00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Blakely Drain

4) DOCUMENT TYPE: 100 Year

00BREAK00

CAUTION

ATTACHED COMMENTS

Profile has been revised upstream of XSEC 11506

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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
[illegible] CORR - 01
[illegible] - 30,51,52
*****************************************************

C
T1      CROWNSTOWN
T2      10 YR. STORM
T3      BLANKLEY DRAIN

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
     0.       2.       0.       0.   0.000580     0.00     0.0      0.     590.000   0.000

J2  NPROF     IPLOT    PMVS     XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
    1.000     0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000   201.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J5  LPRNT    NUMSEC                  ********REQUESTED SECTION NUMBERS********
   -10.000   -10.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
NT      5.000   780.000  1376.000  1360.000  1360.000  1735.000    0.000    0.000    0.000    0.000
NC      0.000     0.030     0.035     0.100     0.300     0.000    0.000    0.000    0.000    0.000
ET      0.000     0.000     0.000     0.000     0.400     0.000    0.000    0.000    0.000    0.000

     VALLEY SECT. BASED ON QUAD MAP
X1      0.000     0.000   684.000   717.000     0.000     0.000    0.000    0.000    0.000    0.000
X2      0.000     0.000     0.000   500.000     0.000  1100.000    0.000    0.000    0.000    0.000
        000       0.000   591.000   500.000   589.200   684.000  581.900   694.000  581.700  700.000
GR    581.900   705.000   5[illegible].200   717.000   590.000  1000.000  592.000  1125.000    0.000    0.000
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VALLEY SECTION BASED ON QUAD MAP

X1	1320.000	9.000	694.000	717.000	1320.000	1320.000	1320.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	450.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	595.000	0.000	590.000	500.000	589.200	684.000	582.500	694.000	582.400	700.000
GR	582.500	706.000	589.200	717.000	590.000	650.000	592.000	1000.000	0.000	0.000

XSECT.D/S OF KING RD. BRIDGE

X1	2540.000	14.000	382.990	417.010	1220.000	1220.000	1220.000	0.870	0.000	0.000
X3	0.000	0.000	1.000	270.300	0.000	690.000	0.000	0.000	0.000	0.000
X4	1.000	592.590	354.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	595.000	0.000	595.000	289.900	592.590	290.000	592.560	300.000	582.980	382.990
GR	583.230	383.000	583.230	480.000	583.230	417.000	583.230	417.010	592.500	417.000
GR	591.830	500.000	592.000	670.000	592.470	699.900	595.000	700.000	0.000	0.000
ET	0.000	0.000	9.100	7.100	9.100	7.100	251.000	607.000	1.000	700.000

D/S FACE OF KING RD. BRIDGE

X1	2675.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	592.000	591.500	0.000
S9	0.000	1.500	3.000	0.000	26.100	0.000	178.000	0.000	582.980	583.230

U/S FACE OF KING RD. BRIDGE

X1	2675.000	14.000	382.990	417.010	35.000	35.000	35.000	0.870	0.000	0.000
X2	0.000	0.000	1.000	309.600	591.030	0.000	0.000	0.000	0.870	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	592.560	591.630	0.000
X4	1.000	592.590	357.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	595.000	0.000	289.900	595.000	0.000	290.000	382.591	0.000
BT	592.630	592.560	0.000	592.560	592.600	582.930	382.000	592.630	369.800	417.000
BT	592.630	589.800	417.010	592.630	582.980	500.000	591.830	0.000	600.000	592.000
BT	0.000	699.900	592.470	0.000	700.000	595.000	0.000	0.000	0.000	0.000
GR	595.000	0.000	595.000	289.900	592.590	290.000	592.560	300.000	582.980	382.990
GR	582.980	383.000	582.980	417.010	582.980	417.000	582.980	417.010	592.360	447.000
GR	591.830	500.000	592.000	670.000	592.470	699.900	595.000	700.000	0.000	0.000
RC	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	372.000	508.000	270.000	690.000

XSECT.U/S OF KING RD. BRIDGE

X	2710.000	0.000	372.000	433.120	23.000	25.000	25.000	0.000	0.000	0.000
GR	595.000	0.000	592.000	372.000	582.300	595.000	582.910	400.000	582.350	407.000
GR	592.500	435.000	592.000	720.000	595.000	1000.000	0.000	0.000	0.000	0.000
RC	0.100	0.100	0.039	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	11.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SEC. 2*20.

X1	4700.000	12.000	396.000	436.500	600.000	1130.000	1245.000	0.000	0.000	0.000

GR	630.000	0.000	595.000	630.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	591.520	772.000	589.570	784.000	584.020	794.000	582.830	800.000	583.640	806.000
GR	590.470	817.000	594.080	950.000	595.000	951.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 19900.

X1	5406.000	19.000	345.000	353.000	1200.000	1400.000	1300.000	0.000	0.000	0.000
GR	595.000	0.000	593.750	50.000	590.900	200.000	590.250	310.000	592.460	322.000
GR	592.400	324.000	590.650	332.000	590.610	334.000	584.120	345.000	583.980	350.000
GR	584.210	355.000	590.420	366.000	590.550	368.000	592.250	375.000	591.920	379.000
GR	589.970	387.000	590.950	500.000	593.140	650.000	600.000	651.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 18400.

X1	6906.000	15.000	296.000	304.000	1500.000	1500.000	1500.000	0.000	0.000	0.000
X4	1.000	594.440	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	596.000	0.000	593.840	150.000	591.040	246.000	593.240	257.000	593.090	271.000
GR	592.080	282.000	587.620	289.000	587.360	292.000	585.220	296.000	584.940	300.000
GR	585.220	304.000	591.840	317.000	592.500	450.000	594.150	600.000	595.000	725.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	326.000	681.000

1: D/S OF FOOTBRIDGE "1400: D/S OF SIBLEY RD.

X1	7473.000	12.000	438.000	513.000	567.000	567.000	567.000	0.000	0.000	0.000
X4	1.000	593.740	436.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GT	600.000	192.900	595.000	200.000	590.250	408.000	590.250	408.100	585.800	475.000
GR	585.770	500.000	585.830	505.000	591.070	512.900	591.070	513.000	591.330	523.000
GR	595.000	800.000	600.000	801.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: INSIDE D/S END OF FOOTBRIDGE

X1	7475.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
BT	6.000	484.000	592.740	0.000	488.000	592.580	0.000	488.100	592.580	591.680
BT	512.900	592.750	591.850	513.000	592.750	0.000	523.000	591.330	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: INSIDE U/S END OF FOOTBRIDGE

X1	7479.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	3.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: U/S OF FOOTBRIDGE "1400: U/S OF SIBLEY RD.

X1	7481.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	326.000	681.000

1: D/S OF FOOTBRIDGE "1400: D/S OF SIBLEY RD.

X1	7857.000	13.000	537.500	559.000	500.000	270.000	376.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	594.060	593.980	0.000
X4	2.000	593.490	529.000	593.480	565.000	0.000	0.000	0.000	0.000	0.000
GR	600.000	199.900	595.000	200.000	593.490	535.000	589.610	537.500	589.610	537.510
GR	586.550	545.000	586.550	550.000	586.640	555.000	588.290	558.900	588.290	559.000
GR	592.330	569.000	595.000	725.000	600.000	725.100	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	233.000	694.000

1' INSIDE OF D/S END OF FOOTBRIDGE

X1	7859.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
BT	8.000	529.000	593.490	0.000	535.000	594.110	0.000	537.500	594.060	0.000

BT	537.510	594.060	592.760	558.900	593.980	592.680	559.000	593.980	0.000	565.000
BT	594.080	0.000	569.000	592.330	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	287.000	638.000	233.000	694.000

1' INSIDE OF U/S END OF FOOTBRIDGE

X1	7863.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	-0.740	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	287.000	638.000	233.000	694.000

1' U/S OF FOOTBRIDGE +1000' U/S OF SIDLEY RD.

X1	7865.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	594.060	593.980	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	324.000	576.000	331.000	565.000

1' D/S OF FOOTBRIDGE +550' D/S OF SIDLEY RD.

X1	8335.000	11.000	437.000	461.000	470.000	470.000	470.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	593.400	592.870	0.000
GR	600.000	199.900	595.000	200.000	593.600	433.000	588.880	437.000	586.430	445.000
GR	586.250	450.000	586.000	453.000	589.190	461.000	593.130	467.000	593.000	600.000
GR	600.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	324.000	576.000	331.000	565.000

1' INSIDE OF D/S END OF FOOTBRIDGE

X1	8337.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
BT	7.000	433.000	593.600	0.000	437.000	593.400	0.000	437.000	593.400	592.400
BT	450.000	592.870	591.870	461.000	592.930	591.930	461.000	592.930	0.000	467.000
BT	593.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	324.000	576.000	331.000	565.000

1' INSIDE OF U/S END OF FOOTBRIDGE

X1	8344.000	0.000	0.000	0.000	7.000	7.000	7.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	9.000	7.100	9.100	9.100	9.100	9.100	360.000	425.000	195.000	535.000

1' U/S OF FOOTBRIDGE +550'U/S OF SIBLEY RD.

X1	8346.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	10.000	0.000	0.300	0.000	0.000	0.000	0.000	593.430	592.870	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	360.000	425.000	195.000	535.000

X@SECT. D/S OF SIBLEY RD.

X1	8810.000	9.000	592.300	407.700	464.000	464.000	464.000	0.000	0.000	0.000
GR	597.750	0.000	595.000	300.000	594.200	376.000	586.600	392.300	586.460	400.000

GR	586.600	407.700	553.900	425.000	595.000	650.000	598.720	800.000	0.000	0.000
NC	0.100	0.100	0.330	0.330	0.500	0.070	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.130	0.000	9.100	0.000	0.000	0.000	255.000	550.000

D/S FACE OF SIBLEY RD. BRIDGE

X1	8990.000	12.000	592.300	407.700	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.200	595.200	0.000
GR	600.000	200.000	600.000	200.000	596.000	250.000	596.000	300.000	594.800	370.500
GR	586.600	392.300	586.460	400.000	586.600	407.700	592.400	421.000	596.000	500.000
GR	596.200	569.900	600.600	550.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.600	3.060	0.000	15.300	0.000	125.500	0.000	560.910	550.450

U/S FACE OF SIBLEY RD. BRIDGE

X1	8948.000	12.000	592.300	407.700	38.000	38.000	38.000	0.000	0.000	0.000
X2	0.000	0.300	1.000	595.140	596.940	0.000	0.000	0.300	0.000	0.000
X3	10.000	0.000	0.300	0.000	0.000	0.300	0.000	596.940	595.940	0.000
X4	2.000	596.800	370.500	592.400	421.000	0.300	1.000	0.140	0.000	0.000
BT	11.000	0.000	600.000	0.000	249.900	650.000	0.000	250.000	597.600	0.000
BT	300.000	597.300	0.300	392.300	596.990	0.000	392.310	597.370	595.140	407.700
BT	597.370	595.140	407.710	596.960	0.000	500.000	596.940	0.000	569.900	597.270
BT	0.000	592.000	600.000	1.000	0.300	0.000	0.000	0.000	0.000	0.300
BR	100.000	0.000	470.000	249.900	597.400	250.000	597.300	300.000	597.300	392.300
BR	587.100	392.310	596.910	600.000	587.110	407.690	587.200	407.700	596.940	500.300
GR	597.270	569.900	600.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	9.100	7.100	270.000	680.000	290.000	660.000

X@SECT. U/S OF SIBLEY RD. AND D/S OF ALLEN RD.

X0	9190.000	9.000	460.000	400.000	400.000	100.000	242.000	0.000	0.000	0.000
GR	597.550	0.000	596.000	300.000	594.300	440.000	586.600	470.000	586.480	475.000
GR	586.600	480.000	592.400	490.000	595.000	650.000	598.700	700.000	0.000	0.000

D/S FACE OF BRIDGE

X1	9432.000	22.000	592.300	412.000	242.500	242.000	242.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.260	592.300	0.000

GR	600.000	0.000	600.000	700.000	600.000	640.500	595.850	650.000	710.000	600.000
GR	596.770	500.000	597.400	550.600	597.400	556.610	588.800	581.990	588.300	582.000
GR	587.000	599.000	587.000	599.010	586.920	601.000	586.920	601.010	586.920	617.000
GR	586.920	617.010	597.400	640.500	597.400	640.510	597.500	700.000	597.860	710.000
GR	600.000	710.000	600.000	710.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END ALLEN RD. BRIDGE

X1	9433.000	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	0.000	0.000	0.000	0.000	0.000	0.760	0.000
BT	22.000	0.000	600.000	0.000	100.000	600.000	0.000	329.900	600.000	0.000
BT	330.000	595.650	0.000	400.000	596.110	0.000	500.000	596.770	0.000	556.600

BT	597.400	0.000	550.610	599.600	0.000	561.990	599.600	0.000	562.000	599.000
BT	596.100	599.000	599.600	596.100	599.010	599.600	0.000	601.000	599.600	0.000
BT	601.010	599.600	596.100	617.000	599.600	596.100	617.010	599.600	0.000	640.500
BT	599.600	0.000	640.510	597.400	0.000	700.000	597.500	0.000	710.000	597.850
BT	0.000	710.000	600.000	0.000	710.000	600.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END ALLEN RD. BRIDGE

X1	9445.000	22.000	582.000	617.000	112.000	112.000	112.000	0.760	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000
BT	22.000	0.000	600.000	0.000	100.000	600.000	0.000	329.900	600.000	0.000
BT	330.000	595.650	0.000	400.000	596.110	0.000	500.000	596.770	0.000	556.600
BT	597.400	0.000	550.610	599.600	0.000	561.990	599.600	0.000	562.000	599.000
BT	596.100	599.000	599.600	596.100	599.010	599.600	0.000	601.000	599.600	0.000
BT	601.010	599.600	596.100	617.000	599.600	596.100	617.010	599.600	0.000	640.500
BT	599.600	0.000	640.510	597.400	0.000	700.000	597.500	0.000	750.000	597.860
BT	0.000	750.000	600.000	0.000	750.000	600.000	0.000	0.000	0.000	0.000
GR	601.010	0.000	600.000	100.000	600.000	329.900	595.650	330.000	596.110	400.000
GR	596.770	500.000	597.400	550.600	597.400	556.610	588.800	581.990	588.300	582.000
GR	588.250	599.000	588.250	599.010	586.240	601.000	586.240	601.010	586.240	617.000
GR	586.240	617.010	597.400	640.500	597.400	640.510	597.500	700.000	597.860	750.000
GR	600.000	750.000	600.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

W/S EAST ALLEN RD. BRIDGE

X1	9446.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	593.260	597.400	0.000

PROJECT W/S OF ALLEN RD.

X1	9500.000	0.000	0.000	0.000	54.000	54.000	54.000	0.000	0.000	0.000
TC	0.090	0.090	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

WALLER SECT BASED ON 1980 BOOK SECT. 5290'

X5	0.000	0.000	0.000	40.000	0.000	960.300	0.000	0.000	0.000	0.000
X4	1.000	597.833	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	558.130	150.000	595.900	268.000	589.200	289.000	587.430	296.000
GR	587.780	300.000	586.880	304.000	592.280	307.000	593.830	316.000	591.930	450.000
GR	592.480	600.000	595.000	700.000	600.000	1200.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	150.000	365.300	160.000	480.000

XSECT. D/S OF TRIPLE CULVERTS

X1	10360.000	11.000	296.000	317.000	304.000	304.000	304.000	0.000	0.000	0.000
GR	597.810	0.000	595.000	125.000	597.000	293.500	590.290	296.000	588.200	299.500
GR	587.980	307.000	588.200	317.000	597.000	332.500	595.000	550.000	597.000	900.000

GR	600.000	165.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	5.000	0.000	0.000	9.100	0.000	0.000	0.000	160.000	460.000

D/S END OF TRIPLE CONC. CULVERT

X1	10560.000	35.000	296.850	327.150	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	597.500	597.500	0.000
X4	2.000	591.680	296.840	593.300	327.160	0.000	0.000	0.000	0.000	0.000
GR	600.000	165.000	597.510	160.000	598.610	160.000	598.490	212.000	597.000	292.000
GR	591.680	296.850	590.290	297.150	590.290	298.300	590.290	299.700	590.290	301.100
GR	589.400	302.500	588.500	303.920	590.060	305.050	591.660	305.350	591.850	307.750
GR	590.200	306.050	588.600	309.200	587.800	311.600	587.900	412.000	587.500	319.400
GR	588.600	314.300	587.200	315.950	591.630	316.250	591.260	316.567	589.790	317.150
GR	590.220	320.000	588.850	321.800	593.480	322.900	592.120	324.300	592.770	325.750
GR	593.300	326.850	593.300	327.150	597.000	332.500	599.310	412.000	600.000	460.000
SD	0.080	1.500	2.600	0.000	15.600	0.000	133.000	0.000	587.600	587.600

D/S END OF TRIPLE CONC. CULVERT

X1	10584.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	596.100	598.610	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	598.610	598.760	0.000
ET	85.000	150.000	400.000	0.000	160.000	597.510	0.000	160.000	396.010	0.000
BT	212.000	598.490	0.000	298.840	598.760	0.000	296.850	598.760	591.680	297.150
BT	595.760	593.120	298.800	598.760	594.900	299.700	598.760	595.700	301.100	598.760
BT	595.930	302.500	598.760	595.700	303.920	598.760	594.900	305.050	598.760	593.300
BT	305.350	598.760	591.850	307.750	598.760	591.850	306.050	598.760	593.470	309.200
BT	598.760	595.070	310.600	598.760	595.870	312.000	598.760	596.100	313.400	598.760
BT	595.370	314.800	598.760	595.070	315.950	598.760	593.470	316.250	590.760	591.910
BT	318.350	598.760	597.240	596.950	598.760	593.010	320.700	598.760	596.610	321.500
BT	321.750	596.610	323.900	324.760	598.610	324.300	598.760	595.810	595.700	598.760
BT	594.610	326.650	598.760	598.350	327.150	598.760	598.300	327.100	598.760	0.000
BT	412.000	599.310	0.000	460.000	600.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	255.000	365.300	25.000	365.000

XSECT U/S OF TRIPLE CULVERTS

X1	10634.000	11.000	296.000	312.000	304.000	304.000	304.000	0.000	0.000	0.000
GR	597.810	0.000	595.000	125.000	597.000	293.500	590.290	296.000	588.200	299.500

GR	598.100	307.000	588.410	617.000	597.000	526.300	595.000	550.300	577.000	560.000
GR	600.000	1350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.035	0.100	0.300	0.000	0.300	0.000	0.000	0.000
ET	0.000	0.000	0.300	0.000	1.400	0.000	0.300	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT.13803.

X1	11506.000	14.000	587.300	565.000	1250.000	600.000	872.000	0.000	0.300	0.000
X3	0.000	0.000	0.000	100.000	0.300	655.000	0.000	0.000	0.000	0.000
X4	1.000	597.410	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	598.020	78.000	597.450	228.000	595.700	358.000	588.440	371.000
GR	588.240	578.000	598.640	565.000	593.530	593.000	594.050	399.000	596.100	409.000
GR	595.210	478.000	595.300	599.000	600.130	631.000	601.150	678.000	0.000	0.000

X1	12478.000	10.000	689.000	711.000	972.000	972.000	972.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	664.000	0.000	735.000	0.000	0.000	0.000	0.000
GR	32.000	0.000	600.000	453.000	595.000	523.000	596.200	675.000	590.000	609.000
GR	539.530	693.000	539.470	707.000	590.000	711.000	596.200	725.000	601.000	625.000
NC	0.050	0.090	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

D/S FACE OF R.R. BRIDGE

X1	12572.100	0.000	1.000	0.000	120.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.340	604.060	0.000
SB	1.250	1.000	3.000	0.000	20.000	1.500	133.000	0.000	588.430	589.530

U/S FACE OF R.R. BRIDGE

X1	12622.000	12.000	689.000	711.000	44.000	44.000	44.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	595.630	604.060	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	604.340	604.060	0.000
BT	23.000	0.100	604.360	0.000	100.000	604.620	0.000	200.000	604.560	0.000
BT	600.000	604.780	0.000	600.000	604.930	0.000	900.000	604.780	0.000	600.000
BT	604.320	0.000	589.200	604.340	0.000	699.250	604.340	594.650	699.250	604.340
BT	595.630	698.250	604.340	595.630	699.250	604.340	594.630	699.300	604.540	0.000
BT	700.650	604.340	0.000	700.700	604.340	594.630	701.700	604.340	595.630	709.700
BT	604.340	595.630	710.700	604.340	594.630	710.750	604.340	0.000	800.000	604.120
BT	0.000	823.000	604.360	0.000	1200.000	604.540	0.000	0.000	0.000	0.000
GR	604.900	1.000	600.000	595.000	595.000	595.000	596.200	675.000	590.000	609.000
GR	539.530	693.000	539.470	707.000	590.000	707.000	596.200	711.000	596.600	736.000
SB	600.000	825.000	603.540	1200.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	5.000	732.000	1152.000	1360.000	1360.000	1070.000	0.000	0.000	0.000	0.000

WASTE W/S OF R.R. BRIDGE

X1	12672.000	0.000	1.000	0.000	52.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	599.300	0.000	761.000	0.000	0.000	0.000	0.000
BT	1.000	0.100	0.100	0.000	0.100	0.100	1165.000	1165.000	0.000	0.000

XSECT D/S OF DIX HWY.BRIDGE

X1	13382.000	10.300	988.200	1012.200	300.000	800.000	710.000	0.000	0.000	0.000
GR	603.300	0.000	599.000	500.000	595.000	875.000	595.290	962.000	590.050	988.200
GR	590.040	1012.200	592.240	1028.000	565.030	1050.000	600.000	1125.000	604.000	1630.000
NC	0.090	0.090	0.043	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1054.000	1414.000

D/S FACE OF DIX&TOLEDO HWY. BRIDGE

X1	13438.000	24.000	1249.000	1271.000	100.300	100.000	100.000	0.000	0.000	0.000

X3	10.000	0.000	0.300	0.000	0.000	0.000	0.000	598.690	599.690	0.000
GR	606.000	1050.000	605.000	1050.300	605.000	1050.000	605.000	1050.000	590.890	1050.000
GR	596.750	1150.000	597.000	1625.300	595.200	1248.000	590.200	1248.970	590.200	1249.990
GR	590.200	1248.990	590.100	1249.000	590.050	1259.000	590.050	1259.010	590.040	1260.990
GR	590.100	1261.000	590.100	1271.000	590.200	1271.070	590.200	1272.000	590.200	1272.010
GR	597.000	1288.000	600.000	1350.000	600.500	1630.000	605.000	1430.100	0.000	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1054.000	1414.000

1' INSIDE D/S END DIX-TOLEDO RD.

X1	13483.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000
BT	21.000	1050.100	601.000	0.000	1050.100	605.000	0.000	1630.000	604.000	0.000
BT	1050.000	605.000	0.000	1.50.000	598.690	0.000	1150.000	598.790	0.000	1249.970
BT	598.780	0.000	1248.980	600.400	0.000	1248.990	600.400	0.000	1249.000	600.400
BT	596.600	1259.000	600.400	596.600	1259.010	600.400	0.000	1260.990	600.400	0.000
BT	1261.000	600.400	596.630	1271.000	600.400	596.630	1271.010	600.400	0.000	1272.000
BT	600.400	0.000	1272.010	599.150	0.000	1350.000	600.150	0.000	1430.000	600.500
BT	0.000	1430.000	605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1054.000	1414.000

1' INSIDE U/S END DIX-TOLEDO RD.

X1	13569.000	24.000	1249.000	1271.000	64.000	86.000	86.000	0.000	0.000	0.000
BT	21.000	0.000	602.380	0.000	700.000	599.600	0.000	850.000	594.690	0.000
BT	1049.900	598.000	0.000	1050.000	598.890	0.000	1150.000	598.790	0.000	1248.970
BT	590.780	0.000	1248.980	600.400	0.000	1246.990	600.400	0.000	1249.000	600.400
BT	596.280	1259.000	600.400	596.280	1259.010	600.400	0.000	1260.990	600.400	0.000
BT	1261.000	600.400	596.260	1274.000	600.400	596.260	1271.010	600.400	0.000	1272.000
BT	600.400	0.000	1272.010	599.150	0.000	1350.000	600.150	0.000	1430.000	600.500
BT	0.000	1430.000	605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	607.380	0.000	605.000	700.000	605.000	850.000	605.000	1049.900	598.890	1050.000
GR	598.790	1150.000	597.000	1223.000	590.200	1248.000	590.200	1248.970	590.200	1248.980
GR	590.200	1248.990	589.330	1249.000	589.330	1259.000	589.330	1259.010	589.510	1260.990
GR	592.810	1261.000	589.510	1271.000	590.200	1271.010	592.250	1272.000	592.210	1272.010
GR	597.000	1288.000	600.000	1350.000	600.000	1430.000	605.000	1430.100	0.000	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1054.000	1414.000

U/S FACE OF DIXBTOLEDO HWY.BRIDGE

X1	13570.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	598.690	599.630	0.000
ET	0.000	9.100	7.100	7.100	7.100	7.100	980.000	1415.000	924.000	1356.000

XSECT U/S OF DIXBTOLEDO HWY.BRIDGE

X1	13595.000	9.000	1194.000	1206.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	606.000	0.000	600.000	700.000	595.300	1180.000	590.000	1194.000	589.700	1200.000
GR	590.000	1206.000	593.000	1220.000	600.000	1400.000	605.000	2000.000	0.000	0.000
NC	0.120	0.120	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 15000.

X1	15306.000	13.000	496.000	504.000	1711.000	1711.000	1711.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	280.000	0.000	720.000	0.000	0.000	0.000	0.000
GR	601.000	0.000	599.930	200.000	598.220	350.000	596.690	482.000	593.830	489.000
GR	590.640	496.000	590.270	500.000	590.180	504.000	596.940	516.000	596.340	650.000
GR	590.490	800.000	600.000	900.000	605.000	1900.000	0.000	0.000	0.000	0.000
NC	0.090	0.090	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 9000.

X1	16306.000	17.000	296.000	304.000	800.000	1200.000	1000.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	569.000	0.000	0.000	0.000	0.000
GR	605.070	0.000	604.440	100.000	603.700	190.000	597.250	238.000	597.090	244.000
GR	596.220	250.000	596.120	278.000	596.670	284.000	596.770	287.000	590.880	296.000
GR	590.850	300.000	590.890	304.000	596.870	318.000	597.720	450.000	599.400	600.000
GR	600.000	650.000	607.300	925.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

XSECT. D/S OF NB I075

X1	17146.000	9.000	485.000	515.000	1200.000	500.000	840.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	540.000	0.000	0.000	0.000	0.000
GR	604.800	0.000	600.000	550.000	597.500	476.000	592.960	605.000	592.570	500.000
GR	591.210	515.000	597.500	524.000	600.000	800.000	605.000	2000.000	0.000	0.000

D/S FACE OF NB I075 BRIDGE

X1	17246.000	12.000	481.490	518.510	100.000	100.000	100.000	0.410	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	605.000	605.000	0.000
X4	2.000	604.000	469.000	604.000	528.000	0.000	0.000	0.000	0.000	0.000
GR	606.880	0.000	600.000	350.000	601.000	400.000	592.930	481.490	592.980	481.500
GR	592.570	500.000	592.240	518.510	592.930	510.510	601.000	600.000	600.000	800.000
GR	603.370	900.000	605.740	1000.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	1.000	0.000	0.000	25.000	0.000	0.000	0.000	591.210	591.200

D/S FACE OF NB I075 BRIDGE

X1	17310.000	0.000	0.000	0.000	64.000	64.000	64.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	603.430	606.340	0.000	0.000	0.000	0.810	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.000	606.000	0.000
BT	9.000	0.000	606.880	0.000	400.000	606.380	0.000	481.490	606.340	0.000
BT	481.500	606.340	605.430	518.500	606.340	603.270	518.510	606.340	0.000	600.000
BT	606.370	0.000	900.000	603.820	0.000	1000.000	606.740	0.000	0.000	0.000

X@SECT.BETWEEN NB AND SB I@75 BRIDGE

X1	17375.000	12.000	476.000	524.000	65.000	65.000	65.000	0.810	0.000	0.000
X2	0.000	0.000	0.000	460.000	0.000	535.000	0.000	0.000	0.000	0.000
BR	604.500	0.000	600.000	400.000	595.000	476.000	592.930	481.500	592.930	484.500
GR	592.200	469.500	592.290	493.500	592.680	502.500	593.330	518.500	595.000	504.000
GR	600.000	400.000	615.000	1150.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S FACE OF SB I@75 BRIDGE

X1	17437.000	15.000	481.500	518.500	62.000	62.000	62.000	0.810	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.840	606.790	0.000
GR	602.320	0.000	607.720	200.000	607.070	400.000	606.880	472.000	592.930	481.500
GR	592.930	484.500	592.280	489.500	592.260	493.500	592.680	497.500	593.280	503.500
GR	593.330	518.500	606.830	532.000	606.710	600.000	606.770	900.000	605.000	1100.000
SB	0.000	1.770	3.000	0.000	28.000	0.000	315.000	0.000	592.130	592.260

U/S FACE OF SB I@75 BRIDGE

X1	17450.000	15.000	481.500	518.500	86.000	86.000	86.000	0.810	0.000	0.000
X2	0.000	0.000	1.000	603.270	606.710	0.000	0.000	0.000	0.810	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.840	606.710	0.000
X4	2.000	606.930	475.000	603.870	328.000	0.810	0.000	0.000	0.000	0.000
BT	10.000	0.000	606.320	0.000	200.000	607.720	0.000	602.320	607.070	0.000
BT	481.500	606.840	0.000	481.510	606.840	603.220	518.490	606.840	603.270	518.500
BT	606.840	0.000	600.000	606.710	0.000	900.000	606.770	0.000	1100.000	606.970
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	602.320	0.000	607.720	200.000	607.070	400.000	606.880	594.000	481.500	481.510
GR	593.030	486.500	592.430	493.500	592.130	501.000	592.630	508.500	593.330	514.500
GR	593.330	518.490	593.330	513.500	606.710	900.000	606.770	900.000	606.970	1102.000

X@SECT. U/S OF SB I@75

X1	17502.000	3.000	475.000	524.000	90.000	90.000	90.000	0.810	0.000	0.000
X3	0.000	0.000	0.000	603.000	0.000	565.000	0.000	0.000	0.000	0.000
GR	604.600	0.000	600.000	200.000	596.400	675.000	384.000	481.500	593.830	486.500
GR	592.430	493.500	592.130	501.000	592.450	508.500	593.330	514.500	593.530	518.500
GR	593.330	528.000	600.600	652.000	604.100	1350.000	0.000	0.000	0.000	0.000
ET	0.000	2.100	9.100	9.100	9.300	9.100	596.000	918.000	490.000	1018.000

X@SECT. U/S OF EACH NB I@75 BR

X1	17544.000	9.000	731.000	784.000	106.000	106.000	106.000	0.000	0.000	0.000

GR	605.000	0.000	600.000	300.000	597.100	731.000	593.600	745.000	593.550	750.000
GR	593.600	755.000	599.200	783.000	600.000	1000.000	605.000	1200.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	493.000	1042.000

D/S FACE OF RACHO RD. BRIDGE

X1	18656.000	16.000	786.650	813.350	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.990	600.710	0.000
X4	2.000	598.400	776.000	599.200	827.000	0.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	605.000	300.000	605.000	474.900	601.000	475.000	601.000	600.000
GR	600.940	700.000	593.600	786.650	593.600	786.650	593.550	800.000	593.600	813.340
GR	593.600	813.350	600.710	900.000	600.970	1000.000	601.700	1060.000	610.000	1060.100
SR	610.000	1300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	395.000	834.000

10 INSIDE D/S END RACHO RD. BRIDGE

X1	18667.000	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	605.000	0.000	476.900	605.000	0.000	475.000	601.000	0.000
BT	600.000	601.030	0.000	700.000	600.940	0.000	786.650	601.810	0.000	786.660
BT	602.460	600.160	813.340	602.460	600.160	813.350	601.810	0.000	900.000	600.710
BT	0.000	1000.000	600.970	0.000	1060.000	601.700	0.000	1060.100	610.000	0.000
BT	1300.000	610.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	395.000	834.000

10 INSIDE U/S END RACHO RD. BRIDGE

X1	18705.000	0.000	0.000	0.000	33.000	33.000	33.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	560.000	840.000	395.000	834.000

U/S FACE OF RACHO RD. BRIDGE

X1	18706.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	0.000	7.100	9.100	9.100	9.100	0.000	525.000	900.000	425.000	1000.000

X@SECT. U/S OF RACHO RD. BRIDGE

X1	18755.000	9.000	700.000	822.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	605.000	175.000	600.000	400.000	598.400	780.000	593.700	789.500	593.650	800.000
GR	593.700	811.500	599.200	822.000	600.000	1000.000	605.000	1125.000	0.000	0.000
NC	0.060	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	804.000	1192.000

D/S END OF FOOTBRIDGE F.O. SECT. 6245.

X1	19[illegible].000	12.000	1076.000	1122.000	505.000	[illegible]	505.000	0.000	0.000	[illegible]

X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.480	602.180	0.000
GR	606.000	0.000	601.480	1078.000	601.480	1078.100	600.040	1081.000	593.300	1095.000
GR	593.250	1100.000	593.450	1105.000	599.650	1120.000	602.180	1122.000	602.180	1122.010
GR	604.000	1285.000	610.000	1285.100	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	804.000	1192.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	19062.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X4	2.000	601.480	1077.990	599.650	1122.010	0.000	0.000	0.000	0.000	0.000
BT	5.000	1078.000	601.480	0.000	1078.100	601.480	600.850	1081.000	602.550	600.850
DT	1122.000	602.180	600.480	1122.010	602.180	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	804.000	1192.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	19070.000	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	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	804.000	1192.000

U/S END OF FOOTBRIDGE F.B. SECT. 6235.

X1	19071.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.480	602.180	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

D/S END OF FOOTBRIDGE F.B. SECT. 5007.

X1	20293.000	12.000	982.000	1020.000	1222.000	1222.000	1222.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.520	600.830	0.000
X4	2.000	593.230	650.000	602.930	1150.000	0.000	0.000	0.000	0.000	0.000
GR	608.000	0.000	608.000	649.900	603.000	650.000	600.220	730.000	600.520	982.000
GR	600.520	982.100	594.580	994.000	594.310	1004.000	600.830	1019.900	600.830	1020.000
GR	605.940	1300.000	608.000	1600.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	20294.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	4.000	982.000	600.520	0.000	982.100	600.520	598.650	1019.900	600.830	598.650
DT	1020.000	600.830	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	20305.000	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

U/S END OF FOOTBRIDGE F.B. SECT. [illegible]

X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AP	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.520	606.850	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 4900.

X1	20406.000	13.000	996.000	1004.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	608.000	0.200	606.330	450.030	603.380	600.200	600.220	730.000	599.730	850.000
GR	600.940	992.300	594.450	996.000	993.940	1000.300	594.030	1004.000	602.260	1022.300
GR	602.900	1150.300	605.940	1360.030	600.008	1600.300	0.000	0.000	0.000	0.000
QT	5.000	738.000	1152.000	1360.000	1360.000	1870.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.040	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	7.100	9.100	7.100	475.000	725.000	475.000	725.000

XFSEC#. D/S OF TWIN CULVERT

X1	21224.300	11.000	591.500	600.500	617.300	617.000	617.000	0.000	0.000	0.000
GR	610.000	0.000	605.000	200.000	600.900	575.000	594.300	591.500	593.520	596.000
GR	595.390	604.000	595.700	608.500	599.950	632.000	605.000	1000.000	608.000	1300.000
ET	0.000	7.100	7.100	7.100	9.100	7.100	500.000	700.000	500.000	700.000

D/S END OF TWIN CULVERTS

X1	21323.000	30.000	593.500	606.500	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
X4	2.000	602.520	593.300	602.520	595.300	0.200	2.000	0.000	0.000	0.000
GR	610.000	0.200	600.200	100.000	610.000	349.900	604.300	592.000	603.200	607.000
GR	594.700	592.010	596.230	592.800	596.120	592.590	594.640	593.670	594.020	592.500
GR	593.650	595.200	593.520	598.000	593.650	596.800	594.020	597.500	594.840	598.200
GR	596.020	593.500	597.890	601.500	596.710	601.800	595.090	602.500	595.520	603.200
GR	595.390	604.000	595.520	604.800	595.390	605.500	596.710	606.200	597.890	606.490
GR	597.490	616.500	603.400	700.000	604.120	800.000	604.200	830.000	610.000	835.100
SC	0.005	.500	3.000	2.000	6.400	2.000	32.000	0.000	594.620	593.520
ET	0.000	0.000	0.000	0.000	9.100	2.000	0.000	0.000	305.000	790.000

U/S END OF THIN CULVERTS

X1	21359.000	30.000	593.500	606.500	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	2.000	2.000	595.320	623.400	2.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	603.530	603.400	0.000
X4	2.000	601.500	583.500	601.500	615.000	0.000	0.000	0.000	0.000	0.000
BT	30.000	500.000	610.000	0.000	500.000	610.000	0.000	500.000	610.000	0.000
BT	500.000	610.000	0.000	500.000	610.000	0.000	500.500	603.700	0.000	593.300
BT	603.520	0.000	598.510	603.520	597.770	595.800	603.520	598.970	594.500	603.520
BT	598.970	595.000	603.520	598.970	598.000	603.520	598.970	598.300	603.520	598.970
BT	597.500	603.520	598.970	598.300	603.520	598.970	598.500	603.520	597.790	601.360
BT	603.520	597.320	601.600	603.520	598.500	602.500	603.520	599.320	603.200	603.520
BT	599.690	604.000	603.520	599.320	604.800	603.520	599.690	605.500	603.520	599.320
BT	606.200	603.520	599.320	604.800	603.520	597.320	606.500	603.520	0.000	700.000
ET	0.000	0.000	700.000	610.000	0.000	700.000	0.000	0.000	700.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	610.000	604.000	0.000	500.000	610.000	500.000	0.000	500.000	610.000	500.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	500.000	610.000	0.000	500.000	610.000	0.000	500.000	603.700	0.000	593.300
ET	603.520	0.000	598.510	603.520	597.770	595.800	603.520	598.970	594.500	603.520
ET	598.970	595.000	603.520	598.970	598.000	603.520	598.970	598.300	603.520	598.970
ET	597.500	603.520	598.970	598.300	603.520	598.970	598.500	603.520	597.790	601.360
ET	603.520	597.320	601.600	603.520	598.500	602.500	603.520	599.320	603.200	603.520
ET	599.690	604.000	603.520	599.320	604.800	603.520	599.690	605.500	603.520	599.320
ET

GR	[illegible]	598.500	597.320	601.500	596.140	601.800	595.320	602.500	596.[illegible]	603.200
GR	594.820	604.000	594.950	604.800	595.320	605.500	596.140	606.200	597.320	606.490
GR	597.320	606.500	603.740	700.000	610.000	700.000	610.000	700.000	610.000	700.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	339.000	835.000

X=SECT. U/S OF TWIN CULVERTS

X1	21409.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
NC	0.070	0.070	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

D/S END OF FOOTBRIDGE F.B. 2306. (1574' D/S OF R.R.)

X1	23000.000	23.000	1383.000	1417.000	1000.000	1591.000	1591.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.850	604.850	0.000
GR	610.000	1004.900	604.000	1005.000	603.040	1200.000	603.180	1300.000	604.850	1381.000
GR	601.500	1383.000	597.000	1392.990	597.000	1393.000	597.000	1394.000	597.000	1394.010
GR	596.850	1400.000	597.000	1406.000	597.000	1406.010	597.000	1406.990	597.000	1407.000
GR	603.000	1417.000	603.000	1417.010	604.850	1419.000	603.700	1475.000	610.000	1475.100

1' INSIDE D/S END OF FOOTBRIDGE

X1	23001.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	13.000	1381.000	604.850	0.000	1383.000	604.850	603.450	1392.990	604.850	603.450
BT	1393.000	604.850	0.000	1394.000	604.850	0.000	1396.010	604.850	603.450	1406.000
BT	604.850	605.000	1406.010	604.850	0.000	1406.990	604.850	0.000	1407.000	604.850
BT	603.450	1417.000	604.850	603.450	1417.010	604.850	0.000	1419.000	604.850	0.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	23012.000	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

U/S END OF FOOTBRIDGE F.B. 2293. (1560' D/S OF R.R.)

X1	23013.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.850	604.850	0.000
BT	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 2050.

X1	23255.000	14.000	1195.000	1205.000	243.000	243.000	243.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	865.000	0.000	1350.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	605.000	600.000	601.960	900.000	602.190	1000.000	601.990	1167.000
GR	598.780	1182.000	598.870	1188.000	597.000	1195.000	596.020	1200.000	597.240	1205.000
GR	602.740	1210.000	604.540	1350.000	605.720	1500.000	610.000	2000.000	0.000	0.000
BT	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	702.400	597.600

D/S END OF FOOTBRIDGE F.B. 2154. (373' D/S OF R.R.)

	596.600	793.010	596.250	800.000	596.010	807.000	596.010	807.010	602.920	817.000
GR	602.920	817.010	603.500	097.500	610.000	897.600	0.000	0.000	0.000	0.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	24203.000	0.000	0.000	0.000	1.000	1.000	1.300	0.000	0.000	0.000
BT	8.000	782.990	602.770	0.000	783.000	603.970	602.770	793.000	604.020	602.820
BT	793.010	603.520	602.820	807.000	603.580	602.880	807.010	604.080	602.880	817.000
BT	604.120	602.920	817.010	602.920	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	24219.000	0.000	0.000	0.000	16.000	16.300	16.020	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

D/S END OF FOOTBRIDGE P.B. 1086. (350' D/S OF R.R.)

X1	24220.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

R/SECT. D/S OF R.R. BRIDGE

X1	24474.000	9.000	533.000	567.000	254.000	150.000	254.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	503.000	0.000	597.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	605.000	300.000	602.770	533.000	596.600	543.000	596.250	550.000
GR	596.010	557.000	602.920	567.000	605.000	620.000	610.000	1005.000	0.000	0.000

D/S FACE OF R.R. BRIDGE

X1	24574.000	9.000	478.000	472.000	100.000	10.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.200	0.000	0.000	509.650	509.650	0.000
GR	610.000	0.000	605.000	200.000	605.200	623.000	597.000	463.000	597.910	450.000
GR	596.000	457.000	616.200	472.000	603.000	650.000	610.000	1350.000	0.000	0.000
SB	1.250	1.500	3.000	0.000	30.600	2.000	300.000	0.000	598.010	597.910

U/S FACE OF R.R. BRIDGE

X1	24590.000	0.000	0.000	10.000	15.500	14.000	14.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	602.810	609.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	609.850	609.800	0.000
BT	19.000	0.000	610.000	0.000	50.000	609.850	0.000	250.000	609.990	0.000
ST	360.300	609.970	0.000	427.990	609.970	0.000	424.000	609.970	607.815	450.000
ST	609.970	607.000	443.950	609.970	0.000	443.950	609.970	0.000	443.500	609.970
ST	17.35	444.410	610.370	500.330	450.550	909.970	0.000	457.000	609.970	0.000
ST	457.500	609.970	627.870	472.000	609.970	507.650	472.010	609.970	0.000	450.000
ST	609.650	0.000	0.000	609.800	0.000	1350.000	609.790	0.000	0.000	0.000

X@SECT. U/S OF R.R. BRIDGE

X1	24638.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	375.000	0.000	520.000	0.000	0.000	0.000	0.000

X@SECT. D/S OF TWIN CMP ARCHES

X1	25020.000	9.000	590.000	607.000	100.000	407.000	382.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	570.000	0.000	670.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	605.000	150.000	604.920	572.000	598.500	590.000	598.200	600.000
GR	598.500	607.000	604.390	617.000	605.000	725.000	670.000	1050.000	0.000	0.000
NC	0.080	0.090	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	1.000	825.000

D/S END OF TWIN CMP ARCHES

X1	25132.000	23.000	685.490	714.510	10.000	117.000	117.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.000	607.000	0.000
GR	615.000	0.000	615.000	1.000	615.000	424.900	610.000	670.000	607.780	670.000
GR	600.600	626.000	599.940	685.490	599.040	685.500	598.600	686.600	599.500	692.000
GR	598.800	697.400	599.840	698.500	599.840	698.510	599.940	701.490	599.940	701.500
GR	598.070	702.600	598.070	708.000	598.070	713.400	599.940	714.500	599.940	714.510
GR	607.000	717.000	608.900	825.000	615.000	825.100	0.000	0.000	0.000	0.000
SR	0.000	3.250	3.000	0.000	20.300	0.000	150.000	0.000	559.470	559.170

U/S END OF TWIN CMP ARCHES

X1	25304.000	0.000	0.000	0.000	169.000	169.000	169.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	606.160	607.780	0.000	0.000	0.000	0.000	0.000
X3	10.000	559.470	0.000	0.000	0.000	0.000	0.000	607.410	608.510	0.000
BT	21.000	0.000	613.200	0.000	1.000	615.000	0.000	424.900	615.000	0.000
BT	670.000	610.000	0.000	670.000	607.780	0.000	685.490	608.510	0.000	685.500
BT	608.510	599.840	686.600	608.510	604.580	692.000	608.510	605.660	697.400	608.510
BT	604.580	698.510	608.510	599.840	698.510	608.510	0.000	701.490	608.510	0.000
BT	701.500	608.510	599.940	702.600	608.510	604.680	708.000	608.510	605.760	713.400
BT	608.510	604.680	714.500	608.510	599.940	714.510	608.510	0.000	825.000	608.540
BT	0.000	825.100	615.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	650.000	750.000	600.000	800.000

X@SECT. U/S OF TWIN CMP ARCHES

X1	25340.000	13.000	607.000	712.000	34.000	34.000	34.000	0.000	0.000	0.000
GR	611.000	0.000	605.000	300.000	605.000	872.000	590.400	637.000	598.200	700.000
GR	598.400	713.000	605.000	728.000	605.000	9000.000	610.000	1050.000	615.000	1125.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1      BROWNSTOWN
T2      50 YR.  STORM
T3      BLAKELEY DRAIN

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q       WSEL      FQ

      0.       3.       0.       0.  0.000880     0.00      0.0       0.   589.500    0.000

J2  NPROF     IPLOT    PDFWS    KSECV    KSECH     FN       ALLOC     IBH      CHMIN     ITRACE

     2.000    0.000   -1.000    0.300    0.000    0.000    0.000    0.000    0.000    0.300
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 35,51,52
*****************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BLAKELY DRAIN
T2
T3      BLAKELY DRAINEBROWNSTOWN

J1  ICHECK    INQ     NINV    IDIT    STRT    METRIC   HVINS    Q       WSEL    FQ
        0.      4.      0.      0.  0.000680    0.00     0.0      0.   590.000   0.000

J2  XPROF    XPLOT    PRFVS    XSECV    XSECH    FN      ALLOC    IBW     CHSIN    ITRACE
      0.000    0.000   -1.000    0.000    0.000   0.000    0.000    0.000    0.000    0.000
```

CCNV= 1.117 CENV= 0.559

*RECND ****

	CECHC	DEPTH	CASE	CRTOS	SELK	N	WV	E	PLOSS	BANK ELEV
		XLOD	QCM	QROF	QLOS	QT	XCOM	VOL	TIA	LEFT/RIGHT
	TW	XLCO	WSH	QSOB	THL	XCSH	WRF	XTW	LLOB	SSTA
	SLOPE	XMOBL	XLOS	XLOOF	TRIAK	LID	FRCNT	CUR.T	TOPWID	CHBST

Encroached Run — Used for F.I.S (Input w/ "100 yr - Natural")

TW, ENCROACHMENT STATIONS= 300.0 1170.0 CODE= 1 TARGET= 800.000

VALLEY SECTION STA 0+00 CROSS MAP

0.30	9.36	591.06	0.00	591.22	591.22	0.10	0.00	0.30	589.20	
360.	374.	591.	208.	258.	227.	44.	0.	.	365.2	
0.30	0.67	7.04	0.04	0.300	0.035	0.000	0.500	331.70	570.00	
0.052	0.	0.	0.0	0	0	0	0.00	500.74	1050.14	

E.G. DISTRIBUTION FOR CECHC= 0.00 CHSE.= 591.06

IT=	250.	683.	717.	1000.	1066.
Q =	15.1	65.3	20.3	2.6	
AVE.=	20.3	228.3	410.7	55.0	
VEL=	0.4	2.5	0.7	2.3	

TW, ENCROACHMENT STATIONS= 450.0 870.0 PROF= 1 TARGET= 2.000.000

VALLEY SECTION STA 1+20 CROSS MAP

0.30	9.53	591.06	0.00	591.22	592.11	0.12	0.50	1.00	564.50	
450.	567.	591.	172.	0.	0.	611.	0.	0.	0.	
0.5	0.00	0.	0.02	0.067	0.134	0.060	0.00	500.00	0.00	
0.5	1SEC.	1130.	1530	0	0	0	0.00	35.00	40.00	

E.G. DISTRIBUTION FOR SECHC= 1530.00 CHSE.= 591.06

STA=	120.	701.	1061.	1081.	1181.	1300.
VEL=	0.3	0.0	1.5	3.9	2.3	0.0
VEL=	0.3	0.0	1.5	3.9	2.3	0.0

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     0.28      1.46      3.63      0.40      0.080     0.035     0.080     0.035    583.23    592.29
 0.000757    1220.     1320.     1220.         2         0         0      0.00    348.01    500.50

FLOW DISTRIBUTION FOR SECNO=    2540.00          CWSEL=    592.79

STA=      252.      261.      333.      353.      364.      435.      522.      600.
  PER N=      0.0      37.5      57.1       0.1       1.2       2.6       1.2
   AREA=      1.7     352.4     213.6       4.2      44.3      75.8      43.0
    VEL=      0.2       1.5       3.6       0.2       0.4       0.5       0.4

*SECNO 2640.000

3470 ENCROACHMENT STATIONS=      1.0      700.0  TYPE=     1  TARGET=     699.000

        D/S FACE OF KING RD. BRIDGE

  2640.00      9.63    592.86      0.00    592.85    592.96      0.10      0.04      0.00    583.23
     1360.      341.      967.       52.      413.      327.      217.       59.       25.    583.23
      0.87      1.82      2.93      0.24     0.080     0.035     0.080     0.035    583.23    289.99
 0.000233       100.      100.      100.         0         0         0      0.00    409.93    699.91

FLOW DISTRIBUTION FOR SECNO=    2640.00          CWSEL=    592.86

STA=      290.      300.      383.      417.      418.      500.      600.      700.
  PER N=      0.0      25.0      71.1       0.1       0.9       1.9       0.9
   AREA=      2.7     410.6     327.4       4.9      56.4      93.5      61.7
    VEL=      0.1       0.8       3.0       0.2       0.2       0.3       0.2

SPECIAL BRIDGE

SH  XK        XKOR      COFF      RDLEN     BLC       BWP       BAREA     SS        ELCHD     ELCHD
     0.00      1.50      3.00      0.00     26.10      0.00    178.00      0.00    582.98    583.23

*SECNO 2675.000
  SECNO     DEPTH     CWSEL     CNZNE     WSELK     FS        HV        KL        CLOSS     BANK ELEV
  D         QLOB      NCH       QROB      ALTH      ACH       ACOB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       XTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     COMAR     TOPWID    ENDST

PRESSURE AND WIR FLOW

 EGPRS      EGLNC      XS        QWEIR      QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                  AREA
  596.22    592.71      0.00      770.      581.      178.      198.      589.00    391.83

        D/S FACE OF KING RD. BRIDGE

  2675.00     10.01    592.99      0.00    592.99    593.11      0.11      0.15      0.00    582.98
     1360.      311.      948.       19.      580.      298.      231.       56.       25.    582.98
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	0.30	0.00	3.20	0.30	0.066	0.035	0.040	0.035	582.98	252.29
	0.000265	95.	35.	39.	2	0	3	0.00	356.65	606.93

FLOW DISTRIBUTION FOR SECNO= 2675.00 CUSCL= 592.99

STA=	252.	261.	333.	345.	367.	383.	435.	522.	609.
PER Q=	3.0	25.0	69.7	0.5	0.1	1.0	2.2	9.2	
AREA=	3.6	326.4	296.6	21.9	8.6	44.4	93.3	65.9	
VEL=	0.2	0.9	3.2	0.5	0.2	0.3	0.5	0.3	

CCFW= 0.300 CEHV= 0.500

*SECNO 2700.000

3475 E. MONUMENT STATION= 1870.0 690.0 TYPE= 1 TARGET= 420.000

XSECT.U/S OF KING RD. BRIDGE

2703.00	10.04	595.02	0.30	593.01	593.12	0.10	0.05	0.00	592.02
1360.	96.	1111.	233.	61.	396.	73.	50.	25.	592.50
3.30	0.27	2.85	0.53	0.000	0.035	0.030	0.035	582.98	270.02
0.000410	25.	25.	25.	1	0	0	0.00	420.00	690.00

FLOW DISTRIBUTION FOR SECNO= 2700.00 CUSCL= 593.02

STA=	170.	172.	435.	690.
PER Q=	1.2	81.7	17.1	
AREA=	60.9	393.7	436.3	
VEL=	0.3	2.0	2.5	

CCHV= 0.100 CEHV= 0.300

*SECNO 4106.000

PREC DAT Q1= 503.70 USEL= 573.62 ENC Q1= 583.70 USEL= 593.72 RATIO= 0.0000

MAT Q1= 695. RATIOS LOB/CH/ROB= 0.4633 0.4151 0.1215 USEL= 593.72

3470 DISCHARGE STATION= 597.0 856.5 TYPE= 4 TARGET= 2.000

VALLEY SECT. BASED ON FULL BOOK SECT. 31200.

4106.00	10.30	593.43	0.03	593.62	593.79	0.16	0.06	0.22	593.02
1360.	622.	584.	148.	727.	124.	170.	86.	35.	583.64
5.43	0.86	4.77	0.85	0.000	3.035	0.102	0.035	582.98	553.37
0.000579	1050.	1201.	1300.	2	0	3	0.00	262.30	650.35

FLOW DISTRIBUTION FOR SECNO= 4106.00 CUSEL= 593.63

STA=	594.	630.	696.	726.	772.	786.	794.	808.	817.	836.
PER Q=	0.1	2.6	0.2	1.5	4.0	5.9	49.5	6.7	1.0	
AREA=	163.8	377.3	72.9	18.7	47.2	68.4	75.6	72.5	113.3	
VEL=	0.7	0.9	0.8	0.6	0.7	2.2	4.4	1.0	0.7	

*SECNO 5406.000

PREC DAT Q1=	757.82	USEL=	834.35	ENC Q1=	757.82	USEL=	844.38	RATIO=	0.1000
MAT Q1=	782.	RATIOS LOB/CH/ROB=	0.2504	0.3992	0.3504	USEL=	844.38		

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3470 ENCROACHMENT STATIONS=      132.3      592.8  TYPE=      4  TARGET=        0.044

        VALLEY SECT. BASED ON FIELD BOOK SECT. 19900.

  5406.00     10.32    594.30      0.00    594.25    594.36      0.06      0.55      0.01    584.12
     1360.      463.      374.      523.      732.      102.      821.      126.       47.    584.21
      0.69      0.63      3.66      0.34     0.100     0.035     0.100     0.035    583.98    132.30
 0.000336     1200.     1300.     1400.         2         0         0      0.00    463.55    592.84

FLOW DISTRIBUTION FOR SECNO=    5406.00          CWSEL=     594.30

STA=      132.      200.      310.      345.      355.      366.      500.      593.
  PER Q=      5.9      19.3       7.8      27.5       5.1      23.9       9.4
   AREA=    182.1     404.8     144.7     102.2      76.8     496.9     247.7
    VEL=      0.5       0.6       0.7       3.7       0.9       0.7       0.5

*SECNO 5906.000
 CROD RAT Q1=     492.20  WSEL=     594.90  ENC Q1=     492.20  WSEL=     595.00  RATIO=  0.0000
 RAT Q1=     519.  RATIOS LOB,CH,ROB=  0.2981  0.2992  0.4027  WSEL=     595.00

3470 ENCROACHMENT STATIONS=      128.3      545.1  TYPE=      4  TARGET=        0.052

        VALLEY SECT. BASED ON FIELD BOOK SECT. 18400.

  6906.00     10.83    594.97      0.00    594.90    595.12      0.14      0.74      0.03    585.22
     1360.      389.      433.      538.      441.       79.      640.      174.       62.    585.22
      0.87      0.88      5.47      0.84     0.100     0.035     0.100     0.035    584.94    128.34
 0.000706     1500.     1500.     1500.         2         0         0      0.00    416.78    545.12

FLOW DISTRIBUTION FOR SECNO=    6906.00          CWSEL=     594.97

STA=      128.      150.      246.      257.      271.      282.      289.      292.      296.      304.      317.      450.      545.
  PER Q=      0.7      13.8       1.9       1.1       1.4       2.7       2.6       4.1      31.8       8.2      22.6       8.7
   AREA=     23.5     242.3      31.1      23.2      26.2      35.5      22.4      34.7      79.1      83.7     371.9     184.9
    VEL=      0.6       0.8       0.8       0.6       0.7       1.1       1.6       1.6       5.5       1.3       0.8       0.6

*SECNO 7473.000
  SECNO     DEPTH     CWSEL     CRIUS     WSELX     EG        HV        HL        DLOSS     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     IERIAL    IHZ       ICONT     CONAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS=      326.0      681.0  TYPE=      1  TARGET=      355.000

        1: D/S OF FOOTBRIDGE 71400: D/S OF SIMLEY RD.

  7473.00      9.60    595.37      0.00    595.29    595.48      0.11      0.36      0.00    590.25
     1360.      262.      732.      366.      417.      202.      515.      189.       67.    591.07
      0.94      0.63      3.62      0.71     0.100     0.035     0.100     0.035    585.77    326.00
 0.000512      567.      567.      567.         2         0         0      0.00    355.00    681.00
```

FLOW DISTRIBUTION FOR SECNO= 7473.00 CUSEL= 555.37

STA=	326.	484.	488.	513.	523.	681.
PER Q=	18.4	0.9	53.6	2.7	24.3	
AREA=	401.5	15.5	202.1	41.7	473.2	
VEL=	0.6	0.7	3.6	0.9	0.7	

*SECNO 7473.000

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 591.33 MAX ELLC= 591.85

3470 ENCROACHMENT STATIONS= 326.0 681.0 TYPE= 1 TARGET= 355.000

1: INSIDE D/S END OF FOOTBRIDGE.

7475.00	9.68	595.49	0.00	595.39	595.49	0.04	0.00	0.01	590.25	
1360.	401.	484.	523.	434.	182.	521.	189.	67.	591.07	
0.94	0.92	2.40	1.01	0.100	0.035	0.100	0.035	585.77	326.00	
0.005029	2.	2.	2.	2	2	0	-219.75	555.00	681.00	

FLOW DISTRIBUTION FOR SECNO= 7475.00 CUSEL= 595.45

STA=	326.	478.	513.	523.	681.
PER Q=	29.5	32.5	2.7	35.3	
AREA=	458.1	181.6	34.2	486.4	
VEL=	0.9	2.4	1.1	1.0	

*SECNO 7475.000

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 591.33 MAX ELLC= 591.85

3470 ENCROACHMENT STATIONS= 326.0 681.0 TYPE= 1 TARGET= 355.000

1: INSIDE D/S END OF FOOTBRIDGE.

7479.00	9.69	595.46	0.00	595.40	595.50	0.04	0.00	0.00	590.25	
1360.	401.	484.	523.	430.	182.	521.	189.	67.	591.07	
0.94	0.92	2.40	1.01	0.100	0.035	0.100	0.035	585.77	326.00	
0.005026	4.	4.	4.	0	0	0	-219.75	555.00	681.00	

FLOW DISTRIBUTION FOR SECNO= 7479.00 CUSEL= 595.46

STA=	326.	478.	513.	523.	681.
PER Q=	29.5	32.5	2.7	35.3	
AREA=	458.5	181.8	34.2	486.8	
VEL=	0.9	2.4	1.1	1.	

*SECNO 7481.000

3470 ENCROACHMENT STATIONS= 326.0 681.0 TYPE= 1 TARGET= 355.000

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        1' U/S OF FOOTBRIDGE #1400: U/S OF SIBLEY RD.

  7401.00      9.67   595.44      0.00   595.34   595.51      0.07      0.00      0.01   590.25
     1360.      427.      617.      316.      624.      204.      526.      190.       67.   591.07
      0.94      0.68      3.03      0.60     0.100     0.035     0.100     0.035    585.77    326.00
  0.000358        2.        2.        2.         2         0         0      0.00    355.00    681.00

FLOW DISTRIBUTION FOR SECNO=   7401.00          CWSEL=    595.44

STA=      326.      488.      513.      523.      681.
  PER Q=      31.4      45.6       2.3      20.9
   AREA=     626.3     203.8      42.4     481.9
    VEL=       0.7       3.0       0.7       0.6

*SECNO 7857.000

3470 ENCROACHMENT STATIONS=      233.0      694.0  TYPE=      1  TARGET=      461.000

        1' D/S OF FOOTBRIDGE +1000' D/S OF SIBLEY RD.

  7857.00      8.96   595.51      0.00   595.51   595.77      0.27      0.21      0.06   589.61
     1360.      232.      897.      231.      419.      177.      302.      200.       71.   588.29
      0.97      0.55      5.06      0.76     0.100     0.035     0.100     0.035    586.55    233.00
  0.000909      500.      376.      270.         2         0         0      0.01    461.00    694.00

FLOW DISTRIBUTION FOR SECNO=   7857.00          CWSEL=    595.51

STA=      233.      529.      535.      538.      559.      565.      569.      694.
  PER Q=      15.9       0.6       0.5      66.0       2.1       0.6      14.2
   AREA=     396.8      12.1       9.9     177.2      27.8      10.4     263.9
    VEL=       0.5       0.7       0.7       5.1       1.0       0.0       0.7

*SECNO 7859.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      AC        AHOB      VCL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID     ENDST

3870 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  592.33 MAX ELLC=  592.76

3470 ENCROACHMENT STATIONS=      233.0      694.0  TYPE=      1  TARGET=      461.000

        1' INSIDE OF D/S END OF FOOTBRIDGE

  7859.00      9.12   595.67      0.30   595.71   595.79      0.12      0.07      0.01   589.61
     1360.      324.      692.      624.      363.      152.      309.      200.       71.   588.29
      0.97      0.89      4.01      1.37     0.100     0.035     0.100     0.035    586.55    233.00
  0.002884        2.        2.        2.         2         0         0   -156.61    461.00    694.00

FLOW DISTRIBUTION FOR SECNO=   7859.00          CWSEL=    595.67
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```
STA=      233.      535.      538.      559.      569.      694.
  PER Q=     23.6       0.2      45.0       2.6      28.6
   AREA=    359.4       4.0     152.4      25.2     283.9
    VEL=      0.9       0.7       4.0       1.4       1.4

*SECNO 7863.000

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRM=  592.33 MAX ELLC=  592.02


3470 ENCROACHMENT STATIONS=      233.0      694.0  TYPE=      1  TARGET=      461.000

        1' INSIDE OF U/S END OF FOOTBRIDGE

  7863.00      9.93    595.74      0.00    595.76    595.81      0.07      0.01      0.01    588.87
     1360.      430.      491.      439.      496.      154.      364.      200.       71.    587.55
      0.97      0.87      3.19      1.21     0.100     0.035     0.100     0.035    585.81    233.00
 0.001799        4.        4.        4.         2         0         0   -339.76    461.00    694.00

FLOW DISTRIBUTION FOR SECNO=    7863.00          CWSEL=     595.74

STA=      233.      535.      538.      559.      569.      694.
  PER Q=     31.4       0.2      36.1       2.1      30.2
   AREA=    491.7       4.1     153.9      25.0     338.6
    VEL=      0.9       0.5       3.2       1.1       1.2

*SECNO 7865.000

3470 ENCROACHMENT STATIONS=      233.0      694.0  TYPE=      1  TARGET=      461.000

        1' U/S OF FOOTBRIDGE +1000' U/S OF SIBLEY RD.

  7865.00      9.90    595.71      0.00    595.72    595.82      0.11      0.00      0.01    588.37
     1360.      359.      709.      293.      701.      197.      443.      200.       71.    587.55
      0.97      0.51      3.59      0.46     0.100     0.035     0.100     0.035    585.81    233.00
 0.000395        2.        2.        2.         2         0         0      0.00    461.00    694.00

FLOW DISTRIBUTION FOR SECNO=    7865.00          CWSEL=     595.71

STA=      233.      535.      538.      559.      569.      694.
  PER Q=     25.9       0.5      52.1       4.3      17.3
   AREA=    689.2      12.3     197.4      61.4     381.6
    VEL=      0.5       0.6       3.6       0.9       0.6

*SECNO 8335.000

3470 ENCROACHMENT STATIONS=      331.0      865.0  TYPE=      1  TARGET=      234.000

        1' D/S OF FOOTBRIDGE +550'D/S OF SIBLEY RD.

  8335.00      9.65    595.53      0.00    595.86    596.14      0.30      0.26      0.06    588.83
     1360.      145.     1053.      163.      219.      210.      224.      211.       75.    589.19
      1.03      0.67      5.01      0.72     0.100     0.035     0.100     0.035    585.18    369.00
```

0.000820	470.	470.	470.	2	0	0	0.00	234.00	565.00

FLOW DISTRIBUTION FOR SECNO= 8335.00 C.SEL= 595.83

STA=	331.	433.	437.	461.	467.	565.
PER Q=	9.4	1.8	77.4	2.2	9.8	
AREA=	196.8	18.4	209.9	28.1	197.7	
VEL=	0.7	0.9	5.0	1.1	0.7	

*SECNO 8337.000

3370 NORMAL BRIDGE,NRB= 7 MIN ELTRD= 592.87 MAX ELLC= 592.40

3470 ENCROACHMENT STATIONS= 331.0 565.0 TYPE= 1 TARGET= 234.000

1' INSIDE OF D/S END OF FOOTBRIDGE

8337.00	9.02	596.70	0.00	596.02	596.15	0.16	0.00	0.01	588.88
1360.	291.	731.	338.	223.	176.	260.	211.	75.	589.19
1.01	1.30	6.16	1.41	0.100	0.035	0.100	0.035	586.18	331.00
0.002976	2.	2.	2.	2	0	0	-50.12	234.00	565.00

FLOW DISTRIBUTION FOR SECNO= 8337.00 C.SEL= 596.00

STA=	331.	433.	437.	461.	467.	565.
PER Q=	20.6	0.8	53.7	3.7	21.2	
AREA=	213.5	10.0	175.8	26.0	213.7	
VEL=	1.3	1.1	4.2	1.9	1.3	

*SECNO 8344.000

SECNO	DEPTH	C.SEL	CRWS	WSELK	EG	HV	HL	CLOSS	BANK SLEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	LTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	JUR	IGOUT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRB= 7 MIN ELTRD= 592.87 MAX ELLC= 592.40

3470 ENCROACHMENT STATIONS= 331.00 565.0 TYPE= 1 TARGET= 234.000

1' INSIDE OF D/S END OF FOOTBRIDGE

8344.00	9.84	596.02	0.00	596.04	596.18	0.16	0.02	0.00	588.88
1360.	292.	729.	339.	225.	176.	241.	211.	75.	589.19
1.01	1.30	6.16	1.41	0.100	0.035	0.103	0.035	586.18	331.00
0.002945	2.	2.	2.	0	0	0	-50.12	234.00	565.00

FLOW DISTRIBUTION FOR SECNO= 8344.00 C.SEL= 596.02

STA=	331.	433.	437.	461.	467.	565.

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PER Q=	23.7	0.8	53.6	3.7	21.3
AREA=	214.6	10.0	176.0	26.1	214.8
VEL=	1.3	1.1	4.1	1.9	1.3

*SECNO 8346.000

3470 ENCROACHMENT STATIONS= 331.0 565.0 TYPE= 1 TARGET= 234.000

1' U/S OF FOOTBRIDGE +550'U/S OF SIBLEY RD.

8346.00	9.75	595.93	0.00	595.95	596.22	0.29	0.00	0.04	588.88	
1360.	151.	1040.	169.	225.	212.	236.	211.	75.	589.19	
1.01	0.67	4.98	0.72	0.100	0.035	0.160	0.035	586.18	331.00	
0.000772	2.	2.	4.	2	0	0	0.00	234.00	569.00	

FLOW DISTRIBUTION FOR SECNO= 8346.00 CWSEL= 595.93

STA=	331.	433.	437.	451.	467.	565.
PCP Q=	9.9	4.8	76.4	3.2	10.2	
AREA=	206.5	10.0	212.2	23.5	207.0	
VEL=	0.7	0.9	4.9	1.0	0.7	

*SECNO 8810.000

3470 ENCROACHMENT STATIONS= 195.0 535.0 TYPE= 1 TARGET= 340.000

XSECT. D/S OF SIBLEY RD.

8810.00	9.33	596.29	0.00	596.33	596.61	0.32	0.38	0.01	586.60	
1360.	238.	859.	207.	378.	150.	312.	219.	78.	586.80	
1.04	0.77	5.89	0.66	0.100	0.035	0.102	0.035	586.46	195.00	
0.000863	464.	564.	464.	2	0	0	0.00	340.00	535.00	

FLOW DISTRIBUTION FOR SECNO= 8810.00 CWSEL= 596.29

STA=	195.	300.	376.	392.	400.	421.	535.
PCP Q=	2.3	5.5	9.4	62.9	7.8	11.0	
AREA=	84.1	127.9	95.9	150.2	80.2	231.7	
VEL=	0.4	0.6	1.3	5.7	1.3	0.7	

DCHV= 0.300 CENV= 0.500
*SECNO 8910.000

3470 ENCROACHMENT STATIONS= 250.0 550.0 TYPE= 1 TARGET= 300.000

D/S FACE OF SIBLEY RD. BRIDGE

8910.00	9.86	596.22	0.00	596.26	596.74	0.44	0.48	0.05	586.60	
1360.	179.	1041.	240.	203.	151.	269.	220.	78.	136.60	
1.05	0.88	4.24	0.89	0.100	0.030	0.100	0.035	586.46	250.00	
0.000758	100.	100.	100.	2	0	0	0.00	290.90	549.90	

FLOW DISTRIBUTION FOR SECNO= 8910.00 CWSEL= 596.32

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STA=	250.	300.	371.	392.	408.	421.	500.	550.
PER Q=	0.2	1.0	11.1	69.2	7.3	8.3	0.1	
AREA=	15.8	64.6	122.4	150.7	90.7	167.2	10.6	
VEL=	0.2	0.4	1.2	6.2	1.4	0.7	0.1	

SPECIAL BRIDGE

SO	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.60	3.00	0.00	15.30	0.00	125.50	0.00	586.91	586.46

*SECNO 8948.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
599.23	598.04	0.09	419.	943.	126.	126.	595.14	596.94

U/S FACE OF SIDLEY RD. BRIDGE

8948.00	13.50	597.41	0.00	597.40	597.72	0.38	0.98	0.60	587.10	
1360.	204.	876.	280.	240.	160.	334.	221.	79.	587.10	
1.05	1.85	5.46	0.94	0.100	0.010	0.103	0.035	586.91	250.00	
0.000543	38.	38.	38.	2	0	4	0.00	299.91	549.91	

FLOW DISTRIBUTION FOR SECNO= 8948.00 CWSEL= 597.41

STA=	250.	300.	371.	392.	408.	421.	500.	550.
PER Q=	0.0	3.0	12.0	64.4	9.6	10.8	0.2	
AREA=	3.3	96.2	140.9	460.3	101.9	215.9	15.5	
VEL=	0.1	0.4	1.2	5.5	1.3	0.7	0.2	

*SECNO 9190.000

SECNO	DEPTH	QWSEL	CRIWS	WSELK	EG	HV	XL	OLOSS	DARK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	I-2	ICONT	COPAR	TOPWID	ENDST

9470 ENCROACHMENT STATIONS= 290.0 650.0 TYPE= 1 TARGET= 370.000

XSECT. U/S OF SIDLEY RD. AND D/S OF ALLEN RD.

9190.00	11.31	597.79	0.00	597.78	597.86	0.07	0.04	0.07	594.60	
1360.	217.	765.	378.	687.	266.	670.	226.	91.	592.40	
1.03	0.44	2.38	0.56	0.100	0.030	0.100	0.035	586.68	293.05	
0.000221	400.	242.	100.	2	0	0	0.00	370.00	668.00	

FLOW DISTRIBUTION FOR SECNO= 9190.00 CWSEL= 597.79

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STA=      290.      390.      460.      490.      650.      660.
  PER Q=      0.7      15.2      56.3      27.1       0.6
   AREA=     27.5     461.9     264.2     653.9      24.2
    VEL=      0.4       0.4       2.9       0.6       0.4

*SECNO 9432.000

        D/S PAGE ALLEN RD. BRIDGE

  9432.00     10.85    597.77      0.00    597.76    598.00      0.23      0.06      0.08    588.80
     1360.      136.     1146.       78.      316.      276.      116.      232.       82.    586.92
      1.10      0.43      4.15      0.67     0.100     0.030     0.100     0.035    586.92    250.76
 0.000315      242.      242.      242.         2         0         0      0.00    287.01    537.77

FLOW DISTRIBUTION FOR SECNO=    9432.00          CWSEL=     597.77

STA=      251.      380.      442.      469.      487.      538.
  PER Q=      5.4       6.7      84.3       5.6       0.1
   AREA=    202.1     133.7     275.0     100.2      15.4
    VEL=      0.4       0.6       4.2       0.8       0.1

*SECNO 9433.000

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  595.65 MAX ELLC=  594.10

        1' INSIDE D/S END ALLEN RD. BRIDGE

  9433.00     10.67    597.59      0.00    597.57    598.15      0.00      [illegible]      [illegible]    [illegible]
     1360.      224.     1135.        2.      301.      167.        5.      [illegible]      [illegible]    [illegible]
      1.10      1.11      6.78      0.25     0.100     0.030     0.100      [illegible]      [illegible]    [illegible]
 0.003938        1.        1.        1.         2         0         0   -280.41    283.10    [illegible]

FLOW DISTRIBUTION FOR SECNO=    9433.00          CWSEL=     597.59

STA=      251.      304.      380.      425.      469.      532.
  PER Q=      8.9       6.6       1.0      83.4       0.1
   AREA=     90.9      87.3      22.4     167.4       6.3
    VEL=      1.3       1.0       0.6       6.8       0.2

*SECNO 9445.000

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  595.65 MAX ELLC=  594.10

        1' INSIDE D/S END ALLEN RD. BRIDGE

  9445.00     12.05    598.29      0.00    590.28    598.82      0.33      0.36      0.08    588.35
     1360.      383.      939.       38.      322.      170.       61.      234.       83.    586.24
      1.11      1.19      5.53      0.63     0.100     0.030     0.100     0.035    586.24    250.75
 0.002632      112.      112.      112.         3         0         0   -333.48    319.25    570.00
```

ENCROACHMENT

FLOW DISTRIBUTION FOR SECNO= 9445.00 CUSEL= 598.29

STA=	251.	304.	380.	425.	469.	532.	570.
PER Q=	12.9	11.9	3.4	69.0	1.9	0.9	
AREA=	128.1	140.4	53.6	169.9	37.9	23.1	
VEL=	1.4	1.1	0.9	5.5	0.7	0.5	

*SECNO 9446.000

U/S FACE ALLEN RD. BRIDGE

9446.00	12.28	598.52	0.00	598.52	598.68	0.15	0.00	0.05	588.35	
1360.	199.	1060.	101.	464.	298.	209.	234.	85.	586.24	
1.11	0.43	3.56	0.51	0.100	0.030	0.150	0.035	586.24	250.75	
0.000219	1.	1.	1.	2	0	0	0.00	319.25	570.00	

FLOW DISTRIBUTION FOR SECNO= 9446.00 CUSEL= 598.52

STA=	251.	304.	380.	442.	469.	487.	570.
PER Q=	4.4	4.2	6.1	77.9	6.2	1.3	
AREA=	140.7	158.4	164.5	297.9	119.7	80.7	
VEL=	0.4	0.4	0.5	3.6	0.7	0.2	

*SECNO 9500.000

SECNO	DEPTH	CWSEL	CRIWS	USELS	EG	HV	HL	XLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	LTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST	

XNS-CT. U/S OF ALLEN RD.

9500.00	12.30	598.54	0.00	598.53	598.69	0.15	0.01	0.00	583.35	
1360.	200.	1059.	102.	466.	298.	202.	235.	84.	586.24	
1.12	0.43	3.55	0.50	0.100	0.030	0.100	0.035	586.24	250.75	
0.000218	54.	54.	54.	2	0	0	0.20	319.25	570.00	

FLOW DISTRIBUTION FOR SECNO= 9500.00 CUSEL= 598.54

STA=	251.	304.	380.	442.	469.	487.	570.
PER Q=	4.4	4.2	6.1	77.8	6.2	1.3	
AREA=	141.3	159.4	165.3	298.2	119.9	81.7	
VEL=	0.4	0.4	0.5	3.5	0.7	0.2	

CCHV= 0.100 CEHV= 0.300

*SECNO 10056.200

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 40.0 560.0 TYPE= 1. TARGET= 520.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 15250.

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10056.00	11.89	598.77	0.00	598.77	598.79	0.02	0.04	0.01	587.43	
1360.	195.	209.	956.	628.	90.	1599.	254.	88.	586.68	
1.30	0.46	2.31	0.60	0.090	0.035	0.090	0.035	586.88	1.00	
0.000119	200.	556.	700.	2	0	0	0.00	461.70	560.00	

FLOW DISTRIBUTION FOR SECNO= 10056.00 CHSEL= 598.77

STA=	1.	150.	268.	289.	296.	304.	307.	318.	450.	560.
PER Q=	0.1	4.0	5.7	4.5	15.4	1.0	2.7	33.7	33.0	
AREA=	16.7	207.6	130.7	73.2	90.5	27.6	62.9	778.1	730.7	
VEL=	0.1	0.3	0.6	0.5	2.3	0.5	0.6	0.6	0.6	

CCHV= 0.300 CEHV= 0.300

*SECNO 10360.000

3470 ENCROACHMENT STATIONS= 140.0 480.0 TYPE= 1 TARGET= 340.000

XSECT D/S OF TRIPLE CULVERTS

10360.00	10.79	598.77	0.00	598.76	598.90	0.14	0.05	0.06	590.29
1360.	241.	836.	283.	424.	221.	456.	265.	90.	588.20
1.33	0.57	3.79	0.62	0.080	0.030	0.080	0.035	587.98	140.00
0.000264	304.	304.	304.	2	0	0	0.00	340.00	480.00

FLOW DISTRIBUTION FOR SECNO= 10360.00 CHSEL= 598.77

STA=	140.	294.	296.	317.	333.	480.
PER Q=	17.3	0.4	51.5	4.5	14.3	
AREA=	410.9	12.0	220.7	98.6	360.4	
VEL=	0.6	0.4	3.5	2.9	0.5	

*SECNO 10560.000

3470 ENCROACHMENT STATIONS= 160.0 460.0 TYPE= 1 TARGET= 300.000

D/S END OF TRIPLE CONC. CULVERT

10560.00	11.16	598.76	0.00	598.75	599.09	0.33	0.09	0.10	591.68
1360.	69.	1244.	47.	113.	257.	172.	269.	62.	593.30
1.35	0.61	4.93	0.65	0.080	0.030	0.080	0.034	587.60	140.00
0.000026	200.	200.	200.	2	0	0	0.00	232.99	392.99

FLOW DISTRIBUTION FOR SECNO= 10560.00 CHSEL= 598.76

STA=	160.	312.	292.	297.	327.	335.	395.
PER Q=	0.1	3.2	1.7	91.5	1.6	1.9	
AREA=	10.7	80.8	21.4	257.3	19.3	58.0	
VEL=	0.2	0.5	1.1	4.0	1.1	0.5	

SEVERAL BRIDGE

SD XK	XKOR	COFG	ROLEN	BWC	BWP	BAREA	SS	ELCNU	ELCND
0.00	1.50	2.60	10.00	15.60	0.00	133.00	0.00	587.60	587.60

*SECNO 10584.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
601.19	599.09	0.00	544.	816.	133.	133.	596.10	598.61

U/S END OF TRIPLE CONC.CULVERT

10584.00	11.80	599.40	0.00	599.39	599.63	0.24	0.54	0.00	591.68
1360.	124.	1163.	74.	201.	277.	122.	269.	92.	593.30
1.35	0.62	6.20	0.60	0.080	0.030	0.080	0.034	587.60	160.00
0.000566	24.	24.	24.	2	0	4	0.00	258.10	413.10

FLOW DISTRIBUTION FOR SECNO= 10584.00 CWSEL= 599.40

STA=	160.	212.	292.	297.	327.	333.	412.	418.
PER Q=	1.3	6.0	1.8	85.5	1.7	3.7	0.0	
AREA=	44.1	132.2	24.5	276.8	22.7	98.5	0.3	
VEL=	0.4	0.6	1.0	4.2	1.0	0.5	0.1	

*SECNO 10634.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	BLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROH	XML	XNCP	XNR	WTN	ELMIN	ESTA
SLOPE	XLOBL	XLCH	XLOBR	XTRIAL	1+2	TCONT	CORAR	TOPWID	CWDST

3470 ENCROACHMENT STATIONS= 23.0 395.0 TYPE= 1 TARGET= 365.000

XSECT.U/S OF TRIPLE CULVERTS

10634.00	11.50	599.60	0.00	599.60	599.69	0.09	0.01	0.04	590.35
1360.	477.	747.	136.	880.	255.	241.	270.	92.	588.40
1.35	0.54	3.18	0.37	0.080	0.030	0.080	0.034	588.10	25.00
0.000171	50.	50.	50.	2	0	0	0.00	360.00	385.00

FLOW DISTRIBUTION FOR SECNO= 10634.00 CWSEL= 599.60

STA=	25.	123.	291.	296.	317.	329.	385.
PER Q=	3.7	25.1	1.2	54.9	4.4	5.6	
AREA=	260.2	597.9	29.9	235.0	79.6	161.4	
VEL=	0.5	0.6	0.6	3.2	0.8	0.5	

CCHV= 0.100 CEHV= 0.300
*SECNO 11506.000

THIS RUN EXECUTED 2/21/ 1982 13: 7:10

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

T1 BROWNSTOWN
T2 100 YEAR STORM FLOODWAY
T3      BLAKELY DRAIN

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

         0       5.         0         0   .000000       .00       .0        0   599.600      .000

J2   NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000
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OFFICE ELECTRONICS INC

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

*PROF 2
CCHV=    .100 CEHV=    .300
*SECNO 10634.000

3470 ENCROACHMENT STATIONS=     105.0     385.0  TYPE=     1  TARGET=     280.000
 10634.00     11.50    599.60      .00    599.60    599.69      .09      .00      .00    590.35
    1360.      466.      737.     157.      711.      235.      241.        0        0    588.40
      .00       .66      3.14      .65      .080      .035      .080     .000   588.10   105.00
  .000226       50.       50.       50.         0         0         0      .00   280.00   385.00

*SECNO 11506.000

3470 ENCROACHMENT STATIONS=     300.0     540.0  TYPE=     1  TARGET=     240.000
 11506.00     11.57    599.81      .00    599.78    599.88      .07      .19      .00    588.44
    1360.      248.      534.     578.      316.      160.      723.       23.       5.    588.64
      .13       .78      3.34      .80      .080      .035      .080     .037   588.24   300.00
  .000242      1200.      872.     400.         2         0         0      .00   240.00   540.00

*SECNO 12478.000

3470 ENCROACHMENT STATIONS=     664.0     735.0  TYPE=     1  TARGET=      71.000
 12478.00     10.54    600.01      .00    599.88    600.13      .12      .23      .01    590.00
     950.      119.      716.     115.      139.      229.      132.      41.       8.    590.00
      .23       .86      3.12      .87      .080      .035      .080     .036   589.47   664.00
  .000239       972.      972.     972.         2         0         0      .00    71.00   735.00

CCHV=    .300 CEHV=    .500
*SECNO 12578.000
 2800 NAT Q1=     450.63  WSEL=     599.84  ENC Q1=     457.98  WSEL=     599.94  RATIO=  -.0163
 NAT Q1=     458.  RATIOS LOB,CH,ROB=    .0000  1.0000    .0000  WSEL=     599.94

3470 ENCROACHMENT STATIONS=     689.0     711.0  TYPE=     4  TARGET=        .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     604.34 ELREA=     604.06

 12578.00     10.50    599.97      .00    599.84    600.24      .27      .04      .08    590.00
     950.          0      950.        0         0      228.         0       42.       9.    590.00
      .24        .00      4.16      .00      .090      .035      .090     .036   589.47   689.00
  .000699       100.      100.     100.         2         0         0      .00    22.00   711.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL       OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL      TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     1.25       1.66        3.00        .00      22.00       1.50     133.00        .00     588.43     589.53

*SECNO 12622.000
 2800 NAT Q1=     420.98  WSEL=     600.86  ENC Q1=     428.00  WSEL=     600.96  RATIO=  -.0167
 NAT Q1=     428.  RATIOS LOB,CH,ROB=    .0000  1.0000    .0000  WSEL=     600.96
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      689.0      711.0  TYPE=     4  TARGET=        .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12622.00     12.57    601.00       .00    600.86    601.28       .28       .03       .01    592.13
    950.          0       950.         0         0       223.         0       43.        9.     588.70
     .24        .00      4.27        .00      .090      .035      .090      .036    588.43    689.00
  .000863       44.       44.        44.         0         0         0       .00     22.00    711.00

*SECNO 12672.000

3470 ENCROACHMENT STATIONS=      639.0      761.0  TYPE=     1  TARGET=      122.000
 12672.00     12.81    601.24       .00    601.11    601.35       .11       .02       .05    592.13
    1360.       249.      780.       331.      286.      228.      326.       43.        9.     588.70
     .25        .87      3.42       1.02      .090      .035      .090      .036    588.43    639.00
  .000303       50.       50.        50.         2         0         0       .00    122.00    761.00

*SECNO 13382.000

3470 ENCROACHMENT STATIONS=      810.0     1200.0  TYPE=     1  TARGET=      390.000
 13382.00     11.40    601.44       .00    601.31    601.46       .02       .08       .03    590.05
    1360.       559.      488.       312.     1173.      273.      721.       62.        12.     590.04
     .43        .48      1.79        .43      .090      .035      .090      .037    590.04    810.00
  .000069       300.      710.       800.         2         0         0       .00    390.00   1200.00

CCHV=     .300 CEHV=     .500
*SECNO 13482.000

3470 ENCROACHMENT STATIONS=     1044.0     1414.0  TYPE=     1  TARGET=      370.000
 13482.00     11.43    601.43       .00    601.30    601.49       .05       .01       .02    590.10
    1360.       464.      643.       253.      712.      249.      398.       66.        13.     590.10
     .45        .65      2.58        .64      .090      .045      .090      .037    590.00   1050.00
  .000240       100.      100.       100.         2         0         0       .00    364.00   1414.00
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1414.0  TYPE=      1  TARGET=      370.000
 13483.00     11.40    601.40       .00    601.27    601.52       .12       .00       .03    590.10
    1360.      509.      583.      268.      312.      153.      215.       66.       13.    590.10
      .45      1.63      3.82      1.25      .090      .035      .090      .037    590.00   1050.00
  .003151        1.        1.        1.         2         0         0   -667.35    364.00   1414.00

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1414.0  TYPE=      1  TARGET=      370.000
 13569.00     11.67    601.67       .00    601.58    601.76       .09       .23       .01    590.10
    1360.      523.      535.      301.      351.      159.      254.       67.       14.    590.10
      .46      1.49      3.37      1.19      .090      .035      .090      .037    590.00   1050.00
  .002338       86.       86.       86.         2         0         0   -682.48    364.00   1414.00

*SECNO 13570.000

3470 ENCROACHMENT STATIONS=     1044.0     1414.0  TYPE=      1  TARGET=      370.000
 13570.00     11.72    601.72       .00    601.63    601.77       .05       .00       .01    590.10
    1360.      454.      657.      249.      768.      256.      439.       67.       14.    590.10
      .46       .59      2.57       .57      .090      .040      .090      .037    590.00   1050.00
  .000182        1.        1.        1.         2         0         0       .00    364.00   1414.00

*SECNO 13595.000

3470 ENCROACHMENT STATIONS=      980.0     1350.0  TYPE=      1  TARGET=      370.000
 13595.00     12.07    601.77       .00    601.69    601.79       .01       .00       .01    590.00
    1360.      593.      255.      512.     1227.      143.      956.       69.       14.    590.00
      .47       .48      1.78       .54      .090      .040      .090      .037    589.70    980.00
  .000085       25.       25.       25.         2         0         0       .00    370.00   1350.00
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

CCHV=    .100 CEHV=    .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS=      280.0      700.0  TYPE=      1  TARGET=      420.000
 15306.00     11.79    601.97      .00    601.89    602.01      .04       .22       .01    590.44
    1360.      462.      294.      604.      947.       93.     1096.      156.      29.    590.18
      .90       .49      3.15      .55      .120      .035      .120      .036    590.18    280.00
  .000207     1711.     1711.     1711.         2         0         0       .00    420.00    700.00


CCHV=    .100 CEHV=    .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS=        .0      569.0  TYPE=      1  TARGET=      568.999
 16306.00     11.34    602.19      .00    602.10    602.22      .03       .21       .00    590.88
    1360.      305.      271.      783.      434.       91.     1214.      203.      39.    590.89
     1.16       .70      2.99      .65      .090      .035      .090      .036    590.85    207.39
  .000196      800.     1000.     1200.         2         0         0       .00    361.61    569.00


CCHV=    .300 CEHV=    .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS=      460.0      540.0  TYPE=      1  TARGET=       80.000
 17146.00     11.11    602.32      .00    602.24    602.48      .16       .20       .06    592.98
    1360.      134.      1079.     147.      138.      300.      148.      222.      42.    591.21
     1.23       .97      3.60      .99      .080      .035      .080      .036    591.21    460.00
  .000336     1200.      840.      500.         2         0         0       .00     80.00    540.00

*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      605.00 ELREA=      605.00

 17246.00     11.07    602.28      .00    602.20    602.60      .32       .04       .08    592.93
    1360.         0     1360.        0         0      298.         0      223.      42.    592.93
     1.24       .00      4.56      .00      .080      .035      .080      .036    591.21    390.01
  .000583      100.      100.      100.         2         0         0       .00     29.99    419.99
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 SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
 Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
 TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN   SSTA
 SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID  ENDST

SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       .00        1.70       3.00        .00      26.00        .00     315.00        .00     591.21     591.21

*SECNO 17310.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=       .000  EGLWC=    602.604  ELLC=    603.430  PCWSE=    602.282  ELTRD=    606.340

3370 NORMAL BRIDGE,NRD=  9. MIN ELTRD=  606.34 MAX ELLC=  603.43

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       606.00 ELREA=       606.00

 17310.00    11.11    602.32      .00    602.24    602.64      .32      .04      .00    592.93
    1360.        0      1360.       0         0       299.       0      224.      42.    592.93
     1.24      .00      4.54      .00      .080      .035      .080      .036   591.21    390.01
 .000535       64.      64.       64.         2         0         0  -195.32    29.99    419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS=     372.6     433.4 TYPE=       1 TARGET=      75.000

 17375.00    10.30    602.56      .00    602.49    602.72      .15      .03      .05    595.00
    1360.       83.      1223.      53.       91.       370.      64.      224.      42.    595.00
     1.25      .91      3.30      .83      .080      .035      .080      .036   592.26    372.60
 .000309       65.      65.       65.         2         0         0       .00    60.75    433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       606.84 ELREA=       606.71

 17437.00    10.23    602.49      .00    602.42    602.84      .35      .03      .10    592.93
    1360.        0      1360.       0         0       287.       0      225.      43.    593.33
     1.25      .00      4.74      .00      .080      .035      .080      .036   592.26    390.01
 .000618       62.      62.       62.         2         0         0       .00    29.97    419.99
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.77	3.00	.00	28.00	.00	315.00	.00	592.13	592.26

*SECNO 17450.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 602.717 ELLC= 603.270 PCWSE= 602.491 ELTRD= 606.710

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 606.71 MAX ELLC= 603.27

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17450.00	10.42	602.55	.00	602.48	602.90	.34	.05	.00	594.03	
1360.	0	1360.	0	0	290.	0	225.	43.	593.53	
1.26	.00	4.70	.00	.080	.035	.080	.036	592.13	390.01	
.000602	86.	86.	86.	2	0	0	-168.18	29.97	419.99	

*SECNO 17500.000

3470 ENCROACHMENT STATIONS= 364.5 445.5 TYPE= 1 TARGET= 100.000

17500.00	10.73	602.86	.00	602.83	602.98	.12	.02	.07	596.40	
1360.	110.	1176.	73.	128.	396.	94.	226.	43.	597.33	
1.26	.86	2.97	.78	.080	.035	.080	.036	592.13	364.50	
.000265	50.	50.	50.	2	0	0	.00	81.00	445.50	

*SECNO 18566.000

3470 ENCROACHMENT STATIONS= 550.0 900.0 TYPE= 1 TARGET= 350.000

18566.00	9.60	603.15	.00	603.06	603.17	.02	.16	.03	597.10	
1360.	546.	626.	188.	985.	394.	437.	256.	48.	599.20	
1.56	.55	1.59	.43	.080	.035	.080	.036	593.55	550.00	
.000096	1066.	1066.	1066.	2	0	0	.00	350.00	900.00	

*SECNO 18666.000

3470 ENCROACHMENT STATIONS= 433.6 793.6 TYPE= 1 TARGET= 450.000

18666.00	9.61	603.16	.00	603.06	603.19	.04	.01	.01	593.60	
1360.	412.	488.	460.	684.	205.	686.	260.	49.	593.60	
1.58	.60	2.38	.67	.080	.035	.080	.036	593.55	433.60	
.000154	100.	100.	100.	1	0	0	.00	360.00	793.60	

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

*SECNO 18667.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16

3470 ENCROACHMENT STATIONS=		435.0	795.0	TYPE=	1	TARGET=	360.000		
18667.00	9.58	603.13	.00	603.04	603.22	.09	.00	.03	593.60
1360.	451.	548.	361.	388.	155.	302.	260.	49.	593.60
1.58	1.16	3.54	1.20	.080	.030	.080	.036	593.55	435.00
.001569	1.	1.	1.	2	0	0	-718.84	360.00	795.00

*SECNO 18705.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16

3470 ENCROACHMENT STATIONS=		435.0	795.0	TYPE=	1	TARGET=	360.000		
18705.00	9.64	603.19	.00	603.09	603.28	.08	.06	.00	593.60
1360.	458.	536.	366.	400.	156.	311.	260.	49.	593.60
1.58	1.14	3.43	1.18	.080	.030	.080	.036	593.55	435.00
.001455	38.	38.	38.	2	0	0	-718.84	360.00	795.00

*SECNO 18706.000

3470 ENCROACHMENT STATIONS=		435.0	795.0	TYPE=	1	TARGET=	360.000		
18706.00	9.71	603.26	.00	603.13	603.29	.03	.00	.02	593.60
1360.	415.	481.	463.	700.	207.	704.	260.	49.	593.60
1.58	.59	2.33	.66	.080	.035	.080	.036	593.55	435.00
.000146	1.	1.	1.	2	0	0	.00	360.00	795.00

*SECNO 18756.000

3470 ENCROACHMENT STATIONS=		450.0	975.0	TYPE=	1	TARGET=	525.000		
18756.00	9.64	603.29	.00	603.15	603.30	.02	.01	.01	598.40
1360.	598.	534.	228.	1386.	352.	574.	263.	50.	599.20
1.60	.43	1.52	.40	.080	.035	.080	.036	593.65	450.00
.000081	50.	50.	50.	1	0	0	.00	525.00	975.00

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

CCHV= .100 CEHV= .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=			700.0	1210.0	TYPE=	1	TARGET=	510.000	
19061.00	10.02	603.27	.00	603.12	603.38	.11	.05	.03	601.48
1360.	202.	955.	203.	378.	305.	215.	274.	53.	602.18
1.63	.53	3.13	.94	.060	.035	.060	.036	593.25	700.00
.000466	305.	305.	305.	2	0	0	.00	510.00	1210.00

*SECNO 19062.000

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 601.48 MAX ELLC= 602.18

3470 ENCROACHMENT STATIONS=			700.0	1210.0	TYPE=	1	TARGET=	510.000	
19062.00	10.08	603.33	.00	603.19	603.39	.06	.00	.01	601.48
1360.	396.	588.	376.	401.	245.	221.	274.	53.	602.18
1.63	.99	2.40	1.70	.060	.035	.060	.036	593.25	700.00
.001473	1.	1.	1.	2	0	0	-62.88	510.00	1210.00

*SECNO 19070.000

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 601.48 MAX ELLC= 602.18

3470 ENCROACHMENT STATIONS=			700.0	1210.0	TYPE=	1	TARGET=	510.000	
19070.00	10.09	603.34	.00	603.21	603.40	.06	.01	.00	601.48
1360.	398.	586.	376.	404.	245.	221.	274.	53.	602.18
1.64	.99	2.39	1.70	.060	.035	.060	.036	593.25	700.00
.001456	8.	8.	8.	0	0	0	-62.88	510.00	1210.00

*SECNO 19071.000

3470 ENCROACHMENT STATIONS=			700.0	1210.0	TYPE=	1	TARGET=	510.000	
19071.00	10.06	603.31	.00	603.17	603.42	.11	.00	.02	601.48
1360.	211.	945.	204.	392.	307.	219.	274.	53.	602.18
1.64	.54	3.08	.93	.060	.035	.060	.036	593.25	700.00
.000448	1.	1.	1.	2	0	0	.00	510.00	1210.00

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

*SECNO 20293.000
 2800 NAT Q1=   1098.60  WSEL=    603.59  ENC Q1=   1098.60  WSEL=    603.69  RATIO=   .0000
 NAT Q1=   1146.  RATIOS LOB/CH/ROB=   .5270   .3957   .0773  WSEL=    603.69

3470 ENCROACHMENT STATIONS=     699.9    1084.6  TYPE=     4  TARGET=        .041
 20293.00      9.38   603.69      .00   603.59   603.72      .03      .30      .01   600.52
    1360.      718.     561.      80.    1006.     296.     151.     307.      66.    600.83
     1.92       .71     1.90      .53     .060     .035     .060     .036   594.31   699.93
  .000153     1222.    1222.    1222.        2        0        0      .00   384.68  1084.61


*SECNO 20294.000
 2800 NAT Q1=    797.20  WSEL=    603.61  ENC Q1=    797.20  WSEL=    603.71  RATIO=   .0000
 NAT Q1=    842.  RATIOS LOB/CH/ROB=   .7221   .1714   .1066  WSEL=    603.71

3370 NORMAL BRIDGE/NRD=  4 MIN ELTRD=  600.52 MAX ELLC=  598.68

3470 ENCROACHMENT STATIONS=     698.4    1087.3  TYPE=     4  TARGET=        .054
 20294.00      9.40   603.71      .00   603.61   603.72      .02      .00      .00   600.52
    1360.      999.     247.     114.    1012.     220.     157.     307.      66.    600.83
     1.92       .99     1.12      .73     .060     .035     .060     .036   594.31   698.40
  .000292        1.       1.       1.        1        0        0   -76.18   388.92  1087.32


*SECNO 20305.000
 2800 NAT Q1=    801.07  WSEL=    603.61  ENC Q1=    801.07  WSEL=    603.71  RATIO=   .0000
 NAT Q1=    844.  RATIOS LOB/CH/ROB=   .7220   .1713   .1067  WSEL=    603.71

3370 NORMAL BRIDGE/NRD=  4 MIN ELTRD=  600.52 MAX ELLC=  598.68

3470 ENCROACHMENT STATIONS=     697.1    1089.4  TYPE=     4  TARGET=        .051
 20305.00      9.40   603.71      .00   603.61   603.73      .02      .00      .00   600.52
    1360.      998.     245.     117.    1017.     221.     161.     308.      66.    600.83
     1.92       .98     1.11      .72     .060     .035     .060     .036   594.31   697.12
  .000288       11.      11.      11.        0        0        0   -76.18   392.32  1089.44


*SECNO 20306.000
 2800 NAT Q1=   1106.74  WSEL=    603.60  ENC Q1=   1106.74  WSEL=    603.70  RATIO=   .0000
 NAT Q1=   1150.  RATIOS LOB/CH/ROB=   .5274   .3950   .0776  WSEL=    603.70
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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=      697.8     1088.1  TYPE=      4  TARGET=        .038
 20306.00      9.39    603.70       .00    603.60    603.73       .03       .00       .00    600.52
    1360.      719.      558.       83.     1016.      297.      159.      308.       66.    600.83
     1.92       .71      1.88       .52      .060      .035      .060      .036    594.31    697.85
  .000150        1.        1.        1.         0         0         0       .00    390.27   1088.11


*SECNO 20406.000
 2800 NAT Q1=     896.31  WSEL=     603.62  ENC Q1=     896.31  WSEL=     603.72  RATIO=    .0000
 NAT Q1=     939.  RATIOS LOB,CH,ROB=    .7214    .1568    .1217  WSEL=     603.72

3470 ENCROACHMENT STATIONS=      675.7     1073.9  TYPE=      4  TARGET=        .045
 20406.00      9.78    603.72       .00    603.62    603.75       .03       .02       .00    594.45
    1360.      996.      223.      141.     1135.       77.      169.      311.       67.    594.08
     1.95       .88      2.90       .84      .060      .035      .060      .036    593.94    675.68
  .000229      100.      100.      100.         0         0         0       .00    398.24   1073.92


CCHV=     .300 CEHV=     .500
*SECNO 21223.000

3470 ENCROACHMENT STATIONS=      475.0      725.0  TYPE=      1  TARGET=      250.000
 21223.00     10.42    603.94       .00    603.84    604.02       .07       .24       .02    594.30
    1360.      340.      522.      497.      354.      159.      456.      333.       73.    595.70
     2.07       .96      3.29      1.09      .070      .040      .070      .036    593.52    475.00
  .000408      817.      817.      817.         2         0         0       .00    250.00    725.00


*SECNO 21323.000

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      500.0      700.0  TYPE=      1  TARGET=      200.000
 21323.00     10.08    603.60    603.40    603.49    604.57       .97       .10       .45    596.02
    1360.      215.      974.      171.       83.      105.       84.      335.       74.    597.89
     2.07      2.60      9.24      2.04      .070      .040      .070      .036    593.52    507.56
  .006361      100.      100.      100.         6         8         0       .00    192.44    700.00
```

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
645.67	605.87	.00	1108.	252.	32.	32.	599.82	603.40

3470 ENCROACHMENT STATIONS= 389.0 790.0 TYPE= 1 TARGET= 401.000

21359.00	10.05	604.87	.00	604.86	605.04	.17	.47	.00	597.79
1360.	418.	538.	404.	242.	113.	238.	335.	74.	597.32
2.07	1.73	4.77	1.70	.070	.040	.070	.036	594.82	500.00
.001712	36.	36.	36.	2	0	7	.00	200.00	700.00

*SECNO 21409.000

3470 ENCROACHMENT STATIONS= 339.0 835.0 TYPE= 1 TARGET= 496.000

21409.00	10.15	604.97	.00	604.96	605.12	.15	.08	.00	597.79
1360.	424.	525.	411.	251.	114.	247.	336.	74.	597.32
2.08	1.69	4.61	1.66	.070	.040	.070	.036	594.82	500.00
.001571	50.	50.	50.	2	0	0	.00	200.00	700.00

CCHV= .100 CEHV= .300

*SECNO 23000.000

3470 ENCROACHMENT STATIONS= 1075.0 1475.0 TYPE= 1 TARGET= 400.000

23000.00	9.10	605.95	.00	605.90	606.03	.07	.90	.01	601.50
1360.	573.	733.	54.	774.	253.	98.	360.	82.	603.00
2.28	.74	2.90	.55	.070	.035	.070	.036	596.85	1075.00
.000354	1000.	1591.	1591.	3	0	0	.00	400.00	1475.00

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

*SECNO 23001.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85

3470 ENCROACHMENT STATIONS=		1075.0	1475.0	TYPE=	1	TARGET=	400.000		
23001.00	9.15	606.00	.00	605.94	606.03	.03	.00	.00	601.50
1360.	906.	369.	85.	787.	197.	99.	360.	82.	603.00
2.28	1.15	1.87	.86	.070	.035	.070	.036	596.85	1075.00
.000839	1.	1.	1.	2	0	0	-61.14	400.00	1475.00

*SECNO 23012.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85

3470 ENCROACHMENT STATIONS=		1075.0	1475.0	TYPE=	1	TARGET=	400.000		
23012.00	9.16	606.01	.00	605.95	606.04	.03	.01	.00	601.50
1360.	907.	368.	85.	789.	197.	100.	361.	82.	603.00
2.28	1.15	1.87	.86	.070	.035	.070	.036	596.85	1075.00
.000833	11.	11.	11.	0	0	0	-61.14	400.00	1475.00

*SECNO 23013.000

3470 ENCROACHMENT STATIONS=		1075.0	1475.0	TYPE=	1	TARGET=	400.000		
23013.00	9.13	605.98	.00	605.93	606.06	.07	.00	.01	601.50
1360.	576.	729.	55.	782.	254.	100.	361.	82.	603.00
2.28	.74	2.87	.55	.070	.035	.070	.036	596.85	1075.00
.000346	1.	1.	1.	2	0	0	.00	400.00	1475.00

*SECNO 23256.000

3470 ENCROACHMENT STATIONS=		900.0	1350.0	TYPE=	1	TARGET=	450.000		
23256.00	10.08	606.10	.00	606.03	606.12	.02	.06	.00	597.00
1360.	931.	234.	195.	1260.	95.	374.	369.	85.	597.24
2.35	.74	2.46	.52	.070	.035	.070	.036	596.02	900.00
.000172	243.	243.	243.	2	0	0	.00	450.00	1350.00

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

*SECNO 24202.000

3470 ENCROACHMENT STATIONS=      702.4      897.6  TYPE=     1  TARGET=      195.200
 24202.00      10.26     606.27       .00     606.19     606.39       .11        .24        .03    602.77
    1360.       238.       898.       223.       257.       274.       247.       396.        92.     602.92
     2.46        .93       3.28        .90       .070       .035       .070       .036     596.01    702.46
  .000427       946.       946.       946.          2          0          0        .00     195.09    897.54

*SECNO 24203.000

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  602.77 MAX ELLC=  602.92

 24203.00      10.32     606.33       .00     606.26     606.40       .06        .00        .01    602.77
    1360.       395.       594.       371.       262.       242.       252.       396.        92.     602.92
     2.46        1.51       2.45       1.47       .070       .035       .070       .036     596.01    702.46
  .001105          1.         1.         1.          2          0          0     -33.78     195.09    897.54


*SECNO 24219.000

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  602.77 MAX ELLC=  602.92

 24219.00      10.34     606.35       .00     606.28     606.41       .06        .02        .00    602.77
    1360.       396.       593.       371.       263.       243.       253.       396.        92.     602.92
     2.46        1.51       2.44       1.47       .070       .035       .070       .036     596.01    702.46
  .001094         16.        16.        16.          0          0          0     -33.78     195.09    897.54

*SECNO 24220.000
 24220.00      10.31     606.32       .00     606.24     606.43       .11        .00        .02    602.77
    1360.       240.       894.       225.       260.       275.       250.       396.        92.     602.92
     2.46        .92       3.25        .90       .070       .035       .070       .036     596.01    702.46
  .000416          1.         1.         1.          2          0          0        .00     195.09    897.54

CCHV=    .300 CEHV=    .500
*SECNO 24474.000

3470 ENCROACHMENT STATIONS=      503.0      597.0  TYPE=     1  TARGET=       94.000
 24474.00      10.13     606.38       .00     606.30     606.63       .26        .13        .07    602.77
    1360.        90.      1185.        84.       104.       272.       100.       399.        92.     602.92
     2.48        .87       4.35        .85       .100       .035       .100       .036     596.25    503.00
  .000749       254.       254.       150.          2          0          0        .00      94.00    597.00
```

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

*SECNO 24574.000
2800 NAT Q1= 329.89 WSEL= 606.32 ENC Q1= 339.47 WSEL= 606.42 RATIO= -.0290
NAT Q1= 339. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 606.42

3470 ENCROACHMENT STATIONS= 428.0 472.0 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24574.00	8.48	606.39	.00	606.32	606.83	.43	.10	.09	605.00
1360.	0	1360.	0	0	257.	0	400.	93.	606.01
2.48	.00	5.29	.00	.100	.035	.100	.036	597.91	428.00
.001649	100.	100.	10.	2	0	0	.00	44.00	472.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 606.37 BRIDGE VELOCITY= 5.65 CALCULATED CHANNEL AREA= 239.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.00	606.94	.08	0	1360.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24588.00	8.50	606.51	.00	606.41	606.94	.43	.11	.00	605.10
1360.	0	1360.	0	0	258.	0	400.	93.	606.11
2.48	.00	5.27	.00	.100	.035	.100	.036	598.01	428.00
.001618	14.	14.	14.	0	0	0	.00	44.00	472.00

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	8.69	606.70	.00	606.60	607.04	.34	.07	.03	605.10
1360.	61.	1285.	15.	85.	266.	35.	401.	93.	606.11
2.48	.72	4.82	.43	.100	.035	.100	.036	598.01	375.00
.001298	50.	50.	50.	2	0	0	.00	145.00	520.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 25020.000									
3470 ENCROACHMENT STATIONS=		570.0	670.0	TYPE=	1	TARGET=	100.000		
25020.00	8.90	607.10	.00	607.02	607.59	.49	.48	.08	598.50
1360.	158.	980.	222.	101.	149.	192.	404.	94.	598.50
2.50	1.56	6.59	1.16	.100	.035	.100	.036	598.20	570.00
.001338	100.	382.	407.	2	0	0	.00	100.00	670.00
CCHV= .300 CEHV= .500									
*SECNO 25137.000									
3470 ENCROACHMENT STATIONS=		1.0	825.0	TYPE=	1	TARGET=	824.000		
25137.00	9.23	607.30	.00	607.24	607.72	.42	.11	.02	599.84
1360.	35.	1320.	5.	34.	250.	12.	405.	94.	599.94
2.51	1.02	5.29	.44	.080	.030	.090	.036	598.07	676.37
.000737	10.	117.	117.	2	0	0	.00	57.46	733.83
SPECIAL BRIDGE									
SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07
*SECNO 25306.000									
PRESSURE AND WEIR FLOW									
EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	
611.13	608.10	.00	346.	1016.	156.	156.	606.16	607.78	
25306.00	11.12	609.19	.00	609.17	609.44	.25	1.72	.00	599.84
1360.	51.	1255.	54.	61.	300.	148.	406.	94.	599.94
2.52	.84	4.19	.37	.080	.030	.090	.036	598.07	670.00
.000352	169.	169.	169.	2	0	2	.00	155.00	825.00
*SECNO 25340.000									
3470 ENCROACHMENT STATIONS=		600.0	800.0	TYPE=	1	TARGET=	200.000		
25340.00	11.21	609.41	.00	609.40	609.50	.08	.01	.05	598.40
1360.	274.	843.	243.	433.	289.	433.	407.	94.	598.40
2.53	.63	2.92	.56	.080	.030	.090	.036	598.20	600.00
.000140	34.	34.	34.	2	0	0	.00	200.00	800.00

BLAKELEY DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ZLMIN	Q	CWSEL	CRIWS	EG	TTKWS	VCH	AREA	.01K
0.000	0.00	0.00	0.00	581.70	1360.00	590.96	0.00	591.14	8.78	4.13	886.48	458.97
0.000	0.00	0.00	0.00	581.70	1360.00	591.06	0.00	591.22	7.84	3.94	942.84	485.80
1320.000	1320.00	0.00	0.00	582.40	1360.00	591.96	0.00	592.09	5.92	3.88	971.12	558.82
1320.000	1320.00	0.00	0.00	582.40	1360.00	591.90	0.00	592.1?	5.81	3.86	978.98	564.25
2540.000	1220.01	0.00	0.00	583.23	1360.00	592.78	0.00	592.91	7.65	3.64	733.20	492.32
2540.000	1220.01	0.00	0.00	583.23	1360.00	592.79	0.00	592.92	7.57	3.63	737.02	494.37
2640.000	100.00	0.00	0.00	583.23	1360.00	592.86	0.00	592.95	2.43	2.98	898.76	871.63
2640.000	100.00	0.00	0.00	583.23	1360.00	592.86	0.00	592.95	2.38	2.95	957.49	881.17
2675.000	35.00	591.83	589.80	582.98	1360.00	592.99	0.00	593.10	2.66	3.20	909.50	833.76
2675.000	35.00	591.83	589.80	582.98	1360.00	592.99	0.00	593.11	2.65	3.20	912.37	835.66
2700.000	25.00	0.00	0.00	582.98	1360.00	593.01	0.00	593.11	4.13	2.83	887.47	669.41
2700.000	25.00	0.00	0.00	582.98	1360.00	593.02	0.00	593.12	4.10	2.82	890.86	671.66
4106.000	1406.00	0.00	0.00	582.83	1360.00	593.62	0.00	593.77	5.43	4.64	1197.44	583.70
4106.000	1406.00	0.00	0.00	582.83	1360.00	593.63	0.00	593.79	5.73	4.77	1026.45	566.19
5406.000	1300.00	0.00	0.00	583.98	1360.00	594.25	0.00	594.31	3.22	3.58	1827.04	757.52
5406.000	1300.00	0.00	0.00	583.98	1360.00	594.30	0.00	594.36	3.36	3.66	1655.76	742.12
6906.000	1500.00	0.00	0.00	584.94	1360.00	594.90	0.00	595.06	7.63	5.37	1322.56	692.20
6906.000	1500.00	0.00	0.00	584.94	1360.00	594.97	0.00	595.12	7.86	5.47	1161.01	685.19
7473.000	567.00	0.00	0.00	585.77	1360.00	595.29	0.00	595.43	5.96	3.85	1249.24	557.24
7473.000	567.00	0.00	0.00	585.77	1360.00	595.37	0.00	595.48	5.16	3.62	1136.02	597.39
7475.000	2.00	591.33	591.05	585.77	1360.00	595.39	0.00	595.44	12.73	2.65	1276.96	389.69
7475.000	2.00	591.33	591.05	585.77	1360.00	595.45	0.00	595.49	10.29	2.40	1140.26	426.02
7479.000	4.00	591.33	591.85	585.77	1360.00	595.40	0.00	595.44	12.14	2.59	1276.57	390.35
7479.000	4.00	591.33	591.95	585.77	1360.00	595.46	0.00	595.51	10.26	2.40	1141.13	424.56
7481.000	2.00	0.00	0.00	585.77	1360.00	595.36	0.00	595.47	5.67	3.78	1278.98	571.36
7481.000	2.00	0.00	0.00	585.77	1360.00	595.44	0.00	595.51	3.58	3.03	1554.37	718.39
7857.000	376.00	0.00	0.00	586.55	1360.00	595.51	0.00	595.77	8.06	5.05	941.25	451.64
7857.000	376.00	0.00	0.00	586.55	1360.00	595.57	0.00	595.77	9.09	5.06	898.16	451.08
7859.000	2.00	592.33	592.76	586.55	1360.00	595.71	0.00	595.79	21.73	5.30	991.06	891.73
7859.000	2.00	592.33	592.76	586.55	1360.00	595.67	0.00	595.79	28.64	4.01	824.79	255.25
7863.000	4.00	592.33	592.82	585.81	1360.00	595.76	0.00	595.80	13.64	2.78	1193.61	368.21
7863.000	4.00	592.33	592.82	585.81	1360.00	595.74	0.00	595.81	17.99	3.19	1014.16	320.65

PRINTED IN U.S.A.
REORDER FORMS

7865.000	2.00	0.00	0.00	585.81	1360.00	595.72	0.00	595.82	3.62	3.53	1439.50	695.82
7865.000	2.00	0.00	0.00	585.81	1360.00	595.71	0.00	595.82	3.95	3.59	1341.89	683.98
8335.000	470.00	0.00	0.00	586.18	1360.00	595.86	0.00	596.10	7.12	4.68	858.49	509.86
8335.000	470.00	0.00	0.00	586.18	1360.00	595.83	0.00	596.14	8.20	5.01	650.91	474.82

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FORM 1411-08 PRINTED BY ROTARY MANIFOLD FORMS.

SECND	XLCH	ELTRD	ELLC	ELTIN	Q	SNGEL	CPINS	EG	IDK*S	VCH	AREA	DIK
8337.000	2.00	592.87	592.40	586.16	1360.00	596.02	0.00	596.12	21.66	3.55	874.39	292.25
8337.000	2.00	592.87	592.40	586.18	1360.00	596.00	0.00	596.15	29.76	4.16	638.95	249.31
8344.000	7.00	592.87	592.40	586.18	1360.00	596.04	0.00	596.14	21.46	3.54	877.52	293.54
8344.000	7.00	592.87	592.40	586.18	1360.00	596.02	0.00	596.18	29.65	4.14	641.58	250.62
8346.000	2.00	0.00	0.00	586.18	1360.00	595.95	0.00	596.18	6.63	4.54	894.63	526.34
8346.000	2.00	0.00	0.00	586.18	1360.00	595.93	0.00	596.22	7.72	4.90	673.14	489.42
8810.000	464.00	0.00	0.00	586.46	1360.00	596.23	0.00	596.56	6.93	5.77	753.46	455.09
8810.000	464.00	0.00	0.00	586.46	1360.00	596.29	0.00	596.61	8.63	5.69	769.93	465.07
8910.000	100.00	0.00	0.00	586.46	1360.00	596.26	0.00	596.70	7.82	6.31	606.70	486.31
8910.000	100.00	0.00	0.00	586.46	1360.00	596.32	0.00	596.74	7.58	6.24	622.08	493.83
8948.000	38.00	596.94	595.14	586.91	1360.00	597.40	0.00	597.70	5.48	5.48	730.26	560.94
8948.000	38.00	596.94	595.14	586.91	1360.00	597.41	0.00	597.72	5.43	5.46	735.02	563.41
9190.000	242.00	0.00	0.00	586.40	1360.00	597.78	0.00	597.85	2.13	2.82	1508.76	932.00
9190.000	242.00	0.00	0.00	586.48	1360.00	597.79	0.00	597.86	2.21	2.88	1433.62	915.03
9432.000	242.00	0.00	0.00	586.92	1360.00	597.76	0.00	597.99	3.17	4.16	704.21	765.67
9432.000	242.00	0.00	0.00	586.92	1360.00	597.77	0.00	598.00	3.15	4.15	707.57	765.84
9433.000	1.00	595.65	594.10	586.92	1360.00	597.57	0.00	598.18	39.64	6.80	371.29	216.02
9435.000	1.00	595.65	594.10	586.92	1360.00	597.59	0.00	598.19	39.38	6.78	374.41	216.71
9445.000	112.00	595.43	594.10	586.24	1360.00	598.24	0.00	598.62	25.45	5.54	541.05	264.40
9445.000	112.00	595.55	594.10	586.24	1360.00	598.29	0.00	598.62	25.32	5.53	552.99	265.07
9446.000	1.00	0.00	0.00	586.24	1360.00	598.52	0.00	598.67	2.20	3.56	960.53	917.76
9446.000	1.00	0.00	0.00	586.24	1360.00	598.52	0.00	598.68	2.19	3.56	962.17	918.91
9500.000	54.00	0.00	0.00	586.24	1360.00	598.53	0.00	598.68	2.18	3.55	966.43	920.69
9500.000	54.00	0.00	0.00	586.24	1360.00	598.54	0.00	598.69	2.18	3.55	966.06	921.66
10056.000	556.00	0.00	0.00	586.83	1360.00	598.77	0.00	598.79	1.20	2.32	2115.68	1245.63
10056.000	556.00	0.00	0.00	586.88	1360.00	598.77	0.00	598.79	1.19	2.31	2117.93	1245.29
10360.000	304.00	0.00	0.00	587.98	1360.00	598.76	0.00	598.90	2.65	3.79	1098.74	835.15
10360.000	304.00	0.00	0.00	587.98	1360.00	598.77	0.00	598.90	2.64	3.79	1100.40	836.45
10560.000	200.00	0.00	0.00	587.60	1360.00	598.75	0.00	599.08	6.29	4.64	441.42	472.46
10560.000	200.00	0.00	0.00	587.60	1360.00	598.76	0.00	599.09	8.26	4.63	442.50	473.09
10584.000	24.00	592.61	594.10	587.60	1360.00	599.39	0.00	599.63	5.67	4.20	598.95	571.17
10584.000	24.00	592.61	594.10	587.60	1360.00	599.40	0.00	599.63	5.66	4.20	599.41	571.56
10634.000	50.00	0.00	0.00	588.10	1360.00	599.60	0.00	599.69	1.71	3.18	1363.46	1040.68
10634.000	50.00	0.00	0.00	588.10	1360.00	599.60	0.00	599.69	1.71	3.18	1363.60	1041.06
11506.000	872.00	0.00	0.00	588.24	1360.00	599.79	0.00	599.82	1.30	2.45	1999.69	1191.55
11506.000	872.00	0.00	0.00	588.24	1360.00	599.79	0.00	599.82	1.30	2.45	2000.39	1192.55

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

THIS RUN EXECUTED 2/21/ 1982 13: 7:29

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

BLAKELY DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10634.000	50.00	.00	.00	588.10	1360.00	599.60	.00	599.67	2.01	2.96	1362.86	958.75
10634.000	50.00	.00	.00	588.10	1360.00	599.60	.00	599.69	2.26	3.14	1186.86	904.00
11506.000	872.00	.00	.00	588.24	1360.00	599.78	.00	599.81	1.32	2.46	1991.50	1185.50
11506.000	872.00	.00	.00	588.24	1360.00	599.81	.00	599.88	2.42	3.34	1199.26	875.12
12478.000	972.00	.00	.00	589.47	950.00	599.88	.00	600.00	2.51	3.17	491.65	600.08
12478.000	972.00	.00	.00	589.47	950.00	600.01	.00	600.13	2.39	3.12	500.84	614.91
12578.000	100.00	.00	.00	589.47	950.00	599.84	.00	600.11	4.44	4.21	225.41	450.63
12578.000	100.00	.00	.00	589.47	950.00	599.97	.00	600.24	6.99	4.16	228.42	359.27
12622.000	44.00	604.06	595.63	588.43	950.00	600.86	.00	601.15	5.09	4.32	219.68	420.98
12622.000	44.00	999999.00	.00	588.43	950.00	601.00	.00	601.28	8.63	4.27	222.70	323.35
12672.000	50.00	.00	.00	588.43	1360.00	601.11	.00	601.22	3.19	3.48	823.32	760.86
12672.000	50.00	.00	.00	588.43	1360.00	601.24	.00	601.35	3.03	3.42	839.76	781.70
13382.000	710.00	.00	.00	590.04	1360.00	601.31	.00	601.33	.68	1.76	2228.32	1647.60
13382.000	710.00	.00	.00	590.04	1360.00	601.44	.00	601.46	.69	1.79	2167.83	1637.36
13482.000	100.00	.00	.00	590.00	1360.00	601.30	.00	601.36	2.58	2.65	1320.48	846.84
13482.000	100.00	.00	.00	590.00	1360.00	601.43	.00	601.49	2.40	2.58	1358.97	878.55
13483.000	1.00	598.80	605.00	590.00	1360.00	601.27	.00	601.40	36.52	4.05	646.57	225.04
13483.000	1.00	598.80	605.00	590.00	1360.00	601.40	.00	601.52	31.51	3.82	680.01	242.28
13569.000	86.00	598.80	605.00	590.00	1360.00	601.58	.00	601.67	25.49	3.49	745.68	269.37
13569.000	86.00	598.80	605.00	590.00	1360.00	601.67	.00	601.76	23.38	3.37	763.47	281.25
13570.000	1.00	.00	.00	590.00	1360.00	601.63	.00	601.68	1.90	2.61	1442.62	985.75
13570.000	1.00	.00	.00	590.00	1360.00	601.72	.00	601.77	1.82	2.57	1462.74	1007.91

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13595.000	25.00	.00	.00	589.70	1360.00	601.69	.00	601.70	.85	1.77	2451.54	1479.42
13595.000	25.00	.00	.00	589.70	1360.00	601.77	.00	601.79	.85	1.78	2325.37	1478.38
15306.000	1711.00	.00	.00	590.18	1360.00	601.89	.00	601.92	1.99	3.07	2209.42	963.85
15306.000	1711.00	.00	.00	590.18	1360.00	601.97	.00	602.01	2.07	3.15	2136.04	944.82
16306.000	1000.00	.00	.00	590.85	1360.00	602.10	.00	602.13	2.06	3.06	1706.22	947.00
16306.000	1000.00	.00	.00	590.85	1360.00	602.19	.00	602.22	1.96	2.99	1738.32	972.61
17146.000	840.00	.00	.00	591.21	1360.00	602.24	.00	602.40	3.46	3.64	578.94	731.03
17146.000	840.00	.00	.00	591.21	1360.00	602.32	.00	602.48	3.36	3.60	585.40	742.22
17246.000	100.00	.00	.00	591.21	1360.00	602.20	.00	602.53	5.99	4.60	295.92	555.79
17246.000	100.00	.00	.00	591.21	1360.00	602.28	.00	602.60	5.83	4.56	298.33	563.36
17310.000	64.00	606.34	603.43	591.21	1360.00	602.24	.00	602.57	5.50	4.58	296.94	580.11
17310.000	64.00	606.34	603.43	591.21	1360.00	602.32	.00	602.64	5.35	4.54	299.32	587.87
17375.000	65.00	.00	.00	592.26	1360.00	602.49	.00	602.64	3.17	3.33	521.04	763.74
17375.000	65.00	.00	.00	592.26	1360.00	602.56	.00	602.72	3.09	3.30	525.60	774.03
17437.000	62.00	.00	.00	592.26	1360.00	602.42	.00	602.77	6.34	4.78	284.42	539.93
17437.000	62.00	.00	.00	592.26	1360.00	602.49	.00	602.84	6.18	4.74	286.70	547.16
17450.000	86.00	606.71	603.27	592.13	1360.00	602.48	.00	602.83	6.17	4.73	287.40	547.39
17450.000	86.00	606.71	603.27	592.13	1360.00	602.55	.00	602.90	6.02	4.70	289.63	554.49
17500.000	50.00	.00	.00	592.13	1360.00	602.83	.00	602.92	2.26	2.73	747.25	905.36
17500.000	50.00	.00	.00	592.13	1360.00	602.86	.00	602.98	2.65	2.97	618.26	835.00
18566.000	1066.00	.00	.00	593.55	1360.00	603.06	.00	603.07	.70	1.34	2403.25	1624.79
18566.000	1066.00	.00	.00	593.55	1360.00	603.15	.00	603.17	.96	1.59	1815.89	1385.03
18666.000	100.00	.00	.00	593.55	1360.00	603.06	.00	603.09	1.39	2.25	1800.38	1152.61
18666.000	100.00	.00	.00	593.55	1360.00	603.16	.00	603.19	1.54	2.38	1574.48	1094.56
18667.000	1.00	600.71	600.16	593.55	1360.00	603.04	.00	603.10	12.36	3.11	1020.45	386.91
18667.000	1.00	600.71	600.16	593.55	1360.00	603.13	.00	603.22	15.69	3.54	844.21	343.30
18705.000	38.00	600.71	600.16	593.55	1360.00	603.09	.00	603.15	11.73	3.05	1039.88	397.14
18705.000	38.00	600.71	600.16	593.55	1360.00	603.19	.00	603.28	14.55	3.43	868.03	356.51
18706.000	1.00	.00	.00	593.55	1360.00	603.13	.00	603.16	1.33	2.21	1832.26	1178.75
18706.000	1.00	.00	.00	593.55	1360.00	603.26	.00	603.29	1.46	2.33	1610.70	1127.33
18756.000	50.00	.00	.00	593.65	1360.00	603.15	.00	603.17	.81	1.50	2404.08	1513.53
18756.000	50.00	.00	.00	593.65	1360.00	603.29	.00	603.30	.81	1.52	2312.05	1513.65
19061.000	305.00	.00	.00	593.25	1360.00	603.12	.00	603.25	5.45	3.34	823.64	582.43
19061.000	305.00	.00	.00	593.25	1360.00	603.27	.00	603.38	4.66	3.13	898.39	630.05

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	19062.000	1.00	601.48	602.18	593.25	1360.00	603.19	.00	603.26	18.47	2.64	795.89	316.48
	19062.000	1.00	601.48	602.18	593.25	1360.00	603.33	.00	603.39	14.73	2.40	866.19	354.35
	19070.000	8.00	601.48	602.18	593.25	1360.00	603.21	.00	603.28	18.19	2.63	800.69	318.85
	19070.000	8.00	601.48	602.18	593.25	1360.00	603.34	.00	603.40	14.56	2.39	870.06	356.42
	19071.000	1.00	.00	.00	593.25	1360.00	603.17	.00	603.29	5.20	3.27	847.25	596.53
	19071.000	1.00	.00	.00	593.25	1360.00	603.31	.00	603.42	4.48	3.08	917.82	642.55
	20293.000	1222.00	.00	.00	594.31	1360.00	603.59	.00	603.62	1.53	1.88	1575.82	1098.60
	20293.000	1222.00	.00	.00	594.31	1360.00	603.69	.00	603.72	1.53	1.90	1453.44	1099.31
	20294.000	1.00	600.52	598.68	594.31	1360.00	603.61	.00	603.62	2.91	1.10	1503.29	797.20
	20294.000	1.00	600.52	598.68	594.31	1360.00	603.71	.00	603.72	2.92	1.12	1388.46	795.28
	20305.000	11.00	600.52	598.68	594.31	1360.00	603.61	.00	603.62	2.88	1.10	1508.24	801.07
	20305.000	11.00	600.52	598.68	594.31	1360.00	603.71	.00	603.73	2.88	1.11	1399.05	801.48
	20306.000	1.00	.00	.00	594.31	1360.00	603.60	.00	603.63	1.51	1.87	1585.02	1106.74
	20306.000	1.00	.00	.00	594.31	1360.00	603.70	.00	603.73	1.50	1.88	1471.40	1110.97
	20406.000	100.00	.00	.00	593.94	1360.00	603.62	.00	603.65	2.30	2.89	1513.49	896.31
	20406.000	100.00	.00	.00	593.94	1360.00	603.72	.00	603.75	2.29	2.90	1380.98	898.14
	21223.000	817.00	.00	.00	593.52	1360.00	603.84	.00	603.92	4.35	3.38	944.01	651.70
	21223.000	817.00	.00	.00	593.52	1360.00	603.94	.00	604.02	4.08	3.29	968.34	673.67
*	21323.000	100.00	.00	.00	593.52	1360.00	603.49	603.49	604.57	69.89	9.60	251.87	162.68
	21323.000	100.00	.00	.00	593.52	1360.00	603.60	603.40	604.57	63.61	9.24	272.02	170.52
	21359.000	36.00	603.40	599.82	594.82	1360.00	604.86	.00	605.03	17.25	4.79	590.91	327.45
	21359.000	36.00	603.40	599.82	594.82	1360.00	604.87	.00	605.04	17.12	4.77	592.70	328.74
	21409.000	50.00	.00	.00	594.82	1360.00	604.96	.00	605.12	15.81	4.62	610.88	342.02
	21409.000	50.00	.00	.00	594.82	1360.00	604.97	.00	605.12	15.71	4.61	612.45	343.17
	23000.000	1591.00	.00	.00	596.85	1360.00	605.90	.00	605.96	3.24	2.76	1249.59	756.11
	23000.000	1591.00	.00	.00	596.85	1360.00	605.95	.00	606.03	3.54	2.90	1124.89	722.62
	23001.000	1.00	604.85	604.85	596.85	1360.00	605.94	.00	605.97	7.24	1.73	1207.27	505.31
	23001.000	1.00	604.85	604.85	596.85	1360.00	606.00	.00	606.03	8.39	1.87	1082.47	469.45
	23012.000	11.00	604.85	604.85	596.85	1360.00	605.95	.00	605.98	7.19	1.72	1209.97	507.05
	23012.000	11.00	604.85	604.85	596.85	1360.00	606.01	.00	606.04	8.33	1.87	1085.08	471.18
	23013.000	1.00	.00	.00	596.85	1360.00	605.93	.00	605.99	3.17	2.73	1259.65	763.64
	23013.000	1.00	.00	.00	596.85	1360.00	605.98	.00	606.06	3.46	2.87	1135.42	730.91
	23256.000	243.00	.00	.00	596.02	1360.00	606.03	.00	606.05	1.60	2.37	1822.09	1073.89
	23256.000	243.00	.00	.00	596.02	1360.00	606.10	.00	606.12	1.72	2.46	1729.13	1037.45

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
24202.000	946.00	.00	.00	596.01	1360.00	606.19	.00	606.31	4.49	3.34	761.83	641.57
24202.000	946.00	.00	.00	596.01	1360.00	606.27	.00	606.39	4.27	3.28	777.54	658.15
24203.000	1.00	602.77	602.92	596.01	1360.00	606.26	.00	606.32	11.75	2.51	740.38	396.74
24203.000	1.00	602.77	602.92	596.01	1360.00	606.33	.00	606.40	11.05	2.45	755.58	409.16
24219.000	16.00	602.77	602.92	596.01	1360.00	606.28	.00	606.34	11.63	2.50	742.90	398.80
24219.000	16.00	602.77	602.92	596.01	1360.00	606.35	.00	606.41	10.94	2.44	757.96	411.13
24220.000	1.00	.00	.00	596.01	1360.00	606.24	.00	606.36	4.37	3.31	770.62	650.82
24220.000	1.00	.00	.00	596.01	1360.00	606.32	.00	606.43	4.16	3.25	785.87	667.03
24474.000	254.00	.00	.00	596.25	1360.00	606.30	.00	606.57	7.76	4.40	469.10	488.11
24474.000	254.00	.00	.00	596.25	1360.00	606.38	.00	606.63	7.49	4.35	475.97	496.85
24574.000	100.00	.00	.00	597.91	1360.00	606.32	.00	606.77	17.00	5.35	254.17	329.89
24574.000	100.00	.00	.00	597.91	1360.00	606.39	.00	606.83	16.49	5.29	257.32	334.94
24588.000	14.00	609.80	607.81	598.01	1360.00	606.41	.00	606.85	17.13	5.36	253.56	328.56
24588.000	14.00	609.80	607.81	598.01	1360.00	606.51	.00	606.94	16.18	5.27	257.96	338.12
24638.000	50.00	.00	.00	598.01	1360.00	606.60	.00	606.96	13.86	4.93	371.40	365.37
24638.000	50.00	.00	.00	598.01	1360.00	606.70	.00	607.04	12.98	4.82	385.60	377.48
25020.000	382.00	.00	.00	598.20	1360.00	607.02	.00	607.53	13.88	6.68	434.87	365.02
25020.000	382.00	.00	.00	598.20	1360.00	607.10	.00	607.59	13.38	6.59	442.01	371.78
25137.000	117.00	.00	.00	598.07	1360.00	607.24	.00	607.67	7.54	5.33	292.41	495.35
25137.000	117.00	.00	.00	598.07	1360.00	607.30	.00	607.72	7.37	5.29	295.56	501.02
25306.000	169.00	607.78	606.16	598.07	1360.00	609.17	.00	609.43	3.54	4.19	506.54	723.32
25306.000	169.00	607.78	606.16	598.07	1360.00	609.19	.00	609.44	3.52	4.19	508.44	725.18
25340.000	34.00	.00	.00	598.20	1360.00	609.40	.00	609.49	1.40	2.92	1153.41	1147.48
25340.000	34.00	.00	.00	598.20	1360.00	609.41	.00	609.50	1.40	2.92	1155.67	1150.26

SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKWS	TOPWID	XLCH
8337.000	1360.00	596.02	0.00	0.16	0.00	400.04	2.00
8337.000	1360.00	596.00	0.00	0.16	-0.02	234.00	2.00
8346.000	1360.00	596.04	0.00	0.02	0.00	400.04	7.00
8346.000	1360.00	596.02	0.00	0.02	-0.02	234.00	7.00
8346.000	1360.00	595.95	0.00	-0.09	0.00	400.04	2.00
8346.000	1360.00	595.93	0.00	-0.09	-0.02	234.00	2.00
8810.000	1360.00	596.23	0.00	0.28	0.00	340.00	464.00
8810.000	1360.00	596.21	0.00	0.35	0.05	340.00	464.00
8910.000	1360.00	596.26	0.00	0.03	0.00	303.19	100.00
8910.000	1360.00	596.32	0.00	0.03	0.05	299.90	100.00
8948.000	1360.00	597.40	0.00	1.14	0.00	299.54	38.00
8948.000	1360.00	597.41	0.00	1.10	0.02	299.91	38.00
9190.000	1360.00	597.78	0.00	0.38	0.00	410.00	242.00
9190.000	1360.00	597.79	0.00	0.37	0.01	370.00	242.00
9432.000	1360.00	597.76	0.00	-0.02	0.00	286.76	242.00
9432.000	1360.00	597.77	0.00	-0.01	0.01	287.01	242.00
9433.000	1360.00	597.57	0.00	-0.19	0.00	202.00	1.00
9433.000	1360.00	597.59	0.00	-0.19	0.01	203.10	1.00
9445.000	1360.00	598.25	0.00	0.71	0.00	319.25	112.00
9445.000	1360.00	598.29	0.00	0.70	0.01	319.25	112.00
9446.000	1360.00	598.52	0.00	0.24	0.00	319.25	1.00
9446.000	1360.00	598.52	0.00	0.23	0.01	319.25	1.00
9500.000	1360.00	598.53	0.00	0.01	0.00	319.25	54.00
9500.000	1360.00	598.54	0.00	0.01	0.01	319.25	54.00
10056.000	1360.00	598.77	0.00	0.24	0.00	461.31	556.00
10056.000	1360.00	598.77	0.00	0.24	0.00	461.70	556.00
10360.000	1360.00	598.76	0.00	-0.01	0.00	340.00	304.00
10360.000	1360.00	598.77	0.00	-0.01	0.00	340.00	304.00
10560.000	1360.00	598.75	0.00	-0.01	0.00	232.73	200.00
10560.000	1360.00	598.76	0.00	-0.01	0.01	232.69	200.00
10584.000	1360.00	599.39	0.00	0.64	0.00	257.90	24.00
10584.000	1360.00	599.40	0.00	0.64	0.00	258.10	24.00
10634.000	1360.00	599.60	0.00	0.21	0.00	360.00	50.00
10634.000	1360.00	599.60	0.00	0.21	0.00	360.00	50.00
11506.000	1360.00	599.79	0.00	0.19	0.00	328.75	872.00
11506.000	1360.00	599.79	0.00	0.19	0.00	328.76	872.00

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

BLAKELEY DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	A	CISEC	DIFMSP	DIFMSX	DIFKWS	TOPWID	XLCN
0.000	1360.00	590.96	0.00	0.00	0.95	559.89	0.00
0.000	1360.00	591.06	0.00	0.00	0.10	566.14	0.00
1320.000	1360.00	591.96	0.00	1.00	0.00	330.00	1320.00
1320.000	1360.00	591.98	0.00	0.93	0.32	330.00	1320.00
2540.000	1360.00	592.78	0.00	0.81	0.00	348.01	1220.00
2540.000	1360.00	592.79	0.00	0.80	0.01	348.01	1220.00
2640.000	1360.00	592.85	0.00	0.07	0.00	317.01	100.00
2640.000	1360.00	592.86	0.00	0.07	0.01	409.93	100.00
2675.000	1360.00	592.99	0.00	0.14	0.00	356.65	35.00
2675.000	1360.00	592.99	0.00	0.13	0.01	356.65	35.00
2700.000	1360.00	593.01	0.00	0.02	0.00	420.00	25.00
2700.000	1360.00	593.02	0.00	0.02	0.01	420.00	25.00
4106.000	1360.00	593.63	0.00	0.61	0.00	426.79	1406.00
4106.000	1360.00	593.63	0.00	0.62	0.01	262.38	1406.00
5406.000	1360.00	594.25	0.00	0.63	0.00	619.94	1300.00
5406.000	1360.00	594.30	0.00	0.66	0.05	460.55	1300.00
6906.000	1360.00	594.90	0.00	0.60	0.00	709.36	1500.00
6906.000	1360.00	594.97	0.00	0.67	0.07	416.78	1500.00
7473.000	1360.00	595.29	0.00	0.32	0.00	600.06	567.00
7473.000	1360.00	595.37	0.00	0.41	0.08	355.00	567.00
7475.000	1360.00	595.39	0.00	0.10	0.00	600.09	2.00
7475.000	1360.00	595.45	0.00	0.08	0.06	355.00	2.00
7479.000	1360.00	595.40	0.00	0.00	0.00	600.09	4.00
7479.000	1360.00	595.46	0.00	0.00	0.06	355.00	4.00
7481.000	1360.00	595.34	0.00	-0.06	0.00	600.09	2.00
7481.000	1360.00	595.44	0.00	-0.02	0.10	355.00	2.00
7857.000	1360.00	595.51	0.00	0.17	0.00	525.02	376.00
7857.000	1360.00	595.51	0.00	0.07	0.00	541.00	376.00
7859.000	1360.00	595.71	0.00	0.20	0.00	325.03	2.00
7859.000	1360.00	595.67	0.00	0.16	-0.04	461.00	2.00
7863.000	1360.00	595.76	0.00	0.05	0.00	525.06	4.00
7863.000	1360.00	595.74	0.00	0.07	-0.02	461.00	4.00

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

7865.000	1360.01	595.72	0.03	-0.04	0.00	525.06	2.00
7865.000	1360.00	595.71	0.07	-0.03	-0.01	461.00	2.00
8335.000	1360.00	595.86	0.03	0.14	0.00	400.03	470.00
8335.000	1360.00	595.83	0.00	0.12	-0.02	234.00	470.00

PRINTED IN U.S.A.
FORM 1411-08 PRINTED BY ROTARY MANIFOLD FORMS.

BLAKELY DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10634.000	1360.00	599.60	.00	.00	.00	360.00	50.00
	10634.000	1360.00	599.60	.00	.00	.00	280.00	50.00
O	11506.000	1360.00	599.78	.00	.18	.00	528.64	872.00
	11506.000	1360.00	599.81	.02	.21	.02	240.00	872.00
	12478.000	950.00	599.88	.00	.10	.00	71.00	972.00
	12478.000	950.00	600.01	.13	.20	.13	71.00	972.00
P	12578.000	950.00	599.84	.00	-.04	.00	22.00	100.00
	12578.000	950.00	599.97	.14	-.04	.14	22.00	100.00
Q	12622.000	950.00	600.86	.00	1.02	.00	22.00	44.00
	12622.000	950.00	601.00	.14	1.02	.14	22.00	44.00
	12672.000	1360.00	601.11	.00	.25	.00	122.00	50.00
	12672.000	1360.00	601.24	.13	.25	.13	122.00	50.00
	13382.000	1360.00	601.31	.00	.20	.00	410.00	710.00
	13382.000	1360.00	601.44	.13	.19	.13	390.00	710.00
R	13482.000	1360.00	601.30	.00	-.01	.00	374.00	100.00
	13482.000	1360.00	601.43	.13	-.00	.13	364.00	100.00
	13483.000	1360.00	601.27	.00	-.04	.00	374.00	1.00
	13483.000	1360.00	601.40	.14	-.03	.14	364.00	1.00
S	13569.000	1360.00	601.58	.00	.31	.00	374.00	86.00
	13569.000	1360.00	601.67	.09	.27	.09	364.00	86.00
	13570.000	1360.00	601.63	.00	.05	.00	374.00	1.00
	13570.000	1360.00	601.72	.09	.05	.09	364.00	1.00
	13595.000	1360.00	601.69	.00	.06	.00	435.00	25.00
	13595.000	1360.00	601.77	.08	.05	.08	370.00	25.00
T	15306.000	1360.00	601.89	.00	.20	.00	440.00	1711.00
	15306.000	1360.00	601.97	.09	.20	.09	420.00	1711.00
U	16306.000	1360.00	602.10	.00	.21	.00	361.06	1000.00
	16306.000	1360.00	602.19	.09	.21	.09	361.61	1000.00
	17146.000	1360.00	602.24	.00	.14	.00	80.00	840.00
	17146.000	1360.00	602.32	.08	.13	.08	80.00	840.00
V	17246.000	1360.00	602.20	.00	-.04	.00	29.99	100.00
	17246.000	1360.00	602.28	.08	-.04	.08	29.99	100.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
W	17310.000	1360.00	602.24	.00	.04	.00	29.99	64.00
	17310.000	1360.00	602.32	.08	.04	.08	29.99	64.00
	17375.000	1360.00	602.49	.00	.25	.00	60.75	65.00
	17375.000	1360.00	602.56	.08	.24	.08	60.75	65.00
X	17437.000	1360.00	602.42	.00	-.07	.00	29.97	62.00
	17437.000	1360.00	602.49	.08	-.07	.08	29.97	62.00
Y	17450.000	1360.00	602.48	.00	.06	.00	29.97	86.00
	17450.000	1360.00	602.55	.07	.06	.07	29.97	86.00
	17500.000	1360.00	602.83	.00	.35	.00	105.30	50.00
	17500.000	1360.00	602.86	.04	.31	.04	81.00	50.00
	18566.000	1360.00	603.06	.00	.23	.00	522.00	1066.00
	18566.000	1360.00	603.15	.10	.29	.10	350.00	1066.00
Z	18666.000	1360.00	603.06	.00	.00	.00	468.05	100.00
	18666.000	1360.00	603.16	.10	.00	.10	360.00	100.00
	18667.000	1360.00	603.04	.00	-.02	.00	468.05	1.00
	18667.000	1360.00	603.13	.09	-.03	.09	360.00	1.00
AA	18705.000	1360.00	603.09	.00	.05	.00	468.06	38.00
	18705.000	1360.00	603.19	.10	.07	.10	360.00	38.00
	18706.000	1360.00	603.13	.00	.04	.00	468.06	1.00
	18706.000	1360.00	603.26	.13	.07	.13	360.00	1.00
	18756.000	1360.00	603.15	.00	.02	.00	575.00	50.00
	18756.000	1360.00	603.29	.14	.03	.14	525.00	50.00
AB	19061.000	1360.00	603.12	.00	-.03	.00	520.00	305.00
	19061.000	1360.00	603.27	.15	-.02	.15	510.00	305.00
	19062.000	1360.00	603.19	.00	.07	.00	520.00	1.00
	19062.000	1360.00	603.33	.14	.06	.14	510.00	1.00
	19070.000	1360.00	603.21	.00	.02	.00	520.00	8.00
	19070.000	1360.00	603.34	.14	.01	.14	510.00	8.00
	19071.000	1360.00	603.17	.00	-.04	.00	520.00	1.00
	19071.000	1360.00	603.31	.14	-.03	.14	510.00	1.00
AC	20293.000	1360.00	603.59	.00	.42	.00	532.99	1222.00
	20293.000	1360.00	603.69	.10	.38	.10	384.68	1222.00
	20294.000	1360.00	603.61	.00	.01	.00	533.33	1.00
	20294.000	1360.00	603.71	.10	.01	.10	388.92	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	20305.000	1360.00	603.61	.00	.00	.00	533.79	11.00
	20305.000	1360.00	603.71	.10	.00	.10	392.32	11.00
	20306.000	1360.00	603.60	.00	-.01	.00	533.85	1.00
	20306.000	1360.00	603.70	.10	-.01	.10	390.27	1.00
AD	20406.000	1360.00	603.62	.00	.02	.00	597.18	100.00
	20406.000	1360.00	603.72	.10	.02	.10	398.24	100.00
	21223.000	1360.00	603.84	.00	.23	.00	250.00	817.00
	21223.000	1360.00	603.94	.10	.22	.10	250.00	817.00
AE	21323.000	1360.00	603.49	.00	-.35	.00	184.68	100.00
	21323.000	1360.00	603.60	.11	-.35	.11	192.44	100.00
AF	21359.000	1360.00	604.86	.00	1.37	.00	200.00	36.00
	21359.000	1360.00	604.87	.01	1.28	.01	200.00	36.00
	21409.000	1360.00	604.96	.00	.10	.00	200.00	50.00
	21409.000	1360.00	604.97	.01	.10	.01	200.00	50.00
AG	23000.000	1360.00	605.90	.00	.94	.00	470.07	1591.00
	23000.000	1360.00	605.95	.05	.98	.05	400.00	1591.00
	23001.000	1360.00	605.94	.00	.04	.00	470.07	1.00
	23001.000	1360.00	606.00	.06	.05	.06	400.00	1.00
	23012.000	1360.00	605.95	.00	.01	.00	470.07	11.00
	23012.000	1360.00	606.01	.06	.01	.06	400.00	11.00
	23013.000	1360.00	605.93	.00	-.03	.00	470.07	1.00
	23013.000	1360.00	605.98	.06	-.03	.06	400.00	1.00
AH	23256.000	1360.00	606.03	.00	.10	.00	485.00	243.00
	23256.000	1360.00	606.10	.07	.11	.07	450.00	243.00
AI	24202.000	1360.00	606.19	.00	.17	.00	195.08	946.00
	24202.000	1360.00	606.27	.08	.18	.08	195.09	946.00
	24203.000	1360.00	606.26	.00	.06	.00	195.09	1.00
	24203.000	1360.00	606.33	.08	.06	.08	195.09	1.00
	24219.000	1360.00	606.28	.00	.02	.00	195.09	16.00
	24219.000	1360.00	606.35	.08	.02	.08	195.09	16.00
	24220.000	1360.00	606.24	.00	-.04	.00	195.09	1.00
	24220.000	1360.00	606.32	.08	-.04	.08	195.09	1.00
	24474.000	1360.00	606.30	.00	.06	.00	94.00	254.00
	24474.000	1360.00	606.38	.07	.06	.07	94.00	254.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
AJ	24574.000	1360.00	606.32	.00	.02	.00	44.00	100.00
	24574.000	1360.00	606.39	.07	.02	.07	44.00	100.00
AK	24588.000	1360.00	606.41	.00	.09	.00	44.00	14.00
	24588.000	1360.00	606.51	.10	.11	.10	44.00	14.00
	24638.000	1360.00	606.60	.00	.19	.00	145.00	50.00
	24638.000	1360.00	606.70	.10	.19	.10	145.00	50.00
	25020.000	1360.00	607.02	.00	.43	.00	100.00	382.00
	25020.000	1360.00	607.10	.07	.40	.07	100.00	382.00
AL	25137.000	1360.00	607.24	.00	.21	.00	54.17	117.00
	25137.000	1360.00	607.30	.06	.20	.06	57.46	117.00
AM	25306.000	1360.00	609.17	.00	1.94	.00	155.00	169.00
	25306.000	1360.00	609.19	.01	1.89	.01	155.00	169.00
	25340.000	1360.00	609.40	.00	.23	.00	200.00	34.00
	25340.000	1360.00	609.41	.01	.23	.01	200.00	34.00

SUMMARY OF ERRORS

CAUTION SECNO=21323.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO=21323.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

THIS RUN EXECUTED 2/21/ 1982 13: 7:35

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APR  1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION -  50,51,32
*****************************************************

T1      BROWNSTOWN
T2      500 YR. STORM
T3      BLAKELEY DRAIN

J1  IDENT    IMP     NTV     IDIT     BTRE     METRIC   HVINS    N        MSEL     ZR

      0.       6.       0.       0.  0.000630    0.00      0.0      0.   590.000    0.000

J2  NPROF    IPLOT    PRFWS    XSECV    XSECH    FN       ALLDC    IMW      CHAIN    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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PRINTED IN U.S.A.

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - $0,51,52
****

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

BLACKELLY DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	W.C.	ELTRD	ELLOC	ELMIN	Q	CWSEL	CRI.S	EG	10K*S	VCH	AREA	.01K
	0.000	0.00	0.00	0.00	581.70	790.00	590.00	0.00	590.21	3.93	3.77	330.66	260.31
	0.000	0.00	0.00	0.00	581.70	1176.00	590.71	0.00	590.90	8.76	4.02	749.66	397.30
	0.000	0.00	0.00	0.00	581.70	1360.00	590.96	0.00	591.14	8.78	4.13	886.48	458.97
	0.000	0.00	0.00	0.00	581.70	1730.00	591.37	0.00	591.55	8.97	4.34	1124.67	577.92
	1320.000	1320.00	0.00	0.00	582.40	790.00	590.97	0.00	591.08	4.94	3.26	622.03	349.54
	1320.000	1320.00	0.00	0.00	582.40	1176.00	591.70	0.00	591.82	5.59	3.59	877.96	497.19
	1320.000	1320.00	0.00	0.00	582.40	1360.00	591.96	0.00	592.09	5.92	3.88	971.12	558.82
	1320.000	1320.00	0.00	0.00	582.40	1730.00	592.42	0.00	592.56	6.57	4.25	1132.79	674.83
	2540.000	1220.00	0.00	0.00	583.23	790.00	591.34	0.00	591.69	4.96	2.73	455.64	350.26
	2540.000	1220.00	0.00	0.00	583.23	1176.00	592.48	0.00	592.81	7.11	3.44	625.62	440.98
	2540.000	1220.00	0.00	0.00	583.23	1360.00	592.93	0.00	593.31	7.63	3.63	735.25	492.82
	2540.000	1220.00	0.00	0.00	583.23	1730.00	593.31	0.00	593.66	8.23	3.97	970.97	602.98
	2640.000	100.00	0.00	0.00	583.23	790.00	591.62	0.00	591.74	3.26	2.73	289.25	432.02
	2640.000	100.00	0.00	0.00	583.23	1176.00	592.53	0.00	592.65	4.14	2.74	424.78	604.05
	2640.000	100.00	0.00	0.00	583.23	1360.00	592.85	0.00	592.95	2.43	2.53	493.15	671.63
	2640.000	100.00	0.00	0.00	583.23	1730.00	593.31	0.00	593.51	6.50	3.61	1071.39	1008.16
	2675.000	35.00	581.85	582.30	582.40	790.00	590.97	0.00	591.05	5.02	2.51	288.12	409.81
	2675.000	35.00	581.85	582.30	582.40	1176.00	591.70	0.00	591.82	5.59	2.59	422.67	577.19

2675.000	35.00	591.83	569.80	582.98	1730.00	593.44	0.00	593.58	3.33	3.69	1071.11	947.39
2700.000	25.00	0.00	0.00	582.98	780.00	591.98	0.00	592.07	3.33	2.37	331.04	414.95
2700.000	25.00	0.00	0.00	582.98	1176.00	592.78	0.00	592.87	3.74	2.63	791.96	608.09
2700.000	25.00	0.00	0.00	582.98	1360.00	593.01	0.00	593.11	4.13	2.83	887.47	669.41
2700.000	25.00	0.00	0.00	582.98	1730.00	593.49	0.00	593.60	4.51	3.11	1091.42	814.75
4106.000	1406.00	0.00	0.00	582.83	780.00	592.48	0.00	592.60	4.21	3.78	751.51	380.20
4106.000	1406.00	0.00	0.00	582.83	1176.00	593.34	0.00	593.47	5.00	4.37	1078.11	526.08
4106.000	1406.00	0.00	0.00	582.83	1360.00	593.62	0.00	593.77	5.43	4.64	1197.44	583.70
4106.000	1406.00	0.00	0.00	582.83	1730.00	594.17	0.00	594.32	6.01	5.05	1440.51	705.96
5406.000	1300.00	0.00	0.00	583.98	780.00	593.02	0.00	593.09	3.39	3.37	1101.69	423.36
5406.000	1300.00	0.00	0.00	583.98	1176.00	593.93	0.00	593.99	3.19	3.46	1483.64	658.41
5406.000	1300.00	0.00	0.00	583.98	1360.00	594.25	0.00	594.31	3.22	3.58	1327.04	737.52
5406.000	1300.10	0.00	0.00	583.98	1730.00	594.63	0.00	594.80	3.21	3.71	2202.52	965.19

FORM 141-0646 (10-67) REVISED BY HARRY W. HINSELD & ASSOC.
PRINTED IN U.S.A.

SECNO	XLOC	ELTRO	ELLC	ELMIN	Q	CUSEL	CRIUS	EG	TOKES	VCH	AREA	.CIK
6906.000	1500.00	0.00	0.00	584.94	780.00	593.70	0.00	593.92	9.06	5.37	638.91	259.11
6906.000	1500.00	0.00	0.00	584.94	1176.00	594.58	0.00	594.74	8.08	5.40	1102.60	413.69
6906.000	1500.00	0.00	0.00	584.94	1360.00	594.90	0.00	595.04	7.63	5.37	1322.56	492.20
6906.000	1500.00	0.00	0.00	584.94	1730.00	595.47	0.00	595.58	6.88	5.29	1732.68	659.70
7473.000	567.00	0.00	0.00	585.77	780.00	594.19	0.00	594.32	5.49	3.35	633.46	332.01
7473.000	567.00	0.00	0.00	585.77	1176.00	595.00	0.00	595.14	6.01	3.78	1073.01	479.73
7473.000	567.00	0.00	0.00	585.77	1360.00	595.29	0.00	595.43	5.96	3.85	1249.24	557.24
7473.000	567.00	0.00	0.00	585.77	1730.00	595.82	0.00	595.96	5.86	3.99	1566.01	714.68
7475.000	2.00	591.33	591.85	585.77	780.00	594.26	0.00	594.43	16.94	2.73	645.75	389.49
7475.000	2.00	591.33	591.85	585.77	1176.00	595.13	0.00	595.15	13.52	2.66	1097.95	529.25
7475.000	2.00	591.33	591.85	585.77	1360.00	595.39	0.00	595.44	12.18	2.60	1274.96	389.69
7475.000	2.00	591.33	591.85	585.77	1730.00	595.92	0.00	595.95	10.64	2.54	1588.80	530.29
7479.000	4.00	591.33	591.85	585.77	780.00	594.27	0.00	594.53	16.84	2.75	651.20	390.05
7479.000	4.00	591.33	591.85	585.77	1176.00	595.10	0.00	595.15	13.45	2.65	1099.89	529.67
7479.000	4.00	591.33	591.85	585.77	1360.00	595.40	0.00	595.44	12.12	2.59	1276.07	595.36
7479.000	4.00	591.33	591.85	585.77	1730.00	595.92	0.00	595.96	10.60	2.54	1590.85	531.28
7481.000	2.00	0.00	0.00	585.77	780.00	594.23	0.00	594.35	5.26	3.29	671.29	340.21
7481.000	2.00	0.00	0.00	585.77	1176.00	595.05	0.00	595.12	5.70	3.70	1104.19	492.66
7481.000	2.00	0.00	0.00	585.77	1360.00	595.36	0.00	595.47	5.67	3.78	1280.98	571.06
7481.000	2.00	0.00	0.00	585.77	1730.00	595.87	0.00	595.99	5.65	3.92	1595.36	729.61
7857.000	376.00	0.00	0.00	586.55	780.00	594.37	0.00	594.64	8.54	4.44	398.17	266.99
7857.000	376.00	0.00	0.00	586.55	1176.00	595.21	0.00	595.49	9.13	4.95	785.13	389.29
7857.000	376.00	0.00	0.00	586.55	1360.00	595.51	0.00	595.77	9.06	5.13	961.23	461.82
7857.000	376.00	0.00	0.00	586.55	1730.00	596.06	0.00	596.20	8.98	5.22	1319.12	618.60
7859.000	2.00	592.33	592.76	586.55	780.00	594.38	0.00	594.64	51.99	4.71	381.89	108.17
7859.000	2.00	592.33	592.76	586.55	1176.00	595.40	0.00	595.51	25.18	3.69	832.37	234.65
7859.000	2.00	592.33	592.76	586.55	1360.00	595.71	0.00	595.79	21.73	3.50	991.06	291.73
7859.000	2.00	592.33	592.76	586.55	1730.00	596.26	0.00	596.30	18.05	3.34	1309.33	407.67
7863.000	4.00	592.33	592.76	586.55	780.00	594.39	0.00	594.67	51.96	4.71	381.89	108.17
7863.000	4.00	592.33	592.76	586.55	1176.00	595.41	0.00	595.52	25.18	3.69	832.37	234.65
7863.000	4.00	592.33	592.76	586.55	1360.00	595.72	0.00	595.80	21.73	3.50	991.06	291.73

7865.000	2.00	0.00	0.00	585.81	780.00	594.55	0.00	594.67	3.87	3.25	698.01	396.65
7865.000	2.00	0.00	0.00	585.81	1176.00	595.43	0.00	595.53	3.84	3.38	1290.89	616.08
7865.000	2.00	0.00	0.00	585.81	1360.00	595.72	0.00	595.82	3.82	3.53	1439.50	695.62
7865.000	2.00	0.00	0.00	585.81	1730.00	596.23	0.00	596.33	4.13	3.80	1706.01	851.46
8335.000	470.00	0.00	0.00	586.18	780.00	594.71	0.00	594.92	5.75	3.85	393.86	325.16
8335.000	470.00	0.00	0.00	586.18	1176.00	595.57	0.00	595.80	6.72	4.44	742.47	453.72
8335.000	470.00	0.00	0.00	586.18	1360.00	595.86	0.00	596.10	7.12	4.66	859.49	509.46
8335.000	470.00	0.00	0.00	586.18	1730.00	596.38	0.00	596.64	7.73	5.06	1066.42	622.40
8337.000	2.00	592.87	592.40	586.18	780.00	594.71	0.00	594.92	38.76	4.17	343.13	125.28
8337.000	2.00	592.87	592.40	586.18	1176.00	595.70	0.00	595.82	23.77	3.68	767.82	241.21
8337.000	2.00	592.87	592.40	586.18	1360.00	596.02	0.00	596.12	21.66	3.59	874.29	292.23
8337.000	2.00	592.87	592.40	586.18	1730.00	596.57	0.00	596.66	19.32	3.52	1094.46	393.54

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FORM 7414-REPRINTED BY ACCOUNTEMPS UNIFOLD FORMS

MULTI PROFILE SUMMARY 10

STATION	X_OFF	ELTRO	ELLO	ELMIN	Q	CWSE	CRWS	EG	TOKAS	VCH	AREA	XOTK
8344.000	7.00	592.87	592.40	586.18	780.00	594.74	0.00	594.95	37.84	4.13	348.11	176.81
8344.000	7.00	592.87	592.40	586.18	1176.00	595.72	0.00	595.83	23.52	3.60	751.24	242.51
8344.000	7.00	592.87	592.40	586.18	1360.00	596.04	0.00	596.14	21.46	3.54	877.52	293.58
8344.000	7.00	592.87	592.40	586.18	1730.00	596.59	0.00	596.67	19.17	3.51	1097.57	395.09
8346.000	2.00	0.00	0.00	586.18	780.00	594.75	0.00	594.95	5.62	3.30	402.54	329.16
8346.000	2.00	0.00	0.00	586.18	1176.00	595.65	0.00	595.87	6.30	4.33	774.40	468.67
8346.000	2.00	0.00	0.00	586.18	1360.00	595.95	0.00	596.18	6.63	4.54	894.63	528.34
8346.000	2.00	0.00	0.00	586.18	1730.00	596.46	0.00	596.72	7.17	4.91	1107.05	646.09
8810.000	464.00	0.00	0.00	586.46	780.00	594.99	0.00	595.26	7.52	4.64	203.67	256.41
8810.000	464.00	0.00	0.00	586.46	1176.00	595.92	0.00	596.23	8.30	5.46	442.14	406.67
8810.000	464.00	0.00	0.00	586.46	1360.00	596.23	0.00	596.56	8.93	5.77	753.46	455.09
8810.000	464.00	0.00	0.00	586.46	1730.00	596.79	0.00	597.14	9.79	6.27	942.05	552.89
8910.000	100.00	0.00	0.00	586.46	780.00	594.95	0.00	595.51	11.24	6.02	129.59	279.00
8910.000	100.00	0.00	0.00	586.46	1176.00	595.96	0.00	596.36	8.94	5.62	524.34	466.35
8910.000	100.00	0.00	0.00	586.46	1360.00	596.26	0.00	596.70	7.82	5.31	606.72	686.32
8910.000	100.00	0.00	0.00	586.46	1730.00	596.80	0.00	597.32	9.20	7.10	771.88	570.39
8940.000	38.00	596.94	595.14	586.91	780.00	596.97	0.00	595.60	18.09	6.36	122.56	183.41
8940.000	38.00	596.94	595.14	586.91	1176.00	597.23	0.00	597.43	8.49	6.01	381.26	355.15
8940.000	38.00	596.94	595.14	586.91	1360.00	597.40	0.00	597.70	5.40	5.46	730.26	580.32
8940.000	38.00	596.94	595.14	586.91	1730.00	597.64	0.00	598.07	7.76	6.62	903.76	520.37
9190.000	242.00	0.00	0.00	586.48	780.00	595.80	0.00	595.90	3.11	2.88	712.44	442.59
9190.000	242.00	0.00	0.00	586.48	1176.00	597.56	0.00	597.60	1.87	2.59	1409.37	860.45
9190.000	242.00	0.00	0.00	586.48	1360.00	597.78	0.00	597.85	2.13	2.98	1508.76	952.[illegible]
9190.000	242.00	0.00	0.00	586.48	1730.00	598.18	0.00	598.27	2.47	3.26	1673.73	1058.[illegible]
9432.000	242.00	0.00	0.00	586.92	780.00	595.84	0.00	596.00	2.71	3.36	277.56	473.56
9432.000	242.00	0.00	0.00	586.92	1176.00	597.55	0.00	597.71	2.66	3.75	637.17	721.62
9432.000	242.00	0.00	0.00	586.92	1360.00	597.76	0.00	597.99	3.17	4.16	784.21	763.67
9432.000	242.00	0.00	0.00	586.92	1730.00	598.15	0.00	598.46	4.24	4.93	997.64	849.[illegible]
9433.000	1.00	595.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	596.09	18.60	[illegible]	[illegible]	[illegible]
9433.000	1.00	595.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	596.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9433.000	1.00	595.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	596.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9433.000	1.00	595.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	596.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

9445.000	112.00	595.65	594.10	586.24	780.00	595.97	0.00	596.30	18.11	4.59	175.87	183.28
9445.000	112.00	595.65	594.10	586.24	1176.00	597.89	0.00	598.24	24.72	5.36	452.67	236.51
9445.000	112.00	595.65	594.10	586.24	1360.00	598.28	0.00	598.62	26.45	5.54	551.05	264.46
9445.000	112.00	595.65	594.10	586.24	1730.00	598.94	0.00	599.24	28.31	5.73	719.21	325.16
9446.000	1.00	0.00	0.00	586.24	780.00	596.20	0.00	596.35	2.36	3.16	314.33	508.05
9446.000	1.00	0.00	0.00	586.24	1176.00	598.17	0.00	598.31	1.95	3.20	849.70	843.03
9446.000	1.00	0.00	0.00	586.24	1360.00	598.52	0.00	598.67	2.20	3.56	960.53	917.74
9446.000	1.00	0.00	0.00	586.24	1730.00	599.08	0.00	599.28	2.71	4.09	1140.89	1050.95
9500.000	54.00	0.00	0.00	586.24	780.00	596.25	0.00	596.37	2.05	2.96	400.72	545.18
9500.000	54.00	0.00	0.00	586.24	1176.00	598.18	0.00	598.32	1.94	3.28	853.05	845.23
9500.000	54.00	0.00	0.00	586.24	1360.00	598.53	0.00	598.68	2.18	3.55	964.43	920.49
9500.000	54.00	0.00	0.00	586.24	1730.00	599.10	0.00	599.29	2.69	4.08	1146.03	1054.94

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SECNO	X_OR	SLTHO	ELLC	ELMIN	Q	CHSEL	CRIWS	ES	10K*S	VCI	AREA	PTR
10056.000	556.00	0.00	0.00	586.88	780.00	596.47	0.00	596.49	1.63	2.33	1227.78	610.30
10056.000	556.00	0.00	0.00	586.88	1176.00	598.39	0.00	598.41	1.10	2.17	1948.33	1120.40
10056.000	556.00	0.00	0.00	586.88	1360.00	598.77	0.00	598.79	1.20	2.32	2115.68	1243.63
10056.000	556.00	0.00	0.00	586.80	1730.00	599.39	0.00	599.41	1.39	2.59	2418.54	1467.11
10360.000	304.00	0.00	0.00	587.98	780.00	596.43	0.00	596.67	4.39	4.13	292.77	372.59
10360.000	304.00	0.00	0.00	587.98	1176.00	598.38	0.00	598.52	2.54	3.62	970.75	737.93
10360.000	304.00	0.00	0.00	587.98	1360.00	598.76	0.00	598.90	2.65	3.79	1098.74	835.15
10360.000	304.00	0.00	0.00	587.98	1730.00	599.39	0.00	599.56	2.92	4.13	1311.33	1012.16
10560.000	200.00	0.00	0.00	587.60	780.00	596.55	0.00	596.91	10.26	6.10	159.53	243.46
10560.000	200.00	0.00	0.00	587.60	1176.00	598.39	0.00	598.60	7.57	4.25	327.67	427.34
10560.000	200.00	0.00	0.00	587.60	1360.00	598.75	0.00	599.08	8.29	4.84	441.42	472.46
10560.000	200.00	0.00	0.00	587.60	1730.00	599.36	0.00	599.75	9.35	5.39	590.80	565.66
10584.000	24.00	598.61	596.10	587.60	780.00	597.13	0.00	597.35	7.76	3.75	25.22	279.95
10584.000	24.00	598.61	596.10	587.60	1176.00	599.17	0.00	599.37	6.85	3.02	542.15	539.96
10584.000	24.00	598.61	596.10	587.60	1360.00	599.39	0.00	599.63	5.67	4.20	696.02	371.17
10584.000	24.00	598.61	596.10	587.60	1730.00	599.77	0.00	600.07	7.31	4.90	700.03	639.74
10634.000	50.00	0.00	0.00	588.90	780.00	597.16	0.00	597.38	3.60	3.92	291.89	411.01
10634.000	50.00	0.00	0.00	588.90	1176.00	599.36	0.00	599.62	4.50	2.95	260.69	961.65
10634.000	50.00	0.00	0.00	588.10	1360.00	599.60	0.00	599.69	1.71	3.16	1363.14	1140.66
10634.000	50.00	0.00	0.00	588.10	1730.00	600.36	0.00	600.15	2.14	5.55	1521.25	1112.53
11506.000	872.00	0.00	0.00	588.24	780.00	597.56	0.00	597.64	2.63	3.02	857.58	480.67
11506.000	872.00	0.00	0.00	588.24	1176.00	599.51	0.00	599.53	1.19	2.30	1850.47	1078.79
11506.000	872.00	0.00	0.00	588.24	1360.00	599.79	0.00	599.82	1.30	2.59	2329.69	1191.26
11506.000	872.00	0.00	0.00	588.24	1730.00	600.27	0.00	600.31	1.53	2.75	2757.52	1400.07
12478.000	972.00	0.00	0.00	589.47	780.00	597.82	0.00	597.98	4.10	3.50	345.36	385.17
12478.000	972.00	0.00	0.00	589.47	1176.00	599.58	0.00	599.79	4.31	4.08	470.53	566.66
12478.000	972.00	0.00	0.00	589.47	1360.00	599.86	0.00	600.11	5.18	4.56	490.13	597.64
12478.000	972.00	0.00	0.00	589.47	1730.00	600.39	0.00	600.66	7.58	5.48	553.17	651.58
12578.000	1072.00	0.00	0.00	590.47	780.00	597.87	0.00	598.03	4.10	3.50	345.36	385.17
12578.000	1072.00	0.00	0.00	590.47	1176.00	599.63	0.00	599.84	4.31	4.08	470.53	566.66
12578.000	1072.00	0.00	0.00	590.47	1360.00	599.91	0.00	600.16	5.18	4.56	490.13	597.64
12578.000	1072.00	0.00	0.00	590.47	1730.00	600.44	0.00	600.71	7.58	5.48	553.17	651.58

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12622.000	44.00	604.06	595.63	588.43	780.00	598.36	0.00	598.70	10.66	4.74	164.41	236.49
12622.000	44.00	604.06	595.63	588.43	1176.00	601.12	0.00	601.54	9.72	5.22	225.32	377.24
12622.000	44.00	604.06	595.63	588.43	1360.00	601.99	0.00	602.47	10.26	5.56	244.61	424.66
12622.000	44.00	604.06	595.63	588.43	1730.00	603.40	0.00	604.01	11.83	6.28	275.47	502.92
12672.000	50.00	0.00	0.00	588.43	738.00	598.72	0.00	598.00	2.91	2.78	332.27	432.93
12672.000	50.00	0.00	0.00	588.43	1152.00	601.59	0.00	601.66	1.90	2.77	882.36	836.73
12672.000	50.00	0.00	0.00	588.43	1360.00	602.56	0.00	602.61	1.88	2.91	997.39	992.74
12672.000	50.00	0.00	0.00	588.43	1870.00	604.08	0.00	604.18	2.17	3.40	1185.90	1270.34
13382.000	710.00	0.00	0.00	590.04	738.00	598.89	0.00	598.92	0.89	1.71	1091.63	783.39
13382.000	710.00	0.00	0.00	590.04	1152.00	601.72	0.00	601.73	0.41	1.39	2394.58	1806.70
13382.000	710.00	0.00	0.00	590.04	1360.00	602.66	0.00	602.63	0.36	1.42	2783.46	2207.59
13382.000	710.00	0.00	0.00	590.04	1870.00	604.24	0.00	604.26	0.40	1.57	3430.29	2957.75

RECNO	XLCN	ELTRD	ELLC	ELMIN	Q	CNSEL	CRINS	SG	10K*S	VCN	AREA	CDIN
13482.000	100.00	0.00	0.00	590.04	738.00	598.87	0.00	598.98	4.53	2.98	398.61	346.65
13482.000	100.00	0.00	0.00	590.04	1152.00	601.71	0.00	601.74	1.44	2.02	1480.62	959.59
13482.000	100.00	0.00	0.00	590.04	1360.00	602.66	0.00	602.69	1.20	1.95	1835.62	1260.04
13482.000	100.00	0.00	0.00	590.04	1870.00	604.24	0.00	604.27	1.09	2.01	2426.39	1789.28
13483.000	1.00	598.78	596.63	590.04	738.00	598.67	593.56	599.17	39.21	5.65	130.87	117.86
13483.000	1.00	598.78	596.63	590.04	1152.00	601.70	0.00	601.76	13.07	2.87	861.85	318.70
13483.000	1.00	598.78	596.63	590.04	1360.00	602.66	0.00	602.70	7.66	2.39	1171.92	491.52
13483.000	1.00	598.78	596.63	590.04	1870.00	604.24	0.00	604.27	4.85	2.14	1683.63	848.95
13569.000	86.00	593.00	596.28	589.33	738.00	599.03	593.90	599.50	39.68	5.29	180.72	131.11
13569.000	86.00	593.00	596.28	589.33	1152.00	601.80	0.00	601.85	7.72	2.30	1049.61	416.65
13569.000	86.00	593.00	596.28	589.33	1360.00	602.73	0.00	602.75	4.77	1.94	1390.81	622.49
13569.000	86.00	593.00	596.28	589.33	1870.00	604.29	0.00	604.30	3.09	1.73	1974.21	1062.96
13570.000	1.00	0.30	0.00	589.33	738.00	599.52	0.00	599.60	2.20	2.30	557.14	497.97
13570.000	1.00	0.30	0.00	589.33	1152.00	601.88	0.30	601.88	.12	2.29	1511.96	1090.77
13570.000	1.00	0.30	0.00	589.33	1360.00	602.72	0.00	602.75	0.93	2.26	1922.02	1376.02
13570.000	1.00	0.00	0.00	589.33	1870.00	604.28	0.30	604.31	0.93	2.15	2455.20	1941.89
13595.000	25.00	0.00	0.00	589.70	738.00	599.61	0.30	599.62	0.81	1.52	1649.86	821.58
13595.000	25.00	0.00	0.00	589.70	1152.00	601.85	0.30	601.86	0.56	1.45	2523.41	1546.50
13595.000	25.00	0.00	0.00	589.70	1360.00	602.76	0.30	602.78	0.50	1.48	2915.72	1921.09
13595.000	25.00	0.00	0.00	589.70	1870.00	604.31	0.00	604.32	0.53	1.55	3591.92	2650.72
15306.000	1711.00	0.00	0.00	590.18	738.00	599.81	0.00	599.86	2.50	3.01	1296.11	467.17
15306.000	1711.00	0.00	0.00	590.18	1152.00	601.98	0.00	602.01	1.35	2.54	2255.60	993.25
15306.000	1711.00	0.00	0.00	590.18	1360.00	602.87	0.30	602.89	1.17	2.49	2675.78	1256.97
15306.000	1711.00	0.00	0.00	590.18	1870.00	604.43	0.30	604.44	1.10	2.31	3329.92	1760.01
16306.000	1000.00	0.00	0.00	590.35	738.00	600.08	0.30	600.12	2.66	3.03	969.47	453.87
16306.000	1000.00	0.00	0.00	590.35	1152.00	602.13	0.00	602.15	1.46	2.57	1717.09	956.28
16306.000	1000.00	0.00	0.00	590.35	1360.00	603.00	0.00	603.02	1.24	2.50	2033.95	1221.14
16306.000	1000.00	0.00	0.00	590.35	1870.00	604.56	0.30	604.65	1.12	2.36	2655.08	1770.64
17146.000	841.00	0.00	0.00	591.21	738.00	600.25	0.30	600.29	2.68	3.01	420.30	470.52
17146.000	841.00	0.00	0.00	591.21	1152.00	602.30	0.30	602.33	1.48	2.49	1577.10	1220.37
17146.000	841.00	0.00	0.00	591.21	1350.00	603.17	0.00	603.21	2.55	3.80	540.02	850.36
17146.000	841.00	0.00	0.00	591.21	1870.00	604.69	0.00	604.78	2.49	3.49	762.36	1153.80

17246.000	100.00	0.00	0.00	591.21	738.00	600.26	0.00	600.61	4.81	3.10	237.68	336.51
17246.000	100.00	0.00	0.00	591.21	1152.00	602.21	0.00	602.44	6.01	3.89	296.10	469.85
17246.000	100.00	0.00	0.00	591.21	1360.00	603.04	0.00	603.32	6.57	4.23	321.16	530.78
17246.000	100.00	0.00	0.00	591.21	1870.00	604.53	0.00	604.93	8.43	5.11	365.69	643.89
17310.000	64.00	606.34	603.43	591.21	738.00	600.24	0.00	600.53	14.89	4.36	169.30	191.24
17310.000	64.00	606.34	603.43	591.21	1152.00	602.16	0.00	602.61	18.13	5.42	212.53	270.56
17310.000	64.00	606.34	603.43	591.21	1360.00	602.98	0.00	603.52	19.65	5.89	231.01	306.85
17310.000	64.00	606.34	603.43	591.21	1870.00	605.09	0.00	605.46	7.39	4.89	382.46	687.94
17375.000	65.00	0.00	0.00	592.26	738.00	600.55	0.00	600.63	2.04	2.29	403.40	517.16
17375.000	65.00	0.00	0.00	592.26	1152.00	602.64	0.00	602.75	2.15	2.78	530.40	784.88
17375.000	65.00	0.00	0.00	592.26	1360.00	603.55	0.00	603.67	2.22	2.99	583.52	913.7[illegible]
17375.000	65.00	0.00	0.00	592.26	1870.00	605.37	0.00	605.54	2.45	3.50	696.21	1194.10

I.SECNO	XLOC	ELPTO	PELLE	ELMIN	Q	CHSEL	CSELS	EG	TOKWS	WC	AREA	.01K
17437.000	62.00	0.00	0.00	592.26	738.00	600.53	0.00	600.69	4.91	3.24	227.79	333.15
17437.000	62.00	0.00	0.00	592.26	1152.00	602.59	0.00	602.84	5.76	3.98	289.76	479.84
17437.000	62.00	0.00	0.00	592.26	1360.00	603.49	0.00	603.78	6.16	4.30	316.64	547.85
17437.000	62.00	0.00	0.00	592.26	1870.00	605.28	0.00	605.60	7.33	5.05	370.40	693.68
17450.000	86.00	606.71	603.27	592.13	738.00	600.57	0.00	600.73	4.95	3.21	230.27	331.56
17450.000	86.00	606.71	603.27	592.13	1152.00	602.65	0.00	602.89	5.85	3.94	292.49	476.24
17450.000	86.00	606.71	603.27	592.13	1360.00	603.73	0.00	604.00	5.95	4.18	325.03	597.48
17450.000	86.00	606.71	603.27	592.13	1870.00	605.90	0.00	606.25	6.58	4.80	389.91	729.00
17500.000	50.00	0.00	0.00	592.13	738.00	600.72	0.00	600.78	1.76	2.03	529.32	556.07
17500.000	50.00	0.00	0.00	592.13	1152.00	602.05	0.00	602.06	1.56	2.29	733.93	919.99
17500.000	50.00	0.00	0.00	592.13	1360.00	604.01	0.00	604.06	1.45	2.37	871.44	1129.20
17500.000	50.00	0.00	0.00	592.13	1870.00	606.26	0.00	606.35	1.35	2.61	1109.31	1607.82
18566.000	1066.00	0.00	0.00	593.55	738.00	600.94	0.00	600.96	1.24	1.59	936.23	594.66
18566.000	1066.00	0.00	0.00	593.55	1152.00	603.05	0.00	603.06	1.50	2.14	2701.83	1623.45
18566.000	1066.00	0.00	0.00	593.55	1360.00	604.14	0.00	604.16	0.32	1.07	2938.42	2255.76
18566.000	1066.00	0.00	0.00	593.55	1870.00	606.42	0.00	606.42	0.25	1.03	4157.89	3723.58
18666.000	100.00	0.00	0.00	593.55	738.00	600.94	0.00	601.01	4.29	2.73	564.37	356.38
18666.000	100.00	0.00	0.00	593.55	1152.00	603.05	0.00	603.07	1.00	1.45	1800.33	2151.64
18666.000	100.00	0.00	0.00	593.55	1360.00	604.16	0.00	604.17	0.71	1.73	2310.46	1615.93
18666.000	100.00	0.00	0.00	593.55	1870.00	606.42	0.00	606.43	0.41	1.45	3913.33	2913.51
18667.000	1.00	603.71	600.16	593.55	738.00	600.60	597.60	601.35	59.90	6.99	105.60	95.35
18667.000	1.00	603.71	600.16	593.55	1152.00	603.05	0.00	603.08	11.13	2.53	991.25	345.31
18667.000	1.00	603.71	600.16	593.55	1360.00	604.16	0.00	604.17	4.88	1.77	1500.34	647.00
18667.000	1.00	603.71	600.16	593.55	1870.00	606.42	0.00	606.43	1.21	1.14	3105.09	1665.55
18705.000	38.00	603.71	600.16	593.55	738.00	600.03	597.60	601.58	59.68	6.97	112.93	95.56
18705.000	38.00	603.71	600.16	593.55	1152.00	603.09	0.00	603.12	10.59	2.48	1000.05	354.05
18705.000	38.00	603.71	600.16	593.55	1360.00	604.17	0.00	604.19	4.25	1.76	1512.35	659.91
18705.000	38.00	603.71	600.16	593.55	1870.00	606.43	0.00	606.44	1.23	1.15	3110.58	1673.50
18706.000	1.00	603.71	600.16	593.55	738.00	600.60	597.60	601.40	59.90	6.99	105.60	95.35
18706.000	1.00	603.71	600.16	593.55	1152.00	603.05	0.00	603.08	11.13	2.53	991.25	345.31
18706.000	1.00	603.71	600.16	593.55	1360.00	604.16	0.00	604.17	4.88	1.77	1500.34	647.00
18706.000	1.00	603.71	600.16	593.55	1870.00	606.42	0.00	606.43	1.21	1.14	3105.09	1665.55

FORM 1411 GD-PRINTED BY ROTARY MANIFOLD FORMS

18756.000	50.00	0.00	0.00	593.65	738.00	601.79	0.00	601.81	0.94	1.44	1204.61	759.45
18756.000	50.00	0.00	0.00	593.65	1152.00	603.13	0.00	603.14	0.59	1.26	2388.37	1499.46
18756.000	50.00	0.00	0.00	593.65	1360.00	604.19	0.00	604.20	0.43	1.18	2996.22	2086.08
18756.000	50.00	0.00	0.00	593.65	1870.00	606.43	0.00	606.44	0.18	0.89	5821.91	4364.41
19061.000	305.00	0.00	0.00	593.25	738.00	601.76	0.00	601.91	6.20	3.09	247.79	296.55
19061.000	305.00	0.00	0.00	593.25	1152.00	603.07	0.00	603.22	5.53	3.34	632.77	490.06
19061.000	305.00	0.00	0.00	593.25	1360.00	604.18	0.00	604.24	2.56	2.52	1387.78	850.35
19061.000	305.00	0.00	0.00	593.25	1870.00	606.44	0.00	606.45	0.55	1.38	3905.15	2531.95
19062.000	1.00	601.48	600.85	593.25	738.00	601.71	0.00	601.93	28.65	3.80	199.87	137.88
19062.000	1.00	601.48	600.85	593.25	1152.00	603.09	0.00	603.22	32.22	3.47	530.21	202.90
19062.000	1.00	601.48	600.85	593.25	1360.00	604.21	0.00	604.24	8.68	2.35	1160.39	463.77
19062.000	1.00	601.48	600.85	593.25	1870.00	606.44	0.00	606.45	1.11	1.95	3401.11	1771.41

	XLCH	E_TRD	ELEC	ELMIN	D	C.SEL	CRIMS	EG	TOPS	VOL	AREA	ACIS
19070.000	8.00	601.48	600.85	593.25	738.00	601.73	0.00	601.95	28.62	3.90	200.67	137.96
19070.000	8.00	601.48	600.85	593.25	1152.00	603.12	0.00	603.25	30.66	3.40	544.24	208.03
19070.000	8.00	601.48	600.85	593.25	1360.00	604.22	0.00	604.25	8.55	2.04	1133.80	465.19
19070.000	8.00	601.41	600.85	593.25	1870.00	606.45	0.00	606.45	1.11	0.90	3469.63	1778.23
19071.000	1.00	0.00	0.00	593.25	738.00	601.42	0.00	601.96	3.90	3.05	224.75	301.63
19071.000	1.00	0.00	0.00	593.25	1152.00	603.16	0.00	603.25	3.84	2.81	867.61	587.86
19071.000	1.00	0.00	0.00	593.25	1360.00	604.21	0.00	604.25	1.88	2.16	1629.25	992.31
19071.000	1.00	0.00	0.00	593.25	1870.00	606.44	0.00	606.45	0.46	1.27	4114.18	2748.19
20293.000	1222.00	0.00	0.00	594.31	738.00	602.31	0.00	602.54	1.77	1.72	313.20	314.58
20293.000	1222.00	0.00	0.00	594.31	1152.00	603.49	0.00	603.52	1.32	1.46	1018.81	1005.60
20293.000	1222.00	0.00	0.00	594.31	1360.00	604.39	0.00	604.41	0.87	1.48	1990.69	1459.75
20293.000	1222.00	0.00	0.00	594.31	1870.00	606.50	0.00	606.51	0.41	1.20	3323.34	2912.31
20294.000	1.00	600.52	590.63	594.31	738.00	602.32	0.00	602.54	3.65	1.20	375.29	385.05
20294.000	1.00	600.52	590.63	594.31	1152.00	603.50	0.00	603.52	2.13	1.15	1469.11	785.07
20294.000	1.00	600.52	590.63	594.31	1360.00	604.40	0.00	604.41	1.28	0.95	1941.46	1301.64
20294.000	1.00	600.52	590.63	594.31	1870.00	606.50	0.00	606.51	0.54	0.76	3273.43	2550.21
20305.000	11.00	600.52	590.60	594.31	738.00	602.33	0.00	602.54	3.61	1.27	874.40	388.55
20305.000	11.00	600.52	590.60	594.31	1152.00	603.51	0.00	603.52	2.13	1.21	1536.17	747.04
20305.000	11.00	600.52	590.60	594.31	1360.00	604.40	0.00	604.41	1.27	0.97	1942.62	1301.74
20305.000	11.00	600.52	590.60	594.31	1870.00	606.50	0.00	606.51	0.54	0.76	3273.93	2552.66
20306.000	1.00	0.00	0.00	594.31	738.00	602.32	0.00	602.35	1.74	1.71	924.96	559.04
20306.000	1.00	0.00	0.00	594.31	1152.00	603.50	0.00	603.52	1.30	1.68	1504.60	1009.29
20306.000	1.00	0.00	0.00	594.31	1360.00	604.39	0.00	604.41	0.86	1.45	1995.01	1384.56
20306.000	1.00	0.00	0.00	594.31	1870.00	606.50	0.00	606.51	0.41	1.20	3325.54	2911.16
20406.000	100.00	0.00	0.00	593.94	738.00	602.33	0.00	602.37	2.66	2.61	847.97	454.16
20406.000	100.00	0.00	0.00	593.94	1152.00	603.51	0.00	603.54	1.83	2.36	1481.63	950.68
20406.000	100.00	0.00	0.00	593.94	1360.00	604.40	0.00	604.42	1.13	2.12	2010.96	1286.47
20406.000	100.00	0.00	0.00	593.94	1870.00	606.51	0.00	606.51	0.43	1.52	3351.76	2787.91
21225.000	819.00	0.00	0.00	592.56	738.00	602.32	0.00	602.35	3.42	3.21	644.79	384.20
21225.000	819.00	0.00	0.00	592.56	1152.00	603.50	0.00	603.52	2.47	2.98	1254.87	819.77
21225.000	819.00	0.00	0.00	592.56	1360.00	604.39	0.00	604.41	1.80	2.58	1741.74	1162.30
21225.000	819.00	0.00	0.00	592.56	1870.00	606.50	0.00	606.51	0.72	1.92	3102.02	2495.06

21325.000	100.00	0.00	0.00	593.52	738.00	602.37	0.00	602.99	44.21	6.06	138.76	110.99
21323.000	100.00	0.00	0.00	593.52	1152.00	603.40	601.42	604.23	54.31	8.35	236.97	156.32
21323.000	100.00	0.00	0.00	593.52	1360.00	604.40	0.00	604.82	29.81	6.70	433.51	249.11
21323.000	100.00	0.00	0.00	593.52	1870.00	606.54	0.00	606.68	10.66	4.62	859.97	572.67
21359.000	36.00	603.40	599.82	594.82	738.00	604.25	0.00	604.35	9.33	3.40	470.34	255.66
21359.000	36.00	603.40	599.82	594.82	1152.00	604.70	0.00	604.85	13.41	4.47	538.97	314.54
21359.000	36.00	603.40	599.82	594.82	1360.00	604.99	0.00	605.15	14.54	4.75	616.92	356.56
21359.000	36.00	603.40	599.82	594.82	1870.00	606.66	0.00	606.77	8.27	4.02	952.32	650.41
21409.000	50.00	0.00	0.00	594.82	738.00	604.30	0.00	604.39	7.97	3.33	479.57	261.48
21409.000	50.00	0.00	0.00	594.82	1152.00	604.77	0.00	604.92	12.52	4.34	574.47	325.33
21409.000	50.00	0.00	0.00	594.82	1360.00	605.07	0.00	605.22	13.57	4.62	633.53	369.23
21409.000	53.00	0.00	0.00	594.82	1870.00	606.71	0.00	606.81	8.03	3.98	961.75	659.79

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SECNO	XLOC	ELTRIB	ELLS	ELMIN	Q	Q.SEL	CRIWS	EC	CRITS	VCH	AREA	.01K
23000.000	1591.00	0.00	0.00	596.85	738.00	604.94	0.00	604.99	2.60	2.24	796.12	657.48
23000.000	1591.00	0.00	0.00	596.85	1152.00	605.62	0.00	605.68	3.05	2.59	1116.64	659.17
23000.000	1591.00	0.00	0.00	596.85	1360.00	605.95	0.00	606.01	3.10	2.69	1271.33	771.83
23000.000	1591.00	0.00	0.00	596.85	1870.00	607.25	0.00	607.29	2.06	2.44	1850.06	1301.70
23001.000	1.00	604.85	603.65	596.85	738.00	604.97	0.00	605.00	8.47	1.69	750.48	253.61
23001.000	1.00	604.85	603.85	596.85	1152.00	605.66	0.00	605.68	7.29	1.72	1073.87	426.56
23001.000	1.00	604.85	603.85	596.85	1360.00	605.99	0.00	606.01	6.74	1.71	1228.33	523.85
23001.000	1.00	604.85	603.85	596.85	1870.00	607.28	0.00	607.30	5.59	1.43	1834.31	987.54
23012.000	11.00	604.85	603.65	596.85	738.00	604.93	0.00	605.01	2.33	1.69	743.23	254.89
23012.000	11.00	604.85	603.85	596.85	1152.00	605.62	0.00	605.65	2.86	1.71	1070.39	428.05
23012.000	11.00	604.85	603.85	596.85	1360.00	606.00	0.00	606.02	6.76	1.71	1230.97	525.59
23012.000	11.00	604.85	603.85	596.85	1870.00	607.28	0.00	607.30	5.58	1.43	1835.69	988.74
23013.000	1.00	0.00	0.00	596.85	738.00	604.96	0.00	605.01	2.53	2.41	607.13	463.65
23013.000	1.00	0.00	0.00	596.85	1152.00	605.63	0.00	605.70	2.98	2.91	1117.34	666.37
23013.000	1.00	0.00	0.00	596.85	1360.00	605.97	0.00	606.03	3.04	2.57	1281.66	779.87
23013.000	1.00	0.00	0.00	596.85	1870.00	607.27	0.00	607.31	2.02	2.42	1893.84	1315.27
23256.000	243.00	0.00	0.00	596.02	738.00	605.04	0.00	605.06	1.11	1.83	1345.64	698.98
23256.000	243.00	0.00	0.00	596.02	1152.00	605.74	0.00	605.76	1.43	2.21	1802.40	956.14
23256.000	243.00	0.00	0.00	596.02	1360.00	606.07	0.00	606.09	1.59	2.39	2042.60	1094.41
23256.000	243.00	0.00	0.00	596.02	1870.00	607.33	0.00	607.35	1.23	2.86	2697.26	1633.54
24202.000	946.00	0.00	0.00	596.01	738.00	605.16	0.00	605.23	2.72	2.38	560.85	447.42
24202.000	946.00	0.00	0.00	596.01	1152.00	605.89	0.00	605.99	3.91	3.02	703.20	582.45
24202.000	946.00	0.00	0.00	596.01	1360.00	606.27	0.00	606.35	4.38	3.21	769.12	654.33
24202.000	946.00	0.00	0.00	596.01	1870.00	607.45	0.00	607.57	4.02	3.46	1007.71	952.43
24203.000	1.00	602.77	602.92	596.01	738.00	605.19	0.00	605.23	17.74	2.09	531.66	264.51
24203.000	1.00	602.77	602.92	596.01	1152.00	605.94	0.00	606.00	9.45	2.50	677.67	374.76
24203.000	1.00	602.77	602.92	596.01	1360.00	606.28	0.00	606.35	9.92	2.65	745.40	433.82
24203.000	1.00	602.77	602.92	596.01	1870.00	607.54	0.00	607.58	17.98	2.66	984.15	661.11
24216.000	16.00	602.77	602.92	596.01	738.00	605.00	0.00	605.21	2.78	2.00	1325.12	266.[illegible]
24216.000	16.00	602.77	602.92	596.01	1152.00	605.98	0.00	606.08	5.36	2.49	1870.[illegible]	376.80
24216.000	16.00	602.77	602.92	596.01	1360.00	606.39	0.00	606.48	6.05	2.68	2128.[illegible]	433.[illegible]
24216.000	16.00	602.77	602.92	596.01	1870.00	607.62	0.00	607.69	7.09	2.66	2886.[illegible]	615.[illegible]

24220.000	1.00	0.00	0.00	596.01	738.00	605.19	0.00	605.25	2.66	2.34	566.76	452.64
24220.000	1.00	0.00	0.00	596.01	1152.00	605.93	0.00	606.02	3.82	2.99	709.58	589.10
24220.000	1.00	0.00	0.00	596.01	1360.00	606.27	0.00	606.38	4.25	3.25	776.50	659.49
24220.000	1.00	0.00	0.00	596.01	1870.00	607.49	0.00	607.60	3.95	3.44	1014.57	940.99
24474.000	254.00	0.00	0.00	596.25	738.00	605.24	0.00	605.56	4.01	2.07	369.71	368.65
24474.000	254.00	0.00	0.00	596.25	1152.00	605.99	0.00	606.20	6.52	3.95	439.45	451.13
24474.000	254.00	0.00	0.00	596.25	1360.00	606.33	0.00	606.59	7.67	4.38	471.59	491.20
24474.000	254.00	0.00	0.00	596.25	1870.00	607.51	0.00	607.85	9.51	5.07	582.60	660.09
24574.000	100.00	0.00	0.00	597.91	738.00	605.26	0.00	605.45	9.34	3.55	208.15	241.40
24574.000	100.00	0.00	0.00	597.91	1152.00	606.01	0.00	606.36	14.79	4.78	240.79	299.56
24574.000	100.00	0.00	0.00	597.91	1360.00	606.35	0.00	606.75	17.03	5.33	255.32	329.55
24574.000	100.00	0.00	0.00	597.91	1870.00	607.51	0.00	608.38	17.84	6.15	306.31	442.78

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FORM 1417-PUBLISHED BY ROTARY MANIFOLD PUMPS.

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	LMSEL	CRIUS	EG	TOMAS	VCH	AREA	.01K
24588.000	14.00	609.80	607.81	598.01	738.00	605.29	0.00	605.49	9.78	3.60	204.92	235.93
24588.000	14.00	609.80	607.81	598.01	1152.00	606.07	0.00	606.43	15.16	4.82	238.82	295.89
24588.000	14.00	609.80	607.81	598.01	1360.00	606.43	0.00	606.87	17.18	5.34	254.63	328.11
24588.000	14.00	609.80	607.81	598.01	1870.00	607.88	0.00	608.41	15.75	5.97	316.33	471.16
24638.000	50.00	0.00	0.00	598.01	738.00	605.34	0.00	605.54	9.42	3.36	219.40	240.47
24638.000	50.00	0.00	0.00	598.01	1152.00	606.20	0.00	606.52	13.01	4.56	314.34	319.39
24638.000	50.00	0.00	0.00	598.01	1360.00	606.62	0.00	606.98	13.63	4.90	374.98	368.39
24638.000	50.00	0.00	0.00	598.01	1870.00	608.21	0.00	608.54	9.90	4.89	605.47	594.32
25020.000	382.00	0.00	0.00	598.20	738.00	605.64	0.00	605.92	9.01	4.71	295.00	245.37
25020.000	382.00	0.00	0.00	598.20	1152.00	606.60	0.00	607.04	12.39	6.[illegible]	3[illegible].66	327.22
25020.000	382.00	0.00	0.00	598.20	1360.00	607.04	0.00	607.55	13.75	6.65	436.68	366.72
25020.000	382.00	0.00	0.00	598.20	1870.00	608.50	0.00	609.05	13.08	7.20	582.70	516.97
25137.000	117.00	0.00	0.00	598.07	738.00	605.83	0.00	606.03	5.45	3.57	206.99	316.13
25137.000	117.00	0.00	0.00	598.07	1152.00	606.92	0.00	607.17	6.55	4.77	265.54	469.72
25137.000	117.00	0.00	0.00	598.07	1360.00	607.25	0.00	607.68	7.60	5.31	292.26	493.33
25137.000	117.00	0.00	0.00	598.07	1870.00	608.61	0.00	609.17	8.37	6.15	425.15	646.22
25306.000	169.00	607.78	606.16	598.47	738.00	606.80	0.00	606.96	3.85	3.20	230.61	375.55
25306.000	169.00	607.78	606.16	598.47	1152.00	608.80	0.00	609.00	3.02	3.73	448.13	663.39
25306.000	169.00	607.78	606.16	598.07	1360.00	609.18	0.00	609.44	3.57	4.19	507.92	719.63
25306.000	169.00	607.78	606.16	598.07	1870.00	609.90	0.00	610.28	3.00	5.12	619.73	836.14
25340.000	34.00	0.00	0.00	598.20	738.00	606.89	0.00	606.99	1.72	2.73	462.29	562.43
25340.000	34.00	0.00	0.00	598.20	1152.00	608.98	0.00	609.05	1.21	2.65	1068.76	1045.64
25340.000	34.00	0.00	0.00	598.20	1360.00	609.41	0.00	609.45	1.40	2.92	1158.94	1149.35
25340.000	34.00	0.00	0.00	598.20	1870.00	610.24	0.00	610.36	1.08	3.53	1321.78	1362.13

BLAKELEY DRAIN

SUMMARY PRINTOUT TABLE 150

SECND	[illegible]	COSEL	DIFMSP	DIFMSX	DIFKWS	TOPWID	XLCH
0.000	780.00	590.00	0.00	0.00	0.00	500.00	0.00
0.000	1176.00	590.71	0.00	0.00	1.21	544.40	0.00
0.000	1360.00	590.96	0.00	0.00	0.96	559.89	0.00
0.000	1730.00	591.37	0.00	0.00	1.37	585.87	0.00
1320.000	780.00	590.97	0.00	0.97	0.00	350.00	1320.00
1320.000	1176.00	[illegible]	0.00	0.99	0.00	350.00	1320.00
1320.000	1360.00	591.96	0.00	1.00	0.00	350.00	1320.00
1320.000	1730.00	592.42	0.00	1.03	0.00	350.00	1320.00
2540.000	780.00	591.64	0.00	0.64	0.00	93.50	1220.00
2540.000	1176.00	592.46	0.00	0.77	0.00	335.24	1220.00
2540.000	1360.00	592.73	0.00	0.81	0.00	348.01	1220.00
2540.000	1730.00	593.31	0.00	0.89	0.00	348.03	1220.00
2640.000	780.00	591.62	0.00	0.01	0.00	34.92	100.00
2640.000	1176.00	592.53	0.00	0.07	0.99	399.42	100.00
2640.000	1360.00	592.85	0.00	0.07	1.23	317.01	100.00
2640.000	1730.00	593.[illegible]	0.00	0.07	1.75	317.03	100.00
2675.000	780.00	591.92	0.00	0.30	0.00	86.11	35.00
2675.000	1176.00	592.77	0.00	0.23	0.85	356.63	35.00
2675.000	1360.00	592.99	0.00	0.14	1.07	356.65	35.00
2675.000	1730.00	593.44	0.00	0.02	1.52	356.68	35.00
2700.000	780.00	591.98	0.00	0.07	0.00	79.52	25.00
2700.000	1176.00	592.70	0.00	0.01	0.00	413.76	25.00
2700.000	1360.00	593.01	0.00	0.02	1.03	420.00	25.00
2700.000	1730.00	593.49	0.00	0.05	1.50	420.00	25.00
4106.000	780.00	592.48	0.00	0.50	0.00	330.07	1406.00
4106.000	1176.00	593.24	0.00	0.56	0.86	404.[illegible]	1406.00
4106.000	1360.00	593.62	0.00	0.61	1.15	426.79	1406.00
4106.000	1730.00	594.12	0.00	0.68	1.09	[illegible]	1406.00

5406.000	780.00	593.02	0.00	0.54	0.00	552.11	1300.00
5406.000	1176.00	593.93	0.00	0.59	0.91	607.28	1300.00
5406.000	1360.00	594.25	0.00	0.63	1.23	619.94	1300.00
5406.000	1730.00	594.83	0.00	0.66	1.81	643.79	1300.00
6906.000	780.00	593.73	0.00	0.68	0.00	404.61	1500.00
6906.000	1176.00	594.58	0.00	0.65	0.88	661.98	1500.00
6906.000	1360.00	594.90	0.00	0.65	1.20	709.36	1500.00
6906.000	1730.00	595.47	0.00	0.64	1.77	724.66	1500.00
7473.000	780.00	594.19	0.00	0.49	0.00	436.82	567.00
7473.000	1176.00	593.20	0.00	0.42	0.81	599.66	567.00
7473.000	1360.00	593.29	0.00	0.39	1.10	600.06	567.00
7473.000	1730.00	595.82	0.00	0.35	1.65	600.18	567.00
7475.000	780.00	594.26	0.00	0.07	0.00	436.00	2.00
7475.000	1176.00	595.10	0.00	0.10	0.84	600.02	2.00
7475.000	1360.00	595.39	0.00	0.10	1.13	600.09	2.00
7475.000	1730.00	595.92	0.00	0.10	1.66	600.20	2.00

SECLD	D	CHSEL	DIFWSF	DIFWSR	DIFRWS	TOPWID	RLLE
7479.000	780.00	594.27	0.00	0.01	0.00	436.00	4.00
7479.000	1176.00	595.10	0.00	0.01	0.84	600.02	4.00
7479.000	1360.00	595.60	0.00	0.00	1.13	600.09	4.00
7479.000	1730.00	595.92	0.00	0.00	1.65	600.20	4.00
7481.000	780.00	594.23	0.00	-0.04	0.00	436.00	2.00
7481.000	1176.00	595.05	0.00	-0.06	0.82	600.01	2.00
7481.000	1360.00	595.34	0.00	-0.06	1.11	600.08	2.00
7481.000	1730.00	595.87	0.00	-0.06	1.64	600.19	2.00
7857.000	780.00	594.37	0.00	0.14	0.00	351.00	376.00
7857.000	1176.00	595.21	0.00	0.14	0.84	525.01	376.00
7857.000	1360.00	595.51	0.00	0.17	1.14	525.02	376.00
7857.000	1730.00	596.04	0.00	0.17	1.67	525.04	376.00
7859.000	780.00	594.36	0.00	0.01	0.00	351.43	2.00
7859.000	1176.00	595.20	0.00	0.19	1.02	525.02	2.00
7859.000	1360.00	595.71	0.00	0.20	1.45	525.03	2.00
7859.000	1730.00	596.24	0.00	0.20	1.86	525.05	2.00
7863.000	780.00	594.56	0.00	0.13	0.00	351.00	4.00
7863.000	1176.00	595.47	0.00	0.26	0.91	525.05	4.00
7863.000	1360.00	595.76	0.00	0.23	1.20	525.06	4.00
7863.000	1730.00	596.27	0.00	0.25	1.71	525.08	4.00
7865.000	780.00	594.55	0.00	-0.00	0.00	351.00	2.00
7865.000	1176.00	595.43	0.00	-0.03	0.84	525.05	2.00
7865.000	1360.00	595.72	0.00	-0.03	1.13	525.06	2.00
7865.000	1730.00	596.27	0.00	-0.06	1.67	525.08	2.00
8335.000	780.00	594.71	0.00	0.16	0.00	852.00	470.00
8335.000	1176.00	595.57	0.00	0.18	0.86	450.02	470.00
8335.000	1360.00	595.86	0.00	0.14	1.14	450.03	470.00
8335.000	1730.00	596.38	0.00	0.15	1.66	450.05	470.00
8337.000	780.00	594.71	0.00	-0.00	0.00	852.00	2.00
8337.000	1176.00	595.70	0.00	0.13	0.99	600.03	2.00
8337.000	1360.00	596.02	0.00	0.15	1.30	450.06	2.00
8337.000	1730.00	596.47	0.00	0.11	1.76	450.08	2.00

8344.000	780.00	594.74	0.00	0.03	0.00	252.00	7.00
8344.000	1176.00	595.72	0.00	0.02	0.93	400.03	7.00
8344.000	1360.00	596.04	0.00	0.02	1.29	400.04	7.00
8344.000	1730.00	596.59	0.00	0.01	1.84	400.06	7.00
8346.000	730.00	594.75	0.00	0.01	0.00	252.00	2.00
8346.000	1176.00	595.65	0.00	-0.07	0.89	400.03	2.00
8346.000	1360.00	595.96	0.00	-0.09	1.19	400.04	2.00
8346.000	1730.00	596.48	0.00	-0.11	1.73	400.06	2.00
8810.000	780.00	594.99	0.00	0.23	0.00	65.00	464.00
8810.000	1176.00	595.92	0.00	0.27	0.93	335.47	464.00
8810.000	1360.00	596.23	0.00	0.28	1.24	340.00	464.00
8810.000	1730.00	596.79	0.00	0.31	1.80	340.00	464.00

BCONO		CASEL	DIFUSP	DIFWSX	DIFKPS	TOPWID	XLCH
8910.000	780.00	594.95	0.00	-0.04	0.00	15.40	100.00
8910.000	1176.00	595.96	0.00	0.04	1.01	196.75	100.00
8910.000	1360.00	596.26	0.00	0.03	1.32	303.19	100.00
8910.000	1730.00	596.30	0.00	0.02	1.86	309.94	100.00
8948.000	780.00	594.97	0.00	0.02	0.00	15.40	38.00
8948.000	1176.00	597.23	0.00	1.27	2.26	241.56	38.00
8948.000	1360.00	597.40	0.00	1.14	2.43	299.54	38.00
8948.000	1730.00	597.66	0.00	0.84	2.67	299.92	38.00
9190.000	780.00	595.30	0.00	0.85	0.00	390.35	242.00
9190.000	1176.00	597.54	0.00	0.31	1.74	410.00	242.00
9190.000	1360.00	597.78	0.00	0.38	1.98	410.00	242.00
9190.000	1730.00	598.10	0.00	0.55	2.39	410.00	242.00
9432.000	780.00	595.86	0.00	0.04	0.00	62.57	242.00
9432.000	1176.00	597.53	0.00	-0.01	1.69	281.78	242.00
9432.000	1360.00	597.76	0.00	-0.02	1.91	286.76	242.00
9432.000	1730.00	598.15	0.00	-0.03	2.32	288.84	242.00
9433.000	780.00	595.75	0.00	-0.08	0.00	67.74	1.00
9433.000	1176.00	597.36	0.00	-0.16	1.61	233.22	1.00
9433.000	1360.00	597.57	0.00	-0.19	1.82	282.50	1.00
9433.000	1730.00	597.94	0.00	-0.22	2.13	280.84	1.00
9445.000	780.00	595.97	0.00	0.22	0.00	94.26	112.00
9445.000	1176.00	597.89	0.00	0.53	1.92	319.24	112.00
9445.000	1360.00	598.29	0.00	0.71	2.31	319.25	112.00
9445.000	1730.00	598.54	0.00	0.01	2.97	319.24	112.00
9446.000	780.00	595.20	0.00	0.23	0.00	105.83	1.00
9446.000	1176.00	598.17	0.00	0.28	1.97	319.24	1.00
9446.000	1360.00	598.52	0.00	0.24	2.32	319.25	1.00
9446.000	1730.00	599.08	0.00	0.14	2.88	319.24	1.00
9500.000	780.00	595.25	0.00	0.08	0.00	[illegible]	84.00
9500.000	1176.00	598.18	0.00	0.01	1.94	319.24	84.00
9500.000	1360.00	598.55	0.00	0.01	2.25	319.25	84.00
9500.000	1730.00	599.15	0.00	0.02	2.85	319.24	84.00

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10056.000	780.00	596.47	0.00	0.22	0.00	321.91	356.00
10056.000	1176.00	596.39	0.00	0.21	1.95	431.23	556.00
10056.000	1360.00	598.77	0.00	0.24	2.30	461.31	556.00
10056.000	1730.00	599.39	0.00	0.29	2.93	511.27	556.00
10360.000	780.00	596.43	0.00	-0.03	0.00	133.47	304.00
10360.000	1176.00	594.38	0.00	-0.01	1.95	540.00	304.00
10360.000	1360.00	598.76	0.00	-0.01	2.53	340.00	304.00
10360.000	1730.00	599.39	0.00	-0.01	2.95	340.00	304.00
10560.000	780.00	596.55	0.00	0.12	0.00	30.30	200.00
10560.000	1176.00	593.39	0.00	0.00	1.85	162.57	200.00
10560.000	1360.00	598.75	0.00	-0.01	2.20	232.78	200.00
10560.000	1730.00	599.36	0.00	-0.02	2.91	255.75	200.00

SECID	Q	CHSEL	DIFPS	DIFWSX	DIFKWS	TOPWID	XLCH
10584.000	780.00	597.13	0.00	0.58	0.00	30.30	24.00
10584.000	1176.00	599.17	0.00	0.78	2.04	247.18	24.00
10584.000	1360.00	599.39	0.00	0.64	2.26	257.96	24.00
10584.000	1730.00	599.77	0.00	0.40	2.63	283.92	24.00
10634.000	780.00	597.16	0.00	0.02	0.00	130.00	50.00
10634.000	1176.00	599.34	0.00	0.17	2.18	360.00	50.00
10634.000	1360.00	599.60	0.00	0.21	2.44	360.00	50.00
10634.000	1730.00	600.04	0.00	0.27	2.88	360.00	50.00
11506.000	780.00	597.56	0.00	0.01	0.00	415.99	872.00
11506.000	1176.00	599.53	0.00	0.17	1.96	526.07	872.00
11506.000	1360.00	599.79	0.00	0.19	2.23	526.75	872.00
11506.000	1730.00	600.27	0.00	0.24	2.71	537.82	872.00
12478.000	780.00	597.32	0.00	0.20	0.00	71.00	972.00
12478.000	1176.00	599.30	0.00	0.20	1.98	71.00	972.00
12478.000	1360.00	599.56	0.00	0.22	2.24	71.00	972.00
12478.000	1730.00	600.03	0.00	0.05	2.51	71.00	972.00
12579.000	780.00	597.81	0.00	-0.01	0.00	22.00	100.00
12579.000	1176.00	599.52	0.00	-0.01	1.71	22.00	100.00
12579.000	1360.00	599.78	0.00	-0.00	1.97	22.00	100.00
12579.000	1730.00	600.19	0.00	-0.14	2.39	22.00	100.00
12622.000	780.00	598.35	0.00	0.54	0.00	22.00	44.00
12622.000	1176.00	601.12	0.00	1.59	2.77	22.00	44.00
12622.000	1360.00	601.53	0.00	1.82	3.05	22.00	44.00
12622.000	1730.00	602.40	0.00	2.21	5.05	22.00	44.00
12673.000	780.00	598.72	0.00	0.37	0.00	122.00	50.00
12673.000	1152.00	601.59	0.00	0.40	2.87	122.00	50.00
12673.000	1360.00	602.55	0.00	0.54	3.81	122.00	50.00
12673.000	1730.00	604.52	0.00	0.69	5.58	122.00	50.00
13028.000	780.00	599.03	0.00	0.18	0.00	244.00	716.00
13028.000	1176.00	601.29	0.00	0.34	2.26	244.00	716.00
13028.000	1360.00	602.57	0.00	0.44	3.54	244.00	716.00
13028.000	1730.00	604.79	0.00	0.61	5.76	244.00	716.00

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13482.000	730.00	598.87	0.00	-0.03	0.00	196.55	100.00
13482.000	1152.00	601.71	0.00	-0.00	2.85	374.00	100.00
13482.000	1360.00	602.66	0.00	-0.00	3.80	374.00	100.00
13482.000	1870.00	604.24	0.00	0.00	5.38	374.00	100.00
13483.000	738.00	598.67	0.00	-0.19	0.00	167.60	1.00
13483.000	1152.00	601.70	0.00	-0.01	3.02	374.00	1.00
13483.000	1360.00	602.66	0.00	-0.01	3.98	374.00	1.00
13483.000	1870.00	604.24	0.00	-0.00	5.57	374.00	1.00
13569.000	738.00	599.08	0.00	0.41	0.00	280.82	86.00
13569.000	1152.00	601.92	0.00	0.12	2.74	374.05	86.00
13569.000	1360.00	602.73	0.00	0.07	3.65	374.06	86.00
13569.000	1870.00	604.29	0.00	0.06	5.21	374.09	86.00

SPCHD	D	CASEL	DIFUSF	DIFUSX	DIFKLS	TOPWID	XLOC
13570.000	738.00	599.52	0.00	0.44	0.00	221.01	1.00
13570.000	1152.00	601.82	0.00	0.00	2.30	374.05	1.00
13570.000	1360.00	602.72	0.00	-0.00	3.21	374.06	1.00
13570.000	1870.00	604.28	0.00	-0.01	4.76	374.09	1.00
13595.000	738.00	599.41	0.00	0.09	0.00	432.00	25.00
13595.000	1152.00	601.85	0.00	0.04	2.24	435.00	25.00
13595.000	1360.00	602.76	0.00	0.03	3.15	435.00	25.00
13595.000	1870.00	604.31	0.00	0.03	4.70	435.00	25.00
15306.000	738.00	599.31	0.00	0.20	0.00	440.00	1711.00
15306.000	1152.00	601.91	0.00	0.13	2.57	440.00	1711.00
15306.000	1360.00	602.87	0.00	0.12	3.06	440.00	1711.00
15306.000	1870.00	604.42	0.00	0.11	4.61	440.00	1711.00
16306.000	738.00	600.36	0.00	0.27	0.00	340.53	1000.00
16306.000	1152.00	602.93	0.00	0.15	2.20	391.26	1000.00
16306.000	1360.00	603.90	0.00	0.13	3.32	366.66	1000.00
16306.000	1870.00	604.54	0.00	0.12	4.46	484.92	1000.00
17146.000	738.00	600.24	0.00	0.13	0.00	80.00	840.00
17146.000	1152.00	602.23	0.00	0.10	1.97	80.00	840.00
17146.000	1360.00	603.10	0.00	0.09	2.82	80.00	840.00
17146.000	1870.00	604.50	0.00	0.08	4.33	80.00	840.00
17246.000	738.00	600.26	0.00	0.00	0.00	29.99	100.00
17246.000	1152.00	602.21	0.00	-0.02	1.95	29.99	100.00
17246.000	1361.00	603.24	0.00	-0.03	2.98	29.99	100.00
17246.000	1871.00	604.55	0.00	-0.04	4.27	29.99	100.00
17310.000	738.00	600.24	0.00	-0.02	2.00	29.99	64.00
17310.000	1152.00	602.16	0.00	-0.05	1.92	29.99	64.00
17310.000	1361.00	603.23	0.00	-0.06	2.74	29.99	64.00
17310.000	1871.00	604.59	0.00	-0.06	4.05	29.99	64.00
17370.000	738.00	600.24	0.00	-0.02	2.00	29.99	69.00
17370.000	1152.00	602.14	0.00	-0.05	1.89	29.99	69.00
17370.000	1361.00	603.23	0.00	-0.06	2.74	29.99	69.00
17370.000	1871.00	604.59	0.00	-0.06	4.05	29.99	69.00

	17437.000	738.00	600.53	0.00	-0.09	0.00	29.97	62.00
	17437.000	1152.00	602.59	0.00	-0.25	2.07	29.97	62.00
	17437.000	1360.00	605.49	0.00	-0.06	2.96	29.97	62.00
	17437.000	1870.00	605.28	0.00	-0.09	4.76	29.97	62.00
	17450.000	738.00	600.57	0.00	0.05	0.00	29.97	86.00
	17450.000	1152.00	604.05	0.00	0.06	2.08	29.97	86.00
	17450.000	1360.00	603.73	0.00	0.24	3.16	29.97	86.00
	17450.000	1870.00	605.90	0.00	0.61	5.32	29.97	86.00
	17500.000	738.00	600.72	0.00	0.15	0.00	105.30	50.00
	17500.000	1152.00	602.39	0.00	0.24	2.17	105.30	50.00
	17500.000	1360.00	604.01	0.00	0.26	3.25	105.30	50.00
	17300.000	1870.00	604.26	0.00	0.37	5.56	105.30	30.00

SECNO	[illegible]	[illegible]	DIFWSP	DIFWSX	DIFWMS	TCFWID	XLCI
18566.000	738.00	600.94	0.00	0.21	0.00	322.00	1066.00
18566.000	1152.00	603.05	0.00	0.16	2.12	522.00	1066.00
18566.000	1360.00	604.16	0.00	0.15	3.22	522.00	1066.00
18566.000	1870.00	606.42	0.00	0.15	5.48	522.00	1066.00
18666.000	738.00	600.94	0.00	0.00	0.00	211.74	100.00
18666.000	1152.00	603.05	0.00	0.00	2.12	468.05	100.00
18666.000	1360.00	604.16	0.00	0.00	3.22	468.09	100.00
18666.000	1870.00	606.42	0.00	0.00	5.48	848.05	100.00
18667.000	738.00	600.50	0.00	-0.34	0.00	251.74	1.00
18667.000	1152.00	603.05	0.00	-0.01	2.45	468.05	1.00
18667.000	1360.00	604.16	0.00	-0.00	3.56	468.09	1.00
18667.000	1870.00	606.42	0.00	0.00	5.83	848.05	1.00
18705.000	738.00	600.63	0.00	0.23	0.00	276.08	38.00
18705.000	1152.00	603.09	0.00	0.04	2.26	468.06	38.00
18705.000	1360.00	604.17	0.00	0.02	3.34	468.09	38.00
18705.000	1870.00	606.43	0.00	0.01	5.60	848.05	38.00
18706.000	738.00	601.78	0.00	0.95	0.00	280.00	1.00
18706.000	1152.00	603.13	0.00	0.02	1.33	468.06	1.00
18706.000	1360.00	604.18	0.00	0.00	2.40	468.09	1.00
18706.000	1870.00	606.43	0.00	-0.00	4.65	848.05	1.00
18756.000	738.00	601.79	0.00	0.01	0.00	375.00	50.00
18756.000	1152.00	603.13	0.00	0.02	1.34	375.00	50.00
18756.000	1360.00	604.19	0.00	0.01	2.40	375.00	50.00
18756.000	1870.00	606.43	0.00	0.01	4.64	950.00	50.00
19061.000	738.00	601.76	0.00	-0.03	0.00	110.16	305.00
19061.000	1152.00	603.07	0.00	-0.06	1.31	502.71	305.00
19061.000	1360.00	604.18	0.00	-0.01	2.42	549.76	305.00
19061.000	1870.00	606.44	0.00	0.00	4.66	1285.04	305.00
19062.000	738.00	601.71	0.00	-0.02	0.00	174.73	1.00
19062.000	1152.00	603.09	0.00	0.02	1.36	333.04	1.00
19062.000	1360.00	604.21	0.00	0.03	2.50	559.19	1.00
19062.000	1870.00	606.44	0.00	0.01	4.74	1285.04	1.00

19070.000	738.00	601.73	0.00	0.02	0.00	178.56	8.00
19070.000	1152.00	603.12	0.00	0.03	1.39	562.37	8.00
19070.000	1360.00	604.22	0.00	0.01	2.49	858.73	8.00
19070.000	1870.00	606.45	0.00	0.00	4.72	1285.04	8.00
19071.000	738.00	601.82	0.00	0.09	0.00	124.37	1.00
19071.000	1152.00	603.16	0.00	0.04	1.34	576.25	1.00
19071.000	1360.00	604.21	0.00	-0.01	2.39	859.61	1.00
19071.000	1870.00	606.44	0.00	-0.00	4.62	1285.04	1.00
20293.000	738.00	602.31	0.00	0.49	0.00	442.12	1222.00
20293.000	1152.00	603.49	0.00	0.33	1.18	528.18	1222.00
20293.000	1360.00	604.39	0.00	0.19	2.08	572.77	1222.00
20293.000	1870.00	606.50	0.00	0.05	4.19	731.20	1222.00

FORM 1611-GO-PRINTED BY ROTARY MANIFOLD FEED.
PRINTED IN U.S.A.

SECNO	Q	OBSEL	DIFUSF	DIFUSX	DIFXNS	TOPWID	XLCH
20294.000	738.00	602.32	0.00	0.01	0.00	442.52	1.00
20294.000	1152.00	603.50	0.00	0.01	1.18	528.15	1.00
20294.000	1360.00	604.40	0.00	0.01	2.07	572.83	1.00
20294.000	1870.00	606.50	0.00	0.00	4.18	731.20	1.00
20305.000	738.00	602.35	0.00	0.00	0.00	443.36	11.00
20305.000	1152.00	603.51	0.00	0.00	1.18	528.72	11.00
20305.000	1360.00	604.40	0.00	0.00	2.07	573.21	11.00
20305.000	1870.00	606.50	0.00	0.00	4.17	731.70	11.00
20306.000	738.00	602.37	0.00	-0.01	0.00	443.50	1.00
20306.000	1152.00	603.50	0.00	-0.01	1.18	528.27	1.00
20306.000	1360.00	604.39	0.00	-0.00	2.07	573.23	1.00
20306.000	1870.00	606.50	0.00	-0.00	4.18	731.70	1.00
20406.000	738.00	602.33	0.00	0.01	0.00	395.48	100.00
20406.000	1152.00	603.51	0.00	0.01	1.18	567.06	100.00
20406.000	1360.00	604.40	0.00	0.01	2.07	573.13	100.00
20406.000	1870.00	606.51	0.00	0.01	4.17	930.79	100.00
21223.000	738.00	602.57	0.00	0.23	0.00	250.00	817.00
21223.000	1152.00	603.69	0.00	0.10	1.13	250.00	817.00
21223.000	1360.00	604.52	0.00	0.12	1.96	250.00	817.00
21223.000	1870.00	606.55	0.00	0.05	3.99	250.00	817.00
21323.000	738.00	602.37	0.00	-0.20	0.00	30.98	100.00
21323.000	1152.00	603.40	0.00	-0.29	1.03	176.73	100.00
21323.000	1360.00	604.40	0.00	-0.12	2.04	200.00	100.00
21323.000	1870.00	606.34	0.00	-0.02	4.17	200.00	100.00
21359.000	738.00	604.25	0.00	1.88	0.00	200.00	36.00
21359.000	1152.00	604.70	0.00	1.30	0.44	200.00	36.00
21359.000	1360.00	604.99	0.00	0.58	0.73	200.00	36.00
21359.000	1870.00	606.66	0.00	0.13	2.41	200.00	36.00
21409.000	738.00	604.30	0.00	[illegible]	0.00	200.00	50.00
21409.000	1152.00	604.77	0.00	0.28	0.47	200.00	50.00
21409.000	1360.00	605.07	0.00	[illegible]	0.77	200.00	50.00
21409.000	1870.00	606.71	0.00	[illegible]	2.41	200.00	50.00

23003.000	738.00	604.94	0.00	0.64	0.00	470.04	1591.00	
23002.000	1152.00	605.62	0.00	0.65	0.68	470.06	1591.00	
23000.000	1360.00	605.95	0.00	0.68	1.01	470.07	1591.00	
23000.000	1870.00	607.25	0.00	0.55	2.31	470.11	1591.00	
23001.000	738.00	604.97	0.00	0.03	0.00	470.04	1.00	
23001.000	1152.00	605.56	0.00	0.04	0.69	470.06	1.00	
23001.000	1360.00	605.99	0.00	0.04	1.02	470.07	1.00	
23001.000	1870.00	607.28	0.00	0.03	2.31	470.11	1.00	
23012.000	738.00	604.98	0.00	0.01	0.00	470.04	11.00	
23012.000	1152.00	605.67	0.00	0.01	0.69	470.06	11.00	
23012.000	1360.00	606.00	0.00	0.01	1.02	470.07	11.00	
23012.000	1870.00	607.20	0.00	0.00	2.30	470.11	11.00	

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SECNO		CHSEL	DIFUSE	DIFSX	DIFRHS	TOPWID	RLCP
23013.000	738.00	604.96	0.00	-0.02	0.00	470.04	1.00
23013.000	1152.00	605.65	0.00	-0.02	0.68	470.06	1.00
23013.000	1360.00	605.97	0.00	-0.02	1.01	470.07	1.00
23013.000	1870.00	607.27	0.00	-0.02	2.30	470.11	1.00
23256.000	738.00	605.04	0.00	0.08	0.00	485.00	243.00
23256.000	1152.00	605.74	0.00	0.09	0.69	485.00	243.00
23256.000	1360.00	606.07	0.00	0.09	1.02	485.00	243.00
23256.000	1870.00	607.35	0.00	0.06	2.29	485.00	243.00
24202.000	738.00	605.15	0.00	0.12	0.00	195.05	946.00
24202.000	1152.00	605.89	0.00	0.15	0.75	195.07	946.00
24202.000	1360.00	606.23	0.00	0.16	1.07	195.09	946.00
24202.000	1870.00	607.45	0.00	0.12	2.29	195.12	946.00
24203.000	738.00	605.19	0.00	0.02	0.00	195.05	1.00
24203.000	1152.00	605.94	0.00	0.04	0.75	195.08	1.00
24203.000	1360.00	606.28	0.00	0.05	1.11	195.09	1.00
24203.000	1870.00	607.51	0.00	0.06	2.32	195.12	1.00
24219.000	738.00	605.20	0.00	0.01	0.00	195.05	16.00
24219.000	1152.00	605.93	0.00	0.02	0.75	195.08	16.00
24219.000	1360.00	606.32	0.00	0.04	1.11	195.09	16.00
24219.000	1870.00	607.53	0.00	0.01	2.32	195.12	16.00
24220.000	738.00	605.19	0.00	-0.01	0.00	195.05	1.00
24220.000	1152.00	605.93	0.00	-0.03	0.74	195.08	1.00
24220.000	1360.00	606.27	0.00	-0.03	1.08	195.09	1.00
24220.000	1870.00	607.49	0.00	-0.03	2.30	195.12	1.00
24474.000	738.00	605.24	0.00	0.05	0.00	94.00	254.00
24474.000	1152.00	605.99	0.00	0.06	0.75	94.00	254.00
24474.000	1360.00	606.33	0.00	0.06	1.09	94.00	254.00
24474.000	1870.00	607.51	0.00	0.02	2.27	94.00	254.00
24474.000	738.00	605.26	0.00	0.02	0.00	44.00	10.00
24474.000	1152.00	606.01	0.00	0.02	0.75	44.00	10.00
24474.000	1360.00	606.35	0.00	0.02	1.09	44.00	10.00
24474.000	1870.00	607.53	0.00	0.02	2.28	44.00	10.00

24588.000	738.00	605.29	0.00	0.03	0.00	62.46	14.00
24588.000	1152.00	606.07	0.00	0.06	0.78	43.95	14.00
24588.000	1360.00	606.43	0.00	0.08	1.14	44.00	14.00
24588.000	1870.00	607.88	0.00	0.37	2.59	44.00	14.00
24638.000	738.00	605.34	0.00	0.06	0.00	95.55	50.00
24638.000	1152.00	606.20	0.00	0.13	0.86	165.00	50.00
24638.000	1360.00	606.62	0.00	0.19	1.28	165.00	50.00
24638.000	1870.00	608.21	0.00	0.34	2.87	145.00	50.00
25020.000	738.00	605.64	0.00	0.29	0.00	100.00	382.00
25020.000	1152.00	606.60	0.00	0.40	0.97	100.00	382.00
25020.000	1360.00	607.04	0.00	0.42	1.61	100.00	382.00
25020.000	1870.00	608.60	0.00	0.29	2.87	100.00	382.00

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SFCNO	[illegible]	CHSEL	DIFWSP	DIFWSX	DIFWWS	TOP.TD	XLCH
25137.000	738.00	605.83	0.00	0.19	0.00	29.02	117.00
25137.000	1152.00	606.82	0.00	0.22	0.99	37.56	117.00
25137.000	1360.00	607.25	0.00	0.21	1.42	55.08	117.00
25137.000	1870.00	608.61	0.00	0.11	2.78	138.14	117.00
25306.000	738.00	606.80	0.00	0.97	0.00	29.02	169.00
25306.000	1152.00	608.80	0.00	1.98	2.00	149.12	169.00
25306.000	1360.00	609.18	0.00	1.93	2.38	155.00	169.00
25306.000	1870.00	609.90	0.00	1.29	3.10	155.02	169.00
25340.000	738.00	606.89	0.00	0.09	0.00	100.00	34.00
25340.000	1152.00	609.98	0.00	0.18	2.09	200.00	34.00
25340.000	1360.00	609.41	0.00	0.22	2.52	200.00	34.00
25340.000	1870.00	610.24	0.00	0.34	3.35	200.00	34.00

SUMMARY OF ERRORS

FLOOD INSURANCE ZONE DATA FOR BLACKLEY DRAIN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10¢	2¢	0.2¢
0.000	0.	-1.0	-0.2	0.4
1320.000	1320.	-1.0	-0.3	0.5
2540.000	2540.	-1.2	-0.3	0.5
2660.000	2660.	-1.2	-0.3	0.5
2675.000	2675.	-1.1	-0.2	0.5
2730.000	2730.	-1.0	-0.2	0.5
4106.000	4106.	-1.1	-0.3	0.5
5406.000	5406.	-1.2	-0.3	0.6
6906.000	6906.	-1.2	-0.3	0.6
7473.000	7473.	-1.2	-0.3	0.5
7475.000	7475.	-1.1	-0.3	0.5
7479.000	7479.	-1.1	-0.3	0.5
7481.000	7481.	-1.1	-0.3	0.5
7657.000	7657.	-1.1	-0.3	0.5
7859.000	7859.	-1.3	-0.3	0.5
7863.000	7863.	-1.2	-0.3	0.5
7865.000	7865.	-1.2	-0.3	0.5
8335.000	8335.	-1.1	-0.3	0.5
8337.000	8337.	-1.3	-0.3	0.6
8344.000	8344.	-1.1	-0.3	0.5
8346.000	8346.	-1.2	-0.3	0.5
8910.000	8910.	-1.3	-0.3	0.6
8948.000	8948.	-1.3	-0.3	0.5
9190.000	9190.	-2.4	-0.2	0.2
9432.000	9432.	-2.0	-0.2	0.4
9433.000	9433.	-1.9	-0.2	0.4
9545.000	9545.	-1.6	-0.2	0.3
9546.000	9546.	-2.3	-0.4	0.4

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      NEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
      E8809 CORR - 01
      MODIFICATION - 50,51,52
      ********************************************************

C
CT      GROUNDTOWN
CT      CO'S. STORE
CT      BLACKLEY DRAIN

GT  ICHECK    INC         SYM         DIR         STRT        METRIC      PWINS       D           RSE         FG
    0.          4.          0.          0.      2.000000    0.00        0.0         0.          590.000     0.300

GD      IPLOT       DPROP       ISEG        XSEG        FI          GILOC       IG          CAP LN      ITAPER
.010        3.000       21.000      0.000       0.000       3.000       1.000       0.250       0.000       15.000

JS  PARTICULAR CODES FOR SUMMARY PRINTOUT

    110.000     150.000     200.000     3.000       7.000       3.000       0.000       1.000       0.700       0.300
GT      5.000       730.100     1176.000    1360.000    1340.000    1730.000    0.300       0.000       0.500       0.000
MC      0.080       4.000       0.035       0.100       0.320       0.000       0.230       0.000       5.000       0.300
SC      0.000       3.000       0.000       0.200       1.400       0.300       2.000       1.000       0.000       0.000


    VALLEY SECTION BASED ON 0040 MAP

G1      0.000       9.000       684.000     717.000     0.000       2.000       0.000       0.000       0.000       0.000
G2      0.000       0.000       0.000       500.000     0.200       1100.000    0.300       0.000       0.000       0.000
G3      595.000     0.000       582.000     500.000     589.200     1320.000    582.300     654.000     582.400     700.000
GT      0.000       700.000     589.200     717.000     590.000     0.000       0.000       0.000       0.000       0.000


    VALLEY SECTION BASED ON 0040 MAP

G1      1320.000    9.000       684.000     717.000     1320.000    1320.000    1320.000    0.000       0.000       0.000
G2      0.000       0.000       0.000       500.000     0.200       800.000     0.300       0.000       0.000       0.000
G3      595.000     0.000       582.000     500.000     589.200     384.000     582.300     654.000     582.400     700.000
GT      582.300     706.000     589.200     717.000     590.000     0.000       592.000     1000.000    0.000       0.000


    ENTERING SIDE OF ROAD SECTION

G1      1320.000    0.000       684.000     717.000     1320.000    1320.000    1320.000    0.000       0.000       0.000
G2      0.000       0.000       0.000       500.000     0.200       800.000     0.300       0.000       0.000       0.000
G3      1.000       582.300     582.300     0.000       0.000       0.000       0.000       0.000       0.000       0.000
GT      582.300     0.000       582.300     589.200     582.300     582.300     582.300     582.300     582.300     582.300
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BT	0.000	0.000	9.100	7.100	9.100	7.100	251.000	607.000	1.000	700.000

D/S FACE OF KING RD. BRIDGE

X1	2640.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	592.000	591.500	0.000
GR	0.000	1.500	3.000	1.000	24.100	0.000	178.000	0.000	582.980	583.230

U/S FACE OF KING RD. BRIDGE

X1	2675.000	14.000	382.990	417.010	35.000	35.000	35.000	0.370	0.000	0.000
X2	0.000	0.000	1.500	589.300	591.830	0.000	0.000	0.000	0.870	0.000
X3	10.000	0.000	0.500	0.000	0.000	0.000	0.000	592.360	591.350	0.000
X4	1.000	592.590	367.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	595.000	0.000	289.900	595.000	0.000	290.000	592.590	0.000
BT	300.000	592.580	0.000	382.990	592.600	582.980	383.000	592.620	589.800	417.000
BT	578.600	539.800	417.010	592.650	582.990	570.300	591.830	0.090	600.000	592.000
BT	0.000	699.900	592.470	0.000	700.000	595.000	0.000	0.000	0.000	0.000
GR	595.000	0.000	595.000	289.990	592.590	290.000	592.580	300.300	582.980	582.990
GR	582.980	583.000	582.980	600.000	582.980	417.000	582.930	417.010	592.380	440.000
GR	591.830	500.000	592.000	600.000	592.470	699.900	595.000	700.000	0.000	0.000
NC	0.080	0.080	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	9.100	9.100	9.100	9.100	372.000	508.000	270.000	690.000

X@SECT.U/S OF KING RD. BRIDGE

X1	2701.000	8.000	372.070	435.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	592.000	0.000	595.300	382.000	583.300	393.000	582.990	600.020	581.900	407.000
OR	592.500	605.300	590.000	700.000	595.000	1070.300	0.000	1.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.100	0.010	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 27200.

X1	4105.000	15.000	794.000	836.500	1002.000	1800.000	1404.000	0.300	0.000	0.000
GR	600.000	0.000	595.000	450.000	590.120	650.000	589.120	744.000	591.520	766.000
GR	591.520	772.000	589.570	784.000	584.020	794.000	582.830	800.000	553.640	806.000
GR	590.470	817.000	595.000	950.000	595.000	951.000	0.000	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 19900.

X1	5406.000	19.000	345.300	355.000	1200.300	1490.000	1300.000	0.000	0.300	0.000
GR	595.000	0.000	593.750	50.000	590.980	200.000	590.250	310.000	592.460	322.000
GR	592.400	326.000	590.450	382.000	590.610	934.000	584.120	945.000	535.900	950.300
GR	584.210	353.300	590.400	382.000	590.950	383.000	382.350	395.000	591.980	179.000
GR	389.970	397.300	390.950	502.000	593.000	850.000	500.000	971.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT. 18400.

X1	5904.000	15.000	394.000	324.000	1500.000	1510.000	1500.000	2.000	0.000	0.000

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X4	1.000	594.440	1.000	0.000	5.000	0.000	0.000	0.000	0.000	0.000
GR	596.000	0.000	593.840	150.000	591.040	246.000	593.240	297.200	593.020	271.000
GR	592.030	288.000	587.620	239.000	587.360	272.000	585.220	296.000	594.940	300.000
GR	585.220	304.000	591.840	317.000	592.590	450.000	594.150	600.000	595.000	725.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	326.000	681.000

1: D/S OF FOOTBRIDGE "5400: D/S OF SIMLEY RD.

X1	7473.000	12.000	488.000	511.000	557.300	567.000	567.000	0.000	0.000	0.000
X4	1.000	592.740	484.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	600.000	199.900	595.000	200.000	590.230	486.000	590.250	486.100	585.800	495.000
GR	585.770	500.000	592.630	505.000	591.370	512.900	591.070	515.000	591.350	523.000
GR	596.000	800.000	600.700	801.000	0.700	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.130	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: INSIDE D/S END OF FOOTBRIDGE

X1	7475.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
BT	0.000	484.000	392.740	0.000	406.000	592.530	0.000	488.100	392.380	391.480
BT	512.900	592.750	591.330	513.000	592.750	0.100	523.000	591.330	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: INSIDE D/S END OF FOOTBRIDGE

X1	7479.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	300.000	736.000	326.000	681.000

1: U/S OF FOOTBRIDGE "5400: U/S OF SIMLEY RD.

X1	7481.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	233.000	694.000

1: D/S OF FOOTBRIDGE "5400: D/S OF SIMLEY RD.

X1	7857.000	13.000	547.300	559.000	500.000	270.000	373.000	0.000	0.000	0.000
X3	13.000	0.000	0.000	0.000	0.000	0.000	0.000	594.040	593.980	0.000
X4	2.000	593.430	529.000	593.430	569.000	0.000	0.000	0.000	0.000	0.000
GR	600.000	199.800	595.000	200.000	591.490	535.000	589.610	537.500	589.610	537.510
GR	586.550	555.000	586.550	550.000	586.640	555.000	588.290	558.900	588.293	559.000
GR	592.330	569.000	595.000	725.000	600.000	725.100	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	233.000	694.000

1: INSIDE OF D/S END OF FOOTBRIDGE

X1	7859.000	0.000	0.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000
BT	0.000	529.000	592.490	0.000	596.000	594.110	0.000	592.500	594.060	0.000
BT	592.510	594.060	592.760	559.000	593.980	592.680	559.000	593.960	0.000	565.000
BT	594.080	0.000	569.000	592.630	0.000	2.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	233.000	694.000

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1' INSIDE OF U/S END OF FOOTBRIDGE

X1	7863.000	0.000	0.000	0.000	4.000	4.000	4.000	0.300	-0.740	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.300	1.000	0.300	0.000	0.000
EY	0.000	7.100	0.000	0.000	9.100	0.000	287.300	638.300	233.000	674.300

1' U/S OF FOOTBRIDGE +1000' U/S OF SIBLEY RD.

X1	7855.300	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	10.000	7.000	0.000	2.000	0.000	2.000	0.000	594.000	593.900	0.000
EY	0.000	7.100	0.300	0.000	9.600	0.000	324.000	576.000	331.300	565.000

1' D/S OF FOOTBRIDGE +550'D/S OF SIBLEY RD.

X1	8339.000	11.300	437.300	467.000	470.000	470.000	477.000	0.000	0.000	0.000
X3	10.000	0.700	0.000	0.000	0.000	0.000	0.000	593.400	592.870	0.000
GR	600.000	199.900	595.000	200.000	595.600	435.000	588.000	437.000	586.400	445.000
GR	586.250	450.000	586.180	455.000	589.190	461.000	593.130	467.000	595.000	600.000
GR	600.000	600.100	0.000	0.300	0.000	0.300	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.300	324.000	576.000	331.000	565.000

1' INSIDE OF U/S END OF FOOTBRIDGE

X1	8537.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
BY	7.000	433.000	593.600	0.000	437.000	593.400	0.000	437.000	593.400	592.400
SY	450.000	592.370	591.070	461.000	592.930	591.750	467.000	592.930	0.000	667.000
EY	593.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LY	0.000	7.100	0.000	0.000	9.100	0.000	324.000	576.000	331.000	565.000

1' INSIDE OF U/S END OF FOOTBRIDGE

X1	8344.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
EY	0.000	7.100	0.000	0.000	9.100	0.000	324.000	576.000	331.000	565.000

1' U/S OF FOOTBRIDGE +550'U/S OF SIBLEY RD.

X1	8346.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	593.400	592.870	0.000
EY	0.000	7.100	9.100	9.100	9.100	9.100	360.000	425.000	195.000	535.000

INTERSECT. U/S OF SIBLEY RD.

X1	8610.300	9.000	592.300	407.700	464.000	464.200	464.000	0.000	0.000	0.000
GR	597.750	0.000	595.000	330.000	594.200	376.500	566.400	392.300	586.460	400.000
GR	586.600	407.700	593.900	421.000	595.000	600.000	598.720	800.000	0.000	0.000
BY	0.100	0.100	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
EY	0.300	0.000	0.000	0.000	9.100	0.300	0.000	0.000	0.000	0.000

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D/S FACE OF SIBLEY RD. BRIDGE

X1	8910.000	12.000	392.300	407.700	100.000	100.000	100.000	0.300	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.200	595.200	0.000
GR	600.000	200.000	450.000	200.000	566.000	260.000	596.000	300.000	596.600	370.500
GR	586.600	392.300	586.460	400.000	586.600	407.700	592.400	421.300	596.300	500.000
GR	596.200	549.900	600.000	590.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.600	3.000	0.000	15.300	0.000	125.500	0.000	586.910	586.460

U/S FACE OF SIBLEY RD. BRIDGE

X1	8940.000	12.000	392.300	407.700	33.000	58.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	595.140	596.940	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.500	596.940	596.940	0.000
X6	2.000	594.800	370.500	592.400	421.000	0.000	0.000	0.000	0.000	0.000
ST	11.000	0.000	600.000	0.000	249.900	400.000	0.000	250.000	597.400	0.000
BT	300.000	597.300	0.000	392.300	595.990	0.000	392.310	597.370	595.140	407.700
BT	597.370	595.140	407.310	596.940	0.300	200.000	596.940	0.000	549.900	597.370
BT	0.000	550.000	600.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000
GR	600.000	0.000	600.000	249.900	597.400	250.000	597.300	300.000	587.100	392.300
GR	587.100	392.310	586.910	400.000	587.100	407.690	587.100	407.700	596.940	500.300
GR	597.370	549.900	600.000	550.000	0.300	0.000	0.300	0.000	0.000	0.000
ET	0.000	7.150	7.100	7.100	9.100	7.100	270.000	600.000	290.000	660.000

XSECT. U/S OF SIBLEY RD. AND D/S OF ALLEN RD.

X1	9190.000	9.000	400.000	490.000	430.000	100.000	242.000	0.000	0.000	0.000
GR	597.500	0.000	595.000	500.000	594.800	260.000	596.600	470.000	536.600	475.000
GR	586.300	450.000	592.600	490.000	595.200	650.000	596.700	700.000	0.300	0.000

D/S FACE ALLEN RD. BRIDGE

X1	9432.000	22.000	592.000	617.000	242.000	272.000	242.000	0.700	0.200	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.260	597.400	0.000
GR	600.000	0.000	600.000	100.000	600.000	525.900	593.650	330.000	596.110	400.000
GR	596.770	500.000	597.400	598.500	597.400	598.610	598.200	581.990	580.800	582.000
GR	587.000	599.000	587.000	599.010	585.620	601.000	586.920	601.010	586.920	617.000
GR	596.920	617.017	597.400	640.500	597.400	640.510	597.500	700.000	597.650	700.000
GR	600.000	700.000	600.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
XX	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

2' INSIDE D/S E'D ALLEN RD. BRIDGE

INPUT

10

X1	9433.000	0.000	0.000	0.000	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	0.000	0.000	0.000
GR	22.000	0.000	600.000	0.000	600.000	600.000	0.000	329.920	600.000	0.000
GR	330.010	595.650	0.000	400.000	596.110	0.000	300.000	596.770	0.000	536.600
GR	597.400	0.000	558.610	599.600	0.000	531.990	595.600	0.000	582.000	599.600
GR	594.130	599.000	594.400	624.150	599.010	599.650	0.000	601.000	595.600	0.000
GR	601.010	599.000	594.400	617.000	595.400	624.100	617.000	595.650	0.000	650.500

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BT	599.600	0.000	640.510	597.400	0.000	700.000	597.500	0.000	710.000	597.860
BT	0.000	710.000	600.000	0.000	710.000	600.001	0.000	0.000	0.000	0.000

1' INSIDE U/S END ALLEN RD. BRIDGE

X1	9445.000	72.000	552.000	917.000	112.000	112.000	112.500	0.760	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.760	0.000
BT	22.000	0.000	600.000	0.000	100.000	600.000	0.000	329.900	600.300	0.000
BT	330.000	595.650	0.000	400.000	596.110	0.000	500.000	596.770	0.000	556.600
BT	597.400	0.000	598.610	599.600	0.000	581.990	599.600	0.000	582.000	599.600
BT	594.700	599.000	599.600	594.100	599.010	599.600	0.000	601.000	599.600	0.000
BT	601.010	599.600	594.100	617.000	599.600	594.100	617.01	599.650	0.000	640.500
BT	599.600	0.010	640.510	597.400	0.000	700.000	597.500	0.000	750.000	597.860
BT	0.000	750.000	600.000	0.000	750.300	600.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	600.000	100.000	600.000	329.900	595.650	335.000	596.110	400.000
GR	596.770	500.000	597.400	558.600	597.400	558.610	558.350	581.990	588.350	582.000
GR	588.350	599.000	588.350	599.010	586.240	601.000	586.240	601.010	586.240	617.000
GR	586.240	617.010	597.400	640.500	599.400	640.510	597.500	700.010	597.000	750.000
GR	600.000	750.000	600.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000
MR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE ALLEN RD. BRIDGE

X1	9446.000	0.000	0.000	0.000	1.000	1.000	1.000	0.300	0.000	0.000
X3	10.000	0.000	0.000	0.000	2.000	0.000	0.000	595.260	597.400	0.000

X@SECT. U/S OF ALLEY RD.

X1	9503.000	0.000	0.000	0.000	54.000	54.000	54.500	0.300	0.000	0.000
MR	0.000	0.000	0.000	0.000	0.300	0.000	1.000	0.000	0.000	0.000
CT	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

WALLEY SECT. 1366' SW FIELD ROOM SECT. 1525'.

X1	10056.000	93.000	396.000	304.000	200.000	550.300	550.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	40.000	0.000	550.300	0.000	0.000	0.000	0.000
X4	1.000	597.330	1.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000
GR	600.000	0.000	398.130	150.000	595.900	268.200	509.200	209.000	587.430	396.000
GR	587.780	300.000	586.850	324.000	592.280	307.200	595.630	318.000	591.930	450.000
GR	592.430	400.000	595.000	720.000	600.000	1200.500	0.000	0.000	0.000	0.000
BT	0.000	0.000	0.000	0.000	0.500	0.300	0.000	0.000	0.000	0.000
EP	0.000	7.100	9.100	9.100	9.100	9.100	150.000	365.000	140.000	460.000

X@SECT. U/S OF TRIPLE CULVERTS

X1	10369.000	1.300	200.000	317.000	304.000	304.000	304.000	0.000	0.000	0.000
GR	597.810	0.000	595.000	128.000	597.000	293.500	300.290	295.000	586.200	299.000
GR	587.980	307.000	593.200	317.000	597.000	352.500	553.000	553.000	597.000	900.000
GR	603.000	1350.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000
BT	0.000	0.300	0.000	0.000	0.400	0.000	0.000	0.000	150.000	460.000

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D/S END OF TRIPLE CONC. CULVERT

X1	10560.000	35.000	296.850	327.150	200.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	597.500	597.500	0.000
X4	2.000	591.600	296.840	593.300	327.160	0.000	0.000	0.000	0.000	0.000
GR	600.000	160.000	597.510	160.000	598.610	160.000	598.490	212.000	597.000	292.000
GR	591.680	296.960	590.290	297.150	590.290	298.300	590.290	299.700	590.290	301.100
GR	589.400	302.300	588.500	303.920	590.050	303.050	591.960	305.350	591.950	307.750
GR	590.200	308.050	590.600	309.200	587.900	310.630	587.600	312.000	587.400	313.400
GR	588.600	314.800	590.200	315.950	591.850	315.250	591.360	318.650	589.710	318.950
GR	590.220	320.100	590.830	321.500	591.480	322.900	592.120	324.300	592.770	325.700
GR	593.300	326.850	593.300	327.150	597.000	332.550	595.310	412.000	601.000	460.000
GR	0.000	0.500	2.000	2.000	5.600	0.000	133.000	0.000	587.600	587.600

U/S END OF TRIPLE CONC.CULVERT

X1	10596.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.100	598.610	0.000	0.000	0.000	0.000	0.000
X3	10.300	0.000	0.000	0.000	0.000	0.000	0.000	598.610	598.760	0.000
BT	35.000	160.000	600.000	0.000	160.000	597.510	0.000	160.000	596.610	0.000
BT	212.000	598.490	0.000	296.840	598.760	0.000	296.850	598.760	591.660	297.150
BT	598.760	593.300	293.300	598.760	596.900	299.720	598.760	595.700	301.100	598.760
BT	595.930	302.500	598.730	595.700	305.320	598.760	596.900	305.050	598.760	595.300
BT	596.350	598.760	596.850	307.750	598.760	596.850	306.050	598.760	593.470	309.200
BT	596.760	595.070	310.600	598.760	595.970	312.050	598.760	596.100	313.400	598.760
BT	596.870	314.000	598.760	595.070	315.950	598.760	593.470	316.250	598.760	591.850
BT	318.650	598.760	591.350	318.950	598.760	593.010	320.100	598.760	594.610	321.500
BT	598.760	595.610	322.900	598.760	595.610	324.300	598.760	595.410	325.700	598.760
BT	596.590	326.850	598.760	596.300	327.150	598.760	596.300	327.150	598.760	0.300
BT	412.300	599.910	0.000	600.300	600.500	0.000	0.000	0.000	0.000	0.000
BT	0.500	0.000	0.100	0.100	0.100	0.100	233.700	335.500	0.300	595.200

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X-SECT.U/S OF TRIPLE CULVERTS

X1	10634.000	11.000	296.000	327.150	52.000	50.300	50.000	0.300	0.000	0.000
GR	600.000	0.000	595.000	160.000	598.000	291.200	592.360	296.000	589.450	299.000
GR	588.100	307.000	586.400	317.000	597.000	328.500	595.000	350.000	597.000	900.000
GR	600.000	1350.300	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.035	0.150	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.300	0.000	1.400	0.000	0.300	0.000	0.000	0.000

VALLEY SECT. BASED ON FIELD BOOK SECT.13800.

X1	11506.000	14.000	371.000	335.000	1200.000	400.000	572.000	0.000	0.300	0.300
X2	0.300	0.000	0.000	100.300	0.000	0.000	0.000	0.000	0.300	0.300
X4	11.300	597.490	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.300
BT	0.300	0.000	597.000	70.300	597.450	221.000	597.700	350.000	593.440	371.300
GR	588.260	378.000	588.640	385.000	595.550	392.000	594.050	399.300	596.700	404.000
GR	595.210	478.000	595.300	599.300	602.140	651.000	602.130	678.000	0.000	0.000

U/S END OF R.B. TRIB

*PROF

CCHV= 0.100 CEHV= 3.500

*SECNO ****

SECNO	DEPTH	CUSE	CHENS	NSELK	ES	HV	U	FLOSS	BANK ELEV
0.	0.00	0.00	0.000	ALOS	ASH	AROB	VOL	TWA	LEFT/RIGHT
TSH	VLOB	VC	CHNL	XSL	CHNEL	XNT	OUTS	CL=CH	SSTA
SLOPE	XLOBL	AEC	0.099	ISTRCK	IOR	ICONT	*CRAK	TOP.ID	ENDST

STA ENCROACHMENT STATIONS= 590.5 1170.0 TYPE= 1 TARGET= 600.000

LOW LEV SEC, BASED ON JUPO XSP

0.00	9.26	590.96	0.00	590.00	591.14	0.10	0.00	0.20	589.20
1360.	163.	923.	269.	250.	223.	413.	0.	0.	589.20
0.00	0.57	4.13	0.65	0.230	0.038	0.086	0.730	591.70	600.00
0.000875	0.	0.	0.	0	0	0	0.00	590.79	1049.39

FLOW DISTRIBUTION FOR SECNO= 0.00 CWSEL= 591.40

STA=	590.	594.	725.	1052.	1170.
0.00	12.5	67.8	9.1	10.6	
1360.	249.9	332.3	336.4	23.7	
VEL=	0.7	4.1	0.7	0.4	

*SECNO 1320.000

STA ENCROACHMENT STATIONS= 590.5 1170.0 TYPE= 1 TARGET= 600.000

VALLEY SECTION BASED ON JUPO XSP

1320.00	9.56	591.76	0.10	3.00	592.00	0.13	0.00	1.01	22.55
1360.	484.	1.	1.	6.	11.	206.	0.	0.	589.20
0.00	0.61	3.38	0.65	0.047	0.036	0.050	0.00	0.20	589.20
0.000592	1320.	1320.	1331.	1	1	0	0.	0.00	600.00

R.O. DISTRIBUTION FOR SECNO= 1320.0 CWSEL= 591.96

STA=	590.	594.	725.	1052.	1170.
R.O.=	0.0	73.1	6.9	20.0	
CUM=	0.0	0.0	61.1	111.9	281.
	0.0	0.0	1.5	3.9	

*SECNO 2540.000

STA ENCROACHMENT STATIONS= 590.5 1170.0 TYPE= 1 TARGET= 600.000

ASSECT.DAT SECTION NO. 0 USED

2540.00	9.55	592.73	0.00	0.20	94	0.1	0.00	.07	589.20
1360.	516.	773.	670.	351.	447.	53.	0.	0.	589.20

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	0.28	1.66	3.64	0.45	0.090	0.035	0.000	0.035	583.83	262.29
	0.0003763	1220.	1220.	1220.	2	0	0	0.30	343.01	600.30

FLOW DISTRIBUTION FOR SECNO= 2540.00 CWSEL= 592.78

STA=	252.	291.	333.	343.	366.	435.	522.	600.
Q=	0.0	87.9	97.2	6.1	1.2	2.6	1.1	
AREA=	1.7	353.0	218.2	4.2	43.5	71.6	74.1	
VEL=	0.2	1.5	3.6	0.2	0.4	0.5	0.2	

*SECNO 2640.000

SID=	UPSTREAM STATION		291.0	87.9	TYP=	1	TARGET=	356.000	
	D/S FACE OF KING RD, ERIE								
	2640.00	592.85	592.85	0.00	0.1	592.85	0.10	3.06	0.30	513.23
	1960.	344.	576.	946.	0.	387.	148.	54.	24.	353.23
	3.28	3.83	3.00	0.79	0.000	0.015	0.080	0.336	535.23	219.99
	0.0003763	900.	1500.	900.	0	0	0	3.00	317.01	427.00

FLOW DISTRIBUTION FOR SECNO= 2565.10 CWSEL= 592.05

STA=	250.	300.	343.	417.	418.	500.	600.	607.
Q=	0.0	22.2	71.1	1.1	0.9	1.3	1.1	
AREA=	2.6	4.9	327.1	4.9	55.7	92.9	5.0	
VEL=	0.1	1.8	3.5	0.2	0.2	0.3	0.2	

	AP	KNOB				SS	
	0.7	1.50	1.00	0.00	0.00	178.61	1.00	582.59

	TYPE	WSEL	CD	TOP	KNL	X-SEC	KODE	WTN	ELTRD	SETA
	SLOPE	FLOW		WSEL	ERR		LOSS	SOPAR	TOPWID	ENLOSS

	TYPE	WSEL	FR	DIAM		BASE	TRAPEZOID	LOSS	ELTRD
		592.75				175.	175.		

continuity?

check on pressure flow

$Q = CA\sqrt{2gH}$; $K = 1.5$

$C = 1/\sqrt{K} = .816$

$Q = .816(178)(8.025)H^{1/2} = 1166.32H^{1/2}$

$eH = 593.1 - 592.85 = .25$

$Q = 1166.32(.5) = 583.1$ cfs

$eH = .25 + .4 = .65$

$Q = 1166.32(.806) = 940.3$

$\Rightarrow$ HW < .4' low

592.85 > 591.83 = ELTRD $\Rightarrow$ TW over rd

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     0.30      3.90      3.20      0.30     0.080     0.035     0.080     0.035    582.98    252.29
 0.000266      35.       35.       35.         2         0         3      0.00    356.65    608.93

FLOW DISTRIBUTION FOR SECNO=    2675.00          CWSEL=     592.99

STA=      252.      281.      333.      363.      367.      383.      435.      522.      609.
  PER Q=      0.8      25.0      89.7       0.8       0.1       0.9       2.2       1.2
   AREA=      3.5     375.8     296.9      21.8       7.9      46.0      93.1      65.2
    VEL=      0.2       0.9       3.2       0.5       0.2       0.3       0.3       0.3

CCHV=   0.300 CEHV=   0.500
*SECNO 2700.000

3470 ENCROACHMENT STATIONS=     270.0     690.0  TYPE=      1  TARGET=     420.000

        X@SECT.U/S OF KING RD. BRIDGE

  2700.00     10.03    593.01      0.00      0.00    593.11      0.10      0.01      0.00    592.00
    1360.       56.      1112.      232.       60.      393.      434.       55.       25.    592.50
     2.30      0.26      2.33      0.53     0.080     0.035     0.080     0.035    582.98    270.00
 0.000413       25.       23.       25.         1         0         0      0.00    420.00    690.00

FLOW DISTRIBUTION FOR SECNO=    2700.00          CWSEL=     593.01

STA=      270.      372.      435.      690.
  PER Q=      1.2      81.8      17.0
   AREA=     60.1     393.2     434.2
    VEL=      0.3       2.0       0.5

CCHV=   0.100 CEHV=   0.300
*SECNO 4106.000

        VALLEY SECT. BASED ON FIELD BOOK SECT. 21200.

  4106.00     10.79    593.62      0.00      0.00    593.77      0.15      0.64      0.01    584.02
    1360.      633.      573.      165.      318.      124.      250.       36.       36.    583.64
     3.45      0.78      6.64      0.54     0.100     0.035     0.100     0.035    582.03    506.40
 0.000543      1000.     1406.     1800.         2         0         0      0.00    426.77    933.19

FLOW DISTRIBUTION FOR SECNO=    4106.00          CWSEL=     593.62

STA=      506.      652.      744.      756.      772.      784.      794.      806.      817.      933.
  PER Q=      9.3      24.2       4.1       0.5       2.0       5.7      42.1       5.8       6.3
   AREA=    251.6     376.3      72.7      12.5      36.9      60.3     123.5      72.3     183.2
    VEL=      0.5       0.9       0.8       0.6       0.7       1.1       4.6       1.1       0.5

*SECNO 5406.000

        VALLEY SECT. BASED ON FIELD BOOK SECT. 19900.

  5406.00     10.27    594.25      0.00      0.00    594.31      0.06      0.53      0.01    584.12
    1360.      660.      364.      523.      329.      102.      895.      232.       54.    584.22
     0.72      0.56      3.08      0.39     0.100     0.035     0.100     0.035    582.45    30.22
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0.000322    1200.    1300.    1400.        0        0        0    0.00   619.94   650.16

FLOW DISTRIBUTION FOR SECNO=    5406.00          CWSEL=     594.25

STA=       30.      210.      310.      345.      355.      366.      500.      650.
  PER Q=      9.5      18.5       7.5      26.8       9.0      22.9      10.9
   AREA=    286.3     399.2     143.0     101.7      76.2     493.1     329.9
    VEL=      0.4       0.6       0.7       3.6       0.9       0.6       0.5

*SECNO 6906.000

        VALLEY SECT. BASED ON FIELD BOOK SECT. 18400.

 6906.00      9.96    594.93      0.00      0.00    595.04      0.15      0.71      0.23    585.22
    1360.      399.      422.      539.      521.       79.      723.      187.       77.    585.22
     0.91      0.77      5.37      0.75     0.100     0.035     0.100     0.035    584.94      0.71
 0.000763     1500.     1500.     1500.         0         0         0      0.00    709.36    710.07

FLOW DISTRIBUTION FOR SECNO=    6906.00          CWSEL=     594.93

STA=        1.      246.      282.      292.      296.      304.      317.      450.      600.      710.
  PER Q=     15.8       4.2       5.3       4.0      32.0       8.0      21.4       9.6       0.6
   AREA=    349.0      80.1      57.6      34.4      78.5      82.8     362.9     236.0      41.2
    VEL=      0.6       0.7       1.3       1.6       5.4       1.3       0.3       0.6       0.2

*SECNO 7473.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        BLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       QLTIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CCHAR     TOPWID     ENDST

        1: D/S OF FOOTBRIDGE "1400: D/S OF SIBLEY RD.  ELTRD@591.33 < 595.29 ⇒ TW over rd

 7473.00      9.32    595.29      0.00      0.02    595.43      0.13      0.36      0.00    590.25
    1360.      197.      77.       391.      419.      200.      632.      203.       55.    591.07
     0.97      0.47      3.33      0.62     0.100     0.035     0.100     0.035    585.77    199.99
 0.000596      567.      567.      567.         2         0         0      0.00    600.06    800.06

FLOW DISTRIBUTION FOR SECNO=    7473.00          CWSEL=     595.29

STA=      200.      484.      488.      513.      523.      800.
  PER Q=     13.6       0.9      56.7       2.8      26.0
   AREA=    403.8      15.2     200.1      40.9     589.2
    VEL=      0.5       0.8       3.9       0.9       3.6
SECNO 7473.000   D/H = 4.08/4.07 = .99 ⇒ high submergence

3370 NORMAL BRIDGE.WRD= 10 MIN ELTRD= 591.33 MAX ELLC= 591.33

        1: INCIDE D/S END OF FOOTBRIDGE
```

Sibley Rd.

King

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7475.00	9.62	595.37	0.00	0.00	595.44	0.04	0.00	0.01	590.25	
1360.	307.	467.	585.	464.	180.	651.	20.	85.	591.27	
0.97	0.69	2.60	0.90	0.100	0.035	0.100	-0.035	585.77	199.99	
0.001218	2.	2.	2.	2	0	0	-35.67	600.09	800.08	

FLOW DISTRIBUTION FOR SECNO= 7475.00 CWSEL= 595.39

STA=	200.	484.	488.	513.	523.	800.
PER Q=	21.9	0.7	34.4	2.9	40.2	
AREA=	432.9	10.9	180.1	33.5	617.5	
VEL=	0.7	0.9	2.6	1.2	0.9	

*SECNO 7479.000

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 591.33 MAX ELLC= 591.85

1: INSIDE U/S END OF FOOTBRIDGE

7479.00	9.63	595.40	0.00	0.00	595.44	0.04	0.00	0.00	590.25
1360.	308.	467.	585.	465.	180.	652.	204.	85.	591.27
0.97	0.69	2.59	0.90	0.100	0.035	0.100	-0.035	585.77	199.99
0.001214	4.	4.	4.	0	0	0	-35.67	600.09	800.08

FLOW DISTRIBUTION FOR SECNO= 7479.00 CWSEL= 595.40

STA=	200.	484.	488.	513.	523.	800.
PER Q=	21.9	0.7	34.3	2.9	40.2	
AREA=	433.7	10.9	180.1	33.6	618.2	
VEL=	0.7	0.9	2.6	1.2	0.9	

*SECNO 7481.000

1: U/S OF FOOTBRIDGE *1000' U/S OF SILSBY RD.

7481.00	9.57	595.34	0.00	0.00	595.47	0.13	0.00	0.02	590.25
1360.	203.	761.	396.	433.	201.	644.	204.	85.	591.27
0.97	0.47	3.78	0.61	0.100	0.035	0.100	0.035	585.77	199.99
0.000567	2.	2.	2.	2	0	0	0.00	600.08	800.07

FLOW DISTRIBUTION FOR SECNO= 7481.00 CWSEL= 595.34

STA=	200.	484.	488.	513.	523.	800.
PER Q=	14.1	3.9	55.9	2.0	26.3	
AREA=	447.9	15.4	2	41.4	202.9	
VEL=	0.5	0.5	1	0.9	0.5	

*SECNO 7857.000

1: D/S OF FOOTBRIDGE *1000' D/S OF SILSBY RD.

7857.00	8.96	595.51	2.00	0.10	595.77	0.26	0.25	0.04	589.61

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1350.	234.	895.	231.	438.	177.	326.	215.	91.	586.29	
1.00	0.53	5.05	0.71	0.100	0.035	0.100	0.035	586.55	199.99	
0.000906	500.	371.	270.	2	0	0	0.00	525.02	725.01	

FLOW DISTRIBUTION FOR SECNO= 7857.00 CWSEL= 595.31

STA=	200.	529.	535.	538.	559.	565.	569.	725.
PER Q=	15.0	0.6	0.5	65.8	2.1	0.6	14.2	
AREA=	416.1	12.1	9.9	177.2	27.7	10.4	287.8	
VEL=	0.5	0.7	0.7	5.1	1.0	0.8	0.7	

#SECNO 7859.000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	IV	HL	OLOSS	DANK ELEV
Q	OLOB	OCH	AROB	ALOB	AGH	ARCH	VOL	TH#	LEFT/RIGHT
TIME	VLOB	WCH	VROB	XN	XNCH	XNR	WTR	ELFIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 3 MIN ELTRD= 592.33 MAX ELLC= 592.76

1' INSIDE OF D/S END OF FOOTBRIDGE ELTRD = 592.33 < 595.71 ⇒ TW over rd

7859.00	9.16	595.71	0.00	0.00	595.79	0.08	0.00	0.02	589.61
1360.	447.	536.	377.	498.	153.	339.	213.	91.	589.29
1.00	0.90	3.50	1.11	0.100	0.035	0.100	0.035	586.55	199.99
0.002173	2.	2.	2.	2	0	0	-56.45	525.03	725.01

FLOW DISTRIBUTION FOR SECNO= 7859.00 CWSEL= 595.71

STA=	200.	529.	535.	538.	559.	565.	569.	725.
PER Q=	31.7	0.9	0.2	39.4	0.6	0.9	26.2	
AREA=	682.7	11.5	4.1	183.3	10.1	10.3	319.6	
VEL=	0.9	1.1	0.6	3.9	0.8	1.2	1.1	

D/H = 3.38/3.43 = .985 ⇒ high submergence

#SECNO 7863.000

3370 NORMAL BRIDGE,NRD= 3 MIN ELTRD= 592.33 MAX ELLC= 592.02

1' INSIDE OF U/S END OF FOOTBRIDGE

7863.00	9.95	595.76	0.00	0.10	595.80	0.05	0.01	0.00	588.87
1360.	530.	429.	401.	433.	154.	405.	213.	91.	587.55
1.00	0.83	2.78	0.99	0.100	0.035	0.100	0.035	586.89	199.97
0.001364	4.	4.	4.	3	2	0	-55.50	525.06	725.03

FLOW DISTRIBUTION FOR SECNO= 7863.00 CWSEL= 595.76

STA=	200.	529.	535.	538.	559.	565.	569.	725.
PER Q=	18.7	3.4	0.8	37.1	1.5	0.7	23.2	
AREA=	616.3	44.3	15.4	154.1	16.5	10.2	369.9	

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VEL=	3.8	0.9	3.5	2.8	0.7	1.0	1.0		

*SECNO 7865.000

1' U/S OF FOOTBRIDGE +1030' U/S OF SIBLEY RD.

7865.00	9.91	595.72	3.00	0.70	595.82	0.10	0.00	0.02	588.87
1360.	377.	697.	286.	758.	199.	485.	218.	91.	537.55
1.00	3.58	3.93	3.59	0.100	0.035	0.100	0.035	585.87	199.97
0.000382	2.	2.	2.	2	0	0	0.00	525.06	725.03

FLOW DISTRIBUTION FOR SECNO= 7865.00 CUSEL= 595.72

STA=	200.	529.	535.	538.	539.	565.	569.	725.
PER Q=	26.4	0.8	0.5	51.5	1.5	0.7	18.5	
AREA=	728.3	17.8	12.3	197.6	35.4	14.2	435.8	
VEL=	0.5	0.6	0.6	3.5	0.8	0.7	0.6	

*SECNO 8335.000

1' D/S OF FOOTBRIDGE +550'D/S OF SIBLEY RD.

8335.00	9.68	595.86	0.00	0.00	596.10	0.25	0.24	0.04	586.86
1360.	208.	984.	167.	381.	213.	267.	226.	95.	509.19
1.04	0.55	4.68	0.53	0.100	0.035	0.100	0.035	586.18	199.98
0.000212	470.	470.	470.	2	0	0	0.00	400.03	600.02

FLOW DISTRIBUTION FOR SECNO= 8335.00 CUSEL= 595.86

STA=	200.	433.	437.	461.	467.	600.
PER Q=	16.2	1.	72.4	2.0	10.3	
AREA=	362.9	18.5	210.5	28.2	234.4	
VEL=	0.5	0.8	4.7	1.0	0.6	

*SECNO 8537.000

3570 NORMAL BRIDGE,NRD= 7 MIN ELTRD= 592.27 MAX ELLC= 592.40

1' INSIDE OF D/S END OF FOOTBRIDGE

8537.00	7.64	596.02	0.00	0.70	596.12	0.10	0.00	0.01	588.89
1360.	439.	824.	333.	611.	176.	287.	224.	96.	539.19
1.04	0.99	3.55	1.13	0.100	0.035	0.100	0.035	586.18	199.98
0.002166	2.	2.	2.	2	0	0	-50.12	600.04	600.02

FLOW DISTRIBUTION FOR SECNO= 8537.00 CUSEL= 596.02

STA=	200.	433.	437.	461.	467.	600.
PER Q=	29.3	0.7	46.0	3.2	20.7	
AREA=	401.4	10.1	176.3	26.2	260.4	
VEL=	1.2	1.0	3.5	0.6	1.1	

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*SECNO 8344.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       QLOSS    BANK ELEV
   Q        RLOB     QCH      QROB     ALOB     ACH      AROB     VOL      THP      LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XXL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IH2      ICONT    CORAR    TOPWID   ENDST
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D/H = 3.15/3.17 = .99 ⇒ high submergence

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3370 NORMAL BRIDGE,XRD=  7 MIN ELTRD=  592.87 MAX ELLC=  592.40

        1' INSIDE OF U/S END OF FOOTBRIDGE

  8344.00     9.86   596.04     0.00     0.00   596.14     0.10     0.02     0.00   588.08
     1360.     410.     625.     325.     413.     177.     288.     226.      96.   589.19
      1.04     0.99     3.54     1.13    0.100    0.035    0.100    0.035   586.18   199.98
  0.002146       7.       7.       7.        0        0        0   -50.12   400.04   600.02

FLOW DISTRIBUTION FOR SECNO=   8344.00          CWSEL=    596.04

STA=      200.      433.      437.      461.      467.      600.
  PER Q=      29.4       0.7      45.0       3.1      20.8
  AREA=     403.2      10.1     176.5      26.2     261.6
   VEL=       1.0       1.0       3.5       1.6       1.1

*SECNO 8346.000

        1' U/S OF FOOTBRIDGE +550'U/S OF SIBLEY RD.

  8346.00     9.77   595.95     0.00     0.00   596.15     0.23     0.00     0.04   588.08
     1360.     220.     965.     174.     493.     213.     279.     226.      96.   589.19
      1.04     0.55     4.54     0.62    0.100    0.035    0.100    0.035   586.18   199.98
  0.000663       2.       2.       2.        2        0        0     0.00   400.04   600.02

FLOW DISTRIBUTION FOR SECNO=   8346.00          CWSEL=    595.95

STA=      200.      433.      437.      461.      467.      600.
  PER Q=      15.1       7.1      71.0       2.0      10.7
  AREA=     384.0      13.8     212.6      20.7     253.4
   VEL=       0.5       0.8       4.5       1.0       0.6

*SECNO 8810.000

3470 ENCROACHMENT STATIONS=     195.0     535.0  TYPE=     1  TARGET=     340.000

        XSECT. D/S OF SIBLEY RD.

  8810.00     9.77   595.23     0.00     0.00   596.36     0.33     0.35     0.03   586.60
     1360.     234.     843.     264.     290.     149.     306.     235.     130.   586.60
      1.07     0.70     5.77     0.86    0.100    0.035    0.100    0.035   586.46   195.00
  0.000893     464.     464.     464.        2        0        0     0.00   340.00   535.00

FLOW DISTRIBUTION FOR SECNO=   8810.00          CWSEL=    596.23
```

STA=	193.	300.	376.	392.	408.	421.	535.
PER Q=	2.1	5.6	9.4	63.4	7.8	11.5	
AREA=	79.0	124.2	95.1	149.4	79.6	226.1	
VEL=	0.4	0.6	1.3	5.8	1.3	0.7	

SCHV= 0.300 CCHV= 0.500
*SECHO 8910.000

D/S FACE OF SIBLEY RD. BRIDGE

8910.00	9.80	596.26	0.00	0.00	596.70	0.43	0.08	0.05	586.60
1360.	177.	946.	237.	196.	150.	241.	236.	100.	586.40
1.38	3.93	9.51	0.91	0.100	0.030	0.100	0.035	586.46	246.71
0.0087S2	100.	100.	100.	2	0	0	0.00	303.19	349.91

FLOW DISTRIBUTION FOR SECNO= 8910.00 CUSEL= 596.26

STA=	247.	300.	371.	392.	408.	421.	500.	550.
PER Q=	0.8	4.7	11.1	69.6	9.3	8.1	0.1	
AREA=	13.6	60.9	121.3	149.9	90.0	163.0	8.1	
VEL=	0.2	0.4	1.2	6.3	1.4	0.7	0.1	

SPECIAL BRIDGE

SC	XK	XTOR	COEP	RDLEN	BWC	BWP	BAREA	SS	ELCHO	ELCHD
	0.00	1.60	3.00	0.00	15.30	0.00	125.50	0.00	586.91	586.46

*SECNO 8948.000
PRESSURE AND WEIR FLOW

reasonable

EGPRS	EGLWC	WS	QLBIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
598.10	598.00	3.00	405.	939.	126.	126.	595.14	596.94

U/S FACE OF SIBLEY RD. BRIDGE

8948.00	10.49	597.40	0.00	0.00	597.70	0.30	1.20	0.30	587.90
1360.	203.	877.	276.	236.	140.	192.	237.	101.	587.10
1.00	0.35	5.50	0.74	0.100	0.030	0.100	0.035	186.61	250.37
0.00C548	34.	58.	56.	2	0	4	0.00	299.56	549.90

FLOW DISTRIBUTION FOR SECNO= 8948.00 CUSEL= 597.40

STA=	250.	371.	392.	408.	421.	500.	550.
PER Q=	3.0	12.0	64.5	9.6	10.8	0.2	
AREA=	97.9	140.6	160.1	101.7	215.6	14.7	
VEL=	0.4	1.2	5.5	1.5	0.7	0.2	

*SECNO 9193.000

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SECNO    DEPTH    CWSEL    CRINS    WSELK              HV       HL       CLOSS   BANK ELEV
Q        BLOB     BCH      BROB     ALOB     A.H.      AROB     VOL      PHA     LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH      XNR      WTN      ELMIN     SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   I         ICONT    CORAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=     270.0     680.0  TYPE=     1  TARGET=     410.000

        X@SECT. U/S OF SIDLEY RD. AND D/S OF ALLEN RD.

  9190.00    11.30   597.78     0.00     0.00   597.85     0.07     0.08     0.07   594.80
    1360.     233.     750.     374.     540.     256.     703.     242.     103.   592.40
     1.12     0.43     2.52     0.34    0.100    0.030    0.100    0.033   586.46   270.02
 0.000213     400.     242.     100.        2        0        0     0.00   410.00   680.00

FLOW DISTRIBUTION FOR SECNO=   9190.00          CWSEL=    597.78

STA=     270.     300.     460.     490.     650.     680.
  PER Q=     2.3     14.9     55.2     26.5      1.1
   AREA=    79.6    460.6    265.0    652.6     50.1
    VEL=     0.4      0.4      2.8      0.6      0.3

*SECNO 9432.000

        D/S FACE ALLEN RD. BRIDGE

  9432.00    10.84   597.76     0.00     0.00   597.99     0.23     0.06     0.08   588.80
    1360.     136.    1147.      77.     314.     276.     115.     249.     105.   586.92
     1.14     0.43     4.16     0.47    0.100    0.030    0.100    0.035   586.92   250.76
 0.000317     242.     242.     242.        2        0        0     0.00   285.76   537.52

FLOW DISTRIBUTION FOR SECNO=   9432.00          CWSEL=    597.76

STA=     251.     380.     442.     449.     417.     536.
  PER Q=     5.3      4.6     84.3      5.6      0.1
   AREA=   200.6    113.0    375.7    120.0     14.8
    VEL=     0.4      0.6      4.2      0.8      0.1

*SECNO 9433.000

3370 NORMAL BRIDGE,WID= 22 MIN ELTRD=  595.65 MAX ELLC=  594.10
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597.57 > ELTRD @ 595.65 ⇒ TW over rd

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        1' INSIDE D/S END ALLEN RD. BRIDGE

  9433.00    10.65   597.57     0.00     0.00   598.18     0.40     0.00     0.19   588.00
    1360.     220.     1130.      [illegible]     98.     167.      [illegible]     249.     105.   586.92
     1.14     1.15     8.00     0.28    0.100    0.030    0.100    0.035   586.92   250.77
 0.003954       1.       [illegible]       2        0        0   -279.53   282.80   533.57

FLOW DISTRIBUTION FOR SECNO=   9433.00          CWSEL=    597.57
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H38 ch

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STA=      251.      304.      380.      425.      469.      532.
  PER G=      8.8       6.4       0.9      33.7       0.1
  AREA=      90.1      86.2      21.0     167.4       5.6
    VEL=      1.3       1.0       0.6       6.3       0.2

*SECNO 9445.000

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  595.65 MAX ELLC=  594.10

        1' INSIDE U/S END ALLEN RD. BRIDGE

  9445.00     12.04    598.28      0.00      0.00    598.62      0.34      0.36      0.08    588.35
     1360.      381.      94.      38.      321.      170.       60.      250.      105.    586.24
      1.15      1.19      5.54      0.82     0.100     0.030     0.100     0.035    586.24    250.75
 0.002645      112.      112.      112.         3         0         0   -333.02    319.25    570.00

FLOW DISTRIBUTION FOR SECNO=  9445.00          CWSEL=    598.28

STA=      251.      304.      380.      425.      469.      532.      570.
  PER G=      12.9      11.8       3.4      69.2       1.9       0.9
  AREA=     127.7     139.3      53.2     169.9      37.5      22.8
    VEL=      1.4       1.1       0.9       5.5       0.7       0.5

*SECNO 9446.000

        U/S FACE ALLEN RD. BRIDGE

  9446.00     12.28    598.52      0.00      0.00    598.67      0.15      0.00      0.05    588.35
     1360.      198.     1060.     101.      463.      290.      200.      250.      105.    586.24
      1.15      0.43      3.55      0.31     0.100     0.030     0.100     0.035    586.24    250.75
 0.000220        1.        1.        .         2         0         0      0.00    319.25    570.00

FLOW DISTRIBUTION FOR SECNO=   9446.00          CWSEL=    598.52

STA=      251.      304.      380.      442.      469.      487.      570.
  PER G=      4.3       4.2       6.1      78.0       6.2       0.3
  AREA=     140.4     158.0     164.2     297.8     119.6      80.3
    VEL=      0.4       0.4       0.5       3.6       0.7       0.2

*SECNO 9500.000
  SECNO     DEPTH     CWSEL     CRIMS     WSELK     EG        HV        HL        PLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       LTN       FLMIN      SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

        YDSECY. LAS DR ALLEN RD.

  9500.00     12.29    598.53      0.00      0.00    598.60      0.05      0.01      0.00    588.35
     1360.      199.     1059.     101.      465.      298.      201.      251.      106.    586.24
      1.15      0.43      3.55      0.30     0.100     0.030     0.100     0.035    586.24    250.75
 0.000218        54.       54.       54.         2         0         0      0.00    319.25    570.00
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100 YR NATURAL

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FLOW DISTRIBUTION FOR SECNO=   9500.00          CWSEL=    598.55

STA=      251.      304.      380.      442.      469.      487.      573.
  PER Q=      4.4       4.2       6.1      77.9       6.2       1.3
   AREA=    141.1     159.0     163.8     298.1     119.8      81.3
    VEL=      0.4       0.4       0.5       3.6       0.7       0.2

CCHV=   0.100 CEHV=   0.300
*SECNO 10056.000

3P(5 DIVIDED) FLOW

3470 ENCROACHMENT STATIONS=      40.0      560.0  TYPE=     1  TARGET=      520.000

        VALLEY SECT. BASED ON FIELD BOOK SECT. 15250.

 10356.00     41.89    598.77      0.00      0.00    598.79      0.02      0.09      0.01    587.43
     1360.      195.      209.      956.      427.       90.     1593.      270.      110.     586.98
      1.34      0.46      2.32      0.60     0.090     0.035     0.090     0.035    586.88      1.00
 0.000120      200.      556.      700.         2         0         0      0.00    461.31    560.00

FLOW DISTRIBUTION FOR SECNO=  10056.00          CWSEL=    598.77

STA=        1.      150.      268.      289.      296.      304.      307.      318.      450.      560.
  PER Q=      0.1       4.0       5.7       4.6      15.4       1.0       2.7      33.7      33.0
   AREA=     16.4     207.0     130.6      73.2      90.4      27.6      62.9     777.4     730.2
    VEL=      0.3       0.7       0.6       0.3       2.3       0.5       0.4       0.6       0.5

CCHV=   0.300 CEHV=   0.300
*SECNO 10360.000

3470 ENCROACHMENT STATIONS=      140.0      480.0  TYPE=     1  TARGET=      340.000

        XSECT. D/S OF TRIPLE CULVERTS

 10360.00     10.73    598.76      0.00      0.00    598.90      0.14      0.05      0.06    590.29
     1360.      241.      336.      283.      423.      221.      455.      202.      113.     580.20
      1.37      0.57      3.79      0.42     0.080     0.030     0.030     0.035    507.98    140.00
 0.000285      304.      304.      304.         2         0         0      0.00    340.00    480.00

FLOW DISTRIBUTION FOR SECNO=  10360.00          CWSEL=    598.76

STA=      140.      294.      296.      317.      333.      480.
  PER Q=      17.3       0.4      61.0       6.5      14.3
   AREA=     410.1      12.0     220.6      95.5     354.7
    VEL=      0.6       0.4       3.8       2.0       0.3

*SECNO 10560.000

        D/S END OF TRIPLE CONC. CULVERT
```

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10550.00	11.15	598.75	0.00	0.00	599.08	0.33	0.09	0.10	591.61	
1360.	69.	1244.	47.	112.	257.	72.	285.	114.	593.30	
1.38	0.61	4.34	0.65	0.090	0.090	0.080	0.034	387.60	100.00	
0.000629	200.	200.	200.	2	0	3	0.00	232.73	392.73	

FLOW DISTRIBUTION FOR SECNO= 10560.00 CWSEL= 598.75

STA=	160.	212.	292.	297.	327.	333.	393.
PER Q=	3.1	3.2	1.7	91.5	1.6	1.9	
AREA=	10.4	30.4	21.3	257.2	19.2	52.7	
VEL=	0.2	0.5	1.1	4.0	1.1	0.5	

SPECIAL BRIDGE

SR	XK	XKOR	COPO	BDLEN	BWC	BWP	BARLA	SS	ELCRO	ELCRO
	0.30	1.50	2.60	0.00	15.60	0.00	133.00	0.00	587.60	87.60

*SECNO 10594.000
PRESSURE AND WEIR FLOW

FLOWS	EGLWC	HL	ASFLO	QPR	QBRSA	TRAPEZOID AREA	ELLO	ELT O
601.79	599.08	0.00	543.	818.	125.	133.	596.10	596.00

U/S END OF TRIPLE CONC.CULVERTS

10594.20	8.79	599.58	0.30	0.00	599.62	0.26	0.03	0.00	591.50	
1360.	733.	1244.	73.	201.	277.	182.	285.	1.	593.80	
1.33	0.62	4.20	0.50	0.080	0.090	0.070	0.034	387.60	100.00	
0.000567	24.	24.	24.	2	0	3	0.00	232.73	417.93	

FLOW DISTRIBUTION FOR SECNO= 10594.00 CWSEL= 599.58

STA=	160.	212.	292.	297.	327.	333.	612.	618.
PER Q=	1.3	8.0	1.8	85.5	1.7	1.7	0.0	
AREA=	44.0	332.1	24.9	276.7	22.7	98.6	0.3	
VEL=	0.0	0.0	1.0	4.2	1.0	0.5	0.1	

*SECNO 10594.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	IW	HL	TOPWID	LEFT BANK STA
Q	ALOB	ACH	AROB	ALOB	ACH	AROB	VOL	PWP	RIGHT BANK STA
TIME	VLOB	VCH	VROB	XNL	XNCF	XNR	WTN	CLR IN	
SLOPE	XLOB	XLCH	XLOBR	STRIAL	LAM	JCHNT	COPAR	COPWID	CWDEP

BRIDGE ENCROACHMENT STATIONS= 250.0 355.0 TYPE= 1 TARGET= 360.000

PROJECT U/S OF TRIPLE CULVERTS

check on pressure flow

$Q = CA\sqrt{2gH}$; $K = 1.5$

$C = 1/\sqrt{K} = .816$

$Q = .816(133)(8.025)H^{\frac{1}{2}} = 871.46H$

$\Delta H = 599.69 - 598.75 = .94$

$Q = 871.46(.96) = 844.9$ cfs

$\Delta H = .94 + .5 = 1.44$

$Q = 871.46(1.2) = 1045.7$ cfs

HWE .5' low

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25020.000	25193.	-1.4	-0.4	1.3
25137.000	25310.	-1.4	-0.4	0.4
25306.000	25479.	-2.4	-0.4	0.7
25340.000	25513.	-2.5	-0.4	0.8
WEIGHTED AVG FOR REACH		-1.9	-0.5	1.1

FHF FOR THE REACH = 023 WITH 24.7% OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A &

CONTINUOUS FLOOD HAZARD FACTORS BY ENGR INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 100	10	DIFF	WTD. AVG	FHF	PERCENT WITHIN
	Q.				SEC.		0.005
1	100.	590.0	591.0	-1.0	-1.0	010	100.
2	200.	590.1	591.1	-1.0	-1.0	010	100.
3	300.	590.2	591.1	-1.0	-1.0	010	100.
4	400.	590.3	591.2	-1.0	-1.0	010	100.
5	500.	590.3	591.3	-1.0	-1.0	010	100.
6	600.	590.4	591.4	-1.0	-1.0	010	100.
7	700.	590.5	591.5	-1.0	-1.0	010	100.
8	800.	590.5	591.5	-1.0	-1.0	010	100.
9	900.	590.6	591.6	-1.0	-1.0	010	100.
10	1000.	590.7	591.7	-1.0	-1.0	010	100.
11	1100.	590.8	591.8	-1.0	-1.0	010	100.
12	1200.	590.8	591.8	-1.0	-1.0	010	100.
13	1320.	590.9	591.9	-1.0	-1.0	010	100.
	1320.				SEC.	1320.000	
14	1400.	591.0	592.0	-1.0	-1.0	010	100.
15	1500.	591.0	592.0	-1.0	-1.0	010	100.
16	1600.	591.1	592.1	-1.0	-1.0	010	100.
17	1700.	591.1	592.2	-1.0	-1.0	010	100.
18	1800.	591.2	592.2	-1.1	-1.0	010	100.
19	1900.	591.2	592.3	-1.1	-1.0	010	100.
20	2000.	591.3	592.4	-1.1	-1.0	010	100.
21	2100.	591.4	592.4	-1.1	-1.0	010	100.
22	2200.	591.5	592.5	-1.1	-1.0	010	100.
23	2300.	591.5	592.6	-1.1	-1.0	010	100.
24	2400.	591.6	592.7	-1.1	-1.0	010	100.
25	2500.	591.6	592.8	-1.2	-1.0	010	100.
	2540.				SEC.	2540.000	
26	2600.	591.6	592.8	-1.2	-1.0	010	100.
	2640.				SEC.	2640.00	
	2675.				SEC.	2675.00	
27	2700.	591.8	592.9	-1.1	-1.0	010	100.
	2700.				SEC.	2700.000	
28	2800.	591.8	593.0	-1.2	-1.0	010	100.
29	2900.	591.9	593.1	-1.2	-1.0	010	100.

30	3000.	592.1	593.1	-1.0	-1.0	01	100.
31	3100.	592.1	593.2	-1.1	-1.0	010	100.
32	3200.	592.1	593.2	-1.1	-1.0	010	100.
33	3300.	592.2	593.2	-1.1	-1.0	010	100.
34	3400.	592.2	593.3	-1.1	-1.0	010	100.
35	3500.	592.2	593.3	-1.1	-1.0	010	100.
36	3600.	592.3	593.4	-1.1	-1.0	010	100.
37	3700.	592.3	593.4	-1.1	-1.0	010	100.
38	3800.	592.4	593.5	-1.1	-1.0	010	100.
39	3900.	592.4	593.5	-1.1	-1.0	010	100.
40	4000.	592.4	593.6	-1.1	-1.0	010	100.
41	4100.	592.5	593.6	-1.1	-1.0	010	100.
	4106.				SEC. 4106.000		
42	4200.	592.5	593.6	-1.1	-1.1	010	100.
43	4300.	592.5	593.7	-1.2	-1.1	010	100.
44	4400.	592.5	593.7	-1.2	-1.1	010	100.
45	4500.	592.6	593.8	-1.2	-1.1	010	100.
46	4600.	592.7	593.8	-1.2	-1.1	010	100.
47	4700.	592.7	593.9	-1.2	-1.1	010	100.
48	4800.	592.7	593.9	-1.2	-1.1	010	100.
49	4900.	592.8	594.0	-1.2	-1.1	010	100.
50	5000.	592.8	594.0	-1.2	-1.1	010	100.
51	5100.	592.9	594.1	-1.2	-1.1	010	100.
52	5200.	592.9	594.1	-1.2	-1.1	010	100.
53	5300.	593.0	594.2	-1.2	-1.1	010	100.
54	5400.	593.0	594.2	-1.2	-1.1	010	100.
	5406.				SEC. 5406.000		
55	5500.	593.0	594.3	-1.2	-1.1	010	100.
56	5600.	593.1	594.3	-1.2	-1.1	010	100.
57	5700.	593.1	594.4	-1.2	-1.1	010	100.
58	5800.	593.2	594.4	-1.2	-1.1	010	100.
59	5900.	593.2	594.4	-1.2	-1.1	010	100.
60	6000.	593.3	594.5	-1.2	-1.1	010	100.
61	6100.	593.3	594.5	-1.2	-1.1	010	100.
62	6200.	593.4	594.5	-1.2	-1.1	010	100.
63	6300.	593.4	594.6	-1.2	-1.1	010	100.
64	6400.	593.4	594.7	-1.2	-1.1	010	100.
65	6500.	593.5	594.7	-1.2	-1.1	010	100.
66	6600.	593.5	594.7	-1.2	-1.1	010	100.
67	6700.	593.6	594.8	-1.2	-1.1	010	100.
68	6800.	593.6	594.8	-1.2	-1.1	010	100.
69	6900.	593.7	594.9	-1.2	-1.1	010	100.
	6906.				SEC. 6906.000		
70	7000.	593.7	594.9	-1.2	-1.1	010	100.
71	7100.	593.8	595.0	-1.2	-1.1	010	100.
72	7200.	593.9	595.1	-1.2	-1.1	010	100.
73	7300.	594.	595.	-1.1	-1.1	010	100.
74	7400.	594.1	595.2	-1.1	-1.1	010	100.
	7473.				SEC. 7473.000		
	7475.				SEC. 7475.000		
	7479.				SEC. 7479.000		
	7483.				SEC. 7483.000		
75	7500.	594.	595.3	-1.1	-1.1	010	100.
76	7600.	594.5	595.4	-1.1	-1.1	010	100.
77	7700.	594.4	595.4	-1.1	-1.1	010	100.
78	7800.	594.5	595.5	-1.1	-1.1	010	100.

	7857.				SEC.	7857.000	
	7859.				SEC.	7859.000	
	7863.				SEC.	7863.000	
	7865.				SEC.	7865.000	
79	7900.	594.6	595.7	-1.2	-1.1	010	100.
80	8000.	594.6	595.7	-1.2	-1.1	010	100.
81	8100.	594.6	595.8	-1.2	-1.1	010	100.
82	8200.	394.7	595.6	-1.2	-1.1	010	100.
83	8300.	594.7	595.8	-1.1	-1.1	010	100.
	8335.				SEC.	8335.000	
	8337.				SEC.	8337.000	
	8344.				SEC.	8344.000	
	8346.				SEC.	8346.000	
84	8400.	594.3	596.0	-1.2	-1.1	010	100.
85	8500.	594.8	596.0	-1.2	-1.1	010	100.
86	8600.	594.9	596.1	-1.2	-1.1	010	100.
87	8700.	594.9	596.1	-1.2	-1.1	010	100.
88	8800.	595.0	596.2	-1.2	-1.1	010	100.
	8810.				SEC.	8810.000	
89	8900.	595.0	596.2	-1.3	-1.1	010	100.
	8910.				SEC.	8910.000	
	8948.				SEC.	8948.000	
90	9000.	595.1	597.6	-2.4	-1.1	010	99.
91	9100.	595.3	597.6	-2.2	-1.2	010	98.
	9190.				SEC.	9190.000	
92	9200.	595.6	597.7	-2.1	-1.2	010	97.
93	9300.	595.3	597.8	-2.0	-1.2	010	96.
94	9400.	595.3	597.8	-1.9	-1.2	010	95.
	9432.				SEC.	9432.000	
	9433.				SEC.	9433.000	
95	9500.	595.8	597.8	-2.0	-1.2	010	94.
	9545.				SEC.	9445.000	
	9546.				SEC.	9446.000	
96	9600.	596.2	598.3	-2.3	-1.2	010	93.
	9600.				SEC.	9600.000	
97	9700.	596.3	598.6	-2.3	-1.2	010	92.
98	9800.	596.3	598.6	-2.3	-1.2	010	91.
99	9900.	596.3	598.6	-2.3	-1.2	010	90.
100	10000.	596.4	598.7	-2.3	-1.2	010	89.
101	10100.	596.4	598.7	-2.3	-1.3	015	88.
	10156.				SEC.	10056.000	
102	10200.	596.5	598.8	-2.3	-1.3	015	87.
103	10300.	596.5	598.8	-2.3	-1.3	015	86.
104	10400.	596.4	598.8	-2.3	-1.3	015	86.
	10443.				SEC.	10360.000	
105	10500.	596.4	598.8	-2.3	-1.3	015	85.
106	10600.	596.5	598.8	-2.3	-1.3	015	84.
	10660.				SEC.	10560.000	
	10684.				SEC.	10584.000	
107	10700.	597.1	599.4	-2.3	-1.3	015	83.
	10734.				SEC.	10634.000	
108	10800.	597.2	599.5	-2.3	-1.3	015	82.
109	10900.	597.3	599.5	-2.3	-1.3	015	81.
110	11000.	597.3	599.6	-2.3	-1.3	015	81.
111	11100.	597.4	599.7	-2.3	-1.3	015	80.
112	11200.	597.4	599.7	-2.3	-1.3	015	80.

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115	11500.	597.5	599.8	-2.3	-1.4	015	77.
116	11600.	597.5	599.8	-2.2	-1.4	015	77.
	11606.				SEC.	11506.000	
117	11700.	597.6	599.8	-2.2	-1.4	015	76.
118	11800.	597.6	599.8	-2.2	-1.4	015	75.
119	11900.	597.6	599.8	-2.2	-1.4	015	75.
120	12000.	597.7	599.8	-2.2	-1.4	015	74.
121	12100.	597.7	599.8	-2.1	-1.4	015	74.
122	12200.	597.7	599.8	-2.1	-1.4	015	73.
123	12300.	597.7	599.8	-2.1	-1.4	015	72.
124	12400.	597.8	599.8	-2.1	-1.4	015	72.
125	12500.	597.8	599.9	-2.1	-1.4	015	71.
	12578.				SEC.	12478.000	
126	12600.	597.8	599.8	-2.0	-1.4	015	71.
	12678.				SEC.	12578.000	
127	12700.	597.9	600.4	-2.4	-1.5	015	71.
	12722.				SEC.	12622.000	
	12772.				SEC.	12672.000	
128	12800.	598.7	602.5	-3.8	-1.5	015	67.
129	12900.	598.7	602.5	-3.8	-1.5	015	61.
130	13000.	598.8	602.6	-3.8	-1.5	015	60.
131	13100.	598.8	602.6	-3.8	-1.5	015	58.
132	13200.	598.8	602.6	-3.8	-1.5	015	56.
133	13300.	598.8	602.6	-3.8	-1.6	015	53.
134	13400.	598.9	602.6	-3.8	-1.6	015	51.
	13482.				SEC.	13382.000	
135	13500.	598.9	602.7	-3.8	-1.6	015	50.
	13582.				SEC.	13482.000	
	13583.				SEC.	13483.000	
136	13600.	598.7	602.7	-4.0	-1.6	015	48.
	13669.				SEC.	13569.000	
	13670.				SEC.	13570.000	
	13695.				SEC.	13595.000	
137	13700.	599.6	602.8	-3.1	-1.6	015	45.
138	13800.	599.6	602.8	-3.1	-1.6	015	41.
139	13900.	599.6	602.8	-3.1	-1.6	015	39.
140	14000.	599.6	602.8	-3.1	-1.7	015	36.
141	14100.	599.7	602.8	-3.1	-1.7	015	32.
142	14200.	599.7	602.8	-3.1	-1.7	015	30.
143	14300.	599.7	602.8	-3.1	-1.7	015	29.
144	14400.	599.7	602.8	-3.1	-1.7	015	26.
145	14500.	599.7	602.8	-3.1	-1.7	015	22.
146	14600.	599.7	602.8	-3.1	-1.7	015	18.
147	14700.	599.7	602.8	-3.1	-1.7	015	14.
148	14800.	599.7	602.8	-3.1	-1.7	015	11.
149	14900.	599.7	602.8	-3.1	-1.7	015	11.
150	15000.	599.8	602.8	-3.1	-1.8	020	11.
151	15100.	599.8	602.8	-3.1	-1.8	020	11.
152	15210.	599.8	602.9	-3.1	-1.8	020	11.
153	15300.	599.8	602.9	-3.1	-1.8	020	11.
154	15400.	599.8	602.9	-3.1	-1.8	020	11.
	15506.				SEC.	15306.000	
155	15510.	599.8	602.9	-3.1	-1.8	020	11.

158	15800.	599.9	602.9	-3.0	-1.8	020	19.
159	15900.	599.9	602.9	-3.0	-1.8	020	19.
160	16000.	600.0	602.9	-3.0	-1.8	020	19.
161	16100.	600.0	603.0	-3.0	-1.8	020	20.
162	16200.	600.0	603.0	-3.0	-1.8	020	20.
163	16300.	600.0	603.0	-2.9	-1.9	020	20.
164	16400.	600.1	603.0	-2.9	-1.9	020	20.
	16406.					SEC. 16306.000	
165	16500.	600.1	603.0	-2.9	-1.9	020	20.
166	16600.	600.1	603.0	-2.9	-1.9	020	20.
167	16700.	600.1	603.0	-2.9	-1.9	020	20.
168	16800.	600.2	603.0	-2.9	-1.9	020	21.
169	16900.	600.2	603.0	-2.9	-1.9	020	21.
170	17000.	600.2	603.0	-2.9	-1.9	020	21.
171	17100.	600.2	603.1	-2.8	-1.9	020	21.
172	17200.	600.2	603.1	-2.8	-1.9	020	21.
	17246.					SEC. 17146.000	
173	17300.	600.3	603.1	-2.8	-1.9	020	21.
	17346.					SEC. 17246.000	
174	17400.	600.2	603.0	-2.8	-1.9	020	22.
	17410.					SEC. 17310.000	
	17475.					SEC. 17375.000	
175	17500.	600.5	603.5	-3.0	-1.9	020	22.
	17537.					SEC. 17437.000	
176	17600.	600.6	603.6	-3.0	-1.9	020	22.
	17625.					SEC. 17450.000	
	17675.					SEC. 17500.000	
177	17700.	600.7	604.0	-3.3	-1.9	020	21.
178	17800.	600.7	604.0	-3.3	-1.9	020	21.
179	17900.	600.8	604.0	-3.3	-2.0	020	21.
180	18000.	600.8	604.0	-3.3	-2.0	020	21.
181	18100.	600.8	604.1	-3.3	-2.0	020	21.
182	18200.	600.8	604.1	-3.3	-2.0	020	21.
183	18300.	600.8	604.1	-3.2	-2.0	020	21.
184	18400.	600.9	604.1	-3.2	-2.0	020	21.
185	18500.	600.9	604.1	-3.2	-2.0	020	21.
186	18600.	600.9	604.1	-3.2	-2.0	020	70.
187	18700.	600.9	604.1	-3.2	-2.0	020	70.
	18739.					SEC. 18566.000	
188	18800.	600.9	604.2	-3.2	-2.0	020	69.
	18839.					SEC. 18666.000	
	18840.					SEC. 18667.000	
	18878.					SEC. 18705.000	
	18879.					SEC. 18706.000	
189	18900.	601.8	604.2	-2.4	-2.0	020	69.
	18949.					SEC. 18756.000	
190	19000.	601.8	604.2	-2.4	-2.0	020	69.
191	19100.	601.8	604.2	-2.4	-2.0	020	70.
192	19200.	601.8	604.2	-2.4	-2.0	020	70.
	19236.					SEC. 19061.000	
	19239.					SEC. 19062.000	
	19243.					SEC. 19070.000	
	19244.					SEC. 19074.000	
193	19300.	601.9	604.2	-2.4	-2.0	020	[illegible]
194	19400.	601.9	604.2	-2.4	-2.0	020	[illegible]

[illegible]	[illegible]	601.9	604.[illegible]	-2.3	-2.0	020	70.
196	19600.	601.9	604.3	-2.3	-2.0	020	70.
197	19700.	602.0	604.3	-2.3	-2.0	020	71.
198	19800.	602.0	604.3	-2.3	-2.0	020	70.
199	19900.	602.1	604.3	-2.2	-2.0	020	70.
200	20000.	602.1	604.3	-2.2	-2.0	020	71.
201	20100.	602.1	604.3	-2.2	-2.0	020	71.
202	20200.	602.2	604.3	-2.2	-2.0	020	71.
203	20300.	602.2	604.4	-2.1	-2.0	020	71.
204	20400.	602.3	604.4	-2.1	-2.0	020	71.
	20466.					SEC. 20293.000	
	20467.					SEC. 20294.000	
	20478.					SEC. 20305.000	
	20479.					SEC. 20306.000	
205	20500.	602.3	604.4	-2.1	-2.0	020	71.
	20579.					SEC. 20406.000	
206	20600.	602.3	604.4	-2.1	-2.0	020	71.
207	20700.	602.4	604.4	-2.1	-2.0	020	71.
208	20800.	602.4	604.4	-2.0	-2.0	020	72.
209	20900.	602.4	604.4	-2.0	-2.0	020	72.
210	21000.	602.4	604.5	-2.0	-2.0	020	72.
211	21100.	602.5	604.5	-2.0	-2.0	020	72.
212	21200.	602.5	604.5	-2.0	-2.0	020	72.
213	21300.	602.5	604.5	-2.0	-2.0	020	72.
	21396.					SEC. 21223.000	
214	21400.	602.5	604.5	-2.0	-2.0	020	72.
	21498.					SEC. 21323.000	
215	21500.	602.6	604.5	-1.9	-2.0	020	73.
	21582.					SEC. 21359.000	
	21582.					SEC. 21409.000	
216	21600.	604.3	605.1	-0.8	-2.0	020	73.
217	21700.	604.3	605.1	-0.8	-2.0	020	72.
218	21800.	604.4	605.2	-0.8	-2.0	020	72.
219	21900.	604.4	605.2	-0.8	-2.0	020	72.
220	22000.	604.6	605.[illegible]	-0.8	-2.0	020	71.
221	22100.	604.5	605.3	-0.8	-2.0	020	71.
222	22200.	604.5	605.4	-0.9	-2.0	020	29.
223	22300.	604.6	605.4	-0.9	-2.0	020	29.
224	22400.	604.6	605.5	-0.9	-2.0	020	29.
225	22500.	604.6	605.5	-0.9	-2.0	020	29.
226	22600.	604.7	605.6	-0.9	-2.0	020	29.
227	22700.	604.7	605.7	-0.9	-2.0	020	29.
228	22800.	604.8	605.7	-0.9	-2.0	020	29.
229	22900.	604.8	605.8	-1.0	-2.0	020	28.
230	23000.	604.9	605.8	-1.0	-2.0	020	28.
231	23100.	604.9	605.9	-1.0	-2.0	020	28.
	23173.					SEC. 23000.000	
	23174.					SEC. 23001.000	
	23185.					SEC. 23012.000	
	23186.					SEC. 23013.000	
232	23200.	605.0	606.0	-1.0	-2.0	020	28.
233	23300.	605.0	606.0	-1.0	-1.9	020	28.
234	[illegible]	[illegible]	606.0	-1.0	-1.9	020	28.
	[illegible]					SEC. 23256.000	
235	[illegible]	605.9	606.1	-1.0	-1.9	020	28.
236	[illegible]	[illegible]	606.1	-1.0	-1.9	020	[illegible]

243	24300.	605.1	606.1	-1.0	-1.9	020	27.
244	24400.	605.1	606.1	-1.0	-1.9	020	27.
245	24500.	605.1	606.2	-1.0	-1.9	020	27.
246	24600.	605.1	606.2	-1.1	-1.9	020	27.
247	24700.	605.1	606.2	-1.1	-1.9	020	26.
	24800.				SEC.	24202.000	
	24876.				SEC.	24283.000	
	24892.				SEC.	24219.000	
	24893.				SEC.	24220.000	
248	24900.	605.2	606.3	-1.1	-1.9	020	25.
249	25000.	605.2	606.3	-1.1	-1.9	020	25.
250	25100.	605.2	606.3	-1.1	-1.9	020	24.
	25147.				SEC.	24474.000	
251	25200.	605.2	606.3	-1.1	-1.9	020	24.
	25247.				SEC.	24574.000	
	25261.				SEC.	24586.000	
252	25300.	605.3	606.5	-1.2	-1.9	020	24.
	25311.				SEC.	24638.000	
253	25400.	605.4	606.7	-1.3	-1.9	020	24.
254	25500.	605.4	606.8	-1.3	-1.9	020	23.
255	25600.	605.5	606.9	-1.4	-1.9	020	23.
	25698.				SEC.	25020.000	
256	25700.	605.6	607.0	-1.4	-1.9	020	23.
257	25800.	605.7	607.1	-1.4	-1.9	020	23.
	25810.				SEC.	25137.000	
258	25900.	605.7	607.3	-1.7	-1.9	020	23.
	25918.				SEC.	25306.000	
259	26000.	606.5	608.0	-2.2	-1.9	020	24.
	26013.				SEC.	25340.000	

THIS REACH CAN BE SUBDIVIDED BY ADD NO. TO MEET FIA REQUIREMENTS
INPUT 2:3 (I*I) IS THE NUMBER OF REACHES AND THE OUTPUT THE END
OF EACH REACH. FOR EXAMPLE 302 113 255
A NEGATIVE 0. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

THIS RUN EXECUTED 2/21/ 1982 13: 6:31

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  HEC2 RELEASE DATED NOV 76 UPDATED APR  1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1 BROWNSTOWN
T2 100 YEAR STORM
T3       BLAKELY DRAIN

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0      4.          0         0   .000000       .00       .0         0   599.600      .000

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

J3   VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000      .000      .000      .000      .000      .000      .000      .000      .000      .000

QT      5.000   780.000  1176.000  1360.000  1360.000  1730.000      .000      .000      .000      .000
NC       .080      .030      .035      .100      .300      .000      .000      .000      .000      .000
ET       .000     7.100     7.100     7.100     9.100     7.100    25.000   385.000   105.000   385.000

X1   10634.000     11.000   296.000   317.000    50.000    50.000    50.000      .000      .000      .000
GR     600.000      .000   595.000   125.000   597.000   291.000   590.350   296.000   588.400   299.000
GR     588.100   307.000   588.400   317.000   597.000   328.500   595.000   550.000   597.000   900.000
GR     600.000  1350.000      .000      .000      .000      .000      .000      .000      .000      .000
ET       9.100     9.100     9.100     9.100     7.100      .000   300.000   540.000   100.000   655.000

X1   11506.000     14.000   371.000   385.000  1200.000   400.000   872.000      .000      .000      .000
X4       1.000   597.410     1.000      .000      .000      .000      .000      .000      .000      .000
GR     600.000      .000   598.020    78.000   597.450   228.000   595.700   358.000   588.440   371.000
GR     588.240   378.000   588.640   385.000   593.530   393.000   594.050   399.000   596.100   409.000
GR     595.210   478.000   595.300   599.000   600.130   631.000   601.130   678.000      .000      .000
QT       5.000   710.000   880.000   950.000   950.000  1050.000      .000      .000      .000      .000

X1   12478.000     10.000   689.000   711.000   972.000   972.000   972.000      .000      .000      .000
X3       .000      .000      .000   664.000      .000   735.000      .000      .000      .000      .000
GR     602.000      .000   600.000   450.000   595.000   525.000   596.200   675.000   590.000   689.000
GR     589.530   693.000   589.470   707.000   590.000   711.000   596.200   725.000   601.000   825.000
NC       .090      .090      .035      .300      .500      .000      .000      .000      .000      .000
ET       .000      .000      .000      .000     1.400      .000      .000      .000      .000      .000
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X1	12578.000	.000	.000	.000	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.340	604.060	.000
SB	1.250	1.660	3.000	.000	22.000	1.500	133.000	.000	588.430	589.530
X1	12622.000	12.000	689.000	711.000	44.000	44.000	44.000	.000	.000	.000
X2	.000	.000	1.000	595.630	604.060	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.340	604.060	.000
BT	22.000	.000	604.860	.000	100.000	604.620	.000	200.000	604.590	.000
BT	300.000	604.780	.000	400.000	604.930	.000	500.000	604.780	.000	600.000
BT	604.520	.000	689.200	604.340	.000	689.250	604.340	594.630	690.250	604.340
BT	595.630	698.250	604.340	595.630	699.250	604.340	594.630	699.300	604.340	.000
BT	700.650	604.340	.000	700.700	604.340	594.630	701.700	604.340	595.630	709.700
BT	604.340	595.630	710.700	604.340	594.630	710.750	604.340	.000	800.000	604.120
BT	.000	825.000	604.060	.000	1200.000	603.540	.000	.000	.000	.000
GR	604.900	.000	600.000	450.000	595.000	525.000	596.200	675.000	592.130	689.000
GR	592.100	693.000	592.100	700.000	588.430	707.000	588.700	711.000	596.400	736.000
GR	600.000	825.000	603.540	1200.000	.000	.000	.000	.000	.000	.000
QT	5.000	738.000	1152.000	1360.000	1360.000	1870.000	.000	.000	.000	.000
X1	12672.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	639.000	.000	761.000	.000	.000	.000	.000
ET	.000	9.100	9.100	9.100	7.100	9.100	810.000	1200.000	790.000	1200.000
X1	13382.000	10.000	988.200	1012.200	300.000	800.000	710.000	.000	.000	.000
GR	603.300	.000	599.000	500.000	595.000	875.000	595.290	962.000	590.050	988.200
GR	590.040	1012.200	592.240	1028.000	595.000	1050.000	600.000	1125.000	604.000	1800.000
NC	.090	.090	.045	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13482.000	18.000	1249.000	1271.000	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	598.700	599.600	.000
GR	605.000	1050.000	598.900	1050.000	598.800	1150.000	597.000	1225.000	590.200	1248.900
GR	590.100	1249.000	590.100	1259.000	590.100	1259.100	590.000	1260.900	590.100	1261.000
GR	590.100	1271.000	590.100	1271.100	590.200	1272.000	590.200	1272.100	597.000	1288.000
GR	600.000	1350.000	600.500	1430.000	605.000	1430.100	.000	.000	.000	.000
NC	.000	.000	.035	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13483.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	16.000	1050.000	605.000	605.000	1050.000	598.900	598.900	1150.000	598.800	598.800
BT	1248.900	598.800	590.200	1249.000	600.400	596.600	1259.000	600.400	596.600	1259.100
BT	600.400	590.100	1260.900	600.400	590.000	1261.000	600.400	596.600	1271.000	600.400
BT	596.600	1271.100	600.400	590.100	1272.000	600.400	590.200	1272.100	599.100	590.200
BT	1350.000	600.100	600.000	1430.000	600.500	600.500	1430.100	605.000	605.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000

X1	13569.000	.000	.000	.000	86.000	86.000	86.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
NC	.000	.000	.040	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13570.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	598.690	599.630	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	980.000	1415.000	980.000	1350.000
X1	13595.000	9.000	1194.000	1206.000	25.000	25.000	25.000	.000	.000	.000
GR	606.000	.000	600.000	700.000	595.300	1180.000	590.000	1194.000	589.700	1200.000
GR	590.000	1206.000	593.000	1220.000	600.000	1400.000	605.000	2000.000	.000	.000
NC	.120	.120	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	280.000	720.000	280.000	700.000
X1	15306.000	13.000	496.000	504.000	1711.000	1711.000	1711.000	.000	.000	.000
GR	601.000	.000	599.930	200.000	598.220	350.000	596.690	482.000	593.830	489.000
GR	590.440	496.000	590.270	500.000	590.180	504.000	596.940	516.000	596.340	650.000
GR	596.490	800.000	600.000	900.000	605.000	1900.000	.000	.000	.000	.000
NC	.090	.090	.035	.100	.300	.000	.000	.000	.000	.000
X1	16306.000	17.000	296.000	304.000	800.000	1200.000	1000.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	569.000	.000	.000	.000	.000
GR	605.070	.000	604.440	100.000	603.700	198.000	597.250	238.000	597.090	244.000
GR	596.220	250.000	596.120	278.000	596.670	284.000	596.770	287.000	590.880	296.000
GR	590.850	300.000	590.890	304.000	596.870	318.000	597.720	450.000	599.400	500.000
GR	600.000	650.000	607.300	925.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.035	.300	.500	.000	.000	.000	.000	.000
X1	17146.000	9.000	485.000	515.000	1200.000	500.000	840.000	.000	.000	.000
X3	.000	.000	.000	460.000	.000	540.000	.000	.000	.000	.000
GR	604.300	.000	600.000	350.000	597.500	476.000	592.980	485.000	592.570	500.000
GR	591.210	515.000	597.500	524.000	600.000	800.000	605.000	2000.000	.000	.000
X1	17246.000	12.000	481.490	518.510	100.000	100.000	100.000	.810	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	605.000	605.000	.000
X4	2.000	604.000	469.000	604.000	528.000	.000	.000	.000	.000	.000
GR	606.880	.000	600.000	350.000	601.000	400.000	592.930	481.490	592.980	481.500
GR	592.570	500.000	591.210	518.500	592.930	518.510	601.000	600.000	600.000	800.000
GR	603.370	900.000	606.740	1000.000	.000	.000	.000	.000	.000	.000
SB	.000	1.700	3.000	.000	26.000	.000	315.000	.000	591.210	591.210

X1	17310.000	.000	.000	.000	64.000	64.000	64.000	.000	.000	.000
X2	.000	.000	1.000	603.430	606.340	.000	.000	.000	.810	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.000	606.000	.000
BT	9.000	.000	606.880	.000	400.000	606.380	.000	481.490	606.340	.000
BT	481.500	606.340	605.430	518.500	606.340	603.270	518.510	606.340	.000	600.000
BT	606.370	.000	900.000	606.620	.000	1000.000	606.740	.000	.000	.000
X1	17375.000	12.000	476.000	524.000	65.000	65.000	65.000	.810	.000	.000
X3	.000	.000	.000	460.000	.000	535.000	.000	.000	.000	.000
GR	604.500	.000	600.000	400.000	595.000	476.000	592.930	481.500	592.930	484.500
GR	592.280	489.500	592.260	493.500	592.680	502.500	593.330	518.500	595.000	524.000
GR	600.000	600.000	605.000	1150.000	.000	.000	.000	.000	.000	.000
X1	17437.000	15.000	481.500	518.500	62.000	62.000	62.000	.810	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.840	606.710	.000
GR	608.320	.000	607.720	200.000	607.070	400.000	606.880	472.000	592.930	481.500
GR	592.930	484.500	592.280	489.500	592.260	493.500	592.680	497.500	593.280	503.500
GR	593.330	518.500	606.830	532.000	606.710	600.000	606.770	900.000	605.000	1100.000
SB	.000	1.770	3.000	.000	28.000	.000	315.000	.000	592.130	592.260
X1	17450.000	15.000	481.500	518.500	86.000	86.000	86.000	.810	.000	.000
X2	.000	.000	1.000	603.270	606.710	.000	.000	.000	.810	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.840	606.710	.000
X4	2.000	606.830	475.000	606.800	528.000	.000	.000	.000	.000	.000
BT	10.000	.000	608.320	.000	200.000	607.720	.000	400.000	607.070	.000
BT	481.500	606.840	.000	481.510	606.840	603.220	518.490	606.840	603.270	518.500
BT	606.840	.030	600.000	606.710	.000	900.000	606.770	.000	1100.000	606.970
BT	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	608.320	.000	607.720	200.000	607.070	400.000	594.030	481.500	594.030	481.510
GR	593.830	486.500	592.430	493.500	592.130	501.000	592.420	508.500	593.330	514.500
GR	593.530	518.490	593.530	518.500	606.710	600.000	606.770	900.000	606.970	1100.000
ET	.000	7.100	7.100	7.100	9.100	7.100	435.000	565.000	450.000	550.000
X1	17500.000	13.000	475.000	528.000	50.000	50.000	50.000	.810	.000	.000
GR	604.600	.000	600.000	200.000	596.400	475.000	594.030	481.500	593.830	486.500
GR	592.430	493.500	592.130	501.000	592.430	508.500	593.330	514.500	593.530	518.500
GR	597.330	528.000	600.000	650.000	604.100	1350.000	.000	.000	.000	.000
ET	.000	9.100	9.100	9.100	7.100	9.100	550.000	900.000	496.000	1018.000
X1	18566.000	9.000	731.000	783.000	1066.000	1066.000	1066.000	.000	.000	.000
GR	605.000	.000	600.000	300.000	597.100	731.000	593.600	745.000	593.550	750.000
GR	593.600	755.000	599.200	783.000	600.000	1000.000	605.000	1200.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	542.000	992.000

X1	18666.000	16.000	786.650	813.350	100.000	100.000	100.000	.800	.000	.000
X4	2.000	598.400	776.000	599.200	827.000	.000	.000	.000	.000	.000
GR	605.000	.000	605.000	300.000	605.000	474.900	601.000	475.000	601.000	600.000
GR	600.940	700.000	593.600	786.650	593.600	786.660	593.550	800.000	593.600	813.340
GR	593.600	813.350	600.710	900.000	600.970	1000.000	601.700	1060.000	610.000	1060.100
GR	610.000	1300.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.030	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	435.000	795.000
X1	18667.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	.000	.000	.800	.000
BT	14.000	.000	605.000	.000	474.900	605.000	.000	475.000	601.000	.000
BT	600.000	601.030	.000	700.000	600.940	.000	786.650	601.810	.000	786.660
BT	602.460	600.160	813.340	602.460	600.160	813.350	601.810	.000	900.000	600.710
BT	.000	1000.000	600.970	.000	1060.000	601.700	.000	1060.100	610.000	.000
BT	1300.000	610.000	.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	435.000	795.000
X1	18705.000	.000	.000	.000	38.000	38.000	38.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
NC	.000	.000	.035	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	.000	.000	9.100	.000	560.000	840.000	435.000	795.000
X1	18706.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
ET	.000	9.100	9.100	9.100	7.100	9.100	450.000	975.000	425.000	1000.000
X1	18756.000	9.000	780.000	822.000	50.000	50.000	50.000	.000	.000	.000
GR	605.000	175.000	600.000	400.000	598.400	780.000	593.700	789.500	593.650	800.000
GR	593.700	811.500	599.200	822.000	600.000	1000.000	605.000	1125.000	.000	.000
NC	.060	.060	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000
X1	19061.000	12.000	1078.000	1122.000	305.000	305.000	305.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	601.480	602.180	.000
X4	2.000	601.480	1077.990	599.650	1122.010	.000	.000	.000	.000	.000
GR	606.000	.000	601.480	1078.000	601.480	1078.100	600.040	1081.000	593.300	1095.000
GR	593.250	1100.000	593.450	1105.000	599.650	1120.000	602.180	1122.000	602.180	1122.010
GR	604.000	1285.000	610.000	1285.100	.000	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000
X1	19062.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X4	2.000	601.480	1077.990	599.650	1122.010	.000	.000	.000	.000	.000
BT	5.000	1078.000	601.480	601.480	1078.100	601.480	601.480	1081.000	602.550	600.850
BT	1120.000	602.180	600.850	1122.000	602.180	602.180	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000

X1	19070.000	.000	.000	.000	8.000	8.000	8.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000
X1	19071.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	601.480	602.180	.000
ET	.000	.000	.000	.000	1.400	.000	.000	.000	.000	.000
X1	20293.000	12.000	982.000	1020.000	1222.000	1222.000	1222.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	600.520	600.830	.000
X4	2.000	599.730	850.000	602.930	1150.000	.000	.000	.000	.000	.000
GR	608.000	.000	608.000	649.900	603.000	650.000	600.220	730.000	600.520	982.000
GR	598.650	982.100	594.580	994.000	594.310	1006.000	598.680	1019.900	600.830	1020.000
GR	605.940	1300.000	608.000	1600.000	.000	.000	.000	.000	.000	.000
X1	20294.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	4.000	982.000	600.520	.000	982.100	600.520	598.650	1019.900	600.830	598.680
BT	1020.000	600.830	.000	.000	.000	.000	.000	.000	.000	.000
X1	20305.000	.000	.000	.000	11.000	11.000	11.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
X1	20306.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	600.520	600.830	.000
X1	20406.000	13.000	996.000	1004.000	100.000	100.000	100.000	.000	.000	.000
GR	608.000	.000	606.530	450.000	603.380	600.000	600.220	730.000	599.730	850.000
GR	600.940	982.000	594.450	996.000	593.940	1000.000	594.080	1004.000	602.260	1022.000
GR	602.900	1150.000	605.940	1300.000	608.000	1600.000	.000	.000	.000	.000
QT	5.000	738.000	1152.000	1360.000	1360.000	1870.000	.000	.000	.000	.000
NC	.070	.070	.040	.300	.500	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	475.000	725.000	475.000	725.000
X1	21223.000	10.000	591.500	608.500	817.000	817.000	817.000	.000	.000	.000
GR	610.000	.000	605.000	200.000	600.900	575.000	594.300	591.500	593.520	596.000
GR	595.390	604.000	595.700	603.500	599.950	632.000	605.000	1000.000	608.000	1300.000
ET	.000	7.100	7.100	7.100	9.100	7.100	500.000	700.000	500.000	700.000
X1	21323.000	30.000	593.500	606.500	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	600.000	600.000	.000
X4	2.000	602.550	583.500	602.500	615.000	.000	.000	.000	.000	.000
GR	610.000	.000	610.000	100.000	610.000	349.900	604.300	350.000	603.700	400.000
GR	603.700	500.000	596.020	593.500	596.020	593.510	594.840	593.800	594.020	594.500
GR	593.650	595.200	593.520	596.000	593.650	596.800	594.020	597.500	594.840	598.200

GR	596.020	598.500	597.890	601.500	596.710	601.800	595.890	602.500	595.520	603.200
GR	595.390	604.000	595.520	604.800	595.890	605.500	596.710	606.200	597.890	606.490
GR	597.890	606.500	603.400	700.000	604.120	800.000	604.200	835.000	610.000	835.100
SB	.000	1.500	3.000	.000	6.400	.000	32.000	.000	594.820	593.520
ET	.000	.000	.000	.000	9.100	.000	.000	.000	389.000	790.000
X1	21359.000	30.000	593.500	606.500	36.000	36.000	36.000	.000	.000	.000
X2	.000	.000	1.000	599.820	603.400	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	603.530	603.400	.000
X4	2.000	601.500	583.500	601.500	615.000	.000	.000	.000	.000	.000
BT	30.000	500.000	610.000	.000	500.000	610.000	.000	500.000	610.000	.000
BT	500.000	610.000	.000	500.000	610.000	.000	500.000	603.700	.000	593.500
BT	603.520	.000	593.510	603.520	597.790	593.800	603.520	598.970	594.500	603.520
BT	598.970	595.200	603.520	598.970	596.000	603.520	598.970	596.800	603.520	598.970
BT	597.500	603.520	598.970	598.200	603.520	598.970	598.500	603.520	597.790	601.500
BT	603.520	597.320	601.800	603.520	598.500	602.500	603.520	599.320	603.200	603.520
BT	599.690	604.000	603.520	599.820	604.300	603.520	599.690	605.500	603.520	599.320
BT	606.200	603.520	598.500	606.490	603.520	597.320	606.500	603.520	.000	700.000
BT	603.400	.000	700.000	610.000	.000	700.000	610.000	.000	700.000	610.000
BT	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	610.000	500.000	610.000	500.000	610.000	500.000	610.000	500.000	610.000	500.000
GR	603.700	500.000	597.790	593.500	597.790	593.510	596.610	593.800	597.790	594.500
GR	595.420	595.200	595.290	596.000	595.420	596.800	595.790	597.500	596.610	598.200
GR	597.790	598.500	597.320	601.500	596.140	601.800	595.320	602.500	594.950	603.200
GR	594.820	604.000	594.950	604.800	595.320	605.500	596.140	606.200	597.320	606.490
GR	597.320	606.500	603.740	700.000	610.000	700.000	610.000	700.000	610.000	700.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	339.000	835.000
X1	21409.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
NC	.070	.070	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23000.000	20.000	1383.000	1417.000	1000.000	1591.000	1591.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.850	604.850	.000
GR	610.000	1004.900	604.000	1005.000	603.040	1200.000	603.180	1300.000	604.850	1381.000
GR	601.500	1383.000	597.000	1392.990	597.000	1393.000	597.000	1394.000	597.000	1394.010
GR	596.850	1400.000	597.000	1406.000	597.000	1406.010	597.000	1406.990	597.000	1407.000
GR	603.000	1417.000	603.000	1417.010	604.850	1419.000	603.700	1475.000	610.000	1475.100
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23001.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	13.000	1381.000	604.850	604.850	1383.000	604.850	603.450	1392.990	604.850	603.450
BT	1393.000	604.850	597.010	1394.000	604.850	597.010	1394.010	604.850	603.450	1406.000
BT	604.850	603.850	1406.010	604.850	597.010	1406.990	604.850	597.010	1407.000	604.850
BT	603.450	1417.000	604.850	603.450	1417.010	604.850	603.000	1419.000	604.850	604.850
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000

X1	23012.000	.000	.000	.000	11.000	11.000	11.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23013.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.850	604.850	.000
ET	.000	7.100	7.100	7.100	9.100	9.100	865.000	1350.000	900.000	1350.000
X1	23256.000	14.000	1195.000	1205.000	243.000	243.000	243.000	.000	.000	.000
GR	610.000	.000	605.000	800.000	601.940	900.000	602.190	1050.000	601.990	1167.000
GR	598.780	1182.000	598.870	1188.000	597.000	1195.000	596.020	1200.000	597.240	1205.000
GR	602.740	1210.000	604.540	1350.000	605.720	1500.000	610.000	2000.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	702.400	897.600
X1	24202.000	13.000	782.990	817.010	946.000	946.000	946.000	.000	.000	.000
GR	610.000	702.400	603.400	702.500	602.770	782.990	602.770	783.000	596.600	793.000
GR	596.600	793.010	596.250	800.000	596.010	807.000	596.010	807.010	602.920	817.000
GR	602.920	817.010	603.500	897.500	610.000	897.600	.000	.000	.000	.000
X1	24203.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	8.000	782.990	602.770	.000	783.000	603.970	602.770	793.000	604.020	602.820
BT	793.010	603.520	602.820	307.000	603.580	602.880	807.010	604.080	602.880	817.000
BT	604.120	602.920	817.010	602.920	.000	.000	.000	.000	.000	.000
X1	24219.000	.000	.000	.000	16.000	16.000	16.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
X1	24220.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
NC	.100	.100	.035	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	1.400	.000	.000	.000	.000	.000
X1	24474.000	9.000	533.000	567.000	254.000	150.000	254.000	.000	.000	.000
X3	.000	.000	.000	503.000	.000	597.000	.000	.000	.000	.000
GR	610.000	.000	605.000	300.000	602.770	533.000	596.600	543.000	596.250	550.000
GR	596.600	557.000	602.920	567.000	605.000	800.000	610.000	1400.000	.000	.000
X1	24574.000	9.000	428.000	472.000	100.000	10.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	609.850	609.800	.000
GR	610.000	.000	605.000	200.000	605.000	428.000	598.000	443.000	597.910	450.000
GR	598.000	457.000	606.010	472.000	605.000	650.000	610.000	1350.000	.000	.000
SB	1.250	1.500	3.000	.000	30.600	2.000	300.000	.000	598.010	597.910

X1	24588.000	.000	.000	.000	14.000	14.000	14.000	.000	.100	.000
X2	.000	.000	1.000	607.810	609.800	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	609.850	609.800	.000
BT	19.000	.000	610.000	.000	50.000	609.850	.000	250.000	609.990	.000
BT	350.000	609.970	.000	427.990	609.970	.000	428.000	609.970	607.810	442.500
BT	609.970	607.810	442.550	609.970	.000	443.450	609.970	.000	443.500	609.970
BT	607.850	456.500	609.970	607.850	456.550	609.970	.000	457.450	609.970	.000
BT	457.500	609.970	607.890	472.000	609.970	607.890	472.010	609.970	.000	550.000
BT	609.850	.000	1050.000	609.800	.000	1350.000	609.990	.000	.000	.000
X1	24638.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	375.000	.000	520.000	.000	.000	.000	.000
X1	25020.000	9.000	590.000	607.000	100.000	407.000	382.000	.000	.000	.000
X3	.000	.000	.000	570.000	.000	670.000	.000	.000	.000	.000
GR	610.000	.000	605.000	150.000	604.920	572.000	598.500	590.000	598.200	600.000
GR	598.500	607.000	604.390	617.000	605.000	725.000	610.000	1050.000	.000	.000
NC	.080	.090	.030	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	1.000	825.000
X1	25137.000	23.000	685.490	714.510	10.000	117.000	117.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.000	607.090	.000
GR	615.000	.000	615.000	1.000	615.000	424.900	610.000	670.000	607.780	670.000
GR	607.600	676.000	599.840	585.490	599.840	685.500	598.800	686.600	598.800	692.000
GR	598.800	697.400	599.840	698.500	599.840	698.510	599.940	701.490	599.940	701.500
GR	598.070	702.600	598.070	708.000	598.070	713.400	599.940	714.500	599.940	714.510
GR	607.000	717.000	608.900	825.000	615.000	825.100	.000	.000	.000	.000
SB	.000	3.250	3.000	.000	20.300	.000	156.000	.000	598.470	598.070
X1	25306.000	.000	.000	.000	169.000	169.000	169.000	.000	.000	.000
X2	.000	.000	1.000	606.160	607.780	.000	.000	.000	.000	.000
X3	10.000	598.470	.000	.000	.000	.000	.000	607.410	608.500	.000
BT	21.000	.000	615.000	.000	1.000	615.000	.000	424.900	615.000	.000
BT	670.000	610.000	.000	670.000	607.780	.000	685.490	608.510	.000	685.500
BT	608.510	599.840	686.600	608.510	604.580	692.000	608.510	605.660	697.400	608.510
BT	604.580	698.500	608.510	599.840	698.510	608.510	.000	701.490	608.510	.000
BT	701.500	608.510	599.940	702.600	608.510	604.680	708.000	608.510	605.760	713.400
BT	608.510	604.680	714.500	608.510	599.940	714.510	608.510	.000	825.000	608.940
BT	.000	825.100	615.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	9.100	9.100	9.100	650.000	750.000	600.000	800.000
X1	25340.000	10.000	687.000	713.000	34.000	34.000	34.000	.000	.000	.000
GR	611.000	.000	605.000	300.000	605.000	672.000	598.400	687.000	598.200	700.000
GR	598.400	713.000	605.000	728.000	605.000	1000.000	610.000	1050.000	615.000	1125.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 10634.000

3470 ENCROACHMENT STATIONS=       25.0      385.0  TYPE=     1  TARGET=      360.000
 10634.00      11.50     599.60       .00       .00     599.67       .07       .00       .00     590.35
    1360.        517.       695.      148.      887.       235.      241.         0         0     588.40
      .00         .58       2.96       .61      .080       .035      .080      .000     588.10      25.00
  .000201         50.        50.        50.         0          0         0       .00     360.00     385.00

*SECNO 11506.000

3470 ENCROACHMENT STATIONS=       100.0      655.0  TYPE=     1  TARGET=      555.000
 11506.00      11.54     599.78       .00       .00     599.81       .03       .14       .00     588.44
    1360.        360.       393.      607.      782.       159.     1050.        33.        9.     588.64
      .22         .46       2.46       .58      .080       .035      .080      .036     588.24     100.00
  .000132        1200.      872.       400.         1          0         0       .00     528.64     628.64

*SECNO 12478.000

3470 ENCROACHMENT STATIONS=       664.0      735.0  TYPE=     1  TARGET=       71.000
 12478.00      10.41     599.88       .00       .00     600.00       .12       .16       .03     590.00
    950.         118.       719.      113.      136.       226.      129.        61.       16.     590.00
      .32         .87       3.17       .88      .080       .035      .080      .035     589.47     664.00
  .000251        972.       972.       972.         2          0         0       .00      71.00     735.00

CCHV=     .300 CEHV=     .500
*SECNO 12578.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       604.34 ELREA=       604.06

 12578.00      10.37     599.84       .00       .00     600.11       .28       .03       .08     590.00
    950.           0       950.         0         0       225.         0        61.       16.     590.00
      .33         .00       4.21       .00      .090       .035      .090      .035     589.47     689.00
  .000444        100.       100.       100.         2          0         0       .00      22.00     711.00
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.66      3.00       .00     22.00      1.50    133.00       .00    588.43    589.53

*SECNO 12622.000
PRESSURE FLOW


 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                AREA
  601.15    600.24      .04         0      950.      133.      148.      595.63    604.06


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12622.00    12.43   600.86      .00       .00   601.15      .29      1.04      .00   592.13
     950.        0     950.        0         0     220.        0       62.      16.    588.70
      .33      .00     4.32      .00      .090     .035     .090      .035   588.43   689.00
  .000509      44.      44.      44.         2        0        0       .00    22.00   711.00


*SECNO 12672.000

3470 ENCROACHMENT STATIONS=      639.0     761.0  TYPE=      1  TARGET=      122.000
 12672.00    12.68   601.11      .00       .00   601.22      .11       .02      .05   592.13
    1360.     246.     784.     330.      279.     225.     319.       62.      16.    588.70
      .33      .88     3.48     1.03      .090     .035     .090      .035   588.43   639.00
  .000319      50.      50.      50.         2        0        0       .00   122.00   761.00


*SECNO 13382.000

3470 ENCROACHMENT STATIONS=      790.0    1200.0  TYPE=      1  TARGET=      410.000
 13382.00    11.27   601.31      .00       .00   601.33      .02       .08      .03   590.05
    1360.     586.     476.     298.     1261.     270.     697.       81.      20.    590.04
      .52      .46     1.76      .43      .090     .035     .090      .037   590.04   790.00
  .000068     300.     710.     800.         2        0        0       .00   410.00  1200.00


CCHV=    .300 CEHV=    .500
*SECNO 13482.000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13482.00     11.30    601.30      .00       .00    601.36      .06       .01       .02    590.10
    1360.      456.      654.      249.      686.      247.      388.       85.       20.    590.10
      .54       .67      2.65       .64      .090      .045      .090      .037    590.00   1050.00
  .000258      100.      100.      100.         2         0         0       .00    374.00   1424.00

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13483.00     11.27    601.27      .00       .00    601.40      .13       .00       .04    590.10
    1360.      498.      607.      255.      293.      150.      204.       85.       20.    590.10
      .54      1.70      4.05      1.25      .090      .035      .090      .037    590.00   1050.00
  .003652        1.        1.        1.         2         0         0   -659.41    374.00   1424.00

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13569.00     11.58    601.58      .00       .00    601.67      .09       .26       .01    590.10
    1360.      515.      547.      299.      338.      157.      252.       86.       21.    590.10
      .55      1.53      3.49      1.19      .090      .035      .090      .037    590.00   1050.00
  .002549       86.       86.       86.         2         0         0   -677.50    374.00   1424.00

*SECNO 13570.000

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13570.00     11.63    601.63      .00       .00    601.68      .05       .00       .01    590.10
    1360.      448.      663.      249.      751.      254.      438.       86.       21.    590.10
      .55       .60      2.61       .57      .090      .040      .090      .037    590.00   1050.00
  .000190        1.        1.        1.         2         0         0       .00    374.00   1424.00

*SECNO 13595.000
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


3470 ENCROACHMENT STATIONS=      980.0     1415.0  TYPE=      1  TARGET=      435.000
 13595.00      11.99     601.69       .00        .00     601.70       .01        .00        .01    590.00
    1360.        578.       252.       530.      1208.      142.      1101.        88.        21.    590.00
      .56         .48       1.77       .48       .090       .040      .090       .037     589.70    980.00
  .000085        25.        25.        25.          2          0         0        .00     435.00   1415.00

CCHV=     .100 CEHV=     .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS=      280.0      720.0  TYPE=      1  TARGET=      440.000
 15306.00      11.71     601.89       .00        .00     601.92       .03        .21        .01    590.44
    1360.        439.       285.       636.      928.       93.      1189.       179.        39.    590.18
     1.01         .47       3.07       .54       .120       .035      .120       .036     590.18    280.00
  .000199       1711.      1711.      1711.          2          0         0        .00     440.00    720.00

CCHV=     .100 CEHV=     .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS=        .0      569.0  TYPE=      1  TARGET=      568.999
 16306.00      11.25     602.10       .00        .00     602.13       .03        .21        .00    590.88
    1360.        306.       275.       780.      426.       90.      1191.       226.        48.    590.89
     1.26         .72       3.06       .65       .090       .035      .090       .036     590.85    207.94
  .000206        800.      1000.      1200.          2          0         0        .00     361.06    569.00

CCHV=     .300 CEHV=     .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS=      460.0      540.0  TYPE=      1  TARGET=       80.000
 17146.00      11.03     602.24       .00        .00     602.40       .17        .21        .07    592.98
    1360.        133.      1081.       146.      136.       297.      146.       245.        52.    591.21
     1.33         .98       3.64       1.00       .080       .035      .080       .036     591.21    460.00
  .000346       1200.       840.       500.          2          0         0        .00      80.00    540.00

*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      605.00 ELREA=      605.00

 17246.00      10.99     602.20       .00        .00     602.53       .33        .04        .08    592.93
    1360.          0       1360.         0          0       296.        0        246.        52.    592.93
     1.34         .00       4.60       .00       .080       .035      .080       .036     591.21    390.01
  .000599        100.       100.       100.          2          0         0        .00      29.99    419.99
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

SPECIAL BRIDGE

SB   XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
        .00        1.70       3.00        .00      26.00        .00     315.00        .00     591.21     591.21

*SECNO 17310.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=       .000  EGLWC=    602.529  ELLC=    603.430  PCWSE=    602.201  ELTRD=    606.340

3370 NORMAL BRIDGE,NRD=  9 MIN ELTRD=  606.34 MAX ELLC=  603.43

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      606.00 ELREA=      606.00

 17310.00     11.03    602.24       .00        .00    602.57       .33       .04       .00    592.93
    1360.         0      1360.         0          0      297.         0       247.        52.    592.93
     1.34       .00       4.58       .00       .080      .035       .080      .036    591.21    390.01
 .000550        64.        64.        64.          2         0          0   -192.03     29.99    419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS=      372.6      433.4  TYPE=      1  TARGET=       75.000
 17375.00     10.23    602.49       .00        .00    602.64       .16       .03       .05    595.00
    1360.        83.      1224.        53.        90.      367.        63.       248.        52.    595.00
     1.35       .92       3.33       .84       .080      .035       .080      .036    592.26    372.60
 .000317        65.        65.        65.          2         0          0       .00     60.75    433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      606.84 ELREA=      606.71

 17437.00     10.16    602.42       .00        .00    602.77       .36       .03       .10    592.93
    1360.         0      1360.         0          0      284.         0       248.        52.    593.33
     1.35       .00       4.78       .00       .080      .035       .080      .036    592.26    390.01
 .000634        62.        62.        62.          2         0          0       .00     29.97    419.99
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
        .00       1.77       3.00         .00      28.00        .00     315.00        .00     592.13     592.26

*SECNO 17450.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=       .000   EGLWC=    602.647   ELLC=    603.270   PCWSE=    602.415   ELTRD=    606.710

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  606.71 MAX ELLC=  603.27

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       606.84 ELREA=       606.71

 17450.00     10.35    602.48       .00        .00    602.83        .35        .05        .00    594.03
    1360.         0      1360.         0          0      287.          0        249.        52.     593.53
     1.36       .00       4.73       .00       .080      .035       .080       .036     592.13     390.01
  .000617       86.       86.        86.          2         0          0    -165.42      29.97     419.99

*SECNO 17500.000

3470 ENCROACHMENT STATIONS=       352.4       457.6  TYPE=       1  TARGET=       130.000
 17500.00     10.70    602.83       .00        .00    602.92        .09        .02        .08    596.40
    1360.       168.     1078.       114.       200.      395.       153.       249.        52.     597.33
     1.36       .84       2.73       .75       .080      .035       .080       .036     592.13     352.35
  .000226       50.       50.        50.          2         0          0        .00     105.30     457.65

*SECNO 18566.000

3470 ENCROACHMENT STATIONS=       496.0      1018.0  TYPE=       1  TARGET=       522.000
 18566.00      9.51    603.06       .00        .00    603.07        .01        .12        .02    597.10
    1360.       557.      522.       281.      1214.      389.       801.       288.        60.     599.20
     1.75       .46       1.34       .35       .080      .035       .080       .036     593.55     496.00
  .000070     1066.     1066.      1066.          2         0          0        .00     522.00    1018.00

*SECNO 18666.000
 18666.00      9.51    603.06       .00        .00    603.09        .03        .01        .01    593.60
    1360.       415.      455.       490.       775.      203.       822.       293.        61.     593.60
     1.77       .54       2.25       .60       .080      .035       .080       .036     593.55     379.96
  .000139     100.      100.       100.          1         0          0        .00     468.05     848.01
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 18667.000
3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18667.00      9.49    603.04      .00       .00    603.10       .06       .00       .02    593.60
    1360.      492.      477.      391.      484.      153.      383.      293.       61.     593.60
     1.77      1.01      3.11      1.02      .080      .030      .080      .036    593.55    379.96
  .001236        1.        1.        1.         1         0         0   -772.93    468.05    848.01


*SECNO 18705.000
3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18705.00      9.54    603.09      .00       .00    603.15       .06       .05       .00    593.60
    1360.      496.      470.      395.      495.      154.      391.      294.       61.     593.60
     1.78      1.00      3.05      1.01      .080      .030      .080      .036    593.55    379.96
  .001173       38.       38.       38.         2         0         0   -772.93    468.06    848.01


*SECNO 18706.000
 18706.00      9.58    603.13      .00       .00    603.16       .03       .00       .01    593.60
    1360.      419.      450.      491.      792.      204.      836.      294.       62.     593.60
     1.78       .53      2.21       .59      .080      .035      .080      .036    593.55    379.96
  .000133        1.        1.        1.         2         0         0       .00    468.06    848.01


*SECNO 18756.000
3470 ENCROACHMENT STATIONS=     425.0    1000.0  TYPE=     1  TARGET=     575.000
 18756.00      9.50    603.15      .00       .00    603.17       .01       .01       .00    598.40
    1360.      596.      520.      244.     1424.      347.      633.      296.       62.     599.20
     1.79       .42      1.50       .38      .080      .035      .080      .036    593.65    425.00
  .000081       50.       50.       50.         1         0         0       .00    575.00   1000.00


CCHV=    .100 CEHV=    .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=     690.0    1210.0  TYPE=     1  TARGET=     520.000
 19061.00      9.87    603.12      .00       .00    603.25       .13       .05       .03    601.48
    1360.      165.      996.      199.      323.      299.      202.      307.       66.     602.18
     1.83       .51      3.34       .98      .060      .035      .060      .036    593.25    690.00
  .000545      305.      305.      305.         2         0         0       .00    520.00   1210.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 19062.000

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 601.48 MAX ELLC= 602.18

3470 ENCROACHMENT STATIONS=		690.0	1210.0	TYPE=	1	TARGET=		520.000	
19062.00	9.94	603.19	.00	.00	603.26	.07	.00	.01	601.48
1360.	346.	631.	383.	349.	239.	208.	307.	66.	602.18
1.83	.99	2.64	1.84	.060	.035	.060	.036	593.25	690.00
.001847	1.	1.	1.	2	0	0	-62.88	520.00	1210.00

*SECNO 19070.000

3370 NORMAL BRIDGE,NRD= 5 MIN ELTRD= 601.48 MAX ELLC= 602.18

3470 ENCROACHMENT STATIONS=		690.0	1210.0	TYPE=	1	TARGET=		520.000	
19070.00	9.96	603.21	.00	.00	603.28	.07	.01	.00	601.48
1360.	349.	628.	383.	352.	239.	209.	308.	66.	602.18
1.83	.99	2.63	1.83	.060	.035	.060	.036	593.25	690.00
.001819	8.	8.	8.	0	0	0	-62.88	520.00	1210.00

*SECNO 19071.000

3470 ENCROACHMENT STATIONS=		690.0	1210.0	TYPE=	1	TARGET=		520.000	
19071.00	9.92	603.17	.00	.00	603.29	.12	.00	.02	601.48
1360.	176.	984.	200.	340.	301.	206.	308.	66.	602.18
1.83	.52	3.27	.97	.060	.035	.060	.036	593.25	690.00
.000520	1.	1.	1.	2	0	0	.00	520.00	1210.00

*SECNO 20293.000

20293.00	9.28	603.59	.00	.00	603.62	.03	.31	.01	600.52
1360.	711.	550.	99.	1050.	292.	233.	342.	81.	600.83
2.12	.68	1.88	.43	.060	.035	.060	.035	594.31	649.99
.000153	1222.	1222.	1222.	3	0	0	.00	532.99	1182.98

*SECNO 20294.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20294.00	9.30	603.61	.00	.00	603.62	.01	.00	.00	600.52
1360.	984.	239.	138.	1052.	216.	235.	342.	81.	600.83
2.12	.93	1.10	.59	.060	.035	.060	.035	594.31	649.99
.000291	1.	1.	1.	1	0	0	-76.18	533.33	1183.32
*SECNO 20305.000									
3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20305.00	9.30	603.61	.00	.00	603.62	.01	.00	.00	600.52
1360.	983.	238.	138.	1056.	217.	236.	342.	81.	600.83
2.13	.93	1.10	.59	.060	.035	.060	.035	594.31	649.99
.000288	11.	11.	11.	0	0	0	-76.18	533.79	1183.78
*SECNO 20306.000									
20306.00	9.29	603.60	.00	.00	603.63	.03	.00	.00	600.52
1360.	712.	548.	100.	1056.	293.	236.	342.	81.	600.83
2.13	.67	1.87	.42	.060	.035	.060	.035	594.31	649.99
.000151	1.	1.	1.	0	0	0	.00	533.85	1183.84
*SECNO 20406.000									
20406.00	9.68	603.62	.00	.00	603.65	.03	.02	.00	594.45
1360.	979.	220.	161.	1193.	76.	244.	346.	82.	594.08
2.15	.82	2.89	.66	.060	.035	.060	.035	593.94	588.46
.000230	100.	100.	100.	0	0	0	.00	597.18	1185.64
CCHV= .300 CEHV= .500									
*SECNO 21223.000									
3470 ENCROACHMENT STATIONS= 475.0 725.0 TYPE= 1 TARGET= 250.000									
21223.00	10.32	603.84	.00	.00	603.92	.08	.25	.03	594.30
1360.	335.	531.	494.	343.	157.	444.	369.	90.	595.70
2.27	.98	3.38	1.11	.070	.040	.070	.036	593.52	475.00
.000435	817.	817.	817.	2	0	0	.00	250.00	725.00

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

*SECNO 21323.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 500.0 700.0 TYPE= 1 TARGET= 200.000

21323.00	9.97	603.49	603.49	.00	604.57	1.08	.11	.50	596.02
1360.	207.	998.	155.	74.	104.	74.	370.	91.	597.89
2.27	2.79	9.60	2.10	.070	.040	.070	.036	593.52	515.32
.006989	100.	100.	100.	3	8	0	.00	184.68	700.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
645.56	605.87	.00	1100.	260.	32.	32.	599.82	603.40

21359.00	10.04	604.86	.00	.00	605.03	.17	.47	.00	597.79
1360.	417.	539.	403.	241.	113.	237.	370.	91.	597.32
2.27	1.73	4.79	1.70	.070	.040	.070	.036	594.82	500.00
.001725	36.	36.	36.	2	0	7	.00	200.00	700.00

*SECNO 21409.000

21409.00	10.14	604.96	.00	.00	605.12	.15	.08	.00	597.79
1360.	424.	526.	410.	251.	114.	246.	371.	91.	597.32
2.28	1.69	4.62	1.66	.070	.040	.070	.036	594.82	500.00
.001581	50.	50.	50.	2	0	0	.00	200.00	700.00

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

CCHV= .100 CEHV= .300

*SECNO 23000.000

23000.00	9.05	605.90	.00	.00	605.96	.06	.84	.01	601.50
1360.	619.	692.	49.	903.	251.	95.	397.	100.	603.00
2.50	.69	2.76	.51	.070	.035	.070	.036	596.85	1004.97
.000324	1000.	1591.	1591.	3	0	0	.00	470.07	1475.03

*SECNO 23001.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85

23001.00	9.09	605.94	.00	.00	605.97	.02	.00	.00	601.50
1360.	949.	337.	75.	917.	195.	96.	397.	100.	603.00
2.50	1.03	1.73	.78	.070	.035	.070	.036	596.85	1004.97
.000724	1.	1.	1.	2	0	0	-61.14	470.07	1475.04

*SECNO 23012.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85

23012.00	9.10	605.95	.00	.00	605.98	.02	.01	.00	601.50
1360.	949.	336.	75.	919.	195.	96.	397.	100.	603.00
2.50	1.03	1.72	.78	.070	.035	.070	.036	596.85	1004.97
.000719	11.	11.	11.	0	0	0	-61.14	470.07	1475.04

*SECNO 23013.000

23013.00	9.08	605.93	.00	.00	605.99	.06	.00	.01	601.50
1360.	622.	689.	50.	911.	252.	97.	397.	100.	603.00
2.50	.68	2.73	.51	.070	.035	.070	.036	596.85	1004.97
.000317	1.	1.	1.	2	0	0	.00	470.07	1475.04

*SECNO 23256.000

3470 ENCROACHMENT STATIONS= 865.0 1350.0 TYPE= 1 TARGET= 485.000

23256.00	10.01	606.03	.00	.00	606.05	.02	.05	.00	597.00
1360.	956.	224.	180.	1363.	95.	364.	406.	103.	597.24
2.57	.70	2.37	.49	.070	.035	.070	.036	596.02	865.00
.000160	243.	243.	243.	2	0	0	.00	485.00	1350.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 24202.000									
24202.00	10.18	606.19	.00	.00	606.31	.12	.24	.03	602.77
1360.	234.	906.	219.	250.	271.	240.	434.	110.	602.92
2.68	.94	3.34	.91	.070	.035	.070	.036	596.01	702.46
.000449	946.	946.	946.	2	0	0	.00	195.08	897.54
*SECNO 24203.000									
3370 NORMAL BRIDGE, NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24203.00	10.25	606.26	.00	.00	606.32	.06	.00	.01	602.77
1360.	392.	601.	367.	255.	240.	245.	434.	110.	602.92
2.68	1.53	2.51	1.50	.070	.035	.070	.036	596.01	702.46
.001175	1.	1.	1.	2	0	0	-33.78	195.09	897.54
*SECNO 24219.000									
3370 NORMAL BRIDGE, NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24219.00	10.27	606.28	.00	.00	606.34	.06	.02	.00	602.77
1360.	392.	600.	367.	256.	240.	246.	434.	110.	602.92
2.68	1.53	2.50	1.49	.070	.035	.070	.036	596.01	702.46
.001163	16.	16.	16.	0	0	0	-33.78	195.09	897.54
*SECNO 24220.000									
24220.00	10.23	606.24	.00	.00	606.36	.12	.00	.02	602.77
1360.	237.	902.	221.	254.	273.	244.	434.	110.	602.92
2.68	.93	3.31	.91	.070	.035	.070	.036	596.01	702.46
.000437	1.	1.	1.	2	0	0	.00	195.09	897.54
CCHV= .300 CEHV= .500									
*SECNO 24474.000									
3470 ENCROACHMENT STATIONS= 503.0 597.0 TYPE= 1 TARGET= 94.000									
24474.00	10.05	606.30	.00	.00	606.57	.26	.14	.07	602.77
1360.	89.	1188.	83.	102.	270.	97.	438.	111.	602.92
2.70	.87	4.40	.85	.100	.035	.100	.036	596.25	503.00
.000776	254.	254.	150.	2	0	0	.00	94.00	597.00

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

*SECNO 24574.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24574.00	8.41	606.32	.00	.00	606.77	.44	.11	.09	605.00
1360.	0	1360.	0	0	254.	0	438.	111.	606.01
2.70	.00	5.35	.00	.100	.035	.100	.036	597.91	428.00
.001700	100.	100.	10.	2	0	0	.00	44.00	472.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000

CLASS A LOW FLOW

3420 BRIDGE W.S.= 606.30 BRIDGE VELOCITY= 5.70 CALCULATED CHANNEL AREA= 237.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.00	606.85	.09	0	1360.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24588.00	8.40	606.41	.00	.00	606.85	.45	.09	.00	605.10
1360.	0	1360.	0	0	254.	0	438.	111.	606.11
2.70	.00	5.36	.00	.100	.035	.100	.036	598.01	428.00
.001713	14.	14.	14.	0	0	0	.00	44.00	472.00

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	8.59	606.60	.00	.00	606.96	.36	.08	.03	605.10
1360.	56.	1292.	12.	79.	262.	30.	439.	111.	606.11
2.70	.71	4.93	.40	.100	.035	.100	.036	598.01	375.00
.001386	50.	50.	50.	2	0	0	.00	145.00	520.00

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

*SECNO 25020.000

3470 ENCROACHMENT STATIONS= 570.0 670.0 TYPE= 1 TARGET= 100.000

25020.00	8.82	607.02	.00	.00	607.53	.51	.50	.08	598.50
1360.	157.	985.	218.	100.	147.	188.	442.	112.	598.50
2.72	1.58	6.68	1.16	.100	.035	.100	.036	598.20	570.00
.001388	100.	382.	407.	2	0	0	.00	100.00	670.00

CCHV= .300 CEHV= .500

*SECNO 25137.000

25137.00	9.17	607.24	.00	.00	607.67	.43	.11	.02	599.84
1360.	34.	1320.	5.	33.	248.	11.	443.	112.	599.94
2.73	1.03	5.33	.47	.080	.030	.090	.036	598.07	676.44
.000754	10.	117.	117.	2	0	0	.00	54.17	730.61

SPECIAL BRIDGE

SB	XK	XKOR	CQFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07

*SECNO 25306.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.07	608.05	.00	339.	1027.	156.	156.	606.16	607.78

25306.00	11.10	609.17	.00	.00	609.43	.25	1.76	.00	599.84
1360.	51.	1256.	54.	61.	299.	147.	444.	113.	599.94
2.74	.86	4.19	.37	.080	.030	.090	.036	598.07	670.00
.000354	169.	169.	169.	2	0	0	.00	155.00	825.00

*SECNO 25340.000

3470 ENCROACHMENT STATIONS= 600.0 800.0 TYPE= 1 TARGET= 200.000

25340.00	11.20	609.40	.00	.00	609.49	.08	.01	.05	598.40
1360.	274.	843.	243.	432.	289.	432.	445.	113.	598.40
2.75	.63	2.92	.56	.080	.030	.090	.036	598.20	600.00
.000140	34.	34.	34.	2	0	0	.00	200.00	800.00

FLOOD INSURANCE ZONE DATA FOR BLAKELY DRAIN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
10634.000	0	-2.44	-.26	.44
11506.000	872.	-2.29	-.28	.48
12478.000	1844.	-2.12	-.29	.48
12578.000	1944.	-2.09	-.28	.46
12622.000	1988.	-2.69	-.45	.74
12672.000	2038.	-2.63	-.45	.68
13382.000	2748.	-2.65	-.48	.78
13482.000	2848.	-2.74	-.48	.79
13483.000	2849.	-2.82	-.51	.80
13569.000	2935.	-2.67	-.40	.74
13570.000	2936.	-2.20	-.37	.71
13595.000	2961.	-2.15	-.38	.73
15306.000	4672.	-2.12	-.40	.78
16306.000	5672.	-2.06	-.42	.83
17146.000	6512.	-2.01	-.42	.84
17246.000	6612.	-1.98	-.41	.80
17310.000	6676.	-1.99	-.42	1.21
17375.000	6741.	-2.13	-.47	1.34
17437.000	6803.	-2.08	-.46	1.29
17450.000	6889.	-2.11	-.47	1.73
17500.000	6939.	-2.30	-.54	1.86
18566.000	8005.	-2.30	-.56	1.86
18666.000	8105.	-2.30	-.56	1.86
18667.000	8106.	-2.48	-.62	1.88
18705.000	8144.	-2.44	-.50	1.84
18706.000	8145.	-1.97	-.46	1.80
18756.000	8195.	-1.97	-.46	1.80
19061.000	8500.	-1.97	-.47	1.83
19062.000	8501.	-2.03	-.49	1.79
19070.000	8509.	-2.03	-.48	1.78
19071.000	8510.	-1.99	-.47	1.80
20293.000	9732.	-1.74	-.43	1.56
20294.000	9733.	-1.73	-.43	1.55
20305.000	9744.	-1.73	-.43	1.55
20306.000	9745.	-1.73	-.43	1.56
20406.000	9845.	-1.74	-.43	1.55
21223.000	10662.	-1.60	-.41	1.45
21323.000	10762.	-1.45	-.46	1.72
21359.000	10798.	-.63	-.18	.65
21409.000	10848.	-.68	-.20	.66
23000.000	12439.	-.97	-.29	.71
23001.000	12440.	-.98	-.29	.71
23012.000	12451.	-.97	-.29	.71
23013.000	12452.	-.97	-.29	.71

23256.000	12695.	-.99	-.29	.71
24202.000	13641.	-1.03	-.31	.75
24203.000	13642.	-1.07	-.32	.77
24219.000	13658.	-1.07	-.32	.77
24220.000	13659.	-1.05	-.31	.76
24474.000	13913.	-1.06	-.31	.75
24574.000	14013.	-1.06	-.31	.74
24588.000	14027.	-1.12	-.33	.93
24638.000	14077.	-1.25	-.39	1.11
25020.000	14459.	-1.39	-.42	1.08
25137.000	14576.	-1.42	-.42	1.01
25306.000	14745.	-2.38	-.38	.63
25340.000	14779.	-2.52	-.42	.75
WEIGHTED AVG FOR REACH		-1.83	-.38	.99

FHF FOR THE REACH = 020 WITH 61.9 PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 4

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10	1	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN
	0				SEC. 10634.000		
1	100.	597.18	599.61	-2.43	-2.43	025	100.
2	200.	597.22	599.63	-2.41	-2.42	025	100.
3	300.	597.26	599.65	-2.39	-2.41	025	100.
4	400.	597.29	599.67	-2.38	-2.40	025	100.
5	500.	597.33	599.69	-2.36	-2.39	025	100.
6	600.	597.37	599.71	-2.34	-2.38	025	100.
7	700.	597.41	599.74	-2.33	-2.38	025	100.
8	800.	597.45	599.76	-2.31	-2.37	025	100.
	872.				SEC. 11506.000		
9	900.	597.48	599.78	-2.30	-2.36	025	100.
10	1000.	597.52	599.79	-2.27	-2.35	025	100.
11	1100.	597.54	599.80	-2.26	-2.34	025	100.
12	1200.	597.57	599.81	-2.24	-2.33	025	100.
13	1300.	597.60	599.82	-2.22	-2.33	025	100.
14	1400.	597.62	599.83	-2.21	-2.32	025	100.
15	1500.	597.65	599.84	-2.19	-2.31	025	100.
16	1600.	597.68	599.85	-2.17	-2.30	025	100.
17	1700.	597.70	599.86	-2.16	-2.29	025	100.
18	1800.	597.73	599.87	-2.14	-2.28	025	100.
	1844.				SEC. 12478.000		
19	1900.	597.75	599.87	-2.12	-2.28	025	100.
	1944.				SEC. 12578.000		
	1988.				SEC. 12622.000		
20	2000.	598.00	600.39	-2.39	-2.28	025	100.

	2038.				SEC. 12672.000		
21	2100.	598.37	601.02	-2.65	-2.30	025	100.
22	2200.	598.51	601.14	-2.63	-2.31	025	100.
23	2300.	598.53	601.17	-2.64	-2.33	025	100.
24	2400.	598.56	601.20	-2.64	-2.34	025	100.
25	2500.	598.58	601.23	-2.65	-2.35	025	100.
26	2600.	598.61	601.25	-2.64	-2.36	025	100.
27	2700.	598.64	601.28	-2.64	-2.37	025	100.
	2748.				SEC. 13382.000		
28	2800.	598.63	601.30	-2.67	-2.39	025	100.
	2848.				SEC. 13482.000		
	2849.				SEC. 13483.000		
29	2900.	598.67	601.38	-2.71	-2.40	025	100.
	2935.				SEC. 13569.000		
	2936.				SEC. 13570.000		
	2961.				SEC. 13595.000		
30	3000.	599.13	601.57	-2.44	-2.40	025	100.
31	3100.	599.55	601.70	-2.15	-2.39	025	100.
32	3200.	599.56	601.71	-2.15	-2.38	025	100.
33	3300.	599.57	601.72	-2.15	-2.38	025	100.
34	3400.	599.59	601.73	-2.14	-2.37	025	100.
35	3500.	599.60	601.74	-2.14	-2.36	025	100.
36	3600.	599.61	601.76	-2.15	-2.36	025	100.
37	3700.	599.63	601.77	-2.14	-2.35	025	100.
38	3800.	599.64	601.78	-2.14	-2.34	025	100.
39	3900.	599.65	601.79	-2.14	-2.34	025	100.
40	4000.	599.67	601.80	-2.13	-2.33	025	100.
41	4100.	599.68	601.81	-2.13	-2.33	025	100.
42	4200.	599.69	601.83	-2.14	-2.32	025	100.
43	4300.	599.71	601.84	-2.13	-2.32	025	100.
44	4400.	599.72	601.85	-2.13	-2.32	025	100.
45	4500.	599.73	601.86	-2.13	-2.31	025	100.
46	4600.	599.75	601.87	-2.12	-2.31	025	100.
	4672.				SEC. 15306.000		
47	4700.	599.76	601.88	-2.12	-2.30	025	100.
48	4800.	599.78	601.90	-2.12	-2.30	025	100.
49	4900.	599.81	601.92	-2.11	-2.30	025	100.
50	5000.	599.84	601.94	-2.10	-2.29	025	100.
51	5100.	599.87	601.97	-2.10	-2.29	025	100.
52	5200.	599.90	601.99	-2.09	-2.28	025	100.
53	5300.	599.92	602.01	-2.09	-2.28	025	100.
54	5400.	599.95	602.03	-2.08	-2.28	025	100.
55	5500.	599.98	602.05	-2.07	-2.27	025	100.
56	5600.	600.01	602.07	-2.06	-2.27	025	100.
	5672.				SEC. 16306.000		
57	5700.	600.03	602.09	-2.06	-2.27	025	100.
58	5800.	600.06	602.11	-2.05	-2.26	025	100.
59	5900.	600.08	602.13	-2.05	-2.26	025	100.
60	6000.	600.10	602.14	-2.04	-2.25	025	100.
61	6100.	600.12	602.16	-2.04	-2.25	025	100.
62	6200.	600.15	602.18	-2.03	-2.25	025	100.
63	6300.	600.17	602.19	-2.02	-2.24	020	100.
64	6400.	600.19	602.21	-2.02	-2.24	020	100.
65	6500.	600.21	602.23	-2.02	-2.24	020	100.

	6512.				SEC. 17146.000		
66	6600.	600.22	602.22	-2.00	-2.23	020	100.
	6612.				SEC. 17246.000		
	6676.				SEC. 17310.000		
67	6700.	600.26	602.27	-2.01	-2.23	020	100.
	6741.				SEC. 17375.000		
68	6800.	600.31	602.38	-2.07	-2.23	020	100.
	6803.				SEC. 17437.000		
	6889.				SEC. 17450.000		
69	6900.	600.37	602.49	-2.12	-2.23	020	100.
	6939.				SEC. 17500.000		
70	7000.	600.47	602.70	-2.23	-2.23	020	100.
71	7100.	600.55	602.85	-2.30	-2.23	020	100.
72	7200.	600.57	602.87	-2.30	-2.23	020	100.
73	7300.	600.59	602.89	-2.30	-2.23	020	100.
74	7400.	600.61	602.91	-2.30	-2.23	020	100.
75	7500.	600.63	602.94	-2.31	-2.23	020	100.
76	7600.	600.66	602.96	-2.30	-2.23	020	100.
77	7700.	600.68	602.98	-2.30	-2.23	020	100.
78	7800.	600.70	603.00	-2.30	-2.23	020	100.
79	7900.	600.72	603.02	-2.30	-2.23	020	100.
80	8000.	600.74	603.04	-2.30	-2.24	020	100.
	8005.				SEC. 18566.000		
81	8100.	600.75	603.06	-2.31	-2.24	020	100.
	8105.				SEC. 18666.000		
	8106.				SEC. 18667.000		
	8144.				SEC. 18705.000		
	8145.				SEC. 18706.000		
	8195.				SEC. 18756.000		
82	8200.	600.97	603.10	-2.13	-2.24	020	100.
83	8300.	601.18	603.15	-1.97	-2.23	020	100.
84	8400.	601.17	603.14	-1.97	-2.23	020	100.
	8500.				SEC. 19061.000		
85	8500.	601.16	603.13	-1.97	-2.23	020	100.
	8501.				SEC. 19062.000		
	8509.				SEC. 19070.000		
	8510.				SEC. 19071.000		
86	8600.	601.19	603.16	-1.97	-2.22	020	100.
87	8700.	601.25	603.22	-1.97	-2.22	020	100.
88	8800.	601.31	603.25	-1.94	-2.22	020	100.
89	8900.	601.36	603.29	-1.93	-2.21	020	100.
90	9000.	601.42	603.32	-1.90	-2.21	020	100.
91	9100.	601.47	603.36	-1.89	-2.21	020	100.
92	9200.	601.53	603.39	-1.86	-2.20	020	100.
93	9300.	601.58	603.43	-1.85	-2.20	020	100.
94	9400.	601.64	603.46	-1.82	-2.19	020	100.
95	9500.	601.69	603.49	-1.80	-2.19	020	100.
96	9600.	601.75	603.53	-1.78	-2.19	020	100.
97	9700.	601.80	603.56	-1.76	-2.18	020	100.
	9732.				SEC. 20293.000		
	9733.				SEC. 20294.000		
	9744.				SEC. 20305.000		
	9745.				SEC. 20306.000		
98	9800.	601.85	603.59	-1.74	-2.18	020	100.

	9845.				SEC. 20406.000		
99	9900.	601.89	603.62	-1.73	-2.17	020	100.
100	10000.	601.93	603.65	-1.72	-2.17	020	100.
101	10100.	601.97	603.67	-1.70	-2.16	020	100.
102	10200.	602.02	603.70	-1.68	-2.16	020	100.
103	10300.	602.06	603.73	-1.67	-2.15	020	100.
104	10400.	602.11	603.76	-1.65	-2.15	020	100.
105	10500.	602.15	603.78	-1.63	-2.14	020	100.
106	10600.	602.20	603.81	-1.61	-2.14	020	100.
	10662.				SEC. 21223.000		
107	10700.	602.19	603.77	-1.58	-2.13	020	100.
	10762.				SEC. 21323.000		
	10798.				SEC. 21359.000		
108	10800.	603.20	604.29	-1.09	-2.12	020	99.
	10848.				SEC. 21409.000		
109	10900.	604.27	604.93	-.66	-2.11	020	98.
110	11000.	604.32	605.02	-.70	-2.10	020	97.
111	11100.	604.37	605.08	-.71	-2.09	020	97.
112	11200.	604.41	605.14	-.73	-2.07	020	96.
113	11300.	604.45	605.20	-.75	-2.06	020	96.
114	11400.	604.49	605.26	-.77	-2.05	020	95.
115	11500.	604.53	605.32	-.79	-2.04	020	94.
116	11600.	604.57	605.38	-.81	-2.03	020	93.
117	11700.	604.61	605.44	-.83	-2.02	020	92.
118	11800.	604.65	605.49	-.84	-2.01	020	92.
119	11900.	604.69	605.55	-.86	-2.00	020	91.
120	12000.	604.73	605.61	-.88	-1.99	020	82.
121	12100.	604.78	605.67	-.89	-1.98	020	81.
122	12200.	604.82	605.73	-.91	-1.97	020	80.
123	12300.	604.86	605.79	-.93	-1.96	020	80.
124	12400.	604.90	605.85	-.95	-1.96	020	79.
	12439.				SEC. 23000.000		
	12440.				SEC. 23001.000		
	12451.				SEC. 23012.000		
	12452.				SEC. 23013.000		
125	12500.	604.95	605.91	-.96	-1.95	020	78.
126	12600.	604.99	605.97	-.98	-1.94	020	78.
	12695.				SEC. 23256.000		
127	12700.	605.02	606.01	-.99	-1.93	020	76.
128	12800.	605.05	606.04	-.99	-1.92	020	75.
129	12900.	605.06	606.05	-.99	-1.92	020	74.
130	13000.	605.07	606.07	-1.00	-1.91	020	74.
131	13100.	605.08	606.09	-1.01	-1.90	020	73.
132	13200.	605.10	606.11	-1.01	-1.90	020	72.
133	13300.	605.11	606.12	-1.01	-1.89	020	71.
134	13400.	605.12	606.14	-1.02	-1.88	020	69.
135	13500.	605.14	606.16	-1.02	-1.88	020	69.
136	13600.	605.15	606.18	-1.03	-1.87	020	68.
	13641.				SEC. 24202.000		
	13642.				SEC. 24203.000		
	13658.				SEC. 24219.000		
	13659.				SEC. 24220.000		
137	13700.	605.17	606.22	-1.05	-1.87	020	67.
138	13800.	605.21	606.26	-1.05	-1.86	020	67.

139	13900.	605.23	606.29	-1.06	-1.85	020	65.
	13913.					SEC. 24474.000	
140	14000.	605.25	606.31	-1.06	-1.85	020	65.
	14013.					SEC. 24574.000	
	14027.					SEC. 24588.000	
	14077.					SEC. 24638.000	
141	14100.	605.31	606.47	-1.16	-1.84	020	65.
142	14200.	605.40	606.68	-1.28	-1.84	020	64.
143	14300.	605.48	606.79	-1.31	-1.84	020	64.
144	14400.	605.55	606.90	-1.35	-1.83	020	63.
	14459.					SEC. 25020.000	
145	14500.	605.65	607.03	-1.38	-1.83	020	63.
	14576.					SEC. 25137.000	
146	14600.	605.83	607.31	-1.48	-1.83	020	64.
147	14700.	606.24	608.09	-1.85	-1.83	020	64.
	14745.					SEC. 25306.000	
	14779.					SEC. 25340.000	

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FIA REQUIREMENTS
INPUT 2ON WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE 202 122 147
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	WEIGHTED AVG DIFFERENCE BETWEEN BASE FLOOD AND 10	1	0.2
122	12200.	-1.97	-.39	1.02

FHF FOR REACH 1 = 020 WITH 80. PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 4

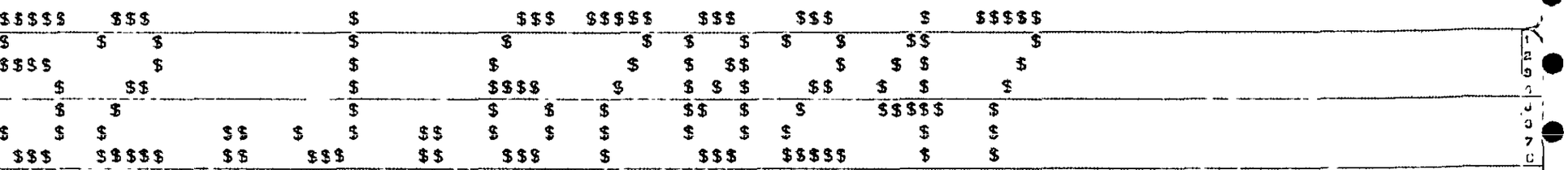
147	14700.	-1.12	-.33	.81

FHF FOR REACH 2 = 010 WITH 96. PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2

THIS RUN EXECUTED 2/21/ 1982 13: 6:24

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

+2222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222+



DEST=52.J.670247 USER=52.J.670247 QUEUE=LPT DEVICE=@LPB

PAGES=24

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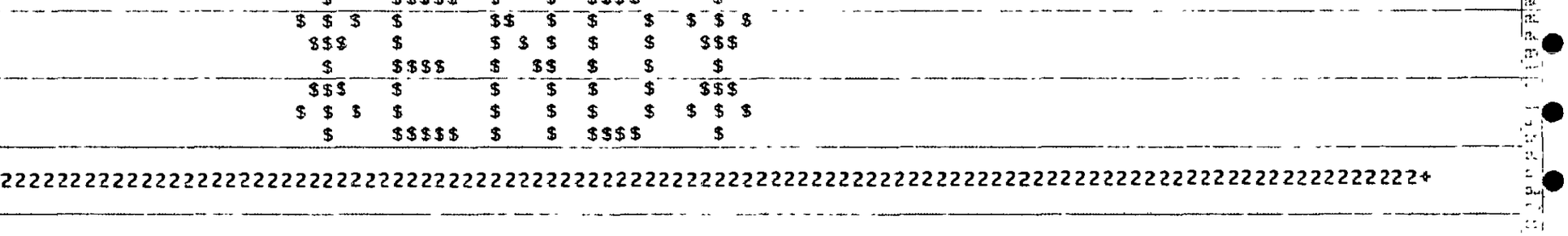

+2222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222222+

GREENHORNE & O'HARA INC.

AOS/VS REV 01.40
AOS/VS XLPT REV 01.40

+5555555555

THIS RUN EXECUTED 2/21/ 1982 13: 7:43

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APR  1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1 BROWNSTOWN
T2 500 YEAR STORM
T3       BLAKELY DRAIN
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	6.	0	0	.000000	.00	.0	0	600.040	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
QT	5.000	780.000	1176.000	1360.000	1360.000	1730.000	.000	.000	.000	.000
NC	.080	.080	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	25.000	385.000	105.000	385.000
X1	10634.000	11.000	296.000	317.000	50.000	50.000	50.000	.000	.000	.000
GR	600.000	.000	595.000	125.000	597.000	291.000	590.350	296.000	588.400	299.000
GR	588.100	307.000	588.400	317.000	597.000	328.500	595.000	550.000	597.000	900.000
GR	600.000	1350.000	.000	.000	.000	.000	.000	.000	.000	.000
ET	9.100	9.100	9.100	9.100	7.100	.000	300.000	540.000	100.000	655.000
X1	11506.000	14.000	371.000	385.000	1200.000	400.000	872.000	.000	.000	.000
X4	1.000	597.410	1.000	.000	.000	.000	.000	.000	.000	.000
GR	600.000	.000	598.020	78.000	597.450	228.000	595.700	358.000	588.440	371.000
GR	588.240	378.000	588.640	385.000	593.530	393.000	594.050	399.000	596.100	409.000
GR	595.210	478.000	595.300	599.000	600.130	631.000	601.130	678.000	.000	.000
QT	5.000	710.000	880.000	950.000	950.000	1050.000	.000	.000	.000	.000
X1	12478.000	10.000	689.000	711.000	972.000	972.000	972.000	.000	.000	.000
X3	.000	.000	.000	664.000	.000	735.000	.000	.000	.000	.000
GR	602.000	.030	600.000	450.000	595.000	525.000	596.200	675.000	590.000	689.000
GR	589.530	693.000	589.470	707.000	590.000	711.000	596.200	725.000	601.000	825.000
NC	.090	.090	.035	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	1.400	.000	.000	.000	.000	.000

X1	12578.000	.000	.000	.000	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.340	604.060	.000
SB	1.250	1.660	3.000	.000	22.000	1.500	133.000	.000	588.430	589.530
X1	12622.000	12.000	689.000	711.000	44.000	44.000	44.000	.000	.000	.000
X2	.000	.000	1.000	595.630	604.060	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.340	604.060	.000
BT	22.000	.000	604.860	.000	100.000	604.620	.000	200.000	604.590	.000
BT	300.000	604.780	.000	400.000	604.930	.000	500.000	604.780	.000	600.000
BT	604.520	.000	689.200	604.340	.000	689.250	604.340	594.630	690.250	604.340
BT	595.630	698.250	604.340	595.630	699.250	604.340	594.630	699.300	604.340	.000
BT	700.650	604.340	.000	700.700	604.340	594.630	701.700	604.340	595.630	709.700
BT	604.340	595.630	710.700	604.340	594.630	710.750	604.340	.000	800.000	604.120
BT	.000	825.000	604.060	.000	1200.000	603.540	.000	.000	.000	.000
GR	604.900	.000	600.000	450.000	595.000	525.000	596.200	675.000	592.130	689.000
GR	592.100	693.000	592.100	700.000	588.430	707.000	588.700	711.000	596.400	736.000
GR	600.000	825.000	603.540	1200.000	.000	.000	.000	.000	.000	.000
QT	5.000	738.000	1152.000	1360.000	1360.000	1870.000	.000	.000	.000	.000
X1	12672.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	639.000	.000	761.000	.000	.000	.000	.000
ET	.000	9.100	9.100	9.100	7.100	9.100	810.000	1200.000	790.000	1200.000
X1	13382.000	10.000	988.200	1012.200	300.000	800.000	710.000	.000	.000	.000
GR	603.300	.000	599.000	500.000	595.000	875.000	595.290	962.000	590.050	988.200
GR	590.040	1012.200	592.240	1028.000	595.000	1050.000	600.000	1125.000	604.000	1800.000
NC	.090	.090	.045	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13482.000	18.000	1249.000	1271.000	100.000	100.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	598.700	599.600	.000
GR	605.000	1050.000	598.900	1050.000	598.800	1150.000	597.000	1225.000	590.200	1248.900
GR	590.100	1249.000	590.100	1259.000	590.100	1259.100	590.000	1260.900	590.100	1261.000
GR	590.100	1271.000	590.100	1271.100	590.200	1272.000	590.200	1272.100	597.000	1288.000
GR	600.000	1350.000	600.500	1430.000	605.000	1430.100	.000	.000	.000	.000
NC	.000	.000	.035	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13483.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	16.000	1050.000	605.000	605.000	1050.000	598.900	598.900	1150.000	598.800	598.800
BT	1248.900	598.800	590.200	1249.000	600.400	596.600	1259.000	600.400	596.600	1259.100
BT	600.400	590.100	1260.900	600.400	590.000	1261.000	600.400	596.600	1271.000	600.400
BT	596.600	1271.100	600.400	590.100	1272.000	600.400	590.200	1272.100	599.100	590.200
BT	1350.000	600.100	600.000	1430.000	600.500	600.500	1430.100	605.000	605.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000

X1	13569.000	.000	.000	.000	86.000	86.000	86.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
NC	.000	.000	.040	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	7.100	7.100	9.100	7.100	1044.000	1424.000	1044.000	1414.000
X1	13570.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	598.690	599.630	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	980.000	1415.000	980.000	1350.000
X1	13595.000	9.000	1194.000	1206.000	25.000	25.000	25.000	.000	.000	.000
GR	606.000	.000	600.000	700.000	595.300	1180.000	590.000	1194.000	589.700	1200.000
GR	590.000	1206.000	593.000	1220.000	600.000	1400.000	605.000	2000.000	.000	.000
NC	.120	.120	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	7.100	7.100	7.100	9.100	7.100	280.000	720.000	280.000	700.000
X1	15306.000	13.000	496.000	504.000	1711.000	1711.000	1711.000	.000	.000	.000
GR	601.000	.000	599.930	200.000	598.220	350.000	596.690	482.000	593.830	489.000
GR	590.440	496.000	590.270	500.000	590.180	504.000	596.940	516.000	596.340	650.000
GR	596.490	800.000	600.000	900.000	605.000	1900.000	.000	.000	.000	.000
NC	.090	.090	.035	.100	.300	.000	.000	.000	.000	.000
X1	16306.000	17.000	296.000	304.000	800.000	1200.000	1000.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	569.000	.000	.000	.000	.000
GR	605.070	.000	604.440	100.000	603.700	198.000	597.250	238.000	597.090	244.000
GR	596.220	250.000	596.120	278.000	596.670	284.000	596.770	287.000	590.880	296.000
GR	590.850	300.000	590.890	304.000	596.870	318.000	597.720	450.000	599.400	600.000
GR	600.000	650.000	607.300	925.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.035	.300	.500	.000	.000	.000	.000	.000
X1	17146.000	9.000	485.000	515.000	1200.000	500.000	840.000	.000	.000	.000
X3	.000	.000	.000	460.000	.000	540.000	.000	.000	.000	.000
GR	604.300	.000	600.000	350.000	597.500	476.000	592.980	485.000	592.570	500.000
GR	591.210	515.000	597.500	524.000	600.000	800.000	605.000	2000.000	.000	.000
X1	17246.000	12.000	481.490	518.510	100.000	100.000	100.000	.810	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	605.000	605.000	.000
X4	2.000	604.000	469.000	604.000	528.000	.000	.000	.000	.000	.000
GR	606.880	.000	600.000	350.000	601.000	400.000	592.930	481.490	592.980	481.500
GR	592.570	500.000	591.210	518.500	592.930	518.510	601.000	600.000	600.000	800.000
GR	603.370	900.000	606.740	1000.000	.000	.000	.000	.000	.000	.000
SB	.000	1.700	3.000	.000	26.000	.000	315.000	.000	591.210	591.210

X1	17310.000	.000	.000	.000	64.000	64.000	64.000	.000	.000	.000
X2	.000	.000	1.000	603.430	606.340	.000	.000	.000	.810	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.000	606.000	.000
BT	9.000	.000	606.380	.000	400.000	606.380	.000	481.490	606.340	.000
BT	481.500	606.340	605.430	518.500	606.340	603.270	518.510	606.340	.000	600.000
BT	606.370	.000	900.000	606.620	.000	1000.000	606.740	.000	.000	.000
X1	17375.000	12.000	476.000	524.000	65.000	65.000	65.000	.810	.000	.000
X3	.000	.000	.000	460.000	.000	535.000	.000	.000	.000	.000
GR	604.500	.000	600.000	400.000	595.000	476.000	592.930	481.500	592.930	484.500
GR	592.280	489.500	592.260	493.500	592.680	502.500	593.330	518.500	595.000	524.000
GR	600.000	600.000	605.000	1150.000	.000	.000	.000	.000	.000	.000
X1	17437.000	15.000	481.500	518.500	62.000	62.000	62.000	.810	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.840	606.710	.000
GR	608.320	.000	607.720	200.000	607.070	400.000	606.880	472.000	592.930	481.500
GR	592.930	484.500	592.280	489.500	592.260	493.500	592.680	497.500	593.280	503.500
GR	593.330	518.500	606.830	532.000	606.710	600.000	606.770	900.000	605.000	1100.000
SB	.000	1.770	3.000	.000	28.000	.000	315.000	.000	592.130	592.260
X1	17450.000	15.000	481.500	518.500	86.000	86.000	86.000	.810	.000	.000
X2	.000	.000	1.000	603.270	606.710	.000	.000	.000	.810	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.840	606.710	.000
X4	2.000	606.830	475.000	606.800	528.000	.000	.000	.000	.000	.000
BT	10.000	.000	608.320	.000	200.000	607.720	.000	400.000	607.070	.000
BT	481.500	606.840	.000	481.510	606.840	603.220	518.490	606.840	603.270	518.500
BT	606.840	.000	600.000	606.710	.000	900.000	606.770	.000	1100.000	606.970
BT	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	608.320	.000	607.720	200.000	607.070	400.000	594.030	481.500	594.030	481.510
GR	593.830	486.500	592.430	493.500	592.130	501.000	592.420	508.500	593.330	514.500
GR	593.530	518.490	593.530	518.500	606.710	600.000	606.770	900.000	606.970	1100.000
ET	.000	7.100	7.100	7.100	9.100	7.100	435.000	565.000	450.000	550.000
X1	17500.000	13.000	475.000	528.000	50.000	50.000	50.000	.810	.000	.000
GR	604.600	.000	600.000	200.000	596.400	475.000	594.030	481.500	593.830	486.500
GR	592.430	493.500	592.130	501.000	592.430	508.500	593.330	514.500	593.530	518.500
GR	597.330	528.000	600.000	650.000	604.100	1350.000	.000	.000	.000	.000
ET	.000	9.100	9.100	9.100	7.100	9.100	550.000	900.000	496.000	1018.000
X1	18566.000	9.000	731.000	783.000	1066.000	1066.000	1066.000	.000	.000	.000
GR	605.000	.000	600.000	300.000	597.100	731.000	593.600	745.000	593.550	750.000
GR	593.600	755.000	599.200	783.000	600.000	1000.000	605.000	1200.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	542.000	992.000

X1	18666.000	16.000	786.650	813.350	100.000	100.000	100.000	.800	.000	.000	
X4	2.000	598.400	776.000	599.200	827.000	.000	.000	.000	.000	.000	
GR	605.000	.000	605.000	300.000	605.000	474.900	601.000	475.000	601.000	600.000	
GR	600.940	700.000	593.600	786.650	593.600	786.660	593.550	800.000	593.600	813.340	
GR	593.600	813.350	600.710	900.000	600.970	1000.000	601.700	1060.000	610.000	1060.100	
GR	610.000	1300.000	.000	.000	.000	.000	.000	.000	.000	.000	
NC	.000	.000	.030	.000	.000	.000	.000	.000	.000	.000	
ET	.000	.000	.000	.000	9.100	.000	.000	.000	435.000	795.000	
X1	18667.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
X2	.000	.000	.000	.000	.000	.000	.000	.000	.800	.000	
BT	14.000	.000	605.000	.000	474.900	605.000	.000	475.000	601.000	.000	
BT	600.000	601.030	.000	700.000	600.940	.000	786.650	601.810	.000	786.660	
BT	602.460	600.160	813.340	602.460	600.160	813.350	601.810	.000	900.000	600.710	
BT	.000	1000.000	600.970	.000	1060.000	601.700	.000	1060.100	610.000	.000	
BT	1300.000	610.000	.000	.000	.000	.000	.000	.000	.000	.000	
ET	.000	.000	.000	.000	9.100	.000	.000	.000	435.000	795.000	
X1	18705.000	.000	.000	.000	38.000	38.000	38.000	.000	.000	.000	
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000	
NC	.000	.000	.035	.000	.000	.000	.000	.000	.000	.000	
ET	.000	7.100	.000	.000	9.100	.000	560.000	840.000	435.000	795.000	
X1	18706.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
ET	.000	9.100	9.100	9.100	7.100	9.100	450.000	975.000	425.000	1000.000	
X1	18756.000	9.000	780.000	822.000	50.000	50.000	50.000	.000	.000	.000	
GR	605.000	175.000	600.000	400.000	598.400	780.000	593.700	789.500	593.650	800.000	
GR	593.700	811.500	599.200	822.000	600.000	1000.000	605.000	1125.000	.000	.000	
NC	.060	.060	.035	.100	.300	.000	.000	.000	.000	.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000	
X1	19061.000	12.000	1078.000	1122.000	305.000	305.000	305.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	601.480	602.180	.000	
X4	2.000	601.480	1077.990	599.650	1122.010	.000	.000	.000	.000	.000	
GR	606.000	.000	601.480	1078.000	601.480	1078.100	600.040	1081.000	593.300	1095.000	
GR	593.250	1100.000	593.450	1105.000	599.650	1120.000	602.180	1122.000	602.180	1122.010	
GR	604.000	1285.000	610.000	1285.100	.000	.000	.000	.000	.000	.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000	
X1	19062.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
X4	2.000	601.480	1077.990	599.650	1122.010	.000	.000	.000	.000	.000	
BT	5.000	1078.000	601.480	601.480	1078.100	601.480	601.480	1081.000	602.550	600.850	
BT	1120.000	602.180	600.850	1122.000	602.180	602.180	.000	.000	.000	.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000	

X1	19070.000	.000	.000	.000	8.000	8.000	8.000	.000	.000	.000	
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	690.000	1210.000	700.000	1210.000	
X1	19071.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	601.480	602.180	.000	
ET	.000	.000	.000	.000	1.400	.000	.000	.000	.000	.000	
X1	20293.000	12.000	982.000	1020.000	1222.000	1222.000	1222.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	600.520	600.830	.000	
X4	2.000	599.730	850.000	602.930	1150.000	.000	.000	.000	.000	.000	
GR	608.000	.000	608.000	649.900	603.000	650.000	600.220	730.000	600.520	982.000	
GR	598.650	982.100	594.580	994.000	594.310	1006.000	598.680	1019.900	600.830	1020.000	
GR	605.940	1300.000	608.000	1600.000	.000	.000	.000	.000	.000	.000	
X1	20294.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
BT	4.000	982.000	600.520	.000	982.100	600.520	598.650	1019.900	600.830	598.680	
BT	1020.000	600.830	.000	.000	.000	.000	.000	.000	.000	.000	
X1	20305.000	.000	.000	.000	11.000	11.000	11.000	.000	.000	.000	
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000	
X1	20306.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	600.520	600.830	.000	
X1	20406.000	13.000	996.000	1004.000	100.000	100.000	100.000	.000	.000	.000	
GR	608.000	.000	606.530	450.000	603.380	600.000	600.220	730.000	599.730	850.000	
GR	600.940	982.000	594.450	996.000	593.940	1000.000	594.080	1004.000	602.260	1022.000	
GR	602.900	1150.000	605.940	1300.000	608.000	1600.000	.000	.000	.000	.000	
QT	5.000	738.000	1152.000	1360.000	1360.000	1870.000	.000	.000	.000	.000	
NC	.070	.070	.040	.300	.500	.000	.000	.000	.000	.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	475.000	725.000	475.000	725.000	
X1	21223.000	10.000	591.500	608.500	817.000	817.000	817.000	.000	.000	.000	
GR	610.000	.000	605.000	200.000	600.900	575.000	594.300	591.500	593.520	596.000	
GR	595.390	604.000	595.700	608.500	599.950	632.000	605.000	1000.000	608.000	1300.000	
ET	.000	7.100	7.100	7.100	9.100	7.100	500.000	700.000	500.000	700.000	
X1	21323.000	30.000	593.500	606.500	100.000	100.000	100.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	600.000	600.000	.000	
X4	2.000	602.550	583.500	602.500	615.000	.000	.000	.000	.000	.000	
GR	610.000	.000	610.000	100.000	610.000	349.900	604.300	350.000	603.700	400.000	
GR	603.700	500.000	596.020	593.500	596.020	593.510	594.840	593.800	594.020	594.500	
GR	593.650	595.200	593.520	596.000	593.650	596.800	594.020	597.500	594.840	598.200	

GR	596.020	598.500	597.890	601.500	596.710	601.800	595.890	602.500	595.520	603.200
GR	595.390	604.000	595.520	604.800	595.890	605.500	596.710	606.200	597.890	606.490
GR	597.890	606.500	603.400	700.000	604.120	800.000	604.200	835.000	610.000	835.100
SB	.000	1.500	3.000	.000	6.400	.000	32.000	.000	594.820	593.520
ET	.000	.000	.000	.000	9.100	.000	.000	.000	389.000	790.000
X1	21359.000	30.000	593.500	606.500	36.000	36.000	36.000	.000	.000	.000
X2	.000	.000	1.000	599.820	603.400	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	603.530	603.400	.000
X4	2.000	601.500	583.500	601.500	615.000	.000	.000	.000	.000	.000
BT	30.000	500.000	610.000	.000	500.000	610.000	.000	500.000	610.000	.000
BT	500.000	610.000	.000	500.000	610.000	.000	500.000	603.700	.000	593.500
BT	603.520	.000	593.510	603.520	597.790	593.800	603.520	598.970	594.500	603.520
BT	598.970	595.200	603.520	598.970	596.000	603.520	598.970	596.800	603.520	598.970
BT	597.500	603.520	598.970	598.200	603.520	598.970	598.500	603.520	597.790	601.500
BT	603.520	597.320	601.800	603.520	598.500	602.500	603.520	599.320	603.200	603.520
BT	599.690	604.000	603.520	599.820	604.800	603.520	599.690	605.500	603.520	599.320
BT	606.200	603.520	598.500	606.490	603.520	597.320	606.500	603.520	.000	700.000
BT	603.400	.000	700.000	610.000	.000	700.000	610.000	.000	700.000	610.000
BT	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	610.000	500.000	610.000	500.000	610.000	500.000	610.000	500.000	610.000	500.000
GR	603.700	500.000	597.790	593.500	597.790	593.510	596.610	593.800	597.790	594.500
GR	595.420	595.200	595.290	596.000	595.420	596.800	595.790	597.500	596.610	598.200
GR	597.790	598.500	597.320	601.500	596.140	601.300	595.320	602.500	594.950	603.200
GR	594.820	604.000	594.950	604.800	595.320	605.500	596.140	606.200	597.320	606.490
GR	597.320	606.500	603.740	700.000	610.000	700.000	610.000	700.000	610.000	700.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	339.000	835.000
X1	21409.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
NC	.070	.070	.035	.100	.300	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23000.000	20.000	1383.000	1417.000	1000.000	1591.000	1591.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.850	604.850	.000
GR	610.000	1004.900	604.000	1005.000	603.040	1200.000	603.180	1300.000	604.850	1381.000
GR	601.500	1383.000	597.000	1392.990	597.000	1393.000	597.000	1394.000	597.000	1394.010
GR	596.850	1400.000	597.000	1406.000	597.000	1406.010	597.000	1406.990	597.000	1407.000
GR	603.000	1417.000	603.000	1417.010	604.850	1419.000	603.700	1475.000	610.000	1475.100
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23001.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	13.000	1381.000	604.850	604.850	1383.000	604.850	603.450	1392.990	604.850	603.450
BT	1393.000	604.850	597.010	1394.000	604.850	597.010	1394.010	604.850	603.450	1406.000
BT	604.850	603.850	1406.010	604.850	597.010	1406.990	604.850	597.010	1407.000	604.850
BT	603.450	1417.000	604.850	603.450	1417.010	604.850	603.000	1419.000	604.850	604.850
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000

X1	23012.000	.000	.000	.000	11.000	11.000	11.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
ET	.000	.000	.000	.000	7.100	.000	1075.000	1475.000	.000	.000
X1	23013.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	604.850	604.850	.000
ET	.000	7.100	7.100	7.100	9.100	9.100	865.000	1350.000	900.000	1350.000
X1	23256.000	14.000	1195.000	1205.000	243.000	243.000	243.000	.000	.000	.000
GR	610.000	.000	605.000	800.000	601.940	900.000	602.190	1050.000	601.990	1167.000
GR	598.780	1182.000	598.870	1188.000	597.000	1195.000	596.020	1200.000	597.240	1205.000
GR	602.740	1210.000	604.540	1350.000	605.720	1500.000	610.000	2000.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	702.400	897.600
X1	24202.000	13.000	782.990	817.010	946.000	946.000	946.000	.000	.000	.000
GR	610.000	702.400	603.400	702.500	602.770	782.990	602.770	783.000	596.600	793.000
GR	596.600	793.010	596.250	800.000	596.010	807.000	596.010	807.010	602.920	817.000
GR	602.920	817.010	603.500	397.500	610.000	897.600	.000	.000	.000	.000
X1	24203.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
BT	8.000	782.990	602.770	.000	783.000	603.970	602.770	793.000	604.020	602.820
BT	793.010	603.520	602.820	807.000	603.580	602.880	807.010	604.080	602.880	817.000
BT	604.120	602.920	817.010	602.920	.000	.000	.000	.000	.000	.000
X1	24219.000	.000	.000	.000	16.000	16.000	16.000	.000	.000	.000
X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
X1	24220.000	.000	.000	.000	1.000	1.000	1.000	.000	.000	.000
NC	.100	.100	.035	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	1.400	.000	.000	.000	.000	.000
X1	24474.000	9.000	533.000	567.000	254.000	150.000	254.000	.000	.000	.000
X3	.000	.000	.000	503.000	.000	597.000	.000	.000	.000	.000
GR	610.000	.000	605.000	300.000	602.770	533.000	596.600	543.000	596.250	550.000
GR	596.600	557.000	602.920	567.000	605.000	800.000	610.000	1400.000	.000	.000
X1	24574.000	9.000	428.000	472.000	100.000	10.000	100.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	609.850	609.800	.000
GR	610.000	.000	605.000	200.000	605.000	428.000	598.000	443.000	597.910	450.000
GR	598.000	457.000	606.010	472.000	605.000	650.000	610.000	1350.000	.000	.000
SB	1.250	1.500	3.000	.000	30.600	2.000	300.000	.000	598.010	597.910

X1	24588.000	.000	.000	.000	14.000	14.000	14.000	.000	.100	.000
X2	.000	.000	1.000	607.810	609.800	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	609.850	609.800	.000
BT	19.000	.000	610.000	.000	50.000	609.850	.000	250.000	609.990	.000
BT	350.000	609.970	.000	427.990	609.970	.000	428.000	609.970	607.810	442.500
BT	609.970	607.810	442.550	609.970	.000	443.450	609.970	.000	443.500	609.970
BT	607.850	456.500	609.970	607.850	456.550	609.970	.000	457.450	609.970	.000
BT	457.500	609.970	607.890	472.000	609.970	607.890	472.010	609.970	.000	550.000
BT	609.850	.000	1050.000	609.800	.000	1350.000	609.990	.000	.000	.000
X1	24638.000	.000	.000	.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	375.000	.000	520.000	.000	.000	.000	.000
X1	25020.000	9.000	590.000	607.000	100.000	407.000	382.000	.000	.000	.000
X3	.000	.000	.000	570.000	.000	670.000	.000	.000	.000	.000
GR	610.000	.000	605.000	150.000	604.920	572.000	598.500	590.000	598.200	600.000
GR	598.500	607.000	604.390	617.000	605.000	725.000	610.000	1050.000	.000	.000
NC	.080	.090	.030	.300	.500	.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	9.100	.000	.000	.000	1.000	825.000
X1	25137.000	23.000	685.490	714.510	10.000	117.000	117.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	606.000	607.090	.000
GR	615.000	.000	615.000	1.000	615.000	424.900	610.000	670.000	607.780	670.000
GR	607.600	676.000	599.840	685.490	599.840	685.500	598.800	686.600	598.800	692.000
GR	598.800	697.400	599.840	698.500	599.840	698.510	599.940	701.490	599.940	701.500
GR	598.070	702.600	598.070	708.000	598.070	713.400	599.940	714.500	599.940	714.510
GR	607.000	717.000	608.900	325.000	615.000	825.100	.000	.000	.000	.000
SB	.000	3.250	3.000	.000	20.300	.000	156.000	.000	598.470	598.070
X1	25306.000	.000	.000	.000	169.000	169.000	169.000	.000	.000	.000
X2	.000	.000	1.000	606.160	607.780	.000	.000	.000	.000	.000
X3	10.000	598.470	.000	.000	.000	.000	.000	607.410	608.500	.000
BT	21.000	.000	615.000	.000	1.000	615.000	.000	424.900	615.000	.000
BT	670.000	610.000	.000	670.000	607.780	.000	685.490	608.510	.000	685.500
BT	608.510	599.840	686.600	608.510	604.580	692.000	608.510	605.660	697.400	608.510
BT	604.580	698.500	608.510	599.840	698.510	608.510	.000	701.490	608.510	.000
BT	701.500	608.510	599.940	702.600	608.510	604.680	708.000	608.510	605.760	713.400
BT	608.510	604.680	714.500	608.510	599.940	714.510	608.510	.000	825.000	608.940
BT	.000	825.100	615.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	9.100	9.100	9.100	650.000	750.000	600.000	800.000
X1	25340.000	10.000	687.000	713.000	34.000	34.000	34.000	.000	.000	.000
GR	611.000	.000	605.000	300.000	605.000	672.000	598.400	687.000	598.200	700.000
GR	598.400	713.000	605.000	728.000	605.000	1000.000	610.000	1050.000	615.000	1125.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

*PROF 1

CCHV=    .100 CEHV=    .300
*SECNO 10634.000
3280 CROSS SECTION  10634.00 EXTENDED       .04 FEET

3470 ENCROACHMENT STATIONS=      25.0      385.0  TYPE=     1  TARGET=     360.000
 10634.00     11.94    600.04       .00       .00    600.13       .09       .00       .00    590.35
    1730.       708.      825.      197.     1006.      244.      271.         0         0    588.40
      .00        .70      3.38       .73       .080      .035      .080      .000    588.10     25.00
 .000250        50.       50.       50.         0         0         0       .00    360.00    385.00

*SECNO 11506.000
3280 CROSS SECTION  11506.00 EXTENDED       .25 FEET

 11506.00     12.02    600.26       .00       .00    600.29       .03       .16       .01    588.44
    1730.       566.      430.      734.     1159.      166.     1168.       41.       11.    588.64
      .22        .49      2.59       .63       .080      .035      .080      .035    588.24       .00
 .000137      1200.       872.      400.         1         0         0       .00    636.82    636.82

*SECNO 12478.000

3470 ENCROACHMENT STATIONS=      664.0      735.0  TYPE=     1  TARGET=      71.000
 12478.00     10.89    600.36       .00       .00    600.49       .13       .17       .03    590.00
    1050.       136.      784.      130.      148.      237.      141.       74.       19.    590.00
      .32        .92      3.31       .93       .080      .035      .080      .035    589.47    664.00
 .000257       972.       972.      972.         2         0         0       .00     71.00    735.00

CCHV=    .300 CEHV=    .500
*SECNO 12578.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12578.00     10.83    600.30       .00       .00    600.61       .31       .03       .09    590.00
    1050.         0      1050.         0         0      236.         0       75.       19.    590.00
      .33        .00      4.46       .00       .090      .035      .090      .035    589.47    689.00
 .000468       100.       100.      100.         2         0         0       .00     22.00    711.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.66	3.00	.00	22.00	1.50	133.00	.00	588.43	589.53

*SECNO 12622.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
601.91	600.75	.05	0	1050.	133.	148.	595.63	604.06

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 604.34 ELREA= 604.06

12622.00	13.17	601.60	.00	.00	601.91	.31	1.30	.00	592.13
1050.	0	1050.	0	0	236.	0	75.	19.	588.70
.33	.00	4.45	.00	.090	.035	.090	.035	588.43	689.00
.000490	44.	44.	44.	2	0	0	.00	22.00	711.00

*SECNO 12672.000

3470 ENCROACHMENT STATIONS= 639.0 761.0 TYPE= 1 TARGET= 122.000

12672.00	13.36	601.79	.00	.00	601.97	.18	.02	.04	592.13
1870.	356.	1051.	463.	313.	240.	353.	76.	19.	588.70
.34	1.14	4.38	1.31	.090	.035	.090	.035	588.43	639.00
.000463	50.	50.	50.	2	0	0	.00	122.00	761.00

*SECNO 13382.000

3470 ENCROACHMENT STATIONS= 790.0 1200.0 TYPE= 1 TARGET= 410.000

13382.00	12.06	602.10	.00	.00	602.12	.03	.11	.05	590.05
1870.	817.	615.	437.	1415.	289.	843.	97.	22.	590.04
.49	.58	2.13	.52	.090	.035	.090	.036	590.04	790.00
.000091	300.	710.	800.	1	0	0	.00	410.00	1200.00

CCHV= .300 CEHV= .500
*SECNO 13482.000

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

3470 ENCROACHMENT STATIONS=     1044.0    1424.0  TYPE=     1  TARGET=     380.000
 13482.00     12.09    602.09      .00       .00    602.16      .07       .02       .02    590.10
    1870.      681.      804.      386.      842.      264.      508.      102.       23.    590.10
      .51       .81      3.05      .76       .090      .045      .090      .037    590.00   1050.00
  .000311      100.      100.      100.         2         0         0       .00    374.00   1424.00

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0    1424.0  TYPE=     1  TARGET=     380.000
 13483.00     12.07    602.07      .00       .00    602.18      .11       .00       .02    590.10
    1870.      734.      650.      485.      410.      167.      327.      102.       23.    590.10
      .51      1.79      3.89      1.49      .090      .035      .090      .037    590.00   1050.00
  .002890        1.        1.        1.         2         0         0   -702.65    374.00   1424.00

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0    1424.0  TYPE=     1  TARGET=     380.000
 13569.00     12.32    602.32      .00       .00    602.41      .09       .22       .01    590.10
    1870.      745.      610.      516.      448.      173.      365.      104.       24.    590.10
      .52      1.66      3.53      1.41      .090      .035      .090      .037    590.00   1050.00
  .002281       86.       86.       86.         2         0         0   -713.88    374.00   1424.00

*SECNO 13570.000

3470 ENCROACHMENT STATIONS=     1044.0    1424.0  TYPE=     1  TARGET=     380.000
 13570.00     12.34    602.34      .00       .00    602.41      .07       .00       .01    590.10
    1870.      660.      831.      379.      892.      269.      547.      104.       24.    590.10
      .52       .74      3.09       .69      .090      .040      .090      .037    590.00   1050.00
  .000245        1.        1.        1.         2         0         0       .00    374.00   1424.00

*SECNO 13595.000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=      980.0     1415.0  TYPE=      1  TARGET=      435.000
 13595.00      12.72     602.42       .00       .00     602.43       .02       .00       .02     590.00
    1870.       807.       319.      744.     1364.      151.     1253.      105.       24.      590.00
      .53        .59       2.11       .59       .090      .040      .090      .037    589.70    980.00
  .000111       25.        25.        25.         2         0         0       .00    435.00   1415.00


CCHV=     .100 CEHV=     .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS=      280.0      720.0  TYPE=      1  TARGET=      440.000
 15306.00      12.49     602.67       .00       .00     602.71       .04       .27       .01     590.44
    1870.       638.       353.      880.     1097.       99.     1358.      210.       41.      590.18
      .93        .58       3.56       .65       .120      .035      .120      .036    590.18    280.00
  .000246      1711.      1711.     1711.         2         0         0       .00    440.00    720.00


CCHV=     .100 CEHV=     .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS=         .0      569.0  TYPE=      1  TARGET=      568.999
 16306.00      12.08     602.93       .00       .00     602.97       .04       .26       .00     590.88
    1870.       420.       336.     1114.      501.       96.     1410.      265.       51.      590.89
     1.16        .84       3.48       .79       .090      .035      .090      .036    590.85    202.80
  .000244       800.      1000.     1200.         2         0         0       .00    366.20    569.00


CCHV=     .300 CEHV=     .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS=      460.0      540.0  TYPE=      1  TARGET=       80.000
 17146.00      11.87     603.08       .00       .00     603.33       .26       .26       .11     592.98
    1870.       196.      1463.      211.      157.      322.      167.      287.       55.      591.21
     1.22       1.25       4.54      1.27       .080      .035      .080      .036    591.21    460.00
  .000483      1200.       840.      500.         2         0         0       .00     80.00    540.00


*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      605.00 ELREA=      605.00

 17246.00      11.80     603.01       .00       .00     603.54       .53       .06       .14     592.93
    1870.          0      1870.         0         0      320.         0       288.       55.      592.93
     1.22        .00       5.84       .00       .080      .035      .080      .036    591.21    390.01
  .000872       100.       100.      100.         2         0         0       .00     29.99    419.99
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	1.70	3.00	.00	26.00	.00	315.00	.00	591.21	591.21

*SECNO 17310.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
603.94	603.54	.00	0	1870.	315.	318.	603.43	606.34

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.00 ELREA= 606.00

17310.00	12.24	603.45	.00	.00	603.94	.49	.40	.00	592.93
1870.	0	1870.	0	0	333.	0	289.	55.	592.93
1.23	.00	5.61	.00	.080	.035	.080	.036	591.21	390.01
.000761	64.	64.	64.	2	0	0	.00	29.99	419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS= 372.6 433.4 TYPE= 1 TARGET= 75.000

17375.00	11.56	603.82	.00	.00	604.05	.23	.03	.08	595.00
1870.	117.	1679.	74.	108.	419.	75.	289.	55.	595.00
1.23	1.09	4.00	.98	.080	.035	.080	.036	592.26	372.60
.000384	65.	65.	65.	2	0	0	.00	60.75	433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17437.00	11.45	603.71	.00	.00	604.23	.52	.03	.15	592.93
1870.	0	1870.	0	0	323.	0	290.	55.	593.33
1.23	.00	5.79	.00	.080	.035	.080	.036	592.26	390.01
.000783	62.	62.	62.	2	0	0	.00	29.97	419.99

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.77	3.00	.00	28.00	.00	315.00	.00	592.13	592.26

*SECNO 17450.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
604.68	604.11	.00	0	1870.	315.	312.	603.27	606.71

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 606.84 ELREA= 606.71

17450.00	12.08	604.21	.00	.00	604.68	.47	.45	.00	594.03
1870.	0	1870.	0	0	339.	0	291.	55.	593.53
1.24	.00	5.51	.00	.080	.035	.080	.036	592.13	390.01
.000671	86.	86.	86.	2	0	0	.00	29.97	419.99

*SECNO 17500.000
3280 CROSS SECTION 17500.00 EXTENDED .59 FEET

3470 ENCROACHMENT STATIONS= 352.4 457.6 TYPE= 1 TARGET= 130.000

17500.00	12.56	604.69	.00	.00	604.80	.11	.02	.11	596.40
1870.	248.	1440.	182.	260.	475.	208.	291.	55.	597.33
1.24	.95	3.03	.88	.080	.035	.080	.036	592.13	352.35
.000218	50.	50.	50.	2	0	0	.00	105.30	457.65

*SECNO 18566.000

3470 ENCROACHMENT STATIONS= 496.0 1018.0 TYPE= 1 TARGET= 522.000

18566.00	11.37	604.92	.00	.00	604.93	.01	.09	.03	597.10
1870.	766.	626.	478.	1651.	486.	1238.	344.	63.	599.20
1.65	.46	1.29	.39	.080	.035	.080	.036	593.55	496.00
.000048	1066.	1066.	1066.	2	0	0	.00	522.00	1018.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 18666.000									
18666.00	11.37	604.92	.00	.00	604.94	.02	.01	.01	593.60
1870.	669.	493.	707.	1240.	242.	1190.	351.	64.	593.60
1.68	.54	2.04	.59	.080	.035	.080	.036	593.55	379.92
.000090	100.	100.	100.	1	0	0	.00	468.11	848.03
*SECNO 18667.000									
3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16									
18667.00	11.37	604.92	.00	.00	604.94	.02	.00	.00	593.60
1870.	827.	387.	656.	951.	193.	752.	351.	64.	593.60
1.68	.87	2.00	.87	.080	.030	.080	.036	593.55	379.92
.000375	1.	1.	1.	0	0	0	-772.92	468.11	848.03
*SECNO 18705.000									
3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16									
18705.00	11.38	604.93	.00	.00	604.96	.02	.01	.00	593.60
1870.	827.	386.	656.	953.	193.	754.	353.	64.	593.60
1.69	.87	2.00	.87	.080	.030	.080	.036	593.55	379.92
.000373	38.	38.	38.	0	0	0	-772.92	468.11	848.03
*SECNO 18706.000									
18706.00	11.39	604.94	.00	.00	604.96	.02	.00	.00	593.60
1870.	670.	493.	707.	1242.	243.	1191.	353.	64.	593.60
1.69	.54	2.03	.59	.080	.035	.080	.036	593.55	379.92
.000090	1.	1.	1.	0	0	0	.00	468.11	848.03
*SECNO 18756.000									
3470 ENCROACHMENT STATIONS= 425.0 1000.0 TYPE= 1 TARGET= 575.000									
18756.00	11.30	604.95	.00	.00	604.96	.01	.00	.00	598.40
1870.	895.	587.	388.	2059.	422.	952.	356.	65.	599.20
1.71	.43	1.39	.41	.080	.035	.080	.036	593.65	425.00
.000054	50.	50.	50.	0	0	0	.00	575.00	1000.00

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

CCHV=    .100 CEHV=    .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19061.00     11.71    604.96      .00        .00    605.00       .04        .03        .01    601.48
    1870.      681.      830.      309.      1036.     379.       364.       375.        69.     602.18
     1.77       .66      2.32       .85       .060      .035       .060       .036     593.25    690.00
  .000191      305.      305.      305.         1         0          0        .00     520.00   1210.00


*SECNO 19062.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19062.00     11.73    604.98      .00        .00    605.00       .02        .00        .00    601.48
    1870.      971.      461.      439.      1043.     317.       366.       375.        69.     602.18
     1.77       .93      1.45      1.20       .060      .035       .060       .036     593.25    690.00
  .000380        1.        1.        1.         2         0          0     -62.88     520.00   1210.00


*SECNO 19070.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19070.00     11.73    604.98      .00        .00    605.01       .02        .00        .00    601.48
    1870.      971.      460.      439.      1044.     317.       366.       375.        69.     602.18
     1.77       .93      1.45      1.20       .060      .035       .060       .036     593.25    690.00
  .000379        8.        8.        8.         0         0          0     -62.88     520.00   1210.00


*SECNO 19071.000

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19071.00     11.72    604.97      .00        .00    605.01       .04        .00        .01    601.48
    1870.      683.      878.      309.      1041.     380.       365.       375.        69.     602.18
     1.77       .66      2.31       .85       .060      .035       .060       .036     593.25    690.00
  .000189        1.        1.        1.         1         0          0        .00     520.00   1210.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 20293.000									
20293.00	10.84	605.15	.00	.00	605.17	.02	.15	.00	600.52
1870.	1046.	573.	251.	1568.	351.	548.	435.	85.	600.83
2.14	.67	1.63	.46	.060	.035	.060	.035	594.31	649.96
.000090	1222.	1222.	1222.	2	0	0	.00	610.77	1260.72
*SECNO 20294.000									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20294.00	10.85	605.16	.00	.00	605.17	.01	.00	.00	600.52
1870.	1308.	248.	314.	1568.	275.	548.	435.	85.	600.83
2.14	.83	.90	.57	.060	.035	.060	.035	594.31	649.96
.000141	1.	1.	1.	0	0	0	-76.18	610.78	1260.74
*SECNO 20305.000									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20305.00	10.85	605.16	.00	.00	605.17	.01	.00	.00	600.52
1870.	1308.	248.	315.	1571.	276.	551.	435.	85.	600.83
2.14	.83	.90	.57	.060	.035	.060	.035	594.31	649.96
.000140	11.	11.	11.	0	0	0	-76.18	611.22	1261.17
*SECNO 20306.000									
20306.00	10.85	605.16	.00	.00	605.17	.02	.00	.00	600.52
1870.	1046.	572.	252.	1571.	352.	551.	435.	85.	600.83
2.14	.67	1.63	.46	.060	.035	.060	.035	594.31	649.96
.000089	1.	1.	1.	0	0	0	.00	611.24	1261.20
*SECNO 20406.000									
20406.00	11.23	605.17	.00	.00	605.18	.01	.01	.00	594.45
1870.	1355.	199.	316.	1880.	89.	584.	441.	86.	594.08
2.17	.72	2.25	.54	.060	.035	.060	.035	593.94	514.86
.000114	100.	100.	100.	0	0	0	.00	747.05	1261.91

CCHV= .300 CEHV= .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

*SECNO 21223.000

3470 ENCROACHMENT STATIONS=			475.0	725.0	TYPE=	1	TARGET=	250.000	
21223.00	11.77	605.29	.00	.00	605.36	.07	.15	.03	594.30
1870.	546.	597.	727.	511.	182.	613.	477.	96.	595.70
2.30	1.07	3.29	1.19	.070	.040	.070	.036	593.52	475.00
.000340	817.	817.	817.	2	0	0	.00	250.00	725.00

*SECNO 21323.000

3470 ENCROACHMENT STATIONS=			500.0	700.0	TYPE=	1	TARGET=	200.000	
21323.00	11.69	605.21	.00	.00	605.59	.38	.07	.16	596.02
1870.	507.	870.	493.	233.	126.	235.	480.	96.	597.89
2.30	2.17	6.89	2.10	.070	.040	.070	.036	593.52	500.00
.002774	100.	100.	100.	2	0	0	.00	200.00	700.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
684.75	606.89	.00	1712.	148.	32.	32.	599.82	603.40

21359.00	10.69	605.51	.00	.00	605.71	.19	.12	.00	597.79
1870.	624.	640.	607.	302.	121.	298.	480.	96.	597.32
2.31	2.06	5.28	2.04	.070	.040	.070	.036	594.82	500.00
.001906	36.	36.	36.	2	0	7	.00	200.00	700.00

*SECNO 21409.000

21409.00	10.81	605.63	.00	.00	605.80	.18	.09	.00	597.79
1870.	631.	625.	614.	313.	123.	309.	481.	97.	597.32
2.31	2.02	5.10	1.99	.070	.040	.070	.036	594.82	500.00
.001746	50.	50.	50.	0	0	0	.00	200.00	700.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
CCHV= .100 CEHV= .300									
*SECNO 23000.000									
23000.00	9.76	606.61	.00	.00	606.68	.07	.86	.01	601.50
1870.	963.	818.	90.	1171.	275.	136.	513.	106.	603.00
2.52	.82	2.97	.66	.070	.035	.070	.036	596.85	1004.96
.000332	1000.	1591.	1591.	3	0	0	.00	470.09	1475.05
*SECNO 23001.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23001.00	9.80	606.65	.00	.00	606.68	.03	.00	.00	601.50
1870.	1360.	384.	126.	1185.	219.	137.	513.	106.	603.00
2.52	1.15	1.76	.92	.070	.035	.070	.036	596.85	1004.96
.000639	1.	1.	1.	2	0	0	-61.14	470.09	1475.05
*SECNO 23012.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23012.00	9.81	606.66	.00	.00	606.69	.03	.01	.00	601.50
1870.	1360.	384.	126.	1187.	219.	137.	514.	106.	603.00
2.53	1.15	1.75	.92	.070	.035	.070	.036	596.85	1004.96
.000636	11.	11.	11.	0	0	0	-61.14	470.09	1475.05
*SECNO 23013.000									
23013.00	9.78	606.63	.00	.00	606.70	.06	.00	.01	601.50
1870.	965.	815.	90.	1179.	276.	138.	514.	106.	603.00
2.53	.82	2.95	.66	.070	.035	.070	.036	596.85	1004.96
.000327	1.	1.	1.	2	0	0	.00	470.09	1475.05
*SECNO 23256.000									
3470 ENCROACHMENT STATIONS= 900.0 1350.0 TYPE= 1 TARGET= 450.000									
23256.00	10.72	606.74	.00	.00	606.76	.03	.06	.00	597.00
1870.	1278.	286.	306.	1451.	102.	468.	524.	108.	597.24
2.59	.88	2.81	.65	.070	.035	.070	.036	596.02	900.00
.000205	243.	243.	243.	1	0	0	.00	450.00	1350.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 24202.000									
24202.00	10.94	606.95	.00	.00	607.10	.15	.30	.04	602.77
1870.	367.	1156.	348.	311.	297.	301.	556.	115.	602.92
2.68	1.18	3.89	1.16	.070	.035	.070	.036	596.01	702.45
.000541	946.	946.	946.	2	0	0	.00	195.11	897.55
*SECNO 24203.000									
3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24203.00	11.02	607.03	.00	.00	607.11	.08	.00	.01	602.77
1870.	580.	740.	550.	318.	266.	308.	556.	115.	602.92
2.68	1.83	2.78	1.79	.070	.035	.070	.036	596.01	702.45
.001259	1.	1.	1.	2	0	0	-33.78	195.11	897.55
*SECNO 24219.000									
3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24219.00	11.04	607.05	.00	.00	607.13	.08	.02	.00	602.77
1870.	580.	739.	551.	319.	266.	309.	556.	115.	602.92
2.68	1.82	2.77	1.78	.070	.035	.070	.036	596.01	702.44
.001247	16.	16.	16.	0	0	0	-33.78	195.11	897.55
*SECNO 24220.000									
24220.00	10.99	607.00	.00	.00	607.15	.15	.00	.02	602.77
1870.	370.	1150.	351.	315.	299.	305.	556.	115.	602.92
2.68	1.17	3.85	1.15	.070	.035	.070	.036	596.01	702.45
.000524	1.	1.	1.	2	0	0	.00	195.11	897.55
CCHV= .300 CEHV= .500									
*SECNO 24474.000									
3470 ENCROACHMENT STATIONS= 503.0 597.0 TYPE= 1 TARGET= 94.000									
24474.00	10.80	607.05	.00	.00	607.44	.39	.17	.12	602.77
1870.	141.	1596.	133.	124.	295.	120.	560.	116.	602.92
2.69	1.13	5.40	1.11	.100	.035	.100	.036	596.25	503.00
.001036	254.	254.	150.	2	0	0	.00	94.00	597.00

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

*SECNO 24574.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24574.00	9.15	607.06	.00	.00	607.72	.66	.14	.14	605.00
1870.	0	1870.	0	0	287.	0	561.	116.	606.01
2.70	.00	6.53	.00	.100	.035	.100	.036	597.91	428.00
.002154	100.	100.	10.	2	0	0	.00	44.00	472.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
607.96	607.86	.15	0	1870.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24588.00	9.33	607.34	.00	.00	607.96	.62	.24	.00	605.10
1870.	0	1870.	0	0	295.	0	561.	116.	606.11
2.70	.00	6.34	.00	.100	.035	.100	.036	598.01	428.00
.001959	14.	14.	14.	2	0	0	.00	44.00	472.00

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	9.70	607.71	.00	.00	608.11	.40	.08	.07	605.10
1870.	137.	1670.	63.	138.	311.	83.	561.	116.	606.11
2.70	.99	5.37	.76	.100	.035	.100	.036	598.01	375.00
.001310	50.	50.	50.	2	0	0	.00	145.00	520.00

*SECNO 25020.000

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=			570.0	670.0	TYPE=	1	TARGET=	100.000	
25020.00	9.90	608.10	.00	.00	608.73	.63	.51	.11	598.50
1870.	228.	1269.	373.	121.	166.	255.	565.	117.	598.50
2.72	1.88	7.65	1.46	.100	.035	.100	.036	598.20	570.00
.001561	100.	382.	407.	2	0	0	.00	100.00	670.00
CCHV= .300 CEHV= .500									
*SECNO 25137.000									
25137.00	10.18	608.25	.00	.00	608.87	.62	.13	.00	599.84
1870.	58.	1787.	25.	46.	277.	56.	566.	118.	599.94
2.72	1.25	6.45	.44	.080	.030	.090	.036	598.07	670.00
.000951	10.	117.	117.	2	0	0	.00	118.03	788.03

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BHP	BAREA	SS	ELCHU	ELCHD
	.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07

*SECNO 25306.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
615.50	609.27	.00	914.	967.	156.	156.	606.16	607.78
25306.00	11.73	609.80	.00	.00	610.19	.39	1.32	.00	599.84
1870.	76.	1672.	122.	70.	318.	216.	568.	118.	599.94
2.73	1.07	5.26	.57	.080	.030	.090	.036	598.07	670.00
.000515	169.	169.	169.	2	0	4	.00	155.01	825.01

*SECNO 25340.000

3470 ENCROACHMENT STATIONS=			600.0	800.0	TYPE=	1	TARGET=	200.000	
25340.00	11.96	610.16	.00	.00	610.28	.12	.01	.08	598.40
1870.	403.	1108.	358.	498.	308.	498.	569.	118.	598.40
2.74	.81	3.60	.72	.080	.030	.090	.036	598.20	600.00
.000195	34.	34.	34.	2	0	0	.00	200.00	800.00

THIS RUN EXECUTED 2/21/ 1982 13: 8:21

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


T1 BROWNSTOWN
T2 100 YEAR STORM
T3       BLAKELY DRAIN

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

         0        4.          0          0    .000000        .00        .0          0    599.600       .000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

        2.000       .000     -1.000       .000       .000       .000       .000       .000       .000       .000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300

*SECNO 10634.000

3470 ENCROACHMENT STATIONS= 25.0 385.0 TYPE= 1 TARGET= 360.000

10634.00	11.50	599.60	.00	600.04	599.67	.07	.00	.00	590.35
1360.	517.	695.	148.	887.	235.	241.	0	0	588.40
.00	.58	2.96	.61	.080	.035	.080	.000	588.10	25.00
.000201	50.	50.	50.	0	0	0	.00	360.00	385.00

*SECNO 11506.000

3470 ENCROACHMENT STATIONS= 100.0 655.0 TYPE= 1 TARGET= 555.000

11506.00	11.54	599.78	.00	600.26	599.81	.03	.14	.00	588.44
1360.	360.	393.	607.	732.	159.	1050.	33.	9.	588.64
.22	.46	2.46	.58	.080	.035	.080	.036	588.24	100.00
.000132	1200.	872.	400.	1	0	0	.00	528.64	628.64

*SECNO 12478.000

3470 ENCROACHMENT STATIONS= 664.0 735.0 TYPE= 1 TARGET= 71.000

12478.00	10.41	599.88	.00	600.36	600.00	.12	.16	.03	590.00
950.	118.	719.	113.	136.	226.	129.	61.	16.	590.00
.32	.87	3.17	.88	.080	.035	.080	.035	589.47	664.00
.000251	972.	972.	972.	2	0	0	.00	71.00	735.00

CCHV= .300 CEHV= .500

*SECNO 12578.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 604.34 ELREA= 604.06

12578.00	10.37	599.84	.00	600.30	600.11	.28	.03	.08	590.00
950.	0	950.	0	0	225.	0	61.	16.	590.00
.33	.00	4.21	.00	.090	.035	.090	.035	589.47	689.00
.000444	100.	100.	100.	2	0	0	.00	22.00	711.00

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

SPECIAL BRIDGE

SB  XK         XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25       1.66      3.00       .00     22.00      1.50    133.00       .00    588.43    589.53

*SECNO 12622.000
PRESSURE FLOW

 EGPRS      EGLWC       H3        QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                               AREA
  601.15     600.24       .04          0      950.       133.      148.      595.63     604.06

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12622.00     12.43    600.86      .00    601.60    601.15      .29      1.04      .00    592.13
    950.         0       950.        0         0       220.        0        62.      16.     588.70
     .33        .00      4.32       .00      .090      .035     .090      .035    588.43    689.00
  .000509       44.       44.        44.       2         0        0        .00     22.00     711.00

*SECNO 12672.000

3470 ENCROACHMENT STATIONS=      639.0      761.0  TYPE=     1  TARGET=      122.000
 12672.00     12.68    601.11      .00    601.79    601.22      .11      .02       .05    592.13
    1360.       246.      784.      330.      279.      225.     319.       62.      16.     588.70
     .33        .88      3.48      1.03      .090      .035     .090      .035    588.43    639.00
  .000319       50.       50.        50.       2         0        0        .00    122.00     761.00

*SECNO 13382.000

3470 ENCROACHMENT STATIONS=      790.0     1200.0  TYPE=     1  TARGET=      410.000
 13382.00     11.27    601.31      .00    602.10    601.33      .02      .08       .03    590.05
    1360.       586.      476.      298.     1261.      270.     697.       81.      20.     590.04
     .52        .46      1.76       .43      .090      .035     .090      .037    590.04    790.00
  .000068       300.      710.      800.       2         0        0        .00    410.00    1200.00

CCHV=     .300 CEHV=     .500
*SECNO 13482.000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13482.00      11.30     601.30       .00     602.09    601.36       .06       .01       .02    590.10
    1360.       456.       654.       249.       686.       247.       388.       85.       20.    590.10
      .54        .67       2.65       .64       .090       .045       .090      .037    590.00   1050.00
  .000258       100.       100.       100.          2          0          0       .00    374.00   1424.00

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13483.00      11.27     601.27       .00     602.07    601.40       .13       .00       .04    590.10
    1360.       498.       607.       255.       293.       150.       204.       85.       20.    590.10
      .54       1.70       4.05       1.25       .090       .035       .090      .037    590.00   1050.00
  .003652         1.         1.         1.          2          0          0   -659.41    374.00   1424.00

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13569.00      11.58     601.58       .00     602.32    601.67       .09       .26       .01    590.10
    1360.       515.       547.       299.       338.       157.       252.       86.       21.    590.10
      .55       1.53       3.49       1.19       .090       .035       .090      .037    590.00   1050.00
  .002549         86.        86.        86.          2          0          0   -677.50    374.00   1424.00

*SECNO 13570.000

3470 ENCROACHMENT STATIONS=     1044.0     1424.0  TYPE=      1  TARGET=      380.000
 13570.00      11.63     601.63       .00     602.34    601.68       .05       .00       .01    590.10
    1360.       443.       663.       249.       751.       254.       438.       86.       21.    590.10
      .55        .60       2.61        .57       .090       .040       .090      .037    590.00   1050.00
  .000190         1.         1.         1.          2          0          0       .00    374.00   1424.00

*SECNO 13595.000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      GCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      980.0     1415.0  TYPE=     1  TARGET=     435.000
 13595.00     11.99    601.69      .00    602.42    601.70      .01       .00       .01    590.00
  1360.        578.      252.      530.     1208.      142.     1101.       88.       21.     590.00
   .56          .48      1.77      .48      .090      .040      .090      .037    589.70    980.00
 .000085        25.       25.       25.         2         0         0       .00    435.00   1415.00

CCHV=     .100 CEHV=     .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS=      280.0      720.0  TYPE=     1  TARGET=     440.000
 15306.00     11.71    601.89      .00    602.67    601.92      .03       .21       .01    590.44
  1360.        439.      285.      636.      928.       93.     1189.      179.       39.     590.18
  1.01          .47      3.07      .54       .120      .035      .120      .036    590.18    280.00
 .000199       1711.     1711.     1711.        2         0         0       .00    440.00    720.00

CCHV=     .100 CEHV=     .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS=        .0      569.0  TYPE=     1  TARGET=     568.999
 16306.00     11.25    602.10      .00    602.93    602.13      .03       .21       .00    590.88
  1360.        306.      275.      780.      426.       90.     1191.      226.       48.     590.89
  1.26          .72      3.06      .65       .090      .035      .090      .036    590.85    207.94
 .000206       800.     1000.     1200.        2         0         0       .00    361.06    569.00

CCHV=     .300 CEHV=     .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS=      460.0      540.0  TYPE=     1  TARGET=      80.000
 17146.00     11.03    602.24      .00    603.08    602.40      .17       .21       .07    592.98
  1360.        133.     1081.      146.      136.      297.      146.      245.       52.     591.21
  1.33          .98      3.64      1.00      .080      .035      .080      .036    591.21    460.00
 .000346       1200.     840.      500.        2         0         0       .00     80.00    540.00

*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      605.00 ELREA=      605.00

 17246.00     10.99    602.20      .00    603.01    602.53      .33       .04       .08    592.93
  1360.           0     1360.        0         0      296.        0       246.       52.     592.93
  1.34          .00      4.60      .00       .080      .035      .080      .036    591.21    390.01
 .000599       100.      100.      100.        2         0         0       .00     29.99    419.99
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

SPECIAL BRIDGE

SB  XK         XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .00       1.70      3.00       .00     26.00       .00     315.00       .00    591.21    591.21

*SECNO 17310.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=       .000  EGLWC=   602.529  ELLC=   603.430  PCWSE=   602.201  ELTRD=   606.340

3370 NORMAL BRIDGE,NRD=  9 MIN ELTRD=  606.34 MAX ELLC=  603.43

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      606.00 ELREA=      606.00

 17310.00     11.03    602.24      .00    603.45    602.57      .33       .04       .00    592.93
    1360.         0      1360.        0         0       297.         0       247.       52.    592.93
     1.34       .00      4.58       .00      .080      .035      .080      .036    591.21    390.01
  .000550       64.       64.       64.         2         0         0   -192.03     29.99    419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS=      372.6      433.4  TYPE=      1  TARGET=      75.000
 17375.00     10.23    602.49      .00    603.82    602.64      .16       .03       .05    595.00
    1360.       83.      1224.       53.       90.       367.       63.       248.       52.    595.00
     1.35       .92      3.33       .84      .080      .035      .080      .036    592.26    372.60
  .000317       65.       65.       65.         2         0         0       .00     60.75    433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      606.84 ELREA=      606.71

 17437.00     10.16    602.42      .00    603.71    602.77      .36       .03       .10    592.93
    1360.         0      1360.        0         0       284.         0       248.       52.    593.33
     1.35       .00      4.78       .00      .080      .035      .080      .036    592.26    390.01
  .000634       62.       62.       62.         2         0         0       .00     29.97    419.99
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.77	3.00	.00	28.00	.00	315.00	.00	592.13	592.26

*SECNO 17450.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 602.647 ELLC= 603.270 PCWSE= 602.415 ELTRD= 606.710

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 606.71 MAX ELLC= 603.27

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17450.00	10.35	602.48	.00	604.21	602.83	.35	.05	.00	594.03
1360.	0	1360.	0	0	287.	0	249.	52.	593.53
1.36	.00	4.73	.00	.080	.035	.080	.036	592.13	390.01
.000617	86.	86.	86.	2	0	0	-165.42	29.97	419.99

*SECNO 17500.000

3470 ENCROACHMENT STATIONS= 352.4 457.6 TYPE= 1 TARGET= 130.000

17500.00	10.70	602.83	.00	604.69	602.92	.09	.02	.08	596.40
1360.	168.	1078.	114.	200.	395.	153.	249.	52.	597.33
1.36	.84	2.73	.75	.080	.035	.080	.036	592.13	352.35
.000226	50.	50.	50.	2	0	0	.00	105.30	457.65

*SECNO 18566.000

3470 ENCROACHMENT STATIONS= 496.0 1018.0 TYPE= 1 TARGET= 522.000

18566.00	9.51	603.06	.00	604.92	603.07	.01	.12	.02	597.10
1360.	557.	522.	281.	1214.	389.	801.	288.	60.	599.20
1.75	.46	1.34	.35	.080	.035	.080	.036	593.55	496.00
.000070	1066.	1066.	1066.	2	0	0	.00	522.00	1018.00

*SECNO 18666.000

18666.00	9.51	603.06	.00	604.92	603.09	.03	.01	.01	593.60
1360.	415.	455.	490.	775.	203.	822.	293.	61.	593.60
1.77	.54	2.25	.60	.080	.035	.080	.036	593.55	379.96
.000139	100.	100.	100.	1	0	0	.00	468.05	848.01

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

*SECNO 18667.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18667.00      9.49    603.04       .00     604.92     603.10       .06       .00       .02     593.60
     1360.      492.      477.      391.      484.      153.      383.      293.       61.      593.60
     1.77      1.01      3.11      1.02      .080      .030      .080      .036    593.55    379.96
  .001236        1.        1.        1.         1         0         0   -772.93    468.05    848.01

*SECNO 18705.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18705.00      9.54    603.09       .00     604.93     603.15       .06       .05       .00     593.60
     1360.      496.      470.      395.      495.      154.      391.      294.       61.      593.60
     1.78      1.00      3.05      1.01      .080      .030      .080      .036    593.55    379.96
  .001173        38.       38.       38.         2         0         0   -772.93    468.06    848.01

*SECNO 18706.000
 18706.00      9.58    603.13       .00     604.94     603.16       .03       .00       .01     593.60
     1360.      419.      450.      491.      792.      204.      836.      294.       62.      593.60
     1.78       .53      2.21       .59      .080      .035      .080      .036    593.55    379.96
  .000133        1.        1.        1.         2         0         0       .00    468.06    848.01

*SECNO 18756.000

3470 ENCROACHMENT STATIONS=      425.0     1000.0  TYPE=      1  TARGET=      575.000
 18756.00      9.50    603.15       .00     604.95     603.17       .01       .01       .00     598.40
     1360.      596.      520.      244.     1424.      347.      633.      296.       62.      599.20
     1.79       .42      1.50       .38      .030      .035      .080      .036    593.65    425.00
  .000081       50.       50.       50.         1         0         0       .00    575.00   1000.00

CCHV=     .100 CEHV=     .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19061.00      9.87    603.12       .00     604.96     603.25       .13       .05       .03     601.48
     1360.      165.      996.      199.      323.      299.      202.      307.       66.      602.18
     1.83       .51      3.34       .98      .060      .035      .060      .036    593.25    690.00
  .000545       305.      305.      305.         2         0         0       .00    520.00   1210.00
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 19062.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18


3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19062.00      9.94    603.19      .00    604.98    603.26      .07       .00       .01    601.48
    1360.      346.      631.     383.      349.      239.      208.      307.       66.     602.18
     1.83       .99      2.64     1.84      .060      .035      .060      .036    593.25    690.00
 .001847        1.        1.       1.         2         0         0    -62.88    520.00   1210.00

*SECNO 19070.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18


3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19070.00      9.96    603.21      .00    604.98    603.28      .07       .01       .00    601.48
    1360.      349.      628.     383.      352.      239.      209.      308.       66.     602.18
     1.83       .99      2.63     1.83      .060      .035      .060      .036    593.25    690.00
 .001319        8.        8.       9.         0         0         0    -62.88    520.00   1210.00

*SECNO 19071.000

3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19071.00      9.92    603.17      .00    604.97    603.29      .12       .00       .02    601.48
    1360.      176.      984.     200.      340.      301.      206.      308.       66.     602.18
     1.83       .52      3.27      .97      .060      .035      .060      .036    593.25    690.00
 .000520        1.        1.       1.         2         0         0       .00    520.00  1210.00

*SECNO 20293.000
 20293.00      9.28    603.59      .00    605.15    603.62      .03       .31       .01    600.52
    1360.      711.      550.      99.     1050.      292.      233.      342.       81.     600.83
     2.12       .68      1.88      .43      .060      .035      .060      .035    594.31    649.99
 .000153     1222.     1222.    1222.         3         0         0       .00    532.99   1182.98

*SECNO 20294.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20294.00	9.30	603.61	.00	605.16	603.62	.01	.00	.00	600.52
1360.	984.	239.	138.	1052.	216.	235.	342.	81.	600.83
2.12	.93	1.10	.59	.060	.035	.060	.035	594.31	649.99
.000291	1.	1.	1.	1	0	0	-76.18	533.33	1183.32
*SECNO 20305.000									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20305.00	9.30	603.61	.00	605.16	603.62	.01	.00	.00	600.52
1360.	983.	238.	138.	1056.	217.	236.	342.	81.	600.83
2.13	.93	1.10	.59	.060	.035	.060	.035	594.31	649.99
.000288	11.	11.	11.	0	0	0	-76.18	533.79	1183.78
*SECNO 20306.000									
20306.00	9.29	603.60	.00	605.16	603.63	.03	.00	.00	600.52
1360.	712.	548.	100.	1056.	293.	236.	342.	81.	600.83
2.13	.67	1.87	.42	.060	.035	.060	.035	594.31	649.99
.000151	1.	1.	1.	0	0	0	.00	533.85	1183.84
*SECNO 20406.000									
20406.00	9.68	603.62	.00	605.17	603.65	.03	.02	.00	594.45
1360.	979.	220.	161.	1193.	76.	244.	346.	82.	594.08
2.15	.82	2.89	.66	.060	.035	.060	.035	593.94	588.46
.000230	100.	100.	100.	0	0	0	.00	597.18	1185.64
CCHV= .300 CEHV= .500									
*SECNO 21223.000									
3470 ENCROACHMENT STATIONS= 475.0 725.0 TYPE= 1 TARGET= 250.000									
21223.00	10.32	603.84	.00	605.29	603.92	.08	.25	.03	594.30
1360.	335.	531.	494.	343.	157.	444.	369.	90.	595.70
2.27	.98	3.38	1.11	.070	.040	.070	.036	593.52	475.00
.000435	817.	817.	817.	2	0	0	.00	250.00	725.00

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

*SECNO 21323.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 500.0 700.0 TYPE= 1 TARGET= 200.000

21323.00	9.97	603.49	603.49	605.21	604.57	1.08	.11	.50	596.02
1360.	207.	998.	155.	74.	104.	74.	370.	91.	597.89
2.27	2.79	9.60	2.10	.070	.040	.070	.036	593.52	515.32
.006989	100.	100.	100.	3	8	0	.00	184.68	700.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
645.56	605.87	.00	1100.	260.	32.	32.	599.82	603.40

21359.00	10.04	604.86	.00	605.51	605.03	.17	.47	.00	597.79
1360.	417.	539.	403.	241.	113.	237.	370.	91.	597.32
2.27	1.73	4.79	1.70	.070	.040	.070	.036	594.82	500.00
.001725	36.	36.	36.	2	0	7	.00	200.00	700.00

*SECNO 21409.000

21409.00	10.14	604.96	.00	605.63	605.12	.15	.08	.00	597.79
1360.	424.	526.	410.	251.	114.	246.	371.	91.	597.32
2.28	1.69	4.62	1.66	.070	.040	.070	.036	594.82	500.00
.001581	50.	50.	50.	2	0	0	.00	200.00	700.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
CCHV= .100 CEHV= .300									
*SECNO 23000.000									
23000.00	9.05	605.90	.00	606.61	605.96	.06	.84	.01	601.50
1360.	619.	692.	49.	903.	251.	95.	397.	100.	603.00
2.50	.69	2.76	.51	.070	.035	.070	.036	596.85	1004.97
.000324	1000.	1591.	1591.	3	0	0	.00	470.07	1475.03
*SECNO 23001.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23001.00	9.09	605.94	.00	606.65	605.97	.02	.00	.00	601.50
1360.	949.	337.	75.	917.	195.	96.	397.	100.	603.00
2.50	1.03	1.73	.78	.070	.035	.070	.036	596.85	1004.97
.000724	1.	1.	1.	2	0	0	-61.14	470.07	1475.04
*SECNO 23012.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23012.00	9.10	605.95	.00	606.66	605.98	.02	.01	.00	601.50
1360.	949.	336.	75.	919.	195.	96.	397.	100.	603.00
2.50	1.03	1.72	.78	.070	.035	.070	.036	596.85	1004.97
.000719	11.	11.	11.	0	0	0	-61.14	470.07	1475.04
*SECNO 23013.000									
23013.00	9.08	605.93	.00	606.63	605.99	.06	.00	.01	601.50
1360.	622.	689.	50.	911.	252.	97.	397.	100.	603.00
2.50	.68	2.73	.51	.070	.035	.070	.036	596.85	1004.97
.000317	1.	1.	1.	2	0	0	.00	470.07	1475.04
*SECNO 23256.000									
3470 ENCROACHMENT STATIONS= 865.0 1350.0 TYPE= 1 TARGET= 485.000									
23256.00	10.01	606.03	.00	606.74	606.05	.02	.05	.00	597.00
1360.	956.	224.	180.	1363.	95.	364.	406.	103.	597.24
2.57	.70	2.37	.49	.070	.035	.070	.036	596.02	865.00
.000160	243.	243.	243.	2	0	0	.00	485.00	1350.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 24202.000									
24202.00	10.18	606.19	.00	606.95	606.31	.12	.24	.03	602.77
1360.	234.	906.	219.	250.	271.	240.	434.	110.	602.92
2.68	.94	3.34	.91	.070	.035	.070	.036	596.01	702.46
.000449	946.	946.	946.	2	0	0	.00	195.08	897.54
*SECNO 24203.000									
3370 NORMAL BRIDGE, NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24203.00	10.25	606.26	.00	607.03	606.32	.06	.00	.01	602.77
1360.	392.	601.	367.	255.	240.	245.	434.	110.	602.92
2.68	1.53	2.51	1.50	.070	.035	.070	.036	596.01	702.46
.001175	1.	1.	1.	2	0	0	-33.78	195.09	897.54
*SECNO 24219.000									
3370 NORMAL BRIDGE, NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24219.00	10.27	606.28	.00	607.05	606.34	.06	.02	.00	602.77
1360.	392.	600.	367.	256.	240.	246.	434.	110.	602.92
2.68	1.53	2.50	1.49	.070	.035	.070	.036	596.01	702.46
.001163	16.	16.	16.	0	0	0	-33.78	195.09	897.54
*SECNO 24220.000									
24220.00	10.23	606.24	.00	607.00	606.36	.12	.00	.02	602.77
1360.	237.	902.	221.	254.	273.	244.	434.	110.	602.92
2.68	.93	3.31	.91	.070	.035	.070	.036	596.01	702.46
.000437	1.	1.	1.	2	0	0	.00	195.09	897.54
CCHV= .300 CEHV= .500									
*SECNO 24474.000									
3470 ENCROACHMENT STATIONS= 503.0 597.0 TYPE= 1 TARGET= 94.000									
24474.00	10.05	606.30	.00	607.05	606.57	.26	.14	.07	602.77
1360.	89.	1188.	83.	102.	270.	97.	438.	111.	602.92
2.70	.87	4.40	.85	.100	.035	.100	.036	596.25	503.00
.000776	254.	254.	150.	2	0	0	.00	94.00	597.00

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

*SECNO 24574.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24574.00	8.41	606.32	.00	607.06	606.77	.44	.11	.09	605.00
1360.	0	1360.	0	0	254.	0	438.	111.	606.01
2.70	.00	5.35	.00	.100	.035	.100	.036	597.91	428.00
.001700	100.	100.	10.	2	0	0	.00	44.00	472.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000

CLASS A LOW FLOW

3420 BRIDGE W.S.= 606.30 BRIDGE VELOCITY=, 5.70 CALCULATED CHANNEL AREA=, 237.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.00	606.85	.09	0	1360.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.85 ELREA= 609.80

24588.00	8.40	606.41	.00	607.34	606.85	.45	.09	.00	605.10
1360.	0	1360.	0	0	254.	0	438.	111.	606.11
2.70	.00	5.36	.00	.100	.035	.100	.036	598.01	428.00
.001713	14.	14.	14.	0	0	0	.00	44.00	472.00

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	8.59	606.60	.00	607.71	606.96	.36	.08	.03	605.10
1360.	56.	1292.	12.	79.	262.	30.	439.	111.	606.11
2.70	.71	4.93	.40	.100	.035	.100	.036	598.01	375.00
.001386	50.	50.	50.	2	0	0	.00	145.00	520.00

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

*SECNO 25020.000

3470 ENCROACHMENT STATIONS= 570.0 670.0 TYPE= 1 TARGET= 100.000

25020.00	8.82	607.02	.00	608.10	607.53	.51	.50	.08	598.50
1360.	157.	985.	218.	100.	147.	188.	442.	112.	598.50
2.72	1.58	6.68	1.16	.100	.035	.100	.036	598.20	570.00
.001388	100.	382.	407.	2	0	0	.00	100.00	670.00

CCHV= .300 CEHV= .500

*SECNO 25137.000

25137.00	9.17	607.24	.00	608.25	607.67	.43	.11	.02	599.84
1360.	34.	1320.	5.	33.	248.	11.	443.	112.	599.94
2.73	1.03	5.33	.47	.080	.030	.090	.036	598.07	676.44
.000754	10.	117.	117.	2	0	0	.00	54.17	730.61

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07

*SECNO 25306.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
611.07	608.05	.00	339.	1027.	156.	156.	606.16	607.78

25306.00	11.10	609.17	.00	609.80	609.43	.25	1.76	.00	599.84
1360.	51.	1256.	54.	61.	299.	147.	444.	113.	599.94
2.74	.84	4.19	.37	.080	.030	.090	.036	598.07	670.00
.000354	169.	169.	169.	2	0	0	.00	155.00	825.00

*SECNO 25340.000

3470 ENCROACHMENT STATIONS= 600.0 800.0 TYPE= 1 TARGET= 200.000

25340.00	11.20	609.40	.00	610.16	609.49	.08	.01	.05	598.40
1360.	274.	843.	243.	432.	289.	432.	445.	113.	598.40
2.75	.63	2.92	.56	.080	.030	.090	.036	598.20	600.00
.000140	34.	34.	34.	2	0	0	.00	200.00	800.00

THIS RUN EXECUTED 2/21/ 1982 13: 8:39

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  HEC2 RELEASE DATED NOV 76 UPDATED APR  1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1 BROWNSTOWN
T2  50 YEAR STORM
T3       BLAKELY DRAIN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

         0       3.          0          0    .000000        .00        .0         0   599.340       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE

       3.000      .000    -1.000      .000       .000       .000       .000       .000       .000       .000
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

*PROF 3

CCHV=    .100 CEHV=    .300
*SECNO 10634.000

3470 ENCROACHMENT STATIONS=       25.0      385.0  TYPE=      1  TARGET=      360.000
 10634.00      11.24     599.34       .00     600.04     599.40       .06        .00        .00     590.35
    1176.        424.       628.       124.       817.       230.       223.          0          0      588.40
      .00         .52       2.74        .56       .080       .035       .080       .000     588.10      25.00
  .000178         50.        50.        50.          0          0          0        .00     360.00     385.00

*SECNO 11506.000

3470 ENCROACHMENT STATIONS=       100.0      655.0  TYPE=      1  TARGET=      555.000
 11506.00      11.26     599.50       .00     600.26     599.53       .03        .12        .00     588.44
    1176.        295.       360.       522.       706.       155.       982.         30.         9.      588.64
      .22         .42       2.31        .53       .080       .035       .080       .036     588.24     100.00
  .000120        1200.      872.       400.          1          0          0        .00     526.79     626.79

*SECNO 12478.000

3470 ENCROACHMENT STATIONS=       664.0      735.0  TYPE=      1  TARGET=       71.000
 12478.00      10.12     599.59       .00     600.36     599.71       .11        .15        .03     590.00
     880.        107.       671.       102.       129.       220.       122.         56.        16.      590.00
      .33         .83       3.05        .84       .080       .035       .080       .036     589.47     664.00
  .000240         972.       972.       972.          2          0          0        .00      71.00     735.00

CCHV=    .300 CEHV=    .500
*SECNO 12578.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12578.00      10.09     599.56       .00     600.30     599.81       .25        .03        .07     590.00
     880.          0        880.         0          0        219.         0         57.        16.      590.00
      .34         .00       4.01        .00       .090       .035       .090       .035     589.47     689.00
  .000418         100.       100.       100.          2          0          0        .00      22.00     711.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.66	3.00	.00	22.00	1.50	133.00	.00	588.43	589.53

*SECNO 12622.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
600.69	599.92	.04	0	880.	133.	148.	595.63	604.06

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 604.34 ELREA= 604.06

12622.00	11.98	600.41	.00	601.60	600.69	.27	.88	.00	592.13
880.	0	880.	0	0	210.	0	57.	16.	588.70
.34	.00	4.19	.00	.090	.035	.090	.035	588.43	689.00
.000509	44.	44.	44.	2	0	0	.00	22.00	711.00

*SECNO 12672.000

3470 ENCROACHMENT STATIONS= 639.0 761.0 TYPE= 1 TARGET= 122.000

12672.00	12.23	600.66	.00	601.79	600.76	.09	.02	.05	592.13
1152.	200.	676.	275.	257.	215.	297.	58.	16.	588.70
.35	.78	3.14	.93	.090	.035	.090	.035	588.43	639.00
.000276	50.	50.	50.	2	0	0	.00	122.00	761.00

*SECNO 13382.000

3470 ENCROACHMENT STATIONS= 790.0 1200.0 TYPE= 1 TARGET= 410.000

13382.00	10.79	600.83	.00	602.10	600.85	.02	.07	.02	590.05
1152.	490.	420.	242.	1166.	259.	607.	75.	20.	590.04
.54	.42	1.62	.40	.090	.035	.090	.037	590.04	790.00
.000061	300.	710.	800.	2	0	0	.00	410.00	1200.00

CCHV= .300 CEHV= .500
*SECNO 13482.000

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=		1044.0	1424.0	TYPE=	1	TARGET=	380.000		
13482.00	10.82	600.82	.00	602.09	600.88	.05	.01	.02	590.10
1152.	361.	597.	194.	591.	236.	315.	78.	20.	590.10
.56	.61	2.53	.62	.090	.045	.090	.037	590.00	1050.00
.000248	100.	100.	100.	2	0	0	.00	374.00	1424.00

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 598.80 MAX ELLC= 605.00

3470 ENCROACHMENT STATIONS=		1044.0	1424.0	TYPE=	1	TARGET=	380.000		
13483.00	10.76	600.76	.00	602.07	600.95	.19	.00	.07	590.10
1152.	387.	622.	143.	225.	139.	126.	78.	20.	590.10
.56	1.72	4.49	1.13	.090	.035	.090	.037	590.00	1050.00
.004965	1.	1.	1.	2	0	0	-626.86	374.00	1424.00

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 598.80 MAX ELLC= 605.00

3470 ENCROACHMENT STATIONS=		1044.0	1424.0	TYPE=	1	TARGET=	380.000		
13569.00	11.18	601.18	.00	602.32	601.29	.11	.32	.02	590.10
1152.	417.	529.	205.	282.	148.	191.	80.	21.	590.10
.57	1.48	3.58	1.07	.090	.035	.090	.037	590.00	1050.00
.002888	86.	86.	86.	2	0	0	-654.50	374.00	1424.00

*SECNO 13570.000

3470 ENCROACHMENT STATIONS=		1044.0	1424.0	TYPE=	1	TARGET=	380.000		
13570.00	11.26	601.26	.00	602.34	601.31	.05	.00	.02	590.10
1152.	362.	592.	198.	677.	246.	381.	80.	21.	590.10
.57	.54	2.41	.52	.090	.040	.090	.037	590.00	1050.00
.000169	1.	1.	1.	2	0	0	.00	374.00	1424.00

*SECNO 13595.000

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

3470 ENCROACHMENT STATIONS=     980.0    1415.0  TYPE=     1  TARGET=     435.000
 13595.00     11.61    601.31      .00    602.42    601.32      .01       .00       .01    590.00
    1152.       485.      224.     443.     1126.     137.     1021.       81.       21.     590.00
      .58       .43      1.63      .43      .090      .040      .090      .037    589.70    980.00
 .000075        25.       25.       25.         1         0         0       .00    435.00   1415.00

CCHV=     .100 CEHV=     .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS=     280.0     720.0  TYPE=     1  TARGET=     440.000
 15306.00     11.31    601.49      .00    602.67    601.52      .03       .19       .01    590.44
    1152.       359.      256.     537.      842.      90.     1102.      165.       39.     590.18
     1.06       .43      2.86      .49      .120      .035      .120      .036    590.18    280.00
 .000181       1711.     1711.    1711.         2         0         0       .00    440.00    720.00

CCHV=     .100 CEHV=     .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS=       .0     569.0  TYPE=     1  TARGET=     568.999
 16306.00     10.83    601.68      .00    602.93    601.71      .03       .20       .00    590.88
    1152.       259.      249.     644.      390.      87.     1080.      209.       68.     590.89
     1.32       .67      2.88      .60      .090      .035      .090      .036    590.85    210.52
 .000192        800.      1000.    1200.        2         0         0       .00    358.48    569.00

CCHV=     .300 CEHV=     .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS=     460.0     540.0  TYPE=     1  TARGET=      80.000
 17146.00     10.60    601.81      .00    603.08    601.95      .13       .18       .05    592.98
    1152.       108.      924.     120.      126.      284.     135.      226.       52.     591.21
     1.40       .86      3.25      .89      .080      .035      .080      .036    591.21    460.00
 .000292        1200.     840.     500.         2         0         0       .00     80.00    540.00

*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      605.00 ELREA=      605.00

 17246.00     10.58    601.79      .00    603.01    602.05      .26       .04       .06    592.93
    1152.         0      1152.       0         0      284.        0       227.       52.     592.93
     1.41       .00      4.06      .00      .080      .035      .080      .036    591.21    390.01
 .000495        100.      100.     100.         2         0         0       .00     29.99    419.99
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	1.70	3.00	.00	26.00	.00	315.00	.00	591.21	591.21

*SECNO 17310.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 602.047 ELLC= 603.430 PCWSE= 601.791 ELTRD= 606.340

3370 NORMAL BRIDGE,NRD= 9 MIN ELTRD= 606.34 MAX ELLC= 603.43

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.00 ELREA= 606.00

17310.00	10.61	601.82	.00	603.45	602.08	.25	.03	.00	592.93
1152.	0	1152.	0	0	284.	0	228.	52.	592.93
1.41	.00	4.05	.00	.080	.035	.080	.036	591.21	390.01
.000455	64.	64.	64.	2	0	0	-175.19	29.99	419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS= 372.6 433.4 TYPE= 1 TARGET= 75.000

17375.00	9.75	602.01	.00	603.82	602.14	.12	.02	.04	595.00
1152.	69.	1038.	45.	84.	349.	59.	228.	52.	595.00
1.42	.82	2.97	.76	.080	.035	.080	.036	592.26	372.60
.000271	65.	65.	65.	2	0	0	.00	60.75	433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17437.00	9.70	601.96	.00	603.71	602.24	.28	.02	.08	592.93
1152.	0	1152.	0	0	271.	0	229.	52.	593.33
1.42	.00	4.25	.00	.080	.035	.080	.036	592.26	390.01
.000536	62.	62.	62.	2	0	0	.00	29.97	419.99

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

SPECIAL BRIDGE

SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      .00       1.77       3.00        .00      28.00        .00     315.00        .00     592.13     592.26

*SECNO 17450.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=       .000  EGLWC=    602.116  ELLC=    603.270  PCWSE=    601.959  ELTRD=    606.710

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  606.71 MAX ELLC=  603.27

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      606.84 ELREA=      606.71

 17450.00      9.88     602.01       .00     604.21     602.29        .28        .05        .00     594.03
    1152.         0       1152.         0          0        273.          0       230.         52.     593.53
     1.43        .00       4.21        .00       .080       .035       .080       .036     592.13     390.01
  .000523        86.        86.        86.          2          0          0    -148.64      29.97     419.99

*SECNO 17500.000

3470 ENCROACHMENT STATIONS=      352.4      457.6  TYPE=      1  TARGET=      130.000
 17500.00     10.15     602.28       .00     604.69     602.36        .08        .02        .06     596.40
    1152.        138.       924.        91.       132.       372.       136.       230.         52.     597.33
     1.44        .76       2.49        .67       .080       .035       .080       .036     592.13     352.35
  .000203        50.        50.        50.          2          0          0        .00     105.30     457.65

*SECNO 18566.000

3470 ENCROACHMENT STATIONS=      496.0     1018.0  TYPE=      1  TARGET=      522.000
 18566.00      8.94     602.49       .00     604.92     602.50        .01        .12        .02     597.10
    1152.        470.       469.       213.      1081.       360.       668.       264.         60.     599.20
     1.82        .44       1.30        .32       .080       .035       .080       .036     593.55     496.00
  .000073      1066.      1066.      1066.          2          0          0        .00     522.00    1018.00

*SECNO 18666.000
 18666.00      8.94     602.49       .00     604.92     602.52        .03        .01        .01     593.60
    1152.        326.       423.       403.       635.       191.       711.       269.         61.     593.60
     1.85        .51       2.22        .57       .080       .035       .080       .036     593.55     379.97
  .000148       100.       100.       100.          1          0          0        .00     468.04     848.01
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 18667.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18667.00      8.87    602.42      .00    604.92    602.59      .17       .00       .07    593.60
    1152.      295.      622.      236.      327.      141.      258.      269.       61.    593.60
     1.85       .90      4.42      .91      .080      .030      .080      .036    593.55    379.97
 .001623        1.         1.        1.         4         0         0   -772.01    468.04    848.01


*SECNO 18705.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  600.71 MAX ELLC=  600.16

 18705.00      9.04    602.59      .00    604.93    602.68      .09       .06       .02    593.60
    1152.      365.      497.      291.      369.      143.      291.      269.       61.    593.60
     1.85       .99      3.46     1.00      .080      .030      .080      .036    593.55    379.97
 .001670        38.        38.       38.        6         0         0   -772.93    468.04    848.01


*SECNO 18706.000
 18706.00      9.12    602.67      .00    604.94    602.70      .03       .00       .02    593.60
    1152.      334.      411.      407.      678.      194.      745.      269.       61.    593.60
     1.85       .49      2.11      .55      .080      .035      .080      .036    593.55    379.97
 .000131        1.         1.        1.         2         0         0       .00    468.04    848.01


*SECNO 18756.000

3470 ENCROACHMENT STATIONS=     425.0     1000.0  TYPE=     1  TARGET=     575.000
 18756.00      9.04    602.69      .00    604.95    602.71      .01       .01       .00    598.40
    1152.      486.      472.      193.     1259.      327.      550.      271.       62.    599.20
     1.87       .39      1.44      .35      .080      .035      .080      .036    593.65    425.00
 .000081        50.        50.       50.        2         0         0       .00    575.00   1000.00


CCHV=    .100 CEHV=    .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19061.00      9.40    602.65      .00    604.96    602.80      .15       .05       .04    601.48
    1152.       71.      937.      144.      164.      278.      161.      281.       65.    602.18
     1.90       .43      3.37      .90      .060      .035      .060      .036    593.25    797.95
 .000613       305.       305.      305.        2         0         0       .00    412.05   1210.00
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 19062.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18


3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19062.00      9.45    602.70      .00    604.98    602.81      .10       .00       .00    601.48
    1152.      168.     662.      321.     179.      217.      165.      281.       65.     602.18
     1.90       .94     3.05      1.94     .060      .035      .060      .036    593.25    786.11
 .002787        1.       1.        1.        2         0         0    -62.88    423.89   1210.00

*SECNO 19070.000

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18


3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19070.00      9.48    602.73      .00    604.98    602.83      .10       .02       .00    601.48
    1152.      173.     657.      322.     184.      218.      167.      281.       66.     602.18
     1.90       .94     3.01      1.93     .060      .035      .060      .036    593.25    781.65
 .002709        8.       8.        8.        1         0         0    -62.88    428.35   1210.00

*SECNO 19071.000

3470 ENCROACHMENT STATIONS=     690.0     1210.0  TYPE=     1  TARGET=     520.000
 19071.00      9.45    602.70      .00    604.97    602.84      .14       .00       .01    601.48
    1152.       77.     928.      147.     178.      280.      165.      281.       66.     602.18
     1.90       .43     3.32       .89     .060      .035      .060      .036    593.25    786.71
 .000586        1.       1.        1.        2         0         0       .00    423.28   1210.00

*SECNO 20293.000
 20293.00      8.85    603.16      .00    605.15    603.19      .03       .34       .01    600.52
    1152.      578.     512.       62.     908.      276.      168.      309.       79.     600.83
     2.19       .64     1.86       .37     .060      .035      .060      .035    594.31    650.00
 .000161     1222.    1222.     1222.        3         0         0       .00    511.70   1161.70

*SECNO 20294.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20294.00	8.87	603.18	.00	605.16	603.19	.01	.00	.00	600.52
1152.	837.	225.	90.	911.	200.	169.	309.	79.	600.83
2.19	.92	1.12	.53	.060	.035	.060	.035	594.31	650.00
.000335	1.	1.	1.	1	0	0	-76.18	512.02	1162.02
*SECNO 20305.000									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 600.52 MAX ELLC= 598.68									
20305.00	8.87	603.18	.00	605.16	603.20	.01	.00	.00	600.52
1152.	837.	224.	91.	914.	200.	171.	309.	79.	600.83
2.19	.92	1.12	.53	.060	.035	.060	.035	594.31	650.00
.000331	11.	11.	11.	0	0	0	-76.18	512.53	1162.52
*SECNO 20306.000									
20306.00	8.86	603.17	.00	605.16	603.20	.03	.00	.00	600.52
1152.	579.	510.	63.	914.	277.	171.	309.	79.	600.83
2.19	.63	1.84	.37	.060	.035	.060	.035	594.31	650.00
.000158	1.	1.	1.	0	0	0	.00	512.59	1162.59
*SECNO 20406.000									
20406.00	9.25	603.19	.00	605.17	603.22	.03	.02	.00	594.45
1152.	817.	214.	121.	1024.	73.	172.	312.	80.	594.08
2.22	.80	2.94	.71	.060	.035	.060	.035	593.94	607.49
.000254	100.	100.	100.	0	0	0	.00	557.21	1164.70
CCHV= .300 CEHV= .500									
*SECNO 21223.000									
3470 ENCROACHMENT STATIONS= 475.0 725.0 TYPE= 1 TARGET= 250.000									
21223.00	9.91	603.43	.00	605.29	603.51	.08	.26	.02	594.30
1152.	264.	482.	406.	295.	150.	396.	332.	88.	595.70
2.34	.90	3.21	1.02	.070	.040	.070	.036	593.52	475.00
.000419	817.	817.	817.	2	0	0	.00	250.00	725.00

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

*SECNO 21323.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 500.0 700.0 TYPE= 1 TARGET= 200.000

21323.00	9.51	603.03	601.42	605.21	604.13	1.10	.11	.51	596.02
1152.	149.	914.	89.	46.	98.	37.	333.	88.	597.89
2.34	3.27	9.32	2.39	.070	.040	.070	.036	593.52	548.38
.007139	100.	100.	100.	4	19	0	.00	115.87	664.75

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
633.21	605.43	.00	877.	281.	32.	32.	599.82	603.40

21359.00	9.86	604.68	.00	605.51	604.82	.14	.70	.00	597.79
1152.	343.	479.	331.	224.	110.	220.	333.	88.	597.32
2.34	1.53	4.34	1.50	.070	.040	.070	.036	594.82	500.00
.001460	36.	36.	36.	2	0	6	.00	200.00	700.00

*SECNO 21409.000

21409.00	9.94	604.76	.00	605.63	604.89	.13	.07	.00	597.79
1152.	348.	469.	336.	232.	111.	228.	334.	88.	597.32
2.35	1.50	4.21	1.47	.070	.040	.070	.036	594.82	500.00
.001353	50.	50.	50.	2	0	0	.00	200.00	700.00

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 23000.000									
23000.00	8.77	605.62	.00	606.61	605.68	.06	.77	.01	601.50
1152.	487.	630.	35.	794.	241.	79.	358.	97.	603.00
2.57	.61	2.61	.44	.070	.035	.070	.036	596.85	1004.97
.000306	1000.	1591.	1591.	3	0	0	.00	470.06	1475.03
*SECNO 23001.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23001.00	8.81	605.66	.00	606.65	605.68	.02	.00	.00	601.50
1152.	783.	314.	55.	808.	185.	79.	358.	97.	603.00
2.57	.97	1.70	.70	.070	.035	.070	.036	596.85	1004.97
.000747	1.	1.	1.	2	0	0	-61.14	470.06	1475.03
*SECNO 23012.000									
3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23012.00	8.82	605.67	.00	606.66	605.69	.02	.01	.00	601.50
1152.	784.	313.	55.	810.	185.	79.	358.	98.	603.00
2.58	.97	1.69	.70	.070	.035	.070	.036	596.85	1004.97
.000741	11.	11.	11.	0	0	0	-61.14	470.06	1475.03
*SECNO 23013.000									
23013.00	8.79	605.64	.00	606.63	605.70	.06	.00	.01	601.50
1152.	490.	626.	35.	803.	242.	80.	358.	98.	603.00
2.58	.61	2.59	.44	.070	.035	.070	.036	596.85	1004.97
.000299	1.	1.	1.	2	0	0	.00	470.06	1475.03
*SECNO 23256.000									
3470 ENCROACHMENT STATIONS= 865.0 1350.0 TYPE= 1 TARGET= 485.000									
23256.00	9.71	605.73	.00	606.74	605.75	.02	.05	.00	597.00
1152.	809.	202.	140.	1267.	92.	322.	366.	100.	597.24
2.65	.64	2.21	.44	.070	.035	.070	.036	596.02	865.00
.000146	243.	243.	243.	2	0	0	.00	485.00	1350.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 24202.000									
24202.00	9.88	605.89	.00	606.95	605.99	.10	.21	.03	602.77
1152.	185.	795.	172.	226.	261.	216.	392.	108.	602.92
2.76	.82	3.05	.80	.070	.035	.070	.036	596.01	702.46
.000394	946.	946.	946.	2	0	0	.00	195.07	897.54
*SECNO 24203.000									
3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24203.00	9.93	605.94	.00	607.03	606.00	.06	.00	.00	602.77
1152.	318.	538.	296.	230.	229.	220.	392.	108.	602.92
2.76	1.38	2.35	1.35	.070	.035	.070	.036	596.01	702.46
.001095	1.	1.	1.	2	0	0	-33.78	195.08	897.54
*SECNO 24219.000									
3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24219.00	9.95	605.96	.00	607.05	606.01	.06	.02	.00	602.77
1152.	319.	537.	296.	231.	229.	221.	392.	108.	602.92
2.77	1.38	2.34	1.34	.070	.035	.070	.036	596.01	702.46
.001084	16.	16.	16.	0	0	0	-33.78	195.08	897.54
*SECNO 24220.000									
24220.00	9.92	605.93	.00	607.00	606.03	.10	.00	.01	602.77
1152.	187.	791.	174.	229.	262.	219.	392.	108.	602.92
2.77	.82	3.02	.79	.070	.035	.070	.036	596.01	702.46
.000384	1.	1.	1.	2	0	0	.00	195.08	897.54
CCHV= .300 CEHV= .500									
*SECNO 24474.000									
3470 ENCROACHMENT STATIONS= 503.0 597.0 TYPE= 1 TARGET= 94.000									
24474.00	9.74	605.99	.00	607.05	606.20	.21	.12	.06	602.77
1152.	70.	1018.	65.	92.	259.	88.	395.	108.	602.92
2.79	.75	3.93	.73	.100	.035	.100	.036	596.25	503.00
.000651	254.	254.	150.	2	0	0	.00	94.00	597.00

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

*SECNO 24574.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 609.85 ELREA= 609.80

24574.00	8.10	606.01	.00	607.06	606.37	.36	.09	.07	605.00
1152.	0	1152.	0	0	241.	0	396.	109.	606.01
2.79	.00	4.78	.00	.100	.035	.100	.036	597.91	428.00
.001458	100.	100.	10.	1	0	0	.00	44.00	472.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000

CLASS A LOW FLOW

3420 BRIDGE W.S.= 606.01 BRIDGE VELOCITY= 5.01 CALCULATED CHANNEL AREA= 229.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.00	606.44	.06	0	1152.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 609.85 ELREA= 609.80

24588.00	8.06	606.07	.00	607.34	606.44	.36	.07	.00	605.10
1152.	0	1152.	0	0	239.	0	396.	109.	606.11
2.79	.00	4.82	.00	.100	.035	.100	.036	598.01	428.00
.001495	14.	14.	14.	0	0	0	.00	43.93	471.93

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	8.20	606.21	.00	607.71	606.52	.31	.07	.01	605.10
1152.	33.	1117.	2.	59.	245.	11.	396.	109.	606.11
2.80	.57	4.56	.20	.100	.035	.100	.036	598.01	375.00
.001300	50.	50.	50.	2	0	0	.00	145.00	520.00

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

*SECNO 25020.000

3470 ENCROACHMENT STATIONS= 570.0 670.0 TYPE= 1 TARGET= 100.000

25020.00	8.41	606.61	.00	608.10	607.04	.44	.46	.06	598.50
1152.	130.	858.	164.	92.	140.	162.	399.	110.	598.50
2.82	1.42	6.11	1.02	.100	.035	.100	.036	598.20	570.00
.001240	100.	382.	407.	1	0	0	.00	100.00	670.00

CCHV= .300 CEHV= .500
*SECNO 25137.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.00 ELREA= 607.09

25137.00	8.75	606.82	.00	608.25	607.17	.35	.10	.03	599.84
1152.	27.	1125.	0	30.	236.	0	400.	110.	599.94
2.82	.92	4.77	.00	.080	.030	.090	.036	598.07	676.95
.000647	10.	117.	117.	2	0	0	.00	37.56	714.51

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07

*SECNO 25306.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
609.57	607.57	.00	115.	1026.	156.	156.	606.16	607.78

25306.00	10.33	608.80	.00	609.80	609.00	.21	1.84	.00	599.84
1152.	40.	1082.	30.	55.	288.	105.	401.	110.	599.94
2.84	.74	3.75	.28	.080	.030	.090	.036	598.47	670.00
.000297	169.	169.	169.	2	0	3	.00	149.10	819.10

*SECNO 25340.000

3470 ENCROACHMENT STATIONS= 600.0 800.0 TYPE= 1 TARGET= 200.000

25340.00	10.78	608.98	.00	610.16	609.05	.07	.01	.04	598.40
1152.	221.	735.	196.	396.	278.	396.	402.	110.	598.40
2.84	.56	2.65	.50	.080	.030	.090	.036	598.20	600.00
.000121	34.	34.	34.	2	0	0	.00	200.00	800.00

THIS RUN EXECUTED 2/21/ 1982 13: 8:57

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


T1 BROWNSTOWN
T2  10 YEAR STORM
T3       BLAKELY DRAIN

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0       2.          0          0    .000000        .00        .0          0    597.160       .000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     15.000       .000     -1.000       .000       .000       .000       .000       .000       .000       .000
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*PROF 4

CCHV=    .100 CEHV=    .300
*SECNO 10634.000

3470 ENCROACHMENT STATIONS=       25.0      385.0  TYPE=     1  TARGET=      360.000
 10634.00      9.06    597.16       .00    600.04    597.30       .14       .00       .00    590.35
    780.       108.       625.       47.       268.       184.       75.          0         0    588.40
     .00        .40      3.40       .63       .080       .035      .080      .000    588.10     71.00
  .000369       50.        50.       50.          0          0         0       .00    314.00    385.00

*SECNO 11506.000

3470 ENCROACHMENT STATIONS=      100.0      655.0  TYPE=     1  TARGET=      555.000
 11506.00      9.25    597.49       .00    600.26    597.57       .08       .26       .01    588.44
    780.        97.       395.      288.       190.       127.      511.       12.         7.    588.64
     .12        .51      3.10       .56       .080       .035      .080      .037    588.24    216.45
  .000280      1200.      872.      400.          2          0         0       .00    397.08    613.54

*SECNO 12478.000

3470 ENCROACHMENT STATIONS=      664.0      735.0  TYPE=     1  TARGET=       71.000
 12478.00      8.29    597.76       .00    600.36    597.89       .13       .30       .02    590.00
    710.        67.       578.       65.        83.       180.       78.       25.        12.    590.00
     .22        .81      3.22       .83       .080       .035      .080      .036    589.47    664.00
  .000350      972.       972.      972.          2          0         0       .00     71.00    735.00

CCHV=    .300 CEHV=    .500
*SECNO 12578.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.34 ELREA=      604.06

 12578.00      8.28    597.75       .00    600.30    597.99       .24       .04       .06    590.00
    710.          0       710.         0         0       179.         0        26.        12.    590.00
     .23        .00      3.96       .00       .090       .035      .090      .036    589.47    689.00
  .000531      100.       100.      100.          2          0         0       .00     22.00    711.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.66	3.00	.00	22.00	1.50	133.00	.00	588.43	589.53

*SECNO 12622.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
598.48	598.12	.04	0	710.	133.	148.	595.63	604.06

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 604.34 ELREA= 604.06

12622.00	9.75	598.18	.00	601.60	598.48	.30	.49	.00	592.13
710.	0	710.	0	0	161.	0	26.	12.	588.70
.23	.00	4.42	.00	.090	.035	.090	.036	588.43	689.00
.000808	44.	44.	44.	2	0	0	.00	22.00	711.00

*SECNO 12672.000

3470 ENCROACHMENT STATIONS= 639.0 761.0 TYPE= 1 TARGET= 122.000

12672.00	10.05	598.48	.00	601.79	598.57	.09	.02	.06	592.13
738.	92.	488.	158.	148.	167.	188.	26.	12.	588.70
.24	.63	2.92	.84	.090	.035	.090	.036	588.43	639.00
.000334	50.	50.	50.	2	0	0	.00	122.00	761.00

*SECNO 13382.000

3470 ENCROACHMENT STATIONS= 790.0 1200.0 TYPE= 1 TARGET= 610.000

13382.00	8.62	598.66	.00	602.10	598.68	.02	.09	.02	590.05
738.	268.	332.	138.	736.	207.	330.	37.	15.	590.04
.42	.36	1.61	.42	.090	.035	.090	.037	590.04	790.00
.000081	300.	710.	800.	2	0	0	.00	314.92	1104.92

CCHV= .300 CEHV= .500
*SECNO 13482.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      598.70 ELREA=      599.60

 13482.00      8.57    598.57       .00    602.09    598.81       .24       .02       .11    590.10
    738.          0       738.         0         0       186.         0       39.       15.     590.10
      .43       .00      3.96       .00      .090      .045      .090      .037    590.00    1249.00
  .000834      100.      100.      100.         2         0         0       .00     22.00    1271.00

*SECNO 13483.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

 13483.00      8.44    598.44    593.55    602.07    598.94       .50       .00       .13    590.10
    738.          0       738.         0         0       131.         0       39.       15.     590.10
      .43       .16      5.65       .16      .090      .035      .090      .037    590.00    1164.83
  .005360         1.        1.        1.         4        15         0   -320.11    153.02    1317.85

*SECNO 13569.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD=  598.80 MAX ELLC=  605.00

 13569.00      8.91    598.91    593.55    602.32    599.40       .49       .46       .00    590.10
    738.          3.      735.         0        11.       131.         0       39.       16.     590.10
      .43       .26      5.63       .16      .090      .035      .090      .037    590.00    1050.00
  .005319        86.       86.       86.         4        15         0   -392.08    277.37    1327.37

*SECNO 13570.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      598.69 ELREA=      599.63

 13570.00      9.43    599.43       .00    602.34    599.52       .09       .00       .12    590.10
    738.        175.      563.         0       313.       205.         0       39.       16.     590.10
      .43       .56      2.74       .00      .090      .040      .090      .037    590.00    1050.00
  .000278         1.        1.        1.         2         0         0       .00    221.00    1271.00

*SECNO 13595.000

3470 ENCROACHMENT STATIONS=      980.0     1415.0  TYPE=      1  TARGET=      435.000
 13595.00      9.84    599.54       .00    602.42    599.55       .01       .00       .02    590.00
    738.        282.      191.       266.       748.       116.       662.      40.       16.     590.00
      .44       .38      1.64       .40      .090      .040      .090      .037    589.70    980.00
  .000095        25.       25.       25.         2         0         0       .00    408.05    1388.05
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

CCHV= .100 CEHV= .300
*SECNO 15306.000

3470 ENCROACHMENT STATIONS= 280.0 720.0 TYPE= 1 TARGET= 440.000

15306.00	9.58	599.76	.00	602.67	599.81	.05	.25	.01	590.44
738.	178.	232.	328.	470.	76.	730.	95.	33.	590.18
.82	.38	3.06	.45	.120	.035	.120	.036	590.18	280.00
.000260	1711.	1711.	1711.	2	0	0	.00	640.00	720.00

CCHV= .100 CEHV= .300
*SECNO 16306.000

3470 ENCROACHMENT STATIONS= .0 569.0 TYPE= 1 TARGET= 568.999

16306.00	9.19	600.04	.00	602.93	600.09	.05	.28	.00	590.88
738.	169.	226.	343.	258.	73.	645.	122.	42.	590.89
1.04	.66	3.08	.53	.090	.035	.090	.036	590.85	220.70
.000273	800.	1000.	1200.	2	0	0	.00	348.30	569.00

CCHV= .300 CEHV= .500
*SECNO 17146.000

3470 ENCROACHMENT STATIONS= 460.0 540.0 TYPE= 1 TARGET= 80.000

17146.00	9.01	600.22	.00	603.08	600.31	.09	.21	.02	592.98
738.	55.	618.	65.	86.	237.	95.	134.	45.	591.21
1.14	.64	2.61	.68	.080	.035	.080	.036	591.21	460.00
.000241	1200.	840.	500.	2	0	0	.00	80.00	540.00

*SECNO 17246.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 605.00 ELREA= 605.00

17246.00	9.01	600.22	.00	603.01	600.37	.15	.03	.03	592.93
738.	0	738.	0	0	237.	0	135.	46.	592.93
1.15	.00	3.12	.00	.080	.035	.080	.036	591.21	390.01
.000372	100.	100.	100.	2	0	0	.00	29.99	419.99

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.70	3.00	.00	26.00	.00	315.00	.00	591.21	591.21

*SECNO 17310.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 600.375 ELLC= 603.430 PCWSE= 600.224 ELTRD= 606.340

3370 NORMAL BRIDGE,NRD= 9 MIN ELTRD= 606.34 MAX ELLC= 603.43

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.00 ELREA= 606.00

17310.00	9.04	600.25	.00	603.45	600.40	.15	.02	.00	592.93
738.	0	738.	0	0	237.	0	135.	46.	592.93
1.15	.00	3.11	.00	.080	.035	.080	.036	591.21	390.01
.000342	64.	64.	64.	2	0	0	-118.65	29.99	419.99

*SECNO 17375.000

3470 ENCROACHMENT STATIONS= 372.6 433.4 TYPE= 1 TARGET= 75.000

17375.00	8.10	600.36	.00	603.82	600.44	.08	.02	.02	595.00
738.	41.	670.	27.	63.	285.	45.	136.	46.	595.00
1.16	.65	2.35	.61	.080	.035	.080	.036	592.26	372.60
.000223	65.	65.	65.	2	0	0	.00	60.75	433.35

*SECNO 17437.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17437.00	8.07	600.33	.00	603.71	600.50	.17	.02	.05	592.93
738.	0	738.	0	0	222.	0	136.	46.	593.33
1.17	.00	3.33	.00	.080	.035	.080	.036	592.26	390.01
.000427	62.	62.	62.	2	0	0	.00	29.97	419.99

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.77	3.00	.00	28.00	.00	315.00	.00	592.13	592.26

*SECNO 17450.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 600.376 ELLC= 603.270 PCWSE= 600.331 ELTRD= 606.710

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 606.71 MAX ELLC= 603.27

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 606.84 ELREA= 606.71

17450.00	8.24	600.37	.00	604.21	600.54	.17	.04	.00	594.03
738.	0	738.	0	0	224.	0	136.	46.	593.53
1.17	.00	3.29	.00	.080	.035	.080	.036	592.13	390.01
.000415	86.	86.	86.	2	0	0	-96.72	29.97	419.99

*SECNO 17500.000

3470 ENCROACHMENT STATIONS= 352.4 457.6 TYPE= 1 TARGET= 130.000

17500.00	8.40	600.53	.00	604.69	600.59	.06	.01	.03	596.40
738.	75.	622.	41.	125.	296.	84.	137.	46.	597.33
1.18	.60	2.10	.49	.080	.035	.080	.036	592.13	352.35
.000196	50.	50.	50.	2	0	0	.00	105.30	457.65

*SECNO 18566.000

3470 ENCROACHMENT STATIONS= 496.0 1018.0 TYPE= 1 TARGET= 522.000

18566.00	7.20	600.75	.00	604.92	600.77	.02	.17	.01	597.10
738.	288.	390.	60.	672.	269.	259.	158.	54.	599.20
1.49	.43	1.45	.23	.080	.035	.080	.036	593.55	496.00
.000133	1066.	1066.	1066.	2	0	0	.00	522.00	1018.00

*SECNO 18666.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
18666.00	7.20	600.75	.00	604.92	600.80	.05	.02	.02	593.60
738.	161.	373.	204.	242.	153.	372.	160.	54.	593.60
1.51	.67	2.43	.55	.080	.035	.080	.036	593.55	561.70
.000236	100.	100.	100.	1	0	0	.00	273.22	840.10

*SECNO 18667.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16

18667.00	7.01	600.56	596.90	604.92	600.99	.43	.00	.19	593.60
738.	0	738.	0	0	141.	0	160.	54.	593.60
1.51	.00	5.25	.00	.080	.030	.080	.036	593.55	563.55
.002289	1.	1.	1.	4	19	0	-574.61	259.94	838.46

*SECNO 18705.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 600.71 MAX ELLC= 600.16

18705.00	7.10	600.65	596.90	604.93	601.08	.43	.09	.00	593.60
738.	0	738.	0	0	141.	0	160.	55.	593.60
1.51	.00	5.25	.00	.080	.030	.080	.036	593.55	562.73
.002289	38.	38.	38.	4	19	0	-597.51	266.59	839.19

*SECNO 18706.000

3470 ENCROACHMENT STATIONS= 560.0 840.0 TYPE= 1 TARGET= 280.000

18706.00	7.61	601.16	.00	604.94	601.20	.04	.00	.12	593.60
738.	163.	351.	224.	270.	162.	447.	160.	55.	593.60
1.51	.60	2.17	.50	.080	.035	.080	.036	593.55	560.00
.000175	1.	1.	1.	2	0	0	.00	280.00	840.00

*SECNO 18756.000

```
   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=      425.0     1000.0  TYPE=      1  TARGET=      575.000
 18756.00      7.54    601.19      .00     604.95    601.21      -.02      .01       .00    598.40
    738.       243.      414.      80.       723.      264.      282.      161.      55.     599.20
     1.53       .34      1.57      .28       .080      .035      .080      .036    593.65    425.00
  .000128      50.       50.       50.          2         0         0       .00    575.00   1000.00

CCHV=    .100 CEHV=    .300
*SECNO 19061.000

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      601.48 ELREA=      602.18

 19061.00      7.90    601.15      .00     604.96    601.34       .19       .08       .05    601.48
    738.          0      738.        0          0       212.         0      167.       57.     602.18
     1.55       .00      3.48      .00       .060      .035      .060      .036    593.25   1078.76
  .000877      305.      305.      305.          2         0         0       .00     42.42   1121.19

*SECNO 19062.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18

3470 ENCROACHMENT STATIONS=      690.0     1210.0  TYPE=      1  TARGET=      520.000
 19062.00      7.91    601.16      .00     604.98    601.34       .18       .00       .00    601.48
    738.          0      698.       40.          0       200.      43.      167.       57.     602.18
     1.55       .00      3.48      .95       .060      .035      .060      .036    593.25   1078.75
  .002222         1.        1.        1.          1         0         0    -12.25     98.89   1173.46

*SECNO 19070.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  5 MIN ELTRD=  601.48 MAX ELLC=  602.18
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=		690.0	1210.0	TYPE=	1	TARGET=	520.000		
19070.00	7.93	601.18	.00	604.98	601.36	.18	.02	.00	601.48
738.	0	696.	42.	0	200.	44.	167.	57.	602.18
1.55	.00	3.48	.96	.060	.035	.060	.036	593.25	1078.72
.002219	8.	8.	8.	0	0	0	-12.98	99.61	1179.13
*SECNO 19071.000									
3470 ENCROACHMENT STATIONS=		690.0	1210.0	TYPE=	1	TARGET=	520.000		
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=				601.48	ELREA=	602.18			
19071.00	7.93	601.18	.00	604.97	601.36	.19	.00	.00	601.48
738.	0	738.	0	0	214.	0	167.	57.	602.18
1.55	.00	3.45	.00	.060	.035	.060	.036	593.25	1078.70
.000862	1.	1.	1.	0	0	0	.00	42.51	1121.21
*SECNO 20293.000									
20293.00	7.54	601.85	.00	605.15	601.89	.04	.51	.01	600.52
738.	274.	456.	8.	491.	226.	32.	180.	64.	600.83
1.78	.56	2.02	.25	.060	.035	.060	.035	594.31	683.06
.000248	1222.	1222.	1222.	3	0	0	.00	400.14	1083.20
*SECNO 20294.000									
3370 NORMAL BRIDGE, NRD=	4	MIN ELTRD=	600.52	MAX ELLC=	598.68				
20294.00	7.56	601.87	.00	605.16	601.89	.02	.00	.00	600.52
738.	505.	218.	15.	497.	151.	34.	180.	64.	600.83
1.78	1.02	1.44	.46	.060	.035	.060	.035	594.31	682.46
.000807	1.	1.	1.	2	0	0	-76.18	402.04	1084.50
*SECNO 20305.000									
3370 NORMAL BRIDGE, NRD=	4	MIN ELTRD=	600.52	MAX ELLC=	598.68				
20305.00	7.57	601.88	.00	605.16	601.90	.02	.01	.00	600.52
738.	505.	217.	15.	499.	151.	34.	180.	64.	600.83
1.79	1.01	1.44	.45	.060	.035	.060	.035	594.31	682.30
.000799	11.	11.	11.	0	0	0	-76.18	402.56	1084.86

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 20306.000									
20306.00	7.56	601.87	.00	605.16	601.91	.04	.00	.01	600.52
738.	277.	453.	8.	498.	227.	34.	180.	64.	600.83
1.79	.56	1.99	.25	.060	.035	.060	.035	594.31	682.38
.000241	1.	1.	1.	1	0	0	.00	402.30	1084.68
*SECNO 20406.000									
20406.00	7.94	601.88	.00	605.17	601.95	.07	.03	.01	594.45
738.	434.	222.	83.	548.	62.	67.	182.	65.	594.08
1.80	.79	3.56	1.24	.060	.035	.060	.035	593.94	661.68
.000459	100.	100.	100.	2	0	0	.00	359.49	1021.17

CCHV= .300 CEHV= .500

*SECNO 21223.000

3470 ENCROACHMENT STATIONS= 475.0 725.0 TYPE= 1 TARGET= 250.000

21223.00	8.73	602.25	.00	605.29	602.33	.08	.37	.01	594.30
738.	123.	394.	222.	157.	130.	258.	193.	70.	595.70
1.92	.78	3.03	.86	.070	.040	.070	.036	593.52	475.00
.000451	817.	817.	817.	2	0	0	.00	250.00	725.00

*SECNO 21323.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 500.0 700.0 TYPE= 1 TARGET= 200.000

21323.00	8.52	602.04	.00	605.21	602.75	.72	.11	.32	596.02
738.	79.	622.	37.	28.	85.	16.	194.	71.	597.89
1.92	2.86	7.31	2.30	.070	.040	.070	.036	593.52	584.28
.005291	100.	100.	100.	2	0	0	.00	29.86	614.15

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	SAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	6.40	.00	32.00	.00	594.82	593.52

*SECNO 21359.000

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

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	GWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
614.42	604.32	.00	421.	317.	32.	32.	599.82	603.40
21359.00	9.41	604.23	.00	605.51	604.32	.09	1.57	.00	597.79
738.	199.	348.	191.	182.	104.	178.	194.	71.	597.32
1.93	1.09	3.33	1.07	.070	.040	.070	.036	594.82	500.00
.000922	36.	36.	36.	2	0	6	.00	200.00	700.00

*SECNO 21409.000

21409.00	9.46	604.28	.00	605.63	604.37	.09	.04	.00	597.79
738.	202.	342.	194.	187.	105.	183.	195.	71.	597.32
1.93	1.08	3.26	1.06	.070	.040	.070	.036	594.82	500.00
.000876	50.	50.	50.	2	0	0	.00	200.00	700.00

CCHV= .100 CEHV= .300

*SECNO 23000.000

23000.00	8.09	604.94	.00	606.61	604.99	.05	.62	.00	601.50
738.	237.	491.	10.	537.	218.	39.	213.	80.	603.00
2.17	.44	2.25	.26	.070	.035	.070	.036	596.85	1004.98
.000260	1000.	1591.	1591.	3	0	0	.00	470.04	1475.02

*SECNO 23001.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85

23001.00	8.12	604.97	.00	606.65	604.99	.02	.00	.00	601.50
738.	449.	270.	19.	548.	161.	39.	213.	80.	603.00
2.17	.82	1.67	.48	.070	.035	.070	.036	596.85	1004.98
.000869	1.	1.	1.	2	0	0	-61.14	470.04	1475.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 23012.000									
3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.85 MAX ELLC= 604.85									
23012.00	8.13	604.98	.00	606.66	605.00	.02	.01	.00	601.50
738.	450.	269.	19.	550.	162.	40.	213.	80.	603.00
2.17	.82	1.66	.48	.070	.035	.070	.036	596.85	1004.98
.000860	11.	11.	11.	0	0	0	-61.14	470.04	1475.02
*SECNO 23013.000									
23013.00	8.11	604.96	.00	606.63	605.01	.05	.00	.01	601.50
738.	240.	487.	10.	546.	219.	40.	214.	80.	603.00
2.18	.44	2.22	.26	.070	.035	.070	.036	596.85	1004.98
.000253	1.	1.	1.	2	0	0	.00	470.04	1475.02
*SECNO 23256.000									
3470 ENCROACHMENT STATIONS= 865.0 1350.0 TYPE= 1 TARGET= 485.000									
23256.00	9.02	605.04	.00	606.74	605.05	.01	.04	.00	597.00
738.	515.	156.	68.	1038.	85.	221.	220.	83.	597.24
2.26	.50	1.84	.31	.070	.035	.070	.036	596.02	865.00
.000112	243.	243.	243.	2	0	0	.00	485.00	1350.00
*SECNO 24202.000									
24202.00	9.15	605.16	.00	606.95	605.23	.07	.16	.02	602.77
738.	94.	560.	85.	167.	236.	157.	240.	90.	602.92
2.40	.56	2.37	.54	.070	.035	.070	.036	596.01	702.47
.000272	946.	946.	946.	2	0	0	.00	195.05	897.53
*SECNO 24203.000									
3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 602.77 MAX ELLC= 602.92									
24203.00	9.18	605.19	.00	607.03	605.23	.04	.00	.00	602.77
738.	176.	403.	159.	169.	203.	159.	240.	90.	602.92
2.40	1.04	1.98	1.00	.070	.035	.070	.036	596.01	702.47
.000914	1.	1.	1.	2	0	0	-33.78	195.05	897.53

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

*SECNO 24219.000

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  602.77 MAX ELLC=  602.92

 24219.00      9.19    605.20      .00    607.05    605.24      .04       .01       .00    602.77
     738.       176.      402.      159.      170.      204.      160.      240.       90.     602.92
     2.40       1.04      1.98      1.00      .070      .035      .070      .036    596.01    702.47
  .000905        16.       16.       16.         0         0         0    -33.78    195.05    897.53


*SECNO 24220.000
 24220.00      9.18    605.19      .00    607.00    605.25      .07       .00       .01    602.77
     738.       95.       557.      86.       170.      237.      160.      240.       90.     602.92
     2.40       .56       2.35      .54       .070      .035      .070      .036    596.01    702.47
  .000265        1.        1.        1.         1         0         0       .00    195.05    897.53


CCHV=     .300 CEHV=     .500
*SECNO 24474.000

3470 ENCROACHMENT STATIONS=      503.0      597.0  TYPE=     1  TARGET=      94.000
 24474.00      8.99    605.24      .00    607.05    605.36      .12       .08       .03    602.77
     738.       35.       672.      31.       70.       234.      66.       243.       91.     602.92
     2.43       .50       2.87      .48       .100      .035      .100      .036    596.25    503.00
  .000401       254.      254.      150.         2         0         0       .00     94.00    597.00


*SECNO 24574.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      609.85 ELREA=      609.80

 24574.00      7.35    605.26      .00    607.06    605.45      .20       .06       .04    605.00
     738.          0      738.         0         0       208.         0      243.       91.     606.01
     2.44       .00       3.55      .00       .100      .035      .100      .036    597.91    428.00
  .000931       100.      100.      10.         0         0         0       .00     42.60    470.60


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

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	.00	30.60	2.00	300.00	.00	598.01	597.91

*SECNO 24588.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 605.28 BRIDGE VELOCITY= 3.52 CALCULATED CHANNEL AREA= 208.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.00	605.49	.03	0	738.	300.	280.	607.81	609.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 609.85 ELREA= 609.80

24588.00	7.28	605.29	.00	607.34	605.49	.20	.04	.00	605.10	
738.	0	738.	0	0	205.	0	244.	91.	606.11	
2.44	.00	3.60	.00	.100	.035	.100	.036	598.01	428.00	
.000976	14.	14.	14.	0	0	0	.00	42.46	470.46	

*SECNO 24638.000

3470 ENCROACHMENT STATIONS= 375.0 520.0 TYPE= 1 TARGET= 145.000

24638.00	7.33	605.34	.00	607.71	605.54	.20	.05	.00	605.10
738.	2.	736.	0	12.	207.	0	244.	91.	606.11
2.44	.17	3.56	.00	.100	.035	.100	.036	598.01	375.00
.000941	50.	50.	50.	0	0	0	.00	95.55	470.55

*SECNO 25020.000

3470 ENCROACHMENT STATIONS= 570.0 670.0 TYPE= 1 TARGET= 100.000

25020.00	7.44	605.64	.00	608.10	605.92	.29	.34	.05	598.50
738.	75.	592.	71.	72.	124.	99.	246.	92.	598.50
2.47	1.05	4.78	.71	.100	.035	.100	.036	598.20	570.00
.000901	100.	382.	407.	0	0	0	.00	100.00	670.00

CCHV= .300 CEHV= .500

*SECNO 25137.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 606.00 ELREA= 607.09

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
25137.00	7.75	605.82	.00	608.25	606.02	.20	.07	.03	599.84
738.	0	738.	0	0	207.	0	246.	92.	599.94
2.48	.00	3.57	.00	.080	.030	.090	.036	598.07	685.49
.000431	10.	117.	117.	2	0	0	.00	29.02	714.51

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.00	3.25	3.00	.00	20.30	.00	156.00	.00	598.47	598.07

*SECNO 25306.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
606.95	606.41	.00	0	738.	156.	156.	606.16	607.78

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 607.41 ELREA= 608.50

25306.00	8.32	606.79	.00	609.80	606.95	.16	.93	.00	599.84
738.	0	738.	0	0	230.	0	247.	92.	599.94
2.49	.00	3.21	.00	.080	.030	.090	.036	598.47	685.49
.000294	169.	169.	169.	2	0	0	.00	29.02	714.51

*SECNO 25340.000

3470 ENCROACHMENT STATIONS= 650.0 750.0 TYPE= 1 TARGET= 100.000

25340.00	8.68	606.88	.00	610.16	606.98	.10	.01	.02	598.40
738.	68.	609.	61.	119.	223.	119.	247.	92.	598.40
2.49	.57	2.73	.51	.080	.030	.090	.036	598.20	650.00
.000173	34.	34.	34.	2	0	0	.00	100.00	750.00

THIS RUN EXECUTED 2/21/ 1982 13: 9:17

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

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

BLAKELY DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10634.000	50.00	.00	.00	588.10	1730.00	600.04	.00	600.13	2.50	3.38	1521.26	1095.22
10634.000	50.00	.00	.00	588.10	1360.00	599.60	.00	599.67	2.01	2.96	1362.86	958.75
10634.000	50.00	.00	.00	588.10	1176.00	599.34	.00	599.40	1.78	2.74	1269.26	882.59
10634.000	50.00	.00	.00	588.10	780.00	597.16	.00	597.30	3.69	3.40	526.78	406.05
11506.000	872.00	.00	.00	588.24	1730.00	600.26	.00	600.29	1.37	2.59	2493.29	1475.71
11506.000	872.00	.00	.00	588.24	1360.00	599.78	.00	599.81	1.32	2.46	1991.50	1185.50
11506.000	872.00	.00	.00	588.24	1176.00	599.50	.00	599.53	1.20	2.31	1843.68	1073.77
11506.000	872.00	.00	.00	588.24	780.00	597.49	.00	597.57	2.80	3.10	829.09	465.73
12478.000	972.00	.00	.00	589.47	1050.00	600.36	.00	600.49	2.57	3.31	525.40	655.31
12478.000	972.00	.00	.00	589.47	950.00	599.88	.00	600.00	2.51	3.17	491.65	600.08
12478.000	972.00	.00	.00	589.47	880.00	599.59	.00	599.71	2.40	3.05	471.30	567.76
12478.000	972.00	.00	.00	589.47	710.00	597.76	.00	597.89	3.50	3.22	340.87	379.26
12578.000	100.00	.00	.00	589.47	1050.00	600.30	.00	600.61	4.68	4.46	235.64	485.23
12578.000	100.00	.00	.00	589.47	950.00	599.84	.00	600.11	4.44	4.21	225.41	450.63
12578.000	100.00	.00	.00	589.47	880.00	599.56	.00	599.81	4.18	4.01	219.25	430.32
12578.000	100.00	.00	.00	589.47	710.00	597.75	.00	597.99	5.31	3.96	179.39	308.00
12622.000	44.00	604.06	595.63	588.43	1050.00	601.60	.00	601.91	4.90	4.45	235.95	474.19
12622.000	44.00	604.06	595.63	588.43	950.00	600.86	.00	601.15	5.09	4.32	219.68	420.98
12622.000	44.00	604.06	595.63	588.43	880.00	600.41	.00	600.69	5.09	4.19	209.80	389.89
12622.000	44.00	604.06	595.63	588.43	710.00	598.18	.00	598.48	8.08	4.42	160.62	249.80
12672.000	50.00	.00	.00	588.43	1870.00	601.79	.00	601.97	4.63	4.38	906.79	868.99
12672.000	50.00	.00	.00	588.43	1360.00	601.11	.00	601.22	3.19	3.48	823.32	760.86
12672.000	50.00	.00	.00	588.43	1152.00	600.66	.00	600.76	2.76	3.14	768.78	693.42
12672.000	50.00	.00	.00	588.43	738.00	598.48	.00	598.57	3.34	2.92	502.33	404.02
13382.000	710.00	.00	.00	590.04	1870.00	602.10	.00	602.12	.91	2.13	2547.09	1959.12
13382.000	710.00	.00	.00	590.04	1360.00	601.31	.00	601.33	.68	1.76	2228.32	1647.60
13382.000	710.00	.00	.00	590.04	1152.00	600.93	.00	600.85	.61	1.62	2032.23	1470.35
13382.000	710.00	.00	.00	590.04	738.00	598.66	.00	598.68	.81	1.61	1272.69	819.34

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13482.000	100.00	.00	.00	590.00	1870.00	602.09	.00	602.16	3.11	3.05	1614.48	1061.19
13482.000	100.00	.00	.00	590.00	1360.00	601.30	.00	601.36	2.58	2.65	1320.48	846.84
13482.000	100.00	.00	.00	590.00	1152.00	600.82	.00	600.88	2.48	2.53	1141.16	731.09
13482.000	100.00	.00	.00	590.00	738.00	598.57	.00	598.81	8.34	3.96	186.40	255.49
13483.000	1.00	598.80	605.00	590.00	1870.00	602.07	.00	602.18	28.90	3.89	904.13	347.83
13483.000	1.00	598.80	605.00	590.00	1360.00	601.27	.00	601.40	36.52	4.05	646.57	225.04
13483.000	1.00	598.80	605.00	590.00	1152.00	600.76	.00	600.95	49.65	4.49	489.82	163.50
13483.000	1.00	598.80	605.00	590.00	738.00	598.44	593.55	598.94	53.60	5.65	131.30	100.81
13569.000	86.00	598.80	605.00	590.00	1870.00	602.32	.00	602.41	22.81	3.53	985.68	391.51
13569.000	86.00	598.80	605.00	590.00	1360.00	601.58	.00	601.67	25.49	3.49	745.68	269.37
13569.000	86.00	598.80	605.00	590.00	1152.00	601.18	.00	601.29	28.88	3.58	621.28	214.37
13569.000	86.00	598.80	605.00	590.00	738.00	598.91	593.55	599.40	53.19	5.63	141.79	101.19
13570.000	1.00	.00	.00	590.00	1870.00	602.34	.00	602.41	2.45	3.09	1708.65	1194.84
13570.000	1.00	.00	.00	590.00	1360.00	601.63	.00	601.68	1.90	2.61	1442.62	985.75
13570.000	1.00	.00	.00	590.00	1152.00	601.26	.00	601.31	1.69	2.41	1303.70	886.08
13570.000	1.00	.00	.00	590.00	738.00	599.43	.00	599.52	2.78	2.74	518.82	442.99
13595.000	25.00	.00	.00	589.70	1870.00	602.42	.00	602.43	1.11	2.11	2767.79	1775.55
13595.000	25.00	.00	.00	589.70	1360.00	601.69	.00	601.70	.85	1.77	2451.54	1479.42
13595.000	25.00	.00	.00	589.70	1152.00	601.31	.00	601.32	.75	1.63	2284.23	1332.27
13595.000	25.00	.00	.00	589.70	738.00	599.54	.00	599.55	.95	1.64	1525.47	758.54
15306.000	1711.00	.00	.00	590.18	1870.00	602.67	.00	602.71	2.46	3.56	2554.35	1192.61
15306.000	1711.00	.00	.00	590.18	1360.00	601.89	.00	601.92	1.99	3.07	2209.42	963.85
15306.000	1711.00	.00	.00	590.18	1152.00	601.49	.00	601.52	1.81	2.86	2033.88	855.66
15306.000	1711.00	.00	.00	590.18	738.00	599.76	.00	599.81	2.60	3.06	1275.34	457.91
16306.000	1000.00	.00	.00	590.85	1870.00	602.93	.00	602.97	2.44	3.48	2007.68	1198.16
16306.000	1000.00	.00	.00	590.85	1360.00	602.10	.00	602.13	2.06	3.06	1706.22	947.00
16306.000	1000.00	.00	.00	590.85	1152.00	601.68	.00	601.71	1.92	2.88	1556.48	831.22
16306.000	1000.00	.00	.00	590.85	738.00	600.04	.00	600.09	2.73	3.08	976.56	446.46
17146.000	840.00	.00	.00	591.21	1870.00	603.08	.00	603.33	4.83	4.54	646.30	850.89
17146.000	840.00	.00	.00	591.21	1360.00	602.24	.00	602.40	3.46	3.64	578.94	731.03
17146.000	840.00	.00	.00	591.21	1152.00	601.81	.00	601.95	2.92	3.25	545.12	673.58
17146.000	840.00	.00	.00	591.21	738.00	600.22	.00	600.31	2.41	2.61	417.96	475.14
17246.000	100.00	.00	.00	591.21	1870.00	603.01	.00	603.54	8.72	5.84	320.03	633.32
17246.000	100.00	.00	.00	591.21	1360.00	602.20	.00	602.53	5.99	4.60	295.92	555.79
17246.000	100.00	.00	.00	591.21	1152.00	601.79	.00	602.05	4.95	4.06	283.61	517.80
17246.000	100.00	.00	.00	591.21	738.00	600.22	.00	600.37	3.72	3.12	236.63	382.88
17310.000	64.00	606.34	603.43	591.21	1870.00	603.45	.00	603.94	7.61	5.61	333.32	677.73
17310.000	64.00	606.34	603.43	591.21	1360.00	602.24	.00	602.57	5.50	4.58	296.94	580.11
17310.000	64.00	606.34	603.43	591.21	1152.00	601.82	.00	602.08	4.55	4.05	284.42	539.91
17310.000	64.00	606.34	603.43	591.21	738.00	600.25	.00	600.40	3.42	3.11	237.21	398.98

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
17375.000	65.00	.00	.00	592.26	1870.00	603.82	.00	604.05	3.84	4.00	602.21	954.19
17375.000	65.00	.00	.00	592.26	1360.00	602.49	.00	602.64	3.17	3.33	521.04	763.74
17375.000	65.00	.00	.00	592.26	1152.00	602.01	.00	602.14	2.71	2.97	492.28	700.15
17375.000	65.00	.00	.00	592.26	738.00	600.36	.00	600.44	2.23	2.35	391.68	494.63
17437.000	62.00	.00	.00	592.26	1870.00	603.71	.00	604.23	7.83	5.79	323.20	668.13
17437.000	62.00	.00	.00	592.26	1360.00	602.42	.00	602.77	6.34	4.78	284.42	539.93
17437.000	62.00	.00	.00	592.26	1152.00	601.96	.00	602.24	5.36	4.25	270.75	497.37
17437.000	62.00	.00	.00	592.26	738.00	600.33	.00	600.50	4.27	3.33	221.94	357.10
17450.000	86.00	606.71	603.27	592.13	1870.00	604.21	.00	604.68	6.71	5.51	339.38	722.17
17450.000	86.00	606.71	603.27	592.13	1360.00	602.48	.00	602.83	6.17	4.73	287.40	547.39
17450.000	86.00	606.71	603.27	592.13	1152.00	602.01	.00	602.29	5.23	4.21	273.44	503.81
17450.000	86.00	606.71	603.27	592.13	738.00	600.37	.00	600.54	4.15	3.29	224.32	362.20
17500.000	50.00	.00	.00	592.13	1870.00	604.69	.00	604.80	2.18	3.03	943.54	1267.61
17500.000	50.00	.00	.00	592.13	1360.00	602.83	.00	602.92	2.26	2.73	747.25	905.36
17500.000	50.00	.00	.00	592.13	1152.00	602.28	.00	602.36	2.03	2.49	690.09	808.81
17500.000	50.00	.00	.00	592.13	738.00	600.53	.00	600.59	1.96	2.10	505.19	527.12
18566.000	1066.00	.00	.00	593.55	1870.00	604.92	.00	604.93	.48	1.29	3375.64	2700.71
18566.000	1065.00	.00	.00	593.55	1360.00	603.06	.00	603.07	.70	1.34	2403.25	1624.79
18566.000	1066.00	.00	.00	593.55	1152.00	602.49	.00	602.50	.73	1.30	2109.07	1345.89
18566.000	1066.00	.00	.00	593.55	738.00	600.75	.00	600.77	1.33	1.45	1200.27	639.80
18666.000	100.00	.00	.00	593.55	1870.00	604.92	.00	604.94	.90	2.04	2672.00	1970.07
18666.000	100.00	.00	.00	593.55	1360.00	603.06	.00	603.09	1.39	2.25	1800.38	1152.61
18666.000	100.00	.00	.00	593.55	1152.00	602.49	.00	602.52	1.48	2.22	1536.26	968.15
18666.000	100.00	.00	.00	593.55	738.00	600.75	.00	600.80	2.36	2.43	767.62	480.25
18667.000	1.00	600.71	600.16	593.55	1870.00	604.92	.00	604.94	3.75	2.00	1896.32	965.82
18667.000	1.00	600.71	600.16	593.55	1360.00	603.04	.00	603.10	12.36	3.11	1020.45	386.91
18667.000	1.00	600.71	600.16	593.55	1152.00	602.42	.00	602.59	16.23	4.42	726.07	285.92
18667.000	1.00	600.71	600.16	593.55	738.00	600.56	596.90	600.99	22.89	5.25	140.66	154.25
18705.000	38.00	600.71	600.16	593.55	1870.00	604.93	.00	604.96	3.73	2.00	1900.14	968.83
18705.000	38.00	600.71	600.16	593.55	1360.00	603.09	.00	603.15	11.73	3.05	1039.88	397.14
18705.000	38.00	600.71	600.16	593.55	1152.00	602.59	.00	602.68	16.70	3.46	803.73	281.88
18705.000	38.00	600.71	600.16	593.55	738.00	600.65	596.90	601.08	22.89	5.25	140.66	154.25
18706.000	1.00	.00	.00	593.55	1870.00	604.94	.00	604.96	.90	2.03	2675.82	1974.09
18706.000	1.00	.00	.00	593.55	1360.00	603.13	.00	603.16	1.33	2.21	1832.26	1178.75
18706.000	1.00	.00	.00	593.55	1152.00	602.67	.00	602.70	1.31	2.11	1616.80	1008.18
18706.000	1.00	.00	.00	593.55	738.00	601.16	.00	601.20	1.75	2.17	878.95	558.44
18756.000	50.00	.00	.00	593.65	1870.00	604.95	.00	604.96	.54	1.39	3432.12	2556.02
18756.000	50.00	.00	.00	593.65	1360.00	603.15	.00	603.17	.81	1.50	2404.08	1513.53
18756.000	50.00	.00	.00	593.65	1152.00	602.69	.00	602.71	.81	1.44	2136.07	1280.88
18756.000	50.00	.00	.00	593.65	738.00	601.19	.00	601.21	1.28	1.57	1269.39	653.44

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19061.000	305.00	.00	.00	593.25	1870.00	604.96	.00	605.00	1.91	2.32	1780.01	1352.28
19061.000	305.00	.00	.00	593.25	1360.00	603.12	.00	603.25	5.45	3.34	823.64	582.43
19061.000	305.00	.00	.00	593.25	1152.00	602.65	.00	602.80	6.13	3.37	603.29	465.37
19061.000	305.00	.00	.00	593.25	738.00	601.15	.00	601.34	8.77	3.48	212.27	249.15
19062.000	1.00	601.48	602.18	593.25	1870.00	604.98	.00	605.00	3.80	1.45	1726.30	958.93
19062.000	1.00	601.48	602.18	593.25	1360.00	603.19	.00	603.26	18.47	2.64	795.89	316.48
19062.000	1.00	601.48	602.18	593.25	1152.00	602.70	.00	602.81	27.87	3.05	561.16	218.23
19062.000	1.00	601.48	602.18	593.25	738.00	601.16	.00	601.34	22.22	3.48	242.79	156.57
19070.000	8.00	601.48	602.18	593.25	1870.00	604.98	.00	605.01	3.79	1.45	1727.49	959.96
19070.000	8.00	601.48	602.18	593.25	1360.00	603.21	.00	603.28	18.19	2.63	800.69	318.85
19070.000	8.00	601.48	602.18	593.25	1152.00	602.73	.00	602.83	27.09	3.01	569.14	221.35
19070.000	8.00	601.48	602.18	593.25	738.00	601.18	.00	601.36	22.19	3.48	243.83	156.67
19071.000	1.00	.00	.00	593.25	1870.00	604.97	.00	605.01	1.89	2.31	1786.81	1359.06
19071.000	1.00	.00	.00	593.25	1360.00	603.17	.00	603.29	5.20	3.27	847.25	596.53
19071.000	1.00	.00	.00	593.25	1152.00	602.70	.00	602.84	5.86	3.32	622.98	475.75
19071.000	1.00	.00	.00	593.25	738.00	601.18	.00	601.36	8.62	3.45	213.63	251.41
20293.000	1222.00	.00	.00	594.31	1870.00	605.15	.00	605.17	.90	1.63	2468.00	1971.66
20293.000	1222.00	.00	.00	594.31	1360.00	603.59	.00	603.62	1.53	1.88	1575.82	1098.60
20293.000	1222.00	.00	.00	594.31	1152.00	603.16	.00	603.19	1.61	1.86	1352.80	907.83
20293.000	1222.00	.00	.00	594.31	738.00	601.85	.00	601.89	2.48	2.02	749.56	468.80
20294.000	1.00	600.52	598.68	594.31	1870.00	605.16	.00	605.17	1.41	.90	2391.97	1577.08
20294.000	1.00	600.52	598.68	594.31	1360.00	603.61	.00	603.62	2.91	1.10	1503.29	797.20
20294.000	1.00	600.52	598.68	594.31	1152.00	603.18	.00	603.19	3.35	1.12	1279.91	629.23
20294.000	1.00	600.52	598.68	594.31	738.00	601.87	.00	601.89	8.07	1.44	681.77	259.80
20305.000	11.00	600.52	598.68	594.31	1870.00	605.16	.00	605.17	1.40	.90	2397.33	1582.24
20305.000	11.00	600.52	598.68	594.31	1360.00	603.61	.00	603.62	2.88	1.10	1508.24	801.07
20305.000	11.00	600.52	598.68	594.31	1152.00	603.18	.00	603.20	3.31	1.12	1285.05	632.94
20305.000	11.00	600.52	598.68	594.31	738.00	601.88	.00	601.90	7.99	1.44	684.10	261.04
20306.000	1.00	.00	.00	594.31	1870.00	605.16	.00	605.17	.89	1.63	2473.80	1977.82
20306.000	1.00	.00	.00	594.31	1360.00	603.60	.00	603.63	1.51	1.87	1585.02	1106.74
20306.000	1.00	.00	.00	594.31	1152.00	603.17	.00	603.20	1.58	1.84	1361.95	915.40
20306.000	1.00	.00	.00	594.31	738.00	601.87	.00	601.91	2.41	1.99	759.14	475.08
20406.000	100.00	.00	.00	593.94	1870.00	605.17	.00	605.18	1.14	2.25	2552.34	1750.59
20406.000	100.00	.00	.00	593.94	1360.00	603.62	.00	603.65	2.30	2.89	1513.49	896.31
20406.000	100.00	.00	.00	593.94	1152.00	603.19	.00	603.22	2.54	2.94	1268.66	722.74
20406.000	100.00	.00	.00	593.94	738.00	601.88	.00	601.95	4.59	3.56	677.27	344.39
21223.000	817.00	.00	.00	593.52	1870.00	605.29	.00	605.36	3.40	3.29	1306.17	1014.25
21223.000	817.00	.00	.00	593.52	1360.00	603.84	.00	603.92	4.35	3.38	944.01	651.70
21223.000	817.00	.00	.00	593.52	1152.00	603.43	.00	603.51	4.19	3.21	840.65	562.48
21223.000	817.00	.00	.00	593.52	738.00	602.25	.00	602.33	4.51	3.03	544.66	347.33

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	21323.000	100.00	.00	.00	593.52	1870.00	605.21	.00	605.59	27.74	6.89	594.54	355.06
*	21323.000	100.00	.00	.00	593.52	1360.00	603.49	603.49	604.57	69.89	9.60	251.87	162.68
	21323.000	100.00	.00	.00	593.52	1152.00	603.03	601.42	604.13	71.39	9.32	180.84	136.35
	21323.000	100.00	.00	.00	593.52	738.00	602.04	.00	602.75	52.91	7.31	128.72	101.45
	21359.000	36.00	603.40	599.82	594.82	1870.00	605.51	.00	605.71	19.06	5.28	721.37	428.32
	21359.000	36.00	603.40	599.82	594.82	1360.00	604.86	.00	605.03	17.25	4.79	590.91	327.45
	21359.000	36.00	603.40	599.82	594.82	1152.00	604.68	.00	604.82	14.60	4.34	554.12	301.46
	21359.000	36.00	603.40	599.82	594.82	738.00	604.23	.00	604.32	9.22	3.33	464.60	243.08
	21409.000	50.00	.00	.00	594.82	1870.00	605.63	.00	605.80	17.46	5.10	744.53	447.58
	21409.000	50.00	.00	.00	594.82	1360.00	604.96	.00	605.12	15.81	4.62	610.88	342.02
	21409.000	50.00	.00	.00	594.82	1152.00	604.76	.00	604.89	13.53	4.21	570.85	313.14
	21409.000	50.00	.00	.00	594.82	738.00	604.28	.00	604.37	8.76	3.26	474.82	249.39
	23000.000	1591.00	.00	.00	596.85	1870.00	606.61	.00	606.68	3.32	2.97	1583.14	1025.58
	23000.000	1591.00	.00	.00	596.85	1360.00	605.90	.00	605.96	3.24	2.76	1249.59	756.11
	23000.000	1591.00	.00	.00	596.85	1152.00	605.62	.00	605.68	3.06	2.61	1114.51	658.82
	23000.000	1591.00	.00	.00	596.85	738.00	604.94	.00	604.99	2.60	2.25	793.84	457.87
	23001.000	1.00	604.85	604.85	596.85	1870.00	606.65	.00	606.68	6.39	1.76	1540.82	739.73
	23001.000	1.00	604.85	604.85	596.85	1360.00	605.94	.00	605.97	7.24	1.73	1207.27	505.31
	23001.000	1.00	604.85	604.85	596.85	1152.00	605.66	.00	605.68	7.47	1.70	1072.10	421.59
	23001.000	1.00	604.85	604.85	596.85	738.00	604.97	.00	604.99	8.69	1.67	748.75	250.38
	23012.000	11.00	604.85	604.85	596.85	1870.00	606.66	.00	606.69	6.36	1.75	1543.32	741.63
	23012.000	11.00	604.85	604.85	596.85	1360.00	605.95	.00	605.98	7.19	1.72	1209.97	507.05
	23012.000	11.00	604.85	604.85	596.85	1152.00	605.67	.00	605.69	7.41	1.69	1074.81	423.21
	23012.000	11.00	604.85	604.85	596.85	738.00	604.98	.00	605.00	8.60	1.66	751.65	251.73
	23013.000	1.00	.00	.00	596.85	1870.00	606.63	.00	606.70	3.27	2.95	1592.63	1033.83
	23013.000	1.00	.00	.00	596.85	1360.00	605.93	.00	605.99	3.17	2.73	1259.65	763.64
	23013.000	1.00	.00	.00	596.85	1152.00	605.64	.00	605.70	2.99	2.59	1125.28	666.32
	23013.000	1.00	.00	.00	596.85	738.00	604.96	.00	605.01	2.53	2.22	804.91	464.05
	23256.000	243.00	.00	.00	596.02	1870.00	606.74	.00	606.76	2.05	2.81	2021.12	1307.18
	23256.000	243.00	.00	.00	596.02	1360.00	606.03	.00	606.05	1.60	2.37	1822.09	1073.89
	23256.000	243.00	.00	.00	596.02	1152.00	605.73	.00	605.75	1.46	2.21	1680.80	954.88
	23256.000	243.00	.00	.00	596.02	738.00	605.04	.00	605.05	1.12	1.84	1343.85	697.72
	24202.000	946.00	.00	.00	596.01	1870.00	606.95	.00	607.10	5.41	3.89	908.56	804.12
	24202.000	946.00	.00	.00	596.01	1360.00	606.19	.00	606.31	4.49	3.34	761.83	641.57
	24202.000	946.00	.00	.00	596.01	1152.00	605.89	.00	605.99	3.94	3.05	702.23	580.51
	24202.000	946.00	.00	.00	596.01	738.00	605.16	.00	605.23	2.72	2.37	560.06	447.32
	24203.000	1.00	602.77	602.92	596.01	1870.00	607.03	.00	607.11	12.59	2.78	891.08	527.00
	24203.000	1.00	602.77	602.92	596.01	1360.00	606.26	.00	606.32	11.75	2.51	740.38	396.74
	24203.000	1.00	602.77	602.92	596.01	1152.00	605.94	.00	606.00	10.95	2.35	678.70	348.08
	24203.000	1.00	602.77	602.92	596.01	738.00	605.19	.00	605.23	9.14	1.98	532.08	244.15

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
24219.000	16.00	602.77	602.92	596.01	1870.00	607.05	.00	607.13	12.47	2.77	893.88	529.56
24219.000	16.00	602.77	602.92	596.01	1360.00	606.28	.00	606.34	11.63	2.50	742.90	398.80
24219.000	16.00	602.77	602.92	596.01	1152.00	605.96	.00	606.01	10.84	2.34	681.02	349.86
24219.000	16.00	602.77	602.92	596.01	738.00	605.20	.00	605.24	9.05	1.98	533.93	245.35
24220.000	1.00	.00	.00	596.01	1870.00	607.00	.00	607.15	5.24	3.85	919.23	816.59
24220.000	1.00	.00	.00	596.01	1360.00	606.24	.00	606.36	4.37	3.31	770.62	650.82
24220.000	1.00	.00	.00	596.01	1152.00	605.93	.00	606.03	3.84	3.02	709.91	588.21
24220.000	1.00	.00	.00	596.01	738.00	605.19	.00	605.25	2.65	2.35	567.21	453.58
24474.000	254.00	.00	.00	596.25	1870.00	607.05	.00	607.44	10.36	5.40	539.56	580.92
24474.000	254.00	.00	.00	596.25	1360.00	606.30	.00	606.57	7.76	4.40	469.10	488.11
24474.000	254.00	.00	.00	596.25	1152.00	605.99	.00	606.20	6.51	3.93	439.74	451.49
24474.000	254.00	.00	.00	596.25	738.00	605.24	.00	605.36	4.01	2.87	369.17	368.73
24574.000	100.00	.00	.00	597.91	1870.00	607.06	.00	607.72	21.54	6.53	286.56	402.89
24574.000	100.00	.00	.00	597.91	1360.00	606.32	.00	606.77	17.00	5.35	254.17	329.89
24574.000	100.00	.00	.00	597.91	1152.00	606.01	.00	606.37	14.58	4.78	240.91	301.69
24574.000	100.00	.00	.00	597.91	738.00	605.26	.00	605.45	9.31	3.55	208.18	241.93
24588.000	14.00	609.80	607.81	598.01	1870.00	607.34	.00	607.96	19.59	6.34	294.83	422.45
24588.000	14.00	609.80	607.81	598.01	1360.00	606.41	.00	606.85	17.13	5.36	253.56	328.56
24588.000	14.00	609.80	607.81	598.01	1152.00	606.07	.00	606.44	14.95	4.82	238.93	297.90
24588.000	14.00	609.80	607.81	598.01	738.00	605.29	.00	605.49	9.76	3.60	204.96	236.28
24638.000	50.00	.00	.00	598.01	1870.00	607.71	.00	608.11	13.10	5.37	532.46	516.58
24638.000	50.00	.00	.00	598.01	1360.00	606.60	.00	606.96	13.86	4.93	371.40	365.37
24638.000	50.00	.00	.00	598.01	1152.00	606.21	.00	606.52	13.00	4.56	314.45	319.48
24638.000	50.00	.00	.00	598.01	738.00	605.34	.00	605.54	9.41	3.56	219.47	240.53
25020.000	382.00	.00	.00	598.20	1870.00	608.10	.00	608.73	15.61	7.65	542.59	473.34
25020.000	382.00	.00	.00	598.20	1360.00	607.02	.00	607.53	13.88	6.68	434.87	365.02
25020.000	382.00	.00	.00	598.20	1152.00	606.61	.00	607.04	12.40	6.11	393.65	327.21
25020.000	382.00	.00	.00	598.20	738.00	605.64	.00	605.92	9.01	4.78	295.10	245.89
25137.000	117.00	.00	.00	598.07	1870.00	608.25	.00	608.87	9.51	6.45	379.85	606.28
25137.000	117.00	.00	.00	598.07	1360.00	607.24	.00	607.67	7.54	5.33	292.41	495.35
25137.000	117.00	.00	.00	598.07	1152.00	606.82	.00	607.17	6.47	4.77	265.56	453.05
25137.000	117.00	.00	.00	598.07	738.00	605.82	.00	606.02	4.31	3.57	206.72	355.29
25306.000	169.00	607.78	606.16	598.07	1870.00	609.80	.00	610.19	5.15	5.26	604.21	824.41
25306.000	169.00	607.78	606.16	598.07	1360.00	609.17	.00	609.43	3.54	4.19	506.54	723.32
25306.000	169.00	607.78	606.16	598.47	1152.00	608.80	.00	609.00	2.97	3.75	448.10	668.12
25306.000	169.00	607.78	606.16	598.47	738.00	606.79	.00	606.95	2.94	3.21	230.10	430.77
25340.000	34.00	.00	.00	598.20	1870.00	610.16	.00	610.28	1.95	3.60	1304.48	1339.40
25340.000	34.00	.00	.00	598.20	1360.00	609.40	.00	609.49	1.40	2.92	1153.41	1147.48
25340.000	34.00	.00	.00	598.20	1152.00	608.98	.00	609.05	1.21	2.65	1068.77	1045.85
25340.000	34.00	.00	.00	598.20	738.00	606.88	.00	606.98	1.73	2.73	461.17	560.94

BLAKELY DRAIN

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10634.000	1730.00	600.04	.00	.00	.00	360.00	50.00
10634.000	1360.00	599.60	-.44	.00	-.44	360.00	50.00
10634.000	1176.00	599.34	-.26	.00	-.70	360.00	50.00
10634.000	780.00	597.16	-2.18	.00	-2.88	314.00	50.00
11506.000	1730.00	600.26	.00	.22	.00	636.82	872.00
11506.000	1360.00	599.78	-.48	.18	-.48	528.64	872.00
11506.000	1176.00	599.50	-.28	.16	-.76	526.79	872.00
11506.000	780.00	597.49	-2.01	.33	-2.77	397.08	872.00
12478.000	1050.00	600.36	.00	.09	.00	71.00	972.00
12478.000	950.00	599.88	-.48	.10	-.48	71.00	972.00
12478.000	880.00	599.59	-.29	.09	-.76	71.00	972.00
12478.000	710.00	597.76	-1.84	.26	-2.60	71.00	972.00
12578.000	1050.00	600.30	.00	-.06	.00	22.00	100.00
12578.000	950.00	599.84	-.46	-.04	-.46	22.00	100.00
12578.000	880.00	599.56	-.28	-.04	-.74	22.00	100.00
12578.000	710.00	597.75	-1.81	-.01	-2.56	22.00	100.00
12622.000	1050.00	601.60	.00	1.30	.00	22.00	44.00
12622.000	950.00	600.86	-.74	1.02	-.74	22.00	44.00
12622.000	880.00	600.41	-.45	.86	-1.19	22.00	44.00
12622.000	710.00	598.18	-2.24	.43	-3.42	22.00	44.00
12672.000	1870.00	601.79	.00	.19	.00	122.00	50.00
12672.000	1360.00	601.11	-.68	.25	-.68	122.00	50.00
12672.000	1152.00	600.66	-.45	.25	-1.13	122.00	50.00
12672.000	738.00	598.48	-2.18	.30	-3.32	122.00	50.00
13382.000	1870.00	602.10	.00	.30	.00	410.00	710.00
13382.000	1360.00	601.31	-.78	.20	-.78	410.00	710.00
13382.000	1152.00	600.83	-.48	.17	-1.26	410.00	710.00
13382.000	738.00	598.66	-2.17	.18	-3.43	314.92	710.00
13482.000	1870.00	602.09	.00	-.01	.00	374.00	100.00
13482.000	1360.00	601.30	-.79	-.01	-.79	374.00	100.00
13482.000	1152.00	600.82	-.48	-.01	-1.27	374.00	100.00
13482.000	738.00	598.57	-2.26	-.09	-3.52	22.00	100.00
13483.000	1870.00	602.07	.00	-.02	.00	374.00	1.00
13483.000	1360.00	601.27	-.80	-.04	-.80	374.00	1.00
13483.000	1152.00	600.76	-.51	-.07	-1.31	374.00	1.00
13483.000	738.00	598.44	-2.31	-.12	-3.63	153.02	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13569.000	1870.00	602.32	.00	.25	.00	374.00	86.00
13569.000	1360.00	601.58	-.74	.31	-.74	374.00	86.00
13569.000	1152.00	601.18	-.40	.42	-1.13	374.00	86.00
13569.000	738.00	598.91	-2.27	.47	-3.41	277.37	86.00
13570.000	1870.00	602.34	.00	.02	.00	374.00	1.00
13570.000	1360.00	601.63	-.71	.05	-.71	374.00	1.00
13570.000	1152.00	601.26	-.37	.08	-1.08	374.00	1.00
13570.000	738.00	599.43	-1.83	.52	-2.91	221.00	1.00
13595.000	1870.00	602.42	.00	.07	.00	435.00	25.00
13595.000	1360.00	601.69	-.73	.06	-.73	435.00	25.00
13595.000	1152.00	601.31	-.38	.05	-1.10	435.00	25.00
13595.000	738.00	599.54	-1.78	.10	-2.88	408.05	25.00
15306.000	1870.00	602.67	.00	.25	.00	440.00	1711.00
15306.000	1360.00	601.89	-.78	.20	-.78	440.00	1711.00
15306.000	1152.00	601.49	-.40	.18	-1.18	440.00	1711.00
15306.000	738.00	599.76	-1.72	.23	-2.91	440.00	1711.00
16306.000	1870.00	602.93	.00	.26	.00	366.20	1000.00
16306.000	1360.00	602.10	-.83	.21	-.83	361.06	1000.00
16306.000	1152.00	601.68	-.42	.19	-1.25	358.48	1000.00
16306.000	738.00	600.04	-1.64	.28	-2.89	348.30	1000.00
17146.000	1870.00	603.08	.00	.15	.00	80.00	840.00
17146.000	1360.00	602.24	-.84	.14	-.84	80.00	840.00
17146.000	1152.00	601.81	-.42	.13	-1.26	80.00	840.00
17146.000	738.00	600.22	-1.59	.18	-2.85	80.00	840.00
17246.000	1870.00	603.01	.00	-.07	.00	29.99	100.00
17246.000	1360.00	602.20	-.80	-.04	-.80	29.99	100.00
17246.000	1152.00	601.79	-.41	-.02	-1.21	29.99	100.00
17246.000	738.00	600.22	-1.57	-.00	-2.78	29.99	100.00
17310.000	1870.00	603.45	.00	.44	.00	29.99	64.00
17310.000	1360.00	602.24	-1.21	.04	-1.21	29.99	64.00
17310.000	1152.00	601.82	-.42	.03	-1.62	29.99	64.00
17310.000	738.00	600.25	-1.58	.02	-3.20	29.99	64.00
17375.000	1870.00	603.82	.00	.38	.00	60.75	65.00
17375.000	1360.00	602.49	-1.34	.25	-1.34	60.75	65.00
17375.000	1152.00	602.01	-.47	.19	-1.81	60.75	65.00
17375.000	738.00	600.36	-1.66	.11	-3.47	60.75	65.00
17437.000	1870.00	603.71	.00	-.11	.00	29.97	62.00
17437.000	1360.00	602.42	-1.29	-.07	-1.29	29.97	62.00
17437.000	1152.00	601.96	-.46	-.06	-1.75	29.97	62.00
17437.000	738.00	600.33	-1.63	-.03	-3.38	29.97	62.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17450.000	1870.00	604.21	.00	.50	.00	29.97	86.00
17450.000	1360.00	602.48	-1.73	.06	-1.73	29.97	86.00
17450.000	1152.00	602.01	-.47	.05	-2.19	29.97	86.00
17450.000	738.00	600.37	-1.64	.04	-3.83	29.97	86.00
17500.000	1870.00	604.69	.00	.48	.00	105.30	50.00
17500.000	1360.00	602.83	-1.86	.35	-1.86	105.30	50.00
17500.000	1152.00	602.28	-.54	.27	-2.41	105.30	50.00
17500.000	738.00	600.53	-1.76	.16	-4.16	105.30	50.00
18566.000	1870.00	604.92	.00	.23	.00	522.00	1066.00
18566.000	1360.00	603.06	-1.86	.23	-1.86	522.00	1066.00
18566.000	1152.00	602.49	-.56	.21	-2.43	522.00	1066.00
18566.000	738.00	600.75	-1.74	.22	-4.17	522.00	1066.00
18666.000	1870.00	604.92	.00	.00	.00	468.11	100.00
18666.000	1360.00	603.06	-1.86	.00	-1.86	468.05	100.00
18666.000	1152.00	602.49	-.56	.00	-2.43	468.04	100.00
18666.000	738.00	600.75	-1.74	.00	-4.17	273.22	100.00
18667.000	1870.00	604.92	.00	-.00	.00	468.11	1.00
18667.000	1360.00	603.04	-1.88	-.02	-1.88	468.05	1.00
18667.000	1152.00	602.42	-.62	-.07	-2.50	468.04	1.00
18667.000	738.00	600.56	-1.86	-.19	-4.35	259.94	1.00
18705.000	1870.00	604.93	.00	.01	.00	468.11	38.00
18705.000	1360.00	603.09	-1.84	.05	-1.84	468.06	38.00
18705.000	1152.00	602.59	-.50	.17	-2.34	468.04	38.00
18705.000	738.00	600.65	-1.94	.09	-4.28	266.59	38.00
18706.000	1870.00	604.94	.00	.00	.00	468.11	1.00
18706.000	1360.00	603.13	-1.80	.04	-1.80	468.06	1.00
18706.000	1152.00	602.67	-.46	.08	-2.26	468.04	1.00
18706.000	738.00	601.16	-1.51	.51	-3.78	280.00	1.00
18756.000	1870.00	604.95	.00	.02	.00	575.00	50.00
18756.000	1360.00	603.15	-1.80	.02	-1.80	575.00	50.00
18756.000	1152.00	602.69	-.46	.02	-2.26	575.00	50.00
18756.000	738.00	601.19	-1.51	.03	-3.77	575.00	50.00
19061.000	1870.00	604.96	.00	.01	.00	520.00	305.00
19061.000	1360.00	603.12	-1.83	-.03	-1.83	520.00	305.00
19061.000	1152.00	602.65	-.47	-.04	-2.30	412.05	305.00
19061.000	738.00	601.15	-1.50	-.03	-3.80	42.42	305.00
19062.000	1870.00	604.98	.00	.03	.00	520.00	1.00
19062.000	1360.00	603.19	-1.79	.07	-1.79	520.00	1.00
19062.000	1152.00	602.70	-.49	.05	-2.28	423.39	1.00
19062.000	738.00	601.16	-1.54	.01	-3.82	98.89	1.00

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
19070.000	1870.00	604.98	.00	.00	.00	520.00	8.00
19070.000	1360.00	603.21	-1.78	.02	-1.78	520.00	8.00
19070.000	1152.00	602.73	-.48	.02	-2.26	428.35	8.00
19070.000	738.00	601.18	-1.55	.02	-3.80	99.61	8.00
19071.000	1870.00	604.97	.00	-.02	.00	520.00	1.00
19071.000	1360.00	603.17	-1.80	-.04	-1.80	520.00	1.00
19071.000	1152.00	602.70	-.47	-.03	-2.27	423.28	1.00
19071.000	738.00	601.18	-1.52	-.00	-3.79	42.51	1.00
20293.000	1870.00	605.15	.00	.18	.00	610.77	1222.00
20293.000	1360.00	603.59	-1.56	.42	-1.56	532.99	1222.00
20293.000	1152.00	603.16	-.43	.46	-1.99	511.70	1222.00
20293.000	738.00	601.85	-1.31	.67	-3.30	400.14	1222.00
20294.000	1870.00	605.16	.00	.01	.00	610.78	1.00
20294.000	1360.00	603.61	-1.55	.01	-1.55	533.33	1.00
20294.000	1152.00	603.18	-.43	.01	-1.98	512.02	1.00
20294.000	738.00	601.87	-1.31	.02	-3.29	402.04	1.00
20305.000	1870.00	605.16	.00	.00	.00	611.22	11.00
20305.000	1360.00	603.61	-1.55	.00	-1.55	533.79	11.00
20305.000	1152.00	603.18	-.43	.00	-1.98	512.53	11.00
20305.000	738.00	601.88	-1.30	.01	-3.28	402.56	11.00
20306.000	1870.00	605.16	.00	-.00	.00	611.24	1.00
20306.000	1360.00	603.60	-1.56	-.01	-1.56	533.85	1.00
20306.000	1152.00	603.17	-.43	-.01	-1.98	512.59	1.00
20306.000	738.00	601.87	-1.31	-.01	-3.29	402.30	1.00
20406.000	1870.00	605.17	.00	.01	.00	747.05	100.00
20406.000	1360.00	603.62	-1.55	.02	-1.55	597.18	100.00
20406.000	1152.00	603.19	-.43	.02	-1.98	557.21	100.00
20406.000	738.00	601.88	-1.31	.01	-3.29	359.49	100.00
21223.000	1870.00	605.29	.00	.12	.00	250.00	817.00
21223.000	1360.00	603.84	-1.45	.23	-1.45	250.00	817.00
21223.000	1152.00	603.43	-.41	.24	-1.86	250.00	817.00
21223.000	738.00	602.25	-1.18	.37	-3.05	250.00	817.00
21323.000	1870.00	605.21	.00	-.08	.00	200.00	100.00
21323.000	1360.00	603.49	-1.72	-.35	-1.72	184.68	100.00
21323.000	1152.00	603.03	-.46	-.40	-2.18	115.87	100.00
21323.000	738.00	602.04	-.99	-.21	-3.17	29.86	100.00
21359.000	1870.00	605.51	.00	.30	.00	200.00	36.00
21359.000	1360.00	604.86	-.65	1.37	-.65	200.00	36.00
21359.000	1152.00	604.68	-.18	1.65	-.84	200.00	36.00
21359.000	738.00	604.23	-.45	2.20	-1.28	200.00	36.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
21409.000	1870.00	605.63	.00	.11	.00	200.00	50.00
21409.000	1360.00	604.96	-.66	.10	-.66	200.00	50.00
21409.000	1152.00	604.76	-.20	.08	-.86	200.00	50.00
21409.000	738.00	604.28	-.48	.05	-1.34	200.00	50.00
23000.000	1870.00	606.61	.00	.98	.00	470.09	1591.00
23000.000	1360.00	605.90	-.71	.94	-.71	470.07	1591.00
23000.000	1152.00	605.62	-.29	.85	-.99	470.06	1591.00
23000.000	738.00	604.94	-.68	.65	-1.67	470.04	1591.00
23001.000	1870.00	606.65	.00	.04	.00	470.09	1.00
23001.000	1360.00	605.94	-.71	.04	-.71	470.07	1.00
23001.000	1152.00	605.66	-.29	.04	-1.00	470.06	1.00
23001.000	738.00	604.97	-.69	.03	-1.69	470.04	1.00
23012.000	1870.00	606.66	.00	.01	.00	470.09	11.00
23012.000	1360.00	605.95	-.71	.01	-.71	470.07	11.00
23012.000	1152.00	605.67	-.29	.01	-1.00	470.06	11.00
23012.000	738.00	604.98	-.69	.01	-1.68	470.04	11.00
23013.000	1870.00	606.63	.00	-.03	.00	470.09	1.00
23013.000	1360.00	605.93	-.71	-.03	-.71	470.07	1.00
23013.000	1152.00	605.64	-.29	-.03	-.99	470.06	1.00
23013.000	738.00	604.96	-.68	-.02	-1.68	470.04	1.00
23256.000	1870.00	606.74	.00	.10	.00	450.00	243.00
23256.000	1360.00	606.03	-.71	.10	-.71	485.00	243.00
23256.000	1152.00	605.73	-.29	.09	-1.00	485.00	243.00
23256.000	738.00	605.04	-.69	.08	-1.70	485.00	243.00
24202.000	1870.00	606.95	.00	.21	.00	195.11	946.00
24202.000	1360.00	606.19	-.75	.17	-.75	195.08	946.00
24202.000	1152.00	605.89	-.31	.15	-1.06	195.07	946.00
24202.000	738.00	605.16	-.73	.12	-1.79	195.05	946.00
24203.000	1870.00	607.03	.00	.08	.00	195.11	1.00
24203.000	1360.00	606.26	-.77	.06	-.77	195.09	1.00
24203.000	1152.00	605.94	-.32	.05	-1.09	195.08	1.00
24203.000	738.00	605.19	-.75	.03	-1.84	195.05	1.00
24219.000	1870.00	607.05	.00	.02	.00	195.11	16.00
24219.000	1360.00	606.28	-.77	.02	-.77	195.09	16.00
24219.000	1152.00	605.96	-.32	.02	-1.09	195.08	16.00
24219.000	738.00	605.20	-.75	.01	-1.85	195.05	16.00
24220.000	1870.00	607.00	.00	-.05	.00	195.11	1.00
24220.000	1360.00	606.24	-.76	-.04	-.76	195.09	1.00
24220.000	1152.00	605.93	-.31	-.03	-1.07	195.08	1.00
24220.000	738.00	605.19	-.74	-.02	-1.81	195.05	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
24474.000	1870.00	607.05	.00	.05	.00	94.00	254.00
24474.000	1360.00	606.30	-.75	.06	-.75	94.00	254.00
24474.000	1152.00	605.99	-.31	.06	-1.06	94.00	254.00
24474.000	738.00	605.24	-.75	.05	-1.81	94.00	254.00
24574.000	1870.00	607.06	.00	.00	.00	44.00	100.00
24574.000	1360.00	606.32	-.74	.02	-.74	44.00	100.00
24574.000	1152.00	606.01	-.31	.02	-1.05	44.00	100.00
24574.000	738.00	605.26	-.75	.02	-1.80	42.60	100.00
24588.000	1870.00	607.34	.00	.28	.00	44.00	14.00
24588.000	1360.00	606.41	-.93	.09	-.93	44.00	14.00
24588.000	1152.00	606.07	-.33	.06	-1.26	43.93	14.00
24588.000	738.00	605.29	-.79	.03	-2.05	42.46	14.00
24638.000	1870.00	607.71	.00	.37	.00	145.00	50.00
24638.000	1360.00	606.60	-1.11	.19	-1.11	145.00	50.00
24638.000	1152.00	606.21	-.39	.13	-1.50	145.00	50.00
24638.000	738.00	605.34	-.86	.06	-2.36	95.55	50.00
25020.000	1870.00	608.10	.00	.40	.00	100.00	382.00
25020.000	1360.00	607.02	-1.08	.43	-1.08	100.00	382.00
25020.000	1152.00	606.61	-.42	.40	-1.50	100.00	382.00
25020.000	738.00	605.64	-.97	.29	-2.47	100.00	382.00
25137.000	1870.00	608.25	.00	.15	.00	118.03	117.00
25137.000	1360.00	607.24	-1.01	.21	-1.01	54.17	117.00
25137.000	1152.00	606.82	-.42	.21	-1.43	37.56	117.00
25137.000	738.00	605.82	-1.00	.18	-2.43	29.02	117.00
25306.000	1870.00	609.80	.00	1.55	.00	155.01	169.00
25306.000	1360.00	609.17	-.63	1.94	-.63	155.00	169.00
25306.000	1152.00	608.80	-.38	1.98	-1.01	149.10	169.00
25306.000	738.00	606.79	-2.01	.97	-3.01	29.02	169.00
25340.000	1870.00	610.16	.00	.35	.00	200.00	34.00
25340.000	1360.00	609.40	-.75	.23	-.75	200.00	34.00
25340.000	1152.00	608.98	-.42	.18	-1.18	200.00	34.00
25340.000	738.00	606.88	-2.10	.09	-3.28	100.00	34.00

SUMMARY OF ERRORS

CAUTION SECNO=21323.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO=21323.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Brownstown Creek

4) DOCUMENT TYPE: 100 Year

00BREAK00

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

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BROWNSTOWN CREEK
T2Q 10YR=480 50=650 100=710 500=860 CFS
T3      BROWNSTOWN CREEK        BROWNSTOWN TWP. W.S. AT M-85 GIBRALTAR FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        6.        0.        0.  0.0          0.0       0.0        0.   586.340     0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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Input w/
"100 Yr Natural

*PROF 2

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 151.000

SECNO	DEPTH	CHSEL	CRIWS	WSELR	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
151.00	10.01	586.34	0.0	586.24	586.37	0.03	0.0	0.0	586.43
710.	0.	676.	34.	0.	492.	110.	0.	0.	586.13
0.0	0.0	1.37	0.31	0.0	0.043	0.050	0.0	576.33	750.46
0.000310	0.	0.	0.	0	0	0	0.0	349.56	1100.00

CCHV= 0.300 CEHV= 0.500
*SECNO 175.000

3470 ENCROACHMENT STATIONS= 410.0 750.0 TYPE= 1 TARGET= 340.000

D/S FACE SB FORT ST. BRIDGE

175.00	9.01	586.35	0.0	586.25	586.53	0.18	0.09	0.07	577.70
710.	62.	649.	199.	48.	107.	291.	3.	2.	577.40
0.02	1.30	4.20	0.68	0.060	0.035	0.060	0.035	577.34	420.97
0.000531	215.	215.	215.	2	0	0	0.0	329.03	750.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.0	2.08	3.00	0.0	11.40	0.0	78.00	0.0	577.34	577.70

*SECNO 220.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
589.03	586.53	0.0	398.	318.	78.	70.	584.17	586.04

U/S FACE SB FORT ST. BRIDGE

220.00	9.63	586.77	0.0	586.74	586.89	0.12	0.36	0.0	577.40
710.	57.	609.	264.	51.	113.	378.	3.	2.	577.40
0.03	1.11	3.63	0.64	0.060	0.035	0.060	0.035	577.34	423.04
0.000369	45.	45.	45.	2	0	5	0.0	314.35	737.39

*SECNO 245.000

X-SECT. U/S OF SB PORT

245.00	9.44	586.78	0.0	586.75	586.90	0.12	0.01	0.00	577.40
710.	57.	408.	245.	51.	113.	381.	3.	2.	577.40
0.03	1.10	3.62	0.64	0.060	0.035	0.060	0.035	577.34	423.03
0.000365	35.	25.	10.	0	0	0	0.0	315.17	738.20

CCHV= 0.100 CEHV= 0.300
*SECNO 518.000

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= 750.0 1375.0 TYPE= 1 TARGET= 625.000

X-SECT. D/S ALLEN RD.BRIDGE.

518.00	8.37	586.93	0.0	586.92	586.94	0.01	0.04	0.01	578.80
710.	230.	155.	325.	628.	99.	911.	9.	5.	578.80
0.14	0.37	1.57	0.36	0.070	0.035	0.070	0.037	578.56	750.00
0.000082	300.	273.	200.	2	0	0	0.0	625.00	1375.00

CCHV= 0.300 CEHV= 0.500
*SECNO 1010.000

3470 ENCROACHMENT STATIONS= 374.0 701.0 TYPE= 1 TARGET= 327.000

D/S ALLEN RD. BRIDGE

1018.00	8.32	586.92	0.0	586.90	587.13	0.21	0.09	0.10	578.60
710.	90.	578.	42.	99.	142.	76.	20.	10.	578.60
0.18	0.91	4.08	0.55	0.070	0.035	0.070	0.036	578.60	374.93
0.000557	500.	500.	500.	2	0	0	0.0	325.07	700.00

SPECIAL BRIDGE

SB	XK	AKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	2.00	3.00	0.0	16.10	0.0	84.00	0.0	578.60	578.60

*SECNO 1073.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	K3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
589.14	587.13	0.0	436.	275.	84.	84.	583.80	586.50

U/S ALLEN RD. BRIDGE

1073.00	8.46	587.06	0.0	587.05	587.25	0.19	0.12	0.0	578.60
710.	96.	563.	51.	115.	164.	104.	21.	10.	578.60
0.18	0.83	3.91	0.49	0.070	0.035	0.070	0.036	578.60	374.89
0.000499	55.	55.	55.	2	0	4	0.0	325.11	700.01

*SEC 3 1123.00

X-SECT. U/S ALLEN RD.BRIDGE

1123.00	8.49	587.09	0.0	587.08	587.28	0.19	0.02	0.00	578.60
710.	97.	561.	53.	118.	144.	109.	21.	11.	578.60
0.19	0.82	3.88	0.48	0.070	0.035	0.070	0.036	578.60	374.88
0.000489	50.	50.	50.	0	0	0	0.0	325.12	700.01

CCHV= 0.100 CEHV= 0.300
*SECNO 2091.000

VALLEY SECT. BASED ON F.B.SECT.2000

2091.00	8.08	587.64	0.0	587.64	587.79	0.15	0.51	0.00	579.85
710.	111.	394.	205.	218.	98.	274.	31.	17.	579.63
0.29	0.51	4.10	0.75	0.100	0.035	0.100	0.036	579.56	346.94
0.000589	450.	968.	1300.	2	0	0	0.0	276.36	623.30

CCHV= 0.100 CEHV= 0.300
*SECNO 2791.000

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

1

3470 ENCROACHMENT STATIONS= 0.0 650.0 TYPE= 1 TARGET= 649.999

VALLEY SECT. BASED ON QUAD MAP AND INTERPOLATION BETW. 2 F.B. SECT.

2791.00	0.45	580.01	0.0	580.01	580.10	0.09	0.30	0.01	579.85
710.	170.	360.	201.	275.	100.	324.	41.	21.	579.63
0.38	0.82	3.39	0.62	0.070	0.035	0.100	0.036	579.56	327.10
0.000375	600.	700.	600.	2	0	0	0.0	322.90	650.00

*SECNO 3811.000

3470 ENCROACHMENT STATIONS= 191.0 436.0 TYPE= 1 TARGET= 245.000

X-SECT. D/S OF VREELAND RD. CULVERT

3811.00	8.89	588.39	0.0	588.39	588.51	0.12	0.40	0.01	580.00
710.	200.	384.	126.	246.	104.	219.	55.	28.	530.00
0.50	0.82	3.70	0.58	0.070	0.035	0.100	0.036	579.50	191.00
0.000431	1020.	1020.	950.	2	0	0	0.0	265.00	436.00

CCHV= 0.300 CEHV= 0.500
*SECNO 4011.000

D/S END VREELAND RD.CULVERT

4011.00	8.94	588.64	0.0	588.64	588.75	0.30	0.14	0.09	583.00
710.	69.	466.	195.	44.	87.	139.	57.	29.	583.00
0.52	1.13	5.38	1.40	0.070	0.035	0.070	0.036	579.50	241.09
0.001434	200.	200.	200.	2	0	0	0.0	164.82	385.90

300

SPECIAL BRIDGE

0.0	1.67	3.00	0.0	8.30	0.0	58.00	0.0	579.80	579.50

*SECNO 4091.000
PRESSURE AND WEIR FLOW

EGPRS	EGLHC	M3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
592.33	589.90	0.0	276.	435.	58.	58.	586.80	589.07

U/S END VREELAND RD.CULVERT

4091.00	9.14	589.76	0.0	589.76	589.90	0.14	1.15	0.0	583.30
710.	76.	375.	259.	82.	93.	216.	57.	29.	583.30
0.53	0.93	4.03	1.20	0.070	0.035	0.070	0.036	580.62	241.06
0.000699	80.	80.	80.	2	0	5	0.0	144.85	385.91

*SECNO 4141.000

3470 ENCROACHMENT STATIONS= 341.0 586.0 TYPE= 1 TARGET= 245.000

X-SECT.U/S OF VREELAND RD.

4141.00	9.32	589.92	0.0	589.92	589.95	0.03	0.01	0.03	580.80
710.	254.	236.	220.	414.	111.	414.	58.	29.	580.80
0.54	0.61	2.13	0.53	0.070	0.035	0.070	0.036	580.60	341.00
0.000131	50.	50.	50.	2	0	0	0.0	245.00	586.00

FORM 6413

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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
4141.000	589.92	0.0	589.95	245.00	253.54	236.10	220.36	245.00	341.00	444.00	456.00	586.00
4141.000	589.92	0.00	589.95	245.00	253.55	236.08	220.37	245.00	341.00	444.00	456.00	586.00

FORM 6693

BROWNSTOWN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
151.000	0.0	0.0	0.0	576.33	710.00	586.24	0.0	586.27	3.35	1.42	566.86	387.82
151.000	0.0	0.0	0.0	576.33	710.00	586.34	0.0	586.37	3.10	1.37	601.82	402.93
175.000	215.00	0.0	0.0	577.34	710.00	586.25	0.0	586.45	5.86	4.38	413.25	293.20
175.000	215.00	0.0	0.0	577.34	710.00	586.35	0.0	586.53	5.31	4.20	445.83	308.24
220.000	45.00	586.04	584.17	577.34	710.00	586.74	0.0	586.87	3.77	3.66	534.94	365.78
220.000	45.00	586.04	584.17	577.34	710.00	586.77	0.0	586.89	3.69	3.63	542.09	369.70
245.000	25.00	0.0	0.0	577.34	710.00	586.75	0.0	586.88	3.73	3.65	538.43	367.69
245.000	25.00	0.0	0.0	577.34	710.00	586.78	0.0	586.90	3.65	3.62	545.33	371.49
518.000	273.00	0.0	0.0	578.56	710.00	586.92	0.0	586.93	0.83	1.58	1626.15	778.18
518.000	273.00	0.0	0.0	578.56	710.00	586.93	0.0	586.94	0.82	1.57	1637.90	786.24
1018.000	500.00	0.0	0.0	578.60	710.00	586.90	0.0	587.12	5.64	4.11	310.71	298.89
1018.000	500.00	0.0	0.0	578.60	710.00	586.92	0.0	587.13	5.57	4.08	316.75	300.91
1073.000	55.00	586.50	583.80	578.60	710.00	587.05	0.0	587.25	5.02	3.92	361.20	316.87
1073.000	55.00	586.50	583.80	578.60	710.00	587.06	0.0	587.25	4.99	3.91	363.34	317.69
1123.000	50.00	0.0	0.0	578.60	710.00	587.08	0.0	587.27	4.92	3.89	369.69	320.14
1123.000	50.00	0.0	0.0	578.60	710.00	587.09	0.0	587.28	4.89	3.88	371.75	320.94
2091.000	968.00	0.0	0.0	579.56	710.00	587.64	0.0	587.79	5.87	4.11	586.97	293.07
2091.000	968.00	0.0	0.0	579.56	710.00	587.64	0.0	587.79	5.86	4.10	588.04	293.53
2791.000	700.00	0.0	0.0	579.56	710.00	588.01	0.0	588.09	3.76	3.39	699.04	366.16
2791.000	700.00	0.0	0.0	579.56	710.00	588.01	0.0	588.10	3.75	3.39	699.91	366.58
3811.000	1020.00	0.0	0.0	579.50	710.00	588.39	0.0	588.51	4.31	3.70	567.07	341.89
3811.000	1020.00	0.0	0.0	579.50	710.00	588.39	0.0	588.51	4.31	3.70	567.55	342.17
4011.000	200.00	0.0	0.0	579.50	710.00	588.44	0.0	588.74	14.36	5.30	269.01	187.38
4011.000	200.00	0.0	0.0	579.50	710.00	588.44	0.0	588.75	14.34	5.30	269.25	187.51
4091.000	80.00	589.07	586.80	580.62	710.00	589.76	0.0	589.90	7.00	4.03	390.69	268.45
4091.000	80.00	589.07	586.80	580.62	710.00	589.76	0.0	589.90	6.99	4.03	390.76	268.50
4141.000	50.00	0.0	0.0	580.60	710.00	589.92	0.0	589.95	1.31	2.13	938.97	620.90
4141.000	50.00	0.0	0.0	580.60	710.00	589.92	0.0	589.95	1.31	2.13	939.09	621.00

BROWNSTOWN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
151.000	710.00	586.24	0.0	0.0	0.0	349.02	0.0
151.000	710.00	586.34	0.10	0.0	0.10	349.54	0.0
175.000	710.00	586.25	0.0	0.01	0.0	308.10	215.00
175.000	710.00	586.35	0.10	0.01	0.10	329.03	215.00
220.000	710.00	586.74	0.0	0.49	0.0	312.55	45.00
220.000	710.00	586.77	0.02	0.42	0.02	314.35	45.00
245.000	710.00	586.75	0.0	0.01	0.0	313.43	25.00
245.000	710.00	586.78	0.02	0.01	0.02	315.17	25.00
518.000	710.00	586.92	0.0	0.16	0.0	625.00	273.00
518.000	710.00	586.93	0.02	0.16	0.02	625.00	273.00
1018.000	710.00	586.90	0.0	-0.02	0.0	324.99	500.00
1018.000	710.00	586.92	0.02	-0.02	0.02	325.07	500.00
1073.000	710.00	587.05	0.0	0.15	0.0	325.11	55.00
1073.000	710.00	587.06	0.01	0.14	0.01	325.11	55.00
1123.000	710.00	587.08	0.0	0.03	0.0	325.12	50.00
1123.000	710.00	587.09	0.01	0.03	0.01	325.12	50.00
2091.000	710.00	587.66	0.0	0.55	0.0	275.69	968.00
2091.000	710.00	587.66	0.00	0.55	0.00	276.36	968.00
2791.000	710.00	588.01	0.0	0.37	0.0	322.76	700.00
2791.000	710.00	588.01	0.00	0.37	0.00	322.90	700.00
3811.000	710.00	588.39	0.0	0.38	0.0	265.00	1020.00
3811.000	710.00	588.39	0.00	0.38	0.00	265.00	1020.00
4011.000	710.00	588.44	0.0	0.05	0.0	164.82	200.00
4011.000	710.00	588.44	0.00	0.05	0.00	164.82	200.00
4091.000	710.00	589.76	0.0	1.32	0.0	164.85	80.00
4091.000	710.00	589.76	0.00	1.32	0.00	164.85	80.00
4141.000	710.00	589.92	0.0	0.16	0.0	265.00	50.00
4141.000	710.00	589.92	0.00	0.16	0.00	265.00	50.00

SUMMARY OF ERRORS

FLOODWAY DATA, BROWNSTOWN CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
151.000	350.	602.	1.2	586.3	586.2	0.1
175.000	329.	446.	1.6	586.3	586.2	0.1
220.000	314.	542.	1.3	586.7	586.7	0.0
245.000	315.	545.	1.3	586.8	586.8	0.0
518.000	625.	1638.	0.4	586.9	586.9	0.0
1018.000	325.	317.	2.2	586.9	586.9	0.0
1073.000	325.	363.	2.0	587.1	587.1	0.0
1123.000	325.	372.	1.9	587.1	587.1	0.0
2091.000	276.	588.	1.2	587.6	587.6	0.0
2791.000	323.	700.	1.0	588.0	588.0	0.0
3811.000	245.	568.	1.3	588.4	588.4	0.0
4011.000	145.	269.	2.6	588.4	588.4	0.0
4091.000	145.	391.	1.8	589.8	589.8	0.0
4141.000	246.	939.	0.8	589.9	589.9	0.0

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Brownstown Creek

4) DOCUMENT TYPE: Summary

00BREAK00

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

C
T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BROWNSTOWN CREEK
T2Q 10YR=480 50=650 100=710 500=860 CFS
T3      BROWNSTOWN CREEK        BROWNSTOWN TWP. W.S. AT M-85 GIBRALTAR FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.0          0.0       0.0       0.   583.980     0.0
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   201.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********
    -10.000   -10.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
QT      5.000   480.000   650.000   710.000   860.000   710.000     0.0       0.0       0.0       0.0
NC      0.045     0.055     0.035     0.100     0.300     0.0       0.0       0.0       0.0       0.0
NH      3.000     0.050   793.700     0.032   806.300     0.050  1500.000     0.0       0.0       0.0
ET      0.0       7.100     9.100     9.100     9.100     9.100   793.700   806.300   500.000  1100.000

        FROM GIB. FIS. SECT. 15062.

X1    151.000    24.000   750.000   850.000     0.0       0.0       0.0       0.0       1.430     0.0
GR    600.000     0.0     584.000   100.000   584.500   200.000   585.000   300.000   585.200   400.000
GR    585.400   500.000   585.400   600.000   585.200   700.000   585.000   750.000   576.500   793.700
GR    575.500   794.700   575.100   796.800   574.900   800.000   575.100   803.200   575.500   805.300
GR    576.500   806.300   584.700   850.000   584.600   900.000   584.400  1000.000   584.300  1100.000
GR    584.400  1200.000   584.400  1300.000   584.700  1400.000   600.000  1500.000     0.0       0.0
NC      0.060     0.060     0.035     0.300     0.500     0.0       0.0       0.0       0.0       0.0
ET      0.0       0.0       0.0       0.0       0.0       9.100     0.0       0.0     410.000   750.000

        D/S FACE SB FORT ST. BRIDGE

X1    175.000    13.000   434.000   446.000   215.000   215.000   215.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     584.600   585.100     0.0
GR    590.000     0.0     588.000   300.000   587.500   375.000   586.300   423.000   577.700   434.000
GR    577.340   440.000   577.400   446.000   586.300   458.000   585.000   540.000   585.000   600.000
GR    586.300   740.000   586.800  1000.000   588.000  1001.000     0.0       0.0       0.0       0.0
SB      0.0       2.080     3.000     0.0      11.400     0.0      78.000     0.0     577.340   577.700

        U/S FACE SB FORT ST. BRIDGE

X1    220.000    13.000   434.000   446.000    45.000    45.000    45.000     0.0       0.0       0.0
X3      0.0       0.0       1.000   584.170   58[illegible].040     0.0       0.0       0.0       0.0       0.0
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X3	10.000	0.0	0.0	0.	0.	0.0	0.	585.0	585.0	0.0
X4	2.000	577.400	433.990	577.400	446.010	0.0	0.0	0.0	0.0	0.0
BT	11.000	0.0	590.000	0.0	300.000	586.820	0.0	375.000	586.700	0.0
BT	433.990	587.000	0.0	434.000	587.000	584.170	446.000	587.000	585.170	446.010
BT	587.000	0.0	540.000	587.090	0.0	740.000	586.540	0.0	1000.000	586.050
BT	0.0	1001.000	590.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	590.000	0.0	588.000	300.000	587.000	375.000	586.800	423.000	577.400	434.000
GR	577.340	440.000	577.400	446.000	586.300	458.000	585.000	540.000	585.000	600.000
GR	586.800	740.000	587.500	1000.000	588.000	1001.000	0.0	0.0	0.0	0.0
ET	0.0	9.100	0.0	0.0	0.0	1.400	0.0	0.0	409.000	471.000

X-SECT. U/S OF SB FORT

X1	245.000	0.0	0.0	0.0	35.000	10.000	25.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	396.000	0.0	790.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	9.100	0.0	0.0	0.0	0.0	0.0	0.0	850.000	1150.000

X-SECT. U/S. ALLEN RD. BRIDGE

X1	518.000	13.000	994.000	1006.000	300.000	200.000	273.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	750.000	0.0	1375.000	0.0	0.0	0.0	0.0
GR	586.000	0.0	585.000	75.000	585.000	400.000	586.000	600.000	585.000	750.000
GR	584.000	983.000	578.800	994.000	578.560	1000.000	578.800	1006.000	584.000	1018.000
GR	585.000	1325.000	585.000	1600.000	590.000	1900.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	374.000	701.000

U/S ALLEN RD. BRIDGE

X1	1013.000	15.000	485.490	502.510	500.000	500.000	500.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	585.000	585.200	0.0
GR	590.000	374.000	586.700	375.000	586.500	425.000	586.600	670.000	578.600	485.490
GR	578.600	485.500	578.600	494.000	578.600	502.500	578.600	502.510	586.600	510.000
GR	586.700	575.000	586.600	625.000	586.900	700.000	590.000	700.100	590.000	701.000
SL	0.0	2.000	3.000	0.0	16.100	0.0	84.000	0.0	578.600	578.600

U/S ALLEN RD. BRIDGE

X1	1073.000	0.0	0.0	0.0	55.000	55.000	55.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	583.800	586.500	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	586.200	586.200	0.0
BT	11.000	374.000	590.000	0.0	375.000	586.700	0.0	425.000	586.500	0.0
BT	485.490	506.700	578.600	485.500	586.700	583.800	502.500	586.700	583.800	502.510
BT	586.700	578.600	625.000	586.600	0.0	700.000	586.900	0.0	700.100	590.000
BT	0.0	701.000	590.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

X-SECT. U/S ALLEN RD. BRIDGE

X1	1123.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.0	0.0
NC	0.100	0.100	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON F.B.SECT.2000

X1	2091.000	12.000	494.000	506.000	450.000	1300.000	968.000	0.0	0.0	0.0
GR	508.900	0.0	508.140	320.000	585.050	487.000	579.850	494.000	579.560	500.000
GR	579.630	506.000	584.000	513.000	584.980	518.000	584.070	526.000	584.100	558.000
GR	587.660	602.000	590.000	900.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.100	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON QUAD MAP AND INTERPOLATION BETW. 2 F.B. SECT.

K1	2791.000	0.0	0.0	0.0	600.000	600.000	700.000	0.0	0.0	0.0

X3	0.0	0.0	0.0	0.0	0.0	650.000	0.0	0.0	0.0	0.0

X-SECT. D/S OF VREELAND RD. CULVERT

X1	3811.000	21.000	294.000	306.000	1020.000	950.000	1020.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	191.000	0.0	436.000	0.0	0.0	0.0	0.0
GR	590.000	0.0	585.600	285.000	580.000	294.000	579.500	300.000	580.000	306.000
GR	586.500	325.000	589.000	500.000	595.000	500.010	595.000	530.000	587.500	530.010
GR	588.700	600.000	588.000	650.000	596.000	650.010	596.000	680.000	588.000	680.010
GR	588.500	800.000	596.500	800.010	596.500	830.000	588.000	830.010	587.000	880.000
GR	590.000	1350.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

D/S END VREELAND RD. CULVERT

X1	4011.000	14.000	294.700	305.300	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	588.000	587.300	0.0
X4	1.000	588.200	241.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	590.000	0.0	590.000	241.000	588.000	285.000	583.000	294.690	583.000	294.700
GR	581.300	295.100	579.850	297.500	579.500	300.000	579.850	302.500	581.300	304.900
GR	583.000	305.300	586.500	325.000	588.200	385.900	595.000	386.000	0.0	0.0
SB	0.0	1.670	3.000	0.0	8.300	0.0	58.000	0.0	579.800	579.500

D/S END VREELAND RD. CULVERT

X1	4091.000	14.000	294.700	305.300	80.000	80.000	80.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	586.800	589.070	0.0	0.0	0.0	0.0	0.0
X3	10.000	580.620	0.0	0.0	0.0	0.0	0.0	589.430	589.070	0.0
X4	2.000	589.600	241.100	583.300	305.310	0.0	0.0	0.0	0.0	0.0
BT	13.000	0.0	590.660	0.0	200.100	589.430	0.0	294.690	589.430	0.0
BT	294.700	589.430	583.300	295.100	589.630	585.000	297.500	589.430	586.450	300.000
BT	589.430	586.800	302.500	589.430	586.450	304.900	589.430	585.000	305.300	589.430
BT	583.300	305.310	589.430	0.0	399.900	589.070	0.0	400.000	595.000	0.0
GR	590.000	0.0	590.000	241.000	588.000	285.000	583.300	294.690	583.300	294.700
GR	581.600	295.100	580.150	297.500	579.800	300.000	580.150	302.500	581.600	304.900
GR	583.300	305.300	586.500	325.000	589.070	385.900	595.000	386.000	0.0	0.0

X-SECT. U/S OF VREELAND RD.

X1	4161.000	10.000	444.000	456.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	341.000	0.0	586.000	0.0	0.0	0.0	0.0
GR	590.000	0.0	585.800	432.000	580.800	444.000	580.600	450.000	580.800	456.000
GR	586.000	465.000	589.000	650.000	588.700	750.000	587.300	1050.000	590.000	1250.000
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BROWNSTOWN CREEK
T2Q 10YR=480 50=650 100=710 500=860 CFS
T3      BROWNSTOWN CREEK        BROWNSTOWN TWP. W.S. AT M-85 GIBRALTAR FIS

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   MVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.0          0.0      0.0      0.   586.100   0.0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     2.000     0.0     -1.000    0.0      0.0      0.0      0.0      0.0      0.0      0.0
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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**********************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BROWNSTOWN CREEK
T2C 10YR=480 50=650 100=710 500=860 CFS
T3      BROWNSTOWN CREEK          BROWNSTOWN TWP. W.S. AT M-85 GIBRALTAR FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        4.        0.        0.  0.0           0.0       0.0       0.  586.240     0.0
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000     0.0       -1.000    0.0       0.0       0.0       0.0       0.0       0.0       0.0
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********************************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
********************************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 BROWNSTOWN CREEK
T2Q 10YR=480 50=650 100=710 500=860 CFS
T3      BROWNSTOWN CREEK        BROWNSTOWN TWP. W.S. AT M-85 GIBRALTAR FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        0.        0.   0.0          0.0       0.0       0.     586.490     0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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FORM 6413

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

BROWNSTOWN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
151.000	0.0	0.0	0.0	576.33	480.00	583.98	0.0	584.40	16.21	5.23	91.86	119.21
151.000	0.0	0.0	0.0	576.33	650.00	586.10	0.0	586.13	3.10	1.37	518.31	369.02
151.000	0.0	0.0	0.0	576.33	710.00	586.24	0.0	586.27	3.35	1.42	566.86	387.82
151.000	0.0	0.0	0.0	576.33	860.00	586.49	0.0	586.53	4.03	1.57	654.72	428.49
175.000	215.00	0.0	0.0	577.34	480.00	584.31	0.0	584.84	19.69	5.82	82.50	108.17
175.000	215.00	0.0	0.0	577.34	650.00	586.11	0.0	586.30	5.59	4.23	370.88	274.96
175.000	215.00	0.0	0.0	577.34	710.00	586.25	0.0	586.48	5.86	4.38	413.25	293.20
175.000	215.00	0.0	0.0	577.34	860.00	586.51	0.0	586.72	6.56	4.73	508.35	335.73
220.000	45.00	586.04	584.17	577.34	480.00	585.12	0.0	585.53	13.92	5.16	93.04	128.67
220.000	45.00	586.04	584.17	577.34	650.00	586.68	0.0	586.80	3.34	3.43	516.49	355.74
220.000	45.00	586.04	584.17	577.34	710.00	586.74	0.0	586.87	3.77	3.66	534.96	365.78
220.000	45.00	586.04	584.17	577.34	860.00	586.84	0.0	587.00	5.04	4.27	565.83	383.16
245.000	25.00	0.0	0.0	577.34	480.00	585.44	0.0	585.62	5.03	3.83	218.90	213.94
245.000	25.00	0.0	0.0	577.34	650.00	586.69	0.0	586.80	3.31	3.42	519.52	357.38
245.000	25.00	0.0	0.0	577.34	710.00	586.75	0.0	586.88	3.73	3.65	538.43	367.69
245.000	25.00	0.0	0.0	577.34	860.00	586.85	0.0	587.01	4.98	4.24	569.97	385.48
518.000	273.00	0.0	0.0	578.56	480.00	585.69	0.0	585.72	1.98	2.19	858.63	340.89
518.000	273.00	0.0	0.0	578.56	650.00	586.84	0.0	586.85	0.76	1.50	1577.03	744.93
518.000	273.00	0.0	0.0	578.56	710.00	586.92	0.0	586.93	0.83	1.58	1626.15	778.18
518.000	273.00	0.0	0.0	578.56	860.00	587.06	0.0	587.08	1.04	1.79	1719.39	843.13
1016.000	500.00	0.0	0.0	578.60	480.00	585.77	0.0	585.92	4.61	3.37	195.87	223.47
1016.000	500.00	0.0	0.0	578.60	650.00	586.83	0.0	587.02	4.97	3.83	287.51	291.44
1016.000	500.00	0.0	0.0	578.60	710.00	586.90	0.0	587.12	5.64	4.11	310.71	298.89
1016.000	500.00	0.0	0.0	578.60	860.00	587.04	0.0	587.32	7.46	4.77	356.07	314.93
1073.000	55.00	586.50	583.80	578.60	480.00	586.60	0.0	586.71	3.10	2.97	230.99	272.45
1073.000	55.00	586.50	583.80	578.60	650.00	587.02	0.0	587.18	4.33	3.63	348.92	312.27
1073.000	55.00	586.50	583.80	578.60	710.00	587.05	0.0	587.25	5.02	3.92	361.20	316.87
1073.000	55.00	586.50	583.80	578.60	860.00	587.12	0.0	587.38	7.00	4.65	382.41	325.15
1123.000	50.00	0.0	0.0	578.60	480.00	586.61	0.0	586.73	3.07	2.96	233.34	273.81
1123.000	50.00	0.0	0.0	578.60	650.00	587.04	0.0	587.20	4.26	3.61	356.27	315.01
1123.000	50.00	0.0	0.0	578.60	710.00	587.08	0.0	587.27	4.92	3.89	369.69	320.14
1123.000	50.00	0.0	0.0	578.60	860.00	587.16	0.0	587.42	6.81	4.60	393.18	329.51

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2091.000	968.00	0.0	0.0	579.56	480.00	586.97	0.0	587.09	4.60	3.43	428.20	223.73
2091.000	968.00	0.0	0.0	579.56	650.00	587.53	0.0	587.66	5.39	3.90	557.10	280.06
2091.000	968.00	0.0	0.0	579.56	710.00	587.64	0.0	587.79	5.87	4.11	586.97	293.07
2091.000	968.00	0.0	0.0	579.56	860.00	587.91	0.0	588.08	6.93	4.57	667.52	326.64
2791.000	700.00	0.0	0.0	579.56	480.00	587.26	0.0	587.34	3.25	2.96	493.76	266.44
2791.000	700.00	0.0	0.0	579.56	650.00	587.87	0.0	587.95	3.55	3.26	654.34	344.82
2791.000	700.00	0.0	0.0	579.56	710.00	588.01	0.0	588.09	3.76	3.39	699.04	366.16
2791.000	700.00	0.0	0.0	579.56	860.00	588.33	0.0	588.43	4.08	3.63	817.97	425.53
3811.000	1020.00	0.0	0.0	579.50	480.00	587.60	0.0	587.70	3.81	3.26	381.17	246.06
3811.000	1020.00	0.0	0.0	579.50	650.00	588.23	0.0	588.34	4.13	3.58	527.82	319.96
3811.000	1020.00	0.0	0.0	579.50	710.00	588.39	0.0	588.51	4.31	3.70	567.07	341.89
3811.000	1020.00	0.0	0.0	579.50	860.00	588.75	0.0	588.88	4.74	3.99	655.69	395.10
4011.000	200.00	0.0	0.0	579.50	480.00	587.66	0.0	587.92	17.56	4.61	160.19	114.54
4011.000	200.00	0.0	0.0	579.50	650.00	588.28	0.0	588.57	13.78	5.20	245.39	175.07
4011.000	200.00	0.0	0.0	579.50	710.00	588.44	0.0	588.74	14.36	5.38	269.01	187.38
4011.000	200.00	0.0	0.0	579.50	860.00	588.81	0.0	589.13	15.46	5.75	322.64	218.72
4091.000	80.00	589.07	586.80	580.62	480.00	589.26	0.0	589.36	7.62	3.18	263.14	173.90
4091.000	80.00	589.07	586.80	580.62	650.00	589.68	0.0	589.81	6.23	3.78	379.28	260.35
4091.000	80.00	589.07	586.80	580.62	710.00	589.76	0.0	589.90	7.00	4.03	390.69	268.45
4091.000	80.00	589.07	586.80	580.62	860.00	589.91	0.0	590.10	9.13	4.66	412.80	284.63
4141.000	50.00	0.0	0.0	580.60	480.00	589.37	0.0	589.39	0.90	1.70	804.73	505.16
4141.000	50.00	0.0	0.0	580.60	650.00	589.82	0.0	589.85	1.17	2.01	915.33	599.70
4141.000	50.00	0.0	0.0	580.60	710.00	589.92	0.0	589.95	1.31	2.13	938.97	620.90
4141.000	50.00	0.0	0.0	580.60	860.00	590.12	0.0	590.16	1.66	2.44	989.04	666.91

BROWNSTOWN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
151.000	480.00	583.98	0.0	0.0	0.0	12.60	0.0
151.000	650.00	586.10	2.12	0.0	2.12	333.23	0.0
151.000	710.00	586.24	0.14	0.0	2.26	340.02	0.0
151.000	860.00	586.49	0.25	0.0	2.51	365.02	0.0
175.000	480.00	584.31	0.0	0.33	0.0	12.00	215.00
175.000	650.00	586.11	1.79	0.01	1.79	283.27	215.00
175.000	710.00	586.25	0.14	0.01	1.94	308.10	215.00
175.000	860.00	586.51	0.26	0.02	2.20	434.80	215.00
220.000	480.00	585.12	0.0	0.81	0.0	12.00	45.00
220.000	650.00	586.68	1.56	0.58	1.56	307.86	45.00
220.000	710.00	586.74	0.06	0.49	1.62	312.55	45.00
220.000	860.00	586.84	0.09	0.33	1.72	341.47	45.00
245.000	480.00	585.44	0.0	0.32	0.0	154.72	25.00
245.000	650.00	586.69	1.25	0.01	1.25	308.64	25.00
245.000	710.00	586.75	0.06	0.01	1.31	313.43	25.00
245.000	860.00	586.85	0.10	0.01	1.41	340.83	25.00
518.000	480.00	585.69	0.0	0.24	0.0	625.00	273.00
518.000	650.00	586.84	1.15	0.15	1.15	625.00	273.00
518.000	710.00	586.92	0.08	0.16	1.23	625.00	273.00
518.000	860.00	587.06	0.15	0.21	1.38	625.00	273.00
1018.000	480.00	585.77	0.0	0.08	0.0	37.62	500.00
1018.000	650.00	586.83	1.06	-0.01	1.06	306.60	500.00
1018.000	710.00	586.90	0.07	-0.02	1.13	324.99	500.00
1018.000	860.00	587.04	0.14	-0.03	1.27	325.11	500.00
1073.000	480.00	586.60	0.0	0.83	0.0	106.16	55.00
1073.000	650.00	587.02	0.42	0.19	0.42	325.10	55.00
1073.000	710.00	587.05	0.04	0.15	0.46	325.11	55.00
1073.000	860.00	587.12	0.06	0.08	0.52	325.13	55.00
1123.000	480.00	586.61	0.0	0.02	0.0	133.83	50.00
1123.000	650.00	587.04	0.43	0.03	0.43	325.11	50.00
1123.000	710.00	587.08	0.04	0.03	0.47	325.12	50.00
1123.000	860.00	587.16	0.08	0.04	0.55	325.15	50.00
2091.000	480.00	586.97	0.0	0.36	0.0	212.23	968.00
2091.000	650.00	587.53	0.56	0.48	0.56	256.46	968.00
2091.000	710.00	587.64	0.11	0.55	0.67	275.69	968.00
2091.000	860.00	587.91	0.27	0.75	0.94	321.89	968.00
2791.000	480.00	587.26	0.0	0.29	0.0	232.05	700.00
2791.000	650.00	587.87	0.60	0.34	0.60	314.02	700.00
2791.000	710.00	588.01	0.14	0.37	0.74	322.76	700.00
2791.000	860.00	588.33	0.33	0.43	1.07	415.01	700.00
3811.000	480.00	587.60	0.0	0.33	0.0	210.66	1020.00
3811.000	650.00	588.23	0.63	0.36	0.63	245.00	1020.00
3811.000	710.00	588.39	0.16	0.38	0.79	245.00	1020.00
3811.000	860.00	588.75	0.36	0.42	1.15	245.00	1020.00

SECNO	Q	CHSEL	DIFHSP	DIFHSX	DIFKHS	TOPHID	XLCH
4011.000	480.00	587.66	0.0	0.07	0.0	72.06	200.00
4011.000	650.00	588.28	0.61	0.05	0.61	144.80	200.00
4011.000	710.00	588.44	0.16	0.05	0.78	144.82	200.00
4011.000	860.00	588.81	0.37	0.06	1.15	144.84	200.00
4091.000	480.00	589.26	0.0	1.59	0.0	91.20	80.00
4091.000	650.00	589.68	0.42	1.40	0.42	144.83	80.00
4091.000	710.00	589.76	0.08	1.32	0.50	144.85	80.00
4091.000	860.00	589.91	0.15	1.10	0.65	144.89	80.00
4141.000	480.00	589.37	0.0	0.12	0.0	245.00	50.00
4141.000	650.00	589.82	0.45	0.15	0.45	245.00	50.00
4141.000	710.00	589.92	0.10	0.16	0.55	245.00	50.00
4141.000	860.00	590.12	0.20	0.21	0.75	245.00	50.00

SUMMARY OF ERRORS

FLOOD INSURANCE ZONE DATA FOR BROWNSTOWN CREEK

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
151.000	0.	-2.26	-0.14	0.25
175.000	215.	-1.94	-0.14	0.26
220.000	260.	-1.62	-0.06	0.09
245.000	285.	-1.31	-0.06	0.10
518.000	558.	-1.23	-0.08	0.15
1018.000	1058.	-1.13	-0.07	0.14
1073.000	1113.	-0.46	-0.04	0.06
1123.000	1163.	-0.47	-0.04	0.08
2091.000	2131.	-0.67	-0.11	0.27
2791.000	2831.	-0.74	-0.14	0.33
3811.000	3851.	-0.79	-0.16	0.36
4011.000	4051.	-0.78	-0.16	0.37
4091.000	4131.	-0.50	-0.08	0.15
4141.000	4181.	-0.55	-0.10	0.20
WEIGHTED AVG FOR REACH		-0.87	-0.11	0.24

FHF FOR THE REACH = 010 WITH 93.2 OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 2

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Marsh Creek

4) DOCUMENT TYPE: 100 Year

00BREAK00

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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T1 BROWNSTOWN TWP FIS HUD 2013-07 MARSH CREEK FROM M-85 TO VREELAND RD.
T2 010YR=810 50YR=1100 100YR=1210 500YR=1450 CFS STARTING U.S. FROM GIBRALTAR
T3 MARSH CREEK-BROWNSTOWN FIS

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	0	WSEL	FQ
	0.	4.	0.	0.	0.0	0.0	0.0	0.	584.480	0.0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Encroached Reach - Used for FIS. (Input w/ "100 yr Natural")

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*PROF 2
 CCHV=   0.100 CEHV=   0.300
 *SECNO 75.000
    SECNO     DEPTH     CUSEL     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     IOPHID     ENDST

 3470 ENCROACHMENT STATIONS=      700.0      775.0  TYPE=      1  TARGET=      75.000
        1' D/S OF NB FORT ST. BRIDGE
      75.00     10.15    584.48     0.0     584.38    584.67     0.19      0.0       0.0      578.93
     1210.        0.     1121.      89.        0.      307.      66.        0.        0.      575.33
        0.0       0.0      3.65     1.34      0.055     0.040     0.070     0.0     574.33     700.00
   0.000661        0.       0.       0.         0         0         0       0.0      49.45     749.45

 *SECNO 76.000
 3470 ENCROACHMENT STATIONS=      700.0      775.0  TYPE=      1  TARGET=      75.000
        D/S FACE OF NB FORT ST. BRIDGE
      76.00     10.15    584.48     0.0     584.38    584.67     0.19      0.00      0.00     578.93
     1210.        0.     1121.      89.        0.      300.      66.        0.        0.      575.33
        0.00      0.0      3.65     1.34      0.055     0.040     0.070     0.020   574.33     700.00
   0.000661        1.       1.       1.         0         0         0       0.0      49.45     749.45

 SPECIAL BRIDGE
 SK   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.0       1.68      3.04      0.0      27.65      0.0      179.75     0.0     574.33    574.33

 *SECNO 124.000
  2800 NAT Q1=     571.14  WSEL=    585.22  ENC Q1=     571.14  WSEL=    585.32  RATIO=  0.0
  NAT Q1=     582.  RATIOS LOB,CH,ROB=  0.0      0.9183  0.0817  WSEL=     585.32
  WATER EL-CHANGE FROM NATURAL PROFILES BRIDGE

 3475 ENCROACHMENT STATIONS=      700.0      744.8  TYPE=      4  TARGET=      0.010

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      590.00 ELREA=     575.33

        U/S FACE OF NB FORT ST. BRIDGE
     124.00     10.99    585.32     0.0     585.22    585.48     0.16      0.03      0.00     578.93
     1210.        0.     1124.      86.        0.      337.      68.        0.        0.      575.33
        0.00      0.0      3.34     1.27      0.055     0.040     0.070     0.038   574.33     700.00
   0.000501       46.      48.      48.         0         0         4       0.0      44.82     744.82

 *SECNO 125.000
 3470 ENCROACHMENT STATIONS=      700.0      775.0  TYPE=      1  TARGET=      75.000
        1' U/S OF NB FORT ST. BRIDGE
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125.00	11.00	585.33	0.0	585.22	585.40	0.15	0.00	0.00	578.93
1210.	0.	1105.	105.	0.	331.	95.	0.	0.	575.33

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      0.00       0.0       3.28      1.11     0.055     0.040     0.070     0.038    574.33    700.00
 0.000486         1.        1.        1.         0         0         0       0.0     75.00    775.00

 CCHV=   0.300 CEHV=   0.500
 *SECNO 297.000
  2800 NAT Q1=    563.16  WSEL=    585.27  ENC Q1=    572.21  WSEL=    585.37  RATIO= -0.0161
  NAT Q1=    572.  RATIOS LOB,CH,ROB=  0.0     1.0000  0.0     WSEL=    585.37
    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


 3470 ENCROACHMENT STATIONS=     626.5     661.5  TYPE=     4  TARGET=       0.0

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.00 ELREA=      586.00

        D/S FACE OF SB M-85 BRIDGE

    297.00     11.39    585.39      0.0    585.27    585.59      0.20      0.08      0.02    577.35
    1210.        0.    1210.        0.        0.      338.        0.        2.        0.    578.05
      0.02       0.0      3.58      0.0     0.065     0.035     0.050     0.036    574.00    626.52
 0.000601       149.      149.      149.         1         0         0       0.0     34.96    661.48


 SPECIAL BRIDGE

 SE  XK        XKOR      COFQ      RDLEN     BRC       BHP       BAREA     SS        ELCHU     ELCHD
       0.0      1.50      3.00        0.0     27.00       0.0     270.00      0.0    573.35     74.00

 *SECNO 348.000
  2800 NAT Q1=    629.64  WSEL=    585.52  ENC Q1=    639.00  WSEL=    585.62  RATIO= -0.0149
  NAT Q1=    639.  RATIOS LOB,CH,ROB=  0.0     1.0000  0.0     WSEL=    585.62
  WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

 3470 ENCROACHMENT STATIONS=     629.5     661.5  TYPE=     4  TARGET=       0.0

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.20 ELREA=      586.20

        U/S FACE OF SB M-85 BRIDGE

    340.00     12.29    586.64      0.0    585.52    585.81      0.17      0.03      0.01    577.60
    1210.        0.    1210.        0.        0.      364.        0.        2.        0.    577.45
      0.02       0.0      3.32      0.0     0.065     0.035     0.050     0.038    573.35    626.52
 0.000490        51.       51.       51.         0         0         3       0.0     34.96    661.48


 *SECNO 400.000

 3470 ENCROACHMENT STATIONS=     570.4     653.2  TYPE=     1  TARGET=      90.000

        X-SECT. U/S OF SB M-85

    400.00     12.37    585.72      0.0    585.60    585.84      0.12      0.02      0.01    577.60
    1210.      272.      930.        0.      246.      297.        0.        3.        0.100000.00
      0.03       1.11     3.15      0.0     0.065     0.035     0.050     0.035    573.35    570.40
 0.000371        52.       52.       52.         2         0         0       0.0     82.80    653.20
```

```
CCHV=   0.100 CEHV=   0.300
*SECNO 1476.000
 2800 NAT Q1=   3382.55  USEL=    585.78  ENC Q1=   3382.55  WSEL=    585.88  RATIO=  0.0000
 NAT Q1=   3487.  RATIOS LOB,CH,ROB=  0.4660  0.0864  0.4456  WSEL=    585.[illegible]

3470 ENCROACHMENT STATIONS=      244.4      941.8  TYPE=      4  TARGET=        0.030

        VALLEY SECT. BASED ON WTA FIELD BOOK NO.950

  1476.00     11.67    585.89      0.0    585.78    585.90      0.00      0.04      0.01    574.47
    1210.      565.     108.      537.     2003.      139.     1915.       61.       10.    574.37
     0.97      0.28      0.77      0.28     0.060     0.035     0.060     0.034    574.22    244.38
 0.000013     1250.     1076.      950.         2         0         0       0.0    697.45    941.63

*SECNO 2180.000

3470 ENCROACHMENT STATIONS=      450.0      870.0  TYPE=      1  TARGET=      420.000

        X-SECT.D/S OF VREELAND RD.

  2180.00     11.40    585.90      0.0    585.79    585.92      0.02      0.02      0.00    580.20
    1210.      532.     463.      215.      773.      294.      525.      102.       18.    581.00
     1.15      0.69      1.58      0.41     0.060     0.035     0.060     0.036    574.50    450.00
 0.000079      550.      704.      704.         2         0         0       0.0    420.00    870.00

CCHV=   0.300 CEHV=   0.500
*SECNO 2380.000
   SECNO     DEPTH     CWSEL     CRIV      WSELK     EG        HV        HL        DLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

        D/S FACE OF VREELAND RD.
  2380.00     11.16    585.84      0.0    585.72    586.03      0.19      0.03      0.09    574.68
    1210.       67.     1024.      119.      120.      268.      235.      107.       20.    574.68
     1.17      0.56      3.82      0.51     0.060     0.035     0.060     0.036    574.68    499.99
 0.000325      200.      200.      200.         2         0         0       0.0    319.91    319.93

SPECIAL BRIDGE

SS   XK        XKOR      COF       RDLEN     BWC       BWP       BAREA     SS        ELCHD     ELCHD
     0.0       1.54      3.00      0.0       22.00     0.0       200.00    0.0       574.68    574.68

*SECNO 2420.000
6070 [illegible] ENERGY OF 586.03 HIGHER THAN COMPUTED ENERGY OF  566.02
PRESSURE [illegible] METR FLD.

 [illegible]      [illegible]      [illegible]      QWEIR     QPR       BAREA     TRAPEZOID     ELEC      ELTRD
                                                                                AREA
  586.96     586.03      0.0       726.      488.      200.      192.      583.70    585.03

        D/S FACE OF VREELAND RD.

  [illegible]     11.16    585.84      0.0    585.74    586.03      0.19      0.0       0.0     574.68
    [illegible]      [illegible]     [illegible]      [illegible]      [illegible]      [illegible]      [illegible]      [illegible]
```

drawdown

585.84 > ELTRD @ 585.03 => TW over rd

continuity?

check on pressure flow

$Q = CA\sqrt{2gH}$; $K = 1.94$

$C = 1/\sqrt{K} = .717$

$Q = .717(200)(8.025)H^{1/2} = 1152.32H^{1/2}$

$eH = 586.03 - 585.9 = .13$

$Q = 1152.32(.36) = 415$ cfs

check $eH = .13 + .5 = .63$

$Q_p = 1152.32(.79) = 914.6$

$\Rightarrow$ HW < .5' low

	0.30	3.08	0.31	0.060	0.035	0.060	0.036	574.68	45.99
0.000325	46.	46.	46.	2	0	4	0.0	319.91	819.90

*SECNO 2476.000

3470 ENCROACHMENT STATIONS= 380.0 800.0 TYPE= 1 TARGET= 420.000

X-SECT. U/S OF VREELAND RD.

2476.00	11.38	586.08	0.0	585.98	586.09	0.01	0.01	0.05	574.80
1210.	545.	215.	449.	902.	136.	1003.	109.	21.	574.80
1.19	0.60	1.58	0.45	0.060	0.035	0.060	0.030	574.70	380.00
0.000055	50.	50.	50.	2	0	0	0.0	420.00	800.00

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**********************************************
 HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
 ERROR CORR -  01,02
 MODIFICATION -  50,51,52,53
**********************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

MARSH CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
75.000	584.38	0.0	584.58	49.29	0.0	1122.11	87.89	75.00	700.00	700.00	735.00	775.00
75.000	584.48	0.10	584.67	49.45	0.0	1121.15	88.85	75.00	700.00	700.00	735.00	775.00
76.000	584.38	0.0	584.58	49.29	0.0	1122.11	87.89	75.00	700.00	700.00	735.00	775.00
76.000	584.48	0.10	584.67	49.45	0.0	1121.14	88.86	75.00	700.00	700.00	735.00	775.00
124.000	585.22	0.0	585.38	75.00	0.0	1113.58	96.42	0.0	0.0	700.00	735.00	0.0
124.000	585.32	0.10	585.48	44.82	0.0	1123.85	86.15	0.02	700.00	700.00	735.00	744.82
125.000	585.22	0.0	585.38	75.00	0.0	1107.84	102.16	75.00	700.00	700.00	735.00	775.00
125.000	585.33	0.11	585.49	75.00	0.0	1105.22	104.78	75.00	700.00	700.00	735.00	775.00
297.000	585.27	0.0	585.48	34.96	0.0	1210.00	0.0	1299.00	0.92	626.52	661.48	1196.00
297.000	585.39	0.11	585.59	34.96	0.0	1210.00	0.0	0.0	626.52	626.52	661.48	661.48
348.000	585.52	0.0	585.70	34.96	0.0	1210.00	0.0	0.0	0.0	626.52	661.48	0.0
348.000	585.64	0.11	585.81	34.96	0.0	1210.00	0.0	0.0	626.52	626.52	661.48	661.48
400.000	585.60	0.0	585.73	82.80	266.41	943.59	0.0	90.00	570.40	626.52	661.48	653.20
400.000	585.72	0.12	585.84	82.80	272.32	937.68	0.0	90.00	570.40	626.52	661.48	653.20
1476.000	585.78	0.0	585.78	899.30	565.50	106.16	538.34	0.0	0.0	594.00	606.00	0.0
1476.000	585.89	0.11	585.90	697.45	565.29	107.55	537.16	0.03	244.38	594.00	606.00	941.83
2180.000	585.79	0.0	585.81	420.00	533.34	470.50	206.15	420.00	450.00	564.00	615.00	870.00
2180.000	585.90	0.11	585.92	420.00	531.89	483.21	215.10	420.00	450.00	584.00	615.00	870.00
2380.000	585.72	0.0	585.93	319.91	60.94	1044.37	104.69	819.00	1.00	588.00	612.00	620.00
2380.000	585.84	0.12	586.03	319.91	67.04	1024.03	118.93	0.0	0.0	588.00	612.00	0.0
2426.000	585.72	0.0	585.93	319.91	61.04	1044.09	104.87	0.0	0.0	588.00	612.00	0.0
2426.000	585.84	0.12	586.03	319.91	67.10	1023.85	119.06	0.0	0.0	588.00	612.00	0.0
2476.000	585.98	0.0	586.00	420.00	547.43	218.84	443.72	420.00	380.00	524.00	536.00	200.00
2476.000	586.08	0.10	586.09	420.00	545.16	215.49	449.36	420.00	380.00	524.00	536.00	300.00

MARSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	IOKPS	VCH	AREA	.01K
75.000	0.0	0.0	0.0	574.33	1210.00	584.38	0.0	584.58	6.86	3.69	368.66	462.05
75.000	0.0	0.0	0.0	574.33	1210.00	584.48	0.0	584.67	6.61	3.65	373.59	470.59
76.000	1.00	0.0	0.0	574.33	1210.00	584.38	0.0	584.58	6.86	3.69	368.68	462.10
76.000	1.00	0.0	0.0	574.33	1210.00	584.48	0.0	584.67	6.61	3.65	373.61	470.63
124.000	48.00	583.93	580.83	574.33	1210.00	585.22	0.0	585.38	4.49	3.34	424.16	571.14
124.000	48.00	999999.00	0.0	574.33	1210.00	585.32	0.0	585.66	5.01	3.34	404.56	540.35
125.000	1.00	0.0	0.0	574.33	1210.00	585.22	0.0	585.36	5.04	3.32	424.21	538.78
125.000	1.00	0.0	0.0	574.33	1210.00	585.33	0.0	585.69	4.86	3.28	431.68	548.63
297.000	149.00	0.0	0.0	574.00	1210.00	585.27	0.0	585.46	4.62	3.63	333.68	563.16
297.000	149.00	0.0	0.0	574.00	1210.00	585.39	0.0	585.59	6.01	3.58	337.91	493.63
348.000	51.00	585.40	583.12	573.35	1210.00	585.52	0.0	585.70	3.69	3.36	300.16	629.64
348.000	51.00	999999.00	0.0	573.35	1210.00	585.64	0.0	585.81	4.90	3.32	364.19	546.39
400.000	52.00	0.0	0.0	573.35	1210.00	585.60	0.0	585.73	3.87	3.21	533.66	614.71
400.000	52.00	0.0	0.0	573.35	1210.00	585.72	0.0	585.84	3.71	3.15	543.44	628.40
1474.000	1076.00	0.0	0.0	574.22	1210.00	585.78	0.0	585.78	0.13	0.77	4274.09	3382.55
1476.000	1076.00	0.0	0.0	574.22	1210.00	585.89	0.0	585.90	0.13	0.77	4057.03	3393.86
2180.000	704.00	0.0	0.0	574.50	1210.00	585.79	0.0	585.81	0.85	1.62	1543.89	1313.38
2180.000	704.00	0.0	0.0	574.50	1210.00	585.90	0.0	585.92	0.79	1.58	1591.47	1361.04
2380.000	200.00	0.0	0.0	574.68	1210.00	585.72	0.0	585.93	3.50	3.94	584.88	646.48
2380.000	200.00	0.0	0.0	574.68	1210.00	585.84	0.0	586.03	3.25	3.82	622.69	671.12
2426.000	46.00	585.03	583.70	574.68	1210.00	585.72	0.0	585.93	3.50	3.94	585.21	646.78
2426.000	46.00	585.03	583.70	574.68	1210.00	585.84	0.0	586.03	3.25	3.82	623.03	671.35
2476.000	50.00	0.0	0.0	574.70	1210.00	585.98	0.0	586.00	0.58	1.62	2000.02	1587.43
2476.000	50.00	0.0	0.0	574.70	1210.00	586.08	0.0	586.09	0.55	1.58	2041.35	1635.76

MARSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
75.000	1210.00	584.38	0.0	0.0	0.0	49.29	0.0
75.000	1210.00	584.48	0.10	0.0	0.10	49.45	0.0
76.000	1210.00	584.38	0.0	0.00	0.0	49.29	1.00
76.000	1210.00	584.48	0.10	0.00	0.10	49.45	1.00
124.000	1210.00	585.22	0.0	0.84	0.0	75.00	48.00
124.000	1210.00	585.32	0.10	0.84	0.10	44.82	48.00
125.000	1210.00	585.22	0.0	0.00	0.0	75.00	1.00
125.000	1210.00	585.33	0.11	0.01	0.11	75.00	1.00
297.000	1210.00	585.27	0.0	0.05	0.0	34.96	149.00
297.000	1210.00	585.39	0.11	0.06	0.11	34.96	149.00
348.000	1210.00	585.52	0.0	0.25	0.0	34.96	51.00
348.000	1210.00	585.64	0.11	0.25	0.11	34.96	51.00
400.000	1210.00	585.60	0.0	0.08	0.0	82.80	52.00
400.000	1210.00	585.72	0.12	0.08	0.12	82.80	52.00
1476.000	1210.00	585.78	0.0	0.18	0.0	899.30	1076.00
1476.000	1210.00	585.89	0.11	0.17	0.11	697.65	1076.00
2180.000	1210.00	585.79	0.0	0.00	0.0	420.00	704.00
2180.000	1210.00	585.90	0.11	0.00	0.11	420.00	704.00
2380.000	1210.00	585.72	0.0	-0.06	0.0	319.91	200.00
2380.000	1210.00	585.84	0.12	-0.06	0.12	319.91	200.00
2426.000	1210.00	585.72	0.0	0.00	0.0	319.91	46.00
2426.000	1210.00	585.84	0.12	0.00	0.12	319.91	46.00
2476.000	1210.00	585.98	0.0	0.26	0.0	420.00	50.00
2476.000	1210.00	586.08	0.10	0.24	0.10	420.00	50.00

SUMMARY OF ERRORS

FLOODWAY DATA, MARSH CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
75.000	49.	374.	3.2	584.5	584.4	0.1
76.000	49.	374.	3.2	584.5	584.4	0.1
124.000	45.	405.	3.0	585.3	585.2	0.1
125.000	75.	432.	2.8	585.3	585.2	0.1
297.000	35.	338.	3.6	585.4	585.3	0.1
343.000	35.	364.	3.3	585.6	585.5	0.1
400.000	83.	543.	2.2	585.7	585.6	0.1
1476.000	697.	4057.	0.3	585.9	585.8	0.1
2180.000	420.	1591.	0.8	585.9	585.8	0.1
2380.000	320.	623.	1.9	585.8	585.7	0.1
2426.000	320.	623.	1.9	585.8	585.7	0.1
2476.000	420.	2041.	0.6	586.1	586.0	0.1

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp.

3) WATERCOURSE: Marsh Creek

4) DOCUMENT TYPE: Summary

00BREAK00

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*****************************************************
  NEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01.02
  MODIFICATION -  50,51,52,53
*****************************************************

C
T1      BROWNSTOWN
T2
T3      MARSH CREEK

J1  ICHECK    IND       NINV      IDIR      STRT      METRIC    HVINS     W         WSEL      FW
       0.        2.        0.        0.  0.0         0.0       0.0       0.   563.900     0.0

J2  NPROF     IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   201.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0

J5  LPRNT     NUMSEC                  ********REQUESTED SECTION NUMBERS********
    -10.000   -10.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
NC      0.055     0.070     0.040     0.100     0.300     0.0       0.0       0.0       0.0       0.0
QT      5.000   810.000  1100.000  1210.000  1210.000  1450.000    0.0       0.0       0.0       0.0
ET      0.0       0.0       0.0       1.400     0.0       0.0       0.0       0.0       0.0       0.0

        1' D/S OF NB FORT ST. BRIDGE

X1    75.000    20.000   700.000   735.000     0.0       0.0       0.0       0.0       1.430     0.0
X3     0.0       0.0       0.0     700.000     0.0     775.000     0.0       0.0       0.0       0.0
GR    585.700     0.0     585.700   100.000   585.500   200.000   585.200   300.000   584.900   400.000
GR    584.400   500.000   584.000   600.000   583.700   660.000   577.500   700.000   575.000   715.000
GR    572.900   720.000   573.000   720.000   573.900   735.000   583.400   750.000   583.100   775.000
GR    582.700   775.000   582.500   775.000   582.500   775.000   582.700   775.000   590.000   775.000

        D/S FACE OF NB FORT ST. BRIDGE

X1    76.000     0.0       0.0       0.0       1.000     1.000     1.000     0.0       0.0       0.0
X3     0.0       0.0       0.0     700.000     0.0     775.000     0.0       0.0       0.0       0.0
SB     0.0       1.680     3.040     0.0      27.650     0.0     179.750     0.0     574.330   574.330

        U/S FACE OF NB FORT ST. BRIDGE

X1   124.000     0.0       0.0       0.0      48.000    48.000    48.000     0.0       0.0       0.0
X2     0.0       0.0       1.000   580.630   583.930     0.0       0.0       0.0       0.0       0.0
X3    10.000     0.0       0.0       0.0       0.0       0.0       0.0     590.000     0.0       0.0
GT    15.000     0.0     587.130     0.0     100.000   587.130     0.0     200.000   586.930     0.0
GT   300.000   585.630     0.0     400.000   586.330     0.0     500.000   585.630     0.0     600.000
GT   585.430     0.0     700.000   584.930   578.930   700.000   584.930   580.430   735.000   587.930
GT   [illegible]  735.000   584.930   575.330   775.000   584.530     0.0     775.000   584.130     0.0
GT   775.000   583.930     0.0     775.000   583.930     0.0       0.0       0.0       0.0       0.0
```

U/S OF NB FORT ST. BRIDGE

X1	125.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	700.000	0.0	775.000	0.0	583.930	583.930	0.0
NC	0.065	0.050	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	7.100	690.000	720.000	1.000	1300.000

D/S FACE OF SB M-85 BRIDGE

X1	297.000	13.000	681.000	719.000	149.000	149.000	149.000	0.920	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	586.000	586.000	0.0
X4	2.000	583.000	674.000	583.000	724.000	0.0	0.0	0.0	0.0	0.0
GR	587.000	0.0	587.000	599.900	586.500	600.000	577.350	681.000	577.250	686.000
GR	574.250	690.000	574.000	700.000	574.700	708.000	577.800	711.000	578.050	719.000
GR	586.010	900.000	586.280	1150.000	587.500	1300.000	0.0	0.0	0.0	0.0
SB	0.0	1.500	3.000	0.0	27.600	0.0	270.000	0.0	573.350	574.000

U/S FACE OF SB M-85 BRIDGE

X1	348.000	18.000	681.000	719.000	51.000	51.000	51.000	0.920	0.0	0.0
X2	0.0	0.0	1.000	583.120	565.400	0.0	0.0	0.0	0.920	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	586.200	586.200	0.0
X4	4.000	583.000	674.000	577.600	680.990	577.450	719.010	585.360	724.000	0.0
BT	12.000	0.0	587.500	0.0	899.000	587.400	0.0	600.000	585.600	0.0
BT	680.990	585.400	0.0	681.000	586.210	583.110	719.000	686.220	583.120	719.010
BT	585.400	0.0	800.000	585.630	0.0	900.000	586.010	0.0	1000.000	586.140
BT	0.0	1100.000	586.300	0.0	1200.000	586.010	0.0	0.0	0.0	0.0
GR	587.500	0.0	556.250	100.000	587.000	200.000	587.000	500.000	587.500	599.900
GR	585.630	600.000	577.600	681.000	577.550	686.000	573.600	690.000	573.350	700.000
GR	573.650	708.000	577.300	711.000	577.450	719.000	582.000	300.000	586.010	900.000
GR	586.140	1000.000	586.300	1100.000	586.010	1200.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0

X-SECT. D/S OF SB M-85

X1	400.000	19.000	681.000	719.000	52.000	52.000	52.000	0.920	0.0	0.0
X3	0.0	0.0	0.0	720.000	0.0	710.000	0.0	0.0	0.0	0.0
GR	587.500	0.0	586.250	100.000	585.000	200.000	587.000	300.000	579.000	500.000
GR	582.000	674.000	577.600	681.000	577.553	686.000	573.600	690.000	573.350	700.000
GR	573.650	708.000	577.300	711.000	577.450	719.000	582.000	720.000	580.000	900.000
GR	582.500	1000.000	585.000	1100.000	586.300	1200.000	687.500	1300.000	0.0	0.0
NC	0.060	0.060	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON WTR FIELD BOOK NO.950

X1	1476.000	15.000	594.000	606.000	1250.000	850.000	1070.000	0.0	0.0	0.0
GR	590.000	0.0	985.000	175.000	580.000	310.000	580.020	650.000	579.820	565.000
GR	581.320	573.000	580.160	564.000	574.470	590.000	574.220	600.000	574.370	606.000
GR	580.920	615.000	579.540	750.000	560.420	900.000	585.000	1000.000	590.000	1300.000
LT	0.0	9.100	7.100	7.100	7.100	7.100	490.000	470.000	535.000	665.000

X-SECT.D/S OF VREELAND RD.

X1	2160.000	11.000	594.000	615.000	650.000	704.000	704.000	0.0	0.0	0.0
GR	580.000	0.0	585.000	150.000	580.000	300.000	580.200	584.000	574.600	594.000
GR	574.500	600.000	574.600	606.000	581.000	615.000	585.000	770.000	585.000	810.000
GR	589.000	1300.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	0.0	0.0	0.0	1.000	820.000

O/S FACE OF VREELAND RD.

X1	2380.000	14.000	588.000	612.000	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	584.900	584.900	0.0
X4	2.000	574.680	587.990	574.680	612.010	0.0	0.0	0.0	0.0	0.0
GR	590.210	0.0	590.000	100.000	590.000	200.000	590.000	300.000	592.050	499.900
GR	585.440	500.000	584.000	584.000	574.680	588.000	574.680	612.000	586.000	615.000
GR	584.790	700.000	585.250	800.000	585.400	819.900	595.000	820.000	0.0	0.0
SE	0.0	1.940	3.000	0.0	22.000	0.0	200.000	0.0	574.680	574.680

U/S FACE OF VREELAND RD.

X1	2426.000	0.0	0.0	0.0	66.000	46.000	46.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	583.700	585.030	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	585.030	585.030	0.0
RT	13.000	0.0	590.210	0.0	200.000	590.000	0.0	300.000	590.000	0.0
ET	099.900	590.000	0.0	500.000	585.440	0.0	587.990	585.030	0.0	580.000
ET	565.030	583.700	612.000	585.030	583.700	612.010	585.030	0.0	700.000	584.790
ET	0.0	800.000	595.250	0.0	819.900	595.400	0.0	820.000	595.000	0.0
ET	0.0	9.100	7.100	7.100	7.100	7.100	380.000	800.000	468.000	592.000

X-SECT. U/S OF VREELAND RD.

LI	2476.000	11.000	524.000	536.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	590.000	0.0	585.000	180.000	580.000	300.000	580.000	514.000	574.800	524.000
GR	574.700	530.000	574.800	536.000	581.000	545.000	585.000	900.000	588.000	1000.000
GR	596.000	1000.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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*****************************************************
 REC2 RELEASE DATED NOV 76 UPDATED  AUG1977
 ERROR CURR =  01,02
 MODIFICATION -  50,51,52,53
*****************************************************

T1 BROWNSTOWN TWP FIS HUD 2013-07 MARSH CREEK FROM M-85 TO VREELAND RD.
T2 010YR=810 50YR=1100 100YR=1210 500YR=1450 CFS STARTING U.S. FROM GIBRALTAR
T3       MARSH CREEK-BROWNSTOWN                                          FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        3.        0.        0.   0.0          0.0       0.0       0.   584.500    0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1 BROWNSTOWN TWP FIS MUD 2013-07 MARSH CREEK FROM M-85 TO VREELAND FD.
T2 010YR=810 50YR=1100 100YR=1210 500YR=1450 CFS STARTING W.S. FROM GIBRALTAR
T3      MARSH CREEK-BROWNSTOWN                                          FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      3.        5.        0.        0.   0.0          0.0       0.0       0.    564.380     0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1 BROWNSTOWN TWP FIS HUD 2013-07 MARSH CREEK FROM M-35 TO VREELAND RD.
T2 610YR=810 50YR=1100 100YR=1210 500YR=1450 CFS STARTING W.S. FROM GIBRALTAR
T3       MARSH CREEK-BROWNSTOWN                                    FIS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FN

      0.        6.        0.        0.   0.0          0.0       0.0       0.     594.610    0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
```

SEC# 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

MARSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	ALCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	IORPS	VCH	AREA	.01K
75.000	0.0	0.0	0.0	574.33	810.00	583.90	0.0	584.00	3.69	2.63	345.18	421.84
75.000	0.0	0.0	0.0	574.33	1100.00	584.30	0.0	584.47	5.84	3.39	364.73	455.27
75.000	0.0	0.0	0.0	574.33	1210.00	584.38	0.0	584.52	6.86	3.69	368.66	462.05
75.000	0.0	0.0	0.0	574.33	1450.00	584.81	0.0	585.07	8.43	4.20	393.28	499.41
76.000	1.00	0.0	0.0	574.33	810.00	583.90	0.0	584.00	3.69	2.63	345.20	421.86
76.000	1.00	0.0	0.0	574.33	1100.00	584.30	0.0	584.47	5.84	3.39	364.75	455.31
76.000	1.00	0.0	0.0	574.33	1210.00	584.38	0.0	584.52	6.86	3.69	368.68	462.10
76.000	1.00	0.0	0.0	574.33	1450.00	584.81	0.0	585.07	8.43	4.20	393.33	499.47
120.000	48.00	583.93	580.83	574.33	810.00	584.33	0.0	584.42	2.81	2.50	366.18	482.99
120.000	48.00	583.93	580.83	574.33	1100.00	585.05	0.0	585.19	3.96	3.10	411.17	552.83
120.000	48.00	583.93	580.83	574.33	1210.00	585.22	0.0	585.30	4.49	3.34	424.16	571.14
120.000	48.00	583.93	580.83	574.33	1450.00	585.60	0.0	585.81	5.80	3.81	452.76	612.82
125.000	1.00	0.0	0.0	574.33	810.00	584.33	0.0	584.42	3.13	2.49	366.21	457.82
125.000	1.00	0.0	0.0	574.33	1100.00	585.05	0.0	585.19	4.44	3.09	411.21	521.93
125.000	1.00	0.0	0.0	574.33	1210.00	585.22	0.0	585.38	5.04	3.32	424.21	538.78
125.000	1.00	0.0	0.0	574.33	1450.00	585.61	0.0	585.81	6.31	3.79	452.79	577.10
297.000	149.00	0.0	0.0	574.00	810.00	584.36	0.0	584.48	2.81	2.68	302.08	483.01
297.000	149.00	0.0	0.0	574.00	1100.00	585.10	0.0	585.27	4.03	3.36	327.76	547.87
297.000	149.00	0.0	0.0	574.00	1210.00	585.27	0.0	585.48	4.62	3.63	333.68	563.16
297.000	149.00	0.0	0.0	574.00	1450.00	585.66	0.0	585.94	5.86	4.17	347.37	590.94
348.000	51.00	586.40	583.12	573.35	810.00	584.43	0.0	584.57	2.30	2.50	323.60	534.14
348.000	51.00	586.40	583.12	573.35	1100.00	585.32	0.0	586.47	3.24	3.11	353.22	611.18
348.000	51.00	586.40	583.12	573.35	1210.00	585.52	0.0	585.70	3.69	3.36	360.16	629.64
348.000	51.00	586.40	583.12	573.35	1450.00	585.86	0.0	586.10	4.80	3.90	372.13	661.85
400.000	52.00	0.0	0.0	573.35	810.00	584.51	0.0	584.59	2.70	2.54	442.16	493.22
400.000	52.00	0.0	0.0	573.35	1100.00	585.39	0.0	585.50	3.47	3.01	515.97	590.27
400.000	52.00	0.0	0.0	573.35	1210.00	585.63	0.0	585.73	3.67	3.21	533.66	614.71
400.000	52.00	0.0	0.0	573.35	1450.00	585.96	0.0	586.15	4.64	3.64	565.17	659.31
1475.000	1076.00	0.0	0.0	574.22	810.00	584.63	0.0	584.64	0.12	0.70	3300.49	2311.03
1476.000	1076.00	0.0	0.0	574.22	1100.00	585.55	0.0	585.55	0.12	0.74	4068.29	3147.50
1476.000	1076.00	0.0	0.0	574.22	1210.00	585.79	0.0	585.79	0.15	0.82	3787.99	3171.62
1476.000	1076.00	0.0	0.0	574.22	1450.00	586.21	0.0	586.21	0.14	0.86	4663.97	3835.40

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	10R*S	VCH	AREA	.01K
2180.000	704.00	0.0	0.0	574.50	810.00	584.62	0.0	584.67	1.70	2.10	620.99	620.78
2180.000	704.00	0.0	0.0	574.50	1100.00	585.55	0.0	585.57	0.81	1.56	1446.58	1219.43
2180.000	704.00	0.0	0.0	574.50	1210.00	585.79	0.0	585.81	0.85	1.62	1546.46	1315.92
2180.000	704.00	0.0	0.0	574.50	1450.00	586.21	0.0	586.23	0.94	1.75	1722.10	1497.40
2380.000	200.00	0.0	0.0	574.68	810.00	584.60	0.0	584.78	3.34	3.40	238.11	442.89
2380.000	200.00	0.0	0.0	574.68	1100.00	585.49	0.0	585.69	3.34	3.79	511.48	602.23
2380.000	200.00	0.0	0.0	574.68	1210.00	585.73	0.0	585.94	3.45	3.93	566.91	647.77
2380.000	200.00	0.0	0.0	574.68	1450.00	586.14	0.0	586.37	3.64	4.23	719.67	739.64
2426.000	46.00	585.03	583.70	574.68	810.00	584.89	0.0	585.06	3.05	3.30	245.11	463.46
2426.000	46.00	585.03	583.70	574.68	1100.00	585.56	0.0	585.75	3.20	3.73	533.16	614.78
2426.000	46.00	585.03	583.70	574.68	1210.00	585.73	0.0	585.94	3.49	3.93	587.26	648.09
2426.000	46.00	585.03	583.70	574.68	1450.00	586.14	0.0	586.37	3.64	4.23	720.05	739.92
2476.000	50.00	0.0	0.0	574.70	810.00	585.08	0.0	585.11	1.65	2.59	676.03	630.06
2476.000	50.00	0.0	0.0	574.70	1100.00	585.80	0.0	585.81	0.56	1.55	1923.02	1499.10
2476.000	50.00	0.0	0.0	574.70	1210.00	585.99	0.0	586.00	0.58	1.62	2002.28	1590.05
2476.000	50.00	0.0	0.0	574.70	1450.00	586.43	0.0	586.44	0.64	1.73	2184.90	1808.67

MARSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CUSEL	DIFUSP	DIFUSX	DIFKUS	TOPWID	XLCH
75.000	810.00	583.90	0.0	0.0	0.0	48.53	0.0
75.000	1100.00	584.30	0.40	0.0	0.0	49.16	0.0
75.000	1210.00	584.38	0.08	0.0	0.0	49.29	0.0
75.000	1450.00	584.81	0.43	0.0	0.0	73.32	0.0
76.000	810.00	583.90	0.0	0.0	0.0	48.53	1.00
76.000	1100.00	584.30	0.40	0.00	0.0	49.16	1.00
76.000	1210.00	584.38	0.08	0.00	0.0	49.29	1.00
76.000	1450.00	584.81	0.43	0.00	0.0	73.30	1.00
124.000	810.00	584.33	0.0	0.43	0.0	49.21	48.00
124.000	1100.00	585.05	0.72	0.75	0.0	75.00	48.00
124.000	1210.00	585.22	0.17	0.84	0.0	75.00	48.00
124.000	1450.00	585.60	0.38	0.79	0.0	75.00	48.00
125.000	810.00	584.33	0.0	0.00	0.0	49.21	1.00
125.000	1100.00	585.05	0.72	0.00	0.0	75.00	1.00
125.000	1210.00	585.22	0.17	0.00	0.0	75.00	1.00
125.000	1450.00	585.61	0.38	0.00	0.0	75.00	1.00
297.000	810.00	584.36	0.0	0.03	0.0	34.96	169.00
297.000	1100.00	585.10	0.73	0.04	0.0	34.96	169.00
297.000	1210.00	585.27	0.18	0.05	0.91	34.96	169.00
297.000	1450.00	585.66	0.39	0.06	1.30	34.96	169.00
348.000	810.00	584.48	0.0	0.11	0.0	34.96	51.00
348.000	1100.00	585.32	0.85	0.23	0.9	34.96	51.00
348.000	1210.00	585.52	0.20	0.25	1.05	34.96	51.00
348.000	1450.00	585.86	0.34	0.20	1.39	34.96	51.00
400.000	810.00	584.51	0.0	0.03	0.0	82.80	52.00
400.000	1100.00	585.39	0.88	0.06	0.0	82.80	52.00
400.000	1210.00	585.60	0.21	0.08	1.10	82.80	52.00
400.000	1450.00	585.98	0.38	0.12	1.48	82.80	52.00
1476.000	810.00	584.63	0.0	0.13	0.0	807.09	1076.00
1476.000	1100.00	585.55	0.92	0.16	0.0	877.29	1076.00
1476.000	1210.00	585.79	0.24	0.10	1.15	647.89	1076.00
1476.000	1450.00	586.21	0.42	0.22	1.57	939.59	1076.00
2180.000	810.00	584.62	0.0	-0.01	0.0	130.00	704.00
2180.000	1100.00	585.55	0.93	0.00	0.93	420.00	704.00
2180.000	1210.00	585.79	0.24	0.01	1.17	420.00	704.00
2180.000	1450.00	586.21	0.42	0.00	1.59	420.00	704.00
2380.000	810.00	584.60	0.0	-0.02	0.0	24.00	200.00
2380.000	1100.00	585.49	0.89	-0.06	0.89	319.90	200.00
2380.000	1210.00	585.73	0.24	-0.06	1.13	319.91	200.00
2380.000	1450.00	586.14	0.42	-0.07	1.54	319.92	200.00
2426.000	810.00	584.89	0.0	0.29	0.0	24.00	46.00
2426.000	1100.00	586.56	0.67	0.07	0.67	319.90	93.00
2426.000	1210.00	585.73	0.17	0.00	0.84	319.91	46.00
2426.000	1450.00	586.14	0.41	0.0	1.25	319.92	46.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2476.000	810.00	585.06	0.0	0.17	0.0	124.00	50.00
2476.000	1100.00	586.60	0.74	0.24	0.74	420.00	50.00
2476.000	1210.00	585.99	0.19	0.26	0.93	420.00	50.00
2476.000	1450.00	586.43	0.44	0.28	1.36	420.00	50.00

SUMMARY OF ERRORS

FLOOD INSURANCE ZONE DATA FOR MARSH CREEK

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
75.000	0.	-0.48	-0.05	0.43
76.000	1.	-0.48	-0.08	0.43
124.000	49.	-0.89	-0.17	0.38
125.000	50.	-0.89	-0.17	0.38
197.000	199.	-0.91	-0.18	0.39
348.000	250.	-1.05	-0.20	0.34
400.000	302.	-1.10	-0.21	0.36
1476.000	1378.	-1.15	-0.24	0.42
2100.000	2082.	-1.17	-0.24	0.42
2380.000	2282.	-1.13	-0.24	0.42
2425.000	2328.	-0.84	-0.17	0.41
2476.000	2376.	-0.93	-0.19	0.44
WEIGHTED AVG FOR REACH		-1.10	-0.22	0.41

FHF FOR THE REACH = 01. WITH 100.0 OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 2

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01.02
  MODIFICATION -  50,51,52,53
**********************************************************
C
T1      BROWNSTOWN
T2
T3      MARSH CREEK
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	USEL	FQ
	1.	5.	0.	0.	0.0	0.0	0.0	0.	584.300	0.0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBH	CHNIM	ITRACE
	1.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	15.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	110.000	150.000	200.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NC	0.055	0.070	0.040	0.100	0.300	0.0	0.0	0.0	0.0	0.0
UT	5.000	10.000	1100.000	1210.000	1210.000	1450.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0	0.0

1' D/S OF NB FORT ST. BRIDGE

X1	75.000	20.000	700.000	735.000	0.0	0.0	0.0	0.0	1.430	0.0
X3	0.0	0.0	0.0	700.000	0.0	775.000	0.0	0.0	0.0	0.0
GR	585.700	0.0	585.700	100.000	585.500	200.000	585.200	300.000	584.900	400.000
GR	584.400	500.000	584.000	600.000	583.700	660.000	577.500	700.000	573.800	715.000
GR	572.900	720.000	573.000	728.000	573.900	735.000	583.400	750.000	583.100	775.000
GR	582.700	775.000	582.500	775.000	582.500	775.000	582.700	775.000	590.000	775.000

D/S FACE OF NB FORT ST. BRIDGE

X1	76.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	700.000	0.0	775.000	0.0	0.0	0.0	0.0
SB	0.0	1.680	3.040	0.0	27.650	0.0	179.750	0.0	574.330	574.330

U/S FACE OF NB FORT ST. BRIDGE

X1	124.000	0.0	0.0	0.0	48.000	48.000	48.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	580.830	583.930	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	590.000	0.0	0.0
BT	15.000	0.0	587.130	0.0	100.000	587.130	0.0	200.000	586.930	0.0
BT	300.000	586.630	0.0	400.000	586.330	0.0	500.000	585.830	0.0	600.000
BT	585.430	0.0	700.000	584.930	576.930	700.000	584.930	580.830	735.000	587.930
BT	580.830	735.000	584.930	575.330	775.000	584.530	0.0	775.000	584.130	0.0
BT	775.000	583.930	0.0	775.000	583.930	0.0	0.0	0.0	0.0	0.0

1' U/S OF NB FORT ST. BRIDGE

X3	10.000	0.0	0.0	700.000	0.0	775.000	0.0	583.930	583.930	0.0
NC	0.065	0.050	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	7.100	680.000	720.000	1.000	1300.000

U/S FACE OF SB M-85 BRIDGE

X1	297.000	13.000	681.000	719.000	149.000	149.000	149.000	0.920	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	586.000	586.000	0.0
X4	2.000	583.000	674.000	583.000	724.000	0.0	0.0	0.0	0.0	0.0
GR	587.000	0.0	587.000	599.900	584.500	600.000	577.350	681.000	577.250	686.000
GR	574.250	690.000	574.000	700.000	574.700	708.000	577.800	711.000	578.050	719.000
GR	586.010	900.000	586.280	1150.000	587.500	1300.000	0.0	0.0	0.0	0.0
SB	0.0	1.500	3.000	0.0	27.600	0.0	270.000	0.0	573.350	574.000

U/S FACE OF SB M-85 BRIDGE

X1	348.000	18.000	681.000	719.000	51.000	51.000	51.000	0.920	0.0	0.0
X2	0.0	0.0	1.000	583.120	585.400	0.0	0.0	0.0	0.920	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	586.200	586.200	0.0
X4	4.000	583.000	674.000	577.600	680.990	577.450	719.010	585.340	724.000	0.0
BT	12.000	0.0	587.500	0.0	599.000	587.400	0.0	600.000	585.400	0.0
BT	680.990	585.400	0.0	681.000	586.210	583.110	719.000	586.220	583.120	719.010
BT	585.400	0.0	800.000	585.630	0.0	900.000	586.010	0.0	1000.000	586.140
BT	0.0	1100.000	586.300	0.0	1200.000	586.010	0.0	0.0	0.0	0.0
GR	587.500	0.0	586.250	100.000	587.000	200.000	587.000	500.000	587.500	599.900
GR	585.030	600.000	577.600	681.000	577.550	686.000	573.600	690.000	573.350	700.000
GR	573.650	708.000	577.300	711.000	577.450	719.000	585.630	800.000	586.010	900.000
GR	586.140	1000.000	586.300	1100.000	586.010	1200.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0

X-SECT. U/S OF SB M-85

X1	400.000	19.000	681.000	719.000	52.000	52.000	52.000	0.920	0.0	0.0
X3	0.0	0.0	0.0	620.000	0.0	710.000	0.0	0.0	0.0	0.0
GR	587.500	0.0	586.250	100.000	585.000	200.000	580.000	300.000	579.000	500.000
GR	582.000	674.000	577.600	681.000	577.550	686.000	573.600	690.000	573.350	700.000
GR	573.650	708.000	577.300	711.000	577.450	719.000	582.000	724.000	580.000	900.000
GR	582.500	1000.000	585.000	1100.000	586.300	1200.000	587.500	1300.000	0.0	0.0
NC	0.060	0.060	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON NTA FIELD BOOK NO.950

X1	1470.000	15.000	594.000	606.000	1250.000	950.000	1076.000	0.0	0.0	0.0
GR	590.000	0.0	585.000	175.000	580.000	310.000	580.020	450.000	579.820	585.000
GR	581.320	573.000	580.160	584.000	574.470	594.000	574.220	600.000	574.370	606.000
GR	580.920	615.000	579.560	750.000	580.420	900.000	585.000	1000.000	590.000	1300.000
ET	0.0	9.100	7.100	7.100	7.100	7.100	450.000	870.000	535.000	665.000

X-SECT.U/S OF VREELAND RD.

X1	2160.000	11.000	584.000	615.000	550.000	704.000	704.000	0.0	0.0	0.0
GR	590.000	0.0	585.000	150.000	580.000	380.000	580.200	586.000	574.600	594.000
GR	574.500	600.000	574.600	606.000	581.000	615.000	585.000	770.000	585.000	810.000
GR	569.200	1300.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	0.0	0.0	0.0	1.000	820.000

U/S FACE OF VREELAND RD.

X1	2380.000	14.000	588.000	612.000	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	584.900	584.900	0.0
X4	2.000	574.680	587.990	574.680	612.010	0.0	0.0	0.0	0.0	0.0
GR	590.210	0.0	590.000	100.000	590.000	200.000	590.000	300.000	592.050	499.900
GR	585.440	500.000	584.000	584.000	574.680	588.000	574.680	612.000	584.000	615.000
GR	584.790	700.000	585.250	800.000	585.400	819.900	595.000	820.000	0.0	0.0
SI	0.0	1.940	3.000	0.0	22.000	0.0	200.000	0.0	574.680	574.680

U/S FACE OF VREELAND RD.

X1	2426.000	0.0	0.0	0.0	46.000	46.000	46.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	583.700	585.030	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	585.030	585.030	0.0
BT	13.000	0.0	590.210	0.0	200.000	590.000	0.0	300.000	590.000	0.0
BT	499.900	590.000	0.0	500.000	585.440	0.0	587.990	585.030	0.0	588.000
BT	585.030	583.700	612.000	585.030	583.700	612.010	585.030	0.0	700.000	586.790
BT	0.0	800.000	585.250	0.0	819.900	585.400	0.0	820.000	595.000	0.0
ET	0.0	9.100	7.100	7.100	7.100	7.100	380.000	800.000	0.0	0.0

X-SECT. U/S OF VREELAND RD.

X1	2476.000	11.000	524.000	536.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	590.000	0.0	585.000	180.000	580.000	300.000	530.000	514.000	574.800	524.000
GR	574.700	530.000	574.800	536.000	581.000	545.000	505.000	900.000	588.000	1000.000
GR	596.000	1000.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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°PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 75.000
   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=     700.0     775.0  TYPE=     1  TARGET=     75.000

        1' D/S OF NB FORT ST. BRIDGE

    75.00     10.05    584.38      0.0    584.38    584.58      0.20      0.0       0.0    578.93
    1210.        0.     1122.       88.       0.      304.       65.        0.        0.    575.33
     0.0       0.0      3.69      1.36     0.055     0.040     0.070      0.0    574.33    700.00
 0.000686        0.        0.        0.         0         0         0      0.0     49.29    749.29

FLOW DISTRIBUTION FOR SECNO=     75.00          CWSEL=    584.38

STA=      700.      735.      749.
  PER Q=      92.7       7.3
   AREA=     304.0      64.7
    VEL=       3.7       1.4

*SECNO 76.000

3470 ENCROACHMENT STATIONS=     700.0     775.0  TYPE=     1  TARGET=     75.000

        D/S FACE OF NB FORT ST. BRIDGE
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583.93 = ELTRD < 584.38 ⇒ TW over rd

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    76.00     10.05    584.38      0.0       0.0    584.58      0.20      0.00      0.00    578.93
    1210.        0.     1122.       88.       0.      304.       65.        0.        0.    575.33
     0.00       0.0      3.69      1.36     0.055     0.040     0.070     0.020    574.33    700.00
 0.000686        1.        1.        1.         0         0         0      0.0     49.29    749.29

FLOW DISTRIBUTION FOR SECNO=     76.00          CWSEL=    584.38

STA=      700.      735.      749.
  PER Q=      92.7       7.3
   AREA=     304.0      64.7
    VEL=       3.7       1.4

SPECIAL BRIDGE
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reasonable

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SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHO     ELCMD
     0.0       1.68      3.04       0.0      27.65      0.0      179.75     0.0      574.33    574.33

*SECNO 124.000
PRESSURE AND WEIR FLOW

 EGPRS      EGLUC      M3        QWEIR      QPR       BAREA    TRAPEZOID     ELLC      ELTRD
                                                                AREA
  585.56    584.50     0.0        96.      1114.      180.      180.      580.83    583.93
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 590.00 ELREA= 575.33

U/S FACE OF NB FORT ST. BRIDGE

124.00	10.89	565.22	0.0	0.0	585.38	0.16	0.80	0.0	578.93
1210.	0.	1114.	96.	0.	333.	91.	0.	0.	575.33
0.00	0.0	3.34	1.06	0.055	0.040	0.070	0.038	574.33	700.00
0.000449	48.	48.	48.	2	0	4	0.0	75.00	775.00

FLOW DISTRIBUTION FOR SECNO= 124.00 CWSEL= 585.22

STA=	700.	735.	750.	775.
PER Q=	92.0	7.6	0.3	
AREA=	333.5	77.1	13.6	
VEL=	3.3	1.2	0.3	

*SECNO 125.000

3470 ENCROACHMENT STATIONS= 700.0 775.0 TYPE= 1 TARGET= 75.000

1' U/S OF NB FORT ST. BRIDGE

125.00	10.90	585.22	0.0	0.0	585.38	0.16	0.00	0.00	578.93
1210.	0.	1108.	102.	0.	333.	91.	0.	0.	575.33
0.00	0.0	3.32	1.13	0.055	0.040	0.070	0.036	574.33	700.00
0.000504	1.	1.	1.	0	0	0	0.0	75.00	775.00

FLOW DISTRIBUTION FOR SECNO= 125.00 CWSEL= 585.22

STA=	700.	735.	750.	775.
PER Q=	91.6	8.1	0.3	
AREA=	333.5	77.1	13.6	
VEL=	3.3	1.3	0.3	

CCHV= 0.300 CEHV= 0.500

*SECNO 297.000

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

3470 ENCROACHMENT STATIONS= 0.9 1196.0 TYPE= 1 TARGET= 1299.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 586.00 ELREA= 586.00

D/S FACE OF SB I-85 BRIDGE

297.00	11.27	585.27	0.0	0.0	585.48	0.20	0.07	0.02	577.35
1210.	0.	1210.	0.	0.	334.	0.	2.	0.	578.05
0.02	0.0	3.63	0.0	0.065	0.035	0.050	0.036	574.00	626.52
0.000462	149.	149.	149.	2	0	0	0.0	34.96	661.48

FLOW DISTRIBUTION FOR SECNO= 297.00 CWSEL= 585.27

STA=	627.	661.
PER Q=	100.0	
AREA=	333.7	
VEL=	3.	

SPECIAL BRIDGE

SB	AK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	1.50	3.00	0.0	27.60	0.0	270.00	0.0	573.35	574.00

*SECNO 348.000
PRESSURE AND WEIR FLOW

reasonable

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
585.74	584.83	0.0	54.	1152.	270.	270.	583.12	565.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 586.20 ELREA= 586.20

U/S FACE OF SB M-85 BRIDGE

348.00	12.17	585.52	0.0	0.0	585.70	0.18	0.22	0.0	577.60
1210.	0.	1210.	0.	0.	360.	0.	2.	0.	577.45
0.02	0.0	3.36	0.0	0.065	0.035	0.050	0.035	573.35	626.52
0.000369	51.	51.	51.	2	0	3	0.0	34.96	661.48

FLOW DISTRIBUTION FOR SECNO= 348.00 CWSEL= 585.52

STA= 627. 661.
PER Q= 100.0
AREA= 360.2
VEL= 3.4

*SECNO 400.000

3470 ENCROACHMENT STATIONS= 570.4 653.2 TYPE= 1 TARGET= 90.000

X-SECT. U/S OF SB M-85

400.00	12.25	585.60	0.0	0.0	585.73	0.13	0.02	0.01	577.60
1210.	266.	944.	0.	239.	294.	0.	3.	0.	100000.00
0.03	1.11	3.21	0.0	0.065	0.035	0.050	0.035	573.35	570.40
0.000317	52.	52.	52.	2	0	0	0.0	88.80	653.20

FLOW DISTRIBUTION FOR SECNO= 400.00 CWSEL= 585.60

STA= 570. 620. 627. 661.
PER Q= 10.1 3.9 78.0
AREA= 202.1 37.4 294.2
VEL= 1.1 1.3 3.2

CCHV= 0.100 CEHV= 0.300
*SECNO 1476.000

VALLEY SECT. BASED ON NTA FIELD BOOK NO.950

1476.00	11.56	585.78	0.0	0.0	585.78	0.00	0.04	0.01	574.47
1210.	565.	106.	538.	2118.	138.	2019.	64.	13.	574.37
1.01	0.27	0.77	0.27	0.060	0.035	0.060	0.034	574.22	147.62
0.000013	1250.	1076.	950.	2	0	0	0.0	899.10	1040.43

FLOW DISTRIBUTION FOR SECNO= 1476.00 CWSEL= 585.78

STA=	140.	310.	450.	565.	594.	606.	750.	900.	1000.	1047.
PER Q=	7.2	19.0	16.0	4.4	8.8	19.1	20.6	4.8	0.1	
AREA=	453.8	808.1	674.1	181.8	137.5	822.8	870.3	307.2	18.4	
VEL=	0.2	0.3	0.3	0.3	0.8	0.3	0.3	0.2	0.0	

*SECNO 2160.000

3470 ENCROACHMENT STATIONS= 450.0 870.0 TYPE= 1 TARGET= 420.000

X-SECT.O/S OF VREELAND RD.

2180.00	11.29	585.79	0.0	0.0	585.81	0.02	0.02	0.01	580.20
1210.	533.	471.	206.	757.	291.	496.	106.	23.	561.00
1.19	0.70	1.62	0.42	0.060	0.035	0.060	0.036	574.50	450.00
0.000085	550.	704.	704.	2	0	0	0.0	420.00	870.00

FLOW DISTRIBUTION FOR SECNO= 2180.00 CWSEL= 585.79

STA=	450.	584.	615.	770.	810.	870.
PER Q=	44.1	38.9	16.1	0.5	0.4	
AREA=	757.4	290.6	431.9	31.5	32.5	
VEL=	0.7	1.6	0.5	0.2	0.2	

CCHV= 0.300 CEHV= 0.500

*SECNO 2380.000

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

3470 ENCROACHMENT STATIONS= 1.0 820.0 TYPE= 1 TARGET= 819.000

O/S FACE OF VREELAND RD.

2380.00	11.04	585.72	0.0	0.0	585.93	0.21	0.03	0.09	574.68
1210.	61.	1044.	105.	110.	265.	210.	111.	24.	574.68
1.20	0.56	3.94	0.50	0.060	0.035	0.060	0.036	574.58	500.00
0.000350	200.	200.	200.	2	0	0	0.0	319.91	819.90

Elhd = 59' < 585.72 ⇒ TW over rd

FLOW DISTRIBUTION FOR SECNO= 2380.00 CWSEL= 585.72

STA=	500.	584.	588.	688.	612.	615.	700.	800.	820.
PER Q=	3.2	1.8	0.0	86.3	1.1	5.2	2.1	0.2	
AREA=	84.2	25.5	0.1	265.0	19.2	112.8	70.2	7.9	
VEL=	0.5	0.9	0.5	3.9	0.7	0.5	0.4	0.3	

SPECIAL BRIDGE

continuity?

SD	XR	XKOR	COFQ	RDLEN	BNC	BNP	BAREA	SS	ELCHD	ELCHD
	0.0	1.24	3.00	0.0	22.00	0.0	200.00	0.0	574.68	574.68

*SECNO 2420.000
6870 D.S. ENERGY OF 585.93 HIGHER THAN COMPUTED ENERGY OF 585.93
PRESSURE AND WEIR FLOW

EGPRS	EGLPC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
586.82	585.93	0.0	686.	525.	200.	198.	583.70	585.03

U/S FACE OF VREELAND RD.

	2426.00	11.04	585.72	0.0	0.0	585.93	0.21	0.0	0.0	574.68
	1210.	61.	1044.	105.	110.	265.	210.	111.	25.	574.68
	1.21	0.56	3.94	0.50	0.060	0.035	0.060	0.036	574.68	500.00
	0.000350	46.	46.	46.	2	0	4	0.0	519.91	819.90

FLOW DISTRIBUTION FOR SECNO= 2426.00 CWSEL= 585.72

STA=	500.	584.	588.	612.	615.	700.	800.	820.
PER Q=	3.2	1.8	86.3	1.1	5.2	2.1	0.2	
AREA=	84.3	25.5	265.0	19.2	112.9	70.3	7.9	
VEL=	0.5	0.9	3.9	0.7	0.6	0.4	0.3	

*SECNO 2476.000

3470 ENCROACHMENT STATIONS= 380.0 800.0 TYPE= 1 TARGET= 420.000

X-SECT. U/S OF VREELAND RD.

2476.00	11.28	585.98	0.0	0.0	586.00	0.01	0.01	0.06	574.80
1210.	547.	219.	444.	888.	135.	977.	113.	25.	574.80
1.23	0.62	1.62	0.45	0.060	0.035	0.060	0.036	574.70	300.00
0.000058	50.	50.	50.	2	0	0	0.0	520.00	300.00

FLOW DISTRIBUTION FOR SECNO= 2476.00 CWSEL= 585.98

STA=	490.	514.	524.	536.	545.	800.
PER Q=	40.1	5.2	18.1	4.0	32.7	
AREA=	301.9	85.8	134.8	72.8	904.7	
VEL=	0.6	0.7	1.6	0.7	0.4	

check on pressure flow

$Q = CA\sqrt{2gH}$; $K = 1.94$

$C = \frac{1}{\sqrt{K}} = .717$

$Q = .717(200)(8.025)H^{\frac{1}{2}} = 1152.32H^{\frac{1}{2}}$

$eH = 585.93 - 585.72 = .21$

$Q = 1152.32(.45) = 528.05$ cfs

check $eH = .21 + 4 = 6.1$

$Q = 1152.32(.78) = 899.9$ cfs

$\Rightarrow HW < 4'$ low

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp.

3) WATERCOURSE: Morrison Drain

4) DOCUMENT TYPE: 100 Year

00BREAK00

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**********
 HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
 LARGR CORR = 01,02
 MODIFICATION = 50,51,52,53
**********
C
TIBRO.NSTOWN TOWNSHIP FIS HUD 2013 07 MORRISON DRAIN FROM SILVER CREEK TO
T2 0100110 CFS Q500175 Q100#200 Q5000270 CFS          WOODRUFF ROAD
T3       MORRISONDR.-BROWNSTOWN   STARTING W.S. ELEV. MEAN LAKE LEVEL

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     U         HSEL      FQ
        0.        4.        0.        0.  0.0           0.0       0.0       0.   574.630    0.0

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     1.000    -1.000     0.0       0.0       0.0       0.0       0.0       0.0      15.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  110.000   150.000   200.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

QT      5.000   110.000   175.000   200.000   200.000   270.000     0.0       0.0       0.0       0.0
NC      0.050     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0
ET      0.0       0.0       0.0       0.0       1.400     0.0       0.0       0.0       0.0       0.0

                X SECT. AT CONFLUENCE WITH SILVER CREEK

X1      0.0      10.000   134.000   270.000     0.0       0.0       0.0       0.0       0.0       0.0
GR    570.000     0.0     576.000   115.000   578.210   121.000   578.220   125.000   571.450   136.000
GR    569.680   202.000   571.460   270.000   574.600   279.000   577.310   355.000   576.160   502.000

                VALLEY SECT. BASED ON FIELD BOOK NO. 10400. LEFT TO RD.

X1    750.000    10.000   134.000   270.000   750.000   750.000   750.000     0.0       0.0       0.0
GR    576.360     0.0     576.010   115.000   578.210   121.000   578.220   125.000   572.450   136.000
GR    570.680   202.000   572.460   270.000   574.600   279.000   577.310   355.000   576.160   502.000
NC      0.070     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0

                VALLEY SECT. BASED ON FIELD BOOK NO. 9000.

X1    1400.000   11.000   157.000   303.000  1400.000  1400.000  1400.000     0.0       0.0       0.0
RB      0.0       0.0       0.0       0.0       0.0     405.000     0.0       0.0       0.0       0.0
GR    582.120     0.0     580.900    50.000   574.100   150.000   572.550   157.000   571.500   230.000
GR    572.900   303.000   573.450   309.000   574.400   439.000   574.600   540.000   575.000   700.000
GR    590.000  1500.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
NC      0.070     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0

                X SECT. D/S OF STREICHER RD.

X1    2750.000    9.000   242.000   294.000   600.000   600.000   600.000     0.0       0.0       0.0
RB      0.0       0.0       0.0     240.000     0.0     300.000     0.0       0.0       0.0       0.0
GR    580.750     0.0     575.000   150.000   574.100   235.000   570.600   242.000   569.830   270.000
GR    570.000   294.000   571.000   300.000   573.000   600.000   570.000   650.000     0.0       0.0
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D/S END STREICHER RD. CULVERT

X1	2650.000	21.000	265.600	274.400	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.600	575.780	0.0
GR	560.730	0.0	578.400	70.000	575.000	170.000	573.000	243.000	570.500	248.000
GR	570.000	265.600	569.830	266.400	569.830	268.200	569.830	270.000	569.830	271.800
GR	569.830	273.600	570.000	274.400	570.500	294.000	573.500	300.000	573.900	370.000
GR	574.400	470.000	575.000	570.000	576.100	670.000	577.300	770.000	578.400	870.000
GR	579.000	920.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	2.300	3.000	0.0	7.330	0.0	41.000	0.0	569.800	569.800

U/S END STREICHER RD. CULVERT

X1	2091.000	0.0	0.0	0.0	41.000	41.000	41.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	575.420	575.780	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.600	575.780	0.0
X4	2.000	570.000	265.590	570.000	274.410	0.0	0.0	0.0	0.0	0.0
BT	19.000	0.0	580.730	0.0	70.000	577.630	0.0	170.000	576.900	0.0
BT	265.590	576.600	0.0	265.600	576.600	571.150	266.400	576.600	574.250	268.200
BT	576.600	574.870	270.000	576.600	575.420	271.800	576.600	574.870	273.600	576.600
BT	574.250	274.400	576.600	571.150	274.410	576.600	0.0	370.000	575.920	0.0
BT	470.000	575.830	0.0	570.000	575.780	0.0	670.000	576.270	0.0	770.000
BT	577.620	0.0	870.000	578.310	0.0	920.000	579.030	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

A SECT. U/S OF STREICHER RD.

X1	2916.000	9.000	248.000	294.000	25.000	25.000	25.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	240.000	0.0	300.000	0.0	0.0	0.0	0.0
GR	560.730	0.0	575.000	150.000	573.000	243.000	570.500	248.000	569.800	270.000
GR	570.590	294.000	573.500	300.000	575.000	600.000	579.000	920.000	0.0	0.0
NC	0.050	0.060	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 7600.

X1	3550.000	13.000	328.000	372.000	634.000	634.000	634.000	0.0	0.0	0.0
GR	580.600	0.0	576.980	50.000	576.270	200.000	575.130	258.000	573.760	323.000
GR	572.530	328.000	571.710	350.000	573.150	372.000	574.040	379.000	574.670	469.000
GR	574.880	650.000	580.000	925.000	562.500	1100.000	0.0	0.0	0.0	0.0

VALLEY SECTION 1550' U/S OF STREICHER ROAD

X1	4435.000	18.000	990.000	1010.000	885.000	885.000	885.000	0.0	0.0	0.0
GR	561.000	0.0	577.000	750.000	585.000	750.100	585.000	780.000	577.000	780.100
GR	577.250	861.000	576.060	868.000	575.060	917.000	576.400	981.000	572.400	990.000
GR	571.980	1000.000	572.070	1010.000	573.260	1021.000	574.490	1101.000	575.140	1200.000
GR	576.590	1300.000	580.000	1400.000	582.500	1650.000	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 6600.

X1	4750.000	18.000	990.000	1010.000	315.000	315.000	315.000	0.0	0.0	0.0
GR	561.000	0.0	577.000	750.000	585.000	750.100	585.000	780.000	577.000	780.100
GR	577.250	861.000	576.060	868.000	575.060	917.000	574.400	981.000	572.630	990.000
GR	572.080	1000.000	572.270	1010.000	573.260	1021.000	574.490	1101.000	575.140	1200.000
GR	576.590	1300.000	580.000	1400.000	582.500	1650.000	0.0	0.0	0.0	0.0

A SECT. U/S OF HURON RIVER DR.

X1	5478.000	0.0	0.0	0.0	678.000	678.000	678.000	0.0	0.150	0.0
X3	0.0	0.0	0.0	945.000	0.0	1055.000	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

U/S END HURON RIVER DR. CULVERT

X1	5628.000	28.000	869.700	880.300	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.830	577.000	0.0
GR	582.700	0.0	579.000	375.000	578.800	475.000	578.500	575.000	577.000	639.000
GR	577.000	675.000	576.500	775.000	575.800	852.000	572.960	869.700	571.940	870.500
GR	571.940	871.300	571.940	872.200	571.940	873.100	571.940	873.900	572.960	874.700
GR	573.380	875.300	571.840	876.100	571.840	876.900	571.840	877.800	571.840	878.600
GR	571.840	879.400	573.380	880.300	574.000	884.000	575.800	894.000	576.300	975.000
GR	577.400	1175.000	578.500	1375.000	579.170	1500.000	0.0	0.0	0.0	0.0
SB	0.0	2.500	2.900	0.0	8.000	0.0	31.100	0.0	571.640	571.840

U/S END HURON RIVER DR. CULVERT

X1	5671.000	0.0	0.0	0.0	43.000	43.000	43.000	0.0	-0.200	0.0
X2	0.0	0.0	1.000	575.550	576.830	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	577.300	577.300	0.0
BT	25.000	0.0	582.700	0.0	375.000	579.570	0.0	475.000	579.710	0.0
BT	575.000	578.640	0.0	639.000	577.650	0.0	675.000	577.240	0.0	775.000
BT	576.830	0.0	869.700	576.950	572.960	870.500	576.950	574.800	871.300	576.950
BT	575.300	872.200	576.950	575.460	873.100	576.950	575.300	873.900	576.950	574.800
BT	874.700	576.950	572.960	875.300	576.950	573.380	876.100	576.950	574.900	876.900
BT	576.950	575.400	877.800	576.950	575.550	878.600	576.950	575.400	879.400	576.950
BT	574.900	880.300	576.950	573.380	975.000	578.420	0.0	1175.000	576.980	0.0
BT	1375.000	578.770	0.0	1500.000	579.170	0.0	0.0	0.0	0.0	0.0

X SECT. U/S OF HURON RIVER DR.

X1	5721.000	13.000	292.000	308.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	250.000	0.0	350.000	0.0	0.0	0.0	0.0
GR	580.000	0.0	579.890	15.000	577.600	150.000	574.870	286.000	572.000	292.000
GR	571.700	300.000	572.000	308.000	574.600	313.000	574.820	323.000	576.220	333.000
GR	578.520	470.000	576.740	600.000	580.000	900.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 4800.

X1	6350.000	13.000	292.000	308.000	629.000	629.000	629.000	0.0	0.0	0.0
GR	580.000	0.0	579.890	15.000	577.600	150.000	574.870	286.000	572.630	292.000
GR	572.620	300.000	572.670	308.000	574.600	313.000	574.820	323.000	576.220	333.000
GR	578.520	470.000	576.740	600.000	580.000	900.000	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.040	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 3400.

X1	7750.000	26.000	595.000	605.000	1400.000	1400.000	1400.000	0.0	0.0	0.0
GR	581.000	0.0	580.500	75.000	580.500	75.100	580.500	105.000	580.500	105.100
GR	580.000	125.000	580.000	165.000	588.000	165.100	588.000	195.000	580.000	195.100
GR	580.000	300.000	580.000	325.000	588.000	325.100	588.000	355.000	580.000	355.100
GR	578.560	414.000	579.090	425.000	576.280	505.000	576.000	585.000	573.120	595.000
GR	573.950	600.000	573.330	605.000	576.250	617.000	580.000	750.000	582.040	850.000
GR	580.090	900.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.080	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 2000.

X1	9150.000	11.000	296.000	304.000	1400.000	1400.000	1400.000	0.0	0.0	0.0
GR	560.460	0.0	581.460	134.000	576.060	289.000	574.030	296.000	573.460	300.000
GR	573.810	304.000	576.410	314.000	577.430	367.000	577.790	450.000	579.560	600.000
GR	580.000	700.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 700.

X1	10450.000	10.000	546.000	554.000	1350.000	1200.000	1300.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	300.000	0.0	0.0	0.0	0.0	0.0	0.0
GR	580.000	0.0	578.040	250.000	579.070	400.000	577.790	539.000	574.990	546.000
GR	574.940	550.000	575.170	554.000	576.990	560.000	580.740	680.000	582.040	850.000

X SECT. D/S OF WOODRUFF RD.

X1	11013.000	9.000	546.000	554.000	863.000	563.000	563.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	325.000	0.0	675.000	0.0	0.0	0.0	0.0
GR	560.000	0.0	579.000	250.000	578.870	400.000	577.790	539.000	575.100	546.000
GR	575.000	550.000	575.100	554.000	578.700	560.000	580.000	725.000	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	0.0	0.0	0.0	1.000	1200.000

D/S END WOODRUFF RD. CULVERT

X1	11113.000	15.000	1098.250	1101.750	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	578.860	578.940	0.0
GR	509.000	0.0	585.000	899.900	578.860	900.000	579.000	1000.000	578.000	1088.000
GR	575.100	1098.250	575.100	1098.850	575.100	1099.850	575.100	1100.000	575.100	1100.350
GR	575.100	1101.150	575.100	1101.750	578.000	1112.000	579.500	1200.000	585.000	1200.100
SP	0.0	2.120	2.800	0.0	2.700	0.0	3.400	0.0	575.830	575.100

D/S END WOODRUFF RD. CULVERT

X1	11150.000	17.000	1098.250	1101.750	37.000	37.000	37.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	577.020	578.940	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	578.860	578.940	0.0
BT	13.000	0.0	585.000	0.0	899.900	585.000	0.0	900.000	578.860	0.0
BT	1000.000	579.000	0.0	1098.250	578.940	576.070	1098.850	578.940	576.970	1099.450
BT	578.940	577.700	1100.000	578.940	577.820	1100.550	578.940	577.730	1101.150	576.940
BT	576.970	1101.750	578.940	576.070	1200.000	579.500	0.0	1200.100	585.000	0.0
GR	585.000	0.0	585.000	899.900	578.860	900.000	579.000	1000.000	578.000	1088.000
GR	576.070	1098.250	575.030	1098.270	575.830	1098.850	575.830	1099.450	575.830	1100.000
GR	575.830	1100.550	575.050	1101.150	575.830	1101.730	576.070	1101.750	579.000	1112.000
GR	579.500	1200.000	585.000	1200.100	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0

A SECT. D/S OF WOODRUFF RD.

X1	11175.000	10.000	596.000	604.000	25.000	25.000	25.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	375.000	0.0	725.000	0.0	0.0	0.0	0.0
GR	580.000	0.0	579.100	200.000	578.000	400.000	579.300	500.000	579.200	588.000
GR	575.900	596.000	575.030	600.000	575.900	604.000	579.200	612.000	580.000	775.000
ET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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*PROF 1

CCHV=    0.100 CEHV=    0.300
*SECNO .0
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


        X SECT. AT CONFLUENCE WITH SILVER CREEK

      0.2       4.95    574.63      0.0    574.63    574.63      0.00      0.0       0.0    571.45
     200.        1.      198.        1.        7.      552.       14.        0.        0.    571.46
      0.0       0.10      0.36      0.08     0.050     0.030     0.070      0.0    569.66    129.77
 0.000008        0.        0.        0.         0         0         0      0.0    150.06    279.84

FLO. DISTRIBUTION FOR SECNO=       0.0            CWSEL=     574.63

STA=      130.      134.      270.      279.
  PER Q=       0.3      99.1       0.6
   AREA=       6.7     552.5      14.4
    VEL=       0.1       0.4       0.1

*SECNO 750.000

        VALLEY SECT. BASED ON FIELD BOOK NO. 10400. LEFT TO RD.

   750.00      3.98    574.64      0.0       0.0    574.64      0.00      0.01      0.00    572.45
     200.        0.      199.        1.        4.      419.       10.        9.        3.    572.46
      0.44      0.13      0.47      0.10     0.050     0.030     0.070     0.030    570.66    130.59
 0.000020      750.      750.      750.         0         0         0      0.0    149.41    280.00

FLO. DISTRIBUTION FOR SECNO=     750.00            CWSEL=     574.64

STA=      131.      134.      270.      279.
  PER Q=       0.2      99.3       0.5
   AREA=       3.7     418.6      10.0
    VEL=       0.1       0.5       0.1

CCHV=    0.100 CEHV=    0.300
*SECNO 2150.000

3470 ENCROACHMENT STATIONS=       0.0      405.0  TYPE=      1  TARGET=      404.999

        VALLEY SECT. BASED ON FIELD BOOK NO. 9000.

  2150.00      3.17    574.67      0.0       0.0    574.68      0.00      0.03      0.00    572.55
     200.        1.      189.       10.       12.      373.       92.       23.        9.    572.90
      1.25      0.12      0.51      0.11     0.070     0.030     0.070     0.030    571.50    141.70
 0.000030      1400.     1400.     1400.         1         0         0      0.0    263.30    405.00

FLOW DISTRIBUTION FOR SECNO=    2150.00            CWSEL=     574.67

STA=      142.      150.      157.      303.      309.      405.
  PER Q=       0.1       0.7      94.3       0.7       4.4
   AREA=       2.3       9.4     372.6       8.9      82.9
    VEL=       0.0       0.1       0.5       0.2       0.1
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130 [illegible]

CCHV= 0.100 CEHV= 0.300
*SECNO 2750.000

3470 ENCROACHMENT STATIONS= 240.0 300.0 TYPE= 1 TARGET= 60.000

A SECT. D/S OF STREICHER RD.

2750.00	4.86	574.69	0.0	0.0	574.70	0.01	0.02	0.00	570.60
200.	1.	196.	3.	7.	233.	16.	28.	11.	570.60
1.45	0.16	0.84	0.21	0.070	0.030	0.070	0.030	569.83	240.00
0.000039	600.	600.	600.	0	0	0	0.0	60.00	300.00

FLOW DISTRIBUTION FOR SECNO= 2750.00 CWSEL= 574.69

STA=	240.	242.	294.	300.
PER Q=	0.6	97.8	1.6	
AREA=	7.2	232.5	15.5	
VEL=	0.2	0.8	0.2	

CCHV= 0.300 CEHV= 0.500
*SECNO 2850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TBA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2850.00	4.69	574.52	0.0	0.0	574.69	0.37	0.01	0.18	570.00
200.	0.	200.	0.	0.	41.	0.	29.	12.	570.00
1.45	0.0	4.66	0.0	0.040	0.030	0.040	0.030	569.83	265.00
0.002024	100.	100.	100.	2	0	0	0.0	8.00	274.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 576.60 ELREA= 575.78

D/S END STREICHER RD. CULVERT ELLC = 575.42 > 574.52 ⇒ low flow

Neglects flow of culvert 1000 ft east

FLOW DISTRIBUTION FOR SECNO= 2850.00 CWSEL= 574.52

STA=	266.	274.
PER Q=	100.0	
AREA=	61.2	
VEL=	4.9	

SPECIAL BRIDGE

SK	XK	AKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHO	ELCHO
	0.0	2.30	3.00	0.0	7.33	0.0	41.00	0.0	569.80	569.80

*SECNO 2891.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.0 EGLOC= 574.063 ELLC= 575.420 PCWSE= 574.521 ELTRD= 575.780

3370 NORMAL BRIDGE.NRD= 19 MIN ELTRD= 575.78 MAX ELLC= 575.42

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 576.60 ELREA= 575.78

2891.00	4.78	574.61	0.0	0.0	575.01	0.40	0.10	0.01	570.00
200.	0.	200.	0.	0.	40.	0.	29.	12.	570.00
1.46	0.0	5.05	0.0	0.040	0.030	0.040	0.030	569.83	265.60
0.003173	41.	41.	41.	2	0	0	-2.36	8.80	274.40

FLOW DISTRIBUTION FOR SECNO= 2091.00 CHSEL= 574.61

STA= 266. 274.
PER Q= 100.0
AREA= 39.6
VEL= 5.1

CCHV= 0.300 CEHV= 0.500
*SECNO 2916.000

3470 ENCROACHMENT STATIONS= 240.0 300.0 TYPE= 1 TARGET= 60.000

X SECT. U/S OF STREICHER RD.

2916.00	5.31	575.11	0.0	0.0	575.12	0.01	0.00	0.12	570.50
200.	5.	191.	4.	23.	228.	19.	29.	12.	570.50
1.46	0.23	0.84	0.21	0.070	0.030	0.070	0.030	569.80	240.00
0.000034	25.	25.	25.	2	0	0	0.0	60.00	300.00

FLOW DISTRIBUTION FOR SECNO= 2916.00 CHSEL= 575.11

STA=	240.	243.	248.	294.	300.
PER Q=	0.4	2.2	95.4	2.0	
AREA=	6.2	16.8	228.3	18.7	
VEL=	0.1	0.3	0.8	0.2	

CCHV= 0.100 CEHV= 0.300
*SECNO 3550.000

VALLEY SECT. BASED ON FIELD BOOK NO. 7000.

3550.00	3.44	575.15	0.0	0.0	575.16	0.02	0.04	0.00	572.53
200.	15.	152.	33.	55.	126.	152.	33.	15.	573.15
1.65	0.27	1.20	0.22	0.060	0.030	0.060	0.030	571.71	257.02
0.000144	634.	634.	634.	2	0	0	0.0	407.43	664.46

FLOW DISTRIBUTION FOR SECNO= 3550.00 CHSEL= 575.15

STA=	257.	323.	328.	372.	379.	469.	650.	664.
PER Q=	5.3	2.3	75.9	2.2	9.1	5.2	0.1	
AREA=	45.1	10.0	126.5	10.9	71.5	67.7	1.9	
VEL=	0.2	0.5	1.2	0.4	0.3	0.2	0.1	

*SECNO 4435.000

VALLEY SECTION 1550' U/S OF STREICHER ROAD

4435.00	3.32	575.30	0.0	0.0	575.32	0.02	0.15	0.00	572.40
200.	14.	99.	82.	54.	69.	191.	40.	22.	572.07
1.30	0.34	1.56	0.43	0.060	0.030	0.060	0.030	571.98	910.52
0.000211	885.	885.	885.	2	0	0	0.0	300.38	1210.90

FLOW DISTRIBUTION FOR SECNO= 4435.00 CHSEL= 575.30

STA=	911.	917.	981.	990.	1010.	1021.	1101.	1200.	1211.

AREA=	0.8	36.4	17.1	63.8	29.0	113.8	47.8	0.9
VEL=	0.1	0.2	0.5	1.6	0.7	0.5	0.2	0.1

*SECNO 4750.000

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

VALLEY SECT. BASED ON FIELD BOOK NO. 6400.

4750.00	3.29	575.37	0.0	0.0	575.38	0.02	0.07	0.00	572.63
200.	19.	93.	87.	58.	62.	203.	42.	24.	572.27
1.99	0.33	1.51	0.43	0.060	0.030	0.060	0.030	572.08	908.84
0.000206	315.	315.	315.	1	0	0	0.0	306.32	1215.16

FLOW DISTRIBUTION FOR SECNO= 4750.00 CWSEL= 575.37

STA=	909.	917.	981.	990.	1010.	1021.	1101.	1200.	1215.
PER Q=	0.1	5.3	4.4	46.7	9.6	27.5	6.6	0.1	
AREA=	1.2	40.3	16.6	61.9	28.5	118.8	53.9	1.7	
VEL=	0.1	0.3	0.5	1.5	0.7	0.5	0.2	0.1	

*SECNO 5478.000

3470 ENCROACHMENT STATIONS= 945.0 1055.0 TYPE= 1 TARGET= 110.000

X SECT. U/S OF HURON RIVER DR.

5478.00	3.29	575.52	0.0	0.0	575.56	0.03	0.17	0.00	572.78
200.	21.	115.	64.	45.	62.	91.	46.	28.	572.42
2.13	0.47	1.86	0.70	0.060	0.030	0.060	0.030	572.23	965.00
0.000311	678.	678.	678.	1	0	0	0.0	110.00	1055.00

FLOW DISTRIBUTION FOR SECNO= 5478.00 CWSEL= 575.52

STA=	945.	981.	990.	1010.	1021.	1055.
PER Q=	5.2	5.4	57.6	11.8	20.0	
AREA=	28.1	10.7	62.0	28.6	62.7	
VEL=	0.4	0.7	1.9	0.8	0.6	

CCHV= 0.300 CEHV= 0.500

*SECNO 5628.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 576.63 ELREA= 577.00

U/S END HURON RIVER DR. CULVERT

5628.00	3.60	575.44	0.0	0.0	575.96	0.51	0.16	0.24	572.96
200.	0.	200.	0.	0.	35.	0.	47.	28.	573.38
2.14	0.0	3.75	0.0	0.060	0.030	0.060	0.030	571.84	869.70
0.000728	200.	200.	200.	2	0	0	0.0	10.60	880.30

FLOW DISTRIBUTION FOR SECNO= 5628.00 CWSEL= 575.44

STA=	870.	880.
PER Q=	100.0	
AREA=	34.8	
VEL=	5.8	

SPECIAL BRIDGE

SO	XK	XROR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	2.50	2.90	0.0	8.00	0.0	31.10	0.0	571.64	571.84

*SECNO 5671.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
577.05	575.76	0.0	5.	194.	31.	31.	575.55	576.83

reasonable

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 577.30 ELREA= 577.30

U/S END HURON RIVER DR. CULVERT

5671.00	5.06	576.70	0.0	0.0	576.95	0.25	0.99	0.0	572.76
200.	0.	200.	0.	0.	50.	0.	47.	28.	573.18
2.14	0.0	3.98	0.0	0.060	0.030	0.060	0.030	571.64	869.70
0.001558	43.	43.	43.	2	0	3	0.0	10.60	880.30

FLOW DISTRIBUTION FOR SECNO= 5671.00 CWSEL= 576.70

STA=	870.	880.
PER Q=	100.0	
AREA=	50.2	
VEL=	4.0	

*SECNO 5721.000

3470 ENCROACHMENT STATIONS= 250.0 350.0 TYPE= 1 TARGET= 100.000

X SECT. U/S OF HURON RIVER DR.

5721.00	5.30	577.00	0.0	0.0	577.03	0.03	0.01	0.07	572.00
200.	37.	134.	29.	85.	82.	67.	67.	28.	572.00
2.16	0.44	1.62	0.44	0.060	0.030	0.060	0.030	571.70	250.00
0.000121	50.	50.	50.	2	0	0	0.0	100.00	350.00

FLOW DISTRIBUTION FOR SECNO= 5721.00 CWSEL= 577.00

STA=	250.	286.	292.	308.	313.	323.	333.	350.
PER Q=	12.3	6.3	66.8	5.6	5.4	2.6	1.1	
AREA=	63.6	21.6	82.4	18.8	22.9	14.8	14.8	
VEL=	0.4	0.6	1.6	0.6	0.5	0.4	0.2	

CCHV= 0.100 CEHV= 0.300
*SECNO 6350.000

3285 DIVIDED FLOW

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	LLOB	OCH	ORQB	ALOB	ACH	AROB	VCL	TCA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STN	ELFIN	SSTA
SLOPL	XLOPL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

6350.00	4.46	577.08	0.0	0.0	577.11	0.03	0.09	0.00	572.63
200.	47.	122.	32.	142.	71.	89.	51.	31.	572.67
2.30	0.33	1.71	0.36	0.070	0.030	0.070	0.030	572.62	175.65
0.000162	629.	629.	629.	2	0	0	0.0	265.88	631.77

This appears to consider flow of the center channel but no flow appears to have been allowed - X-sec "L"

FLOW DISTRIBUTION FOR SECNO= 6350.00 CHSEL= 577.08

STA=	176.	286.	292.	308.	313.	323.	333.	385.	600.	632.
PER Q=	17.7	5.8	60.8	5.1	5.7	2.8	1.7	0.2	0.2	
AREA=	122.2	20.0	71.2	17.3	23.8	15.7	22.3	4.4	5.5	
VEL=	0.3	0.6	1.7	0.6	0.5	0.4	0.2	0.1	0.1	

CCHV= 0.100 CEHV= 0.300
*SECNO 7750.000

VALLEY SECT. BASED ON FIELD BOOK NO. 3400.

☆7750.00	4.38	577.43	0.0	0.0	577.46	0.03	0.35	0.00	573.12
200.	74.	88.	38.	151.	43.	52.	59.	38.	573.33
2.62	0.69	2.04	0.73	0.080	0.040	0.060	0.032	573.05	472.21
0.000433	1400.	1400.	1400.	2	0	0	0.0	179.33	651.54

LK Erie 100-yr 577.47

FLOW DISTRIBUTION FOR SECNO= 7750.00 CHSEL= 577.43

STA=	472.	505.	585.	595.	605.	617.	652.
PER Q=	2.5	23.7	10.9	43.8	15.3	3.7	
AREA=	18.9	103.3	28.7	42.9	31.7	20.4	
VEL=	0.3	0.5	0.8	2.0	1.0	0.4	

CCHV= 0.100 CEHV= 0.300
*SECNO 9150.000

VALLEY SECT. BASED ON FIELD BOOK NO. 2000.

9150.00	4.58	578.04	0.0	0.0	578.10	0.06	0.63	0.01	574.03
200.	45.	90.	57.	77.	35.	120.	67.	44.	573.81
2.86	0.58	2.03	0.65	0.070	0.030	0.080	0.031	573.46	232.28
0.000463	1400.	1400.	1400.	2	0	0	0.0	236.55	470.84

FLOW DISTRIBUTION FOR SECNO= 9150.00 CHSEL= 578.04

STA=	270.	289.	296.	306.	314.	367.	450.	471.
PER Q=	12.7	9.7	49.1	11.7	12.7	4.0	0.1	
AREA=	56.0	20.9	34.8	29.3	59.1	35.4	2.6	
VEL=	0.5	0.9	2.8	0.8	0.4	0.2	0.1	

CCHV= 0.100 CEHV= 0.300
*SECNO 10450.000

3265 DIVIDED FLOW

3670 ENCROACHMENT STATIONS= 300.0 450.0 TYPE= 1 TARGET= -100.000

VALLEY SECT. BASED ON FIELD BOOK NO. 700.

☆10450.00	3.90	578.64	0.0	0.0	578.92	0.08	0.02	0.00	574.99
200.	48.	97.	54.	93.	31.	72.	74.	52.	575.17
3.05	0.52	3.17	0.76	0.070	0.035	0.070	0.032	574.96	300.00
0.000930	1350.	1300.	1200.	2	0	0	0.0	261.73	619.31

FLOW DISTRIBUTION FOR SECNO= 10450.00 CWSEL= 578.84

STA=	300.	367.	539.	546.	554.	560.	619.
PER Q=	1.9	12.7	9.6	48.6	10.3	16.9	
AREA=	15.4	60.3	17.2	30.7	16.6	55.0	
VEL=	0.2	0.4	1.1	3.2	1.2	0.6	

*SECNO 11013.000

3470 ENCROACHMENT STATIONS= 325.0 675.0 TYPE= 1 TARGET= 350.000

X SECT. D/S OF WOODRUFF RD.

11013.00	4.28	579.28	0.0	0.0	579.33	0.05	0.41	0.00	575.10
200.	93.	91.	17.	180.	34.	36.	76.	55.	575.10
3.16	0.51	2.68	0.47	0.070	0.035	0.070	0.032	575.00	325.00
0.000584	563.	563.	563.	2	0	0	0.0	308.66	633.66

FLOW DISTRIBUTION FOR SECNO= 11013.00 CWSEL= 579.28

STA=	325.	400.	539.	546.	554.	560.	634.
PER Q=	3.8	32.8	9.7	45.4	5.9	2.4	
AREA=	28.3	132.1	19.8	33.8	14.3	21.6	
VEL=	0.3	0.5	1.0	2.7	0.8	0.2	

CCHV= 0.300 CEHV= 0.500

*SECNO 11113.000

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

D/S END WOODRUFF RD. CULVERT

ELTRD = 578.99 < 579.36 ⇒ TW over rd

11113.00	4.26	579.36	0.0	0.0	579.41	0.04	0.07	0.00	575.10
200.	91.	48.	60.	147.	15.	83.	77.	55.	575.10
3.10	0.62	3.25	0.73	0.070	0.035	0.070	0.032	575.10	699.99
0.000866	100.	100.	100.	6	0	0	0.0	291.57	1191.56

FLOW DISTRIBUTION FOR SECNO= 11113.00 CWSEL= 579.36

STA=	900.	1000.	1088.	1098.	1102.	1112.	1192.
PER Q=	7.5	21.0	17.2	24.2	17.2	12.9	
AREA=	42.6	75.3	28.8	14.9	28.8	54.0	
VEL=	0.4	0.6	1.2	3.2	1.2	0.5	

D/H = 42/48 = .875 ⇒ low submergence

SPECIAL BRIDGE

SB AR	XROB	COEQ	RULEN	BMC	BMP	BAREA	SS	ELCHD	ELCHD
0.0	2.12	2.80	0.0	2.70	0.0	5.40	0.0	575.04	575.10

*SECNO 11150.000

PRESSURE AND WEIR FLOW

EXPRS	EGLWC	HO	QWEIR	CRR	SAREA	TRAPEZOID AREA	ELLC	ELWD
624.52	580.16	0.0	192.	9.	5.	5.	577.82	578.96

U/S END WOODRUFF RD. CULVERT

11150.00	3.59	579.42	0.0	0.0	579.45	0.03	0.05	0.0	576.07
200.	102.	37.	61.	155.	13.	84.	77.	56.	576.07
3.19	0.66	2.93	0.73	0.070	0.035	0.070	0.032	575.83	899.99
0.001016	37.	37.	37.	2	0	10	0.0	295.43	1195.42

FLOW DISTRIBUTION FOR SECNO= 11150.00 CWSEL= 579.42

STA=	900.	1000.	1088.	1098.	1102.	1112.	1195.
PER Q=	10.4	26.0	14.6	18.4	14.6	16.0	
AREA=	49.2	81.1	24.5	12.6	24.5	59.3	
VEL=	0.4	0.6	1.2	2.9	1.2	0.5	

*SECNO 11175.000

3470 ENCROACHMENT STATIONS= 375.0 725.0 TYPE= 1 TARGET= 350.000

X SECT. U/S OF WOODRUFF RD.

11175.00	3.53	579.36	578.27	0.0	579.59	0.23	0.04	0.10	575.90
200.	47.	132.	21.	68.	28.	17.	77.	57.	575.90
3.19	0.68	4.72	1.25	0.070	0.035	0.070	0.032	575.83	375.00
0.002331	25.	25.	25.	4	18	0	0.0	269.44	644.44

FLOW DISTRIBUTION FOR SECNO= 11175.00 CWSEL= 579.36

STA=	375.	400.	500.	588.	596.	604.	612.	644.
PER Q=	4.5	7.2	1.1	10.5	66.0	10.5	0.2	
AREA=	13.5	30.9	9.6	14.5	28.0	14.5	2.6	
VEL=	0.7	0.5	0.2	1.4	4.1	1.4	0.2	

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**********************************************************
  REC2 RELEASE DATED NOV 76 UPDATED AUG1977
  ERROR CORR -  01.02
  MODIFICATION -  50.51.52.53
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T1 BROOKSTOWN TRIP
T2 ENCROACHMENT RUN
T3 MORRISON DRAIN

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	NSEL	FQ
	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	574.730	0.0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Use for F.I.S
Input w/ National Flood

```
*PROF 2
 CCHV=   0.100 CEHV=   0.300
 *SECNO  .0
  2800 NAT Q1=     703.00  WSEL=    574.63  ENC Q1=     725.40  WSEL=    574.73  RATIO= -0.0319
  NAT Q1=    732.  RATIOS LOB,CH,ROB=  0.0035  0.9904  0.0061  WSEL=    574.73
    SECNO     DEPTH     CHSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       QTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID     ENDST

 3470 ENCROACHMENT STATIONS=     134.0     270.0  TYPE=     4  TARGET=      0.010

        X  ECT. AT CONFLUENCE WITH SILVER CREEK

      0.0       5.05    574.73      0.0     574.63    574.73     0.00      0.0       0.0     571.45
      200.       0.     200.        0.       0.      566.       0.        0.        0.      571.46
      0.0       0.0      0.35       0.0      0.050     0.030     0.070     0.0     569.68    134.00
 0.000008        0.       0.        0.        0         0         0        0.0     136.00    270.00


 *SECNO 750.000
  2800 NAT Q1=     642.00  WSEL=    574.64  ENC Q1=     663.19  WSEL=    574.74  RATIO= -0.0479
  NAT Q1=    467.  RATIOS LOB,CH,ROB=  0.0025  0.9919  0.0055  WSEL=    574.74

 3470 ENCROACHMENT STATIONS=     134.0     270.0  TYPE=     4  TARGET=      0.008

        VALLEY SECT. BASED ON FIELD BOOK NO. 10400. LEFT TO RD.

    750.00      4.08    574.74      0.0     574.64    574.74     0.00      0.01      0.00    572.65
       200.       0.     200.        0.       0.      433.       0.        9.        2.      572.66
       6.5       0.0      0.46       0.0      0.050     0.030     0.070     0.030   570.66    134.00
 0.000019        750.     750.      750.        0         0         0        0.0     136.00    270.00


 CCHV=   0.100 CEHV=   0.300
 *SECNO 2150.000

 3471 ENCROACHMENT STATIONS=       0.0     605.0  TYPE=     1  TARGET=    304.999

        VALLEY SECT. BASED ON FIELD BOOK NO. 9000.

   2150.00      3.27    574.77      0.0     574.67    574.77     0.00      0.03      0.00    572.55
      200.       2.     187.        11.      13.      387.      102.       26.       5.      572.90
      1.30      0.12      0.48       0.11     0.070     0.030     0.070     0.030   571.50    140.25
 0.000026       1400.    1400.     1400.        1         0         0        0.0     264.74    405.00


 CCHV=   0.100 CEHV=   0.300
 *SECNO 2750.000

 3470 ENCROACHMENT STATIONS=     240.0     300.0  TYPE=     1  TARGET=     60.000

        X SECT. D/S OF STREICHER RD.

   2750.00      6.95    574.79      0.0     576.69    574.79     0.01      0.02      0.00    570.60
      200.       1.     196.        3.       7.      237.       16.       29.       11.     570.60
      1.50      0.16      0.82       0.21     0.070     0.030     0.070     0.030   569.83    240.00
 0.000036       600.     600.      600.        0         0         0        0.0      60.00    300.00
```

CCHV= 0.300 CEHV= 0.500
*SECNO 2850.000
2800 NAT Q1= 44.46 WSEL= 574.52 ENC Q1= 45.80 WSEL= 574.62 RATIO= -0.0303
NAT Q1= 46. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 574.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		265.6	274.4	TYPE=	4	TARGET=	0.0		
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=		576.60	ELREA=	575.78					
D/S END STREICHER RD. CULVERT									
2850.00	4.79	574.62	0.0	574.52	574.97	0.35	0.01	0.17	570.00
200.	0.	200.	0.	0.	42.	0.	25.	11.	570.00
1.51	0.0	4.76	0.0	0.040	0.030	0.040	0.030	569.63	265.60
0.003014	100.	100.	100.	2	0	0	0.0	8.80	274.40

SPECIAL BRIDGE

SP	XK	XKOR	COFQ	RDLEN	BWC	BUP	BAREA	SS	ELCRD	ELCHD
	0.0	2.30	3.00	0.0	7.33	0.0	41.00	0.0	569.80	569.80

*SECNO 2891.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.0 EGLLC= 575.040 ELLC= 575.420 PCWSE= 574.623 ELTRD= 575.780
2800 NAT Q1= 35.01 WSEL= 574.61 ENC Q1= 36.23 WSEL= 574.71 RATIO= -0.0204
NAT Q1= 36. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 574.71
LATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 265.6 274.4 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 576.60 ELREA= 575.78

D/S END STREICHER RD. CULVERT

2891.00	4.88	574.71	0.0	574.61	575.05	0.34	0.12	0.00	570.00
200.	0.	200.	0.	0.	43.	0.	29.	11.	570.00
1.31	0.0	4.67	0.0	0.040	0.030	0.040	0.030	569.63	265.60
0.002074	41.	41.	41.	0	0	0	0.0	6.80	274.40

CCHV= 0.300 CEHV= 0.500
*SECNO 2910.000

3470 ENCROACHMENT STATIONS= 240.0 300.0 TYPE= 1 TARGET= 60.000

X SECT. U/S OF STREICHER RD.

2910.00	5.34	575.14	0.0	575.11	575.15	0.01	0.00	0.10	570.50
200.	5.	191.	4.	23.	230.	19.	29.	11.	570.50
1.52	0.22	0.83	0.21	0.070	0.030	0.070	0.030	569.50	240.00
0.000033	25.	25.	25.	2	0	0	0.0	60.00	300.00

CCHV= 0.1 CEHV= 0.300

*SECNO 3550.000

2000 NAT Q1= 166.71 WSEL= 575.15 ENC Q1= 166.71 WSEL= 575.25 RATIO= 0.0

NAT Q1= 184. RATIOS LOB,CH,ROB= 0.0818 0.7255 0.1927 WSEL= 575.25

3470 ENCROACHMENT STATIONS= 317.9 516.2 TYPE= 4 TARGET= 0.096

VALLEY SECT. BASED ON FIELD BOOK NO. 7600.

3550.00	3.46	575.17	0.0	575.15	575.19	0.02	0.04	0.00	572.53
200.	7.	163.	30.	17.	128.	108.	33.	13.	573.15
1.68	0.43	1.28	0.27	0.060	0.030	0.060	0.030	571.71	317.89
0.000160	634.	634.	634.	1	0	0	0.0	1980.35	516.25

*SECNO 4435.000

2000 NAT Q1= 137.71 WSEL= 575.30 ENC Q1= 137.71 WSEL= 575.40 RATIO= 0.0

NAT Q1= 152. RATIOS LOB,CH,ROB= 0.0998 0.6749 0.4252 WSEL= 575.40

3470 ENCROACHMENT STATIONS= 975.8 1117.8 TYPE= 4 TARGET= 0.093

VALLEY SECTION 1550' U/S OF STREICHER ROAD

4435.00	3.38	575.34	0.0	575.30	575.36	0.02	0.17	0.00	572.40
200.	12.	106.	82.	22.	64.	159.	38.	16.	572.07
1.90	0.52	1.65	0.52	0.060	0.030	0.060	0.030	571.98	975.82
0.000236	885.	885.	885.	1	0	0	0.0	141.94	1117.76

*SECNO 4750.000

2000 NAT Q1= 139.20 WSEL= 575.37 ENC Q1= 139.20 WSEL= 575.47 RATIO= 0.0

NAT Q1= 155. RATIOS LOB,CH,ROB= 0.1060 0.4450 0.4489 WSEL= 575.47

SECNO	DEPTH	C.SEL	CRINS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROD	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOP	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 973.1 1123.2 TYPE= 4 TARGET= 0.100

VALLEY SECT. BASED ON FIELD BOOK NO. 6400.

4750.00	3.33	575.42	0.0	575.37	575.44	0.02	0.07	0.00	572.63
200.	12.	100.	87.	25.	63.	171.	41.	18.	572.27
1.98	0.49	1.60	0.51	0.060	0.030	0.060	0.030	572.08	973.09
0.000226	315.	315.	315.	1	0	0	0.0	150.14	1123.23

*SECNO 5478.000

3470 ENCROACHMENT STATIONS= 945.0 1055.0 TYPE= 1 TARGET= 110.000

A SECT. D/S OF HURON RIVER DR.

5478.00	3.35	575.58	0.0	575.52	575.61	0.03	0.17	0.00	572.78
200.	22.	114.	64.	47.	63.	94.	44.	20.	572.42
2.13	0.47	1.81	0.68	0.060	0.030	0.060	0.030	572.23	945.00
0.000288	678.	678.	678.	0	0	0	0.0	110.00	1055.00

CCHV= 0.300 CEHV= 0.500

*SECNO 6628.000

2000 NAT Q1= 29.09 WSEL= 575.44 ENC Q1= 30.45 WSEL= 575.54 RATIO= -0.0468

NAT Q1= 30. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 575.54

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 576.83 ELREA= 577.00

D/S END HURON RIVER DR. CULVERT

5628.00	3.66	575.50	0.0	575.44	576.00	0.49	0.15	0.23	572.96
200.	0.	200.	0.	0.	35.	0.	44.	20.	573.38
2.14	0.0	5.64	0.0	0.060	0.030	0.060	0.030	571.84	869.70
0.005374	200.	200.	200.	2	0	0	0.0	10.60	880.30

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	2.50	2.90	0.0	8.00	0.0	31.10	0.0	571.64	571.84

*SECNO 5671.000
2800 NAT WSEL= 576.66 HSEL= 576.70 ENC Q1= 52.24 HSEL= 576.80 RATIO= -0.0312
NAT Q1= 52. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 576.80
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 869.7 880.3 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 577.30 ELREA= 577.30

U/S END HURON RIVER DR. CULVERT

5671.00	5.12	576.76	0.0	576.70	577.00	0.24	0.13	0.00	572.76
200.	0.	200.	0.	0.	51.	0.	44.	20.	573.18
2.14	0.0	3.94	0.0	0.060	0.030	0.060	0.030	571.64	869.70
0.001969	43.	43.	43.	0	0	0	0.0	10.60	880.30

*SECNO 5721.000

3470 ENCROACHMENT STATIONS= 250.0 350.0 TYPE= 1 TARGET= 100.000

A SECT. U/S OF HURON RIVER DR.

5721.00	5.35	577.05	0.0	577.00	577.08	0.03	0.01	0.06	572.00
200.	38.	132.	30.	87.	83.	69.	44.	20.	572.00
2.15	0.43	1.59	0.43	0.060	0.030	0.060	0.030	571.70	250.00
0.000115	50.	50.	50.	2	0	0	0.0	100.00	350.00

CCHV= 0.100 CEXV= 0.300
*SECNO 6350.000
2800 NAT WSEL= 157.04 HSEL= 577.08 ENC Q1= 157.04 HSEL= 577.18 RATIO= 0.0
NAT Q1= 168. RATIOS LOB,CH,ROB= 0.2432 0.5909 0.1659 WSEL= 577.18

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	QTN	ELMIN	SSTA
SLOP	WLOB	WLCH	WLOBR	ITRIAL	IUC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 241.4 332.8 TYPE= 4 TARGET= 0.063

VALLEY SECT. BASED ON FIELD BOOK NO. 4000.

6350.00	4.51	577.13	0.0	577.08	577.16	0.03	0.09	0.00	572.63
200.	41.	127.	32.	101.	7.	58.	46.	1.	577.67

0.000171	629.	629.	629.	0	0	0	0.0	91.31	332.76

CCHV= 0.100 CEHV= 0.300
*SECNO 7750.000

2800 NAT Q1= 96.09 WSEL= 577.43 ENC Q1= 96.09 WSEL= 577.53 RATIO= 0.0
NAT Q1= 104. RATIOS LOB,CH,ROB= 0.3847 0.4219 0.1935 WSEL= 577.53

3470 ENCROACHMENT STATIONS= 507.0 618.8 TYPE= 4 TARGET= 0.074

VALLEY SECT. BASED ON FIELD BOOK NO. 3400.

7750.00	4.45	577.50	0.0	577.43	577.53	0.04	0.37	0.00	573.12
200.	74.	92.	34.	136.	44.	35.	55.	25.	573.33
2.58	0.55	2.11	0.97	0.080	0.040	0.060	0.032	573.05	506.96
0.000450	1400.	1400.	1400.	1	0	0	0.0	111.84	618.80

CCHV= 0.100 CEHV= 0.300
*SECNO 9150.000

2800 NAT Q1= 92.96 WSEL= 578.04 ENC Q1= 92.96 WSEL= 578.14 RATIO= 0.0
NAT Q1= 101. RATIOS LOB,CH,ROB= 0.2270 0.4691 0.3040 WSEL= 578.14

3470 ENCROACHMENT STATIONS= 270.8 383.1 TYPE= 4 TARGET= 0.081

VALLEY SECT. BASED ON FIELD BOOK NO. 2000.

9150.00	4.66	578.12	0.0	578.04	578.19	0.07	0.65	0.01	574.03
200.	41.	102.	57.	53.	35.	104.	62.	28.	573.81
2.79	0.76	2.89	0.55	0.070	0.030	0.080	0.031	573.46	270.75
0.000473	1400.	1400.	1400.	2	0	0	0.0	112.39	383.14

CCHV= 0.100 CEHV= 0.300
*SECNO 10450.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 300.0 650.0 TYPE= 1 TARGET= -300.000

VALLEY SECT. BASED ON FIELD BOOK NO. 700.

10450.00	3.96	578.90	0.0	578.84	578.97	0.07	0.79	0.00	574.99
200.	52.	94.	55.	105.	31.	76.	67.	34.	575.17
3.00	0.69	3.01	0.72	0.070	0.035	0.070	0.032	574.94	300.00
0.000821	1300.	1300.	1200.	2	0	0	0.0	279.27	621.27

*SECNO 11013.000

3470 ENCROACHMENT STATIONS= 325.0 675.0 TYPE= 1 TARGET= 350.000

A SECT. D/S OF HOODRUFF RD.

11013.00	4.30	579.40	0.0	579.28	579.35	0.05	0.33	0.00	575.10
200.	94.	89.	17.	185.	34.	37.	70.	38.	575.10
3.11	0.51	2.63	0.45	0.070	0.035	0.070	0.032	575.00	325.00
0.000556	563.	563.	563.	2	0	0	0.0	311.41	636.41

CCHV= 0.300 CEHV= 0.500
*SECNO 11113.000

SECNO	DEPTH	CWSEL	CRINS	WSELK	EG	HV	KL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ROB	VOL	TOA	LEFT/RIGHT

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 1200.0 TYPE= 1 TARGET= 1199.000

O/S END WOODRUFF RD. CULVERT

11113.00	4.28	579.38	0.0	579.36	579.42	0.04	0.07	0.00	575.10
200.	92.	48.	60.	150.	15.	84.	71.	38.	575.10
3.13	0.62	3.20	0.72	0.070	0.035	0.070	0.032	575.10	899.99
0.000818	100.	100.	100.	0	0	0	0.0	292.42	1192.41

SPECIAL BRIDGE

SB	XR	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	2.12	2.60	0.0	2.70	0.0	5.40	0.0	575.63	575.10

*SECNO 11150.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	WJ	QWEIR	CPR	SAREA	TRAPEZOID AREA	ELLC	ELTRD
624.53	580.15	0.0	193.	9.	5.	5.	577.82	578.96

O/S END WOODRUFF RD. CULVERT

11150.00	3.60	579.43	0.0	579.42	579.46	0.03	0.04	0.0	576.07
200.	102.	36.	61.	157.	13.	85.	71.	39.	576.07
3.14	0.65	2.89	0.72	0.070	0.035	0.070	0.032	575.83	899.99
0.000963	37.	37.	37.	2	0	10	0.0	296.17	1196.16

*SECNO 11175.000

3470 ENCROACHMENT STATIONS= 375.0 725.0 TYPE= 1 TARGET= 350.000

X SECT. U/S OF WOODRUFF RD.

11175.00	3.54	579.37	578.27	579.36	579.60	0.22	0.04	0.10	575.90
200.	48.	130.	21.	72.	28.	18.	71.	39.	575.90
3.14	0.67	4.64	1.21	0.070	0.035	0.070	0.032	575.83	375.00
0.002238	25.	25.	25.	4	10	0	0.0	272.72	647.72

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

MORRISONDR.-BROWNSTOWN

SUMMARY PRINTOUT TABLE 110

SECNO	CHSEL	DIFKOS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.0	574.63	0.0	574.63	150.06	0.67	198.19	1.14	0.0	0.0	134.00	270.00	0.0
0.0	574.73	0.10	574.73	136.00	0.0	200.00	0.0	0.01	134.00	134.00	270.00	270.00
750.000	574.64	0.0	574.66	149.41	0.47	198.52	1.00	0.0	0.0	134.00	270.00	0.0
750.000	574.74	0.10	574.74	136.00	0.0	200.00	0.0	0.01	134.00	134.00	270.00	270.00
2150.000	574.67	0.0	574.68	263.30	1.42	188.53	10.06	405.00	0.00	157.00	303.00	405.00
2150.000	574.77	0.10	574.77	264.74	1.53	187.35	11.11	405.00	0.00	157.00	303.00	405.00
2750.000	574.69	0.0	574.70	60.00	1.16	195.58	3.26	60.00	240.00	262.00	294.00	300.00
2750.000	574.78	0.09	574.79	60.00	1.16	195.52	3.32	60.00	240.00	262.00	294.00	300.00
2891.000	574.52	0.0	574.89	8.80	0.0	200.00	0.0	0.0	0.0	265.60	274.40	0.0
2891.000	574.62	0.10	574.97	8.80	0.0	200.00	0.0	0.0	265.60	265.60	274.40	274.40
2891.000	574.61	0.0	575.01	8.80	0.0	200.00	0.0	0.0	0.0	265.60	274.40	0.0
2891.000	574.71	0.10	575.05	8.80	0.0	200.00	0.0	0.0	265.60	265.60	274.40	274.40
2916.000	575.11	0.0	575.12	60.00	5.20	190.80	3.94	60.00	240.00	248.00	294.00	300.00
2916.000	575.14	0.03	575.15	60.00	5.23	190.82	3.96	60.00	240.00	248.00	294.00	300.00
3550.000	575.15	0.0	575.16	407.63	15.11	151.77	33.12	0.0	0.0	328.00	372.00	0.0
3550.000	575.17	0.03	575.19	198.35	7.25	163.16	29.59	0.10	317.89	328.00	372.00	516.25
4435.000	575.30	0.0	575.32	300.38	18.30	99.46	82.24	0.0	0.0	990.00	1010.00	0.0
4435.000	575.36	0.06	575.36	141.94	11.53	100.47	82.00	0.09	975.82	990.00	1010.00	1117.76
4750.000	575.37	0.0	575.38	306.32	19.63	93.50	87.07	0.0	0.0	990.00	1010.00	0.0
4750.000	575.42	0.05	575.44	150.14	12.18	100.35	87.47	0.10	973.09	990.00	1010.00	1123.23
5478.000	575.52	0.0	575.56	110.00	21.15	115.25	63.60	110.00	945.00	990.00	1010.00	1055.00
5478.000	575.58	0.06	575.61	110.00	22.02	114.13	63.85	110.00	945.00	990.00	1010.00	1055.00
5626.000	575.44	0.0	575.86	10.60	0.0	200.00	0.0	0.0	0.0	869.70	880.30	0.0
5626.000	575.50	0.06	576.00	10.60	0.0	200.00	0.0	0.0	869.70	869.70	880.30	880.30
5671.000	576.70	0.0	576.95	10.60	0.0	200.00	0.0	0.0	0.0	869.70	880.30	0.0
5671.000	576.76	0.06	577.00	10.60	0.0	200.00	0.0	0.0	869.70	869.70	880.30	880.30

SECNO	CUSEL	DIFKMS	EG	TOPWID	WLOB	WCH	WROB	PERENC	STENCL	STCHL	STCHR	STENCR
5721.000	577.00	0.0	577.03	100.00	37.28	133.51	29.21	100.00	250.00	292.00	308.00	350.00
5721.000	577.05	0.05	577.08	100.00	37.04	132.43	29.73	100.00	250.00	292.00	308.00	350.00
6350.000	577.08	0.0	577.11	265.88	46.93	121.53	31.54	0.0	0.0	292.00	308.00	0.0
6350.000	577.13	0.05	577.16	91.31	44.77	126.78	28.45	0.06	241.45	292.00	308.00	332.76
7750.000	577.43	0.0	577.46	179.33	74.28	87.68	38.04	0.0	0.0	595.00	605.00	0.0
7750.000	577.50	0.06	577.53	111.84	74.48	91.91	33.61	0.07	506.96	595.00	605.00	618.80
9150.000	578.04	0.0	578.10	236.55	64.70	98.22	57.08	0.0	0.0	296.00	304.00	0.0
9150.000	578.12	0.08	578.19	112.39	60.63	102.48	56.89	0.08	270.75	296.00	304.00	383.14
10450.000	578.84	0.0	578.92	261.73	60.43	97.22	54.35	-300.00	300.00	546.00	554.00	850.00
10450.000	578.90	0.06	578.97	279.27	51.54	93.79	54.66	-300.00	300.00	546.00	554.00	850.00
11013.000	579.28	0.0	579.33	308.66	92.56	90.83	16.60	350.00	325.00	546.00	554.00	675.00
11013.000	579.30	0.02	579.35	311.41	93.74	89.40	16.86	350.00	325.00	546.00	554.00	675.00
11113.000	579.36	0.0	579.41	291.57	91.40	48.38	60.22	0.0	0.0	1098.25	1101.75	0.0
11113.000	579.38	0.02	579.42	292.42	92.08	47.78	60.16	1199.00	1.00	1098.25	1101.75	1200.00
11150.000	579.42	0.0	579.45	295.43	101.96	36.84	61.19	0.0	0.0	1098.25	1101.75	0.0
11150.000	579.43	0.01	579.46	296.17	102.48	36.41	61.12	0.0	0.0	1098.25	1101.75	0.0
11175.000	579.36	0.0	579.59	269.44	46.68	131.92	21.39	350.00	375.00	596.00	604.00	725.00
11175.000	579.37	0.02	579.60	272.72	48.32	130.27	21.41	350.00	375.00	596.00	604.00	725.00

SUMMARY PRINTOUT TABLE 150

SECNO	XLOC	ELTRD	ELLEC	ELMIN	Q	CLSEL	CRISS	ES	10K*S	VCM	AREA	.01K
0.0	0.0	0.0	0.0	569.68	200.00	574.63	0.0	574.63	0.08	0.36	573.62	703.00
0.0	0.0	0.0	0.0	569.68	200.00	574.73	0.0	574.73	0.08	0.35	566.11	702.43
750.000	750.00	0.0	0.0	570.06	200.00	574.64	0.0	574.64	0.20	0.47	632.34	442.00
750.000	750.00	0.0	0.0	570.66	200.00	574.74	0.0	574.74	0.19	0.46	632.80	453.19
2150.000	1400.00	0.0	0.0	571.50	200.00	574.67	0.0	574.64	0.30	0.51	476.22	365.65
2150.000	1400.00	0.0	0.0	571.50	200.00	574.77	0.0	574.77	0.26	0.49	502.13	391.83
2750.000	600.00	0.0	0.0	539.83	200.00	574.69	0.0	574.70	0.39	0.24	255.22	419.62
2750.000	600.00	0.0	0.0	569.83	200.00	574.78	0.0	574.79	0.36	0.02	260.94	331.15
2850.000	100.00	0.0	0.0	569.83	200.00	574.52	0.0	574.89	20.24	4.86	41.15	44.46
2850.000	100.00	0.0	0.0	569.03	200.30	574.62	0.0	574.97	30.14	4.76	42.06	36.43
2891.000	41.00	575.78	575.42	569.83	200.00	574.61	0.0	575.01	31.73	5.05	39.60	35.51
2891.000	41.00	9999999.00	0.0	569.03	200.00	574.71	0.0	575.05	28.14	4.67	42.82	37.31
2916.000	25.00	0.0	0.0	569.80	200.00	575.11	0.0	575.12	0.34	0.86	270.05	346.73
2916.000	25.00	0.0	0.0	569.80	200.00	575.14	0.0	575.15	0.33	0.83	271.67	367.96
3550.000	636.00	0.0	0.0	571.71	200.00	575.15	0.0	575.16	1.44	1.20	333.58	166.71
3550.000	636.00	0.0	0.0	571.71	200.00	575.17	0.0	575.19	1.60	1.28	253.06	157.89
4435.000	805.00	0.0	0.0	571.98	200.00	575.30	0.0	575.32	2.11	1.56	309.50	137.71
4435.000	805.00	0.0	0.0	571.98	200.00	575.34	0.0	575.36	2.34	1.65	295.45	130.04
4750.000	315.00	0.0	0.0	572.06	200.00	575.37	0.0	575.39	2.06	1.51	322.95	139.20
4750.000	315.00	0.0	0.0	572.06	200.00	575.46	0.0	575.46	2.26	1.60	258.19	133.14
5478.000	676.00	0.0	0.0	572.23	200.00	575.52	0.0	575.56	3.11	1.86	198.16	113.35
5478.000	676.00	0.0	0.0	572.23	200.00	575.56	0.0	575.61	2.88	1.81	206.11	117.60
5628.000	200.00	0.0	0.0	571.84	200.00	575.44	0.0	575.96	47.28	5.73	36.77	29.09
5628.000	200.00	0.0	0.0	571.84	200.00	575.50	0.0	576.00	53.76	5.64	35.66	27.28
5871.000	43.00	576.83	575.55	571.64	200.00	576.70	0.0	576.95	15.58	3.90	50.21	50.66
5871.000	43.00	9999999.00	0.0	571.04	200.00	576.76	0.0	577.00	19.69	3.54	50.03	45.07
5721.000	50.00	0.0	0.0	571.70	200.00	577.03	0.0	577.05	1.21	1.62	234.23	102.11
5721.000	50.00	0.0	0.0	571.70	200.00	577.05	0.0	577.08	1.15	1.59	239.45	186.72
6390.000	629.00	0.0	0.0	572.62	200.00	577.11	0.0	577.14	1.62	1.71	302.23	157.04
6390.000	629.00	0.0	0.0	572.62	200.00	577.13	0.0	577.16	1.71	1.76	230.52	153.02
7750.000	1400.00	0.0	0.0	573.05	200.00	577.43	0.0	577.46	4.33	2.04	265.98	96.09
7750.000	1400.00	0.0	0.0	573.05	200.00	577.50	0.0	577.53	4.50	2.11	214.54	94.23
9150.000	1400.00	0.0	0.0	573.66	200.00	578.04	0.0	578.10	6.63	2.83	238.06	92.96
9150.000	1400.00	0.0	0.0	573.66	200.00	578.12	0.0	578.19	6.73	2.99	192.89	91.95
10450.000	1300.00	0.0	0.0	574.96	200.00	578.84	0.0	578.92	9.30	3.17	195.00	65.59
10450.000	1300.00	0.0	0.0	574.96	200.00	578.90	0.0	578.97	8.21	3.01	211.66	69.80

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11013.000	563.00	0.0	0.0	575.00	200.00	579.28	0.0	579.33	5.84	2.68	249.75	82.73
11013.000	563.00	0.0	0.0	575.00	200.00	579.30	0.0	579.35	5.56	2.63	256.48	84.76
11113.000	100.00	0.0	0.0	575.10	200.00	579.36	0.0	579.41	8.48	3.25	244.34	68.67
11113.000	100.00	0.0	0.0	575.10	200.00	579.38	0.0	579.42	8.18	3.20	248.54	69.92
11150.000	37.00	578.94	577.82	575.83	200.00	579.42	0.0	579.45	10.16	2.93	251.11	62.74
11150.000	37.00	578.94	577.82	575.83	200.00	579.43	0.0	579.46	9.61	2.89	254.87	63.87
11175.000	25.00	0.0	0.0	575.83	200.00	579.36	578.27	579.59	23.31	4.72	113.50	41.43
11175.000	25.00	0.0	0.0	575.83	200.00	579.37	578.27	579.60	22.38	4.64	117.87	42.27

MORRISONOR.-BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFHSP	DIFHSX	DIFKHS	TOPWID	ALCH
0.0	200.00	574.63	0.0	0.0	0.0	150.06	0.0
0.0	200.00	574.73	0.10	0.0	0.10	136.00	0.0
750.000	200.00	574.64	0.0	0.01	0.0	149.41	750.00
750.000	200.00	574.74	0.10	0.01	0.10	136.00	750.00
2150.000	200.00	574.67	0.0	0.03	0.0	263.30	1400.00
2150.000	200.00	574.77	0.10	0.03	0.10	264.74	1400.00
2750.000	200.00	574.69	0.0	0.02	0.0	60.00	600.00
2750.000	200.00	574.78	0.09	0.01	0.09	60.00	600.00
2850.000	200.00	574.52	0.0	-0.17	0.0	8.80	100.00
2850.000	200.00	574.62	0.10	-0.16	0.10	8.80	100.00
2891.000	200.00	574.61	0.0	0.09	0.0	8.80	41.00
2891.000	200.00	574.71	0.10	0.09	0.10	8.80	41.00
2916.000	200.00	575.11	0.0	0.50	0.0	60.00	25.00
2916.000	200.00	575.14	0.03	0.43	0.03	60.00	25.00
3550.000	200.00	575.15	0.0	0.03	0.0	407.43	634.00
3550.000	200.00	575.17	0.03	0.03	0.03	198.35	634.00
4430.000	200.00	575.30	0.0	0.15	0.0	300.38	885.00
4430.000	200.00	575.34	0.04	0.17	0.04	141.98	885.00
4750.000	200.00	575.37	0.0	0.07	0.0	306.52	315.00
4750.000	200.00	575.42	0.05	0.06	0.05	150.14	315.00
5478.000	200.00	575.52	0.0	0.16	0.0	110.00	678.00
5478.000	200.00	575.58	0.06	0.17	0.06	110.00	678.00
5628.000	200.00	575.44	0.0	-0.08	0.0	10.60	200.00
5628.000	200.00	575.50	0.06	-0.08	0.06	10.60	200.00
5671.000	200.00	576.70	0.0	1.26	0.0	10.60	43.00
5671.000	200.00	576.76	0.06	1.26	0.06	10.60	43.00
5721.000	200.00	577.00	0.0	0.30	0.0	100.00	50.00
5721.000	200.00	577.05	0.05	0.29	0.05	100.00	50.00
6350.000	200.00	577.08	0.0	0.09	0.0	205.08	629.00
6350.000	200.00	577.13	0.05	0.08	0.05	91.91	629.00
7750.000	200.00	577.43	0.0	0.35	0.0	179.33	1400.00
7750.000	200.00	577.50	0.06	0.36	0.06	111.04	1400.00
9150.000	200.00	578.04	0.0	0.60	0.0	238.55	1400.00
9150.000	200.00	578.12	0.08	0.62	0.08	112.39	1400.00
10450.000	200.00	578.84	0.0	0.81	0.0	261.73	1300.00
10450.000	200.00	578.90	0.06	0.79	0.06	279.27	1300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11013.000	200.00	579.28	0.0	0.44	0.0	308.66	563.00
11013.000	200.00	579.30	0.02	0.40	0.02	311.41	563.00
11113.000	200.00	579.36	0.0	0.08	0.0	291.57	100.00
11113.000	200.00	579.38	0.02	0.08	0.02	292.42	100.00
11150.000	200.00	579.42	0.0	0.06	0.0	295.43	37.00
11150.000	200.00	579.43	0.01	0.06	0.01	296.17	37.00
11175.000	200.00	579.36	0.0	-0.06	0.0	269.44	25.00
11175.000	200.00	579.37	0.02	-0.06	0.02	272.72	25.00

SUMMARY OF ERRORS

FLOODWAY DATA, MORRISONOR.-BROWNSTOWN
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.0	136.	566.	0.4	574.7	574.6	0.1
750.000	136.	433.	0.5	574.7	574.6	0.1
2150.000	265.	502.	0.4	574.8	574.7	0.1
2750.000	60.	261.	0.8	574.8	574.7	0.1
2850.000	9.	42.	4.8	574.6	574.5	0.1
2891.000	9.	43.	4.7	574.7	574.6	0.1
2916.000	60.	272.	0.7	575.1	575.1	0.0
3550.000	196.	253.	0.8	575.1	575.1	0.0
4435.000	142.	245.	0.8	575.3	575.3	0.0
4750.000	150.	258.	0.8	575.4	575.4	0.0
5478.000	110.	204.	1.0	575.6	575.5	0.1
5628.000	11.	35.	5.6	575.5	575.4	0.1
5671.000	11.	51.	3.9	576.0	576.7	0.1
5721.000	100.	239.	0.8	577.1	577.0	0.1
6350.000	91.	231.	0.9	577.1	577.1	0.0
7750.000	112.	215.	0.9	577.5	577.4	0.1
9150.000	112.	193.	1.0	578.1	578.0	0.1
10450.000	321.	212.	0.9	578.9	578.8	0.1
11013.000	311.	256.	0.8	579.3	579.3	0.0
11113.000	292.	249.	0.8	579.4	579.4	0.0
11150.000	296.	255.	0.8	579.4	579.4	0.0
11170.000	273.	118.	1.7	579.4	579.4	0.0

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp.

3) WATERCOURSE: Morrison Drain

4) DOCUMENT TYPE: Summary

00BREAK00

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

C
T1 HOWNSTOWN TOWNSHIP FIS HUD 2013 07 MORRISON DRAIN FROM SILVER CREEK TO
T2 Q100110 CFS Q500175 Q1000200 Q5000270 CFS          WOODRUFF ROAD
T3      MORRISONDR.-BROWNSTOWN    STARTING W.S. ELEV. MEAN LAKE LEVEL

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.0          0.0       0.0       0.   574.630     0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000   201.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
QT      5.000   110.000   175.000   200.000   200.000   270.000     0.0       0.0       0.0       0.0
NC      0.050     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0
ET      0.0       0.0       0.0       0.0       1.400     0.0       0.0       0.0       0.0       0.0

        X SECT. AT CONFLUENCE WITH SILVER CREEK

X1      0.0      10.000   134.000   270.000     0.0       0.0       0.0       0.0       0.0       0.0
GR    578.000     0.0     576.000   115.000   578.210   121.000   578.220   125.000   571.450   134.000
GR    569.680   202.000   571.460   270.000   574.600   279.000   577.310   355.000   576.160   502.000

        VALLEY SECT. BASED ON FIELD BOOK NO. 10400. LEFT TO RD.

X1    750.000    10.000   134.000   270.000   750.000   750.000   750.000     0.0       0.0       0.0
GR    578.380     0.0     576.010   115.000   578.210   121.000   578.220   125.000   572.450   134.000
GR    570.660   202.000   572.460   270.000   574.600   279.000   577.310   355.000   576.160   502.000
NC      0.070     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0

        VALLEY SECT. BASED ON FIELD BOOK NO. 9000.

X1   2150.000    11.000   157.000   303.000  1400.000  1400.000  1400.000     0.0       0.0       0.0
X3      0.0       0.0       0.0       0.0       0.0     405.000     0.0       0.0       0.0       0.0
GR    532.120     0.0     580.900    50.000   574.100   150.000   572.550   157.000   571.500   230.000
GR    572.900   303.000   573.450   309.000   574.400   439.000   574.600   530.000   575.000   700.000
GR    580.000  1500.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
NC      0.070     0.070     0.030     0.100     0.300     0.0       0.0       0.0       0.0       0.0

        X SECT. D/S OF STREICHER RD.

X1   [illegible]750.000     9.0[illegible]0   [illegible]4[illegible].000   294.000   [illegible]00.000   [illegible]0.000   600.000     0.0       0.0       0.0
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	0.0	.0	0.0	540.00	0.0	300.000	0.0	0.0	0.0	0.0
GR	580.730	0.0	575.000	150.000	574.100	235.000	570.600	242.000	569.830	270.000
GR	570.600	294.000	573.600	300.000	575.000	600.000	580.000	850.000	0.0	0.0
NC	0.040	0.040	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

U/S END STREICHER RD. CULVERT

X1	2850.000	21.000	265.600	274.400	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.600	575.780	0.0
GR	580.730	0.0	578.400	70.000	575.000	170.000	573.000	243.000	570.500	248.000
GR	570.000	265.600	569.830	266.400	569.830	268.200	569.830	270.000	569.830	271.800
GR	569.830	273.600	570.000	274.400	570.500	294.000	573.500	300.000	573.900	370.000
GR	574.400	470.000	575.000	570.000	576.100	670.000	577.300	770.000	578.400	870.000
GR	579.000	920.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	2.300	3.000	0.0	7.330	0.0	41.000	0.0	569.800	569.800

U/S END STREICHER RD. CULVERT

X1	2891.000	0.0	0.0	0.0	41.000	41.000	41.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	575.420	575.780	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.600	575.780	0.0
X4	2.000	570.000	265.590	570.000	274.410	0.0	0.0	0.0	0.0	0.0
BT	19.000	0.0	580.730	0.0	70.000	577.630	0.0	170.000	576.900	0.0
BT	265.590	576.600	0.0	265.600	576.600	571.150	266.400	576.600	574.250	268.200
BT	576.600	574.870	270.000	576.600	575.420	271.800	576.600	574.870	273.600	576.600
BT	574.250	274.400	576.600	571.150	274.410	576.600	0.0	370.000	575.920	0.0
BT	470.000	575.830	0.0	570.000	575.780	0.0	670.000	576.270	0.0	770.000
BT	577.620	0.0	870.000	578.310	0.0	920.000	579.030	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

X SECT. U/S OF STREICHER RD.

X1	2910.000	9.000	248.000	294.000	25.000	25.000	25.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	240.000	0.0	300.000	0.0	0.0	0.0	0.0
GR	580.730	0.0	575.000	150.000	573.000	243.000	570.500	208.000	569.600	270.000
GR	570.500	294.000	573.500	300.000	575.000	600.000	579.000	920.000	0.0	0.0
NC	0.060	0.060	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 7600.

X1	4550.600	13.000	320.000	372.000	634.000	634.000	634.000	0.0	0.0	0.0
GR	580.600	0.0	576.980	50.000	576.270	200.000	575.130	258.000	573.780	323.000
GR	572.530	328.000	571.710	350.000	573.150	372.000	574.040	379.000	574.670	469.000
GR	575.880	650.000	580.000	925.000	582.500	1100.000	0.0	0.0	0.0	0.0

VALLEY SECTION 1550' U/S OF STREICHER ROAD

X1	4435.000	10.000	990.000	1010.000	885.000	885.000	885.000	0.0	0.0	0.0
GR	581.800	0.0	577.000	750.000	585.000	750.100	585.000	780.000	577.000	780.100
GR	577.250	861.000	576.060	868.000	575.060	917.000	574.400	931.000	572.400	990.000
GR	571.200	1000.000	572.070	1010.000	573.260	1021.000	576.490	1101.000	575.140	1200.000
GR	576.590	1300.000	580.000	1400.000	582.500	1650.000	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 6400.

X1	4750.000	10.000	990.000	1010.000	915.000	915.000	915.000	0.0	0.0	0.0
GR	581.800	0.0	577.000	750.000	585.000	750.100	585.000	780.000	577.000	780.100
GR	577.250	861.000	576.060	868.000	575.060	917.000	574.400	931.000	572.630	990.000
GR	572.040	1000.000	572.270	1010.000	573.260	1021.000	576.490	1101.000	575.140	1200.000
GR	575.540	1300.000	580.000	1400.000	582.500	1650.000	0.0	0.0	0.0	0.0

ECT. D/S OF HURON RIVER DR.

X1	5478.000	0.0	0.0	0.0	678.000	678.000	678.000	0.0	0.150	0.0
X3	0.0	0.0	0.0	945.000	0.0	1055.000	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

D/S END HURON RIVER DR. CULVERT

X1	5628.000	28.000	869.700	880.300	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	576.830	577.000	0.0
GR	502.700	0.0	579.000	375.000	578.800	475.000	578.500	575.000	577.000	639.000
GR	577.000	675.000	576.500	775.000	575.800	852.000	572.960	869.700	571.940	870.500
GR	571.940	871.300	571.940	872.200	571.940	873.100	571.940	873.900	572.960	874.700
GR	573.380	875.300	571.840	876.100	571.840	876.900	571.840	877.800	571.840	878.600
GR	571.840	879.400	573.380	880.300	574.000	884.000	575.800	894.000	576.300	975.000
GR	577.400	1175.000	578.500	1375.000	579.170	1500.000	0.0	0.0	0.0	0.0
SB	0.0	2.500	2.900	0.0	0.000	0.0	31.100	0.0	571.640	571.840

U/S END HURON RIVER DR. CULVERT

X1	5671.000	0.0	0.0	0.0	43.000	43.000	43.000	0.0	-0.200	0.0
X2	0.0	0.0	1.000	575.550	576.830	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	577.300	577.300	0.0
BT	25.000	0.0	582.700	0.0	375.000	579.570	0.0	475.000	579.710	0.0
BT	575.000	578.640	0.0	639.000	577.650	0.0	675.000	577.240	0.0	775.000
BT	576.830	0.0	869.700	576.950	572.960	870.500	576.950	574.800	871.300	576.950
BT	575.300	872.200	576.950	575.660	873.100	576.950	575.300	873.900	576.950	574.800
BT	574.700	576.950	572.960	575.300	576.950	573.380	876.100	576.950	574.900	876.900
BT	576.950	575.400	877.800	576.950	575.550	878.600	576.950	575.400	879.400	576.950
BT	574.900	880.300	576.950	573.380	975.000	578.420	0.0	1175.000	578.980	0.0
BT	1375.000	578.770	0.0	1500.000	579.170	0.0	0.0	0.0	0.0	0.0

X SECT. U/S OF HURON RIVER DR.

X1	5721.000	13.000	292.000	308.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	250.000	0.0	350.000	0.0	0.0	0.0	0.0
GR	580.000	0.0	579.890	15.000	577.600	150.000	574.870	266.000	572.000	292.000
GR	571.700	300.000	572.000	308.000	574.600	313.000	574.820	323.000	576.220	333.000
GR	578.520	470.000	576.740	600.000	580.000	900.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 4800.

X1	6350.000	13.000	292.000	308.000	629.000	629.000	629.000	0.0	0.0	0.0
GR	580.000	0.0	579.890	15.000	577.600	150.000	574.870	286.000	572.630	292.000
GR	572.620	300.000	572.670	308.000	574.600	313.000	574.820	323.000	576.220	333.000
GR	578.520	470.000	576.740	600.000	580.000	900.000	0.0	0.0	0.0	0.0
NC	0.080	0.060	0.040	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 3600.

X1	7750.000	26.000	595.000	605.000	1400.000	1400.000	1400.000	0.0	0.0	0.0
GR	581.000	0.0	580.500	75.000	508.500	75.100	508.500	105.000	580.500	105.100
GR	530.000	125.000	580.000	165.000	508.000	165.100	508.000	195.000	580.000	195.100
GR	530.000	300.000	580.000	325.000	508.000	325.100	508.000	355.000	580.000	355.100
GR	578.560	414.000	579.090	425.000	576.280	505.000	576.000	585.000	573.120	595.000
GR	573.050	600.000	573.330	605.000	576.250	617.000	580.800	750.000	582.040	850.000
GR	580.090	900.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.080	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 2000.

X1	9150.000	11.000	296.000	304.000	1400.000	1400.000	1400.000	0.0	0.0	0.0
GR	580.460	0.0	581.460	134.000	576.060	289.000	574.030	296.000	573.460	300.000
GR	573.810	304.000	576.410	314.000	577.430	367.000	577.790	450.000	579.560	600.000
GR	580.000	700.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. BASED ON FIELD BOOK NO. 700.

X1	10450.000	10.000	546.000	554.000	1350.000	1200.000	1300.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	300.000	0.0	0.0	0.0	0.0	0.0	0.0
GR	560.000	0.0	578.040	250.000	579.070	400.000	577.790	539.000	574.990	546.000
GR	574.940	550.000	575.170	554.000	576.990	560.000	580.740	680.000	582.040	850.000

X SECT. D/S OF WOODRUFF RD.

X1	11013.000	9.000	546.000	554.000	563.000	563.000	563.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	325.000	0.0	675.000	0.0	0.0	0.0	0.0
GR	580.000	0.0	579.000	250.000	578.870	600.000	577.790	539.000	575.100	546.000
GR	575.000	550.000	575.100	554.000	578.700	560.000	580.000	725.000	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.100	0.0	0.0	0.0	1.000	1200.000

D/S END WOODRUFF RD. CULVERT

X1	11113.000	15.000	1098.250	1101.750	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	578.060	578.940	0.0
GR	585.000	0.0	585.000	899.900	578.860	900.000	579.000	1000.000	578.000	1088.000
GR	575.100	1098.250	575.100	1098.850	575.100	1099.450	575.100	1100.000	575.100	1100.550
GR	575.100	1101.150	575.100	1101.750	578.000	1112.000	579.500	1200.000	585.000	1200.100
SW	0.0	2.120	2.800	0.0	2.700	0.0	5.400	0.0	575.830	575.100

U/S END WOODRUFF RD. CULVERT

X1	11150.000	17.000	1098.250	1101.750	37.000	37.000	37.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	577.820	578.940	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	578.860	578.940	0.0
BT	13.000	0.0	585.000	0.0	899.900	585.000	0.0	900.000	578.860	0.0
BT	1000.000	579.000	0.0	1098.250	578.940	576.070	1098.850	578.940	576.970	1099.450
BT	578.940	577.700	1100.000	578.940	577.820	1100.550	578.940	577.730	1101.150	578.940
BT	576.970	1101.750	578.940	576.070	1200.000	579.500	0.0	1200.100	585.000	0.0
GR	585.000	0.0	585.000	899.900	578.860	900.000	579.000	1000.000	578.000	1088.000
GR	576.070	1098.250	575.830	1098.270	575.830	1098.850	575.830	1099.450	575.830	1100.000
GR	575.830	1100.550	575.830	1101.150	575.830	1101.730	576.070	1101.750	578.000	1112.000
GR	579.500	1200.000	585.000	1200.100	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0

A SECT. U/S OF WOODRUFF RD.

X1	11175.000	10.000	596.000	604.000	25.000	25.000	25.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	375.000	0.0	725.000	0.0	0.0	0.0	0.0
GR	580.000	0.0	579.100	200.000	578.800	400.000	579.300	500.000	579.200	588.000
GR	575.900	596.000	575.830	600.000	575.900	604.000	579.200	612.000	580.000	775.000
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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C**********************************************************
C  REC2 RELEASE DATED NOV 76 UPDATED AUG1977
C  ERROR CORR - 01.02
C  MODIFICATION - 50.51.52.53
C**********************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 MORRISON DRAIN FROM SILVER CREEK TO
T2 Q100110 CFS Q50Q175 Q100#200 Q500#270 CFS          WOODRUFF ROAD
T3      MORRISONDR.-BROWNSTOWN   STARTING W.S. ELEV. MEAN LAKE LEVEL

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        3.        0.        0.   0.0          0.0       0.0       0.   574.630     0.0

J2  NPROF      IPLOT     PRFVS     XSECV     XSECM     FN        ALLOC     IBW       CHNIM     ITRACE
    2.000      0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1 BROWNSTOWN TOWNSHIP FIS HUD 2013 07 MORRISON DRAIN FROM SILVER CREEK TO
T2 Q10#110 CFS Q500175 Q1000200 Q5000270 CFS          WOODRUFF ROAD
T3      MORRISONDR.-BROWNSTOWN    STARTING W.S. ELEV. MEAN LAKE LEVEL

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ

       0.        4.        0.        0.   0.0          0.0       0.0        0.   574.630     0.0

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      3.000      0.0      -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0
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**************************************************
 NEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
 ERROR CORR -  01,02
 MODIFICATION -  50,51,52,53
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T1 BROWNSTOWN TOWNSHIP FIS HUD 2013 07 MORRISON DRAIN FROM SILVER CREEK TO
T2 Q100110 CFS Q500175 Q1000200 Q5000270 CFS WOODRUFF ROAD
T3 MORRISONDR.-BROWNSTOWN STARTING W.S. ELEV. MEAN LAKE LEVEL

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	6.	0.	0.	0.0	0.0	0.0	0.	574.630	0.0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

MORRISONDR.-BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.0	0.0	0.0	0.0	569.68	110.00	574.63	0.0	574.63	0.02	0.20	573.62	703.00
0.0	0.0	0.0	0.0	569.68	175.00	574.63	0.0	574.63	0.06	0.31	573.62	703.00
0.0	0.0	0.0	0.0	569.68	200.00	574.63	0.0	574.63	0.08	0.36	573.62	703.00
0.0	0.0	0.0	0.0	569.68	270.00	574.63	0.0	574.63	0.15	0.48	573.62	703.00
750.000	750.00	0.0	0.0	570.66	110.00	574.63	0.0	574.63	0.06	0.26	431.73	441.00
750.000	750.00	0.0	0.0	570.66	175.00	574.64	0.0	574.64	0.16	0.42	432.16	441.71
750.000	750.00	0.0	0.0	570.66	200.00	574.64	0.0	574.64	0.20	0.47	432.36	442.00
750.000	750.00	0.0	0.0	570.66	270.00	574.64	0.0	574.65	0.37	0.64	433.11	443.24
2150.000	1400.00	0.0	0.0	571.50	110.00	574.64	0.0	574.64	0.09	0.28	469.12	358.60
2150.000	1400.00	0.0	0.0	571.50	175.00	574.66	0.0	574.67	0.23	0.44	474.13	363.57
2150.000	1400.00	0.0	0.0	571.50	200.00	574.67	0.0	574.68	0.30	0.51	476.22	365.65
2150.000	1400.00	0.0	0.0	571.50	270.00	574.70	0.0	574.71	0.52	0.67	486.75	376.21
2750.000	600.00	0.0	0.0	569.83	110.00	574.65	0.0	574.65	0.12	0.47	252.83	314.85
2750.000	600.00	0.0	0.0	569.83	175.00	574.67	0.0	574.68	0.30	0.74	254.43	318.03
2750.000	600.00	0.0	0.0	569.83	200.00	574.69	0.0	574.70	0.39	0.84	255.22	319.62
2750.000	600.00	0.0	0.0	569.83	270.00	574.73	0.0	574.75	0.69	1.12	257.88	324.97
2850.000	100.00	0.0	0.0	569.83	110.00	574.60	0.0	574.71	5.85	2.63	41.83	45.50
2850.000	100.00	0.0	0.0	569.83	175.00	574.55	0.0	574.83	15.25	4.23	41.38	44.82
2850.000	100.00	0.0	0.0	569.83	200.00	574.52	0.0	574.89	20.24	4.86	41.15	44.46
2850.000	100.00	0.0	0.0	569.83	270.00	574.41	0.0	575.11	39.41	6.71	40.21	43.01
2891.000	41.00	575.78	575.42	569.83	110.00	574.62	0.0	574.74	9.55	2.77	39.68	35.60
2891.000	41.00	575.78	575.42	569.83	175.00	574.61	0.0	574.92	24.25	4.42	39.63	35.54
2891.000	41.00	575.78	575.42	569.83	200.00	574.61	0.0	575.01	31.73	5.05	39.60	35.51
2891.000	41.00	575.78	575.42	569.83	270.00	574.59	0.0	575.32	58.17	6.83	39.52	35.40
2916.000	25.00	0.0	0.0	569.80	110.00	574.77	0.0	574.78	0.13	0.49	249.68	305.53
2916.000	25.00	0.0	0.0	569.80	175.00	575.00	0.0	575.01	0.28	0.75	263.18	331.29
2916.000	25.00	0.0	0.0	569.80	200.00	575.11	0.0	575.12	0.34	0.84	270.05	344.73
2916.000	25.00	0.0	0.0	569.80	270.00	575.52	0.0	575.54	0.67	1.04	294.48	394.22
3550.000	634.00	0.0	0.0	571.71	110.00	574.79	0.0	574.80	0.90	0.87	196.28	115.70
3550.000	634.00	0.0	0.0	571.71	175.00	575.03	0.0	575.04	1.42	1.16	284.73	147.11
3550.000	634.00	0.0	0.0	571.71	200.00	575.15	0.0	575.16	1.64	1.20	353.58	166.71
3550.000	634.00	0.0	0.0	571.71	270.00	575.57	0.0	575.58	1.16	1.18	511.87	250.97

SECNO	XLCH	ELTRD.	ELLC	ELMIN	Q	CWSEL	CRIWS.	EG	10K*S	VCH	AREA	.01K
4435.000	885.00	0.0	0.0	571.98	110.00	574.88	0.0	574.90	1.46	1.18	197.32	91.04
4435.000	885.00	0.0	0.0	571.98	175.00	575.17	0.0	575.19	2.07	1.50	273.24	121.67
4435.000	885.00	0.0	0.0	571.98	200.00	575.30	0.0	575.32	2.11	1.56	309.50	137.71
4435.000	885.00	0.0	0.0	571.98	270.00	575.69	0.0	575.71	1.85	1.58	434.92	198.77
4750.000	315.00	0.0	0.0	572.08	110.00	574.93	0.0	574.95	1.54	1.18	201.90	88.60
4750.000	315.00	0.0	0.0	572.08	175.00	575.24	0.0	575.26	2.04	1.46	285.59	122.46
4750.000	315.00	0.0	0.0	572.08	200.00	575.37	0.0	575.38	2.06	1.51	322.95	139.20
4750.000	315.00	0.0	0.0	572.08	270.00	575.75	0.0	575.77	1.81	1.53	447.89	200.56
5478.000	678.00	0.0	0.0	572.23	110.00	575.05	0.0	575.07	1.99	1.33	145.80	77.91
5478.000	678.00	0.0	0.0	572.23	175.00	575.40	0.0	575.43	2.88	1.74	184.08	103.13
5478.000	678.00	0.0	0.0	572.23	200.00	575.52	0.0	575.56	3.11	1.86	198.16	113.35
5478.000	678.00	0.0	0.0	572.23	270.00	575.90	0.0	575.94	3.40	2.10	240.03	146.40
5628.000	200.00	0.0	0.0	571.84	110.00	575.05	0.0	575.25	21.21	3.60	30.59	23.88
5628.000	200.00	0.0	0.0	571.84	175.00	575.34	0.0	575.76	39.72	5.19	33.73	27.77
5628.000	200.00	0.0	0.0	571.84	200.00	575.44	0.0	575.96	47.28	5.75	34.77	29.09
5628.000	200.00	0.0	0.0	571.84	270.00	575.70	0.0	576.50	68.42	7.20	37.49	32.64
5671.000	43.00	576.83	575.55	571.64	110.00	575.16	0.0	575.38	37.36	3.75	29.33	18.00
5671.000	43.00	576.83	575.55	571.64	175.00	576.35	0.0	576.57	14.94	3.76	46.56	45.27
5671.000	43.00	576.83	575.55	571.64	200.00	576.70	0.0	576.95	15.58	3.98	50.21	50.66
5671.000	43.00	576.83	575.55	571.64	270.00	576.77	0.0	577.21	27.02	5.29	51.06	51.95
5721.000	50.00	0.0	0.0	571.70	110.00	575.42	0.0	575.46	2.05	1.66	95.61	76.78
5721.000	50.00	0.0	0.0	571.70	175.00	576.62	0.0	576.65	1.35	1.63	196.15	150.55
5721.000	50.00	0.0	0.0	571.70	200.00	577.00	0.0	577.03	1.21	1.62	234.23	182.11
5721.000	50.00	0.0	0.0	571.70	270.00	577.31	0.0	577.35	1.64	1.97	265.40	210.53
6350.000	629.00	0.0	0.0	572.62	110.00	575.58	0.0	575.63	3.67	1.95	90.84	57.45
6350.000	629.00	0.0	0.0	572.62	175.00	576.72	0.0	576.75	2.00	1.79	222.53	123.89
6350.000	629.00	0.0	0.0	572.62	200.00	577.08	0.0	577.11	1.62	1.71	302.23	157.04
6350.000	629.00	0.0	0.0	572.62	270.00	577.43	0.0	577.46	1.88	1.93	409.92	197.03
7750.000	1400.00	0.0	0.0	573.05	110.00	576.33	0.0	576.39	8.67	2.37	83.59	37.35
7750.000	1400.00	0.0	0.0	573.05	175.00	577.14	0.0	577.18	5.29	2.15	196.35	76.08
7750.000	1400.00	0.0	0.0	573.05	200.00	577.43	0.0	577.46	4.33	2.04	245.98	96.09
7750.000	1400.00	0.0	0.0	573.05	270.00	577.81	0.0	577.85	4.47	2.20	310.78	127.73
9150.000	1400.00	0.0	0.0	573.46	110.00	577.23	0.0	577.30	5.06	2.58	102.12	48.89
9150.000	1400.00	0.0	0.0	573.46	175.00	577.84	0.0	577.91	4.96	2.83	192.82	78.61
9150.000	1400.00	0.0	0.0	573.46	200.00	578.04	0.0	578.10	4.63	2.83	238.06	92.96
9150.000	1400.00	0.0	0.0	573.46	270.00	578.42	0.0	578.48	4.47	2.94	338.47	127.66
10450.000	1300.00	0.0	0.0	574.94	110.00	578.13	0.0	578.23	10.73	2.96	76.11	33.59
10450.000	1300.00	0.0	0.0	574.96	175.00	578.69	0.0	578.77	9.65	3.14	158.52	56.33
10450.000	1300.00	0.0	0.0	574.96	200.00	578.84	0.0	578.92	9.30	3.17	195.08	65.58
10450.000	1300.00	0.0	0.0	574.94	270.00	579.19	0.0	579.24	8.26	3.16	290.02	93.93
11013.000	563.00	0.0	0.0	575.00	110.00	578.69	0.0	578.70	9.85	2.60	99.93	42.04
11013.000	563.00	0.0	0.0	575.00	175.00	579.14	0.0	579.20	6.09	2.68	209.08	70.89
11013.000	563.00	0.0	0.0	575.00	200.00	579.28	0.0	579.33	5.86	2.68	249.75	82.73
11013.000	563.00	0.0	0.0	575.00	270.00	579.58	0.0	579.62	5.57	2.74	347.17	114.42

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	11113.000	100.00	0.0	0.0	575.10	110.00	578.97	578.97	579.02	6.85	2.74	137.36	42.02
	11113.000	100.00	0.0	0.0	575.10	175.00	579.23	0.0	579.28	9.12	3.30	206.13	57.95
	11113.000	100.00	0.0	0.0	575.10	200.00	579.36	0.0	579.41	8.48	3.25	244.36	68.67
	11113.000	100.00	0.0	0.0	575.10	270.00	579.65	0.0	579.69	7.64	3.22	330.89	97.68
	11150.000	37.00	578.94	577.82	575.83	110.00	579.22	0.0	579.24	5.48	2.07	194.64	46.99
	11150.000	37.00	578.94	577.82	575.83	175.00	579.34	0.0	579.37	9.92	2.85	226.44	55.56
	11150.000	37.00	578.94	577.82	575.83	200.00	579.42	0.0	579.46	10.16	2.93	251.11	62.74
	11150.000	37.00	578.94	577.82	575.83	270.00	579.68	0.0	579.71	9.09	2.91	329.69	89.54
	11175.000	25.00	0.0	0.0	575.83	110.00	579.19	0.0	579.30	10.04	3.00	77.77	34.72
	11175.000	25.00	0.0	0.0	575.83	175.00	579.28	578.09	579.50	21.62	4.47	92.33	37.64
	11175.000	25.00	0.0	0.0	575.83	200.00	579.36	578.27	579.59	23.31	4.72	113.50	41.43
	11175.000	25.00	0.0	0.0	575.83	270.00	579.64	0.0	579.82	20.00	4.61	198.47	60.38

MORRISONDR.-BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.0	110.00	574.63	0.0	0.0	0.0	150.06	0.0
0.0	175.00	574.63	0.0	0.0	0.0	150.06	0.0
0.0	200.00	574.63	0.0	0.0	0.0	150.06	0.0
0.0	270.00	574.63	0.0	0.0	0.0	150.06	0.0
750.000	110.00	574.63	0.0	0.00	0.0	149.29	750.00
750.000	175.00	574.64	0.00	0.01	0.0	149.37	750.00
750.000	200.00	574.64	0.00	0.01	0.0	149.41	750.00
750.000	270.00	574.64	0.01	0.01	0.0	149.56	750.00
2150.000	110.00	574.64	0.0	0.01	0.0	262.90	1400.00
2150.000	175.00	574.66	0.02	0.03	0.0	263.18	1400.00
2150.000	200.00	574.67	0.01	0.03	0.0	263.30	1400.00
2150.000	270.00	574.70	0.03	0.06	0.0	263.89	1400.00
2750.000	110.00	574.65	0.0	0.00	0.0	60.00	600.00
2750.000	175.00	574.67	0.03	0.01	0.0	60.00	600.00
2750.000	200.00	574.69	0.01	0.02	0.0	60.00	600.00
2750.000	270.00	574.73	0.04	0.03	0.0	60.00	600.00
2850.000	110.00	574.60	0.0	-0.05	0.0	8.80	100.00
2850.000	175.00	574.55	-0.05	-0.13	0.0	8.80	100.00
2850.000	200.00	574.52	-0.03	-0.17	0.0	8.80	100.00
2850.000	270.00	574.41	-0.11	-0.32	0.0	8.80	100.00
2891.000	110.00	574.62	0.0	0.02	0.0	8.80	41.00
2891.000	175.00	574.61	-0.01	0.07	0.0	8.80	41.00
2891.000	200.00	574.61	-0.00	0.09	0.0	8.80	41.00
2891.000	270.00	574.59	-0.01	0.18	0.0	8.80	41.00
2916.000	110.00	574.77	0.0	0.15	0.0	60.00	25.00
2916.000	175.00	575.00	0.22	0.39	0.0	60.00	25.00
2916.000	200.00	575.11	0.11	0.50	0.0	60.00	25.00
2916.000	270.00	575.52	0.41	0.93	0.0	60.00	25.00
3550.000	110.00	574.79	0.0	0.01	0.0	295.52	634.00
3550.000	175.00	575.03	0.24	0.03	0.0	394.98	634.00
3550.000	200.00	575.15	0.12	0.03	0.0	407.43	634.00
3550.000	270.00	575.57	0.42	0.05	0.0	450.80	634.00
4435.000	110.00	574.88	0.0	0.10	0.0	227.08	885.00
4435.000	175.00	575.17	0.29	0.15	0.0	288.53	885.00
4435.000	200.00	575.30	0.12	0.15	0.0	300.38	885.00
4435.000	270.00	575.69	0.39	0.13	0.0	338.16	885.00
4750.000	110.00	574.93	0.0	0.05	0.0	237.67	315.00
4750.000	175.00	575.24	0.31	0.07	0.0	294.35	315.00
4750.000	200.00	575.37	0.12	0.07	0.0	306.32	315.00
4750.000	270.00	575.75	0.38	0.06	0.0	343.31	315.00
5478.000	110.00	575.05	0.0	0.11	0.0	110.00	678.00
5478.000	175.00	575.40	0.35	0.15	0.0	110.00	678.00
5478.000	200.00	575.52	0.13	0.16	0.0	110.00	678.00
5478.000	270.00	575.90	0.37	0.15	0.0	110.00	678.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5628.000	110.00	575.05	0.0	0.00	0.0	10.60	200.00
5628.000	175.00	575.34	0.30	-0.05	0.0	10.60	200.00
5628.000	200.00	575.44	0.10	-0.08	0.0	10.60	200.00
5628.000	270.00	575.70	0.25	-0.20	0.0	10.60	200.00
5671.000	110.00	575.16	0.0	0.11	0.0	10.60	43.00
5671.000	175.00	576.35	1.20	1.01	0.0	10.60	43.00
5671.000	200.00	576.70	0.34	1.26	0.0	10.60	43.00
5671.000	270.00	576.77	0.08	1.08	0.0	10.60	43.00
5721.000	110.00	575.42	0.0	0.26	0.0	68.73	50.00
5721.000	175.00	576.62	1.19	0.26	0.0	100.00	50.00
5721.000	200.00	577.00	0.38	0.30	0.0	100.00	50.00
5721.000	270.00	577.31	0.31	0.53	0.0	100.00	50.00
6350.000	110.00	575.58	0.0	0.16	0.0	77.58	629.00
6350.000	175.00	576.72	1.13	0.10	0.0	168.38	629.00
6350.000	200.00	577.08	0.37	0.09	0.0	265.88	629.00
6350.000	270.00	577.43	0.34	0.12	0.0	380.27	629.00
7750.000	110.00	576.33	0.0	0.74	0.0	115.64	1400.00
7750.000	175.00	577.14	0.82	0.43	0.0	162.58	1400.00
7750.000	200.00	577.43	0.29	0.35	0.0	179.33	1400.00
7750.000	270.00	577.81	0.38	0.39	0.0	201.39	1400.00
9150.000	110.00	577.23	0.0	0.91	0.0	101.34	1400.00
9150.000	175.00	577.84	0.60	0.70	0.0	215.97	1400.00
9150.000	200.00	578.04	0.20	0.60	0.0	238.55	1400.00
9150.000	270.00	578.42	0.39	0.61	0.0	282.29	1400.00
10450.000	110.00	578.13	0.0	0.90	0.0	93.80	1300.00
10450.000	175.00	578.69	0.56	0.85	0.0	210.10	1300.00
10450.000	200.00	578.84	0.15	0.81	0.0	261.73	1300.00
10450.000	270.00	579.18	0.34	0.76	0.0	330.10	1300.00
11013.000	110.00	578.63	0.0	0.50	0.0	129.19	563.00
11013.000	175.00	579.14	0.51	0.46	0.0	291.46	563.00
11013.000	200.00	579.28	0.14	0.44	0.0	308.65	563.00
11013.000	270.00	579.58	0.30	0.40	0.0	366.41	563.00
11113.000	110.00	578.97	0.0	0.34	0.0	247.95	100.00
11113.000	175.00	579.23	0.25	0.08	0.0	283.78	100.00
11113.000	200.00	579.36	0.13	0.08	0.0	291.57	100.00
11113.000	270.00	579.65	0.29	0.08	0.0	300.02	100.00
11150.000	110.00	579.22	0.0	0.24	0.0	283.99	37.00
11150.000	175.00	579.34	0.12	0.11	0.0	290.48	37.00
11150.000	200.00	579.42	0.08	0.06	0.0	295.63	37.00
11150.000	270.00	579.65	0.26	0.03	0.0	300.02	37.00
11175.000	110.00	579.19	0.0	-0.02	0.0	127.65	25.00
11175.000	175.00	579.28	0.08	-0.06	0.0	227.64	25.00
11175.000	200.00	579.36	0.08	-0.06	0.0	269.44	25.00
11175.000	270.00	579.64	0.29	-0.04	0.0	327.47	25.00

SUMMARY OF ERRORS

CAUTION SECNO=11113.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

FLOOD INSURANCE ZONE DATA FOR MORRISONDR.-BROWNSTOWN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
0.0	0.	0.0	0.0	0.0
750.000	750.	-0.01	-0.00	0.01
2150.000	2150.	-0.03	-0.01	0.03
2750.000	2750.	-0.04	-0.01	0.04
2850.000	2850.	0.08	0.03	-0.11
2891.000	2891.	0.01	0.00	-0.01
2916.000	2916.	-0.34	-0.11	0.41
3550.000	3550.	-0.36	-0.12	0.42
4435.000	4435.	-0.41	-0.12	0.39
4750.000	4750.	-0.43	-0.12	0.38
5478.000	5478.	-0.48	-0.13	0.37
5628.000	5628.	-0.39	-0.10	0.25
5671.000	5671.	-1.54	-0.34	0.08
5721.000	5721.	-1.58	-0.38	0.31
6350.000	6350.	-1.50	-0.37	0.34
7750.000	7750.	-1.11	-0.29	0.38
9150.000	9150.	-0.80	-0.20	0.39
10450.000	10450.	-0.71	-0.15	0.34
11013.000	11013.	-0.65	-0.14	0.30
11113.000	11113.	-0.39	-0.13	0.29
11150.000	11150.	-0.20	-0.08	0.26
11175.000	11175.	-0.16	-0.08	0.29
WEIGHTED AVG FOR REACH		-0.61	-0.16	0.28

FHF FOR THE REACH = 005 WITH 55.5 OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 1

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10	1	DIFF.	NTD. AVG.	FHF	PERCENT WITHIN
	0.				SEC.	0.0	
1	101.	574.63	574.63	0.0	0.0	005	100.
2	202.	574.63	574.63	0.0	0.0	005	100.
3	303.	574.63	574.63	0.0	0.0	005	100.
4	404.	574.63	574.63	0.0	0.0	005	100.
5	505.	574.63	574.63	0.0	0.0	005	100.
6	606.	574.63	574.64	-0.01	-0.00	005	100.
7	707.	574.63	574.64	-0.01	-0.00	005	100.
	750.				SEC.	750.000	
8	808.	574.63	574.64	-0.01	-0.00	005	100.
9	909.	574.63	574.64	-0.01	-0.00	005	100.
10	1010.	574.63	574.64	-0.01	-0.01	005	100.
11	1111.	574.63	574.65	-0.02	-0.01	0[illegible]	10[illegible].

13	1313.	574.64	574.65	-0.01	-0.01	005	100.
14	1414.	574.64	574.65	-0.01	-0.01	005	100.
15	1515.	574.64	574.66	-0.02	-0.01	005	100.
16	1616.	574.64	574.66	-0.02	-0.01	005	100.
17	1717.	574.64	574.66	-0.02	-0.01	005	100.
18	1818.	574.64	574.66	-0.02	-0.01	005	100.
19	1919.	574.64	574.66	-0.02	-0.01	005	100.
20	2020.	574.64	574.67	-0.03	-0.01	005	100.
21	2121.	574.64	574.67	-0.03	-0.01	005	100.
	2150.				SEC. 2150.000		
22	2222.	574.64	574.67	-0.03	-0.01	005	100.
23	2323.	574.64	574.67	-0.03	-0.01	005	100.
24	2424.	574.64	574.68	-0.04	-0.02	005	100.
25	2525.	574.64	574.68	-0.04	-0.02	005	100.
26	2626.	574.65	574.68	-0.03	-0.02	005	100.
27	2727.	574.65	574.69	-0.04	-0.02	005	100.
	2750.				SEC. 2750.000		
28	2828.	574.63	574.62	0.01	-0.02	005	100.
	2850.				SEC. 2850.000		
	2891.				SEC. 2891.000		
	2916.				SEC. 2916.000		
29	2929.	574.69	574.84	-0.15	-0.02	005	100.
30	3030.	574.78	575.12	-0.34	-0.03	005	100.
31	3131.	574.78	575.12	-0.34	-0.04	005	100.
32	3232.	574.78	575.13	-0.35	-0.05	005	100.
33	3333.	574.78	575.13	-0.35	-0.06	005	100.
34	3434.	574.78	575.14	-0.36	-0.07	005	100.
35	3535.	574.79	575.14	-0.35	-0.08	005	100.
	3550.				SEC. 3550.000		
36	3636.	574.79	575.15	-0.36	-0.09	005	100.
37	3737.	574.80	575.17	-0.37	-0.09	005	100.
38	3838.	574.81	575.19	-0.38	-0.10	005	100.
39	3939.	574.82	575.20	-0.38	-0.11	005	100.
40	4040.	574.84	575.22	-0.38	-0.11	005	100.
41	4141.	574.85	575.24	-0.39	-0.12	005	100.
42	4242.	574.86	575.26	-0.40	-0.13	005	100.
43	4343.	574.87	575.27	-0.40	-0.13	005	100.
	4435.				SEC. 4435.000		
44	4444.	574.88	575.29	-0.41	-0.14	005	100.
45	4545.	574.89	575.31	-0.42	-0.15	005	100.
46	4646.	574.91	575.33	-0.42	-0.15	005	100.
47	4747.	574.92	575.35	-0.43	-0.16	005	100.
	4750.				SEC. 4750.000		
48	4848.	574.94	575.38	-0.44	-0.16	005	100.
49	4949.	574.96	575.40	-0.44	-0.17	005	100.
50	5050.	574.97	575.42	-0.45	-0.18	005	100.
51	5151.	574.99	575.45	-0.46	-0.18	005	100.
52	5252.	575.01	575.47	-0.46	-0.19	005	100.
53	5353.	575.03	575.50	-0.47	-0.19	005	100.
	5428.				SEC. 5428.000		
54	5454.	575.04	575.51	-0.47	-0.20	005	100.
55	5555.	575.05	575.49	-0.44	-0.20	005	100.
	5628.				SEC. 5628.000		
56	5656.	575.08	575.87	-0.79	-0.21	005	98.
	5671.				SEC. 5671.000		
	5721.				SEC. 5721.000		
57	5757.	575.28	576.63	-1.35	-0.23	005	96.
58	5858.	575.46	577.01	-1.57	-0.26	005	95.
59	5959.	575.47	577.02	-1.55	-0.28	005	93.
60	6060.	575.49	577.04	-1.55	-0.30	005	93.
61	6161.	575.52	577.05	-1.53	-0.32	005	92.
62	6262.	575.55	577.07	-1.52	-0.34	005	90.
	6350.				SEC. 6350.000		
63	6363.	575.57	577.08	-1.51	-0.36	005	89.
64	6464.	575.61	577.10	-1.49	-0.37	005	88.

66	6666.	575.72	577.15	-1.43	-0.41	005	85.
67	6767.	575.78	577.18	-1.40	-0.42	005	84.
68	6868.	575.83	577.20	-1.37	-0.44	005	82.
69	6969.	575.88	577.23	-1.35	-0.45	005	81.
70	7070.	575.94	577.25	-1.31	-0.46	005	80.
71	7171.	575.99	577.28	-1.29	-0.47	005	79.
72	7272.	576.04	577.30	-1.26	-0.48	005	78.
73	7373.	576.10	577.33	-1.23	-0.49	005	77.
74	7474.	576.15	577.35	-1.20	-0.50	005	74.
75	7575.	576.21	577.38	-1.17	-0.51	005	67.
76	7676.	576.26	577.40	-1.14	-0.52	005	57.
	7750.				SEC. 7750.000		
77	7777.	576.31	577.43	-1.12	-0.53	005	47.
78	7878.	576.38	577.46	-1.08	-0.54	005	40.
79	7979.	576.44	577.51	-1.07	-0.54	005	39.
80	8080.	576.51	577.55	-1.04	-0.55	005	36.
81	8181.	576.57	577.60	-1.03	-0.55	005	37.
82	8282.	576.64	577.64	-1.00	-0.56	005	38.
83	8383.	576.70	577.68	-0.98	-0.56	005	39.
84	8484.	576.77	577.73	-0.96	-0.57	005	40.
85	8585.	576.83	577.77	-0.94	-0.57	005	41.
86	8686.	576.90	577.81	-0.91	-0.58	005	43.
87	8787.	576.96	577.86	-0.90	-0.58	005	44.
88	8888.	577.03	577.90	-0.87	-0.58	005	44.
89	8989.	577.09	577.94	-0.85	-0.59	005	45.
90	9090.	577.16	577.99	-0.83	-0.59	005	46.
	9150.				SEC. 9150.000		
91	9191.	577.23	578.04	-0.81	-0.59	005	46.
92	9292.	577.30	578.09	-0.79	-0.59	005	47.
93	9393.	577.36	578.16	-0.80	-0.60	005	47.
94	9494.	577.43	578.22	-0.79	-0.60	005	48.
95	9595.	577.50	578.28	-0.78	-0.60	005	48.
96	9696.	577.57	578.34	-0.77	-0.60	005	49.
97	9797.	577.64	578.41	-0.77	-0.60	005	49.
98	9898.	577.71	578.47	-0.76	-0.61	005	50.
99	9999.	577.78	578.53	-0.75	-0.61	005	51.
100	10100.	577.85	578.59	-0.74	-0.61	005	51.
101	10201.	577.92	578.66	-0.74	-0.61	005	51.
102	10302.	577.99	578.72	-0.73	-0.61	005	52.
103	10403.	578.06	578.78	-0.72	-0.61	005	52.
	10450.				SEC. 10450.000		
104	10504.	578.14	578.85	-0.71	-0.61	005	53.
105	10605.	578.22	578.92	-0.70	-0.61	005	53.
106	10706.	578.31	579.00	-0.69	-0.61	005	54.
107	10807.	578.40	579.08	-0.68	-0.62	005	55.
108	10908.	578.49	579.16	-0.67	-0.62	005	56.
109	11009.	578.58	579.24	-0.66	-0.62	005	56.
	11013.				SEC. 11013.000		
110	11110.	578.80	579.32	-0.52	-0.62	005	56.
	11113.				SEC. 11113.000		
	11150.				SEC. 11150.000		
	11175.				SEC. 11175.000		

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FIA REQUIREMENTS
INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE 202 70 110
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp.

3) WATERCOURSE: Morrison, Smith, Blakely, Brownstown, Silver, Huron

4) DOCUMENT TYPE: Report

00BREAK00

HYDRAULIC REPORT
BROWNSTOWN TOWNSHIP - MICHIGAN

I. INTRODUCTION

The Township of Brownstown covers approximately 23 square miles. The Township has generally maintained its rural character but has recently experienced some suburban residential development. This report summarizes the hydraulic studies taken to support detailed studies of approximately 3.5 miles of the Morrison Drain, 2 miles of the Smith Creek, 4.5 miles of the Blakely Drain, 1 mile of the Brownstown Creek, and 1.5 miles of the Silver Creek. In addition, approximate analysis of 4 miles of the Brownstown Creek, 1.5 miles of the Smith Creek, 3 miles of the Huron River, 0.5 miles of the Silver Creek, and 4 miles of the Lake Erie shoreline was conducted.

This study was conducted by Wade, Trim and Associates, Inc., Consulting Engineers, and Glen Roberts served as Project Manager.

II. MORRISON DRAIN (DETAILED)

Detailed studies of the Morrison Drain were performed from its confluence with the Silver Creek to the corporate boundary of Brownstown at Woodruff Road. A total of 10 valley and 3 bridge cross sections were field surveyed and completed in April, 1978. Six (6) additional cross sections were used in this analysis. Field cross section data were supplemented by U.S.G.S. Quad Maps of the study area which consists of 5 foot interval contour data (Reference 1). The flood plain of the Morrison Drain within the study reach ranges from grassy lawns to heavy brush.

Cross section locations are shown in Exhibit 1 (Sheets 1 and 2). Table 1 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 2 contains bridge sketches as well as the computations for total loss coefficients. Table 2 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. METHOD OF ANALYSIS

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 2 contains selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibit 3. Water surface profiles resulting from the backwater analyses are presented as Exhibit 4. (Exhibit 3 is contained in the 11" x 15" folder enclosed with this report).

B. VARIABLES AND COEFFICIENTS

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel range from 0.03 to 0.04; roughness values for the overbank area varied between 0.04 to 0.07 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively and increased to 0.3 and 0.5, respectively at bridge sections.

C. HIGH WATER MARKS

No documented high water data exists for flood elevations on the Morrison Drain.

D. STARTING CONDITIONS

The starting water surface elevation used in all backwater computations was the mean Lake Erie level. Lake Erie flood elevations control for approximately one mile. The Lake Erie elevations were taken from the City of Rockwood FIS (Reference 3) and an unpublished Detroit River Profile (Reference 4).

E. SPECIAL PROBLEMS

No special problems were encountered in the analysis of the Morrison Drain.

F. GENERAL

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 1
BROWNSTOWN TOWNSHIP
MORRISON DRAIN

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	0	11150	Valley Section Where Drain Meets Silver Creek
B	750	10400	±2100' D/S of Streicher Road
C	2150	9000	±700' D/S of Streicher Road
D	2850	8300	D/S End Streicher Road Culv.
E	2891	8259	U/S End Streicher Road Culv.
F	3550	7600	±659' U/S of Streicher Road
G	4435	6718	±1196' D/S of Huron River Drive @ Footbridge
H	4750	6400	±878' D/S of Huron River Dr.
I	5628	5522	D/S End Huron River Drive Culvert
J	5671	5479	U/S End Huron River Drive Culvert
K	6350	4800	±679' U/S of Huron River Dr.
L	7750	3400	±2079' U/S of Huron River Dr.
M	9150	2000	±1963' D/S of Woodruff Road
N	10450	700	±663' D/S of Woodruff Road
O	11113	37	D/S End Woodruff Road Culv.
P	11150	0	U/S End Woodruff Road Culv.

TABLE 2

BROWNSTOWN TOWNSHIP

MORRISON DRAIN FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 Yr. Q=110 cfs	50 Yr. Q=175 cfs	100 Yr. Q=200 cfs	500 Yr. Q=270 cfs
u/s of Huron River Dr. (1.1 Mi.)	576.2*	577.1*	577.47*	578.1*
d/s of Woodruff Rd. (2.1 Mi.)	578.97	579.23	579.36	579.65
u/s of Woodruff Rd. (2.1 Mi.)	579.22	579.34	579.42	579.68

* Backwater effect of Lake Erie controls for these sections.

III. SMITH CREEK (DETAILED AND APPROXIMATE)

Detailed studies of the Smith Creek were performed from the corporate boundary of Flat Rock/Brownstown upstream to Beech Daly Road. A total of 13 valley and 4 bridge cross sections were field surveyed and completed in February, 1978. Sixteen (16) additional cross sections were used in this analysis. These sections were based on interpolation of field survey data and U.S.G.S. Quad Maps of the study area which consist of 5 foot interval contour data (References 5 and 6). The flood plain of the Smith Creek within the study reach varies from grassy to heavy woods.

An approximate study of Smith Creek was performed from Beech Daly Road to Inkster Road (corporate boundary of Brownstown).

Cross section locations are shown in Exhibit 1 (Sheet 4). Table 3 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 5 contains bridge sketches as well as the computations for total loss coefficients. Table 4 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. METHOD OF ANALYSIS

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 4 contains selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibit 6. Water surface profiles resulting from the backwater analyses are presented as Exhibit 7. (Exhibit 6 is contained in the 11" x 15" folder enclosed with this report).

B. VARIABLES AND COEFFICIENTS

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel range from 0.03 to 0.035; roughness values for the overbank areas varied between 0.05 to 0.10 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively, and increased to 0.3 and 0.5, respectively, at bridge sections.

C. HIGH WATER MARKS

No documented high water data exists for flood elevations on Smith Creek.

D. STARTING CONDITIONS

The beginning sections were downstream of the corporate boundary of Flat Rock and Brownstown Township approximately 2000 feet and were obtained from the Smith Creek Flood Plain Study (Reference 7). Convergence runs (see graph in Exhibit 20) were performed to insure the accuracy of the starting water surface elevations.

E. SPECIAL PROBLEMS

No special problems were encountered in the analysis of Smith Creek.

F. GENERAL

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) Datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 3
BROWNSTOWN TOWNSHIP
SMITH CREEK

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	1.3		±250' U/S of Brownstown/ Flat Rock Corporate Limit
B	3		D/S Face Telegraph Road Bridge
C	4		U/S Face Telegraph Road Bridge
D	5	11287	Footbridge ±275' U/S of Telegraph Road
E	6	10840	±1900' D/S of Van Horn Road
F	7	9700	±762' D/S of Van Horn Road
G	9	8938	D/S Face of Van Horn Bridge
H	10	8906	U/S Face of Van Horn Bridge
I	12	8000	±900' U/S of Van Horn Road
J	13	6300	±2606' U/S of Van Horn Road
K	14	3800	±1650' D/S of West Road
L	16	2144	D/S Face of West Road Bridge
M	17	2117	U/S Face of West Road Bridge
N	19	1400	±717' U/S of West Road
O	20		±1150' U/S of West Road @ Footbridge
P	20.5	660	±610' D/S of Beech-Daly Road @ Footbridge
Q	22	47	D/S Face of Beech-Daly Road Bridge
R	23	0	U/S Face of Beech-Daly Road Bridge

TABLE 4

BROWNSTOWN TOWNSHIP

SMITH CREEK FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 Yr.	50 Yr.	100 Yr.	500 Yr.
	Q=230 cfs	Q=320 cfs	Q=365 cfs	Q=495 cfs
d/s of Telegraph Road (0.2 Mi.)	597.9	598.3	598.5	598.9
u/s of Telegraph Road (0.2 Mi.)	597.9	598.4	598.5	599.5
d/s of Van Horn Road (0.7 Mi.)	599.7	600.1	600.3	600.9
u/s of Van Horn Road (0.7 Mi.)	599.8	600.2	600.4	601.0
	Q= 85 cfs	Q=180 cfs	Q=235 cfs	Q=365 cfs
d/s of West Road (2.0 Mi.)	603.3	604.1	604.1	604.9
u/s of West Road (2.0 Mi.)	603.3	604.2	604.5	605.0
	Q= 55 cfs	Q=110 cfs	Q=140 cfs	Q=215 cfs
d/s of Beech-Daly (2.4 Mi.)	606.2	607.1	607.5	608.0
u/s of Beech-Daly (2.4 Mi.)	606.2	607.2	607.6	608.5

IV. SILVER CREEK (DETAILED AND APPROXIMATE)

1. Detailed studies of the Silver Creek were performed from the corporate boundary of Flat Rock/Brownstown to Van Horn Road. A total of 4 valley and 3 bridge cross sections were field surveyed and completed in February, 1978. Nine (9) additional cross sections were used in this analysis. These sections were based on interpolation of field survey data and U.S.G.S. Quad Maps of the study area which consist of 5 foot interval contour data (References 5 and 6). The flood plain of the Silver Creek within the study reach is mostly light or medium brush.

2. Detailed studies of the Silver Creek were also performed from its mouth to its confluence with the Morrison Drain. An approximate study was performed from the Silver Creek/Morrison Drain confluence to the corporate limits of Brownstown/Rockwood. The Rockwood FIS (Reference 3) determined that the Lake Erie flood levels control up to the first few sections within the City of Rockwood; therefore, no backwater analysis was performed on this portion of Silver Creek. Flood elevations shown on Table 6 are based on water surface elevations found in City of Rockwood FIS (Reference 3) and an unpublished Detroit River Profile (Reference 4).

Cross section locations on the Silver Creek from Flat Rock/Brownstown corporate limit to Van Horn Road are shown in Exhibit 1 (Sheet 4). Table 5 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 8 contains bridge sketches as well as the computations for total loss coefficients. Table 6

lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. METHOD OF ANALYSIS

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 6 contains selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibit 9. Water surface profiles resulting from the backwater analyses are presented as Exhibit 10. (Exhibit 9 is contained in the 11" x 15" folder enclosed with this report).

B. VARIABLES AND COEFFICIENTS

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel range from 0.03 to 0.04; roughness values for the overbank areas varied between 0.08 to 0.09 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively, and increased to 0.3 and 0.5, respectively, at bridge sections.

C. HIGH WATER MARKS

No documented high water data exists for flood elevations on Silver Creek.

D. STARTING CONDITIONS

The starting water surface elevations used in all backwater computations were the flood elevations at the Flat Rock/Brownstown corporate boundary as determined in the Flat Rock FIS (Reference 8).

E. SPECIAL PROBLEMS

The floodway for Silver Creek (See Exhibit 1) from Lake Erie to Morrison Drain was conservatively delineated as follows:

1. 4:1 expansion and 1:1 contraction ratios were used at all construction and bridge sections.

2. Morrison Drain floodway limits were matched.

3. Developed areas were ~~left out of~~ excluded from the floodway.

This method of floodway delineation was used because a backwater analysis was not performed due to the Lake Erie backwater control.

F. GENERAL

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) Datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 5
BROWNSTOWN TOWNSHIP
SILVER CREEK

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	17673		Township Boundary
B	18882	2531	D/S Face Arsenal Road
C	18904	2509	U/S Face Arsenal Road
D	19713	1700	Valley Section ±809' U/S of Arsenal Road
E	19864		±968' U/S of Arsenal Road @ Footbridge
F	20604	827	D/S End 60" Culvert
G	20622	809	U/S End 60" Culvert
H	20713	700	±640' D/S of Van Horn Road
I	21353	60	D/S Face of Van Horn Road
J	21413	0	U/S Face of Van Horn Road

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TABLE 6

BROWNSTOWN TOWNSHIP

SILVER CREEK FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 Yr.	50 Yr.	100 Yr.	500 Yr.
Detailed	Q=1,490 cfs	Q=1,940 cfs	Q=2,090 cfs	Q=2,320 cfs
Silver Creek @ Morrison Drain	576.2*	577.1*	577.47*	578.1*
Approximate			Q=1,860 cfs	
1. Silver Creek @ Rockwood/ Brownstown Corporate Limit	-----	-----	577.47	-----
			Q= 775 cfs	
2. Above Smith Creek @ Rockwood/ Brownstown boundary	-----	-----	577.47	-----
Detailed	Q= 455 cfs	Q= 665 cfs	Q= 785 cfs	Q= 840 cfs
d/s of Arsenal Rd. (0.2 Mi.)	601.35	602.00	602.21	602.35
u/s of Arsenal Rd. (0.2 Mi.)	602.12	602.51	602.65	602.73
d/s of Van Horn Rd. (0.7 Mi.)	603.37	603.84	604.06	604.15

* Backwater effect of Lake Erie controls for these sections.

V. BROWNSTOWN CREEK (DETAILED AND APPROXIMATE)

Detailed studies of the Brownstown Creek were performed from the corporate boundary of Brownstown/Gibraltar at M-85 (Fort Street) to Vreeland Road. A total of 2 valley and 4 bridge cross sections were field surveyed and completed in February, 1978. The first cross section is the same as the last cross section used in the Gibraltar FIS (Reference 9). Four (4) additional cross sections were used in this analysis. These sections were based on interpolation of field survey data and U.S.G.S. Quad Maps of the study area which consists of 5 foot interval contour data (Reference 1). The flood plain of the Brownstown Creek within the study reach varies from grassy to woods. An approximate study was performed from the corporate boundary of Brownstown/Woodhaven to the upstream limit of the creek.

Cross section locations are shown in Exhibit 1 (Sheet 3). Table 7 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 11 contains bridge sketches as well as the computations for total loss coefficients. Table 8 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. METHOD OF ANALYSIS

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 8 also contains selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibit 12. Water surface profiles resulting from the backwater analyses are presented as Exhibit 13. (Exhibit 12 is contained in the 11" x 15" folder enclosed with this report).

B. VARIABLES AND COEFFICIENTS

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness value for the main channel is 0.035; roughness values for the overbank areas varied between 0.045 to 0.10 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively, and increased to 0.3 and 0.5, respectively, at bridge sections.

C. HIGH WATER MARKS

No documented high water data exists for flood elevations on Brownstown Creek. There are high water marks in our files by Lacy in 1970

D. STARTING CONDITIONS

The starting water surface elevations used in all backwater computations were the flood elevations at the Brownstown/Gibraltar corporate boundary as determined in the Gibraltar FIS (Reference 9) adjusted from the I.G.L.D. to the N.G.V.D. datum.

E. SPECIAL PROBLEMS

No special problems were encountered in this analysis.

F. GENERAL

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) Datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 7
BROWNSTOWN TOWNSHIP
BROWNSTOWN CREEK

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	151		1' U/S of NB Fort St. (From Gibraltar FIS)
B	175	3916	D/S Face of SB Fort St.
C	220	3871	U/S Face of SB Fort St.
D	518		±500' D/S of Allen Road
E	1018	3073	D/S Face Allen Road
F	1073	3018	U/S Face Allen Road
G	2091	2000	±1018' U/S of Allen Road
H	2791		±1718' U/S of Allen Road
I	4011	80	D/S End Vreeland Road Culv.
J	4091	0	U/S End Vreeland Road Culv.

TABLE 8

BROWNSTOWN TOWNSHIP

BROWNSTOWN CREEK FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 Yr.	50 Yr.	100 Yr.	500 Yr.
Detailed	Q=480 cfs	Q=650 cfs	Q=710 cfs	Q=860 cfs
d/s SB Fort St. (0.05 Mi.)	584.31	586.11	586.25	586.57
u/s SB Fort St. (0.05 Mi.)	585.12	586.68	586.74	586.84
d/s of Allen Rd. (0.2 Mi.)	585.77	586.83	586.90	587.04
u/s of Allen Rd. (0.2 Mi.)	586.60	587.02	587.05	587.12
d/s of Vreeland Rd. (0.8 Mi.)	587.66	588.28	588.44	588.81

VI. BLAKELY DRAIN (ALSO KNOWN AS MARSH CREEK) (DETAILED)

The following two segments of Blakely Drain were studied in detail:

1. It was studied from the corporate boundary of Brownstown/Gibraltar to Vreeland Road. In this area the drain is known as Marsh Creek and will be referred to as Marsh Creek in the remainder of this report. A total of 1 valley and 3 bridge cross sections were field surveyed and completed in February, 1978. Five (5) additional cross sections were used in this analysis. These sections were based on interpolation of field survey data and U.S.G.S Quad Maps of the study area which consist of 5 foot interval contour data (Reference 1). The flood plain of the Marsh Creek within the study reach is mostly light to medium brush.

   Cross section locations for the Marsh Creek are shown in Exhibit 1 (Sheet 3). Table 9 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 14 contains bridge sketches as well as the computations for total loss coefficients. Table 10 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this Creek.

Detailed studies of the Blakely Drain were also performed from King Road to Pennsylvania Road (corporate boundary of Brownstown/Taylor). A total of 16 valley and 12 bridge cross sections were field surveyed for this portion and completed in April, 1978. Forty-five (45) additional cross sections were used in this analysis. These sections were also based on interpolation of field survey data and U.S.G.S. Quad Maps of the study area which consist of 5 foot interval contour data (References 6 and 10). The flood plain of the Blakely Drain within the study reach varies from light brush to woods.

Cross section locations are shown in Exhibit 1 (Sheets 5 and 6). Table 11 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 17 contains bridge sketches as well as the computations for total loss coefficients. Table 12 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. METHOD OF ANALYSIS

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 10 (Marsh Creek) and Table 12 (Blakely Drain) contain selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibits 15 and 18. Water surface profiles resulting from the backwater analyses are presented as Exhibits 16 (Marsh Creek) and 19 (Blakely Drain). (Exhibits 15 and 18 are contained in the 11" x 15" folder enclosed with this report).

B. VARIABLES AND COEFFICIENTS

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel range from 0.03 to 0.035; roughness values for the overbank areas varied between 0.06 to 0.12 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively, and increased to 0.3 and 0.5, respectively, at bridge sections.

C. HIGH WATER MARKS

No documented high water data exists for flood elevations on the Blakely Drain or Marsh Creek.

D. STARTING CONDITIONS

Marsh Creek - The starting water surface elevations used in all backwater computations for Marsh Creek were the flood elevations at the downstream side of NB Fort Street (M-85) which is the Brownstown/Gibraltar corporate boundary as determined in the Gibraltar FIS (Reference 9). All elevations are adjusted from I.G.L.D. to N.G.V.D. Floodway widths for the first section of this study do not match the floodway as presented in the Gibraltar FIS because expansion and contraction limitations through the parallel M-85 bridges do not agree with the floodway in the last section of the Gibraltar FIS.

Blakely Drain - The slope area method was used at a section which is 2640 feet downstream of the Brownstown corporate limit. Convergence runs (see graph Exhibit 21) were performed to insure the accuracy of the starting water surface elevations.

do we have flood plain not a sub for the d/s King Rd.

E. SPECIAL PROBLEMS

No special problems were encountered in the analysis of Blakely Drain or Marsh Creek.

F. GENERAL

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) Datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 9
BROWNSTOWN TOWNSHIP
MARSH CREEK

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	76		D/S Face of NB M-85 Bridge
B	124		U/S Face of NB M-85 Bridge
C	297	2129	D/S Face of SB M-85 Bridge
D	348	2078	U/S Face of SB M-85 Bridge
E	1476	950	±1076' U/S of SB M-85 Bridge
F	2380	46	D/S Face of Vreeland Road
G	2426	0	U/S Face of Vreeland Road

TABLE 10

BROWNSTOWN TOWNSHIP

MARSH CREEK FLOOD ELEVATIONS

LOCATIONS	SELECTED FREQUENCIES 10 Yr.	50 Yr.	100 Yr.	500 Yr.
	Q= 810 cfs	Q=1,100 cfs	Q=1,210 cfs	Q=1,450 cfs
d/s of NB Fort Street (0.0 Mi.)	583.9	584.3	584.4	584.8
u/s of NB Fort Street	584.3	585.1	585.2	585.6
u/s of SB Fort Street	584.5	585.3	585.5	585.9
d/s of Vreeland Road (0.4 Mi.)	584.6	585.5	585.7	586.1

TABLE 11
BROWNSTOWN TOWNSHIP
BLAKELY DRAIN

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
A	2640	22666	D/S End King Road Bridge
B	2675	22631	U/S End King Road Bridge
C	4106	21200	±1430' U/S of King Road
D	5406	19900	±2730' U/S of King Road
E	6906	18400	±2000' D/S of Sibley Road
F	7473		±1400' D/S of Sibley Road @ Footbridge
G	7857		±1000' D/S of Sibley Road @ Footbridge
H	8335		±550' D/S of Sibley Road @ Footbridge
I	8910	16396	D/S End of Sibley Road Bridg
J	8948	16358	U/S End of Sibley Road Bridg
K	9432	15874	D/S End of Allen Road Bridge
L	9446	15860	U/S End of Allen Road Bridge
M	10056	15250	±610' U/S of Allen Road
N	10560	14746	D/S End of Triple Culverts
O	10584	14722	U/S End of Triple Culverts
P	11506	13800	±1075' D/S of Railroad
Q	12578	12728	D/S Face of Railroad Bridge
R	12622	12684	U/S Face of Railroad Bridge
S	13482	11824	D/S Face of Dix-Toledo Hwy.
T	13570	11736	U/S Face of Dix-Toledo Hwy.
U	15306	10000	±1740' U/S of Dix-Toledo Hwy
V	16306	9000	±2740' U/S of Dix-Toledo Hwy

TABLE 11 (Continued)
BROWNSTOWN TOWNSHIP
BLAKELY DRAIN

CROSS SECTION	COMPUTER NO.	WTA FIELD BOOK NO.	DESCRIPTION
W	17246	8060	D/S Face NB I-75 Bridge
X	17310	7996	U/S Face NB I-75 Bridge
Y	17437	7856	D/S Face of SB I-75 Bridge
Z	17450	7770	U/S Face of SB I-75 Bridge
AA	18666	6640	D/S Face of Racho Road Bridge
AB	18706	6600	U/S Face of Racho Road Bridge
AC	19061		+445' U/S of Racho Road @ Footbridge
AD	20293		+1600' U/S of Racho Road @ Footbridge
AE	20406	4900	±1700' U/S of Racho Road
AF	21323	3983	D/S End of Twin Culverts
AG	21359	3947	U/S End of Twin Culverts
AH	23000		+1646' U/S of Twin Culverts @ Footbridge
AI	23256	2050	±1570' D/S of Railroad
AJ	24202		+365' D/S of Railroad @ Footbridge
AK	24574	732	D/S Face of Railroad Bridge
AL	24588	718	U/S Face of Railroad Bridge
AM	25137	83	D/S End of Culverts @ Pennsylvania Road
AN	25306	0	U/S End of Culverts @ Pennsylvania Road

TABLE 12

BROWNSTOWN TOWNSHIP

BLAKELY DRAIN FLOOD ELEVATIONS

LOCATIONS	SELECTED FREQUENCIES 10 Yr.	50 Yr.	100 Yr.	500 Yr.
	Q= 780 cfs	Q=1,176 cfs	Q=1,360 cfs	Q=1,730 cfs
u/s of King Rd. (0.0 Mi.)	591.9	592.8	593.0	593.4
d/s of Sibley Rd. (1.2 Mi.)	595.0	596.0	596.3	596.8
u/s of Sibley Rd. (1.2 Mi.)	595.0	597.2	597.4	597.6
d/s of Allen Rd. (1.3 Mi.)	595.8	597.5	597.8	598.2
u/s of Allen Rd. (1.3 Mi.)	596.2	598.2	598.5	599.1
d/s of Railroad (1.9 Mi.)	597.8	599.5	599.8	600.2
u/s of Railroad (1.9 Mi.)	598.4	601.1	602.0	603.4
	Q= 738 cfs	Q=1,152 cfs	Q=1,360 cfs	Q=1,870 cfs
u/s of Dix-Toledo Hwy. (2.1 Mi.)	599.1	601.8	602.7	604.3
d/s of NB I-75 (2.8 Mi.)	600.3	602.2	603.0	604.5
u/s of SB I-75 (2.9 Mi.)	600.6	602.7	603.7	605.9
u/s of Racho (3.1 Mi.)	601.8	603.1	604.2	606.4
d/s of Railroad (4.2 Mi.)	605.3	606.0	606.4	607.5
d/s of Pennsylvania (4.3 Mi.)	605.8	606.8	607.3	608.6

VII. HURON RIVER (APPROXIMATE)

An approximate study of the Huron River was performed from its mouth to the corporate limit of Rockwood/ Brownstown. The Lake Erie flood elevations were used at the mouth. The Rockwood FIS (Reference 3) was used for the upstream portion of the study.

The following are two locations on Huron River with their respective 100 year elevations:

Location	100 Year Elevation
Rockwood/Brownstown Corporate Limit	578.5
@ mouth	577.47

VIII. LAKE ERIE (APPROXIMATE)

An approximate study of Lake Erie was performed from the corporate limit of Gibraltar/Brownstown to the mouth of the Huron River. The Gibraltar FIS (Reference 9) was used for the upstream portion of the study. The Rockwood FIS (Reference 3) was used for the downstream portion of the study.

The following are two locations on Lake Erie with their respective 100 year elevations:

Location	100 Year Elevation
Gibraltar/Brownstown Corporate Limit	577.33
@ mouth of Huron River	577.47

REFERENCES

1. U.S. Geological Survey Topographical Maps - Rockwood Quadrangle, Wayne County, Michigan, 7.5 Minute Series - Photo Revised 1973.

2. HEC-2 - Water Surface Profile - Users Manual - U.S. Army Corps of Engineers - 1976.

3. U.S. Department of Housing and Urban Development, Flood Insurance Study - City of Rockwood, Michigan -

4. Johnson & Anderson, Inc., Consulting Engineers, Unpublished Report - Detroit River Profile, December, 1977.

5. U.S. Geological Survey Topographical Maps - Flat Rock Quadrangle, Michigan, 7.5 Minute Series - Photo Revised 1973.

6. U.S. Geological Survey Topographical Maps - Flat Rock NE Quadrangle, Wayne County, Michigan, 7.5 Minute Series - Photo Revised, 1973.

7. Wade, Trim & Associates, Inc., Smith Creek Flood Plain Study, City of Flat Rock, Wayne County, Michigan, June, 1974.

8. U.S. Department of Housing and Urban Development, Flood Insurance Study - City of Flat Rock -

9. U.S. Department of Housing and Urban Development, Flood Insurance Study - City of Gibraltar, Michigan - October, 1977.

10. U.S. Geological Survey Topographical Maps - Wyandotte Quadrangle, Wayne County, Michigan, 7.5 Minute Series - Photo Revised 1973.

BROWNSTOWN TOWNSHIP

EXHIBIT 1

FIELD CROSS-SECTION LOCATION
AND 100 YEAR FLOOD PLAIN -
FLOODWAY MAP

Sheet 1	Morrison Drain
Sheet 2	Morrison Drain
Sheet 3	Brownstown Creek Marsh Creek
Sheet 4	Smith Creek Silver Creek
Sheet 5	Blakely Drain
Sheet 6	Blakely Drain

BROWNSTOWN TOWNSHIP

MORRISON DRAIN

EXHIBIT 2

BRIDGE SKETCHES AND NOTES

FORM 25 0
(313) 291-5400
Wade Trim & Associates, Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

WORK SHEET

Bridge Location: STREICHER RD. (SECT.)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) NO PIERS 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk, Σk = $k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers
Description of Bridge: 6'3"x8'0" WIDE CMP (use std. size 73" x 106" CMP Arch) MODELED AS RECTANGULAR OPENING 6.25' x 6.25'
$K_f = 29.1\ n^2\ L/R^{4/3}$ for English units
Area = partial flow = 41 SF Wp = 24.5'
$R = A/wp = 1.67$ $R^{4/3} = 2.0$ $L = 41'$
n (composite) = 0.022
$K_f = 29.1 \times (0.026)^2 \times 41' / 2.0 = 0.4$

K_e = PROJECTING FROM FILL (NO HEADWALL) = 0.9 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

how about culvert 1000 ft to the east?

2. XKOR = 1 + 0.4 + 0.9 + 0 = 2.3
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 7.33
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 41 SF
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 569.8 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 569.8 (0 if equal to minimum elevation in previous x-sect.)

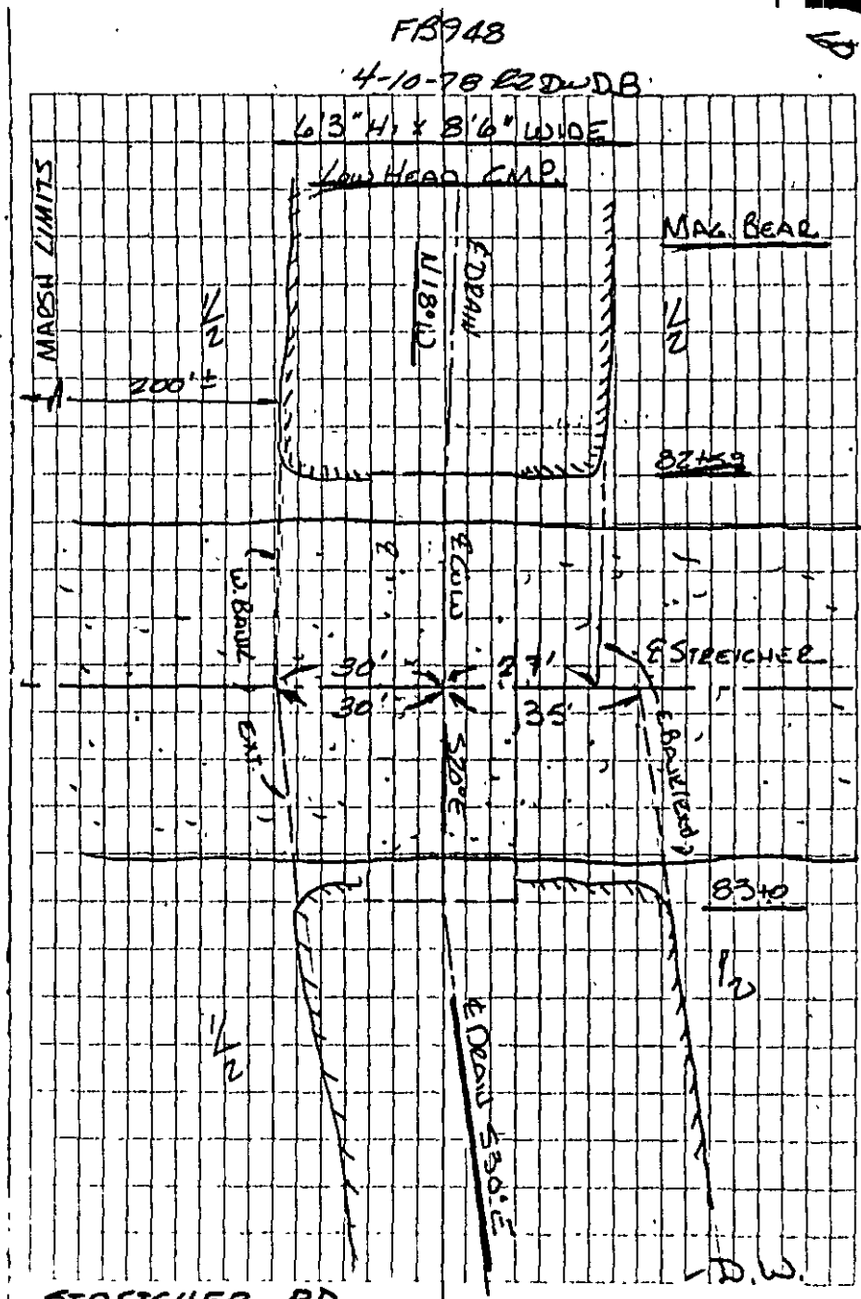
SUBJECT	BY	CHK	SHEET NO	File Code No (Job No.) Owner Project Suffix
MORRISON DRAIN BROWNSTOWN TOWNSHIP	AM		___ OF ___	HUD • 2013 • 07
	DATE 1/19/79	DATE		

HLD 2013-06

CULV. DETAIL STREICHER RD.

F MORRISON DRAIN

STA	+	HI	−	ELEV.
BM	5.31			575.83
		581.14		
82+57 UPSTREAM END CULV.				
INV. CULV			12.06	569.08
EX. DRAIN BOTTOM			11.34	569.80
83+00 DOWNSTREAM END				
INV. CULV			11.80	569.34
EX. DRAIN BOTT.			11.31	569.83
BM CK.			5.31	575.83



STREICHER RD.

HLD 2013-07

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: HURON RIVER DR. TWIN 60" Conc. Pipe
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: TWIN 60" Conc. Pipe (partially silted up)

$K_f = 29.1 n^2 L / R^{4/3}$ for English units

Area = " = 31.06 S.F. W_p = 30.5'

$R = A/W_p = \frac{31.06}{30.5} = 1.02 R^{4/3} = 1.0$ $L = 43'$

n (composite) = 0.022

$K_f = 29.1 \times (0.022)^2 \times 43 / 1 = 0.6$

K_e = projecting from fill no [illegible] 0.9 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.6 + 0.9 + 0.0 = 2.5
3. COFQ = Coefficient of discharge = 2.9 — HEC-2 manual
4. RDLEN = Length of weir = _____ (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 8.0
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge net bridge opening [redacted] = 31.1
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 571.64
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 571.84
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
MORRISON DRAIN - HURON RIVER DR.	DM		___ OF ___	HUD 2013 07
	DATE	DATE		

HUD 2013-05

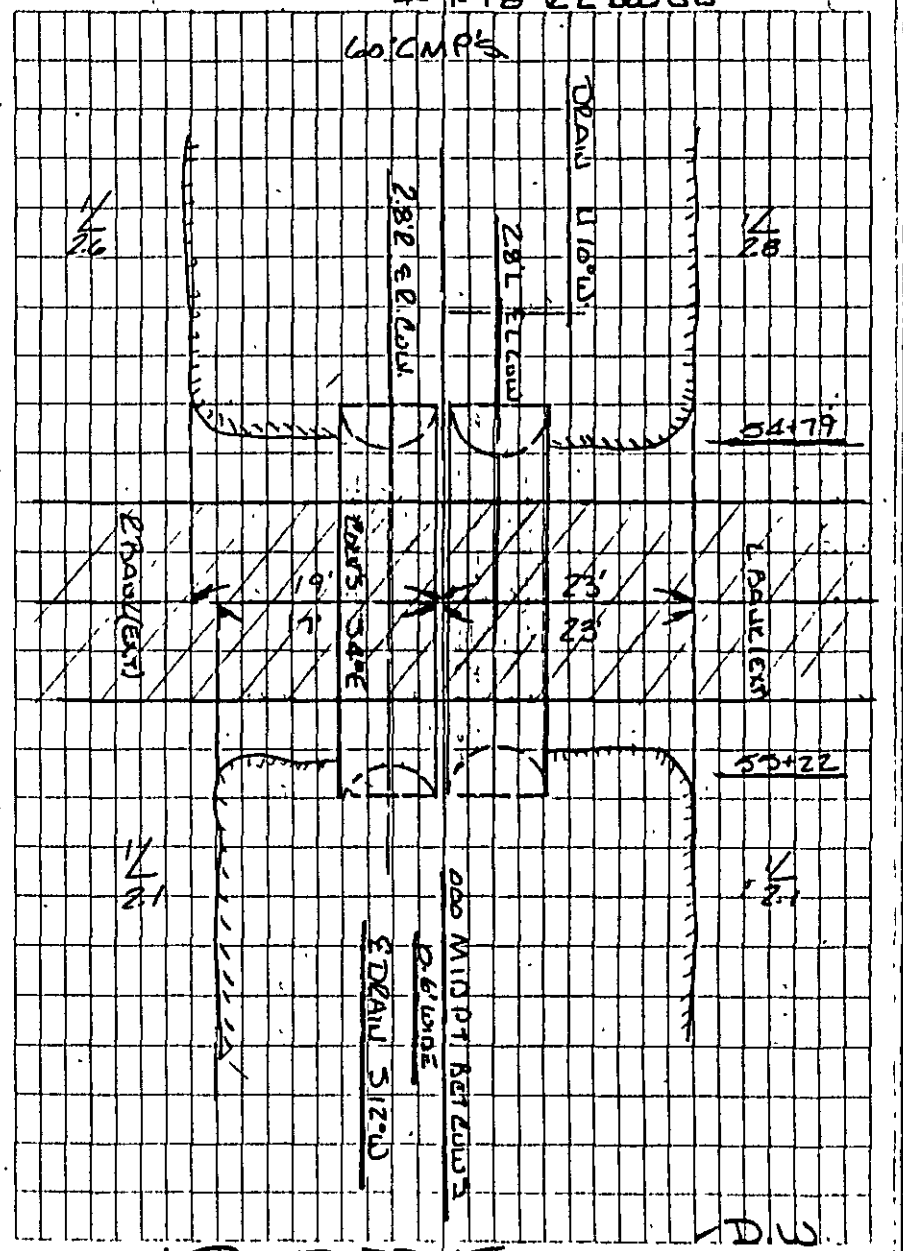
BRIDGE SECTION HURON RIVER DRIVE & MORRISON DRAIN

STA	+	HI	−	ELEV	
BM.				57696	
	4.93	581.89			
54+79 UPSTREAM END.					
2.80'L ℄ L. CULV					
EX. DRAIN				10.16	571.73
INV CULV				11.28	570.61
2.8R ℄ R. CULV.					
EX. DRAIN				1023	571.66
INV. CULV.				11.54	570.35
55+22 DOWNSTREAM END.					
2.8L ℄ L CULV.					
EX DRAIN				9.95	571.94
INV CULV				11.43	570.46
2.8'R ℄ R CULV					
EX DRAIN				10.05	571.84
INV CULV.				11.01	570.88
BMCK			4.93	576.96	576.96

FB948

4-7-78 R2 DWDB

55



HURON RIVER DRIVE

MORRISON DRAIN HUD 2013-07

Bridge Location: Woodruff Rd. Morrison Dr.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: 42" Conc. Culv.

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 5.4 WP = 9.4

$R = A/wp = 0.57$ $R^{4/3} = 0.47$ $L = 37$

n (composite) = 0.02

$K_f = 29.1 \times (0.02)^2 \times 37 \;/\; 0.47 = 0.92$

K_e = 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

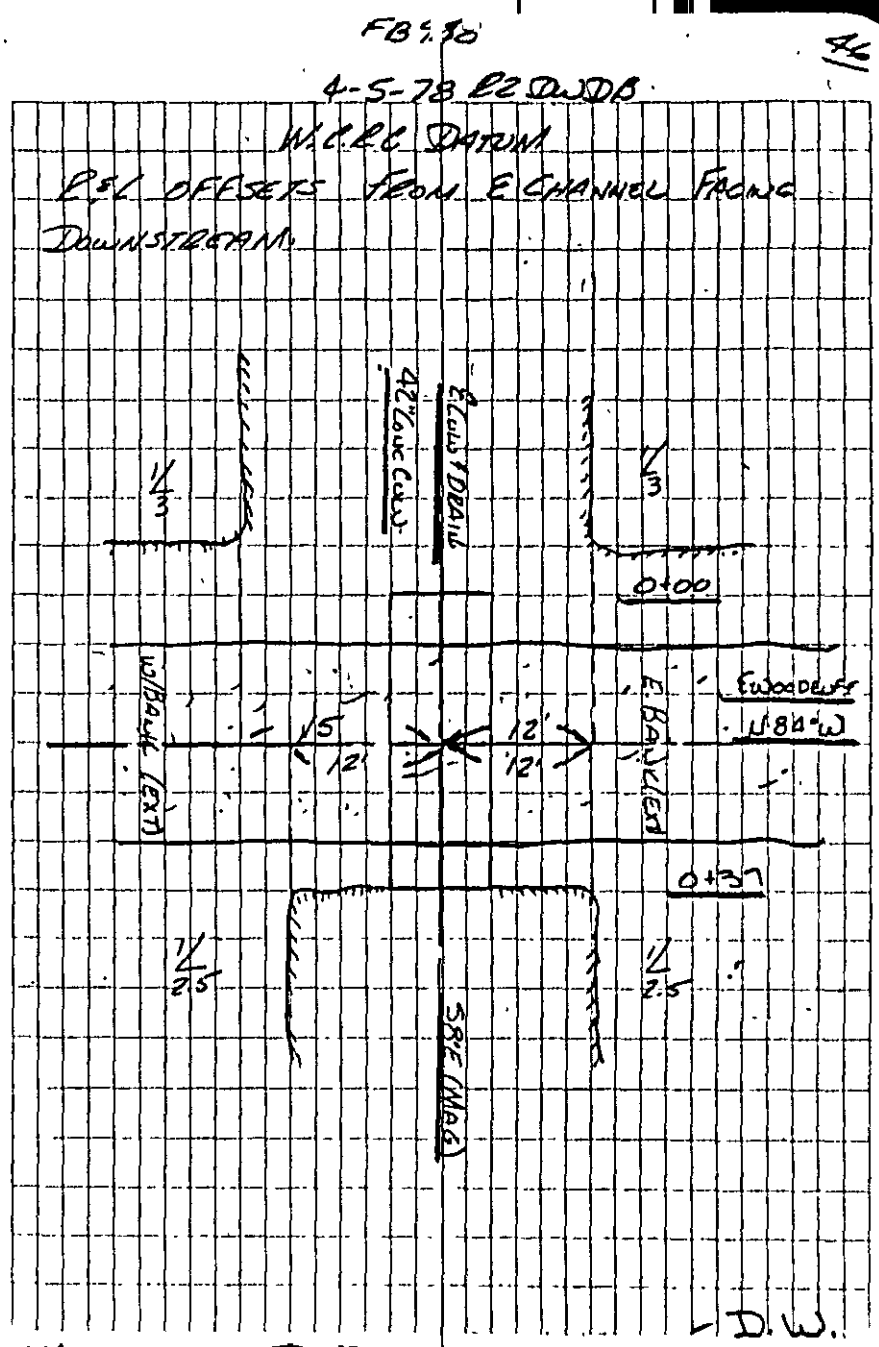
2. XKOR = 1 + 0.92 + 0.2 + 0 = 2.12
3. COFQ = Coefficient of discharge = 2.8 — HEC-2 manual
4. RDLEN = Length of weir = _____ (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 2.7
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 5.4
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 575.83 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 575.10 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner • Project • Suffix
	DATE	DATE	___ OF ___	

HUD 2013-05

BRIDGE SECTION WOODRUFF RD CONT

STA	+	HI	−	Elev
BM				579.71
	4.55	584.26		
500L			4.30	579.96
400L			5.05	579.21
300L			5.25	579.01
200L			5.40	578.86
100L			5.26	579.00
000			5.32	578.94
100R			4.72	579.54
200R			3.58	580.68
300R			2.31	581.95
400R			1.60	582.66
500R			1.10	583.16
0+00				
INV. N. END 42" CONC CULV			9.94	574.32
EX CREEK			8.43	575.83
0+37				
INV. S END			11.32	572.94
EX CREEK			9.16	575.10
BM CL			4.55	579.31



WOODRUFF ROAD
MORRISON DRAIN | HUD 2013-07

BROWNSTOWN TOWNSHIP

MORRISON DRAIN

EXHIBIT 3

COMPUTER PRINTOUTS

HEC-2 BACKWATER ANALYSIS

(See Separate Folder)

BROWNSTOWN TOWNSHIP

MORRISON DRAIN

EXHIBIT 4

STREAM PROFILE

HUD 2013-07

BROWNSTOWN TOWNSHIP

SMITH CREEK

EXHIBIT 5

BRIDGE SKETCHES AND NOTES

Bridge Location : TELEGRAPH RD. (SECT.)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 16.7 x 5 = 83.5 Wp = (16.7+5)2 = 43.4

$R = A/wp = \frac{83.5}{43.4} = 1.9$ $R^{4/3} = 2.3$ $L = 65'$

n (composite) = 16.7(2)(0.03) + 5(2)(0.015) / 43.4 = 0.027

$K_f = 29.1 \times (0.027)^2 \times 65' / 2.3 = 0.6$

K_e = HEADWALL PARALLEL TO EMBANKMENT
0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

(Kp = 0) if bridge has no intermediate piers

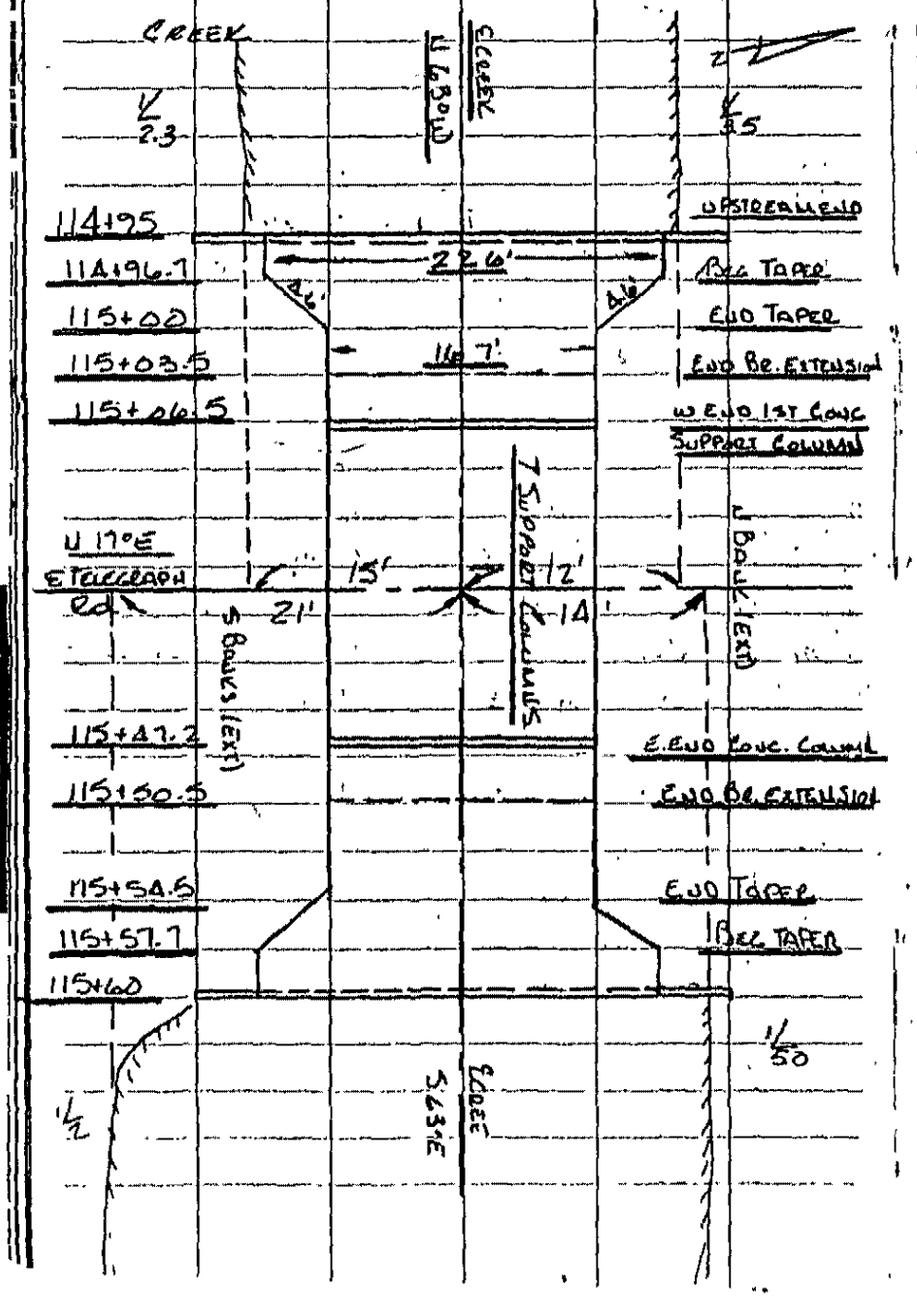
Kp = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.6 + 0.5 + 0 = 2.1
3. COFQ = Coefficient of discharge = 2.7 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 16.7
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening ~~inc. piers~~ = 83.5
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 594.2
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 594.0
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Smith Creek Brownstown Township	DATE	DATE	___ OF ___	HUD • 8013 • 07

HUD 2013-05

BRIDGE DETAIL TELEGRAPH RD & SMITH CREEK

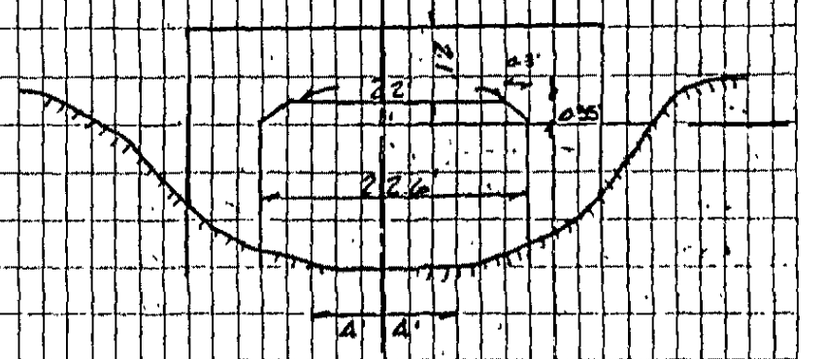


FD946

68

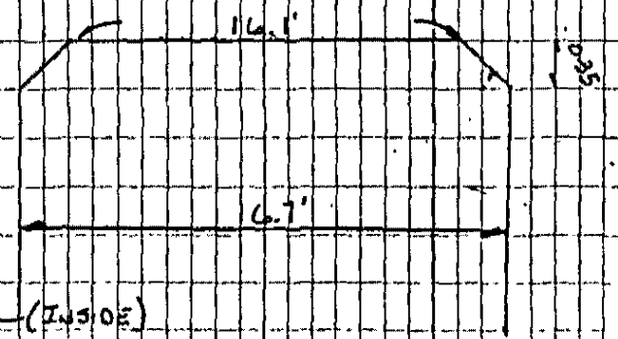
2-17-78 RZ DW

ALL BEARING MAGNETIC



UPSTREAM END FACING DOWNSTREAM - SAME DIMENSIONS DOWNSTREAM END.

SIDE VIEW @ STATIONS 115+00 TO 115+03.5 & 115+50.5 TO 115+54.5 (BRIDGE EXTENSION



ALL (INSIDE) TOPS OF BRIDGE MATCH

TELEGRAPH ROAD
SMITH CREEK

HUD 117-07

Wade Trim & Associates Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180
(313) 291-5400

FORM 25 0

WORK SHEET

Bridge Location : VAN HORN BRIDGE (SECT.)

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) _____ HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 19 x 3.2 = 61 $WP = 2(19+3.2) = 44.4$

$R = A/wp = \frac{61}{44.4} = 1.37$ $R^{4/3} = 1.52$, $L = 32'$

n (composite) $= 2(3.2)(0.015) + 2(19)(0.028)/44.4 = 0.26$

$K_f = 29.1 \times (0.026)^2 \times 32 / 1.52 = 0.4$

K_e = HEADWALL PARALLEL TO EMBANKMENT
= 0.5

Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers HEC-2 manual

2. XKOR = 1 + 0.4 + 0.5 + 0 = 1.9

3. COFQ = Coefficient of discharge = 2.6 HEC-2 manual

4. RDLEN = Length of weir = 0 (0 if read off BT cards)

5. BWC = bottom width of bridge opening (inc. piers) = 19.9

6. BWP = total width of obstruction = 0. field data

7. BAREA = bridge opening inc. piers = 61.

8. SS = side slope = 0
(horizontal per 1 vertical unit)

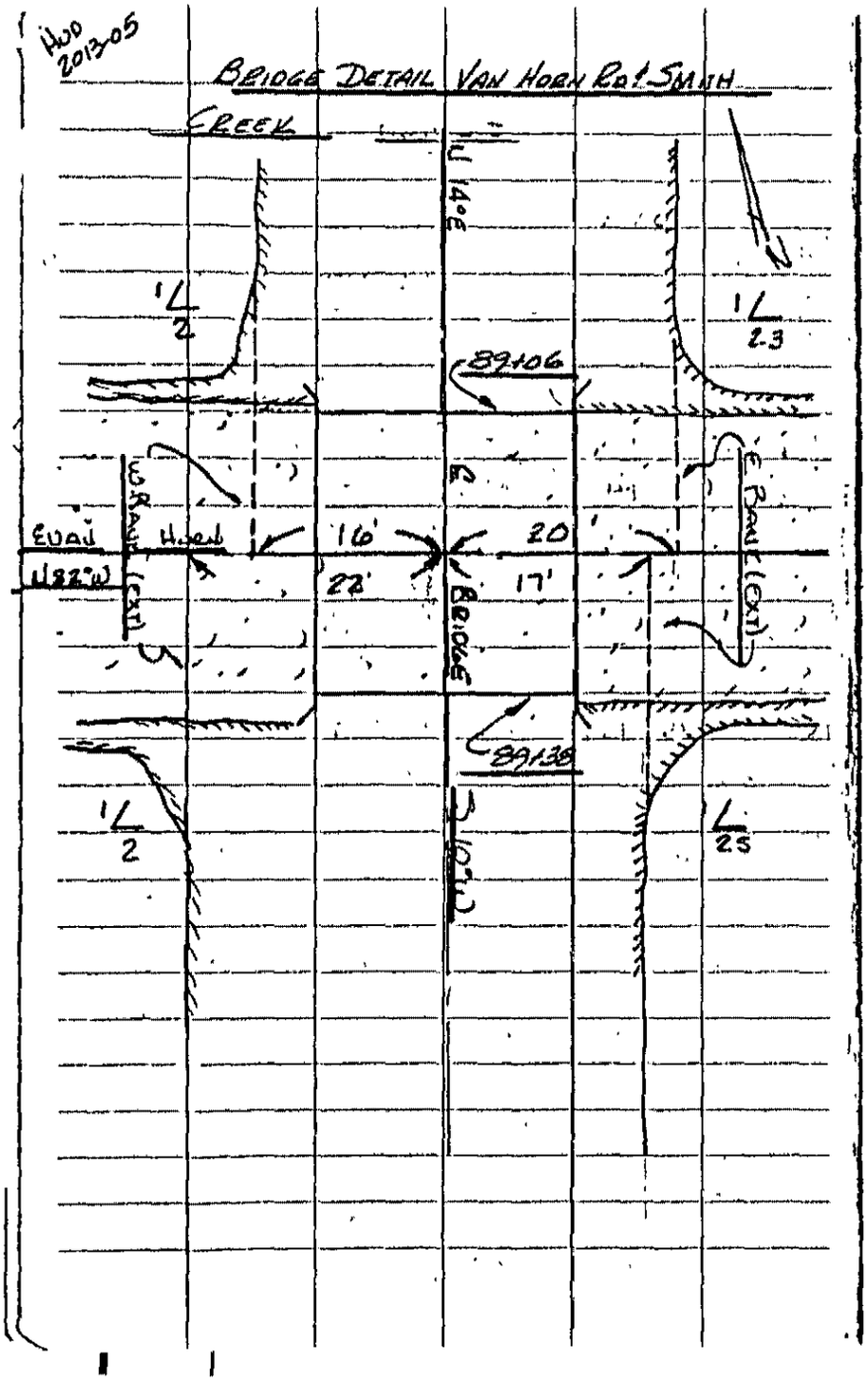
9. ELCHU = Elevation of channel invert U/S side = 595.33
(0 if equal to minimum elevation in previous x-sect.)

10. ELCHD = Elevation of channel invert D/S side = 594.83
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Smith Creek BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD •2013 •07

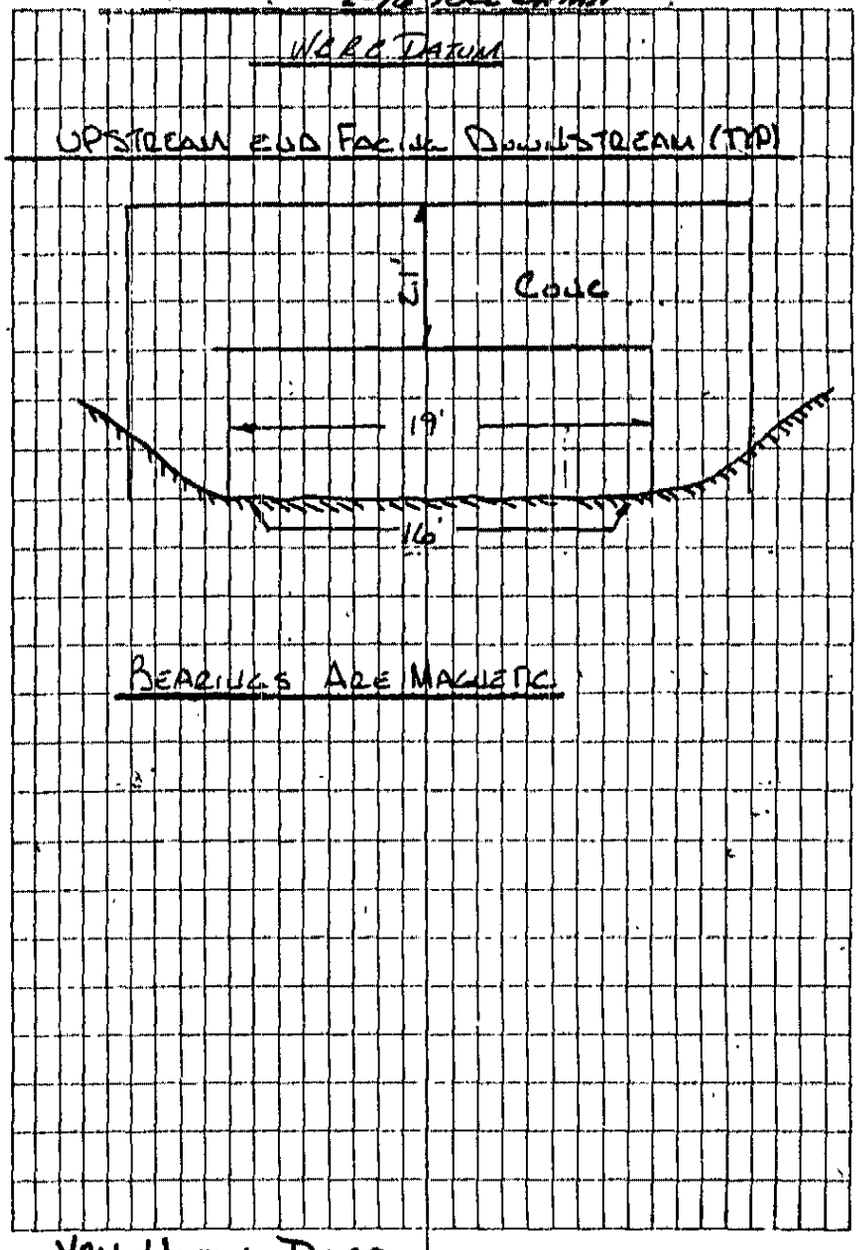
HUD 2013-05

BRIDGE DETAIL VAN HORN Rd SMITH CREEK



2-16-78 RE DAWSON

WORK DATUM



VAN HORN ROAD
SMITH CREEK HUD 2013-07

Bridge Location : WEST RD. (SECT.)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No PIERS 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk , Σk = $k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : SKEWED 32° cos 32° = 0.85

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 12.7 x 4.1 = 52. Wp = 2(12.7 + 4.1) = 33.6

$R = A/wp = \frac{52}{33.6} = 1.55$ $R^{4/3} = 1.8$ $L = 27'$

n (composite) = 2(12.7)(0.030) + 2(4.1)(0.015) / 33.6 = 0.026

$K_f = 29.1 \times (0.026)^2 \times 27 / 1.8 = 0.3$

K_e = HEADWALL PARALLEL TO EMBANKMENT
0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.3 + 0.5 + 0 = 1.8
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 12.7
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 52.
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 600.87 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 600.25 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
SMITH CREEK BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HWD • 2013 • 07

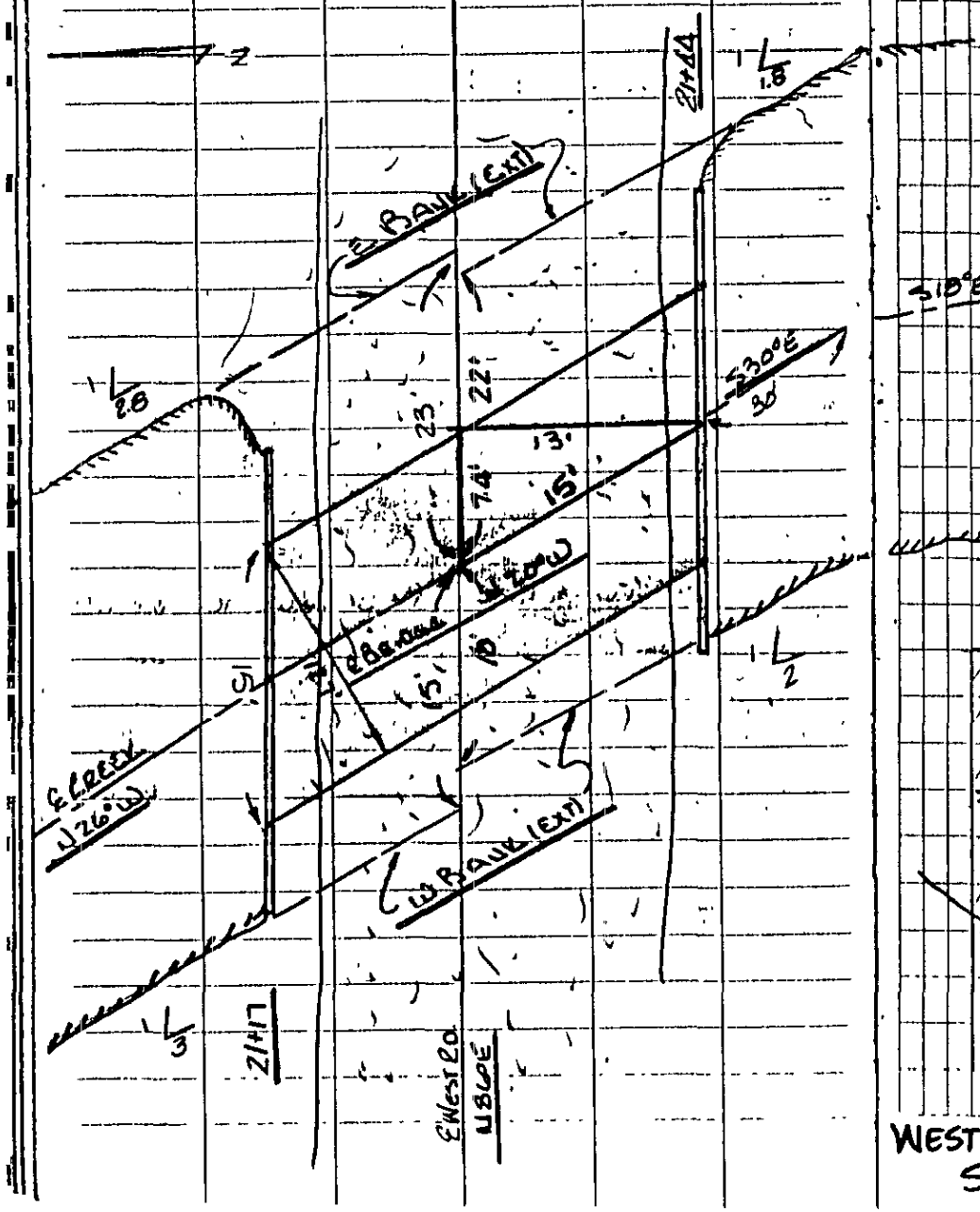
FIS 946

50

2-15-78 22 DWMN

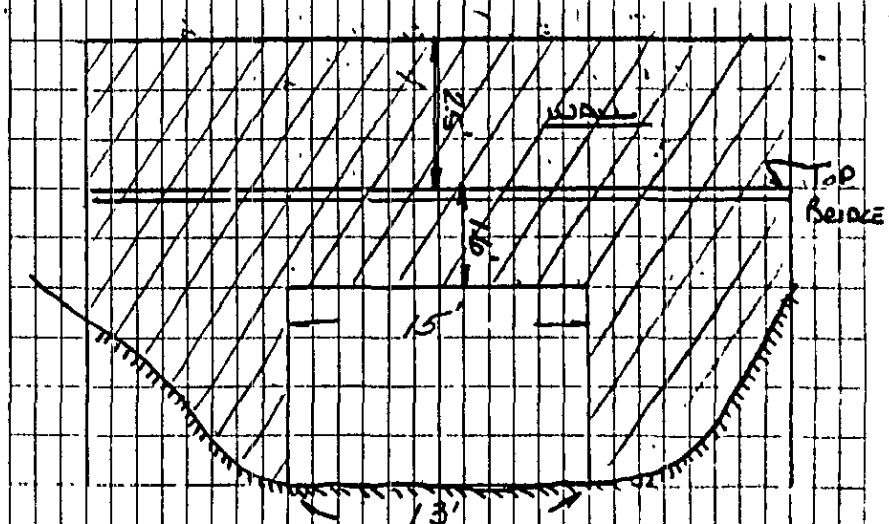
HUD 2013-07

BRIDGE DETAIL WEST RD & SMITH CREEK



ALL BEARINGS ARE MAGNETIC

UPSTREAM END FACING DOWNSTREAM (TYP)



WEST RD.
SMITH CREEK

HUD 2013-07

Bridge Location : BEECH-DALY @ Sect.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + ΣK, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: Skewed @ 45° ($\cos 45° = 0.7$)

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 10×3.7 = 37 WP = $2(10+3.7) = 27.4$

$R = A/wp = \frac{37}{27.4} = 1.35$ $R^{4/3} = 1.5$ $L = 47'$

n (composite) = $2(3.7)(0.015) + 2(10)(0.03) / 27.4 = 0.026$

$K_f = 29.1 \times (0.026)^2 \times 47 / 1.5 = 0.6$

K_e = WINGWALLS AT 30° TO 75° TO BARREL
ROUNDED EDGES = 0.20

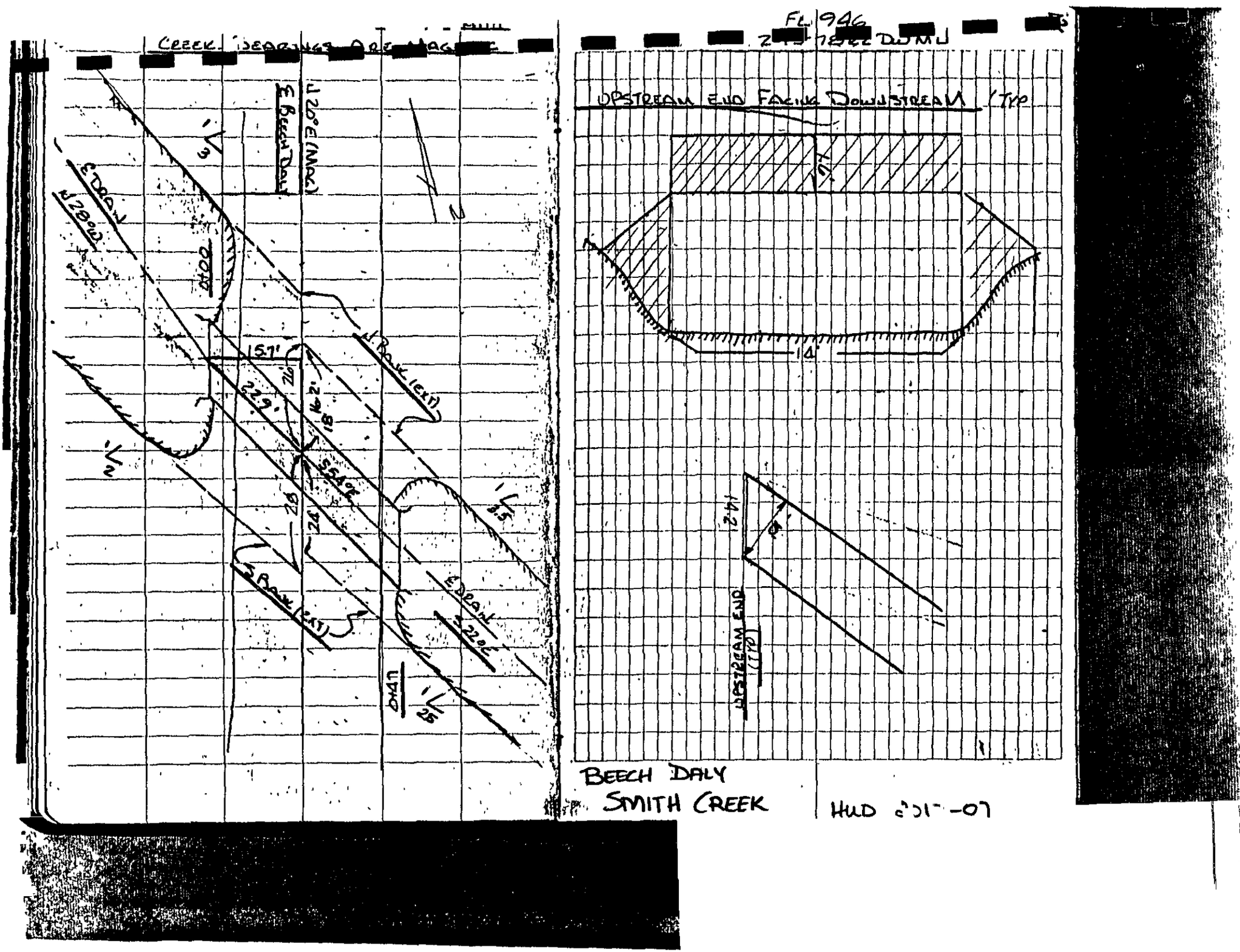
Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 45

(Kp = 0) if bridge has no intermediate piers

Kp = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.6 + 0.2 + 0 = 1.8
3. COFQ = Coefficient of discharge = 2.7 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 10.
6. BWP = total width of obstruction = 0. — field data
7. BAREA = bridge opening inc. piers = 37.
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 604.07
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 604.23
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
SMITH CREEK Brownstown Twp.	DATE	DATE	___ OF ___	HUD • 2013 • 07


FL 946
UPSTREAM END FACING DOWNSTREAM (TYP
9'
14'
14.2'
4'
UPSTREAM END
(TYP)
BEECH DALY
SMITH CREEK
HWD 2017-07

BROWNSTOWN TOWNSHIP

SMITH CREEK

EXHIBIT 6

COMPUTER PRINTOUTS

HEC-2 BACKWATER ANALYSIS

(See Separate Folder)

BROWNSTOWN TOWNSHIP

SMITH CREEK

EXHIBIT 7

STREAM PROFILE

BROWNSTOWN TOWNSHIP

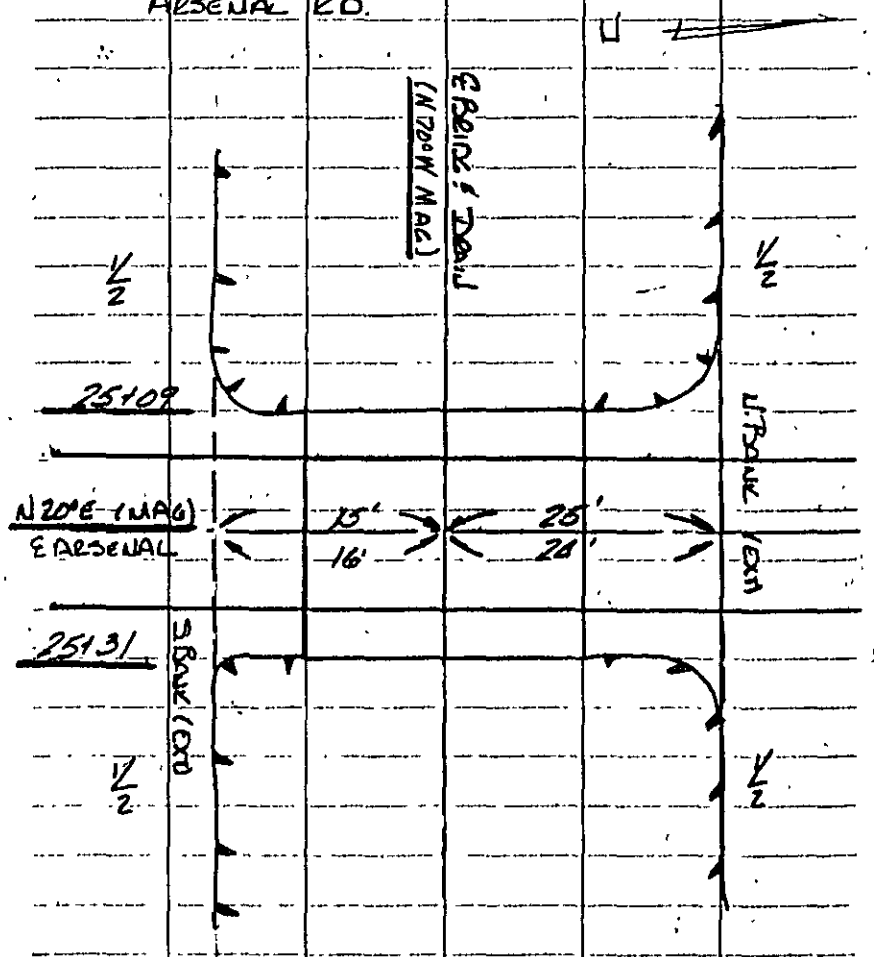
SILVER CREEK

EXHIBIT 8

BRIDGE SKETCHES AND NOTES

HUD 2013-05

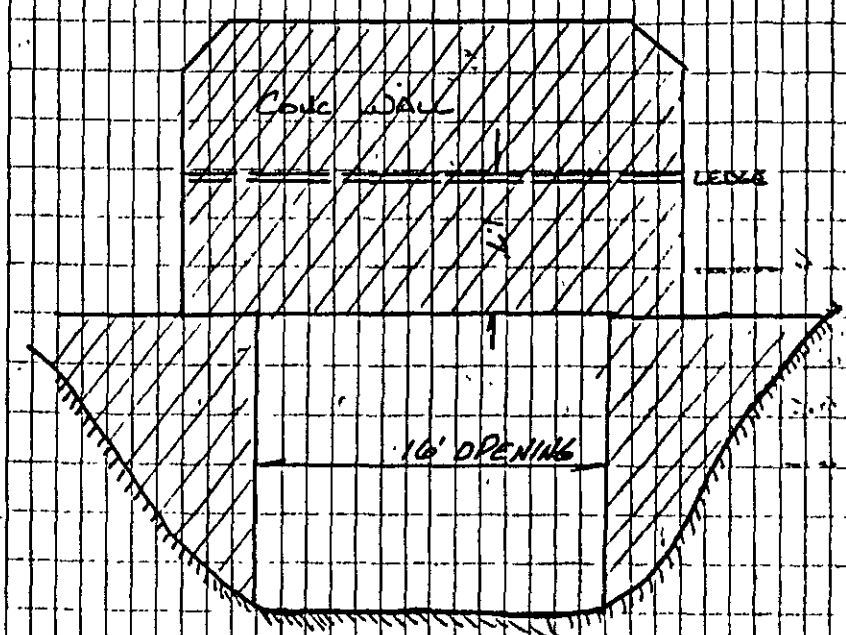
DETAIL BRIDGE @ SILVER CREEK & ARSENAL RD.



FB 946
2-1-78 RZ DWMN

23

UPSTREAM END FACING DOWNSTREAM

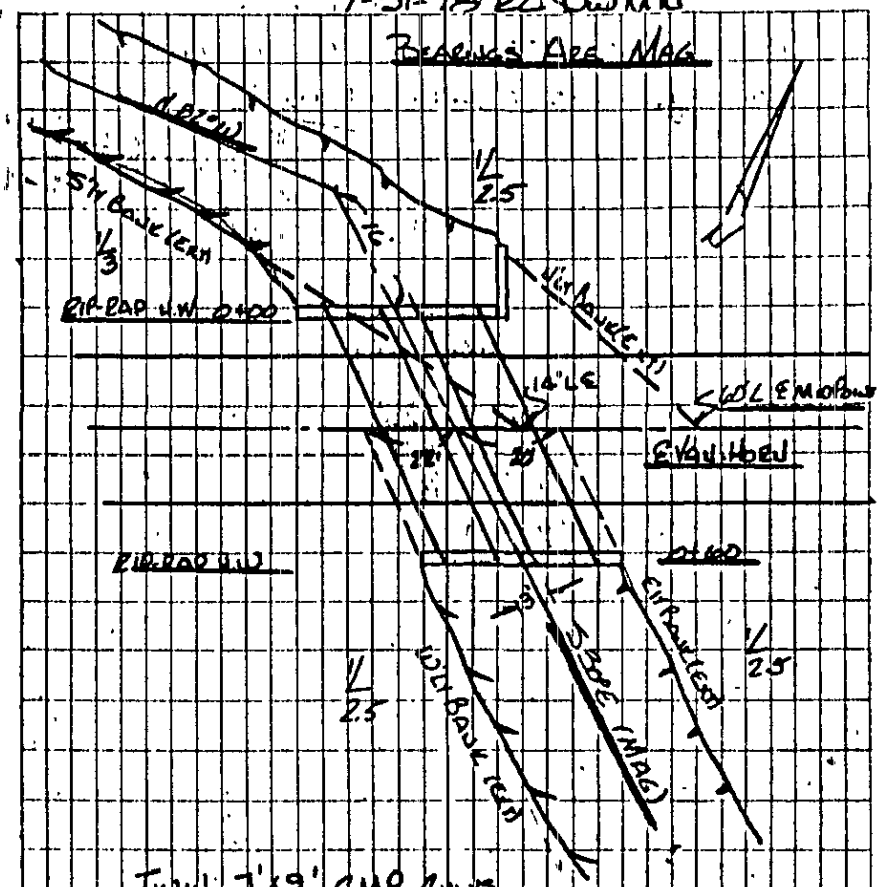


ARSENAL RD.
SILVER CREEK

HUD 2013-05

BRIDGE SEC. SILVER CREEK &
VAN HORN RD. R&L OFFSETS FROM MID POINT
TWIN CULV'S FACING DOWNSTREAM.

FB946
1-31-78 RL DWMN
BEARINGS ARE MAG



TWIN 7'x9' CMP CULVS.
60L = ℄ L CULV
60R = ℄ R "

VAN HORN ROAD
SILVER CREEK HUD 2003-07

Civil Engineers • Land Surveyors
WORK SHEET

Bridge Location: ARSENAL RD.
Bridge Losses - SB Card
Received 4-2-80

1. XK (Pier Shape Coefficient): _____
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

HEC-2 manual

Description of Bridge:
$K_f = 29.1\, n^2 L / R^{4/3}$ for English units
Area = 72 = _____ K_p = 40.6
$R = A/wp = \frac{72}{40.6} = 1.77$ $R^{4/3} = 2.15$ $L = 22$
n (composite) = .03
$K_f = 29.1 \times (.03)^2 \times 22/2.15 = .27$

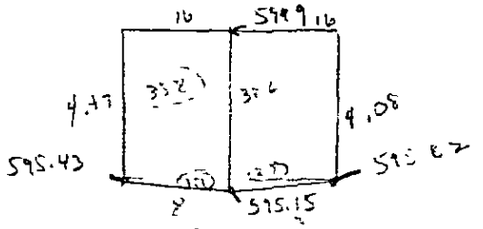
$K_e = .4$

Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 Pg 43

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has no intermediate piers

HEC-2 manual



2. XKOR = 1 + .4 + .27 + = 1.67
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 15.16
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening = 72
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 595.15
(0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 595.43
(0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
Brownstown Twp - Hydraulics Silver Creek	T Green		___ OF ___	PJC • 2913 • 07
	DATE 4-2-80	DATE		

BROWNSTOWN TOWNSHIP

SILVER CREEK

EXHIBIT 9

COMPUTER PRINTOUTS

HEC-2 BACKWATER ANALYSIS

(See Separate Folder)

BROWNSTOWN TOWNSHIP

SILVER CREEK

EXHIBIT 10

STREAM PROFILE

BROWNSTOWN TOWNSHIP

BROWNSTOWN CREEK

EXHIBIT 11

BRIDGE SKETCHES AND NOTES

Bridge Location : SB M-85 (FORT ST.) (SECT.)

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient): No PIERS 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : 12' x 6.5' Opening

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 12 x 6.5 = 78 SF WP = 2(12+6.5) = 37'

$R = A/WP$ = --- = 2.11 $R^{4/3}$ = 2.7 L = 45'

n (composite) = 13(0.015) + 24(0.03)/37 = 0.028

$K_f = 29.1 \times (0.028)^2 \times 45' / 2.7 = 0.38$

K_e = WINGWALLS PARALLEL (EXTENSION OF SIDES) = 0.1 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

($K_p = 0$) if bridge has no intermediate piers

$K_p = 0.05$ if bridge has [redacted] intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.30 + 0.7 + 0 = 2.08
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 11.4
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 78
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 577.34 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 577.34 (0 if equal to minimum elevation in previous x-sect.)

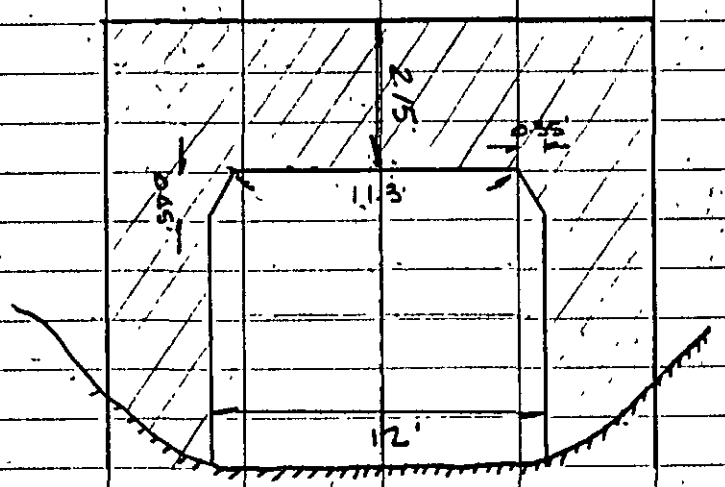
SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
BROWNSTOWN CREEK BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD • 2013 • 07

HUD 2013-05

BRIDGE DETAILS M-85 & BROWNSTOWN CREEK

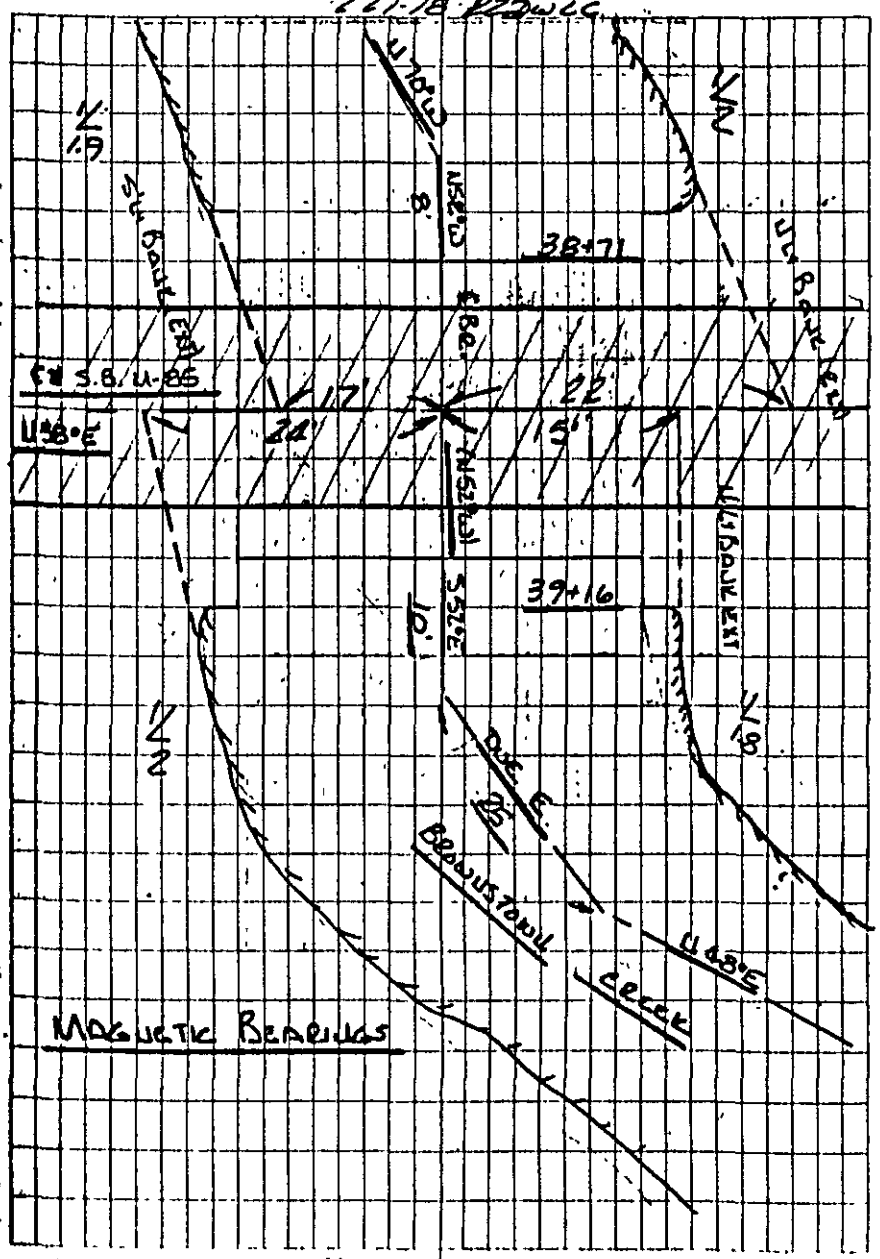
SOUTH BOUND M-85

UPSTREAM END FACING DOWNSTREAM (TYP)



FB948

227-78 R22WLC



SOUTHBOUND M-85
BROWNSTOWN CREEK

HUD 2013-07

Bridge Location : Allen. Rd.

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) : No. PIERS 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient

k_e = entrance loss coefficient

k_p = loss from intermediate piers

Description of Bridge : Skewed 41° cos = 0.76

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 17 x 5 = 85 SF. Wp = 2(17+5) = 44'

$R = A/wp = \frac{85}{44} = 1.93$ $R^{4/3} = 2.4$ $L = 55'$

n (composite) = 10(0.015) + 34(0.035)/44 = 0.03

$K_f = 29.1 \times (0.03)^2 \times 55' / 2.4 = 0.6$

K_e = WINGWALLS AT 30° to 75° to barrel
SQ. EDGE AT CROWN = 0.4 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has [redacted] intermediate piers — HEC-2 manual

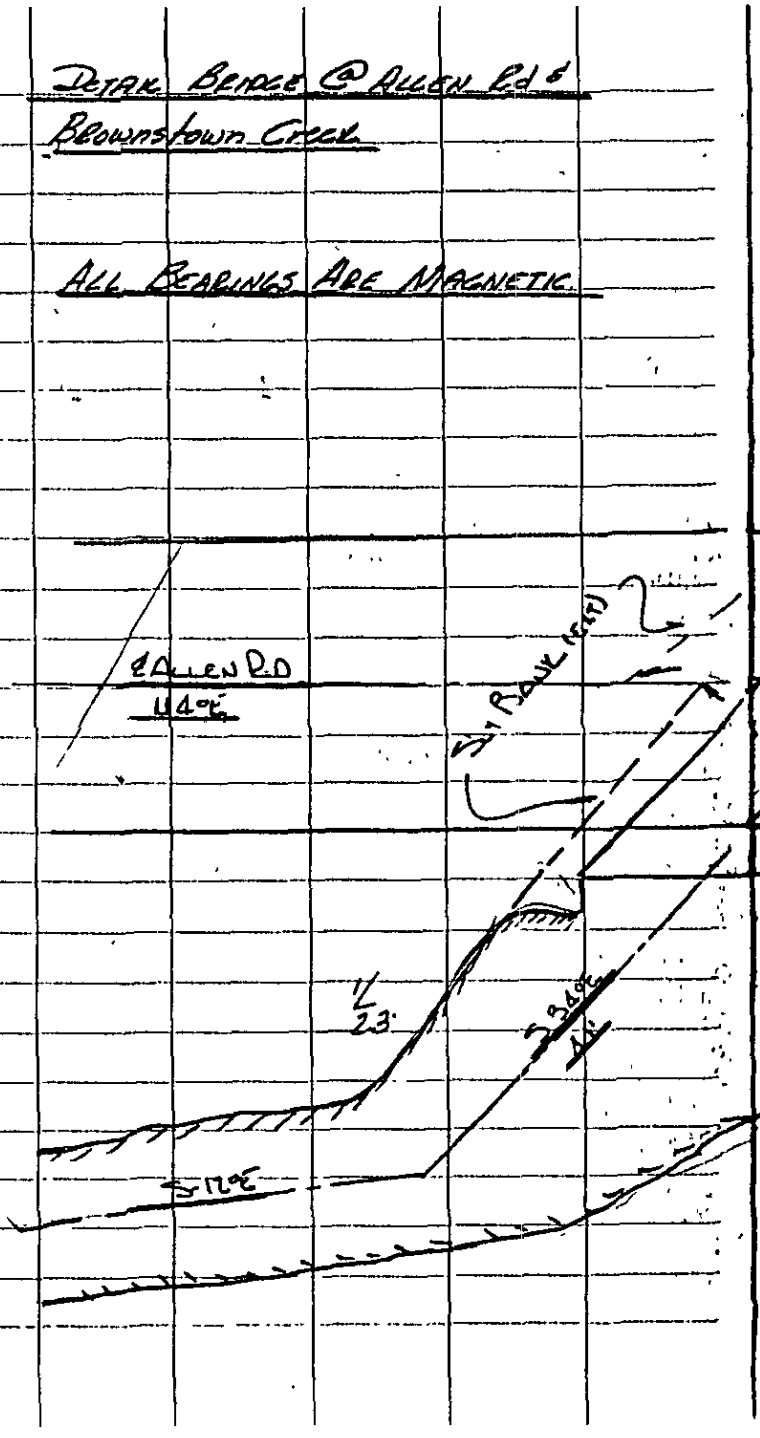
2. XKOR = 1 + 0.6 + 0.4 + 0 = 2.0
3. COFQ = Coefficient of discharge = 3 0. — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 16.1
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 84
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 578.6 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 578.6 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
BROWNSTOWN CREEK BROWNSTOWN TWP.	DATE	DATE	____ OF ____	HUD • 2013 • 07

HUD 2013-05

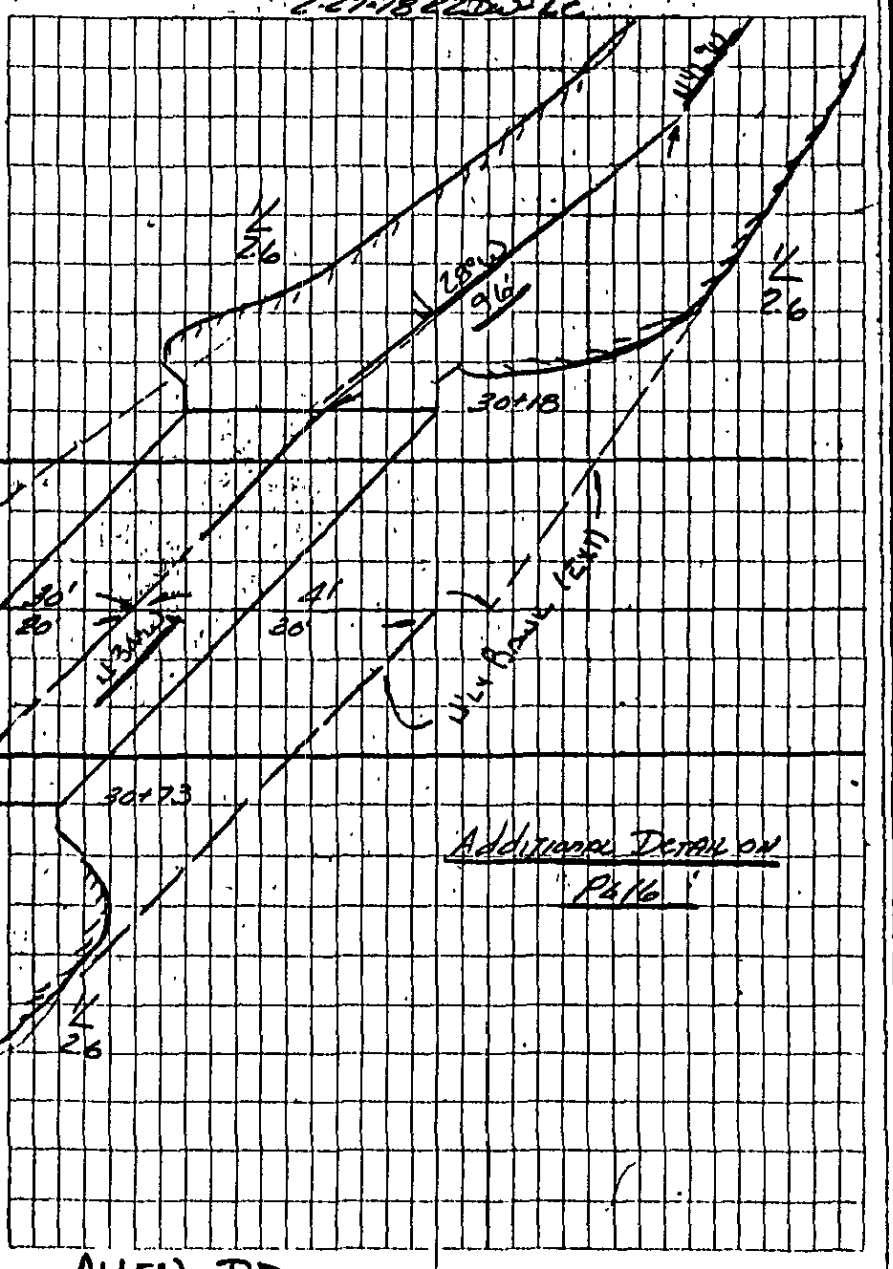
DETAIL BRIDGE @ ALLEN RD & BROWNSTOWN CREEK

ALL BEARINGS ARE MAGNETIC



FB948

2-27-78 22 DWJ LC



ALLEN RD.
BROWNSTOWN CREEK HUD 2013-05

HUD 2013-05

ADDITIONAL DETAIL ALLEN RD/

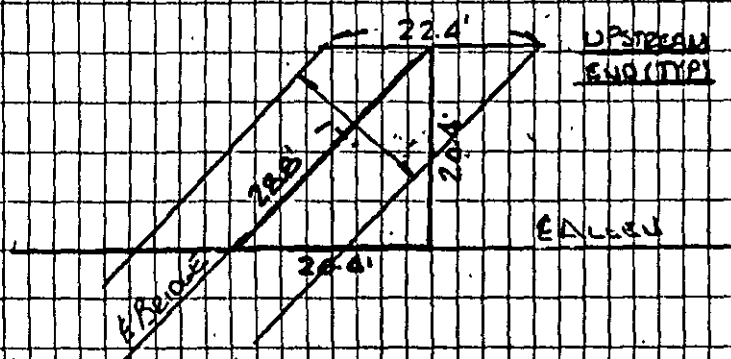
BROWNSTOWN CREEK BRIDGE

STA	+	H I	—	ELEV	
BM#1-36				587.24	
	392	591.16			
30+18 UPSTREAM END					
OUTSIDE TOP @ ℄			4.47	586.69	✓
Inside TOP @ ℄			7.37	583.79	✓
CREEK BOTTOM @ ℄			12.38	578.78	✓
30+73 DOWNSTREAM End					
OUTSIDE TOP @ ℄			4.48	586.68	✓
Inside " @ ℄			7.38	583.78	✓
CREEK BOTTOM @ ℄			12.60	578.56	✓
BMCK			3.92	587.24	587.24

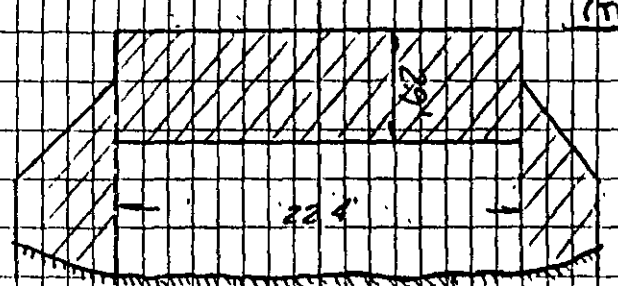
FB948

227-78 RZDWLC

CURRENT WORK DATUM



UPSTREAM END FACING DOWNSTREAM (TYP)



D.W.

ALLEN RD.

BROWNSTOWN CREEK

JLC

HUD 2013-07

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location : VREELAND RD. (SECT.)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient): No PIERS 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk , $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers
Description of Bridge : 7'x11' Conc. Culv. (Std. Size 82" x 128"
$k_f = 29.1 n^2 L / R^{4/3}$ for English units
Area = = 59.2 Wp = ~~28.3~~
$R = A/w_p = 66.4/28.3 = 2.35 R^{4/3} = 3.12$ L = 80'
n (composite) =
$k_f = 29.1 \times (0.015)^2 \times 80' / 3.12 = 0.17$

k_e = HEADWALL (SQUARE-EDGE) = 0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

k_p = 0 if bridge has no intermediate piers

k_p = 0.05 if bridge has intermediate piers — HEC-2 manual

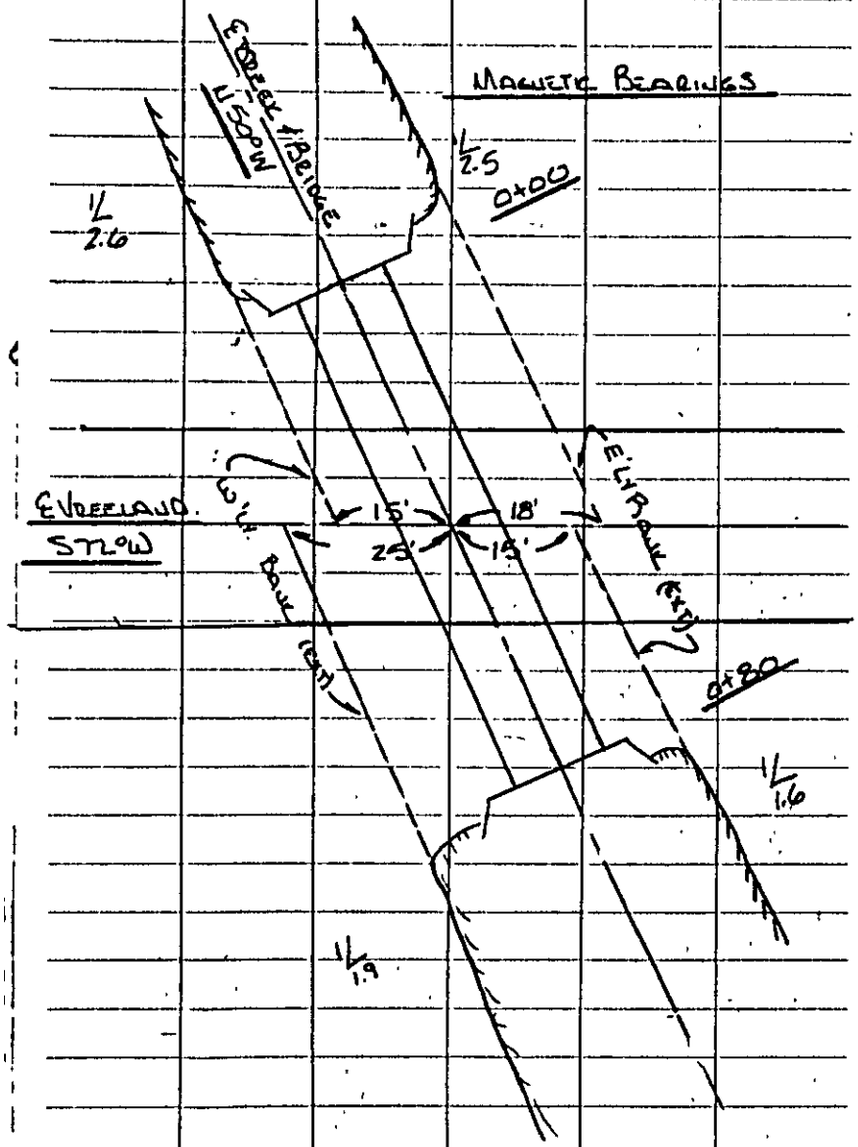
2. XKOR = 1 + 0.17 + 0.5 + 0 = 1.67
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 8.3
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 58
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 579.8
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 579.5
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
BROWNSTOWN CREEK BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD • 2013 • 07

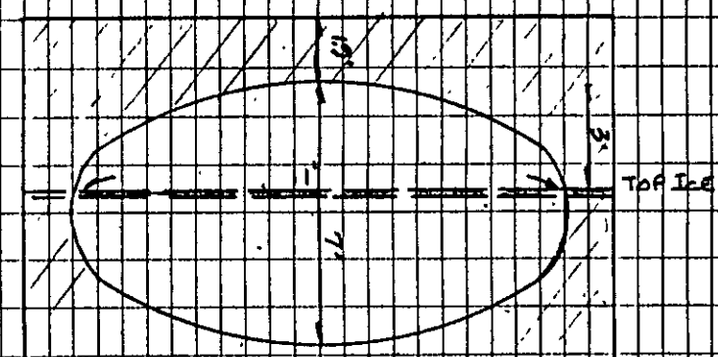
FB94[illegible]

2-20-78 RZ DW MN

BRIDGE DETAIL VREELAND & BROWNSTOWN CREEK



UPSTREAM END CONC CULV FACING DOWNSTREAM (TYP)



VREELAND ROAD
BROWNSTOWN CREEK HUD [illegible]-07

BROWNSTOWN TOWNSHIP

BROWNSTOWN CREEK

EXHIBIT 12

COMPUTER PRINTOUTS

HEC-2 BACKWATER ANALYSIS

(See Separate Folder)

BROWNSTOWN TOWNSHIP

BROWNSTOWN CREEK

EXHIBIT 13

STREAM PROFILE

BROWNSTOWN TOWNSHIP

MARSH CREEK

EXHIBIT 14

BRIDGE SKETCHES AND NOTES

Bridge Location: SB M-85

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 270 SF. WP ≈ 90'

$R = A/wp = 309/90 = 3.0$ $R^{4/3} = 4.3$ $L = 51'$

n (composite) = 0.03

$K_f = 29.1 \times (0.03)^2 \times 51 / 4.5 = 0.30$

$K_e = 0.2$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 43

($K_p = 0$) if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

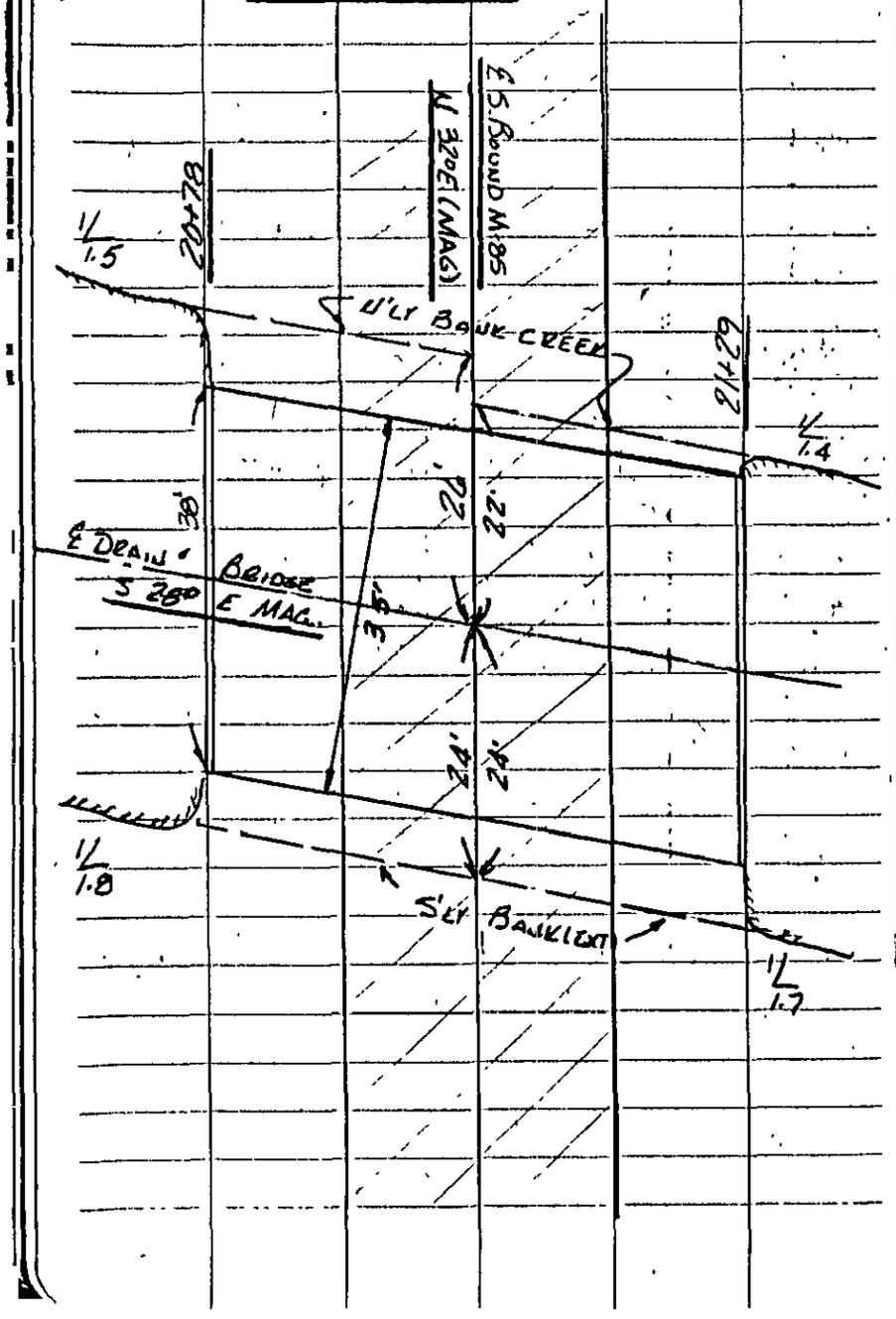
2. XKOR = 1 + 0.3 + 0.2 + 0 = 1.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 27.6'
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 270
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 573.35 (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 574.0 (0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
MARSH CREEK BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD-2013-07

[redacted]

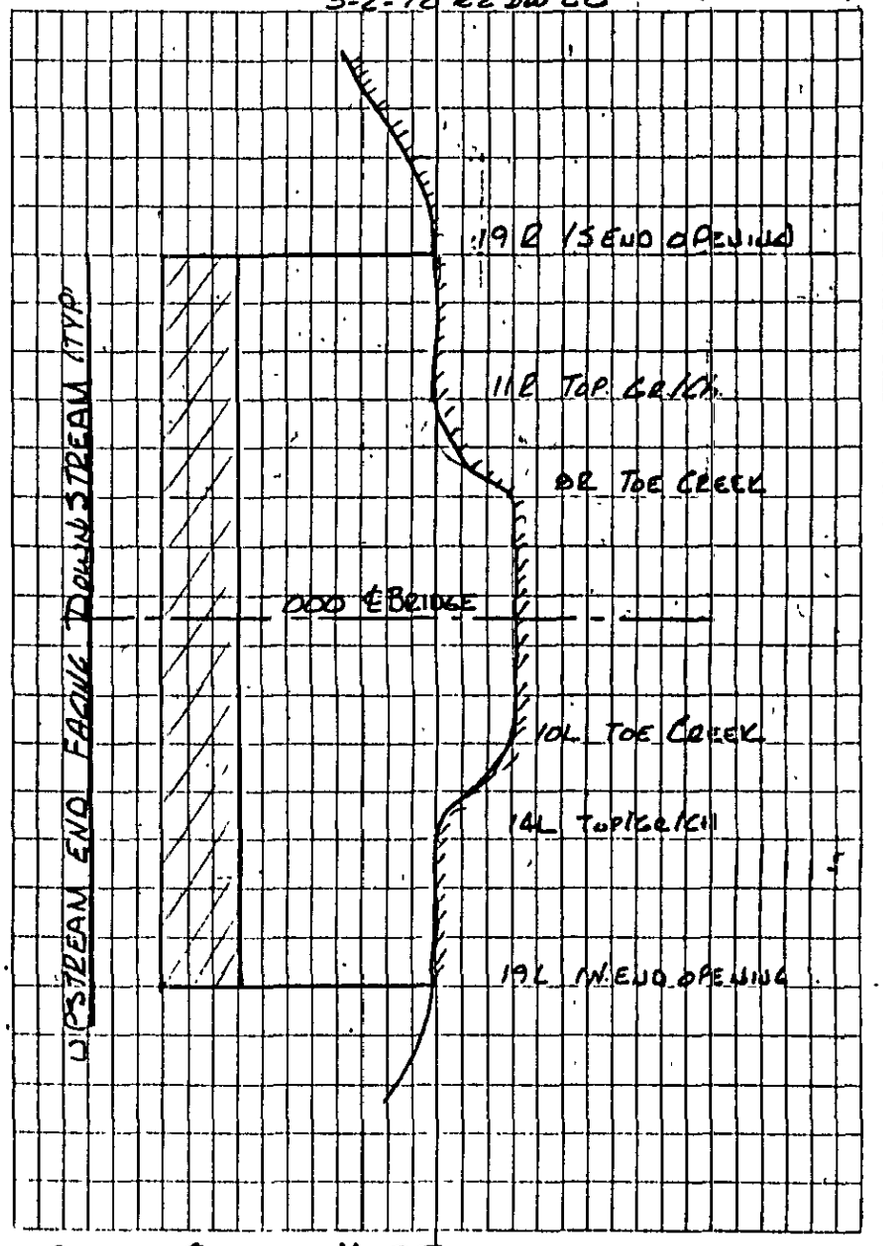
HUD 2013-05

BRIDGE DETAIL @ S. Bound M-85
& Marsh Creek



FB948'

3-2-78 R2DW LC



SOUTH BOUND M-85
MARSH CREEK

HUD 2013-07

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location : VREELAND RD.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) : 0000 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk , $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : one bridge added onto another bridge upstream and skewed - modeled as a rect. 2 [illegible] wide high

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units
Area = of arched portion = 200 S.F. W_p = ~ 62 SF
$R = A/W_p = \frac{200}{62} = 3.2$ $R^{4/3} = 4.7$ $L = 47'$
n (composite) = [illegible] (0.05)(22)(0.03)/62) = 0.029
$K_f = 29.1 \times (0.029)^2 \times 47' / 4.7 = 0.24$

K_e = HEADWALL Parallel to embankment (no wingwalls) 0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49
add 0.2 for transition in middle of bridge
K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has [illegible] intermediate piers — HEC-2 manual

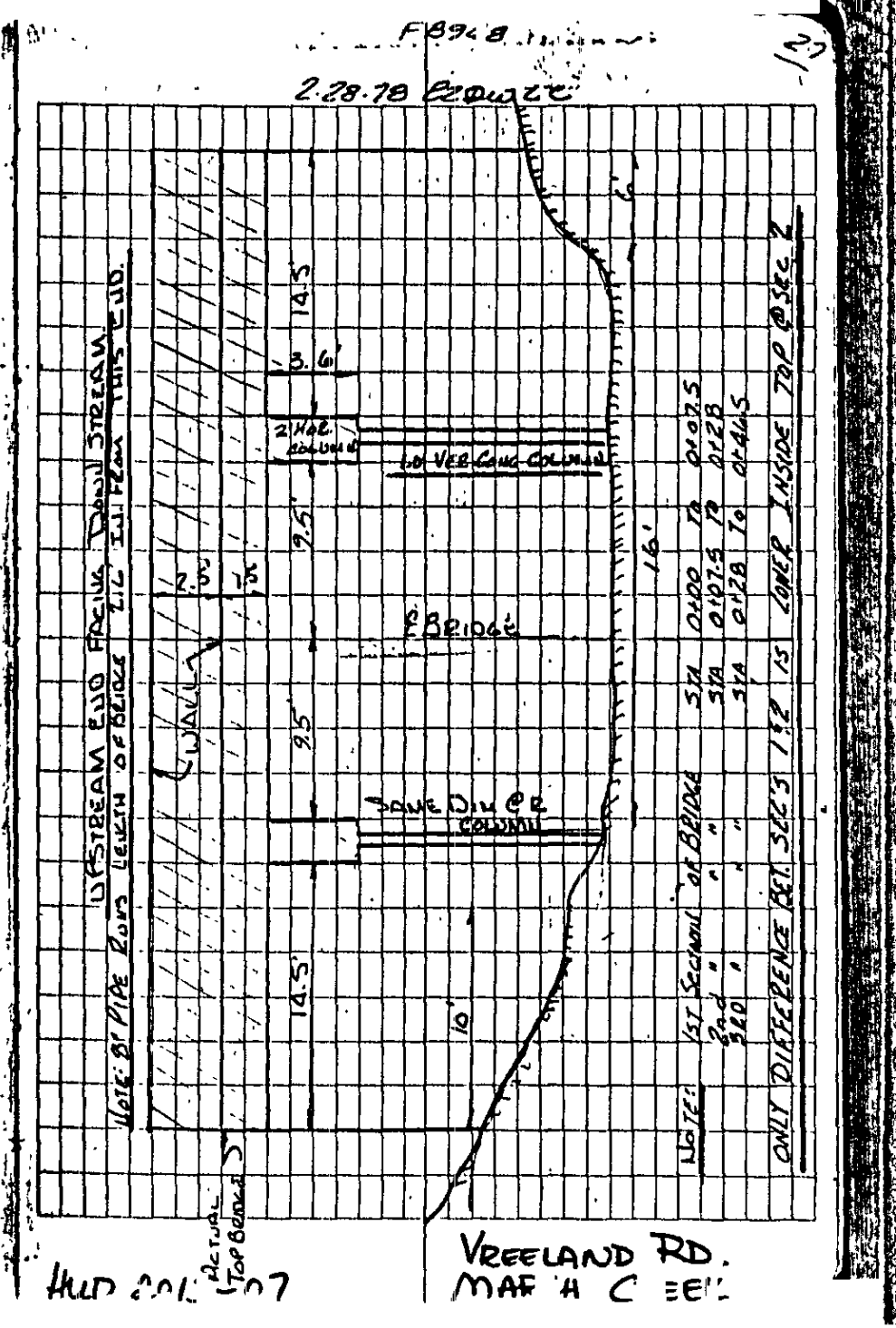
2. XKOR = 1 + 0.24 + 0.7 + = 1.94
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 22
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 200.
8. SS = side slope = 0.0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 574.68
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 574.68
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
MARSH CREEK BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD • 2013 • 07

HUD 2013-05

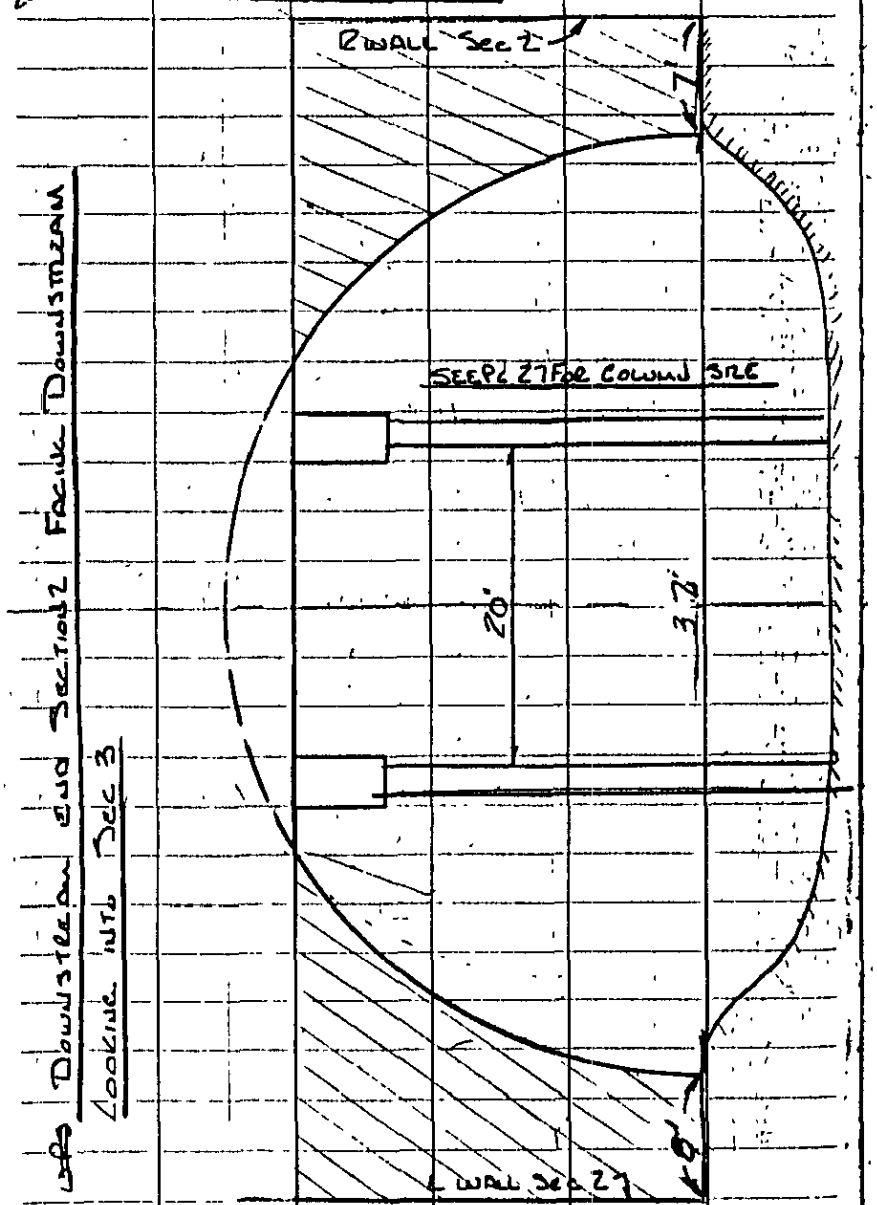
Bridge Detail Hoesm Creek & Vreeland Bridge

SEE WTA WORKSHEET



HUD 201305

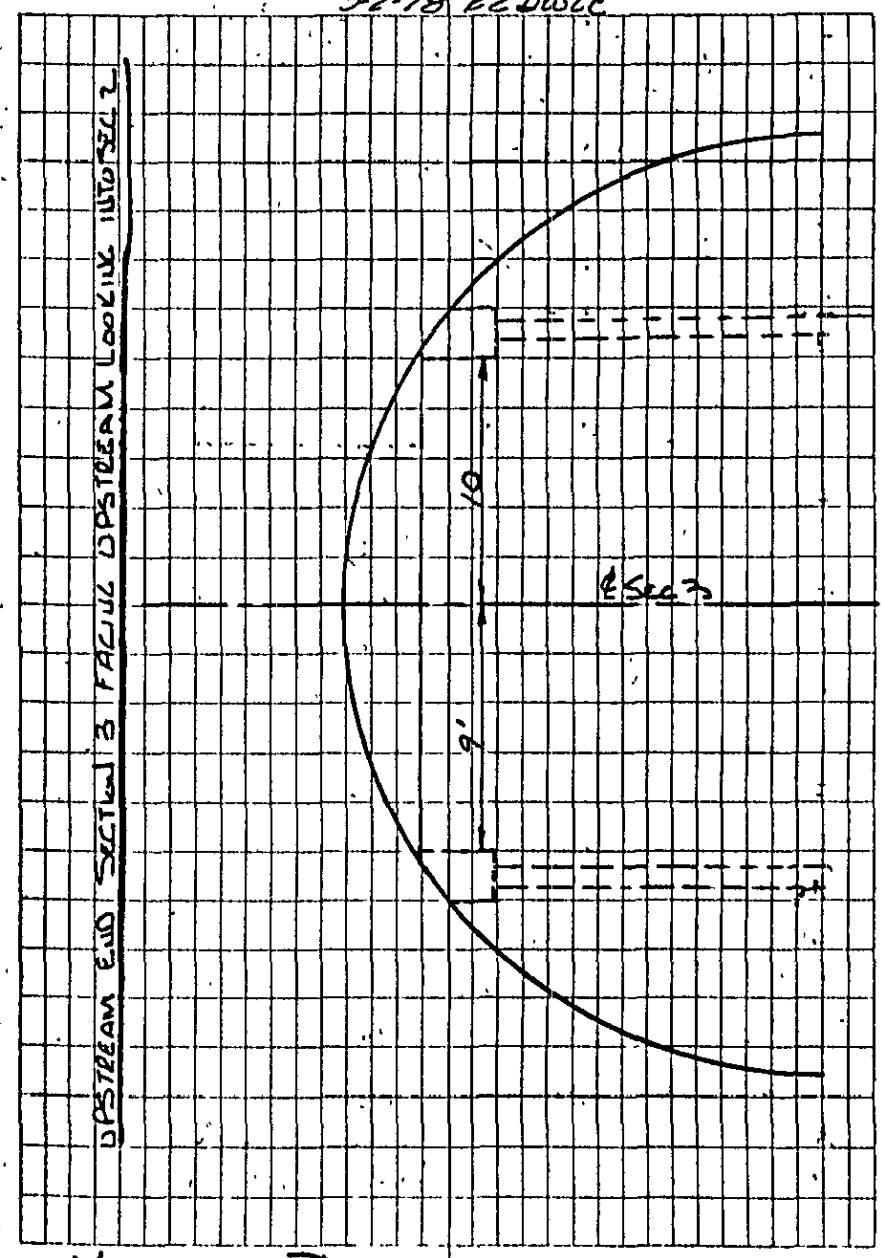
℄ RIDGE Section Vreeland ℄
MARSH Creek Cont



DOWNSTREAM END SECTION 2 FACING DOWNSTREAM
LOOKING INTO Sec 3

FIG 48

3-2-78 R2DWLC



VREELAND RD.
MARSH CREEK

HUD 201[illegible]-07

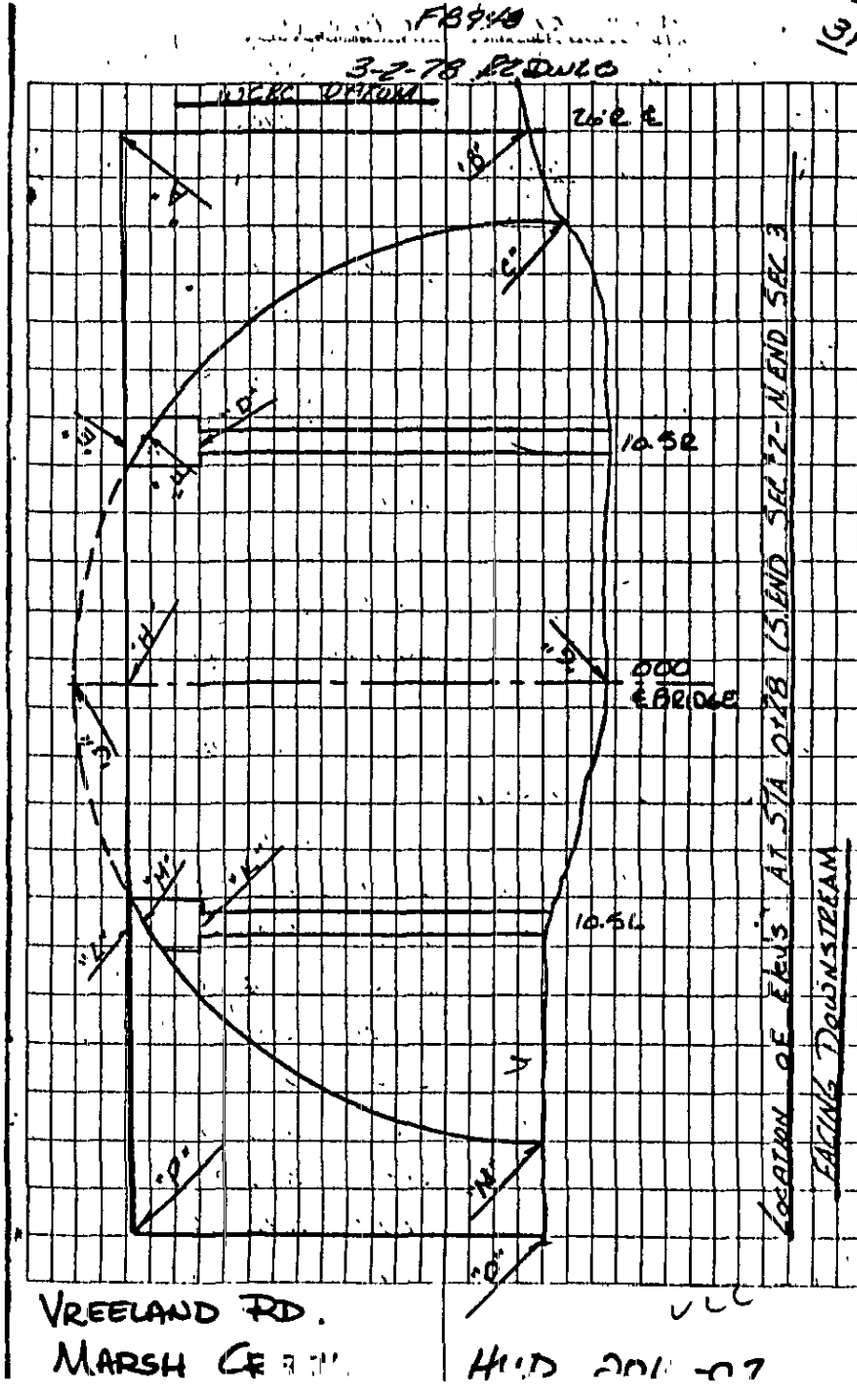
HUD 2013-05

ELEV'S VREELAND RD BRIDGE

At STA 0+28.

STA	+	HI	−	Elev.	
		581.03			
"A"			+1.96	582.99	✓
"B"			2.52	578.51	✓
"C"			5.90	575.13	✓
"D"			0.77	580.26	✓
"E"			+2.01	583.04	✓
"F"			+0.91	581.94	✓
"G"			6.35	574.68	✓
"H"			+1.94	582.97	✓
"J"			+2.67	583.70	✓
"K"			0.61	580.42	✓
T.P.			3.80	577.23	✓
	3.36	580.59			
"L"			+2.53	583.12	✓
"M"			+1.28	581.87	✓
"N"			1.26	579.33	✓
"O"			1.15	579.44	✓
"P"			+2.52	582.11	✓
DOWNSTREAM END BRIDGE 0+46.5					
18.5 L (DRAIN)			3.93	576.66	✓
9 L Inside Top Bridge			+1.71	582.30	
0 " " "			+3.09	583.68	✓
0 - ℄ Creek			6.15	574.44	✓

CONT ON Pg 32



BROWNSTOWN TOWNSHIP

MARSH CREEK

EXHIBIT 16

STREAM PROFILE

BROWNSTOWN TOWNSHIP

BLAKELY DRAIN

EXHIBIT 17

BRIDGE SKETCHES AND NOTES

FORM 25 0
(313) 291-5400
Wade Trim & Associates, Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

WORK SHEET

Bridge Location: KING RD. (Sect. 2640)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers
Description of Bridge: SKEWED BRIDGE $L = 29.8°$ cos = 0.87
$K_f = 29.1\, n^2 L / R^{4/3}$ for English units
Area 6.0 x 29.5' = 178 WP = 73'
$R = A/wp = \frac{177.5}{73} = 2.43$ $R^{4/3} = 3.3$. $L = 35'$
n (composite) = 0.03
$K_f = 29.1 \times (0.03)^2 \times 35 / 3.3 = 0.3$

$K_e = 0.2$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

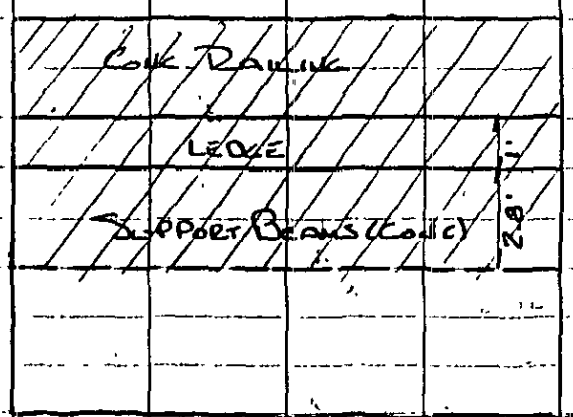
$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.3 + 0.2 + 0 = 1.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 26.1'
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 178.
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 582.98 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 583.23 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TOWNSHIP	AM		___ OF ___	HUD • 2013 • 07
	DATE	DATE		

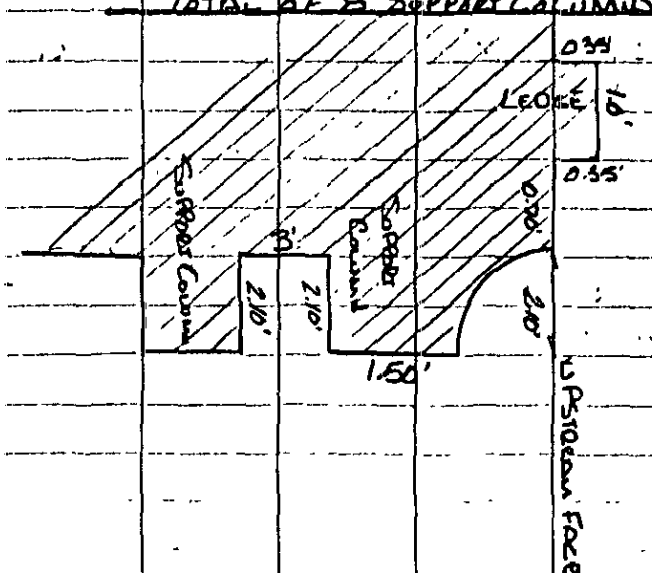
HWD 2013-05

BRIDGE DETAIL KING RD & BLAKELY DRAIN

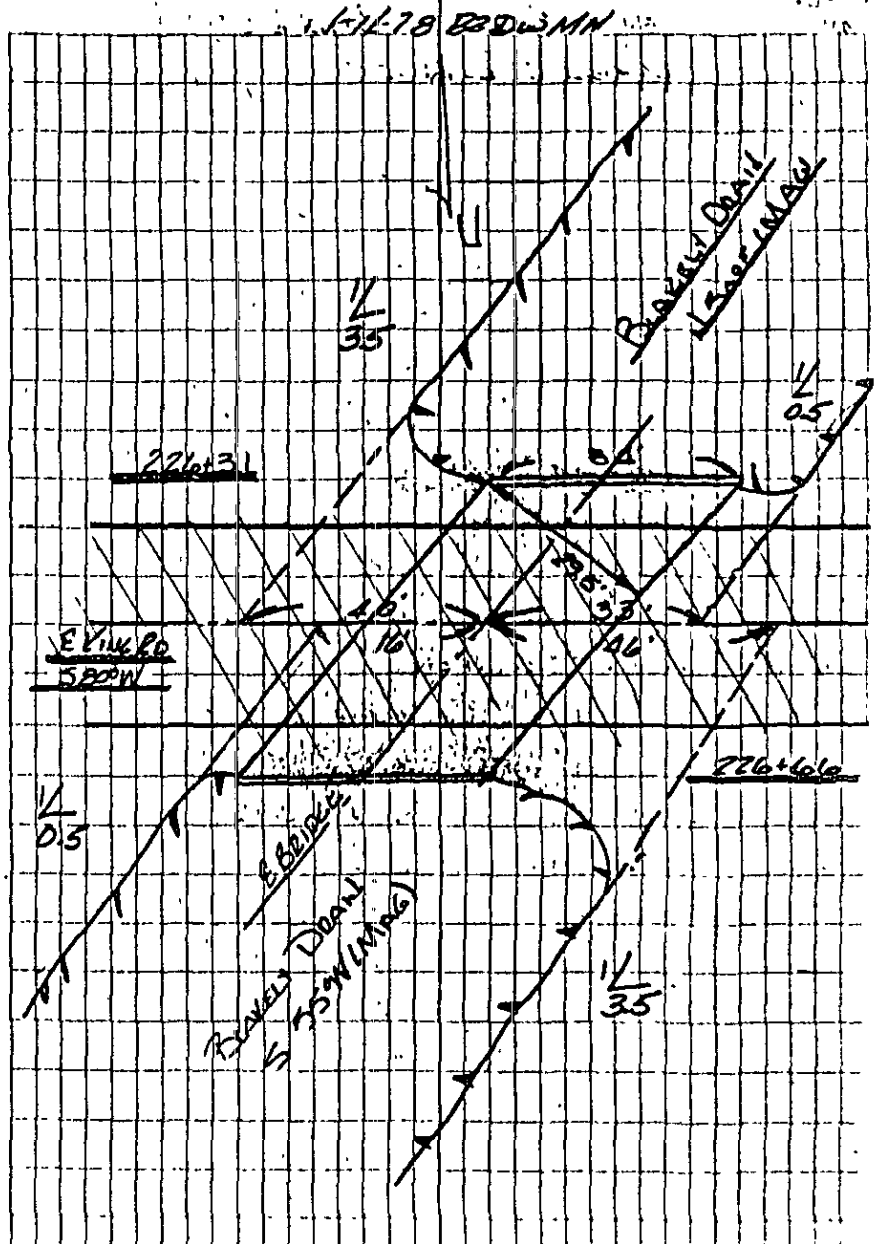


SIDE VIEW (LOG SUPPORT COLUMNS (TYP)

TOTAL OF 8 SUPPORT COLUMNS



FB946



KING ROAD

[illegible] HWD 2013-07

done

FORM 25-0
(313) 291-5400
Wade Trim & Associates Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

WORK SHEET

Bridge Location: SIBLEY RD. (Sect. 8948)
Bridge Losses - SB Cat'd

REFERENCE

1. XK (Pier Shape Coefficient) No Piers = 0 — HEC-2 Manual
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers
Description of Bridge: U/S END = 15.3' wide
$K_f = 29.1 n^2 L / R^{4/3}$ for English units
Area = 15.3 x 8.2 = 125.5 Wp = 47'
$R = A/wp = \frac{125.5}{47} = 2.67$ $R^{4/3} = 3.69$ $L = 38'$
n (composite) = 0.025
$K_f = 29.1 \times (0.025)^2 \times 38 / 3.69 = 0.2$
K_e: Wingwalls at 30° to 75° to barrel
Square edged at crown = 0.4 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

(Kp = 0) if bridge has no intermediate piers

Kp = 0.05 if bridge has intermediate piers — HEC-2 manual

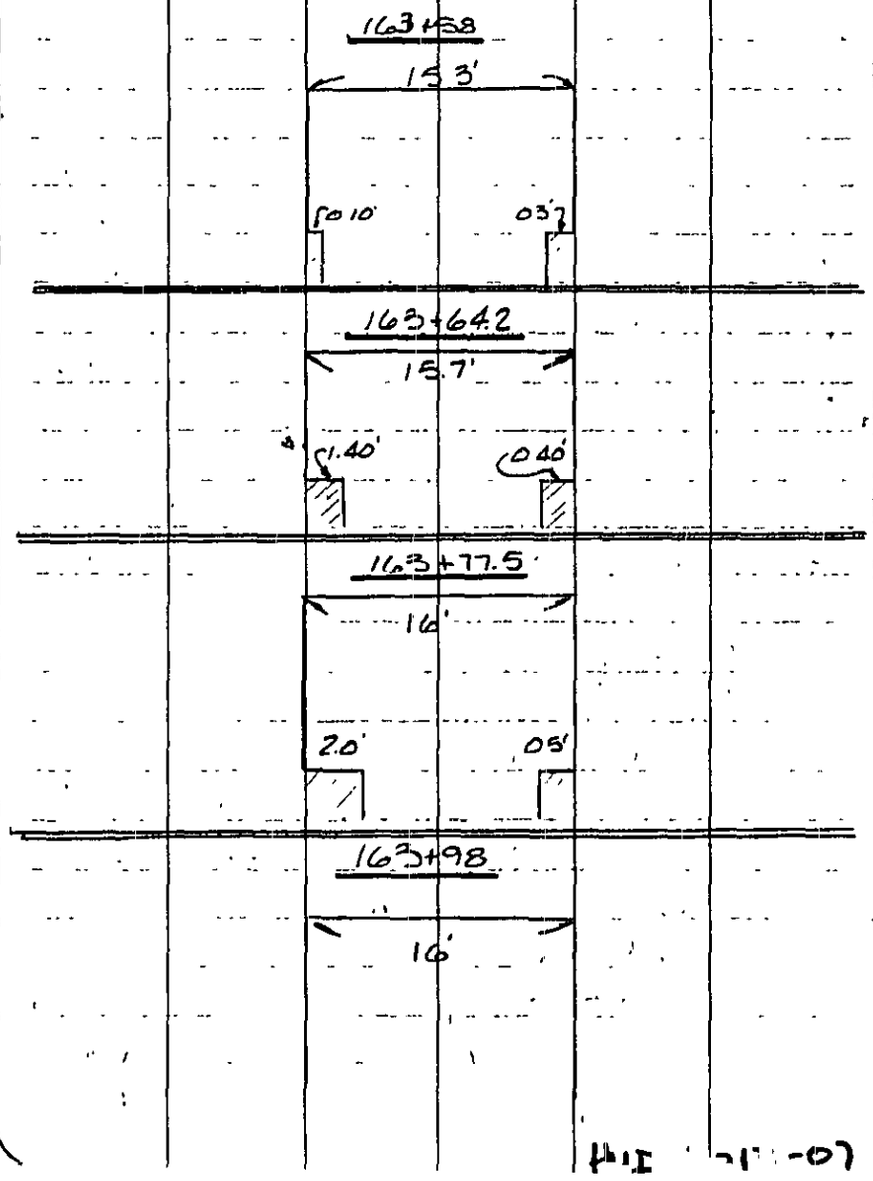
2. XKOR = 1 + 0.2 + 0.4 + 0.0 = 1.6
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 15.3
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 125.5
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 586.91
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 586.46
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner	Project	Suffix
BLAKELY DRAIN BROWNSTOWN TOWNSHIP	AM		___ OF ___	HWD	2013	07
	DATE	DATE				

HUD 2013-05

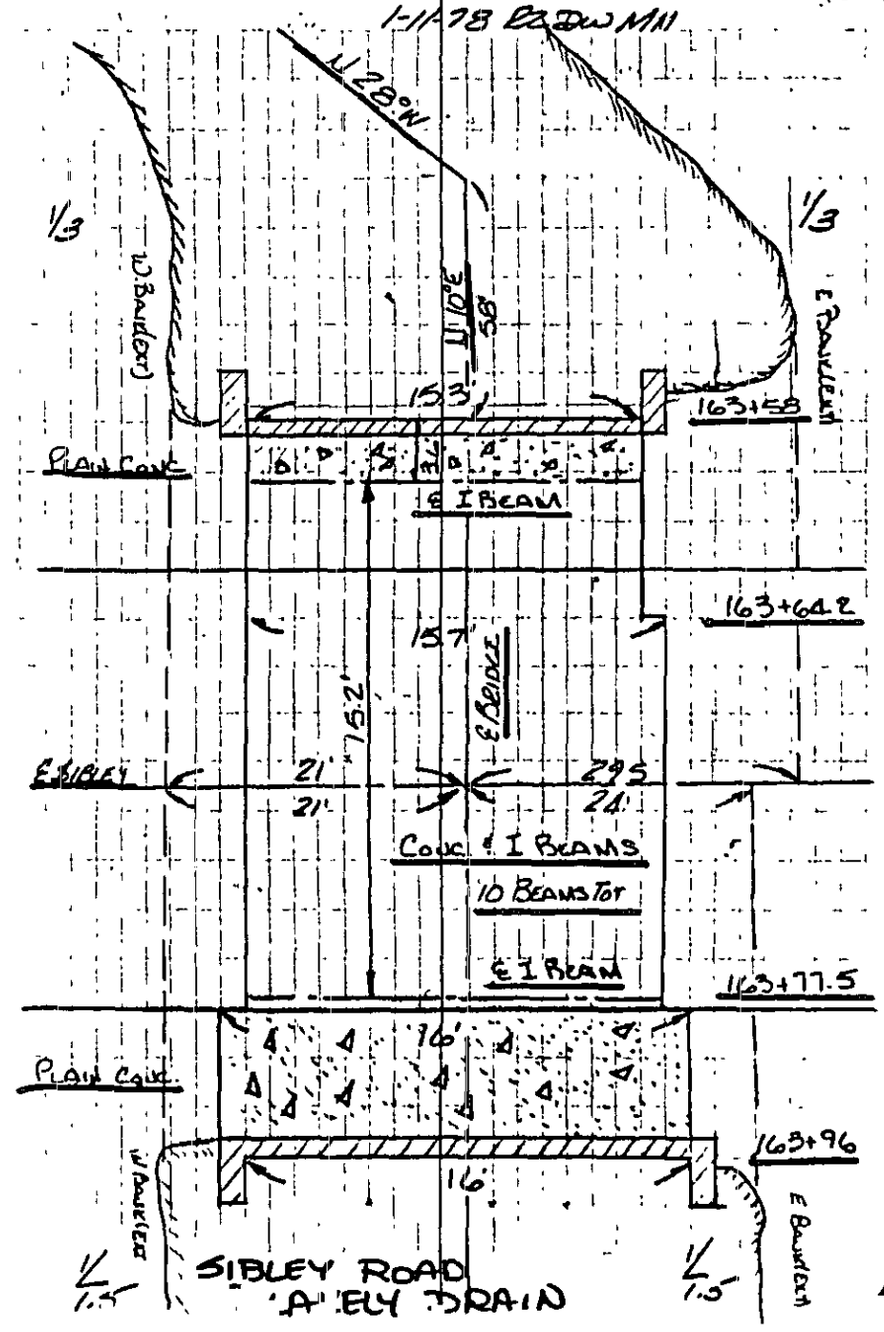
BRIDGE DETAIL SIBLEY RD & BLAKELY DRAIN (BEARING ARE MAGNETIC

SIDEVIEWS FACING DOWNSTREAM.



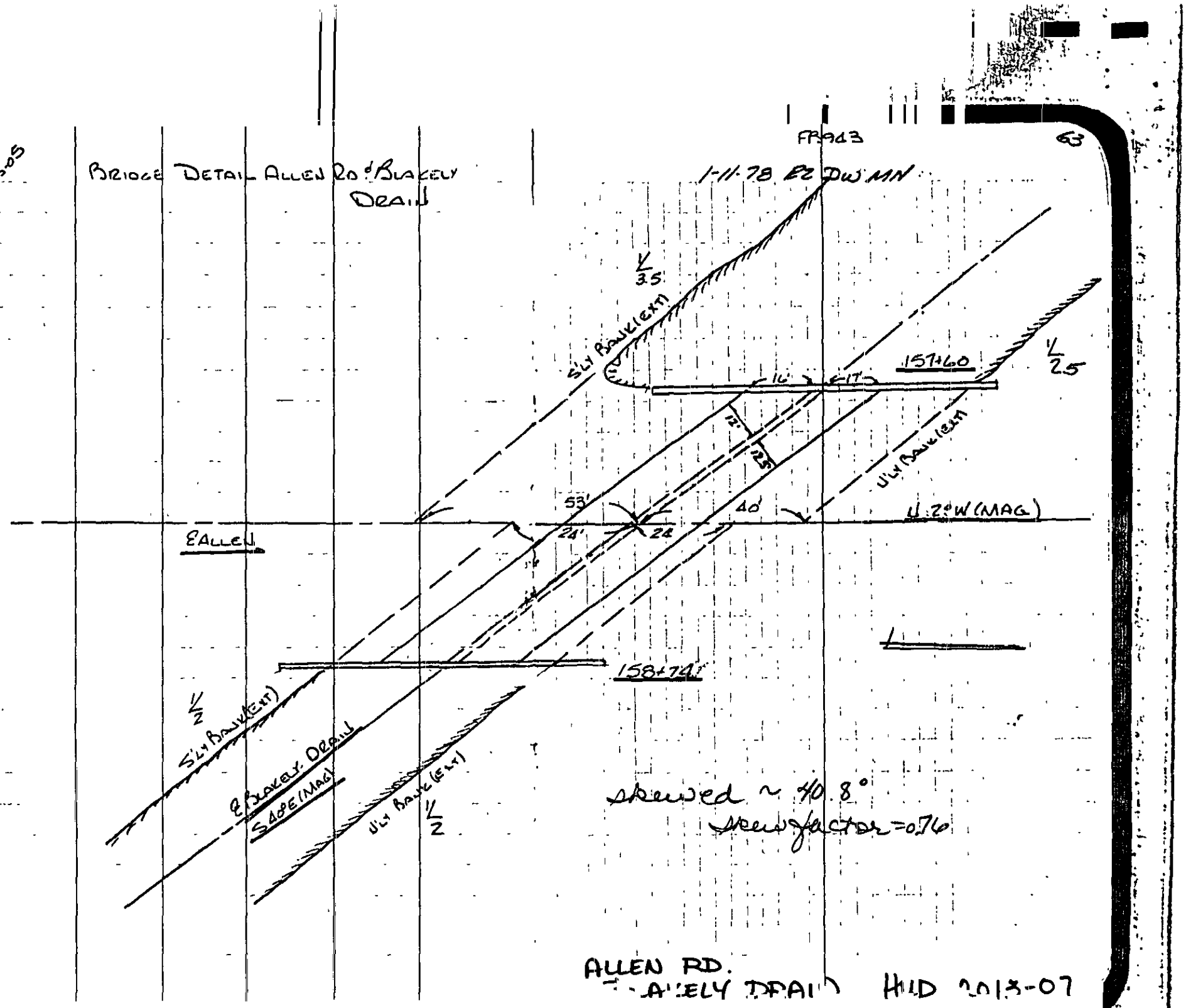
FB943

1-11-78 RR DW MM



HUD 2013-05

BRIDGE DETAIL ALLEN RD & BLAKELY DRAIN



ALLEN RD.
BLAKELY DRAIN HUD 2013-07

HUD 2013-05

BRIDGE DETAIL BLAKELY DRAIN
& ALLEN Rd

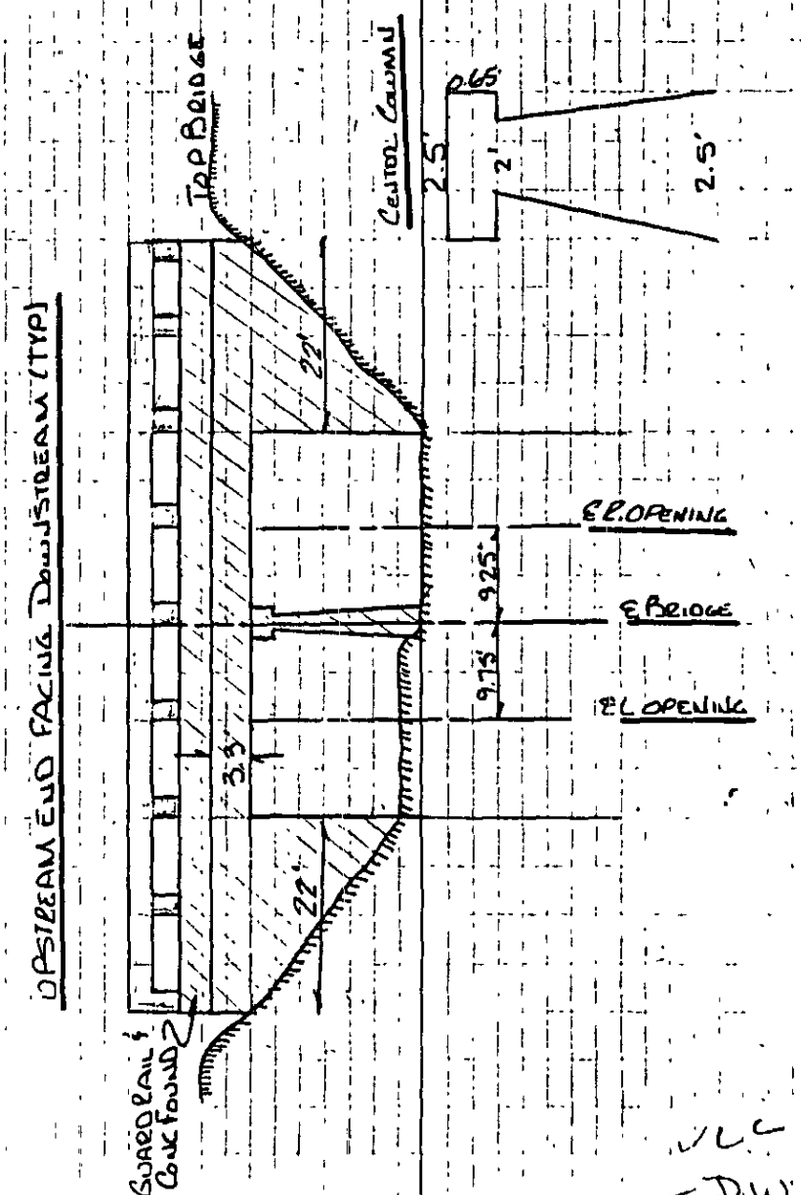
BM: 597.73 R/R SPIKE E/S DE POLE W/SIDE
ALLEN RD @ N. BANK DRAIN

Sta	+	HI	−	elev
BM			597.73	
	5.19	602.92		
157+60 UPSTREAM END				
9.75L ℄ LEFT OPENING				
INSIDE TOP BRIDGE			8.73	594.19
OUTSIDE " "			5.43	597.49
℄ DRAIN BOTTOM			14.57	588.35
9.25R ℄ RIGHT OPENING				
INSIDE TOP BRIDGE			8.75	594.17
OUTSID " "			5.45	597.47
℄ DRAIN BOTTOM			16.68	586.24
158+74 DOWNSTREAM END				
9.75L ℄ L OPENING				
INSIDE TOP BRIDGE			8.78	594.14
OUTSIDE " "			5.48	597.44
℄ DRAIN BOTTOM			14.34	588.58
9.25R ℄ R. OPENING				
INSIDE TOP BRIDGE			8.78	594.14
OUTSIDE " "			5.48	597.44
DRAIN BOTTOM			16.00	586.92
BMCK			5.20	597.72	597.73

See ABOVE

FB 943

1-11-78 R2 DWMN



VLC
-DW

BLAKELY DRAIN
ALLEN RD.

HUD 2013-05

done

Wade Trim & Associates Inc.
Civil Engineers • Land Surveyors
FORM 25 0
(313) 291-5400
WORK SHEET
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location : TRIPLE CONC. CULVERT (SECT.)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) = 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: 3 8.5' CONC. CULVERTS

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area $\frac{(8.5)^2}{2} \times \pi$ = 56.7 WP = 26.7

$R = A/wp = 56.7/26.7 = 2.12$ $R^{4/3} = 2.72$ $L = 24$

n (composite) = 0.013

$K_f = 29.1 \times (0.013)^2 \times 24 / 2.72 = 0.04$

K_e: Socket end 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.04 + 0.2 + 0.00 = use 1.5
3. COFQ = Coefficient of discharge = 2.6 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 15.6'
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening ~~transitional~~ = 133'
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 587.6 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 587.6 (0 if equal to minimum elevation in previous x-sect.)

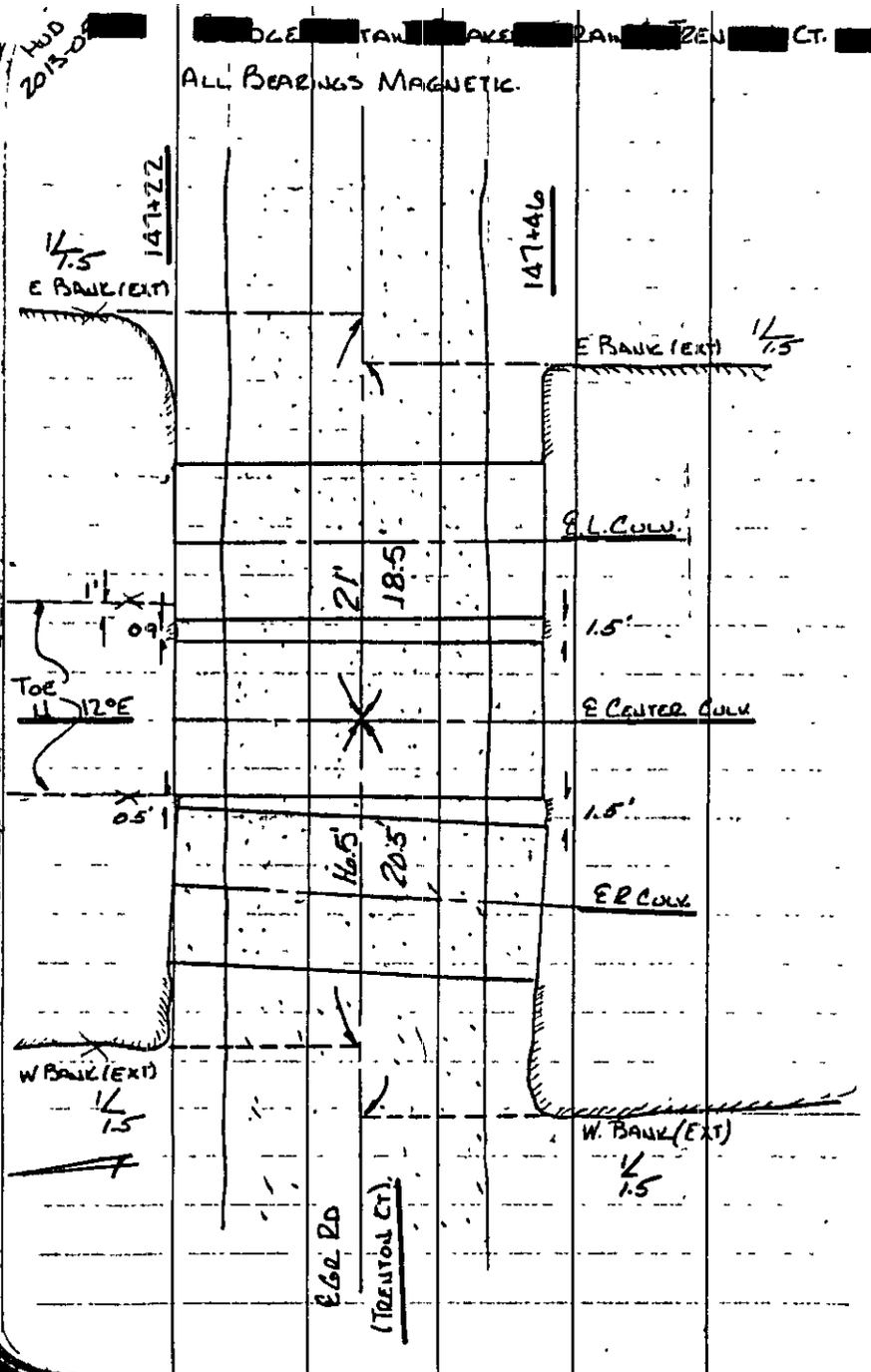
use 0

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN Township	AM		___ OF ___	HWD-2013-07
	DATE	DATE		

HUD 2013-07

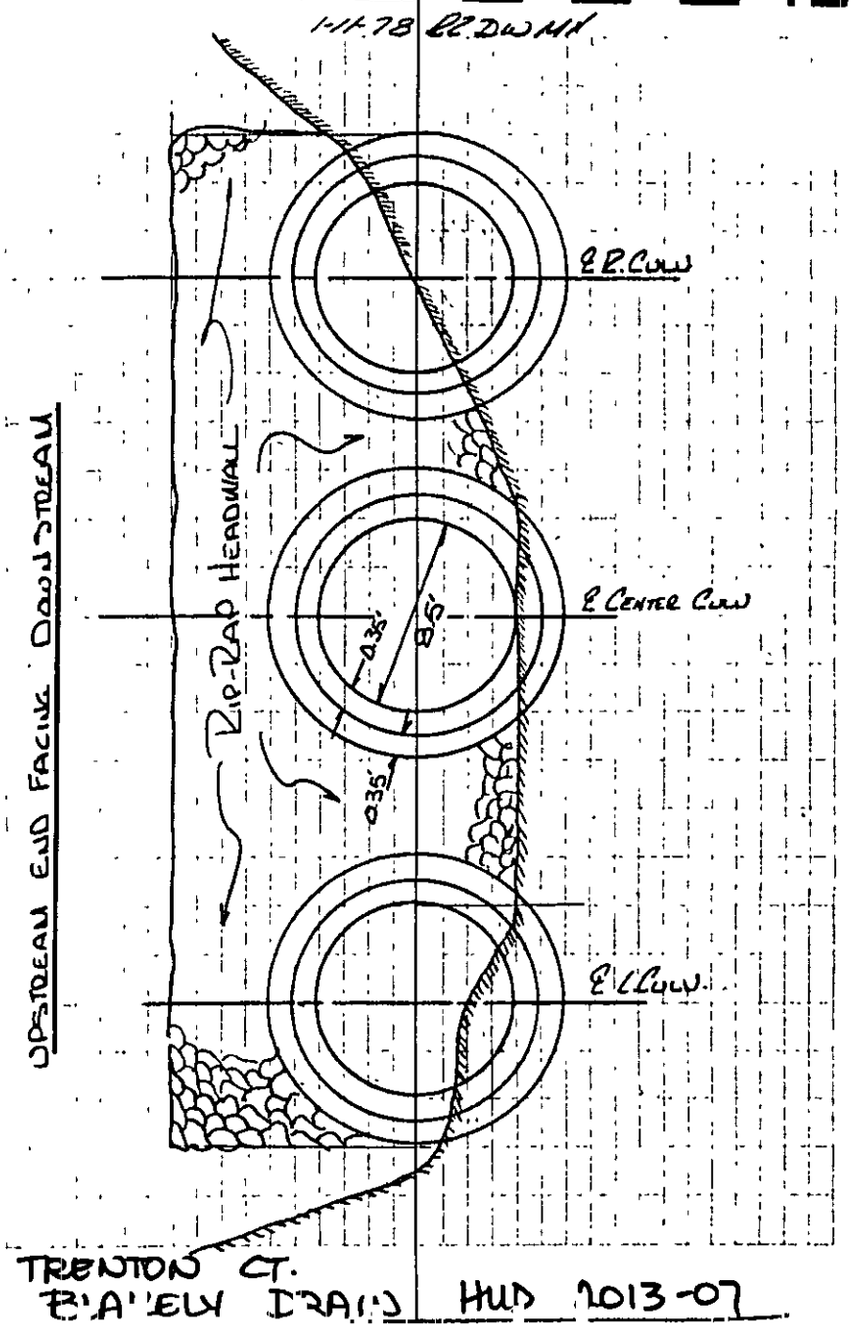
[redacted]DLE[redacted]TAW[redacted]AKE[redacted]RA[redacted]ZEN[redacted]CT.

ALL BEARINGS MAGNETIC.



FB 943

1-11-78 RR DW MH



TRENTON CT.
BAILEY DRAIN HUD 2013-07

Bridge Location : R.R. Bridge (Sect. 12578)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: Double Conc. Box

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area $(6.6 \times 10) + (6.7 \times 10) = 133$ WP = 33.2 + 33.4 = 66.6

$R = A/wp = \frac{133}{66.6} = 2.0$ $R^{4/3} = 2.51$ L = 44

n (composite) = 0.015

$K_f = 29.1 \times (0.015)^2 \times 44 \;/\; 2.51 = 0.11$

K_e = HEADWALL Sq. edged = 0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.11 + 0.5 + 0.05 = 1.66
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 20.0
6. BWP = total width of obstruction = 1.5 — field data
7. BAREA = bridge opening ~~inc piers~~ = 133.
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 588.43
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 589.53
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Project Owner Suffix
BLAKELY DRAIN BROWNSTOWN TOWNSHIP	DATE	DATE	___ OF ___	HUD. 2013.07

HUD 2013

DETAIL BRIDGE @ D.T.&I. RAILROAD
BLAKELY DRAIN R&L OFFSETS FROM ℄
BRIDGE FACING DOWNSTREAM. 000 IS ℄
BRIDGE CURRENT W.C.R.C. DATUM

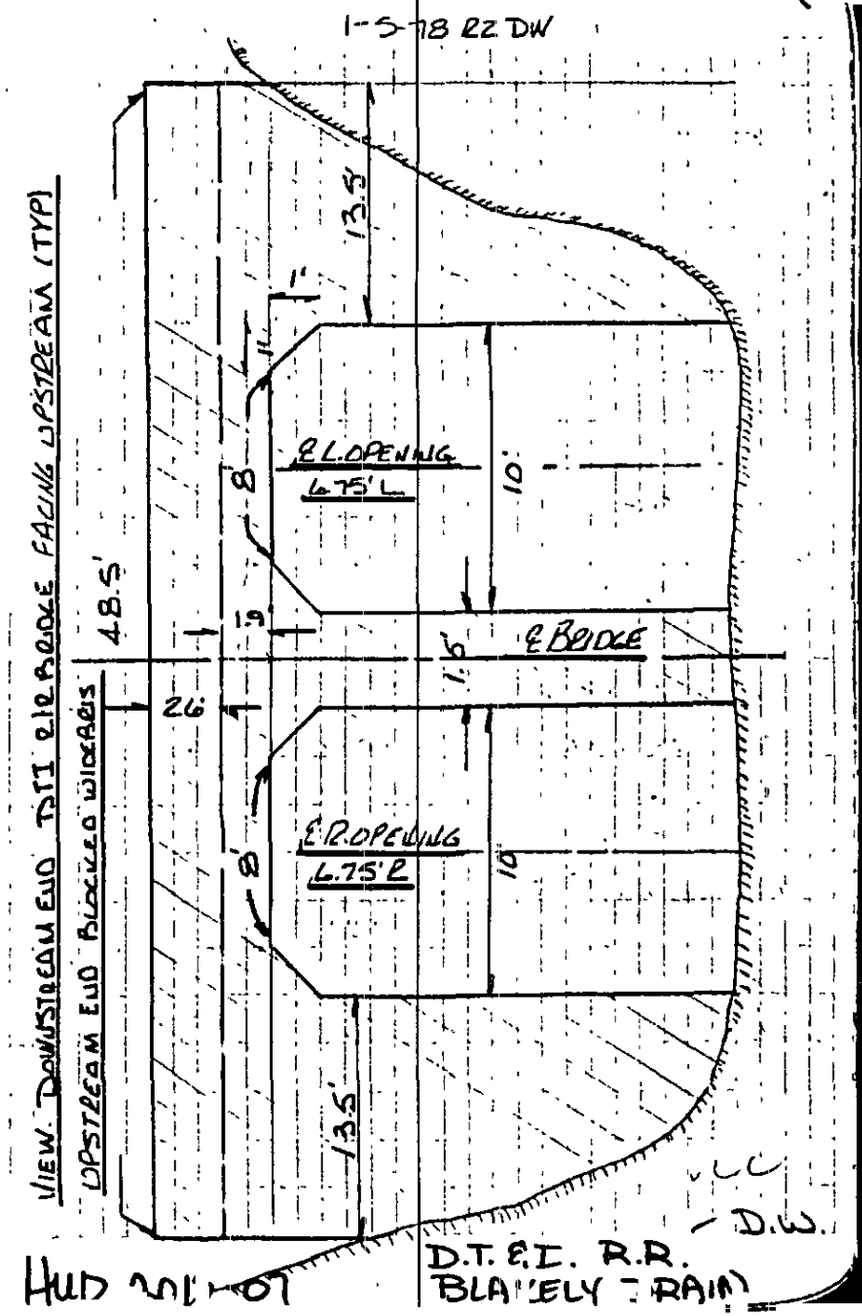
BM 600.95 "X" ON IN'LY BOLT ON F. HYD 62'± NW
℄ DIX & 440'± N ℄ BLAKELY DRAIN (SEE PG 44

Sta.	+	HI	−	Elev
				600.95
	3.69	604.64		
TP			5.09	599.55
	8.38	607.93		

Sta 126+84 UPSTREAM END

6.75 L (℄ LEFT OPENING)		
OUTSIDE TOP BRIDGE	7.80	600.13
INSIDE " "	12.30	595.63
℄ DRAIN BOTTOM	19.60	588.33
6.75 R (℄ RIGHT OPENING)		
OUTSIDE TOP BRIDGE	7.78	600.15
INSIDE " "	12.28	595.65
℄ DRAIN BOTTOM	19.50	588.43

CONT ON PG 53

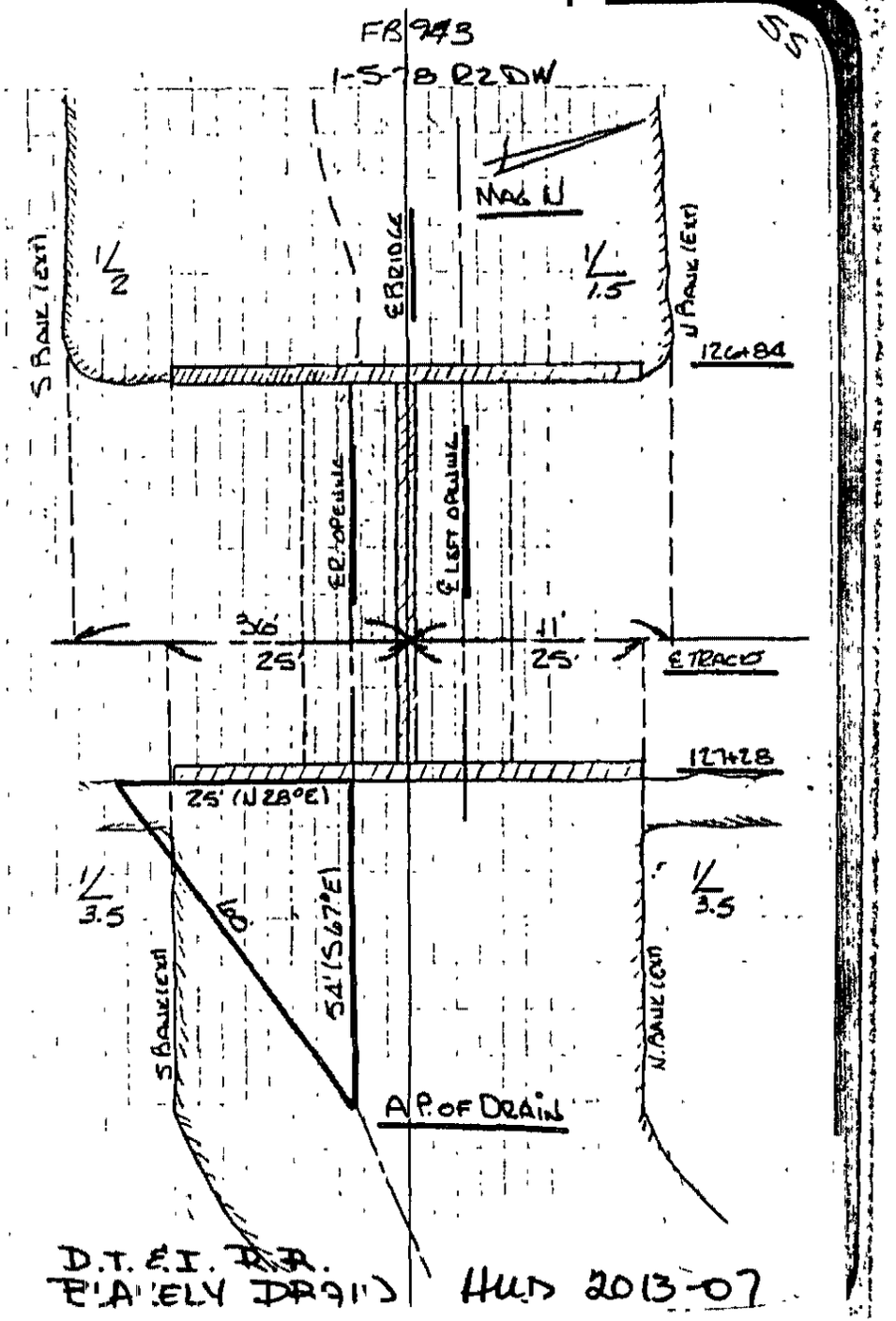


HUD 2013-07

HUD 2013-07

BRIDGE DETAIL @ BLAKELY DRAIN

*D.T.E.I. R/R. ALL BEARINGS ARE MAGNETIC. PRIMARY FLOW IS THROUGH RIGHT OPENING. OVERFLOW THROUGH L. OPENING.

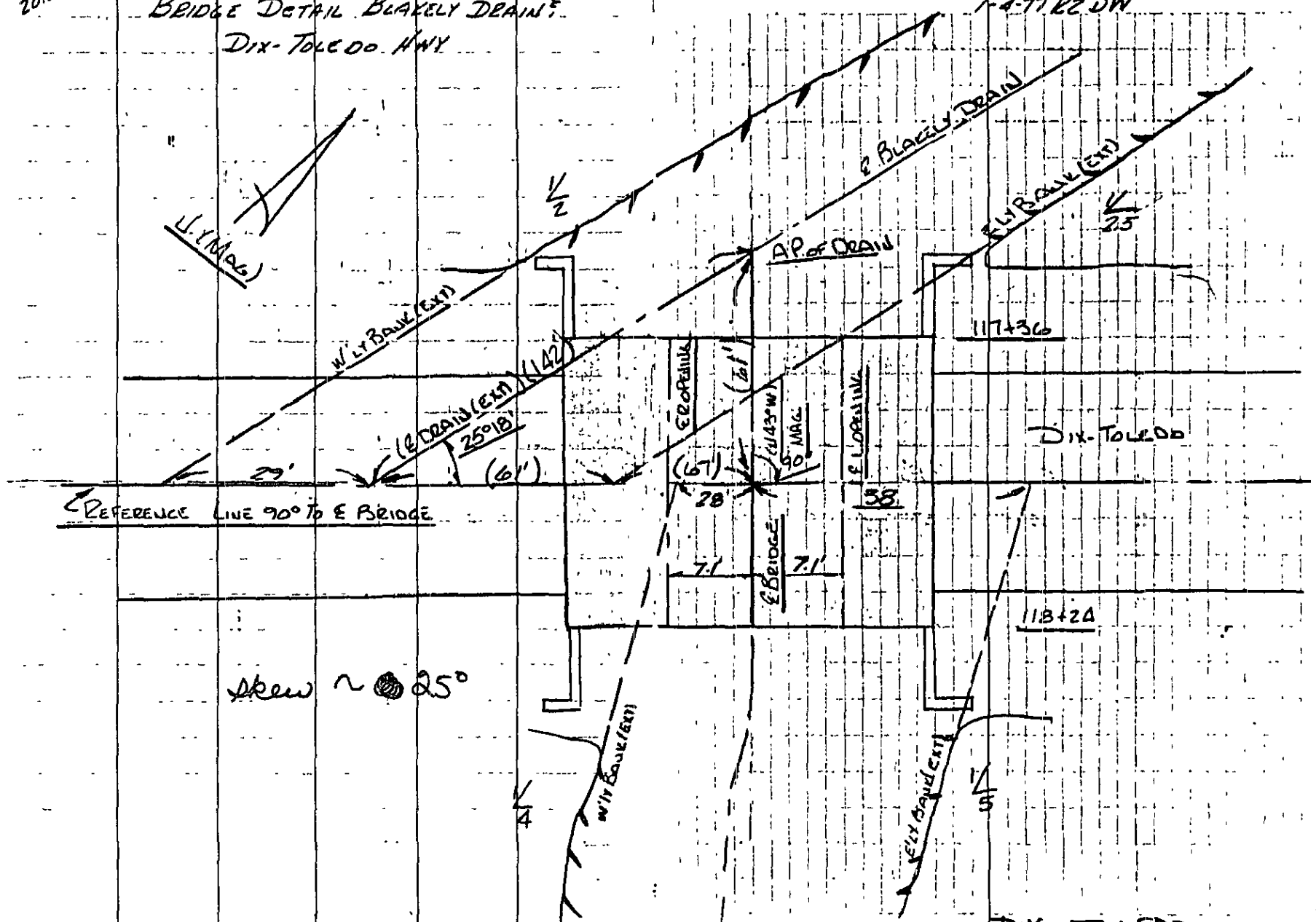


HUD 2013-05

BRIDGE DETAIL BLAKELY DRAIN &
DIX-TOLEDO HWY

FL 243

1-4-77 R2DW

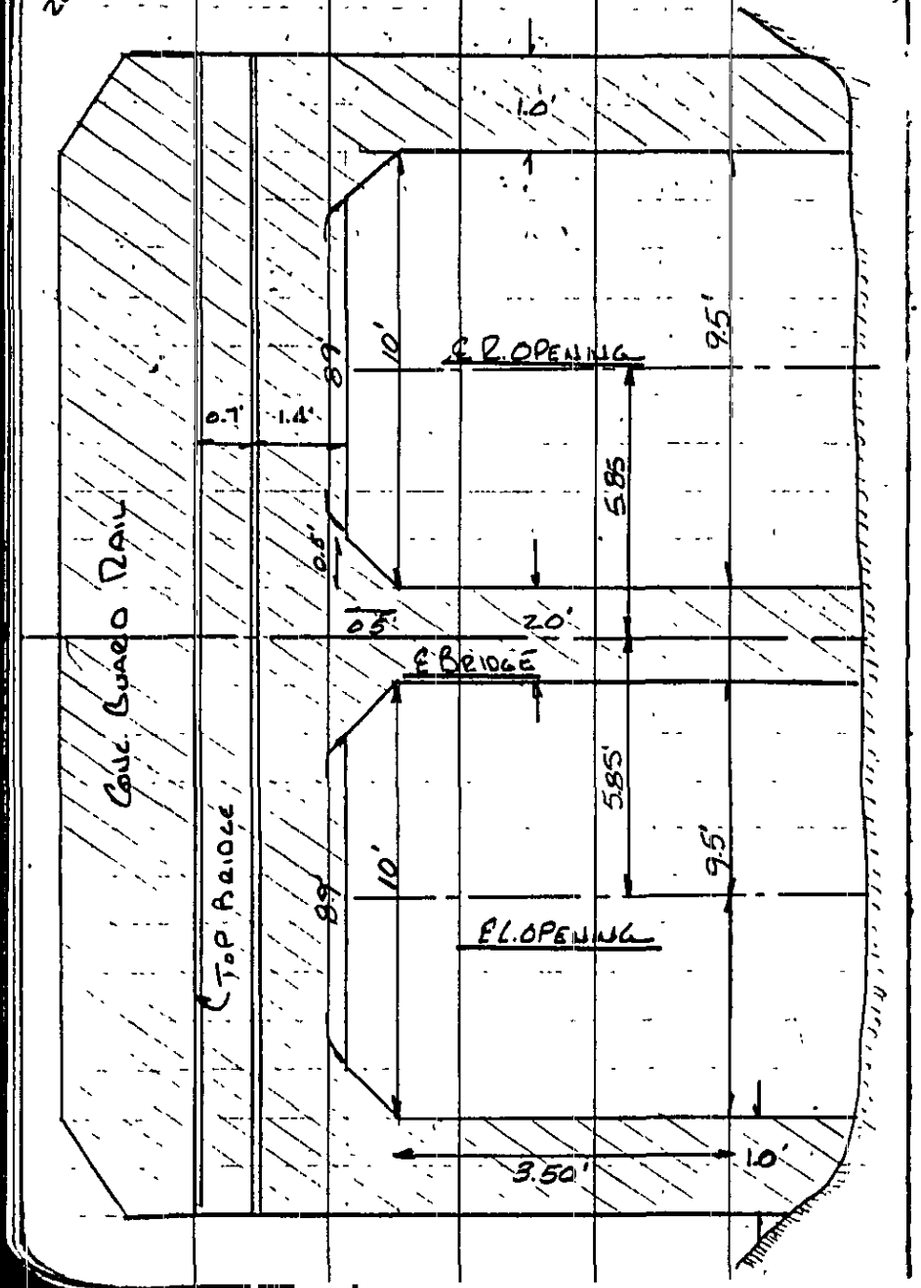


HUD 2013-07

DIX TOLEDO
BLAKELY DRAIN

HUD 2013-07

DETAIL UPSTREAM SIDE (117+36) DIX-TOLEDO & BLAKELY DRAIN BRIDGE (VIEW FACING DOWNSTREAM)



1-4-78-12ZDW

NOTE: THE DOWNSTREAM END 118+24 HAS BEEN ADDED ON TO OLD BRIDGE END OF OLD BRIDGE & BEG OF NEW BRIDGE @ STA 118+05. DIMENSIONS OF R & L OPENINGS ARE SAME @ STA 117+36 & 118+05. SEE PG 48 FOR DOWNSTREAM DIMENSIONS. TOP OF BOTH NEW & OLD BRIDGE @ 118+05 SAME.

DIX TOLEDO
BLAKELY DRAIN

HUD 2013-07

HUD 2013-05

ELEV'S & BRIDGE DETAIL @ BLAKELY & DIX-TOLEDO BRIDGE. R&L OFFSETS FROM ℄ BRIDGE FACING DOWNSTREAM (CURRENT WCRC DATUM)

BM 600.95 "X" ON W'LY BOLT ON F. HYD SO'T W℄ DIX TOLEDO & 440' N ℄ BLAKELY DRAIN

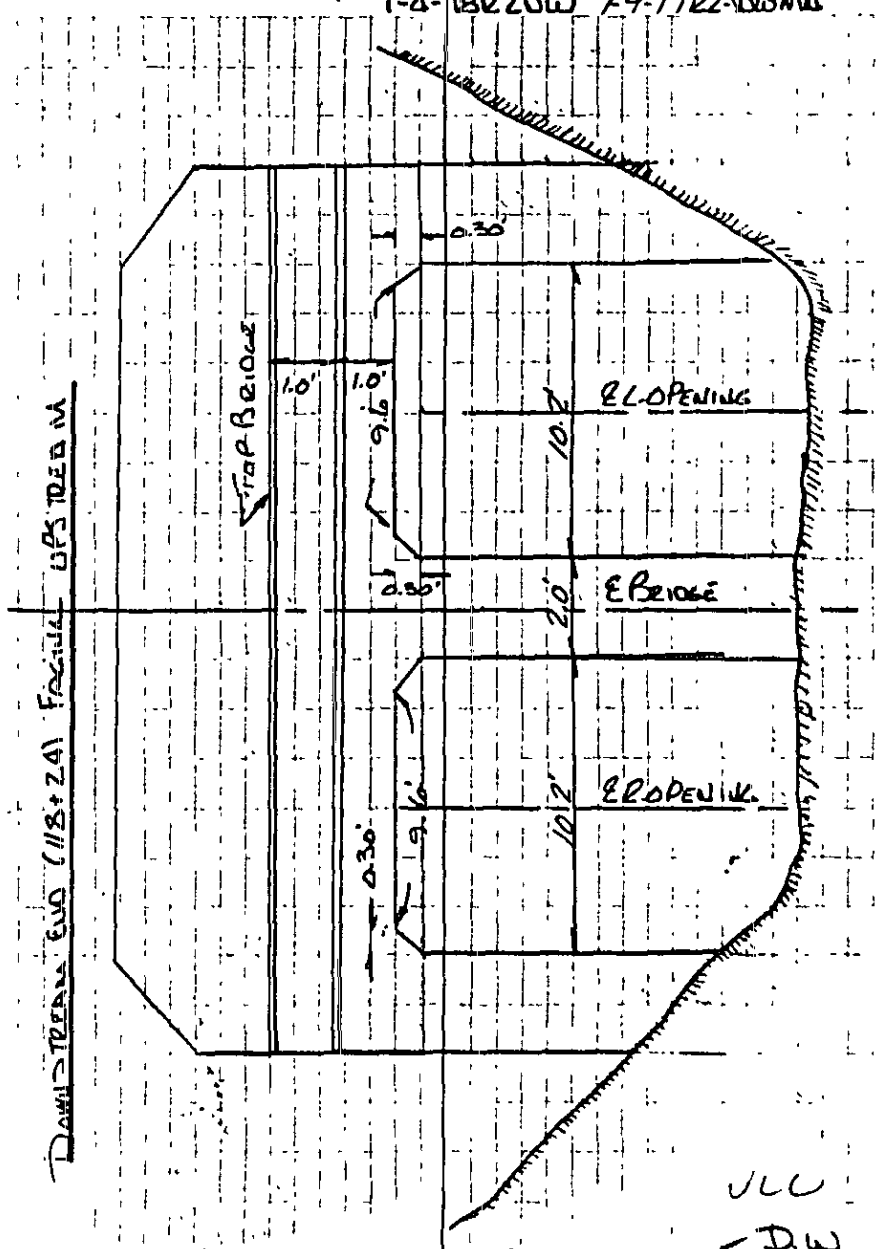
Sta.	+	HI	−	Elev
BM				600.95
	1.63	602.58		

117+36 UPSTREAM SIDE	−	Elev
5.75L (OUTSIDE TOP Bridge)	4.20	598.38
5.75L (INSIDE " ")	6.30	596.28
5.75L (Drain BOTTOM)	13.25	589.33
5.75R (" ")	13.07	589.51
5.75R (OUTSIDE TOP BRIDGE)	4.22	598.36
5.75R (INSIDE " ")	6.32	596.26

118+24 DOWNSTREAM SIDE		
6.1L (OUTSIDE TOP Bridge)	3.98	598.60
6.1L (INSIDE " ")	5.98	596.60
6.1L (DRAIN BOTTOM)	12.53	590.05
6.1R (" ")	12.54	590.04
6.1R (OUTSIDE TOP BRIDGE)	3.95	598.63
6.1R ("INSIDE TOP ")	5.95	596.63
BMCC 1.62	600.96	6900.05
	~~0.05~~ 0.01	

FN943

1-4-78R2DW 1-9-77R2-DWMN



JLC
-DW

DIX-TOLEDO
BLAKELY DRAIN HUD 2013-07

done

10.13 | 3.9
12.17

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: NB I-75 (Sect. 17246)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: Skewed 36° (cos 36° = 0.81)

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 37' × 10.5 × 0.81 = 315 $W_p = 2(30+10.5) = 81$

$R = A/W_p = \frac{315}{81} = 3.9$ $R^{4/3} = 6.1$ $L = 64$

n (composite) = 30(60).035 + 2(10.5)(0.2)/81 = 0.03

$K_f = 29.1 \times (0.03)^2 \times 64 / 6.1 = 0.3$

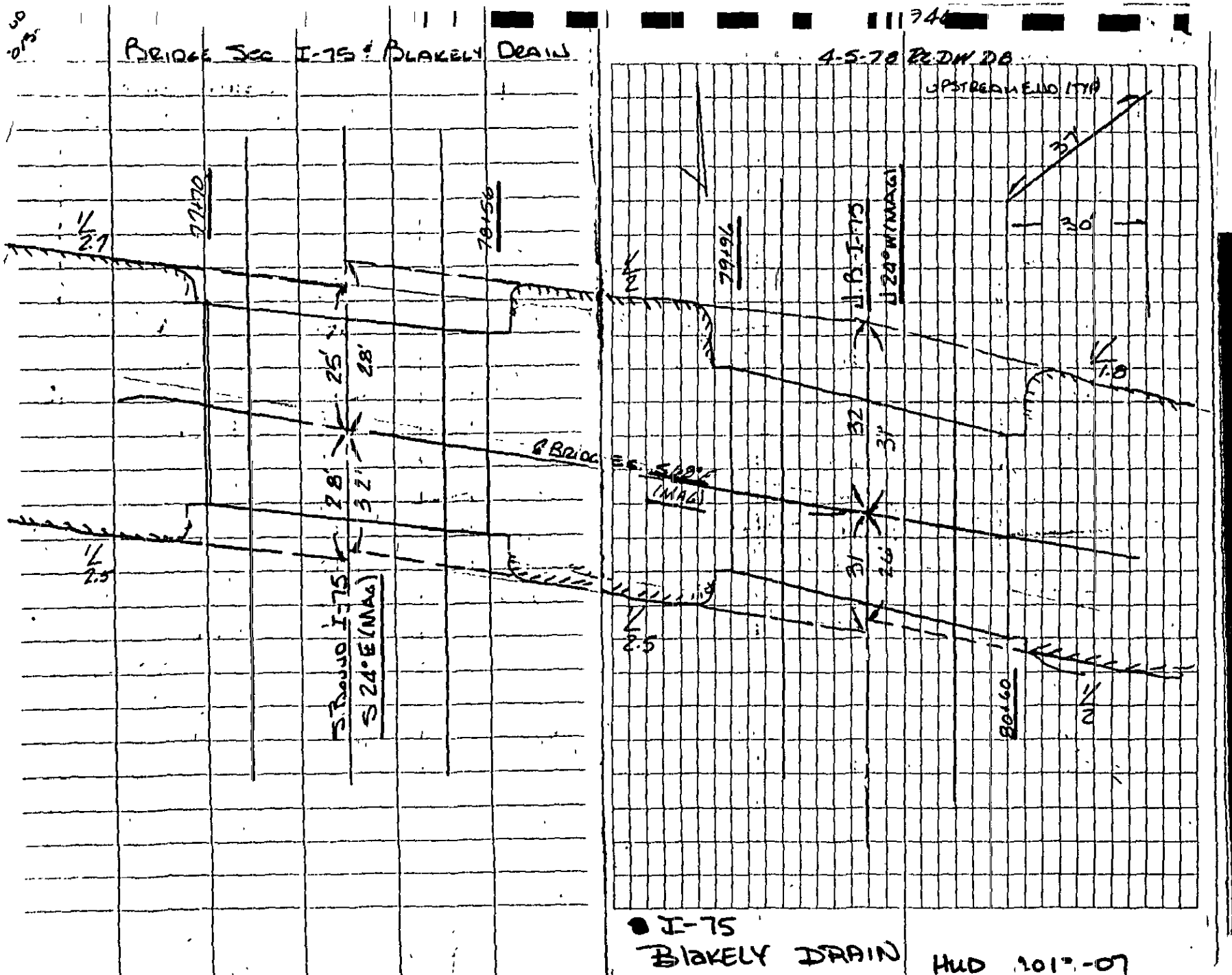
K_e = Wingwalls at 30° to 75° to barrel 0.4 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.3 + 0.4 + 0 = 1.7
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 26
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 315
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 591.21 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 591.21 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TWP.	DATE	DATE	___ OF ___	HUD • 2013 • 07



BRIDGE SEC I-75 & BLAKELY DRAIN
4-5-78 RE DW DB
UPSTREAM END (TYP)
77+70
78+56
79+96
80+60
J.B. I-75
J 24° W (MAG)
S BOUND I-75
S 24° E (MAG)
℄ BRIDGE EC S 28° E (MAG)
25'
28'
32'
31'
26'
30'
37'
1/2.7
1/2.5
1/2
1/1.8
I-75
BLAKELY DRAIN
HUD 201-07

Bridge Location : SB I-75 BRIDGE (SECT. 17450)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : Skewed 36° (cos 36° = 0.81)

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 37 x 0.81 x 10.5 = 315 WP = 81

$R = A/wp = 3.9$ $R^{4/3} = 6.1$ $L = 86'$

n (composite) = 0.03

$K_f = 29.1 \times (0.03)^2 \times 86 / 6.1 = 0.37$

$K_e = 0.4$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

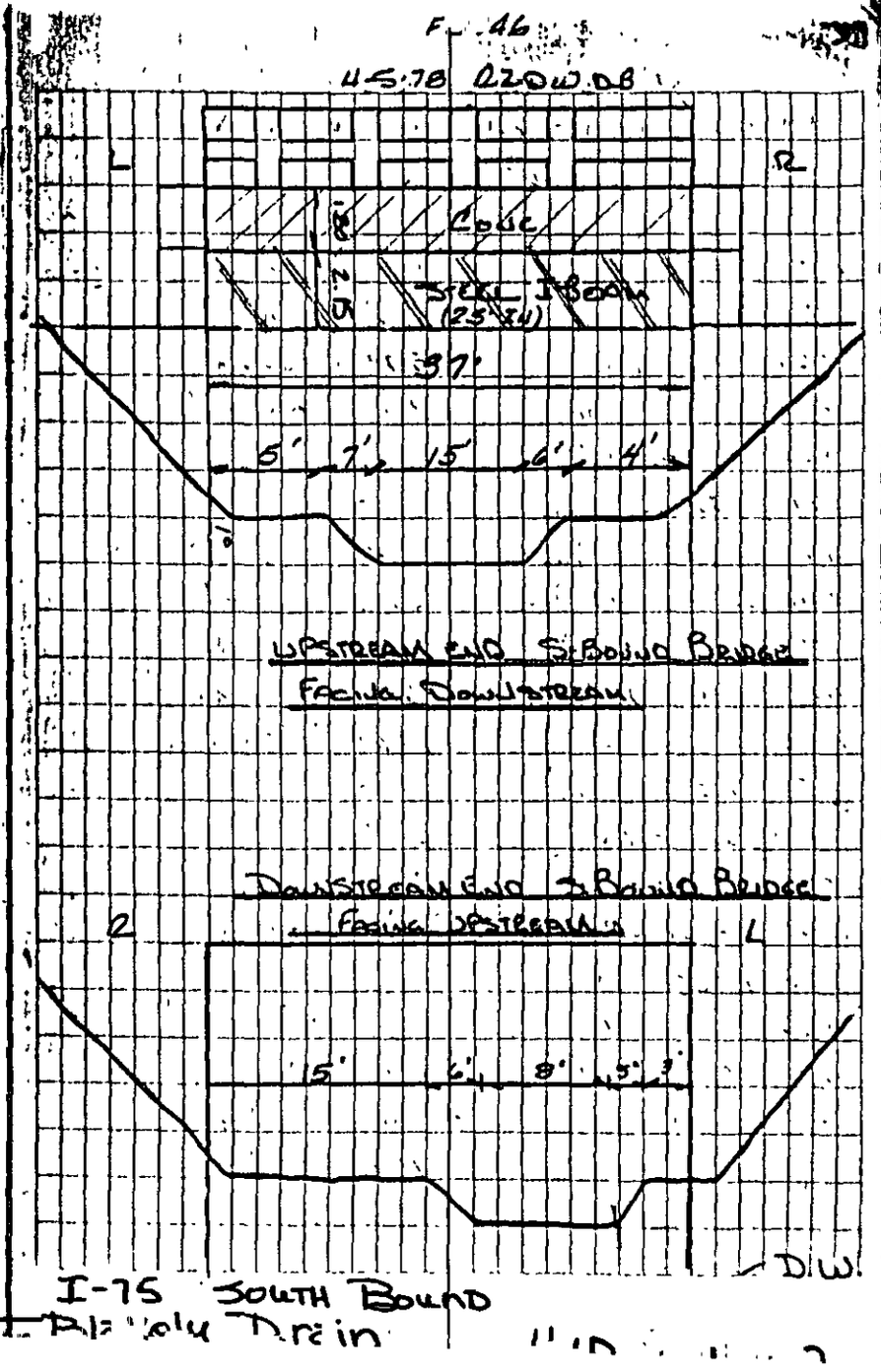
$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.37 + 0.4 + = 1.77
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 28.
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 315
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 592.13 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 592.26 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TWP.	DATE	DATE	___ OF ___	HUD 2013 07

NUD 2013-05

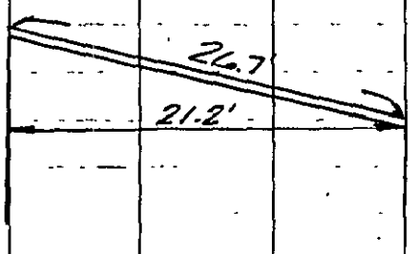
Note.	Bridge Meas.	Detail Are on	Blakely Det's I-75 Diagonal, Not Right	
I-75				
Sta	+	HI	−	Elev
BM	8.44	611.43		602.99 (Sec Pg 11)
77+20	UPSTREAM END		S/B Bridge	
18.5L	(Inside Top Conc)		5.90	605.53
18.5L	(Bott I. Beam)		8.05	603.38
18.5L	(Ex Grnd)		17.40	594.03
13.5L	(Top/Gr Ch)		17.60	593.83
6.5L	(Toe/" ")		19.00	592.43
000	(Inside Top Bridge)		5.92	605.51
000	(Bott. I-Beam)		8.07	603.36
1R	(E Channel)		19.30	592.13
8.5R	(Toe Gr Ch)		19.00	592.43
14.5R	(Top " ")		18.10	593.33
18.5R	(Inside Top)		5.97	605.46
18.5R	(Bott. I-Beam)		8.12	603.24
18.5R	(Ex Grnd)		17.90	593.53
78+06	DOWNSTREAM SIDE			
18.5L	(Inside Top)		5.57	605.86
18.5L	(Bott. I-Beam)		7.72	603.71
18.5L	(Ex Grnd)		18.50	592.93
15.5L	(Top Gr Ch)		18.50	592.93
10.5L	(Toe " ")		19.15	592.28
6.5L	(E Channel)		19.17	592.26
000			5.51	605.92



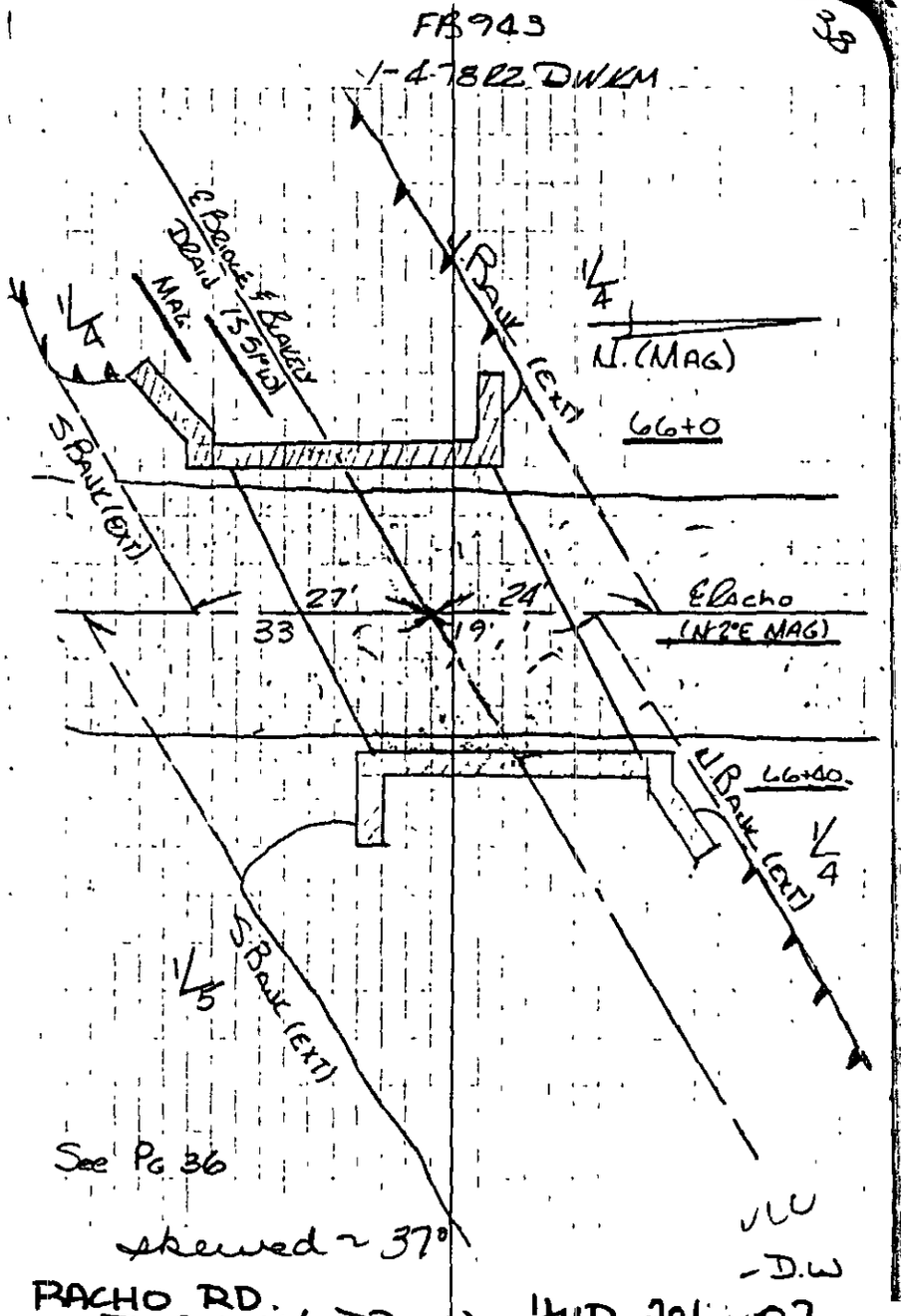
HUD 2013-05

Bridge Detail @ Blakely Drain & Rancho Rd (Conc Bridge)

Cont From Pg 37



STA	+	HI	−	Elev
BM				601.10
	470	60580		
66+0 Upstream End				
Outside Top Bridge			3.34	602.46
Inside " "			5.64	600.16
E Drain Bottom			12.15	593.65
66+40 Downstream Side				
Outside Top Bridge			3.28	602.52
Inside " "			5.58	600.22
E Drain Bottom			12.25	593.55
BMck			4.70	601.10



Bridge Location : Twin Steel Culverts (Sect. 2/359)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge: Twin 60" Steel Culverts (D/S END OF ONE Culvert is crushed)

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = (D/S end of culv. adjusted due to crushing) = 32.5 WP = 28.5'

R = A/wp 1.14 $R^{4/3}$ = 1.21 L = 36'

n (composite) = (0.0229

$K_f = 29.1 \times (0.0229)^2 \times 36' / 1.21 = 0.4$

$K_e = 0.2$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.4 + 0.2 + = 1.6
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 6.4'
6. BWP = total width of obstruction = — field data
7. BAREA = bridge opening inc. piers = 32.0
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 594.82 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 593.52 (0 if equal to minimum elevation in previous x-sect.)

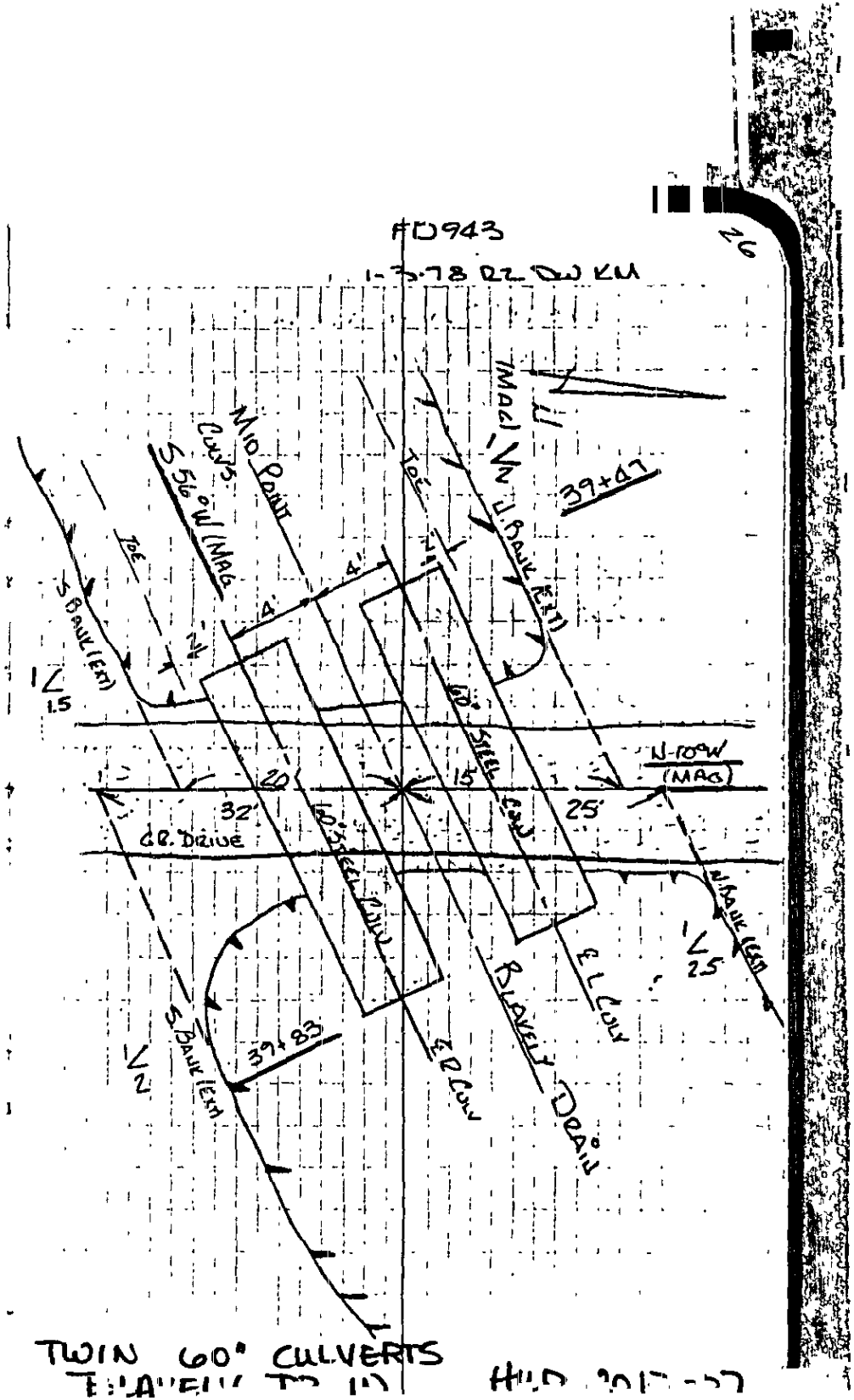
SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TWP.	DATE	DATE	___ OF ___	HUD • 2013 • 07

HUD 20130-05

DETAIL OF 2-TWIN 60" STEEL CULV'S @ BLAKELY DRAIN & DRIVE TO TOWN'S GUN RANGE. R'L OFFSETS FROM MID POINT BETWEEN CULV'S FACING DOWNSTREAM.

L CULV.
UPSTREAM END BLOCKED WITH DEBRIS. DOWNSTREAM END WIDTH OF CULV IS ONLY 36" HGT STILL 60"± (CULV IS PINCHED IN)

R. CULV
UPSTREAM END 9' APPROX FIRST 20' OBSTRUCTED BY HEAVY DEBRIS



Bridge Location: BRIDGE @ SECT. 24588
Bridge Losses - SB Card PENN CENT. R.R.

REFERENCE

1. XK (Pier Shape Coefficient) Sq. Nose & tail 1.25 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 322.5 = 322.5 Wp = 96

$R = A/wp = \frac{322.5}{96} = 3.36$ $R^{4/3} = 5.$ $L = 14$

n (composite) =

$K_f = 29.1 \times (0.03)^2 \times 14 / 5 = 0.1$

K_e = 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.1 + 0.2 + 0.05 = use 1.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 30.6
6. BWP = total width of obstruction = 2. — field data
7. BAREA = bridge opening ~~(inc. piers)~~ = 300.0
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 598.01
   (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 597.91
    (0 if equal to minimum elevation in previous X-sect.)

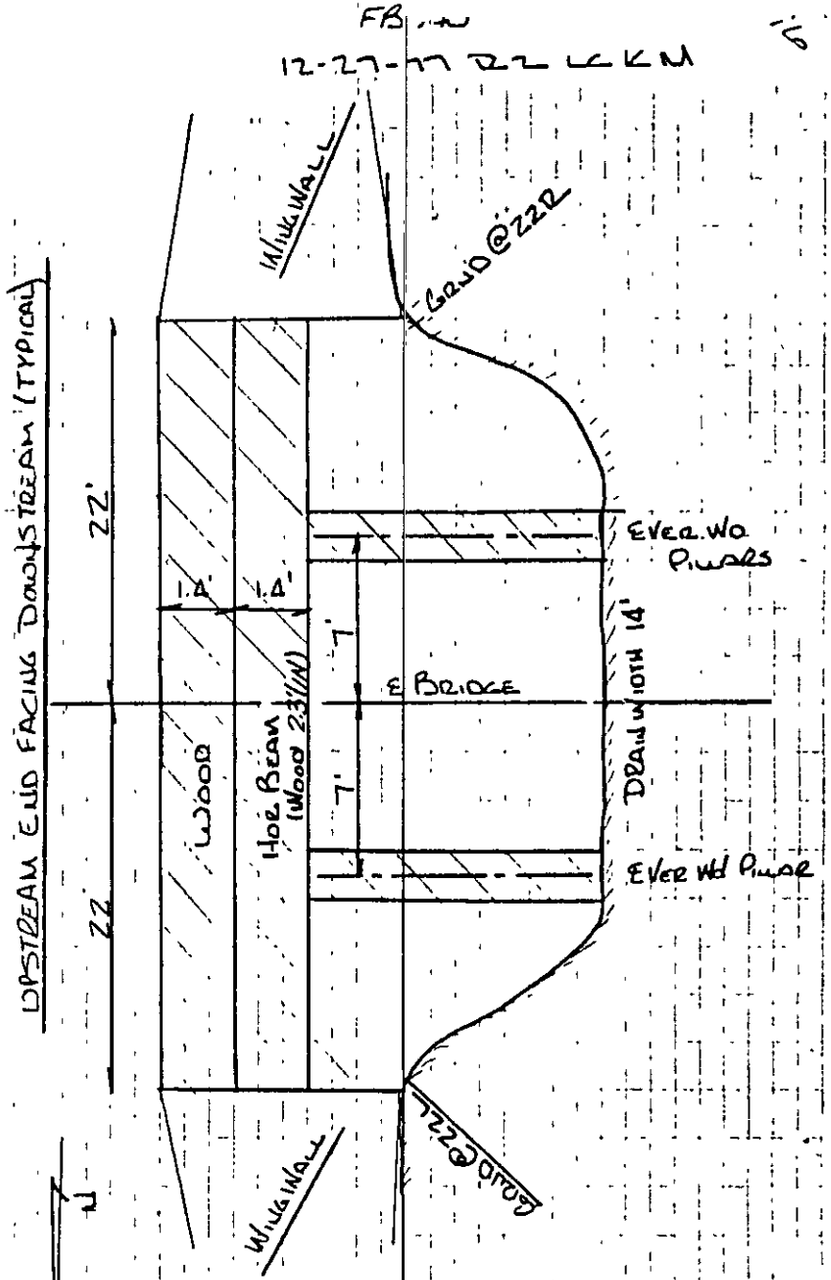
SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TOWNSHIP	DATE	DATE	OF	HWD-2013-07

HUD 2013-05

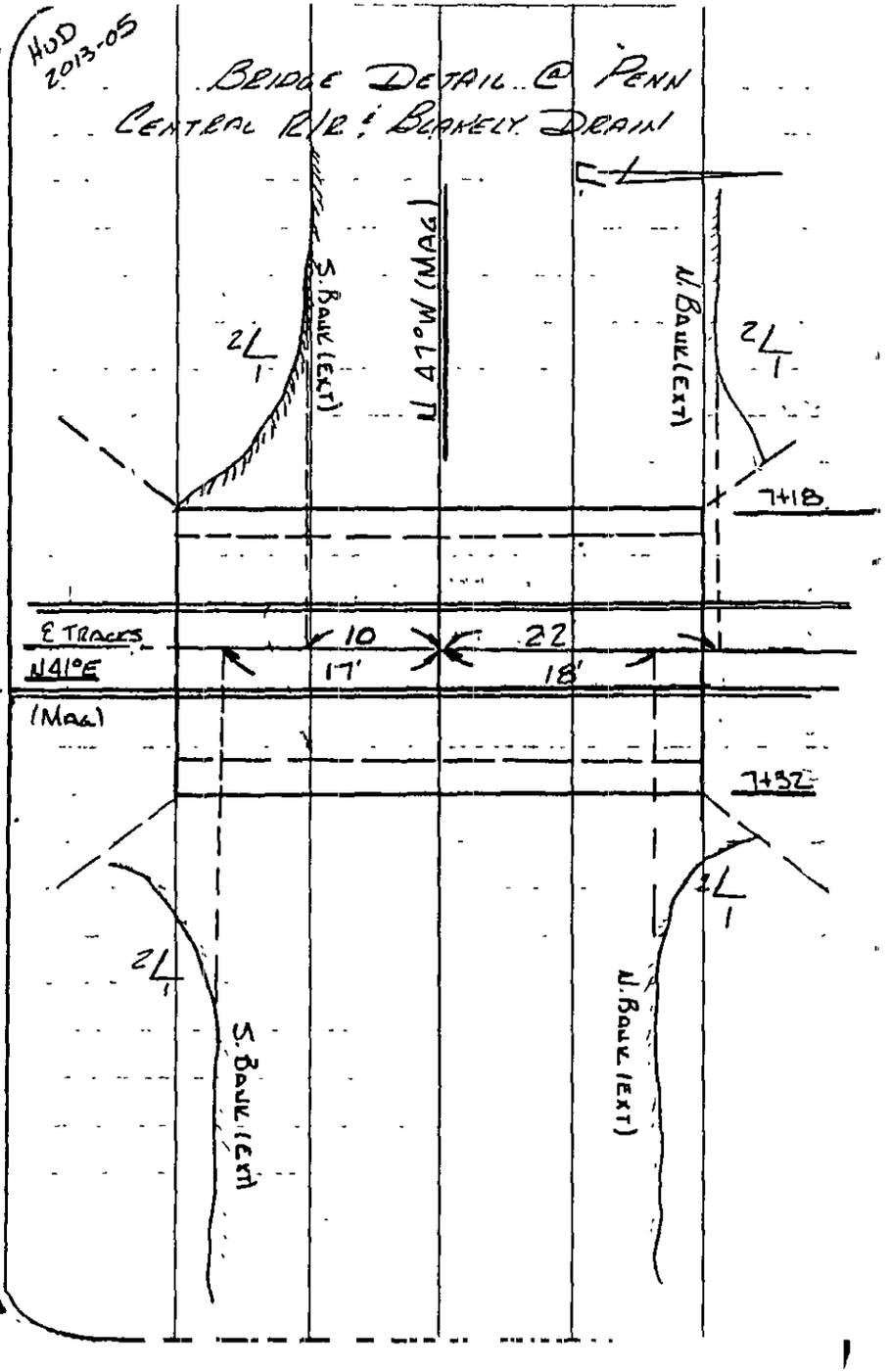
BRIDGE DETAIL @ BLAKELY DRAIN & PENN CENTRAL R/R.
WOOD BRIDGE VIEW IS UPSTREAM END FACING DOWNSTREAM

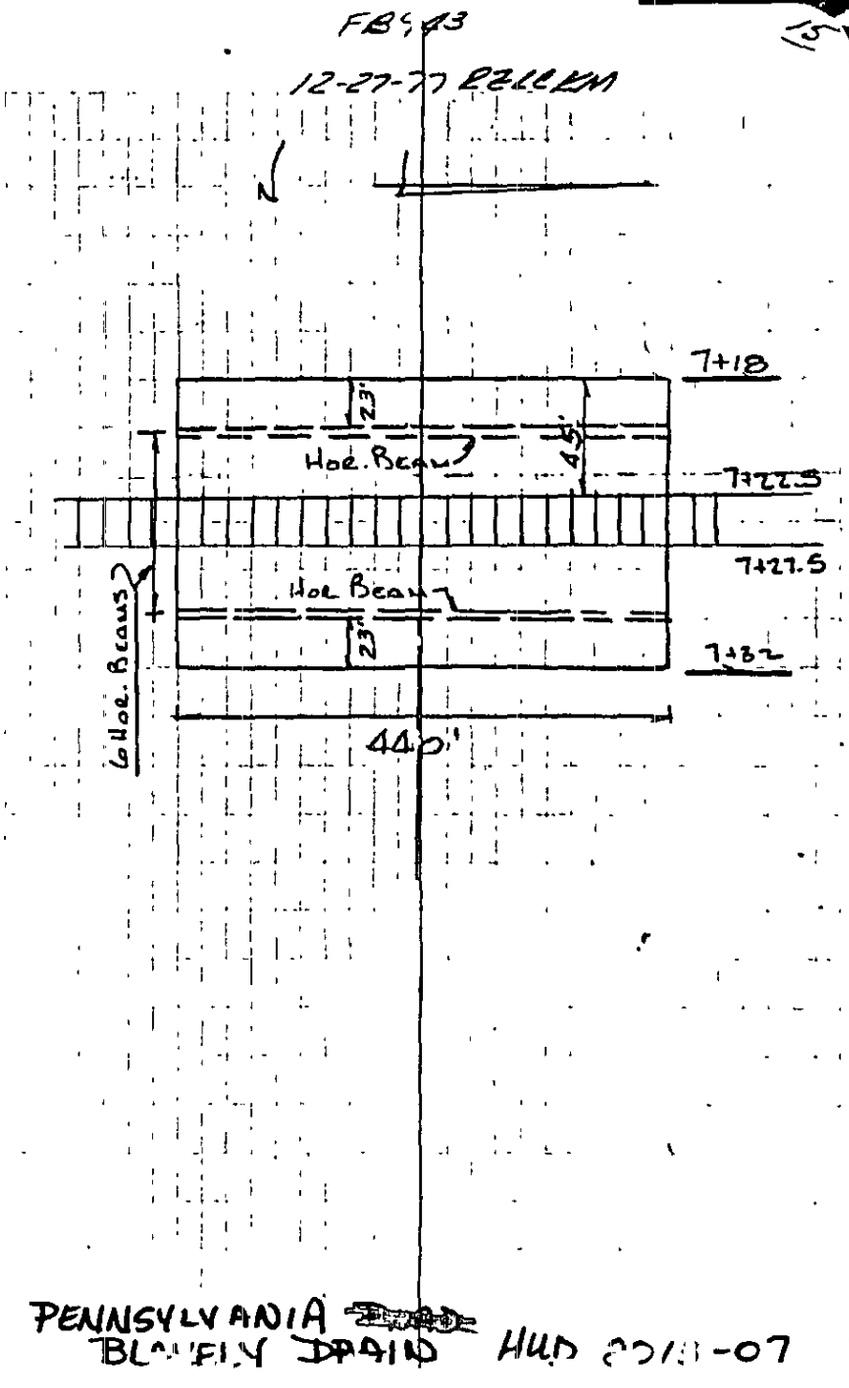
NOTE: THERE ARE 6- 10"-12" VERTICAL WOOD PILLARS FOR SUPPORT

FB
12-27-77 RZ LCKM



PENN CENTRAL R.R.
BLAKELY DRAIN HUD 2013-07





PENNSYLVANIA
BERKELY DRAIN
HUD 2013-07

Bridge Location : PENNSYLVANIA RD.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + ΣK , $\Sigma K = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : TWIN CMP elliptical pipes 9'x13' skewed 60° partially silted

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 73+83 = 156 Wp = 35+36.1 = 71.1

$R = A/wp = \frac{156}{71.1} = 2.19$ $R^{4/3} = 2.84$ $L = 169$

n (composite) = 0.027

$K_f = 29.1 \times (0.027)^2 \times 169 \;/\; 2.84 = 1.3$

$K_e = 0.9$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

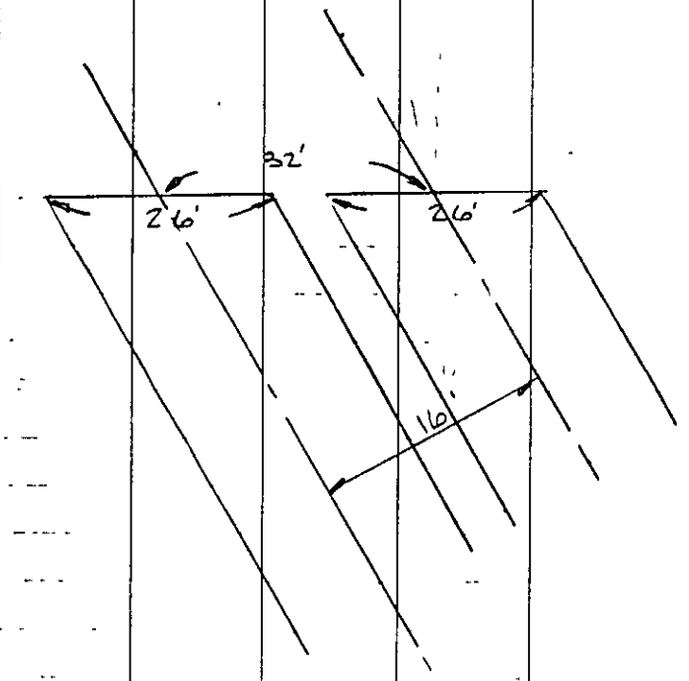
2. XKOR = 1 + 1.3 + 0.9 + 0.05 = 3.25
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = _____ (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 20.3
6. BWP = total width of obstruction = _____ — field data
7. BAREA = bridge opening inc. piers = 156
8. SS = side slope = _____ (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 598.47 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 598.07 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
BLAKELY DRAIN BROWNSTOWN TWP.	AM		OF	HUD • 2013 • 07
	DATE	DATE		

HUD 2013-05

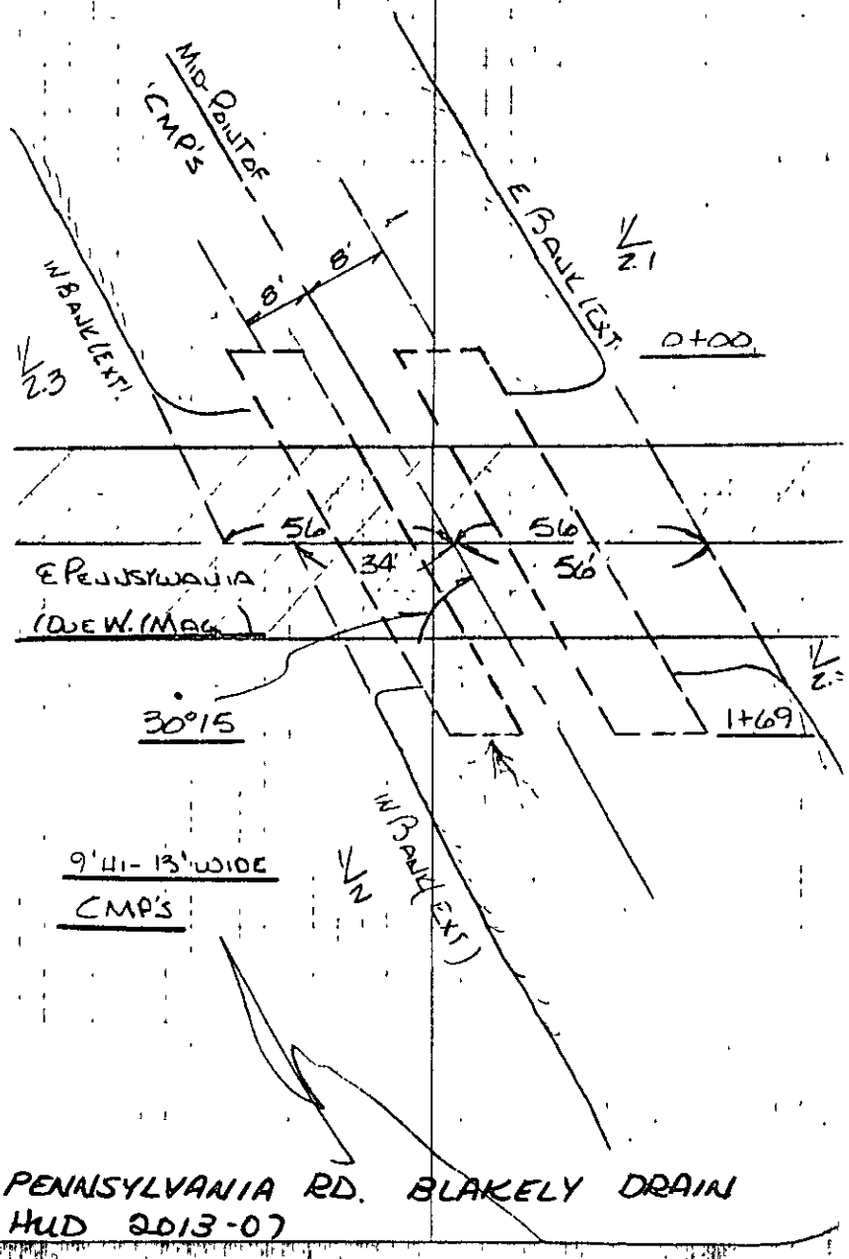
CULV DETAIL AT PENNSYLVANIA RD & BLAKELY DRAIN

UPSTREAM END TYP



FB943

12-27-77 RZLCKM



PENNSYLVANIA RD. BLAKELY DRAIN
HUD 2013-07

BROWNSTOWN TOWNSHIP

BLAKELY DRAIN

EXHIBIT 18

COMPUTER PRINTOUTS

HEC-2 BACKWATER ANALYSIS

(See Separate Folder)

BROWNSTOWN TOWNSHIP

BLAKELY DRAIN

EXHIBIT 19

STREAM PROFILE

HUD 2013-07

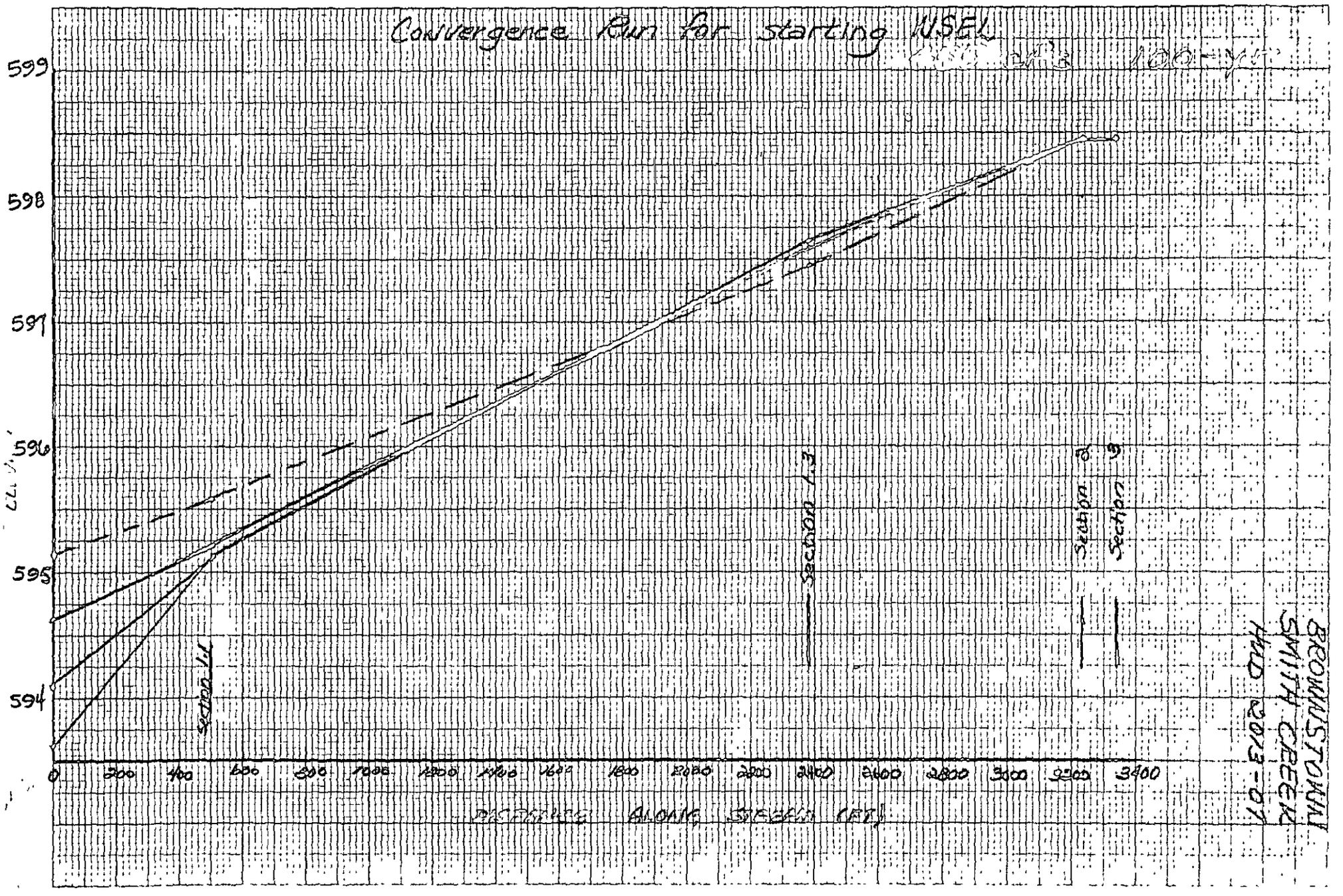
BROWNSTOWN TOWNSHIP

SMITH CREEK

EXHIBIT 20

CONVERGENCE RUN

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.
46 1320



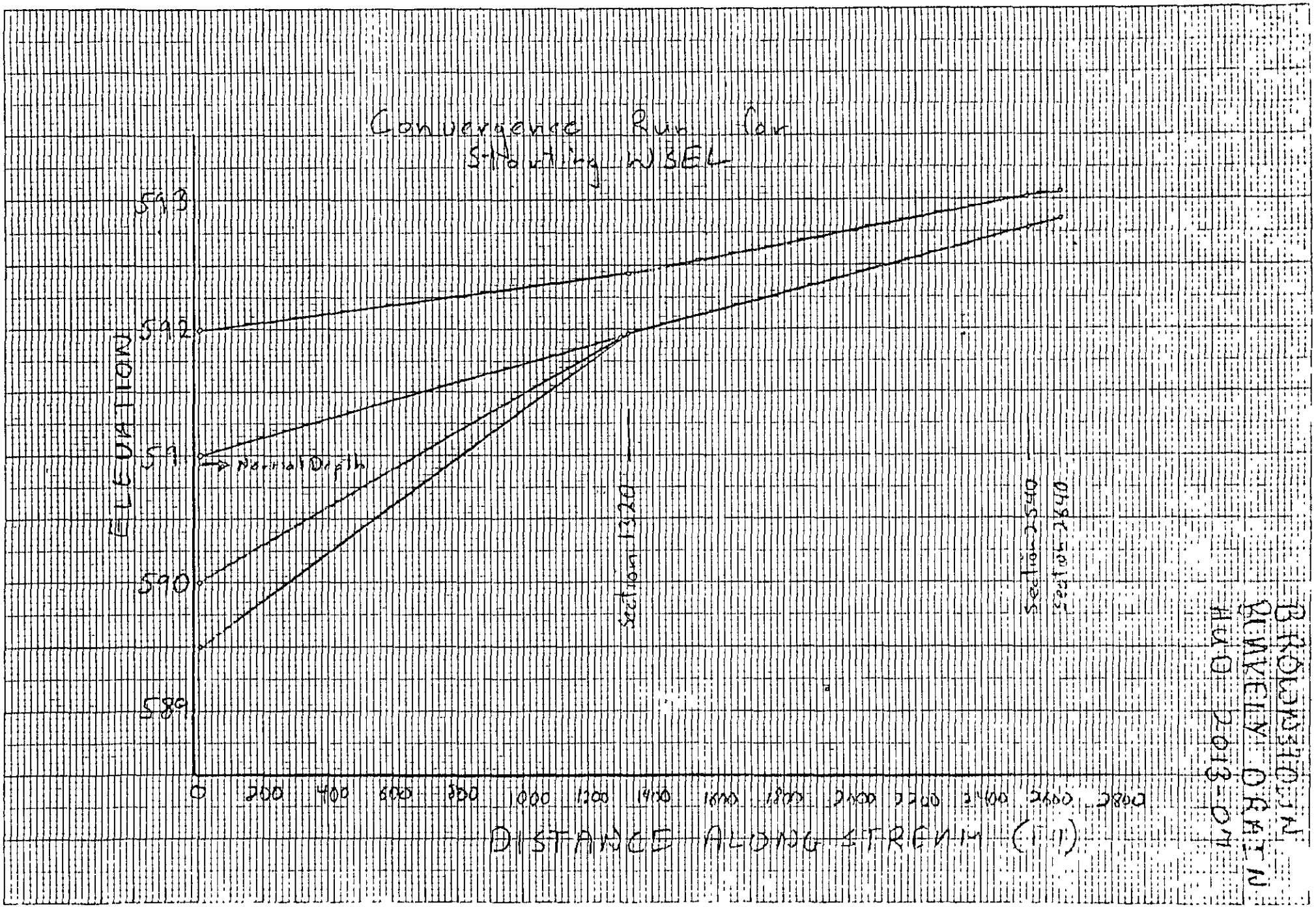
BROWNSTOWN TOWNSHIP

BLAKELY DRAIN

EXHIBIT 21

CONVERGENCE RUN

K•E 10 X 10 TO [redacted] 7 [redacted] CHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1320



```
C       5
C       2          VREELAND ROAD BRIDGE
C     3.5          RR BRIDGE #1 U/S OF VREELAND ROAD
C       5          RR BRIDGE #2 U/S OF VREELAND ROAD
C       9          RR BRIDGE TWO 10 FOOT CMP
C      10          BOX CULVERTS
T1
T2
T3       SMITH CREEK
J1              2                  .00208                                589.0
J2      1              -1
NC   .035     .035     .035       .3       .5
QT      4      150      300      450      600
X1      1       12       35       57        0        0        0
GR 591.4        0    591.7       30    590.0       35    585.0       46    586.0       48
GR 587.0       49    590.0       57    591.0       63    592.0       69    593.0       75
GR 594.0      108    594.2      120
X1  1.99       16      185      200      120      120      120
GR 594.9        0    594.7      120    594.3      185    587.5      185    586.5   185.25
GR585.75    186.5   585.25    188.5    585.0    191.5    585.0    193.5   585.25    196.5
GR585.75    198.5    586.5   199.75    587.5    200.0    594.3      200    593.7      350
GR 594.7      460
X1      2                                  1        1        1
BT     10      185    594.3    587.5   185.25    594.3    588.5    186.5    594.3    591.0
BT 188.5    594.3    593.0    191.5    594.3    594.0    193.5    594.2    594.0    196.5
BT 594.2    593.0    198.5    594.2    591.0   199.75    594.2    588.5      200    594.2
BT 587.5
X1   2.1                                 65       65       65
X2                                                         1
X1   2.2                                  1        1        1
X1      3       18       80      115      190      190      190
GR 595.2        0    595.0       40    594.0       60    593.0       65    592.0       70
GR 591.0       75    590.0       80    585.0       96    586.0      100    587.0      103
GR 588.0      108    589.0      111    590.0      115    591.0      123    592.0      131
GR 593.0      160    594.0      207    594.3      270
X1  3.49       26      170      195      240      240      240
GR 596.9        0    596.8      140    596.8      170    590.0      170    587.8    170.3
GR 586.3    171.3    585.3    172.8    585.0      175    585.3    177.2    586.3    178.7
GR 587.8    179.7    590.0      180    590.0      185    587.8    185.3    586.3    186.3
GR 585.3    187.8    585.0      190    585.3    192.2    586.3    193.7    587.8    194.7
GR 590.0      195    596.8      195    596.4      250    596.0      300    595.5      350
GR 595.0      415
X1   3.5                                  1        1        1
BT     20      170    596.8        0      170    596.8    590.0    170.3    596.8    592.8
BT 171.3    596.8    593.7    172.8    596.8    594.7      175    596.8    595.0    177.2
BT 596.8    594.7    178.7    596.8    593.7    179.7    596.8    592.8      180    596.8
BT 590.0      185    596.8    590.0    185.3    596.8    592.8    186.3    596.8    593.7
BT 187.8    596.8    594.7      190    596.8    595.0    192.2    596.8    594.7    193.7
BT 596.8    593.7    194.7    596.8    592.8      195    596.8    590.0      195    596.8
BT      0
X1  3.51                                 50       50       50                1
X2                                                         1
X1  3.52                                  1        1        1
X1      4       24     1060     1102       90       90       90
X3     10
GR 595.0        0    594.0       90    593.0      165    592.0      330    591.0      560
GR 590.0      670    589.0      730    588.0      800    588.0      840    589.0      860
GR 590.0      875    590.2      940    590.0     1060    589.0     1068    588.0     1074
GR 587.0     1076    586.0     1082    587.0     1086    588.0     1093    590.0     1102
GR 591.0     1108    592.0     1120    594.4     1200    594.6     1400
X1   4.9       22      200      225      130      130      130
GR [illegible]
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GR 599.0     225   599.2     400
X1     5                              1       1       1
BT    20     200   599.0       0     200   599.0   591.0   200.3   599.0   593.8
BT 201.3   599.0   594.7   202.8   599.0   595.7     205   599.0   596.0   207.2
BT 599.0   595.7   208.7   599.0   594.7   209.7   599.0   593.8     210   599.0
BT 591.0     215   599.0   591.0   215.3   599.0   593.8   216.3   599.0   594.7
BT 217.8   599.0   595.7     220   599.0   596.0   222.2   599.0   595.7   223.7
BT 599.0   594.7   224.7   599.0   593.8     225   599.0   591.0     225   599.0
BT     0
X1   5.1                            155     155     155                1
X2                                                   1
X1   5.2                              1       1       1
X1     6      19     300     375     110     110     110
GR 599.8       0   599.1     120   599.0     200   598.0     285   597.0     295
GR 596.0     298   595.0     300   594.0     303   593.0     309   592.0     314
GR 591.0     317   590.0     320   586.0     330   590.0     345   592.0     360
GR 595.0     375   596.0     410   597.0     435   598.0     440
X1     7      17     255     272     485     485     485
GR 598.1       0   597.0      47   596.0      70   595.0     100   594.0     115
GR 593.1     200   593.0     240   592.0     245   591.0     250   590.0     255
GR 586.0     260   590.0     272   593.0     280   594.0     340   595.0     360
GR 596.0     395   596.6     420
X1     8      14     175     193     480     480     480
GR 597.5       0   597.0      35   596.0      63   595.0      70   594.0      80
GR 593.0     155   592.0     165   590.0     175   586.0     187   590.0     193
GR 592.0     200   593.0     205   595.0     240   600.0     280
X1   8.9      22     200     225     250     250     250
GR 602.0       0   602.0     200   591.0     200   588.8   200.3   587.3   201.3
GR 586.3   202.8   586.0     205   586.3   207.2   587.3   208.7   588.8   209.7
GR 591.0     210   591.0     215   588.8   215.3   587.3   216.3   586.3   217.8
GR 586.0     220   586.3   222.2   587.3   223.7   588.8   224.7   591.0     225
GR 602.0     225   602.0     400
X1     9                              1       1       1
BT    20     200   602.0       0     200   602.0   591.0   200.3   602.0   593.8
BT 201.3   602.0   594.7   202.8   602.0   595.7     205   602.0   596.0   207.2
BT 602.0   595.7   208.7   602.0   594.7   209.7   602.0   593.8     210   602.0
BT 591.0     215   602.0   591.0   215.3   602.0   593.8   216.3   602.0   594.7
BT 217.8   602.0   595.7     220   602.0   596.0   222.2   602.0   595.7   223.7
BT 602.0   594.7   224.7   602.0   593.8     225   602.0   591.0     225   602.0
BT     0
X1   9.1                            300     300     300
X2                                                   1
X1    10       8     200     217      .1      .1      .1
BT     8     200   601.0       0     200   601.0   592.0     208   601.0   592.0
BT   208   601.0   586.0     209   601.0   586.0     209   601.0   592.0     217
BT 601.0   592.0     217   601.0       0
GR 601.0       0   601.0     200   586.0     200   586.0     208   586.0     209
GR 586.0     217   601.0     217   601.0     400
X1  10.1                            510     510     510                .2
X2                                                   1
EJ
T1       ROCKWOOD RATING CURVE PROFILES
T2
T3       SMITH CREEK
J1              3                .00208                                590.0
J2      2              -1
T1       ROCKWOOD RATING CURVE PROFILES
T2
T3       SMITH CREEK
J1              4                .00208                                590.5
J2      3              -1
T1       ROCKWOOD RATING CURVE PROFILES
```

CCHV= .300 CEHV= .500
3280 CROSS SECTION 1.00 EXTENDED .35 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.00	6.75	591.75	0.00	590.50	592.07	.31	0.00	0.00	590.00
450.	12.	420.	.18.	11.	91.	9.	0.	0.	590.00
0.00	1.12	4.64	1.99	.035	.035	.035	0.000	585.00	0.00
.002062	0.	0.	0.	0	0	5	0.00	67.51	67.51
1.99	6.99	591.99	0.00	0.00	592.31	.33	.24	.01	594.30
450.	0.	450.	0.	0.	98.	0.	0.	0.	594.30
.01	0.00	4.58	0.00	.035	.035	.035	.035	585.00	185.00
.001981	120.	120.	120.	1	0	1	0.00	15.00	200.00

NORMAL BRIDGE,NRD=10 MIN ELTRD= 594.20 MAX ELLC= 594.00

VREELAND ROAD BRIDGE

2.00	6.95	591.95	0.00	0.00	592.36	.40	.00	.04	594.30
450.	0.	450.	0.	0.	88.	0.	0.	0.	594.30
.01	0.00	5.09	0.00	.035	.035	.035	.034	585.00	185.00
.003528	1.	1.	1.	2	0	1	-9.39	15.00	200.00

NORMAL BRIDGE,NRD=10 MIN ELTRD= 594.20 MAX ELLC= 594.00

2.10	7.20	592.20	0.00	0.00	592.58	.38	.22	.01	594.30
450.	0.	450.	0.	0.	91.	0.	0.	0.	594.30
.01	0.00	4.95	0.00	.035	.035	.035	.034	585.00	185.00
.003285	65.	65.	65.	2	0	1	-10.64	15.00	200.00
2.20	7.32	592.32	0.00	0.00	592.61	.30	.00	.03	594.30
450.	0.	450.	0.	0.	103.	0.	0.	0.	594.30
.01	0.00	4.36	0.00	.035	.035	.035	.034	585.00	185.00
.001744	1.	1.	1.	2	0	1	0.00	15.00	200.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.00	7.73	592.73	0.00	0.00	592.80	.07	.11	.07	590.00
450.	20.	397.	34.	19.	183.	35.	1.	0.	590.00
.04	1.05	2.17	.95	.035	.035	.035	.035	585.00	66.36
[illegible]	[illegible]	[illegible]	190.	[illegible]	0	1	0.00	85.79	152.14

.....	240.	240.	240.	2	0	1	0.00	25.00	195.00

NORMAL BRIDGE,NRD=20 MIN ELTRD= 596.80 MAX ELLC= 595.00

RR BRIDGE #1 U/S OF VREELAND ROAD

3.50	7.79	592.79	0.00	0.00	592.97	.17	.00	.02	596.80
450.	0.	450.	0.	0.	135.	0.	2.	1.	596.80
.06	0.00	3.32	0.00	.035	.035	.035	.035	585.00	170.00
.001428	1.	1.	1.	1	0	1	-15.70	25.00	195.00

NORMAL BRIDGE,NRD=20 MIN ELTRD= 596.80 MAX ELLC= 596.00

3.51	6.85	592.85	0.00	0.00	593.08	.23	.08	.03	597.80
450.	0.	450.	0.	0.	117.	0.	2.	1.	597.80
.06	0.00	3.85	0.00	.035	.035	.035	.035	586.00	170.00
.002020	50.	50.	50.	1	0	1	-10.39	25.00	195.00
3.52	6.90	592.90	0.00	0.00	593.09	.19	.00	.01	597.80
450.	0.	450.	0.	0.	129.	0.	2.	1.	597.80
.06	0.00	3.50	0.00	.035	.035	.035	.035	586.00	170.00
.001480	1.	1.	1.	2	0	1	0.00	25.00	195.00
4.00	7.15	593.15	0.00	0.00	593.15	.00	.00	.06	590.00
450.	393.	51.	6.	2242.	212.	58.	5.	2.	590.00
.20	.18	.24	.10	.035	.035	.035	.035	586.00	153.70
.000004	90.	90.	90.	2	0	1	0.00	1004.65	1158.36
4.90	7.06	593.06	0.00	0.00	593.24	.18	.00	.09	599.00
450.	0.	450.	0.	0.	133.	0.	9.	3.	599.00
.21	0.00	3.39	0.00	.035	.035	.035	.035	586.00	200.00
.001350	130.	130.	130.	2	0	1	0.00	25.00	225.00

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

NORMAL BRIDGE,NRD=20 MIN ELTRD= 599.00 MAX ELLC= 596.00

RR BRIDGE #2 U/S OF VREELAND ROAD

5.00	7.05	593.05	0.00	0.00	593.26	.22	.00	.02	599.00
450.	0.	450.	0.	0.	121.	0.	9.	3.	599.00
.21	0.00	3.72	0.00	.035	.035	.035	.035	586.00	200.00
.001836	1.	1.	1.	1	0	1	-11.51	25.00	225.00

NORMAL BRIDGE,NRD=20 MIN ELTRD= 599.00 MAX ELLC= 597.00

.002610	155.	155.	155.	2	0	1	-7.58	25.00	225.00
5.20	6.41	593.41	0.00	0.00	593.64	.23	.00	.01	600.00
450.	0.	450.	0.	0.	116.	0.	9.	3.	600.00
.22	0.00	3.87	0.00	.035	.035	.035	.035	587.00	200.00
.002005	1.	1.	1.	2	0	1	0.00	25.00	225.00
6.00	7.72	593.72	0.00	0.00	593.79	.07	.10	.05	595.00
450.	0.	450.	0.	0.	215.	0.	10.	3.	595.00
.24	0.00	2.09	0.00	.035	.035	.035	.035	586.00	304.67
.000501	110.	110.	110.	2	0	1	0.00	63.94	368.61
7.00	7.95	593.95	0.00	0.00	594.04	.09	.24	.01	590.00
450.	115.	288.	47.	107.	101.	47.	13.	5.	590.00
.30	1.07	2.84	1.01	.035	.035	.035	.035	586.00	119.61
.000484	485.	485.	485.	3	0	1	0.00	217.47	337.07
8.00	8.17	594.17	0.00	0.00	594.24	.07	.20	.00	590.00
450.	107.	288.	55.	100.	111.	43.	15.	7.	590.00
.36	1.08	2.59	1.29	.035	.035	.035	.035	586.00	78.21
.000373	480.	480.	480.	1	0	1	0.00	147.43	225.64
8.90	8.28	594.28	0.00	0.00	594.39	.12	.13	.02	602.00
450.	0.	450.	0.	0.	163.	0.	17.	8.	602.00
.39	0.00	2.76	0.00	.035	.035	.035	.035	586.00	200.00
.000732	250.	250.	250.	1	0	1	0.00	25.00	225.00

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

NORMAL BRIDGE,NRD=20 MIN ELTRD= 602.00 MAX ELLC= 596.00

RR BRIDGE TWO 10 FOOT CMP

9.00	8.26	594.26	0.00	0.00	594.41	.15	.00	.02	602.00
450.	0.	450.	0.	0.	143.	0.	17.	8.	602.00
.39	0.00	3.15	0.00	.035	.035	.035	.035	586.00	200.00
.001221	1.	1.	1.	2	0	1	-19.44	25.00	225.00

NORMAL BRIDGE,NRD=20 MIN ELTRD= 602.00 MAX ELLC= 596.00

9.10	8.62	594.62	0.00	0.00	594.76	.14	.34	.00	602.00
450.	0.	450.	0.	0.	149.	0.	18.	8.	602.00
.42	0.00	3.02	0.00	.035	.035	.035	.035	586.00	200.00
.001085	300.	300.	300.	2	0	1	-22.40	25.00	225.00

NORMAL BRIDGE,NRD= 8 MIN ELTRD= 601.00 MAX ELLC= 592.00

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Silver Creek

4) DOCUMENT TYPE: Encroachment

00BREAK00

14:16:33 X13 BILL HL201307 HUDORT APR 02, 1980

4/14/80

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*****************************************************
  HECR RELEASE DATED NOV 78 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 30,31,32
*****************************************************

C
T1BROWNSTOWN TOWNSHIP FCS RUD 2013 07 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 C 1YR=455  50=665  100=785  300=840   TO VAN HORN RD.
T3      SILVER CREEK BROWNSTOWN  STARTING WAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        4.        0.        0.  0.000000      0.00      0.0       0.   601.580     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    110.000   150.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      5.000   455.000   665.000   785.000   785.000   840.000     0.000     0.000     0.000     0.000
NC      0.090     0.090     0.060     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     0.000     9.100     0.000     0.000     0.000   285.000   605.000

        VALLEY SECTION AT CORP/LIMIT BROWNSTOWN/FLAT ROCK

X3  17673.000     9.000   395.000   405.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    610.000   275.000   600.000   290.000   599.500   600.000   594.170   395.000   593.380   400.000
GR    595.400   405.000   599.500   420.000   600.000   600.000   610.000   610.000     0.000     0.000
NC      0.080     0.060     0.035     0.300     0.500     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     7.100     7.100     7.100     7.100   625.000   975.000     0.000     0.000

        VALLEY SECTION D/S OF ARSENAL RD. BASED ON FIELD NOTES & QUAD MAP

X1  18782.000    10.000   792.000   808.000  1400.000   550.000  1109.000     0.000     0.000     0.000
GR    610.000     0.000   605.000     1.000   605.000   200.000   600.500   776.000   596.150   792.000
GR    595.400   800.000   595.540   808.000   600.500   816.000   600.000  1000.000   605.000  1300.000
ET      0.000     0.000     0.000     0.000     9.100     0.000     0.000     0.000     1.000   299.000

        D/S FACE OF ARSENAL RD.BRIDGE REPEATED SECTION 18782.

X1  18882.000    13.000   152.000   168.000   100.000   100.000   100.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   601.000   601.000     0.000
GR    610.000     0.000   600.800     1.000   600.500    60.000   600.500   136.000   596.150   132.000
GR    596.150   152.100   595.430   160.000   595.540   167.900   595.540   168.000   600.500   164.000
GR    600.300   260.000   600.300   299.000   610.000   300.000     0.000     0.000     0.000     0.000
SB      0.000     9.670     3.000     0.000    15.130     0.000    12.000     0.000   595.150   595.430
ET      0.000     0.000     0.000     0.000     7.100     0.000     1.000   299.000     0.000     0.000

        D/S FACE OF ARSENAL RD.BRIDGE REPEATED FOR SECTION 18782.

X1  18804.000    13.000   152.000   168.000    22.000    22.000    22.000     0.000     0.000     0.000
X3      0.000     0.000     1.000   595.900   601.600     0.000     0.000     0.000     0.000     0.000
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X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.030	601.800	0.000
BT	10.000	0.000	610.000	0.000	1.000	602.300	0.000	60.000	602.030	0.000
BT	152.000	602.120	595.430	152.100	604.350	599.900	167.900	604.350	599.900	168.000
BT	602.120	595.820	260.000	601.800	0.000	299.000	601.800	0.000	300.000	610.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	600.800	1.000	600.500	60.000	600.500	136.000	595.430	152.000
GR	595.430	152.100	595.130	360.000	595.820	167.900	595.820	168.000	600.300	184.000
GR	600.300	260.000	600.300	299.000	610.000	300.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	7.100	0.000	1.000	299.000	0.000	0.000

VALLEY SECTION U/S OF ARSENAL RD BASED ON FIELD NOTES & QUAD MAP

X1	18929.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.000	0.000
NC	0.080	0.080	0.035	0.130	0.300	0.000	0.000	0.000	0.000	0.030
ET	0.000	7.100	0.000	0.000	9.100	0.000	311.000	854.000	345.000	820.000
ET	0.000	0.000	7.100	9.100	0.000	9.100	265.000	865.000	265.000	900.000

VALLEY SECTION BASED ON FIELD BOOK SECTION 1700

X1	19713.000	11.000	644.000	656.000	1100.000	350.000	784.000	0.000	0.000	0.000
GR	605.000	0.000	600.540	350.000	600.010	400.000	600.850	635.000	595.900	644.000
GT	595.850	550.000	595.690	656.000	600.200	664.000	600.500	600.000	602.220	950.300
GR	603.000	1300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.300
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

I/S END OF FOOTBRIDGE

X1	19864.000	10.000	594.000	606.000	151.000	151.000	151.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.040	602.040	0.000
GR	605.000	200.000	601.000	201.000	602.040	586.000	596.350	594.000	595.296	600.000
GR	595.850	606.000	601.750	614.000	603.000	775.000	603.300	865.000	605.000	866.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	19865.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X4	2.000	602.040	596.010	601.750	613.990	0.000	0.000	0.000	0.000	0.000
GR	4.000	586.000	602.040	0.000	586.010	602.040	601.042	613.993	601.750	600.758
BT	614.000	601.750	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	19890.000	0.000	0.000	0.000	19.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

U/S END OF FOOTBRIDGE

X1	19931.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.040	602.040	0.000
GR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION D/S OF 60" CULVERT

X1	20304.000	11.000	698.000	705.000	625.000	623.000	623.000	0.000	0.000	0.000
GR	605.000	550.000	601.650	400.000	601.850	650.000	601.861	602.000	596.200	595.000
GR	526.320	698.050	596.320	701.950	586.400	745.000	602.050	715.000	603.900	1000.000
GR	605.000	1001.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S FACE OF 60" CULVERT

X1	20604.000	16.000	697.500	702.500	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.850	602.050	0.000
X4	2.000	601.860	697.000	602.050	713.000	0.000	0.000	0.000	0.000	0.000
BT	605.000	399.900	605.000	400.000	601.850	550.000	590.820	697.500	598.520	697.51
GR	597.700	697.750	596.800	698.500	596.400	699.250	596.320	700.000	596.400	700.750
GR	596.800	701.500	597.700	702.250	598.820	702.490	598.820	702.500	603.900	1000.100
GR	605.000	1000.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE 60" CULVERT

X1	20605.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	18.000	399.900	605.000	0.000	400.000	603.600	0.000	350.000	601.850	0.000
BT	687.000	601.860	0.000	697.500	602.600	0.000	697.510	602.600	598.540	697.750
BT	602.600	599.620	698.500	602.600	600.520	699.250	602.600	600.920	700.000	602.600
BT	601.040	700.750	602.600	600.920	701.500	602.600	600.520	702.250	602.600	599.620
BT	702.500	602.600	598.540	702.510	602.600	0.000	713.000	602.050	0.000	1000.000
BT	603.900	0.000	1000.100	605.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE 60" CULVERT

X1	20621.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	-0.280	0.000
BT	18.000	399.900	605.000	0.000	400.000	603.600	0.000	550.000	601.850	0.000
BT	687.000	601.860	0.000	697.500	602.600	0.000	697.500	602.600	598.821	697.750
BT	602.600	599.620	698.500	602.600	600.800	699.250	602.600	601.200	700.000	602.600
BT	601.320	700.751	602.600	601.200	701.500	602.600	600.800	702.250	602.600	599.900
BT	702.500	602.600	598.820	702.500	602.600	0.000	713.000	602.050	0.000	1000.000
BT	603.900	0.000	1000.100	605.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.300	0.000	0.000	675.000	323.000

U/S FACE OF 60" CULVERT

X1	20622.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.850	602.050	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.300	0.000	0.000	650.000	650.000

VALLEY SECTION U/S OF 60" CULVERT

X1	20647.000	11.000	695.000	705.300	25.000	25.300	25.000	0.000	-0.300	0.000
GR	605.000	350.000	603.600	400.300	601.850	550.000	601.860	687.000	396.400	695.000
GR	596.320	698.050	596.320	701.950	596.400	705.000	601.000	713.000	603.900	1000.000
BR	605.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION BASED ON FIELD BOOK SECTION 700

X1	20713.000	11.000	646.000	654.000	66.000	66.000	66.000	0.000	0.000	0.000
GR	605.000	250.000	603.560	350.000	601.850	500.000	601.130	632.000	596.320	646.000
GR	596.150	650.000	597.040	654.000	601.850	669.000	650.770	660.000	603.900	700.000
GR	605.000	1050.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION D/S OF TAN HORN

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

X1	21153.000	9.000	394.000	406.000	440.000	440.000	440.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	606.500	0.000	605.000	150.000	602.000	389.000	596.600	394.000	596.430	400.000
GR	596.600	406.000	602.000	419.000	600.000	450.000	605.000	900.000	0.000	0.000
NC	0.080	0.080	0.043	0.300	0.500	0.300	0.030	0.000	0.000	0.000
BT	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	342.000	784.000

D/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.60 & QUAD MAP

X1	21383.000	21.000	389.000	411.000	200.000	200.000	600.600	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.960	602.600	0.000
X4	2.000	603.000	574.000	601.450	422.000	0.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	605.000	100.000	605.000	299.900	603.200	300.000	596.550	389.000
GR	596.550	389.010	596.550	389.600	596.550	393.750	596.550	397.900	596.550	398.500
GR	596.550	401.500	596.550	402.100	596.550	406.250	596.550	410.400	596.550	410.990
GR	596.550	411.000	602.620	500.000	602.420	600.000	602.190	700.000	602.190	800.000
GR	605.000	801.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S END VAN HORN RD. BRIDGE

X1	21354.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	21.000	0.000	605.000	0.000	100.000	605.300	0.000	299.900	605.020	0.000
BT	300.000	603.200	0.000	389.000	602.960	0.000	389.010	602.960	596.550	389.600
BT	602.960	599.750	393.750	602.960	600.600	397.900	602.960	599.750	398.500	602.960
BT	596.550	401.500	602.960	596.550	402.100	602.960	599.750	406.250	602.960	600.600
BT	410.400	602.960	599.750	410.990	602.960	596.550	411.000	606.960	0.000	500.000
BT	602.620	0.100	600.000	602.420	0.000	700.000	602.190	0.000	800.000	602.190
BT	0.000	801.000	605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END VAN HORN RD. BRIDGE

X1	21412.000	0.000	0.000	0.000	98.000	98.000	98.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	343.000	785.000

D/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.0 & QUAD MAP

X1	21413.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.960	602.600	0.000

VALLEY SECTION U/S OF VAN HORN BRIDGE

X1	21463.000	0.000	546.000	556.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	765.000	0.000	0.000	0.000	0.000
GR	606.500	0.000	605.000	100.000	602.000	531.000	596.600	546.000	596.200	550.000
GR	596.600	556.000	602.300	569.000	602.500	650.000	605.300	850.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PRINTED IN U.S.A.
FORM 1412-AD PRINTED BY ROTARY-MANIFOLD FORMS

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 17673.000

SECNO	DEPTH	CWSEL	CRIWS	WSELN	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ANOB	ACH	AROB	WOL	T/W	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

VALLEY SECTION AT COPP/LIFIT BROWNSTOWN/FLAT ROCK

17673.00	8.26	601.58	0.00	601.58	601.67	0.09	0.00	0.00	594.37
785.	184.	301.	301.	236.	80.	408.	0.	0.	593.40
0.00	0.78	3.77	0.74	0.090	0.040	0.090	0.000	593.32	287.63
0.000655	0.	0.	0.	0.	0.	0	0.00	313.95	601.53

CCHV= 0.300 CEHV= 0.500

*SECNO 18782.000

3470 ENCROACHMENT STATIONS= 625.0 975.0 TYPE= 9 TARGET= 350.000

VALLEY SECTION D/S OF ARSENAL RD. BASED ON FIELD NOTES & QUAD MAP

18782.00	6.74	602.14	0.00	0.00	602.23	0.09	0.56	0.00	596.15
785.	133.	355.	295.	220.	104.	329.	14.	7.	595.54
0.13	0.60	3.41	0.90	0.080	0.035	0.060	0.041	595.40	625.00
0.000530	1400.	1109.	550.	2	0	0	0.00	350.00	975.00

*SECNO 18882.000

D/S FACE OF ARSENAL RD.BRIDGE REPEATED SECTION 18782.

18882.00	6.78	602.21	0.00	0.00	602.29	0.08	0.05	0.00	596.15
785.	185.	339.	261.	283.	105.	279.	16.	8.	595.54
0.15	0.65	3.23	0.94	0.080	0.035	0.060	0.040	595.43	0.85
0.000472	100.	100.	100.	3	0	0	0.00	298.35	299.20

SPECIAL BRIDGE

SO	XM	XKOR	COPQ	RDLEN	BHC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.67	3.00	0.00	15.16	0.00	72.00	0.00	595.15	595.43

*SECNO 18904.000

PRESSURE AND WEIR FLOW

EGPRS	ECLWC	HL	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
605.29	602.01	0.00	475.	313.	72.	72.	599.90	601.80

D/S FACE OF ARSENAL RD.BRIDGE REPEATED FOR SECTION 18929.

18904.00	7.50	603.65	0.00	0.00	602.70	0.05	0.41	0.00	595.43
785.	207.	310.	269.	357.	116.	355.	16.	8.	595.82
0.15	0.58	3.07	0.80	0.060	0.035	0.060	0.040	595.15	0.83

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0.000281      22.      22.      22.       2        0        4     0.00   298.44   299.24

*SECNO 18929.000
   SECNO     DEPTH    CMSEL    CRIWS    WSELK    EG       HV       HL       DLOSE   BANK ELEV
   C         QLOB     QCH      QROB     ALOB     ACK      AROB     VOL      TAA     LEFT/RIGHT
   TIME      VLOB     VCK      VROB     XNL      XNCH     XNR      XTM      ELRIN     SGTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IN2      ICONT    CORAR    TOPWID    ENDST

        VALLEY SECTION U/S OF ARSENAL RD BASED ON FIELD NOTES & QUAD MAP

 18929.00     7.51   602.66     0.00     0.00   602.71     0.05     0.01     0.00   595.43
     785.     207.     309.     269.     358.     116.     336.      17.       8.   595.82
     0.16     0.58     2.66     0.80    0.080    0.035    0.060    0.040   595.15     0.80
 0.000279      25.      25.      25.        0        0        0     0.00   298.45   299.24

CCHV=   0.100 CEHV=   0.300
*SECNO 19713.000

3470 ENCROACHMENT STATIONS=     265.0     900.0  TYPE=     1  TARGET=     635.000

        VALLEY SECTION BASED ON FIELD BOOK SECTION 1700

 19713.00     7.22   602.87     0.00     0.00   602.90     0.03     0.19     0.00   595.90
     785.     303.     207.     275.     681.      86.     548.      35.      17.   595.69
     0.36     0.36     2.42     0.50    0.080    0.035    0.080    0.039   595.65   265.00
 0.000236     1100.     784.     350.        0        0        0     0.00   635.00   900.00

*SECNO 19864.000

        D/S END OF FOOTBRIDGE

 19864.00     7.56   602.35     0.00     0.00   602.99     0.16     0.06     0.03   596.35
     785.     349.     372.      63.     541.      86.     110.      39.      19.   595.85
     0.38     0.65     4.34     0.58    0.080    0.035    0.080    0.038   595.29   200.54
 0.000767      151.     151.     151.        2        0        0     0.00   554.97   755.50

*SECNO 19865.000

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  601.75 MAX ELLC=  601.04

        1' INSIDE D/S END OF FOOTBRIDGE

 19865.00     7.68   602.97     0.00     0.00   603.00     0.03     0.00     0.01   596.35
     785.     506.     191.      88.     585.      75.     125.      39.      19.   595.85
     0.38     0.66     2.54     0.70    0.080    0.035    0.080    0.038   595.29   200.51
 0.000341       1.       1.       1.        2        0        0   -19.99   573.75   771.25

*SECNO 19880.000

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  601.75 MAX ELLC=  601.04

        1' INSIDE U/S END OF FOOTBRIDGE

 19880.00     7.70   602.99     0.00     0.00   603.02     0.03     0.02     0.00   596.35
     785.     507.     139.      89.     591.      75.     128.      39.      19.   595.85
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     0.39      0.86      2.51      0.69     0.080     0.035     0.080     0.038    595.29    200.50
 0.001304       15.       15.       15.         0         0         0    -19.99    572.67    773.18

*SECNO 19881.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       THA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID    ENDST

          U/S END OF FOOTBRIDGE

 19881.00      7.64    602.93      0.00      0.00    603.05      0.12      0.00      0.03    596.35
     785.      361.      358.       66.      572.       87.      122.       39.       19.    595.85
     0.39      0.63      4.12      0.54     0.080     0.035     0.080     0.038    595.29    200.52
 0.000633        1.        1.        1.         2         0         0      0.00    565.17    765.69

CCHV=    0.300 CEHV=    0.500
*SECNO 20504.000

          VALLEY SECTION D/S OF 60" CULVERT

 20504.00      7.11    603.43      0.00      0.00    603.67      0.24      0.56      0.06    596.40
     785.      269.      390.      125.      357.       71.      182.       49.       27.    596.40
     0.44      0.75      5.51      0.69     0.090     0.035     0.080     0.038    596.32    414.48
 0.001235      623.      623.      623.         2         0         0      0.00    512.79    927.27

*SECNO 20604.000

          D/S FACE OF 60" CULVERT

 20604.00      7.47    603.79      0.00      0.00    603.86      0.07      0.14      0.05    598.82
     785.      424.      351.      210.      461.       34.      270.       51.       28.    598.82
     0.46      0.92      4.37      0.78     0.090     0.035     0.080     0.037    596.32    399.99
 0.001520      100.      100.      100.         3         0         0      0.00    582.99    982.97

*SECNO 20605.000

5370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  601.85 MAX ELLC=  601.04

          1' INSIDE 60" CULVERT

 20605.00      7.52    603.84      0.00      0.00    603.87      0.03      0.00      0.03    598.82
     785.      488.       79.      218.      456.       24.      264.       51.       28.    598.82
     0.46      1.07      3.30      0.83     0.090     0.026     0.080     0.037    596.32    399.98
 0.002193        1.        1.        1.         2         0         0    -50.43    590.57    990.55

*SECNO 20621.000

5370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  601.85 MAX ELLC=  601.32

          1' INSIDE 60" CULVERT

 20621.00      7.83    603.87      0.00      0.00    603.90      0.03      0.03      0.00    598.54
     785.      475.       89.      221.      464.       27.      279.       51.       28.    598.54
     0.46      1.02      3.30      0.79     0.090     0.024     0.080     0.037    596.04    399.96
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0.001959      16.      16.      16.       0       0       0  -209.69   600.14  1000.10

*SECNO 20622.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       KV       HL       BLOSS   BANK ELEV
   Q        SLOB     QCH      QROB     ALOB     ACH      AROB     VOL      THA     LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XSL      XNCH     XNR      HTS      ELLIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IH2      ICONT    CORAR    TOPWID    ENDST

        U/S FACE OF 60" CULVERT

20622.00     7.83   603.87     0.00     0.00   603.90     0.03     0.00     0.00   598.54
    785.     423.     118.     244.     569.      36.     377.      51.      28.   596.54
    0.46     0.74     3.25     0.65    0.090    0.035    0.080    0.037   596.04   399.96
0.000785       1.       1.       1.        0        0        0     0.00   600.14  1000.10

*SECNO 20647.000

        VALLEY SECTION U/S OF 60" CULVERT

20647.00     7.86   603.88     0.00     0.00   603.92     0.04     0.01     0.01   596.10
    785.     277.     233.     276.     583.      78.     540.      52.      28.   596.10
    0.47     0.47     2.97     0.51    0.090    0.035    0.080    0.037   596.02   379.35
0.000314      25.      25.      25.        2        0        0     0.00   620.65  1000.00

CCHV=   0.100 CCHV=   0.300
*SECNO 20713.000

        VALLEY SECTION BASED ON FIELD BOOK SECTION 700

20713.00     7.70   603.93     0.00     0.00   603.94     0.01     0.02     0.00   596.32
    785.     223.     126.     436.     539.      60.     907.      54.      29.   597.04
    0.50     0.40     2.92     0.43    0.080    0.035    0.080    0.037   596.05   396.97
0.000174      66.      66.      66.        1        0        0     0.00   689.40  1014.37

*SECNO 21353.000

3470 ENCROACHMENT STATIONS=     250.0     850.0  TYPE=     1  TARGET=     602.000

        VALLEY SECTION D/S OF VAN HORN

21353.00     7.57   604.00     0.00     0.00   604.04     0.04     0.10     0.00   596.60
    785.      59.     246.     470.     181.      90.     876.      67.      36.   596.60
    0.60     0.38     2.74     0.54    0.080    0.035    0.080    0.037   596.43   250.20
0.000283     440.     440.     440.        2        0        0     0.00   560.38   810.38

CCHV=   0.300 CEHV=   0.500
*SECNO 21353.000

        D/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.60 & QUAD MAP

21353.00     7.51   604.06     0.00     0.00   604.10     0.04     0.05     0.00   596.55
    785.      68.     379.     642.     934.     165.     729.      72.      36.   596.55
    0.64     0.50     2.27     0.47    0.080    0.040    0.080    0.037   596.55   299.95
0.000750     220.     300.     200.        0        0        0     0.00   500.71   800.66

*SECNO 21394.000
```

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	IN2	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD= 602.17 MAX ELLC= 600.60									
1* INSIDE U/S END VAN HORN RD. BRIDGE									
21354.00	7.59	604.01	0.00	0.00	604.10	0.12	0.00	0.01	596.55
785.	61.	163.	561.	89.	89.	583.	72.	38.	596.55
0.64	0.68	1.84	0.96	0.080	0.040	0.080	0.037	596.55	299.95
0.001383	1.	1.	1.	2	0	0	-283.69	500.72	800.67
*SECNO 21412.000									
3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD= 602.17 MAX ELLC= 600.60									
1* INSIDE D/S END VAN HORN RD. BRIDGE									
21412.00	7.61	604.16	0.00	0.00	604.18	0.02	0.07	0.00	596.55
785.	65.	157.	563.	96.	90.	609.	75.	39.	596.55
0.65	0.67	1.76	0.92	0.080	0.040	0.080	0.037	596.55	299.95
0.001204	50.	50.	50.	2	0	0	-207.42	500.75	800.70
*SECNO 21413.000									
U/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.3 & QUAD MAP									
21413.00	7.60	604.15	0.00	0.00	604.19	0.04	0.05	0.01	596.55
785.	70.	352.	953.	144.	167.	772.	72.	38.	596.55
0.65	0.68	2.16	0.96	0.080	0.040	0.080	0.037	596.55	299.95
0.000229	1.	1.	1.	0	0	0	0.00	500.76	800.70
*SECNO 21403.000									
3470 ENCROACHMENT STATIONS= 250.0 789.0 TYPE= 1 TARGET= 539.000									
VALLEY SECTION U/S OF VAN HORN BRIDGE									
21463.00	7.95	604.55	0.00	0.00	604.23	0.08	0.02	0.02	596.60
785.	269.	254.	236.	401.	77.	325.	74.	39.	596.60
0.66	0.66	3.67	0.72	0.080	0.040	0.080	0.037	596.20	250.00
0.000639	50.	50.	50.	2	0	0	0.00	531.81	781.81

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50J31J52
*****************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 Q 10YR=435  50=665  100=785 500=840   TO VAN HORN RD.
T3       SILVER CREEK BROWNSTOWN  STARTING WAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       5.       0.       0.  0.000000     0.00     0.0      0.   601.660   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=   0.100 CEHV=   0.300
*SECNO 17673.000
   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   IH2      ICONT    CORAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=     285.0     603.0  TYPE=     1  TARGET=     318.000

        VALLEY SECTION AT CORP/LIMIT BROWNSTOWN/FLAT ROCK

 17673.00     8.34   601.66     0.00   601.58   601.74     0.06     0.00     0.00   594.37
     785.     186.     293.     306.     245.      81.     423.       0.       0.   593.40
     0.00     0.76     3.64     0.72    0.090    0.040    0.090    0.000   593.32   237.51
 0.000603       0.       0.       0.        0        0        0     0.00   314.15   601.66

FLOW DISTRIBUTION FOR SECNO=  17673.00          CWSEL=     601.66

STA=      288.     290.     380.     395.     405.     420.     600.     602.
  PER Q=      0.1     13.7      9.9     37.4     11.5     27.3      0.0
   AREA=      2.1    171.9     70.9     80.6     78.1    343.8      1.4
    VEL=      0.3      0.6      1.1      3.6      1.2      0.6      0.3

CCHV=   0.300 CEHV=   0.500
*SECNO 18782.000

3470 ENCROACHMENT STATIONS=     625.0     975.0  TYPE=     1  TARGET=     350.000

        VALLEY SECTION D/S OF ARSENAL RD. BASED ON FIELD NOTES & ROAD MAP

 18782.00     6.79   602.19     0.00   602.14   602.27     0.08     0.53     0.00   596.15
     785.     135.     351.     299.     227.     105.     336.      15.       7.   595.54
     0.14     0.60     3.34     0.89    0.080    0.035    0.060    0.041   595.40   625.00
 0.000506     1400.    1109.     550.        2        0        0     0.00   350.00   975.00

FLOW DISTRIBUTION FOR SECNO=  18782.00          CWSEL=     602.19

STA=      625.     776.     792.     808.     816.     975.
  PER Q=      9.3      7.9     46.7      5.5     32.6
   AREA=    165.3     61.8    105.0     33.3    302.2
    VEL=      0.4      1.0      3.3      1.3      0.8

*SECNO 18882.000

3470 ENCROACHMENT STATIONS=       1.0     299.0  TYPE=     1  TARGET=     298.000

        D/S FACE OF ARSENAL RD.BRIDGE REPEATED SECTION 18782.

 18882.00     6.82   602.25     0.00   602.21   602.32     0.07     0.05     0.00   596.15
     785.     186.     337.     262.     289.     106.     283.      16.       8.   598.54
     0.15     0.64     3.19     0.93    0.080    0.035    0.060    0.040   595.43     1.00
 0.000457     100.     100.     100.        0        0        0     0.00   298.00   299.00

FLOW DISTRIBUTION FOR SECNO=  18882.00          CWSEL=     602.25

STA=      [illegible]     60.     136.     152.     [illegible]     184.     [illegible]     299.
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PER Q=      6.4      9.7      7.7     42.9     11.5     14.2      7.7
 AREA=     93.8    132.3     62.6    105.6     67.5    139.9     75.7
  VEL=      0.5      0.6      1.0      3.2      1.3      0.8      0.8

SPECIAL BRIDGE

SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    0.00      1.67      3.00      0.00     15.16      0.00     72.00      0.00    595.15    595.43

*SECNO 18904.000
PRESSURE AND WEIR FLOW

EGPRS     EGLWC     H3       QWEIR     QPR       BAREA    TRAPEZOID     ELLC     ELTRD
                                                           AREA
 605.33    602.04    0.00      483.      305.      72.       72.      599.90    601.80

3470 ENCROACHMENT STATIONS=      1.0     299.0  TYPE=     1  TARGET=     298.000

        U/S FACE OF ARSENAL RD.BRIDGE REPEATED FOR SECTION 18929.

18904.00     7.51    602.66    0.00    602.65    602.71    0.05      0.39     0.00    595.43
    785.      207.     311.     268.     353.     116.     336.      17.       8.     595.82
    0.16      0.58     2.67     0.80     0.080    0.035    0.060    0.040    595.15     1.00
0.000282      22.      22.      22.        2        0        4      0.00    298.00    299.00

FLOW DISTRIBUTION FOR SECNO=  18904.00          CWSEL=     602.66

STA=       1.      60.     136.     152.     168.     184.     260.     299.
 PER Q=      7.3     10.9      8.1     39.6     10.1     15.7      8.3
 AREA=     110.6    154.2     75.1    116.3     72.8    171.8     92.1
  VEL=      0.5      0.5      0.8      2.7      1.1      0.7      0.7

*SECNO 18929.000
  SECNO    DEPTH    CWSEL    CRIMS    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     XLCHR    ITRIAL   IH2      ICONT    CORAR    TOPWID    GNDST

5470 ENCROACHMENT STATIONS=      1.0     299.0  TYPE=     1  TARGET=     298.000

        VALLEY SECTION U/S OF ARSENAL RD BASED ON FIELD NOTES & QUAD MAP

18929.00     7.52    602.67    0.00    602.66    602.72    0.05      0.01     0.00    595.43
    785.      207.     310.     268.     359.     116.     337.      17.       8.     595.82
    0.16      0.58     2.66     0.79     0.080    0.035    0.060    0.040    595.15     1.00
0.000279      23.      23.      25.        0        2        0      0.00    298.00    299.00

FLOW DISTRIBUTION FOR SECNO=  18929.00          CWSEL=     602.67

STA=       1.      60.     136.     152.     168.     184.     260.     299.
 PER Q=      7.4     10.9      8.1     39.5     10.1     15.7      8.3
 AREA=     119.2    164.9     75.3    116.5     72.2    172.5     92.1
  VEL=      0.5      0.5      0.8      2.7      1.1      0.7      0.7

CCHV=  0.100 CEHV=  0.500
*SECNO 18713.000
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3470 ENCROACHMENT STATIONS=      345.0      820.0  TYPE=      1  TARGET=      475.000

          VALLEY SECTION BASED ON FIELD BOOK SECTION 1700

 19713.00      7.24    602.39      0.00    602.87    602.93      0.33      0.27      0.00    595.90
     785.      313.      224.      246.      615.       86.      421.       34.       15.    595.69
     0.34      0.51      2.63      0.58     0.080     0.035     0.080     0.039    595.65    345.00
 0.000278     1100.      784.      350.         1         0         0      0.00    475.00    820.00

FLOW DISTRIBUTION FOR SECNO=  19713.00          CWSEL=     602.89

STA=      345.      350.      400.      635.      644.      656.      664.      800.      820.
  PER Q=      0.3       4.8      30.8       4.0      28.8       4.1      24.5       2.7
   AREA=      6.6      85.5     482.7      40.6      85.9      39.5     337.9      43.5
    VEL=      0.3       0.4       0.5       0.8       2.6       0.8       0.4       0.5

*SECNO 19864.000
 2800 NAT Q1=     283.44  WSEL=     602.85  ENC Q1=     283.44  WSEL=     602.95  RATIO=  0.0000
 NAT Q1=     305.  RATIOS LOB,CH,ROB=  0.4637  0.4511  0.0852  WSEL=     602.95

3470 ENCROACHMENT STATIONS=      221.0      620.4  TYPE=      4  TARGET=      0.071

          D/S END OF FOOTBRIDGE

 19864.00      7.57    602.87      0.00    602.85    603.03      0.17      0.07      0.04    596.35
     785.      347.      395.       43.      511.       86.       39.       37.       17.    595.85
     0.36      0.68      4.59      1.08     0.080     0.035     0.080     0.038    595.29    220.95
 0.000038      151.      151.      151.         2         0         0      0.00    599.43    620.38

FLOW DISTRIBUTION FOR SECNO=  19864.00          CWSEL=     602.87

STA=      221.      506.      594.      606.      614.      620.
  PER Q=     40.0       4.3      50.4       5.0       0.3
   AREA=    681.4      25.4      86.2      32.5       7.0
    VEL=      0.7       1.1       4.6       1.2       0.5

*SECNO 19865.000
 2800 NAT Q1=     214.37  WSEL=     602.97  ENC Q1=     214.37  WSEL=     603.07  RATIO=  0.0000
 NAT Q1=     235.  RATIOS LOB,CH,ROB=  0.6534  0.2275  0.1191  WSEL=     603.07

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  601.75 MAX ELLC=  601.04

3470 ENCROACHMENT STATIONS=      218.3      637.2  TYPE=      4  TARGET=      0.190

          1' INSIDE D/S END OF FOOTBRIDGE

 19865.00      7.72    603.01      0.00    602.97    603.05      0.04      0.00      0.01    596.35
     785.      517.      203.       65.      566.       76.       57.       37.       17.    595.85
     0.36      0.91      2.68      1.14     0.080     0.035     0.080     0.038    595.29    218.27
 0.001484        1.        1.        1.         2         0         3    -19.99    418.95    637.22

FLOW DISTRIBUTION FOR SECNO=  19865.00          CWSEL=     603.01

STA=      218.      506.      594.      606.      614.      637.
  PER Q=     63.3       2.8      23.9       5.6       2.7
   AREA=    [illegible]      26.9      73.8      29.6      27.8
    VEL=      0.9       0.9       2.7       1.5       0.8

*SECNO 19880.000
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2800 NAT Q1=    217.39  WSEL=    602.99  ENC Q1=    217.39  WSEL=    603.09  RATIO=  0.0000
NAT Q1=    240.  RATIOS LOB/CH,ROB=  0.6550  0.2243  0.1208  WSEL=    603.09

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  601.75 MAX ELLC=  601.04

3470 ENCROACHMENT STATIONS=     219.3     636.6  TYPE=     4  TARGET=      0.095

        1' INSIDE U/S END OF FOOTBRIDGE

 19880.00     7.74   603.03     0.00   602.99   603.07     0.04     0.02     0.00   596.35
     785.     519.     202.      69.     571.      76.      57.      38.      17.   595.85
     0.36     0.91     2.65     1.74    0.080    0.035    0.080    0.038   595.29   219.34
 0.001450      15.      15.      15.        0        0        0   -19.99   417.22   636.56

FLOW DISTRIBUTION FOR SECNO=  19880.00          CWSEL=    603.03

STA=     219.     586.     594.     606.     614.     637.
  PER Q=     63.5      2.6     25.7      5.6      2.6
   AREA=    543.9     26.6     76.0     29.8     26.9
    VEL=      0.9      0.9      2.7      1.5      0.8

*SECNO 19881.000
 2800 NAT Q1=    300.32  WSEL=    602.93  ENC Q1=    300.32  WSEL=    603.03  RATIO=  0.0000
 NAT Q1=    323.  RATIOS LOB/CH,ROB=  0.4768  0.4338  0.0894  WSEL=    603.03
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA     LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IH2      ICONT    CORAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=     220.4     627.9  TYPE=     4  TARGET=      0.070

        U/S END OF FOOTBRIDGE

 19881.00     7.67   602.96     0.00   602.93   603.10     0.14     0.00     0.03   596.35
     785.     362.     377.      46.     547.      87.      49.      38.      17.   595.85
     0.36     0.66     4.33     0.94    0.080    0.035    0.080    0.034   595.29   220.38
 0.000747       1.       1.       1.        2        0        0     0.00   407.53   627.91

FLOW DISTRIBUTION FOR SECNO=  19881.00          CWSEL=    602.96

STA=     220.     586.     594.     606.     614.     628.
  PER Q=     42.0      4.1     48.0      4.6      1.1
   AREA=    516.8     38.1     87.2     33.2     16.1
    VEL=      0.6      1.1      4.3      1.1      0.9

CCHV=   0.300 CEHV=   0.500
*SECNO 20504.000
 2800 NAT Q1=    223.34  WSEL=    603.43  ENC Q1=    223.34  WSEL=    603.53  RATIO=  0.0000
 NAT Q1=    233.  RATIOS LOB/CH,ROB=  0.3533  0.4749  0.1699  WSEL=    603.53

3470 ENCROACHMENT STATIONS=     517.8     780.7  TYPE=     4  TARGET=      0.066

        VALLEY SECTION D/S OF 60" CULVERT

 20504.00     7.18   603.30     0.00   603.43   603.76     0.26     0.60     0.06   596.40
     785.     268.     402.     115.     307.      72.      117.      46.      22.   596.[illegible]
     0.41     0.87     5.62     0.93    0.090    0.035    0.080    0.037   596.32   517.[illegible]
 0.001272      623.     623.     623.        2        0        0     0.00   262.62   780.65
```

FLOW DISTRIBUTION FOR SECNO= 20504.00 CWSEL= 603.50

STA=	518.	550.	687.	695.	705.	713.	781.
PER Q=	4.4	23.9	6.2	51.2	6.6	8.0	
AREA=	47.0	225.2	35.0	71.5	34.2	83.3	
VEL=	0.7	0.8	1.4	5.6	1.5	0.8	

*SECNO 20604.000
2800 NAT Q1= 201.33 WSEL= 603.79 ENC Q1= 201.33 WSEL= 603.89 RATIO= 0.0000
NAT Q1= 221. RATIOS LOB,CH,ROB= 0.5433 0.1796 0.2771 WSEL= 603.89

3370 ENCROACHMENT STATIONS= 493.3 814.2 TYPE= 4 TARGET= 0.687

D/S FACE OF 60" CULVERT

20604.00	7.56	603.38	0.00	603.79	603.95	0.07	0.14	0.06	598.62
785.	420.	154.	202.	412.	35.	169.	47.	22.	598.82
0.43	1.04	4.41	1.07	0.090	0.035	0.080	0.037	596.32	493.31
0.001520	100.	100.	100.	2	0	0	0.00	320.85	814.16

FLOW DISTRIBUTION FOR SECNO= 20604.00 CWSEL= 603.86

STA=	493.	550.	687.	698.	703.	713.	814.
PER Q=	11.1	36.6	6.9	19.6	7.4	18.4	
AREA=	96.6	278.1	37.2	35.0	36.2	152.6	
VEL=	0.9	1.0	1.5	4.4	1.6	0.9	

*SECNO 20605.000
2800 NAT Q1= 167.63 WSEL= 603.04 ENC Q1= 167.63 WSEL= 603.94 RATIO= 0.0000
NAT Q1= 165. RATIOS LOB,CH,ROB= 0.6214 0.0946 0.2841 WSEL= 603.94

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 601.85 MAX ELLC= 601.04

3370 ENCROACHMENT STATIONS= 496.6 819.5 TYPE= 4 TARGET= 0.695

1' INSIDE 60" CULVERT

20605.00	7.60	603.92	0.00	603.94	603.98	3.04	0.00	0.01	598.82
785.	495.	82.	208.	409.	24.	130.	47.	22.	598.02
0.43	1.29	3.36	1.15	0.030	0.026	0.060	0.537	596.32	486.60
0.002216	1.	1.	1.	2	0	0	-50.65	332.90	819.50

FLOW DISTRIBUTION FOR SECNO= 20605.00 CWSEL= 603.92

STA=	487.	550.	687.	698.	703.	713.	819.
PER Q=	15.1	45.6	2.4	10.4	2.5	24.0	
AREA=	108.1	283.6	17.8	24.4	16.8	163.1	
VEL=	1.1	1.3	1.1	3.4	1.2	1.2	

*SECNO 20621.000
2800 NAT Q1= 177.39 WSEL= 603.97 ENC Q1= 177.36 WSEL= 603.97 RATIO= 0.0000
NAT Q1= 194. RATIOS LOB,CH,ROB= 0.6116 0.1064 0.2820 WSEL= 603.97

3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD= 601.87 MAX ELLC= 601.32

3370 ENCROACHMENT STATIONS= 492.4 823.2 TYPE= 4 TARGET= 0.667

1' INSIDE 60" CULVERT

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20621.00      7.92    603.96      0.00    603.87    604.00      0.04      0.03      0.00    598.54
    785.      485.       92.      208.      421.       27.      188.       48.       22.    598.54
    0.43      1.15      3.36      1.11     0.090     0.026     0.080     0.037    596.04    482.65
0.001984       16.       16.       16.         0         0         0   -141.19    339.08    821.73

FLOW DISTRIBUTION FOR SECNO=  20621.00          CWSEL=    603.96

STA=      483.      550.      687.      698.      703.      713.      822.
  PER Q=      15.2      44.2       2.4      11.7       2.8      23.7
   AREA=     115.3     287.8      18.1      27.3      13.6     169.1
    VEL=       1.0       1.2       1.0       3.4       1.2       1.1

*SECNO 20622.000
   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      XWL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE    XLOBL     XLOB      XLOSR     ITRIAL    IH2       ICONT     CCTAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      475.0      823.0  TYPE=      1  TARGET=      348.000

        U/S FACE OF 60" CULVERT

20622.00      7.92    603.96      0.00    603.87    604.00      0.04      0.00      0.00    598.54
    785.      442.      127.      216.      514.       37.      242.       48.       23.    598.54
    0.43      0.86      3.45      0.89     0.090     0.035     0.080     0.037    596.04    475.00
0.000370        1.        1.        1.         0         0         0      0.00    348.00    823.00

FLOW DISTRIBUTION FOR SECNO=  20622.00          CWSEL=    603.96

STA=      475.      550.      687.      698.      703.      713.      823.
  PER Q=      14.0      36.2       4.1      16.1       6.6      20.9
   AREA=     146.5     326.8      41.0      36.7      40.0     202.0
    VEL=       0.8       0.9       1.2       3.4       1.3       0.8

*SECNO 20647.000

3470 ENCROACHMENT STATIONS=      430.0      850.0  TYPE=      1  TARGET=      400.000

        VALLEY SECTION N/S OF 60" CULVERT

20647.00      7.95    603.97      0.00    603.88    604.01      0.05      0.01      0.00    596.10
    785.      287.      238.      260.      555.       79.      397.       48.       23.    596.10
    0.44      0.52      3.01      0.65     0.090     0.035     0.080     0.037    596.02    450.00
0.000316       25.       25.       25.         2         0         0      0.30    400.00    850.00

FLOW DISTRIBUTION FOR SECNO=  20647.00          CWSEL=    603.97

STA=      450.      550.      687.      698.      703.      713.      850.
  PER Q=      10.8      22.5       4.0      30.4       5.4      27.7
   AREA=     103.6     330.3      41.1      79.2      44.5     552.8
    VEL=       0.4       0.5       0.8       3.0       0.9       0.6

CEHV=    0.100 CEHV=    0.300
*SECNO 20713.000
 2300 MAX 01=    594.93  WSEL=    603.93  END 01=    594.93  WSEL=    604.03  RATIO=  0.0000
 LAT 01=    [illegible]  RATIOS DOP,CH,ROB=  0.2000  0.1547  0.5382  WSEL=    604.03

3470 ENCROACHMENT STATIONS=      451.4      942.3  TYPE=      4  TARGET=      0.000
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          VALLEY SECTION BASED ON FIELD BOOK SECTION 700

  20713.00      7.87    604.02      0.00    603.93    604.03      0.01      0.02      0.00    596.52
      785.       217.      130.      438.      478.       60.      857.       50.       23.    597.04
      0.46      0.45      2.14      0.51     0.000     0.035     0.080     0.037    596.15    451.35
 0.000175       66.       66.       66.         2         0         0      0.00    490.95    942.33

FLOW DISTRIBUTION FOR SECNO=  20713.00          CWSEL=     604.02

STA=      451.      500.      639.      646.      654.      669.      800.      942.
  PER Q=      4.3      21.3       3.0      16.5       6.4      26.2      23.3
   AREA=     92.0     350.0      36.3      60.4      73.1     398.0     335.7
    VEL=      0.4       0.5       0.7       2.1       0.7       0.5       0.5

*SECNO 21153.000

3470 ENCROACHMENT STATIONS=      250.0      850.0  TYPE=      1  TARGET=      600.000

          VALLEY SECTION D/S OF VAN HORN

  21153.00      7.67    604.10      0.00    604.00    604.13      0.04      0.09      0.01    596.60
      785.       73.      239.      473.      194.       91.      913.       63.       29.    596.60
      0.57      0.38      2.62      0.52     0.080     0.035     0.080     0.037    596.43    250.00
 0.000257      460.      440.      440.         2         0         0      0.00    568.60    818.60

FLOW DISTRIBUTION FOR SECNO=  21153.00          CWSEL=     604.10

STA=      250.      309.      394.      406.      419.      650.      819.
  PER Q=      7.4       2.0      30.4       6.4       7.7      46.1
   AREA=    170.0      24.0      91.0      62.3      96.0     754.8
    VEL=      0.3       0.7       2.6       0.8       0.6       0.5

CCHV=    0.300 CEHV=    0.500
*SECNO 21353.000

3470 ENCROACHMENT STATIONS=      342.0      784.0  TYPE=      1  TARGET=      442.000

          D/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.60 & QUAD MAP

  21353.00      7.59    604.14      0.00    604.06    604.18      0.04      0.05      0.00    596.55
      785.       33.      363.      334.      149.      167.      732.       58.       33.    596.55
      0.61      0.59      2.17      0.46     0.080     0.040     0.080     0.037    596.55    342.00
 0.000232      200.      200.      200.         0         0         0      0.00    442.00    784.00

FLOW DISTRIBUTION FOR SECNO=  21353.00          CWSEL=     604.14

STA=      342.      374.      389.      411.      422.      500.      600.      700.      784.
  PER Q=      5.2       6.0      46.2       5.7       9.7       0.0      10.0       9.2
   AREA=     83.5      65.5     167.0      56.5     164.1     161.9     184.4     164.7
    VEL=      0.5       0.7       2.2       0.0       0.3       0.4       0.4       0.4

*SECNO 21354.000
 2000 NAT Q1=     211.09  WSEL=     604.06  END Q1=     211.09  WSEL=     604.18  RATIO=  0.0000
 NAT Q1=     232.  RATIOS LOB,CH,ROB=  0.0037  0.1968  0.7196  WSEL=     604.18
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TMA       [illegible]
   TIME      VLOB      VCH       VROB      KLL       XMCH      XRR       [illegible]     ELMIN     SSTA
   [illegible]     [illegible]     [illegible]     [illegible]     [illegible]     [illegible]     [illegible]     [illegible]
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 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  602.17 MAX ELLC=  600.60

 3470 ENCROACHMENT STATIONS=     351.4     783.7  TYPE=     4  TARGET=       0.090
      1' INSIDE U/S END VAN HORN RD. BRIDGE
  21354.00    7.61  604.16    0.00  604.08  604.18    0.02    0.00    0.00  596.55
    785.      31.     172.     582.     43.     90.     582.     68.     31.  596.55
      0.41    0.71    1.91    1.00   0.080   0.040   0.080   0.037  596.55  351.41
  0.301460      1.      1.      1.       1       0       0 -609.59  432.24  783.67

 FLOW DISTRIBUTION FOR SECNO=  21354.00          CWSEL=    604.16

 STA=     351.     389.     411.     500.     600.     700.     784.
   PER Q=    3.9     22.0      5.2     20.5     25.4     23.1
   AREA=    42.9     90.2     66.2    163.2    185.7    165.2
   VEL=      0.7      1.9      0.6      1.0      1.1      1.1

 *SECNO 21412.000
  2800 NAT Q1=     226.28  USEL=    604.16  ENC Q1=     226.28  WSEL=    604.26  RATIO=  0.0000
  NAT Q1=    248.  RATIOS LOB,CH,ROB=  0.0078  0.1901  0.7221  ESEL=    604.26

 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  602.17 MAX ELLC=  600.60

 3470 ENCROACHMENT STATIONS=     347.1     784.4  TYPE=     4  TARGET=       0.087
      1' INSIDE D/S END VAN HORN RD. BRIDGE
  21412.00    7.69  604.24    0.00  604.16  604.26    0.02    0.08    0.00  596.55
    785.      36.     165.     584.     51.     92.     612.     69.     32.  596.55
      0.63    0.70    1.80    0.95   0.080   0.040   0.080   0.037  596.55  347.06
  0.001215      58.     58.     58.       1       0       0 -634.30  437.34  784.40

 FLOW DISTRIBUTION FOR SECNO=  21412.00          CWSEL=    604.24

 STA=     347.     389.     411.     500.     600.     700.     784.
   PER Q=    4.6     21.1      5.2     20.6     25.3     23.2
   AREA=    51.2     92.1     71.9    171.7    196.2    173.2
   VEL=      0.7      1.8      0.6      0.9      1.0      1.0

 *SECNO 21413.000

 3470 ENCROACHMENT STATIONS=     363.0     785.0  TYPE=     4  TARGET=     442.000
      U/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.C & AUG 14

  21413.00    7.70  604.25    0.00  604.15  604.27    0.01    0.00    0.00  596.55
    785.     161.     248.     376.     275.     169.     959.     69.     32.  596.55
     10.65    3.59    1.46    0.98   0.080   0.040   0.060   0.027  596.55  543.00
  0.000133       1       1       1       1       0       0    8.03  442.00  785.00

 FLOW DISTRIBUTION FOR SECNO=  21413.00          CWSEL=    604.25

 STA=     363.     389.     411.     500.     600.     700.     785.
   PER Q=   20.5     31.9     22.3      6.9      7.5      6.8
   AREA=   209.1    183.4    215.0     72.9     78.4     74.3
   VEL=      0.6      1.8      0.5      0.3      0.3      0.3

 *SECNO 21400.000
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3470 ENCROACHMENT STATIONS= 250.0 789.0 TYPE= 1 TARGET= 539.000

VALLEY SECTION U/S OF VAN HORN BRIDGE

21463.00	8.04	604.24	0.00	604.15	604.31	0.07	0.01	0.03	596.60
765.	273.	273.	239.	427.	78.	345.	71.	32.	596.60
0.64	0.64	3.48	0.69	0.080	0.040	0.030	0.037	596.20	250.00
0.000568	50.	50.	50.	2	0	0	0.00	538.80	788.80

FLOW DISTRIBUTION FOR SECND= 21463.00 CLSEL= 604.24

STA=	250.	531.	546.	556.	569.	650.	789.
PER Q=	23.2	11.6	34.8	9.9	14.3	6.2	
AREA=	353.3	74.0	78.4	64.2	160.8	120.4	
VEL=	0.5	1.2	3.5	1.2	0.7	0.4	

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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

SILVER CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFMIN	EG	TOPWID	ALOB	ACH	AROB	PERENC	STENCL	STCHL	STCHR	STENCR
17673.000	601.58	0.00	601.67	313.95	183.75	300.68	300.57	0.00	0.00	395.00	405.00	0.00
17673.000	601.66	0.08	601.74	314.15	196.00	293.42	305.58	318.00	285.00	395.00	405.00	605.00
18782.000	602.14	0.00	602.23	350.00	132.83	355.67	296.50	350.00	625.00	792.00	808.00	975.00
18782.000	602.19	0.04	602.27	350.00	135.14	350.01	299.05	350.00	625.00	792.00	808.00	975.00
18882.000	602.21	0.00	602.29	298.35	184.55	339.07	261.38	0.00	0.00	152.00	168.00	0.00
18882.000	602.25	0.04	602.32	298.00	186.25	336.71	262.04	298.00	1.00	152.00	168.00	299.00
18904.000	602.66	0.00	602.70	298.44	206.69	309.78	265.53	0.00	0.00	152.00	168.00	0.00
18904.000	602.66	0.01	602.71	298.00	205.84	310.59	267.58	298.00	1.00	152.00	168.00	299.00
18929.000	602.66	0.00	602.71	298.45	207.04	309.07	268.89	0.00	0.00	152.00	168.00	0.00
18929.000	602.67	0.01	602.72	298.00	207.18	309.90	267.92	298.00	1.00	152.00	168.00	299.00
19713.000	602.87	0.00	602.90	635.00	302.96	207.30	274.74	635.00	265.00	644.00	656.00	900.00
19713.000	602.89	0.02	602.92	475.00	312.17	226.15	243.68	475.00	365.00	644.00	656.00	820.00
19864.000	602.85	0.00	602.99	554.97	349.23	372.32	63.44	0.00	0.00	594.00	606.00	0.00
19864.000	602.87	0.02	603.03	399.43	347.07	395.30	42.62	0.07	220.95	594.00	606.00	620.58
19865.000	602.97	0.00	603.00	370.78	305.84	191.11	88.05	0.00	0.00	594.00	606.00	0.00
19865.000	603.01	0.04	603.05	418.95	316.91	203.15	64.94	0.09	216.27	594.00	606.00	537.22
19880.000	602.99	0.00	603.02	572.67	507.18	189.19	88.63	0.00	0.00	594.00	606.00	0.00
19880.000	603.03	0.04	603.07	417.22	518.73	201.77	64.50	0.09	219.36	594.00	606.00	636.56
19881.000	602.93	0.00	603.05	565.17	361.00	357.89	66.11	0.00	0.00	594.00	606.00	0.00
19881.000	602.98	0.03	603.10	407.43	361.65	372.05	66.30	0.27	220.38	594.00	606.00	627.91
20504.000	603.43	0.00	603.67	512.79	269.35	390.15	125.50	0.00	0.00	695.00	705.00	0.00
20504.000	603.50	0.07	603.78	262.82	267.90	402.23	114.87	0.07	517.85	695.00	705.00	780.65
20604.000	603.77	0.00	603.86	568.99	423.36	450.72	210.42	0.00	0.00	697.50	702.50	0.00
20604.000	603.88	0.09	603.98	520.85	428.49	454.30	208.36	3.19	495.21	697.50	702.50	818.15
20605.000	603.84	0.00	603.87	590.57	437.78	79.18	216.04	0.00	0.00	697.50	702.50	0.00
20605.000	603.92	0.09	603.96	332.90	495.38	82.00	207.62	0.10	486.60	697.50	702.50	819.50

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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
20621.000	603.87	0.00	603.90	600.14	475.19	88.68	221.13	0.00	0.00	697.50	702.50	0.00
20621.000	603.96	0.09	604.00	339.08	485.30	91.09	207.99	0.09	682.65	697.50	702.50	821.73
20622.000	603.87	0.00	603.90	603.14	423.38	118.02	243.61	0.00	0.00	697.50	702.50	0.00
20622.000	603.96	0.09	604.00	348.00	442.13	126.69	216.18	348.00	475.00	697.50	702.50	823.00
20647.000	603.88	0.00	603.92	620.65	276.63	232.54	275.83	0.00	0.00	695.00	705.00	0.00
20647.000	603.97	0.09	604.01	400.00	286.96	230.35	259.69	400.00	450.00	695.00	705.00	850.00
20713.000	603.93	0.00	603.96	619.40	222.73	126.32	435.93	0.00	0.00	646.00	654.00	0.00
20713.000	604.02	0.09	604.03	490.98	216.92	129.59	438.49	0.06	451.35	646.00	654.00	942.35
21153.000	604.00	0.00	604.04	560.30	69.31	245.83	469.86	600.00	250.00	394.00	406.00	850.00
21153.000	604.10	0.09	604.13	568.60	73.44	236.75	472.03	600.00	250.00	394.00	406.00	850.00
21353.000	604.06	0.00	604.10	500.71	67.86	375.01	342.13	0.00	0.00	389.00	411.00	0.00
21353.000	604.14	0.09	604.18	442.00	87.90	362.68	334.42	442.00	342.00	389.00	411.00	784.00
21354.000	604.08	0.00	604.10	500.72	61.08	162.99	560.92	0.00	0.00	389.00	411.00	0.00
21354.000	604.16	0.08	604.18	432.26	50.66	172.32	561.95	0.09	351.41	389.00	411.00	783.67
21412.000	604.16	0.00	604.18	500.75	64.63	157.03	563.34	0.00	0.00	389.00	411.00	0.00
21412.000	604.24	0.08	604.26	437.34	35.84	165.31	583.63	0.09	347.06	389.00	411.00	784.41
21413.000	604.15	0.00	604.19	500.76	69.74	361.95	353.31	0.00	0.00	389.00	411.00	0.00
21413.000	604.25	0.10	604.27	442.00	160.99	247.98	376.68	442.00	343.00	389.00	411.00	785.00
21463.000	604.15	0.00	604.23	531.81	265.09	284.17	235.74	539.00	250.00	546.00	556.00	789.00
21463.000	604.24	0.09	604.31	538.80	273.15	272.95	238.90	539.00	250.00	546.00	556.00	789.00

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FORM 1411-QD PRINTED BY ROTARY MANIFOLD FORMS.

SILVER CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	ELCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRINS	HO	10K*S	VCH	AREA	.01K
17673.000	0.00	0.00	0.00	593.32	785.00	601.58	0.00	601.67	6.55	3.77	723.64	306.70
17673.000	0.00	0.00	0.00	593.32	785.00	601.66	0.00	601.74	6.03	3.64	748.72	319.55
18782.000	1109.03	0.00	0.00	595.40	785.00	602.14	0.00	602.23	5.35	3.41	653.55	340.66
18782.000	1109.03	0.00	0.00	595.40	785.00	602.19	0.00	602.27	5.05	3.34	667.57	349.12
18882.000	100.00	0.00	0.00	595.43	785.00	602.21	0.00	602.29	4.72	3.23	666.90	361.43
18882.000	100.00	0.00	0.00	595.43	785.00	602.25	0.00	602.32	4.57	3.19	677.45	367.33
18904.000	22.00	601.80	599.90	595.15	785.00	602.65	0.00	602.70	2.81	2.67	807.88	468.06
18904.000	22.00	601.80	599.90	595.15	785.00	602.66	0.00	602.71	2.82	2.67	810.17	467.84
18929.000	25.00	0.00	0.00	595.15	785.00	602.66	0.00	602.71	2.79	2.66	810.65	470.14
18929.000	25.00	0.00	0.00	595.15	785.00	602.67	0.00	602.72	2.79	2.66	812.86	469.85
19713.000	784.00	0.00	0.00	595.65	785.00	602.87	0.00	602.90	2.36	2.42	9516.22	511.23
19713.000	784.00	0.00	0.00	595.65	785.00	602.89	0.00	602.93	2.70	2.63	3122.22	470.49
19864.000	151.00	0.00	0.00	595.29	785.00	602.85	0.00	602.99	7.67	4.34	737.13	283.44
19864.000	151.00	0.00	0.00	595.29	785.00	602.87	0.00	603.03	8.58	4.59	636.30	268.02
19865.000	1.00	601.75	601.04	595.29	785.00	602.97	0.00	603.00	13.41	2.54	785.93	214.37
19865.000	1.00	601.75	601.04	595.29	785.00	603.01	0.00	603.05	14.84	2.68	698.74	203.79
19880.000	15.00	601.75	601.04	595.29	785.00	602.99	0.00	603.02	13.04	2.51	794.45	217.39
19880.000	15.00	601.75	601.04	595.29	785.00	603.03	0.00	603.07	14.50	2.65	703.25	206.14
19881.000	1.00	0.00	0.00	595.29	785.00	602.93	0.00	603.05	6.85	4.12	781.30	300.32
19881.000	1.00	0.00	0.00	595.29	785.00	602.96	0.00	603.10	7.47	4.33	663.42	287.16
20504.000	623.00	0.00	0.00	596.32	785.00	603.43	0.00	603.67	12.35	5.51	609.94	223.34
20504.000	623.00	0.00	0.00	596.32	785.00	603.53	0.00	603.76	12.72	5.62	496.19	220.10
20504.000	100.00	0.00	0.00	596.32	785.00	603.79	0.00	603.86	15.20	4.37	765.43	201.33
20504.000	100.00	0.00	0.00	596.32	785.00	603.80	0.00	603.95	15.20	4.61	635.70	201.36
20605.000	1.00	601.85	601.04	596.32	785.00	603.84	0.00	603.87	21.93	3.30	743.69	167.63
20605.000	1.00	601.85	601.04	596.32	785.00	603.92	0.00	603.96	22.16	3.56	613.84	166.77
20621.000	16.00	601.85	601.32	596.04	785.00	603.87	0.00	603.93	19.59	3.30	769.88	177.36
20621.000	16.00	601.85	601.32	596.04	785.00	603.94	0.00	604.00	19.86	3.36	630.81	176.22
20622.000	1.00	0.00	0.00	596.04	785.00	603.87	0.00	603.90	7.85	3.25	982.65	280.11
20622.000	1.00	0.00	0.00	596.04	785.00	603.96	0.00	604.00	8.70	3.45	792.88	266.19
20647.000	25.00	0.00	0.00	596.02	785.00	603.88	0.00	603.92	5.14	2.97	1200.77	642.34
20647.000	25.00	0.00	0.00	596.02	785.00	603.97	0.00	604.01	5.13	3.01	1051.58	640.29
20713.000	66.00	0.00	0.00	596.15	785.00	603.93	0.00	603.94	1.74	2.12	1925.16	594.93
20713.000	66.00	0.00	0.00	596.15	785.00	604.02	0.00	604.03	1.75	2.14	1395.43	592.60
21153.000	440.00	0.00	0.00	596.45	785.00	604.00	0.00	604.04	9.85	3.74	1446.49	666.30
21153.000	440.00	0.00	0.00	596.45	785.00	604.10	0.00	604.13	9.57	3.82	1098.05	638.56

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SECNO	XLCH	ELTRD	ELLC	ELMIN	IQ	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
21353.000	200.00	0.00	0.00	596.55	785.00	604.06	0.00	604.10	2.58	2.27	1028.32	489.00
21353.000	200.00	0.00	0.00	596.55	785.00	604.14	0.00	604.16	2.32	2.17	1047.38	515.68
21354.000	1.00	602.17	600.60	596.55	785.00	604.08	0.00	604.10	13.83	1.84	760.64	211.59
21354.000	1.00	602.17	600.60	596.55	785.00	604.16	0.00	604.18	14.60	1.91	715.45	205.43
21412.000	58.00	602.17	600.60	596.55	785.00	604.16	0.00	604.18	12.04	1.74	796.07	226.28
21412.000	58.00	602.17	600.60	596.55	785.00	604.24	0.00	604.26	12.85	1.80	754.80	221.63
21413.000	1.00	0.00	0.00	596.55	785.00	604.15	0.00	604.19	2.29	2.16	1084.06	519.25
21413.000	1.00	0.00	0.00	596.55	785.00	604.25	0.00	604.27	1.03	1.46	1403.66	772.50
21463.000	50.00	0.00	0.00	596.20	785.00	604.15	0.00	604.23	6.39	3.67	804.23	310.65
21463.000	50.00	0.00	0.00	596.20	785.00	604.24	0.00	604.31	5.68	3.48	851.02	329.52

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FORM 1411-DUPRINTED BY ROTARY MANIFOLD FORMS

SILVER CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKLS	TOPWID	ELCR
17673.000	785.00	601.58	0.00	0.00	0.00	313.95	0.00
17673.000	785.00	601.66	0.00	0.00	0.08	314.15	0.00
18782.000	785.00	602.14	0.00	0.56	0.00	350.00	1109.00
18782.000	785.00	602.19	0.00	0.53	0.04	350.00	1109.00
18882.000	785.00	602.21	0.00	0.06	0.00	298.35	100.00
18882.000	785.00	602.25	0.00	0.06	0.04	298.00	100.00
18904.000	785.00	602.65	0.00	0.44	0.00	298.44	22.00
18904.000	785.00	602.66	0.00	0.42	0.01	298.00	22.00
18929.000	785.00	602.66	0.00	0.01	0.00	298.45	25.00
18929.000	785.00	602.67	0.00	0.01	0.01	298.00	25.00
19713.000	785.00	602.87	0.00	0.21	0.00	635.00	784.00
19713.000	785.00	602.89	0.00	0.22	0.02	475.00	784.00
19864.000	785.00	602.85	0.00	-0.02	0.00	554.97	151.00
19864.000	785.00	602.87	0.00	-0.03	0.02	399.43	151.00
19865.000	785.00	602.97	0.00	0.12	0.00	570.75	1.00
19865.000	785.00	603.01	0.00	0.14	0.04	418.95	1.00
19880.000	785.00	602.99	0.00	0.02	0.00	572.67	15.00
19880.000	785.00	603.03	0.00	0.02	0.04	417.22	15.00
19881.000	785.00	602.93	0.00	-0.06	0.00	565.17	1.00
19881.000	785.00	602.96	0.00	-0.07	0.03	407.32	1.00
20504.000	785.00	603.43	0.00	0.50	0.00	512.79	623.00
20504.000	785.00	603.50	0.00	0.54	0.07	262.82	623.00
20604.000	785.00	603.79	0.00	0.36	0.00	302.99	100.00
20604.000	785.00	603.08	0.00	0.36	0.09	320.08	100.00
20605.000	785.00	603.84	0.00	0.05	0.00	590.57	1.00
20605.000	785.00	603.92	0.00	0.05	0.09	332.90	1.00
20621.000	785.00	603.87	0.00	0.03	0.00	600.14	16.00
20621.000	785.00	603.96	0.00	0.03	0.09	339.08	16.00
20622.000	785.00	603.87	0.00	0.00	0.00	600.14	1.00
20622.000	785.00	603.96	0.00	0.00	0.09	348.00	1.00
20647.000	785.00	603.88	0.00	0.01	0.00	620.89	25.00
20647.000	785.00	603.97	0.00	0.01	0.09	400.00	25.00
20713.000	785.00	603.93	0.00	0.05	0.00	689.40	66.00
20713.000	785.00	604.02	0.00	0.05	0.09	490.98	66.00
21153.000	785.00	604.00	0.00	0.08	0.00	560.38	440.00
21153.000	785.00	604.10	0.00	0.08	0.09	560.60	440.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
21353.000	785.00	604.06	0.00	0.05	0.00	500.71	200.00
21353.000	785.00	604.14	0.03	0.05	0.09	442.02	200.00
21354.000	785.00	604.04	0.00	0.02	0.03	500.21	1.00
21354.000	785.00	604.16	0.00	0.02	0.08	432.26	1.00
21412.000	785.00	604.16	0.00	0.08	0.00	500.75	58.00
21412.000	785.00	604.24	0.00	0.03	0.04	437.34	58.00
21413.000	785.00	604.15	0.00	-0.01	0.00	500.76	1.00
21413.000	785.00	604.25	0.00	0.01	0.10	442.00	1.00
21463.000	785.00	604.15	0.00	-0.00	0.00	531.81	50.00
21463.000	785.00	604.24	0.00	-0.02	0.09	538.80	50.00

SUMMARY OF ERRORS

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FLOODWAY DATA, SILVER CREEK BROWNSTOWN
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
17673.000	314.	749.	1.0	601.7	601.6	0.1
18782.000	350.	658.	1.2	602.1	602.1	0.0
18882.000	298.	677.	1.2	602.2	602.2	0.0
18904.000	298.	810.	1.0	602.7	602.7	0.0
18929.000	298.	813.	1.0	602.7	602.7	0.0
19713.000	475.	1122.	0.7	602.9	602.9	0.0
19864.000	399.	636.	1.2	602.8	602.8	0.0
19865.000	419.	699.	1.1	603.0	603.0	0.0
19880.000	417.	703.	1.1	603.0	603.0	0.0
19881.000	408.	683.	1.1	602.9	602.9	0.0
20504.000	263.	496.	1.6	603.5	603.4	0.1
20604.000	321.	636.	1.2	603.9	603.8	0.1
20605.000	333.	814.	1.3	603.9	603.8	0.1
20621.000	339.	636.	1.2	604.0	603.9	0.1
20622.000	348.	793.	1.0	604.0	603.9	0.1
20647.000	400.	1032.	0.8	604.0	603.9	0.1
20713.000	491.	1395.	0.6	604.0	603.9	0.1
21153.000	569.	1198.	0.7	604.1	604.0	0.1
21353.000	442.	1048.	0.7	604.2	604.1	0.1
21354.000	432.	715.	1.1	604.2	604.1	0.1
21412.000	437.	755.	1.0	604.3	604.2	0.1
21413.000	442.	1404.	0.6	604.3	604.2	0.1
21463.000	539.	851.	0.9	604.2	604.1	0.1

PRINTED IN U.S.A.
FORM 1111-PRINTED BY ROTARY HANDFOLD FORMS

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**************************************************
     HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
     ERROR CORR -  01
     MODIFICATION -  52,51,52
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PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************************
*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*       0  ERROR(S) DETECTED BY THE USER PROGRAM                *
*       0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE        *
*       0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS         *
*                                                               *
*****************************************************************
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PRINTED IN U.S.A.
FORM 1411-GP PRINTED BY ROTARY MANIFOLD FORMS.

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp.

3) WATERCOURSE: Silver Creek

4) DOCUMENT TYPE: Summary

00BREAK00

14:22:06 X14 BILL HU201307 HUDERT APR 02, 1980

Silver Creek
Brownstown Twp

Received April 14, 1980

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

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1BROWNSTOWN TOWNSHIP PIS HUD 2013 07 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 Q 10YR=455  50=665  100=785 500=840   TO VAN HORN RD.
T3      SILVER CREEK BROWNSTOWN  STARTING WAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        2.        0.        0.  0.000000      0.00       0.0        0.   600.690     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000   201.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********
    -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GT      5.000   455.000   665.000   785.000   785.000   840.000     0.000     0.000     0.000     0.000
NC      0.090     0.090     0.040     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     0.000     9.100     0.000     0.000     0.000   285.000   603.000

        VALLEY SECTION AT CORP/LIMIT BROWNSTOWN/FLAT ROCK

X1  17673.000     9.000   395.000   405.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    610.000   275.000   600.000   290.000   599.500   380.000   594.370   395.000   593.320   400.000
GR    593.400   405.000   599.500   420.000   600.000   600.000   610.000   610.000     0.000     0.000
NC      0.030     0.060     0.033     0.300     0.500     0.000     0.000     0.000     0.000     0.000
ET      0.000     7.100     7.100     7.100     7.100     7.100   625.000   975.000     0.000     0.000

        VALLEY SECTION D/S OF ARSENAL RD. BASED ON FIELD NOTES & QUAD MAP

X1  18782.000    10.000   792.000   808.000  1400.000   550.000  1100.000     0.000     0.000     0.000
GR    610.000     0.000   605.000     1.000   605.000   200.000   600.500   776.000   596.150   792.000
GR    595.400   800.000   595.560   808.000   600.500   816.000   600.000  1000.000   605.000  1300.000
ET      0.000     0.000     0.000     0.000     9.100     0.000     0.000     0.000     1.000   299.000

        D/S FACE OF ARSENAL RD.BRIDGE REPEATED SECTION 18782.

X1  18882.000    10.000   152.000   160.000   100.000   100.000   100.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   601.000   601.000     0.000
GR    610.000     0.000   600.800     1.000   600.500    60.000   600.500   136.000   596.150   152.000
GR    596.150   152.100   595.430   160.000   595.540   167.900   595.540   168.000   600.500   184.000
GR    600.300   260.000   600.300   299.000   610.000   500.000     0.000     0.000     0.000     0.000
GR      0.000     1.670     3.000     0.000    15.760     0.000    76.000     0.000   595.150   595.430
ET      0.000     0.000     0.000     0.000     2.100     0.000     1.000   299.000     0.000     0.000

        D/S FACE OF ARSENAL RD.BRIDGE REPEATED FOR SECTION 18989.
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X1	18904.000	13.000	152.000	168.000	22.000	22.000	22.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	599.900	601.800	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	602.030	601.800	0.000
BT	10.000	0.000	610.000	0.000	1.000	602.300	0.000	60.300	602.030	0.000
BT	152.000	602.120	595.430	152.100	604.350	599.900	167.900	604.350	599.900	168.000
BT	602.120	595.820	260.000	601.860	0.000	299.600	601.800	0.000	300.000	610.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	600.300	1.000	600.500	60.000	600.500	136.000	595.430	152.000
GR	595.430	152.100	595.150	160.000	595.820	167.900	595.820	168.000	600.500	184.000
GR	600.300	260.000	600.300	299.000	610.000	300.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	7.100	0.000	1.500	299.000	0.000	0.000

VALLEY SECTION U/S OF ARSENAL RD BASED ON FIELD NOTES & QUAD MAP

X1	18929.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.000	0.000
NC	0.090	0.080	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	9.100	0.000	311.000	854.000	345.000	820.000
ET	0.000	0.000	7.100	9.100	0.000	9.100	280.000	885.000	265.000	900.000

VALLEY SECTION BASED ON FIELD BOOK SECTION 1750

X1	19713.000	11.000	664.000	656.000	1100.000	330.000	786.000	0.000	0.000	0.000
GR	605.000	0.000	601.540	350.000	600.810	400.000	600.850	635.000	595.900	644.000
GR	595.650	650.000	595.690	656.000	600.200	664.000	600.600	800.000	602.220	950.000
GR	603.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.030	0.000	1.400	2.000	0.000	0.000	0.000	0.000

D/S END OF FOOTBRIDGE

X1	19864.000	10.000	594.000	606.000	151.000	151.000	151.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.040	602.040	0.000
GR	605.000	200.000	601.700	251.000	602.040	586.000	596.350	594.020	595.290	605.000
GR	595.850	606.000	601.750	614.000	603.000	775.000	613.990	865.000	605.000	866.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	19863.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X4	2.000	602.040	586.010	601.750	613.990	0.000	0.000	0.000	0.000	0.000
BT	4.000	586.000	602.040	0.000	586.010	602.040	601.040	613.990	601.750	630.750
BT	614.000	601.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	19880.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

U/S END OF FOOTBRIDGE

X1	19881.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.040	602.040	0.000
NC	0.090	0.080	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION U/S OF SOO CULVERT

X1	20504.000	11.000	695.000	709.300	623.000	623.000	623.000	0.000	0.000	0.000
GR	615.300	357.000	603.400	400.000	601.450	350.500	601.680	467.000	594.450	695.000

FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS.
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GR	596.320	698.050	596.320	701.950	596.400	705.000	602.050	713.000	603.900	1000.000
GR	605.000	1000.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S FACE OF 60" CULVERT

XT	20604.000	16.000	697.500	702.500	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.850	602.050	0.000
X4	2.000	601.860	687.000	602.050	713.000	0.000	0.000	0.000	0.000	0.000
GR	605.000	399.900	603.600	400.000	601.850	550.000	598.820	697.500	598.820	697.510
GR	597.700	697.750	596.800	698.500	596.600	699.250	596.320	700.000	596.400	700.750
GR	596.850	701.500	597.700	702.250	598.820	702.490	598.820	702.500	603.900	1000.100
GR	605.000	1000.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE 60" CULVERT

X1	20605.000	1.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	18.000	399.900	605.000	0.000	400.000	603.600	0.000	550.000	601.850	0.000
BT	687.000	601.860	0.000	697.500	602.600	0.000	697.510	602.600	598.540	697.750
BT	602.600	599.620	698.500	602.600	600.520	699.250	602.600	600.920	700.000	602.600
BT	601.040	700.750	602.600	600.920	701.500	602.600	600.520	702.250	602.600	599.620
BT	702.500	602.300	598.540	702.510	602.600	0.000	713.000	602.650	0.000	1030.000
BT	603.900	0.000	1000.100	605.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE 60" CULVERT

X1	20621.000	0.000	0.000	0.000	16.000	13.000	16.000	0.000	-0.260	0.000
BT	18.000	399.900	605.000	0.000	400.000	603.600	0.000	550.000	601.850	0.000
BT	687.000	601.860	0.000	697.500	602.600	0.000	697.500	602.600	598.820	697.750
BT	602.600	599.900	698.500	602.600	600.800	699.250	602.600	601.200	700.000	602.600
BT	601.320	700.750	602.600	601.200	701.500	602.600	600.800	702.250	602.600	599.900
BT	702.500	602.600	598.820	702.500	602.600	0.000	713.000	602.650	0.000	1000.100
BT	603.900	0.000	1000.100	605.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	475.000	823.000

U/S FACE OF 60" CULVERT

X2	20622.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.850	602.050	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	450.000	850.000

VALLEY SECTION U/S OF 60" CULVERT

X1	20647.000	11.000	695.000	705.000	29.000	25.000	25.000	0.000	-0.300	0.000
GR	605.000	350.000	603.600	400.000	601.850	550.000	601.860	687.000	596.400	695.000
GR	596.320	698.050	596.320	701.950	596.400	705.000	601.000	713.000	603.900	1000.000
GR	605.000	1000.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	9.100	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION BASED OF FIELD BOOK SECTION 700

XT	20711.000	11.000	646.000	654.000	66.000	66.000	66.000	0.000	0.000	0.000
GR	605.000	350.000	603.560	390.000	601.850	550.000	601.130	639.000	596.540	646.000
GR	596.130	650.000	597.040	654.000	601.250	666.000	600.710	698.000	601.970	953.000
GR	605.000	1650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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VALLEY SECTION D/S OF VAN HORN

X1	21153.000	9.000	394.000	406.000	440.000	440.000	440.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	606.500	0.000	605.000	150.000	602.000	339.000	598.600	394.000	596.430	460.000
GT	596.600	406.000	602.000	419.000	600.000	450.000	605.000	980.000	0.000	0.000
NC	0.080	0.080	0.040	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	342.000	784.000

D/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.6 & QUAD MAP

X1	21353.000	21.000	389.000	411.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.960	602.600	0.000
X4	2.000	603.000	374.000	601.450	422.000	0.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	605.000	100.000	605.000	299.900	603.200	300.000	596.550	389.000
GR	596.550	389.010	596.550	389.400	596.550	393.750	596.550	397.900	596.550	398.500
GR	596.550	401.500	596.550	402.100	596.550	406.250	596.550	410.400	596.550	410.990
GR	596.550	411.000	602.620	500.000	602.420	800.000	602.170	700.000	602.190	800.000
GR	605.000	801.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END VAN HORN RD. BRIDGE

X1	21354.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	21.000	0.000	605.000	0.000	100.000	605.000	0.000	299.900	605.000	0.000
BT	300.000	603.200	0.000	389.000	602.960	0.000	389.010	602.960	596.550	389.600
BT	602.960	599.750	393.750	602.960	600.600	397.900	602.960	599.750	398.500	602.960
BT	596.550	401.500	602.960	596.550	402.100	602.960	599.750	406.250	602.960	600.600
BT	410.400	602.960	599.750	410.990	602.960	596.550	411.000	606.960	0.000	500.000
BT	602.620	0.000	600.000	602.420	0.000	700.000	602.170	0.000	800.000	602.190
BT	0.000	801.000	605.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END VAN HORN RD. BRIDGE

X1	21412.000	0.000	0.000	0.000	58.000	38.000	58.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	343.000	785.000

U/S FACE OF VAN HORN BRIDGE BASED ON FIELD BOOK SECT.0 & QUAD MAP

X1	21413.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	602.960	602.600	0.000

VALLEY SECTION U/S OF VAN HORN BRIDGE

X1	21463.000	9.000	546.000	556.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	769.000	0.000	0.000	0.000	0.000
GR	606.500	0.000	605.000	100.000	602.000	531.000	598.600	546.000	596.200	550.000
GT	596.600	555.000	602.000	569.000	602.500	650.000	605.000	850.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

TTBROWNSTOWN TOWNSHIP FIS HUD 2013-07 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 0 10YR=455  50=665  100=785 500=840   TO VAN HORN RD.
T3      SILVER CREEK BROWNSTOWN  STARTING HAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        3.        0.        0.  0.000000      0.00       0.0       0.   601.440     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IRW       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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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 07 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 Q 10YR=455  50=665  100=785 500=840   TO VAN HORN RD.
T3       SILVER CREEK BROWNSTOWN  STARTING LAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       4.       0.       0.  0.000000     0.00     0.0      0.   601.580   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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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
*****************************************************

T1BROWNSTOWN TOWNSHIP FIS HUD 2013 37 SILVER CREEK FROM FLAT ROCK CORP. LIMIT
T2 Q 10YR=455  50=665  100=785 500=840  TO VAN HORN RD.
T3      SILVER CREEK BROWNSTOWN  STARTING WAT. S. AT FLAT ROCK CORP. LIMITS

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       6.       0.       0.  0.000000     0.00     0.0      0.   601.750   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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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

SILVER CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	ALCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10HWS	VCH	AREA	10K
17673.000	0.00	0.00	0.00	593.32	455.00	600.69	0.00	600.78	6.08	3.36	445.18	164.50
17673.000	0.00	0.00	0.00	593.32	665.00	601.44	0.00	601.52	5.45	3.40	679.67	284.86
17673.000	0.00	0.00	0.00	593.32	735.00	601.58	0.00	601.67	6.55	3.77	723.64	306.70
17673.000	0.00	0.00	0.00	593.32	840.00	601.75	0.00	601.84	6.31	3.75	777.03	334.39
18782.000	1109.00	0.00	0.00	595.40	455.00	601.27	0.00	601.37	5.54	3.16	357.13	193.26
18782.000	1109.00	0.00	0.00	595.40	665.00	601.93	0.00	602.02	4.93	3.22	579.98	299.36
18782.000	1109.00	0.00	0.00	595.40	785.00	602.14	0.00	602.23	5.30	3.41	653.55	340.86
18782.000	1109.00	0.00	0.00	595.40	840.00	602.29	0.00	602.37	5.11	3.39	706.82	371.66
18882.000	100.00	0.00	0.00	595.43	455.00	601.35	0.00	601.42	4.49	2.87	411.31	214.82
18882.000	100.00	0.00	0.00	595.43	665.00	602.00	0.00	602.07	4.30	3.01	603.61	320.85
18882.000	100.00	0.00	0.00	595.43	785.00	602.21	0.00	602.29	4.72	3.23	666.90	361.43
18882.000	100.00	0.00	0.00	595.43	840.00	602.35	0.00	602.43	4.63	3.24	709.81	390.44
18904.000	22.00	601.80	599.90	595.15	455.00	602.12	0.00	602.15	1.52	1.92	650.23	357.52
18904.000	22.00	601.80	599.90	595.15	665.00	602.51	0.00	602.55	2.31	2.39	765.91	437.11
18904.000	22.00	601.80	599.90	595.15	785.00	602.65	0.00	602.70	2.81	2.67	807.88	468.06
18904.000	22.00	601.80	599.90	595.15	840.00	602.73	0.00	602.78	3.00	2.77	830.46	485.16
18929.000	25.00	0.00	0.00	595.15	455.00	602.13	0.00	602.16	1.61	1.72	652.69	358.99
18929.000	25.00	0.00	0.00	595.15	665.00	602.52	0.00	602.56	2.30	2.38	768.59	438.91
18929.000	25.00	0.00	0.00	595.15	785.00	602.66	0.00	602.71	2.79	2.66	810.65	470.14
18929.000	25.00	0.00	0.00	595.15	840.00	602.74	0.00	602.79	2.97	2.76	833.38	487.39
19713.000	784.00	0.00	0.00	595.65	455.00	602.26	0.00	602.29	1.96	2.07	882.44	325.31
19713.000	784.00	0.00	0.00	595.65	665.00	602.70	0.00	602.72	2.18	2.20	1178.05	450.69
19713.000	784.00	0.00	0.00	595.65	785.00	602.87	0.00	602.90	2.36	2.42	1314.22	511.23
19713.000	784.00	0.00	0.00	595.65	840.00	602.96	0.00	602.99	2.41	2.46	1371.58	561.40
19864.000	151.00	0.00	0.00	595.29	455.00	602.22	0.00	602.37	6.82	3.85	414.44	174.19
19864.000	151.00	0.00	0.00	595.29	665.00	602.67	0.00	602.81	7.18	4.13	640.93	248.12
19864.000	151.00	0.00	0.00	595.29	785.00	602.83	0.00	602.99	7.67	4.34	737.13	283.44
19864.000	151.00	0.00	0.00	595.29	840.00	602.94	0.00	603.08	7.68	4.38	788.48	303.09
19865.000	1.00	601.75	601.04	595.29	455.00	602.34	0.00	602.39	17.58	2.71	450.71	108.52
19865.000	1.00	601.75	601.04	595.29	665.00	602.79	0.00	602.82	13.71	2.52	684.92	179.62
19865.000	1.00	601.75	601.04	595.29	785.00	602.97	0.00	603.00	13.41	2.54	785.93	214.37
19865.000	1.00	601.75	601.04	595.29	840.00	603.06	0.00	603.09	12.98	2.52	837.18	233.13

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19880.000	15.00	601.75	601.04	595.29	455.00	602.36	0.00	602.41	16.94	2.66	458.13	110.54
19880.000	15.00	601.75	601.04	595.29	665.00	602.83	0.00	602.84	13.32	2.48	692.69	182.21
19880.000	15.00	601.75	601.04	595.29	785.00	602.99	0.00	603.02	13.04	2.51	794.45	217.39
19880.000	15.00	601.75	601.04	595.29	840.00	603.08	0.00	603.11	12.62	2.49	846.03	236.42
19881.000	1.00	0.00	0.00	595.29	455.00	602.31	0.00	602.44	5.95	3.62	455.72	186.54
19881.000	1.00	0.00	0.00	595.29	665.00	602.75	0.00	602.87	6.38	3.92	682.70	263.19
19881.000	1.00	0.00	0.00	595.29	785.00	602.93	0.00	603.05	6.83	4.12	781.38	300.32
19881.000	1.00	0.00	0.00	595.29	840.00	603.02	0.00	603.14	6.88	4.17	832.00	320.24
20504.000	623.00	0.00	0.00	596.32	455.00	602.74	0.00	602.98	10.69	4.78	313.47	139.18
20504.000	623.00	0.00	0.00	596.32	665.00	603.22	0.00	603.46	11.88	5.29	507.14	192.90
20504.000	623.00	0.00	0.00	596.32	785.00	603.43	0.00	603.67	12.35	5.51	609.94	223.34
20504.000	623.00	0.00	0.00	596.32	840.00	603.52	0.00	603.76	12.43	5.57	650.82	238.24
20604.000	100.00	0.00	0.00	596.32	455.00	603.02	0.00	603.16	24.01	5.07	372.46	92.86
20604.000	100.00	0.00	0.00	596.32	665.00	603.57	0.00	603.65	16.57	4.46	640.85	163.38
20604.000	100.00	0.00	0.00	596.32	785.00	603.79	0.00	603.86	15.20	4.37	765.43	201.33
20604.000	100.00	0.00	0.00	596.32	840.00	603.88	0.00	603.94	14.74	4.34	819.60	218.81
20605.000	1.00	601.85	601.04	596.32	455.00	603.12	0.00	603.19	43.10	4.16	373.24	69.24
20605.000	1.00	601.85	601.04	596.32	665.00	603.63	0.00	603.66	25.45	3.45	622.67	131.61
20605.000	1.00	601.85	601.04	596.32	785.00	603.84	0.00	603.87	21.93	3.30	743.65	167.63
20605.000	1.00	601.85	601.04	596.32	840.00	603.93	0.00	603.96	20.99	3.27	792.32	183.33
20621.000	16.00	601.85	601.32	596.04	455.00	603.20	0.00	603.25	28.57	3.65	430.87	85.12
20621.000	16.00	601.85	601.32	596.04	665.00	603.67	0.00	603.70	20.90	3.32	675.56	145.45
20621.000	16.00	601.85	601.32	596.04	785.00	603.87	0.00	603.90	19.59	3.30	769.86	177.36
20621.000	16.00	601.85	601.32	596.04	840.00	603.96	0.00	603.99	19.22	3.30	809.46	191.59
20622.000	1.00	0.00	0.00	596.04	455.00	603.21	0.00	603.25	9.13	3.29	593.07	150.61
20622.000	1.00	0.00	0.00	596.04	665.00	603.67	0.00	603.70	8.12	3.24	801.75	230.11
20622.000	1.00	0.00	0.00	596.04	785.00	603.87	0.00	603.90	7.65	3.25	982.65	280.11
20622.000	1.00	0.00	0.00	596.04	840.00	603.96	0.00	603.99	7.37	3.26	1084.37	301.26
20647.000	25.00	0.00	0.00	596.02	455.00	603.22	0.00	603.26	2.55	2.53	808.92	284.56
20647.000	25.00	0.00	0.00	596.02	665.00	603.68	0.00	603.72	2.96	2.83	1075.74	386.33
20647.000	25.00	0.00	0.00	596.02	785.00	603.83	0.00	603.92	3.14	2.97	1200.77	442.84
20647.000	25.00	0.00	0.00	596.02	840.00	603.97	0.00	604.01	3.22	3.05	1253.30	468.43
20713.000	66.00	0.00	0.00	596.15	455.00	603.27	0.00	603.28	1.39	1.78	1093.95	386.50
20713.000	66.00	0.00	0.00	596.15	665.00	603.72	0.00	603.74	1.61	2.00	1387.24	524.52
20713.000	66.00	0.00	0.00	596.15	785.00	603.93	0.00	603.94	1.74	2.12	1525.16	594.93
20713.000	66.00	0.00	0.00	596.15	840.00	604.01	0.00	604.03	1.80	2.17	1585.29	626.46
21153.000	440.00	0.00	0.00	596.43	455.00	603.33	0.00	603.36	2.04	2.18	794.80	318.73
21153.000	440.00	0.00	0.00	596.43	665.00	603.79	0.00	603.83	2.57	2.55	1031.08	415.01
21153.000	440.00	0.00	0.00	596.43	785.00	604.00	0.00	604.04	2.83	2.74	1146.49	466.30
21153.000	440.00	0.00	0.00	596.43	840.00	604.09	0.00	604.13	2.94	2.81	1197.34	489.64
21353.000	200.00	0.00	0.00	596.55	455.00	603.37	0.00	603.40	1.93	1.86	885.09	327.34
21353.000	200.00	0.00	0.00	596.55	665.00	603.84	0.00	603.86	2.35	2.19	921.12	433.52
21353.000	200.00	0.00	0.00	596.55	785.00	604.06	0.00	604.10	2.58	2.27	1028.32	489.00
21353.000	200.00	0.00	0.00	596.55	840.00	604.15	0.00	604.19	2.67	2.33	1074.04	513.73

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	SECND	XLCH	ELTRD	ELCC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	21354.000	1.00	602.17	600.60	596.55	455.00	603.37	0.00	603.40	22.43	2.06	438.00	96.07
1	21354.000	1.00	602.17	600.60	596.55	665.00	603.86	0.00	603.89	15.06	1.85	662.05	171.39
2	21354.000	1.00	602.17	600.60	596.55	785.00	604.08	0.00	604.10	13.83	1.84	760.64	211.09
3	21354.000	1.00	602.17	600.60	596.55	840.00	604.18	0.00	604.20	13.43	1.84	802.90	229.25
4													
5	21412.000	58.00	602.17	600.60	596.55	455.00	603.49	0.00	603.51	16.24	1.79	494.31	112.91
6	21412.000	58.00	602.17	600.60	596.55	665.00	603.95	0.00	603.97	12.75	1.73	700.01	186.23
7	21412.000	58.00	602.17	600.60	596.55	785.00	604.16	0.00	604.18	12.04	1.74	796.07	226.28
8	21412.000	58.00	602.17	600.60	596.55	840.00	604.25	0.00	604.27	11.81	1.75	837.01	244.40
9													
10	21413.000	1.00	0.00	0.00	596.55	455.00	603.49	0.00	603.52	1.65	1.73	749.42	354.60
11	21413.000	1.00	0.00	0.00	596.55	665.00	603.94	0.00	603.97	2.07	2.02	977.59	462.43
12	21413.000	1.00	0.00	0.00	596.55	785.00	604.15	0.00	604.19	2.29	2.16	1084.06	519.25
13	21413.000	1.00	0.00	0.00	596.55	840.00	604.24	0.00	604.28	2.36	2.22	1129.54	544.71
14													
15	21463.000	50.00	0.00	0.00	596.20	455.00	603.48	0.00	603.55	5.18	3.11	482.53	200.00
16	21463.000	50.00	0.00	0.00	596.20	665.00	603.93	0.00	604.01	6.16	3.54	691.74	267.96
17	21463.000	50.00	0.00	0.00	596.20	785.00	604.15	0.00	604.23	6.39	3.67	804.23	310.65
18	21463.000	50.00	0.00	0.00	596.20	840.00	604.24	0.00	604.32	6.45	3.72	853.91	330.73
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FORM 1411-SD PRINTED BY ROTARY MANIFOLD FORMS.

SILVER CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	[illegible]	[illegible]	DIFUSP	DIFUSK	DIFXUS	TOPWID	XLCH
17673.000	455.00	600.69	0.00	0.00	0.00	311.72	0.00
17673.000	665.00	601.44	0.00	0.00	0.00	313.60	0.00
17673.000	785.00	601.58	0.00	0.00	0.00	313.95	0.00
17673.000	840.00	601.75	0.00	0.00	0.00	314.30	0.00
18782.000	455.00	601.27	0.00	0.58	0.00	297.09	1109.00
18782.000	665.00	601.93	0.00	0.49	0.67	350.00	1109.00
18782.000	785.00	602.14	0.00	0.56	0.88	350.00	1109.00
18782.000	840.00	602.29	0.00	0.54	1.02	350.00	1109.00
18882.000	455.00	601.35	0.00	0.08	0.00	298.17	100.00
18882.000	665.00	602.00	0.00	0.06	0.65	298.30	100.00
18882.000	785.00	602.21	0.00	0.06	0.86	298.35	100.00
18882.000	840.00	602.35	0.00	0.06	1.00	298.38	100.00
18904.000	455.00	602.12	0.00	0.78	0.00	298.33	22.00
18904.000	665.00	602.51	0.00	0.51	0.39	298.41	22.00
18904.000	785.00	602.65	0.00	0.44	0.53	298.44	22.00
18904.000	840.00	602.73	0.00	0.38	0.60	298.46	22.00
18929.000	455.00	602.13	0.00	0.00	0.00	298.33	25.00
18929.000	665.00	602.52	0.00	0.01	0.39	298.42	25.00
18929.000	785.00	602.66	0.00	0.01	0.53	298.45	25.00
18929.000	840.00	602.74	0.00	0.01	0.61	298.46	25.00
19713.000	455.00	602.26	0.00	0.13	0.00	543.00	784.00
19713.000	665.00	602.70	0.00	0.18	0.44	605.00	784.00
19713.000	785.00	602.87	0.00	0.21	0.61	635.00	784.00
19713.000	840.00	602.95	0.00	0.22	0.70	635.00	784.00
19864.000	455.00	602.22	0.00	-0.04	0.00	474.03	151.00
19864.000	665.00	602.67	0.00	-0.03	0.45	532.12	151.00
19864.000	785.00	602.83	0.00	-0.02	0.63	554.97	151.00
19864.000	840.00	602.94	0.00	-0.02	0.72	566.78	151.00
19865.000	455.00	602.34	0.00	0.11	0.00	409.12	1.00
19865.000	665.00	602.79	0.00	0.12	0.45	547.44	1.00
19865.000	785.00	602.97	0.00	0.12	0.63	570.75	1.00
19865.000	840.00	603.06	0.00	0.12	0.72	592.31	1.00
19880.000	455.00	602.36	0.00	0.03	0.00	491.07	15.00
19880.000	665.00	602.81	0.00	0.02	0.45	549.26	15.00
19880.000	785.00	602.99	0.00	0.02	0.63	572.67	15.00
19880.000	840.00	603.08	0.00	0.02	0.72	596.78	15.00
19881.000	455.00	602.37	0.00	-0.06	0.00	485.15	1.00
19881.000	665.00	602.75	0.00	-0.06	0.44	542.17	1.00
19881.000	785.00	602.93	0.00	-0.06	0.62	565.17	1.00
19881.000	840.00	603.02	0.00	-0.06	0.71	579.41	1.00
20504.000	455.00	602.94	0.00	0.43	0.00	346.61	623.00
20504.000	665.00	603.22	0.00	0.47	0.46	461.94	623.00
20504.000	785.00	603.43	0.00	0.50	0.69	512.79	623.00
20504.000	840.00	603.52	0.00	0.51	0.79	535.26	623.00

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	SECNO	Q	CHSEL	DIF%SP	DIFWSX	DIFKWS	TOPWID	XLCH
	20604.000	455.00	603.02	0.00	0.28	0.00	411.06	100.00
1	20604.000	665.00	603.57	0.00	0.35	0.55	546.16	100.00
2	20604.000	785.00	603.79	0.00	0.36	0.77	582.93	100.00
3	20604.000	840.00	603.88	0.00	0.36	0.86	597.24	100.00
4								
5	20605.000	455.00	603.12	0.00	0.11	0.00	440.05	1.00
6	20605.000	665.00	603.63	0.00	0.06	0.50	557.85	1.00
7	20605.000	785.00	603.84	0.00	0.05	0.71	590.57	1.00
8	20605.000	840.00	603.93	0.00	0.04	0.80	600.12	1.00
9								
10	20621.000	455.00	603.20	0.00	0.08	0.00	524.81	16.00
11	20621.000	665.00	603.67	0.00	0.04	0.47	600.12	16.00
12	20621.000	785.00	603.87	0.00	0.03	0.67	600.14	16.00
13	20621.000	840.00	603.96	0.00	0.03	0.76	600.15	16.00
14								
15	20622.000	455.00	603.21	0.00	0.01	0.00	525.57	1.00
16	20622.000	665.00	603.67	0.00	0.00	0.46	600.13	1.00
17	20622.000	785.00	603.87	0.00	0.00	0.67	600.14	1.00
18	20622.000	840.00	603.96	0.00	0.00	0.75	600.15	1.00
19								
20	20647.000	455.00	603.22	0.00	0.02	0.00	556.08	25.00
21	20647.000	665.00	603.63	0.00	0.01	0.45	613.41	25.00
22	20647.000	785.00	603.88	0.00	0.01	0.66	620.65	25.00
23	20647.000	840.00	603.97	0.00	0.01	0.74	623.76	25.00
24								
25	20713.000	455.00	603.27	0.00	0.04	0.00	616.43	66.00
26	20713.000	665.00	603.72	0.00	0.05	0.46	668.59	66.00
27	20713.000	785.00	603.93	0.00	0.05	0.66	689.40	66.00
28	20713.000	840.00	604.01	0.00	0.05	0.75	698.28	66.00
29								
30	21153.000	455.00	603.33	0.00	0.06	0.00	466.21	440.00
31	21153.000	665.00	603.79	0.00	0.07	0.47	541.53	440.00
32	21153.000	785.00	604.00	0.00	0.08	0.68	560.38	440.00
33	21153.000	840.00	604.09	0.00	0.08	0.77	568.49	440.00
34								
35	21353.000	455.00	603.37	0.00	0.04	0.00	500.43	200.00
36	21353.000	665.00	603.84	0.00	0.05	0.48	530.62	200.00
37	21353.000	785.00	604.06	0.00	0.05	0.69	540.71	200.00
38	21353.000	840.00	604.15	0.00	0.06	0.78	550.75	200.00
39								
40	21354.000	455.00	603.37	0.00	0.01	0.00	500.43	1.00
41	21354.000	665.00	603.86	0.00	0.02	0.49	500.63	1.00
42	21354.000	785.00	604.08	0.00	0.02	0.71	500.72	1.00
43	21354.000	840.00	604.18	0.00	0.03	0.80	500.75	1.00
44								
45	21412.000	455.00	603.69	0.00	0.12	0.00	500.48	58.00
46	21412.000	665.00	603.95	0.00	0.08	0.46	500.67	58.00
47	21412.000	785.00	604.16	0.00	0.08	0.67	500.75	58.00
48	21412.000	840.00	604.25	0.00	0.08	0.76	500.79	58.00
49								
50	21413.000	455.00	603.69	0.00	-0.00	0.00	500.48	1.00
51	21413.000	665.00	603.94	0.00	-0.01	0.45	500.67	1.00
52	21413.000	785.00	604.15	0.00	-0.01	0.66	500.76	1.00
53	21413.000	840.00	604.24	0.00	-0.01	0.75	500.79	1.00
54								
55								
56								
57								

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
21463.000	455.00	603.48	0.00	-0.01	0.00	409.65	50.00
21463.000	665.00	603.93	0.00	-0.01	0.45	511.27	50.00
21463.000	785.00	604.15	0.00	-0.00	0.67	531.81	50.00
21463.000	840.00	604.24	0.00	-0.00	0.76	539.00	50.00

SUMMARY OF ERRORS

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS
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FLOOD INSURANCE ZONE DATA FOR SILVER CREEK BROWNSTOWN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10%	2%	0.2%
17673.000	0.	-0.9	-0.1	0.2
18792.000	1109.	-1.9	-0.2	0.1
18882.000	1209.	-0.9	-0.2	0.1
18904.000	1231.	-0.5	-0.1	0.1
18929.000	1256.	-0.5	-0.1	0.1
19713.000	2040.	-0.6	-0.2	0.1
19864.000	2191.	-0.6	-0.2	0.1
19865.000	2192.	-0.6	-0.2	0.1
19880.000	2207.	-0.6	-0.2	0.1
19881.000	2208.	-0.6	-0.2	0.1
20504.000	2831.	-0.7	-0.2	0.1
20604.000	2931.	-0.8	-0.2	0.1
20605.000	2932.	-0.7	-0.2	0.1
20621.000	2948.	-0.7	-0.2	0.1
20622.000	2949.	-0.7	-0.2	0.1
20647.000	2974.	-0.7	-0.2	0.1
20713.000	3040.	-0.7	-0.2	0.1
21153.000	3480.	-0.7	-0.2	0.1
21353.000	3680.	-0.7	-0.2	0.1
21354.000	3681.	-0.7	-0.2	0.1
21412.000	3739.	-0.7	-0.2	0.1
21413.000	3740.	-0.7	-0.2	0.1
21463.000	3790.	-0.7	-0.2	0.1
WEIGHTED AVG FOR REACH		-0.7	-0.2	0.1

FHF FOR THE REACH = 005 WITH 100.0% OF THE REACH WITHIN 0.5 FEET

ZONE FOR THE REACH = A 1

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FORM 1413-CB-PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
*  IHEC2 RELEASE DATED NOV 76 UPDATED FEB 1977   *
*  ERROR CORR -  01                              *
*  MODIFICATION -  50,51,5E                      *
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FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

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*****************************************************************
*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*      0  ERROR(S) DETECTED BY THE USER PROGRAM                 *
*      0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE         *
*      0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS          *
*                                                               *
*****************************************************************
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FORM 1411-03 PRINTED BY ROTARY MANIFOLD FORMS



1) COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Smith Creek

4) DOCUMENT TYPE: 100 Year



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**********************************************************
  REC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**********************************************************

C
T1BROWNSTOWN TWP. HUD 2013-07 SMITH CREEK FROM FLAT ROCK/BROWNSTOWN LIMIT TO
T2
T3       SMITH CREEK BROWNSTOWN

J1  ICHECK      INQ         NINV        IDIR        STRT        METRIC      HVINS       W           USEL        FQ
          0.          4.          0.          0.  0.001000        0.0         0.0          0.     596.000        0.0
J2  NPROF       IPLOT       PRFVS       XSECV       XSECH       FN          ALLDC       IBW         CHNIM       ITRACE
      1.000       1.000      -1.000         0.0         0.0         0.0         0.0         0.0         0.0      15.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    110.000     150.000     200.000         0.0         0.0         0.0         0.0         0.0         0.0         0.0
CT      5.300     285.000     400.000     455.000     455.000     610.000         0.0         0.0         0.0         0.0
NC      0.060       0.070       0.035       0.100       0.300         0.0         0.0         0.0         0.0         0.0
ET        0.0         0.0         0.0         0.0       1.500         0.0         0.0         0.0         0.0         0.0

        VALLEY SECT. BASED ON SECT.1500. ZZZ 2031-01.

X1      1.000      12.000     120.000     140.000     400.000     600.000     500.000         0.0         0.0         0.0
GP    590.100         0.0     595.950      50.000     595.000      65.000     594.000     105.000     590.100     120.000
GK    590.000     130.000     591.000     140.000     592.050     145.000     593.100     100.000     595.000     255.000
G     596.000     280.000     597.900      42.000         0.0         0.0         0.0         0.0         0.0         0.0

        VALLEY SECT. BASED ON SECT.2000. ZZZ 2031-01.

X1      1.100      13.000     395.000     407.000     750.000     300.000     500.000         0.0         0.0         0.0
GP    590.100         0.0     596.000     150.000     596.000     230.000     595.900     270.300     593.900     360.000
GK    591.300     395.000     591.300     407.000     593.300     430.000     594.900     470.000     596.100     550.000
G     596.900     570.000     598.000     610.000     592.700     750.000         0.0         0.0         0.0         0.0
DT      5.000     290.000     320.000     365.000     365.000     495.000         0.0         0.0         0.0         0.0

        VALLEY SECT. BASED ON SECT.4000. ZZZ 2031-01.

X1      1.300      11.000     110.000     190.000    1580.000    1800.000    1380.000         0.0         0.0         0.0
GP    600.000         0.0     590.100      65.000     597.100      85.000     596.100     135.000     595.100     173.000
GK    593.000     320.000     592.000     140.000     597.100     210.000     597.100     325.000     595.000     375.000
G     598.500     535.000         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0
NC      0.040       0.100       0.035       0.100       0.300         0.0         0.0         0.0         0.0         0.0

        D/S OF TELEGRAPH RD. BASED ON FPS ZZZ 2031-01 SECT.

X1      2.000       6.000     205.000     215.000     700.000     925.000     550.000         0.0         0.0         0.0
XJ      1.000         0.0         0.0     175.000         0.0     245.000         0.0         0.0         0.0         0.0
```

GR	596.900	230.000	598.100	265.000	599.000	310.000	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.030	0.300	0.500	0.0	0.0		0.0	0.0

D/S FACE OF TELEGRAPH RD. BRIDGE

X1	3.000	11.000	591.640	608.360	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	601.480	600.840	0.0
X4	2.000	594.000	591.630	594.000	608.370	0.0	0.0	0.0	0.0	0.0
GR	605.000	0.0	600.000	375.000	599.700	500.000	599.500	546.000	594.000	591.640
GR	594.000	608.360	599.500	621.000	599.700	800.000	600.000	925.000	601.000	1100.000
GR	602.470	1400.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	2.100	2.700	0.0	16.700	0.0	83.500	0.0	594.200	594.000

D/S FACE OF TELEGRAPH RD.BRIDGE

X1	4.000	0.0	0.0	0.0	65.000	65.000	65.000	0.0	0.200	0.0
X2	0.0	0.0	1.000	599.110	600.870	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	601.480	601.000	0.0
BT	9.000	0.0	605.810	0.0	500.000	601.490	0.0	591.630	601.480	0.0
BT	591.640	601.480	599.110	608.360	601.480	599.110	608.370	601.480	0.0	800.000
BT	600.840	0.0	1100.000	601.290	0.0	1400.000	602.470	0.0	0.0	0.0

D/S OF TELEGRAPH RD.

X1	4.500	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	542.000	0.0	658.000	0.0	0.0	0.0	0.0

D/S FACE OF FOOTBRIDGE F.B. 11287.

X1	5.300	12.000	537.990	562.010	223.000	223.000	223.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	597.500	597.500	0.0
GR	603.000	0.0	603.000	499.900	598.300	500.000	596.040	537.990	598.040	538.000
GL	593.200	545.000	592.050	550.000	593.140	555.000	597.910	592.000	597.910	562.010
CP	590.500	649.900	603.000	650.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1: INSIDE D/S END OF FOOTBRIDGE

X1	5.100	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
BT	4.000	537.990	598.040	0.0	538.000	598.040	597.040	562.000	597.910	596.910
BT	562.010	597.910	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1: INSIDE U/S END OF FOOTBRIDGE

X1	5.200	0.0	0.0	0.0	11.000	11.000	11.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0

U/S FACE OF FOOTBRIDGE F.B. 11274.

X1	5.300	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	597.500	597.500	0.0
NC	0.070	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. F.B. SECT. 10840.

X1	6.000	11.000	545.000	555.000	300.000	550.000	634.000	0.0	0.0	0.0
GR	603.000	0.0	601.010	550.000	599.060	600.000	596.060	535.000	594.310	545.000

GR	602.700	1300.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. F.B.SECT.9700.

X1	7.000	13.000	1095.000	1105.000	1140.000	1140.000	1140.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	900.000	0.0	1250.000	0.0	0.0	0.0	0.0
GR	603.000	0.0	601.110	700.000	599.320	850.000	598.870	1083.000	594.850	1095.000
GR	594.000	1100.000	594.910	1105.000	599.400	1114.000	599.380	1124.000	598.100	1148.000
GR	599.030	1250.000	601.150	1400.000	603.000	1750.000	0.0	0.0	0.0	0.0

D/S OF VAN HORN BRIDGE

X1	8.000	10.000	782.000	813.000	430.000	620.000	562.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	750.000	0.0	950.000	0.0	0.0	0.0	0.0
GR	610.000	0.0	601.350	1.000	600.000	750.000	600.000	782.000	595.000	795.000
GR	596.800	800.000	595.000	805.000	600.000	813.000	600.700	920.000	610.000	920.100
NC	0.060	0.060	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	9.100	0.0	0.0	0.0	1.000	900.000

D/S FACE OF VAN HORN BRIDGE F.B.SECT.8938.

X1	9.000	12.000	790.500	809.500	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	600.350	600.350	0.0
GR	610.000	0.0	610.000	500.000	610.000	729.900	600.400	730.000	600.000	782.000
GR	595.330	790.490	595.330	790.500	595.330	809.500	595.330	809.510	600.000	813.000
GR	600.720	900.000	610.040	900.100	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	1.900	2.600	0.0	19.900	0.0	61.000	0.0	595.330	594.830

U/S FACE OF VAN HORN BRIDGE F.B. SECT.8908.

X1	10.000	12.000	790.500	809.500	32.000	32.000	32.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	598.390	600.350	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	600.350	600.350	0.0
GT	10.000	0.0	610.000	0.0	500.000	610.000	0.0	729.900	610.000	0.0
GT	730.000	600.670	0.0	790.490	600.350	594.830	790.500	600.490	598.390	809.500
GT	600.790	598.390	809.510	600.350	594.830	900.000	600.720	0.0	900.100	610.040
GT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	610.000	0.0	610.000	500.000	610.000	729.900	600.670	730.000	600.000	782.000
GR	594.830	790.490	594.830	790.500	594.830	809.500	594.830	809.510	600.000	813.000
GR	600.720	900.000	610.040	900.100	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	1.400	0.0	0.0	0.0	0.0	0.0

U/S OF VAN HORN BRIDGE

X1	11.000	10.000	782.000	813.000	50.000	50.000	50.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	680.000	0.0	950.000	0.0	0.0	0.0	0.0
GR	610.000	0.0	602.350	1.000	600.000	750.000	600.000	782.000	595.300	795.000
GR	595.230	800.000	595.300	805.000	600.000	813.000	602.500	1299.000	610.000	1300.000
NC	0.050	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
GT	0.000	125.000	265.000	300.000	300.000	440.000	0.0	0.0	0.0	0.0

VALLEY SECT. F.B. 8888.

X1	12.000	12.000	695.000	705.000	500.000	1600.000	456.000	0.0	0.0	0.0
X4	2.000	602.000	1.000	602.230	999.000	0.0	0.0	0.0	0.0	0.0
GT	610.000	0.0	601.450	400.000	600.450	550.000	599.580	727.000	595.440	695.000
GT	595.150	700.000	595.650	705.000	600.430	714.000	601.480	726.000	600.270	734.000
GT	601.050	850.000	610.000	1000.000	0.0	0.0	0.0	0.0	0.0	0.0

VALLEY SECT. AT INDEPENDENCE ST. F.B.6300.

X1	13.000	12.000	245.000	255.000	2100.000	1000.000	1700.000	0.0	0.0	0.0
X4	2.000	602.000	1.000	602.440	549.000	0.0	0.0	0.0	0.0	0.0
GR	610.000	0.0	601.110	60.000	601.160	132.000	602.560	232.000	598.140	245.000
GR	597.040	250.000	598.290	255.000	604.940	263.000	605.120	276.000	603.270	283.000
GR	602.040	400.000	610.000	550.000	0.0	0.0	0.0	0.0	0.0	0.0
GT	5.000	85.000	180.000	235.000	235.000	365.000	0.0	0.0	0.0	0.0

VALLEY SECT. F.B.3800.

X1	14.000	14.000	994.500	1005.500	2200.000	2000.000	2500.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	1350.000	0.0	0.0	0.0	0.0
GR	610.000	0.0	604.970	700.000	604.390	850.000	604.620	960.000	602.590	977.000
GR	602.700	990.000	599.020	994.500	598.280	1000.000	598.790	1005.500	602.960	1012.500
GR	602.490	1150.000	602.440	1300.000	603.000	1600.000	610.000	1601.000	0.0	0.0
NC	0.060	0.060	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

D/S OF WEST RD. BRIDGE

X1	15.000	7.000	390.000	412.500	1456.000	1456.000	1456.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	345.000	0.0	575.000	0.0	0.0	0.0	0.0
GR	605.000	0.0	604.000	390.000	600.300	394.500	600.250	400.000	600.300	405.500
GR	604.000	412.500	605.000	1800.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

X1	10.000	15.000	492.490	507.500	200.000	200.000	200.000	0.650	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	605.400	604.560	0.0
GR	610.000	0.0	610.000	1.000	610.000	424.900	605.400	425.000	605.930	478.000
GR	600.260	492.490	600.250	492.500	600.250	507.500	600.260	507.510	604.300	510.000
GR	604.560	600.000	604.500	650.000	610.000	651.000	610.000	900.100	610.000	1500.000
SB	0.0	1.000	3.000	0.0	12.700	0.0	2.000	0.0	600.870	600.650

D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

X1	17.000	0.0	0.0	0.0	27.000	27.000	27.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	604.960	604.560	0.0	0.0	0.0	0.650	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	605.400	604.560	0.0
BT	13.000	0.0	610.000	0.0	424.900	610.000	0.0	425.000	605.400	0.0
BT	478.000	605.930	0.0	492.490	604.050	0.0	492.500	608.530	604.960	507.500
BT	608.520	604.960	507.510	606.080	0.0	600.000	604.560	0.0	650.000	604.560
BT	0.0	651.000	610.000	0.0	900.100	610.000	0.0	1500.000	610.000	0.0

D/S OF WEST RD.

X1	10.000	9.000	990.000	1013.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	610.000	0.0	605.000	750.000	604.900	990.000	600.900	990.000	600.870	1000.000
GR	601.900	1000.000	604.900	1013.000	605.000	1000.000	610.060	1001.000	0.0	0.0
NC	0.060	0.060	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
GT	5.000	55.000	110.000	140.000	150.000	215.000	0.0	0.0	0.0	0.0

VALLEY SECT. F.B. 1400.

X1	19.000	12.000	1189.600	1212.500	667.000	667.000	667.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	1080.000	0.0	1320.000	0.0	0.0	0.0	0.0

GR	601.460	1200.000	601.130	1203.500	605.800	1212.500	604.800	1350.000	604.810	1500.000
GR	605.000	1900.000	610.000	1901.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

D/S FACE OF FOOTBRIDGE F.B 980.

X1	20.000	13.000	889.500	910.500	432.000	432.000	432.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	605.500	605.500	0.0
GR	610.000	599.000	606.500	600.000	606.840	889.500	606.840	889.510	606.840	889.520
GR	602.900	896.500	602.500	900.000	603.000	903.500	607.060	910.480	607.060	910.490
GR	607.060	910.500	606.700	1100.000	615.000	1100.100	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1: INSIDE D/S END OF FOOTBRIDGE

X1	20.100	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
BT	6.000	889.500	606.980	0.0	889.510	606.980	0.0	889.520	606.980	605.140
BT	910.480	607.060	605.250	910.490	607.060	0.0	910.500	607.060	0.0	0.0

1: INSIDE U/S END OF FOOTBRIDGE

X1	20.200	0.0	0.0	0.0	10.000	10.000	10.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
NC	0.0	0.0	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

U/S FACE OF FOOTBRIDGE F.B. 968.

X1	20.300	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	606.000	606.000	0.0

D/S FACE OF FOOTBRIDGE F.B. 660

X1	20.500	11.000	888.000	912.000	308.000	308.000	306.000	0.0	0.0	0.0
GR	610.000	649.000	607.300	650.000	607.380	886.020	607.380	886.100	603.300	290.000
GR	603.180	900.000	603.580	904.000	607.020	911.900	607.020	912.000	607.100	1050.000
GR	610.000	1051.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1° INSIDE D/S END OF FOOTBRIDGE

X1	20.600	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
BT	4.000	888.000	607.380	0.0	888.010	607.110	606.110	911.900	607.110	606.110
BT	912.000	607.020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1° INSIDE U/S END OF FOOTBRIDGE

X1	20.700	0.0	0.0	0.0	15.000	15.000	15.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	0.0	603.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0

U/S FACE OF FOOTBRIDGE F.B.643.

X1	20.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
NC	0.070	0.070	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	21.000	9.000	411.000	425.000	400.000	275.000	396.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	360.000	0.0	475.000	0.0	0.0	0.0	0.0
GR	610.000	0.0	607.000	300.000	607.300	400.000	604.400	411.000	604.200	418.000
GR	604.400	425.000	607.000	449.000	608.000	550.000	610.000	900.000	0.0	0.0
NC	0.070	0.070	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

D/S FACE OF BEECH-DALY BRIDGE SKEWED 45 DEGREES

X1	22.000	11.000	420.000	430.000	300.000	10.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	608.130	608.130	0.0
GR	610.000	319.900	608.100	320.000	608.100	321.000	608.000	405.000	604.070	420.000
GR	604.070	420.100	604.070	429.900	604.070	430.000	608.000	451.000	608.100	525.000
GR	610.000	526.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	1.800	2.700	0.0	10.000	0.0	37.000	0.0	604.070	604.230

U/S FACE OF BEECH-DALY BRIDGE

X1	23.000	11.000	420.000	430.000	47.000	47.000	47.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	607.900	609.130	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	609.130	609.310	0.0
BT	9.000	319.900	610.000	0.0	320.000	609.150	0.0	321.000	609.150	0.0
BT	420.000	609.270	0.0	420.100	609.500	607.900	429.900	609.500	607.900	430.000
BT	609.270	0.0	525.000	609.310	0.0	526.000	615.000	0.0	0.0	0.0
GR	610.000	319.900	609.150	320.000	609.150	321.000	608.000	405.000	604.230	420.000
GR	604.230	420.100	604.230	429.900	604.230	430.000	608.000	451.000	609.310	525.000
GR	610.000	526.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

U/S OF BEECH-DALY BRIDGE

X1	20.000	9.000	943.000	957.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	610.000	0.0	610.000	796.900	609.000	795.000	608.000	924.000	606.070	943.000
GR	606.070	957.000	608.000	978.000	609.000	1100.000	615.000	1101.000	0.0	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

°PROF 1

CCHV= 0.100 CEHV= 0.300

°SECNO 1.000

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

VALLEY SECT. BASED ON SECT.1500. ZZZ 2031-01.

1.00	3.84	594.64	0.0	596.00	594.73	0.10	0.0	0.0	390.80
455.	40.	247.	168.	50.	76.	169.	0.	0.	591.00
0.0	0.80	3.26	0.99	0.080	0.035	0.070	0.0	590.80	73.58
0.001001	400.	500.	600.	0	0	5	0.0	176.99	252.56

FLOW DISTRIBUTION FOR SECNO= 1.00 CWSEL= 594.64

STA=	74.	85.	105.	120.	140.	145.	200.	253.
PER Q=	0.2	1.2	7.3	54.3	4.8	27.1	5.0	
AREA=	3.6	12.7	33.5	75.7	15.6	113.4	40.4	
VEL=	0.3	0.4	1.0	3.3	1.4	1.1	0.6	

°SECNO 1.100

VALLEY SECT. BASED ON SECT.2000. ZZZ 2031-01.

1.10	3.90	595.20	0.0	0.0	595.32	0.13	0.50	0.01	591.30
455.	109.	194.	153.	128.	47.	113.	3.	2.	591.30
0.05	0.85	4.14	1.35	0.060	0.035	0.070	0.037	591.30	258.25
0.001554	750.	500.	300.	2	0	0	0.0	230.46	489.71

FLOW DISTRIBUTION FOR SECNO= 1.10 CWSEL= 595.20

STA=	259.	270.	380.	395.	407.	430.	470.	490.
PER Q=	0.1	12.1	11.7	42.6	24.8	8.6	0.1	
AREA=	1.6	87.5	38.9	46.7	66.6	43.8	2.9	
VEL	0.2	0.6	1.4	4.1	1.7	0.9	0.2	

°SECNO 1.300

VALLEY SECT. BASED ON SECT.4000. ZZZ 2031-01.

1.30	4.61	597.61	0.0	0.0	597.72	0.11	2.40	0.00	593.00
365.	101.	173.	91.	132.	46.	117.	16.	13.	593.00
0.29	0.76	3.75	0.78	0.080	0.035	0.070	0.035	593.00	74.82
0.001019	1880.	1880.	1880.	2	0	0	0.0	275.96	353.28

FLOW DISTRIBUTION FOR SECNO= 1.30 CWSEL= 597.61

STA=	75.	85.	135.	173.	180.	190.	210.	325.	353.
PER Q=	0.2	0.2	12.3	6.9	47.4	17.5	6.9	0.5	
AREA=	2.6	50.6	57.3	21.4	46.1	51.2	58.5	7.2	
VEL=	1.2	0.6	0.3	1.2	3.3	1.3	0.4	0.3	

CCHV= 0.100 CEHV= 0.300

3470 ENCROACHMENT STATIONS= 175.0 245.0 TYPE= 1 TARGET= 70.000

D/S OF TELEGRAPH RD.BASED ON FPS ZZZ 2031-01 SECT.

2.00	4.95	598.45	0.0	0.0	598.60	0.15	0.87	0.01	593.50
365.	100.	202.	63.	65.	69.	68.	20.	17.	593.50
0.38	1.18	4.08	0.92	0.080	0.035	0.100	0.036	593.50	175.00
0.001097	700.	850.	925.	2	0	0	0.0	70.00	245.00

FLOW DISTRIBUTION FOR SECNO= 2.00 CHSEL= 598.45

STA=	175.	198.	205.	215.	230.	245.
PER Q=	17.2	10.3	55.4	14.2	3.0	
AREA=	58.6	26.2	49.5	48.7	19.4	
VEL=	1.1	1.4	4.1	1.1	0.6	

CCHV= 0.300 CEHV= 0.500

*SECNO 3.000

SECNO	DEPTH	CHSEL	CRIWS	HSELK	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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 601.48 ELREA= 600.84

D/S FACE OF TELEGRAPH RD. BRIDGE ELLC @599.10 > 598.46 ⇒ low flow

3.00	4.46	596.46	0.0	0.0	598.83	0.37	0.12	0.11	594.00
365.	0.	365.	0.	0.	75.	0.	21.	17.	594.00
0.11	0.0	4.69	0.0	0.060	0.030	0.060	0.035	594.00	591.64
0.001139	100.	100.	100.	2	0	0	0.0	16.72	606.36

FLOW DISTRIBUTION FOR SECNO= 3.00 C.SEL= 598.46

STA=	592.	608.
PER Q=	100.0	
AREA=	74.6	
VEL=	4.9	

SPECIAL BRIDGE

SU	XK	XKOR	COFQ	RDLEN	R&C	BUP	BAREA	SS	ELCHU	ELCHD
	0.0	2.10	2.70	0.0	16.70	0.0	83.50	0.0	594.20	594.00

*SECNO 4.000

6070.LOW FLOW BY NORMAL BRIDGE

EGRAS= 0.0 EGLWC= 599.035 ELLC= 599.110 PCHSE= 598.463 ELTRD= 600.870

2370 NORMAL BRIDGE.NRD= 5 MIN ELTRD= 600.87 MAX ELLC= 599.11

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 601.48 ELREA= 601.00

U/S FACE OF TELEGRAPH RD.BRIDGE

	365.	0.	365.	0.	0.	73.	0.	21.	17.	594.20
	0.39	0.0	5.02	0.0	0.060	0.030	0.060	0.035	594.20	591.64
0.001512		65.	65.	65.	2	0	0	-0.02	16.72	608.36

FLOW DISTRIBUTION FOR SECNO= 4.00 CHSEL= 598.55

STA= 592. 608.
PER Q= 100.0
AREA= 72.7
VEL= 5.0

*SECNO 4.500

3470 ENCROACHMENT STATIONS= 542.0 658.0 TYPE= 1 TARGET= 116.000

U/S OF TELEGRAPH RD.

4.50	4.60	598.80	0.0	0.0	599.04	0.25	0.06	0.04	594.20
365.	11.	323.	30.	11.	77.	24.	21.	17.	594.20
0.39	1.06	4.21	1.25	0.060	0.030	0.060	0.035	594.20	586.93
0.000943	50.	50.	50.	2	0	0	0.0	32.00	618.92

FLOW DISTRIBUTION FOR SECNO= 4.50 CHSEL= 598.00

STA= 587. 592. 608. 619.
PER Q= 3.1 88.6 8.3
AREA= 10.8 76.9 24.3
VEL= 1.1 4.2 1.3

*SECNO 5.000

D/S FACE OF FOOTBRIDGE F.B. 11287.

5.00	7.00	599.13	0.0	0.0	599.22	0.09	0.14	0.05	591.04
365.	18.	307.	40.	36.	115.	81.	22.	17.	597.91
0.42	0.50	2.67	0.49	0.060	0.030	0.060	0.035	592.05	599.98
0.000430	223.	223.	223.	2	0	0	0.0	149.91	649.91

FLOW DISTRIBUTION FOR SECNO= 5.00 CHSEL= 599.13

STA= 500. 538. 562. 650.
PER Q= 5.0 84.2 10.9
AREA= 36.5 115.0 81.3
VEL= 1.5 2.7 0.5

*SECNO 5.100

3371 NORMAL METHOD, NRD= 4 MIN ELTRD= 597.91 MAX ELLC= 597.98

D/H = 1.24/1.26 = .98 ⇒ high submergence

1: INSIDE D/S END OF FOOTBRIDGE

5.10	7.10	599.15	0.0	0.0	599.23	0.08	0.00	0.00	594.04
365.	34.	256.	73.	37.	92.	03.	22.	17.	597.91
0.42	0.92	2.60	0.90	0.060	0.030	0.060	0.035	592.05	599.98
0.001515	1.	1.	1.	2	0	0	-17.00	169.93	649.91

8930.*DIST NOT ON GR CARD 537.98
FLOW DISTRIBUTION FOR SECNO= 5.10 CHSEL= 599.15

STA= 500. 538. 562. 650.

*SECNO 5.200

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

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 597.91 MAX ELLC= 597.04

1: INSIDE U/S END OF FOOTBRIDGE

5.20	7.12	599.17	0.0	0.0	599.24	0.08	0.02	0.00	598.04
365.	35.	255.	75.	38.	99.	84.	22.	17.	597.91
0.42	0.92	2.58	0.90	0.060	0.030	0.060	0.035	592.05	499.98
0.001393	11.	11.	11.	0	0	0	-17.00	149.93	649.91

6930,HOST NOT ON GR CARD 537.98

FLOW DISTRIBUTION FOR SECNO= 5.20 CWSEL= 599.17

STA=	500.	538.	562.	650.
PER Q=	9.5	69.8	20.7	
AREA=	37.7	98.8	84.1	
VEL=	0.9	2.6	0.9	

*SECNO 5.300

U/S FACE OF FOOTBRIDGE F.B. 11274.

5.30	7.11	599.16	0.0	0.0	599.25	0.09	0.00	0.01	598.04
365.	19.	304.	42.	38.	116.	85.	22.	17.	597.91
0.42	0.50	2.62	0.49	0.060	0.030	0.060	0.035	592.05	499.98
0.000610	1.	1.	1.	0	0	0	0.0	149.93	649.91

FLOW DISTRIBUTION FOR SECNO= 5.30 CWSEL= 599.16

STA=	500.	538.	562.	650.
PER Q=	5.2	83.4	11.4	
AREA=	30.0	116.0	84.8	
VEL=	0.5	2.6	0.5	

CCHV= 0.100 CURV= 0.300

*SECNO 6.000

VALLEY SECT. F.B. SECT. 10640.

6.00	6.27	599.35	0.0	0.0	599.50	0.21	0.27	0.04	596.31
365.	42.	256.	68.	53.	59.	70.	24.	19.	593.06
0.45	0.79	4.35	0.97	0.070	0.035	0.070	0.035	592.05	457.94
0.001000	300.	436.	550.	2	0	0	0.0	160.10	623.05

FLOW DISTRIBUTION FOR SECNO= 6.00 CWSEL= 599.35

STA=	458.	536.	545.	555.	564.	623.
PER Q=	2.4	0.9	70.0	13.7	4.0	
AREA=	26.9	23.8	58.7	53.7	36.3	
VEL=	0.3	1.3	6.4	1.5	0.6	

*SECNO 7.000

3470 ENCROACHMENT STATIONS= 900.0 1250.0 TYPE= 1 TARGET= 350.000

VALLEY SECT. F.B.SECT.9700.

7.00	6.09	600.09	0.0	0.0	600.12	0.03	0.55	0.02	594.85
365.	115.	126.	124.	230.	57.	222.	33.	26.	594.91
0.74	0.50	2.23	0.56	0.060	0.035	0.060	0.035	594.00	900.00
0.000279	1140.	1140.	1140.	2	0	0	0.0	350.00	1250.00

FLOW DISTRIBUTION FOR SECNO= 7.00 CWSEL= 600.09

STA=	900.	1083.	1095.	1105.	1114.	1124.	1148.	1250.
PER Q=	22.2	9.3	34.5	5.7	0.6	4.5	23.2	
AREA=	191.2	38.8	56.5	26.4	7.0	32.4	155.7	
VEL=	0.4	0.9	2.2	0.8	0.3	0.5	0.5	

*SECNO 8.000

3470 ENCROACHMENT STATIONS= 750.0 950.0 TYPE= 1 TARGET= 200.000

D/S OF VAN HORN BRIDGE

8.00	5.48	600.28	0.0	0.0	600.44	0.16	0.27	0.04	600.00
365.	3.	361.	1.	9.	112.	6.	37.	28.	600.00
0.79	0.35	3.22	0.22	0.060	0.035	0.060	0.035	594.80	750.00
0.001162	430.	562.	620.	2	0	0	0.0	105.28	855.28

FLOW DISTRIBUTION FOR SECNO= 8.00 CWSEL= 600.28

STA=	730.	782.	813.	855.
PER Q=	0.9	98.8	0.4	
AREA=	8.8	112.1	5.9	
VEL=	0.6	3.2	0.2	

CCHV= 0.300 CEHV= 0.500

*SECNO 9.000

SECNO	DEPTH	CWSEL	CRIWS	QSELK	EG	RV	ML	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

D/S FACE OF VAN HORN BRIDGE F.B.SECT.8938. 600.43 > ELTRD @ 600.35 ⇒ TW over rd

9.00	5.10	600.43	0.0	0.0	600.59	0.16	0.15	0.00	595.33
365.	21.	329.	11.	35.	91.	20.	38.	29.	595.33
0.60	0.76	3.40	0.49	0.060	0.030	0.060	0.035	595.33	730.00
0.000538	200.	200.	200.	0	0	0	0.0	133.51	863.51

FLOW DISTRIBUTION FOR SECNO= 9.00 CWSEL= 600.43

STA=	730.	782.	790.	810.	813.	864.
PER Q=	0.6	89.3	9.0	2.1	0.6	
AREA=	11.3	23.4	96.7	9.6	10.6	
VEL=	0.2	1.0	3.4	0.8	0.2	

SPECIAL BRIDGE

0.0	1.90	2.60	0.0	19.90	0.0	61.00	0.0	595.33	594.83

*SECNO 10.000
PRESSURE AND WEIR FLOW

~ reasonable

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
601.48	600.59	0.0	113.	254.	61.	61.	598.39	600.35

U/S FACE OF VAN HORN BRIDGE F.B. SECT.8906.

10.00	6.01	600.84	0.0	0.0	600.94	0.10	0.35	0.0	594.83
365.	32.	315.	18.	55.	114.	93.	38.	29.	594.83
0.01	0.57	2.76	0.34	0.060	0.030	0.060	0.035	594.83	730.00
0.000[illegible]	32.	32.	32.	2	0	2	0.0	170.00	900.00

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 600.84

STA=	730.	782.	790.	810.	813.	900.
PER Q=	1.9	6.8	86.3	2.1	2.9	
AREA=	26.1	29.0	114.1	11.9	41.4	
VEL=	0.3	0.9	2.8	0.6	0.3	

*SECNO 11.000

3479 ENCROACHMENT STATIONS= 680.0 950.0 TYPE= 1 TARGET= 270.000

U/S OF VAN HORN BRIDGE

11.00	1.65	600.00	0.0	0.0	600.96	0.08	0.02	0.01	600.00
365.	36.	306.	24.	82.	126.	73.	38.	29.	600.00
0.01	0.44	2.45	0.33	0.060	0.030	0.060	0.035	595.23	680.00
0.000421	50.	50.	50.	2	0	0	0.0	270.00	950.00

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 600.68

STA=	680.	750.	782.	813.	950.
PER Q=	6.3	3.6	83.4	6.7	
AREA=	56.1	28.3	124.1	72.9	
VEL=	0.6	0.5	2.5	0.3	

CCHV= 0.100 CEHV= 0.300
*SECNO 12.000

3265 DIVIDED FLOW

VALLEY SECT. F.H. 8000.

12.00	6.05	601.20	0.0	0.0	601.26	0.04	0.27	0.00	595.64
300.	137.	138.	25.	233.	50.	61.	63.	36.	595.65
0.97	0.59	2.36	0.61	0.050	0.035	0.070	0.035	592.15	637.98
0.000295	400.	856.	1400.	0	0	0	0.0	423.60	868.53

FLO. DISTRIBUTION FOR SECNO= 12.00 CWSEL= 601.20

STA=	438.	550.	687.	695.	705.	719.	723.	734.	850.	869.
PER Q=	3.7	30.0	11.1	46.1	6.8	0.2	0.0	1.3	0.0	
AREA=	41.8	161.9	59.5	58.[illegible]	20.4	3.4	0.7	7.5	1.6	

CCHV= 0.100 CEHV= 0.300
*SECNO 13.000

3265 DIVIDED FLOW

VALLEY SECT. AT INDEPENDENCE ST.F.B.6300.

13.00	5.07	602.11	0.0	0.0	602.29	0.18	1.00	0.04	598.14
300.	98.	190.	13.	154.	45.	10.	56.	50.	598.29
1.14	0.63	4.23	1.30	0.080	0.035	0.050	0.035	597.04	0.99
0.001397	2100.	1700.	1000.	3	0	0	0.0	255.04	424.45

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 602.11

STA=	1.	64.	132.	199.	245.	259.	260.	424.
PER Q=	5.4	14.7	4.3	8.1	63.2	4.2	0.0	
AREA=	34.7	65.3	31.1	23.1	44.8	8.8	1.0	
VEL=	0.5	0.7	0.4	1.1	4.2	1.4	0.1	

*SECNO 14.000

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

3670 ENCROACHMENT STATIONS= 0.0 1350.0 TYPE= 1 TARGET= 1369.999

VALLEY SECT. F.B.3800.

14.00	5.16	603.44	0.0	0.0	603.96	0.02	1.16	0.02	599.02
235.	0.	96.	131.	24.	53.	309.	73.	65.	598.79
1.79	0.33	1.80	0.42	0.060	0.035	0.050	0.035	596.28	972.41
0.000221	2200.	2500.	2000.	3	0	0	0.0	377.59	1350.00

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 603.44

STA=	972.	977.	990.	995.	1006.	1013.	1150.	1300.	1350.
PER Q=	0.1	1.0	2.2	40.8	5.7	14.7	26.9	8.5	
AREA=	1.9	10.3	11.2	53.3	17.4	97.9	145.8	47.5	
VEL=	0.2	0.2	0.4	1.8	0.7	0.4	0.4	0.4	

CCHV= 0.100 CEHV= 0.300
*SECNO 15.000

3670 ENCROACHMENT STATIONS= 369.0 575.0 TYPE= 1 TARGET= 230.000

D/S OF WEST RD.BRIDGE

15.00	3.79	606.04	0.0	0.0	606.26	0.21	0.74	0.06	604.00
235.	0.	235.	0.	0.	63.	1.	70.	73.	604.00
1.96	0.07	3.71	0.09	0.080	0.045	0.060	0.035	600.25	372.73
0.002109	1450.	1450.	1450.	3	0	0	0.0	101.24	473.96

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 606.04

STA=	373.	390.	413.	576.
PER Q=	8.0	99.9	0.1	
AREA=	6.4	63.2	1.4	

CCHV= 0.300 CEHV= 0.500
*SECNO 16.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 605.40 ELREA= 604.56

ELLC = 604.96 > 604.45 ⇒ low flow

D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

16.00	4.20	604.45	0.0	0.0	604.75	0.30	0.45	0.04	600.26
235.	0.	235.	0.	0.	54.	0.	78.	73.	600.25
1.91	0.0	4.39	0.0	0.060	0.035	0.060	0.035	600.25	418.62
0.002300	200.	200.	200.	2	0	0	0.0	12.76	431.37

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 604.45

STA= 419. 431.
PER Q= 100.0
AREA= 53.6
VEL= 4.4

SPECIAL BRIDGE

SS	XK	XKOR	COPQ	HOLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	1.80	3.00	0.0	12.70	0.0	52.00	0.0	600.87	600.25

*SECNO 17.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 605.021 EGLWC= 605.369 ELLC= 604.960 PCWSE= 604.450 ELTRD= 606.560

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 604.56 MAX ELLC= 604.96

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 605.40 ELREA= 604.56

D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

17.00	4.27	604.52	0.0	0.0	604.81	0.29	0.06	0.00	600.26
235.	0.	235.	0.	0.	55.	0.	70.	73.	600.25
1.91	0.0	4.31	0.0	0.060	0.035	0.060	0.035	600.25	418.62
0.002181	27.	27.	27.	4	0	0	-0.02	12.76	431.37

FLOW DISTRIBUTION FOR SECNO= 17.00 CWSEL= 604.52

STA= 419. 431.
PER Q= 100.0
AREA= 54.5
VEL= 4.3

*SECNO 18.000

D/S OF WEST RD.

18.00	3.81	604.65	0.0	0.0	604.95	0.26	0.13	0.01	604.90
235.	0.	235.	0.	0.	57.	0.	78.	73.	606.20
1.92	0.0	4.10	0.0	0.060	0.035	0.060	0.035	600.07	990.32
0.002955	50.	50.	50.	2	0	0	0.0	22.19	1012.52

STA= 990. 1013.
PER Q= 100.0
AREA= 57.3
VEL= 4.1

CCHV= 0.100 CEHV= 0.300
*SECNO 19.000

3765 DIVIDED FLOW

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	WV	HL	OLOSS	BANK ELEV
Q	ULOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	UTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19.00	4.61	605.74	0.0	0.0	605.78	0.04	0.01	0.02	605.31
140.	15.	115.	10.	49.	65.	36.	80.	75.	605.80
2.04	0.31	1.76	0.27	0.060	0.035	0.060	0.035	601.13	1080.00
0.000473	667.	667.	667.	3	0	0	0.0	231.52	1320.00

FLOW DISTRIBUTION FOR SECNO= 19.00 CHSEL= 605.74

STA= 1080. 1190. 1213. 1320.
PER Q= 11.1 82.0 6.9
AREA= 40.1 65.3 35.7
VEL= 0.3 1.6 0.3

CCHV= 0.300 CEHV= 0.500
*SECNO 20.000

D/S FACE OF FOOTBRIDGE F.B 980.

20.00	3.56	606.06	0.0	0.0	606.25	0.19	0.50	0.07	606.04
140.	0.	140.	0.	0.	40.	0.	81.	77.	607.06
2.07	0.0	3.47	0.0	0.070	0.035	0.070	0.035	602.50	890.89
0.002547	432.	432.	432.	2	0	0	0.0	17.88	908.77

FLOW DISTRIBUTION FOR SECNO= 20.00 CHSEL= 606.06

STA= 891. 911.
PER Q= 100.0
AREA= 40.4
VEL= 3.5

*SECNO 20.100

3377 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 606.98 MAX ELLC= 605.25

IN INSIDE D/S END OF FOOTBRIDGE 60598 > ELLC e 605.25 ⇒ submerged outlet

20.10	3.48	605.98	0.0	0.0	606.20	0.36	0.00	0.09	606.45
140.	0.	140.	0.	0.	25.	0.	81.	77.	607.06
2.07	0.0	4.80	0.0	0.070	0.050	0.070	0.035	602.50	891.06
0.002548	1.	1.	1.	2	0	0	-0.71	17.59	908.65

8930.RDST NOT ON GR CARD 889.49
FLOW DISTRIBUTION FOR SECNO= 20.10 CHSEL= 605.96

STA= 691. 911.
PER Q= 100.0
AREA= 29.2
VEL= 4.8

*SECNO 20.200 ⇒ input special bridge ⇒ going pressure

3370 NORMAL BRIDGE.NRD= 6 MIN ELTRD= 606.98 MAX ELLC= 605.25

1: INSIDE U/S END OF FOOTBRIDGE

20.20	3.60	606.10	0.0	0.0	606.45	0.35	0.10	0.00	606.84
140.	0.	140.	0.	0.	30.	0.	81.	77.	607.06
2.07	0.0	4.72	0.0	0.070	0.030	0.070	0.035	602.50	890.83
0.010237	10.	10.	10.	2	0	0	-11.34	18.00	908.83

8930.RDST NOT ON GR CARD 889.49
FLOW DISTRIBUTION FOR SECNO= 20.20 CHSEL= 606.10

STA= 891. 911.
PER Q= 100.0
AREA= 29.6
VEL= 4.7

CCHV= 0.300 CEHV= 0.500
*SECNO 20.300

U/S FACE OF FOOTBRIDGE F.B. 968.

20.30	3.87	606.37	0.0	0.0	606.51	0.14	0.00	0.06	606.84
140.	0.	140.	0.	0.	46.	0.	81.	77.	607.06
2.07	0.0	3.04	0.0	0.070	0.035	0.070	0.035	602.50	890.35
0.001789	1.	1.	1.	2	0	0	0.0	18.95	909.30

FLOW DISTRIBUTION FOR SECNO= 20.30 CHSEL= 606.37

STA= 890. 911.
PER Q= 100.0
AREA= 46.0
VEL= 3.0

*SECNO 20.500

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	ELOB	QCH	QROB	ALOB	ACH	AROB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	ALOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

D/S FACE OF FOOTBRIDGE F.B. 660

20.50	3.71	606.89	0.0	0.0	606.99	0.11	0.07	0.01	607.38
140.	0.	140.	0.	0.	54.	0.	81.	77.	607.02
2.11	0.0	2.61	0.0	0.070	0.035	0.070	0.035	603.10	889.06
0.001305	308.	308.	308.	2	0	0	0.0	22.53	911.59

FLOW DISTRIBUTION FOR SECNO= 20.50 CHSEL= 606.89

PER Q= 100.0
AREA= 53.6
VEL= 2.6

*SECNO 20.600

3370 NORMAL BRIDGE.NRD= 4 MIN ELTRD= 607.02 MAX ELLC= 606.11

1' INSIDE U/S END OF FOOTBRIDGE

20.60	3.67	606.85	0.0	0.0	607.03	0.18	0.00	0.04	607.38
140.	0.	140.	0.	0.	42.	0.	81.	77.	607.02
2.11	0.0	3.37	0.0	0.070	0.030	0.070	0.035	603.18	889.12
0.004222	1.	1.	1.	2	0	0	-11.27	22.39	911.51

8930.RDST NOT ON GR CARD 887.99
8930.RDST NOT ON GR CARD 888.01
FLOW DISTRIBUTION FOR SECNO= 20.60 CHSEL= 606.85

STA= 889. 912.
PER Q= 100.0
AREA= 41.6
VEL= 3.4

*SECNO 20.700

3370 NORMAL BRIDGE.NRD= 4 MIN ELTRD= 607.02 MAX ELLC= 606.11

606.92 > ELLC < 606.11 ⇒ submerged outlet
⇒ input special bridge

1' INSIDE U/S END OF FOOTBRIDGE

20.70	3.74	606.92	0.0	0.0	607.09	0.18	0.06	0.00	607.38
140.	0.	140.	0.	0.	41.	0.	81.	77.	607.02
2.11	0.0	3.38	0.0	0.070	0.030	0.070	0.035	603.18	889.08
0.004323	15.	15.	15.	2	0	0	-12.36	22.66	911.66

8930.RDST NOT ON GR CARD 887.99
8930.RDST NOT ON GR CARD 888.01
FLOW DISTRIBUTION FOR SECNO= 20.70 CHSEL= 606.92

STA= 889. 912.
PER Q= 100.0
AREA= 41.6
VEL= 3.4

*SECNO 20.800

U/S FACE OF FOOTBRIDGE E.0.893.

20.80	3.15	607.02	0.0	0.0	607.12	0.10	0.00	0.02	607.38
140.	0.	140.	0.	0.	56.	0.	81.	77.	607.02
2.11	0.0	2.64	0.01	0.070	0.035	0.070	0.035	603.18	888.79
0.001155	1.	1.	1.	2	0	0	0.0	28.38	917.17

FLOW DISTRIBUTION FOR SECNO= 20.80 CHSEL= 607.02

STA= 889. 912.
PER Q= 100.0
AREA= 36.3
VEL= 2.5

*SECNO 21.000

3470 ENCROACHMENT STATIONS= 360.0 475.0 TYPE= 1 TARGET= 115.000

D/S OF BEECH-DALY BRIDGE

21.00	3.18	607.38	0.0	0.0	607.44	0.06	0.31	0.00	604.40
140.	12.	96.	31.	23.	43.	47.	82.	77.	604.40
2.17	0.55	2.23	0.67	0.070	0.035	0.070	0.035	604.20	360.00
0.000616	400.	396.	275.	3	0	0	0.0	115.00	475.00

FLOW DISTRIBUTION FOR SECNO= 21.00 CWSEL= 607.38

STA=	360.	400.	411.	425.	449.	475.
PER Q=	0.6	8.2	68.8	21.4	1.0	
AREA=	5.7	16.9	43.2	40.4	6.6	
VEL=	0.1	0.7	2.2	0.7	0.2	

CCHV= 0.300 CEHV= 0.500
*SECNO 22.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 608.13 ELREA= 608.13

ELLC@607.9 >607.46 ⇒ low flow

D/S FACE OF BEECH-DALY BRIDGE SKEWED 45 DEGREES

22.00	3.39	607.46	0.0	0.0	607.73	0.26	0.19	0.10	604.07
140.	0.	140.	0.	0.	34.	0.	82.	78.	604.07
2.18	0.0	4.12	0.0	0.070	0.030	0.070	0.035	604.07	420.00
0.001988	300.	200.	10.	2	0	0	0.0	10.00	430.00

FLOW DISTRIBUTION FOR SECNO= 22.00 C.SEL= 607.46

STA=	420.	430.
PER Q=	100.0	
AREA=	33.9	
VEL=	4.1	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BHC	BHP	BAREA	SS	ELCHU	ELCHD
	0.0	1.80	2.70	0.0	10.00	0.0	37.00	0.0	604.07	604.23

*SECNO 23.000

3370 LOW FLOW BY NORMAL BRIDGE

EXPRS= 0.0 EGLWC= 607.755 ELLC= 607.900 PCHSE= 607.466 ELTRD= 609.130

3370 NORMAL BRIDGE,NRD= 9 MIN ELTRD= 609.13 MAX ELLC= 607.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 609.13 ELREA= 609.31

D/S FACE OF BEECH-DALY BRIDGE

23.00	3.32	607.55	0.0	0.0	607.83	0.28	0.10	0.01	604.23
140.	0.	140.	0.	0.	33.	0.	82.	78.	604.23
2.19	0.0	4.23	0.0	0.070	0.030	0.070	0.035	604.23	420.00
0.002152	47.	47.	47.	2	0	0	-30.94	10.00	430.00

FLOW DISTRIBUTION FOR SECNO= 23.00 CWSEL= 607.55

STA= 420. 430.
PER Q= 100.0
AREA= 33.1
VEL= 4.2

*SECNO 24.000

U/S OF BEECH-DALY BRIDGE

24.00	3.82	607.89	0.0	0.0	607.93	0.04	0.03	0.07	604.07
140.	18.	102.	20.	35.	53.	39.	82.	78.	604.07
2.19	0.51	1.91	0.51	0.070	0.030	0.070	0.035	604.07	924.54
0.000269	50.	50.	50.	2	0	0	0.0	92.87	977.40

FLOW DISTRIBUTION FOR SECNO= 24.00 CWSEL= 607.89

STA=	925.	943.	957.	977.
PER Q=	12.8	73.0	14.2	
AREA=	35.2	53.5	39.0	
VEL=	0.5	1.9	0.5	

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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T1      BROWNSTOWN FIS
T2      ENCROACHMENT RUN
T3      SMITH CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

       0.       5.       0.       0.  0.0          0.0      0.0      0.   594.740   0.0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15.000    0.0     -1.000    0.0      0.0      0.0      0.0      0.0      0.0      0.0
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Use for F.I.S
Input w/
"100 yr Natural"

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000
2800 NAT Q1= 143.78 WSEL= 596.64 ENC Q1= 143.78 WSEL= 594.74 RATIO= 0.0
NAT Q1= 154. RATIOS LOB,CH,ROB= 0.0911 0.5312 0.3777 WSEL= 594.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELKIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.00	3.94	594.74	0.0	594.64	594.84	0.10	0.0	0.0	590.80
455.	29.	258.	168.	28.	78.	149.	0.	0.	591.00
0.0	1.05	3.31	1.12	0.080	0.035	0.070	0.0	590.80	110.36
0.000995	400.	500.	600.	0	0	0	0.0	98.99	209.35

3470 ENCROACHMENT STATIONS= 110.4 209.4 TYPE= 4 TARGET= 0.064

VALLEY SECT. BASED ON SECT.1500. ZZZ 2031-01.

*SECNO 1.100
2800 NAT Q1= 115.41 WSEL= 595.20 ENC Q1= 115.41 WSEL= 595.30 RATIO= 0.0
NAT Q1= 125. RATIOS LOB,CH,ROB= 0.2527 0.4102 0.3371 WSEL= 595.30

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELKIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.10	3.99	595.29	0.0	595.20	595.43	0.14	0.58	0.01	591.30
455.	106.	202.	167.	102.	48.	93.	5.	1.	591.30
0.05	1.04	4.22	1.58	0.080	0.035	0.070	0.037	591.30	326.66
0.001562	750.	500.	300.	2	0	0	0.0	117.72	444.37

3470 ENCROACHMENT STATIONS= 326.7 444.4 TYPE= 4 TARGET= 0.076

VALLEY SECT. BASED ON SECT.2000. ZZZ 2031-01.

*SECNO 1.300
2800 NAT Q1= 114.32 WSEL= 597.61 ENC Q1= 114.32 WSEL= 597.71 RATIO= 0.0
NAT Q1= 124. RATIOS LOB,CH,ROB= 0.2633 0.4513 0.2854 WSEL= 597.71

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELKIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.30	4.71	597.71	0.0	597.61	597.83	0.12	2.39	0.00	593.00
385.	96.	179.	89.	111.	47.	97.	13.	7.	593.00
0.27	0.87	3.80	0.92	0.080	0.035	0.070	0.035	593.00	115.36
0.701014	1080.	1080.	1080.	2	0	0	0.0	166.08	281.39

3470 ENCROACHMENT STATIONS= 115.3 281.4 TYPE= 4 TARGET= 0.082

VALLEY SECT. BASED ON SECT.4000. ZZZ 2031-01.

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000

3470 ENCROACHMENT STATIONS= 175.0 265.0 TYPE= 1 TARGET= 70.000

D/S OF TELEGRAPH RD. BASED ON EPS ZZZ 2031-01 SECT.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELKIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.00	5.03	598.53	0.0	598.65	598.87	0.14	0.84	0.01	593.50
385.	101.	200.	84.	87.	50.	71.	18.	10.	593.50
0.36	1.16	3.98	0.98	0.080	0.035	0.100	0.035	593.50	175.00

CCHV= 0.300 CEHV= 0.500

*SECNO 3.000

2800 NAT Q1= 97.96 WSEL= 598.46 ENC Q1= 101.52 WSEL= 598.56 RATIO= -0.0366

NAT Q1=	102.	RATIOS LOB,CH,ROB=	0.0	1.0000	0.0	WSEL=	598.56		
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TUA	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= 591.6 608.4 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 601.48 ELREA= 600.84

D/S FACE OF TELEGRAPH RD. BRIDGE

3.00	4.57	598.57	0.0	598.46	598.92	0.35	0.14	0.11	594.00
365.	0.	365.	0.	0.	76.	0.	18.	10.	594.00
0.37	0.0	4.78	0.0	0.060	0.030	0.060	0.035	594.00	591.64
0.002204	100.	100.	100.	2	0	0	0.0	16.72	608.36

SPECIAL BRIDGE

SK	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCKU	ELCHD
	0.0	2.10	2.70	0.0	13.70	0.0	83.50	0.0	594.20	594.00

*SECNO 4.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.0 EGLWC= 599.021 ELLC= 599.110 PCWSE= 598.571 ELTRD= 600.870

2800 NAT Q1= 93.06 WSEL= 598.55 ENC Q1= 97.37 WSEL= 598.65 RATIO= -0.0376

NAT Q1= 97. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 598.65

WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 591.6 608.4 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 601.48 ELREA= 601.00

D/S FACE OF TELEGRAPH RD.BRIDGE

4.00	4.45	598.05	0.0	598.55	599.03	0.37	0.15	0.01	594.20
365.	0.	365.	0.	0.	76.	0.	18.	10.	596.20
0.37	0.0	4.90	0.0	0.060	0.040	0.060	0.035	594.20	591.64
0.002372	65.	65.	65.	0	0	0	0.0	16.72	608.36

*SECNO 4.500

3470 ENCROACHMENT STATIONS= 542.0 658.0 TYPE= 1 TARGET= 116.000

D/S OF TELEGRAPH RD.

4.50	4.70	598.90	0.0	598.80	599.16	0.23	0.07	0.06	596.20
365.	12.	322.	31.	11.	79.	25.	16.	10.	594.20
0.37	1.03	4.10	1.22	0.060	0.030	0.060	0.035	594.20	586.81
0.000868	50.	50.	50.	2	0	0	0.0	32.36	619.17

```
*SECNO 5.000
 2800 NAT Q1=     176.06  WSEL=     599.13  ENC Q1=     176.06  WSEL=     599.23  RATIO=  0.0
 NAT Q1=    186.  RATIOS LOB,CH,ROB=  0.0556  0.8228  0.1216  WSEL=     599.23

3470 ENCROACHMENT STATIONS=      520.2      621.0  TYPE=      4  TARGET=        0.055

        D/S FACE OF FOOTBRIDGE F.B. 11287.

     5.00      7.16    599.21      0.0    599.13    599.31      0.10      0.13      0.04    598.04
     365.       11.      319.       36.       20.      117.       65.       19.       10.    597.91
     0.40      0.53      2.73      0.55     0.060     0.030     0.060     0.035    592.05    520.15
 0.000439      223.      223.      223.         2         0         0       0.0    100.86    621.01

*SECNO 5.100
 2800 NAT Q1=      97.02  WSEL=     599.15  ENC Q1=      97.02  WSEL=     599.25  RATIO=  0.0
 NAT Q1=    105.  RATIOS LOB,CH,ROB=  0.1021  0.6742  0.2237  WSEL=     599.25

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  597.91 MAX ELLC=  597.04

3470 ENCROACHMENT STATIONS=      515.2      627.6  TYPE=      4  TARGET=        0.076

        1: INSIDE D/S END OF FOOTBRIDGE

     5.10      7.18    599.23      0.0    599.15    599.31      0.09      0.00      0.00    598.04
     365.       25.      268.       72.       25.      100.       72.       19.       10.    597.91
     0.40      0.99      2.67      1.00     0.060     0.030     0.060     0.035    592.05    515.21
 0.001458        1.        1.        1.         2         0         0    -17.00    112.39    627.60

*SECNO 5.200
 2800 NAT Q1=      97.80  WSEL=     599.17  ENC Q1=      97.80  WSEL=     599.27  RATIO=  0.0
 NAT Q1=    100.  RATIOS LOB,CH,ROB=  0.1034  0.6699  0.2267  WSEL=     599.27
   SECNO     DEPTH     CWSEL     CRIMS     WSELK     EG        HV        HL        BLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       HTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IUC       ICONT     CORAR     TOPWID      ENDST

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  597.91 MAX ELLC=  597.04

3470 ENCROACHMENT STATIONS=      515.9      626.9  TYPE=      4  TARGET=        0.001

        1: INSIDE U/S END OF FOOTBRIDGE

     5.20      7.20    599.25      0.0    599.17    599.33      0.08      0.02      0.00    598.04
     365.       25.      268.       73.       25.      101.       72.       19.       10.    597.91
     0.40      0.99      2.66      1.00     0.060     0.030     0.060     0.035    592.05    515.89
 0.001440       11.       11.       11.         0         0         0    -17.00    110.98    626.87

*SECNO 5.300
 2800 NAT Q1=     180.16  WSEL=     599.16  ENC Q1=     180.16  WSEL=     599.26  RATIO=  0.0
 NAT Q1=    190.  RATIOS LOB,CH,ROB=  0.0574  0.8167  0.1258  WSEL=     599.26

3470 ENCROACHMENT STATIONS=      518.0      626.0  TYPE=      4  TARGET=        0.051

        U/S FACE OF FOOTBRIDGE F.B. 11274.

     5.30      7.19    599.26      0.0    599.16    599.36      0.10      0.00      0.01    598.04
     365.       12.      315.       38.       23.      118.       70.       19.       10.    597.91
     0.40      0.53      2.67      0.54     0.060     0.030     0.060     0.035    592.05    518.05
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[illegible]	40	40	40	0		0	0.0	105.98	624.03

CCHV= 0.100 CEHV= 0.300
*SECNO 6.000
2800 NAT 01= 114.97 WSEL= 599.35 ENC 01= 114.97 WSEL= 599.45 RATIO= 0.0
NAT 01= 121. RATIOS LOB,CH,ROB= 0.1231 0.6843 0.1927 WSEL= 599.45

3470 ENCROACHMENT STATIONS= 527.9 578.6 TYPE= 4 TARGET= 0.050

VALLEY SECT. F.B. SECT. 10840.

6.00	6.34	599.42	0.0	599.35	599.65	0.23	0.27	0.04	594.31
365.	37.	263.	64.	32.	59.	51.	21.	11.	593.08
0.64	1.16	0.43	1.25	0.070	0.035	0.070	0.035	593.08	527.94
0.001025	300.	436.	550.	2	0	0	0.0	50.62	578.55

CCHV= 0.100 CEHV= 0.300
*SECNO 7.000

3470 ENCROACHMENT STATIONS= 900.0 1250.0 TYPE= 1 TARGET= 350.000

VALLEY SECT. F.B.SECT.9700.

7.00	6.16	600.16	0.0	600.09	600.18	0.03	0.51	0.02	594.85
365.	118.	121.	126.	242.	57.	231.	30.	16.	594.91
0.74	0.49	2.13	0.54	0.060	0.035	0.060	0.035	594.00	900.00
0.000250	1140.	1140.	1140.	2	0	0	0.0	350.00	1250.00

*SECNO 8.000

3470 ENCROACHMENT STATIONS= 750.0 950.0 TYPE= 1 TARGET= 200.000

D/S OF VAN HORN BRIDGE

8.00	5.52	600.32	0.0	600.28	600.47	0.15	0.25	0.04	600.00
365.	4.	359.	2.	10.	113.	8.	34.	19.	600.00
0.79	0.38	3.17	0.24	0.060	0.035	0.060	0.035	596.80	750.00
0.001091	430.	562.	620.	2	0	0	0.0	111.67	861.67

CCHV= 0.300 CEHV= 0.500
*SECNO 9.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	KL	XLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	ANL	ANCH	ANR	UTM	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 900.0 TYPE= 1 TARGET= 899.000

D/S FACE OF VAN HORN BRIDGE F.B.SECT.6938.

9.00	5.13	600.46	0.0	600.43	600.62	0.16	0.15	0.00	595.33
365.	27.	327.	10.	37.	97.	22.	35.	20.	595.33
0.60	0.74	3.36	0.47	0.060	0.030	0.060	0.035	595.33	730.00
0.000522	200.	200.	200.	0	0	0	0.0	137.64	867.64

SPECIAL BRIDGE

SS	RK	XKOR	COPO	RWLEN	BHC	BHP	BAREA	SS	ELCHU	ELCHD

				0.0	01.00	0.0	595.33	594.83	

*SECNO 10.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	MB	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
601.52	600.62	0.0	117.	248.	61.	61.	598.39	600.35

U/S FACE OF VAN HORN BRIDGE F.B. SECT.8906.

10.00	6.02	600.85	0.0	600.84	600.95	0.10	0.33	0.0	594.83
365.	32.	314.	19.	56.	114.	55.	35.	20.	594.83
0.81	0.57	2.75	0.34	0.060	0.030	0.060	0.035	594.83	730.00
0.000281	32.	32.	32.	2	0	3	0.0	170.00	900.00

*SECNO 11.000

3670 ENCROACHMENT STATIONS= 680.0 950.0 TYPE= 1 TARGET= 270.000

U/S OF VAN HORN BRIDGE

11.00	5.67	600.90	0.0	600.88	600.97	0.08	0.02	0.01	600.00
365.	37.	303.	25.	84.	125.	75.	35.	20.	600.00
0.41	0.44	2.43	0.34	0.060	0.030	0.060	0.035	595.23	660.00
0.000413	50.	50.	50.	2	0	0	0.0	270.00	950.00

CCHV= 0.100 CEHV= 0.300
*SECNO 12.000
2800 NAT QI= 176.66 WSEL= 601.20 ENC QI= 176.66 WSEL= 601.30 RATIO= 0.0
NAT QI= 191. RATIOS LOB,CH,ROB= 0.6757 0.4331 0.0913 WSEL= 601.30

3670 ENCROACHMENT STATIONS= 566.1 710.0 TYPE= 4 TARGET= 0.086

VALLEY SECT. F.B. 8000.

12.00	6.06	601.21	0.0	601.20	601.26	0.05	0.29	0.00	595.46
300.	136.	147.	17.	195.	59.	23.	40.	24.	595.65
0.95	0.70	2.52	0.73	0.050	0.035	0.070	0.035	595.15	566.09
0.000335	600.	858.	1400.	1	0	0	0.0	164.70	710.79

CCHV= 0.100 CEHV= 0.300
*SECNO 13.000
2800 NAT QI= 80.26 WSEL= 602.11 ENC QI= 80.26 WSEL= 602.21 RATIO= 0.0
NAT QI= 88. RATIOS LOB,CH,ROB= 0.3552 0.5996 0.0452 WSEL= 602.21

3265 DIVIDED FLOW

3670 ENCROACHMENT STATIONS= 53.4 255.1 TYPE= 4 TARGET= 0.066

VALLEY SECT. AT INDEPENDANCE ST.F.B.6300.

13.00	5.18	602.22	0.0	602.11	602.41	0.19	1.10	0.04	596.14
300.	106.	196.	0.	148.	46.	1.	50.	32.	598.29
1.12	0.70	4.27	0.29	0.080	0.035	0.050	0.035	597.04	53.35
0.001371	2100.	1700.	1000.	2	0	0	0.0	176.26	255.14

*SECNO 14.000

Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	HTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		0.0	1350.0	TYPE=	1	TARGET=	1349.999		
VALLEY SECT. F.B.3800.									
14.00	5.20	603.40	0.0	603.44	603.50	0.02	1.08	0.02	599.02
235.	8.	93.	135.	25.	54.	325.	65.	45.	598.79
1.01	0.32	1.72	0.41	0.080	0.035	0.050	0.035	598.28	972.17
0.000200	2200.	2500.	2000.	1	0	0	0.0	377.83	1350.00
CCHV= 0.100 CEHV= 0.300									
*SECNO 15.000									
3470 ENCROACHMENT STATIONS=		345.0	575.0	TYPE=	1	TARGET=	230.000		
D/S OF WEST RD.BRIDGE									
15.00	3.78	604.03	0.0	604.04	604.25	0.22	0.69	0.06	604.00
235.	0.	235.	0.	0.	63.	1.	73.	53.	604.00
1.91	0.05	3.73	0.07	0.080	0.035	0.060	0.035	600.25	377.89
0.002225	1456.	1456.	1456.	3	0	0	0.0	77.71	455.60
CCHV= 0.300 CEHV= 0.500									
*SECNO 16.000									
2800 NAT GI=		49.00	WSEL=	604.45	ENC GI=	50.77	WSEL=	604.55	RATIO= -0.0361
NAT QI=	51.	RATIOS LOB,CH,ROB=		0.0	1.0000	0.0	WSEL=	604.55	
3470 ENCROACHMENT STATIONS=		418.6	431.6	TYPE=	4	TARGET=	0.0		
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=				605.40	ELREA=		604.56		
D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES									
16.00	4.26	604.51	0.0	604.65	604.80	0.29	0.51	0.04	600.26
235.	0.	235.	0.	0.	54.	0.	73.	53.	600.25
1.93	0.0	4.33	0.0	0.060	0.035	0.060	0.035	600.25	410.62
0.003007	200.	200.	200.	2	0	0	0.0	12.76	431.37
SPECIAL BRIDGE									
SK	XK	XKOR	COFQ	RDLEN	B/C	ELP	BAREA	SS	ELCKU	ELCHD
	0.0	1.00	3.00	0.0	12.70	0.0	52.00	0.0	600.87	600.25
*SECND 17.000										
6070.LOW FLOW BY NORMAL BRIDGE										
ESPRS= 0.0		EGLOC=	604.915	ELLC=	604.960	PCHSE=	604.508	ELTRD=	604.560	
2800 NAT GI=		50.32	WSEL=	604.52	ENC QI=	52.01	WSEL=	604.62	RATIO= -0.0351	
NAT QI=	52.	RATIOS LOB,CH,ROB=		0.0	0.9968	0.0032	WSEL=	604.62		
LATER EL=CHANGE FROM NATURAL PROFILES BRIDGE										
3470 ENCROACHMENT STATIONS=		418.6	431.4	TYPE=	4	TARGET=	0.003			
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=				605.40	ELREA=		604.56			

U/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

17.00	4.33	604.58	0.0	604.52	604.86	0.28	0.08	0.00	600.26
235.	0.	235.	0.	0.	55.	0.	73.	53.	600.25
1.93	0.0	4.25	0.0	0.060	0.035	0.060	0.035	600.25	418.62
0.002866	27.	27.	27.	0	0	0	0.0	12.76	431.37

*SECNO 18.000
2800 NAT Q1= 43.23 WSEL= 604.68 ENC Q1= 45.55 WSEL= 604.78 RATIO= -0.0537
NAT Q1= 46. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 604.78

3470 ENCROACHMENT STATIONS= 990.0 1013.0 TYPE= 4 TARGET= 0.0

U/S OF WEST RD.

16.00	3.90	604.77	0.0	604.68	605.01	0.25	0.14	0.01	604.90
295.	0.	235.	0.	0.	59.	0.	73.	53.	604.90
1.93	0.0	3.98	0.0	0.060	0.035	0.060	0.035	600.87	990.20
0.002714	50.	50.	50.	2	0	0	0.0	22.50	1012.70

CCHV= 0.100 CEHV= 0.300
*SECNO 19.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	KV	ML	QLOSS	BANK ELEV
	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TOA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1080.0 1320.0 TYPE= 1 TARGET= 240.000

VALLEY SECT. F.B. 1600.

19.00	4.63	605.76	0.0	605.76	605.80	0.04	0.76	0.02	605.31
160.	16.	114.	10.	51.	66.	35.	75.	55.	605.60
2.06	0.32	1.73	0.27	0.060	0.035	0.060	0.035	601.13	1080.00
1.000656	667.	667.	667.	3	0	0	0.0	236.22	1320.00

CCHV= 0.300 CEHV= 0.500
*SECNO 20.000
2800 NAT Q1= 27.74 WSEL= 606.06 ENC Q1= 29.60 WSEL= 606.16 RATIO= -0.0599
NAT Q1= 29. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 606.16

3470 ENCROACHMENT STATIONS= 889.5 910.5 TYPE= 4 TARGET= 0.0

D/S FACE OF FOOTBRIDGE F.B 900.

20.00	3.57	606.07	0.0	606.06	606.26	0.19	0.39	0.07	606.06
140.	0.	140.	0.	0.	40.	0.	76.	50.	607.06
2.09	0.0	3.66	0.0	0.070	0.035	0.070	0.035	602.50	890.88
0.002533	432.	432.	432.	2	0	0	0.0	17.90	908.70

*SECNO 20.100
2800 NAT Q1= 13.67 WSEL= 605.98 ENC Q1= 13.81 WSEL= 606.06 RATIO= -0.0102
NAT Q1= 16. RATIOS LOB,CH,ROB= 0.0 1.0000 0.0 WSEL= 606.06

3370 NORMAL BRIDGE,NRD= 6 MIN EL,TRD= 606.98 MAX EL,C= 605.25

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3470 ENCROACHMENT STATIONS=      889.5      910.5  TYPE=      4  TARGET=        0.0

        1: INSIDE U/S END OF FOOTBRIDGE

    20.10      3.49   605.99      0.0    605.98   606.35      0.36      0.00      0.09   606.84
     140.        0.     140.       0.       0.      29.        0.       76.       56.   607.06
     2.09      0.0      4.79      0.0     0.070    0.030     0.070     0.035    602.50   891.03
 0.010473        1.       1.       1.         2        0         0     -9.79     17.61   908.64

*SECNO 20.200
 2800 NAT Q1=      13.84  WSEL=     606.10  ENC Q1=      13.98  WSEL=     606.20  RATIO= -0.0101
 NAT Q1=      14.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     606.20

3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  606.98 MAX ELLC=  605.25

3470 ENCROACHMENT STATIONS=      889.5      910.5  TYPE=      4  TARGET=        0.0

        1: INSIDE U/S END OF FOOTBRIDGE

    20.20      3.61   606.11      0.0    606.10   606.45      0.35      0.10      0.00   606.84
     140.        0.     140.       0.       0.      30.        0.       76.       56.   607.06
     2.09      0.0      4.72      0.0     0.070    0.030     0.070     0.035    602.50   890.83
 0.010243       10.      10.      10.         1        0         0    -11.30     17.99   908.63

CCHV=   0.300 CEHV=   0.500
*SECNO 20.300
 2800 NAT Q1=      33.10  WSEL=     606.37  ENC Q1=      34.91  WSEL=     606.47  RATIO= -0.0544
 NAT Q1=      35.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     606.47

3470 ENCROACHMENT STATIONS=      889.5      910.5  TYPE=      4  TARGET=        0.0

        U/S FACE OF FOOTBRIDGE F.B. 968.

    20.30      3.87   606.37      0.0    606.37   606.52      0.14      0.00      0.06   606.84
     140.        0.     140.       0.       0.      46.        0.       76.       56.   607.06
     2.09      0.0      3.04      0.0     0.070    0.035     0.070     0.035    602.50   890.34
 0.001776        1.       1.       1.         2        0         0       0.0     18.97   909.31

*SECNO 20.500
 2800 NAT Q1=      38.76  WSEL=     606.89  ENC Q1=      41.00  WSEL=     606.99  RATIO= -0.0577
 NAT Q1=      41.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     606.99
   SECNO     DEPTH     CHSEL     CRIMS     HSELK     EG        MV        HL        BLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACM       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       HTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IOC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      888.0      912.0  TYPE=      4  TARGET=        0.0

        U/S FACE OF FOOTBRIDGE F.B. 660

    20.50      3.71   606.89      0.0    606.89   606.99      0.11      0.47      0.01   607.38
     140.        0.     140.       0.       0.      54.        0.       76.       56.   607.02
     2.13      0.0      2.61      0.0     0.070    0.035     0.070     0.035    603.18   889.05
 0.001301      308.     308.      308.         2        0         0       0.0     22.54   911.60

*SECNO 20.600
 2800 NAT Q1=      21.55  WSEL=     606.85  ENC Q1=      21.79  WSEL=     606.95  RATIO= -0.0112
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NAT Q1=      22.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     [illegible]

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  607.02 MAX ELLC=  606.11

3470 ENCROACHMENT STATIONS=      888.0      912.0  TYPE=      4  TARGET=        0.0

        1' INSIDE D/S END OF FOOTBRIDGE

    20.60      3.68   606.86      0.0    606.85   607.03      0.18      0.00      0.04   607.38
     140.        0.     140.        0.        0.      42.        0.       76.       56.   607.02
     2.13       0.0     3.37      0.0     0.070    0.030     0.070     0.035    603.18   889.12
 0.004219        1.       1.        1.         2        0         0    -11.32     22.40   911.52

°SECNO 20.700
 2800 NAT Q1=      21.29  WSEL=     606.92  ENC Q1=      21.53  WSEL=     607.02  RATIO= -0.0113
 NAT Q1=      22.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     607.02

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  607.02 MAX ELLC=  606.11

3470 ENCROACHMENT STATIONS=      888.0      912.0  TYPE=      4  TARGET=        0.0

        1' INSIDE U/S END OF FOOTBRIDGE

    20.70      3.74   606.92      0.0    606.92   607.10      0.18      0.06      0.00   607.38
     140.        0.     140.        0.        0.      41.        0.       76.       56.   607.02
     2.13       0.0     3.38      0.0     0.070    0.030     0.070     0.035    603.18   888.99
 0.004321       15.      15.       15.         0        0         0    -12.40     22.67   911.67

°SECNO 20.800
 2800 NAT Q1=      41.19  WSEL=     607.02  ENC Q1=      43.81  WSEL=     607.12  RATIO= -0.0635
 NAT Q1=      44.  RATIOS LOB,CH,ROB=  0.0      0.9935  0.0065  WSEL=     607.12

3470 ENCROACHMENT STATIONS=      888.0      912.0  TYPE=      4  TARGET=        0.007

        U/S FACE OF FOOTBRIDGE F.B.643.

    20.80      3.85   607.03      0.0    607.02   607.12      0.10      0.00      0.02   607.38
     140.        0.     140.        0.        0.      56.        0.       76.       56.   607.02
     2.13       0.0     2.49      0.0     0.070    0.035     0.070     0.035    603.18   888.78
 0.001143        1.       1.        1.         2        0         0       0.0     23.22   912.00

CCHV=    0.100 CEHV=    0.300
°SECNO 21.000

3470 ENCROACHMENT STATIONS=      360.0      475.0  TYPE=      1  TARGET=      115.000

        D/S OF MEECH-DALY BRIDGE

    21.00      3.19   607.39      0.0    607.38   607.44      0.05      0.31      0.00   604.40
     140.       12.      96.       31.       23.      43.       47.       77.       57.   604.40
     2.19       0.55    2.23      0.67     0.070    0.035     0.070     0.035    604.20   360.00
 0.000613      400.     396.      275.         3        0         0       0.0    115.00   475.00

CCHV=    0.300 CEHV=    0.500
°SECNO 22.000
 2800 NAT Q1=      31.40  WSEL=     607.46  ENC Q1=      32.79  WSEL=     607.56  RATIO= -0.0442
 NAT Q1=      33.  RATIOS LOB,CH,ROB=  0.0      1.0000  0.0      WSEL=     607.56
   SECNO     DEPTH     CHSEL     CRIHS     HSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      ANL       ANCH      ANR       HTN       ELMIN      SSTA
```

3470 ENCROACHMENT STATIONS= 420.0 430.0 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 608.13 ELREA= 608.13

D/S FACE OF BEECH-DALY BRIDGE SKEWED 45 DEGREES

22.00	3.42	607.49	0.0	607.46	607.75	0.26	0.21	0.10	604.07
140.	0.	140.	0.	0.	34.	0.	77.	57.	604.07
2.20	0.0	4.10	0.0	0.070	0.030	0.070	0.035	604.07	620.00
0.002660	300.	200.	10.	2	0	0	0.0	10.00	430.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0	1.80	2.70	0.0	10.00	0.0	37.00	0.0	604.07	604.23

*SECNO 23.000

6070.LOW FLOW BY NORMAL BRIDGE

ECORS= 607.888 ELWC= 607.913 ELLC= 607.900 PCWSE= 607.488 ELTRD= 609.130
2.00 NAT 01= 30.18 WSEL= 607.55 ENC 01= 31.55 WSEL= 607.65 RATIO= -0.0454
NAT 01= 32. RATIOS LOB.CH.ROB= 0.0 1.0000 0.0 WSEL= 607.65
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 420.0 430.0 TYPE= 4 TARGET= 0.0

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 609.13 ELREA= 609.31

D/S FACE OF BEECH-DALY BRIDGE

23.00	3.35	607.58	0.0	607.55	607.65	0.27	0.13	0.01	604.23
140.	0.	140.	0.	0.	33.	0.	77.	57.	604.23
2.21	0.0	4.18	0.0	0.070	0.030	0.070	0.035	604.23	620.00
0.002839	47.	47.	47.	0	0	0	0.0	10.00	430.00

*SELNO 24.000
2.00 NAT 01= 88.63 WSEL= 607.89 ENC 01= 88.63 WSEL= 607.99 RATIO= 0.0
NAT 01= 93. RATIOS LOB.CH.ROB= 0.1305 0.7248 0.1446 WSEL= 607.99

3470 ENCROACHMENT STATIONS= 934.5 966.6 TYPE= 4 TARGET= 0.049

D/S OF BEECH-DALY BRIDGE

24.00	3.83	607.90	0.0	607.89	607.95	0.05	0.03	0.07	604.07
140.	15.	107.	18.	25.	54.	28.	77.	57.	604.07
2.21	0.62	2.00	0.62	0.070	0.030	0.070	0.035	604.07	934.50
0.000271	50.	50.	50.	2	0	0	0.0	32.07	966.56

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

SMITH CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKOS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1.000	594.64	-1.36	594.73	178.99	39.76	247.18	168.06	0.0	0.0	120.00	140.00	0.0
1.000	594.74	0.10	594.84	98.99	29.41	257.75	167.84	0.06	110.30	120.00	140.00	209.35
1.100	595.20	0.0	595.32	230.46	108.68	193.73	152.59	0.0	0.0	395.00	407.00	0.0
1.100	595.29	0.10	595.43	117.72	105.64	202.26	147.10	0.08	326.66	395.00	407.00	444.37
1.300	597.61	0.0	597.72	278.46	100.67	173.05	91.28	0.0	0.0	180.00	190.00	0.0
1.300	597.71	0.10	597.83	166.08	96.42	179.12	89.46	0.06	115.32	180.00	190.00	281.40
2.000	590.45	0.0	598.60	70.00	100.31	202.11	62.57	70.00	175.00	205.00	215.00	245.00
2.000	590.53	0.08	598.67	70.00	101.18	200.30	63.52	70.00	175.00	205.00	215.00	245.00
3.000	598.46	0.0	598.83	16.72	0.0	365.00	0.0	0.0	0.0	591.64	608.36	0.0
3.000	598.57	0.11	598.92	16.72	0.0	365.00	0.0	0.0	591.64	591.64	608.36	608.36
4.000	598.55	0.0	598.94	16.72	0.0	365.00	0.0	0.0	0.0	591.64	608.36	0.0
4.000	598.65	0.11	599.03	16.72	0.0	365.00	0.0	0.0	591.64	591.64	608.36	608.36
4.500	598.80	0.0	599.04	32.00	11.46	323.22	30.33	116.00	542.00	591.64	608.36	658.00
4.500	598.90	0.11	599.14	32.36	11.69	322.35	30.96	116.00	542.00	591.64	608.36	658.00
5.000	599.13	0.0	599.22	149.93	18.21	307.17	39.61	0.0	0.0	537.99	562.01	0.0
5.000	599.21	0.08	599.31	100.86	10.56	318.89	35.55	0.06	520.15	537.99	562.01	621.01
5.100	599.15	0.0	599.23	149.93	36.33	255.89	74.78	0.0	0.0	537.99	562.01	0.0
5.100	599.23	0.08	599.31	112.39	26.95	260.01	72.04	0.08	515.21	537.99	562.01	627.60
5.200	599.17	0.0	599.24	149.93	34.64	256.88	75.69	0.0	0.0	537.99	562.01	0.0
5.200	599.25	0.08	599.33	110.98	24.62	267.82	72.56	0.08	515.89	537.99	562.01	626.87
5.300	599.16	0.0	599.25	149.93	19.06	304.39	61.55	0.0	0.0	537.99	562.01	0.0
5.300	599.24	0.08	599.34	105.98	12.09	316.90	58.01	0.04	518.05	537.99	562.01	624.03
6.000	599.35	0.0	599.56	165.10	41.57	255.66	67.77	0.0	0.0	545.00	555.00	0.0
6.000	599.42	0.08	599.65	50.62	37.46	263.33	64.22	0.05	527.94	545.00	555.00	570.56
7.000	600.09	0.0	600.12	350.00	114.97	125.80	124.24	350.00	900.00	1095.00	1105.00	1250.00
7.000	600.16	0.06	600.18	350.00	117.90	121.49	125.61	350.00	900.00	1095.00	1105.00	1250.00

SECNO	CHSEL	DIFKMS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
8.000	600.28	0.0	600.44	105.28	3.13	360.56	1.31	200.00	750.00	782.00	813.00	950.00
8.000	600.32	0.04	600.47	111.67	3.86	359.28	1.66	200.00	750.00	782.00	813.00	950.00
9.000	600.43	0.0	600.59	133.51	26.51	328.65	9.84	0.0	0.0	790.50	809.50	0.0
9.000	600.46	0.04	600.62	137.66	27.25	327.40	10.34	899.00	1.00	790.50	809.50	900.00
10.000	600.84	0.0	600.94	170.00	31.67	315.09	18.24	0.0	0.0	790.50	809.50	0.0
10.000	600.85	0.01	600.95	170.00	31.93	314.42	18.65	0.0	0.0	790.50	809.50	0.0
11.000	600.88	0.0	600.96	270.00	36.28	304.41	24.31	270.00	680.00	782.00	813.00	950.00
11.000	600.90	0.01	600.97	270.00	36.89	303.04	25.07	270.00	680.00	782.00	813.00	950.00
12.000	601.20	0.0	601.24	423.60	136.65	138.18	25.16	0.0	0.0	695.00	705.00	0.0
12.000	601.21	0.01	601.26	166.70	135.58	147.47	16.95	0.09	546.09	695.00	705.00	710.79
13.000	602.11	0.0	602.29	255.04	97.67	189.65	12.68	0.0	0.0	245.00	255.00	0.0
13.000	602.22	0.11	602.41	176.26	103.84	196.00	0.16	0.09	53.35	245.00	255.00	255.14
14.000	603.44	0.0	603.46	377.59	7.81	95.93	131.26	1350.00	0.00	994.50	1005.50	1350.00
14.000	603.48	0.04	603.50	377.83	7.92	92.51	134.67	1350.00	0.00	994.50	1005.50	1350.00
15.000	604.04	0.0	604.26	101.24	0.03	234.85	0.12	230.00	345.00	390.00	412.50	575.00
15.000	604.03	-0.01	604.25	77.71	0.01	234.94	0.05	230.00	345.00	390.00	412.50	575.00
16.000	604.65	0.0	604.75	12.76	0.0	235.00	0.0	0.0	0.0	410.62	431.37	0.0
16.000	604.51	0.06	604.80	12.76	0.0	235.00	0.0	0.0	618.62	618.62	431.37	431.38
17.000	604.52	0.0	604.81	12.76	0.0	235.00	0.0	0.0	0.0	618.62	431.37	0.0
17.000	604.58	0.06	604.86	12.76	0.0	235.00	0.0	0.00	618.62	618.62	431.37	431.38
15.000	604.68	0.0	604.95	22.19	0.0	235.00	0.0	0.0	0.0	990.00	1013.00	0.0
16.000	604.77	0.08	605.01	22.50	0.0	235.00	0.0	0.0	990.00	990.00	1013.00	1013.00
19.000	605.74	0.0	605.78	231.52	15.49	114.81	9.71	240.00	1000.00	1169.50	1212.50	1320.00
19.000	605.76	0.02	605.80	234.22	16.26	113.54	10.20	240.00	1000.00	1169.50	1212.50	1320.00
20.000	606.06	0.0	606.25	17.88	0.0	140.00	0.0	0.0	0.0	889.50	910.50	0.0
20.000	606.07	0.01	606.26	17.90	0.0	140.00	0.0	0.0	889.50	889.50	910.50	910.50
20.100	605.98	0.0	606.34	17.59	0.0	140.00	0.0	0.0	0.0	889.50	910.50	0.0
20.100	605.99	0.01	606.35	17.61	0.0	140.00	0.0	0.0	889.50	889.50	910.50	910.50
20.200	606.10	0.0	606.45	18.00	0.0	140.00	0.0	0.0	0.0	889.50	910.50	0.0
20.200	606.11	0.00	606.45	17.99	0.0	140.00	0.0	0.0	889.50	889.50	910.50	910.50
20.300	606.37	0.0	606.51	18.95	0.0	140.00	0.0	0.0	0.0	889.50	910.50	0.0
20.300	606.37	0.01	606.52	18.97	0.0	140.00	0.0	0.0	889.50	889.50	910.50	910.50
20.500	606.89	0.0	606.99	22.53	0.0	140.00	0.0	0.0	0.0	888.00	912.00	0.0
20.500	606.89	0.00	606.99	22.54	0.0	140.00	0.0	0.0	888.00	888.00	912.00	912.00
20.600	606.85	0.0	607.03	22.35	0.0	140.00	0.0	0.0	0.0	888.00	912.00	0.0
20.600	606.86	0.00	607.03	22.40	0.0	140.00	0.0	0.0	888.00	888.00	912.00	912.00
20.700	606.92	0.0	607.09	22.66	0.0	140.00	0.0	0.0	0.0	888.00	912.00	0.0
20.700	606.92	0.00	607.10	22.67	0.0	140.00	0.0	0.0	888.00	888.00	912.00	912.00

SECNO	CHSEL	DIFRHS	EG	TOPWID	QLOB	QCH	QROH	PERENC	STENCL	STCHL	STCHR	STENCR
20.800	607.02	0.0	607.12	28.38	0.0	140.00	0.00	0.0	0.0	888.00	912.00	0.0
20.800	607.03	0.00	607.12	23.22	0.0	140.00	0.0	0.01	888.00	888.00	912.00	912.00
21.000	607.38	0.0	607.44	115.00	12.36	96.28	31.36	115.00	360.00	411.00	425.00	475.00
21.000	607.39	0.00	607.44	115.00	12.40	96.19	31.41	115.00	360.00	411.00	425.00	475.00
22.000	607.46	0.0	607.73	10.00	0.0	140.00	0.0	0.0	0.0	420.00	430.00	0.0
22.000	607.49	0.02	607.75	10.00	0.0	140.00	0.0	0.0	420.00	420.00	430.00	430.00
23.000	607.55	0.0	607.83	10.00	0.0	140.00	0.0	0.0	0.0	420.00	430.00	0.0
23.000	607.58	0.02	607.85	10.00	0.0	140.00	0.0	0.0	420.00	420.00	430.00	430.00
24.000	607.89	0.0	607.93	52.87	17.94	102.19	19.88	0.0	0.0	943.00	957.00	0.0
24.000	607.90	0.01	607.95	32.07	15.43	107.06	17.51	0.05	934.50	943.00	957.00	966.57

SMITH CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRINS	EG	10KPS	VCH	AREA	.01K
1.000	500.00	0.0	0.0	590.80	455.00	594.64	0.0	594.73	10.01	3.26	294.96	143.78
1.000	500.00	0.0	0.0	590.80	455.00	594.74	0.0	594.84	9.95	3.31	255.07	144.22
1.100	500.00	0.0	0.0	591.30	455.00	595.20	0.0	595.32	15.54	4.14	288.14	115.41
1.100	500.00	0.0	0.0	591.30	455.00	595.29	0.0	595.43	15.62	4.22	242.90	115.13
1.300	1880.00	0.0	0.0	593.00	365.00	597.61	0.0	597.72	10.19	3.75	294.82	114.32
1.300	1880.00	0.0	0.0	593.00	365.00	597.71	0.0	597.83	10.14	3.80	255.48	114.63
2.000	850.00	0.0	0.0	593.50	365.00	598.45	0.0	598.60	10.97	4.08	202.51	110.22
2.000	850.00	0.0	0.0	593.50	365.00	598.53	0.0	598.67	10.20	3.98	208.18	114.27
3.000	100.00	0.0	0.0	594.00	365.00	598.46	0.0	598.83	13.89	4.89	74.63	97.94
3.000	100.00	0.0	0.0	594.00	365.00	598.57	0.0	598.92	22.06	4.78	76.43	77.76
4.000	65.00	600.87	599.11	594.20	365.00	598.55	0.0	598.94	15.12	5.02	72.70	93.86
4.000	65.00	999999.00	0.0	594.20	365.00	598.65	0.0	599.03	23.72	4.90	74.49	74.94
4.500	50.00	0.0	0.0	594.20	365.00	598.80	0.0	599.04	9.43	4.21	112.01	118.84
4.500	50.00	0.0	0.0	594.20	365.00	598.90	0.0	599.14	8.68	4.10	115.49	123.87
5.000	223.00	0.0	0.0	592.05	365.00	599.13	0.0	599.22	4.30	2.67	232.77	176.06
5.000	223.00	0.0	0.0	592.05	365.00	599.21	0.0	599.31	4.39	2.73	201.61	174.27
5.100	1.00	597.91	597.04	592.05	365.00	599.15	0.0	599.23	14.15	2.60	219.10	97.02
5.100	1.00	597.91	597.04	592.05	365.00	599.23	0.0	599.31	14.59	2.67	197.87	95.58
5.200	11.00	597.91	597.04	592.05	365.00	599.17	0.0	599.25	13.93	2.52	220.59	97.80
5.200	11.00	597.91	597.04	592.05	365.00	599.25	0.0	599.33	14.40	2.66	198.10	96.19
5.300	1.00	0.0	0.0	592.05	365.00	599.16	0.0	599.25	4.10	2.62	238.80	180.16
5.300	1.00	0.0	0.0	592.05	365.00	599.24	0.0	599.34	4.17	2.67	215.57	178.81
6.000	436.00	0.0	0.0	593.08	365.00	599.35	0.0	599.56	10.08	4.35	181.38	114.97
6.000	436.00	0.0	0.0	593.08	365.00	599.42	0.0	599.65	10.25	4.43	143.00	116.03
7.000	1140.00	0.0	0.0	594.00	365.00	600.09	0.0	600.12	2.79	2.23	508.13	218.68
7.000	1140.00	0.0	0.0	594.00	365.00	600.16	0.0	600.24	2.50	2.13	530.16	230.66
8.000	562.00	0.0	0.0	594.80	365.00	600.28	0.0	600.44	11.42	3.22	126.77	108.03
8.000	562.00	0.0	0.0	594.80	365.00	600.32	0.0	600.47	10.91	3.17	131.31	110.51
9.000	200.00	0.0	0.0	595.33	365.00	600.43	0.0	600.59	5.38	3.40	151.64	157.33
9.000	200.00	0.0	0.0	595.33	365.00	600.46	0.0	600.62	5.22	3.36	156.28	159.69
10.000	32.00	600.35	598.39	595.83	365.00	600.84	0.0	600.94	2.85	2.70	222.68	216.35
10.000	32.00	600.35	598.39	595.83	365.00	600.85	0.0	600.95	2.81	2.75	224.81	217.57
11.000	50.00	0.0	0.0	595.23	365.00	600.80	0.0	600.96	4.21	2.45	279.49	177.93
11.000	50.00	0.0	0.0	595.23	365.00	600.90	0.0	600.97	4.13	2.43	283.03	179.71
12.000	856.00	0.0	0.0	595.15	300.00	601.20	0.0	601.24	2.95	2.36	353.01	176.66
12.000	856.00	0.0	0.0	595.15	300.00	601.21	0.0	601.26	3.35	2.52	276.65	163.03

SECNO	XLCH	ELTRD	ELLC	ELMIN	D	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.000	1700.00	0.0	0.0	597.04	300.00	602.11	0.0	602.29	13.97	4.23	208.74	80.26
13.000	1700.00	0.0	0.0	597.04	300.00	602.22	0.0	602.41	13.71	4.27	194.52	81.03
14.000	2500.00	0.0	0.0	598.28	235.00	603.44	0.0	603.46	2.21	1.80	386.33	158.00
14.000	2500.00	0.0	0.0	598.28	235.00	603.48	0.0	603.50	2.00	1.72	403.12	166.39
15.000	1456.00	0.0	0.0	600.25	235.00	604.04	0.0	604.26	21.89	3.71	64.99	50.23
15.000	1456.00	0.0	0.0	600.25	235.00	604.03	0.0	604.25	22.25	3.73	63.80	49.82
16.000	200.00	0.0	0.0	600.25	235.00	604.45	0.0	604.75	23.00	4.39	53.58	49.00
16.000	200.00	0.0	0.0	600.25	235.00	604.51	0.0	604.80	30.07	4.33	54.33	42.85
17.000	27.00	604.56	604.96	600.25	235.00	604.52	0.0	604.81	21.81	4.31	54.53	50.32
17.000	27.00	999999.00	0.0	600.25	235.00	604.58	0.0	604.86	28.66	4.25	55.27	43.90
18.000	50.00	0.0	0.0	600.87	235.00	604.68	0.0	604.95	29.55	4.10	57.25	43.23
18.000	50.00	0.0	0.0	600.87	235.00	604.77	0.0	605.01	27.14	3.98	59.07	45.11
19.000	667.00	0.0	0.0	601.13	140.00	605.74	0.0	605.78	6.73	1.76	150.17	64.36
19.000	667.00	0.0	0.0	601.13	140.00	605.76	0.0	605.80	6.54	1.73	154.69	65.74
20.000	432.00	0.0	0.0	602.50	140.00	606.06	0.0	606.25	25.47	3.47	40.36	27.74
20.000	432.00	0.0	0.0	602.50	140.00	606.07	0.0	606.26	25.33	3.46	40.45	27.82
20.100	1.00	606.98	605.25	602.50	140.00	605.98	0.0	606.36	104.84	4.80	29.19	13.67
20.100	1.00	606.98	605.25	602.50	140.00	605.99	0.0	606.35	104.73	4.79	29.21	13.68
20.200	10.00	606.98	605.25	602.50	140.00	606.10	0.0	606.45	102.37	4.72	29.65	13.84
20.200	10.00	606.98	605.25	602.50	140.00	606.11	0.0	606.45	102.43	4.72	29.66	13.83
20.300	1.00	0.0	0.0	602.50	140.00	606.37	0.0	606.51	17.88	3.04	45.98	33.10
20.300	1.00	0.0	0.0	602.50	140.00	606.37	0.0	606.52	17.76	3.04	46.10	33.22
20.500	303.00	0.0	0.0	603.10	140.00	606.89	0.0	606.99	13.05	2.61	53.60	38.76
20.500	303.00	0.0	0.0	603.18	140.00	606.89	0.0	606.99	13.01	2.61	53.66	38.81
20.600	1.00	607.02	606.11	603.18	140.00	606.85	0.0	607.03	42.22	3.37	41.57	21.55
20.600	1.00	607.02	606.11	603.18	140.00	606.86	0.0	607.03	42.19	3.37	41.58	21.56
20.700	15.00	607.02	606.11	603.18	140.00	606.92	0.0	607.09	43.23	3.38	41.45	21.29
20.700	15.00	607.02	606.11	603.18	140.00	606.92	0.0	607.10	43.21	3.38	41.46	21.30
20.800	1.00	0.0	0.0	603.18	140.00	607.02	0.0	607.12	11.55	2.49	56.20	41.19
20.800	1.00	0.0	0.0	603.18	140.00	607.03	0.0	607.12	11.63	2.49	56.33	41.05
21.000	396.00	0.0	0.0	604.20	140.00	607.38	0.0	607.44	6.16	2.23	112.70	56.62
21.000	396.00	0.0	0.0	604.20	140.00	607.39	0.0	607.44	6.13	2.23	113.07	56.57
22.000	200.00	0.0	0.0	604.07	140.00	607.46	0.0	607.73	19.88	4.12	33.94	31.40
22.000	200.00	0.0	0.0	604.07	140.00	607.49	0.0	607.75	26.89	4.10	34.19	27.04
23.000	67.00	609.13	607.90	604.23	140.00	607.55	0.0	607.83	21.52	4.23	33.07	30.18
23.000	67.00	999999.00	0.0	604.23	140.00	607.55	0.0	607.85	28.39	4.12	33.69	26.27
24.000	50.00	0.0	0.0	604.07	140.00	607.88	0.0	607.93	2.69	1.91	127.66	88.63
24.000	50.00	0.0	0.0	604.07	140.00	607.90	0.0	607.95	2.71	2.00	106.75	84.99

SMITH CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	455.00	594.64	0.0	0.0	-1.36	178.99	500.00
1.000	455.00	594.74	0.10	0.0	0.10	98.99	500.00
1.100	455.00	595.20	0.0	0.56	0.0	230.46	500.00
1.100	455.00	595.29	0.10	0.55	0.10	117.72	500.00
1.300	365.00	597.61	0.0	2.41	0.0	278.46	1880.00
1.300	365.00	597.71	0.10	2.42	0.10	166.08	1880.00
2.000	365.00	598.45	0.0	0.84	0.0	70.00	850.00
2.000	365.00	598.53	0.08	0.82	0.08	70.00	850.00
3.000	365.00	598.46	0.0	0.01	0.0	16.72	100.00
3.000	365.00	598.57	0.11	0.04	0.11	16.72	100.00
4.000	365.00	598.55	0.0	0.08	0.0	16.72	65.00
4.000	365.00	598.65	0.11	0.08	0.11	16.72	65.00
4.500	365.00	598.80	0.0	0.25	0.0	32.00	50.00
4.500	365.00	598.90	0.11	0.25	0.11	32.36	50.00
5.000	365.00	599.13	0.0	0.33	0.0	149.93	224.00
5.000	365.00	599.21	0.08	0.30	0.08	100.86	223.00
5.100	365.00	599.15	0.0	0.02	0.0	149.93	1.00
5.100	365.00	599.23	0.08	0.02	0.08	112.39	1.00
5.200	365.00	599.17	0.0	0.02	0.0	149.93	11.00
5.200	365.00	599.25	0.08	0.02	0.08	110.96	11.00
5.300	365.00	599.16	0.0	-0.01	0.0	149.93	1.00
5.300	365.00	599.24	0.08	-0.01	0.08	105.98	1.00
6.000	365.00	599.35	0.0	0.18	0.0	185.10	434.00
6.000	365.00	599.42	0.08	0.18	0.08	50.62	434.00
7.000	365.00	600.09	0.0	0.74	0.0	350.00	1140.00
7.000	365.00	600.16	0.06	0.73	0.06	350.00	1140.00
8.000	365.00	600.28	0.0	0.18	0.0	105.28	562.00
8.000	365.00	600.32	0.04	0.16	0.04	111.67	562.00
9.000	365.00	600.43	0.0	0.15	0.0	133.51	200.00
9.000	365.00	600.46	0.04	0.14	0.04	137.64	200.00
10.000	365.00	600.84	0.0	0.61	0.0	170.00	32.00
10.000	365.00	600.85	0.01	0.39	0.01	170.00	32.00
11.000	365.00	600.80	0.0	0.05	0.0	270.00	50.00
11.000	365.00	600.90	0.01	0.05	0.01	270.00	50.00
12.000	300.00	601.20	0.0	0.31	0.0	423.60	456.00
12.000	300.00	601.21	0.01	0.31	0.01	164.70	456.00

SECNO	Q	CHSEL	DIFHSP	DIFHSX	DIFKHS	TOPWID	XLCH
13.000	300.00	602.11	0.0	0.91	0.0	255.04	1700.00
13.000	300.00	602.22	0.11	1.01	0.11	176.26	1700.00
14.000	235.00	603.44	0.0	1.33	0.0	377.59	2500.00
14.000	235.00	603.48	0.04	1.26	0.04	377.83	2500.00
15.000	235.00	604.04	0.0	0.61	0.0	101.24	1456.00
15.000	235.00	604.03	-0.01	0.55	-0.01	77.71	1456.00
16.000	235.00	604.45	0.0	0.41	0.0	12.76	200.00
16.000	235.00	604.51	0.06	0.48	0.06	12.76	200.00
17.000	235.00	604.52	0.0	0.07	0.0	12.76	27.00
17.000	235.00	604.58	0.06	0.07	0.06	12.76	27.00
18.000	235.00	604.68	0.0	0.16	0.0	22.19	50.00
18.000	235.00	604.77	0.08	0.18	0.08	22.50	50.00
19.000	140.00	605.74	0.0	1.05	0.0	231.52	667.00
19.000	140.00	605.76	0.02	0.99	0.02	234.22	667.00
20.000	140.00	606.06	0.0	0.33	0.0	17.86	432.00
20.000	140.00	606.07	0.01	0.31	0.01	17.90	432.00
20.100	140.00	605.98	0.0	-0.08	0.0	17.59	1.00
20.100	140.00	605.99	0.01	-0.08	0.01	17.61	1.00
20.200	140.00	606.10	0.0	0.12	0.0	18.00	10.00
20.200	140.00	606.11	0.00	0.12	0.00	17.99	10.00
20.300	140.00	606.37	0.0	0.27	0.0	18.95	1.00
20.300	140.00	606.37	0.01	0.27	0.01	18.97	1.00
20.500	140.00	606.89	0.0	0.52	0.0	22.53	300.00
20.500	140.00	606.89	0.00	0.51	0.00	22.54	300.00
20.600	140.00	606.85	0.0	-0.03	0.0	22.39	1.00
20.600	140.00	606.86	0.00	-0.03	0.00	22.40	1.00
20.700	140.00	606.92	0.0	0.06	0.0	22.66	15.00
20.700	140.00	606.92	0.00	0.06	0.00	22.67	15.00
20.800	140.00	607.02	0.0	0.11	0.0	28.34	1.00
20.800	140.00	607.03	0.00	0.11	0.00	23.22	1.00
21.000	140.00	607.35	0.0	0.36	0.0	115.00	346.00
21.000	140.00	607.35	0.00	0.36	0.00	115.00	346.00
22.000	140.00	607.46	0.0	0.06	0.0	10.00	200.00
22.000	140.00	607.49	0.02	0.10	0.02	10.00	200.00
23.000	140.00	607.55	0.0	0.09	0.0	10.00	67.00
23.000	140.00	607.58	0.02	0.09	0.02	10.00	67.00
24.000	140.00	607.89	0.0	0.33	0.0	52.07	50.00
24.000	140.00	607.90	0.01	0.32	0.01	32.07	50.00

FLOODWAY DATA, SMITH CREEK BROWNSTOWN
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
1.000	99.	255.	1.8	594.7	594.6	0.1
1.100	118.	243.	1.9	595.3	595.2	0.1
1.300	166.	255.	1.4	597.7	597.6	0.1
2.000	70.	208.	1.8	598.6	598.5	0.1
3.000	17.	76.	4.8	598.6	598.5	0.1
4.000	17.	74.	4.9	598.6	598.5	0.1
4.500	32.	115.	3.2	598.9	598.8	0.1
5.000	101.	202.	1.8	599.2	599.1	0.1
5.100	112.	198.	1.8	599.3	599.2	0.1
5.200	111.	198.	1.8	599.3	599.2	0.1
5.300	106.	211.	1.7	599.3	599.2	0.1
6.000	51.	143.	2.6	599.4	599.3	0.1
7.000	350.	530.	0.7	600.2	600.1	0.1
8.000	112.	131.	2.8	600.3	600.3	0.0
9.000	138.	156.	2.3	600.4	600.4	0.0
10.100	170.	225.	1.6	600.8	600.8	0.0
11.000	270.	283.	1.3	600.9	600.9	0.0
12.000	165.	277.	1.1	601.2	601.2	0.0
13.000	202.	195.	1.5	602.2	602.1	0.1
14.000	375.	603.	0.6	603.4	603.4	0.0
15.000	73.	64.	3.7	604.0	604.0	0.0
16.000	13.	56.	4.3	604.6	604.5	0.1
17.000	13.	55.	4.3	604.6	604.5	0.1
18.000	22.	59.	4.0	604.8	604.7	0.1
19.000	240.	155.	0.9	605.7	605.7	0.0
20.000	18.	90.	3.5	606.1	606.1	0.0
20.100	10.	29.	4.0	606.0	606.0	0.0
20.200	10.	30.	4.7	606.1	606.1	0.0
20.300	19.	46.	3.0	606.4	606.4	0.0
20.500	23.	54.	2.6	606.9	606.9	0.0
20.600	22.	62.	3.4	606.9	606.9	0.0
20.700	23.	61.	3.6	606.9	606.9	0.0
20.800	23.	56.	2.5	607.0	607.0	0.0
21.000	115.	113.	1.2	607.4	607.4	0.0
22.000	10.	34.	4.1	607.5	607.5	0.0
23.000	10.	33.	4.2	607.6	607.6	0.0
24.000	32.	107.	1.3	607.9	607.9	0.0

00BREAK00

1). COUNTY: Wayne

2) STUDY NAME: Brownstown Twp

3) WATERCOURSE: Smith Creek

4) DOCUMENT TYPE: Summary

00BREAK00

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 30,51,52
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C
T1BROWNSTOWN TWP. HUD 2013-07 SMITH CREEK FROM FLAT ROCK/BROWNSTOWN LIMIT TO
T2      SMITH CREEK BROWNSTOWN
J1  ICHECK    INQ        NINV       IDIR       STRT      METRIC    HVINS       G          WSEL       FQ
          0.         2.         0.         0.  1.001000    0.00      0.0        0.      596.000     0.000
J2    NPROF      IPLOT      PRFVS      XSECV      XSECH        FN      ALLOC       IDC       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
        25.000    231.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********
       -10.000    -10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
    QT     5.000    283.000    400.000    455.000    455.000    510.000      0.000      0.000      0.000      0.000
    QC     0.060      0.070      0.035      0.100      0.300      0.000      0.000      0.000      0.000      0.000
    QT     0.000      0.000      0.000      0.600      1.400      0.000      0.000      0.000      0.000      0.000

          VALLEY SECT. BASED ON SECT.1500. ZZZ 2031-01.

    X1     1.000     12.000    120.000    140.000      0.000      0.000      0.300      0.000      0.000      0.300
    GR   598.100      0.000    595.950     80.000    594.000     85.000    594.000    105.000    590.300    120.000
    GR   590.800    130.000    591.000    140.000    592.050    145.000    593.100    200.000    595.000    265.000
    GR   596.000    280.000    597.900    325.000      0.000      0.000      0.000      0.000      0.000      0.000

          VALLEY SECT. BASED ON SECT.2000. ZZZ 2031-01.

    X1     1.100     13.000    395.000    407.000    750.000    330.000    500.000      0.000      0.000      0.000
    GR   599.100      0.000    596.000    150.000    596.000    230.000    594.900    270.000    593.900    380.000
    GR   591.300    395.000    591.300    407.000    593.300    430.300    594.900    470.000    596.100    550.000
    GR   596.000    570.000    598.000    610.000    598.700    750.300      0.300      0.300      0.300      0.300
    QT     5.000    280.000    320.000    365.000    365.000    495.000      0.300      0.300      0.000      0.000

          VALLEY SECT. BASED ON SECT.4000. ZZZ 2031-01.

    X1     1.300     14.000    130.000    152.000   1430.000   1410.000   1462.000      0.000      0.000      0.000
    GR   600.100      0.000    593.150     55.000    597.100    610.000    595.150    605.000    599.150    715.000
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GR	593.000	180.000	593.000	190.000	597.100	210.000	597.100	325.000	598.000	375.000
GR	598.600	535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.100	0.035	0.100	0.390	0.000	0.000	0.000	0.000	0.000

D/S OF TELEGRAPH RD.BASED ON FPS ZZZ 2031-01 SECT.

X1	2.000	0.000	205.000	215.000	700.000	925.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	175.000	0.000	245.000	0.000	0.000	0.000	0.000
GR	600.100	0.000	595.900	140.000	595.900	198.000	593.500	205.000	593.500	215.000
GR	596.900	230.000	598.100	265.000	599.000	310.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF TELEGRAPH RD. BRIDGE

X1	3.000	11.000	591.640	608.360	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	601.480	600.840	0.000
X4	2.000	594.000	591.630	594.000	608.370	0.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	600.000	375.000	599.700	500.000	599.500	586.000	594.000	591.640
GR	594.000	608.360	599.500	621.000	599.700	800.000	600.000	925.000	601.000	1100.000
GR	602.470	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SP	0.000	2.100	2.700	0.000	16.700	0.000	83.500	0.000	594.200	594.000

U/S FACE OF TELEGRAPH RD.BRIDGE

X1	4.000	0.000	0.000	0.000	65.000	65.000	65.000	0.000	0.200	0.000
X2	0.000	0.000	1.000	599.110	600.870	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	601.480	601.000	0.000
X4	2.000	3.000	603.810	0.000	500.000	601.490	0.000	591.630	601.660	0.000
UT	591.640	601.480	599.110	608.360	601.630	599.110	608.370	601.660	0.000	800.000
[illegible]	600.840	0.000	100.000	601.250	0.000	1400.000	602.470	0.000	0.000	0.000

U/S OF TELEGRAPH RD.

X1	4.500	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	542.000	0.000	688.000	0.000	0.000	0.000	0.000

D/S FACE OF FOOTBRIDGE F.E. 11287.

X1	5.000	12.000	537.990	562.010	223.000	223.000	223.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	597.500	597.500	0.000
GR	603.000	0.000	603.000	499.900	598.300	500.000	598.040	537.990	598.040	538.000
SP	593.200	545.000	592.350	550.000	593.140	535.000	597.910	562.000	597.910	562.010
GR	598.500	649.900	603.000	650.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1: INSIDE D/S END OF FOOTBRIDGE

X1	5.100	0.000	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.

ET	0.000	7.100	0.000	0.000	1.400	0.000	510.000	609.900	0.000	0.000

1: INSIDE U/S END OF FOOTBRIDGE

X1	5.200	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	7.100	0.000	0.000	1.400	0.000	510.000	609.900	0.000	0.000

U/S FACE OF FOOTBRIDGE F.B. 11274.

X1	5.300	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.300	0.000	0.000	9.000	0.000	0.000	0.000	597.500	597.500	0.000
ET	0.020	0.020	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. F.B. SECT. 10840.

X1	6.000	11.000	545.000	555.000	300.000	550.000	434.000	0.000	0.000	0.000
GR	603.000	0.000	602.040	250.000	599.360	400.000	598.660	536.000	594.310	545.000
GR	593.260	550.000	593.080	555.000	598.120	564.000	603.950	700.000	601.760	850.000
GR	602.700	1300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. F.B.SECT.9761.

X1	7.000	13.000	1095.000	1105.000	1140.000	1140.000	1140.000	0.000	0.000	0.000
X3	0.300	0.000	0.300	900.000	0.000	1250.000	0.000	0.000	0.000	0.000
GR	603.300	0.000	601.110	700.000	599.320	850.300	598.670	900.000	594.850	1095.000
GR	594.000	1100.000	594.910	1105.000	599.400	1174.000	599.380	1124.000	595.100	1148.000
GR	599.380	1250.000	601.150	1400.000	603.000	1730.300	0.000	0.000	0.000	0.000

D/S OF VAN HORN BRIDGE

X1	8.000	10.000	732.000	813.000	430.000	620.000	562.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	750.000	0.000	650.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	601.350	1.000	600.000	750.000	600.000	782.000	595.000	795.000
GR	594.800	800.000	595.000	805.000	600.000	813.000	600.700	920.000	610.000	920.100
NC	0.060	0.060	0.036	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.300	9.100	0.000	0.000	0.000	1.000	900.000

D/S FACE OF VAN HORN BRIDGE F.B.SECT.8938.

X1	9.000	12.000	790.500	809.500	200.000	200.300	200.000	0.000	0.000	0.000
X3	10.000	0.300	0.300	0.000	0.000	0.300	0.000	600.350	600.350	0.000
GR	610.000	0.000	610.000	630.000	610.000	729.900	600.400	782.000	600.000	782.000
GR	595.330	790.400	595.350	790.500	595.330	809.500	595.330	809.500	600.000	813.000
GR	600.720	900.000	610.000	930.100	1.000	0.300	0.000	0.000	0.000	0.000
SB	0.000	1.900	2.800	0.000	19.900	0.300	62.000	0.000	395.330	594.830
ET	0.000	0.300	7.100	0.000	0.000	0.300	790.500	809.500	0.000	0.000

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C/S FACE OF VAN HORN BRIDGE F.S., SECT.8900.

X1	10.000	12.500	790.500	809.500	32.000	32.000	32.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	598.390	600.350	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	600.350	600.350	0.000
BT	10.000	0.000	610.000	0.000	500.000	610.000	0.000	729.900	610.000	0.000
BT	730.080	600.670	0.000	790.490	600.350	594.830	790.500	600.490	598.390	809.500
BT	600.790	598.390	809.510	600.350	594.830	900.000	600.720	0.300	900.100	610.040
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.000
GR	610.000	0.000	610.000	500.000	610.000	729.900	600.670	730.000	600.000	782.000
GR	594.830	790.490	594.830	790.500	594.830	809.500	594.850	809.510	600.000	813.000
GR	600.720	900.000	610.040	900.100	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	7.100	7.100	9.100	9.100	9.100	750.000	870.000	680.000	950.000

U/S OF VAN HORN BRIDGE

X1	11.000	10.000	782.000	813.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	610.000	0.000	602.580	1.000	600.000	750.000	600.000	732.000	595.300	795.000
GR	595.230	800.000	595.300	805.000	600.000	813.000	602.500	1299.000	610.000	1300.000
ET	0.050	0.070	0.035	0.100	0.300	0.000	0.000	0.000	0.300	0.000
QT	5.000	125.000	245.000	300.000	300.000	440.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECT. F.S. 8000.

X1	12.000	12.000	695.000	705.000	400.000	1400.000	856.000	0.000	0.000	0.000
X4	2.000	602.000	1.000	602.230	999.000	0.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	601.450	400.000	600.450	550.000	599.580	687.000	595.440	695.000
GR	595.150	700.000	595.650	705.000	600.430	714.000	601.480	726.300	600.870	736.000
GR	601.050	850.000	610.000	1000.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	5.000	0.000	0.035	0.100	0.300	0.000	0.000	0.300	0.000	0.000

VALLEY SECT. AT INDEPENDENCE ST.F.S.6300.

X1	13.000	13.000	245.000	255.000	2100.000	1030.000	1700.000	0.000	0.000	0.000
X4	2.000	602.000	1.000	602.440	349.000	0.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	601.110	64.000	601.180	132.000	602.560	232.000	598.140	245.000
GR	597.040	250.000	598.290	255.000	604.940	265.000	605.120	274.000	603.270	283.000
GR	602.040	400.000	610.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	5.000	85.000	180.000	235.000	235.000	365.000	0.000	0.000	0.000	0.000

VALLEY SECT. F.S.3800.

X1	14.000	14.000	994.500	1005.500	2200.000	2000.000	2500.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	3555.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	604.970	200.000	604.390	895.000	904.620	986.000	602.590	997.000
GR	602.700	995.000	598.320	904.500	598.230	1002.000	598.790	1305.500	602.960	1312.500
GR	602.490	1150.000	602.440	1300.000	600.000	1400.000	610.000	1501.000	0.000	0.000
QT	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

U/S OF WEST 10 STREET

X1	15.000	7.000	390.000	412.500	1456.000	1456.000	1456.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	345.000	0.000	575.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	604.000	390.000	600.300	394.500	600.250	400.000	600.300	405.500
GR	604.000	412.500	605.000	1800.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES

X1	16.000	15.000	492.490	507.500	200.000	200.000	200.000	0.850	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	605.400	604.560	0.000
BT	610.000	0.000	610.000	1.000	610.000	424.900	605.400	425.000	605.930	476.000
GR	600.260	492.490	600.250	492.500	600.250	507.500	600.260	507.510	604.300	510.000
GR	604.560	600.000	604.500	650.000	610.000	651.000	610.000	900.100	610.000	1500.000
SB	0.000	1.000	3.000	0.000	12.700	0.000	52.000	0.000	600.870	600.250

U/S FACE OF WEST RD. BRIDGE SKEWED 32 DEGREES.

X1	17.000	0.000	0.000	0.300	27.000	27.000	27.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	604.960	604.560	0.000	0.000	0.000	0.850	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	605.400	604.560	0.000
BT	13.000	0.000	610.000	0.000	424.900	610.000	0.000	425.000	605.400	0.000
BT	678.000	605.930	0.000	492.490	606.080	0.000	492.500	608.580	604.960	507.500
BT	608.580	604.960	507.510	606.080	0.000	500.000	604.560	0.000	630.000	604.560
BT	0.000	651.000	610.000	0.000	900.100	610.000	0.000	1500.000	610.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	9.100	0.000	0.000	940.000	1173.000

U/S OF WEST RD.

X1	15.000	9.000	990.300	1013.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	610.000	0.000	605.000	750.000	604.900	990.000	600.900	996.000	600.870	1000.000
GR	600.900	1004.000	604.900	1013.000	605.000	1800.000	610.000	1801.300	0.000	0.000
NC	0.060	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
CT	5.000	55.000	110.000	150.000	160.000	215.000	0.000	0.000	0.000	0.000

VALLEY SECT. F.B. 1400.

X1	19.000	12.000	1189.500	1212.500	667.000	667.000	667.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1083.000	0.000	1320.000	0.000	0.000	0.000	0.000
GR	610.000	100.000	605.580	900.000	605.260	1050.000	605.310	1169.500	601.680	1196.500
GR	601.460	1200.000	601.130	1203.500	605.800	1212.500	604.300	1350.000	604.810	1503.000
GR	605.000	1900.000	610.000	1901.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF FOOTBRIDGE F.B. 980.

X1	20.000	13.000	889.500	910.500	432.000	432.000	432.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	605.500	605.500	0.000
GR	610.000	599.000	606.520	600.300	606.840	889.500	606.040	889.510	606.340	889.520
BT	602.900	596.300	607.500	900.000	603.000	905.500	607.350	970.480	607.060	960.490
BT	607.050	911.000	605.770	900.000	615.000	1000.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1: INSIDE D/S END OF FOOTBRIDGE

X1	20.100	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
GT	6.300	889.500	606.980	0.000	889.510	606.980	0.000	889.520	606.980	605.140
GT	910.480	607.060	605.250	910.690	607.060	0.000	910.500	607.060	0.300	0.000
ET	0.300	0.000	0.000	0.000	1.400	9.100	0.000	0.000	889.500	910.500

1: INSIDE U/S END OF FOOTBRIDGE

X1	20.200	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	0.000	0.000	6.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.500	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	1.400	9.100	0.000	0.000	889.500	910.500

U/S FACE OF FOOTBRIDGE F.S. 960.

X1	20.300	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	606.000	606.000	0.000

D/S FACE OF FOOTBRIDGE F.S. 660

X1	20.500	11.000	888.000	912.000	306.000	308.000	308.000	0.000	0.000	0.000
GR	610.000	649.000	607.300	650.000	607.300	688.000	607.320	888.100	603.300	696.000
GR	603.130	900.000	603.500	904.000	607.020	911.900	607.020	912.000	607.100	1050.000
GR	610.000	1051.000	1.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE D/S END OF FOOTBRIDGE

X1	20.500	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
GT	6.000	888.000	607.380	0.000	888.010	607.110	606.110	911.900	607.110	606.110
GT	912.000	607.080	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S END OF FOOTBRIDGE

X1	20.700	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.300	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.300	0.000
X3	0.000	603.300	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.000
NC	0.070	0.070	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE OF FOOTBRIDGE F.S.645.

X1	20.800	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0.070	0.070	0.035	0.100	0.350	0.000	0.300	0.000	0.000	0.300

D/S OF [illegible]

X1	21.000	4.000	411.000	425.000	400.000	275.000	396.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	360.000	0.000	475.000	0.000	0.000	0.000	0.000
GR	610.000	0.000	607.000	300.000	607.300	400.000	604.400	411.000	604.200	418.000
GR	604.400	425.000	607.000	449.000	608.000	550.000	610.000	900.000	0.000	0.000
NC	0.070	0.070	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF BEECH-DALY BRIDGE SKEWED 45 DEGREES

X1	22.000	11.000	420.000	430.000	300.000	10.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	608.130	608.130	0.000
GR	610.000	319.900	608.100	320.000	608.100	321.000	608.000	405.000	604.070	420.000
GR	604.070	420.100	604.070	429.900	604.070	430.000	608.000	451.000	608.100	525.000
GR	610.000	526.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SR	0.000	1.800	2.700	0.000	10.000	0.000	37.000	0.000	604.070	604.230

U/S FACE OF BEECH-DALY BRIDGE

X1	23.000	11.000	420.000	430.000	47.000	47.000	47.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	607.900	609.130	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	609.130	609.310	0.000
BT	9.000	319.900	610.000	0.000	320.000	609.150	0.000	321.000	609.150	0.000
BT	420.000	609.270	0.000	420.100	609.300	607.900	429.900	609.500	607.900	430.000
BT	609.270	0.000	525.000	609.310	0.000	526.000	615.000	0.000	0.000	0.000
GR	610.000	319.900	609.150	320.000	609.150	321.000	608.000	405.000	604.230	420.000
GR	604.230	420.100	604.230	429.900	604.230	430.000	608.000	451.000	609.310	525.000
GR	610.000	526.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	895.000	1005.000

U/S OF BEECH-DALY BRIDGE

X1	24.000	9.000	943.000	957.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	615.000	0.000	610.000	794.900	609.000	795.000	608.000	924.000	604.070	943.000
GR	604.070	957.000	608.000	978.000	609.000	1130.900	615.000	1101.000	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

PRINTED IN U.S.A.
FORM 1411.68 PRINTED BY ROTARY MANIFOLD FORMS,

T1 BROWNSTOWN TWP. H.S 2013-01 SMITH CREEK FROM FLAT ROCK/BROWNSTOWN LIMIT TO
T2
T3 SMITH CREEK BROWNSTOWN

J1	ECHECK	[illegible]	[illegible]	IDIR	STRT	METRIC	[illegible]	Q	NSEL	FQ
	0	4.	0	0	0.00100	0.00	0.0	0.	596.0	0.0

J2	NPROF	IPLT	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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1BROWNSTOWN TWP. HUD 2013-07 SMITH CREEK FROM FLAT ROCK/BROWNSTOWN LIMIT TO
T2
T3       SMITH CREEK BROWNSTOWN

J1  ICHECK    INQ     NINM     IDIP     STRT     METRIC    HVINS     Q       WSEL     FQ

       0.       4.       0.       0.  0.001000     0.00      0.0       0.   596.000   0.000

J2  NPROF     IFLOT    PRFMS    XSECV    XSECH     FN      ALLDC     IBW     CHNIM    ITRACE

     3.000    0.000   -1.000    0.100    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1      BROWNSTOWN FIS
T2      ENCROACHMENT RUN
T3      SMITH CREEK

J1  ICHECK    INQ     NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ

       0.       6.       0.       0.  0.001000     0.00      0.0       0.   596.000   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IBW     CHNIM    ITRACE

     15.200    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM HEC-GOPRINTED BY CITY OF MILWAUKEE

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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

SMITH CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	VCH	AREA	TOPWID
	1.300	0.00	0.00	0.00	590.80	235.00	594.00	0.00	594.08	2.86	21.60	91.01
	1.000	0.00	0.00	0.00	590.80	400.00	594.45	0.00	594.54	10.01	3.15	262.14	126.45
	1.000	0.00	0.00	0.00	590.80	455.00	594.64	0.00	594.73	10.01	3.26	294.95	143.78
	1.000	0.00	0.00	0.00	590.80	610.00	595.10	0.00	595.20	10.04	3.53	382.41	192.53
	1.100	500.00	0.00	0.00	591.30	285.00	594.56	0.00	594.69	17.06	3.85	163.89	86.99
	1.100	500.00	0.00	0.00	591.30	400.00	595.00	0.00	595.14	16.27	4.10	246.13	99.
	1.100	500.00	0.00	0.00	591.30	455.00	595.20	0.00	595.32	15.54	4.14	288.18	115.45
	1.100	500.00	0.00	0.00	591.30	610.00	595.65	0.00	595.76	13.97	4.23	402.58	163.81
	1.300	3800.00	0.00	0.00	593.00	235.00	597.06	0.00	597.10	10.06	3.43	150.32	72.82
	1.300	1885.00	0.00	0.00	593.00	320.00	597.47	0.00	597.58	10.06	3.69	205.74	101.2
	1.300	1882.00	0.00	0.00	593.00	360.00	597.61	0.00	597.72	10.19	3.79	234.81	114.52
	1.300	1880.00	0.00	0.00	593.00	405.00	597.96	0.00	598.06	10.52	4.00	395.89	152.64
	2.000	850.00	0.00	0.00	593.30	230.00	597.83	0.00	597.92	8.04	3.19	158.57	81.11
	2.000	850.00	0.00	0.00	593.50	320.00	598.27	0.00	598.37	8.04	3.49	196.10	101.2
	2.000	850.00	0.00	0.00	593.50	365.00	598.45	0.00	598.60	10.50	4.02	202.52	110.20
	2.100	450.00	0.00	0.00	593.50	405.00	598.56	0.00	598.63	13.54	4.37	232.52	97.30
	1.000	100.00	0.00	0.00	594.00	230.00	597.28	0.00	598.04	8.85	3.26	54.55	51.63
	2.000	100.00	0.00	0.00	594.00	320.00	598.29	0.00	598.	8.	3.	71.81	92.00

3.000	100.00	0.00	0.00	594.00	495.00	593.84	0.00	599.43	19.40	6.09	81.24	112.37	
4.000	65.00	600.87	599.11	594.20	230.00	597.91	0.00	598.13	10.04	3.70	62.10	72.80	
4.000	65.00	600.87	599.11	594.20	320.00	598.37	0.00	598.70	13.33	4.59	69.69	87.64	
4.000	65.00	600.87	599.11	594.20	365.00	598.55	0.00	598.94	15.12	5.02	72.70	93.86	
4.000	65.00	600.87	599.11	594.20	495.00	599.53	0.00	600.00	14.39	6.35	89.14	130.47	
4.500	50.00	0.00	0.00	594.20	230.00	598.04	0.00	598.16	7.08	3.23	88.78	86.45	
4.500	50.00	0.00	0.00	594.20	320.00	598.57	0.00	598.78	8.67	3.90	104.90	108.71	
4.500	50.00	0.00	0.00	594.20	365.00	598.80	0.00	599.04	9.43	4.21	112.03	118.87	
4.500	50.00	0.00	0.00	594.20	495.00	599.85	0.00	600.12	8.24	4.51	155.70	172.42	
5.000	223.00	0.00	0.00	592.05	230.00	598.24	0.00	598.33	4.75	2.44	103.82	155.61	
5.000	223.00	0.00	0.00	592.05	320.00	598.86	0.00	598.95	4.55	2.64	191.87	150.67	
5.000	223.00	0.00	0.00	592.05	365.00	599.13	0.00	599.22	4.30	2.67	232.83	176.30	
5.000	223.00	0.00	0.00	592.05	495.00	600.22	0.00	600.28	2.56	2.36	305.52	309.24	

SEC.IO	XLCH	ELTRC	ELLC	ELSIN	Q	C.SEL	CRIMS	EC	TOK*S	VCR	AREA	.01K
5.100	1.00	597.91	597.04	592.05	230.00	598.22	0.00	598.36	26.22	2.98	85.74	44.91
5.100	1.00	597.91	597.04	592.05	320.00	598.86	0.00	598.95	17.83	2.77	174.91	75.78
5.100	1.00	597.91	597.04	592.05	365.00	599.15	0.00	599.23	14.14	2.60	219.16	97.05
5.100	1.00	597.91	597.04	592.05	495.00	600.25	0.00	600.29	5.86	1.96	383.51	204.40
5.200	11.00	597.91	597.04	592.05	230.00	598.25	0.00	598.39	25.38	2.96	88.11	45.65
5.200	11.00	597.91	597.04	592.05	320.00	598.88	0.00	598.97	17.28	2.74	177.62	76.98
5.200	11.00	597.91	597.04	592.05	365.00	599.17	0.00	599.25	13.91	2.58	220.70	97.86
5.200	11.00	597.91	597.04	592.05	495.00	600.26	0.00	600.29	5.83	1.95	384.20	204.96
5.300	1.00	0.00	0.00	592.05	230.00	598.31	0.00	598.40	4.37	2.54	112.01	110.02
5.300	1.00	0.00	0.00	592.05	320.00	598.86	0.00	598.96	4.41	2.53	195.75	152.19
5.300	1.00	0.00	0.00	592.05	365.00	599.16	0.00	599.25	4.10	2.62	238.96	180.26
5.300	1.00	0.00	0.00	592.05	495.00	600.24	0.00	600.30	2.49	2.34	400.76	313.05
6.000	434.00	0.00	0.00	593.00	230.00	598.52	0.00	598.68	6.49	3.81	98.80	79.12
6.000	434.00	0.00	0.00	593.00	320.00	599.08	0.00	599.29	10.05	4.22	163.26	100.95
6.000	434.00	0.00	0.00	593.00	365.00	599.35	0.00	599.56	10.07	4.36	181.46	115.00
6.000	434.00	0.00	0.00	593.08	495.00	600.37	0.00	600.47	5.62	3.62	428.07	208.77
7.000	1140.00	0.00	0.00	594.00	230.00	599.34	0.00	599.40	4.80	2.66	245.23	104.97
7.000	1140.00	0.00	0.00	594.00	320.00	599.87	0.00	599.90	3.20	2.32	429.70	178.54
7.000	1140.00	0.00	0.00	594.00	365.00	600.09	0.00	600.12	2.70	2.23	508.22	213.72
7.000	1140.00	0.00	0.00	594.00	495.00	600.80	0.00	600.82	1.77	1.92	755.39	371.09
8.000	562.00	0.00	0.00	594.80	230.00	599.66	0.00	599.75	8.06	2.47	93.16	81.62
8.000	562.00	0.00	0.00	594.80	320.00	600.09	0.00	600.23	10.69	3.01	109.83	97.59
8.000	562.00	0.00	0.00	594.80	365.00	600.28	0.00	600.44	10.43	3.22	126.77	113.[illegible]
8.000	562.00	0.00	0.00	594.80	495.00	600.89	0.00	601.05	10.25	3.81	217.67	334.[illegible]
9.000	200.00	0.00	0.00	595.33	230.00	599.76	0.00	599.88	4.32	2.75	84.23	110.68
9.000	200.00	0.00	0.00	595.33	320.00	600.23	0.00	600.41	6.04	3.46	93.08	130.16
9.000	200.00	0.00	0.00	595.33	365.00	600.43	0.00	600.59	5.38	3.40	151.74	157.30
9.000	200.00	0.00	0.00	595.33	495.00	601.05	0.00	601.21	5.58	3.72	214.65	259.01
10.000	32.00	600.45	595.46	596.42	230.00	600.[illegible]	0.00	600.[illegible]	2.44	2.[illegible]	110.[illegible]	146.[illegible]
10.000	32.00	600.43	595.46	596.42	320.00	600.65	0.00	600.79	2.58	2.69	110.36	210.[illegible]
10.000	32.00	600.45	595.46	596.42	365.00	600.84	0.00	600.96	2.64	2.74	228.88	210.[illegible]
10.000	32.00	600.45	595.46	596.42	495.00	601.45	0.00	601.57	2.74	2.[illegible]	295.[illegible]	355.[illegible]

11.000	50.00	0.00	0.00	595.23	235.00	600.12	0.00	600.20	4.85	2.29	105.46	104.39
11.000	50.00	0.00	0.00	595.23	320.00	600.73	0.00	600.82	4.61	2.50	175.62	149.08
11.000	50.00	0.00	0.00	595.23	365.00	600.89	0.00	600.96	4.20	2.45	279.92	178.15
11.000	50.00	0.00	0.00	595.23	495.00	601.29	0.00	601.37	4.25	2.63	390.00	240.01
12.000	856.00	0.00	0.00	595.15	125.00	600.44	0.00	600.47	1.74	1.56	154.63	94.64
12.000	856.00	0.00	0.00	595.15	245.00	601.06	0.00	601.09	2.52	2.15	296.51	154.44
12.000	856.00	0.00	0.00	595.15	300.00	601.20	0.00	601.24	2.95	2.36	353.11	174.70
12.000	856.00	0.00	0.00	595.15	440.00	601.61	0.00	601.65	2.96	2.48	563.80	255.76
13.000	1700.00	0.00	0.00	597.04	125.00	600.99	0.00	601.14	12.42	3.30	49.91	35.47
13.000	1700.00	0.00	0.00	597.04	245.00	601.85	0.00	602.04	16.34	4.13	153.95	64.70
13.000	1700.00	0.00	0.00	597.04	300.00	602.11	0.00	602.29	13.96	4.24	208.62	80.23
13.000	1700.00	0.00	0.00	597.04	440.00	602.53	0.00	602.68	13.27	4.38	362.34	120.70

	SECNO	RLC.	ELTRO	ELLC	SLOIN	G	CHSEL	CRINS	EG	TORQS	VCH	AREA	QIK
	14.000	2500.00	0.00	0.00	598.28	85.00	602.52	0.00	602.56	2.65	1.71	71.51	52.17
	14.000	2500.00	0.00	0.00	598.28	180.00	603.23	0.00	603.25	2.16	1.73	308.60	122.61
	14.000	2500.00	0.00	0.00	598.28	235.00	603.44	0.00	603.46	2.21	1.80	386.38	158.03
	14.000	2500.00	0.00	0.00	598.28	365.00	603.02	0.00	603.84	2.42	1.95	520.60	234.64
	15.000	1456.00	0.00	0.00	600.25	85.00	603.13	0.00	603.19	8.11	1.44	43.76	29.85
	15.000	1456.00	0.00	0.00	600.25	180.00	603.82	0.00	603.96	16.37	3.09	58.17	44.49
	15.000	1456.00	0.00	0.00	600.25	235.00	604.04	0.00	604.26	21.89	3.71	64.98	50.23
	15.000	1456.00	0.00	0.00	600.25	365.00	604.47	0.00	604.71	23.73	4.25	159.35	74.92
P.S. Face Web Rd.	16.000	200.00	0.00	0.00	600.25	85.00	603.28	0.01	603.36	8.10	2.20	36.70	25.07
	16.000	200.00	0.00	0.00	600.25	180.00	604.12	0.00	604.33	17.22	3.64	45.41	43.37
	16.000	200.00	0.00	0.00	600.25	235.00	604.45	0.00	604.75	22.99	4.39	53.59	49.01
S.S. Face Web Rd.	16.000	200.00	0.00	0.00	600.25	365.00	604.94	0.00	605.29	28.83	5.19	122.05	67.98
	17.000	27.00	604.56	604.96	600.25	85.00	603.31	0.00	603.38	7.83	2.16	39.03	30.27
	17.000	27.00	604.56	604.96	600.25	180.00	604.16	0.00	604.38	16.62	3.60	50.05	44.16
	17.000	27.00	604.56	604.96	600.25	235.00	604.52	0.00	604.81	22.61	4.11	56.34	50.32
	17.000	27.00	604.56	604.96	600.25	365.00	605.02	603.18	605.44	66.90	5.49	96.29	44.63
	18.000	50.00	0.00	0.00	600.87	85.00	603.34	0.00	603.46	21.07	2.75	30.91	18.52
	18.000	50.00	0.00	0.00	600.87	180.00	604.27	0.00	604.49	27.59	3.73	48.80	34.27
	18.000	50.00	0.00	0.00	600.87	235.00	604.69	0.00	604.95	28.83	4.10	57.27	43.25
	18.000	50.00	0.00	0.00	600.87	365.00	605.50	0.00	605.82	16.56	5.62	201.51	89.56
	19.000	667.00	0.00	0.00	601.13	55.00	604.24	0.00	604.28	6.52	1.60	34.38	21.55
	19.000	667.00	0.00	0.00	601.13	110.00	605.37	0.00	605.42	6.26	1.89	73.61	43.56
	19.000	667.00	0.00	0.00	601.13	140.00	605.74	0.00	605.78	4.75	1.76	130.15	61.16
	19.000	667.00	0.00	0.00	601.13	215.00	606.21	0.00	606.24	3.81	1.74	243.67	80.09
	20.000	432.00	0.00	0.00	602.50	55.00	604.72	0.00	604.85	29.10	2.63	29.46	10.20
	20.000	432.00	0.00	0.00	602.50	110.00	605.78	0.00	605.93	22.42	3.11	35.43	23.23
	20.000	432.00	0.00	0.00	602.50	140.00	606.06	0.00	606.25	25.49	3.47	40.35	29.73
	20.000	432.00	0.00	0.00	602.50	215.00	606.60	0.00	606.77	30.41	4.15	47.57	34.50
	20.000	1.00	606.96	605.25	602.50	55.00	604.77	0.00	604.83	26.34	4.47	19.41	11.01
	20.000	1.00	606.96	605.25	602.50	110.00	605.87	0.00	605.93	20.00	5.06	29.26	13.34
	20.000	1.00	606.96	605.25	602.50	140.00	606.17	0.00	606.24	18.34	5.34	36.19	16.49
	20.000	1.00	606.96	605.25	602.50	215.00	606.71	0.00	606.77	15.59	5.92	52.14	23.76

20.200	10.00	606.98	605.25	602.50	55.00	604.75	0.00	604.87	20.29	2.77	19.82	12.21
20.200	10.00	606.98	605.25	602.50	110.00	605.82	0.00	606.05	86.97	3.86	28.53	13.44
20.200	10.00	606.98	605.25	602.50	140.00	606.10	0.00	606.45	102.33	4.72	29.65	13.84
20.200	10.00	606.98	605.25	602.50	215.00	606.53	0.00	607.26	221.73	6.86	31.32	14.44
20.300	1.00	0.00	0.00	602.50	55.00	604.75	0.00	604.87	27.46	2.77	19.82	12.21
20.300	1.00	0.00	0.00	602.50	110.00	605.95	0.00	606.08	98.00	2.86	38.40	23.02
20.300	1.00	0.00	0.00	602.50	140.00	606.37	0.00	606.51	17.87	3.06	46.00	33.12
20.300	1.00	0.00	0.00	602.50	215.00	607.25	0.00	607.43	17.30	3.37	63.85	51.69
20.500	308.00	0.00	0.00	603.18	55.00	605.44	0.00	605.51	15.60	2.16	25.41	13.92
20.500	308.00	0.00	0.00	603.18	110.00	606.47	0.00	606.57	13.33	2.47	44.55	30.13
20.500	308.00	0.00	0.00	603.18	140.00	606.89	0.00	606.99	13.04	2.61	53.67	30.77
20.500	308.00	0.00	0.00	603.18	215.00	607.79	0.00	607.77	6.15	2.11	259.66	86.65

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SECND	XLOP	ELTRO	ELLC	ELMIN	Q	CPSEL	CRIWS	EG	SOKAS	VCH	AREA	[illegible]
20.600	1.00	607.02	606.11	603.18	55.00	605.44	0.00	605.51	11.42	2.16	25.45	16.28
20.600	1.00	607.02	606.11	603.18	110.00	606.46	0.00	606.58	28.46	2.79	39.40	20.62
20.600	1.00	607.02	606.11	603.18	140.00	606.85	0.00	607.03	42.21	3.37	41.58	21.55
20.600	1.00	607.02	606.11	603.18	215.00	607.74	0.00	607.77	15.05	[illegible]	245.59	55.43
20.700	15.00	607.02	606.11	603.18	55.00	605.46	0.00	605.53	11.73	2.17	25.29	15.06
20.700	15.00	607.02	606.11	603.18	110.00	606.50	0.00	606.63	29.42	2.81	39.09	20.28
20.700	15.00	607.02	606.11	603.18	140.00	606.92	0.00	607.09	43.23	3.38	41.45	21.29
20.700	15.00	607.02	606.11	603.18	215.00	607.76	0.00	607.79	14.40	1.93	251.37	56.66
20.800	1.00	0.00	0.00	603.18	55.00	605.45	0.00	605.33	16.02	[illegible]	25.26	[illegible]
20.800	1.00	0.00	0.00	603.18	110.00	606.55	0.00	606.64	12.47	[illegible]	45.75	31.15
20.800	1.00	0.00	0.00	603.18	140.00	607.02	0.00	607.12	11.54	2.49	56.29	41.21
20.800	1.00	0.00	0.00	603.18	215.00	607.76	0.00	607.80	5.49	2.01	271.83	91.73
21.000	396.00	0.00	0.00	604.20	55.00	605.93	0.00	606.03	10.55	1.94	39.59	15.95
21.000	396.00	0.00	0.00	604.20	110.00	606.95	0.00	607.00	7.40	2.21	79.1[illegible]	40.4[illegible]
21.000	396.00	0.00	0.00	604.20	140.00	607.38	0.00	607.44	6.15	2.23	112.8[illegible]	56.47
21.000	396.00	0.00	0.00	604.20	215.00	607.96	0.00	608.02	5.97	2.46	178.05	88.03
22.000	200.00	0.00	0.00	604.07	55.00	606.18	0.00	606.29	13.07	2.61	21.10	15.21
22.000	200.00	0.00	0.00	604.07	110.00	607.07	0.00	607.28	17.70	[illegible]	30.03	26.1[illegible]
22.000	200.00	0.00	0.00	604.07	140.00	607.47	0.00	607.73	19.05	4.12	33.95	31.42
22.000	200.00	0.00	0.00	604.07	215.00	607.94	0.00	608.43	31.23	5.53	38.90	38.47
23.000	67.00	609.13	607.90	604.23	55.00	606.24	0.00	606.36	15.44	2.75	20.00	14.00
23.000	67.00	609.13	607.90	604.23	110.00	607.16	0.00	607.38	19.52	3.78	29.11	26.90
23.000	67.00	609.13	607.90	604.23	140.00	607.55	0.00	607.83	21.4[illegible]	[illegible]	33.03	30.20
23.000	67.00	609.13	607.90	604.23	215.00	608.51	0.00	608.90	23.45	5.01	42.[illegible]	44.[illegible]
24.000	50.00	0.00	0.00	604.07	55.00	606.39	0.00	606.41	2.55	1.36	39.76	34.4[illegible]
24.000	50.00	0.00	0.00	604.07	110.00	607.42	0.00	607.46	2.54	1.77	104.[illegible]	68.99
24.000	50.00	0.00	0.00	604.07	140.00	607.89	0.00	607.93	2.49	1.91	127.71	88.6[illegible]
24.000	50.00	0.00	0.00	604.07	215.00	608.99	0.00	609.[illegible]	1.81	[illegible]	[illegible]	[illegible]

SMITH CREEK BROWNSTOWN

SUMMARY PRINTOUT TABLE 150

SECNO	D	CHSEL	DIFHSP	DIFHSX	DIFKWS	TOPWID	XLOW
1.000	235.00	596.00	0.00	0.00	-2.00	125.79	0.00
1.000	400.00	594.45	0.00	0.00	-1.55	169.16	0.00
1.000	455.00	594.64	0.00	0.00	-1.36	178.99	0.00
1.000	610.00	595.10	0.00	0.00	-0.91	201.08	0.00
1.100	289.00	594.56	0.00	0.56	0.00	153.69	500.00
1.100	420.00	595.11	0.00	0.56	0.00	221.37	500.00
1.100	455.00	595.20	0.00	0.56	0.00	230.48	500.00
1.100	610.00	595.65	0.00	0.55	0.00	276.94	500.00
1.300	230.00	597.56	0.00	2.51	0.00	123.00	1880.00
1.300	320.00	597.47	0.00	2.46	0.00	267.65	1880.00
1.300	365.00	597.61	0.00	2.45	0.00	278.46	1880.00
1.300	495.00	597.96	0.00	2.51	0.00	304.66	1880.00
2.000	230.00	597.85	0.00	0.76	0.00	70.00	850.00
2.000	320.00	598.27	0.00	0.84	0.00	70.00	850.00
2.000	365.00	598.45	0.00	0.84	0.00	70.00	850.00
2.000	495.00	598.88	0.00	0.92	0.00	70.00	850.00
3.000	230.00	597.86	0.00	0.04	0.00	16.72	100.00
3.000	320.00	598.29	0.00	0.02	0.00	16.72	100.00
3.000	365.00	598.46	0.00	0.02	0.00	16.72	100.00
3.000	495.00	598.86	0.00	-0.02	0.00	16.72	100.00
4.000	230.00	597.93	0.00	0.05	0.00	16.72	65.00
4.000	320.00	598.37	0.00	0.07	0.00	16.72	65.00
4.000	365.00	598.55	0.00	0.08	0.00	16.72	65.00
4.000	495.00	599.03	0.00	0.08	0.00	16.72	65.00
5.000	230.00	598.03	0.00	0.15	0.00	16.72	50.00
5.000	320.00	598.58	0.00	0.21	0.00	16.72	50.00
5.000	365.00	598.80	0.00	0.23	0.00	16.72	50.00
5.000	495.00	599.35	0.00	0.27	0.00	16.72	50.00

5.000	230.00	598.24	0.00	0.20	0.00	99.80	225.00
5.000	320.00	598.86	0.00	0.29	0.00	149.92	225.00
5.000	365.00	599.13	0.00	0.33	0.00	149.93	225.00
5.000	495.00	600.22	0.00	0.37	0.00	149.98	225.00
5.100	230.00	598.22	0.00	-0.02	0.00	96.64	1.00
5.100	320.00	598.88	0.00	0.00	0.00	149.92	1.00
5.100	365.00	599.15	0.00	0.02	0.00	149.93	1.00
5.100	495.00	600.25	0.00	0.03	0.00	149.98	1.00
5.200	230.00	598.25	0.00	0.03	0.00	99.90	11.00
5.200	320.00	598.88	0.00	0.02	0.00	149.92	11.00
5.200	365.00	599.17	0.00	0.02	0.00	149.93	11.00
5.200	495.00	600.26	0.00	0.01	0.00	149.98	11.00
5.300	230.00	598.31	0.00	0.06	0.00	99.90	1.00
5.300	320.00	598.88	0.00	0.00	0.00	149.92	1.00
5.300	365.00	599.16	0.00	-0.01	0.00	149.93	1.00
5.300	495.00	600.24	0.00	-0.01	0.00	149.96	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.000	230.00	598.52	0.00	0.21	0.00	46.91	434.00
6.000	320.00	599.08	0.00	0.20	0.00	122.30	434.00
6.000	365.00	599.35	0.00	0.18	0.00	165.20	434.00
6.000	495.00	600.37	0.00	0.12	0.00	307.54	434.00
7.000	230.00	599.34	0.00	0.82	0.00	339.11	1140.00
7.000	320.00	599.87	0.00	0.79	0.00	350.00	1140.00
7.000	365.00	600.09	0.00	0.74	0.00	350.00	1140.00
7.000	495.00	600.80	0.00	0.43	0.00	350.00	1140.00
8.000	230.00	599.66	0.00	0.32	0.00	29.57	562.00
8.000	320.00	600.09	0.00	0.22	0.00	76.85	562.00
8.000	365.00	600.28	0.00	0.18	0.00	105.28	562.00
8.000	495.00	600.39	0.00	0.09	0.00	170.00	562.00
9.000	230.00	599.76	0.00	0.10	0.00	19.00	200.00
9.000	320.00	600.23	0.00	0.14	0.00	19.00	200.00
9.000	365.00	600.43	0.00	0.15	0.00	133.50	200.00
9.000	495.00	601.03	0.00	0.14	0.00	170.01	200.00
10.000	230.00	600.10	0.00	0.34	0.00	19.00	32.00
10.000	320.00	600.65	0.00	0.62	0.55	19.00	32.00
10.000	365.00	600.84	0.00	0.61	0.00	170.00	32.00
10.000	495.00	601.20	0.00	0.17	0.00	170.01	32.00
11.000	230.00	600.12	0.00	0.02	0.00	85.88	50.00
11.000	320.00	600.73	0.00	0.08	0.61	120.00	50.00
11.000	365.00	600.89	0.00	0.09	0.77	270.00	50.00
11.000	495.00	601.29	0.00	0.10	1.00	270.00	50.00
12.000	125.00	600.44	0.00	0.32	0.00	162.99	856.00
12.000	245.00	601.06	0.00	0.33	0.62	381.37	856.00
12.000	300.00	601.20	0.00	0.31	0.76	423.47	856.00
12.000	440.00	601.61	0.00	0.32	1.00	660.02	856.00
13.000	125.00	600.79	0.00	0.53	0.00	21.60	1700.00
13.000	245.00	601.33	0.00	0.79	0.56	194.32	1700.00
13.000	300.00	602.41	0.00	0.91	1.02	254.80	1700.00
13.000	440.00	603.53	0.00	0.91	1.55	451.75	1700.00

14.000	85.00	602.58	0.00	1.55	0.00	219.80	2500.00	
14.000	180.00	603.23	0.00	1.30	0.71	376.47	2500.00	
14.000	235.00	603.64	0.00	1.33	0.92	377.59	2500.00	
14.000	365.00	603.82	0.00	1.29	1.30	379.60	2500.00	
8.000	85.00	603.13	0.00	0.61	0.00	19.78	1456.00	
15.000	180.00	603.82	0.00	0.99	0.69	21.93	1456.00	
15.000	235.00	604.04	0.00	0.51	0.92	101.00	1456.00	
15.000	365.00	604.47	0.00	0.66	1.34	230.00	1456.00	
16.000	85.00	603.28	0.00	0.15	0.00	12.76	200.00	
16.000	181.00	604.12	0.00	0.31	0.04	12.76	200.00	
16.000	235.00	604.45	0.00	0.41	1.17	12.76	200.00	
16.000	365.00	604.94	0.00	0.66	1.65	133.95	200.00	

SECNO	T	CASEL	DIFMSP	DIFMSX	DIFKMS	TCPMID	XLCH
17.000	85.00	603.31	0.00	0.02	0.00	12.76	27.00
17.000	180.00	604.18	0.00	0.05	0.87	12.76	27.00
17.000	235.00	604.52	0.00	0.07	1.22	12.76	27.00
17.000	365.00	605.02	0.00	0.08	1.71	133.96	27.00
18.000	85.00	603.34	0.00	0.04	0.00	17.17	50.00
18.000	180.00	604.27	0.00	0.10	0.93	20.62	50.00
18.000	235.00	604.69	0.00	0.16	1.34	22.20	50.00
18.000	365.00	605.51	0.00	0.50	2.17	233.00	50.00
19.000	55.00	604.24	0.00	0.50	0.00	17.83	667.00
19.000	110.00	605.37	0.00	0.09	1.12	179.74	667.00
19.000	140.00	605.74	0.00	1.05	1.49	231.52	667.00
19.000	215.00	606.21	0.00	0.70	1.97	240.00	667.00
20.000	55.00	604.72	0.00	0.48	0.00	13.15	432.00
20.000	110.00	605.78	0.00	0.42	1.06	16.89	432.00
20.000	140.00	606.06	0.00	0.33	1.34	17.68	432.00
20.000	215.00	606.45	0.00	0.24	1.73	19.22	432.00
20.100	55.00	604.72	0.00	0.00	0.00	13.19	1.00
20.100	110.00	605.74	0.00	-0.04	1.02	16.76	1.00
20.100	140.00	605.96	0.00	-0.08	1.26	17.60	1.00
20.100	215.00	606.22	0.00	-0.23	1.50	18.43	1.00
20.200	55.00	604.75	0.00	0.03	0.00	13.28	10.00
20.200	110.00	605.82	0.00	0.07	1.07	17.01	10.00
20.200	140.00	606.10	0.00	0.12	1.35	18.01	10.00
20.200	215.00	606.53	0.00	0.31	1.78	19.50	10.00
20.300	55.00	604.75	0.00	0.00	0.00	13.29	1.00
20.300	110.00	605.95	0.00	0.16	1.20	17.50	1.00
20.300	140.00	606.37	0.00	0.27	1.62	18.85	1.00
20.300	215.00	607.23	0.00	0.75	2.50	21.00	1.00
20.400	55.00	605.45	0.00	0.50	0.00	16.47	308.00
20.500	110.00	606.47	0.00	0.52	1.03	20.77	308.00
20.500	140.00	606.89	0.00	0.52	1.45	22.54	308.00
20.500	215.00	607.72	0.00	0.46	2.28	400.97	308.00

20.600	55.00	605.44	0.00	0.00	0.00	16.42	1.00	
20.600	110.00	606.46	0.00	-0.01	1.02	20.76	1.00	
20.600	140.00	606.85	0.00	-0.03	1.41	22.40	1.00	
20.600	215.00	607.74	0.00	0.02	2.30	400.38	1.00	
20.700	55.00	605.46	0.00	0.02	0.00	16.50	15.00	
20.700	110.00	606.50	0.00	0.04	1.05	20.89	15.00	
20.700	140.00	606.92	0.00	0.06	1.49	22.66	15.00	
20.700	215.00	607.76	0.00	0.02	2.31	400.39	15.00	
20.800	55.00	605.46	0.00	0.00	0.00	16.49	1.00	
20.800	140.00	606.55	0.00	0.04	1.09	21.10	1.00	
20.800	140.00	607.02	0.00	0.11	1.57	29.96	1.00	
20.800	215.00	607.76	0.00	-0.01	2.30	400.40	1.00	

SECTO	Q	CHSEL	DIFUSO	DIFUSX	DIFKHS	TOPWID	XLCH
21.000	55.00	605.98	0.00	0.53	0.00	34.51	396.00
21.000	110.00	606.95	0.00	0.40	0.96	47.13	396.00
21.000	140.00	607.38	0.00	0.36	1.40	115.00	396.00
21.000	215.00	607.96	0.00	0.20	1.97	115.00	396.00
22.000	55.00	606.18	0.00	0.20	0.00	10.00	200.00
22.000	110.00	607.07	0.00	0.13	0.89	10.00	200.00
22.000	140.00	607.47	0.00	0.08	1.29	10.00	200.00
22.000	215.00	607.96	0.00	0.00	1.78	10.00	200.00
23.000	55.00	606.24	0.00	0.06	0.00	10.00	47.00
23.000	110.00	607.16	0.00	0.06	0.91	10.00	47.00
23.000	140.00	607.55	0.00	0.09	1.31	10.00	47.00
23.000	215.00	608.51	0.00	0.55	2.27	10.00	47.00
24.000	55.00	606.39	0.00	0.05	0.00	37.58	50.00
24.000	110.00	607.42	0.00	0.27	1.04	48.12	50.00
24.000	140.00	607.89	0.00	0.33	1.50	52.82	50.00
24.000	215.00	608.99	0.00	0.48	2.41	110.00	50.00

SUMMARY OF ERRORS

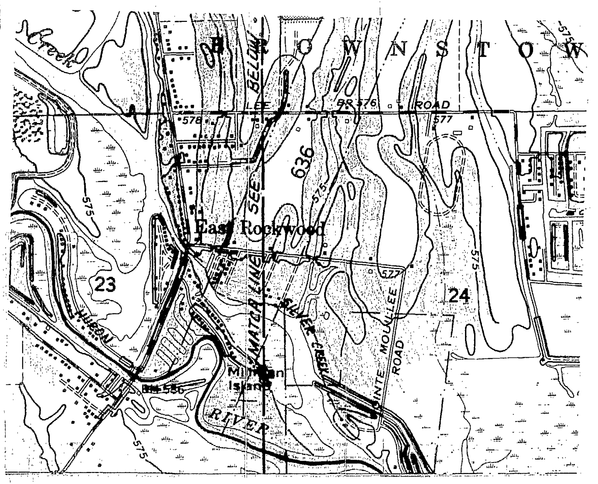
FLOOD INSURANCE ZONE DATA FOR SMITH CREEK BROWNSTOWN

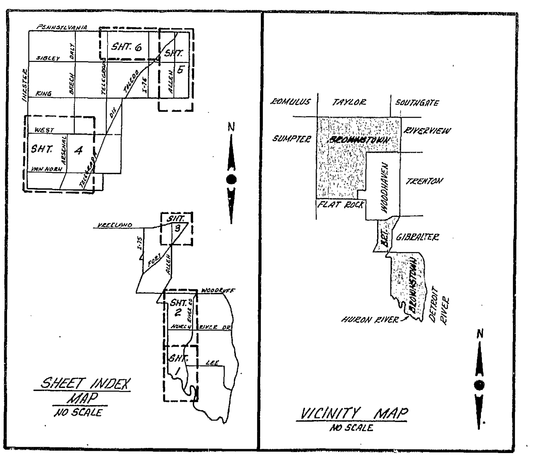
FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

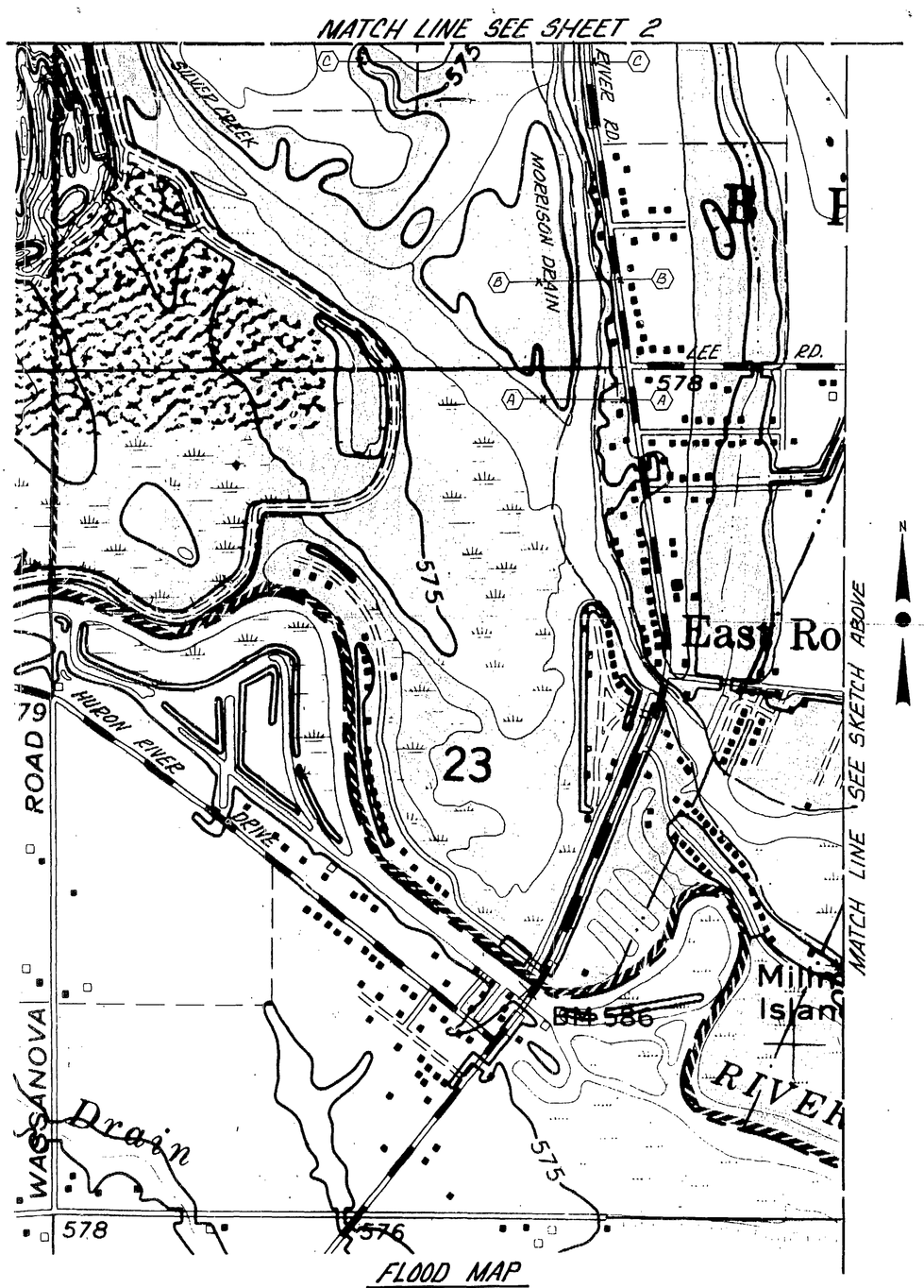
SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10¢	2¢	0.2¢
1.000	0.	-0.6	-0.2	0.5
1.100	500.	-0.6	-0.2	0.5
1.300	2300.	-0.5	-0.1	0.5
2.000	3200.	-0.6	-0.2	0.4
3.000	3330.	-0.6	-0.2	0.4
4.000	3395.	-0.8	-0.2	1.0
4.300	3445.	-0.8	-0.2	1.0
5.000	3668.	-0.9	-0.3	1.1
5.100	3669.	-0.9	-0.3	1.1
5.200	3680.	-0.9	-0.3	1.1
5.300	3681.	-0.9	-0.3	1.1
6.000	4115.	-0.8	-0.3	1.0
7.000	5255.	-0.8	-0.2	0.7
8.000	5817.	-0.6	-0.2	0.8
9.000	6017.	-0.7	-0.2	0.6
10.000	6049.	-0.7	-0.2	0.4
11.000	6099.	-0.8	-0.2	0.4
12.000	6955.	-0.8	-0.1	0.6
13.000	8655.	-1.1	-0.3	0.4
14.000	11158.	-0.9	-0.2	0.4
15.000	12[illegible]	-0.9	-0.2	0.4
16.000	12[illegible]	-1.2	-0.3	0.5
17.000	12833.	-1.2	-0.3	0.5
18.000	12883.	-1.3	-0.4	0.8
19.000	13555.	-1.5	-0.4	0.5
20.000	13987.	-1.5	-0.3	0.4
20.100	13988.	-1.5	-0.3	0.2
20.200	13993.	-1.5	-0.3	0.4
20.300	13999.	-1.6	-0.3	0.9
20.500	14337.	-1.4	-0.4	0.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

20.800	14324.	-1.6	-0.5	0.7
21.000	14720.	-1.4	-0.4	0.5
22.000	14920.	-1.3	-0.4	0.5
23.000	14967.	-1.5	-0.4	1.0
24.000	15017.	-1.5	-0.5	1.1
WEIGHTED AVG FOR REACH		-0.	-0.2	0.5

FHF FOR THE REACH = 010 WITH 87.5% OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 2







LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

CROSS SECTION

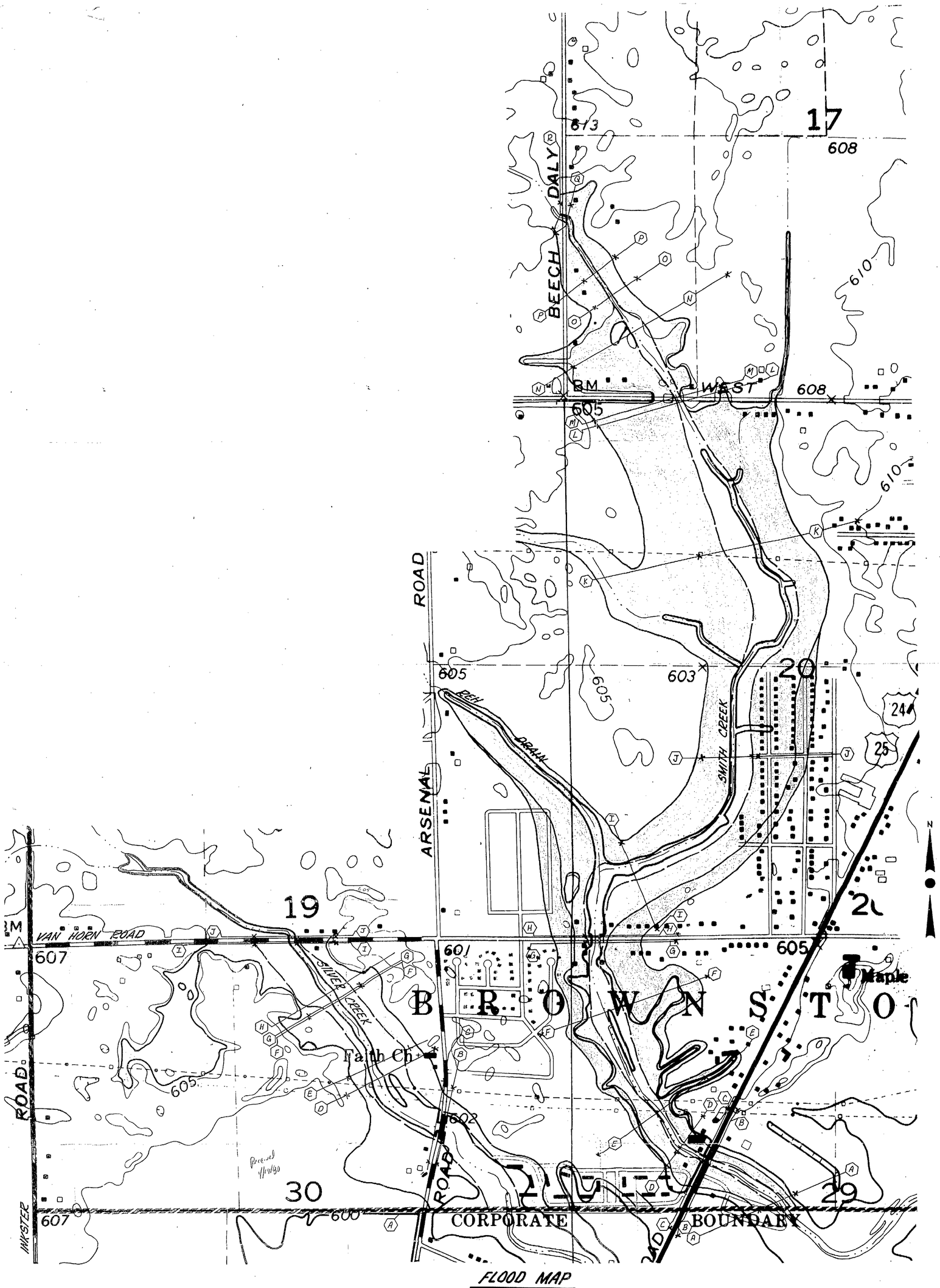
CORPORATE LIMIT

COUNTY BOUNDARY

BROWNSTOWN TOWNSHIP

WAYNE COUNTY, MICHIGAN

SCALE: 1" = 400'



FLOOD MAP

LEGEND

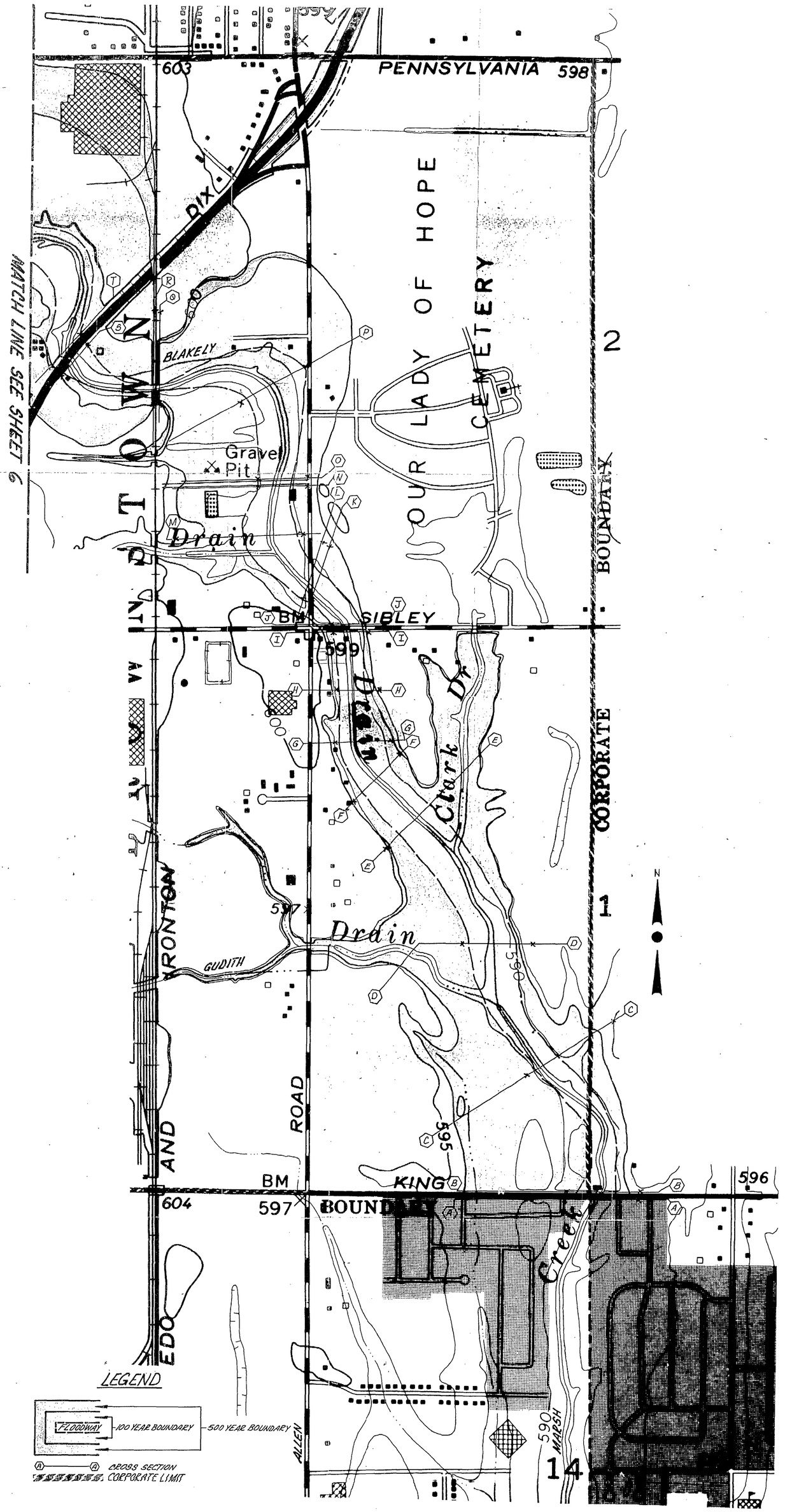
FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

CORPORATE LIMIT

BROWNSTOWN TOWNSHIP

WAYNE COUNTY, MICHIGAN
SCALE: 1" = 400'



FLOOD MAP

BROWNSTOWN TOWNSHIP

WAYNE COUNTY, MICHIGAN
SCALE: 1"=400'

SHEET 5 of 6
HUD 2013-10

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Fellows Creek

4) DOCUMENT TYPE: 100 Year

00BREAK00

PROPOSED CONDITION

100 YEAR FLOOD & FLOODWAY

THIS RUN EXECUTED 1/25/90 15:54:22

****
HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02
MODIFICATION
****

T1 VILLAGE GREEN OF CANTON EAST, CANTON TWP, MI. #89139
T2 100 YEAR FLOOD PROFILE : Q= 1270, START ELEV.= 670.94
T3 FELLOWS CREEK, PROPOSED PROPOSED CONDITION, NATURAL FLOODWAY, 100 YR Q

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0	0	0	1270	670.94	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	1	-1	2	5	0	-1	0	0	0

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	110	150	200							
NC	0.1	0.1	0.035	0.1	0.3	0	0	0	0	0
ET		4.1	1.4	1	649					
		STA 140+50 BASED ON M.D.N.R. FIELD BOOK								
X1	7866	18	296	304	0	0	0	0	-0.3	0
GR	670.3	0	668.3	175	665.8	181	665.3	213	669	240
GR	669.1	259	661.4	287	661.2	292	660.4	296	659.9	300
GR	660.4	304	661.3	307	661.8	311	665.4	317	666.5	320
GR	669.6	333	669.1	450	670.5	650	0	0	0	0
NC	0.06	0.08	0.035	0.1	0.3	0	0	0	0	0
ET		4.1	1.4	1	205					
X1	8006	15	95	165	140	140	140	0	0	0
GR	670	0	669	37	668.8	58	669	70	669.2	95
GR	665	106	663.6	110	661.3	128	659.35	132	661.8	138
GR	665	150	670	165	671	170	671.5	196	672	206
NC	0.04	0.04	0.035	0.1	0.3	0	0	0	0	0
ET		4.1	1.4	1	150					
		NEW SEC. PER Z-W CHANNEL IMPROVEMENTS								
X1	8066	11	20	135.48	60	60	60	0	0	0
GR	671.5	0	671	20	664.69	45.24	664.39	55.24	660.64	70.24
GR	659.39	77.74	660.64	85.24	664.39	100.24	664.69	110.24	671	135.48
GR	672	152	0	0	0	0	0	0	0	0
ET		4.1	1.4	1	160					

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	8352	11	20	133	335	238	286	0	0	0
GR	671.5	0	671	20	664.99	44	664.69	54	660.94	69
GR	659.69	76.5	660.94	84	664.69	99	664.99	109	671	133
GR	672	162	0	0	0	0	0	0	0	0
ET		4.1	1.4	1	148					

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	8673	11	16	126.52	374	260	321	0	0	0
GR	671.5	0	671	16	665.31	38.76	665.01	48.76	661.26	63.76
GR	660.01	71.26	661.26	78.76	665.01	93.76	665.31	103.76	671	126.52
GR	672	149	0	0	0	0	0	0	0	0
ET		4.1	1.4	1	136					

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	9066	11	13	120	410	434	420	0	0	0
GR	671.5	0	671	13	665.75	34	665.45	44	661.7	59
GR	660.44	66.5	661.7	74	665.45	89	665.75	99	671	120
GR	672	138	0	0	0	0	0	0	0	0
NC	0	0	0	0.3	0.5	0	0	0	0	0

DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE

X1	9262	8	390.25	409.75	196	196	196	0	0	0
X3	10	0	0	376	0	424	0	671.7	671.7	0
GR	674	0	672.9	300	669.5	353	662	390.25	661.5	400
GR	662	409.75	669.2	425	672.9	500	0	0	0	0
SB	0	1.5	3	0	20.14	0	179.27	0	661.7	661.5

UPSTREAM FACE OF HAGGERTY RD. BRIDGE

X1	9315	9	390.25	409.75	55	55	55	0	0	0
X2	0	0	1	670.6	672.9	0	0	0	0	0
X3	10	0	0	376	0	424	0	672.9	672.9	0
BT	7	0	674.2	0	390.25	672.9	662.2	390.26	672.9	670.6
BT	400	672.9	670.6	409.75	672.9	670.6	409.76	672.9	662.2	500
BT	672.9	0	0	0	0	0	0	0	0	0
GR	674	0	672.9	300	672.9	356	662.2	390.25	662.2	390.26
GR	661.7	400	662.2	409.75	662.2	409.76	672.9	500	0	0
NC	0.06	0.06	0.03	0	0	0	0	0	0	0

100' UPSTREAM OF HAGGERTY RD.

X1	9415	15	265	335	100	100	100	0	0	0
X3	0	0	0	121	0	341	0	0	0	0
GR	675	0	673.5	1	672	10	672	100	670	190
GR	667.5	200	666.8	265	662.2	285	661.9	300	662.5	315
GR	666.8	335	667.1	348	671	365	673	500	675	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	

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 7866.000
3280 CROSS SECTION 7866.00 EXTENDED .74 FEET

3470 ENCROACHMENT STATIONS= 1.0 649.0 TYPE= 1 TARGET= 648.000
STA 140+50 BASED ON M.D.N.R. FIELD BOOK

7866.00	11.34	670.94	666.26	.00	670.99	.05	.00	.00	660.10	
1270.	624.	315.	331.	957.	89.	681.	0.	0.	660.10	
.00	.65	3.55	.49	.100	.035	.100	.000	659.60	1.00	
.000286	0.	0.	0.	0	13	0	.00	648.00	649.00	

CCHV= .100 CEHV= .300
*SECNO 8006.000

3470 ENCROACHMENT STATIONS= 1.0 205.0 TYPE= 1 TARGET= 204.000

8006.00	11.61	670.96	665.39	.00	671.04	.09	.04	.01	669.20	
1270.	104.	1166.	0.	167.	469.	2.	4.	1.	670.00	
.02	.62	2.48	.19	.060	.035	.080	.000	659.35	1.00	
.000288	140.	140.	140.	2	11	0	.00	168.78	169.78	

CCHV= .100 CEHV= .300
*SECNO 8066.000

3470 ENCROACHMENT STATIONS= 1.0 150.0 TYPE= 1 TARGET= 149.000
NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

8066.00	11.62	671.01	664.90	.00	671.06	.05	.01	.00	671.00	
1270.	0.	1192.	78.	0.	629.	80.	5.	2.	664.69	
.03	.00	1.90	.97	.000	.035	.040	.000	659.39	19.76	
.000154	60.	60.	60.	2	13	0	.00	115.82	135.58	

*SECNO 8352.000

3470 ENCROACHMENT STATIONS= 1.0 160.0 TYPE= 1 TARGET= 159.000
NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8352.00	11.36	671.05	665.20	.00	671.11	.06	.05	.00	671.00
1270.	0.	1196.	74.	0.	606.	73.	9.	2.	664.99
.07	.00	1.98	1.01	.040	.035	.040	.000	659.69	18.04
.000173	335.	286.	238.	2	13	0	.00	116.38	134.42

*SECNO 8673.000

3470 ENCROACHMENT STATIONS= 1.0 148.0 TYPE= 1 TARGET= 147.000

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

8673.00	11.09	671.10	665.56	.00	671.17	.06	.06	.00	671.00
1270.	0.	1200.	70.	0.	582.	67.	14.	3.	665.31
.11	.07	2.06	1.04	.040	.035	.040	.000	660.01	12.77
.000195	374.	321.	260.	0	9	0	.00	116.02	128.79

*SECNO 9066.000

3470 ENCROACHMENT STATIONS= 1.0 136.0 TYPE= 1 TARGET= 135.000

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

9066.00	10.75	671.19	665.94	.00	671.26	.07	.09	.00	671.00
1270.	0.	1205.	65.	0.	550.	59.	20.	4.	665.75
.17	.11	2.19	1.09	.040	.035	.040	.000	660.44	8.30
.000230	410.	420.	434.	0	9	0	.00	114.95	123.25

CCHV= .300 CEHV= .500

*SECNO 9262.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .40

3470 ENCROACHMENT STATIONS= 376.0 424.0 TYPE= 1 TARGET= 48.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 671.70 ELREA= 671.70

DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE

9262.00	9.42	670.92	666.81	.00	671.71	.78	.09	.36	662.00
1270.	0.	1270.	0.	0.	179.	0.	22.	4.	662.00
.17	.00	7.10	.00	.000	.035	.000	.000	661.50	390.25
.001458	196.	196.	196.	2	8	0	.00	19.50	409.75

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	20.14	.00	179.27	.00	661.70	661.50

*SECNO 9315.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
672.09	671.91	.00	0.	1270.	179.	179.	670.60	672.90	0.

3470 ENCROACHMENT STATIONS= 376.0 424.0 TYPE= 1 TARGET= 48.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 672.90 ELREA= 672.90

UPSTREAM FACE OF HAGGERTY RD. BRIDGE

9315.00	9.65	671.35	.00	.00	672.09	.74	.39	.00	662.20
1270.	0.	1270.	0.	0.	183.	0.	22.	5.	662.20
.18	.00	6.93	.00	.000	.035	.000	.000	661.70	390.25
.001343	55.	55.	55.	2	0	0	.00	19.50	409.75

*SECNO 9415.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.61

3470 ENCROACHMENT STATIONS= 121.0 341.0 TYPE= 1 TARGET= 220.000

100' UPSTREAM OF HAGGERTY RD.

9415.00	10.39	672.29	665.43	.00	672.32	.04	.02	.21	666.80
1270.	239.	1018.	13.	474.	613.	33.	24.	5.	666.80
.19	.50	1.66	.40	.060	.030	.060	.000	661.90	121.00
.000063	100.	100.	100.	2	22	0	.00	220.00	341.00

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T1 VILLAGE GREEN OF CANTON EAST, CANTON TWP, MI. #89139
T2 100 YEAR FLOOD PROFILE : Q= 1270 CFS, START ELEV.= 670.94
T3 PROP. ENCROACHED, 100 YRPROPOSED CONDITION, ENCROACHED METHOD 4, 100 YR.

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0	0	0	1270	670.94	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2	0	-1	0	0	0	-1	0	0	15

PRINTED IN U.S.A.

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

*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS


CCHV=      .100 CEHV=      .300
*SECNO 7866.000
 2800 NAT Q1=      751.62  WSEL=      670.94  ENC Q1=      751.62  WSEL=      671.04  RATIO=      .0000
 NAT Q1=      783.  RATIOS LOB, CH, ROB=     .4914    .2415    .2670  WSEL=      671.04
3280 CROSS SECTION    7866.00 EXTENDED        .94 FEET

3470 ENCROACHMENT STATIONS=        67.8      558.7  TYPE=        4  TARGET=           .040
                STA 140+50 BASED ON M.D.N.R. FIELD BOOK
   7866.00     11.34    670.94    666.26    670.94    671.00       .06       .00       .00    660.10
    1270.       623.      327.      320.      868.       89.      586.        0.        0.     660.10
      .00        .72      3.68       .55       .100      .035      .100      .000    659.60     67.81
  .000307        0.        0.        0.         0        13         0       .00    490.92    558.73


FLOW DISTRIBUTION FOR SECNO=    7866.00          CWSEL=     670.94

STA=        68.      175.      213.      240.      287.      292.      296.      304.      311.      317.      450.      559.
  PER Q=       8.9      13.2       5.8      12.5       4.7       4.0      25.7       6.6       3.3       9.7       5.7
   AREA=     249.5     207.2     110.4     209.3      49.7      41.8      88.7      69.9      45.8     278.5     191.3
    VEL=        .5        .8        .7        .8       1.2       1.2       3.7       1.2        .9        .4        .4
  DEPTH=       2.3       5.5       4.1       4.5       9.9      10.4      11.1      10.0       7.6       2.1       1.8

CCHV=      .100 CEHV=      .300
*SECNO 8006.000
 2800 NAT Q1=      748.57  WSEL=      670.96  ENC Q1=      748.57  WSEL=      671.06  RATIO=      .0000
 NAT Q1=      772.  RATIOS LOB, CH, ROB=     .0869    .9126    .0004  WSEL=      671.06
3280 CROSS SECTION    8006.00 EXTENDED        .96 FEET

3470 ENCROACHMENT STATIONS=        40.4      165.0  TYPE=        4  TARGET=           .030
   8006.00     11.61    670.96    665.39    670.96    671.05       .10       .04       .01    669.20
    1270.       72.      1198.        0.      108.      470.        0.        3.        1.     670.00
      .02        .67      2.55       .00       .060      .035      .000      .000    659.35     40.41
  .000309      140.      140.      140.         2        11         0       .00    124.59    165.00
```

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

FLOW DISTRIBUTION FOR SECNO= 8006.00 CWSEL= 670.96

STA=	40.	58.	70.	95.	165.
PER Q=	1.9	1.4	2.4	94.3	
AREA=	36.5	24.7	46.4	469.6	
VEL=	.7	.7	.7	2.6	
DEPTH=	2.1	2.1	1.9	6.7	

CCHV= .100 CEHV= .300

*SECNO 8066.000

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

8066.00	11.63	671.02	664.86	671.01	671.07	.05	.01	.00	671.00
1270.	0.	1270.	0.	0.	710.	0.	4.	1.	671.00
.03	.00	1.79	.00	.000	.035	.000	.000	659.39	19.15
.000162	60.	60.	60.	2	15	0	.00	116.69	135.83

FLOW DISTRIBUTION FOR SECNO= 8066.00 CWSEL= 671.02

STA=	19.	135.
PER Q=	100.0	
AREA=	710.3	
VEL=	1.8	
DEPTH=	6.2	

*SECNO 8352.000

NEW SEC. PER Z=W CHANNEL IMPROVEMENTS

8352.00	11.38	671.07	665.16	671.05	671.12	.05	.05	.00	671.00
1270.	0.	1270.	0.	0.	681.	0.	9.	2.	671.00
.07	.01	1.87	.01	.040	.035	.040	.000	659.69	17.30
.000181	335.	286.	238.	2	15	0	.00	117.65	134.96

FLOW DISTRIBUTION FOR SECNO= 8352.00 CWSEL= 671.07

STA=	17.	133.
PER Q=	100.0	
AREA=	680.9	
VEL=	1.9	
DEPTH=	6.0	

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

*SECNO 8673.000
NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

8673.00	11.12	671.13	665.43	671.10	671.18	.06	.06	.00	671.00
1270.	0.	1270.	0.	0.	652.	0.	14.	3.	671.00
.11	.08	1.95	.08	.040	.035	.040	.000	660.01	11.98
.000204	374.	321.	260.	2	14	0	.00	117.36	129.34

FLOW DISTRIBUTION FOR SECNO= 8673.00 CWSEL= 671.13

STA=	12.	16.	127.	129.
PER Q=	.0	100.0	.0	
AREA=	.3	651.6	.2	
VEL=	.1	1.9	.1	
DEPTH=	.1	5.9	.1	

*SECNO 9066.000
2800 NAT Q1= 837.26 WSEL= 671.19 ENC Q1= 837.97 WSEL= 671.29 RATIO= -.0008
NAT Q1= 838. RATIOS LOB, CH, ROB= .0001 .9998 .0001 WSEL= 671.29

3470 ENCROACHMENT STATIONS= 13.0 120.0 TYPE= 4 TARGET= .000
NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

9066.00	10.77	671.21	665.95	671.19	671.28	.07	.09	.00	671.00
1270.	0.	1270.	0.	0.	613.	0.	20.	4.	671.00
.17	.00	2.07	.00	.000	.035	.000	.000	660.44	13.00
.000240	410.	420.	434.	0	9	0	.00	107.00	120.00

FLOW DISTRIBUTION FOR SECNO= 9066.00 CWSEL= 671.21

STA=	13.	120.
PER Q=	100.0	
AREA=	613.2	
VEL=	2.1	
DEPTH=	5.7	

CCHV= .300 CEHV= .500
*SECNO 9262.000

3301 HV CHANGED MORE THAN HVINS

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .41

3470 ENCROACHMENT STATIONS= 376.0 424.0 TYPE= 1 TARGET= 48.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 671.70 ELREA= 671.70

DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE

9262.00	9.45	670.95	666.81	670.92	671.73	.78	.10	.36	662.00
1270.	0.	1270.	0.	0.	179.	0.	22.	4.	662.00
.18	.00	7.08	.00	.000	.035	.000	.000	661.50	390.25
.001443	196.	196.	196.	2	8	0	.00	19.50	409.75

FLOW DISTRIBUTION FOR SECNO= 9262.00 CWSEL= 670.95

STA=	390.	410.
PER Q=	100.0	
AREA=	179.5	
VEL=	7.1	
DEPTH=	9.2	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	20.14	.00	179.27	.00	661.70	661.50

*SECNO 9315.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
672.12	672.10	.00	0.	1270.	179.	179.	670.60	672.90	0.

3470 ENCROACHMENT STATIONS= 376.0 424.0 TYPE= 1 TARGET= 48.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 672.90 ELREA= 672.90

UPSTREAM FACE OF HAGGERTY RD. 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
9315.00	9.68	671.38	.00	671.35	672.12	.74	.39	.00	662.20
1270.	0.	1270.	0.	0.	184.	0.	22.	4.	662.20
.18	.00	6.90	.00	.000	.035	.000	.000	661.70	390.25
.001326	55.	55.	55.	2	0	0	.00	19.50	409.75

FLOW DISTRIBUTION FOR SECNO= 9315.00 CWSEL= 671.38

STA=	390.	410.
PER Q=	100.0	
AREA=	184.1	
VEL=	6.9	
DEPTH=	9.4	

*SECNO 9415.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.61

3470 ENCROACHMENT STATIONS= 121.0 341.0 TYPE= 1 TARGET= 220.000

100' UPSTREAM OF HAGGERTY RD.

9415.00	10.42	672.32	665.43	672.29	672.35	.03	.02	.21	666.80
1270.	240.	1017.	13.	478.	615.	33.	23.	4.	666.80
.20	.50	1.65	.40	.060	.030	.060	.000	661.90	121.00
.000062	100.	100.	100.	2	22	0	.00	220.00	341.00

FLOW DISTRIBUTION FOR SECNO= 9415.00 CWSEL= 672.32

STA=	121.	190.	200.	265.	335.	341.
PER Q=	2.2	1.3	15.5	80.1	1.0	
AREA=	106.9	35.7	335.8	615.4	32.7	
VEL=	.3	.4	.6	1.7	.4	
DEPTH=	1.5	3.6	5.2	8.8	5.4	

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THIS RUN EXECUTED 1/25/90 15:55: 8

****
HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02
MODIFICATION -
****

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

FELLOWS CREEK, PROPOSED

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	7866.000	670.94	.00	670.99	648.00	624.04	314.91	331.05	648.00	1.00	296.00	304.00	649.00
	7866.000	670.94	.00	671.00	490.92	623.28	326.65	320.07	.04	67.81	296.00	304.00	558.74
	8006.000	670.96	.00	671.04	168.78	103.68	1165.89	.43	204.00	1.00	95.00	165.00	205.00
	8006.000	670.96	.00	671.05	124.59	71.97	1198.03	.00	.03	40.41	95.00	165.00	165.00
	8066.000	671.01	.00	671.06	115.82	.00	1192.31	77.69	149.00	1.00	20.00	110.24	150.00
	8066.000	671.02	.02	671.07	116.69	.00	1270.00	.00	1.00	.00	20.00	135.48	.00
	8352.000	671.05	.00	671.11	116.38	.00	1196.19	73.81	159.00	1.00	20.00	109.00	160.00
	8352.000	671.07	.02	671.12	117.65	.00	1270.00	.00	1.00	.00	20.00	133.00	.00
	8673.000	671.10	.00	671.17	116.02	.01	1199.97	70.02	147.00	1.00	16.00	103.76	148.00
	8673.000	671.13	.02	671.18	117.36	.02	1269.96	.01	1.00	.00	16.00	126.52	.00
	9066.000	671.19	.00	671.26	114.95	.05	1205.19	64.77	135.00	1.00	13.00	99.00	136.00
	9066.000	671.21	.03	671.28	107.00	.00	1270.00	.00	.00	13.00	13.00	120.00	120.00
*	9262.000	670.92	.00	671.71	19.50	.00	1270.00	.00	48.00	376.00	390.25	409.75	424.00
*	9262.000	670.95	.03	671.73	19.50	.00	1270.00	.00	48.00	376.00	390.25	409.75	424.00
	9315.000	671.35	.00	672.09	19.50	.00	1270.00	.00	48.00	376.00	390.25	409.75	424.00
	9315.000	671.38	.03	672.12	19.50	.00	1270.00	.00	48.00	376.00	390.25	409.75	424.00
*	9415.000	672.29	.00	672.32	220.00	239.01	1018.07	12.92	220.00	121.00	265.00	335.00	341.00
*	9415.000	672.32	.03	672.35	220.00	240.24	1016.83	12.93	220.00	121.00	265.00	335.00	341.00

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FELLOWS CREEK, PROPOSED

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	7866.000	.00	.00	.00	659.60	1270.00	670.94	666.26	670.99	2.86	3.55	1727.21	751.62
	7866.000	.00	.00	.00	659.60	1270.00	670.94	666.26	671.00	3.07	3.68	1542.19	724.62
	8006.000	140.00	.00	.00	659.35	1270.00	670.96	665.39	671.04	2.88	2.48	638.77	748.57
	8006.000	140.00	.00	.00	659.35	1270.00	670.96	665.39	671.05	3.09	2.55	577.20	722.66
	8066.000	60.00	.00	.00	659.39	1270.00	671.01	664.90	671.06	1.54	1.90	708.49	1022.79
	8066.000	60.00	.00	.00	659.39	1270.00	671.02	664.86	671.07	1.62	1.79	710.27	996.91
	8352.000	286.00	.00	.00	659.69	1270.00	671.05	665.20	671.11	1.73	1.98	678.89	966.50
	8352.000	286.00	.00	.00	659.69	1270.00	671.07	665.16	671.12	1.81	1.87	681.04	942.78
	8673.000	321.00	.00	.00	660.01	1270.00	671.10	665.56	671.17	1.95	2.06	649.17	910.08
	8673.000	321.00	.00	.00	660.01	1270.00	671.13	665.43	671.18	2.04	1.95	652.04	889.40
	9066.000	420.00	.00	.00	660.44	1270.00	671.19	665.94	671.26	2.30	2.19	610.01	837.26
	9066.000	420.00	.00	.00	660.44	1270.00	671.21	665.95	671.28	2.40	2.07	613.16	819.12
*	9262.000	196.00	.00	.00	661.50	1270.00	670.92	666.81	671.71	14.58	7.10	178.90	332.59
*	9262.000	196.00	.00	.00	661.50	1270.00	670.95	666.81	671.73	14.43	7.08	179.46	334.35
	9315.000	55.00	672.90	670.60	661.70	1270.00	671.35	.00	672.09	13.43	6.93	183.38	346.60
	9315.000	55.00	672.90	670.60	661.70	1270.00	671.38	.00	672.12	13.26	6.90	184.05	348.72
*	9415.000	100.00	.00	.00	661.90	1270.00	672.29	665.43	672.32	.63	1.66	1120.27	1596.13
*	9415.000	100.00	.00	.00	661.90	1270.00	672.32	665.43	672.35	.62	1.65	1126.38	1606.53

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FELLOWS CREEK, PROPOSED

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7866.000	1270.00	670.94	.00	.00	.00	648.00	.00
	7866.000	1270.00	670.94	.00	.00	.00	490.92	.00
	8006.000	1270.00	670.96	.00	.02	.00	168.78	140.00
	8006.000	1270.00	670.96	.00	.02	.00	124.59	140.00
	8066.000	1270.00	671.01	.00	.05	.00	115.82	60.00
	8066.000	1270.00	671.02	.02	.06	.02	116.69	60.00
	8352.000	1270.00	671.05	.00	.04	.00	116.38	286.00
	8352.000	1270.00	671.07	.02	.05	.02	117.65	286.00
	8673.000	1270.00	671.10	.00	.05	.00	116.02	321.00
	8673.000	1270.00	671.13	.02	.06	.02	117.36	321.00
	9066.000	1270.00	671.19	.00	.08	.00	114.95	420.00
	9066.000	1270.00	671.21	.03	.09	.03	107.00	420.00
*	9262.000	1270.00	670.92	.00	-.26	.00	19.50	196.00
*	9262.000	1270.00	670.95	.03	-.26	.03	19.50	196.00
	9315.000	1270.00	671.35	.00	.42	.00	19.50	55.00
	9315.000	1270.00	671.38	.03	.43	.03	19.50	55.00
*	9415.000	1270.00	672.29	.00	.94	.00	220.00	100.00
*	9415.000	1270.00	672.32	.03	.93	.03	220.00	100.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 9262.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 9262.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 9415.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 9415.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

FLOODWAY DATA, FELLOWS CREEK, PROPOSED
PROFILE NO. 2

STATION	WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
7866.000	491.	1542.	.8	670.9	670.9	.0
8006.000	125.	577.	2.2	671.0	671.0	.0
8066.000	117.	710.	1.8	671.0	671.0	.0
8352.000	118.	681.	1.9	671.1	671.0	.1
8673.000	117.	652.	1.9	671.1	671.1	.0
9066.000	107.	613.	2.1	671.2	671.2	.0
9262.000	20.	179.	7.1	671.0	670.9	.1
9315.000	20.	184.	6.9	671.4	671.3	.1
9415.000	220.	1126.	1.1	672.3	672.3	.0

Normal program termination

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Fellows Creek

4) DOCUMENT TYPE: 100 Year

00BREAK00

Jan. 25, 1990

Backwater Analysis for Fellows Creek,
Village Green of Canton East

The following is a hydraulic analysis of Fellows Creek from Haggerty Road to approximately 1400 feet downstream, due to the proposed construction of the residential development, Village Green of Canton East. This analysis was performed using the HEC2 computer model as was the original FIS for Fellows Creek, dated March 2, 1981.

The program output titled **Existing Condition** duplicates the effective FIS computer model as close as possible. The original data input for the 100-year flood, obtained from the Michigan Department of Natural Resources, is used in the existing condition model.

The program titled **Proposed Condition, 10,50,100,500** models the proposed creek for the 10, 50, 100, and 500-year flood frequencies. Cross sections were added to the original input to model the proposed channel. The water surface starting elevations and the peak discharges were taken from the March 2, 1981 FIS.

The program titled **Proposed Condition 100-year Flood and Floodway** uses the same proposed input with an additional profile using encroachment method 4 to determine the floodway.

RECEIVED

FEB 07 1990

NATURAL RESOURCES
LAND & WATER MGMT.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY (NGVD)	DIFFERENCE
FELLOWS CREEK							
A	8325	100	489	3.4	660.1	660.1	0.0
B	9566	205	907	1.8	661.5	661.5	0.0
C	10,466	264	802	2.1	662.4	662.3	0.1
D	11,116	122	487	3.4	663.1	663.0	0.1
E	11,135	171	617	2.7	664.2	664.2	0.0
F	12,167	273	847	2.0	665.1	665.1	0.0
G	13,067	372	1084	1.5	666.2	666.1	0.1
H	13,598	102	799	2.1	666.6	666.5	0.1
I	13,754	102	771	2.2	666.6	666.5	0.1
J	14,404	120	472	3.5	668.8	668.8	0.0
K	14,884	98	823	2.0	669.9	669.9	0.0
L	14,932	96	787	2.1	670.0	669.9	0.1
M	15,282	55	399	3.2	670.0	669.9	0.1
N	15,982	200	1075	1.2	671.0	670.9	0.1
	7866	491	1542	3.7	670.94	670.94	0.0
	8006	125	577	2.6	670.96	670.96	0.0
	8066	117	710	1.8	671.02	671.01	0.01
	8352	118	681	1.9	671.07	671.05	0.02
	8673	117	652	2.0	671.13	671.10	0.03
	9066	107	613	2.1	671.21	671.19	0.02
P	9262	20	179	7.1	670.95	670.92	0.03
Q	9315	20	184	6.9	671.38	671.35	0.03
	9415	220	1126	1.7	672.32	672.29	0.03
R	18,210	148	970	1.3	672.5	672.4	0.1
S	18,961	145	847	1.5	672.6	672.5	0.1
T	19,711	70	391	3.3	672.6	672.5	0.1
U	20,284	31	238	5.3	673.0	672.9	0.1
V	20,374	36	316	4.0	674.6	674.6	0.0
W	20,912	131	820	1.5	675.2	675.2	0.0
X	22,412	34	201	6.3	675.2	675.2	0.0
Y	22,662	366	588	1.7	677.3	677.2	0.1
Z	23,762	350	511	2.0	678.3	678.2	0.1

[1]FEET ABOVE MOUTH

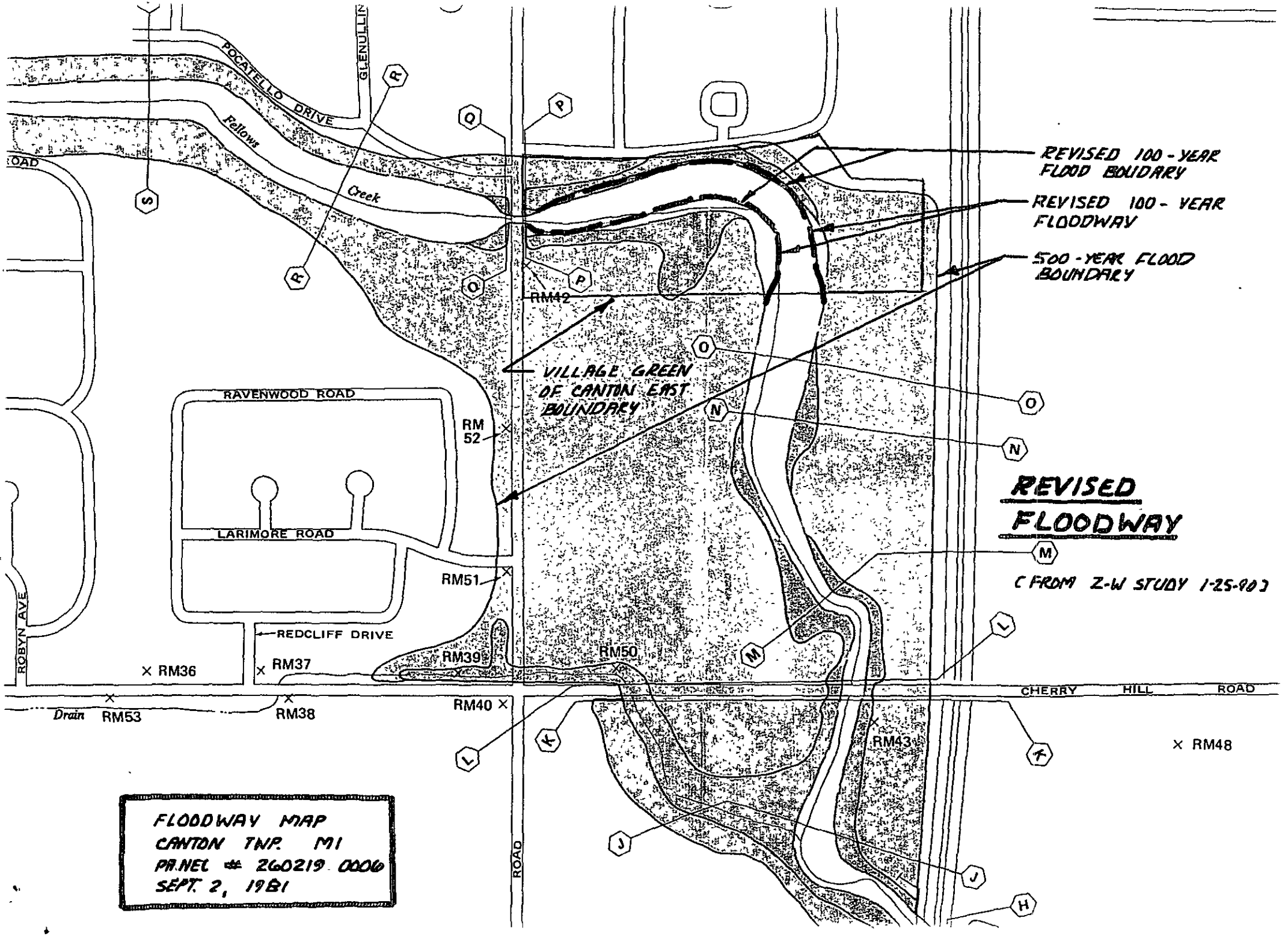
TABLE 2

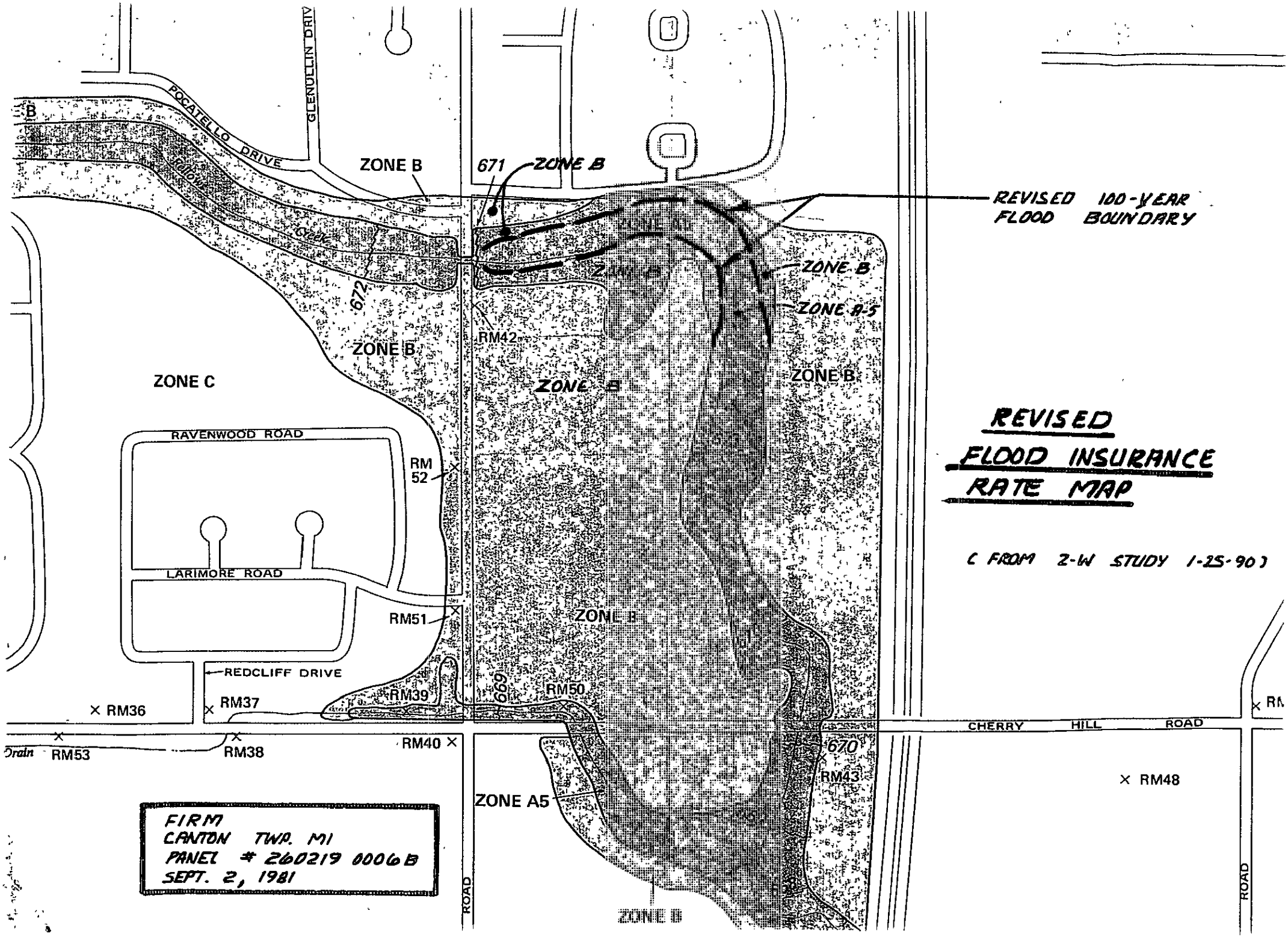
FEDERAL EMERGENCY MANAGEMENT AGENCY
Federal Insurance Administration

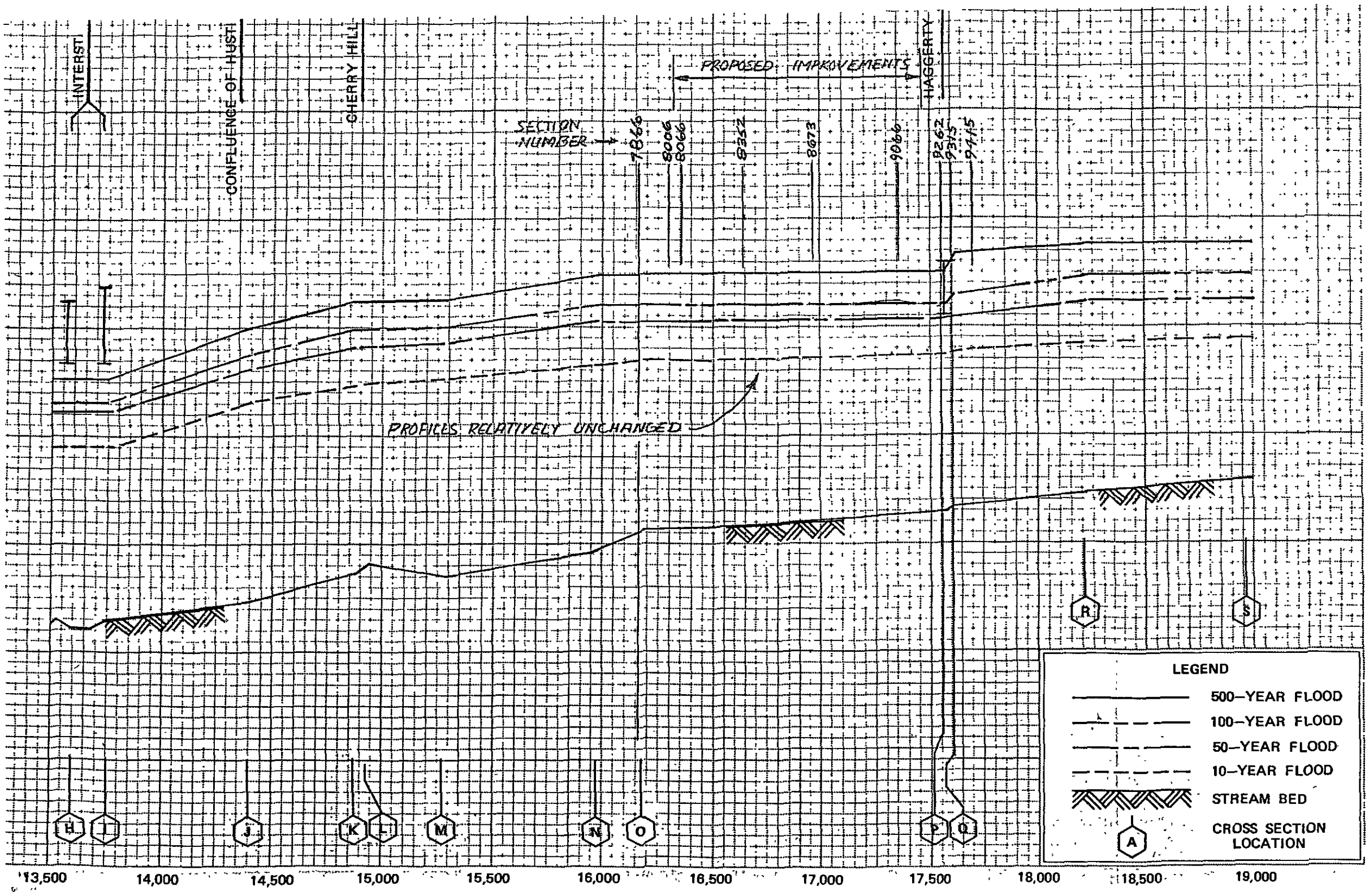
TOWNSHIP OF CANTON, MI
(WAYNE CO.)

FLOODWAY DATA

FELLOWS CREEK


POCATELLO DRIVE
GLENULLIN
Fellows Creek
RAVENWOOD ROAD
LARIMORE ROAD
REDCLIFF DRIVE
ROBYN AVE
CHERRY HILL ROAD
ROAD
RM42
RM 52
RM51
RM39
RM50
RM36
RM37
RM53
RM38
RM40
RM43
RM48
Drain
VILLAGE GREEN OF CANTON EAST BOUNDARY
REVISED 100-YEAR FLOOD BOUNDARY
REVISED 100-YEAR FLOODWAY
500-YEAR FLOOD BOUNDARY
REVISED FLOODWAY
(FROM Z-W STUDY 1-25-80)
FLOODWAY MAP
CANTON TWP. MI
PANEL # 260219 0006
SEPT. 2, 1981


GLENULLIN DRIVE
POCATELLO DRIVE
B
ZONE B
671
ZONE B
REVISED 100-YEAR FLOOD BOUNDARY
ZONE B
ZONE B-5
672
RM42
ZONE B
ZONE C
ZONE B
ZONE B
RAVENWOOD ROAD
RM 52
LARIMORE ROAD
RM51
ZONE B
REDCLIFF DRIVE
RM36
RM37
RM39
669
RM50
CHERRY HILL ROAD
RM53
RM38
RM40
670
RM43
RM48
ZONE A5
ZONE B
ROAD
ROAD
REVISED
FLOOD INSURANCE
RATE MAP
C FROM 2-W STUDY 1-25-90)
FIRM
CANTON TWP. MI
PANEL # 260219 0006 B
SEPT. 2, 1981



FLOOD PROFILES

FELLOWS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
Federal Insurance Administration

TOWNSHIP OF CANTON, MI
(WAYNE CO.) FIS 3-2-81

04 P

ER

EXISTING CONDITIONS PER M.D.N.R

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1*************************************************************
 *   WATER SURFACE PROFILES                                   *
 *   VERSION OF NOVEMBER 1976                                 *
 *   UPDATED MAY 1984                                         *
 *  IBH-PC-XT VERSION AUGUST 1985                 *           *  DAVIS, CALIFORNIA 95616          *
 *  RUN DATE  06-23-89   TIME  13:24:19             *         *   (916) 440-2105 (FTS) 440-2105     *
 ************************************************************  ****************************************

                                X     X  XXXXXXX   XXXXX            XXXXX
                                X     X  X        X     X          X     X
                                X     X  X        X                      X
                                XXXXXXX  XXXX     X         XXXXX   XXXXX
                                X     X  X        X                X
                                X     X  X        X     X          X
                                X     X  XXXXXXX  XXXXX            XXXXXXX
1
  06-23-89     13:24:19                                                          PAGE    1

                                                                THIS RUN EXECUTED 06-23-89

 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
   IBM-PC-XT VERSION AUGUST 1985
 ****************************************************

C
T1      VILLAGE GREEN OF CANTON EAST, CANTON TWP, MI. #89139
T2      100 YEAR FLOOD PROFILE FELLOWS DRAIN USING Q = 1270 cfs PER M.D.N.R
T3      FELLOWS DRAIN EXISTING

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.   .000000       .00        .0   1270.    670.940      .000

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

NC      .060      .080      .035      .100      .300      .000      .000      .000      .000      .000
                STA 140+50 BASED ON M.D.N.R. FIELD BOOK
X1   7866.000    18.000   296.000   304.000      .000      .000      .000      .000     -.300      .000
GR    670.300      .000   668.300   175.000   665.800   181.000   665.300   213.000   669.000   240.000
GR    669.100   259.000   661.400   287.000   661.200   292.000   660.400   296.000   659.900   300.000
GR    660.400   304.000   661.300   307.000   661.800   311.000   665.400   317.000   666.500   320.000
GR    669.600   333.000   669.100   450.000   670.500   658.000      .000      .000      .000      .000

NC      .060      .080      .035      .100      .300      .000      .000      .000      .000      .000
```

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X1   8006.000    15.000    95.000   165.000   140.000   140.000   140.000      .000      .000      .000
GR    670.000      .000   669.000    37.000   668.800    58.000   669.000    70.000   669.200    95.000
GR    665.000   106.000   663.600   110.000   661.300   128.000   659.350   132.000   661.800   138.000
GR    665.000   150.000   670.000   165.000   671.000   170.000   671.500   196.000   672.000   206.000

NC       .060      .080      .035      .100      .300      .000      .000      .000      .000      .000
                SEC 12+00 FROM CANTERBURY HEWS SUBDIVISION - IMPROVED CHANNEL
X1   8066.000     9.000   100.000   181.000    60.000    60.000    60.000      .000      .000      .000
GR    670.000      .000   668.500     1.000   668.200   100.000   660.600   130.000   660.600   145.000
GR    670.000   181.000   671.000   196.000   672.000   241.000   673.000   341.000      .000      .000

                SEC 1+00 FROM CANT. HEWS SUB.-IMPROVED CHANNEL 200' D/S OF HAG RD
X1   9066.000     9.000   135.000   214.000  1100.000   900.000  1000.000      .000      .000      .000
X3       .000      .000      .000   115.000      .000   234.000      .000      .000      .000      .000
GR    672.000      .000   671.000   100.000   669.800   135.000   661.700   167.000   661.700   182.000
GR    670.000   214.000   671.000   224.000   672.000   324.000   673.000   404.000      .000      .000

NC       .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
1
 06-23-89     13:24:19                                                                        PAGE    2


                DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE
X1   9262.000     8.000   390.250   409.750   196.000   196.000   196.000      .000      .000      .000
X3     10.000      .000      .000   376.000      .000   424.000      .000   671.700   671.700      .000
GR    674.000      .000   672.900   300.000   669.500   353.000   662.000   390.250   661.500   400.000
GR    662.000   409.750   669.200   425.000   672.900   500.000      .000      .000      .000      .000

SB       .000     1.500     3.000      .000    20.140      .000   179.270      .000   661.700   661.500
ET       .000      .000      .000      .000      .000     9.100      .000      .000   376.000   424.000
                UPSTREAM FACE OF HAGGERTY RD. BRIDGE
X1   9315.000     9.000   390.250   409.750    55.000    55.000    55.000      .000      .000      .000
X2       .000      .000     1.000   670.600   672.900      .000      .000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   672.900   672.900      .000
BT     7.000      .000   674.200      .000   390.250   672.900   662.200   390.260   672.900   670.600
BT   400.000   672.900   670.600   409.750   672.900   670.600   409.760   672.900   662.200   500.000
BT   672.900      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR    674.000      .000   672.900   300.000   672.900   356.000   662.200   390.250   662.200   390.260
GR    661.700   400.000   662.200   409.750   662.200   409.760   672.900   500.000      .000      .000
                                                676.6     449
NC       .060      .060      .030      .000      .000      .000      .000      .000      .000      .000
                100' UPSTREAM OF HAGGERTY RD.
X1   9415.000    15.000   265.000   335.000   100.000   100.000   100.000      .000      .000      .000
X3       .000      .000      .000   121.000      .000   341.000      .000      .000      .000      .000
GR    675.000      .000   673.500     1.000   672.000    10.000   672.000   100.000   670.000   190.000
GR    667.500   200.000   666.000   265.000   662.200   285.000   661.900   300.000   662.500   315.000
GR    666.000   335.000   667.100   348.000   671.000   365.000   673.000   500.000   675.000   500.000
EJ       .000      .000      .000      .000      .000      .000      .000      .000      .000      .000
1
 06-23-89     13:24:19                                                                        PAGE    3


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


*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=    .100 CEHV=    .300
*SECNO 7866.000
3280 CROSS SECTION   7866.00 EXTENDED       .94 FEET
```

STA 140+50 BASED ON H.D.N.R. FIELD BOOK

7866.00	11.34	670.94	665.69	670.94	670.96	.02	.00	.00	660.10
1270.	747.	226.	297.	950.	89.	682.	0.	0.	660.10
.00	.78	2.55	1.97	.44	.060	.035	.080	.000	659.60	.00
.000147	0.	0.	0.	0	10	0	.00	650.00	650.00

0

CCHV= .100 CEHV= .300

*SECNO 8006.000

3280 CROSS SECTION 8006.00 EXTENDED .92 FEET

8006.00	11.57	670.92	665.39	.00	671.01	.09	.03	.02	669.20
1270.	182.	1168.	0.	165.	467.	2.	4.	1.	670.00
.02	.62	2.50	.19	.060	.035	.080	.000	659.35	.00
.000293	140.	140.	140.	2	11	0	.00	169.61	169.61

0

CCHV= .100 CEHV= .300

*SECNO 8066.000

3280 CROSS SECTION 8066.00 EXTENDED .97 FEET

SEC 12+00 FROM CANTERBURY HEWS SUBDIVISION - IMPROVED CHANNEL

8066.00	10.37	670.97	664.83	.00	671.03	.05	.01	.00	660.20
1270.	162.	1107.	1.	262.	557.	7.	5.	2.	670.00
.03	.62	1.99	.15	.060	.035	.080	.000	660.60	.00
.000173	60.	60.	60.	2	22	0	.00	195.62	195.62

0

*SECNO 9066.000

3470 ENCROACHMENT STATIONS= 115.0 234.0 TYPE= 1 TARGET= 119.000

SEC 1+00 FROM CANT. HEWS SUB.-IMPROVED CHANNEL 200' D/S OF HAG RD

9066.00	9.48	671.18	665.93	.00	671.28	.10	.24	.01	669.80
1270.	9.	1259.	2.	21.	486.	8.	21.	5.	670.00
.13	.46	2.59	.24	.060	.035	.080	.000	661.70	115.00
.000341	1100.	1000.	900.	2	18	0	.00	119.00	234.00

0

1

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

CCHV= .300 CEHV= .500

*SECNO 9262.000

3381 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 376.0 424.0 TYPE= 1 TARGET= 48.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 671.70 ELREA= 671.70

DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE

9262.00	9.46	670.96	666.83	.00	671.74	.78	.12	.34	662.00
1270.	0.	1270.	0.	0.	180.	0.	22.	6.	662.00
.14	.00	7.07	.00	.060	.035	.080	.000	661.50	390.25
.001438	196.	196.	196.	2	11	0	.00	19.50	409.75

0

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BUC	BUP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	3.00	.00	20.14	.00	179.27	.00	661.70	661.50

differences w/ FIS data ?

added section seems to balance w/ FIS

close to FIS data w/in 100 #'s

*SECNO 9315.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
672.13	671.94	.00	0.	1270.	179.	179.	670.60	672.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 672.90 ELREA= 672.90

UPSTREAM FACE OF HAGGERTY RD. BRIDGE

9315.00	9.70	671.40	.00	.00	672.13	.74	.39	.00	662.20
1270.	0.	1270.	0.	0.	184.	0.	22.	6.	662.20
.14	.00	6.89	.00	.000	.835	.000	.000	661.70	390.25
.001319	55.	55.	55.	2	0	0	.00	19.51	409.75

0
*SECNO 9415.000
1

06-23-89 13:24:19 PAGE 5

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	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 121.0 341.0 TYPE= 1 TARGET= 220.000
100' UPSTREAM OF HAGGERTY RD.

9415.00	10.42	672.32	665.43	.00	672.36	.03	.02	.21	666.80
1270.	241.	1016.	13.	480.	616.	33.	24.	6.	666.80
.16	.50	1.65	.39	.060	.030	.060	.000	661.90	121.00
.000062	100.	100.	100.	2	22	0	.00	220.00	341.00

0
1
CROSS SECTION 7866.00
STREAM FELLOWS DRAIN EXISTING
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 658. 660. 662. 664. 666. 668. 670. 672. 674. 676. 678.

STA-FEET

```
2   0. .    .    .    .    .    .    X    W    .    .    .    .    .
    5. .    .    .    .    .    .    X    W    .    .    .    .    .
   10. .    .    .    .    .    .    X.   W    .    .    .    .    .
   15. .    .    .    .    .    .    X.   W    .    .    .    .    .
   20. .    .    .    .    .    .    X.   W    .    .    .    .    .
   25. .    .    .    .    .    .    X.   W    .    .    .    .    .
   30. .    .    .    .    .    .   X .   W    .    .    .    .    .
   35. .    .    .    .    .    .   X .   W    .    .    .    .    .
   40. .    .    .    .    .    .   X .   W    .    .    .    .    .
   45. .    .    .    .    .    .  X  .   W    .    .    .    .    .
   50. .    .    .    .    .    .  X  .   W    .    .    .    .    .
   55. .    .    .    .    .    .  X  .   W    .    .    .    .    .
   60. .    .    .    .    .    .  X  .   W    .    .    .    .    .
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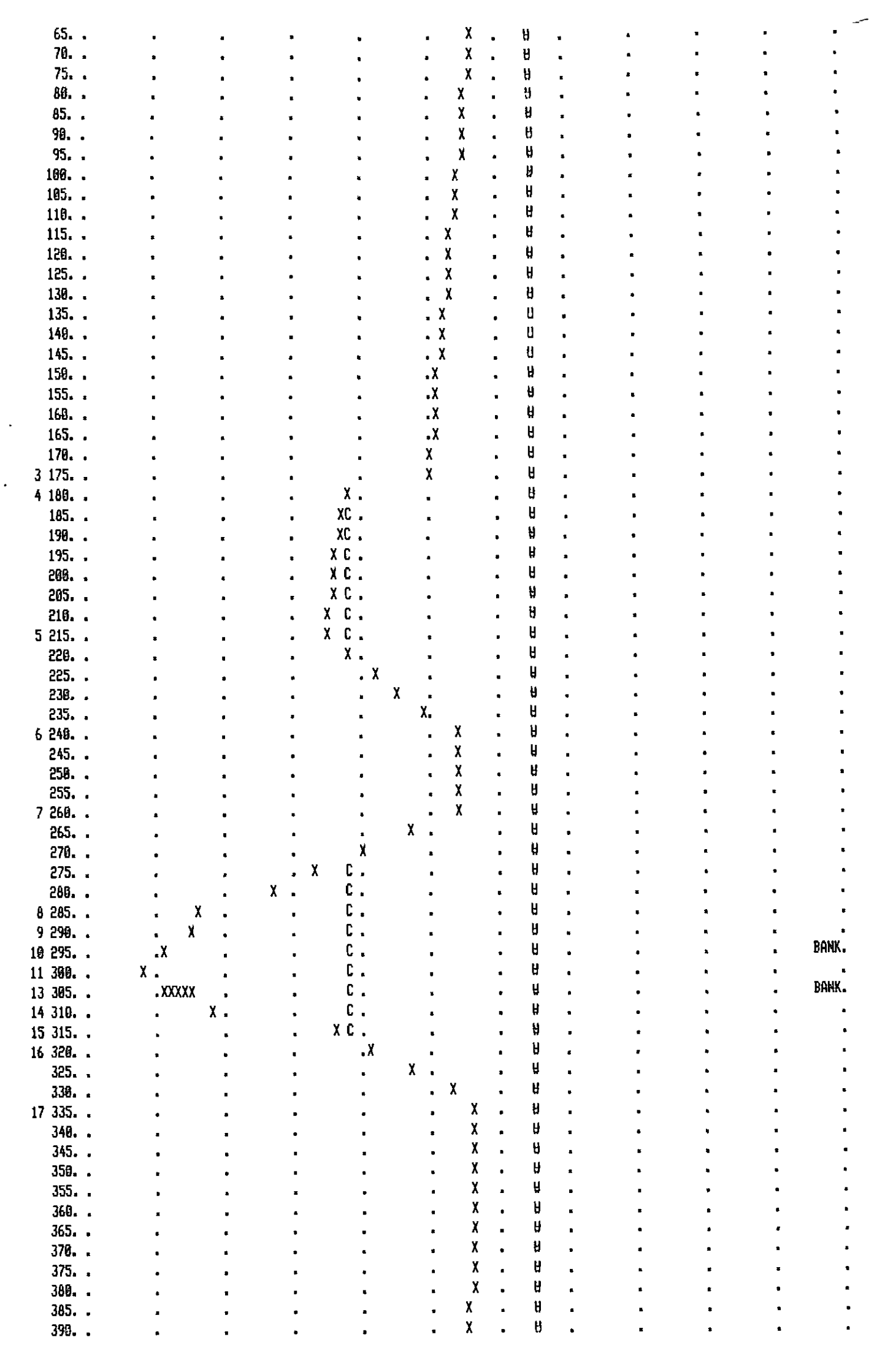
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200.
205.
210.
5 215.
220.
225.
230.
235.
6 240.
245.
250.
255.
7 260.
265.
270.
275.
280.
8 285.
9 290.
10 295.
BANK.
11 300.
13 305.
BANK.
14 310.
15 315.
16 320.
325.
330.
17 335.
340.
345.
350.
355.
360.
365.
370.
375.
380.
385.
390.

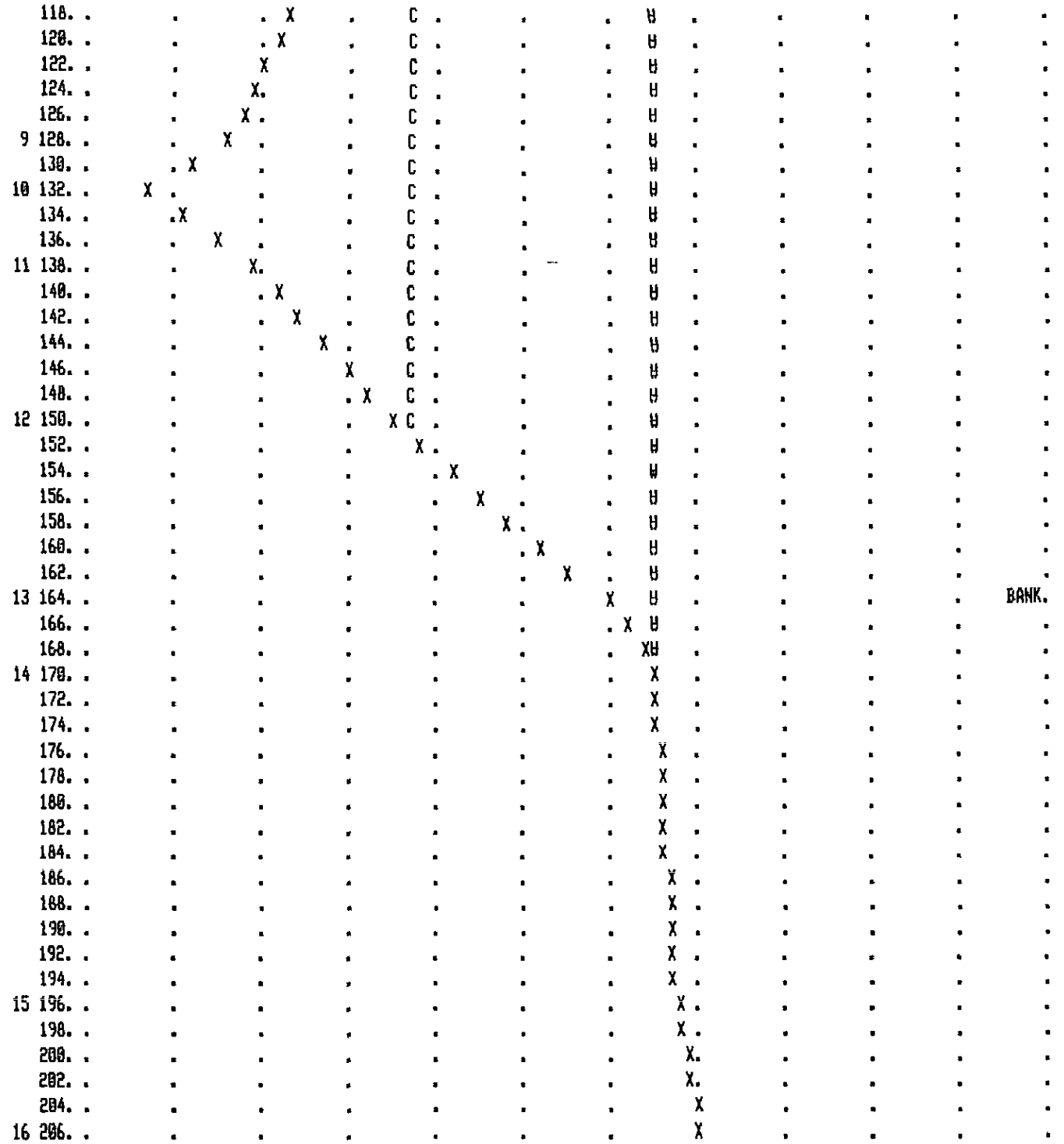
```
   395. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   400. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   405. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   410. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   415. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   420. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   425. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   430. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   435. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   440. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   445. .        .        .        .        .        .  X     .   W    .        .        .        .        .
18 450. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   455. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   460. .        .        .        .        .        .  X     .   W    .        .        .        .        .
   465. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   470. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   475. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   480. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   485. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   490. .        .        .        .        .        .   X    .   W    .        .        .        .        .
   495. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   500. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   505. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   510. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   515. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   520. .        .        .        .        .        .    X   .   W    .        .        .        .        .
   525. .        .        .        .        .        .     X  .   W    .        .        .        .        .
   530. .        .        .        .        .        .     X  .   W    .        .        .        .        .
   535. .        .        .        .        .        .     X  .   W    .        .        .        .        .
   540. .        .        .        .        .        .     X  .   W    .        .        .        .        .
   545. .        .        .        .        .        .     X  .   W    .        .        .        .        .
   550. .        .        .        .        .        .      X .   W    .        .        .        .        .
   555. .        .        .        .        .        .      X .   W    .        .        .        .        .
   560. .        .        .        .        .        .      X .   W    .        .        .        .        .
   565. .        .        .        .        .        .      X .   W    .        .        .        .        .
   570. .        .        .        .        .        .      X .   W    .        .        .        .        .
   575. .        .        .        .        .        .      X .   W    .        .        .        .        .
   580. .        .        .        .        .        .       X.   W    .        .        .        .        .
   585. .        .        .        .        .        .       X.   W    .        .        .        .        .
   590. .        .        .        .        .        .       X.   W    .        .        .        .        .
   595. .        .        .        .        .        .       X.   W    .        .        .        .        .
   600. .        .        .        .        .        .       X.   W    .        .        .        .        .
   605. .        .        .        .        .        .       X.   W    .        .        .        .        .
   610. .        .        .        .        .        .        X   W    .        .        .        .        .
   615. .        .        .        .        .        .        X   W    .        .        .        .        .
   620. .        .        .        .        .        .        X   W    .        .        .        .        .
   625. .        .        .        .        .        .        X   W    .        .        .        .        .
   630. .        .        .        .        .        .        X   W    .        .        .        .        .
   635. .        .        .        .        .        .        X   W    .        .        .        .        .
   640. .        .        .        .        .        .        .X  W    .        .        .        .        .
   645. .        .        .        .        .        .        .X  W    .        .        .        .        .
19 650. .        .        .        .        .        .        .X  W    .        .        .        .        .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
     670.00        .00     668.00     175.00     665.50     181.00     665.00     213.00     668.70     240.00
     668.80     259.00     661.10     287.00     660.90     292.00     660.10     296.00     659.60     300.00
     660.10     304.00     661.00     307.00     661.50     311.00     665.10     317.00     666.20     320.00
     669.30     333.00     668.80     450.00     670.20     650.00
1
CROSS SECTION   8006.00
STREAM  FELLOWS DRAIN EXISTING
DISCHARGE=     1270.
```

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV	STA-FEET	658.	660.	662.	664.	666.	668.	670.	672.	674.	676.	678.	
2	0.	.	.	.	.	.	.	X	W	.	.	.	.
	2.	.	.	.	.	.	.	X	W	.	.	.	.
	4.	.	.	.	.	.	.	X.	W	.	.	.	.
	6.	.	.	.	.	.	.	X.	W	.	.	.	.
	8.	.	.	.	.	.	.	X.	W	.	.	.	.
	10.	.	.	.	.	.	.	X.	W	.	.	.	.
	12.	.	.	.	.	.	.	X .	W	.	.	.	.
	14.	.	.	.	.	.	.	X .	W	.	.	.	.
	16.	.	.	.	.	.	.	X .	W	.	.	.	.
	18.	.	.	.	.	.	.	X .	W	.	.	.	.
	20.	.	.	.	.	.	.	X .	W	.	.	.	.
	22.	.	.	.	.	.	.	X .	W	.	.	.	.
	24.	.	.	.	.	.	.	X .	W	.	.	.	.
	26.	.	.	.	.	.	.	X .	W	.	.	.	.
	28.	.	.	.	.	.	.	X .	W	.	.	.	.
	30.	.	.	.	.	.	.	X .	W	.	.	.	.
	32.	.	.	.	.	.	.	X .	W	.	.	.	.
	34.	.	.	.	.	.	.	X .	W	.	.	.	.
3	36.	.	.	.	.	.	.	X .	W	.	.	.	.
	38.	.	.	.	.	.	.	X .	W	.	.	.	.
	40.	.	.	.	.	.	.	X .	W	.	.	.	.
	42.	.	.	.	.	.	.	X .	W	.	.	.	.
	44.	.	.	.	.	.	.	X .	W	.	.	.	.
	46.	.	.	.	.	.	.	X .	W	.	.	.	.
	48.	.	.	.	.	.	.	X .	W	.	.	.	.
	50.	.	.	.	.	.	.	X .	W	.	.	.	.
	52.	.	.	.	.	.	.	X .	W	.	.	.	.
	54.	.	.	.	.	.	.	X .	W	.	.	.	.
	56.	.	.	.	.	.	.	X .	W	.	.	.	.
4	58.	.	.	.	.	.	.	X .	W	.	.	.	.
	60.	.	.	.	.	.	.	X .	W	.	.	.	.
	62.	.	.	.	.	.	.	X .	W	.	.	.	.
	64.	.	.	.	.	.	.	X .	W	.	.	.	.
	66.	.	.	.	.	.	.	X .	W	.	.	.	.
	68.	.	.	.	.	.	.	X .	W	.	.	.	.
5	70.	.	.	.	.	.	.	X .	W	.	.	.	.
	72.	.	.	.	.	.	.	X .	W	.	.	.	.
	74.	.	.	.	.	.	.	X .	W	.	.	.	.
	76.	.	.	.	.	.	.	X .	W	.	.	.	.
	78.	.	.	.	.	.	.	X .	W	.	.	.	.
	80.	.	.	.	.	.	.	X .	W	.	.	.	.
	82.	.	.	.	.	.	.	X .	W	.	.	.	.
	84.	.	.	.	.	.	.	X .	W	.	.	.	.
	86.	.	.	.	.	.	.	X .	W	.	.	.	.
	88.	.	.	.	.	.	.	X .	W	.	.	.	.
	90.	.	.	.	.	.	.	X .	W	.	.	.	.
	92.	.	.	.	.	.	.	X .	W	.	.	.	.
6	94.	.	.	.	.	.	.	X .	W	.	.	.	BANK.
	96.	.	.	.	.	.	. X	.	W	.	.	.	.
	98.	.	.	.	.	.	X .	.	W	.	.	.	.
	100.	.	.	.	.	.	X .	.	W	.	.	.	.
	102.	.	.	.	.	.X	.	.	W	.	.	.	.
	104.	.	.	.	.	X .	.	.	W	.	.	.	.
7	106.	.	.	.	.	X C .	.	.	W	.	.	.	.
	108.	.	.	.	.X	C .	.	.	W	.	.	.	.
8	110.	.	.	.	X .	C .	.	.	W	.	.	.	.
	112.	.	.	.	X .	C .	.	.	W	.	.	.	.
	114.	.	.	.	X .	C .	.	.	W	.	.	.	.
	116.	.	.	.	X .	C .	.	.	W	.	.	.	.



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EL(I),STA(I)

670.00	.00	669.00	37.00	668.00	58.00	669.00	70.00	669.20	95.00
665.00	106.00	663.60	110.00	661.30	128.00	659.35	132.00	661.80	138.00
665.00	150.00	670.00	165.00	671.00	170.00	671.50	196.00	672.00	206.00

1

CROSS SECTION 8066.00

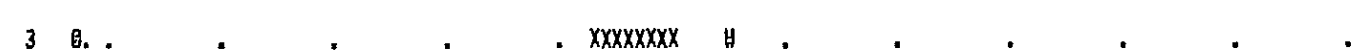
STREAM FELLOWS DRAIN EXISTING

DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 660. 662. 664. 666. 668. 670. 672. 674. 676. 678. 680.

STA-FEET



NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

670.00	.00	668.50	1.00	668.20	100.00	668.60	130.00	668.60	145.00
670.00	181.00	671.00	196.00	672.00	241.00	673.00	341.00		

1

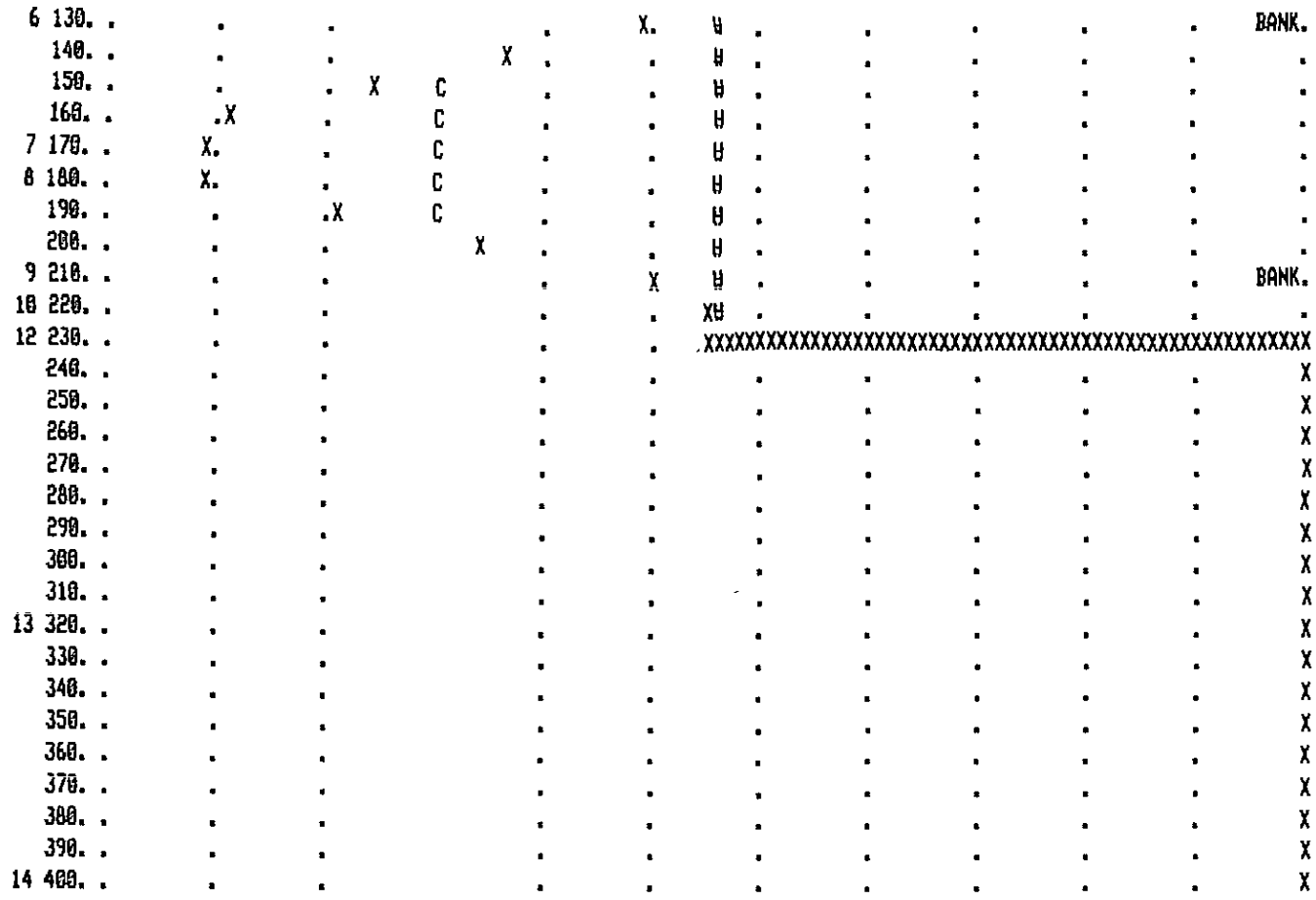
CROSS SECTION 9866.00
STREAM FELLOWS DRAIN EXISTING
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 660. 662. 664. 666. 668. 670. 672. 674. 676. 678. 680.

STA-FEET

2 0. X
10. X
20. X
30. X
40. X
50. X
60. X
70. X
80. X
90. X
3 100. X
5 110. XXXX



HRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

100000.00	.00	100000.00	100.00	100000.00	115.00	670.49	115.00	669.80	135.00
661.70	167.00	661.70	182.00	670.00	214.00	671.00	224.00	671.10	234.00
100000.00	234.00	100000.00	324.00	100000.00	404.00				

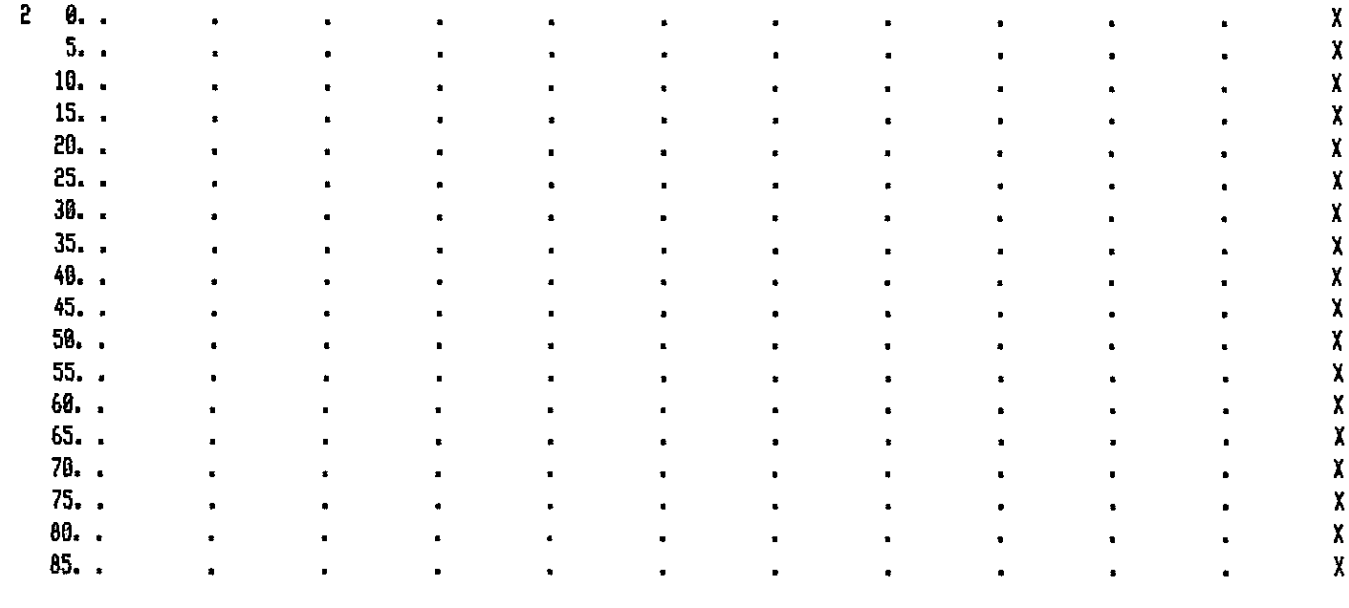
1

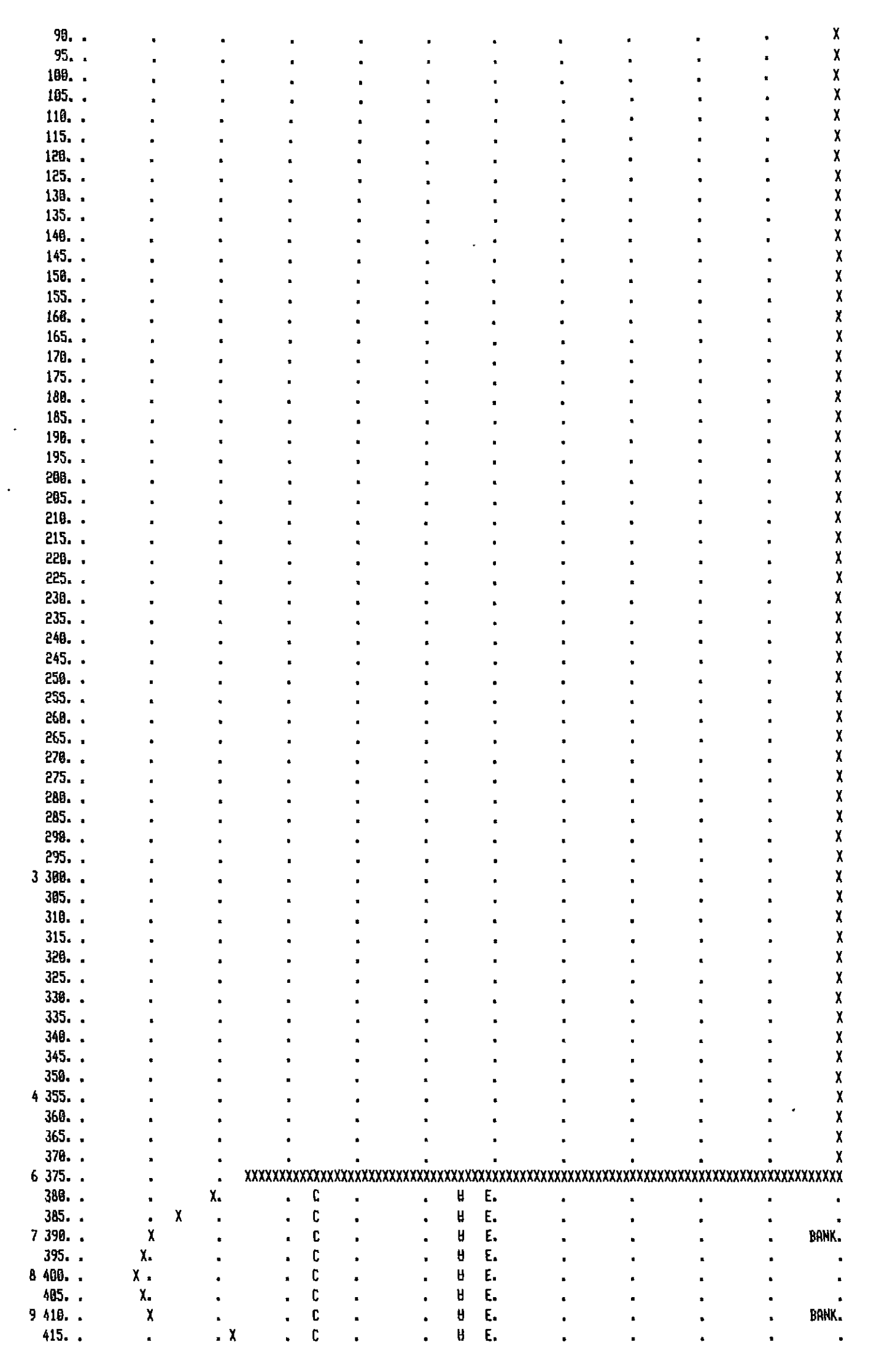
CROSS SECTION 9262.00
STREAM FELLOWS DRAIN EXISTING
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 660. 662. 664. 666. 668. 670. 672. 674. 676. 678. 680.

STA-FEET




BANK.
BANK.

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   420. .       .       .       .  X    .       .  W  E.      .       .       .       .       .
12 425. .       .       .       .       .  XXXX
```

```
   145. .        .        .        .        .        .        .        X T.        .        .        .        .
   150. .        .        .        .        .        .        .        X T.        .        .        .        .
   155. .        .        .        .        .        .        .        XT .        .        .        .        .
   160. .        .        .        .        .        .        .        XT .        .        .        .        .
   165. .        .        .        .        .        .        .        XT .        .        .        .        .
   170. .        .        .        .        .        .        .        XT .        .        .        .        .
   175. .        .        .        .        .        .        .        XT .        .        .        .        .
   180. .        .        .        .        .        .        .        XT .        .        .        .        .
   185. .        .        .        .        .        .        .        XT .        .        .        .        .
   190. .        .        .        .        .        .        .        XT .        .        .        .        .
   195. .        .        .        .        .        .        .        X T .        .        .        .        .
   200. .        .        .        .        .        .        .        X T .        .        .        .        .
   205. .        .        .        .        .        .        .        X T .        .        .        .        .
   210. .        .        .        .        .        .        .        X T .        .        .        .        .
   215. .        .        .        .        .        .        .        XT .        .        .        .        .
   220. .        .        .        .        .        .        .        XT .        .        .        .        .
   225. .        .        .        .        .        .        .        XT .        .        .        .        .
   230. .        .        .        .        .        .        .        XT .        .        .        .        .
   235. .        .        .        .        .        .        .        XT .        .        .        .        .
   240. .        .        .        .        .        .        .        XT .        .        .        .        .
   245. .        .        .        .        .        .        .        XT .        .        .        .        .
   250. .        .        .        .        .        .        .        X T .        .        .        .        .
   255. .        .        .        .        .        .        .        X T .        .        .        .        .
   260. .        .        .        .        .        .        .        X T .        .        .        .        .
   265. .        .        .        .        .        .        .        X T .        .        .        .        .
   270. .        .        .        .        .        .        .        X T .        .        .        .        .
   275. .        .        .        .        .        .        .        XT .        .        .        .        .
   280. .        .        .        .        .        .        .        XT .        .        .        .        .
   285. .        .        .        .        .        .        .        XT .        .        .        .        .
   290. .        .        .        .        .        .        .        XT .        .        .        .        .
   295. .        .        .        .        .        .        .        XT .        .        .        .        .
 3 300. .        .        .        .        .        .        .        X .        .        .        .        .
   305. .        .        .        .        .        .        .        XT .        .        .        .        .
   310. .        .        .        .        .        .        .        XT .        .        .        .        .
   315. .        .        .        .        .        .        .        XT .        .        .        .        .
   320. .        .        .        .        .        .        .        XT .        .        .        .        .
   325. .        .        .        .        .        .        .        XT .        .        .        .        .
   330. .        .        .        .        .        .        .        XT .        .        .        .        .
   335. .        .        .        .        .        .        .        T .        .        .        .        .
   340. .        .        .        .        .        .        .        T .        .        .        .        .
   345. .        .        .        .        .        .        .        T .        .        .        .        .
   350. .        .        .        .        .        .        .        T .        .        .        .        .
 4 355. .        .        .        .        .        .        .        X .        .        .        .        .
   360. .        .        .        .        .        .      X  .E   T .        .        .        .        .
   365. .        .        .        .        .       X.      H  .E   T .        .        .        .        .
   370. .        .        .        .       .X        .      H  .E   T .        .        .        .        .
   375. .        .        .        .  X      .        .      H  .E   T .        .        .        .        .
   380. .        .        .    X    .        .        .      H  .E   T .        .        .        .        .
   385. .        .      X .        .        .        .      H  .E   T .        .        .        .        .
 6 390. .        .B       .        .        .        .      H  .E   T .        .        .        .      BANK.
 7 395. .C       .        .        .        .        .  B   H  .E   T .        .        .        .        .
 8 400. .C       .        .        .        .        .  B   H  .E   T .        .        .        .        .
   405. .        .X       .        .        .        .  B   H  .E   T .        .        .        .        .
 9 410. .        .X       .        .        .        .  B   H  .E   T .        .        .        .        .
10 415. .C       .        .        .        .        .      H  .E   T .        .        .        .        .

NRD=       9 ELLC=      670.60 ELTRD=      672.90

      .00       .00    674.20    390.25    662.20    672.90    390.26    670.60    672.90
   400.00    670.60    672.90    409.75    670.60    672.90    409.76    662.20    672.90
   500.00       .00    672.90
  EL(I),STA(I)
    674.00        .00      672.90      300.00      672.90      356.00      662.20      390.25      662.20      390.26
    661.70     400.00      662.20      409.75      662.20      409.76      672.90      500.00
1
CROSS SECTION   9415.03
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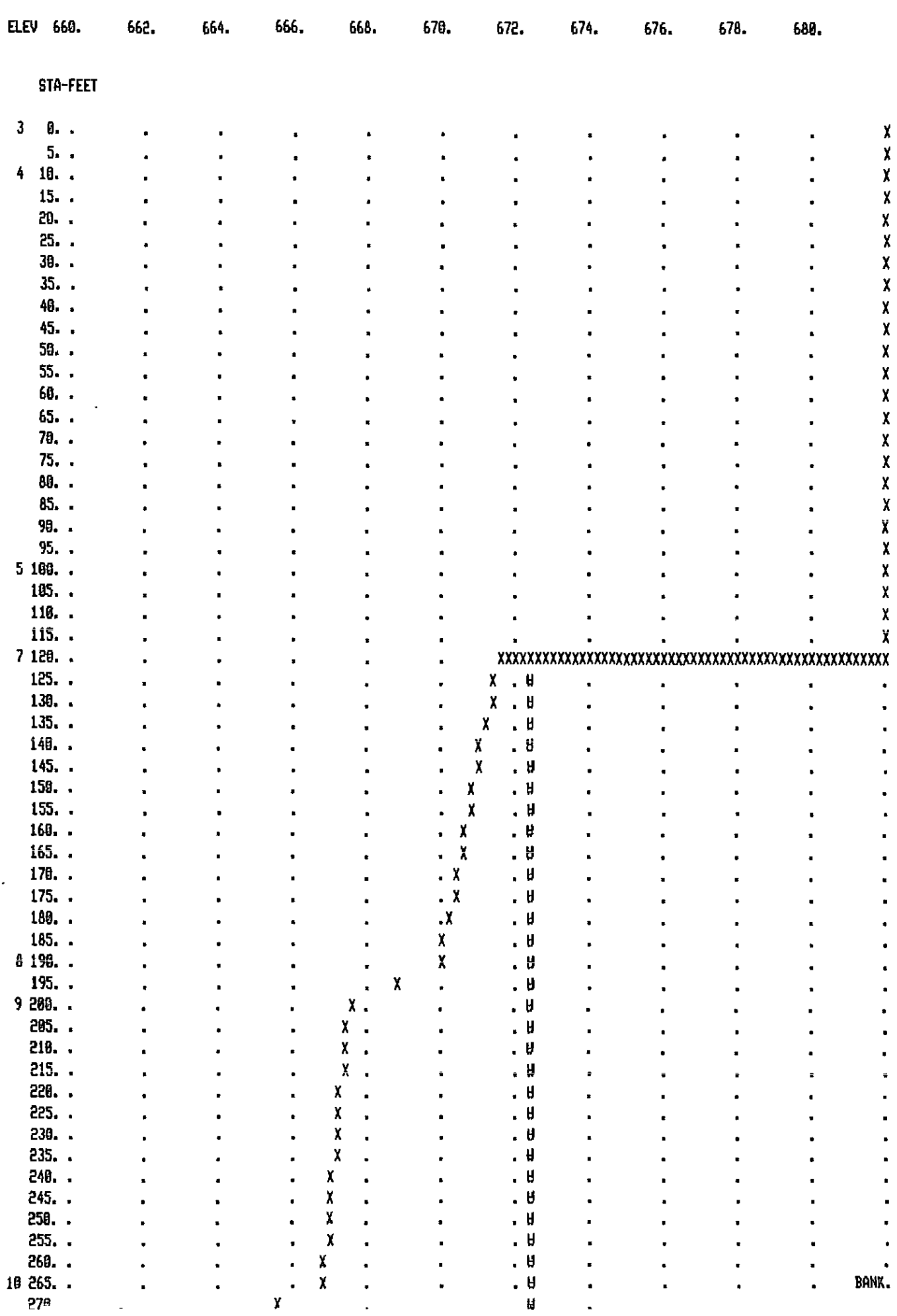
SI . . PELLI S . IN EXISTING
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL



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   275. .       .       . X  C .       .       .       . H     .       .       .       .       .
   280. .       .     X .    C .       .       .       . H     .       .       .       .       .
11 285. .       .X      .    C .       .       .       . H     .       .       .       .       .
   290. .       .X      .    C .       .       .       . H     .       .       .       .       .
   295. .       X       .    C .       .       .       . H     .       .       .       .       .
12 300. .       X       .    C .       .       .       . H     .       .       .       .       .
   305. .       .X      .    C .       .       .       . H     .       .       .       .       .
   310. .       .X      .    C .       .       .       . H     .       .       .       .       .
13 315. .       .  X    .    C .       .       .       . H     .       .       .       .       .
   320. .       .     X .    C .       .       .       . H     .       .       .       .       .
   325. .       .       . X  C .       .       .       . H     .       .       .       .       .
   330. .       .       .    X.       .       .       . H     .       .       .       .       .
14 335. .       .       .      .  X    .       .       . H     .       .       .       .    BANK.
16 340. .       .       .      .  XXXX
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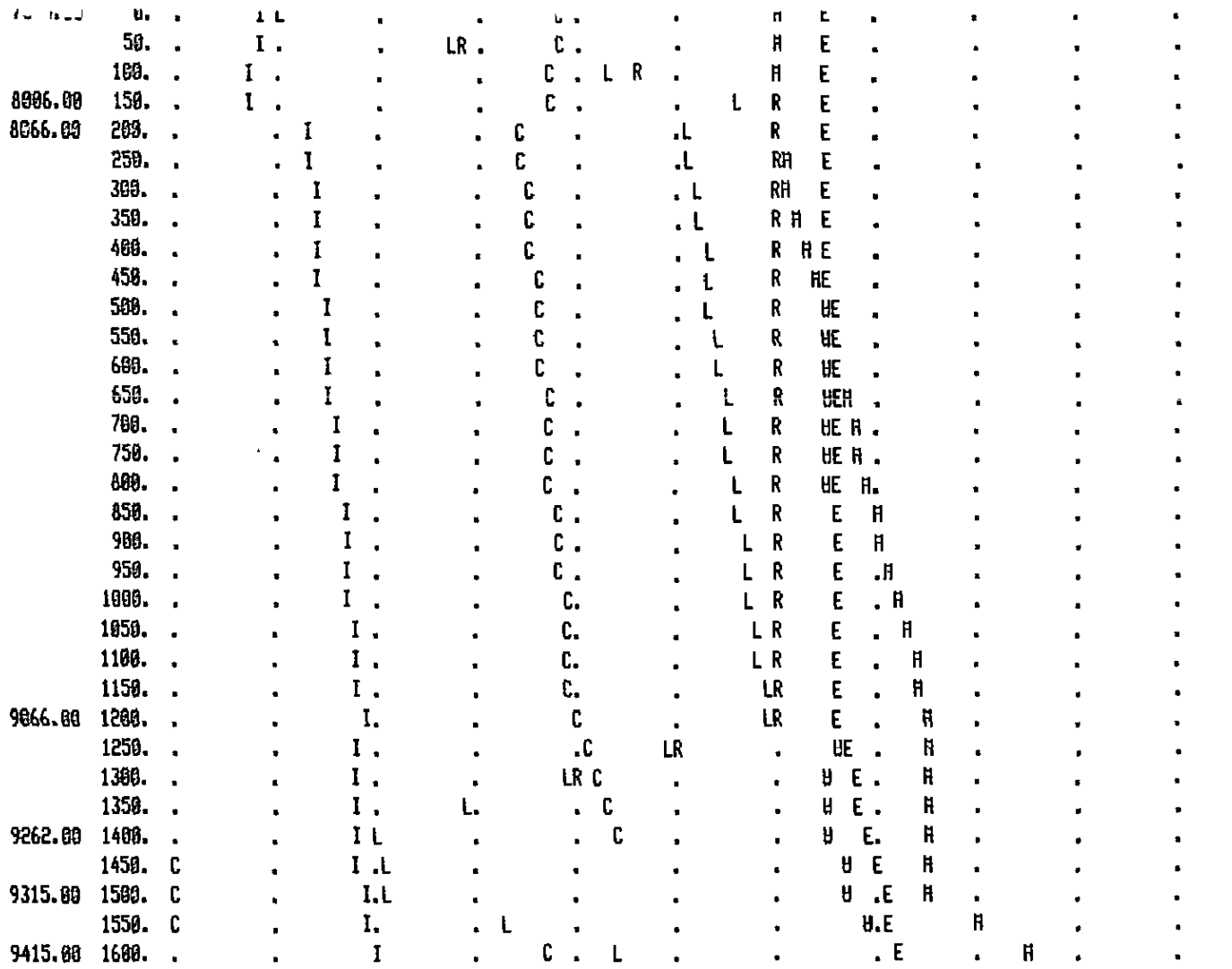

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  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION AUGUST 1985
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PROPOSED CHANNEL IMPROVEMENTS PER ZEIMET-NOENIK

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 *  VERSION OF NOVEMBER 1976                        *
 *  UPDATED MAY 1984                                *
 *  IBM-PC-XT VERSION AUGUST 1985                   *
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 *  U.S. ARMY CORPS OF ENGINEERS      *
 *  THE HYDROLOGIC ENGINEERING CENTER *
 *  609 SECOND STREET, SUITE D        *
 *  DAVIS, CALIFORNIA 95616           *
  *  (916) 440-2105 (FTS) 448-2105     *
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1

06-23-89 16:24:45 PAGE 1

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION AUGUST 1985
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C
T1      VILLAGE GREEN OF CANTON EAST, CANTON TWP, MI. #89139
T2      100 YEAR FLOOD PROFILE FELLOWS DRAIN USING Q = 1270 cfs PER M.D.N.R
T3      FELLOWS DRAIN PROPOSED

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL      FQ

       0.       2.       0.       0.   .000000      .00       .0    1270.   670.940     .000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IBW      CHNIM     ITRACE

      .000     1.000     .000     .000     .000     .000   -1.000     .000     .000     .000


NC      .060      .080      .035      .100      .300      .000      .000      .000      .000      .000
              STA 140+50 BASED ON M.D.N.R. FIELD BOOK
X1   7866.000    18.000   296.000   304.000      .000      .000      .000      .000     -.300      .000
GR    670.300      .000   668.300   175.000   665.800   181.000   665.300   213.000   669.000   240.000
GR    669.100   259.000   661.400   287.000   661.200   292.000   660.400   296.000   659.900   300.000
GR    660.400   304.000   661.300   307.000   661.800   311.000   665.400   317.000   666.500   320.000
GR    669.600   333.000   669.100   450.000   670.500   650.000      .000      .000      .000      .000
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NC	.060	.080	.035	.100	.300	.000	.000	.000	.000	.000
X1	8096.000	15.000	95.000	165.000	140.000	140.000	140.000	.000	.000	.000
GR	670.000	.000	669.000	37.000	668.800	58.000	669.000	70.000	669.200	95.000
GR	665.000	106.000	663.600	110.000	661.300	120.000	659.350	132.000	661.000	138.000
GR	665.000	150.000	670.000	165.000	671.000	170.000	671.500	196.000	672.000	206.000
NC	.040	.040	.035	.100	.300	.000	.000	.000	.000	.000
		NEW SEC. PER Z-U CHANNEL IMPROVEMENTS								
X1	8066.000	11.000	20.000	135.480	60.000	60.000	60.000	.000	.000	.000
GR	671.500	.000	671.000	20.000	664.690	45.240	664.390	55.240	660.640	70.240
GR	659.390	77.740	660.640	85.240	664.390	100.240	664.690	110.240	671.000	135.480
GR	672.000	152.000	.000	.000	.000	.000	.000	.000	.000	.000
		NEW SEC. PER Z-U CHANNEL IMPROVEMENTS								
added X1	8352.000	11.000	20.000	133.000	335.000	238.000	286.000	.000	.000	.000
GR	671.500	.000	671.000	20.000	664.990	44.000	664.690	54.000	660.940	69.000
GR	659.690	76.500	660.940	84.000	664.690	99.000	664.990	109.000	671.000	133.000
GR	672.000	162.000	.000	.000	.000	.000	.000	.000	.000	.000

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		NEW SEC. PER Z-U CHANNEL IMPROVEMENTS								
added X1	8673.000	11.000	16.000	126.520	374.000	260.000	321.000	.000	.000	.000
GR	671.500	.000	671.000	16.000	665.310	38.760	665.010	48.760	661.260	63.760
GR	660.010	71.260	661.260	78.760	665.010	93.760	665.310	103.760	671.000	126.520
GR	672.000	149.000	.000	.000	.000	.000	.000	.000	.000	.000
		NEW SEC. PER Z-U CHANNEL IMPROVEMENTS								
X1	9066.000	11.000	13.000	120.000	410.000	434.000	420.000	.000	.000	.000
X3	.000	.000	.000	3.000	.000	136.000	.000	.000	.000	.000
GR	671.500	.000	671.000	13.000	665.750	34.000	665.450	44.000	661.700	59.000
GR	660.440	66.500	661.700	74.000	665.450	89.000	665.750	99.000	671.000	120.000
GR	672.000	138.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.300	.500	.000	.000	.000	.000	.000
		DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE								
X1	9262.000	8.000	390.250	409.750	196.000	196.000	196.000	.000	.000	.000
X3	10.000	.000	.000	376.000	.000	424.000	.000	671.700	671.700	.000
GR	674.000	.000	672.900	300.000	669.500	353.000	662.000	390.250	661.500	400.000
GR	662.000	409.750	669.200	425.000	672.900	500.000	.000	.000	.000	.000
SB	.000	1.500	3.000	.000	20.140	.000	179.270	.000	661.700	661.500
ET	.000	.000	.000	.000	.000	9.100	.000	.000	376.000	424.000
		UPSTREAM FACE OF HAGGERTY RD. BRIDGE								
X1	9315.000	9.000	390.250	409.750	55.000	55.000	55.000	.000	.000	.000
X2	.000	.000	1.000	670.600	672.900	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	672.900	672.900	.000
BT	7.000	.000	674.200	.000	390.250	672.900	662.200	390.260	672.900	670.600
BT	400.000	672.900	670.600	409.750	672.900	670.600	409.760	672.900	662.200	500.000
BT	672.900	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	674.000	.000	672.900	300.000	672.900	356.000	662.200	390.250	662.200	390.260
GR	661.700	400.000	662.200	409.750	662.200	409.760	672.900	500.000	.000	.000
NC	.060	.060	.030	.000	.000	.000	.000	.000	.000	.000
		100' UPSTREAM OF HAGGERTY RD.								
X1	9415.000	15.000	265.000	335.000	100.000	100.000	100.000	.000	.000	.000
X3	.000	.000	.000	121.000	.000	341.000	.000	.000	.000	.000
GR	675.000	.000	673.500	1.000	672.000	10.000	672.000	100.000	670.000	190.000
GR	667.500	200.000	666.800	265.000	662.200	285.000	661.900	300.000	662.500	315.000
GR	666.800	335.000	667.100	348.000	671.000	365.000	673.000	500.000	675.000	500.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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


*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=    .100 CEHV=    .300
*SECNO 7866.000
3280 CROSS SECTION   7866.00 EXTENDED       .94 FEET

             STA 140+50 BASED ON H.D.N.R. FIELD BOOK
  7866.00    11.34   670.94   665.69   670.94   670.96     .02      .00      .00   660.10
   1270.      747.     226.     297.     958.      89.     682.       0.       0.   660.10
     .00      .78     2.55      .44     .060     .035     .000     .000   659.60      .00
  .000147       0.       0.       0.        0       10        0      .00   650.00   650.00
0
 CCHV=    .100 CEHV=    .300
 *SECNO 8006.000
 3280 CROSS SECTION   8006.00 EXTENDED       .92 FEET

  8006.00    11.57   670.92   665.39      .00   671.01     .09      .03      .02   669.20
   1270.      102.    1160.       0.     165.     467.       2.       4.       1.   670.00
     .02      .62     2.50      .19     .060     .035     .000     .000   659.35      .00
  .000293     140.     140.     140.        2       11        0      .00   169.61   169.61
0
 CCHV=    .100 CEHV=    .300
 *SECNO 8066.000
             NEW SEC. PER Z-W CHANNEL IMPROVEMENTS
  8066.00    11.59   670.98   664.86      .00   671.03     .05      .01      .00   671.00
   1270.       0.     1270.       0.       0.     705.       0.       5.       2.   671.00
     .03      .00     1.00      .00     .040     .035     .040     .000   659.39    20.09
  .000166      60.      60.      60.        2       15        0      .00   115.31   135.39
0
 *SECNO 8352.000
             NEW SEC. PER Z-W CHANNEL IMPROVEMENTS
  8352.00    11.34   671.03   665.16      .00   671.08     .05      .05      .00   671.00
   1270.       0.     1270.       0.       0.     677.       0.       9.       2.   671.00
     .07      .01     1.88      .01     .040     .035     .040     .000   659.69    18.60
  .000185     335.     286.     238.        1       15        0      .00   115.42   134.02
0
1
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   SECNO    DEPTH    CHSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 8673.000
             NEW SEC. PER Z-W CHANNEL IMPROVEMENTS
  8673.00    11.08   671.09   665.43      .00   671.14     .06      .06      .00   671.00
   1270.       0.     1270.       0.       0.     647.       0.      14.       3.   671.00
     .11      .06     1.96      .01     .040     .035     .040     .000   660.01    13.39
  .000209     374.     321.     260.        0       14        0      .00   114.96   128.35
0
 *SECNO 9066.000

3470 ENCROACHMENT STATIONS=       3.0     136.0  TYPE=     1  TARGET=     133.000
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  9866.00    10.73   671.17   665.94      .00   671.24      .07      .10      .00   671.00
    1270.       0.     1270.       0.       0.     608.       0.      20.       4.   671.00
      .17      .11     2.09      .11     .040     .035     .040     .000   660.44     8.63
  .000246     410.      420.     434.        0        9        0      .00   114.39   123.02
0
 CCHV=    .300 CEHV=    .500
 *SECNO 9262.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     376.0     424.0  TYPE=     1  TARGET=      48.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      671.70 ELREA=      671.70

              DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE
  9262.00     9.41   670.91   666.81      .00   671.70      .78      .10      .36   662.00
    1270.       0.     1270.       0.       0.     179.       0.      22.       5.   662.00
      .18      .00     7.11      .00     .040     .035     .040     .000   661.50   390.25
  .001463     196.      196.     196.        2        8        0      .00    19.50   409.75
0

 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BUC       BHP       BAREA     SS        ELCHU     ELCHD
       .00      1.50      3.00       .00     20.14       .00    179.27       .00    661.70    661.50

 *SECNO 9315.000
1
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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

 PRESSURE FLOW

   EGPRS      EGLHC       H3       QWEIR      QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                   AREA
     672.08    671.90       .00        0.     1270.      179.      179.      670.60    672.90


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      672.90 ELREA=      672.90

              UPSTREAM FACE OF HAGGERTY RD. BRIDGE
  9315.00     9.64   671.34      .00       .00   672.08      .75      .38      .00   662.20
    1270.       0.     1270.       0.       0.     183.       0.      22.       5.   662.20
      .18      .00     6.93      .00     .000     .035     .000     .000   661.70   390.25
  .001347      55.       55.      55.        2        0        0      .00    19.51   409.75
0
 *SECNO 9415.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     121.0     341.0  TYPE=     1  TARGET=     220.000
              100' UPSTREAM OF HAGGERTY RD.
  9415.00    10.38   672.28   665.43      .00   672.31      .04      .02      .21   666.80
    1270.     239.     1019.      13.     473.     613.      32.      24.       5.   666.80
      .20      .50     1.66      .40     .060     .030     .060     .000   661.90   121.00
```

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  .000004     100.     1...     100.        C       [ _        0       ...   [ ...   [ ...
0
1
 CROSS SECTION   7866.00
 STREAM  FELLOWS DRAIN PROPOSED
 DISCHARGE=     1270.


 PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

 ELEV  658.      660.      662.      664.      666.      668.      670.      672.      674.      676.      678.


     STA-FEET

  2   0. .        .        .        .        .        .        X   W   .        .        .        .        .
      5. .        .        .        .        .        .        X   W   .        .        .        .        .
     10. .        .        .        .        .        .       X.   W   .        .        .        .        .
     15. .        .        .        .        .        .       X.   W   .        .        .        .        .
     20. .        .        .        .        .        .       X.   W   .        .        .        .        .
     25. .        .        .        .        .        .       X.   W   .        .        .        .        .
     30. .        .        .        .        .        .      X .   W   .        .        .        .        .
     35. .        .        .        .        .        .      X .   W   .        .        .        .        .
     40. .        .        .        .        .        .      X .   W   .        .        .        .        .
     45. .        .        .        .        .        .     X  .   W   .        .        .        .        .
     50. .        .        .        .        .        .     X  .   W   .        .        .        .        .
     55. .        .        .        .        .        .     X  .   W   .        .        .        .        .
     60. .        .        .        .        .        .     X  .   W   .        .        .        .        .
     65. .        .        .        .        .        .    X   .   W   .        .        .        .        .
     70. .        .        .        .        .        .    X   .   W   .        .        .        .        .
     75. .        .        .        .        .        .    X   .   W   .        .        .        .        .
     80. .        .        .        .        .        .   X    .   W   .        .        .        .        .
     85. .        .        .        .        .        .   X    .   W   .        .        .        .        .
     90. .        .        .        .        .        .   X    .   W   .        .        .        .        .
     95. .        .        .        .        .        .   X    .   W   .        .        .        .        .
    100. .        .        .        .        .        .  X     .   W   .        .        .        .        .
    105. .        .        .        .        .        .  X     .   W   .        .        .        .        .
    110. .        .        .        .        .        .  X     .   W   .        .        .        .        .
    115. .        .        .        .        .        . X      .   W   .        .        .        .        .
    120. .        .        .        .        .        . X      .   W   .        .        .        .        .
    125. .        .        .        .        .        . X      .   W   .        .        .        .        .
    130. .        .        .        .        .        . X      .   W   .        .        .        .        .
    135. .        .        .        .        .        . X      .   W   .        .        .        .        .
    140. .        .        .        .        .        . X      .   W   .        .        .        .        .
    145. .        .        .        .        .        . X      .   W   .        .        .        .        .
    150. .        .        .        .        .        .X       .   W   .        .        .        .        .
    155. .        .        .        .        .        .X       .   W   .        .        .        .        .
    160. .        .        .        .        .        .X       .   W   .        .        .        .        .
    165. .        .        .        .        .        .X       .   W   .        .        .        .        .
    170. .        .        .        .        .        X        .   W   .        .        .        .        .
  3 175. .        .        .        .        .        X        .   W   .        .        .        .        .
  4 180. .        .        .        .      X .        .        .   W   .        .        .        .        .
    185. .        .        .        .     XC .        .        .   W   .        .        .        .        .
    190. .        .        .        .     XC .        .        .   W   .        .        .        .        .
    195. .        .        .        .    X C .        .        .   W   .        .        .        .        .
    200. .        .        .        .    X C .        .        .   W   .        .        .        .        .
    205. .        .        .        .    X C .        .        .   W   .        .        .        .        .
    210. .        .        .        .   X  C .        .        .   W   .        .        .        .        .
  5 215. .        .        .        .   X  C .        .        .   W   .        .        .        .        .
    220. .        .        .        .      X .        .        .   W   .        .        .        .        .
    225. .        .        .        .        . X      .        .   W   .        .        .        .        .
    230. .        .        .        .        .    X   .        .   W   .        .        .        .        .
    235. .        .        .        .        .       X.        .   W   .        .        .        .        .
  6 240. .        .        .        .        .        .  X     .   W   .        .        .        .        .
    245. .        .        .        .        .        .  X     .   W   .        .        .        .        .
    250. .        .        .        .        .        .  X     .   W   .        .        .        .        .
```

```
   [illegible]. .        .        .        .        .        .  X     .  W  .        .        .        .        .
 7 260. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   265. .        .        .        .        .     X  .        .  W  .        .        .        .        .
   270. .        .        .        .        X        .        .  W  .        .        .        .        .
   275. .        .        .        . X    C .        .        .  W  .        .        .        .        .
   280. .        .        .     X  .      C .        .        .  W  .        .        .        .        .
 8 285. .        .     X  .        .      C .        .        .  W  .        .        .        .        .
 9 290. .        .    X   .        .      C .        .        .  W  .        .        .        .        .
10 295. .        .X       .        .      C .        .        .  W  .        .        .        .    BANK.
11 300. .      X .        .        .      C .        .        .  W  .        .        .        .        .
13 305. .        .XXXXX   .        .      C .        .        .  W  .        .        .        .    BANK.
14 310. .        .      X .        .      C .        .        .  W  .        .        .        .        .
15 315. .        .        .        .    X C .        .        .  W  .        .        .        .        .
16 320. .        .        .        .        .X       .        .  W  .        .        .        .        .
   325. .        .        .        .        .     X  .        .  W  .        .        .        .        .
   330. .        .        .        .        .        .  X     .  W  .        .        .        .        .
17 335. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   340. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   345. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   350. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   355. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   360. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   365. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   370. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   375. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   380. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   385. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   390. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   395. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   400. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   405. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   410. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   415. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   420. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   425. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   430. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   435. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   440. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   445. .        .        .        .        .        .  X     .  W  .        .        .        .        .
18 450. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   455. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   460. .        .        .        .        .        .  X     .  W  .        .        .        .        .
   465. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   470. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   475. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   480. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   485. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   490. .        .        .        .        .        .   X    .  W  .        .        .        .        .
   495. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   500. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   505. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   510. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   515. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   520. .        .        .        .        .        .    X   .  W  .        .        .        .        .
   525. .        .        .        .        .        .     X  .  W  .        .        .        .        .
   530. .        .        .        .        .        .     X  .  W  .        .        .        .        .
   535. .        .        .        .        .        .     X  .  W  .        .        .        .        .
   540. .        .        .        .        .        .     X  .  W  .        .        .        .        .
   545. .        .        .        .        .        .     X  .  W  .        .        .        .        .
   550. .        .        .        .        .        .      X .  W  .        .        .        .        .
   555. .        .        .        .        .        .      X .  W  .        .        .        .        .
   560. .        .        .        .        .        .      X .  W  .        .        .        .        .
   565. .        .        .        .        .        .      X .  W  .        .        .        .        .
   570. .        .        .        .        .        .      X .  W  .        .        .        .        .
   575. .        .        .        .        .        .      X .  W  .        .        .        .        .
   580. .        .        .        .        .        .       X.  W  .        .        .        .        .
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  . . .        .        .        .        .        .        .        .        .        .        .        .        .
  590. .        .        .        .        .        .        X.       W        .        .        .        .        .
  595. .        .        .        .        .        .        X.       W        .        .        .        .        .
  600. .        .        .        .        .        .        X.       W        .        .        .        .        .
  605. .        .        .        .        .        .        X.       W        .        .        .        .        .
  610. .        .        .        .        .        .         X       W        .        .        .        .        .
  615. .        .        .        .        .        .         X       W        .        .        .        .        .
  620. .        .        .        .        .        .         X       W        .        .        .        .        .
  625. .        .        .        .        .        .         X       W        .        .        .        .        .
  630. .        .        .        .        .        .         X       W        .        .        .        .        .
  635. .        .        .        .        .        .         X       W        .        .        .        .        .
  640. .        .        .        .        .        .        .X       W        .        .        .        .        .
  645. .        .        .        .        .        .        .X       W        .        .        .        .        .
19 650. .        .        .        .        .        .        .X       W        .        .        .        .        .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
     670.00        .00     668.00     175.00     665.50     181.00     665.00     213.00     668.70     240.00
     668.80     259.00     661.10     287.00     660.90     292.00     660.10     296.00     659.60     300.00
     660.10     304.00     661.00     307.00     661.50     311.00     665.10     317.00     666.20     320.00
     669.30     333.00     668.80     450.00     670.20     650.00
1
CROSS SECTION   8006.00
STREAM  FELLOWS DRAIN PROPOSED
DISCHARGE=     1270.


PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV  658.      660.      662.      664.      666.      668.      670.      672.      674.      676.      678.


    STA-FEET

 2   0. .        .        .        .        .        .         X       W        .        .        .        .        .
     2. .        .        .        .        .        .         X       W        .        .        .        .        .
     4. .        .        .        .        .        .        X.       W        .        .        .        .        .
     6. .        .        .        .        .        .        X.       W        .        .        .        .        .
     8. .        .        .        .        .        .        X.       W        .        .        .        .        .
    10. .        .        .        .        .        .        X.       W        .        .        .        .        .
    12. .        .        .        .        .        .       X .       W        .        .        .        .        .
    14. .        .        .        .        .        .       X .       W        .        .        .        .        .
    16. .        .        .        .        .        .       X .       W        .        .        .        .        .
    18. .        .        .        .        .        .       X .       W        .        .        .        .        .
    20. .        .        .        .        .        .      X  .       W        .        .        .        .        .
    22. .        .        .        .        .        .      X  .       W        .        .        .        .        .
    24. .        .        .        .        .        .      X  .       W        .        .        .        .        .
    26. .        .        .        .        .        .     X   .       W        .        .        .        .        .
    28. .        .        .        .        .        .     X   .       W        .        .        .        .        .
    30. .        .        .        .        .        .     X   .       W        .        .        .        .        .
    32. .        .        .        .        .        .     X   .       W        .        .        .        .        .
    34. .        .        .        .        .        .    X    .       W        .        .        .        .        .
 3  36. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    38. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    40. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    42. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    44. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    46. .        .        .        .        .        .    X    .       W        .        .        .        .        .
    48. .        .        .        .        .        .   X     .       W        .        .        .        .        .
    50. .        .        .        .        .        .   X     .       W        .        .        .        .        .
    52. .        .        .        .        .        .   X     .       W        .        .        .        .        .
    54. .        .        .        .        .        .   X     .       W        .        .        .        .        .
    56. .        .        .        .        .        .   X     .       W        .        .        .        .        .
 4  58. .        .        .        .        .        .   X     .       W        .        .        .        .        .
    60. .        .        .        .        .        .   X     .       W        .        .        .        .        .
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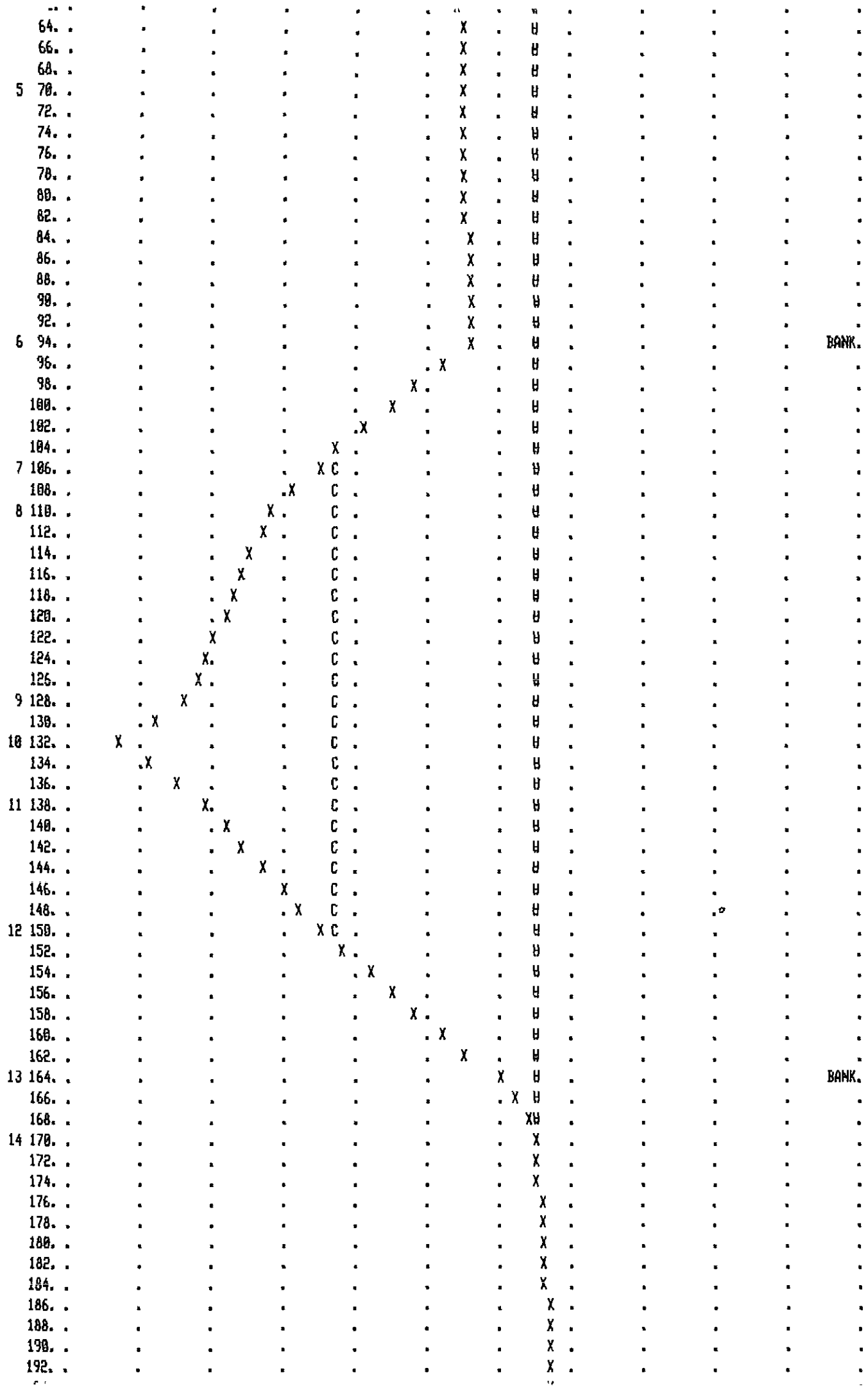
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182.
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186.
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190.
192.
BANK.
BANK.

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   [illegible] .        .        .        .        .        .        .        X .        .        .        .        .
15 196. .        .        .        .        .        .        .        X .        .        .        .        .
   198. .        .        .        .        .        .        .        X .        .        .        .        .
   200. .        .        .        .        .        .        .        X.        .        .        .        .
   202. .        .        .        .        .        .        .        X.        .        .        .        .
   204. .        .        .        .        .        .        .         X        .        .        .        .
16 206. .        .        .        .        .        .        .         X        .        .        .        .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    670.00        .00      669.00       37.00      668.80       58.00      669.00       70.00      669.20       95.00
    665.00     106.00      663.60      110.00      661.30      128.00      659.35      132.00      661.80      138.00
    665.00     150.00      670.00      165.00      671.00      170.00      671.50      196.00      672.00      206.00
1
CROSS SECTION   8066.00
STREAM  FELLOWS DRAIN PROPOSED
DISCHARGE=     1270.


PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV  658.      660.      662.      664.      666.      668.      670.      672.      674.      676.      678.


    STA-FEET

 2   0. .        .        .        .        .        .        .        X .        .        .        .        .
     5. .        .        .        .        .        .        .        X  .        .        .        .        .
    10. .        .        .        .        .        .        .        X   .        .        .        .        .
    15. .        .        .        .        .        .        .        X   .        .        .        .        .
 3  20. .        .        .        .        .        .        .       X    .        .        .        .      BANK.
    25. .        .        .        .        .        .       X.       W    .        .        .        .        .
    30. .        .        .        .        .        .  X     .       W    .        .        .        .        .
    35. .        .        .        .        .    X   .        .       W    .        .        .        .        .
    40. .        .        .        .        X        .        .       W    .        .        .        .        .
 4  45. .        .        .        .  XC    .        .        .       W    .        .        .        .        .
    50. .        .        .        .  XC    .        .        .       W    .        .        .        .        .
 5  55. .        .        .        . X C    .        .        .       W    .        .        .        .        .
    60. .        .        .    X   .   C    .        .        .       W    .        .        .        .        .
    65. .        .       X.        .   C    .        .        .       W    .        .        .        .        .
 6  70. .        .  X     .        .   C    .        .        .       W    .        .        .        .        .
    75. .       X.        .        .   C    .        .        .       W    .        .        .        .        .
 7  80. .     X  .        .        .   C    .        .        .       W    .        .        .        .        .
 8  85. .        .  X     .        .   C    .        .        .       W    .        .        .        .        .
    90. .        .       X.        .   C    .        .        .       W    .        .        .        .        .
    95. .        .        .    X   .   C    .        .        .       W    .        .        .        .        .
 9 100. .        .        .        . X C    .        .        .       W    .        .        .        .        .
   105. .        .        .        .  XC    .        .        .       W    .        .        .        .        .
10 110. .        .        .        .  XC    .        .        .       W    .        .        .        .        .
   115. .        .        .        .        X        .        .       W    .        .        .        .        .
   120. .        .        .        .        .    X   .        .       W    .        .        .        .        .
   125. .        .        .        .        .        . X      .       W    .        .        .        .        .
   130. .        .        .        .        .        .      X .       W    .        .        .        .        .
11 135. .        .        .        .        .        .        .       X    .        .        .        .      BANK.
   140. .        .        .        .        .        .        .        X  .        .        .        .        .
   145. .        .        .        .        .        .        .         X .        .        .        .        .
12 150. .        .        .        .        .        .        .          X        .        .        .        .

NRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
    671.50        .00      671.00       20.00      664.69       45.24      664.39       55.24      660.64       70.24
    659.39      77.74      660.64       85.24      664.39      100.24      664.69      110.24      671.00      135.48
    672.00     152.00
1
[illegible]
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STREAM FELLOWS DRAIN PROPOSED
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV  650.     660.     662.     664.     666.     668.     670.     672.     674.     676.     678.

    STA-FEET

 2   0. .       .        .        .        .        .        .      X .        .        .        .        .
     5. .       .        .        .        .        .        .     X  .        .        .        .        .
    10. .       .        .        .        .        .        .    X   .        .        .        .        .
    15. .       .        .        .        .        .        .    X   .        .        .        .        .
 3  20. .       .        .        .        .        .        .   X    .        .        .        .        . BANK.
    25. .       .        .        .        .        .        .  X.    W        .        .        .        .
    30. .       .        .        .        .        .      . X  .    W        .        .        .        .
    35. .       .        .        .        .      X .        .   .    W        .        .        .        .
    40. .       .        .        .       X .        .        .   .    W        .        .        .        .
 4  45. .       .        .        .      XC .        .        .   .    W        .        .        .        .
    50. .       .        .        .     X C .        .        .   .    W        .        .        .        .
 5  55. .       .        .        .    X  C .        .        .   .    W        .        .        .        .
    60. .       .        .      X .      C .        .        .   .    W        .        .        .        .
    65. .       .       .X      .      C .        .        .   .    W        .        .        .        .
 6  70. .       .     X  .      .      C .        .        .   .    W        .        .        .        .
 7  75. .     X .        .      .      C .        .        .   .    W        .        .        .        .
    80. .       .  X     .      .      C .        .        .   .    W        .        .        .        .
 8  85. .       .    X   .      .      C .        .        .   .    W        .        .        .        .
    90. .       .       .X      .      C .        .        .   .    W        .        .        .        .
    95. .       .        .    X .      C .        .        .   .    W        .        .        .        .
 9 100. .       .        .      . X    C .        .        .   .    W        .        .        .        .
   105. .       .        .      . X C  . .        .        .   .    W        .        .        .        .
10 110. .       .        .      .  XC  . .        .        .   .    W        .        .        .        .
   115. .       .        .      .      .X.        .        .   .    W        .        .        .        .
   120. .       .        .      .      . .      X .        .   .    W        .        .        .        .
   125. .       .        .      .      . .        .      X .   .    W        .        .        .        .
   130. .       .        .      .      . .        .        .  X.    W        .        .        .        .
11 135. .       .        .      .      . .        .        .   .    X        .        .        .        . BANK.
   140. .       .        .      .      . .        .        .   .   X .        .        .        .        .
   145. .       .        .      .      . .        .        .   .    X .        .        .        .        .
   150. .       .        .      .      . .        .        .   .     X .        .        .        .        .
   155. .       .        .      .      . .        .        .   .     X .        .        .        .        .
12 160. .       .        .      .      . .        .        .   .      X        .        .        .        .
```

NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

671.50	.00	671.00	20.00	664.99	44.00	664.69	54.00	660.94	69.00
659.69	76.50	660.94	84.00	664.69	99.00	664.99	109.00	671.00	133.00
672.00	162.00								

1

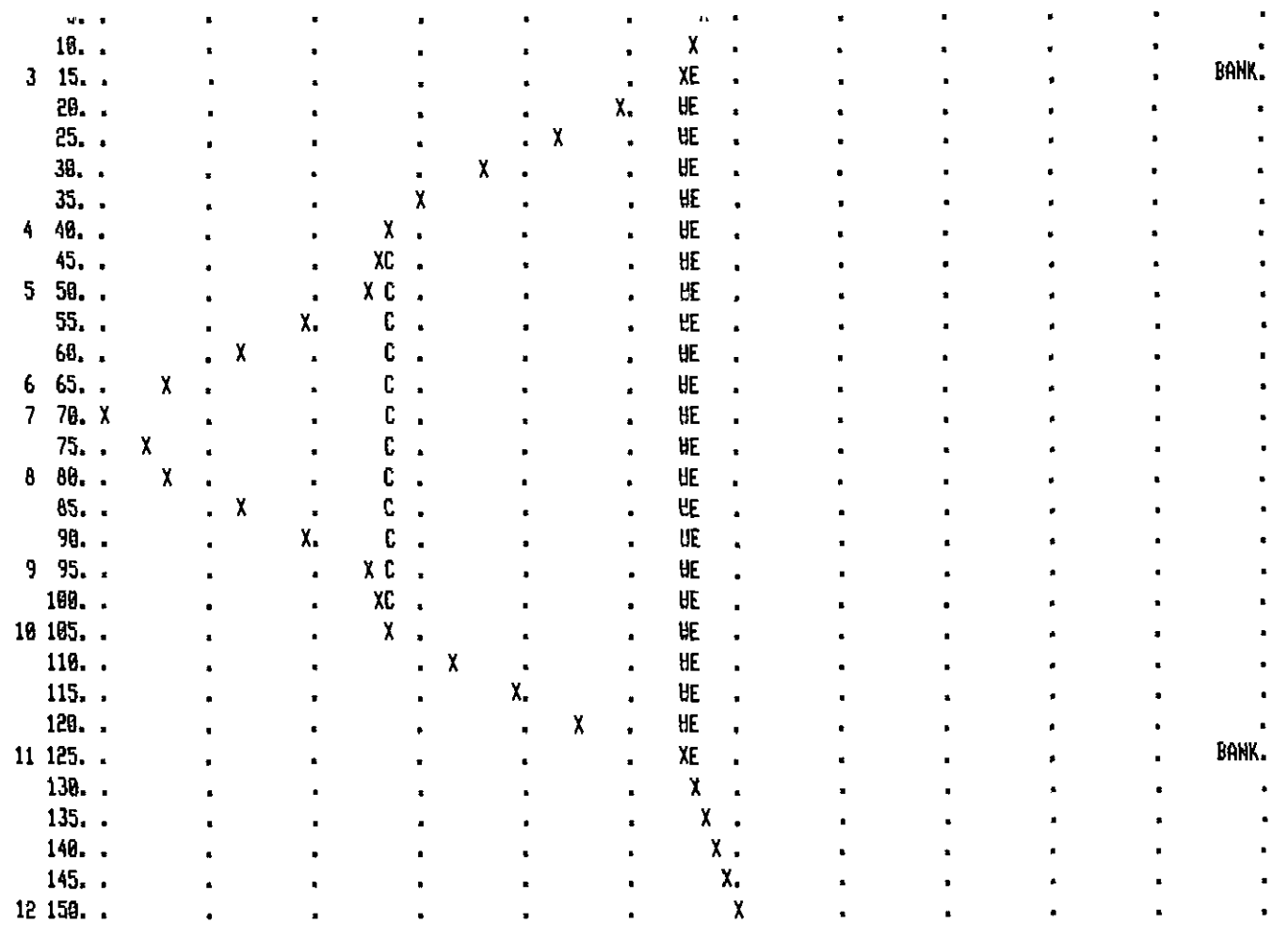
CROSS SECTION 8673.00
STREAM FELLOWS DRAIN PROPOSED
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

```
ELEV  660.     662.     664.     666.     668.     670.     672.     674.     676.     678.     680.

    STA-FEET

 2   0. .       .        .        .        .        .      X .        .        .        .        .        .
```



NRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

671.50	.00	671.00	16.00	665.31	38.76	665.01	48.76	661.26	63.76
660.01	71.26	661.26	78.76	665.01	93.76	665.31	103.76	671.00	126.52
672.00	149.00								

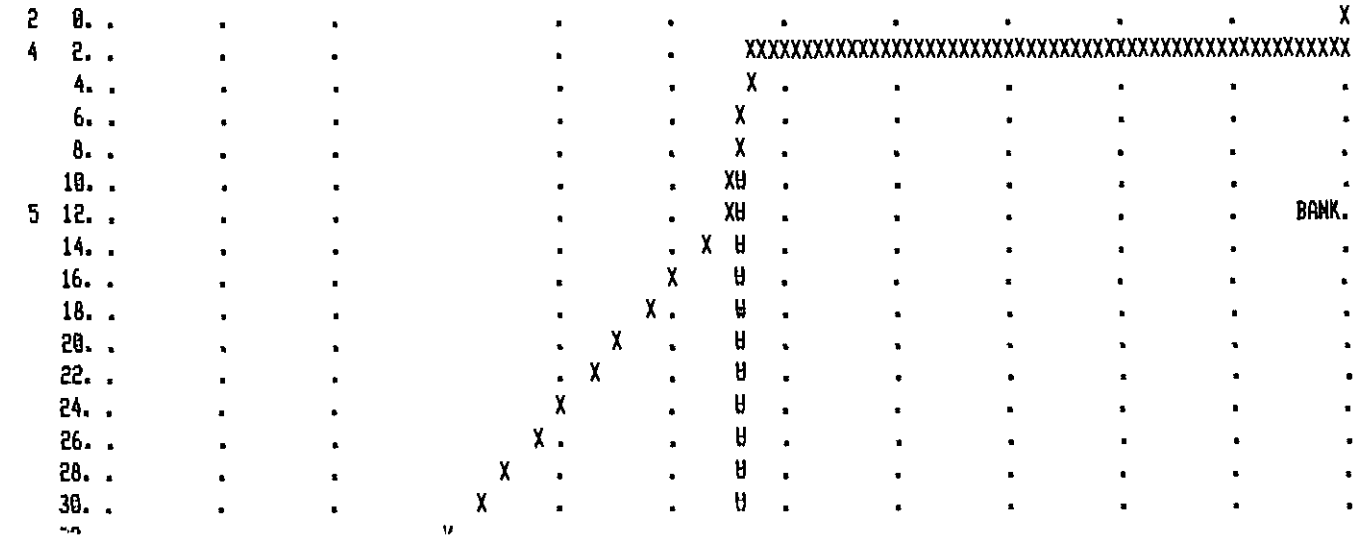
1

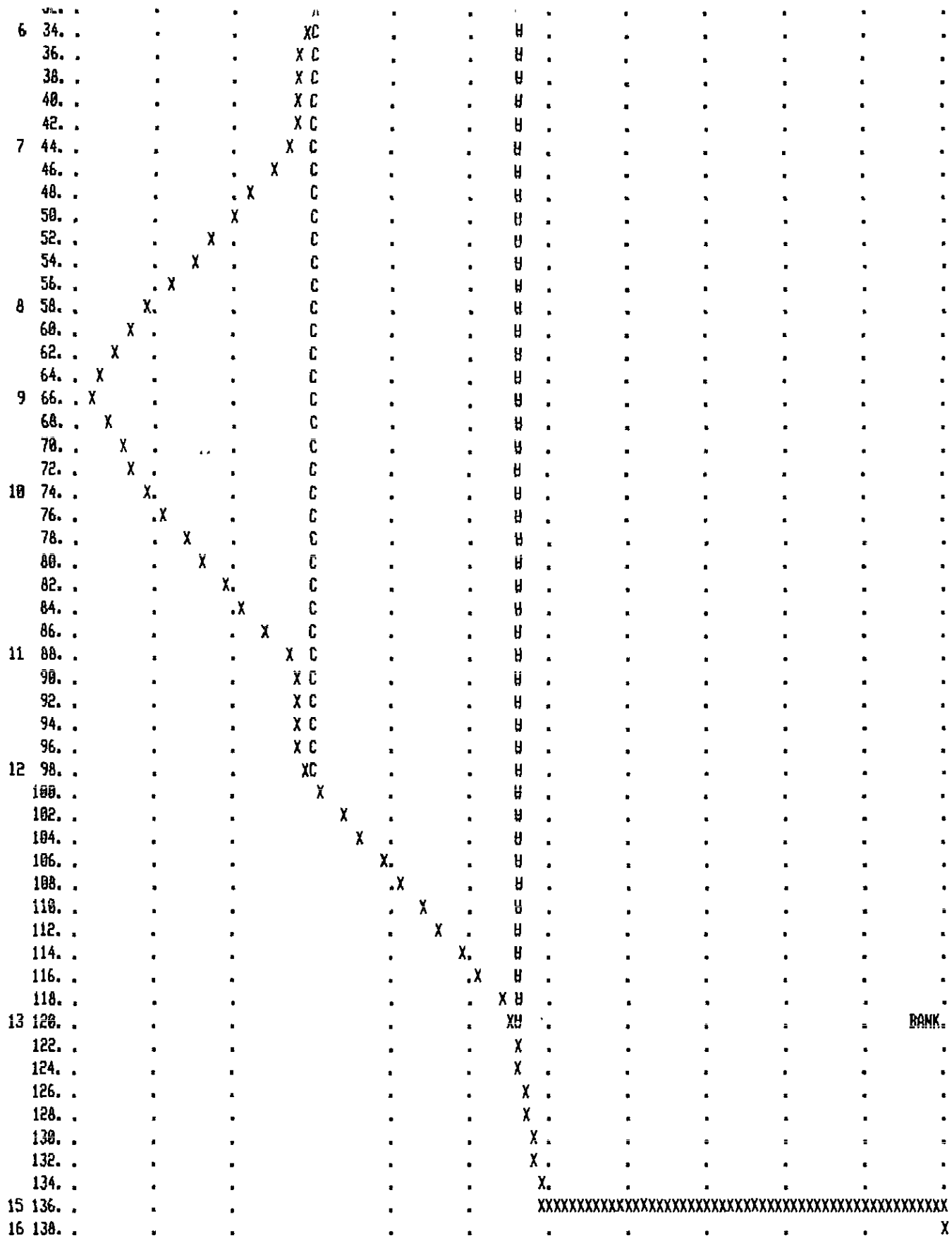
CROSS SECTION 9066.00
STREAM FELLOWS DRAIN PROPOSED
DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV 660. 662. 664. 666. 668. 670. 672. 674. 676. 678. 680.

STA-FEET





HRD= 0 ELLC= 9999999.00 ELTRD= 9999999.00

EL(I),STA(I)

100000.00	.00	100000.00	3.00	671.38	3.00	671.00	13.00	665.75	34.00
665.45	44.00	661.70	59.00	660.44	66.50	661.70	74.00	665.45	89.00
665.75	99.00	671.00	120.00	671.89	136.00	100000.00	136.00	100000.00	138.00

1

CROSS SECTION 9262.00

STREAM FELLOWS DRAIN PROPOSED

DISCHARGE= 1270.

PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

ELEV	660.	662.	664.	666.	668.	670.	672.	674.	676.	678.	680.	
STA-FEET												
2 0.	.	.	.	.	.	.	.	.	.	.	.	X
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25.	.	.	.	.	.	.	.	.	.	.	.	X
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95.	.	.	.	.	.	.	.	.	.	.	.	X
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160.	.	.	.	.	.	.	.	.	.	.	.	X
165.	.	.	.	.	.	.	.	.	.	.	.	X
170.	.	.	.	.	.	.	.	.	.	.	.	X
175.	.	.	.	.	.	.	.	.	.	.	.	X
180.	.	.	.	.	.	.	.	.	.	.	.	X
185.	.	.	.	.	.	.	.	.	.	.	.	X
190.	.	.	.	.	.	.	.	.	.	.	.	X
195.	.	.	.	.	.	.	.	.	.	.	.	X
200.	.	.	.	.	.	.	.	.	.	.	.	X
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 6 390. .        .B       .        .        .        .          W  E  T  .        .        .        .     BANK.
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NRD=       9 ELLC=      670.60 ELTRD=      672.90

      .00       .00    674.20    390.25    662.20    672.90    390.26    670.60    672.90
   400.00    670.60    672.90    409.75    670.60    672.90    409.76    662.20    672.90
   500.00       .00    672.90
  EL(I),STA(I)
     674.00       .00      672.90      300.00      672.90      356.00      662.20      390.25      662.20      390.26
     661.70    400.00      662.20      409.75      662.20      409.76      672.90      500.00
1
 CROSS SECTION   9415.00
 STREAM  FELLOWS DRAIN PROPOSED
 DISCHARGE=     1270.


 PLOTTED POINTS (BY PRIORITY)-B=BOTTOM BRIDGE,T=TOP BRIDGE,X=GROUND,W=WATER SUR,E=ENERGY GRADIENT,C=CRITICAL WSEL

 ELEV  660.      662.      664.      666.      668.      670.      672.      674.      676.      678.      680.


     STA-FEET

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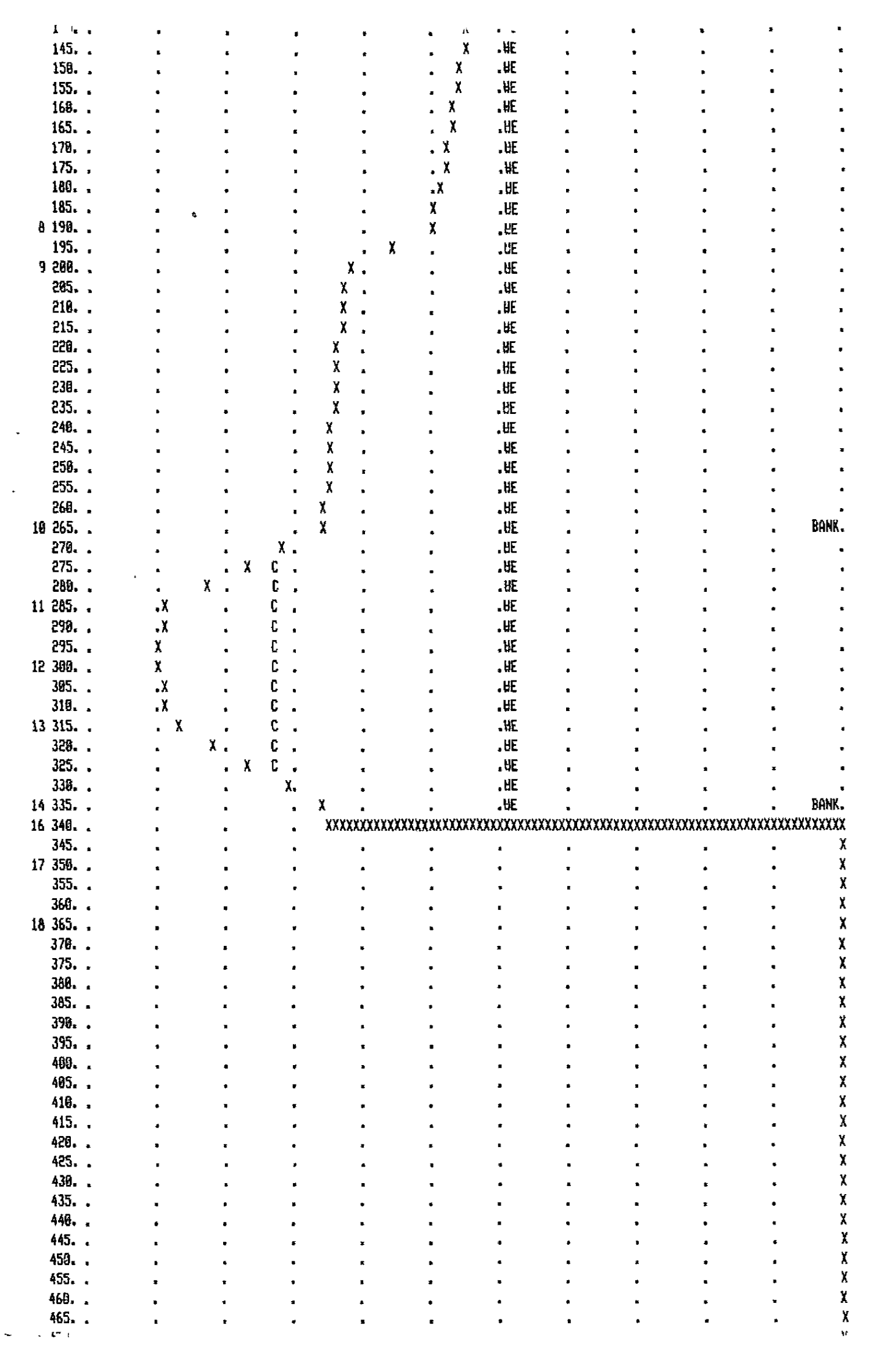
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 HRD=       0 ELLC=  9999999.00 ELTRD=  9999999.00

  EL(I),STA(I)
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     671.53     121.00     670.00     190.00     667.50     200.00     666.80     265.00     662.20     285.00
     661.90     300.00     662.50     315.00     666.80     335.00     666.94     341.00  100000.00     341.00
  100000.00     348.00  100000.00     365.00  100000.00     500.00  100000.00     500.00
1
 PROFILE FOR STREAM  FELLOWS DRAIN PROPOSED


 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


 ELEVATION   658.      660.      662.      664.      666.      668.      670.      672.      674.      676.
    SECNO   CUMDIS

  7866.00     0.  .      I L        .        .      C .        .        M   E   .        .        .        .
             20.  .      I .     LR .        .      C .        .        M   E   .        .        .        .
             40.  .      I .        .   LR   .      C .        .        M   E   .        .        .        .
             60.  .     I  .        .        L R    C .        .        M   E   .        .        .        .
             80.  .     I  .        .        .    L CR.        .        M   E   .        .        .        .
            100.  .     I  .        .        .     C  .  L  R  .        M   E   .        .        .        .
            120.  .     I  .        .        .     C  .        L  R     M   E   .        .        .        .
  8006.00   140.  .     I  .        .        .     C  .        .    L   R   E   .        .        .        .
            160.  .     I  .        .        .    C   .        .       L. RM E   .        .        .        .
            180.  .     I  .        .        .   C    .        .        . LR E   .        .        .        .
  8066.00   200.  .     I  .        .        .  C     .        .        .   E  M .        .        .        .
            220.  .     I  .        .        .  C     .        .        .   E  M .        .        .        .
            240.  .     I  .        .        .   C    .        .        .   E  M .        .        .        .
            260.  .     I  .        .        .   C    .        .        .   E  M .        .        .        .
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            340.  .      I .        .        .   C    .        .        .   E  M .        .        .        .
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            400.  .      I .        .        .   C    .        .        .   E  M .        .        .        .
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  8352.00   500.  .      I .        .        .    C   .        .        .   E  M .        .        .        .
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            560.  .       I.        .        .    C   .        .        .   E  M .        .        .        .
            580.  .       I.        .        .    C   .        .        .   E  M .        .        .        .
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            640.  .       I.        .        .    C   .        .        .   WE M .        .        .        .
            660.  .       I.        .        .    C   .        .        .   WE M .        .        .        .
            680.  .       I.        .        .     C  .        .        .   WE M .        .        .        .
            700.  .       I.        .        .     C  .        .        .   WE M .        .        .        .
            720.  .        I        .        .     C  .        .        .   WE M .        .        .        .
            740.  .        I        .        .     C  .        .        .   WE M .        .        .        .
            760.  .        I        .        .     C  .        .        .   WE M .        .        .        .
            780.  .        I        .        .     C  .        .        .   WE M .        .        .        .
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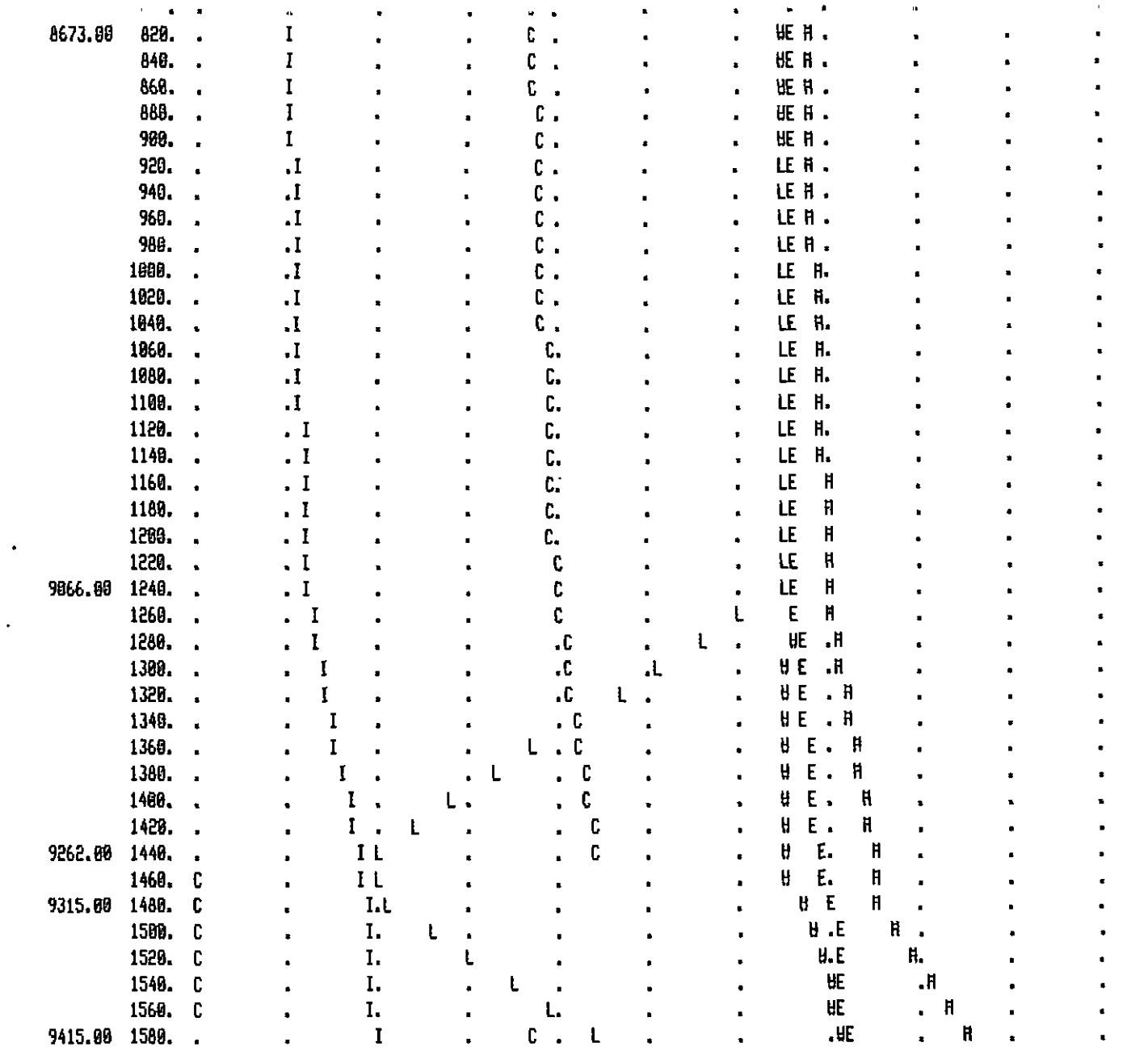

THIS RUN EXECUTED 06-23-89

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HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985
****

ZEIMET WOZNIAK & ASSOCIATES, INC.

LETTER OF TRANSMITTAL

1340 U.S. HWY. #1
SUITE #104
JUPITER, FLORIDA 33469
(407) 747-5361

Holtzman & Silverman

TO Draft 8/16/89

MICHIGAN DEPT. OF NATURAL RESOURCES
LAND & WATER MANAGEMENT DIVISION
STEVENS T. MASON BLDG., ALLEGAN RD.
LANSING, MI, 48909

DATE 1-31-90	JOB NO. (CZ-W) 89139
ATTENTION Ms. M. DOLEHENTY	
RE:	
VILLAGE GREEN OF CANTON EAST	
FELLOWS CREEK FLOODPLAIN STUDY	
D.N.R. FILE No. 89-14-603	

GENTLEMEN: WE ARE SENDING YOU ☑ ATTACHED ☐ UNDER SEPARATE COVER VIA _____ THE FOLLOWING ITEMS:

☐ SHOP DRAWINGS ☐ PRINTS ☐ PLANS ☐ SAMPLES ☐ SPECIFICATIONS

☐ COPY OF LETTER ☐ CHANGE ORDER ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	1-25-90	5 pgs	METHODOLOGY STATEMENT, REVISED FLOODWAY DATATABLE,
			REVISED FLOODWAY MAP, REVISED FLOOD INSURANCE RATE MAP,
			REVISED FLOOD PROFILES,
1	1-25-90	16 pgs	PROPOSED CONDITION 100 YR. FLOOD & FLOODWAY
1	1-26-90	22 pgs	PROPOSED CONDITION 10, 50, 100, 500 YR FLOWS
1	1-25-90	14 pgs	EXISTING CONDITION 100 YR. FLOOD & FLOODWAY

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ FOR APPROVAL ☐ APPROVED AS SUBMITTED ☐ RESUBMIT _____ COPIES FOR APPROVAL

☑ FOR YOUR USE ☐ APPROVED AS NOTED ☐ SUBMIT _____ COPIES FOR DISTRIBUTION

☐ AS REQUESTED ☐ RETURNED FOR CORRECTIONS ☐ RETURN _____ CORRECTED PRINTS

☐ FOR REVIEW AND COMMENT ☐ _____

☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS DEAR Ms. DOLEHENTY:

ENCLOSED IS A COPY OF THE FLOODPLAIN ANALYSIS FOR THE ABOVE REFERENCED PROJECT, AS SUBMITTED TO F.E.M.A. IN WASHINGTON D.C., DATED 1-25-90, FOR YOUR RECORDS.

IF YOU HAVE ANY QUESTIONS REGARDING THIS STUDY, PLEASE CALL MR. GARY PETERSON AT OUR SOUTHFIELD MICHIGAN OFFICE (313) 352-8950 OR MYSELF AT THE JUPITER, FLORIDA OFFICE (407) 747-5361.

SINCERELY, DAVID H. LEWIS P.E.

COPY TO _____

SIGNED: David H. Lewis

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE.

May 17, 1990

Mr. Gary Peterson
Zeimet, Wozniak and Associates, Inc.
28450 Franklin Road
Southfield, Michigan 48034

Re: DNR File No. 89-14-603
Holtzman and Silverman Dupt. & Co.
Fellows Creek
Section 13, T2S, R8E
Canton Township
Wayne County

Dear Mr. Peterson:

Our review of the hydraulic study that you provided for the floodway revisions for the Fellows Creek indicates the project will not harmfully affect the stage or discharge characteristics of flood events from 10-year through 500-year frequencies. As a result, the project will meet the intent of the State's Floodplain Regulatory Authority, 1929 PA 245 as amended by 1968 PA 167.

By copy of this letter, we are informing FEMA Region V, in Chicago, of our approval of the floodway revision.

Should you have any questions, please contact this office.

Sincerely,

Mary Ann Dolehanty
Floodplain Regulation
Land and Water Management Division
517-335-3190

MAD:bmw

cc: Mr. Ken Hinterlong, FEMA, Region V
Mr. David H. Lewis, Zeimet, Wozniak & Associates
Holtzman & Silverman Dupt. Co.
Pontiac District Office, DNR

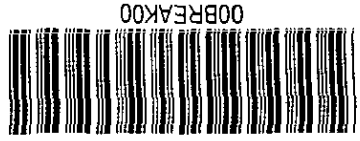


1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Fellows Drain

4) DOCUMENT TYPE: Summary



THIS RUN EXECUTED 1/26/90 8: 8:31

****
HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02
MODIFICATION -
****

T1 VILLAGE GREEN OF CANTON EAST, CANTON TWP, MI. #89139
T2 10 YEAR FLOOD PROFILE : Q= 675 , START ELEV.= 668.4
T3 PROPOSED FELLOWS DRAIN PROPOSED CONDITION, NATURAL FLOODWAY, 10 YR Q

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0	0	0	0	668.4	0

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	0	-1	0	0	0	-1	0	0	0

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

110 150

NC	0.1	0.1	0.035	0.1	0.3	0	0	0	0	0
QT	4	675	1060	1270	1800					
		STA 140+50 BASED ON M.D.N.R. FIELD BOOK								
X1	7866	18	296	304	0	0	0	0	-0.3	0
X3	0	0	0	1	0	649	0	0	0	
GR	670.3	0	668.3	175	665.8	181	665.3	213	669	240
GR	669.1	259	661.4	287	661.2	292	660.4	296	659.9	300
GR	660.4	304	661.3	307	661.8	311	665.4	317	666.5	320
GR	669.6	333	669.1	450	670.5	650	0	0	0	0
NC	0.06	0.08	0.035	0.1	0.3	0	0	0	0	0
X1	8006	15	95	165	140	140	140	0	0	0
X3	0	0	0	1	0	205	0	0	0	
GR	670	0	669	37	668.8	58	669	70	669.2	95
GR	665	106	663.6	110	661.3	128	659.35	132	661.8	138
GR	665	150	670	165	671	170	671.5	196	672	206
NC	0.04	0.04	0.035	0.1	0.3	0	0	0	0	0
		NEW SEC. PER Z-W CHANNEL IMPROVEMENTS								
X1	8066	11	20	135.48	60	60	60	0	0	0
X3	0	0	0	1	0	150	0	0	0	
GR	671.5	0	671	20	664.69	45.24	664.39	55.24	660.64	70.24
GR	659.39	77.74	660.64	85.24	664.39	100.24	664.69	110.24	671	135.48
GR	672	152	0	0	0	0	0	0	0	0

PRINTED IN U.S.A.

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	8352	11	20	133	335	238	286	0	0	0
X3	0	0	0	1	0	160	0	0	0	
GR	671.5	0	671	20	664.99	44	664.69	54	660.94	69
GR	659.69	76.5	660.94	84	664.69	99	664.99	109	671	133
GR	672	162	0	0	0	0	0	0	0	0

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	8673	11	16	126.52	374	260	321	0	0	0
X3	0	0	0	1	0	148	0	0	0	
GR	671.5	0	671	16	665.31	38.76	665.01	48.76	661.26	63.76
GR	660.01	71.26	661.26	78.76	665.01	93.76	665.31	103.76	671	126.52
GR	672	149	0	0	0	0	0	0	0	0

NEW SEC. PER Z-W CHANNEL IMPROVEMENTS

X1	9066	11	13	120	410	434	420	0	0	0
X3	0	0	0	1	0	136	0	0	0	0
GR	671.5	0	671	13	665.75	34	665.45	44	661.7	59
GR	660.44	66.5	661.7	74	665.45	89	665.75	99	671	120
GR	672	138	0	0	0	0	0	0	0	0

NC	0	0	0	0.3	0.5	0	0	0	0	0

DOWNSTREAM FACE OF HAGGERTY RD. BRIDGE

X1	9262	8	390.25	409.75	196	196	196	0	0	0
X3	10	0	0	376	0	424	0	671.7	671.7	0
GR	674	0	672.9	300	669.5	353	662	390.25	661.5	400
GR	662	409.75	669.2	425	672.9	500	0	0	0	0
SB	0	1.5	3	0	20.14	0	179.27	0	661.7	661.5
ET	0	0	0	0	0	9.1	0	0	376	424

UPSTREAM FACE OF HAGGERTY RD. BRIDGE

X1	9315	9	390.25	409.75	55	55	55	0	0	0
X2	0	0	1	670.6	672.9	0	0	0	0	0
X3	10	0	0	0	0	0	0	672.9	672.9	0
BT	7	0	674.2	0	390.25	672.9	662.2	390.26	672.9	670.6
BT	400	672.9	670.6	409.75	672.9	670.6	409.76	672.9	662.2	500
BT	672.9	0	0	0	0	0	0	0	0	0
GR	674	0	672.9	300	672.9	356	662.2	390.25	662.2	390.26
GR	661.7	400	662.2	409.75	662.2	409.76	672.9	500	0	0

NC	0.06	0.06	0.03	0	0	0	0	0	0	0

100' UPSTREAM OF HAGGERTY RD.

X1	9415	15	265	335	100	100	100	0	0	0
X3	0	0	0	121	0	341	0	0	0	0
GR	675	0	673.5	1	672	10	672	100	670	190
GR	667.5	200	666.8	265	662.2	285	661.9	300	662.5	315
GR	666.8	335	667.1	348	671	365	673	500	675	500

THIS RUN EXECUTED 1/26/90 8: 9: 6

****
HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02
MODIFICATION -
****

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

PROPOSED FELLOWS DRAIN

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	7866.000	668.40	.00	668.53	166.58	277.58	289.26	108.16	648.00	1.00	296.00	304.00	649.00
	7866.000	670.20	.00	670.28	648.00	515.98	322.52	221.50	648.00	1.00	296.00	304.00	649.00
	7866.000	670.94	.00	670.99	648.00	624.04	314.91	331.05	648.00	1.00	296.00	304.00	649.00
	7866.000	672.40	.00	672.43	648.00	877.64	320.42	601.94	648.00	1.00	296.00	304.00	649.00
	8006.000	668.52	.00	668.59	63.77	.00	675.00	.00	204.00	1.00	95.00	165.00	205.00
	8006.000	670.24	.00	670.33	165.23	47.60	1012.39	.01	204.00	1.00	95.00	165.00	205.00
	8006.000	670.96	.00	671.04	168.78	103.68	1165.89	.43	204.00	1.00	95.00	165.00	205.00
	8006.000	672.39	.00	672.48	204.00	258.77	1526.05	15.18	204.00	1.00	95.00	165.00	205.00
*	8066.000	668.58	.00	668.61	96.09	.00	653.94	21.06	149.00	1.00	20.00	110.24	150.00
*	8066.000	670.30	.00	670.34	109.86	.00	1004.43	55.57	149.00	1.00	20.00	110.24	150.00
	8066.000	671.01	.00	671.06	115.82	.00	1192.31	77.69	149.00	1.00	20.00	110.24	150.00
	8066.000	672.43	.00	672.50	149.00	11.45	1636.70	151.85	149.00	1.00	20.00	110.24	150.00
	8352.000	668.62	.00	668.66	93.99	.00	656.06	18.94	159.00	1.00	20.00	109.00	160.00
	8352.000	670.34	.00	670.39	107.72	.00	1007.90	52.10	159.00	1.00	20.00	109.00	160.00
	8352.000	671.05	.00	671.11	116.38	.00	1196.19	73.81	159.00	1.00	20.00	109.00	160.00
	8352.000	672.47	.00	672.54	159.00	12.81	1634.68	152.51	159.00	1.00	20.00	109.00	160.00
	8673.000	668.68	.00	668.72	91.89	.00	658.17	16.83	147.00	1.00	16.00	103.76	148.00
	8673.000	670.39	.00	670.45	105.64	.00	1011.35	48.65	147.00	1.00	16.00	103.76	148.00
	8673.000	671.10	.00	671.17	116.02	.01	1199.97	70.02	147.00	1.00	16.00	103.76	148.00
	8673.000	672.53	.00	672.60	147.00	11.26	1643.30	145.45	147.00	1.00	16.00	103.76	148.00
	9066.000	668.77	.00	668.82	89.12	.00	660.88	14.11	135.00	1.00	13.00	99.00	136.00
	9066.000	670.48	.00	670.54	102.75	.00	1016.10	43.90	135.00	1.00	13.00	99.00	136.00
	9066.000	671.19	.00	671.26	114.95	.05	1205.19	64.76	135.00	1.00	13.00	99.00	136.00
	9066.000	672.61	.00	672.69	135.00	10.57	1652.67	136.76	135.00	1.00	13.00	99.00	136.00
*	9262.000	668.70	.00	669.08	19.50	.00	675.00	.00	48.00	376.00	390.25	409.75	424.00
*	9262.000	671.54	.00	672.02	19.50	.00	1060.00	.00	48.00	376.00	390.25	409.75	424.00
*	9262.000	672.92	.00	673.41	19.50	.00	1273.00	.00	48.00	376.00	390.25	409.75	424.00

*	9262.000	672.56	.00	672.88	48.00	398.29	1110.12	291.59	48.00	376.00	390.25	409.75	424.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	9315.000	668.75	.00	669.15	19.50	.00	675.00	.00	.00	.00	390.25	409.75	.00
	9315.000	671.89	.00	672.35	19.50	.00	1060.00	.00	.00	.00	390.25	409.75	.00
	9315.000	671.35	.00	672.09	19.50	.00	1270.00	.00	.00	.00	390.25	409.75	.00
*	9315.000	673.72	.00	673.78	424.44	352.18	611.53	836.29	.00	.00	390.25	409.75	.00
*	9415.000	669.25	.00	669.28	148.00	55.46	614.59	4.96	220.00	121.00	265.00	335.00	341.00
*	9415.000	672.47	.00	672.50	220.00	206.33	842.86	10.81	220.00	121.00	265.00	335.00	341.00
*	9415.000	672.29	.00	672.32	220.00	239.01	1018.07	12.92	220.00	121.00	265.00	335.00	341.00
*	9415.000	673.75	.00	673.79	220.00	421.80	1359.86	18.33	220.00	121.00	265.00	335.00	341.00

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PROPOSED FELLOWS DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	7866.000	.00	.00	.00	659.60	675.00	668.40	664.23	668.53	5.73	4.23	494.92	281.91
	7866.000	.00	.00	.00	659.60	1060.00	670.20	665.71	670.28	3.77	3.90	1247.70	545.94
	7866.000	.00	.00	.00	659.60	1270.00	670.94	666.26	670.99	2.86	3.55	1727.21	751.62
	7866.000	.00	.00	.00	659.60	1800.00	672.40	667.24	672.43	1.96	3.19	2673.30	1286.65
	8006.000	140.00	.00	.00	659.35	675.00	668.52	664.24	668.59	3.67	2.23	302.70	352.22
	8006.000	140.00	.00	.00	659.35	1060.00	670.24	665.02	670.33	3.15	2.41	520.49	597.38
	8006.000	140.00	.00	.00	659.35	1270.00	670.96	665.39	671.04	2.88	2.48	638.77	748.57
	8006.000	140.00	.00	.00	659.35	1800.00	672.39	666.21	672.48	2.59	2.68	916.24	1119.07
*	8066.000	60.00	.00	.00	659.39	675.00	668.58	663.36	668.61	1.51	1.55	451.36	548.75
*	8066.000	60.00	.00	.00	659.39	1060.00	670.30	664.26	670.34	1.49	1.78	628.58	868.13
	8066.000	60.00	.00	.00	659.39	1270.00	671.01	664.90	671.06	1.54	1.90	708.49	1022.79
	8066.000	60.00	.00	.00	659.39	1800.00	672.43	665.43	672.50	1.56	2.16	909.95	1439.71
	8352.000	286.00	.00	.00	659.69	675.00	668.62	663.66	668.66	1.77	1.64	426.88	507.63
	8352.000	286.00	.00	.00	659.69	1060.00	670.34	664.54	670.39	1.69	1.86	600.30	815.18
	8352.000	286.00	.00	.00	659.69	1270.00	671.05	665.20	671.11	1.73	1.98	678.89	966.50
	8352.000	286.00	.00	.00	659.69	1800.00	672.47	665.73	672.54	1.71	2.23	891.69	1378.23
	8673.000	321.00	.00	.00	660.01	675.00	668.68	663.98	668.72	2.09	1.73	402.09	466.52
	8673.000	321.00	.00	.00	660.01	1060.00	670.39	664.96	670.45	1.94	1.94	571.74	762.01
	8673.000	321.00	.00	.00	660.01	1270.00	671.10	665.56	671.17	1.95	2.06	649.17	910.08
	8673.000	321.00	.00	.00	660.01	1800.00	672.53	666.05	672.60	1.91	2.32	848.15	1302.72
	9066.000	420.00	.00	.00	660.44	675.00	668.77	664.42	668.82	2.63	1.87	370.73	415.94
	9066.000	420.00	.00	.00	660.44	1060.00	670.48	665.54	670.54	2.33	2.07	534.26	693.88
	9066.000	420.00	.00	.00	660.44	1270.00	671.19	665.94	671.26	2.30	2.19	610.01	837.26
	9066.000	420.00	.00	.00	660.44	1800.00	672.61	666.54	672.69	2.22	2.46	796.30	1208.76
*	9262.000	196.00	.00	.00	661.50	675.00	668.70	665.08	669.08	10.41	4.98	135.44	209.17
*	9262.000	196.00	.00	.00	661.50	1060.00	671.54	671.54	672.02	8.18	5.55	190.90	370.60
*	9262.000	196.00	.00	.00	661.50	1270.00	670.92	666.81	671.71	14.58	7.10	178.90	332.59
*	9262.000	196.00	.00	.00	661.50	1800.00	672.56	668.15	672.88	6.45	5.27	443.34	708.84
	9315.000	55.00	672.90	670.60	661.70	675.00	668.75	665.28	669.15	11.20	5.09	132.53	201.72
	9315.000	55.00	672.90	670.60	661.70	1060.00	671.89	.00	672.35	7.77	5.47	193.85	380.20
	9315.000	55.00	672.90	670.60	661.70	1270.00	671.35	.00	672.09	13.43	6.93	183.38	346.60
*	9315.000	55.00	672.90	670.60	661.70	1800.00	673.72	.00	673.78	1.47	2.66	1136.59	1483.52
*	9415.000	100.00	.00	.00	661.90	675.00	669.25	664.41	669.28	.95	1.53	557.61	691.16
*	9415.000	100.00	.00	.00	661.90	1060.00	672.47	665.10	672.50	.40	1.35	1161.25	1666.55
*	9415.000	100.00	.00	.00	661.90	1270.00	672.29	665.43	672.32	.63	1.66	1120.27	1596.13
*	9415.000	100.00	.00	.00	661.90	1800.00	673.75	666.14	673.79	.67	1.90	1443.21	2192.41

PRINTED IN U.S.A.

PROPOSED FELLOWS DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7866.000	675.00	668.40	.00	.00	.00	166.58	.00
	7866.000	1060.00	670.20	1.80	.00	.00	648.00	.00
	7866.000	1270.00	670.94	.74	.00	.00	648.00	.00
	7866.000	1800.00	672.40	1.46	.00	.00	648.00	.00
	8006.000	675.00	668.52	.00	.12	.00	63.77	140.00
	8006.000	1060.00	670.24	1.72	.04	.00	165.23	140.00
	8006.000	1270.00	670.96	.71	.02	.00	168.78	140.00
	8006.000	1800.00	672.39	1.43	-.01	.00	204.00	140.00
*	8066.000	675.00	668.58	.00	.06	.00	96.09	60.00
*	8066.000	1060.00	670.30	1.72	.06	.00	109.86	60.00
	8066.000	1270.00	671.01	.71	.05	.00	115.82	60.00
	8066.000	1800.00	672.43	1.42	.04	.00	149.00	60.00
	8352.000	675.00	668.62	.00	.04	.00	93.99	286.00
	8352.000	1060.00	670.34	1.72	.04	.00	107.72	286.00
	8352.000	1270.00	671.05	.71	.04	.00	116.38	286.00
	8352.000	1800.00	672.47	1.42	.04	.00	159.00	286.00
	8673.000	675.00	668.68	.00	.06	.00	91.89	321.00
	8673.000	1060.00	670.39	1.72	.05	.00	105.64	321.00
	8673.000	1270.00	671.10	.71	.05	.00	116.02	321.00
	8673.000	1800.00	672.53	1.42	.05	.00	147.00	321.00
	9066.000	675.00	668.77	.00	.09	.00	89.12	420.00
	9066.000	1060.00	670.48	1.71	.08	.00	102.75	420.00
	9066.000	1270.00	671.19	.71	.08	.00	114.95	420.00
	9066.000	1800.00	672.61	1.42	.08	.00	135.00	420.00
*	9262.000	675.00	668.70	.00	-.07	.00	19.50	196.00
*	9262.000	1060.00	671.54	2.84	1.06	.00	19.50	196.00
*	9262.000	1270.00	670.92	-.62	-.26	.00	19.50	196.00
*	9262.000	1800.00	672.56	1.64	-.05	.00	48.00	196.00
	9315.000	675.00	668.75	.00	.05	.00	19.50	55.00
	9315.000	1060.00	671.89	3.14	.35	.00	19.50	55.00
	9315.000	1270.00	671.35	-.54	.42	.00	19.50	55.00
*	9315.000	1800.00	673.72	2.38	1.16	.00	424.44	55.00
*	9415.000	675.00	669.25	.00	.50	.00	148.00	100.00
*	9415.000	1060.00	672.47	3.22	.58	.00	220.00	100.00
*	9415.000	1270.00	672.29	-.19	.94	.00	220.00	100.00
*	9415.000	1800.00	673.75	1.46	.03	.00	220.00	100.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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WARNING SECNO=    8066.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    8066.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    9262.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    9262.000  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    9262.000  PROFILE=  2  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    9262.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    9262.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    9315.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    9415.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    9415.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    9415.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    9415.000  PROFILE=  4  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

Normal program termination
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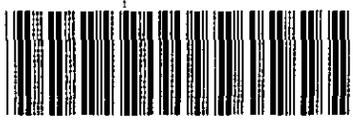

1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Green Meadows Drain

4) DOCUMENT TYPE: 100 Year



13:27:55 264 DPI HU200307 HUDCUT MAR 20, 1980

Green Meadows

EAST 100YR

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

[illegible] 22400561 [illegible] PR/H1[illegible]/FI/[illegible]/A/H1[illegible]

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*****************************************************
   NECP RELEASE DATED NOV 78 UPDATED FY 1979
     SUPER DUCT =  0
     DESIGNATION =  30,31,42
*****************************************************

C
   TP 'BASE' HEADERS ADDED, TUB 2003-07 CRATE, T.P.
   TA 0=400 , AT COMPARISON WITH TURBINE SPEAR TO 275' FT UPSTREAM
   TA     SPEED HEADERS ARE COMMON

JT  ICHECK     IOP        MIXV       IOIC       STRT       METRIC     AVINS      J          WSEL       PO
                1.         1.         1.         2.  0.000000       0.30       1.0        3.    200.000     3.000

JA    PRNT     INLST      PUMP       KSLCD      AREAM      PM         PLTC       IOU        PRNTP      STRACE
      1.000     0.000    -1.000      0.000      0.000      0.000      0.000      0.000      0.300     15.000

JS  VARIABLE CODES FOR SUB AND PITCHOUT
      112.000    0.000   25.000      5.000      2.000      3.000      1.000      1.000      0.100      0.000

JT        5.000   270.000   345.000   445.000   445.000   545.000     0.000      0.000      0.000      0.000
SC        0.350     0.050     0.035     0.100     0.300     1.000     0.000      0.000      0.000      0.000

         SALLEY SECTION

X1        0.300     6.000   297.000   303.000     0.300     0.000     0.000      0.000      0.000      0.000
X2      146.600     0.000   684.330   336.000   446.300   264.000   670.200    297.000    677.600    300.000
X3       70.000   302.000   154.770   936.071   130.000   407.000     0.302      0.670      1.400      0.200
X4        0.300     0.001     0.130     0.002     1.400     0.002     0.002      0.000      0.000      0.000

         VALLEY SECTION

X1      400.570     2.062   297.000   105.000   420.430   402.000    20.300      0.000      0.000      1.330
X2      497.700     6.000   684.330   336.000   446.300   264.000   670.200    677.600    300.000    300.000
X3      570.300    30.000   154.770   936.071   130.000   407.000     0.302      0.670      1.400      0.200
X4        0.300     0.000     0.130     0.002     1.400     0.002     0.002      0.000      0.000      0.000

         4/6 FLEET NO.

X1      620.000     6.300   269.500   310.500   220.000   220.300   220.000      0.300      0.000      0.000
X2       90.000     0.000     0.000     0.000     0.000     0.000     0.000    684.500    664.500      0.000
X3       61.700     0.000   664.400   270.500   462.200   261.500   678.250    284.500    671.200    310.500
X4        0.300     0.000     0.000     0.000     0.000     0.000     0.000      0.000      0.000      0.000

         5/6 TAPE FLEET NO.

X1      400.570     2.062   297.000   105.000   420.430   402.000    20.300      0.000      0.000      1.330
X2      497.700     6.000   684.330   336.000   446.300   264.000   670.200    677.600    300.000    300.000
X3      570.300    30.000   154.770   936.071   130.000   407.000     0.302      0.670      1.400      0.200
X4        0.300     0.000     0.130     0.002     1.400     0.002     0.002      0.000      0.000      0.000
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PRINTED IN U.S.A.
FORT 1411-GO PRINTED BY ROTARY MANIFOLD FORMS.

	3R	678.000	227.200	679.600	298.100	680.100	298.300	680.600	298.400	680.600	301.600
			000	679.600	304.900	678.600	302.800	678.100	304.200	678.000	305.700
	GR	678.100	307.200	678.600	304.600	679.600	339.500	680.100	309.700	680.600	309.600
	GF	682.200	318.500	684.400	330.000	686.700	500.000	0.000	0.000	0.000	0.000
	SG	0.000	1.800	3.000	0.000	13.300	0.000	70.000	0.000	678.070	670.000
	ST	0.000	0.300	0.000	0.000	0.000	0.100	0.000	0.000	270.000	350.000

U/S FACE FLEET RD.

	X1	691.000	0.000	0.000	0.000	66.000	60.000	66.000	0.000	0.070	0.000
	X2	0.200	0.000	1.000	673.300	674.000	0.000	0.000	0.000	0.000	0.000
	X3	10.200	0.000	0.000	0.000	0.000	0.000	0.000	686.300	686.000	0.000
	X4	36.300	0.000	673.000	0.000	669.000	300.000	0.000	270.300	686.000	0.000
	BT	290.200	686.000	680.600	290.500	686.000	681.100	290.500	686.000	681.600	291.400
	ST	686.000	682.600	292.800	686.000	683.100	294.300	686.000	683.250	295.800	685.000
	RT	683.100	297.200	686.000	682.600	299.100	686.000	681.600	298.300	686.500	685.100
	JT	298.400	686.000	680.600	301.600	685.000	661.600	301.700	686.000	681.700	301.900
	SR	686.000	681.800	303.400	686.000	682.600	304.200	686.000	683.100	305.700	686.000
	JT	683.250	302.200	683.000	683.100	303.600	686.000	682.600	09.300	686.300	681.900
	BT	309.700	686.000	681.100	309.800	686.000	680.600	330.000	686.000	0.000	331.000
	BT	690.000	0.000	500.000	690.000	0.000	0.000	0.000	0.000	0.000	0.000
	NC	0.050	3.050	0.055	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	ST	0.000	0.000	0.000	0.000	0.000	0.100	0.000	0.000	270.000	350.000

J/S FLEET RD.

	X1	696.000	8.000	289.500	310.500	5.000	5.000	5.000	0.000	0.000	0.000
	X3	10.000	0.000	0.300	0.000	0.000	0.000	0.000	366.000	686.000	0.000
	BR	686.700	0.000	684.700	272.000	682.300	231.500	678.400	219.500	678.000	310.500
	BB	686.800	311.600	686.700	332.000	686.700	350.000	0.000	0.000	0.000	0.000
	NC	0.050	3.050	0.055	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	ST	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION

	X1	900.300	7.000	296.000	303.000	204.000	204.000	204.000	0.000	0.300	0.000
	BT	686.300	0.000	686.700	266.000	679.300	296.000	678.900	300.000	679.300	303.000
	GT	685.300	324.000	685.600	320.000	0.000	0.000	0.300	0.000	0.300	0.000

VALLEY SECTION

	X1	1800.000	7.000	296.000	303.000	900.000	900.000	900.000	0.000	0.300	0.000
	BT	687.200	0.000	686.700	266.000	681.000	296.000	680.700	300.000	681.000	303.000
	GT	686.200	324.000	685.400	320.000	0.000	0.000	0.300	0.000	0.300	0.000

VALLEY SECTION

	X1	2750.300	7.000	296.000	303.000	950.000	950.000	950.000	0.000	0.000	0.000
	BT	686.300	0.000	686.700	259.300	682.000	302.300	681.900	300.200	683.500	302.900
	GT	687.200	324.000	685.800	320.300	0.000	0.100	0.300	0.000	0.000	0.000
		0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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```
*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO ****
   SECNO    DEPTH    CHSEL    CRIWS    USELK    ES       HV       HL       CLOSS    BANK ELEV
   Q        ALCH     DCH      CROD     ALCO     ACH      AROD     VOL      TWA      LEFT/RIGHT
   TIME     VLCH     ACH      VROD     XNL      XNCH     XAR      HT       ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IHZ      ICONT    CORAR    TOPWID   ENDST

3720 CRITICAL DEPTH ASSUMED

        VALLEY SECTION

     0.00     4.01   681.61   681.61   680.80   682.68     1.07     0.00     0.00   678.20
     445.     107.     236.     132.      24.      22.      23.       0.       0.   678.20
     0.00     4.40    11.63     4.39    0.050    0.035    0.050    0.000   677.60   282.73
 0.011171       0.       0.       0.        0       12        0     0.00    33.60   316.55

FLOW DISTRIBUTION FOR SECNO=      0.00          CHSEL=    681.61

STA=      235.     297.     301.     317.
  PER C=     [illegible]     [illegible]     [illegible]
  AREA=     [illegible]     [illegible]     [illegible]
   VEL=      4.4     10.6      4.4

*SECNO 401.000

3371 HV CHANGED MORE THAN HVINC

        VALLEY SECTION

   400.00     5.92   [illegible]     0.00     0.00   [illegible]     0.00     1.[illegible]     0.00   [illegible]
     445.     135.     102.     120.      59.      35.      38.       1.       0.   678.60
     0.00     2.10     2.40     2.[illegible]    0.[illegible]    0.05[illegible]    0.[illegible]    [illegible]   274.70
 0.001663     400.     400.     400.        4        0        0     0.00    49.34   324.12

FLOW DISTRIBUTION FOR SECNO=    400.00          CHSEL=    683.92

STA=      275.     297.     [illegible]     [illegible]
  PER C=     30.3     40.9     26.0
  AREA=     59.1     33.7     56.2
   VEL=      2.3      5.4      2.3

CCHV=   0.300 CEHV=   0.500
*SECNO 620.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE/ELLEA=      684.50 ELREA=      684.50

        D/S FLEET RD.

   620.00     5.99   684.19     0.00     0.00   684.39     0.19     0.22     0.01   678.20
     445.       0.     445.       0.       0.     126.       0.       2.       1.   678.20
     0.05     0.03     [illegible]     0.00    0.050    0.035    0.050    0.035   678.20   289.50
 0.003673     220.     220.     220.        3        0        0     0.02    [illegible]   [illegible]

FLOW DISTRIBUTION FOR SE                          CHSEL=    684.19
```

STA= 290. 311.
PER Q= 100.0
AREA= 125.7
VEL= 3.5

QSIM= 0.50 QEA= 5.50
*SECNO 625.050

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLER= 684.50 ELAREA= 684.50

S/S FACE FLEET RD.

625.05	6.5	684.50	7.03	0.00	684.45	0.49	3.02	7.05	692.00
445.	0.	445.	0.	0.	134.	0.	2.	1.	680.50
0.05	0.00	4.30	3.00	0.040	0.317	0.040	0.033	678.00	290.20
0.003429	3.	5.	5.	2	0	0	0.00	19.60	309.80

FLOW DISTRIBUTION FOR SELQ= 625.05 QMSEL= 684.15

STA= 290. 310.
PER Q= 102.0
AREA= 103.5
VEL= 4.3

SPECIAL BRIDGE.

S		NPOI	CDSK	ROLEN	UPC	QWP	UFLA	QC	ELCH.	ELSID
	0.02	2.	0.20	0.30	13.30	0.00	70.00	0.00	678.07	678.03

*SECNO 651.000

SEC Q	DEPTH	QMSEL	QRIMS	WSELR	EC	HV	FC	QLOSS	BANK ELEV
	QLOB	JCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
1	FLOW	WSEL	VCHD	RNC	RNCH	RND	NTR	CWID	SSTA
ELSTA	ELLOBL	ELCHL	ELCHR	ITRIAL	IHS	ICONT	LLOSS	TO-WSEL	EPISI

PRESSURE FLO.

CRWS	BSL.S	Q	WSEL	QAR	EARLY	TRAPEZOIL AREA	E.LC	E.T.J
685.28	684.50	0.00	0.	445.	70.	70.	683.32	686.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLER= 686.00 ELAREA= 686.00

U/S FACE FLEET RD.

591.00	6.32	684.50	0.00	0.30	685.48	2.21	0.04	0.20	690.32
445.	0.	445.	0.	0.	22.	0.	2.	1.	686.67
0.05	0.00	4.32	0.00	0.100	5.002	0.336	1.133	678.32	330.20
1.590272	69.	66.	66.	2	1	0	0.00	19.60	329.80

FLOW DISTRIBUTION FOR SELQ= 691.00 QMSEL= 685.08

STA= 290.
PER Q= 100.2
AREA= 130.2

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      VEL=      5.7

   CCHV=   0.300 CEHV=   0.500
   *SECNO 696.000

 0495 OVERBANK AREA WAS MED NOT-EFFECTIVE,CLOSA=      606.00 ELAREA=      636.30

          U/S FLEST TO.

    696.00     6.32   685.12     0.03     0.00   685.29     0.17     0.00     0.01   676.80
       445.       0.      64.      0.       0.      133.      0.       2.       1.   679.60
      3.05      0.00     5.36     0.15     0.430    3.035    0.051    0.032  370.30  209.50
  0.003567        5.       3.       5.       2        0        2     2.06    21.00  310.56

 FLOW DISTRIBUTION FOR SECNO=    696.00         CHSEL=    685.12

  STA=      293.      311.
  PCB.0=    100.0
  AREA=     132.6
  VEL=        3.4

   CCHV=   0.100 CEHV=   0.300
   *SECNO 900.000

          VALLEY SECTION

    900.00     6.42   685.32     0.00     0.00   665.63     0.11     0.15     0.01   679.31
       445.      155.     196.     116.     104.      44.      73.       3.       1.   679.30
      1.09      1.56     5.42     1.46    0.052    0.335    2.030    2.023  679.92  201.25
  0.003714       206.     205.     264.       2        0        0     0.01  128.44  389.67

 FLOW DISTRIBUTION FOR SECNO=    900.00         CHSEL=    685.32

  STA=      201.      255.      296.      362.      326.      330.
  PCB.0=      0.3      36.4      72.2      97.1       0.3
  AREA=       6.9      96.6      43.5      70.5       0.2
  VEL=        0.2       2.7       3.8       1.6       0.1

   *SECNO 1800.300

          VALLEY SECTION

   1800.30     5.44   686.14     0.00     0.50   666.32     0.18     0.37     0.02   651.30
       445.      150.     177.     119.      73.      32.      50.       7.       5.   651.00
      0.96      3.03     4.77     2.04     2.090    0.035    0.350    2.035  660.30  267.57
  0.003579       900.     900.     900.       2        0        0     0.00   55.15  325.73

 FLOW DISTRIBUTION FOR SECNO=   1800.30         CHSEL=    686.14

  STA=      268.      306.      345.      420.
  PCB.0=     38.0      55.2      26.7
  AREA=      92.0      37.1      54.
  VEL=        2.0       6.3       2.0

   *SECNO 2750.300

          VALLEY SECTION

   2750.00     4.06   687.54     0.00     0.00   687.72     3.12     1.72     0.00   682.
       445.      148.     176.     119.      73.      32.      50.       7.       5.
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0.24	2.13	4.96	2.20	0.050	0.035	0.050	0.034	682.50	267.[illegible]
0.001646	950.	950.	950.	2	0	0	0.00	63.56	331.21

FLOW DISTRIBUTION FOR SECNO= 2730.00 CWSEL= 687.56

STA=	268.	296.	303.	325.	331.
FLOW=	52.2	[illegible]	22.4	0.1	
AREA=	67.4	34.3	58.8	0.9	
VEL=	2.1	5.0	2.2	0.4	

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - [illegible]
  MODIFICATION - 50,51,52
*****************************************************

T1 GREEN MEADOWS DRAIN  HUD 2003-07 CANTON TWP.
T2 Q=445  AT CONFLUENCE WITH TORQUISH CREEK TO 2750 FT UPSTREAM
T3      GREEN MEADOWS DR. CANTON

J1  ICHECK    INQ      NINQ     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       5.       0.       0.  0.000000     0.00     0.0      0.   680.900   0.000

J2  NPRDF    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 2

CCHV= 0.100 CEHV= 0.300

*SECNO ****

RSECNO	R3PTL	C_SEL	CRITS	WSELM	ES	HV	HL	ULOSS	BANK ELEV
R	GLOB	CCH	GROB	PLOB	ACH	AROB	VOL	TPR	LEFT/RIGHT
*INE	WLOB	WCL	PROB	RHL	XSCH	XSO	NTS	FLOIN	SSTA
SLOPE	XLOSL	X_CH	XLOSR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3723 CRITICAL DEPTH ASSUMED

VALLEY SECTION

3.00	4.01	681.61	681.61	680.92	682.68	1.07	0.30	0.00	678.20
445.	137.	236.	102.	24.	22.	23.	5.	5.	676.20
0.05	4.00	10.52	4.39	0.050	0.035	0.050	0.035	677.90	282.75
0.011165	0.	0.	2.	0	10	0	0.00	23.70	316.55

*SECNO 660.000

2800 QAT Q1= 109.13 HSE1= 683.92 ERC Q1= 109.13 HSE2= 684.02 RATIO= 0.0000

QAT 2= 114. RATIOS LOB/CH/ROB= 0.3057 0.4043 0.2900 QSUM= 664.13

3311 IV CHANGED HC IF TOPT LWING

3470 ENCROACHMENT STATIONS= 263.6 315.7 TYPE= 4 TARGET= 0.041

VALLEY SECTION

700.00	5.93	683.93	0.00	683.92	684.20	0.26	1.43	0.00	676.50
445.	133.	107.	125.	50.	34.	47.	1.	0.	676.60
0.03	2.66	5.55	2.64	0.050	0.035	0.050	0.035	678.00	285.66
0.02 741	400.	230.	400.	2	1	0	0.00	12.10	313.75

CCHV= 0.500 CEHV= 0.500

*SECNO 620.000

3470 ENCROACHMENT STATIONS= 1.0 300.0 TYPE= 1 TARGET= 455.000

3493 OVERBANK AREA ASSUMED NON-EFFECTIVE/ELLOB= 683.50 ELROB= 684.50

D/S FLEET RD.

623.00	6.05	684.25	0.00	684.14	684.64	0.39	1.44	0.02	678.20
445.	0.	245.	0.	0.	127.	0.	0.	0.	676.20
0.05	0.00	3.51	0.00	0.050	0.035	0.050	0.035	678.20	289.50
0.000654	220.	220.	220.	3	0	3	0.00	21.00	310.50

CCHV= 0.500 CEHV= 0.500

*SECNO 625.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE/ELLOB= 684.50 ELROB= 684.50

D/S RICE E-W RD.

625.00	6.20	684.60	0.00	684.35	684.46	0.26	0.00	0.02	678.50
445.	0.	245.	0.	0.	0.	0.	0.	0.	676.60

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0.05	0.00	4.23	0.00	0.040	0.017	0.040	0.035	678.60	290.20
0.000414	5.	5.	5.	2	0	0	0.00	19.80	309.80

SPECIAL BRIDGE

SAB	X"	KCOE	COEF	RC.FW	RWC	RWP	RWAE	SS	ELCRW	ELCRD
	0.00	1.80	3.00	0.00	13.30	0.00	70.00	0.00	678.07	678.00

*SECNO 691.000

SECNO	DEPTH	CHNE	CRWS	SEL	EG	HV	IL	CLOSS	BANK ELEV
Q	VLOB	ACH	WRSB	#.OB	ACH	AROB	WOL	CHA	LEFT/RIGHT
TIME	VLOB	WCH	WESB	N.L	R.CH	XLB	WTH	E.HTL	SSTA
SLOPE	XLCOL	KLCH	XLOBR	ETRIAL	I 12	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

ESPRS	EGLWC	KS	AREER	APR	CAREA	TRAPEZOID AREA	LLLC	ELTRD
685.33	684.55	0.00	0.	445.	70.	70.	683.32	656.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 686.00 ELREA= 686.00

W/S FACE FLEET NO.

691.00	7.06	685.13	0.00	685.06	685.3	0.31	2.65	0.00	660.67
445.	0.	445.	0.	0.	121.	C.	4.	0.	680.67
0.05	0.00	3.67	0.00	0.040	0.017	0.040	0.053	670.07	290.20
0.000263	66.	66.	66.	2	0	0	0.00	19.80	309.80

CCHV= 0.300 CCHV= 1.300

*SECNO 695.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 686.00 ELREA= 686.00

W/S FLEET NO.

696.00	6.33	689.19	0.00	685.12	685.35	0.17	0.00	3.01	678.80
445.	0.	445.	3.	0.	125.	0.	2.	0.	678.80
0.05	0.00	3.32	0.00	0.050	0.035	0.050	0.025	670.08	289.80
0.000550	9.	9.	9.	2	0	0	0.00	21.00	310.80

CCHV= 0.120 CCHV= 0.300

*SECNO 900.000

ZONE NO.1 CT= 100.30 CE= 693.32 ENC 01= 185.82 ST= 683.42 XSTCD= 2.0000
CAT 0 = 175. 1.7000 0.00 0.300 0.3727 0.3453 0.2470 USEL= 183.42

3470 ENCROACHMENT STATIONS= 275.3 347.3 TYPE= 4 TARGET= 0.047

VALLEY SECTION

700.00	6.66	693.34	0.00	685.32	685.44	0.12	0.13	0.00	674.80
445.	155.	445.	155.	0.	60.	0.	0.	0.	674.80
0.07	1.90	3.67	1.35	0.050	0.035	0.050	0.033	670.90	276.40
0.000726	204.	204.	204.	2	0	0	0.00	23.10	313.60

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*SECNO 1800.000
2800 NAT Q1= 119.82 WSEL= 686.14 ENC Q1= 119.82 WSEL= 686.24 RATIO= 0.0000
NAT Q1= 125. RATIOS LOB,CH,ROB= 0.3386 0.3916 0.2700 WSEL= 686.24

3470 ENCROACHMENT STATIONS= 279.6 316.2 TYPE= 4 TARGET= 3.045

VALLEY SECTION

1800.00	3.49	686.19	0.00	686.14	686.39	0.25	3.89	0.02	681.00
645.	147.	152.	116.	69.	37.	45.	4.	1.	68.30
0.16	2.45	4.58	2.93	0.050	0.065	3.050	0.034	662.78	329.78
0.001417	950.	950.	950.	2	0	0	3.03	36.48	316.62

*SECNO 2750.000
2800 NAT Q1= 109.81 WSEL= 687.33 ENC Q1= 109.93 WSEL= 687.56 RATIO= 0.0005
NAT Q1= 15. RATIOS LOB,CH,ROB= 0.3260 0.3703 0.2997 WSEL= 687.65

3470 ENCROACHMENT STATIONS= 280.4 318.8 TYPE= 4 TARGET= 5.050

VALLEY SECTION

2750.00	5.13	687.62	0.00	687.56	687.85	0.29	1.55	0.30	682.80
445.	140.	175.	130.	59.	35.	32.	9.	2.	662.80
0.22	2.54	5.03	2.48	0.050	0.055	0.055	0.334	682.50	280.44
0.001657	950.	950.	950.	2	0	0	0.00	36.32	318.76

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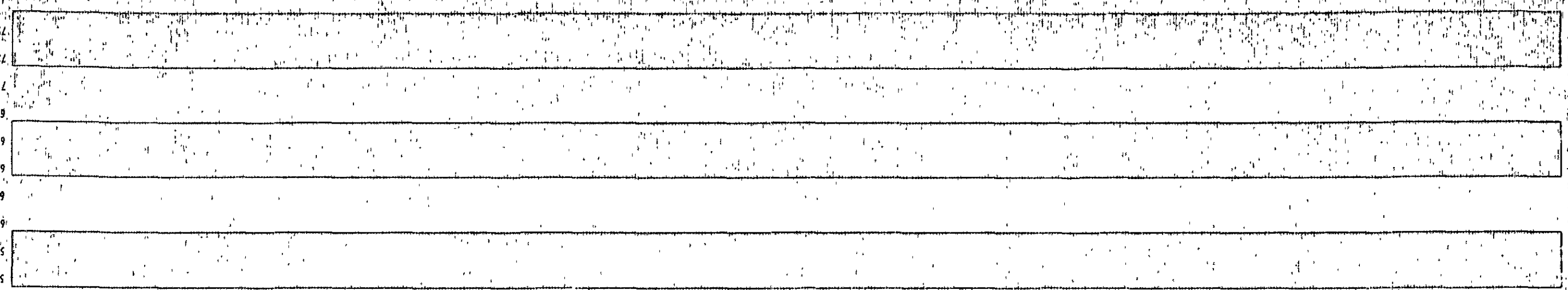

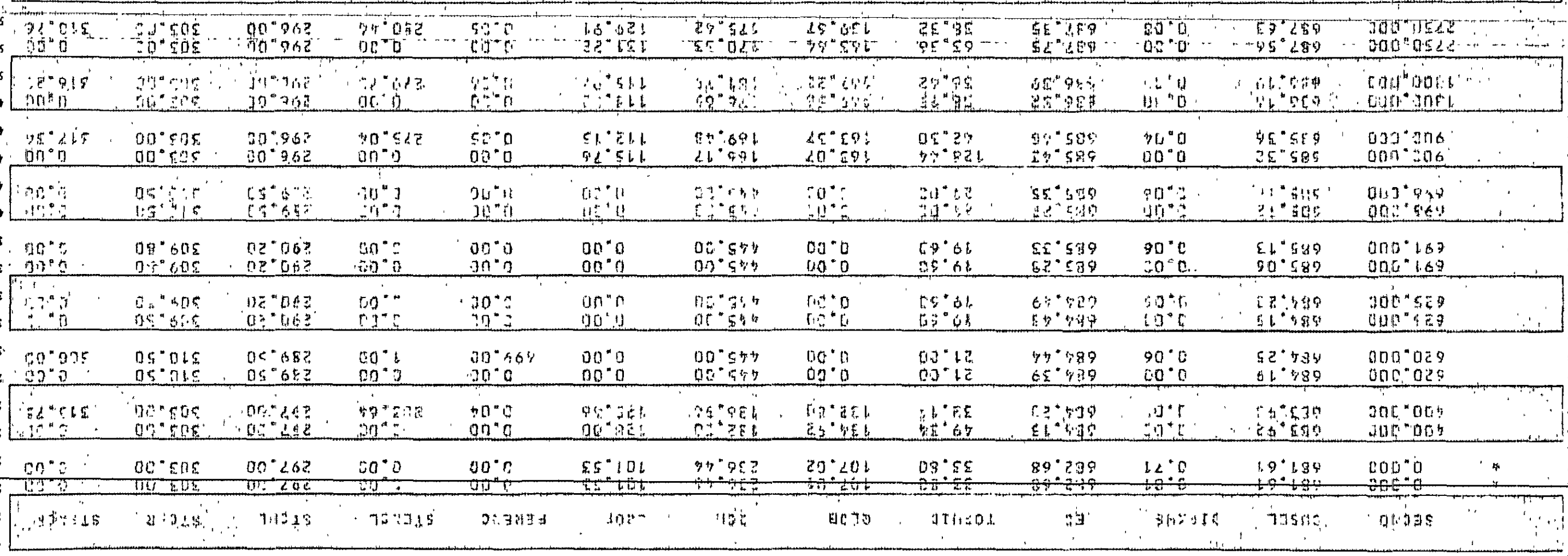

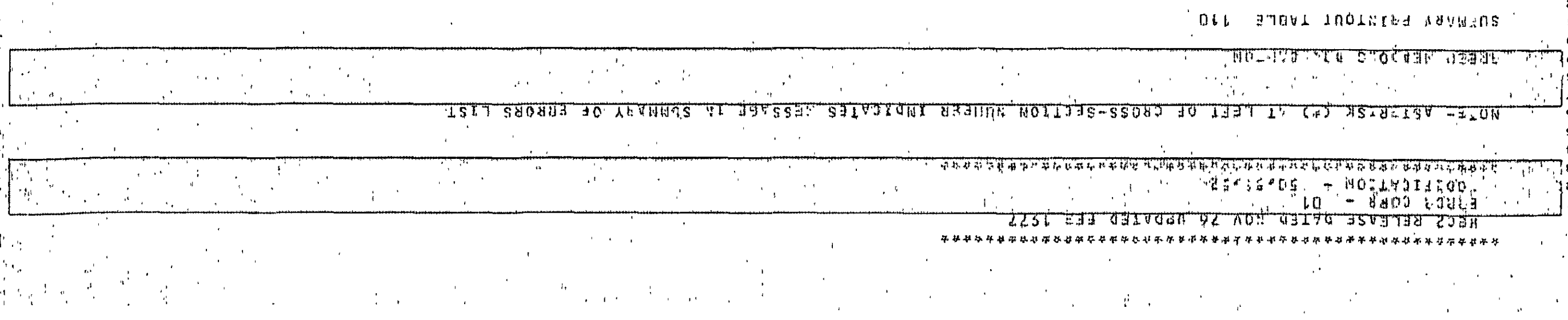

GREEN MEADOWS DR. CANTON.

SUMMARY PRINTOUT TABLE 150

	SECNO	ALCH	ELTRD	ELLC	ELMIN	Q	CMSEL	CRIMS	CG	TURNS	VCH	AREA	VOIR
*	0.000	0.00	0.00	0.00	677.60	445.00	681.61	681.61	682.68	111.71	10.62	69.69	42.10
*	0.000	0.00	0.00	0.00	677.60	445.00	681.61	681.61	682.68	111.65	10.62	69.70	42.11
	400.000	400.00	0.00	0.00	678.00	445.00	683.92	0.00	684.15	16.63	5.40	140.96	109.[illegible]
	400.000	400.00	0.00	0.00	678.00	445.00	683.93	0.00	684.20	17.41	5.53	131.11	106.65
	620.000	220.00	0.00	0.00	678.20	445.00	684.19	0.00	684.39	6.75	3.54	125.66	171.33
	620.000	220.00	0.00	0.00	678.20	445.00	684.25	0.00	684.44	6.54	3.51	126.86	173.98
	625.000	5.00	0.00	0.00	678.00	445.00	684.15	0.00	684.43	4.29	4.30	133.51	214.95
	625.000	5.00	0.00	0.00	678.00	445.00	684.20	0.00	684.49	4.14	4.25	134.66	216.[illegible]
	691.000	66.00	686.00	683.32	678.07	445.00	685.06	0.00	685.28	2.72	3.73	123.11	270.04
	691.000	66.00	686.00	683.32	678.07	445.00	685.15	0.00	685.33	2.63	3.67	121.33	274.26
	696.000	5.00	0.00	0.00	678.80	445.00	685.12	0.00	685.29	5.67	3.36	132.02	186.[illegible]
	696.000	5.00	0.00	0.00	678.80	445.00	685.13	0.00	685.35	5.50	3.32	133.90	189.[illegible]
	900.000	204.00	0.00	0.00	678.90	445.00	685.32	0.00	685.43	7.14	3.82	217.75	166.[illegible]
	900.000	204.00	0.00	0.00	678.90	445.00	685.36	0.00	685.43	7.25	3.87	190.16	165.10
	1800.000	900.00	0.00	0.00	680.70	445.00	686.[illegible]	0.00	686.32	13.79	4.77	160.[illegible]	119.[illegible]
	1800.000	900.00	0.00	0.00	680.70	445.00	686.[illegible]	0.00	686.39	14.14	4.[illegible]	146.35	118.[illegible]
	2750.000	950.00	0.00	0.00	682.50	445.00	687.36	0.00	687.73	16.46	4.96	161.43	109.68
	2750.000	950.00	0.00	0.00	682.50	445.00	687.63	0.00	687.85	16.57	5.03	142.16	109.32

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FORM 1411-3 PRINTED BY ROTARY MANIFOLD FORMS.

GREEN MEADOWS DR. CANTON

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	W.SEL	DIFWSP	DIFWSW	DIFKWS	TOPWID	XLCH
*	0.000	445.00	681.61	0.00	0.00	0.81	33.00	0.00
*	0.000	445.00	681.61	0.00	0.00	0.71	33.00	0.00
	400.000	445.00	683.92	0.00	2.31	0.00	49.34	400.00
	400.000	445.00	683.96	0.00	2.32	0.01	32.11	400.00
	620.000	445.00	684.19	0.00	0.27	0.00	21.00	220.00
	620.000	445.00	684.25	0.00	0.31	0.06	21.00	220.00
	625.300	445.00	684.15	0.00	-0.04	0.00	19.60	5.30
	625.300	445.00	684.20	0.00	-0.04	0.05	19.60	5.30
	691.000	445.00	685.06	0.00	0.92	0.00	19.60	66.00
	691.000	445.00	685.13	0.00	0.92	0.07	19.60	66.00
	696.000	445.00	685.12	0.00	0.05	0.20	21.00	5.00
	696.000	445.00	685.19	0.00	0.05	0.26	21.00	5.00
	900.000	445.00	685.32	0.00	0.20	0.00	128.46	204.00
	900.000	445.00	685.36	0.00	0.18	0.04	44.30	204.00
	1300.000	445.00	686.24	0.00	0.82	0.00	50.15	900.00
	1300.000	445.00	686.29	0.00	0.83	0.05	50.42	900.00
	2750.000	445.00	687.36	0.00	1.42	0.00	63.56	950.00
	2750.000	445.00	687.43	0.00	1.44	0.08	58.32	950.00

SUMMARY OF WARNINGS

CAUTION SECNO= 0.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

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FORM 1411-SB PRINTED BY HOTARY MANIFOLD FORMS.

FLOODWAY DATA, GREEN MEADOWS DR. CANTON
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
0.000	34.	70.	6.4	681.6	681.6	0.0
400.000	32.	101.	3.4	683.9	683.9	0.0
620.000	21.	127.	3.5	684.3	684.2	0.1
625.000	20.	105.	4.3	684.2	684.1	0.1
691.000	20.	121.	3.7	685.2	685.1	0.1
696.000	21.	134.	3.3	685.2	685.1	0.1
900.000	42.	190.	2.3	685.3	685.3	0.0
1800.000	36.	147.	3.0	686.2	686.1	0.1
2750.000	30.	142.	3.1	687.7	687.6	0.1

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FORM 1411 OD-PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
*****************************************************
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FORM 1471-SU-PRINTED BY ROTARY MANIFOLD FORMS.

```
*****************************************************************
*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*       0  ERROR(S) DETECTED BY THE USER PROGRAM                *
*       0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE        *
*       0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS         *
*                                                               *
*****************************************************************
```

FORM 1611-GD-PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Green Meadows Drain

4) DOCUMENT TYPE: Summary

00BREAK00

Corrected Addresses

4 - Pages

```
JOBID=HU200307          USER=DAN                PROJECT=HUDCANT          BILLING=HUDCANT          RON=X0063

13:20:32                                  JOB INTRODUCED FROM                                  MAR 20, 1980
                                                  CD01 JCL

13:20:52  START OF TRANSLATION

          $JOB HU200307,USER=DAN,PROJECT=HUDCANT;
          $INPUT HEC2;
          RECORD COUNT 94
          $ENDINPUT;
           VALUES NTAPAR,NTAPAR;
           SEND 'START OF HEC#2 EXECUTION';
           STEP HEC#2,NTAENGLM,OPTIONS='FILE#A 91,FILE#B 92,FILE#C 93,FILE#D 94,
                                        FILE#E 95,FILE#F 96';
           ALC FILE#A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#A,FILE#A,TEMPRY,DVC=MS/M400,MD=&1;
           ALC FILE#B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#B,FILE#B,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#C,FILE#C,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#D,FILE#D,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#E,FILE#E,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#F,FILE#F,TEMPRY,DVC=MS/M400,MD=&2;
           ALC [illegible];
          DEFINE [illegible];
           [illegible];
           CROSTOP;
          $ENDJOB;

          RECORD COUNT [illegible]

13:20:53  END OF TRANSLATION
```

JOBID=HU200307 USER=DAN PROJECT=HUDCANT BILLING=HUDCANT ROL=X0063

SOT : SPRING HAS SPRUNG.

3:30:56 JOB EXECUTION LISTING MAR 20, 1980

START OF HEC=2 EXECUTION

STEP 1
LOAD MODULE = HEC=2 (74/2 /22 23:58) PREINITIALIZED
LIBRARY = M*SYSLIB

13:20:30 STEP STARTED XPRTY=9
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=N
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=C
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=5
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=4
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=3
FP04. 2 CYLINDER(S) ALLOCATED ON VOLUME: MTAPAK FOR EFN: ;0000063.FILE=F
TASK MAIN J=01 P=00 COMPLETED
OUF01.IFN=FILE=N REMEMBER REUSE= 0
OUF01.IFN=FILE=C TE ENDER REUSE= 0
OUF01.IFN=FILE=5 REMEMBER REUSE= 0
OUF01.IFN=FILE=4 REMEMBER REUSE= 0
OUF11.IFN=FILE=3 REMEMBER REUSE= 0
OUF..1.IFN=FILE=F REMEMBER REUSE= 0 UNLOCK BUFFER= 0 CREATE BUFFER= 32
TEMPORARY FILES USED= 220 TRACKS

FILE=N	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 123
FILE=C	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 102
4UF	C	L6ARV4	:	A3	0	IO	CONNECTS= 12
MORD	DK	L6ARV4	:	A3	0F	IO	CONNECTS= 1
FILE=D	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 74
FILE=A	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 142
FILE=5	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 251
FILE=F	DK	MTAPAK	:	A3	0F	IO	CONNECTS= 21

CPU 13.531 PAGE W.SET=0 S.F.T= 221 STACKS 76
ELAPSED 3,601 SYS MISSING SECTS 1063
LINES 432 LIMIT NOLIM BACKING STORE 507936
CARDS 0 LIMIT NOLIM BUFFER SIZE 13220 CPUSIZE 2272

13:24:30 STEP COMPLETED

START 13:20:94 LINES 432
STOP 13:26:30 CARDS 0
CP: 13.53
ELAPSE 3.?32
13:26:30 REQUEST: LO COMPLETED

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FORM 1471-GP-PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
 REC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CODE =  01
 MODIFICATION =  50,51,52
**************************************************

C
T1 WEBER HEADGATE DIVERSION FOR 2003-07 CANYON FLOW
T2 Q=870  AT CONFLUENCE WITH TCHOUISH CREEK TO 2750 FT UPSTREAM
T3     STREAM HEADGATE WEIR CONTACT

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     G         USEL      FG
          0.        1.        1.        1.  3.0F30F0     0.00      0.0       0.   999.000     0.001

J2  NPROP     LP-QT     ROPTS     KSEC1     KSEC2     FM        ALLEC     JCH       CHWIM     STRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.300

J3  VARIABLE CODES FOR CUSTOMIZED PRINTOUT
    150.000    20.000     5.000     0.000     0.000     0.000     0.000     0.000     0.300     0.300

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********
     -10.000   -11.000     1.000     0.000     0.000     0.000     0.000     0.000     0.300     0.000
QT     5.000   170.000   385.000   475.000   445.300   505.020     0.300     0.000     0.000     0.000
NC     0.050     0.050     0.045     0.100     0.300     0.050     0.300     0.000     0.000     0.000

                VALLEY SECTION
X      0.300     5.000   297.000   305.000     0.000     0.000     0.000     0.000     0.300     0.000
GR   630.200   303.000   685.000   330.000   655.600   407.000     0.000     0.000     0.000     0.000
ET     0.000     0.000     3.000     0.300     3.420     0.000     0.500     0.000     0.000     0.000

                VALLEY SECTION
X    400.000     0.000   297.000   305.000   400.000   400.000   400.000     0.300     0.000     3.000
GR   687.000     0.000   685.000   230.500   606.500   204.000   678.620   297.000   674.000   305.050
GR   678.670   303.000   685.600   330.000   666.000   407.000     0.000     0.000     0.000     0.000
NC     3.000     0.000     5.000     0.150     5.500     0.000     3.000     0.000     0.000     0.000
ET     3.000     0.000     0.000     0.000     7.100     0.100     3.000   500.000   502.000   330.300

                D/S FLEET RD.
X    685.000     0.300   285.300   315.500   320.000   320.000   321.000     0.000     0.000     0.000
GR    10.000    01.300     0.300     0.000     0.000     3.500     0.000   607.500   500.000     0.000
GR   304.700     0.000   500.600   375.000   408.300   281.500   278.200   289.500   371.500   210.500
GR   682.200   318.900   604.100   330.000   686.700   500.000     0.000     0.000     0.000     0.000
NC     0.040     0.350     0.017     0.300     0.300     3.000     0.000     0.000     0.000     0.000
ET     0.000     0.500     0.300     0.000     0.300     9.150     0.300     0.000   270.000   350.000

                D/S FLEET RD.
X    635.000   290.200   290.200   300.000     5.000     5.000     5.300     0.000     0.000     0.000
```

FORM 1411-GR PRINTED BY ROTARY MANIFOLD FORMS
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X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	684.500	684.500	0.000
GR	686.700	0.000	684.400	270.000	682.500	281.500	680.600	290.200	680.100	290.300
GR	679.600	290.500	678.600	291.400	678.100	292.800	678.600	294.300	678.100	295.800
GR	678.600	297.200	679.600	298.100	680.100	298.300	680.600	298.400	680.600	301.600
GR	680.100	301.700	679.600	301.900	678.600	302.600	678.100	304.200	678.000	305.700
GR	678.100	307.210	679.600	308.600	679.500	309.500	680.200	309.700	680.500	309.800
EB	682.200	318.500	684.400	330.000	684.700	302.000	0.000	0.000	0.000	0.000
SB	0.000	4.500	3.500	0.000	13.300	2.000	70.000	0.000	678.000	670.000
ET	0.000	0.000	0.000	0.000	0.500	9.100	0.000	0.000	270.000	330.000

J/S PAGE FLEET DR.

X1	391.000	0.000	0.000	0.000	66.000	66.000	66.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	683.320	686.000	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	686.000	686.000	0.000
BT	28.000	0.000	690.000	0.000	269.000	690.000	0.000	270.000	666.000	0.000
BT	290.200	686.200	300.500	290.300	686.000	651.100	295.500	686.000	301.600	291.400
BT	686.000	682.600	292.300	686.000	683.100	294.300	686.000	685.250	295.250	686.200
BT	683.100	297.200	686.000	682.600	298.100	680.300	683.600	298.200	665.000	681.100
BT	298.600	686.300	680.600	301.600	686.000	680.600	301.700	686.000	681.100	301.900
BT	666.000	681.600	302.300	686.000	682.600	304.200	686.000	683.100	305.700	666.000
BT	683.250	307.200	606.000	683.100	308.600	686.000	682.600	309.500	686.000	661.600
BT	309.700	686.300	681.100	309.800	666.000	680.600	310.500	686.300	0.000	331.000
BT	690.000	0.000	302.100	690.300	0.000	0.000	0.000	0.000	0.000	0.000
BT	0.000	0.300	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	270.000	330.000

L/S FLEET DR.

X1	666.000	0.300	289.500	310.300	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	686.000	686.000	0.000
GR	686.700	0.000	684.700	270.000	682.600	281.500	680.800	289.500	678.800	310.500
GR	682.600	318.500	684.700	330.000	684.700	550.000	0.000	0.000	0.000	0.000
BC	0.000	0.300	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.300	0.000	0.300	0.400	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION

BT	990.000	0.300	289.000	303.300	214.000	304.000	304.000	0.000	0.000	0.000
GR	686.000	0.000	689.100	268.300	687.200	296.000	671.900	300.200	689.900	309.000
GR	691.600	296.300	685.600	320.300	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION

X1	803.000	0.000	293.000	313.300	900.000	900.000	900.000	0.000	0.000	0.000
GR	687.200	0.000	689.600	252.300	691.000	296.000	687.700	300.100	681.000	303.000
GR	685.200	326.000	688.400	370.000	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION

X1	2750.000	0.000	292.000	328.500	950.000	900.000	900.000	0.000	0.000	0.000
GR	688.600	0.000	688.000	269.000	682.000	296.000	682.500	300.000	682.600	305.600
GR	687.200	326.000	690.200	370.000	0.000	0.000	0.000	0.000	0.000	0.000
BC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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FORM EH-02 PRINTED BY HOTAPY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  [illegible]
*****************************************************

T1 GREEN MEADOWS DRAIN  NOD 2003-07 CANTON TWP.
T2 Q=385  AT CONFLUENCE WITH TONQUISH CREEK TO 2750 FT UPSTREAM
T3      GREEN MEADOWS DR. CANTON
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       3.       0.       0.  0.000000     0.00      0.0       0.  680.800    0.000
J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLOC     SUN     CHMIN    SYRACH
     2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS.

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE -  01
  MODIFICATION -  50,51,52
*****************************************************

T1 GREEN MEADOWS DRAIN  FUD 2003-07 CANTON TWP.
T2 [illegible] AT CONFLUENCE WITH TONQUISH CREEK TO 2750 FT UPSTREAM
T3       GREEN MEADOWS DR. CANTON
J1  ICHECK    INS      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       4.       0.       0.  0.200000     0.00     0.0       0.  680.000    0.000
J2  NPROF    IPLOT    PRFMS    XSECV    XSECH     FN      ALLDC    IBW      CHAIN    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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FORM 1411-08 PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 31
 MODIFICATION - 50,51,52
*****************************************************

T1 GREEN MEADOWS DRAIN  HUD 2003-07 CANTON TWP.
T2 Q=505  AT CONFLUENCE WITH TOMWORTH CREEK TO 2750 FT UPSTREAM
T3      GREEN MEADOWS OF CANTON
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   RVINS    Q        PSEL     FQ
      0.       6.       0.       0.  0.000000     0.00      0.0      0.   680.000    0.000
J2  NPROF     IPLOT    PDFWS    XSBOV    XSECH     FN      ALLDC    ELE      CHNIM    ITRACE
    15.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

****
DEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CODE - 01
MODIFICATION - 50,51,52
****

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

SUMMARY PRINTOUT TABLE 150

	SECNO	KLCH	OUTFLO	ELLC	ELMIN	Z	CHSTA	CHIES	ES	TOPWS	VCH	AREA	.01K
*	0.000	0.30	0.30	0.00	677.60	270.00	680.86	680.86	681.73	112.30	9.15	40.55	25.48
*	0.000	0.00	0.30	0.00	677.60	385.00	681.37	681.37	682.39	112.73	10.20	61.82	36.26
*	0.000	0.00	0.00	0.00	677.60	445.00	681.61	681.61	682.68	111.71	10.62	69.69	42.10
*	0.000	0.70	0.00	0.30	677.50	505.00	682.13	682.13	683.29	117.41	11.35	80.12	50.69
	400.000	400.00	0.00	0.00	678.00	270.00	682.92	0.00	683.10	15.20	4.55	103.74	69.23
	400.000	400.00	0.00	0.00	678.00	385.00	683.61	0.00	683.83	16.17	5.13	134.27	95.75
	400.000	400.00	0.00	0.00	678.00	445.00	683.92	0.00	684.15	16.63	5.40	148.96	109.13
	400.000	400.00	0.00	0.00	678.00	505.00	684.53	0.00	684.80	17.59	5.95	180.92	139.49
	620.000	220.00	0.00	0.00	678.20	270.00	683.16	0.00	683.29	4.31	2.56	104.38	127.13
	620.000	220.00	0.00	0.00	678.20	385.00	683.84	0.00	684.05	5.96	3.22	119.56	157.76
	620.000	220.00	0.00	0.00	678.20	445.00	684.19	0.00	684.39	6.75	3.54	125.66	171.35
	620.000	220.00	0.00	0.00	678.20	505.00	684.90	0.00	685.01	4.19	3.09	254.33	265.05
	625.000	5.00	0.00	0.00	678.20	270.00	683.16	0.00	683.32	2.21	2.21	99.76	135.01
	625.000	5.00	0.00	0.00	678.20	385.00	683.84	0.00	684.04	3.06	3.04	97.07	196.54
	625.000	5.00	0.00	0.00	678.20	445.00	684.19	0.00	684.43	3.49	3.50	103.31	216.93
	625.000	5.00	0.00	0.00	678.20	505.00	684.85	0.00	685.07	2.74	4.06	209.52	353.62
	691.000	66.00	686.00	683.32	678.07	270.00	683.42	0.00	683.57	2.61	3.07	37.49	167.70
	691.000	66.00	686.00	683.32	678.07	385.00	684.10	0.00	684.25	3.25	3.26	109.36	253.67
	691.000	66.00	686.00	683.32	678.07	445.00	684.46	0.00	684.61	3.72	3.70	120.11	270.04
	691.000	66.00	686.00	683.32	678.07	505.00	685.18	0.00	685.33	2.98	3.28	235.65	303.50
	696.000	5.00	0.00	0.00	678.00	270.00	683.46	0.00	683.56	2.59	2.76	97.91	114.18
	696.000	5.00	0.00	0.00	678.00	385.00	684.14	0.00	684.27	3.25	3.19	120.71	160.56
	696.000	5.00	0.00	0.00	678.00	445.00	684.48	0.00	684.59	3.60	3.50	131.02	184.61
	696.000	5.00	0.00	0.00	678.00	505.00	685.18	0.00	685.30	2.91	2.80	235.75	368.51
	900.000	204.00	0.00	0.00	678.90	270.00	683.61	0.00	683.75	11.88	3.93	117.41	78.33
	900.000	204.00	0.00	0.00	678.90	385.00	684.73	0.00	684.85	8.74	3.95	175.60	130.26
	900.000	204.00	0.00	0.00	678.90	445.00	685.32	0.00	685.43	7.14	3.82	217.78	166.56
	900.000	204.00	0.00	0.00	678.90	505.00	686.51	0.00	686.62	4.68	2.60	351.73	324.00
	1800.000	900.00	0.00	0.00	680.70	270.00	684.67	0.00	684.79	12.73	3.9	140.77	94.15
	1800.000	900.00	0.00	0.00	680.70	385.00	685.71	0.00	685.89	15.36	4.75	144.47	96.50
	1800.000	900.00	0.00	0.00	680.70	445.00	686.14	0.00	686.32	13.79	4.77	168.38	119.02
	1800.000	900.00	0.00	0.00	680.70	505.00	687.03	0.00	687.25	12.00	4.06	235.84	168.82

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CUSEL	CRINS	EG	10K*S	VCH	AREA	.01K
	2750.000	950.00	0.00	0.00	682.50	270.00	686.57	0.00	686.73	17.60	4.41	106.68	64.37
	2750.000	950.00	0.00	0.00	682.50	385.00	687.24	0.00	687.45	17.15	4.85	142.45	92.96
	2750.000	950.00	0.00	0.00	682.50	445.00	687.56	0.00	687.75	16.46	4.96	161.45	109.60
	2750.000	950.00	0.00	0.00	682.50	505.00	688.15	0.00	688.35	15.60	5.23	210.94	147.70

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GREEN MEADOWS DR. CANTON

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFXWS	TOPWID	XLCH
*	0.000	270.00	680.86	0.00	0.00	0.06	27.65	0.00
*	0.000	385.00	681.37	0.00	0.00	0.57	31.84	0.00
*	0.000	445.00	681.61	0.00	0.00	0.61	33.80	0.00
*	0.000	585.00	682.11	0.00	0.00	1.33	37.53	0.00
	400.000	270.00	689.92	0.00	2.05	0.00	41.80	400.00
	400.000	385.00	683.61	0.00	2.24	0.00	46.85	400.00
	400.000	445.00	683.92	0.00	2.31	0.00	49.34	400.00
	400.000	585.00	684.55	0.00	2.41	0.00	54.36	400.00
	620.000	270.00	683.70	0.00	0.26	0.00	21.00	220.00
	620.000	385.00	683.89	0.00	0.27	0.00	21.00	220.00
	620.000	445.00	684.19	0.00	0.27	0.00	21.00	220.00
	620.000	583.00	684.90	0.00	0.37	1.72	60.00	220.00
	625.000	270.00	683.46	0.00	-0.03	0.00	19.60	5.00
	625.000	385.00	683.85	0.00	-0.04	0.00	19.60	5.00
	625.000	445.00	684.15	0.00	-0.04	0.00	19.60	5.00
	625.000	585.00	684.85	0.00	-0.05	1.70	60.00	5.00
	691.000	270.00	683.42	0.00	0.27	0.00	19.60	66.00
	691.000	385.00	684.50	0.00	0.61	0.00	19.60	66.00
	691.000	445.00	685.05	0.00	0.92	0.00	19.60	66.00
	691.000	585.00	685.33	0.00	1.40	2.91	60.00	66.00
	696.000	270.00	683.46	0.00	0.04	0.00	21.00	5.00
	696.000	385.00	684.55	0.00	0.05	0.00	21.00	5.00
	696.000	445.00	685.12	0.00	0.05	0.00	21.00	5.00
	696.000	585.00	686.30	0.00	0.04	2.91	60.00	5.00
	900.000	270.00	683.61	0.00	0.15	0.00	46.84	204.00
	900.000	385.00	684.73	0.00	0.18	0.00	57.18	204.00
	900.000	445.00	685.32	0.00	0.20	0.00	128.44	204.00
	900.000	585.00	686.40	0.00	0.10	2.87	303.13	204.00
	1800.000	270.00	684.02	0.00	1.26	0.00	45.55	900.00
	1800.000	385.00	685.71	0.00	0.98	0.00	53.67	900.00
	1800.000	445.00	686.14	0.00	0.02	0.00	58.15	900.00
	1800.000	585.00	685.87	0.00	0.40	0.00	193.38	900.00
	2750.000	270.00	685.57	0.00	1.65	0.00	49.12	950.00
	2750.000	385.00	687.84	0.00	1.53	0.00	57.07	950.00
	2750.000	445.00	687.56	0.00	1.42	0.00	63.56	950.00
	2750.000	585.00	688.15	0.00	1.28	2.59	176.91	950.00

SUMMARY OF ERRORS

CAUTION SECNO= 0.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

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FLOOD INSURANCE ZONE DATA FOR GREEN MEADOWS DR. CANTON

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10@	2@	0.2@
0.000	0.	-0.6	-0.2	0.5
400.000	400.	-1.0	-0.3	0.6
620.000	620.	-1.2	-0.3	0.7
625.000	625.	-1.0	-0.3	0.7
691.000	691.	-1.6	-0.6	1.3
696.000	696.	-1.7	-0.6	1.3
900.000	900.	-1.7	-0.5	1.2
1800.000	1800.	-1.3	-0.4	0.7
2750.000	2750.	-1.0	-0.3	0.6
WEIGHTED AVG FOR REACH		-1.2	-0.4	0.8

REF FOR THE REACH = 010 WITH 100.0% OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = 4.2

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*****************************************************
 WEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION # 50,31,52
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*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*      0  ERROR(S) DETECTED BY THE USER PROGRAM                 *
*      0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE         *
*      0  ERROR(S) DETECTED FOR INPUT/OUTPUT STATEMENTS         *
*                                                               *
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00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: Canton Twp

3) WATERCOURSE: Tonquish, Green Meadows, Willow, Fellows

4) DOCUMENT TYPE: Report

00BREAK00

HYDRAULICS REPORT
CANTON TOWNSHIP, MICHIGAN

I. INTRODUCTION

Canton Township located in northwest Wayne County, is largely a rural agricultural community characterized by farmlands, woods, and open areas. During the last several years, however, urbanization has been quite prominent in the eastern half of the Township. This area has been rapidly developing with planned unit developments consisting of a combination of single-family homes, multi-family dwellings and park areas.

This report summarizes the hydraulic studies undertaken to support detailed studies of 1.2 miles of the Tonquish Creek; .5 miles of the Green Meadows Drain; 4.5 miles of the Willow Creek; and 4.2 miles of the Fellows Creek.

This report also includes hydraulic studies to support approximate studies for 5.5 miles of the Lower River Rouge from the Fellows Creek to the Fowler Creek; 1.7 miles of the North Branch of the Fellows Creek from Canton Center Road to Beck Road; 2.2 miles of the South Branch of the Fellows Creek from Canton Center Road to Ridge Road; 1.3 miles of the Tonquish Creek downstream of Warren Road; and 2.5 miles of the Fowlers Creek Branch upstream of its mouth.

This study was conducted by Wade, Trim & Associates, Inc., Consulting Engineers, and Glen Roberts served as Project Manager.

II. TONQUISH CREEK (DETAILED)

Detailed studies were performed on Tonquish Creek by the Soil Conservation Service (SCS) as part of a flood hazard report (Reference 1). A total of 7 cross sections were obtained by the SCS. The cross sections included 2 bridge structures and 5 valley sections.

Table 1 cross references section designations by showing the computer section number which corresponds to the cross section letter shown on Exhibit 1 for the Tonquish Creek. Table 2 lists discharges used by SCS which have been approved by Michigan Department of Natural Resources (M.D.N.R.).

A. Method of Analysis

The SCS WSP-2 backwater program (Reference 2) was used in calculating water surface profiles. WSP-2 printouts are on file with the SCS as well as the Michigan Department of Natural Resources.

B. Variables and Coefficients

Mannings "n" values used by SCS for the channel ranged from 0.040 to 0.060, with overbanks varying from .050 to .065 and the SCS also determined all bridge data.

C. High Water Marks

It was reported by SCS, based on high water marks, that the 1968 flood on the Tonquish Creek appeared to be between a 10 and 25 year return frequency (Reference 1).

TABLE 1

CANTON TOWNSHIP, MICHIGAN

TONQUISH CREEK

CROSS REFERENCE INDEX

Surveyed Section	Station	FW & FB Number	Location
18.3	275 + 50	A	Valley Section
18.7	292 + 30	~~B~~ D	Valley Section
18.9	302 + 30	~~C~~ E	Valley Section
19.0D*	302 + 77	~~D~~ F	Lilley Road
19.0U*	303 + 23	~~E~~ G	Lilley Road
19.2	310 + 80	~~F~~ H	Valley Section
19.5	326 + 50	~~G~~ I	Valley Section
20.0D	339 + 62	~~H~~ J	Joy Road
20.0U	339 + 99	~~I~~ K	Joy Road

*19.0D and 19.0U represent downstream and upstream face of bridges

D. Starting Conditions

Starting water surface elevations used in all backwater computations were taken from SCS Flood Hazard Analyses on Tonquish Creek (Reference 1).

E. Special Problems

The Michigan Department of Natural Resources gave Wade, Trim & Associates, Inc. permission to delineate the floodway based on the 100-year flood plain as calculated by SCS. The proposed floodway was delineated conservatively by use of the following approach: contraction and expansion ratios of 1:1 and 4:1, respectively were used at all bridges and natural constrictions. This approach eliminates ineffective flow areas.

F. General

Computed water surface elevations were developed to an accuracy of 0.5' for floods of the selected reoccurrence intervals.

All elevations are referenced to the U.S. Geological and Coastal Survey (USGCS) Datum. This datum is equivalent to the national geodetic vertical datum of 1929 (NGVD).

The hydraulic analyses for this study were based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 2

CANTON TOWNSHIP, MICHIGAN

TONQUISH CREEK

FLOOD FLOW FREQUENCY

LOCATION	SECTIONS	DISCHARGES, CFS 10 YR.	50 YR.	100 YR.	500 YR.
From d/s of Joy Rd. (u/s limit of study) to u/s of Green Meadows Drain	20.0U-19.5	800	1,135	1,320	1,770
From d/s of Green Meadows Drain to u/s Warren Road Extended	19.2-18.3	960	1,350	1,570	2,100

III. WILLOW CREEK (DETAILED)

Detailed studies were performed on the Willow Creek from Canton Center Road to the Westland Corporate Boundary. A total of 14 valley sections and 8 bridge structures were field surveyed by Wade, Trim & Associates in November, 1977. Two additional bridge structures were taken from the Forest Trails Subdivision plans (Reference 4). Cross section locations are shown in Exhibit 1 and were supplemented by U.S.G.S. Quad Maps of the study area which consist of 5 foot contour intervals (Reference 6).

Table 3 cross references section designations by showing the computer section number which corresponds to the cross section letter shown in Exhibit 1. Table 4 lists discharges that have been approved by the Michigan Department of Natural Resources (M.D.N.R.).

A. Method of Analysis

The HEC-2 backwater program was used in developing water surface profiles (Reference 3). HEC-2 printouts including computer cross section plots are presented as Exhibit 2. (Exhibit 2 is contained in the 11" x 15" folder enclosed with this report.) Water surface profiles resulting from the backwater analyses are presented as Exhibit 5.

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel of Willow Creek range from 0.024 to 0.035; roughness values for the overbank areas varied between 0.06 to 0.10

for all floods. These values are indicative of summer month conditions and are consistent with values recommended and used in engineering practice. Contraction and expansion coefficients were selected as 0.3 and 0.5 at bridge sections and 0.1 and 0.3 for gradual channel transitions. Bridge loss coefficient computations are included in Exhibit 4.

C. High Water Marks

No documented high water marks exist on the Willow Creek in our study area. high water marks were recorded by staff in 1979

D. Starting Conditions

The starting water surface elevations in all back-water computations were taken from flood hazard analysis performed on the Willow Creek by SCS (Reference 1).

E. Special Problems

No special problems were encountered in the hydraulic analysis of Willow Creek in our study area.

F. General

Computed water surface elevations were developed to an accuracy of 0.5 feet for floods of the selected reoccurrence intervals.

All elevations are referenced to the U.S. Geological and Coastal Survey (USGCS) Datum. This datum is equivalent to the National Geodetic Vertical Datum of 1929 (NGVD).

The hydraulic analyses for this study were based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 3

CANTON TOWNSHIP, MICHIGAN

WILLOW CREEK

CROSS REFERENCE INDEX

COMPUTER SECTION NUMBER	WTA FIELD BOOK	FW & FB NUMBER	DESCRIPTION
0		A	Corporate Boundary SCS Cross Section
600	229 + 87	B	Valley Section
1420	221 + 57	C	d/s Face Lotz Road
1460	221 + 17	D	u/s Face Lotz Road
2987	206 + 00	E	Valley Section
4029	195 + 58	F	d/s Face Ford Road
4237	193 + 50	G	u/s Face Ford Road
5237	183 + 50	H	Valley Section
5785	178 + 02	I	d/s Face I-275
6199	173 + 88	J	u/s Face I-275
6687	169 + 00	K	Valley Section
7503	160 + 84	L	d/s Face Haggerty Road
7543	160 + 44	M	u/s Face Haggerty Road
8737	148 + 50	N	Valley Section
9587	140 + 00	O	Valley Section
10185	134 + 02	P	d/s Face Lilley Road
10249	133 + 38	Q	u/s Face Lilley Road
11287	123 + 00	R	Valley Section
12354	112 + 23	S	d/s Face Hanford Road
12411	111 + 78	T	u/s Face Hanford Road
13062	105 + 25	U	Valley Section
15087	85 + 00	V	Valley Section
16487	71 + 00	W	Valley Section
17534	60 + 53	X	d/s Face Warren-Sheldon Road
17644	59 + 43	Y	u/s Face Warren-Sheldon Road
18827		Z	Valley Section
20054	37 + 50	AA	Valley Section
21242	*	AB	d/s Face Tillotson Road
21312	*	AC	u/s Face Tillotson Road

TABLE 3

CANTON TOWNSHIP, MICHIGAN

WILLOW CREEK

CROSS REFERENCE INDEX

(Continued)

COMPUTER SECTION NUMBER	WTA FIELD BOOK	FW & FB NUMBER	DESCRIPTION
21727	19 + 00	AD	Valley Section
22742	*	AE	d/s Face Tillotson Road
22812	*	AF	u/s Face Tillotson Road
22927	7 + 00	AG	Valley Section
22977	6 + 50	AH	Valley Section
23554	0 + 23	AI	d/s Face Canton Center Road
23613	0 - 36	AJ	u/s Face Canton Center Road

* From Forest Trails Subdivision Plans

TABLE 4

CANTON TOWNSHIP, MICHIGAN

WILLOW CREEK

FLOOD FLOW FREQUENCY

LOCATIONS	SECTION NUMBER	DISCHARGES, CFS 10 YR.	50 YR.	100 YR.	500 YR.
From Canton Center Road (u/s limit of study) to u/s of Travis Drain	23613-15087	220	330	400	540
From d/s of Travis Drain to Canton Township Boundary	13062-0	440	640	740	980

IV. GREEN MEADOWS DRAIN

Detailed studies were performed on the Green Meadows Drain from a point 900 feet west of Morton-Taylor Road to its confluence with the Tonquish Creek. Two valley cross sections were field surveyed by Wade, Trim & Associates in November 1979. One bridge structure was taken from Windsor Park Subdivision No. 5 plans (Reference 7). Cross section locations are shown in Exhibit 1.

Table 5 cross references section designations by showing the computer section number which corresponds to the cross section letter shown in Exhibit 1. Table 6 lists discharges that have been approved by the Michigan Department of Natural Resources (M.D.N.R.).

A. Method of Analysis

The HEC-2 backwater program was used in developing water surface profiles (Reference 3). HEC-2 printouts including computer cross section plots are presented as Exhibit 2. (Exhibit 2 is contained in the 11" x 15" folder enclosed with this report.) Water surface profiles resulting from the backwater analyses are presented as Exhibit 7.

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel of the Green Meadows Drain range from 0.030 to 0.35; roughness for the overbank areas varied between 0.04 to 0.05 for all floods. These values are indicative of summer month conditions and are consistent with values recommended and used in engineering practice. Contraction and expansion coefficients were selected as 0.3 and 0.5 at bridge sections and 0.1 and 0.3 for gradual channel transitions. Bridge loss coefficient computations are included in Exhibit 6.

C. High Water Marks

No documented high water marks exist on the Green Meadows Drains in our study area.

D. Starting Conditions

The starting water surface elevations for all flood frequencies were determined by calculating the mean annual flood elevation of the Tonquish Creek at the Green Meadows Drain confluence (Exhibit 8).

E. Special Problems

No special problems were encountered in the hydraulic analysis of Green Meadows Drain in our study area.

F. General

Computed water surface elevations were developed to an accuracy of 0.5 feet for floods of the selected reoccurrence intervals.

All elevations are referenced to the U.S. Geological and Coastal Survey (USGCS) Datum. This datum is equivalent to the National Geodetic Vertical Datum of 1929 (NGVD).

The hydraulic analyses for this study were based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 5

CANTON TOWNSHIP, MICHIGAN

GREEN MEADOWS DRAIN

CROSS REFERENCE INDEX

COMPUTER SECTION NUMBER	WTA FIELD BOOK	FW & FB NUMBER	DESCRIPTION
0		A	Valley Section
400	4 + 00	B	Valley Section
625	*	C	d/s Face Fleet Road
691	*	D	u/s Face Fleet Road
900		E	Valley Section
1800		F	Valley Section
2750	27 + 50	G	Valley Section

* From Windsor Park No. 5 Subdivision Plans

TABLE 6

CANTON TOWNSHIP, MICHIGAN

GREEN MEADOWS DRAIN

FLOOD FLOW FREQUENCY

LOCATION	SECTION NUMBER	DISCHARGES, CFS 10 YR.	50 YR.	100 YR.	500 YR.
From Confluence of Tonquish Creek to Cranberry Dr.	0-2750	270	385	445	585

V. FELLOWS CREEK

Detailed studies were performed on the Fellows Creek from the confluence of the North and South Branch to Palmer Road. A total of 12 valley sections and 9 bridge structures were field surveyed by Wade, Trim & Associates in November, 1977. Additional improved channel sections and one bridge structure was taken from Brentwood Estates Subdivision plans (Reference 4). Cross section locations are shown in Exhibit 1 and were supplemented by U.S.G.S. Quad Maps of the study area which consist of 5 foot contour intervals (Reference 6). Table 7 cross references section designations by showing the computer section number which corresponds to the cross section letter shown in Exhibit 1. Table 8 lists discharges that have been approved by the Michigan Department of Natural Resources (M.D.N.R.).

A. Method of Analysis

The HEC-2 backwater program was used in developing water surface profiles (Reference 3). HEC-2 printouts including computer cross section plots are presented as Exhibit 2. (Exhibit 2 is contained in the 11" x 15" folder enclosed with this report.) Water surface profiles resulting from the backwater analyses are presented as Exhibit 10.

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel of Fellows Creek range from 0.025 to 0.045; roughness values for the overbank areas varied between 0.04 to 0.12 for all floods. These values are indicative of summer

month conditions and are consistent with values recommended and used in engineering practice. Contraction and expansion coefficients were selected as 0.3 and 0.5 at bridge sections and 0.1 and 0.3 for gradual channel transitions. Bridge loss coefficient computations are included in Exhibit 9.

C. High Water Marks

No documented high water marks exist on the Fellows Creek in our study area.

D. Starting Conditions

A normal depth analysis (HEC-2 slope area method) was performed at a section ± 1,500 feet downstream of the study limit. The energy slope used in this analysis was obtained from survey data and the USGS Quad Map. A convergence run (Exhibit 11) was performed with the following starting water surface elevations: critical depth, normal depth and one foot higher than normal depth. The convergence run indicates that the assumed energy slope in the normal depth analysis is accurate.

E. Special Problems

No special problems were encountered in the hydraulic analysis of Fellows Creek in our study area.

F. General

Computed water surface elevations were developed to an accuracy of 0.5 feet for floods of the selected reoccurrence intervals.

All elevations are referenced to the U.S. Geological and Coastal Survey (USGCS) Datum. This datum is equivalent to the National Geodetic Vertical Datum of 1929 (NGVD).

The hydraulic analyses for this study were based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 7

CANTON TOWNSHIP, MICHIGAN

FELLOWS CREEK

CROSS REFERENCE INDEX

COMPUTER SECTION NUMBER	WTA FIELD BOOK	FW & FB NUMBER	DESCRIPTION
50	222 + 66	A	d/s Face Palmer Road
75	222 + 42	B	u/s Face Palmer Road
1316	210 + 00	C	Valley Section
2216	201 + 00	D	Valley Section
2916	194 + 00	E	d/s Face Lotz Road
2933	193 + 83	F	u/s Face Lotz Road
3966	183 + 50	G	Valley Section
4866	174 + 50	H	Valley Section
5328	169 + 88	I	d/s Face I-275 (Northbound)
5397	169 + 19	J	u/s Face I-275 (Northbound)
5484	168 + 32	K	d/s Face I-275 (Southbound)
5553	167 + 63	L	u/s Face I-275 (Southbound)
6116	162 + 00	M	Valley Section
6596	157 + 20	N	d/s Face Cherry Hill
6644	156 + 72	O	u/s Face Cherry Hill
7166	151 + 50	P	Valley Section
7866	140 + 50	Q	Valley Section
8066		R	Valley Section
9262	130 + 49	S	d/s Face Haggerty Road
9315	130 + 06	T	u/s Face Haggerty Road
9915		U	Valley Section
10666		V	Valley Section
11416	109 + 00	W	Valley Section
11991	103 + 25	X	d/s Face Lilley Road
12078	102 + 38	Y	u/s Face Lilley Road
12616	97 + 00	Z	Valley Section
14116	82 + 00	AA	Valley Section
14366		AB	Valley Section

TABLE 7

CANTON TOWNSHIP, MICHIGAN

FELLOWS CREEK

CROSS REFERENCE INDEX

(Continued)

COMPUTER SECTION NUMBER	WTA FIELD BOOK	FW & FB NUMBER	DESCRIPTION
15466		AC	Valley Section
15823		AD	d/s Face Saltz Road
15909		AE	u/s Face Saltz Road
16114		AF	Valley Section
16609		AG	Valley Section
17109		AH	Valley Section
17783		AI	Valley Section
18728	40 + 00	AJ	d/s Face Elmhurst Road
18728	39 + 60	AK	u/s Face Elmhurst Road
19402	33 + 26	AL	d/s Face Sheldon Road
19442	32 + 86	AM	u/s Face Sheldon Road
20278	24 + 50	AN	Valley Section
21408	13 + 20	AO	d/s Face Ford Road
21498	12 + 30	AP	u/s Face Ford Road
21778	9 + 50	AQ	Valley Section

TABLE 8

CANTON TOWNSHIP, MICHIGAN

FELLOWS CREEK

FLOOD FLOW FREQUENCY

LOCATIONS	SECTION NUMBER	DISCHARGES, CFS 10 YR.	50 YR.	100 YR.	500 YR.
Canton Center Road (u/s Limit of Study) to u/s of Green Drain	22778 - 14366	525	840	1010	1450
From d/s of Green Drain to u/s of Cherry Hill Road	14116 - 6694	675	1060	1270	1800
From d/s of Cherry Hill Road to u/s of Palmer Road (d/s limit of study)	6644 - 0	-920	1410	1670	2300

VI. APPROXIMATE STUDIES

The Flood Hazard Boundary Map prepared by FIA was used in the delineation of 100 year flood hazard areas for the Lower Rouge River, Fowler Creek, and the North and South Branch of the Fellows Creek. Tonquish Creek 100 year flood hazard areas were delineated in accordance with the SCS Flood Hazard Analyses on the Tonquish Creek (Reference 1).

REFERENCES

1. Flood Hazard Analyses, Tonquish Creek and Tributaries, U.S. Department of Agriculture Soil Conservation Service, East Lansing, Michigan, June, 1978.

2. WSP-2 Computer Program, Technical Release No. 61, U.S. Department of Agriculture Soil Conservation Service, Washington, D.C., May, 1976.

3. HEC-2 Water Surface Profile - User Manual - U.S. Army Corps of Engineers - 1976.

4. American Engineer Company, Forest Trails Subdivision Plans, 1974.

5. Spaulding, DeDecker and Associates, Inc., Hydraulic Report for Fellows Creek in the Brentwood Estates Subdivision, 1978.

6. U.S. Geological Survey Topographical Maps - Wayne Quadrangle, Wayne County, 7.5 Minutes Series - Photo Revised 1973.

7. Warner, Cantrell and Padmos, Inc., Windsor Park Subdivision No. 5 Plans 1972.

EXHIBIT 1

CANTON TOWNSHIP, MICHIGAN

TONQUISH CREEK
WILLOW CREEK
GREEN MEADOWS DRAIN
FELLOWS CREEK

FIELD CROSS SECTION LOCATION
100 YEAR FLOOD PLAIN - FLOODWAY MAP

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors • Community Planners
Taylor, Michigan

October 12, 1979

Michigan Department of Natural Resources
Flood Insurance & Flood Plain Delineation Unit
Water Management Division
Stevens T. Mason Building
P.O. Box 30028
Lansing, Michigan 48909

Attention: Mr. Dan Morgan

Re: Engineering Contract H-4542

Gentlemen:

Enclosed is a report which describes the hydraulic studies associated with Canton Township - Michigan Flood Insurance Administration Study performed by our office. Your review and approval of this report is requested.

Please contact me or Dan Brooks if you have any questions regarding this report.

Very truly yours,

WADE, TRIM & ASSOCIATES, INC.

Glen A. Roberts

GAR:asw
HUD 2003-07
Enclosure
cc: Mr. Martin Gunn, Department of Housing & Urban Development
Mr. Wallace Weaver, Department of Housing & Urban Development

RECEIVED
SEP 15 1979
WATER MANAGEMENT

25185 Goddard Road P.O. Box 10 Taylor, Michigan 48180 (313) 291-5400 Wats (800) 482-2864
A Member of Wade-Trim Environmental Group • Civil Engineers • Land Surveyors • Community Planners

EXHIBIT 2

CANTON TOWNSHIP, MICHIGAN

WILLOW CREEK
GREEN MEADOWS DRAIN
FELLOWS CREEK

COMPUTER PRINTOUTS
HEC-2 BACKWATER ANALYSIS
WITH
CROSS SECTION PLOTS

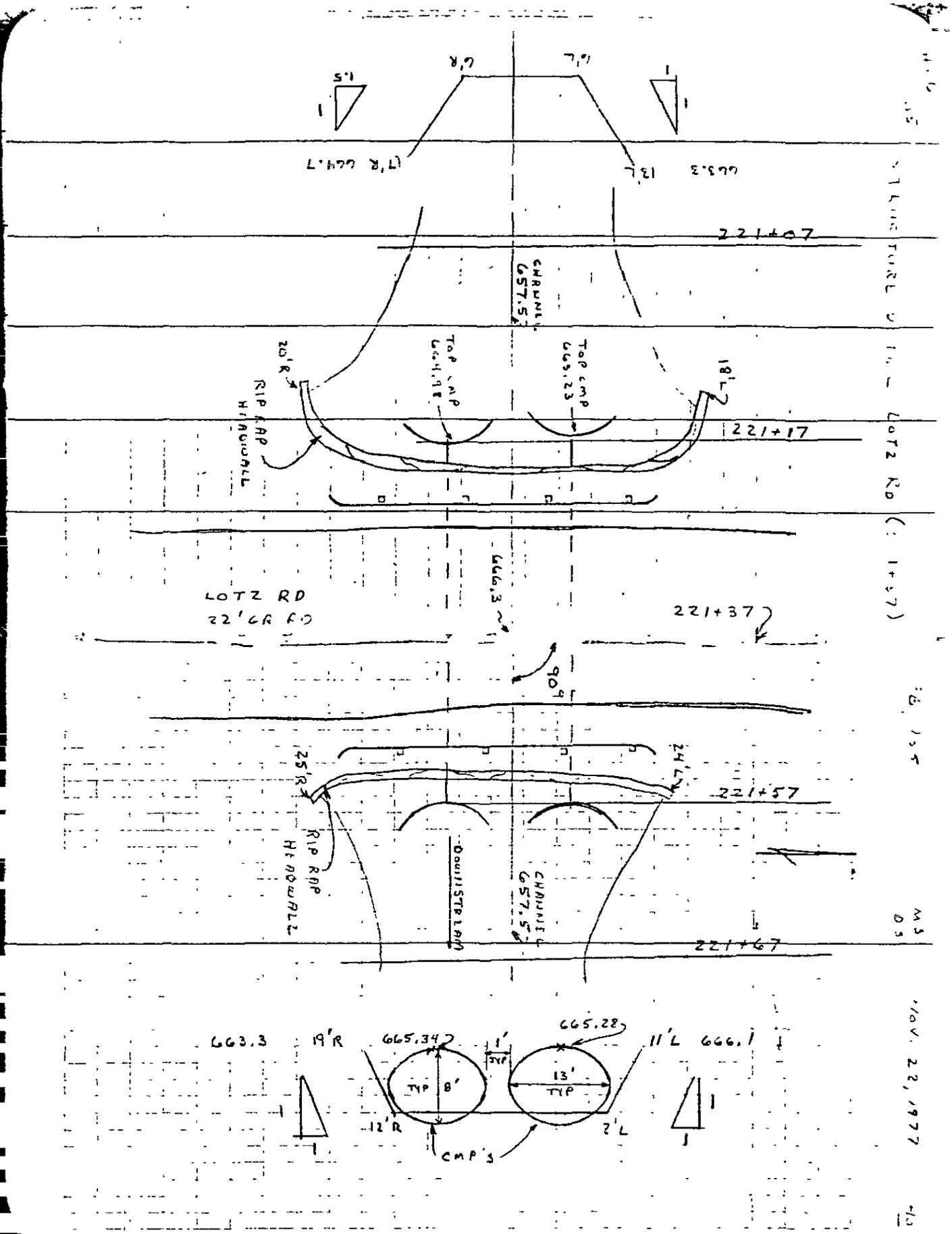
(SEE SEPARATE FOLDER)

EXHIBIT 4

CANTON TOWNSHIP, MICHIGAN

WILLOW CREEK

BRIDGE NOTES AND SKETCHES



221+07
221+17
221+37
221+57
221+67
LOTZ RD
22' GR RD
CHANNEL 657.5
TOP CMP 664.98
TOP CMP 665.23
RIP RAP HEADWALL
20'R
18'L
666.3
90°
25'R
24'L
DOWNSTREAM
663.3
19'R
665.34
665.28
11'L
666.1
1' TYP
TYP 8'
13' TYP
12'R
2'L
CMP'S

Bridge Location : FORD RD - WILLOW CR

REFERENCE

Bridge Losses - SB Card

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 157 Wp = 79.7

R = A/wp 1.97 $R^{4/3}$ = 2.47 L = 208

n (composite) =

$K_f = 29.1 \times (0.024)^2 \times 208 / 2.47 = 1.41$

↑ field notes indicate 3-RCP's, "n" may be high, if no silt.

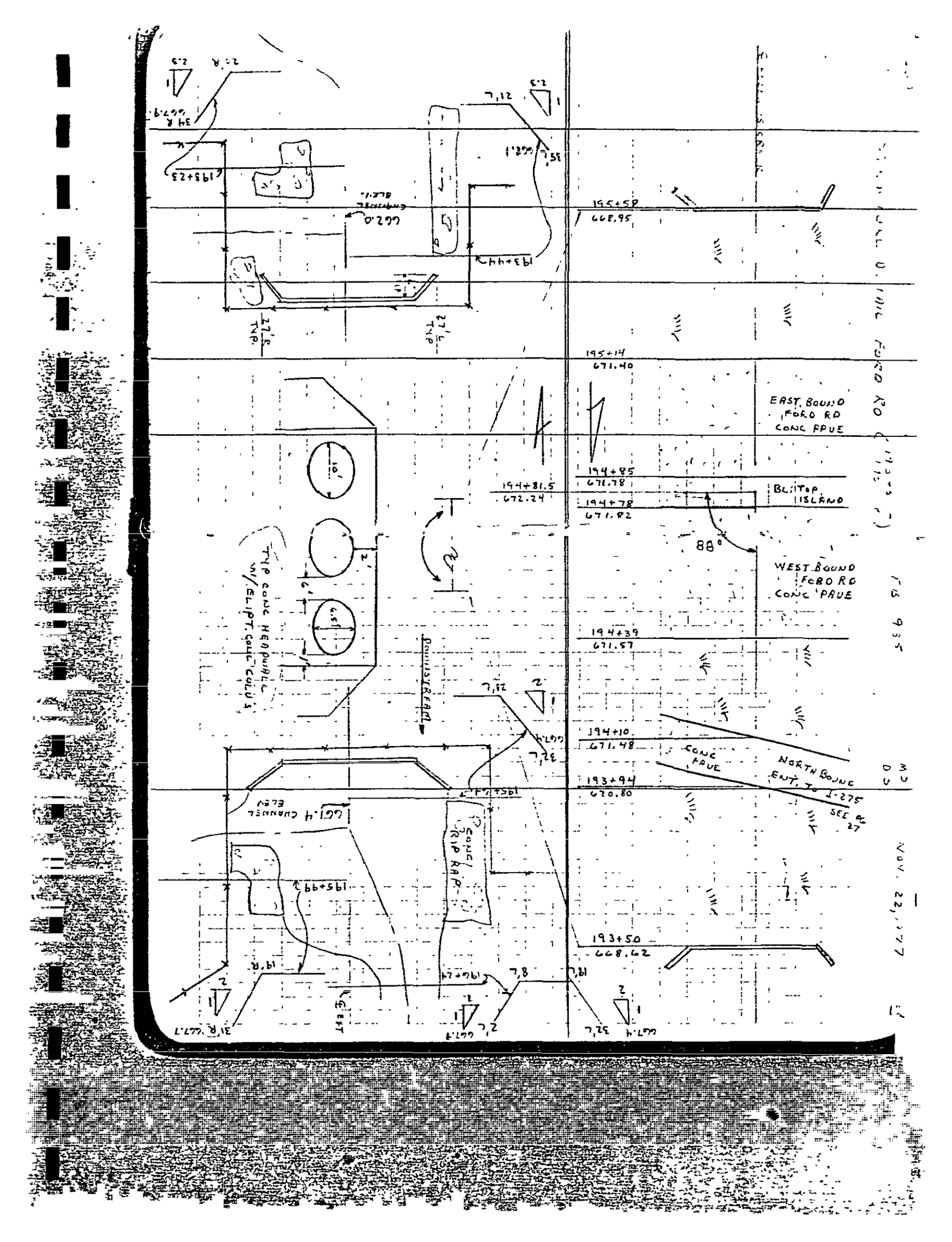
$K_e = 0.5$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 1.41 + 0.5 + 0.05 = 2.96
3. COFQ - Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0.0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 24.21
6. BWP = total width of obstruction = 0.0 — field data
7. BAREA = bridge opening inc. piers = 157
8. SS = side slope = 0.0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 660.5
   (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 660.1
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
CANTON TWP	DATE 8/29	DATE	___ OF ___	HUD • 2003 • 07


195+58
668.95
EAST BOUND FORD RD CONC PAVE
195+14
671.40
194+85
671.78
194+81.5
672.24
194+78
671.82
BLKTOP ISLAND
88°
WEST BOUND FORD RD CONC PAVE
194+39
671.57
194+10
671.48
CONC PAVE
NORTH BOUND ENT. TO I-275
SEE SH 27
193+94
670.80
193+50
668.62
193+23
667.9
193+44
667.0
195+24
667.4
195+99
667.4
194+24
667.4
194+74
667.4
CONCR RIP RAP
667.4 CHANNEL ELEV
667.9
667.4
667.4
667.4
667.4
667.7
667.7
667.4
667.4
667.4
667.4

FORM 25 0

(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location : I-275 Willow Cr.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk , $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 157.4 Wp =

R = A/wp 1.97 $R^{4/3}$ = 2.47 L = 414

n (composite) =

$K_f = 29.1 \times (0.024)^2 \times 414 / 2.47 = 2.81$

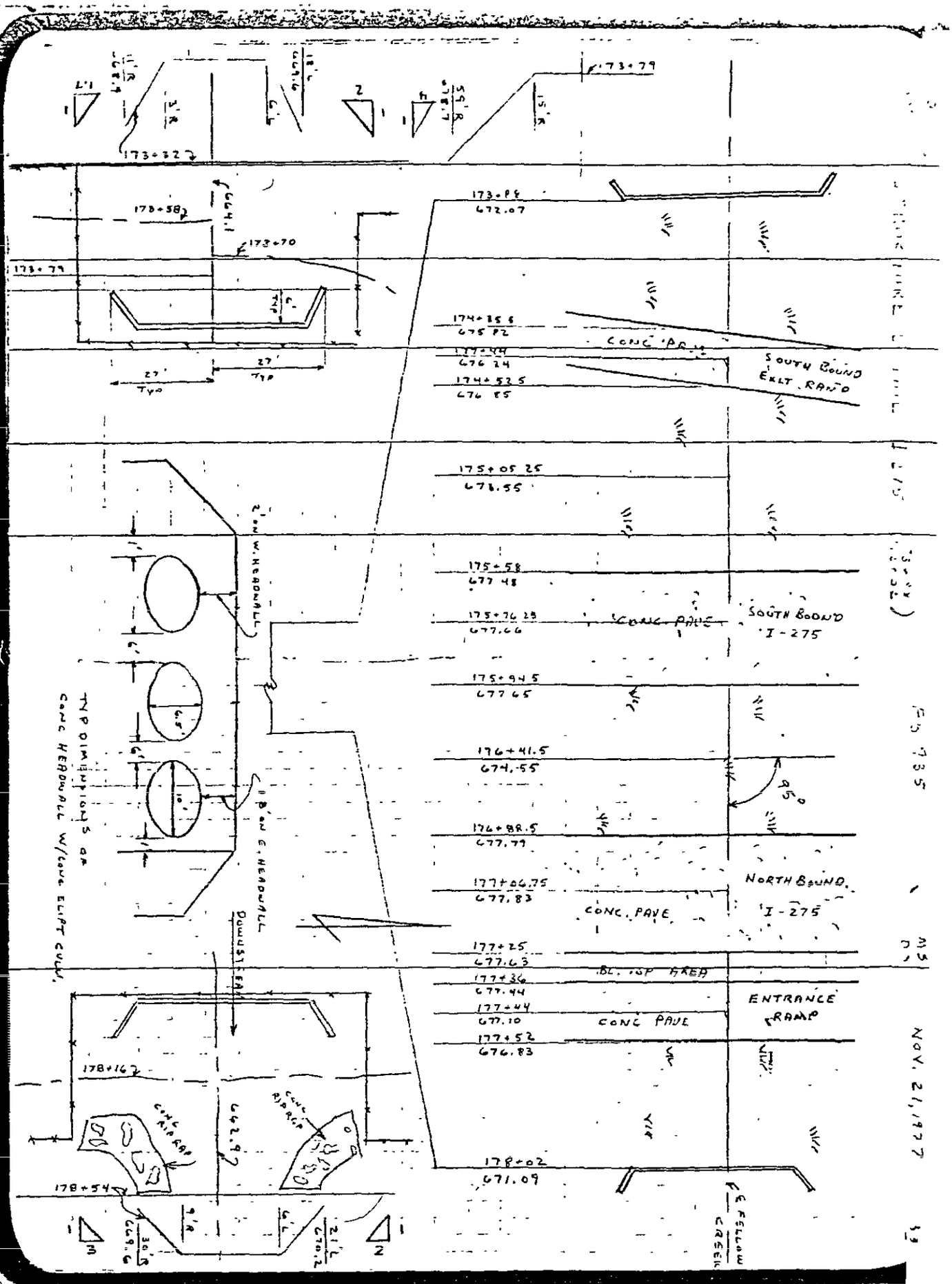
K_e = 0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 2.81 + 0.5 + 0.05 = 4.36
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 24.15
6. BWP = total width of obstruction = 0. — field data
7. BAREA = bridge opening inc. piers = 157.4
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 664.1
(0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 662.9
(0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
Canton Twp	DATE 6/75	DATE	___ OF ___	HUD • 2003 • 00



173+79
173+32
173+58
173+70
173+79
664.1
27' TYP
27' TYP
173+88
672.07
174+35.6
675.82
CONC PAVE
177+44
676.24
174+52.5
676.85
SOUTH BOUND
EXIT RAMP
175+05.25
673.55
175+58
677.48
175+76.25
677.66
CONC PAVE
SOUTH BOUND
I-275
175+94.5
677.65
176+41.5
674.55
95°
176+88.5
677.79
177+06.75
677.83
CONC. PAVE
NORTH BOUND
I-275
177+25
677.63
177+36
677.44
BL. TOP AREA
177+44
677.10
CONC PAVE
ENTRANCE
RAMP
177+52
676.83
178+02
671.09
2' ON W. HEADWALL
8' ON E. HEADWALL
TYP DIMENSIONS OF
CONC HEADWALL W/CONC ELIPT CULV.
DOWNSTREAM
178+16
CONC RIP RAP
CONC RIP RAP
662.9
178+54
669.6
30' R
9' R
6' L
21' L
670.2
℄ FELLOW CREEK
NOV. 21, 1977

Bridge Location : HAGGERTY RD WILLOW CR.

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 85 Wp = 34.6

R = A/wp 2.460 $R^{4/3}$ = 3.32 L = 40

n (composite) =

$K_f = 29.1 \times (0.024)^2 \times 40 \;/ 3.32 = 0.20$

K_e = 0.7

Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.20 + .7 + 0.0 = 1.9
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0.0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 10.
6. BWP = total width of obstruction = 0.0 — field data
7. BAREA = bridge opening inc. piers = 85
8. SS = side slope = 0.0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 664.04 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 664. (0 if equal to minimum elevation in previous x-sect.)

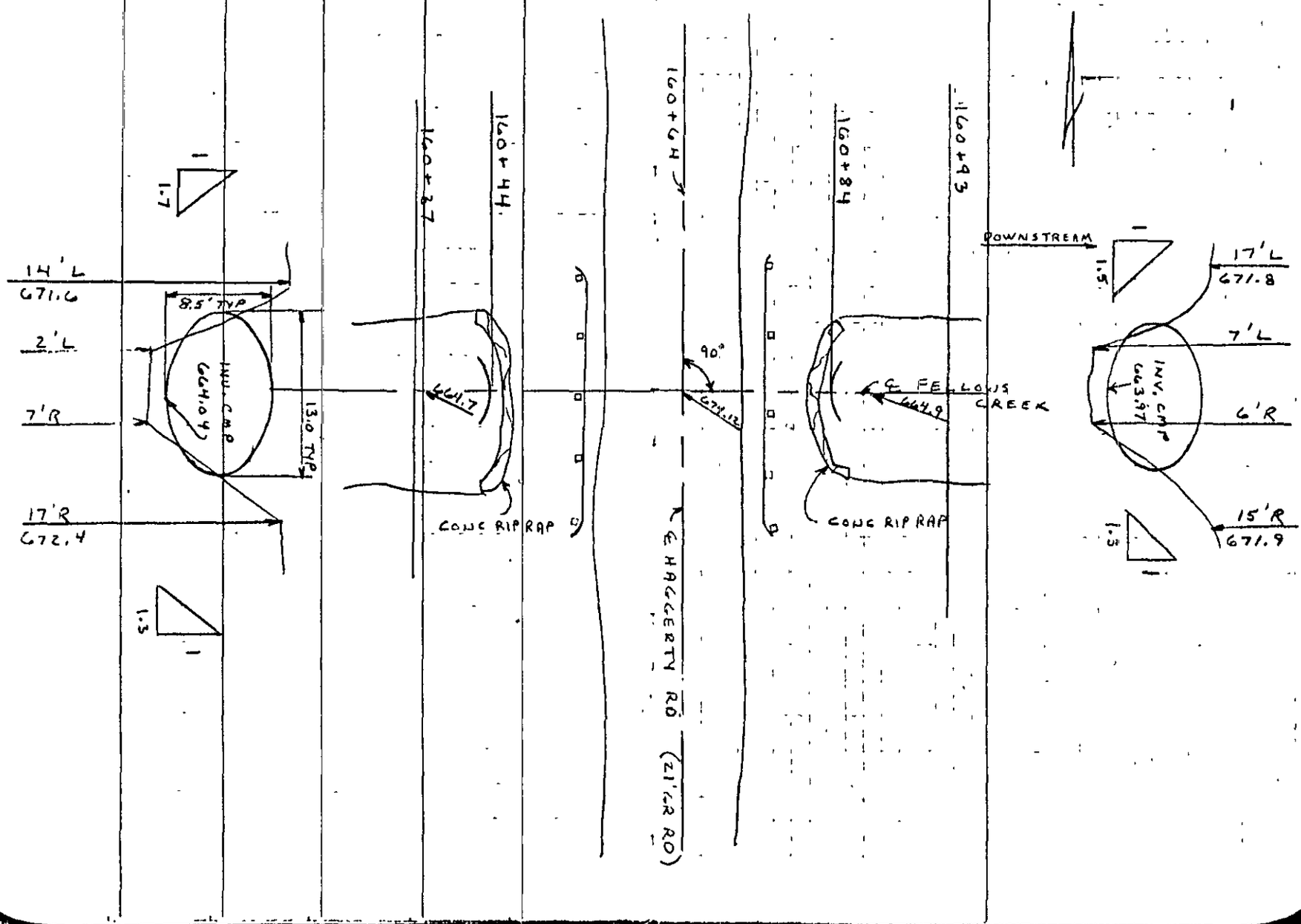
SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
CANTON TWP. WILLOW	DRB		___ OF ___	HUD • 2003 • 07
	DATE 7-17	DATE		

STRUCTURE DETAIL - HAGGERTY RD - 160+64

FE 935

MS
RU
DS

NOV 17, 1977



Bridge Location : LILLEY ROAD - WILLOW CR.

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 16 x 7.03 = 116.8 Wp = 46.6

$R = A/wp$ 2.51 $R^{4/3}$ = 3.41 L = 64

n (composite) =

$K_f = 29.1 \times (.02)^2 \times 64 / 3.41 = 0.22$

$K_e = .40$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

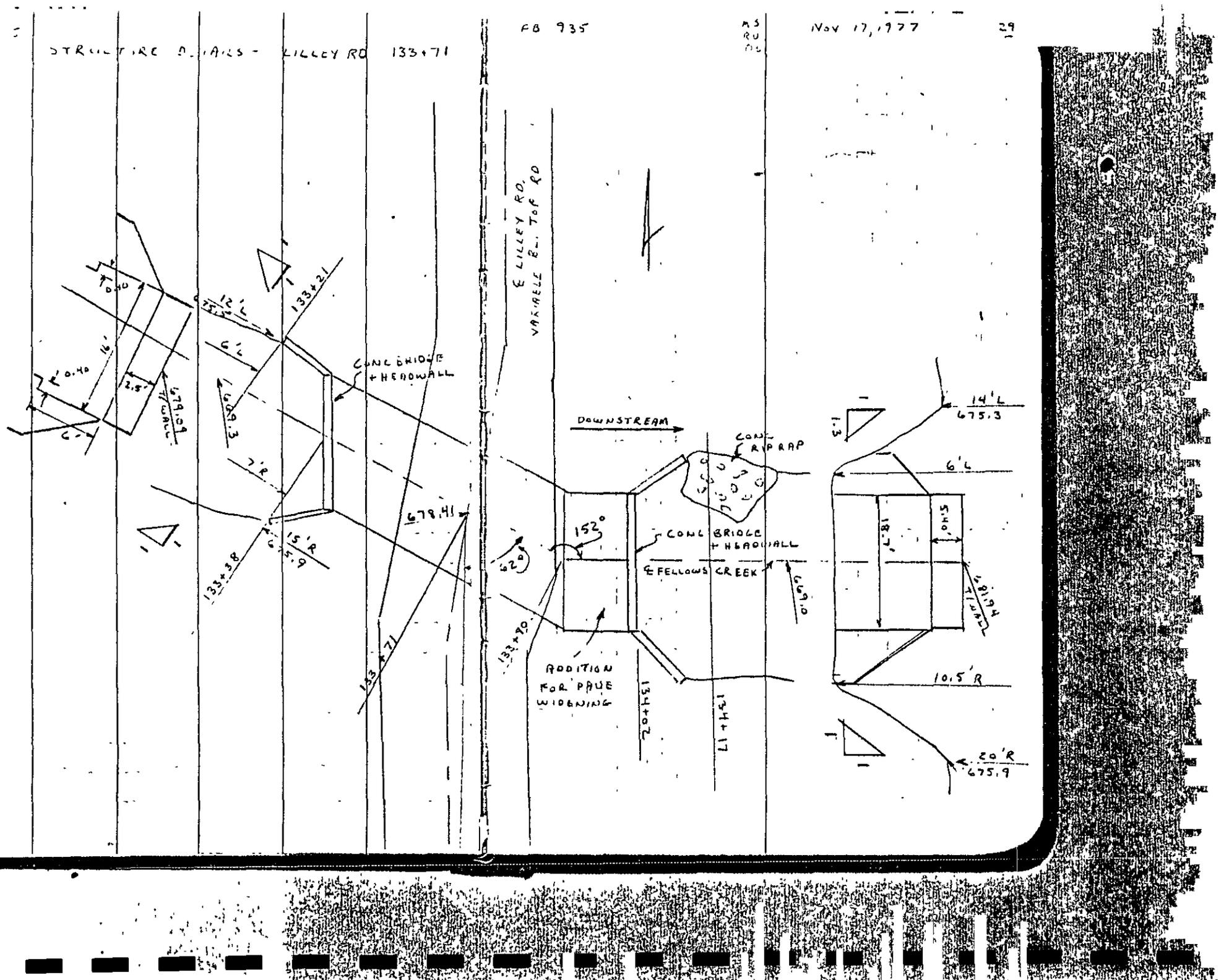
~~K_p~~ = 0 if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + + + = 1.62
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 16.0
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 117
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 669.3
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 669.
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
LILLEY RD. - WILLOW CR.	DRB		___ OF ___	HUD • 2003 • 07
	DATE 7/29	DATE		

STRUCTURE DETAILS - LILLEY RD 133+71



Bridge Location: HANFORD - WILLOW

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 180 = 180 / $R^{4/3}$ Wp = 96

$R = A/wp$ 1.87 $R^{4/3}$ = 2.031 L = 57

n (composite) =

$K_f = 29.1 \times (0.02)^2 \times 57 \;/\; 2.31 = .29$

$K_e = 0.05$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

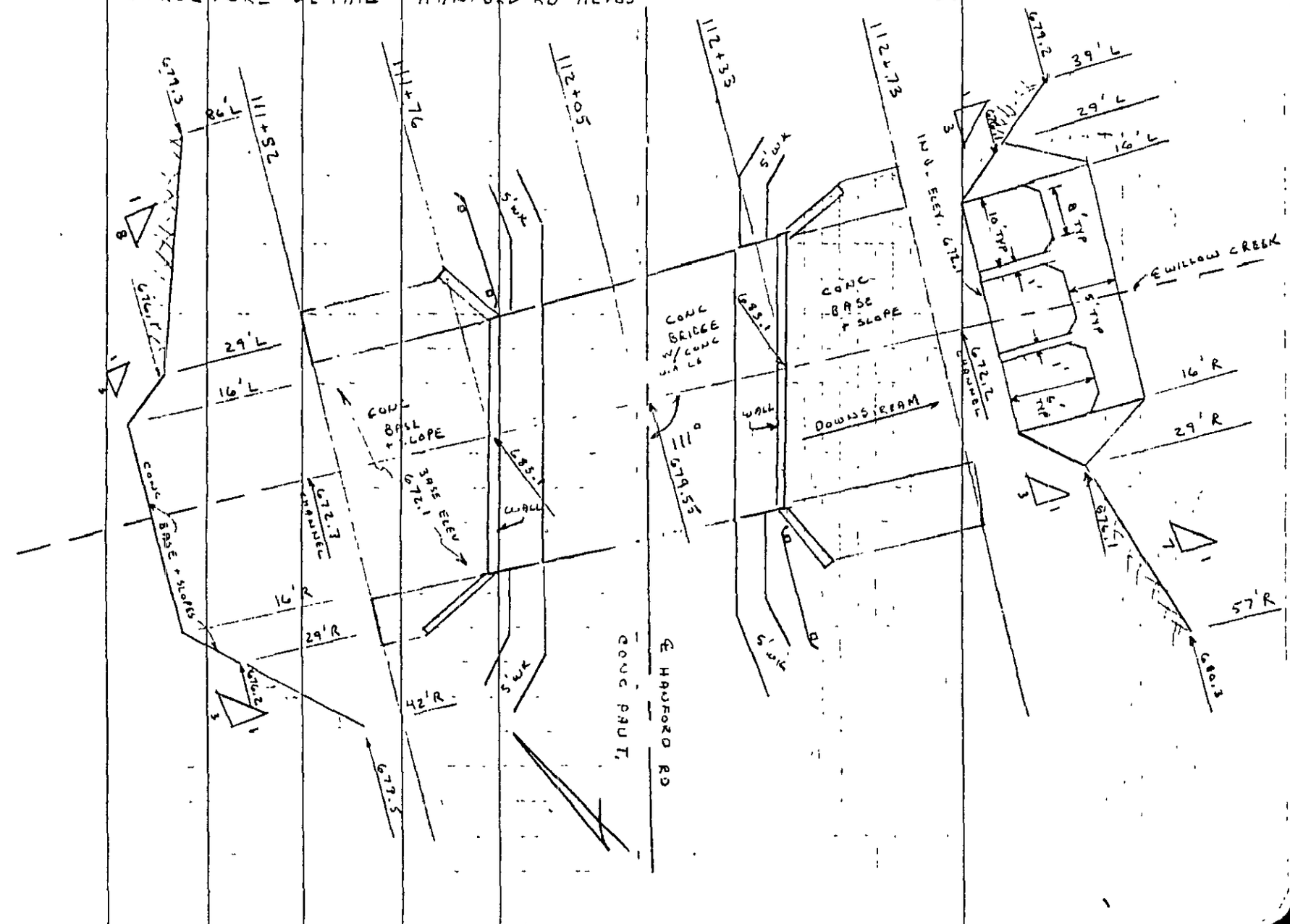
$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

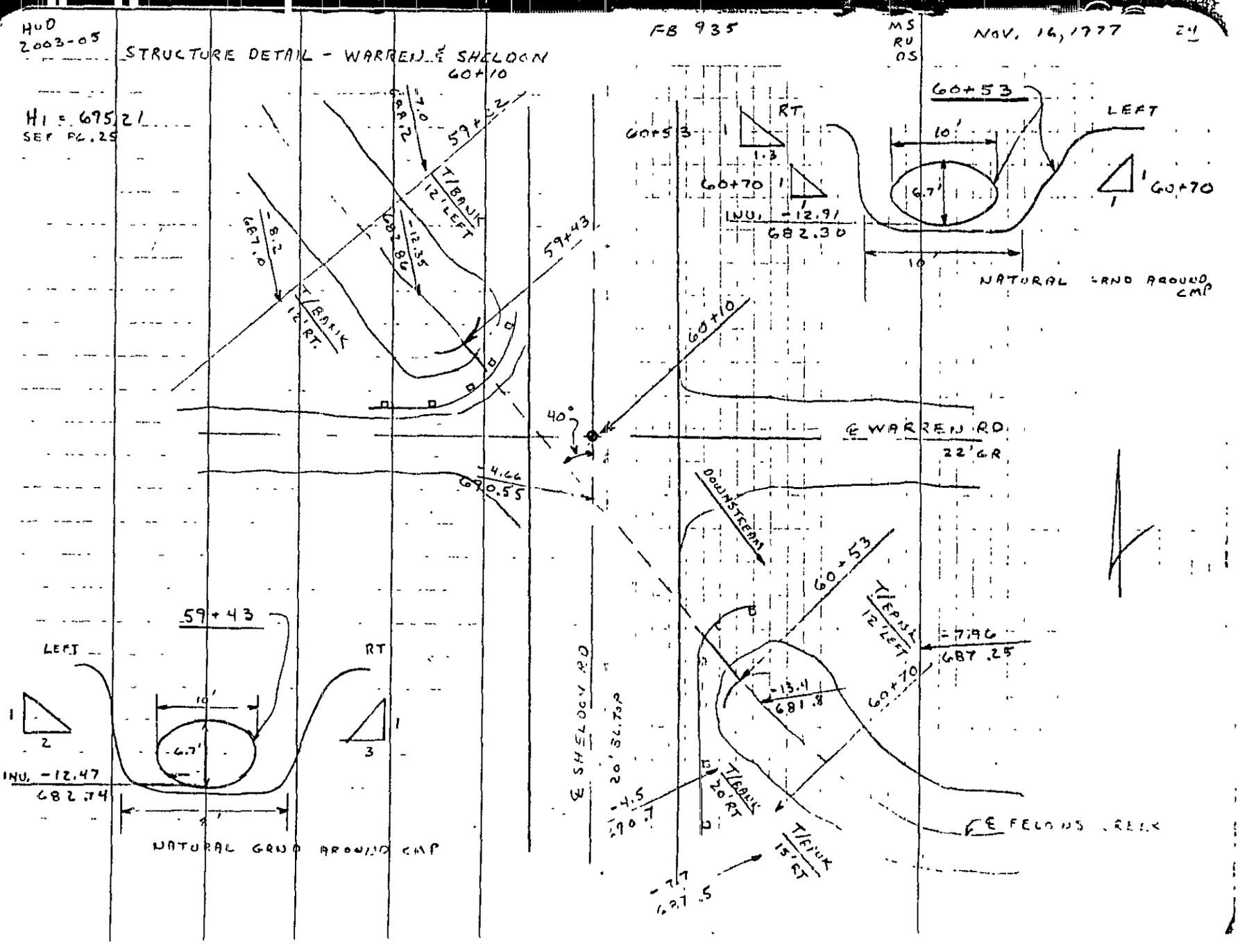
2. XKOR = 1 + 0.29 + 0.5 + 0.05 = 1.84
3. COFQ - Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 31.5
6. BWP = total width of obstruction = 2. — field data
7. BAREA = bridge opening inc. piers = 180.
8. SS = side slope = 0.
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 672.1
   (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 672.1
    (0 if equal to minimum elevation in previous X-sect.)

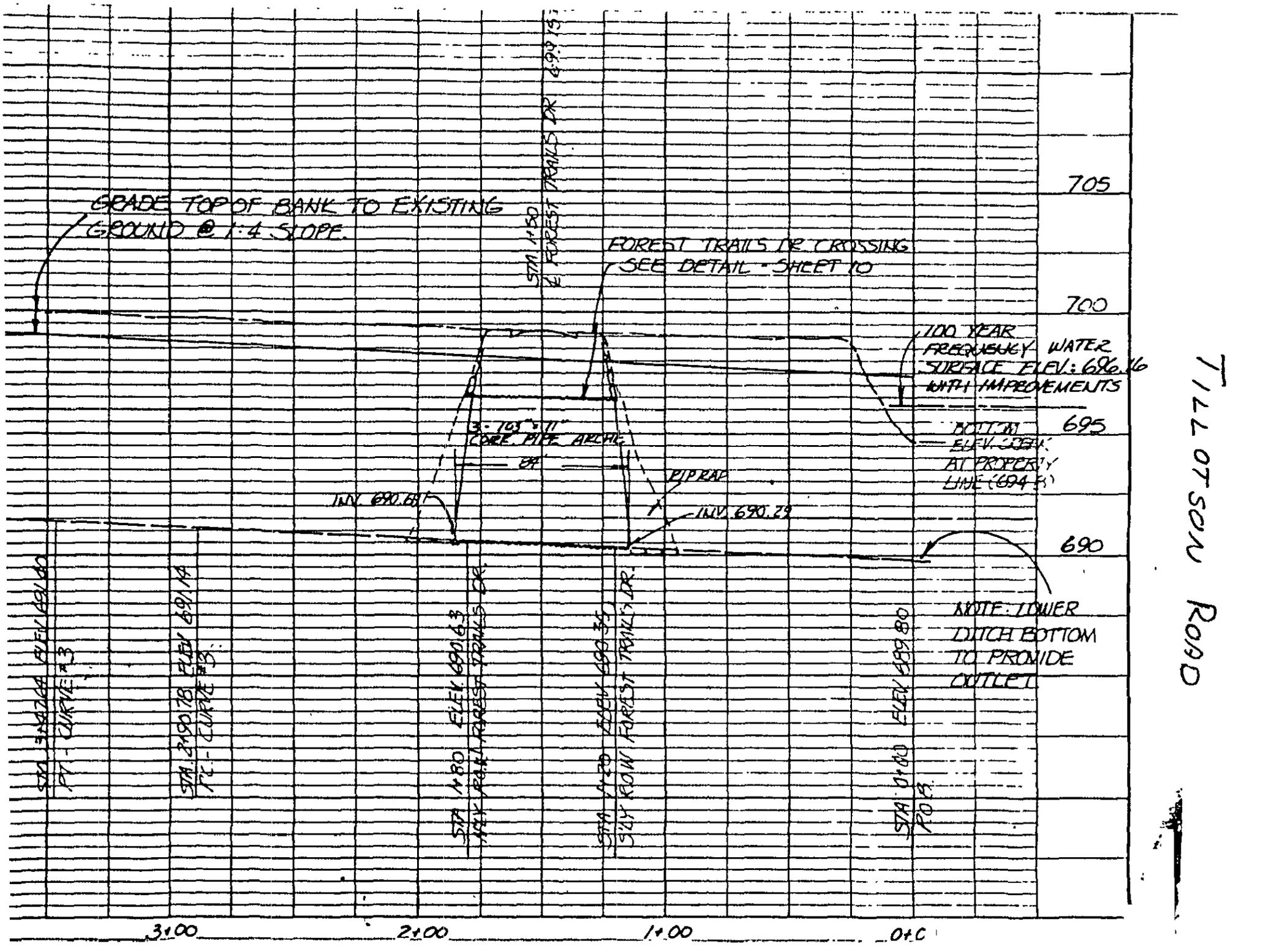
SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Owner Project Suffix
Willow Cr. Canton	DRB		___ OF ___	HUD • 2003 • 29
	DATE 8/29	DATE		

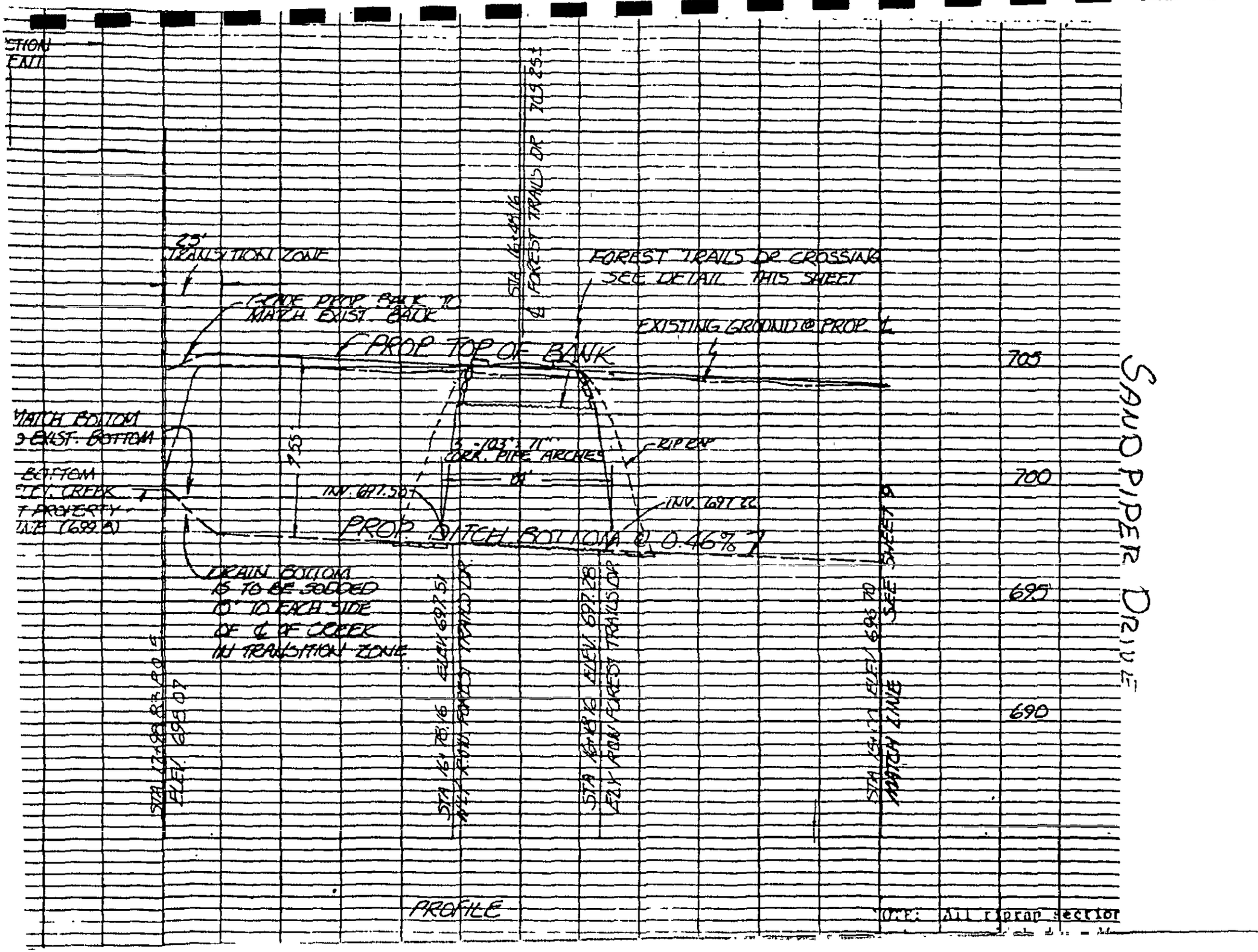
MUF 2002-05 FB 735 MS RU DS Nov. 17, 1977 27

STRUCTURE DETAIL - HANFORD RD 112+05



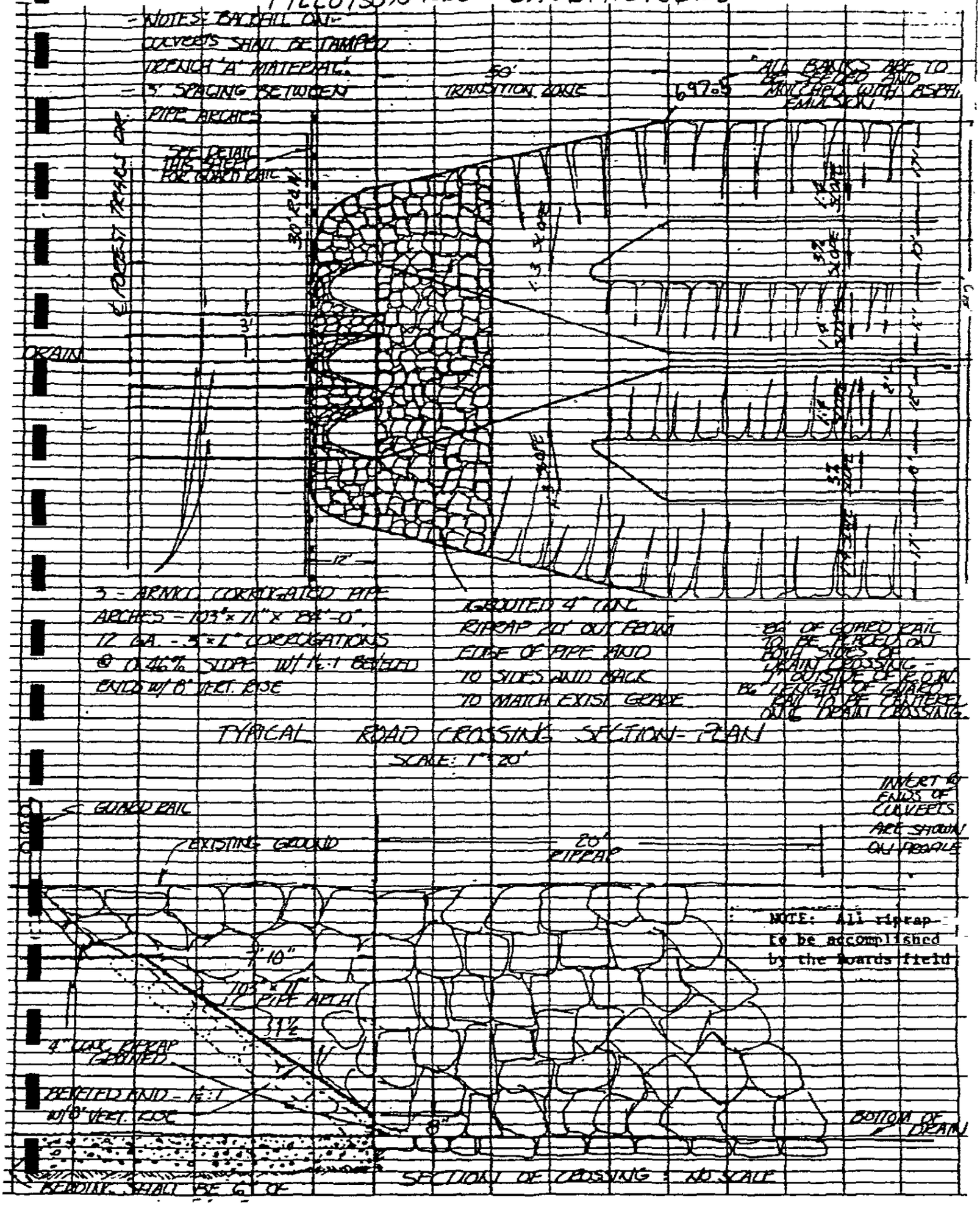

HUD 2003-05
STRUCTURE DETAIL - WARREN & SHELDON
60+10
FB 935
MS RU OS
NOV. 16, 1977
24
H1 = 695.21
SEE PG. 25
59+22
T/BANK 12' LEFT
T/BANK 12' RT.
59+43
60+10
40°
℄ WARREN RD
22' GR
DOWNSTREAM
60+53
60+70
RT
LEFT
INV. -12.91
682.30
NATURAL GRND AROUND CMP
T/BANK 12' LEFT
T/BANK 20' RT
T/BANK 15' RT
℄ SHELDON RD
20' BL. TOP
℄ FELONS CREEK
INV. -12.47
682.74
NATURAL GRND AROUND CMP

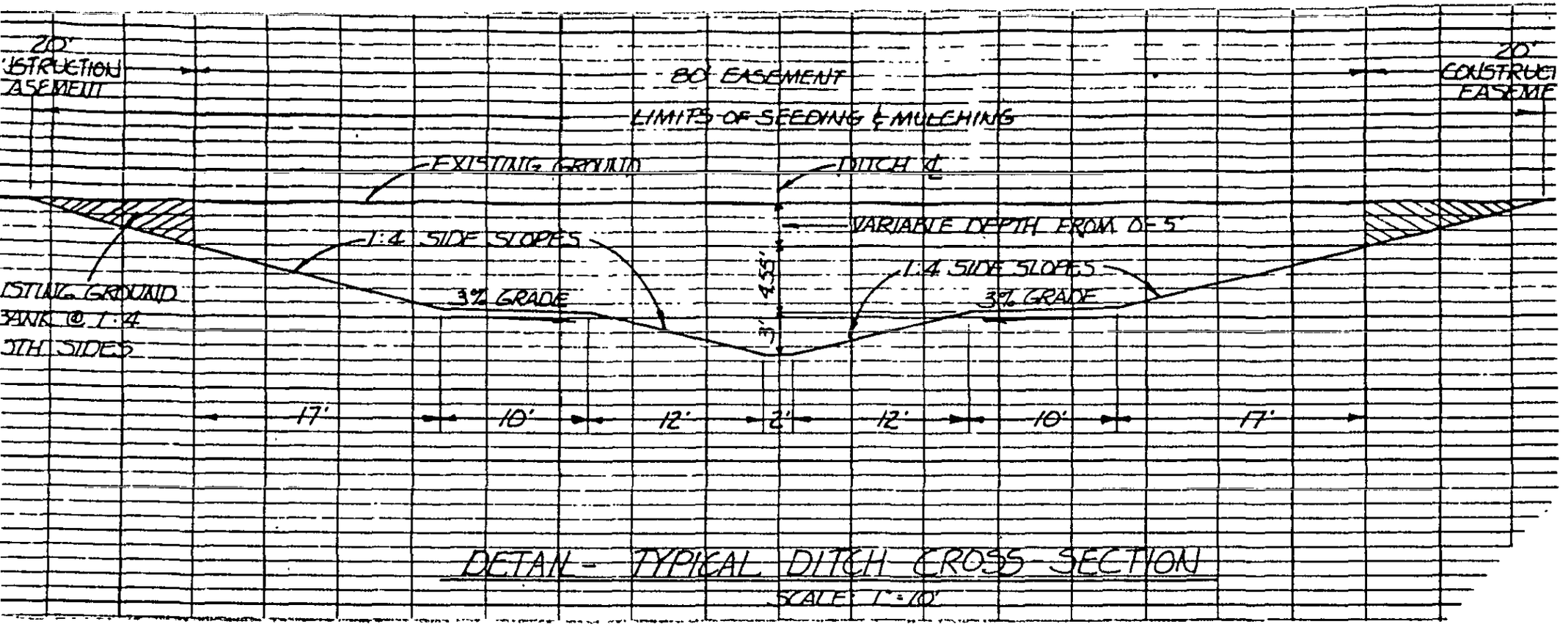

GRADE TOP OF BANK TO EXISTING GROUND @ 1:4 SLOPE.
STA 1+50 ℄ FOREST TRAILS DR
FOREST TRAILS DR CROSSING SEE DETAIL - SHEET 10
100 YEAR FREQUENCY WATER SURFACE ELEV: 696.16 WITH IMPROVEMENTS
3-30" ø CORE PIPE ARCH
℄
INV. 690.68
PIP RAP
INV. 690.29
BOTTOM ELEV. 689.4 AT PROPERTY LINE (694 ft)
NOTE: LOWER DITCH BOTTOM TO PROVIDE OUTLET
STA 3+44.44 ELEV 691.80
PT - CURVE #3
STA 2+90.78 ELEV 691.14
PC - CURVE #3
STA 1+80 ELEV 690.63
℄ FOREST TRAILS DR
STA 1+20 ELEV 690.35
SILVER ROW FOREST TRAILS DR
STA 0+40 ELEV 689.80
705
700
695
690
3+00
2+00
1+00
0+0
TILLOTSON ROAD



SANDPIPER DRIVE
25' TRANSITION ZONE
GRADE PROP BANK TO MATCH EXIST. BANK
STA 16+48.16 ℄ FOREST TRAILS DR 705.25±
FOREST TRAILS DR CROSSING SEE DETAIL THIS SHEET
EXISTING GROUND @ PROP. ℄
PROP TOP OF BANK
705
MATCH BOTTOM TO EXIST. BOTTOM
BOTTOM ELEV. CREEK
PROPERTY LINE (699.8)
7.55'
3 - 103" x 71" CORR. PIPE ARCHES
RIP RAP
INV. 697.50
INV. 697.22
700
PROP. DITCH BOTTOM @ 0.46%
DRAIN BOTTOM IS TO BE SODDED 15' TO EACH SIDE OF ℄ OF CREEK IN TRANSITION ZONE
695
STA 17+98.83 ELEV. 698.07
STA 16+78.16 ELEV. 697.51 N'LY ROW FOREST TRAILS DR
STA 16+18.16 ELEV. 697.28 ELY ROW FOREST TRAILS DR
STA 15+70 ELEV. 696.70 MATCH LINE SEE SHEET 9
690
PROFILE
NOTE: All riprap section

TILLOTSON RD. & SANDPIPER DR.





DETAIL - TYPICAL DITCH CROSS SECTION

SCALE: 1"=10'

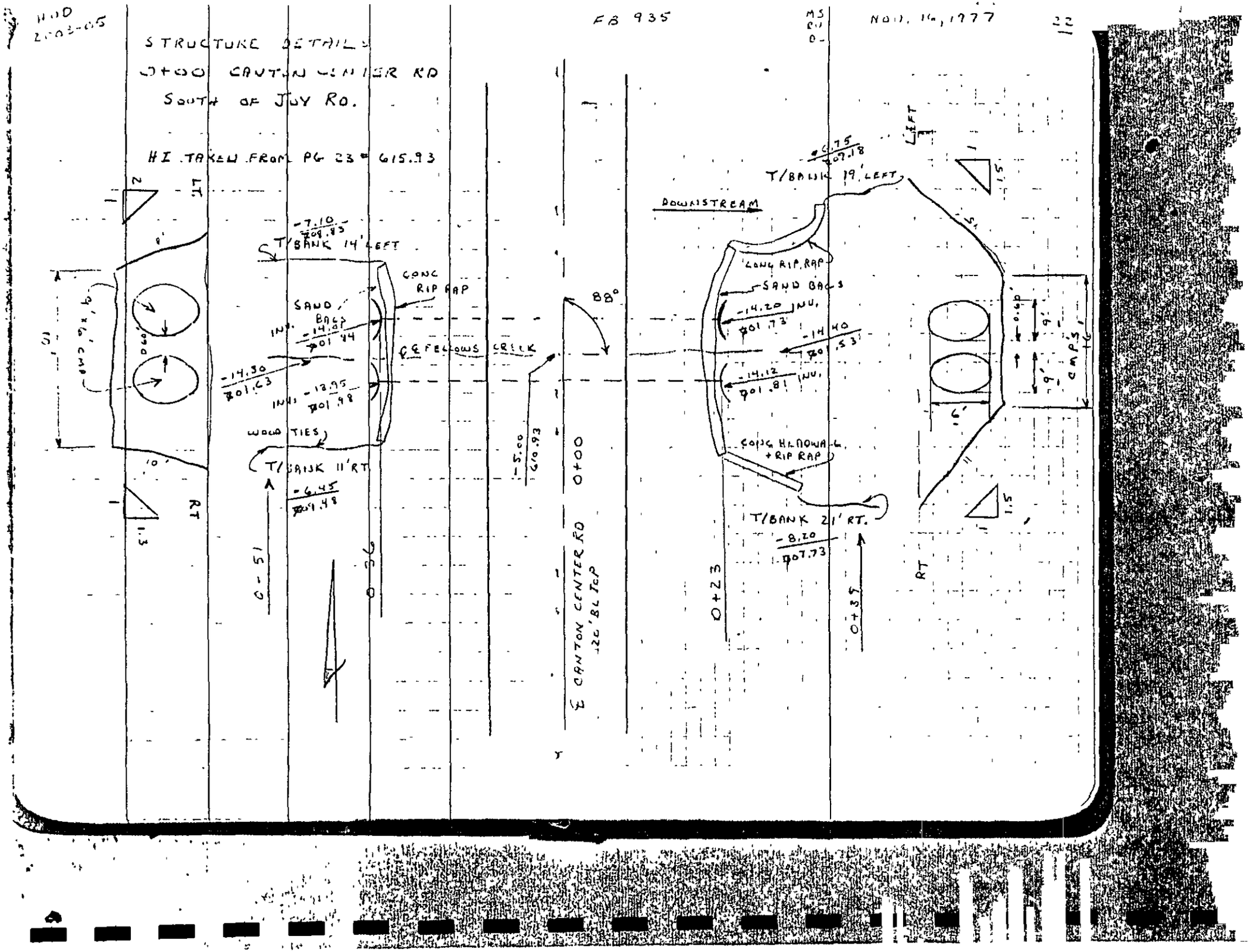
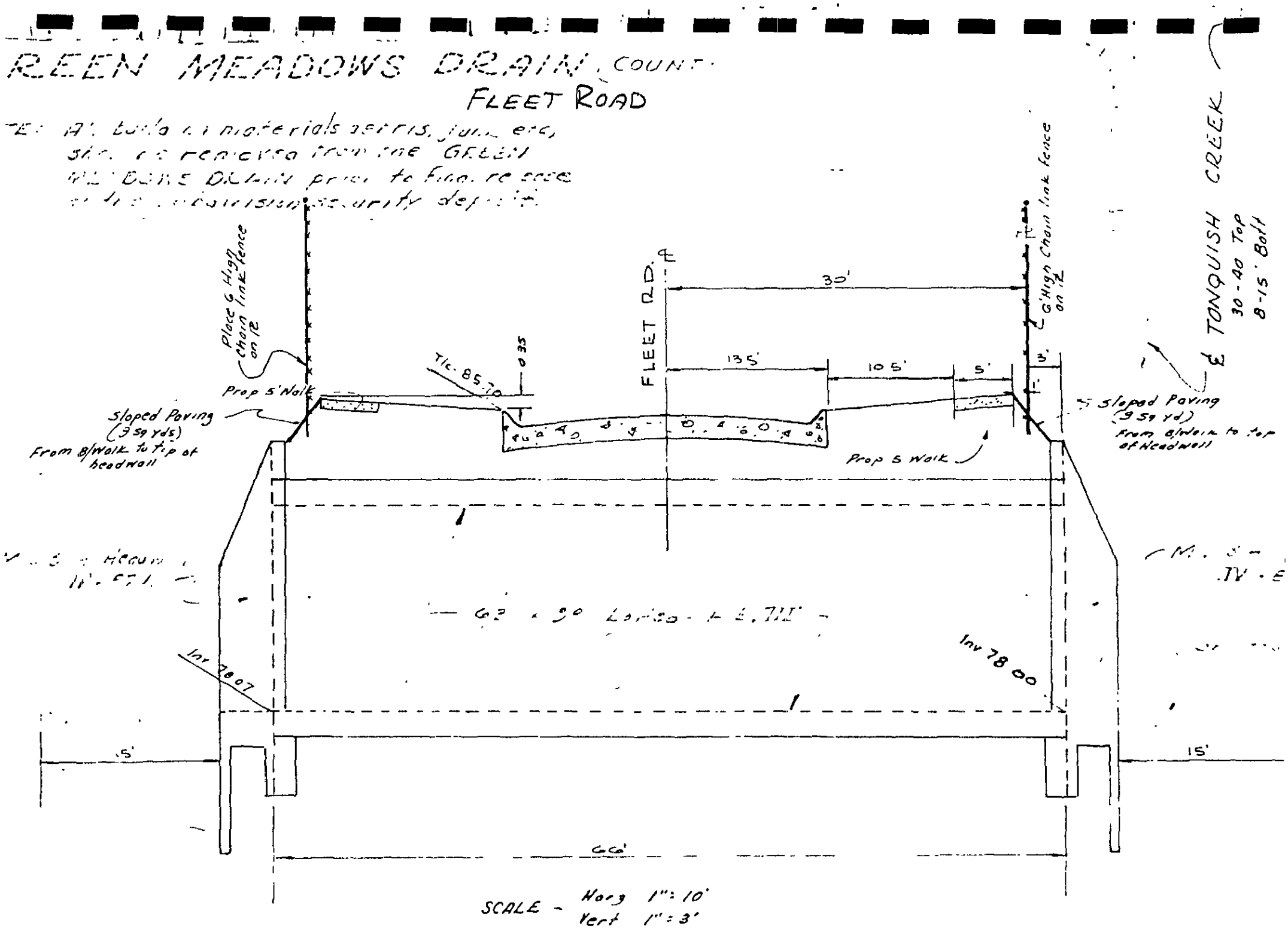

HUD
2-03-05
FB 935
NOV. 16, 1977
22
STRUCTURE DETAILS
0+00 CANTON CENTER RD
SOUTH OF JOY RD.
HI TAKEN FROM PG 23 = 615.93
T/BANK 14' LEFT
CONC RIP RAP
SAND BAGS
INV. -14.01 ⌀01.44
-14.30 ⌀01.63
INV. -13.95 ⌀01.98
WOOD TIES
T/BANK 11' RT
-6.45 ⌀09.48
℄ FELLOWS CREEK
88°
-5.00 610.93
0+00
℄ CANTON CENTER RD
20' BL TOP
DOWNSTREAM
T/BANK 19' LEFT
LEFT
LONG RIP RAP
SAND BAGS
-14.20 INV. ⌀01.73
-14.40 ⌀01.53
-14.12 INV. ⌀01.81
CONC HEADWALL + RIP RAP
T/BANK 21' RT.
-8.20 ⌀07.73
0+23
0+39
RT
CMPS
6'
9'
9'
0.60'
0+51
0+36
LT
RT

EXHIBIT 6

CANTON TOWNSHIP, MICHIGAN

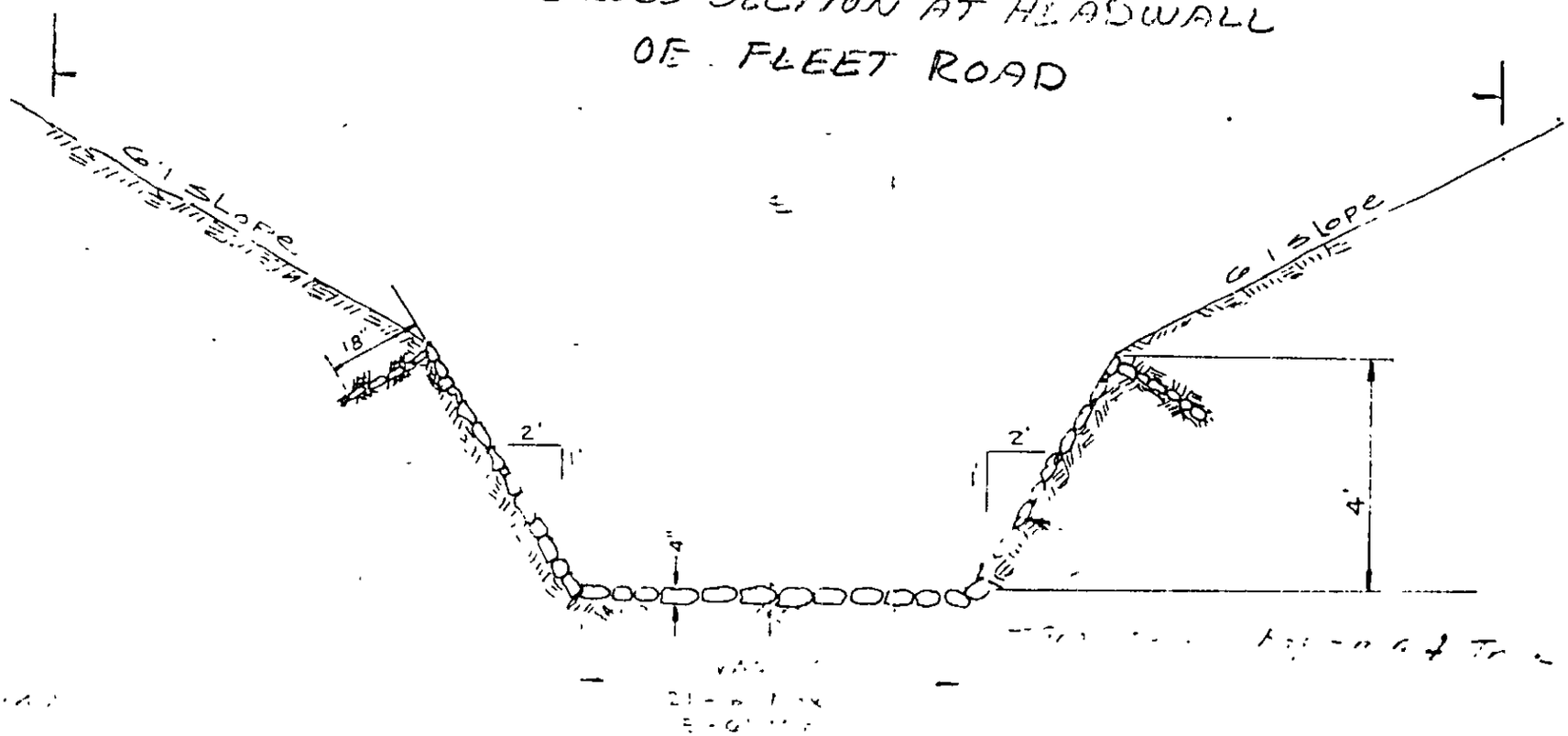
GREEN MEADOWS DRAIN

BRIDGE NOTES AND SKETCHES



REEN MEADOWS DRAIN, COUNT
FLEET ROAD
Place 6 High Chain link fence on 12
Prop 5' Walk
Sloped Paving (9 sq yds) From B/Walk to top of headwall
Tlc. 85.70
0.35
FLEET RD.
30'
13.5'
10.5'
5'
3'
1'
6' High Chain link fence on 12
℄ TONQUISH CREEK
30-40 Top
8-15' Bolt
Sloped Paving (9 sq yd) From B/Walk to top of Headwall
Prop 5 Walk
Inv 78.07
Inv 78.00
15'
15'
66'
SCALE - Horz 1" = 10'
Vert 1" = 3'

CROSS SECTION AT HEADWALL OF FLEET ROAD



AT HEADWALL

FORM 25 0

Wade Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180
(313) 291-5400

RECEIVED
APR 25 1980
WATER MANAGEMENT

Bridge Location: FLEET DR

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0.00 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, Σk = $k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = Twin 63×98 = 70 Wp =

$R = A/wp$ 1.6 $R^{4/3}$ = 1.87 L = 66

n (composite).

$K_f = 29.1 \times (0.017)^2 \times 66 / 1.087 = 0.30$

$K_e = 0.5$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 45

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.5 + 0.30 + 0.0 = 1.80
3. COFQ Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0.0 (0 if read off BT cards)
5. BWC = Bottom width of bridge opening (inc. piers): 13.3
6. [illegible] width of obstruction = 0. — field data
7. [illegible] bridge opening inc. piers = 70.
8. SS = side slope = 0.
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 678.07
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 678.0
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
GREEN MEADOWS - CANTON TWP	DATE 3/80	DATE	1 of 1	HUD • 2003 • 07

EXHIBIT 8

CANTON TOWNSHIP, MICHIGAN

GREEN MEADOWS DRAIN

STARTING WATER SURFACE ELEVATIONS

- St. Will Sav Gr Mead. Cr. -

Discharge / Frequency Relationships for Tongue Creek

FREQUENCY

500 YR.
100 YR.
10 YR.
2.33 YR.

Q (cfs)

200 600 1000 1400 1800 2200

Section Location Map

Cross Section 19.5

Tongue Creek

Cross Section 19.2

N

* All Data from SCS "Flood Hazard Analysis, Tongue Creek, 1978."

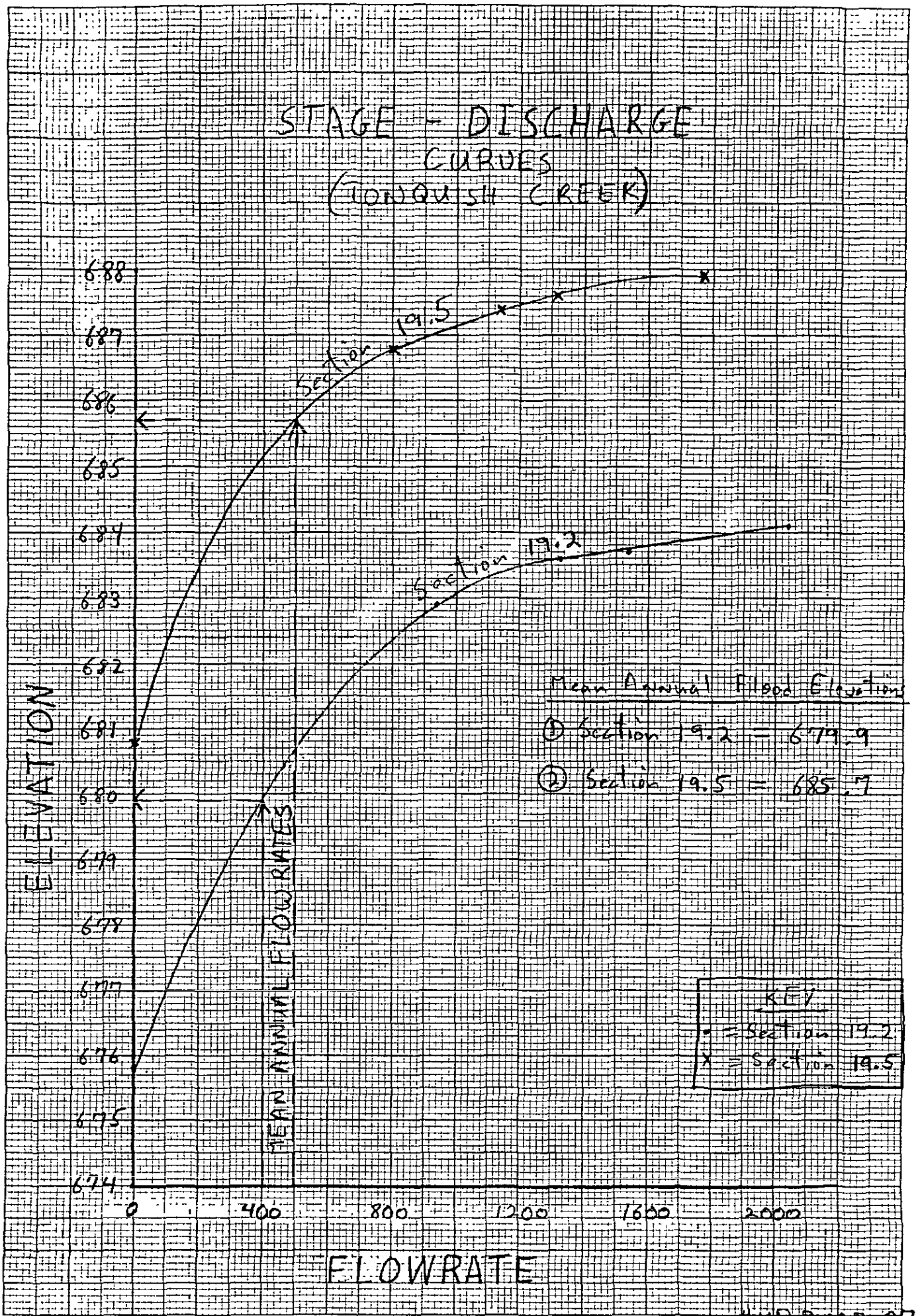
Mean Annual Flowrate:

① Section 19.2 = 4100 cfs

② Section 19.5 = 3000 cfs

K&E 46 5506 MADE IN U.S.A.
SEMI-LOGARITHMIC
3 CYCLES X 70 DIVISIONS • ALBANENE®
KEUFFEL & ESSER CO.

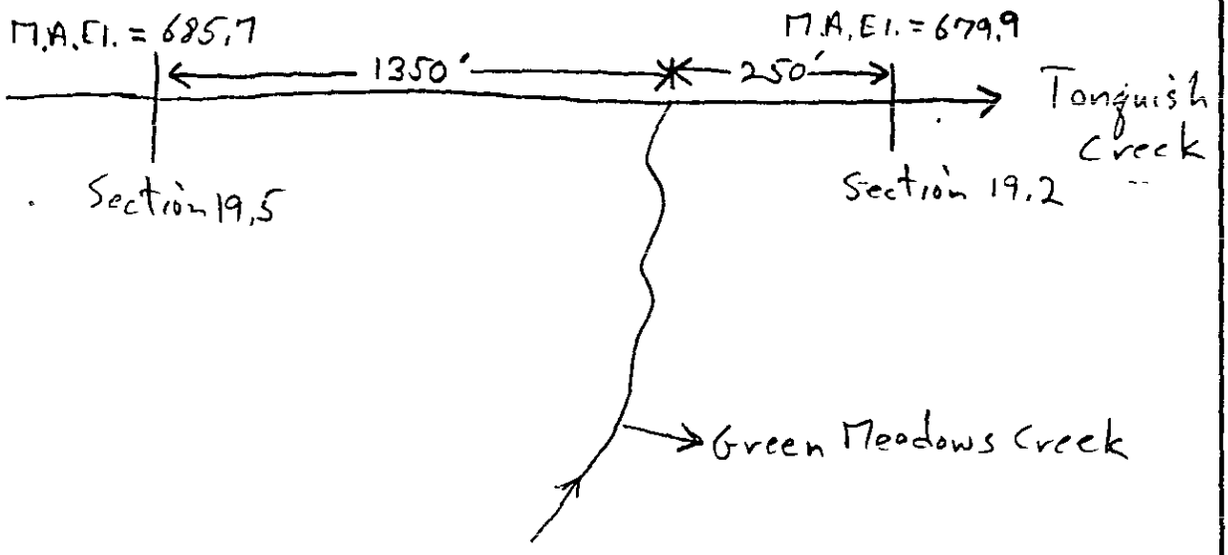
STAGE - DISCHARGE CURVES (TONQUISH CREEK)



HUD 2003 07
8/14/79

REFERENCE

Interpolated Mean Annual Flood Elevation



Mean Annual Flood Elev. @ Green Meadows/Tonquish Confluence:

$$\frac{X - 679.9}{250'} = \frac{685.7 - 679.9}{1600'} \quad \therefore X = 679.9 + \frac{(685.7 - 679.9)\,250}{1600}$$

$$X = 680.8$$

Therefore, the Mean annual flood elevation for Tonquish Creek at the Green Meadows Creek confluence is 680.8. This elevation will be used for the starting water surface elevation for the Green Meadows Creek Flood Insurance Study.

SUBJECT	BY	CHK.	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
Starting W.S.E.L. - Gr. Meadows Creek	WJ.W.		3 OF 3	HUD 2003 07
	DATE 8/11/99	DATE		

EXHIBIT 9

CANTON TOWNSHIP, MICHIGAN

FELLOWS CREEK

BRIDGE NOTES AND SKETCHES

FORM 25-0

(313) 291 5400

Wade Trim & Associates Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: PALMER-BRIDGE - Fellows Creek. REFERENCE
Bridge Losses - SB Card

1. XK (Pier Shape Coefficient) 0 HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient

7.7 k_e = entrance loss coefficient

k_p = loss from intermediate piers

Description of Bridge:

$n_{comp} = \frac{37.4(.015)+(.03)^{2.2}}{59.4}$

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 163 ft² = $\frac{163 ft^2}{R^{4/3}}$ WP = 59.4 $n_{comp.} = .021$

R = A/wp = 2.744 $R^{4/3} = 3.842$ L = 25'

n (composite) =

$K_f = 29.1 \times (.021)^2 \times 25 \;/\; 3.842 = .084$

$K_e = .2$ Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 43

$K_p = 0$ if bridge has no intermediate piers

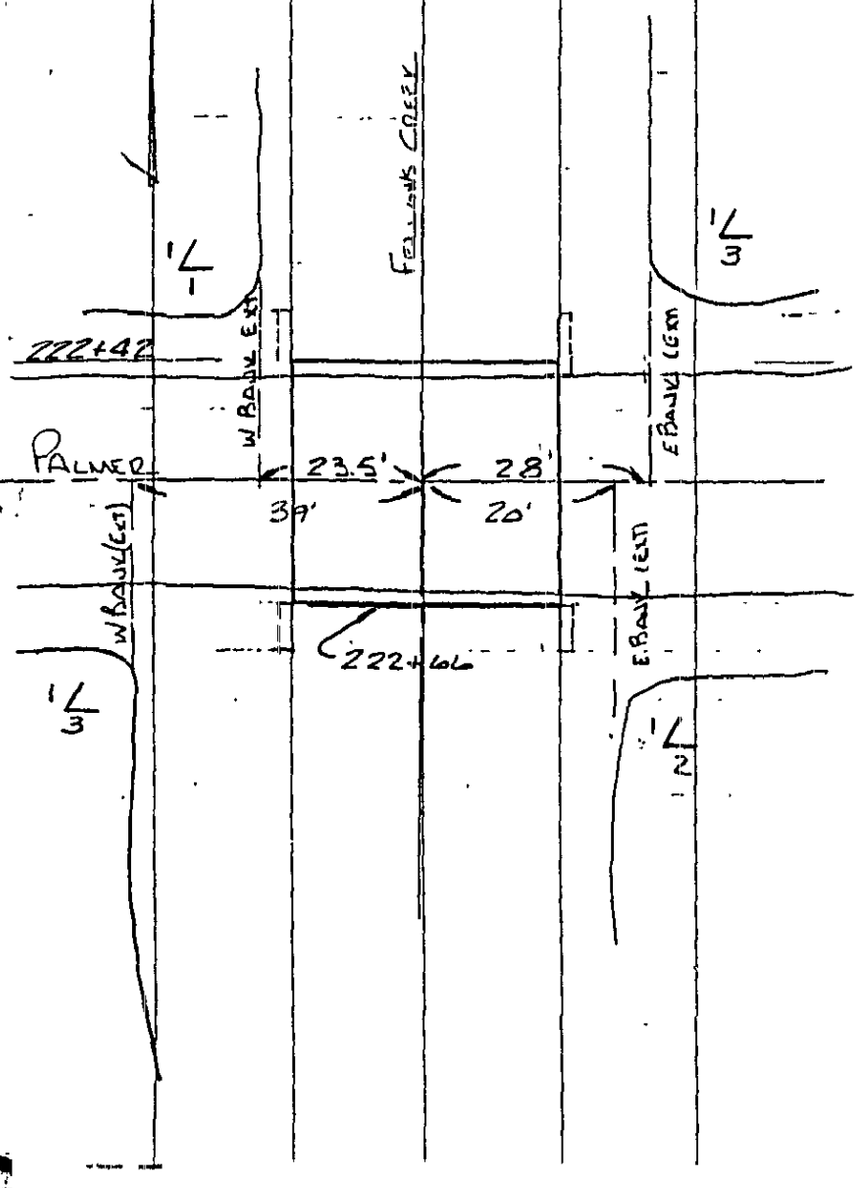
$K_p = 0.05$ if bridge has intermediate piers HEC-2 manual

2. XKOR = 1 + 0 + .08 + .2 = 1.28 — (Use 1.5 Default)
3. COFQ - Coefficient of discharge = 3.0 HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 20.38
6. BWP = total width of obstruction = 0 field data
7. BAREA = bridge opening inc. piers = 163
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 649.6 (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 649.4 (0 if equal to minimum elevation in previous X-sect.)

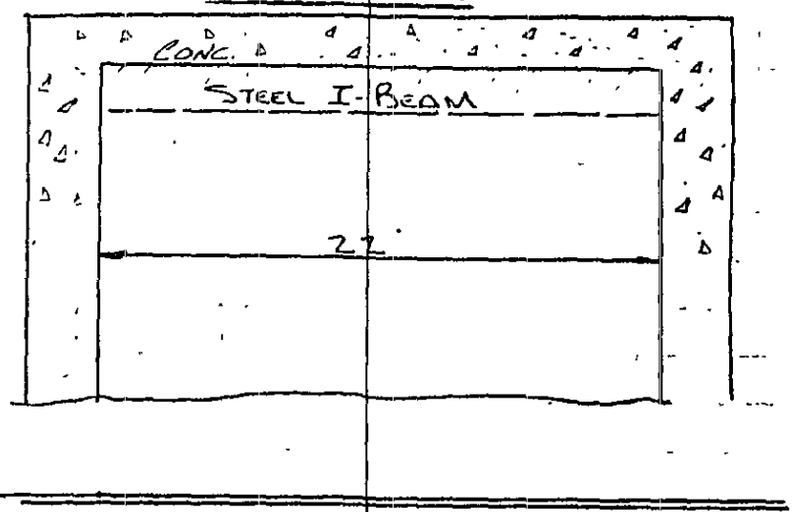
SUBJECT	BY WJW	CHK	SHEET NO.	File Code No (Job No.) Owner Project Suffix
Fellows Cr, Canton Twp	DATE 9/79	DATE	___ OF ___	WDP •2003•07

BRIDGE DETAIL FELLOWS CREEK
PALMER RD

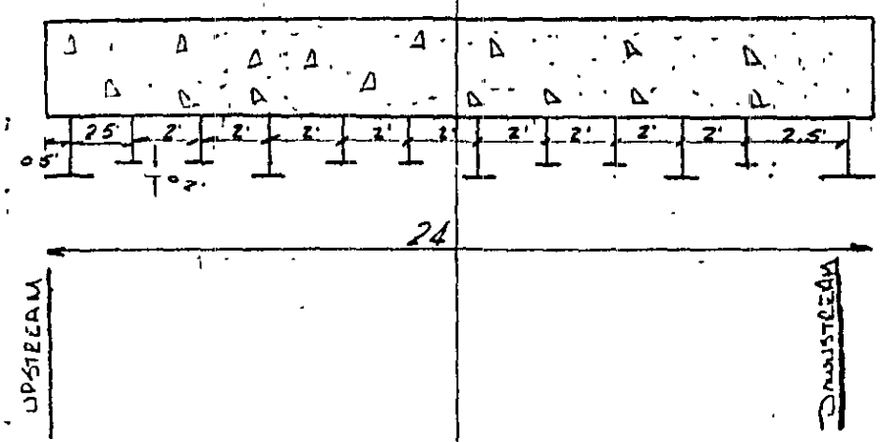
11-28-77 RZDWRA



VIEW STANDING UPSTREAM FACING DOWNSTREAM



SIDE VIEW



Wade Trim & Associates, Inc.
Civil Engineers • Land Surveyors
FORM 25.D
(313) 291 5400
WORK SHEET
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Received 4/25/80

Bridge Location: LOTZ RD - CANTON TWP 30° SKEW

REFERENCE

Bridge Losses - SB Card

1. XK (Pier Shape Coefficient) 0.0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, Σk = $k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 9.1 × 17.4 = 158 Wp = 53

R = A/wp 2.98 $R^{4/3}$ = 4.29 L = 19

n (composite) = .025

$K_f = 29.1 \times (0.025)^2 \times 19 / 4.29 = 0.08$

K_e = 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 43

K_p = 0 if bridge has no intermediate piers

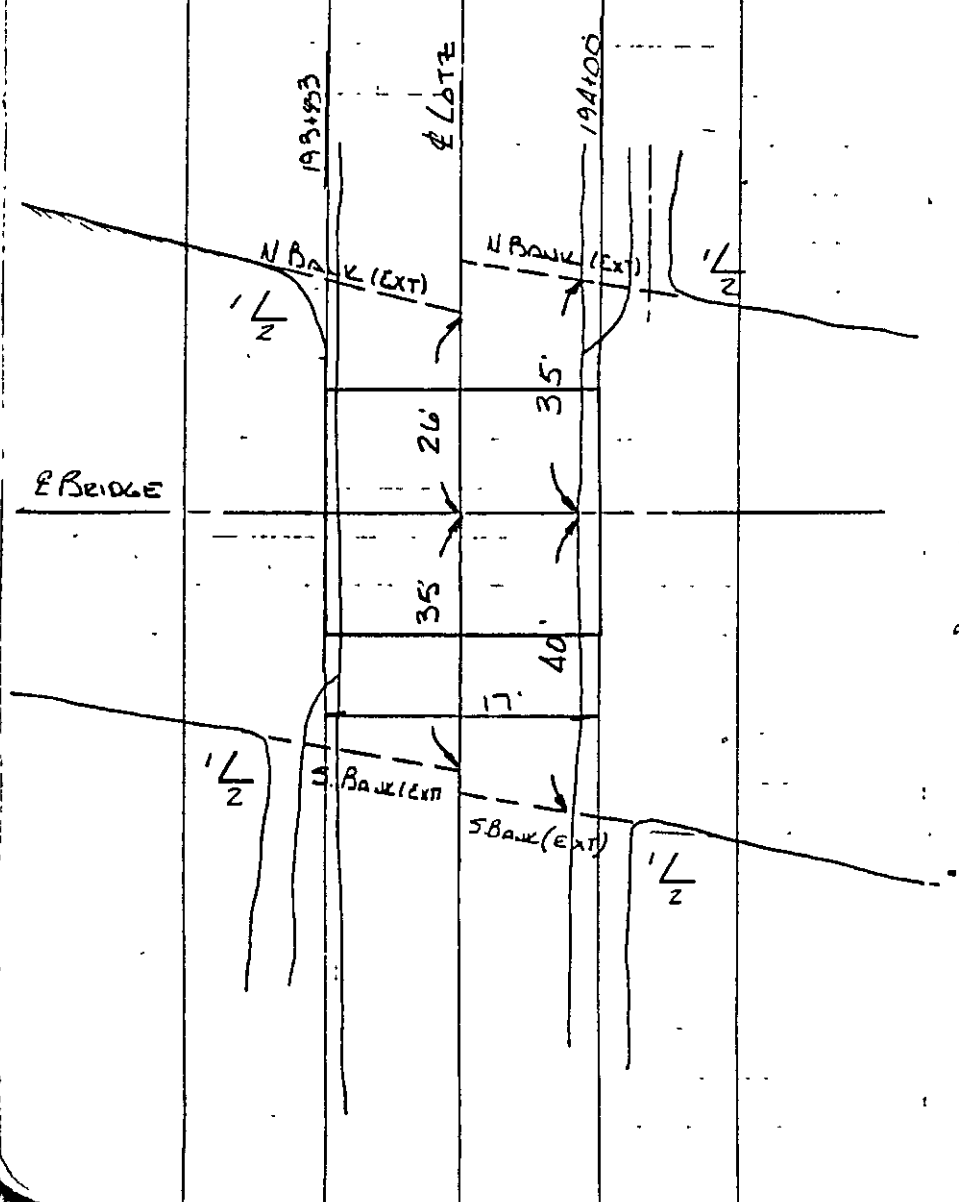
K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

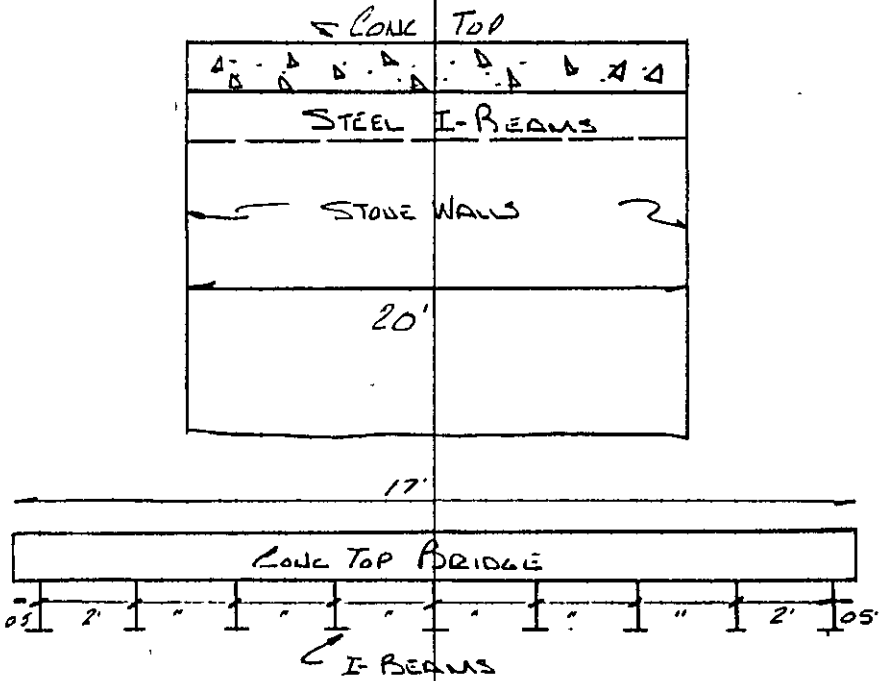
2. XKOE = 1 + 0.08 + 0.2 + 0.0 = 1.28
3. COFQ Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers): 17.4
6. [illegible] width of obstruction = 6.0 — field data
7. [illegible] bridge opening inc. piers = 158
8. SS = side slope = 0. (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 662.7 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 662.4 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
LOTZ - RD - FELLOWS CREEK	DRB		OF	HUD • 2003 • 07
	DATE 3/80	DATE		

BRIDGE DETAIL FELLOWS CREEK & LOTZ Rd.

11-28-77 R2DIN RA





Bridge Location: NORTH-BOUND I-275
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.05 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 922.8 Wp = 258

$R = A/wp$ 3.58 $R^{4/3}$ = 5.47 L = 69

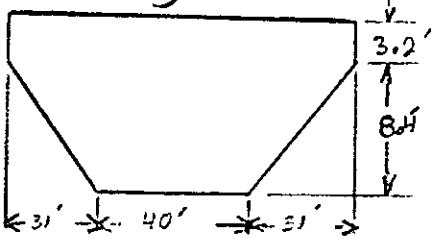
n (composite) = 0.03

$K_f = 29.1 \times (0.03)^2 \times 69 / 5.47 = 0.33$

K_e = 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual



3.2 (102) = 326.4
8.4 (40) = 336.0
8.4 (31) = 260.4
922.8 AREA

2. XKOR = 1 + 0.33 + 0.2 + 0.05 = 1.58
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0' (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers): 55.24
6. BWP = total width of obstruction = 4. — field data
7. BAREA = bridge opening inc. piers = 922.8
8. SS = side slope = 5.13 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 656.2 (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 656.5 (0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner Project Suffix
Canton Twp. Fellows Creek	T.G.		___ OF ___	HUD • 2 • 07
	DATE 3-2-79	DATE		

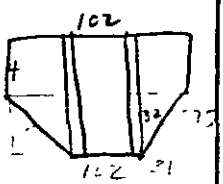
Bridge Location : SOUTHBOUND I-275
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.05 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers



Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 940.5 ft^2 = ____ Wp = 214.

$R = A/wp = 4.39$ $R^{4/3} = 7.2$ $L = 69$

n (composite) = .02

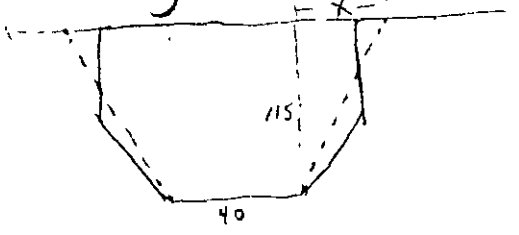
$K_f = 29.1 \times (.02)^2 \times 69/7.2 = .11$

$K_e = .1$

Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

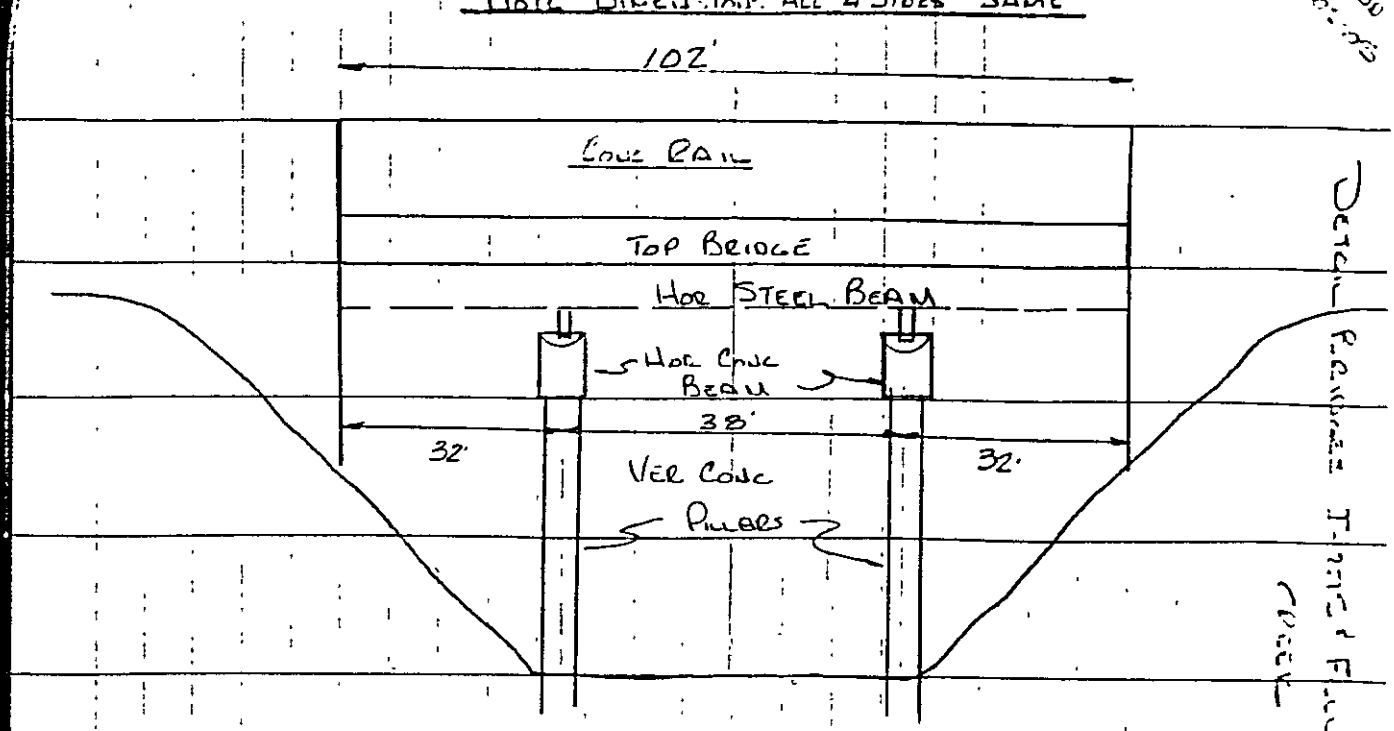
$K_p = 0.05$ if bridge has 41.8 intermediate piers — HEC-2 manual

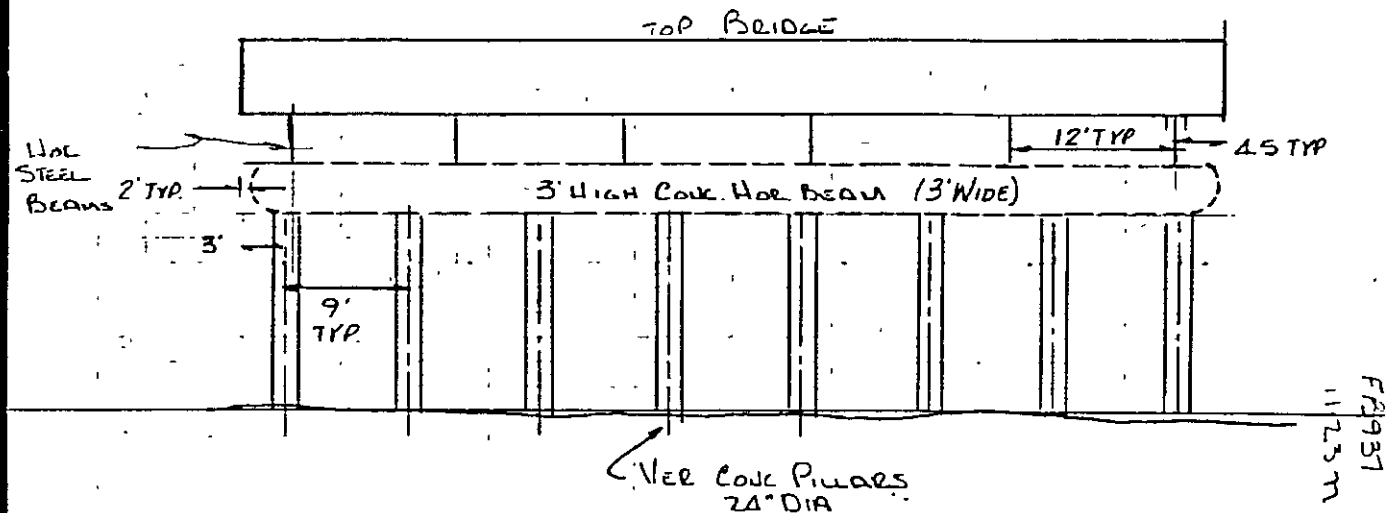


2. XKOR = 1 + .11 + .1 + .05 = 1.26 → USE 1.05
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 62.55
6. BWP = total width of obstruction = 4. — field data
7. BAREA = bridge opening inc. piers = 990.6
8. SS = side slope = 2.0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 656.2 (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 656.5 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Owner Project Suffix
Canton Twp Fellows Creek	T.G.		____ OF ____	HUD • 2003 • 07
	DATE 3-2-99	DATE		

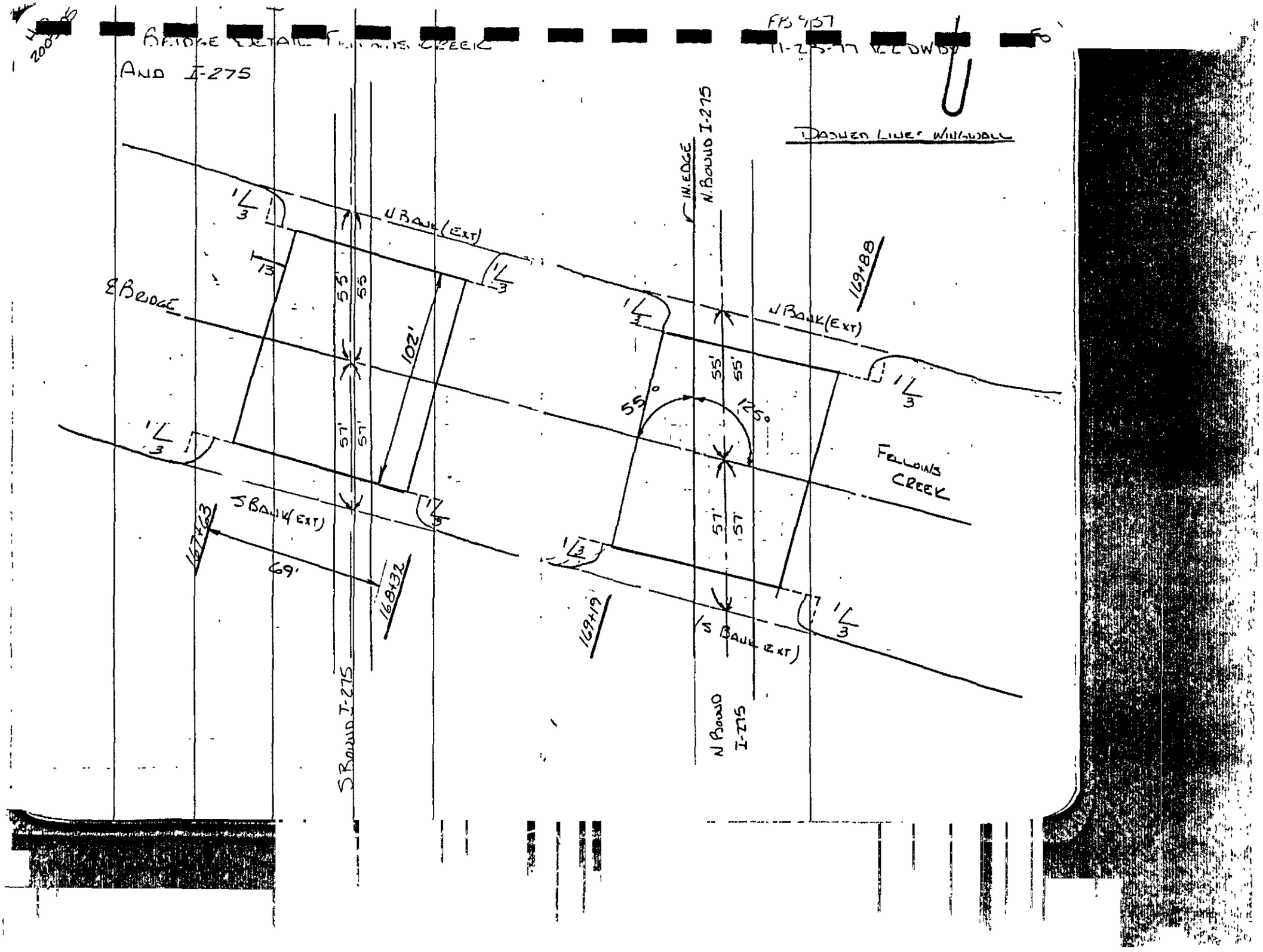
NOTE DIMENSIONS ALL 4 SIDES SAME





SIDE VIEW (SAME BOTH BRIDGES

FB937
11-23 M R2-DW-BV



BRIDGE DETAIL FELLOWS CREEK
AND I-275
FB 957
11-23-77 KLDWDY
DASHED LINE: WINGWALL
N BANK (EXT)
℄ BRIDGE
S BANK (EXT)
S BOUND I-275
N BOUND I-275
IN. EDGE
N. BOUND I-275
FELLOWS CREEK
169+88
169+19
168+32
167+63
102'
69'
55'
57'
55°
125°
13
1/3

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180
(313) 291-5400

FORM 25 0

WORK SHEET

Bridge Location : CHERRY HILL - FELLOWS

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.05 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient

k_e = entrance loss coefficient

k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 2150 $= \frac{2150}{R^{4/3}}$ Wp = 325

$R = A/wp$ 2150/325 $R^{4/3} = 12.41$ L = 48

n (composite) =

$K_f = 29.1 \times (0.03)^2 \times 48 \quad / 12.41 \quad = 0.10$

$K_e = 0.2$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .10 + .20 + .05 = 1.35 ⇒ 1.5

3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual

4. RDLEN = Length of weir = 0.0 (0 if read off BT cards)

5. BWC = bottom width of bridge opening (inc. piers) = 62.

6. BWP = total width of obstruction = 2 — field data

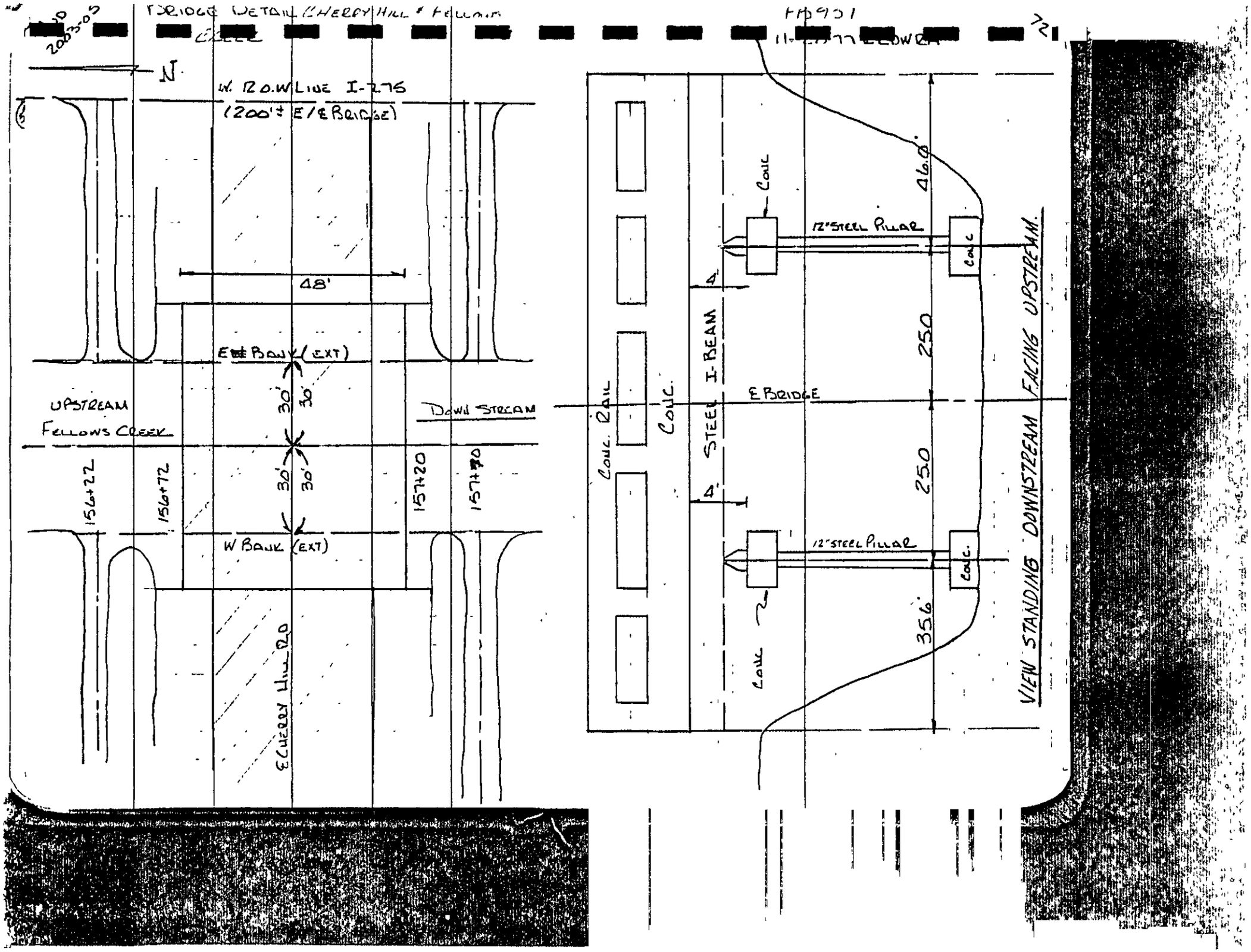
7. BAREA = bridge opening inc. piers = 2150

8. SS = side slope = 1.13 (horizontal per 1 vertical unit)

9. ELCHU = Elevation of channel invert U/S side = 659.2 (0 if equal to minimum elevation in previous X-sect.)

10. ELCHD = Elevation of channel invert D/S side = 658.7 (0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner	Project	Suffix
FELLOWS CR. CANTON TWP	DATE 9/79	DATE	___ OF ___	HUD	• 2003	• 02



BRIDGE DETAIL CHERRY HILL & FELLOWS CREEK
FB 951
72
N
W. R.O.W LINE I-275
(200'± E/℄ BRIDGE)
48'
E BANK (EXT)
UPSTREAM
FELLOWS CREEK
DOWN STREAM
30'
30'
30'
30'
156+22
156+72
157+20
157+70
W BANK (EXT)
℄ CHERRY HILL RD
CONC
12" STEEL PILLAR
CONC
4'
STEEL I-BEAM
℄ BRIDGE
CONC. RAIL
CONC.
4'
12" STEEL PILLAR
CONC.
CONC
46.0'
250
250
35.6'
VIEW STANDING DOWNSTREAM FACING UPSTREAM.

FORM 25 0

(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Haggerty Rd., Fellows Creek
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1 n^2 L / R^{4/3}$ for English units

Area = 179.27 = 179.27 Wp = 57.2

R = A/wp 3.134 $R^{4/3}$ = 4.586 L = 55

n (composite) =

$K_f = 29.1 \times (.02)^2 \times 55 / 4.586 = .16$

K_e = .2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

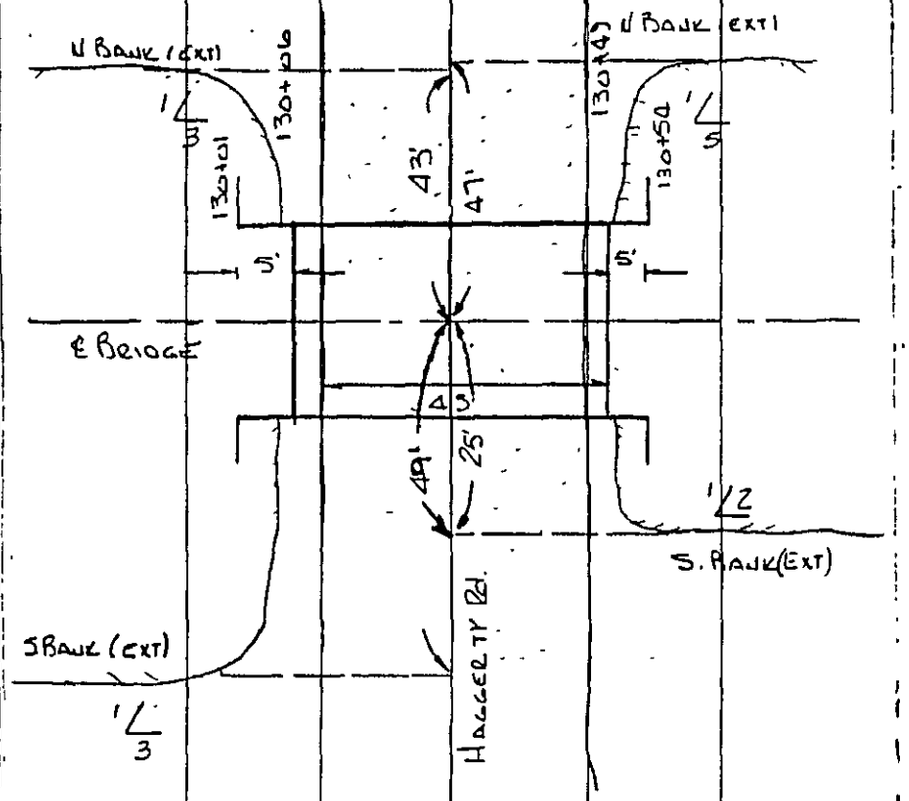
K_p = 0 if bridge has no intermediate piers

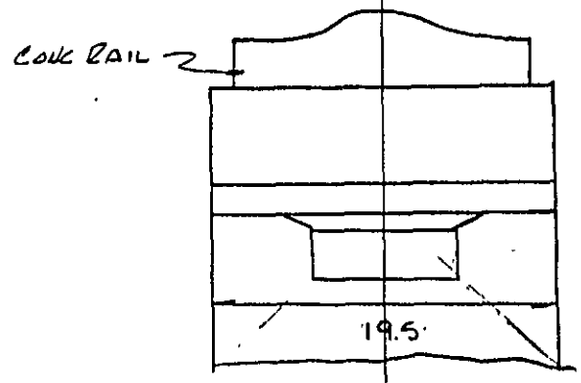
K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0 + .16 + .2 = 1.36 (use 1.5 Default)
3. COFQ - Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 20.14
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 179.27
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 661.7 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 661.5 (0 if equal to minimum elevation in previous x-sect.)

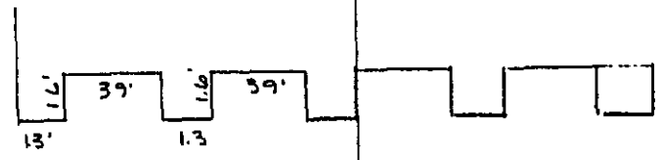
SUBJECT	BY WTW	CHK.	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
	DATE 9/79	DATE	___ OF ___	HCD • 2002 • 02

Bridge Detail Haggerty Rd &
Fellows Creek





Upstream & Down Stream Same



Note All Hor Columns Same
9 Columns From N. Face To E Face

N. Face Bridge
130+06

FORM 25 0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Lilley Rd. - Fellows Creek
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1 n^2 L / R^{4/3}$ for English units

Area = 145 = 145 Wp =

$R = A/wp$ $R^{4/3}$ = $L = 88'$

n (composite) = (.024) 70% (.03) 30% = .026

$K_f = 29.1 \times (.026)^2 \times 88$ / =

$K_e = .7$ (12.6 x 8.5) Left Culvert Area = 75, $R_H^{4/3}$ = 3.52 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

(12.0 x 7.5) Rt Culvert Area = 70, $R_H^{4/3}$ 3.16

$K_{f\,LEFT} = .49$ / $K_{f\,RT} = .55$

K_p = 0 if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

X_{KOR} Left = 1.7 + .49 = 2.19

X_{KOR} Right = 1.7 + .55 = 2.25

$K_{EQIV} = AI^2 / \left[\Sigma \sqrt{\frac{A_i^2}{K_i}}\right]^2 = \frac{(145)^2}{\left(\sqrt{\frac{70^2}{2.19}} + \sqrt{\frac{75^2}{2.25}}\right)^2} = 2.22$ → From HEC-2 Manual Pg 2 of 2 Exhibit 2

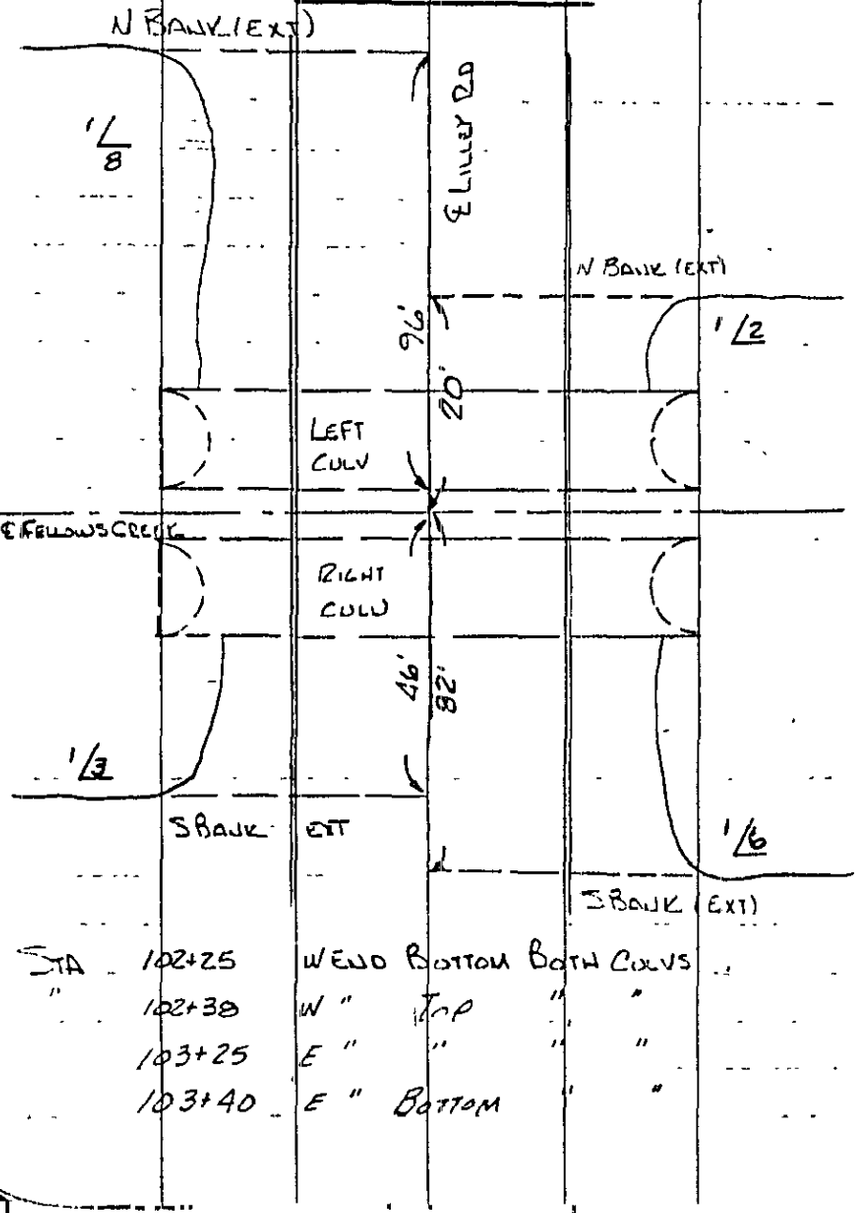
2. XKOR = 1 + .7 + 0 + K_f = 2.22
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 17.06
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 145
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 664.0
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 664.0
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner Project Suffix
Fellow Cr - Canton Twp	WJW			HUD • [illegible] • [illegible]
	DATE 9/[illegible]	DATE	OF	

CULV DETAIL AT LILLEY RD

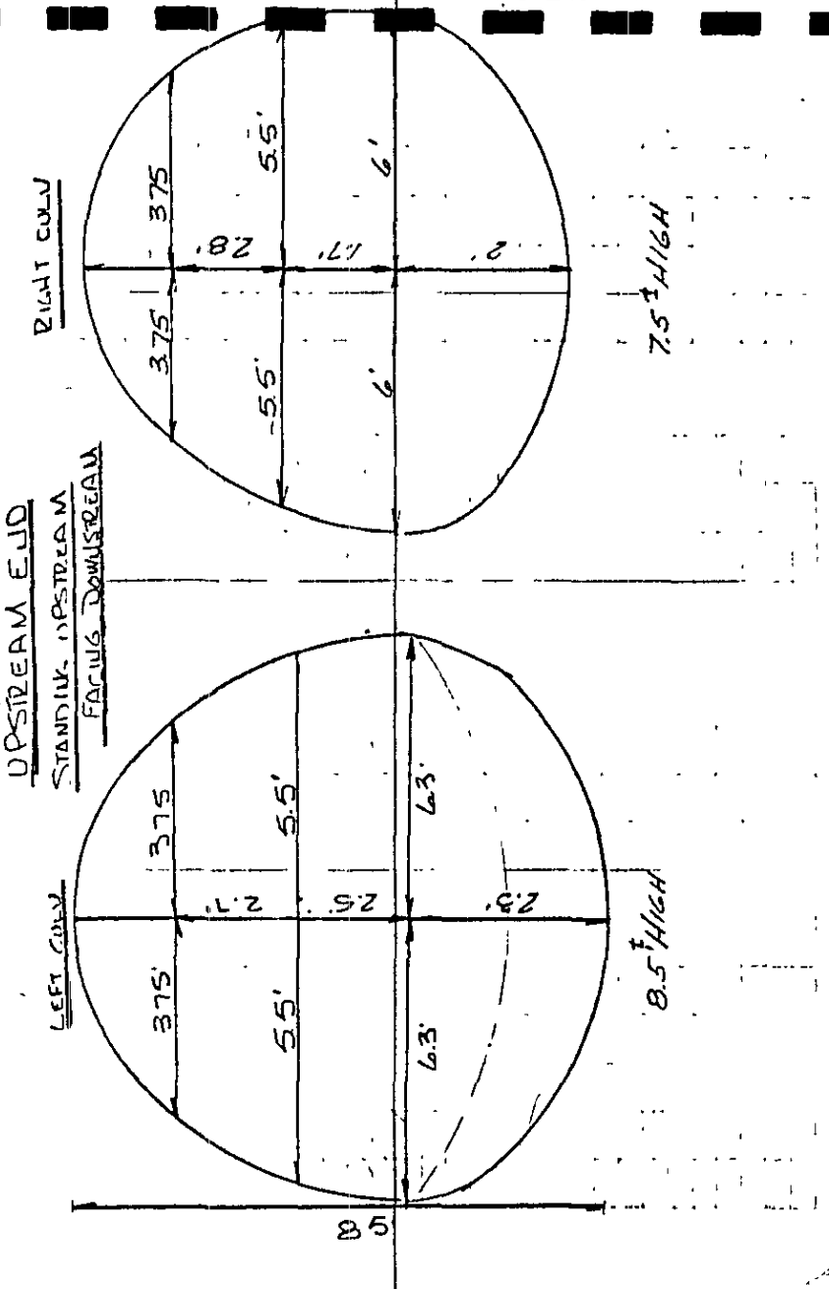
FELLOWS CREEK

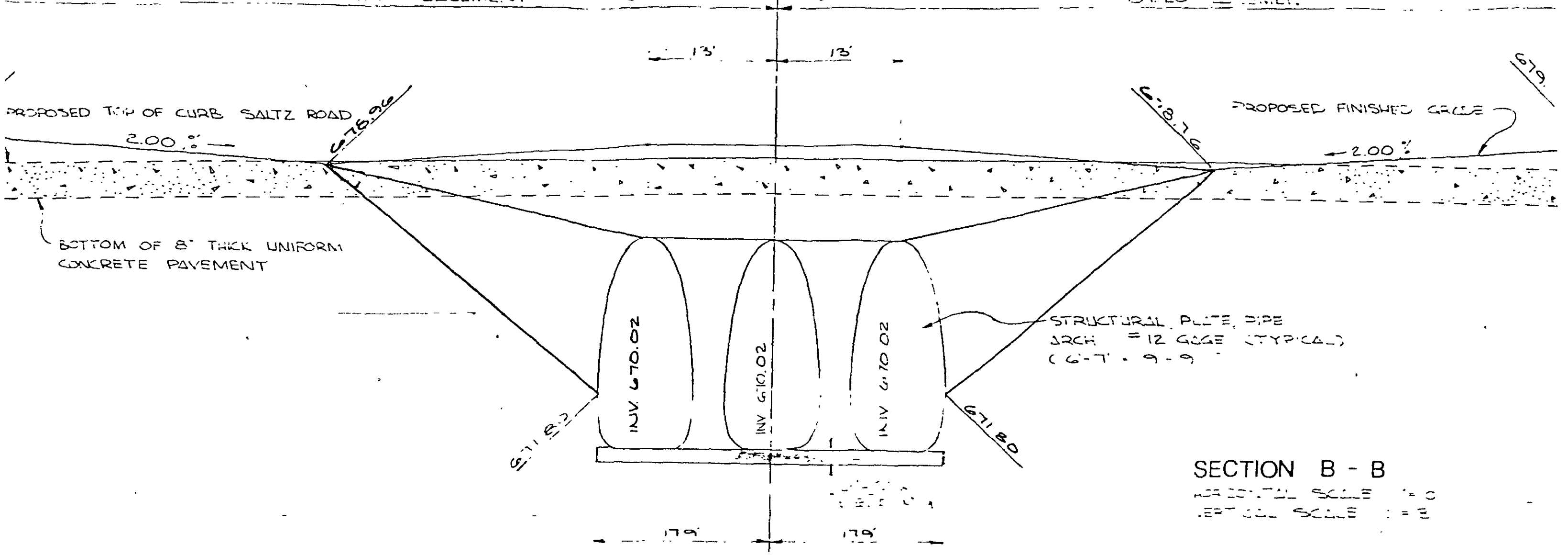
TWIN CMP ARCHES



LTA	102+25	W END BOTTOM BOTH CULVS
"	102+38	W " TOP " "
	103+25	E " " " "
	103+40	E " BOTTOM " "

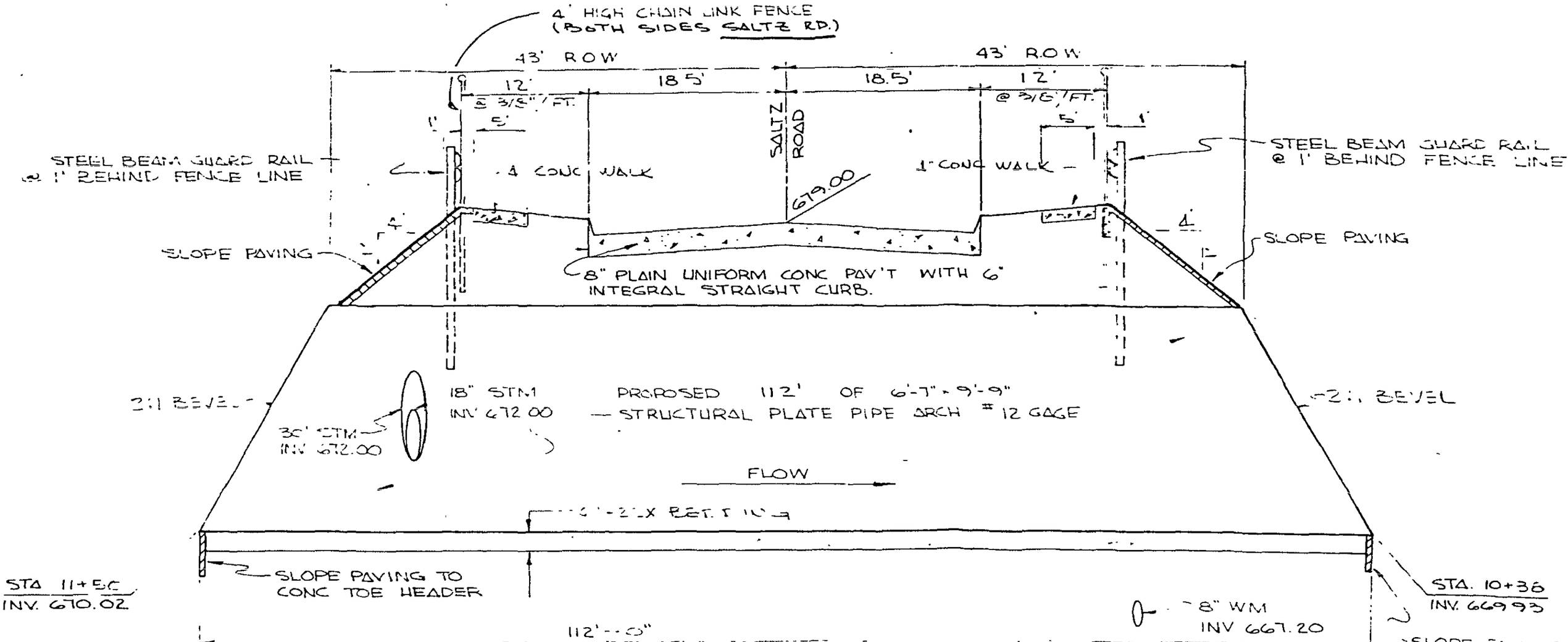
11-18-77 R7_DW LC





SECTION B - B

HORIZONTAL SCALE 1" = 5'
VERTICAL SCALE 1" = 5'



SECTION A - A

HORIZONTAL SCALE 1" = 10'
VERTICAL SCALE 1" = 3'

FORM 25 0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Elmhurst Br. - Fellows Creek
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1 n^2 L / R^{4/3}$ for English units

12 x 8.6 Arch — Area = 77 = 77 ft² Wp =

$R = A/wp = 2.37$ $R^{4/3} = 3.16$ $L = 40'$

n (composite) =

$K_f = 29.1 \times (.025)^2 \times 40 / 3.16 = .23$

K_e = .9 - Projects from Fill — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

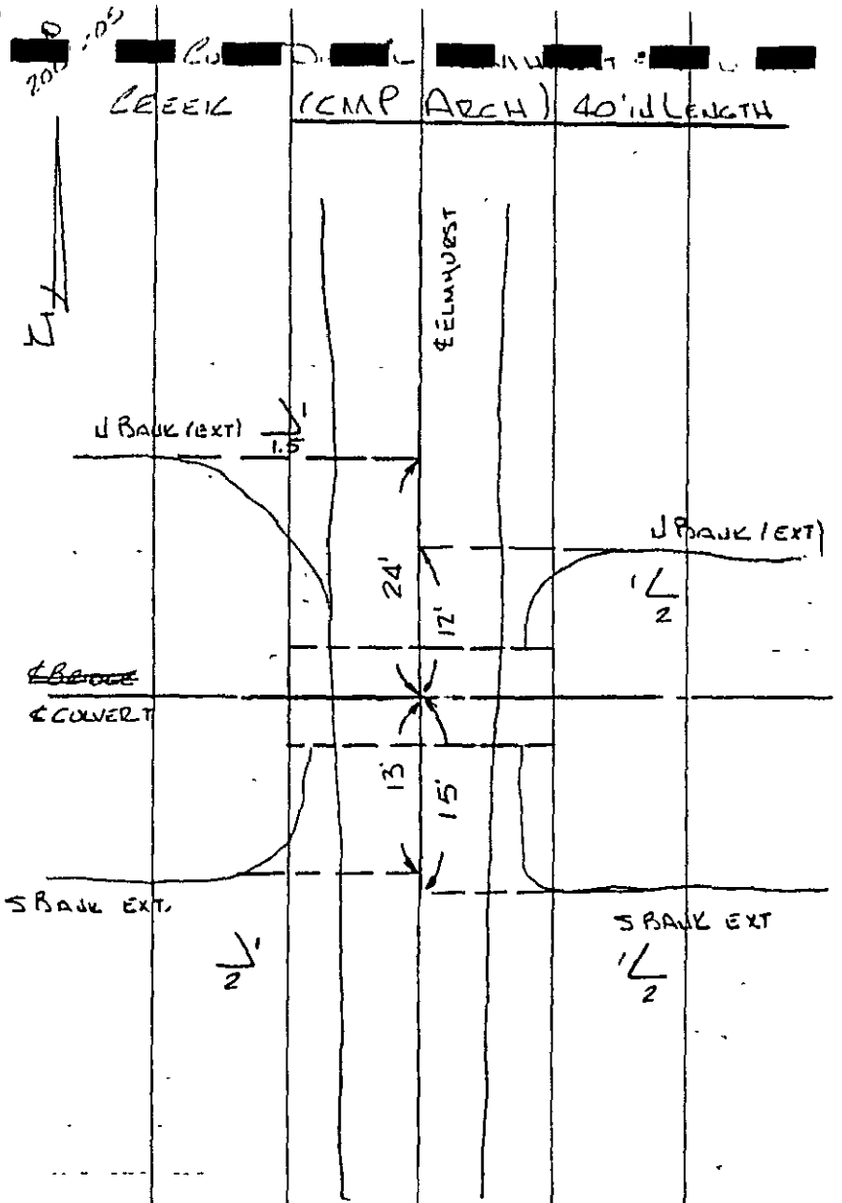
K_p = 0 if bridge has no intermediate piers

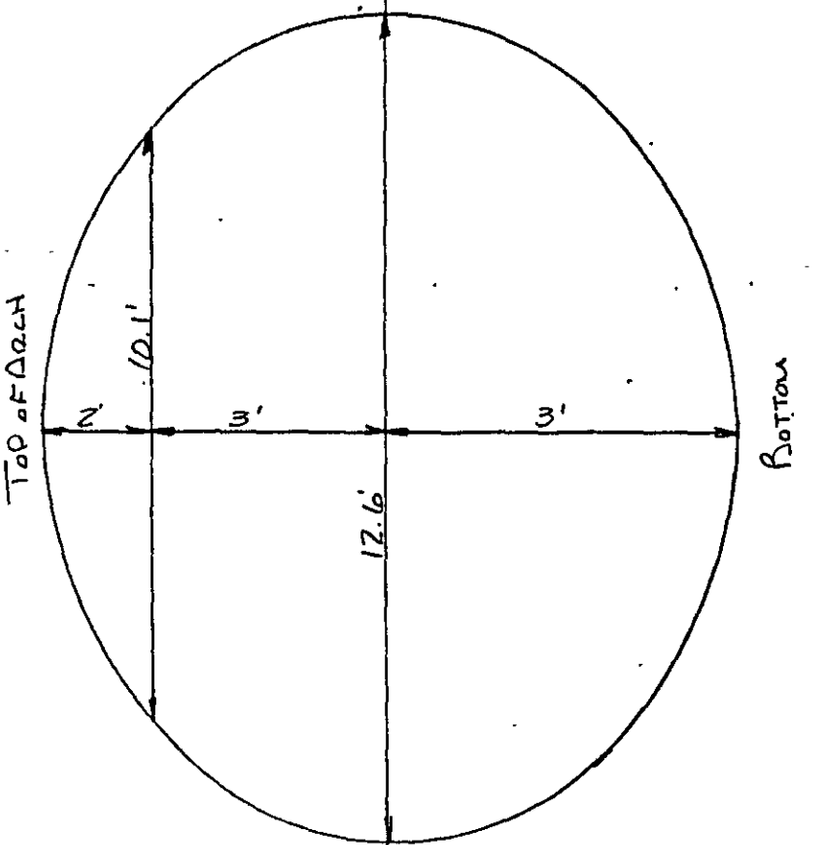
K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0 + .9 + .23 = 2.13
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 9.51
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 77
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 674.4 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 674.4 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY DRB	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
[illegible]	DATE [illegible]	DATE		

CREEK (CMP ARCH) 40'ld LENGTH





UP & DOWNSTREAM SAME DIMENSION

FORM 25 0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Sheldon Road - Fellows Creek
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:
$K_f = 29.1 n^2 L / R^{4/3}$ for English units
Area = = 99 ft² Wp =
R = A/wp 2.57 $R^{4/3}$ = 3.52 L = 40
n (composite) =
$K_f = 29.1 \times (.028)^2 \times 40 / 3.52 = .22$

K_e = .9 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

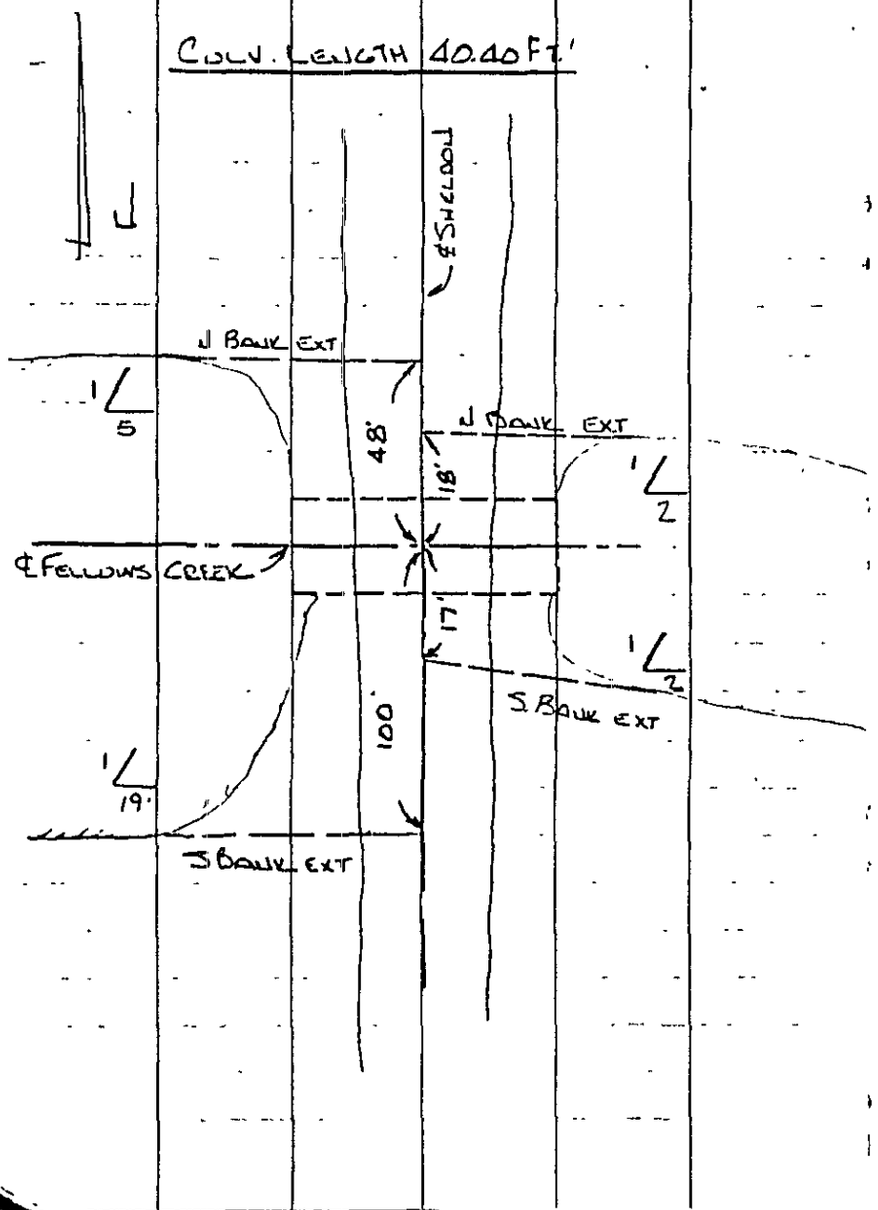
K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

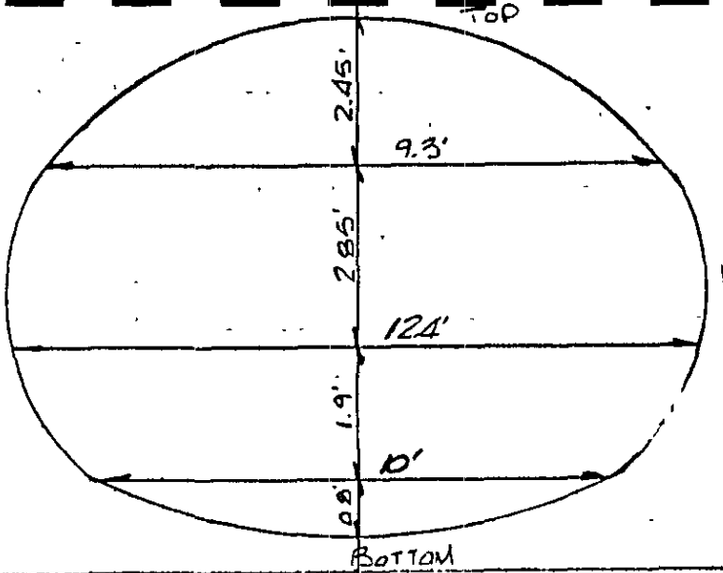
2. XKOR = 1 + 0 + .9 + .22 = 2.12
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 12.38
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 99
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 675.7
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 675.7
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner	Project	Suffix
Fellows Cr - Canton Twp	DRB			HUD	2003	07
	DATE 9/29	DATE	OF			

CULV DETAIL AT FELLOWS CREEK AND SHELDON ROAD

CULV. LENGTH 40.40 Ft.





DIMENSIONS UPSTREAM & DOWNSTREAM ENDS ARE THE SAME 0.2'±. CULV. IS 40.4' LONG & IS CORREGATED METAL PIPE

FORM 25 0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Ford Rd. — Fellows Creek
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 0 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:
$K_f = 29.1 n^2 L / R^{4/3}$ for English units
Area = 205 ft² = 205 Wp = 65
R = A/wp 3.154 $R^{4/3}$ = 4.625 L = 90'
n (composite) = 23.5 @ .03 + 41.7 @ .015 = .021
$K_f = 29.1 \times (.021)^2 \times 90' / 4.625 = .25$

K_e = .2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 4

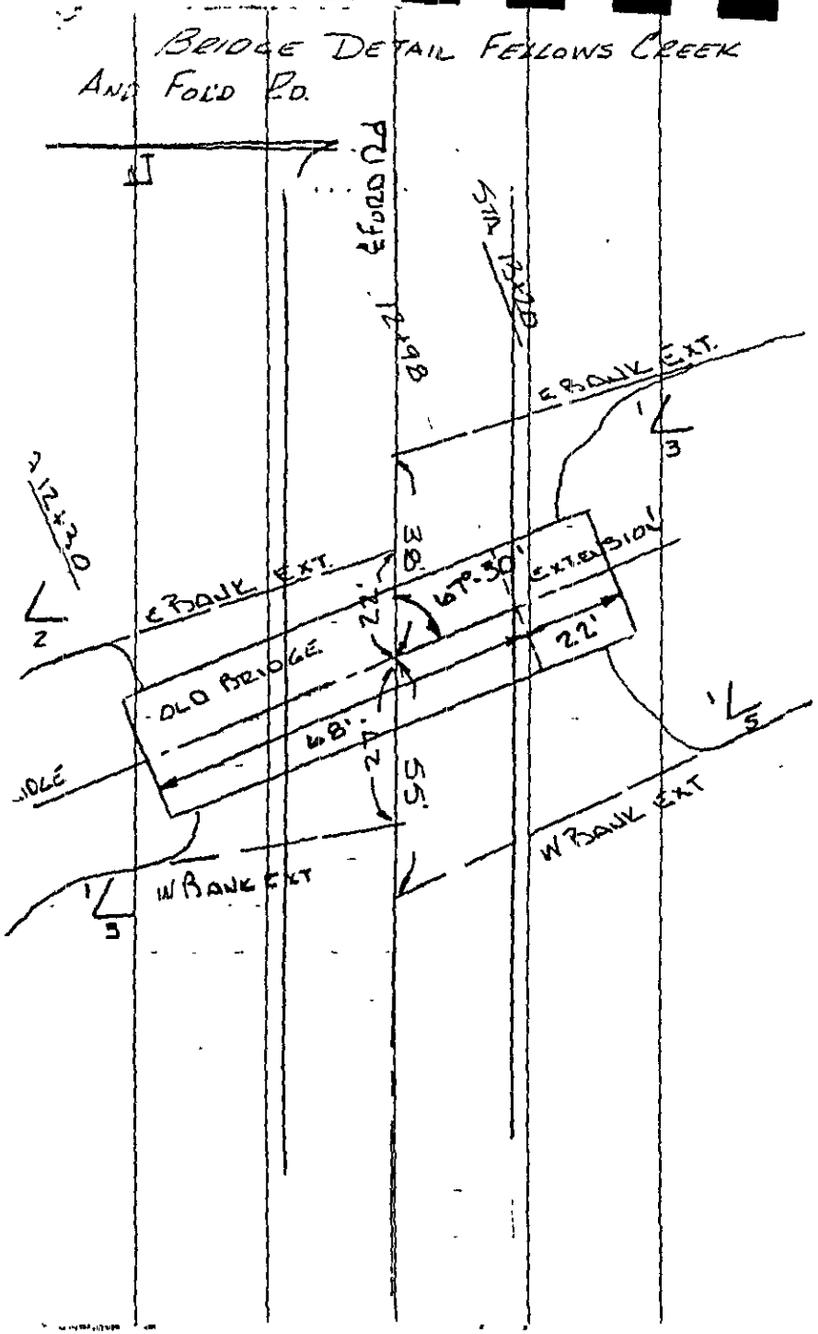
K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .2 + 0 + .25 = 1.45 (Use Default of 1.5)
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 22.53
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 205
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 677.8
(0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 677.8
(0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY WJW	CHK	SHEET NO.	File Code No. (Job No.) Owner	Project	Suffix
[illegible]	DATE 9/29	DATE	___ OF ___	MUD	2003	02

BRIDGE DETAIL FELLOWS CREEK AND FOLD RD.

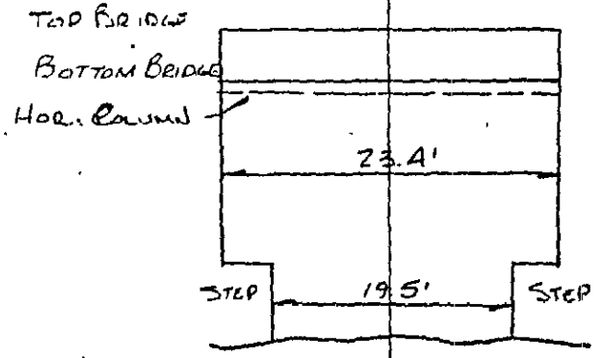


#8987
11-15-77 [illegible]

UPSTREAM SIDE BRIDGE (N SIDE)

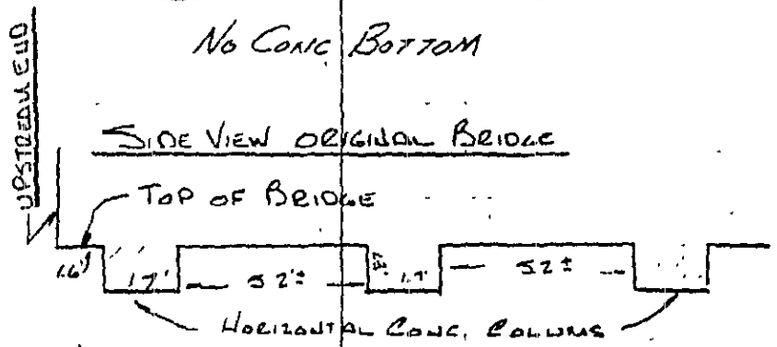
VIEW FROM UPSTREAM FACING DOWNSTREAM

STA 12+30



NO CONC BOTTOM

SIDE VIEW ORIGINAL BRIDGE



NOTE: THERE ARE 9 COLUMNS

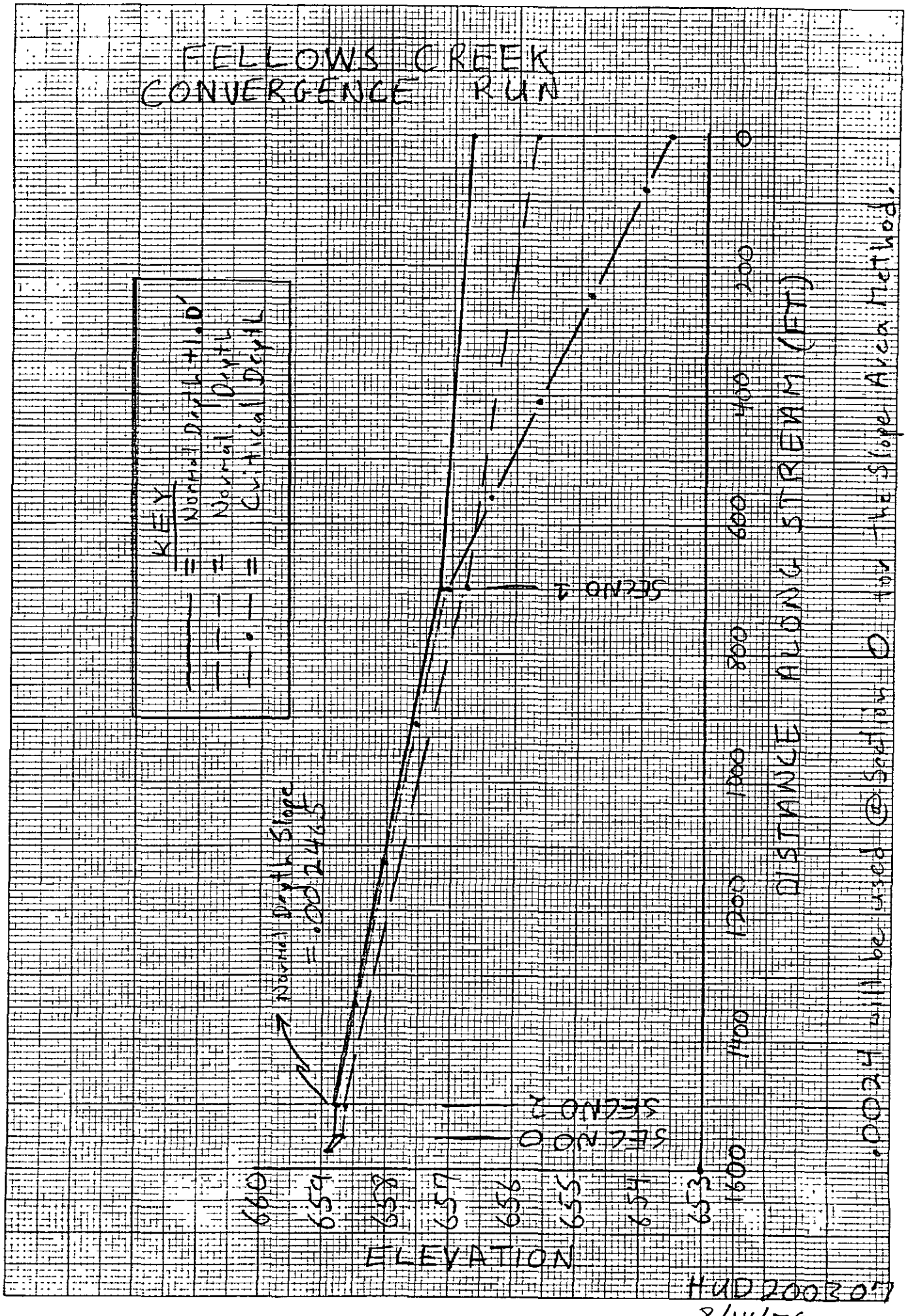
NOTE: SAME DIMENSIONS @ STA 12+98 (S END ORIGINAL BRIDGE) NO STEP ON BRIDGE EXTENSION OPENING OF BRIDGE 23.4'.

EXHIBIT 11

CANTON TOWNSHIP, MICHIGAN

FELLOWS CREEK

CONVERGENCE RUN



HUD 200307
8/14/79
W-J. Weaver

K&E 10 TO THE INCH KEUFFEL & ESSER CO. MADE IN U.S.A. 46 1320



1) COUNTY: Wayne

2) STUDY NAME: Canton Twp.

3) WATERCOURSE: Willow Creek

4) DOCUMENT TYPE: 100 Year



09:20:22 X36 DA. HU200307 HUSCART AT 31, 1981

100YR NATURAL

FORM 1411-CD-PRINTED BY ROTARY MANIFOLD FORMS.

PRINTED IN U.S.A.

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**********************************************************
     FEGZ RELEASE ENTERED MCD TO UPDATED TEE 977
     ERROR CORR - 01
     MODIFICATION - 07,31,32
**********************************************************

C
T1 WILLOW CREEK FIS AUG 2005-07 CANTON TWP FROM CORP.BOUND.TO. CANTON CENTER RD.
T2
T3       WILLOW CREEK CANTON TWP.

J1  ICHECK      INQ        NINV       IOPT       STRT       METRIC     HVINS      G          WSEL       FQ

                3.         4.         3.         3. 0.000000   3.00       0.0        0.       667.100    0.000

J2  NPROF       IPLOT      PRFVS      XSECV      XSCCH      FI         ALLOC      IBW        CHTIE      ITRACE

          1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000

J5  VARIABLE CODES FOLLOW ACV PRINTOUT

        110.000    150.000    200.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

Q1        5.000    640.000    640.000    740.000    740.000    960.000      0.000      0.000      0.000      0.000
-1        0.002      0.079      0.000      0.000      0.410      0.000      0.000      0.000      0.000      0.000
WS        0.103      0.150      0.035      0.100      0.030      0.040      0.000      0.000      0.000      0.170

CANTON TOWNSHIP CORPORATE BOUNDARY FROM SCS FLOOD HAZARD STUDY

          0.03      61.730    1790.000     915.000       0.000      0.000      0.000      0.000      0.000      0.000
          0.03     964.020    2224.030     976.200     502.000    675.330    2602.000    472.600    1470.000    670.700
          0.03     992.550    2224.030     746.200     715.000    687.330    2775.000    536.900    1330.000    657.100
          0.03     693.150    1817.070     652.300    2019.000    654.200    4325.000    365.500    1900.000    670.200
          0.03     678.020    2103.030     676.700    2202.000    659.000    2505.000    369.100    2400.000    670.500
          0.03     642.020    2023.030     610.300    2601.000      0.000      0.000      0.000      0.000      0.000

C  LOWER END OF THE MAIN FIELD REACH

          650.000      1.200     624.000     637.000     511.200     703.000     300.000       0.000      0.000      0.000
          670.500      0.700     567.400     330.000     657.200     460.000     665.100     513.000     657.300     624.000
          650.700      0.200     567.400     637.000     703.200     647.000     365.300     700.000     660.300     701.000
          670.500      1.000       0.000       1.000       0.700       1.000       0.000       0.000       0.200       0.000
            0.100      0.010       0.035       1.000       0.500       1.000       0.000       0.000       0.000       0.000

SECOND TYPE OF CUT LINE DESCRIBING R.O.B OF FIELD BOUNDARY AND DEAD END

          1991.300      1.200     624.000     637.000     511.200     703.000     300.000       0.000      0.000      0.000
             0.000      1.000       0.000       0.000       0.500       1.000       0.000       0.000      0.000      0.000
             0.000      0.700       0.000       0.000       0.000       0.000     667.100     360.000    656.200    640.000
             0.000      0.000       0.000       0.000       0.000       0.000     667.300     612.000    643.300    649.000
             0.000      0.000       0.000       0.000       0.000       0.000     666.700     720.300    647.700    660.000
             0.000      1.000       0.000       0.000       0.000       0.000       0.000       0.000      0.000      0.000

C  LOWER END OF THE MAIN FIELD REACH

          650.000      1.200     624.000     637.000     511.200     703.000     300.000       0.000      0.000      0.000
          670.500      0.700     567.400     330.000     657.200     460.000     665.100     513.000     657.300     624.000
          650.700      0.200     567.400     637.000     703.200     647.000     365.300     700.000     660.300     701.000
          670.500      1.000       0.000       1.000       0.700       1.000       0.000       0.000       0.200       0.000
            0.100      0.010       0.035       1.000       0.500       1.000       0.000       0.000       0.000       0.000
```

PRINTED IN U.S.A.

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

	43	10.000	0.300	0.300	403.000	0.300	927.000	0.000	666.000	666.000	0.000
	58	32.000	0.300	670.800	100.000	668.700	200.000	667.100	300.000	666.200	400.000
	61	1.100	530.700	666.100	576.000	659.300	586.000	657.700	586.600	657.300	588.000
	64	1.300	580.500	657.300	592.500	657.500	595.500	657.300	597.000	657.700	598.400
1	GR	671.500	599.300	659.500	607.000	657.700	601.600	657.300	603.000	657.300	606.500
2	GR	1.300	677.400	657.300	613.500	657.300	612.000	657.700	613.400	659.300	614.000
3	GR	661.200	623.300	666.400	700.000	666.400	600.000	666.300	400.000	666.700	1000.000
4	GR	667.700	1130.300	659.100	1200.000	670.400	1500.00	671.300	1400.000	0.000	0.000
5	NC	0.100	0.100	0.324	0.300	0.300	0.000	0.000	0.000	0.000	0.000
6											
7											
8		9+00 150' Lt 22+47 O/S FACE LOTZ BRIDGE FROM FIELD SIDE AND QUAD HAT									
9											
10	X1	1420.000	0.700	0.300	0.000	1.000	1.000	1.000	0.000	0.300	0.000
11	X1	10.000	657.500	0.300	403.000	0.000	927.000	0.000	666.000	666.000	0.000
12	GR	32.000	0.300	673.300	0.000	100.000	670.000	0.000	200.000	668.700	0.000
13	GR	1.000	657.700	0.300	600.000	656.200	0.000	300.000	656.700	0.300	598.000
14		661.300	639.300	536.900	669.300	661.700	568.000	666.300	602.300	519.500	664.300
15		664.200	642.500	666.300	663.300	599.500	663.300	664.300	597.000	656.300	665.300
16		598.400	656.300	661.300	599.000	658.300	659.300	301.300	666.300	659.300	661.600
17	GR	666.300	651.100	603.300	666.300	653.300	654.500	666.300	664.300	647.500	666.300
18	L	665.300	0.300	666.300	664.300	612.000	660.300	663.300	613.400	666.300	661.300
19	L	614.000	0.300	629.300	700.000	656.400	0.000	301.000	551.000	0.000	5.000
20		665.700	0.200	1200.300	669.700	0.300	1120.000	667.700	0.000	1200.000	667.100
21	L	1.000	1.000	670.300	0.000	1400.300	651.300	0.000	0.000	0.000	0.000
22											
23											
24		11+00 150' Lt 22+47 O/S FACE LOTZ BRIDGE FROM FIELD SIDE AND QUAD HAT									
25											
26		60.000	0.300	0.300	0.000	60.300	60.000	77.000	0.000	0.000	0.000
27		0.000	0.300	0.300	0.000	0.300	0.000	1.000	0.000	0.300	0.000
28		10.000	657.300	0.300	403.000	0.000	927.000	0.000	666.300	666.300	0.000
29	LE	1.100	0.100	0.339	0.300	0.300	0.000	0.000	0.000	0.300	0.000
30											
31											
32		[illegible]									
33											
34	X1	661.000	0.300	0.000	0.000	1.000	1.000	1.300	0.300	0.000	0.000
35	X1	10.000	0.300	0.000	403.000	0.000	927.000	0.000	666.300	666.300	0.300
36											
37											
38		[illegible] FACE [illegible] BRIDGE FROM FIELD SIDE AND QUAD HAT									
39											
40	X1	1510.000	12.000	551.100	606.700	45.000	5.300	40.000	0.000	0.000	0.000
41	X1	0.000	0.300	0.000	403.000	0.000	927.000	0.000	0.000	0.000	0.000
42	GR	673.300	0.300	673.300	100.000	668.700	200.000	667.100	300.000	666.200	400.000
43	GR	1.000	657.700	0.300	600.000	656.200	0.000	300.000	656.700	0.300	598.000
44	GR	636.300	702.000	666.300	630.300	666.300	630.300	666.300	100.000	666.700	1100.000
45	GR	659.100	1200.000	670.400	1500.000	671.300	1400.000	0.000	0.000	0.000	0.000
46	LE	0.100	0.100	0.339	0.300	0.300	0.000	0.000	0.000	0.300	0.000
47											
48											
49		[illegible]									
50											
51		662.000	0.300	344.300	717.000	1.000	1.000	1.000	0.300	0.000	0.000
52	GR	663.000	698.600	657.300	644.500	645.300	638.000	663.300	700.000	666.100	645.000
53	GR	662.600	759.300	645.700	765.000	666.300	677.500	666.300	1137.300	0.100	521.000
54	NC	0.100	0.100	0.335	0.300	0.300	0.000	0.300	0.300	0.000	0.000
55		0.000	0.300	0.300	0.000	0.000	0.000	0.000	0.300	0.000	0.300
56											
57											
58		[illegible]									

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X3	0.300	0.000	0.000	196.500	0.000	263.500	0.000	0.000	0.000	0.000
GR	680.300	0.000	670.000	1.000	667.400	200.000	651.400	211.000	661.400	249.000
GR	667.700	261.000	670.000	1000.000	680.000	1001.000	0.000	0.000	0.000	0.000

SECNO 4220 STA 193+50 D/S FACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	4029.000	41.000	0.000	42.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	660.000	660.000	0.000
GR	680.000	0.300	663.350	0.000	661.700	0.500	661.100	1.000	660.700	2.000
GR	663.350	5.300	660.100	5.000	660.100	5.000	661.100	5.000	661.350	7.000
GR	663.350	0.300	661.100	9.000	661.700	9.000	663.350	10.000	661.350	16.000
GR	66[illegible].350	15.400	661.100	17.500	660.700	18.000	663.350	19.000	661.100	20.000
GR	660.100	21.000	660.100	22.000	660.300	23.000	660.700	24.000	661.100	25.000
GR	661.700	25.300	663.350	26.000	663.350	32.000	661.700	32.500	661.100	33.000
GR	660.700	34.000	660.300	35.000	660.100	36.000	660.100	37.000	660.100	38.000
GT	650.300	39.000	663.750	40.000	661.100	41.000	651.700	41.300	663.350	42.000
GR	650.200	42.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000
BD	0.200	2.000	0.000	0.000	24.800	0.000	157.200	0.000	660.500	663.150

SECNO 4237 STA 193+50 U/S FACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	4237.000	0.000	0.300	0.000	330.300	208.000	208.000	0.000	0.000	0.000
GR	0.000	1.500	1.300	667.000	671.300	0.500	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	660.000	660.000	0.000
BT	41.000	0.300	660.000	0.000	0.000	671.600	663.750	0.500	671.800	665.600
BT	1.000	671.900	666.000	2.000	671.800	666.400	3.000	671.800	666.800	4.000
BT	671.600	666.000	16.000	671.800	665.400	19.000	671.800	666.800	20.000	671.800
BT	667.000	21.000	671.000	667.000	22.000	671.800	667.000	23.000	671.800	666.800
BT	24.000	671.900	666.400	25.000	671.800	666.000	25.500	671.800	665.400	26.000
BT	671.600	671.[illegible]	32.0[illegible]	671.800	665.750	42.[illegible]	671.[illegible]	655.[illegible]	21.000	0.[illegible]
BT	666.000	0.000	671.800	666.400	33.000	671.800	666.000	50.300	671.[illegible]	667.[illegible]
BT	37.000	671.300	667.000	38.000	671.000	667.000	39.000	671.300	667.000	50.000
BT	671.800	666.400	42.000	671.800	665.000	47.300	671.800	665.400	42.000	671.800
BT	663.750	42.000	663.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000

SECNO 4237 STA 193+50 U/S FACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

BT	42[illegible].000	0.000	279.300	320.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	229.000	0.300	671.000	0.000	0.000	0.000	0.000
GT	980.000	0.000	672.500	1.000	668.100	265.000	662.000	279.000	662.000	383.000
GT	389.000	329.000	670.700	690.000	690.300	501.000	0.300	0.000	0.000	0.000
GT	0.000	0.000	0.300	0.000	1.400	1.000	0.300	0.000	0.000	0.000

SECNO 5037 STA 193+50 FROM FIELD BOOK

BT	5237.000	0.300	1128.000	1574.000	1.000.000	000.000	000.000	0.000	0.000	0.000
GR	000.000	0.300	000.000	1373.000	000.200	1374.000	671.300	1000.000	673.200	1510.000
BR	671.[illegible]0	1510.300	000.200	1524.000	000.300	1524.000	000.200	1000.000	000.300	1510.000
BR	000.000	1000.000	000.000	1000.000	000.200	000.000	000.200	1000.000	000.300	1000.000
BT	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.300	2411.000

SECNO 5[illegible] STA [illegible] C/L AT FROM FIELD BOOK AND QUAD MAP

BT	5[illegible].300	0.000	000.000	2159.000	900.000	000.000	000.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2056.300	0.000	2153.500	0.000	0.000	0.300	0.000
GT	000.000	0.000	000.000	2079.000	000.000	2055.000	000.000	000.000	000.000	000.000

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GR	677.700	2400.000	000	2431.300	0.000	0.000	0.000	0.000	0.000	0.000

SECNO 5785 STA 178+32 D/S FACE I-275 CULVERT FROM FIELD BOOK AND QUADMAP

X1	5785.000	41.000	0.000	42.300	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	660.000	660.000	0.000
GR	690.000	0.000	666.050	0.000	664.400	0.500	663.800	1.000	663.400	2.000
GR	663.000	3.000	662.800	4.000	662.800	5.000	662.800	6.000	663.000	7.000
GR	663.600	9.000	663.850	9.000	664.400	9.500	666.050	10.000	666.050	16.000
GR	664.400	16.500	663.800	17.000	663.400	18.000	663.000	19.000	662.800	20.000
GR	662.000	21.000	662.800	22.000	663.000	23.000	665.400	24.000	664.610	25.000
GR	664.445	25.500	666.050	26.000	666.050	32.000	664.400	32.500	663.610	33.000
GR	663.600	34.000	663.000	35.000	662.800	36.000	662.800	37.000	662.000	38.000
GR	663.000	39.000	663.400	40.000	663.800	41.000	664.400	41.500	665.050	42.000
GR	680.000	42.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SD	0.000	4.500	5.000	0.000	24.150	1.000	157.300	0.300	665.650	661.000

SECNO 6199 STA 173+88 U/S FACE I-275 CULVERT FROM FIELD BOOK AND QUADMAP

X1	6199.000	0.000	0.000	0.000	414.000	414.000	414.000	0.000	0.000	3.000
X2	0.000	1.000	1.500	675.150	677.300	0.000	0.000	0.000	0.000	1.000
GR	15.000	1.500	0.300	5.000	0.300	1.000	0.000	630.000	650.150	1.150
GR	41.000	1.500	730.300	5.000	0.300	677.600	666.350	0.300	677.800	668.300
BT	1.000	677.800	669.100	2.000	677.800	669.500	3.000	677.800	669.900	4.000
BT	677.800	670.100	5.000	677.800	670.100	6.000	677.800	670.100	7.900	677.800
BT	669.900	8.300	677.300	669.500	9.000	677.800	669.100	9.300	677.800	668.500
BT	13.000	77.800	666.150	15.000	677.800	665.650	15.500	677.800	666.500	17.000
BT	677.800	669.100	670.300	677.800	665.500	19.150	677.800	669.900	20.300	677.800
BT	670.100	21.000	677.700	670.100	22.000	677.800	670.100	23.000	677.800	669.900
BT	24.000	677.800	669.500	25.000	677.800	669.100	25.500	677.800	668.500	26.000
BT	677.800	668.850	32.000	677.800	668.050	32.500	677.000	668.500	33.000	677.800
BT	669.100	34.000	677.800	669.500	35.000	677.800	669.900	36.000	677.800	670.100
BT	670.100	677.800	670.300	36.150	677.500	670.150	35.000	677.800	669.900	40.000
BT	677.800	669.500	41.000	677.800	669.100	41.500	677.000	668.500	677.800	677.800
BT	669.100	677.800	670.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO 6249 30° U/S I-275 CULVERT FROM FIELD BOOK AND QUAD MAP

X1	6249.000	0.000	694.000	535.150	50.000	50.150	50.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	439.200	0.000	571.250	0.000	0.000	0.000	0.000
GR	665.000	0.000	675.000	0.000	669.000	682.000	664.700	694.000	665.100	5.000
GR	664.700	503.300	668.900	511.300	676.000	650.000	660.000	651.000	0.000	0.000
NC	0.100	0.700	0.035	0.100	0.300	0.050	0.000	0.000	0.300	0.000
ET	5.150	0.100	0.000	0.000	1.495	0.050	0.000	0.000	0.000	0.000

SECNO 6687 STA 159+21 FROM FIELD BOOK

X1	6687.000	15.700	1223.000	1228.000	456.000	456.000	456.000	0.000	0.000	0.000
GR	0.000	0.000	675.700	0.000	370.000	1015.000	370.500	1.000	670.400	15.000
GR	15.000	1210.000	665.300	1220.000	664.500	1215.000	664.500	1225.000	666.500	1226.000
GR	665.500	1230.000	671.500	1240.000	670.500	1245.000	370.500	1405.000	660.000	1410.000
NC	0.100	0.700	0.035	0.300	0.500	0.000	0.000	0.000	0.300	0.000
ET	0.000	0.000	5.100	0.150	0.105	0.150	0.000	0.000	500.000	3150.000

SECNO 7481 STA 142+62 FROM FIELD BOOK AND QUAD MAP

X1	7481.000	2.000	993.000	1015.000	766.000	775.000	766.000	0.000	0.000	0.000
GR	674.000	0.000	673.800	0.000	672.000	688.000	673.800	600.000	673.850	601.000
GR	664.600	603.000	664.900	985.000	664.000	991.000	671.900	993.100	673.000	0.000

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GR	674.200	1400.000	674.500	1600.000	674.600	1800.000	674.200	2000.000	0.000	0.000
ET	0.000	0.000	9.100	9.100	9.100	9.100	0.000	0.000	900.000	1100.000
	SECND 7503 STA 160+64 O/S FACE MAGGERTY BRIDGE FROM FIELD BOOK AND C.N.									
X1	7503.000	88.000	998.500	1006.500	50.000	52.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	672.500	672.500	0.000
GR	680.000	0.000	630.000	200.000	680.000	400.000	630.000	834.000	673.800	835.000
SR	671.800	983.000	666.600	993.500	664.300	993.500	664.000	994.000	664.000	995.000
SR	664.000	994.500	667.300	997.000	667.500	998.000	666.000	999.000	666.000	1000.000
SR	664.000	1004.000	664.300	1002.000	664.500	1013.000	664.000	1004.000	664.000	1005.000
SR	664.000	1005.000	664.300	1001.500	666.600	1005.500	671.900	1015.000	673.800	1175.000
GR	680.000	1175.000	680.000	1600.000	680.000	1800.000	680.000	2000.000	0.000	0.000
SB	0.000	1.900	3.300	0.000	10.000	0.000	55.000	0.000	664.040	664.000
ET	0.000	0.000	9.100	9.100	9.100	9.100	0.000	0.000	900.000	1100.000
	SECND 7550 STA 168+64 O/S FACE MAGGERTY BRIDGE FROM FIELD BOOK AND C.N.									
X1	7543.000	3.000	0.000	0.000	40.000	40.000	40.000	0.000	0.040	0.000
X2	0.000	0.000	1.000	672.500	674.100	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	672.500	672.500	0.000
GT	24.000	0.000	630.000	0.000	200.000	610.000	0.000	400.000	680.000	0.000
ST	680.000	0.000	0.000	800.000	674.100	0.000	630.000	674.100	0.000	994.000
BT	674.100	666.600	994.000	674.100	668.400	995.000	674.100	670.000	996.000	674.100
BT	671.000	997.000	674.100	671.700	998.000	674.100	672.000	999.000	674.100	672.300
BT	1000.000	674.100	672.500	1001.000	674.100	672.300	1002.000	674.100	672.000	1003.000
BT	674.100	672.000	1004.000	674.100	671.700	1005.000	674.100	670.000	1006.000	674.100
BT	680.000	1004.500	674.100	668.000	1100.000	674.600	0.000	1101.000	680.000	0.000
BT	1000.000	668.000	0.000	1000.000	680.000	0.000	2000.000	680.000	0.000	0.000
NC	0.080	0.100	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	9.100	9.100	9.100	9.100	0.000	0.000	900.000	1100.000
	SECND 7595 STA 176+64 O/S FACE MAGGERTY BRIDGE FROM FIELD BOOK AND C.N.									
X1	7595.000	14.000	998.000	1007.000	50.000	52.000	50.000	0.000	0.000	0.000
X3	680.000	0.000	680.000	200.000	680.000	0.000	680.000	834.000	673.800	835.000
GR	671.600	986.000	664.700	996.000	664.700	0.000	672.400	1017.000	673.600	1175.000
SR	680.000	994.000	680.000	1000.000	680.000	0.000	680.000	2000.000	0.000	0.000
ST	0.000	0.100	0.035	0.300	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	9.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000
	SECND 3737 STA 140+50 FROM FIELD BOOK									
X1	3737.000	13.000	992.000	998.000	1144.000	1144.200	1144.000	0.000	0.000	0.000
GR	667.000	30.000	675.400	30.000	674.900	242.000	671.000	364.000	670.400	380.000
GR	663.000	992.000	667.000	420.000	668.300	418.000	674.200	420.000	673.400	550.000
GT	673.300	700.000	673.400	770.000	680.000	770.000	0.000	0.000	0.000	0.000
	SECND 9507 STA 196+00 FROM FIELD BOOK									
X1	9507.000	19.000	652.000	0.000	0.000	0.000	650.000	0.000	0.000	0.000
GR	681.000	0.000	670.800	0.000	0.000	676.600	15.000	676.500	500.000	675.500	357.000
GT	672.300	804.000	672.800	0.000	0.000	659.400	652.000	660.300	660.000	663.700	647.000
BT	0.000	0.000	674.200	400.000	680.000	0.000	0.000	1330.000	0.000	0.000	0.000
BT	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000	2000.000	

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SECNO 10135 50' D/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	10135.000	16.000	990.650	1039.350	548.000	548.000	548.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	990.000	0.000	1022.000	0.000	0.000	0.000	0.000
BR	677.500	0.000	676.000	290.300	676.000	400.000	675.300	600.000	674.930	800.000
BR	678.300	985.000	668.400	990.650	669.000	1000.000	669.400	1009.350	669.470	3014.000
BR	675.900	1022.000	677.650	1200.300	677.200	1400.000	677.300	1600.700	677.430	1300.000
GR	677.000	2000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S LILLEY RD.

X1	10154.000	0.300	0.300	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	678.000	678.000	0.000

SECNO 10199 BT, 534.02 S/S FACE LILLEY BRIDGE FROM FIELD BOOK AND Q.M.

X1	10199.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	678.000	678.000	0.000
BT	16.000	0.000	677.600	0.000	200.000	676.800	0.000	400.000	676.000	0.000
ST	600.000	675.300	0.000	870.000	674.900	0.000	990.650	678.400	0.000	990.650
ST	870.400	675.000	1007.100	870.400	676.600	1007.100	676.400	0.000	1200.000	677.300
ST	0.000	1200.000	677.200	0.000	1400.000	677.300	0.000	1600.000	677.400	0.000
GR	677.500	1200.000	677.200	1400.000	677.300	1600.000	677.400	1800.000	677.000	2000.000

SECNO 10249 STA 133+35 U/S FACE LILLEY SKEW BRIDGE FRO F.G. AND Q.F.

X1	10249.000	15.300	992.300	1007.100	64.000	64.000	64.000	0.000	0.000	0.000
X3	10.000	0.300	0.000	0.000	0.000	0.000	0.000	678.000	678.000	0.000
BT	14.000	0.000	677.600	0.000	200.000	676.800	0.000	400.000	676.000	0.000
BT	600.000	675.300	0.000	800.000	674.900	0.300	992.900	678.400	0.000	992.900
BT	678.400	676.600	1007.100	678.400	676.600	1007.100	678.400	0.000	1200.000	677.300
BT	0.000	1200.000	677.300	0.000	1400.000	677.300	0.000	1600.000	677.400	0.000
BT	2000.000	677.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	677.600	0.000	674.100	810.000	677.000	400.000	675.300	600.000	677.300	0.000
GR	675.300	990.000	669.300	992.900	669.300	1000.000	669.500	1007.100	675.900	1012.000
GR	677.500	1200.000	677.200	1400.000	677.300	1600.000	677.400	1800.000	677.000	2000.000

D/S LILLEY RD.

X1	10250.000	0.000	0.000	0.000	1.000	1.300	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	678.000	678.000	0.000

SECNO 10299.50' U/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	10299.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	992.300	0.000	1007.100	0.000	0.000	0.000	0.000
BC	0.000	0.100	0.000	0.100	0.300	0.200	0.000	0.000	0.000	0.000
L	5.000	0.000	0.000	0.000	1.000	0.300	0.000	0.000	0.000	0.000

SECNO 11287 STA 223+00 FROM FIELD BOOK

X1	11287.000	11.000	1360.000	1419.000	300.000	1500.300	960.000	0.000	0.000	0.000
GR	693.000	0.000	677.600	0.000	677.000	1400.000	677.000	200.000	677.100	1500.000
GR	677.600	0.000	677.600	1400.000	677.600	1419.000	677.500	1500.000	675.100	1547.000
GR	1547.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BC	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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50 FT D/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	12304.000	16.000	584.000	616.000	900.000	830.000	1017.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	571.500	0.000	628.500	0.000	0.000	0.000	0.000
BT	602.600	0.000	579.800	200.000	590.400	430.000	679.200	561.000	676.100	571.000
BR	672.100	556.000	672.100	594.000	672.100	595.000	672.100	605.000	672.100	606.000
BE	672.100	676.300	676.300	629.000	980.300	697.500	662.300	303.000	681.300	1200.000
BR	602.400	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO 12554 STA 112+35 U/S FACE HANFORD BRIDGE FROM FIELD BOOK AND Q.T.

X1	12554.000	0.000	0.000	0.000	31.000	30.000	90.000	0.000	0.100	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	679.300	679.300	0.000
SE	1.250	1.360	3.000	0.000	31.500	2.000	180.000	0.000	672.100	672.100

SECNO 12411 STA 111+76 U/S FACE HANFORD BRIDGE FROM FIELD BOOK AND Q.T.

X1	12411.000	0.000	0.000	0.000	57.000	57.000	57.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	676.200	679.600	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	679.700	679.700	0.000
BT	10.300	0.000	0.000	0.000	540.000	561.000	0.200	540.300	679.300	0.300
ET	584.300	575.000	0.000	584.000	679.600	679.200	594.200	679.000	679.200	584.000
BT	679.300	0.000	585.000	679.600	0.000	595.000	679.300	679.200	605.000	679.600
BT	676.200	605.000	679.600	0.000	656.000	679.600	0.000	606.000	679.600	676.200
BT	616.000	679.600	676.200	616.000	679.600	0.000	660.000	679.600	0.000	660.300
BT	681.300	0.000	1200.000	682.400	0.300	0.000	0.300	0.000	0.000	0.300

50 FT D/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	12461.000	0.000	0.000	0.000	50.300	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	5.000	0.000	0.000	0.000	0.400	0.000	0.200	0.000	0.000	0.000

SECNO 13062 STA 133+25 FROM FIELD BOOK

X1	13062.000	11.000	137.000	162.000	600.000	300.000	601.000	0.000	0.000	0.300
BT	601.500	0.000	69.200	85.000	677.500	100.000	677.700	135.000	675.000	137.300
BT	673.300	152.000	673.100	162.000	677.500	174.000	674.000	194.000	612.100	214.300
ET	5.100	225.000	0.000	0.000	0.200	0.000	0.000	0.300	0.000	0.300
ET	5.000	225.000	350.000	400.000	410.000	560.000	0.000	0.300	0.000	0.300

SECNO 13[illegible] STA 0[illegible] FROM FIELD BOOK

X1	13087.000	0.000	413.000	436.300	1300.000	2500.000	2025.000	0.000	0.000	0.000
BT	614.100	0.000	602.100	330.000	676.600	410.000	675.700	427.000	676.600	436.000
BT	671.900	461.000	465.000	577.000	682.400	727.000	685.000	2300.000	0.000	0.000

[illegible] STA [illegible] FIELD BOOK

[illegible]	0.000	0.000	324.000	330.000	700.000	740.000	720.000	0.000	0.000	0.000
[illegible]	0.000	0.000	324.000	353.000	679.500	750.000	674.200	379.000	679.800	388.000
[illegible]	673.000	406.000	661.000	681.000	0.000	0.000	0.000	0.000	0.000	0.000

[illegible]

[illegible]	1585.000	5.000	18.000	35.000	500.000	550.000	500.000	0.000	0.000	0.000

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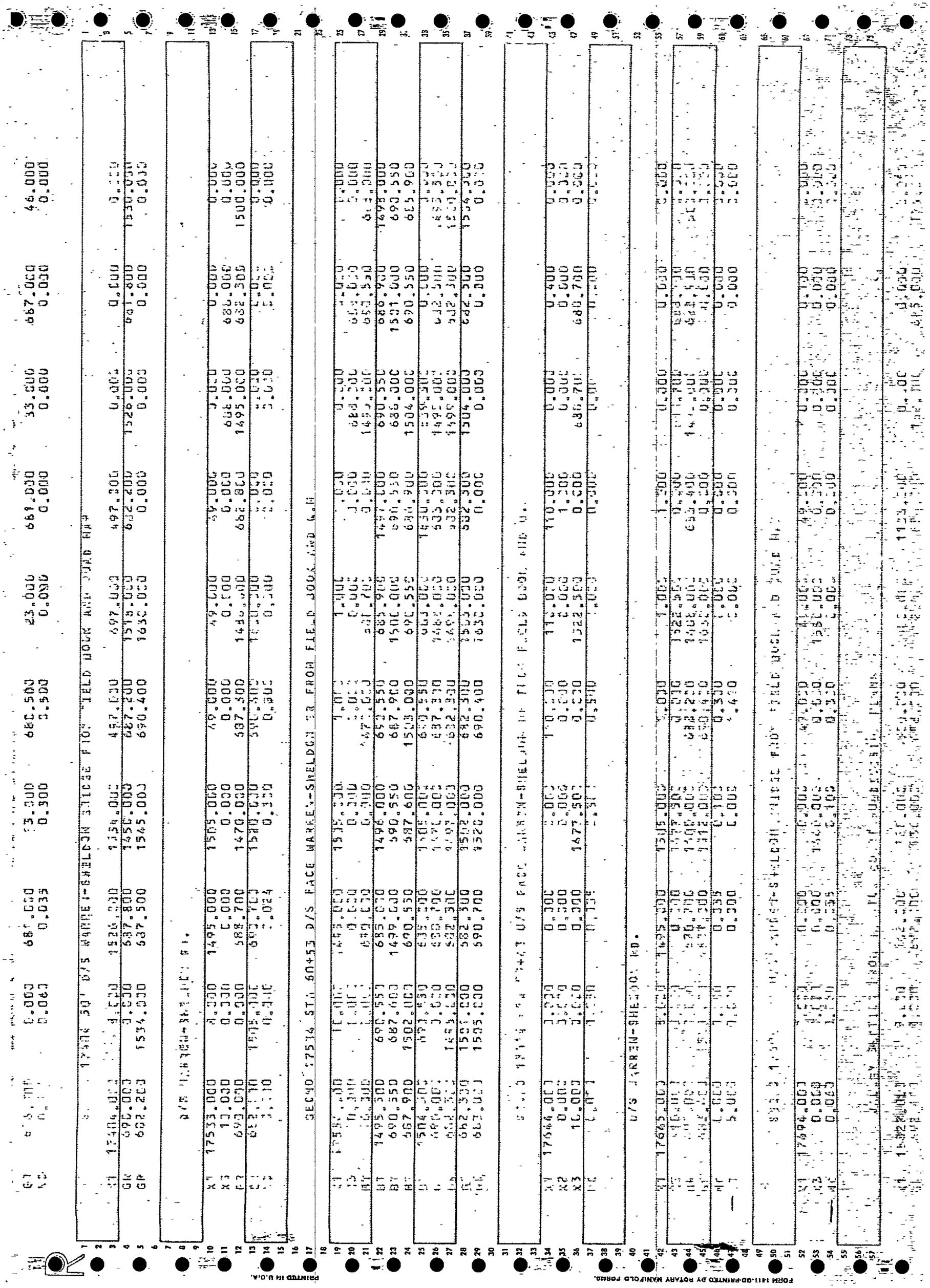

	X1	20054.000	13.000	286.000	315.000	600.000	1500.000	1227.000	.000	.000	.000
	GR	695.500	.000	697.900	246.000	695.500	251.000	695.800	260.000	691.300	277.000
	GR	690.900	286.000	687.900	295.000	687.700	300.000	688.100	307.000	690.000	315.000
	GR	690.800	322.000	694.500	343.000	694.800	460.000	.000	.000	.000	.000
	X1	20603.000	9.000	27.000	66.000	549.000	549.000	549.000	.000	.000	.000
	GR	696.700	.000	692.100	27.000	691.900	39.000	689.700	47.000	688.800	49.000
	GR	689.700	51.000	693.000	66.000	696.300	94.000	700.000	400.000	.000	.000
	X1	20711.000	29.000	7.500	28.500	108.000	108.000	108.000	.000	.000	.000
	X3	10.000	.000	.000	.000	.000	.000	.000	695.000	695.000	.000
	GR	697.000	.000	692.100	1.500	689.000	7.500	689.000	7.900	689.000	8.100
	GR	689.000	9.100	689.000	10.200	689.000	10.900	689.000	12.200	689.000	13.500
	GR	689.000	14.200	689.000	15.300	689.000	16.300	689.000	16.500	689.000	19.500
	GR	689.000	19.700	689.000	20.700	689.000	21.800	689.000	22.500	689.000	23.800
	GR	689.000	25.100	689.000	25.800	689.000	26.900	689.000	27.900	689.000	28.100
	GR	689.000	28.500	692.000	34.000	697.000	38.000	700.000	400.000	.000	.000
	X1	20718.000	.000	.000	.000	7.000	7.000	7.000	.000	.000	.000
	X3	10.000	.000	.000	.000	.000	.000	.000	695.000	695.000	.000
	BT	29.000	.000	697.000	.000	1.500	697.000	692.100	7.500	697.000	689.000
	BT	7.900	697.000	690.900	8.100	697.000	692.200	9.100	697.000	693.700	10.200
	BT	697.000	694.500	10.900	697.000	694.800	12.200	697.000	695.000	13.500	697.000
	BT	694.800	14.200	697.000	694.500	15.300	697.000	693.700	16.300	697.000	692.200
	BT	16.500	697.000	690.900	19.500	697.000	690.900	19.700	697.000	692.200	20.700
	BT	697.000	693.700	21.800	697.000	694.500	22.500	697.000	694.800	23.800	697.000
	BT	695.000	25.100	697.000	694.800	25.800	697.000	694.500	26.900	697.000	693.700
	BT	27.900	697.000	692.200	28.100	697.000	690.900	28.500	697.000	689.000	34.000
	BT	697.000	692.000	36.000	697.000	.000	400.000	700.000	.000	.000	.000
	X1	20774.000	.000	.000	.000	56.000	56.000	56.000	.000	.000	.000
	X2	.000	.000	.000	.000	.000	.000	1.000	.000	.000	.000
	X3	10.000	.000	.000	.000	.000	.000	.000	697.000	697.000	.000
	NC	.060	.060	.035	.300	.500	.000	.000	.000	.000	.000
	ET	.000	.000	.000	.000	9.100	.000	.000	.000	1.000	400.000
	X1	20781.000	.000	.000	.000	7.000	7.000	7.000	.000	.000	.000
	X3	10.000	.000	.000	.000	.000	.000	.000	697.000	697.000	.000

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	X1	21127.000	10.000	26.000	52.000	346.000	346.000	346.000	.000	.000	.000
	GR	696.900	.000	696.900	.000	692.900	16.000	692.900	26.000	689.900	38.000
	GR	689.900	40.000	692.900	52.000	692.900	62.000	696.900	78.000	700.000	400.000
	X1	21235.000	37.000	2.000	33.800	108.000	108.000	108.000	.000	.000	.000
	X3	10.000	.000	.000	.000	.000	.000	.000	696.300	696.300	.000
	GR	705.000	.000	698.000	.000	692.000	2.000	693.600	8.300	690.300	8.300

	X1	21319.000	0.000	0.000	0.000	7.000	7.000	7.000	0.000	0.000	0.000

NC	0.100	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

CITY SECTION FIELD BOOK STA. 19800

X1	22735.000	5.200	173.300	194.000	410.200	408.000	420.300	0.000	0.000	0.000
GP	697.200	0.000	700.700	103.000	700.300	171.000	696.100	156.000	696.530	173.000
GP	692.300	170.000	692.200	183.000	692.400	165.000	695.700	194.000	696.430	209.000
GP	703.000	225.000	703.900	202.000	702.900	365.000	0.300	0.000	0.000	0.000
NC	0.100	0.060	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

1'8 SANDPIPER DR.

X1	22735.000	10.000	637.000	663.000	1100.300	206.000	930.000	0.000	0.000	0.000
GP	705.100	0.000	705.000	610.000	699.700	627.000	699.700	637.000	696.700	649.000
GP	696.700	651.000	699.700	663.000	699.700	671.000	735.000	690.000	705.200	643.000

7 FT D/S SANDPIPER DR.

X1	22735.000	37.000	2.300	33.000	130.300	10..000	100.000	0.000	0.000	0.000
GP	705.000	3.000	0.300	0.000	3.300	4.000	0.300	705.200	705.250	0.000
GP	702.000	3.000	705.300	0.000	4.000	4.000	697.500	2.300	697.200	3.300
GP	697.200	5.200	697.200	3.300	697.200	4.300	697.200	2.300	697.400	3.300
GP	697.200	9.300	697.500	10.300	696.900	11.000	697.900	15.000	697.500	15.900
GP	697.200	14.000	697.200	15.900	697.200	16.000	697.300	17.900	697.200	18.900
GP	697.200	19.900	697.200	20.900	697.500	21.000	697.300	22.900	696.900	25.200
GP	697.200	24.200	697.100	25.900	697.200	26.000	697.200	28.000	697.200	27.300
GP	697.200	29.000	697.100	30.900	697.200	31.000	697.300	33.300	696.900	33.600
GP	705.000	34.000	705.000	35.900	0.300	36.000	0.300	0.000	0.000	0.000
NC	0.000	0.060	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

6'8 PAC FINGERS BY PAC POINTE TRAILS AND TAILPOND PLAT 3

X1	22735.100	1.000	0.230	6.000	7.200	6.000	7.000	6.000	6.000	5.000
X1	0.000	3.000	0.200	0.000	0.000	0.000	0.000	705.250	705.250	0.000
GP	697.300	3.000	705.230	0.000	0.000	705.250	0.000	0.000	705.250	698.325
GP	0.300	705.250	700.400	5.300	701.250	702.000	5.300	705.250	702.700	5.300
GP	705.100	705.100	0.300	705.250	5.200	7.300	705.250	705.000	0.000	705.250
GP	701.700	9.300	703.250	702.000	10.300	705.250	700.400	10.300	705.250	698.925
GP	0.000	700.250	693.670	0.000	705.250	700.700	14.900	705.250	705.250	15.900
GP	705.250	705.700	16.900	705.250	705.100	17.000	705.250	705.200	17.900	705.250
GP	703.900	19.900	705.250	702.700	20.900	705.250	702.000	21.000	705.250	706.400
GP	22.200	705.250	693.900	25.200	705.250	698.900	25.300	705.250	705.600	26.300
GP	705.250	705.000	27.300	705.250	705.200	28.300	705.250	705.100	29.400	705.250
GP	705.250	30.000	705.250	705.100	31.300	705.250	705.000	32.300	705.250	705.900
GP	33.500	705.250	705.000	35.900	705.250	36.000	35.000	705.250	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

6'8 PAC FINGERS OF PAC POINTE TRAILS SUBDIVISION, PLAT 3

X1	22735.000	0.300	0.300	0.000	70.300	72.000	70.200	0.000	0.200	0.000
X1	1.000	0.300	0.300	0.000	0.300	2.000	1.300	0.000	0.000	0.000
GP	13.000	0.300	0.300	0.000	0.200	2.000	0.300	705.250	705.250	0.000
NC	0.000	0.060	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

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NL	0.100	0.900	0.735	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	5.000	0.300	0.000	0.000	1.410	0.000	0.000	0.000	0.000	0.000

D/S SANDPIPER DR.

X1	22927.000	0.300	291.000	301.000	138.300	101.000	100.000	0.000	0.000	0.000
GR	706.300	0.300	704.700	256.000	699.400	286.000	696.200	291.000	692.600	305.000
GR	696.500	306.000	700.200	309.000	705.100	350.000	704.900	600.000	0.000	0.000

VALLEY SECTION FIELD BOOK STA. 6650

X1	22977.000	7.000	297.000	303.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	3.000	0.000	0.000	280.000	0.000	307.000	0.000	0.000	0.000	0.000
GR	706.300	0.300	705.600	280.600	700.100	297.000	698.700	300.000	700.600	305.000
GR	705.000	577.000	704.400	605.000	0.300	0.000	0.000	0.000	0.000	0.000

D/S CANTON CENTER RD.

X1	23504.000	3.000	992.000	1008.000	527.300	527.000	527.000	0.000	0.000	0.000
GR	715.000	0.000	700.700	532.000	719.200	981.000	701.900	992.000	701.400	000.000
GR	701.900	1058.000	707.700	1021.000	710.300	1101.000	0.000	0.000	0.000	0.000

1 FT D/S CANTON CENTER RD.

X1	23513.000	1.000	990.700	1004.500	49.300	49.000	49.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.300	0.000	0.000	709.000	709.000	0.000
GR	711.000	0.000	700.000	535.000	709.200	981.000	705.000	990.700	702.000	990.950
GR	701.750	999.200	701.750	992.200	701.750	993.200	701.750	994.200	701.750	995.200
GR	701.750	996.200	701.750	997.200	701.750	998.200	701.750	999.200	702.000	999.400
GR	703.000	999.700	703.000	1000.300	702.000	1000.350	701.750	1000.800	701.750	1001.800
GR	701.750	1002.000	701.750	1003.300	701.750	1004.400	701.750	1005.800	701.750	1006.300
GR	701.750	1007.800	701.750	1008.400	702.000	1009.350	703.000	1009.800	703.750	1010.300
GR	710.000	710.000	1.000	0.000	0.000	0.000	0.300	0.700	0.000	0.000
NC	0.100	0.100	0.025	0.300	0.550	0.300	0.000	0.000	0.000	0.000

1FT FROM CANTON CENTER RD. FROM FIELD BOOK AND ROAD MAP

X1	23534.000	1.000	0.000	0.300	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	709.000	709.000	0.000
ET	29.000	0.000	715.000	0.000	535.000	711.000	0.000	990.700	710.900	703.000
ET	990.950	710.900	704.300	991.200	710.900	705.250	992.200	710.900	706.500	993.200
ET	710.900	707.300	994.300	710.900	707.300	994.300	711.900	707.700	990.800	710.900
ET	707.100	995.200	710.900	707.300	990.300	711.900	706.500	995.200	710.900	715.250
ET	990.950	710.900	704.300	991.200	710.900	705.250	1100.300	710.900	705.250	1010.350
DT	710.900	704.300	1000.300	710.900	705.250	1001.800	710.900	706.500	1002.800	710.900
DT	707.200	1003.300	710.300	707.500	1004.800	710.900	707.700	1005.300	710.900	707.500
DT	1005.600	710.900	707.200	1007.800	710.900	706.500	1008.800	710.900	709.250	1009.050
ET	715.000	711.300	1000.300	711.900	715.200	1.000	710.200	0.300	0.000	0.000

D/S FROM CANTON CENTER RD. FROM FIELD BOOK AND ROAD MAP

X1	23613.000	1.000	0.000	0.000	59.000	59.000	59.000	0.000	0.000	0.000
X2	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	1.000	1.000	1.000	0.000	0.000	0.300	0.000	710.900	710.900	0.000
GR	100	1.150	1.023	0.300	0.550	0.300	0.000	0.000	0.000	0.000

1 FT D/S CANTON CENTER RD.

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X1	23514.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	710.900	710.900	0.000

J/S CANTON CENTER ID.

X1	23663.000	0.000	995.000	1005.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	715.300	0.000	710.000	530.000	700.800	986.000	702.500	995.000	702.000	1000.000
G3	732.500	1305.000	707.900	1011.000	710.300	1100.000	0.000	0.000	0.000	0.000
EJ	0.300	0.000	0.000	0.000	0.300	2.000	0.000	0.000	0.000	0.000

FORD 1411.00 PRINTED BY ROTARY MANIFOLD FORMS
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*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 9999

SECNO	DEPTH	C.SEL	CRIWS	.SEL2	EG	IV	FR	DLOSS	BANK ELEV
9	9LOB	QCH	QROB	#LOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XRCH	XNR	ELTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

CAUTION "DOUBLE" CORPERATE BOUNDARY FOR SCS FLOOD HAZARD STUDY

0.00	10.30	667.10	0.00	667.10	667.20	0.10	0.00	0.00	657.10
740.	33.	590.	117.	61.	204.	272.	0.	0.	657.00
0.00	0.34	3.50	3.45	0.100	0.035	0.100	0.000	656.80	7777.99
0.000211	0.	0.	0.	0	0	0	0.00	156.63	9934.65

FLOW DISTRIBUTION FOR SECNO= 0.00 C#SEL= 667.10

STA=	1778.	1740.	1701.	1310.	1271.	5017.	1233.	1900.	1954.
PERIM=	3.4	0.	93.7	0.7	4.9	7.4	6.2	0.7	
AREA=	51.3	0.5	203.3	0.3	51.2	8.4	54.0	27.2	
VEL=	0.5	0.7	2.9	0.5	0.7	0.5	0.3	0.2	

*SECNO 900.000

SECNO 900 STA 229+07 FIELD BOOK

900.00	11.17	667.27	0.00	0.00	667.34	0.07	0.13	0.00	657.30
740.	76.	393.	272.	219.	136.	599.	11.	5.	657.60
0.10	0.35	2.08	3.45	0.100	0.035	0.100	0.334	656.10	378.29
0.000501	530.	10.	700.	2	0	0	0.00	491.73	159.46

FLOW DISTRIBUTION FOR SECNO= 900.00 C#SEL= 667.27

STA=	378.	490.	613.	624.	657.	641.	700.	669.	
PERIM=	0.1	3.1	5.6	45.	2.4	37.0	2.3		
AREA=	0.5	197.7	65.7	136.3	29.3	267.0	66.0		
VEL=	0.1	0.1	2.6	2.9	0.6	2.3	0.2		

CCHV= 0.300 CEHV= 0.500

*SECNO 1370.000

SECNO CLASSIFICATION STATION= 405.2 427.2 TYPE= 1 TARGET= 524.000

SECNO 1370 50' D/S LOTZ BRIDGE BASED ON FIELD BOOK AND QUAD MAP

1370.30	9.93	667.43	0.00	0.00	667.53	0.10	0.13	0.01	657.50
740.	105.	455.	195.	803.	439.	403.	23.	156.	657.53
0.20	0.34	3.29	6.30	2.100	0.035	0.100	1.033	657.80	603.05
0.000515	175.	170.	470.	1	1	0	0.33	524.00	927.00

FLOW DISTRIBUTION FOR SECNO= 1370.00 C#SEL= 667.43

STA=	253.	513.	539.	598.	612.	619.	750.	805.	900.	927.	
PERIM=	0.6	4.7	2.2	63.5	8.0	12.4	3.4	3.7	1.0		
AREA=	124.1	310.3	50.7	132.0	29.2	259.5	502.4	90.8	29.3		
VEL=	0.3	0.3	0.3	3.2	0.7	0.5	0.2	0.3	0.2		

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*SECNO 1419.000

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

C/S LOTZ RD.

1419.00	10.22	667.52	0.00	0.00	667.56	0.04	0.01	0.02	659.30
740.	67.	331.	142.	288.	278.	523.	29.	14.	659.30
0.21	0.23	1.91	0.27	0.100	0.035	0.100	0.034	657.30	403.00
0.000116	49.	49.	49.	2	0	0	0.00	524.00	927.00

FLOW DISTRIBUTION FOR SECNO= 1419.00 CHSEL= 667.52

STA=	403.	500.	576.	586.	614.	625.	700.	800.	900.	927.
PER Q=	3.5	2.9	2.6	71.7	4.8	8.5	2.6	2.8	0.7	
AREA=	132.0	107.0	58.2	273.0	63.4	199.9	111.6	116.6	31.4	
VEL=	0.2	[illegible]	0.4	1.9	0.5	0.3	[illegible]	0.4	0.2	

CCHV= 0.300 CEHV= 0.500

*SECNO 1420.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	VOL	[illegible]	LEFT/RIGHT
[illegible]	[illegible]	[illegible]	[illegible]	XML	[illegible]	[illegible]	[illegible]	[illegible]	SSTA
[illegible]	[illegible]	[illegible]	[illegible]	ITRIAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

3370 NORMAL BRIDGE/NBD= 32 MIN ELTRD= 666.10 MAX ELLC= 665.30

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1420 STA 221+57 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

1420.00	10.20	667.52	0.00	0.00	667.57	0.07	0.00	0.02	659.30
740.	101.	[illegible]	139.	244.	190.	357.	29.	14.	659.30
0.21	0.43	2.61	0.39	0.100	0.024	0.100	0.034	657.30	403.00
0.000591	1.	1.	1.	1	0	0	-294.45	524.00	927.00

FLOW DISTRIBUTION FOR SECNO= 1420.00 CHSEL= 667.00

STA=	403.	500.	576.	586.	614.	625.	700.	800.	900.	927.
PER Q=	7.8	5.0	0.6	67.0	0.7	4.6	5.7	6.2	1.6	
AREA=	131.9	100.5	12.2	189.9	13.2	86.4	110.8	115.8	31.2	
VEL=	0.4	0.4	0.4	2.3	0.4	0.4	0.4	0.4	0.4	

*SECNO 1460.000

3370 NORMAL BRIDGE/NBD= 32 MIN ELTRD= 666.10 MAX ELLC= 665.30

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1460 STA 221+17 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

1460.00	10.22	667.52	0.00	0.00	667.60	0.07	0.02	0.00	659.30
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0.45	[illegible]	0.39	0.100	0.024	0.100	[illegible]	657.30	[illegible]
0.000[illegible]	[illegible]	[illegible]	40.	[illegible]	[illegible]	[illegible]	-294.45	524.00	927.00

FLOW DISTRIBUTION FOR SECNO= [illegible] CHSEL= 667.52

STA= 403. 500. 576. 586. 614. 625. 700. 800. 900. 927.
PER Q= 7.8 5.9 0.6 66.7 0.7 4.6 5.8 6.2 1.6
AREA= 132.9 101.1 12.3 190.2 13.3 87.2 111.9 116.9 31.5
VEL= 0.4 0.4 0.4 2.8 0.6 0.6 0.4 0.4 0.2

CCHV= 0.30 CEV= 0.50

*SECNO 1461.000

3477 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

D/S LOT2 OB.

1461.00 10.27 667.57 0.00 0.00 667.60 0.04 0.00 0.01 659.30
740. 69. 526. 145. 297. 279. 543. 30. 15. 659.30
0.22 0.23 1.88 0.27 0.100 0.035 0.100 0.034 657.30 403.00
0.300 12 1. 2 3 1 0.00 524.00 927.00

FLOW DISTRIBUTION FOR SECNO= 1461.00 C.SEL= 667.57

STA= 403. 500. 576. 586. 614. 625. 700. 800. 900. 927.
PER Q= 5.7 5.1 2.6 71.0 4.1 3.4 2.7 2.9 0.5
AREA= 98.4 101.1 43.7 275.4 60.9 253.7 116.6 121.5 32.7
VEL= 0.2 0.2 0.4 1.9 0.3 0.3 0.2 0.2 0.2

*SECNO 1510.000

3476 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1511 BC* D/S LOT2 BRIDGE FROM FIELD BOOK AND QUAD MAP

1510.00 10.06 667.56 0.00 0.00 667.63 0.07 0.01 0.02 657.50
740. 190. 370. 180. 435. 121. 506. 31. 15. 657.50
0.83 3.46 3.05 0.36 0.100 0.135 0.100 0.053 657.50 403.00
0.000200 0. 42. 40. 2 0 0 0.00 524.00 927.00

FLOW DISTRIBUTION FOR SECNO= 1510.00 C.SEL= 667.56

STA= 403. 500. 576. 586. 614. 625. 700. 800. 900. 927.
PER Q= 5.3 15. 4.9 53.0 6.0 6.4 4.0 4.2 1.1
AREA= 175.9 378.7 70.1 122.7 71.0 156.3 113.6 121.0 52.0
VEL= 0.5 0.5 0.7 5.1 0.7 0.4 0.3 0.3 0.3

CCHV= 0.150 CEHV= 0.300

*SECNO 2967.000

SECNO 2967 STA 730+20 FROM FIELD BOOK

2967.00 6.97 668.07 0.00 0.00 668.18 0.11 2.54 0.01 662.20
740. 228. 351. 161. 439. 92. 339. 93. 33. 661.60
0.44 2.54 2.11 1.43 0.00 0.135 0.100 0.035 661.60 492.50
0.000500 1330. 477. 9400. 2 1 1 0.00 515.00 1007.50

FLOW DISTRIBUTION FOR SECNO= 2967.00 C.SEL= 656.17

STA= 403. 500. 576. 586. 614. 625. 700. 800. 900. 927.
PER Q= 46.6 23. 4.3 12.4 3.9 3.0
AREA= 101.9 47.7 52.1 39.0 30.5
VEL= 0.5 0.9 3.8 0.5 0.4

CCHV= 0.300 CEHV= 0.500

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*SECNO 3979.300

SECNO	DEPTH	CHSEL	CRIWS	%SELK	EG	HV	AL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XXCH	XNR	WTN	ELMIN	SSTA
SLOPE	ALOBL	XLOB	XLOBR	STRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 196.5 263.5 TYPE= 1 TARGET= 67.000

SECTION 3979.30' D/S FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

3979.30	7.00	686.49	0.30	7.00	666.50	0.19	0.38	0.00	661.40
760.	26.	687.	27.	49.	269.	49.	76.	39.	661.40
0.53	3.54	2.55	0.54	0.100	0.035	0.100	0.035	661.40	196.50
0.000265	800.	992.	1200.	2	0	0	0.00	67.00	263.50

F.P. DISTRIBUTION FOR SECNO= 3979.03 CHSELP= 666.49

STA=	197.	200.	211.	249.	261.	263.
PER Q=	0.1	3.4	92.9	3.6	0.0	
AREA=	3.7	44.9	269.3	47.2	2.0	
VEL=	3.3	3.6	2.9	0.8	0.2	

*SECNO 4029.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 680.30 ELREA= 680.00

SECNO 4029 STA 199+56 D/S PACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

4029.00	8.40	668.50	0.00	0.00	663.60	0.10	0.02	0.00	680.30
740.	0.	740.	0.	0.	395.	0.	77.	39.	680.00
5.52	0.00	5.52	5.52	0.150	0.035	0.00	0.035	680.00	0.0
0.000539	50.	50.	30.	0		0	0.00	42.12	44.20

FLOW DISTRIBUTION FOR SECNO= 4029.00 CHSEL= 668.50

STA=	0.
FRO.3=	100.0
AREA=	225.1
VEL=	2.5

SPECIAL BRIDGE

SO	XS	SKEW	ZONE	BOLSW	UNC	SUP	SPWID	SE	SLOBR	ELTOP
0.00	2.96	3.00	0.00	24.21	0.00	157.00	0.00	668.50	666.16	

*SECNO 4237.000

EGPRS	EGLNC	HP	QWEIR	QBR	AREA	TRAPEZOID AREA	ELLC	ELTRD
669.52	669.30	0.20	2.	740.	157.	157.	667.00	671.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 680.00 ELREA= 680.00

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SECNO 4237 STA 193+80 U/S FACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

4237.00	8.94	669.44	0.00	0.00	669.52	0.08	0.92	0.00	680.40
740.	0.	740.	0.	0.	317.	0.	78.	40.	680.40
0.56	3.02	8.33	3.00	0.100	0.039	0.165	0.035	660.30	0.00
0.300352	208.	208.	208.	2	0	0	0.00	62.00	62.00

FLOW DISTRIBUTION FOR SECNO= 4237.00 CWSEL= 669.44

STA=	0. 62.
PER Q=	100.0
AREA=	317.5
VEL=	2.3

*SECNO 4237.000

SAVE ENCROACHMENT STATIONS= 229.0 371.0 TYPE= 1 TARGET= 142.000

SECNO 4287 50' U/S FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

4287.00	7.48	669.48	0.00	0.00	669.54	0.06	0.01	0.01	662.00
740.	66.	353.	44.	101.	357.	154.	79.	40.	662.20
5.07	3.37	8.06	0.42	0.103	0.035	3.130	0.035	662.00	229.00
0.300154	95.	30.	93.	2	0	0	0.00	142.00	371.00

FLOW DISTRIBUTION FOR SECNO= 4287.00 CWSEL= 669.48

STA=	229.	265.	279.	320.	354.	371.
PER Q=	2.0	4.1	38.3	5.0	3.5	
AREA=	33.7	62.1	306.0	69.8	84.1	
VEL=	0.2	0.5	2.1	0.5	0.3	

*SECNO 5237.000

3 BY 12FT BOX CULV

3331 HV CHANGED MORE THAN 4VIEWS

USE NO 5237 S, 7.02 FROM FIELD BOOK

5237.00	7.02	669.52	668.24	3.00	670.33	0.81	0.41	0.30	663.20
760.	57.	476.	227.	91.	53.	35.	67.	43.	663.23
0.67	1.1	4.12	2.83	0.086	0.039	0.163	0.039	662.30	1372.00
0.410564	100.	95.	300.	4	14	2	0.00	169.31	1130.00

FLOW DISTRIBUTION FOR SECNO= 5237.00 CWSEL= 669.52

STA=	1130.	1330.	1526.	1536.	1554.	1565.	1590.	1605.
PER Q=	1.2	4.8	44.1	3.4	18.4	7.7	0.4	1.1
AREA=	1.1	11.4	35.4	11.4	56.3	57.7	2.5	1.5
VEL=	0.6	1.6	4.9	2.1	2.4	1.5	0.3	0.4

RSECNO 5235.002

3 BY 12FT BOX CULVERT

SECNO	DEPTH	CWSEL	CRIWS	WSELK	ES	HV	HL	XLOSS	BANK ELEV
	SLOP	XSH	WFCB	XLO?	ACH	GRCH	WSL	TXA	LEFT/RIGHT
	VLOB	WCH	VACO	XNL	XRCH	XNR	CTM	ELMIN	3575

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SLOPC	KLOBL	KLCH	KLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 2066.5 2133.5 TYPE= 1 TARGET= 67.000

SECNO 5735 30' D/S I-275 CULVERT FROM FIELD BOOK AND QUAD MAP

5735.00	8.03	670.95	0.00	0.00	671.19	0.24	0.70	0.17	662.90
760.	69.	561.	110.	74.	120.	103.	90.	44.	662.90
0.65	3.03	4.00	2.07	0.100	0.035	0.100	0.035	662.90	2066.50
0.000743	900.	431.	350.	2	0	3	0.00	67.00	2133.50

FLOW DISTRIBUTION FOR SECNO= 5735.00 CWSEL= 670.95

STA=	2067.	2073.	2094.	2109.	2130.	2133.
PER Q=	0.5	3.0	75.3	19.0	2.2
Q=	3.7	23.7	520.4	98.3	4.5
VEL=	0.3	1.0	4.7	1.1	0.4

*SECNO 5735.000

3493 OVERBANK AREA ASSUMED NON-EFFECTIVE-EL.EA= 630.00 EL.EA= 663.00

SECNO 5785 STA 173+02 D/S FACE I-275 CULVERT FROM FIELD BOOK AND QUADMAP

5785.00	3.37	671.17	0.00	0.00	671.27	0.10	0.05	0.05	660.00
745.	0.	745.	0.	0.	253.	0.	40.	44.	662.00
0.65	0.03	2.12	0.50	0.100	0.035	0.100	0.035	662.00	0.00
0.000447	50.	50.	50.	2	0	0	0.00	42.00	42.00

E.G. DISTRIBUTED Q= 1003.00 CWSEL= 671.17

PER Q=	100.0
AREA=	295.4
VEL=	2.5

SPECIAL BRIDGE

SO	KK	XKOR	CCFO	BOLEC	BHC	EWP	SUMBA	SS	ELCHU	ELCHD
	0.00	4.96	3.00	0.00	24.75	0.00	157.05	0.00	665.60	661.00

*SECNO 5759.000
BRIDGE CLOSE

EGRRS	EGLOC	H3	SUMIN	OPR	BARLA	TRAPEZOID AREA	ELC	ELTRD
673.67	671.07	1.00	1.	761.	157.	1371.	670.10	677.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE-ELLEA= 630.00 EL.REA= 666.00

SECNO 5799 STA 177+00 D/S FACE I-275 CULVERT FROM FIELD BOOK AND QUAD MAP

5799.001	8.99	672.59	0.00	0.00	672.67	0.08	0.4	2.00	660.83
740.	0.	740.	0.	0.	320.	0.	64.	25.	660.83

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0.70	0.00	2.32	0.00	0.100	0.035	0.100	0.035	663.60	0.00
0.000345	414.	414.	414.	2	0	0	0.00	42.00	42.00

FLO. DISTRIBUTION FOR SECNO= 6199.00 CHSEL= 672.50

STA= 0. 43.
PER Q= 100.0
AREA= 319.5
VEL= 2.3

*SECNO 6249.000

3470 ENCROACHMENT STATIONS= 429.0 571.0 TYPE= 1 TARGET= 142.000

SECNO 6249 50' U/S I-275 CULVERT FROM FIELD BOOK AND QUAD MAP

6249.00	0.44	672.54	0.00	0.00	672.77	0.22	0.03	0.07	664.70	
742.	208.	331.	155.	201.	73.	174.	42.	43.	664.70	
0.71	0.99	5.20	0.90	0.100	0.035	0.100	0.035	664.10	429.00	
0.000927	50.	50.	50.	2	0	0	0.00	142.00	571.00	

FLOW DISTRIBUTION FOR SECNO= 6249.00 CHSEL= 672.44

STA= 429. 482. 494. 503. 511. 571.
PER Q= 16.0 11.6 51.5 8.3 12.7
AREA= 140.3 64.7 73.3 46.0 126.7
VEL= 3.6 4.3 5.2 1.3 0.7

CCHV= 0.100 CEHV= 0.300

*SECNO 6587.000

3265 DIVIDED FLOW

SECNO 6587 50' D/S I-275 CULVERT FROM FIELD BOOK

6587.00	0.39	672.39	0.00	0.30	673.05	0.04	0.24	0.02	664.50
740.	287.	143.	311.	545.	62.	546.	102.	46.	664.50
0.01	0.55	3.42	0.90	0.100	0.035	0.100	0.035	664.34	919.00
0.000927	551.	151.	453.	2	1	0	0.00	664.34	1425.00

FLO. DISTRIBUTION FOR SECNO= 6587.00 CHSEL= 672.39

965.	1075.	1106.	1164.	1215.	1240.	1221.	1221.	1230.	1240.	1373.	1369.	
PER Q=	11.0	10.3	0.0	5.1	6.3	3.3	16.2	2.9	6.7	15.1	15.5	
AREA=	205.5	300.3	13.6	4.2	63.4	23.8	42.3	15.3	60.5	259.5	203.0	
VEL=	0.5	0.3	0.3	0.2	0.7	1.1	5.5	1.2	0.7	0.5	0.5	

CCHV= 0.300 CEHV= 0.500

*SECNO 7453.300

SECNO	DEPTH	LOBE	CHORD	SEL	ES	AS		BLOSS	TALK L
6	5.00	151	0.07	1.07	0.04	0.24		TYP	LEFT/RIGHT
IENE	VLOC	VCH	VROB	ASL	XNCH	ANE	ATH	SL IN	SSTA
SLOPE	WLOSS	XLOB	XLOSS	TOTAL	IN2	ECO T	CD LOS	TOPWID	ENDST

*CO ENCROACH STATIONS= 903.0 1003.0 TYPE= 4 TARGET= 200.000

SECNO 7453 50' D/S CULVERT DROPPED FROM FIELD BOOK AND QUAD MAP

7453.00	0.36	673.26	0.00	0.00	673.58	0.32	0.41	0.14	664.90	
740.	92.	965.	83.	133.	109.	126.	115.	54.	664.90	
0.07	0.69	5.20	0.66	0.100	0.035	0.100	0.035	664.90	900.00	
0.700804	766.	766.	766.	2	3	0	0.00	200.00	1100.00	

FLOW DISTRIBUTION FOR SECNO= 7453.00 C.SEL= 673.26

STA=	900.	983.	995.	1006.	1015.	1100.
PER Q=	5.0	7.6	76.4	6.6	4.8	
VPER=	62.3	89.1	109.7	83.7	32.4	
VEL=	0.9	1.1	5.2	1.1	0.4	

*SECNO 7503.000

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

SECNO 7503 STA 1006+96 D/S FACE HAGGERTY BRIDGE FROM FIELD BOOK AND O.H.

7503.00	9.38	673.37	0.00	0.00	673.64	0.27	0.09	0.02	666.60
740.	88.	973.	78.	128.	122.	122.	116.	54.	666.60
0.83	0.69	4.73	0.64	0.100	0.035	0.100	0.035	664.00	900.00
0.830972	53.	53.	53.	2	3	0	0.00	200.00	1100.00

FLOW DISTRIBUTION FOR SECNO= 7503.00 C.SEL= 673.38

STA=	900.	933.	994.	1007.	1015.	1100.
PER Q=	5.3	6.9	77.3	5.1	5.5	
VPER=	47.3	93.0	121.6	95.1	37.1	
VEL=	0.5	1.1	4.7	1.1	0.3	

SPECIAL BRIDGE

7503.00	0.00	0.00	KOLEL	0.00	0.00	0.00	0.00	664.30	900.00

*SECNO 7543.000
PRESSURE AND WEIR FLOW

SECNO	FLOW	VEL	CWSEL	TOPW	TYPE	TRAV AREA	ELEC	E.GRD
675.97	673.99	0.00	100.	260.	05.	65.	672.50	674.10

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

SECNO 7543 STA 1060+44 U/S FACE HAGGERTY BRIDGE FROM FIELD BOOK AND O.H.

PER.00	0.50	674.55	0.00	0.00	674.65	0.02	.05	0.00	666.64
741.	1.1.	46.	192.	957.	156.	227.	116.	54.	666.64
0.1.	0.50	5.45	0.57	4.100	0.035	0.100	3.025	664.04	900.01
1.000446	40.	40.	40.	2	3		0.05	200.00	1100.01

FLOW DISTRIBUTION FOR SECNO= 7543.00 CWSEL= 674.64

STA=	900.	933.	994.	1007.	1015.	1100.
PER Q=	12.5	0.7	63.2	5.	12.5	
VPER=	72.3	55.9	136.5	47.2	132.2	
VEL=	1.1	0.3	3.6	0.4	0.5	

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CCHV=   0.300 CEHV=   0.500
*SECNO 7593.000

3470 ENCROACHMENT STATIONS=      900.0     1100.0  TYPE=      1  TARGET=      200.000

        SECNO 7593 [illegible] HAGGERTY BRIDGE FROM FIELD BOOK AND QUAD MAP

  7593.00      9.85    674.55      0.00      0.00    674.69      0.15      0.02      0.01    664.70
     740.      237.      376.      127.      276.       89.      212.      117.       54.    664.70
     0.89      0.36      4.24      0.60     0.080     0.035     0.100     0.035    664.70    900.00
 0.000473       50.       50.       50.         2         0         0      0.00    200.00   1100.00

FLOW DISTRIBUTION FOR SECNO=    7593.00          CWSEL=    674.55

STA=      905.      936.      993.     1007.     1017.     1100.
  PER Q=     15.0       [illegible]      50.0       7.4       9.8
  AREA=    [illegible]      [illegible]      08.6      60.0     132.9
    VEL=      0.7       1.3       4.2       0.9       0.5

CCHV=   0.100 CEHV=   0.300
*SECNO 8737.000

        SECNO 8737 STA 145+53 FROM FIELD BOOK

  8737.00      7.31    675.11      0.00      0.00    675.17      0.07      0.47      0.01    668.00
     740.      152.      342.      246.      182.      114.      602.      136.       64.    668.30
     1.08      0.83      3.00      0.41     0.080     0.035     0.100     0.035    667.00    213.27
 0.000154      1144.     1144.     1144.         2         0         0      0.00    556.73    770.00

FLOW DISTRIBUTION FOR SECNO=    8737.00          CWSEL=    675.11

STA=      [illegible]      342.      405.      510.      392.      608.      420.      [illegible]      700.      [illegible]
  PER Q=      0.1       [illegible]       6.7      10.5      [illegible]      [illegible]       7.1      14.7       [illegible]
  AREA=     [illegible]      [illegible]      10.5      59.7     [illegible]      [illegible]     [illegible]     [illegible]     122.9
    VEL=      0.1       0.5       0.9       1.1       3.0       0.6       0.3       0.4       0.4

*SECNO 9587.000

[illegible] DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EC        HV        HL        WLOSS     BANK ELEV
   Q         QLOB      ECH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VROB      VCH       VROB      XNL       XACH      XNR       XTN       ELMIN     BSTA
   [illegible]      [illegible]      [illegible]      ITRIAL    [illegible]      ICONT     CORAR     TOPWID    ENDST

        SECNO 9587 STA [illegible]+00 FROM FIELD BOOK

  9587.00      [illegible]     [illegible]      0.00      0.00    [illegible]      [illegible]      0.55      [illegible]     [illegible]
     740.      110.      [illegible]      70.      [illegible]      101.      [illegible]      [illegible]      72.    [illegible]
     1.12      1.20      [illegible]      0.37     0.080     0.035     0.100     [illegible]     [illegible]     [illegible]
 0.001200      850.      050.      050.         2         0         0      0.00    222.83    829.98

FLOW DISTRIBUTION FOR SECNO=    9587.00          CWSEL=    675.44

STA=      591.      608.      624.      632.      647.      [illegible]      [illegible]      [illegible]
  PER Q=      1.7       6.1       7.9      [illegible]      5.2       4.1       [illegible]
  AREA=     17.7      [illegible]      34.7     [illegible]      [illegible]      78.2      18.6
    VEL=      0.7       1.2       1.7       5.4       1.1       0.8       0.4
```

CCHV= 0.300 CEHV= 0.550
*SECNO 10135.000

BATO ENCROACHMENT STATIONS=	978.0	1322.0	TYPE=	1	TARGET=	44.000			

SECNO 10135 50' D/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP

10135.00	6.99	675.99	0.00	0.00	676.37	0.34	0.57	0.02	669.40
760.	10.	660.	62.	23.	127.	51.	151.	74.	669.40
.19	0.00	5.20	5.22	0.000	0.350	0.130	0.035	669.00	978.00
0.001057	540.	544.	546.	2	0	0	0.00	44.00	1022.00

FLOW DISTRIBUTION FOR SECNO= 10135.00 CWSEL= 675.99

STA=	973.	984.	991.	1009.	1014.	1020.	1022.
PER Q=	2.3	2.	89.8	5.3	2.0	0.2	
AREA=	5.0	10.9	127.2	33.7	20.0	0.3	
VEL=	0.4	0.9	3.2	1.5	0.8	0.1	

*SECNO 10164.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE AREA=	678.00	E.G.EL=	678.00

D/S LILLEY RD.

10164.00	6.77	675.97	0.00	0.00	676.50	0.53	0.00	0.00	669.40
760.	0.	760.	0.	0.	127.	0.	152.	74.	669.40
1.16	0.00	5.98	0.00	0.000	0.035	0.100	0.035	669.00	990.00
0.001273	49.	49.	49.	2	0	0	0.00	18.70	1039.35

FLOW DISTRIBUTION FOR SECNO= 10164.00 CWSEL= 675.97

STA=	991.	1009.	1014.	1020.	1022.		
PER Q=	100.0						
AREA=	126.5						
VEL=	5.8						

*SECNO 10181.000

3370 NORMAL BRIDGE, HRD= 14 MIN ELTRD=	674.90	MAX ELLC=	676.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE AREA=	678.00	ELTRD=	676.00

SECNO 10165 STA 1344+02 D/S FACE LILLEY BRIDGE FROM FIELD BOOK AND G.M.

10165.00	6.97	675.97	0.00	0.00	676.50	0.53	0.00	0.00	669.40
760.	0.	760.	0.	0.	127.	0.	152.	74.	669.40
1.16	0.00	5.98	0.00	0.000	0.035	0.100	0.035	669.00	990.00
0.001273	49.	49.	49.	2	0	0	-45.27	18.70	1039.35

FLOW DISTRIBUTION FOR SECNO= 10135.00 CWSEL= 675.97

STA=	991.	1009.	1014.	1020.	1022.		
PER Q=	100.0						
AREA=	126.5						
VEL=	5.8						

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*SECNO 10249.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  674.90 MAX ELLC=  676.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       678.00 ELREA=       678.00

        SECNO 10249 STA 133+33 U/S FACE LILLEY SKEW BRIDGE FROM F.B. AND Q.R.

 10249.00      6.55    675.35      0.00      5.00    676.84      0.96      0.11      0.23    669.30
     740.        0.      740.        0.        0.       93.        0.      152.       74.    669.30
     1.17      0.00      7.95      0.00     0.000     0.030     0.100     0.035    669.30    992.90
 0.002619       64.       64.       64.         2         0         0      0.00     14.20   1007.10

FLOW DISTRIBUTION FOR SECNO=  10249.00          CHSEL=     675.65

STA=      993.     1007.
  PER Q=     100.0
   AREA=      93.1
    VEL=       7.9

*SECNO 10250.000
   SECNO     DIPTH     CUSEL     DRIVS     WSELK     EC        HW        HL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QRCB      ALOB      ACH       AROB      VOL       TUA    LEFT/RIGHT
   TIME      VLOB      VCH       VRCB      XNL       XNCH      XAR       WTR       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID     ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       678.00 ELREA=       678.00

        676 LILLEY SK.

 10250.00      6.55    675.35      0.00      5.00    676.84      0.96      0.11      0.23    669.30
     740.        0.      740.        0.        0.       93.        0.      152.       74.    669.30
     1.17      0.00      7.95      0.00     0.000     0.030     0.100     0.035    669.30    992.90
 0.002618        1.        1.        1.         0         0         0      0.00     14.20   1007.10

FLOW DISTRIBUTION FOR SECNO=  10250.00          CHSEL=     675.06

STA=      993.     1007.
  PER Q=     100.0
   AREA=      93.1
    VEL=       7.9

*SECNO 10299.000

3470 ENCROACHMENT STATIONS=      943.0     1057.0  TYPE=      1  TARGET=      114.000

        SECNO 10299 50' U/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP

 10299.00      7.03    676.45      0.00      5.00    677.04      0.61      0.09      0.11    669.40
     740.       59.      681.       19.       59.      100.       29.      152.       74.    669.40
     1.17      0.85      6.62      0.85     0.080     0.030     0.100     0.035    669.40    943.00
 0.004322       [illegible]       [illegible]       [illegible]         2         0         0      0.00     14.00   1057.00

FLOW DISTRIBUTION FOR SECNO=  10299.00          CHSEL=     676.43

STA=      943.      988.      993.     1007.     1012.     1057.
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PER Q=      4.6      3.4      89.4      2.3      0.3
 AREA=     48.9     19.8     100.0     18.3     11.2
  VEL=      0.7      1.3       6.6      0.9      0.2

CCHV=   0.100 CEHV=   0.300
*SECNO 11287.000

        SECNO 11287 STA 123+00 FROM FIELD BOOK

11287.00     7.35   678.15     0.00     0.00   678.36     0.23     1.28     0.04   677.60
    740.      53.     620.      67.     127.     457.     136.     159.      80.   675.50
    1.25     0.52     3.35     3.49    0.000    0.035    0.100    0.035   670.20  1112.50
0.001202     [illegible]     908.    1300.        2        0        0     0.00   461.66  1594.16

FLOW DISTRIBUTION FOR SECNO=  11287.00          CWSEL=    678.15

STA=    1415.    1230.    1300.    1415.    1530.    1596.
 PER Q=      2.3      3.2      89.8      5.3      0.7
  AREA=     60.4     78.2     156.9    115.2     20.9
   VEL=      0.3      0.5       4.0      0.5      0.3

CCHV=   0.300 CEHV=   0.500
*SECNO 12304.000

3470 ENCROACHMENT STATIONS=      571.5      628.5  TYPE=      1  TARGET=      57.000

        50 FT  D/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

12304.00     6.73   678.05     0.00     0.00   679.00     0.11     0.51     0.03   672.10
    740.      70.     329.      42.      61.     217.      50.     167.      85.   672.10
    1.36     1.15     2.90     0.69    0.060    0.035    0.100    0.035   672.10   571.50
0.000363     900.    1017.     600.        2        0        0     0.00    57.00   628.50

FLOW DISTRIBUTION FOR SECNO=  12304.00          CWSEL=    678.05

STA=     572.     584.     616.     628.
 PER Q=      5.6     84.9      5.5
  AREA=     60.7    217.0     60.7
   VEL=      1.1      2.0      0.7

*SECNO 12354.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      679.30 ELNEA=      679.30

        SECNO 12354 STA 12333 D/S FACE HANFORD BRIDGE FROM FIELD BOOK AND Q.T.

12354.00     6.67   678.87     0.00     0.00   679.06     0.19     3.02     0.04   672.20
    740.       0.     740.       0.       0.     213.       0.     167.      86.   672.20
    1.36     0.00     3.47     0.00    0.060    0.035    0.100    0.035   672.20   584.00
0.000376     [illegible]     [illegible]     [illegible]        2        0        [illegible]     [illegible]     [illegible]

FLOW DISTRIBUTION FOR SECNO=  12354.00          CWSEL=    678.87

STA=     584.     616.
 PER Q=     100.0
  AREA=     [illegible]
   VEL=     [illegible]
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SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.84      3.00      0.00      31.50     2.00      180.00    0.00      672.10    672.10

*SECNO 12411.000
   SECNO     DEPTH     CHSEL     CRIBS     USELK     EG        HV        FL        WLOSS     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    IH2       ICONT     CORAR     TOPWID    ENDST

PRESSURE FLOW

 EGPRS      EGLWC      H3        QWEIR      QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                  AREA
   679.35    679.08     0.00       0.       740.      180.      180.      678.20    679.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      679.70 ELREA=      679.70

        SECNO 12411 STA 111+76 L/S FACE HANFORD BRIDGE FROM FIELD BOOK AND W.S.

 12411.00     5.98    679.18     0.00      0.00    679.35     0.17      0.30      0.00    672.20
    740.       0.      740.       0.        0.      223.       0.       168.       66.     672.20
    1.36      0.00     3.31      0.00     0.060    0.035     0.100     0.035    672.20    584.00
 0.000470     [illegible]   57.       57.        2        0        0      0.00     32.00    616.00

FLOW DISTRIBUTION FOR SECNO=  12411.00          CHSEL=     679.18

STA=      586.      616.
  PER Q=     120.0
  AREA=      225.5
  VEL=       3.3

*SECNO 12461.000

        50 FT  [illegible] HANFORD BRIDGE FROM FIELD BOOK AND CLAD [illegible]

 12461.00     7.[illegible]    679.[illegible]     0.00      0.00    679.[illegible]     0.00      0.02      0.02    679.20
    740.       87.      395.       30.       82.      227.       39.       168.       66.     672.20
    1.37      1.06     2.62      0.59     0.060    0.035     0.100     0.035    672.20    560.08
 0.000278     50.       50.       50.        2        0        0      0.00     89.63    649.79

FLOW DISTRIBUTION FOR SECNO=  12411.00          CHSEL=     679.31

STA=      560.      571.      584.      616.      629.      650.
  PER Q=      1.9      10.7      80.6       6.4       1.4
  AREA=       5.7      55.4     227.7      66.4      32.2
  VEL=        0.3       1.2       2.6       0.7       0.3

CCHV=    0.100 CEHV=    0.500
*SECNO 13062.000

        [illegible] 13062 STA 105+25 FROM FIELD BOOK

 12062.00     3.72    679.52     0.00      0.00    679.72     0.20      0.29      0.04    674.00
    740.       94.      540.      126.       86.      129.       77.       175.       87.     675.50
    1.42      1.00     4.18      1.37     0.060    0.035     0.100     0.035    672.80     98.12
 0.001039     300.      601.      300.        [illegible]        0        0      0.00    106.78    202.93
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FLOW DISTRIBUTION FOR SECNO= 13062.00 CUSEL= 679.52

STA=	95.	103.	123.	137.	162.	174.	194.	203.
PER W=	1.4	4.1	8.2	73.0	8.7	4.9	0.5
AREA=	5.6	34.4	43.9	129.3	37.5	32.4	6.9
VEL=	0.5	0.9	1.3	4.2	1.7	1.1	0.7

*SECNO 15087.000

3265 DIVIDED FLOW

SECNO 15037 STA 85+00 FROM FIELD BOOK

15087.00	3.70	682.80	0.00	0.00	682.51	0.11	1.70	0.01	676.80
400.	52.	204.	39.	67.	94.	71.	153.	94.	576.60
1.66	0.73	3.03	0.84	0.000	0.035	0.000	0.035	675.70	688.89
0.000592	1800.	2025.	2500.	2	0	0	0.00	162.92	679.51

FLOW DISTRIBUTION FOR SECNO= 15087.00 CUSEL= 681.40

STA=	239.	410.	435.	430.	577.	622.
PER C=	13.1	72.2	13.8	0.5	0.4
AREA=	66.9	93.5	52.1	10.2	3.4
VEL=	0.8	3.1	1.1	0.2	0.2

*SECNO 16487.000

SECNO 16487 STA 71+00 FROM FIELD BOOK

16487.00	3.66	682.66	0.00	0.00	682.88	0.22	1.34	0.03	679.50
400.	21.	354.	33.	22.	92.	17.	191.	97.	574.00
1.76	1.39	3.13	1.31	0.000	0.035	0.000	0.035	679.20	646.39
0.000509	1.1.	1500.	1500.	2	0	0	0.00	33.37	400.00

FLOW DISTRIBUTION FOR SECNO= 16487.00 CUSEL= 682.66

STA=	346.	363.	400.
PER C=	[illegible]	93.0	5.7
AREA=	22.0	90.0	17.2
VEL=	0.1	3.9	1.3

*SECNO 16987.000

SECNO	DEPTH	CUSEL	CRIMS	NBELK	EL	AV	FL	ULISS	LANN ELEV
C	QLOB	QCH	QROB	QLOB	ACH	AROD	WOL	TEA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	BL IN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICOUT	CORAR	TOPWID	ENDST

VALLEY SECTION

16987.00	0.30	683.00	0.00	0.00	684.32	0.58	1.36	0.09	681.00
400.	5.	350.	17.	10.	61.	9.	192.	98.	681.00
1.78	1.45	0.00	1.96	0.000	0.035	0.000	0.035	680.50	5.61
0.000301	500.	500.	500.	2	0	0	0.00	33.41	64.14

FLOW DISTRIBUTION FOR SECNO= 16987.00 CUSEL= 683.40

```
STA=        6.       13.       33.       39.
  PER Q=      3.8      92.0       4.2
   AREA=     10.3      61.3       8.6
    VEL=      1.5       6.0       2.0

CCHV=   0.300 CEHV=   0.500
*SECNO 17484.000

3301 HV CHANGED MORE THAN HVINS

        SECNO 17484 50' D/S WARREN-SHELDON BRIDGE FROM FIELD BOOK AND QUAD MAP

 17484.00      4.47    686.27      0.00      0.00    687.36      1.09      2.75      0.29    682.20
     400.       30.      317.       53.       13.       34.       17.      193.       96.    682.20
     1.60      2.23      9.29      3.09     0.060     0.035     0.060     0.035    681.80   1519.49
 0.006941      497.      497.      497.         2         0         0      0.00     22.95   1542.45

FLOW DISTRIBUTION FOR SECNO=  17484.00          CWSEL=     686.27

STA=     1519.     1526.     1534.     1542.
  PER Q=      7.4      77.3      13.3
   AREA=     13.2      34.2      17.2
    VEL=      2.2       9.3       3.1

*SECNO 17533.000

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       688.00 ELREA=       688.00

        D/S WARREN-SHELDON ROD

 17533.00      4.12    [illegible]      0.00      0.00    [illegible]      [illegible]      [illegible]      0.20    682.80
     400.        0.      400.        0.        0.       39.        0.      193.       93.    682.80
     1.00      0.00     10.33      0.00     0.080     0.035     0.060     0.035    682.30   1495.00
 0.011739       49.       49.       49.         2         0         0      0.00     10.00   1505.00

FLOW DISTRIBUTION FOR SECNO=  17533.00          CWSEL=     686.42

STA=     1495.     1505.
  PER Q=     100.0
   AREA=      38.7
    VEL=      13.3

CCHV=   0.300 CEHV=   0.500
*SECNO 17534.000

3370 NORMAL BRIDGE,NRD= [illegible] IN ELTRS= [illegible] MAX ELLC= [illegible]

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       688.00 ELREA=       688.00

        SECNO 17534 STA 39+53 D/S PACE WARREN-SHELDON ER FROM FIELD BOOK AND Q.S

 17534.00          [illegible]    [illegible]      0.00    [illegible]      [illegible]      0.01      0.17    683.00
     400.        [illegible]      400.        0.        0.       37.        0.      193.       93.    683.00
     1.[illegible]      [illegible]     17.76      0.[illegible]     0.085     0.024     0.0[illegible]     0.035    682.30   1495.00
 0.00[illegible]      [illegible]      1.        1.        4.       13.        0.     -13.90     10.00   1505.00
```

FLOW DISTRIBUTION FOR SECNO= 17534.00 CWSEL= 686.36

STA= 1485. 1505.
PER Q= 100.0
AREA= 37.2
VEL= 10.8

*SECNO 17644.000

3301 NV CHANGED MORE THAN TWINS

3370 NORMAL BRIDGE,NBD= 16 MIN ELTRD= 688.70 MAX ELLC= 688.40

3470 BRIDGE/ROAD STATIONS= 1477.5 1522.5 TYPE= 1 TARGET= 65.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 688.70 ELREA= 688.70

SECNO 17544 STA 59+45 U/S FACE WARREN-SHELDON DR FLOW FIELD BOOK AND Q:

17544.00	5.35	437.50	0.00	0.20	689.23	0.25	0.90	0.17	683.40	
400.	0.	400.	0.	0.	45.	0.	193.	98.	683.40	
1.01	0.00	8.95	0.00	0.000	0.024	0.000	0.035	692.70	1495.00	
0.006363	110.	110.	110.	2	0	W	-26.18	10.00	1505.00	

FLOW DISTRIBUTION FOR SECNO= 17544.00 CWSEL= 687.90

STA= 1485. 1505.
PER Q= 100.0
AREA= 43.7
VEL= 9.0

CCHV= 0.300 CEHV= 0.500

*SECNO 17645.000

SECNO	DEPTH	CHSL	CRCHS	SELK	ES	LV	RL	CLOSS	BANK ELEV
U	ALEU	ISP	GROD	ALOS	PER	CROB	TOL	MR	LEFT/RIGHT
TI	VLOB	VSH	VLOU	RNG	XSSH	P&T	STR	ELMS,	SST,
*LIPE	SLOU	ADPT	SLOPE	STABIL	IHS	ICOM	CODED	TOP.TO	E.US

3470 BRIDGE/ROAD STATIONS= 1477.5 1522.5 TYPE= 1 TARGET= 65.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 688.70 ELREA= 688.70

U/S WARREN-SHELDON RD.

17645.00	5.56	440.65	0.00	0.20	689.24	0.25	0.91	0.17	683.40
400.	0.	400.	0.	0.	45.	0.	193.	98.	683.40
1.01	0.00	7.54	0.00	0.000	0.035	0.000	0.058	692.50	1495.00
0.304304	1.	1.	1.	3	0	E	0.00	10.00	1505.00

FLOW DISTRIBUTION FOR SECNO= 17645.00 CWSEL= 687.90

STA= 1485. 1505.
PER Q= 100.0
AREA= 53.1

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VEL= 7.5

CCHV= 0.100 CEHV= 0.300
*SECNO 17694.000

9301 HV CHANGED NOTE TWA HWANG

3470 ENCROACHMENT STATIONS= 1460.0 1550.0 TYPE= 1 TARGET= 113.000

SECND 17694.00' U/S MARTIN-SHELDON BRIDGE FROM FIELD BOOK AND ROAD MAP

17694.00	5.87	665.27	0.00	0.00	669.50	0.23	0.12	0.07	665.50	
400.	35.	276.	93.	40.	60.	90.	195.	93.	683.50	
1.81	0.86	4.57	1.00	0.060	0.035	0.060	0.035	683.00	1453.76	
0.001066	49.	49.	49.	3	0	0	0.00	96.24	1550.00	

FLOW DISTRIBUTION FOR SECNO= 17694.00 CHSEL= 665.27

STA=	1454.	1488.	1495.	1505.	1512.	1550.
PER Q=	1.5	7.1	68.9	9.5	12.7	
AREA=	00.7	23.6	60.3	27.0	61.6	
VEL=	0.5	1.2	2.5	1.4	2.6	

CCHV= 0.100 CEHV= 0.300
*SECNO 18827.000

VALLEY SECTION FROM HAMPTON COURT SUBDIVISION PLANS

18827.00	5.61	630.45	0.00	0.00	670.55	0.12	1.02	1.01	650.00	
400.	50.	319.	40.	26.	105.	56.	198.	100.	686.00	
1.92	1.13	5.05	1.13	0.060	0.035	0.060	0.035	685.00	142.35	
0.002335	600.	1133.	1000.	3	0	0	0.00	65.33	287.65	

FLOW DISTRIBUTION FOR SECNO= 18827.00 CHSEL= 650.00

STA=	162.	132.	162.	130.	190.	209.
PER Q=	2.9	7.7	79.0	7.8	2.8	
AREA=	19.6	37.7	100.7	23.7	11.6	
VEL=	0.8	1.4	3.0	1.6	0.8	

*SECNO 20034.000

VALLEY SECTION; FIELD BOOK STA. 37450

20034.00	4.22	691.39	0.00	0.00	692.00	0.25	1.99	0.04	650.00	
420.	0.	378.	17.	7.	102.	19.	301.	102.	690.30	
2.01	0.80	4.17	1.26	0.060	0.035	0.060	0.035	687.70	274.99	
0.002079	600.	1227.	1500.	2	3	0	0.00	52.07	327.86	

FLOW DISTRIBUTION FOR SECNO= 20034.00 CHSEL= 691.39

STA=	275.	277.	286.	315.	322.	328.
PER Q=	0.	1.5	94.9	3.6	0.5	
AREA=	0.5	5.6	91.8	10.0	3.0	
VEL=	0.3	1.0	2.9	1.4	0.7	

CCHV= 0.300 CEHV= 0.300
*SECNO 21127.000

U/S ELEVATION AT

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FORM 1411.00-PRINTED BY ROTARY MANIFOLD FORMS.

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   .003744      840.      1138.      1090.         1          0          0       .00     66.73    690.37
0
1
  04/07/87     10:40:44

     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     O         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

  FLOW DISTRIBUTION FOR SECNO=  18827.00          CWSEL=    690.60

  STA=      142.      152.      162.      188.      198.      208.
    PER O=      2.6       8.0      78.8      8.0       2.6
     AREA=     13.4      25.9     109.4      25.9      13.4
      VEL=       .8       1.2       2.9      1.2        .8

  *SECNO 20054.000
   20054.00     4.15    691.85       .00       .00    692.10       .24      1.35       .04    690.90
       400.       6.       377.       17.        7.        92.       13.       203.       102.    690.00
      2.02       .89      4.08      1.26       .060      .035      .060      .000     687.70    274.92
   .002035      600.      1227.     1500.         2          0         0       .00      53.04    327.96
0
  FLOW DISTRIBUTION FOR SECNO=  20054.00          CWSEL=    691.85

  STA=      275.      277.      286.      315.      322.      328.
    PER O=       .1       1.6      94.2       3.6        .6
     AREA=       .6       6.8      92.4      10.2        3.1
      VEL=       .5        .9       4.1       1.4         .7

  *SECNO 20603.000
   20603.00     4.58    693.38       .00       .00    693.71       .33      1.59       .03    692.10
       400.       6.       394.        0.        5.        84.       1.        204.       102.    693.00
      2.05      1.22      4.66       .55       .060      .035      .060      .000     688.80     19.44
   .004457      549.      549.      549.         2          0         0       .00      49.84     49.29
0
  FLOW DISTRIBUTION FOR SECNO=  20603.00          CWSEL=    693.38

  STA=       19.       27.       66.       69.
    PER O=      1.5      98.4       .1
     AREA=      4.9      84.5       .6
      VEL=      1.2       4.7       .6

  *SECNO 20711.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      695.00 ELREA=      695.00

   20711.00     4.68    693.68       .00       .00    693.94       .26       .22       .01    689.00
       400.       0.       400.        0.        0.        98.       0.        204.       103.    689.00
      2.06       .00      4.07       .00       .060      .035      .060      .000     689.00     7.50
   .001170      108.      108.      108.         2          0         0       .00      21.00     28.50
0
1
  04/07/87     10:40:44

     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     O         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
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Info Developed by Wayne Co. office of Public Service for Sheldon Center Road

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  PER Q=     100.0
   AREA=      98.4
    VEL=       4.1

*SECNO 20718.000

3370 NORMAL BRIDGE,NRD= 29 MIN ELTRD=  697.00 MAX ELLC=  695.00


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      695.00 ELREA=      695.00

 20718.00      4.62   693.62       .00       .00   693.99       .37       .02       .04   689.00
     400.         0.     400.        0.        0.     82.         0.      204.      103.   689.00
     2.06       .00     4.90       .00      .060    .035      .060      .000   689.00     7.50
  .005154        7.       7.        7.         2       0         0    -32.58    21.00    28.50
0
FLOW DISTRIBUTION FOR SECNO=  20718.00          CWSEL=    693.62

STA=        8.       29.
  PER Q=     100.0
   AREA=      81.6
    VEL=       4.9

*SECNO 20774.000

3370 NORMAL BRIDGE,NRD= 29 MIN ELTRD=  697.00 MAX ELLC=  695.00


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      697.00 ELREA=      697.00

 20774.00      4.93   693.93       .00       .00   694.27       .34       .28       .00   689.00
     400.         0.     400.        0.        0.     85.         0.      204.      103.   689.00
     2.06       .00     4.69       .00      .060    .035      .060      .000   689.00     7.50
  .004733       56.      56.       56.         2       0         0    -37.11    21.00    28.50
0
FLOW DISTRIBUTION FOR SECNO=  20774.00          CWSEL=    693.93

STA=        8.       29.
  PER Q=     100.0
   AREA=      85.3
    VEL=       4.7

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


CCHV=     .300 CEHV=     .500
*SECNO 20781.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      697.00 ELREA=      697.00

 20781.00      5.10   694.10       .00       .00   694.32       .22       .01       .04   689.00
     400.         0.     400.        0.        0.    107.         0.      204.      103.   689.00
     2.06       .00     3.73       .00      .060    .035      .060      .000   689.00     7.50
  .000878        7.       7.        7.         2       0         0       .00    21.00    29.50
0
FLOW DISTRIBUTION FOR SECNO=  20781.00          CWSEL=    694.10
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Sheldon Center Road

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      AREA=    107.2
       VEL=      3.7

 *SECNO 21127.000
  21127.00      4.64    694.54       .00       .00    694.75       .22       .43       .00    692.90
      400.       30.      340.       30.       22.       85.       22.      205.      103.    692.90
      2.09      1.37      4.01      1.37      .060      .035      .060      .000    689.90      9.42
   .001920       346.      346.      346.         2         0         0       .00     59.15     68.58
0
 FLOW DISTRIBUTION FOR SECNO=  21127.00          CWSEL=    694.54

 STA=        9.       16.       26.       52.       62.       69.
   PER Q=       1.9       6.2      85.1       6.2       1.3
    AREA=       5.4      16.4      84.7      16.4       5.4
     VEL=        .9       1.5       4.0       1.5        .9

 *SECNO 21235.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      696.30 ELREA=      696.30

  21235.00      4.48    694.78       .00       .00    694.93       .15       .15       .02    692.00
      400.         0.      400.         0.        0.      129.         0.      206.      103.    692.00
      2.10       .00      3.11       .00      .060      .035      .060      .000    690.30      2.00
   .001070       108.      108.      108.         2         0         0       .00     31.80     33.80
0
1
  04/07/87     10:40:44

    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


 FLOW DISTRIBUTION FOR SECNO=  21235.00          CWSEL=    694.78

 STA=        2.       34.
   PER Q=     100.0
    AREA=     128.8
     VEL=       3.1

 CCHV=     .300 CEHV=     .500
 *SECNO 21242.000

 3370 NORMAL BRIDGE,NRD= 36 MIN ELTRD=  699.20 MAX ELLC=  696.30

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      696.30 ELREA=      696.30

  21242.00      4.45    694.75       .00       .00    694.97       .23       .01       .04    692.00
      400.         0.      400.         0.        0.      105.         0.      206.      103.    692.00
      2.10       .00      3.82       .00      .060      .024      .060      .000    690.30      2.00
   .001441         7.        7.        7.         2         0         0    -24.34     31.80     33.80
0
 FLOW DISTRIBUTION FOR SECNO=  21242.00          CWSEL=    694.75

 STA=        2.       34.
   PER Q=     100.0
    AREA=     104.8
     VEL=       3.8

 *SECNO 21312.000
```

21127.00	4.40	694.30	0.00	0.00	694.57	0.27	2.43	0.01	692.90
400.	25.	348.	26.	18.	79.	18.	204.	103.	692.90
2.08	1.45	4.43	1.45	0.060	0.035	0.060	0.035	689.90	10.38
0.302539	.0071	1079.	1079.	4	0	0	0.00	57.24	67.62

FLOW DISTRIBUTION FOR SECNO= 21127.00 CHSEL= 694.30

STA=	10.	16.	26.	52.	62.	68.
PER C=	1.0	5.8	37.3	5.8	1.0	
AREA=	3.9	14.0	70.5	14.0	3.9	
VEL=	2.0	1.0	4.4	1.0	1.0	

*SECNO 21235.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	SLOSS	BANK ELEV
Q	VLOC	ACH	CROB	ALCH	ACH	AROB	VOL	TOA	LEFT/RIGH
TIME	VLOC	ACH	CROB	AR_	ACH	A_T	STA	ELOSS	STA
SLOPE	VLOC	CLA	KTRDK	FTRIAL	132	ICONT	SOH&R	TOPWID	ERODT

SOME OVERBANK AREA ASSUMED NON-EFFECTIVE;ELLEA= 696.30 ELREA= 696.30

7 FT D/S TILLOTSON RD.

21235.00	4.34	694.64	0.00	0.00	694.80	0.16	0.19	0.03	692.80
400.	0.	408.	0.	0.	24.	0.	225.	70.	692.80
2.19	1.00	4.41	0.00	0.060	0.035	0.060	0.035	690.30	2.50
0.301369	0.	204.	113.	2	1	0	0.30	57.13	33.50

FLOW DISTRIBUTION FOR SECNO= 21235.00 CHSEL= 694.64

Q=	2.	99.							
PER C=	100.0								
AREA=	124.3								
VEL=	3.2								

CC(W= 0.2?? CC(O= 1.520
SECNO 21235.00?

3372 NORMAL ELOSS;ORD= 36 MIN ELTRD= 679.20 MAX ELLC= 696.30

2??? OVERBANK AREA ASSUMED NON-EFFECTIVE;ELLEA= 696.30 ELREA= 696.30

D/S FACE TILLOTSON RD. FROM FOREST TRAILS SUBDIVISION PLANS

21242.00	4.31	694.61	0.00	0.00	694.85	0.24	0.01	0.24	692.00
500.	0.	520.	0.	0.	102.	0.	204.	103.	692.00
2.05	1.00	5.08	0.00	0.060	0.028	0.060	0.030	690.30	2.50
0.001380	0.	2.	0.	2	1	0	-23.66	57.13	33.50

FLOW DISTRIBUTION FOR SECNO= 21242.50 CHSEL= 694.61

Q=	2.	99.							
PER C=	100.0								
AREA=	124.6								
VEL=	3.2								

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*SECNO 21312.000

3370 NORMAL BRIDGE,NRD= 36 MIN ELTRD= 699.20 MAX ELLC= 696.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 699.20 ELREA= 699.20

U/S FACE TILLOTSON RD. FROM FOREST TRAILS SUBDIVISION PLANS

21312.00	4.00	694.70	0.00	0.00	694.97	0.27	0.11	0.02	692.40
400.	0.	400.	0.	0.	95.	0.	205.	103.	692.40
2.10	0.00	4.21	0.00	0.060	0.024	0.060	0.035	690.70	2.00
0.001689	70.	70.	70.	0	0	0	-19.56	31.80	33.80

FLOW DISTRIBUTION FOR SECNO= 21312.00 CMSEL= 694.70

STA= 0. 34.

PER S= 100.0
AREA= 93.1
VEL= 4.2

CCHV= 0.300 CEHV= 0.500
*SECNO 21319.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 699.20 ELREA= 699.20

7 FT U/S TILLOTSON RD.

21319.00	4.00	696.83	0.00	0.00	695.01	0.18	0.01	0.83	692.40
400.	0.	400.	0.	0.	118.	0.	205.	103.	692.40
2.10	0.00	3.59	0.00	0.100	0.035	0.060	0.035	690.70	2.00
0.001356	70.	70.	70.	0	0	0	0.00	31.80	33.80

FLOW DISTRIBUTION FOR SECNO= 21319.00 CMSEL= 694.83

STA= 2. 34.

PER Q= 100.0
AREA= 117.0
VEL= 3.5

CCHV= 0.100 CEHV= 0.300
*SECNO 21727.000

3501 NW CHANCTO CORE TRAM RUINS

VALLEY SECTION FIELD BOOK STA. 19000

21727.00	3.39	695.66	0.00	0.00	696.39	0.74	.29	0.17	694.50
400.	0.	392.	2.	7.	56.	2.	208.	103.	695.10
2.11	0.00	3.57	0.02	0.100	0.035	0.060	0.035	692.00	160.70
0.007790	408.	408.	408.	2	0	0	0.00	39.66	200.40

FLOW DISTRIBUTION FOR SECNO= 21727.00 CMSEL= 695.66

STA= 151. 138. 94. 200.

PER Q= 1.6 98.0 0.4
AREA= 7.1 56.2 1.8
VEL= 0.5 7.0 0.9

```
CCHV=   0.300 CEHV=   0.500
*SECNO 22635.000
   SECNO     DEPTH     CHSEL     CRIWS     WSELK     EG        HV        HL        DLOSS     BANK ELEV
   Q         ALOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       MTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID    ENDST

          D/S SAMPIPER DR.

 22635.00     4.13    700.05      0.00      1.00    701.22      0.37      4.72      0.11    699.70
     400.      13.      366.       22.       14.       72.       14.      207.      104.    699.70
     2.17      0.95      5.09      1.59     0.100     0.035     0.060     0.035    696.70    623.32
 0.003841     1100.      908.      200.         4         0         0      0.00     33.37    676.66

FLOW DISTRIBUTION FOR SECNO=  22635.00          CHSEL=    700.05

STA=      623.      627.      637.      663.      673.      677.
  PER Q=      0.3       2.9      91.4       4.8       0.5
   AREA=      2.1      11.0      71.9       1.5       2.1
    VEL=      [illegible]      1.0       [illegible]      1.0

*SECNO 22735.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      703.20 ELREA=      703.20

          7 FT D/S SANDPIPER DR.

 22735.00     4.11    701.34      0.00      0.00    701.51      0.18      0.23      0.06    698.90
     400.       0.      400.        0.        0.      119.        0.      207.      104.    696.90
     2.17      [illegible]      [illegible]      0.00     [illegible]      0.035     0.060     [illegible]      [illegible]
 0.001561     [illegible]      [illegible]      100.         2         [illegible]         0      0.00     31.[illegible]     [illegible]

FLOW DISTRIBUTION FOR SECNO=  22735.00          CHSEL=    701.34

STA=      [illegible]
  PER Q=      100.[illegible]
   AREA=      100.[illegible]
    VEL=      3.4

CCHV=   0.300 CEHV=   0.500
*SECNO 22742.000

3370 NORMAL BRIDGE,NO=37 MIN ELTRO=  705.00 MAX ELLO=  703.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      703.20 ELREA=      703.20

          D/S PACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

 22742.00     4.11    701.51      0.00      0.00    701.37      0.26      0.11      0.06    698.90
     400.       0.      400.        0.        0.       98.        0.      207.      104.    696.90
     2.13      [illegible]      [illegible]      0.00     0.060     0.024     0.060     [illegible]      697.[illegible]     [illegible]
 0.001[illegible]      [illegible]      [illegible]      [illegible]         [illegible]         [illegible]      [illegible]      [illegible]

FLOW DISTRIBUTION FOR SECNO=  22742.00          CHSEL=    701.31
```

STA= 2. 34.
PER Q= 100.0
AREA= 97.9
VEL= 4.1

*SECNO 22312.000

3379 NORMAL BRIDGE,NRD= 37 MIN ELTRD= 705.00 MAX ELLC= 703.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 705.25 ELREA= 705.25

U/S FACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

22312.00	3.91	701.41	0.00	0.00	701.69	0.26	0.12	0.01	699.20	
400.	0.	407.	0.	0.	94.	0.	209.	104.	699.20	
2.18	0.00	4.26	0.00	0.060	0.024	0.060	0.035	697.50	2.00	
0.001725	20.	20.	20.	0	0	0	-10.93	31.50	33.80	

FLOW DISTRIBUTION FOR SECNO= 22312.00 CWSEL= 701.41

STA= 2. 34.
PER Q= 100.0
AREA= 93.9
VEL= 4.3

CCHV= 0.300 CEHV= 0.500
*SECNO 22019.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 703.25 ELREA= 705.25

U/S ST.UFS SANDPIPER DR.

22019.00	3.64	701.55	0.00	0.00	701.73	0.18	0.01	0.00	699.20	
400.	0.	430.	1.	0.	113.	0.	208.	104.	699.20	
2.18	0.00	3.45	0.00	0.060	0.035	0.060	0.035	697.50	2.00	
0.001664	7.	7.	7.	2	0.	0	0.00	31.50	33.80	

FLOW DISTRIBUTION FOR SECNO= 22019.00 CWSEL= 701.55

STA= 2. 34.
PER Q= 100.0
AREA= 116.5
VEL= 3.5

CCHV= 0.100 CEHV= 0.300
*SECNO 22927.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
	OLDW	TOP	STOP	XLOB	WSH	XLOB	JOL	TYP	LEFT/RIGHT
TIME	VLOB	WSEL	WTOP	XML	KUCH	XR	JTW	ELMIN	SETA
SLOPE	XLOBL	QLOB	XLOBR	ITRIAL	CHZ	ICONT	CONVG	TOPWID	ELDAT

U/S STATION SANDPIPER DR.

22927.00	3.09	701.66	0.00	0.00	701.66	0.16	0.00	0.00	696.20	
400.	22.	377.	1.	0.	115.	0.	208.	104.	700.20	
2.19	2.64	3.11	0.30	0.00	0.035	0.000	0.035	692.00	2.00	
0.001819	98.	98.	98.	0	0	0	0.00	31.50	33.80	

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FLOW DISTRIBUTION FOR SECNO=  22927.00          CWSEL=    701.68

STA=      273.      286.      291.      306.      315.
  PER Q=      1.5       4.0      94.3       0.4
  AREA=      16.8      19.4     115.0       6.9
   VEL=       0.4       0.6       3.3       0.3

*SECNO 22977.000

3301 FV CHANGED MORE THAN MVINS

   SECNO     DEPTH     CWSEL     CRIMS     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       FLMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID      ERBST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3670 ENCROACHMENT STATIONS=     200.0     307.0  TYPE=     1  TARGET=      27.000

          VALLEY SECTION FIELD BOOK STA. 6350

 22977.00      5.51    704.21    704.21      0.00    705.94      1.75      0.00      0.47    700.10
     400.       63.      727.       11.       25.       20.        6.      208.      405.    700.50
     2.29      9.43     11.41      1.81     0.100     0.035     0.100     0.035    693.70    284.73
 0.000925       50.       50.       50.        20        14         0      0.00     21.55    306.29

FLOW DISTRIBUTION FOR SECNO=  22977.00          CWSEL=    704.21

STA=      285.      297.      303.      306.
  PER Q=      [illegible]      [illegible]       2.7
  AREA=      27.2      23.1       5.9
   VEL=       2.5      11.6       1.0

*SECNO 23504.000

3301 FV CHANGED MORE THAN MVINS

          D/S CANTON CENTER RD.

 23504.00      5.50    707.09      0.00      0.00    707.32      0.26      1.24      3.15    701.90
     400.       15.      359.       25.       20.       61.       30.      205.      405.    701.50
     2.23      0.70      4.12      0.03     0.100     0.035     0.100     0.035    701.40    984.17
 0.000906      527.      527.      527.         4         0         0      0.00     35.47   1019.64

FLOW DISTRIBUTION FOR SECNO=  23504.00          CWSEL=    709.09

STA=      984.      992.     1006.     1020.
  PER Q=      6.3      89.0       6.3
  AREA=      20.3      87.1      30.2
   VEL=       [illegible]       4.1       0.3

*SECNO 23533.000

3695 OVERBANK AREA ASSUMED NON-EFFECTIVE,BLOCK=      709.00 E.MEA=      709.00
```

1 FT D/S CANTON CENTER RD.

23553.00	5.39	707.14	0.00	0.00	707.48	0.26	0.06	0.01	705.00
400.	0.	400.	0.	0.	99.	0.	209.	105.	705.00
2.23	0.00	4.75	0.00	0.100	0.035	0.100	0.035	701.75	990.70
0.001563	59.	46.	69.	2	2	0	0.00	18.60	1009.30

FLOW DISTRIBUTION FOR SECNO= 23553.00 CHSEL= 707.14

STA= 991. 1009.
PER CP= 100.0
AREA= 98.6
VEL= 4.1

CCHV= 2.370 CEHV= 0.500
*SECNO 23554.000

3370 NORMAL BRIDGE,NRD= 29 MIN ELTRD= 710.00 MAX ELLC= 707.70

3498 OVERDECK AREA ASSUMED NON-EFFECTIVE,ELLEA= 709.00 ELTEA= 705.00

23554.00	5.23	707.10	0.00	0.00	707.45	0.35	1.01	0.05	703.05
400.	0.	400.	0.	0.	84.	0.	209.	105.	703.00
2.23	0.00	4.75	0.00	0.100	0.324	0.100	0.035	701.75	990.70
0.001735	1.	1.	1.	2	0	0	-34.48	18.60	1009.30

FLOW DISTRIBUTION FOR SECNO= 23554.00 CHSEL= 707.10

STA= 991. 1009.
PER CP= 100.0
AREA=
VEL= 4.7

*SECNO 23613.000

SECNO	DEPTH	CHSEL	CRIWS	LSEL	EG	HV	LL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
XIB	Y_OD	YCH	YRL	XIL	XLCH	XRB	FCH	LLCHV	SSTA
XLEFT	X_OVD	XLCH	XLOBR	ITRIB	LRB	ICODE	CSTAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 29 MIN ELTRD= 710.00 MAX ELLC= 707.15

3498 OVERDECK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.90 ELTEA= 710.90

D/S FACE CANTON CENTER RD. FROM FIELD BOOK AND BLAD MAP

23613.00	5.50	707.15	0.00	0.00	707.55	0.40	2.10	0.00	703.15
400.	0.	400.	0.	0.	72.	0.	209.	105.	703.15
2.24	0.00	4.75	0.00	0.100	0.024	0.100	0.035	701.90	990.70
0.001759	59.	59.	59.	2	0	0	-33.49	18.60	1009.30

P.O. DISTRIBUTION FOR SECNO= 23613.00 CHSEL= 703.20

STA= 991. 1009.
PER CP= 100.0
AREA= 85.7

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    VEL=       4.8

CCHV=   0.300 CEHV=   0.500
*SECNO 23614.000

3493 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      210.90 ELREA=      710.90

 23614.00      5.43    707.33      0.00      0.00    707.58      0.25      0.00      0.03    703.15
     400.        0.      400.        0.        0.       99.        0.      210.      105.    703.15
     2.24      0.00      4.02      0.00     0.100     0.035     0.100     0.035    701.90    990.70
 0.001523        1.        1.        1.         2         0         0      0.00     18.60   1009.30

FLOW DISTRIBUTION FOR SECNO=  23614.00          CWSEL=     707.33

STA=      991.     1009.
  PER Q=     100.0
   AREA=      99.5
    VEL=       4.0

*SECNO 23663.000
 23663.00      5.19    707.19      0.00      0.00    707.94      0.75      0.11      0.25    702.50
     400.       22.      361.       17.       16.       49.       13.      210.      105.    702.50
     2.24      1.37      7.11      1.31     0.100     0.035     0.100     0.035    702.00    906.29
 0.003534        41.       40.       19.         2         0         0      0.00     22.34   1010.62

FLOW DISTRIBUTION FOR SECNO=  23663.00          CWSEL=     707.19

STA=      988.      995.     1005.     1011.
  PER Q=       5.4      90.3       4.3
   AREA=      15.7      69.4      13.2
    VEL=       1.6       7.3       1.3
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  31
  MODIFICATION -  30,31,32
*****************************************************

 MILLER CREEK FCS.HUD 2003-07 CANTON TWP FROM CORP.BOUND.TO. CANTON CENTER RD.
 T2
 T3      MILLER CREEK CANTON T.R.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        5.        0.        0.  0.000000      0.00      0.0        0.   667.200     0.000

J2  NPROF    NPLOT     PRFVS     XSECV     XSECH     [illegible]     ALLDC     [illegible]     [illegible]     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= 0.100 CEHV= 0.300

*SECNO ****

2800 NAT Q1= 509.14 WSEL= 667.10 ENC Q1= 509.14 WSEL= 667.20 RATIO= 0.0000

NAT Q1= 537. RATIOS LOB/CH/ROB= 0.0447 0.7913 0.1640 WSEL= 667.20

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	AL	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	KLOB	KLCH	KLOB	ITRIAL	ICHK	ICONT	CORAR	TOPWID	ESDBT

3470 ENCROACHMENT STATIONS= -783.6 1896.3 TYPE= 4 TARGET= 0.023

CALTOL TOWNSHIP CORPORATE BOUNDARY FROM SCS FLOOD HAZARD STUDY

0.00	13.40	667.20	0.00	667.10	667.31	0.11	3.00	0.00	657.10
743.	25.	500.	116.	47.	205.	247.	0.	0.	657.20
0.00	0.53	2.92	0.47	0.100	0.035	0.100	0.000	656.80	1783.63
0.000211	0.	0.	0.	0	0	0	0.00	112.64	1896.27

*SECNO 1400.00

2800 NAT Q1= 515.41 WSEL= 667.27 ENC Q1= 515.41 WSEL= 667.37 RATIO= 0.0000

NAT Q1= 535. RATIOS LOB/CH/ROB= 0.1078 0.5194 0.3727 WSEL= 667.37

SCS ENCROACHMENT STATIONS= 570.2 792.2 TYPE= 4 TARGET= 0.056

SECNO 400 C/A 239.87 FHWA FIELD CODE

500.00	11.27	667.37	0.00	667.27	667.44	0.07	0.13	0.00	657.30
743.	69.	399.	272.	150.	136.	549.	10.	3.	657.40
0.10	0.50	2.52	0.30	0.100	0.035	0.100	0.025	655.72	573.61
0.000636	302.	300.	170.	2	2	0	0.00	221.97	792.2

CCHV= 0.300 CEHV= 0.300

*SECNO 1370.000

3471 EXPANSION START SIDE= 403.0 947.0 TYPE= 1 TARGET= 544.300

SECNO 1370 501 D/S LOTZ BRIDGE BASED ON FIELD BOOK AND BASE MAP

1370.00	10.03	667.53	0.00	667.43	667.62	0.09	4.17	0.01	657.50
743.	107.	439.	201.	343.	140.	55.	20.	9.	657.51
0.21	1.25	3.08	0.33	0.100	0.035	0.150	0.054	657.30	403.00
0.000245	300.	300.	993.	4	0	1	0.00	536.00	947.00

*SECNO 1419.000

3470 ENCROACHMENT STATIC.= 403.0 947.0 TYPE= 4 TARGET= 524.000

D/S LOTZ BR.

1419.00	12.31	667.61	0.00	667.52	667.64	0.04	0.11	0.03	659.30
743.	71.	423.	249.	271.	132.	550.	47.	11.	659.30
0.27	0.83	1.90	0.27	0.100	0.045	0.100	0.034	658.23	403.00
0.000110	300.	300.	93.	2	2	0	0.00	224.00	947.00

CCHV= 0.300 CEHV= 0.300

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*SECNO 1420.300

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	AV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	WCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	KLCH	KLOBR	ITRIAL	IER	ICONT	CURAT	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 32 *IN ELTRD= 666.10 MAX ELLC= 665.30

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1420 STA 221+57 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

1420.00	10.29	667.59	0.00	667.53	667.66	0.06	0.00	0.01	659.30
740.	111.	478.	150.	262.	192.	508.	27.	10.	659.30
0.22	0.42	2.49	0.39	0.100	0.024	0.100	0.034	657.30	403.00
0.000330	1.	1.	1.	1	3	0	-294.45	524.00	927.00

*SECNO 1460.300

3370 NORMAL BRIDGE,NRD= 32 *IN ELTRD= 656.10 MAX ELLC= 669.30

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1460 STA 221+97 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

1460.00	10.30	667.60	0.00	667.52	667.61	0.06	0.02	0.00	659.30
740.	111.	478.	150.	262.	193.	508.	28.	10.	659.30
0.22	0.42	2.48	0.39	0.100	0.024	0.100	0.034	657.30	403.00
0.000316	40.	40.	40.	0	0	0	-294.45	524.00	927.00

CC(I)= 0.100 CEL(I)= 0.300

*SECNO 1461.000

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

D/S LOTZ BR.

1461.00	10.35	667.65	0.00	667.57	667.69	0.06	0.03	0.01	659.30
740.	72.	314.	151.	315.	202.	589.	28.	10.	659.30
0.22	0.23	1.36	0.26	0.100	0.035	0.100	0.034	657.30	403.00
0.000306	1.	1.	1.	3	3	0	0.00	524.00	927.00

*SECNO 1510.300

3470 ENCROACHMENT STATIONS= 403.0 927.0 TYPE= 1 TARGET= 524.000

SECNO 1510 D/S LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

1510.00	10.14	667.64	0.00	667.56	667.71	0.07	0.01	0.02	659.30
740.	193.	361.	187.	45.	122.	533.	29.	11.	659.30
0.23	0.49	2.96	0.35	0.100	0.035	0.100	0.034	657.30	403.00
0.000328	40.	40.	40.	2	0	0	0.00	524.00	927.00

CC(I)= 0.100 CEL(I)= 0.300

*&SECNO 2387.000

ZHIGHT= 285.05 WSEL= 659.07 ENG FR= 288.05 HSEL= 684.77 RATIO= 0.0000

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 XAT 01=     307.  RATIOS LOB/CH/ROB=  0.3161  0.4554  0.2285  WSEL=     660.17

 3470 ENCROACHMENT STATIONS=      607.0      982.1  TYPE=      4  TARGET=       0.063

        SECNO 2937 STA 800+00 FROM FIELD BOOK

  2937.00      7.03    660.43      0.00    666.07    663.25      0.12      0.55      3.02    662.20
   740.        223.      365.      151.      325.       93.      307.       60.       26.     661.60
     0.41       0.69      3.93      0.49     0.100     0.035     0.100     0.035   661.10    606.96
 0.000696     1310.     1477.     1600.         2         0         0      0.00   375.15    982.11

 CC/U=    0.SEC CHN=   0.300
 *SECNO 3979.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       SLOSS    BANK ELEV
      Q        VLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      WSF       WTOP      NML       XNCH      XCT       WTL      ELMIN      ESTA
    SLOPE      VLOBL     VLCH      .1.CT     ITRIAL    IHS       ICONT     SQWAL    DOF:ID     ERDST

 3470 ENCROACHMENT STATIONS=      196.5      263.5  TYPE=      1  TARGET=      67.500

        SECNO 3979.000 FOR APPROACH FROM FIELD BOOK AND FLOW MAP

  3979.00      7.15    663.58      0.00    668.49    668.65      0.09      0.39      3.01    661.43
   740.         27.      686.       27.       53.       272.      50.       72.       31.     661.40
     0.53       0.36      2.52      0.54     0.100     0.035     0.100     0.035   661.40    196.50
 0.000736      820.      792.      1200.         2         0         0      0.00    67.03    263.50

 *SECNO 4029.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE/ELLEA=      600.00 ELREA=      680.00

        ESTAB 4.30 STA 1004+ 00 FOR FORD BRIDGE FROM FIELD BOOK AND FLOW MAP

  4029.00      8.47    660.57      0.00    666.80    660.27      0.10      0.02      0.00    660.00
   740.          0.      742.        0.        3.       298.       0.        73.       31.     660.00
     0.5        0.00      0.1       1.0      0.100     0.035     0.100     0.035   650.15      0.00
 0.000715        30.       64.       52.         0         0         1      0.00    42.50     42.50

 SPECIAL BRIDGE
    NO.      TYPE      CD#       KIELR      PIC       P.P       GAMMA      SS       ELCHL     ELCHE
     3.00    SLEEP     2.00      0.00      31.21      1.00     55?.00      0.00    661.51    662.12

 *SECNO 4237.000
 PRESSURE FLOW

  SUPER      ELMIN      S        AS        Q.EIP      W.P.      BPTIP     TYPELOSS      ELLC      ELTW
  669.59     659.07     0.00      0.       740.       157.      157.      667.00      671.00

 4188 CONSECUTIVE TRY FOR FLOW IN INEFFECTIVE FLOW AREAS.  SEC.OF SAFETY=      FROUDE.
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SECNO 5237 STA 7+50 DOWNSTREAM FORD BRIDGE FROM FIELD BOOK AND MAP

4237.00	9.31	669.51	0.00	669.44	669.59	0.06	0.93	0.00	660.40
740.	0.	740.	0.	0.	321.	0.	74.	32.	660.40
0.56	0.00	2.31	0.00	0.100	0.035	0.100	0.035	660.50	0.00
0.000562	215.	304.	200.	2	0	0	0.00	42.00	42.00

*SECNO 4237.000

3470 ENCROACHMENT STATIONS= 229.0 371.0 TYPE= 1 TARGET= 142.000

SECNO 4287.00 D/S FORD BRIDGE FROM FIELD LOOK AND QUAD MAP

4287.00	7.56	669.56	0.00	669.48	669.61	0.06	0.01	0.01	662.00
740.	39.	636.	65.	104.	310.	158.	75.	32.	662.00
0.56	0.37	2.05	0.41	0.100	0.035	0.100	0.035	662.00	229.00
0.000194	30.	90.	90.	2	0	0	0.00	142.00	371.00

*SECNO 5237.000
2600 MAT Q1= 123.54 WSEL= 669.52 ENC Q1= 123.54 WSEL= 669.62 RATIO= 0.0300
MAT Q1= 129. RATIOS LOB/CH/ROB= 0.0309 0.6327 0.3364 WSEL= 669.62

5265 BEHIND FILL

3301 HV CHANGED MORE THAN HVINS

5470 ENCROACHMENT STATIONS= 1322.3 1513.2 TYPE= 1 TARGET= 3.040

SECNO 5237 STA 133+50 FROM FIELD BOOK

5237.00	7.05	669.55	0.00	669.52	670.43	0.03	2.40	0.41	663.20
740.	95.	490.	355.	0.	55.	115.	15.	34.	660.24
0.03	0.06	1.14	1.33	0.100	0.035	0.100	0.035	662.50	1322.29
1.000796	1200.	500.	100.	2	0	3	0.00	78.27	1513.12

*SECNO 5795.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CHSEL	CRIWS	HSELK	EG	FV	HL	CLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	AGH	AROB	VOL	TOT	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XLL	XMCH	XRB	WTX	ELMIN	SSTA
SLOPE	KLOB1	KLCH	KLOB2	ITRIAL	IN2	SECOND	CORAN	TOPWID	E.G.SL

3471 ENCROACHMENT STATIONS= 2066.5 2133.5 TYPE= 1 TARGET= 67.000

SECNO 5735 D/S OF E-225 CULVERT FROM FIELD BOOK AND QUAD MAP

5735.00	0.15	671.06	0.00	671.02	671.24	0.04	0.67	0.0	662.90
740.	21.	550.	115.	77.	132.	165.	65.	33.	662.90
0.44	0.91	4.57	4.00	0.100	0.035	0.100	0.035	662.90	2066.50
0.000707	900.	496.	350.	2	0	0	1.00	67.00	2133.50

*ENDING 13.000

3295 OVERBANK AREA *SELECTED NON-EFFECTIVE VALUES= 1650.00 ENDEA= 660.00

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SECNO 5785 STA 178+02 D/S FACE I-275 CULVERT FROM FIELD BOOK AND QUADMAP

5785.00	8.47	671.27	0.00	671.17	671.36	0.10	0.03	0.05	680.00
740.	0.	740.	0.	0.	298.	0.	36.	35.	680.00
0.64	0.00	2.49	0.00	0.100	0.035	0.100	0.035	662.30	0.00
0.000428	50.	50.	50.	2	0	0	0.00	42.00	42.00

SPECIAL BRIDGE

ES	SK	SKCT	SOFO	SOLEN	ENC	ZUP	BAREA	SS	ELCNU	ELCND
	0.00	4.36	3.00	0.00	24.15	0.00	157.00	0.00	663.60	661.30

*SECNO 6199.000
PRESSURE FLOW

EGPRS	EGLWC	H3	OWEIR	OPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
672.77	672.16	0.00	0.	740.	157.	157.	670.10	677.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE/ELLEA= 680.00 ELREA= 680.00

SECNO 6199 STA 173+00 D/S FACE I-275 CULVERT FROM FIELD BOOK AND QUADMAP

5199.00	9.00	672.59	0.00	672.39	672.77	0.09	1.41	0.00	680.30
740.	0.	740.	0.	0.	324.	0.	89.	35.	680.00
0.69	0.00	2.29	0.00	0.100	0.035	0.100	0.035	663.60	0.00
0.000332	414.	414.	414.	2	0	0	0.00	42.00	42.00

*SECNO 6259.000

3470 ENCROACHMENT STATIONS= 429.0 571.0 TYPE= 1 TARGET= 142.000

SECNO 6259 STA 178+02 D/S I-275 CULVERT FROM FIELD BOOK AND QUAD MAP

5259.00	0.35	672.55	0.00	672.54	672.65	0.21	0.35	0.05	664.70
740.	206.	375.	159.	212.	74.	180.	69.	35.	664.70
0.70	0.97	3.03	0.88	0.100	0.035	0.100	0.035	664.10	429.00
0.000359	50.	50.	50.	2	0	0	0.00	142.00	571.00

[illegible]

*SECNO 6687.000
2800 NAT Q1= 369.02 WSEL= 672.99 ENC Q1= 389.02 HSEL= 673.09 RATIO= 0.0000
NAT Q1= 411. RATIOS LOB/CH/ROB= 0.3911 0.1052 0.4237 HSEL= 673.09

[illegible] DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1002.4 1450.2 TYPE= 4 TARGET= 0.054

SECNO 6687 STA 1[illegible] ENC [illegible]

6687.00	0.77	673.07	0.00	672.49	672.11	0.14	0.21	0.02	664.[illegible]
740.	284.	144.	320.	523.	43.	563.	97.	30.	664.80
0.01	0.54	3.32	0.55	0.100	0.035	0.100	0.035	664.30	1002.[illegible]
0.000368	433.	438.	438.	2	0	0	0.00	437.02	[illegible]

CCHV= 0.300 CEHV= 0.300
*SECNO 7453.000

SECNO	DEPTH	ORSEL	CRIWS	WSELR	EG	VV	HL	ALOSS	BANK ELEV	
Q	ELOB	QCH	QROB	ALOB	ACH	APOB	VCL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	BTL	XNCH	XNR	WTH	CL TIN	STA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IK2	ICONT	CORAR	TOPWID	ENDST	

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

SECNO 7453 50' D/S HAGGERTY BRIDGE FROM FIELD BOOK AND QUAD MAP

7453.00	8.45	673.35	0.00	673.26	673.65	0.30	0.41	0.13	664.90
740.	90.	357.	97.	141.	115.	134.	111.	44.	364.90
5.06	6.65	5.37	0.61	0.100	0.035	0.102	0.035	664.90	900.00
0.001350	750.	765.	765.	2	0		0.00	800.00	1100.00

*SECNO 7503.000

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

SECNO 7503 STA 160+84 D/S FACE HAGGERTY BRIDGE FROM FIELD BOOK AND Q.P.

7503.00	9.46	673.46	0.00	673.38	673.71	0.25	0.04	0.02	666.63
740.	92.	555.	93.	136.	125.	130.	111.	44.	666.63
1.17	0.67	4.60	0.61	0.120	0.035	0.100	0.035	664.02	900.00
0.001313	50.	50.	50.	2	2	0	0.00	800.00	1100.00

SPECIAL DESIGN

CI	CO	XRCP	XRB2	XELTO	XINC	XMP	XAREA	GS	ELCHL	ELCHU
0.00	1.70	3.00	0.00	10.00	0.00	0.00	35.00	0.00	664.04	664.00

*SECNO 7543.000
*RECORD # 1 CELL COMP

EGFIX	EGLWC	WQ	QPEER	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTIB
675.69	674.06	0.00	193.	547.	65.	65.	672.50	674.10

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

SECNO 7543 STA 160+44 U/S FACE HAGGERTY BRIDGE FROM FIELD BOOK AND Q.P.

7543.00	8.72	674.88	1.00	674.37	674.68	0.12	0.37	0.00	666.64
740.	112.	400.	133.	23.	137.	229.	112.	44.	666.64
0.47	0.60	3.41	0.58	0.130	0.035	0.700	0.035	664.04	900.00
0.000457	40.	40.	40.	2	2	4	0.00	800.00	1100.00

CCHV= 0.300 CEHV= 0.300
*SECNO 7593.000

3470 ENCROACHMENT STATIONS= 900.0 1100.0 TYPE= 1 TARGET= 200.000

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SECNO 7593 50' L/S HAGGERTY BRIDGE FROM FIELD BOOK AND QUAD MAP

7593.00	9.87	674.57	0.00	674.55	674.71	0.14	0.02	0.01	664.70
740.	238.	374.	128.	279.	89.	214.	112.	45.	664.70
0.80	0.95	4.21	0.80	0.060	0.035	0.100	0.035	664.70	900.00
0.030465	50.	50.	50.	2	0	0	0.00	202.00	1100.00

CCHV= 0.100 CEHV= 0.300

*SECNO 3737.300

3620 NAT GT= 397.40 HSEL= 673.19 D*S GT= 387.90 MSEL= 675.21 RATIO= 0.0000

NAT GT= 400. RATIOS LOB/CH/ROB= 0.205 0.4456 0.3663 WSEL= 675.21

3470 ENCROACHMENT STATIONS= 362.4 743.8 TYPE= 4 TARGET= 0.052

SECNO 6737 STA 143+50 FROM FIELD BOOK

3737.00	2.32	679.13	0.00	675.11	677.21	0.00	2.49	0.01	666.00
740.	140.	354.	242.	157.	115.	566.	131.	52.	666.50
1.05	1.02	3.12	0.43	0.080	0.035	0.150	0.035	667.80	362.44
0.000393	1144.	1144.	1144.	2	0	0	0.00	381.36	743.80

*SECNO 9317.000

3620 NAT GT= 396.35 HSEL= 675.54 BNK GT= 256.13 WSEL= 675.54 INTEG= 0.0000

NAT GT= 215. RATIOS LOB/CH/ROB= 0.1596 0.7283 0.1120 WSEL= 675.54

3205 D VIDEO FLOW

SECNO	BRATIO	HSEL	CRIWS	WSEL	EG	FV	HL	OLOSS	BANK ELEV
	SLOB	DCI	QROB	ALOS	ACH	QROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XLCH	XNR	STA	ELMIN	SSTA
SLOPE	XLOOL	XLCH	XLOOR	ITRIAL	IN2	ICONT	LORAR	TOPWID	ENDST

SECNO 9317 STA 142+00 FROM FIELD BOOK

9317.00	7.10	679.13	0.00	675.46	677.63	2.17	0.36	0.03	669.40
740.	139.	564.	67.	70.	102.	108.	141.	52.	666.70
1.10	1.45	3.13	0.66	0.080	0.035	0.01	0.035	669.70	867.84
0.001322	850.	851.	850.	2	0	0	0.00	171.32	769.66

CCHV= 0.300 CEHV= 0.500

SECNO 10135.000

3470 ENCROACHMENT STATIONS= 978.0 1022.0 TYPE= 1 TARGET= 44.003

SECNO 10135 50' D/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP

10135.00	7.09	674.13	0.00	675.99	676.42	2.27	0.27	0.00	667.40
740.	0.	45.	62.	23.	50.	56.	144.	56.	666.50
1.13	0.00	5.14	1.20	0.330	0.030	0.000	0.035	669.00	978.50
0.000382	546.	548.	376.	2	0	0	0.00	44.00	1022.50

SECNO 10135.020

3445 OVERBANK AREA ABSURD CONNECTING ELLEV= 675.00 SURFS= 670.20

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D/S LILLEY RD.

10184.00	7.03	676.03	0.00	675.97	676.55	0.52	0.05	0.08	669.40
740.	0.	740.	0.	0.	128.	0.	145.	59.	669.40
1.14	0.00	5.80	0.00	0.080	0.030	0.100	0.035	669.00	990.65
0.001239	40.	40.	40.	2	0	0	5.00	16.70	1009.35

*SECNO 10185.000

3370 NORMAL BRIDGE HRD= 14 MIN ELTRD= 674.90 MAX ELLC= 676.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE ELLEA= 670.00 E_REA= 678.05

SECNO 10209 STA 134+02 D/S FACE LILLEY BRIDGE FROM FIELD DECK AND O.F.

10185.00	7.03	676.03	0.00	675.97	676.55	0.52	0.00	0.08	669.40
740.	0.	740.	0.	0.	126.	0.	145.	59.	669.40
1.14	0.00	5.80	0.00	0.080	0.030	0.100	0.035	669.00	990.65
0.001236	1.	1.	1.	0	3	0	-15.41	18.70	1009.35

*SECNO 10249.000

3370 NORMAL BRIDGE HRD= 14 MIN ELTRD= 674.90 MAX ELLC= 676.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE ELLEA= 678.05 ELREA= 676.00

SECNO 10249 STA 135+31 U/S FACE LILLEY SKEW BRIDGE FROM F.B. AND O.F.

10249.00	5.05	675.05	1.07	673.98	674.41	0.43	2.14	0.32	669.50
740.	0.	740.	0.	0.	44.	0.	145.	59.	669.50
1.14	3.00	7.07	0.00	0.080	0.230	2.100	0.035	669.20	992.90
0.002547	64.	64.	64.	2	0	0	-3.04	14.20	1007.10

*SECNO 10250.000

SECNO	DEPTH	SINEL	STAGS	HELBK	EG	FR	HL	ELOSS	BANK ELEV
	ULOB	VEL	VLOB	ALOB	VOL	CHZ	LFICTION		
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	BTL	ELMIN	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	CHZ	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE ELLEA= 678.05 ELREA= 676.00

D/S LILLEY RD.

10250.00	5.05	675.05	0.00	675.05	676.46	0.53	0.00	0.30	669.50
740.	0.	740.	0.	0.	44.	0.	145.	59.	669.50
1.14	3.00	7.07	0.00	0.080	0.230	2.100	0.035	669.20	992.90
0.002543	1.	1.	1.	2	0	1	0.00	14.20	1007.10

*SECNO 10250.500

3470 ENCROACHMENT STATIONS= 943.0 1057.0 TYPE= 1 FRSET= 114.000

SECNO 10259.50 U/S LILLEY SPEDGE FROM FIELD DECK AND DOWNWAR

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10299.00	7.09	676.49	0.00	676.43	677.08	0.59	0.39	0.11	669.40	
740.	62.	658.	20.	72.	101.	33.	145.	59.	669.40	
1.14	0.86	6.52	0.63	0.080	0.030	0.100	0.035	669.40	943.00	
0.001272	40.	93.	69.	2	3	0	0.00	146.00	1057.00	

CCHV= 0.100 CEHV= 0.300
*SECNO 11287.000
2800 MAT 01= 206.66 USEL= 678.15 ENC 01= 206.66 DSEL= 678.25 RATIO= 0.0000
MAT 01= 222. RATIOS LOB/CH/ROB= 0.0000 0.0000 0.1052 USEL= 678.25

3470 ENCROACHMENT STATIONS= 1252.9 1403.5 TYPE= 4 TARGET= 0.670

SECNO 11287 STA 123+00 FROM FIELD BOOK

11287.00	7.38	673.15	0.30	673.15	676.41	0.25	0.32	0.06	677.00	
740.	57.	550.	49.	77.	153.	61.	151.	65.	670.60	
1.31	1.15	4.13	0.91	0.065	0.035	0.120	0.035	670.00	1257.00	
0.001384	500.	930.	1500.	2	0	0	0.00	225.60	1483.50	

SCHV= 0.200 SEHV= 0.500
*SECNO 12354.000

3470 ENCROACHMENT STATIONS= 571.5 628.5 TYPE= 1 TARGET= 57.000

50 FT D/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

12354.00	6.34	671.96	0.00	670.30	679.07	0.11	0.52	0.04	672.11	
740.	41.	627.	42.	62.	215.	62.	153.	66.	672.10	
1.32	1.13	2.86	0.69	0.060	0.035	0.100	0.035	672.10	571.50	
0.000350	950.	7017.	900.	2	3	0	0.00	57.00	628.50	

*SECNO 12354.000
3200 MAT 01= 316. RATIOS LOB/CH/ROB= 0.0000 1.0000 0.2002 USEL= 678.97

3470 ENCROACHMENT STATIONS= 584.3 616.0 TYPE= 4 TARGET= 0.000

SPEC SUPERELEV AREA ADDED DUE TO EFFECTIVE EL.= 675.30 ELREF= 679.30

SECNO 12354 STA 112+33 D/S FACE HANFORD BRIDGE FROM FIELD BOOK AND C.F.

12354.00	6.34	671.96	0.00	670.37	679.07	0.16	0.53	0.04	672.22	
740.	41.	627.	42.	62.	215.	62.	153.	66.	672.20	
1.32	1.13	2.86	0.69	0.060	0.035	0.100	0.035	672.22	571.50	
0.000350	950.	7017.	900.	2	3	0	0.00	57.00	628.50	

SPECIAL BRIDGE

SB	XR	XRJR	CDFD	RDLEN	SNC	SMF	SAREA	SS	ELCHD	ELCHD
	1.25	1.84	1.00	0.00	31.30	2.00	190.20	0.20	672.10	672.10

*SECNO 12411.000

SECNO	HSP 1	CISEL	SNI 3	SEL	CS	HS	T1	ELCHC	SUP ELEV	
2.0		688	0PC3	1.00	10	410	1.5	TW	677.16	T
TIME	VLOB	VCH	VROB	YSL	ENC	ENC	DFW	EL 10	DETA	
SLOPE	KLOB	X.CH	SLOPE	2.013	EN2	ICC.T	LSRAN	TCPWID	ENDST	

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CLASS A LOW FLOW

3420 BRIDGE W.S.= 678.92 BRIDGE VELOCITY= 3.68 CALCULATED CHANNEL AREA= 201.

SGFRS	CRI.WC	N3	O.JEIR	O.R	EAREA	TRAPEZOID AREA	ELLC	E.TRD
679.43	679.45	0.03	0.	740.	180.	180.	678.20	679.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE: ELLEA= 679.70 ELREA= 679.7.

SECNO 12411 STA 111+75 U/S FACE HANFORD BRIDGE FROM FIELD BOOK AND O.T.

12411.00	7.00	679.23	0.00	679.70	679.45	0.17	0.32	0.10	672.20
740.	0.	740.	0.	0.	227.	0.	199.	66.	672.20
1.00	0.00	3.27	3.04	0.060	0.035	0.100	0.035	672.20	594.20
0.000478	57.	57.	57.	0	3	1	0.00	32.00	616.00

*SECNO 12441.000
2900 WAT QIN= 444.21 WSEL= 679.17 ENC QI= 444.01 .SEL= 679.61 RATIO= 0.3000
NAT QI= 444. ROUTOB LOB=CH=ROB= 0.1134 0.8011 0.0755 WSEL= 679.41

3470 ENCROACHMENT STATIONS= 568.9 630.1 TYPE= 6 TARGET= 0.026

SECTION U/S HANFORD BRIDGE FROM FIELD BOOK AND SUPP MAP

12441.20	7.25	679.20	0.00	679.23	679.69	0.19	0.02	0.02	672.20
743.	84.	607.	49.	74.	230.	77.	159.	56.	672.20
1.34	1.14	2.63	0.70	0.060	0.035	0.100	0.035	672.20	566.88
0.020277	50.	50.	50.	2	0	0	0.00	61.26	630.13

*SECNO 13062.000
2800 WAT QIN= 224.29 WSEL= 679.52 ENC QI= 224.29 WSEL= 679.62 RATIO= 0.0100
NAT QI= 234. RATIOS LOB=CH=ROB= 0.1304 0.7229 0.1467 WSEL= 679.62

3471 ENCROACHMENT STATIONS= 159.3 183.5 TYPE= 4 TARGET= 0.220

SECNO 13062 STA 103+25 FROM FIELD BOOK

13062.00	5.80	679.65	0.00	679.52	679.62	0.22	0.29	0.04	674.00
740.	85.	359.	93.	72.	131.	83.	103.	67.	673.00
1.06	1.13	4.83	1.30	0.060	0.035	0.100	0.035	673.00	709.34
0.301101	302.	301.	350.	2	0	0	2.02	61.57	539.92

*SECNO 15287.000
2820 WAT QIN= 361.40 WSEL= 681.30 ENC QI= 136.43 WSEL= 681.50 RATIO= 0.0100
NAT QI= 172. RATIOS LOB=CH=ROB= 0.1321 0.7117 0.1562 WSEL= 681.50

3472 ENCROACHMENT STATIONS= 424.8 449.7 TYPE= 4 TARGET= 0.220

SECNO 15287 STA 85+00 FROM FIELD BOOK

15287.00	5.40	679.60	0.00	681.13	681.61	0.25	1.75	0.01	676.20
740.	43.	261.	67.	169.	75.	146.	124.	70.	676.20
1.80	0.94	3.12	1.35	0.060	0.035	0.060	0.035	675.70	604.25
0.000591	1001.	2025.	2550.	2	0	0	2.00	64.95	449.75

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*SECNO 16487.000
2850 NAT Q1= 94.05 WSEL= 682.66 ENC Q1= 94.05 WSEL= 682.76 RATIO= 0.0000
NAT Q1= 99. RATIOS LOB,CH,ROB= 0.0596 0.8816 0.0587 WSEL= 682.76

3470 ENCROACHMENT STATIONS= 356.2 391.3 TYPE= 4 TARGET= 0.054

SECNO 16487 STA 71+00 FROM FIELD BOOK

16487.00	3.56	682.76	0.00	682.66	683.60	0.24	1.35	0.04	679.50
500.	12.	376.	72.	11.	93.	6.	179.	71.	676.60
1.70	1.14	4.05	1.41	0.062	0.039	0.063	0.035	679.20	156.17
0.027264	1400.	1400.	1400.	2	0	0	0.00	35.14	391.30

*SECNO 16987.000

SSNO	DEPTH	SHEL	CRIT	HECLR	ZR	HV	HL	XLOSS	DARK ELEV
C	VLOW	VCH	SHOR	XLOB	VCH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOW	XCH	VROT	XWP	XHIC	XSW	WTS	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBT	ITRIAL	IN2	ICONT	CONAR	TOPWID	ERDST

3470 ENCROACHMENT STATIONS= 1.0 1697.0 TYPE= 1 TARGET= 1629.000

VALLEY SECTION

16707.00	3.40	693.40	3.00	683.30	684.39	0.40	1.32	0.07	681.00
630.	11.	347.	7.	11.	63.	9.	183.	71.	681.00
1.73	1.43	5.91	1.05	0.010	1.035	0.061	0.035	630.53	3.46
0.004351	500.	500.	500.	2	3	0	0.00	33.90	29.30

CC'S= 0.300 CE.V= 0.500
SECNO 17504.000

STRICKLER 0.045 DATA 'S.15

SECNO 17504 30' D/S WARREN-SHELDON BRIDGE FROM FIELD BOOK AND SURF MAP

17504.00	4.92	690.23	7.00	676.27	687.34	1.16	2.45	0.28	682.20
630.	24.	711.	75.	18.	96.	7.	181.	72.	682.20
1.75	2.26	9.41	5.13	0.030	1.025	0.060	0.035	681.80	1519.38
0.307267	497.	497.	497.	2	2	0	0.00	22.79	1542.35

*SECNO 17593.000

3301 HV CHANGED MORE THAN HVINS

3295 WSEL HAS BEEN ADJUSTED TO I-EFFEC.IVE-ELEV= 690.20 ELDIF= 0.0

D/S WARREN-SHELDON CO.

17593.00	4.39	686.39	0.00	680.42	683.07	1.64	0.45	0.28	682.60
630.	3.	70.	0.	3.	36.	0.	181.	72.	682.60
1.75	0.30	10.45	0.00	0.010	0.035	0.000	0.035	682.32	1495.00
1.000000	497.	497.	497.	2	2	0	0.00	15.15	1509.02

CC'S= 0.300 CE.V= 0.500

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*SECNO 17534.000

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 680.70 MAX ELLC= 686.00

3695 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 688.00 ELREA= 688.30

SECNO 17534 STA 63+53 D/S FACE WARREN-SHELDON BR FROM FIELD BOOK AND Q.Y

17534.00	4.03	676.93	683.87	686.56	688.75	1.42	0.01	0.07	693.00	
400.	0.	400.	0.	0.	37.	0.	141.	72.	663.03	
1.75	0.00	0.83	0.00	0.060	0.234	0.000	0.035	692.30	1495.00	
0.010140	1.	1.	1.	4	13	0	-15.61	10.00	1505.00	

*SECNO 17644.000

3301 NO SPRINGER TYPE THAT DOING

3370 NORMAL BRIDGE,NRD= 16 MIN ELTRD= 683.70 MAX ELLC= 680.40

3472 ENCROACHMENT STATIONS= 1577.3 1523.3 TYPE= 1 IPROFT= 45.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 688.70 ELREA= 688.70

SECNO 17644 STA 59+83 D/S FACE WARREN-SHELDON BR FROM FIELD BOOK AND Q.Y

17644.00	5.29	687.99	0.00	687.98	689.23	1.24	0.01	0.17	693.40
400.	0.	400.	0.	0.	45.	0.	141.	72.	603.40
1.75	0.00	0.94	0.00	0.030	0.021	0.000	0.035	692.70	1495.00
0.000	1.	1.	1.	2	3	0	-21.26	0.30	1505.00

CCHV= 1.300 CEHV= 1.500

*SECNO 17645.000

SECNO	JEFF H	CISEL	CREV	SKEW	AS	HV	HL	QLOSS	BANK ELEV
	NCT	CMH	QMIN	NCT	PSU	FSO	VOL	FIX	LEFT,RGT
FR	JL 1	CMH	QMIN	JHL	MIX		FIX	ELHG	SBTS
OPTION	JL 0		SLOPE	STEEL	FHG	HI,HT	HWID	OPTIO	BIDST

3470 ENCROACHMENT STATIONS= 1577.3 1523.3 TYPE= 1 IPROFT= 45.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 688.70 ELREA= 688.70

D/S MARKET-SHELDON RD.

17645.00	5.59	688.29	0.00	688.28	689.53	1.25	0.01	0.17	693.40
400.	0.	400.	0.	0.	45.	0.	141.	72.	603.40
1.75	0.00	0.95	0.00	0.000	0.033	0.000	0.035	692.30	1495.00
0.000	1.	1.	1.	3	3	0	0.00	0.00	1505.00

CCHV= 1.300 CEHV= 1.500

*SECNO 17645.100

3311 HV CHANGED HERE FOR HYDRS

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3470 ENCROACHMENT STATIONS= 1440.0 1550.0 TYPE= 1 TARGET= 110.000

SECND 17694 30' U/S WARREN-SHELDON BRIDGE FROM FIELD BOOK AND QUAD MAP

17694.00	6.20	689.28	0.00	689.87	689.91	0.25	0.89	0.07	683.50	
400.	39.	27.	10.	43.	60.	90.	161.	72.	683.50	
1.76	0.38	4.57	1.00	0.080	0.035	0.080	0.035	683.00	1493.56	
0.001061	47.	49.	49.	3	2	0	0.30	96.44	1550.00	

SCENS= 0.100 CENT= 2.005

SECND 18027.00

2800 NAT G1= 138.39 HSEL= 690.41 ENC G1= 138.39 HSEL= 690.51 RATIO= 0.6000

NAT G1= 145. RATIOS LOB/CH/ROB= 0.1037 0.7927 0.1037 HSEL= 690.51

3470 ENCROACHMENT STATIONS= 191.7 198.3 TYPE= 4 TARGET= 2.045

VALLEY SECTION FROM LAWTON COURT SUBDIVISION PLANS

18027.00	5.44	690.44	0.00	690.41	690.57	0.14	1.08	0.01	684.00	
400.	33.	334.	33.	25.	105.	25.	185.	73.	686.00	
2.66	1.51	5.17	1.51	0.340	0.035	0.	0.335	685.30	741.70	
0.000399	1900.	1900.	1900.	2	0		0.00	46.39	193.29	

*SECND 20054.000

2800 NAT G1= 87.72 HSEL= 691.53 ENC G1= 87.72 HSEL= 691.93 RATIO= 0.0000

[illegible] G1= 92. RATIOS LOB/CH/ROB= 0.0196 0.9378 0.0444 HSEL= 691.93

3470 ENCROACHMENT STATIONS= 206.0 316.1 TYPE= 4 TARGET= 0.057

VALLEY SECTION FIELD BOOK STA. 37050

4.02	4.45	691.[illegible]	1.63	691.83	692.20	0.24	1.64	0.05	686.70	
400.	0.	0.	0.	0.	95.	0.	189.	73.	692.00	
2.84	1.10	5.11	2.03	0.350	0.035	0.160	0.235	687.70	744.00	
0.002192	800.	1127.	1900.	1	0	0	0.00	50.31	196.31	

SCENS= 0.300 CENT= 3.507

SECND 21635.00

3470 ENCROACHMENT STATIONS= 1.0 400.0 TYPE= 1 TARGET= 589.000

D/S TILLOTSON RD.

21635.00	6.46	695.29	5.61	695.30	868.64	0.25	2.41	0.23	642.50	
400.	27.	365.	27.	10.	0.	99.	197.	73.	692.20	
2.02	1.42	5.29	1.42	0.060	0.035	0.060	0.035	689.90	93.23	
0.008349	1073.	1073.	1073.	3	1	0	0.30	57.65	67.92	

*SECND 21635.00

SEC.D	DEPTH	W.SEL	CRITS	SLOP	LB	SD	LL	ULOSS	BANKFL.V
Q	CLOB	ACH	AROD	ALOB	ACH	AROD	WCL	TOP	LEFT/RIGHT
TIME	VLOB	VCH	VROD	ANL	XLOB	ANB	WSN	CL.IN	SSTA
SUPER	K.OB	XLCH	XLOBR	ITRIAL	IT2	ECONT	CCWR	TOPWID	ENDST

BANK OVERBANK AT [illegible] ASSUMED NON-EFFECTIVE FLOW. Q= 698.22 ELDEPS 695.50

7 FT D/S TILLOTSON RD.

21235.00	4.39	694.69	0.00	694.64	694.85	0.16	0.18	0.03	692.00
400.	0.	400.	0.	0.	126.	0.	192.	76.	692.00
2.03	0.00	3.17	0.00	0.060	0.035	0.060	0.035	690.30	2.00
0.001250	100.	100.	100.	2	0	0	0.00	31.00	33.00

CCHV= 0.300 CEHV= 0.500
*SECNO 21242.000

3370 NORMAL BRIDGE,NBL= 36 MIN ELTRD= 699.20 MAX ELLC= 696.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 696.30 ELREA= 696.30

D/S FACE TILLOTSON RD. FROM FOREST TRAILS SUBDIVISION PLANS

21242.00	4.36	694.56	0.00	694.61	694.89	0.24	0.01	0.04	692.00
400.	0.	400.	0.	0.	133.	0.	192.	76.	692.00
2.03	0.00	3.90	0.00	0.060	0.024	0.060	0.035	690.30	2.00
0.001320	7.	7.	7.	2	0	0	-23.33	31.00	33.00

*SECNO 21312.000

3370 NORMAL BRIDGE,NBD= 36 MIN ELTRD= 699.20 MAX ELLC= 696.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 699.20 ELREA= 699.20

U/S FACE TILLOTSON RD. FROM FOREST TRAILS SUBDIVISION PLANS

21312.00	4.06	694.[illegible]	0.00	694.70	695.31	0.27	0.10	0.02	692.40
400.	0.	400.	0.	0.	93.	0.	192.	76.	692.40
2.03	0.00	4.17	0.00	0.060	0.024	0.060	0.035	690.70	2.00
0.001635	70.	70.	70.	0	0	0	-20.05	31.00	33.00

CCHV= 0.300 CEHV= 0.500
*SECNO 21313.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 699.20 ELREA= 699.20

7 FT D/S TILLOTSON RD.

21319.00	4.18	694.88	0.00	694.83	695.05	0.17	0.01	0.03	692.40
400.	0.	400.	0.	0.	119.	0.	192.	76.	692.40
2.03	0.00	3.55	0.00	0.100	0.035	0.060	0.035	690.70	2.00
0.001458	7.	7.	7.	2	0	0	0.00	31.00	33.00

CCHV= 0.100 CEHV= 0.300
*SECNO 21727.000

3301 HV CHANGED PIPE TRAN PRINS

VALLEY SECTION FIELD BOOK STA. 9800

21727.00	3.40	695.65	0.00	695.55	695.40	0.73	1.13	0.17	694.50

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     400.       6.     392.       2.       7.      56.       2.     193.      76.    695.10
     2.05     0.90     6.95     0.93    0.100    0.035    0.060    0.035   692.26    160.64
 0.007659     408.     403.     408.        2        0        0     0.00    39.86    200.50

CCHV=   0.300 CENV=   0.500
RSECNO 22635.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       ULOSS   BANK ELEV
   Q        ULOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA     LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELTIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IHA      ICONT    CORAR    TOPWID     ENDST

        D/S SANDPIPER DR.

 22635.00     4.15   700.05     0.00   700.65   701.22     0.57     4.32     0.11   699.70
     400.       0.     366.       21.      14.      72.      14.      94.      77.    699.70
     2.10     0.08     5.10     1.58    0.100    0.035    0.060    0.035   696.70    623.33
 0.003868     1100.     903.     200.        4        0        0     0.00    53.34    676.67

RSECNO 22733.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      703.20 ELREA=      703.20

        7 FT D/S SANDPIPER DR.

 22733.00     4.14   701.34     0.00   701.34   701.51     0.16     0.25     0.05   698.90
     400.       0.     400.       0.       0.      119.       0.      195.      77.    698.90
     2.11     0.00     3.37     0.00    0.100    0.035    0.060    0.035   697.20      2.00
 0.001543     100.     100.     100.        2        0        0     0.00    31.80     33.80

CCHV=   0.300 CENV=   0.500
RSECNO 22742.000

3370 NORMAL BRIDGE,NRD= 37 MIN ELTRD=  705.00 MAX ELLC=  705.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      703.20 ELREA=      703.20

        D/S FACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

 22742.00     4.11   701.31     0.00   701.31   701.57     0.25     0.01     0.04   698.90
     400.       0.     400.       0.       0.      98.       0.      195.      77.    698.90
     2.11     0.00     3.39     0.00    0.060    0.084    0.060    0.035   697.20      2.00
 0.001552       7.       7.       7.        2        0        0   -21.10    31.80     33.80

RSECNO 22742.000

3370 NORMAL BRIDGE,NRD= 37 MIN ELTRD=  705.00 MAX ELLC=  705.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      705.25 ELREA=      705.25

        D/S FACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

 22742.00     3.91   701.41     0.30   701.41   701.69     0.20     0.12     0.01   699.80
     400.       0.     400.       0.       0.      92.       0.      195.      77.    699.80
```

2.11	0.00	4.26	0.00	0.060	0.024	0.060	0.035	697.50	2.00
0.001776	70.	70.	70.	0	0	0	-18.93	31.60	35.60

CONV= 0.100 CONV= 0.300
*SECNO 22819.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 705.25 ELREA= 705.25

WEST U/S SANDPIPER DR.

22819.00	4.33	701.53	0.00	701.53	701.75	0.19	0.01	0.13	699.20
400.	0.	400.	0.	0.	116.	0.	195.	77.	699.20
2.12	0.00	3.45	0.00	0.060	0.035	0.060	0.035	697.50	2.00
0.001664	7.	7.	7.	2	0	0	0.00	31.80	35.80

SCNV= 0.00 CEIV= 1.000
*SECNO 22927.000
2800 NAT Q1= 161.78 WSEL= 701.68 ENC Q1= 163.78 WSEL= 701.78 RATIO= 0.0000
NAT Q1= 165. RATIOS LOB,CH,ROB = 0.0562 0.9395 0.0043 WSEL= 701.73

SECNO	DEPTH	CWSEL	CRITS	QBELR	BG	HV	HL	SLOSS	BANK ELEV
Q	VLOB	ACH	VROB	QLOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TYPE	PLOB	NCH	NROB	QNL	XNCH	XCR	HTA	ELMIN	ESTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ZR2	ICONT	CORAR	TOPWID	ENDST

SCRV= MICROADJUSTMENT STATIONS= 285.0 305.0 TYPE= 4 TARGET= 0.027

U/S SANDPIPER DR.

22927.00	9.08	701.68	0.00	701.68	701.85	0.17	0.11	0.00	695.22
400.	17.	333.	7.	20.	75.	4.	195.	77.	.0120
2.12	1.03	7.35	0.00	0.100	0.338	0.130	1.025	692.60	285.75
0.000727	10.	10.	10.	1	2	0	1.12	22.44	305.02

*SECNO 22977.000

3301 DIVISION ERROR (DA=0,DB=0)

SECNO	DEPTH	CWSEL	CRITS	QBELR	BG	HV	HL	SLOSS	BANK ELEV
Q	QLOB	ACH	VROB	QLOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TYPE	WLOB	NCH	NROB	XNL	XNCH	XCR	HTA	ELMIN	ESTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ZR2	ICONT	CORAR	TOPWID	ENDST

3635 20 TRIALS ATTEMPTED WSEL/CWSE.
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

SCRV= MICROADJUSTMENT STATIONS= 285.0 305.0 TYPE= 4 TARGET= 27.000

VALLEY SECTION FIELD BOOK STA. 9C50

22977.00	5.52	704.22	704.22	704.21	705.94	1.73	0.09	0.47	700.10
400.	62.	307.	11.	25.	83.	5.	195.	77.	11.60
2.12	1.63	11.01	1.41	0.100	0.338	0.130	0.035	696.70	284.75
0.001365	30.	30.	30.	20	2	0	0.00	21.36	305.29

*SECNO 23500.000

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2800 NAT Q1= 127.37 WSEL= 707.09 ENC Q1= 127.37 WSEL= 707.19 RATIO= 0.0050
NAT Q2= 152. RATIOS LOB/CH/ROB= 0.0404 0.8957 0.0639 WSEL= 707.19

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 993.9 1013.6 TYPE= 4 TARGET= 0.032

D/S CANTON CENTER RD.

23504.00	5.73	707.12	0.00	707.09	707.30	0.26	1.24	0.15	701.90
150.	9.	371.	20.	13.	87.	22.	194.	77.	701.90
2.10	0.73	1.34	0.00	2.100	0.335	0.130	0.035	701.60	986.92
0.001039	527.	527.	527.	2	0	0	0.00	24.65	1013.57

*SECHO 23535.300
2800 NAT Q1= 101.10 WSEL= 707.14 ENC Q1= 156.20 WSEL= 707.24 RATIO= -0.0620
NAT Q2= 174. RATIOS LOB/CH/ROB= 0.0300 1.3000 0.0020 WSEL= 707.24

3470 ENCROACHMENT STATIONS= 990.7 1009.3 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 709.00 ELREA= 709.00

1 FT D/S CANTON CENTER RD.

23553.00	5.45	707.20	0.00	707.14	707.45	0.25	1.07	0.00	703.00
430.	5.	400.	0.	0.	130.	5.	194.	77.	703.00
2.17	1.01	1.03	0.00	2.100	0.339	0.130	0.035	701.75	990.70
0.001550	49.	49.	49.	1	0	0	0.00	15.60	1009.31

BCHL= 0.300 BEHV= 0.500

*SECHO 23553.300
2800 NAT Q1= 96.19 WSEL= 707.20 ENC Q1= 57.77 WSEL= 707.25 RATIO= -0.0121
NAT Q2= 51. RATIOS LOB/CH/ROB= 0.0200 1.2100 5.0000 WSEL= 707.20

3370 NORMAL BRIDGE,NRD= 29 ,IN ELTRD= 710.00 MAX ELLC= 707.75

3470 ENCROACHMENT STATIONS= 990.7 1009.3 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 709.00 ELREA= 709.00

23554.00	5.40	707.15	0.00	707.10	707.35	0.35	0.20	0.05	703.00
430.	0.	400.	0.	0.	30.	0.	194.	77.	703.00
2.17	0.00	1.03	0.00	2.100	0.092	0.200	0.035	701.75	994.77
0.001530	0.	0.	0.	0	0	0	-14.87	11.80	1009.31

*SECHO 23613.200
2800 NAT Q1= 93.11 WSEL= 707.20 ENC Q1= 56.92 WSEL= 707.25 RATIO= -0.0170
NAT Q2= 47. RATIOS LOB/CH/ROB= 0.2000 1.3000 5.0000 WSEL= 707.20

SECNO	DEPTH	WSEL	CRIWS	MINSLK	EG	IW	WP	XLOSS	BANK ELEV
0	QLOB	QCH	QROB	VLOB	ACH	AROB	VOL	TYP	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XR	ANCH	XCR	WTC	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBT	ITRIAL	I12	ICONT	CORAK	TOPWID	ESAST

3370 NORMAL BRIDGE,NRD= 29 ,IN ELTRD= 710.00 MAX ELLC= 707.65

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3470 ENCROACHMENT STATIONS= 990.7 1009.3 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.90 ELREA= 710.90

U/S RIDGE CANYON CENTER RD, FROM FIELD BOOK AND QUAD MAP

23613.00	5.37	707.27	0.00	707.20	707.62	0.35	0.12	0.00	703.15
400.	0.	400.	0.	0.	84.	0.	197.	77.	703.15
2.17	0.00	4.77	0.00	0.100	0.026	0.100	0.035	701.90	990.70
0.002363	59.	93.	56.	5	0	0	-14.25	18.80	1004.35

CCHV= 0.300 CEHV= 0.500

*SECNO 23614.000

2800 WAT QT= 102.49 WSEL= 707.33 ENC QT= 103.43 JSEL= 707.43 RATIO= -0.0287

WAT QT= 905. VELOCITY LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 707.43

3470 ENCROACHMENT STATIONS= 990.7 1009.3 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.90 ELREA= 710.90

23614.00	5.5	707.41	0.00	707.33	707.65	0.24	0.30	0.13	703.15
400.	0.	400.	0.	0.	101.	0.	197.	77.	703.15
2.17	3.33	4.95	0.00	0.100	0.035	0.100	0.035	701.90	990.70
0.001797	1.	1.	1.	2	3	6	0.00	16.80	1009.30

*SECNO 23615.000

2800 WAT QT= 67.24 WSEL= 707.19 ENC QT= 67.24 JSEL= 707.29 RATIO= 0.0000

WAT QT= 70. VELOCITY LOB,CH,ROB= 0.0549 0.5310 0.0742 WSEL= 707.29

3301 HV CHANGED MORE THAN ##VAR#

23615.00	9.71	707.43	0.00	707.19	707.50	0.38	-0.12	0.29	702.50
420.	15.	374.	10.	11.	56.	9.	197.	77.	702.50
2.17	1.33	7.50	0.19	0.100	0.035	0.100	0.035	702.00	991.85
0.001550	49.	44.	49.	2	0	0	0.00	15.50	1007.35

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SECNO	CJSEL	DIFKWS	EG	TOPWID	BLOB	BCH	BROB	PERENC	STENCL	STCHL	STCHR	STENCR
5237.000	669.52	0.00	670.33	169.81	36.55	476.20	227.27	0.00	0.00	1526.00	1534.00	0.00
5237.000	669.59	0.05	670.45	76.37	24.56	490.07	229.25	0.04	1522.27	1526.00	1534.00	1013.17
5735.000	670.93	0.00	671.39	67.00	69.20	560.60	109.93	67.00	2060.50	2094.00	2109.00	2133.50
5735.000	671.04	0.01	671.29	67.00	70.32	557.88	111.29	67.00	2060.50	2094.00	2109.00	2133.50
5765.000	671.17	0.00	671.27	42.00	0.00	740.00	0.00	0.00	0.00	0.00	42.00	0.00
5785.000	671.27	0.10	671.36	42.00	0.00	740.00	0.00	0.00	0.00	0.00	42.00	0.00
6199.000	672.39	0.00	672.67	42.00	0.00	740.00	0.00	0.00	0.00	0.00	42.00	0.00
6199.000	672.69	0.10	672.77	42.00	0.00	740.00	0.00	0.00	0.00	0.00	42.00	0.00
6249.000	672.54	0.00	672.77	142.00	203.64	361.12	155.24	142.00	429.00	494.00	503.00	571.00
6249.000	672.65	0.11	672.88	142.00	205.29	574.69	190.05	142.00	429.00	494.00	503.00	571.00
6687.000	673.06	0.00	673.01	448.36	283.94	141.67	311.15	0.00	0.00	1223.00	1226.00	0.00
6687.000	673.07	0.08	673.11	437.62	284.43	145.58	309.99	0.05	1002.56	1223.00	1226.00	1450.20
7453.000	673.26	0.00	673.58	200.00	91.96	563.18	82.87	200.00	900.00	993.00	1006.00	1100.00
7453.000	673.35	0.09	673.65	200.00	93.93	557.13	86.95	200.00	900.00	993.00	1006.00	1100.00
7503.000	673.37	0.02	673.64	200.00	90.30	573.30	76.32	200.00	900.00	993.50	1006.50	1100.00
7503.000	673.46	0.09	673.73	200.00	92.44	565.21	82.55	200.00	900.00	993.50	1006.50	1100.00
7543.000	674.54	0.00	674.66	200.00	140.35	457.80	131.76	200.00	900.00	993.50	1006.50	1100.00
7543.000	674.53	0.09	674.63	200.00	141.25	436.65	132.69	200.00	900.00	993.50	1006.50	1100.00
7593.000	674.53	0.00	674.69	200.00	256.43	375.90	127.48	200.00	900.00	993.50	1007.00	1100.00
7593.000	674.57	0.02	674.71	200.00	237.55	376.19	126.21	200.00	900.00	993.50	1007.00	1100.00
8737.000	675.11	0.00	675.17	556.75	151.66	342.15	246.17	0.00	0.00	392.00	408.00	0.00
8737.000	675.13	0.02	675.21	541.30	150.00	347.35	244.25	0.05	362.47	392.00	408.00	745.00
9367.000	675.41	0.00	675.70	222.49	113.56	547.71	74.32	0.00	0.00	632.00	647.00	0.00
9367.000	675.49	0.05	675.86	171.32	108.99	565.53	67.37	0.04	607.09	632.00	647.00	789.00
10135.000	676.39	0.00	676.57	44.00	10.09	699.96	61.95	44.00	978.00	990.65	1009.35	1022.00
10135.000	676.49	0.10	676.62	44.00	10.36	699.28	62.11	44.00	978.00	990.65	1009.35	1022.00
10164.000	676.47	0.00	676.50	16.70	0.00	740.00	0.00	0.00	0.00	990.65	1009.35	0.00
10164.000	676.53	0.06	676.55	16.70	0.00	740.00	0.00	0.00	0.00	990.65	1009.35	0.00
10185.000	676.97	0.00	676.50	16.70	0.00	740.00	0.00	0.00	0.00	990.65	1009.35	0.00
10185.000	676.26	0.00	676.55	16.70	0.00	740.00	0.00	0.00	0.00	990.65	1009.35	0.00
10249.000	676.78	0.01	676.84	42.20	0.00	740.00	0.00	0.00	0.00	992.50	1007.10	0.00
10249.000	676.92	0.00	676.83	42.20	0.00	740.00	0.00	0.00	0.00	992.50	1007.10	0.00
10250.000	676.86	0.00	676.86	14.20	0.00	740.00	0.00	0.00	0.00	992.50	1007.10	0.00
10250.000	676.76	0.05	676.53	42.20	0.00	740.00	0.00	0.00	0.00	992.50	1007.10	0.00
10299.000	676.43	0.00	677.23	114.00	99.33	637.26	79.27	114.00	945.00	992.50	1007.10	1057.00
10299.000	676.49	0.06	677.20	114.00	81.93	657.84	80.36	114.00	945.00	992.50	1007.10	1057.00
11267.000	678.15	0.00	678.36	431.66	53.12	620.23	56.65	0.00	0.00	1380.00	1415.00	0.00
11267.000	678.24	0.09	678.41	429.90	58.97	631.55	59.38	0.00	1217.00	1380.00	1415.00	1473.00

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FORM 1411 OB-PRINTED BY ROTARY MANIFOLD FORMS.

SECND	CHSEL	DIFKHS	EG	TOP.1D	QLOB	ACH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
12334.000	678.88	0.00	679.00	57.00	69.65	628.57	41.78	57.00	571.50	584.00	616.00	628.50
12334.000	678.94	0.07	679.07	57.00	69.88	628.79	41.92	57.00	571.50	584.00	616.00	628.50
12354.000	678.97	0.00	679.04	32.00	0.00	740.30	0.00	0.00	0.00	584.00	616.00	0.00
12354.000	678.94	0.08	679.13	32.00	0.00	740.00	0.00	0.00	584.00	584.00	616.00	616.00
12411.000	679.18	0.00	679.35	32.00	0.00	740.30	0.00	0.00	0.00	584.00	616.00	0.00
12411.000	679.28	0.10	679.45	32.00	0.00	740.30	0.00	0.00	0.00	584.00	616.00	0.00
12461.000	679.31	0.00	679.52	69.69	87.22	534.86	57.92	0.00	0.00	584.00	616.00	0.00
12461.000	679.40	0.09	679.49	64.26	84.62	536.57	49.41	0.00	568.66	584.00	616.00	551.15
13062.000	679.52	0.00	679.72	106.78	94.20	540.47	105.33	0.00	0.00	137.00	162.00	0.00
13062.000	679.60	0.08	679.82	80.57	95.03	557.57	97.35	0.04	104.34	137.00	162.00	169.92
13087.000	681.30	0.00	681.51	102.92	92.22	288.92	59.16	0.00	0.00	413.00	439.00	0.00
15087.000	681.50	0.10	681.61	44.95	45.58	297.52	50.90	0.04	404.75	413.00	439.00	449.75
16487.000	682.66	0.00	682.88	53.97	23.20	354.15	22.65	0.00	0.00	360.00	386.00	0.00
16487.000	682.76	0.10	683.02	33.14	12.36	373.71	11.93	0.05	356.17	360.00	386.00	391.50
16787.000	683.30	0.00	683.52	33.41	15.50	367.85	16.77	0.00	0.00	13.00	15.00	0.00
16987.000	683.90	0.10	684.39	33.86	15.92	366.72	17.36	1629.00	1.00	13.00	15.00	1630.00
17484.000	686.27	0.00	687.36	22.53	29.53	317.30	53.17	0.00	0.00	1526.00	1534.00	0.00
17484.000	686.21	-0.05	687.31	28.79	20.20	316.09	52.07	0.00	0.00	1526.00	1534.00	0.00
17533.000	686.42	0.00	687.03	10.00	0.00	400.00	0.00	0.00	0.00	1495.00	1505.00	0.00
17533.000	686.39	-0.03	687.07	10.00	0.00	400.00	0.00	0.00	0.00	1495.00	1505.00	0.00
17534.000	686.36	0.00	687.15	10.00	0.00	400.30	0.00	0.00	0.00	1495.00	1505.00	0.00
17534.000	686.32	-0.03	687.15	10.00	0.00	400.30	0.00	0.00	0.00	1495.00	1505.00	0.00
17644.000	687.77	0.30	688.23	15.00	3.00	420.10	0.30	45.00	1477.50	1495.00	1505.00	1522.50
17644.000	687.93	0.31	688.23	15.00	3.00	420.20	0.30	45.00	1477.50	1495.00	1505.00	1522.50
17645.000	688.46	0.30	689.34	10.00	0.00	400.00	0.00	45.00	1477.50	1495.00	1505.00	1522.50
17645.000	688.47	0.31	689.35	10.00	0.00	400.00	0.00	45.00	1477.50	1495.00	1505.00	1522.50
17694.000	689.27	0.30	689.30	96.97	34.07	275.43	29.60	1470.00	1440.00	1495.00	1505.00	1550.00
17694.000	689.28	0.31	689.31	96.44	34.66	275.25	30.09	1470.00	1440.00	1495.00	1505.00	1550.00
18827.000	693.29	1.00	693.33	65.30	40.32	319.35	40.32	0.00	0.00	188.00	198.00	0.00
18827.000	693.29	1.00	693.37	65.30	32.93	334.15	32.92	0.00	181.70	188.00	198.00	195.25
20054.000	691.03	0.00	691.23	92.97	6.32	277.20	16.91	1.00	0.00	286.00	311.00	0.00
20054.000	691.95	0.12	692.22	30.11	0.00	396.07	1.93	0.06	286.00	286.00	311.00	315.12
21127.000	694.30	0.00	694.57	57.24	26.26	347.39	26.06	0.00	0.00	26.00	58.00	0.00
21127.000	694.35	0.05	694.61	57.83	27.21	345.36	27.31	347.00	0.00	26.00	58.00	400.00
21231.000	694.38	0.00	694.65	17.65	0.23	420.20	0.20	0.00	0.00	2.00	32.00	0.00
21235.000	694.69	0.05	694.85	21.23	0.00	420.20	0.30	0.00	0.00	2.00	33.00	0.00
21242.000	694.61	0.30	694.85	21.65	0.00	420.20	0.30	0.00	0.00	2.00	33.00	0.00
21242.000	694.56	0.35	694.85	21.65	0.00	420.20	0.30	0.00	0.00	2.00	33.00	0.00

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FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	CWSEL	DIFFWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
21312.000	694.70	0.00	694.97	31.00	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
21312.000	694.74	0.05	695.01	31.00	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
21319.000	694.84	0.04	695.01	31.00	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
21319.000	694.88	0.04	695.05	31.00	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
21727.000	695.65	0.00	695.39	39.64	6.40	391.96	1.64	0.00	0.00	173.00	194.00	0.00
21727.000	695.65	0.01	695.42	39.74	8.50	391.90	1.70	0.00	0.00	173.00	194.00	0.00
22635.000	700.01	0.00	700.22	59.37	72.61	355.58	21.52	0.00	0.00	637.00	663.00	0.00
22635.000	700.85	-0.00	700.22	59.36	72.85	365.73	21.42	0.00	0.00	637.00	663.00	0.00
22735.000	701.34	0.00	701.51	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22735.000	701.34	-0.00	701.51	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22748.000	701.41	0.00	701.57	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22748.000	701.41	-0.00	701.57	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22812.000	701.41	0.00	701.69	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22812.000	701.41	-0.00	701.69	31.80	0.00	400.00	0.00	0.00	0.00	2.00	33.00	0.00
22819.000	701.35	0.00	701.73	31.80	0.00	400.00	1.00	0.00	0.00	2.00	33.00	0.00
22819.000	701.35	-0.00	701.73	31.80	0.00	400.00	1.00	0.00	0.00	2.00	33.00	0.00
22927.000	701.68	0.00	701.84	41.56	21.71	376.31	1.47	0.00	0.00	291.50	308.00	0.00
22927.000	701.67	-0.00	701.83	41.56	21.73	376.27	1.47	0.00	0.00	291.50	308.00	0.00
* 22977.000	704.21	0.00	705.04	21.55	62.51	329.76	10.73	27.00	290.00	297.00	305.00	307.00
* 22977.000	704.22	0.00	705.04	21.56	62.52	329.75	10.73	27.00	290.00	297.00	305.00	307.00
23504.000	707.09	0.00	707.33	55.47	15.07	359.03	25.10	0.00	0.00	992.00	1008.00	0.00
23504.000	707.09	0.00	707.33	55.47	15.07	359.03	25.10	0.00	0.00	992.00	1008.00	1013.57
23553.000	707.10	0.00	707.45	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	0.00
23553.000	707.10	0.00	707.45	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	1339.30
23554.000	707.10	0.00	707.45	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	0.00
23554.000	707.10	0.00	707.45	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	1339.30
23613.000	707.30	0.00	707.46	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	0.00
23613.000	707.37	0.07	707.62	58.50	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	1339.30
23614.000	707.35	0.00	707.53	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	0.00
23614.000	707.41	0.07	707.65	58.60	0.00	400.00	0.00	0.00	990.70	998.70	1009.30	1339.30
23663.000	707.19	0.00	707.84	82.34	31.91	331.74	17.31	0.00	0.00	995.00	1005.00	0.00
23663.000	707.25	0.05	707.85	75.50	45.25	370.25	0.00	0.01	991.69	995.00	1005.00	1007.33

WILLOW CREEK CANTON TWP.

SUMMARY PRINTOUT TABLE 150

SECND	XLSH	ELTRD	EL.C	ELSIP	J	CASEL	CHLS	EG	TOPWS	VOH	AREA	.01A
0.000	0.00	0.00	0.00	656.00	740.00	667.10	0.00	667.20	2.11	2.90	535.64	509.14
0.000	0.00	0.00	0.00	656.00	740.00	667.20	0.00	667.37	2.11	2.92	499.56	502.86
500.000	670.00	0.00	0.00	655.10	740.00	667.27	0.00	667.34	2.[illegible]	2.10	954.49	515.41
500.000	670.00	0.00	0.00	656.10	740.00	667.37	0.00	667.44	2.05	2.90	937.49	515.72
1370.000	770.00	0.00	0.00	657.50	740.00	667.45	0.00	667.53	2.64	3.21	929.67	452.28
1370.000	770.00	0.00	0.00	657.50	740.00	667.53	0.00	667.62	2.44	3.09	982.64	475.60
1419.000	65.00	0.00	0.00	657.30	740.00	667.52	0.00	667.55	1.16	1.51	1054.17	668.47
1419.000	65.00	0.00	0.00	657.30	740.00	667.5[illegible]	0.00	667.64	1.00	1.66	1143.99	708.33
1420.000	1.00	665.10	665.30	657.30	740.00	667.50	0.00	667.57	5.61	2.61	791.60	306.99
1420.000	1.00	665.10	665.30	657.30	740.00	667.59	0.00	667.66	5.20	2.49	839.65	324.57
1460.000	40.00	665.10	665.30	657.30	740.00	667.62	0.00	667.69	3.74	2.60	797.56	309.07
1460.000	40.00	665.10	665.30	657.30	740.00	667.61	0.00	667.68	3.15	2.48	842.66	325.77
1461.000	1.00	0.00	0.00	657.30	740.00	667.57	0.00	667.60	1.12	1.68	1120.27	698.68
1461.000	1.00	0.00	0.00	657.30	740.00	667.[illegible]	0.00	667.68	1.06	1.64	1163.51	719.67
1510.000	49.00	0.00	0.00	657.50	740.00	667.56	0.00	667.63	2.40	3.66	1[illegible]8.12	477.67
1510.000	49.00	0.00	0.00	657.50	740.00	667.64	0.00	667.71	2.22	2.96	1[illegible]6.15	498.75
2987.000	1477.00	0.00	0.00	661.10	740.00	668.57	0.00	668.12	6.60	3.61	549.95	226.05
2987.000	1477.00	0.00	0.00	661.10	740.00	668.15	0.00	668.25	5.96	3.93	742.26	280.51
3990.000	1003.00	0.00	0.00	661.00	740.00	668.49	0.00	668.58	2.65	2.53	1[illegible]7.10	414.25
3990.000	1003.00	0.00	0.00	661.00	740.00	668.54	0.00	668.61	2.50	2.32	1[illegible]2.0	452.51
4027.000	30.00	0.00	0.00	660.10	740.00	668.56	0.00	668.60	4.39	2.51	295.22	353.25
4028.000	30.00	0.00	0.00	660.10	740.00	668.57	0.00	668.67	4.25	2.46	298.29	350.87
4237.000	210.00	671.10	667.20	660.30	740.00	669.24	0.00	669.32	3.52	2.[illegible]	317.42	394.56
4237.000	210.00	671.10	667.20	660.30	740.00	669.31	0.00	669.39	3.18	2.51	3[illegible].53	380.56
4237.000	50.00	0.00	0.00	662.20	740.00	669.46	0.00	669.54	1.64	2.08	351.50	577.72
4237.000	50.00	0.00	0.00	662.20	740.00	669.56	0.00	669.64	1.54	2.05	372.01	529.15
5237.000	95.00	0.00	0.00	662.50	740.00	669.52	666.24	670.53	13.89	3.53	382.00	183.64
5237.000	95.00	0.00	0.00	662.50	740.00	669.53	0.00	671.63	12.45	4.14	715.80	345.51
5735.200	498.00	0.00	0.00	662.90	740.00	670.53	0.00	671.15	7.48	4.66	287.61	270.56
5735.200	498.00	0.00	0.00	662.90	740.00	671.04	0.00	671.29	7.07	4.57	305.03	276.26
5915.000	90.00	0.00	0.00	663.00	740.00	671.17	0.00	671.27	4.[illegible]	2.[illegible]	2[illegible].44	350.06
5915.000	90.00	0.00	0.00	663.00	740.00	671.27	0.00	671.36	4.28	2.[illegible]	2[illegible].37	357.00
6199.000	604.00	677.00	670.10	664.60	740.00	672.56	0.00	672.67	3.45	2.52	319.51	398.15
6199.000	604.00	677.20	670.10	663.60	740.00	672.64	0.00	672.77	3.32	2.29	323.71	406.09
6465.000	90.00	0.00	0.00	664.10	740.00	672.64	0.00	672.77	0.39	1.20	4[illegible].12	241.14
6465.000	90.00	0.00	0.00	664.10	740.00	672.65	0.00	672.86	0.39	1.15	4[illegible].11	252.45

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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS,

SECNO	XLCH	ELTAD	ELLC	ELMIN	Q	CHSEL	CHINS	EG	TOKAS	VCH	AREA	.01K
6667.003	438.00	0.00	3.03	664.50	740.00	672.95	0.00	673.03	3.62	3.34	1174.48	359.02
6667.003	434.03	1.03	3.03	664.50	740.00	673.07	1.03	673.11	3.58	3.39	1133.03	343.26
7493.030	756.00	0.00	0.03	664.92	740.03	673.36	2.03	673.54	8.24	9.30	357.46	246.04
7533.030	756.00	0.00	0.00	664.50	740.03	673.39	0.03	673.65	8.30	9.07	344.05	236.07
7503.030	50.00	0.00	0.00	664.04	740.03	673.44	0.00	673.66	9.72	4.70	372.25	237.35
7543.030	50.00	0.00	0.00	664.24	740.03	673.71	0.03	673.77	9.11	4.86	361.25	244.26
7543.030	40.00	0.00	0.00	664.24	740.03	673.71	0.00

SECND	XLCM	ELTRO	ELLC	ELMIN	Q	LUSEL	CRIWS	EG	10K*S	VCM	AREA	.01K
15087.300	2025.00	0.00	0.00	675.70	400.00	681.40	0.00	681.51	5.92	3.09	231.21	164.46
15387.300	2025.00	0.00	0.00	675.70	400.00	681.50	0.00	681.69	5.91	3.12	189.90	164.59
16487.300	1402.00	0.00	0.00	679.20	400.00	682.66	0.00	682.88	18.09	3.93	124.30	94.05
16487.300	1402.00	0.00	0.00	679.20	400.00	682.76	0.00	683.00	18.48	4.05	111.99	93.06
16987.300	503.00	0.00	0.00	680.50	400.00	683.80	0.00	684.32	45.01	6.00	80.14	59.62
16987.300	502.00	0.00	0.00	680.50	400.00	683.90	0.00	684.39	45.4	5.81	83.33	62.94
17406.300	497.00	0.00	0.00	681.00	400.00	686.27	0.00	687.30	69.64	9.20	64.87	47.96
17406.300	497.00	0.00	0.00	681.00	400.00	686.22	0.00	687.34	72.47	9.41	63.55	46.99
17553.300	49.00	0.00	0.00	682.30	400.00	686.62	0.00	688.08	117.39	10.33	36.72	36.92
17553.300	49.00	0.00	0.00	682.30	400.00	686.59	0.00	688.17	122.69	10.45	35.37	36.41
17554.300	1.00	688.70	688.00	682.30	400.00	686.54	685.67	688.13	59.54	10.76	37.17	40.04
17554.300	1.00	688.70	688.00	682.30	400.00	686.53	685.87	688.19	101.43	10.85	36.95	39.72
17644.300	110.00	688.70	686.40	682.70	400.00	687.96	0.00	689.23	88.63	8.95	44.70	46.20
17644.300	110.00	688.70	686.40	682.70	400.00	687.99	0.00	689.23	89.61	8.96	44.26	45.95
17645.300	1.00	0.00	0.00	682.90	400.00	688.45	0.00	689.56	45.8	7.58	53.06	59.07
17645.300	1.00	0.00	0.00	682.90	400.00	688.47	0.00	689.55	45.58	7.53	53.15	59.19
17694.300	49.00	0.00	0.00	683.00	400.00	689.27	0.00	689.50	10.66	4.57	190.35	122.50
17694.300	49.00	0.00	0.00	683.00	400.00	689.28	0.00	689.51	10.3	4.57	192.39	122.50
18827.300	1133.00	0.00	0.00	685.00	400.00	690.41	0.00	690.53	8.45	3.05	176.21	136.39
18827.300	1133.00	0.00	0.00	685.00	400.00	690.44	0.00	690.57	8.98	3.17	155.45	135.69
20034.300	1227.00	0.00	0.00	687.70	400.00	691.83	0.00	692.30	20.79	4.11	112.02	87.72
20034.300	1227.00	0.00	0.00	687.70	400.00	691.85	0.00	692.32	21.5	4.1	97.46	85.27
21127.300	1093.00	0.00	0.00	689.90	400.00	693.30	0.00	694.57	23.64	4.64	134.41	96.01
21127.000	1093.00	0.00	0.00	689.90	400.00	694.51	0.00	695.64	23.49	4.29	118.88	82.53
21235.000	108.00	0.00	0.00	690.30	400.00	694.64	0.00	694.83	13.10	3.21	124.65	110.53
21235.000	108.00	0.00	0.00	690.30	400.00	694.64	0.00	695.13	12.81	3.17	120.01	112.79
21242.000	7.00	699.20	696.30	690.30	400.00	694.66	0.00	694.85	13.65	3.47	111.55	100.[illegible]
21242.000	7.00	699.20	696.30	690.30	400.00	694.66	0.00	694.84	13.25	3.90	102.57	109.90
21312.000	70.00	699.20	696.70	690.70	400.00	695.70	0.00	696.97	16.09	4.23	95.03	97.33
21312.000	70.00	699.20	696.70	690.70	400.00	695.74	0.00	695.01	16.38	4.17	90.54	98.97
21319.000	7.00	0.00	0.00	690.70	400.00	695.83	0.00	695.01	14.96	3.35	119.35	103.35
21727.000	403.00	0.00	0.00	692.25	400.00	695.65	0.00	696.39	77.50	6.97	65.15	45.46
21727.300	403.00	0.00	0.00	692.24	400.00	695.66	0.00	696.40	78.38	6.95	64.43	45.15
22833.300	1106.00	0.00	0.00	694.70	400.00	700.45	0.00	701.22	35.4	5.04	89.07	64.41
22833.000	1106.00	0.00	0.00	694.70	400.00	700.45	0.00	701.22	50.69	5.10	93.60	64.41
22933.000	100.00	0.00	0.00	697.20	400.00	701.34	0.00	701.51	13.47	3.37	118.67	101.00
22933.000	100.00	0.00	0.00	697.22	400.00	701.34	0.00	701.51	14.14	3.47	113.84	[illegible]

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FORM 1411-GO PRINTED BY ROTARY LEINFOLD FORMS.

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRINS	EG	10K*S	VCH	AREA	.01K
	22742.000	7.00	705.00	703.20	697.20	400.00	701.31	0.00	701.57	15.51	4.09	97.90	101.57
	22792.000	7.00	705.00	703.20	697.20	400.00	701.31	0.00	701.57	15.52	4.09	97.89	101.54
	22803.000	70.00	705.00	703.50	697.30	400.00	701.41	0.00	701.69	17.75	4.26	93.85	94.93
	22892.000	70.00	705.00	703.50	697.30	400.00	701.41	0.00	701.59	17.76	4.26	93.84	94.91
	22819.000	7.00	0.00	0.00	697.50	400.00	701.55	0.00	701.73	16.64	3.45	115.86	98.05
	22879.000	7.00	0.00	0.00	697.50	400.00	701.55	0.00	701.73	16.66	3.45	115.87	98.04
	22927.001	100.00	0.00	0.00	692.60	400.00	701.06	0.00	701.84	6.19	3.26	154.52	160.70
	22927.000	100.00	0.00	0.00	692.60	400.00	701.69	0.00	701.85	7.07	3.33	154.55	150.47
*	22977.000	50.00	0.00	0.00	698.70	400.00	704.21	704.21	705.94	113.95	11.61	59.32	57.47
*	22977.001	50.00	0.00	0.00	698.70	400.00	704.22	704.22	705.94	113.95	11.61	59.32	57.47
	23304.000	537.00	0.00	0.00	701.40	400.00	707.06	0.00	707.33	9.06	4.12	137.61	127.37
	23504.000	537.00	0.00	0.00	701.40	400.00	707.12	0.00	707.38	10.59	4.24	122.51	124.06
	23553.000	49.00	0.00	0.00	701.75	400.00	707.14	0.00	707.40	15.63	4.06	98.62	101.19
	23553.001	49.00	0.00	0.00	701.75	400.00	707.23	0.00	707.49	16.59	4.02	99.56	92.70
	23554.000	1.00	710.00	707.70	701.75	400.00	707.10	0.00	707.45	17.55	4.55	94.23	96.02
	23554.010	1.00	710.00	707.70	701.75	400.00	707.15	0.00	707.50	20.38	4.73	94.25	86.84
	23613.000	59.00	710.00	707.85	701.90	400.00	707.20	0.00	707.55	17.69	4.78	93.69	95.11
	23613.010	59.00	710.00	707.85	701.90	400.00	707.27	0.00	707.62	20.63	4.77	93.65	86.08
	23614.000	1.00	0.00	0.00	701.90	400.00	707.33	0.00	707.59	15.23	4.52	94.66	132.49
	23614.010	1.00	0.00	0.00	701.90	400.00	707.41	0.00	707.66	17.87	3.96	103.94	95.92
	23663.000	49.00	0.00	0.00	702.05	400.00	707.39	0.00	707.94	33.39	7.31	76.99	67.24
	23663.010	49.00	0.00	0.00	702.05	400.00	707.47	0.00	708.01	33.39	7.33	76.96	66.94

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WILLOW CREEK CANTON TWP.

SUMMARY PRINTOUT TABLE 150

SECTO	U	DUBE	DIFWSF	DIFWSR	DIFKPS	TCPHID	XLOI
0.000	740.00	667.10	0.00	0.00	0.00	156.66	0.00
0.000	740.00	667.20	0.00	0.00	0.10	112.64	0.00
650.000	740.00	667.27	0.00	0.17	0.00	491.15	500.00
650.000	740.00	667.17	0.00	0.17	0.00	221.99	500.00
1370.000	740.00	667.45	0.00	0.17	0.00	526.00	770.00
1370.000	740.00	667.53	0.00	0.16	0.10	524.00	770.00
1419.000	740.00	667.52	0.00	0.03	0.00	526.00	49.00
1419.000	740.00	667.51	0.00	0.07	0.09	526.00	49.00
1420.000	740.00	667.50	0.00	-0.02	0.00	526.00	1.00
1420.000	740.00	667.59	0.00	-0.01	0.09	526.00	1.00
1460.000	740.00	667.52	0.00	0.03	0.00	526.00	40.00
1460.000	740.00	667.51	0.00	0.03	0.09	526.00	40.00
1461.000	740.00	667.57	0.00	0.04	0.00	526.00	1.00
1461.000	740.00	667.65	0.00	0.03	0.08	526.00	1.00
1510.000	740.00	667.55	0.00	-0.01	0.00	526.00	49.00
1510.000	740.00	667.64	0.00	-0.01	0.09	526.00	49.00
2987.000	740.00	668.07	0.00	0.52	0.00	515.00	1477.00
2987.000	740.00	668.13	0.00	0.49	0.06	575.15	1477.00
3579.300	740.00	668.69	0.00	0.11	0.00	67.00	972.00
3579.300	740.00	668.57	0.00	0.03	0.07	67.00	972.00
4029.000	740.00	668.50	0.00	0.02	0.00	42.00	50.00
4029.000	740.00	668.57	0.00	0.01	0.07	42.00	50.00
4237.000	740.00	669.46	0.00	0.20	0.00	42.00	201.00
4237.000	740.00	669.33	0.00	0.20	0.07	42.00	201.00
4287.000	740.00	669.48	0.00	0.06	0.00	142.00	50.00
4287.000	740.00	669.55	0.00	0.03	0.07	142.00	50.00
5537.000	740.00	669.58	0.00	0.04	0.00	189.81	650.00
5537.000	740.00	669.51	0.00	0.01	0.06	70.37	650.00
5735.000	740.00	670.92	0.00	1.41	0.00	67.00	498.00
5735.000	740.00	671.04	0.00	1.45	0.11	67.00	498.00
5763.150	740.00	671.17	0.00	0.24	0.00	42.00	50.00
5763.150	740.00	671.17	0.00	0.28	0.10	42.00	50.00
6199.000	740.00	672.59	0.00	1.42	0.00	42.00	414.00
6199.000	740.00	672.69	0.00	1.42	0.10	42.00	414.00
6249.000	740.00	672.56	0.00	-0.13	0.00	142.00	50.00
6249.000	740.00	672.67	0.00	-0.13	0.11	142.00	50.00

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FORM 1411-GO PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6687.000	740.00	672.99	0.00	0.45	0.00	469.36	438.00
6687.000	740.00	673.07	0.00	0.42	0.08	437.02	438.00
7453.000	740.00	673.26	0.00	0.27	0.09	200.00	766.00
7453.000	740.00	673.35	0.00	0.27	0.09	200.00	766.00
7503.000	740.00	673.30	0.00	0.12	0.08	200.00	50.00
7503.000	740.00	673.46	0.00	0.11	0.09	200.00	50.00
7543.000	740.00	674.56	0.00	1.11	0.02	200.00	40.00
7543.000	740.00	674.56	0.00	1.11	0.02	200.00	40.00
7593.000	740.00	674.55	0.00	0.01	0.00	200.00	50.00
7593.000	740.00	674.57	0.00	0.01	0.02	200.00	50.00
8737.000	740.00	675.11	0.00	0.55	0.00	555.73	1144.00
8737.000	740.00	675.13	0.00	0.55	0.03	331.36	1144.00
9507.000	740.00	675.44	0.00	0.34	0.00	222.23	850.00
9507.000	740.00	675.49	0.00	0.26	0.05	171.32	850.00
10135.000	740.00	675.92	0.00	0.55	0.00	44.00	546.00
10135.000	740.00	676.05	0.00	0.56	0.06	44.00	546.00
10184.000	740.00	675.97	0.00	-0.03	0.00	18.70	49.00
10184.000	740.00	676.03	0.00	-0.03	0.06	18.70	49.00
10185.000	740.00	675.97	0.00	0.00	0.00	18.70	1.00
10185.000	740.00	676.03	0.00	0.00	0.06	18.70	1.00
10249.000	740.00	675.85	0.00	-0.11	0.00	14.20	64.00
10249.000	740.00	675.92	0.00	-0.11	0.06	14.20	64.00
10250.000	740.00	675.86	0.00	0.00	0.00	14.20	1.00
10250.000	740.00	675.92	0.00	0.00	0.06	14.20	1.00
10299.000	740.00	676.43	0.00	0.57	0.00	116.00	49.00
10299.000	740.00	676.49	0.00	0.57	0.06	116.00	49.00
11257.000	740.00	678.13	0.00	1.72	0.00	401.56	986.00
11257.000	740.00	678.13	0.00	1.69	0.03	225.50	986.00
12304.000	740.00	678.88	0.00	0.73	0.00	57.00	1017.00
12304.000	740.00	678.96	0.00	0.73	0.07	57.00	1017.00
12354.000	740.00	678.87	0.00	-0.09	0.00	32.00	50.00
12354.000	740.00	678.94	0.00	-0.09	0.08	32.00	50.00
12411.000	740.00	679.13	0.00	0.33	0.00	32.00	57.00
12411.000	740.00	679.21	0.00	0.34	0.10	32.00	57.00
12461.000	740.00	679.37	0.00	0.13	0.00	89.83	50.00
12461.000	740.00	679.43	0.00	0.11	0.09	81.26	50.00
13062.000	740.00	679.52	0.00	0.21	0.00	106.78	601.00
13062.000	740.00	679.60	0.00	0.20	0.08	80.57	601.00

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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15067.000	400.00	681.40	0.00	1.88	0.00	162.92	2025.00
15067.000	400.00	681.50	0.00	1.90	0.10	44.95	2025.00
16487.000	400.00	682.65	0.00	1.27	0.00	53.97	1400.00
16487.000	400.00	682.76	0.00	1.26	0.10	35.14	1400.00
16987.000	400.00	683.80	0.00	1.14	0.00	33.41	500.00
16987.000	400.00	683.90	0.00	1.15	0.10	33.86	500.00
17484.000	400.00	686.27	0.00	2.46	0.00	22.95	497.00
17484.000	400.00	686.22	0.00	2.31	-0.05	22.79	497.00
17533.000	400.00	686.42	0.00	0.13	0.00	10.00	49.00
17533.000	400.00	686.39	0.00	0.17	-0.03	10.00	49.00
17534.000	400.00	686.36	0.00	-0.06	0.00	10.00	1.00
17534.000	400.00	686.33	0.00	-0.06	-0.03	10.00	1.00
17644.000	400.00	687.98	0.00	1.62	0.00	10.00	110.00
17644.000	400.00	687.99	0.00	1.66	0.01	10.00	110.00
17645.000	400.00	688.46	0.00	0.45	0.00	10.00	1.00
17645.000	400.00	688.47	0.00	0.46	0.01	10.00	1.00
17694.000	400.00	689.27	0.00	0.81	0.00	96.24	49.00
17694.000	400.00	689.28	0.00	0.81	0.01	96.44	49.00
18027.000	400.00	690.41	0.00	1.14	0.00	65.30	1133.00
18027.000	400.00	690.44	0.00	1.16	0.03	46.59	1133.00
20054.000	400.00	691.53	0.00	1.42	0.00	52.67	1227.00
20054.000	400.00	691.73	0.00	1.51	0.10	50.11	1227.00
21127.000	400.00	694.35	0.00	2.47	0.00	57.04	1073.00
21127.000	400.00	694.38	0.00	2.43	0.08	57.05	1073.00
21235.000	400.00	694.64	0.00	0.33	0.00	31.80	108.00
21235.000	400.00	694.65	0.00	0.30	0.03	31.80	108.00
21242.000	400.00	694.61	0.00	-0.03	0.00	31.80	7.00
21242.000	400.00	694.66	0.00	-0.03	0.05	31.80	7.00
21312.000	400.00	694.70	0.00	0.09	0.00	31.80	70.00
21312.000	400.00	694.74	0.00	0.09	0.05	31.80	70.00
21319.000	400.00	694.83	0.00	0.14	0.00	31.80	7.00
21319.000	400.00	694.88	0.00	0.13	0.04	31.80	7.00
21727.000	400.00	695.65	0.00	0.82	0.00	39.66	408.00
21727.000	400.00	695.69	0.00	0.76	0.04	39.66	408.00
22635.000	400.00	700.39	0.00	5.20	0.00	53.37	908.00
22635.000	400.00	700.35	0.00	5.19	-0.00	53.34	908.00
22735.000	400.00	701.34	0.00	0.48	0.00	31.80	100.00
22735.000	400.00	701.34	0.00	0.49	-0.00	31.80	100.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	22742.000	400.00	701.39	0.00	-0.03	0.00	31.80	7.90
	22742.000	400.00	701.31	0.00	-0.03	-0.00	31.80	7.90
	22812.000	400.00	701.41	0.00	0.10	-0.00	31.80	70.00
	22819.000	400.00	701.55	0.00	0.14	0.00	31.80	7.00
	22819.000	400.00	701.35	0.00	0.14	-0.00	31.80	7.00
	22927.000	400.00	701.66	0.00	0.13	0.00	21.36	108.00
	22927.000	400.00	701.66	0.00	0.13	-0.00	22.22	108.00
*	22977.000	400.00	704.21	3.00	2.53	0.00	21.35	50.00
*	22977.000	400.00	704.22	3.00	2.53	0.00	21.36	50.00
	23504.000	400.00	707.07	0.00	2.68	0.00	38.47	527.00
	23504.000	400.00	707.12	0.00	2.91	0.03	24.65	527.00
	23553.000	400.00	707.14	0.00	0.05	0.00	18.60	49.00
	23553.000	400.00	707.20	0.00	0.13	0.03	13.65	49.00
	23554.000	400.00	707.10	0.00	-0.56	0.00	18.61	1.00
	23554.000	400.00	707.15	0.00	-0.05	0.00	18.60	1.00
	23613.000	400.00	707.20	0.00	0.10	0.00	18.60	59.00
	23613.000	400.00	707.27	0.00	0.12	0.00	18.60	59.00
	23614.000	400.00	707.33	0.00	0.12	0.00	18.60	1.00
	23614.000	400.00	707.41	0.00	0.14	0.00	18.60	1.00
*	23663.000	400.00	707.19	0.00	-0.16	0.00	32.34	49.00
	23663.000	400.00	707.36	0.00	-0.16	0.00	25.50	49.00

SUMMARY OF ERRORS

CAUTION SECNO=22977.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=22977.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS

FLOODWAY DATA, WILLOW CREEK CANTON TWP.
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	113.	500.	1.5	667.2	667.1	0.1
600.000	222.	837.	0.9	667.4	667.3	0.1
1370.000	526.	983.	0.8	667.5	667.4	0.1
1419.000	524.	1141.	0.6	667.6	667.5	0.1
1420.000	524.	939.	0.9	667.6	667.5	0.1
1460.000	524.	942.	0.9	667.6	667.5	0.1
1461.000	524.	1164.	0.6	667.7	667.6	0.1
1510.000	524.	1106.	0.7	667.7	667.6	0.1
2987.000	375.	722.	1.0	668.2	668.1	0.1
3979.000	67.	372.	2.0	668.6	668.5	0.1
4024.000	42.	293.	2.5	668.6	668.5	0.1
4237.000	42.	321.	2.3	669.5	669.4	0.1
6287.000	142.	572.	1.3	669.6	669.5	0.1
5237.000	76.	186.	4.0	669.5	669.5	0.0
5739.000	37.	305.	2.4	671.0	670.9	0.1
5785.000	42.	298.	2.5	671.3	671.2	0.1
6199.000	42.	324.	2.3	672.7	672.6	0.1
6249.000	142.	466.	1.6	672.6	672.5	0.1
6637.000	439.	1134.	0.7	673.1	673.0	0.1
7453.000	400.	385.	1.9	673.4	673.3	0.1
7503.000	402.	384.	1.9	673.5	673.4	0.1
7543.000	200.	601.	1.2	674.5	674.5	0.0
7593.000	200.	582.	1.3	674.5	674.5	0.0
8737.000	381.	818.	0.9	675.1	675.1	0.0
9587.000	171.	287.	3.8	675.4	675.4	0.0
10135.000	44.	205.	3.6	676.1	676.0	0.1
10184.000	19.	129.	5.8	676.1	676.0	0.1
10185.000	19.	128.	5.8	676.1	676.0	0.1
10249.000	14.	94.	7.9	676.0	675.9	0.1
10250.000	14.	94.	7.9	676.0	675.9	0.1
10299.000	114.	205.	3.6	676.5	676.4	0.1
11287.000	226.	315.	2.3	678.2	678.2	0.0
12304.000	57.	343.	2.2	679.0	678.9	0.1
12354.000	32.	216.	3.4	679.0	678.9	0.1
12411.000	32.	227.	3.3	679.3	679.2	0.1
12461.000	61.	375.	2.0	679.4	679.3	0.1
13062.000	81.	269.	2.8	679.6	679.5	0.1
15087.000	45.	190.	2.1	681.5	681.4	0.1
16487.000	35.	112.	3.6	682.8	682.7	0.1
16937.000	34.	81.	4.8	683.9	683.8	0.1
17484.000	15.	64.	6.3	686.3	686.3	0.0
17533.000	10.	33.	10.4	686.4	686.4	0.0
17534.000	10.	37.	10.8	686.4	686.4	0.0
17644.000	10.	45.	8.9	688.0	688.0	0.0
17645.000	10.	53.	7.5	688.5	688.5	0.0
17694.000	96.	191.	2.1	689.3	689.3	0.0
18827.000	47.	155.	2.6	690.4	690.4	0.0
20054.000	30.	77.	4.1	691.9	691.8	0.1
21127.000	58.	119.	3.4	694.4	694.3	0.1
21235.000	32.	126.	3.2	694.6	694.6	0.0

FLOODWAY DATA, WILLOW CREEK CANTON TWP.
PROFILE NO. 2

STATION | WIDTH | FLOODWAY SECTION AREA | MEAN VELOCITY | WATER SURFACE ELEVATION WITH FLOODWAY | WITHOUT FLOODWAY | DIFFERENCE

17534.000 10. 37. 10.8 686.4 686.4 0.0
17644.000 10. 45. 8.9 688.0 688.0 0.0
17645.000 10. 53. 7.5 688.5 688.5 0.0
17694.000 96. 191. 2.1 689.3 689.3 0.0
18827.000 47. 155. 2.6 690.4 690.4 0.0
20054.000 30. 77. 4.1 691.9 691.8 0.1
20503.000 39. 98. 4.1 692.0 691.9 0.1
20711.000 21. 89. 4.5 693.5 693.4 0.1
20718.000 21. 101. 3.9 693.8 693.7 0.1
20774.000 21. 85. 4.7 693.8 693.7 0.1
20781.000 21. 88. 4.5 694.0 693.9 0.1
21127.000 60. 110. 3.6 694.2 694.1 0.1
21135.000 134. 3.0 694.6 694.5 0.1
21235.000 131. 3.1 694.9 694.8 0.1

23 Shelton Center Road

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FLOODWAY DATA, WILLOW CREEK CANTON TWP.
PROFILE NO. 2

STATION	WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
21242.000	33.	100.	3.9	694.6	694.6	0.0
21302.000	30.	96.	4.2	694.7	694.7	0.0
21359.000	12.	111.	3.4	694.1	694.3	0.2
21727.000	40.	65.	6.1	695.7	695.7	0.0
22635.000	50.	99.	4.0	700.9	700.9	0.0
22735.000	32.	119.	3.4	701.3	701.3	0.0
22742.000	33.	91.	5.0	701.3	701.3	0.0
22812.000	43.	46.	6.3	701.6	701.6	0.0
22819.000	43.	106.	5.3	701.9	701.9	0.0
22927.000	22.	135.	5.0	701.7	701.7	0.0
22977.000	22.	59.	6.7	704.2	704.2	0.0
23504.000	25.	123.	3.3	707.1	707.1	0.0
23553.000	19.	130.	4.0	707.2	707.1	0.1
23584.000	44.	44.	4.7	707.2	707.1	0.1
23612.000	20.	36.	4.3	707.3	707.2	0.1
23614.000	19.	101.	4.0	707.4	707.3	0.1
23663.000	15.	70.	5.7	707.3	707.2	0.1

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NCC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
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*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*      0  ERROR(S) DETECTED BY THE USER PROGRAM                 *
*      0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE         *
*      0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS          *
*                                                               *
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00BREAK00

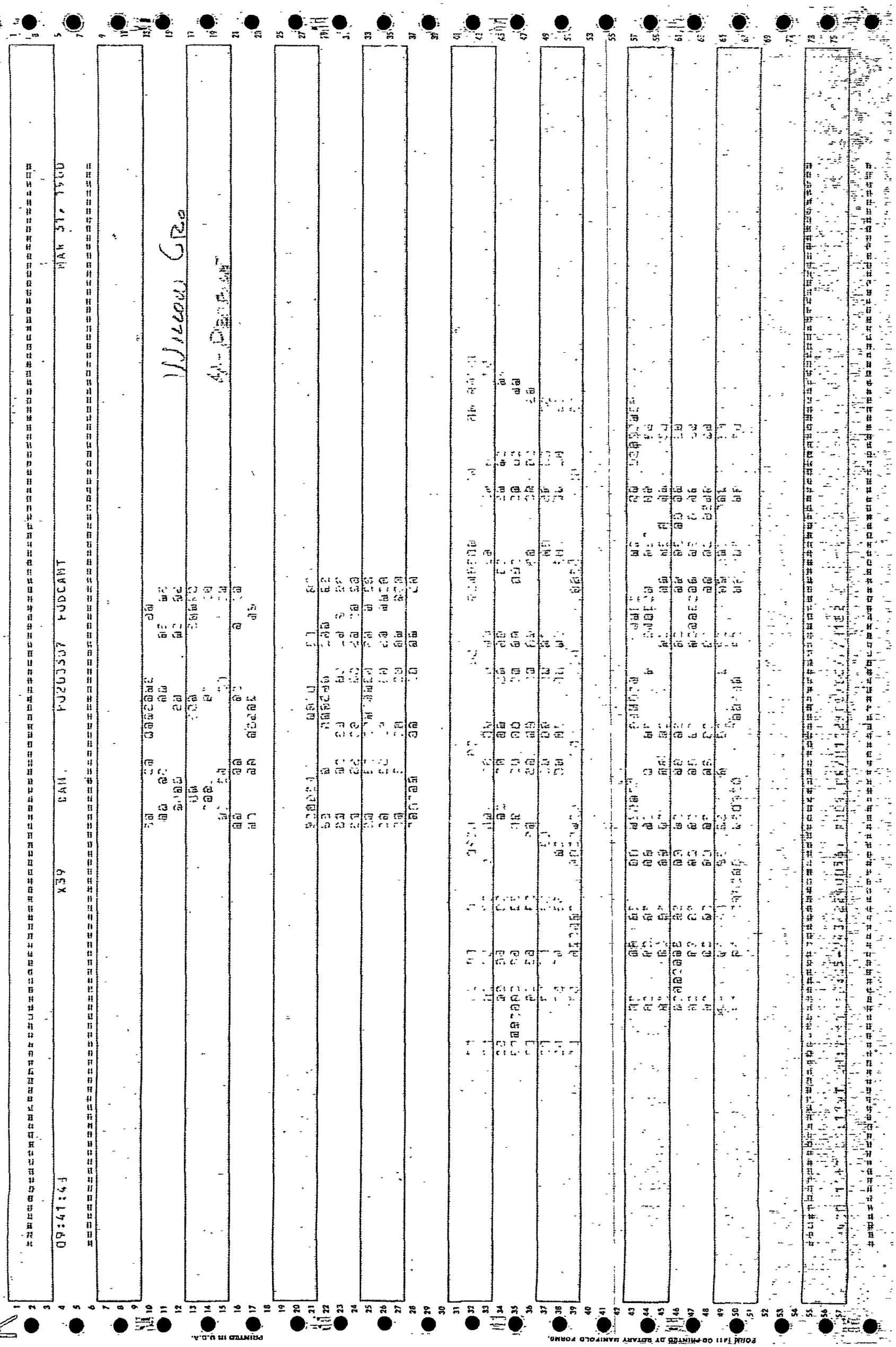
1) COUNTY: Wayne

2) STUDY NAME: Canton Twp

3) WATERCOURSE: Willow Creek

4) DOCUMENT TYPE: Summary

00BREAK00



09:41:43 X39 CAN. PU203307 PUDCANT MAR 31, 1960

Willow Gro

4-Pebble

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FORM 4411-OD-PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
WILLOW CREEK FIS MOD.2003-07 CANTON TWP FROM CONF.BOUND.TO. CANTON CENTER RD.
T4
T5      WILLOW CREEK CANTON TWP.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        2.        0.        0.  0.000000      0.00      0.0       0.    665.172     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHAIN     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   201.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                  ********REQUESTED SECTION NUMBERS********
     [illegible]  -1[illegible]  0.000     0.000     0.000     0.000     0.000     0.000     0.000
AT      5.000   [illegible]  [illegible]  740.000   740.000   [illegible]  0.000     0.000     0.000     0.000
CT      5.000     0.000     0.000     0.000     1.410     0.000     0.000     0.000     0.000     0.000
NC      0.100     0.100     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        CANTON [illegible] BOUNDARY FROM [illegible] HAZARD STUDY

X1      0.000    22.000  1790.000  1810.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    680.000  1699.000   674.200  1300.000   673.900  1600.000   673.400  1674.000   670.700  1689.000
GR    671.200  1773.000   638.200  1779.000   657.700  1790.000   656.800  1800.000   657.300  1810.000
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  1900.000   670.300  [illegible]
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  2400.000   670.500  [illegible]
GR    [illegible]  [illegible]  [illegible]  [illegible]     0.000     0.000     0.000     0.000     0.000     0.000

        SECTION 600 STA 229+87 FROM FIELD BOOK

X1    [illegible]  [illegible]  [illegible]  [illegible]  500.000  [illegible]  [illegible]     0.000     0.000     0.000
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
GR    656.100   630.000   657.600   637.000   662.300   641.000   665.300   780.000   666.600   930.000
GR    670.000  1180.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.100     0.100     0.035     0.300     0.300     0.000     0.000     0.000     0.000     0.000

        SECTION [illegible] BRIDGE [illegible] FIELD BOOK [illegible]

X1   1370.000    10.000   598.000   [illegible]  770.000   770.000   770.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   [illegible]  0.000   927.000     0.000     0.000     0.000     0.000
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
GR    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
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D/S LOTZ RD.

X1	1419.000	34.000	586.000	614.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	603.000	0.000	927.000	0.000	666.000	666.000	0.000
GR	673.000	0.000	670.000	100.000	668.700	230.000	667.100	300.000	666.200	400.300
GR	665.100	500.000	665.100	576.000	659.300	586.000	657.700	586.600	657.500	586.300
GR	657.300	595.500	657.300	592.500	657.300	595.500	657.300	597.000	657.700	596.400
GR	659.300	599.000	659.300	601.000	657.700	601.000	657.300	603.000	657.300	604.500
GR	657.300	607.500	657.300	610.500	657.300	612.000	657.700	613.400	659.300	614.000
GR	663.300	623.000	666.400	700.300	666.400	800.000	666.300	900.000	666.700	1000.000
BT	657.700	1000.000	659.100	1200.000	670.400	1300.000	671.300	1400.000	0.000	0.000
BT	0.000	0.100	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000

SECND 1420 STA 221+57 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	1420.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	10.000	667.900	0.000	603.000	0.000	927.000	0.000	666.000	666.000	0.000
XT	32.000	0.000	673.300	0.000	500.000	673.100	0.000	200.000	656.700	0.000
BT	300.000	667.100	0.000	400.000	566.200	0.000	500.000	666.100	0.000	586.000
BT	666.300	659.300	586.600	666.300	661.300	586.000	666.300	663.300	589.500	666.300
BT	664.300	592.300	566.300	665.300	595.300	666.300	664.300	597.000	666.300	663.300
BT	390.400	656.100	661.300	592.000	666.300	657.300	661.000	666.200	659.300	661.100
BT	666.300	671.100	670.000	665.300	662.300	656.500	666.300	664.300	672.500	666.100
BT	309.301	211.100	666.300	663.300	612.000	656.300	672.300	613.400	666.300	661.100
BT	614.000	666.300	659.300	700.000	666.400	0.000	662.000	666.400	0.000	700.000
BT	666.300	0.000	1000.000	666.700	0.000	1100.000	667.700	0.000	1200.000	669.100
BT	0.000	1300.000	670.300	0.000	1400.000	671.300	0.000	0.000	0.000	0.000

SECND 1460 STA 221+97 D/S FACE LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	1460.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XT	0.000	673.900	0.100	600.000	0.000	673.000	0.000	600.000	659.200	0.000
BT	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S LOTZ RD.

XT	1501.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	15.000	1.100	0.000	600.000	0.000	0.000	0.000	666.000	656.000	0.000

SECND 1512 90° D/S LOTZ BRIDGE FROM FIELD BOOK AND QUAD MAP

XT	1512.000	0.000	596.000	600.000	25.000	1.000	25.000	0.000	0.000	0.000
X2	2.000	0.000	0.000	600.000	0.000	927.000	0.000	0.000	0.000	0.000
BT	474.000	0.000	670.000	100.000	666.700	200.000	667.100	300.000	656.200	400.000
BT	665.100	500.000	665.100	587.000	659.300	594.000	657.500	596.000	654.700	677.000
BT	665.400	720.000	666.400	800.000	666.300	900.000	666.500	1000.000	667.700	1150.000
BT	669.100	1250.000	670.400	1300.000	671.300	1400.000	0.000	0.000	0.000	0.000
BT	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECND 2087 STA 256+10 FROM FIELD BOOK

X1	2087.000	0.000	763.000	757.000	1300.000	600.000	1477.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XT	0.000	673.900	0.100	600.000	0.000	673.000	0.000	600.000	659.200	0.000
BT	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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SECNO 3979 50' D/S FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	3979.000	8.000	211.000	249.000	800.000	1200.000	992.000	0.000	0.000	0.000
X3	0.300	0.000	0.000	196.500	0.000	263.500	0.000	0.000	0.000	0.000
G4	630.300	0.000	570.000	1.000	667.400	250.000	661.500	211.000	661.300	249.000
G1	667.700	361.300	570.000	1000.000	630.000	1001.000	0.000	0.000	0.000	0.000

SECNO 4029 STA 195+53 D/S FACE FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	4029.300	71.000	0.000	42.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.300	0.000	0.000	0.500	0.000	0.500	0.000	660.000	661.000	0.000
G4	630.300	0.000	663.350	0.500	661.700	0.500	661.150	1.000	306.750	2.000
SB	660.300	3.000	662.100	2.500	660.100	3.000	660.150	5.000	660.300	7.000
SB	660.700	8.000	661.100	9.500	661.700	9.500	663.350	10.000	663.350	16.000
SB	661.700	16.300	661.100	17.000	660.700	18.500	660.300	19.000	660.100	20.000
SB	650.700	21.300	661.100	22.500	500.300	23.500	660.700	24.000	661.100	25.000
SB	661.700	25.300	663.350	26.500	662.350	32.500	664.750	33.500	661.100	35.000
SB	661.700	34.000	662.350	35.500	660.100	36.500	660.150	37.500	661.100	38.000
GB	660.300	39.000	660.750	40.000	661.100	41.000	661.750	41.500	663.350	42.000
GB	660.000	42.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.960	3.000	0.000	24.210	0.500	197.020	3.000	660.500	660.100

SECNO 4237 ETA 198+41 D/S FORE BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	4237.000	0.000	0.000	0.000	209.000	201.000	200.000	0.200	0.400	0.000
X3	0.000	0.000	0.000	667.000	671.600	0.000	0.000	0.200	0.000	0.000
	10.000	5.000	3.130	0.400	1.000	0.000	0.200	660.200	660.000	0.000
G1	11.000	0.000	671.130	1.000	1.000	671.300	665.750	0.300	671.130	665.600
	1.000	671.300	666.000	2.000	671.530	561.000	3.500	671.300	666.100	4.000
G1	671.300	667.000	5.000	671.300	667.000	6.000	671.300	667.000	7.000	671.000
G1	666.300	8.000	671.800	666.400	9.000	671.000	666.000	9.500	671.800	665.400
G1	0.000	671.000	665.750	10.000	671.800	665.750	10.500	671.300	665.400	17.000
	11.000	667.000	11.130	671.000	671.800	15.000	671.130	671.300	20.000	671.000
	17.000	0.000	671.130	667.000	21.000	671.300	667.000	20.500	671.800	665.400
	0.000	671.000	665.750	10.000	671.800	665.750	10.500	671.300	665.400	17.000
G1	671.300	665.750	32.000	671.800	665.750	32.500	671.800	665.400	33.000	671.000
G1	666.300	34.000	671.800	666.400	35.000	671.800	666.800	36.000	671.800	667.000
G1	37.300	671.300	667.000	38.000	671.800	667.000	39.000	671.800	666.800	40.000
	41.000	665.750	41.130	671.000	671.800	41.500	671.130	665.400	42.000	671.000
	665.750	41.000	665.130	0.000	0.000	0.000	0.130	0.200	0.000	0.000

SECNO 4267 50' U/S FORD BRIDGE FROM FIELD BOOK AND QUAD MAP

	4267.000	0.000	379.000	220.200	50.000	50.000	50.000	0.000	0.000	0.000
	0.000	0.000	0.000	220.200	0.000	371.200	0.000	0.000	0.000	0.000
	660.000	0.000	379.000	1.200	661.100	220.200	662.000	379.000	306.000	340.000
	667.000	334.000	670.000	600.000	661.000	671.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	1.412	0.000	0.000	0.000	0.000	0.000

SECNO 5237 ETA 198+41 FROM FIELD BOOK

	5237.000	15.000	1526.000	1536.000	1000.000	600.000	0.000	0.000	0.000	0.000
G1	660.000	0.000	660.000	1372.000	661.200	1372.000	677.300	1400.000	675.200	1510.000
G1	670.400	1519.000	663.200	1526.000	662.500	1530.000	663.200	1534.000	665.400	1536.000
G1	665.400	1519.000	670.000	1537.000	665.200	1372.000	661.200	1508.000	670.300	1510.000
L1	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000

SECNO 5733 50' D/S CULVERT FROM FIELD BOOK AND QUAD MAP

X1	5735.000	7.000	2094.000	2109.000	900.000	350.000	498.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2066.500	0.000	2133.500	0.000	0.000	0.000	0.000
GR	680.000	0.000	673.200	2079.000	662.900	2094.000	662.900	2109.000	669.600	2130.000
GR	677.000	2400.000	680.000	2401.000	0.000	0.000	0.000	0.000	0.000	0.000

SEC.10 3705 STA 170+32 D/S FACE I-235 CULVERT FROM FIELD BOOK AND QUADMAP

X1	5785.000	41.000	0.000	42.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
[illegible]	680.100	3.000	696.700	0.000	697.400	0.000	663.300	1.000	655.400	2.000
[illegible]	655.900	4.000	662.900	5.000	662.300	5.000	662.300	6.000	655.000	7.000
[illegible]	655.400	8.000	660.500	9.000	654.400	9.500	666.000	10.000	660.300	10.000
11	664.300	18.500	663.900	17.000	663.400	19.000	663.000	19.000	662.300	20.000
12	662.000	21.000	662.300	22.000	663.000	23.000	663.400	24.000	663.800	25.000
13	664.400	25.500	666.350	26.000	666.050	32.600	664.400	32.500	663.800	33.000
14	670.400	34.000	655.300	35.000	662.300	36.500	662.800	37.000	662.800	38.000
15	662.000	39.000	663.400	40.000	663.000	41.300	664.400	41.500	666.050	42.000
16	666.100	42.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	4.350	5.000	0.000	24.150	0.000	157.000	0.000	663.600	661.000

SEC.1 6499 STA 173+00 L/S FACE I-27. CULVERT FROM FIELD BOOK AND QUADMAP

X1	6159.000	0.300	5.000	0.300	611.000	414.000	412.000	0.300	0.000	0.000
X2	0.000	0.300	1.000	670.900	677.000	0.000	0.300	0.300	0.000	0.000
X3	10.000	0.300	0.000	0.000	0.000	1.000	0.000	630.000	663.000	0.000
GR	41.000	0.300	780.000	0.000	0.000	677.000	666.800	0.500	677.000	663.500
[illegible]	1.300	677.300	669.150	2.000	677.900	664.500	2.300	677.300	669.500	3.300
[illegible]	677.000	670.100	5.000	677.000	670.100	4.000	677.300	670.100	7.000	677.000
[illegible]	664.500	8.000	677.000	666.300	9.300	677.000	666.300	9.500	677.000	666.500
11	10.000	677.300	666.250	16.000	677.900	666.250	16.300	677.000	666.500	17.000
12	677.000	669.100	18.000	677.000	669.500	19.000	677.300	669.900	20.000	677.000
13	671.100	21.000	677.000	670.100	22.300	677.000	670.100	23.000	677.000	669.900
[illegible]	1.300	677.[illegible]	[illegible].000	[illegible].000	[illegible].300	[illegible].000	[illegible].000	[illegible].000	[illegible].000	[illegible].000
[illegible]	677.500	[illegible].000	[illegible].000	677.300	[illegible].000	[illegible].000	677.300	[illegible].000	[illegible].000	[illegible].000
[illegible]	[illegible].000	[illegible].000	677.000	[illegible].300	[illegible].000	677.000	[illegible].300	[illegible].000	677.000	[illegible].000
1T	57.000	677.000	670.100	58.000	677.000	671.100	59.000	677.000	669.900	60.000
1T	677.000	669.100	61.000	677.000	669.100	62.000	677.300	668.500	62.300	677.300
1T	666.350	62.000	630.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SEC.2 6249.00' D/S [illegible] FROM FIELD BOOK AND QUAD MAP

XT	6249.000	9.000	494.300	503.000	50.000	51.000	50.000	0.000	0.300	0.000
X2	0.000	0.000	0.300	628.000	0.000	578.000	0.000	0.000	0.300	0.000
[illegible]	662.000	1.300	495.300	0.000	669.600	583.000	664.700	599.000	0.000	0.000
[illegible]	664.700	[illegible].300	664.900	511.000	670.000	650.000	662.000	611.000	0.300	0.000
[illegible]	0.150	0.000	0.339	0.170	0.000	0.000	0.000	0.000	0.000	0.000
ET	5.000	0.500	0.300	0.000	1.213	0.000	0.000	0.000	0.000	0.000

SEC.0 [illegible] STA [illegible] [illegible] FROM FIELD BOOK

[illegible]	[illegible].10	[illegible].300	1223.000	1[illegible].[illegible]70	[illegible].000	[illegible].200	[illegible].000	[illegible].000	0.000	0.000
60	630.500	935.000	672.700	935.000	670.000	1079.300	670.400	1164.000	674.600	1199.000
61	671.500	1210.000	665.000	1220.000	664.500	1225.300	664.300	1229.000	664.800	1220.000
62	665.900	1230.000	671.300	1240.000	671.300	1275.000	670.500	1465.000	500.000	1465.000
0[illegible]	0.000	[illegible].000	[illegible].000	0.000	[illegible].000	[illegible].000	[illegible].000	[illegible].000	[illegible].000	[illegible].000
[illegible]	0.300	0.000	[illegible].000	9.000	[illegible].000	[illegible].000	0.000	[illegible].000	[illegible].000	[illegible].000

SECMO 7+67.50' D/S ABUTMENT BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	7453.000	14.000	993.000	1006.300	766.000	766.300	766.000	0.000	0.000	0.000
GR	674.000	0.000	673.800	200.000	673.800	400.300	673.800	600.000	673.800	800.000
GR	671.800	903.000	664.900	993.000	664.900	1006.000	671.900	1015.000	673.600	1200.000
GR	674.200	1400.000	674.500	1600.300	674.600	1800.300	674.200	2000.000	0.000	0.000
BT	0.000	0.000	9.100	9.100	9.100	9.300	0.000	0.000	900.000	1100.000

SECND 7503 STA 160+34 D/S FACE HAGGERTY BRIDGE FRO" FIELD BOOK AND O.T.

X1	7503.300	29.000	993.500	1006.500	50.000	50.600	50.000	0.000	0.000	0.500
GR	70.300	0.000	0.000	0.300	0.000	0.000	0.000	672.500	672.500	0.000
GR	640.300	0.000	600.000	200.000	600.000	400.300	600.000	624.000	672.600	935.000
GR	671.300	700.000	664.600	993.500	664.000	993.500	664.000	954.000	664.000	995.000
GR	664.300	996.000	664.000	997.000	664.000	998.000	664.000	999.000	664.000	1000.000
GR	664.300	1301.000	664.000	1002.300	664.000	1013.300	664.000	1004.000	664.000	1005.000
GR	664.300	1306.000	664.000	1006.500	666.600	1006.500	671.900	1015.000	673.600	1175.000
BT	630.000	1176.000	600.000	1600.000	600.000	1800.300	600.000	2000.000	0.000	0.000
BC	0.000	1.000	0.000	0.000	10.000	0.000	65.000	0.000	900.000	664.000
BT	0.000	0.000	5.100	9.100	9.100	9.100	1.000	0.000	900.000	1100.000

SECND 7563 STA 160+44 D/S FACE HAGGERTY BRIDGE FRO' FIELD BOOK AND O.T.

X1	7563.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	0.000	0.000	0.000	673.800	674.100	0.000	0.000	0.000	0.000	0.000
GR	10.000	0.000	0.000	0.000	0.000	0.000	0.000	674.100	674.100	0.000
GR	0.000	0.000	500.000	0.000	200.000	600.000	0.000	400.000	580.000	0.000
GR	0.000	680.000	0.000	900.000	674.100	0.000	900.000	674.100	0.000	993.500
GR	0.100	953.300	700.000	674.100	500.000	900.000	674.100	672.000	700.000	674.100
GR	0.000	998.300	674.100	671.700	900.000	674.100	600.000	969.000	674.100	672.300
GR	0.000	674.100	672.300	1000.000	674.100	672.300	1000.000	674.100	672.000	1003.000
BT	674.800	672.700	1304.000	674.100	671.000	1000.000	674.100	670.000	1006.000	674.100
BT	500.000	1004.500	674.100	656.600	1100.000	674.600	0.000	1101.000	660.000	0.000
BT	1500.000	600.000	0.000	1800.000	500.000	0.000	2000.000	660.000	0.000	0.000
BC	0.000	1.100	0.100	1.100	0.000	1.000	1.000	0.000	0.000	0.000
BT	0.000	1.100	0.000	1.100	0.000	1.100	0.000	0.000	500.000	1100.000

SECND 7593 50' D/S HAGGERTY BRIDGE FRO' FIELD BOOK AND DUAL HAP

X1	7593.000	19.000	993.500	1000.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	630.000	0.000	600.000	200.000	600.000	400.000	600.000	624.000	672.600	935.000
GR	671.000	700.000	664.000	993.000	664.000	1000.000	672.400	1000.000	664.000	1175.000
GR	630.000	1176.000	600.000	1600.000	600.000	1800.300	600.000	2000.000	0.000	0.000
BC	0.000	0.100	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECND 8220 STA 163+00 F/O FIELD BOOK

X1	8227.000	19.300	302.000	409.000	1144.000	1144.000	1144.000	0.000	0.000	0.000
GR	662.000	30.000	575.400	30.000	674.900	342.000	671.800	665.000	670.600	350.000
GR	664.000	33.300	302.000	400.000	666.300	344.000	672.200	664.000	672.900	350.000
GR	667.000	720.000	672.400	722.000	660.300	92.000	0.000	0.000	0.000	0.000

SECND 8510 STA 142+00 FROM FIELD BOOK

BT	1350.000	19.000	672.300	700.000	650.000	700.000	650.000	0.000	0.000	0.000
BT	600.000	0.000	670.500	0.000	674.600	0.000	670.400	500.000	672.300	500.000
BT	672.300	0.000	672.300	674.000	625.400	0.000	0.000	660.000	0.000	0.000
BT	800.000	0.000	672.200	700.000	650.000	0.000	610.000	1350.000	660.000	1311.000
BT	531.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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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	0.000	0.000	0.000	0.000	9.100	0.000	0.000	0.000	1.000	2000.000
SECND 10135 50' D/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP										
X1	10135.000	16.000	990.550	1009.350	546.000	543.000	546.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	979.000	0.000	1022.500	0.000	0.000	0.000	0.000
GR	677.600	0.000	676.800	200.000	676.000	400.000	675.300	600.000	674.900	800.000
GR	675.500	986.000	669.400	990.650	669.000	1000.000	669.400	1009.350	669.400	1014.000
GR	675.900	1320.000	677.500	1200.000	677.200	1400.000	677.300	1600.000	677.400	1800.000
GR	677.000	2300.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000
D/S LILLEY Rd.										
X1	10184.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.000	676.000	0.000
SECND 10185 STA 134+02 D/S FACE LILLEY BRIDGE FROM FIELD BOOK AND Q.M.										
X1	10185.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.000	676.000	0.000
GR	676.000	0.000	677.400	0.000	200.000	676.800	0.000	400.000	676.000	0.000
GR	675.000	676.000	0.000	600.000	674.900	0.200	992.000	674.400	0.000	990.650
LT	678.400	676.600	1309.350	678.400	676.600	1009.350	678.400	0.000	1200.000	677.500
RT	0.000	1400.000	677.200	0.000	1600.000	677.300	0.000	1300.000	677.400	0.000
RT	2000.000	677.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000
SECND 10249 STA 133+50 D/S FACE LILLEY SIDE BRIDGE FROM F.F. AND Q.F.										
X1	10249.000	35.000	992.900	1007.100	64.000	67.300	64.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.200	0.000	676.000	676.000	0.000
	0.000	0.000	677.300	0.000	200.000	676.300	0.000	400.000	676.000	0.000
	676.000	0.000	0.000	600.000	674.900	0.200	992.000	674.400	0.000	990.650
	678.400	676.600	1309.350	678.400	676.600	1009.350	678.400	0.000	1200.000	677.500
RT	0.000	1400.000	677.200	0.000	1600.000	677.300	0.000	1300.000	677.400	0.000
RT	2000.000	677.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	677.000	0.000	676.800	200.000	676.000	400.000	675.300	600.000	674.900	800.000
	675.500	986.000	669.400	990.650	669.000	1000.000	669.400	1009.350	669.400	1014.000
	675.900	1320.000	677.500	1200.000	677.200	1400.000	677.300	1600.000	677.400	1800.000
	677.000	2300.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000
D/S LILLEY Rd.										
	10184.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
	10.000	0.000	0.000	0.000	0.000	0.000	0.000	676.000	676.000	0.000
SECND 10299 S [illegible] D/S LILLEY BRIDGE FROM FIELD BOOK AND QUAD MAP										
	10299.000	1.000	0.000	0.000	99.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RT	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SECND 11847 STA 121+00 FROM FIELD BOOK										
	11847.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	670.300	1112.500	678.100	1112.500	677.500	1250.000	677.600	1300.000	677.500	1395.000
	670.300	1252.000	677.600	1434.200	678.600	1415.300	677.500	1500.000	675.100	1602.500
	680.200	2607.500	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000

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YC	0.060	0.100	0.035	0.300	0.500	0.000	0.200	0.000	0.000	0.000

50 FT D/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

R1	11304.000	0.000	514.000	516.000	520.000	300.000	1017.300	0.000	0.000	0.000
RS	0.000	0.000	0.000	571.500	0.000	628.500	0.300	0.300	0.000	0.000
GR	680.600	0.000	679.800	200.000	680.400	400.000	679.200	561.000	676.100	571.000
GR	672.100	584.000	672.100	594.000	672.100	595.000	672.100	605.000	672.100	606.000
GR	672.100	615.000	676.100	629.000	680.300	657.000	680.300	630.000	681.300	1000.000
RT	682.400	220.000	0.000	0.000	0.000	0.000	0.300	0.300	0.000	0.000

SECNO 12354 STA 112+33 D/S FACE HANFORD BRIDGE FROM FIELD BOOK AND Q...

R1	12334.000	0.000	0.000	0.000	50.000	50.000	50.000	0.300	0.100	0.000
RS	10.200	0.000	0.000	0.000	0.000	0.000	0.300	679.300	679.300	0.000
GR	1.350	0.000	0.000	0.000	21.500	0.000	120.200	0.300	672.100	672.100

SECNO 12411 STA 111+76 U/S FACE HANFORD BRIDGE FROM FIELD BOOK AND Q...

R1	12411.200	0.000	0.000	0.000	57.000	57.000	57.000	0.300	0.000	0.000
GR	0.300	0.000	0.000	678.300	679.000	0.000	0.200	0.300	0.000	0.000
GR	10.300	0.000	0.000	0.300	0.000	0.000	0.200	679.700	679.700	0.000
BT	10.000	0.000	682.000	0.000	543.000	561.000	0.300	540.300	679.600	0.300
BT	544.300	679.600	0.000	536.000	679.600	578.200	594.000	679.500	673.200	594.000
BT	579.000	0.000	595.000	579.600	0.000	595.000	679.300	678.200	665.000	679.600
LT	00.200	705.000	679.200	0.000	626.200	579.300	0.000	626.300	672.200	672.600
RT	0.300	697.000	673.200	616.000	679.600	0.000	650.000	679.500	0.000	665.000
RT	0.300	0.000	210.000	506.600	0.000	0.000	0.000	0.300	0.000	0.000

50 FT U/S HANFORD BRIDGE FROM FIELD BOOK AND QUAD MAP

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ET	3.600	0.000	0.000	0.200	1.200	0.300	0.000	0.000	0.000	0.000

SECNO [illegible] STA [illegible] FROM FIELD BOOK

[illegible]	11043.000	11.300	537.000	162.000	300.000	340.100	301.000	0.000	0.000	0.000
GR	61.350	0.300	531.300	59.000	577.900	123.000	577.700	123.000	575.800	137.000
GR	673.800	130.700	575.000	162.000	877.900	174.000	576.000	194.000	682.700	218.000
GR	684.400	273.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RT	0.000	820.000	330.300	302.000	470.300	340.000	0.300	0.000	0.000	0.000

SECNO 15087 STA 65+00 FROM FIELD BOOK

R1	15087.000	0.000	418.000	435.000	1600.000	2300.000	2023.000	0.300	0.000	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SECNO 16407 STA 71+10 FROM FIELD BOOK

[illegible]	6697.300	0.000	0.000	0.000	1600.000	1800.300	1700.000	0.000	0.000	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0.300	0.000	0.000	0.000	0.100	0.000	0.000	0.000	1.300	1.300

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VALLEY SECTION

X1	16987.000	5.000	13.000	33.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	685.000	0.000	681.000	13.000	680.500	23.000	681.000	33.000	687.000	45.000
NC	0.080	0.060	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

SECNO 17484 50' D/S WARREN-SHELDON BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	17484.000	8.000	1526.000	1534.000	497.000	497.000	497.000	0.000	0.000	0.000
GR	690.000	0.000	687.000	1532.000	687.200	1513.000	682.200	1528.000	681.300	1530.000
GR	682.200	1536.000	687.300	1545.000	690.400	1630.000	0.000	0.000	0.000	0.000

D/S WARREN-SHELDON RD.

X1	17533.000	0.000	1495.000	1505.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	688.000	688.000	0.000
GR	690.000	0.000	688.700	1470.000	687.300	1480.000	682.000	1495.000	682.300	1500.000
GR	682.800	1505.000	690.700	1520.000	690.400	1630.000	0.000	0.000	0.000	0.000
NC	0.080	0.000	0.024	0.300	0.500	0.000	0.000	0.000	0.000	0.000

SECNO 17534 STA 5H+95 D/S FACE WARREN-SHELDON BR FROM FIELD BOOK AND Q.M

X1	17534.000	18.000	1495.000	1505.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	688.000	688.000	0.000
BT	16.000	0.000	690.000	0.000	1470.000	688.700	0.000	1495.000	690.550	685.000
[illegible]	675.500	690.550	685.000	1496.000	690.550	685.900	1497.000	690.550	688.900	1498.000
[illegible]	690.550	687.900	1499.000	690.550	687.900	1500.000	690.550	688.000	1501.000	690.550
[illegible]	687.900	1502.000	690.550	687.300	1503.000	690.550	688.900	1504.000	690.550	685.900
BT	1504.500	690.550	685.000	1505.000	690.550	685.000	1630.000	689.300	0.000	0.000
GR	690.000	0.000	688.700	1470.000	687.300	1480.000	683.000	1495.000	682.300	1495.500
GR	682.300	1496.000	682.300	1497.000	682.300	1498.000	682.300	1499.000	682.300	1500.000
[illegible]	682.300	1501.000	682.300	1502.000	682.300	1503.000	682.300	1504.000	682.300	1505.000
[illegible]	682.300	1505.000	690.700	1520.000	690.400	1630.000	0.000	0.000	0.000	0.000

SECNO 17644 STA 59+43 D/S FACE WARREN-SHELDON BR FROM FIELD BOOK AND Q.M

X1	17644.000	0.000	0.000	0.000	110.000	110.000	110.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
GR	10.000	0.000	0.000	1477.500	0.000	1522.500	0.000	688.700	688.700	0.000
NC	0.000	0.000	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S WARREN-SHELDON RD.

X1	17643.000	0.000	1495.000	1505.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	1477.500	0.000	1522.500	0.000	688.700	688.700	0.000
GR	690.000	0.000	690.700	1400.000	688.200	1488.000	683.400	1495.000	682.900	1500.000
GR	683.400	1505.000	687.300	1512.000	690.400	1630.000	0.000	0.000	0.000	0.000
[illegible]	0.080	0.000	0.035	0.100	0.000	0.000	0.000	0.000	0.000	0.000
[illegible]	0.000	0.000	0.000	0.000	1.010	0.000	0.000	0.000	0.000	0.000

SECNO 17694 50' D/S WARREN-SHELDON BRIDGE FROM FIELD BOOK AND QUAD MAP

X1	17694.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1440.000	0.000	1550.000	0.000	0.000	0.000	0.000
NC	0.080	0.060	0.035	0.100	0.000	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION FROM HAMPTON COURT SUBDIVISION PLANS

X1	18827.000	9.000	162.000	188.000	800.000	1000.000	1833.000	0.000	0.000	0.000
GR	692.400	0.000	692.000	136.000	688.000	152.000	686.000	162.000	685.000	176.000
GR	685.000	176.000	688.000	188.000	686.000	198.000	692.000	214.000	0.000	0.000

VALLEY SECTION FIELD BOOK STA. 37+50

X1	20054.000	13.000	286.000	315.000	600.000	1500.000	1227.000	0.000	0.000	0.000
GR	695.500	0.000	697.900	246.000	695.500	251.000	695.300	260.000	691.300	277.000
GR	693.700	286.000	687.900	275.000	687.700	350.000	686.100	307.000	690.000	315.000
GR	691.800	332.000	694.300	347.000	694.300	360.000	0.000	0.000	0.000	0.000
GR	2.000	70.000	0.335	3.300	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	400.000

D/S TELLSTOWN RD.

X1	21120.000	0.000	21.000	52.000	1373.000	2073.000	1373.000	0.000	0.000	0.000
GR	696.900	0.000	696.700	0.000	692.900	19.000	692.900	20.000	689.900	31.000
GR	689.900	40.000	692.900	52.000	692.900	62.000	696.900	76.000	700.000	400.000

7 FT D/S TELLSTOWN RD.

X1	21235.000	57.000	2.300	33.000	100.300	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.300	0.000	0.300	0.000	0.000	696.300	696.300	0.000
GR	705.000	0.000	698.300	0.000	692.300	-2.000	690.600	2.300	690.300	3.300
GR	693.[illegible]	5.100	690.[illegible]	5.[illegible]	690.[illegible]	5.[illegible]	690.[illegible]	7.[illegible]	[illegible]	[illegible]
GR	692.[illegible]	9.100	690.300	11.300	692.300	11.600	692.300	13.600	690.[illegible]	15.[illegible]
GR	690.[illegible]	14.400	690.300	15.900	690.300	19.900	690.300	19.900	690.300	22.[illegible]
GR	690.300	19.900	690.300	20.900	690.600	21.900	692.000	22.200	692.000	25.200
GR	690.600	25.500	690.300	26.500	690.300	27.500	690.300	28.300	690.300	29.300
GR	690.300	33.500	690.200	31.500	690.200	32.500	691.600	33.300	692.000	38.400
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0.100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.700	[illegible]	[illegible]	[illegible]

D/S FACE TELLSTOWN RD. FROM FOREST TRAILS SUBDIVISION PLANS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	5.300	399.200	699.100	4.200	699.200	643.600	5.300	695.200	696.200	5.300
GR	699.200	696.300	7.300	699.200	696.200	9.300	699.200	695.000	9.300	699.200
GR	695.100	20.300	699.200	693.500	10.600	699.200	692.000	15.000	699.200	692.600
GR	13.000	699.200	693.300	14.900	699.200	695.000	15.900	699.200	693.100	19.900
GR	696.200	696.300	17.300	699.200	696.300	18.900	699.200	696.200	19.300	699.200
GR	698.800	20.700	699.800	695.100	21.300	699.200	693.300	22.200	699.100	693.400
GR	25.200	699.200	692.300	25.500	699.200	693.500	26.500	699.200	693.100	27.500
GR	699.200	695.900	28.900	699.200	696.200	29.500	699.200	696.300	30.500	699.200
GR	696.200	31.900	699.300	695.200	32.500	699.200	695.200	33.500	699.200	693.500
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

C/S FACE TELLSTOWN RD. FROM FOREST TRAILS SUBDIVISION PLANS

X1	21372.300	0.000	0.000	0.000	72.000	70.300	72.000	0.000	0.400	0.000
[illegible]	0.300	[illegible]	[illegible]	0.000	[illegible]	0.300	[illegible]	[illegible]	[illegible]	0.000
[illegible]	70.300	[illegible]	[illegible]	0.300	[illegible]	0.300	[illegible]	[illegible]	[illegible]	0.000
[illegible]	0.300	[illegible]	[illegible]	0.300	[illegible]	0.300	[illegible]	[illegible]	[illegible]	0.000

7 FT D/S TELLSTOWN RD.

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X1	21319.000	0.000	0.000	0.000	7.000	7.000	7.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	699.200	699.200	0.000
XC	0.100	0.000	0.335	0.100	0.300	0.000	0.000	0.000	0.000	0.000

VALLEY SECTION FIELD BOOK STA. 19800

X1	21727.000	15.000	173.300	194.000	408.300	408.000	408.000	0.000	0.000	0.000
GR	698.600	0.000	700.700	103.000	700.300	141.000	696.100	696.000	696.500	173.000
GR	692.300	174.000	692.300	189.000	692.300	190.000	695.100	696.000	696.400	209.000
GR	702.600	220.700	702.900	202.000	702.900	365.000	0.000	0.000	0.000	0.000
GR	0.100	0.000	0.335	0.300	0.300	0.000	0.000	0.000	0.000	0.000

D/S SANDPIPER DR.

X1	22335.000	10.000	337.300	662.000	1100.300	400.000	500.000	0.000	0.000	0.000
GR	705.100	0.000	705.200	613.000	699.700	687.000	699.700	697.000	699.700	648.000
GR	696.700	651.000	699.700	663.000	699.700	675.000	705.000	690.000	703.000	640.000

P OF D/S SANDPIPER DR.

X1	22435.000	27.000	2.300	34.000	100.300	120.000	100.000	0.000	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	705.200	705.200	0.000
XC	700.000	0.000	705.300	0.000	698.900	2.000	697.500	2.500	697.200	3.250
XC	697.200	4.300	697.200	5.350	697.200	6.300	697.200	7.300	697.200	8.300
GR	697.203	9.000	697.500	10.000	696.900	10.000	696.900	10.500	697.500	10.500
GR	697.200	14.500	697.200	15.500	697.200	16.400	697.200	17.900	697.200	1..950
GR	697.200	20.400	697.200	21.500	697.500	21.900	696.900	22.200	696.400	25.400
GR	697.500	25.500	697.200	23.500	697.200	27.500	697.200	26.500	697.200	29.500
GR	697.200	30.500	697.200	31.500	697.200	32.500	697.500	33.500	698.900	35.500
GR	705.000	35.800	705.000	36.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S FACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

X1	22742.000	0.000	0.000	0.000	7.000	7.000	7.000	0.300	0.000	0.000
X2	10.000	0.000	0.000	0.000	0.000	0.000	0.000	705.200	705.200	0.000
XC	700.000	0.000	705.250	0.000	702.400	0.000	0.000	2.500	697.200	396.900
XC	697.200	4.300	697.200	5.350	697.200	6.300	697.200	7.300	697.200	8.300
GR	705.100	705.100	6.300	705.250	705.250	7.300	705.250	705.100	6.300	705.250
GR	702.700	9.300	702.250	702.000	10.300	705.250	702.400	10.600	705.250	696.900
GR	696.500	705.350	693.000	13.900	705.250	700.500	15.900	705.250	702.000	15.900
GR	705.250	705.700	16.900	705.250	703.100	7.500	705.250	705.250	16.900	705.250
GR	705.250	15.900	705.250	702.700	20.900	705.250	702.000	21.500	705.250	730.400
GR	705.250	705.250	669.900	25.200	705.250	6.0.500	19.500	16.250	705.250	34.300
GR	705.250	702.000	27.500	705.250	702.700	26.500	705.250	705.100	29.500	705.250
GR	705.200	30.300	705.250	705.100	31.500	705.250	702.700	32.500	705.250	7.2.000
GR	33.500	705.250	700.400	33.800	705.250	6.0.500	35.000	705.250	0.000	640.200
GR	705.100	0.300	0.300	0.000	0.000	0.000	0.000	1.000	0.000	0.000

D/S FACE SANDPIPER DR. FROM FOREST TRAILS SUBDIVISION PLANS

X1	22911.000	0.300	0.300	0.000	70.300	70.000	70.000	0.000	0.300	0.000
X2	0.000	0.300	0.300	0.000	0.300	0.000	1.300	0.000	0.000	0.000
XC	10.000	0.300	0.300	0.000	0.300	0.000	0.000	705.200	697.200	0.000
XC	0.000	0.300	0.300	0.000	0.300	0.000	0.000	0.000	0.000	0.000

P OF D/S SANDPIPER DR.

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X1	22819.000	0.000	0.000	0.000	0.000	7.000	7.300	0.000	0.000	0.000
X5	10.000	0.000	0.000	0.000	0.00	0.000	0.000	705.250	705.250	0.000
XC	0.100	0.100	0.035	0.100	0.000	0.000	0.000	0.000	0.000	0.000
ET	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S SANDPIPER DR.

X1	22927.000	0.000	297.000	300.000	103.000	108.000	108.000	0.000	0.000	0.000
G1	706.300	0.000	704.700	256.000	669.400	268.000	298.200	297.000	692.600	300.200
S1	1296.300	704.000	700.200	308.000	705.100	551.000	704.900	600.000	0.100	0.300

VALLEY SECTION FIELD BOOK STA. 6+50

X1	22927.000	0.000	297.000	303.000	50.000	50.000	50.300	0.300	0.000	0.000
X5	0.300	0.000	0.000	270.000	0.000	307.000	0.000	0.000	0.000	0.000
G1	700.300	0.000	703.000	280.000	703.100	299.000	698.700	300.000	702.600	300.500
G2	705.300	307.000	704.900	600.000	0.700	0.000	0.000	0.000	0.000	0.000

U/S CANYON CENTER RD.

X1	25514.000	0.000	992.000	1210.000	137.000	527.000	527.000	0.000	0.000	1.300
G2	705.300	0.000	710.000	530.000	707.000	701.000	701.900	992.000	703.400	1000.000
G1	701.900	1008.000	707.700	1021.000	710.000	1100.000	0.000	0.000	0.000	0.000

U/S CANYON CENTER RD.

X1	25554.000	11.000	990.700	1309.300	49.000	49.000	49.000	0.000	0.000	0.000
X3	10.300	0.000	0.000	0.000	0.000	0.000	0.000	709.000	709.000	0.000
G1	715.000	0.000	710.000	530.000	709.200	981.000	703.000	990.700	702.000	990.950
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
G1	701.750	1204.300	701.750	1015.900	701.750	1205.300	701.750	1035.800	701.750	1006.000
G1	701.750	1207.000	701.750	1030.300	702.000	1209.350	705.000	1039.300	709.700	1021.000
G1	713.000	1190.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U/S CASE CANYON CENTER RD. FROM FIELD BOOK AND QUAD MAP

X1	25554.000	0.300	0.300	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X5	10.000	0.000	0.000	0.000	0.000	0.000	0.000	709.000	709.000	0.000
G1	30.000	0.000	715.000	0.000	530.000	711.000	0.000	990.700	0.000	0.000
G2	90.000	710.000	700.000	991.200	710.000	703.000	994.200	710.000	530.000	930.200
ET	710.900	707.200	990.200	711.900	707.500	995.200	711.900	707.700	990.200	710.500
ET	707.500	997.200	710.900	707.200	998.200	711.900	706.300	999.200	710.900	703.250
[illegible]	999.450	710.900	705.500	999.700	710.900	703.000	1000.300	710.300	703.000	1020.350
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ET	710.900	704.500	[illegible]	710.900	[illegible]	[illegible]	0.000	0.000	0.000	0.000

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS.
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1 FT U/S CANTON CENTER RD.

X1	23514.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
XS	10.000	0.000	0.000	0.000	0.000	0.000	0.000	710.900	715.900	0.000

U/S CANTON CENTER RD.

X1	23663.000	0.000	995.000	1000.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	500.000	704.800	981.000	702.500	995.000	702.000	1000.000
GL	702.500	1000.000	707.500	1001.000	710.000	1100.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR -  [illegible]
  MODIFICATION -  [illegible]
*****************************************************

TIMBLLOW CREEK [illegible] 2003-07 CANTON TAP FROM CORP.BOUND.TO. CANTON CENTER BR.
T2
T3      [illegible] CREEK CANTON TAP.

J1  ICHECK    INR       NINV      IDIR      STRT      METRIC    HVINS     Q         SEL       FQ

      0.        5.        0.        0.  0.000000      [illegible]      0.0       [illegible]  [illegible]  0.000

J2  NPROF     IPLOT     PRINTS    XSECH     XSECH     FN        ALLDC     IBN       CHMIN     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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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 RSC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 00,01,52
*****************************************************

T1 WILLOW CREEK FIS MAP 2003-07 CANTON TWP FROM CORP.BOUND.TO. CANTON CENTER RD.
T2
T3      WILLOW CREEK CANTON TWP.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    W        MSEL     PQ

      0.       4.       0.       0.  0.000000     0.00     1.0      0.   867.100    0.000

J2  ERROR    INPUT    PSFVC    DSECV    XSECV    FM       WELDS    IEW      CP IN    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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 90,91,52
*****************************************************

T1 MILLOW CREEK FIT NO 2003-07 CANTON TWP FROM CORP.BOUND.TO. CANTON CENTER ST.
T2
T3      MILLOW CREEK CANTON TWP.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FC
       0.       0.       0.       0.  0.200000     0.00     0.0       0.   650.000    0.000

J2  NPROF     IPLOT    PLPVS    ALLEV    XLECH    FN       ALLC     SNH      CHNIM    ITHNG
     15.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS, PRINTED IN U.S.A.

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HCSP RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52

****

NOTE= REFERENCE (R) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WILLOW CREEK CANYON TRIP.

SUMMARY PRINTOUT TABLE 150

0.000	0.00	0.00	0.00	636.00	440.00	665.17	0.00	665.25	1.90	2.39	279.69	319.01
0.000	0.00	0.00	0.00	636.00	660.00	666.75	0.00	666.84	1.87	2.66	483.17	466.50
0.000	0.00	0.00	0.00	636.00	770.00	667.10	0.00	667.20	2.10	2.91	583.64	525.19
0.000	0.00	0.00	0.00	636.00	880.00	668.05	0.00	668.17	2.15	3.17	693.69	583.34
600.000	600.00	0.00	0.00	656.10	440.00	665.29	0.00	665.40	2.90	3.01	384.09	234.96
600.000	600.00	0.00	0.00	656.10	676.00	666.69	0.00	666.96	2.01	2.76	811.01	451.44
600.000	600.00	0.00	0.00	656.10	748.00	667.27	0.00	667.34	2.06	2.96	934.49	515.41
600.000	600.00	0.00	0.00	656.10	968.00	669.25	0.00	669.31	1.70	4.77	1363.16	734.72
770.000	770.00	0.00	0.00	657.30	660.00	665.51	0.00	665.58	3.31	3.48	447.19	225.43
1370.000	770.00	0.00	0.00	657.30	660.00	667.06	0.00	667.16	2.86	3.22	730.74	376.50
1370.000	770.00	0.00	0.00	657.30	748.00	667.43	0.00	667.53	2.68	3.21	929.67	452.28
1370.000	770.00	0.00	0.00	657.30	968.00	668.39	0.00	668.46	2.05	2.96	1433.72	685.00
2170.000	44.00	0.00	0.00	657.30	660.00	668.66	0.00	668.72	2.27	1.15	324.27	57.00
2170.000	44.00	0.00	0.00	657.30	748.00	669.15	0.00	669.23	1.98	1.27	93.32	57.00
2819.000	49.00	0.00	0.00	657.30	748.00	667.52	0.00	667.58	1.96	1.91	1094.17	635.47
2819.000	49.00	0.00	0.00	657.30	968.00	668.44	0.00	668.47	1.88	1.95	1576.34	944.65
1463.000	60.00	666.70	565.90	637.30	660.00	665.05	0.00	665.77	6.01	2.79	137.96	179.64
1463.000	60.00	666.70	565.90	637.30	748.00	665.43	0.00	665.53	5.75	2.93	213.46	244.06
1463.000	60.00	666.70	565.90	637.30	968.00	666.36	0.00	666.43	5.67	3.20	367.36	309.07
1463.000	60.00	666.70	565.90	637.30	968.00	668.43	0.00	668.49	5.67	3.83	1141.57	516.54
1463.000	1.00	0.00	0.00	637.30	660.00	665.75	0.00	665.79	2.96	1.95	226.17	314.51
1463.000	1.00	0.00	0.00	637.30	660.00	667.23	0.00	667.26	1.87	1.80	962.06	617.96
1463.000	1.00	0.00	0.00	637.30	748.00	667.37	0.00	667.41	1.76	1.83	1140.27	698.63
1463.000	1.00	0.00	0.00	637.30	968.00	668.29	0.00	668.33	1.67	1.94	1543.23	943.72
1510.000	49.00	0.00	0.00	637.50	660.00	665.79	0.00	665.84	4.00	3.75	300.74	220.33
1510.000	49.00	0.00	0.00	637.50	660.00	667.21	0.00	667.29	2.46	3.05	862.00	406.66
1510.000	49.00	0.00	0.00	637.50	748.00	667.56	0.00	667.63	2.40	3.06	1062.12	477.87
1510.000	49.00	0.00	0.00	637.50	748.00	668.43	0.00	668.51	1.92	2.99	1585.78	700.69

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SECNO	XLOC	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIMS	ZG	10K*S	VCH	AREA	.01K
2987.000	1477.00	0.00	0.00	661.10	640.00	666.62	0.00	666.93	15.74	4.98	218.84	110.89
2987.000	1477.00	0.00	0.00	661.10	640.00	667.73	0.00	667.90	7.65	3.07	649.57	231.60
2987.000	1477.00	0.00	0.00	661.10	740.00	668.07	0.00	668.18	6.60	2.81	849.95	284.05
2987.000	1477.00	0.00	0.00	661.10	960.00	668.85	0.00	668.92	4.52	3.46	1249.40	461.05
3979.000	992.00	0.00	0.00	661.40	640.00	667.35	0.00	667.40	1.74	1.84	292.65	333.57
3979.000	992.00	0.00	0.00	661.40	640.00	668.21	0.00	668.29	2.28	2.31	348.76	423.62
3979.000	992.00	0.00	0.00	661.40	740.00	668.49	0.00	668.56	2.05	2.35	397.10	454.23
3979.000	992.00	0.00	0.00	661.40	960.00	669.21	0.00	669.30	3.31	2.84	494.81	551.35
4029.000	50.00	0.00	0.00	660.10	640.00	667.36	0.00	667.41	2.60	1.78	240.15	266.65
4029.000	50.00	0.00	0.00	660.10	640.00	668.23	0.00	668.30	5.71	2.26	283.52	332.25
4029.000	50.00	0.00	0.00	660.10	740.00	668.53	0.00	668.60	4.39	2.51	295.20	353.25
4029.000	50.00	0.00	0.00	660.10	960.00	669.22	0.00	669.30	5.75	2.81	395.05	476.01
4237.000	208.00	671.60	667.00	660.50	640.00	667.44	0.00	667.50	20.10	2.00	157.05	140.14
4237.000	208.00	671.60	667.00	660.50	640.00	668.52	0.00	668.59	5.27	2.77	295.51	353.81
4237.000	208.00	671.60	667.00	660.50	740.00	669.44	0.00	669.52	3.52	2.35	317.40	384.19
4237.000	208.00	671.60	667.00	660.50	960.00	670.90	0.00	671.01	5.63	2.59	379.05	516.11
4287.000	50.00	0.00	0.00	662.00	640.00	667.33	0.00	667.41	1.30	1.19	318.56	329.55
4287.000	50.00	0.00	0.00	662.00	640.00	668.23	0.00	668.31	1.33	1.99	441.36	495.03
4287.000	50.00	0.00	0.00	662.00	740.00	669.48	0.00	669.52	1.64	2.06	551.50	577.72
4287.000	50.00	0.00	0.00	662.00	960.00	670.97	0.00	671.05	1.40	2.17	772.96	829.20
5237.000	950.00	0.00	0.00	662.50	640.00	667.29	0.00	667.34	36.00	1.75	75.16	59.05
5237.000	950.00	0.00	0.00	662.50	640.00	668.57	0.00	668.63	40.29	1.92	197.30	158.04
5237.000	950.00	0.00	0.00	662.50	740.00	669.58	668.24	670.35	31.16	1.96	422.00	323.56
5237.000	950.00	0.00	0.00	662.50	960.00	671.14	0.00	671.47	15.27	6.75	536.30	250.75
5735.000	498.00	0.00	0.00	662.90	640.00	668.24	0.00	668.45	8.54	3.73	201.11	172.01
5735.000	498.00	0.00	0.00	662.90	640.00	669.62	0.00	669.70	4.34	4.31	271.71	240.78
5735.000	498.00	0.00	0.00	662.90	740.00	669.97	0.00	670.19	7.64	4.56	347.61	270.39
5735.000	498.00	0.00	0.00	662.90	960.00	671.50	0.00	671.67	5.17	5.31	521.98	320.04
5755.000	50.00	0.00	0.00	662.80	640.00	668.45	0.00	668.51	3.75	1.99	221.39	227.31
5755.000	50.00	0.00	0.00	662.80	640.00	670.70	0.00	670.79	4.12	2.34	275.84	315.12
5755.000	50.00	0.00	0.00	662.80	740.00	671.07	0.00	671.17	4.47	2.52	293.58	350.10
5755.000	50.00	0.00	0.00	662.80	960.00	672.00	0.00	672.13	5.59	2.99	388.26	474.67
6199.000	444.00	677.90	670.20	663.50	640.00	668.70	0.00	668.83	15.66	2.69	192.16	107.14
6199.000	444.00	677.90	670.10	663.50	640.00	671.72	0.00	671.82	3.66	2.25	248.25	283.45
6199.000	444.00	677.90	670.10	663.50	740.00	672.59	0.00	672.67	3.45	2.32	319.91	364.11
6199.000	444.00	677.90	670.10	663.50	960.00	674.43	0.00	674.53	2.06	2.74	470.37	523.06
6249.000	50.00	0.00	0.00	664.10	640.00	668.33	0.00	668.40	20.42	3.79	95.44	72.01
6249.000	50.00	0.00	0.00	664.10	640.00	671.05	0.00	671.96	15.76	5.35	323.94	172.09
6249.000	50.00	0.00	0.00	664.10	740.00	672.54	0.00	672.77	9.27	5.20	454.07	243.05
6249.000	50.00	0.00	0.00	664.10	960.00	674.34	0.00	674.57	6.73	6.30	738.36	450.51
6637.000	388.00	0.00	0.00	664.30	640.00	671.15	0.00	671.29	9.07	6.53	82.86	100.69
6637.000	388.00	0.00	0.00	664.30	640.00	672.34	0.00	672.49	5.17	7.15	114.44	667.77
6637.000	388.00	0.00	0.00	664.30	740.00	674.96	0.00	675.05	5.52	5.46	176.68	329.02
6637.000	388.00	0.00	0.00	664.30	960.00	676.70	0.00	676.73	4.30	2.87	249.52	659.47

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	SECNO	XLOC	ELTRD	ELLC	ELMAN	Q	CWSEL	CRIWS	EG	10KAS	VCH	AREA	.01K
	7453.000	766.00	0.00	0.00	664.90	440.00	672.10	0.00	672.32	6.70	4.09	175.13	170.05
1	7453.000	765.00	0.00	0.00	664.90	640.00	672.76	0.00	673.11	9.45	5.16	268.59	258.25
2	7453.000	765.00	0.00	0.00	664.90	740.00	673.25	0.00	673.56	11.04	5.20	367.46	348.66
3	7453.000	765.00	0.00	0.00	664.90	900.00	674.65	0.00	675.04	5.25	4.49	686.21	429.62
4													
5	7503.000	50.00	0.00	0.00	664.00	440.00	672.12	0.00	672.59	13.17	4.17	105.55	121.25
6	7503.000	50.00	0.00	0.00	664.00	640.00	672.89	0.00	673.17	10.30	4.67	274.28	199.42
7	7503.000	50.00	0.00	0.00	664.00	740.00	673.33	0.00	673.64	9.72	4.76	372.23	237.33
8	7503.000	50.00	0.00	0.00	664.00	900.00	674.53	0.00	675.02	5.92	4.05	682.14	402.75
9													
10	7543.000	40.00	674.10	672.50	664.04	440.00	672.15	0.00	672.53	36.85	4.93	89.24	72.51
11	7543.000	40.00	674.10	672.50	664.04	640.00	672.22	0.00	674.33	4.12	5.23	532.55	315.36
12	7543.000	40.00	674.10	672.50	664.04	740.00	674.54	0.00	674.66	4.44	5.43	596.59	351.21
13	7543.000	40.00	674.10	672.50	664.04	900.00	675.34	0.00	675.53	5.11	5.14	727.45	432.05
14													
15	7593.000	50.00	0.00	0.00	664.70	440.00	672.53	0.00	672.63	3.07	2.69	170.52	149.49
16	7593.000	50.00	0.00	0.00	664.70	640.00	674.25	0.00	674.37	4.49	4.64	512.68	301.98
17	7593.000	50.00	0.00	0.00	664.70	740.00	674.65	0.00	674.69	4.75	4.24	577.08	340.37
18	7593.000	50.00	0.00	0.00	664.70	900.00	675.21	0.00	675.37	5.25	4.66	710.53	426.08
19													
20	6737.000	1144.00	0.00	0.00	667.80	440.00	675.65	0.00	675.77	7.60	3.57	124.21	157.59
21	6737.000	1144.00	0.00	0.00	667.80	640.00	674.76	0.00	675.03	3.03	3.30	253.09	325.03
22	6737.000	1144.00	0.00	0.00	667.80	740.00	675.11	0.00	675.17	3.64	3.00	296.30	367.90
23	6737.000	1144.00	0.00	0.00	667.80	900.00	675.77	0.00	675.83	3.36	2.92	1366.24	560.34
24													
25	9507.000	050.00	0.00	0.00	668.50	440.00	674.16	0.00	674.43	12.22	4.33	135.92	146.67
26	9507.000	050.00	0.00	0.00	668.50	640.00	675.16	0.00	675.46	12.21	5.12	213.71	183.15
27	9507.000	050.00	0.00	0.00	668.50	740.00	675.44	0.00	675.70	12.80	5.41	321.12	226.65
28	9507.000	050.00	0.00	0.00	668.50	900.00	676.04	0.00	676.39	15.25	5.82	485.97	289.65
29													
30	10155.000	548.00	0.00	0.00	669.00	440.00	674.71	0.00	674.92	6.26	3.37	131.59	175.00
31	10155.000	548.00	0.00	0.00	669.00	640.00	675.67	0.00	675.90	7.32	4.26	211.85	231.90
32	10155.000	548.00	0.00	0.00	669.00	740.00	675.99	0.00	676.22	7.80	4.60	271.40	252.52
33	10155.000	548.00	0.00	0.00	669.00	900.00	676.69	0.00	676.96	10.08	5.14	407.10	295.19
34													
35	10184.000	49.00	0.00	0.00	669.00	440.00	674.71	0.00	674.89	6.54	4.27	102.90	153.54
36	10184.000	49.00	0.00	0.00	669.00	640.00	675.65	0.00	676.09	11.02	5.50	123.66	192.61
37	10184.000	49.00	0.00	0.00	669.00	740.00	676.07	0.00	676.30	2.73	5.00	123.51	207.50
38	10184.000	49.00	0.00	0.00	669.00	900.00	676.55	0.00	677.00	9.53	5.42	167.59	233.26
39													
40	10165.000	1.00	674.52	673.00	668.02	440.00	674.71	0.00	674.90	6.56	4.27	102.99	153.50
41	10165.000	1.00	674.52	673.00	668.02	640.00	675.64	0.00	676.09	11.01	5.30	120.70	192.16
42	10165.000	1.00	674.52	673.00	668.02	740.00	675.97	0.00	676.30	12.75	5.85	126.53	207.41
43	10165.000	1.00	674.52	673.00	668.02	900.00	676.55	0.00	677.00	9.54	5.43	167.62	233.30
44													
45	10249.000	64.00	674.52	673.00	668.30	440.00	674.67	0.00	674.86	26.36	3.77	74.10	104.05
46	10249.000	64.00	674.52	673.00	668.30	640.00	675.57	0.00	676.37	22.56	7.19	87.05	135.28
47	10249.000	64.00	674.52	673.00	668.30	740.00	675.85	0.00	676.84	26.19	7.45	93.09	144.60
48	10249.000	64.00	674.52	673.00	668.30	900.00	676.36	0.00	677.84	36.93	9.78	100.20	161.26
49													
50	10252.000	1.00	0.00	0.00	664.30	440.00	674.67	0.00	674.86	26.36	3.77	74.10	104.05
51	10252.000	1.00	0.00	0.00	664.30	640.00	675.57	0.00	676.37	22.56	7.19	87.05	135.32
52	10252.000	1.00	0.00	0.00	664.30	740.00	675.86	0.00	676.84	26.19	7.45	93.10	144.65
53	10252.000	1.00	0.00	0.00	664.30	900.00	676.36	0.00	677.85	36.86	9.77	100.20	161.41
54													
55													
56													
57													

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SECNO	XLCN	ELTRB	ELLC	ELTIN	Q	CHSEL	CRLWS	EG	10K*S	VCH	AREA	.01K
10299.000	49.00	0.00	0.00	669.40	440.00	674.64	0.00	675.23	12.63	5.44	100.31	123.82
10289.000	0.00	0.00	0.00	669.43	440.00	675.93	0.00	676.52	13.60	6.50	152.18	173.19
10279.000	0.00	0.00	0.00	669.45	440.00	676.93	0.00	678.34	13.22	6.64	196.15	203.49
10269.000	0.00	0.00	0.00	669.46	440.00	677.68	0.00	679.22	12.53	6.54	240.46	303.06
11287.000	0.00	0.00	0.00	669.46	440.00	677.77	0.00	678.02	16.13	4.16	254.85	159.57
11297.000	984.00	0.00	0.00	670.00	440.00	676.93	0.00	676.91	21.92	4.19	105.03	95.99
11287.000	0.00	0.00	0.00	670.00	440.00	677.77	0.00	678.02	16.13	4.16	254.85	159.57
11287.000	983.00	0.00	0.00	670.00	440.00	677.77	0.00	678.02	16.13	4.16	254.85	159.57
11287.000	0.00	0.00	0.00	670.00	440.00	677.77	0.00	678.02	16.13	4.16	254.85	159.57
11287.000	984

	SECNO	KLCH	ELTRD	ELLC	ELMIN	Q	CNSEL	CTIES	EG	10K*S	VCH	AREA	.01K
	17533.000	49.00	0.00	0.00	682.30	220.00	685.47	0.00	686.36	65.74	7.53	29.15	23.76
1	17533.000	49.00	0.00	0.00	682.30	330.00	686.11	0.00	687.04	103.01	9.20	35.66	28.31
2	17533.000	49.00	0.00	0.00	682.30	400.00	686.42	0.00	688.08	117.39	10.33	39.72	32.98
3	17533.000	49.00	0.00	0.00	682.30	540.00	687.02	687.02	689.27	135.29	12.37	46.74	45.92
4													
5	17534.000	1.00	588.70	586.00	682.30	220.00	685.66	0.00	686.45	41.78	6.92	31.60	24.05
6	17534.000	1.00	588.70	587.00	682.30	330.00	686.11	0.00	687.46	73.30	9.31	35.45	37.36
7	17534.000	1.00	588.70	587.00	682.30	400.00	686.36	686.97	688.16	99.65	10.76	39.17	46.07
8	17534.000	1.00	588.70	587.00	682.30	540.00	686.81	686.81	689.50	142.26	13.30	46.43	45.23
9													
10	17694.000	110.00	688.70	688.40	682.70	220.00	686.15	0.00	686.85	39.11	6.77	32.51	35.10
11	17694.000	110.00	688.70	688.40	682.70	330.00	687.25	0.00	688.26	52.67	8.14	40.55	45.47
12	17694.000	110.00	688.70	688.40	682.70	400.00	687.98	0.00	689.25	66.65	8.95	44.70	41.26
13	17694.000	110.00	688.70	688.40	682.70	540.00	688.96	687.21	691.25	101.77	8.11	44.65	47.15
14													
15	17645.000	1.00	0.00	0.00	682.90	220.00	682.07	0.00	686.41	45.41	7.34	29.16	23.16
16	17645.000	1.00	0.00	0.00	682.90	330.00	687.21	0.00	688.27	55.46	7.96	41.34	45.70
17	17645.000	1.00	0.00	0.00	682.90	400.00	688.46	0.00	689.34	45.86	7.54	55.56	59.57
18	17645.000	1.00	0.00	0.00	682.90	540.00	691.66	0.00	691.86	5.46	4.13	254.45	231.13
19													
20	17694.000	47.00	0.00	0.00	683.00	220.00	686.51	0.00	687.45	80.91	5.44	54.22	52.57
21	17694.000	47.00	0.00	0.00	683.00	330.00	688.15	0.00	688.60	80.99	9.30	101.17	71.[illegible]
22	17694.000	47.00	0.00	0.00	683.00	400.00	689.27	0.00	689.30	10.66	4.57	190.65	122.[illegible]
23	17694.000	47.00	0.00	0.00	683.00	540.00	691.82	0.00	691.89	2.80	2.97	467.36	322.74
24													
25	[illegible]	131.00	0.00	0.00	685.00	220.00	689.12	0.00	689.75	61.30	5.[illegible]	93.63	65.37
26	[illegible]	131.00	0.00	0.00	685.00	330.00	690.54	0.00	690.93	79.84	8.09	147.57	106.41
27	[illegible]	131.00	0.00	0.00	685.00	400.00	691.41	0.00	691.58	1.55	3.06	174.26	138.59
28	[illegible].000	1133.00	0.00	0.00	685.00	540.00	692.15	0.00	692.25	5.07	2.57	305.51	281.04
29													
30	[illegible].000	1227.00	0.00	0.00	687.70	220.00	690.91	0.00	691.30	21.01	3.30	69.54	47.66
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
34													
35	[illegible].000	1077.00	0.00	[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	27.24	3.67	69.77	62.15
36	[illegible].000	1077.00	0.00	[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	26.13	4.16	98.22	54.56
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
39													
40	[illegible]	128.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	693.85	8.76	2.26	97.26	79.54
41	[illegible]	128.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	694.47	11.47	2.87	113.66	92.45
42	[illegible]	128.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	694.63	13.10	3.21	124.45	110.53
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
44													
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
49													
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
52	21312.000	73.00	694.60	692.70	696.70	500.00	694.70	0.00	694.97	10.59	4.47	95.06	77.[illegible]
53	21312.000	73.00	694.60	692.70	696.70	540.00	695.19	0.00	695.63	22.15	5.12	165.30	114.[illegible]
54													
55													
56													
57													

A-A

A-B

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	SECLO	XLCH	ELTRD	ELEC	ELMIN	H	CHSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	21319.000	7.00	0.00	0.00	690.70	220.00	693.87	0.00	693.97	12.44	2.52	87.26	62.37
1	21319.000	7.00	0.00	0.00	690.70	330.00	694.30	0.01	694.42	16.42	3.11	107.15	80.49
2	21319.000	7.00	0.00	0.00	690.70	400.00	694.61	0.01	694.81	19.56	3.39	117.94	101.39
3	21319.000	7.00	0.00	0.00	690.70	540.00	695.11	0.02	695.66	27.78	3.95	136.54	128.25
4													
5	21727.000	408.00	0.00	0.00	692.20	220.00	694.05	0.01	695.25	100.25	6.25	35.32	21.15
6	21727.000	408.00	0.00	0.00	692.20	330.00	695.30	0.02	695.99	35.89	6.69	52.61	33.61
7	21727.000	408.00	0.00	0.00	692.20	400.00	695.85	0.02	696.39	77.50	6.97	65.65	45.49
8	21727.000	408.00	0.00	0.00	692.20	540.00	696.87	0.03	697.37	54.67	7.33	84.27	67.19
9													
10	22635.000	908.00	0.00	0.00	695.70	220.00	700.16	0.02	700.40	35.91	5.95	65.92	37.79
11	22635.000	908.00	0.00	0.00	696.70	330.00	700.61	0.02	700.95	36.96	4.69	86.32	54.28
12	22635.000	908.00	0.00	0.00	696.70	400.00	700.93	0.02	701.22	36.41	5.09	99.07	64.54
13	22635.000	908.00	0.00	0.00	696.70	540.00	701.25	0.02	701.72	42.91	5.63	120.78	83.23
14													
15	22735.000	108.00	0.00	0.00	697.20	220.00	700.92	0.02	701.17	10.30	2.37	82.82	68.52
16	22735.000	108.00	0.00	0.00	697.20	330.00	701.05	0.02	701.20	15.51	3.01	109.69	89.77
17	22735.000	108.00	0.00	0.00	697.20	400.00	701.34	0.02	701.51	15.41	3.37	118.67	101.56
18	22735.000	108.00	0.00	0.00	697.20	540.00	701.81	0.02	702.06	19.20	4.04	133.82	123.22
19													
20	22742.000	7.00	705.00	703.20	697.20	220.00	700.92	0.02	701.14	8.53	2.71	81.35	73.31
21	22742.000	7.00	705.00	703.20	697.20	330.00	701.02	0.02	701.23	12.30	3.30	98.37	92.23
22	22742.000	7.00	705.00	703.20	697.20	400.00	701.19	0.02	701.37	15.37	4.09	97.90	101.57
23	22742.000	7.00	705.00	703.20	697.20	540.00	701.75	0.02	702.34	21.30	5.03	107.32	117.67
24													
25	22812.000	70.00	705.00	703.20	697.20	220.00	700.57	0.01	700.78	9.56	2.91	73.76	71.02
26	22812.000	70.00	705.00	703.20	697.20	330.00	700.72	0.01	700.94	12.30	2.76	87.78	85.23
27	22812.000	70.00	705.00	703.20	697.20	400.00	700.89	0.02	701.09	17.75	4.20	93.83	94.93
28	22812.000	70.00	705.00	703.20	697.20	540.00	701.09	0.02	701.31	23.56	5.19	105.95	111.77
29													
30	22819.000	7.00	1.00	0.00	697.20	220.00	700.62	0.00	700.74	13.04	2.56	86.51	60.93
31													
32													
33													
34													
35	23927.000	153.00	0.00	0.00	697.20	220.00	700.72	0.00	700.79	5.27	2.15	136.70	121.71
36	23927.000	153.00	0.00	0.00	697.20	330.00	701.56	0.00	701.66	6.09	2.07	143.50	146.21
37	23927.000	153.00	0.00	0.00	697.20	400.00	701.93	0.00	702.03	8.11	3.11	134.18	162.75
38	23927.000	153.00	0.00	0.00	697.20	540.00	702.50	0.00	702.59	8.81	3.00	94.80	161.23
39													
40	22977.000	50.00	0.00	0.00	698.70	220.00	702.80	702.90	704.76	145.10	9.70	39.71	19.66
41	22977.000	50.00	0.00	0.00	698.70	330.00	703.73	703.79	705.31	115.60	10.95	49.73	36.69
42	22977.000	50.00	0.00	0.00	698.70	400.00	703.21	703.21	705.94	112.93	11.64	59.52	37.47
43	22977.000	50.00	0.00	0.00	698.70	540.00	703.93	703.93	707.02	116.91	12.18	78.42	51.20
44													
45	22977.000	50.00	0.00	0.00	698.70	220.00	703.93	0.00	704.01	10.05	3.37	104.40	67.40
46	23104.000	527.00	0.00	0.00	701.42	330.00	706.53	0.00	706.72	10.07	3.86	117.49	105.97
47	23104.000	527.00	0.00	0.00	701.42	400.00	707.09	0.00	707.33	9.36	4.12	137.69	127.37
48	23104.000	527.00	0.00	0.00	701.42	540.00	708.12	0.00	708.41	9.35	4.36	179.41	176.72
49													
50	23533.000	50.00	0.00	0.00	702.70	220.00	705.21	0.00	705.30	4.39	3.42	90.43	57.45
51	23533.000	50.00	0.00	0.00	702.70	330.00	705.43	0.00	705.70	5.40	3.76	97.77	84.31
52	23533.000	50.00	0.00	0.00	702.70	400.00	705.74	0.00	705.90	6.63	4.06	98.32	104.19
53	23533.000	50.00	0.00	0.00	702.70	540.00	706.13	0.00	706.40	10.75	4.60	117.49	132.52
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	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CASEL	CRIDS	EG	TORQS	VCH	AREA	.01K
	23554.000	1.00	710.00	707.70	701.75	220.00	705.50	0.30	705.69	10.18	3.43	64.21	66.94
1	23554.000	1.00	710.00	707.70	701.75	330.00	706.55	0.00	706.87	14.56	4.20	76.52	80.40
2	23554.000	1.00	710.00	707.70	701.75	400.00	707.40	0.20	707.65	17.55	4.75	84.23	90.05
3	23554.000	1.00	710.00	707.70	701.75	540.00	708.82	0.00	708.61	40.37	4.17	97.58	84.99
4													
5	23613.000	59.00	710.00	707.85	701.90	220.00	705.56	0.00	705.75	10.84	3.49	62.95	66.63
6	23613.000	59.00	710.00	707.85	701.90	330.00	706.61	0.00	706.69	12.69	4.25	77.70	82.64
7	23613.000	59.00	710.00	707.85	701.90	400.00	707.20	0.00	707.35	17.69	4.73	33.69	95.11
8	23613.000	59.00	710.00	707.85	701.90	540.00	708.36	0.00	708.85	40.41	4.17	97.59	84.69
9													
10	23614.000	1.00	0.00	0.00	701.90	220.00	705.59	0.00	705.78	15.62	3.29	57.09	55.66
11	23614.000	1.00	0.00	0.00	701.90	330.00	706.69	0.00	706.91	15.41	3.77	87.45	84.07
12	23614.000	1.00	0.00	0.00	701.90	400.00	707.33	0.00	707.58	15.23	4.02	99.44	102.69
13	23614.000	1.00	0.00	0.00	701.90	540.00	708.63	0.00	708.94	14.22	4.55	123.90	145.20
14													
15	23663.000	49.00	0.00	0.00	702.00	220.00	705.51	0.00	706.09	46.41	6.24	44.07	32.29
16	23663.000	49.00	0.00	0.00	702.00	330.00	706.56	0.00	707.25	59.05	7.01	64.65	52.00
17	23663.000	49.00	0.00	0.00	702.00	400.00	707.19	0.00	707.94	55.39	7.31	76.59	67.26
18	23663.000	49.00	0.00	0.00	702.00	540.00	708.52	0.00	709.25	26.33	7.39	126.46	105.23
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WILLOW CREEK CANTON TWP.

SUMMARY PRINTOUT TABLE 150

SACCO	W	CMBEL	DIFMSP	DIFMSX	DIFKLS	TOPMTD	XLCH
0.300	440.00	665.17	0.00	0.00	0.00	92.47	0.00
0.300	640.00	666.75	0.00	0.00	0.00	148.78	0.00
0.300	740.00	667.10	0.00	0.00	0.00	156.53	0.00
0.300	980.00	668.04	0.00	0.00	0.00	276.14	0.00
600.000	440.00	665.27	0.00	0.12	0.00	177.07	600.00
600.000	640.00	666.89	0.00	0.14	0.00	352.89	600.00
600.000	740.00	667.27	0.00	0.17	0.00	491.15	600.00
600.000	980.00	668.23	0.00	0.20	0.00	700.01	600.00
1370.000	440.00	665.51	0.00	0.24	0.00	87.72	770.00
1370.000	640.00	667.06	0.00	0.16	0.00	524.00	770.00
1370.000	740.00	667.43	0.00	0.17	0.00	524.00	770.00
1370.000	980.00	668.39	0.00	0.14	0.00	524.00	770.00
1419.000	440.00	665.66	0.00	0.03	0.00	28.00	49.00
1419.000	640.00	667.18	0.00	0.10	0.00	524.00	49.00
1419.000	740.00	667.52	0.00	0.08	0.00	524.00	49.00
1419.000	980.00	668.44	0.00	0.05	0.00	524.00	49.00
1420.000	440.00	665.65	0.00	-0.03	0.00	28.00	1.00
1420.000	640.00	667.11	0.00	-0.03	0.00	524.00	1.00
1420.000	740.00	667.50	0.00	+0.02	0.00	524.00	1.00
1420.000	980.00	668.43	0.00	-0.00	0.00	524.00	1.00
1460.000	440.00	665.69	0.00	0.02	0.00	28.00	40.00
1460.000	640.00	667.14	0.00	0.03	0.00	524.00	40.00
1460.000	740.00	667.52	0.00	0.02	0.00	524.00	40.00
1460.000	980.00	668.48	0.00	0.02	0.00	524.00	40.00
1461.000	440.00	665.74	0.00	0.01	0.00	28.00	1.00
1461.000	640.00	667.23	0.00	0.07	0.00	524.00	1.00
1461.000	740.00	667.17	0.00	0.03	0.00	524.00	1.00
1461.000	980.00	668.45	0.00	0.01	0.00	524.00	1.00
1510.000	440.00	665.70	0.00	-0.03	0.00	153.71	49.00
1510.000	640.00	667.21	0.00	-0.03	0.00	524.00	49.00
1510.000	740.00	667.58	0.00	-0.01	0.00	524.00	49.00
1510.000	980.00	668.45	0.00	-0.00	0.00	524.00	49.00
2987.000	440.00	666.02	0.00	0.11	0.00	241.03	1477.00
2987.000	640.00	667.76	0.00	0.35	0.00	511.52	1477.00
2987.000	740.00	668.07	0.00	0.32	0.00	515.00	1477.00
2987.000	980.00	668.09	0.00	0.40	0.00	515.00	1477.00
3979.000	440.00	667.35	0.00	0.73	0.00	40.23	992.00
3979.000	640.00	668.21	0.00	0.45	0.00	67.00	992.00
3979.000	740.00	668.49	0.00	0.41	0.00	67.00	992.00
3979.000	980.00	669.20	0.00	0.35	0.00	67.00	992.00
4029.000	440.00	667.35	0.00	0.01	0.00	42.00	50.00
4029.000	640.00	668.43	0.00	0.01	0.00	42.00	50.00
4029.000	740.00	668.53	0.00	0.02	0.00	42.00	50.00
4029.000	980.00	669.22	0.00	0.02	0.00	42.00	50.00

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FORM 1411-GB-PRINTED BY ROTARY MANIFOLD FORMS

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4237.000	440.00	667.44	0.00	0.03	0.00	42.00	208.00
4237.000	640.00	668.92	0.00	0.69	0.00	42.00	208.00
4237.000	740.00	669.44	0.00	0.96	0.00	42.00	208.00
4237.000	980.00	670.90	0.00	1.59	0.00	42.00	208.00
4287.000	640.00	667.56	0.00	0.12	0.00	104.76	50.00
4287.000	640.00	668.95	0.00	0.04	0.00	142.00	50.00
4287.000	740.00	669.45	0.00	0.05	0.00	142.00	50.00
4287.000	980.00	670.57	0.00	0.03	0.00	142.00	50.00
5237.000	440.00	667.61	0.00	0.05	0.00	56.86	950.00
5237.000	640.00	668.97	0.00	0.02	0.00	52.96	950.00
5237.000	740.00	669.52	0.00	0.04	0.00	169.61	950.00
5237.000	980.00	671.14	0.00	0.14	0.00	209.45	950.00
5735.000	440.00	669.71	0.00	1.07	0.00	48.09	498.00
5735.000	640.00	670.48	0.00	1.51	0.00	67.00	498.00
5735.000	740.00	670.93	0.00	1.49	0.00	67.00	498.00
5735.000	980.00	671.70	0.00	0.56	0.00	67.00	498.00
5785.000	440.00	669.65	0.00	0.10	0.00	42.00	50.00
5785.000	640.00	670.70	0.00	0.22	0.00	42.00	50.00
5785.000	740.00	671.17	0.00	0.24	0.00	42.00	50.00
5785.000	980.00	672.00	0.00	0.30	0.00	42.00	50.00
6199.000	440.00	669.70	0.00	0.25	0.00	42.00	414.00
6199.000	640.00	671.74	0.00	1.05	0.00	42.00	414.00
6199.000	740.00	672.59	0.00	1.42	0.00	42.00	414.00
6199.000	980.00	674.54	0.00	2.55	0.00	42.00	414.00
6249.000	440.00	669.50	0.00	-0.20	0.00	40.61	50.00
6249.000	640.00	671.05	0.00	-0.04	0.00	35.96	50.00
6249.000	740.00	672.54	0.00	-0.06	0.00	42.00	50.00
6249.000	980.00	674.54	0.00	0.02	0.00	42.00	50.00
6607.000	440.00	671.15	0.00	1.65	0.00	417.05	438.00
6607.000	640.00	672.32	0.00	0.67	0.00	464.33	438.00
6607.000	740.00	673.47	0.00	0.03	0.00	469.32	438.00
6607.000	980.00	674.75	0.00	0.02	0.00	440.00	438.00
7453.000	440.00	672.16	0.00	0.95	0.00	79.62	766.00
7453.000	640.00	672.76	0.00	0.44	0.07	200.00	766.00
7453.000	740.00	673.26	0.00	0.27	1.16	200.00	766.00
7453.000	980.00	674.53	0.00	0.09	2.75	200.00	766.00
7503.000	440.00	672.19	0.00	0.02	0.00	13.00	50.00
7503.000	640.00	672.89	0.00	0.12	0.77	197.70	50.00
7503.000	740.00	673.33	0.00	0.12	1.23	200.00	50.00
7503.000	980.00	674.93	0.00	0.07	2.81	200.00	50.00
7543.000	440.00	672.13	0.00	0.02	0.00	13.00	40.00
7543.000	640.00	674.79	0.00	1.32	2.07	200.00	40.00
7543.000	740.00	674.56	0.00	0.14	2.39	200.00	40.00
7543.000	980.00	675.19	0.00	0.27	3.05	200.00	40.00

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SECNO	Q	CWSEL	DIFWSP	DIFUSX	DIFKWS	TOPWID	XLCH
7593.000	440.00	672.35	0.00	0.20	0.00	82.50	50.00
7593.000	640.00	674.25	0.00	0.31	1.87	200.00	50.00
7593.000	740.00	674.55	0.00	0.01	2.20	200.00	50.00
7593.000	980.00	675.21	0.00	0.01	2.86	200.00	50.00
8737.000	440.00	673.43	0.00	1.08	0.00	290.20	1144.00
8737.000	640.00	674.78	0.00	0.55	1.35	427.06	1144.00
8737.000	740.00	673.11	0.00	0.56	1.66	336.73	1144.00
8737.000	980.00	675.77	0.00	0.57	2.35	740.00	1144.00
9587.000	440.00	674.15	0.00	0.73	0.00	54.34	850.00
9587.000	640.00	675.14	0.00	0.37	0.96	181.17	850.00
9587.000	740.00	675.44	0.00	0.34	1.28	222.23	850.00
9587.000	980.00	675.0[illegible]	0.00	0.27	1.86	308.09	850.00
10135.000	440.00	674.[illegible]	0.00	0.55	0.00	32.42	548.00
10135.000	640.00	675.67	0.00	0.53	0.96	41.78	548.00
10135.000	740.00	675.99	0.00	0.55	1.28	44.00	548.00
10135.000	980.00	676.61	0.00	0.57	1.90	44.00	548.00
10154.000	440.00	674.7[illegible]	0.00	-0.0[illegible]	0.00	18.70	49.00
10154.000	640.00	675.[illegible]	0.00	-0.02	0.9[illegible]	18.70	49.00
10154.000	740.00	675.97	0.00	-0.05	1.2[illegible]	18.70	49.00
10154.000	980.00	676.55	0.00	-0.06	1.34	18.70	49.00
10185.000	440.00	674.71	0.00	0.30	0.00	16.70	1.00
10185.000	640.00	675.66	0.00	0.30	0.95	16.70	1.00
10185.000	740.00	675.97	0.00	0.30	1.26	16.70	1.00
10185.000	980.00	676.55	0.00	0.00	1.84	16.70	1.00
10249.000	440.00	674.67	0.00	-0.04	0.00	14.20	64.00
10249.000	640.00	675.57	0.00	-0.09	0.90	14.20	64.00
10249.000	740.00	675.81	0.00	-0.11	1.19	14.20	64.00
10249.000	980.00	676.56	0.00	-0.19	1.84	14.20	64.00
10250.000	440.00	674.67	0.00	0.30	0.00	14.20	1.00
10250.000	640.00	675.57	0.00	0.30	0.91	14.20	1.00
10250.000	740.00	675.86	0.00	0.30	1.19	14.20	1.00
10250.000	980.00	676.[illegible]	0.00	0.01	1.70	14.20	1.00
10299.000	440.00	674.84	0.00	0.97	0.00	22.60	69.00
10299.000	640.00	675.93	0.00	0.86	1.09	68.96	69.00
10299.000	740.00	676.[illegible]	0.00	0.57	1.59	114.00	69.00
10299.000	980.00	677.69	0.00	1.33	2.85	114.00	69.00
11287.000	440.00	676.6[illegible]	0.00	1.79	0.00	32.11	938.00
11287.000	640.00	677.77	0.00	1.34	1.17	367.97	938.00
11287.000	740.00	678.15	0.00	1.72	1.52	461.66	938.00
11287.000	980.00	678.98	0.00	1.29	2.34	563.01	938.00
12304.000	440.00	677.51	0.00	0.85	0.00	57.00	1027.00
12304.000	640.00	678.[illegible]	0.00	0.82	1.07	57.00	1027.00
12304.000	740.00	678.[illegible]	0.00	0.75	1.37	57.00	1027.00
12304.000	980.00	679.5[illegible]	0.00	0.33	1.99	57.00	1027.00

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	SECTO	G	TOTAL	DIFWSP	DIFWSX	DIFKWS	TOPWID	KLCK
	12356.000	540.00	677.51	0.00	-0.00	0.00	32.00	50.00
	12356.000	640.00	678.56	0.00	-0.01	1.06	32.00	50.00
	12356.000	740.00	679.62	0.00	-0.01	1.36	32.00	50.00
	12356.000	940.00	681.74	0.00	0.05	2.08	125.63	50.00
	12411.000	440.00	677.51	0.00	0.01	0.00	32.00	57.00
	12411.000	640.00	678.73	0.00	0.22	1.27	32.00	57.00
	12411.000	740.00	679.13	0.00	0.31	1.63	32.00	57.00
	12411.000	940.00	680.54	0.00	0.55	2.53	287.50	57.00
	12461.000	440.00	677.80	0.00	0.07	0.00	91.01	55.00
	12461.000	640.00	678.90	0.00	0.10	1.32	64.67	50.00
	12461.000	740.00	679.31	0.00	0.13	1.71	69.63	50.00
	12461.000	940.00	680.53	0.00	0.07	2.47	90.02	50.00
	13062.000	440.00	677.80	0.00	0.23	0.01	60.24	60[illegible].00
	13062.000	640.00	679.09	0.00	0.20	1.21	102.52	60[illegible].00
	13062.000	740.00	679.59	0.00	0.21	1.72	126.78	60[illegible].00
	13062.000	940.00	680.81	0.00	0.24	2.51	114.73	60[illegible].00
	[illegible]087.000	[illegible]40.00	[illegible]80.87	0.00	2.55	0.20	57.30	2025.00
	[illegible]087.000	[illegible]40.00	[illegible]81.02	0.00	2.65	0.70	72.52	2025.00
	15087.000	540.00	681.50	0.00	1.83	1.00	162.92	2025.00
	15087.000	340.00	682.08	0.00	1.77	1.24	306.34	2025.00
	[illegible]437.000	[illegible]40.00	[illegible]81.39	0.00	1.[illegible]3	0.00	54.[illegible]1	1400.00
	[illegible]437.000	[illegible]40.00	682.26	0.00	1.24	0.[illegible]	80.39	1400.00
	[illegible]437.000	540.00	682.66	0.00	1.37	1.14	53.97	1400.00
	16427.000	540.00	683.22	0.00	1.[illegible]4	1.70	56.80	1400.00
	[illegible]927.000	220.00	653.02	0.00	1.49	0.00	29.02	500.00
	[illegible]237.000	[illegible]40.00	[illegible]80.30	0.00	1.42	0.20	52.11	500.00
	[illegible]537.000	[illegible]40.00	[illegible]82.10	0.00	1.[illegible]	0.72	[illegible]1.41	500.00
	[illegible]537.000	340.00	[illegible]83.54	0.00	1.[illegible]	1.15	4.[illegible]2	500.00
	17404.000	220.00	655.25	0.00	0.20	0.00	19.10	497.00
	17404.000	350.00	655.91	0.00	2.40	0.09	21.66	497.00
	17404.000	440.00	656.37	0.00	2.50	1.00	24.[illegible]3	497.00
	17404.000	640.00	657.60	0.00	2.51	1.67	25.24	497.00
	17533.000	220.00	653.67	0.00	0.45	0.00	10.00	55.00
	17533.000	330.00	654.11	0.00	0.20	0.04	10.00	55.00
	17533.000	440.00	654.62	0.00	0.21	0.94	10.00	55.00
	17533.000	640.00	655.81	0.00	0.24	1.56	10.01	55.00
	17534.000	340.00	655.05	0.00	0.20	0.00	10.00	1.00
	17534.000	440.00	655.11	0.00	0.00	0.45	10.00	1.00
	17534.000	640.00	656.35	0.00	-0.00	0.70	10.00	1.00
*	17534.000	540.00	655.01	0.00	-0.21	1.15	10.00	1.00
	17664.000	440.00	655.15	0.00	0.00	0.00	10.00	110.00
	17664.000	540.00	655.21	0.00	1.11	1.00	10.00	110.00
	17664.000	640.00	656.55	0.00	1.62	1.00	10.00	110.00
	17664.000	540.00	655.92	0.00	2.16	2.31	56.32	110.00

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	SECNO	D	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLOC
	17645.000	220.00	666.07	0.00	-0.08	0.00	10.00	1.00
1	17645.000	330.00	677.28	0.00	0.04	1.32	10.50	1.50
2	17645.000	400.00	680.46	0.00	0.47	2.39	10.50	1.50
3	17645.000	540.00	691.00	0.00	2.75	5.62	11.00	2.00
4								
5	17694.300	220.00	686.81	0.00	0.75	0.00	21.27	49.60
6	17694.300	330.00	686.10	0.00	0.32	1.29	50.55	49.00
7	17694.300	400.00	690.27	0.00	0.31	2.46	96.24	49.00
8	17694.300	540.00	691.08	0.00	0.17	5.31	110.00	49.00
9								
10	18827.300	220.00	689.12	0.00	2.31	0.00	55.95	1135.00
11	18827.300	330.00	689.91	0.00	1.80	0.78	61.27	1133.00
12	18827.000	400.00	690.61	0.00	1.14	1.29	65.36	1133.00
13	18827.000	540.00	692.15	0.00	0.35	3.03	120.55	1135.00
14								
15	20054.000	220.00	690.74	0.00	1.11	0.00	47.46	1227.00
16	20054.000	330.00	691.50	0.00	1.00	0.57	49.78	1227.00
17	20054.000	400.00	691.95	0.00	1.42	0.96	52.87	1227.00
18	20054.000	540.00	692.91	0.00	0.66	1.88	62.13	1227.00
19								
20	21127.000	220.00	695.56	0.00	3.37	0.00	53.62	1073.00
21	21127.000	330.00	694.31	0.00	2.51	0.56	54.92	1073.00
22	21127.000	400.00	694.30	0.00	2.47	0.83	57.24	1073.00
23	21127.000	540.00	696.76	0.00	1.93	1.29	66.67	1073.00
24								
25	21233.000	220.00	695.78	0.00	0.21	0.00	51.42	1053.00
26	21233.000	330.00	694.34	0.00	0.35	0.53	51.62	1053.00
27	21233.000	470.00	694.56	0.00	0.19	0.93	51.82	1054.00
28	21235.000	540.00	695.22	0.00	0.35	1.33	52.02	1055.00
29								
30	21242.000	220.00	693.73	0.00	-0.00	0.00	51.00	7.00
31	21243.000	330.00	693.53	0.00	0.03	0.53	51.00	7.00
32	21243.000	470.00	693.67	0.00	0.00	0.93	51.00	7.00
33	21243.000	540.00	694.23	0.00	0.00	1.33	51.00	7.00
34								
35	21312.000	220.00	693.62	0.00	0.05	0.00	51.30	70.00
36	21312.000	330.00	694.42	0.00	0.07	0.57	51.30	70.00
37	21311.000	470.00	695.59	0.00	0.09	1.09	51.30	70.00
38	21311.000	540.00	695.99	0.00	0.15	1.32	51.30	70.00
39								
40	21319.100	220.00	693.07	0.00	0.05	0.00	31.50	7.00
41	21319.100	330.00	694.30	0.00	0.10	0.52	31.85	7.00
42	21319.200	400.00	694.99	0.00	0.13	0.95	32.02	7.00
43	21320.000	540.00	695.52	0.00	0.23	1.33	32.42	7.00
44								
45	21727.000	220.00	694.25	0.00	0.23	0.00	57.88	408.00
46	21727.000	330.00	695.30	0.00	0.00	0.65	57.98	408.00
47	21727.000	400.00	695.55	0.00	0.12	1.00	58.06	408.00
48	21727.000	540.00	696.23	0.00	0.00	1.65	62.51	408.00
49								
50	22537.000	220.00	693.42	0.00	5.11	0.00	0.00	306.00
51	22538.000	330.00	694.27	0.00	5.21	0.00	51.11	501.00
52	22535.000	470.00	695.24	0.00	5.20	0.00	52.37	504.00
53	22535.000	540.00	695.23	0.00	4.97	1.09	52.92	505.00
54								
55								
56								
57								

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	SECNG	Q	CJSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCP
	22735.000	220.00	700.55	0.00	0.36	0.00	31.80	100.00
	22735.000	330.00	701.05	0.00	0.44	0.55	31.80	100.00
	22735.000	400.00	701.34	0.00	0.46	0.81	31.80	100.00
	22735.000	540.00	701.01	0.00	0.36	1.26	31.80	100.00
	22742.000	220.00	700.52	0.00	-0.01	0.00	31.80	7.00
	22742.000	330.00	701.03	0.00	-0.02	0.52	31.80	7.00
	22742.000	400.00	701.31	0.00	-0.03	0.79	31.80	7.00
	22742.000	540.00	701.75	0.00	-0.05	1.23	31.80	7.00
	22812.000	220.00	700.57	0.00	0.05	0.00	31.80	70.00
	22812.000	330.00	701.12	0.00	0.09	0.55	31.80	70.00
	22812.000	400.00	701.41	0.00	0.10	0.84	31.80	70.00
	22812.000	540.00	701.89	0.00	0.14	1.32	31.80	70.00
	22819.000	220.00	700.63	0.00	0.09	0.00	31.80	7.00
	22819.000	330.00	701.22	0.00	0.13	0.63	31.80	7.00
	22819.000	400.00	701.55	0.00	0.14	0.93	31.80	7.00
	22819.000	540.00	702.13	0.00	0.23	1.51	31.80	7.00
	22927.000	220.00	700.72	0.00	0.10	0.00	31.78	108.00
	22927.000	330.00	701.34	0.00	0.12	0.62	36.11	108.00
	22927.000	400.00	701.68	0.00	0.13	0.97	41.58	108.00
	22927.000	540.00	702.28	0.00	0.15	1.56	47.63	108.00
*	22977.000	220.00	702.86	0.00	2.14	0.00	16.29	50.00
*	22977.000	330.00	703.75	0.00	2.41	0.89	19.75	50.00
*	22977.000	400.00	704.21	0.00	2.53	1.35	21.95	50.00
*	22977.000	540.00	705.03	0.00	2.75	2.17	24.71	50.00
	23504.000	220.00	705.45	0.00	2.59	0.00	29.30	527.00
	23504.000	330.00	706.50	0.00	2.71	1.05	33.27	527.00
	23504.000	400.00	707.04	0.00	2.80	1.64	33.47	527.00
	23504.000	540.00	708.13	0.00	2.89	2.67	52.17	527.00
	23553.000	220.00	705.51	0.00	0.06	0.00	18.60	49.00
	23553.000	330.00	706.56	0.00	0.05	1.04	18.60	49.00
	23553.000	400.00	707.14	0.00	0.09	1.61	18.60	49.00
	23553.000	540.00	708.14	0.00	0.03	2.64	18.60	49.00
	23554.000	220.00	705.50	0.00	-0.01	0.00	18.60	1.00
	23554.000	330.00	706.53	0.00	-0.03	1.03	18.60	1.00
	23554.000	400.00	707.12	0.00	-0.05	1.59	18.60	1.00
	23554.000	540.00	708.02	0.00	-0.13	2.52	18.60	1.00
	23613.000	220.00	705.55	0.00	0.04	0.00	18.60	59.00
	23613.000	330.00	706.61	0.00	0.06	1.05	18.60	59.00
	23613.000	400.00	707.22	0.00	0.10	1.63	18.60	59.00
	23613.000	540.00	708.25	0.00	0.24	2.70	18.60	59.00
	23614.000	220.00	705.57	0.00	0.03	0.00	18.60	1.00
	23614.000	330.00	706.67	0.00	0.08	1.09	18.60	1.00
	23614.000	400.00	707.39	0.00	0.14	1.74	18.60	1.00
	23614.000	540.00	708.69	0.00	0.39	3.05	18.60	1.00

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SECNO	Q	CHSEL	DIFMSP	DIFMSX	DIFKWS	TOPWID	XLCH
23563.000	220.00	705.51	0.00	-0.09	0.00	17.91	49.00
23563.000	330.00	708.56	0.00	-0.13	1.05	20.66	49.00
23563.000	400.00	707.19	0.00	-0.14	1.69	22.32	49.00
23563.000	440.00	706.38	0.00	-0.15	3.02	61.06	49.00

SUMMARY OF ERRORS

CAUTION SECNO=17533.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO=17533.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=17536.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO=17536.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=22977.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=22977.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=22977.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=22977.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO=22977.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=22977.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

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FLOOD INSURANCE ZONE DATA FOR WILLOW CREEK CANTON TWP.

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND% 10%	2%	0.2%
0.000	0.	-1.9	-0.4	0.9
600.000	600.	-2.0	-0.4	1.0
1370.000	1370.	-1.9	-0.4	1.0
1419.000	1419.	-1.9	-0.4	0.9
1420.000	1420.	-1.9	-0.4	0.9
1460.000	1460.	-1.9	-0.4	0.9
1461.000	1461.	-1.0	-0.3	0.9
1510.000	1510.	-1.9	-0.3	0.9
2987.000	2987.	-1.5	-0.3	0.8
3979.000	3979.	-1.1	-0.3	0.7
4029.000	4029.	-1.1	-0.3	0.7
4237.000	4237.	-2.0	-0.5	1.5
4287.000	4287.	-1.9	-0.5	1.5
5237.000	5237.	-1.9	-0.5	1.6
5735.000	5735.	-1.7	-0.4	0.8
5785.000	5785.	-1.7	-0.5	0.8
6199.000	6199.	-2.9	-0.6	2.5
6249.000	6249.	-3.0	-0.9	2.5
6667.000	6667.	-1.8	-0.7	1.8
7453.000	7453.	-1.2	-0.5	1.5
7503.000	7503.	-1.3	-0.3	1.6
7543.000	7543.	-2.4	-0.3	0.7
7593.000	7593.	-2.2	-0.3	0.7
9727.000	9727.	-1.7	-0.3	0.7
9827.000	9827.	-1.3	-0.3	0.5
10185.000	10185.	-1.3	-0.3	0.5
10185.000	10185.	-1.3	-0.3	0.5
10249.000	10249.	-1.2	-0.3	0.5
10250.000	10250.	-1.2	-0.3	0.5
10299.000	10299.	-1.5	-0.3	1.6
11287.000	11287.	-1.4	-0.5	0.6
12354.000	12354.	-1.4	-0.3	0.6
12354.000	12354.	-1.4	-0.3	0.7
12411.000	12411.	-1.7	-0.4	0.9
12451.000	12451.	-1.7	-0.4	0.9
15062.000	15062.	-1.7	-0.4	0.9
15087.000	15087.	-1.7	-0.4	0.7
16487.000	16487.	-1.1	-0.4	0.5
16987.000	16987.	-0.8	-0.3	0.5
17484.000	17484.	-1.1	-0.4	0.5
17533.000	17533.	-0.9	-0.3	0.6
17584.000	17584.	-0.7	-0.2	0.5
17644.000	17644.	-1.3	-0.5	1.5
17645.000	17645.	-2.4	-1.2	3.2
17694.000	17694.	-2.5	-1.2	2.5
18027.000	18027.	-1.3	-0.5	1.7
20084.000	20084.	-0.9	-0.3	1.6
21127.000	21127.	-0.8	-0.3	0.5
21234.000	21234.	-0.8	-0.3	0.5
21242.000	21242.	-0.8	-0.3	0.5
21312.000	21312.	-0.9	-0.3	0.5
21319.000	21319.	-1.3	-0.3	0.6

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21727.000	21727.	-1.0	-0.4	0.6
22635.000	22635.	-0.7	-0.2	0.4
22735.000	22735.	-0.8	-0.3	0.5
22742.000	22742.	-0.8	-0.3	0.4
22812.000	22812.	-0.8	-0.3	0.5
22819.000	22819.	-0.9	-0.3	0.6
22927.000	22927.	-1.0	-0.3	0.6
22977.000	22977.	-1.4	-0.5	0.8
23504.000	23504.	-1.6	-0.6	1.0
23553.000	23553.	-1.6	-0.6	1.0
23554.000	23554.	-1.6	-0.6	0.9
23613.000	23613.	-1.6	-0.6	1.1
23614.000	23614.	-1.7	-0.6	1.3
23663.000	23663.	-1.7	-0.6	1.3

WEIGHTED AVG FOR REACH -1.5 -0.4 1.0

FHF FOR THE REACH = 115 WITH 21.13 OF THE REACH WITHIN 0.9 FEET
ZONE FOR THE REACH = A 3

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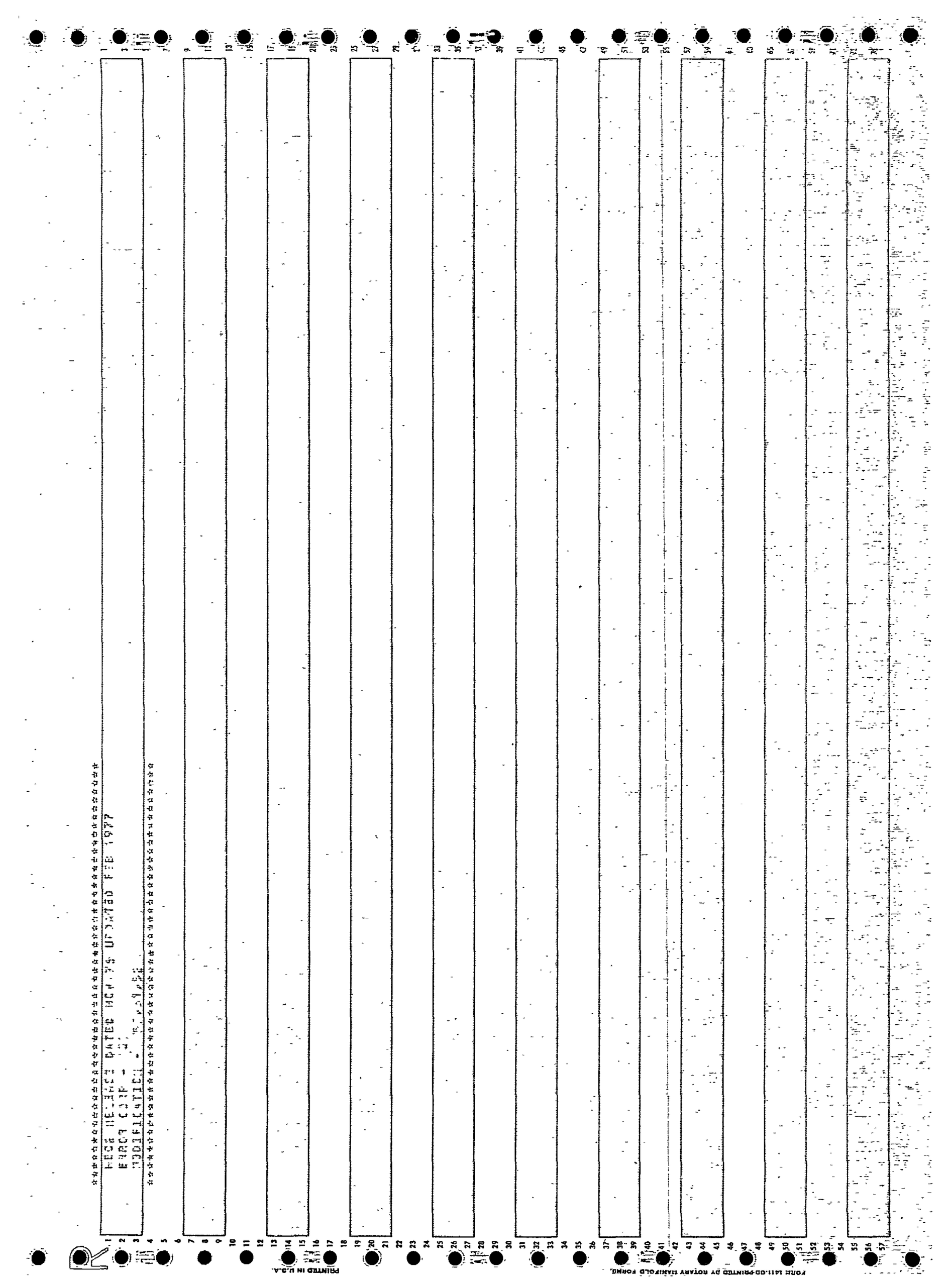

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  HECS RELEASE DATED NOV.75 UPDATED FEB 1977
  ERROR CORR - [illegible]
  MODIFICATION - [illegible]
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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

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*****************************************************************
*                                                               *
*                    E R R O R   S U M M A R Y                  *
*                                                               *
*                                                               *
*      0  ERROR(S) DETECTED BY THE USER PROGRAM                 *
*      0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE         *
*      0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS          *
*                                                               *
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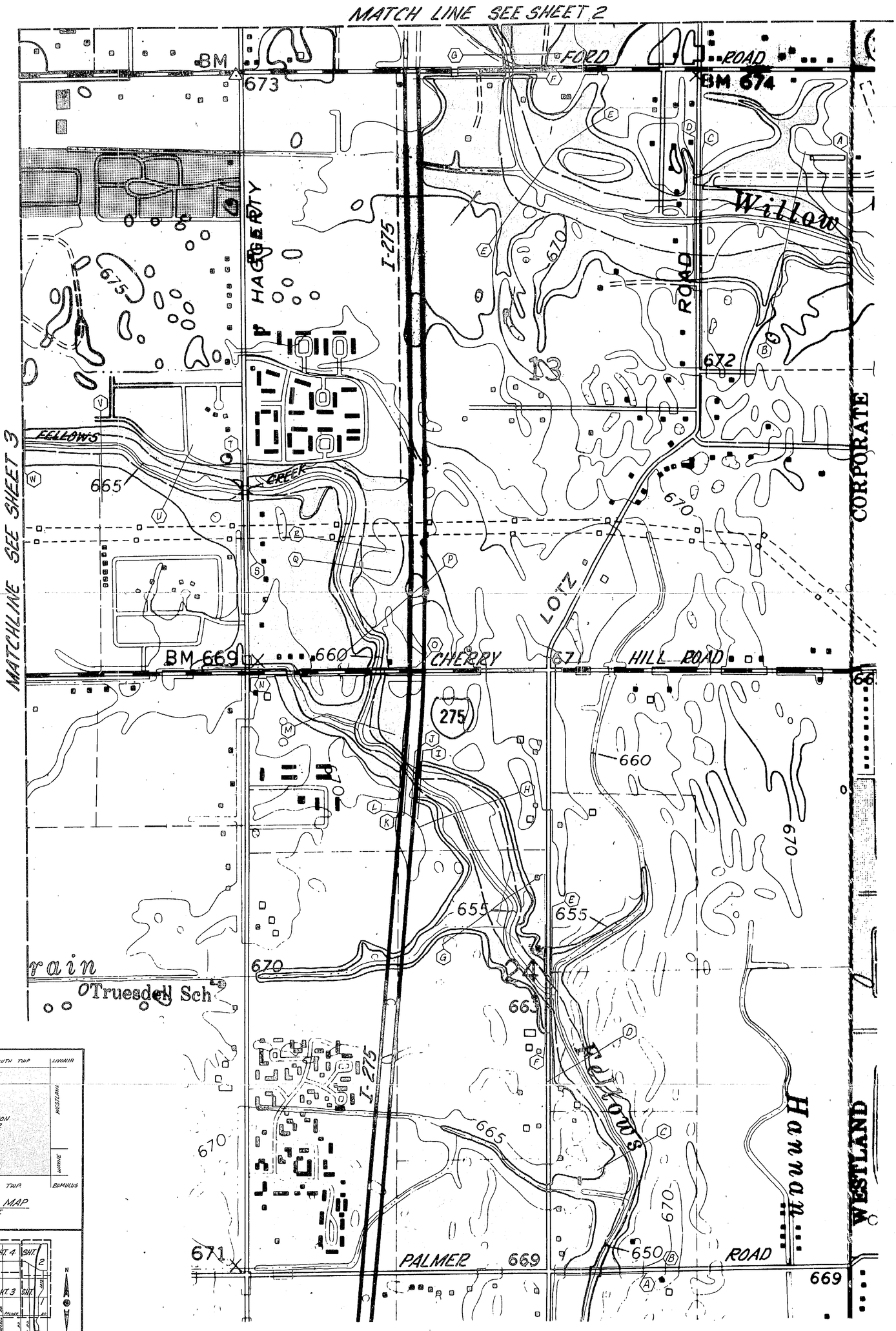
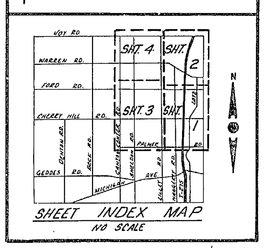
FORM 1411-CD-PRINTED BY ROTARY MANIFOLD FORMS





FLOOD MAP

LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

CROSS SECTION

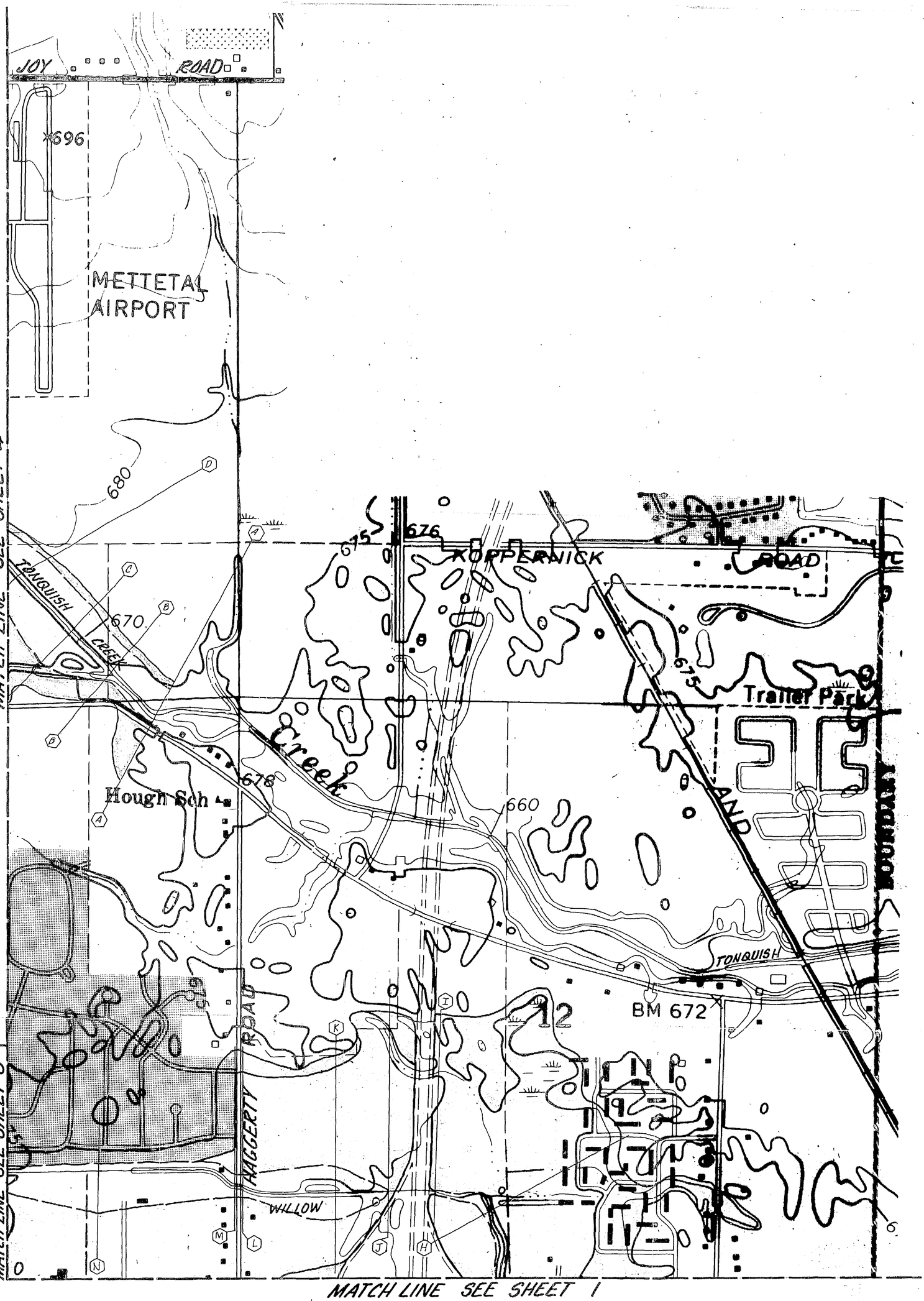
CORPORATE LIMIT

RECEIVED
APR 25 1980
WATER MANAGEMENT

4/80

CANTON TOWNSHIP
WAYNE COUNTY, MICHIGAN
1"=400'

SHEET 1 of 4
HUD 2003-10



FLOOD MAP

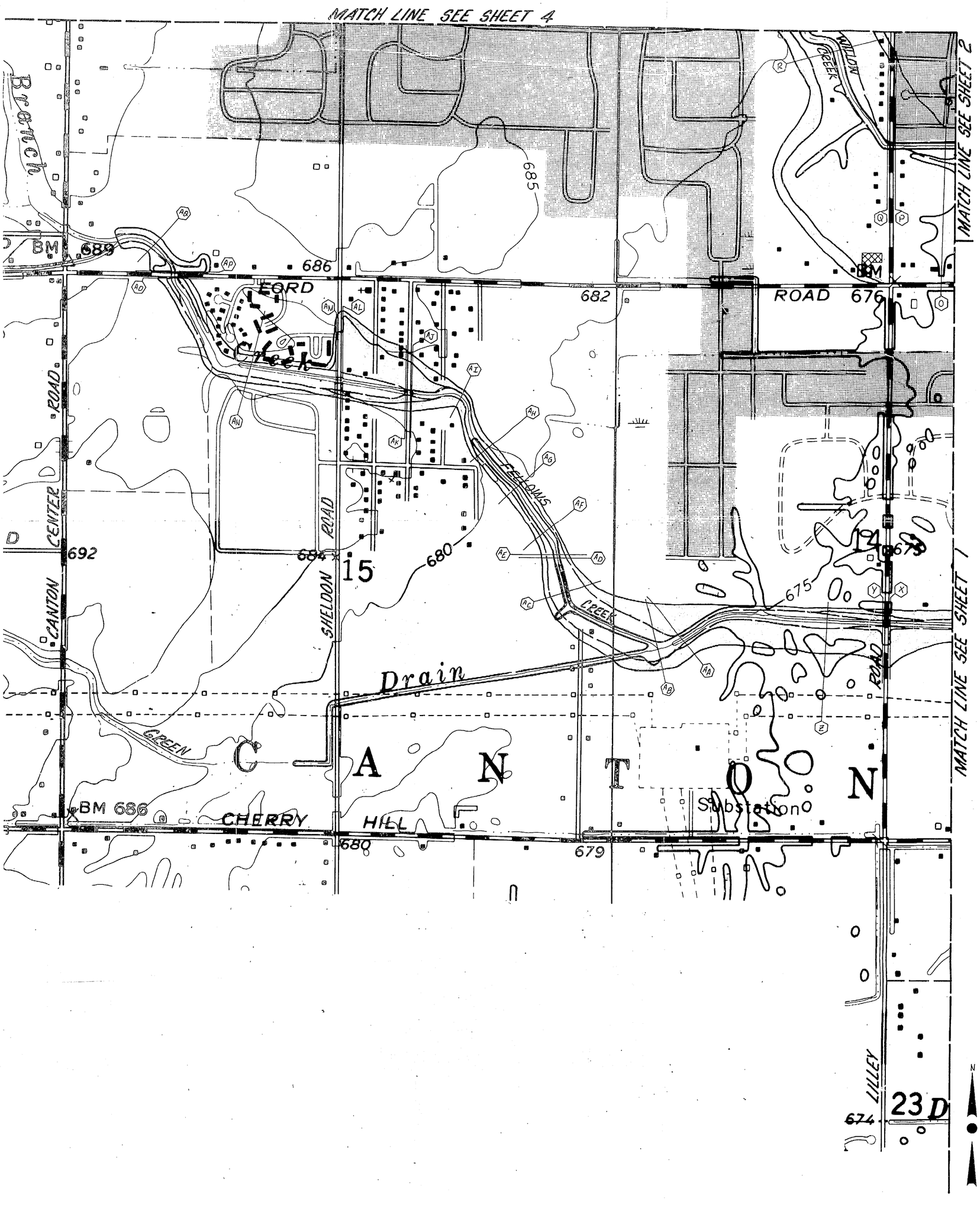
LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

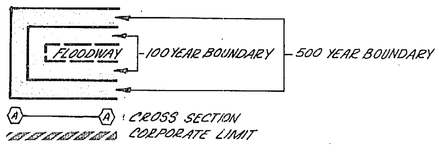
CORPORATE LIMIT

CANTON TOWNSHIP
WAYNE COUNTY, MICHIGAN



FLOOD MAP

LEGEND



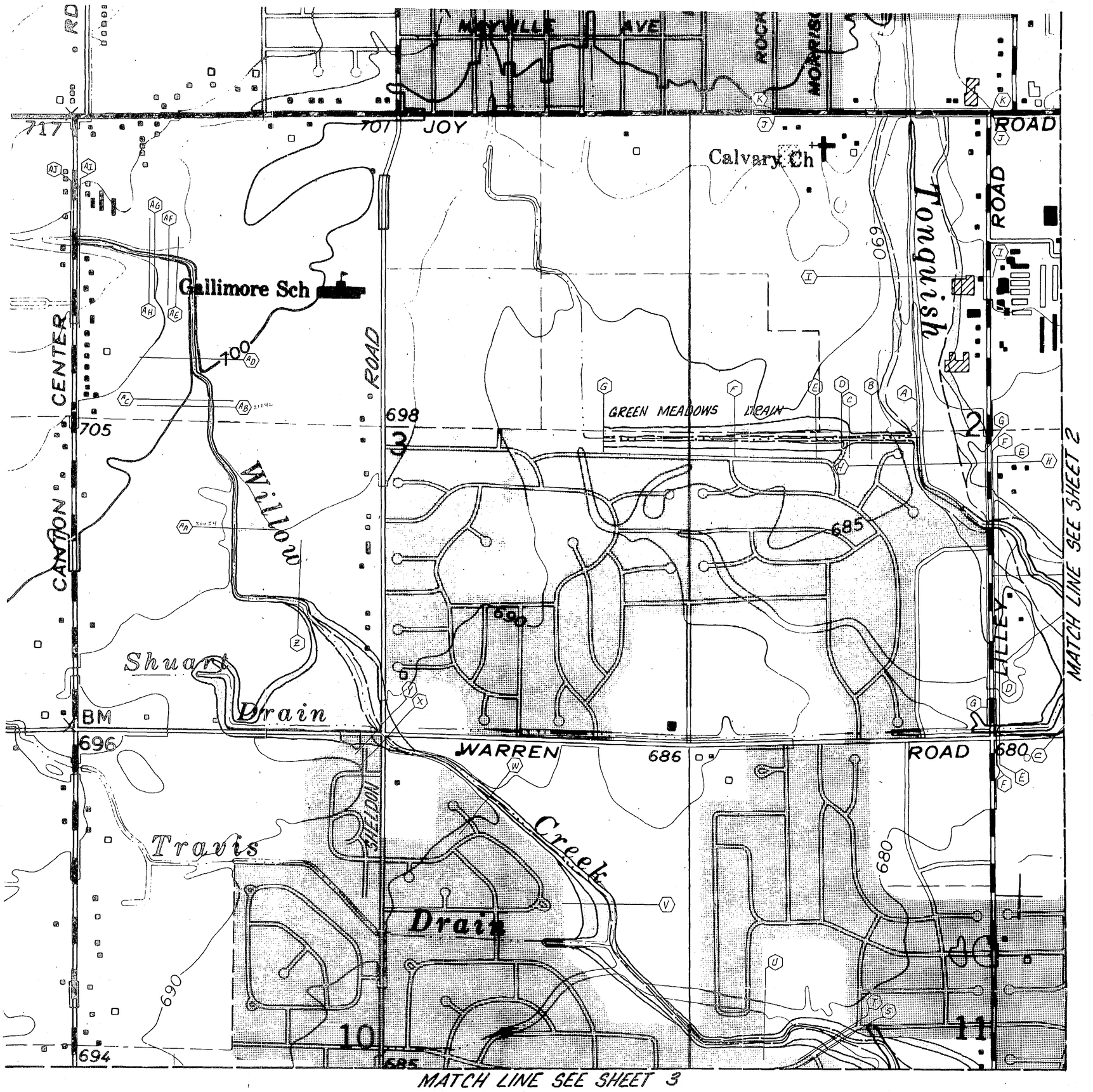
CANTON TOWNSHIP

WAYNE COUNTY, MICHIGAN

1" = 400'

RECEIVED
APR 25 1980
WATER MANAGEMENT

SHEET 3 of 4
HUD 2003-



FLOOD MAP

LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

CROSS SECTION

CORPORATE LIMIT

CANTON TOWNSHIP

WAYNE COUNTY, MICHIGAN

APR 25 1980

SHEET 4 of 4

HUD 2003-10

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: Ecorse Creek

4) DOCUMENT TYPE: Convergence

00BREAK00

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION -  50,51,52
*****************************************************

C
T1 ALLEN PARK F.I.S. HUD 2001 07
T2 DETERMINATION OF CONVERGENCE
T3       ECORSE CREEK CONVERGENCE

J1  ICHECK    INQ       MINV      IDIR      STRT      METRIC    HVZAS     Q         WSEL      FQ

     0.        2.        0.        0.  0.001200      0.00      0.0       0.   590.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHSIN     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     MUNSEL                  ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      6.000  1330.000  1330.000  1330.000  1330.000     0.000     0.000     0.000     0.000     0.000
NC      0.060     0.060     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        100' U/S OF ALLEN ROAD

X1      1.000     8.000   250.000   279.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000   250.000   582.700   257.000   582.700   272.000
GR    590.000   279.000   590.000   479.000   600.000   480.000     0.000     0.000     0.000     0.000

X1      2.000     8.000   240.000    62.000   300.000   220.000   400.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000    40.000   583.400    47.000   583.400    62.000
GR    590.000    69.000   590.000   149.000   600.000   150.000     0.000     0.000     0.000     0.000

X1      3.000     8.000   100.000   129.000   700.000   630.000   600.000     0.000     0.000     0.000
X3      0.000     0.000     0.000    90.000     0.000   140.000     0.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000   100.000   584.300   107.000   584.300   122.000
GR    590.000   129.000   590.000   579.000   600.000   530.000     0.000     0.000     0.000     0.000
NC      0.000     0.000     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000

        U/S FACE OF T/R BRIDGE #1

X1      4.000    10.000   100.000   126.500    50.000    30.000    80.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   596.000   596.000     0.000
GR    600.000    50.000   594.000    50.000   594.000   130.000   585.400   100.000   584.600   112.000
GR    584.400   114.500   584.400   126.500   594.000   126.500   594.000   575.000   600.000   575.000
SM      1.250     1.500     0.000   575.000    25.500    25.500   [illegible]     0.000   584.700   584.700

        U/S FACE OF T/R BRIDGE #1
```

X1	5.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	591.000	596.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.500	596.500	0.000
[illegible]	0.030	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.000	8.000	60.000	85.000	100.000	130.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	227.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	30.000	564.600	60.000	584.600	75.000
[illegible]	590.000	95.000	590.000	435.000	600.000	435.000	0.000	0.000	0.000	0.000
[illegible]	0.100	0.100	0.035	0.100	0.300	0.100	0.000	0.000	0.000	0.000
X1	7.000	10.000	290.000	309.000	250.000	250.000	250.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	205.000	0.000	395.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	230.000	585.000	290.000	584.700	292.000
GR	584.700	307.000	305.000	309.000	590.000	230.000	593.000	600.000	600.000	600.000
X1	8.000	8.000	300.000	343.000	300.000	300.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	295.000	0.000	345.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	394.300	0.000	594.300	300.000	586.300	576.000	586.300	329.000
GR	594.300	343.000	395.000	593.300	603.000	595.000	0.000	0.000	0.000	0.000
[illegible]	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF R/R BRIDGE #2

X1	0.000	60.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	11.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
GR	605.000	0.000	595.000	0.000	594.300	300.000	586.300	300.000	586.300	312.000
GR	565.300	314.700	585.300	326.000	594.300	326.000	594.300	576.000	605.000	576.000
SB	1.250	1.300	3.000	576.000	26.000	2.000	132.000	0.000	585.300	585.300
[illegible]	10.000	10.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	591.000	596.000	0.000	0.000	0.000	0.000	0.000
[illegible]	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
[illegible]	605.000	0.000	576.000	0.000	594.000	300.000	586.300	300.000	586.300	312.000
[illegible]	565.300	314.700	585.300	326.000	594.300	326.000	594.300	576.000	605.000	576.000
[illegible]	0.100	0.120	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
[illegible]	1.000	0.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	295.000	0.000	345.000	0.000	0.000	0.000	0.000
[illegible]	605.000	0.000	592.000	0.000	590.000	300.000	586.300	300.000	586.300	312.000
GR	590.000	324.000	590.000	574.000	605.000	574.000	0.000	0.000	0.000	0.000
[illegible]	0.000	0.100	0.035	0.100	0.300	0.100	0.000	0.000	0.000	0.000

100' D/S OF STUDY LIMIT (5-94) [illegible], END OF [illegible]

X1	12.000	8.000	300.000	326.000	1310.000	1350.000	1425.300	0.300	0.300	0.000
X2	0.000	0.000	0.000	275.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	590.000	0.000	590.000	300.000	536.300	300.000	586.300	318.000
[illegible]	590.000	326.000	590.000	326.000	603.000	626.000	0.300	0.300	0.300	0.300
[illegible]	0.100	0.000	0.000	0.000	0.000	0.300	0.000	0.300	0.300	0.300

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FORM 1411.00-PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
**************************************************

T1 ALLEN PARK F.I.S. HUD 2031 07
T2 DETERMINATION OF CONVERGENCE
T3       ECORSE CREEK CONVERGENCE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        5.        2.        0.  0.000000      0.00     1.00        0.   592.300     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IDW       CHNIM     ITRACE
    2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.300     0.000
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FORM 1411 OB PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HECR RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1 ALLEN PARK F.I.S. HUD 2001 07
T2 DETERMINATION OF CONVERGENCE
T3       ECORSE CREEK CONVERGENCE

J1  ICHECK    INQ       NINV      IDIM      STRT      METRIC    HVINS     Q         WSEL      FQ
       01        4.        0.        0.  0.000000      0.00       0.0        0.   592.500     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBL       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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  [illegible]
  MODIFICATION -  50,51,52
*****************************************************

T1 ALLEN PARK F.I.S. HUD 2001 07
T2 DETERMINATION OF CONVERGENCE
T3       ECORSE CREEK CONVERGENCE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FC
       0.        5.        0.        0. -1.000000      0.00       0.0        [illegible]  [illegible]0.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     ZON       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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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

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*************************************************
  NECC RELEASE DATED NOV 76 UPDATED FEB 1977
  EDFOR CORE -  01
  MODIFICATION -  50,51,52
*************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ECORSE CREEK CONVERGENCE

SUMMARY PRINTOUT TABLE 153

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOPWS	VCH	AREA	.01K
1.000	0.00	0.00	0.00	582.70	1330.00	591.10	0.00	591.32	11.94	4.55	688.44	384.97
1.300	0.00	0.00	0.00	582.70	1330.00	592.03	0.00	592.06	3.93	2.06	1117.30	666.51
1.300	0.00	0.00	0.00	582.70	1330.00	592.36	0.00	592.36	2.39	2.31	1356.23	800.99
1.300	0.00	0.00	0.00	582.70	1330.00	592.[illegible]	930.21	591.07	45.92	0.26	100.44	108.25
2.000	600.00	0.00	0.00	583.40	1330.00	591.81	0.00	592.14	14.38	5.19	414.90	350.77
2.000	600.00	0.00	0.00	583.40	1330.00	592.26	0.00	592.49	10.42	4.59	477.06	412.06
2.000	600.00	0.00	0.00	583.40	1330.00	592.[illegible]	0.00	592.62	7.65	4.15	536.23	475.73
2.000	600.00	0.00	0.00	583.40	1330.00	592.[illegible]	0.00	592.40	11.24	4.73	462.07	390.73
3.000	800.00	0.00	0.00	584.30	1330.00	592.91	0.00	593.40	16.07	5.04	271.05	331.62
3.000	800.00	0.00	0.00	584.30	1330.00	593.07	0.00	593.56	14.84	5.69	279.00	345.29
3.000	800.00	0.00	0.00	584.30	1330.00	593.27	0.00	593.73	13.50	5.52	288.69	362.01
3.000	800.00	0.00	0.00	584.30	1330.00	593.55	0.00	593.53	25.20	5.72	270.59	341.09
4.000	50.00	0.00	0.00	584.40	1330.00	592.57	0.00	593.53	22.59	4.82	219.06	270.00
4.000	50.00	0.00	0.00	584.40	1330.00	593.12	0.00	593.67	21.70	5.94	223.83	285.49
4.000	50.00	0.00	0.00	584.40	1330.00	593.30	0.00	593.83	20.45	5.82	228.71	294.27
4.000	50.00	0.00	0.00	584.40	1330.00	593.[illegible]	0.00	593.63	21.99	5.97	222.79	283.62
5.000	70.00	596.30	591.00	584.40	1330.00	594.[illegible]	0.00	594.64	14.36	5.15	255.62	350.99
5.000	70.00	596.30	591.00	584.40	1330.00	594.[illegible]	0.00	594.79	13.63	5.01	262.76	361.00
5.000	70.00	596.30	591.00	584.40	1330.00	594.80	0.00	595.16	12.84	4.96	260.07	371.12
5.000	70.00	596.30	591.00	584.40	1330.00	594.55	0.00	594.95	13.83	5.08	261.64	357.67
6.000	100.00	0.00	0.00	584.60	1330.00	592.[illegible]	0.00	593.05	2.84	2.76	1285.97	519.06
6.000	100.00	0.00	0.00	584.60	1330.00	593.14	0.00	593.14	2.08	2.62	1259.25	502.04
6.000	100.00	0.00	0.00	584.60	1330.00	593.[illegible]	0.00	593.32	1.50	2.55	1343.67	544.60
6.000	100.00	0.00	0.00	584.60	1330.00	593.05	0.00	593.10	2.12	2.65	1280.79	513.63
7.000	250.00	0.00	0.00	584.70	1330.00	594.99	0.00	595.05	2.15	2.93	1236.40	917.62
7.000	250.00	0.00	0.00	584.70	1330.00	595.[illegible]	0.00	595.19	2.32	2.87	1255.82	931.27
7.000	250.00	0.00	0.00	584.70	1330.00	595.[illegible]	0.00	595.37	1.87	2.66	1299.45	971.90
7.000	250.00	0.00	0.00	584.70	1330.00	595.[illegible]	0.00	595.16	2.01	2.65	1253.85	935.72
8.000	300.00	0.00	0.00	585.20	1330.00	594.93	0.00	595.25	10.58	4.57	295.54	408.67
8.000	300.00	0.00	0.00	585.20	1330.00	595.07	0.00	595.38	9.86	4.47	302.56	423.65
8.000	300.00	0.00	0.00	585.20	1330.00	595.25	0.00	595.54	9.05	4.36	311.56	442.46
8.000	300.00	0.00	0.00	585.20	1330.00	595.04	0.00	595.35	10.04	4.49	300.65	419.75

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FORM 1411-80 PRINTED BY ROTARY MANIFOLD FORMS

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.C1K
9.000	50.00	0.00	0.00	585.30	1330.00	594.71	0.00	595.40	16.42	5.61	236.96	309.16
9.000	50.00	0.00	0.00	585.30	1330.00	595.05	0.00	595.53	17.58	5.53	240.63	317.16
9.000	50.00	0.00	0.00	585.30	1330.00	595.23	0.00	595.59	16.62	5.43	245.13	320.27
9.000	50.00	0.00	0.00	585.30	1330.00	595.02	0.00	595.50	17.80	5.55	239.66	315.26
10.000	50.00	596.30	591.30	585.30	1330.00	596.18	0.00	596.56	12.96	4.93	269.87	369.44
10.000	50.00	596.30	591.30	585.30	1330.00	596.21	0.00	596.59	12.84	4.91	270.66	371.13
10.000	50.00	596.30	591.30	585.30	1330.00	596.25	0.00	596.62	12.70	4.90	271.67	373.18
10.000	50.00	596.30	591.30	585.30	1330.00	596.20	0.00	596.58	12.87	4.92	270.43	370.67
11.000	50.00	0.00	0.00	585.40	1330.00	596.36	0.00	596.67	3.40	3.35	894.11	721.56
11.000	50.00	0.00	0.00	585.40	1330.00	596.39	0.00	596.69	3.36	3.34	897.80	725.78
11.000	50.00	0.00	0.00	585.40	1330.00	596.34	0.00	596.75	3.31	3.32	902.16	730.79
11.000	50.00	0.00	0.00	585.40	1330.00	596.36	0.00	596.69	3.37	3.34	896.79	724.63
12.000	1425.00	0.00	0.00	586.30	1330.00	597.06	0.00	597.25	4.62	3.97	591.52	618.57
12.000	1425.00	0.00	0.00	586.30	1330.00	597.09	0.00	597.27	4.58	3.96	593.26	621.22
12.000	1425.00	0.00	0.00	586.30	1330.00	597.12	0.00	597.30	4.54	3.94	595.40	624.49
12.000	1425.00	0.00	0.00	586.30	1330.00	597.09	0.00	597.27	4.59	3.96	592.32	620.55

FORM 1411 GD PRINTED BY ROYARY MANIFOLD FORMS
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ECORSE CREEK CONVERGENCE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIF.SP	DIFWSX	DIFKUS	TOPWID	XLCH
1.000	1330.00	591.10	0.00	0.00	1.10	478.22	0.00
1.000	1330.00	592.00	0.00	0.00	0.00	478.60	0.00
1.000	1330.00	592.50	0.00	0.00	0.00	478.50	0.00
1.000	1330.00	590.01	0.00	0.00	0.01	478.00	0.00
2.000	1330.00	591.81	0.00	0.71	0.00	148.36	600.00
2.000	1330.00	592.24	0.00	0.24	0.00	148.45	600.00
2.000	1330.00	592.63	0.00	0.13	0.00	148.53	600.00
2.000	1330.00	592.[illegible]	0.00	2.13	0.00	148.43	600.00
3.000	1330.00	592.91	0.00	1.10	0.00	50.00	800.00
3.000	1330.00	593.07	0.00	0.83	0.00	50.00	800.00
3.000	1330.00	593.27	0.00	0.63	0.00	50.00	800.00
3.000	1330.00	593.0[illegible]	0.00	0.09	0.00	50.00	800.00
4.000	1330.00	592.97	0.00	0.06	0.00	26.50	50.00
4.000	1330.00	593.12	0.00	0.05	0.00	26.50	50.00
4.000	1330.00	593.30	0.00	0.04	0.00	26.50	50.00
4.000	1330.00	593.08	0.00	0.05	0.00	26.50	50.00
5.000	1330.00	594.43	0.00	1.43	0.00	26.50	70.00
5.000	1330.00	594.6[illegible]	0.00	1.43	0.00	26.50	70.00
5.000	1330.00	594.80	0.00	1.49	0.00	26.50	70.00
5.000	1330.00	594.55	0.00	1.47	0.00	26.50	70.00
6.000	1330.00	594.94	0.00	0.5[illegible]	0.00	227.00	100.00
6.000	1330.00	595.09	0.00	0.49	0.00	227.00	100.00
6.000	1330.00	595.[illegible]	0.00	0.47	0.00	227.00	100.00
6.000	1330.00	595.05	0.00	0.49	0.00	227.00	100.00
7.000	1330.00	594.99	0.00	0.05	0.00	190.00	250.00
7.000	1330.00	595.1[illegible]	0.00	0.05	0.00	190.00	250.00
7.000	1330.00	595.3[illegible]	0.00	0.04	0.00	190.00	250.00
7.000	1330.00	595.1[illegible]	0.00	0.05	0.00	190.00	250.00
8.000	1330.00	594.93	0.00	-0.06	0.00	50.00	300.00
8.000	1330.00	595.07	0.00	-0.06	0.00	50.00	300.00
8.000	1330.00	595.25	0.00	-0.06	0.00	50.00	300.00
8.000	1330.00	595.04	0.00	-0.06	0.00	50.00	300.00
9.000	1330.00	594.91	0.00	-0.01	0.00	26.00	50.00
9.000	1330.00	595.05	0.00	-0.02	0.00	26.00	50.00
9.000	1330.00	595.23	0.00	-0.02	0.00	26.00	50.00
9.000	1330.00	595.00	0.00	-0.02	0.00	26.00	50.00
10.000	1330.00	596.1[illegible]	0.00	1.26	0.00	26.00	50.00
10.000	1330.00	596.21	0.00	1.16	0.00	26.00	50.00
10.000	1330.00	596.25	0.00	1.02	0.00	26.00	50.00
10.000	1330.00	596.20	0.00	1.18	0.00	26.00	50.00
11.000	1330.00	596.5[illegible]	0.00	0.38	0.00	125.00	50.00
11.000	1330.00	596.59	0.00	0.38	0.00	125.00	50.00
11.000	1330.00	596.68	0.00	0.37	0.00	125.00	50.00
11.000	1330.00	596.56	0.00	0.38	0.00	125.00	50.00

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FORM 1411-00-PRINTED BY ROTARY-MANIFOLD FORMS

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.000	1330.00	597.06	0.00	0.51	0.00	75.00	1425.00
12.000	1330.00	597.09	0.00	0.50	0.00	75.00	1425.00
12.000	1330.00	597.12	0.00	0.49	0.00	75.00	1425.00
12.000	1330.00	597.03	0.00	0.50	0.00	75.00	1425.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

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*****************************************************
  4202 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************
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PRINTED IN U.S.A.
FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: Ecorse Creek

4) DOCUMENT TYPE: Rating Curve

00BREAK00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - .01
  MODIFICATION - 50,51,52
*****************************************************

C
T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 1U  YR
T3      ECODES RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FN

        .        2.        0.        0.  0.000000      0.00       0.0        0.   596.170     0.000

J2  PRFEW    IPLOT     PRFVS     XSECV     XSECH     FN        ALLNG     IBL       CHNIL     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                  ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
CT    7.000   100.000   300.000   500.000   750.000  1000.000  1250.000  1500.000     0.000     0.000
CC    0.070     0.070     0.030     0.500     0.500     0.000     0.000     0.000     0.000     0.000


      U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+38 )

X1  3843.000     0.000    90.000   110.800    67.000    67.000    67.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.000   596.000     0.000
GR   610.000     0.000   595.000     0.000   595.000    90.000   589.000    90.000   589.000   110.800
GR   595.000   110.800   595.000   200.000   610.000   200.000     0.000     0.000     0.000     0.000
NC     0.070     0.070     0.030     0.000     0.000     0.000     0.000     0.000     0.000     0.000


      D/S FACE OF WATSON AVE. (SURVEY = 8+47 )

X1  4234.000     0.000    55.000    75.800   275.000   430.000   391.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR   610.000     0.000   595.000     0.000   595.000    55.000   588.300    55.000   588.300    75.800
GR   595.000    75.800   595.000   130.000   610.000   130.000     0.000     0.000     0.000     0.000
NC     1.250     2.000     3.000   130.000    13.900     1.000    60.000     0.000   588.300   588.300


      U/S FACE OF WATSON AVE. (SURVEY = 7+87 )

X1  4294.000     0.000     0.000     0.000    80.000    80.000    80.000     0.000     0.000     0.000
X2     0.000     0.000     1.000   594.500   596.000     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   596.000   596.000     0.000


      D/S FACE OF BUGLEY AVE. CULVERTS. (SURVEY=44+71)

X1  4610.000     0.000    34.000    75.700   350.000   200.000   300.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR   610.000     0.000   595.500     0.000   595.500    54.000   580.500    54.000   586.600    76.700
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GR	595.500	75.700	595.500	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SS	1.250	2.040	3.000	130.000	14.220	1.000	78.300	0.000	586.600	586.600

R

U/S FACE OF EUCLID AVE. CULVERTS. (SURVEY= 4+33)

X1	4678.000	0.000	0.000	0.000	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.000	0.000	1.300	594.500	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.300	596.300	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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FORM 141-GD-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 10  YR
T3       ECORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.000000     0.00      0.0      0.   596.440    0.000

J2  NPROF    IPLOT    PRFNS    XSECV    XSECH     FN      ALLDC    IDW      CHMIN    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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PRINTED IN U.S.A.
FORM 1411-60 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  81
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 10  YR
T3       COURSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        4.        0.        0.  0.000000      0.00       0.0       0.   596.790     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
```

FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  31
  MODIFICATION -  50,51,52
*****************************************************


T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 10  YR
T3       ECORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       5.       0.       0.  0.000000     0.00      0.0      0.   597.260    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    IBL      CHNIP    ITRACE

    4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 10  KA
T3       ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        6.        0.        0.  0.000000      0.00       0.0        0.   597.680     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBC       CHNIN     ITRACE

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK PTS
T2       STAGE/DISCHARGE RATING CURVE 10  YT
T3       ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ

      0.        7.        0.        0.  0.000000      0.00       0.0       0.   590.000     5.000

J2  NPROF     IPLOT     PRNTS     XSERV     XSECH     FN        ALLDC     IBP       CHNIM     ITRACE

    6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 10  YR
T3       ECORSE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        8.        1.        0.  0.000000      0.00       0.0        0.   598.400     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHAIN     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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****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 31
MODIFICATION - 50,51,52
****

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

RCC3SE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	WSELK	ELTRD	ELLOB	ELMIN	Q	CWSEL	SRECWS	EG	TOPWID	VCH	AREA	.01K
3843.000	67.00	0.00	0.00	589.00	100.00	596.17	0.00	596.17	0.16	0.54	358.78	251.74
3843.000	67.00	0.00	0.00	589.00	300.00	596.44	0.00	596.47	1.11	1.47	412.79	284.75
3843.000	67.00	0.00	0.00	589.00	500.00	596.79	0.00	596.84	2.27	2.16	482.81	331.89
3843.000	67.00	0.00	0.00	589.00	750.00	597.26	0.00	597.34	3.46	2.79	574.06	402.52
3843.000	67.00	0.00	0.00	589.00	1000.00	597.68	0.00	597.78	4.49	3.27	660.79	471.68
3843.000	67.00	0.00	0.00	589.00	1250.00	598.04	0.00	598.20	5.30	3.66	740.32	542.68
3843.000	67.00	0.00	0.00	589.00	1500.00	598.40	0.00	598.54	6.17	4.05	804.78	603.69
4234.000	391.00	0.00	0.00	588.30	100.00	596.18	0.00	596.18	0.15	0.54	292.21	260.52
4234.000	391.00	0.00	0.00	588.30	300.00	596.64	0.00	596.71	1.07	1.50	331.79	219.41
4234.000	391.00	0.00	0.00	588.30	500.00	596.93	0.00	596.94	2.29	2.26	332.79	330.06
4234.000	391.00	0.00	0.00	588.30	750.00	596.91	0.00	597.49	3.72	2.99	449.66	360.68
4234.000	391.00	0.00	0.00	588.30	1000.00	597.04	0.00	597.98	5.04	3.59	508.98	645.65
4234.000	391.00	0.00	0.00	588.30	1250.00	598.26	0.00	598.45	6.19	4.10	564.81	502.61
4234.000	391.00	0.00	0.00	588.30	1500.00	598.61	0.00	598.84	7.41	4.59	609.78	551.18
4294.000	60.00	596.00	594.50	588.30	100.00	596.20	0.00	596.20	0.14	0.54	295.77	263.01
4294.000	60.00	596.00	594.50	588.30	300.00	596.59	0.00	596.59	1.01	1.46	334.76	299.06
4294.000	60.00	596.00	594.50	588.30	500.00	596.90	0.00	597.04	2.14	2.20	396.76	361.82
4294.000	60.00	596.00	594.50	588.30	750.00	597.29	0.00	597.59	3.49	2.92	463.26	401.36
4294.000	60.00	596.00	594.50	588.30	1000.00	597.94	0.00	598.03	4.76	3.52	521.68	458.94
4294.000	60.00	596.00	594.50	588.30	1250.00	598.30	0.00	598.34	5.90	4.02	570.17	514.44
4294.000	60.00	596.00	594.50	588.30	1500.00	598.71	0.00	598.82	7.07	4.51	614.40	564.67
4610.000	316.00	0.00	0.00	588.60	100.00	596.20	0.00	596.21	0.17	0.37	241.25	240.34
4610.000	316.00	0.00	0.00	588.60	300.00	596.60	0.00	596.63	1.20	1.36	292.61	274.26
4610.000	316.00	0.00	0.00	588.60	500.00	597.05	0.00	597.12	2.47	2.35	351.20	318.23
4610.000	316.00	0.00	0.00	588.60	750.00	597.60	0.00	597.72	3.91	3.35	423.41	376.29
4610.000	316.00	0.00	0.00	588.60	1000.00	598.29	0.00	598.25	5.19	3.85	487.11	436.46
4610.000	316.00	0.00	0.00	588.60	1250.00	598.54	0.00	598.76	6.25	4.14	546.20	496.53
4610.000	316.00	0.00	0.00	588.60	1500.00	598.93	0.00	599.16	7.38	4.60	596.32	552.27
4678.000	68.00	596.30	594.50	588.60	100.00	596.25	0.00	596.26	0.19	0.60	166.12	227.02
4678.000	68.00	596.30	594.50	588.60	300.00	596.74	0.00	596.77	1.09	1.51	210.84	287.89
4678.000	68.00	596.30	594.50	588.60	500.00	597.12	0.00	597.24	2.27	2.25	367.67	331.58
4678.000	68.00	596.30	594.50	588.60	750.00	597.78	0.00	597.85	3.65	2.97	436.26	392.72
4678.000	68.00	596.30	594.50	588.60	1000.00	598.20	0.00	598.35	4.90	3.57	500.12	451.65
4678.000	68.00	596.30	594.50	588.60	1250.00	598.63	0.00	598.82	6.00	4.07	557.28	510.17
4678.000	68.00	596.30	594.50	588.60	1500.00	599.01	0.00	599.24	7.10	4.53	606.09	563.07

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFCSP	DIF_SX	DIFXMS	TOPWID	XLCH
3843.000	100.00	595.17	0.00	0.00	0.00	200.00	67.00
3843.000	300.00	596.44	0.00	0.00	0.00	200.00	67.00
3843.000	500.00	596.79	0.00	0.00	0.00	200.00	67.00
3843.000	750.00	597.20	0.00	0.00	0.00	200.00	67.00
3843.000	1000.00	597.53	0.00	0.00	0.00	200.00	67.00
3843.000	1250.00	597.83	0.00	0.00	0.00	200.00	67.00
3843.000	1500.00	598.40	0.00	0.00	0.00	200.00	67.00
4234.000	100.00	596.18	0.00	0.01	0.00	130.00	391.00
4234.000	300.00	596.68	0.00	0.04	0.00	130.00	391.00
4234.000	500.00	596.87	0.00	0.06	0.00	130.00	391.00
4234.000	750.00	597.06	0.00	0.08	0.00	130.00	391.00
4234.000	1000.00	597.84	0.00	0.16	0.00	130.00	391.00
4234.000	1250.00	598.26	0.00	0.18	0.00	130.00	391.00
4234.000	1500.00	598.61	0.00	0.21	0.00	130.00	391.00
4294.000	100.00	596.40	0.00	0.02	0.00	130.00	60.00
4294.000	300.00	596.77	0.00	0.05	0.00	130.00	60.00
4294.000	500.00	596.96	0.00	0.11	0.00	130.00	60.00
4294.000	750.00	597.49	0.00	0.11	0.00	130.00	60.00
4294.000	1000.00	597.94	0.00	0.15	0.00	130.00	60.00
4294.000	1250.00	598.35	0.00	0.10	0.00	130.00	60.00
4294.000	1500.00	598.71	0.00	0.09	0.00	130.00	60.00
4610.000	100.00	596.20	0.00	0.02	0.00	130.00	396.00
4610.000	300.00	596.62	0.00	0.03	0.00	130.00	396.00
4610.000	500.00	597.04	0.00	0.07	0.00	130.00	396.00
4610.000	750.00	597.45	0.00	0.1	0.00	130.00	396.00
4610.000	1000.00	597.85	0.00	0.15	0.00	130.00	396.00
4610.000	1250.00	598.21	0.00	0.13	0.00	130.00	396.00
4610.000	1500.00	598.95	0.00	0.22	0.00	130.00	396.00
4678.000	100.00	596.23	0.00	0.05	0.00	21.70	60.00
4678.000	300.00	596.74	0.00	0.04	0.00	130.00	60.00
4678.000	500.00	597.14	0.00	0.10	0.00	130.00	60.00
4678.000	750.00	597.59	0.00	0.13	0.00	130.00	60.00
4678.000	1000.00	598.20	0.00	0.11	0.00	130.00	60.00
4678.000	1250.00	598.69	0.00	0.09	0.00	130.00	60.00
4678.000	1500.00	599.07	0.00	0.09	0.00	130.00	60.00

SUMMARY OF ERRORS

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: 100 Year

09:57:18 X477 TOM WA2UD342 ECORSE FEB 11, 1980

40> Normal Depth

P400 TO*T SM:1J** LK:10*T FW:E5-943 22A00561 PR01 PR/H112/FI/SI/A/H132

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

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  U1
  MODIFICATION -  50,51,52
**************************************************

C
T1ALLEN PARK FLOOD INSURANCE STUDY-
T2 100 YR FLOW
T3    N.BRANCH ECORSE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        4.        0.        0.  0.000000      0.00      0.0       0.   595.000     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

QT      7.000   960.000  1325.000  1490.000  1490.000  1730.000  1100.000  1200.000     0.000     0.000
NC      0.060     0.060     0.035     0.100     0.300     0.000     0.000     0.000     0.000     0.000

          100' U/S OF ALLEN ROAD

X1      1.000     8.000   250.000   279.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000   250.000   582.700   257.000   582.700   272.000
GR    590.000   279.000   590.000   479.000   600.000   480.000     0.000     0.000     0.000     0.000

X1      2.000     8.000    40.000    69.000   500.000   700.000   600.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000    40.000   583.400    47.000   583.400    62.000
GP    590.000    69.000   590.000   149.000   600.000   150.000     0.000     0.000     0.000     0.000

X1      3.000     8.000   100.000   129.000   700.000   850.000   800.000     0.000     0.000     0.000
X3      0.000     0.000     0.000    90.000     0.000   140.000     0.000     0.000     0.000     0.000
GR    600.000     0.000   590.000     1.000   590.000   100.000   584.300   107.000   584.300   122.000
GR    590.000   129.000   590.000   579.000   600.000   580.000     0.000     0.000     0.000     0.000
NC      0.000     0.000     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000

          D/S FACE OF R/R BRIDGE #1

X1      4.000    10.000   100.000   126.500    50.000    50.000    50.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   596.000   596.000     0.000
GR    600.000    50.000   594.000    50.000   594.000   100.000   585.400   100.000   584.600   112.000
GR    584.400   114.500   584.400   126.500   594.000   126.500   594.000   575.000   600.000   575.000
SB      1.250     1.560     3.000   575.000    26.500     2.500   151.200     0.000   584.700   584.700

          U/S FACE OF R/R BRIDGE #1

X1      5.000     0.000     0.000     0.000    70.000    70.000    70.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   591.000   596.500     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   596.500   596.500     0.000
NC      0.080     0.100     0.035     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      6.000     8.000    60.000    85.000   100.000   100.000   100.000     0.000     0.000     0.000
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X3	0.000	0.000	0.000	0.000	0.000	227.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	50.000	584.600	60.000	584.600	75.000
GR	590.000	85.000	590.000	435.000	600.000	435.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	7.000	10.000	290.000	309.000	250.000	250.000	250.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	205.000	0.000	395.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	250.000	585.000	290.000	584.700	292.000
GR	584.700	307.000	585.000	309.000	590.000	350.000	593.000	600.000	600.000	600.000
X1	8.000	8.000	300.000	343.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	295.000	0.000	345.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	594.300	0.000	594.300	300.000	585.200	314.000	585.200	329.000
GR	594.300	343.000	595.000	593.000	605.000	593.000	0.000	0.000	0.000	0.000
QT	7.000	915.000	1290.000	1470.000	1470.000	1810.000	1100.000	1200.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF R/R BRIDGE #2

X1	9.000	10.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
GR	605.000	0.000	595.000	0.000	594.300	300.000	586.300	300.000	586.300	312.000
GR	585.300	314.000	585.300	326.000	594.300	326.000	594.300	576.000	605.000	576.000
SB	1.250	1.500	3.000	576.000	26.000	2.000	132.000	0.000	585.300	585.300

U/S FACE OF R/R BRIDGE #2

X1	10.000	10.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	591.300	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
GR	605.000	0.000	596.000	0.000	595.800	300.000	586.300	300.000	586.300	312.000
GR	585.300	314.000	585.300	326.000	595.800	326.000	595.800	576.000	605.000	576.000
NC	0.100	0.120	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11.000	8.000	300.000	324.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	375.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	592.000	0.000	590.000	300.000	585.400	306.000	585.400	318.000
GR	590.000	324.000	590.000	574.000	605.000	574.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

100' D/S OF STUDY LIMIT (I-94) BRIDGE, END OF CONVERGENCE RUN

X1	12.000	8.000	300.000	326.000	1300.000	1550.000	1425.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	590.000	0.000	590.000	300.000	586.300	308.000	586.300	318.000
GR	590.000	326.000	595.000	626.000	605.000	626.000	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=   0.100 CEHV=   0.300
*SECNO 1.000
      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IN2        ICONT      CORAR      TOPWID      ENDST

            100' U/S OF ALLEN ROAD

         1.00      12.30     595.00      0.00     595.00     595.01       0.01       0.00       0.00     590.00
      1490.        618.      375.        496.     1246.      306.      1001.         0.          0.      590.00
         0.00       0.50      1.23       0.50      0.060      0.035      0.060      0.000     582.70       0.50
  0.000047          0.        0.         0.          0          0          0       0.00     479.00     479.50

*SECNO 2.000
         2.00      11.61     595.01      0.00       0.00     595.08       0.07       0.06       0.02     590.00
      1490.        224.      808.        459.      197.      291.        403.        24.          4.      590.00
         0.08       1.14      2.78       1.14      0.060      0.035      0.060      0.035     583.40       0.50
  0.000247          500.      600.       700.          1          0          0       0.00     149.00     149.50

*SECNO 3.000

3470 ENCROACHMENT STATIONS=        90.0       140.0  TYPE=       1  TARGET=        50.000
         3.00      10.86     595.16      0.00       0.00     595.48       0.32       0.32       0.07     590.00
      1490.         80.      1321.       89.        52.      275.         57.        35.          6.      590.00
         0.13       1.54      4.80       1.58      0.060      0.035      0.060      0.035     584.30      90.00
  0.000760          700.      800.       850.          2          0          0       0.00      50.00     140.00

CCHV=   0.300 CEHV=   0.500
*SECNO 4.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=        596.00 ELREA=        596.00

            D/S FACE OF R/R BRIDGE #1

         4.00      10.74     595.14      0.00       0.00     595.59       0.45       0.05       0.06     594.00
      1490.          0.      1490.         0.         0.      277.          0.        36.          6.      594.00
         0.14       0.00      5.37       0.00      0.060      0.035      0.060      0.035     584.40     100.00
  0.001455           50.       50.        50.          2          0          0       0.00      26.50     126.50

SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      DWC        BWP        BAREA      SS         ELCHU      ELCHD
       1.25       1.56       3.00     575.00      26.50       2.50     151.20       0.00     584.70     584.70

*SECNO 5.000
      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     IN2        ICONT      CORAR      TOPWID      ENDST

PRESSURE AND WEIR FLOW
```

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EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
597.50	595.70	0.12	251.	1241.	151.	151.	591.00	596.50

U/S FACE OF R/R BRIDGE #1

	5.00	12.35	596.75	0.00	0.00	596.78	0.03	1.18	0.00	594.00
	1490.	82.	645.	763.	137.	320.	1231.	37.	7.	594.00
	0.15	0.60	2.02	0.62	0.060	0.035	0.060	0.035	584.40	50.00
0.000164		70.	70.	70.	2	0	4	0.00	525.00	575.00

*SECNO 6.000

3470 ENCROACHMENT STATIONS= 0.0 227.0 TYPE= 1 TARGET= 226.999

	6.00	12.16	596.76	0.00	0.00	596.79	0.04	0.01	0.00	584.60
	1490.	310.	629.	551.	432.	277.	959.	41.	7.	590.00
	0.17	0.72	2.27	0.57	0.080	0.035	0.100	0.035	584.60	0.00
0.000124		100.	100.	100.	2	0	0	0.00	227.00	227.00

CCHV= 0.100 CEHV= 0.300

*SECNO 7.000

3470 ENCROACHMENT STATIONS= 205.0 395.0 TYPE= 1 TARGET= 190.000

	7.00	12.08	596.78	0.00	0.00	596.83	0.04	0.03	0.00	585.00
	1490.	452.	590.	449.	677.	229.	675.	50.	9.	585.00
	0.22	0.67	2.57	0.67	0.100	0.035	0.100	0.035	584.70	205.00
0.000133		250.	250.	250.	0	0	0	0.00	190.00	395.00

*SECNO 8.000

3470 ENCROACHMENT STATIONS= 295.0 345.0 TYPE= 1 TARGET= 50.000

	8.00	11.51	596.71	0.00	0.00	596.96	0.25	0.07	0.06	594.30
	1490.	6.	1482.	2.	12.	368.	5.	57.	10.	594.30
	0.24	0.51	4.03	0.39	0.100	0.035	0.100	0.035	585.20	295.00
0.000603		300.	300.	300.	2	0	0	0.00	50.00	345.00

CCHV= 0.300 CEHV= 0.500

*SECNO 9.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 600.00 ELREA= 600.00

D/S FACE OF R/R BRIDGE #2

	9.00	11.37	596.67	0.00	0.00	597.09	0.42	0.04	0.08	594.30
	1470.	0.	1470.	0.	0.	283.	0.	56.	10.	594.30
	0.24	0.00	5.20	0.00	0.100	0.035	0.100	0.035	585.30	300.00
0.001318		50.	50.	50.	2	0	0	0.00	26.00	326.00

SPECIAL BRIDGE

SB	KK	XKOR	COFQ	RDLEV	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	576.00	26.00	2.00	132.00	0.00	585.30	585.30

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*SECNO 10.000

6870 D.S. ENERGY OF 597.09 HIGHER THAN COMPUTED ENERGY OF 597.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOOL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
599.56	597.17	0.08	976.	495.	132.	144.	591.30	596.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 600.00 ELREA= 600.00

U/S FACE OF R/R BRIDGE #2

10.00	11.37	596.67	0.00	0.00	597.09	0.42	0.00	0.00	595.80
1470.	0.	1470.	0.	0.	283.	0.	58.	10.	595.80
0.25	0.09	5.20	0.00	0.100	0.035	0.100	0.035	585.30	300.00
0.001376	50.	50.	50.	2	0	4	0.00	26.00	326.00

*SECNO 11.000

3470 ENCROACHMENT STATIONS= 250.0 375.0 TYPE= 1 TARGET= 125.000

11.00	11.70	597.10	0.00	0.00	597.21	0.12	0.03	0.09	590.00
1470.	316.	875.	279.	347.	253.	362.	59.	10.	590.00
0.25	0.91	3.46	0.77	0.100	0.035	0.120	0.035	585.40	250.00
0.000337	50.	50.	50.	2	0	0	0.00	125.00	375.00

CCHV= 0.100 CEHV= 0.300

*SECNO 12.000

3470 ENCROACHMENT STATIONS= 275.0 350.0 TYPE= 1 TARGET= 75.000

100' D/S OF STUDY LIMIT (I-94) BRIDGE. END OF CONVERGENCE RUN

12.00	11.30	597.60	0.00	0.00	597.80	0.20	0.56	0.03	590.00
1470.	197.	1091.	182.	190.	264.	178.	65.	13.	590.00
0.37	1.04	4.13	1.02	0.100	0.035	0.100	0.035	586.30	275.00
0.000466	1300.	1425.	1550.	2	0	0	0.00	75.00	350.00

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

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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

N.BRANCH ECORSE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	582.70	1490.00	595.00	0.00	595.01	0.47	1.23	2553.10	2173.96
2.000	600.00	0.00	0.00	583.40	1490.00	595.01	0.00	595.08	2.47	2.78	890.50	947.67
3.000	800.00	0.00	0.00	584.30	1490.00	595.16	0.00	595.48	7.60	4.80	383.21	540.55
4.000	50.00	0.00	0.00	584.40	1490.00	595.14	0.00	595.59	14.55	5.37	277.28	390.63
5.000	70.00	596.50	591.00	584.40	1490.00	596.75	0.00	596.78	1.64	2.02	1088.39	1163.58
6.000	100.00	0.00	0.00	584.60	1490.00	596.76	0.00	596.79	1.24	2.27	1668.84	1336.31
7.000	250.00	0.00	0.00	584.70	1490.00	596.78	0.00	596.83	1.33	2.57	1581.06	1290.86
8.000	300.00	0.00	0.00	585.20	1490.00	596.71	0.00	596.96	6.03	4.03	384.57	606.60
9.000	50.00	0.00	0.00	585.30	1470.00	596.67	0.00	597.09	13.18	5.20	282.66	404.94
10.000	50.00	596.30	591.30	585.30	1470.00	596.67	0.00	597.09	13.76	5.20	282.67	396.33
11.000	50.00	0.00	0.00	585.40	1470.00	597.10	0.00	597.21	3.37	3.46	961.79	800.46
12.000	1425.00	0.00	0.00	586.30	1470.00	597.60	0.00	597.80	4.66	4.13	631.67	680.78

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

N,BRANCH ECORSE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	1490.00	595.00	0.00	0.00	0.00	479.00	0.00
2.000	1490.00	595.01	0.00	0.01	0.00	149.00	600.00
3.000	1490.00	595.16	0.00	0.15	0.00	50.00	800.00
4.000	1490.00	595.14	0.00	-0.01	0.00	26.50	50.00
5.000	1490.00	596.75	0.00	1.60	0.00	525.00	70.00
6.000	1490.00	596.76	0.00	0.01	0.00	227.00	100.00
7.000	1490.00	596.78	0.00	0.03	0.00	190.00	250.00
8.000	1490.00	596.71	0.00	-0.07	0.00	50.00	300.00
9.000	1470.00	596.67	0.00	-0.04	0.00	26.00	50.00
10.000	1470.00	596.67	0.00	0.00	0.00	26.00	50.00
11.000	1470.00	597.10	0.00	0.43	0.00	125.00	50.00
12.000	1470.00	597.60	0.00	0.50	0.00	75.00	1425.00

5992

SUMMARY OF ERRORS

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

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
    ERROR CORR -  01
    MODIFICATION -  50,51,52
**************************************************
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PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
*                                                *
*              E R R O R   S U M M A R Y         *
*                                                *
*                                                *
*    0  ERROR(S) DETECTED BY THE USER PROGRAM    *
*    0  ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE *
*    0  ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS *
*                                                *
**************************************************
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PRINTED IN U.S.A.

FORM 1411 GR PRINTED BY ROTARY MANIFOLD FORMS.

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

EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y    Y   L        IIIII    N    N    SSSS    K   K
E        E               K  K     O    O   B    B    Y  Y    L          I      NN   N   S        K  K
E        E       ------  K K      O    O   BBBBB      YY     L          I      N N  N    SSSS    K K
EEEE     EEEE            KKK      O    O   B    B     Y      L          I      N  N N        S   KKK
E        E               K  K     O    O   B    B    Y       L          I      N   NN   S    S   K  K
EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y        LLLLLL   IIIII    N    N    SSSS    K   K

                         USACOE DETROIT H800 VOS 7.1.0     PRINTER:  6

                         EE-KOBYLINSK                10 SEP 92 13:32:44

                         TERMINAL: 104

*****************************************************************************************************************
*****************************************************************************************************************
*****************************************************************************************************************
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**********************************************************
*  WATER SURFACE PROFILES                                *
*  VERSION OF SEPTEMBER 1988                             *
*  ERROR: 01,02,03,04                                    *
*  UPDATED:  JUNE 1990                                   *
*  RUN DATE    10SEP92     TIME    13:30:44              *
**********************************************************
```

```
**************************************
*  U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D        *
*  DAVIS, CALIFORNIA 95616-4687      *
*        (916) 756-1104              *
**************************************
```

```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X        X     X            X     X
X      X  X        X                  X     X
XXXXXXX   XXXX     X          XXXXX    XXXXX
X      X  X        X                  X
X      X  X        X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```

END OF BANNER

100-YR & 500-YR

City of Allen Park
North Branch Ecorse Creek
Natural Run.

ENCLOSURE 1

THIS RUN EXECUTED 10SEP92 13:30:44

```
**************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED JUN  1990

  ERROR CORR -  01,02,03,04
  MODIFICATION -
**************************************************

T1       ECORSE CREEK FLOOD CONTROL STUDY
T2      100 YEAR FLOOD     FUTURE CONDITION
T3       NORTH BR ECORSE CREEK     WITHOUT PROJECT

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      G          WSEL       FQ
        0       2.00       0.00       0.00       0.00       0.00       0.00       0.00     574.90       0.00
J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
     1.00       0.00      -1.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

J3   VARIABLE CODES FOR SUMMARY PRINTOUT
     150
     150

NC      .035       .035       .03         .3         .5
GT         2       4450       5380
X1         1.      41.00     500.00     619.00       0.00       0.00       0.00       0.00       0.00       0.00
GR    576.20       0.00     575.90     100.00     576.60     200.00     578.50     300.00     581.10     400.00
GR    584.60     500.00     582.80     500.00     582.60     505.00     581.70     510.00     581.10     515.00
GR    579.20     520.00     575.40     525.00     574.80     530.00     572.80     535.00     569.20     540.00
GR    569.20     540.00     565.50     543.50     565.50     543.50     565.50     545.00     563.90     555.00
GR    566.10     560.00     565.30     565.00     565.40     570.00     564.10     575.00     566.20     580.00
GR    566.20     580.00     565.30     583.50     565.30     583.50     565.30     585.00     563.40     590.00
GR    564.40     595.00     565.40     600.00     567.70     605.00     571.10     610.00     573.50     615.00
GR    574.00     619.00     584.60     619.00     582.30     700.00     579.60     800.00     579.00     890.00
GR    578.70    1000.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

X1        30.       0.00       0.00       0.00      29.00      29.00      29.00       0.00       0.00       0.00

X1        60.      41.00     500.00     619.00      30.00      30.00      30.00       0.00       0.00       0.00
GR    576.20       0.00     575.90     100.00     576.60     200.00     578.50     300.00     581.10     400.00
GR    584.60     500.00     582.80     500.00     582.60     505.00     581.70     510.00     581.10     515.00
GR    579.20     520.00     575.40     525.00     574.80     530.00     572.80     535.00     569.20     540.00
GR    569.20     540.00     565.50     543.50     565.50     543.50     565.50     545.00     563.90     555.00
GR    566.10     560.00     565.30     565.00     565.40     570.00     564.10     575.00     566.20     580.00
GR    566.20     580.00     565.30     583.50     565.30     583.50     565.30     585.00     563.40     590.00
GR    564.40     595.00     565.40     600.00     567.70     605.00     571.10     610.00     573.50     615.00
GR    574.00     619.00     584.60     619.00     582.30     700.00     579.60     800.00     579.00     890.00
GR    578.70    1000.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
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WEST JEFFERSON AVENUE BRIDGE

X1	61.	41.00	500.00	619.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	10.00	500.00	584.30	579.80	500.00	587.70	579.80	520.00	588.00	579.20
BT	540.00	588.10	580.30	543.50	588.10	580.30	560.00	588.30	580.30	580.00
BT	588.10	580.30	583.50	588.10	580.30	619.00	587.70	579.70	619.00	584.40
BT	579.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	576.20	0.00	575.90	100.00	576.60	200.00	578.50	300.00	581.10	400.00
GR	584.30	500.00	582.80	500.00	582.60	505.00	581.90	510.00	581.10	515.00
GR	579.20	520.00	575.40	525.00	574.80	530.00	572.80	535.00	569.20	540.00
GR	580.30	540.00	580.30	543.50	565.50	543.50	565.50	545.00	563.90	555.00
GR	566.10	560.00	565.30	565.00	565.40	570.00	564.10	575.00	566.20	580.00
GR	580.30	580.00	580.30	583.50	565.30	583.50	565.30	585.00	563.40	590.00
GR	564.40	595.00	565.40	600.00	567.70	605.00	571.10	610.00	573.50	615.00
GR	574.00	619.00	584.60	619.00	582.30	700.00	579.60	800.00	579.00	890.00
GR	578.70	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	136.	0.00	0.00	0.00	75.00	75.00	75.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	137.	41.00	500.00	619.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	576.20	0.00	575 90	100.00	576.60	200.00	578.50	300.00	581.10	400.00
GR	584.60	500.00	582.80	500.00	582.60	505.00	581.90	510.00	581.80	515.00
GR	579.20	520.00	575.40	525.00	574.80	530.00	572.80	535.00	569.20	540.00
GR	569.20	540.00	565.50	543.50	565.50	543.50	565.50	545.00	563.90	555.00
GR	566.10	560.00	565.30	565.00	565.40	570.00	564.10	575.00	566.20	580.00
GR	566.20	580.00	565.30	583.50	565.30	583.50	565.30	585.00	563.40	590.00
GR	564.40	595.00	565.40	600.00	567.70	605.00	571.10	610.00	573.50	615.00
GR	574.00	619.00	584.60	619.00	582.30	700.00	579.60	800.00	579.00	890.00
GR	578.70	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NC	0.035	0.042	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	187.	27.00	331.00	441.00	50.00	50.00	50.00	0.00	0.00	0.00
GR	575.80	0.00	576.60	41.00	578.50	141.00	580.60	241.00	583.10	331.00
GR	575.40	341.00	574.80	346.00	571.30	351.00	568.10	356.00	567.20	361.00
GR	565.70	366.00	565.10	371.00	565.50	376.00	565.10	381.00	564.70	391.00
GR	564.10	401.00	564.40	406.00	565.70	411.00	568.20	416.00	570.50	421.00
GR	572.80	426.00	574.80	432.00	580.20	441.00	583.60	454.00	581.00	541.00
GR	579.30	641.00	578.30	698.00	0.00	0.00	0.00	0.00	0.00	0.00
NH	4.0	0.035	244.000	0.035	360.000	0.070	400.000	0.035	800.000	0.000
X1	362.	35.00	244.00	400.00	175.00	175.00	175.00	0.00	0.27	0.00
GR	580.20	0.00	579.50	100.00	578.30	200.00	578.30	244.00	574.60	254.00
GR	573.60	255.00	571.50	260.00	569.80	265.00	568.50	270.00	567.60	275.00
GR	566.90	280.00	565.90	285.00	565.60	290.00	563.70	300.00	563.70	310.00
GR	564.30	320.00	565.80	330.00	568.20	340.00	569.80	345.00	571.10	350.00
GR	571.60	355.00	572.40	360.00	572.10	365.00	572.60	370.00	572.60	375.00
GR	572.80	380.00	572.80	385.00	572.90	390.00	574.60	395.00	576.90	400.00
GR	577.60	500.00	577.70	545.00	577.50	600.00	577.70	700.00	577.50	800.00

NH	4.0	0.035	244.000	0.035	360.000	0.070	400.000	0.035	800.000	0.000
X1	737.	35.00	244.00	400.00	375.00	375.00	375.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	244.00	0.00	373.00	0.00	0.00	0.00	0.00
GR	580.20	0.00	579.50	100.00	578.30	200.00	578.30	244.00	574.60	254.00
GR	573.60	255.00	571.50	260.00	569.80	265.00	568.50	270.00	567.60	275.00
GR	566.90	280.00	565.90	285.00	565.60	290.00	563.70	300.00	563.70	310.00
GR	564.30	320.00	565.80	330.00	568.20	340.00	569.80	345.00	571.10	350.00
GR	571.60	355.00	572.40	360.00	572.10	365.00	572.60	370.00	572.60	375.00
GR	572.80	380.00	572.80	385.00	572.90	390.00	574.60	395.00	576.90	400.00
GR	577.60	500.00	577.70	545.00	577.50	600.00	577.70	700.00	577.50	800.00
NC	0.035	0.042	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	787.	67.00	795.00	901.60	50.00	50.00	50.00	0.00	0.00	0.00
GR	581.50	0.00	581.40	95.00	581.30	195.00	581.20	295.00	581.10	395.00
GR	581.10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575.20	795.00
GR	574.50	800.00	574.50	800.00	574.50	801.00	574.50	801.00	574.00	805.00
GR	573.20	810.00	573.20	810.00	573.20	811.00	573.20	811.00	570.80	815.00
GR	569.30	820.00	570.10	825.00	570.10	825.00	570.10	826.00	570.10	826.00
GR	566.60	829.90	566.60	829.90	566.60	831.20	566.60	831.20	565.50	835.00
GR	565.50	835.00	565.50	836.00	565.50	836.00	563.90	840.00	564.50	845.00
GR	564.50	845.00	564.50	846.00	564.50	846.00	564.90	850.00	564.90	855.00
GR	564.90	855.00	564.90	856.00	564.90	856.00	565.50	860.00	565.20	865.00
GR	565.20	865.00	565.20	866.30	565.30	866.30	566.00	870.00	566.00	875.00
GR	566.00	875.00	566.00	876.00	566.00	876.00	566.70	880.00	568.70	885.00
GR	568.30	890.00	569.70	895.00	571.70	900.00	571.70	901.60	581.00	901.60
GR	580.80	995.00	580.80	1095.00	580.60	1195.00	580.40	1295.00	580.10	1395.00
GR	579.90	1495.00	580.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00

D. T. AND I. RAILROAD

X1	788.	67.00	795.00	901.60	1.00	1.00	1.00	0.00	0.00	0.00
BT	4.00	795.00	581.00	577.20	830.00	581.00	577.20	860.00	581.00	577.20
BT	901.60	581.00	577.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	581.50	0.00	581.40	95.00	581.30	195.00	581.20	295.00	581.10	395.00
GR	581.10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575.20	795.00
GR	574.50	800.00	575.50	800.00	575.50	801.00	574.50	801.00	574.00	805.00
GR	573.20	810.00	575.50	810.00	575.50	811.00	573.20	811.00	570.80	815.00
GR	569.30	820.00	570.10	825.00	575.50	825.00	575.50	826.00	570.10	826.00
GR	566.60	830.00	577.20	830.00	577.20	831.30	566.60	831.30	565.50	835.00
GR	575.50	835.00	575.50	836.00	565.50	836.00	563.90	840.00	564.50	845.00
GR	575.50	845.00	575.50	846.00	564.50	846.00	564.90	850.00	564.90	855.00
GR	575.50	855.00	575.50	856.00	564.90	856.00	565.50	860.00	565.20	865.00
GR	577.20	865.00	577.20	866.30	565.20	866.30	566.00	870.00	566.00	875.00
GR	575.50	875.00	575.50	876.00	566.00	876.00	566.70	880.00	568.70	885.00
GR	568.30	890.00	569.70	895.00	571.70	900.00	571.70	901.60	581.00	901.60
GR	580.80	995.00	580.80	1095.00	580.60	1195.00	580.40	1295.00	580.10	1395.00
GR	579.90	1495.00	580.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	797.	0.00	0.00	0.00	9.00	9.00	9.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00

X1	798.	67.00	795.00	901.60	1.00	1.00	1.00	0.00	0.00	0.00
GR	581.50	0.00	581.40	95.00	581.30	195.00	581.20	295.00	581.10	395.00
GR	581.10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575.20	795.00
GR	574.50	800.00	574.50	800.00	574.50	801.00	574.50	801.00	574.00	805.00
GR	573.20	810.00	573.20	810.00	573.20	811.00	573.20	811.00	570.80	815.00
GR	569.30	820.00	570.10	825.00	570.10	825.00	570.10	826.00	570.10	826.00
GR	566.60	829.90	566.60	829.90	566.60	831.20	566.60	831.20	565.50	835.00
GR	565.50	835.00	565.50	836.00	565.50	836.00	563.90	840.00	564.50	845.00
GR	564.50	845.00	564.50	846.00	564.50	846.00	564.90	850.00	564.90	855.00
GR	564.90	855.00	564.90	856.00	564.90	856.00	565.50	860.00	565.20	865.00
GR	565.20	865.00	565.20	866.30	565.30	866.30	566.00	870.00	566.00	875.00
GR	566.00	875.00	566.00	876.00	566.00	876.00	566.70	880.00	568.70	885.00
GR	568.30	890.00	569.70	895.00	571.70	900.00	571.70	901.60	581.00	901.60
GR	580.80	995.00	580.80	1095.00	580.60	1195.00	580.40	1295.00	580.10	1395.00
GR	579.90	1495.00	580.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	844.	58.00	815.00	924.00	46.00	46.00	46.00	0.00	0.00	0.00
GR	583.40	0.00	583.40	15.00	583.10	115.00	582.90	215.00	582.80	315.00
GR	582.60	415.00	582.30	515.00	582.10	615.00	581.80	715.00	581.50	815.00
GR	576.10	815.00	574.20	820.00	572.70	825.00	570.00	827.00	570.00	827.00
GR	570.00	830.00	570.00	830.00	568.00	835.00	565.90	840.00	565.00	844.00
GR	565.00	844.00	565.00	845.00	565.00	845.00	565.00	855.00	566.00	864.00
GR	566.00	864.00	566.00	865.00	566.00	865.00	566.10	874.00	566.10	874.00
GR	566.10	875.00	566.10	875.00	565.80	884.00	565.80	884.00	565.80	885.00
GR	565.80	885.00	565.60	890.00	565.20	894.00	565.20	894.00	565.20	895.00
GR	565.20	895.00	567.60	900.00	570.30	905.00	572.00	909.00	572.00	907.00
GR	572.00	910.00	572.00	910.00	574.00	915.00	575.10	920.00	576.20	924.00
GR	581.40	924.00	581.30	1015.00	581.30	1115.00	581.10	1215.00	581.10	1315.00
GR	581.10	1415.00	581.20	1515.00	581.20	1565.00	0.00	0.00	0.00	0.00

CONRAIL

X1	845.	58.00	815.00	924.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	16.00	815.00	581.50	578.40	829.00	581.50	578.10	830.00	581.50	578.10
BT	844.00	581.50	577.90	845.00	581.50	577.90	864.00	581.50	577.50	865.00
BT	581.50	577.50	874.00	581.40	577.40	875.00	581.40	577.40	884.00	581.40
BT	577.20	885.00	581.40	577.20	894.00	581.40	577.00	895.00	581.40	577.00
BT	909.00	581.40	576.80	910.00	581.40	576.80	924.00	581.40	576.50	0.00
GR	583.40	0.00	583.40	15.00	583.10	115.00	582.90	215.00	582.80	315.00
GR	582.60	415.00	582.30	515.00	582.10	615.00	581.80	715.00	581.50	815.00
GR	576.10	815.00	574.20	820.00	572.70	825.00	570.00	827.00	570.10	827.00
GR	578.10	830.00	570.00	830.00	568.00	835.00	565.90	840.00	565.00	844.00
GR	577.90	844.00	577.90	845.00	565.00	845.00	565.00	855.00	566.00	864.00
GR	577.50	864.00	577.50	865.00	566.00	865.00	566.10	874.00	577.40	874.00
GR	577.40	875.00	566.10	875.00	565.80	884.00	577.20	884.00	577.20	885.00
GR	565.80	885.00	565.60	890.00	565.20	894.00	577.00	894.00	577.00	895.00
GR	565.20	895.00	567.60	900.00	570.30	905.00	572.00	909.00	576.80	907.00
GR	576.80	910.00	572.00	910.00	574.00	915.00	575.10	920.00	576.20	924.00
GR	581.40	924.00	581.30	1015.00	581.30	1115.00	581.10	1215.00	581.10	1315.00
GR	581.10	1415.00	581.20	1515.00	581.20	1565.00	0.00	0.00	0.00	0.00

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X1	859.	0.00	0.00	0.00	14.50	14.50	14.50	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	860.	58.00	815.00	924.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	583.40	0.00	583.40	15.00	583.10	115.00	582.90	215.00	582.80	315.00
GR	582.60	415.00	582.30	515.00	582.10	615.00	581.80	715.00	581.50	815.00
GR	576.10	815.00	574.20	820.00	572.70	825.00	570.00	829.00	570.00	827.00
GR	570.00	830.00	570.00	830.00	568.00	835.00	565.70	840.00	565.00	844.00
GR	565.00	844.00	565.00	845.00	565.00	845.00	565.00	855.00	566.00	864.00
GR	566.00	864.00	566.00	865.00	566.00	865.00	566.10	874.00	566.10	874.00
GR	566.10	875.00	566.10	875.00	565.80	884.00	565.80	884.00	565.80	885.00
GR	565.80	885.00	565.60	890.00	565.20	894.00	565.20	894.00	565.20	895.00
GR	565.20	895.00	567.60	900.00	570.30	905.00	572.00	907.00	572.00	907.00
GR	572.00	910.00	572.00	910.00	574.00	915.00	575.10	920.00	576.20	924.00
GR	581.40	924.00	581.30	1015.00	581.30	1115.00	581.10	1215.00	581.10	1315.00
GR	581.10	1415.00	581.20	1515.00	581.20	1565.00	0.00	0.00	0.00	0.00
X1	910.	64.00	835.00	942.00	50.00	50.00	50.00	0.00	0.00	0.00
GR	583.70	0.00	583.60	35.00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583.30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844.00	571.60	844.00	571.60	845.00
GR	571.60	845.00	570.70	854.00	570.70	854.00	570.70	855.00	570.70	855.00
GR	565.60	864.00	565.60	864.00	565.60	865.00	565.60	865.00	564.30	874.00
GR	564.30	874.00	564.30	875.00	564.30	875.00	564.80	884.00	564.80	884.00
GR	564.80	885.00	564.80	885.00	564.90	894.00	564.70	894.00	564.70	895.00
GR	564.90	895.00	564.00	904.00	564.00	904.00	564.00	905.00	564.00	905.00
GR	566.10	914.00	566.10	914.00	566.10	915.00	566.10	915.00	567.00	920.00
GR	571.00	924.00	571.00	924.00	571.00	925.00	571.00	925.00	572.40	930.00
GR	573.90	934.00	573.90	934.00	573.90	935.00	573.70	935.00	575.00	940.00
GR	574.90	942.00	583.00	942.00	582.70	1035.00	582.60	1135.00	582.30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0.00	0.00

RAILROAD SPUR

X1	911.	64.00	835.00	942.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	6.00	835.00	583.10	578.60	874.00	583.10	578.60	875.00	583.10	578.60
BT	904.00	583.00	578.60	905.00	583.00	578.60	942.00	583.00	578.60	0.00
GR	583.70	0.00	583.60	35.00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583.30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844.00	575.50	844.00	575.50	845.00
GR	571.60	845.00	570.70	854.00	575.50	854.00	575.50	855.00	570.70	855.00
GR	565.60	864.00	575.50	864.00	575.50	865.00	565.60	865.00	564.30	874.00
GR	578.60	874.00	578.60	875.00	564.30	875.00	564.80	884.00	575.50	884.00
GR	575.50	885.00	564.80	885.00	564.90	894.00	575.50	894.00	575.50	895.00
GR	564.90	895.00	564.00	904.00	578.60	904.00	578.60	905.00	564.00	905.00
GR	566.10	914.00	575.50	914.00	575.50	915.00	566.10	915.00	567.00	920.00
GR	571.00	924.00	575.50	924.00	575.50	925.00	571.00	925.00	572.40	930.00
GR	573.90	934.00	575.50	934.00	575.50	935.00	573.70	935.00	575.00	940.00
GR	574.90	942.00	583.00	942.00	582.70	1035.00	582.60	1135.00	582.30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0.00	0.00

X1	921.	0.00	0.00	0.00	10.00	10.00	10.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	922.	64.00	835.00	942.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	583.70	0.00	583.60	35.00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583.30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844.00	571.60	844.00	571.60	845.00
GR	571.60	845.00	570.70	854.00	570.70	854.00	570.70	855.00	570.70	855.00
GR	565.60	864.00	565.60	864.00	565.60	865.00	565.60	865.00	564.30	874.00
GR	564.30	874.00	564.30	875.00	564.30	875.00	564.00	884.00	564.00	884.00
GR	564.80	885.00	564.80	885.00	564.90	894.00	564.90	894.00	564.90	895.00
GR	564.90	895.00	564.00	904.00	564.00	904.00	564.00	905.00	564.00	905.00
GR	566.10	914.00	566.10	914.00	566.10	915.00	566.10	915.00	567.00	920.00
GR	571.00	924.00	571.00	924.00	571.00	925.00	571.00	925.00	572.40	930.00
GR	573.90	934.00	573.90	934.00	573.90	935.00	573.90	935.00	575.00	940.00
GR	574.90	942.00	583.00	942.00	582.70	1035.00	582.60	1135.00	582.30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0.00	0.00
X1	953.	48.00	600.00	681.00	31.00	31.00	31.00	0.00	0.00	0.00
GR	582.00	0.00	581.80	100.00	581.60	200.00	581.50	300.00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610.00
GR	566.90	610.00	566.90	612.30	566.90	612.30	565.90	615.00	565.10	620.00
GR	565.10	620.00	565.10	622.30	565.10	622.30	566.30	625.00	566.20	630.00
GR	566.20	630.00	566.20	632.30	566.20	632.30	566.70	635.00	566.40	640.00
GR	566.10	645.00	566.40	650.00	566.40	650.00	566.40	652.30	566.40	652.30
GR	566.60	655.00	567.50	660.00	567.50	660.00	567.50	662.30	567.50	662.30
GR	567.50	665.00	569.90	670.00	569.90	670.00	569.90	672.30	569.90	672.30
GR	573.40	680.00	573.40	681.00	580.80	681.00	580.80	700.00	580.70	800.00
GR	580.60	900.00	580.60	1000.00	580.50	1100.00	0.00	0.00	0.00	0.00

D.T. AND I. RAILROAD BRIDGE

X1	954.	48.00	600.00	681.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	14.00	600.00	581.00	577.70	610.00	581.00	577.70	612.30	581.00	577.70
BT	620.00	581.00	577.70	622.30	581.00	577.70	630.00	580.90	577.70	632.30
BT	580.90	577.70	650.00	580.90	577.60	652.30	580.90	577.60	660.00	580.90
BT	577.60	662.30	580.80	577.60	670.00	580.80	577.60	672.30	580.80	577.60
BT	681.00	580.80	577.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	582.00	0.00	581.80	100.00	581.60	200.00	581.50	300.00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610.00
GR	577.70	610.00	577.70	612.30	566.90	612.30	565.90	615.00	565.10	620.00
GR	577.70	620.00	577.70	622.30	565.10	622.30	566.30	625.00	566.20	630.00
GR	577.70	630.00	577.70	632.30	566.20	632.30	566.70	635.00	566.40	640.00
GR	566.10	645.00	566.40	650.00	577.60	650.00	577.60	652.30	566.40	652.30
GR	566.60	655.00	567.50	660.00	577.60	660.00	577.60	662.30	567.50	662.30
GR	567.50	665.00	569.90	670.00	577.60	670.00	577.60	672.30	567.90	672.30
GR	573.40	680.00	573.40	681.00	580.80	681.00	580.80	700.00	580.70	800.00
GR	580.60	900.00	580.60	1000.00	580.50	1100.00	0.00	0.00	0.00	0.00

X1	985.	0.00	0.00	0.00	30.50	30.50	30.50	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	986.	48.00	600.00	681.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	582.00	0.00	581.80	100.00	581.60	200.00	581.50	300.00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610.00
GR	566.90	610.00	566.90	612.30	566.90	612.30	565.90	615.00	565.10	620.00
GR	565.10	620.00	565.10	622.30	565.10	622.30	566.30	625.00	566.20	630.00
GR	566.20	630.00	566.20	632.30	566.20	632.30	566.70	635.00	566.40	640.00
GR	566.10	645.00	566.40	650.00	566.40	650.00	566.40	652.30	566.40	652.30
GR	566.60	655.00	567.50	660.00	567.50	660.00	567.50	662.30	567.50	662.30
GR	567.50	665.00	569.90	670.00	569.90	670.00	569.90	672.30	569.90	672.30
GR	573.40	680.00	573.40	681.00	580.80	681.00	580.80	700.00	580.70	800.00
GR	580.60	900.00	580.60	1000.00	580.50	1100.00	0.00	0.00	0.00	0.00
NC	0.040	0.035	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1036.	37.00	565.00	700.00	50.00	50.00	50.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00
GR	581.90	0.00	581.20	100.00	581.20	200.00	580.80	300.00	581.00	400.00
GR	579.90	500.00	581.10	565.00	575.40	587.00	574.70	590.00	573.90	595.00
GR	572.50	600.00	571.00	605.00	569.80	610.00	568.80	615.00	568.00	620.00
GR	567.40	625.00	566.60	630.00	566.30	635.00	566.20	640.00	566.30	650.00
GR	566.80	660.00	568.30	670.00	570.20	675.00	570.40	680.00	571.70	685.00
GR	573.10	690.00	574.80	695.00	574.90	696.00	577.50	700.00	577.50	800.00
GR	576.60	900.00	576.60	1000.00	577.00	1030.00	567.80	1100.00	577.50	1200.00
GR	578.30	1300.00	579.20	1345.00	0.00	0.00	0.00	0.00	0.00	0.00
NC	0.060	0.035	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1736.	40.00	374.00	492.50	700.00	700.00	700.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	374.00	0.00	492.50	0.00	0.00	0.00	0.00
GR	580.40	0.00	580.40	167.00	579.50	283.70	578.80	335.30	579.10	374.00
GR	577.20	377.90	567.10	381.90	575.10	385.80	574.10	389.80	573.20	393.70
GR	572.40	397.70	571.50	401.60	570.30	405.60	569.40	409.50	568.40	413.50
GR	567.60	417.40	566.90	421.40	566.50	425.30	566.00	429.20	565.70	433.20
GR	565.50	437.20	565.40	441.10	565.50	445.00	565.60	449.00	565.90	453.00
GR	566.50	456.90	567.20	460.80	568.00	464.80	569.00	468.70	569.80	472.70
GR	570.60	476.60	571.70	480.60	573.40	484.50	575.10	488.50	577.50	492.50
GR	577.40	550.00	577.30	650.00	577.40	750.00	577.70	870.00	579.50	975.00

DS OF CONFL. WITH SOUTH BRANCH ECORSE CREEK

X1	2436.	31.00	183.00	285.00	700.00	700.00	700.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	183.00	0.00	285.00	0.00	0.00	0.00	0.00
GR	579.00	0.00	579.90	85.00	578.50	135.00	577.10	183.00	575.10	185.00
GR	573.50	190.00	572.20	195.00	571.10	200.00	570.20	205.00	568.50	210.00
GR	567.70	215.00	566.40	220.00	565.60	225.00	565.30	230.00	565.00	235.00
GR	564.60	240.00	564.80	245.00	565.20	250.00	566.40	255.00	567.80	260.00
GR	568.80	265.00	569.90	270.00	571.50	275.00	574.70	280.00	575.10	281.00
GR	577.40	285.00	577.30	385.00	578.20	485.00	577.70	557.00	578.60	585.00
GR	579.80	605.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NC	0.040	0.040	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
QT	2	1580	2190							
X1	2736.	26.00	300.00	400.00	300.00	300.00	300.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	300.00	0.00	400.00	0.00	0.00	0.00	0.00
GR	578.40	0.00	577.70	100.00	578.50	200.00	578.60	300.00	575.10	310.00
GR	573.40	315.00	572.20	320.00	570.60	325.00	570.00	330.00	569.90	335.00
GR	569.70	340.00	569.10	350.00	569.10	360.00	569.70	370.00	570.40	375.00
GR	571.70	380.00	572.90	385.00	574.40	390.00	575.10	392.00	578.60	400.00
GR	581.00	500.00	581.30	600.00	581.40	700.00	581.90	900.00	582.10	900.00
GR	583.20	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	3436.	0.00	0.00	0.00	700.00	700.00	700.00	0.00	0.30	0.00
X3	10.00	0.00	0.00	300.00	0.00	400.00	0.00	0.00	0.00	0.00
X1	3836.	27.00	200.00	300.00	400.00	400.00	400.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	200.00	0.00	300.00	0.00	0.00	0.00	0.00
GR	580.70	0.00	579.20	100.00	578.50	200.00	575.00	207.00	574.00	210.00
GR	573.00	215.00	572.60	220.00	571.90	225.00	571.00	230.00	570.40	235.00
GR	570.00	240.00	569.70	245.00	570.00	250.00	570.70	255.00	572.10	260.00
GR	573.40	265.00	573.70	270.00	575.00	275.00	575.40	278.00	579.80	290.00
GR	580.30	300.00	580.40	400.00	581.00	500.00	581.90	600.00	582.20	700.00
GR	581.80	800.00	581.90	843.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	4311.	0.00	0.00	0.00	475.00	475.00	475.00	0.00	0.20	0.00
X3	0.00	0.00	0.00	200.00	0.00	290.00	0.00	0.00	0.00	0.00
X1	4786.	30.00	393.00	500.00	475.00	475.00	475.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	393.00	0.00	500.00	0.00	0.00	0.00	0.00
GR	582.10	0.00	581.20	100.00	580.80	200.00	581.10	212.00	580.30	300.00
GR	580.10	393.00	578 60	400.00	574.80	408.00	574.10	410.00	573.60	415.00
GR	573.20	420.00	572.70	425.00	571.80	430.00	570.80	435.00	570.50	440.00
GR	570.40	445.00	570.20	450.00	570.10	455.00	570.40	460.00	570.60	465.00
GR	571.40	470.00	572.60	475.00	573.70	480.00	574.40	483.00	579.20	487.00
GR	579.50	500.00	579.70	600.00	579.60	653.00	581.20	700.00	581.20	900.00
X1	4825.	37.00	500.00	598.00	39.00	39.00	39.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	500.00	585.00	598.00	585.00	0.00	0.00	0.00
GR	581.90	0.00	582.00	20.00	581.80	100.00	581.30	200.00	581.10	300.00
GR	580.50	400.00	579.40	500.00	576.80	500.00	576.30	505.00	575.30	510.00
GR	574.80	515.00	573.60	520.00	572.90	525.00	572.00	530.00	571.60	535.00
GR	571.60	540.00	571.20	545.00	570.80	550.00	571.20	555.00	571.20	560.00
GR	571.10	565.00	571.20	570.00	571.70	575.00	572.30	580.00	573.20	585.00
GR	574.00	590.00	574.30	595.00	574.30	598.00	579.60	598.00	579.70	600.00
GR	579.60	700.00	579.70	751.00	579.60	800.00	580.10	900.00	580.40	1000.00
GR	580.90	1100.00	581.20	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
SB	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3.17	570.80	570.80

MILL STREET BRIDGE

X1	4846.	0.00	0.00	0.00	21.00	21.00	21.00	0.00	0.00	0.00
X2	0.00	0.00	1.00	578.30	579.40	0.00	0.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	500.00	585.00	598.00	585.00	0.00	0.00	0.00
BT	16.00	0.00	581.90	0.00	20.00	582.00	0.00	100.00	581.80	0.00
BT	200.00	581.30	0.00	300.00	581.10	0.00	400.00	580.50	0.00	500.00

BT	579.40	578.20	598.00	579.60	578.30	600.00	579.70	0.00	700.00	577.60
BT	0.00	751.00	579.70	0.00	800.00	577.60	0.00	900.00	580.10	0.00
BT	1000	580.40	0.00	1100.00	580.90	0.00	1200.00	581.20	0.00	0.00
X1	4847.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	500.00	585.00	598.00	585.00	0.00	0.00	0.00
X1	5436.	34.00	494.00	594.00	589.00	589.00	589.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	579.74	0.00	578.94	94.00	579.74	194.00	580.14	272.00	580.34	294.00
GR	581.94	394.00	580.84	494.00	574.74	506.00	574.94	508.00	573.94	507.00
GR	573.24	514.00	572.84	519.00	571.84	524.00	571.14	529.00	570.74	534.00
GR	570.64	539.00	570.84	544.00	571.84	549.00	572.94	554.00	573.94	557.00
GR	573.44	564.00	573.74	569.00	574.24	574.00	574.74	576.00	581.14	594.00
GR	580.74	658.00	580.84	694.00	581.34	794.00	581.94	894.00	582.44	994.00
GR	582.94	1094.00	583.24	1194.00	582.94	1294.00	582.64	1394.00	0.00	0.00
X1	5936.	34.00	494.00	594.00	500.00	500.00	500.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	400.00	0.00	600.00	0.00	0.00	0.00	0.00
GR	579.60	0.00	578.80	94.00	579.60	194.00	580.00	272.00	580.20	294.00
GR	581.80	394.00	580.70	494.00	574.60	506.00	574.20	508.00	573.80	507.00
GR	573.10	514.00	572.70	519.00	571.70	524.00	571.00	529.00	570.60	534.00
GR	570.50	539.00	570.70	544.00	571.70	549.00	572.80	554.00	573.10	557.00
GR	573.30	564.00	573.60	569.00	574.10	574.00	574.60	576.00	581.00	594.00
GR	580.60	658.00	580.70	694.00	581.20	794.00	581.80	894.00	582.30	994.00
GR	582.80	1094.00	583.10	1194.00	582.80	1294.00	582.50	1347.00	0.00	0.00
X1	6416.	28.00	560.00	660.00	480.00	480.00	480.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	581.43	0.00	581.93	60.00	581.53	160.00	581.33	260.00	581.63	360.00
GR	581.93	460.00	581.93	560.00	581.13	577.00	574.83	592.00	573.23	593.00
GR	572.23	595.00	570.93	600.00	570.33	605.00	570.83	610.00	571.83	615.00
GR	572.43	620.00	572.93	625.00	573.13	630.00	573.43	635.00	574.13	640.00
GR	574.23	642.00	574.83	644.00	581.93	660.00	581.23	716.00	582.23	760.00
GR	581.93	860.00	582.03	960.00	581.73	1010.00	0.00	0.00	0.00	0.00
X1	6786.	28.00	560.00	660.00	370.00	370.00	370.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	581.30	0.00	581.80	60.00	581.40	160.00	581.20	260.00	581.50	360.00
GR	581.80	460.00	581.80	560.00	581.00	577.00	574.70	592.00	573.10	593.00
GR	572.10	595.00	570.80	600.00	570.20	605.00	570.70	610.00	571.70	615.00
GR	572.30	620.00	572.80	625.00	573.00	630.00	573.30	635.00	574.00	640.00
GR	574.10	642.00	574.70	644.00	581.80	660.00	581.10	716.00	582.10	760.00
GR	581.80	860.00	581.90	960.00	581.60	1010.00	0.00	0.00	0.00	0.00
X1	6835.	0.00	0.00	0.00	49.00	49.00	49.00	0.00	1.37	0.00
X3	10	0	0	0	0	0	0	579.5	579.5	
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6836.	40.00	900.00	973.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	579.50	579.50	
GR	582.00	0.00	582.90	100.00	582.80	200.00	582.00	300.00	581.70	400.00
GR	581.30	500.00	580.70	600.00	580.90	700.00	581.40	800.00	582.00	900.00
GR	574.40	900.00	574.00	905.00	573.20	910.00	572.20	915.00	572.60	920.00

GR	571.60	925.00	572.10	930.00	573.50	935.00	578.20	935.00	578.20	938.00
GR	573.60	938.00	573.80	940.00	573.40	945.00	572.20	950.00	572.00	955.00
GR	572.70	960.00	573.60	965.00	574.50	970.00	574.70	973.00	582.00	973.00
GR	582.00	976.00	581.60	1000.00	581.20	1100.00	581.00	1200.00	580.90	1300.00
GR	581.50	1400.00	582.00	1500.00	582.60	1600.00	582.80	1700.00	583.00	1807.00
SB	0.00	1.50	2.90	0.00	60.00	0.00	308.00	0.00	571.60	571.60
		SOUTHFIELD ROAD BRIDGE								
X1	6916.	0.00	0.00	0.00	80.00	80.00	80.00	0.00	0.00	0.00
X2	0.00	0.00	1.00	577.00	582.00	0.00	0.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	582.00	582.00	0.00
BT	23.00	0.00	582.00	0.00	100.00	582.90	0.00	200.00	582.80	0.00
BT	300.00	582.00	0.00	400.00	581.70	0.00	500.00	581.30	0.00	600.00
BT	580.70	0.00	700.00	580.90	0.00	800.00	581.40	0.00	900.00	582.00
BT	577.00	935.00	582.00	577.00	938.00	582.00	577.00	973.00	582.00	577.00
BT	976.00	582.00	0.00	1000.00	581.60	0.00	1100.00	581.20	0.00	1200.00
BT	581.00	0.00	1300.00	580.90	0.00	1400.00	581.50	0.00	1500.00	582.00
BT	0.00	1600.00	582.60	0.00	1700.00	582.80	0.00	1807.00	583.00	0.00
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	2	1330	1960							
X1	6917.	28.00	560.00	660.00	1.00	1.00	1.00	0.00	1.40	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	581.30	0.00	581.80	60.00	581.40	160.00	581.20	260.00	581.50	360.00
GR	581.80	460.00	581.80	560.00	581.00	577.00	574.70	592.00	573.10	593.00
GR	572.10	595.00	570.80	600.00	570.20	605.00	570.70	610.00	571.70	615.00
GR	572.30	620.00	572.80	625.00	573.00	630.00	573.30	635.00	574.00	640.00
GR	574.10	642.00	574.70	644.00	581.80	660.00	581.10	716.00	582.10	760.00
GR	581.80	860.00	581.90	960.00	581.60	1010.00	0.00	0.00	0.00	0.00
X1	7436.	0.00	0.00	0.00	519.00	519.00	519.00	0.00	-0.40	0.00
X3	10.00	0.00	0.00	560.00	0.00	660.00	0.00	0.00	0.00	0.00
X1	7936.	22.00	416.00	550.00	500.00	500.00	500.00	0.00	0.00	0.00
GR	581.80	0.00	581.70	116.00	581.10	216.00	580.90	316.00	582.50	416.00
GR	582.60	436.00	574.90	453.00	573.80	456.00	572.40	461.00	571.80	466.00
GR	571.20	471.00	570.80	476.00	571.00	481.00	571.50	486.00	572.30	491.00
GR	573.70	494.00	574.90	495.00	583.10	516.00	582.80	550.00	582.20	716.00
GR	582.20	866.00	581.70	891.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	8536.	40.00	280.00	383.00	600.00	600.00	600.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	150.00	0.00	400.00	0.00	0.00	0.00	0.00
GR	583.00	0.00	582.40	100.00	581.60	221.20	581.80	280.00	581.70	305.50
GR	580.30	308.00	579.00	310.60	577.60	313.20	576.60	315.80	575.90	318.40
GR	575.20	320.90	574.60	323.50	573.90	326.10	573.30	328.70	572.90	331.30
GR	572.10	333.90	571.40	336.40	571.10	339.00	570.90	341.60	570.90	344.20
GR	571.10	346.80	571.30	349.40	571.60	351.90	572.20	354.50	572.80	357.10
GR	573.30	359.70	574.30	362.30	575.10	364.90	575.70	367.40	576.40	370.00
GR	577.20	372.60	578.40	375.20	579.60	377.80	580.80	380.40	582.10	383.00
GR	582.00	400.00	581.80	490.00	581.60	598.00	581.80	705.00	582.40	810.00

X1	9136.	24.00	140.00	310.00	600.00	600.00	600.00	0.00	0.00	0.00
GR	584.30	0.00	583.80	40.00	582.20	140.00	580.80	175.00	575.50	184.00
GR	574.90	194.00	574.50	195.00	573.60	200.00	571.30	205.00	570.90	210.00
GR	571.30	215.00	572.00	220.00	573.60	225.00	574.30	230.00	574.70	235.00
GR	574.90	237.00	575.50	240.00	581.10	250.00	581.20	310.00	581.00	376.00
GR	580.90	450.00	581.30	550.00	581.70	650.00	583.20	735.00	0.00	0.00
X1	9586.	24.00	140.00	250.00	450.00	450.00	450.00	0.00	0.00	0.00
GR	584.30	0.00	583.80	40.00	582.20	140.00	580.80	175.00	575.50	184.00
GR	574.90	194.00	574.50	195.00	573.60	200.00	571.30	205.00	570.90	210.00
GR	571.30	215.00	572.00	220.00	573.60	225.00	574.30	230.00	574.70	235.00
GR	574.90	237.00	575.50	240.00	581.10	250.00	581.20	350.00	581.00	376.00
GR	580.90	450.00	581.30	550.00	581.70	650.00	583.20	735.00	0.00	0.00
X1	9596.	20.00	345.00	445.00	10.00	10.00	10.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	245.00	0.00	445.00	0.00	0.00	0.00	0.00
GR	583.95	0.00	581.35	45.00	580.95	145.00	580.85	245.00	581.85	345.00
GR	579.95	385.00	575.75	399.00	574.95	407.00	574.25	410.00	573.05	415.00
GR	572.75	420.00	572.95	425.00	571.65	430.00	570.95	435.00	573.05	440.00
GR	574.65	445.00	583.45	445.00	580.25	448.00	581.25	545.00	582.45	645.00
X1	10286.	20.00	345.00	445.00	690.00	690.00	690.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	245.00	0.00	445.00	0.00	0.00	0.00	0.00
GR	584.00	0.00	581.40	45.00	581.00	145.00	580.90	245.00	581.90	345.00
GR	580.00	385.00	575.80	399.00	575.00	407.00	574.30	410.00	573.10	415.00
GR	572.80	420.00	573.00	425.00	571.70	430.00	571.00	435.00	571.50	440.00
GR	574.70	445.00	583.50	445.00	580.30	448.00	581.30	545.00	582.50	645.00
X1	10336.	22.00	350.00	445.00	50.00	50.00	50.00	0.00	0.00	0.00
GR	583.10	0.00	581.30	100.00	580.90	200.00	580.20	300.00	579.80	350.00
GR	573.00	401.00	573.00	405.00	573.00	410.00	573.00	415.00	573.00	420.00
GR	572.50	430.00	572.60	435.00	573.70	440.00	574.80	444.00	580.00	445.00
GR	580.50	500.00	581.30	600.00	582.30	700.00	582.70	800.00	583.00	900.00
GR	583.00	908.00	584.20	960.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	10636.	27.00	655.00	855.00	300.00	300.00	300.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	655.00	0.00	300.00	0.00	0.00	0.00	0.00
GR	582.67	0.00	582.67	55.00	584.37	155.00	585.67	255.00	586.07	355.00
GR	586.27	455.00	585.47	555.00	584.57	655.00	583.37	677.00	574.07	697.00
GR	573.77	700.00	573.07	705.00	572.47	710.00	572.47	715.00	573.67	720.00
GR	574.57	725.00	575.07	725.00	575.97	738.00	582.67	755.00	583.67	855.00
GR	583.27	955.00	583.67	1055.00	583.97	1068.00	583.57	1155.00	583.37	1255.00
GR	583.07	1355.00	583.07	1455.00	0.00	0.00	0.00	0.00	0.00	0.00

VALLEY SECTION

X1	11536.	27.00	655.00	855.00	900.00	700.00	900.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	655.00	0.00	855.00	0.00	0.00	0.00	0.00
GR	582.60	0.00	582.60	55.00	584.30	155.00	585.60	255.00	586.00	355.00
GR	586.20	455.00	585.40	555.00	584.50	655.00	583.30	677.00	574.00	697.00
GR	573.70	700.00	573.00	705.00	572.40	710.00	572.40	715.00	573.60	720.00
GR	574.50	725.00	575.00	727.00	575.90	738.00	582.60	755.00	583.80	855.00
GR	583.20	955.00	583.60	1055.00	583.90	1068.00	583.50	1155.00	583.30	1255.00
GR	583.00	1355.00	583.00	1455.00	0.00	0.00	0.00	0.00	0.00	0.00

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
NH	5.0	0.200	250.000	0.300	920.000	0.050	994.000	0.045	1046.000	0.500
NH	1580.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CITY OF ECORSE CORP. BOUNDARY									
X1	12274.	11.00	994.00	1046.00	738.00	738.00	738.00	0.00	0.00	0.00
X3	0.00	0.00	0.00	900.00	0.00	1050.00	0.00	0.00	0.00	0.00
X4	1.00	582.00	920.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	585.00	0.00	583.30	250.00	580.00	650.00	582.40	980.00	575.20	974.00
GR	573.50	1020.00	574.90	1046.00	581.80	1065.00	580.00	1130.00	580.00	1250.00
GR	585.00	1580.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NH	5.0	0.200	250.000	0.300	930.000	0.050	1014.000	0.045	1064.100	0.500
NH	1600.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF AUSTIN									
X1	12324.	22.00	1014.00	1064.10	50.00	50.00	50.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	920.00	0.00	1065.00	0.00	583.30	583.30	0.00
GR	585.00	0.00	583.30	250.00	583.60	430.00	580.40	930.00	582.40	1000.00
GR	574.10	1014.00	574.10	1014.10	574.10	1030.00	574.10	1030.10	574.10	1031.00
GR	574.10	1031.10	573.60	1039.00	573.80	1047.00	573.80	1047.10	573.80	1048.00
GR	573.80	1048.10	573.80	1064.00	573.80	1064.10	581.80	1083.00	583.10	1140.00
GR	583.40	1240.00	584.60	1600.00	0.00	0.00	0.00	0.00	0.00	0.00
NH	5.0	0.200	250.000	0.300	930.000	0.050	1014.000	0.035	1064.100	0.500
NH	1600.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1' INSIDE D/S SIDE OF AUSTIN BRIDGE									
X1	12325.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	920.00	0.00	1065.00	0.00	583.30	583.30	0.00
BT	20.00	0.00	585.00	0.00	250.00	583.30	0.00	430.00	583.60	0.00
BT	930.00	580.40	0.00	1014.00	583.30	574.10	1014.10	583.30	581.80	1030.00
BT	583.30	581.80	1030.10	583.30	574.10	1031.00	583.30	574.10	1031.10	583.30
BT	581.80	1047.00	583.30	581.80	1047.10	583.30	573.80	1048.00	583.30	573.80
BT	1048.1	583.30	581.80	1064.00	583.30	581.80	1064.10	583.30	573.80	1083.00
BT	581.80	0.00	1140.00	583.10	0.00	1240.00	583.40	0.00	1600.00	584.60
BT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NH	5.0	0.200	250.000	0.300	930.000	0.050	1014.000	0.035	1064.100	0.500
NH	1600.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1' INSIDE U/S FACE OF AUSTIN BRIDGE									
X1	12367.	0.00	0.00	0.00	42.00	42.00	42.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	920.00	0.00	1065.00	0.00	583.30	583.30	0.00
NH	5.0	0.200	250.000	0.300	930.000	0.050	1014.000	0.045	1064.100	0.500
NH	1600.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF AUSTIN									
X1	12368.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	920.00	0.00	1065.00	0.00	583.30	583.30	0.00

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NH      5.0      0.200    250.000     0.300    930.000     0.050   1014.000     0.045   1064.100     0.500
NH   1600.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          VALLEY SECTION 50' U/S OF AUSTIN
X1   12418.      0.00       0.00      0.00      50.00     50.00      50.00     0.00       0.00      0.00
X3       0.00    0.00       0.00    920.00       0.00   1065.00      0.00     0.00       0.00      0.00

NC   0.000       0.000      0.000     0.100      0.300     0.000      0.000     0.000      0.000     0.000
NH      5.0      0.200    260.000     0.300    660.000     0.120    828.000     0.045    905.000     0.300
NH   1060.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          VALLEY SECTION BTWN AUSTIN AND VICTORIA
X1   13295.     13.00     828.00    905.00     600.00     950.00    877.00     0.00       0.00      0.00
X3       0.00    0.00       0.00    594.00       0.00    992.00      0.00     0.00       0.00      0.00
GR   585.00      0.00     584.00    260.00     583.10     660.00    583.80     760.00     584.00    828.00
GR   575.80    848.00     573.30    860.00     576.30     872.00    576.00     880.00     580.70    905.00
GR   582.00    960.00     582.00   1060.00     590.00    1060.00      0.00     0.00       0.00      0.00

NC   0.000       0.000      0.000     0.300      0.500     0.000      0.000     0.000      0.000     0.000
NH      5.0      0.150    200.000     0.120    472.000     0.045    508.000     0.100    526.000     0.300
NH   1300.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          VALLEY SECTION 50' D/S OF VICTORIA
X1   13676.     10.00     472.00    508.00     381.00     100.00    381.00     0.00       0.00      0.00
X3       0.00    0.00       0.00    348.00       0.00    543.00      0.00     0.00       0.00      0.00
GR   585.00      0.00     584.60    200.00     580.00     420.00    581.80     462.00     574.90    472.00
GR   572.90    490.00     575.60    508.00     581.40     526.00    580.00     650.00     585.00   1300.00

NH      5.0      0.150    150.000     0.120    466.500     0.045    493.600     0.100    512.000     0.300
NH   1450.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          D/S FACE OF VICTORIA
X1   13726.     15.00     466.50    493.60      50.00     50.00      50.00     0.00       0.00      0.00
X3      10.00    0.00       0.00    350.00       0.00    520.00      0.00     581.40     581.40     0.00
GR   585.00      0.00     584.60    150.00     581.80     453.00    573.00     466.50     573.00    466.60
GR   573.00    479.50     573.00    479.60     573.00     480.50    573.00     480.60     573.00    493.50
GR   573.00    493.60     581.40    512.00     581.50     720.00    581.50     810.00     585.00   1450.00

NH      5.0      0.150    150.000     0.120    466.500     0.035    493.600     0.100    512.000     0.300
NH   1450.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          1' INSIDE D/S FACE OF VICTORIA BRIDGE
X1   13727.      0.00       0.00      0.00       1.00      1.00       1.00     0.00       0.00      0.00
X3      10.00    0.00       0.00    350.00       0.00    520.00      0.00     581.40     581.40     0.00
BT      14.00    0.00     585.00      0.00     150.00     584.60      0.00     453.00     581.80     0.00
BT     466.50  581.40     573.00    466.60     581.40     579.60    479.50     581.40     579.60    479.60
BT     581.40  573.00     480.50    581.40     573.00     480.60    581.40     578.60     493.50    581.40
BT     578.60  493.60     581.40    573.00     512.00     581.40      0.00     810.00     581.50     0.00
BT        1450 585.00       0.00      0.00       0.00       0.00      0.00     0.00       0.00      0.00

NH      5.0      0.150    150.000     0.120    466.500     0.035    493.600     0.100    512.000     0.300
NH   1450.0      0.000      0.000     0.000      0.000     0.000      0.000     0.000      0.000     0.000
          1' INSIDE U/S FACE OF VICTORIA BRIDGE
X1   13964.      0.00       0.00      0.00     237.00     237.00     237.00     0.00       0.00      0.00
X2       0.00    0.00       0.00      0.00       0.00      0.00       1.00     0.00       0.00      0.00
X3      10.00    0.00       0.00    350.00       0.00    520.00      0.00     581.40     581.40     0.00
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NH      5.0      0.150    150.000      0.120    466.500      0.045    493.600      0.100    512.000      0.300
NH   1450.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                U/S FACE OF VICTORIA
X1   13965.      0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     350.00       0.00     520.00       0.00     581.40     581.40       0.00

NH      5.0      0.150    150.000      0.080    466.500      0.045    493.600      0.040    512.000      0.500
NH   1450.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                VALLEY SECTION 50' U/S OF VICTORIA
X1   14015.      0.00       0.00       0.00      50.00      50.00      50.00       0.00       0.00       0.00
X3      0.00     0.00       0.00     350.00       0.00     520.00       0.00       0.00       0.00       0.00

NH      5.0      0.200    150.000      0.080    275.000      0.045    345.000      0.040    520.000      0.500
NH   1160.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                VALLEY SECTION 50' D/S OF N.B. FORT ST.
X1   14287.     13.00     275.00     345.00     272.00     272.00     272.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     200.00       0.00     520.00       0.00     583.20     583.20       0.00
GR     585.00    0.00     584.30     150.00     583.70     275.00     576.30     295.00     574.50     310.00
GR     575.90  331.00     582.60     345.00     583.00     360.00     582.80     400.00     582.20     520.00
GR     581.90  750.00     580.00    1160.00     590.00    1160.00       0.00       0.00       0.00       0.00

NH      5.0      0.200    150.000      0.080    449.700      0.045    501.800      0.040    700.000      0.500
NH   1380.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                D/S FACE OF N.B. FORT ST.
X1   14337.     20.00     449.70     501.80      50.00      50.00      50.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     380.00       0.00     700.00       0.00     583.20     583.20       0.00
GR     585.00    0.00     585.00     150.00     584.30     300.00     583.60     440.00     578.40     449.70
GR     578.40  449.80     578.40     453.20     574.60     475.00     574.60     475.10     574.60     476.40
GR     574.60  476.50     578.40     498.20     578.40     501.70     578.40     501.80     582.60     516.00
GR     582.80  575.00     582.20     700.00     581.20     950.00     580.00    1380.00     590.00    1380.00

NH      5.0      0.200    150.000      0.080    449.700      0.035    501.800      0.040    700.000      0.500
NH   1380.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                1' INSIDE OF D/S FACE N.B. FORT ST.
X1   14338.      0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     380.00       0.00     700.00       0.00     583.20     583.20       0.00
BT      17.00    0.00     585.00       0.00     150.00     585.00       0.00     300.00     584.30       0.00
BT     440.00  583.60       0.00     449.70     583.20     578.40     449.80     583.20     581.40     475.00
BT     583.20  581.40     475.10     583.20     574.60     476.40     583.20     574.60     476.50     583.20
BT     581.40  501.70     583.20     581.40     501.80     583.20     578.40     516.00     582.60       0.00
BT     575.00  582.80       0.00     700.00     582.20       0.00     950.00     581.20       0.00    1380.00
BT     580.00    0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

NH      5.0      0.200    150.000      0.080    449.700      0.035    501.800      0.040    700.000      0.500
NH   1380.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                1' INSIDE OF U/S FACE N.B. FORT ST.
X1   14402.      0.00       0.00       0.00      64.00      64.00      64.00       0.00       0.00       0.00
X2      0.00     0.00       0.00       0.00       0.00       0.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     380.00       0.00     700.00       0.00     583.20     583.20       0.00
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NH      5.0      0.200    150.000      0.080    449.700      0.045    501.800      0.040    700.000      0.500
NH   1380.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                U/S FACE N.B.  FORT ST.
X1   14403.      0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     380.00       0.00     700.00       0.00     583.60     583.60       0.00

NH      5.0      0.200    300.000      0.080    473.300      0.040    526.700      0.100    800.000      0.500
NH   1400.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                D/S FACE S.B.  FORT ST.
X1   14460.      20.00      473.30     526.70      57.00      57.00      57.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     370.00       0.00     770.00       0.00     583.60     583.60       0.00
GR     585.80    0.00       584.60   300.00       584.30   460.00       578.90   473.30       578.90   473.40
GR     578.90    477.80     574.90   483.80       572.60   499.30       572.60   499.40       572.60   500.60
GR     572.60    500.70     574.90   516.10       578.90   522.10       578.90   526.60       578.90   526.70
GR     583.40    538.00     581.80   800.00       581.20  1050.00       580.00  1400.00       590.00  1400.00

NH      5.0      0.200    300.000      0.080    473.300      0.035    526.700      0.100    800.000      0.500
NH   1400.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                1' INSIDE D/S S.B.  FORT ST.
X1   14461.      0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     370.00       0.00     770.00       0.00     583.60     583.60       0.00
BT      15.00    0.00       585.80     0.00     300.00     584.60       0.00     460.00     584.30       0.00
BT     473.30    583.60     578.90   473.40       583.60   581.60       499.30   583.60       581.60   499.40
BT     583.60    572.60     500.60   583.60       572.60   500.70       583.60   581.60       526.60   583.60
BT     581.60    526.70     583.60   578.90       538.00   583.40         0.00   000.00       581.00     0.00
BT        1050   581.20       0.00  1400.00       580.00     0.00         0.00     0.00         0.00     0.00

NH      5.0      0.200    300.000      0.080    473.300      0.035    526.700      0.100    800.000      0.500
NH   1400.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                1' INSIDE U/S FACE S.B.  FORT ST.
X1   14521.      0.00       0.00       0.00      60.00      60.00      60.00       0.00       0.00       0.00
X2      0.00     0.00       0.00       0.00       0.00       0.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     370.00       0.00     770.00       0.00     583.60     583.60       0.00

NH      5.0      0.200    300.000      0.080    473.300      0.040    526.700      0.100    800.000      0.500
NH   1400.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                U/S FACE S.B.  FORT ST.
X1   14522.      0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3      10.00    0.00       0.00     370.00       0.00     770.00       0.00     583.60     583.60       0.00

NH      5.0      0.200    200.000      0.120    415.000      0.045    470.000      0.120   1050.000      0.500
NH   1150.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
QT         2       980       1370
                VALLEY SECTION 50' U/S OF S.B.  FORT ST.
X1   14572.      10.00      415.00     470.00      50.00      50.00      50.00       0.00       0.00       0.00
X3      0.00     0.00       0.00     290.00       0.00     710.00       0.00       0.00       0.00       0.00
GR     585.00    0.00       584.60   200.00       584.20   415.00       576.60   435.00       572.70   450.00
GR     576.20    460.00     583.40   470.00       580.00  1050.00       580.00  1150.00       590.00  1150.00
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NC      0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH          3.0     0.100     159.000       0.045     225.000       0.100     272.000       0.000       0.000       0.000
X1      15292.       8.00      159.00      225.00      720.00      450.00      720.00        0.00        0.00        0.00
X3          0.00     0.00        0.00      159.00        0.00      225.00        0.00        0.00        0.00        0.00
GR      588.20       0.00      589.50      100.00      587.20      159.00      577.10      189.00      574.40      200.00
GR      577.20     211.00      582.80      225.00      586.50      272.00        0.00        0.00        0.00        0.00

NC      0.050       0.080       0.035       0.300       0.500       0.000       0.000       0.000       0.000       0.000
                VALLEY SECTION 50' D/S OF LAFAYETTE
X1      15820.       7.00       85.00      115.00      350.00      550.00      528.00        0.00        0.00        0.00
X3          10.00    0.00        0.00       50.00        0.00      162.00        0.00      583.00      583.00        0.00
GR      586.00       0.00      586.20       73.00      577.70       85.00      577.00      100.00      578.30      115.00
GR      585.50     127.00      585.40      200.00        0.00        0.00        0.00        0.00        0.00        0.00

                D/S FACE OF LAFAYETTE
X1      15870.       8.00       86.00      114.00       50.00       50.00       50.00        0.00        0.00        0.00
X3          10.00    0.00        0.00       50.00        0.00      150.00        0.00      583.00      583.00        0.00
GR      586.00       0.00      586.40       66.00      577.00       86.00      577.00       86.10      577.00      113.90
GR      577.00     114.00      586.40      134.00      585.40      200.00        0.00        0.00        0.00        0.00

SB          0.00     1.65        3.00        0.00       28.00        0.00      168.00        0.00      577.00      577.00
                U/S FACE OF LAFAYETTE
X1      15914.       0.00        0.00        0.00       44.00       44.00       44.00        0.00        0.00        0.00
X2          0.00     0.00        1.00      583.00      585.40        0.00        0.00        0.00        0.00        0.00
X3          10.00    0.00        0.00       50.00        0.00      150.00        0.00      586.00      585.40        0.00
BT          8.00     0.00      586.00        0.00       66.00      586.40        0.00       86.00      586.40      577.00
BT          86.10  586.40      583.00      113.90      586.40      583.00      114.00      586.40      577.00      134.00
BT      586.40       0.00      200.00      585.40        0.00        0.00        0.00        0.00        0.00        0.00
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                VALLEY SECTION 50' U/S OF LAFAYETTE
X1      15964.       7.00       88.00      112.00       50.00       50.00       50.00        0.00        0.00        0.00
X3          10.00    0.00        0.00        0.00        0.00      150.00        0.00      586.00      585.40        0.00
GR      586.00       0.00      586.30       73.00      577.90       88.00      577.00      100.00      577.80      112.00
GR      586.40     122.00      585.40      200.00        0.00        0.00        0.00        0.00        0.00        0.00

NH          3.0     0.080     775.000       0.045     835.000       0.080     860.000       0.000       0.000       0.000
                VALLEY SECTION 50' D/S OF I-75
X1      16194.       5.00      775.00      835.00      230.00      230.00      230.00        0.00        0.00        0.00
GR      587.80     775.00      578.60      799.00      576.50      820.00      578.60      835.00      588.00      860.00

NC      0.080       0.080       0.045       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                D/S FACE OF I-75 BRIDGE
X1      16244.       7.00      818.50      841.50       50.00       50.00       50.00        0.00        0.00        0.00
X3          10.00    0.00        0.00        0.00        0.00        0.00        0.00      603.60      603.60        0.00
GR      603.60     818.50      578.60      818.60      578.60      818.70      576.50      830.00      578.60      841.40
GR      578.60     841.50      603.60      841.60        0.00        0.00        0.00        0.00        0.00        0.00

NC      0.000       0.000       0.030       0.000       0.000       0.000       0.000       0.000       0.000       0.000
X1      16245.       0.00        0.00        0.00        1.00        1.00        1.00        0.00        0.00        0.00
X3          10.00    0.00        0.00        0.00        0.00        0.00        0.00      603.60      603.60        0.00
BT          6.00   818.50      603.60        0.00      818.60      603.60      578.60      818.70      603.60      588.10
BT      841.40     603.60      588.10      841.50      603.60      578.60      841.60      603.60        0.00        0.00
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X1   16503.     0.00     0.00     0.00   258.00   258.00   258.00     0.00     0.00     0.00
X2       0.00   0.00     0.00     0.00     0.00     0.00     1.00     0.00     0.00     0.00
X3      10.00   0.00     0.00     0.00     0.00     0.00     0.00   603.60   603.60     0.00

NC       0.000  0.000    0.045    0.000    0.000    0.000    0.000    0.000    0.000    0.000
GT           2    910     1140
              U/S FACE OF I-75 BRIDGE
X1   16504.     0.00     0.00     0.00     1.00     1.00     1.00     0.00     0.00     0.00
X3      10.00   0.00     0.00     0.00     0.00     0.00     0.00   603.60   603.60     0.00

              VALLEY SECTION 50' U/S OF I-75 BRIDGE
X1   16554.    10.00   605.00   635.00    50.00    50.00    50.00     0.00     0.00     0.00
X3       0.00   0.00     0.00   558.00     0.00   683.00     0.00     0.00     0.00     0.00
GR     585.30   0.00   585.30   100.00   590.00   300.00   588.60   587.00   578.80   605.00
GR     576.60 620.00   578.90   635.00   587.60   665.00   585.00   700.00   590.00  1250.00

NH       4.0    0.040  100.000    0.060  410.000    0.045  442.000    0.060  480.000    0.000
              VALLEY SECTION 50' D/S OFINDUSTRIAL DR.
X1   16826.    10.00   410.00   442.00   272.00   272.00   272.00     0.00     0.00     0.00
X3       0.00   0.00     0.00   394.00     0.00   456.00     0.00     0.00     0.00     0.00
GR     587.30   0.00   587.30   100.00   587.00   170.00   589.00   220.00   586.00   380.00
GR     575.40 410.00   575.30   426.00   575.40   442.00   586.00   462.00   593.00   480.00

NH       4.0    0.040  100.000    0.060  290.000    0.045  323.100    0.060  540.000    0.000
              D/S FACE OF INDUSTRIAL DR.
X1   16876.     9.00   290.00   323.10    50.00    50.00    50.00     0.00     0.00     0.00
X3      10.00   0.00     0.00     0.00     0.00     0.00     0.00   590.50   590.50     0.00
GR     587.30   0.00   587.30   100.00   589.70   240.00   574.60   290.00   574.60   290.10
GR     574.60 323.00   574.60   323.10   591.00   358.00   593.00   540.00     0.00     0.00

SB       0.00   1.82     3.00     0.00    26.83     0.00   264.00     0.00   574.90   574.60
NH       3.0    0.060  290.000    0.045  323.100    0.060  358.000    0.000    0.000    0.000
              U/S FACE OF INDUSTRIAL DR.
X1   16963.    15.00   290.00   323.10    87.00    87.00    87.00     0.00     0.00     0.00
X2       0.00   0.00     1.00   585.00   589.70     0.00     0.00     0.00     0.00     0.00
X3      10.00   0.00     0.00     0.00     0.00     0.00     0.00   590.50   590.50     0.00
BT      15.00 240.00   589.70     0.00   290.00   590.50   574.90   290.10   590.50   578.50
BT     292.00 590.50   582.00   294.00   590.50   583.50   298.00   590.50   585.60   302.00
BT     590.50 585.00   306.50   590.50   585.00   311.00   590.50   585.00   315.00   590.50
BT     585.60 319.00   590.50   583.50   321.00   590.50   582.00   323.00   590.50   578.50
BT     323.10 590.50   574.90   358.00   591.00     0.00     0.00     0.00     0.00     0.00
GR     589.70 240.00   574.90   290.00   574.90   290.10   574.90   272.00   574.90   294.00
GR     574.90 298.00   574.90   302.00   574.90   306.50   574.90   311.00   574.90   315.00
GR     574.90 319.00   574.90   321.00   574.90   323.00   574.90   323.10   591.00   358.00

NH       4.0    0.040  100.000    0.060  354.000    0.045  387.000    0.060  437.000    0.000
              VALLEY SECTION 50' U/S OF INDUSTRIAL DR.
X1   17013.     7.00   324.00   387.00    50.00    50.00    50.00     0.00     0.00     0.00
X3       0.00   0.00     0.00   304.00     0.00   437.00     0.00     0.00     0.00     0.00
GR     587.30   0.00   587.30   100.00   585.00   324.00   576.20   354.00   576.20   387.00
GR     585.00 407.00   597.00   437.00     0.00     0.00     0.00     0.00     0.00     0.00
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NH      4.0      0.040    100.000      0.080    414.000      0.045    461.000      0.080    600.000      0.000
                VALLEY SECTION 50' D/S OF PENNN CENTRAL R.R. BRIDGE
X1   17255.      9.00     414.00       461.00   242.00       242.00   242.00       0.00     0.00         0.00
X3       0.00    0.00       0.00       414.00     0.00       466.00     0.00       0.00     0.00         0.00
GR   587.20      0.00     587.20       100.00   590.00       200.00   587.70       401.00   578.10       414.00
GR   577.90    440.00     578.10       461.00   597.00       513.00   590.00       600.00     0.00         0.00

NC       0.080    0.080      0.045      0.300      0.500      0.000      0.000      0.000      0.000      0.000
                D/S FACE OF PENN CENTRAL R.R. BRIDGE
X1   17305.     10.00     356.40       383.60    50.00        50.00    50.00        0.00     0.00         0.00
X3      10.00    0.00       0.00         0.00     0.00         0.00     0.00       600.40   600.40       0.00
GR   600.40    356.30     577.90       356.40   577.90       356.50   577.90       368.40   577.90       368.50
GR   577.90    371.50     577.90       371.60   577.90       383.50   577.90       383.60   600.40       383.70

SB       1.25     2.00       3.00       0.00      27.20        3.20     182.00       0.00     577.90       577.90
                U/S FCE OF PENN CENTRAL R.R. BRIDGE
X1   17502.      0.00       0.00       0.00     197.00       197.00   197.00       0.00     0.00         0.00
X2       0.00    0.00       1.00       585.50   600.40         0.00     0.00       0.00     0.00         0.00
X3      10.00    0.00       0.00         0.00     0.00         0.00     0.00       600.40   600.40       0.00
BT      10.00  356.30     600.40         0.00   356.40       600.40   577.90       356.50   600.40       585.50
BT     368.40  600.40     585.50       368.50   600.40       577.90   371.50       600.40   577.90       371.60
BT     600.40  585.50     383.50       600.40   585.50       383.60   600.40       577.90   383.70       600.40
BT       0.00    0.00       0.00         0.00     0.00         0.00     0.00       0.00     0.00         0.00

NH       5.0      0.040    100.000      0.080    315.000      0.045    370.000      0.080    470.000      1.000
NH    1060.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                VALLEY SECTION 50' U/S OF PENN CENTRAL R.R. BRIDGE
X1   17552.     10.00     315.00       370.00    50.00        50.00    50.00        0.00     0.00         0.00
X3          0         0          0          250        0          380
GR   600.00    100.00     587.20       100.00   586.90       315.00   577.80       328.00   577.50       340.00
GR   577.50    352.00     585.40       370.00   585.00       470.00   585.00      1060.00   600.00      1060.00

NC       0.050    0.050      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
X1   17817.     11.00     101.00       162.00   265.00       265.00   265.00       0.00     0.00         0.00
X3       0.00    0.00       0.00         8.80     0.00       230.40     0.00       0.00     0.00         0.00
GR   600.00      0.00     587.00         0.00   588.00        50.00   588.30       101.00   578.40       130.00
GR   576.90    138.00     578.50       148.00   586.50       162.00   589.10       225.00   589.10       275.00
GR   600.00    275.00       0.00         0.00     0.00         0.00     0.00       0.00     0.00         0.00

NH       6.0      0.040    100.000      0.080    150.000      1.000    250.000      0.080    320.000      0.045
NH     393.0      0.500   1230.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                VALLEY SECTION 50' D/S OF PORTER AVE.
X1   18106.     17.00     320.00       393.00   289.00       289.00   287.00       0.00     0.00         0.00
X3      10.00    0.00       0.00       263.00     0.00       438.00     0.00       587.90   587.90       0.00
GR   588.00      0.00     588.00       100.00   585.00       150.00   585.00       250.00   588.40       320.00
GR   579.00    340.00     579.00       350.00   579.00       365.00   587.70       393.00   586.70       410.00
GR   586.70    460.00     587.50       630.00   587.50       680.00   588.50       910.00   588.50       960.00
GR   588.70   1180.00     588.70      1230.00     0.00         0.00     0.00       0.00     0.00         0.00
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NH      5.0        10       780      0.060       850      0.040      875.1      0.500      1000        10
NH     2200
          D/S FACE OF PORTER AVE.
X1   18156.     11.00    850.00    875.10     50.00     50.00     50.00      0.00      0.00      0.00
X3        0         0         0         1         0       925
GR    594.3       0.0    588.60    726.00    588.40    780.00    587.90    830.00    579.00    850.00
GR   579.00    850.10    579.00    875.00    579.00    875.10    587.90    903.00    586.70      1000
GR    594.3      2200      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

NH      5.0        10       780      0.060       850      0.030      875.1      0.500      1000        10
NH     2200
          1' INSIDE OF D/S FACE PORTER AVE.
X1   18157.      0.00      0.00      0.00      1.00      1.00      1.00      0.00      0.00      0.00
X3        0         0         0         1         0       925
BT    10.00      0.00    594.30      0.00    726.00    588.60      0.00    830.00    587.90      0.00
BT   850.00    587.90    579.00    850.10    587.90    585.90    875.00    587.90    585.90    875.10
BT   587.90    579.00    903.00    587.90      0.00   1000.00    586.70      0.00   2200.00    594.30
BT     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

NH      5.0        10       780      0.060       850      0.030      875.1      0.500      1000        10
NH     2200
          1' INSIDE OF U/S FACE OF PORTER AVE.
X1   18195.      0.00      0.00      0.00     38.00     38.00     38.00      0.00      0.00      0.00
X2     0.00      0.00      0.00      0.00      0.00      0.00      1.00      0.00      0.00      0.00
X3        0         0         0         1         0       925

NH      5.0        10       780      0.060       850      0.040      875.1      0.500      1000        10
NH     2200
          U/S FACE OF PORTER AVE.
X1   18196.      0.00      0.00      0.00      1.00      1.00      1.00      0.00      0.00      0.00
X3        0         0         0         1         0       925

NH      7.0     10.00   750.000      0.04       850      1.00      1020      0.100    1085.0     0.045
NH     1136      0.50      2050        10    2200.0     0.000     0.000     0.000     0.000     0.000
          VALLEY SECTION 50' U/S OF PORTER AVE.
X1   18246.     18.00    1101.0   1122.00     50.00     50.00     50.00      0.00      0.00      0.00
X3        0         0         0       910         0      1170
GR   594.30      0.00    588.00   750.000    588.00    850.00    585.00    970.00    586.00   1020.00
GR   588.00   1085.00    579.00   1101.00    579.00   1122.00    587.90   1136.00    586.70   1160.00
GR   586.70   1210.00    587.50   1450.00    587.50   1500.00    588.50   1720.00    588.50   1770.00
GR   588.70   2000.00    588.70    2050.0    594.30    2200.0      0.00      0.00      0.00      0.00

NC    0.000     0.000     0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
NH     5.00     10.00    750.00     0.050    934.00     0.045    970.00     0.050    1150.0     10.00
NH    2200.
          VALLEY SECTION BTWN PORTER AND RAUPP PL.
X1   18545.     11.00    934.00    970.00    299.00    299.00    299.00      0.00      0.00      0.00
X3        0         0         0       580         0      1000
GR   595.20      0.00    587.70    750.00    587.90    850.00    588.00    934.00    580.20    940.00
GR   578.60    950.00    580.60    960.00    586.60    970.00    588.20   1050.00    587.60   1150.00
GR   595.20    2200.0      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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NC     0.000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
NH       6.0       10.00    750.000      0.800    887.00      0.080    1095.0       0.045    1136.0       0.500
NH    1900.0       10.00     2200.       0.000      0.000      0.000      0.000      0.000      0.000      0.000
                VALLEY SECTION 50' D/S OF RAUPP PL.
X1    18829.       21.00     1095.0     1136.00    284.00     284.00     284.00      0.00       0.00       0.00
X3          0          0          0        793          0       1165
GR    595.00       0.00      587.90     750.00     587.90     850.00     585.60     887.00     585.20    1095.00
GR    578.70    1113.50      578.70    1113.60     578.70    1120.00     578.70    1127.00     578.70    1127.10
GR    585.50    1136.00      588.50    1220.00     590.10    1410.00     590.10    1460.00     589.00    1510.0
GR    589.00    1560.00      589.90    1850.00     589.90    1900.00     590.00    2110.00     590.00    2160.0
GR    595.00    2200.00

NH       6.0       10.00    750.000      0.800    887.000      0.080    1095.00      0.045    1136.00      0.500
NH    1900.0       10.00     2200.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000
                50' U/S OF RAUPP PL.
X1     18961           0          0          0      132.00     132.00     132.00      0.00       0.00       0.00
X3          0          0          0        859          0       1165

NH       5.0       10.00     750.00      0.800    1057.00      0.045    1083.10      0.500    1910.00      10.00
NH      2200.
                50' D/S OF DIX
X1    19112.       30.00     1057.00    1083.10    151.00     151.00     151.00      0.00       0.00       0.00
X3          0          0          0        750          0       1113
GR    595.00       0.00      588.90     750.00     588.90     850.00     588.50    1045.00     579.00    1057.00
GR    579.00    1057.10      579.00    1057.20     579.00    1057.30     579.00    1068.00     579.00    1068.10
GR    579.00    1070.00      579.00    1070.10     579.00    1070.20     579.00    1070.30     579.00    1070.40
GR    579.00    1070.50      579.00    1083.00     579.00    1083.10     579.00    1083.20     579.00    1083.30
GR    588.30    1101.00      589.20    1500.00     589.20    1550.00     589.70    1590.00     589.70    1640.00
GR    590.60    1860.00      590.60    1910.00     590.60    2130.00     590.60    2180.0      595.00    2200.00

NH       5.0       10.00    750.000      0.800    1057.00      0.045    1083.10      0.500    1910.00      10.00
NH      2200.
                D/S FACE OF DIX RD. BRIDGE
X1    19162.       0.00       0.00       0.00       50.00      50.00      50.00      0.00       0.00       0.00
X3          0          0          0        750          0       1113

NH       5.0       10.00    750.000      0.800    1057.00      0.040    1083.10      0.500    1910.00      10.00
NH      2200.
                1' INSIDE D/S FACE DIX RD. BRIDGE
X1    19163.       0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
X3          0          0          0        950          0       1170
BT      20.00     750.00      588.90     0.00       850.00     588.70     0.00      1045.0      588.50     0.00
BT    1057.0      588.20     579.00     1057.1      588.20     583.90    1068.0      588.20     583.90    1068.1
BT     588.20     579.00     1070.00     588.20     579.00    1070.1      588.20     583.90    1083.0      588.20
BT     583.90    1083.1      588.20     579.00     1101.00    588.30     0.00      1500.0      589.20     0.00
BT    1550.0      589.20     0.00       1590.0      589.70     0.00      1640.00     589.70     0.00      1860.00
BT     590.60     0.00      1910.00     590.60     0.00       2130.00    590.60     0.00       2180.00    590.60
BT      0.00      0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
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NH      5.0       10.00     750.000      0.800     1057.00      0.020     1083.10      0.500     1910.00      10.00
NH   2200.
          1' INSIDE U/S FACE OF DIX RD. BRIDGE
X1   19263.         0.00        0.00        0.00      100.00      100.00      100.00        0.00        0.00        0.00
X2    0.00         0.00        0.00        0.00        0.00        0.00        1.00        0.00        0.00        0.00
X3       0            0           0         750           0        1113

NH      5.0       10.00      750.00      0.800     1057.00      0.045     1083.10      0.500     1910.0       10.00
NH   2200.
          U/S FACE OF DIX RD. BRIDGE
X1   19264.         0.00        0.00        0.00        1.00        1.00        1.00        0.00        0.00        0.00
X3       0            0           0         750           0        1113

NH      5.0       10.00      750.00      0.800     1057.00      0.045     1083.10      0.500     1910.0       10.00
NH   2200.
          50' U/S DIX RD.
X1   19314.         0.00        0.00        0.00       50.00       50.00       50.00        0.00        0.00        0.00
X3       0            0           0         730           0        1113

NH     5.00       10.00     1400.0       0.500     1765.0       0.0450    1789.0       0.500     2720.0       10.000
NH   3500.
          50' D/S OF FRANK RD.
X1   20080.        14.00     1765.00     1789.00      766.00      766.00      766.00        0.00        0.00        0.00
X3       0            0           0        1400           0        1870
GR    596.0         0.00      588.30     1400.00      588.30     1500.00      585.00     1600.0       587.40     1750.00
GR    580.10     1765.00      580.10     1789.00      589.20     1808.00      590.00     1950.0       590.80     2130.00
GR    590.80     2180.00      589.60     2400.00      589.60     2720.00      596.00     3500.0         0.00        0.00

NH      6.0       10.00     1400.00      0.500     1772.00      0.100     1787.00      0.040     1813.00      0.?00
NH   2700.0       10.00     3500.0       0.000        0.000       0.000       0.000       0.000       0.000       0.000
          D/S FACE OF FRANK AVE. BRIDGE
X1   20130.        15.00     1787.0      1813.1       50.00       50.00       50.00        0.00        0.00        0.00
X3       0            0           0        1420           0        1870
GR    596.00        0.00      588.30     1400.00      588.30     1500.00      588.80     1772.0       580.80     1772.10
GR    580.10     1787.0       580.10     1787.10      580.10     1813.00      580.10     1813.1       580.80     1828.00
GR    588.80     1828.1       590.80     2110.00      587.80     2400.00      587.60     2700.0       596.00     3500.00

NH      6.0       10.00     1400.00      0.500     1772.00      0.100     1787.00      0.035     1813.10      0.?00
NH   2700.0       10.00     3500.0       0.000        0.000       0.000       0.000       0.000       0.000       0.000
          1' INSIDE OF D/S FACE FRANK AVE. BRIDGE
X1   20131.         0.00        0.00        0.00        1.00        1.00        1.00        0.00        0.00        0.00
X3       0            0           0        1420           0        1870
BT    13.00      1400.0       588.30        0.00     1500.0       580.30        0.00     1772.0       580.80        0.00
BT   1772.1       592.10        0.00     1787.00      592.10      580.10     1787.10      590.40      586.70     1813.00
BT    590.40      586.70     1813.10      592.10      580.10     1828.0       592.10        0.00     1828.10      588.80
BT      0.00     2110.0       590.80        0.00     2400.00      587.80        0.00     2700.00      589.60        0.00

NH      6.0       10.00     1400.00      0.500     1772.00      0.100     1787.00      0.035     1813.10      0.500
NH   2700.0       10.00     3500.0       0.000        0.000       0.000       0.000       0.000       0.000       0.000
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                1' INSIDE U/S FACE FRANK AVE. BRIDGE
X1    20168.        0.00        0.00        0.00       37.00       37.00       37.00        0.00        0.00        0.00
X2        0.00      0.00        0.00        0.00        0.00        0.00        1.00        0.00        0.00        0.00
X3           0           0           0        1420           0        1890

NH        6.0        10.00     1400.00       0.500    1772.00       0.100    1787.00       0.040    1813.10       0.?00
NH     2700.0        10.00     3500.00       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                U/S FACE OF FRANK AVE. BRIDGE
X1    20169.        0.00        0.00        0.00        1.00        1.00        1.00        0.00        0.00        0.00
X3           0           0           0        1420           0        1890

NH        6.0           10        1400       0.500    1772.00       0.100    1787.00       0.045    1813.10       0.?00
NH     2700.0           10        3500       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS
X1    20269.        0.00        0.00        0.00      100.00      100.00      100.00        0.00        0.00        0.00
X3           0           0           0        1365           0        1839

X1    20599            15        1787      1813.1         330         330         330
X3           0           0           0        1477           0        1827
GR       596.0           0       588.3        1400       588.3        1500       588.8        1772       588.8    1772.1
GR       580.4        1787       580.4      1787.1       580.4        1813       580.4      1813.1       588.8      1828
GR       588.8      1828.1       590.8        2110       589.8        2400       589.6        2700       596.0      3500

NC       0.000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH        5.00       10.00     1400.0        0.050    1600.0       0.0450    1665.0        0.050    2010.          10.0
NH        3500.
X1    21999.        8.00        1600.0      1665.0        1400        1400        1400        0.00        0.00        0.00
X3           0           0           0        1380           0        1880
GR       596.50        0.00     589.20       1400.0       589.40       1600.0       581.40       1634.0       581.40    1654.0
GR       589.40     1665.00       590.40       2010.0       596.50       3500.0        0.00        0.00        0.00        0.00

X1    22380            8        1600        1665         381         381         381
X3           0           0           0        1500           0        1840
GR       596.5           0       589.2        1400       589.4        1600       581.7        1634       581.7        1654
GR       589.4        1665       590.4        2010       596.5        3500

NH           5           10     1767.5        .045    1849.512        .040    1894.76        .045    1961.925          10
NH     3747.1
                D/S FACE OF ALLEN RD.
X1    23417            26        2600        2700        1037        1037        1037       0.707
X3           0           0           0        1838           0        1980
GR       597.00          0       592.76       2500.0       592.90       2525       592.97       2550       592.58       2575
GR       592.51       2600       582.40       2616.0       582.40     2616.1       582.40       2625       582.10       2630
GR       582.10       2640       583.49       2644.9       583.50       2645       583.00       2651       582.40    2651.1
GR       582.40     2655.0       582.40         2660       582.40       2665       582.40       2670       582.40       2675
GR       582.40     2679.9       582.40       2680.0       592.20       2700       592.20       2750       592.17       2775.
GR       597.00     5300.0

SB           0        2.35        3.00           0        20.4           0         131           0       582.10       582.10
NH           5          10     1767.5        .035    1849.512        .030    1894.76        .035    1961.925          10
NH     3747.1
GT           2         920        1200
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U/S FACE OF ALLEN RD.

X1	23629	0	0	0	212	212	212				
X2	0	0	1	588.66	592.17	0	0	0	0.707		
X3	0	0	0	1838	0	1980					
BT	-17	0	597.0	0	2500	592.76	0	2525	592.90	0	
BT	0	2550	592.97	0	2575	592.58	0	2600	592.51	0	
BT	0	2616	592.40	582.40	2616.1	592.40	588.66	2644.9	592.25	588.66	
BT	0	2645	592.25	583.50	2651	592.20	583.00	2651.1	592.20	590.2	
BT	0	2679.9	592.17	590.21	2680	592.17	582.40	2700	592.20	0	
BT	0	2750	592.20	0	2775	592.17	0				
NH	5.00	10.00	2501.0	0.050	2725.0	0.0450	2757.0	0.0450	2799.0	10.000	
NH	5480.										

100' U/S OF ALLEN RD.

X1	1	8.00	2725.00	2799.00	100.00	100.00	100.00				
X3	0	0	0	2685	0	2915					
GR	597.00	0.00	590.00	2501.00	590.00	2725.00	582.70	2757.00	582.70	2772.00	
GR	590.00	2799.00	590.00	2979.00	597.00	5480.00	0.00	0.00	0.00	0.00	
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000	
NH	5.00	10.00	2501.0	0.0450	2540.0	0.0450	2569.0	0.060	2649.0	10.00	
NH	5150.										
X1	2.	8.00	2501.00	2569.00	500.00	700.00	600.00	0.00	0.00	0.00	
X3	0	0	0	2479	0	2569					
GR	597.00	0.00	590.00	2501.00	590.00	2540.00	583.40	2547.00	583.40	2562.00	
GR	590.00	2569.00	590.00	2649.00	597.00	5150.00	0.00	0.00	0.00	0.00	
NH	5.00	10.00	2501.0	0.0600	2600.0	0.0450	2629.0	0.0600	3079.0	10.00	
NH	5580.										
X1	3.	8.00	2600.00	2629.00	700.00	850.00	800.00	0.00	0.00	0.00	
X3	0	0	0	2588	0	2640					
GR	597.00	0.00	590.00	2501.00	590.00	2600.00	584.30	2607.00	584.30	2622.00	
GR	590.00	2629.00	590.00	3079.00	597.00	5580.00	0.00	0.00	0.00	0.00	
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000	
NH	5.0	10.00	2550.0	0.060	2600.00	0.0450	2626.5	0.060	3075.0	10.00	
NH	5575.										

D/S FACE OF R.R. BRIDGE #1

X1	4.	10.00	2600.00	2626.50	50.00	50.00	50.00	0.00	0.00	0.00	
GR	597.00	00.00	594.00	2550.00	594.00	2600.00	585.40	2600.00	584.60	2612.00	
GR	584.40	2614.50	584.40	2626.50	594.00	2626.50	594.00	3075.00	597.00	5575.00	
SB	1.25	1.56	3.00	575.00	26.50	2.50	151.20	0.00	584.70	584.70	
NH	5.00	10.00	2550.0	0.0600	2600.0	0.045	2626.5	0.060	3075.0	10.00	
NH	5575.										

U/S FACE OF R.R. BRIDGE #1

X1	5.	0.00	0.00	0.00	70.00	70.00	70.00	0.00	0.00	0.00	
X2	0.00	0.00	1.00	591.00	596.50	0.00	0.00	0.00	0.00	0.00	
X3	0	0	0	2600	0	2626.5					

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NH      5.00        10.00       2500.0      0.080       2604.0      0.045       2643.0      0.10        2750.0      10.00
NH    5250.
          D/S FACE OF RR SPUR NO. 1
X1          6          22        2604        2643          70          70          70           0           0          0
X3          0           0           0        2510           0        2676
GR     597.50           0      593.65        2500      593.55        2525      593.53        2550      593.60        2575
GR     593.60        2604      587.60        2604      587.50        2610      585.80        2615      584.60        2620
GR     584.30        2625      583.90        2630      585.80        2634      586.80        2635      588.10        2640
GR     588.80        2643      593.60        2643      593.60        2675      593.83        2700      593.97        2725
GR     594.19        2750       597.5        5250

SB          0        1.55         3.0                     11           0         138         2.5      584.00      584.00
NH        5.0        10.0        2500.      0.100       2604.0      0.045       2643.0      0.100       2750.0      10.00
NH    5250.
          U/S FACE OF RR SPUR NO. 1
X1          7           0           0           0          17          17          17
X2          0           0           1      589.50      593.70
X3          0           0           0        2443           0        2643
BT        -12           0       597.5                  2500      593.65                    2525      593.55
BT                   2550      593.53                  2575      593.60                    2604      593.60
BT                   2643      593.60                  2675      593.60                    2700      593.83
BT                   2725      593.97                  2750      594.19                    5250      597.50

NH      5.00        10.0        2500        0.10        2562.0      0.045       2576.0      0.100       2775.0      10.00
NH    5275.
          D/S FACE OF RR SPUR NO. 2
X1        7.5          17        2562        2576         180         180         180
X3          0           0           0        2363           0        2605
GR     597.50           0      593.30        2500      592.13        2550      592.13        2562      584.20        2562
GR     584.00        2563      584.30        2565      584.20        2570      584.20        2575      584.40        2576
GR     592.13        2576      592.30        2600      592.30        2625      592.20        2650      592.90        2675
GR     593.90        2775      597.50        5275

NH      5.00        10.0        2500.0      0.10        2562.0      0.045       2576.0        0.1       2775.0      10.00
NH    5275.
X1        7.6           0           0           0           1           1           1
X2          0           0           0      591.25      592.25
X3          0           0           0        2368           0        2610

NH      5.00        10.0        2500.0      0.100       2562.0      0.045       2576.       0.100       2775.0        10.0
NH    5275.
X1        7.7           0           0           0          12          12          12
X2          0           0           0      591.25      592.25
X3          0           0           0        2372           0        2608

NH      5.00       10.00        2500.      0.100       2562.0      0.045       2576.0      0.100       2775.0        10.0
NH    5275.
          U/S FACE OF RR SPUR NO. 2
X1        7.8           0           0           0           1           1           1
X3          0           0           0        2370           0        2606
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NH     5.00      10.0      2500.      0.10      2800.0     0.045     2843.     0.100     3093.0     10.0
NH    5593.
X1        8         8       2800      2843        370       370       370
X3        0         0          0      2796          0      2847
GR   597.60      0.00     594.30      2500     594.30     2800.     585.20      2814     585.20     2829
GR   594.30      2843     595.00      3093     597.60      5593      0.00      0.00      0.00      0.00

NC    0.000     0.000      0.000     0.300      0.500     0.000     0.000     0.000     0.000     0.000
NH      5.0     10.00     2500.0      0.10      2800.     0.045     2826.0     0.100     3076.0     10.00
NH    5576.
          D/S FACE OF R.R.  BRIDGE #2
X1       9.     10.00       2800      2826      50.00     50.00     50.00      0.00      0.00      0.00
X3        0         0          0      2800          0      2826
GR   601.00      0.00     595.00      2500     594.30      2800     586.30      2800     586.30     2812
GR   585.30      2814     585.30      2826     594.30      2826     594.30      3076     601.00     5576

SB     1.25      1.50       3.00    576.00      26.00      2.00    132.00      0.00     585.30    585.30
NH      5.0     10.00     2500.0      0.10      2800.     0.045     2826.0     0.100     3076.0     10.00
NH    5576.
          U/S FACE OF R.R.  BRIDGE #2
X1      10.     10.00       2800      2826      50.00     50.00     50.00      0.00      0.00      0.00
X2     0.00      0.00       1.00    591.30     596.30      0.00      0.00      0.00      0.00      0.00
X3        0         0          0      2800          0      2826
GR   601.00      0.00     596.00      2500     595.80      2800     586.30      2800     586.30     2812
GR   585.30      2814     585.30      2826     595.80      2826     595.80      3076     601.00     5576

NH     5.00     10.00     2500.0     0.100     2800.0    0.0450     2824.0     0.100     3074.0     10.00
NH    5574.
X1      11.      8.00       2800      2824      50.00     50.00     50.00      0.00      0.00      0.00
X3        0         0          0      2749          0      2875
GR   598.00      0.00     592.00      2500     590.00      2800     585.40      2806     585.40     2818
GR   590.00      2824     590.00      3074     598.00      5574      0.00      0.00      0.00      0.00

NC    0.000     0.000      0.000     0.100      0.300     0.000     0.000     0.000     0.000     0.000
NH     5.00      10.0     2500.0     0.100     2800.0     0.045     2826.0      0.10     3126.0     10.00
NH    5626.
          100' D/S  OF STUDY LIMIT(I-94) BRIDGE.  END OF CONVERGENCE RUN
X1      12.      8.00       2800      2826    1300.00    1550.00    1425.00      0.00      0.00      0.00
X3        0         0          0      2751          0      2874
GR   599.00      0.00     590.00      2500     590.00    2800.00     586.30    2808.00     586.30    2818.00
GR   590.00   2826.00     595.00   3126.00     599.00    5626.00      0.00      0.00      0.00      0.00

NH     5.00     10.00    2500.00     0.080     2985.0     0.040    3010.50     0.080     3490.5     10.00
NH    5991.
          D/S FACE OF E.  BOUND I-94 SURVEY STATION 51+32
X1      13.      8.00    2985.00   3010.50     100.00    100.00    100.00      0.00      0.00      0.00
GR   599.00      0.00     598.00   2500.00     598.00   2960.00     586.60    2985.00     586.10   3010.50
GR   598.00   3040.50     598.00   3490.50     599.00   5991.00      0.00      0.00      0.00      0.00
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SB      1.25        1.50        3.00      990.00       25.50       1.50      202.80       0.00      585.85      585.85
NH         5       10.0        2500.       0.08        2985       0.04      3010.5       0.08      3470.0        10.0
NH      5990
            U/S FACE OF E. BOUND I-94 SURVEY STATION 50+64
X1       68.       10.00     2985.00     3010.50       68.00      68.00      68.00       0.00       0.00        0.00
X2       0.00       0.00        1.00      594.30      598.60       0.00       0.00       0.00       0.00        0.00
GR     599.50       0.00      598.00     2500.00      598.00    2955.00     585.50    2985.00     585.50     2997.00
GR     586.20    2998.50      586.20     3010.50      598.00    3040.00     598.00    3490.00     597.50     5990.00

NC       .000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.
NH      5.00       10.000      2500.0       0.080      2950.0       0.040      3011.5       0.080      3500.0      10.000
NH      6000.0
            D/S FACE OF W. BOUND I-94 SURVEY STATION 49+43
X1      189.        8.00      2986.00     3011.50      121.00      121.00      121.00       0.00       0.00        0.00
GR     599.50       0.00      598.40      2500.0      598.40    2950.00     586.40    2986.00     587.80     3011.50
GR     598.40    3047.50      598.40     3500.00      599.50    6000.00       0.00       0.00       0.00        0.00

SB      1.25        1.50        3.00     1000.00       25.50       1.50      207.60       0.00      585.95      585.95
NH      5.00       10.000      2500.0       0.0800     2980.0       0.040      3005.5       0.080      3500.0      10.00
NH      6000.0
            U/S FACE OF W. BOUND I-94 SURVEY STATION 48+79
X1      253.       10.00      2980.00     3005.50       64.00      64.00       64.00       0.00       0.00        0.00
X2       0.00       0.00        1.00      594.60      599.10       0.00       0.00       0.00       0.00        0.00
GR     600.00       0.00      598.40     2500.00      598.40    2950.00     585.90    2980.00     585.90     2992.00
GR     586.50    2993.50      586.50     3005.50      598.40    3017.50     598.40    3500.00     600.00     6000.00

QT         2        1430        1760
NH      5.00       10.00      2500.0       0.090      2558.0       0.045      2592.0       0.090      2625.0      10.000
NH      5125.0
            100' U/S OF W. BOUND I-94
X1      353.       10.00      2558.00     2592.00      100.00     100.00     100.00       0.00       0 00        0.00
X3         0          0           0        2357           0       2621
GR     600.00       0.00      595.00     2500.00      590.00    2535.00     588.00    2558.00     586.00     2565.00
GR     586.00    2585.00      590.00     2592.00      595.00    2617.00     599.10    2625.00     600.00     5125.00

X1      553           0           0           0         200         200         200
X3         0          0           0        2298           0       2698

NC       .000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.0
NH      5.00       10.000      500.0        0.070      600.0        0.0400      645.        0.070      715.0       10.00
NH      1845.0
            U/S JFK PARK SURVEY STATION 33+00
X1      1832         17          600         645        1150        1350        1279
X3         0          0           0         300           0       1020
GR     598.0          0        598.0         400        598.2        500        596.3        580        594.7        600
GR     587.5        616        587.4         621        587.6        626        593.3        645        595.5        655
GR     596.0        675        597.2         715        598.0        775        598.0        915        596.0        995
GR     596.0       1395        596.5        1845
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NC      .000      0.000      0.000      0.100      0.300      0.000      0.000      0.000      0.000      0.0
NH     5.00     10.000      500.0      0.070      600.0     0.0400       645.      0.070      715.0     10.00
NH   1845.0
X1     2132.       0.00       0.00       0.00     400.00     300.00     350.00       0.00       0.20       0.00
X3         0          0          0        530          0       1030

NC      .000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.0
NH     5.00     10.000      600.0      0.070      717.0     0.0400       790.      0.070      878.0     10.00
NH     2600
                D/S FACE SURVEY 25+45
X1     2536.      15.00     717.00     790.00     450.00     375.00     404.00       0.00       0.00       0.00
X3         0          0          0        687          0       1187
X4      1.00     588.00     779.90       0.00       0.00       0.00       0.00       0.00       0.00       0.00
GR    600.10       0.00     595.10     600.00     596.70     672.00     596.70     710.00     595.30     717.00
GR    593.10     754.00     590.00     761.00     588.00     764.00     588.00     780.00     591.00     783.00
GR    595.50     790.00     595.50     840.00     595.70     872.00     597.70     878.00     600.10    2600.0

SB      0.00       1.50       3.00       0.00      16.00       0.00      88.00       0.00     588.00     588.00
NH     5.00     10.000      600.0      0.070      717.0     0.0400       790.      0.070      878.0     10.00
NH     2600
                U/S FACE SURVEY 25+40
X1     2541.       0.00       0.00       0.00       5.00       5.00       5.00       0.00       0.00       0.00
X2      0.00       0.00       1.00     593.50     595.30       0.00       0.00       0.00       0.00       0.00
X3         0          0          0        687          0       1187
BT     10.00     717.00     595.30       0.00     761.00     596.30       0.00     761.00     599.00       0.00
BT    764.00     599.00     588.00     764.00     597.00     593.50     779.90     597.00     593.50     780.00
BT    599.00     588.00     783.00     599.00       0.00     783.00     596.30       0.00     840.00     595.50
BT      0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

NH     5.00     10.000      600.0      0.070      717.0     0.0400       790.      0.070      878.0     10.00
NH     2600
                50' U/S OF FOOTBRIDGE
X1     2591.       0.00       0.00       0.00      50.00      50.00      50.00       0.00       0.00       0.00
X3         0          0          0        697          0       1197

NH     5.00     10.000      600.0      0.070      680.0     0.0400       712.      0.070      767.0     10.00
NH     2200
                400' U/S OF FOOTBRIDGE
X1     2941.      10.00     690.00     702.00     350.00     350.00     350.00       0.00       0.00       0.00
X3         0          0          0        610          0       1060
GR    600.50       0.00     595.00     600.00     593.00     650.00     590.00     680.00     587.80     690.00
GR    587.80     702.00     590.00     712.00     593.00     742.00     595.00     767.00     600.60    2200.0

NH     5.00         10       1000      0.070       1090     0.0400     1110.8      0.070       1200     10.00
NH     3000
                D/S FACE LARME ST., 9 CULVERTS SURVEY STATION 17+94
X1     3287.       8.00    1090.00    1110.80     346.00     346.00     346.00       0.00       0.00       0.00
X3         0          0          0       1040          0       1540
GR    600.50       0.00     595.00    1000.00     595.00    1090.00     580.20    1090.00     580.20    1100.80
GR    595.00    1110.80     595.00    1200.00     600.50    3000.00       0.00       0.00       0.00       0.00
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SB     1.25       3.91       3.00     200.00      15.70       1.00      78.00       0.00     588.20     588.20
NH     5.00         10       1000      0.070       1090     0.0400     1110.8      0.070       1200      10.00
NH     3000
          U/S FACE KEPPEN ST. SURVEY STA. 15+94
X1    3487.       0.00       0.00       0.00     200.00     200.00     200.00       0.00       0.00       0.00
X2     0.00       0.00       1.00     593.50     595.50       0.00       0.00       0.00       0.00       0.00
X3        0          0          0       1050          0       1550

NH     5.00         10       1000      0.070       1090     0.0400     1110.8      0.070       1200      10.00
NH     3000
          D/S FACE RUSSELL ST. CULVERTS SURVEY STATION 13+05
X1     3776          8       1090     1110.8        289        289        289
X3        0          0          0        940          0       1440
GR   600.60       0.00     595.00    1000.00     595.00    1090.00     589.00    1090.00     589.00    1110.80
GR   595.00    1110.80     595.00    1200.00     600.60    3000.00       0.00       0.00       0.00       0.00

SB     1.25       2.31       3.00     200.00      14.56       1.00      64.00       0.00     589.00     589.00
NC     .000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000        0.0
NH        5        10.       1000       0.07       1090        .04     1110.8       0.07       1200       10.0
NH     3000
          U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38
X1    3843.       0.00       0.00       0.00      67.00      67.00      67.00       0.00       0.00       0.00
X2     0.00       0.00       1.00     593.90     596.00       0.00       0.00       0.00       0.00       0.00
X3        0          0          0        890          0       1390

NH        5       10.0       1400       0.07       1455        .04     1475.8       0.07       1530       10.0
NH     3300
          D/S FACE OF WATSON AVE. STA. 8+47
X1    4234.       8.00    1455.00    1475.80     270.00     430.00     391.00       0.00       0.00       0.00
X3        0          0          0       1200          0       1590
GR   600.80       0.00     595.00       1400     595.00    1455 00     588.30    1455.00     588.30    1475.80
GR   595.00    1475.80     595.00    1530.00     600.80    3300.00       0.00       0.00       0.00       0.00

SB     1.25       2.00       3.00     130.00      13.90       1.00      80.00       0.00     588.30     588.30
NH        5       10.0       1400       0.07       1455        .04     1475.8       0.07       1530       10.0
NH     3300
          U/S FACE OF WATSON AVE. STA. 7+87
X1    4294.       0.00       0.00       0.00      60.00      60.00      60.00       0.00       0.00       0.00
X2     0.00       0.00       1.00     594.50     596.00       0.00       0.00       0.00       0.00       0.00
X3        0          0          0       1230          0       1590

NH        5       10.0       1400       0.07       1454        .04     1475.7       0.07       1530       10.0
NH     3300
          D/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+71
X1    4610.       8.00    1454.00    1475.70     350.00     280.00     316.00       0.00       0.00       0.00
X3        0          0          0       1454          0       1653
GR   600.90       0.00     595.50    1400.00     595.50    1454.00     588.60    1454.00     588.60    1475.70
GR   595.50    1475.70     595.50    1530.00     600.90    3300.00       0.00       0.00       0.00       0.00
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SB      1.25        2.04        3.00      130.00       14.22        1.00       73.00        0.00      580.60      580.60
NH         5        10.0        1400        0.07        1454         .04      1475.7        0.07        1530        10.0
NH      3300
          U/S FACE OF EUCLID AVE.  CULVERTS SURVEY 4+03
X1      4678.        0.00        0.00        0.00       68.00       68.00       68.00        0.00        0.00        0.00
X2      0.00        0.00        1.00      594.50      596.30        0.00        0.00        0.00        0.00        0.00
X3         0           0           0        1454           0        1619

NH       5.0       10.00        3000        0.07      3040.0        0.04        3060.       0.07      3100.0          10
NH      3200
          D/S FACE SOUTHFIELD F/WAY CULVERT,  CITY OF ALLEN PARK CORPORATE LIMIT
X1      4853.        6.00     3040.00     3060.00      140.00      200.00      175.00        0.00        0.00        0.00
GR     605.00        0.00      603.00     3000.00      590.00     3040.00      590.00     3060.00      603.00     3100.00
GR     605.00     3200.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00

NC       .000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000         0.0
NH       5.00      10.000     3000.00       0.100      3040.0       0.045      3060.0       0.100       3100.      10.000
NH      3200
SB       0.00        4.00       3.000      100.00       20.00         0.0       300.0        0.00      590.40      590.00
          U/S FACE SOUTHFIELD F/WAY CULVERTS
X1      5181.        0.00        0.00        0.00      328.00      328.00      328.00        0.00        0.00        0.00
X2      0.00        0.00        1.00      597.60      603.10        0.00        0.00        0.00        0.00        0.00
X3         0           0           0        2904           0        3103

NH      4.00       10.00      2600.0       0.045      2682.0       0.050       2854.          10        3200
GT         2        1950        2310
          VALLEY AT FLEMMING DEAD END 27+00
X1      5336.        8.00     2600.00     2682.00      185.00      125.00      155.00        0.00        0.00        0.00
X3         0           0           0        2218           0        2727
GR     605.60        0.00      596.60     2600.00      599.40     2628.00      591.10     2643.00      591.10     2665.00
GR     601.40     2682.00      602.40     2854.00      605.60     3200.00        0.00        0.00        0.00        0.00

NC       .000       0.000       0.000       0.400       0.600       0.000       0.000       0.000       0.000         0.0
NH          5        10.0        2500        0.06        2661       0.045        2712        0.05        2990          10
NH      3200
          VALEY 269+50
X1      5486.        9.00     2661.00     2712.00      150.00      150.00      150.00        0.00        0.00        0.00
X3         0           0           0        2063           0        2872
GR     605.60         0.0      598.30     2500.00      601.30     2661.00      591.50     2682.00      591.50     2698.00
GR     600.20        2712.      602.40     2728.00      599.40     2990.00      605.60     3200.00        0.00        0.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	GSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0.500

*SECNO 1.000									
1.000	11.50	574.90	0.00	574.90	575.53	0.63	0.00	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	701.3	0.0	0.0	0.0	584.60
0.00	0.00	6.34	0.00	0.000	0.030	0.000	0.000	563.40	529.17
0.001188	0.	0.	0.	0	0	0	0.00	89.83	619.00
*SECNO 30.000									
30.000	11.54	574.94	0.00	0.00	575.56	0.62	0.03	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	704.4	0.0	0.5	0.1	584.60
0.00	0.00	6.32	0.00	0.000	0.030	0.000	0.000	563.40	528.88
0.001176	29.	29.	29.	0	0	0	0.00	90.12	619.00
*SECNO 60.000									
60.000	11.59	574.99	0.00	0.00	575.60	0.61	0.04	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	708.3	0.0	1.0	0.1	584.60
0.00	0.00	6.28	0.00	0.000	0.030	0.000	0.000	563.40	528.53
0.001161	30.	30.	30.	0	0	0	0.00	90.47	619.00

*SECNO 61.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

WEST JEFFERSON AVENUE BRIDGE

61.000	11.52	574.92	0.00	0.00	575.66	0.74	0.00	0.06	584.30
4450.0	0.0	4450.0	0.0	0.0	644.8	0.0	1.0	0.1	584.60
0.00	0.00	6.90	0.00	0.000	0.030	0.000	0.000	563.40	528.97
0.002129	1.	1.	1.	2	0	0	0.00	83.03	619.00

*SECNO 136.000

3265 DIVIDED FLOW

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

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

136.000	11.73	575.13	0.00	0.00	575.83	0.70	0.16	0.01	584.30
4450.0	0.0	4450.0	0.0	0.0	662.0	0.0	2.1	0.3	584.60
0.01	0.00	6.72	0.00	0.000	0.030	0.000	0.000	563.40	527.27
0.002009	75.	75.	75.	2	0	0	0.00	84.73	619.00

*SECNO 137.000

137.000	11.91	575.31	0.00	0.00	575.87	0.56	0.00	0.04	584.60
4450.0	0.0	4450.0	0.0	0.0	738.8	0.0	2.1	0.3	584.60
0.01	0.00	6.02	0.00	0.000	0.030	0.000	0.000	563.40	525.75
0.001052	1.	1.	1.	2	0	0	0.00	93.25	619.00

*SECNO 187.000

187.000	11.24	575.34	0.00	0.00	575.97	0.64	0.06	0.04	583.10
4450.0	0.0	4450.0	0.0	0.0	694.1	0.0	2.9	0.4	580.20
0.01	0.00	6.41	0.00	0.000	0.035	0.000	0.000	564.10	341.53
0.001633	50.	50.	50.	2	0	0	0.00	91.36	432.89

1490 NH CARD USED
*SECNO 362.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

362.000	11.99	575.96	0.00	0.00	576.27	0.31	0.20	0.10	578.57
4450.0	0.0	4450.0	0.0	0.0	997.9	0.0	6.3	0.9	577.17
0.02	0.00	4.46	0.00	0.000	0.034	0.000	0.000	563.97	251.05
0.000813	175.	175.	175.	2	0	0	0.00	146.32	397.37

1490 NH CARD USED
*SECNO 737.000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED

3470 ENCROACHMENT STATIONS= 244.0 373.0 TYPE= 1 TARGET= 129.000

737.000	12.59	576.29	0.00	0.00	576.60	0.30	0.32	0.00	578.30
4450.0	0.0	4450.0	0.0	0.0	1011.1	0.0	15.0	2.0	100000.00
0.04	0.00	4.40	0.00	0.000	0.040	0.000	0.000	563.70	249.42
0.000922	375.	375.	375.	2	0	0	0.00	123.58	373.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	QSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 787.000									
787.000	12.38	576.28	0.00	0.00	576.70	0.42	0.05	0.06	581.00
4450.0	0.0	4450.0	0.0	0.0	855.1	0.0	16.1	2.1	581.00
0.05	0.00	5.20	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001053	50.	50.	50.	2	0	0	0.00	106.60	901.60
*SECNO 788.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.50									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20									
D.T. AND I. RAILROAD									
788.000	12.34	576.24	0.00	0.00	576.75	0.51	0.00	0.05	581.00
4450.0	0.0	4450.0	0.0	0.0	773.6	0.0	16.1	2.2	581.00
0.05	0.00	5.75	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004171	1.	1.	1.	2	0	0	0.00	104.00	901.60
*SECNO 797.000									
3265 DIVIDED FLOW									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20									
797.000	12.38	576.28	0.00	0.00	576.79	0.51	0.04	0.00	581.00
4450.0	0.0	4450.0	0.0	0.0	778.3	0.0	16.2	2.2	581.00
0.05	0.00	5.72	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004094	9.	9.	9.	2	0	0	0.00	104.00	901.60
*SECNO 798.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.02									
798.000	12.52	576.42	0.00	0.00	576.82	0.41	0.00	0.03	581.00
4450.0	0.0	4450.0	0.0	0.0	869.4	0.0	16.2	2.2	581.00
0.05	0.00	5.12	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.000999	1.	1.	1.	2	0	0	0.00	106.60	901.60

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

*SECNO 844.000

844.000	11.47	576.47	0.00	0.00	576.87	0.40	0.04	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	875.9	0.0	17.2	2.3	581.40
0.05	0.00	5.08	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000947	46.	46.	46.	2	0	0	0.00	109.00	724.00

*SECNO 845.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.54

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

CONRAIL

845.000	11.44	576.44	0.00	0.00	576.91	0.47	0.00	0.04	581.50
4450.0	0.0	4450.0	0.0	0.0	807.2	0.0	17.2	2.3	581.40
0.05	0.00	5.51	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003291	1.	1.	1.	2	0	0	0.00	102.00	724.00

*SECNO 859.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

859.000	11.49	576.49	0.00	0.00	576.96	0.47	0.05	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	812.9	0.0	17.5	2.3	581.40
0.05	0.00	5.47	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003231	15.	15.	15.	2	0	0	0.00	102.00	724.00

*SECNO 860.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.89

860.000	11.59	576.59	0.00	0.00	576.98	0.39	0.00	0.02	581.50
4450.0	0.0	4450.0	0.0	0.0	889.3	0.0	17.5	2.3	581.40
0.05	0.00	5.00	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000903	1.	1.	1.	2	0	0	0.00	109.00	724.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ISTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 910.000

910.000	12.67	576.67	0.00	0.00	577.03	0.36	0.04	0.01	583.10
4450.0	0.0	4450.0	0.0	0.0	919.4	0.0	18.5	2.5	583.00
0.05	0.00	4.84	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000816	50.	50.	50.	2	0	0	0.00	107.00	942.00

*SECNO 911.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60

RAILROAD SPUR

911.000	12.63	576.63	0.00	0.00	577.07	0.44	0.00	0.04	583.10
4450.0	0.0	4450.0	0.0	0.0	835.0	0.0	18.5	2.5	583.00
0.05	0.00	5.33	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003565	1.	1.	1.	2	0	0	0.00	105.00	942.00

*SECNO 921.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60

921.000	12.67	576.67	0.00	0.00	577.11	0.44	0.04	0.00	583.10
4450.0	0.0	4450.0	0.0	0.0	838.2	0.0	18.7	2.5	583.00
0.05	0.00	5.31	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003523	10.	10.	10.	1	0	0	0.00	105.00	942.00

*SECNO 922.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.12

922.000	12.78	576.78	0.00	0.00	577.14	0.35	0.00	0.02	583.10
4450.0	0.0	4450.0	0.0	0.0	931.4	0.0	18.7	2.5	583.00
0.05	0.00	4.78	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000783	1.	1.	1.	2	0	0	0.00	107.00	942.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 953.000									
953.000	11.61	576.71	0.00	0.00	577.26	0.55	0.03	0.10	581.00
4450.0	0.0	4450.0	0.0	0.0	748.2	0.0	19.3	2.5	580.80
0.05	0.00	5.95	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001216	31.	31.	31.	2	0	0	0.00	81.00	681.00
*SECNO 954.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.43									
3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70									
D.T. AND I. RAILROAD BRIDGE									
954.000	11.47	576.57	0.00	0.00	577.41	0.84	0.00	0.15	581.00
4450.0	0.0	4450.0	0.0	0.0	604.5	0.0	19.4	2.5	580.80
0.05	0.00	7.36	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.006590	1.	1.	1.	2	0	0	0.00	67.20	681.00
*SECNO 985.000									
3265 DIVIDED FLOW									
3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70									
985.000	11.72	576.82	0.00	0.00	577.62	0.80	0.19	0.01	581.00
4450.0	0.0	4450.0	0.0	0.0	621.5	0.0	19.8	2.6	580.80
0.06	0.00	7.16	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.006154	31.	31.	31.	2	0	0	0.00	67.20	681.00
*SECNO 986.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.44									
986.000	12.12	577.22	0.00	0.00	577.71	0.49	0.00	0.09	581.00
4450.0	0.0	4450.0	0.0	0.0	789.2	0.0	19.8	2.6	580.80
0.06	0.00	5.64	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001032	1.	1.	1.	2	0	0	0.00	81.00	681.00

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

*SECNO 1036.000

3470 ENCROACHMENT STATIONS= 0.0 700.0 TYPE= 1 TARGET= 699.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.10 ELREA= 100000.00

1036.000	11.20	577.40	0.00	0.00	577.79	0.39	0.05	0.03	581.10
4450.0	0.0	4450.0	0.0	0.0	886.0	0.0	20.8	2.7	100000.00
0.06	0.00	5.02	0.00	0.000	0.035	0.000	0.000	566.20	579.29
0.001013	50.	50.	50.	0	0	0	0.00	120.55	699.84

*SECNO 1736.000

3470 ENCROACHMENT STATIONS= 374.0 492.5 TYPE= 1 TARGET= 118.500

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.10 ELREA= 100000.00

1736.000	12.71	578.11	0.00	0.00	578.41	0.30	0.60	0.03	579.10
4450.0	0.0	4450.0	0.0	0.0	1006.4	0.0	36.0	4.6	100000.00
0.10	0.00	4.42	0.00	0.000	0.035	0.000	0.000	565.40	376.02
0.000724	700.	700.	700.	0	0	0	0.00	116.48	492.50

*SECNO 2436.000

3470 ENCROACHMENT STATIONS= 183.0 285.0 TYPE= 1 TARGET= 102.000
DS OF CONFL. WITH SOUTH BRANCH ECORSE CREEK

2436.000	13.97	578.57	0.00	0.00	578.88	0.32	0.46	0.01	577.10
4450.0	0.0	4450.0	0.0	0.0	984.6	0.0	52.0	6.4	100000.00
0.15	0.00	4.52	0.00	0.000	0.035	0.000	0.000	564.60	183.00
0.000603	700.	700.	700.	2	0	0	0.00	102.00	285.00

CCHV= 0.300 CEHV= 0.500
*SECNO 2736.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.60

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 1 TARGET= 100.000

2736.000	9.91	579.01	0.00	0.00	579.08	0.08	0.13	0.07	578.60
1580.0	0.0	1580.0	0.0	0.0	711.3	0.0	57.8	7.1	100000.00
0.18	0.00	2.22	0.00	0.000	0.035	0.000	0.000	567.10	300.00
0.000210	300.	300.	300.	2	0	0	0.00	100.00	400.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3436.000

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 578.98 ELREA= 100000.00

3436.000	9.68	579.16	0.00	0.00	579.24	0.08	0.15	0.00	578.98
1580.0	0.0	1580.0	0.0	0.0	688.5	0.0	69.1	8.7	100000.00
0.27	0.00	2.29	0.00	0.000	0.035	0.000	0.000	567.48	300.00
0.000232	700.	700.	700.	2	0	0	0.00	100.00	400.00

*SECNO 3836.000

3470 ENCROACHMENT STATIONS= 200.0 300.0 TYPE= 1 TARGET= 100.000

3836.000	9.56	579.26	0.00	0.00	579.39	0.13	0.12	0.02	578.50
1580.0	0.0	1580.0	0.0	0.0	550.7	0.0	74.7	9.5	100000.00
0.31	0.00	2.87	0.00	0.000	0.035	0.000	0.000	567.70	200.00
0.000419	400.	400.	400.	1	0	0	0.00	88.51	288.51

*SECNO 4311.000

3470 ENCROACHMENT STATIONS= 200.0 290.0 TYPE= 1 TARGET= 90.000

4311.000	9.56	579.46	0.00	0.00	579.59	0.13	0.20	0.00	578.70
1580.0	0.0	1580.0	0.0	0.0	551.1	0.0	80.8	10.5	100000.00
0.35	0.00	2.87	0.00	0.000	0.035	0.000	0.000	567.90	200.00
0.000418	475.	475.	475.	2	0	0	0.00	88.52	288.52

*SECNO 4786.000

3470 ENCROACHMENT STATIONS= 393.0 500.0 TYPE= 1 TARGET= 107.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.10 ELREA= 100000.00

4786.000	9.57	579.67	0.00	0.00	579.77	0.09	0.17	0.01	580.10
1580.0	0.0	1580.0	0.0	0.0	639.9	0.0	87.2	11.6	100000.00
0.41	0.00	2.47	0.00	0.000	0.035	0.000	0.000	570.10	395.03
0.000318	475.	475.	475.	1	0	0	0.00	104.97	500.00

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

*SECNO 4825.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

4825.000	8.90	579.70	0.00	0.00	579.78	0.08	0.01	0.00	579.40
1580.0	0.0	1580.0	0.0	0.0	679.3	0.0	87.8	11.7	585.00
0.41	0.00	2.33	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000255	39.	39.	39.	1	0	0	0.00	98.00	598.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3.17	570.80	570.80

*SECNO 4846.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
579.87	579.78	0.00	112.	1470.	538.	566.	578.30	579.40	391.

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

MILL STREET BRIDGE

4846.000	8.97	579.77	0.00	0.00	579.85	0.08	0.07	0.00	579.40
1580.0	0.0	1580.0	0.0	0.0	686.5	0.0	88.2	11.7	585.00
0.41	0.00	2.30	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000247	21.	21.	21.	2	0	4	0.00	98.00	598.00

*SECNO 4847.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4847.000	8.97	579.77	0.00	0.00	579.85	0.08	0.00	0.00	579.40
1580.0	0.0	1580.0	0.0	0.0	686.5	0.0	88.2	11.7	585.00
0.41	0.00	2.30	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000247	1.	1.	1.	0	0	0	0.00	98.00	598.00

*SECNO 5436.000
3280 CROSS SECTION 5436.00 EXTENDED 0.18 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.84 ELREA= 581.14

5436.000	9.29	579.93	0.00	0.00	580.04	0.11	0.18	0.02	580.84
1580.0	0.0	1580.0	0.0	0.0	583.7	0.0	96.8	13.0	581.14
0.47	0.00	2.71	0.00	0.000	0.035	0.000	0.000	570.64	495.81
0.000374	589.	589.	589.	1	0	0	0.00	94.76	590.57

*SECNO 5936.000

3470 ENCROACHMENT STATIONS= 400.0 600.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.70 ELREA= 581.00

5936.000	9.62	580.12	0.00	0.00	580.22	0.10	0.17	0.00	580.70
1580.0	0.0	1580.0	0.0	0.0	615.6	0.0	103.7	14.1	581.00
0.53	0.00	2.57	0.00	0.000	0.035	0.000	0.000	570.50	495.15
0.000321	500.	500.	500.	2	0	0	0.00	96.37	591.52

*SECNO 6416.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.93 ELREA= 581.93

6416.000	9.95	580.28	0.00	0.00	580.45	0.17	0.20	0.03	581.93
1580.0	0.0	1580.0	0.0	0.0	481.6	0.0	109.7	15.1	581.93
0.57	0.00	3.28	0.00	0.000	0.035	0.000	0.000	570.33	579.02
0.000556	480.	480.	480.	0	0	0	0.00	77.27	656.29

*SECNO 6786.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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= 581.80 ELREA= 581.80

6786.000	10.30	580.50	0.00	0.00	580.65	0.15	0.19	0.01	581.80
1580.0	0.0	1580.0	0.0	0.0	508.4	0.0	113.9	15.7	581.80
0.60	0.00	3.11	0.00	0.000	0.035	0.000	0.000	570.20	578.20
0.000478	370.	370.	370.	2	0	0	0.00	78.86	657.06

*SECNO 6835.000

6835.000	8.91	580.48	0.00	0.00	580.72	0.24	0.03	0.04	583.17
1580.0	0.0	1580.0	0.0	0.0	403.8	0.0	114.4	15.8	583.17
0.60	0.00	3.91	0.00	0.000	0.035	0.000	0.000	571.57	581.49
0.000915	49.	49.	49.	2	0	0	0.00	72.45	653.95

*SECNO 6836.000

6836.000	9.02	580.62	0.00	0.00	580.75	0.13	0.00	0.03	582.00
1580.0	0.0	1580.0	0.0	0.0	541.0	0.0	114.4	15.8	582.00
0.60	0.00	2.92	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000467	1.	1.	1.	2	0	0	0.00	73.00	973.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.90	0.00	60.00	0.00	308.00	0.00	571.60	571.60

*SECNO 6916.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
581.23	580.75	0.00	0.	1580.	308.	324.	577.00	582.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.00 ELREA= 582.00

SOUTHFIELD ROAD BRIDGE

6916.000	9.52	581.12	0.00	0.00	581.23	0.12	0.48	0.00	582.00
1580.0	0.0	1580.0	0.0	0.0	577.3	0.0	115.5	15.9	582.00
0.61	0.00	2.74	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000382	80.	80.	80.	2	0	0	0.00	73.00	973.00

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

*SECNO 6917.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.20 ELREA= 583.20

6917.000	9.51	581.11	0.00	0.00	581.24	0.14	0.00	0.01	583.20
1330.0	0.0	1330.0	0.0	0.0	448.1	0.0	115.5	15.9	583.20
0.61	0.00	2.97	0.00	0.000	0.035	0.000	0.000	571.60	580.06
0.000483	1.	1.	1.	1	0	0	0.00	75.23	655.30

*SECNO 7436.000

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.80 ELREA= 100000.00

7436.000	10.16	581.36	0.00	0.00	581.47	0.11	0.22	0.01	582.80
1330.0	0.0	1330.0	0.0	0.0	497.4	0.0	121.1	16.9	100000.00
0.67	0.00	2.67	0.00	0.000	0.035	0.000	0.000	571.20	578.53
0.000360	519.	519.	519.	2	0	0	0.00	78.21	656.75

*SECNO 7936.000

3265 DIVIDED FLOW

7936.000	10.73	581.53	0.00	0.00	581.64	0.10	0.17	0.00	582.50
1330.0	30.3	1299.7	0.0	31.8	504.3	0.0	127.3	18.9	582.80
0.72	0.37	2.58	0.00	0.040	0.035	0.000	0.000	570.80	143.52
0.000305	500.	500.	500.	2	0	0	0.00	285.80	511.99

*SECNO 8536.000

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.80 ELREA= 582.10

8536.000	10.83	581.73	0.00	0.00	581.83	0.10	0.19	0.00	581.80
1330.0	0.0	1330.0	0.0	0.0	529.0	0.0	135.0	21.5	582.10
0.79	0.00	2.51	0.00	0.000	0.035	0.000	0.000	570.90	296.79
0.000327	600.	600.	600.	0	0	0	0.00	85.47	382.27

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
G	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 9136.000									
9136.000	11.09	581.99	0.00	0.00	582.04	0.05	0.20	0.02	582.20
1330.0	0.0	1160.0	170.0	0.0	621.6	277.1	144.8	25.7	581.20
0.89	0.00	1.87	0.61	0.000	0.035	0.040	0.000	570.90	145.18
0.000340	600.	600.	600.	2	0	0	0.00	521.42	666.60
*SECNO 9586.000									
9586.000	11.19	582.12	0.00	0.00	582.17	0.05	0.13	0.00	582.23
1330.0	0.0	1133.2	196.8	0.0	581.0	365.0	154.4	31.1	581.13
0.96	0.00	1.95	0.54	0.000	0.035	0.040	0.000	570.93	142.83
0.000233	450.	450.	450.	2	0	0	0.00	529.09	671.92
*SECNO 9596.000									
3470 ENCROACHMENT STATIONS=		245.0	445.0	TYPE=	1	TARGET=	200.000		
9596.000	11.12	582.10	0.00	0.00	582.19	0.10	0.00	0.02	581.98
1330.0	45.0	1285.0	0.0	71.8	510.0	0.0	154.5	31.2	100000.00
0.96	0.63	2.52	0.00	0.040	0.035	0.000	0.000	570.98	245.00
0.000451	10.	10.	10.	2	0	0	0.00	200.00	445.00
*SECNO 10286.000									
3470 ENCROACHMENT STATIONS=		245.0	445.0	TYPE=	1	TARGET=	200.000		
10286.000	11.39	582.39	0.00	0.00	582.47	0.08	0.27	0.00	581.90
1330.0	67.9	1262.1	0.0	99.2	545.4	0.0	164.2	34.4	100000.00
1.04	0.68	2.31	0.00	0.040	0.035	0.000	0.000	571.00	245.00
0.000350	690.	690.	690.	2	0	0	0.00	200.00	445.00
*SECNO 10336.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.23									
10336.000	9.98	582.48	0.00	0.00	582.50	0.02	0.01	0.02	579.80
1330.0	224.5	957.8	147.7	492.1	721.3	351.2	165.5	34.9	580.00
1.06	0.46	1.33	0.42	0.040	0.035	0.040	0.000	572.50	34.72
0.000070	50.	50.	50.	2	0	0	0.00	709.04	743.76

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10636.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.41

3470 ENCROACHMENT STATIONS= 655.0 800.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 584.57 ELREA= 100000.00

10636.000	10.00	582.47	0.00	0.00	582.59	0.13	0.04	0.05	584.57
1330.0	0.0	1330.0	0.0	0.0	468.5	0.0	172.5	37.6	100000.00
1.09	0.00	2.84	0.00	0.000	0.035	0.000	0.000	572.47	679.13
0.000418	300.	300.	300.	2	0	0	0.00	75.35	754.48

*SECNO 11536.000

3470 ENCROACHMENT STATIONS= 655.0 855.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 584.50 ELREA= 100000.00

VALLEY SECTION

11536.000	10.48	582.88	0.00	0.00	582.99	0.11	0.37	0.01	584.50
1330.0	0.0	1330.0	0.0	0.0	510.7	0.0	182.6	37.4	100000.00
1.18	0.00	2.60	0.00	0.000	0.035	0.000	0.000	572.40	677.98
0.000453	900.	900.	900.	2	0	0	0.00	100.77	778.75

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 12274.000

3470 ENCROACHMENT STATIONS= 900.0 1050.0 TYPE= 1 TARGET= 150.000

CITY OF ECORSE CORP. BOUNDARY

12274.000	9.68	583.18	0.00	0.00	583.28	0.10	0.29	0.00	575.20
1330.0	117.5	1209.3	3.2	145.2	463.1	30.2	192.4	41.5	574.90
1.27	0.81	2.61	0.11	0.055	0.045	0.500	0.000	573.50	900.00
0.000340	738.	738.	738.	2	0	0	0.00	150.00	1050.00

1490 NH CARD USED
*SECNO 12324.000

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

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

D/S FACE OF AUSTIN

12324.000	9.58	583.18	0.00	0.00	583.31	0.13	0.02	0.01	574.10
1330.0	0.0	1330.0	0.0	0.0	465.8	0.0	193.0	41.6	573.80
1.27	0.00	2.86	0.00	0.000	0.045	0.000	0.000	573.60	1014.00
0.000383	50.	50.	50.	1	0	0	0.00	50.10	1064.10

1490 NH CARD USED
*SECNO 12325.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.45

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

1' INSIDE D/S SIDE OF AUSTIN BRIDGE

12325.000	9.55	583.15	0.00	0.00	583.34	0.19	0.00	0.03	574.10
1330.0	0.0	1330.0	0.0	0.0	379.6	0.0	193.0	41.6	573.80
1.27	0.00	3.50	0.00	0.000	0.035	0.000	0.000	573.60	1014.00
0.001855	1.	1.	1.	2	0	0	-92.48	50.10	1064.10

1490 NH CARD USED
*SECNO 12367.000

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

1' INSIDE U/S FACE OF AUSTIN BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12367.000	9.63	583.23	0.00	0.00	583.42	0.19	0.08	0.00	574.10
1330.0	0.0	1330.0	0.0	0.0	379.6	0.0	193.4	41.7	573.80
1.27	0.00	3.50	0.00	0.000	0.035	0.000	0.000	573.60	1014.00
0.001855	42.	42.	42.	2	0	0	-96.45	50.10	1064.10

1490 NH CARD USED
*SECNO 12368.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.68

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000
U/S FACE OF AUSTIN

12368.000	9.78	583.38	0.00	0.00	583.46	0.08	0.00	0.03	574.10
1330.0	199.8	1129.8	0.4	238.9	474.7	8.4	193.4	41.7	573.80
1.27	0.84	2.38	0.04	0.055	0.045	0.500	0.000	573.60	920.00
0.000259	1.	1.	1.	5	0	0	0.00	145.00	1065.00

1490 NH CARD USED
*SECNO 12418.000

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000
VALLEY SECTION 50' U/S OF AUSTIN

12418.000	9.79	583.39	0.00	0.00	583.47	0.08	0.01	0.00	574.10
1330.0	201.5	1128.1	0.4	241.1	475.9	8.5	194.2	41.9	573.80
1.28	0.84	2.37	0.04	0.055	0.045	0.500	0.000	573.60	920.00
0.000256	50.	50.	50.	2	0	0	0.00	145.00	1065.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 13295.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.67

3470 ENCROACHMENT STATIONS= 594.0 992.0 TYPE= 1 TARGET= 398.000
VALLEY SECTION BTWN AUSTIN AND VICTORIA

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13295.000	10.39	583.69	0.00	0.00	583.79	0.11	0.31	0.01	584.00
1330.0	5.8	1288.7	35.5	58.4	485.9	182.5	208.0	45.8	580.70
1.37	0.10	2.65	0.19	0.200	0.045	0.300	0.000	573.30	594.00
0.000571	600.	877.	950.	2	0	0	0.00	313.07	992.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 13676.000

3470 ENCROACHMENT STATIONS= 348.0 543.0 TYPE= 1 TARGET= 195.000
VALLEY SECTION 50' D/S OF VICTORIA

13676.000	10.96	583.86	0.00	0.00	583.96	0.10	0.17	0.00	574.90
1330.0	210.4	1029.8	89.8	403.0	352.2	139.9	214.1	47.6	575.60
1.42	0.52	2.92	0.64	0.120	0.045	0.116	0.000	572.90	348.00
0.000379	381.	381.	100.	2	0	0	0.00	195.00	543.00

1490 NH CARD USED
*SECNO 13726.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
D/S FACE OF VICTORIA

13726.000	10.85	583.85	0.00	0.00	584.01	0.16	0.02	0.03	573.00
1330.0	133.9	1058.5	137.6	249.3	294.1	142.0	215.0	47.8	573.00
1.42	0.54	3.60	0.97	0.120	0.045	0.105	0.000	573.00	350.00
0.000495	50.	50.	50.	2	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 13727.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.34

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE D/S FACE OF VICTORIA BRIDGE

13727.000	10.80	583.80	0.00	0.00	584.07	0.26	0.00	0.05	573.00
1330.0	207.7	1036.1	86.2	186.8	223.7	63.4	215.0	47.8	573.00
1.42	1.11	4.63	1.36	0.120	0.035	0.122	0.000	573.00	350.00
0.004260	1.	1.	1.	2	0	0	-203.02	170.00	520.00

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

1490 NH CARD USED
*SECNO 13964.000

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE U/S FACE OF VICTORIA BRIDGE

13964.000	11.68	584.68	0.00	0.00	584.83	0.15	0.73	0.03	573.00
1330.0	315.5	907.8	106.7	289.4	247.5	86.6	218.0	48.7	573.00
1.44	1.09	3.67	1.23	0.120	0.035	0.121	0.000	573.00	350.00
0.002332	237.	237.	237.	2	0	0	-203.02	170.00	520.00

1490 NH CARD USED
*SECNO 13965.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.59

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
U/S FACE OF VICTORIA

13965.000	11.72	584.72	0.00	0.00	584.84	0.12	0.00	0.01	573.00
1330.0	180.3	1007.5	142.3	350.5	317.6	164.9	218.0	48.7	573.00
1.44	0.51	3.17	0.86	0.120	0.045	0.106	0.000	573.00	350.00
0.000347	1.	1.	1.	2	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14015.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
VALLEY SECTION 50' U/S OF VICTORIA

14015.000	11.79	584.79	0.00	0.00	584.87	0.07	0.01	0.01	573.00
1330.0	225.3	820.3	284.4	358.3	319.4	166.7	219.0	48.9	573.00
1.45	0.63	2.57	1.71	0.080	0.045	0.043	0.000	573.00	350.00
0.000225	50.	50.	50.	0	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14287.000

3470 ENCROACHMENT STATIONS= 200.0 520.0 TYPE= 1 TARGET= 320.000

VALLEY SECTION 50' D/S OF N.B. FORT ST.

14287.000	10.40	584.90	0.00	0.00	584.94	0.04	0.06	0.01	583.70
1330.0	20.8	937.0	372.2	76.4	523.2	399.3	224.7	50.5	582.60
1.50	0.27	1.79	0.93	0.080	0.045	0.040	0.000	574.50	200.00
0.000213	272.	272.	272.	2	0	0	0.00	320.00	520.00

1490 NH CARD USED
*SECNO 14337.000

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

D/S FACE OF N.B. FORT ST.

14337.000	10.31	584.91	0.00	0.00	584.95	0.04	0.01	0.00	578.40
1330.0	42.7	805.0	482.4	107.5	427.5	494.2	225.9	50.8	578.40
1.51	0.40	1.88	0.98	0.080	0.045	0.040	0.000	574.60	380.00
0.000200	50.	50.	50.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14338.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.56

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

1' INSIDE OF D/S FACE N.B. FORT ST.

14338.000	10.31	584.91	0.00	0.00	584.95	0.04	0.00	0.00	578.40
1330.0	44.9	529.7	755.4	84.2	323.9	460.1	225.9	50.8	578.40
1.51	0.53	1.64	1.64	0.080	0.035	0.040	0.000	574.60	380.00
0.000646	1.	1.	1.	0	0	0	-160.96	320.00	700.00

1490 NH CARD USED
*SECNO 14402.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

1' INSIDE OF U/S FACE N.B. FORT ST.

14402.000	10.35	584.95	0.00	0.00	584.99	0.04	0.04	0.00	578.40
1330.0	46.1	524.6	759.3	86.6	325.6	466.7	227.2	51.3	578.40
1.52	0.53	1.61	1.63	0.080	0.035	0.040	0.000	574.60	380.00
0.000622	64.	64.	64.	1	0	0	-160.96	320.00	700.00

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

1490 NH CARD USED
*SECNO 14403.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.79

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

U/S FACE N.B. FORT ST.									
14403.000	10.35	584.95	0.00	0.00	584.99	0.04	0.00	0.00	578.40
1330.0	43.6	798.9	487.5	110.4	429.7	502.4	227.2	51.3	578.40
1.52	0.39	1.86	0.97	0.080	0.045	0.040	0.000	574.60	380.00
0.000193	1.	1.	1.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14460.000

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

D/S FACE S.B. FORT ST.									
14460.000	12.35	584.95	0.00	0.00	585.01	0.06	0.01	0.01	578.90
1330.0	31.8	1103.5	194.7	95.7	515.2	567.6	228.7	51.8	578.90
1.53	0.33	2.14	0.34	0.080	0.040	0.100	0.000	572.60	370.00
0.000173	57.	57.	57.	2	0	0	0.00	400.00	770.00

1490 NH CARD USED
*SECNO 14461.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.42

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

1' INSIDE D/S S.B. FORT ST.									
14461.000	12.36	584.96	0.00	0.00	585.01	0.05	0.00	0.00	578.90
1330.0	28.0	876.9	425.1	64.5	396.4	541.0	228.7	51.8	578.90
1.53	0.43	2.21	0.79	0.080	0.035	0.100	0.000	572.60	370.00
0.000973	1.	1.	1.	0	0	0	-176.58	400.00	770.00

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

1490 NH CARD USED
*SECNO 14521.000

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
1' INSIDE U/S FACE S.B. FORT ST.

14521.000	12.42	585.02	0.00	0.00	585.07	0.05	0.06	0.00	578.90
1330.0	32.2	864.1	433.8	71.6	400.1	557.8	230.1	52.3	578.90
1.54	0.45	2.16	0.78	0.080	0.035	0.100	0.000	572.60	370.00
0.000916	60.	60.	60.	2	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14522.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.34

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
U/S FACE S.B. FORT ST.

14522.000	12.42	585.02	0.00	0.00	585.08	0.06	0.00	0.00	578.90
1330.0	33.7	1095.8	200.5	103.0	518.9	584.6	230.1	52.4	578.90
1.54	0.33	2.11	0.34	0.080	0.040	0.100	0.000	572.60	370.00
0.000167	1.	1.	1.	0	0	0	0.00	400.00	770.00

1490 NH CARD USED
*SECNO 14572.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.60

3470 ENCROACHMENT STATIONS= 290.0 710.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION 50' U/S OF S.B. FORT ST.

14572.000	12.35	585.05	0.00	0.00	585.09	0.04	0.01	0.00	584.20
980.0	14.5	770.4	195.1	91.2	407.3	563.7	231.4	52.8	583.40
1.55	0.16	1.89	0.35	0.120	0.045	0.120	0.000	572.70	290.00
0.000254	50.	50.	50.	0	0	0	0.00	420.00	710.00

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

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 15292.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.66

3470 ENCROACHMENT STATIONS= 159.0 225.0 TYPE= 1 TARGET= 66.000

15292.000	10.87	585.27	0.00	0.00	585.37	0.10	0.26	0.02	587.20
980.0	0.0	980.0	0.0	0.0	381.6	0.0	242.9	56.6	100000.00
1.63	0.00	2.57	0.00	0.000	0.045	0.000	0.000	574.40	164.74
0.000580	720.	720.	650.	2	0	0	0.00	60.26	225.00

CCHV= 0.300 CEHV= 0.500
*SECNO 15820.000

3265 DIVIDED FLOW

3280 CROSS SECTION 15820.00 EXTENDED 0.10 FEET

3470 ENCROACHMENT STATIONS= 50.0 162.0 TYPE= 1 TARGET= 112.000
VALLEY SECTION 50' D/S OF LAFAYETTE

15820.000	8.50	585.50	0.00	0.00	585.69	0.19	0.27	0.04	577.70
980.0	59.9	883.2	36.9	42.9	239.9	43.8	247.1	57.5	578.30
1.67	1.40	3.68	0.84	0.050	0.035	0.080	0.000	577.00	73.99
0.000472	350.	528.	550.	2	0	0	0.00	84.73	162.00

*SECNO 15870.000
3280 CROSS SECTION 15870.00 EXTENDED 0.17 FEET

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000
D/S FACE OF LAFAYETTE

15870.000	8.57	585.57	0.00	0.00	585.72	0.15	0.02	0.01	577.00
980.0	108.1	804.3	67.6	78.2	240.1	78.2	247.5	57.6	577.00
1.67	1.38	3.35	0.86	0.050	0.035	0.080	0.000	577.00	67.76
0.000355	50.	50.	50.	2	0	0	0.00	64.49	132.24

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.65	3.00	0.00	28.00	0.00	168.00	0.00	577.00	577.00

*SECNO 15914.000

3265 DIVIDED FLOW

3280 CROSS SECTION 15914.00 EXTENDED 0.81 FEET

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
586.45	585.72	0.00	69.	911.	168.	168.	583.00	585.40	115.

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000

U/S FACE OF LAFAYETTE

15914.000	9.20	586.20	0.00	0.00	586.33	0.12	0.61	0.00	577.00
980.0	114.5	793.9	71.6	90.1	257.7	90.2	248.0	57.6	577.00
1.68	1.27	3.08	0.79	0.050	0.035	0.080	0.000	577.00	66.41
0.000273	44.	44.	44.	2	0	4	0.00	70.30	150.00

*SECNO 15964.000

3265 DIVIDED FLOW

3280 CROSS SECTION 15964.00 EXTENDED 0.77 FEET

3470 ENCROACHMENT STATIONS= 0.0 150.0 TYPE= 1 TARGET= 149.999

VALLEY SECTION 50' U/S OF LAFAYETTE

15964.000	9.17	586.17	0.00	0.00	586.40	0.22	0.02	0.05	577.90
980.0	96.3	847.0	36.7	64.8	210.0	41.4	248.4	57.7	577.80
1.68	1.49	4.03	0.89	0.050	0.035	0.080	0.000	577.00	0.00
0.000502	50.	50.	50.	2	0	0	0.00	101.04	150.00

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

1490 NH CARD USED
*SECNO 16194.000
VALLEY SECTION 50' D/S OF I-75

16194.000	9.96	586.46	0.00	0.00	586.54	0.08	0.10	0.04	587.80
980.0	0.0	911.0	69.0	0.0	401.4	82.2	250.5	58.2	578.60
1.71	0.00	2.27	0.84	0.000	0.045	0.080	0.000	576.50	778.49
0.000360	230.	230.	230.	2	0	0	0.00	77.42	855.91

*SECNO 16244.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.45

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

D/S FACE OF I-75 BRIDGE

16244.000	9.85	586.35	0.00	0.00	586.72	0.37	0.03	0.15	603.60
980.0	0.0	980.0	0.0	0.0	201.4	0.0	250.9	58.3	578.60
1.71	0.00	4.87	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.001793	50.	50.	50.	2	0	0	0.00	22.93	841.50

*SECNO 16245.000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16245.000	9.85	586.35	0.00	0.00	586.72	0.37	0.00	0.00	603.60
980.0	0.0	980.0	0.0	0.0	200.7	0.0	250.9	58.3	578.60
1.71	0.00	4.88	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.001086	1.	1.	1.	0	0	0	-0.37	22.93	841.50

*SECNO 16503.000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16503.000	10.15	586.65	0.00	0.00	586.99	0.35	0.27	0.01	603.60
980.0	0.0	980.0	0.0	0.0	207.5	0.0	252.1	58.4	578.60
1.73	0.00	4.72	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.000992	258.	258.	258.	2	0	0	-0.94	22.93	841.50

*SECNO 16504.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

U/S FACE OF I-75 BRIDGE

16504.000	10.22	586.72	0.00	0.00	587.01	0.29	0.00	0.02	603.60
910.0	0.0	910.0	0.0	0.0	209.9	0.0	252.1	58.4	578.60
1.73	0.00	4.33	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.001368	1.	1.	1.	2	0	0	0.00	22.93	841.50

*SECNO 16554.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.96

3470 ENCROACHMENT STATIONS= 558.0 683.0 TYPE= 1 TARGET= 125.000

VALLEY SECTION 50' U/S OF I-75 BRIDGE

16554.000	10.40	587.00	0.00	0.00	587.10	0.10	0.03	0.06	578.80
910.0	50.9	760.3	98.8	61.8	278.3	116.9	252.5	58.5	578.90
1.74	0.82	2.73	0.85	0.080	0.045	0.080	0.000	576.60	589.93
0.000356	50.	50.	50.	2	0	0	0.00	82.98	683.00

1490 NH CARD USED

*SECNO 16826.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.76

3470 ENCROACHMENT STATIONS= 394.0 456.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION 50' D/S OFINDUSTRIAL DR.

16826.000	11.83	587 13	0.00	0.00	587.17	0.04	0.05	0.02	575.40
910.0	127.1	689.4	93.5	142.4	376.9	112.2	255.9	58.9	575.40
1.78	0.89	1.83	0.83	0.060	0.045	0.060	0.000	575.30	394.00
0.000115	272.	272.	272.	2	0	0	0.00	62.00	456.00

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

1490 NH CARD USED
*SECNO 16876.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

D/S FACE OF INDUSTRIAL DR.

16876.000	12.52	587.12	0.00	0.00	587.19	0.07	0.01	0.02	574.60
910.0	0.0	910.0	0.0	0.0	414.3	0.0	256.5	59.0	574.60
1.79	0.00	2.20	0.00	0.000	0.045	0.000	0.000	574.60	290.00
0.000152	50.	50.	50.	2	0	0	0.00	33.10	323.10

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.82	3.00	0.00	26.83	0.00	264.00	0.00	574.90	574.60

1490 NH CARD USED
*SECNO 16963.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 587.453 EGLWC= 587.492 ELLC= 585.000 PCWSE= 587.117 ELTRD= 589.700

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.33

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 589.70 MAX ELLC= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

U/S FACE OF INDUSTRIAL DR.

16963.000	12.21	587.11	0.00	0.00	587.25	0.14	0.03	0.03	574.90
910.0	0.0	910.0	0.0	0.0	303.9	0.0	257.2	59.0	574.90
1.80	0.00	2.99	0.00	0.000	0.045	0.000	0.000	574.90	290.00
0.001374	87.	87.	87.	2	0	0	-262.11	33.10	323.10

1490 NH CARD USED
*SECNO 17013.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.30

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

3470 ENCROACHMENT STATIONS= 304.0 437.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION 50' U/S OF INDUSTRIAL DR.

17013.000	11.08	587.28	0.00	0.00	587.30	0.03	0.01	0.03	585.00
910.0	19.0	765.1	125.9	43.5	565.9	140.0	257.8	59.1	576.20
1.81	0.44	1.35	0.90	0.060	0.053	0.060	0.000	576.20	304.00
0.000126	50.	50.	50.	2	0	0	0.00	108.69	412.69

1490 NH CARD USED
*SECNO 17255.000

3470 ENCROACHMENT STATIONS= 414.0 466.0 TYPE= 1 TARGET= 52.000

VALLEY SECTION 50' D/S OF PENNN CENTRAL R.R. BRIDGE

17255.000	9.40	587.30	0.00	0.00	587.36	0.06	0.04	0.02	578.10
910.0	0.0	883.6	26.4	0.0	437.1	41.5	261.2	59.6	578.10
1.84	0.00	2.02	0.64	0.000	0.045	0.080	0.000	577.90	414.00
0.000243	242.	242.	242.	2	0	0	0.00	52.00	466.00

CCHV= 0.300 CEHV= 0.500
*SECNO 17305.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.64

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

D/S FACE OF PENN CENTRAL R.R. BRIDGE

17305.000	9.35	587.25	0.00	0.00	587.45	0.20	0.02	0.07	577.90
910.0	0.0	910.0	0.0	0.0	254.3	0.0	261.7	59.6	577.90
1.85	0.00	3.58	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000596	50.	50.	50.	2	0	0	0.00	27.20	383.60

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	0.00	27.20	3.20	182.00	0.00	577.90	577.90

*SECNO 17502.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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	WEIRLN
588.03	587.50	0.05	0.	910.	182.	182.	585.50	600.40	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

U/S FCE OF PENN CENTRAL R.R. BRIDGE

17502.000	9.95	587.85	0.00	0.00	588.03	0.18	0.58	0.00	577.90
910.0	0.0	910.0	0.0	0.0	270.7	0.0	262.8	59.7	577.90
1.86	0.00	3.36	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000484	197.	197.	197.	2	0	0	0.00	27.20	383.60

1490 NH CARD USED
*SECNO 17552.000

3470 ENCROACHMENT STATIONS= 250.0 380.0 TYPE= 1 TARGET= 130.000

VALLEY SECTION 50' U/S OF PENN CENTRAL R.R. BRIDGE

17552.000	10.52	588.02	0.00	0.00	588.08	0.06	0.02	0.04	586.90
910.0	21.2	876.2	12.6	69.8	442.6	26.4	263.3	59.8	585.40
1.87	0.30	1.98	0.48	0.080	0.045	0.080	0.000	577.50	250.00
0.000248	50.	50.	50.	2	0	0	0.00	130.00	380.00

CCHV= 0.100 CEHV= 0.300
*SECNO 17817.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8.8 230.4 TYPE= 1 TARGET= 221.600

17817.000	11.19	588.09	0.00	0.00	588.16	0.07	0.08	0.00	588.30
910.0	7.6	887.1	15.3	21.4	403.2	30.6	266.3	60.7	586.50
1.90	0.35	2.20	0.50	0.050	0.045	0.050	0.000	576.90	8.80
0.000384	265.	265.	265.	2	0	0	0.00	155.46	200.53

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

1490 NH CARD USED
*SECNO 18106.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 263.0 438.0 TYPE= 1 TARGET= 175.000
VALLEY SECTION 50' D/S OF PORTER AVE.

18106.000	9.21	588.21	0.00	0.00	588.27	0.06	0.10	0.00	588.40
910.0	25.7	880.5	3.7	68.4	456.5	59.4	269.8	61.8	587.70
1.95	0.38	1.93	0.06	0.080	0.045	0.500	0.000	579.00	263.00
0.000312	289.	289.	289.	2	0	0	0.00	170.67	438.00

1490 NH CARD USED
*SECNO 18156.000

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
D/S FACE OF PORTER AVE.

18156.000	9.16	588.16	0.00	0.00	588.31	0.15	0.02	0.03	579.00
910.0	126.3	761.8	21.9	97.8	230.0	140.3	270.4	61.9	579.00
1.95	1.29	3.31	0.16	0.060	0.040	0.500	0.000	579.00	803.60
0.000414	50.	50.	50.	2	0	0	0.00	121.40	925.00

1490 NH CARD USED
*SECNO 18157.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.30

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF D/S FACE PORTER AVE.

18157.000	8.97	587.97	0.00	0.00	588.39	0.42	0.00	0.08	579.00
910.0	0.5	909.2	0.4	1.7	174.3	6.5	270.4	61.9	579.00
1.95	0.27	5.22	0.06	0.060	0.030	0.500	0.000	579.00	822.90
0.004520	1.	1.	1.	2	0	0	-264.05	102.10	925.00

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

1490 NH CARD USED
*SECNO 18195.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF U/S FACE OF PORTER AVE.

18195.000	9.17	588.17	0.00	0.00	588.56	0.39	0.16	0.00	579.00
910.0	5.0	903.5	1.5	8.9	179.2	16.3	270.6	62.0	579.00
1.95	0.56	5.04	0.09	0.060	0.030	0.500	0.000	579.00	803.23
0.004067	38.	38.	38.	2	0	0	-264.05	121.77	925.00

1490 NH CARD USED
*SECNO 18196.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.34

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
U/S FACE OF PORTER AVE.

18196.000	9.45	588.45	0.00	0.00	588.59	0.13	0.00	0.03	579.00
910.0	133.7	753.2	23.1	115.7	237.3	154.8	270.6	62.0	579.00
1.95	1.16	3.17	0.15	0.060	0.040	0.500	0.000	579.00	765.40
0.000365	1.	1.	1.	2	0	0	0.00	159.60	925.00

1490 NH CARD USED
*SECNO 18246.000

3470 ENCROACHMENT STATIONS= 910.0 1170.0 TYPE= 1 TARGET= 260.000
VALLEY SECTION 50' U/S OF PORTER AVE.

18246.000	9.52	588.52	0.00	0.00	588.61	0.09	0.02	0.00	579.00
910.0	197.5	586.8	125.6	496.4	199.9	118.5	271.3	62.3	579.00
1.96	0.40	2.94	1.06	0.146	0.045	0.057	0.000	579.00	910.00
0.000391	50.	50.	50.	2	0	0	0.00	260.00	1170.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 18545.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 580.0 1000.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION BTWN PORTER AND RAUPP PL.

18545.000	10.06	588.66	0.00	0.00	588.77	0.11	0.15	0.01	588.00
910.0	95.8	757.0	57.2	190.7	261.0	52.7	275.9	64.4	586.60
1.99	0.50	2.90	1.09	0.061	0.045	0.050	0.000	578.60	654.35
0.000671	299.	299.	299.	2	0	0	0.00	345.65	1000.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 18829.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.05

3470 ENCROACHMENT STATIONS= 793.0 1165.0 TYPE= 1 TARGET= 372.000
VALLEY SECTION 50' D/S OF RAUPP PL.

18829.000	10.15	588.85	0.00	0.00	588.87	0.02	0.08	0.03	585.20
910.0	389.8	514.3	5.9	849.9	325.8	82.2	281.6	66.7	585.50
2.06	0.46	1.58	0.07	0.088	0.045	0.500	0.000	578.70	793.00
0.000160	284.	284.	284.	2	0	0	0.00	372.00	1165.00

1490 NH CARD USED
*SECNO 18961.000

3470 ENCROACHMENT STATIONS= 859.0 1165.0 TYPE= 1 TARGET= 306.000
50' U/S OF RAUPP PL.

18961.000	10.17	588.87	0.00	0.00	588.90	0.02	0.02	0.00	585.20
910.0	390.2	513.9	5.9	789.6	326.7	82.8	285.3	67.7	585.50
2.10	0.49	1.57	0.07	0.085	0.045	0.500	0.000	578.70	859.00
0.000159	132.	132.	132.	2	0	0	0.00	306.00	1165.00

1490 NH CARD USED
*SECNO 19112.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.55

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
50' D/S OF DIX

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19112.000	9.83	588.83	0.00	0.00	589.01	0.18	0.04	0.08	579.00
910.0	6.8	885.2	18.0	88.2	256.7	100.0	288.2	68.6	579.00
2.11	0.08	3.45	0.18	0.800	0.045	0.500	0.000	579.00	882.10
0.000518	151.	151.	151.	2	0	0	0.00	230.89	1113.00

1490 NH CARD USED
*SECNO 19162.000

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
D/S FACE OF DIX RD. BRIDGE

19162.000	9.86	588.86	0.00	0.00	589.04	0.18	0.03	0.00	579.00
910.0	6.9	885.0	18.1	91.3	257.1	100.5	288.7	68.9	579.00
2.11	0.08	3.44	0.18	0.800	0.045	0.500	0.000	579.00	873.87
0.000514	50.	50.	50.	0	0	0	0.00	239.13	1113.00

1490 NH CARD USED
*SECNO 19163.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.14

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 950.0 1190.0 TYPE= 1 TARGET= 240.000
1' INSIDE D/S FACE DIX RD. BRIDGE

19163.000	9.56	588.56	582.52	0.00	589.35	0.79	0.00	0.31	579.00
910.0	0.3	906.7	3.1	3.3	126.9	19.5	288.7	68.9	579.00
2.11	0.08	7.14	0.16	0.800	0.040	0.500	0.000	579.00	1016.99
0.024666	1.	1.	1.	4	16	0	-260.99	173.01	1190.00

1490 NH CARD USED
*SECNO 19263.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.87

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

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
1' INSIDE U/S FACE OF DIX RD. BRIDGE

19263.000	10.61	589.61	0.00	0.00	590.10	0.48	0.66	0.09	579.00
910.0	24.7	877.6	7.7	265.1	154.5	40.0	289.4	69.5	579.00
2.12	0.09	5.68	0.19	0.800	0.020	0.500	0.000	579.00	750.00
0.002998	100.	100.	100.	2	0	0	-260.79	363.00	1113.00

1490 NH CARD USED
*SECNO 19264.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.00

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
U/S FACE OF DIX RD. BRIDGE

19264.000	11.07	590.07	0.00	0.00	590.20	0.13	0.00	0.11	579.00
910.0	23.1	865.2	21.8	460.6	289.0	137.0	289.4	69.5	579.00
2.12	0.05	2.99	0.16	0.800	0.045	0.500	0.000	579.00	750.00
0.000333	1.	1.	1.	2	0	0	0.00	363.00	1113.00

1490 NH CARD USED
*SECNO 19314.000

3470 ENCROACHMENT STATIONS= 730.0 1113.0 TYPE= 1 TARGET= 383.000
50' U/S DIX RD.

19314.000	11.09	590.09	0.00	0.00	590.22	0.13	0.02	0.00	579.00
910.0	23.5	864.7	21.8	487.9	289.4	137.5	290.4	70.0	579.00
2.12	0.05	2.99	0.16	0.824	0.045	0.500	0.000	579.00	730.00
0.000331	50.	50.	50.	2	0	0	0.00	383.00	1113.00

1490 NH CARD USED
*SECNO 20080.000

3470 ENCROACHMENT STATIONS= 1400.0 1870.0 TYPE= 1 TARGET= 470.000
50' D/S OF FRANK RD.

20080.000	10.28	590.38	0.00	0.00	590.49	0.12	0.27	0.00	580.10
910.0	143.6	744.2	22.2	1142.1	246.7	171.1	312.2	77.5	580.10
2.21	0.13	3.02	0.13	0.500	0.045	0.500	0.000	580.10	1400.00
0.000373	766.	766.	766.	2	0	0	0.00	470.00	1870.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 20130.000

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

	D/S FACE OF FRANK AVE. BRIDGE								
20130.000	10.31	590.41	0.00	0.00	590.51	0.10	0.02	0.00	580.10
910.0	111.9	754.1	43.9	761.7	268.9	174.6	313.8	78.0	580.10
2.22	0.15	2.80	0.25	0.275	0.040	0.200	0.000	580.10	1420.00
0.000256	50.	50.	50.	1	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20131.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.31

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

	1' INSIDE OF D/S FACE FRANK AVE. BRIDGE								
20131.000	10.26	590.36	0.00	0.00	590.57	0.22	0.00	0.06	580.10
910.0	152.4	719.4	38.2	655.7	171.6	82.8	313.8	78.0	580.10
2.22	0.23	4.19	0.46	0.500	0.035	0.200	0.000	580.10	1420.00
0.002683	1.	1.	1.	3	0	0	-272.31	470.00	1890.00

1490 NH CARD USED
*SECNO 20168.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

	1' INSIDE U/S FACE FRANK AVE. BRIDGE								
20168.000	10.42	590.52	0.00	0.00	590.70	0.18	0.11	0.01	580.10
910.0	202.7	685.9	21 4	712.3	174.6	92.7	314.6	78.4	580.10
2.22	0.28	3.93	0.23	0.500	0.035	0.500	0.000	580.10	1420.00
0.003607	37.	37.	37.	2	0	0	-278.30	470.00	1890.00

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

1490 NH CARD USED
*SECNO 20169.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.96

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
U/S FACE OF FRANK AVE. BRIDGE

20169.000	10.53	590.63	0.00	0.00	590.72	0.09	0.00	0.03	580.10
910.0	119.5	743.6	46.9	844.9	274.9	192.0	314.6	78.4	580.10
2.22	0.14	2.71	0.24	0.288	0.040	0.200	0.000	580.10	1420.00
0.000230	1.	1.	1.	2	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20269.000

3470 ENCROACHMENT STATIONS= 1365.0 1839.0 TYPE= 1 TARGET= 474.000
100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS

20269.000	10.56	590.66	0.00	0.00	590.75	0.09	0.03	0.00	580.10
910.0	138.7	732.7	38.6	982.9	275.7	112.6	317.7	79.5	580.10
2.23	0.14	2.66	0.34	0.319	0.045	0.200	0.000	580.10	1365.00
0.000279	100.	100.	100.	2	0	0	0.00	474.00	1839.00

*SECNO 20599.000

3470 ENCROACHMENT STATIONS= 1477.0 1827.0 TYPE= 1 TARGET= 350.000

20599.000	10.36	590.76	0.00	0.00	590.85	0.10	0.10	0.00	580.40
910.0	131.2	745.4	33.4	745.4	270.0	89.3	327.1	82.6	580.40
2.27	0.18	2.76	0.37	0.276	0.045	0.200	0.000	580.40	1477.00
0.000310	330.	330.	330.	0	0	0	0.00	350.00	1827.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 21999.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

3470 ENCROACHMENT STATIONS= 1380.0 1880.0 TYPE= 1 TARGET= 500.000

21999.000	9.72	591.12	0.00	0.00	591.14	0.02	0.27	0.02	589.40
910.0	184.1	597.1	128.7	402.2	452.1	303.7	363.5	76.3	589.40
2.65	0.46	1.32	0.42	0.055	0.045	0.050	0.000	581.40	1380.00
0.000129	1400.	1400.	1400.	2	0	0	0.00	500.00	1880.00

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

*SECNO 22380.000

3470 ENCROACHMENT STATIONS= 1500.0 1840.0 TYPE= 1 TARGET= 340.000

22380.000	9.48	591.18	0.00	0.00	591.20	0.03	0.06	0.00	589.40
910.0	105.2	667.7	137.0	182.6	442.7	266.5	372.4	100.0	589.40
2.74	0.58	1.51	0.51	0.050	0.045	0.050	0.000	581.70	1500.00
0.000173	381.	381.	381.	2	0	0	0.00	340.00	1840.00

1490 NH CARD USED
*SECNO 23417.000

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
D/S FACE OF ALLEN RD.

23417.000	9.24	591.34	0.00	0.00	591.39	0.05	0.17	0.01	592.51
910.0	0.0	910.0	0.0	0.0	504.0	0.0	389.0	104.8	592.20
2.90	0.00	1.81	0.00	0.000	0.037	0.000	0.000	582.10	1839.52
0.000164	1037.	1037.	1037.	0	0	0	0.00	68.13	1907.65

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.00	0.00	20.40	0.00	131.00	0.00	582.10	582.10

1490 NH CARD USED
*SECNO 23629.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.43

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
593.14	591.39	0.00	117.	797.	131.	134.	588.66	592.17	146.

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
U/S FACE OF ALLEN RD.

23629.000	10.55	592.65	0.00	0.00	592.69	0.04	1.30	0.00	592.51
920.0	0.0	914.5	5.5	0.0	596.0	32.5	391.8	105.3	592.20
2.94	0.00	1.53	0.17	0.035	0.034	0.047	0.000	582.10	1838.00
0.000082	212.	212.	212.	2	0	3	0.00	142.00	1980.00

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

1490 NH CARD USED
*SECNO 1.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.67

3470 ENCROACHMENT STATIONS= 2685.0 2915.0 TYPE= 1 TARGET= 230.000
100' U/S OF ALLEN RD.

1.000	9.96	592.66	0.00	0.00	592.70	0.04	0.01	0.00	590.00
920.0	78.5	840.3	1.2	106.6	522.0	309.1	393.6	105.8	590.00
2.95	0.74	1.61	0.00	0.050	0.045	10.000	0.000	582.70	2685.00
0.000181	100.	100.	100.	0	0	0	0.00	230.00	2915.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.44

3470 ENCROACHMENT STATIONS= 2479.0 2569.0 TYPE= 1 TARGET= 90.000

2.000	9.42	592.82	0.00	0.00	592.93	0.12	0.21	0.02	590.00
920.0	0.5	919.5	0.0	61.3	336.8	0.0	403.0	108.0	100000.00
3.02	0.01	2.73	0.00	10.000	0.045	0.000	0.000	583.40	2479.00
0.000940	500.	600.	700.	2	0	0	0.00	90.00	2569.00

1490 NH CARD USED
*SECNO 3.000

3470 ENCROACHMENT STATIONS= 2588.0 2640.0 TYPE= 1 TARGET= 52.000

3.000	9.20	593.50	0.00	0.00	593.68	0.18	0.73	0.02	590.00
920.0	60.2	805.4	54.4	42.0	227.0	38.5	409.3	109.3	590.00
3.08	1.43	3.55	1.41	0.060	0.045	0.060	0.000	584.30	2588.00
0.000884	700.	800.	850.	2	0	0	0.00	52.00	2640.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.000
D/S FACE OF R.R. BRIDGE #1

4.000	9.13	593.53	0.00	0.00	593.77	0.24	0.06	0.03	594.00
920.0	0.0	920.0	0.0	0.0	234.4	0.0	409.7	109.4	594.00
3.09	0.00	3.92	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001508	50.	50.	50	2	0	0	0.00	26.50	2626.50

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3.00	575.00	26.50	2.50	151.20	0.00	584.70	584.70

1490 NH CARD USED
*SECNO 5.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
594.42	593.82	0.05	0.	920.	151.	151.	591.00	596.50	0.

3470 ENCROACHMENT STATIONS= 2600.0 2626.5 TYPE= 1 TARGET= 26.500
U/S FACE OF R.R. BRIDGE #1

5.000	9.82	594.22	0.00	0.00	594.42	0.21	0.66	0.00	594.00
920.0	0.0	920.0	0.0	0.0	252.8	0.0	410.0	109.4	100000.00
3.09	0.00	3.64	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001223	70.	70.	70.	2	0	0	0.00	26.50	2626.50

1490 NH CARD USED
*SECNO 6.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

3470 ENCROACHMENT STATIONS= 2510.0 2676.0 TYPE= 1 TARGET= 166.000
D/S FACE OF RR SPUR NO. 1

6.000	10.50	594.40	0.00	0.00	594.51	0.11	0.06	0.03	593.60
920.0	30.4	881.6	8.0	78.0	326.1	26.4	410.6	109.5	593.60
3.10	0.39	2.70	0.30	0.080	0.045	0.100	0.000	583.90	2510.00
0.000570	70.	70.	70.	2	0	0	0.00	166.00	2676.00

SPECIAL BRIDGE

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

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	11 00	0.00	138.00	2.50	584.00	584.00

1490 NH CARD USED
*SECNO 7.000
6870 D.S. ENERGY OF 594.51 IS HIGHER THAN COMPUTED ENERGY OF 594.44
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
595.47	594.61	0.00	751.	171.	138.	136.	589.50	593.70	949.

3470 ENCROACHMENT STATIONS= 2443.0 2643.0 TYPE= 1 TARGET= 200.000
U/S FACE OF RR SPUR NO. 1

7.000	10.50	594.40	0.00	0.00	594.51	0.11	0.00	0.00	593.60
920.0	27.3	892.7	0.0	125.4	325.9	0.0	410.8	109.6	100000.00
3.10	0.22	2.74	0.00	0.141	0.045	0.000	0.000	583.90	2443.00
0.000598	17.	17.	17.	2	0	8	0.00	200.00	2643.00

1490 NH CARD USED
*SECNO 7.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48

3470 ENCROACHMENT STATIONS= 2363.0 2605.0 TYPE= 1 TARGET= 242.000
D/S FACE OF RR SPUR NO. 2

7.500	10.51	594.51	0.00	0.00	594.79	0.28	0.20	0.08	592.13
920.0	139.6	696.8	83.5	266.8	144.1	65.9	412.7	110.5	592.13
3.11	0.52	4.84	1.27	0.184	0.045	0.100	0.000	584.00	2363.00
0.002614	180.	180.	180.	0	0	0	0.00	242.00	2605.00

1490 NH CARD USED
*SECNO 7.600

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2368.0 2610.0 TYPE= 1 TARGET= 242.000

7.600	10.65	594.65	0.00	0.00	594.82	0.18	0.00	0.03	592.13
920.0	216.5	556.5	147.0	288.4	132.1	80.9	412.7	110.5	592.13
3.11	0.75	4.21	1.82	0.191	0.045	0.100	0.000	584.00	2368.00
0.005176	1.	1.	1.	2	0	0	-16.76	242.00	2610.00

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

1490 NH CARD USED
*SECNO 7.700

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2372.0 2608.0 TYPE= 1 TARGET= 236.000

7.700	10.71	594.71	0.00	0.00	594.89	0.17	0.06	0.00	592.13
920.0	224.5	553.3	142.2	296.6	133.1	78.3	412.8	110.6	592.13
3.12	0.76	4.16	1.82	0.192	0.045	0.100	0.000	584.00	2372.00
0.004998	12.	12.	12.	2	0	0	-16.76	236.00	2608.00

1490 NH CARD USED
*SECNO 7.800

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

3470 ENCROACHMENT STATIONS= 2370.0 2606.0 TYPE= 1 TARGET= 236.000
U/S FACE OF RR SPUR NO. 2

7.800	10.68	594.68	0.00	0.00	594.93	0.25	0.00	0.04	592.13
920.0	152.7	675.4	91.9	294.3	146.6	73.5	412.8	110.6	592.13
3.12	0.52	4.61	1.25	0.190	0.045	0.100	0.000	584.00	2370.00
0.002319	1.	1.	1.	2	0	0	0.00	236.00	2606.00

1490 NH CARD USED
*SECNO 8.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.80

3470 ENCROACHMENT STATIONS= 2796.0 2847.0 TYPE= 1 TARGET= 51.000

8.000	10.05	595.25	0.00	0.00	595.39	0.14	0.44	0.03	594.30
920.0	1.3	917.5	1.3	3.8	304.8	3.8	416.4	111.8	594.30
3.15	0.33	3.01	0.33	0.100	0.045	0.100	0.000	585.20	2796.00
0.000714	370.	370.	370.	2	0	0	0.00	51.00	2847.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

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

*SECNO 9.000

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000
D/S FACE OF R.R. BRIDGE #2

9.000	9.96	595.26	0.00	0.00	595.48	0.22	0.05	0.04	594.30
920.0	0.0	920.0	0.0	0.0	246.1	0.0	416.7	111.9	100000.00
3.15	0.00	3.74	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001337	50.	50.	50.	2	0	0	0.00	26.00	2826.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	576.00	26.00	2.00	132.00	0.00	585.30	585.30

1490 NH CARD USED
*SECNO 10.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
596.40	595.52	0.04	18.	900.	132.	144.	591.30	596.30	576.

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000
U/S FACE OF R.R. BRIDGE #2

10.000	10.87	596.17	0.00	0.00	596.35	0.18	0.07	0.00	595.80
920.0	0.0	920.0	0.0	0.0	269.5	0.0	417.0	111.9	100000.00
3.16	0.00	3.41	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001040	50.	50.	50.	2	0	0	0.00	26.00	2826.00

1490 NH CARD USED
*SECNO 11.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.21

3470 ENCROACHMENT STATIONS= 2749.0 2875.0 TYPE= 1 TARGET= 126.000

11.000	10.97	596.37	0.00	0.00	596.41	0.04	0.02	0.04	590.00
920.0	215.1	480.7	224.2	316.4	235.8	325.1	417.6	112.0	590.00
3.17	0.68	2.04	0.69	0.100	0.045	0.100	0.000	585.40	2749.00
0.000213	50.	50.	50.	2	0	0	0.00	126.00	2875.00

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

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 12.000

3470 ENCROACHMENT STATIONS= 2751.0 2874.0 TYPE= 1 TARGET= 123.000
100' D/S OF STUDY LIMIT(I-94) BRIDGE. END OF CONVERGENCE RUN

12.000	10.38	596.68	0.00	0.00	596.71	0.04	0.30	0.00	590.00
920.0	229.5	486.1	204.4	327.1	240.1	301.2	446.2	116.1	590.00
3.45	0.70	2.02	0.68	0.100	0.045	0.100	0.000	586.30	2751.00
0.000210	1300.	1425.	1550.	2	0	0	0.00	123.00	2874.00

1490 NH CARD USED
*SECNO 13.000
D/S FACE OF E. BOUND I-94 SURVEY STATION 51+32

13.000	10.56	596.66	0.00	0.00	596.75	0.09	0.02	0.02	586.60
920.0	87.9	715.5	116.6	111.0	262.9	140.6	447.7	116.3	586.10
3.46	0.79	2.72	0.83	0.080	0.040	0.080	0.000	586.10	2962.94
0.000239	100.	100	100.	2	0	0	0.00	74.18	3037.12

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	990.00	25.50	1.50	202.80	0.00	585.85	585.85

1490 NH CARD USED
*SECNO 68.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.14	596.75	0.01	0.	920.	203.	203.	594.30	598.60	0.

U/S FACE OF E BOUND I-94 SURVEY STATION 50+64

68.000	11.57	597.07	0.00	0.00	597.14	0.07	0.39	0.00	585.50
920.0	119.4	694.9	105.7	160.6	286.0	147.6	448.6	116.4	586.20
3.47	0.74	2.43	0.72	0.080	0.040	0.080	0.000	585.50	2757.24
0.000172	68.	68.	68.	2	0	0	0.00	80.43	3037.67

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

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 189.000
D/S FACE OF W. BOUND I-94 SURVEY STATION 49+43

189.000	10.70	597.10	0.00	0.00	597.16	0.06	0.02	0.00	586.40
920.0	247.0	576.0	96.9	171.7	255.0	146.8	450.2	116.6	587.80
3.49	1.44	2.26	0.66	0.040	0.040	0.080	0.000	586.40	2753.90
0.000172	121.	121.	121.	1	0	0	0.00	89.17	3043.08

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	1000.00	25.50	1.50	207.60	0.00	585.95	585.95

1490 NH CARD USED
*SECNO 253.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.56	597.21	0.01	0.	920.	208.	208.	594.60	599.10	0.

U/S FACE OF W. BOUND I-94 SURVEY STATION 48+79

253.000	11.57	597.47	0.00	0.00	597.56	0.09	0.40	0.00	585.90
920.0	128.2	752.5	39.2	160.7	287.5	60.7	451.0	116.8	586.50
3.50	0.80	2.62	0.65	0.080	0.040	0.080	0.000	585.90	2952.22
0.000198	64.	64.	64.	2	0	0	0.00	64.34	3016.57

1490 NH CARD USED
*SECNO 353.000

3470 ENCROACHMENT STATIONS= 2357.0 2621.0 TYPE= 1 TARGET= 264.000
100' U/S OF W. BOUND I-94

353.000	11.52	597.52	0.00	0.00	597.59	0.07	0.02	0.00	588.00
1430.0	362.6	966.8	100.6	711.0	370.6	131.4	453.0	117.1	590.00
3.51	0.51	2.61	0.77	0.130	0.045	0.090	0.000	586.00	2357.00
0.000272	100.	100.	100.	2	0	0	0.00	264.00	2621.00

598.9

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

*SECNO 553.000

3470 ENCROACHMENT STATIONS= 2298.0 2698.0 TYPE= 1 TARGET= 400.000

553.000	11.57	597.57	0.00	0.00	597.64	0.07	0.05	0.00	588.00
1430.0	364.0	964.7	101.3	851.4	372.2	133.0	458.9	118.5	590.00
3.54	0.43	2.59	0.76	0.146	0.045	0.090	0.000	586.00	2298.00
0.000267	200.	200.	200.	0	0	0	0.00	324.00	2622.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 1832.000

3265 DIVIDED FLOW

3280 CROSS SECTION 1832.00 EXTENDED 1.51 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3470 ENCROACHMENT STATIONS= 300.0 1020.0 TYPE= 1 TARGET= 720.000
U/S JFK PARK SURVEY STATION 33+00

1832.000	10.61	598.01	0.00	0.00	598.17	0.16	0.48	0.04	594.70
1430.0	75.1	1236.3	118.6	112.2	359.4	293.5	489.0	131.9	593.30
3.66	0.67	3.44	0.40	0.070	0.040	0.121	0.000	587.40	300.00
0.000575	1150.	1279.	1350.	2	0	0	0.00	615.25	1020.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2132.000
3280 CROSS SECTION 2132.00 EXTENDED 1.51 FEET

3470 ENCROACHMENT STATIONS= 530.0 1030.0 TYPE= 1 TARGET= 500.000

2132.000	10.61	598.21	0.00	0.00	598.37	0.16	0.20	0.00	594.90
1430.0	77.1	1234.3	118.6	105.8	359.4	313.9	495.0	136.1	593.50
3.69	0.73	3.43	0.38	0.070	0.040	0.130	0.000	587.60	530.00
0.000573	400.	350.	300.	2	0	0	0.00	500.00	1030.00

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

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 2536.000

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
D/S FACE SURVEY 25+45

2536.000	10.50	598.50	0.00	0.00	598.58	0.08	0.19	0.02	595.30
1430.0	38.7	1170.3	221.0	59.0	468.2	378.4	502.6	140.6	595.50
3.74	0.66	2.50	0.58	0.070	0.040	0.079	0.000	588.00	687.00
0.000407	450.	404.	375.	2	0	0	0.00	500.00	1187.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3.00	0.00	16.00	0.00	88.00	0.00	588.00	588.00

1490 NH CARD USED
*SECNO 2541.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
604.65	598.58	0.00	1207.	223.	88.	88.	593.50	595.30	117.

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
U/S FACE SURVEY 25+40

2541.000	10.57	598.57	0.00	0.00	598.65	0.08	0.07	0.00	595.30
1430.0	40.0	1165.0	225.0	61.1	473.4	407.0	502.7	140.6	595.50
3.74	0.65	2.46	0.55	0.070	0.040	0.082	0.000	588.00	687.00
0.000389	5.	5.	5.	2	0	6	0.00	500.00	1187.00

1490 NH CARD USED
*SECNO 2591.000

3470 ENCROACHMENT STATIONS= 697.0 1197.0 TYPE= 1 TARGET= 500.000
50' U/S OF FOOTBRIDGE

2591.000	10.59	598.59	0.00	0.00	598.67	0.08	0.02	0.00	595.30
1430.0	28.6	1173.4	228.0	42.8	474.9	417.8	503.8	141.2	595.50
3.75	0.67	2.47	0.55	0.070	0.040	0.082	0.000	588.00	697.00
0.000390	50.	50.	50.	0	0	0	0.00	500.00	1197.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ISTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 2941.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.52

3470 ENCROACHMENT STATIONS= 610.0 1060.0 TYPE= 1 TARGET= 450.000
400' U/S OF FOOTBRIDGE

2941.000	10.94	598.74	0.00	0.00	598.77	0.03	0.09	0.02	587.80
1430.0	585.1	311.8	533.1	513.0	131.2	1361.2	515.6	145.0	587.80
3.83	1.14	2.38	0.39	0.059	0.040	0.129	0.000	587.80	610.00
0.000168	350.	350.	350.	1	0	0	0.00	450.00	1060.00

1490 NH CARD USED
*SECNO 3287.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3470 ENCROACHMENT STATIONS= 1040.0 1540.0 TYPE= 1 TARGET= 500.000
D/S FACE LARME ST., 9 CULVERTS SURVEY STATION 17+94

3287.000	10.62	598.82	0.00	0.00	598.92	0.10	0.11	0.03	595.00
1430.0	263.7	661.8	504.5	191.0	186.9	1462.7	530.9	148.8	595.00
3.88	1.38	3.54	0.34	0.070	0.040	0.272	0.000	588.20	1040.00
0.000782	346.	346.	346	2	0	0	0.00	500.00	1540.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	EL.CHU	EL.CHD
	1.25	3.91	3.00	200.00	15.70	1.00	78.00	0.00	588.20	588.20

1490 NH CARD USED
*SECNO 3487.000
6870 D.S. ENERGY OF 598.92 IS HIGHER THAN COMPUTED ENERGY OF 598.84
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	EL.TRD	WEIRLN
619.23	598.93	0.01	1386.	44.	78.	78.	593.50	595.50	200.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1050.0 1550.0 TYPE= 1 TARGET= 500.000
U/S FACE KEPPEN ST. SURVEY STA. 15+94

3487.000	10.61	598.81	0.00	0.00	598.92	0.11	0.00	0.00	595.00
1430.0	216.6	689.3	524.1	152.3	186.7	1485.4	539.3	151.1	595.00
3.91	1.42	3.69	0.35	0.070	0.040	0.276	0.000	588.20	1050.00
0.000852	200.	200.	200.	2	0	15	0.00	500.00	1550.00

1490 NH CARD USED
*SECNO 3776.000

3470 ENCROACHMENT STATIONS= 940.0 1440.0 TYPE= 1 TARGET= 500.000
D/S FACE RUSSELL ST. CULVERTS SURVEY STATION 13+05

3776.000	10.06	599.06	0.00	0.00	599.11	0.05	0.18	0.02	595.00
1430.0	426.4	576.2	427.5	597.8	209.1	1244.5	552.2	154.4	595.00
3.96	0.71	2.76	0.34	0.111	0.040	0.225	0.000	589.00	940.00
0.000465	289.	289.	289.	1	0	0	0.00	500.00	1440.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.31	3.00	200.00	14.56	1.00	64.00	0.00	589.00	589.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3843.000
6870 D.S. ENERGY OF 599.11 IS HIGHER THAN COMPUTED ENERGY OF 599.08
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
616.97	599.12	0.01	1374.	52.	64.	66.	593.90	596.00	200.

3470 ENCROACHMENT STATIONS= 890.0 1390.0 TYPE= 1 TARGET= 500.000
U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38

3843.000	10.06	599.06	0.00	0.00	599.11	0.05	0.00	0.00	595.00
1430.0	428.0	575.3	426.6	778.4	209.3	1077.8	555.3	155.2	595.00
3.98	0.55	2.75	0.40	0.142	0.040	0.197	0.000	589.00	890.00
0.000463	67.	67.	67.	2	0	9	0.00	500.00	1390.00

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

1490 NH CARD USED
#SECNO 4234.000

598.8

3470 ENCROACHMENT STATIONS= 1200.0 1590.0 TYPE= 1 TARGET= 390.000
D/S FACE OF WATSON AVE. STA. 8+47

598.8 DNR Q's

4234.000	10.94	599.24	0.00	0.00	599.34	0.10	0.20	0.02	595.00
1430.0	337.6	764.2	328.1	995.8	227.3	477.2	570.5	158.7	595.00
4.03	0.34	3.36	0.69	0.276	0.040	0.140	0.000	588.30	1200.00
0.000655	270.	391.	430.	0	0	0	0.00	390.00	1590.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	130.00	13.90	1.00	80.00	0.00	588.30	588.30

1490 NH CARD USED
#SECNO 4294.000
6870 D.S. ENERGY OF 599.34 IS HIGHER THAN COMPUTED ENERGY OF 599.30
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	FLTRD	WEIRLN
609.16	599.35	0.01	1325.	115.	80.	80.	594.50	596.00	130.

Direct ~40

3470 ENCROACHMENT STATIONS= 1230.0 1590.0 TYPE= 1 TARGET= 360.000
U/S FACE OF WATSON AVE. STA. 7+87

4294.000	10.94	599.24	0.00	0.00	599.34	0.10	0.00	0.00	595.00
1430.0	337.4	763.9	328.8	894.1	227.6	478.3	572.7	159.2	595.00
4.04	0.38	3.36	0.69	0.250	0.040	0.140	0.000	588.30	1230.00
0.000652	60.	60.	60.	2	0	6	0.00	360.00	1590.00

1490 NH CARD USED
#SECNO 4610.000

3470 ENCROACHMENT STATIONS= 1454.0 1653.0 TYPE= 1 TARGET= 199.000
D/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+71

4610.000	10.86	599.46	0.00	0.00	599.67	0.21	0.27	0.06	595.50
1430.0	0.0	1020.6	409.4	0.0	235.5	677.5	581.7	161.2	595.50
4.06	0.00	4.33	0.60	0.000	0.040	0.210	0.000	588.60	1454.00
0.001257	350.	316.	280.	1	0	0	0.00	199.00	1653.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EL MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	3.00	130.00	14.22	1.00	78.00	0.00	588.60	588.60

1490 NH CARD USED
*SECNO 4678.000
6870 D.S. ENERGY OF 599.67 IS HIGHER THAN COMPUTED ENERGY OF 599.53
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
610.10	599.70	0.03	1322.	115.	78.	78.	594.50	596.30	130.

3470 ENCROACHMENT STATIONS= 1454.0 1619.0 TYPE= 1 TARGET= 165.000
U/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+03

4678.000	10.86	599.46	0.00	0.00	599.67	0.21	0.00	0.00	595.50
1430.0	0.0	1021.3	408.7	0.0	235.6	554.8	583.1	161.5	595.50
4.07	0.00	4.34	0.74	0.000	0.040	0.174	0.000	588.60	1454.00
0.001257	68.	68.	68.	2	0	7	0.00	165.00	1619.00

1490 NH CARD USED
*SECNO 4853.000 498.9
D/S FACE SOUTHFIELD F/WAY CULVERT, CITY OF ALLEN PARK CORPORATE LIMIT

4853.000	9.61	599.61	0.00	0.00	599.87	0.26	0.18	0.03	590.00
1430.0	243.0	944.0	243.0	142.2	192.2	142.2	585.7	162.0	590.00
4.08	1.71	4.91	1.71	0.070	0.040	0.070	0.000	590.00	3010.42
0.000855	140.	175.	200.	2	0	0	0.00	79.15	3089.58

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.00	3.00	100.00	20.00	0.00	300.00	0.00	590.40	590.00

*SECNO 5181.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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	WEIRLN
601.02	600.30	0.00	0.	1430.	300.	144.	597.60	603.10	0.

3470 ENCROACHMENT STATIONS= 2904.0 3103.0 TYPE= 1 TARGET= 199.000
U/S FACE SOUTHFIELD F/WAY CULVERTS 599.4 INR Q's

5181.000	10.80	600.80	0.00	0.00	601.02	0.23	1.15	0.00	590.00
1430.0	223.7	982.6	223.7	179.3	215.9	179.3	589.7	162.6	590.00
4.11	1.25	4.55	1.25	0.100	0.045	0.100	0.000	590.00	3006.78
0.000796	328.	328.	328.	2	0	0	0.00	86.43	3093.22

1490 NH CARD USED
*SECNO 5336.000

3470 ENCROACHMENT STATIONS= 2218.0 2727.0 TYPE= 1 TARGET= 509.000
VALLEY AT FLEMMING DEAD END 27+00

5336.000	9.86	600.96	0.00	0.00	601.22	0.26	0.18	0.02	596.60
1950.0	20.4	1929.6	0.0	1413.0	465.7	0.0	594.5	163.8	601.40
4.12	0.01	4.14	0.00	10.000	0.045	0.000	0.000	591.10	2218.00
0.001664	185.	155.	125.	2	0	0	0.00	463.27	2681.27

CCHV= 0.400 CEHV= 0.600
1490 NH CARD USED
*SECNO 5486.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2063.0 2872.0 TYPE= 1 TARGET= 809.000
VALEY 269+50

5486.000	9.72	601.22	0.00	0.00	601.52	0.30	0.27	0.02	601.30
1950.0	335.1	1607.0	7.9	1224.4	331.8	13.3	600.5	165.7	600.20
4.13	0.27	4.84	0.59	0.398	0.045	0.050	0.000	591.50	2063.00
0.001981	150.	150.	150.	2	0	0	0.00	692.50	2872.00

T1 ECORSE CREEK FLOOD PROTECTION STUDY
T2 500 YEAR FLOOD FUTURE CONDITION
T3 NORTH BR ECORSE CREEK WITHOUT PROJECT

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	574.70	0.00
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

*PROF 2

CCHV= 0.300 CEHV= 0.500

*SECNO 1.000

1.000	11.50	574.90	0.00	574.90	575.81	0.91	0.00	0.00	584.60
5380.0	0.0	5380.0	0.0	0.0	701.3	0.0	0.0	0.0	584.60
0.00	0.00	7.67	0.00	0.000	0.030	0.000	0.000	563.40	529.17
0.001737	0.	0.	0.	0	0	0	0.00	89.83	619.00

*SECNO 30.000

30.000	11.57	574.97	0.00	0.00	575.87	0.90	0.05	0.00	584.60
5380.0	0.0	5380.0	0.0	0.0	706.5	0.0	0.5	0.1	584.60
0.00	0.00	7.61	0.00	0.000	0.030	0.000	0.000	563.40	528.69
0.001707	29.	29.	29.	1	0	0	0.00	90.31	619.00

*SECNO 60.000

60.000	11.64	575.04	0.00	0.00	575.92	0.88	0.05	0.01	584.60
5380.0	0.0	5380.0	0.0	0.0	714.3	0.0	1.0	0.1	584.60
0.00	0.00	7.53	0.00	0.000	0.030	0.000	0.000	563.40	527.97
0.001664	30.	30.	30.	2	0	0	0.00	91.03	619.00

*SECNO 61.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

WEST JEFFERSON AVENUE BRIDGE

61.000	11.55	574.95	0.00	0.00	576.02	1.07	0.00	0.10	584.30
5380.0	0.0	5380.0	0.0	0.0	647.0	0.0	1.0	0.1	584.60
0.00	0.00	8.32	0.00	0.000	0.030	0.000	0.000	563.40	528.76
0.003089	1.	1.	1.	2	0	0	0.00	83.24	619.00

*SECNO 136.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

136.000	11.89	575.29	0.00	0.00	576.27	0.99	0.22	0.03	584.30
5380.0	0.0	5380.0	0.0	0.0	675.5	0.0	2.1	0.3	584.60
0.00	0.00	7.96	0.00	0.000	0.030	0.000	0.000	563.40	525.95
0.002807	75.	75.	75.	2	0	0	0.00	86.05	619.00

*SECNO 137.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

137.000	12.16	575.56	0.00	0.00	576.34	0.77	0.00	0.06	584.60
5380.0	0.0	5380.0	0.0	0.0	762.9	0.0	2.1	0.3	584.60
0.00	0.00	7.05	0.00	0.000	0.030	0.000	0.000	563.40	524.78
0.001405	1.	1.	1.	2	0	0	0.00	94.22	619.00

*SECNO 187.000

187.000	11.50	575.60	0.00	0.00	576.47	0.87	0.09	0.05	583.10
5380.0	0.0	5380.0	0.0	0.0	718.4	0.0	3.0	0.4	580.20
0.01	0.00	7.49	0.00	0.000	0.035	0.000	0.000	564.10	340.74
0.002168	50.	50.	50.	2	0	0	0.00	92.59	433.33

1490 NH CARD USED
*SECNO 362.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

362.000	12.50	576.47	0.00	0.00	576.86	0.39	0.24	0.14	578.57
5380.0	0.0	5380.0	0.0	0.0	1073.5	0.0	6.6	0.9	577.17
0.02	0.00	5.01	0.00	0.000	0.034	0.000	0.000	563.97	249.66
0.000976	175.	175.	175.	2	0	0	0.00	148.82	398.49

1490 NH CARD USED
*SECNO 737.000

3470 ENCROACHMENT STATIONS= 244.0 373.0 TYPE= 1 TARGET= 129.000

737.000	13.17	576.87	0.00	0.00	577.25	0.38	0.39	0.00	578.30
5380.0	0.0	5380.0	0.0	0.0	1082.2	0.0	15.9	2.0	100000.00
0.04	0.00	4.97	0.00	0.000	0.040	0.000	0.000	563.70	247.87
0.001103	375.	375.	375.	2	0	0	0.00	125.13	373.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 787.000									
787.000	12.95	576.85	0.00	0.00	577.39	0.54	0.06	0.08	581.00
5380.0	0.0	5380.0	0.0	0.0	915.4	0.0	17.0	2.2	581.00
0.04	0.00	5.88	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001242	50.	50.	50.	2	0	0	0.00	106.60	901.60
*SECNO 788.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.50									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20									
D.T. AND I. RAILROAD									
788.000	12.89	576.79	0.00	0.00	577.44	0.65	0.00	0.06	581.00
5380.0	0.0	5380.0	0.0	0.0	831.4	0.0	17.0	2.2	581.00
0.04	0.00	6.47	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004880	1.	1.	1.	2	0	0	0.00	104.00	901.60
*SECNO 797.000									
3265 DIVIDED FLOW									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20									
797.000	12.95	576.85	0.00	0.00	577.49	0.64	0.04	0.00	581.00
5380.0	0.0	5380.0	0.0	0.0	837.1	0.0	17.2	2.2	581.00
0.04	0.00	6.43	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004778	9.	9.	9.	2	0	0	0.00	104.00	901.60
*SECNO 798.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.02									
798.000	13.11	577.01	0.00	0.00	577.53	0.52	0.00	0.04	581.00
5380.0	0.0	5380.0	0.0	0.0	933.0	0.0	17.2	2.2	581.00
0.04	0.00	5.77	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001170	1.	1.	1.	2	0	0	0.00	106.60	901.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 844.000									
844.000	12.08	577.08	0.00	0.00	577.59	0.51	0.05	0.00	581.50
5380.0	0.0	5380.0	0.0	0.0	942.4	0.0	18.2	2.3	581.40
0.04	0.00	5.71	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.001100	46.	46.	46.	2	0	0	0.00	109.00	724.00
*SECNO 845.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48									
3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40									
CONRAIL									
845.000	12.03	577.03	0.00	0.00	577.64	0.61	0.00	0.05	581.50
5380.0	0.0	5380.0	0.0	0.0	860.8	0.0	18.2	2.3	581.40
0.04	0.00	6.25	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.004733	1.	1.	1.	2	0	0	-7.47	104.00	724.00
*SECNO 859.000									
3265 DIVIDED FLOW									
3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40									
859.000	12.11	577.11	0.00	0.00	577.71	0.60	0.07	0.00	581.50
5380.0	0.0	5380.0	0.0	0.0	866.3	0.0	18.5	2.4	581.40
0.04	0.00	6.21	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.004731	15.	15.	15.	2	0	0	-10.08	104.00	724.00
*SECNO 860.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.14									
860.000	12.26	577.26	0.00	0.00	577.74	0.49	0.00	0.03	581.50
5380.0	0.0	5380.0	0.0	0.0	961.9	0.0	18.5	2.4	581.40
0.04	0.00	5.59	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.001032	1.	1.	1.	2	0	0	0.00	109.00	724.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 910.000									
910.000	13.35	577.35	0.00	0.00	577.80	0.46	0.05	0.01	583.10
5380.0	0.0	5380.0	0.0	0.0	991.9	0.0	19.7	2.5	583.00
0.05	0.00	5.42	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000941	50.	50.	50.	2	0	0	0.00	107.00	942.00
*SECNO 911.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48									
3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60									
RAILROAD SPUR									
911.000	13.30	577.30	0.00	0.00	577.85	0.55	0.00	0.05	583.10
5380.0	0.0	5380.0	0.0	0.0	905.5	0.0	19.7	2.5	583.00
0.05	0.00	5.94	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.004056	1.	1.	1.	2	0	0	0.00	105.00	942.00
*SECNO 921.000									
3265 DIVIDED FLOW									
3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60									
921.000	13.35	577.35	0.00	0.00	577.89	0.54	0.04	0.00	583.10
5380.0	0.0	5380.0	0.0	0.0	910.5	0.0	19.9	2.5	583.00
0.05	0.00	5.91	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003987	10.	10.	10.	2	0	0	0.00	105.00	942.00
*SECNO 922.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.11									
922.000	13.48	577.48	0.00	0.00	577.92	0.44	0.00	0.03	583.10
5380.0	0.0	5380.0	0.0	0.0	1006.2	0.0	19.9	2.5	583.00
0.05	0.00	5.35	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000900	1.	1.	1.	2	0	0	0.00	107.00	942.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 953.000

953.000	12.29	577.39	0.00	0.00	578.08	0.70	0.03	0.13	581.00
5380.0	0.0	5380.0	0.0	0.0	802.8	0.0	20.6	2.6	580.80
0.05	0.00	6.70	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001432	31.	31.	31.	2	0	0	0.00	81.00	681.00

*SECNO 954.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.42

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

D.T. AND I. RAILROAD BRIDGE

954.000	12.10	577.20	0.00	0.00	578.28	1.07	0.00	0.19	581.00
5380.0	0.0	5380.0	0.0	0.0	647.0	0.0	20.6	2.6	580.80
0.05	0.00	8.32	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.008151	1.	1.	1.	2	0	0	0.00	67.20	681.00

*SECNO 985.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

985.000	12.43	577.53	0.00	0.00	578.54	1.00	0.24	0.02	581.00
5380.0	0.0	5380.0	0.0	0.0	669.2	0.0	21.0	2.6	580.80
0.05	0.00	8.04	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.007507	31.	31.	31.	2	0	0	0.00	67.20	681.00

*SECNO 986.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.52

986.000	12.94	578.04	0.00	0.00	578.65	0.61	0.00	0.12	581.00
5380.0	0.0	5380.0	0.0	0.0	856.1	0.0	21.0	2.6	580.80
0.05	0.00	6.28	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001178	1.	1.	1.	2	0	0	0.00	81.00	681.00

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

*SECNO 1036.000

3470 ENCROACHMENT STATIONS= 0.0 700.0 TYPE= 1 TARGET= 699.999

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.10 ELREA= 100000.00

1036.000	12.11	578.31	0.00	0.00	578.76	0.45	0.06	0.05	581.10
5380.0	0.0	5380.0	0.0	0.0	997.4	0.0	22.1	2.7	100000.00
0.05	0.00	5.39	0.00	0.000	0.035	0.000	0.000	566.20	575.78
0.001048	50.	50.	50.	2	0	0	0.00	124.22	700.00

*SECNO 1736.000

3470 ENCROACHMENT STATIONS= 374.0 492.5 TYPE= 1 TARGET= 118.500

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.10 ELREA= 100000.00

1736.000	13.65	579.05	0.00	0.00	579.41	0.36	0.63	0.03	579.10
5380.0	0.0	5380.0	0.0	0.0	1116.1	0.0	39.1	4.7	100000.00
0.09	0.00	4.82	0.00	0.000	0.035	0.000	0.000	565.40	374.10
0.000773	700.	700.	700.	2	0	0	0.00	118.40	492.50

*SECNO 2436.000

3470 ENCROACHMENT STATIONS= 183.0 285.0 TYPE= 1 TARGET= 102.000

DS OF CONFL. WITH SOUTH BRANCH ECORSE CREEK

2436.000	14.94	579.54	0.00	0.00	579.92	0.38	0.50	0.01	577.10
5380.0	0.0	5380.0	0.0	0.0	1083.8	0.0	56.8	6.5	100000.00
0.13	0.00	4.96	0.00	0.000	0.035	0.000	0.000	564.60	183.00
0.000656	700.	700.	700.	2	0	0	0.00	102.00	285.00

CCHV= 0.300 CEHV= 0.500
*SECNO 2736.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.64

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 1 TARGET= 100.000

2736.000	10.93	580.03	0.00	0.00	580.15	0.11	0.14	0.08	578.60
2190.0	0.0	2190.0	0.0	0.0	813.8	0.0	63.3	7.2	100000.00
0.16	0.00	2.69	0.00	0.000	0.035	0.000	0.000	567.10	300.00
0.000264	300.	300.	300.	2	0	0	0.00	100.00	400.00

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

*SECNO 3436.000

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 578.98 ELREA= 100000.00

3436.000	10.74	580.22	0.00	0.00	580.34	0.12	0.19	0.00	578.98
2190.0	0.0	2190.0	0.0	0.0	794.7	0.0	76.2	8.8	100000.00
0.23	0.00	2.76	0.00	0.000	0.035	0.000	0.000	569.48	300.00
0.000284	700.	700.	700.	2	0	0	0.00	100.00	400.00

*SECNO 3836.000

3470 ENCROACHMENT STATIONS= 200.0 300.0 TYPE= 1 TARGET= 100.000

3836.000	10.65	580.35	0.00	0.00	580.52	0.18	0.15	0.03	578.50
2190.0	0.0	2190.0	0.0	0.0	651.0	0.0	82.9	9.7	100000.00
0.27	0.00	3.36	0.00	0.000	0.035	0.000	0.000	569.70	200.00
0.000548	400.	400.	400.	1	0	0	0.00	100.00	300.00

*SECNO 4311.000

3470 ENCROACHMENT STATIONS= 200.0 290.0 TYPE= 1 TARGET= 90.000

4311.000	10.69	580.59	0.00	0.00	580.77	0.17	0.24	0.00	578.70
2190.0	0.0	2190.0	0.0	0.0	652.7	0.0	90.0	10.7	100000.00
0.30	0.00	3.36	0.00	0.000	0.035	0.000	0.000	569.70	200.00
0.000479	475.	475.	475.	2	0	0	0.00	90.00	290.00

*SECNO 4786.000

3470 ENCROACHMENT STATIONS= 393.0 500.0 TYPE= 1 TARGET= 107.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.10 ELREA= 100000.00

4786.000	10.75	580.85	0.00	0.00	580.98	0.13	0.19	0.01	580.10
2190.0	0.0	2190.0	0.0	0.0	765.4	0.0	97.7	11.8	100000.00
0.35	0.00	2.86	0.00	0.000	0.035	0.000	0.000	570.10	393.00
0.000353	475.	475.	475.	1	0	0	0.00	107.00	500.00

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

*SECNO 4825.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

4825.000	10.07	580.87	0.00	0.00	580.99	0.12	0.01	0.00	579.40
2190.0	0.0	2190.0	0.0	0.0	794.1	0.0	98.4	11.9	585.00
0.35	0.00	2.76	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000295	39.	39.	39.	0	0	0	0.00	98.00	598.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3.17	570.80	570.80

*SECNO 4846.000
6870 D.S. ENERGY OF 580.99 IS HIGHER THAN COMPUTED ENERGY OF 580.92
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	FLTRD	WEIRLN
581.21	580.99	0.00	1356.	836.	538.	566.	578.30	579.40	777.

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

MILL STREET BRIDGE

4846.000	10.07	580.87	0.00	0.00	580.99	0.12	0.00	0.00	579.40
2190.0	0.0	2190.0	0.0	0.0	794.9	0.0	98.8	11.9	585.00
0.36	0.00	2.76	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000294	21.	21.	21.	2	0	8	0.00	98.00	598.00

*SECNO 4847.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	GSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
ELENCL= 585.00 ELENCR= 585.00									
4847.000	10.07	580.87	0.00	0.00	580.99	0.12	0.00	0.00	579.40
2190.0	0.0	2190.0	0.0	0.0	794.9	0.0	98.8	11.9	585.00
0.36	0.00	2.76	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000294	1.	1.	1.	0	0	0	0.00	98.00	598.00

*SECNO 5436.000

3265 DIVIDED FLOW

3280 CROSS SECTION 5436.00 EXTENDED 1.34 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.84 ELREA= 581.14

5436.000	10.44	581.08	0.00	0.00	581.17	0.09	0.17	0.01	580.84
2190.0	387.2	1802.8	0.0	466.3	697.2	0.0	112.0	15.7	581.14
0.43	0.83	2.59	0.00	0.040	0.035	0.000	0.000	570.64	0.00
0.000290	589.	589.	589.	2	0	0	0.00	462.61	593.84

*SECNO 5936.000

3470 ENCROACHMENT STATIONS= 400.0 600.0 TYPE= 1 TARGET= 200.000

5936.000	10.72	581.22	0.00	0.00	581.36	0.14	0.16	0.03	580.70
2190.0	3.8	2185.8	0.4	12.8	725.6	1.5	123.0	19.3	581.00
0.48	0.30	3.01	0.28	0.040	0.035	0.040	0.000	570.50	445.78
0.000374	500.	500.	500.	0	0	0	0.00	154.22	600.00

*SECNO 6416.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.93 ELREA= 581.93

6416.000	11.09	581.42	0.00	0.00	581.65	0.23	0.24	0.04	581.93
2190.0	0.0	2190.0	0.0	0.0	573.2	0.0	130.2	20.6	581.93
0.51	0.00	3.82	0.00	0.000	0.035	0.000	0.000	570.33	570.84
0.000710	480.	480.	480.	2	0	0	0.00	88.01	658.85

*SECNO 6786.000

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

3280 CROSS SECTION 6786.00 EXTENDED 0.41 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.80 ELREA= 581.80

6786.000	11.51	581.71	0.00	0.00	581.91	0.20	0.25	0.01	581.80
2190.0	0.0	2190.0	0.0	0.0	612.1	0.0	135.2	21.4	581.80
0.54	0.00	3.58	0.00	0.000	0.035	0.000	0.000	570.20	561.95
0.000653	370.	370.	370.	2	0	0	0.00	97.84	659.79

*SECNO 6835.000

6835.000	10.12	581.69	0.00	0.00	582.00	0.30	0.04	0.05	583.17
2190.0	0.0	2190.0	0.0	0.0	494.9	0.0	135.9	21.5	583.17
0.54	0.00	4.43	0.00	0.000	0.035	0.000	0.000	571.57	578.61
0.000989	49.	49.	49.	2	0	0	0.00	78.07	656.67

*SECNO 6836.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.70

6836.000	10.37	581.97	0.00	0.00	582.06	0.09	0.00	0.06	582.00
2190.0	233.7	1752.7	203.6	382.3	639.5	349.3	135.9	21.5	582.00
0.54	0.61	2.74	0.58	0.040	0.035	0.040	0.000	571.60	309.94
0.000342	1.	1.	1.	2	0	0	0.00	1174.33	1494.03

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.90	0.00	60.00	0.00	308.00	0.00	571.60	571.60

*SECNO 6916.000
6870 D.S. ENERGY OF 582.06 IS HIGHER THAN COMPUTED ENERGY OF 582.02
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

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

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
583.14	582.15	0.00	1716.	472.	308.	324.	577.00	582.00	1207.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.00 ELREA= 582.00

SOUTHFIELD ROAD BRIDGE

6916.000	10.28	581.88	0.00	0.00	582.06	0.19	0.00	0.00	582.00
2190.0	0.0	2190.0	0.0	0.0	632.6	0.0	137.7	22.6	582.00
0.55	0.00	3.46	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000552	80.	80.	80.	6	0	6	0.00	73.00	973.00

*SECNO 6917.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.20 ELREA= 583.20

6917.000	10.25	581.85	0.00	0.00	582.09	0.23	0.00	0.02	583.20
1960.0	0.0	1960.0	0.0	0.0	504.9	0.0	137.7	22.7	583.20
0.55	0.00	3.88	0.00	0.000	0.035	0.000	0.000	571.60	578.30
0.000749	1.	1.	1.	2	0	0	0.00	73.66	656.96

*SECNO 7436.000

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 1 TARGET= 100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.80 ELREA= 100000.00

7436.000	11.06	582.26	0.00	0.00	582.44	0.18	0.34	0.02	582.80
1960.0	0.0	1960.0	0.0	0.0	570.3	0.0	144.1	23.6	100000.00
0.59	0.00	3.44	0.00	0.000	0.035	0.000	0.000	571.20	571.56
0.000572	519.	519.	519.	2	0	0	0.00	87.22	658.77

*SECNO 7936.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 7936.00 EXTENDED 0.92 FEET

7936.000	11.81	582.61	0.00	0.00	582.70	0.08	0.23	0.03	582.50
1960.0	386.4	1533.4	40.2	476.4	588.3	103.8	154.1	28.8	582.80
0.65	0.81	2.61	0.39	0.040	0.035	0.040	0.000	570.80	0.00
0.000371	500.	500.	500.	2	0	0	0.00	805.59	991.00

*SECNO 8536.000
3280 CROSS SECTION 8536.00 EXTENDED 0.43 FEET

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

8536.000	11.93	582.83	0.00	0.00	582.95	0.12	0.24	0.02	581.80
1960.0	108.3	1843.4	8.3	137.3	641.2	13.3	167.6	36.0	582.10
0.71	0.79	2.88	0.63	0.040	0.035	0.040	0.000	570.90	150.00
0.000420	600.	600.	600.	2	0	0	0.00	250.00	400.00

*SECNO 9136.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.43

9136.000	12.21	583.11	0.00	0.00	583.15	0.03	0.17	0.03	582.20
1960.0	8.3	1381.7	570.1	26.1	811.6	712.5	183.7	42.2	581.20
0.83	0.32	1.70	0.80	0.040	0.035	0.040	0.000	570.90	82.87
0.000206	600.	600.	600.	2	0	0	0.00	647.26	730.13

*SECNO 9586.000

9586.000	12.27	583.20	0.00	0.00	583.24	0.04	0.09	0.00	582.23
1960.0	8.8	1311.3	639.9	29.2	699.6	853.8	199.9	48.9	581.13
0.91	0.30	1.87	0.75	0.040	0.035	0.040	0.000	570.93	79.58
0.000174	450.	450.	450.	2	0	0	0.00	653.54	733.12

*SECNO 9596.000
3280 CROSS SECTION 9596.00 EXTENDED 0.65 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 245.0 445.0 TYPE= 1 TARGET= 200.000

9596.000	12.18	583.16	0.00	0.00	583.28	0.12	0.00	0.04	581.38
1960.0	204.1	1755.9	0.0	178.2	616.4	0.0	200.2	49.0	100000.00
0.91	1.15	2.85	0.00	0.040	0.035	0.000	0.000	570.98	245.00
0.000454	10.	10.	10.	2	0	0	0.00	200.00	445.00

*SECNO 10286.000
3280 CROSS SECTION 10286.00 EXTENDED 0.96 FEET

3470 ENCROACHMENT STATIONS= 245.0 445.0 TYPE= 1 TARGET= 200.000

10286.000	12.46	583.46	0.00	0.00	583.56	0.10	0.28	0.01	581.90
1960.0	233.5	1726.5	0.0	206.4	652.6	0.0	213.3	52.2	100000.00
0.99	1.13	2.65	0.00	0.040	0.035	0.000	0.000	571.00	245.00
0.000365	690.	690.	690.	2	0	0	0.00	200.00	445.00

*SECNO 10336.000
3280 CROSS SECTION 10336.00 EXTENDED 0.47 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.50

10336.000	11.07	583.57	0.00	0.00	583.59	0.02	0.01	0.02	579.80
1960.0	476.0	1096.9	387.1	866.2	825.8	819.6	215.2	52.8	580.00
1.01	0.55	1.33	0.47	0.040	0.035	0.040	0.000	572.50	0.00
0.000059	50.	50.	50.	2	0	0	0.00	932.91	932.91

*SECNO 10636.000
3280 CROSS SECTION 10636.00 EXTENDED 0.47 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.26

3470 ENCROACHMENT STATIONS= 655.0 800.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 584.57 ELREA= 100000.00

10636.000	11.07	583.54	0.00	0.00	583.72	0.18	0.04	0.08	584.57
1960.0	0.0	1960.0	0.0	0.0	578.4	0.0	225.9	56.5	100000.00
1.03	0.00	3.39	0.00	0.000	0.035	0.000	0.000	572.47	673.91
0.000875	300.	300.	300.	2	0	0	0.00	126.09	800.00

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

*SECNO 11536.000
3280 CROSS SECTION 11536.00 EXTENDED 1.32 FEET

3470 ENCROACHMENT STATIONS= 655.0 859.0 TYPE= 1 TARGET= 200.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 584.50 ELREA= 100000.00

VALLEY SECTION

11536.000	11.92	584.32	0.00	0.00	584.43	0.11	0.69	0.02	584.50
1960.0	0.0	1960.0	0.0	0.0	740.6	0.0	239.5	59.8	100000.00
1.13	0.00	2.65	0.00	0.000	0.035	0.000	0.000	572.40	658.30
0.000682	900.	900.	900.	2	0	0	0.00	196.70	855.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 12274.000

3470 ENCROACHMENT STATIONS= 900.0 1050.0 TYPE= 1 TARGET= 150.000

CITY OF ECORSE CORP. BOUNDARY

12274.000	11.18	584.68	0.00	0.00	584.80	0.12	0.37	0.01	575.20
1960.0	309.0	1646.8	4.2	286.1	541.0	36.2	253.1	62.8	574.90
1.20	1.08	3.04	0.12	0.058	0.045	0.500	0.000	573.50	700.00
0.000375	738.	738.	738.	2	0	0	0.00	150.00	1050.00

1490 NH CARD USED
*SECNO 12324.000
3280 CROSS SECTION 12324.00 EXTENDED 0.11 FEET

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

D/S FACE OF AUSTIN

12324.000	11.12	584.72	0.00	0.00	584.83	0.10	0.02	0.01	574.10
1960.0	424.5	1535.1	0.4	365.4	542.1	9.6	254.1	62.9	573.80
1.21	1.16	2.83	0.05	0.055	0.045	0.500	0.000	573.60	720.00
0.000307	50.	50.	50.	1	0	0	0.00	145.00	1065.00

1490 NH CARD USED
*SECNO 12325.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12368.000	11.21	584.81	0.00	0.00	584.91	0.10	0.00	0.00	574.10
1960.0	431.6	1527.9	0.4	373.2	546.3	9.7	254.9	63.1	573.80
1.21	1.16	2.80	0.05	0.055	0.045	0.500	0.000	573.60	920.00
0.000297	1.	1.	1.	1	0	0	0.00	145.00	1065.00

1490 NH CARD USED
*SECNO 12418.000
3280 CROSS SECTION 12418.00 EXTENDED 0.22 FEET

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000
VALLEY SECTION 50' U/S OF AUSTIN

12418.000	11.22	584.82	0.00	0.00	584.92	0.10	0.01	0.00	574.10
1960.0	433.8	1525.7	0.4	375.6	547.6	9.7	255.9	63.2	573.80
1.22	1.15	2.79	0.05	0.055	0.045	0.500	0.000	573.60	920.00
0.000294	50.	50.	50.	2	0	0	0.00	145.00	1065.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 13295.000

3470 ENCROACHMENT STATIONS= 594.0 992.0 TYPE= 1 TARGET= 398.000
VALLEY SECTION BTWN AUSTIN AND VICTORIA

13295.000	11.84	585.14	0.00	0.00	585.26	0.12	0.33	0.01	584.00
1960.0	119.6	1758.8	81.6	381.9	597.3	308.5	276.1	67.7	580.70
1.30	0.31	2.94	0.26	0.155	0.045	0.300	0.000	573.30	594.00
0.000542	600.	877.	950.	2	0	0	0.00	398.00	992.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 13676.000
3280 CROSS SECTION 13676.00 EXTENDED 0.31 FEET

3470 ENCROACHMENT STATIONS= 348.0 543.0 TYPE= 1 TARGET= 195.000
VALLEY SECTION 50' D/S OF VICTORIA

13676.000	12.41	585.31	0.00	0.00	585.44	0.13	0.18	0.01	574.90
1960.0	413.5	1398.2	148.3	582.4	404.3	190.5	285.3	69.9	575.60
1.34	0.71	3.46	0.78	0.120	0.045	0.121	0.000	572.90	348.00
0.000441	381.	381.	100.	2	0	0	0.00	195.00	543.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 13726.000
3280 CROSS SECTION 13726.00 EXTENDED 0.29 FEET

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
D/S FACE OF VICTORIA

13726.000	12.29	585.29	0.00	0.00	585.51	0.22	0.03	0.04	573.00
1960.0	308.1	1439.1	212.8	417.1	333.1	180.0	286.5	70.2	573.00
1.35	0.74	4.32	1.18	0.120	0.045	0.107	0.000	573.00	350.00
0.000603	50.	50.	50.	2	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 13727.000
3280 CROSS SECTION 13727.00 EXTENDED 0.29 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.42

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE D/S FACE OF VICTORIA BRIDGE

13727.000	12.29	585.29	0.00	0.00	585.51	0.23	0.00	0.01	573.00
1960.0	552.8	1234.7	172.5	360.4	264.1	102.7	286.5	70.2	573.00
1.35	1.53	4.68	1.68	0.120	0.035	0.120	0.000	573.00	350.00
0.003479	1.	1.	1.	0	0	0	-203.02	170.00	520.00

1490 NH CARD USED
*SECNO 13964.000
3280 CROSS SECTION 13964.00 EXTENDED 1.04 FEET

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE U/S FACE OF VICTORIA BRIDGE

13964.000	13.04	586.04	0.00	0.00	586.20	0.16	0.66	0.02	573.00
1960.0	640.3	1132.8	186.9	447.8	284.4	122.5	290.8	71.1	573.00
1.37	1.43	3.98	1.53	0.120	0.035	0.119	0.000	573.00	350.00
0.002288	237.	237.	237.	2	0	0	-203.02	170.00	520.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI.MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 13965.000
3280 CROSS SECTION 13965.00 EXTENDED 1.04 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.23

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
U/S FACE OF VICTORIA

13965.000	13.03	586.03	0.00	0.00	586.21	0.17	0.00	0.01	573.00
1960.0	359.7	1384.5	215.9	504.8	353.5	199.9	290.9	71.1	573.00
1.37	0.71	3.92	1.08	0.120	0.045	0.107	0.000	573.00	350.00
0.000458	1.	1.	1.	0	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14015.000
3280 CROSS SECTION 14015.00 EXTENDED 1.14 FEET

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
VALLEY SECTION 50' U/S OF VICTORIA

14015.000	13.14	586.14	0.00	0.00	586.24	0.10	0.02	0.02	573.00
1960.0	439.1	1101.3	419.7	516.5	356.2	202.5	292.1	71.3	573.00
1.37	0.85	3.09	2.07	0.080	0.045	0.044	0.000	573.00	350.00
0.000282	50.	50.	50.	2	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14287.000

3470 ENCROACHMENT STATIONS= 200.0 520.0 TYPE= 1 TARGET= 320.000
VALLEY SECTION 50' D/S OF N.B. FORT ST.

14287.000	11.79	586.29	0.00	0.00	586.32	0.04	0.06	0.02	583.70
1960.0	78.6	1136.6	744.8	180.4	620.3	641.9	300.0	72.8	582.60
1.42	0.44	1.83	1.16	0.080	0.045	0.040	0.000	574.50	200.00
0.000178	272.	272.	272.	2	0	0	0.00	320.00	520.00

1490 NH CARD USED
*SECNO 14337.000

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

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

D/S FACE OF N.B. FORT ST.

14337.000	11.69	586.29	0.00	0.00	586.33	0.04	0.01	0.00	578.40
1960.0	101.0	954.0	905.0	204.2	499.8	769.1	301.6	73.2	578.40
1.43	0.49	1.91	1.18	0.080	0.045	0.040	0.000	574.60	380.00
0.000167	50.	50.	50.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14338.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.66

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

1' INSIDE OF D/S FACE N.B. FORT ST.

14338.000	11.69	586.29	0.00	0.00	586.33	0.04	0.00	0.00	578.40
1960.0	121.9	572.1	1266.0	180.8	396.1	734.7	301.7	73.2	578.40
1.43	0.67	1.44	1.72	0.080	0.035	0.040	0.000	574.60	380.00
0.000385	1.	1.	1.	0	0	0	-160.96	320.00	700.00

1490 NH CARD USED
*SECNO 14402.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

1' INSIDE OF U/S FACE N.B. FORT ST.

14402.000	11.72	586.32	0.00	0.00	586.36	0.04	0.02	0.00	578.40
1960.0	122.4	570.5	1267.1	181.9	396.9	738.0	303.6	73.7	578.40
1.44	0.67	1.44	1.72	0.080	0.035	0.040	0.000	574.60	380.00
0.000380	64.	64.	64.	0	0	0	-160.96	320.00	700.00

1490 NH CARD USED
*SECNO 14403.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.52

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

U/S FACE N.B.	FORT ST.							
14403.000	11.72	586.32	0.00	0.00	586.36	0.04	0.00	0.00	578.40
1960.0	101.5	951.1	907.4	205.7	500.9	773.6	303.6	73.7	578.40
1.44	0.49	1.90	1.17	0.080	0.045	0.040	0.000	574.60	380.00
0.000164	1.	1.	1.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14460.000

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

D/S FACE S.B.	FORT ST.							
14460.000	13.72	586.32	0.00	0.00	586.38	0.07	0.01	0.01	578.90
1960.0	109.5	1420.9	429.5	236.7	588.0	899.5	305.7	74.1	578.90
1.45	0.46	2.42	0.48	0.080	0.040	0.100	0.000	572.60	370.00
0.000185	57.	57.	57.	2	0	0	0.00	400.00	770.00

1490 NH CARD USED
*SECNO 14461.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.51

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

1' INSIDE D/S S.B.	FORT ST.							
14461.000	13.75	586.35	0.00	0.00	586.39	0.04	0.00	0.01	578.90
1960.0	162.5	990.4	807.1	208.9	471.1	881.2	305.8	74.1	578.90
1.45	0.78	2.10	0.92	0.080	0.035	0.100	0.000	572.60	370.00
0.000698	1.	1.	1.	2	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14521.000

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

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
1' INSIDE U/S FACE S.B. FORT ST.

14521.000	13.79	586.39	0.00	0.00	586.43	0.04	0.04	0.00	578.90
1960.0	165.1	984.9	810.0	212.5	472.9	889.6	307.9	74.7	578.90
1.46	0.78	2.08	0.91	0.080	0.035	0.100	0.000	572.60	370.00
0.000681	60.	60.	60.	1	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14522.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.95

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
U/S FACE S.B. FORT ST.

14522.000	13.78	586.38	0.00	0.00	586.45	0.06	0.00	0.01	578.90
1960.0	112.8	1411.6	435.6	244.0	591.8	916.7	308.0	74.7	578.90
1.46	0.46	2.39	0.48	0.080	0.040	0.100	0.000	572.60	370.00
0.000178	1.	1.	1.	1	0	0	0.00	400.00	770.00

1490 NH CARD USED
*SECNO 14572.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.65

3470 ENCROACHMENT STATIONS= 290.0 710.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION 50' U/S OF S.B. FORT ST.

14572.000	13.72	586.42	0.00	0.00	586.46	0.04	0.01	0.01	584.20
1370.0	75.9	917.9	376.2	263.6	483.1	894.8	309.9	75.2	583.40
1.47	0.29	1.90	0.42	0.120	0.045	0.120	0.000	572.70	290.00
0.000204	50.	50.	50.	2	0	0	0.00	420.00	710.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED

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

*SECNO 15292.000
3280 CROSS SECTION 15292.00 EXTENDED 0.10 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.56

3470 ENCROACHMENT STATIONS= 159.0 225.0 TYPE= 1 TARGET= 66.000

15292.000	12.20	586.60	0.00	0.00	586.73	0.14	0.24	0.03	587.20
1370.0	0.0	1370.0	0.0	0.0	464.3	0.0	326.6	79.0	100000.00
1.54	0.00	2.95	0.00	0.000	0.045	0.000	0.000	574.40	160.79
0.000656	720.	720.	650.	2	0	0	0.00	64.21	225.00

CCHV= 0.300 CEHV= 0.500
*SECNO 15820.000
3280 CROSS SECTION 15820.00 EXTENDED 1.44 FEET

3470 ENCROACHMENT STATIONS= 50.0 162.0 TYPE= 1 TARGET= 112.000
VALLEY SECTION 50' D/S OF LAFAYETTE

15820.000	9.84	586.84	0.00	0.00	587.08	0.24	0.30	0.05	577.70
1370.0	105.7	1176.1	88.2	74.2	280.3	107.1	332.1	80.0	578.30
1.58	1.42	4.20	0.82	0.050	0.035	0.080	0.000	577.00	50.00
0.000498	350.	528.	550.	2	0	0	0.00	112.00	162.00

*SECNO 15870.000
3280 CROSS SECTION 15870.00 EXTENDED 1.52 FEET

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000
D/S FACE OF LAFAYETTE

15870.000	9.92	586.92	0.00	0.00	587.12	0.19	0.02	0.01	577.00
1370.0	177.3	1081.5	111.3	113.6	277.9	114.8	332.6	80.1	577.00
1.58	1.56	3.89	0.97	0.050	0.035	0.080	0.000	577.00	50.00
0.000394	50.	50.	50.	2	0	0	0.00	100.00	150.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.65	3.00	0.00	28.00	0.00	168.00	0.00	577.00	577.00

*SECNO 15914.000
3280 CROSS SECTION 15914.00 EXTENDED 1.72 FEET

PRESSURE AND WEIR FLOW. Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
588.63	587.12	0.00	728.	641.	168.	168.	583.00	585.40	200.

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000
U/S FACE OF LAFAYETTE

15914.000	10.12	587.12	0.00	0.00	587.30	0.18	0.18	0.00	577.00
1370.0	182.8	1072.5	114.8	120.6	283.3	121.8	333.1	80.2	577.00
1.59	1.52	3.79	0.94	0.050	0.035	0.080	0.000	577.00	50.00
0.000363	44.	44.	44.	2	0	3	0.00	100.00	150.00

*SECNO 15964.000
3280 CROSS SECTION 15964.00 EXTENDED 1.68 FEET

3470 ENCROACHMENT STATIONS= 0.0 150.0 TYPE= 1 TARGET= 149.999
VALLEY SECTION 50' U/S OF LAFAYETTE

15964.000	10.08	587.08	0.00	0.00	587.38	0.29	0.02	0.06	577.70
1370.0	195.5	1108.7	65.8	143.0	231.8	74.0	333.7	80.4	577.80
1.59	1.37	4.78	0.89	0.050	0.035	0.080	0.000	577.00	0.00
0.000619	50.	50.	50.	2	0	0	0.00	150.00	150.00

1490 NH CARD USED
*SECNO 16194.000
VALLEY SECTION 50' D/S OF I-75

16194.000	10.95	587.45	0.00	0.00	587.56	0.11	0.12	0.05	587.80
1370.0	0.0	1261.7	108.3	0.0	458.3	104.0	336.4	81.0	578.60
1.62	0.00	2.75	1.04	0.000	0.045	0.080	0.000	576.50	775.92
0.000472	230.	230.	230.	2	0	0	0.00	82.60	858.53

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16244.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.42

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

D/S FACE OF I-75 BRIDGE

16244.000	10.75	587.25	0.00	0.00	587.84	0.59	0.05	0.24	603.60
1370.0	0.0	1370.0	0.0	0.0	222.1	0.0	336.8	81.0	578.60
1.62	0.00	6.17	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.002628	50.	50.	50.	2	0	0	0.00	22.93	841.50

*SECNO 16245.000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16245.000	10.75	587.25	0.00	0.00	587.85	0.60	0.00	0.00	603.60
1370.0	0.0	1370.0	0.0	0.0	221.2	0.0	336.8	81.0	578.60
1.62	0.00	6.19	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.001630	1.	1.	1.	0	0	0	-1.09	22.93	841.50

*SECNO 16503.000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16503.000	11.21	587.71	0.00	0.00	588.26	0.54	0.39	0.02	603.60
1370.0	0.0	1370.0	0.0	0.0	231.7	0.0	338.2	81.2	578.60
1.63	0.00	5.91	0.00	0 000	0.030	0.000	0.000	576.50	818.56
0.001440	258.	258.	258.	2	0	0	-1.21	22.94	841.50

*SECNO 16504.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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= 603.60 ELREA= 603.60

U/S FACE OF I-75 BRIDGE

16504.000	11.46	587.96	0.00	0.00	588.32	0.36	0.00	0.06	603.60
1140.0	0.0	1140.0	0.0	0.0	238.4	0.0	338.2	81.2	578.60
1.63	0.00	4.78	0.00	0.000	0.045	0.000	0.000	576.50	818.56
0.001481	1.	1.	1.	2	0	0	0.00	22.94	841.50

*SECNO 16554.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.12

3470 ENCROACHMENT STATIONS= 558.0 683.0 TYPE= 1 TARGET= 125.000

VALLEY SECTION 50' U/S OF I-75 BRIDGE

16554.000	11.72	588.32	0.00	0.00	588.42	0.10	0.03	0.08	578.80
1140.0	72.7	910.7	156.7	83.2	317.8	176.9	338.6	81.2	578.90
1.64	0.87	2.87	0.89	0.080	0.045	0.080	0.000	576.60	587.52
0.000329	50.	50.	50.	2	0	0	0.00	95.48	683.00

1490 NH CARD USED
*SECNO 16826.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.62

3470 ENCROACHMENT STATIONS= 394.0 456.0 TYPE= 1 TARGET= 62.000

VALLEY SECTION 50' D/S OFINDUSTRIAL DR.

16826.000	13.14	588.44	0.00	0.00	588.49	0.05	0.05	0.02	575.40
1140.0	160.9	858.6	120.5	163.3	418.7	130.5	342.7	81.7	575.40
1.68	0.98	2.05	0.92	0.060	0.045	0.060	0.000	575.30	394.00
0.000125	272.	272.	272.	2	0	0	0.00	62.00	456.00

1490 NH CARD USED
*SECNO 16876.000
3280 CROSS SECTION 16876.00 EXTENDED 1.12 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI.MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

D/S FACE OF INDUSTRIAL DR.

16876.000	13.82	588.42	0.00	0.00	588.52	0.10	0.01	0.02	574.60
1140.0	0.0	1140.0	0.0	0.0	457.5	0.0	343.3	81.8	574.60
1.68	0.00	2.49	0.00	0.000	0.045	0.000	0.000	574.60	290.00
0.000172	50.	50.	50.	2	0	0	0.00	33.10	323.10

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.82	3.00	0.00	26.83	0.00	264.00	0.00	574.90	574.60

1490 NH CARD USED
*SECNO 16963.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
588.95	588.82	0.00	0.	1140.	264.	271.	585.00	589.70	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

U/S FACE OF INDUSTRIAL DR.

16963.000	13.95	588.85	0.00	0.00	588.95	0.09	0.43	0.00	574.90
1140.0	0.0	1140.0	0.0	0.0	461.9	0.0	344.3	81.9	574.90
1.69	0.00	2.47	0.00	0.000	0.045	0.000	0.000	574.90	290.00
0.000166	87.	87.	87.	2	0	0	0.00	33.10	323.10

1490 NH CARD USED
*SECNO 17013.000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED

3470 ENCROACHMENT STATIONS= 304.0 437.0 TYPE= 1 TARGET= 133.000

VALLEY SECTION 50' U/S OF INDUSTRIAL DR.

17013.000	12.75	588.95	0.00	0.00	588.98	0.03	0.01	0.02	585.00
1140.0	42.6	926.1	171.3	76.9	671.2	186.5	345.1	81.9	576.20
1.70	0.55	1.38	0.92	0.060	0.053	0.060	0.000	576.20	304.00
0.000104	50.	50.	50.	2	0	0	0.00	112.87	416.87

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

1490 NH CARD USED
*SECNO 17255.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.67

3470 ENCROACHMENT STATIONS= 414.0 466.0 TYPE= 1 TARGET= 52.000

VALLEY SECTION 50' D/S OF PENNN CENTRAL R.R. BRIDGE

17255.000	11.06	588.96	0.00	0.00	589.03	0.07	0.04	0.02	578.10
1140.0	0.0	1107.9	32.1	0.0	515.7	49.8	349.2	82.4	578.10
1.74	0.00	2.15	0.64	0.000	0.045	0.080	0.000	577.90	414.00
0.000229	242.	242.	242.	1	0	0	0.00	52.00	466.00

CCHV= 0.300 CEHV= 0.500
*SECNO 17305.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.65

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

D/S FACE OF PENN CENTRAL R.R. BRIDGE

17305.000	11.00	588.90	0.00	0.00	589.13	0.23	0.02	0.08	577.90
1140.0	0.0	1140.0	0.0	0.0	299.3	0.0	349.7	82.4	577.90
1.74	0.00	3.81	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000544	50.	50.	50.	2	0	0	0.00	27.20	383.60

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	0.00	27.20	3.20	182.00	0.00	577.90	577.90

*SECNO 17502.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
590.12	589.18	0.06	0.	1140.	182.	182.	585.50	600.40	0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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= 600.40 ELREA= 600.40

U/S FCE OF PENN CENTRAL R.R. BRIDGE

17502.000	12.03	589.93	0.00	0.00	590.12	0.19	0.99	0.00	577.70
1140.0	0.0	1140.0	0.0	0.0	327.3	0.0	351.1	82.6	577.90
1.76	0.00	3.48	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000403	197.	197.	197.	2	0	0	0.00	27.20	383.60

1490 NH CARD USED
#SECNO 17552.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.62

3470 ENCROACHMENT STATIONS= 250.0 380.0 TYPE= 1 TARGET= 130.000

VALLEY SECTION 50' U/S OF PENN CENTRAL R.R. BRIDGE

17552.000	12.63	590.13	0.00	0.00	590.18	0.05	0.01	0.04	586.90
1140.0	99.8	1016.4	23.8	206.9	558.6	47.5	351.8	82.7	585.40
1.76	0.48	1.82	0.50	0.080	0.045	0.080	0.000	577.50	250.00
0.000153	50.	50.	50.	2	0	0	0.00	130.00	380.00

CCHV= 0.100 CEHV= 0.300
#SECNO 17817.000

3470 ENCROACHMENT STATIONS= 8.8 230.4 TYPE= 1 TARGET= 221.600

17817.000	13.28	590.18	0.00	0.00	590.22	0.04	0.04	0.00	588.30
1140.0	135.2	901.8	102.9	210.4	530.7	155.8	357.0	83.7	586.50
1.81	0.64	1.70	0.66	0.050	0.045	0.050	0.000	576.90	8.80
0.000161	265.	265.	265.	2	0	0	0.00	221.60	230.40

1490 NH CARD USED
#SECNO 18106.000
3280 CROSS SECTION 18106.00 EXTENDED 1.53 FEET

3470 ENCROACHMENT STATIONS= 263.0 438.0 TYPE= 1 TARGET= 175.000

VALLEY SECTION 50' D/S OF PORTER AVE.

18106.000	11.23	590.23	0.00	0.00	590.27	0.04	0.05	0.00	588.40
1140.0	91.9	1035.7	12.4	183.0	603.7	150.2	363.1	85.0	587.70
1.86	0.50	1.72	0.08	0.080	0.045	0.500	0.000	579.00	263.00
0.000171	289.	289.	289.	0	0	0	0.00	175.00	438.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 18156.000

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
D/S FACE OF PORTER AVE.

18156.000	11.19	590.19	0.00	0.00	590.30	0.11	0.01	0.02	579.00
1140.0	250.5	853.6	35.9	488.8	280.9	241.4	364.2	85.4	579.00
1.87	0.51	3.04	0.15	0.086	0.040	0.500	0.000	579.00	523.57
0.000267	50.	50.	50.	2	0	0	0.00	401.43	925.00

1490 NH CARD USED
*SECNO 18157.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.40

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF D/S FACE PORTER AVE.

18157.000	11.14	590.14	0.00	0.00	590.32	0.18	0.00	0.02	579.00
1140.0	240.6	875.7	23.7	384.7	228.8	114.9	364.2	85.4	579.00
1.87	0.63	3.83	0.21	0.123	0.030	0.500	0.000	579.00	529.53
0.001693	1.	1.	1.	2	0	0	-264.05	395.47	925.00

1490 NH CARD USED
*SECNO 18195.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF U/S FACE OF PORTER AVE.

18195.000	11.21	590.21	0.00	0.00	590.38	0.17	0.06	0.00	579.00
1140.0	248.8	866.8	24.4	408.0	230.6	118.5	364.9	85.7	579.00
1.87	0.61	3.76	0.21	0.126	0.030	0.500	0.000	579.00	520.42
0.001616	38.	38.	38.	2	0	0	-264.05	404.58	925.00

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

1490 NH CARD USED
*SECNO 18196.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.51

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
U/S FACE OF PORTER AVE.

18196.000	11.28	590.28	0.00	0.00	590.39	0.10	0.00	0.01	579.00
1140.0	255.0	848.8	36.2	520.4	283.2	246.1	364.9	85.7	579.00
1.87	0.49	3.00	0.15	0.088	0.040	0.500	0.000	579.00	511.46
0.000257	1.	1.	1.	2	0	0	0.00	413.54	925.00

1490 NH CARD USED
*SECNO 18246.000

3470 ENCROACHMENT STATIONS= 910.0 1170.0 TYPE= 1 TARGET= 240.000
VALLEY SECTION 50' U/S OF PORTER AVE.

18246.000	11.34	590.34	0.00	0.00	590.41	0.06	0.01	0.00	579.00
1140.0	336.2	629.9	173.9	843.4	238.1	205.7	366.2	86.1	579.00
1.88	0.40	2.65	0.85	0.159	0.045	0.072	0.000	579.00	910.00
0.000252	50.	50.	50.	1	0	0	0.00	260.00	1170.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 18545.000

3470 ENCROACHMENT STATIONS= 580.0 1000.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION BTWN PORTER AND RAUPP PL.

18545.000	11.84	590.44	0.00	0.00	590.48	0.04	0.07	0.00	583.00
1140.0	400.4	636.2	103.4	796.0	325.4	106.3	374.9	88.5	586.60
1.94	0.50	1.96	0.97	0.077	0.045	0.050	0.000	573.60	580.00
0.000227	299.	299.	299.	2	0	0	0.00	420.00	1000.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 18829.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 793.0 1165.0 TYPE= 1 TARGET= 372.000
VALLEY SECTION 50' D/S OF RAUPP PL.

18829.000	11.81	590.51	0.00	0.00	590.53	0.02	0.04	0.01	585.20
1140.0	584.9	545.6	9.5	1351.5	393.9	130.3	385.0	91.0	585.50
2.03	0.43	1.39	0.07	0.094	0.045	0.500	0.000	578.70	793.00
0.000096	284.	284.	284.	0	0	0	0.00	372.00	1165.00

1490 NH CARD USED
*SECNO 18961.000

3470 ENCROACHMENT STATIONS= 859.0 1165.0 TYPE= 1 TARGET= 306.000
50' U/S OF RAUPP PL.

18961.000	11.82	590.52	0.00	0.00	590.54	0.02	0.01	0.00	585.20
1140.0	582.7	547.8	9.5	1181.1	394.7	130.9	390.4	92.1	585.50
2.07	0.49	1.39	0.07	0.086	0.045	0.500	0.000	578.70	859.00
0.000096	132.	132.	132.	0	0	0	0.00	306.00	1165.00

1490 NH CARD USED
*SECNO 19112.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
50' D/S OF DIX

19112.000	11.46	590.46	0.00	0.00	590.65	0.19	0.03	0.09	579.00
1140.0	37.9	1073.5	28.6	581.0	299.2	148.7	395.2	93.2	579.00
2.08	0.07	3.59	0.19	0.800	0.045	0.500	0.000	579.00	750.00
0.000457	151.	151.	151.	2	0	0	0.00	363.00	1113.00

1490 NH CARD USED
*SECNO 19162.000

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
D/S FACE OF DIX RD. BRIDGE

19162.000	11.49	590.49	0.00	0.00	590.68	0.19	0.02	0.00	579.00
1140.0	38.2	1073.2	28.6	585.2	299.6	149.1	396.3	93.6	579.00
2.09	0.07	3.58	0.19	0.800	0.045	0.500	0.000	579.00	750.00
0.000454	50.	50.	50.	0	0	0	0.00	363.00	1113.00

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

1490 NH CARD USED
*SECNO 19163.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.21

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 950.0 1190.0 TYPE= 1 TARGET= 240.000
1' INSIDE D/S FACE DIX RD. BRIDGE

19163.000	11.37	590.37	0.00	0.00	590.80	0.43	0.00	0.12	579.00
1140.0	52.8	987.2	100.0	192.3	174.2	212.9	396.1	93.6	579.00
2.09	0.27	5.67	0.47	0.800	0.040	0.500	0.000	579.00	950.00
0.010188	1.	1.	1.	2	0	0	-260.99	240.00	1190.00

1490 NH CARD USED
*SECNO 19263.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.11

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
1' INSIDE U/S FACE OF DIX RD. BRIDGE

19263.000	11.78	590.78	0.00	0.00	591.22	0.44	0.42	0.00	579.00
1140.0	88.4	1032.9	18.7	622.4	184.9	74.8	398.0	94.3	579.00
2.09	0.14	5.59	0.25	0.800	0.020	0.500	0.000	579.00	750.00
0.002284	100.	100.	100.	2	0	0	-260.99	363.00	1113.00

1490 NH CARD USED
*SECNO 19264.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.51

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
U/S FACE OF DIX RD. BRIDGE

19264.000	12.15	591.15	0.00	0.00	591.31	0.16	0.00	0.08	579.00
1140.0	54.4	1055.0	30.6	791.3	317.1	169.2	398.1	94.3	579.00
2.09	0.07	3.33	0.18	0.800	0.045	0.500	0.000	579.00	750.00
0.000363	1.	1.	1.	2	0	0	0.00	363.00	1113.00

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

1490 NH CARD USED
*SECNO 19314.000

3470 ENCROACHMENT STATIONS= 730.0 1113.0 TYPE= 1 TARGET= 383.000
50' U/S DIX RD.

19314.000	12.17	591.17	0.00	0.00	591.33	0.16	0.02	0.00	579.00
1140.0	55.2	1054.1	30.7	840.8	317.6	169.8	399.6	94.8	579.00
2.10	0.07	3.32	0.18	0.832	0.045	0.500	0.000	579.00	730.00
0.000361	50.	50.	50.	2	0	0	0.00	383.00	1113.00

1490 NH CARD USED
*SECNO 20080.000

3470 ENCROACHMENT STATIONS= 1400.0 1870.0 TYPE= 1 TARGET= 470.000
50' D/S OF FRANK RD.

20080.000	11.39	591.49	0.00	0.00	591.61	0.12	0.28	0.01	580.10
1140.0	231.7	871.5	36.8	1549.1	273.5	261.4	429.6	102.3	580.10
2.18	0.15	3.19	0.14	0.500	0.045	0.500	0.000	580.10	1400.00
0.000363	766.	766.	766.	2	0	0	0.00	470.00	1870.00

1490 NH CARD USED
*SECNO 20130.000

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
D/S FACE OF FRANK AVE. BRIDGE

20130.000	11.43	591.53	0.00	0.00	591.63	0.10	0.01	0.00	580.10
1140.0	186.0	880.3	73.7	1171.3	298.1	260.4	431.7	102.8	580.10
2.19	0.16	2.95	0.28	0.323	0.040	0.200	0.000	580.10	1420.00
0.000247	50.	50.	50.	1	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20131.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.32

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

1' INSIDE OF D/S FACE FRANK AVE. BRIDGE

20131.000	11.42	591.52	0.00	0.00	591.64	0.12	0.00	0.01	580.10
1140.0	329.3	707.2	103.5	1069.1	200.9	155.5	431.8	102.8	580.10
2.19	0.31	3.52	0.67	0.500	0.035	0.200	0.000	580.10	1420.00
0.002472	1.	1.	1.	0	0	0	-308.68	470.00	1890.00

1490 NH CARD USED
*SECNO 20168.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

1' INSIDE U/S FACE FRANK AVE. BRIDGE

20168.000	11.51	591.61	0.00	0.00	591.74	0.13	0.09	0.01	580.10
1140.0	354.4	740.7	44.9	1097.0	203.0	160.4	433.0	103.2	580.10
2.19	0.32	3.65	0.28	0.500	0.035	0.500	0.000	580.10	1420.00
0.002627	37.	37.	37.	2	0	0	-311.06	470.00	1890.00

1490 NH CARD USED
*SECNO 20169.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.36

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000

U/S FACE OF FRANK AVE. BRIDGE

20169.000	11.56	591.66	0.00	0.00	591.76	0.10	0.00	0.01	580.10
1140.0	190.5	873.8	75.6	1220.7	301.6	270.8	433.0	103.2	580.10
2.20	0.16	2.90	0.28	0.327	0.040	0.200	0.000	580.10	1420.00
0.000233	1.	1.	1.	2	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20269.000

3470 ENCROACHMENT STATIONS= 1365.0 1839.0 TYPE= 1 TARGET= 474.000

100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS

20269.000	11.59	591.69	0.00	0.00	591.78	0.10	0.03	0.00	580.10
1140.0	222.8	864.4	52.7	1414.7	302.4	139.1	437.2	104.3	580.10
2.21	0.16	2.86	0.38	0.361	0.045	0.200	0.000	580.10	1365.00
0.000286	100.	100.	100.	2	0	0	0.00	474.00	1839.00

*SECNO 20599.000

3470 ENCROACHMENT STATIONS= 1477.0 1827.0 TYPE= 1 TARGET= 350.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20599.000	11.38	591.78	0.00	0.00	591.89	0.11	0.10	0.01	580.40
1140.0	207.8	890.1	42.1	1063.2	296.8	103.6	449.8	107.4	580.40
2.25	0.20	3.00	0.41	0.313	0.045	0.200	0.000	580.40	1477.00
0.000323	330.	330.	330.	0	0	0	0.00	350.00	1827.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 21999.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.98

3470 ENCROACHMENT STATIONS= 1380.0 1880.0 TYPE= 1 TARGET= 500.000

21999.000	10.71	592.11	0.00	0.00	592.12	0.01	0.20	0.03	589.40
1140.0	300.8	592.6	246.6	618.7	516.0	515.2	499.8	121.1	589.40
2.72	0.49	1.15	0.48	0.055	0.045	0.050	0.000	581.40	1380.00
0.000082	1400.	1400.	1400.	2	0	0	0.00	500.00	1880.00

*SECNO 22380.000

3470 ENCROACHMENT STATIONS= 1500.0 1840.0 TYPE= 1 TARGET= 340.000

22380.000	10.44	592.14	0.00	0.00	592.16	0.02	0.04	0.00	589.40
1140.0	178.5	701.0	260.5	279.2	505.5	435.4	512.4	124.8	589.40
2.81	0.64	1.39	0.60	0.050	0.045	0.050	0.000	581.70	1500.00
0.000122	381.	381.	381.	2	0	0	0.00	340.00	1840.00

1490 NH CARD USED
*SECNO 23417.000

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
D/S FACE OF ALLEN RD.

23417.000	10.19	592.29	0.00	0.00	592.35	0.06	0.17	0.02	592.51
1140.0	0.0	1139.5	0.5	0.0	570.3	6.7	533.8	130.5	592.20
2.96	0.00	2.00	0.08	0.000	0.042	0.060	0.000	582.10	1838.45
0.000226	1037.	1037.	1037.	3	0	0	0.00	141.55	1980.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.00	0.00	20.40	0.00	131.00	0.00	582.10	582.10

1490 NH CARD USED
*SECNO 23629.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
595.35	592.35	0.00	528.	673.	131.	134.	588.66	592.17	400.

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
U/S FACE OF ALLEN RD.

23629.000	11.10	593.20	0.00	0.00	593.25	0.05	0.90	0.00	592.51
1200.0	0.0	1176.2	23.8	0.1	634.7	71.5	536.9	131.2	592.20
2.99	0.13	1.85	0.33	0.035	0.034	0.046	0.000	582.10	1838.00
0.000110	212.	212.	212.	2	0	5	0.00	142.00	1980.00

1490 NH CARD USED
#SECNO 1.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.69

3470 ENCROACHMENT STATIONS= 2685.0 2915.0 TYPE= 1 TARGET= 230.000
100' U/S OF ALLEN RD.

1.000	10.52	593.22	0.00	0.00	593.27	0.05	0.02	0.00	590.00
1200.0	120.5	1077.7	1.8	128.7	562.9	373.2	538.9	131.6	590.00
3.00	0.94	1.91	0.00	0.050	0.045	10.000	0.000	582.70	2685.00
0.000232	100.	100.	100.	0	0	0	0.00	230.00	2915.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3470 ENCROACHMENT STATIONS= 2479.0 2569.0 TYPE= 1 TARGET= 90.000

2.000	10.00	593.40	0.00	0.00	593.56	0.16	0.26	0.03	590.00
1200.0	0.8	1199.2	0.0	74.2	376.5	0.0	549.6	133.9	100000.00
3.06	0.01	3.18	0.00	10.000	0.045	0.000	0.000	583.40	2479.00
0.001114	500.	600.	700.	2	0	0	0.00	90.00	2569.00

1490 NH CARD USED
*SECNO 3.000

3470 ENCROACHMENT STATIONS= 2588.0 2640.0 TYPE= 1 TARGET= 52.000

3.000	9.92	594.22	0.00	0.00	594.46	0.24	0.38	0.02	590.00
1200.0	88.3	1032.1	79.6	50.7	247.8	46.4	556.8	135.2	590.00
3.11	1.74	4.16	1.72	0.060	0.045	0.060	0.000	584.30	2588.00
0.001084	700.	800.	850.	2	0	0	0.00	52.00	2640.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.000
D/S FACE OF R.R. BRIDGE #1

4.000	9.86	594.26	588.67	0.00	594.56	0.30	0.07	0.03	594.00
1200.0	6.0	1140.5	53.5	44.5	254.1	151.4	557.2	135.8	594.00
3.12	0.14	4.49	0.35	0 145	0.045	0.069	0.000	584.40	2320.55
0.001822	50.	50.	50.	2	14	0	0.00	979.41	3299.96

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3.00	575.00	26.50	2.50	151.20	0.00	584.70	584.70

1490 NH CARD USED
*SECNO 5.000
PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ISTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
595.79	594.67	0.07	0.	1200.	151.	151.	591.00	596.50	0.

3470 ENCROACHMENT STATIONS= 2600.0 2626.5 TYPE= 1 TARGET= 26.500
U/S FACE OF R.R. BRIDGE #1

5.000	11.12	595.52	0.00	0.00	595.79	0.27	1.23	0.00	594.00
1200.0	0.0	1200.0	0.0	0.0	287.1	0.0	557.8	136.6	100000.00
3.12	0.00	4.18	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001465	70.	70.	70.	2	0	0	0.00	26.50	2626.50

1490 NH CARD USED
*SECNO 6.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.79

3470 ENCROACHMENT STATIONS= 2510.0 2676.0 TYPE= 1 TARGET= 166.000
D/S FACE OF RR SPUR NO. 1

6.000	11.90	595.80	0.00	0.00	595.89	0.10	0.05	0.05	593.60
1200.0	139.7	1021.9	38.3	209.2	380.5	72.5	558.6	136.7	593.60
3.13	0.67	2.69	0.53	0.080	0.045	0.100	0.000	583.90	2510.00
0.000458	70.	70.	70.	2	0	0	0.00	166.00	2676.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	11.00	0.00	138.00	2.50	584.00	584.00

1490 NH CARD USED
*SECNO 7.000
6870 D.S. ENERGY OF 595.89 IS HIGHER THAN COMPUTED ENERGY OF 595.80
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.62	595.99	0.00	1161.	40.	138.	136.	589.50	593.70	2860.

3470 ENCROACHMENT STATIONS= 2443.0 2643.0 TYPE= 1 TARGET= 200.000
U/S FACE OF RR SPUR NO. 1

7.000	11.88	595.78	0.00	0.00	595.89	0.11	0.00	0.00	593.60
1200.0	134.2	1065.8	0.0	349.8	380.3	0.0	558.8	136.8	100000.00
3.13	0.38	2.80	0.00	0.148	0.045	0.000	0.000	583.90	2443.00
0.000527	17.	17.	17.	1	0	5	0.00	200.00	2643.00

1490 NH CARD USED
*SECNO 7.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.52

3470 ENCROACHMENT STATIONS= 2363.0 2605.0 TYPE= 1 TARGET= 242.000
D/S FACE OF RR SPUR NO. 2

7.500	11.90	595.90	0.00	0.00	596.10	0.20	0.16	0.05	592.13
1200.0	301.2	741.5	157.3	545.1	163.7	106.5	562.0	137.7	592.13
3.15	0.55	4.53	1.48	0.233	0.045	0.100	0.000	584.00	2363.00
0.001936	180.	180.	180.	2	0	0	0.00	242.00	2605.00

1490 NH CARD USED
*SECNO 7.600

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2368.0 2610.0 TYPE= 1 TARGET= 242.000

7.600	12.03	596.03	0.00	0.00	596.13	0.11	0.00	0.03	592.13
1200.0	407.1	551.5	241.4	555.7	151.4	127.7	562.1	137.7	592.13
3.15	0.73	3.64	1.89	0.233	0.045	0.100	0.000	584.00	2368.00
0.003227	1.	1.	1.	2	0	0	-16.76	242.00	2610.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI.MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 7.700

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2372.0 2608.0 TYPE= 1 TARGET= 236.000

7.700	12.06	596.06	0.00	0.00	596.17	0.11	0.04	0.00	592.13
1200.0	414.0	555.4	230.5	551.5	151.8	121.2	562.3	137.8	592.13
3.15	0.75	3.66	1.90	0.230	0.045	0.100	0.000	584.00	2372.00
0.003242	12.	12.	12.	0	0	0	-16.76	236.00	2608.00

1490 NH CARD USED
*SECNO 7.800

3470 ENCROACHMENT STATIONS= 2370.0 2606.0 TYPE= 1 TARGET= 236.000
U/S FACE OF RR SPUR NO. 2

7.800	12.03	596.03	0.00	0.00	596.21	0.19	0.00	0.04	592.13
1200.0	308.5	726.5	165.0	552.8	165.4	113.9	562.3	137.8	592.13
3.15	0.56	4.39	1.45	0.229	0.045	0.100	0.000	584.00	2370.00
0.001793	1.	1.	1.	2	0	0	0.00	236.00	2606.00

1490 NH CARD USED
*SECNO 8.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.58

3470 ENCROACHMENT STATIONS= 2796.0 2847.0 TYPE= 1 TARGET= 51.000

8.000	11.24	596.44	0.00	0.00	596.62	0.17	0.40	0.00	594.30
1200.0	4.3	1191.5	4.2	8.6	356.1	8.6	567.4	139.0	594.30
3.18	0.50	3.35	0.50	0.100	0.045	0.100	0.000	585.20	2796.00
0.000717	370.	370.	370.	2	0	0	0.00	51.00	2847.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.66

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

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000

D/S FACE OF R.R. BRIDGE #2

9.000	11.14	596.44	0.00	0.00	596.73	0.29	0.05	0.06	594.30
1200.0	0.0	1200.0	0.0	0.0	276.5	0.0	567.8	139.0	100000.00
3.18	0.00	4.34	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001649	50.	50.	50.	2	0	0	0.00	26.00	2826.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	576.00	26.00	2.00	132.00	0.00	585.30	585.30

1490 NH CARD USED
*SECNO 10.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
598.36	596.78	0.05	661.	540.	132.	144.	591.30	596.30	576.

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000

U/S FACE OF R.R. BRIDGE #2

10.000	11.24	596.54	0.00	0.00	596.83	0.29	0.10	0.00	595.80
1200.0	0.0	1200.0	0.0	0.0	279.2	0.0	568.1	139.1	100000.00
3.19	0.00	4.30	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001606	50.	50.	50.	2	0	4	0.00	26.00	2826.00

1490 NH CARD USED
*SECNO 11.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.33

3470 ENCROACHMENT STATIONS= 2749.0 2875.0 TYPE= 1 TARGET= 126.000

11.000	11.47	596.87	0.00	0.00	596.93	0.05	0.03	0.07	590.00
1200.0	286.8	615.4	297.8	341.8	247.7	350.4	568.8	139.2	590.00
3.20	0.84	2.48	0.85	0.100	0.045	0.100	0.000	585.40	2749.00
0.000296	50.	50.	50.	2	0	0	0.00	126.00	2875.00

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

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 12.000

3470 ENCROACHMENT STATIONS= 2751.0 2874.0 TYPE= 1 TARGET= 123.000

100' D/S OF STUDY LIMIT(I-94) BRIDGE. END OF CONVERGENCE. RUN

12.000	10.98	597.28	0.00	0.00	597.34	0.05	0.41	0.00	590.00
1200.0	303.7	623.4	272.9	356.7	255.9	330.2	599.6	143.2	590.00
3.43	0.85	2.44	0.83	0.100	0.045	0.100	0.000	586.30	2751.00
0.000280	1300.	1425.	1550.	2	0	0	0.00	123.00	2874.00

1490 NH CARD USED
*SECNO 13.000

D/S FACE OF E. BOUND I-94 SURVEY STATION 51+32

13.000	11.16	597.26	0.00	0.00	597.39	0.13	0.03	0.02	586.60
1200.0	120.2	921.5	158.3	124.5	278.1	156.9	601.3	143.5	586.10
3.44	0.97	3.31	1.01	0.080	0.040	0.080	0.000	586.10	2761.63
0.000329	100.	100.	100.	2	0	0	0.00	76.99	3038.62

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	990.00	25.50	1.50	202.80	0.00	585.85	585.85

1490 NH CARD USED
*SECNO 68.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
598.07	597.39	0.02	0.	1200.	203.	203.	594.30	598.60	0.

U/S FACE OF E. BOUND I-94 SURVEY STATION 50+64

68.000	12.47	597.97	0.00	0.00	598.07	0.10	0.68	0.00	585.50
1200.0	164.0	888.9	147.0	186.7	309.1	173.2	602.3	143.6	586.20
3.45	0.88	2.88	0.85	0.080	0.040	0.080	0.000	585.50	2955.07
0.000217	68.	68.	68.	2	0	0	0.00	84.87	3039.93

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

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 189.000
D/S FACE OF W. BOUND I-94 SURVEY STATION 49+43

189.000	11.63	598.03	0.00	0.00	598.10	0.08	0.03	0.01	586.40
1200.0	335.9	728.1	136.0	202.4	278.4	177.2	604.1	143.8	587.80
3.47	1.66	2.62	0.77	0.040	0.040	0.080	0.000	586.40	2751.15
0.000205	121.	121.	121.	1	0	0	0.00	95.04	3046.20

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	1000.00	25.50	1.50	207.60	0.00	585.95	585.95

1490 NH CARD USED
*SECNO 253.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
598.80	598.17	0.01	0.	1200.	208.	208.	594.60	599.10	0.

U/S FACE OF W. BOUND I-94 SURVEY STATION 48+79

253.000	12.80	598.70	0.00	0.00	598.80	0.10	0.70	0.00	585.90
1200.0	194.2	932.9	72.9	401.8	318.8	290.1	605.3	145.3	586.50
3.47	0.48	2.93	0.25	0.082	0.040	0.086	0.000	585.90	2031.21
0.000215	64.	64.	64.	2	0	0	0.00	1937.57	3968.79

1490 NH CARD USED
*SECNO 353.000

3470 ENCROACHMENT STATIONS= 2357.0 2621.0 TYPE= 1 TARGET= 264.000
100' U/S OF W. BOUND I-94

353.000	12.76	598.76	0.00	0.00	598.84	0.08	0.02	0.01	588.00
1760.0	475.2	1139.9	144.9	960.3	412.7	167.4	608.3	147.9	590.00
3.49	0.49	2.76	0.87	0.150	0.045	0.090	0.000	586.00	2357.00
0.000264	100.	100.	100.	2	0	0	0.00	264.00	2621.00

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

*SECNO 553.000

3470 ENCROACHMENT STATIONS= 2298.0 2698.0 TYPE= 1 TARGET= 400.000

553.000	12.81	598.81	0.00	0.00	598.89	0.08	0.05	0.00	588.00
1760.0	476.8	1136.8	146.5	1174.0	414.4	171.8	615.8	149.2	590.00
3.52	0.41	2.74	0.85	0.174	0.045	0.090	0.000	586.00	2298.00
0.000259	200.	200.	200.	0	0	0	0.00	326.42	2624.42

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 1832.000
3280 CROSS SECTION 1832.00 EXTENDED 2.70 FEET

3470 ENCROACHMENT STATIONS= 300.0 1020.0 TYPE= 1 TARGET= 720.000
U/S JFK PARK SURVEY STATION 33+00

1832.000	11.80	599.20	0.00	0.00	599.33	0.13	0.42	0.03	594.70
1760.0	186.8	1354.6	218.7	460.6	413.2	741.7	663.7	164.1	593.30
3.65	0.41	3.28	0.29	0.112	0.040	0.180	0.000	587.40	300.00
0.000434	1150.	1279.	1350.	2	0	0	0.00	720.00	1020.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2132.000
3280 CROSS SECTION 2132.00 EXTENDED 2.65 FEET

3470 ENCROACHMENT STATIONS= 530.0 1030.0 TYPE= 1 TARGET= 500.000

2132.000	11.75	599.35	0.00	0.00	599.49	0.14	0.16	0.00	594.90
1760.0	164.5	1376.8	218.7	185.9	410.9	754.1	675.2	168.8	593.50
3.69	0.89	3.35	0.29	0.070	0.040	0.187	0.000	587.60	530.00
0.000457	400.	350.	300.	2	0	0	0.00	500.00	1030.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 2536.000

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
D/S FACE SURVEY 25+45

2536.000	11.59	599.59	0.00	0.00	599.66	0.07	0.15	0.02	595.30
1760.0	69.7	1354.4	335.9	91.5	547.4	809.1	687.8	173.2	595.50
3.74	0.76	2.47	0.42	0.070	0.040	0.117	0.000	588.00	687.00
0.000324	450.	404.	375.	2	0	0	0.00	500.00	1187.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	3.00	0.00	16.00	0.00	88.00	0.00	588.00	588.00

1490 NH CARD USED
*SECNO 2541.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
608.90	599.66	0.00	1577.	184.	88.	88.	593.50	595.30	123.

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
U/S FACE SURVEY 25+40

2541.000	11.62	599.62	0.00	0.00	599.69	0.07	0.03	0.00	595.30
1760.0	70.2	1352.4	337.4	92.4	549.5	820.7	687.9	173.2	595.50
3.74	0.76	2.46	0.41	0.070	0.040	0.118	0.000	588.00	687.00
0.000319	5.	5.	5.	2	0	6	0.00	500.00	1187.00

1490 NH CARD USED
*SECNO 2591.000

3470 ENCROACHMENT STATIONS= 697.0 1197.0 TYPE= 1 TARGET= 500.000
50' U/S OF FOOTBRIDGE

2591.000	11.63	599.63	0.00	0.00	599.71	0.08	0.02	0.00	595.30
1760.0	48.7	1368.7	342.6	63.6	550.7	840.4	689.6	173.8	595.50
3.75	0.77	2.49	0.41	0.070	0.040	0.120	0.000	588.00	697.00
0.000324	50.	50.	50.	0	0	0	0.00	500.00	1197.00

1490 NH CARD USED
*SECNO 2941.000

3470 ENCROACHMENT STATIONS= 610.0 1060.0 TYPE= 1 TARGET= 450.000
400' U/S OF FOOTBRIDGE

2941.000	11.97	599.77	0.00	0.00	599.80	0.03	0.08	0.01	587.80
1760.0	731.7	362.6	665.8	595.5	143.6	1730.5	705.4	177.6	587.80
3.83	1.23	2.52	0.38	0.060	0.040	0.150	0.000	587.80	610.00
0.000169	350.	350.	350.	2	0	0	0.00	450.00	1060.00

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

1490 NH CARD USED
*SECNO 3287.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.51

3470 ENCROACHMENT STATIONS= 1040.0 1540.0 TYPE= 1 TARGET= 500.000
D/S FACE LARME ST., 9 CULVERTS SURVEY STATION 17+94

3287.000	11.64	599.84	0.00	0.00	599.93	0.08	0.10	0.03	595.00
1760.0	353.2	721.9	684.9	242.7	208.4	1906.8	724.5	181.4	595.00
3.88	1.46	3.46	0.36	0.070	0.040	0.283	0.000	588.20	1040.00
0.000647	346.	346.	346.	0	0	0	0.00	500.00	1540.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	EL.CHU	EL.CHD
1.25	3.91	3.00	200.00	15.70	1.00	78.00	0.00	588.20	588.20

1490 NH CARD USED
*SECNO 3487.000
6870 D.S. ENERGY OF 599.93 IS HIGHER THAN COMPUTED ENERGY OF 599.87
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	EL.TRD	WEIRLN
630.76	599.94	0.01	1715.	45.	78.	78.	593.50	595.50	200.

3470 ENCROACHMENT STATIONS= 1050.0 1550 0 TYPE= 1 TARGET= 500.000
U/S FACE KEPPEN ST. SURVEY STA. 15+94

3487.000	11.63	599.83	0.00	0.00	599.93	0.09	0.00	0.00	595.00
1760.0	290.4	755.2	714.4	193.4	208.0	1935.9	735.3	183.7	595.00
3.91	1.50	3.63	0.37	0.070	0.040	0.288	0.000	588.20	1050.00
0.000713	200.	200.	200.	2	0	14	0.00	500.00	1550.00

1490 NH CARD USED
*SECNO 3776.000

3470 ENCROACHMENT STATIONS= 940.0 1440.0 TYPE= 1 TARGET= 500.000
D/S FACE RUSSELL ST. CULVERTS SURVEY STATION 13+05

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3776.000	11.05	600.05	0.00	0.00	600.09	0.04	0.15	0.02	595.00
1760.0	567.5	623.2	569.3	746.0	229.6	1549.7	751.5	187.0	595.00
3.97	0.76	2.71	0.36	0.111	0.040	0.230	0.000	589.00	740.00
0.000398	289.	289.	289.	1	0	0	0.00	500.00	1440.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.31	3.00	200.00	14.56	1.00	64.00	0.00	589.00	589.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3843.000
6870 D.S. ENERGY OF 600.09 IS HIGHER THAN COMPUTED ENERGY OF 600.07
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	GWEIR	GPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
627.18	600.10	0.01	1711.	49.	64.	66.	593.90	596.00	200.

3470 ENCROACHMENT STATIONS= 890.0 1390.0 TYPE= 1 TARGET= 500.000
U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38

3843.000	11.05	600.05	0.00	0.00	600.09	0.04	0.00	0.00	595.00
1760.0	570.1	621.7	568.3	978.5	230.1	1357.1	755.4	187.8	595.00
3.99	0.58	2.70	0.42	0.144	0.040	0.200	0.000	589.00	890.00
0.000394	67.	67.	67.	1	0	14	0.00	500.00	1390.00

1490 NH CARD USED
*SECNO 4234.000

3470 ENCROACHMENT STATIONS= 1200.0 1590.0 TYPE= 1 TARGET= 390.000
D/S FACE OF WATSON AVE. STA. 8+47

4234.000	11.91	600.21	0.00	0.00	600.30	0.09	0.18	0.02	595.00
1760.0	460.7	851.8	447.5	1242.1	247.4	587.5	774.1	191.3	595.00
4.04	0.37	3.44	0.76	0.282	0.040	0.140	0.000	588.30	1200.00
0.000614	270.	391.	430.	0	0	0	0.00	390.00	1590.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	130.00	13.90	1.00	80.00	0.00	588.30	588.30

1490 NH CARD USED
*SECNO 4294.000
6870 D.S. ENERGY OF 600.30 IS HIGHER THAN COMPUTED ENERGY OF 600.26
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
615.24	600.31	0.01	1655.	105.	80.	80.	594.50	596.00	130.

3470 ENCROACHMENT STATIONS= 1230.0 1590.0 TYPE= 1 TARGET= 360.000
U/S FACE OF WATSON AVE. STA. 7+87

4294.000	11.91	600.21	0.00	0.00	600.30	0.09	0.00	0.00	595.00
1760.0	460.1	851.7	448.2	1111.3	247.6	588.5	776.8	191.8	595.00
4.05	0.41	3.44	0.76	0.254	0.040	0.140	0.000	588.30	1230.00
0.000612	60.	60.	60.	2	0	8	0.00	360.00	1590.00

1490 NH CARD USED
*SECNO 4610.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.69

3470 ENCROACHMENT STATIONS= 1454.0 1653.0 TYPE= 1 TARGET= 199.000
D/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+71

4610.000	11.81	600.41	0.00	0.00	600.63	0.22	0.27	0.06	595.50
1760.0	0.0	1167.7	592.3	0.0	256.0	845.4	787.7	193.8	595.50
4.07	0.00	4.56	0.70	0.000	0.040	0.212	0.000	588.60	1454.00
0.001285	350.	316.	280.	0	0	0	0.00	199.00	1653.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	3.00	130.00	14.22	1.00	78.00	0.00	588.60	588.60

1490 NH CARD USED
*SECNO 4678.000
6870 D.S. ENERGY OF 600.63 IS HIGHER THAN COMPUTED ENERGY OF 600.47
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
616.54	600.66	0.03	1654.	105.	78.	78.	594.50	596.30	130.

3470 ENCROACHMENT STATIONS= 1454.0 1619.0 TYPE= 1 TARGET= 165.000
U/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+03

4678.000	11.81	600.41	0.00	0.00	600.63	0.22	0.00	0.00	595.50
1760.0	0.0	1168.5	591.5	0.0	256.2	691.1	789.3	194.1	595.50
4.08	0.00	4.56	0.86	0.000	0.040	0.174	0.000	588.60	1454.00
0.001284	68.	68.	68.	2	0	9	0.00	165.00	1619.00

1490 NH CARD USED
*SECNO 4853.000
D/S FACE SOUTHFIELD F/WAY CULVERT, CITY OF ALLEN PARK CORPORATE LIMI

4853.000	10.55	600.55	0.00	0.00	600.86	0.30	0.19	0.04	590.00
1760.0	317.8	1124.4	317.8	171.4	211.1	171.4	792.5	194.7	590.00
4.09	1.85	5.33	1.85	0.070	0.040	0.070	0.000	590.00	3007.52
0.000888	140.	175.	200.	2	0	0	0.00	84.95	3092.48

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.00	3.00	100.00	20.00	0.00	300.00	0.00	590.40	590.00

*SECNO 5181.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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	WEIRLN
602.69	601.29	0.00	0.	1760.	300.	144.	597.60	603.10	0.

3470 ENCROACHMENT STATIONS= 2904.0 3103.0 TYPE= 1 TARGET= 199.000
U/S FACE SOUTHFIELD F/WAY CULVERTS

5181.000	12.47	602.47	0.00	0.00	602.69	0.23	1.84	0.00	590.00
1760.0	303.2	1153.5	303.2	239.1	249.3	239.1	797.4	195.3	590.00
4.12	1.27	4.63	1.27	0.100	0.045	0.100	0.000	590.00	3001.64
0.000679	328.	328.	328.	2	0	0	0.00	96.71	3098.36

1490 NH CARD USED
*SECNO 5336.000

3470 ENCROACHMENT STATIONS= 2218.0 2727.0 TYPE= 1 TARGET= 509.000
VALLEY AT FLEMMING DEAD END 27+00

5336.000	11.52	602.62	0.00	0.00	602.83	0.21	0.13	0.01	596.60
2310.0	28.7	2234.3	47.0	2046.2	601.4	48.9	804.1	196.5	601.40
4.13	0.01	3.71	0.96	10.000	0.045	0.050	0.000	591.10	2218.00
0.000963	185.	155.	125.	2	0	0	0.00	509.00	2727.00

CCHV= 0.400 CEHV= 0.600
1490 NH CARD USED
*SECNO 5486.000

3470 ENCROACHMENT STATIONS= 2063.0 2872.0 TYPE= 1 TARGET= 809.000
VALEY 269+50

5486.000	11.38	602.88	0.00	0.00	602.99	0.11	0.12	0.04	601.30
2310.0	708.1	1399.3	202.5	2219.0	416.6	213.2	813.7	198.8	600.20
4.15	0.32	3.36	0.95	0.297	0.045	0.050	0.000	591.50	2063.00
0.000706	150.	150.	150.	2	0	0	0.00	809.00	2872.00

THIS RUN EXECUTED 10SEP92 13:31:53

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**************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED JUN  1990

  ERROR CORR -  01,02,03,04
  MODIFICATION -
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

NORTH BR ECORSE CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	563.40	4450.00	574.90	0.00	575.53	11.88	6.34	701.34	1290.99
	1.000	0.00	0.00	0.00	563.40	5380.00	574.90	0.00	575.81	17.37	7.67	701.34	1290.99
	30.000	29.00	0.00	0.00	563.40	4450.00	574.94	0.00	575.56	11.76	6.32	704.44	1297.65
	30.000	29.00	0.00	0.00	563.40	5380.00	574.97	0.00	575.87	17.07	7.61	706.55	1302.19
	60.000	30.00	0.00	0.00	563.40	4450.00	574.99	0.00	575.60	11.61	6.28	708.27	1305.91
	60.000	30.00	0.00	0.00	563.40	5380.00	575.04	0.00	575.92	16.64	7.53	714.29	1318.90
	61.000	1.00	584.30	580.30	563.40	4450.00	574.92	0.00	575.66	21.29	6.90	644.84	964.41
	61.000	1.00	584.30	580.30	563.40	5380.00	574.95	0.00	576.02	30.89	8.32	646.76	967.92
	136.000	75.00	584.30	580.30	563.40	4450.00	575.13	0.00	575.83	20.09	6.72	661.98	998.83
	136.000	75.00	584.30	580.30	563.40	5380.00	575.29	0.00	576.27	28.07	7.96	675.47	1015.41
	137.000	1.00	0.00	0.00	563.40	4450.00	575.31	0.00	575.87	10.52	6.02	738.83	1372.32
*	137.000	1.00	0.00	0.00	563.40	5380.00	575.56	0.00	576.34	14.05	7.05	762.90	1435.54
	187.000	50.00	0.00	0.00	564.10	4450.00	575.34	0.00	575.97	16.33	6.41	694.05	1101.27
	187.000	50.00	0.00	0.00	564.10	5380.00	575.60	0.00	576.47	21.68	7.49	718.42	1155.44
*	362.000	175.00	0.00	0.00	563.97	4450.00	575.96	0.00	576.27	8.13	4.46	997.86	1561.06
*	362.000	175.00	0.00	0.00	563.97	5380.00	576.47	0.00	576.86	9.76	5.01	1073.52	1721.92
	737.000	375.00	0.00	0.00	563.70	4450.00	576.29	0.00	576.60	9.22	4.40	1011.08	1465.29
	737.000	375.00	0.00	0.00	563.70	5380.00	576.87	0.00	577.25	11.03	4.97	1082.19	1619.89
	787.000	50.00	0.00	0.00	563.90	4450.00	576.28	0.00	576.70	10.53	5.20	855.13	1371.52
	787.000	50.00	0.00	0.00	563.90	5380.00	576.85	0.00	577.39	12.42	5.88	915.38	1526.46
*	788.000	1.00	581.00	577.20	563.90	4450.00	576.24	0.00	576.75	41.71	5.75	773.63	689.02
*	788.000	1.00	581.00	577.20	563.90	5380.00	576.79	0.00	577.44	48.80	6.47	831.97	770.14

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	797.000	9.00	581.00	577.20	563.90	4450.00	576.28	0.00	576.79	40.94	5.72	770.34	695.50
	797.000	9.00	581.00	577.20	563.90	5380.00	576.85	0.00	577.49	47.78	6.43	837.09	778.32
*	798.000	1.00	0.00	0.00	563.90	4450.00	576.42	0.00	576.82	9.99	5.12	869.35	1407.60
*	798.000	1.00	0.00	0.00	563.90	5380.00	577.01	0.00	577.53	11.70	5.77	933.00	1572.81
	844.000	46.00	0.00	0.00	565.00	4450.00	576.47	0.00	576.87	9.47	5.08	875.89	1445.92
	844.000	46.00	0.00	0.00	565.00	5380.00	577.08	0.00	577.59	11.00	5.71	942.35	1621.85
*	845.000	1.00	581.40	578.40	565.00	4450.00	576.44	0.00	576.91	32.91	5.51	807.23	775.69
*	845.000	1.00	581.40	578.40	565.00	5380.00	577.03	0.00	577.64	47.33	6.25	860.76	782.04
	859.000	14.50	581.40	578.40	565.00	4450.00	576.49	0.00	576.96	32.31	5.47	812.93	782.87
	859.000	14.50	581.40	578.40	565.00	5380.00	577.11	0.00	577.71	47.31	6.21	866.34	782.16
*	860.000	1.00	0.00	0.00	565.00	4450.00	576.59	0.00	576.98	9.03	5.00	889.29	1480.85
*	860.000	1.00	0.00	0.00	565.00	5380.00	577.26	0.00	577.74	10.32	5.59	961.94	1674.94
	910.000	50.00	0.00	0.00	564.00	4450.00	576.67	0.00	577.03	8.16	4.84	919.36	1557.75
	910.000	50.00	0.00	0.00	564.00	5380.00	577.35	0.00	577.80	9.41	5.42	991.88	1754.15
*	911.000	1.00	583.00	578.60	564.00	4450.00	576.63	0.00	577.07	35.65	5.39	835.03	745.89
*	911.000	1.00	583.00	578.60	564.00	5380.00	577.30	0.00	577.85	40.56	5.94	905.46	844.73
	921.000	10.00	583.00	578.60	564.00	4450.00	576.67	0.00	577.11	35.23	5.31	838.21	749.69
	921.000	10.00	583.00	578.60	564.00	5380.00	577.35	0.00	577.89	39.87	5.91	910.51	852.01
*	922.000	1.00	0.00	0.00	564.00	4450.00	576.78	0.00	577.14	7.83	4.78	931.39	1589.79
*	922.000	1.00	0.00	0.00	564.00	5380.00	577.48	0.00	577.92	9.00	5.35	1006.17	1793.74
	953.000	31.00	0.00	0.00	565.10	4450.00	576.71	0.00	577.26	12.16	5.95	748.18	1276.26
	953.000	31.00	0.00	0.00	565.10	5380.00	577.39	0.00	578.08	14.32	6.70	802.80	1421.60
*	954.000	1.00	580.80	577.70	565.10	4450.00	576.57	0.00	577.41	65.90	7.36	604.48	548.17
*	954.000	1.00	580.80	577.70	565.10	5380.00	577.20	0.00	578.28	81.51	8.32	647.02	595.91
	985.000	30.50	580.80	577.70	565.10	4450.00	576.82	0.00	577.62	61.54	7.16	621.52	567.25
	985.000	30.50	580.80	577.70	565.10	5380.00	577.53	0.00	578.54	75.07	8.04	669.19	620.92
*	986.000	1.00	0.00	0.00	565.10	4450.00	577.22	0.00	577.71	10.32	5.64	789.21	1384.99
*	986.000	1.00	0.00	0.00	565.10	5380.00	578.04	0.00	578.65	11.78	6.28	856.05	1567.67
	1036.000	50.00	0.00	0.00	566.20	4450.00	577.40	0.00	577.79	10.13	5.02	886.02	1398.07
	1036.000	50.00	0.00	0.00	566.20	5380.00	578.31	0.00	578.76	10.48	5.39	997.39	1662.07
	1736.000	700.00	0.00	0.00	565.40	4450.00	578.11	0.00	578.41	7.24	4.42	1006.36	1659.58
	1736.000	700.00	0.00	0.00	565.40	5380.00	579.05	0.00	579.41	7.73	4.82	1116.08	1935.03
	2436.000	700.00	0.00	0.00	564.60	4450.00	578.57	0.00	578.88	6.03	4.52	984.65	1811.94
	2436.000	700.00	0.00	0.00	564.60	5380.00	579.54	0.00	579.92	6.56	4.96	1083.77	2101.17

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	2736.000	300.00	0.00	0.00	569.10	1580.00	579.01	0.00	579.08	2.10	2.22	711.30	1091.07
*	2736.000	300.00	0.00	0.00	569.10	2190.00	580.03	0.00	580.15	2.64	2.69	813.85	1347.93
	3436.000	700.00	0.00	0.00	569.48	1580.00	579.16	0.00	579.24	2.32	2.29	688.47	1036.38
	3436.000	700.00	0.00	0.00	569.48	2190.00	580.22	0.00	580.34	2.84	2.76	794.72	1298.69
	3836.000	400.00	0.00	0.00	569.70	1580.00	579.26	0.00	579.39	4.19	2.87	550.72	771.68
	3836.000	400.00	0.00	0.00	569.70	2190.00	580.35	0.00	580.52	5.48	3.36	650.96	935.23
	4311.000	475.00	0.00	0.00	569.90	1580.00	579.46	0.00	579.59	4.18	2.87	551.10	772.49
	4311.000	475.00	0.00	0.00	569.90	2190.00	580.59	0.00	580.77	4.79	3.36	652.67	1000.27
	4786.000	475.00	0.00	0.00	570.10	1580.00	579.67	0.00	579.77	3.18	2.47	639.71	886.42
	4786.000	475.00	0.00	0.00	570.10	2190.00	580.85	0.00	580.98	3.53	2.86	765.36	1166.20
	4825.000	39.00	0.00	0.00	570.80	1580.00	579.70	0.00	579.78	2.55	2.33	679.29	988.98
	4825.000	39.00	0.00	0.00	570.80	2190.00	580.87	0.00	580.99	2.95	2.76	794.06	1275.92
	4846.000	21.00	579.40	578.30	570.80	1580.00	579.77	0.00	579.85	2.47	2.30	686.52	1005.66
	4846.000	21.00	579.40	578.30	570.80	2190.00	580.87	0.00	580.99	2.94	2.76	794.88	1278.03
	4847.000	1.00	0.00	0.00	570.80	1580.00	579.77	0.00	579.85	2.47	2.30	686.54	1005.72
	4847.000	1.00	0.00	0.00	570.80	2190.00	580.87	0.00	580.99	2.94	2.76	794.70	1278.10
	5436.000	589.00	0.00	0.00	570.64	1580.00	579.93	0.00	580.04	3.74	2.71	583.70	816.77
	5436.000	589.00	0.00	0.00	570.64	2190.00	581.08	0.00	581.17	2.90	2.59	1163.51	1206.16
	5936.000	500.00	0.00	0.00	570.50	1580.00	580.12	0.00	580.22	3.21	2.57	615.64	882.07
	5936.000	500.00	0.00	0.00	570.50	2190.00	581.22	0.00	581.36	3.74	3.01	739.88	1132.56
	6416.000	480.00	0.00	0.00	570.33	1580.00	580.28	0.00	580.45	5.56	3.28	481.64	670.16
	6416.000	480.00	0.00	0.00	570.33	2190.00	581.42	0.00	581.65	7.10	3.82	573.25	822.12
	6786.000	370.00	0.00	0.00	570.20	1580.00	580.50	0.00	580.65	4.78	3.11	508.36	723.05
	6786.000	370.00	0.00	0.00	570.20	2190.00	581.71	0.00	581.91	6.53	3.58	612.10	856.73
	6835.000	49.00	0.00	0.00	571.57	1580.00	580.48	0.00	580.72	9.15	3.91	403.78	522.28
	6835.000	49.00	0.00	0.00	571.57	2190.00	581.69	0.00	582.00	9.89	4.43	494.91	696.30
	6836.000	1.00	0.00	0.00	571.60	1580.00	580.62	0.00	580.75	4.67	2.92	541.04	730.86
*	6836.000	1.00	0.00	0.00	571.60	2190.00	581.97	0.00	582.06	3.42	2.74	1371.13	1104.49
	6916.000	80.00	582.00	577.00	571.60	1580.00	581.12	0.00	581.23	3.82	2.74	577.28	808.67
	6916.000	80.00	582.00	577.00	571.60	2190.00	581.88	0.00	582.06	5.52	3.46	632.60	932.15
	6917.000	1.00	0.00	0.00	571.60	1330.00	581.11	0.00	581.24	4.83	2.97	448.05	605.19
	6917.000	1.00	0.00	0.00	571.60	1960.00	581.85	0.00	582.09	7.49	3.88	504.95	716.24
	7436.000	519.00	0.00	0.00	571.20	1330.00	581.36	0.00	581.47	3.60	2.67	497.42	701.27
	7436.000	519.00	0.00	0.00	571.20	1960.00	582.26	0.00	582.44	5.72	3.44	570.28	819.81

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	.01K
	7936.000	500.00	0.00	0.00	570.80	1330.00	581.53	0.00	581.64	3.05	2.58	586.18	762.10
	7936.000	500.00	0.00	0.00	570.80	1960.00	582.61	0.00	582.70	3.71	2.61	1160.43	1018.09
	8536.000	600.00	0.00	0.00	570.90	1330.00	581.73	0.00	581.83	3.27	2.51	520.95	735.84
	8536.000	600.00	0.00	0.00	570.90	1960.00	582.83	0.00	582.95	4.20	2.88	791.74	956.10
	9136.000	600.00	0.00	0.00	570.90	1330.00	581.99	0.00	582.04	3.40	1.87	898.69	721.31
*	9136.000	600.00	0.00	0.00	570.90	1960.00	583.11	0.00	583.15	2.06	1.70	1550.30	1364.41
	9586.000	450.00	0.00	0.00	570.93	1330.00	582.12	0.00	582.17	2.33	1.95	946.01	871.44
	9586.000	450.00	0.00	0.00	570.93	1960.00	583.20	0.00	583.24	1.74	1.87	1582.55	1407.54
	9596.000	10.00	0.00	0.00	570.98	1330.00	582.10	0.00	582.19	4.51	2.52	581.78	626.10
*	9596.000	10.00	0.00	0.00	570.98	1960.00	583.16	0.00	583.28	4.54	2.85	794.56	919.98
	10286.000	690.00	0.00	0.00	571.00	1330.00	582.39	0.00	582.47	3.50	2.31	644.64	710.53
	10286.000	690.00	0.00	0.00	571.00	1960.00	583.46	0.00	583.56	3.65	2.65	858.98	1025.51
*	10336.000	50.00	0.00	0.00	572.50	1330.00	582.48	0.00	582.50	0.70	1.33	1564.65	1587.41
*	10336.000	50.00	0.00	0.00	572.50	1960.00	583.57	0.00	583.59	0.59	1.33	2511.64	2559.28
*	10636.000	300.00	0.00	0.00	572.47	1330.00	582.47	0.00	582.59	4.18	2.84	468.48	650.80
*	10636.000	300.00	0.00	0.00	572.47	1960.00	583.54	0.00	583.72	8.75	3.39	576.42	662.79
	11536.000	900.00	0.00	0.00	572.40	1330.00	582.88	0.00	582.99	4.53	2.60	510.67	625.21
	11536.000	900.00	0.00	0.00	572.40	1960.00	584.32	0.00	584.43	6.82	2.65	740.56	750.42
	12274.000	738.00	0.00	0.00	573.50	1330.00	583.18	0.00	583.28	3.40	2.61	638.52	721.77
	12274.000	738.00	0.00	0.00	573.50	1960.00	584.68	0.00	584.80	3.75	3.04	863.31	1012.20
	12324.000	50.00	0.00	0.00	573.60	1330.00	583.18	0.00	583.31	3.83	2.86	465.81	680.09
	12324.000	50.00	0.00	0.00	573.60	1960.00	584.72	0.00	584.83	3.07	2.83	917.10	1117.98
*	12325.000	1.00	580.40	581.80	573.60	1330.00	583.15	0.00	583.34	18.55	3.50	379.59	308.81
*	12325.000	1.00	580.40	581.80	573.60	1960.00	584.72	0.00	584.83	16.04	2.99	736.66	489.35
	12367.000	42.00	580.40	581.80	573.60	1330.00	583.23	0.00	583.42	18.55	3.50	379.59	308.81
	12367.000	42.00	580.40	581.80	573.60	1960.00	584.79	0.00	584.90	15.45	2.95	745.73	498.64
*	12368.000	1.00	0.00	0.00	573.60	1330.00	583.38	0.00	583.46	2.59	2.38	722.07	826.17
*	12368.000	1.00	0.00	0.00	573.60	1960.00	584.81	0.00	584.91	2.97	2.80	929.20	1137.69
	12418.000	50.00	0.00	0.00	573.60	1330.00	583.39	0.00	583.47	2.56	2.37	725.48	830.83
	12418.000	50.00	0.00	0.00	573.60	1960.00	584.82	0.00	584.92	2.94	2.79	932.91	1143.79
*	13295.000	877.00	0.00	0.00	573.30	1330.00	583.69	0.00	583.79	5.71	2.65	724.80	556.51
	13295.000	877.00	0.00	0.00	573.30	1960.00	585.14	0.00	585.26	5.42	2.94	1287.68	841.83
	13676.000	381.00	0.00	0.00	572.90	1330.00	583.86	0.00	583.96	3.79	2.92	895.05	683.21
	13676.000	381.00	0.00	0.00	572.90	1960.00	585.31	0.00	585.44	4.41	3.46	1177.29	933.29

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	13726.000	50.00	0.00	0.00	573.00	1330.00	583.85	0.00	584.01	4.95	3.60	685.38	598.09
	13726.000	50.00	0.00	0.00	573.00	1960.00	585.29	0.00	585.51	6.03	4.32	930.11	797.90
*	13727.000	1.00	581.40	579.60	573.00	1330.00	583.80	0.00	584.07	42.60	4.63	473.86	203.77
*	13727.000	1.00	581.40	579.60	573.00	1960.00	585.29	0.00	585.51	34.79	4.68	727.18	332.29
	13964.000	237.00	581.40	579.60	573.00	1330.00	584.68	0.00	584.83	23.32	3.67	623.57	275.39
	13964.000	237.00	581.40	579.60	573.00	1960.00	586.04	0.00	586.20	22.08	3.98	854.62	409.79
*	13965.000	1.00	0.00	0.00	573.00	1330.00	584.72	0.00	584.84	3.47	3.17	833.05	714.44
*	13965.000	1.00	0.00	0.00	573.00	1960.00	586.03	0.00	586.21	4.58	3.92	1058.11	915.77
	14015.000	50.00	0.00	0.00	573.00	1330.00	584.79	0.00	584.87	2.25	2.57	844.43	885.81
	14015.000	50.00	0.00	0.00	573.00	1960.00	586.14	0.00	586.24	2.82	3.09	1075.28	1166.17
	14287.000	272.00	0.00	0.00	574.50	1330.00	584.90	0.00	584.94	2.13	1.79	998.91	911.70
	14287.000	272.00	0.00	0.00	574.50	1960.00	586.29	0.00	586.32	1.78	1.83	1442.57	1470.81
	14337.000	50.00	0.00	0.00	574.60	1330.00	584.91	0.00	584.95	2.00	1.88	1029.23	941.04
	14337.000	50.00	0.00	0.00	574.60	1960.00	586.29	0.00	586.33	1.67	1.91	1473.06	1518.15
*	14338.000	1.00	580.00	581.40	574.60	1330.00	584.91	0.00	584.95	6.46	1.64	868.17	529.39
*	14338.000	1.00	580.00	581.40	574.60	1960.00	586.29	0.00	586.33	3.85	1.44	1311.49	998.55
	14402.000	64.00	580.00	581.40	574.60	1330.00	584.95	0.00	584.99	6.22	1.61	876.94	533.26
	14402.000	64.00	580.00	581.40	574.60	1960.00	586.32	0.00	586.36	3.80	1.44	1316.85	1005.10
*	14403.000	1.00	0.00	0.00	574.60	1330.00	584.95	0.00	584.99	1.93	1.86	1042.48	956.17
*	14403.000	1.00	0.00	0.00	574.60	1960.00	586.32	0.00	586.36	1.64	1.90	1480.24	1528.62
	14460.000	57.00	0.00	0.00	572.60	1330.00	584.95	0.00	585.01	1.73	2.14	1178.48	1010.82
	14460.000	57.00	0.00	0.00	572.60	1960.00	586.32	0.00	586.38	1.85	2.42	1724.17	1442.21
*	14461.000	1.00	580.00	581.60	572.60	1330.00	584.96	0.00	585.01	9.73	2.21	1001.77	426.49
*	14461.000	1.00	580.00	581.60	572.60	1960.00	586.35	0.00	586.39	6.98	2.10	1561.17	741.98
	14521.000	60.00	580.00	581.60	572.60	1330.00	585.02	0.00	585.07	9.16	2.16	1029.48	439.58
	14521.000	60.00	580.00	581.60	572.60	1960.00	586.39	0.00	586.43	6.81	2.08	1574.94	750.92
*	14522.000	1.00	0.00	0.00	572.60	1330.00	585.02	0.00	585.08	1.67	2.11	1206.44	1030.38
*	14522.000	1.00	0.00	0.00	572.60	1960.00	586.38	0.00	586.45	1.78	2.39	1752.51	1467.32
*	14572.000	50.00	0.00	0.00	572.70	980.00	585.05	0.00	585.09	2.54	1.89	1062.16	614.60
*	14572.000	50.00	0.00	0.00	572.70	1370.00	586.42	0.00	586.46	2.04	1.90	1641.52	958.69
*	15292.000	720.00	0.00	0.00	574.40	980.00	585.27	0.00	585.37	5.80	2.57	381.64	406.77
*	15292.000	720.00	0.00	0.00	574.40	1370.00	586.60	0.00	586.73	6.56	2.95	464.34	534.71
	15820.000	528.00	0.00	0.00	577.00	980.00	585.50	0.00	585.69	4.72	3.68	326.60	451.15
	15820.000	528.00	0.00	0.00	577.00	1370.00	586.84	0.00	587.08	4.98	4.20	461.56	613.86

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	15870.000	50.00	0.00	0.00	577.00	980.00	585.57	0.00	585.72	3.55	3.35	396.50	520.30
	15870.000	50.00	0.00	0.00	577.00	1370.00	586.92	0.00	587.12	3.94	3.89	506.32	690.23
	15914.000	44.00	585.40	583.00	577.00	980.00	586.20	0.00	586.33	2.73	3.08	438.10	593.38
	15914.000	44.00	585.40	583.00	577.00	1370.00	587.12	0.00	587.30	3.63	3.79	525.67	718.80
	15964.000	50.00	0.00	0.00	577.00	980.00	586.17	0.00	586.40	5.02	4.03	316.18	437.20
	15964.000	50.00	0.00	0.00	577.00	1370.00	587.08	0.00	587.38	6.19	4.78	448.87	550.76
	16194.000	230.00	0.00	0.00	576.50	980.00	586.46	0.00	586.54	3.60	2.27	483.64	516.70
	16194.000	230.00	0.00	0.00	576.50	1370.00	587.45	0.00	587.56	4.72	2.75	562.35	600.65
*	16244.000	50.00	0.00	0.00	576.50	980.00	586.35	0.00	586.72	17.93	4.87	201.43	231.46
*	16244.000	50.00	0.00	0.00	576.50	1370.00	587.25	0.00	587.84	26.28	6.17	222.11	267.25
	16245.000	1.00	603.60	588.10	576.50	980.00	586.35	0.00	586.72	10.86	4.88	200.70	297.42
	16245.000	1.00	603.60	588.10	576.50	1370.00	587.25	0.00	587.85	16.30	6.19	221.20	339.32
	16503.000	258.00	603.60	588.10	576.50	980.00	586.65	0.00	586.99	9.92	4.72	207.46	311.14
	16503.000	258.00	603.60	588.10	576.50	1370.00	587.71	0.00	588.26	14.40	5.91	231.68	361.08
	16504.000	1.00	0.00	0.00	576.50	910.00	586.72	0.00	587.01	13.68	4.33	209.93	246.01
	16504.000	1.00	0.00	0.00	576.50	1140.00	587.96	0.00	588.32	14.81	4.78	238.36	296.27
*	16554.000	50.00	0.00	0.00	576.60	910.00	587.00	0.00	587.10	3.56	2.73	457.05	402.72
*	16554.000	50.00	0.00	0.00	576.60	1140.00	588.32	0.00	588.42	3.29	2.87	577.87	628.89
*	16826.000	272.00	0.00	0.00	575.30	910.00	587.13	0.00	587.17	1.15	1.83	631.51	850.37
*	16826.000	272.00	0.00	0.00	575.30	1140.00	588.44	0.00	588.49	1.25	2.05	712.63	1019.37
	16876.000	50.00	0.00	0.00	574.60	910.00	587.12	0.00	587.19	1.52	2.20	414.32	737.66
	16876.000	50.00	0.00	0.00	574.60	1140.00	588.42	0.00	588.52	1.72	2.49	457.48	970.11
*	16963.000	87.00	589.70	585.00	574.90	910.00	587.11	0.00	587.25	13.74	2.99	303.92	245.51
	16963.000	87.00	589.70	585.00	574.90	1140.00	588.85	0.00	588.95	1.66	2.47	461.86	884.04
*	17013.000	50.00	0.00	0.00	576.20	910.00	587.28	0.00	587.30	1.26	1.35	749.41	811.30
	17013.000	50.00	0.00	0.00	576.20	1140.00	588.95	0.00	588.98	1.04	1.38	934.57	1116.06
	17255.000	242.00	0.00	0.00	577.90	910.00	587.30	0.00	587.36	2.43	2.02	478.58	583.63
*	17255.000	242.00	0.00	0.00	577.90	1140.00	588.96	0.00	589.03	2.29	2.15	565.51	753.19
*	17305.000	50.00	0.00	0.00	577.90	910.00	587.25	0.00	587.45	5.96	3.58	254.32	372.77
*	17305.000	50.00	0.00	0.00	577.90	1140.00	588.90	0.00	589.13	5.44	3.81	299.26	488.89
	17502.000	197.00	600.40	585.50	577.90	910.00	587.85	0.00	588.03	4.84	3.36	270.67	413.55
	17502.000	197.00	600.40	585.50	577.90	1140.00	589.93	0.00	590.12	4.03	3.48	327.29	567.53
	17552.000	50.00	0.00	0.00	577.50	910.00	588.02	0.00	588.08	2.48	1.98	530.88	578.35
*	17552.000	50.00	0.00	0.00	577.50	1140.00	590.13	0.00	590.18	1.53	1.82	813.05	920.61

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	17817.000	265.00	0.00	0.00	576.90	910.00	588.09	0.00	588.16	3.84	2.20	455.20	464.09
	17817.000	265.00	0.00	0.00	576.90	1140.00	590.18	0.00	590.22	1.61	1.70	896.89	897.90
	18106.000	289.00	0.00	0.00	579.00	910.00	588.21	0.00	588.27	3.12	1.93	584.34	514.98
	18106.000	289.00	0.00	0.00	579.00	1140.00	590.23	0.00	590.27	1.71	1.72	936.89	870.51
	18156.000	50.00	0.00	0.00	579.00	910.00	588.16	0.00	588.31	4.14	3.31	468.10	447.05
	18156.000	50.00	0.00	0.00	579.00	1140.00	590.19	0.00	590.30	2.67	3.04	1011.08	697.13
*	18157.000	1.00	586.70	585.90	579.00	910.00	587.97	0.00	588.39	45.20	5.22	182.49	135.35
*	18157.000	1.00	586.70	585.90	579.00	1140.00	590.14	0.00	590.32	16.93	3.83	728.38	277.06
	18195.000	38.00	586.70	585.90	579.00	910.00	588.17	0.00	588.56	40.67	5.04	204.50	142.69
	18195.000	38.00	586.70	585.90	579.00	1140.00	590.21	0.00	590.38	16.16	3.76	757.00	283.58
*	18196.000	1.00	0.00	0.00	579.00	910.00	588.45	0.00	588.59	3.65	3.17	507.77	476.26
*	18196.000	1.00	0.00	0.00	579.00	1140.00	590.28	0.00	590.39	2.57	3.00	1049.81	711.07
	18246.000	50.00	0.00	0.00	579.00	910.00	588.52	0.00	588.61	3.91	2.94	814.87	459.95
	18246.000	50.00	0.00	0.00	579.00	1140.00	590.34	0.00	590.41	2.52	2.65	1287.19	718.19
	18545.000	299.00	0.00	0.00	578.60	910.00	588.66	0.00	588.77	6.71	2.90	504.46	351.27
	18545.000	299.00	0.00	0.00	578.60	1140.00	590.44	0.00	590.48	2.27	1.96	1227.71	756.04
*	18829.000	284.00	0.00	0.00	578.70	910.00	588.85	0.00	588.87	1.60	1.58	1257.94	718.85
*	18829.000	284.00	0.00	0.00	578.70	1140.00	590.51	0.00	590.53	0.96	1.39	1875.75	1164.68
	18961.000	132.00	0.00	0.00	578.70	910.00	588.87	0.00	588.90	1.59	1.57	1197.03	722.62
	18961.000	132.00	0.00	0.00	578.70	1140.00	590.52	0.00	590.54	0.96	1.39	1706.75	1164.00
*	19112.000	151.00	0.00	0.00	579.00	910.00	588.83	0.00	589.01	5.18	3.45	444.87	400.00
*	19112.000	151.00	0.00	0.00	579.00	1140.00	590.46	0.00	590.65	4.57	3.59	1028.90	533.50
	19162.000	50.00	0.00	0.00	579.00	910.00	588.86	0.00	589.04	5.14	3.44	448.84	401.90
	19162.000	50.00	0.00	0.00	579.00	1140.00	590.49	0.00	590.68	4.54	3.58	1033.91	534.76
*	19163.000	1.00	588.20	583.90	579.00	910.00	588.56	582.52	589.35	246.66	7.14	149.71	57.94
*	19163.000	1.00	588.20	583.90	579.00	1140.00	590.37	0.00	590.80	101.88	5.67	579.36	112.75
*	19263.000	100.00	588.20	583.90	579.00	910.00	589.61	0.00	590.10	29.98	5.68	459.66	166.19
*	19263.000	100.00	588.20	583.90	579.00	1140.00	590.78	0.00	591.22	22.04	5.59	882.16	238.56
*	19264.000	1.00	0.00	0.00	579.00	910.00	590.07	0.00	590.20	3.33	2.99	886.60	498.65
*	19264.000	1.00	0.00	0.00	579.00	1140.00	591.15	0.00	591.31	3.63	3.33	1277.59	598.02
	19314.000	50.00	0.00	0.00	579.00	910.00	590.09	0.00	590.22	3.31	2.99	914.85	500.17
	19314.000	50.00	0.00	0.00	579.00	1140.00	591.17	0.00	591.33	3.61	3.32	1328.13	600.06
	20080.000	766.00	0.00	0.00	580.10	910.00	590.98	0.00	590.49	3.73	3.02	1559.86	470.98
	20080.000	766.00	0.00	0.00	580.10	1140.00	591.49	0.00	591.61	3.63	3.19	2084.00	598.16

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	.01K
	20130.000	50.00	0.00	0.00	580.10	910.00	590.41	0.00	590.51	2.56	2.80	1205.21	569.20
	20130.000	50.00	0.00	0.00	580.10	1140.00	591.53	0.00	591.63	2.47	2.95	1729.85	725.08
*	20131.000	1.00	588.30	586.70	580.10	910.00	590.36	0.00	590.57	26.83	4.19	910.07	175.67
*	20131.000	1.00	588.30	586.70	580.10	1140.00	591.52	0.00	591.64	24.72	3.52	1425.50	229.27
	20168.000	37.00	588.30	586.70	580.10	910.00	590.52	0.00	590.70	36.07	3.93	979.69	151.52
	20168.000	37.00	588.30	586.70	580.10	1140.00	591.61	0.00	591.74	26.27	3.65	1460.49	222.40
*	20169.000	1.00	0.00	0.00	580.10	910.00	590.63	0.00	590.72	2.30	2.71	1311.77	600.43
*	20169.000	1.00	0.00	0.00	580.10	1140.00	591.66	0.00	591.76	2.33	2.90	1793.07	747.17
	20269.000	100.00	0.00	0.00	580.10	910.00	590.66	0.00	590.75	2.79	2.66	1371.18	544.38
	20269.000	100.00	0.00	0.00	580.10	1140.00	591.69	0.00	591.78	2.06	2.86	1056.26	674.31
	20599.000	330.00	0.00	0.00	580.40	910.00	590.76	0.00	590.85	3.10	2.76	1104.81	516.96
	20599.000	330.00	0.00	0.00	580.40	1140.00	591.78	0.00	591.89	3.23	3.00	1463.56	684.78
*	21999.000	1400.00	0.00	0.00	581.40	910.00	591.12	0.00	591.14	1.29	1.32	1157.94	800.24
*	21999.000	1400.00	0.00	0.00	581.40	1140.00	592.11	0.00	592.12	0.82	1.15	1649.97	1259.52
	22380.000	381.00	0.00	0.00	581.70	910.00	591.18	0.00	591.20	1.73	1.51	891.86	692.78
	22380.000	381.00	0.00	0.00	581.70	1140.00	592.14	0.00	592.16	1.22	1.39	1220.06	1031.07
	23417.000	1037.00	0.00	0.00	582.10	910.00	591.34	0.00	591.39	1.64	1.81	503.99	710.35
	23417.000	1037.00	0.00	0.00	582.10	1140.00	592.29	0.00	592.35	2.26	2.00	577.06	758.13
*	23629.000	212.00	592.17	588.66	582.10	920.00	592.65	0.00	592.69	0.82	1.53	628.51	1017.58
*	23629.000	212.00	592.17	588.66	582.10	1200.00	593.20	0.00	593.25	1.10	1.85	706.29	1146.12
*	1.000	100.00	0.00	0.00	582.70	920.00	592.66	0.00	592.70	1.81	1.61	937.72	689.30
*	1.000	100.00	0.00	0.00	582.70	1200.00	593.22	0.00	593.27	2.32	1.91	1064.74	787.99
*	2.000	600.00	0.00	0.00	583.40	920.00	592.82	0.00	592.93	9.40	2.73	398.08	300.06
*	2.000	600.00	0.00	0.00	583.40	1200.00	593.40	0.00	593.56	11.14	3.18	450.72	359.61
	3.000	800.00	0.00	0.00	584.30	920.00	593.50	0.00	593.68	8.84	3.55	307.55	309.87
	3.000	800.00	0.00	0.00	584.30	1200.00	594.22	0.00	594.46	10.84	4.16	344.93	364.53
	4.000	50.00	0.00	0.00	584.40	920.00	593.53	0.00	593.77	15.08	3.92	234.44	236.94
	4.000	50.00	0.00	0.00	584.40	1200.00	594.26	588.67	594.56	18.22	4.49	450.00	201.09
	5.000	70.00	596.50	591.00	584.40	920.00	594.22	0.00	594.42	12.23	3.64	252.75	263.07
	5.000	70.00	596.50	591.00	584.40	1200.00	595.52	0.00	595.79	14.65	4.18	287.13	313.48
*	6.000	70.00	0.00	0.00	583.90	920.00	594.40	0.00	594.51	5.70	2.70	430.52	385.38
*	6.000	70.00	0.00	0.00	583.90	1200.00	595.80	0.00	595.89	4.58	2.69	662.10	560.82
	7.000	17.00	593.70	589.50	583.90	920.00	594.40	0.00	594.51	5.98	2.74	451.26	376.35
	7.000	17.00	593.70	589.50	583.90	1200.00	595.78	0.00	595.89	5.27	2.80	730.10	522.48

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
*	7.500	180.00	0.00	0.00	584.00	920.00	594.51	0.00	594.79	26.14	4.04	476.76	179.93
*	7.500	180.00	0.00	0.00	584.00	1200.00	595.90	0.00	596.10	19.36	4.53	815.28	272.75
	7.600	1.00	592.25	591.25	584.00	920.00	594.65	0.00	594.82	51.76	4.21	501.39	127.80
	7.600	1.00	592.25	591.25	584.00	1200.00	596.03	0.00	596.13	32.27	3.64	834.86	211.24
	7.700	12.00	592.25	591.25	584.00	920.00	594.71	0.00	594.89	49.98	4.16	507.91	130.14
	7.700	12.00	592.25	591.25	584.00	1200.00	596.06	0.00	596.17	32.42	3.66	824.61	210.74
*	7.800	1.00	0.00	0.00	584.00	920.00	594.68	0.00	594.93	23.19	4.61	514.34	191.04
	7.800	1.00	0.00	0.00	584.00	1200.00	596.03	0.00	596.21	17.93	4.39	832.10	288.41
*	8.000	370.00	0.00	0.00	585.20	920.00	595.25	0.00	595.39	7.14	3.01	312.39	344.24
*	8.000	370.00	0.00	0.00	585.20	1200.00	596.44	0.00	596.62	7.17	3.35	373.23	448.06
	9.000	50.00	0.00	0.00	585.30	920.00	595.26	0.00	595.48	13.37	3.74	246.05	251.59
*	9.000	50.00	0.00	0.00	585.30	1200.00	596.44	0.00	596.73	16.49	4.34	276.59	295.53
	10.000	50.00	596.30	591.30	585.30	920.00	596.17	0.00	596.35	10.40	3.41	269.53	285.30
	10.000	50.00	596.30	591.30	585.30	1200.00	596.54	0.00	596.83	16.06	4.30	279.25	299.48
*	11.000	50.00	0.00	0.00	585.40	920.00	596.37	0.00	596.41	2.13	2.04	877.23	630.06
*	11.000	50.00	0.00	0.00	585.40	1200.00	596.87	0.00	596.93	2.76	2.48	939.91	697.05
	12.000	1425.00	0.00	0.00	586.30	920.00	596.68	0.00	596.71	2.10	2.02	868.37	634.45
	12.000	1425.00	0.00	0.00	586.30	1200.00	597.28	0.00	597.34	2.80	2.44	942.87	717.42
	13.000	100.00	0.00	0.00	586.10	920.00	596.66	0.00	596.75	2.39	2.72	514.40	594.82
	13.000	100.00	0.00	0.00	586.10	1200.00	597.26	0.00	597.39	3.29	3.31	559.49	661.62
	68.000	68.00	598.60	594.30	585.50	920.00	597.07	0.00	597.14	1.72	2.43	594.25	702.90
	68.000	68.00	598.60	594.30	585.50	1200.00	597.97	0.00	598.07	2.17	2.88	669.05	814.87
	189.000	121.00	0.00	0.00	586.40	920.00	597.10	0.00	597.16	1.72	2.26	573.46	701.44
	189.000	121.00	0.00	0.00	586.40	1200.00	598.03	0.00	598.10	2.05	2.62	657.97	807.96
	253.000	64.00	599.10	594.60	585.90	920.00	597.47	0.00	597.56	1.98	2.62	508.90	654.50
	253.000	64.00	599.10	594.60	585.90	1200.00	598.70	0.00	598.80	2.15	2.93	1010.67	818.05
	353.000	100.00	0.00	0.00	586.00	1430.00	597.52	0.00	597.59	2.72	2.61	1213.00	867.19
	353.000	100.00	0.00	0.00	586.00	1760.00	598.76	0.00	598.84	2.64	2.76	1540.36	1083.38
	553.000	200.00	0.00	0.00	586.00	1430.00	597.57	0.00	597.64	2.67	2.59	1356.58	875.31
	553.000	200.00	0.00	0.00	586.00	1760.00	598.81	0.00	598.89	2.59	2.74	1760.16	1073.46
*	1832.000	1279.00	0.00	0.00	587.40	1430.00	598.01	0.00	598.17	5.75	3.44	765.09	596.22
	1832.000	1279.00	0.00	0.00	587.40	1760.00	599.20	0.00	599.33	4.34	3.28	1615.43	844.96
	2132.000	350.00	0.00	0.00	587.60	1430.00	598.21	0.00	598.37	5.73	3.43	779.12	597.37
	2132.000	350.00	0.00	0.00	587.60	1760.00	599.35	0.00	599.49	4.57	3.35	1350.87	823.66

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EQ	10*KS	VCH	AREA	.01K
	2536.000	404.00	0.00	0.00	588.00	1430.00	598.50	0.00	598.58	4.07	2.50	905.54	708.67
	2536.000	404.00	0.00	0.00	588.00	1760.00	599.59	0.00	599.66	3.24	2.47	1447.76	977.77
	2541.000	5.00	595.30	593.50	588.00	1430.00	598.57	0.00	598.65	3.89	2.46	941.57	725.30
	2541.000	5.00	595.30	593.50	588.00	1760.00	599.62	0.00	599.69	3.19	2.46	1462.58	985.77
	2591.000	50.00	0.00	0.00	588.00	1430.00	598.59	0.00	598.67	3.90	2.47	935.48	723.80
	2591.000	50.00	0.00	0.00	588.00	1760.00	599.63	0.00	599.71	3.24	2.49	1454.59	977.48
*	2941.000	350.00	0.00	0.00	587.80	1430.00	598.74	0.00	598.77	1.68	2.38	2005.44	1101.91
	2941.000	350.00	0.00	0.00	587.80	1760.00	599.77	0.00	599.80	1.69	2.52	2469.63	1355.29
*	3287.000	346.00	0.00	0.00	588.20	1430.00	598.82	0.00	598.92	7.82	3.54	1840.60	511.43
*	3287.000	346.00	0.00	0.00	588.20	1760.00	599.84	0.00	599.93	6.47	3.46	2357.87	692.01
	3487.000	200.00	595.50	593.50	588.20	1430.00	598.81	0.00	598.92	8.92	3.69	1824.42	490.02
	3487.000	200.00	595.50	593.50	588.20	1760.00	599.83	0.00	599.93	7.13	3.63	2337.30	659.24
	3776.000	289.00	0.00	0.00	589.00	1430.00	599.06	0.00	599.11	4.65	2.76	2051.32	662.85
	3776.000	289.00	0.00	0.00	589.00	1760.00	600.05	0.00	600.09	3.98	2.71	2545.37	801.76
	3843.000	67.00	596.00	593.90	589.00	1430.00	599.06	0.00	599.11	4.63	2.75	2065.48	664.78
	3843.000	67.00	596.00	593.90	589.00	1760.00	600.05	0.00	600.09	3.94	2.70	2565.66	806.85
	4234.000	391.00	0.00	0.00	588.30	1430.00	599.24	0.00	599.34	6.55	3.36	1700.37	558.77
	4234.000	391.00	0.00	0.00	588.30	1760.00	600.21	0.00	600.30	6.14	3.44	2076.79	710.48
	4294.000	60.00	596.00	594.50	588.30	1430.00	599.24	0.00	599.34	6.52	3.36	1597.77	559.87
	4294.000	60.00	596.00	594.50	588.30	1760.00	600.21	0.00	600.30	6.12	3.44	1947.52	711.52
	4610.000	316.00	0.00	0.00	588.60	1430.00	599.46	0.00	599.67	12.57	4.33	912.98	403.05
*	4610.000	316.00	0.00	0.00	588.60	1760.00	600.41	0.00	600.63	12.85	4.56	1101.46	490.99
	4678.000	68.00	596.30	594.50	588.60	1430.00	599.46	0.00	599.67	12.57	4.34	790.35	403.80
	4678.000	68.00	596.30	594.50	588.60	1760.00	600.41	0.00	600.63	12.84	4.56	947.29	491.17
	4853.000	175.00	0.00	0.00	590.00	1430.00	599.61	0.00	599.87	8.55	4.71	476.55	489.14
	4853.000	175.00	0.00	0.00	590.00	1760.00	600.55	0.00	600.86	8.88	5.33	553.85	590.66
	5181.000	328.00	603.10	597.60	590.00	1430.00	600.80	0.00	601.02	7.96	4.55	574.49	506.86
	5181.000	328.00	603.10	597.60	590.00	1760.00	602.47	0.00	602.69	6.79	4.63	727.47	675.41
	5336.000	155.00	0.00	0.00	591.10	1950.00	600.96	0.00	601.22	16.64	4.14	1878.72	478.10
	5336.000	155.00	0.00	0.00	591.10	2310.00	602.62	0.00	602.83	9.63	3.71	2676.49	744.29
	5486.000	150.00	0.00	0.00	591.50	1950.00	601.22	0.00	601.52	19.81	4.84	1567.48	438.15
	5486.000	150.00	0.00	0.00	591.50	2310.00	602.88	0.00	602.99	7.06	3.36	2048.84	869.11

NORTH BR ECORSE CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1.000	4450.00	574.90	0.00	0.00	0.00	89.89	0.00
	1.000	5380.00	574.90	0.00	0.00	0.00	89.89	0.00
	30.000	4450.00	574.94	0.00	0.04	0.00	90.12	29.00
	30.000	5380.00	574.97	0.03	0.07	0.00	90.31	29.00
	60.000	4450.00	574.99	0.00	0.04	0.00	90.47	30.00
	60.000	5380.00	575.04	0.06	0.08	0.00	91.03	30.00
	61.000	4450.00	574.92	0.00	-0.06	0.00	83.03	1.00
	61.000	5380.00	574.95	0.03	-0.09	0.00	83.24	1.00
	136.000	4450.00	575.13	0.00	0.20	0.00	84.73	75.00
	136.000	5380.00	575.29	0.16	0.34	0.00	86.05	75.00
	137.000	4450.00	575.31	0.00	0.18	0.00	93.25	1.00
*	137.000	5380.00	575.56	0.25	0.28	0.00	94.22	1.00
	187.000	4450.00	575.34	0.00	0.03	0.00	91.36	50.00
	187.000	5380.00	575.60	0.26	0.04	0.00	92.59	50.00
*	362.000	4450.00	575.96	0.00	0.62	0.00	146.32	175.00
*	362.000	5380.00	576.47	0.51	0.87	0.00	148.82	175.00
	737.000	4450.00	576.29	0.00	0.33	0.00	123.58	375.00
	737.000	5380.00	576.87	0.57	0.40	0.00	125.13	375.00
	787.000	4450.00	576.28	0.00	-0.01	0.00	106.60	50.00
	787.000	5380.00	576.85	0.57	-0.02	0.00	106.60	50.00
*	788.000	4450.00	576.24	0.00	-0.04	0.00	104.00	1.00
*	788.000	5380.00	576.79	0.56	-0.05	0.00	104.00	1.00
	797.000	4450.00	576.28	0.00	0.05	0.00	104.00	9.00
	797.000	5380.00	576.85	0.56	0.05	0.00	104.00	9.00
*	798.000	4450.00	576.42	0.00	0.13	0.00	106.60	1.00
*	798.000	5380.00	577.01	0.60	0.16	0.00	106.60	1.00
	844.000	4450.00	576.47	0.00	0.05	0.00	109.00	46.00
	844.000	5380.00	577.08	0.61	0.07	0.00	109.00	46.00
*	845.000	4450.00	576.44	0.00	-0.03	0.00	102.00	1.00
*	845.000	5380.00	577.03	0.60	-0.05	0.00	104.00	1.00
	859.000	4450.00	576.49	0.00	0.06	0.00	102.00	14.50
	859.000	5380.00	577.11	0.62	0.08	0.00	104.00	14.50

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	860.000	4450.00	576.59	0.00	0.10	0.00	109.00	1.00
*	860.000	5380.00	577.26	0.67	0.15	0.00	109.00	1.00
	910.000	4450.00	576.67	0.00	0.08	0.00	107.00	50.00
	910.000	5380.00	577.35	0.68	0.09	0.00	107.00	50.00
*	911.000	4450.00	576.63	0.00	-0.04	0.00	105.00	1.00
*	911.000	5380.00	577.30	0.67	-0.04	0.00	105.00	1.00
	921.000	4450.00	576.67	0.00	0.04	0.00	105.00	10.00
	921.000	5380.00	577.35	0.68	0.05	0.00	105.00	10.00
*	922.000	4450.00	576.78	0.00	0.11	0.00	107.00	1.00
*	922.000	5380.00	577.48	0.70	0.13	0.00	107.00	1.00
	953.000	4450.00	576.71	0.00	-0.07	0.00	81.00	31.00
	953.000	5380.00	577.39	0.67	-0.09	0.00	81.00	31.00
*	954.000	4450.00	576.57	0.00	-0.14	0.00	67.20	1.00
*	954.000	5380.00	577.20	0.63	-0.19	0.00	67.20	1.00
	985.000	4450.00	576.82	0.00	0.25	0.00	67.20	30.50
	985.000	5380.00	577.53	0.71	0.33	0.00	67.20	30.50
*	986.000	4450.00	577.22	0.00	0.40	0.00	81.00	1.00
*	986.000	5380.00	578.04	0.82	0.51	0.00	81.00	1.00
	1036.000	4450.00	577.40	0.00	0.18	0.00	120.65	50.00
	1036.000	5380.00	578.31	0.91	0.27	0.00	124.22	50.00
	1736.000	4450.00	578.11	0.00	0.71	0.00	116.48	700.00
	1736.000	5380.00	579.05	0.94	0.74	0.00	118.40	700.00
	2436.000	4450.00	578.57	0.00	0.45	0.00	102.00	700.00
	2436.000	5380.00	579.54	0.97	0.49	0.00	102.00	700.00
*	2736.000	1580.00	579.01	0.00	0.44	0.00	100.00	300.00
*	2736.000	2190.00	580.03	1.03	0.50	0.00	100.00	300.00
	3436.000	1580.00	579.16	0.00	0.15	0.00	100.00	700.00
	3436.000	2190.00	580.22	1.06	0.19	0.00	100.00	700.00
	3836.000	1580.00	579.26	0.00	0.10	0.00	88.51	400.00
	3836.000	2190.00	580.35	1.09	0.12	0.00	100.00	400.00
	4311.000	1580.00	579.46	0.00	0.20	0.00	88.52	475.00
	4311.000	2190.00	580.59	1.13	0.24	0.00	90.00	475.00
	4786.000	1580.00	579.67	0.00	0.22	0.00	104.97	475.00
	4786.000	2190.00	580.85	1.17	0.26	0.00	107.00	475.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4825.000	1580.00	579.70	0.00	0.02	0.00	98.00	39.00
	4825.000	2190.00	580.87	1.17	0.02	0.00	98.00	39.00
	4846.000	1580.00	579.77	0.00	0.07	0.00	98.00	21.00
	4846.000	2190.00	580.87	1.11	0.00	0.00	98.00	21.00
	4847.000	1580.00	579.77	0.00	0.00	0.00	98.00	1.00
	4847.000	2190.00	580.87	1.11	0.00	0.00	98.00	1.00
	5436.000	1580.00	579.93	0.00	0.16	0.00	94.76	589.00
	5436.000	2190.00	581.08	1.16	0.21	0.00	462.61	589.00
	5936.000	1580.00	580.12	0.00	0.19	0.00	96.37	500.00
	5936.000	2190.00	581.22	1.11	0.14	0.00	154.22	500.00
	6416.000	1580.00	580.28	0.00	0.17	0.00	77.27	480.00
	6416.000	2190.00	581.42	1.14	0.20	0.00	88.01	480.00
	6786.000	1580.00	580.50	0.00	0.21	0.00	78.86	370.00
	6786.000	2190.00	581.71	1.21	0.29	0.00	97.04	370.00
	6835.000	1580.00	580.48	0.00	-0.01	0.00	72.45	49.00
	6835.000	2190.00	581.69	1.21	-0.01	0.00	78.07	49.00
	6836.000	1580.00	580.62	0.00	0.14	0.00	73.00	1.00
*	6836.000	2190.00	581.97	1.35	0.27	0.00	1174.38	1.00
	6916.000	1580.00	581.12	0.00	0.50	0.00	73.00	80.00
	6916.000	2190.00	581.88	0.76	-0.09	0.00	73.00	80.00
	6917.000	1330.00	581.11	0.00	-0.01	0.00	75.23	1.00
	6917.000	1960.00	581.85	0.74	-0.02	0.00	78.66	1.00
	7436.000	1330.00	581.36	0.00	0.25	0.00	78.21	519.00
	7436.000	1960.00	582.26	0.90	0.40	0.00	87.22	519.00
	7936.000	1330.00	581.53	0.00	0.18	0.00	285.80	500.00
	7936.000	1960.00	582.61	1.08	0.36	0.00	805.59	500.00
	8536.000	1330.00	581.73	0.00	0.19	0.00	85.47	600.00
	8536.000	1960.00	582.83	1.10	0.22	0.00	250.00	600.00
	9136.000	1330.00	581.99	0.00	0.27	0.00	521.42	600.00
*	9136.000	1960.00	583.11	1.12	0.28	0.00	647.26	600.00
	9586.000	1330.00	582.12	0.00	0.12	0.00	529.09	450.00
	9586.000	1960.00	583.20	1.08	0.08	0.00	653.54	450.00
	9596.000	1330.00	582.10	0.00	-0.02	0.00	200.00	10.00
*	9596.000	1960.00	583.16	1.06	-0.04	0.00	200.00	10.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10286.000	1330.00	582.39	0.00	0.29	0.00	200.00	690.00
	10286.000	1960.00	583.46	1.07	0.30	0.00	200.00	690.00
*	10336.000	1330.00	582.48	0.00	0.08	0.00	709.04	50.00
*	10336.000	1960.00	583.57	1.10	0.11	0.00	932.91	50.00
*	10636.000	1330.00	582.47	0.00	-0.01	0.00	75.35	300.00
*	10636.000	1960.00	583.54	1.07	-0.04	0.00	126.09	300.00
	11536.000	1330.00	582.88	0.00	0.42	0.00	100.77	900.00
	11536.000	1960.00	584.32	1.44	0.78	0.00	196.70	900.00
	12274.000	1330.00	583.18	0.00	0.30	0.00	150.00	738.00
	12274.000	1960.00	584.68	1.50	0.36	0.00	150.00	738.00
	12324.000	1330.00	583.18	0.00	0.00	0.00	50.10	50.00
	12324.000	1960.00	584.72	1.54	0.05	0.00	145.00	50.00
*	12325.000	1330.00	583.15	0.00	-0.03	0.00	50.10	1.00
*	12325.000	1960.00	584.72	1.56	-0.01	0.00	145.00	1.00
	12367.000	1330.00	583.23	0.00	0.08	0.00	50.10	42.00
	12367.000	1960.00	584.79	1.56	0.07	0.00	145.00	42.00
*	12368.000	1330.00	583.38	0.00	0.15	0.00	145.00	1.00
*	12368.000	1960.00	584.81	1.43	0.02	0.00	145.00	1.00
	12418.000	1330.00	583.39	0.00	0.01	0.00	145.00	50.00
	12418.000	1960.00	584.82	1.43	0.02	0.00	145.00	50.00
*	13295.000	1330.00	583.69	0.00	0.29	0.00	313.07	877.00
	13295.000	1960.00	585.14	1.45	0.31	0.00	398.00	877.00
	13676.000	1330.00	583.86	0.00	0.17	0.00	195.00	381.00
	13676.000	1960.00	585.31	1.45	0.17	0.00	195.00	381.00
	13726.000	1330.00	583.85	0.00	-0.01	0.00	170.00	50.00
	13726.000	1960.00	585.29	1.44	-0.02	0.00	170.00	50.00
*	13727.000	1330.00	583.80	0.00	-0.05	0.00	170.00	1.00
*	13727.000	1960.00	585.29	1.49	0.00	0.00	170.00	1.00
	13964.000	1330.00	584.68	0.00	0.88	0.00	170.00	237.00
	13964.000	1960.00	586.04	1.36	0.75	0.00	170.00	237.00
*	13965.000	1330.00	584.72	0.00	0.04	0.00	170.00	1.00
*	13965.000	1960.00	586.03	1.31	-0.01	0.00	170.00	1.00
	14015.000	1330.00	584.79	0.00	0.07	0.00	170.00	50.00
	14015.000	1960.00	586.14	1.35	0.11	0.00	170.00	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	14287.000	1330.00	584.90	0.00	0.11	0.00	320.00	272.00
	14287.000	1960.00	586.29	1.39	0.14	0.00	320.00	272.00
	14337.000	1330.00	584.91	0.00	0.01	0.00	320.00	50.00
	14337.000	1960.00	586.29	1.39	0.01	0.00	320.00	50.00
*	14338.000	1330.00	584.91	0.00	0.00	0.00	320.00	1.00
*	14338.000	1960.00	586.29	1.39	0.00	0.00	320.00	1.00
	14402.000	1330.00	584.95	0.00	0.04	0.00	320.00	64.00
	14402.000	1960.00	586.32	1.37	0.02	0.00	320.00	64.00
*	14403.000	1330.00	584.95	0.00	0.00	0.00	320.00	1.00
*	14403.000	1960.00	586.32	1.37	0.00	0.00	320.00	1.00
	14460.000	1330.00	584.95	0.00	0.00	0.00	400.00	57.00
	14460.000	1960.00	586.32	1.36	0.00	0.00	400.00	57.00
*	14461.000	1330.00	584.96	0.00	0.01	0.00	400.00	1.00
*	14461.000	1960.00	586.35	1.39	0.03	0.00	400.00	1.00
	14521.000	1330.00	585.02	0.00	0.06	0.00	400.00	60.00
	14521.000	1960.00	586.39	1.37	0.04	0.00	400.00	60.00
*	14522.000	1330.00	585.02	0.00	0.00	0.00	400.00	1.00
*	14522.000	1960.00	586.38	1.36	-0.01	0.00	400.00	1.00
*	14572.000	980.00	585.05	0.00	0.03	0.00	420.00	50.00
*	14572.000	1370.00	586.42	1.38	0.04	0.00	420.00	50.00
*	15292.000	980.00	585.27	0.00	0.22	0.00	60.26	720.00
*	15292.000	1370.00	586.60	1.33	0.17	0.00	64.21	720.00
	15820.000	980.00	585.50	0.00	0.23	0.00	84.73	528.00
	15820.000	1370.00	586.84	1.35	0.25	0.00	112.00	528.00
	15870.000	980.00	585.57	0.00	0.08	0.00	64.49	50.00
	15870.000	1370.00	586.92	1.35	0.08	0.00	100.00	50.00
	15914.000	980.00	586.20	0.00	0.63	0.00	70.30	44.00
	15914.000	1370.00	587.12	0.91	0.19	0.00	100.00	44.00
	15964.000	980.00	586.17	0.00	-0.03	0.00	101.04	50.00
	15964.000	1370.00	587.08	0.91	-0.03	0.00	150.00	50.00
	16194.000	980.00	586.46	0.00	0.29	0.00	77.42	230.00
	16194.000	1370.00	587.45	0.98	0.36	0.00	82.60	230.00
*	16244.000	980.00	586.35	0.00	-0.11	0.00	22.93	50.00
*	16244.000	1370.00	587.25	0.90	-0.19	0.00	22.93	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	16245.000	980.00	586.35	0.00	0.00	0.00	22.93	1.00
	16245.000	1370.00	587.25	0.90	0.00	0.00	22.93	1.00
	16503.000	980.00	586.65	0.00	0.30	0.00	22.93	258.00
	16503.000	1370.00	587.71	1.07	0.46	0.00	22.94	258.00
	16504.000	910.00	586.72	0.00	0.07	0.00	22.93	1.00
	16504.000	1140.00	587.96	1.24	0.25	0.00	22.94	1.00
*	16554.000	910.00	587.00	0.00	0.28	0.00	82.98	50.00
*	16554.000	1140.00	588.32	1.31	0.36	0.00	95.48	50.00
*	16826.000	910.00	587.13	0.00	0.12	0.00	62.00	272.00
*	16826.000	1140.00	588.44	1.31	0.12	0.00	62.00	272.00
	16876.000	910.00	587.12	0.00	-0.01	0.00	33.10	50.00
	16876.000	1140.00	588.42	1.30	-0.01	0.00	33.10	50.00
*	16963.000	910.00	587.11	0.00	0.00	0.00	33.10	87.00
	16963.000	1140.00	588.85	1.74	0.43	0.00	33.10	87.00
*	17013.000	910.00	587.28	0.00	0.16	0.00	108.69	50.00
	17013.000	1140.00	588.95	1.67	0.10	0.00	112.87	50.00
	17255.000	910.00	587.30	0.00	0.02	0.00	52.00	242.00
*	17255.000	1140.00	588.96	1.66	0.01	0.00	52.00	242.00
*	17305.000	910.00	587.25	0.00	-0.05	0.00	27.20	50.00
*	17305.000	1140.00	588.90	1.65	-0.06	0.00	27.20	50.00
	17502.000	910.00	587.85	0.00	0.60	0.00	27.20	197.00
	17502.000	1140.00	589.93	2.08	1.03	0.00	27.20	197.00
	17552.000	910.00	588.02	0.00	0.17	0.00	130.00	50.00
*	17552.000	1140.00	590.13	2.11	0.20	0.00	130.00	50.00
	17817.000	910.00	588.09	0.00	0.07	0.00	155.46	265.00
	17817.000	1140.00	590.18	2.09	0.05	0.00	221.60	265.00
	18106.000	910.00	588.21	0.00	0.12	0.00	170.67	289.00
	18106.000	1140.00	590.23	2.02	0.04	0.00	175.00	289.00
	18156.000	910.00	588.16	0.00	-0.05	0.00	121.40	50.00
	18156.000	1140.00	590.19	2.03	-0.04	0.00	401.43	50.00
*	18157.000	910.00	587.97	0.00	-0.19	0.00	102.10	1.00
*	18157.000	1140.00	590.14	2.17	-0.05	0.00	395.47	1.00
	18195.000	910.00	588.17	0.00	0.20	0.00	121.77	38.00
	18195.000	1140.00	590.21	2.05	0.07	0.00	404.58	38.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	18196.000	910.00	588.45	0.00	0.29	0.00	159.60	1.00
*	18196.000	1140.00	590.28	1.83	0.07	0.00	413.54	1.00
	18246.000	910.00	588.52	0.00	0.07	0.00	260.00	50.00
	18246.000	1140.00	590.34	1.82	0.06	0.00	260.00	50.00
	18545.000	910.00	588.66	0.00	0.14	0.00	345.65	299.00
	18545.000	1140.00	590.44	1.79	0.10	0.00	420.00	299.00
*	18829.000	910.00	588.85	0.00	0.20	0.00	372.00	284.00
*	18829.000	1140.00	590.51	1.66	0.07	0.00	372.00	284.00
	18961.000	910.00	588.87	0.00	0.02	0.00	306.00	132.00
	18961.000	1140.00	590.52	1.65	0.01	0.00	306.00	132.00
*	19112.000	910.00	588.83	0.00	-0.04	0.00	230.89	151.00
*	19112.000	1140.00	590.46	1.63	-0.06	0.00	363.00	151.00
	19162.000	910.00	588.86	0.00	0.03	0.00	239.13	50.00
	19162.000	1140.00	590.49	1.63	0.02	0.00	363.00	50.00
*	19163.000	910.00	588.56	0.00	-0.30	0.00	173.01	1.00
*	19163.000	1140.00	590.37	1.81	-0.12	0.00	240.00	1.00
*	19263.000	910.00	589.61	0.00	1.06	0.00	363.00	100.00
*	19263.000	1140.00	590.78	1.17	0.42	0.00	363.00	100.00
*	19264.000	910.00	590.07	0.00	0.46	0.00	363.00	1.00
*	19264.000	1140.00	591.15	1.08	0.36	0.00	363.00	1.00
	19314.000	910.00	590.09	0.00	0.02	0.00	383.00	50.00
	19314.000	1140.00	591.17	1.08	0.02	0.00	383.00	50.00
	20080.000	910.00	590.38	0.00	0.29	0.00	470.00	766.00
	20080.000	1140.00	591.49	1.12	0.33	0.00	470.00	766.00
	20130.000	910.00	590.41	0.00	0.03	0.00	470.00	50.00
	20130.000	1140.00	591.53	1.12	0.04	0.00	470.00	50.00
*	20131.000	910.00	590.36	0.00	-0.06	0.00	470.00	1.00
*	20131.000	1140.00	591.52	1.17	-0.01	0.00	470.00	1.00
	20168.000	910.00	590.52	0.00	0.16	0.00	470.00	37.00
	20168.000	1140.00	591.61	1.09	0.09	0.00	470.00	37.00
*	20169.000	910.00	590.63	0.00	0.11	0.00	470.00	1.00
*	20169.000	1140.00	591.66	1.02	0.05	0.00	470.00	1.00
	20269.000	910.00	590.66	0.00	0.03	0.00	474.00	100.00
	20269.000	1140.00	591.69	1.02	0.03	0.00	474.00	100.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	20599.000	910.00	590.76	0.00	0.09	0.00	350.00	330.00
	20599.000	1140.00	591.78	1.02	0.09	0.00	350.00	330.00
*	21999.000	910.00	591.12	0.00	0.37	0.00	500.00	1400.00
*	21999.000	1140.00	592.11	0.98	0.33	0.00	500.00	1400.00
	22380.000	910.00	591.18	0.00	0.05	0.00	340.00	381.00
	22380.000	1140.00	592.14	0.97	0.03	0.00	340.00	381.00
	23417.000	910.00	591.34	0.00	0.16	0.00	68.13	1037.00
	23417.000	1140.00	592.29	0.95	0.15	0.00	141.55	1037.00
*	23629.000	920.00	592.65	0.00	1.31	0.00	142.00	212.00
*	23629.000	1200.00	593.20	0.55	0.91	0.00	142.00	212.00
*	1.000	920.00	592.66	0.00	0.01	0.00	230.00	100.00
*	1.000	1200.00	593.22	0.55	0.02	0.00	230.00	100.00
*	2.000	920.00	592.82	0.00	0.15	0.00	90.00	600.00
*	2.000	1200.00	593.40	0.58	0.19	0.00	90.00	600.00
	3.000	920.00	593.50	0.00	0.69	0.00	52.00	800.00
	3.000	1200.00	594.22	0.72	0.82	0.00	52.00	800.00
	4.000	920.00	593.53	0.00	0.02	0.00	26.50	50.00
	4.000	1200.00	594.26	0.73	0.04	0.00	979.41	50.00
	5.000	920.00	594.22	0.00	0.69	0.00	26.50	70.00
	5.000	1200.00	595.52	1.30	1.25	0.00	26.50	70.00
*	6.000	920.00	594.40	0.00	0.18	0.00	166.00	70.00
*	6.000	1200.00	595.80	1.39	0.28	0.00	166.00	70.00
	7.000	920.00	594.40	0.00	0.00	0.00	200.00	17.00
	7.000	1200.00	595.78	1.39	-0.01	0.00	200.00	17.00
*	7.500	920.00	594.51	0.00	0.11	0.00	242.00	180.00
*	7.500	1200.00	595.90	1.39	0.12	0.00	242.00	180.00
	7.600	920.00	594.65	0.00	0.13	0.00	242.00	1.00
	7.600	1200.00	596.03	1.38	0.12	0.00	242.00	1.00
	7.700	920.00	594.71	0.00	0.07	0.00	236.00	12.00
	7.700	1200.00	596.06	1.35	0.04	0.00	236.00	12.00
*	7.800	920.00	594.68	0.00	-0.03	0.00	236.00	1.00
	7.800	1200.00	596.03	1.35	-0.04	0.00	236.00	1.00
*	8.000	920.00	595.25	0.00	0.57	0.00	51.00	370.00
*	8.000	1200.00	596.44	1.19	0.42	0.00	51.00	370.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9.000	920.00	595.26	0.00	0.01	0.00	26.00	50.00
*	9.000	1200.00	596.44	1.17	-0.01	0.00	26.00	50.00
	10.000	920.00	596.17	0.00	0.90	0.00	26.00	50.00
	10.000	1200.00	596.54	0.37	0.10	0.00	26.00	50.00
*	11.000	920.00	596.37	0.00	0.21	0.00	126.00	50.00
*	11.000	1200.00	596.87	0.50	0.33	0.00	126.00	50.00
	12.000	920.00	596.68	0.00	0.30	0.00	123.00	1425.00
	12.000	1200.00	597.28	0.61	0.41	0.00	123.00	1425.00
	13.000	920.00	596.66	0.00	-0.02	0.00	74.18	100.00
	13.000	1200.00	597.26	0.60	-0.03	0.00	76.99	100.00
	68.000	920.00	597.07	0.00	0.41	0.00	80.43	68.00
	68.000	1200.00	597.97	0.91	0.72	0.00	84.87	68.00
	189.000	920.00	597.10	0.00	0.04	0.00	89.17	121.00
	189.000	1200.00	598.03	0.92	0.05	0.00	95.04	121.00
	253.000	920.00	597.47	0.00	0.37	0.00	64.34	64.00
	253.000	1200.00	598.70	1.23	0.67	0.00	1937.57	64.00
	353.000	1430.00	597.52	0.00	0.04	0.00	264.00	100.00
	353.000	1760.00	598.76	1.24	0.06	0.00	264.00	100.00
	553.000	1430.00	597.57	0.00	0.06	0.00	324.00	200.00
	553.000	1760.00	598.81	1.24	0.05	0.00	326.42	200.00
*	1832.000	1430.00	598.01	0.00	0.43	0.00	615.25	1279.00
	1832.000	1760.00	599.20	1.20	0.39	0.00	720.00	1279.00
	2132.000	1430.00	598.21	0.00	0.20	0.00	500.00	350.00
	2132.000	1760.00	599.35	1.14	0.15	0.00	500.00	350.00
	2536.000	1430.00	598.50	0.00	0.29	0.00	500.00	404.00
	2536.000	1760.00	599.59	1.08	0.24	0.00	500.00	404.00
	2541.000	1430.00	598.57	0.00	0.07	0.00	500.00	5.00
	2541.000	1760.00	599.62	1.04	0.03	0.00	500.00	5.00
	2591.000	1430.00	598.59	0.00	0.02	0.00	500.00	50.00
	2591.000	1760.00	599.63	1.04	0.01	0.00	500.00	50.00
*	2941.000	1430.00	598.74	0.00	0.15	0.00	450.00	350.00
	2941.000	1760.00	599.77	1.02	0.14	0.00	450.00	350.00
*	3287.000	1430.00	598.82	0.00	0.07	0.00	500.00	346.00
*	3287.000	1760.00	599.84	1.03	0.08	0.00	500.00	346.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3487.000	1430.00	598.81	0.00	-0.01	0.00	500.00	200.00
	3487.000	1760.00	599.83	1.03	-0.01	0.00	500.00	200.00
	3776.000	1430.00	599.06	0.00	0.25	0.00	500.00	289.00
	3776.000	1760.00	600.05	0.99	0.22	0.00	500.00	289.00
	3843.000	1430.00	599.06	0.00	0.00	0.00	500.00	67.00
	3843.000	1760.00	600.05	0.99	0.00	0.00	500.00	67.00
	4234.000	1430.00	599.24	0.00	0.18	0.00	390.00	391.00
	4234.000	1760.00	600.21	0.97	0.15	0.00	390.00	391.00
	4294.000	1430.00	599.24	0.00	0.00	0.00	360.00	60.00
	4294.000	1760.00	600.21	0.97	0.00	0.00	360.00	60.00
	4610.000	1430.00	599.46	0.00	0.22	0.00	199.00	316.00
*	4610.000	1760.00	600.41	0.95	0.20	0.00	199.00	316.00
	4678.000	1430.00	599.46	0.00	0.00	0.00	165.00	68.00
	4678.000	1760.00	600.41	0.95	0.00	0.00	165.00	68.00
	4853.000	1430.00	599.61	0.00	0.16	0.00	79.15	175.00
	4853.000	1760.00	600.55	0.94	0.15	0.00	84.95	175.00
	5181.000	1430.00	600.80	0.00	1.18	0.00	86.43	328.00
	5181.000	1760.00	602.47	1.67	1.91	0.00	96.71	328.00
	5336.000	1950.00	600.96	0.00	0.17	0.00	463.27	155.00
	5336.000	2310.00	602.62	1.66	0.15	0.00	509.00	155.00
	5486.000	1950.00	601.22	0.00	0.26	0.00	692.50	150.00
	5486.000	2310.00	602.88	1.66	0.26	0.00	809.00	150.00

SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 137.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 362.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 362.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 788.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 798.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 845.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 860.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 911.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 911.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 922.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 922.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 954.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 986.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 986.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 2736.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 6836.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 9136.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 9596.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 10336.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 10336.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 10636.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 12325.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 12368.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 13295.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 13727.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 13965.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 14338.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 14338.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 14403.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 14461.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 14461.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 14522.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 14522.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 14572.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 14572.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 15292.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 16244.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO= 16554.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 16554.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 16826.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 16826.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 16963.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 17013.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 17255.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 17305.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 17305.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 17552.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 18157.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 18157.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 18196.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 18196.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 18829.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 18829.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING SECNO=   19112.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   19112.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   19163.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   19163.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   19263.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   19263.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   19264.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   19264.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   20131.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   20131.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   20169.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   20169.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   21999.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   21999.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   23629.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   23629.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       1.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       1.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       2.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       2.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       6.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       6.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       7.500  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       7.500  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       7.800  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       8.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=       8.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=       9.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      11.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      11.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    1832.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    2941.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    3287.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    3287.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    4610.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: [redacted] Encroachment

00BREAK00

```
EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y    Y   I        IIIII    N    N    SSSS    K   K
E        E               K  K     O    O   B    B    Y  Y    I          I      NN   N   S        K  K
E        E       ------  K K      O    O   BBBBB      YY     I          I      N N  N    SSSS    K K
EEEE     EEEE            KKK      O    O   B    B     Y      I          I      N  N N        S   KKK
E        E               K  K     O    O   B    B    Y       I          I      N   NN   S    S   K  K
EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y        IIIIII   IIIII    N    N    SSSS    K   K
```

USACOE DETROIT H800 VOS 7 1.0 PRINTER 6

EE-KOBYLINSK 1 SEP 92 11:10.47

TERMINAL: 104

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**********************************************
*  WATER SURFACE PROFILES                    *
*  VERSION OF SEPTEMBER 1988                 *
*  ERROR. 01,02,03,04                        *
*  UPDATED  JUNE 1990                        *
*  RUN DATE    01SEP92    TIME   11:01:14     *
**********************************************
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```
**********************************
*  U.S. ARMY CORPS OF ENGINEERS  *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D    *
*  DAVIS, CALIFORNIA 95616-4687  *
*        (916) 756-1104          *
**********************************
```

```
X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                       X
XXXXXXXX  XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
```

END OF BANNER

City of Allen Park
North Branch Ecorse Creek
Encroachment Run.

ENCLOSURE 2

THIS RUN EXECUTED 01SEP92 11.01.15

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**********************************************
  HEC2 RELEASE DATED SEP 88 UPDATED JUN  1990

  ERROR CORR -  01,02,03,04
  MODIFICATION -
**********************************************

T1       ECORSE CREEK FLOOD CONTROL STUDY
T2      100 YEAR FLOOD    FUTURE CONDITION
T3       NORTH BR ECORSE CREEK    ENCROACHMENT RUN

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

        0       2 00       0.00       0.00       0.00       0.00       0.00       0.00     574.70       0.00

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.00       0 00      -1.00       0.00       0 00       0.00       0.00       0 00       0 00       0 00

J3   VARIABLE CODES FOR SUMMARY PRINTOUT

     110        150        200

NC      .035       .035       .03        .3         .5
QT         2       4450       4450
ET         0          0       1.4
X1         1      41 00     500.00     619.00       0.00       0.00       0 00       0.00       0 00       0 00
GR    576.20       0.00     575.90     100.00     576.60     200.00     578 50     300.00     581.10     400.00
GR    584.60     500.00     582.80     500.00     582.60     505 00     581 70     510.00     581.10     515.00
GR    579.20     520.00     575.40     525.00     574 80     530.00     572.80     535.00     569.20     540.00
GR    569 20     540.00     565.50     543.50     565.50     543.50     565.50     545.00     563.90     555 00
GR    566.10     560 00     565 30     565 00     565.40     570.00     564.10     575.00     566 20     580 00
GR    566.20     580.00     565 30     583.50     565.30     583.50     565.30     585 00     563.40     590 00
GR    564 40     595 00     565.40     600.00     567.70     605.00     571 10     610.00     573.50     615.00
GR    574.00     619.00     584.60     619.00     582.30     700 00     577.60     800.00     579.00     890.00
GR    578.70    1000.00       0 00       0.00       0.00       0.00       0.00       0.00       0.00       0 00

X1       30.       0.00       0.00       0.00      27.00      29.00      29.00       0.00       0.00       0 00

X1       60.      41.00     500.00     619.00      30.00      30 00      30.00       0 00       0.00       0.00
GR    576.20       0 00     575.90     100.00     576.60     200 00     578.50     300.00     581.10     400.00
GR    584 60     500.00     582.80     500.00     582.60     505.00     581.70     510.00     581.10     515.00
GR    579.20     520.00     575.40     525.00     574.80     530.00     572.80     535 00     569.20     540.00
GR    569 20     540 00     565.50     543.50     565.50     543 50     565 50     545.00     563.70     555.00
GR    566.10     560 00     565.30     565.00     565.40     570.00     564.10     575.00     566.20     580.00
GR    566.20     580 00     565.30     583 50     565.30     583 50     565.30     585.00     563.40     590.00
GR    564.40     595 00     565 40     600.00     567 70     605.00     571.10     610.00     573 50     615.00
GR    574.00     619.00     584.60     619.00     582.30     700.00     579 60     800.00     579.00     890.00
GR    578.70    1000.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
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WEST JEFFERSON AVENUE BRIDGE

X1	61.	41.00	500.00	619.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	10.00	500.00	584.30	579.80	500.00	587.70	579.80	520.00	583.00	579.20
BT	540.00	588.10	580.30	543.50	588.10	580.30	560.00	588.30	580.30	580.00
BT	588.10	580.30	583.50	588.10	580.30	617.00	587.70	579.70	619.00	584.40
BT	579.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	576.20	0.00	575.90	100.00	576.60	200.00	578.50	300.00	581.10	400.00
GR	584.30	500.00	582.80	500.00	582.60	505.00	581.90	510.00	581.10	515.00
GR	579.20	520.00	575.40	525.00	574.80	530.00	572.80	535.00	569.20	540.00
GR	580.30	540.00	580.30	543.50	565.50	543.50	565.50	545.00	563.70	555.00
GR	566.10	560.00	565.30	565.00	565.40	570.00	564.10	575.00	566.20	580.00
GR	580.30	580.00	580.30	583.50	565.30	583.50	565.30	585.00	563.40	590.00
GR	564.40	595.00	565.40	600.00	567.70	605.00	571.10	610.00	573.50	615.00
GR	574.00	619.00	584.60	619.00	582.30	700.00	579.60	800.00	579.00	890.00
GR	578.70	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X1	136	0.00	0.00	0.00	75.00	75.00	75.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	137.	41.00	500.00	619.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	576.20	0.00	575.90	100.00	576.60	200.00	578.50	300.00	581.10	400.00
GR	584.60	500.00	582.80	500.00	582.60	505.00	581.90	510.00	581.60	515.00
GR	579.20	520.00	575.40	525.00	574.80	530.00	572.80	535.00	569.20	540.00
GR	569.20	540.00	565.50	543.50	565.50	543.50	565.50	545.00	563.70	555.00
GR	566.10	560.00	565.30	565.00	565.40	570.00	564.10	575.00	566.20	580.00
GR	566.20	580.00	565.30	583.50	565.30	583.50	565.30	585.00	563.40	590.00
GR	564.40	595.00	565.40	600.00	567.70	605.00	571.10	610.00	573.50	615.00
GR	574.00	619.00	584.60	619.00	582.30	700.00	579.60	800.00	579.00	890.00
GR	578.70	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NC	0.035	0.042	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	187.	27.00	331.00	441.00	50.00	50.00	50.00	0.00	0.00	0.00
GR	575.80	0.00	576.60	41.00	578.50	141.00	580.60	241.00	583.10	331.00
GR	575.40	341.00	574.80	346.00	571.30	351.00	568.10	356.00	567.20	361.00
GR	565.70	366.00	565.10	371.00	565.50	376.00	565.10	381.00	564.70	391.00
GR	564.10	401.00	564.40	406.00	565.70	411.00	568.20	416.00	570.50	421.00
GR	572.80	426.00	574.80	432.00	580.20	441.00	583.60	454.00	581.00	541.00
GR	579.30	641.00	578.30	698.00	0.00	0.00	0.00	0.00	0.00	0.00
NH	4.0	0.035	244.000	0.035	360.000	0.070	400.000	0.035	800.000	0.000
X1	362.	35	244	400	175	175	175	0	0.27	0
GR	580.20	0.00	579.50	100.00	578.30	200.00	578.30	244.00	574.60	254.00
GR	573.60	255.00	571.50	260.00	569.80	265.00	568.50	270.00	567.60	275.00
GR	566.90	280.00	565.90	285.00	565.60	290.00	563.70	300.00	563.70	310.00
GR	564.30	320.00	565.80	330.00	568.20	340.00	569.80	345.00	571.10	350.00
GR	571.60	355.00	572.40	360.00	572.10	365.00	572.60	370.00	572.60	375.00
GR	572.80	380.00	572.80	385.00	572.90	390.00	574.60	395.00	576.90	400.00
GR	577.60	500.00	577.70	545.00	577.50	600.00	577.70	700.00	577.50	800.00

NH	4 0	0.035	244 000	0.035	360.000	0.070	400 000	0.035	800.000	0.000
ET	0	4 1	6 1	244	360	255	355			
X1	737.	35 00	244.00	400.00	375 00	375.00	375.00	0.00	0.00	0.00
GR	580 20	0.00	579 50	100.00	578.30	200.00	578.30	244.00	574.60	254.00
GR	573 60	255 00	571 50	260.00	569.80	265.00	568.50	270.00	567.60	275.00
GR	566.90	280.00	565.90	285.00	565 60	290.00	563.70	300.00	563.70	310.00
GR	564.30	320 00	565.80	330 00	568.20	340.00	569.80	345.00	571.10	350.00
GR	571.60	355.00	572.40	360.00	572 10	365 00	572.60	370.00	572.60	375 00
GR	572.80	380.00	572.80	385.00	572.90	390.00	574 60	395 00	576.90	400.00
GR	577 60	500.00	577 70	545.00	577.50	600.00	577.70	700.00	577.50	800.00
NC	0.035	0.042	0 035	0.000	0.000	0.000	0.000	0.000	0.000	0 000
ET	0	0	1 4							
X1	787.	67.00	795.00	901.60	50 00	50.00	50.00	0.00	0 00	0 00
GR	581 50	0.00	581 40	95.00	581.30	195.00	581.20	295.00	581.10	395.00
GR	581.10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575.20	795 00
GR	574.50	800.00	574.50	800.00	574.50	801 00	574 50	801.00	574.00	805 00
GR	573.20	810 00	573.20	810.00	573.20	811.00	573.20	811.00	570.80	815.00
GR	569.30	820.00	570.10	825.00	570 10	825 00	570.10	826.00	570 10	826.00
GR	566 60	829 90	566.60	829.90	566 60	831.20	566.60	831.20	565.50	835.00
GR	565.50	835.00	565.50	836.00	565.50	836.00	563.90	840.00	564.50	845.00
GR	564.50	845.00	564.50	846.00	564.50	846.00	564 90	850 00	564.70	855.00
GR	564.90	855.00	564.90	856.00	564 90	856 00	565.50	860.00	565 20	865.00
GR	565.20	865.00	565.20	866.30	565.30	866.30	566.00	870 00	566.00	875.00
GR	566.00	875.00	566 00	876.00	566.00	876.00	566.70	880.00	568.70	885 00
GR	568 30	890.00	569.70	895.00	571.70	900.00	571.70	901 60	581.00	701.60
GR	580.80	995 00	580.80	1095.00	580 60	1175.00	580 40	1275 00	580.10	1395 00
GR	579.90	1495.00	580.00	1540.00	0.00	0.00	0.00	0 00	0.00	0.00

D.T. AND I. RAILROAD

X1	788	67.00	795.00	901.60	1.00	1 00	1.00	0 00	0 00	0.00
BT	4.00	795 00	581.00	577.20	830.00	581.00	577 20	860.00	581 00	577.20
BT	901.60	581.00	577.20	0.00	0.00	0.00	0.00	0.00	0 00	0.00
GR	581.50	0.00	581.40	95.00	581.30	195 00	581.20	295.00	581.10	395.00
GR	581.10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575 20	795.00
GR	574.50	800.00	575.50	800.00	575.50	801.00	574.50	801 00	574.00	805.00
GR	573.20	810.00	575.50	810.00	575.50	811.00	573.20	811.00	570.80	815 00
GR	569.30	820.00	570 10	825.00	575.50	825.00	575.50	826.00	570.10	826.00
GR	566.60	830 00	577.20	830.00	577.20	831.30	566.60	831.30	565.50	835.00
GR	575 50	835.00	575.50	836.00	565.50	836.00	563.90	840.00	564.50	845 00
GR	575.50	845 00	575 50	846.00	564.50	846.00	564.90	850.00	564.70	855.00
GR	575 50	855.00	575.50	856.00	564.90	856.00	565.50	860.00	565.20	865 00
GR	577 20	865 00	577 20	866 30	565.20	866.30	566.00	870.00	566.00	875.00
GR	575.50	875.00	575.50	876.00	566.00	876.00	566 70	880.00	568.70	885.00
GR	568.30	890 00	569 70	895.00	571.70	900.00	571 70	901.60	581 00	701.60
GR	580 80	995.00	580 80	1095.00	580.60	1175.00	580.40	1295 00	580 10	1395.00
GR	579 90	1495.00	580.00	1540.00	0.00	0.00	0.00	0.00	0.00	0.00

X1	798.	67 00	795.00	901.60	1.00	1.00	1.00	0.00	0.00	0.00
GR	581.50	0 00	581 40	95.00	581.30	195 00	581.20	295 00	581 10	395.00
GR	581 10	495.00	581.10	595.00	581.00	695.00	581.00	795.00	575.30	795.00
GR	574.50	800.00	574 50	800 00	574.50	801.00	574.50	801.00	574 00	805 00
GR	573 20	810.00	573 20	810 00	573.20	811 00	573.20	811.00	570.00	815.00
GR	569.30	820.00	570 10	825.00	570.10	825.00	570 10	826.00	570.10	826 00
GR	566 60	829 90	566.60	829 90	566.60	831.20	566.60	831.20	565.50	835.00
GR	565.50	835.00	565 50	836.00	565.50	836 00	563.90	840.00	564.50	845.00
GR	564.50	845.00	564.50	846.00	564 50	846.00	564.70	850 00	564 70	855.00
GR	564 90	855.00	564.90	856.00	564.90	856.00	565.50	860.00	565.20	865.00
GR	565.20	865.00	565.20	866.30	565.30	866 30	566.00	870.00	566.00	875.00
GR	566.00	875.00	566.00	876.00	566 00	876.00	566.70	880.00	568.70	885.00
GR	568.30	890.00	569 70	895.00	571 70	900 00	571.70	901.60	581.00	901.60
GR	580.80	995 00	580.80	1095.00	580 60	1195 00	580.40	1275.00	580.10	1395 00
GR	579.90	1495.00	580.00	1540.00	0 00	0.00	0.00	0.00	0.00	0 00
X1	844.	58 00	815.00	924.00	46.00	46 00	46.00	0.00	0.00	0 00
GR	583 40	0.00	583.40	15.00	583.10	115 00	582 90	215.00	582.80	315 00
GR	582.60	415.00	582.30	515.00	582.10	615 00	581.80	715.00	581 50	815.00
GR	576.10	815.00	574.20	820.00	572.70	825 00	570.00	829.00	570.00	827.00
GR	570 00	830.00	570.00	830.00	568.00	835 00	565.70	840.00	565.00	844 00
GR	565.00	844.00	565 00	845 00	565.00	845.00	565.00	855.00	566.00	864.00
GR	566.00	864.00	566 00	865.00	566.00	865.00	566.10	874.00	566.10	874.00
GR	566.10	875.00	566.10	875.00	565 80	884.00	565.80	884.00	565.80	885 00
GR	565 80	885 00	565.60	890 00	565 20	894 00	565.20	894.00	565.20	895.00
GR	565 20	895.00	567.60	900 00	570.30	905 00	572.00	909.00	572.00	907.00
GR	572.00	910.00	572 00	910.00	574.00	715.00	575.10	920 00	576.20	924.00
GR	581.40	924.00	581.30	1015.00	581 30	1115.00	581.10	1215.00	581.10	1315 00
GR	581 10	1415.00	581.20	1515 00	581 20	1565.00	0.00	0.00	0.00	0.00

CONRAIL

X1	845.	58.00	815 00	924.00	1.00	1.00	1 00	0.00	0 00	0 00
BT	16.00	815.00	581.50	578.40	829.00	581.50	578.10	830.00	581 50	578.10
BT	844.00	581.50	577.90	845.00	581.50	577.70	864.00	581.50	577.50	865 00
BT	581.50	577.50	874.00	581.40	577.40	875.00	581.40	577.40	884.00	581.40
BT	577.20	885 00	581 40	577.20	894.00	581.40	577.00	895.00	581 40	577.00
BT	909.00	581 40	576 80	910.00	581.40	576.80	924.00	581.40	576.50	0.00
GR	583.40	0.00	583.40	15.00	583.10	115.00	582 90	215.00	582.80	315 00
GR	582 60	415 00	582.30	515.00	582.10	615.00	581.80	715.00	581 50	815.00
GR	576 10	815 00	574.20	820.00	572.70	825.00	570.00	827.00	570.10	827.00
GR	578.10	830.00	570.00	830.00	568.00	835.00	565.70	840.00	565.00	844.00
GR	577.90	844 00	577.90	845.00	565.00	845 00	565.00	855.00	566.00	864.00
GR	577.50	864 00	577 50	865.00	566.00	865 00	566.10	874.00	577 40	874.00
GR	577.40	875.00	566.10	875.00	565.80	884.00	577.20	884.00	577.20	885.00
GR	565.80	885.00	565 60	890.00	565.20	894.00	577.00	894.00	577.00	895.00
GR	565.20	895 00	567.60	900 00	570 30	905.00	572.00	909 00	576.80	907.00
GR	576 80	910.00	572 00	910.00	574 00	715.00	575.10	920.00	576.00	924.00
GR	581 40	924.00	581.30	1015.00	581.30	1115.00	581.10	1215.00	581.10	1315 00
GR	581.10	1415.00	581.20	1515.00	581.20	1565.00	0.00	0.00	0.00	0.00

X1	859.	0.00	0.00	0.00	14.50	14.50	14.50	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
X1	860.	58.00	815.00	924.00	1.00	1.00	1.00	0.00	0.00	0.00
GR	583.40	0.00	583.40	15.00	583.10	115.00	582.90	215.00	582.80	315.00
GR	582.60	415.00	582.30	515.00	582.10	615.00	581.80	715.00	581.50	815.00
GR	576.10	815.00	574.20	820.00	572.70	825.00	570.00	829.00	570.00	827.00
GR	570.00	830.00	570.00	830.00	568.00	835.00	565.90	840.00	565.00	844.00
GR	565.00	844.00	565.00	845.00	565.00	845.00	565.00	855.00	566.00	864.00
GR	566.00	864.00	566.00	865.00	566.00	865.00	566.10	874.00	566.10	874.00
GR	566.10	875.00	566.10	875.00	565.80	884.00	565.80	884.00	565.80	885.00
GR	565.80	885.00	565.60	890.00	565.20	894.00	565.20	894.00	565.20	895.00
GR	565.20	895.00	567.60	900.00	570.30	905.00	572.00	907.00	572.00	907.00
GR	572.00	910.00	572.00	910.00	574.00	915.00	575.10	920.00	576.20	924.00
GR	581.40	924.00	581.30	1015.00	581.30	1115.00	581.10	1215.00	581.10	1315.00
GR	581.10	1415.00	581.20	1515.00	581.20	1565.00	0.00	0.00	0.00	0.00
X1	910.	64.00	835.00	942.00	50.00	50.00	50.00	0.00	0.00	0.00
GR	583.70	0.00	583.60	35.00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583.30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844.00	571.60	844.00	571.60	845.00
GR	571.60	845.00	570.70	854.00	570.70	854.00	570.70	855.00	570.70	855.00
GR	565.60	864.00	565.60	864.00	565.60	865.00	565.60	865.00	564.30	874.00
GR	564.30	874.00	564.30	875.00	564.30	875.00	564.80	884.00	564.80	884.00
GR	564.80	885.00	564.80	885.00	564.90	894.00	564.90	894.00	564.90	895.00
GR	564.90	895.00	564.00	904.00	564.00	704.00	564.00	905.00	564.00	905.00
GR	566.10	914.00	566.10	914.00	566.10	915.00	566.10	715.00	567.00	920.00
GR	571.00	924.00	571.00	924.00	571.00	925.00	571.00	925.00	572.40	930.00
GR	573.90	934.00	573.90	934.00	573.90	935.00	573.90	935.00	575.00	940.00
GR	574.90	942.00	583.00	942.00	582.70	1035.00	582.60	1135.00	582.30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0.00	0.00

RAILROAD SPUR

X1	911.	64.00	835.00	942.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	6.00	835.00	583.10	578.60	874.00	583.10	578.60	875.00	583.10	578.60
BT	904.00	583.00	578.60	905.00	583.00	570.60	942.00	583.00	570.60	0.00
GR	583.70	0.00	583.60	35.00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583.30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844.00	575.50	844.00	575.50	845.00
GR	571.60	845.00	570.70	854.00	575.50	854.00	575.50	855.00	570.70	855.00
GR	565.60	864.00	575.50	864.00	575.50	865.00	565.60	865.00	564.30	874.00
GR	578.60	874.00	578.60	875.00	564.30	875.00	564.00	884.00	575.50	884.00
GR	575.50	885.00	564.80	885.00	564.90	894.00	575.50	894.00	575.50	895.00
GR	564.90	895.00	564.00	904.00	578.60	704.00	578.60	705.00	564.00	905.00
GR	566.10	914.00	575.50	914.00	575.50	915.00	566.10	715.00	567.00	920.00
GR	571.00	924.00	575.50	924.00	575.50	925.00	571.00	925.00	572.40	930.00
GR	573.90	934.00	575.50	934.00	575.50	935.00	573.90	935.00	575.00	940.00
GR	574.90	942.00	583.00	942.00	582.70	1035.00	582.60	1135.00	582.30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0.00	0.00

X1	921.	0.00	0.00	0.00	10.00	10 00	10.00	0 00	0 00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0 00	0.00	0.00
X1	922.	64.00	835.00	942.00	1.00	1 00	1.00	0.00	0.00	0.00
GR	583.70	0.00	583.60	35 00	583.40	135.00	583.30	235.00	583.30	335.00
GR	583 30	435.00	583.30	535.00	583.20	635.00	583.10	735.00	583.10	835.00
GR	574.80	835.00	572.60	840.00	571.60	844 00	571.60	844.00	571.60	845.00
GR	571 60	845.00	570.70	854 00	570 70	854 00	570.70	855.00	570 70	855.00
GR	565 60	864.00	565.60	864.00	565.60	865 00	565 60	865.00	564.30	874 00
GR	564.30	874 00	564 30	875.00	564 30	875.00	564.80	884.00	564.80	884.00
GR	564.80	885.00	564.80	885 00	564 90	894.00	564.70	894.00	564.70	895.00
GR	564 90	895.00	564 00	904 00	564.00	904.00	564.00	705.00	564.00	705.00
GR	566.10	914.00	566.10	914.00	566.10	915 00	566.10	915.00	567.00	920 00
GR	571.00	924.00	571.00	924 00	571.00	925 00	571.00	925.00	572 40	930 00
GR	573.90	934.00	573.90	934 00	573.90	935 00	573.90	935.00	575 00	940.00
GR	574.90	942 00	583.00	942 00	582 70	1035.00	582.60	1135.00	582 30	1235.00
GR	582.10	1335.00	581.90	1435.00	581.80	1535.00	581.80	1585.00	0 00	0.00
X1	953	48.00	600.00	681.00	31.00	31 00	31.00	0.00	0.00	0.00
GR	582 00	0.00	581.80	100 00	581 60	200.00	581.50	300 00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610.00
GR	566.90	610.00	566 90	612.30	566.90	612.30	565.90	615.00	565 10	620.00
GR	565.10	620.00	565.10	622 30	565.10	622 30	566.30	625 00	566.20	630.00
GR	566.20	630.00	566 20	632.30	566 20	632.30	566.70	635.00	566.40	640 00
GR	566.10	645.00	566 40	650 00	566.40	650.00	566.40	652.30	566.40	652.30
GR	566.60	655.00	567.50	660.00	567.50	660.00	567.50	662 30	567.50	662.30
GR	567.50	665 00	569 90	670.00	567.90	670 00	567.90	672.30	567.70	672.30
GR	573 40	680.00	573 40	681.00	580.80	681.00	580.80	700.00	580.70	800.00
GR	580.60	900 00	580.60	1000 00	580.50	1100.00	0 00	0.00	0 00	0 00

D.T AND I RAILROAD BRIDGE

X1	954	48.00	600 00	681.00	1 00	1.00	1.00	0.00	0.00	0.00
BT	14.00	600.00	581.00	577.70	610.00	581 00	577.70	612.30	581 00	577.70
BT	620 00	581 00	577.70	622.30	581.00	577.70	630.00	580.90	577.70	632.30
BT	580.90	577 70	650.00	580.90	577.60	652.30	580.90	577.60	660.00	580.90
BT	577.60	662.30	580.80	577.60	670.00	580.80	577 60	672.30	580 80	577.60
BT	681.00	580.80	577.60	0.00	0.00	0 00	0.00	0.00	0 00	0 00
GR	582.00	0.00	581.80	100.00	581.60	200.00	581.50	300.00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610.00
GR	577.70	610.00	577.70	612.30	566.90	612.30	565 90	615.00	565.10	620 00
GR	577.70	620.00	577.70	622.30	565.10	622.30	566.30	625.00	566.20	630.00
GR	577.70	630.00	577.70	632.30	566 20	632.30	566.70	635.00	566.40	640.00
GR	566.10	645.00	566 40	650.00	577 60	650 00	577.60	652.30	566.40	652.30
GR	566.60	655.00	567.50	660.00	577.60	660 00	577 60	662.30	567.50	662 30
GR	567.50	665.00	569.90	670.00	577.60	670.00	577.60	672.30	569.70	672.30
GR	573 40	680.00	573 40	681.00	580 80	681 00	580.80	700.00	580.70	800.00
GR	580 60	900.00	580.60	1000.00	580 50	1100 00	0.00	0.00	0.00	0.00

X1	985.	0.00	0 00	0.00	30.50	30.50	30.50	0.00	0.00	0 00
X2	0.00	0.00	0.00	0.00	0.00	0 00	1.00	0.00	0.00	0.00
X1	986.	48.00	600.00	681.00	1.00	1.00	1 00	0.00	0.00	0 00
GR	582.00	0 00	581.80	100.00	581.60	200.00	581.50	300 00	581.40	400.00
GR	581.20	500.00	581.00	600.00	571.00	600.00	568.10	605.00	566.90	610 00
GR	566 90	610.00	566.90	612 30	566 90	612 30	565.90	615.00	565.10	620.00
GR	565.10	620.00	565 10	622.30	565.10	622.30	566 30	625.00	566.20	630.00
GR	566.20	630.00	566.20	632.30	566 20	632.30	566.70	635 00	566.40	640.00
GR	566.10	645.00	566.40	650 00	566.40	650 00	566.40	652.30	566.40	652 30
GR	566.60	655.00	567.50	660 00	567.50	660.00	567.50	662.30	567.50	662.30
GR	567.50	665.00	569 90	670.00	569.90	670.00	569.90	672.30	569.90	672.30
GR	573 40	680.00	573 40	681.00	580.80	681.00	580.80	700.00	580 70	800.00
GR	580.60	900.00	580.60	1000.00	580 50	1100 00	0.00	0 00	0.00	0.00
NC	0.040	0.035	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	1.4	0	700					
X1	1036	37.00	565.00	700 00	50.00	50.00	50.00	0.00	0.00	0 00
GR	581.90	0.00	581.20	100.00	581.20	200.00	580.00	300 00	581.00	400 00
GR	579 90	500.00	581.10	565.00	575.40	587.00	574.70	590.00	573.90	595.00
GR	572.50	600.00	571 00	605.00	569.80	610.00	568 80	615.00	568.00	620 00
GR	567.40	625 00	566 60	630.00	566.30	635.00	566.20	640.00	566.30	650.00
GR	566 80	660 00	568.30	670.00	570.20	675.00	570.40	680.00	571.70	685 00
GR	573.10	690.00	574.80	695 00	574.90	696 00	577.50	700.00	577.50	800.00
GR	576.60	900.00	576.60	1000.00	577.00	1030 00	567.80	1100.00	577 50	1200.00
GR	578.30	1300.00	579 20	1345 00	0.00	0.00	0.00	0 00	0.00	0.00
NC	0.060	0 035	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	4.1	374	492.5					
X1	1736	40 00	374 00	492.50	700.00	700.00	700.00	0 00	0.00	0.00
GR	580.40	0.00	580.40	167.00	579.50	283.70	578 80	335.30	579.10	374.00
GR	577.20	377.90	567 10	381 90	575.10	385 80	574.10	389.80	573.20	393.70
GR	572.40	397.70	571 50	401.60	570.30	405.60	569 40	409.50	568.40	413.50
GR	567.60	417 40	566.90	421.40	566.50	425 30	566.00	429.20	565.70	433.20
GR	565.50	437.20	565.40	441.10	565.50	445.00	565.60	449.00	565.90	453.00
GR	566 50	456.90	567.20	460.80	568.00	464.80	569 00	468 70	569 80	472.70
GR	570.60	476.60	571.70	480.60	573.40	484 50	575.10	488.50	577 50	492.50
GR	577.40	550.00	577 30	650 00	577.40	750.00	577.70	870.00	579.50	775.00
ET	0	4.1	1.4	183	285					
	DS OF CONFL. WITH SOUTH BRANCH ECORSE CREEK									
X1	2436.	31.00	183.00	285.00	700.00	700.00	700.00	0.00	0.00	0.00
GR	579.00	0.00	579.90	85 00	578.50	135 00	577.10	183.00	575 10	185.00
GR	573.50	190.00	572.20	195.00	571.10	200.00	570.20	205.00	568.50	210.00
GR	567.70	215.00	566 40	220 00	565.60	225.00	565.30	230.00	565 00	235.00
GR	564.60	240.00	564.80	245.00	565.20	250.00	566.40	255.00	567.00	260 00
GR	568.80	265.00	569 90	270.00	571.50	275.00	574.70	280 00	575.10	281.00
GR	577.40	285 00	577.30	385.00	578.20	485.00	577.70	557.00	578.60	585.00
GR	579.80	605.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NC	0.040	0.040	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
QT	2	1580	1580							
ET	0	4.1	0	300	400					
X1	2736.	26.00	300.00	400.00	300.00	300.00	300.00	0.00	0.00	0.00
GR	578.40	0.00	577.70	100.00	578.50	200.00	578.60	300.00	575.10	310.00
GR	573.40	315.00	572.20	320.00	570.60	325.00	570.00	330.00	569.90	335.00
GR	569.70	340.00	569.10	350.00	569.10	360.00	569.70	370.00	570.40	375.00
GR	571.70	380.00	572.90	385.00	574.40	390.00	575.10	392.00	578.60	400.00
GR	581.00	500.00	581.30	600.00	581.40	700.00	581.30	800.00	582.10	900.00
GR	583.20	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ET	0	4.1	0	300	400					
X1	3436	0.00	0.00	0.00	700.00	700.00	700.00	0.00	0.00	0.00
ET	0	4.1	0	200	300					
X1	3836	27.00	200.00	300.00	400.00	400.00	400.00	0.00	0.00	0.00
GR	580.7	0	579.2	100	578.5	200	575.0	207	574.0	210
GR	573.0	215	572.6	220	571.9	225	571.0	230	570.4	235
GR	570.0	240	569.7	245	570.0	250	570.7	255	572.1	260
GR	573.4	265	573.7	270	575.0	275	575.4	278	579.8	290
GR	580.3	300	580.4	400	581.0	500	581.3	600	582.2	700
GR	581.80	800.00	581.90	843.00	0.00	0.00	0.00	0.00	0.00	0.00
ET	0	4.1	0	200	290					
X1	4311.	0.00	0.00	0.00	475.00	475.00	475.00	0.00	0.20	0.00
ET	0	4.1	0	393	500					
X1	4786.	30.00	393.00	500.00	475.00	475.00	475.00	0.00	0.00	0.00
GR	582.10	0.00	581.20	100.00	580.80	200.00	581.10	212.00	580.30	300.00
GR	580.10	393.00	578.60	400.00	574.80	408.00	574.10	410.00	573.60	415.00
GR	573.20	420.00	572.70	425.00	571.80	430.00	570.80	435.00	570.50	440.00
GR	570.40	445.00	570.20	450.00	570.10	455.00	570.40	460.00	570.60	465.00
GR	571.40	470.00	572.60	475.00	573.70	480.00	574.40	483.00	579.20	487.00
GR	579.50	500.00	579.70	600.00	579.60	653.00	581.20	700.00	581.20	900.00
X1	4825.	37.00	500.00	598.00	37.00	37.00	39.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	500.00	585.00	578.00	585.00	0.00	0.00	0.00
GR	581.90	0.00	582.00	20.00	581.80	100.00	581.30	200.00	581.10	300.00
GR	580.50	400.00	579.40	500.00	576.80	500.00	576.30	505.00	575.30	510.00
GR	574.80	515.00	573.60	520.00	572.90	525.00	572.00	530.00	571.60	535.00
GR	571.60	540.00	571.20	545.00	570.80	550.00	571.20	555.00	571.20	560.00
GR	571.10	565.00	571.20	570.00	571.70	575.00	572.30	580.00	573.70	585.00
GR	574.00	590.00	574.30	595.00	574.30	598.00	579.60	598.00	579.70	600.00
GR	579.60	700.00	579.70	751.00	579.60	800.00	580.10	900.00	580.40	1000.00
GR	580.90	1100.00	581.20	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
SB	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3.17	570.80	570.80
		MILL STREET BRIDGE								
X1	4846.	0.00	0.00	0.00	21.00	21.00	21.00	0.00	0.00	0.00
X2	0.00	0.00	1.00	578.30	579.40	0.00	0.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	500.00	585.00	578.00	585.00	0.00	0.00	0.00
BT	16.00	0.00	581.90	0.00	20.00	582.00	0.00	100.00	581.80	0.00
BT	200.00	581.30	0.00	300.00	581.10	0.00	400.00	580.50	0.00	500.00

BT	579.40	578.20	598.00	579.60	578 30	600.00	579.70	0.00	700 00	579 60
BT	0.00	751.00	579.70	0.00	800.00	579.60	0.00	900 00	580.10	0.00
BT	1000	580.40	0.00	1100.00	580.90	0.00	1200.00	581.20	0 00	0.00
X1	4847.	0.00	0.00	0.00	1.00	1.00	1.00	0 00	0.00	0.00
X3	0 00	0.00	0.00	500.00	585.00	590.00	585.00	0 00	0.00	0.00
X1	5436.	34.00	494.00	594.00	589 00	589.00	589.00	0 00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0 00	0.00
GR	579.74	0.00	578.94	94.00	579.74	194.00	580.14	272.00	580.34	294.00
GR	581.74	394.00	580.84	494.00	574.74	506.00	574 24	508.00	573 94	507 00
GR	573 24	514.00	572.84	519 00	571.84	524.00	571.14	529.00	570 74	534.00
GR	570 64	539.00	570.84	544.00	571.84	549.00	572.94	554.00	573.74	557.00
GR	573.44	564 00	573.74	569.00	574.24	574 00	574.74	576.00	581.14	594.00
GR	580.74	658 00	580.84	694.00	581.34	794.00	581 94	894.00	582.44	994 00
GR	582 94	1094.00	583.24	1194.00	582.94	1294 00	582.64	1394.00	0 00	0.00
ET	0	4.1	1.4	400	600					
X1	5936	34.00	494.00	594 00	500 00	500.00	500 00	0.00	0.00	0.00
GR	579.60	0.00	578.80	94.00	579.60	194.00	580.00	272 00	580.20	294.00
GR	581 80	394.00	580.70	494.00	574.60	506.00	574.00	508.00	573.80	507.00
GR	573.10	514 00	572.70	519.00	571.70	524.00	571.00	529.00	570 60	534 00
GR	570.50	539.00	570.70	544.00	571.70	549.00	572.80	554.00	573.10	557 00
GR	573.30	564.00	573.60	569.00	574.10	574 00	574.60	576.00	581.00	594.00
GR	580.60	658 00	580.70	694.00	581.20	794 00	581 00	894.00	582.30	994.00
GR	582.80	1094 00	583.10	1194.00	582.80	1294.00	582.50	1349.00	0.00	0.00
X1	6416.	28.00	560.00	660.00	480.00	480 00	480.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0 00
GR	581.43	0.00	581.93	60.00	581.53	160.00	581.33	260.00	581.63	360.00
GR	581 93	460.00	581.93	560.00	581 13	577.00	574.83	592.00	573.23	593.00
GR	572 23	595.00	570.93	600.00	570 33	605.00	570.33	610 00	571.83	615.00
GR	572.43	620 00	572.93	625 00	573.13	630.00	573.43	635.00	574.13	640.00
GR	574.23	642.00	574.83	644.00	581 93	660 00	581.23	716.00	582.23	760.00
GR	581.93	860 00	582.03	960.00	581.73	1010.00	0 00	0.00	0.00	0.00
X1	6786.	28.00	560.00	660.00	370 00	370.00	370.00	0.00	0.00	0.00
X3	10.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GR	581.30	0 00	581.80	60.00	581.40	160.00	581.20	260.00	581.50	360.00
GR	581.80	460 00	581.80	560.00	581.00	577 00	574 70	592.00	573.10	593.00
GR	572 10	595.00	570 80	600.00	570.20	605.00	570.70	610.00	571 70	615.00
GR	572.30	620 00	572.80	625.00	573.00	630 00	573.30	635.00	574.00	640.00
GR	574.10	642.00	574 70	644.00	581.80	660.00	581.10	716 00	582.10	760.00
GR	581.80	860.00	581.90	960.00	581.60	1010.00	0.00	0.00	0.00	0.00
X1	6835	0.00	0 00	0.00	47.00	47 00	47.00	0.00	1 37	0.00
X3	10	0	0	0	0	0	0	579.5	579.5	
NC	0.000	0.000	0.035	0.000	0.000	0.000	0 000	0.000	0.000	0.000
X1	6836	40.00	900.00	973.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	0.00	0.00	0.00	0.00	579.50	579.50	
GR	582.00	0.00	582.90	100 00	582.80	200.00	582.00	300.00	581.70	400.00
GR	581.30	500 00	580.70	600.00	580.90	700.00	581.40	800 00	582.00	900.00
GR	574.40	900.00	574.00	905.00	573.20	710 00	572.20	715.00	572 60	720.00

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GR   571.60   925 00   572.10   930.00   573.50   735 00   578.20   735.00   578.20   730.00
GR   573 60   938 00   573.80   940 00   573.40   945.00   572.20   950.00   572.00   955 00
GR   572.70   960.00   573.60   965.00   574.50   770.00   574.70   773.00   582.00   973.00
GR   582 00   976 00   581 60   1000.00   581.20   1100 00   581.00   1200.00   580.90   1300.00
GR   581 50   1400.00   582.00   1500.00   582.60   1600.00   582.80   1700.00   583.00   1807.00

SB     0.00     1.50     2 90     0 00     60..00     0.00     303.00     0.00     571 60     571.60
                SOUTHFIELD ROAD BRIDGE
X1     6916     0 00     0.00     0.00     80.00     80 00     80.00     0 00     0 00     0.00
X2     0.00     0 00     1.00     577 00     582.00     0.00     0.00     0.00     0.00     0.00
X3     10.00     0.00     0.00     0.00     0.00     0.00     0.00     582.00     582 00     0.00
BT     23.00     0.00     582.00     0.00     100 00     582.90     0.00     200.00     582 80     0.00
BT     300.00     582.00     0.00     400 00     581.70     0.00     500.00     581.30     0.00     600.00
BT     580.70     0.00     700.00     580.90     0.00     800.00     581.40     0.00     900.00     582.00
BT     577.00     935 00     582 00     577.00     938.00     582 00     577.00     973.00     582.00     577.00
BT     976.00     582.00     0 00     1000.00     581.60     0.00     1100.00     581.20     0.00     1200.00
BT     581.00     0.00     1300.00     580.90     0 00     1400.00     581.50     0.00     1500.00     582.00
BT     0 00     1600.00     582.60     0.00     1700.00     582.80     0.00     1807 00     583.00     0.00

NC     0.000     0.000     0.035     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT     2     1330     1330
X1     6917.     28.00     560.00     660.00     1.00     1.00     1.00     0.00     1.40     0.00
X3     10 00     0.00     0.00     0.00     0.00     0 00     0.00     0.00     0 00     0.00
GR   581.30     0.00   581.80     60.00   581.40     160 00   581.20     260.00   581 50     360 00
GR   581 80     460.00   581 80     560.00   581.00     577 00   574.70     592.00   573 10     593.00
GR   572.10     595.00   570.80     600.00   570.20     605.00   570.70     610.00   571.70     615.00
GR   572.30     620.00   572.80     625 00   573.00     630.00   573.30     635.00   574.00     640.00
GR   574.10     642.00   574 70     644.00   581 80     660.00   581.10     716.00   582.10     760 00
GR   581 80     860.00   581.90     960.00   581.60     1010.00     0 00     0 00     0.00     0 00

ET     0     4.1     1.4     560     660
X1     7436     0.00     0.00     0.00     519.00     519.00     519 00     0.00     -0.40     0 00

X1     7936.     22.00     416 00     550 00     500 00     500 00     500.00     0.00     0.00     0.00
GR   581 80     0 00     581.70     116 00     581.10     216.00     580.70     316.00     582.50     416.00
GR   582 60     436 00     574.90     453 00     573 80     456.00     572.40     461.00     571.80     466.00
GR   571.20     471.00     570.80     476 00     571.00     481.00     571.50     486.00     572.30     491.00
GR   573.70     494.00     574 90     495.00     583.10     516.00     582.80     550.00     582 20     716.00
GR   582 20     866.00     581 70     891.00     0.00     0.00     0.00     0.00     0.00     0.00

ET     0     4 1     4.1     150     400
X1     8536     40.00     230.00     383.00     600.00     600.00     600.00     0.00     0.00     0.00
GR   583 00     0.00     582.40     100.00     581.60     221.20     581.80     280.00     581.70     305.50
GR   580.30     308 00     579.00     310.60     577.60     313.20     576.60     315.80     575.70     318.40
GR   575 20     320.90     574.60     323.50     573.90     326.10     573.30     328.70     572.90     331.30
GR   572 10     333 90     571.40     336.40     571 10     339.00     570.90     341.60     570.70     344.20
GR   571 10     346.80     571.30     349.40     571 60     351.90     572.20     354.50     572.80     357 10
GR   573.30     359.70     574 30     362.30     575.10     364 90     575 70     367.40     576.40     370.00
GR   577.20     372.60     578.40     375.20     579.60     377 80     580.80     380 40     582.10     383.00
GR   582.00     400.00     581.80     490.00     581 60     598.00     581.80     705.00     582.40     810.00
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ET	0	0	1.4							
X1	9136	24 00	140.00	310.00	600.00	600.00	600.00	0.00	0.00	0.00
GR	584.30	0.00	583 80	40.00	582.20	140.00	580.00	175.00	575.50	184.00
GR	574.90	194 00	574 50	195.00	573.60	200.00	571.30	205.00	570.90	210.00
GR	571.30	215.00	572.00	220.00	573.60	225.00	574.30	230.00	574.70	235 00
GR	574.90	237 00	575.50	240.00	581.10	250 00	581 20	310 00	581.00	374.00
GR	580.90	450.00	581.30	550.00	581 70	650.00	583 20	735.00	0.00	0.00
ET	0	0	4 1	142	262					
X1	9586.	24.00	140 00	250.00	450.00	450 00	450.00	0.00	0.00	0.00
GR	584.30	0.00	583 80	40.00	582.20	140.00	580.80	175.00	575.50	184.00
GR	574.90	194.00	574.50	195.00	573 60	200 00	571.30	205.00	570.90	210.00
GR	571 30	215.00	572.00	220.00	573.60	225 00	574 30	230 00	574 70	235.00
GR	574.90	237.00	575 50	240.00	581.10	250.00	581.20	350 00	581.00	376.00
GR	580.90	450.00	581 30	550.00	581.70	650.00	583.20	735 00	0 00	0.00
ET	0	4.1	1 4	245	445					
X1	9596	20.00	345 00	445.00	10.00	10.00	10 00	0.00	0.00	0.00
GR	583 95	0	581 35	45	580.95	145	580 85	245	581.85	345
GR	579.95	385	575.75	399	574.95	407	574.25	410	573 05	415
GR	572.75	420	572.95	425	571.65	430	570.75	435	573.05	440
GR	574 65	445.00	583 45	445.00	580.25	448.00	581.25	545.00	582.45	645 00
ET	0	4 1	0	245	445					
X1	10286	20.00	345.00	445.00	690.00	690.00	690.00	0 00	0.00	0 00
GR	584 00	0.00	581.40	45.00	581.00	145.00	580.90	245.00	581 90	345.00
GR	580 00	385.00	575 80	399.00	575.00	407.00	574.30	410.00	573.10	415.00
GR	572.80	420.00	573.00	425.00	571.70	430.00	571.00	435.00	571.50	440.00
GR	574 70	445.00	583.50	445.00	580.30	448 00	581 30	545.00	582.50	645.00
ET	0	0	4.1	247	472					
X1	10336.	22.00	350 00	445.00	50.00	50.00	50.00	0 00	0 00	0.00
GR	583 10	0.00	581 30	100.00	580.90	200.00	580.20	300.00	577.80	350.00
GR	573.00	401 00	573.00	405 00	573 00	410.00	573.00	415.00	573.00	420.00
GR	572.50	430.00	572.60	435.00	573.70	440.00	574.80	444.00	580.00	445.00
GR	580.50	500.00	581.30	600.00	582 30	700.00	582.70	800.00	583.00	900.00
GR	583.00	908 00	584.20	960.00	0.00	0.00	0.00	0.00	0.00	0.00
ET	0	4 1	1 4	655	800					
X1	10636.	27.00	655 00	855.00	300.00	300.00	300.00	0.00	0 00	0.00
GR	582.67	0 00	582.67	55.00	584.37	155 00	585 67	255.00	586 07	355 00
GR	586.27	455.00	585.47	555.00	584.57	655.00	583.37	677.00	574.07	697.00
GR	573.77	700.00	573.07	705 00	572.47	710.00	572.47	715.00	573.67	720.00
GR	574.57	725.00	575.07	725 00	575.97	738 00	582.67	755.00	583.87	955.00
GR	583 27	955.00	583 67	1055 00	583.97	1068.00	583 57	1155 00	583.37	1255.00
GR	583.07	1355.00	583 07	1455.00	0 00	0.00	0.00	0 00	0 00	0.00
ET	0	4.1	6.1	655	855	678	778			

VALLEY SECTION

X1	11536	27.00	655.00	855.00	900.00	900 00	900.00	0.00	0.00	0.00
GR	582.60	0.00	582.60	55.00	584.30	155 00	585.60	255.00	586.00	355 00
GR	586 20	455 00	585.40	555.00	584 50	655 00	583.30	677.00	574 00	697 00
GR	573.70	700.00	573 00	705.00	572.40	710 00	572 40	715.00	573.40	720 00
GR	574.50	725.00	575.00	727.00	575.90	738.00	582.60	755.00	583.00	855 00
GR	583.20	955 00	583.60	1055.00	583.90	1068.00	583 50	1155 00	583.30	1255.00
GR	583.00	1355 00	583.00	1455.00	0.00	0.00	0.00	0.00	0.00	0.00
NC	0.000	0.000	0.000	0.300	0.500	0 000	0 000	0.000	0.000	0.000
NH	5.0	0 200	250.000	0.300	920.000	0.050	994.000	0.045	1046.000	0.500
NH	1580.0	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000
ET	0	4.1	1.4	900	1050					

CITY OF ECORSE CORP. BOUNDARY

X1	12274.	11.00	994.00	1046.00	738.00	738.00	738 00	0.00	0.00	0 00
X4	1.00	582.00	920 00	0.00	0.00	0.00	0.00	0 00	0.00	0 00
GR	585.00	0 00	583 30	250.00	580.00	650.00	582.40	980.00	575.20	994.00
GR	573.50	1020.00	574.90	1046 00	581 80	1065 00	580.00	1130.00	580 00	1250 00
GR	585.00	1580.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0 00
NH	5.0	0.200	250.000	0.300	930.000	0.050	1014.000	0.045	1064 100	0.500
NH	1600.0	0.000	0.000	0.000	0 000	0 000	0.000	0.000	0.000	0.000

D/S FACE OF AUSTIN

X1	12324.	22.00	1014.00	1064.10	50.00	50 00	50.00	0.00	0.00	0.00
X3	10.00	0.00	0.00	920.00	0 00	1065 00	0.00	583.30	583.30	0 00
GR	585.00	0.00	583.30	250.00	583.60	430.00	580.40	930.00	582.40	1000.00
GR	574 10	1014.00	574 10	1014.10	574.10	1030.00	574 10	1030.10	574 10	1031 00
GR	574.10	1031.10	573.60	1039.00	573 80	1047.00	573.80	1047 10	573.00	1048 00
GR	573.80	1048.10	573 80	1064.00	573.80	1064 10	581.80	1083.00	583.10	1140.00
GR	583.40	1240.00	584.60	1600.00	0.00	0.00	0 00	0 00	0.00	0 00
NH	5.0	0.200	250.000	0 300	930 000	0.050	1014.000	0.035	1064.100	0.500
NH	1600.0	0.000	0.000	0 000	0.000	0 000	0.000	0.000	0.000	0.000

1' INSIDE D/S SIDE OF AUSTIN BRIDGE

X1	12325.	0 00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
X3	10.00	0.00	0 00	920.00	0.00	1065.00	0.00	583.30	583 30	0 00
BT	20 00	0.00	585.00	0 00	250.00	583.30	0 00	430.00	583 60	0 00
BT	930.00	580.40	0.00	1014.00	583.30	574.10	1014 10	583.30	581.80	1030.00
BT	583.30	581 80	1030 10	583.30	574.10	1031 00	583.30	574.10	1031 10	583.30
BT	581.80	1047.00	583.30	581.80	1047.10	583.30	573.80	1048.00	583.30	573.80
BT	1048.1	583 30	581.80	1064.00	583.30	581.80	1064.10	583.30	573.80	1083.00
BT	581.80	0.00	1140.00	583.10	0.00	1240.00	583 40	0.00	1600.00	584.60
BT	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00
NH	5 0	0.200	250.000	0.300	930.000	0 050	1014 000	0.035	1064.100	0.500
NH	1600.0	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1' INSIDE U/S FACE OF AUSTIN BRIDGE

X1	12367.	0.00	0 00	0.00	42.00	42 00	42.00	0.00	0 00	0 00
X2	0.00	0.00	0.00	0.00	0 00	0 00	1 00	0.00	0 00	0 00
X3	10.00	0.00	0.00	920.00	0.00	1065.00	0.00	583.30	583.30	0 00

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NH      5.0      0.200    250.000     0.300    930.000    0.050   1014.000    0.045   1064.100    0.500
NH   1600.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1          0       920       1065
          U/S FACE OF AUSTIN
X1    12368.      0.00       0.00      0.00       1.00     1.00       1.00     0.00       0.00     0.00

NH      5.0      0.200    250.000     0.300    930.000    0.050   1014.000    0.045   1064.100    0.500
NH   1600.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1          0       920       1065
          VALLEY SECTION 50' U/S OF AUSTIN
X1    12418.      0.00       0.00      0.00      50.00    50.00      50.00     0.00       0.00     0.00

NC    0.000      0.000      0.000     0.100      0.300    0.000      0.000    0.000      0.000    0.000
NH      5.0      0.200    260.000     0.300    660.000    0.120    828.000    0.045    905.000    0.300
NH   1060.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1          0      .594        792
          VALLEY SECTION BTWN AUSTIN AND VICTORIA
X1    13295.     13.00     828.00    905.00     600.00   950.00     877.00     0.00       0.00     0.00
GR   585.00      0.00      584.00    260.00     583.10   660.00     583.80   740.00     584.00   828.00
GR   575.80    848.00      573.30    860.00     576.30   872.00     576.00   830.00     580.70   905.00
GR   582.00    960.00      582.00   1060.00     590.00  1060.00       0.00     0.00       0.00     0.00

NC    0.000      0.000      0.000     0.300      0.500    0.000      0.000    0.000      0.000    0.000
NH      5.0      0.150    200.000     0.120    472.000    0.045    508.000    0.100    524.000    0.300
NH   1300.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1        4.1       348        543
          VALLEY SECTION 50' D/S OF VICTORIA
X1    13676.     10.00     472.00    508.00     381.00   100.00     381.00     0.00       0.00     0.00
GR   585.00      0.00      584.60    200.00     580.00   420.00     581.80   462.00     574.70   472.00
GR   572.90    490.00      575.60    508.00     581.40   526.00     580.00   650.00     585.00  1300.00

NH      5.0      0.150    150.000     0.120    466.500    0.045    493.600    0.100    512.000    0.300
NH   1450.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1        4.1       350        520
          D/S FACE OF VICTORIA
X1    13726.     15.00     466.50    493.60     50.00    50.00      50.00     0.00       0.00     0.00
GR   585.00      0.00      584.60    150.00     581.80   453.00     573.00   466.50     573.00   466.50
GR   573.00    479.50      573.00    479.60     573.00   480.50     573.00   480.60     573.00   493.50
GR   573.00    493.60      581.40    512.00     581.50   720.00     581.50   810.00     585.00  1450.00

NH      5.0      0.150    150.000     0.120    466.500    0.045    493.600    0.100    512.000    0.300
NH   1450.0      0.000      0.000     0.000      0.000    0.000      0.000    0.000      0.000    0.000
ET        0        4.1        4.1       350        520
          1' INSIDE D/S FACE OF VICTORIA BRIDGE
X1    13727.      0.00       0.00      0.00       1.00     1.00       1.00     0.00       0.00     0.00
BT     14.00      0.00     585.00      0.00     150.00   584.60       0.00   453.00     581.60     0.00
BT    466.50    581.40      573.00    466.60     581.40   579.60     479.50   501.40     579.60   477.60
BT    581.40    573.00      480.50    581.40     573.00   480.60     581.40   573.60     493.50   581.40
BT    578.60    493.60      581.40    573.00     512.00   581.40       0.00   810.00     581.50     0.00
BT      1450    585.00        0.00      0.00       0.00     0.00       0.00     0.00       0.00     0.00
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NH	5.0	0.150	150.000	0.120	466.500	0.035	493.600	0.100	512.000	0.300
NH	1450.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	4.1	350	520					
	1' INSIDE U/S FACE OF VICTORIA BRIDGE									
X1	13964.	0.00	0.00	0.00	237.00	237.00	237.00	0.00	0.00	0.00
X2	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
NH	5.0	0.150	150.000	0.120	466.500	0.045	493.600	0.100	512.000	0.300
NH	1450.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	4.1	350	520					
	U/S FACE OF VICTORIA									
X1	13965.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
NH	5.0	0.150	150.000	0.080	466.500	0.045	493.600	0.040	512.000	0.500
NH	1450.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	4.1	350	520					
	VALLEY SECTION 50' U/S OF VICTORIA									
X1	14015.	0.00	0.00	0.00	50.00	50.00	50.00	0.00	0.00	0.00
NH	5.0	0.200	150.000	0.080	275.000	0.045	345.000	0.040	520.000	0.500
NH	1160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	1.4	200	520					
	VALLEY SECTION 50' D/S OF N.B. FORT ST.									
X1	14287.	13.00	275.00	345.00	272.00	272.00	272.00	0.00	0.00	0.00
GR	585.00	0.00	584.30	150.00	583.70	275.00	576.30	275.00	574.50	310.00
GR	575.90	331.00	582.60	345.00	583.00	360.00	582.80	400.00	582.20	520.00
GR	581.90	750.00	580.00	1160.00	590.00	1160.00	0.00	0.00	0.00	0.00
NH	5.0	0.200	150.000	0.080	449.700	0.045	501.800	0.040	700.000	0.500
NH	1380.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	0	380	700					
	D/S FACE OF N.B FORT ST.									
X1	14337.	20.00	449.70	501.80	50.00	50.00	50.00	0.00	0.00	0.00
GR	585.00	0.00	585.00	150.00	584.30	300.00	583.60	440.00	576.40	447.70
GR	578.40	449.80	578.40	453.20	574.60	475.00	574.60	475.10	574.60	476.40
GR	574.60	476.50	578.40	498.20	578.40	501.70	578.40	501.80	582.60	516.00
GR	582.80	575.00	582.20	700.00	581.20	950.00	580.00	1380.00	590.00	1380.00
NH	5.0	0.200	150.000	0.080	449.700	0.035	501.800	0.040	700.000	0.500
NH	1380.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.	1	0	38	0	70	0		
	1' INSIDE OF D/S FACE N.B. FORT ST									
X1	14338.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
BT	17.00	0.00	585.00	0.00	150.00	585.00	0.00	300.00	584.30	0.00
BT	440.00	583.60	0.00	449.70	583.20	578.40	449.80	583.20	581.40	475.00
BT	583.20	581.40	475.10	583.20	574.60	476.40	583.20	574.60	476.50	583.20
BT	581.40	501.70	583.20	581.40	501.80	583.20	578.40	516.00	582.60	0.00
BT	575.00	582.80	0.00	700.00	582.20	0.00	950.00	501.20	0.00	1380.00
BT	580.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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NH      5 0      0.200    150.000      0.080    449.700      0.035    501.800      0.040    700.000      0.500
NH   1380.0      0.000      0 000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET        0        4.1        4.1        380        700
          1' INSIDE OF U/S FACE N.B. FORT ST.
X1   14402.       0.00       0.00       0.00      64.00      64.00      64.00       0.00       0.00       0.00
X2     0.00       0.00       0.00       0 00       0 00       0 00       1.00       0.00       0.00       0 00

NH      5.0      0.200    150.000      0.080    449.700      0.045    501.800      0.040    700.000      0 500
NH   1380.0      0.000      0 000      0.000      0.000      0.000      0 000      0.000      0.000      0.000
ET        0        4.1        1.4        380        700
          U/S FACE N.B. FORT ST.
X1   14403        0.00       0.00       0.00       1.00       1.00       1 00       0.00       0 00       0.00

NH      5.0      0.200    300.000      0.080    473.300      0.040    526.700      0.100    800.000      0.500
NH   1400 0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET        0        4.1          0        370        770
          D/S FACE S.B. FORT ST.
X1   14460.      20.00     473.30     526.70      57 00      57.00      57 00       0.00       0.00       0.00
GR   585.80       0.00     584.60     300 00     584.30     460.00     578 90     473.30     578.90     473 40
GR   578.90     477 80     574.90     483.80     572.60     499.30     572.60     499 40     572.60     500.60
GR   572.60     500.70     574.90     516.10     578.90     522 10     578.90     526.60     578.90     526.70
GR   583 40     538 00     581 80     800.00     581 20    1050 00     580.00    1400.00     590 00    1400 00

NH      5.0      0.200    300.000      0.080    473.300      0.035    526.700      0.100    800.000      0.500
NH   1400.0      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET        0        4.1        4.1        370        770
          1' INSIDE D/S S.B. FORT ST.
X1   14461.       0.00       0.00       0.00       1.00       1.00       1 00       0.00       0.00       0 00
BT    15.00       0.00     585.80       0.00     300.00     584.60       0.00     460.00     584 30       0.00
BT   473.30     583.60     578.90     473.40     583 60     581.60     499 30     583.60     581 60     499.40
BT   583 60     572.60     500.60     583.60     572.60     500 70     583.60     581.60     526.60     583.60
BT   581.60     526.70     583.60     578.90     538.00     583.40       0 00     800.00     581 80       0.00
BT     1050     581.20       0.00    1400 00     580.00       0.00       0.00       0.00       0.00       0.00

NH      5.0      0.200    300.000      0.080    473 300      0 035    526.700      0 100    800.000      0.500
NH   1400 0      0 000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET        0        4.1        4.1        370        770
          1' INSIDE U/S FACE S.B  FORT ST.
X1   14521.       0.00       0.00       0.00      60.00      60.00      60.00       0.00       0.00       0.00
X2     0.00       0.00       0.00       0.00       0.00       0.00       1.00       0.00       0.00       0 00

NH      5 0      0.200    300.000      0.080    473 300      0 040    526.700      0.100    800.000      0 500
NH   1400.0      0 000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET        0        4.1        1.4        370        770
          U/S FACE S.B  FORT ST.
X1   14522.       0 00       0.00       0.00       1.00       1.00       1.00       0.00       0 00       0.00

NH      5.0      0.200    200.000      0.120    415.000      0.045    470.000      0 120   1050.000      0.500
NH   1150.0      0.000      0.000      0.000      0.000      0.000      0.000      0 000      0.000      0.000
QT        2        980        980
ET        0        4.1        4.1        290        710
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                VALLEY SECTION 50' U/S OF S B. FORT ST.
X1    14572        10.00      415.00      470.00       50.00       50.00       50.00        0.00        0.00        0.00
GR    585.00        0.00      584.60      200.00      584.20      415.00      576.60      435.00      572.70      450.00
GR    576.20      460.00      583.40      470.00      580.00     1050.00      580.00     1150.00      590.00     1150.00

NC     0.000       0.000       0.000       0.100       0.300       0.000       0.000       0.000       0.000       0.000
NH       3.0       0.100     159.000       0.045     225.000       0.100     272.000       0.000       0.000       0.000
ET         0         4.1           1.4         159         225
X1    15292        8.00      159.00      225.00      720.00      650.00      720.00        0.00        0.00        0.00
GR    588.20        0.00      589.50      100.00      587.20      157.00      577.10      189.00      574.40      200.00
GR    577.20      211.00      582.80      225.00      586.50      272.00        0.00        0.00        0.00        0.00

NC     0.050       0.080       0.035       0.300       0.500       0.000       0.000       0.000       0.000       0.000
ET         0         4.1           0          50         162
                VALLEY SECTION 50' D/S OF LAFAYETTE
X1    15820.       7.00       85.00      115.00      350.00      550.00      528.00        0.00        0.00        0.00
GR    586.00        0.00      586.20       73.00      577.70       85.00      577.00      100.00      578.30      115.00
GR    585.50      127.00      585.40      200.00        0.00        0.00        0.00        0.00        0.00        0.00

ET         0         4.1           0          50         150
                D/S FACE OF LAFAYETTE
X1    15870.       8.00       86.00      114.00       50.00       50.00       50.00        0.00        0.00        0.00
GR    586.00        0.00      586.40       66.00      577.00       86.00      577.00       86.10      577.00      113.90
GR    577.00      114.00      586.40      134.00      585.40      200.00        0.00        0.00        0.00        0.00

SB     0.00        1.65        3.00        0.00       20.00        0.00      168.00        0.00      577.00      577.00
ET         0         4.1           0          50         150
                U/S FACE OF LAFAYETTE
X1    15914.       0.00        0.00        0.00       44.00       44.00       44.00        0.00        0.00        0.00
X2     0.00        0.00        1.00      583.00      585.40        0.00        0.00        0.00        0.00        0.00
BT      8.0           0       586.0           0          66       586.4           0          86       586.4       577.0
BT     86.1       586.4       583.0       113.9       586.4       583.0       114.0       586.4       577.0       134.0
BT   586.40        0.00      200.00      585.40        0.00        0.00        0.00        0.00        0.00        0.00

ET         0         4.1           0           0         150
                VALLEY SECTION 50' U/S OF LAFAYETTE
X1    15964        7.00       88.00      112.00       50.00       50.00       50.00        0.00        0.00        0.00
GR    586.00        0.00      586.30       73.00      577.90       88.00      577.00      100.00      577.80      112.00
GR    586.40      122.00      585.40      200.00        0.00        0.00        0.00        0.00        0.00        0.00

NH       3.0       0.080     775.000       0.045     835.000       0.080     860.000       0.000       0.000       0.000
                VALLEY SECTION 50' D/S OF I-75
X1    16194.       5.00      775.00      835.00      230.00      230.00      230.00        0.00        0.00        0.00
GR    587.80      775.00      578.60      799.00      576.50      820.00      578.60      835.00      583.00      860.00

NC     0.080       0.080       0.045       0.000       0.000       0.000       0.000       0.000       0.000       0.000
                D/S FACE OF I-75 BRIDGE
X1    16244        7.00      818.50      841.50       50.00       50.00       50.00        0.00        0.00        0.00
X3     10.00       0.00        0.00        0.00        0.00        0.00        0.00      603.60      603.40        0.00
GR    603.60      818.50      578.60      818.60      578.60      818.70      576.50      830.00      578.60      841.40
GR    578.60      841.50      603.60      841.60        0.00        0.00        0.00        0.00        0.00        0.00
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NC    0.000     0.000     0.030     0.000     0.000     0.000     0.000     0.000     0.000     0.000
X1   16245.     0.00      0.00      0.00      1.00      1.00      1.00      0.00      0.00      0.00
X3   10.00      0.00      0.00      0.00      0.00      0.00      0.00    603.60    603.60      0.00
BT    6.00    818.50    603.60      0.00    818.60    603.60    578.60    818.70    603.60    588.10
BT  841.40    603.60    588.10    841.50    603.60    578.60    841.60    603.60      0.00      0.00

X1   16503.     0.00      0.00      0.00    258.00    258.00    258.00      0.00      0.00      0.00
X2    0.00      0.00      0.00      0.00      0.00      0.00      1.00      0.00      0.00      0.00
X3   10.00      0.00      0.00      0.00      0.00      0.00      0.00    603.60    603.60      0.00

NC    0.000     0.000     0.045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT       2       910       910
            U/S FACE OF I-75 BRIDGE
X1   16504.     0.00      0.00      0.00      1.00      1.00      1.00      0.00      0.00      0.00
X3   10.00      0.00      0.00      0.00      0.00      0.00      0.00    603.60    603.60      0.00

ET       0       4.1       1.4       558       683
            VALLEY SECTION 50' U/S OF I-75 BRIDGE
X1   16554.    10.00     605.00    635.00     50.00     50.00     50.00      0.00      0.00      0.00
GR  585.30      0.00     585.30    100.00    590.00    300.00    588.60    587.00    578.80    605.00
GR  576.60    620.00     578.90    635.00    587.60    665.00    585.00    700.00    596.00   1250.00

NH      4.0     0.040   100.000     0.060   410.000     0.045   442.000     0.060   480.000     0.000
ET       0       4.1         0       394       456
            VALLEY SECTION 50' D/S OFINDUSTRIAL DR.
X1   16826.    10.00     410.00    442.00    272.00    272.00    272.00      0.00      0.00      0.00
GR  587.30      0.00     587.30    100.00    587.00    170.00    587.00    220.00    586.00    380.00
GR  575.40    410.00     575.30    426.00    575.40    442.00    586.00    462.00    593.00    480.00

NH      4.0     0.040   100.000     0.060   290.000     0.045   323.100     0.060   540.000     0.000
            D/S FACE OF INDUSTRIAL DR.
X1   16876.     9.00     290.00    323.10     50.00     50.00     50.00      0.00      0.00      0.00
X3   10.00      0.00      0.00      0.00      0.00      0.00      0.00    590.50    590.50      0.00
GR  587.30      0.00     587.30    100.00    589.70    240.00    574.60    290.00    574.60    290.10
GR  574.60    323.00     574.60    323.10    591.00    358.00    593.00    540.00      0.00      0.00

SB    0.00      1.82       3.00      0.00     26.83      0.00    264.00      0.00    574.70    574.60
NH      3.0     0.060   290.000     0.045   323.100     0.060   358.000     0.000     0.000     0.000
            U/S FACE OF INDUSTRIAL DR.
X1   16963.    15.00     290.00    323.10     87.00     87.00     87.00      0.00      0.00      0.00
X2    0.00      0.00      1.00    585.00    589.70      0.00      0.00      0.00      0.00      0.00
X3   10.00      0.00      0.00      0.00      0.00      0.00      0.00    590.50    590.50      0.00
BT   15.00    240.00     589.70      0.00    290.00    590.50    574.70    290.10    590.50    578.50
BT  292.00    590.50     582.00    294.00    590.50    583.50    298.00    590.50    585.60    302.00
BT  590.50    585.00     306.50    590.50    585.00    311.00    590.50    585.00    315.00    590.50
BT  585.60    319.00     590.50    583.50    321.00    590.50    582.00    323.00    590.50    578.50
BT  323.10    590.50     574.90    358.00    591.00      0.00      0.00      0.00      0.00      0.00
GR  589.70    240.00     574.90    290.00    574.90    290.10    574.70    292.00    574.70    294.00
GR  574.90    298.00     574.90    302.00    574.90    306.50    574.70    311.00    574.70    315.00
GR  574.90    319.00     574.90    321.00    574.90    323.00    574.70    323.10    591.00    358.00
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NH      4 0       0 040     100.000       0.060      354 000       0.045      387.000       0.060      437.000       0.000
ET        0         4 1         4.1         304          437
                VALLEY SECTION 50' U/S OF INDUSTRIAL DR.
X1    17013         7 00      324.00      387.00       50 00       50.00       50.00        0.00        0.00        0.00
GR   587 30         0.00     587.30      100.00      585.00      324.00      576.20      554.00      576 20      387 00
GR   585.00       407 00      597.00      437.00        0 00        0.00        0.00        0.00        0 00        0.00

NH      4.0       0 040     100 000       0.080      414 000       0.045      461 000       0 080      600.000       0.000
ET        0         4.1         1 4         414          466
                VALLEY SECTION 50' D/S OF PENNN CENTRAL R R. BRIDGE
X1    17255.        9 00      414.00      461.00       242.00      242.00      242.00        0.00        0 00        0.00
GR   587.20         0 00     587.20      100.00      590.00      200.00      587.70      401.00      578.10      414.00
GR   577.90       440.00      578.10      461.00      597.00      513.00      590 00      600.00        0.00        0 00

NC    0.080       0.080       0.045       0.300       0.500       0.000       0.000       0.000       0.000       0.000
                D/S FACE OF PENN CENTRAL. R.R. BRIDGE
X1    17305.       10.00      356.40      383.60       50.00       50 00       50.00        0.00        0.00        0.00
X3     10.00         0 00       0.00        0.00        0.00        0.00        0.00      600 40      600.40        0 00
GR   600.40       356.30      577.90      356.40      577.90      356 50      577 90      368 40      577 90      368.50
GR   577.90       371 50      577.90      371 60      577.90      383.50      577.90      383 60      600.40      383.70

SB      1.25        2.00        3.00        0.00       27.20         3 20      182.00        0.00      577.90      577.90
                U/S FCE OF PENN CENTRAL R.R  BRIDGE
X1    17502.        0 00        0.00        0.00      197 00      197.00      197.00        0 00        0 00        0 00
X2      0.00        0.00        1.00      585 50      600.40        0.00        0.00        0.00        0.00        0.00
X3     10.00        0.00        0.00        0.00        0.00        0.00        0.00      600 40      600.40        0 00
BT     10.00      356 30      600.40        0.00      356 40      600.40      577.90      356.50      600.40      585 50
BT    368.40      600.40      585.50      368.50      600.40      577.90      371.50      600.40      577.90      371.60
BT    600.40      585.50      383.50      600.40      585.50      383.60      600 40      577.90      383.70      600.40
BT      0 00        0.00        0.00        0.00        0.00        0 00        0.00        0.00        0.00        0.00

NH      5 0       0.040     100.000       0.080      315.000       0.045      370.000       0 080      470 000       1.000
NH    1060.0       0.000       0 000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET        0         4.1           0         250          380
                VALLEY SECTION 50' U/S OF PENN CENTRAL R.R. BRIDGE
X1    17552.       10.00      315.00      370.00       50.00       50.00       50.00        0.00        0.00        0.00
GR   600.00       100.00      587 20      100.00      586 90      315.00      577.80      328.00      577.50      340.00
GR   577.50       352.00      585.40      370 00      585.00      470.00      585.00     1060.00      600.00     1060.00

NC    0.050       0.050       0.045       0.100       0.300       0 000       0.000       0.000       0.000       0.000
ET        0         4 1         1 4         8.8         230.4
X1    17817.       11 00      101.00      162.00      265.00      265.00      265.00        0.00        0 00        0.00
GR   600.00         0.00     587.00        0.00      588.00       50.00      588.30      101.00      578.40      130.00
GR   576 90       138.00      578.50      148.00      586.50      162.00      589.10      225.00      587 10      275.00
GR   600 00       275.00        0.00        0.00        0.00        0.00        0.00        0.00        0 00        0.00

NH      6.0       0 040     100.000       0.080      150 000       1 000      250.000       0.080      320.000       0.045
NH    393 0       0.500    1230 000       0.000        0 000       0.000       0.000       0.000       0.000       0.000
ET        0         4.1           0         263          438
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          VALLEY SECTION 50' D/S OF PORTER AVE
X1   18106.      17.00     320.00     393.00     289.00     287.00     287.00       0.00       0.00       0.00
GR   588.00       0.00     508.00     100.00     585.00     150.00     585.00     250.00     588.40     320.00
GR   579.00     340.00     579.00     350.00     577.00     365.00     587.70     393.00     586.70     410.00
GR   586.70     460.00     587.50     630.00     587.50     680.00     588.50     910.00     588.50     960.00
GR   588.70    1180.00     588.70    1230.00       0.00       0.00       0.00       0.00       0.00       0.00

NH     5.0          10        780      0.060        850      0.040      875.1      0.500       1000         10
NH    2200
ET       0         4.1          0          1        925
          D/S FACE OF PORTER AVE
X1   18156       11.00     850.00     875.10      50.00      50.00      50.00       0.00       0.00       0.00
GR   594.3        0.0      588.60     726.00     588.40     780.00     587.70     830.00     579.00     850.00
GR   579.00     850.10     579.00     875.00     579.00     875.10     587.70     903.00     586.70       1000
GR   594.3        2200       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

NH     5.0          10        780      0.060        850      0.040      875.1      0.500       1000         10
NH    2200
ET       0         4.1          0          1        925
          1' INSIDE OF D/S FACE PORTER AVE.
X1   18157.       0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00
BT    10.00       0.00     594.30       0.00     726.00     588.60       0.00     830.00     587.90       0.00
BT   850.00     587.90     579.00     850.10     587.90     585.90     875.00     587.90     585.70     875.10
BT   587.90     579.00     903.00     587.90       0.00    1000.00     586.70       0.00    2200.00     594.30
BT     0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00

NH     5.0          10        780      0.060        850      0.040      875.1      0.500       1000         10
NH    2200
ET       0         4.1          0          1        925
          1' INSIDE OF U/S FACE OF PORTER AVE.
X1   18195        0.00       0.00       0.00      38.00      38.00      38.00       0.00       0.00       0.00
X2    0.00        0.00       0.00       0.00       0.00       0.00       1.00       0.00       0.00       0.00

NH     5.0          10        780      0.060        850      0.040      875.1      0.500       1000         10
NH    2200
ET       0         4.1          0          1        925
          U/S FACE OF PORTER AVE
X1   18196.       0.00       0.00       0.00       1.00       1.00       1.00       0.00       0.00       0.00

NH     7.0        10.00    750.000       0.04        850       1.00       1020      0.100     1085.0      0.045
NH    1136         0.50       2050         10     2200.0      0.000      0.000      0.000      0.000      0.000
ET       0         4.1          0        910        1170
          VALLEY SECTION 50' U/S OF PORTER AVE.
X1   18246       18.00     1101.0     1122.00      50.00      50.00      50.00       0.00       0.00       0.00
GR   594.30       0.00     588.00     750.000     588.00     850.00     585.00     770.00     586.00    1020.00
GR   588.00    1085.00     579.00    1101.00     579.00    1122.00     587.70    1136.00     586.70    1160.00
GR   586.70    1210.00     587.50    1450.00     587.50    1500.00     588.50    1720.00     588.50    1770.00
GR   588.70    2000.00     588.70     2050.0     594.30     2200.0       0.00       0.00       0.00       0.00
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NC    0.000     0.000     0.000     0.100     0.300     0.000     0.000     0 000     0.000     0.000
NH    5.00     10.00     750.00     0.050     934.00     0.045     970.00     0 050     1150 0     10.00
NH    2200.
ET       0        4.1         0       580       1000
          VALLEY SECTION BTWN PORTER AND RAUPP PL.
X1  18545.     11.00     934.00     970 00     297 00     297.00     297.00     0 00     0.00     0.00
GR  595 20      0.00     587.70     750.00     587.90     850.00     588.00     934.00     580.20     940 00
GR  578.60     950 00     580 60     960.00     586.60     970 00     588.20     1050.00     589.60     1150.00
GR  595.20     2200.0      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0 00

NC    0 000     0.000     0.000     0.300     0.500     0.000     0.000     0 000     0 000     0 000
NH    6.0     10 00     750 000     0.800     887.00     0 000     1095.0     0.045     1136.0     0.500
NH  1900.0     10.00     2200     0.000     0.000     0.000     0.000     0.000     0.000     0 000
ET       0        4.1         0       793       1165
          VALLEY SECTION 50' D/S OF RAUPP PL.
X1  18829     21.00     1095.0     1136.00     284.00     284.00     284.00     0.00     0.00     0 00
GR  595.00      0.00     587 90     750.00     587.90     850.00     585.60     887.00     585.20     1095.00
GR  578.70     1113.50     578 70     1113 60     578.70     1120.00     578 70     1127.00     578.70     1127 10
GR  585 50     1136.00     588.50     1220.00     590.10     1410 00     590 10     1460.00     589.00     1510 0
GR  589.00     1560.00     589 90     1850 00     589.90     1900 00     590.00     2110.00     590.00     2160 0
GR  595.00     2200 00

NH    6.0     10 00     750.000     0 800     887.000     0.000     1095.00     0 045     1136.00     0.500
NH  1900 0     10.00     2200.0     0.000     0.000     0.000     0.000     0.000     0 000     0.000
ET       0        4.1         0       859       1165
          50' U/S OF RAUPP PL.
X1   18961        0         0         0      132 00     132.00     132.00     0.00     0.00     0.00

NH    5.0     10.00     750.00     0 800     1057.00     0.045     1083.10     0.500     1910.00     10.00
NH    2200.
ET       0        4.1         0       750       1113
          50' D/S OF DIX
X1  19112.     30.00     1057 00     1083 10     151.00     151.00     151.00     0.00     0.00     0.00
GR  595.00      0.00     588.90     750 00     588.90     850.00     588.50     1045.00     579.00     1057.00
GR  579.00     1057.10     579.00     1057.20     579.00     1057.30     579.00     1068.00     579.00     1068.10
GR  579 00     1070.00     579.00     1070.10     579.00     1070.20     579.00     1070.30     579.00     1070 40
GR  579 00     1070.50     579.00     1083.00     579.00     1083.10     579.00     1083.20     579.00     1083 30
GR  588.30     1101.00     589 20     1500.00     587.20     1550.00     589.70     1590.00     587.70     1640.00
GR  590 60     1860.00     590.60     1910.00     590.60     2130.00     590.60     2180.0     595 00     2200.00

NH    5.0     10.00     750.000     0.800     1057 00     0.045     1083.10     0 500     1910.00     10.00
NH    2200.
ET       0        4.1         0       750       1113
          D/S FACE OF DIX RD. BRIDGE
X1  19162        0 00        0.00      0.00      50.00      50.00      50.00      0.00      0 00      0.00

NH    5.0     10.00     750.000     0.800     1057 00     0 040     1083.10     0.500     1910.00     10.00
NH    2200.
ET       0        4.1         0       950       1190
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                1' INSIDE D/S FACE DIX RD.  BRIDGE
X1    19163.        0.00        0.00        0 00        1.00        1 00        1.00        0.00        0.00        0.00
BT     20 00      750 00      588 90        0.00      850 00      588.90        0.00      1045.0      588.50        0 00
BT    1057 0      588.20      579.00      1057 1      588.20      589 90      1068.0      588.20      583 90      1068.1
BT    588.20      579.00     1070.00      588.20      579.00     1070.1       588.20      583 90     1083 0       588.20
BT    583 90     1083.1       588.20      579.00     1101.00      588.30        0 00      1500 0      589.20        0 00
BT    1550.0      589.20        0 00      1590.0       589.70        0.00     1640.00      589.70        0 00     1860 00
BT    590 60        0 00     1910.00      590.60        0 00     2130.00      590.60        0.00     2180.00      590.60
BT      0.00        0.00        0.00        0 00        0.00        0 00        0.00        0.00        0.00        0.00

NH       5 0       10.00     750.000       0.800     1057 00       0 020     1083.10       0.500     1910.00       10 00
NH     2200.
ET          0          4.1          0         750        1113
                1' INSIDE U/S FACE OF DIX RD  BRIDGE
X1    19263.        0 00        0.00        0.00      100.00      100.00      100.00        0.00        0.00        0.00
X2      0.00        0.00        0.00        0.00        0.00        0.00        1.00        0.00        0.00        0.00

NH       5.0       10.00      750.00       0.800     1057.00       0.045     1083 10       0.500      1910.0       10 00
NH     2200
ET          0          4.1          0         750        1113
                U/S FACE OF DIX RD.  BRIDGE
X1    19264.        0.00        0.00        0.00        1.00        1 00        1.00        0.00        0.00        0.00

NH       5.0       10.00      750.00       0.800     1057.00       0.045     1083.10       0.500      1910.0       10.00
NH     2200.
ET          0          4.1          0         730        1113
                50' U/S DIX RD.
X1    19314         0.00        0.00        0.00       50.00       50.00       50.00        0.00        0.00        0 00

NH       5.00      10 00      1400.0       0.500      1765.0       0.0450     1739.0       0.500      2720.0       10.000
NH     3500
ET          0          4.1          0        1400        1870
                50' D/S OF FRANK RD.
X1    20080        14.00     1765.00     1789.00      766.00      766.00      766.00        0.00        0.00        0.00
GR    596.0         0.00      588 30     1400.00      588.30     1500.00      585.00     1600.0       587.40     1750 00
GR    580.10     1765.00      580.10     1789.00      587 20     1808.00      590.00     1950.0       590.80     2130.00
GR    590.80     2180.00      589.60     2400.00      589.60     2720.00      596.00     3500.0         0.00        0.00

NH       6 0       10.00     1400.00       0.500     1772.00       0.100     1787 00       0.040     1813 00       0.000
NH    2700.0       10.00      3500 0       0.000       0.000       0 000       0.000       0.000       0.000       0.000
ET          0          4.1          0        1420        1890
                D/S FACE OF FRANK AVE.  BRIDGE
X1    20130.       15.00     1787.0      1813.1       50 00       50.00       50.00        0.00        0.00        0.00
GR    596 00        0.00      588.30     1400.00      588.30     1500.00      588.80     1772 0       588.80     1779.10
GR    580.10     1787 0       580.10     1787.10      580.10     1813.00      580.10     1813.1       588.80     1828.00
GR    588 80     1828.1       590 80     2110.00      589.80     2400 00      587.60     2700.0       596.00     3500 00

NH       6.0       10 00     1400.00       0.500     1772.00       0.100     1787.00       0 035     1813.10       0.000
NH    2700.0       10.00      3500.0       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET          0          4.1          0        1420        1890
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1' INSIDE OF D/S FACE FRANK AVE. BRIDGE

X1	20131.	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0 00	0.00
BT	13.00	1400.0	588.30	0.00	1500.0	580.30	0.00	1772.0	580.80	0 00
BT	1772.1	592.10	0.00	1787.00	592.10	580 10	1787.10	590.40	586.70	1813 00
BT	590.40	586 70	1813.10	592.10	580 10	1828.0	592.10	0.00	1828.10	588.80
BT	0.00	2110.0	590 80	0.00	2400 00	589 80	0.00	2700.00	589.60	0.00
NH	6.0	10 00	1400 00	0.500	1772.00	0 100	1787 00	0.035	1813.10	0.500
NH	2700 0	10.00	3500.0	0 000	0.000	0 000	0.000	0.000	0.000	0 000
ET	0	4.1	0	1420	1890					

1' INSIDE U/S FACE FRANK AVE. BRIDGE

X1	20168	0.00	0 00	0.00	37.00	37 00	37.00	0.00	0.00	0.00
X2	0 00	0.00	0 00	0.00	0.00	0.00	1.00	0.00	0.00	0 00
NH	6.0	10.00	1400.00	0 500	1772 00	0.100	1787.00	0.040	1813.10	0.?00
NH	2700.0	10.00	3500.00	0.000	0.000	0 000	0.000	0.000	0.000	0.000
ET	0	4.1	0	1420	1890					

U/S FACE OF FRANK AVE. BRIDGE

X1	20169.	0.00	0 00	0.00	1.00	1 00	1 00	0.00	0 00	0.00
NH	6.0	10	1400	0.500	1772.00	0.100	1787.00	0.045	1813.10	0 ?00
NH	2700 0	10	3500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0	4.1	6.1	1365	1839	1619	1839			

100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS

X1	20269.	0.00	0.00	0.00	100.00	100.00	100.00	0.00	0.00	0.00
X5	1	0	590.76							
ET	0	4 1	6 1	1477	1827	1600	1827			
X1	20599	15	1787	1813.1	330	330	330			
GR	596.0	0	588.3	1400	588.3	1500	588.8	1772	588.8	1777.1
GR	580.4	1787	580.4	1787.1	580.4	1813	580.4	1813.1	588 8	1828
GR	588.8	1828 1	590 8	2110	589.8	2400	589.6	2700	596.0	3500
NC	0.000	0.000	0 000	0 300	0.500	0 000	0 000	0.000	0.000	0 000
NH	5.00	10 00	1400.0	0.050	1600.0	0.0450	1665.0	0.050	2010.	10.0
NH	3500									
ET	0	4.1	6.1	1380	1880	1550	1950			
X1	21999.	8.00	1600.0	1665.0	1730.00	1730.00	1730.00	0.00	0.00	0.00
GR	596.50	0.00	589.20	1400.0	589.40	1600 0	581.40	1634.0	581.40	1654.0
GR	589.40	1665.00	590.40	2010.0	596.50	3500.0	0.00	0.00	0.00	0.00
ET	0	4.1	6.1	1500	1840	1490	1745			
X1	22380	8	1600	1665	381	381	381			
GR	596.5	0	589.2	1400	589.4	1600	581.7	1634	581.7	1654
GR	589.4	1665	590 4	2010	596.5	3500				
NH	5	10	1767.5	0.045	1849.512	0.040	1894.76	0.045	1961.925	10
NH	3747.1									
ET	0	4.1	1 4	1838	1980					

D/S FACE OF ALLEN RD.

X1	23417	26	2616	2680	1418	1418	1418	0.707		
GR	597 00	0	592.76	2500.0	592.90	2525	592 97	2550	592.58	2575
GR	592 51	2600	582.40	2616.0	582.40	2616.1	582 40	2625	582.10	2630
GR	582.10	2640	583 49	2644.9	583.50	2645	583.00	2651	582.40	2651 1
GR	582.40	2655.0	582.40	2660	582.40	2665	582.40	2670	582.40	2675
GR	582.40	2679.9	582.40	2680 0	592.20	2700	592.20	2750	592.17	2775.
GR	597.00	5300.0								
SB	0	2.35	3.00	0	20.4	0	191	0	582.10	582.10
NH	5	10	1767.5	0 035	1849.512	0.003	1894 76	0.035	1961.925	10
NH	3747.1									
QT	2	920	920							
ET	0	4.1	0	1838	1980					

U/S FACE OF ALLEN RD.

X1	23629	0	0	0	212	212	212			
X2	0	0	1	588.66	592.17	0	0	0	0.707	
BT	-17	0	597.0	0	2500	592.76	0	2525	592 90	0
BT	0	2550	592.97	0	2575	592.58	0	2600	592.51	0
BT	0	2616	592.40	582 40	2616.1	592 40	588.66	2644 9	592.25	588.66
BT	0	2645	592.25	583 50	2651	592 20	583.00	2651.1	592.20	590.2
BT	0	2679.9	592.17	590 21	2680	592 17	582.40	2700	592.20	0
BT	0	2750	592.20	0	2775	592.17	0			
NH	5.00	10.00	2501.0	0 050	2725.0	0.0450	2757.0	0.0450	2709.0	10.000
NH	5480									
ET	0	4.1	0	2685	2915					

100' U/S OF ALLEN RD.

X1	1	8.00	2725.00	2799.00	100.00	100.00	100 00			
GR	597.00	0.00	590 00	2501.00	590.00	2725.00	582.70	2757.00	582.70	2772 00
GR	590.00	2799.00	590.00	2979 00	597 00	5480.00	0 00	0.00	0.00	0.00
NC	0.000	0.000	0.000	0 100	0.300	0.000	0.000	0.000	0.000	0.000
NH	5 00	10.00	2501.0	0 0450	2540.0	0.0450	2569.0	0.060	2649.0	10 00
NH	5150									
ET	0	4.1	1.4	2479	2569					
X1	2	8.00	2501.00	2569.00	500.00	700.00	600.00	0.00	0.00	0.00
GR	597.00	0 00	590.00	2501.00	590.00	2540 00	583.40	2547.00	583.40	2562 00
GR	590.00	2569.00	590.00	2649.00	597.00	5150.00	0 00	0.00	0.00	0.00
NH	5.00	10.00	2501 0	0 0600	2600.0	0.0450	2629.0	0.0600	3079.0	10.00
NH	5580.									
ET	0	4.1	4.1	2588	2640					
X1	3.	8 00	2600.00	2629.00	700.00	850.00	800.00	0 00	0 00	0.00
GR	597.00	0.00	590.00	2501.00	590.00	2600 00	584 30	2607.00	584.30	2622.00
GR	590.00	2629.00	590.00	3079.00	597.00	5580 00	0.00	0.00	0.00	0.00
NC	0.000	0.000	0.000	0.300	0.500	0 000	0.000	0 000	0.000	0.000
NH	5.0	10.00	2550 0	0 060	2600.00	0.0450	2626.5	0 060	3075.0	10 00
NH	5575.									
ET	0	0	1.4							

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          D/S FACE OF R.R  BRIDGE #1
X1        4.       10 00    2600.00    2626.50      50.00      50.00      50.00       0 00       0.00       0 00
GR    597.00       00.00     594.00    2550.00     594.00    2600.00     585.40    2600 00     584.60    2612.00
GR    584 40     2614.50     584.40    2626.50     594.00    2626.50     594.00    3075 00     597.00    5575.00

SB      1 25        1.56       3.00     575 00      26.50       2.50     151.20       0.00     584 70     584 70
NH      5.00       10 00     2550.0     0 0600     2600.0      0.045     2626.5      0 060     3075.0      10.00
NH     5575.
ET         0         4.1          0       2600     2626 5
          U/S FACE OF R.R  BRIDGE #1
X1        5.        0.00       0.00       0 00      70.00      70 00      70.00       0.00       0.00       0.00
X2      0.00        0.00       1.00     591.00     596.50       0.00       0.00       0.00       0.00       0.00

NH      5.00       10.00     2500 0      0 080     2604 0      0.045     2643.0       0.10     2750.0      10.00
NH     5250.
ET         0         4 1          0       2510       2676
         D/S FACE OF RR SPUR NO  1
X1         6          22       2604       2643         70         70         70          0          0          0
GR    597.50           0     593.65       2500     593.55       2525     593.53       2550     593.60       2575
GR    593.60        2604     587.60       2604     587.50       2610     585.80       2615     584.60       2620
GR    584.30        2625     583.90       2630     585.80       2634     586.80       2635     588.10       2640
GR    588 80        2643     593.60       2643     593.60       2675     593.83       2700     593.97       2725
GR    594.19        2750     597.5        5250

SB         0        1.55        3.0                    11          0        138        2.5     584.00     584.00
NH       5.0        10 0      2500.      0 100     2604.0      0.045     2643.0      0.100     2750.0      10 00
NH     5250.
ET         0         4.1          0       2443       2643
        U/S FACE OF RR SPUR NO  1
X1         7           0          0          0         17         17         17
X2         0           0          1     589.50     593.70
BT       -12           0      597.5                 2500     593.65                  2525     593.55
BT                  2550     593.53                 2575     593.60                  2604     593.60
BT                  2643     593.60                 2675     593 60                  2700     593.83
BT                  2725     593.97                 2750     594.19                  5250     597.50

NH      5.00        10.0       2500       0.10     2562.0      0.045     2576.0      0.100     2775.0      10.00
NH     5275.
ET         0         4.1          0       2363       2605
        D/S FACE OF RR SPUR NO. 2
X1       7.5          17       2562       2576        180        180        180
GR    597.50           0     593.30       2500     592.13       2550     592.13       2562     584.20       2562
GR    584.00        2563     584.30       2565     584.20       2570     584.20       2575     584.40       2576
GR    592.13        2576     592.30       2600     592.30       2625     592.20       2650     592.90       2675
GR    593.90        2775     597.50       5275

NH      5.00        10.0     2500.0       0.10     2562 0      0.045     2576.0        0.1     2775 0      10.00
NH     5275.
ET         0         4.1        6 1       2368       2610       2562       2644
X1       7.6           0          0          0          1          1          1
X2         0           0          0     591.25     592.25
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NH     5.00       10.0      2500.0      0.100      2562.0      0.045      2576       0 100      2775.0      10.0
NH    5275.
ET        0        4.1         1.4       2372        2608
X1      7.7          0           0          0          12          12          12
X2        0          0           0     591.25      592.25

NH     5.00      10.00       2500       0.100      2562.0      0.045      2576.0      0.100      2775.0      10.0
NH    5275.
ET        0        4.1           0       2370        2606
        U/S FACE OF RR SPUR NO. 2
X1      7.8          0           0          0           1           1           1

NH     5.00       10.0       2500.       0.10      2800.0      0 045       2843.      0.100      3093 0      10.0
NH    5593.
ET        0        4.1           0       2796        2847
X1        8          8        2800       2843         370         370         370
GR   597.60       0.00      594 30       2500      594.30       2800      585 20       2814      585.20      2829
GR   594.30       2843      595.00       3093      597 60       5593        0.00       0.00        0.00       0.00

NC    0.000      0.000       0.000      0.300       0.500      0 000       0.000      0 000       0.000      0.000
NH      5.0      10.00      2500.0       0.10       2800.      0 045      2826.0      0.100      3076.0      10.00
NH    5576
ET        0        4.1           0       2800        2826
        D/S FACE OF R.R. BRIDGE #2
X1        9      10.00        2800       2826       50.00      50.00       50.00       0.00        0.00       0 00
GR   601.00       0.00      595.00       2500      594.30       2800      586.30       2800      586.30      2812
GR   585.30       2814      585.30       2826      594.30       2826      594.30       3076      601.00      5576

SB     1.25       1.50        3.00     576.00       26.00       2.00      132.00       0 00      585.30     585.30
NH      5 0      10.00      2500.0       0.10       2800       0.045      2826 0      0.100      3076.0      10.00
NH    5576
ET        0        4.1           0       2800        2826
        U/S FACE OF R.R. BRIDGE #2
X1       10      10.00        2800       2826       50.00      50.00       50 00       0.00        0.00       0.00
X2     0.00       0.00        1.00     591.30      596.30       0.00        0.00       0.00        0.00       0.00
GR   601 00       0.00      596.00       2500      595.80       2800      586.30       2800      586 30      2812
GR   585.30       2814      585.30       2826      595.80       2826      595.80       3076      601.00      5576

NH     5 00      10 00      2500.0      0.100      2800.0     0.0450      2824 0      0.100      3074.0      10 00
NH    5574.
ET        0        4.1           0       2749        2875
X1       11.       8.00        2800       2824       50.00      50.00       50.00       0.00        0.00       0.00
GR   598.00       0.00      592.00       2500      590.00       2800      585.40       2806      585.40      2818
GR   590.00       2824      590.00       3074      598.00       5574        0.00       0 00        0.00       0.00

NC    0 000      0.000       0.000      0.100       0.300      0.000       0.000      0.000       0.000      0.000
NH     5 00      10.0       2500.0      0.100      2800.0      0.045      2826.0       0.10      3126.0      10 00
NH    5626.
ET        0        4.1           0       2751        2874
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          100' D/S  OF STUDY LIMIT(I-94) BRIDGE  END OF CONVERGENCE RUN
X1       12        8 00       2800       2826     1300.00     1550.00     1425 00        0.00        0.00        0.00
GR    599 00       0.00     590.00       2500      590.00     2800.00      586 30     2808.00      586 30     2818 00
GR    590 00    2826 00     595.00    3126.00      597.00     5626.00        0.00        0.00        0.00        0 00

NH      5.00      10.00    2500.00      0.080      2985 0       0.040     3010.50       0.080      3490.5       10.00
NH     5991.
          D/S FACE OF E.  BOUND I-94 SURVEY STATION 51+32
X1       13        8.00    2985.00    3010.50      100.00      100.00      100.00        0.00        0.00        0.00
GR    599.00       0 00     598.00    2500.00      598.00     2960.00      586.60     2985.00      586.10     3010.50
GR    598.00    3040.50     598.00    3490.50      597.00     5991.00        0.00        0.00        0.00        0.00

SB      1 25       1.50       3 00     990 00       25.50        1.50      202.80        0.00      585 85      585 85
NH         5       10.0      2500.       0.08        2985        0.04      3010.5        0.08      3490.0        10.0
NH      5990
          U/S FACE OF E.  BOUND I-94 SURVEY STATION 50+64
X1       68.      10.00    2985.00    3010.50       68 00       68.00       68.00        0 00        0 00        0 00
X2      0.00       0.00       1 00     594.30      598 60        0.00        0.00        0.00        0.00        0.00
GR    599.50       0.00     598.00    2500.00      598.00     2955.00      585.50     2985.00      585 50     2997 00
GR    586.20    2998.50     586 20    3010.50      598 00     3040.00      598.00     3490.00      597.50     5990.00

NC     0.000      0 000      0.000      0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH      5 00     10.000     2500.0      0.080      2950.0       0.040      3011.5       0 080      3500.0      10.000
NH    6000.0
          D/S FACE OF W.  BOUND I-94 SURVEY STATION 49+43
X1      189.       8.00    2986.00    3011.50      121.00      121 00      121.00        0.00        0.00        0.00
GR    599.50       0 00     598.40     2500.0      598.40     2950.00      586.40     2986.00      587.80     3011 50
GR    598.40    3047.50     598.40    3500.00      597.50     6000.00        0.00        0.00        0 00        0.00

SB      1 25       1.50       3.00    1000 00       25.50        1.50      207 60        0.00      585.95      585.95
NH      5.00     10.000     2500 0     0.0800      2980.0       0.040      3005.5       0.080      3500.0       10 00
NH    6000.0
          U/S FACE OF W.  BOUND I-94 SURVEY STATION 48+79
X1      253       10 00    2980.00    3005 50       64.00       64.00       64.00        0 00        0.00        0.00
X2      0 00       0.00       1.00     594.60      597 10        0.00        0.00        0.00        0.00        0 00
GR    600.00       0.00     598.40    2500.00      598.40     2950.00      585.70     2980.00      585.70     2992 00
GR    586.50    2993.50     586.50    3005.50      598.40     3017.50      598.40     3500.00      600.00     6000.00

QT         2       1430       1430
NH      5.00      10.00    2500.0      0 090      2558.0       0.045      2592.0       0.090      2625.0      10.000
NH    5125.0
ET         0        4.1          0       2357        2621
          100' U/S OF W.  BOUND I-94
X1      353.      10.00    2558.00    2592.00      100.00      100 00      100.00        0.00        0.00        0.00
GR    600.00       0.00     595.00    2500.00      590.00     2535.00      588.00     2558.00      586.00     2565 00
GR    586.00    2585 00     590.00    2592 00      595.00     2617 00      599.10     2625.00      600.00     5125 00

ET         0        4.1          0       2298        2698
X1       553          0          0          0         200         200         200
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NC     0.000      0.000      0.000      0.300      0.500      0 000      0.000      0.000      0 000      0.000
NH     5.00      10.000      500.0      0.070        600      0.0400       645.     0.070      715 0      10.00
NH     1845.0
ET        0          4.1          0        300       1020
          U/S JFK PARK SURVEY STATION 33+00
X1     1832          17         600        645       1150       1350       1279
GR     598.0          0       598.0        400       598.2        500      596.3        580      594.7        600
GR     587.5        616       587 4        621       587 6        626      593.3        645      595.5        655
GR     596.0        675       597.2        715       598.0        775      598.0        915      596 0        995
GR     596.0       1395       596.5       1845

NC     0.000      0 000      0 000      0.100      0.300      0.000      0.000      0.000      0.000      0.000
NH     5.00      10.000      500.0      0 070      600.0      0.0400       645.     0 070      715.0      10.00
NH     1845.0
ET        0          4.1          0        530       1030
X1     2132.         0.00       0.00       0.00     400.00     300.00     350.00       0.00       0 20       0 00

NC     0 000      0.000      0.000      0.300      0.500      0.000      0 000      0.000      0.000      0.000
NH     5.00      10.000      600.0      0.070      717 0      0.0400       790.     0.070      878.0      10.00
NH     2600
ET        0          4.1          6.1        687       1187        680        820
          D/S FACE SURVEY 25+45
X1     2536.        15.00      717.00     790.00     450.00     375.00     404 00       0 00       0.00       0 00
X4     1.00       588.00      779.90       0.00       0.00       0.00       0.00       0.00       0.00       0 00
GR     600 10       0.00      595.10     600.00     596.70     672.00     596.70     710.00     595.30     717.00
GR     593.10     754.00      590.00     761.00     588.00     764.00     588.00     780.00     591.00     783.00
GR     595.50     790.00      595.50     840 00     595.70     872 00     597.90     878.00     600.10    2600.0

SB     0 00         1.50        3.00       0.00      16.00       0.00      88.00       0.00     588.00     588.00
NH     5.00      10.000      600.0      0.070      717.0      0.0400       790.     0.070      878.0      10.00
NH     2600
ET        0          4.1          6.1        687       1187        680        820
          U/S FACE SURVEY 25+40
X1     2541.         0.00       0.00       0.00       5.00       5.00       5.00       0.00       0.00       0.00
X2     0.00          0.00       1.00     593.50     595.30       0.00       0.00       0.00       0 00       0.00
BT     10.00       717 00     595 30       0.00     761.00     596.30       0.00     761.00     597 00       0 00
BT     764.00      599 00     588 00     764.00     597.00     593.50     779.90     597.00     593.50     780.00
BT     599.00      588.00     783.00     599.00       0.00     783.00     596.30       0.00     840 00     595.50
BT     0.00          0 00       0 00       0.00       0.00       0.00       0.00       0.00       0 00       0.00

NH     5.00      10.000      600.0      0 070      717.0      0.0400       790.     0.070      878.0      10.00
NH     2600
ET        0          4 1          6.1        697       1197        697        817
          50' U/S OF FOOTBRIDGE
X1     2591.         0.00       0.00       0.00      50.00      50.00      50 00       0.00       0.00       0 00

NH     5.00      10.000      600.0      0.070      680.0      0.0400       712.     0.070      767.0      10.00
NH     2200
ET        0          4.1          6.1        610       1060        624        744
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          400' U/S OF FOOTBRIDGE
X1    2941.      10.00     690.00     702.00     350.00     350.00     350.00       0.00       0.00       0.00
GR    600.50      0.00     595.00     600.00     593.00     650.00     590.00     680.00     587.80     690.00
GR    587.80    702.00     590.00     712.00     593.00     742.00     595.00     767.00     600.60    2200.0

NH      5.00        10       1000      0.070       1090     0.0400     1110.8      0.070       1200      10.00
NH      3000
ET         0       4.1        6.1       1040       1540       1040       1180
          D/S FACE LARME ST., 9 CULVERTS SURVEY STATION 17+94
X1    3287.       8.00    1090.00    1110.80     346.00     346.00       0.00       0.00       0.00       0.00
GR    600.50      0.00     595.00    1000.00     595.00    1090.00     588.20    1090.00     580.20    1100.80
GR    595.00   1110.80     595.00    1200.00     600.50    3000.00       0.00       0.00       0.00       0.00

SB      1.25       3.91       3.00     200.00      15.70       1.00      78.00       0.00     580.20     580.20
NH      5.00         10       1000      0.070       1090     0.0400     1110.8      0.070       1200      10.00
NH      3000
ET         0       4.1        6.1       1050       1550       1050       1170
          U/S FACE KEPPEN ST. SURVEY STA. 15+94
X1    3487.       0.00       0.00       0.00     200.00     200.00     200.00       0.00       0.00       0.00
X2     0.00       0.00       1.00     593.50     595.50       0.00       0.00       0.00       0.00       0.00

NH      5.00        10       1000      0.070       1090     0.0400     1110.8      0.070       1200      10.00
NH      3000
ET         0       4.1        1.4        940       1440
          D/S FACE RUSSELL ST  CULVERTS SURVEY STATION 13+05
X1    3776           8       1090     1110.8        289        289
GR    600.60      0.00     595.00    1000.00     595.00    1090.00     589.00    1090.00     587.00    1110.80
GR    595.00   1110.80     595.00    1200.00     600.60    3000.00       0.00       0.00       0.00       0.00

SB      1.25       2.31       3.00     200.00      14.56       1.00      64.00       0.00     589.00     587.00
NC     0.000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
NH         5        10.       1000       0.07       1090        .04     1110.8       0.07       1200       10.0
NH      3000
ET         0       4.1          0        890       1390
          U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38
X1    3843.       0.00       0.00       0.00      67.00      67.00      67.00       0.00       0.00       0.00
X2     0.00       0.00       1.00     593.90     596.00       0.00       0.00       0.00       0.00       0.00

NH         5       10.0       1400       0.07       1455        .04     1475.8       0.07       1530       10.0
NH      3300
ET         0       4.1        1.4       1200       1590
          D/S FACE OF WATSON AVE  STA. 8+47
X1    4234           8.00    1455.00    1475.80     270.00     430.00     391.00       0.00       0.00       0.00
GR    600.80      0.00     595.00       1400     595.00    1455.00     588.30    1455.00     588.30    1475.80
GR    595.00   1475.80     595.00    1530.00     600.80    3300.00       0.00       0.00       0.00       0.00

SB      1.25       2.00       3.00     130.00      13.90       1.00      80.00       0.00     588.30     588.30
NH         5       10.0       1400       0.07       1455        .04     1475.8       0.07       1530       10.0
NH      3300
ET         0       4.1        1.4       1230       1590
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          U/S FACE OF WATSON AVE. STA. 7+87
X1    4294        0.00        0.00        0.00       60.00       60.00       60.00        0.00        0.00        0.00
X2     0.00       0.00        1.00      594.50      596.00        0.00        0.00        0.00        0.00        0.00

NH        5       10.0        1400        0 07        1454         .04      1475.7        0.07        1530        10.0
NH     3300
ET        0        4.1         1 4        1454        1653
          D/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+71
X1    4610.        8 00     1454.00     1475.70      350 00      280 00      316.00        0.00        0.00        0.00
GR   600.90        0 00      595.50     1400.00      595.50     1454.00      588.60     1454.00      588.60     1475 70
GR   595.50     1475.70      595.50     1530.00      600.90     3300.00        0.00        0.00        0.00        0 00

SB     1.25        2.04        3 00      130.00       14.22        1.00       78.00        0.00      588.60      588.60
NH        5       10.0        1400        0 07        1454         .04      1475.7        0.07        1530        10.0
NH     3300
ET        0        4.1           0        1454        1619
          U/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+03
X1    4678.        0.00        0.00        0.00       68.00       60.00       68.00        0.00        0.00        0 00
X2     0.00        0 00        1 00      594.50      596.30        0 00        0.00        0.00        0.00        0 00

NH     5.0        10 00        3000        0.07      3040.0        0.04        3060.       0 07      3100.0          10
NH     3200
          D/S FACE SOUTHFIELD F/WAY CULVERT,  CITY OF ALLEN PARK CORPORATE LIMIT
X1    4853.        6.00     3040.00     3060.00      140.00      200.00      175.00        0.00        0.00        0.00
GR   605.00        0.00      603.00     3000.00      590.00     3040 00      590.00     3060.00      603 00     3100.00
GR   605.00     3200.00        0.00        0.00        0.00        0 00        0.00        0.00        0.00        0.00

NC    0 000       0.000       0.000       0.300       0.500       0.000       0.000       0.000       0.000       0.000
NH     5.00      10.000     3000.00       0.100      3040.0       0.045     3060.0        0.100     3100.        10.000
NH     3200
SB     0 00        4 00       3.000      100.00       20 00         0.0       300.0        0.00      590.40      590 00
ET        0        4.1           0        2904        3103
          U/S FACE SOUTHFIELD F/WAY CULVERTS
X1    5181         0.00        0.00        0 00      328 00      328.00      328.00        0.00        0.00        0.00
X2     0.00        0.00        1.00      597.60      603.10        0.00        0.00        0.00        0.00        0.00

NH     4.00       10.00     2600.0        0.045     2682.0        0.050     2854.          10        3200
QT        2        1950        1950
ET        0        4.1           0        2218        2727
          VALLEY AT FLEMMING DEAD END 27+00
X1    5336.        8 00     2600.00     2682 00      185.00      125.00      155.00        0.00        0.00        0.00
GR   605.60        0.00      596.60     2600.00      599.40     2628.00      591.10     2643.00      591.10     2665.00
GR   601.40     2682.00      602.40     2854.00      605.60     3200.00        0.00        0.00        0.00        0.00

NC    0.000       0.000       0.000       0 400       0.600       0.000       0.000       0.000       0.000       0.000
NH        5       10.0        2500        0.06        2661        0.045       2712        0.05        2990          10
NH     3200
ET        0        4.1           0        2063        2872
          VALLEY 269+50
X1    5486         9 00     2661.00     2712.00      150.00      150.00      150.00        0.00        0.00        0.00
GR   605.60         0.0      598.30     2500 00      601.30     2661.00      591.50     2682.00      591.50     2690 00
GR   600.20       2712.      602 40     2728.00      599.40     2990.00      605.60     3200.00        0.00        0.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0.500

*SECNO 1.000

1.000	11.50	574.90	0.00	574.90	575.53	0.63	0.00	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	701.3	0.0	0.0	0.0	584.60
0.00	0.00	6.34	0.00	0.000	0.030	0.000	0.000	563.40	529.17
0.001188	0.	0.	0.	0	0	0	0.00	87.83	619.00

*SECNO 30.000

30.000	11.54	574.94	0.00	0.00	575.56	0.62	0.03	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	704.4	0.0	0.5	0.1	584.60
0.00	0.00	6.32	0.00	0.000	0.030	0.000	0.000	563.40	528.88
0.001176	29.	29.	29.	0	0	0	0.00	90.12	619.00

*SECNO 60.000

60.000	11.59	574.99	0.00	0.00	575.60	0.61	0.04	0.00	584.60
4450.0	0.0	4450.0	0.0	0.0	708.3	0.0	1.0	0.1	584.60
0.00	0.00	6.28	0.00	0.000	0.030	0.000	0.000	563.40	528.53
0.001161	30.	30.	30.	0	0	0	0.00	90.47	619.00

*SECNO 61.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

WEST JEFFERSON AVENUE BRIDGE

61.000	11.52	574.92	0.00	0.00	575.66	0.74	0.00	0.06	584.30
4450.0	0.0	4450.0	0.0	0.0	644.8	0.0	1.0	0.1	584.60
0.00	0.00	6.90	0.00	0.000	0.030	0.000	0.000	563.40	528.97
0.002129	1.	1.	1.	2	0	0	0.00	83.03	619.00

*SECNO 136.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	ARUB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584 30 MAX ELLC= 580 30

136.000	11 73	575 13	0.00	0.00	575.83	0.70	0.16	0.01	584.30
4450.0	0.0	4450.0	0.0	0.0	662.0	0.0	2.1	0.3	584 60
0.01	0.00	6.72	0.00	0.000	0.030	0.000	0.000	563 40	527 27
0.002009	75	75.	75.	2	0	0	0.00	84.73	619.00

*SECNO 137.000

137.000	11 91	575.31	0 00	0.00	575.87	0.56	0.00	0.04	584.60
4450.0	0.0	4450.0	0 0	0.0	738.8	0.0	2.1	0 3	584.60
0.01	0.00	6 02	0.00	0.000	0.030	0 000	0.000	563.40	525.75
0 001052	1.	1	1	2	0	0	0.00	93.25	619.00

*SECNO 187.000

187.000	11.24	575.34	0.00	0 00	575.97	0 64	0.06	0 04	583.10
4450.0	0.0	4450.0	0.0	0.0	694.1	0.0	2.9	0.4	580 20
0.01	0.00	6.41	0.00	0 000	0.035	0.000	0.000	564 10	341 53
0.001633	50.	50.	50.	2	0	0	0 00	91.36	432.89

1490 NH CARD USED
*SECNO 362.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE. KRATIO = 1.42

362.000	11.99	575.96	0.00	0.00	576.27	0.31	0.20	0.10	578.57
4450.0	0.0	4450.0	0.0	0.0	997.9	0.0	6.3	0.9	577.17
0.02	0.00	4 46	0.00	0.000	0.034	0.000	0.000	563.97	251.05
0.000813	175.	175.	175.	2	0	0	0 00	146.32	397.37

1490 NH CARD USED
*SECNO 737.000

3470 ENCROACHMENT STATIONS= 244.0 360.0 TYPE= 1 TARGET= 116.000

737.000	12.54	576.24	0.00	0.00	576.57	0 34	0.29	0.01	578.30
4450.0	0.0	4450.0	0.0	0.0	953.5	0.0	14 7	2.0	100000.00
0.04	0 00	4.67	0.00	0.000	0.035	0.000	0.000	563.70	249.58
0.000738	375.	375.	375	2	0	0	0.00	110.42	360 00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	GSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 787.000									
787.000	12.34	576.24	0.00	0.00	576.66	0.43	0.04	0.04	581.00
4450.0	0.0	4450.0	0.0	0.0	850.0	0.0	15.8	2.1	581.00
0.04	0.00	5.24	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001073	50.	50.	50.	2	0	0	0.00	106.60	901.60
*SECNO 788.000									
3265 DIVIDED FLOW									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.50									
3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20									
D.T. AND I. RAILROAD									
788.000	12.29	576.19	0.00	0.00	576.71	0.52	0.00	0.05	581.00
4450.0	0.0	4450.0	0.0	0.0	768.5	0.0	15.8	2.1	581.00
0.04	0.00	5.79	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004257	1	1.	1.	2	0	0	0.00	104.00	901.60
*SECNO 798.000									
3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.03									
798.000	12.43	576.33	0.00	0.00	576.74	0.42	0.00	0.03	581.00
4450.0	0.0	4450.0	0.0	0.0	859.9	0.0	15.8	2.1	581.00
0.04	0.00	5.18	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001035	1.	1.	1.	2	0	0	0.00	106.60	901.60
*SECNO 844.000									
844.000	11.38	576.38	0.00	0.00	576.79	0.41	0.05	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	866.4	0.0	16.7	2.2	581.40
0.05	0.00	5.14	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000980	46.	46	46.	2	0	0	0.00	107.00	924.00
*SECNO 845.000									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI.MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3302 WARNING- CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.54

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

CONRAIL

845.000	11.35	576.35	0.00	0.00	576.83	0.48	0.00	0.04	581.50
4450.0	0.0	4450.0	0.0	0.0	798.3	0.0	16.7	2.2	581.40
0.05	0.00	5.57	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003389	1.	1.	1.	2	0	0	0.00	102.00	724.00

*SECNO 859.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

859.000	11.41	576.41	0.00	0.00	576.88	0.48	0.05	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	804.2	0.0	17.0	2.2	581.40
0.05	0.00	5.53	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003324	15.	15.	15.	2	0	0	0.00	102.00	724.00

*SECNO 860.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.89

860.000	11.51	576.51	0.00	0.00	576.91	0.40	0.00	0.02	581.50
4450.0	0.0	4450.0	0.0	0.0	880.2	0.0	17.0	2.2	581.40
0.05	0.00	5.06	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000933	1.	1.	1.	2	0	0	0.00	109.00	724.00

*SECNO 910.000

910.000	12.59	576.59	0.00	0.00	576.96	0.37	0.04	0.01	583.10
4450.0	0.0	4450.0	0.0	0.0	910.8	0.0	18.0	2.4	583.00
0.05	0.00	4.89	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000840	50.	50.	50.	2	0	0	0.00	107.00	742.00

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

*SECNO 911.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60

RAILROAD SPUR

911.000	12.55	576.55	0.00	0.00	577.00	0.45	0.00	0.04	583.10
4450.0	0.0	4450.0	0.0	0.0	826.5	0.0	18.1	2.4	583.00
0.05	0.00	5.38	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003681	1	1.	1.	2	0	0	0.00	105.00	942.00

*SECNO 921.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60

921.000	12.59	576.59	0.00	0.00	577.04	0.45	0.04	0.00	583.10
4450.0	0.0	4450.0	0.0	0.0	829.8	0.0	18.3	2.4	583.00
0.05	0.00	5.36	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003636	10.	10.	10.	1	0	0	0.00	105.00	942.00

*SECNO 922.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.12

922.000	12.70	576.70	0.00	0.00	577.06	0.36	0.00	0.03	583.10
4450.0	0.0	4450.0	0.0	0.0	923.2	0.0	18.3	2.4	583.00
0.05	0.00	4.82	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000805	1.	1.	1	2	0	0	0.00	107.00	942.00

*SECNO 953.000

953.000	11.54	576.64	0.00	0.00	577.19	0.56	0.03	0.10	581.00
4450.0	0.0	4450.0	0.0	0.0	741.9	0.0	18.9	2.5	580.80
0.05	0.00	6.00	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001247	31.	31.	31.	2	0	0	0.00	81.00	681.00

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

*SECNO 954.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.43

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

D.T. AND I. RAILROAD BRIDGE

954.000	11.39	576.49	0.00	0.00	577.35	0.86	0.00	0.15	581.00
4450.0	0.0	4450.0	0.0	0.0	599.1	0.0	18.9	2.5	580.80
0.05	0.00	7.43	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.006737	1.	1	1	2	0	0	0.00	67.20	681.00

*SECNO 985.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

985.000	11.65	576.75	0.00	0.00	577.56	0.81	0.20	0.01	581.00
4450.0	0.0	4450.0	0.0	0.0	616.6	0.0	19.3	2.5	580.80
0.05	0.00	7.22	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.006275	31.	31.	31.	2	0	0	0.00	67.20	681.00

*SECNO 986.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.44

986.000	12.05	577.15	0.00	0.00	577.65	0.50	0.00	0.09	581.00
4450.0	0.0	4450.0	0.0	0.0	784.0	0.0	19.3	2.5	580.80
0.05	0.00	5.68	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001054	1.	1.	1.	2	0	0	0.00	81.00	681.00

*SECNO 1036.000

1036.000	11.14	577.34	0.00	0.00	577.74	0.40	0.05	0.03	581.10
4450.0	0.0	4450.0	0.0	0.0	878.6	0.0	20.3	2.6	577.50
0.06	0.00	5.06	0.00	0.000	0.035	0.000	0.000	566.20	579.53
0.001037	50.	50.	50.	0	0	0	0.00	120.22	699.75

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROR	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1736.000

3470 ENCROACHMENT STATIONS= 374 0 492.5 TYPE= 1 TARGET= 118.500

1736.000	12.66	578.06	0.00	0.00	578.37	0 31	0.61	0.03	579.10
4450.0	0.0	4450.0	0.0	0 0	1000.8	0.0	35.4	4.5	100000.00
0.10	0.00	4.45	0 00	0 000	0.035	0.000	0.000	565.40	376 12
0 000737	700.	700	700	0	0	0	0 00	116.38	492.50

*SECNO 2436 000

3470 ENCROACHMENT STATIONS= 183.0 285.0 TYPE= 1 TARGET= 102.000

DS OF CONFL WITH SOUTH BRANCH ECORSE CREEK

2436.000	13.93	578.53	0.00	0.00	578.85	0.32	0.47	0.01	577.10
4450.0	0.0	4450.0	0.0	0.0	980.6	0.0	51.3	6.3	100000.00
0.14	0.00	4 54	0.00	0.000	0.035	0.000	0.000	564.60	183.00
0.000611	700.	700.	700.	2	0	0	0.00	102.00	285.00

CCHV= 0 300 CEHV= 0 500

*SECNO 2736.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.60

3470 ENCROACHMENT STATIONS= 300 0 400.0 TYPE= 1 TARGET= 100.000

2736.000	9.87	578.97	0.00	0.00	579 05	0.08	0.13	0.07	578.60
1580.0	0.0	1580.0	0.0	0.0	707.7	0.0	57.1	7.0	100000.00
0.18	0.00	2.23	0.00	0.000	0.035	0.000	0.000	567.10	300.00
0.000213	300.	300	300.	2	0	0	0.00	100.00	400.00

*SECNO 3436 000

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 1 TARGET= 100 000

3436.000	9.65	579.13	0.00	0.00	579.21	0.08	0.16	0.00	578.98
1580 0	0.0	1580.0	0.0	0.0	685.1	0.0	68.3	8.6	100000.00
0.26	0.00	2.31	0.00	0.000	0.035	0.000	0.000	567.48	300.00
0 000236	700.	700.	700.	2	0	0	0.00	100.00	400.00

*SECNO 3836 000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 300.0 TYPE= 1 TARGET= 100.000

3836.000	9.53	579.23	0.00	0.00	579.36	0.13	0.12	0.02	578.50
1580.0	0 0	1580.0	0.0	0.0	547.9	0.0	74.0	9.5	100000.00
0.30	0.00	2.88	0.00	0.000	0.035	0.000	0.000	569.70	200.00
0.000426	400.	400.	400.	1	0	0	0.00	88.42	288.42

*SECNO 4311.000

3470 ENCROACHMENT STATIONS= 200.0 290.0 TYPE= 1 TARGET= 90.000

4311.000	9.53	579.43	0.00	0.00	579.56	0.13	0.20	0.00	578.70
1580.0	0 0	1580.0	0.0	0 0	548.6	0.0	79.9	10.4	100000.00
0.35	0.00	2.88	0.00	0.000	0.035	0.000	0.000	569.90	200.00
0.000424	475.	475.	475	2	0	0	0.00	88.44	288.44

*SECNO 4786.000

3470 ENCROACHMENT STATIONS= 393.0 500.0 TYPE= 1 TARGET= 107.000

4786.000	9.55	579.65	0.00	0.00	579.74	0.10	0.17	0.01	580.10
1580 0	0.0	1580 0	0.0	0.0	637 2	0.0	86 4	11.5	100000.00
0.40	0.00	2.48	0.00	0.000	0.035	0.000	0.000	570.10	395.15
0.000322	475.	475.	475.	1	0	0	0 00	104 85	500.00

*SECNO 4825.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

4825.000	8.87	579.67	0.00	0.00	579.76	0.08	0.01	0.00	579.40
1580.0	0.0	1580.0	0.0	0.0	676.8	0.0	87.0	11.6	585.00
0 41	0.00	2.33	0.00	0.000	0.035	0.000	0.000	570 80	500.00
0.000258	39.	39.	39.	1	0	0	0.00	93.00	598.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3 17	570 80	570.80

*SECNO 4846 000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
579.85	579.76	0.00	97.	1485.	538.	566.	578.30	579.40	384.

3470 ENCROACHMENT STATIONS= 500 0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

MILL STREET BRIDGE

4846.000	8.94	579 74	0.00	0.00	579.83	0.08	0.07	0.00	579.40
1580.0	0.0	1580.0	0.0	0 0	684.3	0.0	87.3	11.6	585.00
0.41	0.00	2.31	0.00	0 000	0.035	0.000	0.000	570.80	500.00
0.000249	21.	21.	21.	2	0	4	0.00	98.00	598.00

*SECNO 4847.000

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585 00 ELENCR= 585.00

4847.000	8.94	579.74	0.00	0.00	579.83	0.08	0.00	0.00	579 40
1580.0	0.0	1580.0	0.0	0.0	684 3	0.0	87.3	11.6	585.00
0.41	0.00	2.31	0.00	0 000	0 035	0.000	0 000	570.80	500.00
0.000249	1.	1.	1.	0	0	0	0.00	98.00	598.00

*SECNO 5436.000
3280 CROSS SECTION 5436.00 EXTENDED 0 16 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 580.84 ELREA= 581.14

5436.000	9.27	579.91	0.00	0 00	580.02	0.11	0.18	0.02	580.84
1580 0	0.0	1580.0	0.0	0.0	581.7	0.0	95.9	12.9	581.14
0.47	0.00	2.72	0 00	0 000	0 035	0 000	0.000	570.64	495.85
0.000378	589.	589.	589.	1	0	0	0.00	94.66	590.51

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

*SECNO 5936.000

3470 ENCROACHMENT STATIONS= 400.0 600.0 TYPE= 1 TARGET= 200.000

5936.000	9.60	580.10	0.00	0.00	580.20	0.10	0.17	0.00	580.70
1580.0	0.0	1580.0	0.0	0.0	613.8	0.0	102.8	14.0	581.00
0.52	0.00	2.57	0.00	0.000	0.035	0.000	0.000	570.50	495.19
0.000324	500	500.	500.	2	0	0	0.00	96.27	591.46

*SECNO 6416.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.93 ELREA= 581.93

6416.000	9.94	580.27	0.00	0.00	580.43	0.17	0.20	0.03	581.93
1580.0	0.0	1580.0	0.0	0.0	480.3	0.0	108.8	15.0	581.93
0.56	0.00	3.29	0.00	0.000	0.035	0.000	0.000	570.33	579.06
0.000560	480.	480.	480.	0	0	0	0.00	77.19	656.25

*SECNO 6786.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.80 ELREA= 581.80

6786.000	10.28	580.48	0.00	0.00	580.63	0.15	0.19	0.01	581.80
1580.0	0.0	1580.0	0.0	0.0	507.1	0.0	113.0	15.6	581.80
0.60	0.00	3.12	0.00	0.000	0.035	0.000	0.000	570.20	578.24
0.000481	370.	370.	370.	2	0	0	0.00	78.78	657.02

*SECNO 6835.000

6835.000	8.90	580.47	0.00	0.00	580.71	0.24	0.03	0.04	583.17
1580.0	0.0	1580.0	0.0	0.0	402.6	0.0	113.5	15.7	583.17
0.60	0.00	3.92	0.00	0.000	0.035	0.000	0.000	571.57	581.53
0.000923	49.	49.	49.	2	0	0	0.00	72.38	653.91

*SECNO 6836.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.40

6836.000	9.01	580.61	0.00	0.00	580.74	0.13	0.00	0.03	582.00
1580.0	0.0	1580.0	0.0	0.0	539.9	0.0	113.5	15.7	582.00
0.60	0.00	2.73	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000470	1.	1.	1.	2	0	0	0.00	73.00	973.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	EL CHD
	0.00	1.50	2.90	0.00	60.00	0.00	308.00	0.00	571.60	571.60

*SECNO 6916.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	EL.TRD	WEIRLN
581.22	580.74	0.00	0.	1580.	308.	324.	577.00	582.00	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.00 ELREA= 582.00

SOUTHFIELD ROAD BRIDGE

6916.000	9.50	581.10	0.00	0.00	581.22	0.12	0.48	0.00	582.00
1580.0	0.0	1580.0	0.0	0.0	576.1	0.0	114.5	15.8	582.00
0.61	0.00	2.74	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000384	80.	80.	80	2	0	0	0.00	73.00	973.00

*SECNO 6917.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.20 ELREA= 583.20

6917.000	9.49	581.09	0.00	0.00	581.23	0.14	0.00	0.01	583.20
1330.0	0.0	1330.0	0.0	0.0	446.9	0.0	114.5	15.8	583.20
0.61	0.00	2.98	0.00	0.000	0.035	0.000	0.000	571.60	580.10
0.000487	1	1.	1.	1	0	0	0.00	75.16	655.26

*SECNO 7436.000

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 1 TARGET= 100.000

7436.000	10.14	581.34	0.00	0.00	581.45	0.11	0.22	0.01	582.80
1330.0	0.0	1330.0	0.0	0.0	496.3	0.0	120.2	16.8	100000.00
0.66	0.00	2.68	0.00	0.000	0.035	0.000	0.000	571.20	578.57
0.000362	519.	519.	519.	2	0	0	0.00	78.15	656.71

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L -BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R -BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	ISTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 7936.000									
3265 DIVIDED FLOW									
7936 000	10.72	581 52	0.00	0.00	581.62	0.10	0 17	0.00	582.50
1330.0	29.0	1301.0	0.0	79.1	503.4	0.0	126.4	18 8	582.80
0 72	0.37	2.58	0.00	0.040	0.035	0.000	0.000	570.80	145.72
0.000307	500.	500.	500	2	0	0	0 00	282.71	511.96
*SECNO 8536 000									
3265 DIVIDED FLOW									
3470 ENCROACHMENT STATIONS=		150.0	400.0	TYPE=	1	TARGET=	250 000		
8536 000	10.81	581.71	0.00	0.00	581.81	0.10	0.18	0.00	581.80
1330.0	0.3	1329.7	0.0	3.1	527.5	0.0	134.0	21.7	582.10
0.78	0.10	2.52	0.00	0.040	0.035	0.000	0.000	570.90	203.47
0 000308	600.	600	600.	1	0	0	0.00	133.22	382 23
*SECNO 9136.000									
9136.000	11.07	581.97	0.00	0.00	582.02	0.05	0 20	0.01	582 20
1330.0	0 0	1165 4	164.6	0.0	617.9	269.2	143.8	26.2	581.20
0.88	0.00	1.89	0.61	0.000	0.035	0.040	0.000	570.90	145.73
0.000348	600.	600.	600	2	0	0	0.00	519.61	665.34
*SECNO 9586 000									
9586 000	11.17	582 10	0.00	0.00	582.15	0.05	0.13	0.00	582.23
1330.0	0 0	1138 6	191 4	0.0	578.9	356.8	153 2	31.6	581.13
0.95	0.00	1.97	0 54	0 000	0.035	0.040	0 000	570.93	143.32
0.000237	450.	450.	450.	2	0	0	0.00	527.48	670.80
*SECNO 9596.000									
3470 ENCROACHMENT STATIONS=		245 0	445.0	TYPE=	1	TARGET=	200 000		
9596.000	11 10	582.08	0.00	0.00	582.17	0.10	0 00	0.02	581 88
1330 0	43.3	1286 7	0.0	69.8	508.1	0.0	153 4	31.7	100000.00
0 95	0.62	2.53	0.00	0 040	0.035	0.000	0.000	570.98	245.00
0.000458	10.	10.	10.	2	0	0	0.00	200.00	445.00

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

*SECNO 10286.000

3470 ENCROACHMENT STATIONS= 245.0 445.0 TYPE= 1 TARGET= 200.000

10286.000	11.38	582.38	0.00	0.00	582.46	0.08	0.28	0.00	581.90
1330.0	66.6	1263.4	0.0	97.7	543.9	0.0	163.0	34.9	100000.00
1.04	0.68	2.32	0.00	0.040	0.035	0.000	0.000	571.00	245.00
0.000354	690.	690.	690.	2	0	0	0.00	200.00	445.00

*SECNO 10336.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.23

10336.000	9.96	582.46	0.00	0.00	582.48	0.02	0.01	0.02	579.80
1330.0	222.8	960.9	146.2	487.5	719.9	346.8	164.3	35.4	580.00
1.05	0.46	1.33	0.42	0.040	0.035	0.040	0.000	572.50	35.54
0.000071	50.	50.	50.	2	0	0	0.00	704.52	740.06

*SECNO 10636.000

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.41

3470 ENCROACHMENT STATIONS= 655.0 800.0 TYPE= 1 TARGET= 145.000

10636.000	9.98	582.45	0.00	0.00	582.58	0.13	0.04	0.05	584.57
1330.0	0.0	1330.0	0.0	0.0	467.4	0.0	171.3	38.1	100000.00
1.08	0.00	2.85	0.00	0.000	0.035	0.000	0.000	572.47	679.16
0.000420	300.	300.	300.	2	0	0	0.00	75.28	754.44

*SECNO 11536.000

3470 ENCROACHMENT STATIONS= 655.0 855.0 TYPE= 1 TARGET= 200.000

VALLEY SECTION

11536.000	10.47	582.87	0.00	0.00	582.97	0.11	0.39	0.01	584.50
1330.0	0.0	1330.0	0.0	0.0	509.2	0.0	181.3	39.9	100000.00
1.18	0.00	2.61	0.00	0.000	0.035	0.000	0.000	572.40	678.01
0.000450	900.	900.	900.	2	0	0	0.00	99.54	777.55

CCHV= 0.300 CEHV= 0.500

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

1490 NH CARD USED
*SECNO 12274.000

3470 ENCROACHMENT STATIONS= 900.0 1050 0 TYPE= 1 TARGET= 150 000

CITY OF ECORSE CORP. BOUNDARY

12274.000	9.67	583.17	0.00	0.00	583.26	0.10	0.29	0.00	575.20
1330.0	116.6	1210 1	3.2	143.9	462.3	30.2	191.0	42.0	574 90
1.26	0.81	2.62	0.11	0.055	0.045	0.500	0.000	573.50	900.00
0 000342	738.	738.	738.	2	0	0	0.00	150.00	1050.00

1490 NH CARD USED
*SECNO 12324.000

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

D/S FACE OF AUSTIN

12324.000	9.57	583.17	0 00	0.00	583.30	0 13	0.02	0.01	574.10
1330.0	0 0	1330.0	0 0	0.0	465.1	0.0	191.7	42 1	573.80
1.26	0.00	2.86	0.00	0.000	0 045	0 000	0.000	573 60	1014.00
0.000384	50.	50.	50	1	0	0	0.00	50.10	1064.10

1490 NH CARD USED
*SECNO 12325 000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065 0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583 30

1' INSIDE D/S SIDE OF AUSTIN BRIDGE

12325.000	9.54	583 14	0.00	0.00	583.33	0.19	0.00	0.03	574.10
1330.0	0.0	1330.0	0 0	0 0	379.6	0.0	191.7	42.1	573.80
1.26	0.00	3.50	0.00	0.000	0.035	0.000	0.000	573.60	1014.00
0.001855	1.	1.	1	2	0	0	-91.77	50.10	1064.10

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

1490 NH CARD USED
*SECNO 12367.000

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065 0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

1' INSIDE U/S FACE OF AUSTIN BRIDGE

12367 000	9.62	583.22	0.00	0.00	583.41	0.19	0.08	0.00	574.10
1330 0	0.0	1330.0	0.0	0.0	379.6	0.0	192.1	42.1	573.80
1.27	0.00	3.50	0.00	0.000	0 035	0.000	0.000	573.60	1014.00
0.001855	42.	42.	42.	2	0	0	-95.74	50.10	1064.10

1490 NH CARD USED
*SECNO 12368.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.67

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

U/S FACE OF AUSTIN

12368.000	9.77	583.37	0.00	0.00	583.44	0.08	0.00	0.03	574.10
1330.0	199.5	1130.1	0.4	238.5	474.5	8.4	192.1	42.1	573.80
1.27	0.84	2.38	0 04	0.055	0 045	0 500	0 000	573.60	920.00
0.000260	1.	1.	1.	2	0	0	0.00	145.00	1065.00

1490 NH CARD USED
*SECNO 12418.000

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

VALLEY SECTION 50' U/S OF AUSTIN

12418.000	9.78	583 38	0.00	0.00	583.45	0.08	0.01	0.00	574.10
1330.0	200 5	1129.2	0 4	239.8	475.2	8.4	192.9	42.3	573.80
1.27	0.84	2.38	0 04	0.055	0.045	0.500	0.000	573.60	920.00
0.000258	50.	50.	50.	2	0	0	0.00	145.00	1065.00

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

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 13295.000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.67

3470 ENCROACHMENT STATIONS= 594.0 992.0 TYPE= 1 TARGET= 398.000
VALLEY SECTION BTWN AUSTIN AND VICTORIA

13295.000	10.37	583.67	0.00	0 00	583.78	0 11	0.32	0.01	584.00
1330.0	5.5	1289.2	35.3	56.6	484.9	101.4	206.7	46.2	580.70
1.37	0 10	2.66	0.19	0 200	0.045	0.300	0.000	573.30	594.00
0.000575	600.	877.	950.	2	0	0	0 00	317.30	992 00

CCHV= 0.300 CEHV= 0 500
1490 NH CARD USED
*SECNO 13676 000

3470 ENCROACHMENT STATIONS= 348.0 543 0 TYPE= 1 TARGET= 195.000
VALLEY SECTION 50' D/S OF VICTORIA

13676.000	10.95	583.85	0.00	0.00	583.95	0.10	0.17	0.00	574.90
1330.0	209.8	1030.6	89.7	401 6	351.8	139.5	212.7	48 0	575.60
1 41	0.52	2 93	0.64	0 120	0 045	0.116	0.000	572.90	348.00
0.000381	381.	381.	100.	2	0	0	0.00	195.00	543.00

1490 NH CARD USED
*SECNO 13726.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
D/S FACE OF VICTORIA

13726.000	10.84	583.84	0.00	0.00	584.00	0.16	0.02	0.03	573.00
1330.0	133.3	1059.2	137.5	248.1	293.8	141.7	213.6	48.2	573.00
1.41	0.54	3.61	0.97	0.120	0.045	0.105	0.000	573.00	350.00
0.000497	50.	50.	50.	2	0	0	0 00	170 00	520.00

1490 NH CARD USED

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

*SECNO 13727 000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO - 0 34

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581 40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE D/S FACE OF VICTORIA BRIDGE

13727.000	10.79	583.79	0.00	0.00	584.06	0 27	0 00	0.05	573.00
1330.0	206.1	1038.0	85.8	185.4	223.4	43.1	213.6	48.2	573.00
1.41	1.11	4 65	1.36	0 120	0.035	0.122	0 000	573.00	350.00
0 004297	1.	1	1.	2	0	0	-203.02	170.00	520.00

1490 NH CARD USED
*SECNO 13964.000

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE U/S FACE OF VICTORIA BRIDGE

13964.000	11.68	584.68	0.00	0.00	584.83	0.15	0 73	0.04	573.00
1330 0	314.9	908.5	106.6	288.8	247.4	86.5	216.6	49.2	573.00
1.44	1 09	3.67	1.23	0.120	0.035	0.121	0 000	573.00	350 00
0 002341	237.	237.	237.	2	0	0	-203.02	170.00	520.00

1490 NH CARD USED
*SECNO 13965.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2 60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
U/S FACE OF VICTORIA

13965.000	11.71	584.71	0 00	0.00	584 84	0 12	0.00	0.01	573.00
1330.0	180.0	1007.7	142.2	349.9	317.5	164.8	216.6	49.2	573.00
1.44	0.51	3.17	0 86	0.120	0.045	0.106	0.000	573.00	350.00
0.000347	1	1.	1.	2	0	0	0.00	170.00	520 00

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

1490 NH CARD USED
*SECNO 14015.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
VALLEY SECTION 50' U/S OF VICTORIA

14015.000	11.79	584.79	0.00	0.00	584.86	0.07	0.01	0.01	573.00
1330.0	225.0	820.6	284.4	357.8	319.3	166.5	217.6	47.4	573.00
1.44	0.63	2.57	1.71	0.080	0.045	0.043	0.000	573.00	350.00
0.000226	50.	50.	50.	0	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14287.000

3470 ENCROACHMENT STATIONS= 200.0 520.0 TYPE= 1 TARGET= 320.000
VALLEY SECTION 50' D/S OF N.B. FORT ST

14287.000	10.39	584.89	0.00	0.00	584.93	0.04	0.06	0.01	583.70
1330.0	20.7	937.8	371.6	76.1	522.9	398.4	223.3	50.9	582.60
1.49	0.27	1.79	0.93	0.080	0.045	0.040	0.000	574.50	200.00
0.000214	272.	272.	272.	2	0	0	0.00	320.00	520.00

1490 NH CARD USED
*SECNO 14337.000

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000
D/S FACE OF N.B. FORT ST

14337.000	10.30	584.90	0.00	0.00	584.94	0.04	0.01	0.00	578.40
1330.0	42.6	805.7	481.8	107.2	427.3	493.3	224.5	51.3	578.40
1.50	0.40	1.89	0.98	0.080	0.045	0.040	0.000	574.60	380.00
0.000200	50	50.	50.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14338.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

1' INSIDE OF D/S FACE N.B. FORT ST.

14338.000	10.35	584.95	0.00	0.00	584.95	0.01	0.00	0.01	578.40
1330.0	59.3	372.4	898.4	199.4	325.8	3148.2	224.5	51.3	578.40
1.50	0.30	1.14	0.29	0.080	0.035	0.221	0.000	574.60	161.41
0.000313	1.	1.	1	2	0	0	-160.96	1218.59	1380.00

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

1490 NH CARD USED
*SECNO 14402.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

	1' INSIDE OF U/S FACE N.B FORT ST.								
14402.000	10.36	584.96	0.00	0.00	585.00	0.04	0.03	0.02	578.40
1330.0	46.8	521.6	761.6	88.0	326.7	470.7	227.9	52.4	578.40
1.51	0.53	1.60	1.62	0.080	0.035	0.040	0.000	574.60	380.00
0.000608	64.	64	64.	0	0	0	-160.96	320.00	700.00

1490 NH CARD USED
*SECNO 14403.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.78

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000

	U/S FACE N.B. FORT ST.								
14403.000	10.36	584.96	0.00	0.00	585.00	0.04	0.00	0.00	578.40
1330.0	43.7	797.9	488.4	110.9	430.0	503.8	227.9	52.4	578.40
1.51	0.39	1.86	0.97	0.080	0.045	0.040	0.000	574.60	380.00
0.000192	1.	1.	1.	0	0	0	0.00	320.00	700.00

1490 NH CARD USED
*SECNO 14460.000

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

	D/S FACE S.B. FORT ST.								
14460.000	12.36	584.96	0.00	0.00	585.02	0.06	0.01	0.01	578.90
1330.0	31.9	1102.8	195.3	96.4	515.5	569.2	229.4	52.9	578.90
1.52	0.33	2.14	0.34	0.080	0.040	0.100	0.000	572.60	370.00
0.000172	57	57.	57.	2	0	0	0.00	400.00	770.00

1490 NH CARD USED
*SECNO 14461.000

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.42

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
1' INSIDE D/S S.B. FORT ST.

14461.000	12.37	584 97	0.00	0 00	585.02	0.05	0.00	0.00	578.90
1330.0	28.4	875.7	425.9	65.2	396.8	542.7	229.4	52.9	578.90
1.52	0.44	2.21	0.78	0.080	0 035	0.100	0.000	572.60	370.00
0 000967	1	1.	1.	0	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14521.000

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
1' INSIDE U/S FACE S.B. FORT ST.

14521.000	12.43	585.03	0.00	0.00	585.08	0.05	0.06	0.00	578.90
1330 0	32.6	862 9	434.6	72.3	400.4	559.3	230 8	52.4	578.90
1.53	0.45	2.15	0.78	0.080	0.035	0.100	0 000	572.60	370.00
0.000911	60.	60.	60	2	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14522.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.34

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
U/S FACE S.B. FORT ST.

14522.000	12.42	585.02	0 00	0.00	585.08	0.06	0 00	0.00	578.90
1330.0	33 9	1095.0	201.0	103.6	519.2	586.1	230.8	53.5	578.90
1.53	0 33	2.11	0.34	0.080	0.040	0.100	0.000	572.60	370.00
0.000166	1	1	1.	0	0	0	0.00	400.00	770.00

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

1490 NH CARD USED
*SECNO 14572.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.60

3470 ENCROACHMENT STATIONS= 290.0 710.0 TYPE= 1 TARGET= 420 000
VALLEY SECTION 50' U/S OF S.B. FORT ST.

14572.000	12.35	585.05	0.00	0.00	585.10	0.04	0 01	0.00	584 20
980.0	14.7	769.8	195 5	91.9	407 6	565 2	232.1	53.9	583.40
1.54	0.16	1.89	0.35	0.120	0 045	0.120	0.000	572.70	290.00
0.000253	50	50.	50.	0	0	0	0.00	420.00	710.00

CCHV= 0 100 CEHV= 0.300
1490 NH CARD USED
*SECNO 15292.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.66

3470 ENCROACHMENT STATIONS= 159.0 225.0 TYPE= 1 TARGET= 66.000

15292.000	10 87	585.27	0.00	0.00	585.37	0.10	0.26	0.02	587 20
980 0	0.0	980.0	0 0	0.0	382.0	0.0	243 6	57.7	100000.00
1.62	0 00	2 57	0.00	0.000	0.045	0.000	0.000	574.40	164.72
0 000579	720.	720.	650.	2	0	0	0 00	60.27	225.00

CCHV= 0.300 CEHV= 0.500
*SECNO 15820.000
3280 CROSS SECTION 15820.00 EXTENDED 0.10 FEET

3470 ENCROACHMENT STATIONS= 50.0 162.0 TYPE= 1 TARGET= 112.000
VALLEY SECTION 50' D/S OF LAFAYETTE

15820.000	8.50	585.50	0 00	0.00	585.69	0.19	0 27	0.04	577.70
980.0	59 9	883.1	37.0	42.9	240.0	44.1	247.9	58.6	578.30
1.66	1.40	3.68	0.84	0.050	0.035	0.080	0.000	577.00	73.99
0.000471	350.	528.	550.	2	0	0	0.00	88.01	162.00

*SECNO 15870 000

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

3280 CROSS SECTION 15870.00 EXTENDED 0.18 FEET

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000

D/S FACE OF LAFAYETTE

15870.000	8.58	585.58	0.00	0.00	585.73	0.15	0.02	0.01	577.00
980.0	108.2	804.2	67.6	78.3	240.2	78.3	248.3	58.7	577.00
1.67	1.38	3.35	0.86	0.050	0.035	0.080	0.000	577.00	67.75
0.000354	50	50.	50.	2	0	0	0.00	64.51	132.25

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.65	3.00	0.00	28.00	0.00	168.00	0.00	577.00	577.00

*SECNO 15914.000

3265 DIVIDED FLOW

3280 CROSS SECTION 15914.00 EXTENDED 0.81 FEET

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
586.45	585.73	0.00	70.	910.	168.	168.	583.00	585.40	116

3470 ENCROACHMENT STATIONS= 50.0 150.0 TYPE= 1 TARGET= 100.000

U/S FACE OF LAFAYETTE

15914.000	9.21	586.21	0.00	0.00	586.33	0.12	0.61	0.00	577.00
980.0	114.6	793.8	71.6	90.2	257.8	90.3	248.7	58.7	577.00
1.67	1.27	3.08	0.79	0.050	0.035	0.080	0.000	577.00	66.41
0.000272	44.	44.	44.	2	0	4	0.00	70.54	150.00

*SECNO 15964.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	LSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	RNDST

3280 CROSS SECTION 15964.00 EXTENDED 0.18 FEET

VALLEY SECTION 50' U/S OF LAFAYETTE

15964.000	9.18	586.18	0.00	0.00	586.40	0.22	0.02	0.05	577.90
980.0	96.3	847.0	36.7	65.0	210.0	40.8	249.1	58.8	577.80
1.67	1.48	4.03	0.90	0.050	0.035	0.080	0.000	577.00	0.00
0.000502	50.	50.	50.	2	0	0	0.00	91.57	121.74

1490 NH CARD USED

*SECNO 16194.000

VALLEY SECTION 50' D/S OF I-75

16194.000	9.96	586.46	0.00	0.00	586.54	0.08	0.10	0.04	587.80
980.0	0.0	911.0	69.0	0.0	401.6	82.3	251.2	59.3	578.60
1.70	0.00	2.27	0.84	0.000	0.045	0.080	0.000	576.50	778.48
0.000359	230.	230.	230.	2	0	0	0.00	77.44	855.92

*SECNO 16244.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.45

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

D/S FACE OF I-75 BRIDGE

16244.000	9.85	586.35	0.00	0.00	586.72	0.37	0.03	0.15	603.60
980.0	0.0	980.0	0.0	0.0	201.5	0.0	251.6	59.3	578.60
1.71	0.00	4.86	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.001791	50.	50.	50.	2	0	0	0.00	22.93	841.50

*SECNO 16245.000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16245.000	9.85	586.35	0.00	0.00	586.72	0.37	0.00	0.00	603.60
980.0	0.0	980.0	0.0	0.0	200.8	0.0	251.6	59.3	578.60
1.71	0.00	4.88	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.001085	1.	1.	1.	0	0	0	-0.87	22.93	841.50

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

*SECNO 16503 000

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588 10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603 60 ELREA= 603.60

16503.000	10.15	586.65	0 00	0.00	587.00	0.35	0 27	0.01	603 60
980.0	0.0	980.0	0.0	0.0	207.5	0 0	252.8	59.5	578.60
1.72	0.00	4.72	0.00	0.000	0.030	0.000	0.000	576 50	818.57
0.000991	258.	258.	258.	2	0	0	-0.94	22 93	841.50

*SECNO 16504.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

U/S FACE OF I-75 BRIDGE

16504.000	10.22	586.72	0.00	0 00	587 02	0.29	0.00	0.02	603.60
910.0	0.0	910.0	0.0	0 0	210.0	0.0	252.8	59.5	578.60
1.72	0.00	4.33	0.00	0 000	0 045	0.000	0.000	576.50	818.57
0.001367	1.	1.	1	2	0	0	0.00	22.93	841.50

*SECNO 16554 000

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.96

3470 ENCROACHMENT STATIONS= 558.0 683.0 TYPE= 1 TARGET= 125 000

VALLEY SECTION 50' U/S OF I-75 BRIDGE

16554.000	10.41	587.01	0.00	0 00	587.10	0.10	0.03	0.06	578 80
910.0	50.9	760.2	98.9	61.8	278.4	117.0	253.2	59.5	578.90
1.73	0.82	2.73	0.84	0.080	0 045	0.080	0.000	576.60	589.93
0 000356	50.	50.	50	2	0	0	0.00	83.03	683.00

1490 NH CARD USED
*SECNO 16826 000

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.76

3470 ENCROACHMENT STATIONS= 394.0 456 0 TYPE= 1 TARGET= 62.000

VALLEY SECTION 50' D/S OFINDUSTRIAL DR.

16826.000	11.83	587.13	0.00	0.00	587.17	0 04	0.05	0.02	575.40
910.0	127.1	689.4	93 5	142.4	377 0	112.3	256.6	60.0	575.40
1.77	0.89	1.83	0.83	0 060	0.045	0.060	0 000	575.30	394.00
0.000114	272.	272.	272.	2	0	0	0.00	62 00	456 00

1490 NH CARD USED
*SECNO 16876.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

D/S FACE OF INDUSTRIAL DR.

16876.000	12.52	587 12	0 00	0 00	587 19	0 07	0.01	0.02	574.60
910 0	0.0	910 0	0.0	0.0	414.4	0.0	257.2	60 1	574 60
1.78	0.00	2.20	0.00	0 000	0.045	0 000	0.000	574.60	290.00
0.000152	50	50.	50.	2	0	0	0 00	33.10	323.10

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0 00	1.82	3.00	0.00	26.83	0.00	264.00	0.00	574 90	574.60

1490 NH CARD USED
*SECNO 16963 000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 587.456 EGLWC= 587.495 ELLC= 585.000 PCWSE= 587.120 ELTRD= 589.700

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.33

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 589 70 MAX ELLC= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590 50 ELREA= 590 50

U/S FACE OF INDUSTRIAL DR

16963.000	12.22	587.12	0.00	0.00	587.26	0.14	0.03	0.03	574.90
910.0	0.0	910.0	0.0	0.0	303.9	0.0	257.7	60.1	574.90
1.79	0.00	2.99	0.00	0.000	0.045	0.000	0.000	574.90	290.00
0.001374	87.	87.	87	2	0	0	-262.26	38.10	323.10

1490 NH CARD USED
*SECNO 17013.000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, · KRATIO = 3.31

3470 ENCROACHMENT STATIONS= 304.0 437.0 TYPE= 1 TARGET= 133.000
VALLEY SECTION 50' U/S OF INDUSTRIAL DR.

17013.000	11.08	587.28	0.00	0.00	587.31	0.03	0.01	0.03	585.00
910.0	19.0	765.1	125.9	43.5	566.0	140.1	258.5	60.2	576.20
1.80	0.44	1.35	0.90	0.060	0.053	0.060	0.000	576.20	304.00
0.000126	50	50.	50.	2	0	0	0.00	108.70	412.70

1490 NH CARD USED
*SECNO 17255.000

3470 ENCROACHMENT STATIONS= 414.0 466.0 TYPE= 1 TARGET= 52.000
VALLEY SECTION 50' D/S OF PENNN CENTRAL R.R. BRIDGE

17255.000	9.40	587.30	0.00	0.00	587.36	0.06	0.04	0.02	578.10
910.0	0.0	883.6	26.4	0.0	437.2	41.5	262.0	60.6	578.10
1.83	0.00	2.02	0.64	0.000	0.045	0.080	0.000	577.90	414.00
0.000243	242.	242.	242.	2	0	0	0.00	52.00	466.00

CCHV= 0.300 CEHV= 0.500
*SECNO 17305.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.64

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

D/S FACE OF PENN CENTRAL R.R. BRIDGE

17305.000	9.35	587.25	0.00	0.00	587.45	0.20	0.02	0.07	577.90
910.0	0.0	910.0	0.0	0.0	254.4	0.0	262.4	60.7	577.90
1.84	0.00	3.58	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000595	50.	50.	50.	2	0	0	0.00	27.20	383.60

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	0.00	27.20	3.20	182.00	0.00	577.90	577.90

*SECNO 17502 000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
588.03	587.50	0.05	0.	910.	182.	182.	585.50	600.40	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

U/S FCE OF PENN CENTRAL R.R BRIDGE

17502.000	9.95	587.85	0.00	0.00	588.03	0.18	0.58	0.00	577.90
910.0	0.0	910.0	0.0	0.0	270.7	0.0	263.6	60.8	577.90
1.85	0.00	3.36	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000484	197.	197.	197.	2	0	0	0.00	27.20	383.60

1490 NH CARD USED
*SECNO 17552 000

3470 ENCROACHMENT STATIONS= 250.0 380.0 TYPE= 1 TARGET= 130.000

VALLEY SECTION 50' U/S OF PENN CENTRAL R R. BRIDGE

17552.000	10.52	588.02	0.00	0.00	588.08	0.06	0.02	0.04	586.90
910.0	21.3	876.1	12.6	70.0	442.8	26.4	264.0	60.9	585.40
1.86	0.30	1.98	0.48	0.080	0.045	0.080	0.000	577.50	250.00
0.000247	50.	50	50	2	0	0	0.00	130.00	380.00

CCHV= 0.100 CEHV= 0.300
*SECNO 17817.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 8.8 230.4 TYPE= 1 TARGET= 221.600

17817.000	11.19	588.09	0.00	0.00	588.17	0.07	0.08	0.00	588.30
910.0	7.6	887.0	15.4	21.5	403.4	30.7	267.1	61.8	586.50
1.90	0.35	2.20	0.50	0.050	0.045	0.050	0.000	578.90	8.80
0.000384	265.	265	265.	2	0	0	0.00	155.96	200.59

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

1490 NH CARD USED
*SECNO 18106.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 263.0 438 0 TYPE= 1 TARGET= 175 000
VALLEY SECTION 50' D/S OF PORTER AVE.

18106.000	9.21	588.21	0 00	0.00	588.27	0.06	0.10	0 00	588 40
910.0	25.8	880.5	3.7	68.5	456 7	59.5	270.5	42.9	587.70
1.94	0.38	1.93	0.06	0.080	0.045	0.500	0.000	579.00	263.00
0.000312	289.	289.	289	2	0	0	0.00	170.72	438 00

1490 NH CARD USED
*SECNO 18156 000

3470 ENCROACHMENT STATIONS= 1 0 925.0 TYPE= 1 TARGET= 924.000
D/S FACE OF PORTER AVE

18156.000	9.17	588.17	0.00	0.00	588.31	0 15	0.02	0.03	579.00
910.0	126.3	761.7	22.0	97.9	230 1	140.4	271.1	63.0	579.00
1.94	1.29	3.31	0.16	0.060	0.040	0.500	0 000	579.00	803.36
0.000414	50.	50.	50.	2	0	0	0.00	121 64	925.00

1490 NH CARD USED
*SECNO 18157.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0 30

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF D/S FACE PORTER AVE

18157.000	8.97	587.97	0.00	0 00	588.40	0.42	0.00	0.08	579.00
910.0	0.5	909.1	0.4	1.7	174.3	6.7	271.1	63.0	579.00
1.94	0 28	5.21	0.06	0.060	0.030	0.500	0.000	579.00	822 65
0.004515	1.	1.	1.	2	0	0	-264 05	102.35	925.00

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

1490 NH CARD USED
*SECNO 18195.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
1' INSIDE OF U/S FACE OF PORTER AVE.

18195.000	9.17	588.17	0.00	0.00	588.56	0.39	0.16	0.00	579.00
910.0	5.1	903.4	1.5	9.0	179.3	16.5	271.3	63.1	579.00
1.95	0.56	5.04	0.09	0.060	0.030	0.500	0.000	577.00	803.00
0.004062	38.	38.	38.	2	0	0	-264.05	122.00	925.00

1490 NH CARD USED
*SECNO 18196.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.34

3470 ENCROACHMENT STATIONS= 1.0 925.0 TYPE= 1 TARGET= 924.000
U/S FACE OF PORTER AVE.

18196.000	9.46	588.46	0.00	0.00	588.59	0.13	0.00	0.03	579.00
910.0	133.8	753.1	23.1	115.9	237.3	154.9	271.3	63.1	579.00
1.95	1.15	3.17	0.15	0.060	0.040	0.500	0.000	577.00	764.85
0.000365	1.	1.	1.	2	0	0	0.00	160.15	925.00

1490 NH CARD USED
*SECNO 18246.000

3470 ENCROACHMENT STATIONS= 910.0 1170.0 TYPE= 1 TARGET= 260.000
VALLEY SECTION 50' U/S OF PORTER AVE

18246.000	9.52	588.52	0.00	0.00	588.61	0.09	0.02	0.00	579.00
910.0	197.6	586.7	125.7	496.8	200.0	118.6	272.1	63.4	579.00
1.95	0.40	2.93	1.06	0.146	0.045	0.057	0.000	577.00	910.00
0.000391	50.	50.	50.	2	0	0	0.00	260.00	1170.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 18545.000

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

3470 ENCROACHMENT STATIONS= 580.0 1000.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION BTWN PORTER AND RAUPP PL.

18545.000	10.06	588.66	0.00	0.00	588.77	0.11	0.15	0.01	588.00
910.0	96.1	756.6	57.3	191.3	261.1	52.7	276.6	65.4	586.60
1.98	0.50	2.90	1.09	0.061	0.045	0.050	0.000	578.60	654.17
0.000670	299.	299.	299.	2	0	0	0.00	345.83	1000.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 18829.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.05

3470 ENCROACHMENT STATIONS= 793.0 1165.0 TYPE= 1 TARGET= 372.000
VALLEY SECTION 50' D/S OF RAUPP PL.

18829.000	10.15	588.85	0.00	0.00	588.88	0.02	0.08	0.03	585.20
910.0	389.9	514.2	5.9	850.4	325.9	82.2	282.3	67.8	585.50
2.06	0.46	1.58	0.07	0.088	0.045	0.500	0.000	578.70	793.00
0.000160	284	284.	284.	2	0	0	0.00	372.00	1165.00

1490 NH CARD USED
*SECNO 18961.000

3470 ENCROACHMENT STATIONS= 859.0 1165.0 TYPE= 1 TARGET= 306.000
50' U/S OF RAUPP PL.

18961.000	10.17	588.87	0.00	0.00	588.90	0.02	0.02	0.00	585.20
910.0	390.3	513.8	5.9	789.9	326.8	82.8	286.1	68.8	585.50
2.09	0.49	1.57	0.07	0.085	0.045	0.500	0.000	578.70	859.00
0.000158	132.	132.	132	2	0	0	0.00	306.00	1165.00

1490 NH CARD USED
*SECNO 19112.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.55

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
50' D/S OF DIX

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	CNDST
19112.000	9.84	588.84	0.00	0.00	589.02	0 18	0.04	0.08	579 00
910.0	6.8	885.1	18.0	88.5	256.7	100 0	288.9	69.7	579.00
2 10	0.08	3 45	0.18	0.800	0.045	0.500	0.000	579.00	881.38
0.000517	151.	151.	151	2	0	0	0.00	231 62	1113.00

1490 NH CARD USED
*SECNO 19162.000

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
D/S FACE OF DIX RD. BRIDGE

19162 000	9.86	588.86	0 00	0.00	589.04	0.18	0.03	0 00	579.00
910.0	6 9	885.0	18.1	91.5	257.2	100.5	289.4	70.0	579.00
2.11	0.08	3 44	0.18	0 800	0.045	0.500	0.000	579.00	873.14
0.000514	50	50.	50.	0	0	0	0.00	239 86	1113.00

1490 NH CARD USED
*SECNO 19163.000

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.14

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 950.0 1190.0 TYPE= 1 TARGET= 240.000
1' INSIDE D/S FACE DIX RD. BRIDGE

19163.000	9.56	588.56	582.52	0.00	589.35	0.79	0.00	0 30	579.00
910.0	0.3	906.6	3.1	3.4	127.0	19.7	289.4	70.0	579.00
2.11	0.08	7.14	0.16	0.800	0.040	0.500	0.000	579.00	1016.09
0.024633	1.	1.	1.	4	16	0	-260.99	173.90	1190 00

1490 NH CARD USED
*SECNO 19263.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2 87

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

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
1' INSIDE U/S FACE OF DIX RD. BRIDGE

19263.000	10.62	589.62	0 00	0.00	590.10	0.48	0.66	0.09	579.00
910.0	24.7	877.6	7 7	265.3	154.5	40.1	290.1	70.6	579 00
2 11	0.09	5.68	0.19	0 800	0.020	0 500	0.000	579 00	750.00
0.002997	100.	100.	100.	2	0	0	-260.79	363 00	1113 00

1490 NH CARD USED
*SECNO 19264.000

3302 WARNING- CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.00

3470 ENCROACHMENT STATIONS= 750.0 1113.0 TYPE= 1 TARGET= 363.000
U/S FACE OF DIX RD BRIDGE

19264.000	11.07	590.07	0.00	0.00	590.20	0 13	0 00	0.11	579.00
910 0	23.1	865.2	21.8	460.8	289 0	137.0	290 2	70.6	579.00
2.11	0.05	2.99	0.16	0.800	0.045	0.500	0.000	579.00	750.00
0.000333	1.	1.	1.	2	0	0	0.00	363.00	1113.00

1490 NH CARD USED
*SECNO 19314.000

3470 ENCROACHMENT STATIONS= 730.0 1113.0 TYPE= 1 TARGET= 383.000
50' U/S DIX RD

19314.000	11.09	590 09	0.00	0.00	590 22	0.13	0.02	0.00	579 00
910.0	23.5	864.7	21.8	488.1	289.4	137.5	291.2	71.1	579.00
2.12	0.05	2.99	0.16	0.824	0.045	0.500	0 000	579.00	730.00
0.000331	50.	50.	50	2	0	0	0.00	383.00	1113.00

1490 NH CARD USED
*SECNO 20080.000

3470 ENCROACHMENT STATIONS= 1400.0 1870 0 TYPE= 1 TARGET= 470.000
50' D/S OF FRANK RD.

20080 000	10.28	590.38	0.00	0.00	590.49	0.12	0.27	0.00	580.10
910.0	143.6	744 1	22.2	1142.2	246.7	171.1	312.9	78.6	580.10
2.20	0 13	3.02	0.13	0 500	0.045	0 500	0.000	580 10	1400.00
0.000373	766.	766	766.	2	0	0	0.00	470.00	1870.00

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

1490 NH CARD USED
*SECNO 20130.000

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
D/S FACE OF FRANK AVE. BRIDGE

20130.000	10.31	590.41	0.00	0.00	590.51	0.10	0.02	0.00	580.10
910.0	112.0	754.1	43.9	761.8	269.0	174.6	314.5	79.1	580.10
2.21	0.15	2.80	0.25	0.275	0.040	0.200	0.000	580.10	1420.00
0.000256	50	50.	50.	1	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20131.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.31

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
1' INSIDE OF D/S FACE FRANK AVE. BRIDGE

20131.000	10.26	590.36	0.00	0.00	590.57	0.22	0.00	0.06	580.10
910.0	152.4	719.4	38.2	655.9	171.6	82.8	314.6	79.1	580.10
2.21	0.23	4.19	0.46	0.500	0.035	0.200	0.000	580.10	1420.00
0.002683	1.	1.	1.	3	0	0	-272.34	470.00	1890.00

1490 NH CARD USED
*SECNO 20168.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
1' INSIDE U/S FACE FRANK AVE. BRIDGE

20168.000	10.42	590.52	0.00	0.00	590.70	0.18	0.11	0.01	580.10
910.0	202.8	685.9	21.4	712.5	174.6	92.7	315.4	79.5	580.10
2.21	0.28	3.93	0.23	0.500	0.035	0.500	0.000	580.10	1420.00
0.003606	37.	37.	37.	2	0	0	-278.31	470.00	1890.00

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

1490 NH CARD USED
*SECNO 20169.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.96

3470 ENCROACHMENT STATIONS= 1420.0 1890.0 TYPE= 1 TARGET= 470.000
U/S FACE OF FRANK AVE. BRIDGE

20169.000	10.53	590.63	0.00	0.00	590.72	0.09	0.00	0.03	580.10
910.0	119.5	743.6	46.9	845.0	274.9	172.1	315.4	79.5	580.10
2.21	0.14	2.71	0.24	0.288	0.040	0.200	0.000	580.10	1420.00
0.000230	1.	1.	1.	2	0	0	0.00	470.00	1890.00

1490 NH CARD USED
*SECNO 20269.000

3470 ENCROACHMENT STATIONS= 1365.0 1839.0 TYPE= 1 TARGET= 474.000
100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS

20269.000	10.56	590.66	0.00	0.00	590.75	0.09	0.03	0.00	580.10
910.0	138.7	732.7	38.6	983.0	275.7	112.6	318.5	80.6	580.10
2.22	0.14	2.66	0.34	0.319	0.045	0.200	0.000	580.10	1365.00
0.000279	100.	100.	100.	2	0	0	0.00	474.00	1839.00

*SECNO 20599.000

3470 ENCROACHMENT STATIONS= 1477.0 1827.0 TYPE= 1 TARGET= 350.000

20599.000	10.36	590.76	0.00	0.00	590.85	0.10	0.10	0.00	580.40
910.0	131.2	745.4	33.4	745.5	270.0	89.3	327.8	83.7	580.40
2.26	0.18	2.76	0.37	0.276	0.045	0.200	0.000	580.40	1477.00
0.000310	330	330.	330.	0	0	0	0.00	350.00	1827.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 21999.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.59

3470 ENCROACHMENT STATIONS= 1380.0 1880.0 TYPE= 1 TARGET= 500.000

21999.000	9.78	591.18	0.00	0.00	591.20	0.02	0.32	0.02	589.40
910.0	188.1	588.6	133.3	414.0	455.5	315.2	373.3	100.6	589.40
2.75	0.45	1.29	0.42	0.055	0.045	0.050	0.000	581.40	1380.00
0.000122	1730.	1730.	1730.	2	0	0	0.00	500.00	1880.00

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

*SECNO 22380.000

3470 ENCROACHMENT STATIONS= 1500.0 1840.0 TYPE= 1 TARGET= 340.000

22380.000	9.53	591.23	0.00	0.00	591.25	0.03	0.05	0.00	589.40
910.0	107.7	660.8	141.5	187.8	446.0	275.4	382.5	104.3	589.40
2.84	0.57	1.48	0.51	0.050	0.045	0.050	0.000	581.70	1500.00
0.000165	381.	381.	381.	2	0	0	0.00	340.00	1840.00

1490 NH CARD USED
*SECNO 23417.000

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
D/S FACE OF ALLEN RD.

23417.000	9.34	591.44	0.00	0.00	591.50	0.06	0.23	0.02	582.40
910.0	42.5	609.0	58.5	45.6	406.2	58.8	405.6	110.9	582.40
3.05	0.93	1.99	0.99	0.045	0.040	0.045	0.000	582.10	1839.41
0.000158	1418.	1418.	1418	0	0	0	0.00	68.38	1907.79

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.00	0.00	20.40	0.00	131.00	0.00	582.10	582.10

1490 NH CARD USED
*SECNO 23629.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
593.24	591.50	0.00	135	779.	131.	134.	588.66	592.17	148.

3470 ENCROACHMENT STATIONS= 1838.0 1980.0 TYPE= 1 TARGET= 142.000
U/S FACE OF ALLEN RD.

23629.000	10.59	592.69	0.00	0.00	592.73	0.04	1.23	0.00	582.40
920.0	50.9	792.2	76.9	59.3	463.3	111.6	408.4	111.5	582.40
3.08	0.86	1.71	0.69	0.035	0.033	0.036	0.000	582.10	1838.00
0.000066	212.	212.	212.	2	0	3	0.00	142.00	1980.00

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

1490 NH CARD USED
*SECNO 1.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.61

3470 ENCROACHMENT STATIONS= 2685.0 2915.0 TYPE= 1 TARGET= 230.000
100' U/S OF ALLEN RD.

1.000	10.01	592.71	0.00	0.00	592.74	0.04	0.01	0.00	590.00
920.0	79.6	839.3	1.2	108.1	524.9	313.6	410.2	111.9	590.00
3.10	0.74	1.60	0.00	0.050	0.045	10.000	0.000	582.70	2685.00
0.000178	100.	100	100.	0	0	0	0.00	230.00	2915.00

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.44

3470 ENCROACHMENT STATIONS= 2479.0 2569.0 TYPE= 1 TARGET= 90.000

2.000	9.46	592.86	0.00	0.00	592.97	0.11	0.20	0.02	590.00
920.0	0.5	919.5	0.0	62.2	339.5	0.0	419.6	114.1	100000.00
3.16	0.01	2.71	0.00	10.000	0.045	0.000	0.000	583.40	2479.00
0.000916	500.	600.	700	2	0	0	0.00	90.00	2569.00

1490 NH CARD USED
*SECNO 3.000

3470 ENCROACHMENT STATIONS= 2588.0 2640.0 TYPE= 1 TARGET= 52.000

3.000	9.23	593.53	0.00	0.00	593.70	0.17	0.71	0.02	590.00
920.0	60.5	804.8	54.7	42.3	227.7	38.8	426.1	115.4	590.00
3.23	1.43	3.53	1.41	0.060	0.045	0.060	0.000	584.30	2588.00
0.000874	700.	800	850.	2	0	0	0.00	52.00	2640.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.000
D/S FACE OF R.R BRIDGE #1

4.000	9.15	593.55	0.00	0.00	593.79	0.24	0.06	0.03	594.00
920.0	0.0	920.0	0.0	0.0	235.1	0.0	426.4	115.5	594.00
3.23	0.00	3.91	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001496	50.	50.	50.	2	0	0	0.00	26.50	2626.50

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1 56	3 00	575.00	26.50	2 50	151.20	0.00	584.70	584.70

1490 NH CARD USED
*SECNO 5 000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
594.45	593.84	0.05	0.	920.	151.	151.	591.00	596 50	0.

3470 ENCROACHMENT STATIONS= 2600.0 2626.5 TYPE= 1 TARGET= 26.500
U/S FACE OF R.R. BRIDGE #1

5 000	9.85	594.25	0.00	0.00	594.45	0.20	0.66	0.00	594.00
920.0	0.0	920.0	0 0	0.0	253.4	0.0	426.8	115.5	100000.00
3.24	0.00	3.63	0.00	0 000	0.045	0 000	0.000	584.40	2600.00
0.001214	70.	70.	70.	2	0	0	0.00	26.50	2626.50

1490 NH CARD USED
*SECNO 6.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

3470 ENCROACHMENT STATIONS= 2510.0 2676.0 TYPE= 1 TARGET= 166.000
D/S FACE OF RR SPUR NO 1

6.000	10.53	594.43	0.00	0.00	594.53	0.11	0.06	0.03	593.60
920.0	31.8	879.9	8 4	80.4	327.1	27.3	427 3	115.7	593.60
3.25	0.39	2.69	0 31	0.080	0.045	0.100	0.000	583 90	2510.00
0.000562	70.	70.	70.	2	0	0	0 00	166 00	2676.00

SPECIAL BRIDGE

	SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
	Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
	TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
	SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	11.00	0.00	138.00	2.50	584.00	584.00

1490 NH CARD USED
*SECNO 7.000
6870 D.S ENERGY OF 594.53 IS HIGHER THAN COMPUTED ENERGY OF 594.46
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
595.50	594.63	0.00	761.	159.	138.	136.	589.50	593.70	979.

3470 ENCROACHMENT STATIONS= 2443.0 2643.0 TYPE= 1 TARGET= 200.000
U/S FACE OF RR SPUR NO. 1

7.000	10.52	594.42	0.00	0.00	594.53	0.11	0.00	0.00	593.60
920.0	28.5	891.5	0.0	129.5	326.9	0.0	427.5	115.7	100000.00
3.25	0.22	2.73	0.00	0.142	0.045	0.000	0.000	583.90	2443.00
0.000590	17	17.	17.	2	0	7	0.00	200.00	2643.00

1490 NH CARD USED
*SECNO 7.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48

3470 ENCROACHMENT STATIONS= 2363.0 2605.0 TYPE= 1 TARGET= 242.000
D/S FACE OF RR SPUR NO. 2

7.500	10.54	594.54	0.00	0.00	594.81	0.27	0.19	0.08	592.13
920.0	141.5	694.2	84.3	271.6	144.4	66.6	429.4	116.6	592.13
3.26	0.52	4.81	1.27	0.186	0.045	0.100	0.000	584.00	2363.00
0.002574	180.	180.	180	0	0	0	0.00	242.00	2605.00

1490 NH CARD USED
*SECNO 7.600

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2368.0 2610.0 TYPE= 1 TARGET= 242.000

7.600	10.67	594.67	0.00	0.00	594.84	0.17	0.00	0.03	592.13
920.0	218.5	553.5	147.9	292.9	132.4	81.6	429.4	116.6	592.13
3.26	0.75	4.18	1.81	0.193	0.045	0.100	0.000	584.00	2368.00
0.005078	1.	1	1.	2	0	0	-16.76	242.00	2610.00

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

1490 NH CARD USED
*SECNO 7.700

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2372.0 2608.0 TYPE= 1 TARGET= 236.000

7.700	10.73	594.73	0.00	0.00	594.90	0.17	0.06	0.00	592.13
920.0	225.4	552.1	142.5	298.4	133.2	78.6	429.6	116.7	592.13
3.26	0.76	4.15	1.81	0.193	0.045	0.100	0.000	584.00	2372.00
0.004959	12	12.	12.	1	0	0	-16.76	236.00	2608.00

1490 NH CARD USED
*SECNO 7.800

3302 WARNING CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.47

3470 ENCROACHMENT STATIONS= 2370.0 2606.0 TYPE= 1 TARGET= 236.000
U/S FACE OF RR SPUR NO. 2

7.800	10.70	594.70	0.00	0.00	594.94	0.24	0.00	0.04	592.13
920.0	154.2	673.2	92.6	298.2	146.9	74.1	429.6	116.7	592.13
3.26	0.52	4.58	1.25	0.190	0.045	0.100	0.000	584.00	2370.00
0.002289	1.	1.	1.	2	0	0	0.00	236.00	2606.00

1490 NH CARD USED
*SECNO 8.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.80

3470 ENCROACHMENT STATIONS= 2796.0 2847.0 TYPE= 1 TARGET= 51.000

8.000	10.07	595.27	0.00	0.00	595.41	0.14	0.43	0.03	594.30
920.0	1.3	917.4	1.3	3.9	305.4	3.8	433.1	117.9	594.30
3.30	0.33	3.00	0.33	0.100	0.045	0.100	0.000	585.20	2796.00
0.000710	370.	370	370	2	0	0	0.00	51.00	2847.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

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

*SECNO 9.000

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000

D/S FACE OF R.R. BRIDGE #2

9.000	9.98	595.28	0.00	0.00	595.49	0.22	0.05	0.04	594.30
920.0	0.0	920.0	0.0	0.0	246.4	0.0	433.5	118.0	100000.00
3.30	0.00	3.73	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001332	50	50.	50.	2	0	0	0.00	26.00	2826.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	576.00	26.00	2.00	132.00	0.00	585.30	585.30

1490 NH CARD USED
*SECNO 10.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
596.41	595.53	0.04	22.	898.	132.	144.	591.30	596.30	576.

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 1 TARGET= 26.000

U/S FACE OF R.R. BRIDGE #2

10.000	10.87	596.17	0.00	0.00	596.35	0.18	0.86	0.00	595.80
920.0	0.0	920.0	0.0	0.0	269.7	0.0	433.7	118.0	100000.00
3.30	0.00	3.41	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001038	50.	50.	50.	2	0	0	0.00	26.00	2826.00

1490 NH CARD USED
*SECNO 11.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.21

3470 ENCROACHMENT STATIONS= 2749.0 2875.0 TYPE= 1 TARGET= 126.000

11.000	10.98	596.38	0.00	0.00	596.42	0.04	0.02	0.04	590.00
920.0	215.2	480.6	224.2	316.7	235.9	325.4	434.4	118.1	590.00
3.31	0.68	2.04	0.69	0.100	0.045	0.100	0.000	585.40	2749.00
0.000213	50.	50.	50.	2	0	0	0.00	126.00	2875.00

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

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 12.000

3470 ENCROACHMENT STATIONS= 2751.0 2874.0 TYPE= 1 TARGET= 123.000

100' D/S OF STUDY LIMIT(I-94) BRIDGE. END OF CONVERGENCE RUN									
12.000	10.38	596.68	0.00	0.00	596.72	0.04	0.30	0.00	590.00
920.0	229.5	486.1	204.5	327.3	240.3	301.4	463.0	122.2	590.00
3.60	0.70	2.02	0.68	0.100	0.045	0.100	0.000	586.30	2751.00
0.000210	1300.	1425.	1550.	2	0	0	0.00	123.00	2874.00

1490 NH CARD USED
*SECNO 13.000

D/S FACE OF E. BOUND I-94 SURVEY STATION 51+32									
13.000	10.57	596.67	0.00	0.00	596.76	0.09	0.02	0.02	586.60
920.0	87.9	715.4	116.7	111.1	263.0	140.7	464.5	122.4	586.10
3.61	0.79	2.72	0.83	0.080	0.040	0.080	0.000	586.10	2762.93
0.000239	100.	100.	100.	2	0	0	0.00	74.21	3037.14

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	990.00	25.50	1.50	202.80	0.00	585.85	585.85

1490 NH CARD USED
*SECNO 68.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.14	596.75	0.01	0.	920.	203.	203.	594.30	598.60	0.

U/S FACE OF E. BOUND I-94 SURVEY STATION 50+64									
68.000	11.57	597.07	0.00	0.00	597.14	0.07	0.39	0.00	585.50
920.0	119.4	694.8	105.7	160.7	286.2	147.8	465.4	122.5	586.20
3.62	0.74	2.43	0.72	0.080	0.040	0.080	0.000	585.50	2757.22
0.000171	68.	68.	68	2	0	0	0.00	80.46	3037.68

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

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 189.000
D/S FACE OF W. BOUND I-94 SURVEY STATION 49+43

189.000	10.71	597.11	0.00	0.00	597.17	0.06	0.02	0.00	586.40
920.0	247.1	575.9	97.0	171.9	255.1	147.0	467.0	122.8	587.80
3.64	1.44	2.26	0.66	0.040	0.040	0.080	0.000	586.40	2953.89
0.000172	121.	121.	121	1	0	0	0.00	87.21	3043.10

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	1000.00	25.50	1.50	207.60	0.00	585.95	585.95

1490 NH CARD USED
*SECNO 253.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.57	597.21	0.01	0.	920.	208.	208.	594.60	599.10	0.

U/S FACE OF W. BOUND I-94 SURVEY STATION 48+79

253.000	11.58	597.48	0.00	0.00	597.57	0.09	0.40	0.00	585.90
920.0	128.3	752.4	39.3	160.9	287.6	60.8	467.8	122.9	586.50
3.65	0.80	2.62	0.65	0.080	0.040	0.080	0.000	585.90	2952.21
0.000197	64.	64.	64.	2	0	0	0.00	64.36	3016.57

1490 NH CARD USED
*SECNO 353.000

3470 ENCROACHMENT STATIONS= 2357.0 2621.0 TYPE= 1 TARGET= 264.000
100' U/S OF W BOUND I-94

353.000	11.52	597.52	0.00	0.00	597.60	0.07	0.02	0.00	588.00
1430.0	362.7	966.6	100.7	712.2	370.8	131.6	469.8	123.2	590.00
3.66	0.51	2.61	0.77	0.130	0.045	0.090	0.000	586.00	2357.00
0.000271	100.	100.	100.	2	0	0	0.00	264.00	2621.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 553.000

3470 ENCROACHMENT STATIONS= 2298.0 2698.0 TYPE= 1 TARGET= 400.000

553.000	11 58	597.58	0.00	0.00	597.65	0.07	0.05	0.00	588.00
1430.0	364.1	964 5	101.4	852.9	372.4	133.2	475.7	124.6	590.00
3.69	0.43	2.59	0.76	0.146	0.045	0.090	0.000	586.00	2298.00
0.000266	200	200.	200.	0	0	0	0.00	324.01	2622.01

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 1832.000

3265 DIVIDED FLOW

3280 CROSS SECTION 1832.00 EXTENDED 1.51 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3470 ENCROACHMENT STATIONS= 300.0 1020.0 TYPE= 1 TARGET= 720.000

U/S JFK PARK SURVEY STATION 33+00

1832.000	10.61	598.01	0.00	0.00	598.17	0.16	0.48	0.04	594.70
1430.0	75 3	1235.8	118.9	113 1	359.6	295.3	505.9	138.1	593.30
3 80	0 67	3.44	0.40	0.070	0.040	0.121	0.000	587.40	300.00
0.000574	1150.	1279.	1350.	2	0	0	0.00	617.80	1020.00

CCHV= 0 100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2132.000
3280 CROSS SECTION 2132.00 EXTENDED 1.51 FEET

3470 ENCROACHMENT STATIONS= 530.0 1030.0 TYPE= 1 TARGET= 500.000

2132 000	10.61	598.21	0 00	0 00	598.37	0.16	0.20	0.00	594.90
1430.0	77.4	1233.8	118.8	106 1	359.6	315.5	511.9	142.3	593.50
3.84	0.73	3.43	0 38	0 070	0.040	0.130	0 000	587 60	530.00
0.000572	400.	350.	300.	2	0	0	0.00	500.00	1030.00

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

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 2536.000

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
D/S FACE SURVEY 25+45

2536.000	10 51	598 51	0.00	0 00	598.59	0 08	0.19	0.02	595.30
1430.0	38.7	1170 1	221.2	59.1	468.4	379.7	519.5	146.7	595.50
3.89	0.66	2 50	0.58	0.070	0.040	0.079	0.000	588 00	687.00
0.000406	450.	404.	375.	2	0	0	0.00	500.00	1187.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0 00	1.50	3.00	0.00	16.00	0.00	88.00	0.00	588.00	588 00

1490 NH CARD USED
*SECNO 2541.000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	EL TRD	WEIRLN
604 66	598.59	0.00	1208.	223.	88.	88.	593.50	595.30	117.

3470 ENCROACHMENT STATIONS= 687.0 1187.0 TYPE= 1 TARGET= 500.000
U/S FACE SURVEY 25+40

2541.000	10.58	598 58	0.00	0.00	598.65	0.08	0.07	0.00	595 30
1430.0	40.1	1164.8	225.1	61.2	473.7	408.2	519.6	146.8	595.50
3 89	0.65	2.46	0 55	0.070	0.040	0.082	0.000	588.00	687.00
0.000388	5.	5.	5.	2	0	6	0.00	500.00	1187.00

1490 NH CARD USED
*SECNO 2591.000

3470 ENCROACHMENT STATIONS= 697.0 1197.0 TYPE= 1 TARGET= 500 000
50' U/S OF FOOTBRIDGE

2591.000	10.60	598.60	0.00	0.00	598.67	0.08	0.02	0.00	595.30
1430.0	28.7	1173.2	228.1	42.8	475.1	419 0	520.7	147.3	595 50
3 90	0.67	2.47	0.54	0.070	0.040	0.083	0.000	588.00	697 00
0.000390	50.	50.	50	0	0	0	0.00	500.00	1197.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EL.MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 2941 000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.52

3470 ENCROACHMENT STATIONS= 610.0 1060.0 TYPE= 1 TARGET= 450.000
400' U/S OF FOOTBRIDGE

2941.000	10.95	598.75	0.00	0.00	598.78	0.03	0.09	0.02	587.80
1430.0	585.1	311.8	533.1	513.2	131.3	1362.2	532.6	151.2	587.80
3.98	1.14	2.37	0.39	0.059	0.040	0.129	0.000	587.80	610.00
0.000168	350.	350.	350.	1	0	0	0.00	450.00	1060.00

1490 NH CARD USED
*SECNO 3287 000

3302 WARNING CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3470 ENCROACHMENT STATIONS= 1040.0 1540.0 TYPE= 1 TARGET= 500.000
D/S FACE LARME ST , 9 CULVERTS SURVEY STATION 17+94

3287.000	10.62	598.82	0.00	0.00	598.92	0.10	0.11	0.03	595.00
1430.0	263.8	661.6	504.6	191.1	186.9	1463.9	547.8	154.9	595.00
4.03	1.38	3.54	0.34	0.070	0.040	0.272	0.000	588.20	1040.00
0.000780	346.	346.	346	2	0	0	0.00	500.00	1540.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	3.91	3.00	200.00	15.70	1.00	78.00	0.00	588.20	588.20

1490 NH CARD USED
*SECNO 3487.000
6870 D S ENERGY OF 598.92 IS HIGHER THAN COMPUTED ENERGY OF 598.84
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
619.23	598.93	0.01	1386.	44.	78.	78.	593.50	595.50	200.

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

3470 ENCROACHMENT STATIONS= 1050.0 1550.0 TYPE= 1 TARGET= 500.000
U/S FACE KEPPEN ST. SURVEY STA 15+94

3487.000	10.61	598.81	0.00	0.00	598.92	0.11	0.00	0.00	595.00
1430.0	216.7	689.0	524.3	152.4	186.7	1486.6	556.3	157.2	595.00
4.06	1.42	3.69	0.35	0.070	0.040	0.277	0.000	588.20	1050.00
0.000850	200.	200	200.	2	0	15	0.00	500.00	1550.00

1490 NH CARD USED
*SECNO 3776.000

3470 ENCROACHMENT STATIONS= 940.0 1440.0 TYPE= 1 TARGET= 500.000
D/S FACE RUSSELL ST. CULVERTS SURVEY STATION 13+05

3776.000	10.06	599.06	0.00	0.00	599.11	0.05	0.18	0.02	595.00
1430.0	426.4	576.0	427.6	598.1	209.1	1245.2	569.1	160.5	595.00
4.11	0.71	2.75	0.34	0.111	0.040	0.225	0.000	589.00	940.00
0.000465	289.	289.	289	1	0	0	0.00	500.00	1440.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.31	3.00	200.00	14.56	1.00	64.00	0.00	589.00	589.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3843.000
6870 D.S ENERGY OF 599.11 IS HIGHER THAN COMPUTED ENERGY OF 599.07
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
616.97	599.12	0.01	1375.	52.	64.	66.	593.90	596.00	200.

3470 ENCROACHMENT STATIONS= 890.0 1390.0 TYPE= 1 TARGET= 500.000
U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38

3843.000	10.06	599.06	0.00	0.00	599.11	0.05	0.00	0.00	595.00
1430.0	428.1	575.2	426.7	778.9	209.3	1078.4	572.3	161.3	595.00
4.13	0.55	2.75	0.40	0.142	0.040	0.197	0.000	589.00	890.00
0.000462	67.	67.	67.	2	0	9	0.00	500.00	1390.00

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

1490 NH CARD USED
*SECNO 4234 000

3470 ENCROACHMENT STATIONS= 1200.0 1590 0 TYPE= 1 TARGET= 390.000
D/S FACE OF WATSON AVE. STA. 8+47

4234.000	10.94	599 24	0.00	0.00	599.34	0.10	0.20	0.02	595.00
1430.0	337.7	764.0	328.2	996.4	227.4	477 4	587.4	164.9	595.00
4 18	0 34	3.36	0.69	0.276	0.040	0 140	0.000	580.30	1200.00
0.000654	270.	391.	430.	0	0	0	0 00	390.00	1590.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	130.00	13.90	1.00	80.00	0.00	588.30	588.30

1490 NH CARD USED
*SECNO 4294.000
6870 D.S. ENERGY OF 599 34 IS HIGHER THAN COMPUTED ENERGY OF 599.31
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
609.16	599.35	0.01	1325.	114.	80.	80.	594.50	596.00	130.

3470 ENCROACHMENT STATIONS= 1230 0 1590.0 TYPE= 1 TARGET= 360.000
U/S FACE OF WATSON AVE. STA. 7+87

4294.000	10.94	599 24	0.00	0.00	599.34	0.10	0.00	0.00	595.00
1430.0	337.5	763.7	328.8	894.6	227.6	478.5	589.7	165.4	595.00
4.18	0.38	3.36	0.69	0.250	0.040	0 140	0.000	588.30	1230.00
0.000652	60.	60.	60.	2	0	6	0 00	360.00	1590 00

1490 NH CARD USED
*SECNO 4610.000

3470 ENCROACHMENT STATIONS= 1454.0 1653.0 TYPE= 1 TARGET= 199 000
D/S FACE OF EUCLID AVE. CULVERTS SURVEY 4+71

4610.000	10 86	599.46	0.00	0.00	599.67	0.21	0.27	0 06	595 50
1430.0	0.0	1020.4	409.6	0.0	235.5	677.8	598 7	167.4	595.50
4 21	0.00	4.33	0.60	0.000	0.040	0.210	0.000	588 60	1454.00
0.001256	350	316.	280.	1	0	0	0.00	199.00	1653.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	3.00	130.00	14.22	1.00	78.00	0.00	588.60	588.60

1490 NH CARD USED
*SECNO 4678.000
6870 D.S. ENERGY OF 599.67 IS HIGHER THAN COMPUTED ENERGY OF 599.50
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
610.11	599.70	0.03	1322	115.	78.	78.	594.50	596.30	130.

3470 ENCROACHMENT STATIONS= 1454.0 1619.0 TYPE= 1 TARGET= 165.000
U/S FACE OF EUCLID AVE CULVERTS SURVEY 4+03

4678.000	10.86	599.46	0.00	0.00	599.67	0.21	0.00	0.00	595.50
1430.0	0.0	1021.2	408.8	0.0	235.6	555.0	600.0	167.6	595.50
4.22	0.00	4.33	0.74	0.000	0.040	0.174	0.000	588.60	1454.00
0.001256	68.	68.	68.	2	0	7	0.00	165.00	1619.00

1490 NH CARD USED
*SECNO 4853.000
D/S FACE SOUTHFIELD F/WAY CULVERT, CITY OF ALLEN PARK CORPORATE LIMIT

4853.000	9.61	599.61	0.00	0.00	599.88	0.26	0.18	0.03	590.00
1430.0	243.0	944.0	243.0	142.2	192.3	142.2	602.7	168.2	590.00
4.23	1.71	4.91	1.71	0.070	0.040	0.070	0.000	590.00	3010.42
0.000854	140.	175.	200	2	0	0	0.00	77.16	3089.58

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.00	3.00	100.00	20.00	0.00	300.00	0.00	590.40	590.00

*SECNO 5181.000

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
601.03	600.30	0 00	0.	1430.	300.	144.	597 60	603.10	0.

3470 ENCROACHMENT STATIONS= 2904 0 3103.0 TYPE= 1 TARGET= 179.000
U/S FACE SOUTHFIELD F/WAY CULVERTS

5181.000	10.80	600 80	0.00	0 00	601.03	0.23	1.15	0.00	590.00
1430.0	223 7	982.6	223.7	179.4	215.9	179.4	606.7	168.8	590.00
4.26	1.25	4.55	1 25	0 100	0.045	0.100	0.000	590.00	3006.78
0.000795	328	328.	328.	2	0	0	0.00	86.41	3093.22

1490 NH CARD USED
*SECNO 5336.000

3470 ENCROACHMENT STATIONS= 2218.0 2727 0 TYPE= 1 TARGET= 509.000
VALLEY AT FLEMMING DEAD END 27+00

5336 000	9.86	600.96	0.00	0 00	601.23	0.26	0.18	0.02	596.60
1950.0	20.4	1929.6	0.0	1413.7	465.8	0.0	611.5	169.9	601.40
4.27	0.01	4.14	0.00	10.000	0.045	0.000	0.000	591 10	2218.00
0.001662	185.	155.	125	2	0	0	0.00	463.28	2681.28

CCHV= 0.400 CEHV= 0.600
1490 NH CARD USED
*SECNO 5486.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2063.0 2872.0 TYPE= 1 TARGET= 809.000
VALLEY 269+50

5486.000	9.72	601.22	0.00	0.00	601.52	0.30	0.27	0.02	601.30
1950.0	335.4	1606.7	7.9	1225.3	331.9	13.3	617.5	171.9	600.20
4.28	0 27	4.84	0.59	0.397	0.045	0.050	0.000	591.50	2063 00
0.001979	150.	150	150.	2	0	0	0.00	692.72	2872 00

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T1      ECORSE CREEK FLOOD CONTROL STUDY
T2      100 YEAR FLOOD ENCROCHMENT RUN
T3      NORTH BR ECORSE CREEK    WITHOUT PROJECT

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     0         WSEL      FQ
      0.00     3.00      0.00      0.00      0.00      0.00      0.00      0.00      575.00    0.00
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.00      0.00     -1.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
```

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

*PROF 2

CCHV= 0 300 CEHV= 0.500
*SECNO 1.000
2800 NAT Q1= 1290.99 WSEL= 574.90 ENC Q1= 1310.43 WSEL= 575.00 RATIO= -0.0151
NAT Q1= 1310. RATIOS LOB, CH, ROB= 0 0000 1.0000 0.0000 WSEL= 575.00

3470 ENCROACHMENT STATIONS= 500.0 619.0 TYPE= 4 TARGET= 0.000

1.000	11.60	575 00	0.00	574.90	575.61	0.61	0.00	0.00	584.60
4450.0	0.0	4450 0	0 0	0.0	710.4	0.0	0.0	0.0	584.60
0.00	0.00	6 26	0.00	0 000	0.030	0.000	0.000	563 40	528.33
0.001153	0.	0.	0.	0	0	0	0.00	90 67	619.00

*SECNO 30.000
2800 NAT Q1= 1297.65 WSEL= 574.94 ENC Q1= 1318 56 WSEL= 575.04 RATIO= -0.0161
NAT Q1= 1319. RATIOS LOB, CH, ROB= 0.0000 1.0000 0 0000 WSEL= 575.04

3470 ENCROACHMENT STATIONS= 500.0 619 0 TYPE= 4 TARGET= 0.000

30.000	11.64	575 04	0.00	574.94	575.64	0.60	0.03	0.00	584.60
4450.0	0 0	4450 0	0.0	0.0	713.4	0.0	0.5	0.1	584.60
0.00	0.00	6.24	0.00	0.000	0.030	0.000	0.000	563.40	528.06
0.001142	29	29.	29.	0	0	0	0.00	90.94	619.00

*SECNO 60.000
2800 NAT Q1= 1305.91 WSEL= 574.99 ENC Q1= 1327.20 WSEL= 575.09 RATIO= -0.0163
NAT Q1= 1327. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 575.09

3470 ENCROACHMENT STATIONS= 500.0 619.0 TYPE= 4 TARGET= 0 000

60 000	11 68	575.08	0 00	574.99	575.68	0.60	0.03	0.00	584 60
4450.0	0.0	4450.0	0.0	0.0	717.1	0 0	1.0	0.1	584 60
0.00	0.00	6.21	0 00	0.000	0.030	0.000	0.000	563.40	527 72
0.001128	30.	30.	30.	0	0	0	0.00	91.28	619.00

*SECNO 61.000
2800 NAT Q1= 964.41 WSEL= 574.92 ENC Q1= 978.20 WSEL= 575.02 RATIO= -0.0143
NAT Q1= 978 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 575.02

3265 DIVIDED FLOW

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

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

3470 ENCROACHMENT STATIONS= 500.0 619.0 TYPE= 4 TARGET= 0.000
WEST JEFFERSON AVENUE BRIDGE

61.000	11.62	575.02	0.00	574.92	575.74	0.72	0.00	0.06	584.30
4450.0	0.0	4450.0	0.0	0.0	653.1	0.0	1.0	0.1	584.60
0.00	0.00	6.81	0.00	0.000	0.030	0.000	0.000	563.40	528.15
0.002070	1.	1.	1.	2	0	0	0.00	83.85	619.00

*SECNO 136.000
2800 NAT Q1= 992.83 WSEL= 575.13 ENC Q1= 1007.04 WSEL= 575.23 RATIO= -0.0143
NAT Q1= 1007. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 575.23

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 584.30 MAX ELLC= 580.30

3470 ENCROACHMENT STATIONS= 500.0 619.0 TYPE= 4 TARGET= 0.000

136.000	11.82	575.22	0.00	575.13	575.90	0.69	0.15	0.01	584.30
4450.0	0.0	4450.0	0.0	0.0	669.8	0.0	2.1	0.3	584.60
0.01	0.00	6.64	0.00	0.000	0.030	0.000	0.000	563.40	526.51
0.001957	75.	75	75.	2	0	0	0.00	85.49	619.00

*SECNO 137.000
2800 NAT Q1= 1372.32 WSEL= 575.31 ENC Q1= 1393.31 WSEL= 575.41 RATIO= -0.0153
NAT Q1= 1393. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 575.41

3470 ENCROACHMENT STATIONS= 500.0 619.0 TYPE= 4 TARGET= 0.000

137.000	12.00	575.40	0.00	575.31	575.95	0.55	0.00	0.04	584.60
4450.0	0.0	4450.0	0.0	0.0	746.9	0.0	2.1	0.3	584.60
0.01	0.00	5.96	0.00	0.000	0.030	0.000	0.000	563.40	525.04
0.001025	1.	1.	1.	2	0	0	0.00	93.96	619.00

*SECNO 187.000
2800 NAT Q1= 1101.27 WSEL= 575.34 ENC Q1= 1119.53 WSEL= 575.44 RATIO= -0.0166
NAT Q1= 1120. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 575.44

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	NL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 331.0 441.0 TYPE= 4 TARGET= 0.000

187.000	11.32	575.42	0.00	575.34	576 05	0.62	0.06	0.04	583.10
4450.0	0.0	4450.0	0.0	0.0	701.9	0.0	3.0	0.4	580.20
0 01	0.00	6.34	0.00	0 000	0.035	0.000	0.000	564.10	340.97
0.001589	50.	50.	50	2	0	0	0.00	92.06	433.04

1490 NH CARD USED
*SECNO 362.000
2800 NAT Q1= 1561.06 WSEL= 575.96 ENC Q1= 1591.30 WSEL= 576.06 RATIO= -0.0194
NAT Q1= 1591. RATIOS LOB, CH, ROB= 0 0000 1.0000 0.0000 WSEL= 576.06

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

3470 ENCROACHMENT STATIONS= 244.0 400.0 TYPE= 4 TARGET= 0.000

362.000	12.06	576.03	0.00	575.96	576.33	0.30	0 19	0.10	578.57
4450 0	0.0	4450.0	0.0	0.0	1008.1	0.0	6.4	0.9	577.17
0.02	0.00	4.41	0 00	0.000	0.034	0.000	0.000	563.97	250.86
0.000791	175.	175.	175	2	0	0	0.00	146.67	397.53

1490 NH CARD USED
*SECNO 737.000

3470 ENCROACHMENT STATIONS= 255.0 355.0 TYPE= 1 TARGET= 100.000

737.000	12 59	576.29	0.00	576.24	576.64	0.35	0.28	0 03	100000.00
4450 0	0.0	4450.0	0.0	0.0	931 9	0.0	14.8	1.9	100000.00
0.04	0.00	4 78	0.00	0.000	0.035	0.000	0.000	563.70	255.00
0.000728	375	375.	375.	2	0	0	0 00	100.00	355 00

*SECNO 787.000
2800 NAT Q1= 1358.57 WSEL= 576.24 ENC Q1= 1385.50 WSEL= 576.34 RATIO= -0.0198
NAT Q1= 1386. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.34

3470 ENCROACHMENT STATIONS= 795.0 901 6 TYPE= 4 TARGET= 0.000

787.000	12.40	576.30	0.00	576.24	576.72	0.42	0.04	0.03	581.00
4450.0	0.0	4450.0	0.0	0.0	856.8	0.0	15.8	2.0	581 00
0.04	0.00	5.19	0.00	0 000	0.035	0.000	0.000	563.90	795 00
0.001046	50.	50.	50.	2	0	0	0.00	106.60	901.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EL MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 788.000
2800 NAT Q1= 682.00 WSEL= 576.19 ENC Q1= 696.36 WSEL= 576.29 RATIO= -0.0210
NAT Q1= 696. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.29

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.50

3370 NORMAL BRIDGE, NRD= 4 MIN ELTRD= 581.00 MAX ELLC= 577.20

3470 ENCROACHMENT STATIONS= 795.0 901.6 TYPE= 4 TARGET= 0.000

	D.T. AND I.	RAILROAD							
788.000	12.36	576.26	0.00	576.19	576.77	0.51	0.00	0.05	581.00
4450.0	0.0	4450.0	0.0	0.0	775.3	0.0	15.8	2.0	581.00
0.04	0.00	5.74	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.004144	1.	1.	1.	2	0	0	0.00	104.00	701.60

*SECNO 798.000
2800 NAT Q1= 1383.52 WSEL= 576.33 ENC Q1= 1410.54 WSEL= 576.43 RATIO= -0.0195
NAT Q1= 1411. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.43

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.03

3470 ENCROACHMENT STATIONS= 795.0 901.6 TYPE= 4 TARGET= 0.000

798.000	12.49	576.39	0.00	576.33	576.80	0.41	0.00	0.03	581.00
4450.0	0.0	4450.0	0.0	0.0	866.4	0.0	15.8	2.0	581.00
0.04	0.00	5.14	0.00	0.000	0.035	0.000	0.000	563.90	795.00
0.001010	1.	1.	1.	2	0	0	0.00	108.60	701.60

*SECNO 844.000
2800 NAT Q1= 1421.33 WSEL= 576.38 ENC Q1= 1449.54 WSEL= 576.48 RATIO= -0.0199
NAT Q1= 1450. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.48

3470 ENCROACHMENT STATIONS= 815.0 924.0 TYPE= 4 TARGET= 0.000

844.000	11.44	576.44	0.00	576.38	576.85	0.40	0.05	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	872.0	0.0	16.7	2.2	581.40
0.05	0.00	5.10	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000961	46.	46.	46.	0	0	0	0.00	109.00	924.00

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

*SECNO 845 000
2800 NAT Q1= 764.40 WSEL= 576.35 ENC Q1= 777.23 WSEL= 576.45 RATIO= -0.0168
NAT Q1= 777 RATIOS LOB, CH, ROB= 0 0000 1.0000 0.0000 WSEL= 576.45

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0 54

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

3470 ENCROACHMENT STATIONS= 815.0 924.0 TYPE= 4 TARGET= 0 000

	CONRAIL								
845.000	11.41	576 41	0.00	576 35	576.88	0.48	0.00	0.04	581.50
4450.0	0.0	4450.0	0.0	0.0	804.3	0.0	16.8	2.2	581.40
0.05	0.00	5.53	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003322	1.	1.	1.	2	0	0	0.00	102.00	924.00

*SECNO 859.000
2800 NAT Q1= 771.82 WSEL= 576.41 ENC Q1= 784.07 WSEL= 576.51 RATIO= -0.0159
NAT Q1= 784. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576 51

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 581.40 MAX ELLC= 578.40

3470 ENCROACHMENT STATIONS= 815 0 924.0 TYPE= 4 TARGET= 0.000

859.000	11.46	576 46	0.00	576.41	576.93	0.47	0.05	0.00	581.50
4450.0	0.0	4450.0	0.0	0.0	809.2	0.0	17.0	2 2	581.40
0.05	0.00	5.50	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.003270	15.	15.	15.	0	0	0	0.00	102.00	924.00

*SECNO 860 000
2800 NAT Q1= 1457.20 WSEL= 576.51 ENC Q1= 1485 63 WSEL= 576 61 RATIO= -0.0195
NAT Q1= 1486 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576 61

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

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.89

3470 ENCROACHMENT STATIONS= 815.0 924.0 TYPE= 4 TARGET= 0.000

860.000	11.57	576.57	0.00	576.51	576.96	0.39	0.00	0.02	581.50
4450.0	0.0	4450.0	0.0	0.0	886.4	0.0	17.0	2.2	581.40
0.05	0.00	5.02	0.00	0.000	0.035	0.000	0.000	565.00	815.00
0.000912	1.	1.	1.	2	0	0	0.00	107.00	924.00

*SECNO 910.000
2800 NAT Q1= 1534.99 WSEL= 576.59 ENC Q1= 1563.35 WSEL= 576.69 RATIO= -0.0185
NAT Q1= 1563 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.69

3470 ENCROACHMENT STATIONS= 835.0 942.0 TYPE= 4 TARGET= 0.000

910.000	12.64	576.64	0.00	576.59	577.01	0.37	0.04	0.01	583.10
4450.0	0.0	4450.0	0.0	0.0	916.6	0.0	18.1	2.3	583.00
0.05	0.00	4.85	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000824	50.	50.	50.	2	0	0	0.00	107.00	942.00

*SECNO 911.000
2800 NAT Q1= 733.49 WSEL= 576.55 ENC Q1= 747.99 WSEL= 576.65 RATIO= -0.0198
NAT Q1= 748. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.65

3265 DIVIDED FLOW

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.48

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 583.00 MAX ELLC= 578.60

3470 ENCROACHMENT STATIONS= 835.0 942.0 TYPE= 4 TARGET= 0.000
RAILROAD SPUR

911.000	12.61	576.61	0.00	576.55	577.05	0.44	0.00	0.04	583.10
4450.0	0.0	4450.0	0.0	0.0	832.3	0.0	18.1	2.3	583.00
0.05	0.00	5.35	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.003602	1.	1.	1.	2	0	0	0.00	105.00	942.00

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

*SECNO 921.000
2800 NAT Q1= 738.02 WSEL= 576.59 ENC Q1= 753.99 WSEL= 576.69 RATIO= -0.0216
NAT Q1= 754. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.69

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= .6 MIN ELTRD= 583.00 MAX ELLC= 578.60

3470 ENCROACHMENT STATIONS= 835.0 942.0 TYPE= 4 TARGET= 0.000

921.000	12.65	576.65	0.00	576.59	577.09	0.44	0.04	0.00	583.10
4450.0	0 0	4450.0	0.0	0.0	836.0	0.0	18.3	2.3	583.00
0.05	0.00	5.32	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0 003552	10.	10.	10.	0	0	0	0.00	105.00	942.00

*SECNO 922.000
2800 NAT Q1= 1567.96 WSEL= 576.70 ENC Q1= 1596.48 WSEL= 576.80 RATIO= -0.0182
NAT Q1= 1596. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.80

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.12

3470 ENCROACHMENT STATIONS= 835.0 942.0 TYPE= 4 TARGET= 0.000

922.000	12 76	576 76	0.00	576.70	577.11	0.36	0.00	0.03	583.10
4450.0	0.0	4450.0	0.0	0.0	928.7	0.0	18.3	2.4	583.00
0.05	0.00	4.79	0.00	0.000	0.035	0.000	0.000	564.00	835.00
0.000790	1.	1.	1.	2	0	0	0.00	107.00	942.00

*SECNO 953.000
2800 NAT Q1= 1259.93 WSEL= 576.64 ENC Q1= 1281.08 WSEL= 576 74 RATIO= -0.0168
NAT Q1= 1281. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.74

3470 ENCROACHMENT STATIONS= 600.0 681.0 TYPE= 4 TARGET= 0 000

953 000	11.59	576.69	0.00	576.64	577.24	0.55	0.03	0.10	581.00
4450.0	0.0	4450.0	0.0	0.0	746.2	0.0	18.9	2.4	580.80
0 05	0.00	5.96	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.001226	31.	31.	31.	2	0	0	0.00	81.00	681 00

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

*SECNO 954.000
2800 NAT Q1= 542.16 WSEL= 576 49 ENC Q1= 549.65 WSEL= 576 59 RATIO= -0.0138
NAT Q1= 550. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.59

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.43

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

3470 ENCROACHMENT STATIONS= 600.0 681 0 TYPE= 4 TARGET= 0.000

D.T. AND I	RAILROAD BRIDGE							
954.000	11.44	576 54	0.00	576 49	577.39	0.85	0.00	0.15	581.00
4450.0	0.0	4450 0	0.0	0.0	602.7	0.0	18.9	2.4	580.80
0.05	0.00	7.38	0.00	0 000	0.035	0.000	0.000	565.10	600.00
0.006637	1.	1.	1.	2	0	0	0.00	67 20	681.00

*SECNO 985 000
2800 NAT Q1= 561.78 WSEL= 576 75 ENC Q1= 569.28 WSEL= 576.85 RATIO= -0.0134
NAT Q1= 569. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 576.85

3265 DIVIDED FLOW

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 580.80 MAX ELLC= 577.70

3470 ENCROACHMENT STATIONS= 600.0 681.0 TYPE= 4 TARGET= 0.000

985.000	11.70	576.80	0 00	576.75	577.60	0.80	0.20	0.01	581.00
4450 0	0.0	4450.0	0.0	0.0	619.9	0.0	19.3	2.5	580.80
0.05	0.00	7.18	0.00	0.000	0.035	0.000	0.000	565.10	600.00
0.006193	31.	31.	31.	2	0	0	0.00	67.20	681.00

*SECNO 986.000
2800 NAT Q1= 1370.96 WSEL= 577.15 ENC Q1= 1392.22 WSEL= 577.25 RATIO= -0.0155
NAT Q1= 1392 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 577.25

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

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.44

3470 ENCROACHMENT STATIONS= 600.0 681.0 TYPE= 4 TARGET= 0.000

986.000	12.10	577.20	0.00	577.15	577.69	0.50	0.00	0.09	581.00
4450.0	0.0	4450.0	0 0	0.0	787.5	0.0	19 4	2.5	580.80
0.05	0.00	5 65	0 00	0.000	0.035	0.000	0.000	565.10	600.00
0.001039	1	1.	1	2	0	0	0.00	81.00	681.00

*SECNO 1036.000
2800 NAT Q1= 1381.67 WSEL= 577.34 ENC Q1= 1409.43 WSEL= 577.44 RATIO= -0 0201
NAT Q1= 2472. RATIOS LOB, CH, ROB= 0.0000 0.5701 0.4299 WSEL= 577.44

3470 ENCROACHMENT STATIONS= 565.0 700.0 TYPE= 4 TARGET= 0.430

1036.000	11.18	577.38	0.00	577 34	577.77	0.39	0.05	0.03	581 10
4450.0	0 0	4450.0	0 0	0.0	884.1	0.0	20.3	2.6	577.50
0.06	0.00	5.03	0 00	0.000	0.035	0.000	0.000	566.20	579.35
0.001019	50.	50.	50.	2	0	0	0.00	120.47	699.82

*SECNO 1736.000

3470 ENCROACHMENT STATIONS= 374.0 492.5 TYPE= 1 TARGET= 118.500

1736.000	12.70	578.10	0.00	578.06	578.40	0.30	0.60	0 03	579.10
4450.0	0.0	4450.0	0.0	0.0	1004.6	0.0	35.5	4.5	100000.00
0.10	0.00	4.43	0.00	0.000	0.035	0.000	0.000	565.40	376.05
0 000728	700.	700.	700.	0	0	0	0.00	116.45	492.50

*SECNO 2436.000
2800 NAT Q1= 1800 28 WSEL= 578 53 ENC Q1= 1860.76 WSEL= 578.63 RATIO= -0.0336
NAT Q1= 1987. RATIOS LOB, CH, ROB= 0.0044 0 9367 0.0590 WSEL= 578.63

3470 ENCROACHMENT STATIONS= 183.0 285.0 TYPE= 4 TARGET= 0.063
DS OF CONFL WITH SOUTH BRANCH ECORSE CREEK

2436 000	13.95	578.55	0.00	578 53	578.87	0.32	0.46	0.01	577.10
4450 0	0.0	4450.0	0 0	0.0	983.3	0.0	51 5	6.2	577.40
0.14	0.00	4 53	0.00	0 000	0.035	0.000	0.000	564.60	183.00
0.000606	700.	700.	700.	2	0	0	0.00	102.00	285.00

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

CCHV= 0.300 CEHV= 0.500
*SECNO 2736.000
2800 NAT Q1= 1082.42 WSEL= 578.97 ENC Q1= 1113.35 WSEL= 579.07 RATIO= -0.0286
NAT Q1= 1200. RATIOS LOB, CH, ROB= 0.0720 0.9274 0.0005 WSEL= 579.07
3280 CROSS SECTION 2736.00 EXTENDED 0.60 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.60

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 4 TARGET= 0.073

2736.000	9.90	579.00	0.00	578.97	579.07	0.08	0.13	0.07	578.60
1580.0	0.0	1580.0	0.0	0.0	710.1	0.0	57.3	6.9	578.60
0.18	0.00	2.23	0.00	0.000	0.035	0.000	0.000	567.10	300.00
0.000211	300.	300.	300.	2	0	0	0.00	100.00	400.00

*SECNO 3436.000
2800 NAT Q1= 1028.45 WSEL= 579.13 ENC Q1= 1055.60 WSEL= 579.23 RATIO= -0.0264
NAT Q1= 1109. RATIOS LOB, CH, ROB= 0.0479 0.9520 0.0001 WSEL= 579.23
3280 CROSS SECTION 3436.00 EXTENDED 0.36 FEET

3470 ENCROACHMENT STATIONS= 300.0 400.0 TYPE= 4 TARGET= 0.048

3436.000	9.67	579.15	0.00	579.13	579.23	0.08	0.16	0.00	578.98
1580.0	0.0	1580.0	0.0	0.0	686.6	0.0	68.5	8.5	578.98
0.26	0.00	2.30	0.00	0.000	0.035	0.000	0.000	567.48	300.00
0.000234	700.	700.	700.	0	0	0	0.00	100.00	400.00

*SECNO 3836.000
2800 NAT Q1= 765.79 WSEL= 579.23 ENC Q1= 790.06 WSEL= 579.33 RATIO= -0.0317
NAT Q1= 801. RATIOS LOB, CH, ROB= 0.0136 0.9864 0.0000 WSEL= 579.33

3470 ENCROACHMENT STATIONS= 200.0 300.0 TYPE= 4 TARGET= 0.014

3836.000	9.55	579.25	0.00	579.23	579.38	0.13	0.12	0.02	578.50
1580.0	0.0	1580.0	0.0	0.0	550.3	0.0	74.2	9.4	580.30
0.30	0.00	2.87	0.00	0.000	0.035	0.000	0.000	567.70	200.00
0.000420	400.	400.	400.	2	0	0	0.00	88.50	388.50

*SECNO 4311.000

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

2800 NAT Q1= 767.17 WSEL= 579.43 ENC Q1= 790.50 WSEL= 579.53 RATIO= -0.0304
NAT Q1= 801. RATIOS LOB, CH, ROB= 0.0137 0.9863 0.0000 WSEL= 579.53

3470 ENCROACHMENT STATIONS= 200.0 300 0 TYPE= 4 TARGET= 0.014

4311 000	9.55	579.45	0.00	579 43	579.58	0.13	0.20	0.00	578.70
1580.0	0 0	1580 0	0 0	0.0	549.6	0.0	80.2	10.4	580.50
0 35	0.00	2.87	0.00	0.000	0.035	0.000	0.000	569.90	200.00
0 000422	475.	475.	475	0	0	0	0.00	80.48	288.48

*SECNO 4786.000
2800 NAT Q1= 880.97 WSEL= 579.65 ENC Q1= 905 20 WSEL= 579.75 RATIO= -0.0275
NAT Q1= 907. RATIOS LOB, CH, ROB= 0.0000 0.9978 0.0022 WSEL= 577.75

3470 ENCROACHMENT STATIONS= 393.0 500 0 TYPE= 4 TARGET= 0.002

4786.000	9 57	579.67	0 00	579.65	579.76	0.09	0.17	0.01	580.10
1580.0	0.0	1580.0	0.0	0.0	639 9	0.0	86.7	11.4	579.50
0.40	0.00	2.47	0.00	0 000	0 035	0.000	0.000	570.10	395.03
0.000318	475.	475.	475.	2	0	0	0.00	104.97	500.00

*SECNO 4825 000
3470 ENCROACHMENT STATIONS= 500.0 598 0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

4825.000	8.89	579.69	0.00	579.67	579.77	0.08	0.01	0.00	579.40
1580.0	0.0	1580.0	0.0	0 0	678.5	0.0	87.3	11.5	585.00
0.41	0.00	2.33	0.00	0 000	0.035	0.000	0.000	570.80	500.00
0.000256	39.	39.	39	1	0	0	0.00	98.00	598.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.30	2.50	0.00	51.70	0.00	538.00	3.17	570.80	570.80

*SECNO 4846.000

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

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 579.865 EGLWC= 580.117 ELLC= 578.300 PCWSE= 579.690 ELTRD= 579.400

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.36

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 579.40 MAX ELLC= 578.30

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 579.40 ELREA= 585.00

MILL STREET BRIDGE

4846.000	8.88	579.68	0.00	579.74	579.81	0.13	0.01	0.02	579.40
1580.0	0.0	1580.0	0.0	0.0	555.7	0.0	87.6	11.6	585.00
0.41	0.00	2.84	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.001976	21.	21	21.	2	0	0	-122.50	98.00	598.00

*SECNO 4847.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.81

3470 ENCROACHMENT STATIONS= 500.0 598.0 TYPE= 1 TARGET= 98.000
ELENCL= 585.00 ELENCR= 585.00

4847.000	8.94	579.74	0.00	579.74	579.82	0.08	0.00	0.01	579.40
1580.0	0.0	1580.0	0.0	0.0	683.6	0.0	87.6	11.6	585.00
0.41	0.00	2.31	0.00	0.000	0.035	0.000	0.000	570.80	500.00
0.000250	1.	1.	1.	2	0	0	0.00	98.00	598.00

*SECNO 5436.000
2800 NAT Q1= 812.65 WSEL= 579.91 ENC Q1= 833.46 WSEL= 580.01 RATIO= -0.0256
NAT Q1= 833 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 580.01
3280 CROSS SECTION 5436.00 EXTENDED 0.17 FEET

3470 ENCROACHMENT STATIONS= 494.0 594.0 TYPE= 4 TARGET= 0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
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= 580.84 ELREA= 581.14

5436.000	9.26	579.90	0.00	579.91	580.01	0.11	0.18	0.02	580.84
1580.0	0.0	1580.0	0.0	0.0	582.5	0.0	96.1	12.9	581.14
0.47	0.00	2.71	0.00	0.000	0.035	0.000	0.000	570.64	495.83
0.000376	589.	589.	589.	1	0	0	0.00	94.70	590.54

*SECNO 5936.000
2800 NAT Q1= 878.19 WSEL= 580.10 ENC Q1= 898.19 WSEL= 580.20 RATIO= -0.0228
NAT Q1= 976 RATIOS LOB, CH, ROB= 0.0799 0.9201 0.0000 WSEL= 580.20
3280 CROSS SECTION 5936.00 EXTENDED 0.49 FEET

3470 ENCROACHMENT STATIONS= 494.0 594.0 TYPE= 4 TARGET= 0.080

5936.000	9.59	580.09	0.00	580.10	580.19	0.10	0.17	0.00	580.70
1580.0	0.0	1580.0	0.0	0.0	613.0	0.0	103.0	14.0	581.00
0.52	0.00	2.58	0.00	0.000	0.035	0.000	0.000	570.50	495.20
0.000325	500.	500.	500.	2	0	0	0.00	96.24	591.44

*SECNO 6416.000
2800 NAT Q1= 667.45 WSEL= 580.27 ENC Q1= 682.60 WSEL= 580.37 RATIO= -0.0227
NAT Q1= 683. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 580.37

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.93 ELREA= 581.93

6416.000	9.93	580.26	0.00	580.27	580.43	0.17	0.20	0.03	581.93
1580.0	0.0	1580.0	0.0	0.0	479.7	0.0	109.0	14.9	581.93
0.56	0.00	3.29	0.00	0.000	0.035	0.000	0.000	570.33	579.08
0.000562	480.	480	480.	2	0	0	0.00	77.16	656.23

*SECNO 6786.000
2800 NAT Q1= 720.49 WSEL= 580.48 ENC Q1= 736.31 WSEL= 580.58 RATIO= -0.0220
NAT Q1= 736. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 580.58

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 4 TARGET= 0.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 581.80 ELREA= 581.80

6786.000	10.27	580.47	0.00	580.48	580.62	0.15	0.19	0.01	581.80
1580.0	0.0	1580.0	0.0	0.0	506.6	0.0	113.2	15.6	581.80
0.60	0.00	3.12	0.00	0.000	0.035	0.000	0.000	570.20	578.25
0.000482	370.	370	370.	2	0	0	0.00	78.76	657.01

*SECNO 6835.000
2800 NAT Q1= 520.11 WSEL= 580.47 ENC Q1= 533.47 WSEL= 580.57 RATIO= -0.0257
NAT Q1= 533. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 580.57

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 4 TARGET= 0.000

6835.000	8.89	580.46	0.00	580.47	580.70	0.24	0.03	0.04	583.17
1580.0	0.0	1580.0	0.0	0.0	402.1	0.0	113.7	15.7	583.17
0.60	0.00	3.93	0.00	0.000	0.035	0.000	0.000	571.57	581.55
0.000926	49.	49.	49	2	0	0	0.00	72.35	653.89

*SECNO 6836.000
2800 NAT Q1= 728.51 WSEL= 580.61 ENC Q1= 743.94 WSEL= 580.71 RATIO= -0.0212
NAT Q1= 744. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 580.71

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.40

3470 ENCROACHMENT STATIONS= 900.0 973.0 TYPE= 4 TARGET= 0.000

6836.000	9.00	580.60	0.00	580.61	580.73	0.13	0.00	0.03	582.00
1580.0	0.0	1580.0	0.0	0.0	539.5	0.0	113.7	15.7	582.00
0.60	0.00	2.93	0.00	0.000	0.035	0.000	0.000	571.60	900.00
0.000472	1.	1.	1.	2	0	0	0.00	73.00	973.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.90	0.00	60.00	0.00	308.00	0.00	571.60	571.60

*SECNO 6916.000
PRESS FLOW BECAUSE EGLWC OF 581.32 EXCEEDS 1.5 DEPTH
2800 NAT Q1= 806.17 WSEL= 581.10 ENC Q1= 822.13 WSEL= 581.20 RATIO= -0.0198
NAT Q1= 822. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 581.20
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

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

3470 ENCROACHMENT STATIONS= 900.0 973.0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 582.00 ELREA= 582.00

SOUTHFIELD ROAD BRIDGE

6916.000	9.50	581.10	0.00	581 10	581.21	0.12	0.03	0.00	582.00
1580.0	0.0	1580.0	0.0	0 0	575.7	0.0	114.8	15.8	582 00
0.61	0.00	2.74	0.00	0.000	0.035	0.000	0.000	571 60	900 00
0.000385	80.	80.	80	0	0	0	0.00	73.00	973.00

*SECNO 6917.000
2800 NAT Q1= 602.93 WSEL= 581.09 ENC Q1= 616.59 WSEL= 581.19 RATIO= -0.0227
NAT Q1= 617. RATIOS LOB, CH, ROB= 0 0000 1.0000 0.0000 WSEL= 581.19

3470 ENCROACHMENT STATIONS= 560 0 660 0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.20 ELREA= 583.20

6917.000	9.49	581 09	0.00	581.09	581 22	0.14	0.00	0.01	583.20
1330.0	0.0	1330.0	0.0	0.0	446.4	0.0	114.8	15 8	583.20
0.61	0.00	2.98	0.00	0.000	0.035	0.000	0 000	571.60	580.12
0.000488	1.	1.	1	1	0	0	0 00	75.13	655.25

*SECNO 7436.000
2800 NAT Q1= 699.10 WSEL= 581.34 ENC Q1= 714.67 WSEL= 581.44 RATIO= -0.0223
NAT Q1= 715. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 581.44

3470 ENCROACHMENT STATIONS= 560.0 660.0 TYPE= 4 TARGET= 0.000

7436.000	10.14	581.34	0.00	581 34	581 45	0.11	0.22	0 01	582.80
1330.0	0.0	1330.0	0.0	0 0	495.9	0.0	120.4	16.7	582.80
0.66	0.00	2.68	0.00	0 000	0.035	0.000	0.000	571.20	578.58
0.000363	519.	519.	519.	2	0	0	0.00	78.13	656.70

*SECNO 7936.000
2800 NAT Q1= 759.33 WSEL= 581.52 ENC Q1= 759.33 WSEL= 581.62 RATIO= 0.0000
NAT Q1= 781. RATIOS LOB, CH, ROB= 0.0299 0.9701 0.0000 WSEL= 581.62

3265 DIVIDED FLOW

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


3470 ENCROACHMENT STATIONS=      325.6      550.0  TYPE=       4  TARGET=        0.028
  7936.000      10.71      581.51       0.00      581.52     581.62       0.11       0.17       0.00     582.50
    1330.0        1.6      1328.4        0.0         6.4      502.2        0.0      126.2       17 8     582.80
      0 72       0.24        2.65       0.00       0 040      0 035      0.000      0.000     570.80     325.65
  0.000322        500         500.        500.           1          0          0       0.00     101.74     511.92


*SECNO 8536.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      150.0      400.0  TYPE=       1  TARGET=        250.000
  8536.000      10 81      581.71       0.00      581.71     581.81       0.10       0.19       0.00     581.80
    1330.0        0 3      1329.7        0 0         3.1      527.6        0.0      133.3       19.4     582 10
      0.78       0.10        2.52       0.00       0.040      0.035      0.000      0.000     570.90     203.42
  0.000308        600.        600.        600.           0          0          0       0.00     133.44     382.23


*SECNO 9136.000
 2800 NAT Q1=      712.51  WSEL=      581.97  ENC Q1=      712.51  WSEL=      582.07  RATIO=    0.0000
 NAT Q1=      753.  RATIOS LOB, CH, ROB=    0.0000  0.8579  0.1421  WSEL=      582 07

3470 ENCROACHMENT STATIONS=      140.0      472.3  TYPE=       4  TARGET=        0.054
  9136.000      11.07      581.97       0.00      581.97     582.03       0.06       0.20       0 01     582.20
    1330.0        0.0      1219 4      110.6         0.0      618.5      156.5      142 3       22 5     581.20
      0.87       0.00        1.97       0.71       0 000      0.035      0.040      0.000     570.90     145.64
  0.000381        600.        600.        600.           2          0          0       0 00     326.68     472.33


*SECNO 9586 000

3470 ENCROACHMENT STATIONS=      142.0      262 0  TYPF=       1  TARGET=        120.000
  9586.000      11.19      582 12       0 00      582.10     582.20       0 08       0.16       0.01  100000.00
    1330.0        0.0      1322.6        7.4         0 0      581.7       11.9      149.4       24.8     581.13
      0.93       0.00        2 27       0.62       0.000      0.035      0 040      0.000     570.93     142.66
  0.000317        450.        450.        450.           1          0          0       0.00     119.34     262.00


*SECNO 9596.000
 2800 NAT Q1=      621 35  WSEL=      582.08  ENC Q1=      621.35  WSEL=      582.18  RATIO=    0.0000
 NAT Q1=      809.  RATIOS LOB, CH, ROB=    0.1452  0.7673  0.0875  WSEL=      582.18
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 330.2 445.0 TYPE= 4 TARGET= 0.232

9596.000	11.13	582.11	0.00	582.08	582.21	0.10	0.00	0.01	581.38
1330.0	1.7	1328.3	0.0	4.6	511.8	0.0	149.5	24.9	583.48
0.93	0.36	2.60	0.00	0.040	0.035	0.000	0.000	570.98	330.23
0.000477	10.	10.	10.	1	0	0	0.00	114.77	445.00

*SECNO 10286.000
2800 NAT Q1= 706.48 WSEL= 582.38 ENC Q1= 706.48 WSEL= 582.48 RATIO= 0.0000
NAT Q1= 968. RATIOS LOB, CH, ROB= 0.1813 0.7144 0.1043 WSEL= 582.48

3470 ENCROACHMENT STATIONS= 290.9 445.0 TYPE= 4 TARGET= 0.270

10286.000	11.42	582.42	0.00	582.38	582.51	0.09	0.29	0.01	581.90
1330.0	25.8	1304.2	0.0	42.8	548.4	0.0	158.3	27.0	583.50
1.01	0.60	2.38	0.00	0.040	0.035	0.000	0.000	571.00	290.92
0.000368	690.	690	690.	2	0	0	0.00	154.08	445.00

*SECNO 10336.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.93

3470 ENCROACHMENT STATIONS= 247.0 472.0 TYPE= 1 TARGET= 225.000

10336.000	10.00	582.50	0.00	582.46	582.53	0.03	0.01	0.02	579.80
1330.0	151.0	1139.2	39.9	236.8	723.5	64.1	159.2	27.2	580.00
1.02	0.64	1.57	0.62	0.040	0.035	0.040	0.000	572.50	247.00
0.000098	50.	50.	50.	2	0	0	0.00	225.00	472.00

*SECNO 10636.000
2800 NAT Q1= 648.69 WSEL= 582.45 ENC Q1= 663.31 WSEL= 582.55 RATIO= -0.0225
NAT Q1= 663. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 582.55

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.49

3470 ENCROACHMENT STATIONS= 655.0 855.0 TYPE= 4 TARGET= 0.000

10636.000	10.04	582.51	0.00	582.45	582.63	0.12	0.05	0.04	584.57
1330.0	0.0	1330.0	0.0	0.0	471.6	0.0	164.4	28.3	583.87
1.05	0.00	2.82	0.00	0.000	0.035	0.000	0.000	572.47	679.03
0.000410	300.	300.	300.	2	0	0	0.00	75.55	754.58

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

*SECNO 11536.000

3470 ENCROACHMENT STATIONS= 678.0 778.0 TYPE= 1 TARGET= 100.000

VALLEY SECTION

11536.000	10 51	582 91	0.00	582.87	583.02	0.10	0.38	0.01	100000.00
1330.0	0.0	1330.0	0.0	0.0	513.4	0.0	174 5	30.1	100000.00
1.14	0.00	2.59	0.00	0.000	0.035	0.000	0.000	572.40	678.00
0.000441	900.	900.	900.	3	0	0	0.00	100.00	778.00

CCHV= 0.300 CEHV= 0 500
1490 NH CARD USED
*SECNO 12274 000
2800 NAT Q1= 719.35 WSEL= 583.17 ENC Q1= 719.35 WSEL= 583.27 RATIO= 0 0000
NAT Q1= 886. RATIOS LOB, CH, ROB= 0.1842 0.7527 0.0632 WSEL= 583.27

3470 ENCROACHMENT STATIONS= 957.4 1046.0 TYPE= 4 TARGET= 0.188

CITY OF ECORSE CORP. BOUNDARY

12274.000	9.70	583.20	0.00	583 17	583.31	0.10	0.29	0.00	575.20
1330.0	95 2	1234.8	0.0	81.5	464.3	0.0	183 5	31.7	574.90
1.22	1.17	2.66	0.00	0.050	0 041	0.000	0.000	573 50	957 41
0.000351	738.	738.	738.	2	0	0	0.00	88.59	1046.00

1490 NH CARD USED
*SECNO 12324.000

3470 ENCROACHMENT STATIONS= 920.0 1065 0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

D/S FACE OF AUSTIN

12324.000	9.61	583.21	0.00	583.17	583 34	0.13	0.02	0.01	574.10
1330.0	0.0	1330.0	0.0	0.0	467.1	0.0	184 1	31 7	573.80
1.23	0.00	2.85	0.00	0.000	0.045	0.000	0 000	573.60	1014.00
0.000379	50.	50.	50.	1	0	0	0.00	50.10	1064.10

1490 NH CARD USED
*SECNO 12325.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.45

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

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

1' INSIDE D/S SIDE OF AUSTIN BRIDGE

12325.000	9.58	583.18	0.00	583.14	583.37	0.19	0.00	0.03	574.10
1330.0	0.0	1330.0	0.0	0.0	379.6	0.0	184.1	31.7	573.80
1.23	0.00	3.50	0.00	0.000	0.035	0.000	0.000	573.60	1014.00
0.001855	1.	1.	1.	2	0	0	-93.85	50.10	1064.10

1490 NH CARD USED
*SECNO 12367.000

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 580.40 MAX ELLC= 581.80

3470 ENCROACHMENT STATIONS= 920.0 1065.0 TYPE= 1 TARGET= 145.000.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 583.30 ELREA= 583.30

1' INSIDE U/S FACE OF AUSTIN BRIDGE

12367.000	9.66	583.26	0.00	583.22	583.45	0.19	0.08	0.00	574.10
1330.0	0.0	1330.0	0.0	0.0	379.6	0.0	184.5	31.8	573.80
1.23	0.00	3.50	0.00	0.000	0.035	0.000	0.000	573.60	1014.00
0.001855	42.	42.	42.	2	0	0	-97.81	50.10	1064.10

1490 NH CARD USED
*SECNO 12368.000
2800 NAT Q1= 825.35 WSEL= 583.37 ENC Q1= 825.35 WSEL= 583.47 RATIO= 0.0000
NAT Q1= 902. RATIOS LOB, CH, ROB= 0.1963 0.7909 0.0128 WSEL= 583.47

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.63

3470 ENCROACHMENT STATIONS= 939.4 1064.1 TYPE= 4 TARGET= 0.085

U/S FACE OF AUSTIN

12368.000	9.80	583.40	0.00	583.37	583.48	0.08	0.00	0.03	574.10
1330.0	175.4	1154.6	0.0	185.1	476.3	0.0	184.5	31.8	573.80
1.23	0.95	2.42	0.00	0.050	0.040	0.000	0.000	573.60	939.44
0.000268	1.	1.	1.	2	0	0	0.00	124.66	1064.10

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

1490 NH CARD USED
*SECNO 12418.000
2800 NAT Q1= 828.00 WSEL= 583.38 ENC Q1= 828.00 WSEL= 583.48 RATIO= 0.0000
NAT Q1= 906. RATIOS LOB, CH, ROB= 0.1974 0.7898 0.0129 WSEL= 583.48

3470 ENCROACHMENT STATIONS= 939.4 1064.1 TYPE= 4 TARGET= 0.086
VALLEY SECTION 50' U/S OF AUSTIN

12418.000	9.81	583.41	0.00	583.38	583.49	0.08	0.01	0.00	574.10
1330.0	176.3	1153.7	0.0	186.2	476.9	0.0	185.2	31.9	573.80
1.24	0.95	2.42	0.00	0.050	0.040	0.000	0.000	573.60	939.36
0.000266	50	50.	50.	0	0	0	0.00	124.74	1064.10

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 13295.000
2800 NAT Q1= 554.69 WSEL= 583.67 ENC Q1= 554.69 WSEL= 583.77 RATIO= 0.0000
NAT Q1= 580. RATIOS LOB, CH, ROB= 0.0076 0.9499 0.0425 WSEL= 583.77

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.67

3470 ENCROACHMENT STATIONS= 828.0 920.1 TYPE= 4 TARGET= 0.043
VALLEY SECTION BTWN AUSTIN AND VICTORIA

13295.000	10.42	583.72	0.00	583.67	583.83	0.11	0.33	0.01	584.00
1330.0	0.0	1320.7	9.3	0.0	488.9	42.9	196.7	33.9	580.70
1.33	0.00	2.70	0.22	0.000	0.045	0.300	0.000	573.30	828.67
0.000589	600.	877.	950.	1	0	0	0.00	91.38	920.05

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 13676.000

3470 ENCROACHMENT STATIONS= 348.0 543.0 TYPE= 1 TARGET= 195.000
VALLEY SECTION 50' D/S OF VICTORIA

13676.000	11.00	583.90	0.00	583.85	584.01	0.10	0.17	0.00	574.90
1330.0	212.9	1026.9	90.2	408.5	353.8	141.4	202.4	35.0	575.60
1.37	0.52	2.90	0.64	0.120	0.045	0.116	0.000	572.90	348.00
0.000371	381.	381.	100.	2	0	0	0.00	195.00	543.00

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

1490 NH CARD USED
*SECNO 13726.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
D/S FACE OF VICTORIA

13726.000	10.90	583.90	0.00	583 84	584.06	0.16	0.02	0.03	573.00
1330.0	136.3	1055.8	137.9	254.5	295.3	143.1	203.3	35.2	573.00
1.38	0.54	3.58	0.96	0 120	0.045	0.105	0.000	573.00	350.00
0.000485	50.	50.	50	2	0	0	0.00	170 00	520 00

1490 NH CARD USED
*SECNO 13727.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.34

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170 000
1' INSIDE D/S FACE OF VICTORIA BRIDGE

13727.000	10 85	583.85	0.00	583 79	584.10	0 26	0.00	0.05	573.00
1330.0	214.2	1028.3	87.5	192.3	225.0	64.6	203.3	35.2	573.00
1.38	1.11	4.57	1 35	0.120	0.035	0.122	0.000	573.00	350.00
0.004117	1.	1.	1.	2	0	0	-203.02	170.00	520.00

1490 NH CARD USED
*SECNO 13964.000

3370 NORMAL BRIDGE, NRD= 14 MIN ELTRD= 581.40 MAX ELLC= 579.60

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
1' INSIDE U/S FACE OF VICTORIA BRIDGE

13964.000	11 70	584 70	0.00	584.68	584.85	0.15	0.71	0.03	573 00
1330.0	317.9	904.9	107.2	292 0	248.1	87.2	206.3	36.1	573.00
1 40	1.09	3.65	1.23	0.120	0.035	0 121	0.000	573.00	350.00
0.002299	237.	237.	237.	2	0	0	-203.02	170.00	520.00

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

1490 NH CARD USED
*SECNO 13965.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.59

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
U/S FACE OF VICTORIA

13965.000	11.74	584 74	0.00	584 71	584.86	0.12	0 00	0.01	573.00
1330.0	181.4	1006 3	142.3	353.0	318.2	165.5	206.3	36.1	573.00
1.40	0.51	3 16	0 86	0.120	0.045	0.106	0 000	573.00	350.00
0.000344	1	1.	1.	2	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14015.000

3470 ENCROACHMENT STATIONS= 350.0 520.0 TYPE= 1 TARGET= 170.000
VALLEY SECTION 50' U/S OF VICTORIA

14015.000	11.81	584.81	0.00	584.79	584.89	0.07	0.01	0.01	573.00
1330.0	226.4	819.1	284.5	360.7	320.0	167.2	207 3	36 3	573.00
1.41	0.63	2 56	1.70	0.080	0.045	0.043	0.000	573.00	350.00
0.000224	50.	50.	50.	0	0	0	0.00	170.00	520.00

1490 NH CARD USED
*SECNO 14287 000
2800 NAT Q1= 910 02 WSEL= 584 89 ENC Q1= 910.02 WSEL= 584 99 RATIO= 0.0000
NAT Q1= 1122. RATIOS LOB, CH, ROB= 0.0222 0 5845 0.3933 WSEL= 584.99

3470 ENCROACHMENT STATIONS= 275 0 510.6 TYPE= 4 TARGET= 0.189
VALLEY SECTION 50' D/S OF N.B. FORT ST.

14287.000	10.42	584.92	0.00	584.89	584.96	0.04	0.06	0.01	583.70
1330.0	0.0	966.0	364.0	0.0	524.4	377.0	212.8	37.6	582.60
1.45	0.00	1.84	0.97	0.000	0.045	0.040	0 000	574 50	275.00
0.000229	272.	272.	272	2	0	0	0.00	235 60	510.60

1490 NH CARD USED
*SECNO 14337.000
2800 NAT Q1= 939.31 WSEL= 584.90 ENC Q1= 939.31 WSEL= 585 00 RATIO= 0.0000
NAT Q1= 1201. RATIOS LOB, CH, ROB= 0.0417 0.4835 0.4748 WSEL= 585.00

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

3470 ENCROACHMENT STATIONS= 449.7 698.2 TYPE= 4 TARGET= 0.218
D/S FACE OF N.B. FORT ST.

14337.000	10.33	584.93	0 00	584.90	584.97	0.04	0 01	0.00	578.40
1330.0	0.0	808.4	521.6	0.0	428.3	492.2	213.8	37.9	578 40
1.46	0 00	1.89	1.06	0.000	0.045	0.040	0.000	574.60	449 70
0.000234	50	50.	50	0	0	0	0.00	248.47	698.17

1490 NH CARD USED
*SECNO 14338.000
2800 NAT Q1= 751.95 WSEL= 584.95 ENC Q1= 588.17 WSEL= 584 95 RATIO= 0.2178
NAT Q1= 752. RATIOS LOB, CH, ROB= 0.0446 0.2800 0.6755 WSEL= 584.95

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 449 7 1010.8 TYPE= 0 TARGET= 0.218
1' INSIDE OF D/S FACE N.B. FORT ST.

14338.000	10.36	584.96	0.00	584.95	584.98	0 01	0.00	0.01	578.40
1330.0	0.0	472 2	857.8	0.0	326.7	1520.6	213.9	37.9	578.40
1.46	0.00	1.45	0.56	0.000	0.035	0.124	0.000	574.60	449.70
0.000505	1.	1.	1.	2	0	0	-137.68	561 06	1010.76

1490 NH CARD USED
*SECNO 14402.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 580.00 MAX ELLC= 581.40

3470 ENCROACHMENT STATIONS= 380.0 700.0 TYPE= 1 TARGET= 320.000
1' INSIDE OF U/S FACE N.B. FORT ST.

14402 000	10.39	584.99	0 00	584.96	585.03	0.04	0.03	0.01	578.40
1330.0	47 7	518 0	764.3	89.6	328.0	475.5	215.9	38.5	578.40
1.47	0.53	1.58	1.61	0.080	0.035	0.040	0.000	574.60	380.00
0.000592	64.	64	64.	0	0	0	-160.96	320.00	700.00

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

1490 NH CARD USED
*SECNO 14403.000
2800 NAT Q1= 958.75 WSEL= 584.96 ENC Q1= 958.75 WSEL= 585.06 RATIO= 0.0000
NAT Q1= 1229. RATIOS LOB, CH, ROB= 0.0443 0.4776 0.4781 WSEL= 585.06

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.63

3470 ENCROACHMENT STATIONS= 449.7 698.4 TYPE= 4 TARGET= 0.220

	U/S FACE N.B	FORT ST.							
14403.000	10.39	584.99	0.00	584.96	585.03	0.04	0.00	0.00	578.40
1330.0	0.0	799.1	530.9	0.0	431.5	505.1	215.9	38.5	578.40
1.47	0.00	1.85	1.05	0.000	0.045	0.040	0.000	574.60	449.70
0.000223	1.	1.	1.	0	0	0	0.00	248.68	698.38

1490 NH CARD USED
*SECNO 14460.000
2800 NAT Q1= 1012.66 WSEL= 584.96 ENC Q1= 1012.66 WSEL= 585.06 RATIO= 0.0000
NAT Q1= 1263. RATIOS LOB, CH, ROB= 0.0256 0.6765 0.2979 WSEL= 585.06

3470 ENCROACHMENT STATIONS= 473.3 768.7 TYPE= 4 TARGET= 0.198

	D/S FACE S.B.	FORT ST.							
14460.000	12.39	584.99	0.00	584.96	585.05	0.06	0.01	0.01	578.90
1330.0	0.0	1115.9	214.1	0.0	517.5	574.3	217.2	38.9	578.90
1.48	0.00	2.16	0.37	0.000	0.040	0.100	0.000	572.60	473.30
0.000200	57.	57.	57.	0	0	0	0.00	295.40	768.70

1490 NH CARD USED
*SECNO 14461.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581.60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000

	1' INSIDE D/S S.B.	FORT ST.							
14461.000	12.40	585.00	0.00	584.97	585.05	0.05	0.00	0.00	578.90
1330.0	30.5	869.1	430.4	68.8	398.6	551.1	217.2	38.9	578.90
1.48	0.44	2.18	0.78	0.080	0.035	0.100	0.000	572.60	370.00
0.000938	1.	1.	1	1	0	0	-176.58	400.00	770.00

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

1490 NH CARD USED
*SECNO 14521.000

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 580.00 MAX ELLC= 581 60

3470 ENCROACHMENT STATIONS= 370.0 770.0 TYPE= 1 TARGET= 400.000
1' INSIDE U/S FACE S.B. FORT ST

14521.000	12.46	585.06	0.00	585.03	585.11	0.05	0.05	0.00	578.90
1330.0	34 5	857.2	438.3	75.5	402.1	566.9	218.7	39.4	578.90
1.49	0.46	2.13	0.77	0.080	0.035	0.100	0.000	572.60	370 00
0.000886	60.	60.	60.	2	0	0	-176.58	400.00	770.00

1490 NH CARD USED
*SECNO 14522.000
2800 NAT Q1= 1032.14 WSEL= 585.02 ENC Q1= 1032.14 WSEL = 585.12 RATIO= 0.0000
NAT Q1= 1289. RATIOS LOB, CH, ROB= 0.0277 0.6703 0.3021 WSEL= 585.12

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.14

3470 ENCROACHMENT STATIONS= 473.3 771 7 TYPE= 4 TARGET= 0.199
U/S FACE S.B. FORT ST.

14522.000	12.45	585.05	0 00	585 02	585.11	0.06	0.00	0 01	578.90
1330.0	0.0	1106.6	223.4	0.0	520.9	598.8	218.7	39.4	578.90
1.49	0.00	2.12	0.37	0.000	0.040	0.100	0.000	572 60	473 30
0.000193	1.	1.	1.	0	0	0	0.00	298.39	771.69

1490 NH CARD USED
*SECNO 14572.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.65

3470 ENCROACHMENT STATIONS= 290.0 710.0 TYPE= 1 TARGET= 420.000
VALLEY SECTION 50' U/S OF S.B. FORT ST.

14572.000	12.39	585.09	0.00	585.05	585.13	0.04	0.01	0.00	584.20
980.0	15.5	766.9	197.5	95.6	409.2	572.4	219.9	39.9	583.40
1.50	0.16	1.87	0.35	0.120	0.045	0.120	0.000	572.70	290 00
0.000248	50.	50.	50	0	0	0	0.00	420.00	710.00

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


CCHV=     0 100 CEHV=     0.300
1490 NH CARD USED
*SECNO 15292.000
 2800 NAT Q1=      407.25  WSEL=      585.27  ENC Q1=      427.45  WSEL=      585.37  RATIO=    -0.0496
 NAT Q1=      435.   RATIOS LOB, CH, ROB=    0.0000  0.9830  0.0170  WSEL=      585.37

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  0.67


3470 ENCROACHMENT STATIONS=       159.0      225.0  TYPE=       4  TARGET=         0.017
 15292.000      10.90      585.30       0.00      585 27     585.40       0.10       0.25       0.02      587.20
     980.0        0.0       980.0        0.0         0 0      383.4        0.0      231.6       43.6      582.80
      1.58       0.00        2.56       0 00       0.000      0.044      0.000      0 000     574.40      164.65
  0.000544       720.        720.       650.           2          0          0       0.00      60.35      225.00


CCHV=     0.300 CEHV=     0.500
*SECNO 15820.000
 2800 NAT Q1=      451.64  WSEL=      585.50  ENC Q1=      451.64  WSEL=      585.60  RATIO=    0.0000
 NAT Q1=      462   RATIOS LOB, CH, ROB=    0.0618  0.8985  0.0398  WSEL=      585.60
3280 CROSS SECTION  15820.00 EXTENDED       0.12 FEET


3470 ENCROACHMENT STATIONS=        78.4      121.0  TYPE=       4  TARGET=         0.023
           VALLEY SECTION 50' D/S OF LAFAYETTE
 15820.000       8.52      585.52       0.00      585.50     585.72       0.20       0.27       0.05      577.70
     980.0       51.8       900.2       28.0        36.3      240.7       32.5      235.7       44.3      578.30
      1.62       1.43        3.74       0.86       0.050      0.035      0.080      0.000     577.00       78.38
 0 000484        350.        528.       550.           1          0          0       0 00      42.61      120.99


*SECNO 15870.000
 2800 NAT Q1=      520.83  WSEL=      585.58  ENC Q1=      520.83  WSEL=      585.68  RATIO=    0.0000
 NAT Q1=      532.   RATIOS LOB, CH, ROB=    0.1114  0.8188  0.0699  WSEL=      585.68
3280 CROSS SECTION  15870.00 EXTENDED       0.20 FEET


3470 ENCROACHMENT STATIONS=        73.9      124 7  TYPE=       4  TARGET=         0.021
           D/S FACE OF LAFAYETTE
 15870 000       8.60      585.60       0.00      585 58     585.75       0.15       0.02       0.01      577.00
     980.0      103.6       816.1       60.3        69.6      240.8       65.2      236 1       44.3      577.00
      1 63       1.49        3.39       0.92       0 050      0.035      0.080      0.000     577.00       73.92
 0.000362        50.         50.        50.            2          0          0       0.00      50 81      124.73
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.65	3.00	0.00	28 00	0.00	168.00	0.00	577.00	577.00

*SECNO 15914 000
2800 NAT Q1= 593.79 WSEL= 586.21 ENC Q1= 593.79 WSEL= 586.31 RATIO= 0.0000
NAT Q1= 609. RATIOS LOB, CH, ROB= 0.1183 0.8035 0.0781 WSEL= 586 31
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION .15914.00 EXTENDED 0.83 FEET

3470 ENCROACHMENT STATIONS= 73 2 126.6 TYPE= 4 TARGET= 0.026
U/S FACE OF LAFAYETTE

15914.000	9 23	586.23	0.00	586.21	586 36	0.13	0.01	0.01	577.00
980.0	109.0	803.7	67.3	79.7	258.4	78.9	236.5	44 4	577.00
1.63	1.37	3.11	0.85	0.050	0.035	0.080	0.000	577.00	73 16
0.000277	44.	44.	44.	0	0	4	0 00	53.42	126 58

*SECNO 15964.000
2800 NAT Q1= 437.51 WSEL= 586.18 ENC Q1= 437.51 WSEL= 586.28 RATIO= 0.0000
NAT Q1= 450. RATIOS LOB, CH, ROB= 0.0997 0.8557 0 0446 WSEL= 586.28
3280 CROSS SECTION 15964.00 EXTENDED 0.79 FEET

3470 ENCROACHMENT STATIONS= 78.5 118.1 TYPE= 4 TARGET= 0.029
VALLEY SECTION 50' U/S OF LAFAYETTE

15964.000	9.19	586.19	0.00	586.18	586.43	0.23	0.02	0.05	577.90
980.0	88.8	859.5	31.7	53.6	210.5	35.1	236.9	44.4	577.80
1.63	1.66	4.08	0.90	0.050	0.035	0.080	0.000	577.00	78.48
0.000513	50.	50.	50.	2	0	0	0 00	39.59	118.07

1490 NH CARD USED
*SECNO 16194.000
2800 NAT Q1= 517.05 WSEL= 586.46 ENC Q1= 517.05 WSEL= 586.56 RATIO= 0.0000
NAT Q1= 528. RATIOS LOB, CH, ROB= 0.0000 0.9287 0.0713 WSEL= 586.56

3470 ENCROACHMENT STATIONS= 775.0 843.7 TYPE= 4 TARGET= 0.021
VALLEY SECTION 50' D/S OF I-75

16194.000	9.99	586.49	0.00	586 46	586.57	0 08	0.10	0.05	637.80
980.0	0.0	931.4	48.6	0.0	403.2	54.6	238.9	44.7	578.60
1.66	0.00	2.31	0.89	0.000	0.045	0.080	0.000	576.50	778.41
0.000371	230	230.	230.	2	0	0	0.00	65.33	843.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16244.000
2800 NAT Q1= 231.58 WSEL= 586.35 ENC Q1= 235.48 WSEL= 586.45 RATIO= -0.0168
NAT Q1= 235. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 586.45

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.39

3470 ENCROACHMENT STATIONS= 818.5 841.5 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

D/S FACE OF I-75 BRIDGE

16244.000	9.89	586.39	0.00	586.35	586.75	0.36	0.04	0.14	653.60
980.0	0.0	980.0	0.0	0.0	202.3	0.0	239.3	44.7	578.60
1.67	0.00	4.84	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.002385	50.	50.	50.	2	0	0	0.00	22.93	841.50

*SECNO 16245.000
2800 NAT Q1= 297.57 WSEL= 586.35 ENC Q1= 302.12 WSEL= 586.45 RATIO= -0.0153
NAT Q1= 302 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 586.45

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3470 ENCROACHMENT STATIONS= 818.5 841.5 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16245.000	9.89	586.39	0.00	586.35	586.76	0.37	0.00	0.00	653.60
980.0	0.0	980.0	0.0	0.0	201.6	0.0	239.3	44.7	578.60
1.67	0.00	4.86	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.001073	1.	1.	1.	0	0	0	-0.77	22.93	841.50

*SECNO 16503.000
2800 NAT Q1= 311.27 WSEL= 586.65 ENC Q1= 315.90 WSEL= 586.75 RATIO= -0.0149
NAT Q1= 316. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 586.75

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

3370 NORMAL BRIDGE, NRD= 6 MIN ELTRD= 603.60 MAX ELLC= 588.10

3470 ENCROACHMENT STATIONS= 818.5 841.5 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

16503.000	10.18	586.68	0.00	586.65	587.03	0.34	0.26	0.01	653.60
980.0	0.0	980.0	0.0	0.0	208.2	0.0	240.5	44.9	578.60
1.68	0.00	4.71	0.00	0.000	0.030	0.000	0.000	576.50	818.57
0.000982	258.	258.	258.	2	0	0	-0.83	22.93	841.50

*SECNO 16504.000
2800 NAT Q1= 246.13 WSEL= 586.72 ENC Q1= 250.09 WSEL= 586.82 RATIO= -0.0161
NAT Q1= 250. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 586.82

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3470 ENCROACHMENT STATIONS= 818.5 841.5 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 603.60 ELREA= 603.60

U/S FACE OF I-75 BRIDGE

16504.000	10.25	586.75	0.00	586.72	587.04	0.29	0.00	0.02	653.60
910.0	0.0	910.0	0.0	0.0	210.7	0.0	240.5	44.9	578.60
1.68	0.00	4.32	0.00	0.000	0.045	0.000	0.000	576.50	818.57
0.001840	1.	1.	1.	2	0	0	0.00	22.93	841.50

*SECNO 16554.000
2800 NAT Q1= 482.49 WSEL= 587.01 ENC Q1= 482.49 WSEL= 587.11 RATIO= 0.0000
NAT Q1= 606 RATIOS LOB, CH, ROB= 0.1470 0.6773 0.1757 WSEL= 587.11
3280 CROSS SECTION 16554.00 EXTENDED 1.73 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.25

3470 ENCROACHMENT STATIONS= 591.9 649.1 TYPE= 4 TARGET= 0.204
VALLEY SECTION 50' U/S OF I-75 BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16554.000	10.43	587.03	0.00	587.01	587.14	0.10	0.03	0.06	578.80
910.0	52.9	773.2	83.9	61.1	279.2	85.7	240.9	44.9	578.90
1.69	0.87	2.77	0.98	0.080	0.045	0.080	0.000	576.60	591.74
0.000364	50.	50.	50.	2	0	0	0.00	57.14	649.08

1490 NH CARD USED
*SECNO 16826.000
2800 NAT Q1= 850.69 WSEL= 587.13 ENC Q1= 850.69 WSEL= 587.23 RATIO= 0.0000
NAT Q1= 929. RATIOS LOB, CH, ROB= 0.1837 0.7039 0.1124 WSEL= 587.23

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.77

3470 ENCROACHMENT STATIONS= 391.3 451.5 TYPE= 4 TARGET= 0.084
VALLEY SECTION 50' D/S OFINDUSTRIAL DR.

16826.000	11.86	587.16	0.00	587.13	587.20	0.04	0.05	0.02	575.40
910.0	144.1	696.9	69.0	158.0	378.0	88.1	244.1	45.3	575.40
1.73	0.91	1.84	0.78	0.060	0.045	0.060	0.000	575.30	391.33
0.000116	272.	272.	272.	2	0	0	0.00	60.21	451.54

1490 NH CARD USED
*SECNO 16876.000
2800 NAT Q1= 737.92 WSEL= 587.12 ENC Q1= 747.76 WSEL= 587.22 RATIO= -0.0133
NAT Q1= 748. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 587.22

3470 ENCROACHMENT STATIONS= 290.0 323.1 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

D/S FACE OF INDUSTRIAL DR.

16876.000	12.55	587.15	0.00	587.12	587.23	0.07	0.01	0.02	574.60
910.0	0.0	910.0	0.0	0.0	415.8	0.0	244.7	45.3	574.60
1.74	0.00	2.19	0.00	0.000	0.036	0.000	0.000	574.60	290.00
0.000150	50.	50.	50.	1	0	0	0.00	33.10	323.10

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.82	3.00	0.00	26.83	0.00	264.00	0.00	574.70	574.60

1490 NH CARD USED
*SECNO 16963 000
2800 NAT Q1= 245.51 WSEL= 587.12 ENC Q1= 718.14 WSEL= 587.22 RATIO= -1.9251
NAT Q1= 718. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 587.22
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 290.0 323.1 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 590.50 ELREA= 590.50

U/S FACE OF INDUSTRIAL DR.

16963 000	12.25	587.15	0.00	587.12	587.23	0.08	0.01	0.00	574.90
910.0	0 0	910 0	0.0	0 0	405 5	0.0	245.6	45.4	574.90
1.75	0.00	2.24	0.00	0.000	0.036	0 000	0.000	574.90	290.00
0 000164	87.	87.	87.	0	0	0	0 00	33.10	323.10

1490 NH CARD USED
*SECNO 17013.000

3470 ENCROACHMENT STATIONS= 304.0 437 0 TYPE= 1 TARGET= 133.000

VALLEY SECTION 50' U/S OF INDUSTRIAL DR.

17013.000	11.03	587.23	0.00	587.28	587.25	0.03	0 01	0.02	585.00
910.0	18.5	766.0	125.5	42.5	562.6	138.7	246.2	45.5	576.20
1.76	0.43	1 36	0.91	0 060	0.053	0.060	0.000	576.20	304.00
0.000129	50.	50.	50.	2	0	0	0.00	108.56	412.56

1490 NH CARD USED
*SECNO 17255.000
2800 NAT Q1= 583.88 WSEL= 587.30 ENC Q1= 650.19 WSEL= 587.40 RATIO= -0.1136
NAT Q1= 738. RATIOS LOB, CH, ROB= 0.0391 0.8808 0.0801 WSEL= 587.40
3280 CROSS SECTION 17255.00 EXTENDED 0.05 FEET

3470 ENCROACHMENT STATIONS= 414.0 461 0 TYPE= 4 TARGET= 0.119

VALLEY SECTION 50' D/S OF PENNN CENTRAL R.R BRIDGE

17255.000	9.35	587.25	0.00	587.30	587.32	0.07	0.04	0.02	578.10
910 0	0.0	910.0	0.0	0.0	434.9	0.0	249.5	45.9	578.10
1.79	0.00	2.09	0.00	0.000	0.041	0 000	0 000	577.90	414.00
0.000262	242.	242.	242.	1	0	0	0.00	47.00	461.00

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

CCHV= 0.300 CEHV= 0.500
*SECNO 17305.000
2800 NAT Q1= 372.94 WSEL= 587.25 ENC Q1= 379.61 WSEL= 587.35 RATIO= -0.0179
NAT Q1= 380. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 587.35

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.54

3470 ENCROACHMENT STATIONS= 356.4 383.6 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

D/S FACE OF PENN CENTRAL R.R. BRIDGE

17305.000	9.30	587.20	0.00	587.25	587.40	0.20	0.02	0.07	577.90
910.0	0.0	910.0	0.0	0.0	253.0	0.0	249.9	46.0	577.90
1.80	0.00	3.60	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000897	50.	50.	50.	2	0	0	0.00	27.20	383.60

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	0.00	27.20	3.20	182.00	0.00	577.90	577.90

*SECNO 17502.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 587.14 BRIDGE VELOCITY= 4.10 CALCULATED CHANNEL AREA= 222.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	EL TRD	WEIRLN
587.98	588.13	0.05	0.	910.	182.	182.	585.50	600.40	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 600.40 ELREA= 600.40

U/S FCE OF PENN CENTRAL R.R. BRIDGE

17502.000	10.05	587.95	0.00	587.85	588.13	0.17	0.72	0.00	577.90
910.0	0.0	910.0	0.0	0.0	273.5	0.0	251.1	46.1	577.90
1.81	0.00	3.33	0.00	0.000	0.045	0.000	0.000	577.90	356.40
0.000468	197.	197.	197	0	0	0	0.00	27.20	383.60

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

1490 NH CARD USED
*SECNO 17552.000
2800 NAT Q1= 578.72 WSEL= 588.02 ENC Q1= 578.72 WSEL= 588.12 RATIO= 0.0000
NAT Q1= 783. RATIOS LOB, CH, ROB= 0.0572 0.7266 0.2162 WSEL= 588.12

3470 ENCROACHMENT STATIONS= 315.0 380.5 TYPE= 4 TARGET= 0.261
VALLEY SECTION 50' U/S OF PENN CENTRAL R.R. BRIDGE

17552.000	10.61	588.11	0.00	588.02	588.18	0.06	0.02	0.03	586.90
910.0	0.0	895.7	14.3	0.0	447.9	28.8	251.5	46.1	585.40
1.82	0.00	2.00	0.50	0.000	0.045	0.080	0.000	577.50	315.00
0.000256	50.	50.	50.	2	0	0	0.00	65.53	380.53

CCHV= 0.100 CEHV= 0.300
*SECNO 17817.000
2800 NAT Q1= 464.40 WSEL= 588.09 ENC Q1= 464.40 WSEL= 588.19 RATIO= 0.0000
NAT Q1= 480. RATIOS LOB, CH, ROB= 0.0169 0.9638 0.0192 WSEL= 588.19

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 41.4 164.4 TYPE= 4 TARGET= 0.032

17817.000	11.29	588.19	0.00	588.09	588.26	0.08	0.08	0.00	588.30
910.0	1.0	906.7	2.3	5.7	409.6	3.9	254.2	46.7	586.50
1.85	0.17	2.21	0.58	0.050	0.045	0.050	0.000	576.90	41.45
0.000384	265.	265.	265.	0	0	0	0.00	104.97	164.39

1490 NH CARD USED
*SECNO 18106.000
2800 NAT Q1= 515.30 WSEL= 588.21 ENC Q1= 515.30 WSEL= 588.31 RATIO= 0.0000
NAT Q1= 595. RATIOS LOB, CH, ROB= 0.1187 0.8592 0.0221 WSEL= 588.31

3265 DIVIDED FLOW

3280 CROSS SECTION 18106.00 EXTENDED 0.31 FEET

3470 ENCROACHMENT STATIONS= 284.1 393.0 TYPE= 4 TARGET= 0.133
VALLEY SECTION 50' D/S OF PORTER AVE.

18106.000	9.31	588.31	0.00	588.21	588.36	0.06	0.10	0.00	588.40
910.0	7.8	902.2	0.0	28.0	463.5	0.0	257.3	47.4	587.70
1.90	0.28	1.95	0.00	0.080	0.045	0.000	0.000	579.00	284.10
0.000313	289.	289.	289.	2	0	0	0.00	106.76	393.00

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

1490 NH CARD USED
*SECNO 18156.000
2800 NAT Q1= 447.28 WSEL= 588.17 ENC Q1= 447.28 WSEL= 588.27 RATIO= 0.0000
NAT Q1= 460. RATIOS LOB, CH, ROB= 0.1405 0.8291 0.0304 WSEL= 588.27

3470 ENCROACHMENT STATIONS= 835.5 887.0 TYPE= 4 TARGET= 0.027
D/S FACE OF PORTER AVE.

18156.000	9.26	588.26	0.00	588.17	588.41	0.15	0.02	0.03	579.00
910.0	122.8	772.0	15.2	87.4	232.4	87.6	257.8	47.5	579.00
1.90	1.41	3.32	0.17	0.060	0.040	0.500	0.000	579.00	835.54
0.000411	50.	50	50.	2	0	0	0.00	51.47	887.01

1490 NH CARD USED
*SECNO 18157.000
2800 NAT Q1= 135.44 WSEL= 587.97 ENC Q1= 138.59 WSEL= 588.07 RATIO= -0.0233
NAT Q1= 141. RATIOS LOB, CH, ROB= 0.0024 0.9827 0.0149 WSEL= 588.07

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.31

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 850.0 875.1 TYPE= 4 TARGET= 0.017
1' INSIDE OF D/S FACE PORTER AVE.

18157.000	9.08	588.08	0.00	587.97	588.49	0.41	0.00	0.08	579.00
910.0	0.0	910.0	0.0	0.0	177.0	0.0	257.8	47.5	579.00
1.90	0.00	5.14	0.00	0.000	0.030	0.000	0.000	579.00	850.00
0.004315	1.	1.	1.	2	0	0	-50.89	25.10	875.10

1490 NH CARD USED
*SECNO 18195.000
2800 NAT Q1= 142.78 WSEL= 588.17 ENC Q1= 145.08 WSEL= 588.27 RATIO= -0.0161
NAT Q1= 150. RATIOS LOB, CH, ROB= 0.0100 0.9690 0.0210 WSEL= 588.27

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 586.70 MAX ELLC= 585.90

3470 ENCROACHMENT STATIONS= 850.0 875.1 TYPE= 4 TARGET= 0.031
1' INSIDE OF U/S FACE OF PORTER AVE.

18195.000	9.26	588.26	0.00	588.17	588.65	0.39	0.16	0.00	579.00
910.0	0.0	910.0	0.0	0.0	181.5	0.0	257.7	47.5	579.00
1.90	0.00	5.01	0.00	0.000	0.030	0.000	0.000	579.00	850.00
0.003979	38.	38.	38.	2	0	0	-50.89	25.10	875.10

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

1490 NH CARD USED
*SECNO 18196.000
2800 NAT Q1= 476.48 WSEL= 588.46 ENC Q1= 476.48 WSEL= 588.56 RATIO= 0.0000
NAT Q1= 491. RATIOS LOB, CH, ROB= 0.1493 0.8166 0.0341 WSEL= 588.56

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.31

3470 ENCROACHMENT STATIONS= 833.6 889.5 TYPE= 4 TARGET= 0.030
U/S FACE OF PORTER AVE.

18196.000	9.54	588.54	0.00	588.46	588.67	0.14	0.00	0.03	579.00
910.0	129.6	762.7	17.7	96.7	239.4	104.2	257.9	47.5	579.00
1.90	1.34	3.19	0.17	0.060	0.040	0.500	0.000	579.00	833.56
0.000363	1.	1.	1.	2	0	0	0.00	55.92	889.48

1490 NH CARD USED
*SECNO 18246.000
2800 NAT Q1= 460.20 WSEL= 588.52 ENC Q1= 460.20 WSEL= 588.62 RATIO= 0.0000
NAT Q1= 514 RATIOS LOB, CH, ROB= 0.2397 0.5877 0.1726 WSEL= 588.62

3470 ENCROACHMENT STATIONS= 1002.2 1135.9 TYPE= 4 TARGET= 0.104
VALLEY SECTION 50' U/S OF PORTER AVE

18246.000	9.60	588.60	0.00	588.52	588.70	0.10	0.02	0.00	579.00
910.0	189.4	597.9	122.7	235.0	201.6	72.0	258.5	47.6	579.00
1.91	0.81	2.97	1.70	0.070	0.045	0.045	0.000	579.00	1002.19
0.000395	50.	50.	50.	2	0	0	0.00	133.68	1135.87

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 18545.000
2800 NAT Q1= 351.58 WSEL= 588.66 ENC Q1= 351.58 WSEL= 588.76 RATIO= 0.0000
NAT Q1= 385. RATIOS LOB, CH, ROB= 0.1174 0.7761 0.1064 WSEL= 588.76

3470 ENCROACHMENT STATIONS= 806.0 999.9 TYPE= 4 TARGET= 0.088
VALLEY SECTION BTWN PORTER AND RAUPP PL.

18545.000	10.14	588.74	0.00	588.66	588.85	0.12	0.15	0.01	588.00
910.0	71.5	776.6	62.0	105.4	264.1	55.0	261.7	48.7	586.60
1.94	0.68	2.94	1.13	0.050	0.045	0.050	0.000	578.60	806.04
0.000679	299.	299.	299	0	0	0	0.00	193.83	999.87

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

CCHV= 0 300 CEHV= 0 500
1490 NH CARD USED
*SECNO 18829 000
2800 NAT Q1= 719.22 WSEL= 588 85 ENC Q1= 719 22 WSEL= 588.95 RATIO= 0.0000
NAT Q1= 747. RATIOS LOB, CH, ROB= 0.4341 0.5555 0.0104 WSEL= 588.95

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.05

3470 ENCROACHMENT STATIONS= 895.5 1136.0 TYPE= 4 TARGET= 0.037
VALLEY SECTION 50' D/S OF RAUPP PL.

18829.000	10 24	588.94	0.00	588.85	588.96	0.02	0.08	0.03	585.20
910.0	384 3	525.7	0.0	708.0	329.5	0.0	266.5	50 1	585 50
2.01	0.54	1.60	0.00	0 080	0.043	0.000	0.000	570.70	895.48
0.000161	284.	284.	284.	2	0	0	0.00	240.52	1136.00

1490 NH CARD USED
*SECNO 18961.000
2800 NAT Q1= 722.98 WSEL= 588.87 ENC Q1= 722.98 WSEL= 588.97 RATIO= 0.0000
NAT Q1= 752. RATIOS LOB, CH, ROB= 0.4354 0.5540 0.0105 WSEL= 588.97

3470 ENCROACHMENT STATIONS= 896.2 1136.0 TYPE= 4 TARGET= 0.039
50' U/S OF RAUPP PL.

18961 000	10 26	588.96	0.00	588 87	588.99	0.02	0.02	0.00	585.20
910.0	384 7	525.3	0.0	709.6	330.3	0.0	269.6	50.9	585.50
2.04	0.54	1.59	0 00	0 080	0.043	0.000	0.000	578.70	896.19
0.000160	132.	132.	132.	0	0	0	0.00	239 81	1136.00

1490 NH CARD USED
*SECNO 19112 000
2800 NAT Q1= 400.11 WSEL= 588 84 ENC Q1= 400.11 WSEL= 588.94 RATIO= 0.0000
NAT Q1= 408. RATIOS LOB, CH, ROB= 0.0080 0.9692 0.0228 WSEL= 588.94

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0 45

3470 ENCROACHMENT STATIONS= 1057.0 1089.4 TYPE= 4 TARGET= 0.020
50' D/S OF DIX

19112 000	9.93	588.93	0.00	588 84	589.11	0.18	0.05	0.08	579.00
910.0	0 0	899.0	11.0	0.0	259.1	52.7	271.9	51.3	579.00
2.05	0.00	3 47	0.21	0.000	0.045	0.500	0.000	579.00	1057.00
0.000795	151.	151.	151.	2	0	0	0.00	32.38	1089.38

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

1490 NH CARD USED
*SECNO 19162.000
2800 NAT Q1= 401.31 WSEL= 588.86 ENC Q1= 401 31 WSEL= 588.96 RATIO= 0.0000
NAT Q1= 410. RATIOS LOB, CH, ROB= 0.0082 0.9686 0.0231 WSEL= 588 96

3470 ENCROACHMENT STATIONS= 1057.0 1088 3 TYPE= 4 TARGET= 0.022
D/S FACE OF DIX RD. BRIDGE

19162.000	9.97	588.97	0.00	588.86	589.15	0.18	0.04	0.00	579.00
910.0	0.0	901.1	8.9	0.0	259.9	45.5	272.3	51.4	579.00
2.06	0 00	3 47	0.20	0.000	0.045	0.500	0.000	579.00	1057.00
0.000791	50.	50.	50	0	0	0	0.00	31.34	1088.34

1490 NH CARD USED
*SECNO 19163.000
2800 NAT Q1= 57.98 WSEL= 588 56 ENC Q1= 59.75 WSEL= 588 66 RATIO= -0.0305
NAT Q1= 60. RATIOS LOB, CH, ROB= 0.0009 0.9927 0.0065 WSEL= 588.66

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0 19

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583 90

3470 ENCROACHMENT STATIONS= 1057.0 1083.1 TYPE= 4 TARGET= 0.007
1' INSIDE D/S FACE DIX RD. BRIDGE

19163.000	9.68	588.68	0.00	588.56	589.44	0.76	0.00	0.29	579.00
910.0	0.0	910.0	0.0	0.0	130 3	0.0	272.3	51.4	579.00
2 06	0.00	6.99	0.00	0.000	0.040	0.000	0.000	579.00	1057.00
0.022953	1.	1.	1	2	0	0	-122.52	26.10	1083.10

1490 NH CARD USED
*SECNO 19263.000
2800 NAT Q1= 166.22 WSEL= 589 62 ENC Q1= 166.22 WSEL= 589.72 RATIO= 0.0000
NAT Q1= 183 RATIOS LOB, CH, ROB= 0 0297 0.9003 0.0700 WSEL= 589.72

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.70

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

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 588.20 MAX ELLC= 583.90

3470 ENCROACHMENT STATIONS= 1057.0 1108 5 TYPE= 4 TARGET= 0.092
1' INSIDE U/S FACE OF DIX RD BRIDGE

19263.000	10 67	589.67	0.00	589.62	590.18	0.52	0 67	0.07	579.00
910.0	0.0	902.8	7 2	0.0	155.9	35.6	272.7	51.4	579.00
2.06	0 00	5.79	0.20	0.000	0.020	0.500	0.000	579.00	1057.00
0.003147	100.	100.	100.	2	0	0	-205.79	51.55	1108.55

1490 NH CARD USED
*SECNO 19264.000
2800 NAT Q1= 498.69 WSEL= 590.07 ENC Q1= 498.69 WSEL= 590.17 RATIO= 0.0000
NAT Q1= 531 RATIOS LOB, CH, ROB= 0.0264 0.9067 0.0670 WSEL= 590 17

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.45

3470 ENCROACHMENT STATIONS= 1057.0 1180.2 TYPE= 4 TARGET= 0.060
U/S FACE OF DIX RD. BRIDGE

19264 000	11.17	590.17	0.00	590.07	590.30	0.13	0.00	0.12	579.00
910.0	0.0	870.0	40.0	0.0	291.5	258.5	272.7	51.5	579.00
2.06	0.00	2 98	0.15	0.000	0.045	0.500	0.000	579.00	1057.00
0.000526	1.	1.	1.	2	0	0	0 00	123.17	1180.17

1490 NH CARD USED
*SECNO 19314.000
2800 NAT Q1= 500.21 WSEL= 590.09 ENC Q1= 500.21 WSEL= 590.19 RATIO= 0.0000
NAT Q1= 533. RATIOS LOB, CH, ROB= 0.0267 0.9055 0.0678 WSEL= 590.19

3470 ENCROACHMENT STATIONS= 1057.0 1181.8 TYPE= 4 TARGET= 0.061
50' U/S DIX RD.

19314.000	11.19	590 19	0.00	590.09	590.33	0.13	0.03	0.00	579.00
910.0	0.0	869.5	40 5	0.0	292.0	263.1	273.3	51.6	579.00
2.07	0.00	2.98	0.15	0.000	0.045	0.500	0.000	579.00	1057.00
0.000523	50.	50	50	0	0	0	0.00	124.80	1181.80

1490 NH CARD USED

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

*SECNO 20080.000
2800 NAT Q1= 471.03 WSEL= 590.38 ENC Q1= 471.03 WSEL= 590.48 RATIO= 0.0000
NAT Q1= 493. RATIOS LOB, CH, ROB= 0.1603 0.7939 0.0458 WSEL= 590.48

3470 ENCROACHMENT STATIONS= 1494.7 1851.9 TYPE= 4 TARGET= 0.045
50' D/S OF FRANK RD

20080.000	10.45	590.55	0.00	590.38	590.66	0.12	0.33	0.00	580.10
910.0	133.3	753.9	22.7	990.3	250.7	165.6	290.6	55.8	580.10
2.15	0.13	3.01	0.14	0.500	0.045	0.500	0.000	580.10	1494.65
0.000363	766.	766	766.	2	0	0	0.00	357.20	1851.85

1490 NH CARD USED
*SECNO 20130.000
2800 NAT Q1= 569.25 WSEL= 590.41 ENC Q1= 569.25 WSEL= 590.51 RATIO= 0.0000
NAT Q1= 610. RATIOS LOB, CH, ROB= 0.1267 0.7869 0.0864 WSEL= 590.51

3470 ENCROACHMENT STATIONS= 1579.9 1926.7 TYPE= 4 TARGET= 0.067
D/S FACE OF FRANK AVE. BRIDGE

20130.000	10.48	590.58	0.00	590.41	590.68	0.10	0.01	0.00	580.10
910.0	92.1	764.8	53.1	465.1	273.2	231.3	291.9	56.2	580.10
2.16	0.20	2.80	0.23	0.218	0.040	0.200	0.000	580.10	1579.93
0.000249	50.	50.	50.	1	0	0	0.00	346.76	1926.69

1490 NH CARD USED
*SECNO 20131.000
2800 NAT Q1= 175.69 WSEL= 590.36 ENC Q1= 175.69 WSEL= 590.46 RATIO= 0.0000
NAT Q1= 177. RATIOS LOB, CH, ROB= 0.1985 0.6377 0.1638 WSEL= 590.46

3265 DIVIDED FLOW

3302 WARNING- CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.33

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1353.0 2693.2 TYPE= 4 TARGET= 0.005
1' INSIDE OF D/S FACE FRANK AVE. BRIDGE

20131.000	10.49	590.59	0.00	590.36	590.68	0.09	0.00	0.00	580.10
910.0	183.0	552.3	174.7	883.6	176.4	573.1	292.0	56.3	580.10
2.16	0.21	3.13	0.30	0.560	0.035	0.200	0.000	580.10	1352.98
0.002265	1.	1.	1.	1	0	0	-280.36	1247.75	2693.23

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

1490 NH CARD USED
*SECNO 20168.000
2800 NAT Q1= 151.55 WSEL= 590.52 ENC Q1= 151.55 WSEL= 590.62 RATIO= 0.0000
NAT Q1= 173. RATIOS LOB, CH, ROB= 0.2314 0.6769 0.0917 WSEL= 590.62

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 588.30 MAX ELLC= 586.70

3470 ENCROACHMENT STATIONS= 1480.2 1922.4 TYPE= 4 TARGET= 0.122
1' INSIDE U/S FACE FRANK AVE BRIDGE

20168.000	10.55	590.65	0.00	590.52	590.83	0.18	0.10	0.05	580.10
910.0	178.5	698.6	33.0	617.5	178.1	143.0	293.0	57.0	580.10
2.16	0.29	3.92	0.23	0.500	0.035	0.500	0.000	580.10	1480.24
0.003519	37.	37	37.	2	0	0	-282.28	442.20	1922.44

1490 NH CARD USED
*SECNO 20169.000
2800 NAT Q1= 600.48 WSEL= 590.63 ENC Q1= 600.48 WSEL= 590.73 RATIO= 0.0000
NAT Q1= 655. RATIOS LOB, CH, ROB= 0.1323 0.7612 0.1065 WSEL= 590.73

3265 DIVIDED FLOW

3302 WARNING- CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.95

3470 ENCROACHMENT STATIONS= 1607.4 2308.9 TYPE= 4 TARGET= 0.083
U/S FACE OF FRANK AVE. BRIDGE

20169.000	10.67	590.77	0.00	590.63	590.86	0.09	0.00	0.03	580.10
910.0	90.7	753.4	66.0	442.9	278.4	428.4	293.1	57.0	580.10
2.16	0.20	2.71	0.15	0.212	0.040	0.200	0.000	580.10	1607.38
0.000226	1.	1.	1.	2	0	0	0.00	686.95	2308.85

1490 NH CARD USED
*SECNO 20269.000
WATER EL=X5 CARD= 590.760

3470 ENCROACHMENT STATIONS= 1619.0 1839.0 TYPE= 1 TARGET= 220.000
100' U/S OF FRANK AVE., CITY OF ALLEN PARK CORPORATE LIMITS

20269.000	10.66	590.76	0.00	590.66	590.86	0.10	0.03	0.00	580.10
910.0	101.4	767.5	41.1	415.6	278.2	115.2	295.3	58.0	580.10
2.17	0.24	2.76	0.36	0.206	0.045	0.200	0.000	580.10	1619.00
0.000297	100	100.	100.	0	0	0	0.00	220.00	1839.00

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

*SECNO 20599.000

3470 ENCROACHMENT STATIONS= 1600.0 1827.0 TYPE= 1 TARGET= 227.000

20599.000	10.46	590.86	0.00	590.76	590.96	0.10	0.10	0.00	580.40
910.0	110.0	765.4	34.6	473.7	272.8	90.8	301.6	59.7	580.40
2.21	0.23	2.81	0.38	0.223	0.045	0.200	0.000	580.40	1600.00
0.000316	330.	330	330.	1	0	0	0.00	227.00	1827.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 21999.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.48

3470 ENCROACHMENT STATIONS= 1550.0 1950.0 TYPE= 1 TARGET= 400.000

21999.000	9.92	591.32	0.00	591.18	591.34	0.02	0.35	0.02	589.40
910.0	52.4	658.0	199.6	97.1	464.6	428.6	337.8	72.2	589.40
2.63	0.54	1.42	0.47	0.050	0.045	0.050	0.000	581.40	1550.00
0.000143	1730.	1730.	1730	2	0	0	0.00	400.00	1950.00

*SECNO 22380.000

3470 ENCROACHMENT STATIONS= 1490.0 1745.0 TYPE= 1 TARGET= 255.000

22380.000	9.67	591.37	0.00	591.23	591.40	0.03	0.06	0.00	589.40
910.0	135.7	689.3	85.1	223.1	455.5	148.6	345.8	75.0	589.40
2.71	0.61	1.51	0.57	0.050	0.045	0.050	0.000	581.70	1490.00
0.000167	381.	381.	381.	2	0	0	0.00	255.00	1745.00

1490 NH CARD USED
*SECNO 23417.000
2800 NAT Q1= 724.37 WSEL= 591.44 ENC Q1= 724.37 WSEL= 591.54 RATIO= 0.0000
NAT Q1= 740. RATIOS LOB, CH, ROB= 0.0472 0.8878 0.0650 WSEL= 591.54

3470 ENCROACHMENT STATIONS= 1843.6 1903.0 TYPE= 4 TARGET= 0.021
D/S FACE OF ALLEN RD.

23417.000	9.49	591.59	0.00	591.44	591.64	0.06	0.23	0.01	582.40
910.0	35.0	822.5	52.5	38.8	413.5	52.1	367.5	80.2	582.40
2.92	0.90	1.99	1.01	0.045	0.040	0.045	0.000	582.10	1843.58
0.000154	1418.	1418.	1418.	1	0	0	0.00	59.37	1902.96

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.00	0.00	20 40	0.00	131.00	0.00	582 10	582.10

1490 NH CARD USED
*SECNO 23629.000
2800 NAT Q1= 1128.40 WSEL= 592.69 ENC Q1= 1128.40 WSEL= 592.79 RATIO= 0.0000
NAT Q1= 1152 RATIOS LOB, CH, ROB= 0.0566 0.8570 0 0865 WSEL= 592.79
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.55

3470 ENCROACHMENT STATIONS= 1841.8 1908.7 TYPE= 4 TARGET= 0.021
U/S FACE OF ALLEN RD

23629.000	10.74	592 84	0.00	592.69	592.88	0.04	0.02	0.00	582.40
920.0	45.7	802.4	71.9	54.0	469.8	78.1	370.2	80.5	582.40
2.95	0.85	1.71	0.92	0 035	0.033	0.035	0 000	582.10	1841.78
0.000065	212.	212.	212.	0	0	2	0.00	64 91	1908.68

1490 NH CARD USED
1490 NH CARD USED
*SECNO 1.000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED
2800 NAT Q1= 690 40 WSEL= 592.71 ENC Q1= 690.40 WSEL= 592.81 RATIO= 0.0000
NAT Q1= 1024. RATIOS LOB, CH, ROB= 0.3657 0.6302 0.0040 WSEL= 592.81

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.61

3470 ENCROACHMENT STATIONS= 2697.1 2799.0 TYPE= 4 TARGET= 0.326
100' U/S OF ALLEN RD.

1.000	10.15	592.85	0.00	592.71	592.89	0.04	0.01	0.00	590.00
920.0	58 7	861.3	0 0	79.3	535.4	0.0	371 6	80.7	590.00
2.97	0.74	1.61	0.00	0.050	0.044	0.000	0.000	582.70	2697.14
0.000175	100.	100.	100.	0	0	0	0.00	101 87	2799.00

CCHV= 0 100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2 000
2800 NAT Q1= 303.96 WSEL= 592.86 ENC Q1= 350.72 WSEL= 592.96 RATIO= -0.1538
NAT Q1= 477. RATIOS LOB, CH, ROB= 0.0063 0.7346 0.2591 WSEL= 592.96

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOBS	L-BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI MIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.50

3470 ENCROACHMENT STATIONS= 2501.0 2569.0 TYPE= 4 TARGET= 0.265

2.000	9.59	592 99	0.00	592 86	593.10	0.11	0.18	0.02	590.00
920.0	0.0	920.0	0 0	0.0	348.3	0.0	378.1	81 8	590.00
3.03	0.00	2.64	0.00	0 000	0.040	0.000	0.000	583.40	2501.00
0.000691	500.	600.	700.	2	0	0	0.00	68.00	2569.00

1490 NH CARD USED
*SECNO 3 000

3470 ENCROACHMENT STATIONS= 2588.0 2640.0 TYPE= 1 TARGET= 52.000

3.000	9.26	593.56	0.00	593 53	593.73	0.17	0.61	0.02	590 00
920 0	60.8	804 2	55.0	42.7	228.5	39.1	384.1	82.9	590.00
3.10	1.43	3 52	1.41	0 060	0.045	0.060	0.000	584.30	2588 00
0.000862	700.	800.	850.	2	0	0	0.00	52.00	2640 00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 4.000
2800 NAT Q1= 237.87 WSEL= 593 55 ENC Q1= 241.63 WSEL= 593 65 RATIO= -0.0158
NAT Q1= 242. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 593.65

3470 ENCROACHMENT STATIONS= 2600 0 2626 5 TYPE= 4 TARGET= 0.000
D/S FACE OF R.R. BRIDGE #1

4 000	9.18	593.58	0.00	593.55	593.82	0.24	0.06	0 03	594.00
920.0	0.0	920.0	0.0	0 0	235.8	0.0	384.4	82.9	594.00
3 10	0.00	3.90	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001483	50.	50.	50	2	0	0	0 00	26.50	2626 50

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3 00	575 00	26.50	2.50	151.20	0.00	584.70	584 70

1490 NH CARD USED
*SECNO 5.000

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

PRESS FLOW BECAUSE EGLWC OF 594.51 EXCEEDS 1.5 DEPTH
2800 NAT Q1= 264.07 WSEL= 594.25 ENC Q1= 270.65 WSEL= 594.35 RATIO= -0.0249
NAT Q1= 292. RATIOS LOB, CH, ROB= 0.0073 0.9279 0.0648 WSEL= 594.35
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 2600.0 2626.5 TYPE= 4 TARGET= 0.072
U/S FACE OF R.R. BRIDGE #1

5.000	9.87	594.27	0.00	594.25	594.48	0.20	0.09	0.01	594.00
920.0	0.0	920.0	0.0	0.0	254.2	0.0	384.8	83.0	594.00
3.11	0.00	3.62	0.00	0.000	0.045	0.000	0.000	584.40	2600.00
0.001195	70.	70.	70.	0	0	0	0.00	26.50	2626.50

1490 NH CARD USED
*SECNO 6.000
2800 NAT Q1= 388.11 WSEL= 594.43 ENC Q1= 388.11 WSEL= 594.53 RATIO= 0.0000
NAT Q1= 406. RATIOS LOB, CH, ROB= 0.0442 0.9324 0.0234 WSEL= 594.53

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.43

3470 ENCROACHMENT STATIONS= 2550.0 2647.4 TYPE= 4 TARGET= 0.044
D/S FACE OF RR SPUR NO. 1

6.000	10.54	594.44	0.00	594.43	594.56	0.11	0.06	0.03	593.60
920.0	18.7	900.3	1.1	46.4	327.7	3.7	385.3	83.1	593.60
3.12	0.40	2.75	0.29	0.080	0.045	0.100	0.000	583.90	2550.03
0.000584	70.	70.	70.	2	0	0	0.00	97.35	2647.38

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	11.00	0.00	138.00	2.50	584.00	584.00

1490 NH CARD USED
*SECNO 7.000
6870 D.S. ENERGY OF 594.56 IS HIGHER THAN COMPUTED ENERGY OF 594.47
2800 NAT Q1= 378.68 WSEL= 594.42 ENC Q1= 378.68 WSEL= 594.52 RATIO= 0.0000
NAT Q1= 402. RATIOS LOB, CH, ROB= 0.0356 0.9410 0.0234 WSEL= 594.52
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 2600.6 2643.0 TYPE= 4 TARGET= 0.058
U/S FACE OF RR SPUR NO. 1

7.000	10.54	594.44	0.00	594.42	594.56	0.12	0.01	0.00	593.60
920.0	0.8	919.2	0.0	2.9	327.6	0.0	385.5	83.1	593.60
3.12	0.28	2.81	0.00	0.100	0.045	0.000	0.000	583.90	2600.58
0.000610	17.	17.	17.	0	0	7	0.00	42.42	2643.00

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

1490 NH CARD USED
*SECNO 7.500
2800 NAT Q1= 181.33 WSEL= 594.54 ENC Q1= 181.33 WSEL= 594.64 RATIO= 0.0000
NAT Q1= 251 RATIOS LOB, CH, ROB= 0.1232 0.5553 0.3215 WSEL= 594.64

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.46

3470 ENCROACHMENT STATIONS= 2562.0 2644.5 TYPE= 4 TARGET= 0.277
D/S FACE OF RR SPUR NO 2

7.500	10.56	594.56	0.00	594.54	594.85	0.29	0.21	0.08	592.13
920.0	0.0	704.0	216.0	0.0	144.9	157.8	386.8	83.4	592.13
3.13	0.00	4.86	1.37	0.000	0.045	0.100	0.000	584.00	2562.00
0.002905	180.	180.	180.	2	0	0	0.00	82.45	2644.45

1490 NH CARD USED
*SECNO 7.600

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2562.0 2644.0 TYPE= 1 TARGET= 82.000

7.600	10.65	594.65	0.00	594.67	594.87	0.22	0.00	0.02	592.13
920.0	0.0	592.7	327.3	0.0	132.2	161.5	386.8	83.4	592.13
3.13	0.00	4.48	2.03	0.000	0.045	0.100	0.000	584.00	2562.00
0.006201	1.	1.	1.	2	0	0	-15.10	82.00	2644.00

1490 NH CARD USED
*SECNO 7.700
2800 NAT Q1= 130.65 WSEL= 594.73 ENC Q1= 130.65 WSEL= 594.83 RATIO= 0.0000
NAT Q1= 210 RATIOS LOB, CH, ROB= 0.1687 0.3811 0.4502 WSEL= 594.83

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 592.25 MAX ELLC= 591.25

3470 ENCROACHMENT STATIONS= 2562.0 2649.0 TYPE= 4 TARGET= 0.377

7.700	10.76	594.76	0.00	594.73	594.95	0.19	0.07	0.01	592.13
920.0	0.0	564.8	355.2	0.0	133.7	181.6	386.9	83.4	592.13
3.13	0.00	4.22	1.96	0.000	0.045	0.100	0.000	584.00	2562.00
0.005434	12.	12.	12.	2	0	0	-15.28	87.03	2649.03

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

1490 NH CARD USED
*SECNO 7.800
2800 NAT Q1= 192.30 WSEL= 594.70 ENC Q1= 192.30 WSEL= 594.80 RATIO= 0.0000
NAT Q1= 271. RATIOS LOB, CH, ROB= 0.1302 0.5271 0.3426 WSEL= 594.80

3302 WARNING. CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.45

3470 ENCROACHMENT STATIONS= 2562 0 2647.7 TYPE= 4 TARGET= 0 291
U/S FACE OF RR SPUR NO. 2

7.800	10.73	594.73	0.00	594.70	594.99	0 25	0.00	0.03	592.13
920.0	0.0	679.8	240.2	0 0	147.3	177.5	386.9	83.4	592.13
3.13	0.00	4.61	1.35	0 000	0.045	0.100	0.000	584 00	2562.00
0 002584	1.	1	1.	2	0	0	0.00	85.66	2647.66

1490 NH CARD USED
*SECNO 8.000
2800 NAT Q1= 345 35 WSEL= 595 27 ENC Q1= 352.76 WSEL= 595.37 RATIO= -0 0215
NAT Q1= 424 RATIOS LOB, CH, ROB= 0.1182 0.8313 0 0505 WSEL= 595.37

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.91

3470 ENCROACHMENT STATIONS= 2800.0 2843.0 TYPE= 4 TARGET= 0 169

8.000	10.13	595.33	0.00	595.27	595.47	0.14	0.45	0.03	594 30
920.0	0.0	920.0	0.0	0 0	308.4	0.0	389.6	83.9	594 30
3.17	0.00	2.98	0.00	0.000	0.044	0.000	0.000	585.20	2800.00
0.000711	370.	370.	370.	2	0	0	0.00	43.00	2843.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 9.000
2800 NAT Q1= 252.07 WSEL= 595.28 ENC Q1= 264.20 WSEL= 595.38 RATIO= -0.0481
NAT Q1= 333. RATIOS LOB, CH, ROB= 0.0788 0.7942 0.1270 WSEL= 595.38

3470 ENCROACHMENT STATIONS= 2800.0 2826.0 TYPE= 4 TARGET= 0.206
D/S FACE OF R.R. BRIDGE #2

9.000	10.04	595.34	0.00	595.28	595 56	0.21	0.05	0 04	594.30
920.0	0.0	920 0	0.0	0.0	248.1	0 0	389.9	84.0	594.30
3.17	0.00	3.71	0.00	0.000	0.044	0.000	0.000	585.30	2800.00
0.001267	50.	50	50.	2	0	0	0.00	26.00	2826.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1	25	1.50	3.00	576.00	26.00	2.00	132.00	0.00	585.30	585.30

1490 NH CARD USED
*SECNO 10.000
2800 NAT Q1= 285 55 WSEL= 596.17 ENC Q1= 293.28 WSEL= 596 27 RATIO= -0.0271
NAT Q1= 313. RATIOS LOB, CH, ROB= 0.0276 0.9381 0.0343 WSEL= 596.27
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 2800.0 2826 0 TYPE= 4 TARGET= 0.062
U/S FACE OF R.R. BRIDGE #2

10 000	10.94	596 24	0.00	596.17	596.42	0.18	0.06	0.01	595 80
920.0	0.0	920.0	0.0	0.0	271 4	0.0	390.2	84.0	595.80
3.17	0.00	3.39	0.00	0.000	0.045	0.000	0.000	585.30	2800.00
0.001007	50	50.	50	0	0	0	0.00	26 00	2826.00

1490 NH CARD USED
*SECNO 11.000
2800 NAT Q1= 630.92 WSEL= 596.38 ENC Q1= 630.92 WSEL= 596.48 RATIO= 0.0000
NAT Q1= 1963. RATIOS LOB, CH, ROB= 0 3922 0.1707 0.4371 WSEL= 596.48

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.11

3470 ENCROACHMENT STATIONS= 2766.9 2883.8 TYPE= 4 TARGET= 0.679

11 000	11.04	596.44	0.00	596 38	596.48	0.04	0.02	0.04	590.00
920.0	142.7	499.5	277.8	209.7	237.3	385.3	390.8	84.1	590 00
3.18	0 68	2.10	0.72	0.100	0.045	0.100	0.000	585.40	2766.86
0 000225	50.	50.	50.	2	0	0	0.00	116.97	2883.83

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 12 000
2800 NAT Q1= 635.22 WSEL= 596 68 ENC Q1= 635.22 WSEL= 596.78 RATIO= 0.0000
NAT Q1= 1951 RATIOS LOB, CH, ROB= 0.5682 0.1752 0.2586 WSEL= 596.78

3470 ENCROACHMENT STATIONS= 2715.7 2826 0 TYPE= 4 TARGET= 0 674
100' D/S OF STUDY LIMIT(I-94) BRIDGE. END OF CONVERGENCE RUN

12.000	10 45	596.75	0.00	596.68	596 79	0.04	0 31	0.00	590.00
920.0	421.1	498.9	0.0	568.9	242.1	0.0	417.1	87.7	590.00
3.45	0.74	2.06	0.00	0.100	0.039	0.000	0.000	586.30	2715.73
0.000216	1300.	1425.	1550.	2	0	0	0.00	110.28	2826.00

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

1490 NH CARD USED
*SECNO 13.000
2800 NAT Q1= 595.44 WSEL= 596.67 ENC Q1= 595.44 WSEL= 596.77 RATIO= 0.0000
NAT Q1= 606. RATIOS LOB, CH, ROB= 0.0963 0.7760 0.1277 WSEL= 596.77

3470 ENCROACHMENT STATIONS= 2970.5 3028.4 TYPE= 4 TARGET= 0.018
D/S FACE OF E. BOUND I-94 SURVEY STATION 51+32

13.000	10.64	596.74	0.00	596.67	596.83	0.09	0.02	0.02	586.60
920.0	84.1	722.0	113.9	99.2	264.8	126.7	418.6	87.9	586.10
3.46	0.85	2.73	0.90	0.080	0.040	0.080	0.000	586.10	2970.45
0.000238	100	100.	100.	2	0	0	0.00	57.91	3028.36

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	990.00	25.50	1.50	202.80	0.00	585.85	585.85

1490 NH CARD USED
*SECNO 68.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 596.71 BRIDGE VELOCITY= 3.53 CALCULATED CHANNEL AREA= 261.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.21	597.24	0.01	0.	920.	203.	203.	594.30	598.60	0.

U/S FACE OF E. BOUND I-94 SURVEY STATION 50+64

68.000	11.67	597.17	0.00	597.07	597.24	0.07	0.41	0.00	585.50
920.0	120.1	693.3	106.5	163.5	288.7	150.5	419.5	88.0	586.20
3.47	0.73	2.40	0.71	0.080	0.040	0.080	0.000	585.50	2956.98
0.000166	68.	68.	68	0	0	0	0.00	80.95	3037.93

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 189.000
2800 NAT Q1= 702.25 WSEL= 597.11 ENC Q1= 702.25 WSEL= 597.21 RATIO= 0.0000
NAT Q1= 717. RATIOS LOB, CH, ROB= 0.2700 0.6237 0.1063 WSEL= 597.21

3470 ENCROACHMENT STATIONS= 2963.7 3029.9 TYPE= 4 TARGET= 0.021
D/S FACE OF W. BOUND I-94 SURVEY STATION 49+43

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
189.000	10.80	597.20	0.00	597.11	597.27	0.06	0.02	0.00	586.40
920.0	248.5	580.8	90.6	157.9	257.5	123.2	421.1	88.2	587.80
3.49	1.57	2.26	0.74	0.040	0.040	0.080	0.000	586.40	2963.70
0.000169	121.	121	121.	1	0	0	0.00	64.22	3029.92

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	1000.00	25.50	1.50	207.60	0.00	585.95	585.95

1490 NH CARD USED
*SECNO 253.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 597.18 BRIDGE VELOCITY= 3.41 CALCULATED CHANNEL AREA= 270.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
597.66	597.67	0.01	0	920.	208	208.	594.60	599.10	0.

U/S FACE OF W. BOUND I-94 SURVEY STATION 48+79

253.000	11.68	597.58	0.00	597.48	597.67	0.09	0.40	0.00	585.90
920.0	129.1	751.3	39.6	163.7	290.2	61.9	421.8	88.3	586.50
3.50	0.79	2.59	0.64	0.080	0.040	0.080	0.000	585.90	2951.97
0.000191	64	64	64.	0	0	0	0.00	64.70	3016.67

1490 NH CARD USED
*SECNO 353.000
2800 NAT Q1= 868.16 WSEL= 597.52 ENC Q1= 868.16 WSEL= 597.62 RATIO= 0.0000
NAT Q1= 887. RATIOS LOB, CH, ROB= 0.2569 0.6718 0.0713 WSEL= 597.62

3470 ENCROACHMENT STATIONS= 2501.9 2614.0 TYPE= 4 TARGET= 0.021
100' U/S OF W. BOUND I-94

353.000	11.61	597.61	0.00	597.52	597.69	0.08	0.02	0.00	588.00
1430.0	359.8	980.1	90.1	371.4	373.7	118.9	423.4	88.5	590.00
3.51	0.97	2.62	0.76	0.090	0.045	0.090	0.000	586.00	2501.94
0.000272	100.	100.	100.	1	0	0	0.00	112.04	2613.98

*SECNO 553.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	EI MIN	GSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2800 NAT Q1= 876.27 WSEL= 597.58 ENC Q1= 876.27 WSEL= 597.68 RATIO= 0.0000
NAT Q1= 896. RATIOS LOB, CH, ROB= 0.2578 0.6703 0.0719 WSEL= 597.68

3470 ENCROACHMENT STATIONS= 2502.1 2613.8 TYPE= 4 TARGET= 0 022

553 000	11.67	597.67	0.00	597.58	597.75	0.08	0.05	0.00	588.00
1430.0	360.8	979 0	90.2	374.1	375.7	119.5	427.4	89.0	590 00
3.54	0.96	2.61	0.75	0.090	0.045	0 090	0.000	586.00	2502.15
0.000266	200.	200.	200.	0	0	0	0.00	111.63	2613.78

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 1832.000
2800 NAT Q1= 597.05 WSEL= 598.01 ENC Q1= 597.05 WSEL= 598.11 RATIO= 0.0000
NAT Q1= 619. RATIOS LOB, CH, ROB= 0.0561 0.8512 0 0927 WSEL= 598.11
3280 CROSS SECTION 1832.00 EXTENDED 1 60 FEET

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.68

3470 ENCROACHMENT STATIONS= 574 2 693.2 TYPE= 4 TARGET= 0.035
U/S JFK PARK SURVEY STATION 33+00

1832.000	10.70	598.10	0.00	598.01	598.27	0.17	0.48	0.05	594.70
1430.0	56.3	1262 8	110.9	62.0	363.7	117.3	447.7	92.4	593.30
3.65	0.91	3.47	0.95	0.070	0.040	0.070	0.000	587 40	574.24
0.000577	1150.	1279.	1350.	2	0	0	0.00	118.95	693.19

CCHV= 0 100 CEHV= 0.300
1490 NH CARD USED
*SECNO 2132.000
2800 NAT Q1= 598.01 WSEL= 598.21 ENC Q1= 598.01 WSEL= 598.31 RATIO= 0.0000
NAT Q1= 619. RATIOS LOB, CH, ROB= 0.0561 0.8511 0.0927 WSEL= 598.31
3280 CROSS SECTION 2132.00 EXTENDED 1.60 FEET

3470 ENCROACHMENT STATIONS= 573.3 694 2 TYPE= 4 TARGET= 0.034

2132.000	10 70	598.30	0.00	598.21	598.47	0.17	0.20	0.00	594.90
1430.0	57.2	1261.2	111.6	63.5	363.5	118.7	452.0	93.3	593.50
3.68	0.90	3.47	0.94	0.070	0.040	0.070	0.000	587.60	573 26
0.000577	400.	350.	300.	0	0	0	0.00	120.96	694.22

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

CCHV= 0 300 CEHV= 0 500
1490 NH CARD USED
*SECNO 2536.000

3470 ENCROACHMENT STATIONS= 680.0 820 0 TYPE= 1 TARGET= 140 000
D/S FACE SURVEY 25+45

2536.000	10.59	598.59	0.00	598.51	598.70	0.10	0.21	0.02	595.30
1430.0	54.1	1290.7	85.2	75.0	474.9	72.8	457.5	74.5	595.50
3.72	0.72	2.72	0.92	0.070	0 040	0.070	0 000	580.00	680.00
0 000472	450	404.	375.	2	0	0	0.00	140.00	820.00

SPECIAL BRIDGE

SB XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3 00	0.00	16.00	0.00	88.00	0.00	588.00	588 00

1490 NH CARD USED
*SECNO 2541 000
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
604.74	598 70	0.00	1217	214.	88	88.	593.50	595.30	117.

3470 ENCROACHMENT STATIONS= 680.0 820.0 TYPE= 1 TARGET= 140.000
U/S FACE SURVEY 25+40

2541.000	10.63	598.63	0.00	598.58	598.73	0 10	0.03	0.00	595.30
1430.0	55.1	1289.1	85.8	76.3	477.4	93.9	457.6	74.5	595 50
3.73	0 72	2.70	0.91	0.070	0.040	0.070	0.000	580.00	680.00
0.000463	5.	5.	5.	2	0	5	0.00	140.00	820.00

1490 NH CARD USED
*SECNO 2591.000

3470 ENCROACHMENT STATIONS= 697 0 817.0 TYPE= 1 TARGET= 120.000
50' U/S OF FOOTBRIDGE

2591.000	10.65	598.65	0.00	598.60	598.76	0.11	0.02	0.00	595.30
1430.0	33.1	1318.0	78.9	43.9	479.1	85.1	458.3	74.7	595.50
3.73	0.75	2.75	0.93	0.070	0.040	0.070	0 000	588.00	697.00
0.000478	50.	50.	50.	0	0	0	0.00	120.00	817.00

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

1490 NH CARD USED
*SECNO 2941.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1 55

3470 ENCROACHMENT STATIONS= 624.0 744.0 TYPE= 1 TARGET= 120.000
400' U/S OF FOOTBRIDGE

2941.000	11 03	598 83	0.00	598.75	598 88	0.05	0.10	0.02	587.80
1430 0	596.9	344.0	489.1	456 8	132.3	330.4	464.4	75.6	587 80
3.79	1 31	2.60	1 48	0.058	0.040	0.055	0 000	587.80	624.00
0.000200	350.	350.	350.	1	0	0	0.00	120.00	744.00

1490 NH CARD USED
*SECNO 3287.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.47

3470 ENCROACHMENT STATIONS= 1040.0 1180.0 TYPE= 1 TARGET= 140.000
D/S FACE LARME ST., 9 CULVERTS SURVEY STATION 17+94

3287 000	10.72	598 92	0.00	598.82	599.05	0.13	0.13	0.04	595.00
1430.0	294 5	722.3	413.2	195.9	188 9	271.1	470.7	96.7	595.00
3.82	1.50	3.82	1.52	0.070	0.040	0.070	0.000	583.20	1040.00
0.000898	346.	346.	346.	2	0	0	0.00	140.00	1180.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	3.91	3.00	200.00	15.70	1.00	78.00	0.00	588.20	588.20

1490 NH CARD USED
*SECNO 3487.000
6870 D.S. ENERGY OF 599.05 IS HIGHER THAN COMPUTED ENERGY OF 598.94
PRESSURE AND WEIR FLOW. Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
619.32	599.07	0.02	1387.	43.	78.	78.	593.50	595.50	200.

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

3470 ENCROACHMENT STATIONS= 1050.0 1190.0 TYPE= 1 TARGET= 140.000
U/S FACE KEPPEN ST. SURVEY STA. 15+94

3487.000	10.72	598.92	0.00	598.81	599.05	0.13	0.00	0.00	595.00
1430.0	233.0	721.4	475.5	157.1	189.1	311.0	473.7	97.3	595.00
3.85	1.48	3.81	1.53	0.070	0.040	0.070	0.000	588.20	1050.00
0.000893	200.	200.	200.	1	0	14	0.00	140.00	1190.00

1490 NH CARD USED
*SECNO 3776.000
2800 NAT Q1= 663.34 WSEL= 599.06 ENC Q1= 663.34 WSEL= 599.16 RATIO= 0.0000
NAT Q1= 692. RATIOS LOB, CH, ROB= 0.3027 0.3929 0.3044 WSEL= 599.16

3470 ENCROACHMENT STATIONS= 1002.0 1199.3 TYPE= 4 TARGET= 0.042
D/S FACE RUSSELL ST. CULVERTS SURVEY STATION 13+05

3776.000	10.19	599.19	0.00	599.06	599.25	0.06	0.18	0.02	595.00
1430.0	421.8	584.0	424.2	368.9	212.0	370.9	479.1	98.4	595.00
3.89	1.14	2.76	1.14	0.070	0.040	0.070	0.000	589.00	1001.96
0.000457	289.	289	289.	2	0	0	0.00	197.36	1199.32

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.31	3.00	200.00	14.56	1.00	64.00	0.00	589.00	589.00

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED
*SECNO 3843.000
6870 D.S ENERGY OF 599.25 IS HIGHER THAN COMPUTED ENERGY OF 599.21
2800 NAT Q1= 665.26 WSEL= 599.06 ENC Q1= 665.26 WSEL= 599.16 RATIO= 0.0000
NAT Q1= 692. RATIOS LOB, CH, ROB= 0.3027 0.3928 0.3044 WSEL= 599.16
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 1001.6 1199.7 TYPE= 4 TARGET= 0.039
U/S FACE RUSSELL ST. CULVERTS SURVEY STA. 12+38

3843.000	10.19	599.19	0.00	599.06	599.25	0.06	0.03	0.00	595.00
1430.0	422.6	582.4	425.0	370.5	212.0	372.6	480.5	98.7	595.00
3.90	1.14	2.75	1.14	0.070	0.040	0.070	0.000	589.00	1001.59
0.000454	67.	67.	67.	0	0	13	0.00	198.09	1199.68

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

1490 NH CARD USED
*SECNO 4234.000
2800 NAT Q1= 559.08 WSEL= 599.24 ENC Q1= 559.08 WSEL= 599.34 RATIO= 0.0000
NAT Q1= 584. RATIOS LOB, CH, ROB= 0.2406 0.5197 0.2398 WSEL= 599.34

3470 ENCROACHMENT STATIONS= 1400.1 1530.5 TYPE= 4 TARGET= 0.043
D/S FACE OF WATSON AVE. STA. 8+47

4234.000	11.06	599.36	0.00	599.24	599.47	0.11	0.20	0.02	595.00
1430.0	325.2	766.7	338.1	240.0	230.3	239.0	487.4	100.1	595.00
3.94	1.36	3.33	1.41	0.070	0.040	0.070	0.000	588.30	1400.13
0.000631	270.	391.	430.	1	0	0	0.00	130.32	1530.45

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.00	3.00	130.00	13.90	1.00	80.00	0.00	588.30	588.30

1490 NH CARD USED
*SECNO 4294.000
6870 D.S. ENERGY OF 599.47 IS HIGHER THAN COMPUTED ENERGY OF 599.42
2800 NAT Q1= 560.17 WSEL= 599.24 ENC Q1= 560.17 WSEL= 599.34 RATIO= 0.0000
NAT Q1= 584. RATIOS LOB, CH, ROB= 0.2406 0.5197 0.2398 WSEL= 599.34
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 1399.9 1530.7 TYPE= 4 TARGET= 0.042
U/S FACE OF WATSON AVE. STA. 7+87

4294.000	11.07	599.37	0.00	599.24	599.47	0.10	0.04	0.00	595.00
1430.0	338.5	757.9	333.6	240.4	230.2	239.5	488.4	100.3	595.00
3.95	1.41	3.29	1.39	0.070	0.040	0.070	0.000	588.30	1399.92
0.000618	60.	60	60.	0	0	7	0.00	130.73	1530.66

1490 NH CARD USED
*SECNO 4610.000
2800 NAT Q1= 403.51 WSEL= 599.46 ENC Q1= 403.51 WSEL= 599.56 RATIO= 0.0000
NAT Q1= 563. RATIOS LOB, CH, ROB= 0.2194 0.5577 0.2229 WSEL= 599.56

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 0.70

3470 ENCROACHMENT STATIONS= 1431.9 1498.8 TYPE= 4 TARGET= 0.283
D/S FACE OF EUCLID AVE CULVERTS SURVEY 4+71

4610.000	10.95	599.55	0.00	599.46	599.83	0.28	0.27	0.09	595.50
1430.0	153.8	1115.0	161.2	89.7	237.8	93.6	492.5	101.0	595.50
3.97	1.71	4.69	1.72	0.070	0.040	0.070	0.000	588.60	1431.89
0.001262	350.	316	280.	1	0	0	0.00	66.88	1498.77

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1 25	2.04	3.00	130.00	14.22	1.00	78.00	0.00	588.60	588.60

1490 NH CARD USED
*SECNO 4678.000
6870 D.S. ENERGY OF 599.83 IS HIGHER THAN COMPUTED ENERGY OF 599.61
2800 NAT Q1= 403.46 WSEL= 599.46 ENC Q1= 403.46 WSEL= 599.56 RATIO= 0.0000
NAT Q1= 563. RATIOS LOB, CH, ROB= 0.2193 0.5578 0.2229 WSEL= 599.56
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 1431.9 1498.8 TYPE= 4 TARGET= 0.283
U/S FACE OF EUCLID AVE. CULVERTS SURVFY 4+03

4678.000	10.95	599.55	0.00	599 46	599 82	0.28	0.09	0.00	595.50
1430.0	153 6	1115.4	161.0	89.5	237.6	93.4	493.1	101.1	595.50
3.98	1.72	4.70	1.72	0.070	0.040	0 070	0.000	588.60	1431.88
0 001266	68	68.	68.	0	0	7	0 00	66.90	1498.78

1490 NH CARD USED
*SECNO 4853 000
2800 NAT Q1= 489.31 WSEL= 599.61 ENC Q1= 489 31 WSEL= 599 71 RATIO= 0.0000
NAT Q1= 500 RATIOS LOB, CH, ROB= 0.1711 0.6578 0.1711 WSEL= 599.71

3470 ENCROACHMENT STATIONS= 3020.7 3079.3 TYPE= 4 TARGET= 0 021
D/S FACE SOUTHFIELD F/WAY CULVERT, CITY OF ALLEN PARK CORPORATE LIMIT

4853.000	9.74	599.74	0.00	599.61	600.00	0.27	0.18	0.00	590.00
1430.0	239.1	951.8	239.1	127.4	194.7	127.4	494.9	101.3	590.00
3.99	1 88	4.89	1.88	0.070	0.040	0.070	0 000	590.00	3020.69
0.000834	140	175.	200	1	0	0	0 00	58.63	3079.31

CCHV= 0.300 CEHV= 0.500
1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.00	3.00	100.00	20.00	0 00	300.00	0.00	590.40	590 00

*SECNO 5181.000
2800 NAT Q1= 507.03 WSEL= 600.80 ENC Q1= 507.03 WSEL= 600.90 RATIO= 0.0000
NAT Q1= 516. RATIOS LOB, CH, ROB= 0.1574 0.6851 0.1574 WSEL= 600.90
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

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

3470 ENCROACHMENT STATIONS= 3018.2 3081.8 TYPE= 4 TARGET= 0.018
U/S FACE SOUTHFIELD F/WAY CULVERTS

5181.000	10.92	600.92	0.00	600.80	601.15	0.23	0.26	0.01	590.00
1430.0	220.3	989.4	220.3	160.9	218.4	160.9	498.6	101.8	590.00
4.01	1.37	4.53	1.37	0.100	0.045	0.100	0.000	590.00	3018.18
0.000776	328.	328.	328	0	0	0	0.00	63.63	3081.82

1490 NH CARD USED
*SECNO 5336.000
2800 NAT Q1= 478.32 WSEL= 600.96 ENC Q1= 486.45 WSEL= 601.06 RATIO= -0.0170
NAT Q1= 494. RATIOS LOB, CH, ROB= 0.0148 0.9852 0.0000 WSEL= 601.06

3470 ENCROACHMENT STATIONS= 2600.0 2682.0 TYPE= 4 TARGET= 0.015
VALLEY AT FLEMMING DEAD END 27+00

5336.000	9.99	601.09	0.00	600.96	601.35	0.26	0.18	0.02	596.60
1950.0	0.0	1950.0	0.0	0.0	476.7	0.0	500.4	102.0	601.40
4.02	0.00	4.09	0.00	0.000	0.045	0.000	0.000	591.10	2600.00
0.001688	185	155.	125.	1	0	0	0.00	81.50	2681.50

CCHV= 0.400 CEHV= 0.600
1490 NH CARD USED
*SECNO 5486.000
2800 NAT Q1= 438.39 WSEL= 601.22 ENC Q1= 438.39 WSEL= 601.32 RATIO= 0.0000
NAT Q1= 500 RATIOS LOB, CH, ROB= 0.1661 0.7390 0.0949 WSEL= 601.32

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2525.5 2931.5 TYPE= 4 TARGET= 0.124
VALLEY 269+50

5486.000	9.84	601.34	0.00	601.22	601.66	0.32	0.27	0.03	601.30
1950.0	227.1	1651.2	71.7	175.6	337.7	74.5	502.2	102.7	600.20
4.03	1.29	4.89	0.96	0.060	0.045	0.050	0.000	591.50	2525.55
0.001980	150.	150.	150.	1	0	0	0.00	305.13	2931.52

THIS RUN EXECUTED 01SEP92 11:02:20

****
HEC2 RELEASE DATED SEP 88 UPDATED JUN 1990

ERROR CORR - 01,02,03,04
MODIFICATION -
****

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

NORTH BR ECORSE CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1.000	574.90	0.00	575.53	89.83	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	1.000	575.00	0.10	575.61	90.67	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	30.000	574.94	0.00	575.56	90.12	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	30.000	575.04	0.10	575.64	90.94	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	60.000	574.99	0.00	575.60	90.47	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	60.000	575.08	0.10	575.68	91.28	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	61.000	574.92	0.00	575.66	83.03	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	61.000	575.02	0.10	575.74	83.85	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	136.000	575.13	0.00	575.83	84.73	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	136.000	575.22	0.09	575.90	85.49	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	137.000	575.31	0.00	575.87	93.25	0.00	4450.00	0.00	0.00	0.00	500.00	619.00	0.00
	137.000	575.40	0.09	575.95	93.96	0.00	4450.00	0.00	0.00	500.00	500.00	619.00	619.00
	187.000	575.34	0.00	575.97	91.36	0.00	4450.00	0.00	0.00	0.00	331.00	441.00	0.00
	187.000	575.42	0.09	576.05	92.06	0.00	4450.00	0.00	0.00	331.00	331.00	441.00	441.00
*	362.000	575.96	0.00	576.27	146.32	0.00	4450.00	0.00	0.00	0.00	244.00	400.00	0.00
*	362.000	576.03	0.07	576.33	146.67	0.00	4450.00	0.00	0.00	244.00	244.00	400.00	400.00
	737.000	576.24	0.00	576.57	110.42	0.00	4450.00	0.00	116.00	244.00	244.00	400.00	360.00
	737.000	576.29	0.05	576.64	100.00	0.00	4450.00	0.00	100.00	255.00	244.00	400.00	355.00
	787.000	576.24	0.00	576.66	106.60	0.00	4450.00	0.00	0.00	0.00	795.00	901.60	0.00
	787.000	576.30	0.06	576.72	106.60	0.00	4450.00	0.00	0.00	795.00	795.00	901.60	901.60
*	788.000	576.19	0.00	576.71	104.00	0.00	4450.00	0.00	0.00	0.00	795.00	901.60	0.00
*	788.000	576.26	0.06	576.77	104.00	0.00	4450.00	0.00	0.00	795.00	795.00	901.60	901.60

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	798.000	576.33	0.00	576.74	106.60	0.00	4450.00	0.00	0.00	0.00	795.00	901.60	0.00
*	798.000	576.39	0.06	576.80	106.60	0.00	4450.00	0.00	0.00	795.00	795.00	901.60	901.60
	844.000	576.38	0.00	576.79	109.00	0.00	4450.00	0.00	0.00	0.00	815.00	924.00	0.00
	844.000	576.44	0.06	576.85	109.00	0.00	4450.00	0.00	0.00	815.00	815.00	924.00	924.00
*	845.000	576.35	0.00	576.83	102.00	0.00	4450.00	0.00	0.00	0.00	815.00	924.00	0.00
*	845.000	576.41	0.06	576.88	102.00	0.00	4450.00	0.00	0.00	815.00	815.00	924.00	924.00
	859.000	576.41	0.00	576.88	102.00	0.00	4450.00	0.00	0.00	0.00	815.00	924.00	0.00
	859.000	576.46	0.06	576.93	102.00	0.00	4450.00	0.00	0.00	815.00	815.00	924.00	924.00
*	860.000	576.51	0.00	576.91	109.00	0.00	4450.00	0.00	0.00	0.00	815.00	924.00	0.00
*	860.000	576.57	0.06	576.96	109.00	0.00	4450.00	0.00	0.00	815.00	815.00	924.00	924.00
	910.000	576.59	0.00	576.96	107.00	0.00	4450.00	0.00	0.00	0.00	835.00	942.00	0.00
	910.000	576.64	0.05	577.01	107.00	0.00	4450.00	0.00	0.00	835.00	835.00	942.00	942.00
*	911.000	576.55	0.00	577.00	105.00	0.00	4450.00	0.00	0.00	0.00	835.00	942.00	0.00
*	911.000	576.61	0.06	577.05	105.00	0.00	4450.00	0.00	0.00	835.00	835.00	942.00	942.00
	921.000	576.59	0.00	577.04	105.00	0.00	4450.00	0.00	0.00	0.00	835.00	942.00	0.00
	921.000	576.65	0.05	577.09	105.00	0.00	4450.00	0.00	0.00	835.00	835.00	942.00	942.00
*	922.000	576.70	0.00	577.06	107.00	0.00	4450.00	0.00	0.00	0.00	835.00	942.00	0.00
*	922.000	576.76	0.05	577.11	107.00	0.00	4450.00	0.00	0.00	835.00	835.00	942.00	942.00
	953.000	576.64	0.00	577.19	81.00	0.00	4450.00	0.00	0.00	0.00	600.00	681.00	0.00
	953.000	576.69	0.05	577.24	81.00	0.00	4450.00	0.00	0.00	600.00	600.00	681.00	681.00
*	954.000	576.49	0.00	577.35	67.20	0.00	4450.00	0.00	0.00	0.00	600.00	681.00	0.00
*	954.000	576.54	0.05	577.39	67.20	0.00	4450.00	0.00	0.00	600.00	600.00	681.00	681.00
	985.000	576.75	0.00	577.56	67.20	0.00	4450.00	0.00	0.00	0.00	600.00	681.00	0.00
	985.000	576.80	0.05	577.60	67.20	0.00	4450.00	0.00	0.00	600.00	600.00	681.00	681.00
*	986.000	577.15	0.00	577.65	81.00	0.00	4450.00	0.00	0.00	0.00	600.00	681.00	0.00
*	986.000	577.20	0.04	577.69	81.00	0.00	4450.00	0.00	0.00	600.00	600.00	681.00	681.00
	1036.000	577.34	0.00	577.74	120.22	0.00	4450.00	0.00	700.00	0.00	565.00	700.00	700.00
	1036.000	577.38	0.04	577.77	120.47	0.00	4450.00	0.00	0.43	565.00	565.00	700.00	700.00
	1736.000	578.06	0.00	578.37	116.38	0.00	4450.00	0.00	118.50	374.00	374.00	492.50	492.50
	1736.000	578.10	0.03	578.40	116.45	0.00	4450.00	0.00	118.50	374.00	374.00	492.50	492.50
	2436.000	578.53	0.00	578.85	102.00	0.00	4450.00	0.00	102.00	183.00	183.00	285.00	285.00
	2436.000	578.55	0.03	578.87	102.00	0.00	4450.00	0.00	0.06	183.00	183.00	285.00	285.00
*	2736.000	578.97	0.00	579.05	100.00	0.00	1580.00	0.00	100.00	300.00	300.00	400.00	400.00
*	2736.000	579.00	0.02	579.07	100.00	0.00	1580.00	0.00	0.07	300.00	300.00	400.00	400.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	3436.000	579.13	0.00	579.21	100.00	0.00	1580.00	0.00	100.00	300.00	300.00	400.00	400.00
	3436.000	579.15	0.02	579.23	100.00	0.00	1580.00	0.00	0.05	300.00	300.00	400.00	400.00
	3836.000	579.23	0.00	579.36	88.42	0.00	1580.00	0.00	100.00	200.00	200.00	300.00	300.00
	3836.000	579.25	0.02	579.38	88.50	0.00	1580.00	0.00	0.01	200.00	200.00	300.00	300.00
	4311.000	579.43	0.00	579.56	88.44	0.00	1580.00	0.00	90.00	200.00	200.00	300.00	290.00
	4311.000	579.45	0.02	579.58	88.48	0.00	1580.00	0.00	0.01	200.00	200.00	300.00	300.00
	4786.000	579.65	0.00	579.74	104.85	0.00	1580.00	0.00	107.00	393.00	393.00	500.00	500.00
	4786.000	579.67	0.02	579.76	104.97	0.00	1580.00	0.00	0.00	393.00	393.00	500.00	500.00
	4825.000	579.67	0.00	579.76	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
	4825.000	579.69	0.02	579.77	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
	4846.000	579.74	0.00	579.83	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
*	4846.000	579.68	-0.06	579.81	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
	4847.000	579.74	0.00	579.83	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
*	4847.000	579.74	-0.01	579.82	98.00	0.00	1580.00	0.00	98.00	500.00	500.00	598.00	598.00
	5436.000	579.91	0.00	580.02	94.66	0.00	1580.00	0.00	0.00	0.00	494.00	594.00	0.00
	5436.000	579.90	-0.01	580.01	94.70	0.00	1580.00	0.00	0.00	494.00	494.00	594.00	594.00
	5936.000	580.10	0.00	580.20	96.27	0.00	1580.00	0.00	200.00	400.00	494.00	594.00	600.00
	5936.000	580.09	-0.01	580.19	96.24	0.00	1580.00	0.00	0.08	494.00	494.00	594.00	594.00
	6416.000	580.27	0.00	580.43	77.19	0.00	1580.00	0.00	0.00	0.00	560.00	660.00	0.00
	6416.000	580.26	-0.01	580.43	77.16	0.00	1580.00	0.00	0.00	560.00	560.00	660.00	660.00
	6786.000	580.48	0.00	580.63	78.78	0.00	1580.00	0.00	0.00	0.00	560.00	660.00	0.00
	6786.000	580.47	-0.01	580.62	78.76	0.00	1580.00	0.00	0.00	560.00	560.00	660.00	660.00
	6835.000	580.47	0.00	580.71	72.38	0.00	1580.00	0.00	0.00	0.00	560.00	660.00	0.00
	6835.000	580.46	-0.01	580.70	72.35	0.00	1580.00	0.00	0.00	560.00	560.00	660.00	660.00
*	6836.000	580.61	0.00	580.74	73.00	0.00	1580.00	0.00	0.00	0.00	900.00	973.00	0.00
*	6836.000	580.60	-0.01	580.73	73.00	0.00	1580.00	0.00	0.00	900.00	900.00	973.00	973.00
	6916.000	581.10	0.00	581.22	73.00	0.00	1580.00	0.00	0.00	0.00	900.00	973.00	0.00
	6916.000	581.10	-0.01	581.21	73.00	0.00	1580.00	0.00	0.00	900.00	900.00	973.00	973.00
	6917.000	581.09	0.00	581.23	75.16	0.00	1330.00	0.00	0.00	0.00	560.00	660.00	0.00
	6917.000	581.09	-0.01	581.22	75.13	0.00	1330.00	0.00	0.00	560.00	560.00	660.00	660.00
	7436.000	581.34	0.00	581.45	78.15	0.00	1330.00	0.00	100.00	560.00	560.00	660.00	660.00
	7436.000	581.34	-0.01	581.45	78.13	0.00	1330.00	0.00	0.00	560.00	560.00	660.00	660.00
	7936.000	581.52	0.00	581.62	282.71	29.02	1300.98	0.00	0.00	0.00	416.00	550.00	0.00
	7936.000	581.51	-0.01	581.62	101.74	1.56	1328.44	0.00	0.03	325.65	416.00	550.00	550.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	8536.000	581.71	0.00	581.81	133.22	0.30	1329.70	0.00	250.00	150.00	280.00	383.00	400.00
	8536.000	581.71	0.00	581.81	133.44	0 30	1329.70	0 00	250.00	150 00	280.00	383.00	400 00
	9136 000	581 97	0.00	582.02	519.61	0.00	1165.38	164.62	0.00	0.00	140.00	310.00	0 00
	9136.000	581.97	0.00	582 03	326.68	0.00	1219.44	110.56	0.05	140.00	140.00	310.00	472 30
	9586.000	582.10	0 00	582.15	527.48	0.00	1138.65	191 35	0.00	0.00	140.00	250.00	0.00
	9586.000	582.12	0.02	582.20	119.34	0.00	1322.63	7 37	120.00	142.00	140.00	250.00	282.00
	9596.000	582.08	0.00	582.17	200.00	43.34	1286.66	0 00	200.00	245.00	345.00	445.00	445.00
	9596.000	582.11	0.03	582.21	114.77	1.67	1328.33	0.00	0.23	330.23	345 00	445.00	445.00
	10286.000	582.38	0.00	582.46	200 00	66.57	1263.43	0.00	200.00	245.00	345.00	445.00	445.00
	10286.000	582.42	0.04	582 51	154.08	25 75	1304.25	0.00	0.27	290.72	345.00	445.00	445.00
*	10336.000	582.46	0.00	582 48	704.52	222.83	960.72	146.24	0.00	0.00	350.00	445.00	0 00
*	10336.000	582.50	0.04	582.53	225.00	150.98	1139.16	39 86	225.00	247.00	350.00	445.00	472.00
*	10636 000	582.45	0.00	582.58	75.28	0.00	1330.00	0.00	145.00	655.00	655.00	855.00	800.00
*	10636.000	582.51	0.06	582.63	75.55	0.00	1330.00	0 00	0.00	655.00	655.00	855 00	855 00
	11536 000	582 87	0 00	582.97	99.54	0.00	1330.00	0 00	200.00	655.00	655.00	855.00	855.00
	11536.000	582.91	0 05	583.02	100.00	0.00	1330.00	0.00	100.00	678.00	655.00	855.00	778.00
	12274.000	583.17	0.00	583 26	150.00	116.63	1210.14	3.23	150.00	900.00	994.00	1046.00	1050 00
	12274.000	583.20	0.04	583.31	88 59	95.15	1234.85	0.00	0.19	957.41	994.00	1046.00	1046.00
	12324.000	583.17	0.00	583.30	50 10	0.00	1330.00	0.00	145.00	920.00	1014.00	1064.10	1065.00
	12324.000	583 21	0.04	583.34	50.10	0.00	1330.00	0.00	145.00	920 00	1014.00	1064.10	1065.00
*	12325.000	583.14	0.00	583.33	50.10	0.00	1330.00	0.00	145.00	920.00	1014.00	1064.10	1065.00
*	12325.000	583.18	0.04	583.37	50.10	0.00	1330.00	0.00	145.00	920.00	1014.00	1064.10	1065.00
	12367.000	583.22	0.00	583.41	50.10	0.00	1330.00	0.00	145.00	920.00	1014.00	1064.10	1065.00
	12367.000	583 26	0.04	583 45	50.10	0.00	1330.00	0.00	145.00	920.00	1014.00	1064 10	1065.00
*	12368.000	583.37	0.00	583.44	145 00	199.52	1130.12	0.36	145 00	920.00	1014.00	1064.10	1065 00
*	12368.000	583.40	0.03	583.48	124.66	175.41	1154.59	0 00	0.09	939.44	1014.00	1064.10	1064.10
	12418.000	583.38	0.00	583.45	145.00	200.48	1129.16	0.36	145.00	920.00	1014.00	1064.10	1065.00
	12418.000	583.41	0.04	583.49	124.74	176.31	1153.69	0.00	0.09	939.36	1014.00	1064.10	1064 10
*	13295 000	583.67	0 00	583.78	311.30	5.51	1289.17	35 32	398.00	594.00	828.00	705 00	972.00
*	13295.000	583.72	0.04	583.83	91 38	0.00	1320.72	9.28	0.04	828.00	828.00	705.00	920.05
	13676 000	583.85	0.00	583 95	195.00	209.77	1030.55	89.68	195.00	348.00	472.00	508.00	543.00
	13676 000	583.90	0.06	584.01	195.00	212.86	1026.95	90.19	195.00	348.00	472.00	508 00	543 00
	13726.000	583.84	0.00	584.00	170.00	133.33	1059.18	137.50	170.00	350.00	466.50	493.60	520.00
	13726.000	583.90	0.06	584.06	170.00	136.32	1055.82	137.86	170.00	350.00	466.50	493.60	520.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	13727.000	583.79	0.00	584.06	170.00	206.12	1038.03	85.85	170.00	350.00	466.50	493.60	520.00
*	13727.000	583.85	0.06	584.10	170.00	214.21	1028.30	87.49	170.00	350.00	466.50	493.60	520.00
	13964.000	584.68	0.00	584.83	170.00	314.92	908.45	106.62	170.00	350.00	466.50	493.60	520.00
	13964.000	584.70	0.03	584.85	170.00	317.90	904.74	107.16	170.00	350.00	466.50	493.60	520.00
*	13965.000	584.71	0.00	584.84	170.00	180.02	1007.74	142.24	170.00	350.00	466.50	493.60	520.00
*	13965.000	584.74	0.03	584.86	170.00	181.36	1006.29	142.35	170.00	350.00	466.50	493.60	520.00
	14015.000	584.79	0.00	584.86	170.00	224.97	820.61	284.42	170.00	350.00	466.50	493.60	520.00
	14015.000	584.81	0.03	584.89	170.00	226.44	819.10	284.46	170.00	350.00	466.50	493.60	520.00
	14287.000	584.89	0.00	584.93	320.00	20.68	937.76	371.55	320.00	200.00	275.00	345.00	520.00
	14287.000	584.92	0.02	584.96	235.60	0.00	965.97	364.03	0.19	275.00	275.00	345.00	510.50
	14337.000	584.90	0.00	584.94	320.00	42.55	805.69	481.75	320.00	380.00	449.70	501.80	700.00
	14337.000	584.93	0.03	584.97	248.47	0.00	808.38	521.62	0.22	449.70	449.70	501.80	698.17
	14338.000	584.95	0.00	584.95	1218.59	59.27	372.37	898.36	0.00	0.00	449.70	501.80	0.00
*	14338.000	584.96	0.02	584.98	561.06	0.00	472.19	857.81	0.22	449.70	449.70	501.80	1010.76
	14402.000	584.96	0.00	585.00	320.00	46.85	521.59	761.56	320.00	380.00	449.70	501.80	700.00
	14402.000	584.99	0.03	585.03	320.00	47.70	518.03	764.27	320.00	380.00	449.70	501.80	700.00
*	14403.000	584.96	0.00	585.00	320.00	43.70	797.91	488.39	320.00	380.00	449.70	501.80	700.00
*	14403.000	584.99	0.03	585.03	248.68	0.00	799.15	530.85	0.22	449.70	449.70	501.80	698.38
	14460.000	584.96	0.00	585.02	400.00	31.94	1102.80	195.26	400.00	370.00	473.30	526.70	770.00
	14460.000	584.99	0.03	585.05	295.40	0.00	1115.86	214.14	0.20	473.30	473.30	526.70	768.71
*	14461.000	584.97	0.00	585.02	400.00	28.40	875.66	425.94	400.00	370.00	473.30	526.70	770.00
*	14461.000	585.00	0.03	585.05	400.00	30.50	869.15	430.36	400.00	370.00	473.30	526.70	770.00
	14521.000	585.03	0.00	585.08	400.00	32.56	862.88	434.57	400.00	370.00	473.30	526.70	770.00
	14521.000	585.06	0.03	585.11	400.00	34.45	857.21	438.34	400.00	370.00	473.30	526.70	770.00
*	14522.000	585.02	0.00	585.08	400.00	33.91	1095.04	201.04	400.00	370.00	473.30	526.70	770.00
*	14522.000	585.05	0.03	585.11	298.39	0.00	1106.64	223.36	0.20	473.30	473.30	526.70	771.47
*	14572.000	585.05	0.00	585.10	420.00	14.71	769.80	195.49	420.00	290.00	415.00	470.00	710.00
*	14572.000	585.09	0.03	585.13	420.00	15.55	766.93	197.52	420.00	290.00	415.00	470.00	710.00
*	15292.000	585.27	0.00	585.37	60.27	0.00	780.00	0.00	66.00	159.00	159.00	225.00	225.00
*	15292.000	585.30	0.02	585.40	60.35	0.00	980.00	0.00	0.02	159.00	159.00	225.00	225.00
	15820.000	585.50	0.00	585.69	88.01	59.93	883.12	36.75	112.00	50.00	85.00	115.00	162.00
	15820.000	585.52	0.01	585.72	42.61	51.79	900.20	28.01	0.02	78.38	85.00	115.00	120.97
	15870.000	585.58	0.00	585.73	64.51	108.15	804.25	67.60	100.00	50.00	86.00	114.00	150.00
	15870.000	585.60	0.02	585.75	50.81	103.65	816.10	60.26	0.02	73.92	86.00	114.00	124.73

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	15914.000	586.21	0.00	586.33	70 54	114.58	793.80	71.61	100.00	50 00	86.00	114 00	150.00
	15914.000	586.23	0.02	586.36	53.42	108.95	803.72	67.33	0.03	73.16	86.00	114.00	126 58
	15964.000	586.18	0.00	586 40	91.57	96 34	846.98	36.68	150.00	0.00	88.00	112 00	150.00
	15964.000	586.19	0.02	586.43	39.59	88.82	859.49	31.69	0.03	78.48	88.00	112.00	118.07
	16194 000	586.46	0.00	586.54	77.44	0.00	910.95	69 04	0.00	0.00	775 00	835 00	0.00
	16194.000	586.49	0.03	586.57	65.33	0.00	931.09	48.61	0.02	775.00	775.00	835.00	843.75
*	16244.000	586.35	0.00	586.72	22.93	0.00	980.00	0.00	0.00	0.00	818.50	841.50	0.00
*	16244.000	586 39	0.03	586.75	22.93	0 00	980.00	0 00	0.00	818.50	818.50	841.50	841.50
	16245.000	586.35	0.00	586.72	22.93	0.00	980.00	0.00	0.00	0.00	818.50	841.50	0.00
*	16245 000	586 39	0.03	586.76	22.93	0.00	980.00	0 00	0.00	818.50	818.50	841 50	841 50
	16503 000	586 65	0.00	587.00	22.93	0.00	980.00	0.00	0 00	0.00	818.50	841.50	0.00
	16503.000	586.68	0.03	587.03	22.93	0.00	980.00	0 00	0.00	818.50	818.50	841.50	841.50
	16504.000	586.72	0.00	587.02	22.93	0.00	910.00	0.00	0.00	0.00	818.50	841 50	0.00
*	16504.000	586.75	0.03	587.04	22 93	0.00	910.00	0.00	0 00	818.50	818.50	841.50	841.50
*	16554 000	587.01	0.00	587.10	83.03	50.92	760.22	98.85	125.00	558.00	605.00	635.00	683 00
*	16554 000	587 03	0.03	587.14	57.14	52.93	773.17	83.90	0.20	591.74	605.00	635 00	649 00
*	16826.000	587.13	0 00	587.17	62.00	127.12	689.41	93.47	62.00	394.00	410.00	442 00	456.00
*	16826.000	587.16	0.03	587.20	60.21	144.12	696.08	67.00	0.08	391 33	410.00	442.00	451.55
	16876.000	587.12	0 00	587.19	33 10	0.00	910.00	0.00	0.00	0.00	290.00	323.10	0 00
	16876 000	587.15	0.03	587.23	33.10	0.00	910.00	0.00	0.00	290.00	290.00	323.10	323.10
*	16963.000	587.12	0 00	587 26	33.10	0.00	910.00	0.00	0.00	0.00	290.00	323.10	0.00
	16963 000	587.15	0 03	587.23	33 10	0.00	910.00	0.00	0.00	290.00	290.00	323 10	323.10
*	17013 000	587 28	0.00	587 31	108.70	19.02	765 08	125 90	133.00	304.00	324.00	387.00	437.00
	17013.000	587 23	-0.05	587.25	108.56	18 46	766.02	125.52	133.00	304.00	324.00	387.00	437.00
	17255.000	587.30	0 00	587 36	52.00	0.00	883.59	26 41	52.00	414.00	414.00	461.00	466.00
	17255.000	587.25	-0.06	587.32	47 00	0 00	710.00	0.00	0.12	414.00	414.00	461 00	461 00
*	17305.000	587.25	0.00	587.45	27.20	0.00	910.00	0.00	0.00	0.00	356.40	383.60	0.00
*	17305.000	587.20	-0.05	587.40	27.20	0.00	910.00	0.00	0.00	356.40	356.40	383 60	383.60
	17502.000	587.85	0.00	588 03	27 20	0.00	910.00	0 00	0.00	0.00	356.40	383.60	0.00
	17502.000	587 95	0.10	588.13	27.20	0.00	910.00	0.00	0 00	0.00	356.40	383.60	0.00
	17552.000	588.02	0.00	588.08	130.00	21.26	876.14	12.60	130.00	250 00	315.00	370.00	380.00
	17552.000	588.11	0.09	588 18	65.53	0.00	895.67	14 33	0.26	315.00	315.00	370.00	380.53
	17817.000	588.09	0 00	588.17	155.96	7.62	887.01	15.37	221.60	8.80	101.00	162.00	230.40
	17817.000	588.19	0.09	588.26	104 97	0.99	906.74	2.27	0.03	41 45	101.00	162 00	164.37

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	18106.000	588.21	0.00	588.27	170.72	25.79	880.47	3.73	175.00	263.00	320.00	393.00	438.00
	18106.000	588.31	0.09	588.36	106.76	7.83	902.16	0.00	0.13	284.10	320.00	393.00	393.00
	18156.000	588.17	0.00	588.31	121.64	126.33	761.71	21.95	924.00	1.00	850.00	875.10	925.00
	18156.000	588.26	0.09	588.41	51.47	122.84	771.97	15.19	0.03	835.54	850.00	875.10	887.01
*	18157.000	587.97	0.00	588.40	102.35	0.48	909.13	0.39	924.00	1.00	850.00	875.10	925.00
*	18157.000	588.08	0.10	588.49	25.10	0.00	910.00	0.00	0.02	850.00	850.00	875.10	875.10
	18195.000	588.17	0.00	588.56	122.00	5.07	903.42	1.51	724.00	1.00	850.00	875.10	925.00
	18195.000	588.26	0.09	588.65	25.10	0.00	910.00	0.00	0.03	850.00	850.00	875.10	875.10
*	18196.000	588.46	0.00	588.59	160.15	133.78	753.09	23.12	724.00	1.00	850.00	875.10	925.00
*	18196.000	588.54	0.08	588.67	55.92	129.57	762.72	17.71	0.03	833.56	850.00	875.10	889.48
	18246.000	588.52	0.00	588.61	260.00	197.63	586.70	125.67	260.00	710.00	1101.00	1122.00	1170.00
	18246.000	588.60	0.08	588.70	133.68	189.40	597.91	122.69	0.10	1002.19	1101.00	1122.00	1135.87
	18545.000	588.66	0.00	588.77	345.83	96.11	756.63	57.26	420.00	580.00	934.00	976.00	1000.00
	18545.000	588.74	0.08	588.85	193.83	71.47	776.57	61.96	0.09	806.04	934.00	976.00	979.87
*	18829.000	588.85	0.00	588.88	372.00	389.89	514.23	5.88	372.00	793.00	1095.00	1136.00	1165.00
*	18829.000	588.94	0.09	588.96	240.52	384.31	525.69	0.00	0.04	895.48	1095.00	1136.00	1136.00
	18961.000	588.87	0.00	588.90	306.00	390.27	513.81	5.72	306.00	859.00	1095.00	1136.00	1165.00
	18961.000	588.96	0.09	588.99	239.81	384.74	525.26	0.00	0.04	896.19	1095.00	1136.00	1136.00
*	19112.000	588.84	0.00	589.02	231.62	6.84	885.15	18.02	363.00	750.00	1057.00	1089.10	1113.00
*	19112.000	588.93	0.09	589.11	32.38	0.00	899.03	10.97	0.02	1057.00	1057.00	1089.10	1089.38
	19162.000	588.86	0.00	589.04	239.86	6.90	885.03	18.07	363.00	750.00	1057.00	1089.10	1113.00
	19162.000	588.97	0.10	589.15	31.34	0.00	901.09	8.91	0.02	1057.00	1057.00	1089.10	1088.94
*	19163.000	588.56	0.00	589.35	173.90	0.28	906.62	3.10	240.00	950.00	1057.00	1089.10	1170.00
*	19163.000	588.68	0.12	589.44	26.10	0.00	910.00	0.00	0.01	1057.00	1057.00	1089.10	1089.10
*	19263.000	589.62	0.00	590.10	363.00	24.72	877.55	7.73	363.00	750.00	1057.00	1089.10	1113.00
*	19263.000	589.67	0.05	590.18	51.55	0.00	902.79	7.21	0.09	1057.00	1057.00	1089.10	1108.55
*	19264.000	590.07	0.00	590.20	363.00	23.07	865.17	21.76	363.00	750.00	1057.00	1089.10	1113.00
*	19264.000	590.17	0.10	590.30	123.17	0.00	870.03	39.97	0.06	1057.00	1057.00	1089.10	1100.17
	19314.000	590.09	0.00	590.22	383.00	23.46	864.74	21.80	383.00	730.00	1057.00	1089.10	1113.00
	19314.000	590.19	0.11	590.33	124.80	0.00	869.51	40.49	0.06	1057.00	1057.00	1089.10	1101.90
	20080.000	590.38	0.00	590.49	470.00	143.62	744.14	22.24	470.00	1400.00	1765.00	1787.00	1870.00
	20080.000	590.55	0.17	590.66	357.20	133.34	753.92	22.74	0.04	1494.65	1765.00	1787.00	1851.85
	20130.000	590.41	0.00	590.51	470.00	111.95	754.12	43.93	470.00	1420.00	1787.00	1813.10	1870.00
	20130.000	590.58	0.17	590.68	346.76	92.11	764.82	53.07	0.07	1579.73	1787.00	1813.10	1926.69

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	20131.000	590.36	0.00	590.57	470.00	152.45	719.37	38 18	470.00	1420.00	1787.00	1813.10	1870.00
*	20131.000	590.59	0.24	590.68	1247 75	183.02	552.28	174 70	0.01	1352.78	1787.00	1813.10	2693.73
	20168.000	590.52	0.00	590 70	470.00	202.77	685.87	21.36	470 00	1420.00	1787.00	1813 10	1870.00
	20168 000	590.65	0.13	590.83	442.20	178.49	698.55	32.95	0.12	1480.24	1787.00	1813.10	1922.44
*	20169.000	590.63	0.00	590.72	470.00	119.48	743.59	46.93	470.00	1420.00	1787.00	1813.10	1870 00
*	20169.000	590.77	0.13	590.86	686.95	90.67	753.38	65 95	0.08	1607 38	1787.00	1813.10	2308.85
	20269 000	590.66	0.00	590.75	474.00	138.71	732 69	38.60	474.00	1365.00	1787.00	1813.10	1839 00
*	20269.000	590.76	0.10	590.86	220 00	101.45	767.48	41.07	220.00	1619.00	1787.00	1813 10	1839 00
	20599.000	590.76	0.00	590.85	350 00	131.21	745.36	33.43	350 00	1477.00	1787.00	1813.10	1827.00
	20599.000	590.86	0 10	590.96	227.00	110 03	765.41	34.55	227.00	1600.00	1787.00	1813.10	1827.00
*	21999.000	591.18	0.00	591 20	500 00	188.08	588.61	133.31	500.00	1380.00	1600.00	1665.00	1800.00
*	21999.000	591.32	0.14	591.34	400.00	52.40	657.75	199.64	400.00	1550.00	1600.00	1665.00	1950.00
	22380.000	591.23	0.00	591.25	340.00	107.66	660.84	141.50	340.00	1500.00	1600.00	1665.00	1840.00
	22380.000	591.37	0.15	591 40	255 00	135.69	689.26	85.06	255.00	1490.00	1600.00	1665.00	1745.00
	23417.000	591 44	0.00	591.50	68 38	42.52	808.76	58.52	142.00	1838.00	1847.51	1894.76	1980.00
	23417 000	591.59	0.15	591 64	59.37	35.03	822.51	52.46	0.02	1843.58	1847.51	1894.76	1902.76
*	23629.000	592.69	0 00	592.73	142.00	50.85	792.20	76 74	142.00	1838.00	1847.51	1894 76	1980.00
*	23629.000	592.84	0.15	592 88	66.91	45.70	802.36	71.94	0.02	1841.78	1847.51	1894.76	1908 47
*	1 000	592 71	0.00	592.74	230.00	79.56	839.25	1.19	230.00	2685.00	2725.00	2797.00	2915.00
*	1.000	592.85	0.14	592.89	101 87	58.66	861.34	0 00	0.33	2697.14	2725.00	2797.00	2799.00
*	2.000	592.86	0.00	592.97	90.00	0.52	919.48	0.00	90.00	2479.00	2501.00	2567.00	2569.00
*	2.000	592.99	0.13	593.10	68 00	0 00	920.00	0.00	0.27	2501.00	2501.00	2567.00	2569.00
	3.000	593.53	0.00	593.70	52.00	60.50	804.80	54.70	52.00	2588.00	2600.00	2629.00	2640 00
	3.000	593.56	0.03	593.73	52.00	60.82	804.20	54 98	52 00	2588.00	2600 00	2629.00	2640.00
	4.000	593.55	0 00	593.79	26.50	0.00	920.00	0.00	0 00	0.00	2600.00	2626.50	0 00
	4.000	593.58	0 03	593.82	26.50	0.00	920.00	0 00	0.00	2600.00	2600.00	2626.50	2626.50
	5.000	594.25	0.00	594.45	26.50	0.00	920.00	0.00	26.50	2600.00	2600.00	2626.50	2626.50
	5.000	594.27	0.03	594.48	26.50	0.00	920.00	0.00	0.07	2600.00	2600.00	2626.50	2626.50
*	6.000	594.43	0.00	594 53	166.00	31.75	879.86	8.39	166.00	2510 00	2604.00	2643.00	2676.00
*	6.000	594.44	0.02	594 56	97.35	18.65	900.29	1.06	0.04	2550.03	2604.00	2643.00	2647.98
	7 000	594.42	0.00	594.53	200.00	28 52	891.48	0.00	200.00	2443.00	2604.00	2643 00	2643.00
	7.000	594.44	0.02	594.56	42.42	0.81	919.19	0.00	0.06	2600.58	2604 00	2643.00	2643.00
*	7.500	594.54	0.00	594.81	242.00	141.51	694.18	84.31	242.00	2363.00	2562.00	2574.00	2605.00
*	7.500	594.56	0.03	594.85	82.45	0.00	704.03	215.97	0.28	2562.00	2562.00	2574.00	2644.45

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	7.600	594.67	0.00	594.84	242.00	218.54	553.04	147.92	242.00	2368.00	2562.00	2574.00	2610.00
*	7.600	594.65	-0.02	594.87	82.00	0.00	592.66	327.34	82.00	2562.00	2562.00	2574.00	2644.00
	7.700	594.73	0.00	594.90	236.00	225.36	552.11	142.52	236.00	2372.00	2562.00	2574.00	2608.00
	7.700	594.76	0.03	594.95	87.03	0.00	564.84	355.16	0.38	2562.00	2562.00	2574.00	2649.03
*	7.800	594.70	0.00	594.94	236.00	154.20	673.24	92.56	236.00	2370.00	2562.00	2574.00	2606.00
*	7.800	594.73	0.03	594.99	85.66	0.00	679.80	240.20	0.29	2562.00	2562.00	2574.00	2647.66
*	8.000	595.27	0.00	595.41	51.00	1.29	917.43	1.28	51.00	2796.00	2800.00	2843.00	2847.00
*	8.000	595.33	0.07	595.47	43.00	0.00	920.00	0.00	0.17	2800.00	2800.00	2843.00	2843.00
	9.000	595.28	0.00	595.49	26.00	0.00	920.00	0.00	26.00	2800.00	2800.00	2826.00	2826.00
	9.000	595.34	0.07	595.56	26.00	0.00	920.00	0.00	0.21	2800.00	2800.00	2826.00	2826.00
	10.000	596.17	0.00	596.35	26.00	0.00	920.00	0.00	26.00	2800.00	2800.00	2826.00	2826.00
	10.000	596.24	0.07	596.42	26.00	0.00	920.00	0.00	0.06	2800.00	2800.00	2826.00	2826.00
*	11.000	596.38	0.00	596.42	126.00	215.21	480.56	224.23	126.00	2749.00	2800.00	2824.00	2879.00
*	11.000	596.44	0.06	596.48	116.97	142.70	499.52	277.79	0.68	2766.86	2800.00	2824.00	2868.83
	12.000	596.68	0.00	596.72	123.00	229.49	486.05	204.46	123.00	2751.00	2800.00	2826.00	2874.00
	12.000	596.75	0.07	596.79	110.28	421.09	498.91	0.00	0.67	2715.73	2800.00	2826.00	2826.00
	13.000	596.67	0.00	596.76	74.21	87.92	715.42	116.67	0.00	0.00	2985.00	3010.50	0.00
	13.000	596.74	0.07	596.83	57.91	84.06	722.01	113.93	0.02	2970.45	2985.00	3010.50	3028.36
	68.000	597.07	0.00	597.14	80.46	119.42	694.84	105.74	0.00	0.00	2985.00	3010.50	0.00
	68.000	597.17	0.10	597.24	80.95	120.14	693.33	106.53	0.00	0.00	2985.00	3010.50	0.00
	189.000	597.11	0.00	597.17	89.21	247.12	575.92	96.97	0.00	0.00	2986.00	3011.50	0.00
	189.000	597.20	0.09	597.27	66.22	248.55	580.62	90.63	0.02	2963.70	2986.00	3011.50	3029.92
	253.000	597.48	0.00	597.57	64.36	128.29	752.44	39.27	0.00	0.00	2980.00	3005.50	0.00
	253.000	597.58	0.10	597.67	64.70	129.15	751.27	39.58	0.00	0.00	2980.00	3005.50	0.00
	353.000	597.52	0.00	597.60	264.00	362.68	966.60	100.72	264.00	2357.00	2558.00	2592.00	2621.00
	353.000	597.61	0.09	597.69	112.04	359.82	980.12	90.06	0.02	2501.94	2558.00	2592.00	2613.98
	553.000	597.58	0.00	597.65	324.01	364.09	964.53	101.38	400.00	2298.00	2558.00	2592.00	2478.00
	553.000	597.67	0.09	597.75	111.63	360.80	979.00	90.20	0.02	2502.15	2558.00	2592.00	2613.78
*	1832.000	598.01	0.00	598.17	617.80	75.34	1235.77	118.38	720.00	300.00	600.00	645.00	1020.00
*	1832.000	598.10	0.09	598.27	118.95	56.31	1262.78	110.91	0.04	574.24	600.00	645.00	693.19
	2132.000	598.21	0.00	598.37	500.00	77.36	1233.83	118.82	500.00	530.00	600.00	645.00	1030.00
	2132.000	598.30	0.09	598.47	120.96	57.22	1261.18	111.59	0.03	573.26	600.00	645.00	694.12
	2536.000	598.51	0.00	598.59	500.00	38.73	1170.09	221.18	500.00	687.00	717.00	790.00	1187.00
	2536.000	598.59	0.09	598.70	140.00	54.14	1290.68	85.18	140.00	680.00	717.00	790.00	820.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2541.000	598.58	0.00	598.65	500.00	40.08	1164.78	225.14	500.00	687.00	717.00	790.00	1187.00
	2541.000	598.63	0.05	598.73	140.00	55.08	1289.07	85.83	140.00	680.00	717.00	790.00	820.00
	2591.000	598.60	0.00	598.67	500.00	28.67	1173.18	228.14	500.00	697.00	717.00	790.00	1197.00
	2591.000	598.65	0.05	598.76	120.00	33.06	1318.04	78.90	120.00	697.00	717.00	790.00	817.00
*	2941.000	598.75	0.00	598.78	450.00	585.13	311.75	533.12	450.00	610.00	690.00	702.00	1060.00
*	2941.000	598.83	0.08	598.88	120.00	596.92	344.00	489.08	120.00	624.00	690.00	702.00	744.00
*	3287.000	598.82	0.00	598.92	500.00	263.81	661.57	504.62	500.00	1040.00	1090.00	1110.80	1540.30
*	3287.000	598.92	0.10	599.05	140.00	294.51	722.32	413.17	140.00	1040.00	1090.00	1110.80	1180.00
	3487.000	598.81	0.00	598.92	500.00	216.67	689.03	524.30	500.00	1050.00	1090.00	1110.80	1550.00
	3487.000	598.92	0.11	599.05	140.00	233.04	721.43	475.54	140.00	1050.00	1090.00	1110.80	1190.00
	3776.000	599.06	0.00	599.11	500.00	426.45	575.76	427.59	500.00	940.00	1090.00	1110.80	1440.00
	3776.000	599.19	0.13	599.25	197.36	421.83	583.97	424.20	0.04	1001.76	1090.00	1110.80	1199.32
	3843.000	599.06	0.00	599.11	500.00	428.14	575.15	426.71	500.00	890.00	1090.00	1110.80	1390.00
	3843.000	599.19	0.13	599.25	198.09	422.61	582.41	424.97	0.04	1001.59	1090.00	1110.80	1199.60
	4234.000	599.24	0.00	599.34	390.00	337.72	764.05	328.23	390.00	1200.00	1455.00	1475.80	1590.30
	4234.000	599.36	0.12	599.47	130.32	325.21	766.66	338.13	0.04	1400.13	1455.00	1475.80	1530.45
	4294.000	599.24	0.00	599.34	360.00	337.46	763.69	328.85	360.00	1230.00	1455.00	1475.80	1590.00
	4294.000	599.37	0.12	599.47	130.73	338.51	757.89	333.59	0.04	1399.72	1455.00	1475.80	1530.66
	4610.000	599.46	0.00	599.67	199.00	0.00	1020.42	409.58	199.00	1454.00	1454.00	1475.70	1653.00
*	4610.000	599.55	0.09	599.83	66.88	153.78	1115.04	161.18	0.28	1431.89	1454.00	1475.70	1498.77
	4678.000	599.46	0.00	599.67	165.00	0.00	1021.16	408.84	165.00	1454.00	1454.00	1475.70	1619.00
	4678.000	599.55	0.09	599.82	66.90	153.58	1115.44	160.78	0.28	1431.88	1454.00	1475.70	1498.78
	4853.000	599.61	0.00	599.88	79.16	243.02	743.96	243.02	0.00	0.00	3040.00	3060.00	0.00
	4853.000	599.74	0.13	600.00	58.63	239.08	751.85	239.07	0.02	3020.69	3040.00	3060.00	3079.31
	5181.000	600.80	0.00	601.03	86.44	223.72	982.56	223.72	199.00	2904.00	3040.00	3060.00	3103.00
	5181.000	600.92	0.13	601.15	63.63	220.30	989.40	220.29	0.02	3018.18	3040.00	3060.00	3081.82
	5336.000	600.96	0.00	601.23	463.28	20.38	1929.62	0.00	509.00	2218.00	2600.00	2682.00	2727.00
	5336.000	601.09	0.13	601.35	81.50	0.00	1950.00	0.00	0.01	2600.00	2600.00	2682.00	2682.00
	5486.000	601.22	0.00	601.52	692.72	335.38	1606.70	7.92	809.00	2063.00	2661.00	2712.00	2872.00
	5486.000	601.34	0.12	601.66	305.13	227.11	1651.17	71.71	0.12	2525.55	2661.00	2712.00	2931.62

NORTH BR ECORSE CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	563.40	4450.00	574.90	0.00	575.53	11.88	6.34	701.34	1290.97
	1.000	0.00	0.00	0.00	563.40	4450.00	575.00	0.00	575.61	11.53	6.26	710.37	1310.43
	30.000	29.00	0.00	0.00	563.40	4450.00	574.94	0.00	575.56	11.76	6.32	704.44	1297.65
	30.000	29.00	0.00	0.00	563.40	4450.00	575.04	0.00	575.64	11.42	6.24	713.38	1316.96
	60.000	30.00	0.00	0.00	563.40	4450.00	574.99	0.00	575.60	11.61	6.28	708.27	1305.91
	60.000	30.00	0.00	0.00	563.40	4450.00	575.08	0.00	575.68	11.28	6.21	717.09	1324.98
	61.000	1.00	584.30	580.30	563.40	4450.00	574.92	0.00	575.66	21.29	6.90	644.84	964.41
	61.000	1.00	584.30	580.30	563.40	4450.00	575.02	0.00	575.74	20.70	6.81	653.07	978.02
	136.000	75.00	584.30	580.30	563.40	4450.00	575.13	0.00	575.83	20.09	6.72	661.78	992.83
	136.000	75.00	584.30	580.30	563.40	4450.00	575.22	0.00	575.90	19.57	6.64	669.76	1005.83
	137.000	1.00	0.00	0.00	563.40	4450.00	575.31	0.00	575.87	10.52	6.02	738.83	1372.82
	137.000	1.00	0.00	0.00	563.40	4450.00	575.40	0.00	575.95	10.25	5.96	746.89	1390.00
	187.000	50.00	0.00	0.00	564.10	4450.00	575.34	0.00	575.97	16.33	6.41	694.05	1101.97
	187.000	50.00	0.00	0.00	564.10	4450.00	575.42	0.00	576.05	15.89	6.34	701.70	1116.40
*	362.000	175.00	0.00	0.00	563.97	4450.00	575.96	0.00	576.27	8.13	4.46	997.86	1561.06
*	362.000	175.00	0.00	0.00	563.97	4450.00	576.03	0.00	576.33	7.91	4.41	1008.10	1582.56
	737.000	375.00	0.00	0.00	563.70	4450.00	576.24	0.00	576.57	7.38	4.67	953.50	1687.98
	737.000	375.00	0.00	0.00	563.70	4450.00	576.29	0.00	576.64	7.28	4.78	931.87	1649.10
	787.000	50.00	0.00	0.00	563.90	4450.00	576.24	0.00	576.66	10.73	5.24	850.00	1358.57
	787.000	50.00	0.00	0.00	563.90	4450.00	576.30	0.00	576.72	10.46	5.19	856.77	1375.45
*	788.000	1.00	581.00	577.20	563.90	4450.00	576.19	0.00	576.71	42.57	5.79	766.54	682.00
*	788.000	1.00	581.00	577.20	563.90	4450.00	576.26	0.00	576.77	41.44	5.74	775.25	691.96
*	798.000	1.00	0.00	0.00	563.90	4450.00	576.33	0.00	576.74	10.35	5.18	859.88	1383.52
*	798.000	1.00	0.00	0.00	563.90	4450.00	576.37	0.00	576.80	10.10	5.14	866.37	1400.00
	844.000	46.00	0.00	0.00	565.00	4450.00	576.38	0.00	576.79	9.80	5.14	864.39	1421.63
	844.000	46.00	0.00	0.00	565.00	4450.00	576.44	0.00	576.85	9.61	5.10	871.79	1435.81
*	845.000	1.00	581.40	578.40	565.00	4450.00	576.35	0.00	576.83	33.89	5.57	798.24	764.40
*	845.000	1.00	581.40	578.40	565.00	4450.00	576.41	0.00	576.88	33.22	5.53	804.34	772.05
	859.000	14.50	581.40	578.40	565.00	4450.00	576.41	0.00	576.88	33.24	5.53	804.16	771.82
	859.000	14.50	581.40	578.40	565.00	4450.00	576.46	0.00	576.93	32.70	5.50	809.18	778.14
*	860.000	1.00	0.00	0.00	565.00	4450.00	576.51	0.00	576.91	9.33	5.06	880.23	1457.20
*	860.000	1.00	0.00	0.00	565.00	4450.00	576.57	0.00	576.96	9.12	5.02	886.38	1473.24

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	QIK
	910.000	50 00	0.00	0 00	564.00	4450.00	576.[illegible]	0.00	576 96	8.40	4.89	910.77	1584.79
	910.000	50.00	0 00	0.00	564.00	4450.00	576.64	0.00	577.01	8.24	4.85	916.60	1560.42
*	911.000	1.00	583.00	578.60	564.00	4450.00	576.[illegible]	0.00	577.00	36.81	5.38	826.48	783.47
*	911.000	1.00	583.00	578.60	564.00	4450.00	576.61	0.00	577.05	36.02	5.35	832 28	741 49
	921 000	10.00	583.00	578 60	564.00	4450.00	576.[illegible]	0.00	577.04	36.36	5.36	829.77	738 02
	921.000	10 00	583.00	578.60	564.00	4450.00	576.65	0.00	577.09	35 52	5.32	836.00	746.63
*	922 000	1.00	0.00	0.00	564.00	4450.00	576.70	0.00	577.06	8.05	4.82	923.20	1567.96
*	922.000	1.00	0.00	0.00	564.00	4450.00	576.76	0.00	577.11	7.90	4.79	928 75	1582 74
	953 000	31.00	0.00	0.00	565.10	4450.00	576.64	0.00	577.19	12.47	6 00	741.92	1259 78
	953.000	31 00	0.00	0.00	565.10	4450.00	576.69	0.00	577.24	12.26	5.96	746.16	1270.98
*	954.000	1.00	580.80	577.70	565.10	4450 00	576.49	0.00	577.35	67.37	7.43	599.10	542.16
*	954.000	1.00	580 80	577.70	565.10	4450.00	576.54	0.00	577.39	66 37	7.38	602 75	546.33
	985.000	30.50	580.80	577 70	565.10	4450 00	576.75	0.00	577 56	62.75	7.22	616.64	561.78
	985.000	30 50	580.80	577 70	565.10	4450.00	576.80	0.00	577 60	61.73	7.18	619.72	565.45
*	986.000	1.00	0.00	0 00	565.10	4450.00	577.15	0.00	577.65	10.54	5.68	783.97	1370 96
*	986.000	1 00	0.00	0.00	565.10	4450.00	577.20	0.00	577.69	10.39	5.65	787.52	1380.46
	1036.000	50.00	0.00	0.00	566 20	4450 00	577.34	0 00	577.74	10.37	5.06	878.64	1381.67
	1036 000	50.00	0.00	0 00	566.20	4450.00	577.38	0.00	577.77	10.19	5 03	884 13	1394.10
	1736.000	700.00	0.00	0 00	565.40	4450.00	578.06	0.00	578.37	7.37	4.45	1000 82	1639 72
	1736.000	700.00	0.00	0.00	565.40	4450.00	578.10	0.00	578.40	7.28	4.43	1004.56	1649.07
	2436.000	700.00	0.00	0.00	564.60	4450.00	578.53	0.00	578.85	6 11	4.54	780.55	1800.[illegible]
	2436.000	700.00	0.00	0.00	564.60	4450.00	578.55	0.00	578.87	6.06	4.53	783 28	1808.02
*	2736.000	300.00	0.00	0.00	569.10	1580.00	578.77	0.00	579.05	2.13	2.23	707 71	1062 42
*	2736.000	300.00	0.00	0.00	569.10	1580.00	579.00	0.00	579.07	2.11	2.23	710.10	1068.18
	3436.000	700.00	0.00	0.00	569 48	1580.00	579.13	0.00	579.21	2.36	2.31	685.12	1028.45
	3436.000	700.00	0.00	0.00	569 48	1580.00	579.15	0.00	579.23	2.34	2.30	686.56	1031.85
	3836.000	400.00	0.00	0 00	569.70	1580.00	579.23	0.00	579.36	4.26	2.88	547.89	765.79
	3836.000	400.00	0.00	0.00	569.70	1580.00	579.25	0.00	579.38	4.20	2.87	550 29	770.79
	4311.000	475.00	0.00	0.00	569.90	1580 00	579.43	0 00	579.56	4.24	2.88	548.55	767.17
	4311.000	475.00	0.00	0.00	569.90	1580.00	579.45	0.00	579.58	4.22	2.87	549.59	769.32
	4786.000	475.00	0.00	0.00	570.10	1580.00	579.65	0 00	579.74	3.22	2.48	637.19	890.97
	4786.000	475.00	0.00	0.00	570.10	1580.00	579.67	0.00	579 76	3.18	2.47	639.73	886.45
	4825.000	39.00	0.00	0.00	570.80	1580.00	579.67	0 00	579.76	2.58	2.33	676.77	908.17
	4825.000	39.00	0.00	0.00	570.80	1580.00	579.69	0.00	579.77	2.56	2.33	678.50	907.16

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	4846.000	21.00	579.40	578.30	570.80	1580.00	579.74	0.00	579.83	2.49	2.31	684.26	1000.43
*	4846.000	21.00	579.40	578.30	570.80	1580.00	579.68	0.00	579.81	19.76	2.84	555.66	355.45
	4847.000	1.00	0.00	0.00	570.80	1580.00	579.74	0.00	579.83	2.49	2.31	684.28	1000.49
*	4847.000	1.00	0.00	0.00	570.80	1580.00	579.74	0.00	579.82	2.50	2.31	683.61	998.92
	5436.000	589.00	0.00	0.00	570.64	1580.00	579.91	0.00	580.02	3.78	2.72	581.66	812.65
	5436.000	589.00	0.00	0.00	570.64	1580.00	579.90	0.00	580.01	3.76	2.71	582.55	814.44
	5936.000	500.00	0.00	0.00	570.50	1580.00	580.10	0.00	580.20	3.24	2.57	613.76	878.17
	5936.000	500.00	0.00	0.00	570.50	1580.00	580.09	0.00	580.19	3.25	2.58	613.04	876.69
	6416.000	480.00	0.00	0.00	570.33	1580.00	580.27	0.00	580.43	5.60	3.29	480.26	667.45
	6416.000	480.00	0.00	0.00	570.33	1580.00	580.26	0.00	580.43	5.62	3.29	479.69	666.35
	6786.000	370.00	0.00	0.00	570.20	1580.00	580.48	0.00	580.63	4.81	3.12	507.08	720.47
	6786.000	370.00	0.00	0.00	570.20	1580.00	580.47	0.00	580.62	4.82	3.12	506.59	719.51
	6835.000	49.00	0.00	0.00	571.57	1580.00	580.47	0.00	580.71	9.23	3.92	402.60	520.11
	6835.000	49.00	0.00	0.00	571.57	1580.00	580.46	0.00	580.70	9.26	3.93	402.14	519.28
*	6836.000	1.00	0.00	0.00	571.60	1580.00	580.61	0.00	580.74	4.70	2.93	539.92	728.51
*	6836.000	1.00	0.00	0.00	571.60	1580.00	580.60	0.00	580.73	4.72	2.93	539.50	727.61
	6916.000	80.00	582.00	577.00	571.60	1580.00	581.10	0.00	581.22	3.04	2.74	576.14	806.17
	6916.000	80.00	999999.00	0.00	571.60	1580.00	581.10	0.00	581.21	3.05	2.74	575.71	805.24
	6917.000	1.00	0.00	0.00	571.60	1330.00	581.09	0.00	581.23	4.87	2.98	446.87	602.93
	6917.000	1.00	0.00	0.00	571.60	1330.00	581.09	0.00	581.22	4.88	2.98	446.43	602.07
	7436.000	519.00	0.00	0.00	571.20	1330.00	581.34	0.00	581.45	3.62	2.68	496.32	699.10
	7436.000	519.00	0.00	0.00	571.20	1330.00	581.34	0.00	581.45	3.63	2.68	495.92	698.27
	7936.000	500.00	0.00	0.00	570.80	1330.00	581.62	0.00	581.62	3.07	2.58	582.42	759.38
	7936.000	500.00	0.00	0.00	570.80	1330.00	581.61	0.00	581.62	3.22	2.65	508.59	741.38
	8536.000	600.00	0.00	0.00	570.90	1330.00	581.71	0.00	581.81	3.08	2.52	530.58	757.84
	8536.000	600.00	0.00	0.00	570.90	1330.00	581.71	0.00	581.81	3.08	2.52	530.62	757.42
	9136.000	600.00	0.00	0.00	570.90	1330.00	581.97	0.00	582.02	3.48	1.89	887.14	712.51
	9136.000	600.00	0.00	0.00	570.90	1330.00	581.97	0.00	582.03	3.81	1.97	775.01	681.76
	9586.000	450.00	0.00	0.00	570.93	1330.00	582.10	0.00	582.15	2.37	1.97	735.63	864.61
	9586.000	450.00	0.00	0.00	570.93	1330.00	582.12	0.00	582.20	3.17	2.27	590.55	747.45
	9596.000	10.00	0.00	0.00	570.98	1330.00	582.08	0.00	582.17	4.58	2.53	577.87	681.36
	9596.000	10.00	0.00	0.00	570.98	1330.00	582.11	0.00	582.21	4.77	2.60	516.37	609.12
	10286.000	690.00	0.00	0.00	571.00	1330.00	582.38	0.00	582.46	3.54	2.32	641.56	706.48
	10286.000	690.00	0.00	0.00	571.00	1330.00	582.42	0.00	582.51	3.68	2.38	591.16	673.56

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	.01K
*	10336.000	50.00	0.00	0.00	572 50	1330.00	582.46	0.00	582.48	0.71	1 33	1554.20	1577 14
*	10336.000	50.00	0.00	0.00	572.50	1330.00	582.50	0.00	582.53	0.98	1.57	1024.45	1341.37
*	10636.000	300.00	0.00	0 00	572.47	1330 00	582 45	0.00	582.58	4.20	2.85	467 39	648.67
*	10636 000	300.00	0.00	0.00	572.47	1330.00	582.51	0.00	582.63	4.10	2 82	471.58	656.70
	11536 000	900.00	0.00	0.00	572.40	1330.00	582.87	0.00	582.97	4.50	2.61	509.22	627.75
	11536.000	900.00	0.00	0.00	572.40	1330.00	582.91	0.00	583.02	4.41	2.59	513.37	633 60
	12274.000	738 00	0.00	0.00	573.50	1330.00	583.17	0 00	583.26	3.42	2 62	636 40	719 35
	12274.000	738.00	0.00	0.00	573.50	1330.00	583.20	0.00	583.31	3.51	2.66	545.78	709.80
	12324 000	50.00	0.00	0.00	573.60	1330.00	583.17	0.00	583.30	3.84	2.86	465.11	678 31
	12324.000	50.00	0.00	0.00	573.60	1330.00	583.21	0 00	583.34	3.79	2.85	467.08	683.12
*	12325 000	1.00	580.40	581.80	573.60	1330.00	583.14	0.00	583.33	18.55	3.50	377.59	308 81
*	12325 000	1.00	580.40	581 80	573.60	1330.00	583.18	0.00	583.37	18.55	3 50	377.59	308 81
	12367.000	42.00	580.40	581.80	573.60	1330.00	583.22	0.00	583.41	18.55	3.50	379 59	308.81
	12367.000	42.00	580.40	581.80	573 60	1330.00	583.26	0.00	583.45	18.55	3.50	379.59	308.81
*	12368.000	1.00	0.00	0.00	573.60	1330.00	583.37	0.00	583.44	2.60	2 38	721 48	825 35
*	12368.000	1.00	0.00	0.00	573.60	1330.00	583.40	0 00	583.48	2.68	2.42	661 33	812.80
	12418 000	50.00	0.00	0.00	573.60	1330.00	583.38	0.00	583.45	2.58	2 38	723.41	828.00
	12418.000	50.00	0.00	0.00	573.60	1330.00	583.41	0 00	583.49	2.66	2.42	663.03	815.15
*	13295 000	877.00	0.00	0.00	573.30	1330.00	583.67	0.00	583.78	5.75	2 66	722.79	554.67
*	13295.000	877 00	0.00	0.00	573.30	1330.00	583.72	0.00	583.83	5.89	2.70	531.75	548.18
	13676.000	381 00	0.00	0.00	572.90	1330.00	583.85	0.00	583.95	3.81	2.93	892.70	681.45
	13676 000	381.00	0.00	0.00	572.90	1330.00	583.90	0.00	584.01	3.71	2.90	903.74	670 94
	13726.000	50.00	0.00	0.00	573.00	1330 00	583.84	0 00	584.00	4.97	3.61	688.50	576 67
	13726 000	50.00	0.00	0.00	573.00	1330.00	583.90	0.00	584.06	4.85	3.58	692.72	603.70
*	13727.000	1.00	581.40	579.60	573.00	1330.00	583.79	0.00	584.06	42.97	4.65	471.85	202.70
*	13727.000	1.00	581.40	579.60	573.00	1330.00	583.85	0.00	584.10	41.17	4.57	481.91	207.38
	13964.000	237.00	581.40	579.60	573.00	1330 00	584.68	0.00	584.83	23.41	3.67	622.64	274.90
	13964.000	237.00	581 40	579.60	573.00	1330 00	584.70	0.00	584.85	22.99	3.65	627.37	277 37
*	13965.000	1.00	0.00	0.00	573.00	1330.00	584.71	0.00	584.84	3 47	3.17	032 18	713.72
*	13965.000	1.00	0 00	0.00	573.00	1330.00	584.74	0.00	584.86	3.44	3.16	036.58	717.49
	14015.000	50.00	0.00	0.00	573.00	1330.00	584.79	0.00	584.86	2 26	2.57	843.60	804.80
	14015.000	50.00	0.00	0 00	573.00	1330.00	584.81	0.00	584.89	2.24	2.56	847 81	809.42
	14287.000	272.00	0.00	0.00	574.50	1330.00	584.89	0.00	584.93	2.14	1.79	997.38	910.02
	14287.000	272.00	0.00	0.00	574.50	1330.00	584.92	0.00	584.96	2.29	1.84	901.44	878.08

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	14337.000	50.00	0.00	0.00	574.60	1330.00	584.90	0.00	584.94	2.00	1.89	1027.70	939.81
	14337.000	50.00	0.00	0.00	574.60	1330.00	584.93	0.00	584.97	2.34	1.89	720.52	869.47
	14338.000	1.00	580.00	581.40	574.60	1330.00	584.95	0.00	584.95	3.13	1.14	3673.43	751.95
*	14338.000	1.00	580.00	581.40	574.60	1330.00	584.96	0.00	584.98	5.05	1.45	1847.37	571.70
	14402.000	64.00	580.00	581.40	574.60	1330.00	584.96	0.00	585.00	6.08	1.60	885.36	539.18
	14402.000	64.00	580.00	581.40	574.60	1330.00	584.99	0.00	585.03	5.92	1.58	893.12	546.40
*	14403.000	1.00	0.00	0.00	574.60	1330.00	584.96	0.00	585.00	1.72	1.86	1044.72	958.75
*	14403.000	1.00	0.00	0.00	574.60	1330.00	584.99	0.00	585.03	2.23	1.85	936.62	890.25
	14460.000	57.00	0.00	0.00	572.60	1330.00	584.96	0.00	585.02	1.72	2.14	1181.14	1012.56
	14460.000	57.00	0.00	0.00	572.60	1330.00	584.99	0.00	585.05	2.00	2.16	1091.82	940.36
*	14461.000	1.00	580.00	581.60	572.60	1330.00	584.97	0.00	585.02	9.67	2.21	1004.63	427.74
*	14461.000	1.00	580.00	581.60	572.60	1330.00	585.00	0.00	585.05	9.38	2.18	1010.52	434.30
	14521.000	60.00	580.00	581.60	572.60	1330.00	585.03	0.00	585.08	9.11	2.15	1032.05	440.77
	14521.000	60.00	580.00	581.60	572.60	1330.00	585.06	0.00	585.11	8.86	2.13	1044.41	446.73
*	14522.000	1.00	0.00	0.00	572.60	1330.00	585.02	0.00	585.08	1.66	2.11	1209.00	1032.14
*	14522.000	1.00	0.00	0.00	572.60	1330.00	585.05	0.00	585.11	1.93	2.12	1119.63	957.84
*	14572.000	50.00	0.00	0.00	572.70	980.00	585.05	0.00	585.10	2.53	1.89	1064.78	615.95
*	14572.000	50.00	0.00	0.00	572.70	980.00	585.09	0.00	585.13	2.48	1.87	1077.21	622.37
*	15292.000	720.00	0.00	0.00	574.40	980.00	585.27	0.00	585.37	5.79	2.57	381.76	407.35
*	15292.000	720.00	0.00	0.00	574.40	980.00	585.30	0.00	585.40	5.44	2.56	383.40	420.08
	15820.000	528.00	0.00	0.00	577.00	980.00	585.50	0.00	585.69	4.71	3.68	327.01	451.64
	15820.000	528.00	0.00	0.00	577.00	980.00	585.52	0.00	585.72	4.84	3.74	309.48	445.24
	15870.000	50.00	0.00	0.00	577.00	980.00	585.58	0.00	585.73	3.54	3.35	396.80	520.08
	15870.000	50.00	0.00	0.00	577.00	980.00	585.60	0.00	585.75	3.62	3.39	375.56	515.97
	15914.000	44.00	585.40	583.00	577.00	980.00	586.21	0.00	586.33	2.72	3.08	430.34	593.79
	15914.000	44.00	999999.00	0.00	577.00	980.00	586.23	0.00	586.36	2.77	3.11	417.04	588.60
	15964.000	50.00	0.00	0.00	577.00	980.00	586.18	0.00	586.40	5.02	4.03	315.82	437.51
	15964.000	50.00	0.00	0.00	577.00	980.00	586.19	0.00	586.43	5.13	4.08	299.19	432.62
	16194.000	230.00	0.00	0.00	576.50	980.00	586.46	0.00	586.54	3.59	2.27	483.89	517.05
	16194.000	230.00	0.00	0.00	576.50	980.00	586.49	0.00	586.57	3.71	2.31	457.81	508.50
*	16244.000	50.00	0.00	0.00	576.50	980.00	586.35	0.00	586.72	17.91	4.86	201.50	291.58
*	16244.000	50.00	0.00	0.00	576.50	980.00	586.39	0.00	586.75	23.85	4.84	202.31	290.48
	16245.000	1.00	603.60	588.10	576.50	980.00	586.35	0.00	586.72	10.85	4.88	200.77	297.57
*	16245.000	1.00	603.60	588.10	576.50	980.00	586.39	0.00	586.76	10.73	4.86	201.58	299.20

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	QIK
	16503.000	258.00	603.60	588.10	576.50	980.00	586.65	0.00	587.00	9.91	4.72	207.53	311.07
	16503.000	258.00	603.60	588.10	576.50	980.00	586.68	0.00	587.03	9.82	4.71	208.25	312.73
	16504.000	1.00	0.00	0.00	576.50	910.00	586.72	0.00	587.02	13.67	4.33	210.00	246.13
*	16504.000	1.00	0.00	0.00	576.50	910.00	586.75	0.00	587.04	18.40	4.32	210.72	212.12
*	16554.000	50.00	0.00	0.00	576.60	910.00	587.01	0.00	587.10	3.56	2.73	457.27	482.47
*	16554.000	50.00	0.00	0.00	576.60	910.00	587.03	0.00	587.14	3.64	2.77	426.03	476.65
*	16826.000	272.00	0.00	0.00	575.30	910.00	587.13	0.00	587.17	1.14	1.83	631.67	850.67
*	16826.000	272.00	0.00	0.00	575.30	910.00	587.16	0.00	587.20	1.16	1.84	624.07	845.37
	16876.000	50.00	0.00	0.00	574.60	910.00	587.12	0.00	587.19	1.52	2.20	414.41	737.92
	16876.000	50.00	0.00	0.00	574.60	910.00	587.15	0.00	587.23	1.50	2.19	415.76	741.87
*	16963.000	87.00	589.70	585.00	574.90	910.00	587.12	0.00	587.26	13.74	2.99	303.72	545.51
	16963.000	87.00	999999.00	0.00	574.90	910.00	587.15	0.00	587.23	1.64	2.24	405.49	711.61
*	17013.000	50.00	0.00	0.00	576.20	910.00	587.28	0.00	587.31	1.26	1.35	749.68	811.81
	17013.000	50.00	0.00	0.00	576.20	910.00	587.23	0.00	587.25	1.29	1.36	743.73	802.59
	17255.000	242.00	0.00	0.00	577.90	910.00	587.30	0.00	587.36	2.43	2.02	478.71	583.08
	17255.000	242.00	0.00	0.00	577.90	910.00	587.25	0.00	587.32	2.62	2.09	434.91	562.20
*	17305.000	50.00	0.00	0.00	577.90	910.00	587.25	0.00	587.45	5.95	3.58	254.39	372.94
*	17305.000	50.00	0.00	0.00	577.90	910.00	587.20	0.00	587.40	8.97	3.60	253.05	303.82
	17502.000	197.00	600.40	585.50	577.90	910.00	587.85	0.00	588.03	4.84	3.36	276.74	413.73
	17502.000	197.00	600.40	585.50	577.90	910.00	587.95	0.00	588.13	4.68	3.33	273.46	420.68
	17552.000	50.00	0.00	0.00	577.50	910.00	588.02	0.00	588.08	2.47	1.98	539.21	578.72
	17552.000	50.00	0.00	0.00	577.50	910.00	588.11	0.00	588.18	2.56	2.00	476.66	569.93
	17817.000	265.00	0.00	0.00	576.90	910.00	588.09	0.00	588.17	3.84	2.20	455.63	464.40
	17817.000	265.00	0.00	0.00	576.90	910.00	588.19	0.00	588.26	3.84	2.21	417.24	464.37
	18106.000	289.00	0.00	0.00	579.00	910.00	588.21	0.00	588.27	3.12	1.73	584.73	515.80
	18106.000	289.00	0.00	0.00	579.00	910.00	588.31	0.00	588.36	3.13	1.75	491.53	514.52
	18156.000	50.00	0.00	0.00	579.00	910.00	588.17	0.00	588.31	4.14	3.31	468.39	447.98
	18156.000	50.00	0.00	0.00	579.00	910.00	588.26	0.00	588.41	4.11	3.32	407.43	448.84
*	18157.000	1.00	586.70	585.90	579.00	910.00	587.97	0.00	588.40	45.15	5.21	182.75	135.84
*	18157.000	1.00	586.70	585.90	579.00	910.00	588.08	0.00	588.49	43.15	5.14	176.98	138.54
	18195.000	38.00	586.70	585.90	579.00	910.00	588.17	0.00	588.56	40.62	5.04	204.77	142.78
	18195.000	38.00	586.70	585.90	579.00	910.00	588.26	0.00	588.65	37.79	5.01	181.48	144.96
*	18196.000	1.00	0.00	0.00	579.00	910.00	588.46	0.00	588.59	3.65	3.17	508.10	476.48
*	18196.000	1.00	0.00	0.00	579.00	910.00	588.54	0.00	588.67	3.63	3.19	440.26	477.30

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	.01K
	18246.000	50.00	0.00	0.00	579.00	910.00	588.62	0.00	588.61	3.91	2.93	815.39	460.90
	18246.000	50.00	0.00	0.00	579.00	910.00	588.60	0.00	588.70	3.95	2.97	508.52	457.61
	18545.000	299.00	0.00	0.00	578.60	910.00	588.66	0.00	588.77	6.70	2.90	505.10	351.58
	18545.000	299.00	0.00	0.00	578.60	910.00	588.74	0.00	588.85	6.79	2.94	424.52	349.11
*	18829.000	284.00	0.00	0.00	578.70	910.00	588.85	0.00	588.88	1.60	1.58	1258.51	719.42
*	18829.000	284.00	0.00	0.00	578.70	910.00	588.94	0.00	588.96	1.61	1.60	1037.43	716.43
	18961.000	132.00	0.00	0.00	578.70	910.00	588.87	0.00	588.90	1.58	1.57	1199.49	722.98
	18961.000	132.00	0.00	0.00	578.70	910.00	588.96	0.00	588.99	1.60	1.59	1039.91	720.04
*	19112.000	151.00	0.00	0.00	579.00	910.00	588.84	0.00	589.02	5.17	3.45	445.21	400.11
*	19112.000	151.00	0.00	0.00	579.00	910.00	588.93	0.00	589.11	7.95	3.47	311.76	392.71
	19162.000	50.00	0.00	0.00	579.00	910.00	588.86	0.00	589.04	5.14	3.44	449.20	401.31
	19162.000	50.00	0.00	0.00	579.00	910.00	588.97	0.00	589.15	7.91	3.47	305.45	393.52
*	19163.000	1.00	588.20	583.90	579.00	910.00	588.56	582.52	587.35	246.33	7.14	150.03	57.98
*	19163.000	1.00	588.20	583.90	579.00	910.00	588.68	0.00	589.44	229.53	6.99	130.27	60.07
*	19263.000	100.00	588.20	583.90	579.00	910.00	589.62	0.00	590.10	29.97	5.68	459.89	166.42
*	19263.000	100.00	588.20	583.90	579.00	910.00	589.67	0.00	590.18	31.47	5.79	191.48	162.91
*	19264.000	1.00	0.00	0.00	579.00	910.00	590.07	0.00	590.20	3.33	2.99	886.76	478.67
*	19264.000	1.00	0.00	0.00	579.00	910.00	590.17	0.00	590.30	5.26	2.98	547.95	376.73
	19314.000	50.00	0.00	0.00	579.00	910.00	590.09	0.00	590.22	3.31	2.99	915.02	500.91
	19314.000	50.00	0.00	0.00	579.00	910.00	590.19	0.00	590.33	5.23	2.98	555.15	398.00
	20080.000	766.00	0.00	0.00	580.10	910.00	590.38	0.00	590.49	3.73	3.02	1560.05	471.03
	20080.000	766.00	0.00	0.00	580.10	910.00	590.55	0.00	590.66	3.63	3.01	1406.59	477.01
	20130.000	50.00	0.00	0.00	580.10	910.00	590.41	0.00	590.51	2.56	2.80	1205.40	569.95
	20130.000	50.00	0.00	0.00	580.10	910.00	590.58	0.00	590.68	2.49	2.80	767.59	576.98
*	20131.000	1.00	588.30	586.70	580.10	910.00	590.36	0.00	590.57	26.83	4.19	710.24	175.47
*	20131.000	1.00	588.30	586.70	580.10	910.00	590.59	0.00	590.68	22.65	3.13	1633.06	171.30
	20168.000	37.00	588.30	586.70	580.10	910.00	590.52	0.00	590.70	36.06	3.93	779.86	151.55
	20168.000	37.00	588.30	586.70	580.10	910.00	590.65	0.00	590.83	35.19	3.92	738.53	153.40
*	20169.000	1.00	0.00	0.00	580.10	910.00	590.63	0.00	590.72	2.30	2.71	1311.73	600.48
*	20169.000	1.00	0.00	0.00	580.10	910.00	590.77	0.00	590.86	2.26	2.71	1142.74	605.36
	20269.000	100.00	0.00	0.00	580.10	910.00	590.66	0.00	590.75	2.79	2.66	1371.34	544.47
*	20269.000	100.00	0.00	0.00	580.10	910.00	590.76	0.00	590.86	2.77	2.76	808.79	527.70
	20599.000	330.00	0.00	0.00	580.40	910.00	590.76	0.00	590.85	3.10	2.76	1104.92	517.06
	20599.000	330.00	0.00	0.00	580.40	910.00	590.86	0.00	590.96	3.16	2.81	697.32	512.10

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	AREA	FLOW
*	21999.000	1730.00	0.00	0.00	581.40	910.00	591.18	0.00	591.20	1.22	1.29	1184.78	822.28
*	21999.000	1730.00	0.00	0.00	581.40	910.00	591.32	0.00	591.34	1.43	1.42	990.26	760.12
	22380.000	381.00	0.00	0.00	581.70	910.00	591.23	0.00	591.25	1.60	1.48	909.23	708.77
	22380.000	381.00	0.00	0.00	581.70	910.00	591.37	0.00	591.40	1.67	1.51	827.24	703.79
	23417.000	1418.00	0.00	0.00	582.10	910.00	591.44	0.00	591.50	1.58	1.99	516.70	724.37
	23417.000	1418.00	0.00	0.00	582.10	910.00	591.59	0.00	591.64	1.54	1.99	504.38	703.90
*	23629.000	212.00	592.17	588.66	582.10	920.00	592.69	0.00	592.73	0.66	1.71	634.14	1128.40
*	23629.000	212.00	999999.00	0.00	582.10	920.00	592.84	0.00	592.88	0.65	1.71	601.78	1140.59
*	1.000	100.00	0.00	0.00	582.70	920.00	592.71	0.00	592.74	1.78	1.60	946.60	690.40
*	1.000	100.00	0.00	0.00	582.70	920.00	592.85	0.00	592.89	1.75	1.61	614.62	675.17
*	2.000	600.00	0.00	0.00	583.40	920.00	592.86	0.00	592.97	9.16	2.71	401.64	303.76
*	2.000	600.00	0.00	0.00	583.40	920.00	592.99	0.00	593.10	6.91	2.64	348.32	349.94
	3.000	800.00	0.00	0.00	584.30	920.00	593.53	0.00	593.70	8.74	3.53	308.89	311.28
	3.000	800.00	0.00	0.00	584.30	920.00	593.56	0.00	593.73	8.62	3.52	310.33	313.16
	4.000	50.00	0.00	0.00	584.40	920.00	593.55	0.00	593.79	14.96	3.91	235.10	237.87
	4.000	50.00	0.00	0.00	584.40	920.00	593.58	0.00	593.82	14.83	3.90	235.87	238.39
	5.000	70.00	596.50	591.00	584.40	920.00	594.25	0.00	594.45	12.14	3.63	253.44	264.07
	5.000	70.00	999999.00	0.00	584.40	920.00	594.27	0.00	594.48	11.75	3.62	254.16	266.16
*	6.000	70.00	0.00	0.00	583.90	920.00	594.43	0.00	594.53	5.62	2.69	434.77	308.11
*	6.000	70.00	0.00	0.00	583.90	920.00	594.44	0.00	594.56	5.84	2.75	377.86	300.57
	7.000	17.00	593.70	589.50	583.90	920.00	594.49	0.00	594.53	5.90	2.73	456.36	378.60
	7.000	17.00	999999.00	0.00	583.90	920.00	594.44	0.00	594.56	6.10	2.81	330.43	372.44
*	7.500	180.00	0.00	0.00	584.00	920.00	594.54	0.00	594.81	25.74	4.01	482.60	181.43
*	7.500	180.00	0.00	0.00	584.00	920.00	594.56	0.00	594.85	29.05	4.06	302.72	170.68
	7.600	1.00	592.25	591.25	584.00	920.00	594.67	0.00	594.84	50.78	4.18	507.01	129.10
*	7.600	1.00	592.25	591.25	584.00	920.00	594.65	0.00	594.87	62.01	4.48	293.67	116.93
	7.700	12.00	592.25	591.25	584.00	920.00	594.73	0.00	594.90	47.59	4.15	510.22	130.65
	7.700	12.00	592.25	591.25	584.00	920.00	594.76	0.00	594.95	54.34	4.22	315.24	124.00
*	7.800	1.00	0.00	0.00	584.00	920.00	594.70	0.00	594.94	22.09	4.58	519.21	192.80
*	7.800	1.00	0.00	0.00	584.00	920.00	594.73	0.00	594.99	25.84	4.61	324.84	181.00
*	8.000	370.00	0.00	0.00	585.20	920.00	595.27	0.00	595.41	7.10	3.00	313.08	345.35
*	8.000	370.00	0.00	0.00	585.20	920.00	595.33	0.00	595.47	7.11	2.98	308.38	345.12
	9.000	50.00	0.00	0.00	585.30	920.00	595.28	0.00	595.49	13.32	3.73	246.39	252.07
	9.000	50.00	0.00	0.00	585.30	920.00	595.34	0.00	595.56	12.67	3.71	248.12	258.51

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KC	VCH	AREA	.01K
	10.000	50.00	596.30	591.30	585.30	920.00	596.17	0.00	596.35	10.38	3.41	269.70	285.35
	10.000	50.00	999999.00	0.00	585.30	920.00	596.24	0.00	596.42	10.07	3.39	271.43	289.87
*	11.000	50.00	0.00	0.00	585.40	920.00	596.38	0.00	596.42	2.13	2.04	878.05	630.92
*	11.000	50.00	0.00	0.00	585.40	920.00	596.44	0.00	596.48	2.25	2.10	832.33	613.05
	12.000	1425.00	0.00	0.00	586.30	920.00	596.68	0.00	596.72	2.10	2.02	869.07	635.02
	12.000	1425.00	0.00	0.00	586.30	920.00	596.75	0.00	596.79	2.16	2.06	810.76	626.65
	13.000	100.00	0.00	0.00	586.10	920.00	596.67	0.00	596.76	2.39	2.72	514.88	595.44
	13.000	100.00	0.00	0.00	586.10	920.00	596.74	0.00	596.83	2.08	2.73	490.70	596.70
	68.000	68.00	598.60	594.30	585.50	920.00	597.07	0.00	597.14	1.71	2.43	594.72	702.89
	68.000	68.00	598.60	594.30	585.50	920.00	597.17	0.00	597.24	1.66	2.40	602.79	714.91
	189.000	121.00	0.00	0.00	586.40	920.00	597.11	0.00	597.17	1.72	2.26	573.78	702.05
	189.000	121.00	0.00	0.00	586.40	920.00	597.20	0.00	597.27	1.69	2.26	538.63	707.35
	253.000	64.00	599.10	594.60	585.90	920.00	597.48	0.00	597.57	1.97	2.62	509.28	655.13
	253.000	64.00	599.10	594.60	585.90	920.00	597.58	0.00	597.67	1.91	2.59	515.73	665.87
	353.000	100.00	0.00	0.00	586.00	1430.00	597.52	0.00	597.60	2.71	2.61	1214.54	868.16
	353.000	100.00	0.00	0.00	586.00	1430.00	597.61	0.00	597.69	2.72	2.62	864.01	867.32
	553.000	200.00	0.00	0.00	586.00	1430.00	597.58	0.00	597.65	2.66	2.59	1358.45	876.27
	553.000	200.00	0.00	0.00	586.00	1430.00	597.67	0.00	597.75	2.66	2.61	869.37	876.12
*	1832.000	1279.00	0.00	0.00	587.40	1430.00	598.01	0.00	598.17	5.74	3.44	767.79	597.05
*	1832.000	1279.00	0.00	0.00	587.40	1430.00	598.10	0.00	598.27	5.77	3.47	543.09	595.39
	2132.000	350.00	0.00	0.00	587.60	1430.00	598.21	0.00	598.37	5.72	3.43	781.14	598.01
	2132.000	350.00	0.00	0.00	587.60	1430.00	598.30	0.00	598.47	5.77	3.47	545.60	595.45
	2536.000	404.00	0.00	0.00	588.00	1430.00	598.51	0.00	598.59	4.06	2.50	907.25	709.45
	2536.000	404.00	0.00	0.00	588.00	1430.00	598.59	0.00	598.70	4.72	2.72	642.68	657.99
	2541.000	5.00	595.30	593.50	588.00	1430.00	598.58	0.00	598.65	3.08	2.46	743.11	726.02
	2541.000	5.00	595.30	593.50	588.00	1430.00	598.63	0.00	598.73	4.63	2.70	647.49	664.61
	2591.000	50.00	0.00	0.00	588.00	1430.00	598.60	0.00	598.67	3.90	2.47	937.00	724.49
	2591.000	50.00	0.00	0.00	588.00	1430.00	598.65	0.00	598.76	4.78	2.75	608.12	653.88
*	2941.000	350.00	0.00	0.00	587.80	1430.00	598.75	0.00	598.78	1.68	2.37	2004.69	1102.57
*	2941.000	350.00	0.00	0.00	587.80	1430.00	598.83	0.00	598.88	2.00	2.60	719.45	1011.81
*	3287.000	346.00	0.00	0.00	588.20	1430.00	598.82	0.00	598.92	7.80	3.54	1841.76	511.87
*	3287.000	346.00	0.00	0.00	588.20	1430.00	598.92	0.00	599.05	8.98	3.82	655.86	477.11
	3487.000	200.00	595.50	593.50	588.20	1430.00	598.81	0.00	598.92	8.50	3.69	1825.78	490.44
	3487.000	200.00	595.50	593.50	588.20	1430.00	598.92	0.00	599.05	8.93	3.81	657.26	478.08

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10*KS	VCH	ARCA	.01K
	3776.000	289.00	0.00	0.00	589.00	1430.00	599.06	0.00	599.11	4.65	2.75	2052.48	663.34
	3776.000	289.00	0.00	0.00	589.00	1430.00	599.19	0.00	599.25	4.57	2.76	951.80	669.02
	3843.000	67.00	596.00	593 90	589.00	1430.00	599.06	0.00	599.11	4.62	2.75	2060.63	665 26
	3843.000	67.00	999999.00	0.00	589.00	1430 00	599.19	0 00	599.25	4.54	2 75	955 08	670.93
	4234.000	391.00	0.00	0.00	588.30	1430.00	599.24	0.00	599.34	6.54	3.36	1701.18	559 08
	4234.000	391.00	0.00	0.00	588.30	1430.00	599.36	0.00	599 47	6.31	3.33	709.34	569.25
	4294.000	60.00	596 00	594.50	588.30	1430 00	599.24	0.00	599.34	6.52	3.36	1600.72	560.17
	4294.000	60.00	999999 00	0.00	588.30	1430.00	599.37	0.00	599.47	6.18	3.29	710 03	575.08
	4610.000	316.00	0.00	0.00	588.60	1430 00	599.46	0.00	599.67	12.56	4.33	910.35	403.51
*	4610.000	316.00	0 00	0.00	588.60	1430.00	599.55	0.00	599.83	12.62	4.69	421.04	402.51
	4678.000	68.00	596.30	594.50	588.60	1430.00	599.46	0 00	599.67	12.56	4.33	790.65	403 46
	4678 000	68 00	999999.00	0.00	588 60	1430.00	599.55	0.00	599.82	12.66	4.70	420.53	401 32
	4853.000	175 00	0.00	0.00	590 00	1430.00	599.61	0.00	599 88	8 54	4.91	476.68	489.51
	4853.000	175.00	0.00	0 00	590.00	1430.00	599.74	0.00	600.00	8.34	4.89	447.38	495.40
	5181.000	328.00	603.10	597.60	590.00	1430.00	600.80	0.00	601.03	7.95	4.55	574.65	507.03
	5181.000	328 00	999999.00	0 00	590.00	1430.00	600.92	0.00	601.15	7.76	4.53	540.32	513.28
	5336.000	155 00	0 00	0.00	591.10	1950 00	600.96	0.00	601.23	16.62	4.14	1877.49	478 92
	5336.000	155.00	0.00	0.00	591.10	1950.00	601.09	0.00	601.35	16.88	4.09	476.74	474.67
	5486.000	150 00	0.00	0.00	591.50	1950.00	601.22	0.00	601.52	19.79	4.84	1570.50	438.39
	5486.000	150.00	0 00	0 00	591.50	1950.00	601.34	0.00	601.66	19.80	4.89	587 79	438.22

NORTH BR ECORSE CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1.000	4450.00	574.90	0.00	0.00	0.00	89.83	0.00
	1.000	4450.00	575.00	0.10	0.00	0.10	90.67	0.00
	30.000	4450.00	574.94	0.00	0.04	0.00	90.12	27.00
	30.000	4450.00	575.04	0.10	0.04	0.10	90.94	27.00
	60.000	4450.00	574.99	0.00	0.04	0.00	90.47	30.00
	60.000	4450.00	575.08	0.10	0.04	0.10	91.28	30.00
	61.000	4450.00	574.92	0.00	-0.06	0.00	83.03	1.00
	61.000	4450.00	575.02	0.10	-0.06	0.10	83.85	1.00
	136.000	4450.00	575.13	0.00	0.20	0.00	84.73	75.00
	136.000	4450.00	575.22	0.09	0.20	0.09	85.49	75.00
	137.000	4450.00	575.31	0.00	0.18	0.00	93.25	1.00
	137.000	4450.00	575.40	0.09	0.18	0.09	93.96	1.00
	187.000	4450.00	575.34	0.00	0.03	0.00	91.36	50.00
	187.000	4450.00	575.42	0.09	0.03	0.09	92.06	50.00
*	362.000	4450.00	575.96	0.00	0.62	0.00	146.32	175.00
*	362.000	4450.00	576.03	0.07	0.61	0.07	146.87	175.00
	737.000	4450.00	576.24	0.00	0.28	0.00	110.42	375.00
	737.000	4450.00	576.29	0.05	0.26	0.05	100.00	375.00
	787.000	4450.00	576.24	0.00	0.00	0.00	106.60	50.00
	787.000	4450.00	576.30	0.06	0.01	0.06	106.60	50.00
*	788.000	4450.00	576.19	0.00	-0.05	0.00	104.00	1.00
*	788.000	4450.00	576.26	0.06	-0.04	0.06	104.00	1.00
*	798.000	4450.00	576.33	0.00	0.14	0.00	106.60	1.00
*	798.000	4450.00	576.39	0.06	0.13	0.06	106.60	1.00
	844.000	4450.00	576.38	0.00	0.05	0.00	109.00	46.00
	844.000	4450.00	576.44	0.06	0.05	0.06	109.00	46.00
*	845.000	4450.00	576.35	0.00	-0.03	0.00	102.00	1.00
*	845.000	4450.00	576.41	0.06	-0.03	0.06	102.00	1.00
	859.000	4450.00	576.41	0.00	0.06	0.00	102.00	14.50
	859.000	4450.00	576.46	0.06	0.06	0.06	102.00	14.50
*	860.000	4450.00	576.51	0.00	0.10	0.00	109.00	1.00
*	860.000	4450.00	576.57	0.06	0.10	0.06	109.00	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	910.000	4450.00	576.59	0.00	0.08	0.00	107.00	50.00
	910.000	4450.00	576.64	0.05	0.08	0.05	107.00	50.00
*	911.000	4450.00	576.55	0.00	-0.04	0.00	105.00	1.00
*	911.000	4450.00	576.61	0.06	-0.04	0.06	105.00	1.00
	921.000	4450.00	576.59	0.00	0.04	0.00	105.00	10.00
	921.000	4450.00	576.65	0.05	0.04	0.05	105.00	10.00
*	922.000	4450.00	576.70	0.00	0.11	0.00	107.00	1.00
*	922.000	4450.00	576.76	0.05	0.11	0.05	107.00	1.00
	953.000	4450.00	576.64	0.00	-0.07	0.00	81.00	31.00
	953.000	4450.00	576.69	0.05	-0.07	0.05	81.00	31.00
*	954.000	4450.00	576.49	0.00	-0.15	0.00	67.20	1.00
*	954.000	4450.00	576.54	0.05	-0.14	0.05	67.20	1.00
	985.000	4450.00	576.75	0.00	0.26	0.00	67.20	30.50
	985.000	4450.00	576.80	0.05	0.26	0.05	67.20	30.50
*	986.000	4450.00	577.15	0.00	0.40	0.00	81.00	1.00
*	986.000	4450.00	577.20	0.04	0.40	0.04	81.00	1.00
	1036.000	4450.00	577.34	0.00	0.18	0.00	120.22	50.00
	1036.000	4450.00	577.38	0.04	0.18	0.04	120.47	50.00
	1736.000	4450.00	578.06	0.00	0.73	0.00	116.38	700.00
	1736.000	4450.00	578.10	0.03	0.71	0.03	116.45	700.00
	2436.000	4450.00	578.53	0.00	0.46	0.00	102.00	700.00
	2436.000	4450.00	578.55	0.03	0.46	0.03	102.00	700.00
*	2736.000	1580.00	578.97	0.00	0.45	0.00	100.00	300.00
*	2736.000	1580.00	579.00	0.02	0.44	0.02	100.00	300.00
	3436.000	1580.00	579.13	0.00	0.15	0.00	100.00	700.00
	3436.000	1580.00	579.15	0.02	0.15	0.02	100.00	700.00
	3836.000	1580.00	579.23	0.00	0.10	0.00	88.42	400.00
	3836.000	1580.00	579.25	0.02	0.10	0.02	88.50	400.00
	4311.000	1580.00	579.43	0.00	0.20	0.00	88.44	475.00
	4311.000	1580.00	579.45	0.02	0.20	0.02	88.48	475.00
	4786.000	1580.00	579.65	0.00	0.22	0.00	104.85	475.00
	4786.000	1580.00	579.67	0.02	0.22	0.02	104.97	475.00
	4825.000	1580.00	579.67	0.00	0.03	0.00	98.00	39.00
	4825.000	1580.00	579.69	0.02	0.02	0.02	98.00	39.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4846.000	1580.00	579.74	0.00	0.07	0.00	98.00	21.00
*	4846.000	1580.00	579.68	-0.06	-0.01	-0.06	98.00	21.00
	4847.000	1580.00	579.74	0.00	0.00	0.00	98.00	1.00
*	4847.000	1580.00	579.74	-0.01	0.06	-0.01	98.00	1.00
	5436.000	1580.00	579.91	0.00	0.16	0.00	94.66	589.00
	5436.000	1580.00	579.90	-0.01	0.16	-0.01	94.70	589.00
	5936.000	1580.00	580.10	0.00	0.19	0.00	96.27	500.00
	5936.000	1580.00	580.09	-0.01	0.19	-0.01	96.24	500.00
	6416.000	1580.00	580.27	0.00	0.17	0.00	77.19	480.00
	6416.000	1580.00	580.26	-0.01	0.17	-0.01	77.16	480.00
	6786.000	1580.00	580.48	0.00	0.21	0.00	78.78	370.00
	6786.000	1580.00	580.47	-0.01	0.22	-0.01	78.76	370.00
	6835.000	1580.00	580.47	0.00	-0.01	0.00	72.38	49.00
	6835.000	1580.00	580.46	-0.01	-0.01	-0.01	72.36	49.00
*	6836.000	1580.00	580.61	0.00	0.14	0.00	73.00	1.00
*	6836.000	1580.00	580.60	-0.01	0.14	-0.01	73.00	1.00
	6916.000	1580.00	581.10	0.00	0.50	0.00	73.00	80.00
	6916.000	1580.00	581.10	-0.01	0.50	-0.01	73.00	80.00
	6917.000	1330.00	581.09	0.00	-0.01	0.00	75.16	1.00
	6917.000	1330.00	581.09	-0.01	-0.01	-0.01	75.13	1.00
	7436.000	1330.00	581.34	0.00	0.25	0.00	78.15	519.00
	7436.000	1330.00	581.34	-0.01	0.25	-0.01	78.13	519.00
	7936.000	1330.00	581.52	0.00	0.18	0.00	282.71	500.00
	7936.000	1330.00	581.51	-0.01	0.17	-0.01	101.74	500.00
	8536.000	1330.00	581.71	0.00	0.19	0.00	133.22	600.00
	8536.000	1330.00	581.71	0.00	0.20	0.00	133.44	600.00
	9136.000	1330.00	581.97	0.00	0.26	0.00	519.61	600.00
	9136.000	1330.00	581.97	0.00	0.26	0.00	326.68	600.00
	9586.000	1330.00	582.10	0.00	0.13	0.00	527.48	450.00
	9586.000	1330.00	582.12	0.02	0.14	0.02	119.34	450.00
	9596.000	1330.00	582.08	0.00	-0.02	0.00	200.00	10.00
	9596.000	1330.00	582.11	0.03	-0.01	0.03	114.77	10.00
	10286.000	1330.00	582.38	0.00	0.30	0.00	200.00	690.00
	10286.000	1330.00	582.42	0.04	0.31	0.04	154.08	690.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	10336.000	1330.00	582.46	0.00	0.08	0.00	704.52	50.00
*	10336 000	1330.00	582.50	0.04	0.08	0.04	225 00	50 00
*	10636.000	1330 00	582.45	0.00	-0.01	0.00	75.20	300.00
*	10636 000	1330.00	582 51	0.06	0.01	0.06	75.55	300 00
	11536.000	1330.00	582.87	0 00	0.42	0.00	99.54	900.00
	11536.000	1330.00	582.91	0.05	0.41	0.05	100.00	900 00
	12274 000	1330.00	583 17	0.00	0.30	0.00	150.00	738.00
	12274.000	1330.00	583.20	0.04	0.29	0.04	88.59	738 00
	12324 000	1330 00	583.17	0.00	0 00	0.00	50.10	50.00
	12324.000	1330.00	583.21	0.04	0 01	0.04	50.10	50.00
*	12325 000	1330.00	583.14	0.00	-0.03	0.00	50.10	1.00
*	12325 000	1330.00	583.18	0.04	-0.03	0.04	50.10	1.00
	12367.000	1330.00	583.22	0 00	0.08	0.00	50.10	42 00
	12367.000	1330.00	583.26	0 04	0.08	0.04	50.10	42 00
*	12368.000	1330.00	583.37	0.00	0.15	0.00	145.00	1 00
*	12368.000	1330.00	583.40	0.03	0 14	0.03	124.66	1 00
	12418.000	1330.00	583.38	0.00	0.01	0 00	145.00	50 00
	12418.000	1330.00	583 41	0.04	0 01	0.04	124 74	50.00
*	13295.000	1330 00	583.67	0.00	0.30	0.00	311.30	877.00
*	13295.000	1330 00	583.72	0.04	0.30	0.04	91.38	877.00
	13676.000	1330.00	583.85	0 00	0.17	0.00	195.00	381.00
	13676.000	1330.00	583.90	0.06	0.18	0.06	195 00	381 00
	13726.000	1330.00	583.84	0.00	-0.01	0.00	170.00	50.00
	13726 000	1330.00	583.90	0.06	-0 01	0 06	170.00	50.00
*	13727 000	1330 00	583.79	0 00	-0.05	0.00	170.00	1.00
*	13727.000	1330.00	583.85	0.06	-0.05	0.06	170.00	1.00
	13964.000	1330.00	584.68	0.00	0.89	0.00	170.00	237.00
	13964.000	1330 00	584.70	0.03	0.86	0.03	170.00	237.00
*	13965 000	1330.00	584.71	0.00	0.04	0.00	170.00	1.00
*	13965.000	1330 00	584 74	0.03	0 04	0.03	170.00	1 00
	14015.000	1330.00	584.79	0.00	0.07	0.00	170.00	50.00
	14015.000	1330 00	584 81	0 03	0 07	0 03	170.00	50.00
	14287.000	1330 00	584 89	0 00	0 11	0.00	320.00	272.00
	14287.000	1330.00	584.92	0.02	0.10	0.02	235.60	272 00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	14337.000	1330.00	584.90	0.00	0.01	0.00	320.00	50.00
	14337.000	1330.00	584.93	0.03	0.01	0.03	248.47	50.00
	14338.000	1330.00	584.95	0.00	0.04	0.00	1218.59	1.00
*	14338.000	1330.00	584.96	0.02	0.03	0.02	561.06	1.00
	14402.000	1330.00	584.96	0.00	0.01	0.00	320.00	64.00
	14402.000	1330.00	584.99	0.03	0.02	0.03	320.00	64.00
*	14403.000	1330.00	584.96	0.00	0.00	0.00	320.00	1.00
*	14403.000	1330.00	584.99	0.03	0.00	0.03	248.68	1.00
	14460.000	1330.00	584.96	0.00	0.00	0.00	400.00	57.00
	14460.000	1330.00	584.99	0.03	0.00	0.03	295.40	57.00
*	14461.000	1330.00	584.97	0.00	0.01	0.00	400.00	1.00
*	14461.000	1330.00	585.00	0.03	0.01	0.03	400.00	1.00
	14521.000	1330.00	585.03	0.00	0.06	0.00	400.00	60.00
	14521.000	1330.00	585.06	0.03	0.06	0.03	400.00	60.00
*	14522.000	1330.00	585.02	0.00	0.00	0.00	400.00	1.00
*	14522.000	1330.00	585.05	0.03	0.00	0.03	298.39	1.00
*	14572.000	980.00	585.05	0.00	0.03	0.00	420.00	50.00
*	14572.000	980.00	585.09	0.03	0.03	0.03	420.00	50.00
*	15292.000	980.00	585.27	0.00	0.22	0.00	60.27	720.00
*	15292.000	980.00	585.30	0.02	0.21	0.02	60.35	720.00
	15820.000	980.00	585.50	0.00	0.23	0.00	88.01	528.00
	15820.000	980.00	585.52	0.01	0.22	0.01	42.61	528.00
	15870.000	980.00	585.58	0.00	0.08	0.00	64.51	50.00
	15870.000	980.00	585.60	0.02	0.08	0.02	50.81	50.00
	15914.000	980.00	586.21	0.00	0.63	0.00	70.54	44.00
	15914.000	980.00	586.23	0.02	0.63	0.02	53.42	44.00
	15964.000	980.00	586.18	0.00	-0.03	0.00	91.57	50.00
	15964.000	980.00	586.19	0.02	-0.03	0.02	39.59	50.00
	16194.000	980.00	586.46	0.00	0.29	0.00	77.44	230.00
	16194.000	980.00	586.49	0.03	0.30	0.03	65.33	230.00
*	16244.000	980.00	586.35	0.00	-0.11	0.00	22.93	50.00
*	16244.000	980.00	586.39	0.03	-0.10	0.03	22.93	50.00
	16245.000	980.00	586.35	0.00	0.00	0.00	22.93	1.00
*	16245.000	980.00	586.39	0.03	0.00	0.03	22.93	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLOB
	16503.000	980.00	586.65	0.00	0.30	0.00	22.93	258.00
	16503.000	980.00	586.68	0.03	0.29	0.03	22.93	258.00
	16504.000	910.00	586.72	0.00	0.07	0.00	22.93	1.00
*	16504.000	910.00	586.75	0.03	0.07	0.03	22.93	1.00
*	16554.000	910.00	587.01	0.00	0.28	0.00	83.03	50.00
*	16554.000	910.00	587.03	0.03	0.28	0.03	57.14	50.00
*	16826.000	910.00	587.13	0.00	0.12	0.00	62.00	272.00
*	16826.000	910.00	587.16	0.03	0.13	0.03	60.21	272.00
	16876.000	910.00	587.12	0.00	-0.01	0.00	33.10	50.00
	16876.000	910.00	587.15	0.03	-0.01	0.03	33.10	50.00
*	16963.000	910.00	587.12	0.00	0.00	0.00	33.10	87.00
	16963.000	910.00	587.15	0.03	0.00	0.03	33.10	87.00
*	17013.000	910.00	587.28	0.00	0.16	0.00	108.70	50.00
	17013.000	910.00	587.23	-0.05	0.08	-0.05	108.56	50.00
	17255.000	910.00	587.30	0.00	0.02	0.00	52.00	242.00
	17255.000	910.00	587.25	-0.06	0.02	-0.06	47.00	242.00
*	17305.000	910.00	587.25	0.00	-0.05	0.00	27.20	50.00
*	17305.000	910.00	587.20	-0.05	-0.04	-0.05	27.20	50.00
	17502.000	910.00	587.85	0.00	0.60	0.00	27.20	197.00
	17502.000	910.00	587.95	0.10	0.75	0.10	27.20	197.00
	17552.000	910.00	588.02	0.00	0.17	0.00	130.00	50.00
	17552.000	910.00	588.11	0.09	0.16	0.09	65.53	50.00
	17817.000	910.00	588.09	0.00	0.07	0.00	155.96	265.00
	17817.000	910.00	588.19	0.09	0.07	0.09	104.97	265.00
	18106.000	910.00	588.21	0.00	0.12	0.00	170.72	289.00
	18106.000	910.00	588.31	0.09	0.12	0.09	106.76	289.00
	18156.000	910.00	588.17	0.00	-0.05	0.00	121.64	50.00
	18156.000	910.00	588.26	0.09	-0.05	0.09	51.47	50.00
*	18157.000	910.00	587.97	0.00	-0.19	0.00	102.35	1.00
*	18157.000	910.00	588.08	0.10	-0.18	0.10	25.10	1.00
	18195.000	910.00	588.17	0.00	0.20	0.00	122.00	38.00
	18195.000	910.00	588.26	0.09	0.18	0.09	25.10	38.00
*	18196.000	910.00	588.46	0.00	0.29	0.00	160.15	1.00
*	18196.000	910.00	588.54	0.08	0.28	0.08	55.92	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	18246.000	910.00	588.52	0.00	0.07	0.00	260.00	50.00
	18246.000	910.00	588.60	0.08	0.06	0.08	133.68	50.00
	18545.000	910.00	588.66	0.00	0.14	0.00	345.83	299.00
	18545.000	910.00	588.74	0.08	0.14	0.08	193.83	299.00
*	18829.000	910.00	588.85	0.00	0.19	0.00	372.00	284.00
*	18829.000	910.00	588.94	0.09	0.20	0.09	240.52	284.00
	18961.000	910.00	588.87	0.00	0.02	0.00	306.00	132.00
	18961.000	910.00	588.96	0.09	0.02	0.09	239.81	132.00
*	19112.000	910.00	588.84	0.00	-0.04	0.00	231.62	151.00
*	19112.000	910.00	588.93	0.09	-0.03	0.09	32.38	151.00
	19162.000	910.00	588.86	0.00	0.03	0.00	239.86	50.00
	19162.000	910.00	588.97	0.10	0.04	0.10	31.34	50.00
*	19163.000	910.00	588.56	0.00	-0.30	0.00	173.90	1.00
*	19163.000	910.00	588.68	0.12	-0.28	0.12	26.10	1.00
*	19263.000	910.00	589.62	0.00	1.06	0.00	363.00	100.00
*	19263.000	910.00	589.67	0.05	0.98	0.05	51.55	100.00
*	19264.000	910.00	590.07	0.00	0.46	0.00	363.00	1.00
*	19264.000	910.00	590.17	0.10	0.50	0.10	123.17	1.00
	19314.000	910.00	590.09	0.00	0.02	0.00	383.00	50.00
	19314.000	910.00	590.19	0.11	0.03	0.11	124.80	50.00
	20080.000	910.00	590.38	0.00	0.29	0.00	470.00	766.00
	20080.000	910.00	590.55	0.17	0.35	0.17	357.20	766.00
	20130.000	910.00	590.41	0.00	0.03	0.00	470.00	50.00
	20130.000	910.00	590.58	0.17	0.03	0.17	346.76	50.00
*	20131.000	910.00	590.36	0.00	-0.06	0.00	470.00	1.00
*	20131.000	910.00	590.59	0.24	0.01	0.24	1247.75	1.00
	20168.000	910.00	590.52	0.00	0.16	0.00	470.00	37.00
	20168.000	910.00	590.65	0.13	0.06	0.13	442.20	37.00
*	20169.000	910.00	590.63	0.00	0.11	0.00	470.00	1.00
*	20169.000	910.00	590.77	0.13	0.12	0.13	686.75	1.00
	20269.000	910.00	590.66	0.00	0.03	0.00	474.00	100.00
*	20269.000	910.00	590.76	0.10	-0.01	0.10	220.00	100.00
	20599.000	910.00	590.76	0.00	0.09	0.00	350.00	330.00
	20599.000	910.00	590.86	0.10	0.10	0.10	227.00	330.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	21999.000	910.00	591.18	0.00	0.42	0.00	500.00	1730.00
*	21999.000	910.00	591.32	0.14	0.46	0.14	400.00	1730.00
	22380.000	910.00	591.23	0.00	0.05	0.00	340.00	381.00
	22380.000	910.00	591.37	0.15	0.06	0.15	255.00	381.00
	23417.000	910.00	591.44	0.00	0.21	0.00	68.38	1418.00
	23417.000	910.00	591.59	0.15	0.21	0.15	59.37	1418.00
*	23629.000	920.00	592.69	0.00	1.25	0.00	142.00	212.00
*	23629.000	920.00	592.84	0.15	1.25	0.15	66.91	212.00
*	1.000	920.00	592.71	0.00	0.01	0.00	230.00	100.00
*	1.000	920.00	592.85	0.14	0.01	0.14	101.87	100.00
*	2.000	920.00	592.86	0.00	0.15	0.00	90.00	400.00
*	2.000	920.00	592.99	0.13	0.14	0.13	68.00	400.00
	3.000	920.00	593.53	0.00	0.67	0.00	52.00	800.00
	3.000	920.00	593.56	0.03	0.57	0.03	52.00	800.00
	4.000	920.00	593.55	0.00	0.02	0.00	26.50	50.00
	4.000	920.00	593.58	0.03	0.02	0.03	26.50	50.00
	5.000	920.00	594.25	0.00	0.69	0.00	26.50	70.00
	5.000	920.00	594.27	0.03	0.69	0.03	26.50	70.00
*	6.000	920.00	594.43	0.00	0.18	0.00	166.00	70.00
*	6.000	920.00	594.44	0.02	0.17	0.02	97.35	70.00
	7.000	920.00	594.42	0.00	0.00	0.00	200.00	17.00
	7.000	920.00	594.44	0.02	0.00	0.02	42.42	17.00
*	7.500	920.00	594.54	0.00	0.11	0.00	242.00	180.00
*	7.500	920.00	594.56	0.03	0.12	0.03	82.45	180.00
	7.600	920.00	594.67	0.00	0.13	0.00	242.00	1.00
*	7.600	920.00	594.65	-0.02	0.09	-0.02	82.00	1.00
	7.700	920.00	594.73	0.00	0.06	0.00	236.00	12.00
	7.700	920.00	594.76	0.03	0.11	0.03	87.03	12.00
*	7.800	920.00	594.70	0.00	-0.03	0.00	236.00	1.00
*	7.800	920.00	594.73	0.03	-0.03	0.03	85.66	1.00
*	8.000	920.00	595.27	0.00	0.57	0.00	51.00	370.00
*	8.000	920.00	595.33	0.07	0.60	0.07	43.00	370.00
	9.000	920.00	595.28	0.00	0.01	0.00	26.00	50.00
	9.000	920.00	595.34	0.07	0.01	0.07	26.00	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10.000	920.00	596.17	0.00	0.90	0.00	26.00	50.00
	10.000	920.00	596.24	0.07	0.90	0.07	26.00	50.00
*	11.000	920.00	596.38	0.00	0.21	0.00	126.00	50.00
*	11.000	920.00	596.44	0.06	0.20	0.06	116.97	50.00
	12.000	920.00	596.68	0.00	0.30	0.00	123.00	1425.00
	12.000	920.00	596.75	0.07	0.31	0.07	110.28	1425.00
	13.000	920.00	596.67	0.00	-0.02	0.00	74.21	100.00
	13.000	920.00	596.74	0.07	-0.01	0.07	57.91	100.00
	68.000	920.00	597.07	0.00	0.41	0.00	80.46	68.00
	68.000	920.00	597.17	0.10	0.44	0.10	80.95	68.00
	189.000	920.00	597.11	0.00	0.04	0.00	89.21	121.00
	189.000	920.00	597.20	0.09	0.03	0.09	66.92	121.00
	253.000	920.00	597.48	0.00	0.37	0.00	64.36	64.00
	253.000	920.00	597.58	0.10	0.37	0.10	64.70	64.00
	353.000	1430.00	597.52	0.00	0.04	0.00	264.00	100.00
	353.000	1430.00	597.61	0.09	0.04	0.09	112.04	100.00
	553.000	1430.00	597.58	0.00	0.06	0.00	324.01	200.00
	553.000	1430.00	597.67	0.09	0.06	0.09	111.63	200.00
*	1832.000	1430.00	598.01	0.00	0.43	0.00	617.00	1279.00
*	1832.000	1430.00	598.10	0.09	0.43	0.09	118.75	1279.00
	2132.000	1430.00	598.21	0.00	0.20	0.00	500.00	350.00
	2132.000	1430.00	598.30	0.09	0.20	0.09	120.76	350.00
	2536.000	1430.00	598.51	0.00	0.29	0.00	500.00	404.00
	2536.000	1430.00	598.59	0.09	0.29	0.09	140.00	404.00
	2541.000	1430.00	598.58	0.00	0.07	0.00	500.00	5.00
	2541.000	1430.00	598.63	0.05	0.03	0.05	140.00	5.00
	2591.000	1430.00	598.60	0.00	0.02	0.00	500.00	50.00
	2591.000	1430.00	598.65	0.05	0.02	0.05	120.00	50.00
*	2941.000	1430.00	598.75	0.00	0.15	0.00	450.00	350.00
*	2941.000	1430.00	598.83	0.08	0.18	0.08	120.00	350.00
*	3287.000	1430.00	598.82	0.00	0.07	0.00	500.00	346.00
*	3287.000	1430.00	598.92	0.10	0.09	0.10	140.00	346.00
	3487.000	1430.00	598.81	0.00	-0.01	0.00	500.00	200.00
	3487.000	1430.00	598.92	0.11	0.00	0.11	140.00	200.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLOH
	3776.000	1430.00	599.06	0.00	0.25	0.00	500.00	289.00
	3776.000	1430.00	599.19	0.13	0.27	0.13	197.36	289.00
	3843.000	1430.00	599.06	0.00	0.00	0.00	500.00	67.00
	3843.000	1430.00	599.19	0.13	0.00	0.13	198.07	67.00
	4234.000	1430.00	599.24	0.00	0.18	0.00	390.00	391.00
	4234.000	1430.00	599.36	0.12	0.17	0.12	130.32	391.00
	4294.000	1430.00	599.24	0.00	0.00	0.00	360.00	60.00
	4294.000	1430.00	599.37	0.12	0.00	0.12	130.73	60.00
	4610.000	1430.00	599.46	0.00	0.22	0.00	199.00	316.00
*	4610.000	1430.00	599.55	0.09	0.18	0.09	66.88	316.00
	4678.000	1430.00	599.46	0.00	0.00	0.00	165.00	68.00
	4678.000	1430.00	599.55	0.09	0.00	0.09	66.90	68.00
	4853.000	1430.00	599.61	0.00	0.16	0.00	79.16	175.00
	4853.000	1430.00	599.74	0.13	0.19	0.13	58.63	175.00
	5181.000	1430.00	600.80	0.00	1.18	0.00	86.84	328.00
	5181.000	1430.00	600.92	0.13	1.18	0.13	63.63	328.00
	5336.000	1950.00	600.96	0.00	0.16	0.00	463.28	155.00
	5336.000	1950.00	601.09	0.13	0.17	0.13	81.50	155.00
	5486.000	1950.00	601.22	0.00	0.26	0.00	692.72	150.00
	5486.000	1950.00	601.34	0.12	0.25	0.12	305.13	150.00

SUMMARY OF ERRORS AND SPECIAL NOTES

WARNING SECNO= 362.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 362.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 788.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 788 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 798.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 798.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 845.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 845 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 860 000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 860 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 911.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 911.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 922.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 922 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 954 000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 954.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 986.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 986 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 2736.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 2736 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4846.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 4847.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 6836.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 6836.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 10336.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 10336.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 10636.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 10636 000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 12325.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO= 12325.000 PROFILE= 2 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO= 12368.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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WARNING SECNO=  12368.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  13295.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  13295.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  13727.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  13727.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  13965.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  13965.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  14338.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  14403.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  14403.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  14461.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  14461.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  14522.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  14522.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  14572.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  14572.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  15292.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  15292.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16244.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  16244.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16245.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16504.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16554.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  16554.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16826.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  16826.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  16963.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  17013.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  17305.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  17305.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  18157.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  18157.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  18196.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=  18196.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  18829.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  18829.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  19112.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  19112.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  19163.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  19163.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  19263.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  19263.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  19264.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  19264.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  20131.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  20131.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  20169.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  20169.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

NOTE    SECNO=  20269.000  PROFILE=  2  WSEL BASED ON X5 CARD

WARNING SECNO=  21999.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  21999.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=  23629.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=  23629.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      1.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      1.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      7.500  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      7.500  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      7.600  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      7.800  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      7.800  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      8.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      8.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     11.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=     11.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   1832.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   1832.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   2941.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   2941 000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   3287 000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=   3287.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=   4610.000  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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FLOODWAY DATA, NORTH BR ECORSE CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
1.000	91.	710.	6 3	575.0	574.9	0 1
30.000	91.	713	6.2	575.0	574 9	0.1
60.000	91.	717.	6 2	575.1	575.0	0.1
61.000	91	653.	6.8	575.0	574 9	0.1
136.000	92.	670.	6.6	575.2	575.1	0 1
137.000	94.	747.	6.0	575.4	575.3	0.1
187.000	92	702	6.3	575.4	575.3	0 1
362.000	147.	1008.	4.4	576.1	576 0	0.1
737.000	100.	932	4 8	576 3	576 2	0.1
787.000	107.	857	5.2	576.3	576.2	0.1
788.000	107.	775.	5.7	576.3	576.2	0.1
795.000	107	866	5.1	576.4	576.3	0 1
844.000	109	872.	5.1	576.5	576.4	0 1
845.000	109.	804	5.5	576.4	576 3	0.1
859.000	109	809.	5.5	576.5	576.4	0.1
860.000	109.	886.	5.0	576.6	576.5	0.1
910 000	107.	917.	4.9	576.7	576.6	0.1
911.000	107.	832.	5.3	576 6	576 5	0.1
921.000	107.	836.	5.3	576.7	576 6	0.1
922 000	107.	929	4.8	576.8	576 7	0.1
953.000	81	746.	6 0	576.7	576.6	0 1
954.000	81.	603.	7.4	576.6	576.5	0.1
985.000	81	620.	7.2	576.7	576.7	0.0
986.000	81.	788.	5.7	577.2	577.2	0.0
1036 000	120.	884	5 0	577.3	577.3	0.0
1736.000	116.	1005	4.4	578 1	578.1	0.0
2436.000	102	983.	4.5	578.5	578.5	0.0
2736 000	100.	710.	2.2	579.0	579.0	0.0
3436 000	100.	687.	2.3	579.1	579.1	0.0
3836.000	88.	550.	2.9	579.2	579 2	0.0
4311 000	88.	550.	2.9	579 4	579.4	0.0
4786 000	105.	640.	2.5	579 6	579.6	0.0
4825.000	98.	678.	2.3	579.7	579.7	0 0
4846 000	98.	556.	2.8	579.6	579.7	-0.1
4847.000	98.	684.	2.3	579.7	579 7	0.0
5436 000	95.	583.	2.7	579 9	579.9	0 0
5936.000	96.	613.	2.6	580 1	580 1	0.0
6416.000	77.	480.	3.3	580.3	580 3	0.0
6786 000	79.	507.	3.1	580.5	580.5	0.0
6835.000	72.	402.	3.9	580.5	580.5	0 0
6836.000	73.	539.	2.9	580.6	580.6	0.0
6916.000	73.	576.	2.7	581.1	581 1	0.0

FLOODWAY DATA, NORTH BR ECORSE CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
6917.000	75.	446.	3.0	581.1	581.1	0.0
7436.000	78.	496	2.7	581.3	581.3	0 0
7936.000	186.	509	2 6	581.5	581.5	0.0
8536.000	179.	531	2.5	581.7	581.7	0.0
9136 000	327.	775.	1 7	582 0	582.0	0.0
9586 000	119.	594	2.2	582 1	582.1	0 0
9596.000	115	516	2.6	582.1	582.1	0 0
10286.000	154.	591.	2.2	582 4	582 4	0.0
10336 000	225.	1024.	1.3	582 5	582.5	0.0
10636.000	76.	472	2.8	582 6	582.5	0.1
11536.000	100.	513.	2.6	582.9	582.9	0.0
12274 000	89	546	2.4	583.2	583.2	0.0
12324 000	50	467.	2.8	583.2	583.2	0 0
12325 000	50.	380.	3.5	583.1	583.1	0.0
12367 000	50.	380.	3.5	583.2	583.2	0.0
12368.000	125.	661.	2.0	583.4	583.4	0.0
12418 000	125	663	2 0	583.4	583.4	0.0
13295.000	91.	532.	2.5	583 7	583 7	0.0
13676.000	195.	904.	1.5	583.9	583.8	0 1
13726.000	170.	693.	1.9	583 9	583.8	0.1
13727.000	170.	482	2.8	583 9	583.8	0.1
13964 000	170.	627.	2.1	584 7	584.7	0.0
13965 000	170.	837.	1.6	584.7	584.7	0.0
14015.000	170.	848.	1.6	584.8	584.8	0.0
14287.000	236.	901	1.5	584.9	584 9	0.0
14337.000	248.	921.	1.4	584.9	584.9	0 0
14338.000	561	1847.	0.7	584.9	584 9	0.0
14402.000	320.	893.	1.5	585.0	585 0	0 0
14403.000	249.	937.	1.4	585 0	585.0	0.0
14460.000	295.	1092.	1.2	585 0	585.0	0 0
14461.000	400.	1019.	1.3	585.0	585.0	0 0
14521 000	400.	1044.	1.3	585.0	585.0	0.0
14522.000	298	1120.	1.2	585.0	585 0	0.0
14570 000	420	1077	0.9	585.1	585.1	0.0
15292.000	60	383.	2.6	585.3	585.3	0.0
15820 000	43.	309	3.2	585.5	585.5	0 0
15870.000	51.	376.	2 6	585.6	585 6	0.0
15914 000	53	417.	2.3	586.2	586.2	0.0
15964 000	40	299.	3.3	586.2	586.2	0.0
16194.000	65.	458.	2.1	586.5	586.5	0.0
16244.000	23.	202.	4.8	586.4	586.4	0.0
16245 000	23.	202	4.9	586 4	586 4	0 0

FLOODWAY DATA, NORTH BR ECORSE CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
16503.000	23	208.	4 7	586.7	586.7	0.0
16504.000	23.	211	4.3	586.7	586 7	0.0
16554.000	57.	426	2.1	587.0	587.0	0.0
16826.000	60	624.	1.5	587 1	587.1	0 0
16876.000	33	416.	2.2	587.1	587.1	0 0
16963.000	33.	405.	2 2	587.1	587.1	0.0
17013.000	109.	744	1.2	587.2	587.3	-0.1
17255 000	47	435.	2.1	587 2	587.3	-0.1
17305.000	27.	253	3.6	587.3	587.3	0.0
17502 000	27.	273.	3.3	588.0	587.9	0.1
17552.000	66.	477.	1.9	588 1	588.0	0.1
17817.000	123.	419.	2.2	588.2	588.1	0 1
18106.000	109	492.	1.9	588.3	588.2	0.1
18156.000	51.	407.	2.2	588.3	588.2	0 1
18157.000	25.	177.	5.1	588.1	588.0	0.1
18195 000	25.	181.	5.0	588 3	588.2	0.1
18196.000	56.	440.	2.1	588.6	588.5	0.1
18246.000	134.	509.	1.8	588 6	588.5	0.1
18545.000	194	425	2 1	588.8	588.7	0 1
18829 000	241.	1037.	0.9	589.0	588.9	0.1
18961.000	240.	1040	0.9	589.0	588.9	0.1
19112.000	32.	312.	2.9	588 9	588.8	0.1
19162.000	31.	305.	3.0	589.0	588.9	0.1
19163 000	26	130.	7.0	588.7	588.6	0.1
19263.000	52.	191.	4.8	589.7	589.6	0.1
19264.000	123.	550.	1.7	590.2	590.1	0 1
19314 000	125	555.	1.6	590.2	590.1	0.1
20080.000	357	1407.	0.6	590.6	590.4	0.2
20130.000	347.	970.	0 9	590.6	590.4	0.2
20131.000	1340	1633.	0.6	590 6	590 4	0.2
20168.000	442.	939.	1.0	590.5	590 5	0 1
20169.000	701	1150.	0.8	590.7	590.6	0.1
20269.000	220.	809.	1.1	590.8	590.7	0 1
20599.000	227.	837	1 1	590 9	590.8	0 1
21999.000	400.	990.	0.9	591.3	591.2	0.1
22380.000	255.	827.	1.1	591.3	591 2	0.1
23417.000	59.	504	1.8	591.5	591.4	0 1
23629.000	67	602.	1.5	592 8	592 7	0.1
1.000	102	615	1.5	592.8	592.7	0 1
2.000	68.	348.	2.6	593.0	592.9	0.1
3.000	52.	310.	3.0	593 5	593.5	0.0
4.000	27.	236.	3.9	593.6	593.6	0.0

FLOODWAY DATA, NORTH BR ECORSE CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
5.000	27.	254.	3 6	594 2	594.2	0.0
6.000	97.	378.	2 4	594 4	594.4	0 0
7 000	42.	330.	2 8	594.4	594 4	0.0
7 500	82.	303.	3.0	594.5	594 5	0 0
7 600	82.	294	3 1	594.7	594.7	0.0
7.700	87.	315	2 9	594 7	594.7	0.0
7.800	86.	325.	2.8	594.7	594.7	0.0
8.000	43.	308.	3.0	595 4	595 3	0 1
9.000	26.	248	3 7	595 4	595 3	0.1
10.000	26	271.	3.4	596.3	596 2	0.1
11 000	117.	832.	1.1	596.5	596 4	0 1
12.000	110	811	1.1	596.8	596.7	0.1
13 000	58	491.	1 9	596.8	596 7	0.1
68.000	81	603.	1.5	597.2	597.1	0.1
189.000	66.	539	1.7	597 2	597.1	0.1
253.000	65.	516.	1.8	597.6	597.5	0.1
353 000	112.	864.	1 7	597.6	597.5	0.1
553.000	112	869.	1.6	597.7	597.6	0 1
1832 000	119.	543.	2.6	598.1	598.0	0 1
2132 000	121.	546	2.6	598.3	598.2	0.1
2536 000	140	643.	2.2	598.6	598.5	0 1
2541.000	140.	647.	2.2	598.7	598.6	0.1
2591.000	120.	608.	2 4	598.7	598.6	0.1
2941.000	120.	919	1 6	598 8	598.7	0.1
3267.000	140.	656.	2.2	598.9	598.8	0.1
3467.000	140	657.	2.2	598.9	598.8	0.1
3776.000	197	952	1 5	599 2	599.1	0 1
3843.000	198.	955.	1.5	599.2	599.1	0 1
4234 000	130.	709.	2.0	599.3	599 2	0 1
4254.000	131.	710.	2.0	599.3	599 2	0 1
4610.000	67.	421.	3.4	599.6	599.5	0 1
4678.000	67.	421.	3.4	599.6	599.5	0.1
4853.000	59.	449.	3.2	599 7	599.6	0.1
5181.000	64.	540	2.6	600 9	600.8	0.1
5336.000	81	477.	4.1	601.1	601 0	0.1
5486.000	406.	588	3.3	601 3	601.2	0.1

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: Euclid Diversion

00BREAK00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1EUCLID ST. FLOW DIVERSON SCORSE CREEK 50  YR
T2ALLEN PARK F/S HUD 2001-07
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00      0.0       [illegible]  598.740   0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
G7    6.000    50.000   [illegible]  250.000   500.000   750.000  1000.000     0.000     0.000     0.000
G8    0.040     0.040     0.030     0.300     0.300     0.000     0.000     0.000     0.000     0.000

        EUCLID ST. FLOW DIVERSION

        INTERSECTION OF EUCLID AND SHENANDOAH

X1    1.000     6.000    45.000    76.000     0.000     0.000     0.000     0.000     0.000     0.000
G1  625.000     0.000   598.000     0.000   596.200    45.000   596.200    76.000   598.000   121.000
G1  625.000   121.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
G2    0.040     0.040     0.010     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        INTERSECTION OF EUCLID AND LARKE

X1    2.000     0.000     0.000     0.000   810.000   810.000   810.000     0.000     1.000     0.000

X1    3.000     0.000     0.000     0.000   390.000   390.000   390.000     0.000     0.100     0.000

X1    4.000     0.000     0.000     0.000   400.000   400.000   400.000     0.000    -1.600     0.000

        INTERSECTION OF EUCLID AND SCORSE CREEK

X1    5.000     0.000     0.000     0.000   100.000   100.000   100.000     0.000     0.700     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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*****************************************************
  REC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 50  YR
T2ALLEN PARK F/S HUD 2009-07
T3       EUCLID ST ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000020      0.00       0.0        0.   598.740     0.000

J2  NPROF     IPLOT     PNFUS     XSECV     XSECH     FN        ALLOC     ZON       ICHKIN    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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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 50  YR
T2ALLEN PARK P/S HUD 2001-07
T3       EUCLID ST ALLEN PARK

J1   ICHECK     INQ       NINV      IDIT      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.       6.        0.        0.  0.000000      0.00      0.0       0.    598.760     0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IDV       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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 50  YR
T2ALLEN PARK F/S HUD 2007-07
T3       EUCLID ST ALLEN PARK
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        5.        0.        0.  0.000000      0.00       0.0        0.   598.740     0.000
J2  XPROF     IPLOT     PMFVS     XSECV     XSECH     FN        ALLDC     IDH       CHNIM     ITRACE
     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 50  YR
T2ALLEN PARK F/S HUD 2001-07
T3       EUCLID ST ALLEN PARK
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FC
         0.       6.       0.        0.  0.000000      0.00       0.0       0.   598.740    0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     F         ALLDC     IBW       CHNIM     ITRACE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 50  YR
T2ALLEN PARK F/S HUD 2001-07
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FG
      0.        7.        0.        0.  0.000000      0.00       0.0       0.   598.740     0.000

J2  NPROF     IPLOT     PRNTS     XSECH     XSECH     FN        ALLDC     IBM       CNNIT     IPRCS
    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

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

EUCLID ST ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TIME	VCH	AREA	.01K
1.000	0.00	0.00	0.00	596.20	50.00	598.74	0.00	596.74	0.11	0.31	220.64	148.01
1.000	0.00	0.00	0.00	596.20	100.00	598.74	0.00	596.74	0.46	0.62	226.34	148.01
1.000	0.00	0.00	0.00	596.20	250.00	598.74	0.00	596.76	2.85	1.56	220.34	148.01
1.000	0.00	0.00	0.00	596.20	500.00	598.74	0.00	596.84	11.41	3.12	220.34	148.01
1.000	0.00	0.00	0.00	596.20	750.00	598.74	0.00	598.96	25.68	4.67	220.34	148.01
1.000	0.00	0.00	0.00	596.20	1000.00	598.74	0.00	599.13	45.65	6.23	220.34	148.01
2.000	810.00	0.00	0.00	597.20	50.00	598.75	0.00	598.76	0.41	0.79	108.04	78.52
2.000	810.00	0.00	0.00	597.20	100.00	598.78	0.00	598.81	1.52	1.55	111.05	81.21
2.000	810.00	0.00	0.00	597.20	250.00	598.99	0.00	599.12	5.94	3.33	134.51	102.00
2.000	810.00	0.00	0.00	597.20	500.00	599.62	0.00	599.78	9.04	4.80	191.48	166.27
2.000	810.00	0.00	0.00	597.20	750.00	599.89	0.00	600.22	10.00	5.68	274.72	237.17
2.000	810.00	0.00	0.00	597.20	1000.00	600.28	0.00	600.69	10.49	6.37	292.19	305.75
3.000	390.00	0.00	0.00	597.30	50.00	598.77	0.00	598.78	0.51	0.85	98.67	70.25
3.000	390.00	0.00	0.00	597.30	100.00	598.84	0.00	598.90	1.66	1.59	107.29	76.87
3.000	390.00	0.00	0.00	597.30	250.00	599.22	0.00	599.32	4.39	3.00	130.46	119.76
3.000	390.00	0.00	0.00	597.30	500.00	599.67	0.00	599.79	5.86	4.95	202.63	206.53
3.000	390.00	0.00	0.00	597.30	750.00	600.53	0.00	600.54	6.58	4.95	281.70	292.29
3.000	390.00	0.00	0.00	597.30	1000.00	600.72	0.00	601.33	7.01	5.59	333.96	377.80
4.000	400.00	0.00	0.00	595.70	50.00	598.72	0.00	598.73	0.33	0.32	242.53	109.77
4.000	400.00	0.00	0.00	595.70	100.00	598.80	0.00	598.89	0.85	0.64	284.31	126.04
4.000	400.00	0.00	0.00	595.70	250.00	599.22	0.00	599.36	0.35	1.34	369.24	169.69
4.000	400.00	0.00	0.00	595.70	500.00	600.03	0.00	600.07	0.79	2.12	442.36	301.45
4.000	400.00	0.00	0.00	595.70	750.00	600.56	0.00	600.65	1.08	2.77	508.99	722.80
4.000	400.00	0.00	0.00	595.70	1000.00	601.05	0.00	601.16	1.36	3.32	567.72	356.62
5.000	100.00	0.00	0.00	596.40	50.00	598.70	0.00	598.73	0.27	0.44	207.26	148.20
5.000	100.00	0.00	0.00	596.40	100.00	598.81	0.00	598.89	0.24	0.64	220.58	203.75
5.000	100.00	0.00	0.00	596.40	250.00	599.34	0.00	599.57	0.79	1.69	274.88	261.76
5.000	100.00	0.00	0.00	596.40	500.00	600.02	0.00	600.09	1.43	2.62	356.63	417.69
5.000	100.00	0.00	0.00	596.40	750.00	600.57	0.00	600.67	1.91	3.32	423.14	542.88
5.000	100.00	0.00	0.00	596.40	1000.00	601.04	0.00	601.19	2.29	3.91	480.68	350.07

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EUCLID ST ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	X	C.SEL	DIFUSF	DIFUSK	DIFKUS	TOPWID	XLGI
1.000	50.00	598.74	0.00	0.00	0.00	121.00	0.00
1.000	100.00	598.74	0.00	0.00	0.00	121.00	0.00
1.000	250.00	598.74	0.00	0.00	0.00	121.00	0.00
1.000	500.00	598.74	0.00	0.00	0.00	121.00	0.00
1.000	750.00	598.74	0.00	0.00	0.00	121.00	0.00
1.000	1000.00	598.74	0.00	0.00	0.00	121.00	0.00
2.000	50.00	598.75	0.00	0.01	0.00	133.46	810.00
2.000	100.00	598.78	0.00	0.04	0.00	109.84	810.00
2.000	250.00	599.09	0.00	0.25	0.00	120.00	810.00
2.000	500.00	599.45	0.00	0.71	0.00	121.00	810.00
2.000	750.00	599.89	0.00	1.15	0.00	121.00	810.00
2.000	1000.00	600.28	0.00	1.54	0.00	121.00	810.00
3.000	50.00	598.77	0.00	0.02	0.00	104.06	390.00
3.000	100.00	598.84	0.00	0.09	0.00	120.25	390.00
3.000	250.00	599.23	0.00	0.48	0.00	121.00	390.00
3.000	500.00	599.51	0.00	0.76	0.00	121.00	390.00
3.000	750.00	600.10	0.00	0.41	0.00	121.00	390.00
3.000	1000.00	600.72	0.00	0.44	0.00	121.00	390.00
4.000	50.00	598.73	0.00	0.01	0.00	121.00	400.00
4.000	100.00	598.78	0.00	0.04	0.00	121.00	400.00
4.000	250.00	599.34	0.00	0.13	0.00	121.00	400.00
4.000	500.00	600.03	0.00	0.22	0.00	121.00	400.00
4.000	750.00	600.59	0.00	0.28	0.00	121.00	400.00
4.000	1000.00	601.05	0.00	0.33	0.00	121.00	400.00
5.000	50.00	598.73	0.00	-0.00	0.00	121.00	100.00
5.000	100.00	598.77	0.00	-0.00	0.00	121.00	100.00
5.000	250.00	599.34	0.00	-0.00	0.00	121.00	100.00
5.000	500.00	600.02	0.00	-0.01	0.00	121.00	100.00
5.000	750.00	600.57	0.00	-0.01	0.00	121.00	100.00
5.000	1000.00	601.06	0.00	-0.01	0.00	121.00	100.00

SUMMARY OF ERRORS

FORM 1411.00 PRINTED BY ROTARY BARIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************
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PRINTED IN U.S.A.

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

C
T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3      ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00       0.0       0.    590.750     0.000

J2  NPROF     IPLOT     PRTVS     LRECV     NSECH     FN        ALLRC     [illegible]     [illegible]     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  LPRNT     NUMSEC                  ********REQUESTED SECTION NUMBERS********

   -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NT     7.000   100.000   300.000   500.000   750.000  1000.000  1250.000  1500.000     0.000     0.000
NC     0.070     0.070     0.030     0.300     0.500     0.000     0.000     0.000     0.000     0.000

        U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+38 )

X1  3843.000     3.000    90.000   110.000    67.000    67.000    67.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   596.000   596.000     0.000
GR   610.000     0.000   595.000     0.000   595.000    90.000   569.000    90.000   569.000   110.000
GP   595.000   110.000   595.000   200.000   610.000   200.000     0.000     0.000     0.000     0.000
NC     0.070     0.070     0.030     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        D/S FACE OF WATSON AVE. (SURVEY = 8+47 )

X1  4234.000     3.000    35.000    75.000   270.000   430.000   391.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR   610.000     0.000   595.000     0.000   595.000    55.000   568.300    55.000   568.300    75.300
GP   595.000    75.800   595.000   130.000   610.000   130.000     0.000     0.000     0.000     0.000
NC     1.250     2.000     5.000   140.000    10.900     1.000    10.000     0.000   508.500   580.300

        U/S FACE OF WATSON AVE. (SURVEY = 7+07 )

X1  4294.000     0.000     0.000     0.000    50.000    60.000    60.000     0.000     0.000     0.000
X4     0.000     0.000     1.000   594.500   550.000     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   596.000   596.000     0.000

        D/S FACE OF EUCLID AVE. CULVERTS. (SURVEY=4+71)

X1  4610.000     3.000    35.000    75.700   350.000   400.000   390.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR   610.000     0.000   595.500     0.000   595.500    54.000   538.600    54.000   538.600    75.700
```

GR	595.500	75.700	595.500	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SB	1.250	2.040	3.300	130.000	14.220	1.000	76.000	0.000	588.600	588.600

U/S FACE OF EUCLID AVE. CULVERTS. (SURVEY= 4+03)

X1	4578.000	0.000	0.000	0.000	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	596.500	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.300	596.300	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T5      ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000      0.00       0.0        0.   598.600     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNSH     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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FORM 1411 OD PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       4.       0.       3.  0.000000     0.00     0.0      0.   598.870    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IDN      CHNIM    STRACE

     3.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

       0.       5.       0.       0.  0.000000     0.00      0.0       0.  598.900    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC    IBN      CHNIM    ITRACE

     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
TESTAGE/DISCHARGE RATING CURVE
T3       BOORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      0.       6.       0.       0.  0.000000     0.00     0.0      0.   599.120   0.000
J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     ZN      ALLDC    IBC      CHAIN    ITRACE
     5.000    3.000   -1.000    3.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 04
  MODIFICATION - 50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
TPSTAGE/DISCHARGE RATING CURVE
T3.      ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        7.        0.        0.  0.000000      0.00      0.0        0.   599.190     0.000

J2  NPROF     IPLOT     PRFVS     XSECH     XSECH     FN        ALLOC     IBD       CONIN     STRADE

     6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T150 YEAR STORM          FROM RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ     NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ.

      0.       6.       0.       0.  0.000030     0.00      0.0       0.   599.400    0.000

J2  NPROF     IPLOT    PMFVS    XSELV    XSECH    FN       ALLOC     IOP      CHAIN    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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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

ECHOSE CREEK,ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	VLOB	VCH	AREA	TOPWID
3843.000	67.00	0.00	0.00	589.00	100.00	598.75	0.00	596.75	0.02	0.25	874.60	673.48
3843.000	67.00	0.00	0.00	589.00	300.00	598.82	0.00	596.80	0.19	0.73	884.61	683.75
3843.000	67.00	0.00	0.00	589.00	500.00	598.87	0.00	596.88	0.51	1.20	898.52	698.23
3843.000	67.00	0.00	0.00	589.00	750.00	598.93	0.00	599.01	1.08	1.76	920.80	721.23
3843.000	67.00	0.00	0.00	589.00	1000.00	599.10	0.00	599.16	1.77	2.28	941.62	741.64
3843.000	67.00	0.00	0.00	589.00	1250.00	599.33	0.00	599.24	2.69	2.80	982.79	782.10
3843.000	67.00	0.00	0.00	589.00	1500.00	599.40	0.00	599.46	3.41	3.22	1004.78	812.16
4234.000	391.00	0.00	0.00	588.30	100.00	598.75	0.00	598.75	0.03	0.30	626.95	570.29
4234.000	391.00	0.00	0.00	588.30	300.00	598.81	0.00	598.81	0.27	0.84	654.29	597.54
4234.000	391.00	0.00	0.00	588.30	500.00	598.89	0.00	598.91	0.72	1.45	664.99	590.56
4234.000	391.00	0.00	0.00	588.30	750.00	598.99	0.00	599.06	1.51	2.13	681.37	610.49
4234.000	391.00	0.00	0.00	588.30	1000.00	599.10	0.00	599.26	2.48	2.75	683.35	635.20
4234.000	391.00	0.00	0.00	588.30	1250.00	599.28	0.00	599.48	3.69	3.37	696.65	650.98
4234.000	391.00	0.00	0.00	588.30	1500.00	599.51	0.00	599.67	4.75	3.89	727.47	688.26
4294.000	60.00	596.30	594.50	588.30	100.00	598.76	0.00	598.76	0.03	0.30	528.35	471.64
4294.000	60.00	596.30	594.50	588.30	300.00	598.82	0.00	598.85	0.20	0.80	531.58	504.51
4294.000	60.00	596.00	594.50	588.30	500.00	598.94	0.00	598.96	0.78	1.44	651.49	598.13
4294.000	60.00	596.00	594.50	588.30	750.00	599.08	0.00	599.13	1.46	2.10	670.28	619.87
4294.000	60.00	596.00	594.50	588.30	1000.00	599.26	0.00	599.33	2.39	2.71	692.72	646.25
4294.000	60.00	596.00	594.50	588.30	1250.00	599.48	0.00	599.47	3.56	3.38	706.11	662.32
4294.000	60.00	596.00	594.50	588.30	1500.00	599.63	0.00	599.74	4.39	3.86	767.85	699.96
4610.000	316.00	0.00	0.00	588.60	100.00	598.76	0.00	598.76	0.04	0.32	573.72	527.69
4610.000	316.00	0.00	0.00	588.60	300.00	598.81	0.00	598.86	0.31	0.96	584.95	539.64
4610.000	316.00	0.00	0.00	588.60	500.00	598.86	0.00	598.89	0.61	1.52	599.71	556.01
4610.000	316.00	0.00	0.00	588.60	750.00	598.93	0.00	599.01	1.07	2.21	621.77	580.61
4610.000	316.00	0.00	0.00	588.60	1000.00	599.04	0.00	599.12	2.08	2.84	646.05	610.59
4610.000	316.00	0.00	0.00	588.60	1250.00	599.24	0.00	599.30	3.21	3.46	696.50	631.65
4610.000	316.00	0.00	0.00	588.60	1500.00	599.74	0.00	599.90	4.96	3.96	731.56	673.85
4678.000	68.00	596.30	594.50	588.60	100.00	598.77	0.00	598.77	0.04	0.32	575.18	529.26
4678.000	68.00	596.30	594.50	588.60	300.00	598.83	0.00	598.85	0.30	0.93	580.54	545.93
4678.000	68.00	596.30	594.50	588.60	500.00	598.91	0.00	598.93	0.79	1.5	606.31	564.31
4678.000	68.00	596.30	594.50	588.60	750.00	599.15	0.00	599.20	1.62	2.10	629.96	589.67
4678.000	68.00	596.30	594.50	588.60	1000.00	599.40	0.00	599.49	2.59	2.69	657.03	621.00
4678.000	68.00	596.30	594.50	588.60	1250.00	599.56	0.00	599.67	3.76	3.42	675.47	642.63
4678.000	68.00	596.30	594.50	588.60	1500.00	599.82	0.00	599.98	4.79	3.91	710.96	685.23

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

ECORSE CREEK,ALLEN PARK.

SUMMARY PRINTOUT TABLE 150.

SECNO	Q	CHSEL	DIFESP	DIFESX	DIFEWS	TOPWID	XLCH
3843.000	100.00	598.73	0.00	0.00	0.00	200.00	67.00
3843.000	300.00	598.80	0.00	0.00	0.00	200.00	67.00
3843.000	500.00	598.87	0.00	0.00	0.00	200.00	67.00
3843.000	750.00	598.98	0.00	0.00	0.00	200.00	67.00
3843.000	1000.00	599.13	0.00	0.00	0.00	200.00	67.00
3843.000	1250.00	599.13	0.00	0.00	0.00	200.00	67.00
3843.000	1500.00	599.40	0.00	0.00	0.00	200.00	67.00
4234.000	100.00	598.73	0.00	0.00	0.00	130.00	391.00
4234.000	300.00	598.80	0.00	0.00	0.00	130.00	391.00
4234.000	500.00	598.87	0.00	0.00	0.00	130.00	391.00
4234.000	750.00	598.98	0.00	0.00	0.00	130.00	391.00
4234.000	1000.00	599.13	0.00	0.00	0.00	130.00	391.00
4234.000	1250.00	599.28	0.00	0.00	0.00	130.00	391.00
4234.000	1500.00	599.51	0.00	0.00	0.00	130.00	391.00
4294.000	100.00	598.73	0.00	0.00	0.00	130.00	60.00
4294.000	300.00	598.80	0.00	0.00	0.00	130.00	60.00
4294.000	500.00	598.94	0.00	0.00	0.00	130.00	60.00
4294.000	750.00	599.08	0.00	0.00	0.00	130.00	60.00
4294.000	1000.00	599.26	0.00	0.00	0.00	130.00	60.00
4294.000	1250.00	599.36	0.00	0.00	0.00	130.00	60.00
4294.000	1500.00	599.60	0.00	0.00	0.00	130.00	60.00
4610.000	100.00	598.76	0.00	0.00	0.00	130.00	316.00
4610.000	300.00	598.83	0.00	0.01	0.00	130.00	316.00
4610.000	500.00	598.96	0.00	0.02	0.00	130.00	316.00
4610.000	750.00	599.15	0.00	0.03	0.00	130.00	316.00
4610.000	1000.00	599.35	0.00	0.07	0.00	130.00	316.00
4610.000	1250.00	599.57	0.00	0.11	0.00	130.00	316.00
4610.000	1500.00	599.71	0.00	0.14	0.00	130.00	316.00
4678.000	100.00	598.77	0.00	0.01	0.00	130.00	66.00
4678.000	300.00	598.83	0.00	0.01	0.00	130.00	66.00
4678.000	500.00	598.91	0.00	0.01	0.00	130.00	66.00
4678.000	750.00	599.03	0.00	0.02	0.00	130.00	66.00
4678.000	1000.00	599.40	0.00	0.07	0.00	130.00	66.00
4678.000	1250.00	599.54	0.00	0.07	0.00	130.00	66.00
4678.000	1500.00	599.82	0.00	0.08	0.00	130.00	66.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.
FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS

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********************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
   ERROR CORR -  01
   MODIFICATION -  50,51,52
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PRINTED IN U.S.A.

FORM 1411-OB PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE =  31
  MODIFICATION =  51,51,52
**********                    **********
C
T1EUCLID ST. FLOW DIVERSION ECONOMIC CREEK 100 YR
T2ALLEN PARK F/S FLO 2001-07
T3      EUCLID ST ALLEN PARK
J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         2.         0.         0.    7.020000     0.00       0.0        0.0     309.450     0.000
J2   NPROF      IPLOT      PSKIP      HSKIP      XSECA      FN         ITRIB      IBW        CHNL       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
     130.000    0.000      0.000      0.000      0.000      0.000      0.00       0.000      0.000      0.000
J5   LPRNT      NUNSEC                        ********REQUESTED SECTION NUMBERS********
     -10.000   -10.000     6.000      6.000      6.000      0.000      6.000      0.000      0.000      0.000
          6.000     50.000    130.000    250.000    500.000    750.000   1000.000      0.000      0.000      0.000
          0.040     0.060     0.030      0.100      0.300      0.030      0.000      0.000      0.000      0.000

EUCLID ST. FLOW DIVERSION

INTERSECTION OF EUCLID AND CHANDLER

X1         1.000      5.000     45.000     76.000      0.000      0.000      0.000      0.000      0.000      0.000
GR       625.000      3.000    590.000      3.000    596.200     45.000    596.200     76.000    596.000    121.000
NC         0.070      0.040      0.030      0.100      0.300      0.030      0.000      0.000      0.000      0.000

INTERSECTION OF EUCLID AND LANCE

X1         2.000      0.000      0.000      3.000    610.000    610.000    610.000      0.000      1.000      0.000

X1         3.000      3.000      0.000      3.000    600.300    601.000    596.000      0.000      0.100      0.000

X1         4.000      0.000      0.000      0.000    400.000    400.000    400.000      0.000     -1.000      0.000

INTERSECTION OF EUCLID AND SQUARE CREEK

X1         5.000      0.000      0.000      0.000    100.000    100.000    100.000      0.000      0.750      0.000
NC         0.030      0.300      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CONR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 100 YR
T2ALLEN PARK P/S HUD 2009-07.
T3       EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ

      0.        3.        0.        0.  0.000000      0.00      0.0       0.   599.450     0.000

J2  XPRCT     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     ZBW       CHMIN     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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. BLOW DIVERSON BOURSE CREEK 100 YR
T2ALLEN PARK F/S MUD 2001-37
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   NVINS    Q        WSEL     FQ
       0.       4.       0.       0.  0.000000     0.00     0.0       0.   599.450    0.000

J2  NPROF    IPLOT    PRTVS    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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1EUCLID ST. ELON DIVERSON ECORSE CREEK 100 YR
T2ALLEN PARK F/B HUD 2001-07
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIM      STRT      METRIC    HVINS     Q         USEL      FQ

      0.        5.        0.        0.  0.000000      0.00       0.0       0.   599.650     0.000

J2  NPEC      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IPD       CHNIM     ITRACE

     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  30,51,52
*****************************************************


T1EUCLID ST. ELOI DIVERSON ECORSE CREEK 100 YR
T2ALLEN PARK F/S HLD 2001-07
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FD

      0.        6.        0.        0.  0.030000      0.00       0.0        0.   599.450     0.000

J2  NPRCF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLCC     MN        CHMIN     ITRACE

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 100 YR
T2ALLEN PARK F/S HUD 2301-37
T3      EUCLID ST ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0         7         0         0  0.002000      2.00       0.0        0.   599.450     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       DEMIN     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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FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977

CROSS CODE - 31

MODIFICATION - 50,51,52

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

EJCT'D ST ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ZLTWD	BLLC	ELMIN	Q	CWSEL	CRIWS	EG	TOPWS	VCH	AREA	.DIS
1.000	0.00	0.00	0.00	596.20	50.00	599.45	0.00	599.45	0.04	0.22	312.25	245.41
1.000	0.00	0.00	0.00	596.20	100.00	599.45	0.00	599.45	0.17	0.64	312.25	245.41
1.000	0.00	0.00	0.00	596.20	250.00	599.45	0.00	599.46	1.06	1.11	312.25	245.41
1.000	0.00	0.00	0.00	596.20	500.00	599.45	0.00	599.50	6.15	2.21	312.25	245.41
1.000	0.00	0.00	0.00	596.20	750.00	599.45	0.00	599.56	9.36	3.32	312.25	245.41
1.000	0.00	0.00	0.00	596.20	1000.00	599.47	0.00	599.64	16.80	4.42	312.25	245.41
2.000	810.00	0.00	0.00	597.20	50.00	599.45	0.00	599.46	0.09	0.48	191.66	166.49
2.000	810.00	0.00	0.00	597.20	100.00	599.46	0.00	599.47	0.35	0.95	192.87	167.96
2.000	810.00	0.00	0.00	597.20	250.00	599.53	0.00	599.59	1.96	2.29	201.41	176.70
2.000	810.00	0.00	0.00	597.20	500.00	599.79	0.00	599.92	5.51	4.67	227.30	214.95
2.000	810.00	0.00	0.00	597.20	750.00	600.04	0.00	600.20	8.21	5.33	251.61	241.76
2.000	810.00	0.00	0.00	597.20	1000.00	600.34	0.00	600.73	9.95	6.27	297.35	316.95
3.000	390.00	0.00	0.00	597.30	50.00	599.45	0.00	599.46	0.11	0.51	179.87	152.20
3.000	390.00	0.00	0.00	597.30	100.00	599.45	0.00	599.47	0.42	1.01	182.00	154.76
3.000	390.00	0.00	0.00	597.30	250.00	599.51	0.00	599.57	2.08	2.53	197.27	173.07
3.000	390.00	0.00	0.00	597.30	500.00	599.72	0.00	599.92	6.50	4.83	251.79	233.02
3.000	390.00	0.00	0.00	597.30	750.00	600.57	0.00	600.63	5.97	6.30	290.96	306.85
3.000	390.00	0.00	0.00	597.30	1000.00	600.75	0.00	601.06	6.82	5.34	336.97	382.99
4.000	400.00	0.00	0.00	595.70	50.00	599.45	0.00	599.46	0.06	0.33	314.05	245.32
4.000	400.00	0.00	0.00	595.70	100.00	599.45	0.00	599.46	0.23	0.68	277.95	245.32
4.000	400.00	0.00	0.00	595.70	250.00	599.46	0.00	599.48	1.29	1.27	301.73	245.32
4.000	400.00	0.00	0.00	595.70	500.00	600.15	0.00	600.19	0.67	2.05	457.09	611.65
4.000	400.00	0.00	0.00	595.70	750.00	600.63	0.00	600.70	1.04	2.74	515.25	736.66
4.000	400.00	0.00	0.00	595.70	1000.00	601.08	0.00	601.16	1.34	3.30	570.41	803.27
5.000	100.00	0.00	0.00	596.40	50.00	599.46	0.00	599.46	0.03	0.32	209.36	304.31
5.000	100.00	0.00	0.00	596.40	100.00	599.46	0.00	599.47	0.10	0.63	235.56	312.26
5.000	100.00	0.00	0.00	596.40	250.00	599.68	0.00	599.70	0.52	1.47	316.53	348.32
5.000	100.00	0.00	0.00	596.40	500.00	600.14	0.00	600.20	1.26	2.52	371.65	464.75
5.000	100.00	0.00	0.00	596.40	750.00	600.62	0.00	600.72	1.82	3.27	429.47	555.44
5.000	100.00	0.00	0.00	596.40	1000.00	601.02	0.00	601.21	2.24	3.85	493.02	647.37

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FORM 141-OD-PRINTED BY ROTARY MANIFOLD FORMS

EUCLID ST ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	Θ	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	50.00	599.45	0.00	0.00	0.00	121.00	0.00
1.000	100.00	599.45	0.00	0.00	0.00	121.00	0.00
1.000	250.00	599.45	0.00	0.00	0.00	121.00	0.00
1.000	500.00	599.45	0.00	0.00	0.00	121.00	0.00
1.000	750.00	599.45	0.00	0.00	0.00	121.00	0.00
1.000	1000.00	599.45	0.00	0.00	0.00	121.00	0.00
2.000	50.00	599.45	0.00	0.00	0.00	121.00	810.00
2.000	100.00	599.46	0.00	0.01	0.00	121.00	810.00
2.000	250.00	599.53	0.00	0.08	0.00	121.00	810.00
2.000	500.00	599.75	0.00	0.30	0.00	121.00	810.00
2.000	750.00	600.05	0.00	0.60	0.00	121.00	810.00
2.000	1000.00	600.34	0.00	0.89	0.00	121.00	810.00
3.000	50.00	599.46	0.00	0.00	0.00	121.00	390.00
3.000	100.00	599.47	0.00	0.01	0.00	121.00	390.00
3.000	250.00	599.61	0.00	0.08	0.00	121.00	390.00
3.000	500.00	599.85	0.00	0.32	0.00	121.00	390.00
3.000	750.00	600.17	0.00	0.34	0.00	121.00	390.00
3.000	1000.00	600.75	0.00	0.42	0.00	121.00	390.00
4.000	50.00	599.46	0.00	0.00	0.00	121.00	400.00
4.000	100.00	599.49	0.00	0.01	0.00	121.00	400.00
4.000	250.00	599.63	0.00	0.07	0.00	121.00	400.00
4.000	500.00	600.15	0.00	0.18	0.00	121.00	400.00
4.000	750.00	600.83	0.00	0.26	0.00	121.00	400.00
4.000	1000.00	601.57	0.00	0.32	0.00	121.00	400.00
5.000	50.00	599.46	0.00	-0.00	0.00	121.00	100.00
5.000	100.00	599.49	0.00	-0.00	0.00	121.00	100.00
5.000	250.00	599.68	0.00	-0.00	0.00	121.00	100.00
5.000	500.00	600.14	0.00	-0.01	0.00	121.00	100.00
5.000	750.00	600.62	0.00	-0.02	0.00	121.00	100.00
5.000	1000.00	601.32	0.00	-0.02	0.00	121.00	100.00

SUMMARY OF ERRORS

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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS

POINTED IN U.S.A

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR. -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1 CO YEAR STORM                 PLUSSELL AVE. TO EUCLID AVE.
T2 TESTPGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        2.        0.        0.  0.0030000     0.00      0.00      0.   599.470     0.000

J2  SPCAP     IPRINT    PRFNS     XSECA     XSECJ     FN        SKK       SKO       CHRWD     XTRSEC
      1.000     0.000    -1.000     0.000     0.300     0.300     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000     3.000     5.000     0.300     0.300     0.000     0.000     0.000     3.300     0.000

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********

     -10.000   -15.000     5.000     0.300     0.300     0.000     0.000     0.000     0.300     0.000
GR     7.000    60.000   300.120   500.300   752.020  1100.020  1250.000  1500.000     0.000     0.000
GR     0.170     0.020     0.130     0.300     0.500     0.040     0.000     0.000     0.000     0.000

U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+28 )

X1   3643.000     8.000    70.000   110.800    87.020    87.000    87.300     0.000     0.000     0.000
X3     10.300     2.000     0.000     0.300     2.000     0.000     0.000   599.000   595.000     0.000
GR    610.000     0.000   595.000     0.000   595.000    90.000   589.300    90.000   589.000   110.000
GR    595.000   110.000   595.000   250.200   610.000   200.000     0.300     0.000     0.000     0.000
XC      0.070     0.071     0.050     0.070     0.070     0.000     0.000     0.000     0.000     0.000

D/S FACE OF MAYNO AVE. (SURVEY = 8+17 )

X1   4234.000     8.000    53.000   75.800   270.000   430.000   561.300     0.000     0.000     0.000
X3     10.300     2.000     0.000     0.300     2.000     0.000     0.000   593.300   595.300     0.000
GR    610.000     0.000   595.000     3.330   595.000    55.300   523.370    55.300   526.300    75.300
GR    595.000    75.000   595.000   150.200   610.000   150.300     0.300     0.300     0.000     0.300
XC      1.950     2.020     3.000   150.300    10.000     1.000    20.300     0.300   558.300   546.300

U/S FACE OF WATSON AVE. (SURVEY = 7+87 )

X1   4296.000     3.000     0.000     0.000    65.000    90.300    90.000     0.300     0.000     0.300
X3     0.000     2.000     1.330   574.500   596.000     0.000     0.000     0.300     0.300     0.300
GR    10.000     0.000     0.000     0.000     0.000     0.300     0.000   596.300   596.000     0.000

D/S FACE OF EUCLID AVE. CULVERTS. (SURVEY=4+71)

X1   4440.000     3.000    54.000   75.700   568.000   230.300   315.000     0.200     0.300     0.300
X3     10.000     3.000     0.000     0.000     0.000     0.300     0.000   595.500   595.500     0.300
GR    610.000     5.000   595.300     0.000   595.500    58.300   561.000   594.000   598.300   75.700
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GR	595.500	75.700	595.300	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SR	1.250	2.040	3.000	130.000	14.220	1.000	78.000	0.000	588.600	588.600

J/S FACE OF EUCLID AVE. CULVERTS. (SURVEY= 4+03)

X1	4678.000	0.000	3.000	0.300	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.050	0.000	3.000	596.300	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.300	596.300	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  J1
  MODIFICATIO -  50,51,52
**************************************************


T1100 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3      ECORSE CREEK/ALLEN PARK.

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          USEL       FQ
          0.         5.         0.         1.  0.200000       0.00       0.0         0.    599.500      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      XNPI       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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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION -  50,51,52
*****************************************************

T1100 YEAR STORM                    RUSSELL AVE. TO  EUCLID AVE.
TPSTAGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FE

      0.        4.        0.        0.  1.000000      0.00       0.0       0.   599.600     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBP       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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1100 YEAR STORM                    RUSSELL AVE. TO  EUCLID AVE.
TRSTAGE/DISCHARGE RATING CURVE
TS      ECORSE CREEK,ALLEN PARK.

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        0.        1.  0.000000      0.00       0.0       0.   599.640     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  31
  MODIFICATION -  50,51,52
*****************************************************

T1100 YEAR STOR                    RUSSELL AVE. TO  EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        6.        0.        0.  0.000000      0.00       0.0        0.   599.720     0.000

J2  NPROF     IPLOT     PHFWS     ASDIV     ASLCH     FN        ALLDS     IDUP      CHNIM     ITRACE

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1417-GD-PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1100 YEAR STORM                    RUSSELL AVE. TO  EUCLID AVE.
TESTAGE/DISCHARGE RATING CURVE
T2       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         ESEL      FQ

      0.        7.        0.        0.  0.000000      0.00      0.0       0.   599.320     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IMP       CHNIP     ITRACE

     6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION =  50,51,52
**************************************************


T1100 YEAR STORM                    RUSSELL AVE. TO  EUCLID AVE.
T2STAGE/DISCHARGE RATING CURVE
T3      ECORSE CREEK,ALLEN PARK.
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         LSEL      FQ
        0.        3.        0.        0.  0.000000      0.00      0.0       0.      599.920     0.000
J2  UPROF      IPLOT     PRFVS     XSECV     XSECP     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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PRINTED IN U.S.A.
FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

****
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

RIVER: CREEK,ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SEC.NO	XLOB	ELTRD	ELLC	ELMIN	Q	CHNL	CRIWS	EG	VCH	ALOB	AREA	AMIN
3843.000	67.00	0.00	0.00	539.00	100.00	599.47	0.00	599.47	0.61	0.21	1016.79	827.80
3843.000	67.00	0.00	0.00	539.00	300.00	599.50	0.00	599.50	0.13	0.63	1024.30	834.54
3843.000	67.00	0.00	0.00	539.00	500.00	599.60	0.00	599.61	0.36	1.03	1044.62	857.18
3843.000	67.00	0.00	0.00	539.00	750.00	599.[illegible]	0.00	599.66	0.75	1.55	1052.76	864.25
3843.000	67.00	0.00	0.00	539.00	1000.00	599.[illegible]	0.00	599.75	1.26	2.01	1063.79	864.52
3843.000	67.00	0.00	0.00	539.00	1250.00	599.[illegible]	0.00	599.87	1.90	2.86	1084.21	867.53
3843.000	67.00	0.00	0.00	539.00	1500.00	599.92	0.00	599.99	2.59	2.90	1138.78	931.22
4234.000	391.00	0.00	0.00	588.30	100.00	599.47	0.00	599.47	0.02	0.26	720.52	679.72
4234.000	391.00	0.00	0.00	588.30	300.00	599.[illegible]	0.00	599.51	0.19	0.74	726.96	685.14
4234.000	391.00	0.00	0.00	588.30	500.00	599.[illegible]	0.00	599.65	0.51	1.20	738.09	702.35
4234.000	391.00	0.00	0.00	588.30	750.00	599.66	0.00	599.70	1.19	1.90	746.10	711.14
4234.000	391.00	0.00	0.00	588.30	1000.00	599.76	0.00	599.82	1.89	2.49	758.99	727.21
4234.000	391.00	0.00	0.00	588.30	1250.00	599.88	0.00	599.97	2.80	3.05	774.92	747.29
4234.000	391.00	0.00	0.00	588.30	1500.00	600.03	0.00	600.13	3.81	3.58	791.20	768.05
4294.000	60.00	596.00	594.50	588.30	100.00	599.[illegible]	0.00	599.66	0.02	0.26	741.76	661.25
4294.000	60.00	596.00	594.50	588.30	300.00	599.[illegible]	0.00	599.66	0.49	1.26	746.45	711.58
4294.000	60.00	596.00	594.50	588.30	500.00	599.66	0.00	599.68	0.49	1.26	746.45	711.58
4294.000	60.00	596.00	594.50	588.30	750.00	599.73	0.00	599.77	1.08	1.87	754.76	721.93
4294.000	60.00	596.00	594.50	588.30	1000.00	599.84	0.00	599.90	1.83	2.45	769.05	739.86
4294.000	60.00	596.00	594.50	588.30	1250.00	599.97	0.00	600.06	2.79	3.01	785.52	760.78
4294.000	60.00	596.00	594.50	588.30	1500.00	600.12	0.00	600.22	3.83	3.54	801.71	781.57
4610.000	316.00	0.00	0.00	588.60	100.00	599.43	0.00	599.46	0.02	0.28	667.15	652.00
4610.000	316.00	0.00	0.00	588.60	300.00	599.[illegible]	0.00	599.55	0.22	0.82	675.22	642.35
4610.000	316.00	0.00	0.00	588.60	500.00	599.60	0.00	599.70	0.57	1.36	692.83	663.32
4610.000	316.00	0.00	0.00	588.60	750.00	599.77	0.00	599.81	1.23	1.32	704.64	677.56
4610.000	316.00	0.00	0.00	588.60	1000.00	599.90	0.00	599.97	2.15	2.37	722.23	694.75
4610.000	316.00	0.00	0.00	588.60	1250.00	600.04	0.00	600.15	2.98	3.15	742.15	723.71
4610.000	316.00	0.00	0.00	588.60	1500.00	600.21	0.00	600.34	4.01	3.66	762.40	749.18
4678.000	68.00	596.30	594.50	588.60	100.00	599.49	0.00	599.49	0.02	0.26	668.46	634.56
4678.000	68.00	596.30	594.50	588.60	300.00	599.[illegible]	0.00	599.58	0.21	0.82	680.[illegible]	664.[illegible]
4678.000	68.00	596.30	594.50	588.60	500.00	599.[illegible]	0.00	599.75	0.55	1.32	700.55	672.50
4678.000	68.00	596.30	594.50	588.60	750.00	599.[illegible]	0.00	599.87	1.19	1.21	713.24	684.61
4678.000	68.00	596.30	594.50	588.60	1000.00	599.96	0.00	600.04	1.90	2.34	731.47	710.92
4678.000	68.00	596.30	594.50	588.60	1250.00	600.14	0.00	600.23	2.88	3.09	752.44	736.59
4678.000	68.00	596.30	594.50	588.60	1500.00	600.29	0.00	600.42	3.38	3.62	772.34	761.82

PRINTED IN U.S.A.

FORM 1411-6D-PRINTED BY ROTARY MANIFOLD FORMS.

ECORSE CREEK,ALLEN PARK.

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CUSEL	DIFWSP	DIFWSX	DIFKAS	TOPWID	XLCH
3843.000	100.00	599.47	0.00	0.00	0.00	200.00	67.00
3843.000	300.00	599.53	0.00	0.00	0.00	200.00	67.00
3843.000	500.00	599.62	0.00	0.00	0.00	200.00	67.00
3843.000	750.00	599.84	0.00	0.00	0.00	200.00	67.00
3843.000	1000.00	599.75	0.00	0.00	0.00	200.00	67.00
3843.000	1250.00	599.83	0.00	0.00	0.00	200.00	67.00
3843.000	1500.00	599.92	0.00	0.00	0.00	200.00	67.00
4234.000	100.00	599.47	0.00	0.00	0.00	130.00	391.00
4234.000	300.00	599.50	0.00	0.00	0.00	130.00	391.00
4234.000	500.00	599.51	0.00	0.01	0.00	130.00	391.00
4234.000	750.00	599.66	0.00	0.02	0.00	130.00	391.00
4234.000	1000.00	599.76	0.00	0.04	0.00	130.00	391.00
4234.000	1250.00	599.88	0.00	0.06	0.00	130.00	391.00
4234.000	1500.00	600.71	0.00	0.09	0.00	130.00	391.00
4294.000	100.00	599.46	0.00	0.01	0.00	130.00	60.00
4294.000	300.00	599.52	0.00	0.01	0.00	130.00	60.00
4294.000	500.00	599.66	0.00	0.05	0.00	130.00	60.00
4294.000	750.00	599.73	0.00	0.07	0.00	130.00	60.00
4294.000	1000.00	599.87	0.00	0.09	0.00	130.00	60.00
4294.000	1250.00	599.97	0.00	0.09	0.00	130.00	60.00
4294.000	1500.00	600.09	0.00	0.09	0.00	130.00	60.00
4610.000	100.00	599.48	0.00	0.00	0.00	130.00	316.00
4610.000	300.00	599.54	0.00	0.01	0.00	130.00	316.00
4610.000	500.00	599.68	0.00	0.02	0.00	130.00	316.00
4610.000	750.00	599.77	0.00	0.03	0.00	130.00	316.00
4610.000	1000.00	599.9	0.00	0.06	0.00	130.00	316.00
4610.000	1250.00	600.05	0.00	0.08	0.00	130.00	316.00
4610.000	1500.00	600.27	0.00	0.11	0.00	130.00	316.00
4678.000	100.00	599.49	0.00	0.01	0.00	130.00	68.00
4678.000	300.00	599.57	0.00	0.03	0.00	130.00	68.00
4678.000	500.00	599.93	0.00	0.05	0.00	130.00	68.00
4678.000	750.00	599.84	0.00	0.07	0.00	130.00	68.00
4678.000	1000.00	599.98	0.00	0.08	0.00	130.00	68.00
4678.000	1250.00	600.14	0.00	0.08	0.00	130.00	68.00
4678.000	1500.00	600.29	0.00	0.08	0.00	130.00	68.00

SUMMARY OF ERRORS

FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

PRINTED IN U.S.A.

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**************************************************
  MEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE - 01
  MODIFICATION - 51,51,52
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FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR =  01
  MODIFICATION =  50,51,52
**************************************************

C
T1EUCLID ST. FLOW DIVERSION: ECORSE CREEK SCS YR
T2ALLEN PARK, M/S HUD 2001-07
T3      EUCLID ST ALLEN PARK
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     G         LSEL      SS
         0.        2.        3.        5.  .050000      0.00       0.5        0.   109.720      0.00
J2  NPROB     SPLOT     PLOTS     XSECA     XSECB     FQ        ALTER     IAB       CONTR     TOPWID
      1.000     0.000    -1.000     0.000     0.300     0.300     0.000     0.000     0.000     0.000
J3  MARKBOUNDARY CODES FOR SUMMARY PRINTOUT
    150.000     0.000     0.000     0.000     0.000     0.000     0.000     1.000     0.000     0.000
J5  LPRNT     NOHSEC                    ********REQUESTED SECTION NUMBERS********
        0.05    -10.500     0.000     0.000     0.000     0.000     1.000     5.000     2.000     0.000
QT      6.000    51.000   107.000     0.000   500.000   750.000  1500.000     0.000     0.000     0.000
WT      0.260     0.350     0.03      0.100     0.300     1.000     0.000     0.000     0.000     0.000

EUCLID ST. FLOW DIVERSION
INTERSECTION OF EUCLID AND SUBDIVISION
X1      1.000     6.000    45.000    76.000     0.000     0.000     0.300     0.300     0.000     0.000
GR    625.000     0.000   598.000     0.000   594.200    75.000   596.200    76.300   596.000   121.000
GR    625.000   121.000   [illegible]  0.200     0.000     0.200     0.500     0.000     0.000     0.000
PC      0.150     0.150     0.01      0.100     1.500     0.200     0.200     0.300     0.200     0.500

INTERSECTION OF EUCLID AND LARNE
X1      2.000     0.000     0.000     0.000   610.000   310.000   650.300     0.000     1.000     0.000
N       3.000     0.000     3.000     0.300   600.000   500.000   550.000     0.500     0.500     0.300

X1      4.000     0.000     0.000     0.300   400.000   400.000   600.000     0.500    -1.500     0.300

INTERSECTION OF EUCLID AND ECORSE CREEK
X1      5.000     0.000     0.000     0.300   100.000   100.000   100.000     3.000     0.700     0.000
N1      0.000     0.300     0.050     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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PRINTED IN U.S.A.
FORM 141-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  U1
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON BOURSE CREEK 500 YR
T2ALLEN PARK F/S HUD 2001-07
T3      EUCLID ST ALLEN PARK
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        3.        0.        0.  0.000000      0.00       0.0        0.   599.720     0.000
J2  NPRO      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBP       CHRIN     ITRACE
     2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  J1
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 500 YR
T2ALLEN PARK M/S HUD 2001-07
T3       EUCLID ST ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        USEL     FQ
       0.       4.       0.       0.  0.000000     0.00      0.0       0.  599.720    0.000

J2  NPROF     IPLOT    PRFVS    XSELV    XSECH    FN       ALLOC    SBW      CHNOM    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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FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSION ECORSE CREEK 500 YR
T2ALLEN PARK F/O HUD 2001-07
T3       EUCLID ST ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       5.       0.       0.  0.000000     0.00      0.0      0.   599.720    0.000

J2  XPROF    IPLOT    PRFMS    XSECV    XSECH    FN       ALLDC    IDU      CHNIM    ITRACE
     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

PRINTED IN U.S.A.
FORM 1811-CO PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 500 YR
T2ALLEN PARK F/S HUD 2001-07
T3       EUCLID ST ALLEN PARK
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        6.        0.        0.  0.000000      0.00       0.0        0.   599.720     0.000
J2  NPROF     IPLOT     PRFVE     XSEAV     XSBCH     FN        ALLDC     IBT       CHNIM     ITRACE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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PRINTED IN U.S.A.
FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1EUCLID ST. FLOW DIVERSON ECORSE CREEK 500 YR
T2ALLEN PARK #/S HUD 2051-07
T3       EUCLID ST ALLEN PARK
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        7.        0.        0.  0.000000      0.00       0.0        0.   599.720     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     SM        ALLOC     IBW       CHNIM     ITRACE
    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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

****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 30,31,32
****

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

ENGLISH BY ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELWTD	ELLOB	ELMIN	Q	CHSEL	CARIA	EG	IORMS	VCH	AREA	CONT
1.000	0.00	0.00	0.00	596.20	50.00	599.72	0.00	599.72	0.03	0.20	344.92	287.37
1.000	0.00	0.00	0.00	596.20	100.00	599.72	0.00	599.72	0.12	0.40	344.92	287.37
1.000	0.00	0.00	0.00	596.20	250.00	599.72	0.00	599.73	0.76	1.00	344.92	287.37
1.000	0.00	0.00	0.00	596.20	500.00	599.74	0.00	599.76	3.33	1.99	344.92	287.37
1.000	0.00	0.00	0.00	596.20	750.00	599.72	0.00	599.81	6.81	2.99	344.92	287.37
1.000	0.00	0.00	0.00	596.20	1000.00	599.72	0.00	599.88	12.11	3.99	344.92	287.37
2.000	810.00	0.00	0.00	597.20	50.00	599.72	0.00	599.72	0.06	0.41	224.22	208.65
2.000	810.00	0.00	0.00	597.20	100.00	599.73	0.00	599.74	0.23	0.82	225.10	209.45
2.000	810.00	0.00	0.00	597.20	250.00	599.76	0.00	599.82	1.31	2.00	231.54	210.39
2.000	810.00	0.00	0.00	597.20	500.00	599.95	0.00	600.08	4.18	3.71	249.29	244.60
2.000	810.00	0.00	0.00	597.20	750.00	600.36	0.00	600.42	6.23	5.04	270.93	284.99
2.000	810.00	0.00	0.00	597.20	1000.00	600.91	0.00	600.78	8.98	6.06	307.67	333.70
3.000	390.00	0.00	0.00	597.20	50.00	599.72	0.00	599.73	0.07	0.43	212.31	192.78
3.000	390.00	0.00	0.00	597.20	100.00	599.74	0.00	599.75	0.26	0.86	213.75	194.61
3.000	390.00	0.00	0.00	597.20	250.00	599.82	0.00	599.87	1.47	2.08	224.22	200.03
3.000	390.00	0.00	0.00	597.20	500.00	600.08	0.00	600.13	4.71	3.61	257.74	246.66
3.000	390.00	0.00	0.00	597.20	750.00	600.44	0.00	600.66	6.56	4.65	298.10	316.19
3.000	390.00	0.00	0.00	597.20	1000.00	600.79	0.00	601.09	8.58	5.67	341.29	390.47
4.000	600.00	0.00	0.00	595.70	50.00	599.73	0.00	599.73	0.11	0.52	420.25	309.69
4.000	600.00	0.00	0.00	595.70	100.00	599.75	0.00	599.75	0.42	0.46	420.79	314.25
4.000	600.00	0.00	0.00	595.70	250.00	599.81	0.00	599.83	1.71	1.10	425.12	326.22
4.000	600.00	0.00	0.00	595.70	500.00	600.25	0.00	600.29	4.81	1.99	470.74	640.18
4.000	600.00	0.00	0.00	595.70	750.00	600.69	0.00	600.75	6.99	2.70	522.76	753.45
4.000	600.00	0.00	0.00	595.70	1000.00	601.10	0.00	601.21	9.35	3.29	572.53	868.30
5.000	100.00	0.00	0.00	596.40	50.00	599.73	0.00	599.73	0.22	0.25	341.44	356.87
5.000	100.00	0.00	0.00	596.40	100.00	599.75	0.00	599.75	0.84	0.36	324.24	367.45
5.000	100.00	0.00	0.00	596.40	250.00	599.80	0.00	599.80	0.41	1.57	340.70	389.44
5.000	100.00	0.00	0.00	596.40	500.00	600.25	0.00	600.31	2.14	2.43	304.74	468.45
5.000	100.00	0.00	0.00	596.40	750.00	600.68	0.00	600.78	4.73	3.22	436.53	569.61
5.000	100.00	0.00	0.00	596.40	1000.00	601.17	0.00	601.25	6.49	3.96	765.98	774.67

PRINTED IN U.S.A.

FORM 1411.08 PRINTED BY ROTARY MANIFOLD FORMS

EUCLID ST ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECND	R	C.SEL	DIFWSP	DIFWSR	DIFR.S	TOPLED	ALC4
1.000	50.00	599.72	0.00	0.00	0.00	121.00	0.00
1.000	100.00	599.72	0.00	0.00	0.00	121.00	0.00
1.000	250.00	599.72	0.00	0.00	0.00	121.00	0.00
1.000	500.00	599.72	0.00	0.00	0.00	121.00	0.00
1.000	750.00	599.72	0.00	0.00	0.00	121.00	0.00
1.000	1000.00	599.72	0.00	0.00	0.00	121.00	0.00
2.000	50.00	599.72	0.00	0.00	0.00	121.00	810.00
2.000	100.00	599.72	0.00	0.01	0.00	121.00	810.00
2.000	230.00	599.78	0.00	0.05	0.00	121.00	810.00
2.000	500.00	599.93	0.00	0.21	0.00	121.00	810.00
2.000	750.00	600.16	0.00	0.44	0.00	121.00	810.00
2.000	1000.00	600.41	0.00	0.69	0.00	121.00	810.00
3.000	50.00	599.72	0.00	0.00	0.00	121.00	390.00
3.000	100.00	599.74	0.00	0.01	0.00	121.00	390.00
3.000	250.00	599.83	0.00	0.09	0.00	121.00	390.00
3.000	300.00	600.17	0.00	0.17	0.00	121.00	390.00
3.000	750.00	600.44	0.00	0.28	0.00	121.00	390.00
3.000	1000.00	600.79	0.00	0.32	0.00	121.00	390.00
4.000	50.00	599.73	0.00	0.00	0.00	121.00	300.00
4.000	100.00	599.76	0.00	0.01	0.00	121.00	300.00
4.000	250.00	599.88	0.00	0.00	0.00	121.00	300.00
4.000	500.00	600.25	0.00	0.15	0.00	121.00	400.00
4.000	750.00	600.69	0.00	0.25	0.00	121.00	400.00
4.000	1000.00	601.10	0.00	0.31	0.00	121.00	400.00
5.000	50.00	599.73	0.00	0.00	0.00	121.00	100.00
5.000	100.00	599.76	0.00	-0.01	0.00	121.00	100.00
5.000	250.00	599.88	0.00	-0.00	0.00	121.00	100.00
5.000	500.00	600.25	0.00	-0.01	0.00	121.00	100.00
5.000	750.00	600.68	0.00	-0.01	0.00	121.00	100.00
5.000	1000.00	601.09	0.00	-0.01	0.00	121.00	100.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STNT      METRIC    HVINS     Q         ESEL      FG

       0.        2.        0.        0.  0.000000      0.00       0.0        0.   599.730     0.000

J2  NPROF     IPLOT     PRNTS     XSECV     XSECH     FN        ALLDC     IB        PRNTR     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

    100.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                    ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      7.000   100.000   300.000   500.000   750.000  1000.000  1250.000  1500.000     0.000     0.000
NC      0.070     0.070     0.030     0.300     0.500     0.000     0.000     0.000     0.000     0.000


        U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+30 )

X1   3643.000     0.000    90.000   110.800    67.000    67.000    67.000     0.000     0.000     0.000
X2     10.000     0.000     0.000     0.000     0.000     0.000     0.000   596.000   596.000     0.000
GR    610.000     0.000   593.000     0.000   593.000    90.000   589.000    90.000   589.000   110.800
GR    595.000   110.800   595.000   200.000   610.000   200.000     0.000     0.000     0.000     0.000
NC      0.070     0.070     0.030     0.000     0.000     0.000     0.000     0.000     0.000     0.000


        D/S FACE OF WATSON AVE. (SURVEY = 5+47 )

X1   4234.000     8.000    55.000    75.800   270.000   430.000   391.000     0.000     0.000     0.000
X2     10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR    610.000     0.000   594.000     0.000   595.000    55.000   588.300    55.000   588.300    75.000
GR    595.000    75.800   595.000   120.000   610.000   130.000     0.000     0.000     0.000     0.000
SD      1.250     2.000     2.000   130.000    12.970     1.000    60.000     0.000   588.300   588.300


        U/S FACE OF WATSON AVE. (SURVEY = 7+67 )

X1   4296.000     0.000     0.000     0.000    60.000    60.000    60.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   594.500   596.000     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   596.000   596.000     0.000


        D/S FACE OF EUCLID AVE. CULVERTS. (SURVEY=4+71)

X1   610.000     8.000    55.000    75.700   330.000   200.000   [illegible]     0.000     0.000     0.000
X2     10.000     0.000     0.000     0.000     0.000     0.000     0.000   595.500   595.500     0.000
GR    610.000     0.000   595.500     0.000   595.500    [illegible]   588.500    [illegible]   588.500    75.700
```

GR	595.500	75.700	595.500	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SB	1.250	2.040	3.000	130.000	14.220	1.000	78.000	0.000	588.600	588.600

U/S FACE OF EUCLID AVE. CULVERTS. (SURVEY= 4+03)

X1	4678.000	0.000	0.000	0.000	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	596.300	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.300	596.300	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - .01
  MODIFICATION -  50,51,52
*****************************************************

T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       ECORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FO
      0.       3.       0.       0.  0.000000     0.00     0.0      0.   599.760   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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR COUR - 31
  MODIFICATION -  50,51,52
*****************************************************

T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       ECORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ       NINQ      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        4.        0.        0.  0.000000      0.00       0.0        0.   599.800     0.000
J2  NRROF     IPLOT     PMTVS     XSECV     XSECH     FN        ALLDC     ZWP       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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FORM (41)-DD-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       ECORSE CREEK,ALLEN PARK.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FG
       0         5         0         0.  0.000000      0.00      0.0       0.   599.880     0.000

J2  NPROF     IPLOT     PRFVS     XSELV     XSECH     FN        ALLDC     IBH       CHNIM     ITRACE
     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1500 YEAR STORM                RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3      ECORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        ESEL     FQ
       0.       6.       0.       0.  0.000000     0.00      0.0       0.  599.960    0.000
J2  NPROF     IPLOT    PRFWS    XSECV    XSECH     FN      ALLDC     IDC      CHNIM    ITRACE
     5.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       BCORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        7.        0.        0.  0.000000      0.00       0.0        0.  600.050     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IMP       CHNIM     ITRACE
     6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  J1
  MODIFICATION -  50,51,52
*****************************************************

T1500 YEAR STORM                    RUSSELL AVE. TO EUCLID AVE.
T2STAGE DISCHARGE RATING CURVE.
T3       ECORSE CREEK,ALLEN PARK.
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        8.        0.        0.  0.000000      0.00       0.0        0.   690.140     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLSC     IBW       CHNIN     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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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS
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****
HEC2 RELEASE DATED NOV 75 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

REACH ENERGY LOSS PARA.

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	E.TRB	ELLC	ELMIN	Q	CHNL	LOSS	EG	TOPWS	VCH	AREA	.01K
3843.000	67.00	0.00	0.00	589.00	100.00	599.73	0.00	599.73	0.01	0.20	1070.00	386.94
3843.000	67.00	0.00	0.00	589.00	300.00	599.76	0.00	599.76	0.11	0.60	1076.80	893.86
3843.000	67.00	0.00	0.00	589.00	500.00	599.80	0.00	599.81	0.31	0.99	1064.81	903.18
3843.000	67.00	0.00	0.00	589.00	750.00	599.83	0.00	599.90	0.66	1.40	1100.75	921.83
3843.000	67.00	0.00	0.00	589.00	1000.00	599.96	0.00	599.99	1.13	1.92	1116.79	940.71
3843.000	67.00	0.00	0.00	589.00	1250.00	600.05	0.00	600.09	1.69	2.36	1134.81	962.16
3843.000	67.00	0.00	0.00	589.00	1500.00	600.14	0.00	600.20	2.53	2.78	1152.78	983.71
4234.000	391.00	0.00	0.00	588.30	100.00	599.73	0.00	599.73	0.02	0.25	756.32	721.36
4234.000	391.00	0.00	0.00	588.30	300.00	599.76	0.00	599.77	0.17	0.75	758.70	728.05
4234.000	391.00	0.00	0.00	588.30	500.00	599.81	0.00	599.83	0.46	1.23	764.83	736.54
4234.000	391.00	0.00	0.00	588.30	750.00	599.87	0.00	599.93	1.06	1.82	770.39	749.78
4234.000	391.00	0.00	0.00	588.30	1000.00	600.05	0.00	600.05	1.70	2.39	789.69	765.85
4234.000	391.00	0.00	0.00	588.30	1250.00	600.11	0.00	600.19	2.54	2.94	803.83	784.32
4234.000	391.00	0.00	0.00	588.30	1500.00	600.22	0.00	600.33	3.49	3.47	810.33	803.44
4294.000	60.00	596.00	594.50	588.30	100.00	599.74	0.00	599.74	0.02	0.25	755.99	742.66
4294.000	60.00	596.00	594.50	588.30	300.00	599.77	0.00	599.80	0.17	0.76	756.37	752.71
4294.000	60.00	596.00	594.50	588.30	500.00	599.88	0.00	599.98	0.45	1.22	772.19	745.85
4294.000	60.00	596.00	594.50	588.30	750.00	599.97	0.00	600.00	0.97	1.80	785.58	760.06
4294.000	60.00	596.00	594.50	588.30	1000.00	600.06	0.00	600.15	1.65	2.36	799.61	776.87
4294.000	60.00	596.00	594.50	588.30	1250.00	600.16	0.00	600.25	2.52	2.90	806.35	790.63
4294.000	60.00	596.00	594.50	588.30	1500.00	600.27	0.00	600.42	3.56	3.42	809.76	810.19
4610.000	316.00	0.00	0.00	588.60	100.00	599.74	0.00	599.74	0.02	0.26	700.66	672.99
4610.000	316.00	0.00	0.00	588.60	300.00	599.80	0.00	599.81	0.19	0.79	708.73	682.53
4610.000	316.00	0.00	0.00	588.60	500.00	599.87	0.00	599.89	0.52	1.29	710.46	694.42
4610.000	316.00	0.00	0.00	588.60	750.00	599.90	0.00	600.04	1.10	1.91	734.98	714.78
4610.000	316.00	0.00	0.00	588.60	1000.00	600.13	0.00	600.19	1.85	2.47	741.82	735.87
4610.000	316.00	0.00	0.00	588.60	1250.00	600.27	0.00	600.35	2.71	2.92	745.43	759.34
4610.000	316.00	0.00	0.00	588.60	1500.00	600.41	0.00	600.54	3.67	3.54	749.16	783.43
4673.000	68.00	596.00	594.50	588.60	100.00	599.75	0.00	599.75	0.02	0.26	702.20	674.60
4673.000	68.00	596.00	594.50	588.60	300.00	599.81	0.00	599.84	0.19	0.76	711.65	682.52
4673.000	68.00	596.00	594.50	588.60	500.00	599.93	0.00	599.94	0.50	1.26	721.10	703.75
4673.000	68.00	596.00	594.50	588.60	750.00	600.07	0.00	600.17	1.27	1.86	765.71	725.05
4673.000	68.00	596.00	594.50	588.60	1000.00	600.21	0.00	600.27	1.78	2.44	761.90	748.54
4673.000	68.00	596.00	594.50	588.60	1250.00	600.36	0.00	600.45	2.51	2.98	761.10	773.04
4673.000	68.00	596.00	594.50	588.60	1500.00	600.50	0.00	600.62	3.54	3.50	799.92	797.46

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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS

ECORSE CREEK/ALLEN PARK.

SUMMARY PRINTOUT TABLE 150

SECNO	Q	C.SEL	DIFWSP	DIFWSX	DIFKHB	TCPBED	XLCH
3843.000	100.00	599.73	0.00	0.00	0.00	200.00	67.00
3843.000	300.00	599.76	0.00	0.00	0.00	200.00	67.00
3843.000	500.00	599.80	0.00	0.00	0.00	200.00	67.00
3843.000	750.00	599.83	0.00	0.00	0.00	200.00	67.00
3843.000	1000.00	599.96	0.00	0.00	0.00	200.00	67.00
3843.000	1250.00	600.04	0.00	0.00	0.00	200.00	67.00
3843.000	1500.00	600.14	0.00	0.00	0.00	200.00	67.00
4234.000	100.00	599.73	0.00	0.00	0.00	130.00	391.00
4234.000	300.00	599.76	0.00	0.00	0.00	130.00	391.00
4234.000	500.00	599.81	0.00	0.01	0.00	130.00	391.00
4234.000	750.00	599.90	0.00	0.02	0.00	130.00	391.00
4234.000	1000.00	600.00	0.00	0.04	0.00	130.00	391.00
4234.000	1250.00	600.11	0.00	0.06	0.00	130.00	391.00
4234.000	1500.00	600.22	0.00	0.08	0.00	130.00	391.00
4294.000	100.00	599.73	0.00	0.01	0.00	135.00	63.00
4294.000	300.00	599.79	0.00	0.03	0.00	135.00	63.00
4294.000	500.00	599.86	0.00	0.05	0.00	135.00	63.00
4294.000	750.00	599.97	0.00	0.07	0.00	135.00	63.00
4294.000	1000.00	600.06	0.00	0.08	0.00	135.00	63.00
4294.000	1250.00	600.20	0.00	0.09	0.00	135.00	63.00
4294.000	1500.00	600.31	0.00	0.09	0.00	135.00	63.00
4610.000	100.00	599.74	0.00	0.00	0.00	130.00	316.00
4610.000	300.00	599.80	0.00	0.01	0.00	130.00	316.00
4610.000	500.00	599.87	0.00	0.01	0.00	130.00	316.00
4610.000	750.00	600.00	0.00	0.03	0.00	130.00	316.00
4610.000	1000.00	600.13	0.00	0.05	0.00	130.00	316.00
4610.000	1250.00	600.27	0.00	0.06	0.00	130.00	316.00
4610.000	1500.00	600.41	0.00	0.10	0.00	130.00	316.00
4678.000	100.00	599.75	0.00	0.01	0.00	130.00	68.00
4678.000	300.00	599.85	0.00	0.03	0.00	130.00	68.00
4678.000	500.00	599.93	0.00	0.05	0.00	130.00	68.00
4678.000	750.00	600.07	0.00	0.07	0.00	130.00	68.00
4678.000	1000.00	600.21	0.00	0.08	0.00	130.00	68.00
4678.000	1250.00	600.36	0.00	0.09	0.00	130.00	68.00
4678.000	1500.00	600.50	0.00	0.09	0.00	130.00	68.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: Flood Hazard Factor

FLOOD INSURANCE ZONE DATA FOR ECORSE RIVER

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10@	2@	0.2@
1.000	0.	-0.6	-0.2	0.2
2.000	600.	-0.7	-0.2	0.2
3.000	1400.	-1.0	-0.3	0.4
4.000	1450.	-1.0	-0.3	0.4
5.000	1520.	-2.2	-0.7	1.4
6.000	1620.	-2.4	-0.8	0.9
7.000	1870.	-2.4	-0.8	0.9
8.000	2170.	-2.5	-0.8	0.9
9.000	2220.	-2.2	-0.7	0.8
10.000	2270.	-2.1	-0.1	0.1
11.000	2320.	-2.3	-0.2	0.3
12.000	3745.	-2.2	-0.3	0.5
13.000	3845.	-2.2	-0.5	0.5
68.000	3913.	-2.8	-0.5	0.6
182.000	4034.	-2.6	-0.6	0.6
253.000	4098.	-3.3	-0.6	0.4
353.000	4198.	-3.4	-0.7	0.2
1832.000	5677.	-3.3	-0.7	0.3
2130.000	6027.	-3.0	-0.7	0.3
2536.000	6431.	-2.7	-0.7	0.3
2541.000	6436.	-2.7	-0.7	0.3
2591.000	6586.	-2.5	-0.7	0.3
2941.000	6836.	-2.3	-0.6	0.3
3287.000	7182.	-2.3	-0.6	0.3
3487.000	7382.	-2.3	-0.5	0.3
3776.000	7671.	-2.2	-0.5	0.3
3943.000	7738.	-2.2	-0.5	0.3
4234.000	8129.	-2.1	-0.5	0.3
4294.000	8189.	-2.0	-0.5	0.3
4610.000	8505.	-2.0	-0.6	0.3
4678.000	8573.	-1.9	-0.5	0.3
4853.000	8748.	-1.9	-0.5	0.2
WEIGHTED AVG FOR REACH		-2.3	-0.5	0.4

FHF FOR THE REACH = 025 WITH 65.4% OF THE REACH WITHIN 1.0 FEET
ZONE FOR THE REACH = A 3

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC. NO.	TOTAL LENGTH	AVG ELEVATION DATA 10@	1@	DIFF.	WTD. AVG.	ZNF	PERCENT WITHIN
	0.				SEC.		1.000
1	100.	590.7	591.3	-0.6	-0.6	005	100.
2	200.	590.8	591.5	-0.5	-0.6	005	100.
3	300.	590.9	591.5	-0.6	-0.6	005	100.

	4	400.	591.0	591.7	-0.6	-0.6	005	100.
	5	500.	591.2	591.8	-0.6	-0.6	005	100.
		600.				SEC.		2.000
	6	600.	591.3	591.9	-0.7	-0.6	005	100.
	7	700.	591.4	592.1	-0.7	-0.6	005	100.
	8	800.	591.5	592.2	-0.7	-0.7	005	100.
	9	900.	591.6	592.4	-0.8	-0.7	005	100.
	10	1000.	591.7	592.5	-0.8	-0.7	005	100.
	11	1100.	591.8	592.7	-0.8	-0.7	005	100.
	12	1200.	591.9	592.8	-0.9	-0.7	005	100.
	13	1300.	592.0	593.0	-0.9	-0.7	005	100.
		1430.				SEC.		3.000
	14	1430.	592.2	593.1	-1.0	-0.7	005	100.
		1460.				SEC.		4.000
	15	1500.	592.5	593.9	-1.4	-0.8	010	93.
		1520.				SEC.		5.000
	16	1600.	593.0	595.1	-2.1	-0.9	010	86.
		1620.				SEC.		6.000
	17	1700.	593.3	595.6	-2.4	-1.0	010	81.
	18	1800.	593.3	595.7	-2.4	-1.0	010	80.
		1870.				SEC.		7.000
	19	1900.	593.4	595.7	-2.4	-1.1	010	79.
	20	2000.	593.4	595.7	-2.4	-1.2	010	65.
	21	2100.	593.4	595.7	-2.3	-1.2	010	55.
		2170.				SEC.		8.000
	22	2200.	593.6	595.3	-2.3	-1.2	015	27.
		2220.				SEC.		9.000
		2270.				SEC.		10.000
	23	2300.	594.3	596.5	-2.1	-1.3	015	22.
		2320.				SEC.		11.000
	24	2400.	594.5	596.7	-2.2	-1.5	015	17.
	25	2500.	594.5	596.8	-2.3	-1.6	015	12.
	26	2600.	594.6	596.9	-2.3	-1.6	015	8.
	27	2700.	594.6	596.9	-2.3	-1.5	015	7.
	28	2800.	594.7	596.9	-2.3	-1.5	015	4.
	29	2900.	594.7	597.0	-2.3	-1.5	015	4.
	30	3000.	594.8	597.0	-2.3	-1.5	015	3.
	31	3100.	594.8	597.1	-2.3	-1.6	015	3.
	32	3200.	594.8	597.1	-2.3	-1.6	015	3.
	33	3300.	594.9	597.1	-2.3	-1.6	015	3.
	34	3400.	594.9	597.2	-2.3	-1.6	015	6.
	35	3500.	595.0	597.2	-2.2	-1.6	015	5.
	36	3600.	595.0	597.3	-2.2	-1.7	015	6.
	37	3700.	595.1	597.3	-2.2	-1.7	015	6.
		3745.				SEC.		12.000
	38	3800.	595.1	597.3	-2.2	-1.7	015	6.
		3845.				SEC.		13.000
	39	3900.	595.2	597.6	-2.4	-1.7	015	6.
		3993.				SEC.		86.000
	40	4000.	595.3	598.0	-2.7	-1.7	015	10.
		4034.				SEC.		189.000
		4093.				SEC.		253.000
	41	4100.	595.6	598.9	-3.3	-1.8	020	34.
		4153.				SEC.		333.000
	42	4200.	595.7	599.0	-3.4	-1.8	020	42.
	43	4300.	595.8	599.2	-3.4	-1.9	020	47.
	44	4400.	595.8	599.2	-3.4	-1.9	020	56.
	45	4500.	595.8	599.3	-3.4	-1.9	020	51.
	46	4600.	595.9	599.3	-3.4	-1.9	020	52.
	47	4700.	595.9	599.3	-3.4	-2.0	020	51.
	48	4800.	595.9	599.3	-3.4	-2.0	020	54.
	49	4900.	595.9	599.3	-3.4	-2.0	020	58.
	50	5000.	595.9	599.3	-3.4	-2.1	020	52.
	51	5100.	596.0	599.3	-3.4	-2.1	020	51.

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52	5200.	596.0	599.3	-3.4	-2.1	020	50.
53	5300.	596.0	599.4	-3.5	-2.1	020	49.
54	5400.	596.0	599.4	-3.3	-2.2	020	48.
55	5500.	596.1	599.4	-3.3	-2.2	020	47.
56	5600.	596.1	599.4	-3.3	-2.2	020	46.
	5677.				SEC.	1632.000	
57	5700.	596.1	599.4	-3.3	-2.2	020	46.
58	5800.	596.2	599.5	-3.3	-2.2	020	45.
59	5900.	596.2	599.4	-3.2	-2.2	020	46.
60	6000.	596.3	599.4	-3.1	-2.3	025	48.
	6027.				SEC.	2132.000	
61	6100.	596.4	599.4	-3.0	-2.3	025	49.
62	6200.	596.5	599.4	-2.9	-2.3	025	50.
63	6300.	596.6	599.5	-2.9	-2.3	025	51.
64	6400.	596.7	599.5	-2.8	-2.3	025	53.
	6431.				SEC.	2536.000	
	6436.				SEC.	2541.000	
	6486.				SEC.	2591.000	
65	6500.	397.0	599.5	-2.5	-2.3	025	54.
66	6600.	597.0	599.5	-2.5	-2.3	025	55.
67	6700.	597.1	599.5	-2.4	-2.3	025	55.
68	6800.	597.2	599.6	-2.4	-2.3	025	57.
	6836.				SEC.	2941.000	
69	6900.	597.2	599.6	-2.3	-2.3	025	58.
70	7000.	597.2	599.5	-2.3	-2.3	025	59.
71	7100.	597.3	599.6	-2.3	-2.3	025	59.
	7142.				SEC.	3287.000	
72	7200.	597.3	599.6	-2.3	-2.3	025	60.
73	7300.	597.3	599.6	-2.3	-2.3	025	60.
	7342.				SEC.	3487.000	
74	7400.	597.3	599.6	-2.3	-2.3	025	61.
75	7500.	597.3	599.6	-2.3	-2.3	025	61.
76	7600.	597.4	599.6	-2.2	-2.3	025	62.
	7671.				SEC.	3776.000	
77	7700.	597.4	599.6	-2.2	-2.3	025	61.
	7736.				SEC.	3961.000	
78	7800.	597.5	599.7	-2.2	-2.3	025	62.
79	7900.	597.5	599.7	-2.2	-2.3	025	62.
80	8000.	597.6	599.7	-2.1	-2.3	025	63.
81	8100.	597.6	599.7	-2.1	-2.3	025	62.
	8129.				SEC.	4234.000	
	8180.				SEC.	4284.000	
82	8200.	597.7	599.8	-2.0	-2.3	025	64.
83	8300.	597.8	599.8	-2.0	-2.3	025	63.
84	8400.	597.8	599.8	-2.0	-2.3	025	63.
85	8500.	597.8	599.8	-2.0	-2.3	025	64.
	8505.				SEC.	4612.000	
	8573.				SEC.	4678.000	
86	8600.	597.8	599.8	-1.9	-2.3	025	64.
87	8700.	597.9	599.8	-1.8	-2.3	025	64.
	8746.				SEC.	4853.000	

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FCA REQUIREMENTS
INPUT 201 WHERE J IS THE NUMBER OF SECTIONS AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE 202 18 37
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

PRINTED IN U.S.A.

FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: Input

00BREAK00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

C
T1ALLEN PARK FLOOD INSURANCE STUDY-
T2 10 YR FLOW
T3      BOOSE RIVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       2.       0.       0.  0.001200     0.00     0.0      0.   590.000   0.000

J2  NPROF     IPLOT    PREVS    XSECH    XSECH    FN       ALLOC    NDM      CHNIM    ITRACE

     1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000  201.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J5  LPRNT    NUMSEC                  ********REQUESTED SECTION NUMBERS********

   -10.000  -10.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
GT     7.000  960.000 1325.000  149 .000 1490.000 1730.000 1100.000 1200.000    0.000    0.000
SC     0.060    0.060    0.035    0.100    0.300    0.200    0.000    0.000    0.000    0.000

      [illegible] U/S OF ALLEN ROAD

X1     1.000    3.000  [illegible]  279.000    0.000    0.000    0.000    0.000    0.000    0.000
[illegible]  600.000    0.000  [illegible]    0.000  590.000  [illegible]  [illegible]  [illegible]  [illegible]  272.000
GR   590.000  279.000  590.000  479.000  600.000  480.000    0.000    0.000    0.000    0.000

X1     2.000    8.000   40.000   69.000  500.000  [illegible]  600.000    0.000    0.000    0.000
[illegible]  600.000    0.000  590.000    1.000  590.000   [illegible]  [illegible]  67.000  [illegible]  [illegible]
[illegible]  590.000   69.000  590.000  [illegible]  600.000  [illegible]    0.000    0.000    0.000    0.000

X1     3.000    3.000  100.000  129.000  700.000  850.000  800.000    0.000    0.000    0.000
X3     0.000    0.000    0.000   92.000    0.000  [illegible]    0.000    0.000    0.000    0.000
GR   600.000    0.000  590.000    1.000  590.000  [illegible]  584.300  107.000  584.300  122.000
GR   590.000  129.000  590.000  [illegible]  600.000  [illegible]    0.000    0.000    0.000    0.000
NC     0.000    0.000    0.000    0.300    0.500    0.000    0.000    0.000    0.000    0.000

      D/S FACE OF R/R BRIDGE [illegible]

X1     4.000   10.000  100.000  126.500   50.000    0.000    0.000    0.000    0.000    0.000
X3    10.000    0.000    0.000    0.000    0.500    0.000    0.000  596.000  596.000    0.000
GR   600.000   50.000  594.000   50.000  594.000  100.000  585.400  100.000  584.600  112.000
GR   584.400  114.500  584.400  126.500  596.000  126.500  594.000  575.000  600.000  575.000
SC     1.250    1.550    0.000  575.000   26.500    2.500  131.200    0.000  [illegible]  [illegible]

      D/S FACE OF R/R BRIDGE [illegible]
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X1	5.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	591.0		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	596.500	596.500	0.000
NC	0.080	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.000	8.000	60.000	35.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	282.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	50.000	584.600	60.000	584.600	75.000
GR	590.000	85.000	590.000	455.000	600.000	455.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X2	7.000	10.000	293.000	309.000	250.000	250.000	250.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	205.000	0.000	395.000	0.000	0.000	0.000	0.000
GR	600.000	0.000	590.000	0.000	590.000	250.000	585.000	290.000	584.700	292.000
GR	584.700	307.000	585.000	309.000	590.000	350.000	593.000	600.000	600.000	600.000
X2	8.500	8.000	303.000	345.000	300.000	350.000	305.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	295.000	0.000	345.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	594.300	0.000	594.300	300.000	585.200	314.000	585.200	329.000	
GR	594.300	343.000	595.000	593.000	605.000	595.000	0.000	0.000	0.000	0.000
NC	0.200	0.000	0.000	0.500	0.500	0.200	0.000	0.000	0.000	0.000
XT	7.000	913.000	1290.000	1470.000	1470.000	1610.000	1120.000	1260.000	0.000	0.000

D/S FACE OF B/R BRIDGE #2

X1	0.000	10.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	600.000	600.000	0.000
GR	605.000	0.000	594.000	0.000	594.300	300.000	586.300	300.000	586.300	312.000
GR	585.300	314.000	585.300	326.000	594.300	326.000	596.300	576.000	605.000	576.000
SR	1.250	1.500	3.000	576.000	26.000	2.000	132.000	0.000	585.300	585.300

D/S FACE OF B/R BRIDGE #2

X1	10.000	10.000	300.000	326.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	591.300	594.300	0.300	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.300	0.000	600.000	600.000	0.000
GR	605.000	0.000	594.000	0.000	595.000	300.000	586.300	300.000	586.300	312.000
GR	585.300	314.000	585.300	326.000	595.000	326.000	596.300	576.000	605.000	576.000
NC	0.200	0.100	0.035	0.000	0.000	0.200	0.000	0.000	0.000	0.000
X1	11.000	8.000	300.000	324.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.300	0.000	0.000	295.000	0.000	345.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	592.000	0.000	590.000	300.000	585.400	300.000	585.400	316.000
GR	590.300	324.000	593.000	576.000	605.000	576.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000

100' D/S OF STUDY LIMIT (I-94) BRIDGE, END OF CONVERGENCE NO.

X2	12.000	8.000	300.000	326.000	1300.300	352.000	1525.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	605.000	0.000	590.000	0.000	590.000	300.000	586.300	308.000	586.300	316.000
SR	590.000	326.000	595.000	626.000	605.000	626.000	0.000	0.000	0.000	0.000
NC	0.090	0.090	0.090	0.000	0.300	0.000	0.000	0.000	0.000	0.000

D/S FACE OF EASTBOUND I-94 (SURVEY=31+52)

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X1	13.000	8.000	485.000	510.500	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.000	598.000	0.000
GR	605.000	0.000	598.000	0.000	598.000	460.000	586.600	485.000	586.100	510.500
GR	598.000	540.500	598.000	990.500	605.000	991.000	0.000	0.000	0.000	0.000
SB	1.250	1.500	3.000	990.000	25.500	1.500	202.800	0.000	585.850	585.850

U/S FACE OF E.BOUND I-94 (SURVEY=30+64)

X1	68.000	10.000	485.000	510.500	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.300	598.600	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	3.000	0.000	0.000	0.000	0.000	596.600	596.600	0.000
GR	605.000	0.000	593.000	0.000	598.000	455.000	585.500	485.000	585.500	497.000
GR	598.200	498.500	596.200	510.500	598.000	461.000	598.000	990.000	605.000	990.000
NC	0.000	0.080	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF E.BOUND I-94 (SURVEY=49+43)

X1	189.000	8.000	486.000	511.300	121.000	121.000	121.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	598.500	598.500	0.000
GR	605.000	0.000	593.400	0.000	593.400	450.000	586.400	486.000	587.200	511.500
GR	598.400	547.500	598.400	1000.000	605.000	1000.000	0.000	0.000	0.000	0.000
SB	1.250	1.500	3.000	1000.000	25.500	1.500	207.400	0.000	585.950	585.950

U/S FACE OF W.BOUND I-94 (SURVEY=68+79)

X1	253.000	10.000	490.000	505.500	66.000	64.000	64.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.600	599.100	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.500	0.000	0.000	0.000	0.000	599.100	599.100	0.000
GR	605.000	0.000	590.400	0.000	598.400	451.000	585.900	484.000	585.900	492.000
GR	586.500	493.500	596.500	505.500	598.400	517.500	598.400	1000.000	605.000	1000.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF W.BOUND I-94

X1	333.000	10.000	98.000	92.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	605.000	0.000	595.000	0.000	590.000	55.000	588.000	55.000	596.000	65.000
GR	596.000	85.000	590.000	92.000	595.000	117.000	599.100	125.000	605.000	125.000
NC	0.000	0.000	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
GT	5.000	870.000	741.000	870.000	670.000	301.000	0.000	0.000	0.000	0.000

U/S OF J.F.K. PARK (SURVEY= 33+00)

X1	1632.000	11.000	115.000	123.200	1550.000	1550.000	1679.700	0.000	0.200	0.200
GR	610.000	0.000	595.000	0.200	595.500	75.000	596.700	97.300	587.500	115.300
GR	587.400	110.100	587.400	123.200	593.300	115.000	595.300	157.200	593.200	277.300
GR	610.000	207.700	0.000	0.000	0.000	0.000	0.000	0.300	0.000	0.300
NC	0.000	0.300	0.000	0.100	0.300	0.300	0.000	0.300	0.000	0.300

X

X1	2132.000	0.000	0.000	0.000	400.000	300.000	350.000	0.000	0.200	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE (SURVEY = 25+65)

X2	2936.000	15.000	164.000	185.000	450.000	335.000	404.000	0.000	0.000	0.000
X3	10.000	0.000	0.300	0.000	0.300	0.000	0.000	595.000	595.000	0.000

GR	610.000	0.000	595.100	0.000	596.700	74.000	596.700	110.000	595.300	117.000
GR	593.100	154.000	590.000	161.000	588.000	164.000	588.000	180.000	591.000	183.000
GR	595.500	190.000	595.500	240.000	595.700	272.000	597.900	278.000	610.000	278.000
SB	0.000	1.500	3.000	0.000	16.000	0.000	110.400	0.000	586.000	586.000

U/S FACE (SURVEY = 25+40)

X1	2541.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.900	595.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	5.000	0.000	595.300	595.500	0.000
BT	10.000	177.000	593.300	0.300	161.000	594.300	0.000	161.000	599.000	0.000
BT	164.000	599.200	586.000	164.300	597.000	594.900	180.000	597.000	594.900	180.000
BT	595.000	583.300	582.000	599.300	0.000	163.000	596.300	0.000	240.000	595.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

50' U/S OF FOOTBRIDGE

X1	2391.000	0.300	0.000	0.300	50.000	50.000	50.000	0.000	0.000	0.000

X = 40' U/S OF FOOTBRIDGE

X1	2941.000	0.000	90.000	102.000	350.000	350.000	350.000	0.000	0.000	0.000
BR	612.000	0.000	595.000	0.000	595.200	50.000	50.000	50.000	567.600	90.000
GR	587.800	102.000	590.000	112.000	593.000	142.000	595.000	167.000	610.000	167.000

D/S FACE LAVRE STR CULVERTS(SURVEY = 17+94)

X1	3287.000	0.000	90.000	110.000	346.000	346.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.000	595.000	0.000
GR	611.000	0.000	595.000	0.000	595.000	90.000	569.200	90.000	569.200	100.800
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
SB	1.250	2.310	3.000	200.000	14.700	1.000	80.000	0.000	589.000	589.000

J/S FACE KEPPEN ST. (SURVEY= 13+94)

X1	3467.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
BR	7.000	0.300	1.000	595.500	595.500	0.000	0.000	0.000	0.000	0.000
GR	10.000	0.300	0.000	0.300	0.200	0.000	0.000	595.500	595.500	0.000

D/S FACE RUSSELL ST. CULVERTS (SURVEY = 13+05)

X1	3778.000	0.300	90.000	110.300	249.020	249.000	249.301	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.300	595.500	0.300
GR	611.000	0.300	328.000	0.300	593.000	90.000	939.300	90.000	939.000	110.800
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
SB	1.250	2.310	3.000	200.000	14.560	1.000	80.000	0.300	589.000	589.000
BR	0.070	0.070	0.050	0.300	0.500	0.000	0.000	0.300	0.000	0.000

D/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+32)

X1	3843.000	0.000	0.000	0.000	67.000	67.000	67.000	0.300	0.300	0.000
BR	0.300	0.000	1.000	594.900	594.000	0.300	0.000	0.000	0.300	0.000
GR	10.300	0.000	0.300	0.000	0.000	0.300	0.000	594.000	595.300	0.000
SB	0.070	0.070	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	5.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S FACE OF WATSON AVE. (SURVEY = 8+47)

X1	4234.000	8.000	55.000	75.800	270.000	430.000	391.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.000	595.000	0.000	595.000	55.000	588.300	55.000	588.300	75.800
GR	595.000	75.800	595.000	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SU	1.250	2.000	3.000	130.000	13.900	1.000	80.300	0.000	588.300	588.300

U/S FACE OF WATSON AVE. (SURVEY = 7+87)

X1	4294.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.500	596.000	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	596.000	596.000	0.000

D/S FACE OF EUCLID AVE. CULVERTS. (SURVEY=4+71)

X1	4610.000	8.000	34.000	75.700	350.000	280.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.000	595.500	0.000	595.500	54.000	588.600	54.000	588.600	75.700
GR	595.500	75.700	595.500	130.000	610.000	130.000	0.000	0.000	0.000	0.000
SU	1.250	2.040	3.000	130.000	14.220	1.000	78.000	0.000	588.600	588.600

U/S FACE OF EUCLID AVE. CULVERTS. (SURVEY= 4+03)

X1	4678.000	0.000	0.000	0.000	68.000	68.000	68.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.500	596.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.300	596.300	0.000
GT	5.000	913.000	1290.000	1470.000	1470.000	1810.000	0.000	0.000	0.000	0.000

D/S FACE SOUTHFIELD F/WAY CULVERT

X1	4053.000	5.000	40.000	60.000	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	605.000	605.000	0.000
GL	[illegible]	0.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	605.000	100.000
GR	610.000	101.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 1.01
  MODIFICATION -  50,51,52
**************************************************

TIALLEN PARK FLOOD INSURANCE STUDY-
T2 50 YR FLOW
T3      ECORSE RIVER
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
         0.       3.       0.        0.  0.001200      0.00      0.0       0.    590.000     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     ICONV     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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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1ALLEN PARK FLOOD INSURANCE STUDY-
T2 100 YR FLOW
T3       ECORSE RIVER

J1  ICHECK     INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       4.        0.        0.  0.001200      0.00      0.0       0.   590.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411 OB-PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  E1
  MODIFICATION -  50,51,52
*****************************************************

T1ALLEN PARK FLOOD INSURANCE STUDY-
T2 500YR FLOW
T3       ECOPSE RIVER

J1  ICHECK    INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        6.        0.        0.  0.001200      0.00      0.0       0.   390.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBI       CHWIN     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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00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: Report

00BREAK00

FROM: Wade-Trim & Associates, Inc.

25185 Goddard Road P.O. Box 10
Taylor, Michigan 48180

TO:

HYDRAULICS REPORT

ALLEN PARK, MICHIGAN

[redacted]

HYDRAULICS REPORT
ALLEN PARK, MICHIGAN

I. INTRODUCTION

Allen Park is located in southeastern Wayne County and is comprised of approximately 7 square miles of which approximately 1.6 square miles is North Branch Ecorse Creek drainage area. This report summarizes the hydraulic studies undertaken to support detailed studies on 1 mile of the North Branch Ecorse Creek.

This study was conducted by Wade, Trim & Associates, Inc., Consulting Engineers, and Glen Roberts served as Project Manager.

RECEIVED
DEC 17 1979
WATER MANAGEMENT

II. NORTH BRANCH ECORSE CREEK (DETAILED)

Detailed studies were performed on the North Branch Ecorse Creek from the I-94 Expressway to the Southfield Expressway a distance of approximately 5,000 feet. A total of 8 bridge cross sections and 1 valley section were field surveyed by Wade, Trim & Associates, Inc. in December, 1977. Cross section locations are shown in Exhibit 1 and were supplemented by U.S.G.S. Quad Maps of the study area which consist of 5 foot contour intervals and Allen Park Street paving plans (Reference 1 and 2, respectively).

Table 1 cross references section designations by showing the computer section number which corresponds to the cross section letter shown in Exhibit 1. Table 2 lists discharges that have been submitted to the Michigan Department of Natural Resources (M.D.N.R.) for their approval.

A. Method of Analysis

The HEC-2 backwater computer program was used in developing water surface profiles (Reference 3). HEC-2 printouts including computer cross section plots are presented as Exhibit 2. (Exhibit 2 is contained in the 11" x 15" folder enclosed with this report). Water surface profiles resulting from the backwater analyses are presented as Exhibit 3.

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel of the North Branch Ecorse Creek range from 0.03 to 0.035; roughness values for the overbank areas varies

between 0.07 and 0.10 for all floods. These values are indicative of summer month conditions and are consistent with values recommended and used in engineering practice (Reference 4). Contraction and expansion coefficients were selected as 0.3 and 0.5 at bridge sections and 0.1 and 0.3 for gradual channel transitions. Bridge loss coefficient computations are included in Exhibit 4.

C. High Water Marks

No documented high water marks exist on the North Branch Ecorse Creek in the study area.

D. Starting Conditions

Backwater computations to obtain convergence are included in Exhibits 2 and 5. This analysis was started approximately 3300 feet downstream of the study limit. Four profiles were developed for the following starting conditions: critical depth, normal depth, 1 foot higher than normal depth and 1 1/2 feet higher than normal depth. Results of this analysis indicate that convergence was achieved 100 feet downstream of the study limit.

Since convergence was achieved at this point, the entire convergence model was used in the backwater analysis for the 10, 50, 100, and 500 year flows.

E. Special Problems

The North Branch Ecorse Creek in Allen Park is highly developed (residential). Houses along the Creek are constructed close to each other thereby creating ineffective flow areas for a majority of the flood plain. However, Russell Avenue and Euclid Avenue provide for diversion of flows from the Ecorse Creek when flood stages reach adjacent road elevations. Consequently, flow diversion analyses included in Exhibits 2 and 6 were performed along each of these streets to determine the flow distributions and associated flood elevations on the Creek and along the diversions. These analyses were performed for the 10, 50, 100 and 500 year flood flows.

An encroachment run was not performed for this reach of the Ecorse Creek as floodway limits are well defined by the houses located adjacent to the stream. All inundated areas within the high density residential development are considered ineffective for flow computations. A floodway was also provided for the Russell Avenue and Euclid Avenue diversions since these flow corridors carry a large percentage of flow.

F. General

Computed water surface elevations were developed to an accuracy of 0.5 feet for floods of the selected recurrence intervals.

All elevations are referenced to the U.S. Geological Survey (USGS) Datum. This datum is equivalent to the National Geodetic Vertical Datum (NGVD).

The hydraulic analyses for this study were based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 1

CITY OF ALLEN PARK, MICHIGAN

CROSS REFERENCE INDEX

COMPUTER SECTION NUMBER	WTA STATION	FW & FB LETTER	DESCRIPTION
13	51 + 32	A	d/s Face of E. Bound I-94
68	50 + 64	B	u/s Face of E. Bound I-94
189	49 + 43	C	d/s Face of W. Bound I-94
253	48 + 79	D	u/s Face of W. Bound I-94
1832	33 + 00	E	Valley Section
2541	25 + 40	F	u/s Face Footbridge
3287	17 + 94	G	d/s Face Larme - Keppen
3487	15 + 94	H	u/s Face Larme - Keppen
3776	13 + 05	I	d/s Face Russell Ave.
3843	12 + 38	J	u/s Face Russell Ave.
4234	8 + 47	K	d/s Face Watson Ave.
4294	7 + 87	L	u/s Face Watson Ave.
4610	4 + 71	M	d/s Face Euclid Ave.
4678	4 + 03	N	u/s Face Euclid Ave.
4853	3 + 28	O	d/s Face Southfield Expressway

TABLE 2

CITY OF ALLEN PARK

NORTH BRANCH ECORSE CREEK FLOOD FLOW DATA

LOCATION		DISCHARGE - CFS 10 Year	50 Year	100 Year	500 Year
I-94		915	1290	1470	1810
(X-Section A)	ELEV.	595.07	596.93	597.23	597.69
Footbridge		*870	*740	*670	*800
(X-Section F)	ELEV.	596.98	598.88	599.54	599.82
Watson Ave.		*880	*1010	*1040	*1250
(X-Section K)	ELEV.	597.63	599.11	599.70	600.02
Southfield Freeway		915	1290	1470	1810
(X-Section O)	ELEV.	597.89	599.08	599.60	599.77

*NOTE: The discharges in the Creek have been reduced by the diversions down Euclid Ave. and Russell Ave. (See Exhibit 6).

REFERENCES

1. U.S. Geological Survey Topographical Maps - Dearborn Quadrangle, Wayne County, 7.5 Minute Series - Photo Revised, 1973.

2. City of Allen Park Street Paving Plans, L.N. Hayden, Inc., 1965.

3. HEC-2 Water Surface Profile - Users Manual - U.S. Army Corps of Engineers - 1976.

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

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

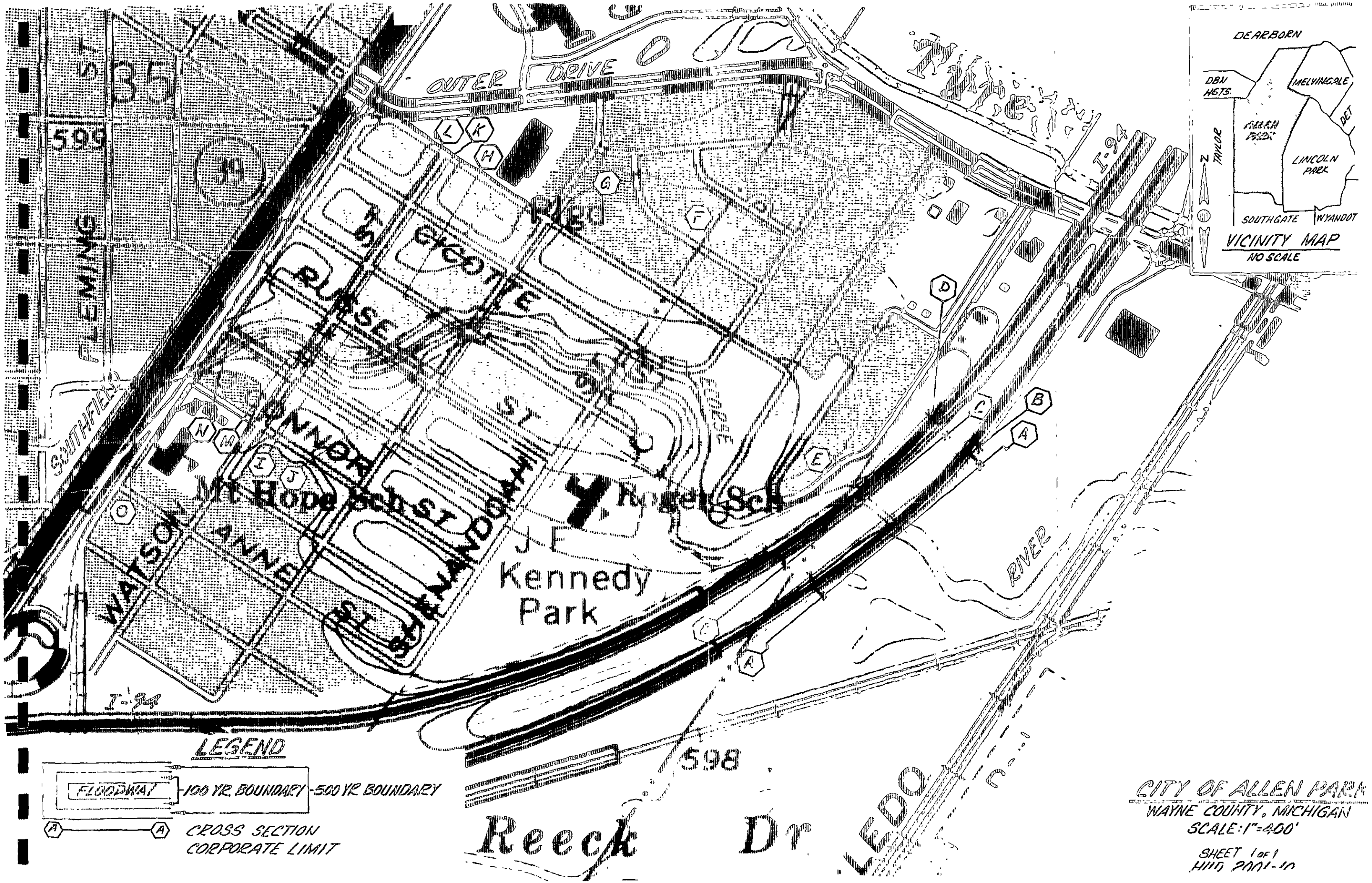
INDEX OF EXHIBITS

EXHIBIT 1	Field Cross Section Location and 100 Year Flood Plain Floodway Map, 1 Sheet
EXHIBIT 2	Computer Printouts, HEC-2 Backwater Analysis with Cross Section Plots (in separate folder)
EXHIBIT 3	Stream Profile, 1 Sheet
EXHIBIT 4	Bridge Notes and Sketches, 19 Sheets
EXHIBIT 5	Convergence Run, 1 Sheet
EXHIBIT 6	Flow Diversion Analysis, 13 Sheets

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

EXHIBIT 1

Field Cross Section Location
and 100 Year Flood Plain
Floodway Map



OUTER DRIVE
35
599
39
FLEMING ST
SOUTHFIELD
RUSSELL ST
CICOTTE
CONNOR ST
Mt Hope Sch
ST
WATSON
ANNE ST
SHENANDOAH
J F
Kennedy
Park
Roger Sch
I-94
RIVER
598
Reeck Dr
LEDO
DEARBORN
DBN HGTS.
MELVINDALE
DET
ALLEN PARK
LINCOLN PARK
TAYLOR
SOUTHGATE
WYANDOT
VICINITY MAP
NO SCALE
LEGEND
FLOODWAY
100 YR. BOUNDARY
500 YR. BOUNDARY
CROSS SECTION
CORPORATE LIMIT
CITY OF ALLEN PARK
WAYNE COUNTY, MICHIGAN
SCALE: 1"=400'
SHEET 1 OF 1
HUD 2001-10

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

EXHIBIT 2

Computer Printouts
HEC-2 Backwater Analysis
with
Cross Section Plots
(See Separate Folder)

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

EXHIBIT 3

Stream Profile

CITY OF ALLEN PARK, MICHIGAN

NORTH BRANCH ECORSE CREEK

EXHIBIT 4

Bridge Notes and Sketches

Wade Trim & Associates Inc.
Civil Engineers • Land Surveyors
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180
(313) 291-5400

FORM 25 0

WORK SHEET

Bridge Location: E. Bound I-94
Bridge Losses - SB Crwl

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, Σk = $k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 202.2 Wp = 31.8'
$R = A/wp$ $R^{4/3}$ = L = 63'
n (composite) = .02

$K_f = 29.1 \times (.02)^2 \times 63 / (202.2 / 31.8^{4/3}) = .24$

K_e = .2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0 + .2 + .24 = 1.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 25.5
6. BWP = total width of obstruction = 202 1.5 — field data
7. BAREA = bridge opening inc. piers = 202.2
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 585.85 (0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 585.85 (0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Project Owner Suffix
EXHIBIT 4	DATE 1/17	DATE	1 OF 19	HUD • 2001 • 07

33
FR940
12-14-77 02DW KM
12-15-77 02DW KM
6.75R
6.75L
12'
11'
VARIES
SEE ELEV's
Two View Data Blocks
Elevs at R 34
48+79
49+43
50+64
51+32
36'
34'
37'
28'
31'
Detail
Bridge
Eastbound
Dusto
W Bound I-94
E Bound I-94
E Mid Point
E Left Offsets
E Right Offsets
1 1/3
1 1/25
1 1/8
1 1/4
1 1/2
1 1/3
1 1/3
1 1/3

HDD 2001-05

ELEV'S AT BRIDGE SECTION ECORSE RIVER & I-94 CON'T FROM PG 34 R&L.
OFFSETS FROM MID-PT OF OPENINGS
FACING DOWNSTREAM

FB 940
12-15-77 R2DW KM
CURRENT WC RC DATUM

Sta	+	HI 60516	−	ELEV		
		50+64 (N SIDE E BOUND BRIDGE)				
6.75L			7.30	597.86		OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75L			10.80	594.36		INSIDE " " @ ℄ "
6.75L			19.68	585.48		RIVER BOTTOM @ ℄ "
6.75R			7.33	597.83		OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75R			10.83	594.33		INSIDE " " @ ℄ "
6.75R			18.98	586.18		RIVER BOTTOM @ ℄ "
		51+32 (S SIDE E BOUND BRIDGE)				
6.75L			8.55	596.61		OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75L			10.85	594.31		INSIDE " " @ ℄ "
6.75L			18.54	586.62		RIVER BOTTOM @ ℄ "
6.75R			8.54	596.62		OUTSIDE TOP BRIDGE @ ℄ OPENINGS
6.75R			10.84	594.32		INSIDE " " @ ℄ "
6.75R			19.08	[illegible]		RIVER BOTTOM @ ℄ "
BMOL			8.33	596.83	596.83	S.W. COR. N'LY WING-WALL OF W. BOUND I-94

— D.W.

EXHIBIT 4

3/19

FORM 25 0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: W. Bound I-44
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 manual
XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers.

Description of Bridge:
$K_f = 29.1 n^2 L / R^{4/3}$ for English units
Area = = 207.6 Wp = 81.6
$R = A/wp$ $R^{4/3}$ = L = 64
n (composite) = .02
$K_f = 29.1 \times (.02)^2 \times 64 / \left(\frac{207.6}{81.6}\right)^{4/3} = .2$

K_e = .2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

k_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .2 + .05 + .2 = 1.5
3. COFQ - Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 1000' (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 25.5
6. BWP = total width of obstruction = 1.5 — field data
7. BAREA = bridge opening inc. piers = 207.6
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 585.95
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 585.95
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No. (Job No.) Owner Project Suffix
EXHIBIT 4	DATE 10/1/79	DATE	4 OF 19	HUD • 2001 • 07

HUD 2001-05

BRIDGE SECTIONS I-94 & ECORSE RIVER 000 IS ℄ MID-POINT OF TWIN OPENINGS R&L OFFSETS FROM ℄ MID-POINT FACING DOWNSTREAM

FB940
12-15-77 R2DWKM
CURRENT WCRC DATUM

34

Sta	+	HI	−	ELEV	
BM				596.83	SW COR ON N'LY WING WALL OF W. BOUND I-94 BRIDGE
	8.33	605.16			
		48+79 (N END W. BOUND BRIDGE)			
6.75L			8.31	596.85	OUTSIDE TOP. BRIDGE @ ℄ OPENING
6.75L			10.61	594.55	INSIDE " " @ ℄ "
6.75L			19.22	585.94	RIVER BOTTOM @ ℄ "
6.75R			8.30	596.86	OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75R			10.60	594.56	INSIDE " " @ ℄ "
6.75R			18.62	586.54	RIVER BOTTOM @ ℄ "
		49+43 (S. END. W BOUND BRIDGE).			
6.75L			6.10	599.06	OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75L			10.65	594.51	INSIDE " " @ ℄ "
6.75L			18.77	586.39	RIVER BOTTOM @ ℄ "
6.75R			6.14	599.02	OUTSIDE TOP BRIDGE @ ℄ OPENING
6.75R			10.69	594.47	INSIDE " " @ ℄ "
6.75R			17.34	587.82	RIVER BOTTOM @ ℄ "

CONT ON PG 35

-D.W.

EXHIBIT 4

5/19

FORM 25 0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: [illegible] (near Sherman [illegible]

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk , $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = [illegible] W_p = [illegible] = 45.8'

$R = A/W_p$ $R^{4/3}$ = L = 5'

n (composite) =

$K_f = 29.1 \times (\quad)^2 \times 5'$ / ≅ [illegible]

XKOR
Use min. reform value since Bridge has L = 5'

Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

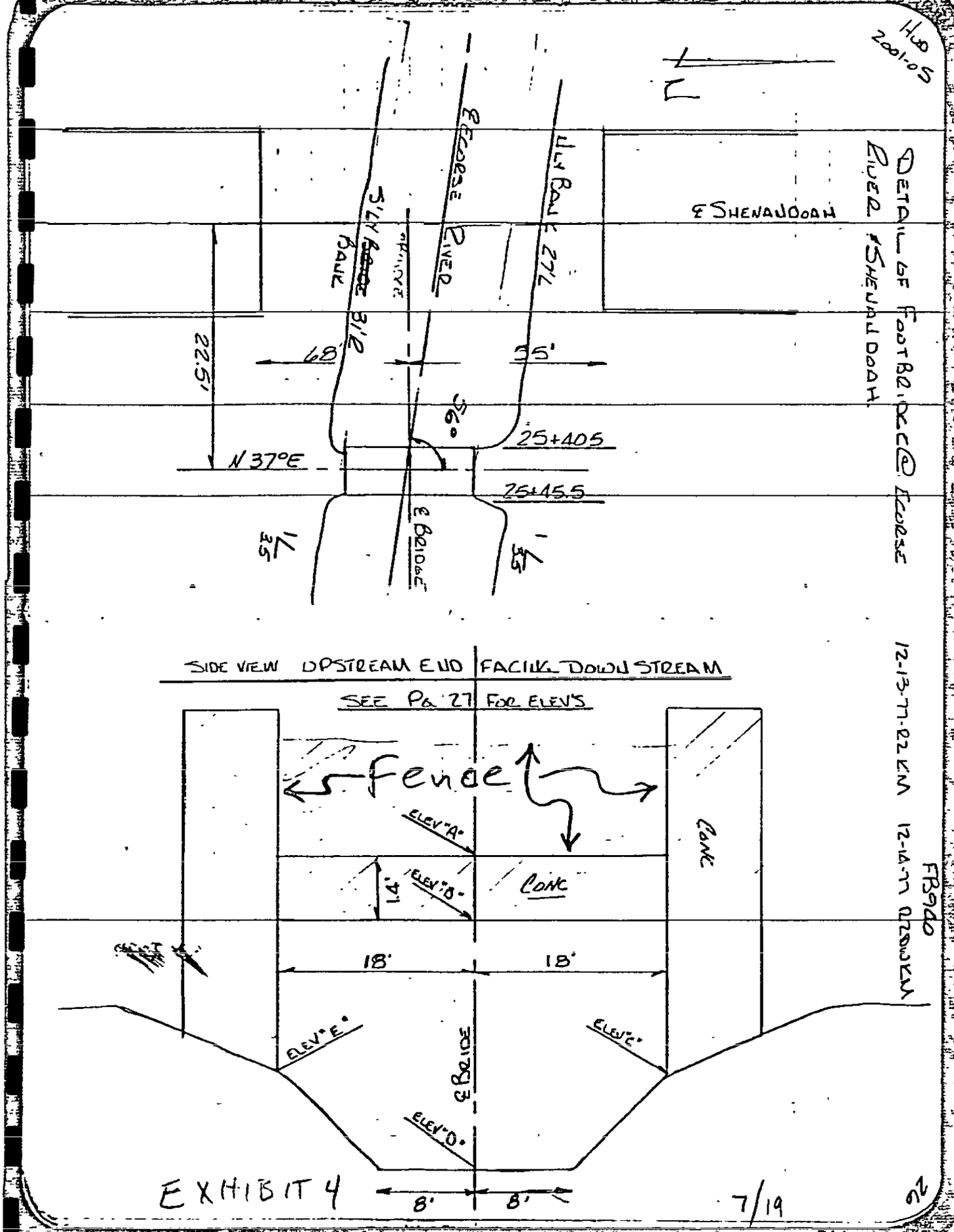
K_e = .2

K_p = 0 if bridge has no intermediate piers ✓

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 2 + 0 + [illegible] = 1.5
3. COFQ - Coefficient of discharge = 2.0 — HEC-2 manual
4. RDLEN = Length of weir = _____ (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 0
6. BWP = total width of obstruction = 10.0 — field data
7. BAREA = bridge opening inc. piers = 0 [illegible]
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 5880
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 5880
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
EXHIBIT 4	[illegible] DATE [illegible]	DATE	6 OF 19	HUD • 2001 • 07


HUD 2001-05
DETAIL OF FOOTBRIDGE @ ECORSE RIVER & SHENANDOAH
℄ SHENANDOAH
℄ ECORSE RIVER
N'LY BANK 27'L
S'LY BANK 31'R
22.5'
68'
55'
56°
25+40.5
25+45.5
N 37°E
℄ BRIDGE
1/35
SIDE VIEW UPSTREAM END FACING DOWNSTREAM
SEE PG 27 FOR ELEV'S
Fence
ELEV "A"
ELEV "B"
ELEV "C"
ELEV "D"
ELEV "E"
CONC
1.4'
18'
18'
8'
8'
℄ BRIDGE
12-13-77-R2KM
12-14-77 R2DWKM
FB940
EXHIBIT 4
7/19
26

FORM 25 0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Larne-Keppen St. Culverts
Bridge Losses - SB Card

Dual 6'1" x 8'10" CSP

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units,

Area = [illegible] = 39 ft² each Wp = 23.5 each

$R = A/wp$ $R^{4/3}$ = L = 200

n (composite) =

$K_f = 29.1 \times (.027)^2 \times 200 \cdot \left(\frac{39}{23.5}\right)^{4/3} = 216$

K_e = .7 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

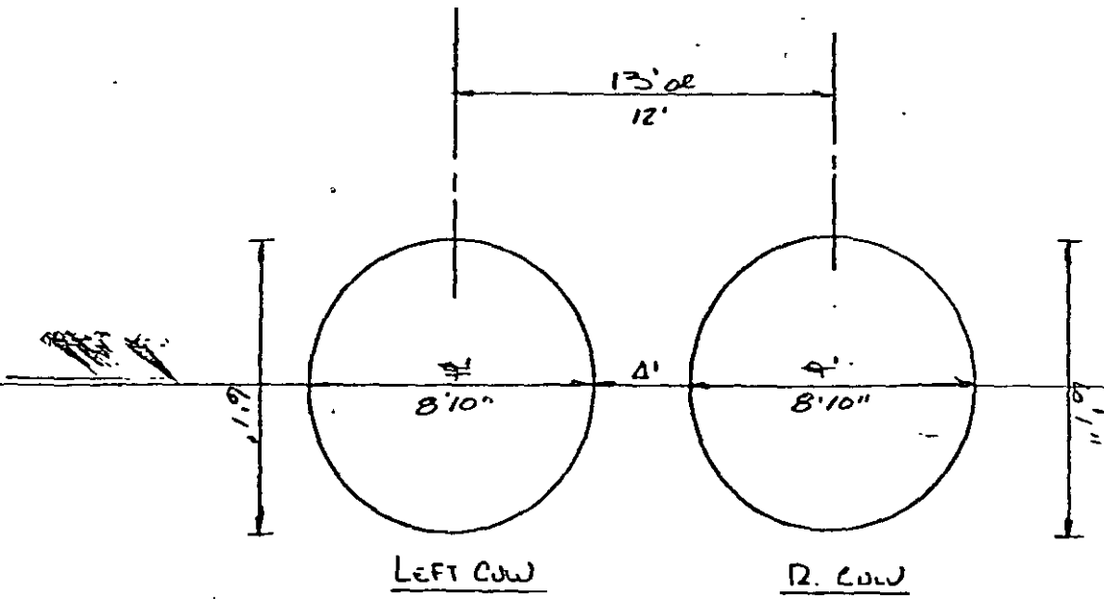
2. XKOR = 1 + .05 + 2.16 + .7 = 3.91
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 2.00 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 15.7
6. BWP = total width of obstruction = [illegible] — field data
7. BAREA = bridge opening inc. piers = 72
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 588.2
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 588.2
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO	File Code No. (Job No.) Owner Project Suffix
EXHIBIT 4	DATE [illegible]	DATE	8 OF 19	HUD • 2001 • 07

EXHIB 17 4 9/19

HUD 200105

CULV' DIMENSIONS



SAME DIMENSIONS BOTH SIDES

ALL CULV'S ARE SAME DIMENSIONS

THROUGHOUT ENTIRE PROJECT 0.2±

FB940
12-7-77 RR DW RA

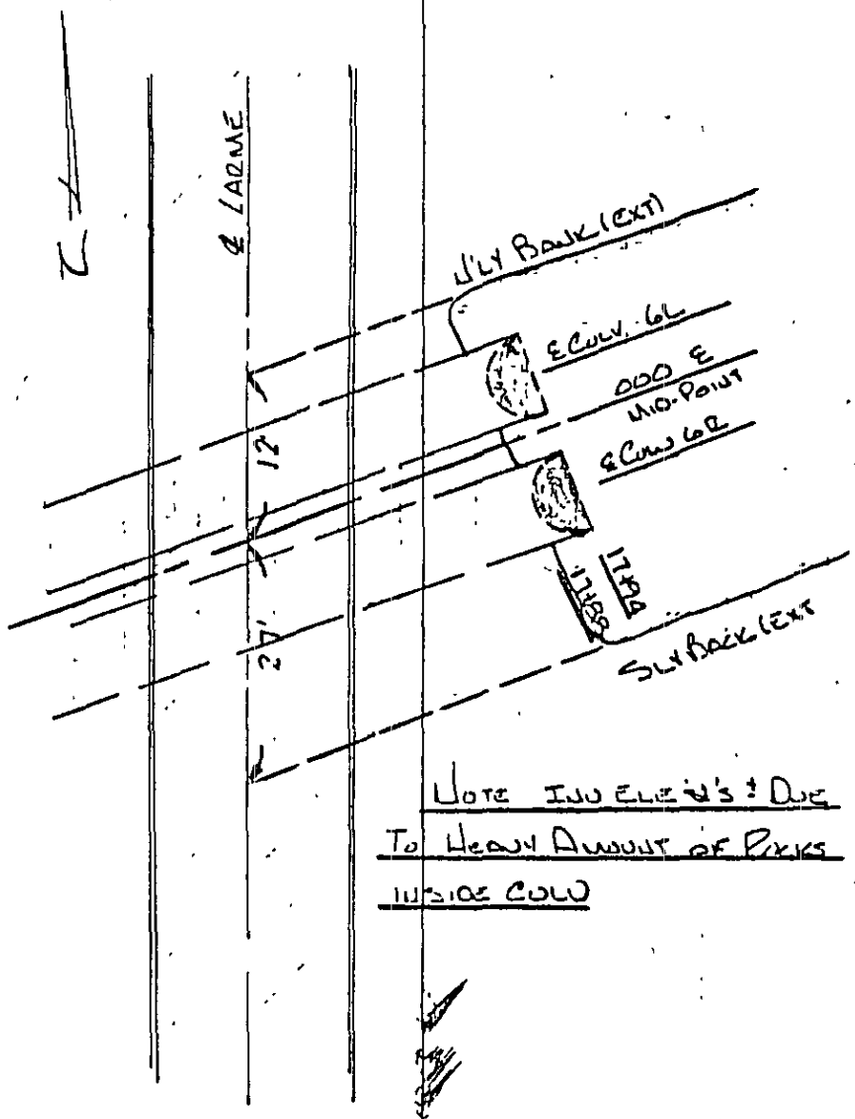
10

HUD 2001-05

DETAIL CULV @ KEPPEN & LARME
CONT FROM PG 20. R & L OFFSETS FROM
℄ (MID-POINT BET CULV'S) FACING DOWN STREAM
(HI FROM PG 20)

Sta	+	HI	−	ELEV	
		600 76			
17+88					
6L INSIDE TOP CULV.			7.18	593 58	
6L RIVER BOTTOM			12.62	588.20	
6L INV CULV.			13.26	587.50	
			12.34	588.42	— River Bottom
6R " "			13.59	587.17	— Cul. Invert
6R RIVER BOTTOM					
6R INSIDE TOP CULV			7.51	593.25	
17+94					
6L CUL INV.			13.40	587.36	
6R CULV INV			13.65	587.11	
000 ℄ RIVER BOTTOM			13.00	587.76	
BMCK			5.62	595 14	595 4

FB 940
12-13-77 R2 KM
CURRENT WRC DATUM



NOTE INV ELEV'S ± DUE TO HEAVY AMOUNT OF ROCKS INSIDE CULV

-D.W.

EXHIBIT 4

10/19

21

HUD 200F05

DETAIL CULV AT KEPPEN & LARME
R&L OFFSETS FROM ℄ (MID-POINT BET CULVS)
FACING DOWN STREAM

BM. 595.14 'TOP OF "C" ON S RIM SAN MH
@ INTERSECTION KEPPEN AND LARME

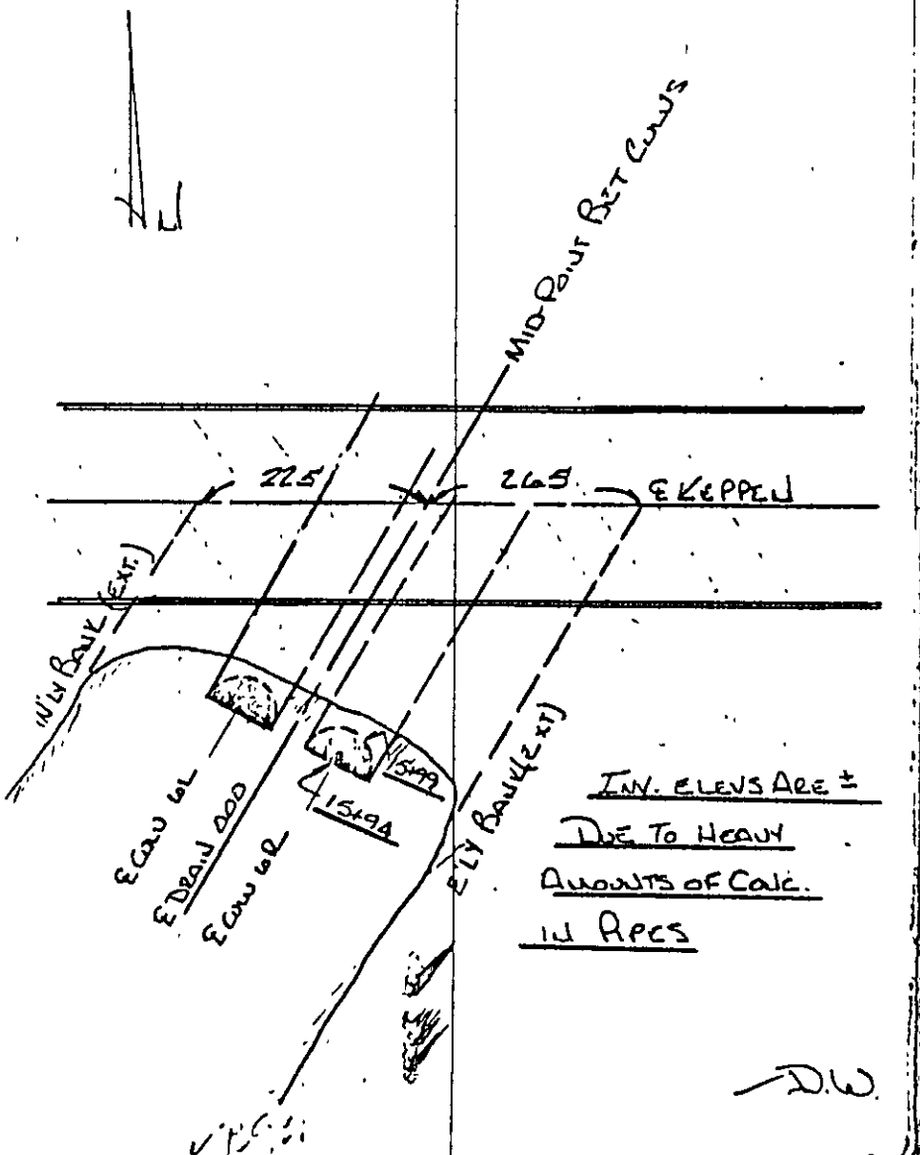
STA	+	HI	−	ELEV
BM.	562	600.76		595.14

15+94 SW END BOTTOM CULV		
6L CULV INV	13.20	587.56
6R " "	13.50	587.26
000 RIVER BOTTOM	12.60	588.16
15+99 SW END TOP CULV.		
6L RIVER BOTTOM	13.19	587.57
6L INSIDE TOP CULV	7.12	593.64
6L INV. CULV	13.20	587.56
6R " "	13.54	587.22
6R INSIDE TOP CULV.	7.46	593.30
6R RIVER BOTTOM	13.50	587.26

CON'T ON PG 21

EXHIBIT 4 11/19

FB940
12-13-77 R2 KM
CURRENT WCRC DATUM



INV. ELEVS ARE ± DUE TO HEAVY AMOUNTS OF CONC. IN PIPES

D.W.

FORM 25 0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Russell Ave culverts
Bridge Losses - SB Card 6'1"x8'10" CIPA

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1 n^2 L / R^{4/3}$ for English units

Area = 80 ft² = 80 ft² Wp = 23 ft

$R = A/wp$ $R^{4/3}$ = L = 87

n (composite) = .027²

$K_f = 29.1 \times (.027)^2 \times 87 / \left(\frac{80}{23}\right)^{4/3} = .56$

K_e = .7 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .05 + .7 + .56 = 2.31
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 200 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 14.56
6. BWP = total width of obstruction = 10 — field data
7. BAREA = bridge opening inc. piers = 80.0
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 589.0
(0 if equal to minimum elevation in previous X-sect.)
10. ELCHD = Elevation of channel invert D/S side = 589.0
(0 if equal to minimum elevation in previous X-sect.)

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
EXHIBIT 4	DATE 1/79	DATE	D1 OF 19	AUD • 2001 • 07

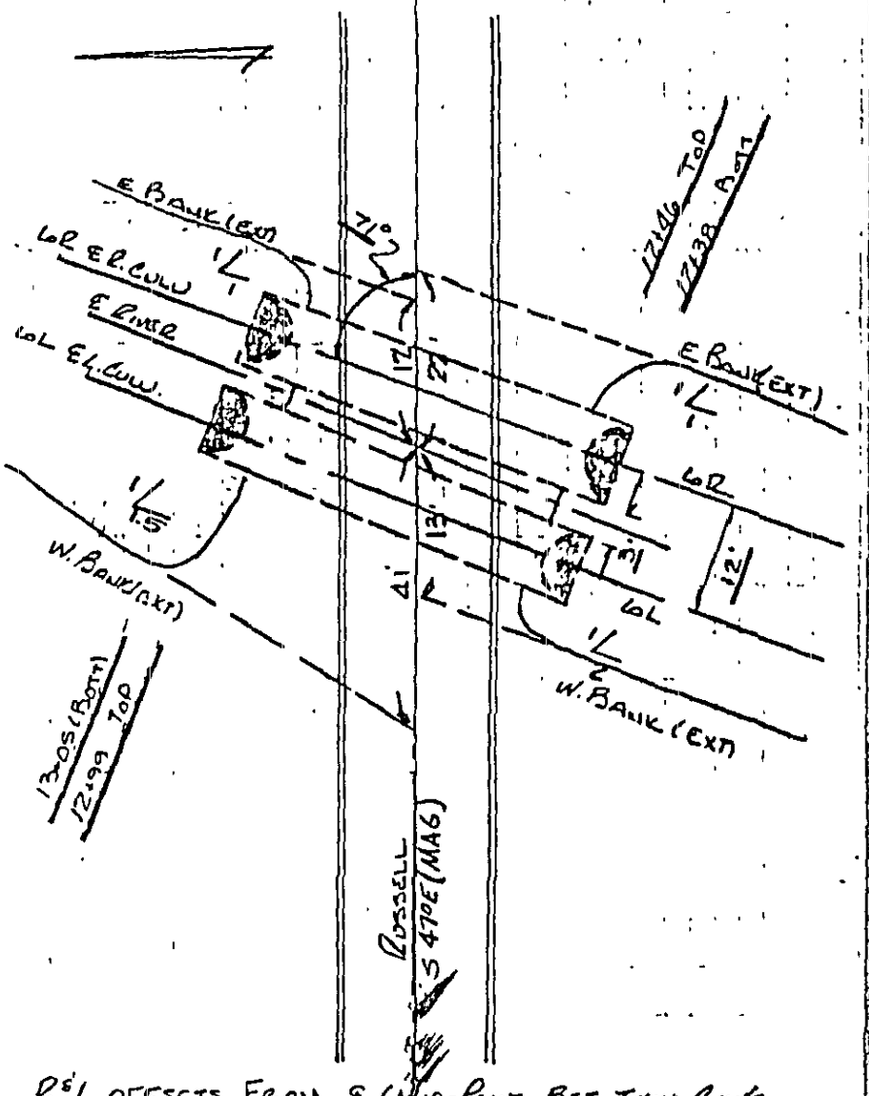
HUD 2001.05

BRIDGE SECTION RUSSELL & ECORSE RIVER.

BM = 59898 CON F HYD @ NECOR RUSSELL & WATSON (CURRENT WCRC DATUM)

Sta	+	HI	−	ELEV
BM				598.98
	2.04	601.02		
12+30 (℄ RIVER)			12.10	588.92
12+38				
6L (INV. CULV.)			12.18	588.84
6R (POURED CONC INV CULV)			11.90	589.12
12+46				
6L (TOP CULV) - INSIDE			6.20	594.82
6L RIVER BOTTOM			12.00	589.02
6L (INV)			12.30	588.72
6R (TOP - INSIDE			5.88	595.14
6R RIVER BOTTOM			11.80	589.22
6R (INV)			12.00	589.02
12+99				
6L (TOP) INSIDE			6.30	594.72
6L RIVER BOTTOM			11.99	589.03
6L (INV)			12.40	588.62
6R (TOP) INSIDE			6.09	594.93
6R RIVER BOTTOM			12.14	588.88
6R (INV)			12.19	588.83
13+05				
6L (INV)			12.45	588.57
6R (INV)			12.23	588.79
13+10 ℄ RIVER			12.10	588.92
BMCK			2.04	598.98

FB940
12-8-77 R2DWRA



R & L OFFSETS FROM ℄ (MID-POINT BET TWIN CULVS

FACING DOWNSTREAM

D.W.

EXHIBIT 4

13/19

FORM 25-0
(313) 291 5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

Bridge Location: Watson Ave. 6'1" x 8'10" CMP.
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge:

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 80 ft² = 80 ft² W_p = 23.3 ft

$R = A/w_p$ $R^{4/3}$ = L = 60

n (composite) = .027

$K_f = 29.1 \times (.027)^2 \times 60 / (80/23.3)^{4/3} = .25$

K_e = .7 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .7 + .05 + .3 = 2.0
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 130. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 13.9
6. BWP = total width of obstruction = 11 — field data
7. BAREA = bridge opening inc. piers = 80.
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 5[illegible]3
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 5[illegible]3
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Owner Project Suffix
EXHIBIT 4	[illegible]		14 OF 19	HUD • 2001 • 07
	DATE [illegible]	DATE		

HUD 2001-05

CULV. DETAIL ECORSE RIVER & WATSON AVE

BM 598.98 ARROW ON F HYD @ NE.

COR WATSON & RUSSELL

CURRENT WCRC DATUM

Sta	+	HI	−	ELEV
BM				598.98
	1.97	600.95		
		7+87		
E RIVER BOTTOM			12.60	
6L INV	(COULD NOT SHOOT TOO MUCH DEBRIS			
6R "			12.60	588.35
		7+93		
6L INSIDE TOP.			6.42	594.53
6L RIVER BOTTOM			12.45	588.50
6L INV			12.64	588.31
6R "			12.60	588.35
6R RIVER BOTTOM			12.35	588.60
6R INSIDE TOP			6.41	594.54
		8+41		
6L INSIDE TOP			6.51	594.44
6L RIVER BOTTOM			12.09	588.86
6L INV			12.66	588.29
6R "			12.65	588.30
6R RIVER BOTTOM			12.47	588.48
6R INSIDE TOP			6.53	594.42
		8+47		
6L INV			12.72	588.23
6R "			12.64	588.31
E RIVER BOTTOM			12.60	588.35
BMCK			1.97	598.98

FB 940

12-7-77 RZDWRA

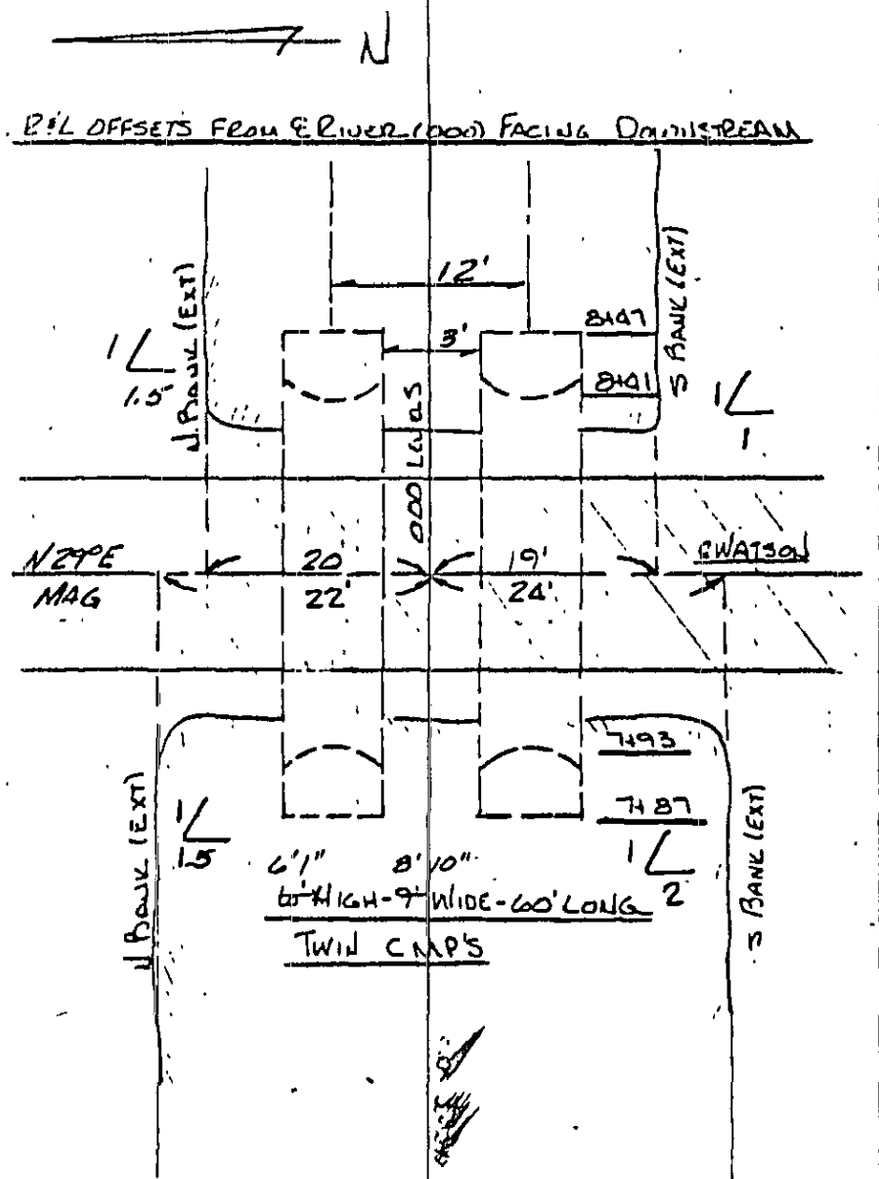


EXHIBIT 4

15/19

Bridge Location : Euclid Ave Dual 6'11" x 8'10" (17th)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) 1.25 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = 78 ft² = 78 ft² Wp = 23.5 ft.
R = A/wp = 23.5 ft $R^{4/3}$ = L = 68'
n (composite) = .027

$K_f = 29.1 \times (.027)^2 \times 68 \quad 1/(78/23.5)^{4/3} = .29$

K_e = .7 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + .7 + .05 + .29 = 2.04
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 730. (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 14.22
6. BWP = total width of obstruction = 1.0 — field data
7. BAREA = bridge opening inc. piers = 78
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 588.60
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 588.60
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner Project Suffix
EXHIBIT 4	DATE 10/1/79	DATE	16 OF 19	HUD • 2001 • 07

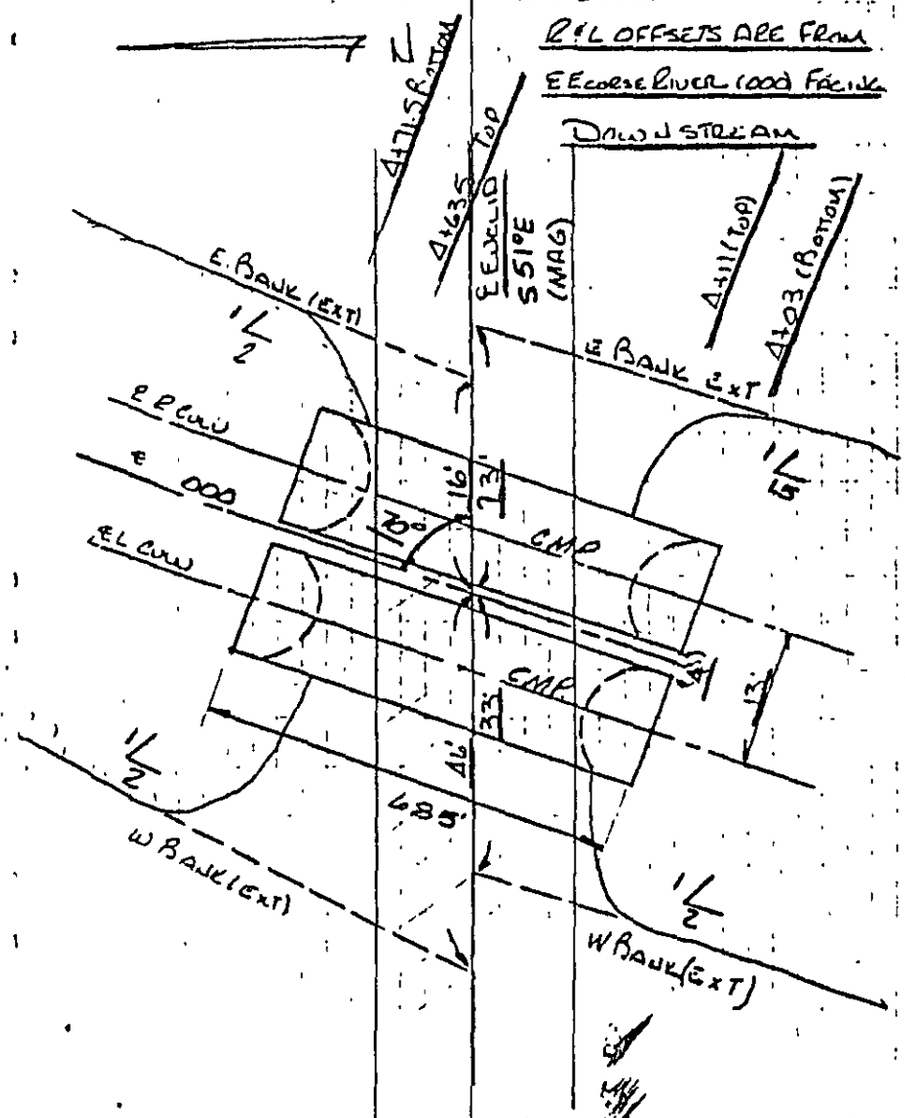
FB940
12-7-77 R7. DWRA

9

DETAIL @ ECORSE RIVER & EUCLID AVE

BM. 599.04 ARROW ON F HYD. N SIDE EUCLIDE & 125'± E & N. BOUND SER DR (CURRENT INCRC DATUM)

Sta	+	HI	-	ELEV.
BM	299	602.03		599.04
		4+03		
RIVER BOTTOM			13.60	588.43
6L INV CULV			13.35	588.68
6R " "			13.51	588.52
		4+10		
6L INSIDE TOP CULV			7.27	599.76
6L RIVER BOTTOM			12.55	584.48
6L INV CULV			13.36	588.67
6R " "			13.54	588.49
6R RIVER BOTTOM			13.10	588.93
6R INSIDE TOP			7.60	599.39
		4+63.5		
6L INSIDE TOP			7.69	594.34
6L RIVER BOTTOM			13.43	588.60
6L INV			13.50	588.53
6R "			13.50	588.53
6R RIVER BOTTOM			13.49	588.54
		4+71.5		
6L INV			13.50	588.53
6R "			13.58	588.45
℄ RIVER BOTTOM			13.20	588.83
BMCK			3.00	599.03



BM 599.04 ARROW ON F. HYD N. SIDE EUCLID & 125'± E & N. BOUND SER. DR

HUD 2001-05

FB940

37

BRIDGE DETAIL ECORSE RIVER
& SOUTHFIELD FWY)

NOTE. THERE ARE 7 BEAMS TOTAL ON BRIDGE @ S BOUND SER DR.

23 TOTAL BEAMS ON SOUTHFIELD FRWY BRIDGE

9 TOTAL BEAMS ON N. BOUND SER DR (BRIDGE)

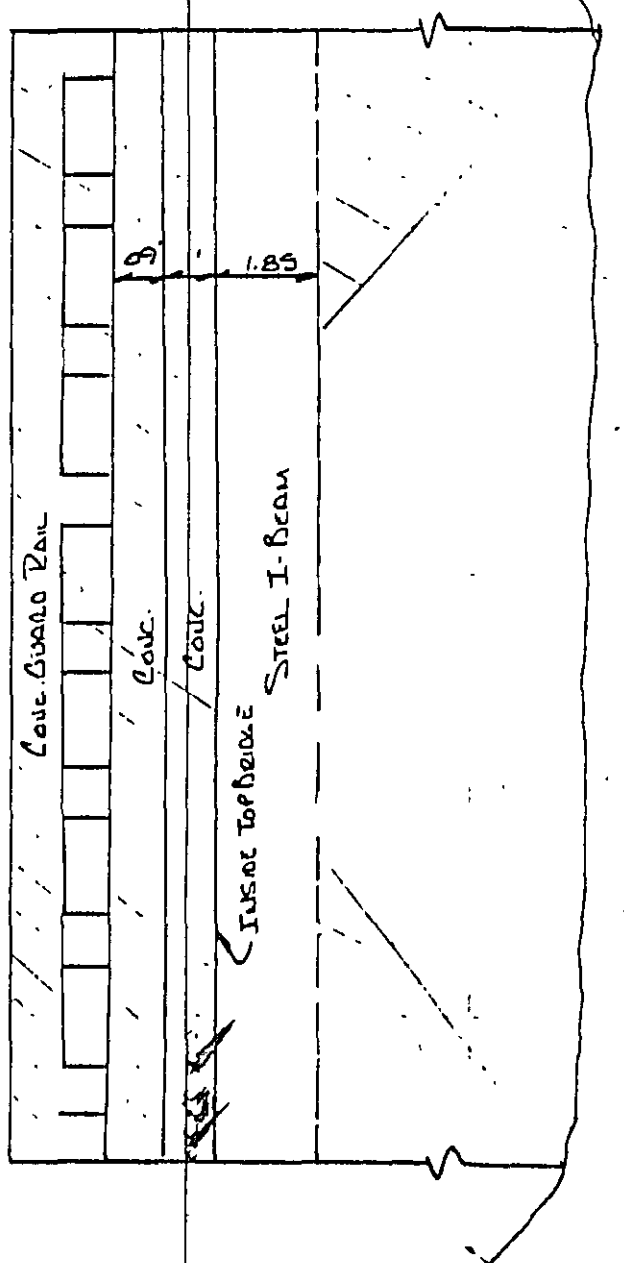


EXHIBIT 4 18/19

HUD 2001-05

FB940
12-19-77 22DWKM
CURRENT WL,RC DATUM

45

BRIDGE DETAIL SOUTHFIELD FWY
& ELORSE RIVER Con't FROM Pg 44

Sta	+	HI	−	ELEV
		596.68		
2+25				
BOTTOM	I-BEAM		+3.07	599.75
2+26 E. Edge SOUTHFIELD FWY BRIDGE				
INSIDE	TOP BRIDGE		+4.85	601.53
E RIVER	BOTTOM		6.82	589.86
2+60 W EDGE N. BOUND SER. DR BRIDGE				
E RIVER	BOTTOM		6.73	589.95
INSIDE	TOP BRIDGE		+4.90	601.58
2+61				
BOTTOM	I-BEAM		+3.03	599.71
3+26				
BOTTOM	I-BEAM		+3.15	599.83
3+28 E Edge N. BOUND SER DR BRIDGE				
INSIDE	TOP BRIDGE		+5.00	601.68
E RIVER	BOTTOM		6.69	589.99
T.P			4.21	592.47
	15.89	608.36		
SMCK			3.52	604.84 604.84

— 0.00 —

See Pg 44

EXHIBIT 4 19/19

— D.W

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

EXHIBIT 5

Convergence Run

K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A. 46 1320

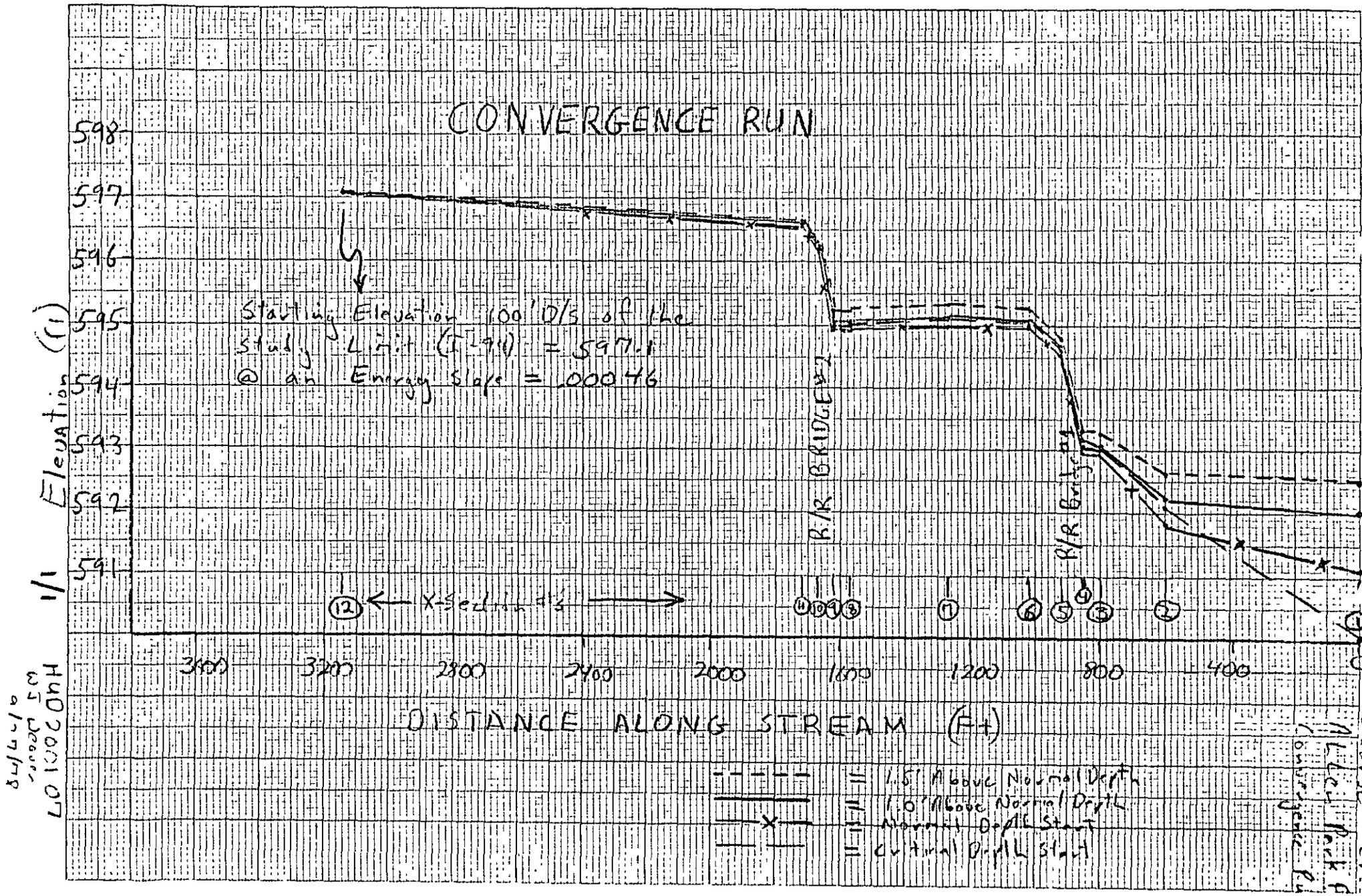


EXHIBIT 5

Ecorse Creek
Allen Park FIS
Convergence Run

1/1

HUD 200 OnH
WJ Deeser
a/n/ng

CITY OF ALLEN PARK, MICHIGAN
NORTH BRANCH ECORSE CREEK

EXHIBIT 6

Flow Diversion Analysis

REFERENCE

EXHIBIT 6

North Branch Ecorse Creek Flow Diversion

The Flow Diversion from the N. Branch Ecorse Creek down Euclid Avenue and Russell Avenue is shown schematically on sheet 2. The diversion analysis follows:

1.) Rating curves were made for the 10, 50, 100, and 500 year flows:

a.) down Euclid Ave. using HEC-2 (Exh. 6 & 7)

b.) down Ecorse Creek using HEC-2 (Exh. 6 & 12).

On the schematic, Q_1 = flow down Ecorse Creek

Q_2 = flow down Euclid Ave.

Q_T = total storm flow

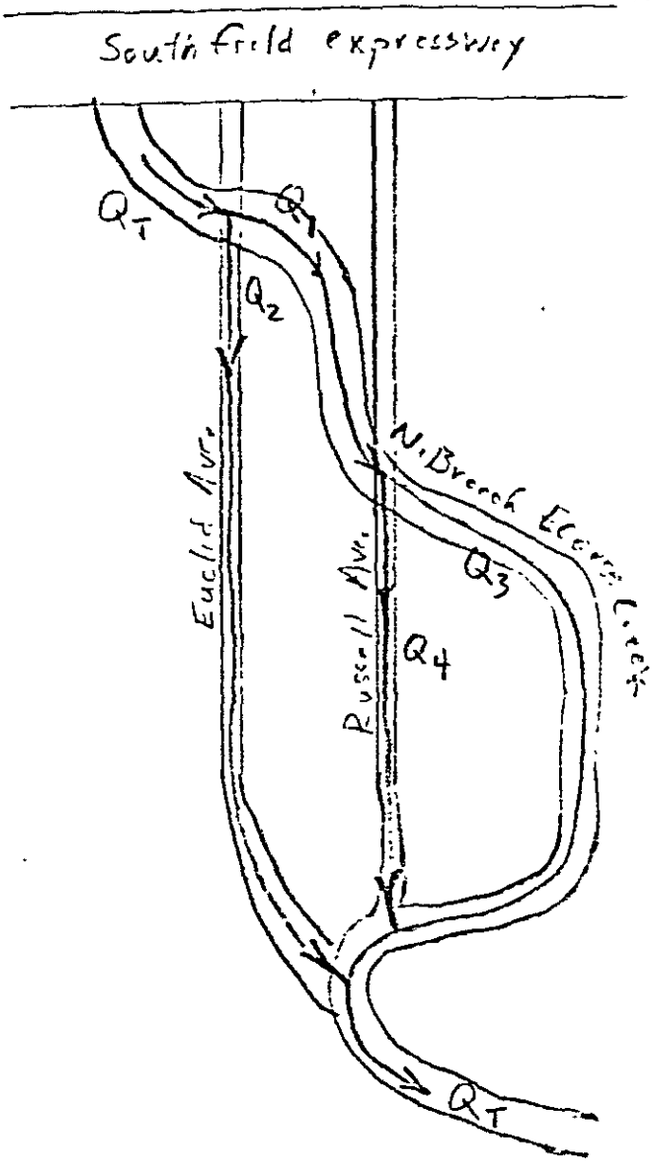
$$Q_1 + Q_2 = Q_T$$

2.) The rating curves down the creek and down the channel were added to give a total rating curve (see sheets 6 thru 9).

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
Allen Park - Hydraulics	T. Grant		1 OF 13	449 • 2001 • 07
	DATE 2-4-79	DATE		

REFERENCE

N. Branch Frank Creek Diversion
Analysis



Schematic Flow Diagram

Q_T = flow down creek with no diversion
Q_1 = flow down creek d/s of Euclid
Q_2 = flow down Euclid

Q_3 = flow down creek d/s of Russell
Q_4 = flow down Russell

$$Q_1 + Q_2 = Q_T$$

$$Q_3 + Q_4 = Q_1$$

$$Q_2 + Q_3 + Q_4 = Q_T$$

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

The amounts of flow down the creek and down the street were obtained by applying the total storm flow to the total rating curve. The elevation was then carried over to the creek rating curve and the street rating curve and the amount of flow down each was obtained.

Computer Section Number 4678

	N Branch Ecorse Cr.		Euclid Avenue	
	Q_1 Flow (cfs)	Elevation (ft)	Q_2 Flow (cfs)	Elevation (ft)
10 YR	880	598.0	35	598.0
50 YR	1010	599.4	280	599.4
100 YR	1040	600.0	430	600.0
500 YR	1250	600.4	560	600.4

SUBJECT	BY	CHK	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
Allen Pk - Hydraulics Exhibit 6	T. Grant		3 OF 13	HUD • 2001 • 07
	DATE 12-4-79	DATE		

FORM 25-0
(313) 291-5400

Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

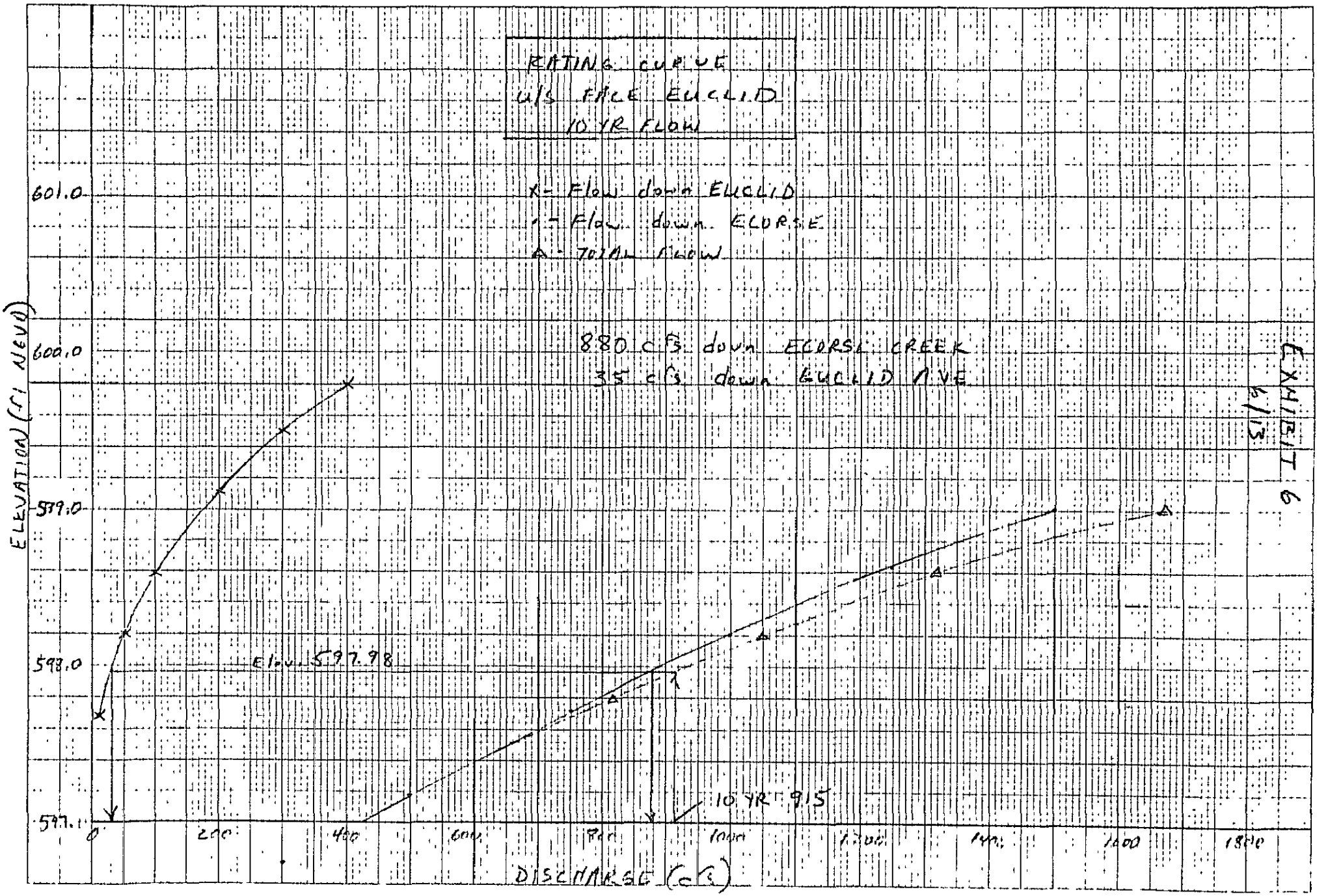
4.) Rating Curves were then made for the creek and the Russell Avenue diversion in the same manner. The flow down N. Branch Ecorse Creek calculated at the Euclid Avenue diversion was applied to the total rating curve at the Russell Ave. diversion for the 10, 50, 100, and 500 year storms (See Sheets 10 thru 13).

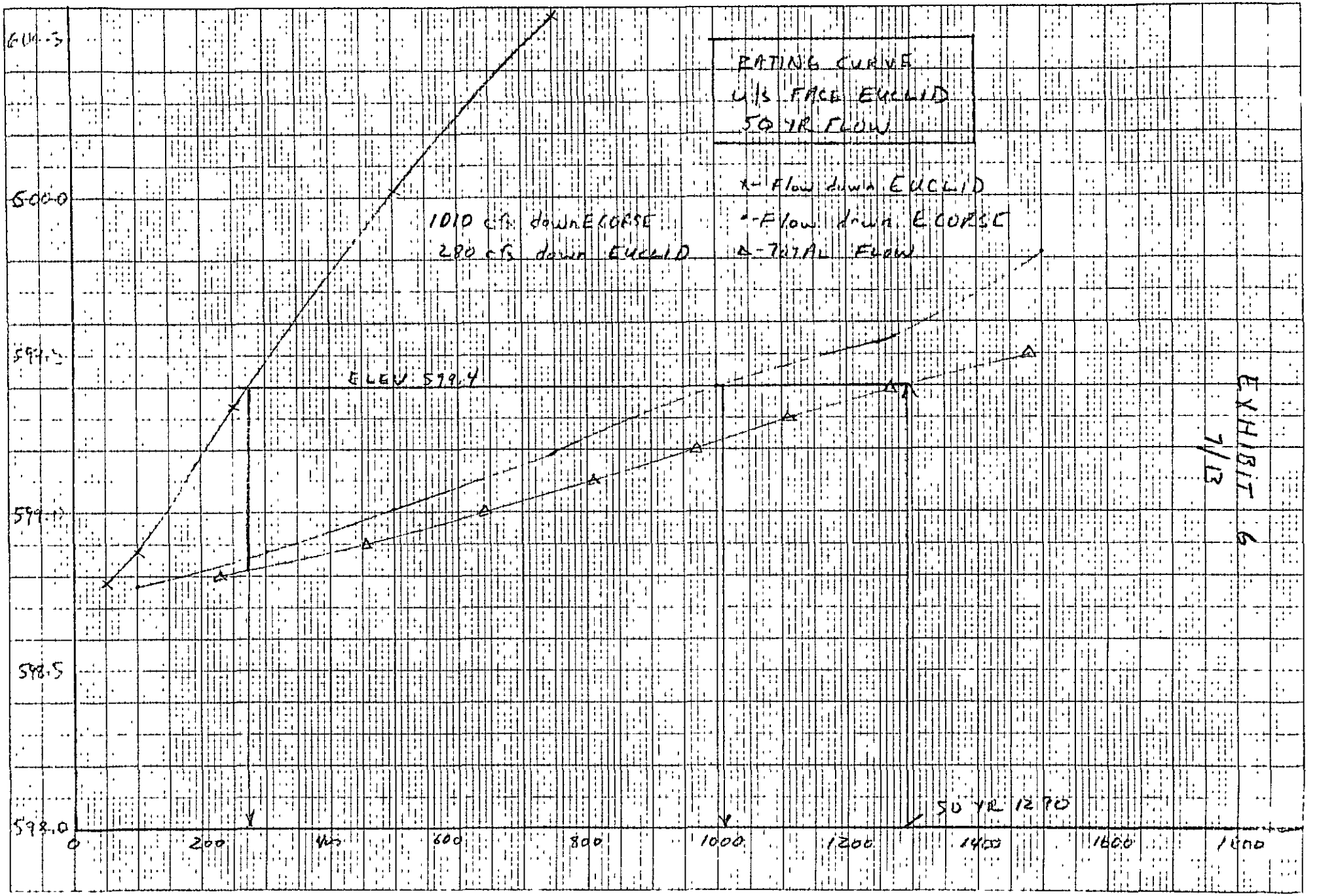
Computer Section Number 3843

	N. Branch Ecorse Cr.		Russell Avenue	
	Q_3 Flow (cfs)	Elevation (ft)	Q_4 Flow (cfs)	Elevation (ft)
10 YR	870	597.5	10	597.5
50 YR	740	599.1	270	599.1
100 YR	670	599.7	370	599.7
500 YR	800	600.0	450	600.0

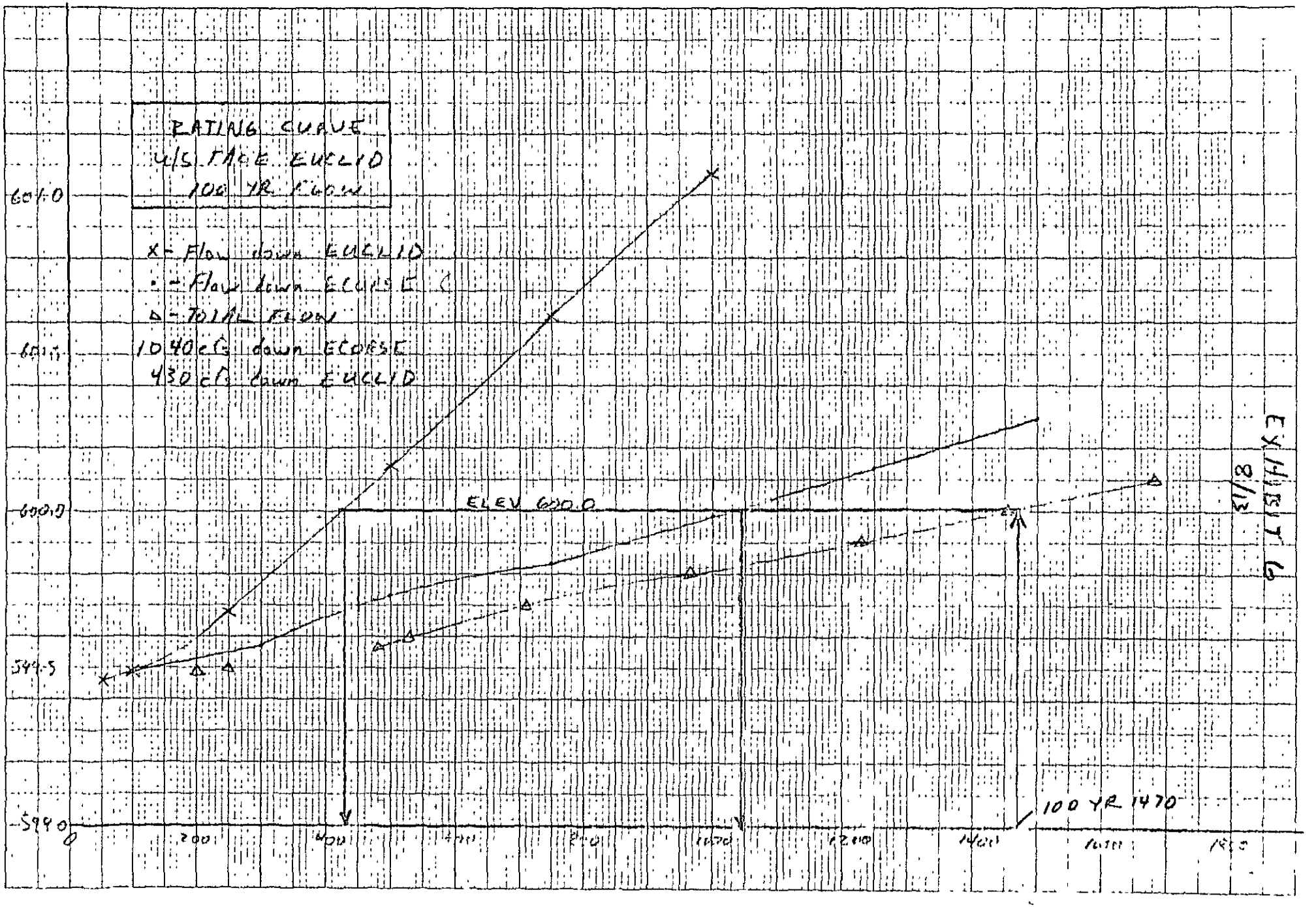
REFERENCE

5.) The diverted flows are considered floodway (Exhibit 1) and return to North Branch Ecorse Creek between computer section numbers 353 and 1832.


RATING CURVE
U/S FACE EUCLID
10 YR FLOW
X- Flow down EUCLID
1 - Flow down ECORSE
Δ - TOTAL FLOW
880 cfs down ECORSE CREEK
35 cfs down EUCLID AVE
EXHIBIT 6
6/13
ELEVATION (Ft NGVD)
601.0
600.0
599.0
598.0
597.0
Elev. 597.98
10 YR 915
0
200
400
600
800
1000
1200
1400
1600
1800
DISCHARGE (cfs)


RATING CURVE
U/S FACE EUCLID
50 YR FLOW
x- Flow down EUCLID
•- Flow down ECORSE
Δ- TOTAL Flow
1010 cfs down ECORSE
280 cfs down EUCLID
ELEV 599.4
50 YR 1290
600.0
599.5
599.0
598.5
598.0
0
200
400
600
800
1000
1200
1400
1600
1800
EXHIBIT 6
7/12

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.



K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1320

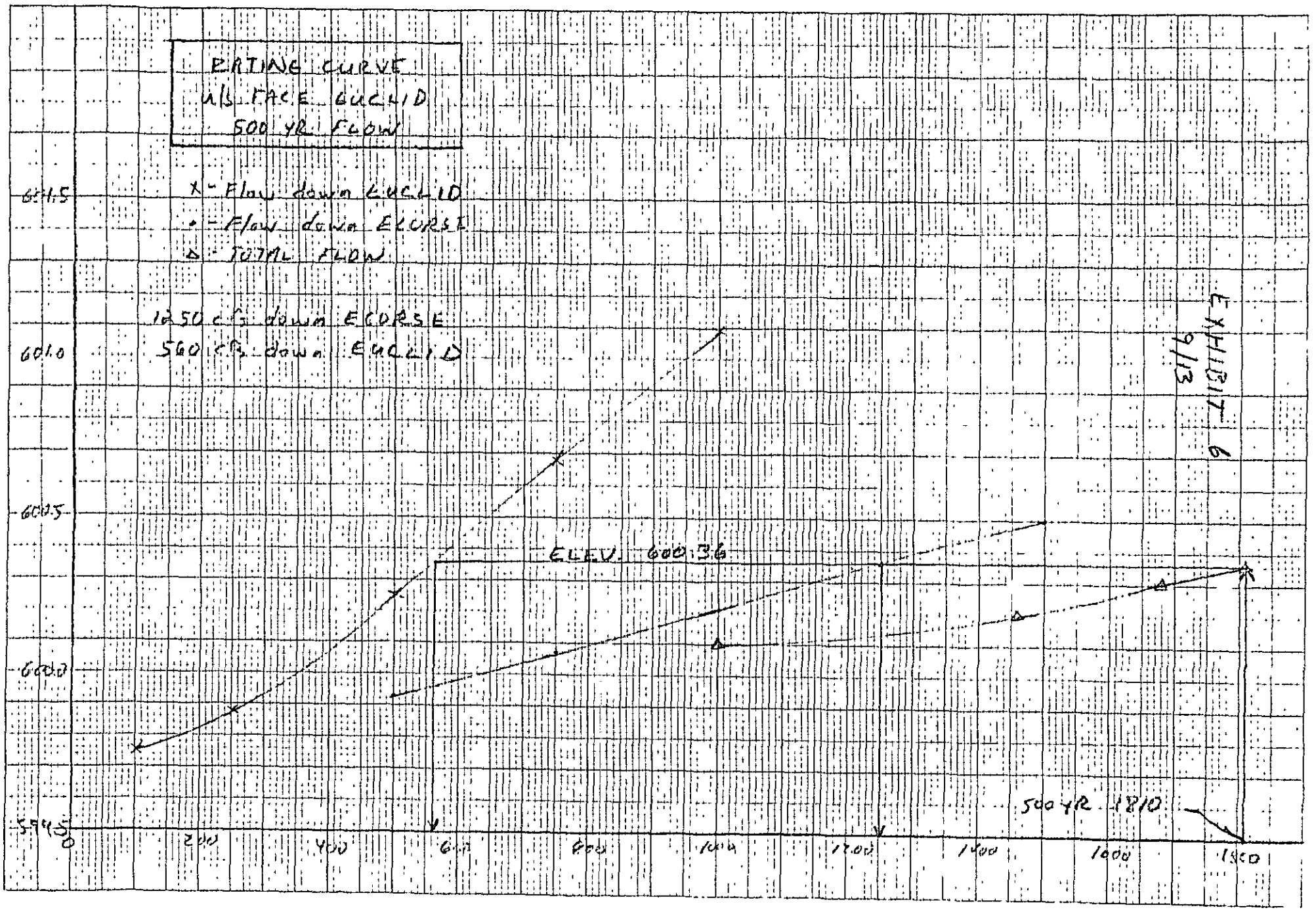


EXHIBIT 6
9/13

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.

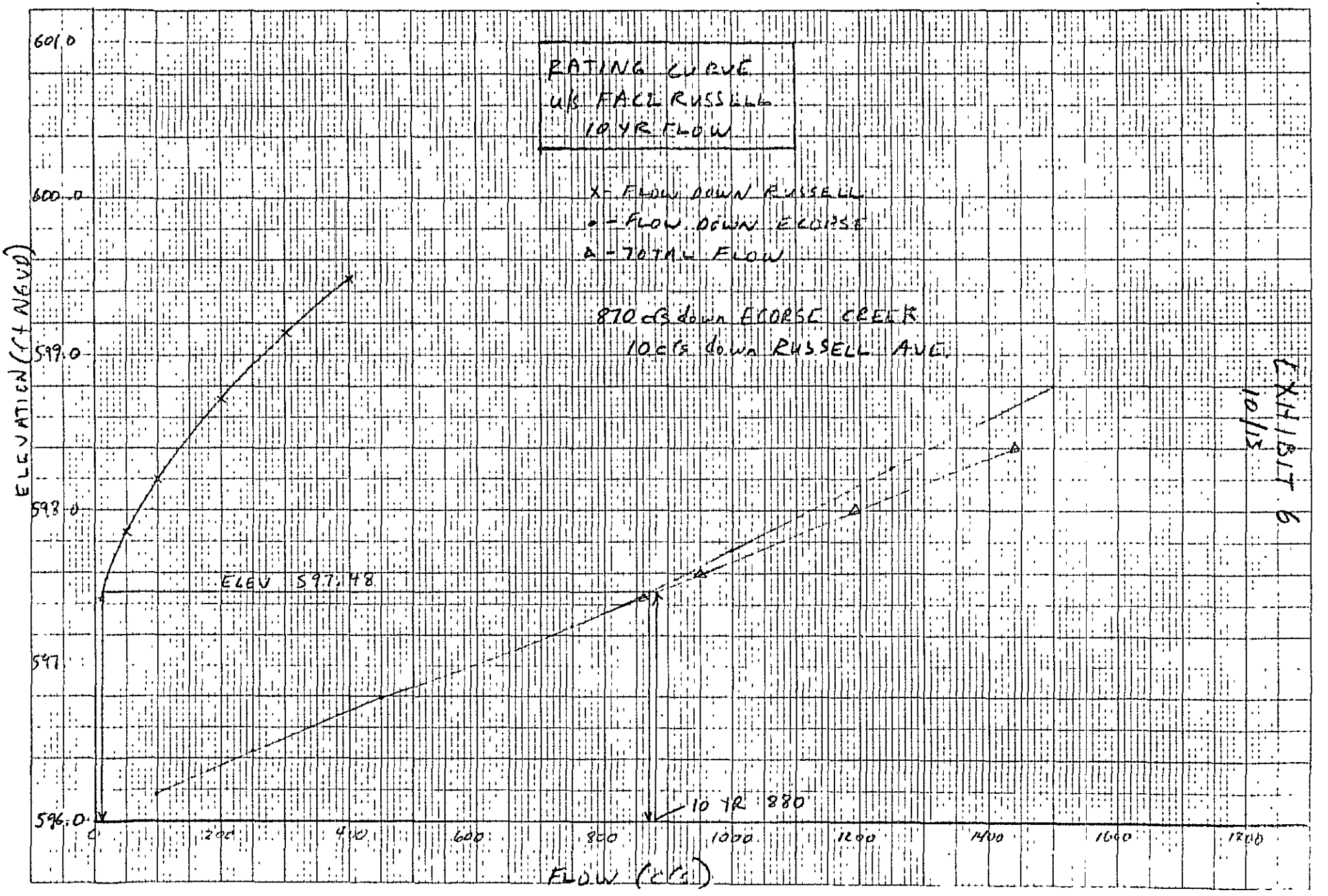
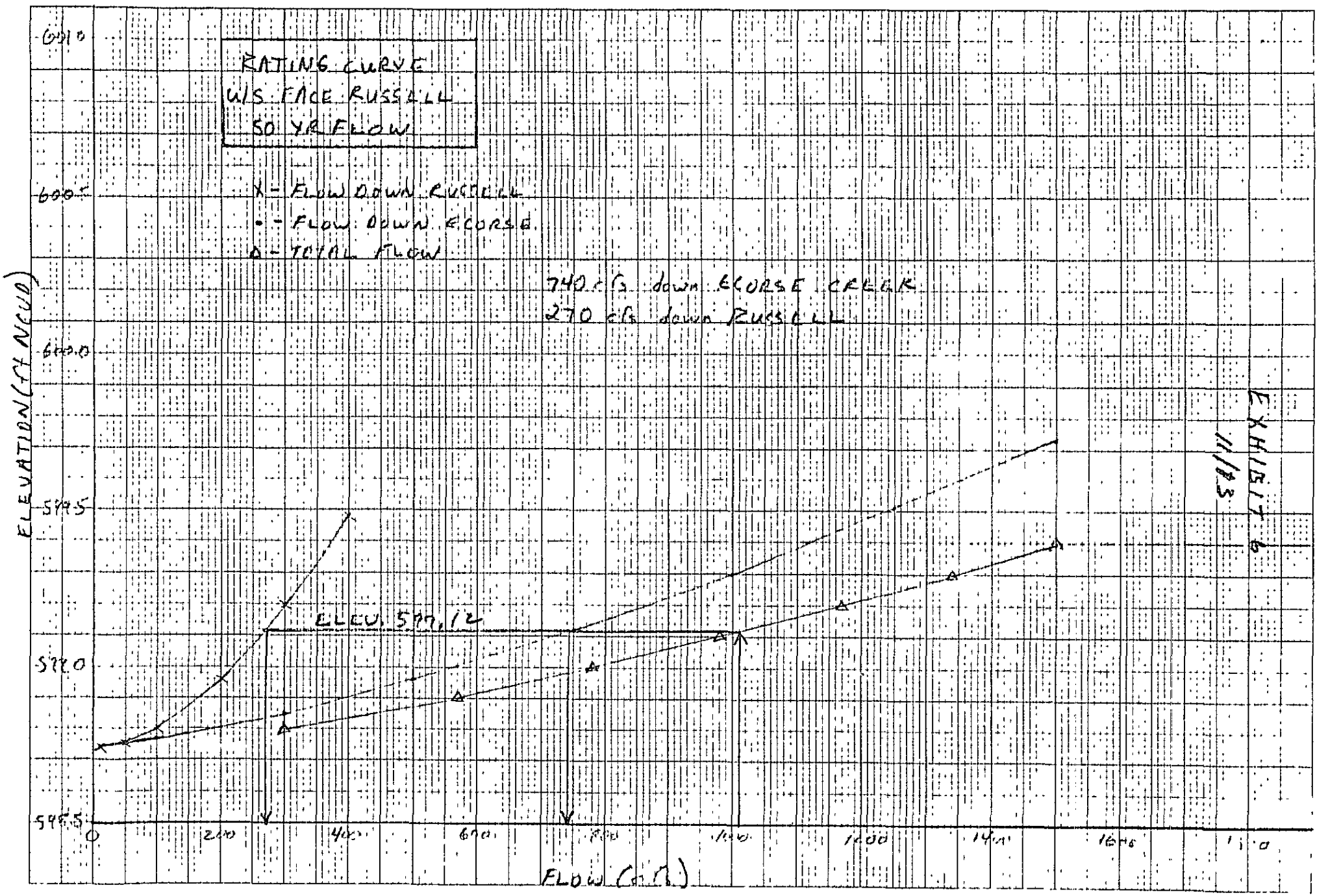


EXHIBIT 6
10/13

K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.



K+E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.

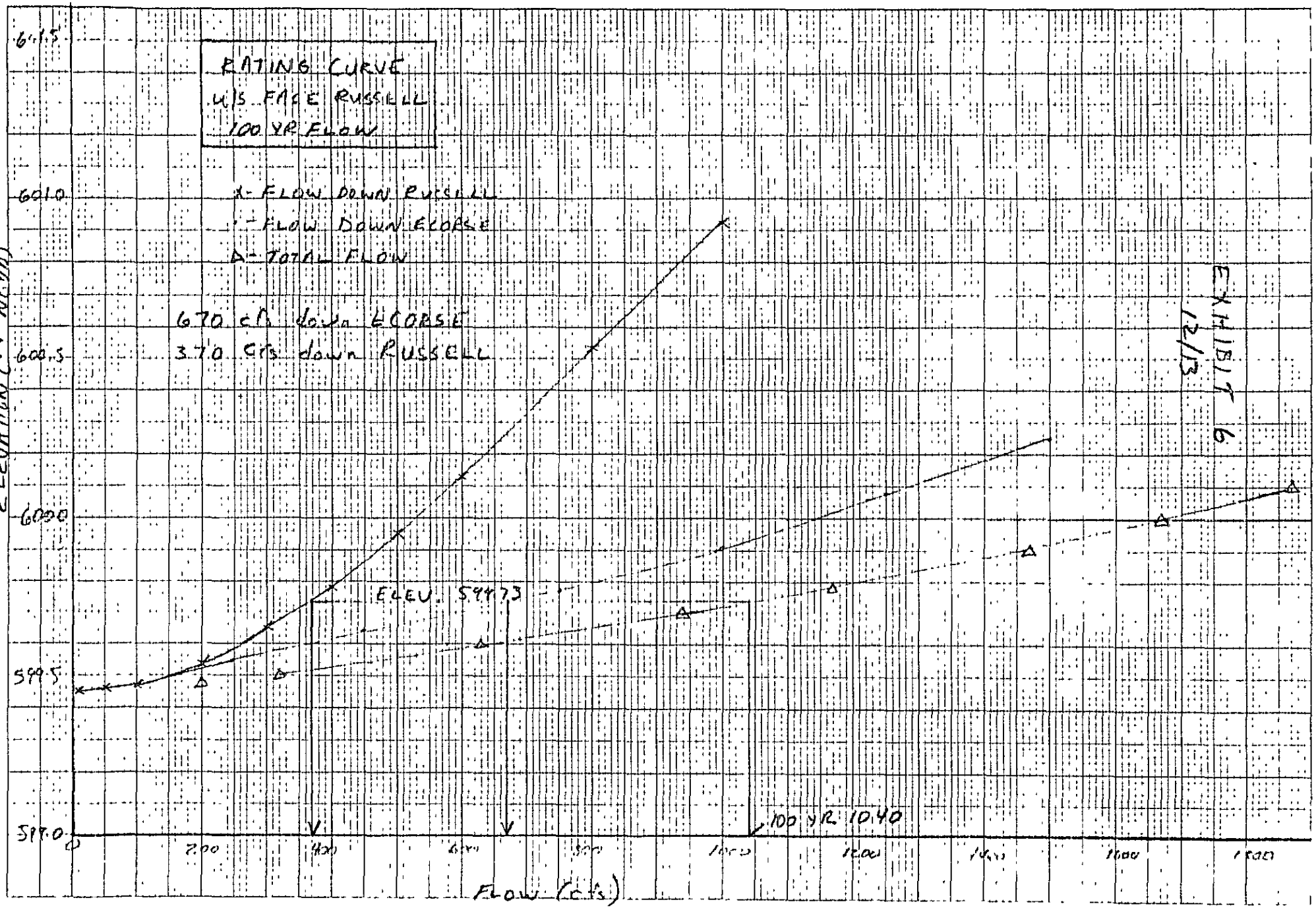
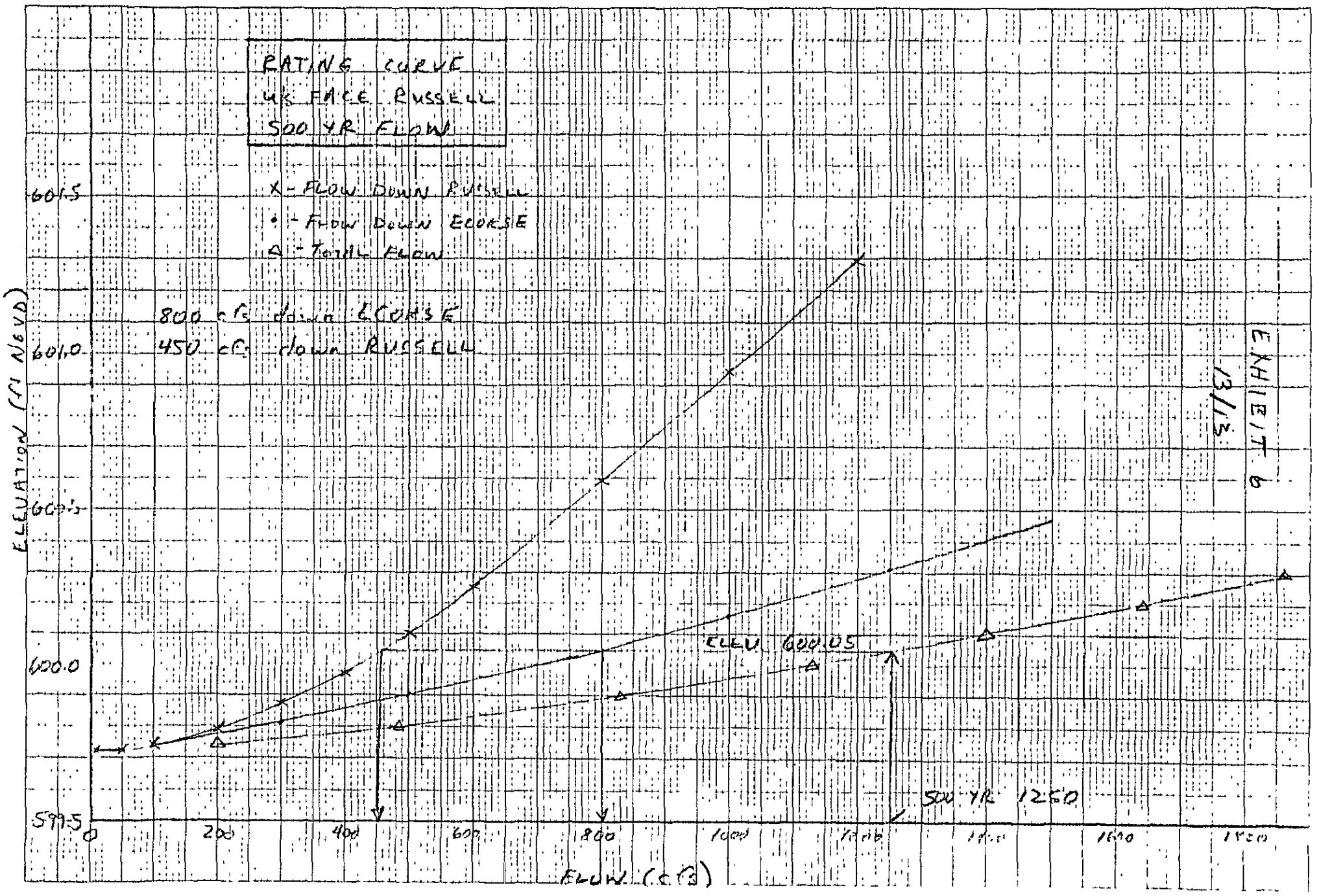


EXHIBIT 6
12/13


RATING CURVE
4½ FACE RUSSELL
500 YR FLOW
X - FLOW DOWN RUSSELL
• - FLOW DOWN ECORSE
△ - TOTAL FLOW
800 cfs down ECORSE
450 cfs down RUSSELL
ELEVATION (ft NGVD)
601.5
601.0
600.5
600.0
599.5
0
200
400
600
800
1000
1200
1400
1600
1800
FLOW (cfs)
ELEV 600.05
500 YR 1250
EXHIBIT 6
13 1/2

City of Allen Park, Wayne County, Michigan
Limited Map Maintenance Program
Hydraulic and Hydrologic Background Information

This study covers the North Branch Ecorse Creek within the Corporate Limits of the City of Allen Park. It was performed to redefine the flood profiles for the indicated reach of stream and was limited to only the 100- and 500-year floods. At the time of the original study, the North Branch Ecorse Creek was studied only from Interstate Highway 94 to Southfield Road, the upstream Corporate Limit.

As part of this study, the HEC-2 input data for the North Branch Ecorse Creek was taken from the Feasibility Study for Flood Protection in the Ecorse Creek Drainage Basin, Wayne County, Michigan. Also, the flood flows being used are the same as in the Ecorse Creek Study. The HEC-2 data model as submitted begins at the mouth of the North Branch Ecorse Creek, at the Detroit River, and continues upstream to just beyond the upstream Corporate Limit of Allen Park.

The HEC-2 input was modified to meet traditional modeling criteria for expansion, contraction, and effective flow areas. The limit of changes to the model are from the Penn Central Railroad bridge in Lincoln Park to the upstream Corporate Limit of Allen Park. In several areas, including all the changes in Lincoln Park, encroachments have been added to remove flow from the areas of the most intense development. Significant variations in the stages resulted between this model, the Ecorse Creek Study, and the existing FIS, due to the modeling changes. For the 100-year event, the stages for this study increased in some places as much as 0.7 foot, in comparison to the Ecorse Creek Study. At the same time, for the 100-year flood, stages have dropped by as much as 1.43 feet, in comparison to the existing FIS.

At the downstream Corporate Limit of the City of Allen Park, the stages are about 1.44 feet lower than at the upstream Corporate Limit of Lincoln Park. This is due to lower flows used in this study as a result of additional flood routings which were performed in the Ecorse Creek Study. At the upstream Corporate Limit of the City of Allen Park, stages are lower compared to the stages for the City of Dearborn Heights. They are, however, within the 0.5 foot tolerance, therefore are acceptable.

A floodway run was included as part of this revised study. The floodway profile model was determined by further encroaching the natural profile model to obtain the allowable 0.1 foot increase in the 100-year water surface profile.

The work map used for this study is a new two-foot topographic map developed from aerial photography flown in January 1992. The stationing along the stream was established so that it matches

the existing FIS at Eastbound I-94 and Southfield Road. At intermediate locations, there are some minor differences in the stationing as evidenced by small changes in the locations of cross sections. The floodway and flood plain delineations were supplemented over the entire study area by use of the two-foot contour map. A floodway for the Euclid Avenue and Russell Avenue Diversions was not delineated because these diversions were not studied separately in this study.

Enclosed for your information is a profile for the North Branch Ecorse Creek. The profile begins at the downstream Corporate Limit of Allen Park, this study's limit. In the original report, the profile begins at Eastbound I-94. For the 100-year flood, stages have dropped by as much as 1.43 feet at the Westbound I-94 to 0.3 foot at the upstream Corporate Limit in comparison to the existing FIS. Also being provided are the HEC-2 output for the 100- and 500-year profiles and an encroached run, a work map and a Floodway Data Table. The HEC-2 runs are currently under review by the MDNR.

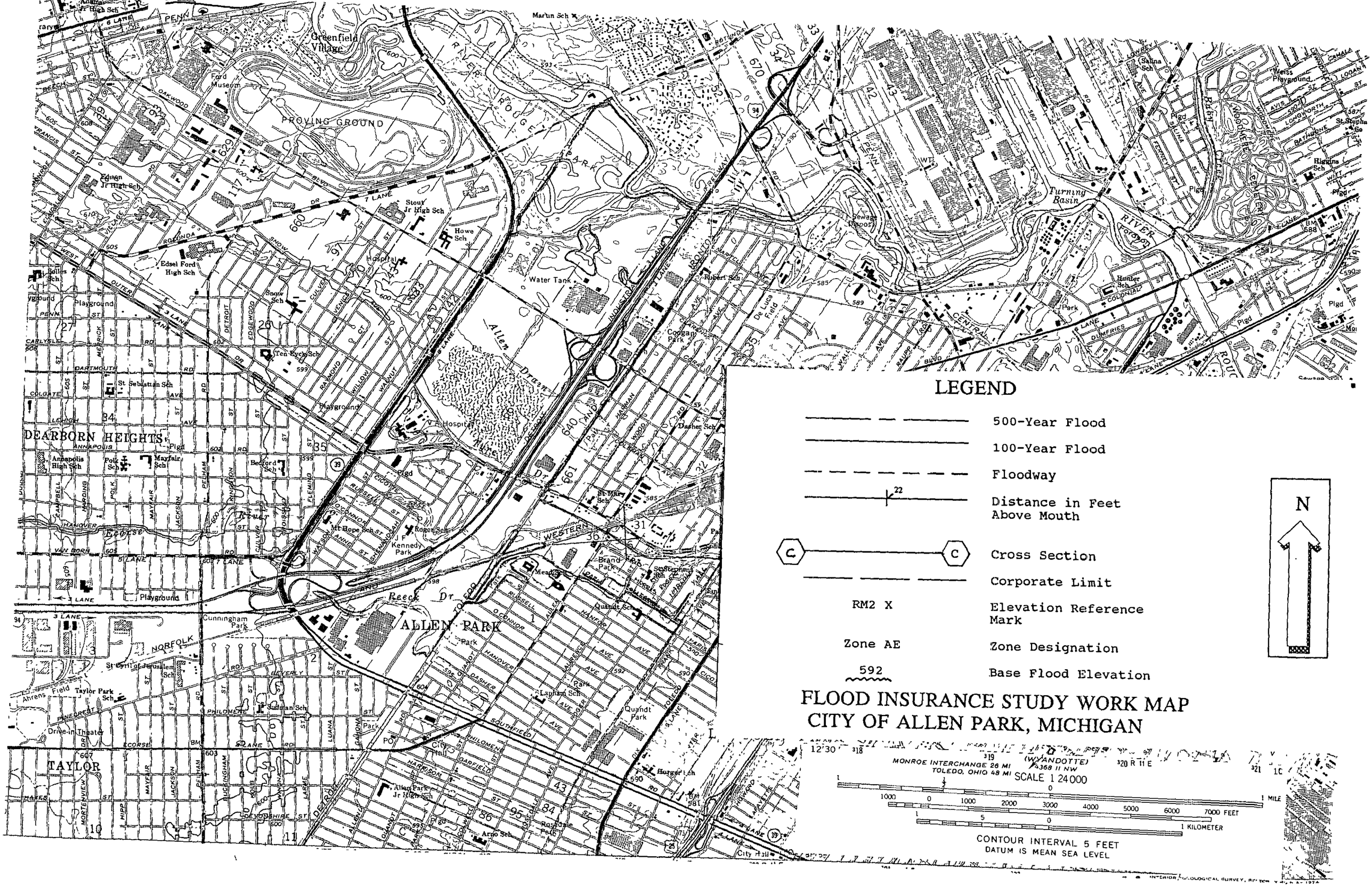
ELEVATION REFERENCE MARKS

REFERENCE MARKS	ELEVATION FEET(NGVD)	DESCRIPTION OF LOCATION
RM 1	601.36	An arrow on a fire hydrant on the northwest corner of Pinecrest Road and Larme Street.
RM 2	596.83	The top of the southwest corner of the westbound I-94 bridge over the North Branch Ecorse Creek.
RM 3	597.23	A railroad spike in the west side of a Detroit Edison Pole at the southwest corner of Shenandoah Street and Keppen Street.
RM 4	595.14	The top of the letter "C" on the south rim of a sanitary manhole at the intersection of Keppen Street and Larme Street.
RM 5	598.98	An arrow on a fire hydrant at the northeast corner of Watson Street and Russell Ave.
RM 6	599.04	An arrow on a fire hydrant on the north side of Euclid Ave., approximately 125 feet east of the northbound Southfield Service Drive and approximately 50 feet east of the North Branch Ecorse Creek.
RM 7	596.04	The centerline of the intersection of Russell Ave. and Shenandoah Street.
RM 8	598.40	Top of "A" in the word "Traverse" on top of fire hydrant at the southwest corner of Hamilton Ave. and Shenandoah Ave.
RM 9	598.72	Chissled "X" on north bolt on top of fire hydrant on the south side of Hamilton Ave., between Watson Ave. and Larme Ave., approximately 250 feet east of Watson Ave.
RM 10	592.37	Top-southeast bolt of light pole #S25x6547 on the north side of Allen Rd., 60 feet southwest of centerline Paris Street.
RM 11	591.53	Top of northeast bolt at base of light pole #DD474 on the north side of westbound Outer Drive, just west of house #24385.

REFERENCE MARKS	ELEVATION FEET(NGVD)	DESCRIPTION OF LOCATION
RM 12	589.35	Southeast bolt on lamp stand #175x3232, at the northeast corner of Frank Ave. and eastbound Outer Drive.
RM 13	592.18	South bolt on fire hydrant at the northeast corner of Red Ave. and Frank Ave., at southeast side of house #2204 Red Ave.
RM 14	601.66	Southeast bolt on lamp stand at Edgewood Drive on the south side of Outer Drive median - #S25 DC-795.

CROSS SECTION WORKMAP/COMM	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ.FT)	MEAN VELOCITY (FT/SEC)	REGULATORY FEET (NGVD)	WITHOUT FLOODWAY FEET (NGVD)	WITH FLOODWAY FEET (NGVD)	INCREASE (FEET)
NORTH BRANCH ECORSE CREEK								
A	29407	119	543	2.6	598.0	598.0	598.1	0.1

[1]Feet Above Mouth



LEGEND

——— — ———	500-Year Flood
——— ———	100-Year Flood
— — — — —	Floodway
——22——	Distance in Feet Above Mouth
C ——— C	Cross Section
——— — ———	Corporate Limit
RM2 X	Elevation Reference Mark
Zone AE	Zone Designation
592	Base Flood Elevation

N

FLOOD INSURANCE STUDY WORK MAP
CITY OF ALLEN PARK, MICHIGAN

DIETZGEN CORPORATION
MADE IN U.S.A.
NO 341D-10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH

FLOOD PROFILES
NORTH BRANCH ECORSE CREEK
CITY OF ALLEN PARK
(WAYNE COUNTY)

ELEVATION IN FEET (NGVD)

595
590
585
580

CORPORATE LIMITS

ALLEN ROAD
R.R. BRIDGE #1
R.R. SPUR #1
R.R. SPUR #2
R.R. BRIDGE #2
E. BOUND I-94
W. BOUND I-94
FOOTBRIDGE
LARME ST.
KEPPEN ST.
RUSSELL ST.
WATSON AVE.
EULIC AVE.
SOUTHFIELD FWY.

LEGEND
500-YEAR FLOOD
100-YEAR FLOOD
STREAM BED

20,000 21,000 22,000 23,000 24,000 25,000 26,000 27,000 28,000 29,000 30,000 31,000 32,000

STREAM DISTANCE IN FEET ABOVE ECORSE CREEK MOUTH

01P

ALLEN PARK

FIS

Feb 22, 94

T. ROZNOWSKI

M. CLINCH

I

INDEX

PAGE	DESCRIPTION
1-3	LEVELS FROM TBM "G" AT F.H. NE CORNER OF RED & FRANK STS TO EST. SPOT ELEVATION AT (18) ROAD INTERSECTIONS.
4-7	LEVELS FROM TBM 10 AT LAMP POST AT NE CORNER OF FRANK ST & OUTER DRIVE ALONG OUTER DRIVE TO TBM ON F.H. @ VA HOSPITAL.
8-9	SKETCH OF R/R BRIDGE AT OUTER DRIVE & ALLEN ROAD. I94 BRIDGE OVER OUTER D
10-11	① CHECK LEVELS FROM BM ON F.H @ VA TO RM-9
	② CHECK ELEVATIONS AT WAREHOUSE CLUB
12	CENTERLINE PROFILE OF ENTERPRISE ROAD FROM OUTER DRIVE NORTH TO HIGH POINT OF ROAD.

PAGE	DESCRIPTION
13-14	LEVELS FROM TP16 (P.6) @ NO. EDGE OF OUTER DRIVE W. ALONG SNOW RD (CLOSED) TO THE SOUTHFIELD RD. SERVICE DR. THEN SO. ALONG SERVICE DRIVE TO OUTER DRIVE & BACK TO P.O.B. TP-16
15	LEVELS FROM TP-13 ; ALONG WILLOW COVE BLVD TO TOP OF SLOPE.
16-21	FROM TBM ELEC MH NORTH BOUND ALONG FAIRLANE BLVD ESTABLISHING SPOT ELEVATIONS THROUGH OUT THIS AREA. ALSO SET TBM "FORD"
22-23	FROM RM 4 (SAN SEWER @ KEPPEN & LARME STS LEVELS & SPOT ELEVATIONS SO. ON LARME & IN VICINITY
24-29	LEVELS & SPOT ELEVATIONS FROM TP-4 135' SO. ALONG SERVICE DRIVE FROM SNOW RD., NO. ALONG SERVICE DR TO OAKMAN BLVD & TIE INTO TBM ELEC. M.H. THE LOOP BACK TO TP4 (1.0 LOWER THAN AS BUILT)

PAGE	DESCRIPTION
31	CHECK SHOTS BTW TBM ELEC MH & TWO CATCH BASINS IN THE AREA USING AS BUILT ELEVATIONS.

Levels

T. ROZNOWSKI cloudy 25°
M. CLINCY

	+	H	−	ELEV		
TBM "G"				592.18	FB #1 pg 86	S bolt on F.H. NE corner Reo & Frank St @ Res. # 2204
	3.549					
TP-1			6.412	589.317		DOT ℄ INTER WALL ST & Reo ST
	5.583					
TP-2			6.353	588.547		DOT ℄ INTER [illegible] WALL
	6.120					
TP-3			4.421	590.246		DOT ℄ HARBOUR & MORRIS ST
	5.435					
TP-4			5.980	589.701		DOT ℄ Roger & [illegible]
	6.036					
TP-5			5.001	590.736		DOT ℄ STAN[illegible] & [illegible]
	6.671					
TBM 1			3.762	593.645		Chiseled x on N.E bolt on F.H on NE side MORRIS ST 150' SE of ENT. MORRIS & LAURENCE ST
	3.984					
TP-6			5.912	591.717		DOT ℄ INT LAURENCE & MORRIS
	5.168					
TP-7			6.219	590.666		DOT ℄ LAURENCE & COLLEAGE ST
	5.680					
TP-8			5.712	590.634		DOT ℄ LAURENCE & PARK ST

	+	HI	−	ELEV.	
TP 8				590.639	Pg. 2
	5.817				
TP-9			5.219	591.232	DOT & INT. LAURENCE & UNIVERSITY AVE
10	4.916				
TP-10			5.700	590.448	DOT & UNIVERSITY ST
	5.978				
TP-11			6.308	590.118	DOT & INT. UNIVERSITY AVE & ROGER
	6.187				
TBM 2			4.690	591.615	chiseled X ON BOLT ON corner of Roger & PARIS Ave.
	3.921				
TP-12			6.264	589.272	DOT & PARIS AVE
	6.098				
TP-13			6.029	589.391	DOT & PARIS & FRANK ST
	5.930				
TP-14			5.992	589.279	DOT & FRANK ST & College
	5.610				
TP-15			5.797	589.092	DOT & MORRIS & FRANK
	5.998				
TBM C			2.929	592.161	592.18 592.16 0.02 diff −0.02

SPOT ELEV

From TBM 10 along

OUTER DRIVE TO TBM on

F.H. @ V.A. Hospital.

	+	HI	-	ELEV.	
TBM # 10				589.35 ✓	FB # 1 Pg. 80 — S.E bolt Lamp STD # 175 x 3232 @ N.E corner Frank ST & outer Dr (E Bound)
	5.81				
TP- 1			4.98	590.18 ✓	DOT @ N Edge E bound Lane outer E of HARLOW ST
	6.65				
TP- 2			4.99	591.84 ✓	DOT @ INT. OUTER DR & Roger
"	6.69				
TP- 3			6.00	592.53 ✓	DOT @ INT OUTER DR & STANLEY ST.
	4.72				
TP- 4			5.96	591.29 ✓	DOT @ Gale Blvd & OUTER DR W Bound
	6.21				
TP- 5			6.44	591.06 ✓	DOT & median @ END OUTER DR.
	4.21				
TP- 6			10.35	589.92 ✓	DOT N. Edge OUTER DR. (SIDE WALK)
	1.60				
TP- 7			7.78	578.74 ✓	DOT & OUTER DR. @ E Edge RR VIADUCT
	7.81				
TP- 8			0.49	586.06 ✓	DOT N. Edge OUTER DR
	9.75				
TP- 9			3.88	591.93 ✓	DOT @ INT OUTER DR & WOOD ST

	+	HI	−	ELEV.	
TP. 9				591.93	
	6.62				
TP. 10			6.19	592.36 ✓	
	1.59				
TP. 11			11.05	582.90 ✓	
	3.47				
TP. 12			6.68	579.69 ✓	
	5.42				
TP. 13			5.51	579.60 ✓	
	8.64				
TP. 14			0.67	587.57 ✓	
	11.39				
TP. 15			5.25	593.71 ✓	
	6.29				
TP. 16			4.71	595.29 ✓	
	6.17				
TP. 17			5.90	595.56 ✓	
	6.40				
TP. 18			5.21	596.75 ✓	

DOT @ INT. OUTER DR. & HARMAN

DOT N. Edge OUTER DR.

DOT @ INT. ENTERPRISE DR & OUTER DR

DOT @ W END W. BOUND VIADUCT I-44 ON OUTER DR

DOT N. Edge OUTER DR.

DOT N. Edge OUTER DR.

" "

DOT N Edge E Bound OUTER DR 250' W. of SHENANDOAH AVE.

DOT S. Edge W BOUND OUTER DR

	+	HI	−	ELEV.
TP-18				596.75
	6.12			
TP-19			5.73	597.14
	6.26			
TBM Post			1.80	601.60
	3.09	604.69		
BM Arrow on HYD.			1.55	603.14

Pg. 6.

DOT ℄ OUTER DR & LARME

DOT TOP of E CONC & STEEL PIPE for G.R. & W Edge of SIDEWALK TO V.A HOSP.

@ V.A. HOP 602.77

603.14 - CLOSURE
602.77
+ 0.37

NOTE: SEE PAGE 11 FOR CLOSURE TO ANOTHER RM (RM 9)

CLOSED AT A +0.05

FROM TBM #10 @ FRANK ST & OUTER DR.

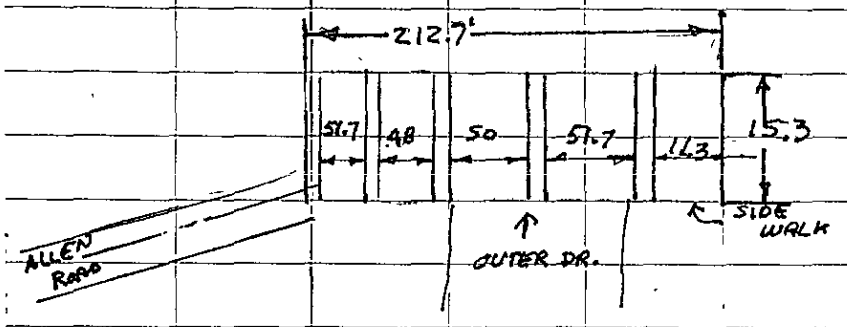
SKETCH R.R BRIDGE

@ OUTER DR & ALLEN RD.

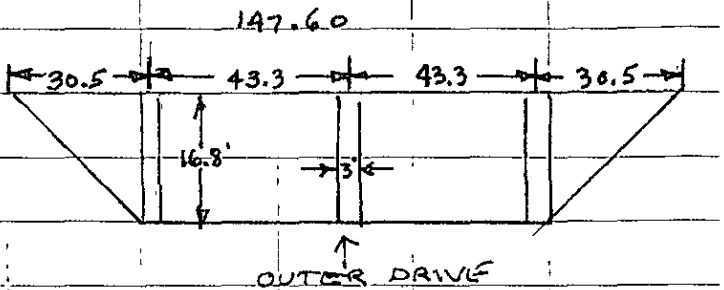
Feb. 24, 94

ALLEN RD & OUTER DR

R/R BRIDGE OVER OUTER DRIVE



OUTER DRIVE & I-94



I94 BRIDGE OVER OUTER DRIVE

ALIF. PARK

TBM check

BM 6 FH @ VA. 602 77

TO BM 9 HAMILTON

T. Roznowski
M Clinch

Feb. 24, 94
Partly Cloudy 22°

Pg - 11

	+	H I	-	ELEV.		
BM F.H. V.A				603.14 COFE ELEV. 602 77		F.H. V.A HOSPITAL 598 72
	1.04	604.18 ~~603.18~~ 603.81				
TP 1			7.29	596.89 596.52		DOT IN PARKING LOT FOOD [illegible] MRKT. [illegible]
	5.22	602.11 601 74				
Rm 9			3.34	598.77 COFE ELEV. 598 40		PUB. NOTE: 598 72 HAMILTON ST.
						F.H. @ HAMILTON ST
						598.77 598.72 +0.05
						ELEV CK @ CB @ WARE Club ✓
	+	H I	-	ELEV.		& ENTER PRIZE Rd.
TP. 12				579.69 ✓		Pg - 6 NOTES Feb 22 94
	22 99	602 68				CB - 578.40 MH 544 43
M.H			6.70	595.98		PARKING LOT W/H Club
C.B			4 85	597.83 ✓ 1.1		" " "

	+	HI	−	ELEV
TBM 12				579.69
	7.80	587.49		
TP-1			0.30	587.19
	11.53	598.72		
TP-2			0.12	598.60
	5.90	604.50		
TP. 3			4.28	600.22
TP-2	ck	5.90		

Pg-6 NOTES Feb. 23. 99

Toe of SLOPE

(90) 243 Ft DOT ℄ ENTERPRISE Cl (ON SLOPE)

(120) 324 Ft " " (TOP SLOPE)

(130) 364 Ft " " TOP ℄ Pl

931 Ft

	SNOW Rd / S.F. / OUTER DR +	HI	−	ELEV.		2.7' per PAC SPOT ELEV SNOW Rd	Pg - 13
TP-16				595.29	160' ℄	Pg - 6 NOTE Feb. 23, 94	
	5.76	601.05			PACES		
TP			5.5	595.55	80' PACES (216') ℄	SNOW Rd (GE - Asph	REMOVED GONE
			5.8	595.25	50 = (135')	"	P ✓
TP-1			5.81	595.24	+50 135		P ✓
	5.95	601.19			115	Begin Asph	
			5.8	595.39	+50 135 GE	℄ Snow Rd	P ✓
			5.6	595.59	+50 135 "	"	P
			4.77	596.42	+50 135 ℄	Snow Rd on Asph	P
			3.79	597.20	+50 (135)		P
TP-2			4.15	597.04	+50 135 DOT	℄ SNOW Rd	
	4.72	601.76					
			5.52	596.24	+50 135 ℄	SNOW Rd	P
			5.42	596.34	+50 135 "		P
			5.38	596.15	+50 (135) "		P
TP-3			5.61	596.15	+50 (135) "		P
	5.01	601.16					
			5.89	595.27	+50 (135) ℄	INTER. SNOW Rd & S.F. SERVICE DR	P ✓
TP-4			5.09	596.07	+50 (135 ℄	S.F. SERVICE DR	
							SO. ALONG SERVICE DR

	+	H_i	−	ELEV.	
TP-4				596.07	
	6.26	602.33 ✓			
TP-5			4.42	597.91 ✓	
	4.26	602.17 ✓			
TP-6			4.78	597.39	
	5.08	602.47			
TP-7			6.37	596.10 ✓	
	7.99	604.9			
			4.76	599.33 ✓	
TP-8			6.27	597.82 ✓	
	6.43	604.25			
TP-9			6.50	597.75 ✓	
	5.38	603.13			
TP-10			6.67	596.46 ✓	
	5.10	601.56			
TP-11			5.56	596.00 ✓	
	5.91	601.91			
TP-16			6.60	595.31 ✓	
					✓

Pg-14

Paces	Pg-13				
+100	(267')				
+100	267' ℄ S.F Service DR				
+100	267'				
+100	267' "		"	"	
+100 PS	5.48 4.69	= 8	= 267"		
PS +100	5.97 6.77	= 8	267"		
+100	267' ℄ S.F & OUTER				
	℄' S.F FREEWAY & OUTER DR ℄ OVER PAS.				
+100	267' DOT S Edge w/ bound OUTER DR				
+100	267'				
+100	267' "		"	"	
+100	267'				
+100	267' "		"	"	
+100	267				
+100	267 "		"	"	

Pg-13 (P.O.B.)

	Willow Cove Dr.			
	+	Hi	-	ELEV.
TP-13				579.60
	9.51	589.11 ✓		
			5.79	583.32 ✓
TP-1			1.18	587.93
	10.74	598.67 ✓		
			4.20	594.47 ✓
			4.37	594.30 ✓
TP 1	CK		10.74	587.93

PG 6 SPOT ELEV., Willow Cove Pg-15

W. bound VIADUCT 94 } OUTER DR

TOE OF SLOP

SPOT ELEV. @ INTER. Willow Cove Rd } OUTER DR P

+50 135' ℄ Willow Cove Blvd (on slope P

+80 216' ℄ " " " (Top slope)

+50 135' ℄ " " " (Rd is FLAT)

NEXT 300 +/-

ALLEN PARK

Feb. 25, 94

OAKWOOD & FAIRLANE BLVD.

BULK MAIL. FACILITY

	+	HI	−	ELEV.	
TBM ELEC. MH	*			* 594.82 595.92	PG. 27 RUN LEVEL 3/25/94
	5.86	600.68 ~~601.78~~			
TP-1			5.69	594.99 ~~596.09~~	
	5.05	600.04 ~~601.14~~			
			5.35	4.6 ~~595.79~~	
			5.40	4.6 ~~595.74~~	
			5.77	4.2 ~~598.87~~	
TP-2			5.70	4.3 ~~598.19~~	
	5.50	599.84 ~~600.94~~			
			5.82	4.02 ~~595.12~~	
TP-3	→		4.30	5.54 ~~596.64~~	
			3.97	5.87 ~~596.97~~	
			3.9	5.9 ~~597.0~~	
			4.26	5.58 ~~596.68~~	
			3.91	5.43 ~~597.03~~	
	↓		0.1	599.78 ~~600.4~~	
	9.15	4.69 ~~605.79~~			
			6.45	8.24 ~~594.34~~	
			4.26	0.43 ~~600.03~~	PAD

*CORRECTIONS DUE TO ESTABLISHING A NEW ELEVATION ON TBM ELEC MH

T. Roznowski
M. Clancy

Clear · 20°

Feb. 25 94

Pg-17

ELEC. M.H. TOP ELEV. 595.92 IN PARKING LOT FOR BULK MAIL FACILITY FAIRFAX BLVD ALLEN PARK, M.H. IS 200' W. of E. SIDE OF PARKING LOT ON N. SIDE

DOT W Edge FAIRLANE blvd

Paces	
0	@ INTER FAIRLANE blvd & OAKWOOD P ✓
+100 (267')	℄ N bound FAIRLANE ✓ P
+100 (267')	" " " P
+100 (267')	" " " P
+100 (267')	℄ FAIRLANE blvd (Top of slope)
	13' RT Top Curb
(67') 25 RT (Paces)	@ FORD MOTOR Co
(56') 16 (Paces) LT	℄ S bound FAIRLANE
	13' LT Top curb / Toe berm
(62') 22 Paces LT ON SLOPE ON slope of Berm	(Top berm is 13' LT & 15' higher)
+100 (267')	℄ FAIRLANE & N Property Line P.O.
+100 (267')	" Top of Slope

1869

	+	HI	−	ELEV	
TBM FORD			2.64	2.05 ~~603.15~~	
		Return			
TBM FORD				2.05 ~~603.15~~	
	2.51	4.56 ~~605.66~~		5.55 ~~596.[illegible]~~	
TP-3			9.01	599.29	
	4.26			594.34	
TP-2			5.47	~~595.44~~ ~~598.08~~	
	6.03			595.00	
TP-1			5.37	~~596.[illegible]~~ ~~598.74~~	
	5.64			594.82	
TBM ELEC M.H			5.82	~~595.92~~ ~~595.92~~	✓
					K.D

PHB

Pg-19

E. BOLT ON F.H. E. SIDE OF FAIRLANE blvd JUST N of shipping & Rec. Ent TO FORD Diagnostic Ser. center 1800 FAIRLANE blvd.

	+	HI	−	ELEV.		
TBM FORD				602.05 ~~603.15~~		0 @ TBM FORD Pg-18 NOTES
	1.71	603.76 ~~604.86~~ ✓				Paces
			5.19	8.57 ~~599.67~~ ✓		+125 = 337' ℄ FAIRLANE blvd & ENT. #2 FORD Diag center
			4.71	599.05 ~~600.15~~ ✓		+20 LT = 54' TOP SLOPE & ENT. #2
			10.39	3.37 ~~594.47~~ ✓		+35 = LT 94' TOE SLOPE PARKING LOT
			9.3	4.5 ~~595.6~~ ✓		+57 - 154' LT GE @ FACE of FORD DIAG. CENTER bldg. P
TP-1			6.75	7.01 ~~598.11~~ ✓		+100 - 267' ℄ FAIRLANE blvd. F.W. P FAIRLANE
	2.21	599.22 ~~600.32~~				
			4.70	4.52 ~~595.62~~ ✓		+100 = 267' ℄ " " P
TP-2			8.32	0.90 ~~592.00~~ ✓		+95 - 256' TOP ℄ FAIRLANE blvd & CONC PIPE under
	2.61	3.51 ~~594.61~~ ✓				(1'd. 2' DIA) ℄ FAIRLANE blvd
			5.06	8.45 ~~589.55~~ ✓		+100 = 267'
			0.1	3.4 ~~594.5~~ ✓		(60 Paces RT) GE 1ST EL @ bldg under CONST. P
TP-3			5.50	8.01 ~~589.11~~ ✓		+ 85 = 229' ℄ JITTER FAIRLANE blvd & Federal DR P
	4.27	2.28 ~~593.38~~ ✓				(Heading W.)
			4.98	7.30 ~~588.40~~ ✓		+ 100 = 267' ℄ Federal DR P
			3.96	8.32 ~~589.42~~ ✓		+ 57 = 154' " " & ENT. TO New bldg P
			0.8	1.5 ~~592.6~~ ✓		RT LAND IS FLAT (WOODS) LT 56 Paces New bldg
TP-4			3.26	589.02 ~~590.12~~ ✓		+ 43 = 116' ℄ Federal DR +

RJD

	+	HI	—	ELEV.
TP 4				589.02 ~~590.12~~
	6.91	545.93 ~~597.03~~		
			5.09	0.89 ~~591.94~~
TP 5			3.52	2.41 ~~593.51~~
	6.72	599.13 ~~600.23~~		
			5.61	3.52 ~~594.62~~
			4.99	4.14 ~~595.24~~
			2.91	6.22 ~~597.34~~
			1.7	7.4 ~~598.5~~
			4.29	4.84 ~~595.94~~
TBM E.W.			2.21	6.92 ~~598.02~~
		Return		
TBM E.W.				6.92 ~~598.02~~
	2.18			
TP-5			6.69	2.41 ~~593.51~~
	3.52			
TP-4			6.90	589.03 ~~590.13~~
	3.32			
TP-3			4.33	8.02 ~~589.12~~

Pg-20

Pg 19

+100 = 267' ℄ FEDERAL DR

+100 = 267' " "

+70 = 189' ℄ Federal DR & Republic DR

+30 = 81' ℄ Federal DR

RT LAND IS FLAT (Fill)

6E LT = 80 paces new bldg 1st floor

6E LT - 80 paces bldg under cont

+115 = 310' ℄ Federal DR

chiseled x on bolt between T & R in Detroit. F.H. S. SIDE Federal DR JUST W. of bldg # 240 S bolt.

| | + | HI | − | ELEV. | | |

Level Run SPOT ELEV

S on Larmie ST.

ALLEN PARK

	+	HI	-	ELEV	
Rm 4				595.14	The TOP of LETTER 'C' ON S. rim of SAN. SEW M.H. @ INTER. KEPPEN ST & LARME ST.
	6.20	601.34			
			5.44	595.90	MID block KEPPEN & CICOTTE
			5.03	596.31	INTER CICOTTE & LAPRAIRIE
			5.54	595.80	MID Block RICHMOND & HAMILTON
			5.67	595.67	INTER. LARME & HAMILTON
ck		6.20			
				595.14	
Rm 4				595.14	
	7.18	602.32			
			6.23	596.09	MID BLOCK KEPPEN & RUSSEL
			5.14	597.18	INTER RUSSEL & LARME
			5.29	597.03	MID BL. - RUSSEL & EUCL
			4.80	597.33	INTER

ALLEN PARK

FIS

MAR 25, '94

T. Roznowski Cloudy 31°
M. Clincy
MAR 25, 94 Pg-25

	+	HI	−	ELEV			
TP-4				596.07			Pg-13 NOTES (Feb 22, 94)
*	4.28	600.35				0'	[illegible] Snow Rd & Service Dr
TP-1			4.72	595.63	-.44	230	Heading N. DOT ℄ S. Field Service Dr.
	6.01	HI 601.64				230	
			5.03	596.61		+460	℄ S.F. Service Dr.
			4.33	597.31			12' RT Top curb
			3.2	598.4			28' RT GE @ ℄ {LAND IS FLAT 300' ± To Toe of High Bank for LAND Fill. 25' ±
			4.09	597.55			12' LT Top curb
			3.2	598.4			42" LT GE Top BNK for S.F. Free
							WAY, Freeway is 15' ± Lower
TP-2			4.19	597.45	+1.82		DOT ℄ S.F. Service Dr.
	6.22	HI 603.67				230	
			5.08	598.59		230 460	℄ S.D.
			4.51	599.16		920'	12' RT Top CURB
			4.1	599.6			28' RT GE @ ℄. {LAND IS FLAT To LAND Fill BNK 300' ± 25 ±.
			4.32	599.35			12' LT Top curb
			3.2	600.~~47~~ 5			3.0' LT GE @ Top BNK To Freeway
TP-3			5.18	598.49	+1.04		DOT ℄ S.F. S.D.

	+	HI	−	ELEV.	
TP-3				598.49	✓
	4.22	HI 602.71			
			5.39	597.32	
			4.99	597.72	
			5.4	597.3X	
			4.57	598.14	
			1.4	601.3	
TP-4			6.28	596.43	-2.06
	4.18	HI 600.61			
			5.32	595.29	
			4.86	595.75	
			6.4	594.2X	
			4.47	596.14	
			1.1	599.5	
TP-5			6.07	594.54	-1.89
	4.23	HI 598.77			
			5.28	593.49	
			4.74	594.03	
			4.6	594.2	

AB

Pg-26

Pg- 25

920
1380

℄ S.F. Service DR.

1380' 12' RT Top curb

460 28' RT @ ℄ {BNK To LAND About same}

1840 12' LT TOP curb & Toe slope

72' LT TOP slope BNK To Freeway

℄ S.F. S.D.

1840' 12' RT Top curb

28' RT @ ℄ {Toe of BNK For LAND is 200' ±

12' LT Top curb & Toe slope

74 LT GE Top BNK & slope To Freeway

460 ℄ S.F. S.D

2300 12' RT Top curb

28' RT @ ℄ LAND declines 3' ± To BANK @ LANDFill 80' ±

	+	HI	−	ELEV		
		598.77				
			4.54	594.23		T2' LT Top curb
			3.7	595.1		32' LT Top BNK @ Exit Ramp to Oakwood Blvd.
TP-6			6.14	592.63	-1.91	DOT ℄ S.F. Freeway
	6.12	HI 598.75				
			3.82	594.93		℄ S. Field Service Dr & Oakwood blvd
TBM MH			3.25	595.50	+2.87	Chiseled "X" on the W. Edge of MH S.E corner S. Field Service Dr. & Oakwood blvd Det. Edison Co. MH.
				595.49 ADJ		
	4.01	599.51				
TP-7			4.91	594.60	-.90	DOT S. Edge Oakwood
	5.11	599.71				
TP-8			5.37	594.34	-.26	" "
	6.05	600.39				
TBM HYD			1.09	599.28 ADJ 599.30	+4.96	N bolt on F.H. S. side of Oakwood blvd in center of Median for ENT. to Land Fill, across from Fairlane Dr.
	0.58 ~~0.70~~	599.88 ~~600.00~~				
TP-9			4.68 ~~5.79~~	595.20 ~~594.21~~	4.10 ~~5.09~~	
	5.49	600.69 ~~599.70~~				
BM ELEC MH @ Bulk PO			5.85	594.84 ~~593.95~~	-.36	MH @ Bulk P.O. Parking Lot
				594.82 ADJ		595.92 ← From as built drwg 594.82 ← This level run C of E
		Return				dif. ~~1.08~~ 1.10
						595.92

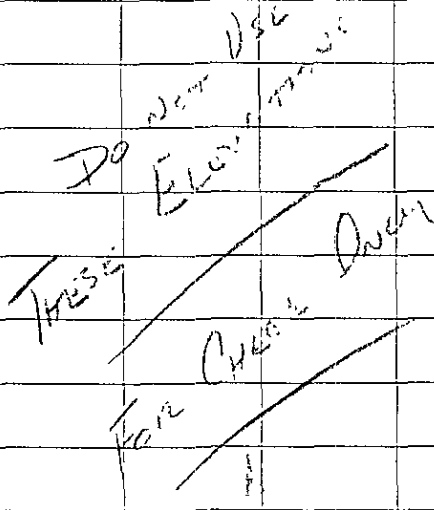
	+	HI	−	ELEV.		
		RETURN				
BM ELEC MH				594.84 ✓		@ P.O. BULK MAIL.
	5.81					
TP-9			5.45	595.20	+.37	
	4.82					
TBM, H+O			0.72	599.30	4.10	
	0.81					
TP-8			5.77	594.34	-.96	
	5.42					
TP-7			5.16	594.60	+.26	
	4.75					
TBM M.H.			3.84	595.51	+.91	
	3.60					
TP-6			6.46	592.65	-2.86	
	6.13					
TP-5			4.21	594.57	1.92	-1.91
	6.06					
TP-4			4.17	596.46	1.89	1.89
				√PLB		

	+	HI	−	ELEV.			
TP-4				596.96			
	6.31					−2.06	
TP-3			4.25	598.52	+2.06		
	5.16						
TP-2			6.20	597.48	1.04	1.04	
	4.21						
TP-1			6.03	595.66	1.82	1.82	
	5.08						
TP-4			4.63	596.11	.45	.14	596.96 596.07 dif. + .04

✓ PJB

ELEV. Check

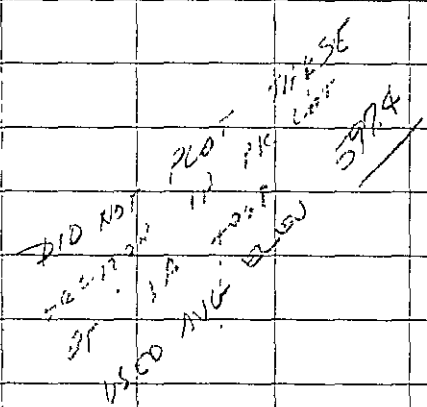
From ELEC M.H.
TOP OF
TO DRAIN ELEV



ALLEN PARK

F.I.S

MAY 2, 1994



5/2/94

Pg 2

	+	HI	-	ELEV	
TP-4				596.07	
	4.94	601.01			
TP-1			5.69	595.32	
PT①			5.16	595.85	
PT②			5.08	595.93	
PT③			3.94	597.07	
TP-2			3.94	597.07	
	4.74	601.81			
PT④			4.55	597.26	
PT⑤			4.05	597.76	

E side of So Field Service Dr

X Intersect [illegible] Rd

100' From Fence Corner

200' " " " "

300' " " "

E side of So Field Service Dr @ Fence Line

400' From Fence Corner

500' " " "

✓ PB

	+ DIST	HI DESC	− ROD	ELEV
PT-①				595.85 ✓
π	3.28	599.13 ✓		
1	0' R	GE AT FENCE	5.20	595.9 ~~592.7~~
2	25 R	"	5.3	593.8 ~~590.6~~
3	50 R	"	5.2	593.9 ~~590.7~~
4	75' R	"	5.3	593.8 ~~590.6~~
5	100' R	"	5.5	593.6 ~~590.4~~
6	150' R	"	5.3	593.8 ~~590.6~~
7	200' R	"	5.6	593.5 ~~590.3~~

PG 2 THIS SECTION

X-SECTION ①

± 100 E OF FENCE LINE & SO FIRST SERVICE DR. 100' NORTH OF INTERSECT AT FENCE

Ⓧ-SECTION 3

PT-③				597.07 ✓
π	6.30	603.37 ✓		
1	0' R	GE AT FENCE	6.3	597.1
2	25' R	GE	7.4	596.0
3	50' R	"	7.4	596.0
4	75' R	"	6.8	596.6
5	100' R	"	5.7	597.7
6	125' R	"	5.5	597.9

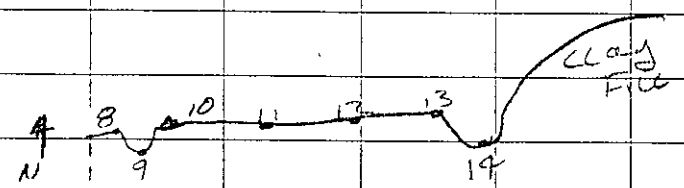
PG 2 THIS SECTION

300' NORTH OF INTERSECT SNOW & SO FIND 200' E OF FENCE

at FENCE

	DIST	DESC	ROD	ELEV
				HI 603.37 PG 3
7	150'R	GE	6.0	597.4
8	175'R	TOP LT BK	5.5	597.9
9	182'R	BTM CENTER	9.4	594.0
10	189'R	TOP RB BK	5.7	597.7
11	200'R	GE	5.7	597.7
12	225'R	"	5.8	597.6
13	250'R	TOP LT BK	6.8	596.6
14	260'R	TOE/DITCH BTM CENTER	9.4	594.0
		⊗ - SECTION	⑤	
PT ⑤		HI		597.76 ✓
T	3.72	601.48 ✓		
1	0'R	GE AT FENCE	3.7 ~~3~~ 7	597.8
2	25'R	"	4.7	596.8
3	50'R	"	3.8	597.7
4	75'R	"	4.6	596.9
5	100'R	"	5.1	596.4
6	125'R	"	5.2	596.3

✓ PTS

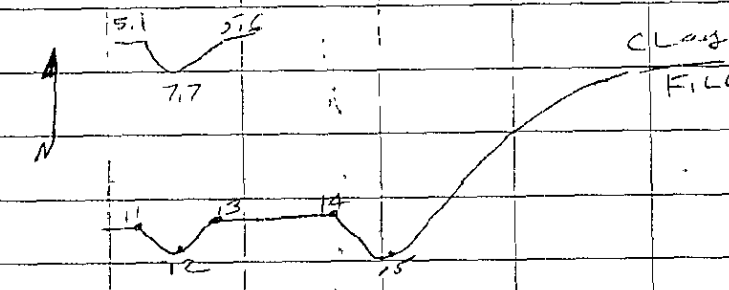


PG 2 THIS SECTION

500' NORTH OF INTERSECT SHOWN ON TITLE

± E OF FENCELINE

	DIST	DESC	ROD	ELEV	
				~~HI~~ 601.48	PG.4
7	150'R	"	5.0	596.5	
8	171'R	TOP DITCH	5.1	596.4	
9	175'R	BTM DITCH	7.7	593.8	
10	180'R	TOP DITCH	5.6	595.9	
11	203'R	TOP DITCH	5.8	595.7	
12	206'R	BTM DITCH	7.5	594.0	
13	211'R	TOP DITCH	5.3	596.2	
14	226'R	TOP DITCH	6.2	595.3	
15	234'R	BTM DITCH TOE DIKE	7.5	594.0	



(X) - SECTION (6)

TP 1				595.32	
TP1A	5.83 ~~3.40~~	601.15	6.3	594.9	
HI 598.3	3.4	598.3			
1	0'R	GE FENCE	3.4	594.9	
2	25'R	GE	3.9	594.4	
3	50'R	"	4.3	594.0	
4	75'R	"	4.8	593.5	
5	100'R	"	4.3	594.0	

/RJD

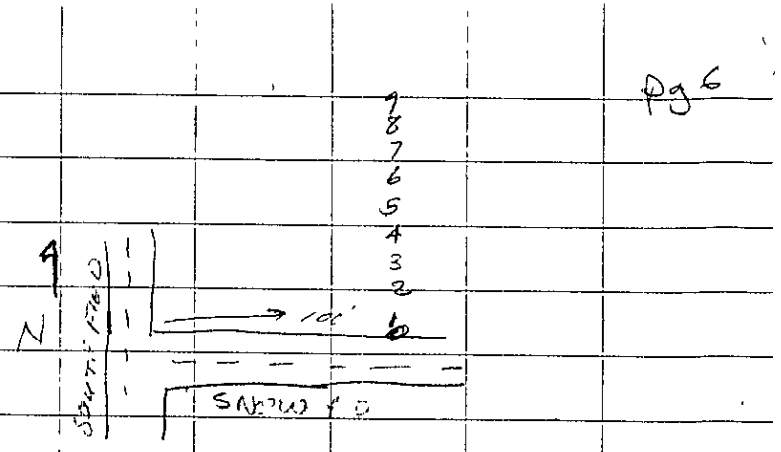
(DID NOT PLOT THIS SECTION COVERED WITH SECTIONS 1-3-5 PG 2 THIS SECTION)

CL OF SNOW Rd

See Sketch Pg 6

— — —

	DIST	DESC	ROD	ELEV
				HI 3 598.25
6	125'R	GE	5.5	592.8
7	150'R	"	4.9	593.4
8	175'R	"	4.6	593.7
9	200'R	"	4.1	594.2



	+	HI	−	ELEV.
TP-4		HI		596.43 ~~600.61~~
π X-SECT ①	6.45	602.88 ~~607.06~~		

	DIST	DESC.	RED	ELEV.
1	0'R	GE @ FENCE	5.1	597.8 ~~602.0~~
2	25'R	GE	4.6	598.3 ~~602.5~~
3	50'R	"	4.5	598.4 ~~602.6~~
4	75'R	"	5.1	597.8 ~~602.3~~
5	93'R	TOP OF DITCH	4.8	598.1 ~~602.3~~
6	102'R	BTM OF DITCH	7.7	595.2 ~~599.4~~
7	118'R	TOP	7.5	595.4 ~~599.6~~
8	124'R	BTM DITCH TOE [illegible]	5.1	597.8 ~~602.0~~

TBM-A X-SECT 8	3.3	HI 597.4 ✓		594.11 ✓
1	@ ~~E~~ 0'R	GE @ BTM FENCE	~~3.3~~	~~590.8~~
2	25'R	GE	5.1	592.3 ~~589.0~~
3	50'R	"	5.1	592.3 ~~589.0~~
4	75'R	"	5.4	592.0 ~~588.7~~

M. Sliver
D. Shell
G. STAMP.

MAY 3 1999

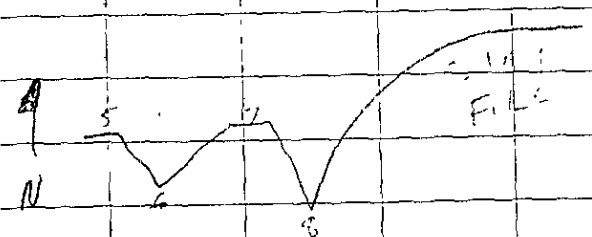
Pg-8

[illegible] Pg [illegible] MARCH 25 1999 [illegible]

30' E OF CL OF SERVICE DRIVE @ FENCE

X SECT. 7 @ GATE

TP-9



X-SECT 8

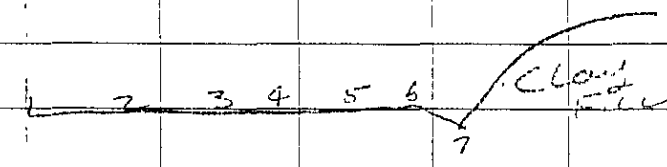
TP-5

FIG 12 THIS SECTION

BTM [illegible]

~~See Sketch Pg 9~~

	+	−	HI	ELEV	
	-		597.4	~~594.~~	Per 8
	DIST	DESC	ROD	ELEV	
5	84'R	6 ←	6.7	590.7 ~~587.4~~	
6	88'R	"	8.0	589.4 ~~586.1~~	
7	108R	BTM DITCH, TOE DIKE	8.0	589.4 ~~586.1~~	
TBM x-sect 9	3.4	HI 599.0 @ TE		595.59	TOP BK TE
1	0'R	TOP BANK ~~3.4~~		~~592.6~~	
2	18'R	TOE BK	7.0	592.0 ~~588.6~~	
3	"	WLS	6.7 B	592.3 ~~588.6~~	
4	19'	btm ditch	8.9	590.1 ~~586.7~~	
5	36'	btm Ditch, Toe Dike	8.9	590.1 ~~586.7~~	

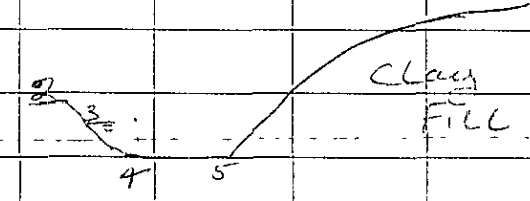


Top Asp (Water)

REF pg 12 THIS SECTION

MU

X-SECT 9



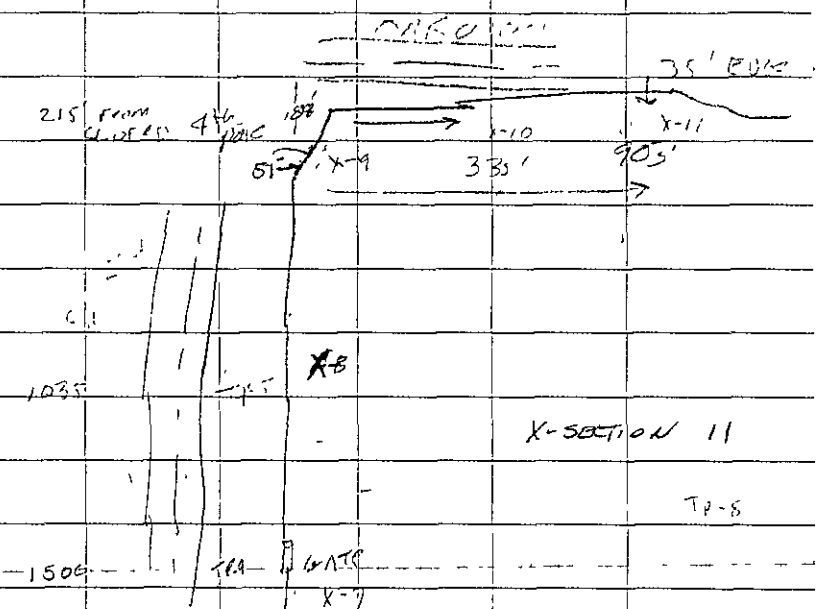
	+	HI	−	ELEV	
TBM X-10 C	6.1	HI 599.9		593.84	GE @ FL Ref pg 12
	DIST	DESC	ROD	ELEV	
1.	0'R	@ FL	~~6.1~~	~~587.7~~	
2	22'R	TOP BK	4.8	595.1 ~~591.0~~	
3	33'R	W/S	7.68	592.2 ~~581.20~~	
4.	40R	BTM DITCH	9.5	590.4 ~~584.3~~	
5	50	BTM DITCH TOP DIKE	9.5	590.4 ~~584.3~~	
TBM X-11 D	5.3	HI 598.4		593.12	GE @ FL Ref pg 12
	0 RT	@ FL	~~5.3~~	~~587.2~~	
	20'R	TOP BK	5.4	593.0 ~~587.7~~	
	30'R	W/S	6.88	591.6 ~~580.8~~	
	38'R	BTM DITCH	8.9	589.5 ~~589.2~~	
	51R	BTM DITCH TOP DIKE	8.9	589.5 ~~584.2~~	

PG 10

X-SECTION 10

188' S OF EDGE OF RD OAKWOOD

51' E OF CL [illegible]



X-SECTION 11

TP-8

	+	HI	−	ELEV	
TBM MH				595.50	REF pg 27
	4.21	599.71			
TBM B			4.12	595.59	
TBM MH				595.50	REF pg 27
	3.95	599.45			
TBM C			5.61	593.84	
TP-8				594.34	REF pg 27
	4.74	599.08			
TBM D			5.96	593.12	
TP-5				594.54	REF pg 26
	5.45	599.99			
TBM A			5.88	594.11	

MAY 3, 1994 ☆ MC DS.

Pg 13

LEVEL RUN

TBM HYD TO TBM SIGN

(LOOP)

MAY 3 1994

	#	Hi	–	Elev.							
TBM/IND				599.30		PG 27 OAKLAND & FAIRLANE DR.					PG 14
	0.93	600.23									
TP-1			4.92	595.31	-3.99						
	3.46										
TP-2			6.98	591.79	-3.52						
	4.33										
TP-3			4.93	591.19	-.60						
	3.89										
TP-4			4.28	590.30	-.39						
	4.53										
TP-5			4.14	591.19	+0.89						
	4.76 ~~3.93~~										
TP-6			2.70	593.25	+2.06						
	4.77										
TP-7			2.16	595.36	+2.61						
	7.57	603.43									
TBM Reflector			0.86	602.57	+6.71						
	1.17										
TP-8			6.69	597.05	-5.52						

	+	HI	−	ELEV		
TP-8				597.05		DSN [illegible]
	7.76					
TP-9			7.85	596.96	-0.09	" "
	7.63					
TP-10			7.75	596.84	-0.12	" "
	7.83	606.67				
TBM SIGN			9.03	595.64	-1.20	BOLT ON SIGN N SIDE [illegible] 94 (EXIT SIGN [illegible])

X-SECTION (13)
→ HI

DIST	DESC	RMW	ELEV
0'R	TOP BK	5.0	599.8
10'R	GE	7.2	597.6
20'R	"	9.7	595.1
30'R		11.3	593.5
40'R	TOE BK	11.9	592.9
50'R	GE AT [illegible]	11.6	593.2

LOCATED 2595 FT WEST OF ℄ OF OAKWOOD BLVD

PG 21 LEVEL NOTES

	+	Hi	-	Elev	
TBM Reflection		~~603.43~~			
		X-Section (12)			
	Dist	Desc	Rad	Elev	
1	0'R	GE Top Dr	7.4	597.0	
2	10 R	GE	10.2	594.2	
3	20'R	"	12.4	592.0	
4	30'R	"	13.4	591.0	
5	40'	GE	14.3	590.1	
6	50'R	BTM Ditch To Dike	13.9	590.5	
7	55'R	" @ Fence	13.9	590.5	
		Return			
TBM Sign				595.64	
	8.94				
TP-10			7.77	596.81	1.17
	7.85				
TP-9			7.75	596.91	0.10
	7.84				
TP-8			7.75	597.00	.09

PG 14 THIS SECTION

LOCATED 1410 FT. WEST OF THE CENTERLINE OF OAKWOOD BLVD.

PG 20 THIS SECTION

	+	HI	−	ELEV	
TP-8				597.00	
	7.46				
TBM REFLECTOR			1.18	603.28	+6.28
	0.85				
TP-7			7.57	596.56	-6.72
	2.46				
TP-6			5.05	593.97	-2.59
	2.62				
TP-5			4.60	591.89	-1.92
	3.93				
TP-4			4.36	591.46	-.43
	4.13				
TP-3			3.76	591.83	+.37
	5.53				
TP-2			4.43	592.93	+1.10
	6.93				
TP-1			4.17	595.69	+2.76
	4.85				
TBM NYD			0.16	600.38	4.69

CHECK FROM F/F MAIN BDC.
TO ELECTRICAL M.H.

F/F MAIN BLDG. 598.00

3.80 601.80

ELECT M.H 584 595.96

FOR INFO ONLY DO NOT USE FOR ELEVATIONS

ELECT M.H 594.82 COE
595.92 AS BUILT

5.84 600.66 601.76

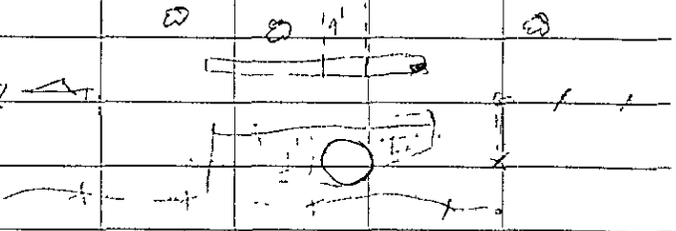
F/F MAIN BLDG 596.86 AS BUILT 597.96 598.00

CORPS ELEVATION FOR F/F OF MAIN BLDG IS 1.14 FT LOW

TBM HYD	-		599300	
	0.889			
TP1		4864	595,325	-3,975
	4242			
TP2		7.015	592,552	-2,773
	5.552			
TP3A		6.662	591,442	-1,110
	4.917			
TP4		4.702	591.717	+0.275
	4.539			
TP5		4.130	592,126	+0.409
	4.648			
TP6		2.565	594 209	+2083
	4.803			
TP7		2.212	596,800	+2.591
	7.72 & ~~11.878~~	604.528		
TBM REFLECTOR		1012	603.516	+6.716
	1.100			
TP8		7.380	597.236	-6.280

HI 604.53

		ROD	ELEV	
1.	@ FF FOR SECTION	14.0	590.5	@ SECTION
2.	TOP MEYONAL	11.58	592.95	25' WEST OF ⊗ AT REFLECTION
3	4' DIA INV. ELEV	15.58	588.95	



TP 8				597,236				
	7.755							
TP 9		WRONG POINT	7.890 ~~10.890~~ 7755	597.151	-0.085			
	7.650							
TP 10			7.768 7650	597.033	-0.118			
	7.808							
TBM SIGN			9.000 7500	595.841	-1.192			
		RETURN						
TBM SIGN				595.841		HI 604.81		
	8.972	604.813				I GE AT FE FOR SECTION	ROD 11.6	ELEV. 593.2
TP 10			7.782	597.031	+1.190			
	7.910							
TP 9			7.790	597.151	+0.120			
	7.937							
TP 8			7850	597.238	+0.087			
	7.638							
TBM REFLECTION			1.360	603.516	+6.278			
	1.334							
TP 1			8.050	596.800	-6.716			

TP7			596.800		
	2.740				
TP6		5.329	594.211	-2.589	
	2.655				
TP5		4.740	592.126	-2.085	
	4.360				
TP4		4.770	591.716	-0.410	
	4.847				
TP3		5.122	591.441	-0.275	
	6.365				
TP2		5.257	592.549	+1.108	
	7.010				
TP1		4.238	595.321	+2.772	
	4.998				
TBM HYD		1.020	599.299	+3.978	599.30 PG 27

599.30 PG 27

ALLEN PARK

F. S

Feb. 22, 94

T. ROZNOWSKI

M. CLINICAL

INDEX

PAGE	DESCRIPTION
1-3	LEVELS FROM TBM "G" AT F.H. NE CORNER OF RED & FRANK STS TO EST. SPOT ELEVATION AT (18) ROAD INTERSECTIONS.
4-7	LEVELS FROM TBM 10 AT LAMP POST AT NE CORNER OF FRANK ST & OUTER DRIVE ALONG OUTER DRIVE TO TBM ON F.H. @ VA HOSPITAL.
8-9	SKETCH OF R/R BRIDGE AT OUTER DRIVE & ALLEN ROAD. I94 BRIDGE OVER OUTER D
10-11	① CHECK LEVELS FROM BM ON F.H @ VA TO RM-9
	② CHECK ELEVATIONS AT WAREHOUSE CLUB
12	CENTERLINE PROFILE OF ENTERPRISE ROAD FROM OUTER DRIVE NORTH TO HIGH POINT OF ROAD.

PAGE	DESCRIPTION
13-14	LEVELS FROM TP16 P.6 @ No. EDGE OF OUTER DRIVE W. ALONG SNOW RD (CLOSED) TO THE SOUTHFIELD RD. SERVICE DR. THEN SO. ALONG SERVICE DRIVE TO OUTER DRIVE & BACK TO P.O.B. TP-16
15	LEVELS FROM TP-13 ; ALONG WILLOW COVE BLVD TO TOP OF SLOPE
16-21	FROM TBM ELEC MH NORTH BOUND ALONG FAIRLANE BLVD ESTABLISHING SPOT ELEVATIONS THROUGH OUT THIS AREA. ALSO SET TBM "FORD"
22-23	FROM RM 4 (SAN SEWER @ KEPPEN & LARME STS LEVELS & SPOT ELEVATIONS SO. ON LARME & IN VICINITY
24-29	LEVELS & SPOT ELEVATIONS FROM TP-4 135' SO. ALONG SERVICE DRIVE FROM SNOW RD., NO. ALONG SERVICE DR TO OAKMAN BLVD & TIE INTO TBM ELEC. M.H. THE LOOP BACK TO TP 4 (~~[illegible]~~ 1.0 BLOWER THAN AS BUILT

PAGE	DESCRIPTION
31	CHECK SHOTS BTW TBM ELEC MH & TWO CATCH BASINS IN THE AREA USING AS BUILT ELEVATIONS.

Levels

T. ROZNOWSKI
M. CLANCY

Pg-2

	+	HI	−	ELEV.	
TBM "G"				592.18	FB #1 pg 86 S bolt on F.H. NE Corner Reo & Frank St @ Res. # 2209
	3.549				
TP-1			6.412	589.317	DOT & INTER Wall St & Reo St
	5.583				
TP-2			6.353	588.547	DOT & INTER Morris & Wall
	6.120				
TP-3			4.421	590.246	DOT & Harlow & Morris St
	5.435				
TP-4			5.980	589.701	DOT & Roger & Morris St
	6.036				
TP-5			5.001	590.736	DOT & Stanley & Morris St
	6.671				
TBM 1			3.762	593.645	Chiseled X on N.E bolt on FH on NE side Morris St 150' S.E of ENT. Morris & Laurence St
	3.984				
TP-6			5.912	591.717	DOT & INT Laurence & Morris
	5.168				
TP-7			6.219	590.666	DOT & Laurence & Collage St
	5.680				
TP-8			5.712	590.634	DOT & Laurence & Prin St

	+	HI	-	ELEV.	
TP 8				590.639	Pg. 2
	5.817				
TP-9			5.219	591.232	DOT & INT. LAURENCE & UNIVERSITY AVE.
10	4.916				
TP-10			5.700	590.448	DOT & UNIVERSITY ST
	5.978				
TP-11			6.308	590.118	DOT & TNI UNIVERSITY AVE & Bridge
	6.187				
TBM 2			4.690	591.615	chiseled X on bolt on cover of Rogers & Paris Hyd.
	3.921				
TP-12			6.264	589.272	DOT & PARIS HYD
	6.098				
TP-13			6.029	589.391	DOT & PARIS & FRANK ST
	5.930				
TP-14			5.992	589.279	DOT & FRANK ST & College
	5.610				
TP-15			5.797	589.092	DOT & MORRIS & FRANK
	5.998				
TBM			2.929	592.161	592.18 / 592.16 / 0.02 diff -0.02

SPOT ELEV

From TBM 10 along

OUTER DRIVE TO TBM ON

F.H. @ V.A. Hospital.

	+	HI	-	ELEV.	
TBM # 10				589.35 ✓	FB # 1 pg. 80 S.E bolt Lamp STD # 175 x 3232 @ N.E corner Frank ST & outer DR (E Bound)
	5.81				
TP- 1			4.98	590.18 ✓	DOT @ N Edge E bound Lane outer E of HARLOW ST
	6.65				
TP- 2			4.99	591.84 ✓	DOT @ INT OUTER DR & Eager
	6.69				
TP- 3			6.00	592.53 ✓	DOT @ INT OUTER DR & STANLEY ST.
	4.72				
TP- 4			5.96	591.29 ✓	DOT @ Gale Blvd & OUTER DR W. Bound
	6.21				
TP- 5			6.44	591.06 ✓	DOT ℄ median @ END OUTER DR.
	4.21				
TP- 6			10.35	589.92 ✓	DOT N. Edge OUTER DR. (SIDE WALK)
	1.60				
TP- 7			7.78	578.74 ✓	DOT ℄ OUTER DR. @ E Edge R.R VIADUCT.
	7.81				
TP- 8			0.49	586.06 ✓	DOT N Edge OUTER DR
	9.75				
TP- 9			3.88	591.93 ✓	DOT @ INT OUTER DR & WOOD ST

	+	HI	−	ELEV.
TP 9				591.93
	6.62			
TP-10			6.19	592.36 ✓
	1.59			
TP-11			11.05	582.90 ✓
	3.47			
TP-12			6.68	579.69 ✓
	5.42			
TP-13			5.51	579.60 ✓
	8.64			
TP-14			0.67	587.57 ✓
	11.39			
TP-15			5.25	593.71 ✓
	6.29			
TP-16			4.71	595.29 ✓
	6.17			
TP-17			5.90	595.56 ✓
	6.90			
TP-18			5.21	596.75

Pg-6

Pg-5

DOT @ INT. OUTER DR. & HARMAN

DOT N Edge OUTER DR.

DOT @ INT. ENTERPRISE DR & OUTER DR.

DOT @ W. END S. CANOE VIADUCT I-94 ON OUTER DR

DOT N. Edge OUTER DR

DOT N. Edge OUTER DR

DOT N. Edge E Bound OUTER DR 250' W. of SHENANDOAH AVE

DOT S. Edge W Bound OUTER DR

	+	HI	−	ELEV.
TP-18				596.75
	6.12			
TP 19			5.73	597.14
	6.26			
TBM Post			1.80	601.60
	3.09	609.69		
BM ARROW on HYD.			1.55	603.14

Pg. 6

DOT & OUTER DR & LARME

DOT TOP of E CONC & STEEL PIPE FROM G.R. @ W. EDGE of SIDEWALK TO V.A HOSP.

@ V.A. Hosp 602.77

603.14 - closure
602.77
+ 0.37

NOTE: SEE PAGE 11 FOR CLOSURE TO ANOTHER RM (RM 9)

CLOSED AT A +0.05

FROM TBM #10 @ FRANK ST & OUTER DR.

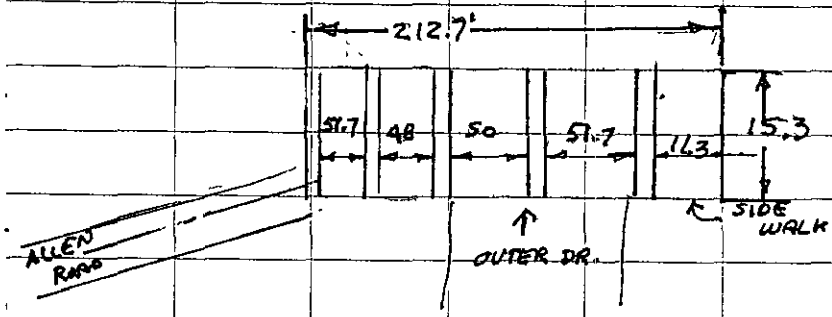
SKETCH R.R. BRIDGE

@ OUTER DR & ALLEN RD.

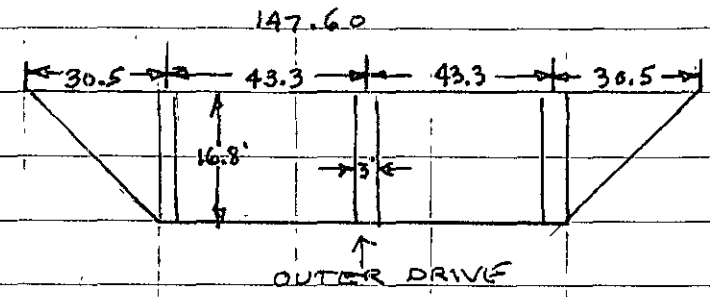
Feb 24, 94

ALLEN RD & OUTER DR

R/R BRIDGE OVER OUTER DRIVE



OUTER DRIVE & I-94



I 94 BRIDGE OVER OUTER DRIVE

ALLEN PARK

TBM check

BM 6 F.H. @ U.A. 602.77

TO BM 9 HAMILTON

T. Rozmowski
M Clincy

Feb. 24, 94
Partly Cloudy 22°

Pg - 11

	+	HI	-	ELEV,		
BM F.H. V.A				603.14	COFE ELEV	F.H. V.A Hospital
		604.18 ~~603.18~~		602 77		599 72
	1.04	603.81				
TP 1			7.29	596.89 596.52		DOT IN PARKING LOT FOOD RANCH SUPER MRKT. OUTER [illegible] S.F
	5.22	602.11 601 74				
Rm 9			3.34	598.77 598.40	COFE ELEV.	PUB. NOTE; 598.72 HAMILTON ST. F.H. @ HAMILTON ST
						598.77 598.72 +0.05
						ELEV CK @ C.B @ WARE CLUB ✓
	+	HI	-	ELEV,		& ENTERPRIZE Rd.
TP. 12				579.69	✓	Pg - 6 NOTES Feb 22 94
	22 99	602 68				CB - 599 90
M.H			6.70	595.98	✓ 1.6	PARKING LOT W/H CLUB MH 594.93
C.B			4 85	597.83	✓ 1.1	" " "

	+	HI	−	ELEV.
TP 12				579.69
	7.80	587.49		
TP-1			0.30	587.19
	11.53	598.72		
TP-2			0.12	598.60
	5.90	604.50		
TP. 3			4.28	600.22
TP-2	ck:	5.90		

Pg. 6 NOTES Feb. 23. 94

Toe of Slope

(90) 243 Ft DOT ℄ ENTERPRISE Rd. (on Slope)

(120) 321 Ft " " (Top Slope)

(135) 364 Ft " " Top ℄ Rd

931 Ft

	SNOW Rd/S.F./OUTER DR					2.7' per Pace				
	+	1/H1	−	ELEV.		SPOT ELEV	SNOW Rd			Pg-13
TP-16				595.29	160'	Pg-6	NOTE	Feb. 23, 94		
	5.76	601.05			Paces					
T			5.5	595.55	80 Paces (216')	℄	SNOW	Rd	(GE - Asph.	Removed Gone)
			5.8	595.25	50	= (135')	"			P
TP-1			5.81	595.24	+50	135'				P
	5.95	601.19			115	Bottom Asph.				P
			5.8	595.30	+50	135 GE	℄	Snow Rd		P
			5.6	595.50	+50	135' "		"		P
			4.77	596.42	+50	135' ℄	Snow Rd on	N Sph.		P
			3.99	597.20	+50	(135')				P
TP-2			4.15	597.04	+50	135' DOT	℄	SNOW Rd		
	4.72	601.76								
			5.52	596.24	+50	135' ℄	SNOW	Rd		P
			5.42	596.34	+50	135' "				P
			5.38	596.15	+50	(135') "				P
TP-3			5.61	596.15	+50	(135') "				P
	5.01	601.16								
			5.89	595.27	+50	(135') @	INTER.	SNOW Rd &	S.F service DR	P
TP-4			5.09	596.07	+50	(135' ℄	S.F	service	DR	
										So. ALONG SERVICE DR

	+	N	-	ELEV.
TP-4				596.07
	6.26	602.33		
TP-5			4.42	597.91
	4.26	602.17		
TP-6			4.78	597.39
	5.08	602.47		
TP-7			6.37	596.10
	7.99	604.09		
			4.76	599.33
TP-8			6.27	597.82
	6.43	604.25		
TP-9			6.50	597.75
	5.38	603.13		
TP-10			6.67	596.46
	5.10	601.56		
TP-11			5.56	596.00
	5.91	601.91		
TP-16			6.60	595.31

Pg-13

Inces					
+100	(267')				
+100	267' ℄ S.F Service DR				
+100	267'				
+100	267' "		"	"	
+100 BG stale	5.48 / 4.68	= 8	= 267"		
FS stale +100	5.97 / 6.77	= 8	267"		
+100	267' ⊤ S.F & OUTER				
	℄ S.F FREEWAY & OUTER DR ℄ OVER PAS-				
+100	267' DOT S Edge w. bound OUTER DR				
+100	267'				
+100	267' "		"		"
+100	267'				
+100	267' "		"		"
+100	267'				
+100	267' "		"		"

Pg-13 (P.O.B.)

	Willow Cove Dr.			
	+	Hi	-	ELEV.
TP-3				579.60
	9.51	589.11 ✓		
			5.79	583.32 ✓
TP-1			1.18	587.93
	10.74	598.67 ✓		
			4.20	594.47 ✓
			4.37	594.30 ✓
TP 1	CK		10.74	587.93 ✓

(PG 6) SPOT ELEV., Willow Cove. Pg-15

W. bound VIADUCT 94 & OUTER DR.

TOE OF SLOP

SPOT ELEV. @ INTER. willow cove Pd & OUTER DR ✓ P

+50 135' ℄ willow cove BLVD (on slope P

+80 216' ℄ " " " (Top slope)

+50 135' ℄ " " " (Rd is FLAT)

NEXT 300 ft

ALLEN PARK

Feb. 25, 94

OAKWOOD & FAIRLANE BLVD.

BULK MAIL FACILITY

	+	HI	−	ELEV.	
TBM ELEC. MH. *			*	594.82 ~~595.92~~	PG. 27 LEVEL RUN 3/25/99
	5.86	600.68 ~~601.78~~			
TP-1			5.69	594.99 ~~596.09~~	
	5.05	600.04 ~~601.14~~			
			5.35	4.6 ~~595.79~~	
			5.40	4.6 ~~595.74~~	
			5.77	4.2 ~~598.37~~	
TP-2			5.70	4.3 ~~598.44~~	
	5.50	599.84 ~~600.94~~			
			5.82	4.02 ~~593.12~~	
TP-3			4.30	5.54 ~~596.64~~	
			3.97	5.87 ~~596.97~~	
			3.9	5.9 ~~597.0~~	
			4.26	5.58 ~~596.68~~	
			3.91	5.93 ~~597.03~~	
			0.1	599.76 ~~600.9~~	
	9.15	4.69 ~~605.77~~			
			6.45	5.24 ~~599.34~~	
			4.26	0.43 ~~601.53~~	PHD

*CORRECTIONS DUE TO ESTABLISHING A NEW ELEVATION ON TBM ELEC MH.

T. Roznowski
M. Clinicy

Clear - 20°

Feb. 25, 99

Pg-17

ELEC M.H. TOP ELEV. 595.92 IN PARKING LOT FOR BULK MAIL FACILITY FAIRLANE BLVD ALLEN PARK, M.H IS 200 W. OF E. SIDE OF PARKING LOT ON N. SIDE

DOT W Edge FAIRLANE blvd

Paces

" @ INTER FAIRLANE blvd & OAKWOOD P

+100 267' ℄ N bound Fairlane P

+100 267' " " " P

+100 267' " " " P

+100 267'

+100 267' ℄ FAIRLANE blvd (Toe of slope)

12' RT Top curb

(67') (25 RT paces) @ ℄ FORD HINTON CO

(56') 16 (paces) LT ℄ S bound FAIRLANE

12' LT Top curb / Toe berm

(62') 23 paces LT ON SLOPE ON slope of Berm (Top berm is 13' LT & 1.5 [illegible] higher

+100 267' ℄ FAIRLANE & N Property Line P.D.

+100 267' ℄ " Top slope

1869

	+	HI	−	ELEV	
TBM FORD			2.64	~~603.15~~ 602.05	
		RETURN			
TBM FORD				~~603.15~~ 602.05	
	2.51	~~603.15~~ 604.56		~~600.59~~ 600.55	
TP-3			9.01	599.29	
	4.26			~~595.44~~ 594.34	
TP-2			5.47	~~598.08~~ 598.08	
	6.03			~~596.19~~ 595.00	
TP-1			5.37	598.74	
	5.64			~~595.92~~ 594.82	
TBM ELEC M.H			5.82	~~595.92~~ 595.92 ✓	
					I.D

PAB

E. DOLT ON F.H. E. SIDE OF FAIRLANE BLVD JUST N. of shipping & Rec. ENT TO FORD Diagnostic Ser. center 1800 FAIRLANE BLVD.

	+	Hi	−	ELEV.		
TBM FORD				602.05 ~~603.15~~		0 @ TBM FORD Pg-18 NOTES
	1.71	603.76 ~~604.86~~ ✓				Paces
			5.19	8.57 ~~599.67~~ ✓		+125 = 337' ℄ FAIRLANE blvd & ENT #2 Fort Ring center
			4.71	599.05 ~~600.15~~ ✓		+20 = LT 54' TOP SLOPE ℄ ENT. #2
			10.39	3.37 ~~594.47~~ ✓		+35 = LT 94' TOE SLOPE PARKING LOT
			9.3	4.5 ~~595.6~~ ✓		+57 = 154' LT GE @ FACE OF FORD DIAG CENTER bldg.
TP-1			6.75	7.01 ~~598.11~~ ✓		+100 = 267' ℄ FAIRLANE blvd. E.W. FAIRLANE
	2.21	599.22 ~~600.32~~				
			4.70	4.52 ~~595.62~~ ✓		+100 = 267' ℄ " "
TP-2			8.32	0.90 ~~592.00~~ ✓		+95 = 256' TOP ℄ FAIRLANE blvd & CONC PIPE under (Pd. 2' DIA)
	2.61	3.51 ~~594.61~~ ✓				℄ FAIRLANE blvd
			5.06	8.45 ~~589.55~~ ✓		+100 = 267'
			0.1	3.4 ~~594.5~~ ✓		(60 PACES RT) GF 1ST EL @ bldg under CONST.
TP-3			5.50	8.01 ~~589.11~~ ✓		+85 = 229' ℄ INTER FAIRLANE blvd & Federal DR
	4.27	2.28 ~~593.38~~ ✓				"(Heading W.)"
			4.98	7.30 ~~588.40~~ ✓		+100 = 267' ℄ Federal DR
			3.96	8.32 ~~589.42~~ ✓		+57 = 154' " " & ENT. TO New bldg
			0.8	1.5 ~~592.6~~ ✓		RT LAND IS FLAT (WOODS) LT 56 PACES New bldg
TP-4			3.26	584.02 ~~590.12~~ ✓		+43 = 116' ℄ Federal DR

RHD

	+	HI	−	ELEV.	
TP 4				589.02 ~~590.12~~	
	6.91	595.93 ~~597.03~~			
			5 09	0.84 ~~591.94~~	✓
TP 5			3 52	2.41 ~~593.51~~	✓
	6.72	599.13 ~~600.23~~			
			5.61	3.52 ~~594.62~~	✓
			4 99	4.14 ~~595.24~~	✓
			2.91	6.22 ~~597.32~~	✓
			1.7	7.4 ~~598.5~~	✓
			4.29	4.84 ~~595.94~~	✓
TBM E.W.			2.21	6.92 ~~598.02~~	
		Return			
TBM E.W.				6.92 ~~598.02~~	
	2.18				
TP-5			6 69	2.41 ~~593.51~~	
	3 52				
TP-4			6.90	589.03 ~~590.13~~	
	3.32				
TP-3			4 33	8.02 ~~589.12~~	

Pg-20

Pg 19

+100 = 267' ℄ FEDERAL DR

+100 = 267 " "

+ 70 = 189' ℄ Federal DR & Republic DR

+ 30 = 81' ℄ Federal DR

RT LAND IS FLAT (Fill)

6E LT-80 Paces New bldg 1st floor

6E LT 80 paces bldg under cont

+ 115 = 310' ℄ Federal DR

chiseled x on bolt between T & R in Detroit F.H. S. SIDE Federal DR JUST W. of bldg # 240. S bolt

	+	HI	−	ELEV.
TP-3				8.02 ~~583.12~~
	5.53			
TP-2			2.64	590.91 ~~592.01~~
	8.34			
TP-1			2.22	7.03 ~~598.13~~
	8.09			
TRUM FORD			3.06	602.06 ~~603.16~~

PAB

Level Run - SPOT ELEV

S on Lanme 37

ALLEN PARK

	+	HI	-	ELEV	
Rm 4				595.14	The TOP of LETTER 'C' on S. rim of SAN. SCW M.H @ INTER. KEPPEN ST & LARME ST.
	6.20	601.34			
			5.44	595.90	MID Block KEPPEN & CICOTTE
			5.03	596.31	INTER CICOTTE & LARMIE
			5.54	595.80	MID Block CICOTTE & HAMILTON
			5.67	595.67	INTER LARMIE & HAMILTON
CK		6.20			
				595.14	
Rm 4				595.14	
	7.18	602.32			
			6.23	596.09	MID Block KEPPEN & RUSSEL
			5.14	597.18	INTER RUSSEL & LARME
			5.29	597.03	MID blk RUSSEL & EUCL
			4.99	597.33	INTER
		7.81			

ALLEN PARK

FLS

MAR. 25, 94

T. ROZNOWSKI Cloudy 31°
M. CLINCY MAR. 25, 94 Pg-25

	+	HI	−	ELEV			
TP-4				596.07			Pg-13 NOTES = (Feb 22, 94)
*	4.28	600.35				0	⊼ [illegible] Snow Rd & Service Dr
TP-1			4.72	595.63	-.44	230 + 230	Heading N DOT ℄ S. Field Service Dr.
	6.01	HI 601.64					
			5.03	596.61		+ 460	℄ S.F. service DR.
			4.33	597.31			12' RT Top curb
			3.2	598.4			28' RT GE @ ℄ {LAND IS FLAT 300' ± To Toe of High Bank for LAND Fill. 25' ±
			4.09	597.55			12' LT Top curb
			3.2	598.4			42" LT GE Top BNK for S.F. Free-
							WAY, Freeway is 15' ± Lower
TP-2			4.19	597.45	+ 1.82		DOT ℄ S.F. Service DR
	6.22	HI 603.67				230' 230 460'	
			5.08	598.59			℄ S.D.
			4.51	599.16		920'	12' RT Top CURB
			4.1	599.6			28' RT GE @ ℄. {LAND IS FLAT To LAND Fill BNK 300' ± 25 ±.
			4.32	599.35			12' LT Top curb
			3.2	600.~~47~~ 5			3.0' LT GE @ Top BNK To Freeway
TP-3			5.18	598.49	+ 1.04		DOT ℄ S.F. S.D.

	+	HI	−	ELEV.	
TP-3				598.49	
	4.22	HI 602.71			
			5.39	597.32	
			4.99	597.72	
			5.4	597.3X	
			4.57	598.14	
			1.4	601.3	
TP-4			6.28	596.43	-2.06
	4.18	HI 600.61			
			5.32	595.29	
			4.86	595.75	
			6.4	594.2X	
			4.47	596.14	
			1.1	599.5	
TP-5			6.07	594.54	-1.89
	4.23	HI 598.77			
			5.28	593.49	
			4.74	594.03	
			4.6	594.2	

PJB

Pg-26

Pg- 25

℄ S.F. Service DR

1380' 12' RT Top curb

28' RT @ ℄ {BNK To LAND about [illegible]}

1840' 12' LT TOP curb & Toe slope

72' LT TOP slope BNK To Freeway

℄ S.F. S.D.

1840' 12' RT Top curb

28' RT @ ℄ {Toe of BNK FOR LAND is 200' ±}

12' LT Top curb & Toe slope

74 LT GE Top BNK & slope To Freeway

460 ℄ S.F. S.D

2300 12' RT Top curb

28' RT @ ℄ LAND declines 3' ± To BANK @ LANDFILL 30' ±

	+	HI	-	ELEV		
		598.77				
			4.54	594.23		72' LT Top curb
			3.7	595.1		32' LT Top BNK @ Exit Ramp To Oakwood Blvd.
TP-6			6.14	592.63	-1.91	DOT ℄ S.E. Freeway
	6.12	HI 598.75				
			3.82	594.93		℄ S. Field Service Dr & Oakwood blvd
TBM M.H.			3.25	595.50	+2.87	Chiseled "X" on the W. Edge of Mit. S.E Corner S. Field Service Dr. & Oakwood blvd Det. Edison Co. Mit.
				595.49 ADJ		
	4.01	599.51				
TP-7			4.91	594.60	-.90	DOT S. Edge Oakwood
	5.11	599.71				
TP-8			5.37	594.34	-.26	" "
	6.05	600.39				
TBM HYD			1.09	599.28 ADJ 599.30	+4.96	N bolt on F.H. S. side of Oakwood blvd in center of Median for FNT. to Land Fill, across from Fairlane Dr.
	0.58 ~~0.70~~	599.88 ~~600.00~~				
TP-9			4.68 ~~5.79~~	595.20 ~~594.21~~	4.10 ~~5.09~~	
	5.49	600.69 ~~599.70~~				
BM ELEC MH @ Bulk P.O			5.85	594.84 ~~593.95~~	-.36	MH @ Bulk P.O Parking Lot
				594.82 ADJ		595.92 ← From as built drwg
						594.82 ← This level run C of E
		Return				diff. = ~~1.08~~ 1.10
						595.92

AJO

	+	HI	−	ELEV.		
		RETURN				
BM ELEC MH.				594.89 ✓		@ P.O. BULK MAIL.
	5.81					
TP - 9			5.15	595.20	+ .37	
	4.82					
T.BM. H→O			0.72	599.30	4.10	
	0.81					
TP - 8			5.77	594.34	-4.96	
	5.42					
TP-7			5.16	594.60	+.26	
	4.75					
TBM M.H.			3.84	595.51	+ .91	
	3.60					
TP-6			6.46	592.65	- 2.86	
	6.13					
TP-5			4.21	594.57	1.92	-1.91
	6.06					
TP-4			4.17	596.46	1.89	1.99
					✓PLS	

	+	HI	−	ELEV.							
TP-4				596.46							
	6.31					−2.06					
TP-3			4.25	598.52	+2.06						
	5.16										
TP-2			6.20	597.48	1.04	1.04					
	4.21										
TP-1			6.03	595.66	1.82	1.82					
	5.08										
TP-4			4.63	596.11	45	14	596.11				
							596.07				
							Ad. + .04				

✓ P1B

ELEV. Check

From ELEC M.H.

TO TOP OF DRAIN ELEV

Do not use

These Elevations

For Check Only

ALLEN PARK

F.I.S

MAY 2, 1994

5/2/94

Pg 2

	+	HI	-	ELEV	
TP-4				596.07	
	4.94	601.01			
TP-1			5.69	595.32	
PT①			5.16	595.85	
PT②			5.08	595.93	
PT③			3.94	597.07	
TP-2			3.94	597.07	
	4.74	601.81			
PT④			4.55	597.26	
PT⑤			4.05	597.76	

√ PJB

E side of So Field Service Dr

X Intersect of Sawfield & New Rd

100' From Fence corner

200' " " " "

300' " " " "

E side of So Field Service Dr @ Fence line

400' From Fence corner

500' " " "

	+ DIST	HI DESC	− ROD	ELEV
PT-①				595.85 ✓
π	3.28	599.13 ✓		
1	0' R	GE AT FENCE	3.20	595.9 ~~592.7~~
2	25 R	"	5.3	593.8 ~~590.6~~
3	50 R	"	5.2	593.9 ~~590.7~~
4	75' R	"	5.3	593.8 ~~590.6~~
5	100 R	"	5.5	593.6 ~~590.4~~
6	150' R	"	5.3	593.8 ~~590.6~~
7	200' R	"	5.6	593.5 ~~590.3~~

PG 2 THIS SECTION

X-SECTION ①

± 100' E OF FENCE LINE @ SO FIELD SERVICE NO. 100' NORTH OF INTERSECT AT FENCE

Ⓧ-SECTION 3

PT-③				597.07 ✓
π	6.30	603.37 ✓		
1	0' R	GE AT FENCE.	6.3	597.1
2	25' R	GE	7.4	596.0
3	50' R	"	7.4	596.0
4	75' R	"	6.8	596.6
5	100' R	"	5.7	597.7
6	125' R	"	5.5	597.9

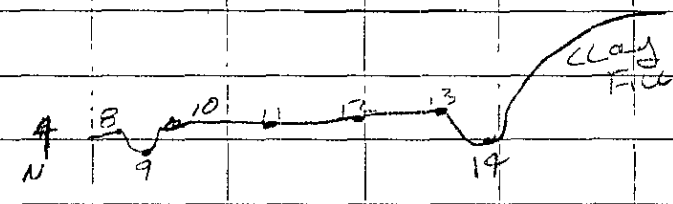
PG 2 THIS SECTION

300' NORTH OF INTERSECT SNOW & SO FIELD

± 100' E OF FENCE

at FENCE

	DIST	DESC.	ROD	ELEV HI 603.37	PG 3
7	150'R	GE	6.0	597.4	
8	175'R	TOP LT BK	5.5	597.9	
9	182'R	BTM CENTER	9.4	594.0	
10	189'R	TOP RB BK	5.7	597.7	
11	200'R	GE	5.7	597.7	
12	225'R	"	5.8	597.6	
13	250'R	TOP LT BK	6.8	596.6	
14	260'R	TOE/DITCH BTM CENTER	9.4	594.0	



(X) - SECTION (5)

PT (5) (5)		HI		597.76	
⊼	3.72	601.48			
1	0'R	GE AT FENCE	3.7 ~~3~~.7	597.8	
2	25'R	"	4.7	596.8	
3	50'R	"	3.8	597.7	
4	75'R	"	4.6	596.9	
5	100'R	"	5.1	596.4	
6	125'R	"	5.2	596.3	

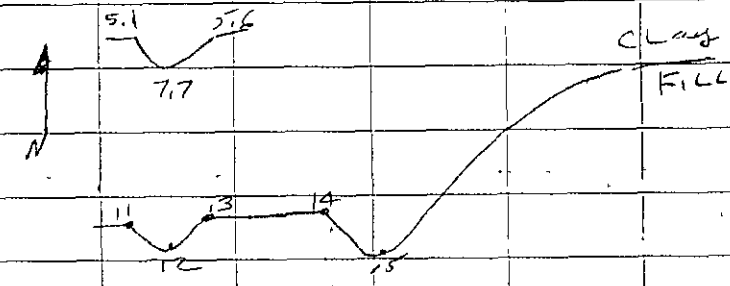
PG 2 THIS SECTION

500' NORTH OF INTERSECT SNOW & FITTED ICE

± E OF FENCELINE

	DIST	DESC	ROD	ELEV
				HI 601.48
7	150'R	"	5.0	596.5
8	171'R	TOP DITCH	5.1	596.4
9	175'R	BTM DITCH	7.7	593.8
10	180'R	TOP DITCH	5.6	595.9
11	203'R	TOP DITCH	5.8	595.7
12	206'R	BTM DITCH	7.5	594.0
13	211'R	TOP DITCH	5.3	596.2
14	226'R	TOP DITCH	6.2	595.3
15	234'R	BTM DITCH TOE DIKE	7.5	594.0

PG.4



(X) - SECTION (6)

TP 1				595.32
TP1A	5.83 ~~3.40~~	601.15	6.3	594.9
HI 598.3	3.4	HI 598.3		
1	0'R	GE FENCE	3.4	594.9
2	25'R	GE	3.9	594.4
3	50'R	"	4.3	594.0
4	75'R	"	4.8	593.5
5	100'R	"	4.3	594.0

PG 2 THIS SECTION

(DID NOT PLOT THIS SECTION COVERED WITH SECTIONS 1-3-5)

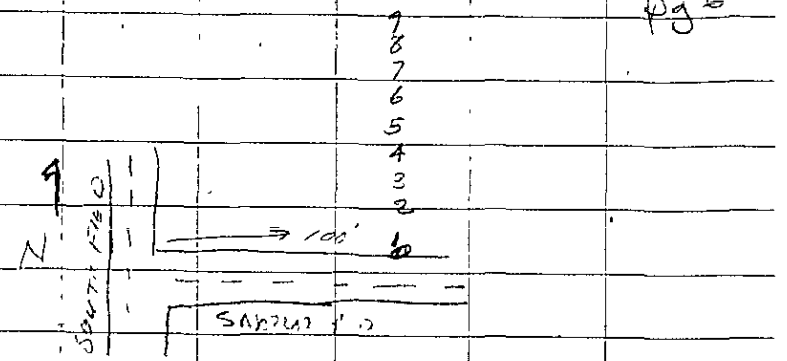
CL OF SNOW Rd

See Sketch Pg 6

— — —

	DIST	DESC	ROD	ELEV
				HI 3 598.25
6	125'R	GE	5.5	592.8
7	150'R	"	4.9	593.4
8	175'R	"	4.6	593.7
9	200'R	"	4.1	594.2

RIS



	+	HI	−	ELEV.
TP-4		HI.		596.43 ~~600.64~~
π X-SECT ⑦	6.45	602.88 ~~607.06~~		
	DIST	DESC.	ROD	ELEV.
1	0'R	GE @ FENCE	5.1	597.5 ~~602.0~~
2	25'R	GE	4.6	598.3 ~~602.5~~
3	50'R	"	4.5	598.4 ~~602.6~~
4	75'R	"	5.1	597.8 ~~602.0~~
5	93'R	TOP OF DITCH	4.8	598.1 ~~602.3~~
6	102'R	BTM OF DITCH	7.7	595.2 ~~599.4~~
7	118'R	TOP	7.5	595.4 ~~599.6~~
8	124'R	BTM DITCH TOE	5.1	597.8 ~~602.0~~
TBM-A X-SECT 8	3.3	HI 597.4 ✓		594.11 ✓
1	@ ~~#~~ 0'R	GE @ BTM FENCE	~~3.3~~	~~590.8~~
2	25'R	GE	5.1	592.3 ~~599.0~~
3	50'R	"	5.1	592.3 ~~599.0~~
4	75'R	"	5.4	592.0 ~~598.7~~

M. Oliver
D. Shell

MAY 3 1994 [illegible]

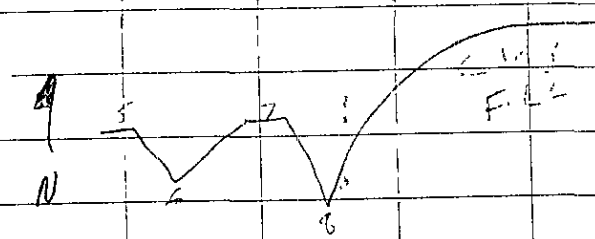
Pg-8

[illegible] Pg [illegible] MAY [illegible] 1994 [illegible]

[illegible] E OF ℄ OF SERVICE DRIVE @ [illegible]

X SECT. 7 @ GATE

TP-9



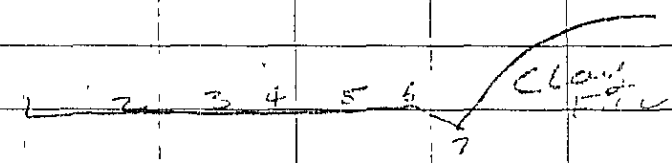
X-SECT 8

[illegible] SECTION

BTM [illegible]

~~[illegible]~~

	+	−	HI	ELEV	
	−		597.4	~~594.~~	pg 8
	DIST	DESC	ROD	ELEV	
5	84'R	6 E	6.7	590.7 ~~587.4~~	
6	88'R	"	8.0	589.4 ~~586.1~~	
7	108R	Btm Ditch, TOE DIKE	8.0	589.4 ~~586.1~~	



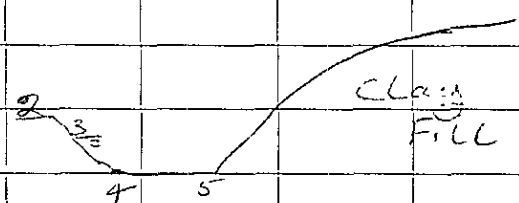
Too deep (water)

TBM x-sect 9 B	3.4	HI 599.0		595.59	TOP BK ft
1	0'R	@ ft TOP BANK	~~3.4~~	~~592.2~~	
2	12'R	TOE BK	7.0	592.0 ~~588.6~~	
3	"	W/S	6.7 B	592.3 ~~581.86~~	
4	19'	btm ditch	8.9	590.1 ~~586.7~~	
5	36'	btm Ditch, Toe Dike	8.9	590.1 ~~586.7~~	

REF pg 12 THIS SECTION

MU

X-SECT 9



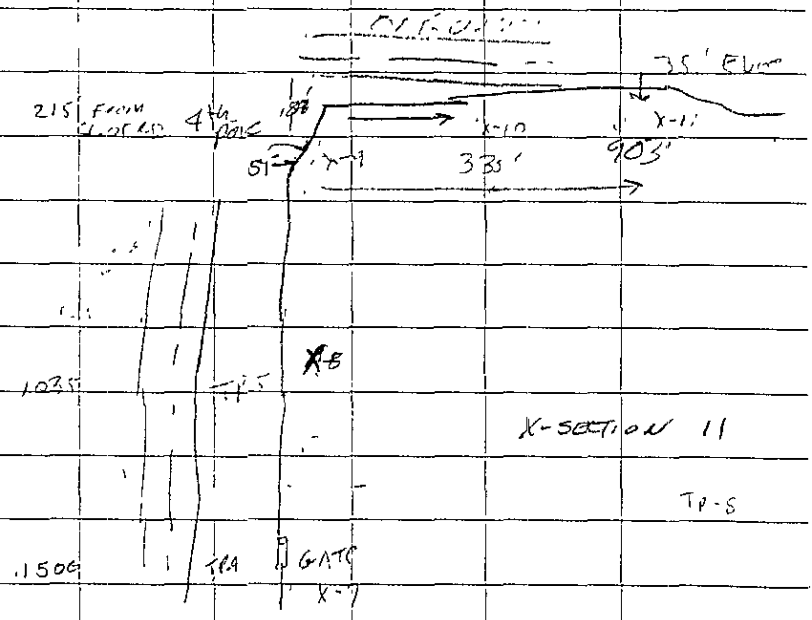
	+	H.	--	ELEV	
TBM X-10 C	6.1	HI 599.9		593.84	GE @ ℄ Ref f912
	DIST	DESC	ROD	ELEV	
1.	0'R	@ ℄	~~6.1~~	~~587.7~~	
2	22'R	TOP BK	4.8	595.1 ~~581.0~~	
3	33 R	W/S	7.68	592.2 ~~581.3~~	
4.	40 K	BTM DITCH	9.5	590.4 ~~584.3~~	
5	50	BTM DITCH TOP DIKE	9.5	590.4 ~~584.3~~	
TBM X-11 D	5.3	HI 598.4		593.12	GE @ ℄ Ref pg 12
	0 R	@ ℄	~~5.5~~	~~587.8~~	
	20'R	TOP BK	5.4	593.0 ~~587.7~~	
	30'R	W/S	6.88	591.6 580.87	
	38'R	BTM DITCH	8.9	589.5 ~~584.2~~	
	51 R	BTM DITCH TOP DIKE	8.9	589.5 ~~584.2~~	

PS10

X-SECTION 10

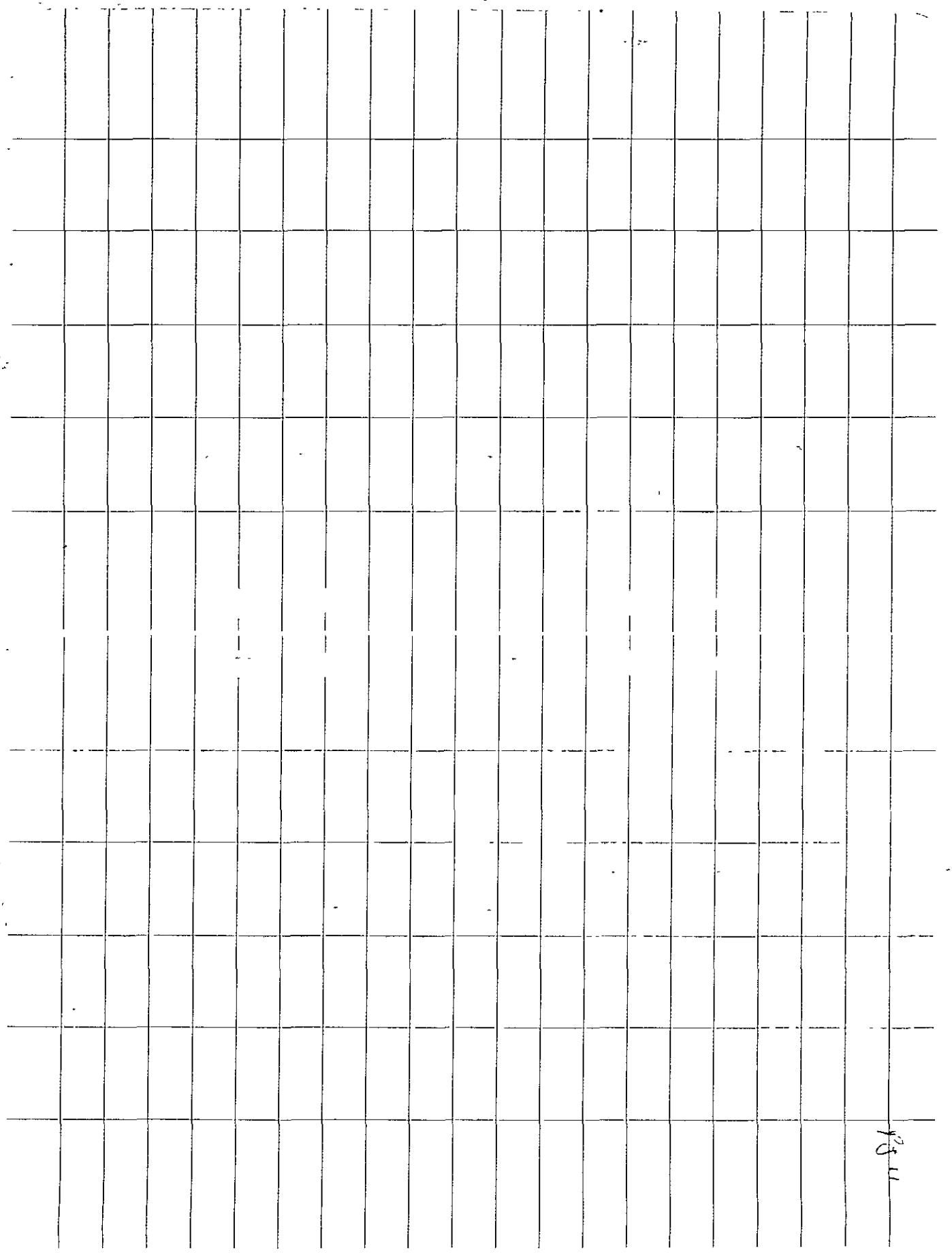
188' S OF EVSE of RD (OAKWOOD

51' E of CL [illegible]



X-SECTION 11

TP-5



	+	HI	−	ELEV				pg 12
TBM MH				595.50		Ref	pg 27	
	4.21	599.71						
TBM B			4.12	595.59	−			
TBM MH				595.50	−	REF	pg 27	
	3.95	599.45						
TBM C			5.61	593.84	−			
TP-8				594.34	−	REF	pg 27	
	4.74	599.08	−					
TBM D			5.96	593.12				
TP-5				594.54	−	ref	No. 26	
	5.45	599.99						
TBM A			5.88	594.11				
					UPLB			

MAY 3, 1994 *DJ MC I DS

Pg 13

LEVEL ROW

TRIM HUD TO TRIM SIGN

1 Lmor

MAY 3 1994

	+	H.I.	−	ELEV.	
TBM, D				599.30	
	0.93	600.23			
TP-1			4.92	595.31	−3.99
	3.46				
TP-2			6.98	591.79	−3.52
	4.33				
TP-3			4.93	591.19	−.60
	3.89				
TP-4			4.23	590.80	−.39
	4.53				
TP-5			4.14	591.19	+0.39
	3.76				
TP-6			2.70	593.25	+2.06
	4.77				
TP-7			2.16	595.36	+2.61
	7.57	603.43			
TBM Pillsbury			0.86	602.57	+6.71
	1.17				
TP-8			6.69	597.05	−5.52

P627 OAKLAND & FAIRLANE DR.

	+	HI	−	ELEV		
TP-8				597.05		[illegible]
	7.76					
TP-9			7.85	596.96	-0.09	" "
	7.63					
TP-10			7.75	596.84	-0.12	" "
	7.83	605.67				
TBM SIGN			9.03	595.64	-120	BOLT ON SIGN N SIDE OF 94 (EXIT SIGN [illegible])

X-SECTION (13)
→ HI

DIST	DESC	RED	ELEV
0'R	TOP BK	5.0	599.8
10'R	GE	7.2	597.6
20'R	"	9.7	595.1
30'R		11.3	593.5
40'R	TOE BK	11.9	592.9
50'R	GE AT FTAMP	11.6	593.2

LOCATED 2595 FT WEST OF ℄ OF OAKWOOD BLVD

Pg 21 LEVEL NOTES

	+	HI	-	ELEV	
TBM REFLECTOR		~~623.43~~			
		X-SECTION (12)			
	DIST	DESC	ROD	ELEV	
1	0'R	GE TO BTM	7.4	597.0	
2	10 R	G.E	10.2	594.2	
3	30'R	"	12.4	592.0	
4	30'R	"	13.4	591.0	
5	~~70~~	GE	14.3	590.1	
6	50'R	BTM DITCH TO GE	13.9	590.5	
7	55R	1' @ STAKE	13.9	590.5	
		RETURN			
TBM SIGN				595.64	
	8.94				
TP-10			7.77	596.81	1.17
	7.85				
TP-9			7.75	596.91	.10
	7.84				
TP-8			7.75	597.00	.09

PG 14 THIS SECTION LOCATED 1410 FT. WEST OF THE CENTERLINE OF OAKWOOD BLVD.

PG 20 THIS SECTION

	+	HI	−	ELEV	
TP-8				597.00	
	7.46				
TBM Reflector			1.18	603.28	+6.28
	0.85				
TP-7			7.57	596.56	-6.72
	2.46				
TP-6			5.05	593.97	-2.59
	2.62				
TP-5			4.60	591.89	-1.92
	3.93				
TP-4			4.36	591.46	-.43
	4.13				
TP-3			3.76	591.83	+.37
	5.53				
TP-2			4.43	592.93	+1.10
	6.93				
TP-1			4.17	595.69	+2.76
	4.85				
TBM NYO			0.16	600.38	4.69

CHECK FROM F/F MAIN BLDG
TO ELECTRICAL M.H.

5/4/94 RL BAILEY
M CUNEY

F/F MAIN BLDG. 598.00

3.80 601.80

ELECT M.H 5.84 595.96

FOR INFO ONLY DO NOT USE FOR ELEVATIONS

594.82 COE

ELECT MH 595.92 AS BUILT

600.86

5.84 601.76

F/F 596.86 AS BUILT

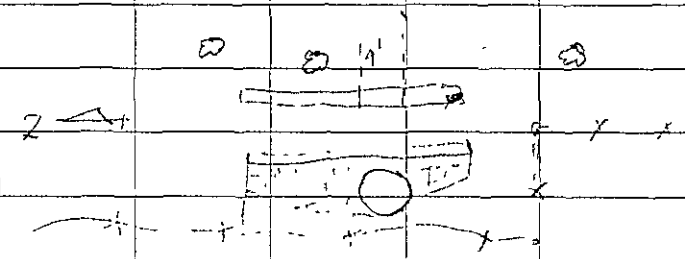
MAIN BLDG 3.80 597.96 598.00

CORPS ELEVATION FOR F/F OF MAIN BLDG IS 1.14 FT LOW

TBM HYD	-		599300		
	0.889				
TP1		4864	595.325	-3.975'	
	4242				
TP2		7.015	592.552	-2.773'	
	5.552	4242			
TP3A		6.662	591.442	-1.110	
	4.977	5552			
TP4		4.702	591.717	+0.275	
	4.539				
TP5		4.130	592.126	+0.409	
	4.648				
TP6		2.565	594.209	+2.083	
	4.803				
TP7		2.212	596.800	+2.591	
	7.728 ~~10.878~~	604.528			
TBM REFLECTOR		1.012	603.516	+6.716	
	1.100				
TP8		7.380	597.236	-6.280	
		1100			

HI 604.53

		ROD	ELEV	
1.	@ FF FOR SECTION	14.0	590.5	@ SECTION
2.	TOP HEIGHT	11.58	592.95	25' WEST OF ⊗ AT REFLECTION
3	4' DIA INV. ELEV	15.58	588.95	



TP 8				597,236				
	7.755							
TP 9		WRONG POINT	7.840 ~~10.890~~	597.151	-0.085			
	7.650							
TP 10			7.768	597.033	-0.118			
	7.808							
TBM SIGN			9.000	595,841	-1.192			
		RETURN						
TBM SIGN				595.841		HI 604.81		
	8.972	604.813				GE AT PE FOR SECTION	ROD 11.6	ELEV 593.2
TP 10			7.782	597.031	+1.190			
	7.910							
TP 9			7.790	597.151	+0.120			
	7.937							
TP 8			7.850	597.238	+0.087			
	7.638							
TBM REFLECTOR			1.360	603.516	+6.278			
	1.334							
TP 7			8.050	596.800	-6.716			

TP1			596.800		
	2.740				
TP6		5.329	594.211	-2.589	
	2.655				
TP5		4.740	592.126	-2.085	
	4.360	2635			
TP4		4.770	591.716	-0.410	
	4.847	4360			
TP3		5.122	591.441	-0.275	
	6.365	4847			
TP2		5.257	592.549	+1.108	
	7.010				
TP1		4.238	595.321	+2.772	
	4.998				
TBM HYD		1.020	599.299	+3.978	599.30 PG 27

599,30 PG 27

00BREAK00

1) COUNTY: Wayne

2) STUDY NAME: City of Allen Park

3) WATERCOURSE: North Branch Ecorse Creek

4) DOCUMENT TYPE: Russell Diversion

00BREAK00

```
*****************************************************
  HEC2 RELEASE DATED NOV 74 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1RUSSELL ST. RATING CURVE 12  Y1
T2ALLEN PARK F/S HUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NINQ     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       2.       0.       0.  -1.000000    0.00     0.0      0.   596.900    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECN    FN       ALLDC    IBW      CHNIM    ITRACE
     1.000    1.000   -1.000    0.000    0.000    0.000    1.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      1.000    0.100    0.030    0.100    0.300    0.000    0.000    0.000    0.000    0.000
NT      5.000   10.000   50.000  100.000  200.000  300.000  400.000    0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHEMADOOR

X1      1.000    6.100   60.000   91.000    0.000    0.000    0.000    0.000    0.000    0.000
GH    600.000    0.000  596.000   62.000  596.000   91.000  600.000  151.000    0.000    0.000
NC      0.040    0.040    0.016    0.100    0.300    0.000    0.000    0.000    0.000    0.000

X1      2.000    0.000    0.000    0.000  357.000  357.000  357.000    0.000    0.200    0.000

        INTERSECTION OF RUSSELL AND LARME

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
GH      5.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

```
*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        ULOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       GSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED

        RUSSEL ST. DIVERSION OF GOOSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      0.15    596.15    596.15    596.90    596.22      0.07      0.00      0.00    596.00
      10.        0.       10.        0.        0.        5.        0.        0.        0.    596.00
     0.00      0.41      2.15      0.41     0.100     0.030     0.100     0.000    596.00     57.78
 0.024235        0.        0.        0.         0        19         0      0.00     33.43     93.22

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      0.38    596.58      0.00      0.00    596.59      0.01      0.36      0.01    596.20
      10.        0.       10.        0.        1.       11.        1.        0.        0.    596.20
     0.12      0.21      0.04      0.21     0.040     0.016     0.040     0.016    596.20     54.50
 0.000313      357.      357.      357.         0         0         0      0.00     42.00     96.50

*SECNO 3.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        ULOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       GSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3685 20 TRIALS ATTEMPTED RUSSEL CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

        INTERSECTION OF RUSSELL AND LARME

     3.00      0.15    597.35    597.35      0.00    597.42      0.07      0.22      0.02    597.20
      10.        0.       10.        0.        0.        5.        0.        0.        1.    597.20
     0.15      0.54      2.15      0.54     0.040     0.016     0.040     0.016    597.20     57.80
 0.007028      252.      252.      252.        20        14         0      0.00     35.39     93.20

*SECNO 4.000

        INTERSECTION OF RUSSELL AND GOOSE CR.

     4.00      1.75    597.43      0.00      0.00    597.43      0.00      0.00      0.04    595.70
      10.        1.        8.        1.       22.       53.       22.        0.        1.    595.70
     0.67      0.04      0.15      0.04     0.060     0.016     0.060     0.016    595.70     34.42
 0.000001      248.      248.      248.         2         0         0      0.00     82.76    116.88
```

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 10 YR
T2ALLEN PARK F/S HUD 2001-77
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        3.        0.        0.  -1.000000     0.00      0.0       0.    596.930    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= 0.100 CEHV= 0.300
*SECNO 1.000

SECNO	DEPTH	C.SEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV	
A	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	HTA	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IM2	ICONT	CORAR	TOPWID	ENDST	
1.00	0.42	598.42	596.42	596.90	596.62	0.20	0.00	0.00	596.00	
50.	1.	48.	1.	1.	13.	1.	0.	0.	596.00	
0.00	0.69	3.68	0.69	0.100	0.030	0.100	0.000	596.00	53.66	
0.017309	0.	0.	0.	0	10	0	0.00	45.67	97.34	

3720 CRITICAL DEPTH ASSUMED.

RUSSEL ST. DIVERSION OF GORSE CREEK

INTERSECTION OF RUSSELL AND SHENADOAH

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000

2.00	0.93	597.05	0.00	0.00	597.09	0.04	0.46	0.02	596.20
50.	2.	45.	2.	5.	25.	5.	0.	0.	1356.20
0.06	0.43	1.72	0.43	0.040	0.046	0.040	0.010	596.20	47.23
0.000423	357.	357.	357.	5	0	0	0.00	56.55	103.77

*SECNO 3.000

SECNO	DEPTH	C.SEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
A	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	HTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IM2	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED TO BALANCE FLOW
3693 ACCEPTABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPT ASSUMED

INTERSECTION OF RUSSELL AND LARNE

2.00	0.42	597.42	597.42	0.00	597.82	0.20	0.00	0.00	597.20
50.	1.	43.	1.	1.	13.	1.	0.	0.	597.20
0.08	0.95	3.68	0.95	0.060	0.026	0.060	0.010	597.20	93.75
0.005043	252.	252.	252.	20	0	0	0.00	43.51	97.25

*SECNO 4.000

INTERSECTION OF RUSSELL AND CORTLE DR.

4.00	2.15	597.95	0.00	0.00	597.86	0.00	0.01	0.02	595.70
50.	5.	40.	5.	34.	66.	34.	1.	1.	595.70
0.22	0.15	0.60	0.15	0.060	0.046	0.040	0.010	595.70	27.45
0.000315	248.	248.	248.	2	0	0	0.00	93.29	145.15

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*************************************************

T1RUSSELL ST. RATING CURVE 10  YR
T2ALLEN PARK P/S HW1 2001-07
T3      ECORSE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        4.        0.        2. -1.000000      0.00      0.0       0.    596.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHAIN     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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     ZG        HV        HL        ULOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

3720 CRITICAL DEPTH ASSUMED

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      0.66    596.66    596.66    596.90    596.97      0.31      0.00      0.00    596.00
     100.        3.       94.        3.        3.       21.        3.        0.        0.    596.00
     0.00      0.86      4.57      0.86     0.100     0.030     0.100     0.000    596.00     58.03
 0.014701        0.        0.        0.         0        16         0      0.00     52.94    100.97

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      1.21    597.41      0.00      0.00    597.49      0.07      0.49      0.02    596.20
     100.        6.       87.        6.       11.       38.       11.        0.        0.    596.20
     0.05      0.58      2.32      0.58     0.040     0.016     0.040     0.016    596.20     41.40
 0.000481      357.      357.      357.         6         0         0      0.00     57.40    109.20

*SECNO 3.000
   SECNO     DEPTH     CWSE      CRIWS     WSELK     ZG        HV        HL        ULOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

3693 20 CRIWS ATTEMPTED USE WSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

        INTERSECTION OF RUSSELL AND LARME

     3.00      0.66    597.06    597.26      0.00    598.16      0.30      0.27      0.17    597.20
     100.        4.       93.        4.        3.       20.        3.        1.        1.    597.20
     0.00      1.14      4.55      1.14     0.040     0.016     0.040     0.016    597.20     50.13
 0.004196      252.      252.      252.        23        11         0      0.00     50.71    100.65

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      2.50    598.20      0.00      0.00    598.21      0.01      0.03      0.03    595.70
     100.       12.       77.       12.       47.       77.       47.        1.        1.    595.70
     0.15      0.25      0.99      0.25     0.040     0.016     0.040     0.016    595.70     22.54
 0.000034      248.      248.      248.         2         0         0      0.00    105.93    128.46
```

```
**************************************************
  HEC2 RELEASE DATED NOV 76.UPDATED FEB 1977
  ERROR CORR = 01
  MODIFICATION = 50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 50 YR
T2ALLEN PARK E/S HWY 2007-67
T3      ECORSE CREEK ALLEN PARK

J1  ICHECK    INQ       NTW       IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        1.        0.        0. -1.000000      0.00      0.0       0.    590.900    1.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      4.000     3.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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```
*PROF 4

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELPIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      1.03    597.03    597.03    596.90    597.50      0.46      0.00      0.00    596.00
     200.        9.      183.        9.        8.       32.        8.        0.        0.    596.00
     0.00      1.08      5.70      1.08     0.100     0.030     0.100     0.000    596.00     44.50
 0.012694        0.        3.        8.         0         7         0      0.00     62.00    106.50

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      1.73    597.93      0.00      0.00    598.05      0.12      0.52      0.03    596.20
     200.        17.      165.       17.       22.       34.       22.        1.        1.    596.20
     0.04      0.78      3.06      0.78     0.040     0.016     0.040     0.016    596.20     84.05
 0.000532      357.      357.      357.         6         0         0      0.40     32.90    116.95

*SECNO 3.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELPIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3605 20 TRIALS ATTEMPTED WSELECUSES
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

        INTERSECTION OF RUSSELL AND LARNE

     3.00      1.07    598.22    598.22      0.00    598.66      0.46      0.28      0.19    597.20
     200.        11.      178.       11.        3.       32.        3.        1.        1.    597.20
     0.05      1.41      5.60      3.41     0.040     0.016     0.040     0.016    597.20     44.61
 0.003556      252.      252.      252.        20        11         0      0.00     61.64    106.32

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      3.02    598.72      0.00      0.00    598.75      0.08      0.05      0.04    595.70
     200.        27.      146.       27.       69.       54.       69.        2.        2.    595.70
     0.11      0.39      1.56      0.39     0.040     0.016     0.040     0.016    595.70     14.67
 0.000045      248.      248.      248.         2         0         0      0.00    121.67    136.33
```

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 10  YR
T2ALLEN PARK F/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STOT      METRIC    HVINS     Q         WSEL      FQ
       0.        6.        0.        0. -1.000000      0.00       0.0       0.   596.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHMIN     ITRACE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

```
*PROF 5
CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CHSEL     CRIWS     HSELK     EE        HV        NL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WT        ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID      ENDST

$720 CRITICAL DEPTH ASSUMED.

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENANDOAH

      1.00      1.34    597.34    597.34    596.90    597.92      0.58      0.00      0.00    596.00
     300.        16.      267.        16.       13.       42.       13.        0.        0.    596.00
      0.00      1.22      6.44      1.22     0.100     0.030     0.100     0.000    596.60     39.91
 0.011450         3.        3.        0.        0        10         0      0.30     71.17    111.39

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      2.13    598.33      0.00      0.00    598.49      0.16      0.53      0.04    596.20
     300.       371.      238.       91.       34.       66.       34.        1.        1.    596.22
      0.03      0.91      3.62      0.91     0.040     0.010     0.040     0.010    596.20     26.15
 0.002554       357.      357.      357.         3         3         4      1.00     94.76    122.87

*SECNO 3.000
   SECNO     DEPTH     CHSEL     CRIWS     HSELK     EE        HV        NL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WT        ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID      ENDST

3865 PO TRIALS ATTEMPTED .2L.2C.3EL
3893 PROBABLE MINIMUM SPECIFIC ENERGY
3721 CRITICAL DEPTH ASSUMED

        INTERSECTION OF RUSSELL AND LAJME

      3.00      1.31    590.51    590.51      0.00    599.06      0.93      0.00      0.12    597.20
     300.        21.      258.        21.       15.       41.       15.        1.        1.    597.20
      0.04      1.68      6.97      1.68     0.040     0.016     0.040     0.010    557.20     60.85
 0.003280       252.      252.      252.        20        14         0      0.60     73.31    110.65

*SECNO 4.000

2SHM HV CHANNEL CODE 1 FOR MAIN BODY

        INTERSECTION OF RUSSELL AND ECORSE CR.

      4.30      3.43    599.13      3.00      0.00    599.17      5.01      2.08      5.05    599.73
     300.        44.      112.       34.       83.      106.       83.        2.        2.    599.20
      0.09      0.50      1.09      3.56     0.040     0.014     0.040     0.010    599.20      8.96
 0.050000       248.      248.      248.         3         3         4      2.00     53.88    142.44
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 10  YH
T2ALLEN PARK E/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         PSEL      FQ
      0.        7.        0.        0.  -1.000000     0.00      0.0       0.   596.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IEW       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 6

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      1.60    597.60    597.60    596.90    598.27      0.68      0.00      0.00    596.00
     400.       25.      349.       25.       19.       49.       19.        0.        0.    596.00
     0.00      1.33      7.06      1.33     0.100     0.030     0.100     0.000    596.00     36.07
 0.010894        0.        0.        0.         0        13         0      0.00     70.86    194.93

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      2.46    598.66      0.00      0.00    598.86      0.20      0.54      0.05    596.20
     400.       46.      308.       46.       46.       76.       46.        1.        1.    596.20
     0.03      1.01      4.03      1.01     0.040     0.016     0.040     0.016    596.20     23.05
 0.000566      357.      357.      357.         4         [illegible]         0      0.00    104.91    127.95

*SECNO 3.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

3685 23 TRIALS ATTEMPTED WSELKCWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

        INTERSECTION OF RUSSELL AND LARKE

     3.00      1.36    598.75    598.75      0.00    599.40      0.65      0.23      0.13    597.20
     400.       32.      336.       32.       18.       48.       18.        2.        1.    597.20
     0.04      1.74      1.98      1.74     0.040     0.016     0.040     0.016    597.20     36.87
 0.003131      252.      252.      252.        20        14         0      0.00     77.66    114.33

*SECNO 4.000

3501 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.20      4.77    599.47      0.00      0.00    599.51      0.06      0.06      0.06    595.70
     400.       65.      274.       63.       [illegible]       117.      107.       [illegible]    595.70
     0.08      0.59      2.38      0.59     0.040     0.016     0.040     0.016    595.70     3.41
 0.000148      248.      243.      248.         2         [illegible]         0      0.00    144.47    147.39
```

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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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 153

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CUSEL	CRIWS	LG	10K*S	VCH	AREA	.01K
*	1.000	0.00	0.00	0.00	596.00	10.00	596.15	596.15	596.22	242.35	2.15	4.91	0.64
*	1.000	0.00	0.00	0.00	596.00	50.00	596.42	596.42	596.62	173.89	3.60	15.77	3.79
*	1.000	0.00	0.00	0.00	596.00	100.00	596.66	596.66	596.97	147.01	4.57	27.24	8.25
*	1.000	0.00	0.00	0.00	596.00	200.00	597.03	597.03	597.5[illegible]	126.94	5.70	48.06	17.75
*	1.000	0.00	0.00	0.00	596.00	300.00	597.34	597.34	597.92	114.50	6.44	68.41	28.04
*	1.000	0.00	0.00	0.00	596.00	400.00	597.60	597.60	598.27	108.94	7.06	87.64	38.32
	2.000	357.00	0.00	0.00	596.20	10.00	596.58	0.00	596.59	3.13	0.64	13.36	3.65
	2.000	357.00	0.00	0.00	596.20	50.00	597.05	0.00	597.09	4.23	1.72	37.28	24.31
	2.000	357.00	0.00	0.00	596.20	100.00	597.41	0.00	597.49	4.81	2.32	59.70	45.61
	2.000	357.00	0.00	0.00	596.20	200.00	597.93	0.00	598.05	5.30	3.08	98.52	86.90
	2.000	357.00	0.00	0.00	596.20	300.00	598.33	0.00	598.49	5.56	3.62	133.59	127.26
	2.000	357.00	0.00	0.00	596.20	400.00	598.66	0.00	598.86	5.66	4.03	167.41	168.20
*	3.000	252.00	0.00	0.00	597.20	10.00	597.[illegible]	597.33	597.42	70.20	2.16	4.86	1.19
*	3.000	252.00	0.00	0.00	597.20	50.00	597.[illegible]2	597.52	597.82	50.43	3.68	15.54	7.04
*	3.000	252.00	0.00	0.00	597.20	100.00	597.86	597.86	598.16	41.96	4.55	26.84	15.44
*	3.000	252.00	0.00	0.00	597.20	200.00	598.22	598.22	598.66	33.56	5.62	47.52	33.54
*	3.000	252.00	0.00	0.00	597.20	300.00	598.52	598.31	599.06	32.80	6.37	66.37	52.38
*	3.000	252.00	0.00	0.00	597.20	400.00	598.[illegible]	598.[illegible]	599.[illegible]	31.31	6.9[illegible]	84.49	71.48
	4.000	248.00	0.00	0.00	595.70	10.00	597.[illegible]	0.00	597.[illegible]	0.01	0.1[illegible]	96.14	86.67
	4.000	248.00	0.00	0.00	595.70	50.00	597.85	0.00	597.85	0.15	0.60	135.33	129.32
	4.000	248.00	0.00	0.00	595.70	100.00	598.20	0.00	598.21	0.34	0.99	170.99	172.62
	4.000	248.00	0.00	0.00	595.70	200.00	598.72	0.00	598.75	0.65	1.56	230.70	248.82
	4.000	248.00	0.00	0.00	595.70	300.00	599.1[illegible]	0.00	599.17	0.89	1.99	282.73	318.3[illegible]
	4.000	248.00	0.00	0.00	595.70	400.00	599.47	0.00	599.53	1.06	2.34	330.42	384.[illegible]

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.000	10.00	596.15	0.00	0.00	-0.75	35.43	0.00
*	1.000	50.00	596.42	0.00	0.00	-0.48	46.67	0.00
*	1.000	100.00	596.66	0.00	0.00	-0.24	50.96	0.00
*	1.000	205.00	597.03	0.00	0.00	0.13	68.00	0.00
*	1.000	300.00	597.34	0.00	0.00	0.44	71.17	0.00
*	1.000	400.00	597.60	0.00	0.00	0.70	78.86	0.00
	2.000	10.00	596.58	0.00	0.43	0.00	62.00	357.00
	2.000	50.00	597.38	0.00	0.63	0.00	86.75	357.00
	2.000	100.00	597.41	0.00	0.75	0.00	67.48	357.00
	2.000	200.00	597.93	0.00	0.90	0.00	82.90	357.00
	2.000	300.00	598.35	0.00	0.99	0.00	94.74	357.00
	2.000	400.00	598.66	0.00	1.07	0.00	104.91	357.00
*	3.000	10.00	597.15	0.00	0.77	0.00	56.57	252.00
*	3.000	50.00	597.62	0.00	0.57	0.00	61.51	252.00
*	3.000	100.00	597.86	0.00	0.44	0.00	60.71	252.00
*	3.000	200.00	598.22	0.00	0.29	0.00	61.64	252.00
*	3.000	300.00	598.51	0.00	0.19	0.00	70.51	252.00
*	3.000	400.00	598.76	0.00	0.09	0.00	77.00	252.00
	4.000	10.00	597.13	0.00	0.06	0.00	62.26	240.00
	4.000	50.00	597.85	0.00	0.23	0.00	95.29	240.00
	4.000	100.00	598.20	0.00	0.34	0.00	105.93	240.00
	4.000	200.00	598.72	0.00	0.50	0.00	121.07	240.00
	4.000	300.00	599.15	0.00	0.62	0.00	132.14	240.00
	4.000	400.00	599.47	0.00	0.72	0.00	144.17	240.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 5 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 6 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 3.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3.000 PROFILE= 5 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 5 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 5 20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO= 3.000 PROFILE= 6 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 3.000 PROFILE= 6 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 6 20 TRIALS ATTEMPTED TO BALANCE WSEL



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FORM 1411-GO-PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1      ALLEN PARK FIL
T2      STAGE/DISCHARGE RATING CURVE 10  YR
T3      ECORSE RATI IG CURVE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         2.         0.         0.   0.000100     0.00       0.0        3.    596.100     0.000
J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBD        CHNIM      ITRACE
      1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
J5  LPRNT      NOHSEC                          *********REQUESTED SECTION NUMBERS*********
     -10.00     -10.000      0.000      0.000      1.000      2.000      0.000      0.000      0.000      0.000
T     7.000    100.000    300.000    200.000    750.000   1050.000   1350.000   1500.000      3.000      0.000
NC    0.070      0.070      0.030      0.300      0.500      0.000      0.000      0.000      0.000      0.000

        R/S OF J... PARK (SURVEY= 25+00)

X1  1532.000      1.000    115.000    163.000   1561.000    140.000    449.000      3.000      0.000      0.000
GR   510.000      0.000    593.900      0.000    595.500     73.100    594.700     97.000    567.300    113.300
EL   587.400    110.300    587.600    123.000    593.300    142.300    596.300    157.000    599.200    207.300
SA   610.000    207.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X

X1  2132.000      0.000      0.000      0.000    400.000    300.000    350.000      0.000      0.000      0.000
NC    0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

        D/S FACE (SURVEY = 25+45)

X1  2536.000     15.000    164.000    160.000    450.000    375.000    404.000      0.000      0.000      0.000
X3    10.000      0.000      0.000      0.000      0.000      0.000      0.000    593.000    595.300      0.000
GR   611.000      0.000    595.300      0.000    596.700     72.000    596.700    110.300    593.300    117.300
EL   593.100     50.000    593.000    154.300    598.000     95.000    598.300    140.300    599.300    185.000
SA   595.500    195.000    595.500    240.300    595.700    272.000    597.900    278.200    610.000    278.000
SS     0.000      1.300      3.000      0.000     16.000      0.000    140.400      0.000    580.000    588.000

        U/S FACE (SURVEY = 23+40)

X1  2549.000      0.000      0.000      0.000      5.000      5.000      5.300      0.200      0.000      0.000
X3    0.000     50.000      1.000    594.900    595.550      0.000      0.000      0.000      0.000      0.000
GR   10.000      0.000      0.000      0.000      0.000      0.000      0.000    593.300    595.500      0.000
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BT	10.000	117.000	595.300	0.000	161.000	596.300	0.000	161.000	599.000	0.000
BT	164.000	599.000	588.300	164.000	597.000	594.900	180.000	597.000	594.900	180.000
BT	599.000	568.000	183.000	599.000	0.000	183.000	596.300	0.000	240.000	595.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE

X1	2591.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

X = 400' U/S OF FOOTBRIDGE

X1	2941.000	10.000	90.000	102.300	350.000	350.000	350.000	0.000	0.000	0.000
GR	610.000	0.000	595.000	0.300	595.000	50.000	590.000	80.000	587.800	90.000
GR	587.800	102.000	593.000	112.000	593.000	142.000	595.000	167.000	610.000	167.000

U/S FACE AVIE STR (SURVEY# 12+94)

X1	3287.000	8.000	90.000	110.300	346.000	346.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.300	0.300	0.000	595.000	595.000	0.000
GR	610.000	0.000	595.300	0.000	595.000	90.300	553.000	90.000	561.200	110.300
GR	595.000	110.000	595.300	200.000	610.000	200.300	0.000	0.000	0.000	0.000
BT	1.250	1.200	3.700	200.000	15.700	1.300	20.000	0.000	588.200	590.200

D/S FACE KEPPEN ST. (SURVEY= 15+94)

X1	3407.000	0.300	0.000	0.000	200.000	200.000	200.300	0.300	0.000	0.000
X2	0.000	0.100	0.000	50.300	595.500	0.000	0.000	0.300	0.000	0.000
X3	10.000	0.300	0.000	0.300	0.000	0.000	0.000	595.500	595.500	0.000

U/S FACE RUSSELL ST. CULVERTS (SURVEY = 15+55)

X1	3776.000	0.300	90.000	110.300	215.000	200.000	200.300	0.300	0.000	0.000
X3	10.000	0.300	0.000	0.200	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.300	595.000	0.200	595.000	90.000	529.000	90.300	589.000	110.000
GR	595.000	110.300	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
BT	1.250	2.200	7.000	200.000	19.200	1.100	20.000	0.000	589.000	590.000

U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+30)

X1	3843.000	0.300	0.000	0.000	67.000	47.000	47.300	0.000	0.000	0.000
X2	0.000	0.300	1.000	559.900	595.000	0.000	0.000	0.300	0.000	0.000
X3	10.000	0.300	0.000	0.200	0.000	0.000	0.300	595.500	595.000	0.000
BT	0.000	0.000	0.000	0.200	0.000	0.000	0.200	0.000	0.000	0.000

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**************************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************************

T1        ALLEN PARK FIG
T2        STAGE/DISCHARGE RATING CURVE 10  YR
T3        ECORSE RATING CURVE

J1  ICHECK    INO       NINV      IDIR      STRT      METRIC    HVINC     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000      0.00      3.0       0.   596.100     0.000

J2  NPROT     IPLOT     PTFVS     XSECV     XSECH     FX        ALLOC     IAUTO     CHST      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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1        ALLEN PARK FIS
T2        STAGE/DISCHARGE RATING CURVE 16  YR
T3        ECONSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        4.        3.        1.  0.000000      0.30       0.0        3.   593.100     3.000

J2  NPROF     IPLOT     PRFVS     XSELV     XSECH     FN        ALLDC     IMP       CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     3.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 10  YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        3.        0.  0.000000     0.00      0.0       3.   196.100     5.000

J2  NPROF     NPLOT     PRFVS     XSECH     XSELV     FN        ALLDC     IPMP      CMMAN     STHACK

    4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 1L  YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    C        SSEL     FQ

       0.       6.       0.       0.  0.000000     2.00     0.0      0.   598.100    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    ITM      CHNIM    ITRACE

     5.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
 HECR RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1        ALLEN PARK FIS
T2        STAGE/DISCHARGE RATING CURVE 10  YP
T3        ESORSC RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     O         WSEL      FQ
       0.        7.        0.        0.  0.000000      0.00       0.0        0.   596.100     0.000
J2  NPRCE    NPLOT    PREVS     XSEQV     XSECN     [illegible]     ALLOC     IP        CHAIN     ITRACE
     6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED F20 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1ALLEN PARK MIS
T2       STAGE DISCHARGE RATING CURVE 10  YR
T3       ECORSE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FC

       0.        3.        0.        0.  0.000000      1.00      0.3       0.   598.100     0.000

J2  MPROF     IPLOT     PRFVS     XSECH     XSECH     [illegible]     ALLDC     [illegible]     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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HEC2 RELEASE DATED NOV 75 UPDATED DEC 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

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

STCHO	VLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	TIMES	VCH	AREA	KCH
1832.000	1479.00	0.00	0.00	587.40	100.00	596.10	0.00	596.10	0.10	0.67	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	300.00	596.10	0.00	596.14	0.93	2.01	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	500.00	596.10	0.00	596.21	2.59	3.55	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	750.00	596.10	0.00	596.34	6.85	5.05	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	1000.00	596.10	0.00	596.52	10.37	6.71	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	1250.00	596.10	0.00	596.76	16.20	8.36	348.96	310.59
1832.000	1479.00	0.00	0.00	587.40	1500.00	596.10	0.00	597.05	23.32	10.06	348.96	310.59
2132.000	350.00	0.00	0.00	587.60	100.00	596.10	0.00	596.11	0.72	0.70	318.44	291.29
2132.000	350.00	0.00	0.00	587.60	300.00	596.15	0.00	596.17	1.06	2.09	322.54	294.55
2132.000	350.00	0.00	0.00	587.60	500.00	596.19	0.00	596.24	2.70	3.44	331.93	299.96
2132.000	350.00	0.00	0.00	587.60	750.00	596.30	0.00	596.54	5.82	5.02	349.61	311.00
2132.000	350.00	0.00	0.00	587.60	1000.00	596.49	0.00	596.87	9.16	6.46	378.53	330.00
2132.000	350.00	0.00	0.00	587.60	1250.00	596.76	0.00	597.26	12.00	7.47	422.69	360.92
2132.000	350.00	0.00	0.00	587.60	1500.00	597.[illegible]	0.00	597.[illegible]	15.00	8.18	468.26	387.[illegible]
2336.000	404.00	0.00	0.00	588.00	100.00	596.[illegible]	0.00	596.[illegible]	0.[illegible]	0.[illegible]	324.29	344.[illegible]
2336.000	404.00	0.00	0.00	588.00	300.00	596.[illegible]	0.00	596.21	0.75	1.71	377.96	351.86
2336.000	404.00	0.00	0.00	588.00	500.00	596.31	0.00	596.[illegible]	1.84	2.75	405.30	368.75
2336.000	404.00	0.00	0.00	588.00	750.00	596.54	0.00	596.74	3.41	3.53	467.09	405.97
2336.000	404.00	0.00	0.00	588.00	1000.00	596.[illegible]	0.00	596.[illegible]	5.[illegible]	4.59	503.16	435.47
2336.000	404.00	0.00	0.00	588.00	1250.00	597.[illegible]	0.00	597.04	6.[illegible]	5.02	648.16	519.95
2336.000	404.00	0.00	0.00	588.00	1500.00	597.[illegible]	0.00	597.[illegible]	8.[illegible]	5.25	824.06	651.35
2541.000	5.00	595.30	594.90	585.00	100.00	596.12	0.00	596.12	0.[illegible]	0.50	367.70	345.89
2541.000	5.00	595.30	594.90	585.00	300.00	596.26	0.00	596.27	0.69	1.36	396.70	360.60
2541.000	5.00	595.30	594.90	585.00	500.00	596.[illegible]	0.00	596.53	1.86	2.35	435.60	388.50
2541.000	5.00	595.30	594.90	585.00	750.00	596.[illegible]	0.00	596.92	3.53	3.51	520.39	438.19
2541.000	5.00	595.30	594.90	585.00	1000.00	597.[illegible]	0.00	597.37	5.69	4.23	636.86	507.00
2541.000	5.00	595.30	594.90	585.00	1250.00	597.65	0.00	597.84	4.38	4.70	754.07	597.20
2541.000	5.00	595.30	594.90	585.00	1500.00	598.12	0.00	598.33	4.50	4.92	889.92	706.75
2591.000	50.00	0.00	0.00	588.00	100.00	596.12	0.00	596.12	0.08	0.53	497.00	345.66
2591.000	50.00	0.00	0.00	588.00	300.00	596.21	0.00	596.26	0.69	1.60	395.55	361.10
2591.000	50.00	0.00	0.00	588.00	500.00	596.[illegible]	0.00	596.[illegible]	1.65	2.64	470.79	389.66
2591.000	50.00	0.00	0.00	588.00	750.00	596.81	0.00	596.96	2.90	3.59	524.64	440.73
2591.000	50.00	0.00	0.00	588.00	1000.00	597.21	0.00	597.39	3.83	4.26	634.50	510.64
2591.000	50.00	0.00	0.00	588.00	1250.00	597.66	0.00	597.86	4.31	4.67	760.29	601.96
2591.000	50.00	0.00	0.00	588.00	1500.00	598.15	0.00	598.36	4.64	4.89	894.56	712.18

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	SECNO	XLCH	ELTRO	ELLC	ELMIN	Q	CNSEL	CRIUS	EG	10K*S	VCM	AREA	.01K
	2941.000	350.00	0.00	0.00	587.80	100.00	596.12	0.00	596.13	0.04	0.38	680.74	533.57
1	2941.000	350.00	0.00	0.00	587.80	500.00	596.29	0.00	596.30	0.28	1.10	769.20	562.20
2	2941.000	350.00	0.00	0.00	587.80	500.00	596.57	0.00	596.59	0.67	1.72	756.23	611.69
3	2941.000	350.00	0.00	0.00	587.80	750.00	597.00	0.00	597.04	1.16	2.36	827.60	690.36
10	2941.000	350.00	0.00	0.00	587.80	1000.00	597.76	0.00	597.51	1.65	2.68	903.97	779.32
5	2941.000	350.00	0.00	0.00	587.80	1250.00	597.94	0.00	598.00	2.03	3.31	983.84	877.40
6	2941.000	350.00	0.00	0.00	587.80	1500.00	598.47	0.00	598.50	2.33	3.66	1065.18	982.37
7													
8	3287.000	346.00	0.00	0.00	588.20	100.00	596.13	0.00	596.13	0.21	0.60	332.79	220.26
9	3287.000	346.00	0.00	0.00	588.20	300.00	596.55	0.00	596.33	1.35	1.69	330.23	241.16
10	3287.000	346.00	0.00	0.00	588.20	500.00	596.59	0.00	596.66	3.24	2.51	425.85	277.90
11	3287.000	346.00	0.00	0.00	588.20	750.00	597.04	0.00	597.14	4.63	3.20	515.35	341.36
12	3287.000	346.00	0.00	0.00	588.20	1000.00	597.52	0.00	597.64	5.75	3.65	610.91	417.07
13	3287.000	346.00	0.00	0.00	588.20	1250.00	598.01	0.00	598.15	6.19	3.93	710.22	503.87
14	3287.000	346.00	0.00	0.00	588.20	1500.00	598.52	0.00	598.66	6.29	4.15	810.52	599.55
15													
16	3487.000	200.00	595.50	593.50	588.20	100.00	596.14	0.00	596.14	0.25	0.60	335.66	221.95
17	3487.000	200.00	595.50	593.50	588.20	300.00	596.32	0.00	596.35	1.52	1.68	371.65	245.26
18	3487.000	200.00	595.50	593.50	588.20	500.00	596.61	0.00	596.68	3.13	2.50	429.36	280.25
19	3487.000	200.00	595.50	593.50	588.20	750.00	597.05	0.00	597.15	4.70	3.19	517.50	342.97
20	3487.000	200.00	595.50	593.50	588.20	1000.00	597.55	0.00	597.65	5.69	3.83	615.35	419.11
21	3487.000	200.00	595.50	593.50	588.20	1250.00	598.11	0.00	598.17	6.07	3.91	713.93	507.81
22	3487.000	200.00	595.50	593.50	588.20	1500.00	598.54	0.00	598.68	5.15	4.10	816.05	604.82
23													
24	3776.000	289.00	0.00	0.00	589.00	100.00	596.14	0.00	596.15	0.16	0.55	355.32	248.57
25	3776.000	289.00	0.00	0.00	589.00	300.00	596.37	0.00	596.39	1.19	1.51	397.90	275.55
26	3776.000	289.00	0.00	0.00	589.00	500.00	596.71	0.00	596.76	2.45	2.25	465.26	319.65
27	3776.000	289.00	0.00	0.00	589.00	750.00	597.18	0.00	597.25	3.64	2.85	562.64	394.21
28	3776.000	289.00	0.00	0.00	589.00	1000.00	597.70	0.00	597.09	4.45	3.26	663.67	474.17
29	3776.000	289.00	0.00	0.00	589.00	1250.00	598.22	0.00	598.33	4.86	3.54	766.60	567.14
30	3776.000	289.00	0.00	0.00	589.00	1500.00	598.73	0.00	598.85	5.05	3.76	869.16	667.70
31													
32	3843.000	67.00	596.00	594.90	589.00	100.00	596.13	0.00	596.14	0.19	0.54	358.69	251.69
33	3843.000	67.00	596.00	594.90	589.00	300.00	596.34	0.00	596.40	1.17	1.47	413.08	289.92
34	3843.000	67.00	596.00	594.90	589.00	500.00	596.69	0.00	596.84	2.27	2.16	482.76	341.86
35	3843.000	67.00	596.00	594.90	589.00	750.00	597.20	0.00	597.34	3.43	2.79	576.31	409.93
36	3843.000	67.00	596.00	594.90	589.00	1000.00	597.73	0.00	597.85	4.27	3.21	674.95	483.95
37	3843.000	67.00	596.00	594.90	589.00	1250.00	598.27	0.00	598.38	4.69	3.48	778.96	575.60
38	3843.000	67.00	596.00	594.90	589.00	1500.00	598.78	0.00	598.90	4.84	3.66	882.36	681.66
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ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	[illegible]	CMSEL	DIFMSE	DIFMSX	DIFKMS	TOPWID	XLCH
1832.000	100.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	300.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	500.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	750.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	1000.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	1250.00	596.10	0.00	0.00	0.00	156.00	1479.00
1832.000	1500.00	596.10	0.00	0.00	0.00	156.00	1479.00
2132.000	100.00	596.10	0.00	0.00	0.00	[illegible]	350.00
2132.000	300.00	596.15	0.00	0.03	0.00	[illegible]	350.00
2132.000	500.00	596.19	0.00	0.09	0.00	[illegible]	350.00
2132.000	750.00	596.30	0.00	0.20	0.00	156.02	350.00
2132.000	1000.00	596.49	0.00	0.39	0.00	156.95	350.00
2132.000	1250.00	596.76	0.00	0.66	0.00	156.96	350.00
2132.000	1500.00	[illegible]	0.00	1.04	0.00	[illegible]	350.00
2536.000	100.00	[illegible]	0.00	0.00	0.00	[illegible]	404.00
2536.000	300.00	596.18	0.00	0.04	0.00	208.87	404.00
2536.000	500.00	596.31	0.00	0.12	0.00	215.91	404.00
2536.000	750.00	596.58	0.00	0.20	0.00	230.23	404.00
2536.000	1000.00	596.93	0.00	0.46	0.00	[illegible]	404.00
2536.000	1250.00	597.40	0.00	0.64	0.00	[illegible]	404.00
2536.000	1500.00	[illegible]	0.00	0.74	0.00	277.96	404.00
2541.000	100.00	596.12	0.00	0.01	0.00	206.27	5.00
2541.000	300.00	596.24	0.00	0.07	0.00	212.56	5.00
2541.000	500.00	[illegible]	0.00	0.14	0.00	[illegible]	5.00
2541.000	750.00	596.79	0.00	0.21	0.00	[illegible]	5.00
2541.000	1000.00	[illegible]	0.00	[illegible]	0.00	[illegible]	5.00
2541.000	1250.00	597.65	0.00	0.23	0.00	277.28	5.00
2541.000	1500.00	598.12	0.00	0.25	0.00	278.00	5.00
2591.000	100.00	[illegible]	0.00	0.00	0.00	[illegible]	50.00
2591.000	300.00	[illegible]	0.00	0.00	0.00	[illegible]	50.00
2591.000	500.00	[illegible]	0.00	0.01	0.00	[illegible]	50.00
2591.000	750.00	[illegible]	0.00	0.02	0.00	275.04	50.00
2591.000	1000.00	597.29	0.00	0.02	0.00	276.10	50.00
2591.000	1250.00	597.66	0.00	0.03	0.00	277.34	50.00
2591.000	1500.00	[illegible]	0.00	0.03	0.00	[illegible]	50.00
2941.000	100.00	[illegible]	0.00	0.01	0.00	167.00	350.00
2941.000	300.00	596.29	0.00	0.05	0.00	167.00	350.00
2941.000	500.00	596.57	0.00	0.11	0.00	167.00	350.00
2941.000	750.00	597.00	0.00	0.19	0.00	167.00	350.00
2941.000	1000.00	[illegible]	0.00	0.25	0.00	167.00	350.00
2941.000	1250.00	[illegible]	0.00	0.33	0.00	167.00	350.00
2941.000	1500.00	[illegible]	0.00	0.37	0.00	167.00	350.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3287.000	100.00	596.13	0.00	0.00	0.00	230.00	346.00
3287.000	300.00	596.30	0.00	0.01	0.00	230.00	346.00
3287.000	500.00	596.59	0.00	0.02	0.00	230.00	346.00
3287.000	750.00	597.04	0.00	0.04	0.00	230.00	346.00
3287.000	1000.00	597.52	0.00	0.06	0.00	230.00	346.00
3287.000	1250.00	598.01	0.00	0.08	0.00	200.00	346.00
3287.000	1500.00	598.52	0.00	0.09	0.00	200.00	346.00
3487.000	100.00	596.14	0.00	0.01	0.00	200.00	200.00
3487.000	300.00	596.33	0.00	0.02	0.00	200.00	200.00
3487.000	500.00	596.61	0.00	0.02	0.00	200.00	200.00
3487.000	750.00	597.05	0.00	0.01	0.00	200.00	200.00
3487.000	1000.00	597.53	0.00	0.01	0.00	200.00	200.00
3487.000	1250.00	598.04	0.00	0.02	0.00	200.00	200.00
3487.000	1500.00	598.54	0.00	0.03	0.00	200.00	200.00
3776.000	100.00	596.14	0.00	0.01	0.00	200.00	269.00
3776.000	300.00	596.37	0.00	0.05	0.00	200.00	269.00
3776.000	500.00	596.71	0.00	0.10	0.00	200.00	269.00
3776.000	750.00	597.30	0.00	0.15	0.00	200.00	269.00
3776.000	1000.00	597.70	0.00	0.17	0.00	200.00	269.00
3776.000	1250.00	598.22	0.00	0.19	0.00	200.00	269.00
3776.000	1500.00	598.73	0.00	0.19	0.00	200.00	269.00
3843.000	100.00	596.17	0.00	0.02	0.00	200.00	67.00
3843.000	300.00	596.44	0.00	0.07	0.00	200.00	67.00
3843.000	500.00	596.79	0.00	0.06	0.00	200.00	67.00
3843.000	750.00	597.26	0.00	0.06	0.00	200.00	67.00
3843.000	1000.00	597.75	0.00	0.05	0.00	200.00	67.00
3843.000	1250.00	598.27	0.00	0.05	0.00	200.00	67.00
3843.000	1500.00	598.79	0.00	0.06	0.00	200.00	67.00

SUMMARY OF ERRORS

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1RUSSELL ST. RATING CURVE 50  YR
T2ALLEN PARK F/S HUD 2001-02
T3       ECORSE CREEK ALLEN PARK

J1  ICHECK    IOM      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       2.       0.       0.  0.000002     0.00     0.0       1.  593.740   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
      1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      0.100    0.100    0.030    0.100    0.300    0.000    0.000    0.000    0.000    0.000
QT      0.000   10.000   10.000  100.000  200.000  300.000  400.000    0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND BRENADDAH

X1      1.000    4.000   60.000   71.000    0.000    0.000    0.000    0.000    0.000    0.000
GR    [illegible]  0.000  [illegible]  [illegible]  395.000  [illegible]  [illegible]  [illegible]  0.000  0.000
NC      0.040    0.040    0.010    0.100    0.300    0.000    0.000    0.000    0.000    0.000

X1      2.000    0.000    0.000    1.000  357.000  [illegible]  357.000    0.000    0.200    0.000

        INTERSECTION OF RUSSELL AND LARKE

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
EL      0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIUS     USELK     EG        FV        HL        ULOSS    BANK ELEV
   G         QLOB      QCH       QROB      ALOB      ACH       AROB      VO.       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       UTA       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      2.74    598.74      0.00    598.74    598.74      0.00      0.00      0.00    596.00
      10.        1.        0.        1.       56.       85.       56.        [illegible]        [illegible]    596.00
     0.00      0.02      0.09      0.02     0.100     0.030     0.100     0.000    596.00     18.90
 0.000001        0.        0.        0.         0         0         0      0.00    115.20    132.10

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      2.54    598.74      0.00      0.00    598.74      0.00      0.00      0.00    596.20
      10.        1.        8.        1.       48.       79.       48.        2.        1.    596.20
     1.24      0.02      0.10      0.02     0.040     0.016     0.040     0.016    596.20     21.90
 0.000002      337.      337.      337.         0         0         0      0.00    101.21    129.10

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

     3.00      1.54    598.74      0.00      0.00    598.74      0.00      0.00      0.00    597.20
      10.        1.        0.        1.       10.       66.       10.        2.        1.    597.20
     1.69      0.04      0.10      0.04     0.040     0.016     0.040     0.016    597.20     36.89
 0.000002      232.      252.      252.         0         0         0      0.00     77.22    116.11

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      3.04    598.74      0.00      0.00    598.74      0.00      0.00      0.00    593.70
      10.        [illegible]        7.        1.       69.       96.       69.        [illegible]        2.    593.70
     2.01      0.04      0.06      0.02     0.040     0.016     0.040     0.016    595.70     14.40
 0.000000      240.      248.      240.         0         0         0      0.00    122.21    135.60
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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 50  75
T2ALLEN PARK F/S HLD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   NVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.000000     0.00      0.       0.   591.740   0.000

J2  NPROF    IPLOT    PRTUS    XSEQV    XSEQF    FQ       ALLOC    XNM      CRMIN    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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CUSEL     CHEWS     USELK     ES        HV        HL        CLOSS     BANK ELEV
   C         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TUAN      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IR2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECCASE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      2.74    598.74      0.00    598.74    598.74      0.00      0.00      0.00    596.00
       50.        5.       40.        5.       36.       85.       58.        0.        0.    596.00
      0.00      0.09      0.47      0.09     0.100     0.030     0.100     0.000    596.00     18.90
  0.000024        0.        0.        0.         0         0         0      0.00    113.20    132.10

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      2.34    598.74      0.00      0.00    598.75      0.00      0.00      0.00    596.20
       50.        6.       38.        6.       49.       79.       49.        2.        1.    596.20
      0.25      0.12      0.48      0.12     0.040     0.016     0.040     0.016    596.20     21.77
  0.000004      357.      357.      357.         0         0         0      0.00    107.45    129.23

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARNE

      3.00      1.34    598.74      0.00      0.00    598.75      0.00      0.00      0.00    597.20
       30.        4.       40.        4.        0.       46.        1.        4.        1.    597.20
      0.34      0.22      0.80      0.22     0.040     0.016     0.040     0.016    597.20     36.78
  0.000050      252.      252.      252.         0         0         0      0.00     77.64    114.22

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECCASE CR.

      4.00      3.03    598.75      0.00      0.00    598.76      0.00      0.00      0.00    595.70
       50.        7.       33.        7.       70.       95.       70.        4.        2.    595.70
      0.56      0.10      0.33      0.10     0.040     0.016     0.040     0.016    595.70     14.25
  0.000004      248.      248.      248.         0         0         0      0.00    122.51    136.75
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 50 YR
T2ALLEN PARK F/S NUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FG

       0.        7.        0.        0.  0.000000     0.00      0.0       0.   398.740     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECV     FN        ALLDC     IPMP      ORMIN     IDAC2

      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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CSSEL     CFINS     JSELK     ES        HV        HL        JLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       UTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      2.74    598.74      0.00    598.74    598.75      0.09      0.02      0.00    596.00
      100.       10.       80.       10.       56.       65.       54.        0.        0.    596.00
      0.00      0.18      0.94      0.18     0.100     0.030     0.100     0.000    596.00     16.90
  0.000094        0.        0.        0.         0         0         0      0.00    113.20    132.10

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      2.56    598.76      0.00      0.00    598.77      0.01      0.02      0.00    596.20
      100.       12.       76.       12.       49.       80.       49.        2.        1.    596.20
      0.13      0.24      0.96      0.24     0.040     0.016     0.040     0.016    596.20     21.31
  0.000030      357.      357.      357.         1         0         0      0.00    107.90    129.49

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARNE

      3.00      1.55    598.75      0.00      0.00    598.77      0.04      0.02      0.01    597.20
      100.        3.       84.        4.       10.       43.       14.        2.        1.    597.20
      0.17      0.44      1.75      0.44     0.040     0.016     0.040     0.016    597.20     36.70
  0.000197      252.      252.      252.         2         0         0      0.00     77.60    114.50

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

      4.00      3.90    598.80      0.00      0.00    598.81      0.01      0.01      0.00    595.70
      100.       14.       73.       14.       72.       90.       72.        3.        2.    595.70
      0.29      0.19      0.74      0.19     0.040     0.016     0.040     0.016    595.70     13.83
  0.000015      242.      240.      243.                   0         0      0.00    125.20    137.35
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 50  YR
T2ALLEN PARK #/S HEC 2301-57
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NONV     IDIR     STRT     METRIC   NVINS    Q        XSEL     FQ
      0.       5.       0.       0.  0.000001     0.00     0.0      .   398.740   0.000

J2  NPROF    IPLOT    PRINT    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
     4.000    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= 0.100 CEHV= 0.300

*SECNO 1.000

SECNO	DEPTH	CWSEL	CRITS	WSELS	EG	HV	HL	XLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	YDA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

RUSSEL ST. DIVERSION OF ECORSE CREEK

INTERSECTION OF RUSSELL AND SHENADOAH

1.00	2.74	598.74	0.00	598.74	598.78	0.04	0.05	0.00	596.00
200.	20.	160.	20.	56.	65.	56.	0.	0.	596.00
0.00	0.35	1.86	0.36	0.100	0.030	0.100	0.300	596.00	16.90
0.000377	0.	0.	0.	0	0	0	0.00	113.20	132.10

CCHV= 0.100 CEHV= 0.300

*SEC.0 2.000

2.00	2.61	598.01	0.00	0.00	598.85	0.04	0.07	0.00	596.20
200.	24.	152.	24.	51.	61.	51.	2.	1.	596.20
0.06	0.47	1.88	0.47	0.040	0.016	0.040	0.016	596.20	20.35
0.001114	357.	357.	357.	2	0	0	0.00	109.30	130.15

*SECNO 3.000

INTERSECTION OF RUSSELL AND LARME

3.00	3.37	598.96	0.00	0.00	598.94	0.15	0.04	0.00	597.20
200.	30.	131.	1.	15.	20.	29.	2.	1.	597.20
0.39	0.63	3.39	0.35	0.040	0.016	0.040	0.016	597.20	36.11
0.000718	252.	252.	252.	2	0	0	0.00	70.78	116.89

*SECNO 4.000

INTERSECTION OF RUSSELL AND ECORSE CT.

4.00	3.26	598.96	0.00	0.00	598.99	0.02	0.03	0.01	595.70
200.	20.	141.	20.	30.	101.	52.	4.	1.	595.70
0.15	0.34	1.41	0.46	0.040	0.016	0.040	0.016	595.70	11.04
0.000048	240.	241.	240.	2	0	0	0.00	122.91	149.96

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 50 T1
T2ALLEN PARK F/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIP      STRT      METRIC    HVINS     S         WSEL      FQ

       0.        0.        0.        0.  0.000000      0.00      0.0       0.   598.740    0.000

J2  NPROF     IPLOT     PRFVS     XSEQV     XSECH     FN        ALLOW     [illegible]     CHAIN     ITRACE

      5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 5

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
  SECNO     DEPTH     CNSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TEA     LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       NTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IP2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      2.74    598.74      0.00    598.74    598.84      0.10      0.00      0.00    595.00
     300.       30.      240.       30.       56.       55.       56.        0.        0.    596.00
     0.00      0.53      2.83      0.53     0.100     0.030     0.100     0.000    596.00     18.90
 0.000848        0.        0.        0.         0         0         0      0.00    113.20    132.10

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      2.69    598.89      0.00      0.00    598.98      0.09      0.14      0.00    596.20
     300.       37.      226.       37.       54.       34.       54.        2.        1.    596.20
     0.04      0.68      2.70      0.68     0.040     0.016     0.040     0.016    596.20     19.56
 0.000224      357.      357.      357.         2         0         0      0.00    113.24    131.42

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

     3.00      1.66    598.86      0.00      0.00    598.16      0.01      0.03      0.07    597.20
     300.       35.      250.       25.       31.       31.       31.        2.        1.    597.20
     0.05      1.22      4.85      1.22     0.040     0.016     0.040     0.016    597.23     35.10
 0.001387      232.      252.      252.         2         0         0      0.00     80.00    115.90

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      3.50    599.20      0.00      0.00    599.24      0.06      0.03      0.03    595.70
     300.       45.      210.       48.       96.      109.       92.        4.        2.    595.70
     0.19      0.49      1.94      0.49     0.040     0.016     0.040     0.016    595.70      7.50
 0.002082      240.      240.      240.         2         0         0      0.00    136.07    245.50
```

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE - 01
  MODIFICATION - 50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 50  VP
T2ALLEN PARK F/S HUD 2007-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

       0.       7.       0.       0.  0.000000     0.00     0.0       0.  590.740    0.000

J2  NPROF    IPLOT    PRFMS    XSECH    XSECH    FN       ALLDC    [illegible]    CHNIM    ITRACE

     15.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

```
*PROF 6

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIHS     HSELK     EG        HV        HL        CLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TMA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      2.74    598.74      0.00    598.74    598.92      0.16      0.00      0.00    596.30
     400.       40.      320.       40.       56.       85.       56.        0.        0.    596.00
     0.00      0.71      3.77      0.71     0.100     0.030     0.100     0.000    596.00     18.90
 0.001508        0.        0.        0.         0         0         0      0.00    113.20    132.10

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      2.31    599.01      0.00      0.00    599.15      0.14      0.22      0.00    596.20
     400.       51.      298.       51.       59.       87.       59.        2.        1.    596.20
     0.04      0.86      3.43      0.86     0.040     0.016     0.040     0.016    596.20     17.89
 0.000343      357.      357.      357.         2         0         0      0.00    115.23    133.11

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

     3.00      1.74    598.94      0.00      0.00    599.43      0.49      0.17      0.10    597.20
     400.       33.      [illegible]       35.       [illegible]       [illegible]        3.        2.    597.20
     0.05      1.56      6.92      1.54     0.040     0.016     0.040     0.016    597.20     33.09
 0.002070      232.      252.      252.         3         0         0      0.00     83.25    117.11

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      3.78    599.48      0.00      0.00    599.54      0.06      0.07      0.06    595.70
     400.       63.      274.       63.      107.      117.      107.        4.        2.    595.70
     0.09      3.59      2.34      0.59     0.040     0.036     0.040     0.016    595.70      3.33
 0.000103      240.      240.      240.         2         0         0      0.00    146.55    142.67
```

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NBCP RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORP - 01
MODIFICATION - 50,51,52

****

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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLOC	[illegible]	[illegible]	ELMIN	Q	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	AREA	[illegible]
1.000	0.00	0.00	0.00	596.00	10.00	598.74	0.00	598.74	0.01	0.09	197.55	103.00
1.000	0.00	0.00	0.00	596.00	50.00	598.74	0.00	598.74	0.24	0.47	197.55	103.00
1.000	0.00	0.00	0.00	596.00	100.00	598.74	0.00	598.75	0.94	0.74	197.55	103.00
1.000	0.00	0.00	0.00	596.00	200.00	598.74	0.00	598.78	3.77	1.00	197.55	103.00
1.000	0.00	0.00	0.00	596.00	300.00	598.74	0.00	598.84	8.48	2.00	197.55	103.00
1.000	0.00	0.00	0.00	596.00	400.00	598.74	0.00	598.92	15.08	3.77	197.55	103.00
2.000	357.00	0.00	0.00	596.20	10.00	598.74	0.00	598.74	0.00	0.10	173.54	178.28
2.000	357.00	0.00	0.00	596.20	50.00	598.74	0.00	598.75	0.06	0.48	176.41	179.36
2.000	357.00	0.00	0.00	596.20	100.00	598.74	0.00	598.77	0.30	0.96	178.31	181.72
2.000	357.00	0.00	0.00	596.20	200.00	598.81	0.00	598.85	1.14	1.84	183.08	187.70
2.000	357.00	0.00	0.00	596.20	300.00	598.89	0.00	598.98	2.26	2.70	192.44	199.51
2.000	357.00	0.00	0.00	596.20	400.00	599.01	0.00	599.15	3.43	3.43	205.28	215.67
3.000	252.00	0.00	0.00	597.20	10.00	598.74	0.00	598.74	0.02	0.18	83.33	70.20
3.000	252.00	0.00	0.00	597.20	50.00	598.74	0.00	598.75	0.50	0.83	85.94	70.89
3.000	252.00	0.00	0.00	597.20	100.00	598.79	0.00	598.79	1.97	1.75	84.33	71.32
3.000	252.00	0.00	0.00	597.20	200.00	598.79	0.00	598.94	7.18	3.59	87.41	74.65
3.000	252.00	0.00	0.00	597.20	300.00	598.86	0.00	599.16	13.87	4.85	92.81	80.56
3.000	252.00	0.00	0.00	597.20	400.00	598.94	0.00	599.43	23.70	6.12	99.43	87.92
4.000	248.00	0.00	0.00	595.70	10.00	598.74	0.00	598.74	0.00	0.01	232.90	251.71
4.000	248.00	0.00	0.00	595.70	50.00	598.74	0.00	598.76	0.04	0.39	237.12	253.32
4.000	248.00	0.00	0.00	595.70	100.00	598.80	0.00	598.81	0.15	0.76	239.02	259.76
4.000	248.00	0.00	0.00	595.70	200.00	598.93	0.00	598.99	0.45	1.41	260.95	288.91
4.000	248.00	0.00	0.00	595.70	300.00	599.20	0.00	599.24	0.82	1.94	292.20	331.34
4.000	248.00	0.00	0.00	595.70	400.00	599.61	0.00	599.54	1.04	2.36	331.26	385.30

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS
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ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 152

SECNO	Q	CHSEL	DEPUSP	DEPMSX	DEPKWS	TOPWID	XLOB
1.000	10.00	598.74	0.00	0.00	0.00	113.20	0.00
1.000	50.00	598.74	0.00	0.00	0.00	113.20	0.00
1.000	100.00	598.74	0.00	0.00	0.00	113.20	0.00
1.000	200.00	598.73	0.00	0.00	0.00	113.20	0.00
1.000	300.00	598.74	0.00	0.00	0.00	113.20	0.00
1.000	400.00	598.74	0.00	0.00	0.00	113.20	0.00
2.000	10.00	598.74	0.00	0.00	0.00	107.21	357.00
2.000	50.00	598.74	0.00	0.00	0.00	107.65	357.00
2.000	100.00	598.76	0.00	0.02	0.00	107.96	357.00
2.000	200.00	598.81	0.00	0.07	0.00	108.52	357.00
2.000	300.00	598.89	0.00	0.15	0.00	111.84	357.00
2.000	400.00	599.01	0.00	0.27	0.00	115.25	357.00
3.000	10.00	598.74	0.00	-0.00	0.00	77.23	252.00
3.000	50.00	598.74	0.00	-0.00	0.00	77.44	252.00
3.000	100.00	598.75	0.00	-0.00	0.00	77.71	252.00
3.000	200.00	598.79	0.00	-0.02	0.00	78.74	252.00
3.000	300.00	598.86	0.00	-0.04	0.00	80.83	252.00
3.000	400.00	598.94	0.00	-0.07	0.00	83.23	252.00
4.000	10.00	598.74	0.00	0.00	0.00	122.21	246.00
4.000	50.00	598.75	0.00	0.01	0.00	122.52	246.00
4.000	100.00	598.80	0.00	0.06	0.00	123.70	246.00
4.000	200.00	598.96	0.00	0.17	0.00	128.91	246.00
4.000	300.00	599.20	0.00	0.34	0.00	136.01	246.00
4.000	400.00	599.48	0.01	0.56	0.00	145.28	246.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
   ERROR CODE -  01
   MODIFICATION -  50,51,52
**************************************************

C
T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 53  Y3
T3      ECORSE RATING CURVE

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    NVIAS     Q         HSEL      FQ
        0.        0.        0.        0.  0.030000     0.20      0.0       0.     593.760     0.005

J2  NPROF.     IPLOT     PRFVS     XSECV     XSECN     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 COMPUTATIONAL PRINTOUT
    150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J5  IPRNT     PUNSEC                    ********REQUESTED SECTION LABELS*********
    -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ST    7.900   100.000   329.300   500.000   730.000  1000.300  1253.020  1302.020     0.000     0.000
NC    0.070     0.070     0.030     0.300     0.500     0.300     0.050     0.000     0.000     0.030

       L/S 3, 1,2,3 PART (SURVEY= 33+30)

    1032.000     1.000   123.300   123.000   130.000   130.000   133.670     0.000     0.000     0.000
GR    610.000     0.000   595.300     0.000   595.300    75.300   594.730    97.000   507.500   213.000
GR    587.600   118.000   537.300   123.000   593.300   142.000   596.320   157.000   598.250   207.000
GR    612.000   207.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
C     0.050     0.000     0.300     0.100     0.300     0.030     0.071     0.000     0.000     0.000

X

X1   2162.000     0.000     0.000     0.000   400.000   330.000   353.000     0.000     0.200     0.000
X2      0.000     0.000     0.300     0.300     0.300     0.030     0.000     0.000     0.000     0.000

       D/S FACE (SURVEY = 25+45)

X1   2536.000    15.000   164.000   100.000   450.000   375.000   404.000     0.000     0.000     0.000
X2     10.000     0.000     0.300     0.000     0.300     0.000     0.000   375.000   375.000     0.000
X3    616.000     0.300    59.300     0.000   396.700    75.000   394.700   415.000   595.300   213.000
X4    593.170   154.300   390.000   100.000   580.300   154.000   596.000   591.000   191.000   191.000
GR    595.500   190.000   595.300   240.000   595.700   278.000   597.900   275.000   511.000   278.000
GR      0.000     1.300     3.000     0.000    16.000     0.000   113.600     0.000   568.000   568.000

       U/S FACE (SURVEY = 25+45)

X1   2541.300     0.000     0.000     0.000     3.000     3.000     3.000     0.000     3.000     0.000
X2      0.000     0.000     1.000   594.000   595.900     0.000     3.000     0.000     2.000     2.000
X3      0.300     3.000     3.000     0.200     0.000     0.000     3.000   595.300   595.300     0.000
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BT	10.000	117.000	595.300	0.000	161.000	596.300	0.000	161.000	599.000	0.000
BT	164.000	599.000	588.000	164.000	597.000	594.900	180.000	597.000	594.900	180.000
BT	599.000	588.000	183.000	599.000	0.000	183.000	596.300	0.000	240.000	595.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

50' U/S OF FOOTBRIDGE

X1	2591.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

X - 400' U/S OF FOOTBRIDGE

X1	2941.000	10.000	90.000	102.300	350.000	350.000	350.000	0.000	0.000	0.000
GR	610.000	0.000	595.000	0.000	593.000	50.000	590.000	30.000	587.800	90.000
GR	587.800	102.000	590.000	112.000	593.000	142.000	595.000	167.000	610.000	167.000

D/S FACE LAVIE ST. CULVERTS (SURVEY = 17+94)

X1	3287.000	5.000	90.000	110.000	346.000	346.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.000	595.000	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	589.200	90.000	588.200	100.000
GR	595.000	110.000	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
GR	1.250	0.000	0.000	200.000	15.700	1.000	90.000	0.000	588.200	588.200

U/S FACE KEPPEN ST. (SURVEY= 15+94)

X1	3487.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	595.500	595.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000

U/S FACE RUSSELL ST. CULVERTS (SURVEY = [illegible])

X1	3776.000	0.000	0.000	110.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	589.200	90.000	589.000	110.400
GR	595.000	110.000	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
GR	1.250	2.310	0.000	200.000	14.500	1.000	90.000	0.000	589.000	589.000

U/S FACE RUSSELL ST. CULVERTS (SURVEY = [illegible])

X1	3843.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.900	596.000	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	596.000	596.000	0.000
GR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 50  YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     C         WSEL      FQ

       0.        5.        0.        0.  0.001300      0.00      0.0        0.   598.740     0.000

J2  NPROF     IPLOT     PRFMS     XSECV     XSECH     [illegible]     ALLOC     [illegible]     [illegible]     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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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,53,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 50  YR
T3       ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FN

       0.        0.        0.        0.  0.000000      0.00       0.0        0.   593.700     0.030

J2  NPROF     IPLOT     PRFWS     XSECH     XSECH     FN        ALLRS     IBW       CHNIL     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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1        ALLEN PARK RIS
T2        STAGE/DISCHARGE RATING CURVE 50  YR
T3        COURSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     3         WSEL      FQ

       0.        5.        3.        0.  0.000000      0.00      0.0        3.   593.740     0.000

J2  LPNOF     IPLOT     PMFVS     XSECV     XSECH     FN        FELDC     IBM       CNUIN     ITRACE

     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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PRINTED IN U.S.A.
FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR.CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 50  YR
T3      ECORS, RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        6.        0.        0.  0.000000      0.00      0.0       0.   590.740     0.000

J2  NPROF    IPLOT     PRPUS     KSECV     KSECH     [illegible]     ALLDC     [illegible]     CHVIL     ITRACE

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1      ALLEN PARK FOB
T2      STAGE/DISCHARGE RATING CURVE 50 YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVI.S    Q        WSEL     FQ

      0.       7.       0.       0.  0.000000    0.00     0.0      0.   598.760    0.000

J2  NPROF    NPLOT    PRFMN    XRECM    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    6.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1ALLSN PARK FIS
T2       STAGE DISCHARGE RATING CURVE 50  YR
T3       ECORSE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        0.        0.        0.  0.000030      0.00      0.0       0.   593.740     0.000

J2  NRDZ      IPLOT     PRFNS     XSECV     XSECH     FN        ALLOC     ZNU       CHNIM     STRAGE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52

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

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELCHN	ELLOB	ELTRD	Q	SSTA	OTOPF	SO	TOPWID	WSEL	AREA	VEL
1832.000	1479.00	0.00	0.00	587.40	100.00	598.74	0.00	598.74	0.02	0.35	837.83	701.40
1832.000	1479.00	0.00	0.00	587.40	300.00	598.74	0.00	598.75	0.18	1.06	837.83	701.40
1832.000	1479.00	0.00	0.00	587.40	500.00	598.74	0.00	598.76	0.51	1.77	837.81	701.42
1832.000	1479.00	0.00	0.00	587.40	750.00	598.74	0.00	598.79	1.14	2.66	837.83	701.40
1832.000	1479.00	0.00	0.00	587.40	1000.00	598.74	0.00	598.82	2.03	3.55	837.82	701.40
1832.000	1479.00	0.00	0.00	587.40	1250.00	598.74	0.00	598.87	3.18	4.43	837.83	701.40
1832.000	1479.00	0.00	0.00	587.40	1500.00	598.74	0.00	598.93	4.57	5.32	837.83	701.40
2132.000	350.00	0.00	0.00	587.60	100.00	593.74	0.00	593.74	0.02	0.37	796.59	662.00
2132.000	350.00	0.00	0.00	587.60	300.00	593.75	0.00	593.75	0.20	1.11	797.75	663.07
2132.000	350.00	0.00	0.00	587.60	500.00	593.76	0.00	593.78	0.56	1.85	800.12	666.06
2132.000	350.00	0.00	0.00	587.60	750.00	593.79	0.00	593.83	1.25	2.76	804.72	670.31
2132.000	350.00	0.00	0.00	587.60	1000.00	593.81	0.00	593.90	2.19	3.65	811.14	676.28
2132.000	350.00	0.00	0.00	587.60	1250.00	593.83	0.00	593.99	3.36	4.52	819.43	684.02
2132.000	350.00	0.00	0.00	587.60	1500.00	593.85	0.00	594.10	4.80	5.37	829.59	693.51
2536.000	404.00	0.00	0.00	590.00	100.00	593.74	0.00	593.74	0.01	0.21	1061.28	661.14
2536.000	404.00	0.00	0.00	590.00	300.00	593.76	0.00	593.76	0.12	0.64	1064.68	664.64
2536.000	404.00	0.00	0.00	590.00	500.00	593.79	0.00	593.83	0.33	1.39	1071.76	671.18
2536.000	404.00	0.00	0.00	590.00	750.00	593.83	0.00	593.88	0.72	2.05	1087.42	686.26
2536.000	404.00	0.00	0.00	590.00	1000.00	593.86	0.00	593.96	1.31	2.66	1111.65	709.84
2536.000	404.00	0.00	0.00	590.00	1250.00	593.89	0.00	594.11	1.92	3.27	1139.89	737.73
2536.000	404.00	0.00	0.00	590.00	1500.00	593.91	0.00	594.29	2.58	3.92	1173.69	771.90
2541.000	5.00	595.30	594.90	586.00	100.00	593.75	0.00	593.75	0.01	0.28	1063.46	663.27
2541.000	5.00	595.30	594.90	586.00	300.00	593.77	0.00	593.77	0.12	0.83	1075.48	674.76
2541.000	5.00	595.30	594.90	586.00	500.00	593.80	0.00	593.85	0.32	1.38	1093.61	689.35
2541.000	5.00	595.30	594.90	586.00	750.00	593.84	0.00	593.93	0.68	2.01	1111.65	709.84
2541.000	5.00	595.30	594.90	586.00	1000.00	593.88	0.00	594.08	1.36	2.68	1119.89	937.73
2541.000	5.00	595.30	594.90	586.00	1250.00	593.15	0.00	599.22	1.65	3.18	1174.64	972.66
2541.000	5.00	595.30	594.90	586.00	1500.00	593.30	0.00	599.40	2.19	3.69	1215.45	1014.50
2591.000	50.00	0.00	0.00	588.60	100.00	593.75	0.00	593.75	0.01	0.28	1084.26	668.03
2591.000	50.00	0.00	0.00	588.00	300.00	593.77	0.00	593.77	0.12	0.83	1074.12	673.46
2591.000	50.00	0.00	0.00	588.00	500.00	593.80	0.00	593.86	0.32	1.39	1083.01	687.84
2591.000	50.00	0.00	0.00	588.00	750.00	593.85	0.00	593.96	0.68	2.01	1112.53	910.71
2591.000	50.00	0.00	0.00	588.00	1000.00	593.15	0.00	599.08	1.35	2.61	1141.45	939.28
2591.000	50.00	0.00	0.00	588.00	1250.00	593.76	0.00	599.23	1.64	3.17	1177.15	975.21
2591.000	50.00	0.00	0.00	588.00	1500.00	593.31	0.00	599.41	2.17	3.66	1213.55	1017.74

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FORM 1431-OD PRINTED BY ROTARY MANIFOLD FORMS

SECNO	XLCH	ELTRD	ELLC	ELMIN	B	CHSEL	CRTWS	ES	TOK*S	VCH	AREA	.01K
2941.000	350.00	0.00	0.00	587.80	100.00	598.75	0.00	598.75	0.01	0.23	1119.53	1055.25
2941.000	350.00	0.00	0.00	587.80	300.00	598.79	0.00	598.80	0.03	0.69	1126.66	1064.98
2941.000	350.00	0.00	0.00	587.80	500.00	598.56	0.00	598.67	0.21	1.14	1135.77	1073.83
2941.000	350.00	0.00	0.00	587.80	750.00	598.98	0.00	598.98	0.46	1.66	1154.31	1103.02
2941.000	350.00	0.00	0.00	587.80	1000.00	599.19	0.00	599.12	0.78	2.20	1177.10	1134.79
2941.000	350.00	0.00	0.00	587.80	1250.00	599.25	0.00	599.29	1.14	2.68	1203.23	1171.68
2941.000	350.00	0.00	0.00	587.80	1500.00	599.43	0.00	599.40	1.53	3.14	1232.71	1213.06
3287.000	346.00	0.00	0.00	588.20	100.00	598.75	0.00	598.75	0.02	0.26	857.49	646.64
3287.000	346.00	0.00	0.00	588.20	300.00	598.80	0.00	598.80	0.21	0.77	897.08	656.67
3287.000	346.00	0.00	0.00	588.20	500.00	598.87	0.00	598.88	0.55	1.28	881.27	671.19
3287.000	346.00	0.00	0.00	588.20	750.00	598.98	0.00	599.01	1.16	1.84	904.36	695.42
3287.000	346.00	0.00	0.00	588.20	1000.00	599.13	0.00	599.17	1.90	2.38	932.85	725.79
3287.000	346.00	0.00	0.00	588.20	1250.00	599.30	0.00	599.36	2.68	2.86	967.11	763.11
3287.000	346.00	0.00	0.00	588.20	1500.00	599.49	0.00	599.57	3.46	3.30	1005.73	802.12
3487.000	200.00	595.50	595.50	588.20	100.00	598.76	0.00	598.76	0.02	0.26	859.15	646.34
3487.000	200.00	595.50	595.50	588.20	300.00	598.82	0.00	598.83	0.21	0.77	872.87	662.47
3487.000	200.00	595.50	595.50	588.20	500.00	598.91	0.00	598.92	0.54	1.23	889.96	680.26
3487.000	200.00	595.50	595.50	588.20	750.00	599.03	0.00	599.06	1.12	1.82	916.03	705.67
3487.000	200.00	595.50	595.50	588.20	1000.00	599.18	0.00	599.23	1.84	2.35	945.96	737.55
3487.000	200.00	595.50	595.50	588.20	1250.00	599.36	0.00	599.42	2.65	2.93	979.32	774.60
3487.000	200.00	595.50	595.50	588.20	1500.00	599.55	0.00	599.65	3.55	3.25	1018.09	820.59
3776.000	289.00	0.00	0.00	589.00	100.00	598.76	0.00	598.76	0.02	0.25	876.56	675.26
3776.000	289.00	0.00	0.00	589.00	300.00	598.83	0.00	598.83	0.19	0.73	899.45	699.55
3776.000	289.00	0.00	0.00	589.00	500.00	598.93	0.00	598.93	0.50	1.19	919.16	719.62
3776.000	289.00	0.00	0.00	589.00	750.00	599.07	0.00	599.09	1.03	1.73	938.05	739.56
3776.000	289.00	0.00	0.00	589.00	1000.00	599.24	0.00	599.28	1.66	2.22	972.11	776.23
3776.000	289.00	0.00	0.00	589.00	1250.00	599.44	0.00	599.49	2.32	2.66	1011.51	820.10
3776.000	289.00	0.00	0.00	589.00	1500.00	599.65	0.00	599.73	2.98	3.06	1053.12	866.93
3843.000	67.00	595.00	594.90	589.00	100.00	598.77	0.00	598.77	1.04	0.25	872.17	675.52
3843.000	67.00	595.00	594.90	589.00	300.00	598.83	0.00	598.83	0.79	0.72	893.18	695.74
3843.000	67.00	595.00	594.90	589.00	500.00	598.96	0.00	598.97	3.48	1.18	916.21	718.50
3843.000	67.00	595.00	594.90	589.00	750.00	599.12	0.00	599.14	1.66	1.71	948.77	750.99
3843.000	67.00	595.00	594.90	589.00	1000.00	599.31	0.00	599.34	1.66	2.19	985.05	790.38
3843.000	67.00	595.00	594.90	589.00	1250.00	599.51	0.00	599.56	2.32	2.59	1024.24	830.46
3843.000	67.00	595.00	594.90	589.00	1500.00	599.74	0.00	599.81	3.11	2.94	1071.28	887.90

PRINTED IN U.S.A.

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFKSP	DIFKSX	DIFKWS	TOPWID	XLCH
1832.000	100.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	300.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	500.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	750.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	1000.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	1250.00	598.74	0.00	0.00	0.00	207.00	1479.00
1832.000	1500.00	598.74	0.00	0.00	0.00	207.00	1479.00
2132.000	100.00	598.74	0.00	0.00	0.00	207.00	350.00
2132.000	300.00	598.75	0.00	0.01	0.00	207.00	350.00
2132.000	500.00	598.75	0.00	0.01	0.00	207.00	350.00
2132.000	750.00	598.78	0.00	0.04	0.00	207.00	350.00
2132.000	1000.00	598.81	0.00	0.07	0.00	207.00	350.00
2132.000	1250.00	598.85	0.00	0.11	0.00	207.00	350.00
2132.000	1500.00	598.90	0.00	0.16	0.00	207.00	350.00
2536.000	100.00	598.74	0.00	0.00	0.00	278.00	404.00
2536.000	300.00	598.76	0.00	0.01	0.00	278.00	404.00
2536.000	500.00	598.79	0.00	0.03	0.00	278.00	404.00
2536.000	750.00	598.84	0.00	0.06	0.00	278.00	404.00
2536.000	1000.00	598.92	0.00	0.11	0.00	278.00	404.00
2536.000	1250.00	599.02	0.00	0.17	0.00	278.00	404.00
2536.000	1500.00	599.15	0.00	0.25	0.00	278.00	404.00
2541.000	100.00	598.75	0.00	0.01	0.00	278.00	5.00
2541.000	300.00	598.79	0.00	0.03	0.00	278.00	5.00
2541.000	500.00	598.84	0.00	0.03	0.00	278.00	5.00
2541.000	750.00	598.92	0.00	0.06	0.00	278.00	5.00
2541.000	1000.00	599.02	0.00	0.10	0.00	278.00	5.00
2541.000	1250.00	599.15	0.00	0.15	0.00	278.00	5.00
2541.000	1500.00	599.30	0.00	0.15	0.00	278.00	5.00
2591.000	100.00	598.75	0.00	0.00	0.00	278.00	50.00
2591.000	300.00	598.79	0.00	0.00	0.00	278.00	50.00
2591.000	500.00	598.84	0.00	0.00	0.00	278.00	50.00
2591.000	750.00	598.93	0.00	0.00	0.00	278.00	50.00
2591.000	1000.00	599.03	0.00	0.01	0.00	278.00	50.00
2591.000	1250.00	599.16	0.00	0.01	0.00	278.00	50.00
2591.000	1500.00	599.31	0.00	0.01	0.00	278.00	50.00
2941.000	100.00	598.75	0.00	0.00	0.00	167.00	350.00
2941.000	300.00	598.79	0.00	0.01	0.00	167.00	350.00
2941.000	500.00	598.86	0.00	0.02	0.00	167.00	350.00
2941.000	750.00	598.96	0.00	0.04	0.00	167.00	350.00
2941.000	1000.00	599.09	0.00	0.06	0.00	167.00	350.00
2941.000	1250.00	599.25	0.00	0.09	0.00	167.00	350.00
2941.000	1500.00	599.43	0.00	0.12	0.00	167.00	350.00

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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3287.000	100.00	598.75	0.00	0.00	0.00	200.00	346.00
3287.000	300.00	599.00	0.00	0.00	0.00	200.00	346.00
3287.000	500.00	599.97	0.00	0.01	0.00	200.00	346.00
3287.000	750.00	599.90	0.00	0.02	0.00	200.00	346.00
3287.000	1000.00	599.93	0.00	0.03	0.00	200.00	346.00
3287.000	1250.00	599.30	0.00	0.05	0.00	200.00	346.00
3287.000	1500.00	599.49	0.00	0.06	0.00	200.00	346.00
3487.000	100.00	598.76	0.00	0.01	0.20	200.00	200.00
3487.000	300.00	599.02	0.00	0.02	0.00	200.00	200.00
3487.000	500.00	598.91	0.00	0.04	0.00	200.00	200.00
3487.000	750.00	599.03	0.00	0.05	0.00	200.00	200.00
3487.000	1000.00	599.18	0.00	0.06	0.00	200.00	200.00
3487.000	1250.00	599.36	0.00	0.08	0.00	200.00	200.00
3487.000	1500.00	599.59	0.00	0.09	0.00	200.00	200.00
3776.000	100.00	598.76	0.00	0.00	0.00	200.00	289.00
3776.000	300.00	598.88	0.00	0.01	0.00	200.00	289.00
3776.000	500.00	598.92	0.00	0.02	0.00	200.00	289.00
3776.000	750.00	599.07	0.00	0.03	0.00	200.00	289.00
3776.000	1000.00	599.26	0.00	0.05	0.00	200.00	289.00
3776.000	1250.00	599.45	0.00	0.07	0.00	200.00	289.00
3776.000	1500.00	599.63	0.00	0.10	0.00	200.00	289.00
3843.000	100.00	598.77	0.00	0.01	0.00	200.00	67.00
3843.000	300.00	598.82	0.00	0.02	0.00	200.00	67.00
3843.000	500.00	598.96	0.00	0.04	0.00	200.00	67.00
3843.000	750.00	599.12	0.00	0.05	0.00	200.00	67.00
3843.000	1000.00	599.30	0.00	0.06	0.00	200.00	67.00
3843.000	1250.00	599.51	0.00	0.07	0.00	200.00	67.00
3843.000	1500.00	599.73	0.00	0.08	0.00	200.00	67.00

SUMMARY OF ERRORS

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

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*****************************************************
 MEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERPCR CORR - 01
 MODIFICATION - 50,51,52
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PRINTED IN U.S.A.
FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1RUSSELL ST. RATING CURVE 100 YR.
T2ALLEN PARK F/S HL 2001-07
T3       ECORSE CREEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       2.       0.       0.  0.000000     0.00     0.0      0.   599.450   0.030

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBL      CHNIM    ITRACE
     1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      0.100    0.100    0.030    0.100    0.300    0.000    0.000    0.000    0.000    0.000
OT      6.000   10.000   50.000  100.000  200.000  [illegible]  [illegible]  0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

X1      1.000    4.000   60.000   91.000    0.000    0.000    0.000    0.000    0.000    0.000
GR    600.000    0.000  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  0.000    0.000
NC      0.040    0.040    0.010    0.100    0.300    0.000    0.000    0.000    0.000    0.000

X1      8.000    0.000    0.000    0.000  357.000  357.000  357.000    0.000    0.000    0.000

        INTERSECTION OF RUSSELL AND LAKES

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
EJ      3.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CNSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         BLOB      BCH       BROB      ALOB      ACH       ARCU      VOL       THA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.40    599.45      0.00    599.45    599.45      0.00      0.00      0.00    596.00
      10.        1.        8.        1.       89.      107.       89.        0.        0.    596.00
     0.00      0.01      0.07      0.01     0.100     0.030     0.160     0.000    596.00      8.25
 0.000000        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.25    599.45      0.00      0.00    599.45      0.00      0.00      0.00    596.20
      10.        1.        7.        1.       79.      101.       79.        2.        1.    596.20
     1.77      0.02      0.07      0.02     0.040     0.016     0.040     0.016    596.20     11.25
 0.000000      357.      357.      357.         0         0         0      0.00    128.51    139.75

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

     3.00      2.25    599.45      0.00      0.00    599.45      0.00      0.00      0.00    597.20
      10        1.        8.        1.       30.       70.       30.        3.        2.    597.20
     2.51      0.03      0.11      0.03     0.040     0.016     0.040     0.016    597.20     26.25
 0.000000      252.      252.      252.         0         0         0      0.00     93.30    124.75

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      3.75    599.45      0.00      0.00    599.45      0.00      0.00      0.00    595.70
      10.        2.        7.        3.      105.      115.      105.        5.        2.    595.70
     4.04      0.01      0.06      0.01     0.040     0.016     0.040     0.016    595.70      3.75
 0.000000      248.      248.      248.         0         0         0      0.00    143.40    147.25
```

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*****************************************************
  NEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  30,31,32
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S HUD 2001-37
T3       ECORCE CRIEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   NVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.000000     0.00     0.0      0.   559.456   0.000

J2  NPROF    IPLOT    PRFVS    XSEL     XSECH    FN       ALLDC    IDM      CHMIN    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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO      DEPTH      CWSEL      CTIWS      WSELK      EG         FV         AL         CLOSS    BANK ELEV
     Q        VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN    LEFT/RIGHT
    TIME      VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE     XLOOL      XLCH       XLOOR      ITRIAL     IP2        ICONT      CORAR      TOPWID     ENDST

          RUSSEL ST. DIVERSION OF ECORSE CREEK

          INTERSECTION OF RUSSELL AND SHENADOAH

        1.00       3.45     599.45     0.00     599.45     599.45     0.10       0.00       0.00     595.00
         50.          6.        30.        6.        69.       107.        85.        0.       0.     595.00
        0.00       0.07       0.36       0.07     0.100      0.030      0.100      0.000    596.00     4.25
    0.000010         0.         0.         0.         0          0          0       0.00    134.50   142.75

 CCHV=   0.100 CEHV=   0.300
 *SECNO 2.000
        2.00       3.25     599.45     0.00       0.00     599.45     0.00       0.00       0.00     596.20
        50.          7.        36.        7.        79.       101.        79.        2.         1.     596.20
        0.35       0.09       0.36       0.09     0.040      0.016      0.040      0.016    596.20    11.20
    0.000083        357.       357.       357.         0          0          0       0.00    129.00   139.80

*SECNO 3.000

          INTERSECTION OF RUSSELL AND LAURE

        3.00       0.25     599.45     0.00       0.00     599.45     0.00       0.00       0.00     597.20
         52.          3.        39.        3.        38.       70.         5.        1.         1.     597.20
        0.50       0.16       0.56       0.14     0.040      0.016      0.040      0.016    597.20    28.20
    0.000012        252.       252.       252.         0          0          0       0.00     93.00   124.80

*SECNO 4.000

          INTERSECTION OF RUSSELL AND ECORSE CR.

        4.00       3.76     599.46     0.00       0.00     599.46     0.00       0.00       0.00     595.70
         90.          8.        58.        8.       105.       110.        104.       1.         2.     595.70
        0.31       0.17       0.29       0.07     0.040      0.016      0.040      0.016    595.70     3.70
    0.000082        248.       248.       248.         0          0          2       0.00    128.00   132.30
```

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FORM 1431-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  30,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PAR. F/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       4.       0.       0.  0.000000     0.00     0.0      0.   599.430   0.000

J2  NPROF     IPLOT    PRFMC    XSCAV    XDECK    FN       ALLC     INM      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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIMS     WSELK     EG        HV        FL        QLOSS    BANK ELEV
   C         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TORWID      ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      3.45    599.45      0.00    599.45    599.46      0.01      0.00      0.00    596.00
      100.       12.       74.       12.       89.      107.       80.        0.        0.    596.00
      0.00      0.13      0.71      0.13     0.100     0.030     0.100     0.000    596.00      8.25
  0.000040        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      3.26    599.46      0.00      0.00    599.46      0.01      0.01      0.00    596.20
      100.       14.       72.       14.       80.      101.       80.        2.        1.    596.20
      0.18      0.18      0.71      0.18     0.040     0.016     0.040     0.016    596.20     11.04
  0.000012      357.      357.      357.         0         0         0      0.00    128.92    139.96

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

      3.00      2.28    599.46      0.00      0.00    599.47      0.02      0.01      0.00    597.20
      100.       21.       20.       21.       28.       70.       30.        [illegible]        [illegible]    597.20
      0.25      0.28      1.12      0.28     0.040     0.016     0.040     0.016    597.20     26.06
  0.000049      252.      252.      252.         0         0         0      0.00     96.92    124.96

*SECNO 4.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

      4.00      3.77    599.47      0.00      0.00    599.48      0.00      0.00      0.00    593.70
      100.       16.       47.       15.      106.      117.      105.        [illegible]        [illegible]    595.70
      0.41      0.15      0.49      0.15     0.040     0.016     0.040     0.016    593.70      3.54
  0.000007      243.      243.      243.         0         0         0      0.00    143.97    167.46
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INC      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      5.       5.       0.       0.  0.000000     0.00     0.0      0.   599.430   0.000

J2  NPROF    IPLOT    PRFMS    XSECV    XRECH     FM       FLEC     XHD      CHSIN    ITRACE
     4.000    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= 0.100 CEHV= 0.300

*SECNO 1.000

SECNO	DEPTH	CWSEL	CRITWS	LSELK	EG	FV	LOSS	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALDE	ACH	AROB	VOL	TIME	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

RUSSEL ST. DIVERSION OF BOONE CREEK

INTERSECTION OF RUSSELL AND SHENADOAH

1.00	3.46	599.45	0.00	599.75	599.47	0.02	0.03	0.00	596.00
200.	24.	152.	24.	89.	167.	89.	0.	0.	596.00
0.00	0.27	1.42	0.27	0.100	0.030	0.100	0.000	596.00	6.25
0.000158	0.	0.	0.	0	0	0	0.00	134.30	142.75

CCHV= 0.100 CEHV= 0.300

*SECNO 2.000

2.00	3.28	599.48	0.00	0.00	599.50	0.02	0.03	0.00	596.20
200.	29.	143.	29.	81.	102.	81.	2.	1.	596.20
0.09	0.35	1.41	0.35	0.040	0.016	0.040	0.016	596.20	10.00
0.000047	557.	557.	557.	2	1	2	0.00	129.40	140.21

*SECNO 3.000

INTERSECTION OF RUSSELL AND LARME

3.00	2.27	599.17	0.00	0.00	599.54	0.05	0.03	0.01	597.20
200.	33.	157.	33.	92.	71.	92.	2.	2.	597.20
0.13	0.56	2.72	0.56	0.040	0.016	0.040	0.016	597.20	25.00
0.000191	252.	252.	252.	2	1	2	0.00	99.25	125.12

*SECNO 4.000

INTERSECTION OF RUSSELL AND ECORSE LN.

4.00	3.04	599.34	0.00	0.00	599.55	0.01	0.01	0.00	595.70
200.	32.	134.	32.	111.	119.	111.	2.	2.	595.70
0.21	0.29	1.15	0.29	0.040	0.016	0.040	0.016	595.70	6.41
0.000925	244.	244.	244.	2	1	2	0.00	146.17	118.39

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**************************************************
 DEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
 ERROR CORD - U1
 MODIFICATION - 50,51,52
**************************************************

T1MUSSELL ST. RATING CURVE 100 #1
T2ALLEN PARK F/G HUD 2301-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        0.        0.        0.  0.000000      0.00      0.0        0.   599.650     0.000

J2  NPROB     IPLOT     PRINT     NSECV     NSECH     TW        ALLDC     IN        CHAN      [illegible]

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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```
*PROF 5

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        BLOSS    BANK ELEV
   0         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST


         RUSSEL ST. DIVERSION OF ECORSE CREEK


         INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      3.45    599.43      0.00    599.65    599.30      0.05      0.00      0.00    596.00
      300.       36.      222.       36.       89.      107.       39.        0.        0.    596.00
      0.00      0.40      2.13      0.40     0.100     0.030     0.100     0.000    596.00      6.25
  0.000356        0.        0.        0.         0         0         0      0.00    134.30    142.75


CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      3.32    599.52      0.00      0.00    599.57      0.05      0.06      0.00    596.20
      300.       43.      214.       43.       83.      103.       83.        2.        1.    596.20
      0.06      0.52      2.08      0.52     0.040     0.016     0.040     0.016    596.20     10.24
  0.000101      357.      357.      357.         2         0         0      0.00    130.32    140.76


*SECNO 3.000

         INTERSECTION OF RUSSELL AND LARNE

      3.00      2.30    599.50      0.00      0.00    599.64      0.13      0.05      0.00    597.20
      300.       33.      236.       33.       40.       71.       40.        0.        0.    597.20
      0.09      0.83      3.28      0.83     0.040     0.016     0.040     0.016    597.20     25.43
  0.000410      252.      252.      252.         2         0         0      0.00    100.13    125.59


*SECNO 4.000

         INTERSECTION OF RUSSELL AND ECORSE CR.

      4.00      3.95    599.65      0.00      0.00    599.68      0.03      0.03      0.01    595.70
      300.       49.      203.       49.      117.      122.      117.        2.        2.    595.70
      0.94      0.48      1.56      0.48     0.040     0.016     0.040     0.016    595.70      0.32
  0.000031      248.      345.      248.         2         0         0      0.00    159.37    130.16
```

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S HUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        7.        0.        0.  0.000000      0.00       0.0        0.   599.[illegible]     0.000

J2  XPROJ     XPLOT     PRFMS     XSECH     XSECH     FN        ALLC      IDL       CHIN      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 6

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CUSEL     DRIWS     USELK     ES        HV        UL        GLOSS    BANK ELEV
   C         QLOB      QCH       QROB      ALOB      ACH       AROU      VOL       THA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST


         RUSSEL ST. DIVERSION OF ECORSE CREEK

         INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      3.45    599.43      0.00    599.45    599.55      0.10      0.00      0.00    596.00
      400.       48.      304.       48.       89.      107.       89.        0.        0.    596.00
      0.00      0.54      2.84      0.54     0.100     0.030     0.100     0.000    596.00      8.25
  0.000632        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      3.37    599.37      0.00      0.00    599.65      0.08      0.10      0.00    596.20
      400.       58.      284.       58.       85.      104.       85.        2.        1.    596.20
      0.05      0.68      2.72      0.68     0.040     0.016     0.040     0.016    596.20      9.45
  0.000189      357.      337.      337.         2         0         0      0.00    132.10    141.55

*SECNO 3.000

         INTERSECTION OF RUSSELL AND LARME

      3.00      2.55    599.55      0.00      0.00    599.77      0.22      0.10      0.04    597.20
      400.       44.      [illegible]       44.       41.       [illegible]       [illegible]        2.    597.20
      0.07      1.00      4.27      1.08     0.040     0.016     0.040     0.016    597.20     24.78
  0.000679      252.      252.      252.         2         0         0      0.00    101.44    126.22

*SECNO 4.000
[illegible] CROSS SECTION      [illegible] UNTIMED      0.39 FEET

         INTERSECTION OF RUSSELL AND ECORSE CR.

      4.00      4.04    599.70      0.00      0.00    599.83      0.05      0.04      0.02    595.70
      400.       57.      266.       67.      125.      127.      125.        5.        2.    595.70
      0.11      0.56      2.10      0.54     0.040     0.016     0.040     0.016    595.70      0.00
  0.000078      248.      248.      248.         2         0         0      0.00    151.00    151.00
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JEC2 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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	ALCH	ELTRD	BLLD	ELMIN	K	[illegible]	[illegible]	[illegible]	[illegible]	VCH	AREA	LOTK
1.000	0.00	0.00	0.00	596.00	10.00	599.45	0.00	599.45	0.00	0.07	285.48	159.06
1.000	0.00	0.00	0.00	596.00	50.00	599.45	0.00	599.45	0.10	0.36	285.48	159.06
1.000	0.00	0.00	0.00	596.00	100.00	599.45	0.00	599.46	0.40	0.71	285.48	159.06
1.000	0.00	0.00	0.00	596.00	200.00	599.45	0.00	599.47	1.58	1.42	285.48	159.06
1.000	0.00	0.00	0.00	596.00	300.00	599.45	0.00	599.52	3.56	2.13	285.48	159.06
1.000	0.00	0.00	0.00	596.00	400.00	599.45	0.00	599.55	6.32	2.84	285.48	159.06
2.000	357.00	0.00	0.00	596.20	10.00	599.45	0.00	599.45	0.00	0.07	259.22	286.39
2.000	357.00	0.00	0.00	596.20	50.00	599.45	0.00	599.45	0.03	0.36	259.63	287.14
2.000	357.00	0.00	0.00	596.20	100.00	599.46	0.00	599.46	0.12	0.71	261.04	288.99
2.000	357.00	0.00	0.00	596.20	200.00	599.46	0.00	599.50	0.47	1.41	263.06	291.74
2.000	357.00	0.00	0.00	596.20	300.00	599.52	0.00	599.57	1.31	2.08	267.91	298.26
2.000	357.00	0.00	0.00	596.20	400.00	599.57	0.00	599.65	1.59	2.72	274.81	307.56
3.000	252.00	0.00	0.00	597.20	10.00	599.43	0.00	599.43	0.00	0.11	145.69	141.71
3.000	252.00	0.00	0.00	597.20	50.00	599.43	0.00	599.46	0.12	0.36	146.02	142.11
3.000	252.00	0.00	0.00	597.20	100.00	599.43	0.00	599.47	0.49	1.12	147.03	143.09
3.000	252.00	0.00	0.00	597.20	200.00	599.47	0.00	599.54	1.91	2.22	148.10	144.61
3.000	252.00	0.00	0.00	597.20	300.00	599.50	0.00	599.64	4.10	3.28	151.09	148.23
3.000	252.00	0.00	0.00	597.20	400.00	599.55	0.00	599.77	6.79	4.27	155.47	153.55
4.000	248.00	0.00	0.00	595.70	10.00	599.43	0.00	599.43	0.00	0.36	327.13	379.55
4.000	248.00	0.00	0.00	595.70	50.00	599.43	0.00	599.46	0.02	0.24	327.[illegible]	380.26
4.000	248.00	0.00	0.00	595.70	100.00	599.47	0.00	599.48	0.07	0.59	329.15	382.34
4.000	248.00	0.00	0.00	595.70	200.00	599.54	0.00	599.55	0.25	1.15	340.09	397.69
4.000	248.00	0.00	0.00	595.70	300.00	599.65	0.00	599.66	0.51	1.66	355.82	419.91
4.000	248.00	0.00	0.00	595.70	400.00	599.73	0.00	599.83	0.78	2.1[illegible]	374.87	451.98

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ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFWSG	TOPWID	XLCH
1.000	10.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	50.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	100.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	200.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	300.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	400.00	599.45	0.00	0.00	0.00	134.50	0.00
2.000	10.00	599.45	0.00	0.00	0.00	128.51	357.00
2.000	50.00	599.45	0.00	0.00	0.00	128.60	357.00
2.000	100.00	599.46	0.00	0.01	0.00	128.92	357.00
2.000	200.00	599.48	0.00	0.03	0.00	129.48	357.00
2.000	300.00	599.52	0.00	0.07	0.00	130.52	357.00
2.000	400.00	599.57	0.00	0.12	0.00	132.10	357.00
3.000	10.00	599.45	0.00	-0.00	0.00	90.50	252.00
3.000	50.00	599.45	0.00	-0.00	0.00	90.60	252.00
3.000	100.00	599.44	0.00	-0.00	0.00	98.92	252.00
3.000	200.00	599.47	0.00	-0.01	0.00	99.23	252.00
3.000	300.00	599.50	0.00	-0.01	0.00	100.13	252.00
3.000	400.00	599.55	0.00	-0.02	0.00	101.44	252.00
4.000	10.00	599.45	0.00	0.00	0.00	143.49	248.00
4.000	50.00	599.45	0.00	0.00	0.00	143.[illegible]	248.00
4.000	100.00	599.47	0.00	0.02	0.00	143.91	248.00
4.000	200.00	599.54	0.00	0.06	0.00	146.17	248.00
4.000	300.00	599.65	0.00	0.14	0.00	149.37	248.00
4.000	400.00	599.78	0.00	0.24	0.00	[illegible]	[illegible]

SUMMARY OF ERRORS

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*****************************************************
 HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

C
T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S HUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ECHECK    INQ      MINV     IDIR     STRT     METRIC   HVINS    C        PSEL     FE
      0.       2.       0.       0.  0.002000     0.00     0.0      0.   399.450    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IGH      CHNIM    ITRACE
     1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      0.100    0.100    0.000    0.100    0.300    0.000    0.000    0.000    0.000    0.000
NC      6.300  500.000  600.000  100.000 1000.000 1200.000 1500.000    0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHERMAN

X1      1.000    4.000   60.000   59.000    0.000    0.000    0.000    0.000    0.000    0.000
GR    600.000    0.000  596.000   60.000  596.000   91.000  600.000  151.000    0.000    0.000
NC      0.040    0.040    0.016    0.100    0.300    0.000    0.000    0.300    0.000    0.000

X1      2.000    0.000    0.000    0.000  357.000  357.000  357.000    0.300    0.200    0.000

        INTERSECTION OF RUSSELL AND LAWNE

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
NC      0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

*PROF 1

CCHV= 0.100 CGHV= 0.300
*SECNO 1.000

SECNO	DEPTH	CHSEL	CRIWS	MSELK	SQ	AV	L	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TRA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	LTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

RUSSEL ST. DIVERSION OF ECORSE CREEK

INTERSECTION OF RUSSELL AND SHENANDOAH

1.00	3.45	599.45	0.00	599.55	599.60	5.15	.05	0.00	596.00
500.	60.	380.	60.	89.	107.	89.	0.	0.	595.00
0.00	0.67	3.56	0.67	0.100	0.030	0.100	0.000	596.00	8.25
0.000988	0.	0.	0.	0	0	0	0.00	134.50	142.75

CCHV= 0.100 CGHV= 1.300
*SECNO 2.000

2.00	3.44	599.64	0.00	0.00	599.76	0.12	0.16	0.00	596.20
500.	74.	353.	74.	89.	107.	89.	2.	1.	596.20
1.04	0.93	5.31	0.85	0.040	0.016	0.040	0.016	596.20	8.46
0.000345	357.	357.	357.	2	0	0	0.00	134.09	142.54

*SECNO 3.000

INTERSECTION OF RUSSELL AND LAINE

3.00	2.47	599.56	0.00	0.00	599.95	0.39	10.1	0.69	597.20
500.	37.	337.	57.	43.	75.	43.	4.	2.	597.20
0.05	1.37	5.19	1.51	0.040	0.016	0.040	0.016	597.20	25.95
0.000970	252.	252.	252.	2	2	0	0.00	133.11	127.35

*SECNO 4.000

3280 CROSS SECTION 4.00 EXTENDED 0.25 FEET

INTERSECTION OF RUSSELL AND ECORSE CT.

4.00	4.23	599.95	0.00	0.00	600.02	0.06	0.06	0.03	595.70
500.	87.	326.	87.	135.	132.	135.	5.	3.	595.70
0.09	0.55	2.47	0.54	0.040	0.016	0.040	0.016	595.70	0.00
0.000115	262.	262.	262.	2	0	0	0.00	137.10	151.53

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1BUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK R/S BUD 2051-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        3.        0.        0.  0.000000      0.00      0.0       0.   599.450     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
```

```
APROF 2

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   LECND     DEPTH     CWSEL     CRIMS     MSELK     EG        HV        HL        CLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALCB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

      1.00      3.45    599.45      0.00    599.45    599.67      0.22      0.00      0.00    596.00
      600.       72.      456.       72.       89.      107.       89.        0.        0.    596.00
      0.00      0.81      4.27      0.81     0.100     0.030     0.100     0.000    596.00      6.25
  0.001423        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
      2.00      3.52    599.72      0.00      0.00    599.80      0.17      0.21      0.01    596.20
      600.       90.      420.       90.       93.      109.       93.        2.        1.    596.20
      0.03      0.97      [illegible]      0.97     0.040     0.016     0.040     0.016    596.20      7.23
  0.000[illegible]       357.      337.      357.         2         0         0      0.00    136.53    143.77

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARNE

      3.00      4.47    595.[illegible]      0.00      0.00    600.11      0.44      0.15      0.08    597.20
      600.       69.      461.       69.       46.       77.       46.        4.        2.    597.20
      0.05      1.51      6.01      1.51     0.040     0.016     0.040     0.016    597.20     22.86
  0.001248       252.      252.      252.         2         0         0      0.00    105.26    128.14

*SECNO 4.000
3280 CROSS SECTION       4.00 EXTENDED       0.44 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

      4.00      4.43    600.13      0.00      0.00    600.21      0.08      0.07      0.04    595.70
      603.      108.      383.      108.      146.      137.      146.        5.        3.    595.70
      0.08      0.74      2.79      0.74     0.040     0.016     0.040     0.015    595.70      0.00
  0.000123       243.      240.      243.         2         0         0      0.00    151.00    151.00
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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR - 31
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S UDD 2301-37
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FC
       0.        4.        0.        0.  0.000002      3.00      0.0       0.   599.450     0.001
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IDA       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=  0.100 CERV=  0.300
 *SECNO 1.000
    SECNO      DEPTH      CHSEL      CHIAS      HSELK      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     IH2        ICONT      CORAR      TOPWID     ENDST

          RUSSEL ST. DIVERSION OF ECORSE CREEK

          INTERSECTION OF RUSSELL AND SCHAD0RR

         1.10       3.45     599.65      0.00     599.45     599.84      0.39       0.03       0.00     596.50
          800.        96.        608.        96.        89.       107.        89.        0.         0.     596.00
         0.00       1.07       5.69       1.07      0.100      0.030      0.100      0.000     596.00       3.25
     0.002530         0.         0.         0.          0          5          0       0.00     134.56     142.75

 CCHV=  0.100 CERV=  0.300
 *SECNO 2.000
         2.00       3.72     599.92       0.00       0.00     600.17       0.25       0.32       0.01     596.20
          800.        125.       551.        125.       104.       115.       104.         2.         1.     596.20
         0.03       1.30       5.77       1.25      0.040      0.016      0.060      0.316     596.20       4.20
     0.000495        357.       357.       357.          2          0          2       0.00     142.01     146.80

 *SECNO 3.000
          INTERSECTION OF RUSSELL AND LAWS

         3.00       2.66     599.13       0.00       0.00     600.49       0.09       0.20       0.12     597.20
          800.        97.        605.        97.        52.        62.        58.         4.         2.     597.20
         0.04       1.86       7.39       1.36      0.040      0.016      0.043      0.316     597.20      20.36
     0.001733        252.       252.       252.          3          0          3       0.00     130.27     130.64

 *SECNO 4.000
 3280 CROSS SECTION       4.00 EXTENDED       9.83 FEET

          3201 IV CHANGED MORE THAN .1FEET

          INTERSECTION OF RUSSELL AND ECORSE CR.

         1.05       4.63     600.13       3.00       0.10     600.64       0.11       0.20       1.05     595.70
          800.        154.       491.        154.       170.       180.       170.         5.         3.     595.70
         3.07       5.01       3.20       3.51      2.000      0.016      0.260      0.616     595.70       0.50
     0.005152        248.       248.       248.          2          0          0       0.00     151.00     151.50
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 100 YR
*2ALLEN PARK F/S HEC 2201+07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        5.        0.        0.  0.300000      0.00      0.0        0.   599.450     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECK     FN        ALLOC     IDU       CHNIM     ITRACE
      4.000     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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CHSE      CRIWS     WSELK     ES        HV        HL        BLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IW2       ICONT     CORAD     TOPLID      ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.45    599.45      0.00    599.45    600.05      0.50      0.00      1.00    596.00
    1000.      120.      760.      120.       89.      107.       89.        0.        0.    596.00
     0.00      1.34      7.11      1.34     0.100     0.030     0.100     0.000    396.00      8.25
 0.003953        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.98    600.18      0.00      0.00    600.52      0.32      0.42      0.03    596.20
    1000.      163.      574.      163.      119.      123.      119.        3.        1.    596.20
     0.02      1.37      5.65      1.37     0.040     0.016     0.040     0.016    596.20      0.34
 0.000549      357.      357.      357.         2         0         0      0.00    150.32    150.66

*SECNO 3.000

        INTERSECTION OF RUSSELL AND [illegible]

     3.00      2.87    600.07      0.00      0.00    600.[illegible]      0.00      0.22      0.13    597.20
    1000.      130.      761.      130.       62.       89.       62.        4.        2.    597.20
     0.03      2.09      8.[illegible]      2.09     0.040     0.016     0.040     0.016    597.20     16.85
 0.001955      252.      252.      252.         3         0         0      0.00    117.29    136.15

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      1.22 FEET

3301 RV CHANGED MORE THAN [illegible]

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      5.22    600.92      0.00      0.00    601.05      0.13      0.11      0.07    595.70
    1000.      233.      594.      233.      197.      162.      197.        8.        5.    595.70
     0.00      1.05      1.6[illegible]      1.05     0.040     0.016     0.040     0.016    595.[illegible]      [illegible]
 0.000172      248.      248.      248.         2         0         0      0.00    151.00    151.00
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S ROD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    PVINS     C         SEL       FQ
       0.        4.        0.        0.  0.000000      0.05       0.0        0.   599.450     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 5

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIMS     WSELK     KS        HV        HL        DLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IHZ       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.45    599.45      0.00    599.43    600.32      0.07      0.00      0.00    596.00
    1200.      144.      913.      144.       89.      107.       39.        0.        0.    596.00
     0.00      1.61      8.53      1.61     0.100     0.030     0.100     0.000    596.00      8.25
 0.005692        0.        0.        0.         0         0         0      0.00    134.50    142.75

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
3280 CROSS SECTION       2.00 EXTENDED       0.28 FEET

3301 HV CHANGED MORE THAN HVINS

     2.00      4.28    600.48      0.00      0.00    600.84      0.36      0.47      0.05    596.20
    1200.      210.      780.      210.      137.      133.      137.        3.        1.    596.20
     0.02      1.54      5.00      1.54     0.040     0.016     0.040     0.016    596.20      0.00
 0.003577      357.      357.      357.         2         0         0      0.00    151.10    151.00

*SECNO 3.000

3301 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND LARME

     3.00      3.14    600.34      0.00      0.00    601.26      0.71      0.25      0.17    597.20
    1200.      169.      668.      169.       74.       97.       74.        5.        2.    597.20
     0.03      2.24      2.91      2.24     0.040     0.016     0.040     0.016    597.20     12.85
 0.001991      252.      252.      252.         4         0         0      0.00    125.29    138.15

*SECNO 4.000
3280 CROSS SECTION       4.00 EXTENDED       1.59 FEET

3301 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      5.59    601.29      0.00      0.00    601.44      0.15      0.11      0.00    595.70
    1200.      252.      695.      252.      216.      175.      216.        7.        5.    595.70
     0.03      1.17      4.01      1.17     0.040     0.016     0.040     0.016    595.70      0.00
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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK F/S HUD 2501-27
T3      ECORSE CREEK ALLEN PARK

J1  ICHECK    INQ       NINC      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ
          0.        7.        0.        0.  0.003003      0.00      0.0       2.    599.40     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 6

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CHSEL.    CRINS     HSELK     EG        HV        HL        HLCBS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     COBAR     TOPWID     ENDST

3720 CRITICAL DEPTH ASSUMED

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.51    599.31    599.51    599.45    600.81      1.29      0.00      0.00    596.00
    1500.      132.     1136.      182.       93.      109.       93.        0.        0.    596.00
     0.00      1.97     10.43      1.97     0.100     0.030     0.100     0.000    596.00      7.32
 0.008309        0.        0.        0.         0         4         0      0.00    136.36    143.50

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
3280 CROSS SECTION      2.00 EXTENDED      0.81 FEET

3301 HV CHANGED MORE THAN HVINS

     2.00      4.01    601.01      0.00      0.00    601.39      0.38      0.49      0.09    596.20
    1500.      289.      923.      2.9.      137.      169.       69.        5.        4.    597.20
     0.09      1.71      6.19      1.71     0.040     0.016     0.040     0.016    596.20      0.00
 0.000847      357.      332.      337.         3         3         0      0.00    151.00    151.20

*SECNO 3.000

3301 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND LARGE

     3.00      3.63    600.65      0.00      0.00    601.78      0.93      0.85      0.15    597.20
    1500.      231.     1038.      231.      100.      113.      130.        5.        2.    597.20
     0.03      2.31      9.17      2.31     0.040     0.016     0.040     0.016    597.20      5.20
 0.001731      252.      252.      252.         4         0         0      0.00    140.61    145.80

*SECNO 4.000
3280 CROSS SECTION      6.00 EXTENDED      2.05 FEET

3301 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      5.03    601.78      0.00      0.00    601.93      0.19      0.1[illegible]      0.07    595.7[illegible]
    1500.      328.      347.      328.      245.      189.      243.        6.        3.    575.70
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	0.000208	248.	248.	248.	2	0	0	0.00	151.00	151.00

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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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIUS	EG	TOKAS	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	596.00	500.00	599.45	0.00	599.60	9.88	3.56	285.48	159.06
	1.000	0.00	0.00	0.00	596.00	600.00	599.45	0.00	599.67	14.23	4.27	285.48	159.06
	1.000	0.00	0.00	0.00	596.00	800.00	599.45	0.00	599.84	25.30	3.69	285.48	159.06
	1.000	0.00	0.00	0.00	596.00	1000.00	599.45	0.00	600.05	39.33	7.11	285.48	159.06
	1.000	0.00	0.00	0.00	596.00	1200.00	599.45	0.00	600.32	56.92	8.53	285.48	159.06
*	1.000	0.00	0.00	0.00	596.00	1500.00	599.51	599.51	600.81	83.09	10.43	293.88	164.56
	2.000	357.00	0.00	0.00	596.20	500.00	599.64	0.00	599.76	2.65	3.31	293.65	319.55
	2.000	357.00	0.00	0.00	596.20	600.00	599.72	0.00	599.88	3.22	3.85	294.68	334.62
	2.000	357.00	0.00	0.00	596.20	800.00	599.92	0.00	600.17	4.58	4.77	322.93	373.65
	2.000	357.00	0.00	0.00	596.20	1000.00	600.18	0.00	600.50	5.49	5.46	360.58	426.67
	2.000	357.00	0.00	0.00	596.20	1200.00	600.48	0.00	600.84	5.77	5.83	406.06	499.77
	2.000	357.00	0.00	0.00	596.20	1500.00	601.01	0.00	601.39	5.47	6.19	486.10	641.12
	3.000	252.00	0.00	0.00	597.20	500.00	599.85	0.00	599.95	9.72	3.19	151.17	160.51
	3.000	252.00	0.00	0.00	597.20	600.00	599.87	0.00	600.11	12.41	6.01	158.72	169.81
	3.000	252.00	0.00	0.00	597.20	800.00	599.84	0.00	600.49	17.33	7.39	186.64	192.18
	3.000	252.00	0.00	0.00	597.20	1000.00	600.07	0.00	600.88	19.55	8.31	213.28	226.17
	3.000	252.00	0.00	0.00	597.20	1200.00	600.34	0.00	601.26	19.98	8.91	245.62	268.48
	3.000	252.00	0.00	0.00	597.20	1500.00	600.69	0.00	601.78	17.51	9.17	313.69	360.54
	4.000	248.00	0.00	0.00	595.70	500.00	599.95	0.00	600.02	1.03	2.47	602.04	453.06
	4.000	248.00	0.00	0.00	595.70	600.00	600.13	0.00	600.21	1.23	2.79	429.69	539.96
	4.000	248.00	0.00	0.00	595.70	800.00	600.53	0.00	600.64	1.52	3.28	489.97	648.52
	4.000	248.00	0.00	0.00	595.70	1000.00	600.92	0.00	601.05	1.72	3.67	548.70	761.63
	4.000	248.00	0.00	0.00	595.70	1200.00	601.29	0.00	601.46	1.86	4.01	604.40	875.84
	4.000	248.00	0.00	0.00	595.70	1500.00	601.75	0.00	601.97	2.06	4.47	679.46	1039.62

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ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	G	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	500.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	600.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	800.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	1000.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	1200.00	599.45	0.00	0.00	0.00	134.50	0.00
1.000	1500.00	599.51	0.00	0.06	0.06	136.36	0.00
2.000	500.00	599.64	0.00	0.19	0.00	134.09	357.00
2.000	600.00	599.72	0.00	0.27	0.00	136.53	357.00
2.000	800.00	599.89	0.00	0.44	0.00	142.52	357.00
2.000	1000.00	600.18	0.00	0.73	0.00	150.32	357.00
2.000	1200.00	600.48	0.00	1.03	0.00	161.00	357.00
2.000	1500.00	601.01	0.00	1.56	0.00	161.00	357.00
3.000	500.00	599.60	0.00	-0.04	0.00	105.71	252.00
3.000	600.00	599.57	0.00	-0.05	0.00	105.68	252.00
3.000	800.00	599.84	0.00	-0.08	0.00	110.27	252.00
3.000	1000.00	600.07	0.00	-0.11	0.00	117.29	252.00
3.000	1200.00	600.34	0.00	-0.14	0.00	125.29	252.00
3.000	1500.00	600.82	0.00	-0.16	0.00	140.51	252.00
4.000	500.00	599.83	0.00	0.43	0.00	131.00	246.00
4.000	600.00	600.13	0.00	0.47	0.00	131.00	246.00
4.000	800.00	600.55	0.00	0.69	0.00	131.00	246.00
4.000	1000.00	600.92	0.00	0.83	0.00	131.00	246.00
4.000	1200.00	601.27	0.00	0.94	0.00	141.30	246.00
4.000	1500.00	601.77	0.00	0.92	0.00	141.30	246.00

SUMMARY OF ERRORS

CAUTION ERROR 1.000 FOR SECNO 3 POLITICA DEPTH SOUND

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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  MEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR. -  01
  MODIFICATION -  50,51,52
*****************************************************
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*****************************************************************
*                                                               *
*  MECA RELEASE DATED NOV 74 UPDATED FEB 1977                   *
*  ERROR CODE = J1                                              *
*  SOLUTION - 50,51,52                                          *
*                                                               *
*****************************************************************

C
T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE DATING CURVE LOG YR
T3      ECORSE RATING CURVE

J1 ICHECK  INQ    NTRY   IDIM   STIT   METRIC  HVLNS   G       WSEL    HG
          0.      2.      0.   0.00000  0.      0.     394.450  0.000

J2 NPROF   IPLOT   PRFVS   XSECV   XSECH    FN     ALLOC    IBW     CLMIT   ITRACE
          1.000   0.000   -1.000   0.030   0.000   0.600   0.300   0.000   0.000   0.100

J3 VARIABLE CODES FOR SUMMARY PRINTOUT
          153.000   0.000   0.000   0.000   0.500   0.300   0.000   0.000   0.000   0.000

J5 LPTNT   MULTSEC          **********REQUESTED SECTION NUMBERS**********
QT      -12.10  -10.030   0.300   0.300   0.300   0.000   0.000   0.000   0.030   0.000   0.300
        1.090   1.000   700.000   0.030   0.270   0.070

NC      0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000

J3 LPTNT   MULTSEC          **********REQUESTED SECTION NUMBERS**********
QT      -12.10  -10.030   0.300   0.300   0.300   0.000   0.000   0.000   0.030   0.000   0.300
        1.090   1.000   700.000   0.030   0.270   0.070

NC      0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000

X1      2536.000   15.000   154.000   450.000   375.020   404.000   0.002   0.000   0.000
        0.000   0.000   3.000   3.000   0.000   16.000   3.000   1.500   0.000   0.000

X1      2732.000   0.000   0.200   0.050   400.000   300.000   355.000   0.000   0.250   0.000
        0.000   0.000   0.000   2.000   0.000   0.900   0.000   3.000   0.000   0.000

X1      2541.000   0.000   2.000   1.000   123.000   13.000   132.000   1.000   2.000   0.000   0.000
        1.000   3.000   5.000   5.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000

SR      610.000   0.000   595.300   0.300   595.500   75.000   594.700   97.000   587.500   113.000
SR      587.600   118.000   507.600   123.000   593.300   142.000   596.300   157.000   594.200   207.000
SB      610.000   207.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000
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BT	10.000	117.000	595.300	0.000	161.000	596.300	0.000	161.000	599.000	0.000
BT	164.000	599.000	588.000	164.000	597.000	594.900	180.000	597.000	594.900	180.000
BT	599.000	588.000	183.000	599.000	0.000	183.000	596.300	0.000	240.000	595.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

50'U/S OF FOOTBRIDGE

X1	2591.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

X - 400' U/S OF FOOTBRIDGE

X1	2941.000	10.000	90.000	102.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	610.000	0.000	595.000	0.000	593.000	50.000	590.000	80.000	587.800	90.000
GR	587.800	102.000	590.000	112.000	593.000	142.000	595.000	167.000	610.000	167.000

D/S FACE LAVRE ST. CULVERTS(SURVEY = 17+93)

X1	3287.000	8.000	90.000	110.800	346.000	346.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.000	595.000	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	588.200	90.000	588.200	100.000
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
[illegible]	1.250	3.910	5.000	200.000	15.700	1.000	76.000	0.000	588.200	588.200

U/S FACE KEPPEN ST. (SURVEY= 15+94)

X1	3487.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	593.500	595.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000

U/S FACE RUSSELL ST. CULVERTS (SURVEY = 13+05)

X1	[illegible]	0.000	0.000	110.800	289.000	[illegible]	[illegible]	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	589.000	90.000	589.000	110.000
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
[illegible]	1.250	2.[illegible]	0.000	200.000	11.[illegible]	1.000	30.000	0.000	589.000	589.000

U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+33)

X1	3843.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	596.900	596.000	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	596.000	596.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 1UP YR
T3       COURSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        USEL     FC

     0.       3.       0.       0.  0.200000     0.00     0.0      0.   599.450   0.000

J2  NPROF    IPLOT    PRFVS    XSECH    XSECH    FN       ALLOC    IN       CHNIT    ITRACE

    2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 100 YR
T3      FCORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIP     STRT     METRIC   HVINS    Q        WSEL     FQ
      0.       4.       0.       0.  0.000000    0.00     0.0      0.   599.450   0.000
J2  NPROF    IPLOT    PHONS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
     5.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CURR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 100 YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FU
      0.       5.       3.       0.  0.000000     0.00     0.0      0.   559.450   0.000
J2  XPROF    XPLOT    PRFVS    XSECH    XSECH    FN       ALLDC    IRC      CHRIN    ITRACE
    4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

PRINTED IN U.S.A.

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**************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
    ERROR CORR -  01
    MODIFICATIO -  50,51,52
**************************************************A

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 100 YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     C         WSEL      FQ
          3.        6.        0.        0.  0.005000      0.00      0.0        0.   595.450     0.000

J2  IPROF     IPLOT     PRFNS     XSECV     XSECH     FN        ALLOC     I         CINT      ITRACE
      5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

FORM 1417-00 PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1        ALLEN PARK FIS
T2        STAGE/DISCHARGE RATING CURVE 100 YR
T3        ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        7.        0.        0.  0.000000      0.00      0.0       0.   599.450     0.000

J2  NPROF     IPLOT     PRNTS     ASEQV     ASEQS     FM        AMDC      IGM       CHNIM     ITRACE

    6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ALLEN PARK FIS
T2       STAGE DISCHARGE RATING CURVE 100 YR
T3       ECORSE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        0.        0.        0.  0.000000      0.00      0.0       0.   599.650     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSRCD     FN        ALLOC     IP        CNIN      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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1   1132 RELEASE DATED NOV 76 UPDATED FEB 1977
2   REVISION CODE -  01
3   MODIFICATION -  50,51,52
```

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

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	X-CI	E.TOP	E.LOB	ELMIN	Q	WSEL	SRFLG	E3	TOPW	VCH	AREA	CONV
1832.000	1479.00	0.00	0.00	587.40	100.00	599.45	0.00	599.45	0.01	0.31	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	300.00	599.45	0.00	599.46	0.12	0.92	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	500.00	599.45	0.00	599.46	0.35	1.53	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	750.00	599.45	0.00	599.48	0.70	2.29	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	1000.00	599.45	0.00	599.51	1.14	3.05	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	1250.00	599.45	0.00	599.54	2.17	3.82	984.79	849.20
1832.000	1479.00	0.00	0.00	587.40	1500.00	599.45	0.00	599.58	3.12	4.58	984.79	849.20
2132.000	350.00	0.00	0.00	587.60	100.00	599.45	0.00	599.45	0.02	0.32	943.51	806.11
2132.000	350.00	0.00	0.00	587.60	300.00	599.45	0.00	599.46	0.14	0.95	944.51	806.94
2132.000	350.00	0.00	0.00	587.60	500.00	599.45	0.00	599.48	0.38	1.59	945.92	808.61
2132.000	350.00	0.00	0.00	587.60	750.00	599.45	0.00	599.51	0.85	2.37	949.06	811.84
2132.000	350.00	0.00	0.00	587.60	1000.00	599.53	0.00	599.56	1.53	3.15	955.45	816.39
2132.000	350.00	0.00	0.00	587.60	1250.00	599.53	0.00	599.62	2.31	3.91	959.11	822.27
2132.000	350.00	0.00	0.00	587.60	1500.00	599.54	0.00	599.70	3.27	4.68	965.72	829.43
2536.000	404.00	0.00	0.00	588.00	100.00	599.45	0.00	599.45	0.01	0.32	1263.20	1059.53
2536.000	404.00	0.00	0.00	588.00	300.00	599.46	0.00	599.46	0.08	0.71	1260.85	1062.13
2536.000	404.00	0.00	0.00	588.00	500.00	599.47	0.00	599.49	0.22	1.18	1265.65	1067.24
2536.000	404.00	0.00	0.00	588.00	750.00	599.52	0.00	599.54	0.48	1.76	1276.44	1078.75
2536.000	404.00	0.00	0.00	588.00	1000.00	599.61	0.00	599.71	0.94	2.32	1300.48	1095.75
2536.000	404.00	0.00	0.00	588.00	1250.00	599.69	0.00	599.70	1.69	2.93	1312.62	1117.77
2536.000	404.00	0.00	0.00	588.00	1500.00	599.74	0.00	599.81	1.72	3.93	1336.31	1140.09
2541.000	5.00	595.30	594.90	588.00	100.00	599.45	0.00	599.46	0.01	0.24	1260.49	1061.77
2541.000	5.00	595.30	594.90	588.00	300.00	599.47	0.00	599.49	0.08	0.71	1270.47	1072.37
2541.000	5.00	595.30	594.90	588.00	500.00	599.51	0.00	599.54	0.21	1.18	1284.10	1087.04
2541.000	5.00	595.30	594.90	588.00	750.00	599.61	0.00	599.68	0.66	1.72	1299.71	1105.86
2541.000	5.00	595.30	594.90	588.00	1000.00	599.71	0.00	599.71	0.79	2.26	1322.25	1127.17
2541.000	5.00	595.30	594.90	588.00	1250.00	599.77	0.00	599.82	1.17	2.77	1347.23	1155.75
2541.000	5.00	595.30	594.90	588.00	1500.00	599.83	0.00	599.95	1.59	3.25	1376.62	1188.47
2591.000	50.00	0.00	0.00	588.00	100.00	599.45	0.00	599.46	0.01	0.24	1260.30	1061.63
2591.000	50.00	0.00	0.00	588.00	300.00	599.49	0.00	599.49	0.08	0.71	1269.39	1071.43
2591.000	50.00	0.00	0.00	588.00	500.00	599.57	0.00	599.57	0.21	1.17	1291.60	1096.42
2591.000	50.00	0.00	0.00	588.00	750.00	599.68	0.00	599.72	0.46	1.72	1330.54	1136.67
2591.000	50.00	0.00	0.00	588.00	1000.00	599.68	0.00	599.72	0.79	2.26	1322.46	1126.91
2591.000	50.00	0.00	0.00	588.00	1250.00	599.76	0.00	599.85	1.17	2.77	1348.93	1157.62
2591.000	50.00	0.00	0.00	588.00	1500.00	599.88	0.00	599.96	1.59	3.25	1377.25	1191.21

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FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.01K
2941.000	350.00	0.00	0.00	587.80	100.00	599.46	0.00	599.46	0.01	0.21	1237.89	1221.33
2941.000	350.00	0.00	0.00	587.80	300.00	599.50	0.00	599.50	0.06	0.62	1243.84	1229.94
2941.000	350.00	0.00	0.00	587.80	500.00	599.55	0.00	599.55	0.14	1.00	1251.91	1241.65
2941.000	350.00	0.00	0.00	587.80	750.00	599.61	0.00	599.64	0.35	1.55	1266.63	1260.21
2941.000	350.00	0.00	0.00	587.80	1000.00	599.72	0.00	599.74	0.61	2.01	1280.90	1284.10
2941.000	350.00	0.00	0.00	587.80	1250.00	599.84	0.00	599.87	0.90	2.47	1301.25	1314.22
2941.000	350.00	0.00	0.00	587.80	1500.00	599.97	0.00	600.01	1.24	2.92	1322.85	1346.52
3287.000	346.00	0.00	0.00	588.20	100.00	599.45	0.00	599.46	0.02	0.22	999.14	996.71
3287.000	346.00	0.00	0.00	588.20	300.00	599.50	0.00	599.5[illegible]	0.14	0.66	1006.95	817.50
3287.000	346.00	0.00	0.00	588.20	500.00	599.55	0.00	599.56	0.37	1.08	1017.99	819.98
3287.000	346.00	0.00	0.00	588.20	750.00	599.64	0.00	599.66	0.80	1.60	1035.62	840.08
3287.000	346.00	0.00	0.00	588.20	1000.00	599.75	0.00	599.78	1.34	2.09	1056.76	864.47
3287.000	346.00	0.00	0.00	588.20	1250.00	599.87	0.00	599.92	1.95	2.54	1082.15	894.15
3287.000	346.00	0.00	0.00	588.20	1500.00	600.02	0.00	600.09	2.61	2.97	1110.62	927.89
3487.000	200.00	595.50	595.50	588.20	100.00	599.47	0.00	599.47	0.02	0.22	1050.70	800.46
3487.000	200.00	595.50	595.50	588.20	300.00	599.52	0.00	599.52	0.14	0.65	1012.32	813.56
3487.000	200.00	595.50	595.50	588.20	500.00	599.59	0.00	599.60	0.36	1.07	1027.22	830.46
3487.000	200.00	595.50	595.50	588.20	750.00	599.69	0.00	599.71	0.77	1.58	1047.67	854.16
3487.000	200.00	595.50	595.50	588.20	1000.00	599.81	0.00	599.84	1.34	2.06	1069.26	879.02
3487.000	200.00	595.50	595.50	588.20	1250.00	599.94	0.00	599.99	1.98	2.51	1096.31	910.56
3487.000	200.00	595.50	595.50	588.20	1500.00	600.09	0.00	600.16	2.51	2.92	1126.19	946.58
3775.000	289.00	0.00	0.00	589.00	100.00	599.47	0.00	599.47	0.01	0.21	1018.06	826.96
3775.000	289.00	0.00	0.00	589.00	300.00	599.52	0.00	599.53	0.13	0.65	1029.78	840.14
3775.000	289.00	0.00	0.00	589.00	500.00	599.60	0.00	599.61	0.34	1.08	1044.92	857.29
3775.000	289.00	0.00	0.00	589.00	750.00	599.72	0.00	599.73	0.72	1.61	1067.82	883.31
3775.000	289.00	0.00	0.00	589.00	1000.00	599.85	0.00	599.88	1.20	1.96	1094.23	914.17
3775.000	289.00	0.00	0.00	589.00	1250.00	600.00	0.00	600.04	1.73	2.38	1124.75	950.15
3775.000	289.00	0.00	0.00	589.00	1500.00	600.17	0.00	600.23	2.29	2.77	1158.39	990.69
3843.000	67.00	596.00	594.90	589.00	100.00	599.59	0.00	599.59	0.04	0.21	1019.56	826.67
3843.000	67.00	596.00	594.90	589.00	300.00	599.64	0.00	599.65	0.19	0.64	1035.13	846.21
3843.000	67.00	596.00	594.90	589.00	500.00	599.71	0.00	599.72	0.39	1.08	1054.24	867.92
3843.000	67.00	596.00	594.90	589.00	750.00	599.82	0.00	599.84	0.75	1.59	1080.42	896.07
3843.000	67.00	596.00	594.90	589.00	1000.00	599.94	0.00	599.98	1.19	1.98	1107.56	929.81
3843.000	67.00	596.00	594.90	589.00	1250.00	600.08	0.00	600.12	1.67	2.35	1138.00	966.45
3843.000	67.00	596.00	594.90	589.00	1500.00	600.25	0.00	600.31	2.23	2.72	1172.03	1011.51

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ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SEC ID	Q	CHSEL	DIFSSF	DIFWSX	DIFKOS	TOPWID	XLCH
1832.000	100.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	300.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	500.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	750.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	1000.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	1250.00	599.45	0.00	0.00	0.00	207.00	1479.00
1832.000	1500.00	599.45	0.00	0.00	0.00	207.00	1479.00
2132.000	100.00	599.45	0.00	0.00	0.00	207.00	350.00
2132.000	300.00	599.46	0.00	0.00	0.00	207.00	350.00
2132.000	500.00	599.46	0.00	0.01	0.00	207.00	350.00
2132.000	750.00	599.46	0.00	0.03	0.00	207.00	350.00
2132.000	1000.00	599.50	0.00	0.05	0.00	207.00	350.00
2132.000	1250.00	599.53	0.00	0.08	0.00	207.00	350.00
2132.000	1500.00	599.54	0.00	0.11	0.00	207.00	350.00
2536.000	100.00	599.45	0.00	0.00	0.00	276.00	404.00
2536.000	300.00	599.46	0.00	0.01	0.00	276.00	404.00
2536.000	500.00	599.48	0.00	0.02	0.00	276.00	404.00
2536.000	750.00	599.52	0.00	0.04	0.00	276.00	404.00
2536.000	1000.00	599.58	0.00	0.08	0.00	276.00	404.00
2536.000	1250.00	599.65	0.00	0.12	0.00	276.00	404.00
2536.000	1500.00	599.73	0.00	0.17	0.00	276.00	404.00
2541.000	100.00	599.46	0.00	0.01	0.00	276.00	5.00
2541.000	300.00	599.49	0.00	0.03	0.00	276.00	5.00
2541.000	500.00	599.54	0.00	0.05	0.00	276.00	5.00
2541.000	750.00	599.64	0.00	0.09	0.00	276.00	5.00
2541.000	1000.00	599.81	0.00	0.20	0.00	276.00	5.00
2541.000	1250.00	599.77	0.00	0.12	0.00	276.00	5.00
2541.000	1500.00	599.94	0.00	0.15	0.00	276.00	5.00
2591.000	100.00	599.46	0.00	0.00	0.00	276.00	50.00
2591.000	300.00	599.49	0.00	0.00	0.00	276.00	50.00
2591.000	500.00	599.54	0.00	0.00	0.00	276.00	50.00
2591.000	750.00	599.60	0.00	0.00	0.00	276.00	50.00
2591.000	1000.00	599.68	0.00	0.00	0.00	276.00	50.00
2591.000	1250.00	599.78	0.00	0.01	0.00	276.00	50.00
2591.000	1500.00	599.90	0.00	0.01	0.00	276.00	50.00
2941.000	100.00	599.46	0.00	0.00	0.00	167.00	350.00
2941.000	300.00	599.50	0.00	0.00	0.00	167.00	350.00
2941.000	500.00	599.55	0.00	0.01	0.00	167.00	350.00
2941.000	750.00	599.63	0.00	0.02	0.00	167.00	350.00
2941.000	1000.00	599.72	0.00	0.04	0.00	167.00	350.00
2941.000	1250.00	599.82	0.00	0.06	0.00	167.00	350.00
2941.000	1500.00	599.97	0.00	0.09	0.00	167.00	350.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3287.000	100.00	599.46	0.00	0.00	0.00	200.00	346.00
3287.000	300.00	599.50	0.00	0.00	0.00	200.00	346.00
3287.000	500.00	599.55	0.00	0.01	0.00	200.00	346.00
3287.000	750.00	599.66	0.00	0.01	0.00	200.00	346.00
3287.000	1000.00	599.75	0.00	0.02	0.00	200.00	346.00
3287.000	1250.00	599.87	0.00	0.04	0.00	200.00	346.00
3287.000	1500.00	600.02	0.00	0.05	0.00	200.00	346.00
3487.000	100.00	599.47	0.00	0.01	0.00	200.00	200.00
3487.000	300.00	599.52	0.00	0.02	0.00	200.00	200.00
3487.000	500.00	599.59	0.00	0.04	0.00	200.00	200.00
3487.000	750.00	599.69	0.00	0.05	0.00	200.00	200.00
3487.000	1000.00	599.81	0.00	0.06	0.00	200.00	200.00
3487.000	1250.00	599.94	0.00	0.07	0.00	200.00	200.00
3487.000	1500.00	600.09	0.00	0.08	0.00	200.00	200.00
3776.000	100.00	599.47	0.00	0.00	0.00	200.00	259.00
3776.000	300.00	599.53	0.00	0.00	0.00	200.00	259.00
3776.000	500.00	599.60	0.00	0.01	0.00	200.00	259.00
3776.000	750.00	599.72	0.00	0.02	0.00	200.00	259.00
3776.000	1000.00	599.83	0.00	0.04	0.00	200.00	259.00
3776.000	1250.00	600.00	0.00	0.06	0.00	200.00	259.00
3776.000	1500.00	600.17	0.00	0.08	0.00	200.00	259.00
3843.000	100.00	599.47	0.00	0.01	0.00	200.00	67.00
3843.000	300.00	599.55	0.00	0.02	0.00	200.00	67.00
3843.000	500.00	599.64	0.00	0.04	0.00	200.00	67.00
3843.000	750.00	599.77	0.00	0.05	0.00	200.00	67.00
3843.000	1000.00	599.91	0.00	0.07	0.00	200.00	67.00
3843.000	1250.00	600.08	0.00	0.08	0.00	200.00	67.00
3843.000	1500.00	600.25	0.00	0.08	0.00	200.00	67.00

SUMMARY OF ERRORS

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

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**************************************************
     HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
     ERROR CORR -  01
     MODIFICATION -  50,31,52
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PRINTED IN U.S.A.

FORM 1411.00-PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK F/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVCHS    W        WSEL     FQ
       0.       2.       0.       0.  0.000000     0.00     0.0      0.   599.720    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IEW      CHNIM    ITRACE
     1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      0.100    0.100    0.030    0.100    0.300    0.000    0.000    0.000    0.000    0.000
QT      6.000   10.000   30.000  100.000  200.000  300.000  400.000    0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHERADOAH

X1      1.000    4.000   50.000   91.000    0.000    0.000    0.000    0.000    0.000    0.000
CT    600.000    0.000  596.000   60.000  596.000   91.000  600.000  151.000    0.000    0.000
NC      0.040    0.040    0.016    0.100    0.300    0.000    0.000    0.000    0.000    0.000

X1      2.000    0.000    0.000    0.000  357.000  357.000  357.000    0.000    0.200    0.000

        INTERSECTION OF RUSSELL AND LARKE

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
XJ      0.000    0.100    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CHSEL     CRIWS     USELK     EE        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROS      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    599.72      0.00      0.00      0.00    596.00
      10.        1.        7.        1.      104.      115.      104.        0.        0.    596.00
     0.00      0.01      0.06      0.01     0.100     0.030     0.100     0.000    596.00      4.20
 0.000000        0.        0.        0.         0         0         0      0.00    142.60    146.30

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.32    599.72      0.00      0.00    599.72      0.00      0.00      0.00    596.20
      10.        1.        7.        1.       93.      109.       93.        3.        1.    596.20
     1.99      0.02      0.06      0.02     0.040     0.016     0.040     0.016    596.20      7.20
 0.000000      357.      357.      357.         0         0         0      0.00    136.60    143.40

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LAMBE

     3.00      2.32    599.72      0.00      0.00    599.72      0.00      0.00      0.00    597.20
      10.        1.        3.        1.       48.       76.       48.        4.        2.    597.20
     2.86      0.02      0.10      0.02     0.040     0.016     0.040     0.016    597.20     22.20
 0.000000      252.      252.      252.         0         0         0      0.00    106.60    126.80

*SECNO 4.000
5280 CROSS SECTION      4.00 EXTENDED      0.02 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      4.02    599.72      0.00      0.00    599.72      0.00      0.00      0.00    595.70
      10.        2.        7.        2.      121.      125.      121.        5.        3.    595.70
     4.56      0.01      0.05      0.01     0.040     0.016     0.040     0.016    595.70      0.00
 0.000000      248.      248.      248.         0         0         0      0.00    131.00    151.00
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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************************

T1RUSSELL ST. RATING CURVE 100 YR
T2ALLEN PARK E/S RUN 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         3.         3.         0.  0.000000       0.00       0.0        0.     599.720     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      3.000      0.000
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*PROF 2
 CCHV=   0.120 CEHV=   0.300
 *SECNO 1.000
   FECHO    DEPTH    WMSEL    FRIC    KSELK     EA       HV       RL       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    IN2      ICONT    CORAR    TOPWID     ENDST

          RUSSEL ST. DIVERSION OF ECORSE CREEK

          INTERSECTION OF RUSSELL AND SHENADOAH

       1.00     3.72   599.72    1.00   599.72   599.72    0.00     0.00     0.00     596.00
         50.        6.       37.       6.      104.      115.      104.        0.        2.      596.00
       0.00     0.06     0.32     0.06    0.100    0.030    0.100    0.000   596.00     4.20
   0.000007        0.       0.       0.        0        0        0     0.00   142.60   140.80

 CCHV=   0.100 CEHV=   0.300
 *SECNO 2.000
       2.00     3.52   599.72     0.00     0.00   599.72     0.00     0.00     0.00     596.20
        .50.       8.       35.       8.       93.      109.       93.        3.        1.      596.20
       0.10     0.06     0.32     0.03    0.040    0.016    0.040    0.016   596.20     7.16
   0.003002      357.     357.     357.        0        0        0     0.00   136.66   133.84

 *SECNO 3.000

          INTERSECTION OF RUSSELL AND LEWISE

       3.00     1.52   599.72     0.00     0.00   599.72     0.00     0.00     0.00     597.40
         50.        6.       38.       5.       48.       78.       48.        4.        2.      597.20
       0.57     0.12     0.49     0.12    0.040    0.016    0.040    0.016   597.20    22.16
   0.000008      252.     252.     252.        0        0        0     0.00   106.67   128.04

 *SECNO 4.000
 3280 CROSS SECTION      4.00 EXTENDED      0.02 FEET

          INTERSECTION OF RUSSELL AND ELLERS CR.

       4.00     4.02   599.72     0.00     0.00   599.72     0.00     0.00     0.00     595.70
         50.        8.       36.       8.      121.      125.      121.        3.        3.      595.70
       0.91     0.07     0.27     0.07    0.040    0.016    0.040    0.016   595.70     0.50
   0.002001.     248.     248.     248.        0        0        0     0.00   151.20   151.20
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PRINTED IN U.S.A.
FORM 1411-OG PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - J1
  MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK E/S RUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       4.        3.        0.  0.300000      0.00      0.0       0.    599.720     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IOW       CHNIM     ITRACE
        3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.020     0.000
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*PROF 3

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	CL	L.OBS	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	IHP	ICONT	CORAR	TOPWID	E.OST
1.00	3.72	599.72	0.00	599.72	599.72	0.00	0.00	0.00	596.00
100.	13.	75.	13.	104.	115.	104.	0.	0.	596.00
0.00	0.12	0.65	0.12	0.100	0.030	0.100	0.000	596.00	4.20
0.000033	0.	0.	0.	0	0	0	0.00	142.60	146.63

RUSSEL ST. DIVERSION OF ECORSE CREEK

INTERSECTION OF RUSSELL AND SHERWOOD

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000

2.00	3.53	599.73	0.00	0.00	599.73	0.00	0.00	0.00	596.20
100.	15.	70.	15.	93.	109.	93.	3.	1.	596.20
0.20	0.15	0.64	0.16	0.140	0.046	0.040	0.015	596.83	7.04
0.000029	357.	357.	357.	0	0	0	0.00	136.92	145.95

*SECNO 3.000

INTERSECTION OF RUSSELL AND LEROY

3.20	3.53	599.73	0.00	0.00	599.74	0.00	0.00	0.00	597.20
100.	12.	76.	12.	43.	79.	46.	4.	2.	597.20
0.29	0.25	0.97	0.25	0.040	0.016	0.040	0.016	597.20	22.04
0.000032	252.	252.	252.	0	0	0	0.00	104.92	128.96

*SECNO 4.000
3200 CROSS SECTION 4.00 EXTENDED 0.00 FEET

INTERSECTION OF RUSSELL AND LEDGE DR.

4.00	4.04	599.74	0.00	0.00	599.74	0.00	0.00	0.00	595.70
100.	17.	67.	17.	122.	125.	122.	5.	3.	595.70
0.46	0.14	0.54	0.14	0.040	0.016	0.040	0.016	595.70	0.00
0.000033	245.	244.	244.	0	0	0	0.00	131.00	131.00

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK F/S HLD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        0.        0.        0.  0.000000      0.00      0.0        0.   599.720     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     4.000     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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CWSE      CRIUS     WSELK     EG        NV        NL        ULOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    599.74      0.02      0.00      0.00    596.00
     200.       25.      149.       25.      104.      115.      104.        0.        0.    596.00
     0.00      0.24      1.29      0.24     0.100     0.030     0.100     0.000    596.00      4.20
 0.000118        0.        0.        0.         0         0         0      0.00    142.60    146.80

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.54    599.74      0.00      0.00    599.76      0.02      0.02      0.00    596.20
     200.       30.      140.       30.       95.      110.       95.        3.        1.    596.20
     0.10      0.32      1.27      0.32     0.040     0.016     0.040     0.016    596.20      6.71
 0.000034      357.      357.      357.         1         0         0      0.00    137.57    144.29

*SECNO 3.000

        INTERSECTION OF RUSSELL AND [illegible]

     3.00      3.54    599.74      0.00      0.00    599.70      0.03      0.01      0.01    597.20
     200.       24.      153.       26.       48.       79.       48.        4.        2.    597.20
     0.14      0.49      1.94      0.49     0.040     0.016     0.040     0.016    597.20     21.92
 0.000126      252.      252.      232.         2         0         0      0.00    107.16    129.08

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      0.09 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      4.09    599.79      0.00      0.00    599.80      0.01      0.01      0.00    595.70
     200.       33.      133.       33.      125.      127.      125.        3.        3.    595.70
     0.23      0.27      1.05      0.27     0.040     0.016     0.040     0.016    595.70      0.00
 0.000020      248.      248.      248.         2         0         0      0.00    151.00    151.00
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FORM 1411 OD PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 500 YR
TRALLEN PARK F/S MOD 2001-07
T5      ECORCE CREEK ALLEN PARK

J1  ICHECK    IMQ      NINV     IDIR     STRT     METRIC   HVINS    Q        USEL     FQ
       0.       6.       0.       0.  0.000000     0.00     0.0      0.   599.720    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
     5.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 5

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000

SECNO	DEPTH	CHSEL	CRI.S	*SELK	ES	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XXR	WTA	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

RUSSEL ST. DIVERSION OF ECORSE CREEK

INTERSECTION OF RUSSELL AND SHERIDAN

1.00	3.72	599.72	0.00	385.72	599.76	0.04	0.00	0.00	596.00
300.	38.	224.	38.	104.	115.	104.	0.	0.	596.00
0.00	0.37	1.94	0.37	0.100	0.030	0.100	0.000	596.00	4.20
0.000267	0.	0.	0.	0	0	0	0.00	142.60	146.60

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000

2.00	3.57	599.77	0.00	0.00	599.81	0.04	0.05	0.00	595.20
300.	45.	209.	45.	96.	111.	96.	5.	1.	596.20
0.17	0.43	1.69	0.43	0.040	0.016	0.040	0.016	596.20	6.43
0.000077	357.	357.	357.	2	0	0	0.00	136.13	144.57

*SECNO 3.000

INTERSECTION OF RUSSELL AND [illegible]

3.00	3.38	599.73	0.00	0.00	599.20	0.01	0.01	0.02	597.20
300.	36.	229.	36.	49.	79.	49.	4.	2.	597.20
0.10	0.72	2.68	0.72	0.040	0.016	0.040	0.016	597.20	21.58
0.000276	252.	252.	252.	2	0	0	0.00	107.84	129.62

*SEC 0 0.00

3240 CROSS SECTION 5.00 EXTENDED 0.17 FEET

INTERSECTION OF RUSSELL AND ECORSE CO.

4.00	4.17	599.87	0.00	0.00	599.89	0.02	0.02	0.01	595.70
300.	51.	198.	51.	130.	129.	130.	6.	3.	595.70
0.16	0.39	1.53	0.39	0.040	0.016	0.040	0.016	595.70	0.00
0.000240	244.	268.	241.	2	2	0	0.00	131.20	151.30

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK F/S D.S 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        7.        0.        0.  0.300000      0.00      0.0       0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     ID.       CHNIC     ITR..CE
     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 6

CEHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CASE.     CRINS     USELK     EG        HV        NL        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    IH2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    599.00      0.00      0.00      0.00    596.00
     400.       51.      299.       51.      104.      115.      104.        0.        0.    596.00
     0.00      0.49      2.59      0.49     0.100     0.030     0.100     0.000    596.00      4.20
 0.000474        0.        0.        0.         0         0         0      0.00    142.60    146.80

CEHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.61    599.31      0.00      0.00    599.88      0.07      0.00      0.00    596.20
     400.       61.      278.       61.       98.      112.       9.        5.        1.    596.20
     0.00      0.62      2.46      0.62     0.040     0.016     0.040     0.016    596.20      5.33
 0.000127      357.      357.      357.         2         0         0      0.00    139.33    145.[illegible]

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LAUNE

     3.00      2.59    599.79      0.00      0.00    599.97      0.17      0.00      0.00    597.20
     400.       48.      304.       48.       50.       80.       50.        4.        2.    597.20
     0.07      0.95      3.70      0.95     0.040     0.016     0.040     0.016    597.20     21.09
 0.000465      252.      252.      252.         2         0         0      0.00    108.83    129.91

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      0.27 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      4.27    599.97      0.00      0.00    600.01      0.04      0.03      0.01    595.70
     400.       70.      260.       70.      136.      132.      136.        6.        3.    595.70
     0.12      0.51      1.96      0.51     0.040     0.016     0.040     0.016    595.70      0.00
 0.000064      248.      240.      248.         2         0         0      0.00    151.00    151.00
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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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	LOTK
1.000	0.00	0.00	0.00	596.00	10.00	599.72	0.00	599.72	0.00	0.06	322.89	183.73
1.000	0.00	0.00	0.00	596.00	50.00	599.72	0.00	599.72	0.07	0.32	322.89	183.73
1.000	0.00	0.00	0.00	596.00	100.00	599.72	0.00	599.72	0.30	0.65	322.89	183.73
1.000	0.00	0.00	0.00	596.00	200.00	599.72	0.00	599.74	1.18	1.29	322.89	183.73
1.000	0.00	0.00	0.00	596.00	300.00	599.72	0.00	599.76	2.67	1.94	322.89	183.73
1.000	0.00	0.00	0.00	596.00	400.00	599.72	0.00	599.80	4.74	2.59	322.89	183.73
2.000	357.00	0.00	0.00	596.20	10.00	599.72	0.00	599.72	0.00	0.06	294.90	335.03
2.000	357.00	0.00	0.00	596.20	50.00	599.72	0.00	599.72	0.02	0.32	295.35	335.53
2.000	357.00	0.00	0.00	596.20	100.00	599.73	0.00	599.73	0.09	0.64	296.41	337.00
2.000	357.00	0.00	0.00	596.20	200.00	599.74	0.00	599.76	0.34	1.27	299.43	341.14
2.000	357.00	0.00	0.00	596.20	300.00	599.77	0.00	599.81	0.76	1.89	301.99	344.65
2.000	357.00	0.00	0.00	596.20	400.00	599.81	0.00	599.80	1.29	2.48	307.54	352.31
3.000	252.00	0.00	0.00	597.20	10.00	599.72	0.00	599.72	0.00	0.10	173.38	175.59
3.000	252.00	0.00	0.00	597.20	50.00	599.72	0.00	599.72	0.06	0.49	173.66	175.91
3.000	252.00	0.00	0.00	597.20	100.00	599.72	0.00	599.74	0.32	0.97	174.50	176.98
3.000	252.00	0.00	0.00	597.20	200.00	599.74	0.00	599.78	1.26	1.94	175.36	178.05
3.000	252.00	0.00	0.00	597.20	300.00	599.76	0.00	599.86	2.74	2.68	177.80	181.10
3.000	252.00	0.00	0.00	597.20	400.00	599.79	0.00	599.97	4.63	3.78	181.37	185.56
4.000	248.00	0.00	0.00	595.70	10.00	599.72	0.00	599.72	0.00	0.05	367.02	436.30
4.000	248.00	0.00	0.00	595.70	50.00	599.72	0.00	599.72	0.01	0.27	367.35	436.82
4.000	248.00	0.00	0.00	595.70	100.00	599.74	0.00	599.74	0.03	0.54	368.50	438.63
4.000	248.00	0.00	0.00	595.70	200.00	599.79	0.00	599.80	0.20	1.05	376.87	451.95
4.000	248.00	0.00	0.00	595.70	300.00	599.87	0.00	599.89	0.40	1.53	388.96	471.00
4.000	248.00	0.00	0.00	595.70	400.00	599.97	0.00	600.01	0.64	1.96	405.25	496.4[illegible]

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FORM 1411 OU-PRINTED BY ROTARY MANIFOLD FORMS

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 190

SECNO	Q	CWSEL	DIFWSP	DIFKSX	DIFKWS	TOPWID	XLCH
1.000	10.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	50.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	100.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	200.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	300.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	400.00	599.72	0.00	0.00	0.00	142.60	0.00
2.000	10.00	599.72	0.00	0.00	0.00	136.60	357.00
2.000	50.00	599.72	0.00	0.00	0.00	136.60	357.00
2.000	100.00	599.73	0.00	0.01	0.00	136.62	357.00
2.000	200.00	599.74	0.00	0.02	0.00	137.57	357.00
2.000	300.00	599.77	0.00	0.05	0.00	136.13	357.00
2.000	400.00	599.81	0.00	0.09	0.00	139.33	357.00
3.000	10.00	599.72	0.00	0.00	0.00	106.00	252.00
3.000	50.00	599.73	0.00	-0.00	0.00	110.57	252.00
3.000	100.00	599.72	0.00	-0.00	0.00	108.92	252.00
3.000	200.00	599.74	0.00	-0.00	0.00	107.16	252.00
3.000	300.00	599.76	0.00	-0.01	0.00	107.84	252.00
3.000	400.00	599.79	0.00	-0.02	0.00	108.65	252.00
4.000	10.00	599.72	0.00	0.00	0.00	151.00	248.00
4.000	50.00	599.72	0.00	0.00	0.00	151.00	248.00
4.000	100.00	599.72	0.00	0.01	0.00	151.00	248.00
4.000	200.00	599.79	0.00	0.05	0.00	151.00	248.00
4.000	300.00	599.87	0.00	0.13	0.00	151.00	248.00
4.000	400.00	599.97	0.00	0.23	0.00	151.00	248.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK F/S HUD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ      MINV     ZDIR     STRT     METRIC   MVINS    Q        WSEL     FQ
       0.       2.       0.       0.  0.000000     0.00      0.0       0.  399.720    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CNNI     ITRACE
      1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC      0.100    0.100    0.000    0.100    0.300    0.000    0.000    0.000    0.000    0.000
NT      0.000  500.000  600.000  800.000 1000.000 1200.000 1500.000    0.000    0.000    0.000

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHERADAN

X1      1.000    4.000    0.000    1.000    0.000    0.000    0.000    0.000    0.000    0.000
GR    600.000    0.000  596.000   60.000  596.000   91.000  600.000  151.000    0.000    0.000
NC      0.040    0.040    0.016    0.100    0.300    0.000    0.000    0.000    0.000    0.000

X1      2.000    0.000    0.000    0.000  357.000  357.000  357.000    0.000    0.200    0.000

        INTERSECTION OF RUSSELL AND LARME

X1      3.000    0.000    0.000    0.000  252.000  252.000  252.000    0.000    1.000    0.000

        INTERSECTION OF RUSSELL AND ECORSE CR.

X1      4.000    0.000    0.000    0.000  248.000  248.000  248.000    0.000   -1.500    0.000
NC      0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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```
*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CNSEL     CPIUS     ASELK     EC        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOE      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       UTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    599.84      0.12      0.00      0.00    596.00
     500.       63.      373.       63.      104.      115.      104.        0.        0.    596.00
     0.00      0.61      3.24      0.61     0.100     0.030     0.100     0.000    596.00      4.20
 0.000741        0.        0.        0.         0         0         0      0.00    142.60    146.80

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.66    599.86      0.00      0.00    599.96      0.10      0.12      0.00    596.20
     500.       77.      346.       77.      101.      114.      101.        3.        1.    596.20
     0.00      0.77      3.35      0.77     0.040     0.016     0.040     0.016    596.20      5.07
 0.000191      357.      357.      357.         2         0         0      0.00    143.16    145.93

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LANNE

     3.00      2.56    599.74      0.00      0.00    600.00      0.00      0.00      0.00    597.20
     500.       61.      378.       61.       52.       82.       52.        4.        2.    597.20
     0.06      1.16      4.63      1.16     0.040     0.016     0.040     0.016    597.20     20.44
 0.000682      252.      252.      252.         2         0         0      0.00    110.12    130.56

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      0.40 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      4.40    600.10      0.00      0.00    600.15      0.06      0.05      0.02    595.70
     500.       90.      320.       90.      144.      137.      144.        6.        3.    595.70
     0.10      0.62      2.35      0.62     0.040     0.016     0.040     0.016    595.70      0.00
 0.000000      248.      248.      248.         2         0         0      0.00    151.00    151.00
```

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************************

T1RUSSELL ST. RATIO CURVE 500 YR
T2ALLEN PARK S/S LNO 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FN
          0.        3.        3.        0.  0.050000      0.00      1.0       0.   599.720     0.040

J2  NPROF     IPLOT     PRFVS     XSECV     XSFCH     FN        ALLDC     IDV       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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CASEL     CHENS     ASELK     EQ        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    IH2       ICONT     CORAR     TOP.ID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH
     1.00      3.72    599.72      0.00    599.72    599.90      0.00      0.00      0.00    596.00
     600.       76.      443.       76.      104.      115.      104.        0.        0.    596.00
     0.00      0.73      3.88      0.73     0.100     0.030     0.100     0.000    596.00      4.20
 0.001066        0.        0.        0.         0         0         0      0.00    142.60    146.00

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.73    599.93      0.00      0.00    600.07      0.14      0.10      0.00    596.20
     600.       94.      413.       94.      104.      115.      104.        3.        1.    596.20
     0.04      0.95      1.57      0.90     0.040     0.016     0.040     0.016    596.20      4.12
 0.000206      357.      357.      357.         2         0         0      0.00    142.76    146.80

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LANNE
     3.00      2.69    595.09      0.00      0.00    600.24      0.55      0.11      0.03    597.20
     600.       76.      452.       74.       54.       33.       54.        4.        2.    597.20
     0.03      1.36      5.42      1.36     0.040     0.016     0.040     0.016    597.20     19.65
 0.000908      252.      252.      252.         2         0         0      0.00    111.74    131.37

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      0.53 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.
     4.00      4.55    600.25      0.00      0.00    600.33      0.07      0.06      0.03    595.70
     600.      111.      378.      111.      153.      141.      153.        6.        3.    595.70
     0.09      0.72      2.68      0.72     0.040     0.016     0.040     0.016    595.70      0.00
 0.000113      240.      248.      248.         2         0         0      0.00    151.00    151.00
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION -  50,51,52
*****************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK F/S MOD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINQ      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        1.        0.        0.  0.000000      0.00      0.0        0.   599.720     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=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CHSEL     CRIMS     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       HTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IN2       ICONT     CORAR     TOPWID    ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    600.03      0.01      0.00      0.10    596.00
     800.      101.      597.      101.      104.      115.      104.        0.        0.    596.00
     0.00      0.98      5.18      0.90     0.100     0.030     0.100     0.000    596.00      4.20
 0.001896        0.        0.        0.         0         0         0      0.00    142.60    146.80

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
     2.00      3.88    600.08      0.00      0.00    600.31      0.22      0.26      0.01    596.20
     800.      128.      343.      128.      113.      120.      113.        3.        1.    596.20
     0.03      1.13      6.31      1.13     0.040     0.016     0.040     0.016    596.20      1.73
 0.000386      357.      357.      357.         2         0         0      0.00    147.54    149.27

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARGE

     3.00      2.92    600.02      0.00      0.00    600.37      0.00      0.17      0.10    597.00
     800.      102.      595.      102.       60.       87.       60.        4.        2.    597.20
     0.04      1.71      6.81      1.71     0.040     0.016     0.040     0.016    597.20     17.67
 0.001346      252.      252.      252.         3         0         0      0.00    115.67    133.33

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      0.59 FEET

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      4.39    600.59      0.00      0.00    600.69      0.10      0.08      0.04    595.70
     800.      156.      489.      156.      174.      152.      174.        6.        3.    595.70
     0.07      0.90      3.22      0.90     0.040     0.016     0.040     0.016    595.70      0.00
 0.000745      248.      248.      248.         2         0         0      0.00    131.30    131.00
```

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**************************************************
 HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
 ERROR CORR -  31
  MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK E/S AUG 2031-C7
T3      ECORSE CREEK ALLEN PARK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        5.        0.        1.  0.000000      0.30      0.0       0.    599.720     3.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.300     0.000
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```
*PROF 4

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CMSEL     CRINS     SELK      EG        HV        HL        CLOSS    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    IH2       ICONT     CORAR     TOPWID     ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    600.21      0.49      0.03      0.00    596.00
    1000.      127.      746.      127.      104.      115.      104.        0.        0.    596.00
     0.00      1.22      6.47      1.22     0.100     0.030     0.100     0.000    596.00      4.20
 0.002962        0.        0.        0.         0         0         0      0.00    142.60    146.80

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
3280 CROSS SECTION       2.00 EXTENDED       0.09 FEET

     2.00      4.09    600.19      0.00      0.00    600.58      0.29      0.35      0.02    596.20
    1000.      168.      664.      168.      128.      127.      126.        5.        1.    596.20
     0.00      1.34      5.24      1.34     0.040     0.016     0.040     0.016    596.20      0.00
 0.000[illegible]6      357.      357.      357.         2         0         0      0.00    151.00    151.00

*SECNO 3.000

        INTERSECTION OF RUSSELL AND LARME

     3.00      3.00    600.20      0.00      0.00    600.92      0.72      0.21      0.13    597.20
    1000.      134.      733.      134.       67.       93.       67.        9.        2.    597.20
     0.04      1.93      7.04      1.90     0.040     0.016     0.040     0.016    597.20     [illegible]
 0.001644      252.      232.      252.         3         0         0      0.00    [illegible]    [illegible]

*SECNO 4.000
3280 CROSS SECTION       [illegible] EXTENDED       1.25 FEET

3301 HV CHANGED MORE THAN HVINS

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      5.24    600.94      0.00      0.00    601.07      0.13      0.13      0.06    595.70
    1000.      203.      593.      203.      195.      163.      195.        7.        3.    595.70
     0.06      1.04      3.65      1.04     0.040     0.016     0.040     0.016    595.70      0.00
 0.000169      248.      248.      248.         2         0         0      0.00    151.00    151.00
```

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
**********************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK E/S NOD 2001-07
T3      ECORCE CREEK ALLEN PARK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          0.        0.        0.        0.  0.000000      0.00      0.1       0.   559.720     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IB.       CHNIM     ITRACE
      5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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```
*PROF 5

CCHV=   0.100 CEHV=   0.300
*SECNO 1.000
   SECNO     DEPTH     CUSEL     CRIWS     SELK      EQ        HV        HL        BLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN.      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IHZ       ICONT     CORAR     TOPWID      ENDST

        RUSSEL ST. DIVERSION OF ECORSE CREEK

        INTERSECTION OF RUSSELL AND SHENADOAH

     1.00      3.72    599.72      0.00    599.72    600.43      0.71      0.00      1.00    596.00
    1200.      152.      896.      152.      104.      113.      104.        0.        0.    596.00
     0.00      1.47      7.77      1.47     0.100     0.030     0.100     0.000    596.00      4.20
 0.004266        0.        0.        0.         0         0         0      0.00    142.60    146.60

CCHV=   0.100 CEHV=   0.300
*SECNO 2.000
3280 CROSS SECTION      2.00 EXTENDED      0.34 FEET

     2.00      4.34    600.34      0.00      0.00    600.88      0.34      0.42      0.04    596.20
    1200.      213.      774.      213.      141.      135.      141.        0.        1.    596.20
     0.02      1.52      5.75      1.52     0.040     0.016     0.040     0.016    596.20      0.00
 0.000541      357.      357.      357.         2         0         0      0.00    151.00    151.00

*SECNO 3.000

3301 HV CHANGED MORE THAN MVINS

        INTERSECTION OF RUSSELL AND [illegible]

     3.00      3.21    600.41      0.00      0.00    601.27      0.86      0.00      0.15    597.20
    1200.      169.      862.      169.       78.      100.       78.        5.        2.    597.20
     0.03      2.17      8.64      2.17     0.040     0.016     0.040     0.016    597.20     11.73
 0.001823      252.      252.      252.         3         0         0      0.00    127.53    139.27

*SECNO 4.000
3280 CROSS SECTION      4.00 EXTENDED      1.59 FEET

3301 HV CHANGED MORE THAN MVINS

        INTERSECTION OF RUSSELL AND ECORSE CR.

     4.00      5.59    601.29      0.00      0.00    601.44      0.15      0.15      1.07    595.70
    1200.      253.      693.      253.      216.      173.      216.        7.        3.    595.70
     0.03      2.17      6.01      1.17     0.040     0.016     0.040     0.016    595.70      0.00
 0.002187      248.      248.      248.         2         0         0      0.00    151.00    151.00
```

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERRCR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1RUSSELL ST. RATING CURVE 500 YR
T2ALLEN PARK E/S HUD 2001-07
T3       ECORCE CREEK ALLEN PARK

J1  ICHECK    INQ.      NINV      IDIR      STRT      METRIC    HJINS     Q         WSEL      FQ
       0.        7.        0.        0.  0.000000     0.00      0.0       0.    599.720    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 6

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000

SECNO	DEPTH	QUSEL	SPINS	USELK	EE	HV	[illegible]	CLOES	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	KLOBL	XLCH	XLOBR	ITRIAL	IT2	ICOUT	CORAR	TOPWID	ENDIT

RUSSEL ST. DIVERSION OF ECORSE CREEK

INTERSECTION OF RUSSELL AND SHENADOAH

1.00	3.72	599.72	599.49	599.72	600.[illegible]	[illegible]	[illegible]	0.00	596.00
1500.	190.	1120.	190.	104.	115.	104.	0.	0.	596.00
0.00	1.83	9.71	1.83	0.100	0.030	0.100	0.000	596.00	4.20
0.006666	0.	0.	0.	0	8	0	0.00	142.60	146.80

CCHV= 0.100 CEHV= 0.300
*SECNO 2.000
3280 CROSS SECTION 2.00 EXTENDED 0.78 FEET

3301 HV CHANGED MORE THAN HVINS

2.00	4.79	600.99	0.00	0.00	601.38	0.39	0.48	0.07	596.20
1500.	288.	925.	288.	167.	148.	167.	3.	1.	596.20
0.02	1.72	[illegible]	1.72	0.040	0.016	0.040	0.016	596.20	0.00
0.000560	357.	357.	357.	2	0	1	0.00	151.00	151.00

*SECNO 3.000

3301 HV CHANGED MORE THAN HVINS

INTERSECTION OF RUSSELL AND LARME

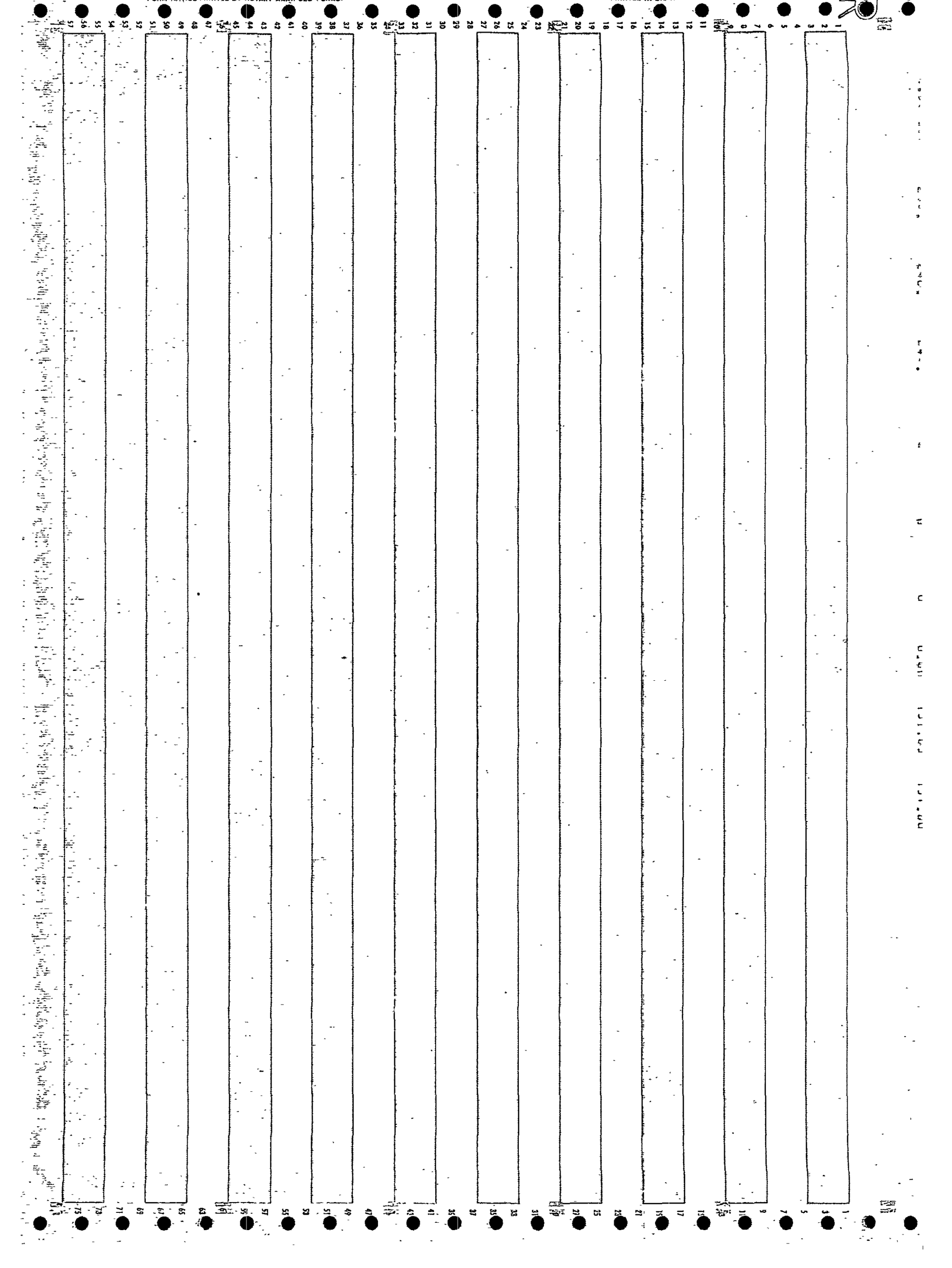
3.00	3.63	600.03	0.00	0.00	601.78	0.95	0.23	0.17	597.20
1500.	230.	1040.	230.	99.	113.	99.	5.	2.	597.20
0.03	2.33	9.24	2.33	0.040	0.016	0.040	0.016	597.20	5.53
0.001774	252.	252.	252.	4	0	0	0.00	139.95	143.47

*SECNO 4.000
3280 CROSS SECTION 4.00 EXTENDED 2.00 FEET

3301 HV CHANGED MORE THAN HVINS

INTERSECTION OF RUSSELL AND ECORSE CH.

4.00	6.23	601.78	0.00	0.00	601.97	0.19	0.11	0.08	595.70
1500.	328.	844.	328.	245.	189.	245.	8.	3.	595.70
0.03	1.34	4.47	1.32	0.040	0.016	0.040	0.016	595.70	0.00



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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

ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	596.00	500.00	599.72	0.00	599.84	7.41	3.24	322.89	183.73
1.000	0.00	0.00	0.00	596.00	600.00	599.72	0.00	599.90	10.66	3.84	322.89	183.73
1.000	0.00	0.00	0.00	596.00	800.00	599.72	0.00	600.03	18.96	5.18	322.89	183.73
1.000	0.00	0.00	0.00	596.00	1000.00	599.72	0.00	600.21	29.62	6.47	322.89	183.73
1.000	0.00	0.00	0.00	596.00	1200.00	599.72	0.00	600.43	42.66	7.77	322.89	183.73
1.000	0.00	0.00	0.00	596.00	1500.00	599.72	599.49	600.83	66.66	9.71	322.89	183.73
2.000	337.00	0.00	0.00	596.20	500.00	599.65	0.00	599.96	1.91	3.03	314.69	362.20
2.000	337.00	0.00	0.00	596.20	600.00	599.93	0.00	600.07	2.56	3.57	323.66	374.67
2.000	337.00	0.00	0.00	596.20	800.00	600.08	0.00	600.31	3.86	4.51	348.76	407.39
2.000	337.00	0.00	0.00	596.20	1000.00	600.29	0.00	600.58	4.86	5.24	378.05	453.84
2.000	337.00	0.00	0.00	596.20	1200.00	600.54	0.00	600.88	5.41	5.75	415.69	515.97
2.000	337.00	0.00	0.00	596.20	1500.00	600.99	0.00	601.38	5.60	6.24	482.34	634.15
3.000	252.00	0.00	0.00	597.20	500.00	599.64	0.00	600.09	6.62	4.63	186.08	191.47
3.000	252.00	0.00	0.00	597.20	600.00	599.69	0.00	600.24	9.08	5.42	192.09	199.[illegible]
3.000	252.00	0.00	0.00	597.20	800.00	600.02	0.00	600.57	13.46	6.81	206.97	218.34
3.000	252.00	0.00	0.00	597.20	1000.00	600.20	0.00	600.92	16.66	7.88	227.76	244.96
3.000	252.00	0.00	0.00	597.20	1200.00	600.41	0.00	601.27	18.23	8.64	255.06	281.04
3.000	252.00	0.00	0.00	597.20	1500.00	600.63	0.00	601.70	17.74	9.25	310.34	356.17
4.000	248.00	0.00	0.00	595.70	500.00	600.10	0.00	600.26	0.68	2.[illegible]	424.90	531.63
4.000	248.00	0.00	0.00	595.70	600.00	600.25	0.00	600.33	1.10	2.63	447.68	571.44
4.000	248.00	0.00	0.00	595.70	800.00	600.59	0.00	600.69	1.45	3.22	498.82	664.91
4.000	248.00	0.00	0.00	595.70	1000.00	600.94	0.00	601.07	1.69	3.69	552.38	768.99
4.000	248.00	0.00	0.00	595.70	1200.00	601.29	0.00	601.44	1.87	4.01	604.69	876.46
4.000	248.00	0.00	0.00	595.70	1500.00	601.78	0.00	601.97	2.09	4.47	678.98	1038.56

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ECORCE CREEK ALLEN PARK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFUSX	DIFKWS	TOPWID	XLCH
1.000	500.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	600.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	800.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	1000.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	1200.00	599.72	0.00	0.00	0.00	142.60	0.00
1.000	1500.00	599.72	0.00	0.00	0.00	142.60	0.00
2.000	500.00	599.36	0.00	0.14	0.00	140.66	357.00
2.000	600.00	599.9[illegible]	0.00	0.21	0.00	144.76	357.00
2.000	800.00	600.00	0.00	0.36	0.00	144.34	357.00
2.000	1000.00	600.29	0.00	0.57	0.00	151.00	357.00
2.000	1200.00	600.54	0.00	0.82	0.00	151.00	357.00
2.000	1500.00	600.99	0.00	1.27	0.00	151.00	357.00
3.000	500.00	599.84	0.00	-0.03	0.00	111.12	252.00
3.000	600.00	599.89	0.00	-0.04	0.00	111.74	252.00
3.000	800.00	600.02	0.00	-0.06	0.00	115.67	252.00
3.000	1000.00	600.20	0.00	-0.10	0.00	120.94	252.00
3.000	1200.00	600.41	0.00	-0.13	0.00	127.53	252.00
3.000	1500.00	600.84	0.00	-0.18	0.00	139.53	252.00
4.000	500.00	600.16	0.00	0.27	0.00	151.20	456.30
4.000	600.00	600.25	0.00	0.36	0.00	151.20	240.00
4.000	800.00	600.59	0.00	0.57	0.00	151.20	240.30
4.000	1000.00	600.94	0.00	0.75	0.00	151.20	240.30
4.000	1200.00	601.29	0.00	0.97	0.00	151.20	240.00
4.000	1500.00	601.78	0.00	0.98	0.00	111.00	240.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORD - 01
 MODIFICATION - 50,51,52
*****************************************************
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PRINTED IN U.S.A.
FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1      ALLEN PARK TIS
T2      STAGE/DISCHARGE RATING CURVE 500 YR
T3      ECORSE RATING CURVE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      3          WSEL       FQ
        0.         2.         0.         0.    0.000002      0.00       0.0       0.       599.720      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
    150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J5  LPRNT      NUMSEC                    ********REQUESTED SECTION NUMBERS********
    -10.000    -10.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
OT    7.000    100.000    300.000    500.000    750.000   1000.000   1200.000   1500.000      0.000      0.000
NC    0.070      0.070      0.030      0.300      0.500      0.030      0.000      0.000      0.000      0.000

                U/S OF J.F.K. RAIL (SURVEY = 39+00)

X1  1932.000     11.000    111.000    125.000    350.000    [illegible]  1429.300      0.300      0.000      0.000
GC    670.030      0.000    595.000      0.300    595.500     75.000    594.700     97.300    537.500    113.000
GH    587.400    116.000    587.000    125.000    595.300    142.000    596.300    157.300    598.200    207.000
GR    610.000    207.000      3.000      0.300      3.000      0.000      0.300      0.000      0.000      0.000
NC      0.030      0.030      0.030      0.300      0.500      0.030      0.000      0.300      0.000      0.000

                X

X1  2132.000      0.000      0.000      0.300    400.000    300.000    550.000      0.300      0.200      0.000
NC      0.030      0.030      0.030      0.300      0.500      0.030      0.000      0.300      0.300      0.300

                D/S FACE (SURVEY = 25+45)

X1  2536.000     15.000    164.000    180.000    450.000    375.000    464.000      0.000      0.300      0.300
GC     10.000      0.000      0.000      0.000      0.000      0.300      1.000    [illegible]  [illegible]      0.300
GH    513.000      0.000    595.300      0.300    596.700     78.300    [illegible]  111.300    [illegible]  117.300
GL    593.100    134.000    [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible]
GR    595.500    190.000    595.300    240.000    595.700    272.000    597.900    278.000    610.000    278.000
SO      0.000      1.500      3.000      0.000     16.000      0.300    110.400      0.000    564.000    545.000

                L/S FACE (SURVEY = 25+45)

X1  2541.300      0.300      0.300      1.000      5.000      5.000      [illegible]  [illegible]  [illegible]  [illegible]
X2    0.000      0.300      1.300    594.900    595.300      0.300      [illegible]  [illegible]  [illegible]  [illegible]
X3    0.000      0.300      0.300      1.000      0.300      0.300      [illegible]  [illegible]  [illegible]  [illegible]
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PRINTED IN U.S.A.

FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

BT	10.000	117.000	595.300	0.000	161.000	596.300	0.000	161.000	599.000	0.000
BT	164.000	599.000	588.000	164.000	597.000	594.900	180.000	597.000	594.900	180.000
BT	599.000	588.000	183.000	599.000	0.000	183.000	596.300	0.000	240.000	595.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

50'U/S OF FOOTBRIDGE

X1	2591.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000

X - 400' U/S OF FOOTBRIDGE

X1	2941.000	10.000	90.000	102.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	610.000	0.000	595.000	0.000	593.000	30.000	590.000	80.000	587.800	90.000
GR	587.800	102.000	590.000	112.000	593.000	142.000	595.500	167.000	610.000	167.000

U/S FACE LAMBE ST9 CULVERTS(SURVEY = 17+94)

X1	3287.000	8.000	90.000	110.800	346.000	346.000	346.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.000	595.000	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	588.200	90.000	588.200	100.800
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
SB	1.250	3.910	3.000	200.000	16.700	1.000	28.000	0.000	588.200	588.200

U/S FACE KEPPEN ST. (SURVEY= 15+94)

X1	3487.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	593.500	595.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000

U/S FACE RUSSELL ST. CULVERTS (SURVEY = 13+25)

X1	3776.000	8.000	90.000	110.000	239.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	595.500	595.500	0.000
GR	610.000	0.000	595.000	0.000	595.000	90.000	589.000	90.000	589.000	110.800
GR	595.000	110.800	595.000	200.000	610.000	200.000	0.000	0.000	0.000	0.000
SB	1.250	2.310	3.000	200.000	14.550	1.000	60.000	0.000	589.000	589.000

U/S FACE RUSSELL ST. CULVERTS(SURVEY = 12+30)

X1	3843.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.900	596.000	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	596.000	596.000	0.000
SB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

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*****************************************************
 FEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1      ALLEN PARK FIS
T2      STAGE/DISCHARGE RATING CURVE 500 YR
T3      ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        3.        0.        0.  0.000000      0.00       0.0       0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     XEL       CHNOM     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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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 500 YR
T3       ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        4.        0.        0.  0.000000      0.00       0.0        0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IS.       CHAIN     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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FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1       ALLEN PARK FIS
T2       STAGE/DISCHARGE RATING CURVE 500 YR
T3       ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FC

      0.        5.        0.        2.  0.000000      0.00      0.0       0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FM        ALLDC     IN        CHNIM     ITRACE

     4.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411 CO-PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

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*****************************************************
  NEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1        ALLEN PARK FIS
T2        STAGE/DISCHARGE RATING CURVE 500 YR
T3        ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     C         DSEL      FG

      0.        0.        0.        0.  0.000050      0.00      0.0       0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IL        CNIN      ITRACE

    5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  J1
  MODIFICATION -  50,51,52
**************************************************

T1        ALLEN PARK FIS
T2        STAGE/DISCHARGE RATING CURVE 500 YR
T3        ECORSE RATING CURVE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ

       0.        7.        0.        0.  0.003000      0.00      0.0        0.   599.720     0.000

J2  NPROF     IPLOT     PRFVS     XSELV     XRECX     FN        WALDS     IN        CHNL      ITRACE

      6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  U1
  MODIFICATION -  30,31,32
**************************************************

T1ALLEN PARK FIG
T2       STAGE DISCHARGE RATING CURVE 500 YR
T3       GEORGE CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.000000     0.00     0.0      0.   599.720   0.000

J2  NPROF    IPLOT    PRFMS    XSECV    XSECH    FN       ALLDC    ZHR      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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FORM 1411-OD-PRINTED BY ROTARY MANIFOLD FORMS

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 31
MODIFICATION - 50,51,52

****

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

ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	XTOB	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOPWID	VCH	AREA	.01K
1832.000	1479.00	0.00	0.00	587.40	100.00	599.72	0.00	599.72	0.01	0.29	1040.66	909.41
1832.000	1479.00	0.00	0.00	587.40	300.00	599.72	0.00	599.74	0.11	0.87	1040.66	909.41
1832.000	1479.00	0.00	0.00	587.40	500.00	599.72	0.00	599.75	0.30	1.44	1040.62	909.41
1832.000	1479.00	0.00	0.00	587.40	750.00	599.72	0.00	599.73	0.66	2.17	1040.63	909.41
1832.000	1479.00	0.00	0.00	587.40	1000.00	599.72	0.00	599.77	1.21	2.87	1040.62	909.41
1832.000	1479.00	0.00	0.00	587.40	1250.00	599.72	0.00	599.80	1.89	3.62	1040.64	909.41
1832.000	1479.00	0.00	0.00	587.40	1500.00	599.72	0.00	599.85	2.72	4.34	1040.64	909.41
2132.000	350.00	0.00	0.00	587.60	100.00	599.72	0.00	599.72	0.01	0.33	999.39	865.73
2132.000	350.00	0.00	0.00	587.60	300.00	599.72	0.00	599.73	0.12	0.90	1000.10	865.48
2132.000	350.00	0.00	0.00	587.60	500.00	599.72	0.00	599.74	0.32	1.50	1001.47	866.94
2132.000	350.00	0.00	0.00	587.60	750.00	599.74	0.00	599.77	0.74	2.25	1004.19	869.86
2132.000	350.00	0.00	0.00	587.60	1000.00	599.76	0.00	599.82	1.31	2.98	1008.03	873.98
2132.000	350.00	0.00	0.00	587.60	1250.00	599.79	0.00	599.87	2.02	3.71	1012.99	879.31
2132.000	350.00	0.00	0.00	587.60	1500.00	599.84	0.00	599.94	2.97	4.41	1019.08	885.80
2536.000	404.00	0.00	0.00	588.00	100.00	599.72	0.00	599.72	0.01	0.26	1332.37	1140.03
2536.000	404.00	0.00	0.00	588.00	300.00	599.73	0.00	599.73	0.07	0.67	1335.36	1142.87
2536.000	404.00	0.00	0.00	588.00	500.00	599.75	0.00	599.76	0.19	1.12	1339.77	1147.50
2536.000	404.00	0.00	0.00	588.00	750.00	599.79	0.00	599.80	0.42	1.66	1347.64	1156.42
2536.000	404.00	0.00	0.00	588.00	1000.00	599.85	0.00	599.88	0.75	2.19	1358.49	1171.58
2536.000	404.00	0.00	0.00	588.00	1250.00	599.94	0.00	599.94	1.20	2.70	1372.83	1193.72
2536.000	404.00	0.00	0.00	588.00	1500.00	600.07	0.00	600.13	1.82	3.21	1391.18	1220.46
2541.000	5.00	595.30	594.90	588.00	100.00	599.73	0.00	599.73	0.21	0.22	1335.65	1142.95
2541.000	5.00	595.30	594.90	588.00	300.00	599.76	0.00	599.76	0.07	0.67	1344.66	1155.12
2541.000	5.00	595.30	594.90	588.00	500.00	599.80	0.00	599.83	0.19	1.10	1357.52	1172.20
2541.000	5.00	595.30	594.90	588.00	750.00	599.86	0.00	599.89	0.40	1.63	1379.66	1199.38
2541.000	5.00	595.30	594.90	588.00	1000.00	599.94	0.00	599.98	0.69	2.14	1342.58	1205.11
2541.000	5.00	595.30	594.90	588.00	1250.00	600.02	0.00	600.06	1.03	2.64	1415.65	1232.61
2541.000	5.00	595.30	594.90	588.00	1500.00	600.11	0.00	600.18	1.47	3.10	1442.05	1262.90
2591.000	50.00	0.00	0.00	588.00	100.00	599.72	0.00	599.72	0.01	0.22	1335.50	1142.8
2591.000	50.00	0.00	0.00	588.00	300.00	599.73	0.00	599.73	0.07	0.67	1344.06	1152.32
2591.000	50.00	0.00	0.00	588.00	500.00	599.74	0.00	599.77	0.18	1.10	1356.50	1171.00
2591.000	50.00	0.00	0.00	588.00	750.00	599.78	0.00	599.82	0.41	1.63	1372.62	1184.21
2591.000	50.00	0.00	0.00	588.00	1000.00	599.84	0.00	599.87	0.69	2.14	1393.25	1207.18
2591.000	50.00	0.00	0.00	588.00	1250.00	600.02	0.00	600.07	1.03	2.63	1417.14	1234.31
2591.000	50.00	0.00	0.00	588.00	1500.00	600.14	0.00	600.18	1.47	3.10	1446.03	1265.20

FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS
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SECNO	XLCH	ELTRO	ELLC	ELMIN	Q	CHSEL	CRI.S	EG	TOK*S	VCH	AREA	.01*
2941.000	350.00	0.00	0.00	587.80	100.00	599.73	0.00	599.73	0.01	0.20	1263.06	1287.26
2941.000	350.00	0.00	0.00	587.80	300.00	599.78	0.00	599.78	0.05	0.66	1298.52	1295.55
2941.000	350.00	0.00	0.00	587.80	500.00	599.81	0.00	599.82	0.15	0.99	1296.11	1306.59
2941.000	350.00	0.00	0.00	587.80	750.00	599.86	0.00	599.90	0.32	1.48	1317.73	1323.51
2941.000	350.00	0.00	0.00	587.80	1000.00	599.97	0.00	599.99	0.55	1.95	1322.65	1346.22
2941.000	350.00	0.00	0.00	587.80	1250.00	600.07	0.00	600.11	0.83	2.40	1339.37	1371.42
2941.000	350.00	0.00	0.00	587.80	1500.00	600.19	0.00	600.23	1.14	2.84	1360.04	1402.84
3287.000	346.00	0.00	0.00	588.20	100.00	599.73	0.00	599.73	0.01	0.21	1053.19	860.58
3287.000	346.00	0.00	0.00	588.20	300.00	599.76	0.00	599.77	0.12	0.62	1060.57	874.58
3287.000	346.00	0.00	0.00	588.20	500.00	599.82	0.00	599.82	0.32	1.03	1070.53	880.50
3287.000	346.00	0.00	0.00	588.20	750.00	599.90	0.00	599.91	0.70	1.52	1086.54	899.31
3287.000	346.00	0.00	0.00	588.20	1000.00	599.99	0.00	600.02	1.18	1.99	1105.96	922.36
3287.000	346.00	0.00	0.00	588.20	1250.00	600.11	0.00	600.15	1.73	2.43	1128.63	949.55
3287.000	346.00	0.00	0.00	588.20	1500.00	600.24	0.00	600.30	2.34	2.85	1154.22	980.60
3487.000	200.00	595.50	595.50	588.20	100.00	599.74	0.00	599.74	0.01	0.21	1056.71	862.09
3487.000	200.00	595.50	595.50	588.20	300.00	599.79	0.00	599.79	0.12	0.62	1065.60	874.75
3487.000	200.00	595.50	595.50	588.20	500.00	599.85	0.00	599.86	0.31	1.02	1079.36	891.09
3487.000	200.00	595.50	595.50	588.20	750.00	599.94	0.00	599.96	0.67	1.50	1098.65	913.64
3487.000	200.00	595.50	595.50	588.20	1000.00	600.06	0.00	600.09	1.14	1.96	1118.72	937.60
3487.000	200.00	595.50	595.50	588.20	1250.00	600.20	0.00	600.22	1.67	2.40	1140.20	962.27
3487.000	200.00	595.50	595.50	588.20	1500.00	600.32	0.00	600.37	2.25	2.81	1170.55	1000.62
3776.000	289.00	0.00	0.00	589.00	100.00	599.74	0.00	599.74	0.01	0.20	1072.12	880.46
3776.000	289.00	0.00	0.00	589.00	300.00	599.79	0.00	599.79	0.11	0.57	1083.05	891.13
3776.000	289.00	0.00	0.00	589.00	500.00	599.86	0.00	599.87	0.30	0.96	1097.21	917.55
3776.000	289.00	0.00	0.00	589.00	750.00	599.97	0.00	599.98	0.63	1.44	1116.26	942.44
3776.000	289.00	0.00	0.00	589.00	1000.00	600.09	0.00	600.12	1.06	1.87	1142.77	971.67
3776.000	289.00	0.00	0.00	589.00	1250.00	600.23	0.00	600.27	1.55	2.28	1170.50	1005.16
3776.000	289.00	0.00	0.00	589.00	1500.00	600.38	0.00	600.44	2.07	2.66	1201.12	1042.77
3843.000	67.00	596.00	594.90	589.00	100.00	599.74	0.00	599.74	0.01	0.20	1075.53	850.10
3843.000	67.00	596.00	594.90	589.00	300.00	599.79	0.00	599.80	0.11	0.59	1085.25	862.16
3843.000	67.00	596.00	594.90	589.00	500.00	599.90	0.00	599.91	0.29	0.97	1100.35	928.26
3843.000	67.00	596.00	594.90	589.00	750.00	600.02	0.00	600.04	0.64	1.42	1120.36	957.06
3843.000	67.00	596.00	594.90	589.00	1000.00	600.15	0.00	600.18	1.02	1.85	1156.20	987.85
3843.000	67.00	596.00	594.90	589.00	1250.00	600.31	0.00	600.36	1.54	2.25	1190.04	1020.22
3843.000	67.00	596.00	594.90	589.00	1500.00	600.47	0.00	600.52	1.98	2.67	1218.53	1061.37

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ECORSE RATING CURVE

SUMMARY PRINTOUT TABLE 150

GECHO	Q	C.SEL	DIFWLP	DIFWSX	DIFKLS	TOP.ID	[illegible]
1832.000	100.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	300.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	500.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	750.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	1000.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	1250.00	599.72	0.00	0.00	0.00	207.00	1479.00
1832.000	1500.00	599.72	0.00	0.00	0.00	207.00	1479.00
2132.000	100.00	599.72	0.00	0.00	0.00	207.00	350.00
2132.000	300.00	599.72	0.00	0.00	0.00	207.00	350.00
2132.000	500.00	599.73	0.00	0.00	0.00	207.00	350.00
2132.000	750.00	599.74	0.00	0.02	0.00	207.00	350.00
2132.000	1000.00	599.76	0.00	0.04	0.00	207.00	350.00
2132.000	1250.00	599.79	0.00	0.07	0.00	207.00	350.00
2132.000	1500.00	599.81	0.00	0.09	0.00	207.00	350.00
2536.000	100.00	599.72	0.00	0.00	0.00	278.00	404.00
2536.000	300.00	599.73	0.00	0.01	0.00	278.00	404.00
2536.000	500.00	599.75	0.00	0.02	0.00	278.00	404.00
2536.000	750.00	599.78	0.00	0.04	0.00	278.00	404.00
2536.000	1000.00	599.83	0.00	0.07	0.00	278.00	404.00
2536.000	1250.00	599.89	0.00	0.11	0.00	278.00	404.00
2536.000	1500.00	599.97	0.00	0.15	0.00	278.00	404.00
2541.000	100.00	599.73	0.00	0.01	0.00	278.00	5.00
2541.000	300.00	599.74	0.00	0.03	0.00	278.00	5.00
2541.000	500.00	599.80	0.00	0.05	0.00	278.00	5.00
2541.000	750.00	599.83	0.00	0.08	0.00	278.00	5.00
2541.000	1000.00	599.93	0.00	0.13	0.00	278.00	5.00
2541.000	1250.00	600.02	0.00	0.13	0.00	278.00	5.00
2541.000	1500.00	600.11	0.00	0.15	0.00	278.00	5.00
2591.000	100.00	599.7[illegible]	0.00	0.00	0.00	278.00	50.00
2591.000	300.00	599.74	0.00	0.00	0.00	278.00	50.00
2591.000	500.00	599.80	0.00	0.01	0.00	278.00	50.00
2591.000	750.00	599.86	0.00	0.00	0.00	278.00	50.00
2591.000	1000.00	599.94	0.00	0.00	0.00	278.00	50.00
2591.000	1250.00	600.02	0.00	0.01	0.00	278.00	50.00
2591.000	1500.00	600.12	0.00	0.01	0.00	278.00	50.00
2941.000	100.00	599.73	0.00	0.00	0.00	167.00	350.00
2941.000	300.00	599.76	0.00	0.00	0.00	167.00	350.00
2941.000	500.00	599.81	0.00	0.01	0.00	167.00	350.00
2941.000	750.00	599.80	0.00	0.02	0.00	167.00	350.00
2941.000	1000.00	599.97	0.00	0.04	0.00	167.00	350.00
2941.000	1250.00	600.07	0.00	0.05	0.00	167.00	350.00
2941.000	1500.00	600.19	0.00	0.07	0.00	167.00	350.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3287.000	100.00	599.73	0.00	0.00	0.00	200.00	346.00
3287.000	300.00	599.76	0.00	0.00	0.00	200.00	346.00
3287.000	500.00	599.82	0.00	0.01	0.00	200.00	346.00
3287.000	750.00	599.93	0.00	0.01	0.00	200.00	346.00
3287.000	1000.00	599.99	0.00	0.02	0.00	200.00	346.00
3287.000	1250.00	600.11	0.00	0.03	0.00	200.00	346.00
3287.000	1500.00	600.24	0.00	0.05	0.00	200.00	346.00
3487.000	100.00	599.74	0.00	0.01	0.00	200.00	200.00
3487.000	300.00	599.79	0.00	0.02	0.00	200.00	200.00
3487.000	500.00	599.85	0.00	0.04	0.00	200.00	200.00
3487.000	750.00	599.95	0.00	0.05	0.00	200.00	200.00
3487.000	1000.00	600.06	0.00	0.06	0.00	200.00	200.00
3487.000	1250.00	600.[illegible]	0.00	0.07	0.00	200.00	200.00
3487.000	1500.00	600.32	0.00	0.08	0.00	200.00	200.00
3776.000	100.00	599.74	0.00	0.00	0.00	200.00	289.00
3776.000	300.00	599.79	0.00	0.00	0.00	200.00	289.00
3776.000	500.00	599.86	0.00	0.01	0.00	200.00	289.00
3776.000	750.00	599.97	0.00	0.02	0.00	200.00	289.00
3776.000	1000.00	600.09	0.00	0.03	0.00	200.00	289.00
3776.000	1250.00	600.23	0.00	0.05	0.00	200.00	289.00
3776.000	1500.00	600.38	0.00	0.07	0.00	200.00	289.00
3843.000	100.00	599.74	0.00	0.01	0.00	200.00	67.00
3843.000	300.00	599.8[illegible]	0.00	0.02	0.00	200.00	67.00
3843.000	500.00	599.93	0.00	0.04	0.00	200.00	67.00
3843.000	750.00	600.[illegible]	0.00	0.05	0.00	200.00	67.00
3843.000	1000.00	600.16	0.00	0.07	0.00	200.00	67.00
3843.000	1250.00	600.31	0.00	0.08	0.00	200.00	67.00
3843.000	1500.00	600.47	0.00	0.09	0.00	200.00	67.00

SUMMARY OF ERRORS

CAUTION SECNO= 3843.000 PROBLEM 1 20 TRIALS OF 26 NOT ENOUGH

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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ERROR SUMMARY

0 ERROR(S) DETECTED BY THE USER PROGRAM
0 ERROR(S) DETECTED BY THE MATHEMATICAL PACKAGE
0 ERROR(S) DETECTED FOR INPUT/OUPUT STATEMENTS

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