	0.00	115.07	1080.00
3.200	810.00	654.36	.10	2.39	.10	92.80	1080.00
3.400	810.00	654.38	0.00	.12	0.00	62.92	90.00
3.400	810.00	654.48	.10	.11	.10	62.03	90.00
A							
3.600	810.00	654.44	0.00	.06	0.00	62.94	60.00
3.600	810.00	654.54	.09	.06	.09	62.19	60.00
3.800	810.00	654.49	0.00	.04	0.00	147.79	50.00
B 3.800	810.00	654.58	.09	.04	.09	92.95	50.00
3.900	810.00	656.78	0.00	2.29	0.00	144.50	800.00
3.900	810.00	656.88	.10	2.30	.10	92.48	800.00
3.950 OLD	810.00 605	659.04 658.8	0.00 +0.2	2.26	0.00 236	253.44	660.00
3.950 New Trial	810.00 605	659.14 658.9	.10 +0.2	2.27	.10 113	123.08	660.00
3.970	810.00	659.76 659.4	0.00 +.4	.72	0.00 225	255.08	240.00
3.970	810.00	659.87 659.5	.10 +.4	.72	.10 107	123.48	240.00
3.980	810.00	660.48 660.0	0.00 +.5	.71	0.00 220	255.20	240.00
3.980	810.00	660.58 660.1	.10 +.5	.71	.10 104	121.87	240.00
4.000 C	810.00	661.20 660.7	0.00 +.5	.73	0.00 212	250.33	240.00
4.000	810.00	661.30 660.8	.10 +.5	.73	.10 99	120.82	240.00
4.100	810.00	663.13 662.6	0.00 +.5	1.92	0.00 227	267.21	520.00
4.100	810.00	663.22 662.7	.10 +.5	1.92	.10 106	128.68	520.00
4.200	810.00	665.22 664.8	0.00 +.4	2.09	0.00 238	273.68	520.00
4.200	810.00	665.32 664.9	.10 +.4	2.10	.10 112	132.06	520.00
4.300 New Trial	605.00	666.20 665.9	0.00 +.3	.98	0.00 161	175.10	300.00
4.300	605.00	666.31 666.0	.11 +.3	.99	.11 95	115.29	300.00
4.940	605.00	666.72 666.6	0.00 +.1	.51	0.00 167	171.34	200.00
4.940	605.00	666.82 666.7	.11 +.1	.51	.11 104	109.35	200.00
4.960	605.00	667.28 667.2	0.00 +.1	.56	0.00 168	169.89	200.00
4.960	605.00	667.39 667.3	.11 +.1	.56	.11 106	108.29	200.00
5.000 D	605.00	667.89 667.9	0.00	.61	0.00 161	161.99	200.00
5.000	605.00	667.99 668.0	.10	.61	.10 93	96.98	200.00
5.100	605.00	668.12 668.11	0.00	.23	0.00 167	167.35	55.00
5.100	605.00	668.22 668.22	.10	.23	.10 105	104.83	55.00
5.300	605.00	668.04	0.00	-.07	0.00	156.04	41.00
5.300	605.00	668.15	.10	-.07	.10	85.36	41.00

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WATER MANAGEMENT

100 Yr Floodway

5.400	605.00	668.73	0.00	.69	0.00	180.55	172.00	3/
5.400	605.00	668.84	.11	.70	.11	121.59	172.00	
5.500	605.00	668.81	0.00	.08	0.00	183.80	8.00	
5.500	605.00	668.92	.11	.08	.11	125.39	8.00	
6.200	605.00	671.19	0.00	2.39	0.00	150.64	1135.00	
6.200	605.00	671.29	.09	2.37	.09	89.56	1135.00	
6.100	605.00	671.67	0.00	.47	0.00	48.05	234.00	
6.100	605.00	671.77	.10	.49	.10	48.29	234.00	
6.000	605.00	671.67	0.00	.00	0.00	48.05	1.00	
6.000	605.00	671.77	.10	.00	.10	48.28	1.00	
6.800	605.00	671.68	0.00	.01	0.00	48.08	31.00	
6.800	605.00	671.80	.11	.02	.11	48.35	31.00	
6.400	605.00	671.68	0.00	.00	0.00	48.08	1.00	
6.400	605.00	671.81	.13	.01	.13	48.36	1.00	
6.500	605.00	672.06	0.00	.38	0.00	248.31	234.00	
6.500	605.00	672.15	.09	.34	.09	157.87	234.00	
6.600	605.00	672.78	0.00	.72	0.00	204.64	350.00	
6.600	605.00	672.87	.09	.73	.09	90.82	350.00	
6.700	605.00	674.12	0.00	1.34	0.00	231.64	350.00	
6.700	605.00	674.27	.15	1.40	.15	59.43	350.00	
7.200	605.00	674.82	0.00	.70	0.00	255.84	150.00	
7.200	605.00	674.99	.17	.72	.17	90.78	150.00	
7.100	605.00	674.82	0.00	.00	0.00	229.08	36.00	
7.100	605.00	674.98	.16	-.01	.16	54.82	36.00	
7.700	605.00	676.24	0.00	1.42	0.00	273.75	24.00	
7.700	605.00	676.40	.16	1.42	.16	146.08	24.00	
7.800	465.00	676.26	0.00	.02	0.00	104.06	27.00	
7.800	465.00	676.42	.16	.02	.16	74.00	27.00	
7.850	375.00	676.26	0.00	-.00	0.00	101.80	100.00	
7.850	375.00	676.41	.16	-.01	.16	57.43	100.00	

APY OF ERRORS

Received
JUL 20 1981
WATER MANAGEMENT

10, 50, 100 & 500 Yr. Flows

4/

DRAIN 100 YEAR FLO

Y PRINTOUT TABLE 150

RECEIVED

JUL 20 1981

WATER MANAGEMENT

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
		Previous Flow	Previous Elev				
2.000	475.00	651.13	0.00	0.00	0.00	83.73	0.00
2.000	700.00	651.77	.64	0.00	0.00	189.75	0.00
2.000	810.00	651.97	.20	0.00	0.00	204.75	0.00
2.000	1090.00	652.44	.47	0.00	0.00	229.53	0.00
3.200	475.00	653.39	0.00	2.26	0.00	101.72	1080.00
3.200	700.00	654.02	.63	2.25	0.00	111.35	1080.00
3.200	810.00	654.26	.24	2.29	0.00	115.07	1080.00
3.200	1090.00	654.77	.51	2.33	0.00	122.80	1080.00
3.400	475.00	653.50	0.00	.11	0.00	62.61	90.00
3.400	700.00	654.13	.64	.12	0.00	62.83	90.00
3.400	810.00	654.38	.25	.12	0.00	62.92	90.00
3.400	1090.00	654.89	.51	.12	0.00	63.10	90.00
A							
3.600	475.00	653.53	0.00	.04	0.00	62.63	60.00
3.600	700.00	654.19	.65	.05	0.00	62.85	60.00
3.600	810.00	654.44	.26	.06	0.00	62.94	60.00
3.600	1090.00	654.98	.54	.08	0.00	63.12	60.00
3.800	475.00	653.56	0.00	.02	0.00	110.93	50.00
3.800	700.00	654.22	.67	.04	0.00	137.37	50.00
3.800 B	810.00	654.49	.26	.04	0.00	147.79	50.00
3.800	1090.00	655.04	.55	.06	0.00	168.91	50.00
3.900	475.00	655.88	0.00	2.32	0.00	113.46	800.00
3.900	700.00	656.52	.64	2.29	0.00	136.39	800.00
3.900	810.00	656.78	.26	2.29	0.00	144.50	800.00
3.900	1090.00	657.34	.57	2.30	0.00	162.35	800.00
3.950	475.00 360	658.15 657.94	0.00	2.27	0.00	184.33	660.00
3.950	700.00 520	658.78 658.57	.64	2.27	0.00	233.75	660.00
3.950	810.00 605	659.04 658.82	.26	2.26	0.00	253.44	660.00
3.950	1090.00 825	659.60 659.38	.56	2.26	0.00	296.41	660.00
3.970	475.00	658.87 658.51	0.00	.72	0.00	185.84	240.00
3.970	700.00	659.51 659.12	.64	.72	0.00	235.12	240.00
3.970	810.00	659.76 659.37	.26	.72	0.00	255.08	240.00
3.970	1090.00	660.33 659.93	.56	.72	0.00	298.33	240.00
3.980	475.00	659.57 659.17	0.00	.71	0.00	186.22	240.00
3.980	700.00	660.22 659.76	.64	.71	0.00	235.82	240.00
3.980	810.00	660.48 660.01	.26	.71	0.00	255.20	240.00
3.980	1090.00	661.03 660.56	.56	.71	0.00	298.51	240.00
4.000	475.00	660.30 659.87	0.00	.73	0.00	180.54	240.00
4.000 C	700.00	660.94 660.46	.64	.73	0.00	230.13	240.00
4.000	810.00	661.20 660.71	.26	.73	0.00	250.33	240.00
4.000	1090.00	661.76 661.25	.55	.72	0.00	293.11	240.00
4.100	475.00	662.28 661.88	0.00	1.99	0.00	197.14	520.00
4.100	700.00	662.88 662.41	.60	1.94	0.00	246.91	520.00

10,50, 100 +500 Yr Flows

5/

4.100	810.00	↓	663.13	662.65	-.24	1.92	0.00	267.21	520.00
4.100	1090.00	↓	663.65	663.16	-.52	1.89	0.00	290.63	520.00

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WATER MANAGEMENT

10,50,100,500 Y- Flows 6/

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.200	475.00	664.44 664.07	0.00	2.16	0.00	210.06	520.00
4.200	700.00	664.99 664.56	.56	2.11	0.00	256.11	520.00
4.200	810.00	665.22 664.78	.22	2.09	0.00	273.68	520.00
4.200	1090.00	665.68 665.25	.46	2.03	0.00	292.07	520.00
4.300	360.00	665.38 665.11	0.00	.94	0.00	140.77	300.00
4.300	520.00	665.96 665.64	.58	.96	0.00	164.86	300.00
4.300	605.00	666.20 665.87	.24	.98	0.00	175.10	300.00
4.300	825.00	666.70 666.37	.50	1.02	0.00	196.06	300.00
4.940	360.00	665.91 665.82	0.00	.53	0.00	133.63	200.00
4.940	520.00	666.47 666.36	.56	.51	0.00	160.82	200.00
4.940	605.00	666.72 666.60	.25	.51	0.00	171.34	200.00
4.940	825.00	667.24 667.12	.52	.54	0.00	193.27	200.00
4.960	360.00	666.48 666.44	0.00	.57	0.00	130.91	200.00
4.960	520.00	667.03 666.99	.55	.56	0.00	159.25	200.00
4.960	605.00	667.28 667.23	.25	.56	0.00	169.89	200.00
4.960	825.00	667.81 667.76	.53	.57	0.00	192.28	200.00
5.000	360.00	667.10 667.09	0.00	.62	0.00	113.91	200.00
5.000 D	520.00	667.64 667.63	.54	.62	0.00	152.21	200.00
5.000	605.00	667.89 667.88	.25	.61	0.00	161.99	200.00
5.000	825.00	668.43 668.41	.54	.62	0.00	184.56	200.00
5.100	360.00	667.32	0.00	.22	0.00	125.78	55.00
5.100	520.00	667.87	.55	.23	0.00	157.16	55.00
5.100	605.00	668.12	.24	.23	0.00	167.35	55.00
5.100	825.00	668.65	.53	.22	0.00	189.51	55.00
5.300	360.00	667.45	0.00	.13	0.00	118.87	41.00
5.300	520.00	667.80	.35	-.07	0.00	146.86	41.00
5.300	605.00	668.04	.24	-.07	0.00	156.04	41.00
5.300	825.00	668.60	.56	-.05	0.00	179.45	41.00
5.400	360.00	667.99	0.00	.54	0.00	150.05	172.00
5.400	520.00	668.50	.51	.69	0.00	170.62	172.00
5.400	605.00	668.73	.24	.69	0.00	180.55	172.00
5.400	825.00	669.25	.52	.65	0.00	202.28	172.00
5.500	360.00	668.04	0.00	.05	0.00	152.12	8.00
5.500	520.00	668.56	.52	.07	0.00	173.48	8.00
5.500	605.00	668.81	.25	.08	0.00	183.80	8.00
5.500	825.00	669.36	.55	.11	0.00	206.92	8.00
6.200	360.00	670.34	0.00	2.30	0.00	108.26	1135.00
6.200	520.00	670.94	.59	2.37	0.00	137.75	1135.00
6.200	605.00	671.19	.26	2.39	0.00	150.64	1135.00
6.200	825.00	671.75	.56	2.39	0.00	226.78	1135.00
6.100	360.00	670.81	0.00	.47	0.00	46.05	234.00
6.100	520.00	671.41	.60	.48	0.00	47.44	234.00
6.100	605.00	671.67	.26	.47	0.00	48.05	234.00
6.100	825.00	672.26	.59	.50	0.00	49.43	234.00

JUL 2 0 1981
WATER MANAGEMENT

10, 50, 100, 500 Yr Flows 7/

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.000	360.00	670.81	0.00	.00	0.00	46.04	1.00
6.000	520.00	671.41	.60	.00	0.00	47.45	1.00
6.000	605.00	671.67	.26	.00	0.00	48.05	1.00
6.000	825.00	672.25	.58	-.01	0.00	49.43	1.00
6.800	360.00	670.82	0.00	.01	0.00	46.07	31.00
6.800	520.00	671.42	.60	.01	0.00	47.49	31.00
6.800	605.00	671.68	.26	.01	0.00	48.08	31.00
6.800	825.00	672.30	.61	.04	0.00	49.54	31.00
6.400	360.00	670.82	0.00	.00	0.00	46.06	1.00
6.400	520.00	671.42	.60	.00	0.00	47.47	1.00
6.400	605.00	671.68	.26	.00	0.00	48.08	1.00
6.400	825.00	672.42	.74	.12	0.00	49.81	1.00
6.500	360.00	671.12	0.00	.30	0.00	111.35	234.00
6.500	520.00	671.77	.65	.34	0.00	234.17	234.00
6.500	605.00	672.06	.29	.38	0.00	248.31	234.00
6.500	825.00	672.83	.77	.41	0.00	284.27	234.00
6.600	360.00	672.23	0.00	1.11	0.00	110.48	350.00
6.600	520.00	672.62	.39	.85	0.00	175.41	350.00
6.600	605.00	672.78	.16	.72	0.00	204.64	350.00
6.600	825.00	673.25	.47	.42	0.00	247.64	350.00
6.700	360.00	673.47	0.00	1.24	0.00	66.48	350.00
6.700	520.00	673.94	.47	1.32	0.00	126.11	350.00
6.700	605.00	674.12	.18	1.34	0.00	231.64	350.00
6.700	825.00	674.43	.31	1.18	0.00	261.32	350.00
7.200	330.00	674.08	0.00	.61	0.00	74.35	150.00
7.200	510.00	674.62	.54	.68	0.00	229.84	150.00
7.200	605.00	674.82	.20	.70	0.00	255.84	150.00
7.200	825.00	675.18	.37	.75	0.00	272.95	150.00
7.100	330.00	674.13	0.00	.06	0.00	63.23	36.00
7.100	510.00	674.65	.52	.03	0.00	118.81	36.00
7.100	605.00	674.82	.17	.00	0.00	229.08	36.00
7.100	825.00	675.18	.36	-.01	0.00	260.80	36.00
7.700	330.00	674.58	0.00	.45	0.00	17.00	24.00
7.700	510.00	676.05	1.46	1.40	0.00	249.64	24.00
7.700	605.00	676.24	.19	1.42	0.00	273.75	24.00
7.700	825.00	676.55	.31	1.38	0.00	348.12	24.00
7.800	275.00	674.94	0.00	.36	0.00	85.63	27.00
7.800	395.00	676.07	1.13	.02	0.00	101.54	27.00
7.800	465.00	676.26	.19	.02	0.00	104.06	27.00
7.800	640.00	676.55	.29	-.00	0.00	107.85	27.00
7.850	225.00	674.91	0.00	-.03	0.00	52.16	100.00
7.850	320.00	676.06	1.16	-.01	0.00	90.36	100.00
7.850	375.00	676.26	.20	-.00	0.00	101.80	100.00
7.850	520.00	676.55	.30	.00	0.00	119.77	100.00

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JUL 20 1981
WATER MANAGEMENT

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington Unnamed Trib No. 1

3) WATERCOURSE:

4) DOCUMENT TYPE: Sensitivity

00BREAK00

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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      WASHINGTON TOWNSHIP  FIS
T3      YATES DRAIN TRIB. NO.1

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     C         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.     674.120     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      .055      .055      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   135.000   160.000   170.000   215.000   170.000     0.000     0.000     0.000     0.000

X1   110.100    23.000   122.000   136.000     0.000     0.000     0.000     0.000    -1.100     0.000
GR   675.600    26.000   675.000    70.000   674.600   104.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   674.000   154.000   674.100   180.000
GR   674.200   196.000   675.400   212.000   675.600   230.000   675.400   252.000   675.600   264.000
GR   675.400   276.000   675.800   286.000   676.800   292.000     0.000     0.000     0.000     0.000

X1   110.150     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .550     0.000

X1   110.200    14.000   122.000   136.000   100.000   100.000   100.000     0.000     0.000     0.000
GR   676.700    80.000   675.000   110.000   674.600   113.000   674.400   114.000   674.400   122.000
GR   671.200   126.000   670.800   127.000   670.200   128.000   670.200   129.000   670.500   130.000
GR   671.000   131.000   671.200   132.000   673.900   136.000   676.600   190.000     0.000     0.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

      ***D/S JEWELL RD

X1   110.280     9.000     2.900    14.000   115.000   115.000   115.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   678.000   676.000     0.000
GR   676.000     0.000   674.800     2.900   672.100     4.000   671.100     6.000   670.900    10.000
GR   671.100    13.000   674.300    13.900   674.800    14.000   675.400    17.000     0.000     0.000
SB     0.000     1.390     2.800    50.000    11.000     0.000    37.000     0.000   670.900   670.900

X1   110.320     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   674.800   676.000     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   678.000   676.000     0.000

X1   110.500    11.000    30.000    42.000    15.000    15.000    15.000     0.000     0.000     0.000
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GR	677.300	25.000	676.200	30.000	673.100	35.000	672.500	36.000	671.800	37.000
GR	671.700	38.000	671.800	39.000	672.000	40.000	673.100	41.000	675.800	42.000
GR	677.300	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	***D/S 27 MILE RD									
X1	110.580	10.000	4.000	16.100	18.000	18.000	18.000	0.000	0.000	0.000
GR	678.200	0.000	676.700	4.000	673.700	4.100	672.400	10.000	672.000	12.000
GR	672.300	15.000	673.100	15.900	673.800	16.000	676.700	16.100	677.500	20.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	110.590	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	676.700	678.200	0.000	0.000	0.000	0.000	0.000
X1	111.020	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	676.700	678.200	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	111.030	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
QT	5.000	165.000	240.000	285.000	315.000	285.000	0.000	0.000	0.000	0.000
X1	111.800	15.000	48.000	58.000	10.000	10.000	10.000	0.000	-.200	0.000
GR	676.300	0.000	676.100	10.000	675.400	48.000	675.000	50.000	674.400	52.000
GR	673.200	53.000	672.700	54.000	672.200	55.000	672.500	56.000	674.000	57.000
GR	675.400	58.000	675.400	63.000	675.400	72.000	676.600	134.000	677.800	152.000
X1	111.810	0.000	0.000	0.000	58.000	58.000	58.000	0.000	.200	0.000
NC	.070	.070	.060	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	111.820	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	111.830	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.700	0.000
	***FOOTBRIDGE									
X1	111.840	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.500	0.000
X1	111.850	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.860	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
BT	2.000	48.000	678.000	677.200	63.000	678.000	677.200	0.000	0.000	0.000
X1	111.870	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	111.900	0.000	0.000	0.000	165.000	165.000	165.000	0.000	1.200	0.000

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***CONCRETE WEIR
X1  111.910    8.000   50.000   55.100   50.000   50.000   50.000    0.000    3.000    0.000
GR  676.300    0.000  676.100   10.000  676.000   50.000  673.700   50.100  673.700   55.000
GR  676.000   55.100  676.000   90.000  677.800  152.000    0.000    0.000    0.000    0.000

X1  111.920   14.000   48.000   58.000   50.000   50.000   50.000    0.000    3.600    0.000
GR  676.300    0.000  676.100   10.000  675.400   48.000  675.000   50.000  674.400   52.000
GR  673.200   53.000  672.700   54.000  672.200   55.000  672.500   56.000  674.000   57.000
GR  675.400   58.000  675.400   72.000  676.600  134.000  677.800  152.000    0.000    0.000

X1  111.930    0.000    0.000    0.000   50.000   50.000   50.000    0.000     .400    0.000

X1  111.940    0.000    0.000    0.000  162.000  162.000  162.000    0.000    1.100    0.000

X1  111.950    0.000    0.000    0.000  280.000  280.000  280.000    0.000    1.700    0.000

X1  111.970   14.000  206.000  220.000   50.000   50.000   50.000    0.000   -4.600    0.000
GR  687.600  190.000  687.200  206.000  686.200  210.000  684.600  212.000  684.500  213.000
GR  684.400  214.000  684.000  215.000  684.400  216.000  684.300  217.000  684.600  218.000
GR  686.300  220.000  687.200  235.000  688.000  284.000  688.900  313.000    0.000    0.000

X1  111.980    0.000    0.000    0.000  100.000  100.000  100.000    0.000     .700    0.000

X1  111.990    0.000    0.000    0.000  200.000  200.000  200.000    0.000    1.400    0.000

X1  112.000    0.000    0.000    0.000  358.000  358.000  358.000    0.000    2.500    0.000

X1  112.100    0.000    0.000    0.000  305.000  305.000  305.000    0.000    2.100    0.000

X1  112.200    0.000    0.000    0.000  250.000  250.000  250.000    0.000    1.800    0.000

X1  112.300    0.000    0.000    0.000  250.000  250.000  250.000    0.000    1.700    0.000

X1  112.400   15.000  252.000  278.000   50.000   50.000   50.000    0.000   -3.000    0.000
GR  697.500  242.000  697.000  252.000  696.000  258.000  695.200  266.000  693.600  268.000
GR  693.200  269.000  693.000  270.000  693.000  271.000  693.000  272.000  693.200  273.000
GR  693.600  274.000  695.800  278.000  696.400  304.000  696.900  338.000  697.800  368.000

***FOOTBRIDGE
X1  112.410    0.000    0.000    0.000   55.000   55.000   55.000    0.000     .400    0.000

X1  112.420    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  691.400  692.200    0.000    0.000    0.000    0.000    0.000
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X1	112.430	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	691.400	692.200	0.000	0.000	0.000	0.000	0.000
X1	112.440	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	112.500	0.000	0.000	0.000	35.000	35.000	35.000	0.000	.300	0.000
X1	113.200	0.000	0.000	0.000	345.000	345.000	345.000	0.000	2.300	0.000
NC	.065	.065	.055	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S M-53

X1	113.280	10.000	7.500	17.500	123.000	123.000	123.000	0.000	-.700	0.000
GR	702.600	0.000	699.500	7.500	695.500	7.600	695.500	10.000	694.800	11.000
GR	694.000	13.000	694.200	16.000	695.000	17.400	699.500	17.500	702.600	23.500
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	113.290	4.000	0.000	10.200	1.000	1.000	1.000	0.000	0.000	0.000
GR	699.500	0.000	693.300	.100	693.300	10.100	699.500	10.200	0.000	0.000
X1	113.300	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X1	113.310	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.100	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
X1	113.330	0.000	0.000	0.000	132.000	132.000	132.000	0.000	.400	0.000
X2	0.000	0.000	0.000	699.500	702.400	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	113.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000
X1	113.800	11.000	140.000	160.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	700.700	140.000	698.000	148.000	697.100	150.000	695.300	151.000	694.400	152.000
GR	694.400	153.000	694.500	154.000	695.700	155.000	697.100	156.000	700.000	160.000
GR	700.100	186.000	0.000	0.000	0.000	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	113.810	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.500	0.000
X1	113.820	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000
X1	113.830	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	113.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000

X1	113.910	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
X1	113.920	13.000	178.000	210.000	50.000	50.000	50.000	0.000	-3.000	0.000
GR	709.400	178.000	708.400	186.000	707.200	190.000	706.400	192.000	705.900	193.000
GR	704.800	194.000	704.800	195.000	704.800	196.000	705.900	197.000	706.400	198.000
GR	709.800	204.000	709.700	212.000	709.900	230.000	0.000	0.000	0.000	0.000
X1	113.930	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.500	0.000
X1	114.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	1.500	0.000
X1	114.010	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.700	0.000
X1	114.020	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	114.030	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.050	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.070	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.700	0.000
X1	114.090	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.300	0.000
X1	115.200	13.000	170.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	719.600	146.000	719.600	152.000	719.600	170.000	718.200	172.000	717.500	173.000
GR	717.000	174.000	716.900	174.500	717.100	175.000	717.500	175.500	718.200	176.000
GR	719.000	184.000	719.700	194.000	720.000	207.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

***D/S VAN DYKE RD

X1	115.280	9.000	9.500	25.500	116.000	116.000	116.000	0.000	0.000	0.000
GR	726.900	0.000	723.000	9.500	717.500	10.000	717.300	12.000	716.800	16.000
GR	718.900	24.000	719.500	25.000	723.000	25.500	725.900	27.500	0.000	0.000
NC	0.000	0.000	.030	.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	115.320	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	723.000	725.900	0.000	0.000	0.000	0.000	0.000
X1	115.380	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	723.000	725.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.420	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.400	.800	0.000	0.000	0.000	0.000	0.000

X1	115.500	12.000	206.000	226.000	16.500	16.500	16.500	0.000	0.000	0.000
GR	722.000	194.000	721.200	206.000	720.000	212.000	718.500	218.000	718.300	218.500
GR	718.000	219.000	717.400	220.000	717.400	221.000	718.000	222.000	718.500	224.000
GR	720.800	226.000	721.200	250.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	115.510	0.000	0.000	0.000	29.000	29.000	29.000	0.000	0.000	0.000
NC	0.000	0.000	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***RAILROAD BRIDGE

X1	115.580	23.000	170.000	233.000	1.000	1.000	1.000	0.000	-.100	0.000
X2	0.000	0.000	0.000	728.700	731.900	0.000	0.000	0.000	0.000	0.000
GR	729.000	170.000	723.000	180.000	722.900	185.000	731.900	185.100	731.900	185.900
GR	722.900	186.000	721.600	197.000	731.900	197.100	731.900	197.900	721.500	198.000
GR	721.200	202.000	719.600	203.000	719.400	204.000	719.100	206.000	718.500	209.000
GR	731.900	209.100	731.900	209.900	718.900	210.000	722.000	221.000	731.900	221.100
GR	731.900	221.900	722.500	222.000	729.100	233.000	0.000	0.000	0.000	0.000
X1	116.020	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	728.700	731.900	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	116.080	15.000	186.000	218.000	1.000	1.000	1.000	0.000	-.100	0.000
GR	728.400	186.000	723.700	192.000	721.500	198.000	721.200	202.000	719.600	203.000
GR	719.400	204.000	719.100	206.000	718.500	209.000	718.900	210.000	719.400	211.000
GR	719.600	212.000	724.100	214.000	728.800	218.000	729.100	228.000	729.000	248.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	116.800	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	116.810	13.000	212.000	224.000	50.000	50.000	50.000	0.000	-5.500	0.000
GR	730.000	140.000	727.800	176.000	726.800	200.000	726.400	212.000	725.400	215.000
GR	724.800	216.000	724.600	218.000	724.700	220.000	725.800	221.000	726.400	222.000
GR	726.600	224.000	727.200	240.000	728.000	272.000	0.000	0.000	0.000	0.000
X1	116.820	0.000	0.000	0.000	60.000	60.000	60.000	0.000	1.000	0.000
X1	116.830	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.900	0.000
X1	116.840	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.800	0.000
X1	116.860	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000
X1	117.200	0.000	0.000	0.000	80.000	80.000	80.000	0.000	1.400	0.000

***CAMPGROUND RD.

X1	117.210	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.600	0.000

SB	0.000	1.660	2.900	100.000	4.000	0.000	12.600	0.000	725.200	725.200
X1	117.790	9.000	0.000	17.000	30.000	30.000	30.000	0.000	-.600	0.000
X2	0.000	0.000	1.000	729.200	732.300	0.000	0.000	0.000	0.000	0.000
GR	730.000	95.000	728.100	100.000	727.900	105.000	726.600	108.000	725.800	109.000
GR	725.800	112.000	727.700	113.000	729.200	117.000	729.900	127.000	0.000	0.000
X1	117.800	0.000	0.000	0.000	50.000	50.000	50.000	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 110.100

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	IOC	ICONT	CORAR	TOPWID	ENDST
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.055	.040	.055	0.000	669.10	53.87
.000705	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.53	674.18	0.00	0.00	674.29	.11	.11	.02	673.85
170.	3.	127.	40.	6.	41.	43.	0.	0.	673.35
.01	.49	3.09	.94	.055	.040	.055	.040	669.65	92.51
.002035	100.	100.	100.	1	0	0	0.00	110.63	203.14

*SECNO 110.200

110.20	4.14	674.34	0.00	0.00	674.69	.35	.32	.07	674.40
170.	0.	169.	1.	0.	35.	2.	0.	0.	673.90
.02	0.00	4.78	.74	.055	.040	.055	.040	670.20	122.09
.005902	100.	100.	100.	1	0	0	0.00	22.42	144.51

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.09	674.99	0.00	0.00	675.29	.30	.59	.02	674.80
170.	0.	170.	0.	0.	39.	0.	1.	1.	674.80
.02	0.00	4.41	0.00	.055	.040	.055	.040	670.90	2.90
.004433	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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 FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.45	675.29	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.27	675.17	0.00	0.00	675.45	.27	.15	0.00	674.80
170.	0.	170.	0.	0.	41.	0.	1.	1.	674.80
.03	0.00	4.19	0.00	.055	.040	.055	.040	670.90	2.90
.003784	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

3301 HV CHANGED MORE THAN HVINS

110.50	3.46	675.16	0.00	0.00	676.06	.91	.11	.51	676.20
170.	0.	170.	0.	0.	22.	0.	1.	1.	675.80
.03	0.00	7.64	0.00	.055	.040	.055	.039	671.70	31.68
.020642	15.	15.	15.	2	0	0	0.00	10.08	41.76

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.21	676.21	0.00	0.00	676.46	.25	.13	.26	676.70
170.	0.	170.	0.	0.	42.	0.	1.	1.	676.70
.03	0.00	4.00	0.00	.055	.040	.055	.039	672.00	4.02
.003681	18.	18.	18.	3	0	0	0.00	12.07	16.08

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.21	676.21	0.00	0.00	676.46	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.99	0.00	.055	.030	.055	.039	672.00	4.02
.002047	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.27	676.27	0.00	0.00	676.51	.24	.05	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.92	0.00	.055	.030	.055	.039	672.00	4.01
.001954	23.	23.	23.	0	0	0	0.00	12.07	16.09

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
111.03	4.28	676.28	0.00	0.00	676.52	.24	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	1.	676.70
.03	0.00	3.93	0.00	.055	.050	.055	.039	672.00	4.01
.005451	1.	1.	1.	0	0	0	0.00	12.07	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .42 FEET

111.80	4.52	676.52	0.00	0.00	676.62	.10	.05	.06	675.20
285.	75.	100.	110.	42.	28.	63.	1.	1.	675.20
.03	1.79	3.59	1.75	.055	.050	.055	.039	672.00	0.00
.005009	10.	10.	10.	3	0	0	0.00	135.74	135.74

Remainder of flow has diverted into Yates Drain (115cfs)

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .51 FEET

111.81	4.60	676.80	0.00	0.00	676.88	.08	.25	.01	675.40
285.	77.	92.	115.	47.	29.	71.	1.	1.	675.40
.04	1.66	3.21	1.63	.055	.050	.055	.040	672.20	0.00
.003819	58.	58.	58.	1	0	0	0.00	137.20	137.20

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .39 FEET

111.82	4.49	676.89	0.00	0.00	677.00	.12	.11	.01	675.60
285.	72.	106.	107.	41.	28.	61.	1.	1.	675.60
.04	1.78	3.84	1.75	.070	.060	.070	.041	672.40	0.00
.008336	20.	20.	20.	0	0	0	0.00	135.38	135.38

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .46 FEET

111.83	4.57	677.67	0.00	0.00	677.76	.10	.76	.00	676.30
285.	74.	100.	110.	44.	28.	66.	1.	1.	676.30
.05	1.70	3.55	1.66	.070	.060	.070	.044	673.10	0.00
.006917	100.	100.	100.	1	0	0	0.00	136.37	136.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .45 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

***FOOTBRIDGE

111.84	4.55	678.15	0.00	0.00	678.25	.10	.49	.00	676.80
285.	74.	101.	110.	44.	28.	66.	1.	1.	676.80
.06	1.70	3.58	1.67	.070	.060	.070	.045	673.60	0.00
.007034	70.	70.	70.	2	0	0	0.00	136.28	136.28

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .45 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.54	678.14	0.00	0.00	678.27	.13	.01	.01	676.80
285.	45.	63.	176.	28.	20.	58.	1.	1.	676.80
.06	1.60	3.13	3.03	.070	.060	.070	.045	673.60	0.00
.030130	1.	1.	1.	1	0	0	-30.80	136.29	136.29

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .55 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.65	678.25	0.00	0.00	678.35	.10	.07	.00	676.80
285.	49.	57.	179.	33.	21.	66.	1.	1.	676.80
.06	1.47	2.69	2.72	.070	.060	.070	.045	673.60	0.00
.020903	3.	3.	3.	2	0	0	-30.80	137.75	137.75

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .58 FEET

111.87	4.69	678.29	0.00	0.00	678.36	.07	.01	.00	676.80
285.	78.	92.	116.	50.	30.	76.	1.	1.	676.80
.06	1.56	3.10	1.53	.070	.060	.070	.045	673.60	0.00
.004980	1.	1.	1.	1	0	0	0.00	138.22	138.22

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .40 FEET

111.90	4.49	679.29	0.00	0.00	679.41	.11	1.03	.01	678.00
285.	73.	105.	107.	41.	28.	62.	2.	2.	678.00
.08	1.77	3.79	1.73	.070	.060	.070	.048	674.80	0.00
.008107	165.	165.	165.	3	0	0	0.00	135.52	135.52

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .56 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	ICCNT	CORAR	TOPWID	ENDST

***CONCRETE WEIR

111.91	3.16	679.86	0.00	0.00	680.04	.18	.61	.02	679.00
285.	100.	80.	105.	39.	16.	43.	2.	2.	679.00
.08	2.58	5.02	2.46	.070	.060	.070	.049	676.70	0.00
.020708	50.	50.	50.	3	0	0	0.00	119.58	119.58

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .55 FEET

111.92	4.65	680.45	0.00	0.00	680.53	.08	.48	.01	679.00
285.	77.	94.	114.	48.	29.	73.	2.	2.	679.00
.09	1.59	3.22	1.56	.070	.060	.070	.049	675.80	0.00
.005453	50.	50.	50.	2	0	0	0.00	137.70	137.70

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .44 FEET

111.93	4.55	680.75	0.00	0.00	680.85	.10	.31	.01	679.40
285.	74.	102.	109.	43.	28.	65.	2.	2.	679.40
.10	1.72	3.63	1.69	.070	.060	.070	.050	676.20	0.00
.007293	50.	50.	50.	2	0	0	0.00	136.08	136.08

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .48 FEET

111.94	4.57	681.87	0.00	0.00	681.97	.09	1.12	.00	680.50
285.	75.	99.	111.	45.	28.	68.	3.	3.	680.50
.12	1.67	3.47	1.64	.070	.060	.070	.051	677.30	0.00
.006551	162.	162.	162.	2	0	0	0.00	136.66	136.66

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .52 FEET

111.95	4.62	683.62	0.00	0.00	683.70	.08	1.73	.00	682.20
285.	76.	96.	113.	47.	29.	71.	4.	4.	682.20
.15	1.62	3.32	1.59	.070	.060	.070	.053	679.00	0.00
.005859	280.	280.	280.	3	0	0	0.00	137.29	137.29

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .86 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
111.97	4.46	683.86	0.00	0.00	683.97	.11	.26	.01	682.60
285.	25.	149.	111.	17.	44.	71.	4.	4.	681.70
.16	1.47	3.40	1.56	.070	.060	.070	.053	679.40	190.00
.004735	50.	50.	50.	2	0	0	0.00	108.86	298.86

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .69 FEET

111.98	4.29	684.39	0.00	0.00	684.55	.15	.56	.01	683.30
285.	22.	162.	101.	14.	41.	58.	4.	4.	682.40
.17	1.57	3.92	1.72	.070	.060	.070	.053	680.10	190.00
.006763	100.	100.	100.	0	0	0	0.00	103.37	293.37

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .67 FEET

111.99	4.27	685.77	0.00	0.00	685.93	.16	1.38	.00	684.70
285.	22.	164.	99.	14.	41.	57.	5.	5.	683.80
.18	1.58	3.98	1.74	.070	.060	.070	.054	681.50	190.00
.007038	200.	200.	200.	2	0	0	0.00	102.78	292.78

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .68 FEET

112.00	4.27	688.27	0.00	0.00	688.43	.16	2.50	.00	687.20
285.	22.	163.	100.	14.	41.	57.	6.	5.	686.30
.22	1.58	3.96	1.74	.070	.060	.070	.055	684.00	190.00
.006957	358.	358.	358.	2	0	0	0.00	102.95	292.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .68 FEET

112.10	4.28	690.38	0.00	0.00	690.54	.16	2.11	.00	689.30
285.	22.	163.	100.	14.	41.	58.	7.	6.	688.40
.25	1.57	3.94	1.73	.070	.060	.070	.056	686.10	190.00
.006857	305.	305.	305.	2	0	0	0.00	103.17	293.17

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .65 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
112.20	4.25	692.15	0.00	0.00	692.32	.17	1.78	.00	691.10

285.	22.	165.	98.	14.	41.	56.	7.	7.	690.20
.27	1.59	4.05	1.77	.070	.060	.070	.056	687.90	190.00
.007359	250.	250.	250.	2	0	0	0.00	102.12	292.12

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .71 FEET

112.30	4.31	693.91	0.00	0.00	694.06	.15	1.73	.00	692.80
285.	23.	161.	102.	14.	42.	59.	8.	7.	691.90
.29	1.56	3.87	1.71	.070	.060	.070	.056	689.60	190.00
.006555	250.	250.	250.	2	0	0	0.00	103.84	293.84

*SECNO 112.400

112.40	4.26	694.26	0.00	0.00	694.40	.14	.34	.00	694.00
285.	0.	199.	86.	1.	58.	53.	8.	7.	692.80
.30	.45	3.42	1.63	.070	.060	.070	.056	690.00	246.94
.007002	50.	50.	50.	0	0	0	0.00	102.83	349.77

*SECNO 112.410

***FOOTBRIDGE

112.41	4.24	694.64	0.00	0.00	694.79	.14	.39	.00	694.40
285.	0.	200.	85.	1.	58.	51.	8.	8.	693.20
.30	.44	3.46	1.64	.070	.060	.070	.056	690.40	247.24
.007242	55.	55.	55.	1	0	0	0.00	102.03	349.27

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	4.28	694.68	0.00	0.00	694.80	.12	.01	.00	694.40
285.	0.	164.	120.	1.	52.	54.	8.	8.	693.20
.30	.64	3.19	2.21	.070	.060	.070	.056	690.40	246.47
.012567	1.	1.	1.	2	0	0	-7.20	104.08	350.55

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.39	694.79	0.00	0.00	694.89	.10	.09	.00	694.40
285.	1.	156.	128.	2.	55.	63.	8.	8.	693.20
.30	.69	2.87	2.04	.070	.060	.070	.056	690.40	244.20
.009439	8.	8.	8.	2	0	0	-7.20	110.13	354.33

*SECNO 112.440

112.44	4.39	694.79	0.00	0.00	694.90	.11	.01	.00	694.40
285.	1.	189.	95.	2.	62.	64.	8.	8.	693.20

.30	.52	3.04	1.50	.070	.060	.070	.056	690.40	243.98
.005089	1.	1.	1.	0	0	0	0.00	110.71	354.69

*SECNO 112.500

112.50	4.28	694.98	0.00	0.00	695.11	.13	.20	.01	694.70
285.	0.	197.	87.	1.	59.	54.	8.	8.	693.50
.31	.46	3.36	1.61	.070	.060	.070	.056	690.70	246.50
.006668	35.	35.	35.	2	0	0	0.00	104.01	350.51

*SECNO 113.200

113.20	4.28	697.28	0.00	0.00	697.41	.13	2.30	.00	697.00
285.	0.	197.	87.	1.	59.	54.	9.	8.	695.80
.34	.46	3.36	1.61	.070	.060	.070	.057	693.00	246.52
.006686	345.	345.	345.	3	0	0	0.00	103.95	350.47

CCHV= .400 CEHV= .800
*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	5.14	698.44	0.00	0.00	699.09	.65	1.26	.41	698.80
285.	0.	285.	0.	0.	44.	0.	9.	9.	698.80
.35	0.00	6.48	0.00	.065	.055	.065	.057	693.30	7.51
.017682	123.	123.	123.	2	0	0	0.00	9.98	17.49

CCHV= .500 CEHV= 1.000
*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.51	698.81	0.00	0.00	699.22	.41	.01	.12	699.50
285.	0.	285.	0.	0.	56.	0.	9.	9.	699.50
.35	0.00	5.12	0.00	.065	.030	.065	.057	693.30	.01
.002923	1.	1.	1.	2	0	0	0.00	10.18	10.19

*SECNO 113.300

113.30	5.48	698.88	0.00	0.00	699.30	.41	.07	.01	699.60
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.60
.35	0.00	5.16	0.00	.065	.030	.065	.056	693.40	.01
.002980	25.	25.	25.	2	0	0	0.00	10.18	10.19

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.46	698.96	0.00	0.00	699.37	.42	.07	.00	699.70
285.	0.	285.	0.	0.	55.	0.	9.	9.	699.70
.35	0.00	5.18	0.00	.065	.030	.065	.056	693.50	.01
.003007	25.	25.	25.	0	0	0	0.00	10.18	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	5.45	699.35	0.00	0.00	699.77	.42	.40	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.030	.065	.055	693.90	.01
.003013	132.	132.	132.	0	0	0	0.00	10.18	10.19

*SECNO 113.420

113.42	5.46	699.36	0.00	0.00	699.78	.42	.01	.00	700.10
285.	0.	285.	0.	0.	55.	0.	10.	9.	700.10
.36	0.00	5.18	0.00	.065	.055	.065	.055	693.90	.01
.010101	1.	1.	1.	0	0	0	0.00	10.18	10.19

CCHV= .400 CEHV= .800

*SECNO 113.800

3280 CROSS SECTION 113.80 EXTENDED .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	TOPWID	ENDST
113.80	6.30	700.70	0.00	0.00	700.98	.28	1.15	.05	700.70
285.	0.	259.	26.	0.	58.	17.	10.	9.	700.00
.36	0.00	4.44	1.54	.065	.055	.065	.055	694.40	140.01
.008357	125.	125.	125.	3	0	0	0.00	45.99	186.00

CCHV= .100 CEHV= .300

*SECNO 113.810

3280 CROSS SECTION 113.81 EXTENDED .52 FEET

113.81	6.22	701.12	0.00	0.00	701.43	.31	.44	.01	701.20
285.	0.	263.	22.	0.	57.	15.	10.	9.	700.50
.37	0.00	4.63	1.49	.065	.055	.065	.055	694.90	140.25
.009306	50.	50.	50.	2	0	0	0.00	45.75	186.00

*SECNO 113.820

3280 CROSS SECTION 113.82 EXTENDED .47 FEET

113.82	6.16	702.06	0.00	0.00	702.39	.33	.96	.01	702.20
285.	0.	266.	19.	0.	56.	13.	10.	9.	701.50
.37	0.00	4.76	1.45	.065	.055	.065	.055	695.90	140.40
.009973	100.	100.	100.	2	0	0	0.00	45.60	186.00

*SECNO 113.830

3280 CROSS SECTION 113.83 EXTENDED .46 FEET

113.83	6.16	703.56	0.00	0.00	703.89	.33	1.50	.00	703.70

285.	0.	266.	19.	0.	56.	13.	10.	9.	703.00
.38	0.00	4.76	1.45	.065	.055	.065	.055	697.40	140.41
.010006	150.	150.	150.	2	0	0	0.00	45.59	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .46 FEET

113.90	6.17	705.57	0.00	0.00	705.90	.33	2.00	.00	705.70
285.	0.	266.	19.	0.	56.	13.	11.	9.	705.00
.40	0.00	4.77	1.45	.065	.055	.065	.055	699.40	140.41
.010038	200.	200.	200.	0	0	0	0.00	45.59	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .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	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.91	6.16	707.56	0.00	0.00	707.89	.33	1.99	.00	707.70
285.	0.	265.	20.	0.	56.	14.	11.	9.	707.00
.41	0.00	4.74	1.45	.065	.055	.065	.055	701.40	140.38
.009899	200.	200.	200.	0	0	0	0.00	45.62	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.66 FEET

113.92	6.25	708.05	0.00	0.00	708.12	.07	.21	.03	706.40
285.	0.	0.	285.	0.	0.	130.	11.	10.	759.40
.41	0.00	0.00	2.19	.065	.055	.065	.055	701.80	178.00
.002250	50.	50.	50.	1	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .64 FEET

113.93	5.23	708.53	0.00	0.00	708.74	.21	.58	.04	707.90
285.	0.	0.	285.	0.	0.	77.	11.	10.	707.90
.43	0.00	0.00	3.69	.065	.055	.065	.055	703.30	178.00
.007990	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .42 FEET

114.00	5.01	709.81	0.00	0.00	710.10	.29	1.34	.02	709.40
285.	0.	0.	285.	0.	0.	66.	12.	10.	709.40
.43	0.00	0.00	4.30	.065	.055	.065	.055	704.80	178.00
.010766	145.	145.	145.	2	0	0	0.00	44.60	222.60

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .27 FEET

114.01	4.87	710.37	0.00	0.00	710.71	.34	.59	.02	710.10
285.	0.	0.	285.	0.	0.	60.	12.	10.	710.10
.44	0.00	0.00	4.71	.065	.055	.065	.055	705.50	178.00
.013141	50.	50.	50.	2	0	0	0.00	33.71	211.71

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .28 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
114.02	4.88	711.68	0.00	0.00	712.02	.34	1.31	.00	711.40
285.	0.	0.	285.	0.	0.	61.	12.	10.	711.40
.44	0.00	0.00	4.69	.065	.055	.065	.055	706.80	178.00
.012994	100.	100.	100.	2	0	0	0.00	33.79	211.79

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .24 FEET

114.03	4.84	714.34	0.00	0.00	714.69	.36	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	59.	12.	10.	714.10
.46	0.00	0.00	4.80	.065	.055	.065	.055	709.50	178.00
.013710	200.	200.	200.	2	0	0	0.00	33.43	211.43

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .25 FEET

114.05	4.85	717.05	0.00	0.00	717.40	.35	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	60.	12.	10.	716.80
.47	0.00	0.00	4.75	.065	.055	.065	.055	712.20	178.00
.013386	200.	200.	200.	2	0	0	0.00	33.59	211.59

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .24 FEET

114.07	4.85	719.75	0.00	0.00	720.10	.36	2.70	.00	719.50
285.	0.	0.	285.	0.	0.	60.	13.	10.	719.50
.48	0.00	0.00	4.78	.065	.055	.065	.055	714.90	178.00
.013623	200.	200.	200.	1	0	0	0.00	33.47	211.47

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .29 FEET

114.09	4.89	721.09	0.00	0.00	721.42	.34	1.32	.00	720.80

```
    285.       0.       0.     285.       0.       0.      61.      13.      11.    720.80
     .48     0.00     0.00     4.65     .065     .055     .065     .055   716.20    178.00
  .012726     100.     100.     100.        1        0        0     0.00    33.93    211.93

*SECNO 115.200
3280 CROSS SECTION     115.20 EXTENDED       2.00 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

   115.20     4.70    721.60      0.00      0.00    721.67       .07       .23       .03    719.60
     285.      80.      172.       33.       48.       69.       23.       13.       11.    719.70
      .49     1.66      2.51      1.47      .065      .055      .065      .055   716.90    146.00
  .002285      50.       50.       50.         2         0         0     0.00    61.00    207.00

CCHV=     .400 CEHV=     .800
*SECNO 115.280

        ***D/S VAN DYKE RD

   115.28     5.13    721.93      0.00      0.00    722.16       .23       .36       .12    723.00
     285.       0.      285.        0.        0.       74.        0.       13.       11.    723.00
      .50     0.00      3.84      0.00      .065      .055      .065      .055   716.80      9.60
  .004416     116.      116.      116.         2         0         0     0.00    15.75     25.35

CCHV=     .500 CEHV=    1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  725.90 MAX ELLC=  723.00

   115.32     5.13    721.93      0.00      0.00    722.16       .23       .00       .00    723.00
     285.       0.      285.        0.        0.       74.        0.       13.       11.    723.00
      .50     0.00      3.84      0.00      .065      .030      .065      .055   716.80      9.60
  .001310       1.        1.        1.         0         0         0     0.00    15.75     25.35

*SECNO 115.380

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  725.90 MAX ELLC=  723.00

   115.38     5.20    722.00      0.00      0.00    722.22       .22       .06       .00    723.00
     285.       0.      285.        0.        0.       75.        0.       13.       11.    723.00
      .50     0.00      3.78      0.00      .065      .030      .065      .055   716.80      9.59
  .001260      45.       45.       45.         2         0         0     0.00    15.77     25.36

*SECNO 115.420
   115.42     5.20    722.00      0.00      0.00    722.22       .22       .00       .00    723.00
     285.       0.      285.        0.        0.       75.        0.       13.       11.    723.00
      .50     0.00      3.78      0.00      .065      .055      .065      .055   716.80      9.59
  .004231       1.        1.        1.         0         0         0     0.00    15.77     25.36

CCHV=     .400 CEHV=     .800
```

*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .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	ICC	ICONT	CORAR	TOPWID	ENDST
115.50	4.69	722.09	0.00	0.00	722.31	.22	.09	.00	721.20
285.	7.	228.	50.	6.	56.	26.	13.	11.	720.80
.50	1.14	4.10	1.92	.065	.055	.065	.055	717.40	194.00
.006594	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED 1.13 FEET

115.51	4.93	722.33	0.00	0.00	722.49	.16	.16	.02	721.20
285.	11.	217.	57.	9.	61.	32.	13.	11.	720.80
.51	1.22	3.58	1.80	.065	.055	.065	.055	717.40	194.00
.004523	29.	29.	29.	2	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.86	722.26	0.00	0.00	722.78	.52	.01	.28	728.90
285.	0.	285.	0.	0.	49.	0.	13.	11.	729.00
.51	0.00	5.77	0.00	.065	.030	.065	.055	718.40	190.55
.009989	1.	1.	1.	2	0	0	0.00	28.52	221.00

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.27	722.67	0.00	0.00	723.00	.33	.15	.07	728.90
285.	0.	285.	0.	0.	62.	0.	13.	11.	729.00
.51	0.00	4.61	0.00	.065	.030	.065	.055	718.40	187.10
.005771	20.	20.	20.	3	0	0	0.00	32.45	222.45

*SECNO 116.080

116.08	4.22	722.62	0.00	0.00	723.25	.63	.01	.24	728.30
285.	0.	285.	0.	0.	45.	0.	13.	11.	728.70
.51	0.00	6.36	0.00	.065	.055	.065	.055	718.40	194.66
.021751	1.	1.	1.	2	0	0	0.00	18.72	213.39

CCHV= .100 CEHV= .300

*SECNO 116.800

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
116.80	5.10	723.60	0.00	0.00	723.92	.32	.64	.03	728.40
285.	0.	285.	0.	0.	62.	0.	13.	11.	728.80
.51	0.00	4.56	0.00	.065	.055	.065	.055	718.50	192.27
.008737	49.	49.	49.	2	0	0	0.00	21.51	213.78

*SECNO 116.810

3280 CROSS SECTION 116.81 EXTENDED 1.51 FEET

116.81	4.91	724.01	0.00	0.00	724.03	.02	.08	.03	720.90
285.	106.	80.	99.	112.	48.	103.	14.	11.	721.10
.52	.95	1.65	.96	.065	.055	.065	.055	719.10	148.01
.000648	50.	50.	50.	2	0	0	0.00	123.99	272.00

*SECNO 116.820

3280 CROSS SECTION 116.82 EXTENDED .55 FEET

116.82	3.95	724.05	0.00	0.00	724.12	.08	.07	.02	721.90
285.	93.	109.	83.	58.	37.	57.	14.	11.	722.10
.53	1.60	2.98	1.46	.065	.055	.065	.055	720.10	163.74
.003036	60.	60.	60.	2	0	0	0.00	108.26	272.00

*SECNO 116.830

116.83	3.13	724.13	724.11	0.00	724.54	.41	.32	.10	722.80
285.	69.	169.	47.	24.	27.	19.	14.	11.	723.00
.53	2.85	6.25	2.43	.065	.055	.065	.055	721.00	177.45
.020199	50.	50.	50.	0	19	0	0.00	84.14	261.59

*SECNO 116.840

116.84	3.29	725.09	0.00	0.00	725.38	.29	.83	.01	723.60
285.	75.	156.	54.	29.	29.	25.	14.	11.	723.80
.54	2.56	5.41	2.16	.065	.055	.065	.055	721.80	174.66
.013944	50.	50.	50.	2	0	0	0.00	92.63	267.29

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
116.86	3.14	726.34	726.33	0.00	726.74	.40	1.32	.03	725.00
285.	69.	169.	47.	24.	27.	19.	14.	11.	725.20
.54	2.84	6.22	2.42	.065	.055	.065	.055	723.20	177.34
.019954	80.	80.	80.	2	12	0	0.00	84.44	261.77

*SECNO 117.200

117.20	3.24	727.84	0.00	0.00	728.16	.32	1.41	.01	726.40
285.	73.	160.	52.	28.	28.	23.	14.	12.	726.60
.55	2.64	5.67	2.25	.065	.055	.065	.055	724.60	175.41
.015708	80.	80.	80.	2	0	0	0.00	90.05	265.45

*SECNO 117.210
3280 CROSS SECTION 117.21 EXTENDED .25 FEET

***CAMPGROUND RD.

117.21	3.65	728.85	0.00	0.00	728.98	.13	.80	.02	727.00
285.	87.	126.	72.	44.	33.	42.	15.	12.	727.20
.56	1.96	3.81	1.71	.065	.055	.065	.055	725.20	168.66
.005707	90.	90.	90.	3	0	0	0.00	103.34	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.53 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.04	729.74	0.00	128.	158.	13.	16.	729.20	732.30

117.79	7.63	732.83	0.00	0.00	732.88	.05	3.90	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	15.	12.	780.00
.56	0.00	0.00	1.75	.065	.055	.065	.055	725.20	95.00
.000792	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.97 FEET

117.80	7.07	732.87	0.00	0.00	732.93	.06	.05	.00	730.00
285.	0.	0.	285.	0.	0.	145.	15.	12.	730.00
.57	0.00	0.00	1.96	.065	.055	.065	.055	725.80	95.00
.001124	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      SENSITIVITY RUN  N* 0.7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.   674.120     C.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     C.CCO      .700     0.000     0.000     0.000     0.000
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*PROF 2

CCHV= .100 CEHV= .300

*SECNO 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.039	.028	.039	0.000	669.10	53.87
.000345	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.46	674.11	0.00	0.00	674.25	.13	.06	.03	673.85
170.	2.	132.	36.	4.	40.	38.	0.	0.	673.35
.01	.46	3.30	.95	.039	.028	.039	.028	669.65	98.74
.001176	100.	100.	100.	2	0	0	0.00	103.41	202.16

*SECNO 110.200

110.20	3.90	674.10	0.00	0.00	674.53	.43	.20	.09	674.40
170.	0.	170.	0.	0.	32.	0.	0.	0.	673.90
.02	0.00	5.28	.51	.039	.028	.039	.028	670.20	122.38
.003876	100.	100.	100.	2	0	0	0.00	17.59	139.97

CCHV= .400 CEHV= .800

*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	3.65	674.55	0.00	0.00	674.95	.40	.41	.01	674.80
170.	0.	170.	0.	0.	34.	0.	0.	0.	674.80
.02	0.00	5.06	0.00	.039	.028	.039	.028	670.90	3.00
.003237	115.	115.	115.	2	0	0	0.00	10.94	13.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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
675.01	674.95	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

110.32	3.74	674.64	0.00	0.00	675.01	.37	.06	0.00	674.80
170.	0.	170.	0.	0.	35.	0.	1.	0.	674.80
.02	0.00	4.91	0.00	.039	.028	.039	.028	670.90	2.96
.002963	30.	30.	30.	2	0	0	0.00	11.00	13.97

*SECNO 110.500

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

110.50	3.28	674.98	674.98	0.00	676.05	1.06	.08	.55	676.20
170.	0.	170.	0.	0.	21.	0.	1.	0.	675.80
.02	0.00	8.28	0.00	.039	.028	.039	.028	671.70	31.96
.012547	15.	15.	15.	2	11	0	0.00	9.74	41.70

*SECNO 110.580

3301 HV CHANGED MORE THAN HVINS

***D/S 27 MILE RD

110.58	4.19	676.19	0.00	0.00	676.44	.25	.07	.32	676.70
170.	0.	170.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	4.03	0.00	.039	.028	.039	.028	672.00	4.02
.001839	18.	18.	18.	3	0	0	0.00	12.06	16.08

CCHV= .500 CEHV= 1.000
*SECNO 110.590

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.20	676.20	0.00	0.00	676.45	.25	.00	.00	676.70
170.	0.	170.	0.	0.	42.	0.	1.	0.	676.70
.03	0.00	4.02	0.00	.039	.021	.039	.027	672.00	4.02
.001022	1.	1.	1.	0	0	0	0.00	12.07	16.08

*SECNO 111.020

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.23	676.23	0.00	0.00	676.47	.25	.02	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	0.	676.70
.03	0.00	3.98	0.00	.039	.021	.039	.027	672.00	4.02
.000998	23.	23.	23.	0	0	0	0.00	12.07	16.08

*SECNO 111.030

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

111.03	4.23	676.23	0.00	0.00	676.47	.25	.00	.00	676.70
170.	0.	170.	0.	0.	43.	0.	1.	0.	676.70
.03	0.00	3.98	0.00	.039	.035	.039	.027	672.00	4.02
.002776	1.	1.	1.	0	0	0	0.00	12.07	16.08

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .31 FEET

111.80	4.41	676.41	0.00	0.00	676.55	.14	.03	.04	675.20
285.	71.	110.	104.	37.	27.	55.	1.	1.	675.20
.03	1.93	4.10	1.90	.039	.035	.039	.027	672.00	0.00
.003363	10.	10.	10.	4	0	0	0.00	134.16	134.16

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .30 FEET

111.81	4.41	676.61	0.00	0.00	676.75	.14	.20	.00	675.40
285.	71.	111.	103.	36.	27.	54.	1.	1.	675.40
.03	1.95	4.14	1.91	.039	.035	.039	.028	672.20	0.00
.003452	58.	58.	58.	1	0	0	0.00	134.03	134.03

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .15 FEET

111.82	4.25	676.65	0.00	0.00	676.88	.23	.10	.03	675.60
285.	61.	130.	94.	29.	25.	43.	1.	1.	675.60
.04	2.09	5.17	2.17	.049	.042	.049	.029	672.40	0.00
.008379	20.	20.	20.	2	0	0	0.00	126.27	126.27

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .24 FEET

111.83	4.34	677.44	0.00	0.00	677.62	.18	.73	.01	676.30
285.	66.	121.	98.	33.	26.	49.	1.	1.	676.30
.04	1.98	4.65	1.99	.049	.042	.049	.031	673.10	0.00
.006473	100.	100.	100.	2	0	0	0.00	130.68	130.68

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .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
	***FOOTBRIDGE								
111.84	4.30	677.90	0.00	0.00	678.10	.20	.48	.01	676.80
285.	64.	125.	96.	32.	26.	47.	1.	1.	676.80
.05	2.03	4.85	2.06	.049	.042	.049	.032	673.60	0.00
.007195	70.	70.	70.	2	0	0	0.00	128.85	128.85

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .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

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

111.85	4.24	677.84	677.84	0.00	678.18	.34	.01	.04	676.80
285.	32.	113.	140.	16.	19.	36.	1.	1.	676.80
.05	1.95	6.03	3.84	.049	.042	.049	.032	673.60	0.00
.037101	1.	1.	1.	20	17	0	-24.68	125.78	125.78

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .43 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.54	678.14	0.00	0.00	678.27	.14	.07	.02	676.80
285.	45.	65.	175.	27.	20.	57.	1.	1.	676.80
.05	1.63	3.25	3.11	.049	.042	.049	.032	673.60	0.00
.016072	3.	3.	3.	3	0	0	-30.80	135.97	135.97

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .50 FEET

111.87	4.60	678.20	0.00	0.00	678.28	.09	.01	.00	676.80
285.	75.	97.	112.	46.	29.	69.	1.	1.	676.80
.05	1.65	3.40	1.62	.049	.042	.049	.032	673.60	0.00

.003050	1.	1.	1.	2	0	0	0.00	136.95	136.95

*SECNO 111.900
3280 CROSS SECTION 111.90 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
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
111.90	4.14	678.94	678.94	0.00	679.26	.33	.89	.07	678.00
285.	53.	145.	87.	24.	24.	36.	2.	2.	678.00
.06	2.25	6.01	2.44	.049	.042	.049	.034	674.80	0.00
.012061	165.	165.	165.	3	13	0	0.00	120.36	120.36

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .39 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
***CONCRETE WEIR									
111.91	2.99	679.69	0.00	0.00	680.01	.32	.74	.00	679.00
285.	91.	99.	95.	31.	15.	32.	2.	2.	679.00
.06	2.99	6.56	2.94	.049	.042	.049	.034	676.70	0.00
.018692	50.	50.	50.	3	0	0	0.00	113.81	113.81

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .39 FEET

111.92	4.49	680.29	0.00	0.00	680.41	.12	.38	.02	679.00
285.	72.	106.	106.	41.	28.	61.	2.	2.	679.00
.07	1.78	3.85	1.75	.049	.042	.049	.035	675.80	0.00
.004107	50.	50.	50.	2	0	0	0.00	135.35	135.35

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .20 FEET

111.93	4.30	680.50	0.00	0.00	680.70	.20	.27	.02	679.40
285.	64.	125.	96.	32.	26.	47.	2.	2.	679.40
.07	2.03	4.85	2.06	.049	.042	.049	.035	676.20	0.00
.007187	50.	50.	50.	2	0	0	0.00	128.87	128.87

*SECNO 111.940

3280 CROSS SECTION 111.94 EXTENDED .23 FEET

111.94	4.33	681.63	0.00	0.00	681.81	.18	1.11	.00	680.50
285.	66.	121.	98.	33.	26.	49.	2.	3.	680.50
.09	1.99	4.65	1.99	.049	.042	.049	.036	677.30	0.00
.006495	162.	162.	162.	2	0	0	0.00	130.62	130.62

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .27 FEET

111.95	4.37	683.37	0.00	0.00	683.53	.16	1.72	.00	682.20
285.	68.	118.	100.	35.	26.	52.	3.	4.	682.20
.11	1.94	4.45	1.92	.049	.042	.049	.037	679.00	0.00
.005838	280.	280.	280.	3	0	0	0.00	132.51	132.51

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED .59 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
111.97	4.19	683.59	0.00	0.00	683.78	.19	.24	.01	682.60
285.	21.	171.	94.	13.	40.	51.	3.	4.	681.70
.12	1.63	4.26	1.83	.049	.042	.049	.037	679.40	190.00
.004108	50.	50.	50.	2	0	0	0.00	100.23	290.23

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .34 FEET

111.98	3.93	684.03	0.00	0.00	684.37	.33	.54	.04	683.30
285.	15.	196.	74.	9.	36.	34.	3.	4.	682.40
.13	1.70	5.39	2.16	.049	.042	.049	.037	680.10	190.00
.007445	100.	100.	100.	2	0	0	0.00	90.05	280.05

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .38 FEET

111.99	3.98	685.48	0.00	0.00	685.78	.30	1.41	.00	684.70
285.	16.	192.	78.	9.	37.	37.	4.	4.	683.80
.14	1.70	5.17	2.08	.049	.042	.049	.038	681.50	190.00
.006683	200.	200.	200.	2	0	0	0.00	92.97	282.97

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .35 FEET

112.00	3.95	687.95	0.00	0.00	688.27	.32	2.48	.01	687.20
285.	15.	195.	75.	9.	37.	35.	4.	5.	686.30

.16	1.70	5.32	2.14	.049	.042	.049	.039	684.00	190.00
.007201	358.	358.	358.	2	0	0	0.00	90.95	280.95

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .38 FEET

112.10	3.98	690.08	0.00	0.00	690.38	.30	2.11	.00	689.30
285.	16.	191.	78.	9.	37.	37.	5.	6.	688.40
.18	1.70	5.16	2.08	.049	.042	.049	.039	686.10	190.00
.006666	305.	305.	305.	2	0	0	0.00	93.04	283.04

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .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	IDC	ICONT	CORAR	TOPWID	ENDST
112.20	3.93	691.83	0.00	0.00	692.16	.33	1.77	.01	691.10
285.	14.	196.	74.	9.	36.	34.	6.	6.	690.20
.20	1.70	5.40	2.17	.049	.042	.049	.039	687.90	190.00
.007497	250.	250.	250.	1	0	0	0.00	89.86	279.86

*SECNO 112.300
3280 CROSS SECTION 112.30 EXTENDED .41 FEET

112.30	4.00	693.60	0.00	0.00	693.89	.29	1.72	.00	692.80
285.	16.	189.	79.	10.	37.	39.	6.	7.	691.90
.22	1.70	5.07	2.05	.049	.042	.049	.039	689.60	190.00
.006357	250.	250.	250.	1	0	0	0.00	94.16	284.16

*SECNO 112.400

112.40	3.97	693.97	0.00	0.00	694.21	.24	.32	.00	694.00
285.	0.	221.	64.	0.	51.	34.	6.	7.	692.80
.22	0.00	4.34	1.88	.049	.042	.049	.039	690.00	252.15
.006543	50.	50.	50.	2	0	0	0.00	88.35	340.50

*SECNO 112.410

***FOOTBRIDGE

112.41	3.94	694.34	0.00	0.00	694.60	.26	.38	.01	694.40
285.	0.	225.	60.	0.	50.	31.	6.	7.	693.20
.22	0.00	4.53	1.92	.049	.042	.049	.040	690.40	252.42
.007245	55.	55.	55.	0	0	0	0.00	86.56	338.99

*SECNO 112.420

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 692.20 MAX ELLC= 691.40

112.42	3.96	694.36	0.00	0.00	694.61	.25	.01	.00	694.40
285.	0.	193.	92.	0.	43.	32.	6.	7.	693.20
.22	0.00	4.49	2.84	.049	.042	.049	.040	690.40	252.31
.015396	1.	1.	1.	1	0	0	-7.20	87.32	339.63

*SECNO 112.430

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 692.20 MAX ELLC= 691.40

112.43	4.15	694.55	0.00	0.00	694.71	.16	.09	.01	694.40
285.	0.	174.	111.	0.	48.	46.	6.	7.	693.20
.22	.51	3.59	2.42	.049	.042	.049	.040	690.40	248.88
.008495	8.	8.	8.	2	0	0	-7.20	97.66	346.53

*SECNO 112.440

112.44	4.15	694.55	0.00	0.00	694.72	.17	.01	.00	694.40
285.	0.	206.	79.	0.	56.	46.	6.	7.	693.20
.22	.36	3.70	1.72	.049	.042	.049	.039	690.40	248.82
.004245	1.	1.	1.	1	0	0	0.00	97.81	346.63

*SECNO 112.500

112.50	3.99	694.69	0.00	0.00	694.92	.23	.18	.02	694.70
285.	0.	220.	65.	0.	51.	35.	6.	7.	693.50
.23	0.00	4.29	1.88	.049	.042	.049	.040	690.70	252.08
.006369	35.	35.	35.	2	0	0	0.00	88.83	340.90

*SECNO 113.200

113.20	3.95	696.95	0.00	0.00	697.20	.25	2.28	.01	697.00
285.	0.	223.	62.	0.	50.	33.	7.	8.	695.80
.25	0.00	4.43	1.90	.049	.042	.049	.040	693.00	252.28
.006866	345.	345.	345.	3	0	0	0.00	87.51	339.79

CCHV= .400 CEHV= .800

*SECNO 113.280

3301 HV CHANGED MORE THAN HVINS

***D/S M-53

113.28	4.63	697.93	0.00	0.00	698.76	.83	1.10	.46	698.80
285.	0.	285.	0.	0.	39.	0.	7.	8.	698.80
.26	0.00	7.31	0.00	.046	.039	.046	.040	693.30	7.52
.012012	123.	123.	123.	2	0	0	0.00	9.96	17.48

CCHV= .500 CEHV= 1.000

*SECNO 113.290

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.29	5.19	698.49	0.00	0.00	698.95	.46	.00	.18	699.50
285.	0.	285.	0.	0.	52.	0.	7.	8.	699.50
.26	0.00	5.45	0.00	.046	.021	.046	.040	693.30	.02
.001684	1.	1.	1.	3	0	0	0.00	10.17	10.18

*SECNO 113.300

113.30	5.13	698.53	0.00	0.00	699.00	.47	.04	.01	699.60
285.	0.	285.	0.	0.	52.	0.	7.	8.	699.60
.26	0.00	5.50	0.00	.046	.021	.046	.040	693.40	.02
.001733	25.	25.	25.	3	0	0	0.00	10.17	10.18

*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.08	698.58	0.00	0.00	699.06	.48	.04	.01	699.70
285.	0.	285.	0.	0.	51.	0.	7.	8.	699.70
.26	0.00	5.57	0.00	.046	.021	.046	.039	693.50	.02
.001787	25.	25.	25.	0	0	0	0.00	10.16	10.18

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	4.92	698.82	0.00	0.00	699.34	.51	.25	.03	700.10
285.	0.	285.	0.	0.	50.	0.	7.	8.	700.10
.27	0.00	5.75	0.00	.046	.021	.046	.039	693.90	.02
.001947	132.	132.	132.	1	0	0	0.00	10.16	10.18

*SECNO 113.420

113.42	4.93	698.83	0.00	0.00	699.34	.51	.00	.00	700.10
285.	0.	285.	0.	0.	50.	0.	7.	8.	700.10
.27	0.00	5.74	0.00	.046	.039	.046	.039	693.90	.02
.006515	1.	1.	1.	0	0	0	0.00	10.16	10.18

CCHV= .400 CEHV= .800

*SECNO 113.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
113.80	5.47	699.87	0.00	0.00	700.55	.69	1.07	.14	700.70
285.	0.	285.	0.	0.	43.	0.	7.	8.	700.00
.27	0.00	6.65	0.00	.046	.039	.046	.039	694.40	142.47
.011767	125.	125.	125.	2	0	0	0.00	17.35	159.82

CCHV= .100 CEHV= .300

*SECNO 113.810

113.81	5.59	700.49	0.00	0.00	701.11	.62	.55	.01	701.20

285.	0.	285.	0.	0.	45.	0.	8.	8.	700.50
.27	0.00	6.33	0.00	.046	.039	.046	.039	694.90	142.11
.010373	50.	50.	50.	3	0	0	0.00	17.87	159.98

*SECNO 113.820

113.82	5.62	701.52	0.00	0.00	702.13	.61	1.02	.00	702.20
285.	0.	285.	0.	0.	46.	0.	8.	8.	701.50
.28	0.00	6.24	.03	.046	.039	.046	.039	695.90	142.00
.009976	100.	100.	100.	2	0	0	0.00	24.16	166.17

*SECNO 113.830

113.83	5.62	703.02	0.00	0.00	703.63	.61	1.50	.00	703.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	703.00
.28	0.00	6.25	.03	.046	.039	.046	.039	697.40	142.01
.010004	150.	150.	150.	2	0	0	0.00	23.50	165.51

*SECNO 113.900

113.90	5.62	705.02	0.00	0.00	705.63	.61	2.00	.00	705.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	705.00
.29	0.00	6.25	.03	.046	.039	.046	.039	699.40	142.02
.010023	200.	200.	200.	0	0	0	0.00	23.06	165.07

*SECNO 113.910

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
113.91	5.62	707.02	0.00	0.00	707.63	.60	2.00	.00	707.70
285.	0.	285.	0.	0.	46.	0.	8.	8.	707.00
.30	0.00	6.24	.03	.046	.039	.046	.039	701.40	142.00
.009945	200.	200.	200.	0	0	0	0.00	24.88	166.88

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.34 FEET

3301 HV CHANGED MORE THAN HVINS

113.92	5.94	707.74	0.00	0.00	707.84	.10	.16	.05	706.40
285.	0.	0.	285.	0.	0.	114.	8.	8.	759.40
.31	0.00	0.00	2.50	.046	.039	.046	.039	701.80	178.00
.001572	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED .07 FEET

113.93	4.67	707.97	0.00	0.00	708.40	.43	.46	.10	707.90
285.	0.	0.	285.	0.	0.	54.	9.	9.	707.90
.31	0.00	0.00	5.28	.046	.039	.046	.039	703.30	178.00
.008405	150.	150.	150.	3	0	0	0.00	31.95	209.95

*SECNO 114.000

114.00	4.47	709.27	0.00	0.00	709.82	.55	1.39	.03	709.40
285.	0.	0.	285.	0.	0.	48.	9.	9.	709.40
.32	0.00	0.00	5.94	.046	.039	.046	.039	704.80	179.02
.010983	145.	145.	145.	3	0	0	0.00	29.19	208.20

*SECNO 114.010

114.01	4.30	709.80	0.00	0.00	710.48	.68	.62	.04	710.10
285.	0.	0.	285.	0.	0.	43.	9.	9.	710.10
.32	0.00	0.00	6.60	.046	.039	.046	.039	705.50	180.39
.013943	50.	50.	50.	2	0	0	0.00	26.28	206.67

*SECNO 114.020

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK.ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
114.02	4.39	711.19	0.00	0.00	711.80	.61	1.32	.01	711.40
285.	0.	0.	285.	0.	0.	45.	9.	9.	711.40
.33	0.00	0.00	6.29	.046	.039	.046	.039	706.80	179.77
.012503	100.	100.	100.	2	0	0	0.00	27.60	207.37

*SECNO 114.030

114.03	4.30	713.80	0.00	0.00	714.48	.69	2.66	.02	714.10
285.	0.	0.	285.	0.	0.	43.	9.	9.	714.10
.34	0.00	0.00	6.65	.046	.039	.046	.039	709.50	180.49
.014184	200.	200.	200.	1	0	0	0.00	26.07	206.57

*SECNO 114.050

114.05	4.36	716.56	0.00	0.00	717.19	.63	2.70	.01	716.80
285.	0.	0.	285.	0.	0.	45.	9.	9.	716.80
.35	0.00	0.00	6.37	.046	.039	.046	.039	712.20	179.92
.012849	200.	200.	200.	2	0	0	0.00	27.27	207.19

*SECNO 114.070

114.07	4.30	719.20	0.00	0.00	719.88	.68	2.67	.01	719.50
285.	0.	0.	285.	0.	0.	43.	10.	9.	719.50
.35	0.00	0.00	6.60	.046	.039	.046	.039	714.90	180.39
.013931	200.	200.	200.	2	0	0	0.00	26.29	206.68

*SECNO 114.090

114.09	4.39	720.59	0.00	0.00	721.20	.61	1.31	.01	720.80
285.	0.	0.	285.	0.	0.	45.	10.	9.	720.80
.36	0.00	0.00	6.26	.046	.039	.046	.039	716.20	179.71
.012373	100.	100.	100.	2	0	0	0.00	27.73	207.44

*SECNO 115.200

3280 CROSS SECTION 115.20 EXTENDED 1.73 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
115.20	4.43	721.33	0.00	0.00	721.42	.10	.18	.05	719.60
285.	76.	177.	31.	41.	62.	19.	10.	9.	719.70
.36	1.84	2.86	1.62	.046	.039	.046	.039	716.90	146.00
.001664	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	4.74	721.54	0.00	0.00	721.81	.27	.24	.14	723.00
285.	0.	285.	0.	0.	68.	0.	10.	9.	723.00
.37	0.00	4.19	0.00	.046	.039	.046	.039	716.80	9.63
.002757	116.	116.	116.	2	0	0	0.00	15.66	25.29

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	4.74	721.54	0.00	0.00	721.81	.27	.00	.00	723.00
285.	0.	285.	0.	0.	68.	0.	10.	9.	723.00
.37	0.00	4.18	0.00	.046	.021	.046	.039	716.80	9.63
.000819	1.	1.	1.	0	0	0	0.00	15.66	25.29

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	4.78	721.58	0.00	0.00	721.85	.27	.04	.00	723.00
285.	0.	285.	0.	0.	69.	0.	10.	9.	723.00
.37	0.00	4.14	0.00	.046	.021	.046	.038	716.80	9.63
.000796	45.	45.	45.	2	0	0	0.00	15.67	25.30

*SECNO 115.420

115.42	4.78	721.58	0.00	0.00	721.85	.27	.00	.00	723.00
285.	0.	285.	0.	0.	69.	0.	10.	9.	723.00
.37	0.00	4.14	0.00	.046	.039	.046	.038	716.80	9.63
.002673	1.	1.	1.	0	0	0	0.00	15.67	25.30

CCHV= .400 CEHV= .800
*SECNO 115.500
3280 CROSS SECTION 115.50 EXTENDED .41 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
115.50	4.22	721.62	0.00	0.00	722.05	.42	.07	.13	721.20
285.	1.	254.	30.	1.	46.	15.	10.	9.	720.80
.38	.98	5.49	2.01	.046	.039	.046	.038	717.40	199.80
.007440	17.	17.	17.	0	0	0	0.00	50.20	250.00

*SECNO 115.510
3280 CROSS SECTION 115.51 EXTENDED .83 FEET

115.51	4.63	722.03	0.00	0.00	722.27	.24	.14	.07	721.20
285.	6.	232.	48.	5.	55.	25.	10.	9.	720.80
.38	1.10	4.25	1.94	.046	.039	.046	.038	717.40	194.00
.003576	29.	29.	29.	3	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	3.52	721.92	721.90	0.00	722.70	.78	.01	.43	728.90
285.	0.	285.	0.	0.	40.	0.	10.	9.	729.00
.38	0.00	7.08	0.00	.046	.021	.046	.038	718.40	193.40
.008219	1.	1.	1.	4	23	0	0.00	25.66	221.00

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.23	722.63	0.00	0.00	722.97	.34	.09	.17	728.90
285.	0.	285.	0.	0.	61.	0.	10.	9.	729.00
.38	0.00	4.70	0.00	.046	.021	.046	.038	718.40	187.41
.002963	20.	20.	20.	5	0	0	0.00	32.08	222.39

*SECNO 116.080

116.08	4.17	722.57	0.00	0.00	723.23	.66	.01	.25	728.30
285.	0.	285.	0.	0.	44.	0.	10.	9.	728.70
.38	0.00	6.51	0.00	.046	.039	.046	.038	718.40	194.82
.011365	1.	1.	1.	2	0	0	0.00	18.55	213.36

CCHV= .100 CEHV= .300
*SECNO 116.800

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	IOC	ICONT	CORAR	TOPWID	ENDST
116.80	4.73	723.23	0.00	0.00	723.65	.42	.40	.02	728.40
285.	0.	285.	0.	0.	55.	0.	10.	9.	728.80
.38	0.00	5.20	0.00	.046	.039	.046	.038	718.50	193.26
.006111	49.	49.	49.	2	0	0	0.00	20.35	213.62

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.22 FEET

116.81	4.62	723.72	0.00	0.00	723.75	.03	.06	.04	720.90
285.	103.	86.	96.	94.	45.	89.	10.	9.	721.10
.39	1.09	1.93	1.08	.046	.039	.046	.038	719.10	152.82
.000480	50.	50.	50.	2	0	0	0.00	119.18	272.00

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .20 FEET

116.82	3.60	723.70	0.00	0.00	723.84	.14	.06	.03	721.90
285.	86.	129.	70.	42.	33.	40.	11.	10.	722.10
.40	2.03	3.97	1.75	.046	.039	.046	.038	720.10	169.42
.003108	60.	60.	60.	2	0	0	0.00	102.58	272.00

*SECNO 116.830

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

116.83	3.11	724.11	724.11	0.00	724.55	.44	.26	.09	722.80
285.	68.	172.	45.	23.	27.	18.	11.	10.	723.00
.40	2.93	6.45	2.49	.046	.039	.046	.038	721.00	178.20
.010739	50.	50.	50.	20	9	0	0.00	82.14	260.34

*SECNO 116.840

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

116.84	3.12	724.92	724.92	0.00	725.35	.43	.53	.00	723.60
285.	68.	171.	45.	23.	27.	18.	11.	10.	723.80
.40	2.91	6.40	2.47	.046	.039	.046	.038	721.80	177.99
.010500	50.	50.	50.	20	5	0	0.00	82.69	260.68

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
116.86	3.11	726.31	726.31	0.00	726.75	.43	.84	.00	725.00
285.	68.	171.	45.	23.	27.	18.	11.	10.	725.20
.41	2.92	6.42	2.47	.046	.039	.046	.038	723.20	178.07
.010586	80.	80.	80.	20	5	0	0.00	82.49	260.56

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

*SECNO 117.200

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
117.20	3.12	727.72	727.72	0.00	728.15	.43	.85	.00	726.40
285.	68.	171.	45.	23.	27.	18.	11.	10.	726.60
.41	2.91	6.41	2.47	.046	.039	.046	.038	724.60	178.04
.010554	80.	80.	80.	20	5	0	0.00	82.57	260.60

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

*SECNO 117.210

***CAMPGROUND RD.

117.21	3.39	728.59	0.00	0.00	728.81	.23	.65	.02	727.00
285.	79.	146.	59.	33.	30.	30.	11.	10.	727.20
.42	2.37	4.87	1.99	.046	.039	.046	.038	725.20	172.92
.005230	90.	90.	90.	2	0	0	0.00	98.60	271.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790
3280 CROSS SECTION 117.79 EXTENDED 3.52 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
741.78	729.83	0.00	123.	162.	13.	16.	729.20	732.30

117.79	7.62	732.82	0.00	0.00	732.86	.05	4.05	0.00	780.00
285.	0.	0.	285.	0.	0.	163.	11.	10.	780.00
.42	0.00	0.00	1.75	.046	.039	.046	.038	725.20	95.00
.000391	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 2.93 FEET

117.80	7.03	732.83	0.00	0.00	732.89	.06	.02	.00	730.00
285.	0.	0.	285.	0.	0.	144.	11.	10.	730.00
.43	0.00	0.00	1.98	.046	.039	.046	.038	725.80	95.00
.000565	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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      SENSITIVITY RUN  N * 1.3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.      4.        0.        0.  0.000000      0.00     -1.0       0.    674.120     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000    0.000    -1.000     0.000     0.000     1.300     0.000     0.000     0.000     0.000
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*PROF 3

CCHV= .100 CEHV= .300
*SECNO 110.100

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
110.10	5.02	674.12	0.00	674.12	674.16	.04	0.00	0.00	673.30
170.	14.	96.	59.	30.	48.	77.	0.	0.	672.80
0.00	.48	2.01	.77	.072	.052	.072	0.000	669.10	53.87
.001191	0.	0.	0.	0	0	0	0.00	155.73	209.60

*SECNO 110.150

110.15	4.61	674.26	0.00	0.00	674.36	.10	.18	.02	673.85
170.	4.	122.	44.	8.	42.	47.	0.	0.	673.35
.01	.49	2.92	.92	.072	.052	.072	.051	669.65	87.16
.002988	100.	100.	100.	1	0	0	0.00	116.82	203.98

*SECNO 110.200

110.20	4.37	674.57	0.00	0.00	674.85	.28	.44	.05	674.40
170.	1.	165.	4.	1.	39.	5.	0.	0.	673.90
.02	.52	4.27	.85	.072	.052	.072	.051	670.20	113.13
.007091	100.	100.	100.	2	0	0	0.00	36.33	149.46

CCHV= .400 CEHV= .800
*SECNO 110.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 678.00 ELREA= 676.00

***D/S JEWELL RD

110.28	4.43	675.33	0.00	0.00	675.58	.25	.72	.01	674.80
170.	0.	170.	0.	0.	42.	0.	1.	1.	674.80
.03	0.00	4.02	0.00	.072	.052	.072	.052	670.90	2.90
.005631	115.	115.	115.	2	0	0	0.00	11.10	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.39	2.80	50.00	11.00	0.00	37.00	0.00	670.90	670.90

*SECNO 110.320
3280 CROSS SECTION 110.32 EXTENDED .17 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 FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
675.79	675.58	0.00	0.	170.	37.	43.	674.80	676.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 678.00 ELREA= 676.00

110.32	4.67	675.57	0.00	0.00	675.79	.22	.20	0.00	674.80
170.	0.	170.	0.	0.	45.	0.	1.	1.	674.80
.03	0.00	3.79	0.00	.072	.052	.072	.051	670.90	2.90
.004699	30.	30.	30.	2	0	0	0.00	11.10	14.00

*SECNO 110.500

110.50	3.92	675.62	0.00	0.00	676.23	.61	.13	.31	676.20
170.	0.	170.	0.	0.	27.	0.	1.	1.	675.80
.03	0.00	6.28	0.00	.072	.052	.072	.051	671.70	30.94
.020706	15.	15.	15.	2	0	0	0.00	10.99	41.93

*SECNO 110.580

***D/S 27 MILE RD

110.58	4.32	676.32	0.00	0.00	676.56	.23	.18	.15	676.70
170.	0.	170.	0.	0.	44.	0.	1.	1.	676.70
.03	0.00	3.87	0.00	.072	.052	.072	.051	672.00	4.01
.005642	18.	18.	18.	2	0	0	0.00	12.08	16.09

CCHV= .500 CEHV= 1.000

*SECNO 110.590

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

110.59	4.33	676.33	0.00	0.00	676.56	.23	.00	.00	676.70
170.	0.	170.	0.	0.	44.	0.	1.	1.	676.70
.03	0.00	3.86	0.00	.072	.039	.072	.051	672.00	4.01
.003161	1.	1.	1.	0	0	0	0.00	12.08	16.09

*SECNO 111.020

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 678.20 MAX ELLC= 676.70

111.02	4.41	676.41	0.00	0.00	676.64	.22	.07	.01	676.70
170.	0.	170.	0.	0.	45.	0.	1.	1.	676.70
.03	0.00	3.77	0.00	.072	.039	.072	.050	672.00	4.01
.002962	23.	23.	23.	1	0	0	0.00	12.08	16.09

*SECNO 111.030

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

111.03	4.42	676.42	0.00	0.00	676.64	.22	.00	.00	676.70
170.	0.	170.	0.	0.	45.	0.	1.	1.	676.70
.03	0.00	3.78	0.00	.072	.065	.072	.050	672.00	4.01
.008257	1.	1.	1.	0	0	0	0.00	12.08	16.09

CCHV= .400 CEHV= .800
*SECNO 111.800
3280 CROSS SECTION 111.80 EXTENDED .60 FEET

111.80	4.70	676.70	0.00	0.00	676.76	.07	.06	.06	675.20
285.	79.	87.	119.	51.	30.	77.	1.	1.	675.20
.03	1.57	2.93	1.54	.072	.065	.072	.050	672.00	0.00
.005182	10.	10.	10.	3	0	0	0.00	138.46	138.46

*SECNO 111.810
3280 CROSS SECTION 111.81 EXTENDED .68 FEET

111.81	4.78	676.98	0.00	0.00	677.04	.06	.27	.00	675.40
285.	81.	82.	122.	55.	31.	84.	1.	1.	675.40
.04	1.48	2.69	1.45	.072	.065	.072	.052	672.20	0.00
.004198	58.	58.	58.	2	0	0	0.00	139.73	139.73

CCHV= .100 CEHV= .300
*SECNO 111.820
3280 CROSS SECTION 111.82 EXTENDED .58 FEET

111.82	4.69	677.09	0.00	0.00	677.16	.07	.12	.01	675.60
285.	77.	92.	116.	50.	29.	76.	1.	1.	675.60
.05	1.56	3.12	1.53	.091	.078	.091	.053	672.40	0.00
.008538	20.	20.	20.	0	0	0	0.00	138.14	138.14

*SECNO 111.830
3280 CROSS SECTION 111.83 EXTENDED .66 FEET

111.83	4.77	677.87	0.00	0.00	677.93	.06	.77	.00	676.30
285.	79.	87.	119.	53.	30.	82.	1.	1.	676.30
.06	1.48	2.87	1.45	.091	.078	.091	.057	673.10	0.00
.006963	100.	100.	100.	1	0	0	0.00	139.37	139.37

*SECNO 111.840
3280 CROSS SECTION 111.84 EXTENDED .66 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

***FOOTBRIDGE

111.84	4.76	678.36	0.00	0.00	678.42	.06	.49	.00	676.80
285.	79.	87.	119.	53.	30.	82.	2.	1.	676.80
.07	1.48	2.87	1.45	.091	.078	.091	.059	673.60	0.00
.006997	70.	70.	70.	2	0	0	0.00	139.34	139.34

*SECNO 111.850
3280 CROSS SECTION 111.85 EXTENDED .66 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.85	4.76	678.36	0.00	0.00	678.43	.08	.01	.00	676.80
285.	52.	51.	182.	39.	22.	75.	2.	1.	676.80
.07	1.35	2.30	2.42	.091	.078	.091	.059	673.60	0.00
.024112	1.	1.	1.	0	0	0	-30.80	139.45	139.45

*SECNO 111.860
3280 CROSS SECTION 111.86 EXTENDED .73 FEET

3370 NORMAL BRIDGE,NRD= 2 MIN ELTRD= 678.00 MAX ELLC= 677.20

111.86	4.83	678.43	0.00	0.00	678.50	.07	.06	.00	676.80
285.	53.	49.	183.	42.	23.	81.	2.	1.	676.80
.07	1.28	2.11	2.27	.091	.078	.091	.059	673.60	0.00
.019394	3.	3.	3.	2	0	0	-30.80	140.50	140.50

*SECNO 111.870
3280 CROSS SECTION 111.87 EXTENDED .75 FEET

111.87	4.86	678.46	0.00	0.00	678.51	.05	.01	.00	676.80
285.	81.	82.	122.	58.	31.	90.	2.	1.	676.80
.07	1.39	2.61	1.36	.091	.078	.091	.059	673.60	0.00
.005543	1.	1.	1.	0	0	0	0.00	140.82	140.82

*SECNO 111.900
3280 CROSS SECTION 111.90 EXTENDED .62 FEET

111.90	4.72	679.52	0.00	0.00	679.58	.07	1.07	.00	678.00
285.	78.	89.	118.	52.	30.	79.	2.	2.	678.00
.09	1.52	2.98	1.49	.091	.078	.091	.063	674.80	0.00
.007635	165.	165.	165.	3	0	0	0.00	138.81	138.81

*SECNO 111.910
3280 CROSS SECTION 111.91 EXTENDED .76 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
***CONCRETE WEIR									
111.91	3.36	680.06	0.00	0.00	680.16	.10	.57	.01	679.00
285.	107.	64.	114.	49.	17.	56.	2.	2.	679.00
.10	2.18	3.81	2.02	.091	.078	.091	.063	676.70	0.00
.018567	50.	50.	50.	2	0	0	0.00	126.50	126.50

*SECNO 111.920
3280 CROSS SECTION 111.92 EXTENDED .71 FEET

111.92	4.81	680.61	0.00	0.00	680.66	.06	.50	.00	679.00
285.	80.	84.	121.	56.	31.	86.	3.	2.	679.00
.11	1.43	2.74	1.40	.091	.078	.091	.064	675.80	0.00
.006199	50.	50.	50.	2	0	0	0.00	140.10	140.10

*SECNO 111.930
3280 CROSS SECTION 111.93 EXTENDED .63 FEET

111.93	4.74	680.94	0.00	0.00	681.00	.07	.34	.00	679.40
285.	79.	88.	118.	52.	30.	80.	3.	2.	679.40
.11	1.50	2.94	1.47	.091	.078	.091	.065	676.20	0.00
.007394	50.	50.	50.	2	0	0	0.00	139.00	139.00

*SECNO 111.940
3280 CROSS SECTION 111.94 EXTENDED .68 FEET

111.94	4.78	682.08	0.00	0.00	682.14	.06	1.13	.00	680.50
285.	80.	86.	120.	54.	30.	84.	3.	3.	680.50
.14	1.46	2.81	1.43	.091	.078	.091	.067	677.30	0.00
.006625	162.	162.	162.	2	0	0	0.00	139.68	139.68

*SECNO 111.950
3280 CROSS SECTION 111.95 EXTENDED .73 FEET

111.95	4.83	683.83	0.00	0.00	683.88	.05	1.74	.00	682.20
285.	80.	83.	122.	57.	31.	88.	5.	4.	682.20
.18	1.41	2.68	1.38	.091	.078	.091	.069	679.00	0.00
.005870	280.	280.	280.	3	0	0	0.00	140.45	140.45

*SECNO 111.970
3280 CROSS SECTION 111.97 EXTENDED 1.09 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

111.97	4.69	684.09	0.00	0.00	684.16	.07	.27	.01	682.60
285.	27.	134.	123.	21.	47.	90.	5.	4.	681.70
.19	1.33	2.86	1.37	.091	.078	.091	.069	679.40	190.00
.005147	50.	50.	50.	2	0	0	0.00	116.19	306.19

*SECNO 111.980
3280 CROSS SECTION 111.98 EXTENDED .95 FEET

111.98	4.56	684.66	0.00	0.00	684.75	.09	.58	.01	683.30
285.	26.	143.	116.	18.	45.	79.	5.	4.	682.40
.20	1.41	3.17	1.48	.091	.078	.091	.069	680.10	190.00
.006682	100.	100.	100.	1	0	0	0.00	111.78	301.78

*SECNO 111.990
3280 CROSS SECTION 111.99 EXTENDED .93 FEET

111.99	4.53	686.03	0.00	0.00	686.12	.10	1.37	.00	684.70
285.	26.	144.	115.	18.	45.	77.	6.	5.	683.80
.23	1.43	3.23	1.50	.091	.078	.091	.070	681.50	190.00
.007015	200.	200.	200.	2	0	0	0.00	110.98	300.98

*SECNO 112.000
3280 CROSS SECTION 112.00 EXTENDED .93 FEET

112.00	4.53	688.53	0.00	0.00	688.63	.10	2.50	.00	687.20
285.	26.	144.	115.	18.	45.	77.	7.	6.	686.30
.27	1.42	3.22	1.50	.091	.078	.091	.072	684.00	190.00
.006962	358.	358.	358.	2	0	0	0.00	111.11	301.11

*SECNO 112.100
3280 CROSS SECTION 112.10 EXTENDED .94 FEET

112.10	4.54	690.64	0.00	0.00	690.73	.10	2.11	.00	689.30
285.	26.	144.	116.	18.	45.	77.	8.	6.	688.40
.30	1.42	3.20	1.49	.091	.078	.091	.072	686.10	190.00
.006866	305.	305.	305.	2	0	0	0.00	111.34	301.34

*SECNO 112.200
3280 CROSS SECTION 112.20 EXTENDED .91 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
112.20	4.51	692.41	0.00	0.00	692.51	.10	1.77	.00	691.10
285.	25.	146.	114.	18.	44.	75.	9.	7.	690.20
.33	1.44	3.28	1.52	.091	.078	.091	.073	687.90	190.00
.007319	250.	250.	250.	2	0	0	0.00	110.30	300.30

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*SECNO 112.300
3280 CROSS SECTION    112.30 EXTENDED       .96 FEET

    112.30      4.56    694.16      0.00      0.00    694.25       .09      1.74       .00    692.80
       285.       26.       142.      117.       18.       45.       79.       9.        8.    691.90
       .36      1.41      3.16      1.48      .091      .078      .091      .073    689.60    190.00
   .006631       250.      250.      250.         2         0         0      0.00    111.91    301.91

*SECNO 112.400
3280 CROSS SECTION    112.40 EXTENDED       .00 FEET

    112.40      4.50    694.50      0.00      0.00    694.59       .09       .34       .00    694.00
       285.        1.       182.      102.        3.       65.       72.       10.       8.    692.80
       .37       .55      2.81      1.42      .091      .078      .091      .073    690.00    242.00
   .006943        50.       50.       50.         0         0         0      0.00    116.15    358.15

*SECNO 112.410

      ***FOOTBRIDGE

    112.41      4.49    694.89      0.00      0.00    694.98       .09       .39       .00    694.40
       285.        1.       183.      100.        2.       64.       70.       10.       8.    693.20
       .37       .54      2.86      1.44      .091      .078      .091      .073    690.40    242.36
   .007270        55.       55.       55.         1         0         0      0.00    115.03    357.39

*SECNO 112.420
3280 CROSS SECTION    112.42 EXTENDED       .00 FEET

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  692.20 MAX ELLC=  691.40

    112.42      4.51    694.91      0.00      0.00    694.99       .08       .01       .00    694.40
       285.        2.       149.      134.        3.       57.       72.       10.       8.    693.20
       .38       .72      2.59      1.88      .091      .078      .091      .073    690.40    242.00
   .012172         1.        1.        1.         1         0         0     -7.20    116.09    358.09

*SECNO 112.430
3280 CROSS SECTION    112.43 EXTENDED       .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

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  692.20 MAX ELLC=  691.40

    112.43      4.61    695.01      0.00      0.00    695.08       .07       .09       .00    694.40
       285.        3.       142.      140.        4.       60.       80.       10.       8.    693.20
       .38       .80      2.36      1.74      .091      .078      .091      .073    690.40    242.00
   .009462         8.        8.        8.         2         0         0     -7.20    119.74    361.74
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*SECNO 112.440
3280 CROSS SECTION    112.44 EXTENDED       .12 FEET

   112.44      4.61    695.01      0.00      0.00    695.09       .07       .01       .00    694.40
     285.        2.      175.      108.        4.       68.       81.       10.        8.    693.20
      .38       .62      2.58      1.33      .091      .078      .091      .073    690.40    242.00
  .005478        1.        1.        1.         0         0         0      0.00    120.10    362.10

*SECNO 112.500
3280 CROSS SECTION    112.50 EXTENDED       .02 FEET

   112.50      4.52    695.22      0.00      0.00    695.30       .09       .21       .00    694.70
     285.        1.      181.      102.        3.       65.       73.       10.        8.    693.50
      .38       .56      2.79      1.41      .091      .078      .091      .073    690.70    242.00
  .006768       35.       35.       35.         2         0         0      0.00    116.56    358.56

*SECNO 113.200
3280 CROSS SECTION    113.20 EXTENDED       .03 FEET

   113.20      4.53    697.53      0.00      0.00    697.61       .09      2.31       .00    697.00
     285.        2.      181.      103.        3.       65.       74.       11.        9.    695.80
      .42       .56      2.76      1.40      .091      .078      .091      .074    693.00    242.00
  .006625      345.      345.      345.         3         0         0      0.00    116.92    358.92

CCHV=     .400 CEHV=     .800
*SECNO 113.280

        ***D/S.M-53

   113.28      5.53    698.83      0.00      0.00    699.38       .55      1.39       .37    698.80
     285.        0.      285.        0.        0.       48.        0.       11.        9.    698.80
      .43       .03      5.95       .03      .085      .072      .085      .074    693.30      7.43
  .023648      123.      123.      123.         2         0         0      0.00     10.13     17.56

CCHV=     .500 CEHV=    1.000
*SECNO 113.290
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

   113.29      5.81    699.11      0.00      0.00    699.48       .37       .01       .09    699.50
     285.        0.      285.        0.        0.       59.        0.       11.        9.    699.50
      .43      0.00      4.86      0.00      .085      .039      .085      .074    693.30       .01
  .004292        1.        1.        1.         2         0         0      0.00     10.19     10.19

*SECNO 113.300
   113.30      5.82    699.22      0.00      0.00    699.59       .37       .11       .00    699.60
     285.        0.      285.        0.        0.       59.        0.       11.        9.    699.60
      .43      0.00      4.85      0.00      .085      .039      .085      .073    693.40       .01
  .004277       25.       25.       25.         2         0         0      0.00     10.19     10.19
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*SECNO 113.310

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.31	5.83	699.33	0.00	0.00	699.69	.36	.11	.00	699.70
285.	0.	285.	0.	0.	59.	0.	11.	9.	699.70
.43	0.00	4.84	0.00	.085	.039	.085	.073	693.50	.01
.004266	25.	25.	25.	0	0	0	0.00	10.19	10.19

*SECNO 113.330

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 702.40 MAX ELLC= 699.50

113.33	6.19	700.09	0.00	0.00	700.49	.39	.77	.03	700.10
285.	0.	285.	0.	0.	57.	0.	12.	9.	700.10
.44	0.00	5.04	0.00	.085	.039	.085	.072	693.90	.00
.008351	132.	132.	132.	2	0	0	-6.01	10.20	10.20

*SECNO 113.420
3280 CROSS SECTION 113.42 EXTENDED .13 FEET

113.42	6.33	700.23	0.00	0.00	700.54	.31	.01	.04	700.10
285.	0.	285.	0.	0.	64.	0.	12.	9.	700.10
.44	0.00	4.45	0.00	.085	.072	.085	.072	693.90	0.00
.011513	1.	1.	1.	2	0	0	0.00	10.20	10.20

CCHV= .400 CEHV= .800
*SECNO 113.800
3280 CROSS SECTION 113.80 EXTENDED 1.34 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
113.80	7.04	701.44	0.00	0.00	701.57	.13	.95	.07	700.70
285.	0.	229.	56.	0.	73.	36.	12.	9.	700.00
.45	0.00	3.13	1.55	.085	.072	.085	.072	694.40	140.00
.005408	125.	125.	125.	2	0	0	0.00	46.00	186.00

CCHV= .100 CEHV= .300
*SECNO 113.810
3280 CROSS SECTION 113.81 EXTENDED 1.12 FEET

113.81	6.82	701.72	0.00	0.00	701.88	.16	.31	.01	701.20
285.	0.	237.	48.	0.	69.	30.	12.	9.	700.50
.46	0.00	3.43	1.59	.085	.072	.085	.072	694.90	140.00
.006981	50.	50.	50.	2	0	0	0.00	46.00	186.00

*SECNO 113.820
3280 CROSS SECTION 113.82 EXTENDED .89 FEET

113.82	6.59	702.49	0.00	0.00	702.70	.20	.80	.01	702.20
285.	0.	246.	39.	0.	64.	25.	12.	9.	701.50
.46	0.00	3.82	1.60	.085	.072	.085	.072	695.90	140.00
.009329	100.	100.	100.	2	0	0	0.00	46.00	186.00

*SECNO 113.830
3280 CROSS SECTION 113.83 EXTENDED .84 FEET

113.83	6.54	703.94	0.00	0.00	704.15	.21	1.45	.00	703.70
285.	0.	248.	37.	0.	63.	23.	12.	10.	703.00
.48	0.00	3.92	1.60	.085	.072	.085	.072	697.40	140.00
.010064	150.	150.	150.	2	0	0	0.00	46.00	186.00

*SECNO 113.900
3280 CROSS SECTION 113.90 EXTENDED .84 FEET

113.90	6.54	705.94	0.00	0.00	706.16	.21	2.00	.00	705.70
285.	0.	248.	37.	0.	63.	23.	13.	10.	705.00
.49	0.00	3.91	1.60	.085	.072	.085	.072	699.40	140.00
.009972	200.	200.	200.	2	0	0	0.00	46.00	186.00

*SECNO 113.910
3280 CROSS SECTION 113.91 EXTENDED .84 FEET

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH ICC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
113.91	6.54	707.94	0.00	0.00	708.15	.21	2.00	.00	707.70
285.	0.	248.	37.	0.	63.	23.	13.	10.	707.00
.51	0.00	3.92	1.60	.085	.072	.085	.072	701.40	140.00
.010015	200.	200.	200.	1	0	0	0.00	46.00	186.00

*SECNO 113.920
3280 CROSS SECTION 113.92 EXTENDED 1.95 FEET

113.92	6.55	708.35	0.00	0.00	708.41	.06	.24	.02	706.40
285.	0.	0.	285.	0.	0.	146.	13.	10.	759.40
.51	0.00	0.00	1.96	.085	.072	.085	.072	701.80	178.00
.002798	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 113.930
3280 CROSS SECTION 113.93 EXTENDED 1.06 FEET

113.93	5.66	708.96	0.00	0.00	709.08	.13	.65	.02	707.90
285.	0.	0.	285.	0.	0.	99.	14.	10.	707.90
.53	0.00	0.00	2.88	.085	.072	.085	.072	703.30	178.00

.007726	150.	150.	150.	2	0	0	0.00	52.00	230.00

*SECNO 114.000
3280 CROSS SECTION 114.00 EXTENDED .83 FEET

114.00	5.42	710.22	0.00	0.00	710.39	.17	1.29	.01	709.40
285.	0.	0.	285.	0.	0.	87.	14.	10.	709.40
.54	0.00	0.00	3.27	.085	.072	.085	.072	704.80	178.00
.010421	145.	145.	145.	2	0	0	0.00	52.00	230.00

*SECNO 114.010
3280 CROSS SECTION 114.01 EXTENDED .68 FEET

114.01	5.28	710.78	0.00	0.00	710.98	.20	.58	.01	710.10
285.	0.	0.	285.	0.	0.	79.	14.	11.	710.10
.54	0.00	0.00	3.59	.085	.072	.085	.072	705.50	178.00
.012799	50.	50.	50.	2	0	0	0.00	52.00	230.00

*SECNO 114.020
3280 CROSS SECTION 114.02 EXTENDED .66 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
114.02	5.26	712.06	0.00	0.00	712.27	.20	1.29	.00	711.40
285.	0.	0.	285.	0.	0.	79.	14.	11.	711.40
.55	0.00	0.00	3.62	.085	.072	.085	.072	706.80	178.00
.013014	100.	100.	100.	2	0	0	0.00	52.00	230.00

*SECNO 114.030
3280 CROSS SECTION 114.03 EXTENDED .63 FEET

114.03	5.23	714.73	0.00	0.00	714.94	.21	2.67	.00	714.10
285.	0.	0.	285.	0.	0.	77.	15.	11.	714.10
.57	0.00	0.00	3.71	.085	.072	.085	.072	709.50	178.00
.013698	200.	200.	200.	2	0	0	0.00	52.00	230.00

*SECNO 114.050
3280 CROSS SECTION 114.05 EXTENDED .64 FEET

114.05	5.24	717.44	0.00	0.00	717.65	.21	2.71	.00	716.80
285.	0.	0.	285.	0.	0.	78.	15.	11.	716.80
.58	0.00	0.00	3.67	.085	.072	.085	.072	712.20	178.00
.013405	200.	200.	200.	2	0	0	0.00	52.00	230.00

*SECNO 114.070
3280 CROSS SECTION 114.07 EXTENDED .63 FEET

114.07	5.23	720.13	0.00	0.00	720.35	.21	2.69	.00	719.50
285.	0.	0.	285.	0.	0.	77.	15.	11.	719.50
.60	0.00	0.00	3.69	.085	.072	.085	.072	714.90	178.00
.013542	200.	200.	200.	2	0	0	0.00	52.00	230.00

*SECNO 114.090
3280 CROSS SECTION 114.09 EXTENDED .67 FEET

114.09	5.27	721.47	0.00	0.00	721.67	.20	1.32	.00	720.80
285.	0.	0.	285.	0.	0.	79.	16.	11.	720.80
.60	0.00	0.00	3.60	.085	.072	.085	.072	716.20	178.00
.012892	100.	100.	100.	1	0	0	0.00	52.00	230.00

*SECNO 115.200
3280 CROSS SECTION 115.20 EXTENDED 2.28 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
115.20	4.98	721.88	0.00	0.00	721.94	.06	.25	.01	719.60
285.	82.	168.	35.	55.	75.	26.	16.	12.	719.70
.61	1.50	2.23	1.34	.085	.072	.085	.072	716.90	146.00
.002698	50.	50.	50.	2	0	0	0.00	61.00	207.00

CCHV= .400 CEHV= .800
*SECNO 115.280

***D/S VAN DYKE RD

115.28	5.50	722.30	0.00	0.00	722.50	.20	.45	.11	723.00
285.	0.	285.	0.	0.	80.	0.	16.	12.	723.00
.62	0.00	3.56	0.00	.085	.072	.085	.072	716.80	9.56
.006034	116.	116.	116.	2	0	0	0.00	15.84	25.40

CCHV= .500 CEHV= 1.000
*SECNO 115.320

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.32	5.50	722.30	0.00	0.00	722.50	.20	.00	.00	723.00
285.	0.	285.	0.	0.	80.	0.	16.	12.	723.00
.62	0.00	3.55	0.00	.085	.039	.085	.072	716.80	9.56
.001790	1.	1.	1.	0	0	0	0.00	15.84	25.40

*SECNO 115.380

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 725.90 MAX ELLC= 723.00

115.38	5.59	722.39	0.00	0.00	722.58	.19	.08	.00	723.00

285.	0.	285.	0.	0.	82.	0.	16.	12.	723.00
.62	0.00	3.49	0.00	.085	.039	.085	.071	716.80	9.56
.001706	45.	45.	45.	2	0	0	0.00	15.86	25.41

*SECNO 115.420

115.42	5.59	722.39	0.00	0.00	722.58	.19	.00	.00	723.00
285.	0.	285.	0.	0.	82.	0.	16.	12.	723.00
.62	0.00	3.49	0.00	.085	.072	.085	.071	716.80	9.56
.005731	1.	1.	1.	0	0	0	0.00	15.86	25.41

CCHV= .400 CEHV= .800

*SECNO 115.500

3280 CROSS SECTION 115.50 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
115.50	5.18	722.58	0.00	0.00	722.70	.12	.09	.03	721.20
285.	14.	207.	64.	12.	66.	38.	16.	12.	720.80
.63	1.22	3.15	1.68	.085	.072	.085	.071	717.40	194.00
.005323	17.	17.	17.	2	0	0	0.00	56.00	250.00

*SECNO 115.510

3280 CROSS SECTION 115.51 EXTENDED 1.54 FEET

115.51	5.34	722.74	0.00	0.00	722.85	.10	.14	.01	721.20
285.	17.	202.	67.	14.	69.	42.	16.	12.	720.80
.63	1.21	2.93	1.60	.085	.072	.085	.071	717.40	194.00
.004311	29.	29.	29.	0	0	0	0.00	56.00	250.00

*SECNO 115.580

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

***RAILROAD BRIDGE

115.58	4.31	722.71	0.00	0.00	723.02	.32	.01	.17	728.90
285.	0.	285.	0.	0.	63.	0.	16.	12.	729.00
.63	0.00	4.53	0.00	.085	.039	.085	.071	718.40	186.79
.009321	1.	1.	1.	2	0	0	0.00	32.82	222.51

*SECNO 116.020

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 731.90 MAX ELLC= 728.70

116.02	4.58	722.98	0.00	0.00	723.22	.24	.16	.03	728.90
285.	0.	285.	0.	0.	73.	0.	16.	12.	729.00
.63	0.00	3.91	0.00	.085	.039	.085	.071	718.40	179.86
.007164	20.	20.	20.	3	0	0	0.00	39.22	222.97

*SECNO 116.080

116.08	4.54	722.94	0.00	0.00	723.43	.49	.01	.20	728.30
285.	0.	285.	0.	0.	51.	0.	16.	12.	728.70
.63	0.00	5.59	0.00	.085	.072	.085	.071	718.40	193.79
.025740	1.	1.	1.	2	0	0	0.00	19.74	213.53

CCHV= .100 CEHV= .300

*SECNO 116.800

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
116.80	5.46	723.96	0.00	0.00	724.22	.25	.77	.02	728.40
285.	0.	285.	0.	0.	70.	0.	16.	12.	728.80
.63	0.00	4.05	0.00	.085	.072	.085	.071	718.50	191.66
.010479	49.	49.	49.	2	0	0	0.00	22.27	213.94

*SECNO 116.810
3280 CROSS SECTION 116.81 EXTENDED 1.81 FEET

116.81	5.22	724.32	0.00	0.00	724.34	.02	.09	.02	720.90
285.	110.	74.	101.	132.	52.	118.	17.	12.	721.10
.65	.83	1.43	.86	.085	.072	.085	.071	719.10	143.03
.000743	50.	50.	50.	2	0	0	0.00	128.97	272.00

*SECNO 116.820
3280 CROSS SECTION 116.82 EXTENDED .88 FEET

116.82	4.28	724.38	0.00	0.00	724.42	.05	.08	.01	721.90
285.	98.	96.	91.	75.	41.	72.	17.	12.	722.10
.66	1.31	2.37	1.25	.085	.072	.085	.071	720.10	158.38
.002831	60.	60.	60.	2	0	0	0.00	113.62	272.00

*SECNO 116.830
3280 CROSS SECTION 116.83 EXTENDED .16 FEET

116.83	3.56	724.56	0.00	0.00	724.71	.16	.26	.03	722.80
285.	84.	133.	68.	40.	32.	38.	17.	12.	723.00
.66	2.10	4.14	1.79	.085	.072	.085	.071	721.00	170.16
.011925	50.	50.	50.	2	0	0	0.00	101.84	272.00

*SECNO 116.840
3280 CROSS SECTION 116.84 EXTENDED .02 FEET

116.84	3.42	725.22	0.00	0.00	725.43	.21	.70	.02	723.60
285.	80.	144.	61.	35.	30.	31.	17.	12.	723.80
.67	2.32	4.73	1.95	.085	.072	.085	.071	721.80	172.44
.016756	50.	50.	50.	3	0	0	0.00	99.56	272.00

*SECNO 116.860

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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
116.86	3.39	726.59	0.00	0.00	726.81	.22	1.38	.00	725.00
285.	80.	146.	60.	34.	30.	30.	17.	12.	725.20
.67	2.37	4.85	1.98	.085	.072	.085	.071	723.20	172.83
.017795	80.	80.	80.	2	0	0	0.00	98.92	271.75

*SECNO 117.200

3280 CROSS SECTION 117.20 EXTENDED .00 FEET

117.20	3.40	728.00	0.00	0.00	728.22	.22	1.41	.00	726.40
285.	80.	145.	60.	34.	30.	31.	18.	13.	726.60
.68	2.35	4.80	1.96	.085	.072	.085	.071	724.60	172.68
.017381	80.	80.	80.	2	0	0	0.00	99.32	272.00

*SECNO 117.210

3280 CROSS SECTION 117.21 EXTENDED .44 FEET

***CAMPGROUND RD.

117.21	3.84	729.04	0.00	0.00	729.13	.09	.89	.01	727.00
285.	91.	115.	79.	53.	35.	51.	18.	13.	727.20
.69	1.72	3.25	1.54	.085	.072	.085	.071	725.20	165.56
.006415	90.	90.	90.	3	0	0	0.00	106.44	272.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	100.00	4.00	0.00	12.60	0.00	725.20	725.20

*SECNO 117.790

3280 CROSS SECTION 117.79 EXTENDED 3.54 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.22	729.74	0.00	131.	154.	13.	16.	729.20	732.30

117.79	7.64	732.84	0.00	0.00	732.89	.05	3.76	0.00	780.00
285.	0.	0.	285.	0.	0.	164.	18.	13.	780.00
.70	0.00	0.00	1.74	.085	.072	.085	.071	725.20	95.00
.001330	30.	30.	30.	2	0	6	0.00	32.00	127.00

*SECNO 117.800
3280 CROSS SECTION 117.80 EXTENDED 3.01 FEET

117.80	7.11	732.91	0.00	0.00	732.97	.06	.08	.00	730.00
285.	0.	0.	285.	0.	0.	147.	18.	13.	730.00
.70	0.00	0.00	1.94	.085	.072	.085	.071	725.80	95.00
.001847	50.	50.	50.	2	0	0	0.00	32.00	127.00

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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

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	7.05	2.01	154.93	64.04
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	3.45	2.01	154.93	91.48
	110.100	0.00	0.00	0.00	669.10	170.00	674.12	0.00	674.16	11.91	2.01	154.93	49.26
	110.150	100.00	0.00	0.00	669.65	170.00	674.18	0.00	674.29	20.35	3.09	90.02	37.68
	110.150	100.00	0.00	0.00	669.65	170.00	674.11	0.00	674.25	11.76	3.30	82.17	49.57
	110.150	100.00	0.00	0.00	669.65	170.00	674.26	0.00	674.36	29.88	2.92	97.18	31.10
	110.200	100.00	0.00	0.00	670.20	170.00	674.34	0.00	674.69	59.02	4.78	37.07	22.13
	110.200	100.00	0.00	0.00	670.20	170.00	674.10	0.00	674.53	38.76	5.28	32.53	27.31
	110.200	100.00	0.00	0.00	670.20	170.00	674.57	0.00	674.85	70.91	4.27	44.71	20.19
	110.280	115.00	0.00	0.00	670.90	170.00	674.99	0.00	675.29	44.33	4.41	38.53	25.53
	110.280	115.00	0.00	0.00	670.90	170.00	674.55	0.00	674.95	32.37	5.06	33.57	29.88
	110.280	115.00	0.00	0.00	670.90	170.00	675.33	0.00	675.58	56.31	4.02	42.31	22.65
	110.320	30.00	676.00	674.80	670.90	170.00	675.17	0.00	675.45	37.84	4.19	40.58	27.64
	110.320	30.00	676.00	674.80	670.90	170.00	674.64	0.00	675.01	29.63	4.91	34.66	31.23
	110.320	30.00	676.00	674.80	670.90	170.00	675.57	0.00	675.79	46.99	3.79	44.91	24.80
	110.500	15.00	0.00	0.00	671.70	170.00	675.16	0.00	676.06	206.42	7.64	22.26	11.83
*	110.500	15.00	0.00	0.00	671.70	170.00	674.98	674.98	676.05	125.47	8.28	20.53	15.18
	110.500	15.00	0.00	0.00	671.70	170.00	675.62	0.00	676.23	207.06	6.28	27.09	11.81
	110.580	18.00	0.00	0.00	672.00	170.00	676.21	0.00	676.46	36.81	4.00	42.45	28.02
	110.580	18.00	0.00	0.00	672.00	170.00	676.19	0.00	676.44	18.39	4.03	42.16	39.64
	110.580	18.00	0.00	0.00	672.00	170.00	676.32	0.00	676.56	56.42	3.87	43.96	22.63
	110.590	1.00	678.20	676.70	672.00	170.00	676.21	0.00	676.46	20.47	3.99	42.62	37.57
	110.590	1.00	678.20	676.70	672.00	170.00	676.20	0.00	676.45	10.22	4.02	42.34	53.18
	110.590	1.00	678.20	676.70	672.00	170.00	676.33	0.00	676.56	31.61	3.86	44.01	30.23
	111.020	23.00	678.20	676.70	672.00	170.00	676.27	0.00	676.51	19.54	3.92	43.34	38.46
	111.020	23.00	678.20	676.70	672.00	170.00	676.23	0.00	676.47	9.98	3.98	42.71	53.83
	111.020	23.00	678.20	676.70	672.00	170.00	676.41	0.00	676.64	29.62	3.77	45.06	31.24
	111.030	1.00	0.00	0.00	672.00	170.00	676.28	0.00	676.52	54.51	3.93	43.27	23.03
	111.030	1.00	0.00	0.00	672.00	170.00	676.23	0.00	676.47	27.76	3.98	42.68	32.27
	111.030	1.00	0.00	0.00	672.00	170.00	676.42	0.00	676.64	82.57	3.78	45.00	18.71

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	111.800	10.00	0.00	0.00	672.00	285.00	676.52	0.00	676.62	50.09	3.59	132.63	40.27
	111.800	10.00	0.00	0.00	672.00	285.00	676.41	0.00	676.55	33.63	4.10	118.40	49.15
	111.800	10.00	0.00	0.00	672.00	285.00	676.70	0.00	676.76	51.82	2.93	157.48	39.59
	111.810	58.00	0.00	0.00	672.20	285.00	676.80	0.00	676.88	38.19	3.21	145.93	46.12
	111.810	58.00	0.00	0.00	672.20	285.00	676.61	0.00	676.75	34.52	4.14	117.28	48.51
	111.810	58.00	0.00	0.00	672.20	285.00	676.98	0.00	677.04	41.98	2.69	169.30	43.99
	111.820	20.00	0.00	0.00	672.40	285.00	676.89	0.00	677.00	83.36	3.84	129.36	31.22
	111.820	20.00	0.00	0.00	672.40	285.00	676.65	0.00	676.88	83.79	5.17	97.53	31.14
	111.820	20.00	0.00	0.00	672.40	285.00	677.09	0.00	677.16	85.38	3.12	154.56	30.84
	111.830	100.00	0.00	0.00	673.10	285.00	677.67	0.00	677.76	69.17	3.55	138.33	34.27
	111.830	100.00	0.00	0.00	673.10	285.00	677.44	0.00	677.62	64.73	4.65	108.50	35.42
	111.830	100.00	0.00	0.00	673.10	285.00	677.87	0.00	677.93	69.63	2.87	165.92	34.16
	111.840	70.00	0.00	0.00	673.60	285.00	678.15	0.00	678.25	70.34	3.58	137.50	33.98
	111.840	70.00	0.00	0.00	673.60	285.00	677.90	0.00	678.10	71.95	4.85	103.90	33.60
	111.840	70.00	0.00	0.00	673.60	285.00	678.36	0.00	678.42	69.97	2.87	165.65	34.07
	111.850	1.00	678.00	677.20	673.60	285.00	678.14	0.00	678.27	301.30	3.13	106.82	16.42
*	111.850	1.00	678.00	677.20	673.60	285.00	677.84	677.84	678.18	371.01	6.03	71.66	14.80
	111.850	1.00	678.00	677.20	673.60	285.00	678.36	0.00	678.43	241.12	2.30	135.85	18.35
	111.860	3.00	678.00	677.20	673.60	285.00	678.25	0.00	678.35	209.03	2.69	120.20	19.71
	111.860	3.00	678.00	677.20	673.60	285.00	678.14	0.00	678.27	160.72	3.25	103.92	22.48
	111.860	3.00	678.00	677.20	673.60	285.00	678.43	0.00	678.50	193.94	2.11	145.63	20.47
	111.870	1.00	0.00	0.00	673.60	285.00	678.29	0.00	678.36	49.80	3.10	155.34	40.38
	111.870	1.00	0.00	0.00	673.60	285.00	678.20	0.00	678.28	30.50	3.40	143.61	51.60
	111.870	1.00	0.00	0.00	673.60	285.00	678.46	0.00	678.51	55.43	2.61	179.48	38.28
	111.900	165.00	0.00	0.00	674.80	285.00	679.29	0.00	679.41	81.07	3.79	130.68	31.65
*	111.900	165.00	0.00	0.00	674.80	285.00	678.94	678.94	679.26	120.61	6.01	83.42	25.95
	111.900	165.00	0.00	0.00	674.80	285.00	679.52	0.00	679.58	76.35	2.98	160.70	32.62
	111.910	50.00	0.00	0.00	676.70	285.00	679.86	0.00	680.04	207.08	5.02	97.50	19.80
	111.910	50.00	0.00	0.00	676.70	285.00	679.69	0.00	680.01	186.92	6.56	77.93	20.85
	111.910	50.00	0.00	0.00	676.70	285.00	680.06	0.00	680.16	185.67	3.81	122.20	20.92
	111.920	50.00	0.00	0.00	675.80	285.00	680.45	0.00	680.53	54.53	3.22	150.48	38.59
	111.920	50.00	0.00	0.00	675.80	285.00	680.29	0.00	680.41	41.07	3.85	129.11	44.47
	111.920	50.00	0.00	0.00	675.80	285.00	680.61	0.00	680.66	61.99	2.74	172.71	36.20
	111.930	50.00	0.00	0.00	676.20	285.00	680.75	0.00	680.85	72.93	3.63	135.73	33.37
	111.930	50.00	0.00	0.00	676.20	285.00	680.50	0.00	680.70	71.87	4.85	103.94	33.62
	111.930	50.00	0.00	0.00	676.20	285.00	680.94	0.00	681.00	73.94	2.94	162.50	33.14
	111.940	162.00	0.00	0.00	677.30	285.00	681.87	0.00	681.97	65.51	3.47	141.03	35.21
	111.940	162.00	0.00	0.00	677.30	285.00	681.63	0.00	681.81	64.95	4.65	108.35	35.36
	111.940	162.00	0.00	0.00	677.30	285.00	682.08	0.00	682.14	66.25	2.81	168.80	35.02
	111.950	280.00	0.00	0.00	679.00	285.00	683.62	0.00	683.70	58.59	3.32	146.72	37.23
	111.950	280.00	0.00	0.00	679.00	285.00	683.37	0.00	683.53	58.38	4.45	113.14	37.30
	111.950	280.00	0.00	0.00	679.00	285.00	683.83	0.00	683.88	58.70	2.68	175.98	37.20

SECNO	XLCH	ELTRO	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
111.970	50.00	0.00	0.00	679.40	285.00	683.86	0.00	683.97	47.35	3.40	132.04	41.42
111.970	50.00	0.00	0.00	679.40	285.00	683.59	0.00	683.78	41.08	4.26	104.02	44.46
111.970	50.00	0.00	0.00	679.40	285.00	684.09	0.00	684.16	51.47	2.86	157.63	39.73
111.980	100.00	0.00	0.00	680.10	285.00	684.39	0.00	684.55	67.63	3.92	113.95	34.65
111.980	100.00	0.00	0.00	680.10	285.00	684.03	0.00	684.37	74.45	5.39	79.31	33.03
111.980	100.00	0.00	0.00	680.10	285.00	684.66	0.00	684.75	66.82	3.17	142.03	34.86
111.990	200.00	0.00	0.00	681.50	285.00	685.77	0.00	685.93	70.38	3.98	112.06	33.97
111.990	200.00	0.00	0.00	681.50	285.00	685.48	0.00	685.78	66.83	5.17	83.67	34.86
111.990	200.00	0.00	0.00	681.50	285.00	686.03	0.00	686.12	70.15	3.23	139.28	34.03
112.000	358.00	0.00	0.00	684.00	285.00	688.27	0.00	688.43	69.57	3.96	112.61	34.17
112.000	358.00	0.00	0.00	684.00	285.00	687.95	0.00	688.27	72.01	5.32	80.64	33.59
112.000	358.00	0.00	0.00	684.00	285.00	688.53	0.00	688.63	69.62	3.22	139.70	34.16
112.100	305.00	0.00	0.00	686.10	285.00	690.38	0.00	690.54	68.57	3.94	113.30	34.42
112.100	305.00	0.00	0.00	686.10	285.00	690.08	0.00	690.38	66.66	5.16	83.78	34.91
112.100	305.00	0.00	0.00	686.10	285.00	690.64	0.00	690.73	68.66	3.20	140.49	34.40
112.200	250.00	0.00	0.00	687.90	285.00	692.15	0.00	692.32	73.59	4.05	109.97	33.22
112.200	250.00	0.00	0.00	687.90	285.00	691.83	0.00	692.16	74.97	5.40	79.04	32.91
112.200	250.00	0.00	0.00	687.90	285.00	692.41	0.00	692.51	73.19	3.28	136.91	33.31
112.300	250.00	0.00	0.00	689.60	285.00	693.91	0.00	694.06	65.55	3.87	115.46	35.20
112.300	250.00	0.00	0.00	689.60	285.00	693.60	0.00	693.89	63.57	5.07	85.73	35.75
112.300	250.00	0.00	0.00	689.60	285.00	694.16	0.00	694.25	66.31	3.16	142.46	35.00
112.400	50.00	0.00	0.00	690.00	285.00	694.26	0.00	694.40	70.02	3.42	111.39	34.06
112.400	50.00	0.00	0.00	690.00	285.00	693.97	0.00	694.21	65.43	4.34	84.86	35.23
112.400	50.00	0.00	0.00	690.00	285.00	694.50	0.00	694.59	69.43	2.81	138.91	34.20
112.410	55.00	0.00	0.00	690.40	285.00	694.64	0.00	694.79	72.42	3.46	109.84	33.49
112.410	55.00	0.00	0.00	690.40	285.00	694.34	0.00	694.60	72.45	4.53	80.87	33.48
112.410	55.00	0.00	0.00	690.40	285.00	694.89	0.00	694.98	72.70	2.86	136.30	33.43
112.420	1.00	692.20	691.40	690.40	285.00	694.68	0.00	694.80	125.67	3.19	106.61	25.42
112.420	1.00	692.20	691.40	690.40	285.00	694.36	0.00	694.61	153.96	4.49	75.35	22.97
112.420	1.00	692.20	691.40	690.40	285.00	694.91	0.00	694.99	121.72	2.59	131.51	25.83
112.430	8.00	692.20	691.40	690.40	285.00	694.79	0.00	694.89	94.39	2.87	118.75	29.33
112.430	8.00	692.20	691.40	690.40	285.00	694.55	0.00	694.71	84.95	3.59	94.46	30.92
112.430	8.00	692.20	691.40	690.40	285.00	695.01	0.00	695.08	94.62	2.36	144.44	29.30
112.440	1.00	0.00	0.00	690.40	285.00	694.79	0.00	694.90	50.89	3.04	127.15	39.95
112.440	1.00	0.00	0.00	690.40	285.00	694.55	0.00	694.72	42.45	3.70	101.94	43.74
112.440	1.00	0.00	0.00	690.40	285.00	695.01	0.00	695.09	54.78	2.58	152.93	38.51
112.500	35.00	0.00	0.00	690.70	285.00	694.98	0.00	695.11	66.68	3.36	113.68	34.90
112.500	35.00	0.00	0.00	690.70	285.00	694.69	0.00	694.92	63.69	4.29	85.92	35.71
112.500	35.00	0.00	0.00	690.70	285.00	695.22	0.00	695.30	67.68	2.79	140.36	34.64
113.200	345.00	0.00	0.00	693.00	285.00	697.28	0.00	697.41	66.86	3.36	113.55	34.86
113.200	345.00	0.00	0.00	693.00	285.00	696.95	0.00	697.20	68.66	4.43	82.96	34.40
113.200	345.00	0.00	0.00	693.00	285.00	697.53	0.00	697.61	66.25	2.76	141.60	35.02

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	=01K
113.280	123.00	0.00	0.00	693.30	285.00	698.44	0.00	699.09	176.82	6.48	43.99	21.43
113.280	123.00	0.00	0.00	693.30	285.00	697.93	0.00	698.76	120.12	7.31	38.99	26.00
113.280	123.00	0.00	0.00	693.30	285.00	698.83	0.00	699.38	236.48	5.95	47.94	18.53
113.290	1.00	0.00	0.00	693.30	285.00	698.81	0.00	699.22	29.23	5.12	55.63	52.71
113.290	1.00	0.00	0.00	693.30	285.00	698.49	0.00	698.95	16.84	5.45	52.34	69.45
113.290	1.00	0.00	0.00	693.30	285.00	699.11	0.00	699.48	42.92	4.86	58.69	43.50
113.300	25.00	0.00	0.00	693.40	285.00	698.88	0.00	699.30	29.80	5.16	55.23	52.20
113.300	25.00	0.00	0.00	693.40	285.00	698.53	0.00	699.00	17.33	5.50	51.77	68.46
113.300	25.00	0.00	0.00	693.40	285.00	699.22	0.00	699.59	42.77	4.85	58.77	43.58
113.310	25.00	702.40	699.50	693.50	285.00	698.96	0.00	699.37	30.07	5.18	55.04	51.97
113.310	25.00	702.40	699.50	693.50	285.00	698.58	0.00	699.06	17.87	5.57	51.18	67.42
113.310	25.00	702.40	699.50	693.50	285.00	699.33	0.00	699.69	42.66	4.84	58.83	43.64
113.330	132.00	702.40	699.50	693.90	285.00	699.35	0.00	699.77	30.13	5.18	55.00	51.92
113.330	132.00	702.40	699.50	693.90	285.00	698.82	0.00	699.34	19.47	5.75	49.56	64.58
113.330	132.00	702.40	699.50	693.90	285.00	700.09	0.00	700.49	83.51	5.04	56.56	31.19
113.420	1.00	0.00	0.00	693.90	285.00	699.36	0.00	699.78	101.01	5.18	55.05	28.36
113.420	1.00	0.00	0.00	693.90	285.00	698.83	0.00	699.34	65.15	5.74	49.65	35.31
113.420	1.00	0.00	0.00	693.90	285.00	700.23	0.00	700.54	115.13	4.45	63.99	26.56
113.800	125.00	0.00	0.00	694.40	285.00	700.70	0.00	700.98	83.57	4.44	75.19	31.18
113.800	125.00	0.00	0.00	694.40	285.00	699.87	0.00	700.55	117.67	6.65	42.88	26.27
113.800	125.00	0.00	0.00	694.40	285.00	701.44	0.00	701.57	54.08	3.13	109.24	38.76
113.810	50.00	0.00	0.00	694.90	285.00	701.12	0.00	701.43	93.06	4.63	71.54	29.54
113.810	50.00	0.00	0.00	694.90	285.00	700.49	0.00	701.11	103.73	6.33	45.01	27.98
113.810	50.00	0.00	0.00	694.90	285.00	701.72	0.00	701.88	69.81	3.43	99.38	34.11
113.820	100.00	0.00	0.00	695.90	285.00	702.06	0.00	702.39	99.73	4.76	69.22	28.54
113.820	100.00	0.00	0.00	695.90	285.00	701.52	0.00	702.13	99.76	6.24	45.73	28.53
113.820	100.00	0.00	0.00	695.90	285.00	702.49	0.00	702.70	93.29	3.82	88.95	29.51
113.830	150.00	0.00	0.00	697.40	285.00	703.56	0.00	703.89	100.06	4.76	69.11	28.49
113.830	150.00	0.00	0.00	697.40	285.00	703.02	0.00	703.63	100.04	6.25	45.67	28.49
113.830	150.00	0.00	0.00	697.40	285.00	703.94	0.00	704.15	100.64	3.92	86.34	28.41
113.900	200.00	0.00	0.00	699.40	285.00	705.57	0.00	705.90	100.38	4.77	69.00	28.45
113.900	200.00	0.00	0.00	699.40	285.00	705.02	0.00	705.63	100.23	6.25	45.63	28.47
113.900	200.00	0.00	0.00	699.40	285.00	705.94	0.00	706.16	99.72	3.91	86.65	28.54
113.910	200.00	0.00	0.00	701.40	285.00	707.56	0.00	707.89	98.99	4.74	69.47	28.64
113.910	200.00	0.00	0.00	701.40	285.00	707.02	0.00	707.63	99.45	6.24	45.79	28.58
113.910	200.00	0.00	0.00	701.40	285.00	707.94	0.00	708.15	100.15	3.92	86.50	28.48
113.920	50.00	0.00	0.00	701.80	285.00	708.05	0.00	708.12	22.50	0.00	130.30	60.08
113.920	50.00	0.00	0.00	701.80	285.00	707.74	0.00	707.84	15.72	0.00	114.05	71.87
113.920	50.00	0.00	0.00	701.80	285.00	708.35	0.00	708.41	27.98	0.00	145.59	53.88
113.930	150.00	0.00	0.00	703.30	285.00	708.53	0.00	708.74	79.90	0.00	77.31	31.88
113.930	150.00	0.00	0.00	703.30	285.00	707.97	0.00	708.40	84.05	0.00	53.98	31.09
113.930	150.00	0.00	0.00	703.30	285.00	708.96	0.00	709.08	77.26	0.00	99.10	32.42

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
114.000	145.00	0.00	0.00	704.80	285.00	709.81	0.00	710.10	107.66	0.00	66.23	27.47
114.000	145.00	0.00	0.00	704.80	285.00	709.27	0.00	709.82	109.83	0.00	47.96	27.19
114.000	145.00	0.00	0.00	704.80	285.00	710.22	0.00	710.39	104.21	0.00	87.22	27.92
114.010	50.00	0.00	0.00	705.50	285.00	710.37	0.00	710.71	131.41	0.00	60.50	24.86
114.010	50.00	0.00	0.00	705.50	285.00	709.80	0.00	710.48	139.43	0.00	43.18	24.14
114.010	50.00	0.00	0.00	705.50	285.00	710.78	0.00	710.98	127.99	0.00	79.34	25.19
114.020	100.00	0.00	0.00	706.80	285.00	711.68	0.00	712.02	129.94	0.00	60.79	25.00
114.020	100.00	0.00	0.00	706.80	285.00	711.19	0.00	711.80	125.03	0.00	45.29	25.49
114.020	100.00	0.00	0.00	706.80	285.00	712.06	0.00	712.27	130.14	0.00	78.71	24.98
114.030	200.00	0.00	0.00	709.50	285.00	714.34	0.00	714.69	137.10	0.00	59.42	24.34
114.030	200.00	0.00	0.00	709.50	285.00	713.80	0.00	714.48	141.84	0.00	42.86	23.93
114.030	200.00	0.00	0.00	709.50	285.00	714.73	0.00	714.94	136.98	0.00	76.77	24.35
114.050	200.00	0.00	0.00	712.20	285.00	717.05	0.00	717.40	133.86	0.00	60.03	24.63
114.050	200.00	0.00	0.00	712.20	285.00	716.56	0.00	717.19	128.49	0.00	44.75	25.14
114.050	200.00	0.00	0.00	712.20	285.00	717.44	0.00	717.65	134.05	0.00	77.59	24.62
114.070	200.00	0.00	0.00	714.90	285.00	719.75	0.00	720.10	136.23	0.00	59.58	24.42
114.070	200.00	0.00	0.00	714.90	285.00	719.20	0.00	719.88	139.31	0.00	43.20	24.15
114.070	200.00	0.00	0.00	714.90	285.00	720.13	0.00	720.35	135.42	0.00	77.20	24.49
114.090	100.00	0.00	0.00	716.20	285.00	721.09	0.00	721.42	127.26	0.00	61.33	25.26
114.090	100.00	0.00	0.00	716.20	285.00	720.59	0.00	721.20	123.73	0.00	45.50	25.62
114.090	100.00	0.00	0.00	716.20	285.00	721.47	0.00	721.67	128.92	0.00	79.07	25.10
115.200	50.00	0.00	0.00	716.90	285.00	721.60	0.00	721.67	22.85	2.51	139.36	59.62
115.200	50.00	0.00	0.00	716.90	285.00	721.33	0.00	721.42	16.64	2.86	122.76	69.87
115.200	50.00	0.00	0.00	716.90	285.00	721.88	0.00	721.94	26.98	2.23	156.22	54.87
115.280	116.00	0.00	0.00	716.80	285.00	721.93	0.00	722.16	44.16	3.84	74.21	42.89
115.280	116.00	0.00	0.00	716.80	285.00	721.54	0.00	721.81	27.57	4.19	68.08	54.27
115.280	116.00	0.00	0.00	716.80	285.00	722.30	0.00	722.50	60.34	3.56	80.09	36.69
115.320	1.00	725.90	723.00	716.80	285.00	721.93	0.00	722.16	13.10	3.84	74.28	78.73
115.320	1.00	725.90	723.00	716.80	285.00	721.54	0.00	721.81	8.19	4.18	68.13	99.60
115.320	1.00	725.90	723.00	716.80	285.00	722.30	0.00	722.50	17.90	3.55	80.17	67.36
115.380	45.00	725.90	723.00	716.80	285.00	722.00	0.00	722.22	12.60	3.78	75.34	80.30
115.380	45.00	725.90	723.00	716.80	285.00	721.58	0.00	721.85	7.96	4.14	68.82	101.03
115.380	45.00	725.90	723.00	716.80	285.00	722.39	0.00	722.58	17.06	3.49	81.56	68.99
115.420	1.00	0.00	0.00	716.80	285.00	722.00	0.00	722.22	42.31	3.78	75.35	43.82
115.420	1.00	0.00	0.00	716.80	285.00	721.58	0.00	721.85	26.73	4.14	68.83	55.12
115.420	1.00	0.00	0.00	716.80	285.00	722.39	0.00	722.58	57.31	3.49	81.59	37.65
115.500	16.50	0.00	0.00	717.40	285.00	722.09	0.00	722.31	65.94	4.10	87.69	35.10
115.500	16.50	0.00	0.00	717.40	285.00	721.62	0.00	722.05	74.40	5.49	62.30	33.04
115.500	16.50	0.00	0.00	717.40	285.00	722.58	0.00	722.70	53.23	3.15	115.30	39.06
115.510	29.00	0.00	0.00	717.40	285.00	722.33	0.00	722.49	45.23	3.58	101.13	42.38
115.510	29.00	0.00	0.00	717.40	285.00	722.03	0.00	722.27	35.76	4.25	84.27	47.66
115.510	29.00	0.00	0.00	717.40	285.00	722.74	0.00	722.85	43.11	2.93	124.21	43.40

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	115.580	1.00	731.90	728.70	718.40	285.00	722.26	0.00	722.78	99.89	5.77	49.38	28.52
	115.580	1.00	731.90	728.70	718.40	285.00	721.92	721.90	722.70	82.19	7.08	40.27	31.44
	115.580	1.00	731.90	728.70	718.40	285.00	722.71	0.00	723.02	93.21	4.53	62.97	29.52
	116.020	20.00	731.90	728.70	718.40	285.00	722.67	0.00	723.00	57.71	4.61	61.80	37.52
	116.020	20.00	731.90	728.70	718.40	285.00	722.63	0.00	722.97	29.63	4.70	60.61	52.36
	116.020	20.00	731.90	728.70	718.40	285.00	722.98	0.00	723.22	71.64	3.91	72.92	33.67
	116.080	1.00	0.00	0.00	718.40	285.00	722.62	0.00	723.25	217.51	6.36	44.78	19.32
	116.080	1.00	0.00	0.00	718.40	285.00	722.57	0.00	723.23	113.65	6.51	43.75	26.73
	116.080	1.00	0.00	0.00	718.40	285.00	722.94	0.00	723.43	257.40	5.59	50.97	17.76
	116.800	49.00	0.00	0.00	718.50	285.00	723.60	0.00	723.92	87.37	4.56	62.44	30.49
	116.800	49.00	0.00	0.00	718.50	285.00	723.23	0.00	723.65	61.11	5.20	54.82	36.46
	116.800	49.00	0.00	0.00	718.50	285.00	723.96	0.00	724.22	104.79	4.05	70.38	27.84
	116.810	50.00	0.00	0.00	719.10	285.00	724.01	0.00	724.03	6.48	1.65	263.09	112.00
	116.810	50.00	0.00	0.00	719.10	285.00	723.72	0.00	723.75	4.80	1.93	227.34	130.12
	116.810	50.00	0.00	0.00	719.10	285.00	724.32	0.00	724.34	7.43	1.43	301.58	104.55
	116.820	60.00	0.00	0.00	720.10	285.00	724.05	0.00	724.12	30.36	2.98	151.49	51.73
	116.820	60.00	0.00	0.00	720.10	285.00	723.70	0.00	723.84	31.08	3.97	114.89	51.12
	116.820	60.00	0.00	0.00	720.10	285.00	724.38	0.00	724.42	28.31	2.37	187.80	53.56
	116.830	50.00	0.00	0.00	721.00	285.00	724.13	724.11	724.54	201.99	6.25	70.56	20.05
*	116.830	50.00	0.00	0.00	721.00	285.00	724.11	724.11	724.55	107.39	6.45	67.96	27.50
	116.830	50.00	0.00	0.00	721.00	285.00	724.56	0.00	724.71	119.25	4.14	110.23	26.10
	116.840	50.00	0.00	0.00	721.80	285.00	725.09	0.00	725.38	139.44	5.41	83.17	24.14
*	116.840	50.00	0.00	0.00	721.80	285.00	724.92	724.92	725.35	105.00	6.40	68.67	27.81
	116.840	50.00	0.00	0.00	721.80	285.00	725.22	0.00	725.43	167.56	4.73	96.22	22.02
	116.860	80.00	0.00	0.00	723.20	285.00	726.34	726.33	726.74	199.54	6.22	70.95	20.18
*	116.860	80.00	0.00	0.00	723.20	285.00	726.31	726.31	726.75	105.86	6.42	68.41	27.70
	116.860	80.00	0.00	0.00	723.20	285.00	726.59	0.00	726.81	177.95	4.85	93.85	21.36
	117.200	80.00	0.00	0.00	724.60	285.00	727.84	0.00	728.16	157.08	5.67	78.98	22.74
*	117.200	80.00	0.00	0.00	724.60	285.00	727.72	727.72	728.15	105.54	6.41	68.51	27.74
	117.200	80.00	0.00	0.00	724.60	285.00	728.00	0.00	728.22	173.81	4.80	94.79	21.62
	117.210	90.00	0.00	0.00	725.20	285.00	728.85	0.00	728.98	57.07	3.81	119.66	37.72
	117.210	90.00	0.00	0.00	725.20	285.00	728.59	0.00	728.81	52.30	4.87	93.30	39.41
	117.210	90.00	0.00	0.00	725.20	285.00	729.04	0.00	729.13	64.15	3.25	139.51	35.58
	117.790	30.00	732.30	729.20	725.20	285.00	732.83	0.00	732.88	7.92	0.00	163.16	101.28
	117.790	30.00	732.30	729.20	725.20	285.00	732.82	0.00	732.86	3.91	0.00	162.69	144.06
	117.790	30.00	732.30	729.20	725.20	285.00	732.84	0.00	732.89	13.30	0.00	163.51	78.15
	117.800	50.00	0.00	0.00	725.80	285.00	732.87	0.00	732.93	11.24	0.00	145.18	85.01
	117.800	50.00	0.00	0.00	725.80	285.00	732.83	0.00	732.89	5.65	0.00	143.94	119.89
	117.800	50.00	0.00	0.00	725.80	285.00	732.91	0.00	732.97	18.47	0.00	146.54	66.31

YATES DRAIN TRIB. NO.1

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.100	170.00	674.12	0.00	0.00	0.00	155.73	0.00
	110.150	170.00	674.18	0.00	.06	0.00	110.63	100.00
	110.150	170.00	674.11	0.00	-.01	0.00	103.41	100.00
	110.150	170.00	674.26	0.00	.14	0.00	116.82	100.00
	110.200	170.00	674.34	0.00	.16	0.00	22.42	100.00
	110.200	170.00	674.10	0.00	-.01	0.00	17.59	100.00
	110.200	170.00	674.57	0.00	.32	0.00	36.33	100.00
	110.280	170.00	674.99	0.00	.66	0.00	11.10	115.00
	110.280	170.00	674.55	0.00	.46	0.00	10.94	115.00
	110.280	170.00	675.33	0.00	.76	0.00	11.10	115.00
	110.320	170.00	675.17	0.00	.18	0.00	11.10	30.00
	110.320	170.00	674.64	0.00	.08	0.00	11.00	30.00
	110.320	170.00	675.57	0.00	.23	0.00	11.10	30.00
	110.500	170.00	675.16	0.00	-.02	0.00	10.08	15.00
*	110.500	170.00	674.98	0.00	.35	0.00	9.74	15.00
	110.500	170.00	675.62	0.00	.05	0.00	10.99	15.00
	110.580	170.00	676.21	0.00	1.05	0.00	12.07	18.00
	110.580	170.00	676.19	0.00	1.21	0.00	12.06	18.00
	110.580	170.00	676.32	0.00	.71	0.00	12.08	18.00
	110.590	170.00	676.21	0.00	.01	0.00	12.07	1.00
	110.590	170.00	676.20	0.00	.00	0.00	12.07	1.00
	110.590	170.00	676.33	0.00	.01	0.00	12.08	1.00
	111.020	170.00	676.27	0.00	.06	0.00	12.07	23.00
	111.020	170.00	676.23	0.00	.03	0.00	12.07	23.00
	111.020	170.00	676.41	0.00	.09	0.00	12.08	23.00
	111.030	170.00	676.28	0.00	.00	0.00	12.07	1.00
	111.030	170.00	676.23	0.00	.00	0.00	12.07	1.00
	111.030	170.00	676.42	0.00	.00	0.00	12.08	1.00
	111.800	285.00	676.52	0.00	.24	0.00	135.74	10.00
	111.800	285.00	676.41	0.00	.19	0.00	134.16	10.00
	111.800	285.00	676.70	0.00	.28	0.00	138.46	10.00
	111.810	285.00	676.80	0.00	.28	0.00	137.20	58.00
	111.810	285.00	676.61	0.00	.20	0.00	134.03	58.00
	111.810	285.00	676.98	0.00	.28	0.00	139.73	58.00
	111.820	285.00	676.89	0.00	.08	0.00	135.38	20.00
	111.820	285.00	676.65	0.00	.04	0.00	126.27	20.00
	111.820	285.00	677.09	0.00	.10	0.00	138.14	20.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	111.830	285.00	677.67	0.00	.78	0.00	136.37	100.00
	111.830	285.00	677.44	0.00	.79	0.00	130.68	100.00
	111.830	285.00	677.87	0.00	.78	0.00	139.37	100.00
	111.840	285.00	678.15	0.00	.49	0.00	136.28	70.00
	111.840	285.00	677.90	0.00	.46	0.00	128.85	70.00
	111.840	285.00	678.36	0.00	.49	0.00	139.34	70.00
	111.850	285.00	678.14	0.00	-.01	0.00	136.29	1.00
*	111.850	285.00	677.84	0.00	-.06	0.00	125.78	1.00
	111.850	285.00	678.36	0.00	.00	0.00	139.45	1.00
	111.860	285.00	678.25	0.00	.11	0.00	137.75	3.00
	111.860	285.00	678.14	0.00	.30	0.00	135.97	3.00
	111.860	285.00	678.43	0.00	.08	0.00	140.50	3.00
	111.870	285.00	678.29	0.00	.04	0.00	138.22	1.00
	111.870	285.00	678.20	0.00	.06	0.00	136.95	1.00
	111.870	285.00	678.46	0.00	.03	0.00	140.82	1.00
	111.900	285.00	679.29	0.00	1.01	0.00	135.52	165.00
*	111.900	285.00	678.94	0.00	.74	0.00	120.36	165.00
	111.900	285.00	679.52	0.00	1.06	0.00	138.81	165.00
	111.910	285.00	679.86	0.00	.57	0.00	119.58	50.00
	111.910	285.00	679.69	0.00	.75	0.00	113.81	50.00
	111.910	285.00	680.06	0.00	.54	0.00	126.50	50.00
	111.920	285.00	680.45	0.00	.59	0.00	137.70	50.00
	111.920	285.00	680.29	0.00	.61	0.00	135.35	50.00
	111.920	285.00	680.61	0.00	.55	0.00	140.10	50.00
	111.930	285.00	680.75	0.00	.30	0.00	136.08	50.00
	111.930	285.00	680.50	0.00	.21	0.00	128.87	50.00
	111.930	285.00	680.94	0.00	.33	0.00	139.00	50.00
	111.940	285.00	681.87	0.00	1.13	0.00	136.66	162.00
	111.940	285.00	681.63	0.00	1.13	0.00	130.62	162.00
	111.940	285.00	682.08	0.00	1.14	0.00	139.68	162.00
	111.950	285.00	683.62	0.00	1.74	0.00	137.29	280.00
	111.950	285.00	683.37	0.00	1.74	0.00	132.51	280.00
	111.950	285.00	683.83	0.00	1.75	0.00	140.45	280.00
	111.970	285.00	683.86	0.00	.24	0.00	108.86	50.00
	111.970	285.00	683.59	0.00	.22	0.00	100.23	50.00
	111.970	285.00	684.09	0.00	.26	0.00	116.19	50.00
	111.980	285.00	684.39	0.00	.53	0.00	103.37	100.00
	111.980	285.00	684.03	0.00	.44	0.00	90.05	100.00
	111.980	285.00	684.66	0.00	.57	0.00	111.78	100.00
	111.990	285.00	685.77	0.00	1.38	0.00	102.78	200.00
	111.990	285.00	685.48	0.00	1.44	0.00	92.97	200.00
	111.990	285.00	686.03	0.00	1.37	0.00	110.98	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
112.000	285.00	688.27	0.00	2.51	0.00	102.95	358.00
112.000	285.00	687.95	0.00	2.47	0.00	90.95	358.00
112.000	285.00	688.53	0.00	2.50	0.00	111.11	358.00
112.100	285.00	690.38	0.00	2.11	0.00	103.17	305.00
112.100	285.00	690.08	0.00	2.14	0.00	93.04	305.00
112.100	285.00	690.64	0.00	2.11	0.00	111.34	305.00
112.200	285.00	692.15	0.00	1.77	0.00	102.12	250.00
112.200	285.00	691.83	0.00	1.74	0.00	89.86	250.00
112.200	285.00	692.41	0.00	1.77	0.00	110.30	250.00
112.300	285.00	693.91	0.00	1.75	0.00	103.84	250.00
112.300	285.00	693.60	0.00	1.78	0.00	94.16	250.00
112.300	285.00	694.16	0.00	1.75	0.00	111.91	250.00
112.400	285.00	694.26	0.00	.35	0.00	102.83	50.00
112.400	285.00	693.97	0.00	.37	0.00	88.35	50.00
112.400	285.00	694.50	0.00	.34	0.00	116.15	50.00
112.410	285.00	694.64	0.00	.39	0.00	102.03	55.00
112.410	285.00	694.34	0.00	.36	0.00	86.56	55.00
112.410	285.00	694.89	0.00	.39	0.00	115.03	55.00
112.420	285.00	694.68	0.00	.03	0.00	104.08	1.00
112.420	285.00	694.36	0.00	.02	0.00	87.32	1.00
112.420	285.00	694.91	0.00	.02	0.00	116.09	1.00
112.430	285.00	694.79	0.00	.11	0.00	110.13	8.00
112.430	285.00	694.55	0.00	.19	0.00	97.66	8.00
112.430	285.00	695.01	0.00	.10	0.00	119.74	8.00
112.440	285.00	694.79	0.00	.00	0.00	110.71	1.00
112.440	285.00	694.55	0.00	-.00	0.00	97.81	1.00
112.440	285.00	695.01	0.00	.00	0.00	120.10	1.00
112.500	285.00	694.98	0.00	.18	0.00	104.01	35.00
112.500	285.00	694.69	0.00	.13	0.00	88.83	35.00
112.500	285.00	695.22	0.00	.20	0.00	116.56	35.00
113.200	285.00	697.28	0.00	2.30	0.00	103.95	345.00
113.200	285.00	696.95	0.00	2.27	0.00	87.51	345.00
113.200	285.00	697.53	0.00	2.31	0.00	116.92	345.00
113.280	285.00	698.44	0.00	1.16	0.00	9.98	123.00
113.280	285.00	697.93	0.00	.98	0.00	9.96	123.00
113.280	285.00	698.83	0.00	1.30	0.00	10.13	123.00
113.290	285.00	698.81	0.00	.37	0.00	10.18	1.00
113.290	285.00	698.49	0.00	.56	0.00	10.17	1.00
113.290	285.00	699.11	0.00	.28	0.00	10.19	1.00
113.300	285.00	698.88	0.00	.07	0.00	10.18	25.00
113.300	285.00	698.53	0.00	.04	0.00	10.17	25.00
113.300	285.00	699.22	0.00	.11	0.00	10.19	25.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
113.310	285.00	698.96	0.00	.07	0.00	10.18	25.00
113.310	285.00	698.58	0.00	.04	0.00	10.16	25.00
113.310	285.00	699.33	0.00	.11	0.00	10.19	25.00
113.330	285.00	699.35	0.00	.40	0.00	10.18	132.00
113.330	285.00	698.82	0.00	.25	0.00	10.16	132.00
113.330	285.00	700.09	0.00	.77	0.00	10.20	132.00
113.420	285.00	699.36	0.00	.01	0.00	10.18	1.00
113.420	285.00	698.83	0.00	.01	0.00	10.16	1.00
113.420	285.00	700.23	0.00	.14	0.00	10.20	1.00
113.800	285.00	700.70	0.00	1.33	0.00	45.99	125.00
113.800	285.00	699.87	0.00	1.04	0.00	17.35	125.00
113.800	285.00	701.44	0.00	1.20	0.00	46.00	125.00
113.810	285.00	701.12	0.00	.42	0.00	45.75	50.00
113.810	285.00	700.49	0.00	.62	0.00	17.87	50.00
113.810	285.00	701.72	0.00	.29	0.00	46.00	50.00
113.820	285.00	702.06	0.00	.95	0.00	45.60	100.00
113.820	285.00	701.52	0.00	1.04	0.00	24.16	100.00
113.820	285.00	702.49	0.00	.77	0.00	46.00	100.00
113.830	285.00	703.56	0.00	1.50	0.00	45.59	150.00
113.830	285.00	703.02	0.00	1.50	0.00	23.50	150.00
113.830	285.00	703.94	0.00	1.44	0.00	46.00	150.00
113.900	285.00	705.57	0.00	2.00	0.00	45.59	200.00
113.900	285.00	705.02	0.00	2.00	0.00	23.06	200.00
113.900	285.00	705.94	0.00	2.01	0.00	46.00	200.00
113.910	285.00	707.56	0.00	2.00	0.00	45.62	200.00
113.910	285.00	707.02	0.00	2.00	0.00	24.88	200.00
113.910	285.00	707.94	0.00	2.00	0.00	46.00	200.00
113.920	285.00	708.05	0.00	.48	0.00	52.00	50.00
113.920	285.00	707.74	0.00	.72	0.00	52.00	50.00
113.920	285.00	708.35	0.00	.41	0.00	52.00	50.00
113.930	285.00	708.53	0.00	.48	0.00	52.00	150.00
113.930	285.00	707.97	0.00	.22	0.00	31.95	150.00
113.930	285.00	708.96	0.00	.61	0.00	52.00	150.00
114.000	285.00	709.81	0.00	1.28	0.00	44.60	145.00
114.000	285.00	709.27	0.00	1.31	0.00	29.19	145.00
114.000	285.00	710.22	0.00	1.27	0.00	52.00	145.00
114.010	285.00	710.37	0.00	.55	0.00	33.71	50.00
114.010	285.00	709.80	0.00	.53	0.00	26.28	50.00
114.010	285.00	710.78	0.00	.55	0.00	52.00	50.00
114.020	285.00	711.68	0.00	1.31	0.00	33.79	100.00
114.020	285.00	711.19	0.00	1.39	0.00	27.60	100.00
114.020	285.00	712.06	0.00	1.29	0.00	52.00	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
114.030	285.00	714.34	0.00	2.66	0.00	33.43	200.00
114.030	285.00	713.80	0.00	2.61	0.00	26.07	200.00
114.030	285.00	714.73	0.00	2.66	0.00	52.00	200.00
114.050	285.00	717.05	0.00	2.72	0.00	33.59	200.00
114.050	285.00	716.56	0.00	2.76	0.00	27.27	200.00
114.050	285.00	717.44	0.00	2.72	0.00	52.00	200.00
114.070	285.00	719.75	0.00	2.70	0.00	33.47	200.00
114.070	285.00	719.20	0.00	2.64	0.00	26.29	200.00
114.070	285.00	720.13	0.00	2.69	0.00	52.00	200.00
114.090	285.00	721.09	0.00	1.34	0.00	33.93	100.00
114.090	285.00	720.59	0.00	1.38	0.00	27.73	100.00
114.090	285.00	721.47	0.00	1.33	0.00	52.00	100.00
115.200	285.00	721.60	0.00	.51	0.00	61.00	50.00
115.200	285.00	721.33	0.00	.74	0.00	61.00	50.00
115.200	285.00	721.88	0.00	.41	0.00	61.00	50.00
115.280	285.00	721.93	0.00	.33	0.00	15.75	116.00
115.280	285.00	721.54	0.00	.21	0.00	15.66	116.00
115.280	285.00	722.30	0.00	.42	0.00	15.84	116.00
115.320	285.00	721.93	0.00	.00	0.00	15.75	1.00
115.320	285.00	721.54	0.00	.00	0.00	15.66	1.00
115.320	285.00	722.30	0.00	.00	0.00	15.84	1.00
115.380	285.00	722.00	0.00	.07	0.00	15.77	45.00
115.380	285.00	721.58	0.00	.04	0.00	15.67	45.00
115.380	285.00	722.39	0.00	.09	0.00	15.86	45.00
115.420	285.00	722.00	0.00	.00	0.00	15.77	1.00
115.420	285.00	721.58	0.00	.00	0.00	15.67	1.00
115.420	285.00	722.39	0.00	.00	0.00	15.86	1.00
115.500	285.00	722.09	0.00	.09	0.00	56.00	16.50
115.500	285.00	721.62	0.00	.04	0.00	50.20	16.50
115.500	285.00	722.58	0.00	.18	0.00	56.00	16.50
115.510	285.00	722.33	0.00	.24	0.00	56.00	29.00
115.510	285.00	722.03	0.00	.41	0.00	56.00	29.00
115.510	285.00	722.74	0.00	.16	0.00	56.00	29.00
115.580	285.00	722.26	0.00	-.06	0.00	28.52	1.00
115.580	285.00	721.92	0.00	-.10	0.00	25.66	1.00
115.580	285.00	722.71	0.00	-.04	0.00	32.82	1.00
116.020	285.00	722.67	0.00	.41	0.00	32.45	20.00
116.020	285.00	722.63	0.00	.70	0.00	32.08	20.00
116.020	285.00	722.98	0.00	.28	0.00	39.22	20.00
116.080	285.00	722.62	0.00	-.05	0.00	18.72	1.00
116.080	285.00	722.57	0.00	-.06	0.00	18.55	1.00
116.080	285.00	722.94	0.00	-.04	0.00	19.74	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	116.800	285.00	723.60	0.00	.98	0.00	21.51	49.00
	116.800	285.00	723.23	0.00	.66	0.00	20.35	49.00
	116.800	285.00	723.96	0.00	1.02	0.00	22.27	49.00
	116.810	285.00	724.01	0.00	.41	0.00	123.99	50.00
	116.810	285.00	723.72	0.00	.49	0.00	119.18	50.00
	116.810	285.00	724.32	0.00	.35	0.00	128.97	50.00
	116.820	285.00	724.05	0.00	.04	0.00	108.26	60.00
	116.820	285.00	723.70	0.00	-.02	0.00	102.58	60.00
	116.820	285.00	724.38	0.00	.06	0.00	113.62	60.00
	116.830	285.00	724.13	0.00	.08	0.00	84.14	50.00
*	116.830	285.00	724.11	0.00	.41	0.00	82.14	50.00
	116.830	285.00	724.56	0.00	.18	0.00	101.84	50.00
	116.840	285.00	725.09	0.00	.96	0.00	92.63	50.00
*	116.840	285.00	724.92	0.00	.81	0.00	82.69	50.00
	116.840	285.00	725.22	0.00	.66	0.00	99.56	50.00
	116.860	285.00	726.34	0.00	1.25	0.00	84.44	80.00
*	116.860	285.00	726.31	0.00	1.40	0.00	82.49	80.00
	116.860	285.00	726.59	0.00	1.37	0.00	98.92	80.00
	117.200	285.00	727.84	0.00	1.50	0.00	90.05	80.00
*	117.200	285.00	727.72	0.00	1.40	0.00	82.57	80.00
	117.200	285.00	728.00	0.00	1.41	0.00	99.32	80.00
	117.210	285.00	728.85	0.00	1.01	0.00	103.34	90.00
	117.210	285.00	728.59	0.00	.87	0.00	98.60	90.00
	117.210	285.00	729.04	0.00	1.03	0.00	106.44	90.00
	117.790	285.00	732.83	0.00	3.98	0.00	32.00	30.00
	117.790	285.00	732.82	0.00	4.23	0.00	32.00	30.00
	117.790	285.00	732.84	0.00	3.81	0.00	32.00	30.00
	117.800	285.00	732.87	0.00	.04	0.00	32.00	50.00
	117.800	285.00	732.83	0.00	.01	0.00	32.00	50.00
	117.800	285.00	732.91	0.00	.07	0.00	32.00	50.00

SUMMARY OF ERRORS

CAUTION SECNO= 110.500 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 110.500 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 111.850 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 111.850 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 111.850 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 111.900 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 111.900 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 116.830 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 116.830 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY

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 CAUTION  SECNO=  116.830  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  116.840  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  116.840  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  116.840  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  116.860  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  116.860  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  116.860  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  117.200  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  117.200  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  117.200  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Unnamed Trib No. 2

4) DOCUMENT TYPE: 10, 50, 100, 500 year Flood Production Run

00BREAK00

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1      JOB HUD FTA H-4705 T 06
T2     WASHINGTON TWP FIS
T3     UNNAMED TRIB. NO.2 100 YEAR FLOW

J1   ICHECK     INC       NINV      IDIR      STRT      METRIC     HVINS      Q        WSEL      FQ

      -1.        4.        0.        0.   0.000000     0.00       0.0        0.   658.050    0.000

J3     1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000
NC      .070      .070      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT     5.000   180.000   265.000   310.000   435.000   310.000     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

X1   199.500    24.000   280.000   324.000     0.000     0.000     0.000     0.000    -3.100     0.000
GR   668.200     0.000   668.400    40.000   668.400    80.000   668.300   112.000   668.000   138.000
GR   666.000   160.000   665.600   176.000   665.400   190.000   662.800   206.000   661.200   228.000
GR   660.800   256.000   660.500   280.000   660.000   288.000   658.800   294.000   658.700   294.500
GR   657.300   295.000   656.600   296.000   657.000   297.000   658.300   297.500   658.800   298.000
GR   659.700   304.000   660.300   324.000   660.000   358.000   660.600   380.000     0.000     0.000

X1   199.700     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1   200.000     0.000     0.000     0.000   270.000   270.000   270.000     0.000     1.550     0.000

X1   200.050    17.000   280.000   314.000   330.000   330.000   330.000     0.000     2.000     0.000
GR   662.800   206.000   661.200   228.000   660.800   256.000   660.500   280.000   660.000   288.000
GR   658.800   294.000   658.700   294.500   657.300   295.000   656.600   296.000   657.000   297.000
GR   658.300   297.500   658.800   298.000   659.700   304.000   660.500   314.000   661.500   340.000
GR   661.700   410.000   663.500   480.000     0.000     0.000     0.000     0.000     0.000     0.000

X1   200.100    25.000   270.000   294.000   330.000   330.000   330.000     0.000    -2.000     0.000
GR   673.000     0.000   672.600    24.000   672.200    54.000   670.200    96.000   669.400   138.000
GR   668.700   188.000   667.500   226.000   667.300   256.000   667.200   270.000   666.100   278.000
GR   664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR   663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   667.700   366.000
GR   668.300   402.000   668.500   428.000   669.200   464.000   670.200   492.000   670.600   522.000

X1   200.200     0.000     0.000     0.000   352.000   352.000   352.000     0.000     2.000     0.000

X1   200.400    15.000   270.000   294.000   150.000   150.000   150.000     0.000      .800     0.000
GR   670.000   250.000   669.300   255.000   668.600   260.000   667.200   270.000   666.100   278.000
GR   664.300   284.000   663.800   285.000   663.200   286.000   662.600   287.000   663.100   288.000
GR   663.800   289.000   664.300   290.000   667.000   294.000   667.700   322.000   670.000   366.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

X1   201.300     8.000     5.000    14.000   160.000   160.000   160.000     0.000    -1.100     0.000
GR   671.000     6.000   666.400     6.100   665.600     7.000   665.400     8.000   665.600    10.000
GR   666.700    11.000   668.300    13.900   671.000    14.000     0.000     0.000     0.000     0.000
SB     2.000     2.400     3.000   100.000     9.000     0.000    37.000     0.000   665.400   664.300

X1   201.700     0.000     0.000     0.000   190.000   190.000   190.000     0.000     1.100     0.000
X2     0.000     0.000     1.000   668.000   676.300     0.000     0.000     0.000     0.000     0.000

X1   201.800    16.000   228.000   266.000    50.000    50.000    50.000     0.000    -1.600     0.000
GR   676.000   154.000   673.200   184.000   673.100   210.000   672.800   228.000   673.000   240.000
GR   670.500   244.000   669.200   250.000   668.300   251.000   667.600   251.500   667.200   252.000
GR   667.600   252.500   668.300   253.000   669.200   254.000   672.000   260.000   673.300   266.000
GR   674.000   284.000     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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CEHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .55 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
199.50	4.55	658.05	0.00	658.05	658.17	.12	0.00	0.00	657.40
310.	14.	213.	83.	16.	66.	53.	0.	0.	657.20
0.00	.89	3.20	1.57	.070	.045	.070	0.000	653.50	231.50
.005864	0.	0.	0.	0	0	1	0.00	148.50	380.00
3280 CROSS SECTION	199.70	EXTENDED	.56	FEET					
199.70	4.56	659.61	0.00	0.00	659.73	.12	1.56	.00	658.95
310.	15.	212.	83.	17.	67.	53.	1.	1.	658.75
.03	.88	3.17	1.55	.070	.045	.070	.045	655.05	230.70
.005678	270.	270.	270.	2	0	1	0.00	149.30	380.00
3280 CROSS SECTION	200.00	EXTENDED	.56	FEET					
200.00	4.56	661.16	0.00	0.00	661.27	.12	1.55	.00	660.50
310.	15.	213.	83.	17.	67.	53.	2.	2.	660.30
.06	.89	3.19	1.56	.070	.045	.070	.045	656.60	231.09
.005768	270.	270.	270.	2	0	1	0.00	148.91	380.00
200.05	4.76	663.36	0.00	0.00	663.61	.25	2.29	.04	662.50
310.	37.	262.	11.	27.	61.	10.	3.	3.	662.50
.08	1.34	4.29	1.12	.070	.045	.070	.045	658.60	225.78
.008516	330.	330.	330.	3	0	1	0.00	110.63	336.40
200.10	5.20	665.80	665.01	0.00	666.09	.30	2.47	.02	665.20
310.	21.	275.	14.	21.	59.	17.	3.	4.	665.00
.10	.98	4.64	.83	.070	.045	.070	.045	660.60	216.63
.006608	330.	330.	330.	4	8	1	0.00	155.12	371.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
200.20	5.31	667.91	0.00	0.00	668.14	.23	2.04	.01	667.20
310.	27.	261.	22.	27.	62.	26.	4.	5.	667.00
.13	.99	4.21	.82	.070	.045	.070	.045	662.60	213.01
.005124	352.	352.	352.	3	0	1	0.00	165.62	378.62

200.40	5.31	668.71	0.00	0.00	669.03	.32	.85	.03	668.00
310.	1.	291.	18.	2.	62.	16.	5.	6.	667.80
.14	.84	4.69	1.13	.070	.045	.070	.045	663.40	264.95
.006359	150.	150.	150.	2	0	1	0.00	60.99	325.95

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .31 FEET

3301 HV CHANGED MORE THAN HVINS

***M-53 BRIDGE

201.30	5.90	670.20	0.00	0.00	671.19	.99	1.63	.53	721.00
310.	0.	310.	0.	0.	39.	0.	5.	6.	669.90
.14	0.00	7.98	.03	.070	.045	.070	.045	664.30	6.00
.018884	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 1.08 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
672.82	672.29	0.00	0.	310.	37.	668.00	676.30	10.00

201.70	6.68	672.08	0.00	0.00	672.82	.74	1.63	0.00	671.00
310.	0.	310.	0.	0.	45.	0.	5.	6.	671.00
.15	0.00	6.88	.02	.070	.045	.070	.045	665.40	6.00
.012249	190.	190.	190.	3	0	1	0.00	8.00	14.00

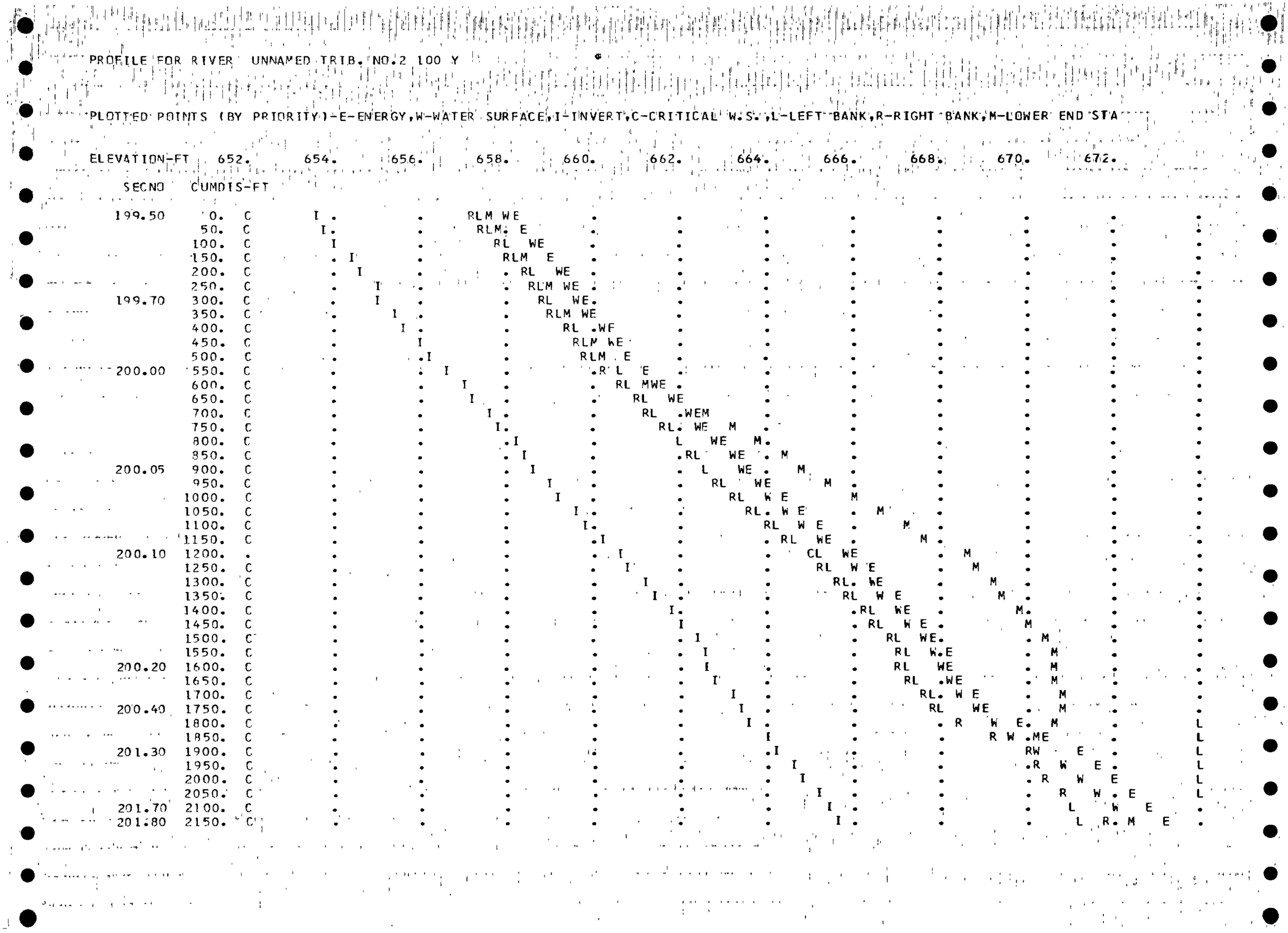
3280 CROSS SECTION 201.80 EXTENDED .74 FEET

3301 HV CHANGED MORE THAN HVINS

201.80	7.55	673.15	0.00	0.00	673.19	.04	.09	.28	671.20
310.	64.	234.	12.	87.	127.	20.	5.	6.	671.70
.16	.74	1.84	.59	.070	.045	.070	.045	665.60	167.45
.000695	50.	50.	50.	2	0	1	0.00	116.55	284.00

PROFILE FOR RIVER UNNAMED TRIB. NO.2 100 Y

PLOTTED POINTS (BY PRIORITY)-E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA



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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      10 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       2.       0.       0.   .005900     0.00      0.0      0.   658.050   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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .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
199.50	4.21	657.71	0.00	658.05	657.80	.09	0.00	0.00	657.40
180.	2.	139.	39.	4.	51.	33.	0.	0.	657.20
0.00	.47	2.71	1.17	.070	.045	.070	0.000	653.50	255.52
.005905	0.	0.	0.	0	0	9	0.00	124.48	380.00

3280 CROSS SECTION 199.70 EXTENDED .22 FEET

199.70	4.22	659.27	0.00	0.00	659.36	.09	1.56	.00	658.95
180.	2.	138.	40.	4.	52.	34.	1.	1.	658.75
.03	.49	2.66	1.16	.070	.045	.070	.045	655.05	254.61
.005634	270.	270.	270.	2	0	1	0.00	125.39	380.00

3280 CROSS SECTION 200.00 EXTENDED .21 FEET

200.05	4.38	662.98	0.00	0.00	663.17	.18	2.23	.03	662.50
180.	8.	170.	2.	9.	48.	3.	2.	2.	662.50
.09	.84	3.54	.73	.070	.045	.070	.045	658.60	243.57
.007990	330.	330.	330.	3	0	1	0.00	82.84	326.42
200.10	4.67	665.27	0.00	0.00	665.50	.23	2.32	.02	665.20
180.	0.	179.	1.	0.	47.	1.	2.	3.	665.00
.12	.18	3.84	.44	.070	.045	.070	.045	660.60	260.04
.006210	330.	330.	330.	2	0	1	0.00	44.80	304.84

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
200.20	4.74	667.34	0.00	0.00	667.55	.21	2.05	.00	667.20
180.	0.	178.	1.	1.	48.	2.	2.	3.	667.00
.14	.30	3.69	.48	.070	.045	.070	.045	662.60	249.78
.005465	352.	352.	352.	3	0	1	0.00	57.88	307.66

200.40	4.76	668.16	0.00	0.00	668.36	.21	.81	.00	668.00	
180.	0.	179.	1.	0.	49.	3.	3.	3.	667.80	
.15	.02	3.67	.49	.070	.045	.070	.045	663.40	268.89	
.005364	150.	150.	150.	2	0	1	0.00	39.31	308.20	

CCHV= .400 CEHV= .800

201.30	5.00	669.30	0.00	0.00	669.80	.51	1.20	.24	721.00
180.	0.	180.	0.	0.	32.	0.	3.	3.	669.90
.16	0.00	5.71	0.00	.070	.045	.070	.045	664.30	6.01
.011220	160.	160.	160.	2	0	1	0.00	7.96	13.98

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

PRESS FLOW BECAUSE EGLWC OF 670.90 EXCEEDS 1.5 DEPTH
3685 20 TRIALS USED WSEL,CWSEL
5730. WSEL ASSUMED BASED ON MIN DIFF + .1

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
670.18	670.90	0.00	0.	180.	37.	668.00	676.30	10.00

201.70	3.63	669.03	0.00	C.00	670.20	1.17	3.47	0.00	671.00
180.	0.	180.	0.	0.	21.	0.	3.	4.	671.00
.17	0.00	8.67	0.00	.070	.045	.070	.045	665.40	6.04
.034720	190.	190.	190.	30	0	1	0.00	7.88	13.93

3301 HV CHANGED MORE THAN HVINS

201.80	5.31	670.91	0.00	0.00	671.12	.22	.54	.38	671.20
180.	0.	180.	0.	0.	48.	0.	3.	4.	671.70
.17	0.00	3.72	0.00	.070	.045	.070	.045	665.60	240.79
.005166	50.	50.	50.	2	0	1	0.00	21.55	262.34

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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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.   .005900      0.00      0.0       0.   658.050     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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CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .44 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
199.50	4.44	657.94	0.00	658.05	658.05	.11	0.00	0.00	657.40
265.	9.	189.	67.	11.	62.	47.	0.	0.	657.20
0.00	.79	3.06	1.45	.070	.045	.070	0.000	653.50	239.14
.005898	0.	0.	0.	0	0	7	0.00	140.86	380.00

3280 CROSS SECTION 199.70 EXTENDED .45 FEET

199.70	4.45	659.50	0.00	0.00	659.61	.11	1.56	.00	658.95
265.	9.	188.	68.	12.	62.	47.	1.	1.	658.75
.03	.78	3.01	1.43	.070	.045	.070	.045	655.05	238.16
.005655	270.	270.	270.	2	0	1	0.00	141.84	380.00

3280 CROSS SECTION 200.00 EXTENDED .45 FEET

200.00	4.45	661.05	0.00	0.00	661.16	.11	1.54	.00	660.50
265.	9.	188.	68.	12.	62.	47.	1.	2.	660.30
.06	.79	3.04	1.44	.070	.045	.070	.045	656.60	238.68
.005782	270.	270.	270.	2	0	1	0.00	141.32	380.00
200.05	4.65	663.25	0.00	0.00	663.48	.23	2.28	.04	662.50
265.	25.	233.	7.	21.	57.	7.	2.	3.	662.50
.09	1.18	4.07	1.01	.070	.045	.070	.045	658.60	227.38
.008389	330.	330.	330.	3	0	1	0.00	105.98	333.37
200.10	5.05	665.65	0.00	0.00	665.94	.29	2.44	.02	665.20
265.	10.	248.	7.	13.	56.	8.	3.	3.	665.00
.11	.78	4.44	.81	.070	.045	.070	.045	660.60	221.26
.006554	330.	330.	330.	2	0	1	0.00	98.73	319.99

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	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
200.20	5.16	667.76	0.00	0.00	667.99	.23	2.05	.01	667.20
265.	16.	239.	10.	19.	58.	14.	4.	4.	667.00
.13	.83	4.09	.73	.070	.045	.070	.045	662.60	217.76
.005218	352.	352.	352.	3	0	1	0.00	151.87	369.62

200.40	5.16	668.56	0.00	0.00	668.84	.28	.83	.02	668.00
265.	1.	254.	10.	1.	58.	12.	4.	5.	667.80
.14	.69	4.34	.90	.070	.045	.070	.045	663.40	265.99
.005892	150.	150.	150.	2	0	1	0.00	57.17	323.16

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .03 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	5.63	669.93	0.00	0.00	670.74	.81	1.48	.43	721.00
265.	0.	265.	0.	0.	37.	0.	4.	5.	669.90
.15	0.00	7.24	.03	.070	.045	.070	.045	664.30	6.00
.016434	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

PRESS FLOW BECAUSE EGLWC OF 671.84 EXCEEDS 1.5 DEPTH
3280 CROSS SECTION 201.70 EXTENDED .03 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
671.84	671.84	0.00	0.	265.	37.	668.00	676.30	10.00

201.70	5.63	671.03	0.00	0.00	671.84	.81	1.10	0.00	671.00
265.	0.	265.	0.	0.	37.	0.	4.	5.	671.00
.15	0.00	7.24	.03	.070	.045	.070	.045	665.40	6.00
.016434	190.	190.	190.	3	0	1	0.00	8.00	14.00

3301 HV CHANGED MORE THAN HVINS

201.80	6.66	672.26	0.00	0.00	672.35	.09	.22	.29	671.20
265.	29.	234.	2.	37.	93.	4.	4.	5.	671.70
.16	.78	2.51	.40	.070	.045	.070	.045	665.60	176.97
.001955	50.	50.	50.	2	0	1	0.00	103.33	280.30

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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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.    .005900      0.00      0.0       0.    658.050    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
```

CCHV= .150 CEHV= .350
3280 CROSS SECTION 199.50 EXTENDED .81 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	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	ICC	ICONT	CORAR	TOPWID	ENDST
199.50	4.81	658.31	0.00	658.05	658.45	.14	0.00	0.00	657.40
435.	35.	277.	123.	30.	78.	67.	0.	0.	657.20
0.00	1.17	3.56	1.84	.070	.045	.070	0.000	653.50	225.17
.005888	0.	0.	0.	0	0	5	0.00	154.83	380.00

3280 CROSS SECTION 199.70 EXTENDED .82 FEET

199.70	4.82	659.87	0.00	0.00	660.01	.14	1.56	.00	658.95
435.	36.	276.	124.	31.	78.	68.	1.	1.	658.75
.03	1.16	3.52	1.82	.070	.045	.070	.045	655.05	224.96
.005675	270.	270.	270.	2	0	1	0.00	155.04	380.00

3280 CROSS SECTION 200.00 EXTENDED .81 FEET

200.00	4.81	661.41	0.00	0.00	661.55	.14	1.54	.00	660.50
435.	35.	276.	123.	30.	78.	68.	2.	2.	660.30
.05	1.16	3.54	1.83	.070	.045	.070	.045	656.60	225.05
.005765	270.	270.	270.	2	0	1	0.00	154.95	380.00
200.05	5.04	663.64	0.00	0.00	663.92	.28	2.31	.05	662.50
435.	73.	336.	25.	43.	70.	20.	3.	3.	662.50
.08	1.72	4.77	1.28	.070	.045	.070	.045	658.60	222.01
.008718	330.	330.	330.	3	0	1	0.00	165.50	387.50
200.10	5.50	666.10	0.00	0.00	666.40	.30	2.48	.01	665.20
435.	52.	333.	50.	39.	67.	44.	4.	4.	665.00
.10	1.33	4.99	1.13	.070	.045	.070	.045	660.60	206.79
.006521	330.	330.	330.	2	0	1	0.00	183.60	390.40

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	ICC	ICONT	CORAR	TOPWID	ENDST
200.20	5.61	668.21	0.00	0.00	668.45	.24	2.04	.01	667.20
435.	59.	316.	60.	46.	69.	54.	6.	6.	667.00
.12	1.28	4.56	1.11	.070	.045	.070	.045	662.60	203.48
.005192	352.	352.	352.	3	0	1	0.00	193.20	396.68

200.40	5.62	669.02	0.00	0.00	669.46	.43	.94	.07	668.00
435.	4.	387.	44.	4.	70.	27.	6.	6.	667.80
.13	1.18	5.56	1.61	.070	.045	.070	.045	663.40	262.69
.007670	150.	150.	150.	2	0	1	0.00	69.33	332.02

CCHV= .400 CEHV= .800
3280 CROSS SECTION 201.30 EXTENDED .96 FEET

3301 HV CHANGED MORE THAN HVINS

201.30	6.56	670.86	0.00	0.00	672.38	1.51	2.05	.87	721.00
435.	0.	435.	0.	0.	44.	0.	6.	7.	669.90
.14	0.00	9.88	.03	.070	.045	.070	.045	664.30	6.00
.025724	160.	160.	160.	2	0	1	0.00	8.00	14.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	2.00	2.40	3.00	100.00	9.00	0.00	37.00	0.00	665.40	664.30

3280 CROSS SECTION 201.70 EXTENDED 4.45 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
676.01	673.47	0.00	0.	435.	37.	668.00	676.30	10.00

201.70	10.04	675.44	0.00	0.00	676.01	.57	3.64	0.00	671.00
435.	0.	435.	0.	0.	72.	0.	7.	7.	671.00
.15	0.00	6.05	.02	.070	.045	.070	.045	665.40	6.00
.006402	190.	190.	190.	2	0	1	0.00	8.00	14.00

3280 CROSS SECTION 201.80 EXTENDED 3.84 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
201.80	10.64	676.24	0.00	0.00	676.25	.01	.01	.22	671.20
435.	155.	242.	38.	307.	245.	75.	7.	7.	671.70
.16	.50	.99	.50	.070	.045	.070	.045	665.60	154.00
.000083	50.	50.	50.	1	0	1	0.00	130.00	284.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

500 YEAR FLOW

SECTION SECTION	DISCHARGE DISCHARGE	CWSEL CWSEL	CWSEL	TQ	EG	TOPWID	STENCL	STENCR	WSELK	#	D	#	D	WSELK
199.500	310.00	658.05	658.05	40.48	658.17	148.50	0.00	0.00	658.05		-I		-I	658.05
199.500	180.00	657.71	657.71	23.42	657.80	124.48	0.00	0.00	658.05		0.00		0.00	658.05
199.500	265.00	657.94	657.94	34.51	658.05	140.86	0.00	0.00	658.05		0.00		0.00	658.05
199.500	435.00	658.31	658.31	56.69	658.45	154.83	0.00	0.00	658.05		0.00		0.00	658.05
199.700	310.00	659.61	659.61	41.14	659.73	149.30	0.00	0.00	0.00		658.05		658.05	0.00
199.700	180.00	659.27	659.27	23.98	659.36	125.39	0.00	0.00	0.00		658.05		658.05	0.00
199.700	265.00	659.50	659.50	35.24	659.61	141.84	0.00	0.00	0.00		658.05		658.05	0.00
199.700	435.00	659.87	659.87	57.74	660.01	155.04	0.00	0.00	0.00		658.05		658.05	0.00
200.000	310.00	661.16	661.16	40.82	661.27	148.91	0.00	0.00	0.00		0.00		0.00	0.00
200.000	180.00	660.81	660.81	23.62	660.90	124.80	0.00	0.00	0.00		0.00		0.00	0.00
200.000	265.00	661.05	661.05	34.85	661.16	141.32	0.00	0.00	0.00		0.00		0.00	0.00
200.000	435.00	661.41	661.41	57.29	661.55	154.95	0.00	0.00	0.00		0.00		0.00	0.00
200.050	310.00	663.36	663.36	33.59	663.61	110.63	0.00	0.00	0.00		0.00		0.00	0.00
200.050	180.00	662.98	662.98	20.14	663.17	82.84	0.00	0.00	0.00		0.00		0.00	0.00
200.050	265.00	663.25	663.25	28.93	663.48	105.98	0.00	0.00	0.00		0.00		0.00	0.00
200.050	435.00	663.64	663.64	46.59	663.92	165.50	0.00	0.00	0.00		0.00		0.00	0.00
200.100	310.00	665.80	665.80	38.13	666.09	155.12	0.00	0.00	0.00		0.00		0.00	0.00
200.100	180.00	665.27	665.27	22.84	665.50	44.80	0.00	0.00	0.00		0.00		0.00	0.00
200.100	265.00	665.65	665.65	32.73	665.94	98.73	0.00	0.00	0.00		0.00		0.00	0.00
200.100	435.00	666.10	666.10	53.87	666.40	183.60	0.00	0.00	0.00		0.00		0.00	0.00
200.200	310.00	667.91	667.91	43.31	668.14	165.62	0.00	0.00	0.00		0.00		0.00	0.00
200.200	180.00	667.34	667.34	24.35	667.55	57.88	0.00	0.00	0.00		0.00		0.00	0.00
200.200	265.00	667.76	667.76	36.69	667.99	151.87	0.00	0.00	0.00		0.00		0.00	0.00
200.200	435.00	668.21	668.21	60.37	668.45	193.20	0.00	0.00	0.00		0.00		0.00	0.00
200.400	310.00	668.71	668.71	38.88	669.03	60.99	0.00	0.00	0.00		0.00		0.00	0.00
200.400	180.00	668.16	668.16	24.58	668.36	39.31	0.00	0.00	0.00		0.00		0.00	0.00
200.400	265.00	668.56	668.56	34.52	668.84	57.17	0.00	0.00	0.00		0.00		0.00	0.00
200.400	435.00	669.02	669.02	49.67	669.46	69.33	0.00	0.00	0.00		0.00		0.00	0.00
201.300	310.00	670.20	670.20	22.56	671.19	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.300	180.00	669.30	669.30	16.99	669.80	7.96	0.00	0.00	0.00		0.00		0.00	0.00
201.300	265.00	669.93	669.93	20.67	670.74	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.300	435.00	670.86	670.86	27.12	672.38	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	310.00	672.08	672.08	28.01	672.82	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	180.00	669.03	669.03	9.66	670.20	7.88	0.00	0.00	0.00		0.00		0.00	0.00
201.700	265.00	671.03	671.03	20.67	671.84	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.700	435.00	675.44	675.44	54.37	676.01	8.00	0.00	0.00	0.00		0.00		0.00	0.00
201.800	310.00	673.15	673.15	117.56	673.19	116.55	0.00	0.00	0.00		0.00		0.00	0.00
201.800	180.00	670.91	670.91	25.04	671.12	21.55	0.00	0.00	0.00		0.00		0.00	0.00
201.800	265.00	672.26	672.26	59.94	672.35	103.33	0.00	0.00	0.00		0.00		0.00	0.00
201.800	435.00	676.24	676.24	476.38	676.25	1130.00	0.00	0.00	0.00		0.00		0.00	0.00

SECTION	DISCHARGE	CWSEL	CWSEL DIFF	CWSEL DIFF	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH

NUMBER	CFS		EACH Q	EACH SECTION				
199.500	310.000	658.050	0.000	0.000	0.000	148.500	0.000	0.000
199.500	180.000	657.707	-.343	0.000	0.000	124.480	24.020	0.000
199.500	265.000	657.941	.234	0.000	0.000	140.865	7.636	0.000
199.500	435.000	658.306	.365	0.000	0.000	154.827	-6.327	0.000
199.700	310.000	659.611	0.000	1.561	0.000	149.298	0.000	270.000
199.700	180.000	659.268	-.343	1.561	0.000	125.394	23.904	270.000
199.700	265.000	659.504	.236	1.563	0.000	141.837	7.461	270.000
199.700	435.000	659.871	.367	1.565	0.000	155.037	-5.739	270.000
200.000	310.000	661.155	0.000	1.544	0.000	148.909	0.000	270.000
200.000	180.000	660.811	-.345	1.543	0.000	124.803	24.105	270.000
200.000	265.000	661.047	.236	1.543	0.000	141.324	7.585	270.000
200.000	435.000	661.414	.367	1.543	0.000	154.947	-6.039	270.000
200.050	310.000	663.364	0.000	2.208	0.000	110.626	0.000	330.000
200.050	180.000	662.984	-.380	2.173	0.000	82.844	27.782	330.000
200.050	265.000	663.248	.265	2.202	0.000	105.984	4.642	330.000
200.050	435.000	663.636	.387	2.222	0.000	165.495	-54.869	330.000
200.100	310.000	665.795	0.000	2.431	0.000	155.120	0.000	330.000
200.100	180.000	665.271	-.524	2.287	0.000	44.802	110.318	330.000
200.100	265.000	665.648	.377	2.400	0.000	98.734	56.386	330.000
200.100	435.000	666.098	.450	2.462	0.000	183.604	-28.485	330.000
200.200	310.000	667.909	0.000	2.114	0.000	165.617	0.000	352.000
200.200	180.000	667.341	-.568	2.070	0.000	57.885	107.732	352.000
200.200	265.000	667.760	.419	2.112	0.000	151.867	13.750	352.000
200.200	435.000	668.210	.450	2.111	0.000	193.199	-27.582	352.000
200.400	310.000	668.706	0.000	.797	0.000	60.994	0.000	150.000
200.400	180.000	668.155	-.551	.814	0.000	39.306	21.689	150.000
200.400	265.000	668.561	.406	.801	0.000	57.169	3.825	150.000
200.400	435.000	669.024	.463	.814	0.000	69.328	-8.333	150.000
201.300	310.000	670.202	0.000	1.496	0.000	8.000	0.000	160.000
201.300	180.000	669.295	-.907	1.140	0.000	7.964	.036	160.000
201.300	265.000	669.930	.634	1.369	0.000	8.000	.000	160.000
201.300	435.000	670.861	.931	1.837	0.000	8.000	-.000	160.000
201.700	310.000	672.083	0.000	1.880	0.000	8.000	0.000	190.000
201.700	180.000	669.034	-3.048	-.261	0.000	7.884	.116	190.000
201.700	265.000	671.027	1.993	1.098	0.000	8.000	.000	190.000
201.700	435.000	675.444	4.417	4.583	0.000	8.001	-.001	190.000
201.900	310.000	673.145	0.000	1.063	0.000	116.546	0.000	50.000
201.900	180.000	670.907	-2.239	1.872	0.000	21.547	94.999	50.000
201.900	265.000	672.260	1.354	1.233	0.000	103.327	13.220	50.000
201.900	435.000	676.238	3.978	.794	0.000	130.001	-13.454	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	5.756	0.000
2	0.000	0.000	3.540	-2.216
3	0.000	0.000	5.057	-.699
4	0.000	0.000	6.688	.932

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Unnamed Trib NO. 2

4) DOCUMENT TYPE: Analyses

00BREAK00

McNamee Porter & Seeley

Transmittal

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WATER MANAGEMENT

CONSULTING ENGINEERS
3131 South State Street • Ann Arbor, Michigan 48104 • Phone (313) 665-6000

To: Greenhorne & O'Mara, Inc.
6715 Kenilworth Avenue
Riverdale, Maryland 20840

Date: July 17, 1981

Project: HUD-FIA-H-4705
Township of Washington FIS

Attn: Cliff Nelson

Contract No.:

Agency No.:

Gentlemen:

☒ We are enclosing ☐ We are sending under separate cover

The following:

☒ Drawings ☐ Specifications ☐ Change Orders

☐ Pay Estimate ☐ Contract Documents ☒ _____

Flood boundary map overlay with revised delineations, revised computer output summary for Yates Drain, hydraulic calculations for Tributary 2.

For.

☐ Your approval ☐ Your corrections ☐ Your comments

☐ Your execution ☐ Your file ☐ Your signature

Remarks. The enclosed overlay shows all flood boundary delineation revisions to Yates Drain, Tributary 2 and the unnamed tributary for the Township of Washington FIS due to the trailer park development bounded on the north by the USGS section line, on the east by Yates Drain, on the south by 26 Mile Road and on the west by M-53. The enclosed computer output for Yates Drain compares the new computer results with the previous results. The only change to the Yates Drain model was to input the flow contribution from Tributary 2 at its new location (approximate computer cross-section 4.3, previous computer cross section 3.95). The profiles should be revised to show the new elevations in this reach, which varied from 0.1 to 0.5 feet higher than the prevous profile. The unnamed tributary has been deleted as an approximate study as it is now enclosed (72 inch circular storm sewer). Tributary 2 has been changed to an approximate study as the 100 and 500 year frequency flows will be contained within the banks (see attached calculations). If you have any questions, please give me a call.

CC Norb Schwartz-FEMA
Daniel Morgan - MDNR ✓
File - 2

By. John S. Wise, P.E.

mps

HUD-FIA H-4705 Washington TWP. 1/

Hydrology Review

JSW 7/13/81

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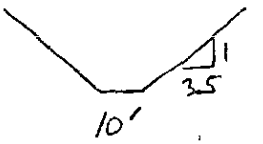
Trib 2 Relocation + Modification

New Drain:



$Q_{100} = 310$ cfs

$Q_{500} = 435$ cfs

$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

$Q = \frac{1.49}{n} S^{1/2} \frac{A^{5/3}}{P^{2/3}}$

$S = .0026$

$n = .045$

$A = 10 \times y + y \times y \times 3.5$

$P = \sqrt{y^2 + (y \times 3.5)^2} \times 2 + 10'$

$= 12.25$

$$Q = \frac{1.49}{.045} (.0026)^{1/2} \frac{(10y + 3.5y^2)^{5/3}}{[2 \times \sqrt{13.25y^2} + 10']^{2/3}}$$

$\frac{1.49}{.045} (.0026)^{1/2} = 1.69$

y (Ft)	A_1 (Ft²)	P	Q (cfs)	width (Ft)	
2'	34	24.6	71.7	24	
3'	61.5	31.8	161	31	
4'	96	39.1	295	38	310 – 4.1' → 4.2'
5'	137.5	46.4	479	45'	435 – 4.8' → 4.9'

New Trib 2 channel banks are greater than 5 Feet in depth from channel bottom from a point 100 Feet upstream of its junction with Yates Drain

Y PRINTOUT TABLE 150 — 100 Yr Floodway — 2/

SECNO	Q	Previous Flow CWSEL	Previous Elev DIFWSP	DIFWSX	DIFKWS	TW TOPWID	XLCH
2.000	810.00	651.97	0.00	0.00	0.00	204.75	0.00
2.000	810.00	651.97	0.00	0.00	0.00	111.45	0.00
3.200	810.00	654.26	0.00	2.29	0.00	115.07	1080.00
3.200	810.00	654.36	.10	2.39	.10	92.80	1080.00
3.400	810.00	654.38	0.00	.12	0.00	62.92	90.00
3.400	810.00	654.48	.10	.11	.10	62.03	90.00
A							
3.600	810.00	654.44	0.00	.06	0.00	62.94	60.00
3.600	810.00	654.54	.09	.06	.09	62.19	60.00
3.800	810.00	654.49	0.00	.04	0.00	147.79	50.00
3.800 B	810.00	654.58	.09	.04	.09	92.95	50.00
3.900	810.00	656.78	0.00	2.29	0.00	144.50	800.00
3.900	810.00	656.88	.10	2.30	.10	92.48	800.00
3.950 OLD	810.00 605	659.04 658.8	0.00 +0.2	2.26	0.00 236	253.44	660.00
3.950	810.00 605	659.14 658.9	.10 +0.2	2.27	.10 113	123.08	660.00
3.970	810.00	659.76 659.4	0.00 +.4	.72	0.00 225	255.08	240.00
3.970	810.00	659.87 659.5	.10 +.4	.72	.10 107	123.48	240.00
3.980	810.00	660.48 660.0	0.00 +.5	.71	0.00 220	255.20	240.00
3.980	810.00	660.58 660.1	.10 +.5	.71	.10 104	121.87	240.00
4.000 C	810.00	661.20 660.7	0.00 +.5	.73	0.00 212	250.33	240.00
4.000	810.00	661.30 660.8	.10 +.5	.73	.10 99	120.82	240.00
4.100	810.00	663.13 662.6	0.00 +.5	1.92	0.00 227	267.21	520.00
4.100	810.00	663.22 662.7	.10 +.5	1.92	.10 106	128.68	520.00
4.200	810.00	665.22 664.8	0.00 +.4	2.09	0.00 238	273.68	520.00
4.200	810.00	665.32 664.9	.10 +.4	2.10	.10 112	132.06	520.00
4.300 New T	605.00	666.20 665.9	0.00 +.3	.98	0.00 161	175.10	300.00
4.300	605.00	666.31 666.0	.11 +.3	.99	.11 95	115.29	300.00
4.940	605.00	666.72 666.6	0.00 +.1	.51	0.00 167	171.34	200.00
4.940	605.00	666.82 666.7	.11 +.1	.51	.11 104	109.35	200.00
4.960	605.00	667.28 667.2	0.00 +.1	.56	0.00 168	169.89	200.00
4.960	605.00	667.39 667.3	.11 +.1	.56	.11 106	108.29	200.00
5.000 D	605.00	667.89 667.9	0.00	.61	0.00 161	161.99	200.00
5.000	605.00	667.99 668.0	.10	.61	.10 93	96.98	200.00
5.100	605.00	668.12 668.11	0.00	.23	0.00 169	167.35	55.00
5.100	605.00	668.22 668.22	.10	.23	.10 105	104.83	55.00
5.300	605.00	668.04	0.00	-.07	0.00	156.04	41.00

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5.300 605.00 668.15 .10 -.07 .10 85.36 41.00

100 Yr Floodway

5.400	605.00	668.73	0.00	.69	0.00	180.55	172.00	3/
5.400	605.00	668.84	.11	.70	.11	121.59	172.00	
5.500	605.00	668.81	0.00	.08	0.00	183.80	8.00	
5.500	605.00	668.92	.11	.08	.11	125.39	8.00	
6.200	605.00	671.19	0.00	2.39	0.00	150.64	1135.00	
6.200	605.00	671.29	.09	2.37	.09	89.56	1135.00	
6.100	605.00	671.67	0.00	.47	0.00	48.05	234.00	
6.100	605.00	671.77	.10	.49	.10	48.29	234.00	
6.000	605.00	671.67	0.00	.00	0.00	48.05	1.00	
6.000	605.00	671.77	.10	.00	.10	48.28	1.00	
6.800	605.00	671.68	0.00	.01	0.00	48.08	31.00	
6.800	605.00	671.80	.11	.02	.11	48.35	31.00	
6.400	605.00	671.68	0.00	.00	0.00	48.08	1.00	
6.400	605.00	671.81	.13	.01	.13	48.36	1.00	
6.500	605.00	672.06	0.00	.38	0.00	248.31	234.00	
6.500	605.00	672.15	.09	.34	.09	157.87	234.00	
6.600	605.00	672.78	0.00	.72	0.00	204.64	350.00	
6.600	605.00	672.87	.09	.73	.09	90.82	350.00	
6.700	605.00	674.12	0.00	1.34	0.00	231.64	350.00	
6.700	605.00	674.27	.15	1.40	.15	59.43	350.00	
7.200	605.00	674.82	0.00	.70	0.00	255.84	150.00	
7.200	605.00	674.99	.17	.72	.17	90.78	150.00	
7.100	605.00	674.82	0.00	.00	0.00	229.08	36.00	
7.100	605.00	674.98	.16	-.01	.16	54.82	36.00	
7.700	605.00	676.24	0.00	1.42	0.00	273.75	24.00	
7.700	605.00	676.40	.16	1.42	.16	146.08	24.00	
7.800	465.00	676.26	0.00	.02	0.00	104.06	27.00	
7.800	465.00	676.42	.16	.02	.16	74.00	27.00	
7.850	375.00	676.26	0.00	-.00	0.00	101.80	100.00	
7.850	375.00	676.41	.16	-.01	.16	57.43	100.00	

FY OF ERRORS

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MANAGEMENT

10, 50, 100 & 500 Yr Flows

4/

DRAIN 100 YEAR FLO

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WATER MANAGEMENT

PRINTOUT TABLE 150

XSCNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
		Previous	Previous				
2.000	475.00	F/W 651.13	Elev 0.00	0.00	0.00	83.73	0.00
2.000	700.00	651.77	.64	0.00	0.00	189.75	0.00
2.000	810.00	651.97	.20	0.00	0.00	204.75	0.00
2.000	1090.00	652.44	.47	0.00	0.00	229.53	0.00
3.200	475.00	653.39	0.00	2.26	0.00	101.72	1080.00
3.200	700.00	654.02	.63	2.25	0.00	111.35	1080.00
3.200	810.00	654.26	.24	2.29	0.00	115.07	1080.00
3.200	1090.00	654.77	.51	2.33	0.00	122.80	1080.00
3.400	475.00	653.50	0.00	.11	0.00	62.61	90.00
3.400	700.00	654.13	.64	.12	0.00	62.83	90.00
3.400	810.00	654.38	.25	.12	0.00	62.92	90.00
3.400	1090.00	654.89	.51	.12	0.00	63.10	90.00
A							
3.600	475.00	653.53	0.00	.04	0.00	62.63	60.00
3.600	700.00	654.19	.65	.05	0.00	62.85	60.00
3.600	810.00	654.44	.26	.06	0.00	62.94	60.00
3.600	1090.00	654.98	.54	.08	0.00	63.12	60.00
3.800	475.00	653.56	0.00	.02	0.00	110.93	50.00
3.800	700.00	654.22	.67	.04	0.00	137.37	50.00
3.800 B	810.00	654.49	.26	.04	0.00	147.79	50.00
3.800	1090.00	655.04	.55	.06	0.00	168.91	50.00
3.900	475.00	655.88	0.00	2.32	0.00	113.46	800.00
3.900	700.00	656.52	.64	2.29	0.00	136.39	800.00
3.900	810.00	656.78	.26	2.29	0.00	144.50	800.00
3.900	1090.00	657.34	.57	2.30	0.00	162.35	800.00
3.950	475.00 360	658.15 657.94	0.00	2.27	0.00	184.33	660.00
3.950	700.00 520	658.78 658.57	.64	2.27	0.00	233.75	660.00
3.950	810.00 605	659.04 658.82	.26	2.26	0.00	253.44	660.00
3.950	1090.00 825	659.60 659.38	.56	2.26	0.00	296.41	660.00
3.970	475.00	658.87 658.51	0.00	.72	0.00	185.84	240.00
3.970	700.00	659.51 659.12	.64	.72	0.00	235.12	240.00
3.970	810.00	659.76 659.37	.26	.72	0.00	255.08	240.00
3.970	1090.00	660.33 659.93	.56	.72	0.00	298.33	240.00
3.980	475.00	659.57 659.17	0.00	.71	0.00	186.22	240.00
3.980	700.00	660.22 659.76	.64	.71	0.00	235.82	240.00
3.980	810.00	660.48 660.01	.26	.71	0.00	255.20	240.00
3.980	1090.00	661.03 660.56	.56	.71	0.00	298.51	240.00
4.000	475.00	660.30 659.87	0.00	.73	0.00	180.54	240.00
4.000 C	700.00	660.94 660.46	.64	.73	0.00	230.13	240.00
4.000	810.00	661.20 660.71	.26	.73	0.00	250.33	240.00
4.000	1090.00	661.76 661.25	.55	.72	0.00	293.11	240.00
4.100	475.00	662.28 661.88	0.00	1.99	0.00	197.14	520.00
4.100	700.00	662.88 662.41	.60	1.94	0.00	246.91	520.00

10, 50, 100 + 500 Yr Flows

5/

4.100	810.00	↓	663.13	667.65	-.24	1.92	0.00	267.21	520.00
4.100	1090.00	↓	663.65	663.16	-.52	1.89	0.00	290.63	520.00

RECEIVED
JUL 20 1981
WATER MANAGEMENT

10, 50, 100, 500 Yr Flows

JUL 20 1981
WATER MANAGEMENT

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.200	475.00	664.44 664.07	0.00	2.16	0.00	210.06	520.00
4.200	700.00	664.99 664.56	.56	2.11	0.00	256.11	520.00
4.200	810.00	665.22 664.78	.22	2.09	0.00	273.68	520.00
4.200	1090.00	665.68 665.25	.46	2.03	0.00	292.07	520.00
4.300	360.00	665.38 665.11	0.00	.94	0.00	140.77	300.00
4.300	520.00	665.96 665.64	.58	.96	0.00	164.86	300.00
4.300	605.00	666.20 665.87	.24	.98	0.00	175.10	300.00
4.300	825.00	666.70 666.37	.50	1.02	0.00	196.06	300.00
4.940	360.00	665.91 665.82	0.00	.53	0.00	133.63	200.00
4.940	520.00	666.47 666.36	.56	.51	0.00	160.82	200.00
4.940	605.00	666.72 666.60	.25	.51	0.00	171.34	200.00
4.940	825.00	667.24 667.12	.52	.54	0.00	193.27	200.00
4.960	360.00	666.48 666.44	0.00	.57	0.00	130.91	200.00
4.960	520.00	667.03 666.99	.55	.56	0.00	159.25	200.00
4.960	605.00	667.28 667.23	.25	.56	0.00	169.89	200.00
4.960	825.00	667.81 667.76	.53	.57	0.00	192.28	200.00
5.000	360.00	667.10 667.09	0.00	.62	0.00	113.91	200.00
5.000	520.00	667.64 667.63	.54	.62	0.00	152.21	200.00
5.000	605.00	667.89 667.88	.25	.61	0.00	161.99	200.00
5.000	825.00	668.43 668.41	.54	.62	0.00	184.56	200.00
5.100	360.00	667.32	0.00	.22	0.00	125.78	55.00
5.100	520.00	667.87	.55	.23	0.00	157.16	55.00
5.100	605.00	668.12	.24	.23	0.00	167.35	55.00
5.100	825.00	668.65	.53	.22	0.00	189.51	55.00
5.300	360.00	667.45	0.00	.13	0.00	118.87	41.00
5.300	520.00	667.80	.35	-.07	0.00	146.86	41.00
5.300	605.00	668.04	.24	-.07	0.00	156.04	41.00
5.300	825.00	668.60	.56	-.05	0.00	179.45	41.00
5.400	360.00	667.99	0.00	.54	0.00	150.05	172.00
5.400	520.00	668.50	.51	.69	0.00	170.62	172.00
5.400	605.00	668.73	.24	.69	0.00	180.55	172.00
5.400	825.00	669.25	.52	.65	0.00	202.28	172.00
5.500	360.00	668.04	0.00	.05	0.00	152.12	8.00
5.500	520.00	668.56	.52	.07	0.00	173.48	8.00
5.500	605.00	668.81	.25	.08	0.00	183.80	8.00
5.500	825.00	669.36	.55	.11	0.00	206.92	8.00
6.200	360.00	670.34	0.00	2.30	0.00	108.26	1135.00
6.200	520.00	670.94	.59	2.37	0.00	137.75	1135.00
6.200	605.00	671.19	.26	2.39	0.00	150.64	1135.00
6.200	825.00	671.75	.56	2.39	0.00	226.78	1135.00
6.100	360.00	670.81	0.00	.47	0.00	46.05	234.00
6.100	520.00	671.41	.60	.48	0.00	47.44	234.00
6.100	605.00	671.67	.26	.47	0.00	48.05	234.00
6.100	825.00	672.26	.59	.50	0.00	49.43	234.00

10, 50, 100, 500 Yr Flows

7/

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.000	360.00	670.81	0.00	.00	0.00	46.04	1.00
6.000	520.00	671.41	.60	.00	0.00	47.45	1.00
6.000	605.00	671.67	.26	.00	0.00	48.05	1.00
6.000	825.00	672.25	.58	-.01	0.00	49.43	1.00
6.800	360.00	670.82	0.00	.01	0.00	46.07	31.00
6.800	520.00	671.42	.60	.01	0.00	47.49	31.00
6.800	605.00	671.68	.26	.01	0.00	48.08	31.00
6.800	825.00	672.30	.61	.04	0.00	49.54	31.00
6.400	360.00	670.82	0.00	.00	0.00	46.06	1.00
6.400	520.00	671.42	.60	.00	0.00	47.47	1.00
6.400	605.00	671.68	.26	.00	0.00	48.08	1.00
6.400	825.00	672.42	.74	.12	0.00	49.81	1.00
6.500	360.00	671.12	0.00	.30	0.00	111.35	234.00
6.500	520.00	671.77	.65	.34	0.00	234.17	234.00
6.500	605.00	672.06	.29	.38	0.00	248.31	234.00
6.500	825.00	672.83	.77	.41	0.00	284.27	234.00
6.600	360.00	672.23	0.00	1.11	0.00	110.48	350.00
6.600	520.00	672.62	.39	.85	0.00	175.41	350.00
6.600	605.00	672.78	.16	.72	0.00	204.64	350.00
6.600	825.00	673.25	.47	.42	0.00	247.64	350.00
6.700	360.00	673.47	0.00	1.24	0.00	66.48	350.00
6.700	520.00	673.94	.47	1.32	0.00	126.11	350.00
6.700	605.00	674.12	.18	1.34	0.00	231.64	350.00
6.700	825.00	674.43	.31	1.18	0.00	261.32	350.00
7.200	330.00	674.08	0.00	.61	0.00	74.35	150.00
7.200	510.00	674.62	.54	.68	0.00	229.84	150.00
7.200	605.00	674.82	.20	.70	0.00	255.84	150.00
7.200	825.00	675.18	.37	.75	0.00	272.95	150.00
7.100	330.00	674.13	0.00	.06	0.00	63.23	36.00
7.100	510.00	674.65	.52	.03	0.00	118.81	36.00
7.100	605.00	674.82	.17	.00	0.00	229.08	36.00
7.100	825.00	675.18	.36	-.01	0.00	260.80	36.00
7.700	330.00	674.58	0.00	.45	0.00	17.00	24.00
7.700	510.00	676.05	1.46	1.40	0.00	249.64	24.00
7.700	605.00	676.24	.19	1.42	0.00	273.75	24.00
7.700	825.00	676.55	.31	1.38	0.00	348.12	24.00
7.800	275.00	674.94	0.00	.36	0.00	85.63	27.00
7.800	395.00	676.07	1.13	.02	0.00	101.54	27.00
7.800	465.00	676.26	.19	.02	0.00	104.06	27.00
7.800	640.00	676.55	.29	-.00	0.00	107.85	27.00
7.850	225.00	674.91	0.00	-.03	0.00	52.16	100.00
7.850	320.00	676.06	1.16	-.01	0.00	90.36	100.00
7.850	375.00	676.26	.20	-.00	0.00	101.80	100.00
7.850	520.00	676.55	.30	.00	0.00	119.77	100.00

JUL 20 1981

FLOOD MANAGEMENT

00BREAK00

1) COUNTY: Macomb

2) STUDY NAME: Washington

3) WATERCOURSE: Yates Drain

4) DOCUMENT TYPE: 10, 50, 100, 500 Year Flood
SENSISITIVITY Run

00BREAK00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1      JOB HUD-FIA H-4705  T06
T2      WASHINGTON TWP FIS
T3      YATES DRAIN 100 YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q       WSEL     FQ

     -1.       4.       0.       0.  0.000000    0.00     0.0      0.   651.970   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

     1.000   34.000    3.000    4.000   27.000   28.000    9.000    0.000    0.000    0.000

NC      .060      .060      .045      .150      .350     0.000     0.000     0.000     0.000     0.000
QT     4.000   475.000   700.000   810.000  1090.000   810.000     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

X1     2.000    30.000   194.000   242.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   656.600   132.000   656.600   142.000   657.800   152.000   655.800   162.000   653.800   180.000
GR   653.000   194.000   651.400   202.000   649.800   206.000   649.000   216.000   648.400   222.000
GR   645.900   224.000   645.000   225.000   644.100   226.000   643.500   229.000   644.300   232.000
GR   644.600   233.000   645.900   234.000   650.400   238.000   651.000   242.000   651.100   278.000
GR   651.200   306.000   651.300   322.000   651.400   350.000   651.600   378.000   652.000   406.000
GR   652.300   424.000   653.500   444.000   656.700   460.000   658.000   474.000   659.000   486.000

X1     3.200    25.000   226.000   342.000  1080.000  1000.000  1080.000      .800     0.000     0.000
GR   660.000     0.000   657.800     8.000   657.000    34.000   656.000    66.000   655.600    98.000
GR   655.600   130.000   655.400   166.000   655.200   200.000   652.800   226.000   651.600   238.000
GR   650.900   258.000   649.400   264.000   648.400   270.000   647.700   273.000   647.100   274.000
GR   646.900   276.000   647.100   280.000   647.800   282.000   648.400   284.000   650.900   290.000
GR   651.600   302.000   652.000   320.000   652.800   342.000   655.000   360.000   660.000   550.000
NC     0.000     0.000     0.000      .400      .800     0.000     0.000     0.000     0.000     0.000

      ***26 MILE ROAD   ELLC = 657.4

X1     3.400    10.000    25.500   100.000    90.000    90.000    90.000     0.000     0.000     0.000
GR   657.500    25.500   649.100    27.000   649.500    41.000   649.600    57.000   648.600    65.000
GR   648.200    69.000   648.100    76.000   648.200    85.000   648.600    88.000   657.500    89.500
NC     0.000     0.000      .020     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     3.600     0.000     0.000     0.000    60.000    60.000    60.000     0.000     0.000     0.000
NC      .070      .070      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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X1	3.800	20.000	604.000	640.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	663.000	442.000	659.400	462.000	657.200	484.000	655.000	524.000	653.300	560.000
GR	653.200	586.000	653.000	604.000	649.000	622.000	648.800	623.000	648.200	624.000
GR	647.800	628.000	647.900	630.000	648.500	631.000	649.000	632.000	652.100	640.000
GR	653.600	666.000	655.000	692.000	658.000	700.000	661.000	714.000	662.300	732.000
NC	.090	.090	.050	.150	.350	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION F

X1	3.900	9.000	150.000	168.000	700.000	700.000	800.000	0.000	0.000	0.000
GR	661.000	0.000	656.000	120.000	652.900	150.000	650.600	156.000	650.400	160.000
GR	650.700	164.000	654.400	168.000	656.000	240.000	660.000	270.000	0.000	0.000
QT	4.000	360.000	520.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

X1	3.950	11.000	410.000	430.000	500.000	500.000	660.000	0.000	-2.200	0.000
GR	662.600	194.000	658.500	410.000	655.400	418.000	655.200	420.000	654.900	422.000
GR	654.800	423.000	654.900	424.000	655.200	426.000	655.400	428.000	657.600	430.000
GR	664.400	596.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	3.970	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000

X1	3.980	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.700	0.000

X1	4.000	0.000	0.000	0.000	200.000	200.000	240.000	0.000	.800	0.000

X1	4.100	6.000	129.000	146.000	470.000	470.000	520.000	0.000	-2.000	0.000
GR	665.200	0.000	662.200	129.000	659.600	134.000	660.000	143.000	662.000	146.000
GR	668.000	384.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***MCS X-SECTION L

X1	4.200	0.000	0.000	0.000	470.000	470.000	520.000	0.000	2.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	4.300	28.000	644.000	684.000	300.000	300.000	300.000	0.000	-2.000	0.000
GR	674.300	426.000	673.900	478.000	672.800	520.000	671.900	564.000	670.200	598.000
GR	669.700	622.000	669.600	644.000	667.800	656.000	662.600	670.000	662.300	671.000
GR	661.900	672.000	661.600	673.000	661.900	674.000	662.300	675.000	662.600	676.000
GR	665.800	684.000	666.400	706.000	667.400	800.000	670.000	892.000	671.800	930.000
GR	671.900	970.000	671.900	1014.000	672.600	1060.000	672.500	1110.000	673.500	1168.000
GR	673.600	1212.000	673.800	1248.000	673.500	1310.000	0.000	0.000	0.000	0.000

X1	4.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	4.960	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.600	0.000

X1	5.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.800	0.000	

***3 FT. DIA. CULVERT

X1	5.100	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.100	0.000	
SB	0.000	1.600	2.900	150.000	3.000	0.000	7.100	0.000	661.700	661.700	
X1	5.300	0.000	0.000	0.000	41.000	41.000	41.000	0.000	.200	0.000	
X2	0.000	0.000	1.000	664.800	666.800	0.000	0.000	0.000	0.000	0.000	

***FOOTBRIDGE

X1	5.400	0.000	0.000	0.000	172.000	172.000	172.000	0.000	.100	0.000	
SB	0.000	1.600	2.900	110.000	10.000	0.000	57.000	0.000	661.900	661.900	
X1	5.500	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	666.100	667.300	0.000	0.000	0.000	0.000	0.000	
X1	6.200	20.000	360.000	386.000	1135.000	1135.000	1135.000	0.000	0.000	0.000	
GR	673.400	275.000	671.700	280.000	670.000	360.000	665.600	374.000	664.900	375.000	
GR	664.300	376.000	664.300	377.000	664.300	378.000	665.000	379.000	665.600	380.000	
GR	669.200	386.000	669.000	414.000	669.600	450.000	671.400	455.000	671.800	514.000	
GR	672.600	554.000	673.000	590.000	673.300	624.000	673.700	668.000	673.800	702.000	
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000	
X1	6.100	10.000	0.000	50.000	234.000	234.000	234.000	0.000	0.000	0.000	
GR	672.500	0.000	667.600	3.000	667.200	5.000	666.700	12.000	666.400	17.000	
GR	666.900	23.000	667.500	30.000	668.400	33.000	667.900	42.000	672.500	50.000	
NC	0.000	0.000	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

***JEWELL ROAD

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	671.700	672.400	0.000	0.000	0.000	0.000	0.000	
X1	6.800	0.000	0.000	0.000	31.000	31.000	31.000	0.000	0.000	0.000	
X2	0.000	0.000	0.000	671.700	672.400	0.000	0.000	0.000	0.000	0.000	
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
X1	6.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000	
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000	
X1	6.500	25.000	404.000	442.000	234.000	234.000	234.000	0.000	0.000	0.000	
GR	675.600	198.000	673.000	234.000	672.300	262.000	671.700	288.000	671.500	332.000	
GR	671.200	372.000	671.200	404.000	669.000	414.000	668.400	420.000	667.400	426.000	
GR	666.300	428.000	665.800	429.000	666.700	430.000	666.900	431.000	667.100	432.000	
GR	667.400	434.000	670.800	442.000	670.900	454.000	670.800	486.000	670.800	514.000	
GR	673.400	528.000	673.600	556.000	674.700	568.000	674.500	604.000	675.400	658.000	
NC	0.000	0.000	0.000	.150	.350	0.000	0.000	0.000	0.000	0.000	

X1	6.600	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.200	0.000

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

X1	6.700	19.000	372.000	398.000	350.000	350.000	350.000	0.000	-.500	0.000
GR	677.000	365.000	674.800	369.000	672.600	372.000	670.200	382.000	669.300	383.000
GR	669.000	384.000	668.800	385.000	669.000	386.000	669.300	387.000	670.200	388.000
GR	673.400	398.000	673.700	418.000	674.300	460.000	674.600	484.000	674.500	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
QT	5.000	330.000	510.000	605.000	825.000	605.000	0.000	0.000	0.000	0.000

X1	7.200	0.000	0.000	0.000	150.000	150.000	150.000	0.000	-.500	0.000

X1	7.100	24.000	371.000	388.000	36.000	36.000	36.000	0.000	-.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.300	674.000	0.000
GR	682.400	162.000	681.900	198.000	680.300	230.000	677.300	266.000	674.600	302.000
GR	673.200	332.000	673.200	360.000	672.500	371.000	670.900	374.000	669.600	375.000
GR	669.900	379.000	669.700	383.000	669.800	386.000	669.900	387.000	670.900	388.000
GR	673.400	393.000	673.700	418.000	674.300	460.000	674.600	484.000	674.600	524.000
GR	674.400	570.000	674.800	624.000	675.800	668.000	677.200	682.000	0.000	0.000
SB	0.000	1.430	3.000	0.000	17.000	0.000	56.000	0.000	669.800	669.800

X1	7.700	19.000	402.000	419.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	672.000	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	676.400	675.800	0.000
BT	13.000	16.000	681.600	0.000	190.000	678.600	0.000	282.000	677.400	0.000
BT	336.000	676.900	0.000	378.000	676.800	0.000	404.000	676.500	0.000	440.000
BT	676.400	0.000	496.000	675.800	0.000	572.000	675.800	0.000	630.000	675.900
BT	0.000	674.000	676.200	0.000	708.000	677.000	0.000	748.000	677.700	0.000
GR	677.100	335.000	675.700	350.000	674.600	352.000	674.100	376.000	672.500	402.000
GR	670.900	405.000	669.800	406.000	669.800	410.000	669.700	414.000	670.900	419.000
GR	673.900	436.000	674.300	448.000	673.000	480.000	672.700	500.000	674.800	522.000
GR	675.900	630.000	676.200	674.000	677.000	708.000	677.700	748.000	0.000	0.000
QT	4.000	275.000	395.000	465.000	640.000	465.000	0.000	0.000	0.000	0.000

X1	7.800	21.000	572.000	646.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	677.100	543.000	675.700	556.000	674.600	568.000	674.100	572.000	672.500	588.000
GR	670.400	600.000	669.700	601.000	669.700	607.000	670.400	608.000	672.700	614.000
GR	673.300	622.000	672.800	628.000	670.400	632.000	670.200	633.000	669.900	634.000
GR	669.700	635.000	669.900	636.000	670.200	637.000	670.400	638.000	673.900	646.000
GR	677.100	658.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	225.000	320.000	375.000	520.000	375.000	0.000	0.000	0.000	0.000

X1	7.850	11.000	120.000	152.000	100.000	100.000	100.000	0.000	-1.700	0.000
GR	680.000	10.000	678.000	55.000	676.300	100.000	675.700	120.000	673.300	125.000
GR	672.000	127.000	671.900	133.000	674.600	136.000	677.100	146.000	677.800	152.000
GR	680.000	235.000	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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*PROF 1

 CCHV=    .150 CEHV=    .350
 *SECNO 2.000
    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

       2.00     8.47   651.97     0.00   651.97   652.22     .25      0.00      0.00   653.00
       810.       0.     688.      122.      0.      159.     103.       0.        0.   651.00
       0.00     0.00     4.34     1.18     .060     .045     .060    0.000    643.50   199.15
    .003523       0.       0.       0.        0        0        0     0.00    204.75   403.90


 *SECNO 3.200
       3.20     7.36   654.26     0.00     0.00   654.36     .10      2.12      .02   652.80
       810.       7.     798.       5.       9.     309.      7.        7.       4.   652.80
        .12      .71     2.58      .71     .060     .045     .060     .045    646.90   168.11
    .001261    1080.    1080.    1000.        3        0        0     0.00    115.07   283.18


 CCHV=     .400 CEHV=     .800
 *SECNO 3.400

          ***26 MILE ROAD   ELLC = 657.4

       3.40     6.28   654.38     0.00     0.00   654.47     .09      .10       .01   657.50
       810.       0.       0.     810.       0.       0.     338.       8.        4.   707.50
        .13     0.00     0.00     2.40     .060     .045     .060     .045    648.10    26.06
    .000995       90.      90.      90.        2        0        0     0.00     62.92    88.97


 *SECNO 3.600
       3.60     6.34   654.44     0.00     0.00   654.53     .09      .06       .00   657.50
       810.       0.       0.     810.       0.       0.     342.       8.        4.   657.50
        .13     0.00     0.00     2.37     .060     .020     .060     .044    648.10    26.04
    .000955       60.      60.      60.        0        0        0     0.00     62.94    88.99


 *SECNO 3.800
    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

       3.80     6.69   654.49     0.00     0.00   654.71     .23      .07       .11   653.00
       810.      82.     662.      66.      72.     157.      50.       9.        4.   652.10
        .14     1.14     4.21     1.32     .070     .045     .070     .044    647.80   534.77
    .002401       50.      50.      50.        0        0        0     0.00    147.79   682.56


 CCHV=    .150 CEHV=    .350
 *SECNO 3.900

          ***MCS X-SECTION F
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      3.90      6.38    656.78      0.00      0.00    657.07      .30      2.33      .02    652.90
      810.      130.      520.      160.       77.      97.      116.      14.       7.     654.40
       .19      1.69      5.35      1.38      .090      .050     .090      .047   650.40    101.33
   .003913      700.      800.      700.         2         0        0      0.00   144.50    245.83

 *SECNO 3.950

          ***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

      3.95      6.22    658.82      0.00      0.00    658.95      .13      1.85      .03    656.30
      605.      117.      366.      122.      167.     101.      143.      18.       9.     655.40
       .26       .70      3.64      .85       .120     .055     .120      .050   652.60    277.24
   .002331      500.      660.      500.         2         0        0      0.00   236.25    513.49

 *SECNO 3.970
      3.97      6.07    659.37      0.00      0.00    659.52      .15       .57      .01    657.00
      605.      108.      379.      118.      148.      98.      131.      20.      10.     656.10
       .28       .73      3.88      .90       .120     .055     .120      .051   653.30    284.92
   .002751      200.      240.      200.         2         0        0      0.00   225.00    509.93

 *SECNO 3.980
      3.98      6.01    660.01      0.00      0.00    660.17      .16       .64      .00    657.70
      605.      104.      385.      116.      141.      96.      126.      22.      11.     656.80
       .30       .74      3.99      .92       .120     .055     .120      .051   654.00    288.31
   .002962      200.      240.      200.         2         0        0      0.00   220.05    508.36

 *SECNO 4.000

    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

      4.00      5.91    660.71      0.00      0.00    660.89      .18       .71       .01    658.50
      605.       98.      394.      113.      128.      94.      118.      23.      12.      657.60
       .32       .76      4.17      .96       .120     .055     .120      .052   654.80    293.74
   .003340      200.      240.      200.         2         0        0      0.00   212.10    505.84

 *SECNO 4.100
      4.10      5.05    662.65      0.00      0.00    662.84      .19      1.95      .00    660.20
      605.      124.      340.      141.      129.      73.      139.      27.      14.      660.00
       .37       .96      4.64      1.01      .120     .055     .120      .052   657.60     23.70
   .004608      470.      520.      470.         2         0        0      0.00   227.37    251.07

 *SECNO 4.200

          ***MCS X-SECTION L

      4.20      5.18    664.78      0.00      0.00    664.94      .16      2.10      .00    662.20
      605.      131.      327.      147.      143.      76.      153.      31.      17.      662.00
       .42       .91      4.33      .96       .120     .055     .120      .053   659.60     18.03
   .003865      470.      520.      470.         2         0        0      0.00   238.27    256.30

 *SECNO 4.300
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4.30	6.27	665.87	0.00	0.00	666.11	.24	1.14	.03	667.60	
605.	0.	457.	148.	0.	101.	134.	33.	18.	663.80	
.44	0.00	4.51	1.11	.090	.045	.090	.052	659.60	655.56	
.003734	300.	300.	300.	2	0	0	0.00	160.95	816.51	

*SECNO 4.940

4.94	6.40	666.60	0.00	0.00	666.80	.20	.69	.01	668.20	
605.	0.	440.	165.	0.	105.	152.	34.	19.	664.40	
.46	0.00	4.18	1.09	.090	.045	.090	.052	660.20	654.66	
.003179	200.	200.	200.	2	0	0	0.00	166.60	821.26	

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.43	667.23	0.00	0.00	667.43	.19	.62	.00	668.80	
605.	0.	436.	169.	0.	106.	156.	35.	20.	665.00	
.48	0.00	4.11	1.08	.090	.045	.090	.052	660.80	654.44	
.003055	200.	200.	200.	2	0	0	0.00	168.02	822.45	

*SECNO 5.000

5.00	6.28	667.88	0.00	0.00	668.12	.24	.67	.02	669.60	
605.	0.	456.	149.	0.	101.	134.	37.	21.	665.80	
.49	0.00	4.51	1.11	.090	.045	.090	.052	661.60	655.55	
.003730	200.	200.	200.	1	0	0	0.00	161.00	816.55	

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.41	668.11	0.00	0.00	668.31	.20	.19	.01	669.70	
605.	0.	438.	167.	0.	106.	153.	37.	21.	665.90	
.50	0.00	4.15	1.09	.090	.045	.090	.051	661.70	654.57	
.003131	55.	55.	55.	2	0	0	0.00	167.15	821.72	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.51	668.31	0.00	584.	21.	7.	9.	664.80	666.80

5.30	6.14	668.04	0.00	0.00	668.33	.29	.01	0.00	669.90	
605.	0.	473.	132.	0.	98.	117.	37.	21.	666.10	
.50	0.00	4.84	1.13	.090	.045	.090	.051	661.90	656.16	

.004391	41.	41.	41.	3	0	9	0.00	155.82	811.99	

*SECNO 5.400

***FOOTBRIDGE

5.40	6.73	668.73	0.00	0.00	668.86	.13	.51	.02	670.00	
605.	0.	403.	202.	0.	115.	199.	38.	22.	666.20	
.52	0.00	3.50	1.02	.090	.045	.090	.051	662.00	652.46	
.002155	172.	172.	172.	2	0	0	0.00	180.50	832.95	

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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	

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.53	668.76	0.00	445.	160.	57.	42.	666.10	667.30

5.50	6.81	668.81	0.00	0.00	668.93	.12	.06	0.00	670.00
605.	0.	395.	210.	0.	118.	211.	38.	22.	666.20
.52	0.00	3.36	1.00	.090	.045	.090	.051	662.00	651.94
.001971	8.	8.	8.	2	0	5	0.00	183.74	835.69

*SECNO 6.200

6.20	6.89	671.19	0.00	0.00	671.37	.17	2.42	.02	670.00
605.	19.	425.	162.	34.	109.	130.	46.	26.	669.20
.62	.56	3.89	1.24	.090	.045	.090	.050	664.30	303.78
.002315	1135.	1135.	1135.	2	0	0	0.00	150.65	454.43

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.27	671.67	0.00	0.00	671.83	.16	.46	.01	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.045	.090	.050	666.40	.51
.001669	234.	234.	234.	2	0	0	0.00	48.05	48.56

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	5.27	671.67	0.00	0.00	671.83	.16	.00	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.20	0.00	.090	.020	.090	.050	666.40	.51
.000329	1.	1.	1.	0	0	0	0.00	48.05	48.56

*SECNO 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	5.28	671.68	0.00	0.00	671.84	.16	.01	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.090	.020	.090	.050	666.40	.50
.000326	31.	31.	31.	3	0	0	0.00	48.08	48.58

*SECNO 6.400

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
6.40	5.28	671.68	0.00	0.00	671.84	.16	.00	.00	672.50
605.	0.	605.	0.	0.	189.	0.	47.	27.	672.50
.64	0.00	3.19	0.00	.055	.040	.055	.050	666.40	.50
.001306	1.	1.	1.	0	0	0	0.00	48.08	48.58

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	6.26	672.06	0.00	0.00	672.18	.12	.34	.01	671.20
605.	65.	427.	113.	79.	131.	93.	49.	27.	670.80
.67	.83	3.27	1.22	.055	.040	.055	.049	665.80	272.46
.001596	234.	234.	234.	2	0	0	0.00	248.31	520.78

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.78	672.78	0.00	0.00	673.06	.28	.82	.05	672.40
605.	17.	512.	76.	22.	112.	56.	51.	29.	672.00
.69	.75	4.55	1.36	.055	.040	.055	.049	667.00	313.58
.003767	350.	350.	350.	2	0	0	0.00	204.64	518.22

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.82	674.12	673.35	0.00	674.53	.41	1.43	.05	672.10
605.	4.	515.	85.	3.	93.	67.	52.	31.	672.90
.71	1.57	5.55	1.27	.055	.040	.055	.049	668.30	369.23
.004441	350.	350.	350.	4	12	0	0.00	231.64	600.87

*SECNO 7.200

7.20	6.02	674.82	0.00	0.00	675.11	.29	.56	.02	672.60
605.	5.	476.	125.	3.	98.	108.	53.	32.	673.40
.72	1.42	4.87	1.15	.055	.040	.055	.048	668.80	368.97
.003184	150.	150.	150.	2	0	0	0.00	255.84	624.81

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 676.30 ELREA= 674.00

7.10	5.04	674.84	674.24	0.00	675.31	.46	.14	.06	672.70
605.	0.	467.	138.	0.	76.	84.	53.	32.	671.10
.72	0.00	6.15	1.64	.055	.040	.055	.048	669.80	371.00
.004593	36.	36.	36.	4	16	0	0.00	232.13	603.13

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.44	675.80	0.00	159.	451.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 676.40 ELREA= 675.80

7.70	6.55	676.25	0.00	0.00	676.29	.04	.98	0.00	672.50
605.	0.	218.	387.	0.	101.	404.	53.	32.	670.90
.73	0.00	2.16	.96	.055	.040	.055	.048	669.70	402.00
.000409	24.	24.	24.	2	0	4	0.00	274.17	676.17

*SECNO 7.800

7.80	6.57	676.27	0.00	0.00	676.30	.03	.01	.00	674.10
465.	11.	450.	5.	23.	320.	10.	53.	32.	673.90
.73	.47	1.41	.43	.055	.040	.055	.048	669.70	550.75
.000214	27.	27.	27.	2	0	0	0.00	104.12	654.87

*SECNO 7.850

7.85	6.06	676.26	0.00	0.00	676.36	.10	.04	.02	674.00
375.	91.	284.	0.	76.	102.	0.	54.	32.	676.10
.75	1.20	2.77	.18	.055	.040	.055	.048	670.20	56.00
.001297	100.	100.	100.	2	0	0	0.00	102.11	158.11

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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      SENSITIVITY RUN  N* 0.7

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -1.       4.        0.        0.   .003400      0.00      -1.0       0.   651.970     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     0.000      .700     0.000     0.000     0.000     0.000
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*PROF 2

CCHV= .150 CEHV= .350

*SECNO 2.000

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
2.00	7.94	651.44	0.00	651.97	651.94	.50	0.00	0.00	653.00
810.	0.	784.	26.	0.	136.	28.	0.	0.	651.00
0.00	0.00	5.74	.93	.042	.032	.042	0.000	643.50	201.80
.003415	0.	0.	0.	0	0	6	0.00	153.75	355.55

*SECNO 3.200

3.20	6.86	653.76	0.00	0.00	653.90	.15	1.92	.05	652.80
810.	3.	805.	2.	4.	262.	3.	5.	3.	652.80
.10	.71	3.07	.71	.042	.032	.042	.032	646.90	172.48
.001086	1080.	1080.	1000.	3	0	0	0.00	107.41	275.89

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	5.79	653.89	0.00	0.00	653.99	.11	.08	.01	657.50
810.	0.	0.	810.	C.	0.	306.	6.	3.	707.50
.11	0.00	0.00	2.64	.042	.032	.042	.031	648.10	26.15
.000669	90.	90.	90.	2	0	0	0.00	62.75	88.89

*SECNO 3.600

3.60	5.83	653.93	0.00	0.00	654.03	.11	.04	.00	657.50
810.	0.	0.	810.	0.	0.	310.	6.	3.	657.50
.11	0.00	0.00	2.62	.042	.014	.042	.031	648.10	26.14
.000646	60.	60.	60.	0	0	0	0.00	62.76	88.90

*SECNO 3.800

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
3.80	6.13	653.93	0.00	0.00	654.32	.39	.05	.23	653.00
810.	41.	726.	43.	37.	137.	29.	7.	3.	652.10
.12	1.12	5.31	1.47	.049	.032	.049	.031	647.80	546.75
.002253	50.	50.	50.	2	0	0	0.00	125.29	672.05

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	5.71	656.11	0.00	0.00	656.73	.62	2.33	.08	652.90
810.	105.	611.	93.	50.	85.	66.	10.	6.	654.40
.15	2.11	7.19	1.42	.063	.035	.063	.033	650.40	117.37
.004127	700.	800.	700.	3	0	0	0.00	123.45	240.82

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	5.76	658.36	0.00	0.00	658.57	.21	1.78	.06	656.30
605.	89.	408.	108.	111.	91.	107.	13.	7.	655.40
.21	.80	4.46	1.01	.084	.039	.084	.035	652.60	301.62
.001954	500.	660.	500.	2	0	0	0.00	200.57	502.19

*SECNO 3.970

3.97	5.53	658.83	0.00	0.00	659.10	.28	.51	.02	657.00
605.	74.	430.	100.	88.	87.	91.	15.	8.	656.10
.22	.85	4.96	1.10	.084	.039	.084	.035	653.30	313.76
.002583	200.	240.	200.	2	0	0	0.00	182.80	496.56

*SECNO 3.980

3.98	5.43	659.43	0.00	0.00	659.74	.31	.63	.01	657.70
605.	68.	440.	97.	79.	85.	85.	16.	9.	656.80
.24	.87	5.18	1.14	.084	.039	.084	.035	654.00	318.75
.002904	200.	240.	200.	2	0	0	0.00	175.50	494.25

*SECNO 4.000

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
4.00	5.32	660.12	0.00	0.00	660.47	.35	.71	.01	658.50
605.	61.	451.	92.	69.	83.	77.	17.	10.	657.60
.25	.89	5.46	1.19	.084	.039	.084	.036	654.80	324.72
.003347	200.	240.	200.	2	0	0	0.00	166.76	491.48

*SECNO 4.100

4.10	4.51	662.11	0.00	0.00	662.51	.41	2.02	.02	660.20
605.	93.	399.	112.	78.	64.	88.	20.	12.	660.00
.28	1.20	6.23	1.28	.084	.039	.084	.036	657.60	47.07
.004879	470.	520.	470.	2	0	0	0.00	182.45	229.51

*SECNO 4.200

***MCS X-SECTION L

4.20	4.71	664.31	0.00	0.00	664.62	.30	2.09	.02	662.20
605.	106.	375.	124.	96.	68.	106.	23.	14.	662.00
.32	1.10	5.54	1.17	.084	.039	.084	.037	659.60	38.10
.003598	470.	520.	470.	2	0	0	0.00	199.70	237.79

*SECNO 4.300

4.30	5.70	665.30	0.00	0.00	665.81	.52	1.12	.07	667.60	
605.	0.	528.	77.	0.	86.	65.	24.	15.	663.80	
.33	0.00	6.15	1.19	.063	.032	.063	.036	659.60	657.34	
.003900	300.	300.	300.	2	0	0	0.00	133.52	790.86	

*SECNO 4.940

4.94	5.92	666.12	0.00	0.00	666.50	.39	.67	.02	668.20	
605.	0.	502.	103.	0.	92.	89.	25.	16.	664.40	
.35	0.00	5.48	1.16	.063	.032	.063	.036	660.20	656.77	
.002920	200.	200.	200.	2	0	0	0.00	147.33	804.10	

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	5.90	666.70	0.00	0.00	667.10	.40	.59	.00	668.80
605.	0.	504.	101.	0.	91.	87.	26.	16.	665.00
.36	0.00	5.54	1.16	.063	.032	.063	.036	660.80	656.82
.002998	200.	200.	200.	2	0	0	0.00	146.61	803.43

*SECNO 5.000

5.00	5.71	667.31	0.00	0.00	667.82	.52	.68	.04	669.60	
605.	0.	528.	77.	0.	86.	64.	26.	17.	665.80	
.37	0.00	6.16	1.19	.063	.032	.063	.036	661.60	657.35	
.003919	200.	200.	200.	1	0	0	0.00	133.16	790.51	

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	5.96	667.66	0.00	0.00	668.02	.36	.18	.02	669.70	
605.	0.	494.	111.	0.	93.	96.	27.	17.	665.90	
.37	0.00	5.30	1.15	.063	.032	.063	.036	661.70	656.61	
.002693	55.	55.	55.	2	0	0	0.00	149.56	806.17	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.06	668.02	0.00	576.	28.	7.	9.	664.80	666.80

5.30	5.54	667.44	0.00	0.00	668.06	.63	.04	0.00	669.90	
605.	0.	545.	60.	0.	81.	48.	27.	17.	666.10	
.37	0.00	6.69	1.24	.063	.032	.063	.036	661.90	657.78	

.004835	41.	41.	41.	4	0	0	0.00	117.66	775.44	

*SECNO 5.400

***FOOTBRIDGE

5.40	6.36	668.36	0.00	0.00	668.58	.21	.45	.06	670.00	
605.	0.	445.	160.	0.	104.	146.	27.	18.	666.20	
.39	0.00	4.27	1.10	.063	.032	.063	.036	662.00	654.92	
.001631	172.	172.	172.	2	0	0	0.00	164.99	819.91	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
671.16	668.48	0.00	418.	189.	57.	42.	666.10	667.30

5.50	6.45	668.45	0.00	0.00	668.64	.19	.06	0.00	670.00
605.	0.	434.	171.	0.	107.	158.	28.	18.	666.20
.39	0.00	4.07	1.08	.063	.032	.063	.035	662.00	654.33
.001469	8.	8.	8.	2	0	4	0.00	168.67	823.00

*SECNO 6.200

6.20	6.22	670.52	0.00	0.00	670.87	.35	2.17	.05	670.00
605.	3.	480.	122.	6.	92.	85.	33.	22.	669.20
.46	.49	5.25	1.43	.063	.032	.063	.035	664.30	335.49
.002602	1135.	1135.	1135.	1	0	0	0.00	117.07	452.56

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	4.72	671.12	0.00	0.00	671.34	.21	.41	.06	672.50
605.	0.	605.	0.	0.	163.	0.	34.	22.	672.50
.48	0.00	3.71	0.00	.063	.032	.063	.035	666.40	.84
.001276	234.	234.	234.	2	0	0	0.00	46.76	47.61

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

6.00	4.72	671.12	0.00	0.00	671.34	.21	.00	.00	672.50
605.	0.	605.	0.	0.	163.	0.	34.	22.	672.50
.48	0.00	3.71	0.00	.063	.014	.063	.035	666.40	.84
.000252	1.	1.	1.	0	0	0	0.00	46.77	47.61

*SECNC 6.800

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

6.80	4.74	671.14	0.00	0.00	671.35	.21	.01	.00	672.50
605.	0.	605.	0.	0.	164.	0.	34.	22.	672.50
.48	0.00	3.69	0.00	.063	.014	.063	.035	666.40	.83
.000248	31.	31.	31.	1	0	0	0.00	46.81	47.64

*SECNO 6.400

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
6.40	4.74	671.14	0.00	0.00	671.35	.21	.00	.00	672.50
605.	0.	605.	0.	0.	164.	0.	34.	22.	672.50
.48	0.00	3.70	0.00	.039	.028	.039	.035	666.40	.84
.000998	1.	1.	1.	0	0	0	0.00	46.79	47.63

CCHV= .150 CEHV= .350

*SECNO 6.500

6.50	5.58	671.38	0.00	0.00	671.77	.38	.36	.06	671.20
605.	5.	546.	54.	8.	105.	41.	35.	23.	670.80
.49	.58	5.20	1.33	.039	.028	.039	.034	665.80	347.22
.002639	234.	234.	234.	2	0	0	0.00	169.93	517.15

CCHV= .150 CEHV= .350

*SECNO 6.600

6.60	5.39	672.39	0.00	0.00	672.89	.51	1.08	.04	672.40
605.	0.	573.	32.	0.	98.	27.	36.	24.	672.00
.51	0.00	5.86	1.19	.039	.028	.039	.034	667.00	404.02
.003687	350.	350.	350.	2	0	0	0.00	112.11	516.13

*SECNO 6.700

***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

6.70	5.33	673.63	673.35	0.00	674.40	.77	1.42	.09	672.10
605.	3.	575.	27.	2.	80.	18.	37.	25.	672.90
.52	1.87	7.19	1.49	.039	.028	.039	.034	668.30	369.91
.004453	350.	350.	350.	4	9	0	0.00	78.52	448.43

*SECNO 7.200

3265 DIVIDED FLOW

7.20	5.62	674.42	673.83	0.00	674.97	.55	.54	.03	672.60

605.	4.	546.	55.	2.	87.	36.	38.	25.	673.40	
.53	1.72	6.24	1.53	.039	.028	.039	.034	668.80	369.51	
.002973	150.	150.	150.	4	9	0	0.00	115.42	573.39	

*SECNO 7.100

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 676.30 ELREA= 674.00

7.10	4.54	674.34	674.22	0.00	675.21	.88	.13	.12	672.70
605.	0.	536.	69.	0.	67.	31.	38.	25.	671.10
.53	0.00	7.96	2.21	.039	.028	.039	.034	669.80	371.00
.004306	36.	36.	36.	4	15	0	0.00	77.73	448.73

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
676.93	675.55	0.00	98.	509.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 676.40 ELREA= 675.80

7.70	6.43	676.13	0.00	0.00	676.17	.04	.96	0.00	672.50
605.	0.	227.	378.	0.	99.	374.	38.	25.	670.90
.54	0.00	2.29	1.01	.039	.028	.039	.034	669.70	402.00
.000230	24.	24.	24.	2	0	4	0.00	262.03	664.03

*SECNO 7.800

7.80	6.45	676.15	0.00	0.00	676.18	.03	.00	.00	674.10
465.	9.	451.	4.	20.	311.	9.	38.	25.	673.90
.54	.47	1.45	.44	.039	.028	.039	.034	669.70	551.86
.000116	27.	27.	27.	2	0	0	0.00	102.57	654.42

*SECNO 7.850

7.85	5.92	676.12	0.00	0.00	676.23	.11	.02	.03	674.00
375.	85.	290.	0.	67.	98.	0.	39.	26.	676.10
.55	1.28	2.97	.01	.039	.028	.039	.034	670.20	59.85
.000774	100.	100.	100.	2	0	0	0.00	92.78	152.63

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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      SENSITIVITY RUN  N * 1.3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -1.       4.       0.       0.   .003400    0.00     -1.0      0.   651.970   0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15.000    0.000   -1.000    0.000    0.000    1.300    0.000    0.000    0.000    0.000
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*PROF 3

CCHV= .150 CEHV= .350

*SECNO 2.000

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
2.00	8.89	652.39	0.00	651.97	652.53	.14	0.00	0.00	653.00
810.	0.	606.	204.	0.	177.	176.	0.	0.	651.00
0.00	0.00	3.42	1.16	.078	.059	.078	0.000	643.50	197.06
.003391	0.	0.	0.	0	0	5	0.00	228.40	425.46

*SECNO 3.200

3.20	7.79	654.69	0.00	0.00	654.76	.08	2.23	.01	652.80
810.	11.	791.	8.	15.	348.	12.	9.	4.	652.80
.13	.68	2.27	.68	.078	.059	.078	.059	646.90	164.45
.001406	1080.	1080.	1000.	3	0	0	0.00	121.50	285.95

CCHV= .400 CEHV= .800

*SECNO 3.400

***26 MILE ROAD ELLC = 657.4

3.40	6.71	654.81	0.00	0.00	654.89	.08	.12	.00	657.50
810.	0.	0.	810.	0.	0.	365.	10.	4.	707.50
.14	0.00	0.00	2.22	.078	.059	.078	.059	648.10	25.98
.001307	90.	90.	90.	2	0	0	0.00	63.07	89.05

*SECNO 3.600

3.60	6.79	654.89	0.00	0.00	654.97	.07	.08	.00	657.50
810.	0.	0.	810.	0.	0.	370.	10.	4.	657.50
.15	0.00	0.00	2.19	.078	.026	.078	.057	648.10	25.97
.001249	60.	60.	60.	0	0	0	0.00	63.09	89.06

*SECNO 3.800

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
3.80	7.16	654.96	0.00	0.00	655.11	.15	.09	.06	653.00
810.	113.	613.	84.	107.	174.	72.	11.	5.	652.10
.16	1.06	3.52	1.17	.091	.059	.091	.057	647.80	524.96
.002489	50.	50.	50.	0	0	0	0.00	166.19	691.16

CCHV= .150 CEHV= .350

*SECNO 3.900

***MCS X-SECTION F

3.90	6.89	657.29	0.00	0.00	657.48	.18	2.35	.01	652.90
810.	147.	464.	199.	106.	106.	157.	17.	7.	654.40
.23	1.39	4.36	1.27	.117	.065	.117	.061	650.40	88.91
.003882	700.	800.	700.	2	0	0	0.00	160.81	249.72

*SECNO 3.950

***JUST U/S OF CONFLUENCE WITH 2ND UNNAMED TRIBUTARY

3.95	6.66	659.26	0.00	0.00	659.34	.08	1.85	.01	656.30
605.	141.	331.	133.	231.	110.	182.	22.	10.	655.40
.31	.61	3.03	.73	.156	.072	.156	.065	652.60	254.04
.002439	500.	660.	500.	2	0	0	0.00	270.19	524.24

*SECNO 3.970

3.97	6.53	659.83	0.00	0.00	659.93	.09	.58	.00	657.00
605.	134.	341.	130.	211.	107.	170.	25.	11.	656.10
.34	.63	3.19	.76	.156	.072	.156	.066	653.30	260.77
.002794	200.	240.	200.	2	0	0	0.00	260.35	521.12

*SECNO 3.980

3.98	6.47	660.47	0.00	0.00	660.57	.10	.64	.00	657.70
605.	131.	346.	128.	202.	106.	165.	27.	12.	656.80
.37	.65	3.27	.78	.156	.072	.156	.067	654.00	263.98
.002984	200.	240.	200.	2	0	0	0.00	255.65	519.63

*SECNO 4.000

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

4.00	6.37	661.17	0.00	0.00	661.28	.11	.70	.00	658.50
605.	125.	354.	126.	188.	104.	155.	29.	13.	657.60
.39	.67	3.42	.81	.156	.072	.156	.068	654.80	269.42
.003341	200.	240.	200.	2	0	0	0.00	247.69	517.11

*SECNO 4.100

4.10	5.48	663.08	0.00	0.00	663.19	.11	1.91	.00	660.20
605.	144.	301.	159.	178.	81.	188.	34.	16.	660.00
.45	.81	3.74	.85	.156	.072	.156	.069	657.60	5.29
.004466	470.	520.	470.	2	0	0	0.00	262.76	268.05

*SECNO 4.200

***MCS X-SECTION L

4.20	5.57	665.17	0.00	0.00	665.27	.10	2.08	.00	662.20
605.	148.	294.	163.	190.	82.	200.	39.	19.	662.00
.52	.78	3.57	.82	.156	.072	.156	.069	659.60	1.18
.003968	470.	520.	470.	2	0	0	0.00	270.66	271.84

*SECNO 4.300

4.30	6.71	666.31	0.00	0.00	666.44	.14	1.16	.01	667.60	
605.	0.	405.	200.	0.	114.	195.	42.	21.	663.80	
.55	0.00	3.54	1.02	.117	.059	.117	.069	659.60	652.63	
.003754	300.	300.	300.	2	0	0	0.00	179.39	832.03	

*SECNO 4.940

4.94	6.83	667.03	0.00	0.00	667.14	.12	.70	.00	668.20
605.	0.	393.	212.	0.	118.	213.	43.	21.	664.40
.57	0.00	3.32	.99	.117	.059	.117	.068	660.20	651.82
.003263	200.	200.	200.	2	0	0	0.00	184.50	836.33

*SECNO 4.960

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.96	6.87	667.67	0.00	0.00	667.78	.11	.64	.00	668.80
605.	0.	389.	216.	0.	120.	220.	45.	22.	665.00
.59	0.00	3.25	.98	.117	.059	.117	.068	660.80	651.53
.003105	200.	200.	200.	2	0	0	0.00	186.33	837.87

*SECNO 5.000

5.00	6.73	668.33	0.00	0.00	668.46	.13	.67	.01	669.60
605.	0.	403.	202.	0.	115.	199.	46.	23.	665.80
.62	0.00	3.50	1.02	.117	.059	.117	.067	661.60	652.48
.003653	200.	200.	200.	2	0	0	0.00	180.39	832.86

*SECNO 5.100

***3 FT. DIA. CULVERT

5.10	6.84	668.54	0.00	0.00	668.65	.12	.19	.00	669.70
605.	0.	392.	213.	0.	119.	215.	47.	23.	665.90
.62	0.00	3.31	.99	.117	.059	.117	.067	661.70	651.76
.003226	55.	55.	55.	2	0	0	0.00	184.92	836.68

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	150.00	3.00	0.00	7.10	0.00	661.70	661.70

*SECNO 5.300

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
848.93	668.65	0.00	588.	17.	7.	9.	664.80	666.80
5.30	6.62	668.52	0.00	0.00	668.67	.15	.02	0.00	669.90
605.	0.	414.	191.	0.	112.	183.	47.	24.	666.10
.63	0.00	3.70	1.04	.117	.059	.117	.067	661.90	653.16

.004121	41.	41.	41.	2	0	12	0.00	176.04	829.20

*SECNO 5.400

***FOOTBRIDGE

5.40	7.13	669.13	0.00	0.00	669.21	.08	.52	.01	670.00
605.	0.	366.	239.	0.	128.	260.	48.	24.	666.20
.65	0.00	2.85	.92	.117	.059	.117	.067	662.00	649.83
.002333	172.	172.	172.	2	0	0	0.00	197.08	846.91

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	2.90	110.00	10.00	0.00	57.00	0.00	661.90	661.90

*SECNO 5.500

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
671.92	669.11	0.00	467.	138.	57.	42.	666.10	667.30

5.50	7.20	669.20	0.00	0.00	669.27	.08	.06	0.00	670.00
605.	0.	360.	245.	0.	131.	272.	48.	24.	666.20
.65	0.00	2.76	.90	.117	.059	.117	.067	662.00	649.36
.002159	8.	8.	8.	2	0	7	0.00	200.05	849.40

*SECNO 6.200

6.20	7.39	671.69	0.00	0.00	671.79	.11	2.51	.01	670.00
605.	36.	389.	180.	67.	122.	170.	58.	30.	669.20
.78	.54	3.19	1.06	.117	.059	.117	.065	664.30	280.64
.002267	1135.	1135.	1135.	2	0	0	0.00	216.59	497.23

CCHV= .450 CEHV= .900

*SECNO 6.100

6.10	5.78	672.18	0.00	0.00	672.30	.12	.49	.02	672.50
605.	0.	605.	0.	0.	213.	0.	60.	30.	672.50
.80	0.00	2.83	0.00	.117	.059	.117	.065	666.40	.20
.001952	234.	234.	234.	2	0	0	0.00	49.24	49.44

*SECNO 6.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 672.40 MAX ELLC= 671.70

***JEWELL ROAD

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      6.00      5.77    672.17      0.00      0.00    672.33       .15       .00       .03    672.50
       605.        0.      605.        0.        0.      192.        0.       60.       30.    672.50
        .80      0.00      3.14      0.00      .117      .026      .117      .065    666.40       .20
    .001180        1.        1.        1.         0         0         0    -21.11     49.24     49.44


 *SECNO 6.800

 3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  672.40 MAX ELLC=  671.70

      6.80      5.81    672.21      0.00      0.00    672.37       .15       .04       .00    672.50
       605.        0.      605.        0.        0.      193.        0.       60.       31.    672.50
        .81      0.00      3.14      0.00      .117      .026      .117      .065    666.40       .17
    .001179       31.       31.       31.         1         0         0    -22.87     49.34     49.51


 *SECNO 6.400
    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

      6.40      5.86    672.26      0.00      0.00    672.38       .12       .00       .01    672.50
       605.        0.      605.        0.        0.      218.        0.       60.       31.    672.50
        .81      0.00      2.78      0.00      .072      .052      .072      .065    666.40       .15
    .001455        1.        1.        1.         2         0         0      0.00     49.44     49.58


 CCHV=     .150 CEHV=     .350
 *SECNO 6.500
      6.50      6.83    672.63      0.00      0.00    672.68       .05       .29       .01    671.20
       605.       121.      348.      136.      161.      152.      139.       62.       31.    670.80
        .85       .75      2.29       .98      .072      .052      .072      .065    665.80    248.79
    .001072       234.      234.      234.         2         0         0      0.00    275.06    523.85


 CCHV=     .150 CEHV=     .350
 *SECNO 6.600
      6.60      6.17    673.17      0.00      0.00    673.31       .14       .60       .03    672.40
       605.       55.      442.      107.       67.      127.       86.       65.       33.    672.00
        .88       .82      3.48      1.25      .072      .052      .072      .064    667.00    276.29
    .003149       350.      350.      350.         2         0         0      0.00    244.01    520.30


 *SECNO 6.700

      ***JUST D/S OF CONFLUENCE SOUTH OF 27 MILE ROAD

      6.70      6.11    674.41      0.00      0.00    674.66       .24      1.31       .04    672.10
       605.        5.      454.      146.        4.      100.      130.       67.       35.    672.90
        .91      1.37      4.54      1.12      .072      .052      .072      .063    668.30    368.79
    .004521       350.      350.      350.         3         0         0      0.00    260.18    628.98


 *SECNO 7.200
      7.20      6.27    675.07      0.00      0.00    675.25       .18       .58       .01    672.60
       605.        5.      420.      179.        4.      104.      167.       68.       36.    673.40
        .92      1.27      4.03      1.08      .072      .052      .072      .063    668.80    368.51
    .003384       150.      150.      150.         2         0         0      0.00    267.43    635.93
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*SECNO 7.100

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	
7.10	5.36	675.16	0.00	0.00	675.42	.25	.14	.02	672.70	
605.	0.	397.	208.	0.	81.	159.	68.	37.	671.10	
.92	0.00	4.88	1.31	.072	.052	.072	.063	669.80	371.00	
.004531	36.	36.	36.	2	0	0	0.00	260.26	631.26	

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.30 ELREA= 674.00

SPECIAL BRIDGE

SB XK	XKQR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.43	3.00	0.00	17.00	0.00	56.00	0.00	669.80	669.80

*SECNO 7.700
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
677.76	676.00	0.00	197.	409.	56.	-11387.	0.00	675.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 676.40 ELREA= 675.80

7.70	6.61	676.31	0.00	0.00	676.35	.03	.93	0.00	672.50
605.	0.	214.	391.	0.	102.	420.	68.	37.	670.90
.93	0.00	2.09	.93	.072	.052	.072	.063	669.70	402.00
.000642	24.	24.	24.	2	0	5	0.00	276.86	678.86

*SECNO 7.800

7.80	6.63	676.33	0.00	0.00	676.36	.03	.01	.00	674.10
465.	11.	449.	5.	24.	325.	11.	68.	37.	673.90
.93	.47	1.38	.43	.072	.052	.072	.063	669.70	550.13
.000343	27.	27.	27.	2	0	0	0.00	104.98	655.12

140 cfs gained from trib #1 diversion

*SECNO 7.850

7.85	6.16	676.36	0.00	0.00	676.44	.09	.06	.02	674.00
375.	96.	279.	0.	82.	105.	1.	69.	37.	676.10
.94	1.17	2.65	.23	.072	.052	.072	.063	670.20	53.73
.001927	100.	100.	100.	2	0	0	0.00	107.94	161.67

WS confluence

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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

YATES DRAIN 100 YEAR FLO

SUMMARY PRINTOUT
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CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
651.970	136.46	652.22	204.75	0.00	0.00	651.97
651.440	138.61	651.94	153.75	0.00	0.00	651.97
652.388	139.09	652.53	228.40	0.00	0.00	651.97
654.263	228.08	654.36	115.07	0.00	0.00	0.00
653.758	245.84	653.90	107.41	0.00	0.00	0.00
654.686	215.99	654.76	121.50	0.00	0.00	0.00
654.381	256.77	654.47	62.92	0.00	0.00	0.00
653.886	313.24	653.99	62.75	0.00	0.00	0.00
654.811	224.04	654.89	63.07	0.00	0.00	0.00
654.443	262.08	654.53	62.94	0.00	0.00	0.00
653.928	318.76	654.03	62.76	0.00	0.00	0.00
654.891	229.21	654.97	63.09	0.00	0.00	0.00
654.486	165.30	654.71	147.79	0.00	0.00	0.00
653.925	170.66	654.32	125.29	0.00	0.00	0.00
654.961	162.36	655.11	166.19	0.00	0.00	0.00
656.775	129.49	657.07	144.50	0.00	0.00	0.00
656.113	126.08	656.73	123.45	0.00	0.00	0.00
657.295	130.00	657.48	160.81	0.00	0.00	0.00
658.820	125.30	658.95	236.25	0.00	0.00	0.00
658.358	136.88	658.57	200.57	0.00	0.00	0.00
659.261	122.51	659.34	270.19	0.00	0.00	0.00
659.374	115.34	659.52	225.00	0.00	0.00	0.00
658.826	119.04	659.10	182.80	0.00	0.00	0.00
659.833	114.45	659.93	260.35	0.00	0.00	0.00
660.010	111.16	660.17	220.05	0.00	0.00	0.00
659.432	112.27	659.74	175.50	0.00	0.00	0.00
660.472	110.75	660.57	255.65	0.00	0.00	0.00
660.707	104.68	660.89	212.10	0.00	0.00	0.00
660.118	104.58	660.47	166.76	0.00	0.00	0.00
661.168	104.67	661.28	247.69	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
662.648	89.13	662.84	227.37	0.00	0.00	0.00
662.105	86.62	662.51	182.45	0.00	0.00	0.00
663.076	90.53	663.19	262.76	0.00	0.00	0.00
664.778	97.32	664.94	238.27	0.00	0.00	0.00
664.314	100.86	664.62	199.70	0.00	0.00	0.00
665.170	96.04	665.27	270.66	0.00	0.00	0.00
665.866	99.00	666.11	160.95	0.00	0.00	0.00
665.299	96.87	665.81	133.52	0.00	0.00	0.00
666.305	98.74	666.44	179.39	0.00	0.00	0.00
666.601	107.29	666.80	166.60	0.00	0.00	0.00
666.115	111.96	666.50	147.33	0.00	0.00	0.00
667.027	105.91	667.14	184.50	0.00	0.00	0.00
667.234	109.47	667.43	168.02	0.00	0.00	0.00
666.700	110.49	667.10	146.61	0.00	0.00	0.00
667.670	108.58	667.78	186.33	0.00	0.00	0.00
667.876	99.07	668.12	161.00	0.00	0.00	0.00
667.306	96.64	667.82	133.16	0.00	0.00	0.00
668.329	100.10	668.46	180.39	0.00	0.00	0.00
668.114	108.12	668.31	167.15	0.00	0.00	0.00
667.664	116.58	668.02	149.56	0.00	0.00	0.00
668.536	106.51	668.65	184.92	0.00	0.00	0.00
668.038	91.30	668.33	155.82	0.00	0.00	0.00
667.436	87.01	668.06	117.66	0.00	0.00	0.00
668.524	94.25	668.67	176.04	0.00	0.00	0.00
668.731	130.33	668.86	180.50	0.00	0.00	0.00
668.362	149.81	668.58	164.99	0.00	0.00	0.00
669.126	125.27	669.21	197.08	0.00	0.00	0.00
668.808	136.26	668.93	183.74	0.00	0.00	0.00
668.447	157.82	668.64	168.67	0.00	0.00	0.00
669.196	130.20	669.27	200.05	0.00	0.00	0.00
671.195	125.74	671.37	150.65	0.00	0.00	0.00
670.520	118.60	670.87	117.07	0.00	0.00	0.00
671.687	127.05	671.79	216.59	0.00	0.00	0.00
671.669	148.09	671.83	48.05	0.00	0.00	0.00
671.124	169.35	671.34	46.76	0.00	0.00	0.00
672.176	136.95	672.30	49.24	0.00	0.00	0.00
671.670	333.46	671.83	48.05	0.00	0.00	0.00
671.125	381.34	671.34	46.77	0.00	0.00	0.00
672.175	176.14	672.33	49.24	0.00	0.00	0.00
671.682	334.86	671.84	48.08	0.00	0.00	0.00
671.135	384.10	671.35	46.81	0.00	0.00	0.00
672.212	176.23	672.37	49.34	0.00	0.00	0.00

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
671.682	167.41	671.84	48.08	0.00	0.00	0.00
671.136	191.48	671.35	46.79	0.00	0.00	0.00
672.261	158.61	672.38	49.44	0.00	0.00	0.00
672.060	151.46	672.18	248.31	0.00	0.00	0.00
671.384	117.76	671.77	169.93	0.00	0.00	0.00
672.630	184.79	672.68	275.06	0.00	0.00	0.00
672.780	98.57	673.06	204.64	0.00	0.00	0.00
672.387	99.63	672.89	112.11	0.00	0.00	0.00
673.170	107.80	673.31	244.01	0.00	0.00	0.00
674.121	90.78	674.53	231.64	0.00	0.00	0.00
673.634	90.67	674.40	78.52	0.00	0.00	0.00
674.413	89.98	674.66	260.18	0.00	0.00	0.00
674.817	107.22	675.11	255.84	0.00	0.00	0.00
674.422	110.95	674.97	115.42	0.00	0.00	0.00
675.070	104.00	675.25	267.43	0.00	0.00	0.00
674.843	89.27	675.31	232.13	0.00	0.00	0.00
674.336	92.20	675.21	77.73	0.00	0.00	0.00
675.165	89.88	675.42	260.26	0.00	0.00	0.00
676.251	299.29	676.29	274.17	0.00	0.00	0.00
676.132	399.11	676.17	262.03	0.00	0.00	0.00
676.314	238.77	676.35	276.86	0.00	0.00	0.00
676.265	317.73	676.30	104.12	0.00	0.00	0.00
676.146	431.84	676.18	102.57	0.00	0.00	0.00
676.332	251.18	676.36	104.98	0.00	0.00	0.00
676.262	104.13	676.36	102.11	0.00	0.00	0.00
676.117	134.77	676.23	92.78	0.00	0.00	0.00
676.356	85.42	676.44	107.94	0.00	0.00	0.00

SUMMARY OF ERRORS



1) COUNTY: Macomb

2) STUDY NAME: Washington Twp
Gates Drain
Taft Drain

3) WATERCOURSE: Unnamed Trib 1 & 2

4) DOCUMENT TYPE: Analyses



FLOOD INSURANCE STUDY HYDRAULIC REPORT

PROJECT: HUD-FIA-H-4705 Washington Township FIS, Macomb County, Michigan.

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Yates Drain, Unnamed Tributary No. 1, Unnamed Tributary No. 2, Taft Drain

STUDY LIMITS: (see revised map of study limits sent to Mr. Morgan 3/27/79)

CAUTION
Sections A-D of Yates Drain + portions of Trib #1 + unnamed Trib have been changed. See July 20, 1981 transmittal (enclosed)

DATE OF AERIAL SURVEY: 11/78

DATE OF LAND SURVEY: 12/78 - 6/79

SOURCE OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 4/26/79

TOPOGRAPHIC INFORMATION: USGS topographic maps; 5 contours. 1"=400'
In southern portion, strip contours 2'-4' 1"=400'

METHOD OF ANALYSIS: HEC-2 water surface profile computer program

VARIABLES AND COEFFICIENTS:

Channel "n"	.040-0.060
Overbank "n"	.055-.10
n values thru bridges	.02-.03
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.

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 Washington Township.

A previous study was done for Yates Drain from 26 Mile Road to midway between 26 and 27 Mile Roads.by Municipal Consultant Service in January, 1978. Some cross section data was used from this study. It appears that differences between the studies were mainly due to differences in flows.

Does not appear to have been submitted to our office.

Starting Conditions

Field information was obtained 1200 ft. downstream of the corporate limits of Washington Township in order to establish a good starting elevation at the corporate limits. The slope-area method was used to determine the starting elevation. Convergence runs were made for Yates Drain using ± 15% depth. The profiles were within 0.2 foot of the starting elevation used at the community boundary. Taft Drain and Unnamed Tributary No. 1 were started at the Yates Drain elevation, since peaks were expected to occur almost coincidentally. Unnamed Tributary No. 2 was started at normal depth (as per FIS specifications) using the slope-area method.

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 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).

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 for your review.

Remarks

Several minor changes were made in the hydrology for Washington Township. On Taft Drain a change was made in the flows at the tributary upstream of Jewell Road in accordance with the discharge versus drainage area curve used for Taft Drain.

On Tributary No. 1, it was found that weir flow would occur across Jewell Rd. north of 27 Mile Rd. Therefore, rating curves were developed to determine how much flow would remain in the channel and how much would overflow to Yates Drain north of 27 Mile Rd. The rating curves used for determining the flow split are included.

On Taft Drain, it was found that downstream of Jewell Road the channel is so constricted that the left overbank would carry a significant portion of the flow. However, the drainage boundary divide appears to be low enough that overland flow may occur across the divide. If the delineation by Abrams Aerial Survey finds this to be the case, then the flood plain delineation will be stopped at the drainage divide. It does not appear that the storage due to this would be significant enough to reduce the peak flows.

DOES HAPPEN -

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 computed water surface differentials were less than 0.2 foot. Since this would not significantly affect the flood insurance study, no changes were made to the HEC-2 runs nor to the profiles. The 0.2 foot differential would dissipate within a short distance with no accumulative effect.

A mistake was noticed in the Tributary No. 1 profile after all the runs were made. Between sections 113.92 and 114.09 an overbank station was input incorrectly causing a roughness of .065 to be used rather than .055. The 100 year profile was rerun after correcting the mistake. It was found that a maximum change of 0.10 foot occurred. Therefore, no changes were made to the other runs.

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.

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than M.P.S. 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 LETTER	SECTION NO.	SECTION TYPE	REMARKS
	110.1, 110.15	4	
A	110.2	2	
	110.25	3	Repeat of 110.32
B			Jewell Rd.
	110.32	1	Jewell Rd.
C	110.5	2	
	110.58, 110.59	3	Repeat of 111.02
D			27 Mile Rd
	111.02	1	27 Mile Rd
	111.03	3	Repeat of 111.02
E	111.8	2	
	111.81, 111.82	3	Repeats of 111.8
	111.83, 111.9		
	111.91	4	Concrete Weir
	111.92, 111.93	3	Repeats of 111.8
	111.94, 111.95		

COMMUNITY: WASHINGTON TWP

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than IMPS and/or Abrams)
2	Field Survey Section partly modified for modelling
3	Synthetic - Repeat of Intact by surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from topo, surveyed sections, or other information

HUD-FIA LETTER	SECTION NO.	SECTION TYPE	REMARKS
	111.97, 111.98	3	Repeats of 112.0
	111.99		
F	112.0	2	
	112.1, 112.2	3	Repeats of 112.0
	112.3		
	112.4, 112.5	3	Repeats of 113.2
G	113.2	1	
H	113.28, 113.29	4	M-53 bridge
	113.30, 113.31		
	113.33		
	113.42	1	M-53 bridge
I	113.8	1	
	113.81, 113.82	3	Repeats of 113.8
	113.89, 113.90		
	113.91		
	113.92, 113.93	3	Repeats of 114.0

COMMUNITY: WASHINGTON TWP

WATERCOURSE: TRIBUTARY NO. 1

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than IMPS 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 LETTER	SECTION NO.	SECTION TYPE	REMARKS
J	114.0	2	
	114.01, 114.02 114.03, 114.05 114.07, 114.09	3	Repeats of 114.0
K	115.2	2	
L	115.28, 115.32	3	Repeats of 115.38 VanDyke bridge
	115.38	1	
	115.42	3	Repeat of 115.38
M	115.50	2	
	115.51	3	Repeat of 115.50
N	115.58, 116.02	4	Railroad bridge
	116.08	3	Repeat of 116.80
O	116.80	1	
	116.81, 116.82 116.83, 116.84 116.86	3	Repeats of 117.2

McNAMEE, PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO.
COMMUNITY: WASHINGTON TWP. FILE NO.
WATERCOURSE: TRIBUTARY NO. 1
DATE CHK. BY DATE

HUD-FI/
LETTE

P

Q

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
117.20	2	
117.2.1	3	Repeat of 117.20 Campground Rd. bridge
117.19	3	Repeat of 117.18 Campground Rd. bridge
117.18	4	

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TRIBUTARY NO. 2

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 SECTION NO.	SECTION TYPE	REMARKS
	199.5, 199.7	3	Repeats of 200.0
A	200.0	2	
	200.05	4	
	200.10	3	Repeat of 200.2
B	200.2	2	
	200.4	4	
	201.3	4	
C	201.7	1	
	201.8	1	

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ANN ARBOR, MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO.
COMMUNITY: WASHINGTON TOWNSHIP FILE NO.
WATERCOURSE: YATES DRAIN
COMPUTED BY DATE CHK. BY DATE

HUD-FIA

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
	2.0	2	Localized overbank dips and rises eliminated.
	3.2	2	Overbanks assumed ineffective because of bridge upstream.
A	3.4, 3.6	1	26 Mile Road - deck very high, therefore not included.
B	3.8	1	
	3.9	1	Cross-section taken from MCS study on Yates Drain, 1978. Matched 4' contour map well.
	4.1	3	Section 4.0 dropped 2.2'.
C	4.0	1	
	4.2	1	MCS cross-sections.
D	5.0	2	Localized dip on overbank eliminated.
E	5.1, 5.3, 5.4, 5.5	3	Repeats of 5.0
F	6.2	2	Localized dip on overbank eliminated - Overbanks shortened because of bridge upstream.
	6.1	3	Repeat of 6.4
	6.0	3	Repeat of 6.4
	6.8	3	Repeat of 6.4

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CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO.
COMMUNITY: WASHINGTON TWP. FILE NO.
WATERCOURSE: YATES CHANNEL DRAIN DATE

HUD-FIA

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than IMPS 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 LETTER

	Section No.	Section Type	Remarks
G	6.4	1	
	6.5	2	Localized dip on overbank eliminated.
	6.6, 6.7	3	Repeats of 6.5
H	7.2	1	
	7.1	4	Used 7.2, topo, and surveyed bridge information.
I	7.1 - Bridge 27 Mile		
	7.7	4	Used 7.8, topo, and surveyed bridge information.
J	7.8	1	Overbank modified because of bridge downstream.
	7.85	4	Underwater surveyed further upstream and lowered. Extended using 2' topo information.

JOB: HUD-FIA H-4005 SHEET NO. 1

COMMUNITY: WASHINGTON TWP FILE NO.

WATER COURSE: TAFT DRAIN 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

A

SECTION NO.	SECTION TYPE	REMARKS
7.8		U/S 27 Mile Rd
7.85, 7.87	3	Repeat of 7.9
7.9	4	Underwater surveyed by field crew. Extended using 2' topo
7.92	3	Repeat of 7.9
7.95	3	Repeat of 8.0
xB 8.0	2	
8.1	3	Repeat of 8.0
8.5	4	Same as 7.9
8.6	3	Repeat of 8.5
9.1	3	Repeat of 9.2. Right overbank not restricted
xC (9.2)	2	Right overbank restricted due to structures
9.25, 9.29, 9.31, 9.32	3	Repeat of 9.2. Modified to model small footbridge.
9.33	3	Repeat of 9.2

COMMUNITY: WASHINGTON TWP.

WATERCOURSE: TAFT DRAIN

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

	SECTION NO.	SECTION TYPE	REMARKS
	9.34	3	Repeat of 9.35.
D	← (9)		
	9.35	1	Driveway bridge.
	9.36, 9.37	3	Repeats of 9.35 Driveway bridge.
	9.38, 9.39	3	Repeats of 9.4.
	9.4	1	Driveway bridge.
	9.41, 9.42	3	Repeats of 9.4. Driveway bridge.
	9.43		
E	← (9.5)		
	9.44, 9.56	3	Repeats of 9.4.
	9.58	2	Jewell Road. Ditch on east side of road included.
	9.6, 10.1	3	Repeats of 9.58 Jewell Road bridge.
	10.2		
F	← (10)		
	10.5, 10.9	3	Repeat of 11.0
	← (11.0)	1	Driveway bridge.
G	11.1, 11.2	3	repeats of 11.0. Driveway bridge.

COMMUNITY: WASHINGTON TWP.

WATER COURSE: TAFT DRAIN 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

	Section No.	Section Type	Remarks
H	(11.5)	1	
	11.6, 11.7	3	Repeats of 11.5. Ditch on west side filled to account for driveway.
	11.8, 11.9	3	Repeat of 11.5.
I	← (12)		
	12.05, 12.06	3	Repeats of 12.07
	12.07	1	Driveway bridge.
	12.08, 12.1	3	Repeats of 12.07, Driveway bridge.
J	← (13)		
	13.05, 13.06	3	Repeats of 13.07.
	13.07	1	Driveway bridge.
	13.08, 13.1	3	Repeats of 13.07.
	13.6, 13.7	3	Repeats of 14.0
	13.8		
K	← (14.0)	1	
	14.1, 14.2	3	Repeats of 14.0
	14.3, 14.4		

COMMUNITY: Washington Twp.

WATERCOURSE:

TABLE - XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F$ $\quad K_f = \frac{29n^2l}{R^{4/3}}$ $\quad R = A/P$

Cross Section Location	K_e	A	P	R	n	l	K_f	XKOR	REMARKS
Yates Drain									
Footbridge (5.4)	submerged footbridge, just used XKOR = 1.6 to see if losses would be significant, found loss to be negligible								
3' culvert (5.1)	"				"			"	
27 Mile Rd.	.1	56	42		.025	24	.33	1.43	
Tributary #2									
M-53	.2	37	23		.020	192	1.2	2.4	
Tributary #1									
Tewell Rd.	.3	38	29	1.39	.013	30	.09	1.39	
Campground Rd.	.1	12.6		1.0	.025	31	.56	1.66	
Taft Drain									
NC SB's									

COMMUNITY: Washington Twp.

WATERCOURSE:

TABLE — XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F$ $\quad K_F = \frac{29n^2\ell}{R^{4/3}}$ $\quad R = A/P$

Cross Section Location	K_e	A	P	R	n	ℓ	K_F	XKOR	REMARKS
Yates Drain									
hr_{100} Δmax_{100} Footbridge (5.4)	submerged footbridge, just used XKOR=1.6 to see if losses would be significant; found loss to be negligible								
3' culvert (5.1)	.5	"			.020		.21	1.7	"
1.01 .30 Press/weir 27 Mile Rd. V=451/56	~~.1~~	56	42		~~.025~~	24	~~.33~~	~~1.43~~	
Tributary #2									
1.09 .16 Press M-53 V=310/37	.35 ~~.2~~	37 ~~41~~	23 ~~27~~		.020	.192	1.2	2.5 ~~2.4~~	
Tributary #1	.5							1.6	
.50 .10 Press Jewell Rd. V=170/30	~~.2~~	38	29	1.39	.013	30	.09	~~1.39~~	
2.3 > 1.01 Press/weir Campground Rd. V=158/13	.5 ~~.1~~	12.6		1.0	.025	31	.56	2.1 ~~1.66~~	d/s of det. → already weir flow => OK
Taft Drain									
No SBS									

Revisions are based on higher values of K_e.

McNAMEE, PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR, MICHIGAN

JOB HUD - FIA H-4705 SHEET NO.
SUBJECT XKOR revision - Washington Twp. O.
COMPUTED BY YPK DATE 10/3/79 CHK. BY DATE

Yates Drain

27 Mile Rd

w/ new XKOR $h_v \rightarrow \frac{676.29 - 674.84}{1.7} = .85$

$\Rightarrow Q_{PR} = 415$

Q additional over weir = 451 − 415 = 36

$L \approx \frac{159}{3.0 \times .45^{1.5}} = 175$

$\Delta h_w = \left(\frac{36}{3.0 \times 175}\right)^{2/3} = .17$

Trib #2

M-53

$\Delta = .16$

Trib #1

Jewell Rd

$\Delta = .10$

Campground Rd

w/ new XKOR $h_v \rightarrow \frac{732.68 - 728.85}{2.1} = 1.92$

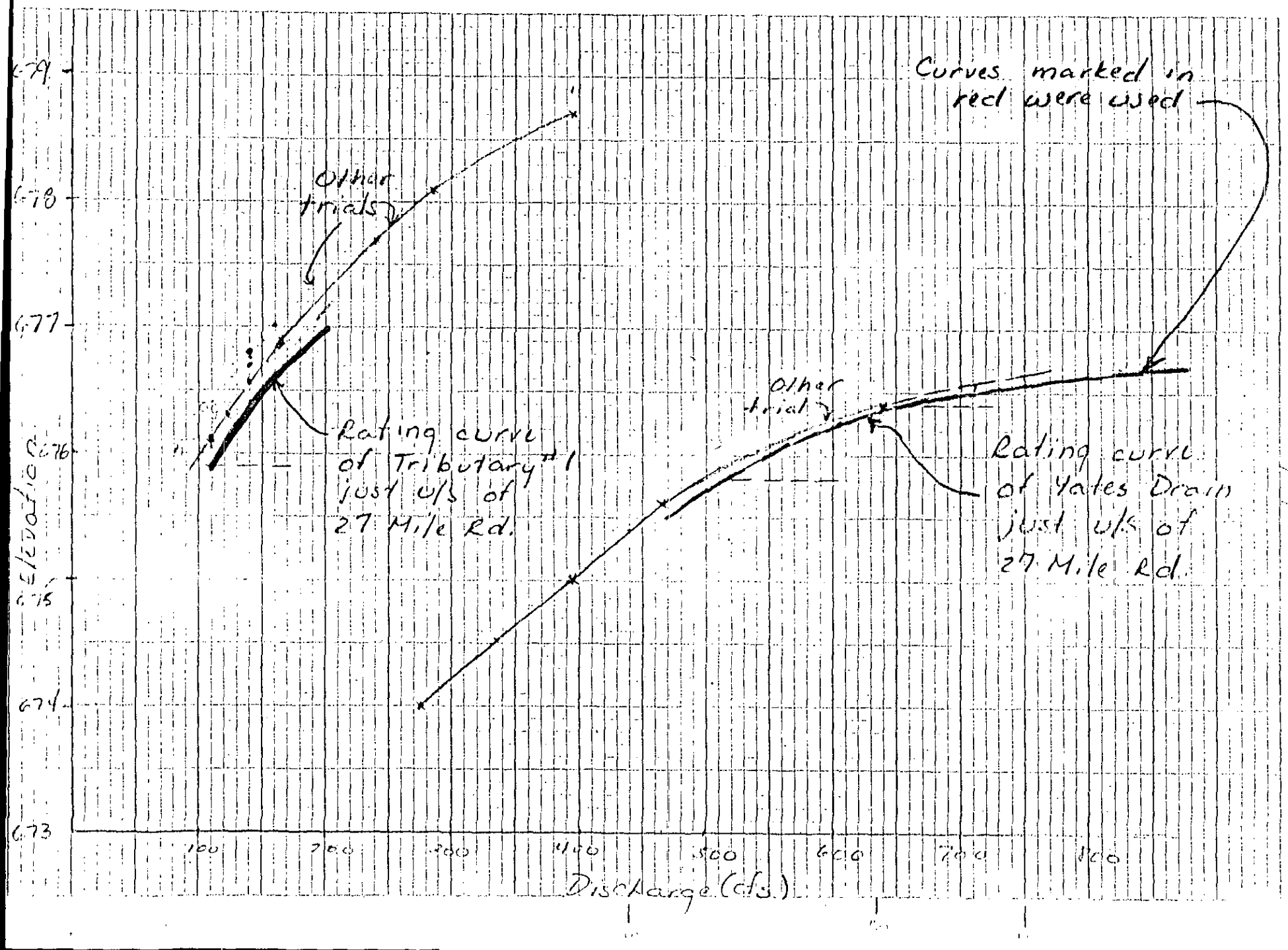
$\Rightarrow Q_{PR} = 140$

Q add. over weir = 158 − 140 = 18

$L \approx \frac{128}{2.9 \times .53^{1.5}} = 114'$

$\Delta h_w = \left(\frac{18}{2.9 \times 114}\right)^{2/3} = .14$

All changes < .20' $\Rightarrow$ for FIS work will not change profiles


Curves marked in red were used
Other trials
Rating curve of Tributary #1 just u/s of 27 Mile Rd.
Other trial
Rating curve of Yates Drain just u/s of 27 Mile Rd.
679
678
677
676
675
674
673
Elevation
100
200
300
400
500
600
700
800
Discharge (cfs.)

Washington T-06
VPL 8-28-79

Rating curve for overflow from tributary to Yates Drain over Jewell Rd. just north of 27 Mile Rd.

100 year $Q_T = 285$

If $Q_{OFLOW} = 140$ cfs $Q_{YATES} = 605$ cfs

=> Yates elev. u/s of 27 Mile = 676.3

Approximate Jewell Rd. by two weirs?

$Elev_1 = 675.9$ $C_1 = 3.0$ $L_1 = 55$

$Elev_2 = 676.4$ $C_2 = 3.0$ $L_2 = 80$

Try 676.8

Weir, slightly submerged

For weir, $d_1 = 0.4'$ assume $h_{L_1} \approx .5$ => $q_1 = 2.4$ $Q_1 = 132$

weir 2 $Q_2 = 3.0 \times 80 \times 0.4^{3/2} = 61$

$Q_T = 193$ cfs

Try 676.7

$d_1 = 0.3'$ $h_L = 0.4$ => $q_1 = 1.6$ $Q_1 = 88$

$Q_2 = 3.0 \times \frac{5.0}{80} \times 0.3^{3/2} = 39$

$Q_T = 127$ cfs

@ 767.7 $Q_{CH} \approx 170$ cfs $Q_W \approx 127$ => $Q_T = 297$

$Q_{ACTUAL} = 285$ OK

~~Q = 140 Elev 676.7~~

~~$Q_{channel} = 140$ for elev 676.8~~

$Q_{CH} = 170$

$Q_{OFLOW} = 115$

~~$Q_a = 280$ $Q_{100} = 285$~~

$Q_{YATES}_{100} = 580$ cfs

~~= 2 use $Elev_{100}$ 676.8~~

HUD-FIA A-4705 =/
Washington T-06
IRL 5-25-79

50 year

Q_{YATES} = 520 cfs if Q_{TRIB} (thru channel) = 0
Elev u/s 27 Mile Rd = 675.8
⇒ free flow on Jewell Rd. weir

Try Elev = 676.5

Q_{CH} = ~~120~~ cfs 150

Q_W = $3.0 \times 55 \times 0.6^{3/2}$ = 77 cfs
$+ 3.0 \times 50 \times 0.1^{3/2}$ = 8 cfs

Q_T = ~~205~~ cfs
235

Try Elev = 676.6

Q_{CH} = ~~125~~ 160 cfs

Q_W = $3.0 \times 55 \times 0.7^{3/2}$ = 97 cfs
$+ 3.0 \times 80 \times 0.2^{3/2}$ = 21 cfs
118

Q_T = ~~260~~ = 278 OK

$Elev_{50}$ = 676.6

Q_{CH} = 160
Q_{YATES} = 125 + 395 = 520

10 year

Try Elev = 676.4

Q_{CH} = ~~110~~ 140 cfs

Q_W = $3.0 \times 55 \times 0.5^{3/2}$ = 58 cfs

Q_T = ~~178~~ 198 cfs ~~OK~~

$Elev_{10}$ = ~~676.7~~ 676.3

Try 676.3

Q_{CH} = 135

Q_W = 42
177 OK

Q_{CH} = 135
Q_Y = 45 + 275 = 320

HUD-FIA H-4700
Washington 7-06
VPK 8/28/79

500 Year

500 year elev on Yates u/s of 27 Mile if trib were to all overflow here = 676.7 (Q = 825 cfs)

Try 677.0 u/s of Jewell

Q_{CH} = ~~150~~ 200 cfs

Q_W = $d_1 = 1.1$ $h_{L_1} = 0.3$ $q_1 = 3.3$ $Q_1 = 182$

$d_2 = 0.3$ $h_{L_2} = 0.3$ $q_2 = 1.2$ $Q_2 = 96$

278

Q_T = ~~448~~ 478 cfs

Try 676.9

Q_{CH} = ~~150~~ 190

Q_W =

$d_1 = 1.1$ $h_{L_1} = 0.2$ $q_1 = 2.6$ $Q_1 = 143$

$d_2 = 0.3$ $h_{L_2} = 0.2$ $q_2 = 0.9$ $Q_2 = 72$

215

Q_T = ~~365~~ 405 OK

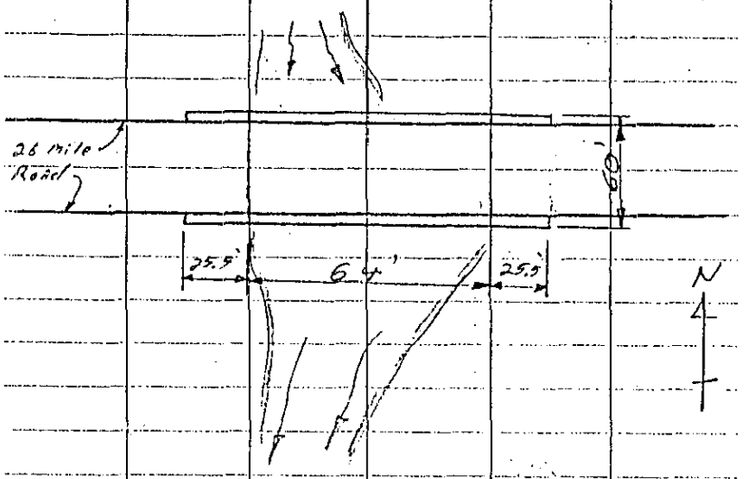
Use $Elev_{500}$ = ~~677.0~~ 676.9

Q_{CH} = 215 cfs
Q_y = 180 cfs + 640 = 820

Yates Drain

X-Sections 3, 3.2 & 3.8

Bridge at 26 mile Road



Start X-Section #3

at U/S face of bridge

Sta	+S	HI	-S	Elev
BM 61				661.99
	3.77	665.76		
			4.3	661.5
			0.4	665.4
			3.8	662.0
			8.4	657.4
0+00			4.7	661.1

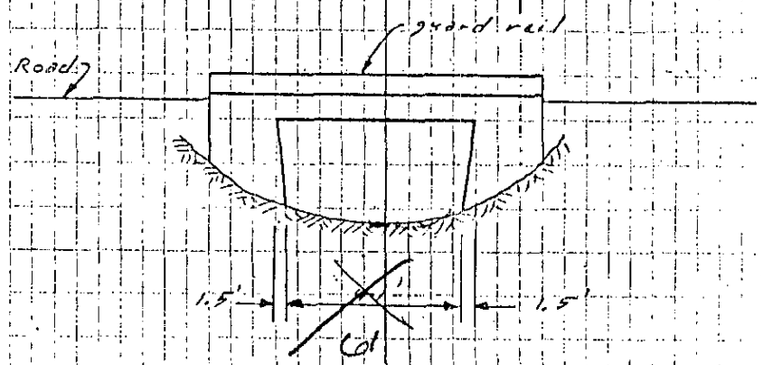
4-4-79

cldy - 40°

D. Cain

N. Shahart

D. Jeffries



Pictures 12, 13 & 14

Film 125

12 = U/S
13 = D/S
14 = at face

Description

℄ road over ℄ bridge

Top guardrail

Top curbing

Bottom steel

on left looking D/S

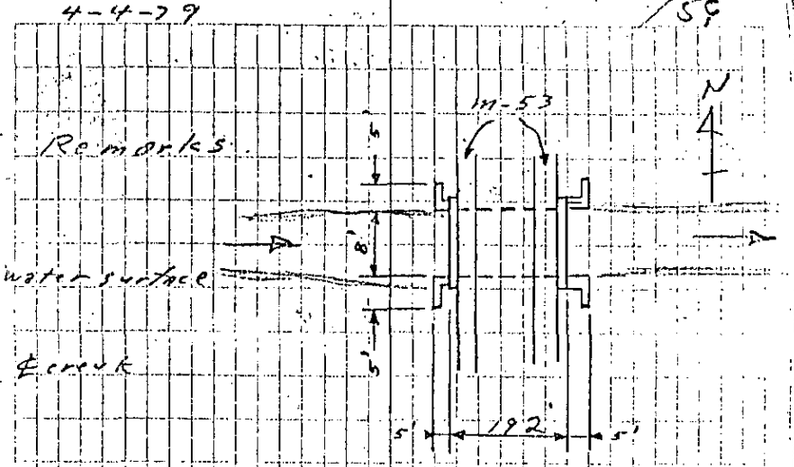
Yates Drain

X-section #201 Continued

Sta	+s	HI	-s	Elev	Adj Elev	Remarks
		679.09 626.09				
0+06			12.0		667.1	
~~0+06~~			12.7	663.4	666.4	water surface
0+07			43.5		665.6	
0+08			13.7		665.4	
0+10			13.5		665.6	
0+10			12.4		666.7	
0+14			10.8		668.3	
						pictures 15, 16 & 17
						Film 12-5
Set BM100			6.27	667.82	672.82	vs-672.78
	4.54	677.36 674.36				+ in top center of conc. headwall
						on west side of M-53 expressway
						halfway between 26 & 27 mile Roads
	Start X-section #201.8					Location sketch by 56, this book
0+00			4.5		672.9	on left looking D/S
0+03			5.7		671.7	
0+05			7.9		669.5	
0+10			9.3	665.1	668.1	edge creek & water surface
0+12			9.9		667.5	℄ creek
0+14			9.5		667.9	

4-4-79

180/56

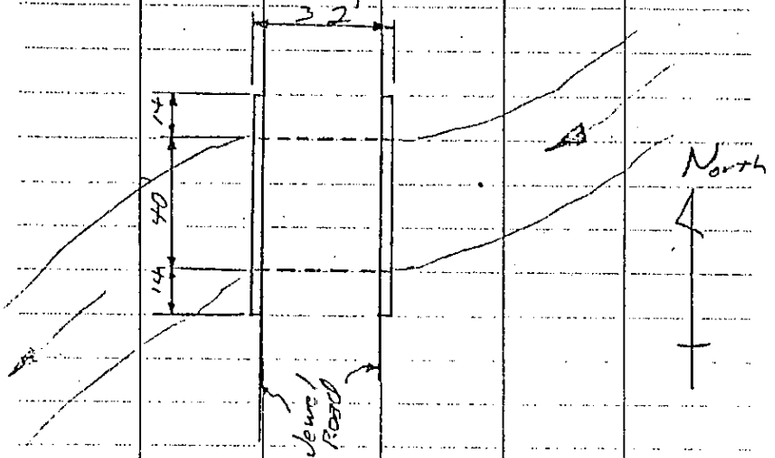


400/68

Yates Drain

X-Sections 6, 6.2, & 6.5

Bridge at Jewel Rd



Sta	+S	HI	-S	Elev
Bm 57				673.20
	3.70	676.90		
TP			3.11	673.79
	4.14	677.93		
Set Bm 102			3.36	674.57
	3.08	677.65		
Bm 57			4.03	673.62
				(.42 high)

Rerun on next Page

4-10-79 D. Cain

Clear - 50° N. Shamont

D. Jeffries

Pictures 4, 5, & 6

Film 126

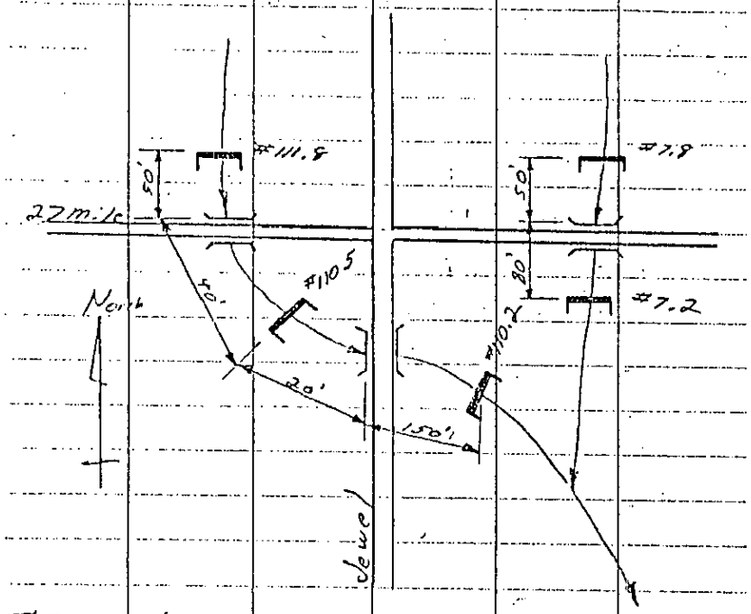
Remarks

nail in tree on Jewel Rd,

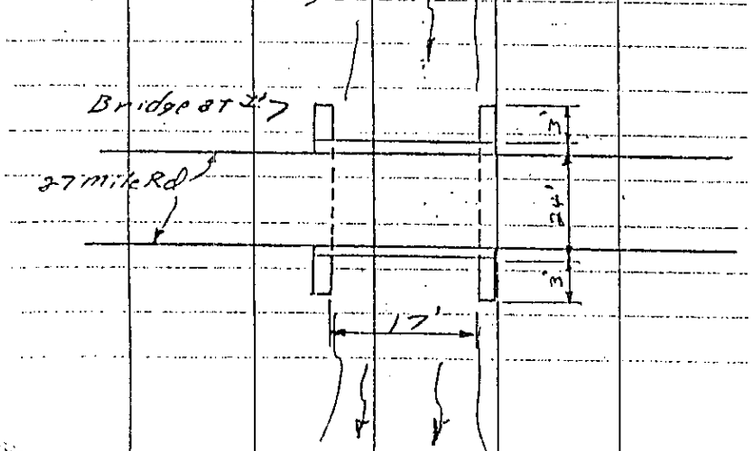
Chis. square on top of northeast corner of south east wing wall on bridge over Yates Drain at Jewel Rd. Approx 1/4 mile south of 27 mile Rd.

Yates Drain

Intersection Jewel Rd & 27 mile Rd



#7, 110 & 111
at u/s faces of bridges



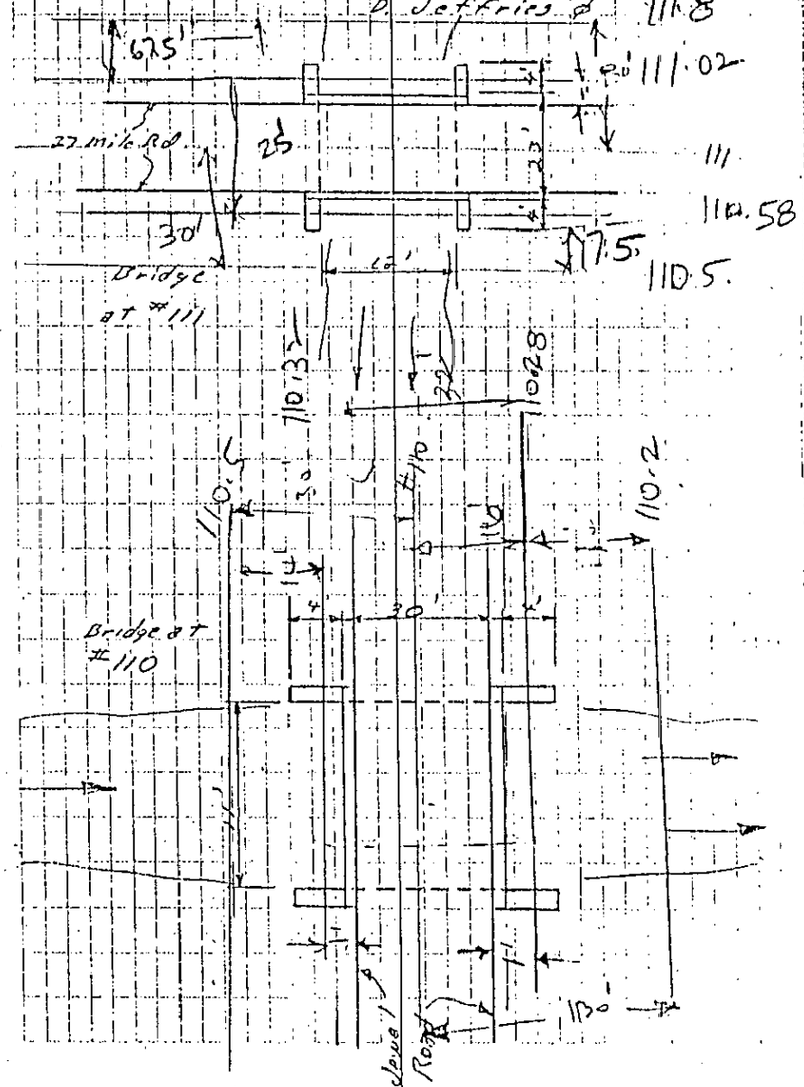
80-12.5

480/73

4-10-79 D. Cain ⊼ ⊼

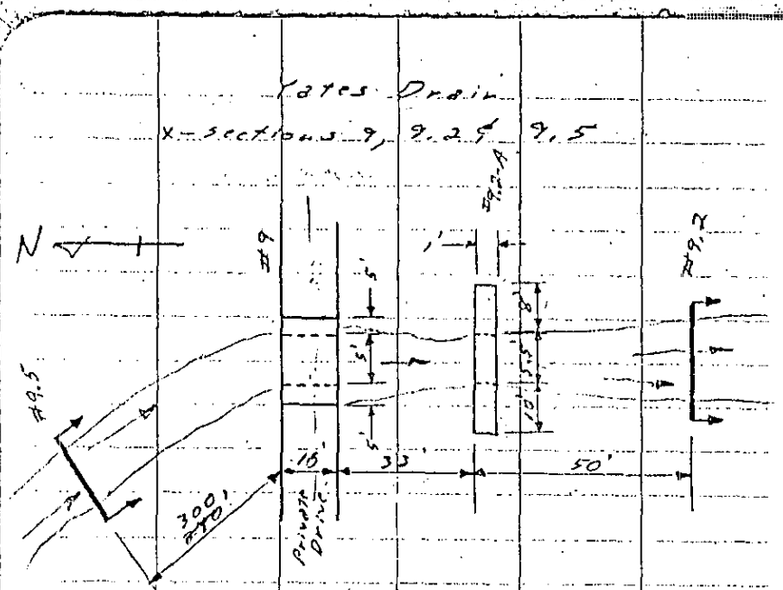
clear - 55° N. Shamart ϕ

D. Jeffries ϕ



Yates Drain

X-sections 9, 9.25, 9.5



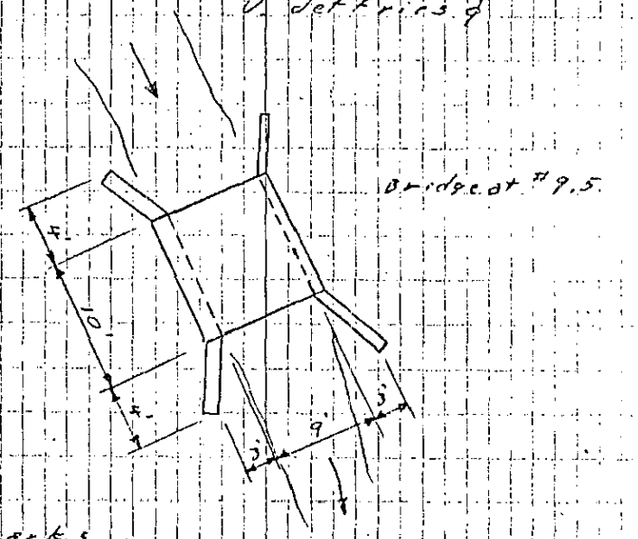
4-11-79

Clear - 45°

D. Cain

N. Standart

D. Jeffries



Sta	+ s	HI	- s	Elev.	
Bm #3				694.03	
	4.20	698.23			
Set Bm #03			6.23	692.00	692.00
	4.79	696.79			
		L96.8			
	Start X-section #9.2				
0+00			8.9	687.9	
0+02			10.5	686.3	
0+03			11.4	685.4	

Remarks

Top of northwest corner of conc slab bridge at private drive at X-section #9, 6' east & 4' south of actual corner of slab

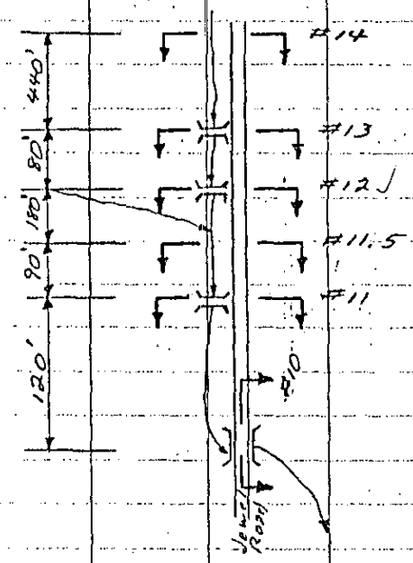
on left looking D/S edge creek & water surface

480.A

2A

Yates Drain

X-Sections 10, 11, 11.5, 12, 13, & 14



Culvert @ #12 is 4' Dia cmp, 20' long

Culvert @ #13 is 4' Diacmp, 20' long

Bridge & culvert X-sections are at u/s faces

4-11-79

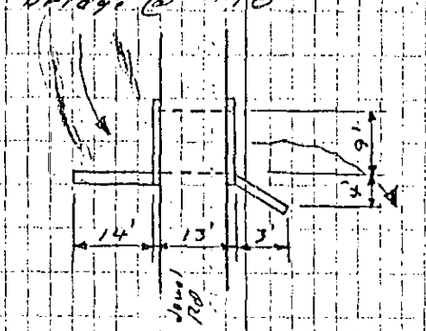
Ptly Cldy - 40°

D. Cain ⊠

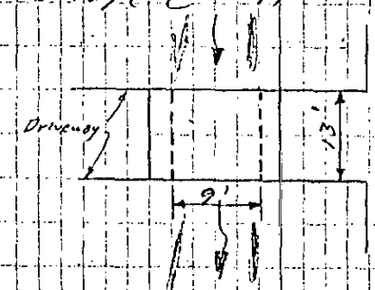
D. Jeffries ⊼

N. Shamart ⌀

Bridge @ #10



Bridge @ #11



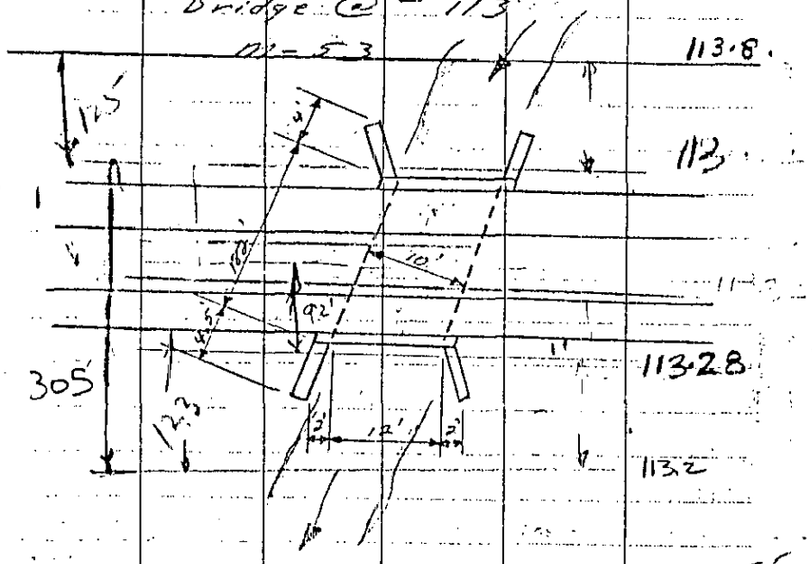
Pictures 2, 3, 4, 5, 6 & 7
Film 127

480-A / 19

Yates Drain
Bridge Sketches

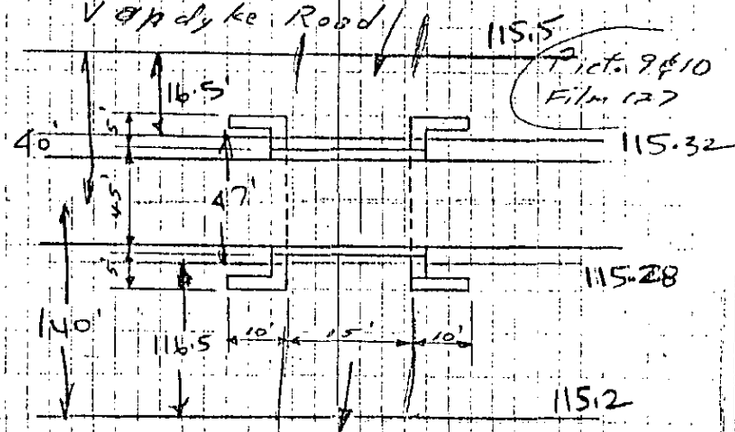
4-11-79

Bridge @ # 113
M-53



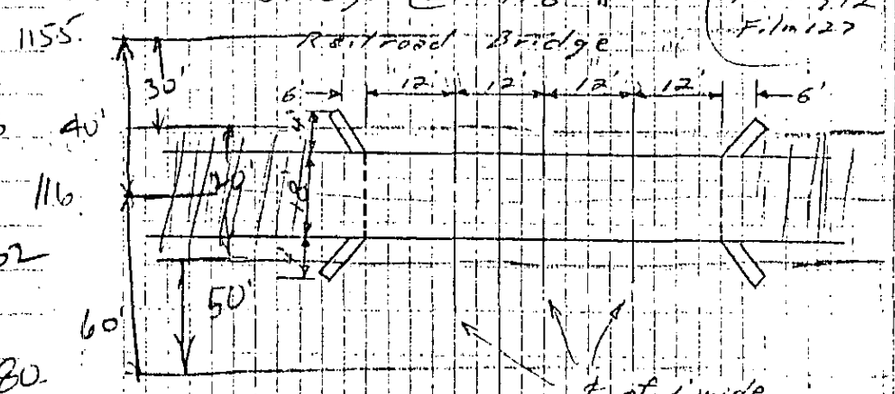
pictures 16, 17 & 18
Film 127

Bridge @ # 115
Vandyke Road



Bridge @ # 116
Railroad Bridge

Pict. 11 & 12
Film 127



Verification for Trib. #1

MP&S
SH&G

2223 Packard Road
Ann Arbor, Michigan
48104
(313) 769-9220

455 W. Fort St.
Detroit, Michigan
48226
(313) 964-3000

A Joint Venture

FLOOD INSURANCE STUDY

H-4705

TRANSMITTAL

To: Michigan DNR
Water Management Division
P.O.Box 30028
Lansing, Michigan 48909

Attn: Mr. Daniel Morgan, P.E.

Date: 1-24-80

Re: Washington Twp. FIS

RECEIVED
JAN 25 1980
WATER MANAGEMENT

Gentlemen:

We are enclosing herewith ✓

We are sending under separate cover ___

We acknowledge receipt of ___

The following: ✓ Drawings ___ Specifications ___

Profiles of 27 Mile Rd. and Jewell Rd. near the Yates' Drain and Tributary No. 1

For ___ Your approval ___ Your corrections ___ Your comments

✓ Your use ___ Your files

Remarks: Please forward to Suzanne Elms

Distribution:

Very truly yours,

MP&S/SH&G, A JOINT VENTURE

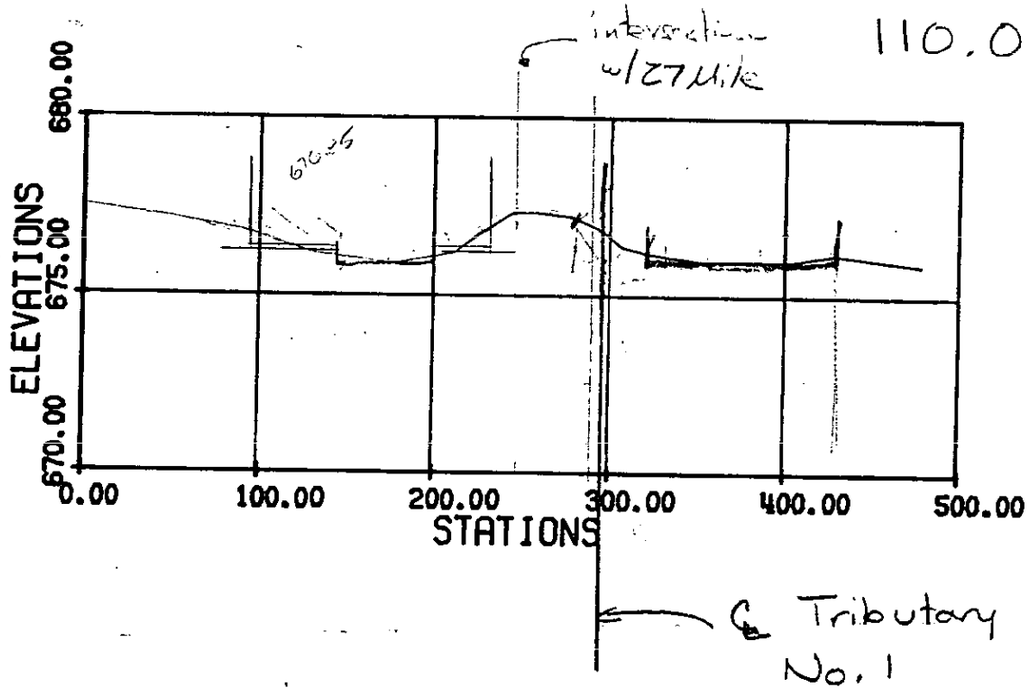
Duane R. Meyer, P.E.

Duane R. Meyer, P.E.
Project Engineer for
McNamee, Porter and Seeley

HUD-FIA H-4705

UNNAMED TRIB. NO.1

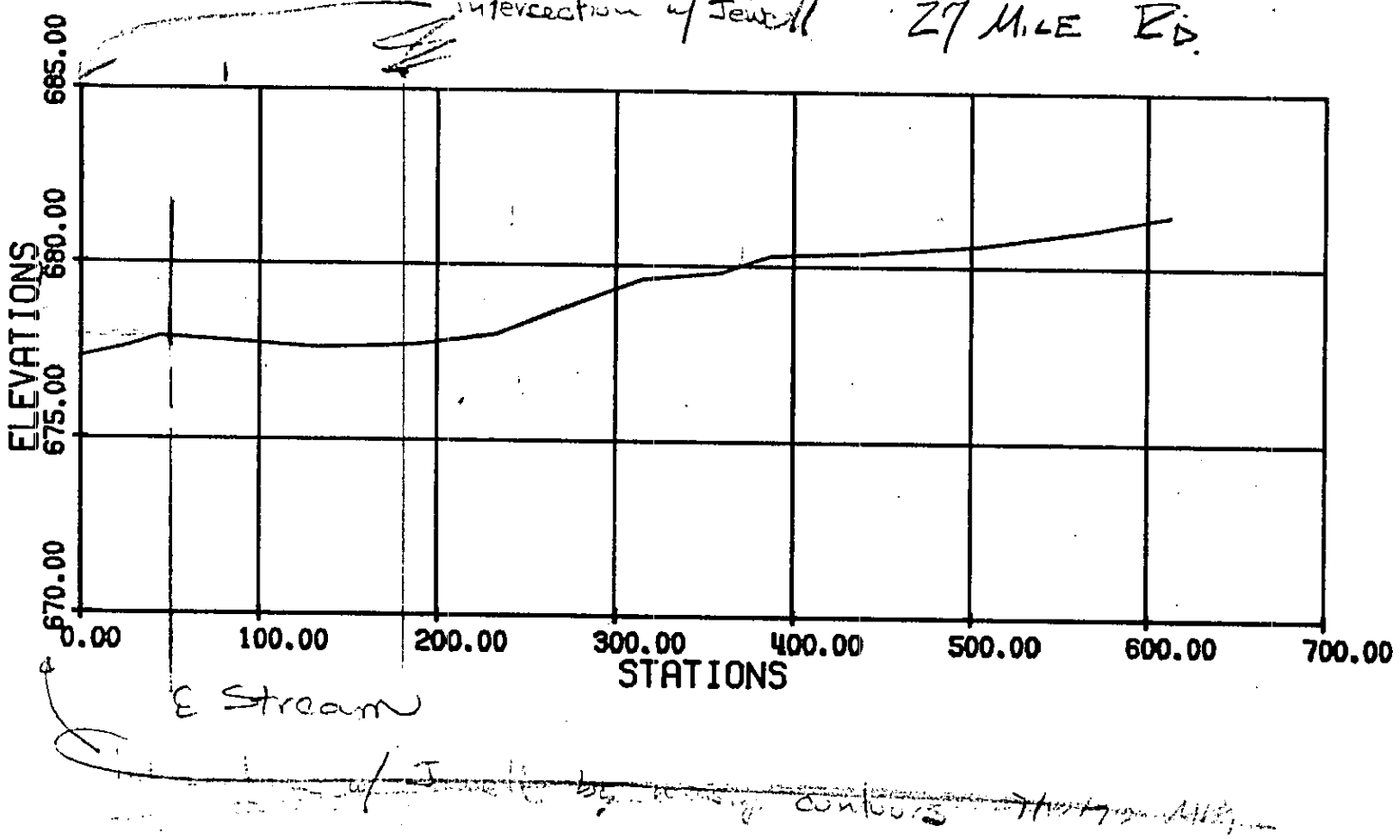
SECTION 110.0



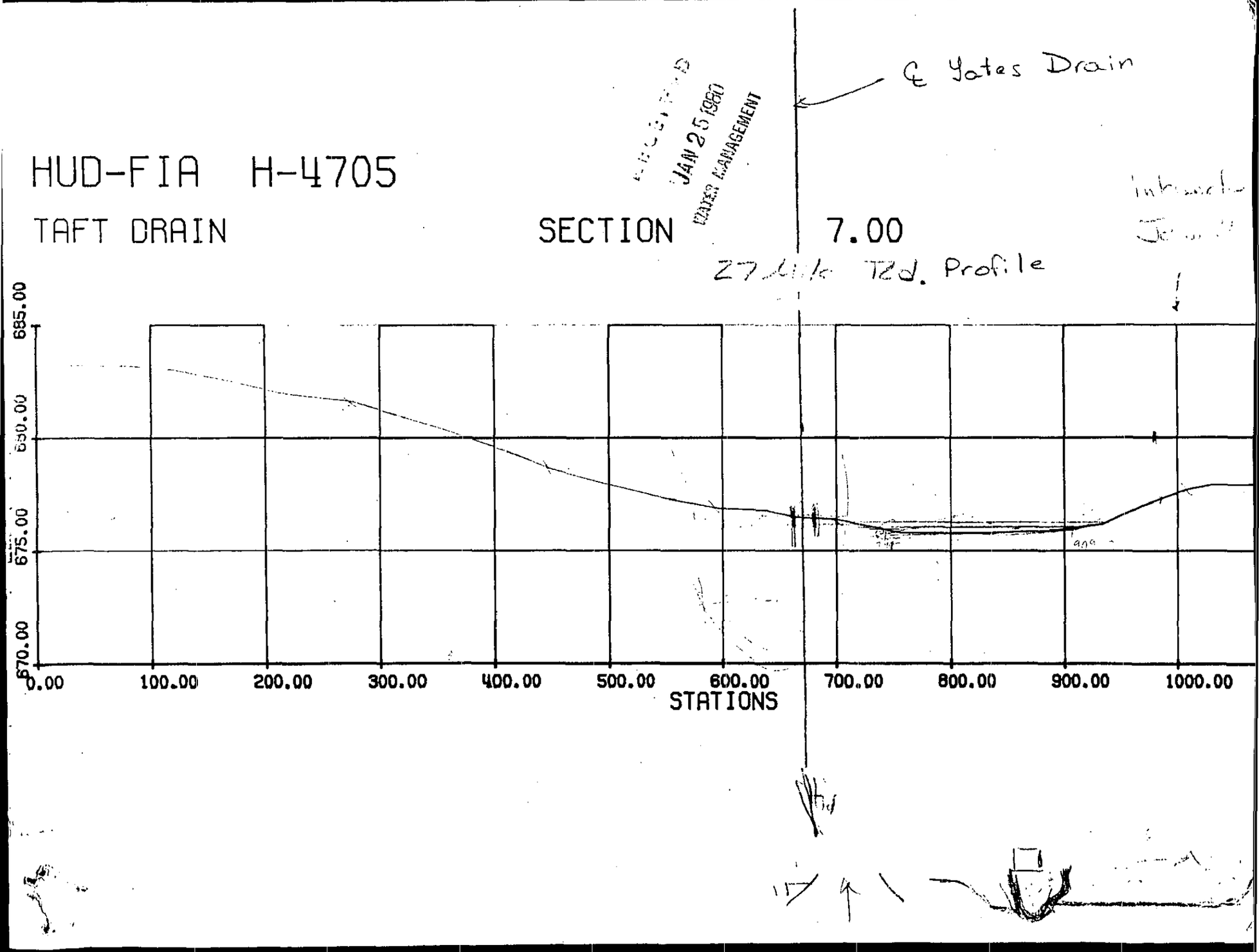
RECEIVED
JAN 25 1980
WATER MANAGEMENT

HUD-FIA H-4705

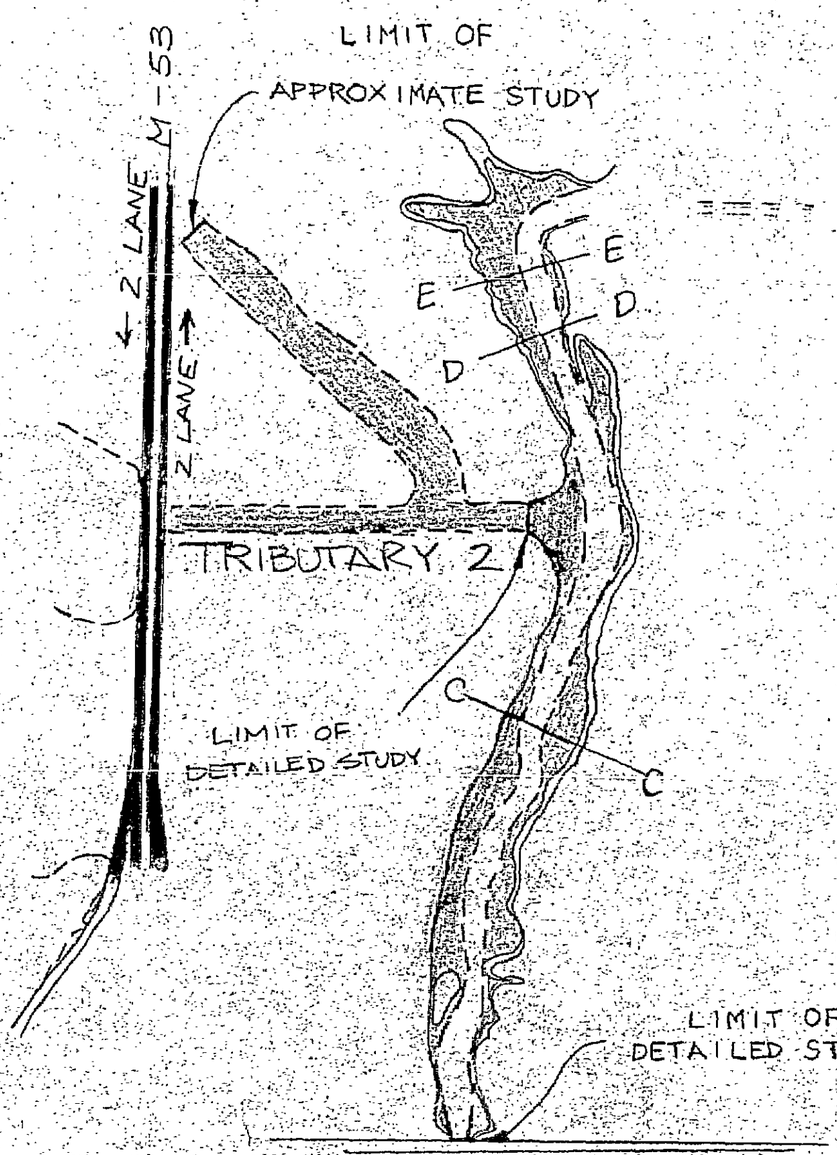
UNNAMED TRIB. NO. 1 SECTION 111.00



JAN 25 1980
MANAGEMENT



HUD-FIA H-4705
TAFT DRAIN
SECTION 7.00
℄ Yates Drain
JAN 25 1980
WATER MANAGEMENT
27 Mile Rd. Profile
685.00
680.00
675.00
670.00
0.00
100.00
200.00
300.00
400.00
500.00
600.00
700.00
800.00
900.00
1000.00
STATIONS

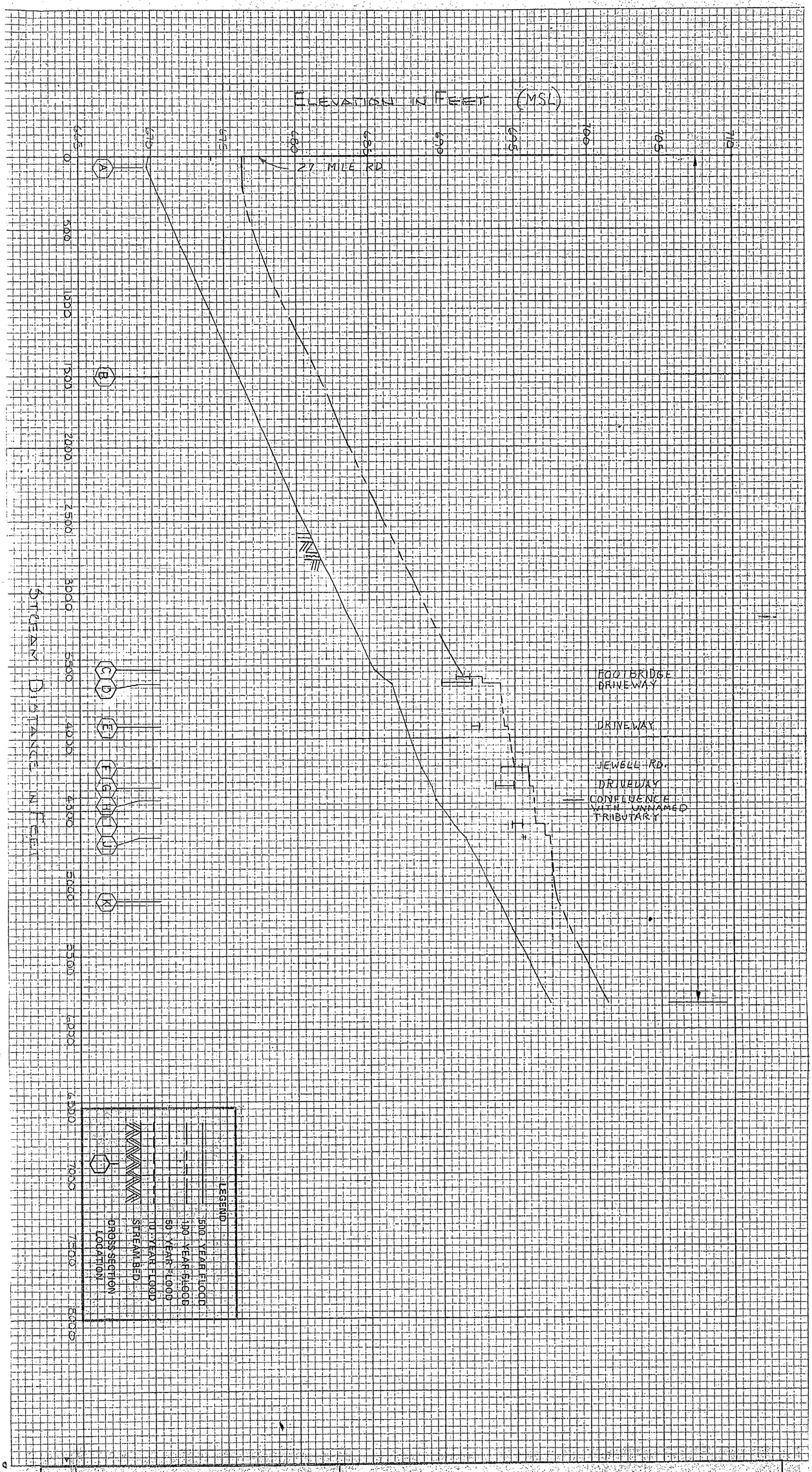


NOTES ON RELOCATED TRIBUTARY # 2

1) ALL STUDY AREAS WEST OF M-53 ARE UNCHANGED
2) STUDY AREA UPSTREAM OF CROSS-SECTION "D" IS UNCHANGED
3) STUDY AREA DOWNSTREAM OF CROSS-SECTION "B" REMAINS UNCHANGED

RECEIVED
JUL 20 1981
WATER MANAGEMENT

PRINTED IN U.S.A.



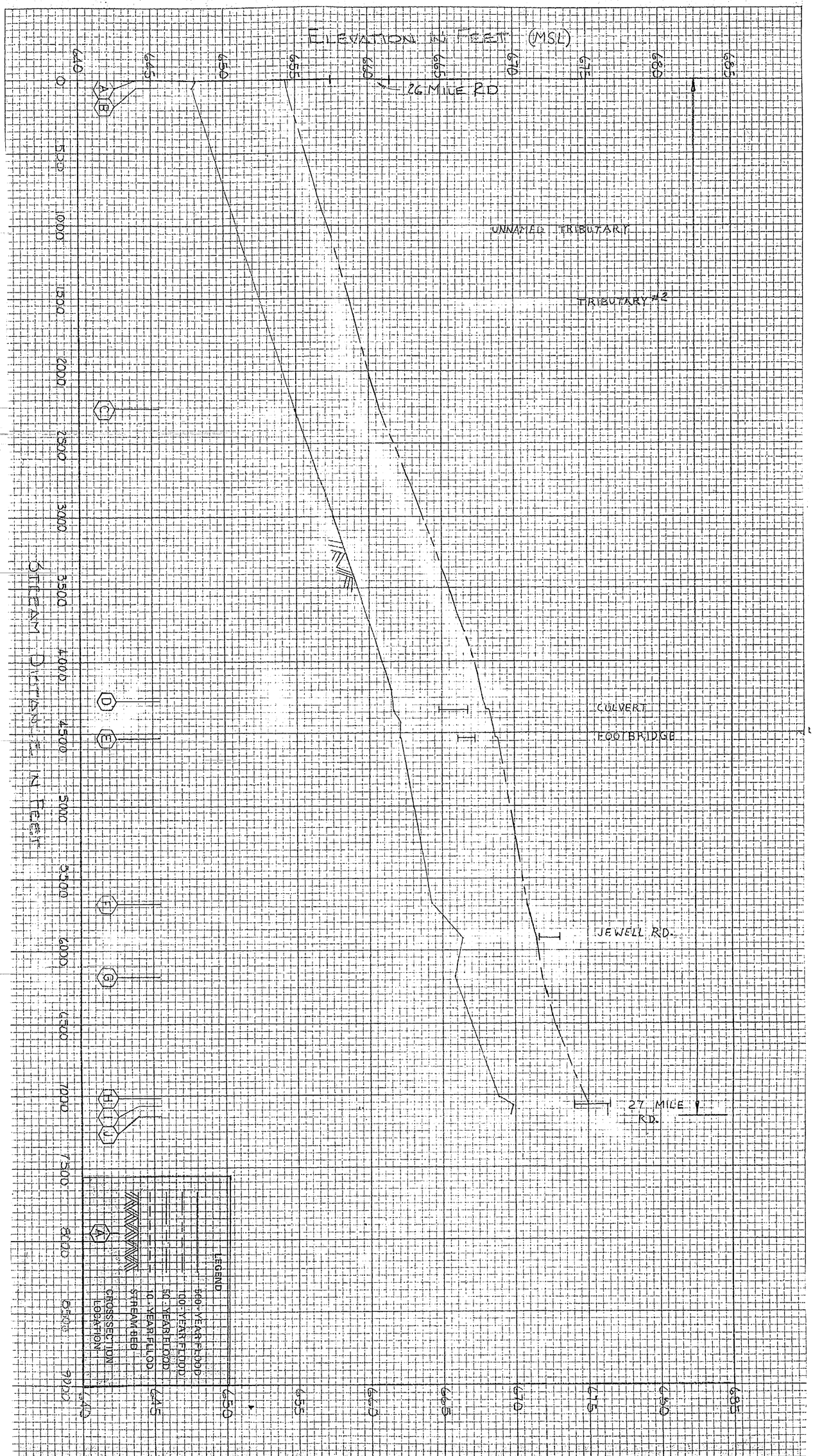
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI
(MACOMB COUNTY)

FLOOD PROFILES

TAFT DRAIN

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

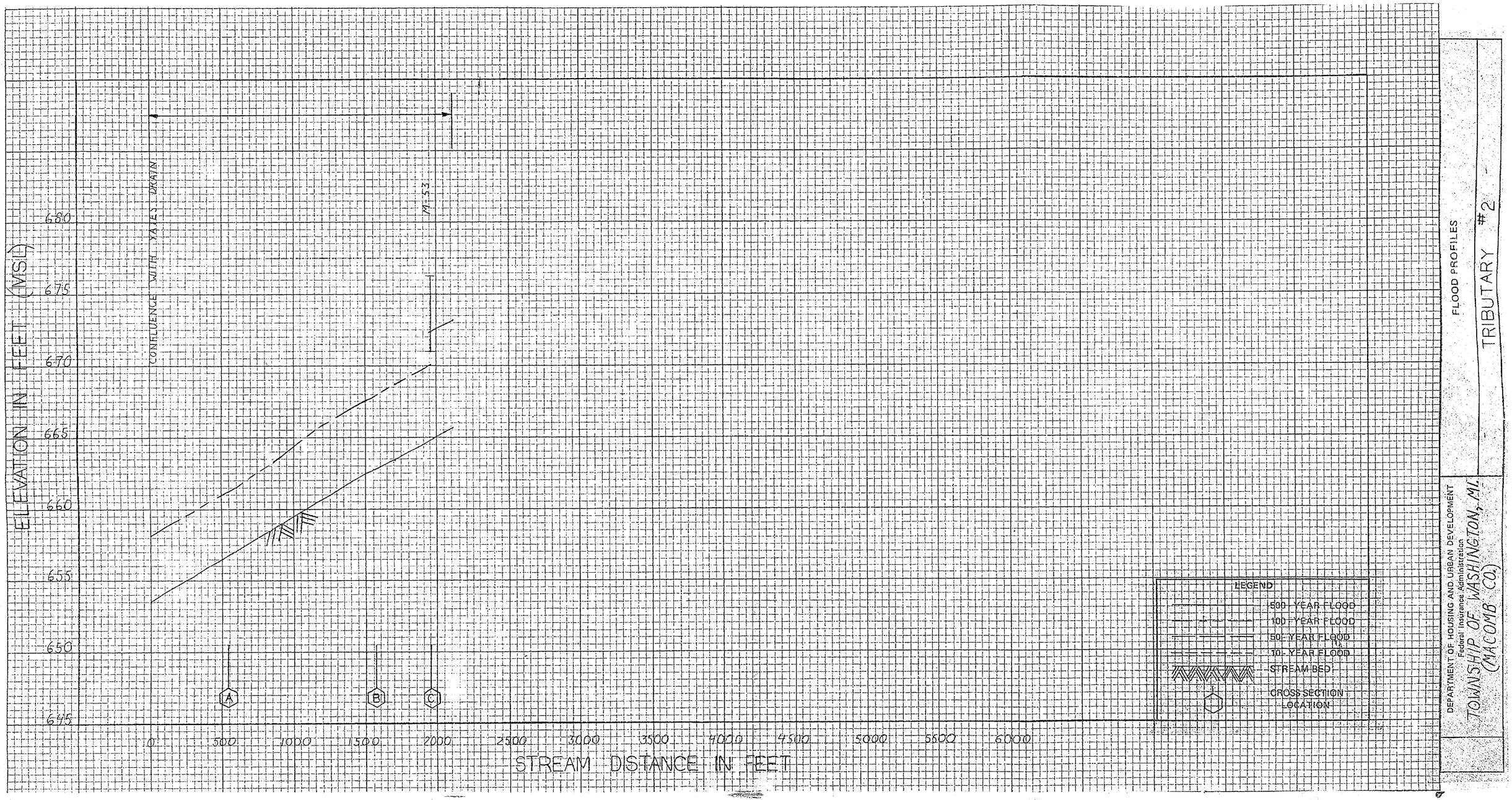


DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI
(MACOMB COUNTY)

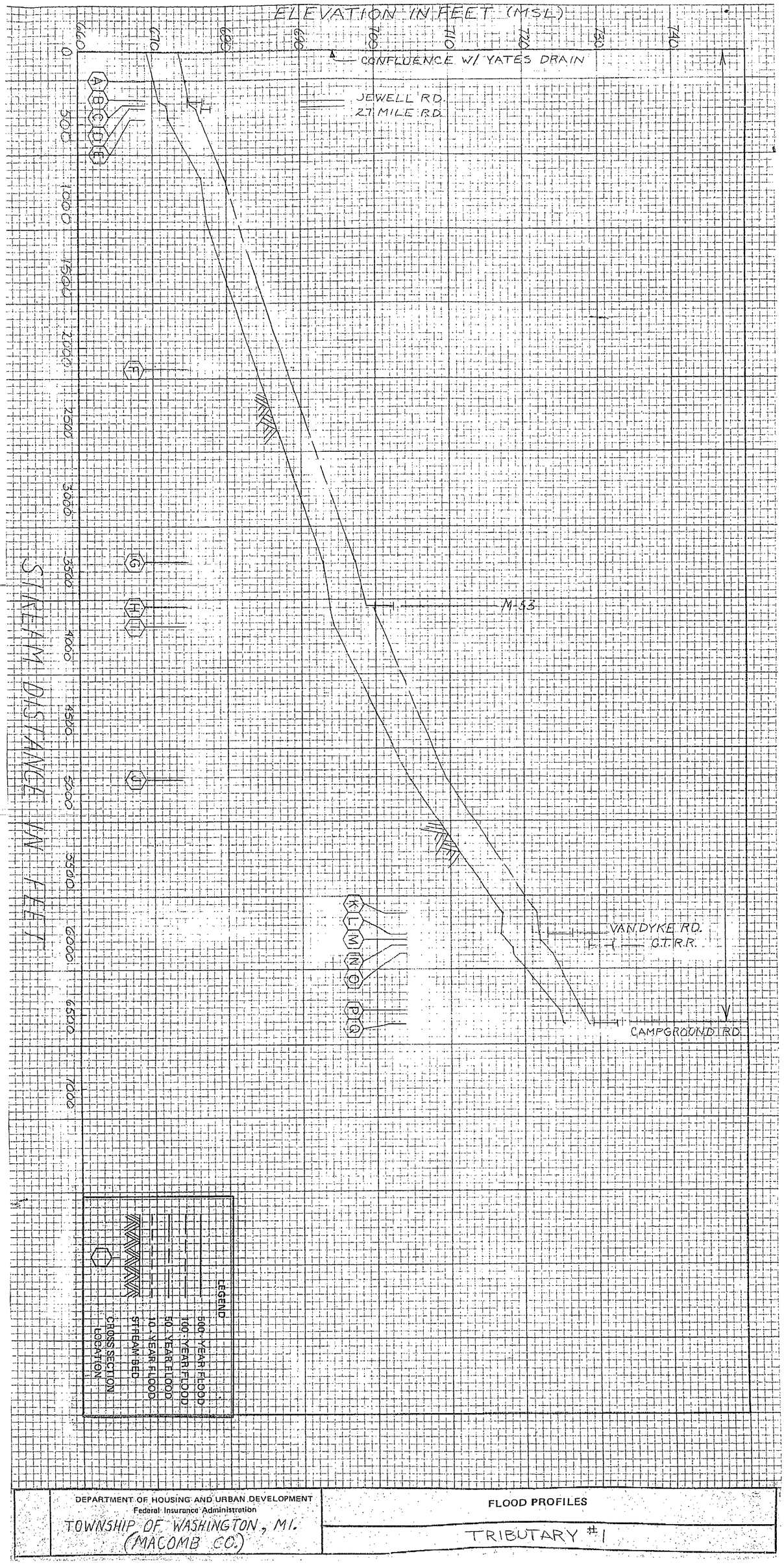
FLOOD PROFILES

YATES DRAIN



PRINTED IN U.S.A.

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF WASHINGTON, MI.
(MACOMB CO.)

FLOOD PROFILES

TRIBUTARY #1

KEY TO MAP

500-year Flood Boundary
100-year Flood Boundary
FLOODWAY FRINGE — FLOODWAY
100-year Flood Boundary
500-year Flood Boundary
Elevation Reference Mark — RM7
Cross Section Line — A — A
Approximate 100-year Flood Boundary
Zone Designation — Zone A
Limited Detail 100-Year Flood Boundary

NOTES TO USER

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations without regard to economic, legal, or political factors.

This map was prepared to support minimum flood plain management regulations; it may not show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

EXPLANATION OF ZONE DESIGNATIONS

A flood insurance map displays the zone designations for a community according to areas of designated flood hazards. The zone designations used by FIA are:

Zone	Explanation
A	Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods, no base flood elevations shown or FHF's determined
A1-A30	Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations established, and zones assigned according to FHF's.
B	Areas between Zones A1-A30 and the limits of the 500-year flood.

N

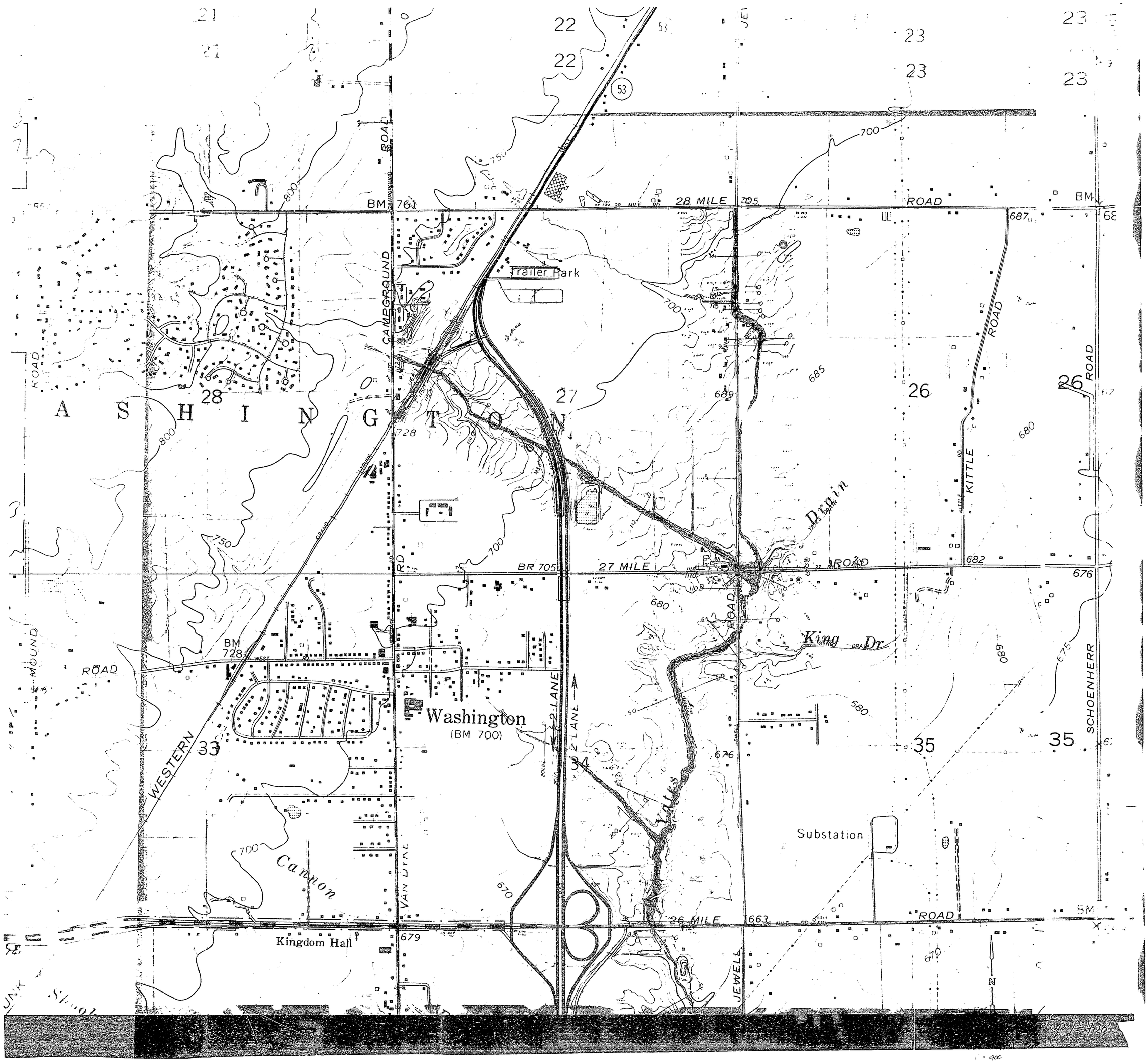
0 400 800 1600 2400
SCALE 1"=800

FLOOD BOUNDARY AND FLOODWAY MAP
FLOOD INSURANCE RATE MAP

TOWNSHIP OF WASHINGTON
MICHIGAN
MACOMB COUNTY

PRELIMINARY
DATE 1-2-79
McNAMEE, PORTER AND SEELEY

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION



A S H I N G T O N
Washington
(BM 700)
Trailer Park
Substation
Kingdom Hall
Cannon
King Dr
Yates
Drain
28 MILE ROAD
27 MILE ROAD
26 MILE ROAD
CAMPGROUND ROAD
WESTERN ROAD
MOUND ROAD
KITTLE ROAD
SCHOENHERR ROAD
JEWELL ROAD
VAN DYKE RD
2 LANE
BM 761
BR 705
BM 728
53