00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: NOTE

00BREAK00

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2       10 YEAR FLOW
T3       PEBBLE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        0.        0.  0.000000      0.00       0.0        0.   689.350     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3      1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000
NC       .075      .075      .040      .300      .500     0.000     0.000     0.000     0.000     0.000
QT      4.000   380.000   780.000   995.000  1690.000     0.000     0.000     0.000     0.000     0.000

X1      0.000    15.000    41.000    60.000     0.000     0.000     0.000     0.000     0.000     0.000
X3      0.000     0.000     0.000    42.000     0.000    58.000     0.000     0.000     0.000     0.000
GR    706.600     0.000   689.100    41.000   687.200    42.200   686.400    43.100   686.000    44.000
GR    685.600    46.000   685.200    48.000   685.200    50.000   685.200    50.000   685.600    54.000
GR    686.000    56.000   686.400    56.900   687.200    57.800   688.900    60.000   703.800   150.000
NC       .040      .040      .031     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      1.000    15.000    42.200    57.800     1.000     1.000     1.000     0.000     0.000     0.000
BT     15.000     0.000   706.600     0.000    42.200   705.600     0.000    42.200   705.600   688.400
BT     43.100   705.600   690.400    44.000   705.600   692.000    46.000   705.600   693.600    48.000
BT    705.500   694.900    50.000   705.500   695.100    52.000   705.500   695.100    54.000   705.500
BT    693.600    56.000   705.500   692.000    56.900   705.500   690.400    57.800   705.300   688.400
BT     57.800   705.300     0.000   150.000   703.800     0.000     0.000     0.000     0.000     0.000
GR    706.600     0.000   705.600    42.200   687.200    42.200   686.400    43.100   686.000    44.000
GR    685.600    46.000   685.200    48.000   685.200    50.000   685.200    52.000   685.600    54.000
GR    686.000    56.000   686.400    56.900   687.200    57.800   705.300    57.800   703.800   150.000

X1    112.000    15.000    42.200    57.800   111.000   111.000   111.000     0.000     0.000     0.000
BT     15.000     0.000   706.600     0.000    42.200   705.600     0.000    42.200   705.600   689.000
BT     43.100   705.600   691.000    44.000   705.600   692.600    46.000   705.600   694.200    48.000
BT    705.600   695.700    50.000   705.500   695.700    52.000   705.500   695.700    54.000   705.500
BT    694.200    56.000   705.500   692.600    56.900   705.500   691.000    57.800   705.400   689.000
BT     57.800   705.400     0.000   150.000   703.800     0.000     0.000     0.000     0.000     0.000
GR    706.600     0.000   705.600    42.200   688.000    42.200   687.200    43.100   686.800    44.000
GR    686.400    46.000   686.000    48.000   686.000    50.000   686.000    52.000   686.400    54.000
GR    686.800    56.000   687.200    56.900   688.000    57.800   705.300    57.800   703.800   150.000
NC       .085      .085      .040     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    113.000    15.000    41.000    60.000     1.000     1.000     1.000     0.000     0.000     0.000
X3      0.000     0.000     0.000    42.200     0.000    57.800     0.000     0.000     0.000     0.000
X5      4.000     0.000     0.000     0.000   701.560     0.000     0.000     0.000     0.000     0.000
GR    706.600     0.000   689.100    41.000   688.000    42.200   687.200    43.100   686.800    44.000
GR    686.400    46.000   686.000    48.000   686.000    50.000   686.000    50.000   686.400    54.000
GR    686.800    56.000   687.200    56.900   688.000    57.800   688.900    60.000   703.800   150.000
NC       .085      .085      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    116.000     7.000    41.000    60.000     3.000     3.000     3.000     0.000     0.000     0.000
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X3	0.000	0.000	0.000	39.000	0.000	61.000	0.000	0.000	0.000	0.000
GR	706.600	0.000	689.100	41.000	686.100	43.000	686.010	51.000	686.100	57.000
GR	688.900	60.000	703.800	150.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	212.000	10.000	125.000	142.000	96.000	96.000	96.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	25.000	0.000	240.000	0.000	0.000	0.000	0.000
GR	706.200	0.000	693.100	25.000	690.000	125.000	686.800	129.000	686.200	133.000
GR	687.000	138.000	691.200	142.000	693.400	225.000	695.700	242.000	710.200	285.000
NC	.075	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	812.000	10.000	156.000	184.000	550.000	650.000	600.000	0.000	0.000	0.000
GR	706.900	0.000	698.500	21.000	697.700	56.000	697.900	134.000	693.500	156.000
GR	690.500	162.000	689.100	169.000	688.800	176.000	693.800	184.000	707.600	208.000
NC	.080	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1312.000	10.000	28.000	65.000	450.000	550.000	500.000	0.000	0.000	0.000
GR	710.700	0.000	699.600	28.000	692.200	33.000	692.200	39.000	693.600	43.000
GR	693.700	55.000	699.800	65.000	699.400	165.000	701.800	265.000	712.200	285.000
NC	.090	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1437.000	13.000	227.000	260.000	100.000	100.000	125.000	0.000	0.000	0.000
GR	716.600	0.000	701.700	35.000	701.600	60.000	701.400	125.000	701.500	208.000
GR	697.700	210.000	697.600	227.000	695.200	231.000	693.500	238.000	693.500	246.000
GR	699.600	260.000	700.700	302.000	717.000	352.000	0.000	0.000	0.000	0.000
NC	.080	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1562.000	13.000	92.000	125.000	100.000	100.000	125.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	71.000	0.000	146.000	0.000	0.000	0.000	0.000
GR	717.000	0.000	700.700	50.000	699.600	92.000	694.700	106.000	694.700	114.000
GR	695.200	121.000	697.700	125.000	697.400	142.000	701.500	144.000	700.900	227.000
GR	701.600	292.000	701.100	317.000	716.600	352.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1625.000	0.000	0.000	0.000	63.000	63.000	63.000	0.000	.400	0.000
X3	0.000	0.000	0.000	87.000	0.000	130.000	0.000	0.000	0.000	0.000
NC	.075	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1662.000	0.000	0.000	0.000	37.000	37.000	37.000	0.000	.240	0.000
X3	0.000	0.000	0.000	97.000	0.000	122.000	0.000	0.000	0.000	0.000
X1	1669.000	0.000	0.000	0.000	7.000	7.000	7.000	0.000	.040	0.000
X3	0.000	0.000	0.000	98.000	0.000	120.000	0.000	0.000	0.000	0.000
X1	1675.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	.040	0.000
X3	0.000	0.000	0.000	100.000	0.000	118.000	0.000	0.000	0.000	0.000
X1	1681.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	.040	0.000
X3	0.000	0.000	0.000	101.000	0.000	116.000	0.000	0.000	0.000	0.000
X1	1687.000	11.000	44.000	56.000	6.000	6.000	6.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	44.000	0.000	56.000	0.000	0.000	0.000	0.000
GR	719.900	0.000	708.900	22.000	699.200	44.000	696.800	46.000	695.700	48.000
GR	695.700	52.000	696.800	54.000	699.200	56.000	708.800	78.000	717.900	100.000
GR	717.900	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1688.000	10.000	44.000	56.000	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	707.900	707.900	0.000
BT	10.000	0.000	719.900	0.000	44.000	718.100	0.000	44.000	718.100	702.000
BT	46.000	718.000	706.600	48.000	717.900	707.500	52.000	717.900	707.500	54.000
BT	717.900	706.600	56.000	717.900	702.000	56.000	717.900	0.000	150.000	717.900
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	719.900	0.000	718.100	44.000	699.800	44.000	696.800	46.000	695.700	48.000
GR	695.700	52.000	696.800	54.000	699.800	56.000	717.900	56.000	717.900	150.000

X1	1748.000	10.000	[illegible]	58.000	60.000	60.000	0.000	0.000	0.000	.000
BT	10.000	0.000	719.900	0.000	44.000	718.100	0.000	44.000	718.100	701.800
BT	46.000	718.000	706.800	48.000	717.900	707.800	52.000	717.900	707.800	54.000
BT	717.900	706.800	56.000	717.900	701.800	56.000	717.900	0.000	150.000	717.900
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	719.900	0.000	718.100	44.000	699.800	44.000	696.800	46.000	695.800	48.000
GR	695.800	52.000	696.800	54.000	699.800	56.000	717.900	56.000	717.900	150.000
NC	.090	.090	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1749.000	10.000	44.000	56.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	44.000	0.000	56.000	0.000	0.000	0.000	0.000
X5	4.000	0.000	0.000	0.000	711.680	0.000	0.000	0.000	0.000	0.000
GR	719.900	0.000	709.800	22.000	699.800	44.000	696.800	46.000	695.800	48.000
GR	695.800	52.000	696.800	54.000	699.800	56.000	708.900	103.000	717.900	150.000
QT	4.000	380.000	820.000	995.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1752.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	-.100	0.000
X3	0.000	0.000	0.000	41.000	0.000	59.000	0.000	0.000	0.000	0.000
X1	1817.000	12.000	92.000	124.000	65.000	65.000	65.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	32.000	0.000	184.000	0.000	0.000	0.000	0.000
GR	718.200	0.000	706.300	23.000	701.000	70.000	698.900	92.000	695.800	100.000
GR	695.200	105.000	695.800	109.000	696.200	117.000	702.700	124.000	701.700	200.000
GR	702.200	246.000	715.500	268.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.085	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1818.000	11.000	95.000	124.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	32.000	0.000	184.000	0.000	0.000	0.000	0.000
GR	718.200	0.000	706.300	23.000	701.000	70.000	701.000	95.000	698.400	100.000
GR	698.300	108.000	698.200	115.000	702.700	124.000	701.700	200.000	702.200	246.000
GR	715.500	268.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1821.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	32.000	0.000	184.000	0.000	0.000	0.000	0.000
NC	.080	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1822.000	12.000	93.000	124.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	32.000	0.000	184.000	0.000	0.000	0.000	0.000
GR	718.200	0.000	706.300	23.000	701.000	70.000	699.900	93.000	697.800	99.000
GR	697.800	105.000	697.200	109.000	697.000	114.000	702.700	124.000	701.700	200.000
GR	702.200	246.000	715.500	268.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1972.000	11.000	60.000	80.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	718.800	0.000	703.300	30.000	702.000	60.000	696.900	63.000	696.000	68.000
GR	697.500	73.000	698.400	77.000	701.000	80.000	704.000	160.000	704.200	224.000
GR	717.600	260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2572.000	10.000	160.000	184.000	550.000	550.000	600.000	0.000	0.000	0.000
GR	714.900	0.000	709.300	65.000	702.900	160.000	700.700	164.000	699.700	170.000
GR	699.700	174.000	700.100	179.000	703.100	184.000	706.900	202.000	722.400	222.000
NC	.080	.080	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2573.000	8.000	165.000	180.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	714.900	0.000	709.300	65.000	702.200	165.000	702.100	172.000	702.200	179.000
GR	702.700	180.000	706.900	202.000	722.400	222.000	0.000	0.000	0.000	0.000
X1	2576.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
NC	.090	.080	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2577.000	10.000	164.000	182.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	714.900	0.000	709.300	65.000	703.100	164.000	701.000	166.000	701.000	170.000
GR	700.900	174.000	700.900	179.000	702.800	182.000	706.900	202.000	722.400	222.000

X1	[illegible]	10.00	103.00	[illegible]	[illegible]	[illegible]	[illegible]	0.000	.000	0.000
GR	722.700	0.000	709.200	25.000	708.100	103.000	704.000	106.000	704.000	119.000
GR	704.700	122.000	709.000	125.000	709.500	173.000	710.000	217.000	722.100	249.000
X1	3317.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.700	0.000
X1	3407.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.700	0.000
NC	.080	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3497.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.700	0.000
X1	3587.000	11.000	97.000	115.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	729.300	0.000	713.200	30.000	710.700	97.000	706.900	100.000	706.900	106.000
GR	707.700	110.000	711.100	115.000	712.000	215.000	712.900	240.000	721.300	265.000
GR	722.700	315.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4187.000	8.000	45.000	68.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	9.000	0.000	104.000	0.000	0.000	0.000	0.000
GR	724.400	0.000	713.400	22.000	713.800	45.000	709.700	48.000	707.900	54.000
GR	709.500	61.000	713.800	68.000	718.000	168.000	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4262.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	1.020	0.000
X3	0.000	0.000	0.000	28.000	0.000	85.000	0.000	0.000	0.000	0.000
NC	.075	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4312.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.680	0.000
X3	10.000	0.000	0.000	40.000	0.000	72.000	0.000	716.300	716.300	0.000
SB	0.000	1.460	2.600	0.000	12.000	0.000	87.000	0.000	709.600	709.600
NH	3.000	.075	50.000	.038	62.000	.075	250.000	0.000	0.000	0.000
X1	4326.000	10.000	45.000	67.000	14.000	14.000	14.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	716.500	718.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	43.000	0.000	68.000	0.000	718.900	718.900	0.000
BT	8.000	43.000	719.000	0.000	45.000	718.900	711.600	50.000	718.700	709.600
BT	50.000	718.700	716.900	62.000	718.800	716.900	62.000	718.800	709.600	67.000
BT	718.900	710.900	68.000	718.900	0.000	0.000	0.000	0.000	0.000	0.000
GR	724.700	0.000	719.600	25.000	710.600	45.000	709.600	50.000	709.800	56.000
GR	709.600	62.000	710.900	67.000	719.400	97.000	721.300	150.000	725.700	250.000
NC	.085	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4337.000	8.000	100.000	119.500	11.000	11.000	11.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	119.500	0.000	0.000	0.000	0.000
GR	726.500	0.000	725.500	100.000	709.500	100.000	710.600	107.000	710.800	110.000
GR	710.300	119.500	725.500	119.500	725.600	200.000	0.000	0.000	0.000	0.000
NC	.040	.040	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4338.000	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	722.400	722.400	0.000
BT	8.000	0.000	726.500	0.000	100.000	725.500	0.000	100.000	725.500	722.400
BT	107.000	725.500	722.400	110.000	725.500	722.400	119.500	725.500	722.400	119.500
BT	725.500	722.400	200.000	725.600	0.000	0.000	0.000	0.000	0.000	0.000
X1	4381.000	0.000	0.000	0.000	43.000	43.000	43.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	725.500	725.500	0.000
NC	.080	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4382.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	119.500	0.000	0.000	0.000	0.000
X1	4387.000	12.000	90.000	118.000	5.000	5.000	5.000	0.000	-.280	0.000
X3	0.000	0.000	0.000	89.000	0.000	119.000	0.000	0.000	0.000	0.000
GR	726.900	0.000	723.600	52.000	717.500	67.000	715.100	90.000	711.000	96.000
GR	709.900	100.000	709.900	107.000	709.800	113.000	711.200	117.000	714.600	118.000

GR	721.700	200.000	725.900	300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4462.000	12.000	90.000	118.000	75.000	75.000	75.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	63.000	0.000	161.000	0.000	0.000	0.000	0.000
GR	726.900	0.000	723.600	52.000	717.500	67.000	715.100	90.000	711.000	96.000
GR	709.900	100.000	709.900	107.000	709.800	113.000	711.200	117.000	714.600	118.000
GR	721.700	200.000	725.900	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.000	3.060	0.000	.050	0.000	.010	0.000	709.800	709.800
X1	4470.000	15.000	100.000	114.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	714.500	714.700	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	63.000	0.000	161.000	0.000	0.000	0.000	0.000
BT	11.000	63.000	719.100	0.000	67.000	717.500	0.000	94.000	717.200	0.000
BT	95.000	716.200	0.000	99.000	716.200	0.000	100.000	714.700	0.000	107.000
BT	714.700	0.000	113.000	714.700	0.000	114.000	716.200	0.000	122.000	717.300
BT	0.000	161.000	719.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	726.900	0.000	723.600	52.000	717.500	67.000	715.100	90.000	712.000	94.000
GR	711.000	95.000	709.900	100.000	709.900	107.000	709.800	113.000	710.000	114.000
GR	711.200	117.000	714.600	118.000	717.300	122.000	721.700	200.000	725.900	300.000
NC	.065	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4540.000	11.000	150.000	193.000	70.000	70.000	70.000	0.000	0.000	0.000
GR	728.800	0.000	727.400	50.000	723.800	150.000	716.800	170.000	713.800	174.000
GR	713.500	178.000	712.700	183.000	713.800	187.000	717.200	193.000	724.600	250.000
GR	728.200	277.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4890.000	15.000	172.000	198.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	731.800	0.000	725.500	40.000	724.500	72.000	721.800	148.000	718.400	171.000
GR	717.500	172.000	714.300	177.000	712.800	181.000	712.900	185.000	713.700	190.000
GR	717.200	194.000	716.900	198.000	719.400	272.000	718.600	328.000	730.400	362.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4939.000	16.000	172.000	198.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	731.800	0.000	725.500	40.000	724.500	72.000	721.800	148.000	718.200	170.000
GR	717.500	172.000	714.300	177.000	712.800	181.000	712.900	185.000	713.700	190.000
GR	717.200	194.000	716.900	198.000	718.100	200.000	719.400	272.000	718.600	328.000
GR	730.400	362.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4940.000	16.000	172.000	198.000	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	717.900	717.800	0.000
BT	16.000	0.000	731.800	0.000	40.000	725.500	0.000	72.000	724.500	0.000
BT	148.000	721.800	0.000	172.000	718.200	0.000	172.000	718.200	717.900	177.000
BT	718.200	717.900	181.000	718.200	717.900	185.000	718.200	717.900	190.000	718.100
BT	717.800	194.000	718.100	717.800	198.000	718.100	717.800	198.000	718.100	0.000
BT	272.000	719.400	0.000	328.000	718.600	0.000	362.000	730.400	0.000	0.000
GR	731.800	0.000	725.500	40.000	724.500	72.000	721.800	148.000	718.200	172.000
GR	717.500	172.000	714.300	177.000	712.800	181.000	712.900	185.000	713.700	190.000
GR	717.200	194.000	716.900	198.000	718.100	198.000	719.400	272.000	718.600	328.000
GR	730.400	362.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4944.000	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
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	718.200	718.100	0.000
NC	.075	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4945.000	16.000	172.000	198.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	731.800	0.000	725.500	40.000	724.500	72.000	721.800	148.000	718.200	170.000
GR	717.500	172.000	714.300	177.000	712.800	181.000	712.900	185.000	713.700	190.000
GR	717.200	194.000	716.900	198.000	718.100	200.000	719.400	272.000	718.600	328.000
GR	730.400	362.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4994.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.280	0.000
QT	4.000	340.000	710.000	950.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	5794.000	10.000	200.000	236.000	750.000	750.000	800.000	0.000	0.000	0.000
GR	732.700	0.000	722.900	100.000	720.600	200.000	718.700	206.000	718.100	210.000
GR	718.100	215.000	717.500	223.000	724.300	236.000	724.800	310.000	734.000	335.000
NC	.075	.080	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5857.000	0.000	0.000	0.000	63.000	63.000	63.000	0.000	.550	0.000
X1	5882.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.220	0.000
X1	5907.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	.220	0.000
NC	.070	.070	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	212.000	224.000	0.000	0.000	0.000
X1	5919.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	.110	0.000
NH	3.000	.070	160.000	.038	172.000	.070	270.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	160.000	172.000	115.000	270.000	0.000
SB	0.000	2.600	3.050	0.000	8.150	0.000	55.000	0.000	719.400	718.600
X1	5994.000	9.000	155.000	177.000	75.000	75.000	75.000	.958	0.000	0.000
X2	0.000	0.000	1.000	724.600	728.000	0.000	0.000	0.000	.958	0.000
BT	10.000	115.000	729.400	0.000	115.000	729.400	0.000	155.000	728.200	0.000
BT	160.000	728.000	719.400	160.000	728.000	724.600	172.000	728.000	724.400	172.000
BT	728.000	719.400	177.000	728.300	0.000	260.000	733.500	0.000	270.000	734.300
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	735.500	0.000	731.100	60.000	724.600	155.000	719.400	160.000	719.400	167.000
GR	719.400	172.000	724.400	177.000	733.500	260.000	734.300	270.000	0.000	0.000
NC	.055	.055	.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6003.000	11.000	103.000	125.000	9.000	9.000	9.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	60.000	0.000	170.000	0.000	0.000	0.000	0.000
GR	734.400	0.000	726.200	103.000	720.200	104.000	719.300	109.000	719.300	115.000
GR	719.300	120.000	719.500	124.000	726.700	125.000	728.000	200.000	730.300	300.000
GR	734.600	344.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.000	3.300	0.000	.100	0.000	.050	0.000	724.100	719.300
X1	6010.000	11.000	99.000	136.000	7.000	7.000	7.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	724.100	726.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	60.000	0.000	170.000	0.000	0.000	0.000	0.000
BT	11.000	60.000	729.800	0.000	99.000	726.800	0.000	99.000	726.800	724.600
BT	100.000	726.100	724.600	110.000	726.000	724.100	120.000	726.000	724.600	130.000
BT	726.000	725.000	135.000	726.100	725.200	136.000	726.600	725.200	136.000	726.600
BT	0.000	170.000	727.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	734.400	0.000	724.600	99.000	724.600	100.000	724.100	110.000	724.600	120.000
GR	725.000	130.000	725.200	135.000	725.200	136.000	728.000	200.000	730.300	300.000
GR	734.600	344.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6130.000	0.000	0.000	0.000	150.000	110.000	120.000	.900	.350	0.000
X1	6250.000	0.000	0.000	0.000	150.000	110.000	120.000	.800	.350	0.000
X1	6370.000	11.000	100.000	138.000	150.000	110.000	120.000	1.100	-.350	0.000
GR	741.900	0.000	740.300	48.000	730.800	100.000	725.600	117.000	725.800	125.000
GR	725.800	130.000	725.500	135.000	728.200	138.000	728.700	160.000	729.700	225.000
GR	743.800	255.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6490.000	11.000	100.000	138.000	150.000	110.000	120.000	0.000	0.000	0.000
GR	741.900	0.000	740.300	48.000	730.800	100.000	725.600	117.000	725.800	125.000
GR	725.800	130.000	725.500	135.000	728.200	138.000	728.700	160.000	729.700	225.000
GR	743.800	255.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6740.000	10.000	65.000	97.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	741.000	0.000	735.900	12.000	731.500	65.000	724.700	77.000	725.700	82.000

GR	723.50	85.00	730.200	97.00	730.50	165.0	75.50	225.000	741.300	252.000
NC	.075	.080	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6790.000	0.000	0.000	0.000	25.000	75.000	50.000	0.000	.600	0.000
X1	6820.000	0.000	0.000	0.000	15.000	45.000	30.000	0.000	.360	0.000
NC	.070	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6830.000	0.000	0.000	0.000	5.000	15.000	10.000	0.000	.120	0.000
NC	.055	.055	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	74.000	85.000	0.000	0.000	0.000
X1	6840.000	0.000	0.000	0.000	5.000	15.000	10.000	0.000	.120	0.000
NH	3.000	.050	191.600	.040	202.400	.050	457.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	191.600	202.400	.050	297.000	0.000
SB	0.000	2.440	3.040	0.000	8.470	0.000	60.000	0.000	726.700	725.900
X1	6907.000	16.000	175.000	219.000	67.000	67.000	67.000	.966	0.000	0.000
X2	0.000	0.000	1.000	733.000	734.600	0.000	0.000	0.000	.966	0.000
BT	12.000	0.000	744.000	0.000	97.000	738.800	0.000	175.000	736.200	0.000
BT	191.600	735.700	727.700	191.600	735.700	729.700	194.000	735.600	732.700	197.000
BT	735.500	734.000	200.000	735.400	732.700	202.400	735.400	729.700	202.400	735.400
BT	727.700	219.000	735.200	0.000	297.000	734.600	0.000	0.000	0.000	0.000
GR	744.000	0.000	738.800	97.000	735.300	175.000	728.000	191.600	727.700	191.600
GR	726.700	194.000	726.700	197.000	726.700	200.000	727.700	202.400	728.000	202.400
GR	735.200	219.000	734.900	270.000	734.600	297.000	735.200	397.000	736.300	437.000
GR	742.800	457.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7207.000	15.000	131.000	173.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	742.500	0.000	738.500	15.000	735.500	73.000	736.500	131.000	732.400	146.000
GR	729.500	147.000	730.000	150.000	730.000	153.000	739.300	173.000	741.500	203.000
GR	742.500	253.000	742.200	273.000	740.100	325.000	743.700	373.000	747.300	385.000
NH	3.000	.060	80.000	.032	96.000	.060	341.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	0.000	0.000	80.000	96.000	0.000	0.000	0.000
X1	7407.000	18.000	71.000	100.000	250.000	150.000	200.000	.900	0.000	0.000
GR	746.900	0.000	746.200	22.000	739.500	50.000	735.200	71.000	733.800	80.000
GR	733.800	80.000	732.900	84.000	732.400	88.000	731.900	91.000	731.800	94.000
GR	733.600	96.000	734.200	100.000	739.000	130.000	741.100	180.000	741.400	244.000
GR	740.700	280.000	744.200	330.000	747.400	341.000	0.000	0.000	0.000	0.000
NH	3.000	.055	80.000	.032	96.000	.055	341.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	0.000	0.000	80.000	96.000	0.000	0.000	0.000
SB	0.000	1.450	3.020	0.000	12.870	0.000	81.050	0.000	731.800	731.800
X1	7420.000	18.000	71.000	100.000	13.000	13.000	13.000	.900	0.000	0.000
X2	0.000	0.000	1.000	738.300	740.000	0.000	0.000	0.000	.900	0.000
BT	14.000	0.000	746.900	0.000	22.000	746.200	0.000	50.000	741.500	0.000
BT	71.000	740.450	0.000	80.000	740.000	0.000	80.000	740.000	738.300	96.000
BT	739.900	738.100	96.000	739.900	0.000	100.000	739.960	0.000	180.000	741.100
BT	0.000	244.000	741.400	0.000	280.000	740.700	0.000	330.000	744.200	0.000
BT	341.000	747.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	746.900	0.000	746.200	22.000	739.000	50.000	735.000	71.000	733.800	80.000
GR	733.800	80.000	732.900	84.000	732.400	88.000	731.900	91.000	731.800	94.000
GR	733.600	96.000	734.200	100.000	739.000	130.000	741.100	180.000	741.400	244.000
GR	740.700	280.000	744.200	330.000	747.400	341.000	0.000	0.000	0.000	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7430.000	16.000	84.000	113.000	15.000	5.000	10.000	0.000	0.000	0.000
GR	746.900	0.000	746.200	22.000	739.500	50.000	739.000	84.000	738.900	89.000
GR	733.200	90.000	732.800	93.000	732.900	96.000	732.100	99.000	733.100	102.000
GR	739.500	113.000	739.500	130.000	741.400	244.000	740.700	280.000	744.200	330.000
GR	747.400	341.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7448.000	15.000	194.300	205.700	18.000	18.000	18.000	0.000	0.000	0.000

[illegible]	10.00	.00	0.000	[illegible]	[illegible]	.00	0.000	737.500	737.500	0.00
GR	747.000	0.000	746.800	15.000	743.700	100.000	739.500	180.000	732.900	194.300
GR	732.700	196.500	732.700	200.000	732.700	203.500	732.900	205.700	739.500	220.000
GR	741.700	300.000	741.400	330.000	740.700	366.000	744.200	416.000	747.400	427.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.410	3.030	0.000	8.630	0.000	63.000	0.000	732.200	731.800
X1	7515.000	19.000	194.300	205.700	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	739.500	741.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	128.000	0.000	272.000	0.000	741.000	741.000	0.000
BT	9.000	128.000	743.400	0.000	180.000	742.800	0.000	194.300	742.600	735.300
BT	196.500	742.600	738.300	200.000	742.600	739.500	203.500	742.600	738.300	205.700
BT	742.600	735.300	220.000	742.500	0.000	272.000	742.000	0.000	0.000	0.000
GR	747.700	0.000	746.800	15.000	743.700	100.000	743.400	128.000	742.800	180.000
GR	735.300	194.300	733.300	194.300	732.200	196.500	732.200	200.000	732.200	203.500
GR	733.300	205.700	735.300	205.700	742.500	220.000	742.000	272.000	741.700	300.000
GR	741.400	330.000	740.700	366.000	744.200	416.000	747.400	427.000	0.000	0.000
NC	.060	.060	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7520.000	14.000	178.000	215.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	130.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	747.700	0.000	746.800	15.000	743.700	100.000	739.600	178.000	733.300	195.000
GR	732.300	200.000	733.700	205.000	738.000	215.000	742.100	225.000	741.700	300.000
GR	741.400	330.000	740.700	336.000	744.200	416.000	747.400	427.000	0.000	0.000
QT	4.000	340.000	710.000	950.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7590.000	24.000	77.000	107.000	70.000	70.000	70.000	0.000	-.600	0.000
GR	745.500	0.000	741.700	77.000	739.700	77.000	739.300	80.000	737.200	82.000
GR	736.500	85.700	740.700	85.700	740.700	86.000	736.500	86.000	733.600	89.000
GR	733.600	93.000	733.800	98.000	734.500	102.000	740.800	102.000	740.800	102.300
GR	734.500	102.300	738.200	104.000	739.900	105.000	740.100	107.000	740.800	107.000
GR	741.800	107.000	748.000	133.000	747.300	184.000	748.100	190.000	0.000	0.000
X1	7639.000	24.000	77.000	107.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	745.500	0.000	741.700	77.000	739.700	77.000	739.300	80.000	737.200	82.000
GR	736.500	85.700	740.700	85.700	740.700	86.000	736.500	86.000	733.600	89.000
GR	733.600	93.000	733.800	98.000	734.500	102.000	740.800	102.000	740.800	102.300
GR	734.500	102.300	738.200	104.000	739.900	105.000	740.100	107.000	740.800	107.000
GR	741.800	107.000	748.000	133.000	747.300	184.000	748.100	190.000	0.000	0.000
NC	.040	.040	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7640.000	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	740.800	740.800	0.000
BT	21.000	0.000	745.500	0.000	77.000	741.700	0.000	77.000	741.700	740.700
BT	80.000	741.700	740.700	82.000	741.700	740.700	85.700	741.700	740.700	85.700
BT	741.700	740.700	86.000	741.700	740.700	86.000	741.700	740.700	89.000	741.700
BT	740.700	93.000	741.800	740.800	98.000	741.800	740.800	102.000	741.800	740.800
BT	102.000	741.800	740.800	102.300	741.800	740.800	102.300	741.800	740.800	104.000
BT	741.800	740.800	105.000	741.800	740.800	107.000	741.800	740.800	107.000	741.800
BT	0.000	133.000	748.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7644.000	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
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	741.700	471.700	0.000
NC	.065	.065	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7645.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	7694.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.480	0.000
NC	.070	.070	.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7844.000	13.000	234.000	262.000	150.000	150.000	150.000	0.000	-.480	0.000
GR	751.400	0.000	748.400	40.000	745.400	140.000	744.200	234.000	739.600	240.000
GR	737.900	241.000	736.300	242.000	736.000	246.000	736.200	250.000	737.100	254.000
GR	737.200	256.000	744.300	262.000	751.300	335.000	0.000	0.000	0.000	0.000

NH	3.0	.055	24[illegible].0	.033	256.00	.55	335.0[illegible]0	.000	.000	0.0[illegible]0
ET	0.000	6.100	6.100	8.100	8.100	240.000	256.000	140.000	335.000	0.000
X1	7894.000	13.000	230.000	265.000	50.000	50.000	50.000	.970	0.000	0.000
GR	751.400	0.000	748.400	40.000	745.400	140.000	744.200	200.000	740.600	230.000
GR	737.900	241.000	736.300	242.000	736.000	246.000	736.200	250.000	737.100	254.000
GR	739.000	265.000	745.000	295.000	751.300	335.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	240.000	256.000	140.000	335.000	0.000
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.430	3.030	0.000	14.500	0.000	113.100	0.000	736.000	736.000
X1	7906.000	15.000	230.000	265.000	12.000	12.000	12.000	.970	0.000	0.000
X2	0.000	0.000	1.000	744.200	745.000	0.000	0.000	0.000	.970	0.000
BT	8.000	140.000	745.400	0.000	230.000	745.040	0.000	240.000	745.000	736.900
BT	240.000	745.000	743.600	256.000	745.200	744.200	256.000	745.200	737.200	265.000
BT	745.900	0.000	335.000	751.300	0.000	0.000	0.000	0.000	0.000	0.000
GR	751.400	0.000	748.400	40.000	745.400	140.000	744.200	200.000	740.600	230.000
GR	739.600	240.000	737.900	241.000	736.300	242.000	736.000	246.000	736.200	250.000
GR	737.100	254.000	737.200	256.000	739.000	265.000	745.000	295.000	751.300	335.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7966.000	11.000	235.000	260.000	55.000	65.000	60.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	186.000	0.000	302.000	0.000	0.000	0.000	0.000
GR	751.400	0.000	748.400	40.000	745.400	140.000	739.500	235.000	738.800	241.000
GR	737.200	242.000	736.900	246.000	737.100	250.000	738.000	254.000	738.100	260.000
GR	751.300	335.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8026.000	0.000	0.000	0.000	55.000	65.000	60.000	0.000	1.050	0.000
X1	8086.000	90.000	237.200	253.800	55.000	65.000	60.000	0.000	0.000	0.000
GR	754.800	0.000	753.800	8.100	752.900	16.300	751.900	24.500	751.000	32.700
GR	750.100	40.800	749.400	49.000	748.800	57.200	748.500	65.400	748.300	73.600
GR	748.100	81.700	747.900	89.900	747.700	98.100	747.500	106.300	747.300	114.500
GR	747.000	122.600	746.800	130.800	746.600	139.000	746.200	147.200	745.800	155.400
GR	745.400	163.500	745.000	171.700	744.600	179.900	744.100	188.100	743.700	196.300
GR	743.300	204.400	742.900	212.600	742.500	220.800	742.100	229.000	741.700	237.200
GR	741.100	237.700	740.600	238.300	739.700	238.800	739.200	239.400	739.100	239.900
GR	739.100	240.500	739.100	241.000	739.000	241.600	739.000	242.100	739.000	242.700
GR	739.000	243.200	739.000	243.800	739.000	244.300	739.000	244.900	739.100	245.400
GR	739.100	246.000	739.100	246.600	739.200	247.100	739.200	247.700	739.300	248.200
GR	739.400	248.800	739.500	249.300	739.700	249.900	739.800	250.400	740.000	251.000
GR	740.200	251.500	740.300	252.100	740.300	252.600	740.400	253.200	740.500	253.800
GR	740.900	256.600	741.200	259.400	741.600	262.300	741.900	265.100	742.300	267.900
GR	742.700	270.800	743.000	273.600	743.400	276.500	743.700	279.300	744.100	282.100
GR	744.500	285.000	744.800	287.800	745.200	290.700	745.500	293.500	745.900	296.300
GR	746.300	299.200	746.600	302.000	747.000	304.900	747.300	307.700	747.700	310.500
GR	748.100	313.400	748.700	316.200	749.500	319.100	750.300	321.900	751.000	324.700
GR	751.800	327.600	752.600	330.400	753.300	333.300	754.100	336.100	754.900	339.000
X1	8146.000	0.000	0.000	0.000	55.000	65.000	60.000	0.000	1.050	0.000
X1	8176.000	0.000	0.000	0.000	30.000	35.000	30.000	0.000	.520	0.000
X1	8206.000	90.000	234.400	251.600	30.000	35.000	30.000	0.000	0.000	0.000
GR	758.200	0.000	756.900	8.000	755.600	16.100	754.400	24.200	753.100	32.300
GR	751.800	40.400	750.800	48.400	749.700	56.500	749.500	64.600	749.300	72.700
GR	749.100	80.800	749.000	88.900	748.800	96.900	748.600	105.000	748.400	113.100
GR	748.300	121.200	748.100	129.300	747.900	137.400	747.600	145.400	747.200	153.500
GR	746.900	161.600	746.600	169.700	746.200	177.800	745.900	185.900	745.600	193.900
GR	745.200	202.000	744.900	210.100	744.500	218.200	744.200	226.300	743.900	234.400
GR	743.200	234.900	742.600	235.500	741.600	236.100	741.200	236.600	741.200	237.200
GR	741.100	237.800	741.100	238.400	741.100	238.900	741.100	239.500	741.100	240.100
GR	741.000	240.700	741.100	241.200	741.100	241.800	741.100	242.400	741.200	242.900
GR	741.200	243.500	741.300	244.100	741.300	244.700	741.300	245.200	741.400	245.800
GR	741.500	246.400	741.600	247.000	741.800	247.500	742.000	248.100	742.200	248.700
GR	742.400	249.300	742.600	249.800	742.700	250.400	742.800	251.000	743.000	251.600

GR	743.2[illegible]	25[illegible]	743.50	257.600	743.800	260.700	[illegible]	263.[illegible]0	[illegible]	250.800
GR	744.600	269.800	744.900	272.900	745.200	275.900	745.500	279.000	745.800	282.000
GR	746.000	285.100	746.300	288.100	746.600	291.200	746.900	294.200	747.200	297.200
GR	747.400	300.300	747.700	303.300	748.000	306.400	748.300	309.400	748.600	312.500
GR	748.800	315.500	749.700	318.600	750.800	321.600	751.900	324.700	753.000	327.700
GR	754.100	330.800	755.200	333.800	756.300	336.900	757.400	339.900	758.500	343.000
X1	8266.000	0.000	0.000	0.000	55.000	65.000	60.000	0.000	1.050	0.000
X1	8326.000	90.000	231.600	249.400	55.000	65.000	60.000	0.000	0.000	0.000
GR	761.600	0.000	760.000	7.900	758.400	15.900	756.800	23.900	755.200	31.900
GR	753.600	39.900	752.100	47.900	750.700	55.900	750.500	63.800	750.300	71.800
GR	750.200	79.800	750.000	87.800	749.900	95.800	749.700	103.800	749.600	111.800
GR	749.500	119.700	749.300	127.700	749.200	135.700	748.900	143.700	748.700	151.700
GR	748.500	159.700	748.200	167.700	747.900	175.600	747.700	183.600	747.400	191.600
GR	747.100	199.600	746.900	207.600	746.600	215.600	746.300	223.600	746.100	231.600
GR	745.300	232.100	744.500	232.700	743.600	233.300	743.200	233.900	743.200	234.500
GR	743.200	235.100	743.200	235.700	743.200	236.300	743.200	236.900	743.200	237.500
GR	743.100	238.100	743.200	238.700	743.200	239.300	743.200	239.900	743.300	240.400
GR	743.300	241.000	743.400	241.600	743.400	242.200	743.500	242.800	743.600	243.400
GR	743.700	244.000	743.700	244.600	744.000	245.200	744.200	245.800	744.400	246.400
GR	744.600	247.000	744.900	247.600	745.000	248.200	745.200	248.800	745.400	249.400
GR	745.600	252.600	745.800	255.900	746.000	259.100	746.200	262.400	746.400	265.600
GR	746.600	268.900	746.800	272.100	747.000	275.400	747.200	278.600	747.400	281.900
GR	747.600	285.100	747.800	288.400	748.000	291.600	748.200	294.900	748.400	298.100
GR	748.600	301.400	748.800	304.700	749.000	307.900	749.200	311.200	749.400	314.400
GR	749.600	317.700	750.700	320.900	752.100	324.200	753.600	327.400	755.000	330.700
GR	756.400	333.900	757.900	337.200	759.300	340.400	760.700	343.700	762.200	347.000
NC	.085	.075	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8386.000	0.000	0.000	0.000	55.000	65.000	60.000	0.000	1.050	0.000
X1	8446.000	90.000	228.800	247.200	55.000	65.000	60.000	0.000	0.000	0.000
GR	765.000	0.000	763.100	7.800	761.200	15.700	759.200	23.600	757.300	31.500
GR	755.400	39.400	753.500	47.300	751.600	55.200	751.400	63.100	751.300	71.000
GR	751.200	78.800	751.100	86.700	751.000	94.600	750.900	102.500	750.800	110.400
GR	750.700	118.300	750.600	126.200	750.500	134.100	750.300	142.000	750.200	149.900
GR	750.000	157.700	749.800	165.600	749.600	173.500	749.400	181.400	749.200	189.300
GR	749.000	197.200	748.800	205.100	748.600	213.000	748.400	220.900	748.300	228.800
GR	747.400	229.400	746.500	230.000	745.500	230.600	745.200	231.200	745.200	231.800
GR	745.200	232.400	745.200	233.000	745.200	233.700	745.200	234.300	745.200	234.900
GR	745.200	235.500	745.200	236.100	745.300	236.700	745.300	237.300	745.400	237.900
GR	745.400	238.600	745.500	239.200	745.600	239.800	745.600	240.400	745.700	241.000
GR	745.800	241.600	745.800	242.200	746.100	242.900	746.400	243.500	746.600	244.100
GR	746.900	244.700	747.100	245.300	747.400	245.900	747.600	246.500	747.900	247.200
GR	748.000	250.600	748.100	254.100	748.200	257.500	748.400	261.000	748.500	264.400
GR	748.600	267.900	748.700	271.400	748.800	274.800	749.000	278.300	749.100	281.700
GR	749.200	285.200	749.300	288.700	749.400	292.100	749.500	295.600	749.700	299.000
GR	749.800	302.500	749.900	306.000	750.000	309.400	750.100	312.900	750.300	316.300
GR	750.400	319.800	751.700	323.300	753.500	326.700	755.200	330.200	757.000	333.600
GR	758.700	337.100	760.500	340.600	762.300	344.000	764.000	347.500	765.800	351.000
X1	8506.000	0.000	0.000	0.000	55.000	65.000	60.000	0.000	1.050	0.000
NC	.090	.080	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8566.000	10.000	226.000	245.000	55.000	65.000	60.000	0.000	0.000	0.000
GR	768.500	0.000	752.500	55.000	751.600	155.000	750.500	226.000	747.300	228.000
GR	747.400	234.000	748.000	240.000	750.400	245.000	751.200	323.000	769.500	355.000
X1	9066.000	12.000	213.000	240.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	770.100	0.000	755.400	35.000	754.800	70.000	755.400	170.000	755.300	180.000
GR	753.700	213.000	751.100	218.000	750.500	222.000	750.700	225.000	750.900	229.000
GR	762.700	240.000	771.000	270.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9126.000	0.000	0.000	0.000	50.000	50.000	60.000	0.000	.740	0.000

X1	9186.000	.000	0.000	0.00	50.00	50.00	60.0	0.00	.740	0.000
X1	9246.000	0.000	0.000	0.000	50.000	50.000	60.000	0.000	.740	0.000
X1	9306.000	0.000	0.000	0.000	50.000	50.000	60.000	0.000	.740	0.000
X1	9426.000	13.000	233.000	247.000	100.000	100.000	120.000	0.000	-3.000	0.000
GR	773.100	0.000	772.800	40.000	768.200	63.000	766.500	100.000	763.000	200.000
GR	763.000	223.000	759.100	233.000	757.900	238.000	758.600	246.000	762.600	247.000
GR	762.600	300.000	762.500	379.000	772.500	400.000	0.000	0.000	0.000	0.000
X1	9546.000	0.000	0.000	0.000	100.000	100.000	120.000	0.000	1.500	0.000
NC	.072	.072	.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9666.000	13.000	233.000	247.000	100.000	100.000	120.000	0.000	0.000	0.000
GR	773.100	0.000	772.800	40.000	768.200	63.000	766.500	100.000	763.000	200.000
GR	763.000	223.000	759.100	233.000	757.900	238.000	758.600	246.000	762.600	247.000
GR	762.600	300.000	762.500	379.000	772.500	400.000	0.000	0.000	0.000	0.000
X1	9741.000	0.000	0.000	0.000	65.000	85.000	75.000	0.000	1.050	0.000
X1	9816.000	0.000	0.000	0.000	65.000	85.000	75.000	0.000	1.050	0.000
X1	9891.000	0.000	0.000	0.000	65.000	85.000	75.000	0.000	1.050	0.000
NC	.060	.060	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10116.000	12.000	297.000	325.000	200.000	250.000	225.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	249.000	0.000	367.000	0.000	0.000	0.000	0.000
GR	779.100	0.000	778.500	25.000	772.500	125.000	769.600	225.000	766.800	297.000
GR	764.200	307.000	764.200	313.000	764.900	318.000	766.400	325.000	768.200	425.000
GR	778.100	525.000	779.600	547.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	.055	304.000	.035	318.000	.055	547.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	304.000	318.000	255.000	360.000	0.000
X1	10191.000	13.000	297.000	325.000	80.000	70.000	75.000	0.000	-.600	0.000
GR	779.100	0.000	778.500	25.000	772.500	125.000	769.600	225.000	766.800	297.000
GR	765.000	304.000	764.200	307.000	764.200	313.000	764.900	318.000	766.400	325.000
GR	768.200	425.000	778.100	525.000	779.600	547.000	0.000	0.000	0.000	0.000
NC	.100	.100	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	3.030	0.000	9.130	0.000	75.750	.373	763.600	763.600
X1	10221.000	12.000	202.000	216.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	770.200	771.500	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	771.500	771.500	0.000
BT	10.000	0.000	778.700	0.000	102.000	774.200	0.000	195.000	771.900	0.000
BT	202.000	771.500	763.600	202.000	771.500	770.100	216.000	771.600	770.200	216.000
BT	771.600	765.600	223.000	771.700	0.000	302.000	773.200	0.000	402.000	777.400
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	778.700	0.000	774.200	102.000	772.900	152.000	765.000	195.000	763.600	202.000
GR	764.700	209.000	765.400	212.000	765.600	216.000	767.000	223.000	772.400	260.000
GR	773.200	302.000	777.400	402.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.065	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10276.000	15.000	297.000	325.000	55.000	55.000	55.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	205.000	0.000	424.000	0.000	0.000	0.000	0.000
GR	779.100	0.000	780.500	50.000	779.500	100.000	775.500	150.000	770.500	230.000
GR	768.500	260.000	766.800	297.000	764.300	307.000	764.300	313.000	764.900	318.000
GR	766.400	325.000	768.200	400.000	773.500	450.000	779.200	500.000	780.100	520.000
X1	10441.000	0.000	0.000	0.000	200.000	130.000	165.000	0.000	2.070	0.000
X1	10523.000	11.000	183.000	200.000	100.000	65.000	82.000	0.000	-3.110	0.000
GR	788.500	0.000	780.700	100.000	776.100	122.000	773.500	183.000	770.600	186.000
GR	770.500	191.000	771.000	196.000	774.700	200.000	774.400	240.000	785.000	300.000
GR	786.600	315.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	10688.000	0.000	0.000	0.000	100.000	65.000	82.000	0.000	1.030	0.000
X1	10771.000	0.000	0.000	0.000	100.000	65.000	83.000	0.000	1.040	0.000
X1	11021.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.870	0.000
NC	.075	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11271.000	11.000	23.000	39.000	250.000	250.000	250.000	0.000	-1.870	0.000
GR	791.400	0.000	779.400	18.000	779.000	23.000	776.400	26.000	776.100	31.000
GR	776.300	36.000	779.600	39.000	779.500	100.000	781.300	200.000	783.400	258.000
GR	791.600	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11396.000	0.000	0.000	0.000	125.000	125.000	125.000	0.000	.940	0.000
X1	11521.000	0.000	0.000	0.000	125.000	125.000	125.000	0.000	.930	0.000
X1	11621.000	0.000	0.000	0.000	95.000	105.000	100.000	0.000	1.500	0.000
X1	11721.000	0.000	0.000	0.000	95.000	105.000	100.000	0.000	1.500	0.000
X1	11821.000	13.000	300.000	326.000	95.000	105.000	100.000	0.000	-4.500	0.000
GR	806.100	0.000	798.100	35.000	795.300	100.000	790.100	200.000	789.300	300.000
GR	786.800	310.000	786.200	315.000	785.100	320.000	786.300	325.000	789.800	326.000
GR	790.100	400.000	791.100	425.000	801.800	470.000	0.000	0.000	0.000	0.000
X1	11921.000	0.000	0.000	0.000	95.000	105.000	100.000	0.000	1.500	0.000
X1	12021.000	0.000	0.000	0.000	95.000	105.000	100.000	0.000	1.500	0.000
X1	12121.000	0.000	0.000	0.000	95.000	105.000	100.000	0.000	1.500	0.000
X1	12221.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.250	0.000
X1	12321.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.250	0.000
NC	.080	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12521.000	12.000	160.000	178.000	200.000	200.000	200.000	0.000	-2.500	0.000
GR	811.300	0.000	796.000	40.000	796.100	100.000	797.200	160.000	793.000	163.000
GR	792.600	168.000	792.800	174.000	794.900	178.000	795.400	200.000	795.100	300.000
GR	795.700	325.000	809.700	358.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12621.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.250	0.000
X1	12721.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.250	0.000
X1	12971.000	0.000	0.000	0.000	270.000	200.000	250.000	0.000	3.170	0.000
NC	.095	.095	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13096.000	12.000	207.000	227.000	135.000	100.000	125.000	0.000	-4.760	0.000
GR	820.000	0.000	816.500	14.000	813.800	100.000	812.600	140.000	806.300	185.000
GR	805.300	207.000	802.200	213.000	802.100	216.000	802.200	219.000	806.300	227.000
GR	806.700	300.000	817.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13221.000	0.000	0.000	0.000	135.000	100.000	125.000	0.000	1.590	0.000
X1	13346.000	0.000	0.000	0.000	135.000	100.000	125.000	0.000	1.590	0.000
X1	13471.000	0.000	0.000	0.000	135.000	100.000	125.000	0.000	1.580	0.000
X1	13538.000	0.000	0.000	0.000	70.000	60.000	67.000	0.000	1.100	0.000
X3	0.000	0.000	0.000	170.000	0.000	265.000	0.000	0.000	0.000	0.000
NC	.085	.090	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13605.000	11.000	350.000	386.000	70.000	60.000	67.000	0.000	-1.100	0.000

GR	822.900	0.000	819.300	50.000	817.300	150.000	814.900	250.000	813.700	350.000
GR	805.900	366.000	805.600	369.000	805.400	375.000	811.200	386.000	813.300	450.000
GR	821.900	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13671.000	0.000	0.000	0.000	70.000	60.000	66.000	0.000	1.100	0.000
ET	0.000	6.100	6.100	6.100	0.000	362.000	380.000	0.000	0.000	0.000
X1	13761.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	-.270	0.000
X3	0.000	0.000	0.000	362.000	0.000	380.000	0.000	0.000	0.000	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13771.000	10.000	300.000	313.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	814.600	814.600	0.000
GR	821.000	0.000	818.100	100.000	817.000	200.000	817.300	270.000	806.200	300.000
GR	806.100	306.000	805.900	308.000	805.100	313.000	818.800	340.000	820.800	400.000
SB	0.000	1.750	3.030	0.000	7.780	0.000	77.900	.348	805.100	805.100
X1	13824.000	0.000	0.000	0.000	52.500	52.500	52.500	0.000	0.000	0.000
X2	0.000	0.000	1.000	812.600	817.300	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	817.900	817.900	0.000
BT	8.000	0.000	821.000	0.000	100.000	818.100	0.000	200.000	817.000	0.000
BT	300.000	817.900	806.200	300.000	817.900	812.600	313.000	817.900	812.600	313.000
BT	817.900	805.100	400.000	820.800	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	361.000	380.000	0.000	0.000	0.000
X1	13827.000	11.000	350.000	386.000	3.000	3.000	3.000	0.000	-.280	0.000
GR	822.900	0.000	819.300	50.000	817.300	150.000	814.900	250.000	813.700	350.000
GR	805.900	366.000	805.600	369.000	805.400	375.000	811.200	386.000	813.300	450.000
GR	821.900	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.070	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14174.000	14.000	239.000	255.000	347.000	347.000	347.000	0.000	0.000	0.000
GR	823.000	0.000	812.900	85.000	812.800	185.000	812.600	239.000	808.500	243.000
GR	807.400	247.000	808.600	252.000	812.100	255.000	814.100	285.000	815.500	333.000
GR	819.600	348.000	822.100	370.000	822.000	462.000	821.000	485.000	0.000	0.000
X1	14176.000	14.000	239.000	255.000	2.000	2.000	2.000	0.000	0.000	0.000
GR	823.000	0.000	812.900	85.000	812.800	185.000	812.600	239.000	809.400	243.000
GR	809.400	247.000	809.400	252.000	812.100	255.000	814.100	285.000	815.500	333.000
GR	819.600	348.000	822.100	370.000	822.000	462.000	821.000	485.000	0.000	0.000
NC	.095	.095	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14376.000	14.000	239.000	255.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	824.300	0.000	814.200	85.000	814.100	185.000	813.900	239.000	809.800	243.000
GR	808.700	247.000	809.900	252.000	813.500	255.000	815.400	285.000	816.800	333.000
GR	820.900	348.000	823.400	370.000	823.300	462.000	822.300	485.000	0.000	0.000
X1	14476.000	0.000	0.000	0.000	80.000	120.000	100.000	0.000	1.030	0.000
X1	14526.000	0.000	0.000	0.000	40.000	60.000	50.000	0.000	.510	0.000
X1	14576.000	0.000	0.000	0.000	40.000	60.000	50.000	0.000	.510	0.000
QT	4.000	310.000	650.000	865.000	1690.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.095	300.000	.060	400.000	.042	425.000	.090	660.000	0.000
X1	14676.000	13.000	400.000	425.000	80.000	120.000	100.000	0.000	-1.030	0.000
X3	0.000	0.000	0.000	360.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	824.600	0.000	826.300	100.000	822.600	200.000	819.500	300.000	818.000	400.000
GR	812.900	407.000	812.800	412.000	813.300	421.000	816.600	425.000	816.900	500.000
GR	825.600	600.000	826.200	640.000	825.200	660.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	356.000	468.000	0.000	0.000	0.000
X1	14776.000	0.000	0.000	0.000	80.000	120.000	100.000	0.000	1.030	0.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	394.000	431.000	0.000	0.000	0.000

X1	14926.000	13.000	400.000	425.000	120.000	180.000	150.000	0.000	.080	0.000
GR	824.600	0.000	826.300	100.000	822.600	200.000	819.500	300.000	818.000	400.000
GR	813.200	407.000	813.100	412.000	813.300	421.000	816.600	425.000	816.900	500.000
GR	825.600	600.000	826.200	640.000	825.200	660.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	404.000	421.000	0.000	0.000	0.000
X1	14966.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.100	0.000
ET	0.000	6.100	6.100	6.100	0.000	405.000	420.000	0.000	0.000	0.000
X1	14971.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	.010	0.000
NC	.080	.080	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14976.000	14.000	390.000	402.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	821.200	821.200	0.000
GR	830.300	0.000	828.000	90.000	825.800	190.000	824.800	290.000	820.200	350.000
GR	813.900	390.000	813.400	393.000	813.600	396.000	815.600	396.000	815.600	402.000
GR	813.300	402.000	820.200	450.000	828.400	490.000	831.200	590.000	0.000	0.000
NC	.050	.050	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14977.000	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	821.200	821.200	0.000
SB	0.000	1.780	3.030	0.000	11.340	0.000	78.200	.050	813.300	813.300
X1	15025.000	0.000	0.000	0.000	47.500	47.500	47.500	0.000	0.000	0.000
X2	0.000	0.000	1.000	820.200	825.600	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	825.600	825.600	0.000
BT	12.000	0.000	830.300	0.000	90.000	828.000	0.000	190.000	825.800	0.000
BT	290.000	824.800	0.000	390.000	825.600	0.000	390.000	825.600	820.100	393.000
BT	825.700	820.100	396.000	825.800	820.200	402.000	825.900	820.200	402.000	825.900
BT	0.000	490.000	828.400	0.000	590.000	831.200	0.000	0.000	0.000	0.000
QT	4.000	310.000	650.000	865.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	372.000	390.000	0.000	0.000	0.000
X1	15028.000	11.000	362.000	400.000	3.000	3.000	3.000	0.000	-.900	0.000
GR	831.700	0.000	829.000	100.000	825.900	200.000	821.700	300.000	820.600	362.000
GR	814.300	372.000	814.700	382.000	814.700	392.000	817.200	400.000	821.600	500.000
GR	829.900	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	310.000	590.000	565.000	640.000	0.000	0.000	0.000	0.000	0.000
X1	15055.000	0.000	0.000	0.000	27.000	27.000	27.000	0.000	.900	0.000
X3	0.000	0.000	0.000	367.000	0.000	395.000	0.000	0.000	0.000	0.000
NC	.045	.045	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15075.000	19.000	298.000	316.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	830.000	830.000	0.000
GR	832.500	0.000	830.000	75.000	826.700	150.000	824.500	177.000	821.900	250.000
GR	819.700	298.000	818.900	298.000	818.900	299.000	814.000	299.000	813.900	307.000
GR	814.600	315.000	819.000	315.000	819.000	316.000	819.800	316.000	821.900	364.000
GR	824.500	437.000	826.700	464.000	830.000	539.000	832.500	614.000	0.000	0.000
SB	0.000	1.635	2.600	0.000	6.312	0.000	84.440	.286	813.900	813.900
X1	15077.000	0.000	0.000	0.000	2.300	2.300	2.300	0.000	0.000	0.000
X2	0.000	0.000	1.000	819.800	830.900	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	830.900	830.900	0.000
BT	12.000	0.000	832.500	0.000	150.000	831.600	0.000	177.000	831.400	0.000
BT	250.000	830.900	0.000	298.000	830.900	0.000	298.000	830.900	819.700	316.000
BT	830.900	819.800	316.000	830.900	0.000	364.000	830.900	0.000	437.000	831.400
BT	0.000	464.000	831.600	0.000	614.000	832.500	0.000	0.000	0.000	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15197.000	19.000	125.000	137.000	160.000	10.000	120.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	155.000	0.000	0.000	0.000	0.000
GR	830.600	0.000	828.800	25.000	826.400	56.000	821.900	115.000	820.200	123.000
GR	819.000	125.000	816.500	125.000	814.200	129.000	814.400	131.000	815.000	133.000

G	817.900	137.	820.3[illegible]0	1[illegible]0.[illegible]0	82[illegible].700	14[illegible].000	[illegible]20.000	22[illegible].[illegible]0	82[illegible].10	27[illegible].0
GR	821.400	271.000	823.200	325.000	825.900	386.000	830.800	412.000	0.000	0.000
NC	.045	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15198.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	155.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	830.600	0.000	25.000	828.800	0.000	115.000	821.900	0.000
BT	125.000	820.300	0.000	125.000	820.300	819.700	137.000	820.300	819.900	137.000
BT	820.300	0.000	145.000	820.700	0.000	225.000	820.000	0.000	270.000	821.100
BT	0.000	271.000	821.400	0.000	325.000	823.200	0.000	386.000	825.900	0.000
BT	412.000	830.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15204.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	155.000	0.000	0.000	0.000	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15205.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	155.000	0.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15325.000	15.000	232.000	250.000	200.000	50.000	120.000	.556	0.000	0.000
X3	0.000	0.000	0.000	232.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	832.100	0.000	827.600	50.000	822.900	150.000	821.900	232.000	816.800	232.000
GR	815.700	241.000	815.600	250.000	822.100	250.000	821.400	280.000	820.500	350.000
GR	820.900	395.000	821.400	396.000	823.200	450.000	825.900	511.000	830.800	537.000
SB	0.000	1.590	3.070	0.000	9.350	0.000	50.500	0.000	815.600	815.600
X1	15340.000	15.000	232.000	250.000	15.000	15.000	15.000	.556	0.000	0.000
X2	0.000	0.000	1.000	821.000	835.000	0.000	0.000	0.000	.556	0.000
X3	0.000	0.000	0.000	232.000	0.000	250.000	0.000	0.000	0.000	0.000
BT	9.000	0.000	832.100	0.000	50.000	827.600	0.000	150.000	822.900	0.000
BT	232.000	822.100	0.000	232.000	822.100	821.000	250.000	821.900	821.000	250.000
BT	821.900	0.000	280.000	821.400	0.000	350.000	820.500	0.000	0.000	0.000
GR	832.100	0.000	827.600	50.000	822.900	150.000	821.900	232.000	816.800	232.000
GR	815.700	241.000	815.600	250.000	822.100	250.000	821.400	280.000	820.500	350.000
GR	820.900	395.000	821.400	396.000	823.200	450.000	825.900	511.000	830.800	537.000
QT	4.000	310.000	650.000	865.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.080	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15465.000	13.000	175.000	200.000	125.000	125.000	125.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	330.000	0.000	0.000	0.000	0.000
GR	832.600	0.000	823.600	100.000	821.500	175.000	818.000	183.000	817.200	187.000
GR	817.300	190.000	821.800	200.000	821.900	240.000	819.900	245.000	819.900	390.000
GR	825.500	426.000	831.400	500.000	832.900	535.000	0.000	0.000	0.000	0.000
NC	.060	.060	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15540.000	0.000	0.000	0.000	85.000	65.000	75.000	0.000	.750	0.000
X3	0.000	0.000	0.000	70.000	0.000	330.000	0.000	0.000	0.000	0.000
X1	15615.000	0.000	0.000	0.000	85.000	65.000	75.000	0.000	.750	0.000
X3	0.000	0.000	0.000	75.000	0.000	310.000	0.000	0.000	0.000	0.000
NC	.035	.035	.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15616.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	310.000	0.000	0.000	0.000	0.000
SB	0.000	1.860	3.040	0.000	7.020	0.000	19.660	0.000	819.500	818.700
X1	15660.000	23.000	472.800	483.200	44.000	44.000	44.000	.840	0.000	0.000
X2	0.000	0.000	1.000	821.800	825.400	0.000	0.000	0.000	.840	0.000
BT	21.000	0.000	834.700	0.000	75.000	831.400	0.000	175.000	828.600	0.000
BT	275.000	827.000	0.000	375.000	825.700	0.000	472.800	825.400	0.000	472.800
BT	825.400	821.400	473.600	825.400	822.100	475.000	825.400	822.300	476.400	825.400
BT	822.100	477.200	825.400	821.400	478.800	825.400	821.800	479.600	825.400	822.500
BT	481.000	825.400	822.700	482.400	825.400	822.500	483.200	825.400	821.800	483.200
BT	825.400	0.000	575.000	827.400	0.000	675.000	828.900	0.000	775.000	831.100

BT	.000	861.000	834.300	.000	.000	.000	0.000	.000	.000	0.000
GR	834.700	0.000	831.400	75.000	828.600	175.000	827.000	275.000	825.700	375.000
GR	825.500	430.000	820.400	472.800	819.700	473.600	819.500	475.000	819.700	476.400
GR	820.400	477.200	821.400	477.200	821.800	478.800	820.800	478.800	820.100	479.600
GR	819.900	481.000	820.100	482.400	820.800	483.200	826.000	520.000	827.400	575.000
GR	828.900	675.000	831.100	775.000	834.300	861.000	0.000	0.000	0.000	0.000
NC	.075	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15661.000	19.000	472.800	483.200	1.000	1.000	1.000	.840	0.000	0.000
GR	834.700	0.000	831.400	75.000	828.600	175.000	827.000	275.000	825.700	375.000
GR	825.500	430.000	820.400	472.800	819.700	473.600	819.500	475.000	819.700	476.400
GR	820.100	479.600	819.900	481.000	820.100	482.400	820.800	483.200	826.000	520.000
GR	827.400	575.000	828.900	675.000	831.100	775.000	834.300	861.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15961.000	8.000	261.000	297.000	10.000	400.000	300.000	0.000	0.000	0.000
GR	834.700	0.000	826.100	150.000	823.500	250.000	823.100	261.000	820.900	269.000
GR	820.500	275.000	820.700	277.000	839.800	297.000	0.000	0.000	0.000	0.000
X1	16176.000	0.000	0.000	0.000	215.000	215.000	215.000	0.000	1.800	0.000
NH	3.000	.045	138.000	.032	150.000	.050	315.000	0.000	0.000	0.000
X1	16391.000	12.000	130.000	160.000	215.000	215.000	215.000	0.000	-1.800	0.000
GR	837.000	0.000	829.000	50.000	828.200	130.000	827.900	138.000	826.100	142.000
GR	825.900	145.000	826.000	148.000	827.600	150.000	828.100	160.000	829.500	250.000
GR	831.300	275.000	836.500	315.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16462.000	0.000	0.000	0.000	71.000	71.000	71.000	0.000	.600	0.000
X1	16534.000	0.000	0.000	0.000	72.000	72.000	72.000	0.000	.600	0.000
X1	16606.000	0.000	0.000	0.000	72.000	72.000	72.000	0.000	.600	0.000
NC	.065	.065	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	139.000	149.000	0.000	0.000	0.000
X1	16756.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	-.500	0.000
NC	.050	.050	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	594.000	606.000	0.000	0.000	0.000
SB	0.000	1.760	3.030	0.000	8.000	0.000	54.000	0.000	825.600	825.400
X1	16786.000	17.000	582.000	616.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	831.800	833.400	0.000	0.000	0.000	0.000	0.000
BT	19.000	0.000	840.400	0.000	100.000	838.300	0.000	200.000	836.100	0.000
BT	300.000	835.800	0.000	400.000	835.100	0.000	500.000	833.400	0.000	582.000
BT	834.300	0.000	582.000	834.300	831.000	594.000	834.500	826.300	594.000	834.500
BT	828.300	596.000	834.500	831.300	599.000	834.600	832.300	602.000	834.600	831.300
BT	604.000	834.700	828.300	604.000	834.700	826.300	616.000	834.700	831.300	616.000
BT	834.700	0.000	700.000	836.800	0.000	765.000	840.600	0.000	0.000	0.000
GR	840.400	0.000	838.300	100.000	836.100	200.000	835.800	300.000	835.100	400.000
GR	833.400	500.000	831.000	582.000	828.300	594.000	826.300	594.000	825.600	596.000
GR	825.600	599.000	825.600	602.000	826.300	604.000	828.300	604.000	831.300	616.000
GR	836.800	700.000	840.600	765.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17086.000	10.000	187.000	198.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	846.600	0.000	836.100	87.000	832.000	187.000	829.900	190.000	829.900	192.000
GR	830.200	194.000	831.500	198.000	831.100	267.000	834.100	287.000	846.600	342.000
X1	17196.000	0.000	0.000	0.000	110.000	110.000	110.000	0.000	.700	0.000
NC	.045	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17251.000	10.000	275.000	289.000	55.000	55.000	55.000	0.000	-1.050	0.000
GR	851.200	0.000	837.000	81.000	835.200	175.000	834.800	275.000	832.100	279.000
GR	832.000	282.000	832.200	285.000	834.700	289.000	837.300	330.000	849.200	360.000
X1	17306.000	0.000	0.000	0.000	55.000	55.000	55.000	0.000	.350	0.000

X1	17416.000	0.000	0.000	0.000	110.000	110.000	110.000	0.000	.700	0.000
X1	17516.000	0.000	0.000	0.000	85.000	105.000	100.000	0.000	.480	0.000
X1	17616.000	0.000	0.000	0.000	85.000	105.000	100.000	0.000	.480	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17716.000	10.000	150.000	160.000	85.000	105.000	100.000	0.000	-.960	0.000
GR	850.500	0.000	840.900	50.000	838.600	145.000	834.600	150.000	834.400	153.000
GR	834.800	156.000	834.600	160.000	838.700	167.000	842.600	250.000	854.000	350.000
X1	17816.000	0.000	0.000	0.000	85.000	105.000	100.000	0.000	.480	0.000
X1	17866.000	0.000	0.000	0.000	45.000	55.000	50.000	0.000	.240	0.000
X1	17916.000	10.000	150.000	160.000	45.000	55.000	50.000	.900	0.000	0.000
GR	850.500	0.000	840.900	50.000	838.600	145.000	834.600	150.000	834.400	153.000
GR	834.800	156.000	834.600	160.000	838.700	167.000	842.600	250.000	854.000	350.000
NC	.025	.025	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17917.000	10.000	150.000	160.000	1.000	1.000	1.000	.900	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.900	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	837.000	837.100	0.000
BT	8.000	145.000	838.600	0.000	150.000	838.600	543.600	150.000	838.600	837.000
BT	153.000	838.600	837.000	156.000	838.600	837.000	160.000	838.600	837.100	160.000
BT	838.600	834.600	167.000	838.700	0.000	0.000	0.000	0.000	0.000	0.000
GR	850.500	0.000	840.900	50.000	838.600	145.000	834.600	150.000	834.400	153.000
GR	834.800	156.000	834.600	160.000	838.700	167.000	842.600	250.000	854.000	350.000
X1	17941.000	12.000	150.000	160.000	23.500	23.500	23.500	.900	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.900	0.000
BT	10.000	75.000	840.300	0.000	145.000	838.600	0.000	150.000	838.600	834.600
BT	150.000	838.600	837.000	153.000	838.600	837.000	156.000	838.600	837.000	160.000
BT	838.600	837.100	160.000	838.600	834.600	167.000	838.700	0.000	202.000	840.300
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	850.500	0.000	840.900	50.000	840.300	75.000	838.600	145.000	834.600	150.000
GR	834.400	153.000	834.800	156.000	834.600	160.000	838.700	167.000	840.300	202.000
GR	842.600	250.000	854.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17942.000	12.000	150.000	160.000	1.000	1.000	1.000	.900	0.000	0.000
GR	850.500	0.000	840.900	50.000	840.300	75.000	838.600	145.000	834.600	150.000
GR	834.400	153.000	834.800	156.000	834.600	160.000	838.700	167.000	840.300	202.000
GR	842.600	250.000	854.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18102.000	0.000	0.000	0.000	150.000	100.000	160.000	0.000	.900	0.000
X1	18262.000	12.000	166.000	176.000	150.000	100.000	160.000	.930	0.000	0.000
GR	856.000	0.000	842.900	54.000	841.800	66.000	840.100	161.000	838.100	166.000
GR	836.800	169.000	836.200	172.000	836.400	176.000	840.200	182.000	842.000	266.000
GR	842.800	278.000	858.000	321.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18263.000	12.000	166.000	176.000	1.000	1.000	1.000	.930	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.930	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	839.100	839.100	0.000
BT	11.000	54.000	842.900	0.000	66.000	841.800	0.000	161.000	840.100	0.000
BT	166.000	840.100	838.100	166.000	840.100	839.100	169.000	840.100	839.100	172.000
BT	840.100	839.200	176.000	840.000	839.200	176.000	840.000	836.400	182.000	840.200
BT	0.000	266.000	842.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	856.000	0.000	842.900	54.000	841.800	66.000	840.100	161.000	838.100	166.000
GR	836.800	169.000	836.200	172.000	836.400	176.000	840.200	182.000	842.000	266.000
GR	842.800	278.000	858.000	321.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18270.000	12.000	166.000	176.000	7.000	7.000	7.000	.930	0.000	0.000

X2	0.00	0.000	0.0	.000	0.0 0	.00	0.00	.00	.930	0.0 0
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	840.100	840.000	0.000
BT	11.000	54.000	842.900	0.000	66.000	841.800	0.000	161.000	840.100	0.000
BT	166.000	840.100	838.100	166.000	840.100	839.100	169.000	840.100	839.100	172.000
BT	840.100	839.200	176.000	840.000	839.200	176.000	840.000	836.400	182.000	840.200
BT	0.000	266.000	842.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	856.000	0.000	842.900	54.000	841.800	66.000	840.100	161.000	838.100	166.000
GR	836.800	169.000	836.200	172.000	836.400	176.000	840.200	182.000	842.000	266.000
GR	842.800	278.000	858.000	321.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18271.000	12.000	166.000	176.000	1.000	1.000	1.000	.930	0.000	0.000
GR	856.000	0.000	842.900	54.000	841.800	66.000	840.100	161.000	838.100	166.000
GR	836.800	169.000	836.200	172.000	836.400	176.000	840.200	182.000	842.000	266.000
GR	842.800	278.000	858.000	321.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18471.000	11.000	225.000	232.500	200.000	200.000	200.000	0.000	0.000	0.000
GR	856.100	0.000	851.600	25.000	841.800	68.000	840.400	125.000	840.700	221.000
GR	836.800	225.000	836.800	229.000	836.700	232.500	840.900	237.000	845.200	295.000
GR	854.900	325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18472.000	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	840.200	840.200	0.000
BT	12.000	25.000	851.600	0.000	68.000	841.800	0.000	125.000	340.400	0.000
BT	221.000	840.740	0.000	225.000	840.900	836.800	225.000	840.900	840.200	229.000
BT	840.900	840.200	232.500	840.900	836.700	232.500	840.900	840.200	237.000	840.900
BT	0.000	295.000	854.200	0.000	325.000	845.900	0.000	0.000	0.000	0.000
X1	18479.000	11.000	225.000	232.500	6.500	6.500	6.500	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	840.900	840.900	0.000
BT	12.000	25.000	851.600	0.000	68.000	841.800	0.000	125.000	840.400	0.000
BT	221.000	840.740	0.000	225.000	840.900	836.800	225.000	840.900	840.200	229.000
BT	840.900	840.200	232.500	840.900	836.700	232.500	840.900	840.200	237.000	840.900
BT	0.000	295.000	854.200	0.000	325.000	845.900	0.000	0.000	0.000	0.000
GR	856.100	0.000	851.600	25.000	841.800	68.000	840.400	125.000	840.700	221.000
GR	836.800	225.000	836.800	229.000	836.700	232.500	840.900	237.000	845.200	295.000
GR	854.900	325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18480.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	18600.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.540	0.000
X1	18720.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.540	0.000
X1	18780.000	12.000	192.000	203.000	60.000	60.000	60.000	0.000	-1.350	0.000
GR	854.700	0.000	844.000	52.000	843.800	92.000	843.800	184.000	842.200	192.000
GR	839.400	197.000	840.200	199.000	840.900	201.000	842.400	203.000	844.000	207.000
GR	848.800	292.000	857.000	312.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18840.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	.270	0.000
X1	18960.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.540	0.000
X1	19080.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.540	0.000
NC	.045	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19081.000	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	842.200	842.400	0.000
BT	12.000	52.000	844.000	0.000	92.000	843.800	0.000	184.000	843.800	0.000
BT	192.000	843.800	842.200	192.000	843.800	842.200	197.000	843.800	842.200	199.000
BT	843.800	842.300	201.000	843.800	842.300	203.000	843.900	842.400	203.000	843.900
BT	0.000	207.000	844.000	0.000	292.000	848.800	0.000	0.000	0.000	0.000
X1	19090.000	0.000	0.000	0.000	9.000	9.000	9.000	0.000	0.000	0.000

X3	[illegible]	0.000	[illegible]	[illegible]	0.000	0.000	0.000	843.000	843.800	.000
BT	12.000	52.000	844.000	0.000	92.000	843.800	0.000	184.000	843.800	0.000
BT	192.000	843.800	842.200	192.000	843.800	842.200	197.000	843.800	842.200	199.000
BT	843.800	842.300	201.000	843.800	842.300	203.000	843.900	842.400	203.000	843.900
BT	0.000	207.000	844.000	0.000	292.000	848.800	0.000	0.000	0.000	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19091.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	19691.000	12.000	240.000	291.000	500.000	700.000	600.000	0.000	0.000	0.000
GR	859.500	0.000	854.400	44.000	847.600	91.000	845.300	144.000	846.800	236.000
GR	846.200	240.000	840.500	243.000	840.100	246.000	840.300	248.000	843.600	254.000
GR	845.000	266.000	856.600	291.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19699.000	12.000	244.000	257.000	8.000	8.000	8.000	0.000	0.000	0.000
GR	859.500	0.000	854.400	44.000	847.600	91.000	845.300	144.000	846.800	236.000
GR	844.200	244.000	844.300	248.000	844.300	253.000	844.600	257.000	845.200	260.000
GR	845.000	269.000	856.600	284.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19701.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19702.000	12.000	244.000	257.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	859.500	0.000	854.400	44.000	847.600	91.000	845.300	144.000	846.800	236.000
GR	843.200	244.000	843.300	248.000	843.300	253.000	843.600	257.000	845.200	260.000
GR	845.000	269.000	856.600	284.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19877.000	0.000	0.000	0.000	180.000	170.000	175.000	0.000	.020	0.000
X1	20052.000	0.000	0.000	0.000	180.000	170.000	175.000	0.000	.030	0.000
X1	20227.000	0.000	0.000	0.000	180.000	170.000	175.000	0.000	.020	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20402.000	14.000	155.000	172.000	180.000	170.000	175.000	.950	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	847.500	847.500	0.000
GR	858.700	0.000	852.900	55.000	847.300	150.000	846.100	155.000	843.800	161.000
GR	843.700	165.000	843.400	169.000	843.300	172.000	844.500	174.000	847.600	176.000
GR	847.700	255.000	853.100	355.000	857.200	455.000	860.400	525.000	0.000	0.000
NC	.042	.042	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20403.000	14.000	155.000	172.000	1.000	1.000	1.000	.950	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.950	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	847.500	847.500	0.000
BT	12.000	55.000	852.900	0.000	155.000	849.300	0.000	155.000	849.200	846.100
BT	155.000	849.200	848.000	161.000	849.100	847.900	165.000	849.000	847.800	169.000
BT	848.900	847.700	172.000	848.800	847.600	172.000	848.800	843.300	174.000	848.600
BT	847.500	176.000	848.600	0.000	255.000	847.700	0.000	0.000	0.000	0.000
GR	858.700	0.000	852.900	55.000	847.300	150.000	846.100	155.000	843.800	161.000
GR	843.700	165.000	843.400	169.000	843.300	172.000	844.500	174.000	847.600	176.000
GR	847.700	255.000	853.100	355.000	857.200	455.000	860.400	525.000	0.000	0.000
X1	20423.000	14.000	155.000	172.000	20.000	20.000	20.000	.950	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.950	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	847.700	847.700	0.000
BT	12.000	55.000	852.900	0.000	155.000	849.300	0.000	155.000	849.200	846.100
BT	155.000	849.200	848.000	161.000	849.100	847.900	165.000	849.000	847.800	169.000
BT	848.900	847.700	172.000	848.800	847.600	172.000	848.800	843.300	174.000	848.600
BT	847.500	176.000	848.600	0.000	255.000	847.700	0.000	0.000	0.000	0.000
GR	858.700	0.000	852.900	55.000	847.300	150.000	846.100	155.000	843.800	161.000
GR	843.700	165.000	843.400	169.000	843.300	172.000	844.500	174.000	847.600	176.000
GR	847.700	255.000	853.100	355.000	857.200	455.000	860.400	525.000	0.000	0.000
NC	.042	.042	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20424.000	14.000	155.000	172.000	1.000	1.000	1.000	.950	0.000	0.000

X3	10.000	.000	0.000	0.000	.000	.000	0.000	847.700	847.700	0.000
GR	858.700	0.000	852.900	55.000	847.300	150.000	846.100	155.000	843.800	161.000
GR	843.700	165.000	843.400	169.000	843.300	172.000	844.500	174.000	847.600	176.000
GR	847.700	255.000	853.100	355.000	857.200	455.000	860.400	525.000	0.000	0.000
X1	20474.000	9.000	155.000	180.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	858.800	0.000	850.900	80.000	847.100	155.000	843.800	167.000	843.200	171.000
GR	841.900	175.000	848.000	180.000	849.000	270.000	859.400	330.000	0.000	0.000
NC	.085	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21099.000	14.000	357.000	378.000	450.000	550.000	625.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	580.000	0.000	0.000	0.000	0.000
GR	859.200	0.000	858.200	78.000	856.400	178.000	852.500	278.000	848.100	357.000
GR	844.100	365.000	844.400	369.000	844.200	373.000	848.500	378.000	850.200	478.000
GR	854.300	586.000	856.100	643.000	856.500	673.000	859.300	793.000	0.000	0.000
NC	.065	.075	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21524.000	23.000	576.000	600.000	425.000	425.000	425.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	780.000	0.000	0.000	0.000	0.000
GR	853.200	0.000	855.300	100.000	856.700	200.000	856.500	300.000	853.800	400.000
GR	850.200	500.000	848.800	576.000	845.100	582.000	844.900	586.000	844.900	591.000
GR	849.400	600.000	851.000	700.000	852.500	800.000	851.600	870.000	851.600	900.000
GR	851.200	1000.000	851.700	1100.000	852.600	1177.000	852.300	1200.000	852.600	1300.000
GR	853.700	1400.000	855.200	1500.000	856.300	1540.000	0.000	0.000	0.000	0.000
QT	4.000	190.000	390.000	530.000	1020.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22124.000	35.000	1482.000	1500.000	800.000	300.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1390.000	0.000	1595.000	0.000	0.000	0.000	0.000
GR	863.000	0.000	862.100	100.000	861.300	200.000	858.800	300.000	858.300	400.000
GR	856.500	500.000	856.000	600.000	856.000	700.000	855.800	800.000	855.300	900.000
GR	855.200	1000.000	851.000	1100.000	850.000	1200.000	849.900	1300.000	850.600	1400.000
GR	850.900	1482.000	847.100	1487.000	846.900	1491.000	847.600	1495.000	852.000	1500.000
GR	852.000	1600.000	851.900	1700.000	851.500	1800.000	851.600	1900.000	852.700	2000.000
GR	853.500	2100.000	854.500	2200.000	854.600	2300.000	855.100	2400.000	855.200	2500.000
GR	855.700	2600.000	856.800	2700.000	857.500	2800.000	858.000	2900.000	859.100	3000.000
X1	22304.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.900	0.000
X3	0.000	0.000	0.000	1435.000	0.000	1550.000	0.000	0.000	0.000	0.000
NC	.055	.045	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22494.000	37.000	1500.000	1525.000	190.000	190.000	190.000	0.000	-.900	0.000
GR	866.200	0.000	865.200	100.000	864.500	200.000	864.200	300.000	862.800	400.000
GR	861.100	500.000	860.300	600.000	858.200	700.000	858.500	800.000	858.300	900.000
GR	857.500	1000.000	856.100	1100.000	855.600	1200.000	856.700	1300.000	856.500	1400.000
GR	855.700	1500.000	849.700	1505.000	849.800	1510.000	850.300	1512.000	850.200	1517.000
GR	855.200	1525.000	856.100	1545.000	856.300	1600.000	855.800	1700.000	856.600	1800.000
GR	855.400	1900.000	855.800	2000.000	856.300	2100.000	856.400	2200.000	857.900	2300.000
GR	858.600	2400.000	860.200	2500.000	860.700	2600.000	860.900	2700.000	860.700	2800.000
GR	860.100	2900.000	859.800	3000.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22674.000	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.900	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22744.000	46.000	1497.500	1512.500	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	1420.000	0.000	1585.000	0.000	854.000	854.000	0.000
GR	866.500	0.000	865.500	100.000	864.400	200.000	863.400	300.000	861.900	400.000
GR	860.600	500.000	859.300	600.000	858.500	700.000	857.700	800.000	856.200	900.000
GR	857.000	1000.000	856.400	1100.000	856.700	1200.000	856.900	1300.000	853.200	1400.000
GR	851.700	1494.000	850.000	1497.500	849.500	1498.500	849.500	1499.500	849.500	1500.500
GR	849.500	1501.500	850.000	1502.500	850.900	1502.500	850.600	1507.500	849.700	1507.500
GR	849.200	1508.500	849.200	1509.500	849.200	1510.500	849.200	1511.500	849.700	1512.500
GR	851.700	1516.000	853.300	1600.000	857.100	1700.000	856.900	1800.000	856.900	1900.000
GR	857.100	2000.000	857.500	2100.000	857.800	2200.000	858.300	2300.000	858.900	2400.000
GR	859.500	2500.000	859.800	2600.000	860.100	2700.000	860.200	2800.000	860.200	2900.000
GR	859.300	3000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	.000	0.000
SB	0.000	3.740	3.030	0.000	3.600	0.000	22.800	0.000	851.200	849.500
X1	22806.000	48.000	1497.500	1512.500	62.000	62.000	62.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	854.800	857.250	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	1440.000	0.000	1820.000	0.000	857.250	857.250	0.000
BT	21.000	1440.000	857.200	0.000	1494.000	857.600	0.000	1497.500	857.600	0.000
BT	1497.500	857.600	852.600	1498.500	857.600	853.900	1499.500	857.600	854.400	1500.500
BT	857.600	854.400	1501.500	857.600	853.900	1502.500	857.600	852.600	1507.500	857.700
BT	853.000	1508.500	857.700	854.300	1509.500	857.700	854.800	1510.500	857.700	854.800
BT	1511.500	857.700	854.300	1512.500	857.700	853.000	1512.500	857.700	0.000	1516.000
BT	857.700	0.000	1600.000	858.300	0.000	1700.000	857.100	0.000	1800.000	856.900
BT	0.000	1820.000	856.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	866.500	0.000	865.500	100.000	864.400	200.000	863.400	300.000	861.900	400.000
GR	860.600	500.000	859.300	600.000	858.500	700.000	857.700	800.000	857.200	900.000
GR	857.000	1000.000	856.400	1100.000	856.700	1200.000	856.900	1300.000	854.000	1450.000
GR	853.100	1494.000	852.000	1497.500	851.700	1497.500	851.200	1498.500	851.200	1499.500
GR	851.200	1500.500	851.200	1501.500	851.700	1502.500	852.600	1502.500	853.000	1507.500
GR	852.100	1507.500	851.600	1508.500	851.600	1509.500	851.600	1510.500	851.600	1511.500
GR	851.600	1512.500	852.000	1512.500	853.100	1516.000	857.000	1600.000	857.100	1700.000
GR	856.900	1800.000	856.900	1900.000	857.100	2000.000	857.500	2100.000	857.800	2200.000
GR	858.300	2300.000	858.900	2400.000	859.500	2500.000	859.800	2600.000	860.100	2700.000
GR	860.200	2800.000	860.200	2900.000	859.300	3000.000	0.000	0.000	0.000	0.000
NC	.065	.065	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22956.000	17.000	300.000	320.000	150.000	150.000	150.000	0.000	-1.900	0.000
X3	0.000	0.000	0.000	260.000	0.000	515.000	0.000	0.000	0.000	0.000
GR	858.900	0.000	858.900	100.000	858.900	200.000	858.300	300.000	855.100	304.000
GR	855.000	310.000	855.600	316.000	856.700	320.000	856.800	400.000	857.300	500.000
GR	857.600	600.000	857.600	700.000	857.300	800.000	857.500	900.000	858.000	1000.000
GR	858.500	1100.000	859.700	1178.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23106.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.900	0.000
X3	0.000	0.000	0.000	75.000	0.000	475.000	0.000	0.000	0.000	0.000
X1	23206.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.780	0.000
X3	0.000	0.000	0.000	100.000	0.000	450.000	0.000	0.000	0.000	0.000
X1	23306.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.790	0.000
X3	0.000	0.000	0.000	125.000	0.000	425.000	0.000	0.000	0.000	0.000
X1	23506.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.570	0.000
X3	0.000	0.000	0.000	170.000	0.000	375.000	0.000	0.000	0.000	0.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23606.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.780	0.000
X3	0.000	0.000	0.000	287.000	0.000	350.000	0.000	0.000	0.000	0.000
QT	4.000	190.000	200.000	200.000	200.000	0.000	0.000	0.000	0.000	0.000
X1	23656.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.390	0.000
X3	0.000	0.000	0.000	300.000	0.000	338.000	0.000	0.000	0.000	0.000
X1	23706.000	26.000	307.000	320.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	307.000	0.000	320.000	0.000	0.000	0.000	0.000
GR	863.600	0.000	863.600	100.000	863.600	200.000	863.500	307.000	860.200	307.000
GR	859.700	308.100	859.700	309.200	859.700	310.300	859.700	311.400	860.200	312.500
GR	860.200	312.500	860.300	314.500	860.300	314.500	859.800	315.600	859.800	316.700
GR	859.800	317.800	859.800	318.900	860.300	320.000	863.500	320.000	861.500	400.000
GR	862.000	500.000	862.300	600.000	862.300	700.000	862.000	800.000	862.200	900.000
GR	862.700	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23707.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	307.000	0.000	320.000	0.000	0.000	0.000	0.000
SB	0.000	7.160	3.000	0.000	8.420	0.000	28.640	0.000	861.400	859.700

X1	23887.000	17.000	38.000	50.000	18.000	180.000	180.000	0.000	.0	0.0
X2	0.000	0.000	1.000	864.800	875.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	38.000	0.000	50.000	0.000	0.000	0.000	0.000
BT	15.000	0.000	867.000	0.000	38.000	866.700	0.000	38.000	866.700	863.100
BT	39.100	866.700	864.500	40.200	866.700	865.000	41.300	866.700	865.000	42.400
BT	866.700	864.500	43.500	866.700	863.100	44.500	866.700	862.900	45.600	866.700
BT	864.300	46.700	866.700	864.800	47.800	866.700	864.800	48.900	866.700	864.300
BT	50.000	866.700	862.900	50.000	866.700	0.000	0.000	0.000	0.000	0.000
GR	867.000	0.000	866.700	38.000	862.100	38.000	861.600	39.100	861.600	40.200
GR	861.600	41.300	861.600	42.400	862.100	43.500	863.100	43.500	862.900	44.500
GR	861.900	44.500	861.400	45.600	861.400	46.700	861.400	47.800	861.400	48.900
GR	861.900	50.000	866.700	50.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	190.000	390.000	530.000	1020.000	0.000	0.000	0.000	0.000	0.000
X1	23987.000	7.000	17.000	47.000	50.000	150.000	100.000	0.000	0.000	0.000
GR	867.800	0.000	865.500	17.000	862.300	23.000	861.500	28.000	862.400	33.000
GR	872.600	47.000	873.500	69.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.000	3.300	0.000	.100	0.000	.010	0.000	862.000	861.500
X1	23990.000	9.000	17.000	47.000	3.000	3.000	3.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	864.300	862.500	0.000	0.000	0.000	0.000	0.000
BT	9.000	0.000	867.800	0.000	17.000	865.800	0.000	20.000	865.800	0.000
BT	25.000	864.400	0.000	29.000	864.300	862.000	33.000	864.200	0.000	36.000
BT	865.500	0.000	47.000	872.600	0.000	69.000	873.500	0.000	0.000	0.000
GR	867.800	0.000	865.500	17.000	864.800	20.000	863.400	25.000	862.000	29.000
GR	862.200	33.000	864.500	36.000	872.600	47.000	873.500	69.000	0.000	0.000
X1	24215.000	7.000	13.000	50.000	225.000	225.000	225.000	0.000	0.000	0.000
GR	869.700	0.000	869.100	13.000	863.500	22.000	861.700	28.000	864.000	35.000
GR	874.200	50.000	874.200	60.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24216.000	11.000	18.000	37.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	869.700	0.000	869.100	13.000	867.300	18.000	866.900	21.000	865.800	22.000
GR	865.700	26.000	865.700	30.000	866.900	32.000	867.000	37.000	874.200	50.000
GR	874.200	60.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24366.000	23.000	162.500	175.500	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	101.000	0.000	205.000	0.000	869.500	869.500	0.000
GR	874.300	0.000	873.900	65.000	873.600	101.000	868.800	162.500	867.400	162.500
GR	865.700	163.500	865.700	164.500	865.700	165.500	865.700	166.500	867.400	167.500
GR	867.400	167.500	867.300	170.500	866.600	170.500	866.100	171.500	866.100	172.500
GR	866.100	173.500	866.100	174.500	866.600	175.500	867.800	175.500	873.100	205.000
GR	873.500	265.000	873.800	310.000	874.900	370.000	0.000	0.000	0.000	0.000
SB	0.000	4.310	3.030	0.000	8.580	0.000	28.600	0.000	867.100	865.700
X1	24456.000	23.000	162.500	175.500	90.000	90.000	90.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	870.400	872.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	101.000	0.000	205.000	0.000	872.700	872.700	0.000
BT	18.000	101.000	873.600	0.000	162.500	872.700	0.000	162.500	872.700	868.400
BT	163.500	872.700	869.900	164.500	872.700	870.400	165.500	872.700	870.400	166.500
BT	872.700	869.900	167.500	872.700	868.400	167.500	872.700	867.400	170.500	872.700
BT	867.300	170.500	872.700	868.300	171.500	872.700	869.800	172.500	872.700	870.300
BT	173.500	872.700	870.300	174.500	872.700	869.800	175.500	872.800	868.300	175.500
BT	872.800	0.000	205.000	873.100	0.000	0.000	0.000	0.000	0.000	0.000
GR	874.300	0.000	873.900	65.000	873.600	101.000	868.400	162.500	867.400	162.500
GR	867.200	163.500	867.200	164.500	867.200	165.500	867.200	166.500	867.400	167.500
GR	867.400	167.500	867.300	170.500	867.300	170.500	867.100	171.500	867.100	172.500
GR	867.100	173.500	867.100	174.500	867.300	175.500	868.300	175.500	873.100	205.000
GR	873.500	265.000	873.800	310.000	874.900	370.000	0.000	0.000	0.000	0.000
NC	.040	.040	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24556.000	7.000	26.000	46.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	877.400	0.000	873.500	26.000	868.200	34.000	868.200	37.000	868.200	39.000
GR	873.200	46.000	876.300	68.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	24906.000	20.000	107.500	119.000	350.000	350.000	350.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	85.000	0.000	140.000	0.000	873.400	873.400	0.000
GR	874.600	0.000	875.700	85.000	871.100	107.500	871.100	107.500	870.600	108.500
GR	870.600	109.500	870.600	110.500	870.600	111.500	870.600	112.500	870.600	112.500
GR	870.500	114.000	870.500	114.000	870.400	115.000	870.400	116.000	870.400	117.000
GR	870.400	118.000	870.800	119.000	870.800	119.000	875.600	140.000	878.000	210.000
SB	0.000	3.120	3.030	0.000	8.580	0.000	28.600	0.000	870.800	870.400
X1	24958.000	20.000	107.500	119.000	52.000	52.000	52.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	873.800	875.200	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	85.000	0.000	140.000	0.000	875.200	875.200	0.000
BT	16.000	85.000	875.700	0.000	107.500	875.200	0.000	107.500	875.200	872.400
BT	108.500	875.200	873.800	109.500	875.200	874.300	110.500	875.300	874.300	111.500
BT	875.300	873.800	112.500	875.400	872.400	114.000	875.500	872.300	115.000	875.500
BT	873.700	116.000	875.500	874.200	117.000	875.500	874.200	118.000	875.500	873.700
BT	119.000	875.500	872.300	119.000	875.500	0.000	140.000	876.600	0.000	0.000
GR	874.600	0.000	875.700	85.000	871.400	107.500	871.400	107.500	870.900	108.500
GR	870.900	109.500	870.900	110.500	870.900	111.500	871.400	112.500	872.300	112.500
GR	872.300	114.000	871.300	114.000	870.800	115.000	870.800	116.000	870.800	117.000
GR	870.800	118.000	871.300	119.000	871.300	119.000	876.000	140.000	878.000	210.000
NC	.040	.040	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	150.000	315.000	425.000	830.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25133.000	22.000	127.300	139.800	175.000	175.000	175.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	155.000	0.000	0.000	0.000	0.000
GR	877.000	0.000	876.900	30.000	875.000	100.000	872.100	127.300	872.100	127.300
GR	871.600	128.400	871.600	129.500	871.600	130.600	871.600	131.700	872.100	132.800
GR	873.000	132.800	873.300	134.300	872.400	134.300	871.900	135.400	871.900	136.500
GR	871.900	137.600	871.900	138.700	872.400	139.800	872.400	139.800	876.000	155.000
GR	876.500	230.000	877.400	275.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.660	3.030	0.000	8.580	0.000	28.600	0.000	872.400	871.600
X1	25196.000	22.000	127.300	139.800	63.000	63.000	63.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	875.900	876.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	155.000	0.000	0.000	0.000	0.000
BT	16.000	100.000	876.000	0.000	127.300	876.600	0.000	127.300	876.600	873.800
BT	128.400	876.600	875.300	129.500	876.600	875.700	130.600	876.600	875.500	131.700
BT	876.600	875.300	132.800	876.600	873.800	134.300	876.600	874.000	135.400	876.600
BT	875.500	136.500	876.600	875.900	137.600	876.600	875.900	138.700	876.600	875.500
BT	139.800	876.600	874.000	139.800	876.600	0.000	155.000	876.800	0.000	0.000
GR	877.000	0.000	876.900	30.000	875.000	100.000	872.900	127.300	872.900	127.300
GR	872.400	128.400	872.400	129.500	872.400	130.600	872.400	131.700	872.900	132.600
GR	873.800	132.600	874.000	134.300	873.100	134.300	872.600	135.400	872.600	136.500
GR	872.600	137.600	872.600	138.700	873.100	139.800	873.100	139.800	876.000	155.000
GR	876.500	230.000	877.400	275.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25321.000	10.000	20.000	32.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	877.100	0.000	876.400	10.000	874.300	20.000	872.800	22.000	872.300	24.000
GR	872.800	27.000	875.400	32.000	878.100	44.000	880.400	45.000	881.900	65.000
NH	3.000	.050	131.800	.031	145.200	.050	535.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	131.800	145.200	105.000	195.000	0.000
X1	25471.000	22.000	130.000	150.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	882.100	0.000	881.700	35.000	880.200	105.000	875.700	130.000	874.300	131.800
GR	873.600	132.900	873.600	135.000	873.600	137.100	874.300	138.200	875.700	138.200
GR	875.800	138.800	874.400	138.800	873.700	139.900	873.700	142.000	873.700	144.100
GR	874.400	145.200	875.800	150.000	880.100	195.000	880.400	235.000	881.500	335.000
GR	880.300	435.000	879.000	535.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	131.800	145.200	105.000	195.000	0.000
SB	0.000	2.350	3.020	0.000	10.110	0.000	48.000	0.000	873.900	873.600
X1	25512.000	22.000	130.000	150.000	41.000	41.000	41.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	878.700	879.500	0.000	0.000	0.000	0.000	0.000

BT	16.000	105.000	850.200	0.000	13.000	899.550	0.000	131.80	879.500	0.000
BT	131.800	879.500	876.000	132.900	879.500	878.000	135.000	879.500	878.700	137.100
BT	879.500	878.000	138.200	879.500	876.000	138.800	879.500	876.000	139.900	879.500
BT	878.000	142.000	879.500	878.700	144.100	879.500	878.000	145.200	879.500	876.000
BT	145.200	879.500	0.000	150.000	879.550	0.000	195.000	880.100	0.000	0.000
GR	882.100	0.000	881.700	35.000	880.200	105.000	876.000	130.000	874.600	131.800
GR	873.900	132.900	873.900	135.000	873.900	137.100	874.600	138.200	876.000	138.200
GR	876.000	138.800	874.600	138.800	873.900	139.900	873.900	142.000	873.900	144.100
GR	874.600	145.200	876.000	150.000	880.100	195.000	880.400	235.000	881.500	335.000
GR	880.300	435.000	879.000	535.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25612.000	8.000	16.000	39.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	65.000	0.000	0.000	0.000	0.000
GR	882.000	0.000	880.400	16.000	875.900	27.000	875.000	31.000	875.700	36.000
GR	879.400	39.000	880.900	54.000	880.700	89.000	0.000	0.000	0.000	0.000
NC	.050	.050	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25812.000	12.000	50.000	89.000	200.000	200.000	200.000	0.000	-2.250	0.000
X3	0.000	0.000	0.000	0.000	0.000	130.000	0.000	0.000	0.000	0.000
GR	884.400	0.000	883.400	50.000	880.000	65.000	879.500	66.400	879.500	67.700
GR	879.500	69.000	879.500	70.300	880.000	71.700	883.000	89.000	882.600	165.000
GR	882.600	265.000	882.400	300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26012.000	12.000	50.000	89.000	300.000	100.000	200.000	.810	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	235.000	0.000	0.000	0.000	0.000
GR	884.400	0.000	883.400	50.000	880.000	65.000	879.500	66.400	879.500	67.700
GR	879.500	69.000	879.500	70.300	880.000	71.700	883.000	89.000	882.600	165.000
GR	882.600	265.000	882.400	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26013.000	12.000	65.000	71.700	1.000	1.000	1.000	.810	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.810	0.000
X3	0.000	0.000	0.000	0.000	0.000	235.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	884.400	0.000	65.000	883.400	0.000	65.000	883.400	880.900
BT	66.400	883.400	882.300	67.700	883.400	882.800	69.000	883.400	882.800	70.300
BT	883.400	882.300	71.700	883.400	880.900	71.700	883.400	0.000	165.000	882.600
BT	0.000	265.000	882.600	0.000	300.000	882.400	0.000	0.000	0.000	0.000
GR	884.400	0.000	883.400	65.000	880.000	65.000	879.500	66.400	879.500	67.700
GR	879.500	69.000	879.500	70.300	880.000	71.700	883.400	71.700	882.600	165.000
GR	882.600	265.000	882.400	300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26037.000	12.000	65.000	71.700	24.000	24.000	24.000	.810	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.810	0.000
X3	0.000	0.000	0.000	0.000	0.000	235.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	884.400	0.000	65.000	883.400	0.000	65.000	883.400	881.700
BT	66.400	883.400	883.100	67.700	883.600	883.600	69.000	883.600	883.600	70.300
BT	883.400	883.100	71.700	883.400	881.700	71.700	883.400	0.000	165.000	882.600
BT	0.000	265.000	882.600	0.000	300.000	882.400	0.000	0.000	0.000	0.000
GR	884.400	0.000	883.400	65.000	880.800	65.000	880.300	66.400	880.300	67.700
GR	880.300	69.000	880.300	70.300	880.800	71.700	883.400	71.700	882.600	165.000
GR	882.600	265.000	882.400	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26038.000	10.000	50.000	89.000	1.000	1.000	1.000	.810	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	235.000	0.000	0.000	0.000	0.000
GR	884.400	0.000	883.400	50.000	880.800	65.000	880.300	66.400	880.300	70.300
GR	880.800	71.700	883.400	89.000	882.600	165.000	882.600	265.000	882.400	300.000
NC	.065	.050	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26188.000	13.000	36.000	60.000	100.000	350.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	112.000	0.000	0.000	0.000	0.000
GR	884.700	0.000	883.900	25.000	883.500	36.000	881.400	40.000	880.200	44.000
GR	879.900	48.000	880.200	51.000	880.600	55.000	882.200	60.000	887.100	112.000
GR	887.400	125.000	887.800	155.000	886.400	225.000	0.000	0.000	0.000	0.000
NC	.060	.055	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	26388.000	12.000	47.000	73.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	112.000	0.000	0.000	0.000	0.000
GR	887.300	0.000	885.900	32.000	884.800	47.000	882.800	50.000	881.800	54.000
GR	880.800	59.000	881.800	64.000	882.800	66.000	886.400	73.000	887.800	112.000
GR	888.400	154.000	887.600	232.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.054	.054	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26763.000	14.000	241.000	261.000	375.000	375.000	375.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	893.000	0.000	890.400	70.000	887.600	130.000	886.500	230.000	886.300	241.000
GR	884.500	243.000	883.700	248.000	884.500	253.000	887.400	261.000	889.600	290.000
GR	892.000	317.000	891.600	330.000	891.100	372.000	890.600	430.000	0.000	0.000
NC	.062	.062	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	244.000	252.000	140.000	433.000	0.000
X1	26863.000	0.000	0.000	0.000	200.000	100.000	100.000	0.000	.900	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	6.100	157.900	166.100	.050	262.000	0.000
SB	0.000	2.800	3.030	0.000	6.610	0.000	38.000	0.000	884.600	884.600
X1	26946.000	18.000	150.000	170.000	83.000	83.000	83.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	890.000	891.800	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	891.800	0.000	62.000	892.000	0.000	150.000	891.700	0.000
BT	157.900	891.800	0.000	157.900	891.800	886.800	158.400	891.800	888.200	159.000
BT	891.800	889.200	160.200	891.800	890.000	161.400	891.800	890.400	162.600	891.800
BT	890.400	163.800	891.800	890.000	165.000	891.800	889.200	165.600	891.800	888.200
BT	166.100	891.800	886.800	166.100	891.800	0.000	170.000	891.700	0.000	262.000
BT	891.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	891.800	0.000	892.000	62.000	890.400	150.000	886.000	157.900	886.000	157.900
GR	885.200	158.400	884.900	159.000	884.700	160.200	884.600	161.400	884.600	162.600
GR	884.700	163.800	884.900	165.000	885.200	165.600	886.000	166.100	888.000	170.000
GR	890.600	174.000	890.600	262.000	890.600	322.000	0.000	0.000	0.000	0.000
NC	.050	.050	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27046.000	9.000	113.000	135.000	10.000	150.000	100.000	0.000	0.000	0.000
GR	891.800	0.000	892.300	72.000	890.400	100.000	889.700	113.000	885.500	119.000
GR	885.000	122.000	885.500	125.000	890.500	135.000	892.700	176.000	0.000	0.000
QT	4.000	190.000	390.000	530.000	1020.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	-23606.000	17.000	300.000	320.000	25.000	175.000	100.000	0.000	3.920	0.000
X3	0.000	0.000	0.000	287.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	858.900	0.000	858.900	100.000	858.900	200.000	858.300	300.000	855.100	304.000
GR	855.000	310.000	855.600	316.000	856.700	320.000	856.800	400.000	857.300	500.000
GR	857.600	600.000	857.600	700.000	857.300	800.000	857.500	900.000	858.000	1000.000
GR	858.500	1100.000	859.700	1178.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	.010	190.000	330.000	820.000	0.000	0.000	0.000	0.000	0.000
NC	.020	.020	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23636.000	2.000	0.000	50.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	866.000	0.000	865.700	50.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23886.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.000	0.000
QT	4.000	310.000	650.000	865.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	372.000	390.000	0.000	0.000	0.000
X1	-15028.000	11.000	362.000	400.000	3.000	3.000	3.000	0.000	-.900	0.000
GR	831.700	0.000	829.000	100.000	825.900	200.000	821.700	300.000	820.600	362.000
GR	814.300	372.000	814.700	382.000	814.700	392.000	817.200	400.000	821.600	500.000
GR	829.900	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	.100	60.000	300.000	1050.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15128.000	4.000	0.000	50.000	150.000	50.000	100.000	0.000	0.000	0.000

GR	830.900	0.000	823.900	.000	821.800	20.000	828.400	50.000	0.000	0.000
X1	15203.000	4.000	0.000	50.000	75.000	75.000	75.000	0.000	0.000	0.000
GR	831.500	0.000	824.500	0.000	827.800	20.000	830.500	50.000	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

13125.000	590.000	864.188	.439	.402	0.000	63.068	-17.793	310.000
13125.000	1140.000	866.174	1.987	.089	0.000	66.999	-21.725	310.000
13215.000	210.000	862.404	0.000	.052	0.000	21.224	0.000	90.000
13215.000	440.000	863.763	1.359	.014	0.000	21.999	-.775	90.000
13215.000	590.000	864.176	.413	-.011	0.000	21.999	-.775	90.000
13215.000	1140.000	865.951	1.775	-.223	0.000	21.999	-.775	90.000
13225.000	210.000	862.408	0.000	.004	0.000	16.999	0.000	10.000
13225.000	440.000	863.729	1.321	-.034	0.000	16.999	-.000	10.000
13225.000	590.000	864.109	.381	-.067	0.000	16.999	-.000	10.000
13225.000	1140.000	865.726	1.617	-.225	0.000	16.999	-.000	10.000
13235.000	210.000	862.425	0.000	.016	0.000	12.000	0.000	10.000
13235.000	440.000	863.691	1.266	-.038	0.000	12.000	0.000	10.000
13235.000	590.000	864.022	.331	-.087	0.000	12.000	0.000	10.000
13235.000	1140.000	865.439	1.417	-.287	0.000	15.980	-3.980	10.000
13236.000	210.000	862.425	0.000	.001	0.000	12.000	0.000	1.000
13236.000	440.000	863.694	1.269	.003	0.000	12.000	0.000	1.000
13236.000	590.000	864.028	.334	.006	0.000	12.000	0.000	1.000
13236.000	1140.000	865.860	1.832	.420	0.000	16.211	-4.211	1.000
13285.000	210.000	862.459	0.000	.033	0.000	12.000	0.000	49.000
13285.000	440.000	863.780	1.321	.086	0.000	12.000	0.000	49.000
13285.000	590.000	864.170	.391	.142	0.000	12.000	0.000	49.000
13285.000	1140.000	865.928	1.758	.069	0.000	12.000	0.000	49.000
13286.000	210.000	862.460	0.000	.001	0.000	12.000	0.000	1.000
13286.000	440.000	863.782	1.323	.003	0.000	12.000	0.000	1.000
13286.000	590.000	864.229	.447	.059	0.000	12.000	0.000	1.000
13286.000	1140.000	865.937	1.708	.009	0.000	12.000	0.000	1.000
13289.000	210.000	862.639	0.000	.179	0.000	17.999	0.000	3.000
13289.000	440.000	864.281	1.642	.499	0.000	17.999	-.000	3.000
13289.000	590.000	865.047	.766	.818	0.000	17.999	-.000	3.000
13289.000	1140.000	868.057	3.011	2.120	0.000	17.999	-.000	3.000
14289.000	210.000	864.448	0.000	1.809	0.000	115.110	0.000	1000.000
14289.000	440.000	865.917	1.469	1.635	0.000	220.275	-105.165	1000.000
14289.000	590.000	866.648	.732	1.601	0.000	318.130	-203.020	1000.000
14289.000	1140.000	869.429	2.781	1.372	0.000	368.194	-253.084	1000.000
14554.000	210.000	865.611	0.000	1.163	0.000	68.435	0.000	265.000
14554.000	440.000	866.328	.717	.411	0.000	121.084	-52.649	265.000
14554.000	590.000	866.896	.569	.248	0.000	166.635	-98.200	265.000
14554.000	1140.000	869.479	2.583	.050	0.000	478.073	-409.638	265.000
14819.000	210.000	866.752	0.000	1.142	0.000	22.038	0.000	265.000
14819.000	440.000	867.750	.997	1.422	0.000	109.025	-86.987	265.000
14819.000	590.000	868.034	.285	1.138	0.000	125.894	-103.857	265.000
14819.000	1140.000	869.576	1.542	.097	0.000	264.776	-242.738	265.000
15084.000	210.000	867.746	0.000	.994	0.000	23.027	0.000	265.000
15084.000	440.000	869.055	1.308	1.305	0.000	82.708	-59.680	265.000
15084.000	590.000	869.562	.507	1.528	0.000	118.161	-95.133	265.000
15084.000	1140.000	870.573	1.010	.996	0.000	169.715	-146.688	265.000
15349.000	210.000	868.642	0.000	.896	0.000	22.619	0.000	265.000
15349.000	440.000	870.141	1.499	1.087	0.000	46.089	-23.470	265.000
15349.000	590.000	870.706	.564	1.144	0.000	77.377	-54.758	265.000
15349.000	1140.000	871.911	1.206	1.339	0.000	121.201	-98.582	265.000
16399.000	180.000	871.030	0.000	2.388	0.000	22.147	0.000	1050.000
16399.000	375.000	872.802	1.772	2.661	0.000	71.085	-48.938	1050.000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16399.000	965.000	875.090	1.572	3.178	0.000	185.663	-163.516	1050.000
17279.000	180.000	872.373	0.000	1.343	0.000	51.258	0.000	880.000
17279.000	375.000	873.841	1.468	1.039	0.000	359.383	-308.125	880.000
17279.000	500.000	874.425	.584	.908	0.000	404.218	-352.959	880.000
17279.000	965.000	875.861	1.436	.771	0.000	493.362	-442.104	880.000
17479.000	180.000	872.757	0.000	.384	0.000	21.075	0.000	200.000
17479.000	375.000	874.023	1.266	.182	0.000	335.631	-314.557	200.000
17479.000	500.000	874.557	.534	.132	0.000	370.743	-349.669	200.000
17479.000	965.000	875.943	1.386	.082	0.000	458.232	-437.157	200.000
17679.000	180.000	873.393	0.000	.636	0.000	18.953	0.000	200.000
17679.000	375.000	874.545	1.152	.522	0.000	327.223	-308.270	200.000
17679.000	500.000	874.904	.359	.347	0.000	356.716	-337.764	200.000
17679.000	965.000	876.110	1.205	.167	0.000	437.378	-418.425	200.000
17879.000	180.000	874.228	0.000	.835	0.000	17.696	0.000	200.000
17879.000	375.000	875.408	1.180	.863	0.000	348.268	-330.572	200.000
17879.000	500.000	875.629	.221	.725	0.000	387.567	-369.871	200.000
17879.000	965.000	876.463	.834	.353	0.000	434.141	-416.445	200.000
18079.000	180.000	875.063	0.000	.835	0.000	16.444	0.000	200.000
18079.000	375.000	876.127	1.064	.719	0.000	291.313	-274.869	200.000
18079.000	500.000	876.387	.260	.758	0.000	300.760	-284.316	200.000
18079.000	965.000	877.048	.661	.586	0.000	308.302	-291.858	200.000
18529.000	180.000	876.970	0.000	1.908	0.000	28.255	0.000	450.000
18529.000	375.000	877.949	.978	1.822	0.000	57.877	-29.621	450.000
18529.000	500.000	878.277	.329	1.890	0.000	190.786	-162.530	450.000
18529.000	965.000	878.939	.662	1.891	0.000	318.608	-290.352	450.000
18979.000	180.000	879.189	0.000	2.219	0.000	41.659	0.000	450.000
18979.000	375.000	880.089	.899	2.140	0.000	50.998	-9.340	450.000
18979.000	500.000	880.520	.431	2.242	0.000	109.526	-67.867	450.000
18979.000	965.000	881.216	.696	2.277	0.000	284.298	-242.639	450.000
19729.000	180.000	884.192	0.000	5.003	0.000	18.112	0.000	750.000
19729.000	375.000	885.141	.949	5.052	0.000	21.886	-3.774	750.000
19729.000	500.000	885.561	.420	5.041	0.000	26.392	-8.281	750.000
19729.000	965.000	886.955	1.394	5.739	0.000	42.816	-24.704	750.000
19879.000	180.000	885.578	0.000	1.386	0.000	7.000	0.000	150.000
19879.000	375.000	887.642	2.064	2.501	0.000	27.748	-20.748	150.000
19879.000	500.000	887.793	.151	2.232	0.000	28.743	-21.743	150.000
19879.000	965.000	889.616	1.823	2.661	0.000	40.780	-33.780	150.000
19880.000	180.000	885.812	0.000	.234	0.000	7.000	0.000	1.000
19880.000	375.000	887.088	1.276	-.554	0.000	7.000	0.000	1.000
19880.000	500.000	888.110	1.022	.317	0.000	30.839	-23.839	1.000
19880.000	965.000	890.614	2.504	.999	0.000	47.387	-40.387	1.000
19930.000	180.000	886.669	0.000	.856	0.000	7.000	0.000	50.000
19930.000	375.000	888.820	2.151	1.732	0.000	7.000	0.000	50.000
19930.000	500.000	893.217	4.397	5.107	0.000	66.900	-59.900	50.000
19930.000	965.000	893.870	.653	3.256	0.000	137.877	-130.877	50.000
19931.000	180.000	886.681	0.000	.012	0.000	7.000	0.000	1.000
19931.000	375.000	889.491	2.811	.671	0.000	7.000	0.000	1.000
19931.000	500.000	893.375	3.884	.158	0.000	86.785	-79.785	1.000
19931.000	965.000	894.407	1.032	.537	0.000	114.058	-107.058	1.000
20131.000	180.000	887.454	0.000	.774	0.000	36.320	0.000	200.000
20131.000	375.000	890.584	3.130	1.093	0.000	68.001	-31.681	200.000
20131.000	500.000	893.502	2.918	.127	0.000	95.379	-59.059	200.000

20981.000	180.000	887.596	0.000	.142	0.000	355.622	0.000	850.000
20981.000	375.000	890.647	3.051	.064	0.000	455.720	-100.098	850.000
20981.000	500.000	893.533	2.886	.031	0.000	477.883	-122.261	850.000
20981.000	965.000	894.771	1.238	.076	0.000	483.753	-128.131	850.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	529.999	23.334	0.000
2	0.000	529.999	51.829	28.496
3	0.000	529.999	64.317	41.983
4	0.000	529.999	89.317	65.984

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OL			
12294.00	1.00	859.70	861.90	855.60	220.00	861.16	.08	.00	.00			.4
12294.00	1.00	859.70	861.90	855.60	455.00	862.55	.07	.00	.00	[illegible]		5.00
12294.00	1.00	859.70	861.90	855.60	605.00	863.24	.08	.00	.00	297.26		26.37
12294.00	1.00	859.70	861.90	855.60	1180.00	865.84	.04	.00	.00	340.78	10.[illegible]	263.85
12310.00	16.00	859.70	861.90	855.60	220.00	861.17	.08	.01	.00	200.92	5.57	83.61
12310.00	16.00	859.70	861.90	855.60	455.00	862.57	.07	.02	.00	252.18	6.97	85.00
12310.00	16.00	859.70	861.90	855.60	605.00	863.26	.08	.02	.00	296.34	7.66	128.73
12310.00	16.00	859.70	861.90	855.60	1180.00	865.84	.04	.00	.00	340.21	10.24	264.20
12311.00	1.00	0.00	0.00	855.60	220.00	861.18	.07	.00	.00	204.60	5.58	83.64
12311.00	1.00	0.00	0.00	855.60	455.00	862.57	.08	.00	.00	338.57	6.97	85.00
12311.00	1.00	0.00	0.00	855.60	605.00	863.25	.09	.00	.01	414.15	7.65	128.86
12311.00	1.00	0.00	0.00	855.60	1180.00	865.84	.05	.00	.01	533.38	10.24	264.21
12641.00	330.00	0.00	0.00	857.10	220.00	861.34	.13	.19	.03	216.35	4.24	32.07
12641.00	330.00	0.00	0.00	857.10	455.00	862.69	.20	.18	.06	412.80	5.59	81.97
12641.00	330.00	0.00	0.00	857.10	605.00	863.37	.21	.18	.06	506.46	6.27	111.02
12641.00	330.00	0.00	0.00	857.10	1180.00	865.88	.12	.08	.03	663.40	8.78	212.59
12642.00	1.00	861.40	859.90	857.10	220.00	861.16	.50	.00	.18	220.00	4.06	26.99
12642.00	1.00	861.40	859.90	857.10	455.00	862.53	.54	.00	.17	351.06	5.43	75.07
12642.00	1.00	861.40	859.90	857.10	605.00	863.35	.25	.00	.02	343.80	6.25	110.72
12642.00	1.00	861.40	859.90	857.10	1180.00	865.95	.06	.00	.02	320.85	8.85	217.63
12652.00	10.00	861.40	859.90	857.10	220.00	861.41	.40	.12	.03	220.00	4.31	27.60
12652.00	10.00	861.40	859.90	857.10	455.00	863.10	.20	.12	.10	294.67	6.00	99.44
12652.00	10.00	861.40	859.90	857.10	605.00	863.49	.20	.07	.01	342.12	6.39	116.33
12652.00	10.00	861.40	859.90	857.10	1180.00	865.97	.06	.01	.00	332.14	8.87	218.18
12653.00	1.00	0.00	0.00	857.10	220.00	861.82	.08	.00	.10	213.47	4.72	44.32
12653.00	1.00	0.00	0.00	857.10	455.00	863.19	.13	.00	.02	393.03	6.09	103.21
12653.00	1.00	0.00	0.00	857.10	605.00	863.51	.18	.00	.00	501.70	6.41	116.93
12653.00	1.00	0.00	0.00	857.10	1180.00	865.94	.11	.00	.02	666.64	8.84	216.55
12803.00	150.00	0.00	0.00	856.50	210.00	861.87	.15	.09	.04	207.96	5.37	29.54
12803.00	150.00	0.00	0.00	856.50	440.00	863.25	.22	.11	.04	357.47	6.75	124.05
12803.00	150.00	0.00	0.00	856.50	590.00	863.61	.26	.13	.04	434.40	7.11	150.25
12803.00	150.00	0.00	0.00	856.50	1140.00	866.06	.06	.05	.01	385.34	9.56	258.39
12804.00	1.00	861.50	861.10	856.50	210.00	861.84	.23	.00	.04	207.19	5.34	28.31
12804.00	1.00	861.50	861.10	856.50	440.00	863.35	.14	.00	.02	272.13	6.85	132.15
12804.00	1.00	861.50	861.10	856.50	590.00	863.79	.13	.00	.04	295.88	7.29	163.60
12804.00	1.00	861.50	861.10	856.50	1140.00	866.09	.04	.00	.01	212.11	9.59	259.86
12814.00	10.00	861.50	861.00	855.40	210.00	861.91	.23	.07	.00	206.35	6.51	30.61
12814.00	10.00	861.50	861.00	855.40	440.00	863.40	.13	.03	.00	265.92	8.00	134.34
12814.00	10.00	861.50	861.00	855.40	590.00	863.82	.12	.03	.00	289.62	8.42	165.22
12814.00	10.00	861.50	861.00	855.40	1140.00	866.09	.04	.01	.00	209.17	10.69	260.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
12815.00	1.00	0.00	0.00	855.40	210.00	862.04	.12	.00	.03	206.69	6.64	36.83
12815.00	1.00	0.00	0.00	855.40	440.00	863.38	.17	.00	.02	345.85	7.98	134.17
12815.00	1.00	0.00	0.00	855.40	590.00	863.79	.20	.00	.04	413.58	8.39	163.26
12815.00	1.00	0.00	0.00	855.40	1140.00	866.08	.06	.00	.01	378.41	10.68	260.02
13125.00	310.00	0.00	0.00	857.00	210.00	862.35	.07	.24	.02	184.65	5.35	45.27
13125.00	310.00	0.00	0.00	857.00	440.00	863.75	.11	.29	.02	360.61	6.75	51.82
13125.00	310.00	0.00	0.00	857.00	590.00	864.19	.16	.35	.01	476.24	7.19	63.07
13125.00	310.00	0.00	0.00	857.00	1140.00	866.17	.23	.17	.08	830.89	9.17	67.00
13215.00	90.00	0.00	0.00	858.00	210.00	862.40	.20	.12	.07	210.00	4.40	21.22
13215.00	90.00	0.00	0.00	858.00	440.00	863.76	.39	.15	.14	440.00	5.76	22.00
13215.00	90.00	0.00	0.00	858.00	590.00	864.18	.58	.20	.21	590.00	6.18	22.00
13215.00	90.00	0.00	0.00	858.00	1140.00	865.95	1.09	.21	.43	1140.00	7.95	22.00
13225.00	10.00	0.00	0.00	858.10	210.00	862.41	.26	.03	.03	210.00	4.31	17.00
13225.00	10.00	0.00	0.00	858.10	440.00	863.73	.55	.05	.08	440.00	5.63	17.00
13225.00	10.00	0.00	0.00	858.10	590.00	864.11	.84	.06	.13	590.00	6.01	17.00
13225.00	10.00	0.00	0.00	858.10	1140.00	865.73	1.73	.10	.32	1140.00	7.63	17.00
13235.00	10.00	0.00	0.00	858.20	210.00	862.42	.28	.03	.01	210.00	4.22	12.00
13235.00	10.00	0.00	0.00	858.20	440.00	863.69	.72	.05	.08	440.00	5.49	12.00
13235.00	10.00	0.00	0.00	858.20	590.00	864.02	1.15	.07	.15	590.00	5.82	12.00
13235.00	10.00	0.00	0.00	858.20	1140.00	865.44	2.50	.10	.38	1105.04	7.24	15.98
13236.00	1.00	0.00	0.00	858.20	210.00	862.43	.28	.00	.00	210.00	4.23	12.00
13236.00	1.00	0.00	0.00	858.20	440.00	863.69	.72	.00	.00	440.00	5.49	12.00
13236.00	1.00	0.00	0.00	858.20	590.00	864.03	1.14	.00	.00	590.00	5.83	12.00
13236.00	1.00	0.00	0.00	858.20	1140.00	865.86	2.18	.00	.10	1094.86	7.66	16.21
13285.00	49.00	867.40	865.30	858.20	210.00	862.46	.28	.03	.00	210.00	4.26	12.00
13285.00	49.00	867.40	865.30	858.20	440.00	863.78	.70	.06	.01	440.00	5.58	12.00
13285.00	49.00	867.40	865.30	858.20	590.00	864.17	1.11	.10	.01	590.00	5.97	12.00
13285.00	49.00	867.40	865.30	858.20	1140.00	865.93	2.41	.29	0.00	1140.00	7.73	12.00
13286.00	1.00	0.00	0.00	858.20	210.00	862.46	.27	.00	.00	210.00	4.26	12.00
13286.00	1.00	0.00	0.00	858.20	440.00	863.78	.70	.00	.00	440.00	5.58	12.00
13286.00	1.00	0.00	0.00	858.20	590.00	864.23	1.07	.00	.01	590.00	6.03	12.00
13286.00	1.00	0.00	0.00	858.20	1140.00	865.94	2.40	.01	.00	1140.00	7.74	12.00
13289.00	3.00	0.00	0.00	858.21	210.00	862.64	.14	.00	.04	168.12	4.43	18.00
13289.00	3.00	0.00	0.00	858.21	440.00	864.28	.32	.01	.11	349.18	6.07	18.00
13289.00	3.00	0.00	0.00	858.21	590.00	865.05	.45	.01	.19	466.99	6.84	18.00
13289.00	3.00	0.00	0.00	858.21	1140.00	868.06	.78	.01	.49	896.52	9.85	18.00
14289.00	1000.00	0.00	0.00	860.30	210.00	864.45	.22	1.85	.04	175.95	4.15	115.11
14289.00	1000.00	0.00	0.00	860.30	440.00	865.92	.06	1.30	.08	185.91	5.62	220.27
14289.00	1000.00	0.00	0.00	860.30	590.00	866.65	.04	1.08	.12	196.35	6.35	318.13
14289.00	1000.00	0.00	0.00	860.30	1140.00	869.43	.01	.37	.23	200.92	9.13	368.19

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
14554.00	265.00	0.00	0.00	861.90	210.00	865.61	.25	1.18	.02	206.24	3.71	68.44
14554.00	265.00	0.00	0.00	861.90	440.00	866.33	.33	.55	.14	340.58	4.43	121.08
14554.00	265.00	0.00	0.00	861.90	590.00	866.90	.23	.35	.10	367.61	5.00	166.64
14554.00	265.00	0.00	0.00	861.90	1140.00	869.48	.03	.06	.01	295.08	7.58	478.07
14819.00	265.00	0.00	0.00	862.80	210.00	866.75	.21	1.08	.01	210.00	3.95	22.04
14819.00	265.00	0.00	0.00	862.80	440.00	867.75	.35	1.43	.01	401.34	4.95	109.02
14819.00	265.00	0.00	0.00	862.80	590.00	868.03	.46	1.25	.11	508.91	5.23	125.89
14819.00	265.00	0.00	0.00	862.80	1140.00	869.58	.29	.23	.13	684.34	6.78	264.78
15084.00	265.00	0.00	0.00	863.40	210.00	867.75	.19	.97	.01	210.00	4.35	23.03
15084.00	265.00	0.00	0.00	863.40	440.00	869.05	.31	1.25	.01	426.14	5.65	82.71
15084.00	265.00	0.00	0.00	863.40	590.00	869.56	.35	1.39	.03	535.83	6.16	118.16
15084.00	265.00	0.00	0.00	863.40	1140.00	870.57	.49	1.10	.10	871.06	7.17	169.72
15349.00	265.00	0.00	0.00	864.00	210.00	868.64	.18	.89	.00	210.00	4.64	22.62
15349.00	265.00	0.00	0.00	864.00	440.00	870.14	.30	1.07	.00	439.10	6.14	46.09
15349.00	265.00	0.00	0.00	864.00	590.00	870.71	.38	1.16	.01	577.06	6.71	77.38
15349.00	265.00	0.00	0.00	864.00	1140.00	871.91	.56	1.38	.04	993.93	7.91	121.20
16399.00	1050.00	0.00	0.00	865.70	180.00	871.03	.11	2.29	.02	180.00	5.33	22.15
16399.00	1050.00	0.00	0.00	865.70	375.00	872.80	.16	2.48	.04	368.63	7.10	71.09
16399.00	1050.00	0.00	0.00	865.70	500.00	873.52	.18	2.56	.06	466.29	7.82	114.23
16399.00	1050.00	0.00	0.00	865.70	965.00	875.09	.21	2.72	.11	723.42	9.39	185.66
17279.00	880.00	0.00	0.00	868.00	180.00	872.37	.11	1.35	.00	178.87	4.37	51.26
17279.00	880.00	0.00	0.00	868.00	375.00	873.84	.06	.90	.03	243.97	5.84	359.38
17279.00	880.00	0.00	0.00	868.00	500.00	874.43	.04	.72	.04	253.52	6.43	404.22
17279.00	880.00	0.00	0.00	868.00	965.00	875.86	.03	.53	.05	311.59	7.86	493.36
17479.00	200.00	0.00	0.00	868.80	180.00	872.76	.17	.41	.03	180.00	3.96	21.07
17479.00	200.00	0.00	0.00	868.80	375.00	874.02	.18	.24	.06	305.67	5.22	335.63
17479.00	200.00	0.00	0.00	868.80	500.00	874.56	.10	.16	.03	305.21	5.76	370.74
17479.00	200.00	0.00	0.00	868.80	965.00	875.94	.04	.09	.01	336.30	7.14	458.23
17679.00	200.00	0.00	0.00	869.60	180.00	873.39	.23	.66	.03	180.00	3.79	18.95
17679.00	200.00	0.00	0.00	869.60	375.00	874.54	.32	.59	.07	337.04	4.94	327.22
17679.00	200.00	0.00	0.00	869.60	500.00	874.90	.24	.42	.07	363.11	5.30	356.72
17679.00	200.00	0.00	0.00	869.60	965.00	876.11	.09	.19	.02	375.31	6.51	437.38
17879.00	200.00	0.00	0.00	870.20	180.00	874.23	.26	.85	.02	180.00	4.03	17.70
17879.00	200.00	0.00	0.00	870.20	375.00	875.41	.25	.78	.02	300.16	5.21	348.27
17879.00	200.00	0.00	0.00	870.20	500.00	875.63	.25	.73	.00	343.36	5.43	387.57
17879.00	200.00	0.00	0.00	870.20	965.00	876.46	.15	.38	.03	399.71	6.26	434.14
18079.00	200.00	0.00	0.00	870.90	180.00	875.06	.31	.86	.02	180.00	4.16	16.44
18079.00	200.00	0.00	0.00	870.90	375.00	876.13	.33	.76	.04	301.01	5.23	291.31
18079.00	200.00	0.00	0.00	870.90	500.00	876.39	.32	.79	.03	342.49	5.49	300.76
18079.00	200.00	0.00	0.00	870.90	965.00	877.05	.28	.65	.07	455.08	6.15	308.30

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
18529.00	450.00	0.00	0.00	874.20	180.00	876.97	.19	1.76	.03	180.00	2.77	28.26
18529.00	450.00	0.00	0.00	874.20	375.00	877.95	.33	1.82	.00	374.73	3.75	57.88
18529.00	450.00	0.00	0.00	874.20	500.00	878.28	.42	1.94	.05	485.47	4.08	190.79
18529.00	450.00	0.00	0.00	874.20	965.00	878.94	.44	1.97	.08	703.12	4.74	318.61
18979.00	450.00	0.00	0.00	877.40	180.00	879.19	.19	2.21	.00	180.00	1.79	41.66
18979.00	450.00	0.00	0.00	877.40	375.00	880.09	.26	2.05	.02	374.09	2.69	51.00
18979.00	450.00	0.00	0.00	877.40	500.00	880.52	.30	2.09	.04	494.23	3.12	109.53
18979.00	450.00	0.00	0.00	877.40	965.00	881.22	.44	2.28	.00	829.54	3.82	284.30
19729.00	750.00	0.00	0.00	879.40	180.00	884.19	.29	5.06	.05	180.00	4.79	18.11
19729.00	750.00	0.00	0.00	879.40	375.00	885.14	.60	5.22	.17	375.00	5.74	21.89
19729.00	750.00	0.00	0.00	879.40	500.00	885.56	.80	5.29	.25	499.61	6.16	26.39
19729.00	750.00	0.00	0.00	879.40	965.00	886.95	1.25	6.14	.41	937.81	7.55	42.82
19879.00	150.00	0.00	0.00	882.00	180.00	885.58	1.18	1.83	.45	180.00	3.58	7.00
19879.00	150.00	0.00	0.00	882.00	375.00	887.64	.93	1.65	0.00	300.48	5.64	27.75
19879.00	150.00	0.00	0.00	882.00	500.00	887.79	1.50	2.19	0.00	394.50	5.79	28.74
19879.00	150.00	0.00	0.00	882.00	965.00	889.62	1.80	2.20	0.00	633.82	7.62	40.78
19880.00	1.00	0.00	0.00	882.00	180.00	885.81	1.02	.02	.05	180.00	3.81	7.00
19880.00	1.00	0.00	0.00	882.00	375.00	887.09	2.25	.02	0.00	375.00	5.09	7.00
19880.00	1.00	0.00	0.00	882.00	500.00	888.11	1.20	.01	0.00	380.60	6.11	30.84
19880.00	1.00	0.00	0.00	882.00	965.00	890.61	1.04	.01	.23	573.62	8.61	47.39
19930.00	50.00	892.80	890.00	881.40	180.00	886.67	.49	.16	.16	180.00	5.27	7.00
19930.00	50.00	892.80	890.00	881.40	375.00	888.82	1.32	.51	.28	375.00	7.42	7.00
19930.00	50.00	892.80	890.00	881.40	500.00	893.22	.22	4.13	0.00	351.54	11.82	66.90
19930.00	50.00	892.80	890.00	881.40	965.00	893.87	.65	2.86	0.00	649.44	12.47	137.88
19931.00	1.00	0.00	0.00	881.40	180.00	886.68	.48	.00	.00	180.00	5.28	7.00
19931.00	1.00	0.00	0.00	881.40	375.00	889.49	.80	.00	.15	375.00	8.09	7.00
19931.00	1.00	0.00	0.00	881.40	500.00	893.37	.10	.00	.04	268.66	11.97	86.79
19931.00	1.00	0.00	0.00	881.40	965.00	894.41	.23	.00	.12	467.81	13.01	114.06
20131.00	200.00	0.00	0.00	883.00	180.00	887.45	.05	.22	.13	179.97	4.45	36.32
20131.00	200.00	0.00	0.00	883.00	375.00	890.58	.04	.10	.23	352.69	7.58	68.00
20131.00	200.00	0.00	0.00	883.00	500.00	893.50	.02	.02	.02	416.34	10.50	95.38
20131.00	200.00	0.00	0.00	883.00	965.00	894.70	.05	.05	.05	762.48	11.70	103.52
20981.00	850.00	0.00	0.00	884.70	180.00	887.60	.00	.08	.01	22.20	2.90	355.62
20981.00	850.00	0.00	0.00	884.70	375.00	890.65	.00	.02	.01	37.50	5.95	455.72
20981.00	850.00	0.00	0.00	884.70	500.00	893.53	.00	.01	.01	43.99	8.83	477.88
20981.00	850.00	0.00	0.00	884.70	965.00	894.77	.00	.01	.01	81.73	10.07	483.75

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
28.000	625.000	757.450	0.000	0.000	0.000	96.300	0.000	0.000
28.000	1330.000	758.530	1.080	0.000	0.000	154.620	-58.320	0.000
28.000	1810.000	759.087	.557	0.000	0.000	186.006	-89.706	0.000
28.000	3410.000	760.400	1.313	0.000	0.000	253.880	-157.580	0.000
0.000	300.000	759.547	0.000	2.097	0.000	110.071	0.000	250.000
0.000	625.000	760.848	1.301	2.318	0.000	191.236	-81.165	250.000
0.000	835.000	761.446	.598	2.359	0.000	222.436	-112.365	250.000
0.000	1620.000	762.823	1.376	2.423	0.000	239.636	-129.564	250.000
250.000	300.000	760.454	0.000	.906	0.000	52.380	0.000	250.000
250.000	625.000	761.486	1.032	.638	0.000	116.774	-64.394	250.000
250.000	835.000	762.007	.522	.561	0.000	152.190	-99.810	250.000
250.000	1620.000	763.387	1.380	.565	0.000	205.427	-153.046	250.000

500.000	300.000	762.821	0.000	2.368	0.000	85.208	0.000	250.000
500.000	625.000	763.715	.893	2.229	0.000	158.784	-73.576	250.000
500.000	835.000	764.057	.343	2.050	0.000	177.090	-91.882	250.000
500.000	1620.000	765.041	.983	1.654	0.000	188.051	-102.843	250.000
750.000	300.000	764.618	0.000	1.797	0.000	90.617	0.000	250.000
750.000	625.000	765.508	.890	1.793	0.000	157.909	-67.292	250.000
750.000	835.000	765.909	.401	1.852	0.000	159.223	-68.606	250.000
750.000	1620.000	767.030	1.121	1.989	0.000	162.894	-72.276	250.000
790.000	300.000	764.980	0.000	.361	0.000	71.699	0.000	40.000
790.000	625.000	765.845	.865	.337	0.000	157.340	-85.641	40.000
790.000	835.000	766.191	.346	.281	0.000	158.500	-86.801	40.000
790.000	1620.000	767.304	1.114	.275	0.000	162.123	-90.423	40.000
830.000	300.000	765.444	0.000	.465	0.000	64.431	0.000	40.000
830.000	625.000	766.356	.912	.511	0.000	157.312	-92.881	40.000
830.000	835.000	766.619	.263	.428	0.000	158.172	-93.742	40.000
830.000	1620.000	767.669	1.050	.364	0.000	161.612	-97.181	40.000
870.000	300.000	765.953	0.000	.509	0.000	62.839	0.000	40.000
870.000	625.000	766.880	.927	.524	0.000	157.324	-94.485	40.000
870.000	835.000	767.184	.304	.565	0.000	158.321	-95.482	40.000
870.000	1620.000	768.115	.931	.446	0.000	161.371	-98.533	40.000
990.000	300.000	767.616	0.000	1.663	0.000	31.837	0.000	120.000
990.000	625.000	768.710	1.094	1.830	0.000	111.397	-79.560	120.000
990.000	835.000	769.182	.472	1.998	0.000	160.214	-128.378	120.000
990.000	1620.000	770.093	.911	1.978	0.000	175.118	-143.281	120.000
1110.000	300.000	769.392	0.000	1.776	0.000	48.635	0.000	120.000
1110.000	625.000	770.260	.868	1.550	0.000	111.371	-62.735	120.000
1110.000	835.000	770.709	.449	1.527	0.000	158.030	-109.395	120.000
1110.000	1620.000	771.675	.966	1.583	0.000	175.269	-126.633	120.000
1150.000	300.000	769.850	0.000	.457	0.000	44.402	0.000	40.000
1150.000	625.000	770.780	.930	.520	0.000	111.376	-66.974	40.000
1150.000	835.000	771.234	.454	.525	0.000	158.543	-114.141	40.000
1150.000	1620.000	772.146	.911	.470	0.000	175.041	-130.639	40.000
1190.000	300.000	770.345	0.000	.495	0.000	43.799	0.000	40.000
1190.000	625.000	771.290	.945	.510	0.000	111.375	-67.576	40.000
1190.000	835.000	771.743	.453	.509	0.000	158.448	-114.648	40.000
1190.000	1620.000	772.669	.925	.523	0.000	175.096	-131.297	40.000
1230.000	300.000	770.859	0.000	.514	0.000	25.866	0.000	40.000
1230.000	625.000	772.031	1.172	.742	0.000	77.781	-51.915	40.000
1230.000	835.000	772.573	.542	.830	0.000	112.537	-86.671	40.000
1230.000	1620.000	773.758	1.184	1.089	0.000	189.861	-163.995	40.000
1290.000	300.000	771.972	0.000	1.113	0.000	38.324	0.000	60.000
1290.000	625.000	773.004	1.032	.973	0.000	83.414	-45.089	60.000
1290.000	835.000	773.374	.370	.800	0.000	109.204	-70.879	60.000
1290.000	1620.000	774.585	1.212	.828	0.000	192.366	-154.042	60.000
1350.000	300.000	772.663	0.000	.692	0.000	33.631	0.000	60.000
1350.000	625.000	773.694	1.030	.690	0.000	71.901	-38.270	60.000
1350.000	835.000	774.218	.524	.844	0.000	102.634	-69.002	60.000
1350.000	1620.000	775.519	1.301	.934	0.000	195.190	-161.559	60.000
1410.000	300.000	773.486	0.000	.823	0.000	33.810	0.000	60.000
1410.000	625.000	774.607	1.121	.913	0.000	67.676	-33.866	60.000
1410.000	835.000	775.009	.402	.791	0.000	87.556	-53.746	60.000
1410.000	1620.000	776.364	1.355	.845	0.000	173.330	-139.520	60.000

1470.000	625.000	775.394	1.075	.787	0.000	61.849	-27.943	60.000
1470.000	835.000	775.878	.485	.869	0.000	81.556	-47.650	60.000
1470.000	1620.000	777.265	1.387	.901	0.000	163.403	-129.497	60.000
1530.000	300.000	775.200	0.000	.881	0.000	35.572	0.000	60.000
1530.000	625.000	776.368	1.167	.974	0.000	66.213	-30.640	60.000
1530.000	835.000	776.877	.510	.999	0.000	85.483	-49.910	60.000
1530.000	1620.000	778.102	1.225	.837	0.000	158.493	-122.920	60.000
1590.000	300.000	775.978	0.000	.778	0.000	34.672	0.000	60.000
1590.000	625.000	777.088	1.109	.720	0.000	59.809	-25.137	60.000
1590.000	835.000	777.572	.485	.695	0.000	77.265	-42.594	60.000
1590.000	1620.000	778.937	1.365	.835	0.000	151.294	-116.622	60.000
1650.000	300.000	776.813	0.000	.835	0.000	35.190	0.000	60.000
1650.000	625.000	777.938	1.125	.851	0.000	60.723	-25.532	60.000
1650.000	835.000	778.425	.487	.853	0.000	74.159	-38.968	60.000
1650.000	1620.000	779.780	1.355	.843	0.000	144.036	-108.845	60.000
1710.000	300.000	777.658	0.000	.845	0.000	32.963	0.000	60.000
1710.000	625.000	778.819	1.161	.880	0.000	63.841	-30.879	60.000
1710.000	835.000	779.269	.450	.844	0.000	70.467	-37.504	60.000
1710.000	1620.000	780.664	1.395	.884	0.000	131.500	-98.537	60.000
2160.000	300.000	782.252	0.000	4.594	0.000	15.000	0.000	450.000
2160.000	625.000	783.453	1.201	4.634	0.000	50.905	-35.905	450.000
2160.000	835.000	784.062	.608	4.793	0.000	80.084	-65.084	450.000
2160.000	1620.000	785.399	1.337	4.735	0.000	105.520	-90.520	450.000
2161.000	300.000	782.263	0.000	.010	0.000	15.000	0.000	1.000
2161.000	625.000	783.997	1.735	.544	0.000	76.689	-61.689	1.000
2161.000	835.000	784.950	.953	.889	0.000	103.275	-88.275	1.000
2161.000	1620.000	786.613	1.663	1.214	0.000	134.437	-119.437	1.000
2173.000	300.000	782.346	0.000	.083	0.000	15.000	0.000	12.000
2173.000	625.000	785.049	2.704	1.052	0.000	103.794	-88.794	12.000
2173.000	835.000	785.622	.573	.672	0.000	106.698	-91.698	12.000
2173.000	1620.000	786.896	1.273	.283	0.000	142.893	-127.893	12.000
2174.000	300.000	782.351	0.000	.006	0.000	15.000	0.000	1.000
2174.000	625.000	784.984	2.632	-.066	0.000	103.453	-88.453	1.000
2174.000	835.000	785.537	.553	-.085	0.000	106.259	-91.259	1.000
2174.000	1620.000	786.733	1.197	-.162	0.000	137.988	-122.988	1.000
2294.000	300.000	783.064	0.000	.713	0.000	23.000	0.000	120.000
2294.000	625.000	785.126	2.062	.143	0.000	44.971	-21.971	120.000
2294.000	835.000	785.666	.540	.129	0.000	48.791	-25.791	120.000
2294.000	1620.000	787.030	1.364	.297	0.000	177.424	-154.424	120.000
2295.000	300.000	783.068	0.000	.004	0.000	23.000	0.000	1.000
2295.000	625.000	785.126	2.058	-.000	0.000	44.983	-21.983	1.000
2295.000	835.000	785.665	.539	-.001	0.000	48.803	-25.803	1.000
2295.000	1620.000	787.024	1.359	-.006	0.000	177.448	-154.448	1.000
2299.000	300.000	783.061	0.000	-.007	0.000	23.000	0.000	4.000
2299.000	625.000	785.687	2.626	.561	0.000	48.965	-25.965	4.000
2299.000	835.000	786.564	.876	.899	0.000	172.602	-149.602	4.000
2299.000	1620.000	788.622	2.059	1.598	0.000	193.812	-170.812	4.000
2300.000	300.000	783.125	0.000	.064	0.000	23.000	0.000	1.000
2300.000	625.000	785.677	2.552	-.010	0.000	48.970	-25.970	1.000
2300.000	835.000	786.539	.862	-.025	0.000	172.295	-149.295	1.000
2300.000	1620.000	788.586	2.047	-.036	0.000	193.429	-170.429	1.000
2400.000	300.000	786.145	0.000	3.020	0.000	68.106	0.000	100.000

2400.000	835.000	787.121	.411	.582	0.000	105.786	-37.679	100.000
2400.000	1620.000	788.600	1.479	.014	0.000	157.666	-89.560	100.000
2401.000	300.000	786.015	0.000	-.130	0.000	17.872	0.000	1.000
2401.000	625.000	788.269	2.254	1.559	0.000	140.631	-122.760	1.000
2401.000	835.000	788.564	.294	1.443	0.000	152.038	-134.166	1.000
2401.000	1620.000	789.300	.737	.701	0.000	180.618	-162.746	1.000
2407.000	300.000	786.752	0.000	.737	0.000	38.976	0.000	6.000
2407.000	625.000	788.817	2.065	.548	0.000	162.189	-123.213	6.000
2407.000	835.000	789.098	.281	.535	0.000	172.630	-133.654	6.000
2407.000	1620.000	789.951	.853	.651	0.000	204.774	-165.798	6.000
2408.000	300.000	787.403	0.000	.651	0.000	83.316	0.000	1.000
2408.000	625.000	788.779	1.376	-.038	0.000	160.409	-77.093	1.000
2408.000	835.000	789.034	.255	-.064	0.000	170.308	-86.992	1.000
2408.000	1620.000	789.797	.763	-.154	0.000	199.601	-116.285	1.000
2448.000	300.000	787.558	0.000	.155	0.000	42.796	0.000	40.000
2448.000	625.000	788.884	1.326	.105	0.000	164.486	-121.690	40.000
2448.000	835.000	789.191	.307	.157	0.000	176.419	-133.623	40.000
2448.000	1620.000	790.404	1.212	.606	0.000	220.494	-177.698	40.000
2449.000	300.000	788.530	0.000	.972	0.000	150.734	0.000	1.000
2449.000	625.000	789.121	.591	.237	0.000	173.660	-22.926	1.000
2449.000	835.000	789.395	.274	.204	0.000	184.279	-33.545	1.000
2449.000	1620.000	790.255	.861	-.148	0.000	215.508	-64.774	1.000
2450.000	300.000	788.538	0.000	.008	0.000	150.882	0.000	1.000
2450.000	625.000	789.132	.593	.011	0.000	173.846	-22.965	1.000
2450.000	835.000	789.406	.275	.012	0.000	184.485	-33.604	1.000
2450.000	1620.000	790.267	.860	.011	0.000	215.698	-64.816	1.000
2451.000	300.000	788.858	0.000	.320	0.000	163.128	0.000	1.000
2451.000	625.000	789.544	.686	.413	0.000	183.999	-20.871	1.000
2451.000	835.000	789.875	.330	.468	0.000	183.999	-20.871	1.000
2451.000	1620.000	790.723	.848	.456	0.000	183.999	-20.871	1.000
2576.000	300.000	789.245	0.000	.387	0.000	144.684	0.000	125.000
2576.000	625.000	790.035	.789	.490	0.000	175.356	-30.672	125.000
2576.000	835.000	790.402	.368	.528	0.000	189.614	-44.930	125.000
2576.000	1620.000	791.400	.998	.677	0.000	224.901	-80.218	125.000
2701.000	300.000	790.177	0.000	.932	0.000	51.431	0.000	125.000
2701.000	625.000	790.805	.628	.771	0.000	67.049	-15.617	125.000
2701.000	835.000	791.119	.314	.717	0.000	96.886	-45.455	125.000
2701.000	1620.000	792.358	1.239	.958	0.000	186.119	-134.688	125.000
2826.000	300.000	790.838	0.000	.661	0.000	16.000	0.000	125.000
2826.000	625.000	791.968	1.129	1.163	0.000	95.305	-79.305	125.000
2826.000	835.000	792.614	.647	1.495	0.000	159.085	-143.085	125.000
2826.000	1620.000	793.811	1.196	1.452	0.000	211.657	-195.657	125.000
2827.000	300.000	790.857	0.000	.019	0.000	16.000	0.000	1.000
2827.000	625.000	792.101	1.244	.133	0.000	108.471	-92.471	1.000
2827.000	835.000	792.781	.680	.167	0.000	166.823	-150.823	1.000
2827.000	1620.000	793.993	1.212	.182	0.000	220.056	-204.056	1.000
2839.000	300.000	791.082	0.000	.225	0.000	16.000	0.000	12.000
2839.000	625.000	793.061	1.979	.959	0.000	178.796	-162.796	12.000
2839.000	835.000	793.411	.350	.630	0.000	194.212	-178.212	12.000
2839.000	1620.000	794.221	.811	.229	0.000	230.057	-214.057	12.000
2840.000	300.000	791.272	0.000	.190	0.000	16.000	0.000	1.000
2840.000	625.000	793.046	1.774	-.015	0.000	178.486	-162.486	1.000

2840.000	1620.000	794.176	.787	-.045	0.000	227.766	-211.766	1.000
3000.000	300.000	792.753	0.000	1.481	0.000	58.045	0.000	160.000
3000.000	625.000	793.392	.639	.347	0.000	97.344	-39.299	160.000
3000.000	835.000	793.792	.399	.403	0.000	137.765	-79.719	160.000
3000.000	1620.000	794.821	1.030	.645	0.000	194.591	-136.546	160.000
3160.000	300.000	793.533	0.000	.780	0.000	45.998	0.000	160.000
3160.000	625.000	794.592	1.059	1.200	0.000	77.302	-31.304	160.000
3160.000	835.000	795.062	.470	1.271	0.000	124.719	-78.721	160.000
3160.000	1620.000	796.163	1.100	1.341	0.000	192.431	-146.433	160.000
3200.000	300.000	793.894	0.000	.360	0.000	46.178	0.000	40.000
3200.000	625.000	794.944	1.051	.352	0.000	77.205	-31.027	40.000
3200.000	835.000	795.411	.467	.348	0.000	124.280	-78.102	40.000
3200.000	1620.000	796.491	1.080	.328	0.000	191.073	-144.894	40.000
3240.000	300.000	794.268	0.000	.374	0.000	46.530	0.000	40.000
3240.000	625.000	795.350	1.082	.405	0.000	82.422	-35.392	40.000
3240.000	835.000	795.877	.528	.467	0.000	136.500	-89.970	40.000
3240.000	1620.000	797.123	1.246	.632	0.000	203.092	-156.562	40.000
3280.000	300.000	794.627	0.000	.360	0.000	46.696	0.000	40.000
3280.000	625.000	795.702	1.074	.352	0.000	82.337	-35.641	40.000
3280.000	835.000	796.202	.501	.325	0.000	134.402	-87.706	40.000
3280.000	1620.000	797.401	1.199	.278	0.000	200.314	-153.617	40.000
3320.000	300.000	795.224	0.000	.596	0.000	9.999	0.000	40.000
3320.000	625.000	796.050	.826	.348	0.000	77.591	-67.592	40.000
3320.000	835.000	796.519	.469	.317	0.000	87.993	-77.994	40.000
3320.000	1620.000	797.507	.988	.106	0.000	109.369	-99.370	40.000
3321.000	300.000	795.889	0.000	.665	0.000	9.999	0.000	1.000
3321.000	625.000	796.214	.325	.164	0.000	81.131	-71.132	1.000
3321.000	835.000	796.732	.518	.213	0.000	92.356	-82.357	1.000
3321.000	1620.000	798.445	1.713	.937	0.000	127.811	-117.812	1.000
3373.000	300.000	796.733	0.000	.844	0.000	9.999	0.000	52.000
3373.000	625.000	801.006	4.272	4.792	0.000	179.481	-169.482	52.000
3373.000	835.000	802.603	1.598	5.871	0.000	254.511	-244.512	52.000
3373.000	1620.000	803.588	.985	5.143	0.000	295.367	-285.368	52.000
3374.000	300.000	796.896	0.000	.163	0.000	9.999	0.000	1.000
3374.000	625.000	801.006	4.110	.000	0.000	179.566	-169.567	1.000
3374.000	835.000	802.603	1.598	.000	0.000	254.596	-244.597	1.000
3374.000	1620.000	803.588	.985	.000	0.000	295.415	-285.416	1.000
3659.000	300.000	799.370	0.000	2.474	0.000	23.510	0.000	285.000
3659.000	625.000	800.795	1.425	-.211	0.000	62.694	-39.184	285.000
3659.000	835.000	802.521	1.726	-.083	0.000	79.800	-56.290	285.000
3659.000	1620.000	803.395	.875	-.193	0.000	88.518	-65.008	285.000
3734.000	300.000	800.318	0.000	.948	0.000	23.049	0.000	75.000
3734.000	625.000	801.397	1.079	.603	0.000	58.194	-35.145	75.000
3734.000	835.000	802.655	1.258	.134	0.000	70.697	-47.648	75.000
3734.000	1620.000	803.674	1.019	.279	0.000	80.834	-57.785	75.000
3804.000	300.000	801.313	0.000	.995	0.000	23.019	0.000	70.000
3804.000	625.000	802.398	1.085	1.001	0.000	58.203	-35.184	70.000
3804.000	835.000	803.010	.611	.355	0.000	64.287	-41.268	70.000
3804.000	1620.000	804.268	1.259	.594	0.000	76.792	-53.773	70.000
3839.000	300.000	801.814	0.000	.501	0.000	23.013	0.000	35.000
3839.000	625.000	802.898	1.084	.500	0.000	58.200	-35.188	35.000
3839.000	835.000	803.401	.503	.391	0.000	63.196	-40.183	35.000

3874.000	300.000	802.317	0.000	.503	0.000	23.020	0.000	35.000
3874.000	625.000	803.398	1.081	.500	0.000	58.201	-35.181	35.000
3874.000	835.000	803.898	.500	.497	0.000	63.171	-40.151	35.000
3874.000	1620.000	805.278	1.380	.496	0.000	76.886	-53.867	35.000
3909.000	300.000	802.819	0.000	.502	0.000	23.027	0.000	35.000
3909.000	625.000	803.898	1.079	.500	0.000	58.201	-35.174	35.000
3909.000	835.000	804.399	.501	.501	0.000	63.178	-40.151	35.000
3909.000	1620.000	805.779	1.380	.501	0.000	76.897	-53.871	35.000
3944.000	300.000	803.319	0.000	.500	0.000	23.028	0.000	35.000
3944.000	625.000	804.398	1.079	.500	0.000	58.201	-35.173	35.000
3944.000	835.000	804.898	.500	.500	0.000	63.176	-40.148	35.000
3944.000	1620.000	806.278	1.380	.500	0.000	76.894	-53.866	35.000
4394.000	300.000	807.880	0.000	4.561	0.000	13.000	0.000	450.000
4394.000	625.000	809.017	1.137	4.619	0.000	66.283	-53.283	450.000
4394.000	835.000	809.588	.572	4.690	0.000	76.534	-63.534	450.000
4394.000	1620.000	811.215	1.626	4.936	0.000	156.647	-143.647	450.000
4395.000	300.000	807.888	0.000	.008	0.000	13.000	0.000	1.000
4395.000	625.000	808.988	1.100	-.028	0.000	65.754	-52.754	1.000
4395.000	835.000	809.545	.557	-.043	0.000	75.765	-62.765	1.000
4395.000	1620.000	811.118	1.572	-.097	0.000	149.955	-136.955	1.000
4406.000	300.000	808.192	0.000	.304	0.000	13.000	0.000	11.000
4406.000	625.000	810.583	2.391	1.595	0.000	106.395	-93.395	11.000
4406.000	835.000	810.931	.347	1.385	0.000	135.105	-122.105	11.000
4406.000	1620.000	811.122	.191	.004	0.000	150.274	-137.274	11.000
4407.000	300.000	808.195	0.000	.003	0.000	13.000	0.000	1.000
4407.000	625.000	810.643	2.448	.060	0.000	111.200	-98.200	1.000
4407.000	835.000	811.031	.388	.100	0.000	143.245	-130.245	1.000
4407.000	1620.000	812.084	1.053	.962	0.000	233.399	-220.399	1.000
4617.000	300.000	809.349	0.000	1.154	0.000	37.436	0.000	210.000
4617.000	625.000	810.861	1.512	.218	0.000	45.238	-7.802	210.000
4617.000	835.000	811.302	.440	.271	0.000	70.447	-33.011	210.000
4617.000	1620.000	812.712	1.410	.628	0.000	152.445	-115.009	210.000
4917.000	300.000	811.323	0.000	1.974	0.000	39.080	0.000	300.000
4917.000	625.000	812.552	1.229	1.690	0.000	69.647	-30.567	300.000
4917.000	835.000	813.219	.667	1.917	0.000	108.497	-69.417	300.000
4917.000	1620.000	814.776	1.557	2.064	0.000	153.374	-114.294	300.000
5217.000	300.000	812.349	0.000	1.026	0.000	32.324	0.000	300.000
5217.000	625.000	813.760	1.411	1.208	0.000	68.597	-36.273	300.000
5217.000	835.000	814.362	.602	1.143	0.000	100.755	-68.432	300.000
5217.000	1620.000	815.857	1.496	1.081	0.000	146.771	-114.448	300.000
5292.000	300.000	812.706	0.000	.357	0.000	29.481	0.000	75.000
5292.000	625.000	814.128	1.422	.368	0.000	51.930	-22.449	75.000
5292.000	835.000	814.716	.588	.354	0.000	83.358	-53.878	75.000
5292.000	1620.000	816.121	1.405	.263	0.000	142.867	-113.386	75.000
5367.000	300.000	813.255	0.000	.548	0.000	26.223	0.000	75.000
5367.000	625.000	814.648	1.394	.520	0.000	55.413	-29.190	75.000
5367.000	835.000	815.240	.592	.525	0.000	83.105	-56.882	75.000
5367.000	1620.000	816.683	1.443	.563	0.000	137.187	-110.964	75.000
5442.000	300.000	813.945	0.000	.690	0.000	26.302	0.000	75.000
5442.000	625.000	815.305	1.360	.657	0.000	53.680	-27.378	75.000
5442.000	835.000	815.879	.574	.638	0.000	81.694	-55.392	75.000
5442.000	1620.000	817.269	1.390	.585	0.000	134.439	-108.136	75.000

5517.000	300.000	814.634	0.000	.689	0.000	23.817	0.000	75.000
5517.000	625.000	815.966	1.332	.661	0.000	66.795	-42.977	75.000
5517.000	835.000	816.556	.589	.677	0.000	91.146	-67.328	75.000
5517.000	1620.000	818.270	1.714	1.001	0.000	145.214	-121.397	75.000
5592.000	300.000	815.327	0.000	.693	0.000	23.927	0.000	75.000
5592.000	625.000	816.648	1.321	.681	0.000	66.835	-42.908	75.000
5592.000	835.000	817.210	.562	.654	0.000	90.004	-66.077	75.000
5592.000	1620.000	818.687	1.477	.417	0.000	139.970	-116.043	75.000
5629.000	300.000	815.664	0.000	.337	0.000	23.932	0.000	37.000
5629.000	625.000	816.983	1.319	.335	0.000	66.588	-42.656	37.000
5629.000	835.000	817.535	.553	.326	0.000	88.999	-65.067	37.000
5629.000	1620.000	818.950	1.415	.264	0.000	138.424	-114.492	37.000
5667.000	300.000	816.008	0.000	.344	0.000	19.334	0.000	38.000
5667.000	625.000	817.308	1.300	.326	0.000	72.624	-53.290	38.000
5667.000	835.000	817.869	.561	.334	0.000	97.449	-78.115	38.000
5667.000	1620.000	819.557	1.688	.607	0.000	149.557	-130.223	38.000
5742.000	300.000	816.854	0.000	.846	0.000	19.791	0.000	75.000
5742.000	625.000	818.336	1.482	1.028	0.000	89.012	-69.220	75.000
5742.000	835.000	818.934	.598	1.065	0.000	111.729	-91.938	75.000
5742.000	1620.000	820.087	1.153	.530	0.000	146.969	-127.178	75.000
5817.000	300.000	817.585	0.000	.731	0.000	19.193	0.000	75.000
5817.000	625.000	818.937	1.353	.601	0.000	93.777	-74.584	75.000
5817.000	835.000	819.478	.541	.544	0.000	114.135	-94.942	75.000
5817.000	1620.000	820.721	1.243	.634	0.000	154.335	-135.141	75.000
5887.000	300.000	818.088	0.000	.504	0.000	11.999	0.000	70.000
5887.000	625.000	819.980	1.892	1.043	0.000	79.974	-67.975	70.000
5887.000	835.000	820.575	.595	1.096	0.000	97.289	-85.290	70.000
5887.000	1620.000	821.957	1.382	1.236	0.000	124.211	-112.212	70.000
5888.000	300.000	818.098	0.000	.010	0.000	11.999	0.000	1.000
5888.000	625.000	819.968	1.869	-.012	0.000	79.896	-67.897	1.000
5888.000	835.000	820.559	.591	-.016	0.000	97.109	-85.110	1.000
5888.000	1620.000	821.932	1.373	-.025	0.000	123.971	-111.972	1.000
5893.000	300.000	817.995	0.000	-.103	0.000	11.999	0.000	5.000
5893.000	625.000	820.736	2.741	.768	0.000	99.514	-87.515	5.000
5893.000	835.000	821.289	.553	.730	0.000	115.612	-103.613	5.000
5893.000	1620.000	822.471	1.182	.539	0.000	132.746	-120.747	5.000
5894.000	300.000	818.506	0.000	.511	0.000	11.999	0.000	1.000
5894.000	625.000	820.805	2.299	.069	0.000	101.517	-89.518	1.000
5894.000	835.000	821.368	.563	.079	0.000	117.909	-105.910	1.000
5894.000	1620.000	822.607	1.240	.137	0.000	135.842	-123.843	1.000
5984.000	300.000	819.418	0.000	.913	0.000	74.229	0.000	90.000
5984.000	625.000	820.864	1.446	.059	0.000	91.083	-16.854	90.000
5984.000	835.000	821.439	.575	.071	0.000	100.907	-26.678	90.000
5984.000	1620.000	822.731	1.292	.124	0.000	125.343	-51.114	90.000
6074.000	300.000	819.319	0.000	-.100	0.000	15.000	0.000	90.000
6074.000	625.000	820.921	1.602	.057	0.000	117.180	-102.180	90.000
6074.000	835.000	821.509	.588	.070	0.000	125.495	-110.495	90.000
6074.000	1620.000	822.851	1.342	.120	0.000	139.234	-124.234	90.000
6075.000	300.000	819.324	0.000	.006	0.000	15.000	0.000	1.000
6075.000	625.000	820.892	1.568	-.029	0.000	116.378	-101.378	1.000
6075.000	835.000	821.473	.581	-.036	0.000	125.076	-110.076	1.000
6075.000	1620.000	822.789	1.316	-.062	0.000	138.508	-123.508	1.000

6080.000	625.000	821.657	2.303	.765	0.000	126.961	-111.961	5.000
6080.000	835.000	822.037	.380	.564	0.000	130.843	-115.843	5.000
6080.000	1620.000	822.986	.949	.198	0.000	140.580	-125.580	5.000
6081.000	300.000	819.360	0.000	.006	0.000	15.000	0.000	1.000
6081.000	625.000	821.706	2.346	.048	0.000	127.451	-112.451	1.000
6081.000	835.000	822.107	.401	.069	0.000	131.544	-116.544	1.000
6081.000	1620.000	823.152	1.046	.166	0.000	142.230	-127.230	1.000
6296.000	300.000	820.663	0.000	1.303	0.000	80.397	0.000	215.000
6296.000	625.000	321.955	1.292	.250	0.000	110.819	-30.423	215.000
6296.000	835.000	822.414	.459	.307	0.000	121.412	-41.016	215.000
6296.000	1620.000	823.655	1.241	.503	0.000	134.084	-53.688	215.000
6368.000	300.000	820.844	0.000	.181	0.000	74.598	0.000	72.000
6368.000	625.000	822.134	1.290	.179	0.000	104.913	-30.315	72.000
6368.000	835.000	822.620	.486	.206	0.000	116.344	-41.746	72.000
6368.000	1620.000	823.912	1.292	.257	0.000	132.315	-57.717	72.000
6404.000	300.000	820.961	0.000	.118	0.000	72.203	0.000	36.000
6404.000	625.000	822.244	1.282	.110	0.000	102.330	-30.128	36.000
6404.000	835.000	822.743	.499	.122	0.000	114.091	-41.888	36.000
6404.000	1620.000	824.056	1.314	.144	0.000	131.596	-59.393	36.000
6440.000	300.000	820.900	0.000	-.062	0.000	17.870	0.000	36.000
6440.000	625.000	822.641	1.741	.397	0.000	162.328	-144.459	36.000
6440.000	835.000	822.994	.354	.252	0.000	164.393	-146.523	36.000
6440.000	1620.000	824.208	1.214	.152	0.000	171.371	-153.501	36.000
6511.000	300.000	822.304	0.000	1.404	0.000	61.409	0.000	71.000
6511.000	625.000	823.525	1.221	.884	0.000	164.950	-103.541	71.000
6511.000	835.000	823.894	.369	.900	0.000	167.112	-105.703	71.000
6511.000	1620.000	824.805	.911	.596	0.000	172.260	-110.851	71.000
6726.000	300.000	823.630	0.000	1.326	0.000	63.118	0.000	215.000
6726.000	625.000	824.605	.974	1.080	0.000	163.693	-100.575	215.000
6726.000	835.000	825.006	.402	1.112	0.000	166.037	-102.919	215.000
6726.000	1620.000	826.114	1.108	1.310	0.000	172.309	-109.191	215.000
6876.000	300.000	824.759	0.000	1.128	0.000	18.489	0.000	150.000
6876.000	625.000	826.256	1.497	1.652	0.000	163.002	-144.514	150.000
6876.000	835.000	826.540	.284	1.534	0.000	164.661	-146.172	150.000
6876.000	1620.000	827.373	.833	1.259	0.000	169.519	-151.031	150.000
7026.000	225.000	826.658	0.000	1.899	0.000	44.088	0.000	150.000
7026.000	470.000	827.593	.936	1.337	0.000	83.198	-39.110	150.000
7026.000	625.000	828.032	.439	1.492	0.000	101.575	-57.487	150.000
7026.000	1220.000	829.297	1.265	1.924	0.000	159.095	-115.007	150.000
7176.000	225.000	828.371	0.000	1.713	0.000	41.662	0.000	150.000
7176.000	470.000	829.432	1.061	1.838	0.000	86.070	-44.408	150.000
7176.000	625.000	829.834	.402	1.802	0.000	102.583	-60.921	150.000
7176.000	1220.000	830.805	.971	1.507	0.000	146.914	-105.252	150.000
7396.000	225.000	831.082	0.000	2.711	0.000	72.183	0.000	220.000
7396.000	470.000	831.605	.523	2.173	0.000	84.980	-12.796	220.000
7396.000	625.000	832.069	.464	2.235	0.000	96.200	-24.017	220.000
7396.000	1220.000	833.157	1.088	2.353	0.000	122.992	-50.809	220.000
7397.000	225.000	831.100	0.000	.018	0.000	72.425	0.000	1.000
7397.000	470.000	831.675	.575	.070	0.000	86.705	-14.279	1.000
7397.000	625.000	832.150	.475	.081	0.000	98.315	-25.890	1.000
7397.000	1220.000	833.277	1.127	.120	0.000	125.892	-53.467	1.000
7415.000	225.000	833.612	0.000	2.512	0.000	137.706	0.000	18.000

7415.000	625.000	834.490	.267	2.341	0.000	173.102	-35.396	18.000
7415.000	1220.000	835.220	.730	1.943	0.000	202.714	-65.007	18.000
7416.000	225.000	833.612	0.000	-.000	0.000	137.733	0.000	1.000
7416.000	470.000	834.222	.610	-.001	0.000	162.317	-24.583	1.000
7416.000	625.000	834.489	.267	-.001	0.000	173.163	-35.430	1.000
7416.000	1220.000	835.217	.728	-.003	0.000	202.797	-65.064	1.000
7536.000	225.000	833.640	0.000	.029	0.000	96.761	0.000	120.000
7536.000	470.000	834.296	.655	.073	0.000	112.861	-16.100	120.000
7536.000	625.000	834.593	.298	.104	0.000	120.135	-23.374	120.000
7536.000	1220.000	835.443	.850	.226	0.000	148.891	-52.130	120.000
7656.000	225.000	833.765	0.000	.124	0.000	61.994	0.000	120.000
7656.000	470.000	834.594	.829	.298	0.000	82.307	-20.312	120.000
7656.000	625.000	834.994	.400	.401	0.000	92.106	-30.112	120.000
7656.000	1220.000	836.117	1.124	.674	0.000	119.636	-57.642	120.000
7776.000	225.000	834.356	0.000	.592	0.000	114.372	0.000	120.000
7776.000	470.000	835.398	1.042	.804	0.000	136.363	-21.991	120.000
7776.000	625.000	835.874	.476	.881	0.000	146.420	-32.047	120.000
7776.000	1220.000	837.181	1.307	1.064	0.000	173.714	-59.341	120.000
7896.000	225.000	834.699	0.000	.343	0.000	40.728	0.000	120.000
7896.000	470.000	835.702	1.002	.303	0.000	110.063	-69.336	120.000
7896.000	625.000	836.201	.499	.326	0.000	120.774	-80.047	120.000
7896.000	1220.000	837.534	1.333	.353	0.000	148.835	-108.107	120.000
8016.000	225.000	836.643	0.000	1.944	0.000	61.565	0.000	120.000
8016.000	470.000	837.350	.707	1.649	0.000	112.142	-50.576	120.000
8016.000	625.000	837.593	.242	1.392	0.000	117.233	-55.668	120.000
8016.000	1220.000	838.574	.981	1.040	0.000	137.960	-76.394	120.000
8076.000	225.000	837.259	0.000	.616	0.000	46.627	0.000	60.000
8076.000	470.000	838.076	.817	.726	0.000	110.977	-64.350	60.000
8076.000	625.000	838.479	.403	.887	0.000	119.543	-72.916	60.000
8076.000	1220.000	839.403	.924	.829	0.000	138.908	-92.281	60.000
8136.000	225.000	837.926	0.000	.667	0.000	42.873	0.000	60.000
8136.000	470.000	838.776	.850	.700	0.000	109.504	-66.630	60.000
8136.000	625.000	839.074	.298	.595	0.000	115.863	-72.990	60.000
8136.000	1220.000	840.039	.964	.636	0.000	136.200	-93.327	60.000
8137.000	225.000	838.535	0.000	.609	0.000	12.725	0.000	1.000
8137.000	470.000	839.968	1.432	1.191	0.000	103.526	-90.801	1.000
8137.000	625.000	840.265	.297	1.190	0.000	114.855	-102.130	1.000
8137.000	1220.000	840.754	.489	.715	0.000	133.497	-120.773	1.000
8139.000	225.000	839.469	0.000	.934	0.000	68.859	0.000	2.000
8139.000	470.000	840.384	.915	.416	0.000	119.343	-50.485	2.000
8139.000	625.000	840.532	.148	.268	0.000	124.996	-56.137	2.000
8139.000	1220.000	841.300	.767	.546	0.000	154.180	-85.322	2.000
8140.000	225.000	839.273	0.000	-.196	0.000	48.239	0.000	1.000
8140.000	470.000	840.384	1.111	.000	0.000	119.415	-71.176	1.000
8140.000	625.000	840.577	.193	.045	0.000	126.753	-78.514	1.000
8140.000	1220.000	841.462	.886	.163	0.000	160.509	-112.271	1.000
8141.000	225.000	839.288	0.000	.015	0.000	48.792	0.000	1.000
8141.000	470.000	840.394	1.106	.010	0.000	119.583	-70.791	1.000
8141.000	625.000	841.024	.630	.447	0.000	143.740	-94.948	1.000
8141.000	1220.000	841.476	.452	.014	0.000	160.746	-111.954	1.000
8142.000	225.000	840.283	0.000	.995	0.000	140.301	0.000	1.000
8142.000	470.000	841.053	.770	.659	0.000	142.372	-2.071	1.000

8142.000	1220.000	842.321	.895	.845	0.000	145.786	-5.485	1.000
8442.000	225.000	840.277	0.000	-.006	0.000	38.678	0.000	300.000
8442.000	470.000	841.019	.742	-.034	0.000	111.766	-73.088	300.000
8442.000	625.000	841.390	.371	-.036	0.000	132.672	-93.994	300.000
8442.000	1220.000	842.384	.994	.063	0.000	171.536	-132.858	300.000
8443.000	225.000	840.166	0.000	-.111	0.000	34.664	0.000	1.000
8443.000	470.000	840.849	.683	-.170	0.000	102.605	-67.941	1.000
8443.000	625.000	841.390	.542	.000	0.000	132.756	-98.092	1.000
8443.000	1220.000	843.333	1.942	.948	0.000	181.296	-146.632	1.000
8459.000	225.000	840.204	0.000	.038	0.000	35.710	0.000	16.000
8459.000	470.000	841.680	1.476	.831	0.000	148.908	-113.198	16.000
8459.000	625.000	841.858	.178	.468	0.000	157.154	-121.444	16.000
8459.000	1220.000	843.365	1.507	.032	0.000	181.735	-146.025	16.000
8460.000	225.000	840.546	0.000	.342	0.000	84.970	0.000	1.000
8460.000	470.000	841.679	1.133	-.001	0.000	149.153	-64.182	1.000
8460.000	625.000	841.841	.161	-.017	0.000	157.051	-72.081	1.000
8460.000	1220.000	843.294	1.453	-.071	0.000	181.000	-96.030	1.000
8660.000	225.000	840.750	0.000	.204	0.000	54.809	0.000	200.000
8660.000	470.000	841.959	1.210	.280	0.000	74.999	-20.190	200.000
8660.000	625.000	842.263	.303	.422	0.000	74.999	-20.190	200.000
8660.000	1220.000	843.603	1.341	.309	0.000	74.999	-20.190	200.000
8661.000	225.000	840.737	0.000	-.013	0.000	54.692	0.000	1.000
8661.000	470.000	841.933	1.196	-.027	0.000	74.999	-20.307	1.000
8661.000	625.000	842.224	.291	-.039	0.000	74.999	-20.307	1.000
8661.000	1220.000	843.532	1.309	-.071	0.000	74.999	-20.307	1.000
8675.000	225.000	842.729	0.000	1.993	0.000	74.999	0.000	14.000
8675.000	470.000	843.727	.998	1.795	0.000	74.999	-.000	14.000
8675.000	625.000	844.009	.282	1.785	0.000	74.999	-.000	14.000
8675.000	1220.000	844.585	.576	1.052	0.000	74.999	-.000	14.000
8676.000	225.000	842.753	0.000	.024	0.000	74.999	0.000	1.000
8676.000	470.000	843.779	1.026	.052	0.000	74.999	-.000	1.000
8676.000	625.000	844.088	.309	.079	0.000	74.999	-.000	1.000
8676.000	1220.000	844.840	.752	.255	0.000	74.999	-.000	1.000
8677.000	225.000	842.622	0.000	-.131	0.000	58.420	0.000	1.000
8677.000	470.000	843.606	.984	-.173	0.000	72.081	-13.661	1.000
8677.000	625.000	843.855	.249	-.233	0.000	74.598	-16.178	1.000
8677.000	1220.000	844.597	.742	-.243	0.000	81.968	-23.548	1.000
8678.000	225.000	842.434	0.000	-.188	0.000	52.457	0.000	1.000
8678.000	470.000	843.450	1.015	-.156	0.000	70.496	-18.039	1.000
8678.000	625.000	843.998	.549	.143	0.000	75.984	-23.527	1.000
8678.000	1220.000	845.604	1.606	1.007	0.000	90.860	-38.403	1.000
8679.000	225.000	842.436	0.000	.002	0.000	52.497	0.000	1.000
8679.000	470.000	843.471	1.036	.022	0.000	70.653	-18.155	1.000
8679.000	625.000	844.024	.553	.026	0.000	76.168	-23.671	1.000
8679.000	1220.000	845.607	1.583	.003	0.000	90.865	-38.367	1.000
8680.000	225.000	843.097	0.000	.661	0.000	66.936	0.000	1.000
8680.000	470.000	844.762	1.665	1.291	0.000	76.999	-10.063	1.000
8680.000	625.000	845.481	.719	1.457	0.000	76.999	-10.063	1.000
8680.000	1220.000	847.496	2.014	1.889	0.000	76.999	-10.063	1.000
9060.000	225.000	843.438	0.000	.341	0.000	18.768	0.000	380.000
9060.000	470.000	845.036	1.599	.274	0.000	18.999	-.231	380.000
9060.000	625.000	845.742	.705	.260	0.000	18.999	-.231	380.000

9070.000	225.000	843.430	0.000	-.007	0.000	13.999	0.000	10.000
9070.000	470.000	844.995	1.564	-.042	0.000	13.999	-.000	10.000
9070.000	625.000	845.671	.676	-.070	0.000	13.999	-.000	10.000
9070.000	1220.000	847.436	1.765	-.226	0.000	13.999	-.000	10.000
9076.000	225.000	843.397	0.000	-.033	0.000	10.999	0.000	6.000
9076.000	470.000	844.897	1.500	-.098	0.000	10.999	-.000	6.000
9076.000	625.000	845.519	.622	-.152	0.000	10.999	-.000	6.000
9076.000	1220.000	846.968	1.449	-.468	0.000	10.999	-.000	6.000
9080.000	225.000	843.258	0.000	-.139	0.000	9.000	0.000	4.000
9080.000	470.000	844.545	1.286	-.352	0.000	9.000	0.000	4.000
9080.000	625.000	844.961	.416	-.558	0.000	9.000	0.000	4.000
9080.000	1220.000	847.280	2.319	.313	0.000	9.000	0.000	4.000
9081.000	225.000	843.263	0.000	.005	0.000	9.000	0.000	1.000
9081.000	470.000	844.540	1.276	-.005	0.000	9.000	0.000	1.000
9081.000	625.000	844.940	.400	-.021	0.000	9.000	0.000	1.000
9081.000	1220.000	847.289	2.349	.009	0.000	9.000	0.000	1.000
9196.000	225.000	843.830	0.000	.567	0.000	9.000	0.000	115.000
9196.000	470.000	846.085	2.255	1.545	0.000	9.000	0.000	115.000
9196.000	625.000	847.553	1.468	2.613	0.000	9.000	0.000	115.000
9196.000	1220.000	853.053	5.500	5.764	0.000	9.000	0.000	115.000
9197.000	225.000	843.838	0.000	.008	0.000	9.000	0.000	1.000
9197.000	470.000	846.162	2.324	.077	0.000	9.000	0.000	1.000
9197.000	625.000	847.817	1.655	.264	0.000	9.000	0.000	1.000
9197.000	1220.000	857.197	9.380	4.144	0.000	9.000	0.000	1.000
9200.000	225.000	844.317	0.000	.479	0.000	14.999	0.000	3.000
9200.000	470.000	847.061	2.744	.899	0.000	14.999	-.000	3.000
9200.000	625.000	848.827	1.766	1.010	0.000	14.999	-.000	3.000
9200.000	1220.000	857.996	9.169	.799	0.000	14.999	-.000	3.000
9650.000	225.000	845.206	0.000	.888	0.000	97.536	0.000	450.000
9650.000	470.000	847.825	2.620	.764	0.000	105.775	-8.239	450.000
9650.000	625.000	849.506	1.680	.679	0.000	109.776	-12.240	450.000
9650.000	1220.000	858.436	8.930	.440	0.000	131.036	-33.500	450.000
9765.000	225.000	846.369	0.000	1.163	0.000	31.736	0.000	115.000
9765.000	470.000	847.909	1.540	.084	0.000	97.879	-66.143	115.000
9765.000	625.000	849.545	1.636	.039	0.000	101.774	-70.038	115.000
9765.000	1220.000	858.439	8.894	.003	0.000	119.999	-88.263	115.000
9880.000	225.000	848.063	0.000	1.694	0.000	21.020	0.000	115.000
9880.000	470.000	848.708	.645	.798	0.000	34.484	-13.464	115.000
9880.000	625.000	849.451	.744	-.094	0.000	54.435	-33.414	115.000
9880.000	1220.000	858.441	8.989	.002	0.000	88.999	-67.979	115.000
9899.000	225.000	849.847	0.000	1.784	0.000	71.865	0.000	19.000
9899.000	470.000	850.814	.967	2.107	0.000	80.099	-8.234	19.000
9899.000	625.000	851.203	.389	1.751	0.000	80.099	-8.234	19.000
9899.000	1220.000	858.614	7.411	.173	0.000	80.099	-8.234	19.000
9900.000	225.000	849.821	0.000	-.026	0.000	70.747	0.000	1.000
9900.000	470.000	850.765	.943	-.049	0.000	80.099	-9.352	1.000
9900.000	625.000	851.143	.378	-.059	0.000	80.099	-9.352	1.000
9900.000	1220.000	858.608	7.465	-.005	0.000	80.099	-9.352	1.000
10000.000	220.000	850.186	0.000	.364	0.000	39.999	0.000	100.000
10000.000	455.000	851.088	.903	.324	0.000	39.999	-.000	100.000
10000.000	605.000	851.489	.401	.346	0.000	39.999	-.000	100.000
10000.000	1180.000	858.586	7.097	-.022	0.000	39.999	-.000	100.000

10050.000	220.000	850.269	0.000	.083	0.000	15.000	0.000	50.000
10050.000	455.000	851.161	.892	.073	0.000	15.000	0.000	50.000
10050.000	605.000	851.546	.384	.057	0.000	15.000	0.000	50.000
10050.000	1180.000	858.419	6.873	-.167	0.000	15.000	0.000	50.000
10051.000	220.000	850.266	0.000	-.003	0.000	15.000	0.000	1.000
10051.000	455.000	851.149	.882	-.013	0.000	15.000	0.000	1.000
10051.000	605.000	851.522	.373	-.024	0.000	15.000	0.000	1.000
10051.000	1180.000	857.830	6.309	-.589	0.000	15.000	0.000	1.000
10289.000	220.000	850.269	0.000	.003	0.000	14.555	0.000	238.000
10289.000	455.000	851.187	.918	.038	0.000	15.000	-.445	238.000
10289.000	605.000	851.597	.410	.075	0.000	15.000	-.445	238.000
10289.000	1180.000	859.210	7.614	1.380	0.000	15.000	-.445	238.000
10290.000	220.000	850.391	0.000	.122	0.000	15.200	0.000	1.000
10290.000	455.000	851.506	1.115	.319	0.000	15.200	0.000	1.000
10290.000	605.000	852.088	.582	.491	0.000	15.200	0.000	1.000
10290.000	1180.000	859.154	7.066	-.056	0.000	15.200	0.000	1.000
10459.000	220.000	850.705	0.000	.314	0.000	15.200	0.000	169.000
10459.000	455.000	852.180	1.475	.674	0.000	15.200	0.000	169.000
10459.000	605.000	853.025	.845	.937	0.000	15.200	0.000	169.000
10459.000	1180.000	862.624	9.599	3.469	0.000	15.200	0.000	169.000
10460.000	220.000	850.714	0.000	.009	0.000	15.200	0.000	1.000
10460.000	455.000	852.251	1.536	.071	0.000	15.200	0.000	1.000
10460.000	605.000	853.195	.944	.170	0.000	15.200	0.000	1.000
10460.000	1180.000	864.545	11.350	1.922	0.000	15.200	0.000	1.000
11260.000	220.000	853.615	0.000	2.900	0.000	27.930	0.000	800.000
11260.000	455.000	855.373	1.758	3.122	0.000	73.661	-45.730	800.000
11260.000	605.000	856.232	.859	3.037	0.000	100.220	-72.289	800.000
11260.000	1180.000	865.076	8.844	.531	0.000	267.244	-239.314	800.000
11385.000	220.000	854.197	0.000	.583	0.000	15.769	0.000	125.000
11385.000	455.000	855.648	1.450	.275	0.000	32.890	-17.121	125.000
11385.000	605.000	856.366	.718	.133	0.000	65.980	-50.211	125.000
11385.000	1180.000	865.080	8.714	.004	0.000	233.434	-217.665	125.000
11510.000	220.000	855.841	0.000	1.644	0.000	16.136	0.000	125.000
11510.000	455.000	857.202	1.361	1.554	0.000	54.727	-38.591	125.000
11510.000	605.000	857.779	.577	1.414	0.000	62.648	-46.512	125.000
11510.000	1180.000	865.086	7.307	.006	0.000	199.703	-183.568	125.000
11635.000	220.000	857.333	0.000	1.492	0.000	19.158	0.000	125.000
11635.000	455.000	858.707	1.374	1.505	0.000	51.740	-32.582	125.000
11635.000	605.000	859.238	.531	1.459	0.000	57.776	-38.618	125.000
11635.000	1180.000	865.103	5.865	.017	0.000	165.746	-146.588	125.000
11760.000	220.000	859.031	0.000	1.698	0.000	35.974	0.000	125.000
11760.000	455.000	860.108	1.077	1.401	0.000	44.589	-8.615	125.000
11760.000	605.000	860.606	.498	1.368	0.000	51.401	-15.428	125.000
11760.000	1180.000	865.162	4.556	.058	0.000	121.496	-85.522	125.000
11761.000	220.000	859.821	0.000	.790	0.000	40.658	0.000	1.000
11761.000	455.000	860.787	.966	.679	0.000	53.886	-13.227	1.000
11761.000	605.000	861.285	.498	.680	0.000	60.706	-20.048	1.000
11761.000	1180.000	865.025	3.739	-.137	0.000	118.034	-77.376	1.000
11762.000	220.000	859.837	0.000	.016	0.000	40.753	0.000	1.000
11762.000	455.000	860.803	.966	.016	0.000	53.978	-13.225	1.000
11762.000	605.000	861.301	.498	.015	0.000	60.796	-20.043	1.000
11762.000	1180.000	865.027	3.726	.002	0.000	118.069	-77.316	1.000

11763.000	455.000	861.834	1.310	1.031	0.000	59.999	-9.767	1.000
11763.000	605.000	862.485	.651	1.184	0.000	59.999	-9.767	1.000
11763.000	1180.000	865.231	2.746	.204	0.000	59.999	-9.767	1.000
12293.000	220.000	861.163	0.000	.639	0.000	83.069	0.000	530.000
12293.000	455.000	862.539	1.377	.706	0.000	84.999	-1.930	530.000
12293.000	605.000	863.221	.682	.737	0.000	125.230	-42.161	530.000
12293.000	1180.000	865.819	2.598	.588	0.000	263.469	-180.401	530.000
12294.000	220.000	861.161	0.000	-.002	0.000	83.144	0.000	1.000
12294.000	455.000	862.553	1.393	.014	0.000	84.999	-1.855	1.000
12294.000	605.000	863.239	.686	.018	0.000	126.374	-43.230	1.000
12294.000	1180.000	865.839	2.600	.020	0.000	263.853	-180.709	1.000
12310.000	220.000	861.173	0.000	.012	0.000	83.608	0.000	16.000
12310.000	455.000	862.575	1.402	.022	0.000	84.999	-1.391	16.000
12310.000	605.000	863.257	.683	.018	0.000	128.728	-45.121	16.000
12310.000	1180.000	865.844	2.586	.005	0.000	264.197	-180.590	16.000
12311.000	220.000	861.180	0.000	.008	0.000	83.644	0.000	1.000
12311.000	455.000	862.571	1.390	-.004	0.000	84.999	-1.355	1.000
12311.000	605.000	863.252	.681	-.006	0.000	128.860	-45.216	1.000
12311.000	1180.000	865.837	2.585	-.007	0.000	264.209	-180.565	1.000
12641.000	220.000	861.340	0.000	.159	0.000	32.073	0.000	330.000
12641.000	455.000	862.695	1.355	.124	0.000	81.974	-49.900	330.000
12641.000	605.000	863.367	.672	.115	0.000	111.022	-78.949	330.000
12641.000	1180.000	865.885	2.518	.048	0.000	212.591	-180.518	330.000
12642.000	220.000	861.157	0.000	-.182	0.000	26.985	0.000	1.000
12642.000	455.000	862.528	1.371	-.167	0.000	75.073	-48.088	1.000
12642.000	605.000	863.351	.823	-.016	0.000	110.720	-83.735	1.000
12642.000	1180.000	865.954	2.603	.070	0.000	217.634	-190.649	1.000
12652.000	220.000	861.406	0.000	.249	0.000	27.601	0.000	10.000
12652.000	455.000	863.100	1.693	.572	0.000	99.435	-71.835	10.000
12652.000	605.000	863.488	.389	.137	0.000	116.325	-88.725	10.000
12652.000	1180.000	865.965	2.477	.011	0.000	218.184	-190.583	10.000
12653.000	220.000	861.821	0.000	.415	0.000	44.316	0.000	1.000
12653.000	455.000	863.186	1.365	.087	0.000	103.215	-58.898	1.000
12653.000	605.000	863.511	.325	.023	0.000	116.927	-72.610	1.000
12653.000	1180.000	865.941	2.430	-.024	0.000	216.547	-172.231	1.000
12803.000	210.000	861.874	0.000	.053	0.000	29.540	0.000	150.000
12803.000	440.000	863.248	1.374	.062	0.000	124.054	-94.514	150.000
12803.000	590.000	863.607	.359	.096	0.000	150.252	-120.712	150.000
12803.000	1140.000	866.055	2.449	.114	0.000	258.390	-228.850	150.000
12804.000	210.000	861.840	0.000	-.035	0.000	28.308	0.000	1.000
12804.000	440.000	863.354	1.515	.106	0.000	132.154	-103.846	1.000
12804.000	590.000	863.785	.431	.178	0.000	163.602	-135.295	1.000
12804.000	1140.000	866.089	2.304	.034	0.000	259.861	-231.554	1.000
12814.000	210.000	861.907	0.000	.067	0.000	30.609	0.000	10.000
12814.000	440.000	863.396	1.489	.041	0.000	134.343	-103.733	10.000
12814.000	590.000	863.821	.425	.036	0.000	165.223	-134.614	10.000
12814.000	1140.000	866.094	2.273	.005	0.000	260.005	-229.396	10.000
12815.000	210.000	862.040	0.000	.133	0.000	36.829	0.000	1.000
12815.000	440.000	863.378	1.338	-.018	0.000	134.171	-97.342	1.000
12815.000	590.000	863.786	.408	-.035	0.000	163.256	-126.427	1.000
12815.000	1140.000	866.085	2.299	-.009	0.000	260.022	-223.193	1.000
13125.000	210.000	862.352	0.000	.312	0.000	45.274	0.000	310.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: 10 YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       CITY OF FARMINGTON HILLS, FIS,  5670-03-1,  PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       PEBBLE CREEK
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	2.	0.	0.	0.000000	0.00	0.0	0.	884.174	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	1.000	10.000	11.000	12.000	14.000	8.000	4.000	0.000	0.000	0.000
NC	.060	.055	.042	.300	.500	0.000	0.000	0.000	0.000	0.000
QT	4.000	150.000	315.000	425.000	830.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.055	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26388.000	12.000	47.000	73.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	112.000	0.000	0.000	0.000	0.000
GR	887.300	0.000	885.900	32.000	884.800	47.000	882.800	50.000	881.800	54.000
GR	880.800	59.000	881.800	64.000	882.800	66.000	886.400	73.000	887.800	112.000
GR	888.400	154.000	887.600	232.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.054	.054	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26763.000	14.000	241.000	261.000	375.000	375.000	375.000	0.000	0.000	0.000
GR	893.000	0.000	890.400	70.000	887.600	130.000	886.500	230.000	886.300	241.000
GR	884.500	243.000	883.700	248.000	884.500	253.000	887.400	261.000	889.600	290.000
GR	892.000	317.000	891.600	330.000	891.100	372.000	890.600	430.000	0.000	0.000
NC	.062	.062	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	0.000	0.000	244.000	252.000	0.000	0.000	0.000
X1	26863.000	0.000	0.000	0.000	200.000	100.000	100.000	0.000	.900	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	8.100	157.900	166.100	.050	262.000	0.000
SB	0.000	2.800	3.030	0.000	6.610	0.000	38.000	0.000	884.600	884.600
X1	26946.000	18.000	150.000	170.000	83.000	83.000	83.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	890.000	891.800	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	891.800	0.000	62.000	892.000	0.000	150.000	891.700	0.000
BT	157.900	891.800	0.000	157.900	891.800	886.800	158.400	891.800	888.200	159.000
BT	891.800	889.200	160.200	891.800	890.000	161.400	891.800	890.400	162.600	891.800
BT	890.400	163.800	891.800	890.000	165.000	891.800	889.200	165.600	891.800	888.200
BT	166.100	891.800	886.800	166.100	891.800	0.000	170.000	891.700	0.000	262.000
BT	891.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	891.800	0.000	892.000	62.000	890.400	150.000	886.000	157.900	886.000	157.900
GR	885.200	158.400	884.900	159.000	884.700	160.200	884.600	161.400	884.600	162.600
GR	884.700	163.800	884.900	165.000	885.200	165.600	886.000	166.100	888.000	170.000
GR	890.600	174.000	890.600	262.000	890.600	322.000	0.000	0.000	0.000	0.000
NC	.050	.050	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27046.000	9.000	113.000	135.000	10.000	150.000	100.000	0.000	0.000	0.000
GR	891.800	0.000	892.300	72.000	890.400	100.000	889.700	113.000	885.500	119.000
GR	885.000	122.000	885.500	125.000	890.500	135.000	892.700	176.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	116.000	128.000	0.000	0.000	0.000

X1	27116.000	0.000	0.000	0.000	50.000	120.000	70.000	0.000	.200	0.000
NC	.030	.030	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	116.000	128.000	0.000	0.000	0.000
X1	27117.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.670	3.040	0.000	6.280	0.000	25.130	0.000	886.700	885.200
X1	27187.000	19.000	493.800	512.800	70.000	70.000	70.000	.630	0.000	0.000
X2	0.000	0.000	1.000	890.700	891.800	0.000	0.000	0.000	.630	0.000
X3	10.000	0.000	0.000	360.000	0.000	0.000	0.000	891.800	891.800	0.000
BT	20.000	360.000	891.920	0.000	400.000	892.000	0.000	493.800	892.800	0.000
BT	493.800	892.800	888.000	493.800	892.800	889.400	495.400	892.800	890.500	497.000
BT	892.800	890.700	498.600	892.800	890.500	500.200	892.800	889.400	500.200	892.800
BT	888.000	506.400	892.800	888.000	506.400	892.800	889.400	508.000	892.800	890.500
BT	509.600	892.800	890.700	511.200	892.800	890.500	512.800	892.800	889.400	512.800
BT	892.800	888.000	512.800	892.800	0.000	600.000	895.300	0.000	660.000	897.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	893.500	0.000	892.700	100.000	892.100	200.000	891.800	300.000	892.000	400.000
GR	892.000	450.000	888.000	493.800	886.900	495.400	886.700	497.000	886.900	498.600
GR	888.000	500.200	888.000	506.400	886.900	508.000	886.700	509.600	886.900	511.200
GR	888.000	512.800	893.800	550.000	895.300	600.000	897.500	660.000	0.000	0.000
NC	.055	.055	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	303.000	315.000	220.000	335.000	0.000
X1	27188.000	13.000	300.000	318.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	890.900	0.000	890.700	285.000	890.000	300.000	886.800	307.000	886.700	310.000
GR	886.800	313.000	889.400	318.000	890.900	325.000	892.000	375.000	894.000	440.000
GR	896.000	500.000	898.000	550.000	900.000	650.000	0.000	0.000	0.000	0.000
X1	27198.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	210.000	0.000	345.000	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

NOORI BUSINESS FORMS, INC.

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*******************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1 CITY OF FARMINGTON HILLS, FIS, 5670-03-1, PM = RICHARD ZANOTTI
T2 100-YEAR FLOOD
T3 PEBBLE CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	885.503	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

MOORE BUSINESS FORMS, INC.

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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

3470 ENCROACHMENT STATIONS=        .0      112.0  TYPE=     1  TARGET=     111.999

         475' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS #75       SEC. CC

 26388.00     4.70    885.50      0.00    885.50    886.01       .51      0.00      0.00    884.80
     425.       3.      422.        0.        3.       73.        0.        0.        0.    886.40
      0.00     1.00      5.74      0.00      .060      .042      .055     0.000    880.80     37.41
  .006612     200.      200.      200.         0         0         1      0.00     33.84     71.26

         100' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS #76       SEC. CD

 26763.00     4.20    887.90      0.00      0.00    888.08       .18      1.97       .10    886.30
     425.     176.      248.        1.      102.       59.        2.        1.        1.    887.40
      .03     1.72      4.23       .71      .054      .045      .054      .045    883.70    123.60
  .004269     375.      375.      375.         2         0         1      0.00    143.97    267.57

 26863.00     4.02    888.62      0.00      0.00    888.90       .28       .77       .05    887.20
     425.     145.      280.        0.       82.       55.        1.        2.        1.    888.30
      .04     1.76      5.08       .62      .062      .048      .062      .042    884.60    127.35
  .007594     200.      100.      100.         0         0         1      0.00    137.92    265.27

SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      2.80      3.03      0.00      6.61      0.00     38.00      0.00    884.60    884.60

3280 CROSS SECTION  26946.00 EXTENDED      1.12 FEET

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

   894.05    890.11     0.00       99.      327.       38.    890.00    891.80     30.00

3470 ENCROACHMENT STATIONS=        .1      262.0  TYPE=     1  TARGET=     261.950

         U/S FACE OF CLUBHOUSE LANE CULVERT, BS #77                     SEC. CE

 26946.00     7.12    891.72      0.00      0.00    891.84       .12      2.94      0.00    890.40
     425.      24.      320.       81.       48.      103.      109.        2.        2.    888.00
      .05      .50      3.12       .75      .055      .032      .055      .041    884.60     77.20
  .000603      83.       83.       83.         2         0         6      0.00    184.80    262.00

         100' U/S FROM U/S FACE OF CLUBHOUSE LANE CULVERT, VS #78       SEC. CF
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27046.00	6.78	891.78	0.00	0.00	891.95	.17	.09	.03	889.70
425.	48.	365.	13.	37.	102.	15.	2.	2.	890.50
.06	1.31	3.57	.82	.050	.040	.050	.041	885.00	79.66
.001385	10.	100.	150.	2	0	1	0.00	79.20	158.86

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

27116.00	6.67	891.87	0.00	0.00	892.06	.19	.10	.01	889.90
425.	44.	371.	10.	33.	100.	13.	3.	2.	890.70
.07	1.34	3.72	.82	.050	.040	.050	.041	885.20	81.34
.001556	50.	70.	120.	1	0	1	0.00	75.39	156.73

D/S FACE OF 14 MILE ROAD CULVERT, BS #94 SEC. CG

27117.00	6.67	891.87	0.00	0.00	892.06	.19	.00	.00	889.90
425.	44.	370.	10.	33.	100.	13.	3.	2.	890.70
.07	1.34	3.72	.82	.030	.024	.030	.040	885.20	81.32
.000559	1.	1.	1.	0	0	1	0.00	75.44	156.76

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.67	3.04	0.00	6.28	0.00	25.13	0.00	886.70	885.20

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
903.73	893.56	0.00	280.	146.	25.	890.70	891.80	30.00

3470 ENCROACHMENT STATIONS= 226.8 415.8 TYPE= 1 TARGET= -360.000

U/S FACE OF 14 MILE ROAD CULVERT, BS #94 SEC. CG

27187.00	6.53	893.23	0.00	0.00	893.28	.05	1.22	0.00	888.00
425.	185.	171.	69.	160.	70.	55.	3.	2.	888.00
.08	1.16	2.45	1.25	.030	.024	.030	.039	886.70	226.80
.000184	70.	70.	70.	2	0	6	0.00	117.39	344.19

3470 ENCROACHMENT STATIONS= 220.0 335.0 TYPE= 1 TARGET= 115.000

27188.00	6.55	893.25	0.00	0.00	893.28	.03	.00	.00	890.00
425.	190.	194.	40.	208.	99.	44.	3.	2.	889.40
.08	.91	1.97	.92	.055	.040	.055	.039	886.70	220.00
.000320	1.	1.	1.	2	0	1	0.00	115.00	335.00

3470 ENCROACHMENT STATIONS= 210.0 345.0 TYPE= 1 TARGET= 135.000

10' U/S FROM U/S FACE OF 14 MILE ROAD CULVERT, VS #95 SEC. CH

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
425.	195.	178.	51.	233.	99.	64.	3.	2.	889.40	
.08	.84	1.81	.80	.055	.040	.055	.039	886.70	210.00	
.000269	10.	10.	10.	0	0	1	0.00	135.00	345.00	

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

PEBBLE CREEK

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
26388.00	200.00	0.00	0.00	880.80	150.00	884.17	.19	0.00	0.00	150.00	3.37	20.73
26388.00	200.00	0.00	0.00	880.80	315.00	885.07	.39	0.00	0.00	314.75	4.27	27.11
26388.00	200.00	0.00	0.00	880.80	425.00	885.50	.51	0.00	0.00	421.63	4.70	33.84
26388.00	200.00	0.00	0.00	880.80	830.00	886.58	.86	0.00	0.00	775.14	5.78	61.66
26763.00	375.00	0.00	0.00	883.70	150.00	886.43	.38	2.35	.10	149.82	2.73	23.81
26763.00	375.00	0.00	0.00	883.70	315.00	887.49	.25	2.23	.04	229.54	3.79	121.23
26763.00	375.00	0.00	0.00	883.70	425.00	887.90	.18	1.97	.10	247.83	4.20	143.97
26763.00	375.00	0.00	0.00	883.70	830.00	889.02	.12	1.48	.22	309.76	5.32	182.94
26863.00	100.00	0.00	0.00	884.60	150.00	887.81	.65	1.52	.14	150.00	3.21	8.00
26863.00	100.00	0.00	0.00	884.60	315.00	888.54	1.84	1.52	0.00	315.00	3.94	8.00
26863.00	100.00	0.00	0.00	884.60	425.00	888.62	.28	.77	.05	279.69	4.02	137.92
26863.00	100.00	0.00	0.00	884.60	830.00	889.49	.23	.52	.05	372.21	4.89	168.04
26946.00	83.00	891.80	890.00	884.60	150.00	888.90	.36	.71	.09	150.00	4.30	8.20
26946.00	83.00	891.80	890.00	884.60	315.00	890.90	.63	1.15	0.00	315.00	6.30	8.20
26946.00	83.00	891.80	890.00	884.60	425.00	891.72	.12	2.94	0.00	319.51	7.12	184.80
26946.00	83.00	891.80	890.00	884.60	830.00	892.18	.24	2.70	0.00	536.00	7.58	261.95
27046.00	100.00	0.00	0.00	885.00	150.00	889.48	.13	.28	.07	150.00	4.48	19.65
27046.00	100.00	0.00	0.00	885.00	315.00	891.75	.10	.16	.16	271.45	6.75	78.13
27046.00	100.00	0.00	0.00	885.00	425.00	891.78	.17	.09	.03	364.52	6.78	79.20
27046.00	100.00	0.00	0.00	885.00	830.00	892.27	.41	.18	.09	650.74	7.27	164.38
27116.00	70.00	0.00	0.00	885.20	150.00	889.60	.19	.15	.03	150.00	4.40	12.00
27116.00	70.00	0.00	0.00	885.20	315.00	891.80	.11	.06	.01	277.36	6.60	73.05
27116.00	70.00	0.00	0.00	885.20	425.00	891.87	.19	.10	.01	370.57	6.67	75.39
27116.00	70.00	0.00	0.00	885.20	830.00	892.50	.41	.22	.00	648.01	7.30	167.64
27117.00	1.00	0.00	0.00	885.20	150.00	889.60	.19	.00	.00	150.00	4.40	12.00
27117.00	1.00	0.00	0.00	885.20	315.00	891.80	.11	.00	.00	277.32	6.60	73.08
27117.00	1.00	0.00	0.00	885.20	425.00	891.87	.19	.00	.00	370.50	6.67	75.44
27117.00	1.00	0.00	0.00	885.20	830.00	892.50	.41	.00	.00	647.54	7.30	168.19
27187.00	70.00	891.80	890.70	886.70	150.00	889.45	.81	.16	.31	150.00	2.75	11.97
27187.00	70.00	891.80	890.70	886.70	315.00	893.00	.03	1.12	0.00	134.07	6.30	116.46
27187.00	70.00	891.80	890.70	886.70	425.00	893.23	.05	1.22	0.00	170.76	6.53	117.39
27187.00	70.00	891.80	890.70	886.70	830.00	893.91	.11	1.11	0.00	286.13	7.21	122.11
27188.00	1.00	0.00	0.00	886.70	150.00	890.16	.27	.01	.16	150.00	3.46	12.00
27188.00	1.00	0.00	0.00	886.70	315.00	893.01	.02	.00	.00	151.01	6.31	115.00
27188.00	1.00	0.00	0.00	886.70	425.00	893.25	.03	.00	.00	194.47	6.55	115.00
27188.00	1.00	0.00	0.00	886.70	830.00	893.95	.08	.00	.01	339.79	7.25	115.00
27198.00	10.00	0.00	0.00	886.70	150.00	890.34	.16	.03	.04	147.91	3.64	29.68
27198.00	10.00	0.00	0.00	886.70	315.00	893.02	.02	.00	.00	139.13	6.32	135.00
27198.00	10.00	0.00	0.00	886.70	425.00	893.26	.03	.00	.00	178.49	6.56	135.00
27198.00	10.00	0.00	0.00	886.70	830.00	893.98	.06	.01	.01	306.90	7.28	135.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
26388.000	150.000	884.174	0.000	0.000	0.000	20.733	0.000	200.000
26388.000	315.000	885.071	.897	0.000	0.000	27.111	-6.379	200.000
26388.000	425.000	885.503	.432	0.000	0.000	33.842	-13.110	200.000
26388.000	830.000	886.582	1.079	0.000	0.000	61.658	-40.926	200.000

26763.000	150.000	886.425	0.000	2.251	0.000	23.814	0.000	375.000
26763.000	315.000	887.486	1.060	2.415	0.000	121.227	-97.413	375.000
26763.000	425.000	887.896	.411	2.393	0.000	143.966	-120.152	375.000
26763.000	830.000	889.024	1.128	2.442	0.000	182.940	-159.126	375.000
26863.000	150.000	887.810	0.000	1.385	0.000	7.999	0.000	100.000
26863.000	315.000	888.542	.732	1.057	0.000	7.999	-.000	100.000
26863.000	425.000	888.615	.073	.719	0.000	137.922	-129.923	100.000
26863.000	830.000	889.493	.878	.468	0.000	168.038	-160.039	100.000
26946.000	150.000	888.904	0.000	1.094	0.000	8.199	0.000	83.000
26946.000	315.000	890.904	2.000	2.362	0.000	8.199	-.000	83.000
26946.000	425.000	891.723	.819	3.108	0.000	184.799	-176.600	83.000
26946.000	830.000	892.181	.459	2.689	0.000	261.949	-253.750	83.000
27046.000	150.000	889.478	0.000	.574	0.000	19.648	0.000	100.000
27046.000	315.000	891.747	2.268	.843	0.000	78.131	-58.483	100.000
27046.000	425.000	891.780	.033	.057	0.000	79.205	-59.557	100.000
27046.000	830.000	892.274	.495	.093	0.000	164.382	-144.734	100.000
27116.000	150.000	889.600	0.000	.121	0.000	11.999	0.000	70.000
27116.000	315.000	891.799	2.199	.052	0.000	73.052	-61.053	70.000
27116.000	425.000	891.872	.074	.093	0.000	75.388	-63.389	70.000
27116.000	830.000	892.501	.629	.227	0.000	167.640	-155.641	70.000
27117.000	150.000	889.602	0.000	.002	0.000	11.999	0.000	1.000
27117.000	315.000	891.799	2.198	.001	0.000	73.081	-61.082	1.000
27117.000	425.000	891.874	.074	.001	0.000	75.437	-63.438	1.000
27117.000	830.000	892.505	.631	.003	0.000	168.193	-156.194	1.000
27187.000	150.000	889.447	0.000	-.154	0.000	11.970	0.000	70.000
27187.000	315.000	892.999	3.552	1.200	0.000	116.463	-104.493	70.000
27187.000	425.000	893.229	.230	1.356	0.000	117.393	-105.423	70.000
27187.000	830.000	893.915	.685	1.410	0.000	122.111	-110.141	70.000
27188.000	150.000	890.156	0.000	.709	0.000	11.999	0.000	1.000
27188.000	315.000	893.014	2.857	.015	0.000	114.999	-103.000	1.000
27188.000	425.000	893.250	.236	.021	0.000	114.999	-103.000	1.000
27188.000	830.000	893.951	.701	.037	0.000	114.999	-103.000	1.000
27198.000	150.000	890.340	0.000	.183	0.000	29.682	0.000	10.000
27198.000	315.000	893.022	2.682	.008	0.000	134.999	-105.317	10.000
27198.000	425.000	893.262	.240	.012	0.000	134.999	-105.317	10.000
27198.000	830.000	893.982	.720	.031	0.000	134.999	-105.317	10.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	135.000	.333	0.000
2	1.000	135.000	1.313	.980
3	1.000	135.000	2.245	1.912
4	1.000	135.000	2.996	2.663

FOORT BUSINESS FORMS, INC 93

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: 100 YR

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 FARMINGTON HILLS
T2 100-YEAR FLOOD
T3 PEBBLE CREEK, D/S

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	IT
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	687.280	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	XN	ALLDC	IBW	CINTM	LTRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NT	4.000	380.000	780.000	995.000	1690.000	0.000	0.000	0.000	0.000	0.000
NC	.110	.110	.100	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	20615.000	11.000	56.000	81.000	255.000	250.000	350.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	716.200	716.300	0.000
GR	710.000	0.000	690.000	38.000	686.400	56.000	680.900	52.000	679.900	65.000
GR	680.900	74.000	685.700	81.000	686.600	91.000	687.500	165.000	688.000	215.000
GR	710.000	340.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20680.000	0.000	0.000	0.000	85.000	40.000	65.000	0.000	0.000	0.000
X1	21420.000	11.000	32.000	59.000	630.000	450.000	740.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	37.000	0.000	53.000	0.000	0.000	0.000	0.000
GR	710.000	0.000	690.000	32.000	684.500	38.000	684.300	52.000	688.700	54.000
GR	689.800	138.000	686.000	180.000	689.300	194.000	688.800	288.000	689.300	305.000
GR	710.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ED	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 1

FORM 1485 GB PRINTED BY ROTARY MANIFOLD FORMS DIVISION OF SAFRAN PRINTING COMPANY DETROIT PRINTED IN U.S.A.

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CCHV=      .300 CEHV      .500
*SECNO 20615.000
   SECNO      DEPTH      CWSEL      CRIWS      WSELK      FQ         HV         HL         OLOSS      BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        UTN        ELMTN       SETA
   SLOPE      XLOBL      XLCH       XLOBR      CTRIAL     IDC        ICONT      EORAR      TOPWID      ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELTEA=      716.20 ELRGA=      716.20

 20615.00      7.38     687.28       0.00     687.28     687.95       .67       0.00       0.00     686.40
     995.        0.       995.        0.         0.        170.        0.         0.         0.     685.70
     0.00       0.00       6.56       0.00       .110       .100       .110     0.000     679.90      56.00
  .025463       255.       250.       250.          0          0          0      0.00      25.00      81.00

*SECNO 20680.000
 20680.00      8.11     688.01       0.00       0.00     688.39       .38       .36       .04     686.40
     995.        5.       891.       99.          6.        170.       102.        0.         0.     685.70
      .00       .83       5.25       .96       .075       .042       .075      .043     679.90      47.97
  .002384       85.       61.        40.          3          0          0      0.00     167.07     215.04

*SECNO 21420.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS-      37.0      53.0  TYPE      1  TARGET=      16.000
 21420.00      6.39     690.82       0.00       0.00     692.38      1.49       3.44       .5000000.00
     995.        0.       995.        0.         0.        101.        0.         3.        1. 100000.00
      .02       0.00       9.80       0.00       .075       .042       .075      .043     684.50      37.00
  .013648      530.       740.       450.          3          0          0      0.00      16.00      53.00

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR     01.02
  MODIFICATION     50,51,52,53
*****************************************************

COMMAND-
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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      100 YEAR FLOW
T3      PEBBLE CREEK
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	690.900	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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


3470 ENCROACHMENT STATIONS=      42.0      58.0  TYPE=      1  TARGET=      16.000
     0.00      5.70    690.90      0.00    690.90    693.18      2.28      0.00      0.00100000.00
     995.        0.      995.        0.        0.       82.        0.        0.        0. 100000.00
     0.00      0.00     12.12      0.00      .075      .040      .075     0.000    685.20     42.00
  .020754        0.        0.        0.         0         0         1      0.00     16.00     58.00


NORMAL BRIDGE,NRD=15 MIN ELTRD=  703.80 MAX ELLC=  695.10

        D/S FACE OF INKSTER ROAD BRIDGE, BS#1                          SEC. A

     1.00      5.51    690.71    690.55      0.00    693.41      2.70       .02       .21    705.60
     995.        0.      995.        0.        0.       76.        0.        0.        0.    705.30
      .00      0.00     13.18      0.00      .040      .031      .040      .016    685.20     42.20
  .018480        1.        1.        1.         4        12         1     -2.65     15.60     57.80


3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=15 MIN ELTRD=  703.80 MAX ELLC=  695.70

        U/S FACE OF INKSTER ROAD BRIDGE, BS#1                          SEC. A

   112.00      7.69    693.69      0.00      0.00    695.23      1.54      1.48       .35    705.60
     995.        0.      995.        0.        0.      100.        0.        0.        0.    705.30
      .00      0.00      9.96      0.00      .040      .031      .040      .030    686.00     42.20
  .010068       111.      111.      111.         3         0         1    -12.24     15.60     57.80


3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      42.2      57.8  TYPE=      1  TARGET=      15.600
   113.00      8.37    694.37      0.00      0.00    695.40      1.03       .01       .15100000.00
     995.        0.      995.        0.        0.      122.        0.        0.        0. 100000.00
      .00      0.00      8.14      0.00      .085      .040      .085      .030    686.00     42.20
  .007134        1.        1.        1.         3         0         1      0.00     15.60     57.80


3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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3470 ENCROACHMENT STATIONS=      39.0      61.0  TYPE=     1  TARGET=      22.000
   116.00      9.05    695.06      0.00      0.00    695.56       .51       .01       .16    689.10
      995.       26.      953.       16.       11.      164.        6.        0.        0.    688.90
      .00      2.37      5.82      2.64      .085      .045      .085      .030    686.01     39.00
  .002097        3.        3.        3.         2         0         1      0.00     22.00     61.00


3470 ENCROACHMENT STATIONS=      25.0     240.0  TYPE=     1  TARGET=     215.000

        100' U/S FROM U/S FACE OF INKSTER ROAD BRIDGE, VS#2            SEC. B

   212.00      9.54    695.74      0.00      0.00    695.78       .04       .08       .14    690.00
      995.     408.      335.     252.      419.      139.      305.        1.        0.    691.20
      .02       .97      2.42       .83      .080      .045      .080      .037    686.20     25.00
  .000406       96.       96.       96.         2         0         1      0.00    215.00    240.00


3301 HV CHANGED MORE THAN HVINS

        700' U/S FROM U/S FACE OF INKSTER ROAD BRIDGE, VS#3            SEC. C

   812.00      7.22    696.02      0.00      0.00    696.61       .59       .56       .27    693.50
      995.       23.      967.        5.       16.      155.        4.        8.        2.    693.80
      .05      1.45      6.24      1.09      .075      .045      .085      .043    688.80    143.37
  .004040      550.      600.      650.         2         0         1      0.00     44.50    187.87

        375' D/S FROM D/S FACE OF FOREST BROOK RD BRIDGE, VS#4         SEC. D

  1312.00      6.31    698.51      0.00      0.00    699.19       .67      2.53       .04    699.60
      995.        0.      995.        0.        0.      151.        0.       10.        3.    699.80
      .07      0.00      6.58      0.00      .080      .045      .090      .044    692.20     28.73
  .006549      450.      500.      550.         3         0         1      0.00     34.16     62.89


  1437.00      5.86    699.36      0.00      0.00    700.08       .72       .87       .03    697.60
      995.       60.      935.        0.       30.      133.        0.       11.        3.    699.60
      .08      2.01      7.02      0.00      .090      .045      .085      .044    693.50    209.13
  .007485      100.      125.      100.         2         0         1      0.00     50.32    259.44


3470 ENCROACHMENT STATIONS=      71.0     146.0  TYPE=     1  TARGET=      75.000

        125' D/S FROM D/S FACE OF FOREST BROOK RD BRIDGE, VS#5         SEC. E

  1562.00      5.68    700.38      0.00      0.00    700.89       .50       .74       .07    699.60
      995.        9.      872.      114.       11.      145.       50.       11.        3.    697.70
      .08       .83      6.03      2.27      .080      .045      .090      .044    694.70     71.00
  .004957      100.      125.      100.         2         0         1      0.00     72.46    143.46


3470 ENCROACHMENT STATIONS=      87.0     130.0  TYPE=     1  TARGET=      43.000
  1625.00      5.50    700.60      0.00      0.00    701.32       .72       .33       .11    700.00
      995.        2.      960.       33.        3.      138.       13.       12.        3.    698.10
      .08       .91      6.93      2.56      .080      .040      .080      .044    695.10     87.00
  .005473       63.       63.       63.         2         0         1      0.00     43.00    130.00
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3470 ENCROACHMENT STATIONS=      97.0      122.0  TYPE=      1  TARGET=      25.000
  1662.00      5.31    700.65      0.00      0.00    701.79      1.14       .26       .21100000.00
     995.        0.      995.        0.        0.      116.        0.       12.        3. 100000.00
      .09      0.00      8.57      0.00      .075      .040      .075      .044    695.34     97.00
  .009569       37.       37.       37.         2         0         1      0.00     25.00    122.00

    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

3470 ENCROACHMENT STATIONS=      98.0      120.0  TYPE=      1  TARGET=      22.000
  1669.00      5.18    700.56      0.00      0.00    702.05      1.49       .08       .18100000.00
     995.        0.      995.        0.        0.      101.        0.       12.        3. 100000.00
      .09      0.00      9.81      0.00      .075      .040      .075      .044    695.38     98.00
  .013514        7.        7.        7.         2         0         1      0.00     22.00    120.00

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=     100.0      118.0  TYPE=      1  TARGET=      18.000
  1675.00      4.94    700.36    700.36      0.00    702.64      2.28       .10       0.00100000.00
     995.        0.      995.        0.        0.       82.        0.       12.        3. 100000.00
      .09      0.00     12.12      0.00      .075      .040      .075      .044    695.42    100.00
  .022811        6.        6.        6.         3         8         1      0.00     18.00    118.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH      AROB       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=     101.0      116.0  TYPE=      1  TARGET=      15.000
  1681.00      5.44    700.90    700.90      0.00    703.49      2.59       .15       0.00100000.00
     995.        0.      995.        0.        0.       77.        0.       12.        3. 100000.00
      .09      0.00     12.92      0.00      .075      .040      .075      .044    695.46    101.00
  .025938        6.        6.        6.        30         8         1      0.00     15.00    116.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY
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3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=      44.0      56.0  TYPE=     1  TARGET=      12.000
  1687.00      6.90    702.60    702.60      0.00    705.62      3.02       .16      0.00    699.20
     995.        0.      995.        0.        0.       71.        0.       12.        3. 100000.00
      .09      0.00     13.94      0.00      .075      .040      .075      .044    695.70     44.00
  .028628        6.        6.        6.        30        11         1      0.00     12.00     56.00

   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=10 MIN ELTRD=  717.90 MAX ELLC=  707.50

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      707.90 ELREA=      707.90

        D/S FACE OF FOREST BROOK ROAD BRIDGE, BS#6                    SEC. F

  1688.00      6.73    702.43    702.42      0.00    705.82      3.39       .02       .19    718.10
     995.        0.      995.        0.        0.       67.        0.       12.        3.    717.90
      .09      0.00     14.78      0.00      .040      .024      .040      .043    695.70     44.00
  .013632        1.        1.        1.         4        15         1      -.87     12.00     56.00

3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=10 MIN ELTRD=  717.90 MAX ELLC=  707.80

        U/S FACE OF FOREST BROOK ROAD BRIDGE, BS#6                    SEC. F

  1748.00      9.22    705.02      0.00      0.00    706.83      1.81       .53       .47    718.10
     995.        0.      995.        0.        0.       92.        0.       12.        3.    717.90
      .09      0.00     10.80      0.00      .040      .024      .040      .043    695.80     44.00
  .006242       60.       60.       60.         4         0         1     -6.43     12.00     56.00

3470 ENCROACHMENT STATIONS=      44.0      56.0  TYPE=     1  TARGET=      12.000
  1749.00      9.78    705.58      0.00      0.00    706.96      1.39       .01       .13    699.80
     995.        0.      995.        0.        0.      105.        0.       12.        3. 100000.00
      .09      0.00      9.45      0.00      .090      .040      .090      .043    695.80     44.00
  .010658        1.        1.        1.         3         0         1      0.00     12.00     56.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      41.0      59.0  TYPE=     1  TARGET=      18.000
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  1752.00     10.62    706.32      0.00      0.0    707.15       .83       .02       .17    699.70
     995.       49.      884.       61.       18.      115.       19.       12.        3.    699.70
      .09      2.77      7.66      3.22      .090      .040      .085      .043    695.70     41.00
  .002970        3.        3.        3.         3         0         1      0.00     18.00     59.00


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=      1  TARGET=     152.000
  1817.00     12.17    707.37      0.00      0.00    707.41       .04       .02       .24    698.90
     995.      193.      625.      177.      324.      333.      304.       13.        3.    702.70
      .10       .60      1.87       .58      .090      .040      .085      .043    695.20     32.00
  .000127       65.       65.       65.         2         0         1      0.00    152.00    184.00


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


3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=      1  TARGET=     152.000

        D/S FACE OF DAM SECTION 70' U/S FROM FOREST BROOK RD, DS#7      SEC. G

  1818.00      9.16    707.36      0.00      0.00    707.42       .06       .00       .01    701.00
     995.      205.      589.      201.      320.      236.      304.       13.        3.    702.70
      .10       .64      2.49       .66      .090      .030      .085      .043    698.20     32.00
  .000166        1.        1.        1.         1         0         1      0.00    152.00    184.00


3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=      1  TARGET=     152.000
  1821.00      9.16    707.36      0.00      0.00    707.42       .06       .00       .00    701.00
     995.      205.      589.      201.      320.      237.      304.       13.        3.    702.70
      .10       .64      2.49       .66      .090      .030      .085      .043    698.20     32.00
  .000166        3.        3.        3.         0         0         1      0.00    152.00    184.00


3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=      1  TARGET=     152.000
  1822.00     10.39    707.39      0.00      0.00    707.43       .03       .00       .01    699.90
     995.      258.      519.      219.      321.      275.      305.       13.        3.    702.70
      .10       .80      1.88       .72      .080      .045      .085      .043    697.00     32.00
  .000192        1.        1.        1.         2         0         1      0.00    152.00    184.00


        220' U/S FROM U/S FACE OF FOREST BROOK RD BRIDGE, VS#8      SEC. H

  1972.00     11.43    707.43      0.00      0.00    707.46       .03       .03       .00    702.00
     995.      123.      406.      466.      160.      193.      620.       16.        4.    701.00
      .13       .77      2.10       .75      .085      .046      .085      .043    696.00     22.02
  .000267      150.      150.      150.         0         0         1      0.00    210.63    232.65


  2572.00      7.92    707.62      0.00      0.00    707.86       .24       .29       .11    702.90
     995.      185.      757.       53.      165.      168.       47.       25.        6.    703.10
      .18      1.12      4.51      1.11      .085      .042      .090      .043    699.70     90.00
  .001312      550.      600.      550.         2         0         1      0.00    112.92    202.92
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U/S FACE OF DAM SECTION 825 U/S FROM FOREST BROOK RD, DS#9 SEC. I

2573.00	5.41	707.51	0.00	0.00	707.97	.46	.00	.11	702.20
995.	331.	565.	100.	199.	80.	60.	25.	6.	702.70
.18	1.66	7.05	1.66	.080	.030	.080	.043	702.10	90.18
.002190	1.	1.	1.	2	0	1	0.00	112.61	202.79
2576.00	5.42	707.52	0.00	0.00	707.97	.45	.01	.00	702.20
995.	331.	564.	100.	199.	80.	60.	25.	6.	702.70
.18	1.66	7.04	1.66	.080	.030	.080	.043	702.10	90.11
.002180	3.	3.	3.	0	0	1	0.00	112.69	202.80
2577.00	6.82	707.72	0.00	0.00	708.02	.30	.00	.05	703.10
995.	254.	631.	110.	171.	117.	58.	25.	6.	702.80
.18	1.49	5.39	1.90	.090	.047	.080	.043	700.90	90.16
.002656	1.	1.	1.	2	0	1	0.00	112.91	203.06

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

650' U/S FROM DAM SECTION I, VS#10 SEC. J

3227.00	6.06	710.06	0.00	0.00	710.57	.51	2.45	.10	708.10
995.	174.	764.	57.	111.	118.	53.	29.	8.	709.00
.21	1.57	6.49	1.08	.090	.047	.080	.044	704.00	23.40
.005746	650.	650.	650.	3	0	1	0.00	193.77	217.17
3317.00	5.88	710.58	0.00	0.00	711.21	.63	.57	.06	708.80
995.	154.	803.	38.	96.	114.	37.	30.	8.	709.70
.22	1.60	7.07	1.04	.090	.047	.080	.044	704.70	23.74
.007145	90.	90.	90.	2	0	1	0.00	182.63	206.38
3407.00	5.82	711.22	710.95	0.00	711.90	.68	.67	.02	709.50
995.	147.	815.	33.	92.	112.	32.	31.	9.	710.40
.22	1.60	7.26	1.03	.090	.047	.080	.044	705.40	23.85
.007650	90.	90.	90.	4	8	1	0.00	177.40	201.25
3497.00	5.78	711.88	711.66	0.00	712.56	.68	.66	.00	710.20
995.	151.	811.	32.	89.	112.	29.	31.	9.	711.10
.22	1.70	7.27	1.10	.080	.045	.070	.044	706.10	23.91
.007102	90.	90.	90.	0	5	1	0.00	174.32	198.23

750' D/S FROM D/S FACE OF 12 MILE RD BRIDGE, VS#11 SEC. K

3587.00	5.71	712.61	712.59	0.00	713.33	.73	.75	.03	710.70
995.	86.	677.	232.	48.	83.	110.	31.	10.	711.10
.23	1.78	8.18	2.12	.080	.045	.070	.044	706.90	46.15
.009841	90.	90.	90.	2	8	1	0.00	185.44	231.59

3470 ENCROACHMENT STATIONS= 9.0 104.0 TYPE= 1 TARGET= 95.000

150' D/S FROM D/S FACE OF 12 MILE RD BRIDGE, VS#12 SEC. L

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4187.00      8.26    716.16      0.00      0.00    716.58       .42      3.15       .09    713.80
   995.       112.      808.       75.       67.      141.       58.       35.       11.    713.80
    .26      1.69      5.72      1.29      .090      .045      .090      .044    707.90     16.48
.003264      600.      600.      600.         3         0         1      0.00     87.52    104.00


3470 ENCROACHMENT STATIONS=       28.0       85.0  TYPE=      1  TARGET=       57.000
4262.00      7.35    716.27      0.00      0.00    717.11       .84       .32       .21    714.82
   995.       49.      920.       26.       27.      120.       19.       35.       12.    714.82
    .26      1.81      7.65      1.40      .085      .040      .085      .044    708.92     28.00
.005704       75.       75.       75.         2         0         1      0.00     57.00     85.00


3470 ENCROACHMENT STATIONS=       40.0       72.0  TYPE=      1  TARGET=       32.000
4312.00      6.82    716.42      0.00      0.00    717.68      1.26       .36       .21    715.50
   995.        9.      980.        6.        5.      108.        3.       35.       12.    715.50
    .27      1.86      9.08      1.69      .075      .040      .075      .044    709.60     40.00
.009294       50.       50.       50.         2         0         1      0.00     32.00     72.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.46      2.60      0.00     12.00      0.00     87.00      0.00    709.60    709.60

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

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


PRESSURE AND WEIR FLOW


 EGPRS     EGLWC       H3       QWEIR      QPR       BAREA     ELLC      ELTRD     CLASS

 719.38    717.17     0.00       20.      972.       87.     716.50    718.70     30.00


3470 ENCROACHMENT STATIONS=       43.0       68.0  TYPE=      1  TARGET=       25.000

        U/S FACE OF ABANDONED BRIDGE, BS#12A                                SEC. 4

4326.00      9.32    718.92      0.00      0.00    719.25       .33      1.57      0.00    710.60
   995.       41.      932.       21.       16.      198.        8.       36.       12.    710.90
    .27      2.62      4.71      2.72      .075      .048      .075      .044    709.60     43.00
.001262       14.       14.       14.         2         0         2      0.00     25.00     68.00


3470 ENCROACHMENT STATIONS=      100.0      119.5  TYPE=      1  TARGET=       19.500
4337.00      9.32    718.82      0.00      0.00    719.39       .57       .02       .12    725.50
   995.        0.      995.        0.        0.      164.        0.       36.       12. 100000.00
    .27      0.00      6.05      0.00      .085      .045      .085      .044    709.50    100.00
.004676       11.       11.       11.         2         0         1      0.00     19.50    119.50
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NORMAL BRIDGE,NRD= 8 MIN ELTRD=  725.50 MAX ELLC=  722.40

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      722.40 ELREA=      722.40

        D/S FACE OF 12 MILE ROAD BRIDGE, BS#13                          SEC. N

  4338.00     9.33   718.83     0.00     0.00   719.39      .57      .00      .00   725.50
     995.       0.     995.       0.       0.     164.       0.      36.      12.   725.50
      .27     0.00     6.05     0.00     .040     .025     .040     .044   709.50   100.00
  .001442       1.       1.       1.        0        0        1     0.00    19.50   119.50

NORMAL BRIDGE,NRD= 8 MIN ELTRD=  725.50 MAX ELLC=  722.40

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      725.50 ELREA=      725.50

        U/S FACE OF 12 MILE ROAD BRIDGE, BS#13                          SEC. N

  4381.00     9.40   718.90     0.00     0.00   719.46      .56      .06      .00   725.50
     995.       0.     995.       0.       0.     166.       0.      36.      12.   725.50
      .27     0.00     6.00     0.00     .040     .025     .040     .044   709.50   100.00
  .001408      43.      43.      43.        2        0        1     0.00    19.50   119.50

3470 ENCROACHMENT STATIONS=      100.0     119.5  TYPE=      1  TARGET=      19.500
  4382.00     9.40   718.90     0.00     0.00   719.46      .56      .00      .00   725.50
     995.       0.     995.       0.       0.     166.       0.      36.      12. 100000.00
      .27     0.00     6.00     0.00     .080     .040     .085     .044   709.50   100.00
  .003602       1.       1.       1.        0        0        1     0.00    19.50   119.50

3470 ENCROACHMENT STATIONS=       89.0     119.0  TYPE=      1  TARGET=      30.000
  4387.00     9.80   719.32     0.00     0.00   719.56      .25      .01      .09   714.82
     995.       6.     982.       7.       4.     245.       5.      36.      12.   714.32
      .27     1.39     4.00     1.41     .080     .040     .085     .044   709.52    39.00
  .000774       5.       5.       5.        2        0        1     0.00    30.00   119.00

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

3470 ENCROACHMENT STATIONS=       63.0     161.0  TYPE=      1  TARGET=      98.000

        D/S FACE OF DAM SECTION 80' U/S FROM 12 MILE RD, DS#14          SEC. O

  4462.00     9.70   719.50     0.00     0.00   719.64      .14      .05      .03   715.10
     995.      71.     812.     112.      78.     242.     130.      36.      12.   714.60
      .28      .91     3.35      .86     .080     .040     .085     .044   709.80    63.00
  .000552      75.      75.      75.        1        0        1     0.00    98.00   161.00

SPECIAL BRIDGE
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SB	XR	XLOR	COPQ	RDLEN	B C	B P	BAREA	SS	ELCHO	ELCHD
	0.00	1.00	3.06	0.00	.05	0.00	.01	0.00	709.80	709.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
*********	719.64	0.00	997.	0.	0.	714.50	714.70	30.00

3470 ENCROACHMENT STATIONS= 63.0 161.0 TYPE= 1 TARGET= 98.000

4470.00	9.84	719.64	0.00	0.00	719.94	.30	.30	0.00	709.90
995.	200.	706.	89.	161.	137.	97.	36.	12.	710.00
.28	1.24	5.16	.92	.080	.030	.080	.044	709.80	63.00
.000521	8.	8.	8.	2	0	18	0.00	98.00	161.00

3301 HV CHANGED MORE THAN HVINS

160' U/S FROM U/S FACE OF 12 MILE ROAD, VS#15 SEC. P

4540.00	6.78	719.48	0.00	0.00	720.29	.81	.09	.25	723.80
995.	0.	961.	34.	0.	131.	20.	37.	12.	717.20
.28	0.00	7.34	1.70	.065	.040	.075	.043	712.70	162.35
.006265	70.	70.	70.	2	0	1	0.00	48.21	210.55

3301 HV CHANGED MORE THAN HVINS

4890.00	8.23	721.03	0.00	0.00	721.16	.13	.67	.20	717.50
995.	23.	598.	374.	26.	165.	335.	40.	13.	716.90
.32	.87	3.62	1.11	.065	.040	.075	.043	712.80	153.22
.000918	350.	350.	350.	2	0	1	0.00	181.78	335.00

4939.00	8.27	721.07	0.00	0.00	721.22	.15	.05	.01	717.50
995.	30.	627.	338.	32.	166.	299.	40.	13.	716.90
.32	.95	3.77	1.13	.070	.040	.070	.043	712.80	152.46
.000987	49.	49.	49.	2	0	1	0.00	182.66	335.12

NORMAL BRIDGE,NRD=16 MIN ELTRD= 718.10 MAX ELLC= 717.90

D/S FACE OF FOOT BRIDGE, BS#16 SEC. Q

4940.00	8.35	721.15	0.00	0.00	721.24	.09	.00	.02	718.20
995.	33.	489.	473.	29.	160.	307.	40.	13.	718.10
.32	1.15	3.05	1.54	.070	.032	.070	.043	712.80	152.36
.001776	1.	1.	1.	2	0	1	-7.80	182.98	335.34

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=16 MIN ELTRD= 718.10 MAX ELLC= 717.90

U/S FACE OF FOOT BRIDGE, BS#16 SEC. Q

4944.00	8.35	721.15	0.00	0.00	721.24	.09	.01	.00	718.20
995.	33.	488.	473.	29.	161.	308.	40.	13.	718.10
.32	1.15	3.04	1.54	.070	.032	.070	.043	712.80	152.32
.001766	4.	4.	4.	0	0	1	-7.80	183.03	335.35
4945.00	8.32	721.12	0.00	0.00	721.27	.15	.00	.03	717.50
995.	29.	637.	328.	33.	168.	306.	40.	13.	716.90
.32	.90	3.80	1.07	.075	.040	.075	.043	712.80	152.13
.000990	1.	1.	1.	2	0	1	0.00	183.15	335.27
4994.00	8.08	721.16	0.00	0.00	721.34	.18	.05	.02	717.78
995.	27.	665.	303.	28.	161.	273.	41.	13.	717.18
.33	.96	4.12	1.11	.075	.040	.075	.043	713.08	153.61
.001226	49.	49.	49.	2	0	1	0.00	180.97	334.58

125' D/S FROM D/S FACE OF DANVERS DRIVE CULVERT, VS#17 SEC. R

5794.00	5.32	722.82	0.00	0.00	723.33	.50	1.82	.16	720.60
950.	159.	791.	0.	107.	128.	0.	47.	16.	724.30
.37	1.48	6.20	0.00	.085	.045	.085	.043	717.50	103.35
.006239	750.	800.	750.	3	0	1	0.00	129.83	233.18
5857.00	5.17	723.22	0.00	0.00	723.77	.55	.42	.02	721.15
950.	159.	791.	0.	93.	123.	0.	47.	16.	724.85
.37	1.70	6.45	0.00	.075	.045	.080	.043	718.05	109.96
.007050	63.	63.	63.	2	0	1	0.00	122.93	232.89
5882.00	5.12	723.39	0.00	0.00	723.96	.58	.18	.01	721.37
950.	152.	798.	0.	88.	121.	0.	47.	16.	725.07
.37	1.72	6.60	0.00	.075	.045	.080	.043	718.27	112.30
.007485	25.	25.	25.	0	0	1	0.00	120.48	232.78
5907.00	5.08	723.57	0.00	0.00	724.16	.60	.19	.01	721.59
950.	148.	802.	0.	85.	120.	0.	48.	16.	725.29
.37	1.74	6.71	0.00	.075	.045	.080	.043	718.49	113.97
.007812	25.	25.	25.	0	0	1	0.00	118.74	232.71

D/S FACE OF DANVERS DRIVE CULVERT, BS#18 SEC. S

5919.00	5.02	723.62	0.00	0.00	724.28	.66	.08	.03	721.70
950.	129.	821.	0.	80.	118.	0.	48.	16.	725.40
.37	1.62	6.98	0.00	.070	.038	.070	.043	718.60	116.57
.006129	12.	12.	12.	2	0	1	0.00	116.03	232.60

1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.60	3.05	0.00	8.15	0.00	55.00	0.00	719.40	718.60

3301 HV CH. GED MORE TH.N M.INS

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
735.66	726.54	0.00	275.	675.	55.	724.60	728.00	30.00

3470 ENCROACHMENT STATIONS= 110.2 258.7 TYPE= 1 TARGET= 155.000

U/S FACE OF DANVERS DRIVE CULVERT, BS#18 SEC. S

5994.00	10.19	729.59	0.00	0.00	729.71	.12	5.43	0.00	724.60
950.	193.	626.	131.	139.	190.	117.	48.	17.	724.40
.38	1.39	3.29	1.11	.070	.051	.070	.043	719.40	110.17
.000777	75.	75.	75.	2	0	5	0.00	104.71	214.88

3470 ENCROACHMENT STATIONS= 60.0 170.0 TYPE= 1 TARGET= 110.000

D/S FACE OF DAM SECTION 9' U/S FROM DANVERS DRIVE, DS#19 SEC. T

6003.00	10.23	729.53	0.00	0.00	729.77	.24	.00	.06	726.20
950.	25.	874.	51.	70.	215.	110.	48.	17.	726.70
.38	.36	4.07	.47	.055	.012	.055	.043	719.30	61.18
.000091	9.	9.	9.	2	0	1	0.00	108.82	170.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.00	3.30	0.00	.10	0.00	.05	0.00	724.10	719.30

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
606319.59	734.57	0.00	953.	0.	0.	724.10	726.00	30.00

3470 ENCROACHMENT STATIONS= 60.0 170.0 TYPE= 1 TARGET= 110.000

6010.00	5.47	729.57	0.00	0.00	729.79	.22	.02	0.00	724.60
950.	85.	765.	100.	119.	184.	123.	48.	17.	725.20
.38	.72	4.16	.81	.050	.012	.050	.043	724.10	60.00
.000133	7.	7.	7.	2	0	18	0.00	110.00	170.00

6130.00	5.25	729.70	0.00	0.00	729.85	.14	.04	.02	724.95
950.	148.	591.	211.	103.	158.	195.	50.	17.	725.55
.39	1.44	3.73	1.08	.065	.040	.085	.043	724.45	45.87
.001265	150.	120.	110.	2	0	1	0.00	187.16	233.03

6230.00	5.05	729.85	0.00	.0	730.12	.26	.21	.06	725.5
950.	145.	605.	200.	75.	121.	139.	51.	17.	725.90
.40	1.92	4.99	1.45	.065	.040	.085	.043	724.80	38.16
.002396	150.	120.	110.	2	0	1	0.00	141.95	180.11
6370.00	5.02	730.17	0.00	0.00	730.48	.31	.34	.03	730.45
950.	0.	753.	197.	0.	151.	145.	52.	18.	727.85
.41	0.00	5.00	1.36	.065	.040	.085	.043	725.15	111.02
.003347	150.	120.	110.	2	0	1	0.00	138.39	249.41

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

495' U/S FROM U/S FACE OF DANVERS DRIVE CULVERT, VS#20 SEC. U

6490.00	5.07	730.57	0.00	0.00	730.93	.36	.42	.02	730.80
950.	0.	747.	203.	0.	139.	136.	52.	18.	728.20
.42	0.00	5.39	1.49	.065	.040	.085	.043	725.50	100.77
.003871	150.	120.	110.	2	0	1	0.00	126.07	226.84

100' D/S FROM D/S FACE OF DANVERS COURT CULVERT, VS#21 SEC. V

6740.00	6.87	731.57	0.00	0.00	732.07	.51	1.08	.07	731.50
950.	0.	828.	122.	0.	136.	92.	54.	19.	730.20
.43	.01	6.09	1.33	.075	.042	.085	.043	724.70	64.16
.004806	250.	250.	250.	2	0	1	0.00	117.72	181.89
6790.00	6.47	731.77	0.00	0.00	732.48	.70	.30	.10	732.10
950.	0.	869.	81.	0.	124.	60.	54.	19.	730.80
.43	0.00	7.03	1.34	.075	.042	.080	.043	725.30	65.56
.007091	25.	50.	75.	1	0	1	0.00	110.18	175.75
6820.00	6.29	731.95	731.63	0.00	732.79	.83	.24	.06	732.46
950.	0.	892.	58.	0.	118.	46.	54.	19.	731.16
.43	0.00	7.56	1.27	.075	.042	.080	.043	725.66	65.88
.008604	15.	30.	45.	0	11	1	0.00	107.00	172.88
6830.00	6.23	732.01	731.73	0.00	732.91	.90	.09	.03	732.58
950.	0.	903.	47.	0.	116.	41.	54.	19.	731.28
.44	0.00	7.80	1.16	.070	.040	.080	.043	725.78	66.01
.008475	5.	10.	15.	4	5	1	0.00	105.73	171.74

D/S FACE OF DANVERS COURT CULVERT, BS#22 SEC. W

6840.00	6.20	732.10	731.96	0.00	732.99	.89	.08	.00	732.70
950.	0.	894.	56.	0.	115.	38.	54.	19.	731.40
.44	0.00	7.79	1.47	.055	.036	.055	.043	725.90	66.07
.006926	5.	10.	15.	0	5	1	0.00	105.12	171.20

1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.44	3.04	0.00	8.47	0.00	60.00	0.00	726.70	725.90

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
741.59	733.95	0.00	338.	614.	60.	733.00	734.60	30.00

3470 ENCROACHMENT STATIONS= .0 286.9 TYPE= 1 TARGET= 296.950

U/S FACE OF DANVERS COURT CULVERT, BS#22 SEC. W

6907.00	9.16	735.86	0.00	0.00	736.07	.21	3.08	0.00	735.30
950.	2.	873.	75.	3.	229.	69.	55.	19.	735.20
.44	.49	3.81	1.09	.050	.047	.050	.043	726.70	157.00
.001484	67.	67.	67.	2	0	5	0.00	129.90	286.90

3265 DIVIDED FLOW

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

300' U/S FROM U/S FACE OF DANVERS COURT CULVERT, VS#23 SEC. X

7207.00	6.98	736.48	735.96	0.00	737.31	.82	.93	.31	736.50
950.	47.	903.	0.	38.	121.	0.	56.	20.	739.30
.45	1.25	7.47	0.00	.075	.042	.075	.043	729.50	53.95
.010183	300.	300.	300.	6	19	1	0.00	112.08	166.95

1490 NH CARD USED

7407.00	6.27	738.07	0.00	0.00	738.65	.58	1.27	.07	735.20
950.	37.	807.	106.	18.	123.	42.	57.	21.	734.20
.46	2.05	6.56	2.51	.060	.042	.060	.043	731.80	51.28
.004355	250.	200.	150.	2	0	1	0.00	60.50	111.78

1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.45	3.02	0.00	12.87	0.00	81.05	0.00	731.80	731.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

741.18	738.62	0.00	71.	872.	81.	738.50	740.00	50.00	

U/S FACE OF FOOT BRIDGE, BS#23A SEC. Y

7420.00	8.74	740.54	0.00	0.00	740.68	.13	2.03	0.00	735.00
950.	109.	643.	198.	71.	188.	132.	57.	21.	734.20
.46	1.54	3.41	1.50	.055	.041	.055	.043	731.80	39.60
.000666	13.	13.	13.	2	0	3	0.00	110.45	150.05
7430.00	8.29	740.39	0.00	0.00	740.85	.46	.01	.16	739.00
950.	61.	849.	40.	41.	148.	39.	57.	21.	739.50
.46	1.51	5.72	1.01	.055	.035	.055	.043	732.10	46.27
.002724	15.	10.	5.	2	0	1	0.00	137.35	183.61

How do we get the flow change when the bridge also shows as dam

D/S FACE OF DANVERS COURT WEST CULVERT, BS#24 SEC. Z

7448.00	7.71	740.41	0.00	0.00	740.90	.50	.03	.02	732.90
950.	172.	601.	177.	68.	88.	76.	57.	21.	732.90
.46	2.52	6.87	2.34	.050	.032	.050	.043	732.70	162.55
.001446	18.	18.	18.	1	0	1	0.00	90.77	253.32

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.41	3.03	0.00	8.63	0.00	63.00	0.00	732.20	731.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
748.92	741.83	0.00	381.	576.	63.	739.50	741.40	30.00

3470 ENCROACHMENT STATIONS= 128.0 272.0 TYPE= 1 TARGET= 144.000

U/S FACE OF DANVERS COURT WEST CULVERT, BS#24 SEC. Z

7515.00	11.05	743.25	0.00	0.00	743.53	.28	2.63	0.00	735.30
950.	134.	629.	187.	69.	124.	114.	58.	21.	735.30
.47	1.94	5.09	1.64	.050	.035	.050	.043	732.20	140.74
.000934	67.	67.	67.	2	0	4	0.00	131.26	272.00

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

3470 ENCROACHMENT STATIONS= 130.0 270.0 TYPE= 1 TARGET= 140.000

7520.00	11.22	743.52	0.00	0.00	743.60	.08	.00	.06	739.60
950.	110.	764.	76.	127.	303.	104.	58.	21.	738.00
.47	.87	2.52	.73	.060	.042	.060	.043	732.30	130.00
.000334	5.	5.	5.	2	0	1	0.00	140.00	270.00

7590.0	10.50	743.50	0.0	0.0	743.7	.19	.0	.06	741.10
950.	57.	862.	10.	59.	242.	11.	58.	21.	741.20
.48	.98	3.65	.94	.070	.042	.070	.043	733.00	28.28
.001668	70.	70.	70.	2	0	1	0.00	88.38	116.66
7639.00	9.97	743.57	0.00	0.00	743.82	.24	.09	.02	741.70
950.	34.	910.	6.	36.	226.	7.	59.	21.	741.80
.48	.96	4.03	.91	.070	.042	.070	.043	733.60	39.03
.002226	49.	49.	49.	2	0	1	0.00	75.40	114.44

NORMAL BRIDGE,NRD=21 MIN ELTRD= 741.70 MAX ELLC= 740.80

7640.00	9.96	743.56	0.00	0.00	743.83	.27	.00	.01	741.70
950.	92.	842.	16.	35.	196.	7.	59.	21.	741.80
.48	2.60	4.30	2.46	.040	.035	.040	.043	733.60	39.10
.005352	1.	1.	1.	1	0	1	-30.00	75.33	114.42

NORMAL BRIDGE,NRD=21 MIN ELTRD= 741.70 MAX ELLC= 740.80

U/S FACE OF WALK BRIDGE, BS#24A SEC. AA

7644.00	9.99	743.59	0.00	0.00	743.85	.26	.02	.00	741.70
950.	94.	840.	16.	36.	196.	7.	59.	21.	741.80
.48	2.60	4.28	2.46	.040	.035	.040	.043	733.60	38.79
.005289	4.	4.	4.	0	0	1	-30.00	75.70	114.49
7645.00	10.03	743.63	0.00	0.00	743.87	.23	.00	.01	741.70
950.	39.	904.	7.	38.	228.	7.	59.	21.	741.80
.48	1.03	3.97	.98	.065	.042	.065	.043	733.60	37.87
.002142	1.	1.	1.	2	0	1	0.00	76.81	114.68
7694.00	9.65	743.73	0.00	0.00	744.00	.27	.12	.02	742.18
950.	24.	922.	4.	24.	216.	4.	59.	21.	742.28
.48	.99	4.27	.93	.065	.042	.065	.043	734.08	45.65
.002649	49.	49.	49.	2	0	1	0.00	67.42	113.07

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7844.00	8.57	744.09	0.00	0.00	744.59	.50	.48	.11	743.72
950.	2.	948.	0.	5.	166.	0.	60.	22.	743.82
.49	.43	5.70	.34	.070	.046	.070	.043	735.52	205.29
.003877	150.	150.	150.	0	0	1	0.00	59.49	264.78

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 135.8 325.0 TYPE= 1 TARGET= 195.000

7894.00	8.64	744.64	0.00	0.00	744.78	.13	.07	.11	740.60
950.	84.	752.	114.	70.	232.	77.	60.	22.	739.00
.49	1.21	3.24	1.47	.055	.046	.055	.043	736.00	172.50
.000764	50.	50.	50.	2	0	1	0.00	111.92	284.42

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.03	0.00	14.50	0.00	113.10	0.00	736.00	736.00

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
746.21	744.79	0.00	149.	800.	113.	744.20	745.00	30.00

3470 ENCROACHMENT STATIONS= 135.8 325.0 TYPE= 1 TARGET= 195.000

U/S FACE OF DRIVEWAY BRIDGE, BS#25 SEC. AB

7906.00	9.67	745.67	0.00	0.00	745.75	.08	.98	0.00	740.60
950.	131.	689.	129.	146.	261.	108.	60.	22.	739.00
.50	.90	2.64	1.20	.055	.040	.055	.043	736.00	135.80
.000364	12.	12.	12.	2	0	3	0.00	154.47	290.27

3470 ENCROACHMENT STATIONS= 186.0 302.0 TYPE= 1 TARGET= 116.000

7966.00	8.79	745.69	0.00	0.00	745.78	.08	.02	.00	739.50
950.	238.	562.	150.	229.	195.	164.	61.	22.	738.10
.50	1.04	2.88	.91	.085	.042	.085	.043	736.90	186.00
.000453	55.	60.	65.	0	0	1	0.00	116.00	302.00
8026.00	7.75	745.70	0.00	0.00	745.84	.13	.04	.03	740.55
950.	206.	608.	136.	214.	169.	122.	62.	22.	739.15
.51	.96	3.60	1.12	.085	.042	.085	.043	737.95	152.01
.000858	55.	60.	65.	2	0	1	0.00	145.23	297.24
8086.00	6.73	745.73	0.00	0.00	745.96	.23	.07	.05	741.70
950.	244.	517.	189.	164.	103.	108.	62.	22.	740.50
.52	1.49	5.04	1.75	.085	.042	.085	.043	739.00	156.68
.001989	55.	60.	65.	1	0	1	0.00	138.47	295.16
8146.00	5.71	745.76	0.00	0.00	746.28	.52	.18	.14	742.75
950.	178.	605.	167.	92.	86.	70.	63.	22.	741.55
.52	1.93	7.06	2.39	.085	.042	.085	.043	740.05	177.54
.004962	55.	60.	65.	2	0	1	0.00	109.47	287.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8176.00	5.26	745.83	0.00	0.00	746.60	.77	.19	.12	743.27
950.	145.	651.	154.	67.	78.	56.	63.	22.	742.07
.52	2.16	8.33	2.78	.085	.042	.085	.043	740.57	185.48
.007814	30.	30.	35.	2	0	1	0.00	97.78	283.26
8206.00	5.02	746.02	745.95	0.00	746.97	.95	.28	.09	743.90
950.	125.	681.	144.	56.	75.	51.	63.	23.	743.00
.52	2.24	9.11	2.83	.085	.042	.085	.043	741.00	182.52

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7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8266.00	4.96	747.01	747.01	0.00	748.03	1.02	.66	0.00	744.95
950.	119.	690.	141.	52.	74.	49.	63.	23.	744.05
.52	2.28	9.37	2.90	.085	.042	.085	.043	742.05	184.37
.011366	55.	60.	65.	2	5	1	0.00	100.06	264.43

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7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8326.00	4.94	748.04	748.04	0.00	748.97	.93	.67	0.00	746.10
950.	125.	679.	146.	58.	75.	56.	63.	23.	745.40
.53	2.14	9.02	2.60	.085	.042	.085	.043	743.10	172.00
.010816	55.	60.	65.	2	5	1	0.00	120.21	292.21

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8386.00	4.90	749.05	749.05	0.00	749.97	.92	.65	0.00	747.15
950.	119.	671.	160.	56.	75.	55.	64.	23.	746.45
.53	2.11	8.98	2.92	.085	.042	.075	.043	744.15	172.93
.010854	55.	60.	65.	2	5	1	0.00	118.70	291.62

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8446.00	4.86	750.06	750.06	0.00	750.84	.79	.63	0.00	748.30
950.	133.	646.	171.	68.	76.	69.	64.	23.	747.90
.53	1.97	8.51	2.50	.085	.042	.075	.042	745.20	155.55
.010079	55.	60.	65.	2	5	1	0.00	155.78	311.33

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8506.00	4.87	751.12	751.12	0.00	751.89	.77	.60	0.00	749.35
950.	135.	642.	173.	69.	76.	70.	64.	23.	748.95
.53	1.96	8.42	2.48	.085	.042	.075	.042	746.25	154.83
.009824	55.	60.	65.	30	5	1	0.00	157.14	311.97

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

660' U/S FROM U/S FACE OF DRIVEWAY BRIDGE AB, VS#26 SEC. AC

8566.00	4.83	752.13	752.13	0.00	752.73	.60	.57	0.00	750.50
950.	137.	590.	223.	92.	76.	104.	65.	24.	750.40
.54	1.49	7.73	2.14	.090	.043	.080	.042	747.30	96.30
.009142	55.	60.	65.	2	6	1	0.00	228.32	324.62

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

1155' D/S FROM D/S FACE OF WELLINGTON RD BRIDGE, VS#27 SEC. AD

9066.00	5.66	756.16	0.00	0.00	756.67	.51	3.92	.02	753.70
950.	315.	635.	0.	206.	91.	0.	68.	26.	762.70
.56	1.53	6.96	0.00	.090	.043	.080	.043	750.50	33.20
.006801	500.	500.	500.	4	0	1	0.00	200.70	233.90

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9126.00	5.55	756.79	756.79	0.00	757.39	.61	.42	0.00	754.44
950.	290.	660.	0.	187.	89.	0.	68.	26.	763.44
.57	1.56	7.42	0.00	.090	.043	.080	.043	751.24	33.46
.007919	50.	60.	50.	3	6	1	0.00	200.34	233.80

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9186.00	5.51	757.49	757.49	0.00	758.13	.64	.46	0.00	755.18
950.	280.	670.	0.	179.	88.	0.	69.	27.	764.18
.57	1.56	7.60	0.00	.090	.043	.080	.043	751.98	33.55
.008400	50.	60.	50.	2	6	1	0.00	200.21	233.76

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9246.00	5.44	758.16	758.16	0.00	758.87	.71	.50	0.00	755.92
950.	264.	686.	0.	168.	87.	0.	69.	27.	764.92
.57	1.58	7.91	0.00	.090	.043	.080	.043	752.72	33.71
.009222	50.	60.	50.	2	5	1	0.00	199.99	233.70

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9306.00	5.48	758.94	758.94	0.00	759.61	.67	.51	0.00	756.66
950.	274.	676.	0.	174.	88.	0.	69.	27.	765.66

.57	1.57	7.75	0.0	.090	[illegible]	.03[illegible]	.043	753.[illegible]6	33.62
.008731	50.	60.	50.	2	5	1	0.00	200.12	233.74

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9426.00	5.72	760.62	760.62	0.00	761.34	.72	1.00	0.00	756.10
950.	92.	604.	254.	46.	72.	140.	70.	28.	759.60
.58	2.02	8.43	1.81	.090	.043	.080	.043	754.90	182.23
.008956	100.	120.	100.	6	8	1	0.00	199.12	381.36

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9546.00	5.78	762.18	762.18	0.00	762.84	.65	.96	0.00	757.60
950.	95.	588.	267.	49.	72.	149.	71.	28.	761.10
.58	1.94	8.12	1.80	.090	.043	.080	.043	756.40	180.44
.008163	100.	120.	100.	0	5	1	0.00	201.04	381.49

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

555' D/S FROM D/S FACE OF WELLINGTON RD BRIDGE, VS#28 SEC. AE

9666.00	5.69	763.59	763.59	0.00	764.28	.70	.91	0.00	759.10
950.	105.	593.	252.	44.	71.	135.	71.	28.	762.60
.59	2.40	8.35	1.86	.072	.041	.072	.043	757.90	183.29
.008051	100.	120.	100.	8	5	1	0.00	197.99	381.28

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9741.00	5.75	764.70	764.70	0.00	765.33	.63	.59	0.00	760.15
950.	107.	577.	266.	47.	72.	144.	72.	29.	763.65
.59	2.29	8.01	1.85	.072	.041	.072	.043	758.95	181.43
.007289	65.	75.	85.	30	5	1	0.00	199.98	381.41

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9816.00	5.71	765.71	765.71	0.00	766.38	.67	.58	0.00	761.20
950.	106.	586.	258.	45.	71.	139.	72.	29.	764.70
.60	2.35	8.20	1.86	.072	.041	.072	.043	760.00	182.52
.007728	65.	75.	85.	30	5	1	0.00	198.81	381.33

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
9891.00	5.74	766.79	766.79	0.00	767.43	.64	.58	0.00	762.25
950.	107.	580.	263.	46.	72.	142.	73.	30.	765.75
.60	2.31	8.08	1.85	.072	.041	.072	.043	761.05	181.83
.007445	65.	75.	85.	30	5	1	0.00	199.56	381.39

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

3470 ENCROACHMENT STATIONS= 249.0 367.0 TYPE= 1 TARGET= 118.000

75' D/S FROM D/S FACE OF WELLINGTON RD BRIDGE, VS#29 SEC. AF

10116.00	4.27	768.47	0.00	0.00	769.08	.61	1.64	.01	766.80
950.	64.	680.	206.	35.	94.	71.	74.	30.	766.40
.61	1.81	7.20	2.91	.060	.038	.060	.042	764.20	254.29

.006885	200.	225.	250.	0	0	1	0.00	112.71	367.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 255.0 360.0 TYPE= 1 TARGET= 105.000

D/S FACE OF WELLINGTON RD BRIDGE, BS#30 SEC. AG

10191.00	5.65	769.25	0.00	0.00	769.42	.17	.21	.13	766.20
950.	168.	536.	246.	94.	133.	110.	74.	31.	765.80
.62	1.79	4.02	2.25	.055	.041	.055	.042	763.60	255.00
.001509	80.	75.	70.	2	0	1	0.00	105.00	360.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	3.03	0.00	9.13	0.00	75.75	.37	763.60	763.60

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
773.08	772.75	0.00	86.	859.	76.	770.20	771.50	30.00

$\frac{859}{75.75} = 11.34$ ft/sec = V ?

U/S FACE OF WELLINGTON RD BRIDGE, BS#30 SEC. AG

10221.00	8.50	772.10	0.00	0.00	772.38	.29	2.97	0.00	763.60
950.	246.	566.	138.	192.	103.	130.	74.	31.	765.60
.62	1.29	5.49	1.06	.100	.032	.100	.042	763.60	156.37
.000990	30.	30.	30.	2	0	3	0.00	101.55	257.92

3470 ENCROACHMENT STATIONS= 205.0 424.0 TYPE= 1 TARGET= 219.000

10276.00	8.16	772.46	0.00	0.00	772.48	.02	.02	.08	766.80
950.	219.	335.	396.	296.	205.	459.	75.	31.	766.40
.63	.74	1.63	.86	.065	.045	.065	.042	764.30	205.00
.000176	55.	55.	55.	2	0	1	0.00	219.00	424.00

10441.00	6.12	772.49	0.00	0.00	772.56	.08	.05	.03	768.87
950.	156.	437.	357.	130.	148.	257.	78.	32.	768.47
.66	1.20	2.96	1.39	.065	.045	.065	.042	766.37	231.25
.000892	200.	165.	130.	2	0	1	0.00	189.66	420.91

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10523.00	5.32	772.71	772.71	0.00	773.48	.77	.17	0.00	770.39

no change in topo - insignificant

95.	100.	631.	153.	53.	75.	50.	79.	32.	771.57
.66	2.64	8.44	2.71	.065	.045	.065	.042	767.39	128.67
.010978	100.	82.	65.	30	10	1	0.00	119.35	248.01

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10606.00	5.21	773.64	773.64	0.00	774.52	.88	.98	0.00	771.43
950.	158.	651.	142.	57.	73.	51.	79.	32.	772.63
.66	2.75	8.90	2.75	.065	.045	.065	.042	768.43	131.07
.012614	100.	83.	65.	1	5	1	0.00	116.36	247.43

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10688.00	5.29	774.75	774.75	0.00	775.55	.80	.99	0.00	772.46
950.	164.	636.	150.	61.	74.	55.	79.	32.	773.66
.67	2.67	8.55	2.72	.065	.045	.065	.042	769.46	129.29
.011376	100.	82.	65.	0	5	1	0.00	118.58	247.86

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

550' U/S FROM U/S FACE OF WELLINGTON RD BRIDGE, VS#31 SEC. AH

10771.00	5.24	775.74	775.74	0.00	776.59	.85	.98	0.00	773.50
950.	160.	646.	144.	59.	73.	53.	80.	33.	774.70
.67	2.72	8.79	2.74	.065	.045	.065	.043	770.50	130.49
.012195	100.	83.	65.	1	5	1	0.00	117.08	247.57

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

11021.00	5.89	778.26	0.00	0.00	778.64	.38	1.91	.14	775.37
950.	217.	534.	200.	97.	84.	84.	81.	33.	776.57
.68	2.24	6.32	2.37	.065	.045	.065	.043	772.37	120.65
.005238	250.	250.	250.	2	0	1	0.00	130.57	251.22

11271.00	5.27	779.50	0.00	0.00	780.11	.61	1.36	.12	777.13
950.	31.	578.	341.	14.	73.	208.	83.	34.	777.73
.70	2.24	7.95	1.64	.075	.035	.085	.042	774.23	15.05
.005628	250.	250.	250.	3	0	1	0.00	186.86	201.91

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11396.00	5.10	780.27	780.27	0.00	781.04	.77	.79	0.00	778.07
950.	30.	608.	312.	12.	70.	181.	84.	35.	778.67
.70	2.39	8.69	1.73	.075	.035	.085	.042	775.17	15.30
.007083	125.	125.	125.	2	8	1	0.00	179.04	194.34

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

1300' U/S FROM U/S FACE OF WELLINGTON RD BRIDGE, VS#32 SEC. AI

11521.00	5.10	781.20	781.20	0.00	781.97	.77	.89	0.00	779.00
950.	30.	609.	312.	12.	70.	180.	84.	35.	779.60
.71	2.39	8.70	1.73	.075	.035	.085	.042	776.10	15.31
.007106	125.	125.	125.	0	5	1	0.00	178.90	194.21

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

11621.00	5.1	782.70	782.70	0.00	783.47	.77	.72	.0	780.50
950.	30.	609.	312.	12.	70.	180.	85.	36.	781.10
.71	2.39	8.70	1.73	.075	.035	.085	.042	777.60	15.31
.007105	95.	100.	105.	30	5	1	0.00	178.90	194.21

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11721.00	5.10	784.20	784.20	0.00	784.97	.77	.72	0.00	782.00
950.	30.	609.	312.	12.	70.	180.	86.	36.	782.60
.72	2.39	8.70	1.73	.075	.035	.085	.042	779.10	15.31
.007106	95.	100.	105.	30	5	1	0.00	178.90	194.21

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11821.00	5.54	786.14	786.14	0.00	786.85	.71	.67	0.00	784.80
950.	143.	750.	57.	96.	99.	54.	86.	37.	785.30
.72	1.48	7.60	1.05	.075	.035	.085	.042	780.60	189.70
.006324	95.	100.	105.	30	8	1	0.00	223.70	413.40

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11921.00	5.55	787.65	787.65	0.00	788.35	.70	.62	0.00	786.30
950.	145.	747.	58.	98.	99.	56.	87.	37.	786.80
.73	1.48	7.54	1.05	.075	.035	.085	.042	782.10	189.43
.006191	95.	100.	105.	30	5	1	0.00	224.31	413.74

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12021.00	5.54	789.14	789.14	0.00	789.85	.71	.62	0.00	787.80
950.	144.	749.	58.	97.	99.	55.	87.	38.	788.30
.73	1.48	7.57	1.05	.075	.035	.085	.042	783.60	189.57
.006260	95.	100.	105.	30	5	1	0.00	223.99	413.56

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

1900' U/S FROM U/S FACE OF WELLINGTON RD BRIDGE, VS#33 SEC. AJ

12121.00	5.55	790.65	790.65	0.00	791.35	.70	.62	0.00	789.30
950.	144.	748.	58.	97.	99.	55.	88.	38.	789.80
.73	1.48	7.55	1.05	.075	.035	.085	.042	785.10	189.50
.006223	95.	100.	105.	30	5	1	0.00	224.16	413.66

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12221.00	5.54	791.89	791.89	0.00	792.60	.71	.62	0.00	790.55
950.	144.	748.	58.	97.	99.	55.	88.	39.	791.05
.74	1.48	7.56	1.05	.075	.035	.085	.042	786.35	189.54
.006243	100.	100.	100.	3	5	1	0.00	224.07	413.60

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

12321.00	5.55	793.15	793.15	0.00	793.85	.70	.62	0.00	791.80
950.	144.	748.	58.	97.	99.	55.	89.	39.	792.30
.74	1.48	7.56	1.05	.075	.035	.085	.042	787.60	189.51
.006232	100.	100.	100.	3	5	1	0.00	224.12	413.63

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
12521.00	4.72	794.82	0.00	0.00	794.95	.13	.93	.17	794.70
950.	137.	321.	492.	119.	71.	307.	91.	40.	792.40
.77	1.15	4.52	1.60	.080	.045	.090	.042	790.10	36.53
.003622	200.	200.	200.	2	0	1	0.00	292.30	329.83

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
12621.00	3.92	795.27	795.27	0.00	795.82	.55	.65	0.00	795.95
950.	43.	464.	442.	33.	57.	186.	92.	41.	793.65
.77	1.30	8.20	2.38	.080	.045	.090	.042	791.35	38.64
.015239	100.	100.	100.	2	9	1	0.00	250.77	326.93

3265 DIVIDED FLOW

2500' U/S FROM U/S FACE OF WELLINGTON RD BRIDGE, VS#34 SEC. AK

12721.00	4.14	796.74	0.00	0.00	797.09	.35	1.21	.06	797.20
950.	70.	413.	466.	54.	61.	219.	92.	41.	794.90
.78	1.31	6.83	2.13	.080	.045	.090	.042	792.60	38.06
.009855	100.	100.	100.	2	0	1	0.00	264.13	327.46

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
12971.00	3.99	799.76	799.76	0.00	800.24	.47	2.57	0.00	800.37
950.	52.	447.	451.	40.	58.	197.	94.	43.	798.07
.79	1.32	7.71	2.29	.080	.045	.090	.042	795.77	38.45
.013173	270.	250.	200.	2	10	1	0.00	255.12	327.11

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13096.00	5.52	802.86	802.86	0.00	803.66	.80	1.46	0.00	800.54
950.	108.	690.	152.	46.	83.	85.	95.	43.	801.54
.80	2.34	8.33	1.78	.095	.047	.095	.042	797.34	175.61
.011647	135.	125.	100.	30	9	1	0.00	132.64	308.25

Check the change in width.

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13221.00	5.42	804.35	804.35	0.00	805.25	.90	1.51	0.00	802.13
950.	104.	707.	139.	43.	81.	78.	95.	44.	803.13
.80	2.42	8.72	1.79	.095	.047	.095	.042	798.93	176.27
.013161	135.	125.	100.	2	5	1	0.00	131.14	307.41

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13346.00	5.47	805.99	805.99	0.00	806.83	.85	1.56	0.00	803.72
950.	106.	698.	145.	45.	82.	81.	96.	44.	804.72
.81	2.38	8.52	1.78	.095	.047	.095	.042	800.52	175.94
.012371	135.	125.	100.	2	5	1	0.00	131.89	307.83

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

300' D/S FROM D/S FACE OF MIDDLEBELT RD BRIDGE, VS#35 SEC. AL

13471.00	5.45	807.55	807.55	0.00	808.42	.87	1.53	0.00	805.30
950.	106.	702.	142.	44.	82.	80.	96.	44.	806.30
.81	2.40	8.61	1.79	.095	.047	.095	.042	802.10	176.08
.012714	135.	125.	100.	2	5	1	0.00	131.56	307.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 170.0 265.0 TYPE= 1 TARGET= 95.000

13538.00	5.45	808.65	808.65	0.00	809.70	1.05	.90	0.00	806.40
950.	112.	748.	89.	44.	82.	43.	96.	45.	807.40
.81	2.55	9.18	2.06	.095	.047	.095	.042	803.20	176.10
.014468	70.	67.	60.	2	5	1	0.00	88.90	265.00

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

13605.00	5.19	809.49	809.45	0.00	811.10	1.61	1.13	.28	812.60
950.	0.	950.	0.	0.	93.	0.	97.	45.	810.10
.81	0.00	10.19	0.00	.085	.043	.090	.042	804.30	356.37
.019899	70.	67.	60.	4	11	1	0.00	28.47	384.85

100' D/S FROM D/S FACE OF MIDDLEBELT RD BRIDGE, VS#36 SEC. AM

13671.00	5.69	811.09	0.00	0.00	812.29	1.21	1.07	.12	813.70
950.	0.	950.	0.	0.	108.	0.	97.	45.	811.20
.82	0.00	8.81	0.00	.085	.043	.090	.042	805.40	355.36
.013438	70.	66.	60.	4	0	1	0.00	30.43	385.79

3470 ENCROACHMENT STATIONS= 362. 380.0 TYPE= 1 TARGET= 18.0 0

13761.00	7.11	812.24	0.00	0.00	813.32	1.08	.99	.04	100000.00
950.	0.	950.	0.	0.	114.	0.	97.	45.	100000.00
.82	0.00	8.34	0.00	.085	.043	.090	.042	805.13	362.00
.009094	90.	90.	90.	2	0	1	0.00	18.00	380.00

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 814.60 ELREA= 814.60

D/S FACE OF MIDDLEBELT RD BRIDGE, BS#37 SEC. AN

13771.00	6.52	811.62	0.00	0.00	814.13	2.51	.10	.72	806.20
950.	0.	950.	0.	0.	75.	0.	97.	45.	805.10
.82	0.00	12.72	0.00	.055	.035	.055	.042	805.10	300.00
.010775	10.	10.	10.	3	0	1	0.00	13.00	325.85

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.75	3.03	0.00	7.78	0.00	77.90	.35	805.10	805.10

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
815.66	814.13	0.00	0.	950.	78.	812.60	817.30	10.00

$\frac{950}{79} = 12.2$ 1" = V

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 817.90 ELREA= 817.90

U/S FACE OF MIDDLEBELT RD BRIDGE, BS#37 SEC. AN

13824.00	9.46	814.56	0.00	0.00	815.66	1.10	1.53	0.00	806.20
950.	0.	950.	0.	0.	113.	0.	97.	45.	805.10
.82	0.00	8.41	0.00	.055	.035	.055	.042	805.10	300.00
.003256	53.	53.	53.	3	0	1	0.00	13.00	331.65

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 361.0 380.0 TYPE= 1 TARGET= 19.000

13827.00	10.31	815.43	0.00	0.00	815.87	.44	.01	.20	99999.72
950.	0.	950.	0.	0.	179.	0.	97.	45.	99999.72
.82	0.00	5.30	0.00	.070	.048	.070	.042	805.12	361.00
.003355	3.	3.	3.	2	0	1	0.00	19.00	380.00

D/S FACE OF DAM SECTION 350' U/S FROM MIDDLEBELT RD, DS#38 SEC. AO

14174.00	8.83	816.23	0.00	0.00	816.29	.06	.31	.11	812.60
950.	477.	349.	124.	576.	115.	164.	101.	46.	812.10
.88	.83	3.05	.76	.080	.032	.070	.042	807.40	56.95
.000409	347.	347.	347.	2	0	1	0.00	278.73	335.68
14176.00	6.84	816.24	0.00	0.00	816.30	.06	.00	.00	812.60
950.	510.	307.	133.	576.	99.	164.	101.	46.	812.10
.88	.89	3.10	.81	.080	.032	.070	.042	809.40	56.92
.000466	2.	2.	2.	0	0	1	0.00	278.77	335.69

550' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#39 SEC. AP

14376.00	7.67	816.37	0.00	0.00	816.51	.14	.18	.04	813.90
950.	464.	412.	73.	371.	96.	74.	105.	47.	813.50
.90	1.25	4.29	.99	.095	.047	.095	.042	808.70	66.70
.002233	200.	200.	200.	2	0	1	0.00	251.72	318.42
14476.00	6.84	816.57	0.00	0.00	816.97	.40	.33	.13	814.93
950.	363.	544.	43.	230.	83.	33.	105.	48.	814.53
.91	1.58	6.58	1.31	.095	.047	.095	.042	809.73	73.72
.006405	80.	100.	120.	2	0	1	0.00	216.08	289.80
14526.00	6.59	816.83	0.00	0.00	817.42	.58	.36	.09	815.44
950.	316.	598.	35.	190.	79.	25.	106.	48.	815.04
.91	1.67	7.60	1.39	.095	.047	.095	.042	810.24	75.78
.009111	40.	50.	60.	2	0	1	0.00	207.57	283.35

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14576.00	6.54	817.29	817.29	0.00	817.92	.63	.45	0.00	815.95
950.	304.	612.	34.	181.	78.	24.	106.	48.	815.55
.91	1.69	7.86	1.42	.095	.047	.095	.042	810.75	76.25
.009891	40.	50.	60.	2	6	1	0.00	206.23	282.48

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 360.0 500.0 TYPE= 1 TARGET= 140.000

14676.00	6.42	818.19	0.00	0.00	818.41	.22	.37	.12	816.97

```
    865.      37.      587.     239.      37.     131.     180.     107.      40.    815.57
     .92     1.00      4.50     1.29    .060     .042     .090     .042    811.77    360.00
 .001823      80.      100.     120.       2        0        1     0.00    140.00    500.00


3470 ENCROACHMENT STATIONS=      356.0     468.0  TYPE=     1  TARGET=     112.000

        950' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#40          SEC. AQ

 14776.00     5.48   818.28      0.00     0.00   818.94      .66      .30      .22    818.00
    865.       1.      748.      115.       3.     108.      69.     107.      49.    816.60
     .93      .50      6.96     1.67     .060     .042     .090     .042    812.80    380.76
 .005475      80.      100.     120.       2        0        1     0.00     87.24    468.00


3470 ENCROACHMENT STATIONS=      394.0     431.0  TYPE=     1  TARGET=      37.000
 14926.00     5.89   819.07      0.00     0.00   819.76      .69      .81      .02    818.08
    865.       7.      826.       32.       6.     121.      14.     108.      49.    816.68
     .93     1.21      6.81     2.24     .085     .042     .085     .042    813.18    394.00
 .005168     120.      150.     180.       2        0        1     0.00     37.00    431.00


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      404.0     421.0  TYPE=     1  TARGET=      17.000
 14966.00     5.79   819.07      0.00     0.00   820.39     1.32      .31      .31100000.00
    865.       0.      865.       0.       0.      94.       0.     108.      49. 100000.00
     .93     0.00      9.21     0.00     .085     .042     .085     .042    813.28    404.00
 .012782      40.       40.      40.       2        0        1     0.00     17.00    421.00


3470 ENCROACHMENT STATIONS=      405.0     420.0  TYPE=     1  TARGET=      15.000
 14971.00     5.66   818.95      0.00     0.00   820.66     1.71      .08      .20100000.00
    865.       0.      865.       0.       0.      82.       0.     108.      49. 100000.00
     .93     0.00     10.51     0.00     .085     .042     .085     .042    813.29    405.00
 .018091       5.        5.       5.       2        0        1     0.00     15.00    420.00


3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

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


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      821.20 ELREA=      821.20

 14976.00     6.70   820.00    820.00      0.00   822.75     2.75      .12      0.00    813.90
    865.       0.      865.       0.       0.      65.       0.     108.      49.     813.30
     .93     0.00     13.31     0.00     .080     .042     .080     .042    813.30    390.00
 .030533       5.        5.       5.      30       11        1     0.00     12.00    448.62
```

rshwel.

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 821.20 ELREA= 821.20

D/S FACE OF 13 MILE RD BRIDGE, BS#41 SEC. AR

14977.00	7.88	821.18	0.00	0.00	823.04	1.85	.01	.27	813.90
865.	0.	865.	0.	0.	79.	0.	108.	49.	813.30
.93	0.00	10.92	0.00	.050	.024	.050	.042	813.30	390.00
.005513	1.	1.	1.	14	0	1	0.00	12.00	402.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.78	3.03	0.00	11.34	0.00	78.20	.05	813.30	813.30

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

✓ 811.06 1/11

EGPRS	EGLMC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
824.57	823.04	0.00	0.	865.	78.	820.20	825.60	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 825.60 ELREA= 825.60

U/S FACE OF 13 MILE RD BRIDGE, BS#41 SEC. AR

15025.00	10.27	823.57	0.00	0.00	824.57	1.00	1.53	0.00	813.90
865.	0.	865.	0.	0.	108.	0.	108.	49.	813.30
.94	0.00	8.03	0.00	.050	.024	.050	.042	813.30	390.00
.002258	48.	48.	48.	3	0	1	0.00	12.00	402.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 372.0 390.0 TYPE= 1 TARGET= 18.000

15028.00	11.07	824.47	0.00	0.00	824.78	.31	.01	.21	99999.10
865.	0.	865.	0.	0.	194.	0.	108.	49.	99999.10
.94	0.00	4.45	0.00	.050	.037	.050	.042	813.40	372.00
.001485	3.	3.	3.	2	0	1	0.00	18.00	390.00

3470 ENCROACHMENT STATIONS= 367.0 395.0 TYPE= 1 TARGET= 28.000

30' U/S FROM U/S FACE OF 13 MILE RD BRIDGE, VS#42 SEC. AS

15055.00	10.50	824.80	0.00	0.00	824.87	.06	.02	.07100000.00

565.	0.	565.	0.	0.	218.	0.	108.	49.	00.00
.94	0.00	2.04	0.00	.050	.037	.050	.042	814.30	367.00
.000231	27.	27.	27.	2	0	1	0.00	28.00	395.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 830.00 ELREA= 830.00

BRICK WALL AT MONASTERY, BS#43 SEC. AT

15075.00	10.87	824.77	0.00	0.00	824.92	.15	.01	.04	819.70
565.	0.	565.	0.	0.	182.	0.	108.	49.	819.80
.94	0.00	3.10	0.00	.045	.035	.045	.042	813.90	298.00
.000567	20.	20.	20.	2	0	1	0.00	18.00	316.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.64	2.60	0.00	6.31	0.00	84.44	.29	813.90	813.90

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
825.91	824.92	0.00	0.	565.	84.	819.80	830.90	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 830.90 ELREA= 830.90

15077.00	11.88	825.78	0.00	0.00	825.91	.12	.99	0.00	819.70
565.	0.	565.	0.	0.	201.	0.	109.	49.	819.80
.94	0.00	2.82	0.00	.045	.035	.045	.042	813.90	298.00
.000429	2.	2.	2.	2	0	1	0.00	18.00	316.00

3470 ENCROACHMENT STATIONS= 75.0 155.0 TYPE= 1 TARGET= 80.000

15197.00	11.70	825.90	0.00	0.00	825.95	.05	.03	.02	819.00
565.	140.	295.	129.	150.	126.	100.	109.	49.	817.90
.96	.93	2.35	1.29	.045	.032	.045	.042	814.20	75.00
.000167	160.	120.	10.	2	0	1	0.00	80.00	155.00

NORMAL BRIDGE,NRD=14 MIN ELTRD= 820.00 MAX ELLC= 819.90

3470 ENCROACHMENT STATIONS= 75.0 155.0 TYPE= 1 TARGET= 80.000

15198.00	11.72	825.92	0.00	0.00	825.96	.04	.00	.00	819.00
565.	180.	214.	171.	147.	120.	99.	109.	49.	817.90
.96	1.22	1.78	1.73	.045	.030	.045	.042	814.20	75.00
.000303	1.	1.	1.	1	0	1	-10.92	80.00	155.00

[illegible] BRIDGE, RD=1 IN ELTRD= [illegible] .00 MX ELLC= 81.[illegible]

3470 ENCROACHMENT STATIONS= 75.0 155.0 TYPE= 1 TARGET= 80.000

U/S FACE OF WALK BRIDGE ON MONASTERY PROP., BS#44 SEC. AU

15204.00	11.72	825.92	0.00	0.00	825.96	.04	.00	.00	819.00
565.	180.	214.	171.	147.	120.	99.	109.	49.	817.90
.96	1.22	1.78	1.73	.045	.030	.045	.042	814.20	75.00
.000302	6.	6.	6.	0	0	1	-10.92	80.00	155.00

3470 ENCROACHMENT STATIONS= 75.0 155.0 TYPE= 1 TARGET= 80.000

15205.00	11.71	825.91	0.00	0.00	825.97	.05	.00	.01	819.00
565.	141.	295.	129.	151.	126.	100.	109.	49.	817.90
.96	.93	2.35	1.29	.045	.032	.045	.042	814.20	75.00
.000166	1.	1.	1.	0	0	1	0.00	80.00	155.00

3470 ENCROACHMENT STATIONS= 129.0 139.0 TYPE= 1 TARGET= 18.000

15325.00	10.14	825.74	0.00	0.00	826.25	.52	.05	.23	821.90
565.	0.	565.	0.	0.	98.	0.	110.	49.	100000.00
.97	.02	5.77	0.00	.050	.035	.050	.042	815.60	128.99
.003048	200.	120.	50.	2	0	1	0.00	10.01	139.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.59	3.07	0.00	9.35	0.00	50.50	0.00	815.60	815.60

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

PRESSURE FLOW

V=11.2'/"

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
828.83	826.25	0.00	0.	565.	51.	821.00	835.00	10.00

3470 ENCROACHMENT STATIONS= 129.0 139.0 TYPE= 1 TARGET= 18.000

U/S FACE OF A.C. FENCE & BRIDGE AT MONASTERY, BS#44A SEC. AV

15340.00	12.91	828.51	0.00	0.00	828.83	.31	2.57	0.00	821.90
565.	0.	565.	0.	0.	126.	0.	110.	49.	100000.00
.97	.01	4.49	0.00	.050	.035	.050	.042	815.60	128.99
.001523	15.	15.	15.	2	0	1	0.00	10.01	139.00

3470 ENCROACHMENT STATIONS= .0 330.0 TYPE= 1 TARGET= 329.999

150' D/S FROM D/S FACE OF BRIDGE TO SCHOOL, VS#45 SEC. AW

15465.00	11.72	828.92	0.00	0.00	828.93	.01	.01	.09	821.50

865.	175.	232.	458.	535.	297.	1090.	113.	50.	821.80
1.03	.28	.94	.42	.090	.038	.080	.042	817.20	40.87
.000030	125.	125.	125.	2	0	1	0.00	289.13	330.00

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

15540.00	10.97	828.92	0.00	0.00	828.93	.01	.00	.00	822.25
865.	191.	197.	478.	519.	229.	993.	116.	50.	822.55
1.07	.37	.86	.48	.060	.036	.060	.042	817.95	70.00
.000025	85.	75.	65.	2	0	1	0.00	260.00	330.00

3470 ENCROACHMENT STATIONS= 75.0 310.0 TYPE= 1 TARGET= 235.000

15615.00	10.22	828.92	0.00	0.00	828.93	.01	.00	.00	823.00
865.	195.	228.	443.	433.	210.	745.	119.	51.	823.30
1.10	.45	1.08	.59	.060	.036	.060	.042	818.70	75.00
.000044	85.	75.	65.	0	0	1	0.00	235.00	310.00

3470 ENCROACHMENT STATIONS= 75.0 310.0 TYPE= 1 TARGET= 235.000

MANNING COEFFICIENT IS NOT REALISTIC, SET FOR FLOW CONTINUITY

15616.00	10.22	828.92	0.00	0.00	828.93	.01	.00	.00	823.00
865.	262.	8.	595.	433.	210.	745.	119.	51.	823.30
1.10	.60	.04	.80	.035	.800	.035	.042	818.70	75.00
.000027	1.	1.	1.	0	0	1	0.00	235.00	310.00

more detailed reason is needed to explain why 15616 15660 channel n = 0.8

refer to I&A revision Detail

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.86	3.04	0.00	7.02	0.00	19.66	0.00	819.50	818.70

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
884.84	829.73	0.00	839.	28.	20.	821.80	825.40	30.00

U/S FACE OF BRIDGE TO SCHOOL, BS#46 SEC. AX

15660.00	9.47	828.97	0.00	0.00	828.99	.01	.05	0.00	820.40
865.	578.	4.	283.	695.	77.	348.	120.	51.	820.80
1.11	.83	.05	.81	.035	.800	.035	.044	819.50	135.61
.000073	44.	44.	44.	1	0	8	0.00	434.44	570.05

see the topwidth now is 44 ft from 435 to 434.44' in reach length

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

15661.00	9.47	828.97	0.00	0.00	828.99	.02	.00	.01	820.40
865.	461.	178.	226.	694.	79.	347.	120.	51.	820.80
1.11	.67	2.24	.65	.075	.040	.075	.044	819.50	135.76
.000214	1.	1.	1.	1	0	1	0.00	434.08	569.85

300' U/S FROM U/S FACE OF BRIDGE TO SCHOOL, VS#47 SEC. AY

15961.00	8.50	829.00	0.00	0.00	829.03	.03	.04	.00	823.10
865.	554.	311.	0.	557.	159.	0.	123.	52.	839.80
1.14	.99	1.95	0.00	.070	.045	.070	.044	820.50	99.27
.000352	10.	300.	400.	0	0	1	0.00	186.43	285.70
16176.00	6.80	829.10	0.00	0.00	829.20	.10	.13	.04	824.90
865.	462.	403.	0.	307.	118.	0.	125.	53.	841.60
1.17	1.51	3.41	0.00	.070	.045	.070	.044	822.30	129.04
.001405	215.	215.	215.	2	0	1	0.00	154.87	283.91

1490 NH CARD USED

16391.00	5.26	829.36	0.00	0.00	829.41	.05	.18	.02	826.40
865.	317.	266.	282.	219.	114.	232.	128.	54.	826.30
1.21	1.44	2.33	1.22	.045	.038	.050	.044	824.10	36.49
.000580	215.	215.	215.	2	0	1	0.00	236.58	273.07
16462.00	4.70	829.40	0.00	0.00	829.48	.08	.06	.02	827.00
865.	304.	304.	257.	168.	98.	171.	129.	54.	826.90
1.21	1.81	3.12	1.51	.045	.037	.050	.044	824.70	39.99
.001240	71.	71.	71.	2	0	1	0.00	225.30	265.30
16534.00	4.19	829.49	0.00	0.00	829.65	.16	.13	.04	827.60
865.	282.	360.	223.	123.	82.	119.	129.	54.	827.50
1.22	2.29	4.37	1.88	.045	.037	.050	.044	825.30	43.18
.002919	72.	72.	72.	2	0	1	0.00	215.02	258.20

150' D/S FROM D/S FACE OF WEST GATE RD BRIDGE, VS#48 SEC. AZ

16606.00	3.81	829.71	0.00	0.00	830.04	.33	.30	.08	828.20
865.	254.	428.	183.	90.	71.	82.	130.	55.	828.10
1.23	2.81	6.04	2.23	.045	.036	.050	.044	825.90	45.58
.006449	72.	72.	72.	2	0	1	0.00	207.31	252.89
16756.00	4.95	830.35	0.00	0.00	830.45	.10	.34	.07	827.70
865.	249.	376.	240.	191.	105.	197.	131.	56.	827.60
1.24	1.30	3.57	1.22	.065	.032	.065	.044	825.40	38.42
.001160	150.	150.	150.	2	0	1	0.00	230.36	268.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.76	3.03	0.00	8.00	0.00	54.00	0.00	825.60	825.40

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	-	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

837.37	832.95	0.00	204.	664.	54.	831.80	833.40	30.00

U/S FACE OF WEST GATE RD BRIDGE, BS#49 SEC. BA

16786.00	8.79	834.39	0.00	0.00	834.49	.10	4.03	0.00	831.00
865.	216.	583.	66.	209.	198.	73.	131.	56.	831.30
1.25	1.04	2.94	.90	.050	.034	.050	.044	825.60	441.72
.000514	30.	30.	30.	2	0	5	0.00	221.49	663.21

300' U/S FROM U/S FACE OF WEST GATE RD BRIDGE, VS#50 SEC. BB

17086.00	4.72	834.62	0.00	0.00	834.71	.09	.23	.00	832.00
865.	105.	161.	599.	84.	45.	270.	134.	57.	831.50
1.28	1.25	3.60	2.22	.050	.035	.050	.044	829.90	123.07
.001232	300.	300.	300.	2	0	1	0.00	166.22	289.29
17196.00	4.18	834.78	0.00	0.00	834.93	.15	.18	.03	832.70
865.	79.	177.	609.	53.	39.	221.	135.	57.	832.20
1.29	1.50	4.59	2.75	.050	.035	.050	.044	830.60	136.37
.002419	110.	110.	110.	2	0	1	0.00	150.47	286.84

3605 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
17251.00	4.22	835.17	835.17	0.00	835.66	.49	.22	0.00	833.75
865.	456.	370.	40.	148.	47.	18.	136.	58.	833.65
1.30	3.07	7.87	2.19	.045	.035	.050	.044	830.95	121.99
.007876	55.	55.	55.	30	5	1	0.00	190.91	312.89
17306.00	4.43	835.73	0.00	0.00	836.05	.32	.34	.05	834.10
865.	491.	329.	45.	182.	50.	23.	136.	58.	834.00
1.30	2.70	6.59	1.92	.045	.035	.050	.044	831.30	111.02
.005083	55.	55.	55.	3	0	1	0.00	205.18	316.20

630' U/S FROM U/S FACE OF WEST GATE RD BRIDGE, VS#51 SEC. BC

17416.00	4.31	836.31	0.00	0.00	836.72	.40	.63	.04	834.80
865.	473.	350.	42.	163.	48.	20.	137.	58.	834.70
1.31	2.90	7.24	2.06	.045	.035	.050	.044	832.00	116.99
.006421	110.	110.	110.	2	0	1	0.00	197.41	314.40

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

17516.00	4.47	836.95	0.00	0.00	837.25	.29	.50	.03	835.28
865.	499.	320.	46.	190.	51.	25.	137.	59.	835.18
1.31	2.62	6.32	1.86	.045	.035	.050	.044	832.48	108.40
.004600	85.	100.	105.	2	0	1	0.00	208.60	317.00

17616.00	4.42	837.38	0.00	0.00	837.71	.33	.44	.02	835.76
865.	491.	329.	45.	181.	50.	23.	138.	59.	835.66
1.32	2.71	6.61	1.92	.045	.035	.050	.044	832.96	111.23
.005122	85.	100.	105.	3	0	1	0.00	204.92	316.14

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
17716.00	5.99	839.43	839.43	0.00	840.26	.83	.41	0.00	833.64
865.	183.	529.	153.	85.	58.	56.	138.	60.	833.64
1.32	2.15	9.16	2.72	.050	.032	.050	.044	833.44	71.22
.003770	85.	100.	105.	30	9	1	0.00	131.67	202.89

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
17816.00	5.89	839.81	839.81	0.00	840.73	.92	.39	0.00	834.12
1167 865.	174.	542.	150.	78.	57.	53.	139.	60.	834.12
1.33	2.23	9.53	2.85	.050	.032	.050	.044	833.92	75.06
.004175	85.	100.	105.	2	8	1	0.00	125.85	200.91

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1217 17866.00	5.88	840.04	840.04	0.00	840.97	.94	.21	0.00	834.36
865.	172.	544.	149.	76.	57.	52.	139.	60.	834.36
1.33	2.25	9.60	2.87	.050	.032	.050	.044	834.16	75.75

.004252	45.	50.	55.	1	5	1	0.00	12[illegible].81	20[illegible].55

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
17916.00	6.04	840.44	840.44	0.00	841.42	.98	.22	0.00	834.60
865.	187.	524.	154.	80.	52.	53.	139.	60.	834.60
1.33	2.33	9.99	2.92	.050	.032	.050	.044	834.40	62.18
.004444	45.	50.	55.	3	8	1	0.00	121.40	183.58

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

NORMAL BRIDGE,NRD= 8 MIN ELTRD= 838.60 MAX ELLC= 837.10

17917.00	7.17	841.57	0.00	0.00	841.68	.11	.00	.26	834.60
865.	460.	115.	290.	170.	45.	105.	139.	60.	834.60
1.33	2.71	2.54	2.76	.025	.025	.025	.044	834.40	41.87
.000923	1.	1.	1.	5	0	1	-31.18	163.37	205.24

NORMAL BRIDGE,NRD=10 MIN ELTRD= 838.60 MAX ELLC= 837.10

U/S FACE OF BRIDGE IN GOLF COURSE, BS#52 SEC. BD

17941.00	7.19	841.59	0.00	0.00	841.70	.11	.02	.00	834.60
865.	448.	109.	308.	172.	45.	108.	139.	60.	834.60
1.33	2.61	2.41	2.85	.025	.025	.025	.044	834.40	41.76
.000823	24.	24.	24.	2	0	1	-31.18	164.31	206.07
17942.00	7.14	841.54	0.00	0.00	841.76	.22	.00	.05	834.60
865.	313.	344.	208.	176.	62.	109.	139.	60.	834.60
1.33	1.78	5.52	1.90	.045	.032	.045	.044	834.40	42.01
.001075	1.	1.	1.	2	0	1	0.00	163.06	205.07
18102.00	6.28	841.58	0.00	0.00	842.20	.62	.24	.20	835.50
865.	230.	457.	178.	98.	55.	64.	140.	61.	835.50
1.34	2.34	8.37	2.78	.045	.032	.045	.044	835.30	53.32
.002955	150.	160.	100.	2	0	1	0.00	135.59	188.90
18262.00	6.15	842.35	0.00	0.00	842.65	.30	.35	.10	838.10
865.	278.	343.	244.	139.	52.	120.	141.	61.	836.40
1.35	2.00	6.54	2.03	.045	.032	.045	.044	836.20	55.90

.002 78	150.	160.	100.	4	0	1	0.0	1 8.22	252.12

NORMAL BRIDGE,NRD=11 MIN ELTRD= 840.00 MAX ELLC= 839.20

18263.00	6.41	842.61	0.00	0.00	842.71	.10	.00	.06	838.10
865.	374.	145.	346.	161.	45.	142.	141.	61.	836.40
1.35	2.31	3.24	2.43	.035	.025	.035	.043	836.20	53.18
.001598	1.	1.	1.	3	0	1	-16.88	202.69	255.87

NORMAL BRIDGE,NRD=11 MIN ELTRD= 840.00 MAX ELLC= 839.20

U/S FACE OF BRIDGE IN GOLF COURSE, BS#52A SEC. BE

18270.00	6.42	842.62	0.00	0.00	842.72	.10	.01	.00	838.10
1658 865.	374.	144.	346.	163.	45.	143.	141.	61.	836.40
1.35	2.30	3.21	2.41	.035	.025	.035	.043	836.20	53.05
.001563	7.	7.	7.	0	0	1	-16.88	203.00	256.04

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
18271.00	6.36	842.56	0.00	0.00	842.78	.22	.00	.06	838.10
865.	293.	316.	256.	161.	54.	140.	141.	61.	836.40
1.35	1.81	5.81	1.83	.045	.031	.045	.043	836.20	53.66
.001462	1.	1.	1.	2	0	1	0.00	201.54	255.20
18471.00	6.22	842.92	0.00	0.00	843.04	.12	.22	.03	836.80
865.	581.	219.	65.	350.	46.	46.	143.	62.	836.70
1.37	1.66	4.76	1.41	.045	.031	.045	.043	836.70	63.09
.000876	200.	200.	200.	2	0	1	0.00	201.13	264.22

NORMAL BRIDGE,NRD=12 MIN ELTRD= 840.40 MAX ELLC= 840.20

18472.00	6.28	842.98	0.00	0.00	843.05	.07	.00	.01	836.80
865.	722.	91.	52.	350.	28.	39.	143.	62.	836.70
1.37	2.06	3.20	1.34	.040	.020	.040	.043	836.70	62.82
.001090	1.	1.	1.	2	0	1	-37.83	202.23	265.05

NORMAL BRIDGE,NRD=12 MIN ELTRD= 840.40 MAX ELLC= 840.20

U/S FACE OF BRIDGE IN GOLF COURSE, BS#53 SEC. BF

18479.00	6.29	842.99	0.00	0.00	843.06	.07	.01	.00	836.80
1893 865.	722.	91.	52.	351.	28.	39.	143.	62.	836.70
1.38	2.06	3.19	1.34	.040	.020	.040	.043	836.70	62.80
.001079	7.	7.	7.	0	0	1	-37.83	202.34	265.14
18480.00	6.26	842.96	0.00	0.00	843.09	.13	.00	.03	836.80
865.	573.	228.	64.	357.	46.	47.	143.	62.	836.70
1.38	1.60	4.91	1.35	.050	.032	.050	.043	836.70	62.91

.0987	1.	1.	1.	2	0	1	.	201.90	264.80
18600.00	5.83	843.07	0.00	0.00	843.29	.22	.15	.05	837.34
865.	537.	268.	60.	289.	43.	35.	144.	63.	837.24
1.39	1.86	6.19	1.72	.050	.032	.050	.043	837.24	64.77
.001723	120.	120.	120.	1	0	1	0.00	194.31	259.08
18720.00	5.47	843.25	0.00	0.00	843.65	.40	.27	.09	837.88
865.	490.	317.	58.	229.	40.	26.	145.	63.	837.78
1.39	2.14	7.85	2.24	.050	.032	.050	.043	837.78	66.42
.003030	120.	120.	120.	0	0	1	0.00	187.56	253.99

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
18780.00	5.60	843.65	843.65	0.00	844.19	.55	.24	0.00	840.85
865.	437.	393.	35.	172.	47.	16.	145.	64.	841.05
1.40	2.54	8.36	2.17	.050	.032	.050	.043	838.05	47.15
.005554	60.	60.	60.	30	9	1	0.00	177.51	224.67

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
18840.00	5.84	844.16	0.00	0.00	844.52	.35	.27	.06	841.12
865.	477.	348.	40.	208.	50.	22.	146.	64.	841.32
1.40	2.30	7.00	1.84	.050	.032	.050	.043	838.32	45.97
.003616	60.	60.	60.	4	0	1	0.00	182.99	228.96
18960.00	5.74	844.60	0.00	0.00	845.02	.42	.47	.03	841.66
865.	462.	365.	38.	193.	49.	19.	146.	64.	841.86
1.41	2.39	7.52	1.96	.050	.032	.050	.043	838.86	46.46
.004299	120.	120.	120.	2	0	1	0.00	180.72	227.18
19080.00	5.72	845.12	0.00	0.00	845.56	.44	.52	.01	842.20
865.	459.	368.	37.	190.	48.	19.	147.	65.	842.40
1.42	2.41	7.62	1.99	.050	.032	.050	.043	839.40	46.55
.004444	120.	120.	120.	2	0	1	0.00	180.30	226.85

NORMAL BRIDGE,NRD=12 MIN ELTRD= 843.80 MAX ELLC= 842.40

19081.00	6.12	845.52	0.00	0.00	845.65	.13	.00	.09	842.20
865.	698.	114.	53.	242.	36.	27.	147.	65.	842.40
1.42	2.88	3.21	1.97	.045	.030	.045	.043	839.40	44.62
.004023	1.	1.	1.	3	0	1	-26.50	189.29	233.91

NORMAL BRIDGE,NRD=12 MIN ELTRD= 843.80 MAX ELLC= 842.40

U/S FACE OF BRIDGE IN GOLF COURSE, BS#53A SEC. BG

19090.00	6.17	845.57	0.00	0.00	845.69	.12	.03	.00	842.20
865.	699.	112.	54.	248.	36.	28.	147.	65.	842.40
2553 1.42	2.82	3.12	1.92	.045	.030	.045	.043	839.40	44.43
.003740	9.	9.	9.	0	0	1	-26.50	190.15	234.58
19091.00	6.12	845.52	0.00	0.00	845.74	.23	.00	.05	842.20
865.	511.	308.	46.	248.	53.	30.	147.	65.	842.40
1.42	2.06	5.84	1.57	.050	.032	.050	.043	839.40	44.64
.002327	1.	1.	1.	2	0	1	0.00	189.20	233.84
19691.00	6.90	847.00	0.00	0.00	847.43	.43	1.58	.10	846.20
865.	203.	662.	0.	123.	112.	0.	151.	67.	856.60
1.45	1.65	5.93	0.00	.050	.032	.050	.043	840.10	104.84
.003495	500.	600.	700.	2	0	1	0.00	165.47	270.31

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19699.00	2.98	847.18	847.18	0.00	847.69	.50	.04	0.00	844.20
865.	418.	313.	135.	159.	37.	29.	151.	67.	844.60
1.45	2.63	8.43	4.69	.055	.032	.045	.043	844.20	100.57
.008144	8.	8.	8.	30	13	1	0.00	171.26	271.83

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

U/S FACE OF STONE DAM, DS#54 SEC. BH

19701.00	3.19	847.39	0.00	0.00	847.75	.36	.01	.04	844.20
865.	447.	288.	129.	188.	40.	32.	151.	67.	844.60
1.45	2.38	7.25	4.08	.055	.032	.045	.043	844.20	95.90
.005504	2.	2.	2.	6	0	1	0.00	176.19	272.09
19702.00	4.33	847.53	0.00	0.00	847.78	.25	.00	.03	843.20
865.	440.	325.	100.	215.	55.	35.	151.	67.	843.60
1.45	2.05	5.95	2.31	.050	.035	.050	.043	843.20	92.48
.002893	1.	1.	1.	2	0	1	0.00	179.79	272.28
19877.00	4.81	848.03	0.00	0.00	848.17	.13	.35	.04	843.22

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      865.      491.      274.       94.      288.       61.       45.      152.       58.    843.62
     1.47      1.73      4.50      2.19      .050      .035      .050      .043    843.22     88.15
 .001433      180.      175.      170.         2         0         1      0.00    184.75    272.90

 20052.00      5.04    848.29      0.00      0.00    848.39       .10       .22       .01    843.25
      865.      518.      255.       92.      324.       64.       47.      154.       69.    843.65
     1.49      1.60      4.00      1.97      .050      .035      .050      .043    843.25     86.58
 .001066      180.      175.      170.         2         0         1      0.00    186.61    273.19

 20227.00      5.21    848.48      0.00      0.00    848.57       .09       .17       .01    843.27
      865.      531.      244.       90.      351.       66.       49.      156.       69.    843.67
     1.51      1.51      3.69      1.83      .050      .035      .050      .042    843.27     85.39
 .000865      180.      175.      170.         2         0         1      0.00    188.02    273.41

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

 20402.00      5.30    848.60    848.60      0.00    849.33       .74       .29      0.00    846.10
      865.       51.      597.      217.       23.       73.       92.      157.       70.    843.30
     1.52      2.26      8.14      2.36      .045      .032      .045      .042    843.30    121.58
 .004237      180.      175.      170.         3         5         1      0.00    136.47    258.05

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH      AROB       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=12 MIN ELTRD=  847.70 MAX ELLC=  848.00

 20403.00      5.92    849.22    849.22      0.00    849.81       .59       .01      0.00    846.10
      865.        0.      454.      411.        0.       58.      112.      157.       70.    843.30
     1.52      0.00      7.76      3.67      .042      .022      .042      .042    843.30    111.62
 .010387        1.        1.        1.        30        10         1   -108.08    157.30    268.92

    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH      AROB       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=12 MIN ELTRD=  847.70 MAX ELLC=  848.00
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U/S FACE OF BRIDGE IN GOLF COURSE, BS#55 SEC. BI

20423.00	6.47	849.77	0.00	0.00	850.03	.25	.12	.10	846.10
865.	6.	356.	504.	8.	67.	174.	157.	70.	843.30
3892 1.52	.75	5.29	2.90	.042	.022	.042	.042	843.30	102.66
.004011	20.	20.	20.	4	0	1	-122.99	176.05	278.71
20424.00	6.63	849.93	0.00	0.00	850.06	.14	.00	.03	846.10
865.	97.	388.	379.	71.	95.	233.	157.	70.	843.30
1.52	1.37	4.10	1.63	.042	.032	.042	.042	843.30	100.15
.000762	1.	1.	1.	2	0	1	0.00	181.29	281.44

50' U/S FROM U/S FACE OF BRIDGE NO. BI, VS#56 SEC. BJ

20474.00	8.05	849.95	0.00	0.00	850.13	.19	.04	.02	847.10
865.	114.	560.	190.	80.	134.	133.	158.	70.	848.00
1.53	1.43	4.17	1.43	.042	.032	.042	.042	841.90	98.82
.001025	50.	50.	50.	2	0	1	0.00	176.64	275.46

3470 ENCROACHMENT STATIONS= .0 580.0 TYPE= 1 TARGET= 579.999

1645' D/S FROM D/S FACE OF ORCHARD LAKE RD BRIDGE, VS#57 SEC. BK

21099.00	6.69	850.79	0.00	0.00	851.10	.31	.91	.06	848.10
865.	70.	594.	200.	65.	112.	149.	162.	72.	848.50
1.57	1.08	5.31	1.34	.085	.040	.070	.042	844.10	308.61
.002555	450.	625.	550.	2	0	1	0.00	185.07	493.68

3470 ENCROACHMENT STATIONS= .0 780.0 TYPE= 1 TARGET= 779.999

1220' D/S FROM D/S FACE OF ORCHARD LAKE RD BRIDGE, VS#58 SEC. BL

21524.00	6.76	851.66	0.00	0.00	851.81	.16	.67	.05	848.80
865.	221.	519.	125.	193.	129.	160.	166.	75.	849.40
1.61	1.15	4.02	.78	.065	.035	.075	.042	844.90	459.58
.001061	425.	425.	425.	2	0	1	0.00	284.10	743.68

3470 ENCROACHMENT STATIONS= 1390.0 1595.0 TYPE= 1 TARGET= 205.000

620' D/S FROM D/S FACE OF ORCHARD LAKE RD BRIDGE, VS#59 SEC. BM

22124.00	5.62	852.52	0.00	0.00	852.66	.14	.84	.01	850.90
530.	215.	286.	28.	165.	74.	50.	171.	78.	852.00
1.67	1.30	3.85	.57	.075	.040	.075	.042	846.90	1390.00
.001987	800.	600.	300.	2	0	1	0.00	205.00	1595.00

3470 ENCROACHMENT STATIONS= 1435.0 1550.0 TYPE= 1 TARGET= 115.000

22304.00	5.12	852.92	852.56	0.00	853.46	.54	.60	.20	851.80
530.	105.	425.	0.	57.	65.	1.	172.	78.	852.90
1.68	1.84	6.50	.13	.075	.040	.075	.042	847.80	1435.00
.006723	180.	180.	180.	4	14	1	0.00	115.00	1550.00
22494.00	5.19	853.99	0.00	0.00	854.56	.57	1.09	.02	854.80

530.	0.	530.	0.	0.	87.	0.	172.	79.	85[illegible].30
1.69	0.00	6.07	0.00	.055	.037	.045	.042	848.80	1500.68
.004921	190.	190.	190.	2	0	1	0.00	23.83	1524.50

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

70' D/S FROM D/S FACE OF ORCHARD LAKE RD BRIDGE, VS#60 SEC. BN

22674.00	5.18	854.88	0.00	0.00	855.45	.58	.89	.00	855.70
530.	0.	530.	0.	0.	87.	0.	173.	79.	855.20
1.70	0.00	6.09	0.00	.055	.037	.045	.042	849.70	1500.69
.004971	180.	180.	180.	2	0	1	0.00	23.79	1524.48

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 1420.0 1585.0 TYPE= 1 TARGET= 165.000

22744.00	6.43	855.63	0.00	0.00	855.65	.02	.03	.17	850.00
530.	206.	136.	188.	264.	86.	243.	173.	79.	849.70
1.72	.78	1.58	.77	.050	.032	.050	.042	849.20	1420.00
.000135	70.	70.	70.	2	0	1	0.00	165.00	1585.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.74	3.03	0.00	3.60	0.00	22.80	0.00	851.20	849.50

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
887.01	857.65	0.00	391.	141.	23.	854.80	857.25	30.00

3470 ENCROACHMENT STATIONS= 1440.0 1820.0 TYPE= 1 TARGET= 380.000

U/S FACE OF ROCHARD LAKE ROAD BRIDGE, BS#61 SEC. BO

22806.00	6.64	857.84	0.00	0.00	857.85	.01	2.20	0.00	852.00
530.	202.	114.	214.	245.	89.	435.	174.	79.	852.00
1.74	.83	1.29	.49	.045	.032	.045	.042	851.20	1440.00
.000091	62.	62.	62.	1	0	8	0.00	380.00	1820.00

3470 ENCROACHMENT STATIONS= 260.0 515.0 TYPE= 1 TARGET= 255.000

22956.00	4.76	857.86	0.00	0.00	857.87	.01	.02	.00	856.40
530.	23.	116.	391.	54.	82.	548.	177.	80.	854.80
1.79	.43	1.42	.71	.065	.040	.065	.042	853.10	260.00
.000244	150.	150.	150.	0	0	1	0.00	255.00	515.00

3470 ENCROACHMENT STATIONS= 75.0 475.0 TYPE= 1 TARGET= 400.000

300' U/S FROM U/S FACE OF ORCHARD LAKE RD BRIDGE, VS#62 SEC. BP

BH

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23106.00     2.86   857.86     0.00     0.00   858.08     .22     .10     .10   858.30
    530.       0.     229.     301.       0.      44.    154.    178.     81.   856.70
    1.80     0.00     5.23     1.95     .065     .040    .065    .042  855.00   300.55
 .007264     150.     150.     150.        2        0       1    0.00  174.45   475.00

3470 ENCROACHMENT STATIONS=      100.0     450.0  TYPE=      1  TARGET=      350.000
23206.00     2.84   858.62     0.00     0.00   858.89     .27     .79     .02   859.08
    530.       0.     245.     285.       0.      43.    133.    179.     82.   857.48
    1.81     0.00     5.64     2.15     .065     .040    .065    .042  855.78   300.58
 .008518     100.     100.     100.        3        0       1    0.00  149.42   450.00

3470 ENCROACHMENT STATIONS=      125.0     425.0  TYPE=      1  TARGET=      300.000
23306.00     2.90   859.47     0.00     0.00   859.76     .30     .86     .02   859.87
    530.       0.     258.     272.       0.      45.    118.    179.     82.   858.27
    1.82     0.00     5.80     2.31     .065     .040    .065    .042  856.57   300.50
 .008757     100.     100.     100.        2        0       1    0.00  124.49   425.00

   SECNO     DEPTH     CWSEL     CHIWS     WSELK      EG        HV        HL     OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      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=      170.0     375.0  TYPE=      1  TARGET=      205.000
23506.00     3.11   861.25     0.00     0.00   861.69     .44    1.86     .07   861.44
    530.       0.     316.     214.       0.      49.     76.    180.     82.   859.84
    1.83     0.00     6.48     2.82     .065     .040    .065    .042  858.14   300.23
 .009875     200.     200.     200.        2        0       1    0.00   74.77   375.00

3470 ENCROACHMENT STATIONS=      287.0     350.0  TYPE=      1  TARGET=       63.000

        START OF ISLAND PROBLEM

23606.00     3.30   862.22     0.00     0.00   862.86     .64    1.07     .10   862.22
    530.       0.     383.     147.       0.      53.     47.    180.     82.   860.62
    1.83     .02      7.29     3.10     .070     .040    .070    .042  858.92   299.74
 .011551     100.     100.     100.        2        0       1    0.00   50.26   350.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      300.0     338.0  TYPE=      1  TARGET=       38.000
23656.00     3.86   863.17     0.00     0.00   863.24     .08     .22     .17   862.61
    200.       0.     156.      44.       0.      64.     39.    180.     83.   861.01
    1.84     0.00     2.45     1.14     .070     .040    .070    .042  859.31   300.00
 .001047      50.      50.      50.        2        0       1    0.00   38.00   338.00

3280 CROSS SECTION  23706.00 EXTENDED       .43 FEET

3470 ENCROACHMENT STATIONS=      307.0     320.0  TYPE=      1  TARGET=       13.000
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needs to be re-checked by JPA 23606 - 23887

23706.00	3.43	[illegible]							
200.	0.	200.	0.	0.	42.	0.	180.	83.	[illegible]
1.84	0.00	4.78	0.00	.070	.040	.070	.042	859.70	307.00
.005846	50.	50.	50.	2	0	1	0.00	13.00	320.00

3280 CROSS SECTION 23707.00 EXTENDED .44 FEET

3470 ENCROACHMENT STATIONS= 307.0 320.0 TYPE= 1 TARGET= 13.000

23707.00	3.44	863.14	0.00	0.00	863.49	.35	.00	.00	863.50
200.	0.	200.	0.	0.	42.	0.	180.	83.	100000.00
1.84	0.00	4.77	0.00	.070	.033	.070	.042	859.70	307.00
.003966	1.	1.	1.	0	0	1	0.00	13.00	320.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	7.16	3.00	0.00	8.42	0.00	28.64	0.00	861.40	859.70

3280 CROSS SECTION 23887.00 EXTENDED 1.76 FEET

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
868.56	865.28	0.00	0.	200.	29.	864.80	875.00	10.00

3470 ENCROACHMENT STATIONS= 38.0 50.0 TYPE= 1 TARGET= 12.000

U/S FACE OF BRICK FENCE @ BRIDGE DRIVEWAY, BS#63 SEC. BQ

END OF ISLAND PROBLEM SEC. BQ

23887.00	7.06	868.46	0.00	0.00	868.56	.09	5.07	0.00	866.70
200.	0.	200.	0.	0.	81.	0.	181.	83.	100000.00
1.86	0.00	2.47	0.00	.070	.033	.070	.042	861.40	38.00
.000709	180.	180.	180.	2	0	1	0.00	12.00	50.00

also

3280 CROSS SECTION 23987.00 EXTENDED .68 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
23987.00	6.98	868.48	0.00	0.00	868.74	.26	.10	.08	865.50
530.	34.	496.	0.	31.	119.	0.	181.	83.	872.60
1.87	1.08	4.19	0.00	.070	.033	.070	.042	861.50	0.00
.001221	50.	100.	150.	2	0	1	0.00	41.35	41.35

SPECIAL BRIDGE

SB	[illegible]	[illegible]	COPQ	RDLEN	B.C	B.P	BAREA	SS	ELCHO	ELCHO
	0.00	1.00	3.30	0.00	.10	0.00	.01	0.00	862.00	861.50

PRESS FLOW BECAUSE EGLWC OF 869.24 EXCEEDS 1.5 DEPTH
3280 CROSS SECTION 23990.00 EXTENDED .87 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
*********	869.24	0.00	532.	0.	0.	864.30	862.50	30.00

U/S FACE OF STONE SPILLWAY, BS#64 SEC. BR

23990.00	6.67	868.67	0.00	0.00	868.94	.28	.20	0.00	865.50
530.	43.	487.	0.	34.	111.	0.	181.	83.	872.60
1.87	1.24	4.38	0.00	.070	.033	.070	.042	862.00	0.00
.001452	3.	3.	3.	2	0	8	0.00	41.66	41.66
24215.00	7.30	869.00	0.00	0.00	869.28	.28	.34	.00	869.10
530.	0.	530.	0.	0.	124.	0.	182.	83.	874.20
1.88	0.00	4.27	0.00	.070	.033	.070	.042	861.70	13.16
.001533	225.	225.	225.	2	0	1	0.00	29.19	42.35

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

U/S FACE OF STONE SPILLWAY, BS#65 SEC. BS

24216.00	3.57	869.27	869.27	0.00	870.53	1.26	.00	0.00	867.30
530.	12.	508.	10.	6.	55.	5.	182.	83.	867.00
1.88	2.10	9.20	2.18	.070	.033	.070	.042	865.70	9.41
.010648	1.	1.	1.	30	11	1	0.00	31.69	41.09

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 101.0 205.0 TYPE= 1 TARGET= 104.000

24366.00	5.46	871.16	0.00	0.00	871.55	.39	.76	.26	868.80
530.	80.	361.	89.	36.	62.	31.	182.	83.	867.80
1.89	2.25	5.83	2.83	.040	.031	.040	.042	865.70	132.24
.002956	150.	150.	150.	2	0	1	0.00	61.97	194.21

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.31	3.03	0.00	8.58	0.00	28.60	0.00	867.10	865.70

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

The XKOR seems opposed to high stream velocities 2.99

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
894.14	873.47	0.00	342.	189.	29.	870.40	872.70	30.00

3470 ENCROACHMENT STATIONS= 101.0 205.0 TYPE= 1 TARGET= 104.000

U/S FACE OF HUNTERS DRIVE BRIDGE, BS#66 SEC. BT

24456.00	6.95	874.05	0.00	0.00	874.09	.04	2.54	0.00	868.40
530.	211.	201.	118.	187.	89.	99.	182.	83.	868.30
1.91	1.13	2.26	1.19	.040	.031	.040	.041	867.10	101.00
.000210	90.	90.	90.	2	0	6	0.00	104.00	205.00

3301 HV CHANGED MORE THAN HVINS

100' U/S FROM U/S FACE OF HUNTERS DRIVE, VS#67 SEC. BU

24556.00	5.50	873.70	0.00	0.00	874.55	.85	.06	.40	873.50
530.	0.	529.	1.	0.	72.	1.	183.	83.	873.20
1.91	.66	7.39	1.19	.040	.034	.040	.041	868.20	24.58
.006363	100.	100.	100.	2	0	1	0.00	25.07	49.64

3470 ENCROACHMENT STATIONS= 85.0 140.0 TYPE= 1 TARGET= 55.000

24906.00	5.04	875.44	0.00	0.00	875.86	.42	1.19	.13	871.10
530.	86.	352.	92.	46.	56.	47.	184.	84.	870.80
1.93	1.88	6.25	1.96	.060	.031	.060	.041	870.40	86.28
.002100	350.	350.	350.	2	0	1	0.00	53.02	139.29

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.12	3.03	0.00	8.58	0.00	28.60	0.00	870.80	870.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
892.08	876.26	0.00	354.	177.	29.	873.80	875.20	30.00

3470 ENCROACHMENT STATIONS= 85.0 140.0 TYPE= 1 TARGET= 55.000

U/S FACE OF DRIVEWAY BRIDGE, BS#68 SEC. BV

```
 24958.00      6.35    877.15      0.00      0.00    877.30       .15      1.44      0.00    871.40
     530.      134.      278.      118.       81.       69.       74.      184.       84.    871.30
     1.94      1.65      4.01      1.61      .060      .031      .060      .041    870.80     85.00
  .000819       52.       52.       52.         2         0         5      0.00     55.00    140.00


3470 ENCROACHMENT STATIONS=      100.0     155.0  TYPE=      1  TARGET=      55.000
 25133.00      5.74    877.34      0.00      0.00    877.41       .08       .09       .02    872.10
     425.      166.      193.       66.      103.       67.       48.      185.       84.    872.40
     1.96      1.60      2.90      1.39      .040      .025      .040      .041    871.60    100.00
  .000318      175.      175.      175.         2         0         1      0.00     55.00    155.00


SPECIAL BRIDGE

SB   XK        XKOR       COFQ       RDLEN      BWC        BWP       BAREA      SS        ELCHU      ELCHD
     0.00      3.66       3.03       0.00       8.58       0.00      28.60      0.00      872.40     871.60

3280 CROSS SECTION  25196.00 EXTENDED        .60 FEET


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


PRESSURE AND WEIR FLOW


   EGPRS     EGLOC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

   889.89    878.21    0.00      323.      103.      29.       875.90    876.00    30.00


3470 ENCROACHMENT STATIONS=      100.0     155.0  TYPE=      1  TARGET=      55.000

          U/S FACE OF HUNTERS DRIVE BRIDGE 1, BS#69                          SEC. BW

 25196.00      5.60    878.00      0.00      0.00    878.07       .07       .65      0.00    872.90
     425.      175.      176.       74.      111.       65.       52.      185.       84.    873.10
     1.97      1.58      2.69      1.41      .040      .025      .040      .041    872.40    100.00
  .000283       63.       63.       63.         2         0         5      0.00     55.00    155.00


3280 CROSS SECTION  25321.00 EXTENDED        .42 FEET


          150' D/S FROM D/S FACE OF RUNNING STREAM DR CULVERT, VS#70      SEC. BX

 25321.00      5.62    877.92      0.00      0.00    878.30       .39       .08       .16    874.30
     425.       91.      310.       25.       37.       55.       14.      186.       84.    875.40
     1.98      2.43      5.67      1.74      .045      .031      .045      .041    872.30      0.00
  .002112      125.      125.      125.         2         0         1      0.00     43.19     43.19


1490 NH CARD USED

3470 ENCROACHMENT STATIONS=      105.0     195.0  TYPE=      1  TARGET=      90.000
 25471.00      4.80    878.40      0.00      0.00    878.62       .23       .27       .05    875.70
     425.       29.      346.       50.       20.       83.       35.      186.       84.    875.80
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1.29	1.43	1.18	1.40	.030	.03[illegible]	.030	.0[illegible]1	873.60	11[illegible].9[illegible]
.001579	150.	150.	150.	2	0	1	0.00	62.23	177.22

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.02	0.00	10.11	0.00	48.00	0.00	873.90	873.60

3280 CROSS SECTION 25512.00 EXTENDED 1.22 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
881.26	878.91	0.00	81.	346.	48.	878.70	879.50	30.00

3470 ENCROACHMENT STATIONS= 105.0 195.0 TYPE= 1 TARGET= 90.000

U/S FACE OF RUNNING STREAM DR CULVERT, BS#71 SEC. BY

25512.00	6.32	880.22	0.00	0.00	880.29	.07	1.66	0.00	876.00
425.	50.	282.	93.	53.	114.	98.	186.	84.	876.00
1.99	.94	2.47	.96	.050	.034	.050	.041	873.90	105.00
.000371	41.	41.	41.	2	0	3	0.00	90.00	195.00

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

100' U/S FROM U/S FACE OF RUNNING STREAM DR CULVERT, VS#72 SEC. BZ

25612.00	5.07	880.07	0.00	0.00	880.62	.55	.09	.24	880.40
425.	0.	422.	3.	0.	71.	2.	187.	85.	879.40
2.00	0.00	5.95	1.11	.045	.035	.045	.041	875.00	16.80
.004876	100.	100.	100.	2	0	1	0.00	28.93	45.73

3470 ENCROACHMENT STATIONS= .0 150.0 TYPE= 1 TARGET= 149.999

25812.00	4.06	881.31	0.00	0.00	881.53	.22	.81	.10	881.15
425.	0.	364.	61.	1.	90.	44.	187.	85.	880.75
2.01	.32	4.05	1.39	.050	.037	.050	.041	877.25	42.26
.003439	200.	200.	200.	3	0	1	0.00	107.74	150.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION 26012.00 EXTENDED .77 FEET

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

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3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
 26012.00      3.67    883.17    883.17      0.00    883.55      .38       .91      0.00    883.40
     425.        0.      335.       90.        0.       61.      55.      188.       85.    883.00
     2.02      0.00      5.51      1.63      .050      .037     .050      .041    879.50     41.32
  .007919      300.      200.      100.        30         9        1      0.00    149.03    190.35

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION  26013.00 EXTENDED      1.04 FEET

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

NORMAL BRIDGE,NRD=12 MIN ELTRD=  882.40 MAX ELLC=  882.80

3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
 26013.00      3.94    883.44    883.44      0.00    883.79      .34       .02      0.00    883.40
     425.        0.       88.      337.        0.       14.      81.      188.       85.    883.40
     2.02       .05      6.37      4.14      .055      .033     .055      .041    879.50     50.33
  .040110        1.        1.        1.        30        15        1     -7.01    140.02    190.35

3280 CROSS SECTION  26037.00 EXTENDED      1.65 FEET

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

NORMAL BRIDGE,NRD=12 MIN ELTRD=  882.40 MAX ELLC=  883.60

3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
        U/S FACE OF WOOD FENCE & CULVERT, BS#73                                SEC. CA
 26037.00      3.75    884.05      0.00      0.00    884.14      .08       .27       .08    883.40
     425.       10.       46.      369.       11.       17.     162.      188.       85.    883.40
     2.03       .93      2.75      2.28      .055      .033     .055      .041    880.30     18.27
  .005265       24.       24.       24.         3         0        1     -3.09    172.08    190.35

3280 CROSS SECTION  26038.00 EXTENDED      1.67 FEET

3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
 26038.00      3.76    884.06      0.00      0.00    884.14      .08       .00       .00    883.40
     425.        5.      208.      212.        9.       71.     149.      188.       85.    883.40
```

GP = 46.75 not high enough for special bridge routing

are the channel "n" values to high for the CMP.

2.03	.58	2.91	1.42	.050	.035	.05	.041	880.30	13.[illegible]
.001637	1.	1.	1.	1	0	1	0.00	176.90	190.35

3470 ENCROACHMENT STATIONS= .0 112.0 TYPE= 1 TARGET= 111.999

675' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS#74 SEC. CB

26188.00	4.65	884.55	0.00	0.00	884.75	.20	.55	.06	883.50
425.	18.	341.	66.	16.	87.	29.	189.	86.	882.20
2.04	1.13	3.90	2.26	.065	.060	.050	.041	879.90	4.63
.004682	100.	150.	350.	2	0	1	0.00	80.33	84.96

3470 ENCROACHMENT STATIONS= .0 112.0 TYPE= 1 TARGET= 111.999

475' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS#75 SEC. CC

26388.00	4.70	885.50	0.00	0.00	886.01	.51	1.10	.15	884.80
425.	3.	422.	0.	3.	73.	0.	189.	86.	886.40
2.05	1.00	5.74	0.00	.060	.042	.055	.041	880.80	37.42
.006614	200.	200.	200.	2	0	1	0.00	33.84	71.26

3470 ENCROACHMENT STATIONS= 140.0 430.0 TYPE= 1 TARGET= -140.000

100' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS#76 SEC. CD

26763.00	4.20	887.90	0.00	0.00	888.08	.18	1.97	.10	886.30
425.	176.	248.	1.	98.	59.	2.	190.	87.	887.40
2.09	1.80	4.24	.71	.054	.045	.054	.041	883.70	140.00
.004290	375.	375.	375.	3	0	1	0.00	127.56	267.56

3470 ENCROACHMENT STATIONS= 140.0 433.0 TYPE= 1 TARGET= 293.000

26863.00	4.02	888.62	0.00	0.00	888.90	.28	.77	.05	887.20
425.	147.	278.	0.	80.	55.	1.	191.	88.	888.30
2.10	1.83	5.04	.62	.062	.048	.062	.041	884.60	140.00
.007490	200.	100.	100.	0	0	1	0.00	125.27	265.27

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.80	3.03	0.00	6.61	0.00	38.00	0.00	884.60	884.60

3280 CROSS SECTION 26946.00 EXTENDED 1.12 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
894.06	890.11	0.00	99.	327.	38.	890.00	891.80	30.00

Check I&A revision DMW

3470 ENCROACHMENT STATIONS= .1 262.0 TYPE= 1 TARGET= 261.950

U/S FACE OF CLUBHOUSE LANE CULVERT, BS#77 SEC. CE

26946.00	7.12	891.72	0.00	0.00	891.84	.12	2.94	0.00	890.40
425.	24.	319.	81.	48.	103.	109.	191.	88.	888.00
2.11	.50	3.12	.75	.055	.032	.055	.041	884.60	77.17
.000602	83.	83.	83.	2	0	6	0.00	184.83	262.00

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

100' U/S FROM U/S FACE OF CLUBHOUSE LANE CULVERT, VS#78 SEC. CF

27046.00	6.78	891.78	0.00	0.00	891.95	.17	.09	.03	889.70
425.	48.	364.	13.	37.	102.	15.	192.	88.	890.50
2.11	1.31	3.57	.82	.050	.040	.050	.041	885.00	79.65
.001384	10.	100.	150.	2	0	1	0.00	79.22	158.87

typo? this compared to D/S and U/S is questionable

```
START TRIB COMP
 -23606.000 23606.000 86222.147   862.221
3280 CROSS SECTION -23606.00 EXTENDED      2.52 FEET

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

3470 ENCROACHMENT STATIONS=     287.0     350.0  TYPE=     1  TARGET=     63.000
-23606.00      3.30    862.22      0.00      0.00    862.86       .64       .37      0.00    862.22
     530.        0.      383.      147.        0.       53.       47.      192.       88.    860.62
     2.12       .02      7.29      3.10      .070      .040      .070      .041    858.92    299.75
  .011553       25.      100.      175.         0         0         1      0.00     50.24    350.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION  23636.00 EXTENDED      1.25 FEET

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

 23636.00      1.25    866.95    866.95      0.00    867.51       .56       .26      0.00    866.00
     330.        0.      330.        0.        0.       55.        0.      192.       88.    865.70
     2.12      0.00      5.99       .06      .020      .020 ?    .020      .041    865.70      0.00
  .005868       30.       30.       30.        30        18         1      0.00     50.00     50.00

3280 CROSS SECTION  23886.00 EXTENDED      1.51 FEET

        END OF ISLAND PROBLEM                                                  SEC. BQ

 23886.00      1.51    868.21      0.00      0.00    868.58       .37      1.01       .06    867.00
     330.        0.      330.        0.        0.       68.        0.      192.       89.    866.70
     2.13      0.00      4.87       .04      .020      .020      .020      .041    866.70      0.00
  .002956      250.      250.      250.         2         0         1      0.00     50.00     50.00
```

n value?

```
START TRIB COMP
 -15028.000 15028.000 82447.183   824.472
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=      372.0      390.0  TYPE=      1  TARGET=       18.000
 -15028.00     11.07    824.47      0.00      0.00    824.78      .31       .01      0.00 99999.10
     865.        0.      865.        0.        0.      194.       0.      192.       89.  99999.10
     2.13      0.00      4.46      0.00      .050      .037      .050      .041    813.40    372.00
  .001487        3.        3.        3.         0         0         1      0.00     18.00    390.00


 15128.00      3.03    824.63      0.00      0.00    825.05      .42       .22       .06    830.90
     300.        0.      300.        0.        0.       58.       0.      193.       89.    828.40
     2.14      0.00      5.21      0.00      .045      .045      .045      .041    821.60      0.00
  .012615      150.      100.       50.         0         0         1      0.00     33.33     33.33


 3685 20 TRIALS USED WSEL,CWSEL

 7185 MIN SPECIFIC ENERGY


 3720 ASSUMED CRITICAL DEPTH

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


 15203.00      3.63    828.13    828.13      0.00    828.99      .87      1.41      0.00    831.50
     300.        0.      300.        0.        0.       40.       0.      193.       89.    830.50
     2.14      0.00      7.48      0.00      .045      .045      .045      .041    824.50      0.00
  .031054       75.       75.       75.        30        11         1      0.00     23.62     23.62
```

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

```
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST
```

(Pebble Creek
100-year flood)

```
3470 ENCROACHMENT STATIONS=      42.0      58.0  TYPE=      1  TARGET=      16.000
     0.00     5.70   690.90     0.00   690.90   693.18     2.28     0.00     0.00100000.00
     995.       0.     995.       0.       0.      82.       0.       0.       0. 100000.00
     0.00     0.00    12.12     0.00     .075     .040     .075    0.000   685.20    42.00
  .020754       0.       0.       0.        0        0        1     0.00    16.00    58.00
```

: Natural Encroachment.

```
NORMAL BRIDGE,NRD=15 MIN.ELTRD=  703.80 MAX ELLC=  695.10

        D/S FACE OF INKSTER ROAD BRIDGE, BS#1                          SEC. A
     1.00     5.51   690.71   690.55     0.00   693.41     2.70      .02      .21   705.60
     995.       0.     995.       0.       0.      76.       0.       0.       0.   705.30
      .00     0.00    13.18     0.00     .040     .031     .040     .016   685.20    42.20
  .018480       1.       1.       1.        4       12        1    -2.65    15.60    57.80
```

① Low flow only

② Bending loss is negligible

$K_b = 0.05$

$loss = 0.05 \frac{V^2}{2g}$

$= 0.05 \times 1.54 = 0.077'$

③ 500-year flood is Pressure flow

— use hand calculations —

```
3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=15 MIN ELTRD=  703.80 MAX ELLC=  695.70

        U/S FACE OF INKSTER ROAD BRIDGE, BS#1                          SEC. A
   112.00     7.69   693.69     0.00     0.00   695.23     1.54     1.48      .35   705.60
     995.       0.     995.       0.       0.     100.       0.       0.       0.   705.30
      .00     0.00     9.96     0.00     .040     .031     .040     .030   686.00    42.20
  .010068      111.     111.     111.        3        0        1   -12.24    15.60    57.80

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      42.2      57.8  TYPE=      1  TARGET=      15.600
   113.00     8.37   694.37     0.00     0.00   695.40     1.03      .01      .15100000.00
     995.       0.     995.       0.       0.     122.       0.       0.       0. 100000.00
      .00     0.00     8.14     0.00     .085     .040     .085     .030   686.00    42.20
  .007134       1.       1.       1.        3        0        1     0.00    15.60    57.80

\ 3301 HV CHANGED MORE THAN HVINS
```

```
3470 ENCROACHMENT STATIONS=      44.0      56.0  TYPE=     1  TARGET=      12.000
  1687.00     6.90   702.60   702.60     0.00   705.62     3.02       .16      0.00     699.20
     995.       0.     995.       0.       0.       71.       0.       12.        3.  100000.00
      .09     0.00    13.94     0.00     .075     .040     .075      .044    695.70      44.00
  .028628       6.       6.       6.       30       11        1      0.00     12.00      56.00

    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=10 MIN ELTRD=  717.90 MAX ELLC=  707.50

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      707.90 ELREA=      707.90

        D/S FACE OF FOREST BROOK ROAD BRIDGE, BS#6                    SEC. F

  1688.00     6.73   702.43   702.42     0.00   705.82     3.39       .02       .19     718.10
     995.       0.     995.       0.       0.       67.       0.       12.        3.     717.90
      .09     0.00    14.78     0.00     .040     .024     .040      .043    695.70      44.00
  .013632       1.       1.       1.        4       15        1     -.87     12.00      56.00

3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=10 MIN ELTRD=  717.90 MAX ELLC=  707.80

        U/S FACE OF FOREST BROOK ROAD BRIDGE, BS#6                    SEC. F

  1748.00     9.22   705.02     0.00     0.00   706.83     1.81       .53       .47     718.10
     995.       0.     995.       0.       0.       92.       0.       12.        3.     717.90
      .09     0.00    10.80     0.00     .040     .024     .040      .043    695.80      44.00
  .006242      60.      60.      60.        4        0        1    -6.43     12.00      56.00

3470 ENCROACHMENT STATIONS=      44.0      56.0  TYPE=     1  TARGET=      12.000
  1749.00     9.78   705.58     0.00     0.00   706.96     1.39       .01       .13     699.80
     995.       0.     995.       0.       0.      105.       0.       12.        3.  100000.00
      .09     0.00     9.45     0.00     .090     .040     .090      .043    695.80      44.00
```

(1) Low flow only

(2) 500-year flood is pressure flow
— use hand calculation —

```
.002970      3.      3.      3.      3       0       1    0.00   18.00   59.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=     1  TARGET=     152.000
  1817.00    12.17   707.37    0.00     0.00   707.41     .04     .02     .24   698.90
     995.      193.     625.    177.     324.     333.    304.     13.      3.   702.70
      .10      .60     1.87     .58     .090     .040    .085    .043  695.20    32.00
  .000127      65.      65.     65.        2        0       1    0.00  152.00   184.00

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

3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=     1  TARGET=     152.000

        D/S FACE OF DAM SECTION 70' U/S FROM FOREST BROOK RD, DS#7      SEC. G

  1818.00     9.16   707.36    0.00     0.00   707.42     .06     .00     .01   701.00
     995.      205.     589.    201.     320.     236.    304.     13.      3.   702.70
      .10      .64     2.49     .66     .090     .030    .085    .043  698.20    32.00
  .000166       1.       1.      1.        1        0       1    0.00  152.00   184.00

3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=     1  TARGET=     152.000
  1821.00     9.16   707.36    0.00     0.00   707.42     .06     .00     .00   701.00
     995.      205.     589.    201.     320.     237.    304.     13.      3.   702.70
      .10      .64     2.49     .66     .090     .030    .085    .043  698.20    32.00
  .000166       3.       3.      3.        0        0       1    0.00  152.00   184.00

3470 ENCROACHMENT STATIONS=      32.0     184.0  TYPE=     1  TARGET=     152.000
  1822.00    10.39   707.39    0.00     0.00   707.43     .03     .00     .01   699.90
     995.      258.     519.    219.     321.     275.    305.     13.      3.   702.70
      .10      .80     1.88     .72     .080     .045    .085    .043  697.00    32.00
  .000192       1.       1.      1.        2        0       1    0.00  152.00   184.00

        220' U/S FROM U/S FACE OF FOREST BROOK RD BRIDGE, VS#8          SEC. H

  1972.00    11.43   707.43    0.00     0.00   707.[illegible]6     .03     .03     .00   702.00
```

(1) Small check dam

(2) Completely submerged dam

— overland flow —

```
3470 ENCROACHMENT STATIONS=      28.0      85.0  TYPE=     1  TARGET=      57.000
  4262.00      7.35    716.27      0.00      0.00    717.11       .84       .32       .21    714.82
     995.       49.      920.       26.       27.      120.       19.       35.       12.    714.82
      .26      1.81      7.65      1.40      .085      .040      .085      .044    708.92     28.00
 .005704       75.       75.       75.         2         0         1      0.00     57.00     85.00

3470 ENCROACHMENT STATIONS=      40.0      72.0  TYPE=     1  TARGET=      32.000
  4312.00      6.82    716.42      0.00      0.00    717.68      1.26       .36       .21    715.50
     995.        9.      980.        6.        5.      108.        3.       35.       12.    715.50
      .27      1.86      9.08      1.69      .075      .040      .075      .044    709.60     40.00
 .009294       50.       50.       50.         2         0         1      0.00     32.00     72.00

SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.46      2.60      0.00     12.00      0.00     87.00      0.00    709.60    709.60

1490 NH CARD USED

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

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

  719.38    717.17     0.00       20.      972.       87.     716.50    718.70     30.00

3470 ENCROACHMENT STATIONS=      43.0      68.0  TYPE=     1  TARGET=      25.000
        U/S FACE OF ABANDONED BRIDGE, RS#12A                                SEC. M
  4326.00      9.32    718.92      0.00      0.00    719.25       .33      1.57      0.00    710.60
     995.       41.      932.       21.       16.      198.        8.       36.       12.    710.90
      .27      2.62      4.71      2.72      .075      .048      .075      .044    709.60     43.00
 .001262       14.       14.       14.         2         0         2      0.00     25.00     68.00
```

① Weir flow & Pressure flow

② Encroached to show proper expansion from 12 Mile Road.

```
      D/S FACE OF 12 MILE ROAD BRIDGE, BS#13                          SEC. N

  4338.00      9.33    718.83      0.00      0.00    719.39       .57       .00       .00    725.50
     995.        0.      995.        0.        0.      164.        0.       36.       12.    725.50
      .27      0.00      6.05      0.00      .040      .025      .040      .044    709.50    100.00
  .001442        1.        1.        1.         0         0         1      0.00     19.50    119.50

 NORMAL BRIDGE,NRD= 8 MIN ELTRD=  725.50 MAX ELLC=  722.40

 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      725.50 ELREA=      725.50

      U/S FACE OF 12 MILE ROAD BRIDGE, BS#13                          SEC. N

  4381.00      9.40    718.90      0.00      0.00    719.46       .56       .06       .00    725.50
     995.        0.      995.        0.        0.      166.        0.       36.       12.    725.50
      .27      0.00      6.00      0.00      .040      .025      .040      .044    709.50    100.00
  .001408       43.       43.       43.         2         0         1      0.00     19.50    119.50

 3470 ENCROACHMENT STATIONS=      100.0      119.5  TYPE=      1  TARGET=      19.500
  4382.00      9.40    718.90      0.00      0.00    719.46       .56       .00       .00    725.50
     995.        0.      995.        0.        0.      166.        0.       36.       12. 100000.00
      .27      0.00      6.00      0.00      .080      .040      .085      .044    709.50    100.00
  .003602        1.        1.        1.         0         0         1      0.00     19.50    119.50

 3470 ENCROACHMENT STATIONS=       89.0      119.0  TYPE=      1  TARGET=      30.000
  4387.00      9.80    719.32      0.00      0.00    719.56       .25       .01       .09    714.82
     995.        6.      982.        7.        4.      245.        5.       36.       12.    714.32
      .27      1.39      4.00      1.41      .080      .040      .085      .044    709.52     89.00
  .000774        5.        5.        5.         2         0         1      0.00     30.00    119.00

   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

 3470 ENCROACHMENT STATIONS=       63.0      161.0  TYPE=      1  TARGET=      98.000

      D/S FACE OF DAM SECTION 80' U/S FROM 12 MILE RD, DS 1.          SEC. O
```

(1) Low flow only

(2) Concrete bridge with rock & sand at bottom.

```
3470 ENCROACHMENT STATIONS=      63.0      161.0  TYPE=      1  TARGET=      98.000

        D/S FACE OF DAM SECTION 80' U/S FROM 12 MILE RD, DS#14          SEC. O

  4462.00      9.70    719.50      0.00      0.00    719.64       .14       .05       .03    715.10
     995.       71.      812.      112.       78.      242.      130.       36.       12.    714.60
      .28       .91      3.35       .86      .080      .040      .085      .044    709.80     63.00
  .000552       75.       75.       75.         1         0         1      0.00     98.00    161.00
```

① Concrete and Brick Dam

② Solved by Special Bridge Routine

```
SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS       ELCHU     ELCHD
     0.00      1.00      3.06       0.00      .05      0.00       .01     0.00     709.80    709.80

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC       H3      QWEIR       QPR     BAREA     ELLC     ELTRD     CLASS

*********   719.64     0.00       997.        0.        0.   714.50    714.70     30.00

3470 ENCROACHMENT STATIONS=      63.0      161.0  TYPE=      1  TARGET=      98.000
  4470.00      9.84    719.64      0.00      0.00    719.94       .30       .30      0.00    709.90
     995.      200.      706.       89.      161.      137.       97.       36.       12.    710.00
      .28      1.24      5.16       .92      .080      .030      .080      .044    709.80     63.00
  .000521        8.        8.        8.         2         0        18      0.00     98.00    161.00
```

③ Encroached to show proper expansion form Section P (SECNO = 4540

```
3301 HV CHANGED MORE THAN HVINS

        160' U/S FROM U/S FACE OF 12 MILE ROAD, VS#15                   SEC. P

  4540.00      6.78    719.48      0.00      0.00    720.29       .81       .09       .25    723.80
     995.        0.      961.       34.        0.      131.       20.       37.       12.    717.20
      .28      0.00      7.34      1.70      .065      .040      .075      .043    712.70    162.35
  .006265       70.       70.       70.         2         0         1      0.00     48.21    210.55

3301 HV CHANGED MORE THAN HVINS

  4890.00      8.23    721.03      0.00      0.00    721.16       .13       .67       .20    717.50
```

4939.00	8.27	721.07	0.00	0.00	721.22	.15	.05	.01	717.50
995.	30.	627.	338.	32.	166.	299.	40.	13.	716.90
.32	.95	3.77	1.13	.070	.040	.070	.043	712.80	152.46
.000987	49.	49.	49.	2	0	1	0.00	182.66	335.12

NORMAL BRIDGE,NRD=16 MIN ELTRD= 718.10 MAX ELLC= 717.90

D/S FACE OF FOOT BRIDGE, BS#16 SEC. Q

completely submerged

4940.00	8.35	721.15	0.00	0.00	721.24	.09	.00	.02	718.20
995.	33.	489.	473.	29.	160.	307.	40.	13.	718.10
.32	1.15	3.05	1.54	.070	.032	.070	.043	712.80	152.36
.001776	1.	1.	1.	2	0	1	-7.80	182.98	335.34

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=16 MIN ELTRD= 718.10 MAX ELLC= 717.90

U/S FACE OF FOOT BRIDGE, BS#16 SEC. Q

4944.00	8.35	721.15	0.00	0.00	721.24	.09	.01	.00	718.20
995.	33.	488.	473.	29.	161.	308.	40.	13.	718.10
.32	1.15	3.04	1.54	.070	.032	.070	.043	712.80	152.32
.001766	4.	4.	4.	0	0	1	-7.80	183.03	335.35

4945.00	8.32	721.12	0.00	0.00	721.27	.15	.00	.03	717.50
995.	29.	637.	328.	33.	168.	306.	40.	13.	716.90
.32	.90	3.80	1.07	.075	.040	.075	.043	712.80	152.13
.000990	1.	1.	1.	2	0	1	0.00	183.15	335.27

4994.00	8.08	721.16	0.00	0.00	721.34	.18	.05	.02	717.78
995.	27.	665.	303.	28.	161.	273.	41.	13.	717.18
.33	.96	4.12	1.11	.075	.040	.075	.043	713.08	153.61
.001226	49.	49.	49.	2	0	1	0.00	180.97	334.58

```
.00F.12      25.      25.      25.       0        0        1     0.00   118.74   232.71

          D/S FACE OF DANVERS DRIVE CULVERT, BS#18                    SEC. S

  5919.00     5.02   723.62     0.00     0.00   724.28      .66      .08      .03   721.70
     950.      129.     821.       0.       80.     118.       0.      48.      16.   725.40
      .37     1.62     6.98     0.00     .070     .038     .070     .043   718.60   116.57
  .006129      12.      12.      12.        2        0        1     0.00   116.03   232.60

1490 NH CARD USED

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.60      3.05      0.00      8.15      0.00     55.00     0.00    719.40    718.60

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

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
  735.66    726.54    0.00      275.      675.      55.       724.60    728.00    30.00

3470 ENCROACHMENT STATIONS=      110.2      258.7  TYPE=      1  TARGET=      155.000

          U/S FACE OF DANVERS DRIVE CULVERT, BS#18                    SEC. S

  5994.00    10.19   729.59     0.00     0.00   729.71      .12     5.43     0.00   724.60
     950.      193.     626.     131.     139.     190.     117.      48.      17.   724.40
      .38     1.39     3.29     1.11     .070     .051     .070     .043   719.40   110.17
  .000777      75.      75.      75.        2        0        5     0.00   104.71   214.88

3470 ENCROACHMENT STATIONS=       60.0       170.0  TYPE=      1  TARGET=      110.000

          D/S FACE OF DAM SECTION 9' U/S FROM DANVERS DRIVE, DS#19    SEC. T
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① XKOR calculation : see "Hydraulic Analysis booklet.

② most flow goes by pressure flow.

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3470 ENCROACHMENT STATIONS=      60.0      170.0  TYPE=     1  TARGET=     110.000
        D/S FACE OF DAM SECTION 9' U/S FROM DANVERS DRIVE, DS#19        SEC. T

  6003.00    10.23   729.53     0.00     0.00   729.77      .24      .00      .06   726.20
     950.      25.     874.      51.      70.     215.     110.      48.      17.   726.70
      .38      .36     4.07      .47     .055     .012     .055     .043   719.30    61.18
 .000091       9.       9.       9.        2        0        1     0.00   108.82   170.00

SPECIAL BRIDGE

SB   XK       XKOR     COFQ     RDLEN     BWC      BWP     BAREA      SS     ELCHU    ELCHD
     0.00     1.00     3.30     0.00      .10     0.00      .05     0.00   724.10   719.30

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC       H3     QWEIR      QPR     BAREA     ELLC    ELTRD    CLASS
606319.59   734.57     0.00     953.       0.       0.   724.10   726.00    30.00

3470 ENCROACHMENT STATIONS=      60.0      170.0  TYPE=     1  TARGET=     110.000
  6010.00     5.47   729.57     0.00     0.00   729.79      .22      .02     0.00   724.60
     950.      85.     765.     100.     119.     184.     123.      48.      17.   725.20
      .38      .72     4.16      .81     .050     .012     .050     .043   724.10    60.00
 .000133       7.       7.       7.        2        0       18     0.00   110.00   170.00

  6130.00     5.25   729.70     0.00     0.00   729.85      .14      .04      .02   724.95
     950.     148.     591.     211.     103.     158.     195.      50.      17.   725.55
      .39     1.44     3.73     1.08     .065     .040     .085     .043   724.45    45.87
 .001265     150.     120.     110.        2        0        1     0.00   187.16   233.03

  6250.00     5.05   729.85     0.00     0.00   730.12      .26      .21      .06   725.30
     950.     145.     605.     200.      75.     121.     139.      51.      17.   725.90
      .40     1.92     4.99     1.45     .065     .040     .085     .043   724.80    38.16
 .002396     150.     120.     110.        2        0        1     0.00   141.95   180.11

  6370.00     5.02   730.17     0.00     0.00   730.48      .31      .34      .03   730.45
     950.       0.     753.     197.       0.     151.     145.      52.      18.   727.85
      .41     0.00     5.00     1.36     .065     .040     .085     .043   725.15   111.02
 .003347     150.     120.     110.        2        0        1     0.00   138.39   249.41
```

(1) Concrete Dam

(2) Elevation Difference between crest and d/s bottom = 726 - 719.40 = 6.60 ft.

(3) Elevation Difference between crest and u/s bottom = 726 - 724.1 = 1.9 ft

(4) Here, special bridge routine was used to determine CWSEL

(5) For 100-year flood, result shows a completely submerged weir, implying an overland flow. But if we use normal bridge routine or regular valley section, the results won't change by more than 0.1 ft.

6820.00	6.29	731.95	731.63	0.00	732.79	.83	.24	.06	732.46
950.	0.	892.	58.	0.	118.	46.	54.	19.	731.16
.43	0.00	7.56	1.27	.075	.042	.080	.043	725.66	65.88
.008604	15.	30.	45.	0	11	1	0.00	107.00	172.88

6830.00	6.23	732.01	731.73	0.00	732.91	.90	.09	.03	732.58
950.	0.	903.	47.	0.	116.	41.	54.	19.	731.28
.44	0.00	7.80	1.16	.070	.040	.080	.043	725.78	66.01
.008475	5.	10.	15.	4	5	1	0.00	105.73	171.74

D/S FACE OF DANVERS COURT CULVERT, BS#22 SEC. W

6840.00	6.20	732.10	731.96	0.00	732.99	.89	.08	.00	732.70
950.	0.	894.	56.	0.	115.	38.	54.	19.	731.40
.44	0.00	7.79	1.47	.055	.036	.055	.043	725.90	66.07
.006926	5.	10.	15.	0	5	1	0.00	105.12	171.20

(1) Skewed by 0.966

(2) The area of the culvert remains un-skewed

1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.44	3.04	0.00	8.47	0.00	60.00	0.00	726.70	725.90

(3) Free - fall weir flow.

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
741.59	733.95	0.00	338.	614.	60.	733.00	734.60	30.00

3470 ENCROACHMENT STATIONS= .0 286.9 TYPE= 1 TARGET= 296.950

U/S FACE OF DANVERS COURT CULVERT, BS#22 SEC. W

6907.00	9.16	735.86	0.00	0.00	736.07	.21	3.08	0.00	735.30
950.	2.	873.	75.	3.	229.	69.	55.	19.	735.20
.44	.49	3.81	1.09	.050	.047	.050	.043	726.70	157.00
.001484	67.	67.	67.	2	0	5	0.00	129.90	286.90

7207.00	5.98	738.48	735.0	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
950.	47.	903.	0.	38.	121.	0.	56.	20.	739.30
.45	1.25	7.47	0.00	.075	.042	.075	.043	729.50	53.95
.010183	300.	300.	300.	6	19	1	0.00	112.08	166.95

1490 NH CARD USED

7407.00	6.27	738.07	0.00	0.00	738.65	.58	1.27	.07	735.20
950.	37.	807.	106.	18.	123.	42.	57.	21.	734.20
.46	2.05	6.56	2.51	.060	.042	.060	.043	731.80	51.28
.004355	250.	200.	150.	2	0	1	0.00	60.50	111.78

1490 NH CARD USED

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.45	3.02	0.00	12.87	0.00	81.05	0.00	731.80	731.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
741.16	738.62	0.00	71.	872.	81.	738.30	740.00	30.00

U/S FACE OF FOOT BRIDGE, BS#23A SEC. Y

7420.00	8.74	740.54	0.00	0.00	740.68	.13	2.03	0.00	735.00
950.	109.	643.	198.	71.	188.	132.	57.	21.	734.20
.46	1.54	3.41	1.50	.055	.041	.055	.043	731.80	39.60
.000666	13.	13.	13.	2	0	3	0.00	110.45	150.05

7430.00	8.29	740.39	0.00	0.00	740.85	.46	.01	.16	739.00
950.	61.	849.	40.	41.	148.	39.	57.	21.	739.50
.46	1.51	5.72	1.01	.055	.035	.055	.043	732.10	46.27
.002724	15.	10.	5.	2	0	1	0.00	137.35	183.61

D/S FACE OF DANVERS COURT WEST CULVERT, BS#24 SEC. Z

7448.00	7.71	740.41	0.00	0.00	740.90	.50	.03	.02	732.90
950.	172.	601.	177.	68.	88.	76.	57.	21.	732.90
.46	2.52	6.87	2.34	.050	.032	.050	.043	732.70	162.55
.001446	18.	18.	18.	1	0	1	0.00	90.77	253.32

① Orifice area has been adjusted by a skewness = 0.90

② major portion of flow is pressure flow

③ the sketch of U/S face (shown in field notes) shows a reduction of bridge opening. However, having a field trip to this bridge, we found that this area reduction is not true. Actually, that "area reduction" is several feet away from the bridge face, beside the orifice area has been adjusted by 10% down. So we don't have to reduce any more area.

D/S FACE OF DANVERS COURT WEST CULVERT, BS#24 SEC. Z

7448.00	7.71	740.41	0.00	0.00	740.90	.50	.03	.02	732.90
950.	172.	601.	177.	68.	88.	76.	57.	21.	732.90
.46	2.52	6.87	2.34	.050	.032	.050	.043	732.70	162.55
.001446	18.	18.	18.	1	0	1	0.00	90.77	253.32

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.41	3.03	0.00	8.63	0.00	63.00	0.00	732.20	731.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
748.92	741.83	0.00	381.	576.	63.	739.50	741.40	30.00

① No skew

② Sediment is assumed to be flushed out.

$\bar{v} = \frac{Q}{A} = \frac{576}{63} = 9.14$ ft/sec

(inside the pipe)

3470 ENCROACHMENT STATIONS= 128.0 272.0 TYPE= 1 TARGET= 144.000

U/S FACE OF DANVERS COURT WEST CULVERT, BS#24 SEC. Z

7515.00	11.05	743.25	0.00	0.00	743.53	.28	2.63	0.00	735.30
950.	134.	629.	187.	69.	124.	114.	58.	21.	735.30
.47	1.94	5.09	1.64	.050	.035	.050	.043	732.20	140.74
.000934	67.	67.	67.	2	0	4	0.00	131.26	272.00

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

3470 ENCROACHMENT STATIONS= 130.0 270.0 TYPE= 1 TARGET= 140.000

7520.00	11.22	743.52	0.00	0.00	743.60	.08	.00	.06	739.60
950.	110.	764.	76.	127.	303.	104.	58.	21.	738.00
.47	.87	2.52	.73	.060	.042	.060	.043	732.30	130.00
.000334	5.	5.	5.	2	0	1	0.00	140.00	270.00

7590.00	10.50	743.50	0.00	0.00	743.70	.19	.04	.06	741.10
950	57	882	10	9	2[illegible]2	11	58.	21.	741.20

.48	.98	3.65	.94	.070	.042	.070	.043	733.00	28.28
.001668	70.	70.	70.	2	0	1	0.00	88.38	116.66
7639.00	9.97	743.57	0.00	0.00	743.82	.24	.09	.02	741.70
950.	34.	910.	6.	36.	226.	7.	59.	21.	741.80
.48	.96	4.03	.91	.070	.042	.070	.043	733.60	39.03
.002226	49.	49.	49.	2	0	1	0.00	75.40	114.44

NORMAL BRIDGE,NRD=21 MIN ELTRD= 741.70 MAX ELLC= 740.80

7640.00	9.96	743.56	0.00	0.00	743.83	.27	.00	.01	741.70
950.	92.	842.	16.	35.	196.	7.	59.	21.	741.80
.48	2.60	4.30	2.46	.040	.035	.040	.043	733.60	39.10
.005352	1.	1.	1.	1	0	1	-30.00	75.33	114.42

completely Submerged

NORMAL BRIDGE,NRD=21 MIN ELTRD= 741.70 MAX ELLC= 740.80

U/S FACE OF WALK BRIDGE, BS#24A SEC. AA

7644.00	9.99	743.59	0.00	0.00	743.85	.26	.02	.00	741.70
950.	94.	840.	16.	36.	196.	7.	59.	21.	741.80
.48	2.60	4.28	2.46	.040	.035	.040	.043	733.60	38.79
.005289	4.	4.	4.	0	0	1	-30.00	75.70	114.49
7645.00	10.03	743.63	0.00	0.00	743.87	.23	.00	.01	741.70
950.	39.	904.	7.	38.	228.	7.	59.	21.	741.80
.48	1.03	3.97	.98	.065	.042	.065	.043	733.60	37.87
.002142	1.	1.	1.	2	0	1	0.00	76.81	114.68
7694.00	9.65	743.73	0.00	0.00	744.00	.27	.12	.02	742.18
950.	24.	922.	4.	24.	216.	4.	59.	21.	742.28
.48	.99	4.27	.93	.065	.042	.065	.043	734.08	45.65
.002649	49.	49.	49.	2	0	1	0.00	67.42	113.07

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7844.00	8.57	744.09	0.00	0.00	744.59	.50	.48	.11	743.72
950.	2.	948.	0	5	166	0	[illegible]	[illegible]	[illegible]

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=			135.8	325.0	TYPE=	1	TARGET=	195.000	
7894.00	8.64	744.64	0.00	0.00	744.78	.13	.07	.11	740.60
950.	84.	752.	114.	70.	232.	77.	60.	22.	739.00
.49	1.21	3.24	1.47	.055	.046	.055	.043	736.00	172.50
.000764	50.	50.	50.	2	0	1	0.00	111.92	284.42

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.43	3.03	0.00	14.50	0.00	113.10	0.00	736.00	736.00

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
746.21	744.79	0.00	149.	800.	113.	744.20	745.00	30.00

3470 ENCROACHMENT STATIONS=			135.8	325.0	TYPE=	1	TARGET=	195.000	
U/S FACE OF DRIVEWAY BRIDGE, BS#25							SEC. AB		
7906.00	9.67	745.67	0.00	0.00	745.75	.08	.98	0.00	740.60
950.	131.	689.	129.	146.	261.	108.	60.	22.	739.00
.50	.90	2.64	1.20	.055	.040	.055	.043	736.00	135.80
.000364	12.	12.	12.	2	0	3	0.00	154.47	290.27

3470 ENCROACHMENT STATIONS=			186.0	302.0	TYPE=	1	TARGET=	116.000	
7966.00	8.79	745.69	0.00	0.00	745.78	.08	.02	.00	739.50
950.	238.	562.	150.	229.	195.	164.	61.	22.	738.10
.50	1.04	2.88	.91	.085	.042	.085	.043	736.90	186.00
.000453	55.	60.	65.	0	0	1	0.00	116.00	302.00
8026.00	7.75	745.70	0.00	0.00	745.84	.13	.04	.03	740.55
950.	206.	608.	136.	214.	169.	122.	62.	22.	739.15
.51	.96	3.60	1.12	.085	.042	.085	.043	737.95	152.01
.000858	55.	60.	65.	2	0	1	0.00	145.23	297.24
8086.00	6.73	745.73	0.00	0.00	745.96	.23	.07	.05	741.70
950.	244.	517.	189.	164.	103.	108.	62.	22.	740.50

① skewness = 0.97

② "n" value has been adjusted to show better flow continuity

③ Free-fall weir flow

3470 ENCROACHMENT STATIONS= 255.0 360.0 TYPE= 1 TARGET= 105.000

D/S FACE OF WELLINGTON RD BRIDGE, BS#30 SEC. AG

10191.00	5.65	769.25	0.00	0.00	769.42	.17	.21	.13	766.20
950.	168.	536.	246.	94.	133.	110.	74.	31.	765.80
.62	1.79	4.02	2.25	.055	.041	.055	.042	763.60	255.00
.001509	80.	75.	70.	2	0	1	0.00	105.00	360.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	3.03	0.00	9.13	0.00	75.75	.37	763.60	763.60

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
773.08	772.75	0.00	86.	859.	76.	770.20	771.50	30.00

① Major portion of the flow = Pressure flow

② "n" has been adjusted to show better flow continuity

U/S FACE OF WELLINGTON RD BRIDGE, BS#30 SEC. AG

10221.00	8.50	772.10	0.00	0.00	772.38	.29	2.97	0.00	763.60
950.	246.	566.	138.	192.	103.	130.	74.	31.	765.60
.62	1.29	5.49	1.06	.100	.032	.100	.042	763.60	156.37
.000990	30.	30.	30.	2	0	3	0.00	101.55	257.92

3470 ENCROACHMENT STATIONS= 205.0 424.0 TYPE= 1 TARGET= 219.000

10276.00	8.16	772.46	0.00	0.00	772.48	.02	.02	.08	766.80
950.	219.	335.	396.	296.	205.	459.	75.	31.	766.40
.63	.74	1.63	.86	.065	.045	.065	.042	764.30	205.00
.000176	55.	55.	55.	2	0	1	0.00	219.00	424.00

10441.00	6.12	772.49	0.00	0.00	772.56	.08	.05	.03	768.87
950.	156.	437.	357.	130.	148.	257.	78.	32.	768.47
.66	1.20	2.96	1.39	.065	.045	.065	.042	766.37	231.25
.000892	200.	165.	130.	2	0	1	0.00	189.66	420.91

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 814.60 ELREA= 814.60

D/S FACE OF MIDDLEBELT RD BRIDGE, BS#37 SEC. AN

13771.00	6.52	811.62	0.00	0.00	814.13	2.51	.10	.72	806.20
950.	0.	950.	0.	0.	75.	0.	97.	45.	805.10
.82	0.00	12.72	0.00	.055	.035	.055	.042	805.10	300.00
.010775	10.	10.	10.	3	0	1	0.00	13.00	325.85

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.75	3.03	0.00	7.78	0.00	77.90	.35	805.10	805.10

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

Pressure flow only

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
815.66	814.13	0.00	0.	950.	78.	812.60	817.30	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 817.90 ELREA= 817.90

U/S FACE OF MIDDLEBELT RD BRIDGE, BS#37 SEC. AN

13824.00	9.46	814.56	0.00	0.00	815.66	1.10	1.53	0.00	806.20
950.	0.	950.	0.	0.	113.	0.	97.	45.	805.10
.82	0.00	8.41	0.00	.055	.035	.055	.042	805.10	300.00
.003256	53.	53.	53.	3	0	1	0.00	13.00	331.65

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

D/S FACE OF DAM SECTION 350' U/S FROM MIDDLEBELT RD, DS#38 SEC. AO

14174.00	8.83	816.23	0.00	0.00	816.29	.06	.31	.11	812.60
950.	477.	349.	124.	576.	115.	164.	101.	46.	812.10
.88	.83	3.05	.76	.080	.032	.070	.042	807.40	56.95
.000409	347.	347.	347.	2	0	1	0.00	278.73	335.68
14176.00	6.84	816.24	0.00	0.00	816.30	.06	.00	.00	812.60
950.	510.	307.	133.	576.	99.	164.	101.	46.	812.10
.88	.89	3.10	.81	.080	.032	.070	.042	809.40	56.92
.000466	2.	2.	2.	0	0	1	0.00	278.77	335.69

① Dam section
② Could not get permission to get into the property
③ Dimensions are based on our best guess.

550' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#39 SEC. AP

14376.00	7.67	816.37	0.00	0.00	816.51	.14	.18	.04	813.90
950.	464.	412.	73.	371.	96.	74.	105.	47.	813.50
.90	1.25	4.29	.99	.095	.047	.095	.042	808.70	66.70
.002233	200.	200.	200.	2	0	1	0.00	251.72	318.42
14476.00	6.84	816.57	0.00	0.00	816.97	.40	.33	.13	814.93
950.	363.	544.	43.	230.	83.	33.	105.	48.	814.53
.91	1.58	6.58	1.31	.095	.047	.095	.042	809.73	73.72
.006405	80.	100.	120.	2	0	1	0.00	216.08	289.80
14526.00	6.59	816.83	0.00	0.00	817.42	.58	.36	.09	815.44
950.	316.	598.	35.	190.	79.	25.	106.	48.	815.04
.91	1.67	7.60	1.39	.095	.047	.095	.042	810.24	75.78
.009111	40.	50.	60.	2	0	1	0.00	207.57	283.35

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14576.00	6.54	817.29	817.29	0.00	817.92	.63	.45	0.00	815.95
950	304	612	[illegible]	[illegible]	[illegible]				

14976.00	6.70	820.00	820.00	0.00	822.75	2.75	.12	0.00	813.90
865.	0.	865.	0.	0.	65.	0.	108.	49.	813.30
.93	0.00	13.31	0.00	.080	.042	.080	.042	813.30	390.00
.030533	5.	5.	5.	30	11	1	0.00	12.00	448.62

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 821.20 ELREA= 821.20

① Pressure flow only

② The area of the wood pileing has been take out for orifice area.

D/S FACE OF 13 MILE RD BRIDGE, BS#41 SEC. AR

14977.00	7.88	821.18	0.00	0.00	823.04	1.85	.01	.27	813.90
865.	0.	865.	0.	0.	79.	0.	108.	49.	813.30
.93	0.00	10.92	0.00	.050	.024	.050	.042	813.30	390.00
.005513	1.	1.	1.	14	0	1	0.00	12.00	402.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.78	3.03	0.00	11.34	0.00	78.20	.05	813.30	813.30

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
824.57	823.04	0.00	0.	865.	78.	820.20	825.60	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 825.60 ELREA= 825.60

U/S FACE OF 13 MILE RD BRIDGE, BS#41 SEC. AR

```
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      830.90 ELREA=      830.90

 15077.00    11.88   825.78     0.00     0.00   825.91      .12      .99     0.00   819.70
     565.       0.      565.       0.       0.     201.       0.     109.      49.   819.80
      .94     0.00     2.82     0.00     .045     .035     .045     .042   813.90   298.00
  .000429       2.       2.       2.        2        0        1     0.00    18.00   316.00

3470 ENCROACHMENT STATIONS=        75.0      155.0  TYPE=      1  TARGET=      80.000
 15197.00    11.70   825.90     0.00     0.00   825.95      .05      .03      .02   819.00
     565.      140.      295.     129.     150.     126.     100.     109.      49.   817.90
      .96      .93     2.35     1.29     .045     .032     .045     .042   814.20    75.00
  .000167     160.      120.      10.        2        0        1     0.00    80.00   155.00

NORMAL BRIDGE,NRD=14 MIN ELTRD=  820.00 MAX ELLC=  819.90

3470 ENCROACHMENT STATIONS=        75.0      155.0  TYPE=      1  TARGET=      80.000
 15198.00    11.72   825.92     0.00     0.00   825.96      .04      .00      .00   819.00
     565.      180.      214.     171.     147.     120.      99.     109.      49.   817.90
      .96     1.22     1.78     1.73     .045     .030     .045     .042   814.20    75.00
  .000303       1.        1.       1.        1        0        1   -10.92    80.00   155.00

NORMAL BRIDGE,NRD=14 MIN ELTRD=  820.00 MAX ELLC=  819.90

3470 ENCROACHMENT STATIONS=        75.0      155.0  TYPE=      1  TARGET=      80.000
        U/S FACE OF WALK BRIDGE ON MONASTERY PROP., BS#44                SEC. AU
 15204.00    11.72   825.92     0.00     0.00   825.96      .04      .00      .00   819.00
     565.      180.      214.     171.     147.     120.      99.     109.      49.   817.90
      .96     1.22     1.78     1.73     .045     .030     .045     .042   814.20    75.00
  .000302       6.        6.       6.        0        0        1   -10.92    80.00   155.00

3470 ENCROACHMENT STATIONS=        75.0      155.0  TYPE=      1  TARGET=      80.000
 15205.00    11.71   825.91     0.00     0.00   825.97      .05      .00      .01   819.00
     565.      141.      295.     129.     151.     126.     100.     109.      49.   817.90
      .96      .93     2.35     1.29     .045     .032     .045     .042   814.20    75.00
  .000166       1.        1.       1.        0        0        1     0.00    80.00   155.00

3470 ENCROACHMENT STATIONS=        129.0     139.0  TYPE=      1
```

⑤ This island problem starts at section 15028 and ends at section 15465 (125' u/s from u/s face of A.C. fence)

⑥ The area of steel sheeting (24 - 5/8"φ) under the brick wall has been taken out and some more loss has been added to XKOR

⑦ The walk bridge inside the monastery property (SECNO = 15204) is completely submerged.
— use normal bridge routine —

⑧ Energy gradient elevation is used as the criterium for the flow division at u/s of the Monastery.
(Section 15465 for pressure flow
Section 15203 for overland flow)

```
3470 ENCROACHMENT STATIONS=      75.0      310.0  TYPE=     1  TARGET=      235.000
 15615.00     10.22    828.92      0.00      0.00    828.93       .01       .00       .00    823.00
     865.      195.      228.      443.      433.      210.      745.      119.       51.    823.30
     1.10       .45      1.08       .59      .060      .036      .060      .042    818.70     75.00
  .000044       85.       75.       65.         0         0         1      0.00    235.00    310.00
```

① Major portion of the flow is weir flow

```
3470 ENCROACHMENT STATIONS=      75.0      310.0  TYPE=     1  TARGET=      235.000
        MANNING COEFFICIENT IS NOT REALISTIC, SET FOR FLOW CONTINUITY
 15616.00     10.22    828.92      0.00      0.00    828.93       .01       .00       .00    823.00
     865.      262.        8.      595.      433.      210.      745.      119.       51.    823.30
     1.10       .60       .04       .80      .035      .800      .035      .042    818.70     75.00
  .000027        1.        1.        1.         0         0         1      0.00    235.00    310.00
```

② Actually, this is a complety submerged weir, skew coefficient has been taken into account.

③ If normal bridge routine is used, the head water elevation will not by more than 0.05' (because of the complete submergence)

```
SPECIAL BRIDGE
SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.86      3.04      0.00      7.02      0.00      19.66     0.00      819.50    818.70
PRESSURE AND WEIR FLOW
EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
884.84    829.73    0.00      839.      28.       20.       821.80    825.40    30.00
```

④ "n" value at the channel is not realistic, set for flow continuity.

```
        U/S FACE OF BRIDGE TO SCHOOL, BS#46                          SEC. AX
15660.00      9.47    828.97      0.00      0.00    828.99       .01       .05      0.00    820.40
    865.      578.        4.      283.      695.       77.      348.      120.       51.    820.80
    1.11       .83       .05       .81      .035      .800      .035      .044    819.50    135.61
 .000073       44.       44.       44.         1         0         8      0.00    434.44    570.05

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

15661.00      9.47    828.97      0.00      0.00    828.99       .02       .00       .01    820.40
    865.      461.      178.      226.      694.       79.      347.      120.       51.    820.80
    1.11       .67      2.2[illegible]       .65      .075      .0[illegible]      .075      .044    819.50    135.76
```

3470 ENCROACHMENT STATIONS= 367.0 395.0 TYPE= 1 TARGET= 28.000

30' U/S FROM U/S FACE OF 13 MILE RD BRIDGE, VS#42 SEC. AS

15055.00	10.50	824.80	0.00	0.00	824.87	.06	.02	.07100000.00	
565.	0.	565.	0.	0.	278.	0.	108.	49.	100000.00
.94	0.00	2.04	0.00	.050	.037	.050	.042	814.30	367.00
.000231	27.	27.	27.	2	0	1	0.00	28.00	395.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 830.00 ELREA= 830.00

BRICK WALL AT MONASTERY, BS#43 SEC. AT

15075.00	10.87	824.77	0.00	0.00	824.92	.15	.01	.04	819.70
565.	0.	565.	0.	0.	182.	0.	108.	49.	819.80
.94	0.00	3.10	0.00	.045	.035	.045	.042	813.90	298.00
.000567	20.	20.	20.	2	0	1	0.00	18.00	316.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.64	2.60	0.00	6.31	0.00	84.44	.29	813.90	813.90

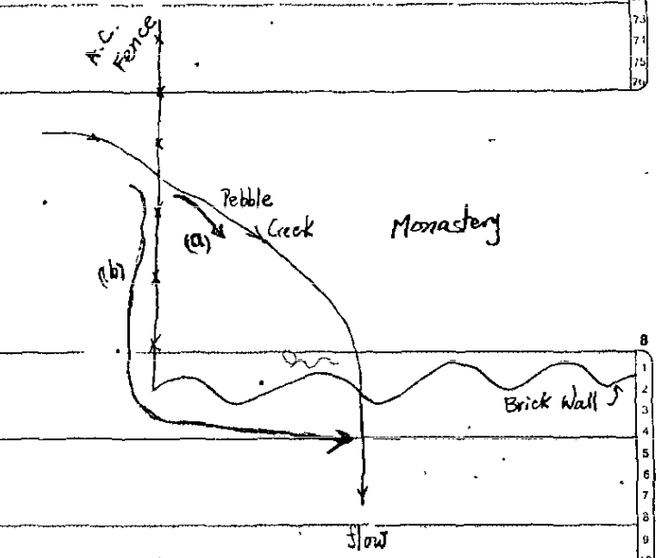
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
825.91	824.92	0.00	0.	565.	84.	819.80	830.90	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 830.90 ELREA= 830.90

15077.00	11.88	825.78	0.00	0.00	825.91	.12	.99	0.00	819.70
565.	0.	565.	0.	0.	201.	0.	109.	49.	819.80
.94	0.00	2.82	0.00	.045	.03[illegible]	.04[illegible]	.04[illegible]	813.9	298.00

① 

② Assume both brick wall and A.C. fence won't be failure when big flood comes (requested by FIA)

③ There is an island problem:
(a) flow through Pebble Creek itself by pressure flow.
(b) Overland flow around A.C. fence and brick wall
(see above figure)

④ for 10-year flood, all the flow is flowing by pressure flow.
- no overland flow -

⑤ this island problem starts at section 15028 and ends at section 15465 (125' u/s from u/s face of A.C. fence)

1.23	2.81	6.04	2.23	.045	.036	.050	.044	825.90	45.58
.006449	72.	72.	72.	2	0	1	0.00	207.31	252.89

16756.00	4.95	830.35	0.00	0.00	830.45	.10	.34	.07	827.70
865.	249.	376.	240.	191.	105.	197.	131.	56.	827.60
1.24	1.30	3.57	1.22	.065	.032	.065	.044	825.40	38.42
.001160	150.	150.	150.	2	0	1	0.00	230.36	268.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.76	3.03	0.00	8.00	0.00	54.00	0.00	825.60	825.40

@ Free - fall Weir flow.

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
837.37	832.95	0.00	204.	664.	54.	831.80	833.40	30.00

U/S FACE OF WEST GATE RD BRIDGE, BS#49 SEC. BA

16786.00	8.79	834.39	0.00	0.00	834.49	.10	4.03	0.00	831.00
865.	216.	583.	66.	209.	198.	73.	131.	56.	831.30
1.25	1.04	2.94	.90	.050	.034	.050	.044	825.60	441.72
.000514	30.	30.	30.	2	0	5	0.00	221.49	663.21

300' U/S FROM U/S FACE OF WEST GATE RD BRIDGE, VS#50 SEC. BB

17086.00	4.72	834.62	0.00	0.00	834.71	.09	.23	.00	832.00
865.	105.	161.	599.	84.	45.	270.	134.	57.	831.50
1.28	1.25	3.60	2.22	.050	.035	.050	.044	829.90	123.07
.001232	300.	300.	300.	2	0	1	0.00	166.22	289.29

17196.00	4.18	834.78	0.00	0.00	834.93	.15	.18	.03	832.70
865.	79.	177.	609.	53.	39.	221.	135.	57.	832.20
1.29	1.50	4.59	2.75	.050	.035	.050	.044	830.60	136.37

```
 18262.00      6.15    842.35      0.00      0.00    842.65       .30       .35       .10    838.10
     865.      278.      343.      244.      139.       52.      120.      141.       61.    836.40
     1.35      2.00      6.54      2.03      .045      .032      .045      .044    836.20     55.90
  .002078      150.      180.      100.         4         0         1      0.00    196.22    252.12


 NORMAL BRIDGE,NRD=11 MIN ELTRD=  840.00 MAX ELLC=  839.20

 18263.00      6.41    842.61      0.00      0.00    842.71       .10       .00       .06    838.10
     865.      374.      145.      346.      161.       45.      142.      141.       61.    836.40
     1.35      2.31      3.24      2.43      .035      .025      .035      .043    836.20     53.18
  .001598        1.        1.        1.         3         0         1    -16.88    202.69    255.87


 NORMAL BRIDGE,NRD=11 MIN ELTRD=  840.00 MAX ELLC=  839.20

          U/S FACE OF BRIDGE IN GOLF COURSE, BS#52A                    SEC. BE

 18270.00      6.42    842.62      0.00      0.00    842.72       .10       .01       .00    838.10
     865.      374.      144.      346.      163.       45.      143.      141.       61.    836.40
     1.35      2.30      3.21      2.41      .035      .025      .035      .043    836.20     53.05
  .001563        7.        7.        7.         0         0         1    -16.88    203.00    256.04


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


 18271.00      6.36    842.56      0.00      0.00    842.78       .22       .00       .06    838.10
     865.      293.      316.      256.      161.       54.      140.      141.       61.    836.40
     1.35      1.81      5.81      1.83      .045      .031      .045      .043    836.20     53.66
  .001462        1.        1.        1.         2         0         1      0.00    201.54    255.20


 18471.00      6.22    842.92      0.00      0.00    843.04       .12       .22       .03    836.80
     865.      581.      219.       65.      350.       46.       46.      143.       62.    836.70
     1.37      1.66      4.76      1.41      .045      .031      .045      .043    836.70     63.09
  .000876      200.      200.      200.         2         0         1      0.00    201.13    264.22


 NORMAL BRIDGE,NRD=12 MIN ELTRD=  840.40 MAX ELLC=  840.20

 18472.00      6.28    842.98      0.00      0.00    843.05       .07       .00       .01    836.80
     865.      722.       91.       52.      350.       28.       39.      143.       62.    836.70
```

Completely Submerged.

TIME / SLOPE	VLOB / XLOBL	VCH / XLCH	VROB / XLOBR	XNL / ITRIAL	XNCH / IDC	XNR / ICONT	TN / CORAR	ELMIN / TOPWID	SSTA / ENDST
18271.00	6.36	842.56	0.00	0.00	842.78	.22	.00	.06	838.10
865.	293.	316.	256.	161.	54.	140.	141.	61.	836.40
1.35	1.81	5.81	1.83	.045	.031	.045	.043	836.20	53.66
.001462	1.	1.	1.	2	0	1	0.00	201.54	255.20
18471.00	6.22	842.92	0.00	0.00	843.04	.12	.22	.03	836.80
865.	581.	219.	65.	350.	46.	46.	143.	62.	836.70
1.37	1.66	4.76	1.41	.045	.031	.045	.043	836.70	63.09
.000876	200.	200.	200.	2	0	1	0.00	201.13	264.22

NORMAL BRIDGE,NRD=12 MIN ELTRD= 840.40 MAX ELLC= 840.20

18472.00	6.28	842.98	0.00	0.00	843.05	.07	.00	.01	836.80
865.	722.	91.	52.	350.	28.	39.	143.	62.	836.70
1.37	2.06	3.20	1.34	.040	.020	.040	.043	836.70	62.82
.001090	1.	1.	1.	2	0	1	-37.83	202.23	265.05

Completely Submerged

NORMAL BRIDGE,NRD=12 MIN ELTRD= 840.40 MAX ELLC= 840.20

U/S FACE OF BRIDGE IN GOLF COURSE, BS#53 SEC. BF

18479.00	6.29	842.99	0.00	0.00	843.06	.07	.01	.00	836.80
865.	722.	91.	52.	351.	28.	39.	143.	62.	836.70
1.38	2.06	3.19	1.34	.040	.020	.040	.043	836.70	62.80
.001079	7.	7.	7.	0	0	1	-37.83	202.34	265.14
18480.00	6.26	842.96	0.00	0.00	843.09	.13	.00	.03	836.80
865.	573.	228.	64.	357.	46.	47.	143.	62.	836.70
1.38	1.60	4.91	1.35	.050	.032	.050	.043	836.70	62.91
.000987	1.	1.	1.	2	0	1	0.00	201.90	264.80
18600.00	5.83	843.07	0.00	0.00	843.29	.22	.15	.05	837.34
865.	537.	268.	60.	289.	43.	35.	144.	63.	837.24
1.39	1.86	6.19	1.72	.050	.032	.050	.043	837.24	64.77
.001723	120.	120.	120.	1	0	1	0.00	194.31	259.08
18720.00	5.47	843.25	0.00	0.00	843.65	.40	.27	.09	837.88
865.	490.	317.	58.	229.	40.	26.	145.	63.	837.78

18960.00	5.74	844.60	0.00	0.00	845.02	.42	.47	.03	841.66
865.	462.	365.	38.	193.	49.	19.	146.	64.	841.86
1.41	2.39	7.52	1.96	.050	.032	.050	.043	838.86	46.46
.004299	120.	120.	120.	2	0	1	0.00	180.72	227.18
19080.00	5.72	845.12	0.00	0.00	845.56	.44	.52	.01	842.20
865.	459.	368.	37.	190.	48.	19.	147.	65.	842.40
1.42	2.41	7.62	1.99	.050	.032	.050	.043	839.40	46.55
.004444	120.	120.	120.	2	0	1	0.00	180.30	226.85

NORMAL BRIDGE,NRD=12 MIN ELTRD= 843.80 MAX ELLC= 842.40

19081.00	6.12	845.52	0.00	0.00	845.65	.13	.00	.09	842.20
865.	698.	114.	53.	242.	36.	27.	147.	65.	842.40
1.42	2.88	3.21	1.97	.045	.030	.045	.043	839.40	44.62
.004023	1.	1.	1.	3	0	1	-26.50	189.29	233.91

Completely Submerged

NORMAL BRIDGE,NRD=12 MIN ELTRD= 843.80 MAX ELLC= 842.40

U/S FACE OF BRIDGE IN GOLF COURSE, BS#53A SEC. BG

19090.00	6.17	845.57	0.00	0.00	845.69	.12	.03	.00	842.20
865.	699.	112.	54.	248.	36.	28.	147.	65.	842.40
1.42	2.82	3.12	1.92	.045	.030	.045	.043	839.40	44.43
.003740	9.	9.	9.	0	0	1	-26.50	190.15	234.58
19091.00	6.12	845.52	0.00	0.00	845.74	.23	.00	.05	842.20
865.	511.	308.	46.	248.	53.	30.	147.	65.	842.40
1.42	2.06	5.84	1.57	.050	.032	.050	.043	839.40	44.64
.002327	1.	1.	1.	2	0	1	0.00	189.20	233.84
19691.00	6.90	847.00	0.00	0.00	847.43	.43	1.58	.10	846.20
865.	203.	662.	0.	123.	112.	0.	151.	67.	856.60
1.45	1.65	5.93	0.00	.050	.032	.050	.043	840.10	104.84
.003495	500.	600.	700.	2	0	1	0.00	165.47	270.31

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720, ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
19699.00	2.98	847.18	847.18	0.00	847.69	.50	.04	0.00	844.20
865.	418.	313.	135.	159.	37.	29.	151.	67.	844.60
1.45	2.63	8.43	4.69	.055	.032	.045	.043	844.20	100.57
.008144	8.	8.	8.	30	13	1	0.00	171.26	271.83

① Completely submerged Dam

② It's more like "Overland 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

U/S FACE OF STONE DAM, DS#54 SEC. BH

19701.00	3.19	847.39	0.00	0.00	847.75	.36	.01	.04	844.20
865.	447.	288.	129.	188.	40.	32.	151.	67.	844.60
1.45	2.38	7.25	4.08	.055	.032	.045	.043	844.20	95.90
.005504	2.	2.	2.	6	0	1	0.00	176.19	272.09
19702.00	4.33	847.53	0.00	0.00	847.78	.25	.00	.03	843.20
865.	440.	325.	100.	215.	55.	35.	151.	67.	843.60
1.45	2.05	5.95	2.81	.050	.035	.050	.043	843.20	92.48
.002893	1.	1.	1.	2	0	1	0.00	179.79	272.28
19877.00	4.81	848.03	0.00	0.00	848.17	.13	.35	.04	843.22
865.	497.	274.	94.	288.	61.	43.	152.	68.	843.62
1.47	1.73	4.50	2.19	.050	.035	.050	.043	843.22	88.15
.001433	180.	175.	170.	2	0	1	0.00	184.75	272.90
20052.00	5.04	848.29	0.00	0.00	848.39	.10	.22	.01	843.25
865.	518.	255.	92.	324.	64.	47.	154.	69.	843.65
1.49	1.60	4.00	1.97	.050	.035	.050	.043	843.25	86.58
.001066	180.	175.	170.	2	0	1	0.00	186.61	273.19
20227.00	5.21	848.48	0.00	0.00	848.57	.09	.17	.01	843.27
865.	531.	244.	90.	351.	66.	49.	156.	69.	843.67
1.51	1.51	3.69	1.83	.050	.035	.050	.042	843.27	85.39

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20402.00	5.30	848.60	848.60	0.00	849.33	.74	.29	0.00	846.10
865.	51.	597.	217.	23.	73.	92.	157.	70.	843.30
1.52	2.26	8.14	2.36	.045	.032	.045	.042	843.30	121.58
.004237	180.	175.	170.	3	5	1	0.00	136.47	258.05

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=12 MIN ELTRD= 847.70 MAX ELLC= 848.00

20403.00	5.92	849.22	849.22	0.00	849.81	.59	.01	0.00	846.10
865.	0.	454.	411.	0.	58.	112.	157.	70.	843.30
1.52	0.00	7.76	3.67	.042	.022	.042	.042	843.30	111.62
.010387	1.	1.	1.	30	10	1	-108.08	157.30	268.92

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=12 MIN ELTRD= 847.70 MAX ELLC= 848.00

U/S FACE OF BRIDGE IN GOLF COURSE, BS#55 SEC. BI

20423.00	6.47	849.77	0.00	0.00	850.03	.25	.12	.10	846.10
865.	6.	356.	504.	8.	67.	174.	157.	70.	843.30
1.52	.75	5.29	2.90	.042	.022	.042	.042	843.30	102.66
.004011	20.	20.	20.	4	0	1	-122.99	176.05	278.71

20424.00	6.63	849.93	0.00	0.00	850.06	.14	.00	.03	846.10
865.	97.	388.	379.	71.	95.	233.	157.	70.	843.30

① Small bridge (inside golf course)

② It's overland flow and is not weir flow.

– use normal bridge routine

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3470 ENCROACHMENT STATIONS=     1420.0     1585.0  TYPE=      1  TARGET=      165.000
 22744.00      6.43    855.63      0.00      0.00    855.65       .02       .03       .17    850.00
     530.      206.      136.      188.      264.      86.      243.      173.       79.     849.70
      1.72      .78      1.58       .77      .050      .032      .050      .042    849.20   1420.00
   .000135     70.       70.       70.         2         0         1      0.00    165.00   1585.00
```

① Free-fall weir

② Section was encroached to show better expansion from Section BP (section 23106)

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SPECIAL BRIDGE

SB,  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.74      3.03      0.00      3.60      0.00      22.80     0.00      851.20    849.50

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC      H3       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
  887.01    857.65     0.00      391.      141.      23.       854.80    857.25    30.00

3470 ENCROACHMENT STATIONS=     1440.0     1820.0  TYPE=      1  TARGET=      380.000
        U/S FACE OF ROCHARD LAKE ROAD BRIDGE, BS#61                    SEC. BO
 22806.00      6.64    857.84      0.00      0.00    857.85       .01      2.20      0.00    852.00
     530.      202.      114.      214.      245.      89.      435.      174.       79.     852.00
      1.74      .83      1.29       .49      .045      .032      .045      .042    851.20   1440.00
   .000091     62.       62.       62.         1         0         8      0.00    380.00   1820.00

3470 ENCROACHMENT STATIONS=      260.0      515.0  TYPE=      1  TARGET=      255.000
 22956.00      4.76    857.86      0.00      0.00    857.87       .01       .02       .00    856.40
     530.       23.      116.      391.       54.      82.      548.      177.       80.     854.80
      1.79      .43      1.42       .71      .065      .040      .065      .042    853.10    260.00
   .000244     150.      150.      150.         0         0         1      0.00    255.00    515.00

3470 ENCROACHMENT STATIONS=       75.0      475.0  TYPE=      1  TARGET=      400.000
        300' U/S FROM U/S FACE OF ORCHARD LAKE RD BRIDGE, VS#62          SEC. BP
 23106.00      2.86    857.86      0.00      0.00    858.08       .22       .10       .10    858.30
     530.        0.      229.      301.        0.      44.      154.      178.       81.     856.70
      1.80     0.00      5.23      1.95      .065      .040      .065      .042    855.00    300.55
   .007264     150.      150.      150.         2         0         1      0.00    174.45    475.00
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3470 ENCROACHMENT STATIONS=      307.0      320.0  TYPE=      1  TARGET=      13.000
 23706.00      3.43    863.13      0.00       0.00    863.48      .35       .10       .14    863.50
     200.        0.      200.        0.         0.       42.       0.       180.       83. 100000.00
     1.84      0.00      4.78      0.00       .070      .040      .070      .042    859.70    307.00
  .005846       50.       50.       50.          2         0         1      0.00     13.00    320.00

3280 CROSS SECTION  23707.00 EXTENDED        .44 FEET

3470 ENCROACHMENT STATIONS=      307.0      320.0  TYPE=      1  TARGET=      13.000
 23707.00      3.44    863.14      0.00       0.00    863.49      .35       .00       .00    863.50
     200.        0.      200.        0.         0.       42.       0.       180.       83. 100000.00
     1.84      0.00      4.77      0.00       .070      .033      .070      .042    859.70    307.00
  .003966        1.        1.        1.          0         0         1      0.00     13.00    320.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      7.16      3.00      0.00      8.42      0.00      28.64     0.00     861.40    859.70

3280 CROSS SECTION  23887.00 EXTENDED       1.76 FEET

PRESSURE FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
 868.56    865.28    0.00        0.      200.       29.      864.80    875.00    10.00

3470 ENCROACHMENT STATIONS=      38.0       50.0  TYPE=      1  TARGET=      12.000
        U/S FACE OF BRICK FENCE @ BRIDGE DRIVEWAY, BS#63                SEC. BQ

        END OF ISLAND PROBLEM                                           SEC. BQ

 23887.00      7.06    868.46      0.00       0.00    868.56      .09      5.07      0.00    866.70
     200.        0.      200.        0.         0.       81.       0.       181.       83. 100000.00
     1.86      0.00      2.47      0.00       .070      .033      .070      .042    861.40     38.00
  .000709      180.      180.      180.          2         0         1      0.00     12.00     50.00

3280 CROSS SECTION  23987.00 EXTENDED        .68 FEET
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① There is a brick wall at U/S face of the road, and the 180' long culvert under the road.

② Assume : ⓐ brick wall won't fail when big flood comes

ⓑ wood fence will fail when big flood comes

③ Therefore, there will be pressure flow and overland flow. Pressure flow will go through the pipe and overland flow will go over wood fence when wood fence fails down

④ So, the problem will be solved by island problem. And the width of the overland flow will be the distance between the building and brick fence

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
23987.00	6.98	868.48	0.00	0.00	868.74	.26	.10	.08	865.50
530.	34.	496.	0.	31.	119.	0.	181.	83.	872.60
1.87	1.08	4.19	0.00	.070	.033	.070	.042	861.50	0.00
.001221	50.	100.	150.	2	0	1	0.00	41.35	41.35

① Topwidth only equals to 41.66 ft.
— weir flow only —

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.00	3.30	0.00	.10	0.00	.01	0.00	862.00	861.50

PRESS FLOW BECAUSE EGLWC OF 869.24 EXCEEDS 1.5 DEPTH
3280 CROSS SECTION 23990.00 EXTENDED .87 FEET

② Solved by special bridge routine.

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
*********	869.24	0.00	532.	0.	0.	864.30	862.50	30.00

③ Actually, if we use normal bridge routine or valley section to determine the head water elevation, the result will be almost same as that solved by special bridge routine.

U/S FACE OF STONE SPILLWAY, BS#64 SEC. BR

23990.00	6.67	868.67	0.00	0.00	868.94	.28	.20	0.00	865.50
530.	43.	487.	0.	34.	111.	0.	181.	83.	872.60
1.87	1.24	4.38	0.00	.070	.033	.070	.042	862.00	0.00
.001452	3.	3.	3.	2	0	8	0.00	41.66	41.66

24215.00	7.30	869.00	0.00	0.00	869.28	.28	.34	.00	869.10
530.	0.	530.	0.	0.	124.	0.	182.	83.	874.20
1.88	0.00	4.27	0.00	.070	.033	.070	.042	861.70	13.16
.001533	225.	225.	225.	2	0	1	0.00	29.19	42.35

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

more like overland flow

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

[illegible]	[illegible]	[illegible]	0.00	0.00	[illegible]	.28	.20	0.00	865.50
530.	43.	487.	0.	34.	111.	0.	181.	83.	872.60
1.87	1.24	4.38	0.00	.070	.033	.070	.042	862.00	0.00
.001452	3.	3.	3.	2	0	8	0.00	41.66	41.66

24215.00	7.30	869.00	0.00	0.00	869.28	.28	.34	.00	869.10
530.	0.	530.	0.	0.	124.	0.	182.	83.	874.20
1.88	0.00	4.27	0.00	.070	.033	.070	.042	861.70	13.16
.001533	225.	225.	225.	2	0	1	0.00	29.19	42.35

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

more like overland 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

U/S FACE OF STONE SPILLWAY, BS#65 SEC. BS

24216.00	3.57	869.27	869.27	0.00	870.53	1.26	.00	0.00	867.30
530.	12.	508.	10.	6.	55.	5.	182.	83.	867.00
1.88	2.10	9.20	2.18	.070	.033	.070	.042	865.70	9.41
.010648	1.	1.	1.	30	11	1	0.00	31.69	41.09

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 101.0 205.0 TYPE= 1 TARGET= 104.000

24366.00	5.46	871.16	0.00	0.00	871.55	.39	.76	.26	868.80
530.	80.	361.	89.	36.	62.	31.	182.	83.	857.80
1.89	2.25	5.83	2.83	.040	.031	.040	.042	865.70	132.24
.002956	150.	150.	150.	2	0	1	0.00	61.97	194.21

① Encroach at the edge of the buildings

② wood fence won't effect flood water elevation much. (Because the total length of the wood fence is about

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	4.31	3.03	0.00	8.58	0.00	28.60	0.00	867.10	865.70

```
3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      101.0      205.0  TYPE=      1  TARGET=      104.000
 24366.00      5.46    871.16      0.00      0.00    871.55       .39       .76       .26    868.80
     530.       80.       361.       89.       36.       62.       31.      182.       83.    867.80
      1.89      2.25      5.83      2.83      .040      .031      .040      .042    865.70    132.24
   .002956      150.      150.      150.         2         0         1      0.00     61.97    194.21

SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      4.31      3.03      0.00      8.58      0.00     28.60      0.00    867.10    865.70

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

PRESSURE AND WEIR FLOW

   EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
   894.14    873.47    0.00      342.      189.      29.       870.40    872.70    30.00

3470 ENCROACHMENT STATIONS=      101.0      205.0  TYPE=      1  TARGET=      104.000
          U/S FACE OF HUNTERS DRIVE BRIDGE, BS#66                          SEC. BT
 24456.00      6.95    874.05      0.00      0.00    874.09       .04      2.54      0.00    868.40
     530.      211.       201.      118.      187.       89.       99.      182.       83.    868.30
      1.91      1.13      2.26      1.19      .040      .031      .040      .041    867.10    101.00
   .000210      90.       90.       90.         2         0         6      0.00    104.00    205.00

3301 HV CHANGED MORE THAN HVINS

          100' U/S FROM U/S FACE OF HUNTERS DRIVE, VS#67                   SEC. BU
 24556.00      5.50    873.70      0.00      0.00    874.55       .85       .06       .40    873.50
```

① Encroach at the edge of the buildings

② wood fence won't effect head water elevation much. (Because the total length of the wood fence is about 20 ft, and 20 ft compared to 104 ft is not significant enough to effect head water elevation)

Furthermore, the wood fence is very "open".

[illegible]	[illegible]	[illegible]	0.00	0.00	874.55	.85	.06	.40	871.50
530.	0.	529.	1.	0.	72.	1.	183.	83.	873.20
1.91	.66	7.39	1.19	.040	.034	.040	.041	868.20	24.58
.006363	100.	100.	100.	2	0	1	0.00	25.07	49.64

3470 ENCROACHMENT STATIONS= 85.0 140.0 TYPE= 1 TARGET= 55.000

24906.00	5.04	875.44	0.00	0.00	875.86	.42	1.19	.13	871.10
530.	86.	352.	92.	46.	56.	47.	184.	84.	870.80
1.93	1.88	6.25	1.96	.060	.031	.060	.041	870.40	86.28
.002100	350.	350.	350.	2	0	1	0.00	53.02	139.29

① Encroach at the edges of the buildings

② Major portion of the flow is weir flow

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.12	3.03	0.00	8.58	0.00	28.60	0.00	870.80	870.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
892.08	876.26	0.00	354.	177.	29.	873.80	875.20	30.00

3470 ENCROACHMENT STATIONS= 85.0 140.0 TYPE= 1 TARGET= 55.000

U/S FACE OF DRIVEWAY BRIDGE, BS#68 SEC. BV

24958.00	6.35	877.15	0.00	0.00	877.30	.15	1.44	0.00	871.40
530.	134.	278.	118.	81.	69.	74.	184.	84.	871.30
1.94	1.65	4.01	1.61	.060	.031	.060	.041	870.80	85.00
.000819	52.	52.	52.	2	0	5	0.00	55.00	140.00

3470 ENCROACHMENT STATIONS= 100.0 155.0 TYPE= 1 TARGET= 55.000

25133.00	5.74	877.34	0.00	0.00	877.41	.08	.09	.02	872.10
425.	166.	193.	66.	103.	67.	48.	185.	84.	872.40
1.96	1.60	2.90	1.39	.040	.025	.040	.041	871.60	100.00
.000318	175.	175.	175.	2	0	1	0.00	55.00	155.00

① Encroached at the edges of the buildings.

② The wood fence was not taken into account because the guards

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD

1.94	1.65	4.01	1.61	.060	.031	.060	.041	870.80	85.00
.000819	52.	52.	52.	2	0	5	0.00	55.00	140.00

3470 ENCROACHMENT STATIONS= 100.0 155.0 TYPE= 1 TARGET= 55.000

25133.00	5.74	877.34	0.00	0.00	877.41	.08	.09	.02	872.10
425.	166.	193.	66.	103.	67.	48.	185.	84.	872.40
1.96	1.60	2.90	1.39	.040	.025	.040	.041	871.60	100.00
.000318	175.	175.	175.	2	0	1	0.00	55.00	155.00

① Encroached at the edges of the buildings.

② The wood fence was not taken into account because the guard rail is open.

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.66	3.03	0.00	8.58	0.00	28.60	0.00	872.40	871.60

3280 CROSS SECTION 25196.00 EXTENDED .60 FEET

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
889.89	878.21	0.00	323.	103.	29.	875.90	876.00	30.00

3470 ENCROACHMENT STATIONS= 100.0 155.0 TYPE= 1 TARGET= 55.000

U/S FACE OF HUNTERS DRIVE BRIDGE 1, BS#69 SEC. BW

25196.00	5.60	878.00	0.00	0.00	878.07	.07	.65	0.00	872.90
425.	175.	176.	74.	111.	65.	52.	185.	84.	873.10
1.97	1.58	2.69	1.41	.040	.025	.040	.041	872.40	100.00
.000283	63.	63.	63.	2	0	5	0.00	55.00	155.00

3280 CROSS SECTION 25321.00 EXTENDED .82 FEET

150' D/S FROM D/S FACE OF RUNNING STREAM DR CULVERT, VS#70 SEC. BX

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 105.0 195.0 TYPE= 1 TARGET= 90.000

25471.00	4.80	878.40	0.00	0.00	878.62	.23	.27	.05	875.70
425.	29.	346.	50.	20.	83.	35.	186.	84.	875.80
1.99	1.43	4.18	1.40	.050	.034	.050	.041	873.60	114.99
.001579	150.	150.	150.	2	0	1	0.00	62.23	177.22

① Encroached at the edges of the buildings

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.35	3.02	0.00	10.11	0.00	48.00	0.00	873.90	873.60

3280 CROSS SECTION 25512.00 EXTENDED 1.22 FEET

② Major portion of the flow is pressure flow.

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
881.26	878.91	0.00	81.	346.	48.	878.70	879.50	30.00

3470 ENCROACHMENT STATIONS= 105.0 195.0 TYPE= 1 TARGET= 90.000

U/S FACE OF RUNNING STREAM DR CULVERT, BS#71 SEC. BY

25512.00	6.32	880.22	0.00	0.00	880.29	.07	1.66	0.00	876.00
425.	50.	282.	93.	53.	114.	98.	186.	84.	876.00
1.99	.94	2.47	.96	.050	.034	.050	.041	873.90	105.00
.000371	41.	41.	41.	2	0	3	0.00	90.00	195.00

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

100' U/S FROM U/S FACE OF RUNNING STREAM DR CULVERT, VS#72 SEC. BZ

25612.00	5.07	880.07	0.00	0.00	880.62	.55	.09	.24	880.40
425.	0.	422.	3.	0.	71.	2.	187.	85.	879.40
2.00	0.00	5.95	1.11	.045	.035	.045	.041	875.00	16.80
.004876	100.	100.	100.	2	0	1	0.00	28.93	45.73

3470 ENCROACHMENT STATIONS= 0 150.0 TYPE= 1 TARGET= 149.999

```
3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
 26012.00      3.67    883.17    883.17      0.00    883.55      .38       .91      0.00    883.40
     425.        0.      335.      90.        0.      61.       55.      188.       85.    883.00
     2.02      0.00      5.51      1.63      .050      .037      .050      .041    879.50     41.32
  .007919      300.      200.      100.       30         9         1      0.00    149.03    190.35

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION  26013.00 EXTENDED       1.04 FEET

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

NORMAL BRIDGE,NRD=12 MIN ELTRD=  882.40 MAX ELLC=  882.80

3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
 26013.00      3.94    883.44    883.44      0.00    883.79      .34       .02      0.00    883.40
     425.        0.       88.      337.        0.      14.       81.      188.       85.    883.40
     2.02       .05      6.37      4.14      .055      .033      .055      .041    879.50     50.33
  .040110        1.        1.        1.       30        15         1     -7.01    140.02    190.35

3280 CROSS SECTION  26037.00 EXTENDED       1.65 FEET

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

NORMAL BRIDGE,NRD=12 MIN ELTRD=  882.40 MAX ELLC=  883.60

3470 ENCROACHMENT STATIONS=          .0      190.4  TYPE=      1  TARGET=      234.999
```

① Between Section 25812 and Section 26012, the channel slope is steeper than the critical slope.

② There is a wood fence built at the top of the culvert. Since the space between the top of the culvert and the bottom of wood fence is relatively big and the space between wood piles is also large, this wood fence is then ignored.

U/S FACE OF WOOD FENCE & CULVERT, BS#73 SEC. CA

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3470 ENCROACHMENT STATIONS=        .0      112.0  TYPE=      1  TARGET=      111.999

        475' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS#75        SEC. CC

 26388.00      4.70    885.50      0.00      0.00    886.01       .51      1.10       .15    884.80
     425.        3.      422.        0.        3.       73.        0.      189.       86.    886.40
     2.05      1.00      5.74      0.00      .060      .042      .055      .041    880.80     37.42
  .006614      200.      200.      200.         2         0         1      0.00     33.84     71.26


3470 ENCROACHMENT STATIONS=      140.0      430.0  TYPE=      1  TARGET=     -140.000

        100' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS#76        SEC. CD

 26763.00      4.20    887.90      0.00      0.00    888.08       .18      1.97       .10    886.30
     425.      176.      248.        1.       98.       59.        2.      190.       87.    887.40
     2.09      1.80      4.24       .71      .054      .045      .054      .041    883.70    140.00
  .004290      375.      375.      375.         3         0         1      0.00    127.56    267.56


3470 ENCROACHMENT STATIONS=      140.0      433.0  TYPE=      1  TARGET=      293.000

 26863.00      4.02    888.62      0.00      0.00    888.90       .28       .77       .05    887.20
     425.      147.      278.        0.       80.       55.        1.      191.       88.    888.30
     2.10      1.83      5.04       .62      .062      .048      .062      .041    884.60    140.00
  .007490      200.      100.      100.         0         0         1      0.00    125.27    265.27


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.80      3.03      0.00      6.61      0.00      38.00     0.00      884.60    884.60

3280 CROSS SECTION  26946.00 EXTENDED      1.12 FEET


PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

  894.06    890.11    0.00      99.       327.      38.       890.00    891.80    30.00


3470 ENCROACHMENT STATIONS=        .1      262.0  TYPE=      1  TARGET=      261.950
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From Sec. CC on, please go to another HEC-2 print out for the u/s portion of the Pebble Creek.

26988.00	4.10	885.50	0.00	885.50	886.01	.51	0.00	0.	886.80
425.	3.	422.	0.	3.	73.	0.	0.	0.	886.40
0.00	1.00	5.74	0.00	.060	.042	.055	0.000	880.80	37.41
.006612	200.	200.	200.	0	0	1	0.00	33.84	71.26

100' D/S FROM D/S FACE OF CLUBHOUSE LANE CULVERT, VS #76 SEC. CD

26763.00	4.20	887.90	0.00	0.00	888.08	.18	1.97	.10	886.30
425.	176.	248.	1.	102.	59.	2.	1.	1.	887.40
.03	1.72	4.23	.71	.054	.045	.054	.045	883.70	123.60
.004269	375.	375.	375.	2	0	1	0.00	143.97	267.57

26863.00	4.02	888.62	0.00	0.00	888.90	.28	.77	.05	887.20
425.	145.	280.	0.	82.	55.	1.	2.	1.	888.30
.04	1.76	5.08	.62	.062	.048	.062	.042	884.60	127.35
.007594	200.	100.	100.	0	0	1	0.00	137.92	265.27

① Major portion of the flow is pressure flow.

② Skew coefficient = 0.73 should be considered. If this skewness is taken into consideration, the new headwater water elevation is 891.71 and new energy gradient elevation is 891.92 (see the attached HEC-2 Run). The reason why the difference is so small is because that weir flow is only a minor portion of the total flow.

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHD	ELCHD
	0.00	2.80	3.03	0.00	6.61	0.00	38.00	0.00	884.60	884.60

3280 CROSS SECTION 26946.00 EXTENDED 1.12 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
894.05	890.11	0.00	99.	327.	38.	890.00	891.80	30.00

3470 ENCROACHMENT STATIONS= .1 262.0 TYPE= 1 TARGET= 261.950

U/S FACE OF CLUBHOUSE LANE CULVERT, BS #77 SEC. CE

26946.00	7.12	891.72	0.00	0.00	891.84	.12	2.94	0.00	890.40
425.	24.	320.	81.	48.	103.	109.	2.	2.	888.00
.05	.50	3.12	.75	.055	.032	.055	.041	884.60	77.20
.000603	83.	83.	83.	2	0	6	0.00	184.80	262.00

100' U/S FROM U/S FACE OF CLUBHOUSE LANE CULVERT, VS #78 SEC. CF

*27116.00	6.67	891.87	0.00	0.00	892.06	.19	.10	.01	889.90
425.	44.	371.	10.	33.	100.	13.	3.	2.	890.70
.07	1.34	3.72	.82	.050	.040	.050	.041	885.20	81.34
.001556	50.	70.	120.	1	0	1	0.00	75.39	156.73

D/S FACE OF 14 MILE ROAD CULVERT, BS #94 SEC. CG

27117.00	6.67	891.87	0.00	0.00	892.06	.19	.00	.00	889.90
425.	44.	370.	10.	33.	100.	13.	3.	2.	890.70
.07	1.34	3.72	.82	.030	.024	.030	.040	885.20	81.32
.000559	1.	1.	1.	0	0	1	0.00	75.44	156.76

① Weir flow + Pressure flow

② skewness = 0.63 has been taken into consideration.

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.67	3.04	0.00	6.28	0.00	25.13	0.00	886.70	885.20

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
903.73	893.56	0.00	280.	146.	25.	890.70	891.80	30.00

3470 ENCROACHMENT STATIONS= 226.8 415.8 TYPE= 1 TARGET= -360.000

U/S FACE OF 14 MILE ROAD CULVERT, BS #94 SEC. CG

27187.00	6.53	893.23	0.00	0.00	893.28	.05	1.22	0.00	888.00
425.	185.	171.	69.	160.	70.	55.	3.	2.	888.00
.08	1.16	2.45	1.25	.030	.024	.030	.039	886.70	226.80
.000184	70.	70.	70.	2	0	6	0.00	117.39	344.19

3470 ENCROACHMENT STATIONS= 220.0 335.0 TYPE= 1 TARGET= 115.000

27188.00	6.55	893.25	0.00	0.00	893.28	.03	.00	.00	890.00
425.	190.	194.	40.	208.	99.	44.	3.	2.	889.40
.08	.91	1.97	.92	.055	.040	.055	.039	886.70	220.00
.000320	1.	1.	1.	2	0	1	0.00	115.00	335.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: HYDRAULIC ANALYSIS

00BREAK00

PEBBLE CREEK

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Pebble Creek in the City of Farmington Hills, Oakland Coutny, Michigan. The study starts from Inkster Road, the eastern corporate boundary of the City, to 14 Mile Road, the northern corporate boundary, covering a distance of approximately 5.12 river miles. The drainage areas at the upstream and downstream ends of the study are 1.66 square miles and 6.49 square miles, respectively. The 10-, 50-, 100-, and 500-year flood frequency flows were calculated by Brater's unit hydrograph-infiltration capacity method. These flows have been approved by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U. S. Corps of Engineers (Reference 1). All bridges have been modeled by the requirements of the HEC-2 normal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs and field descriptions taken in Farmington Hills by survey crews in 1976. To reflect the generally gradual changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values were indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir discharge coefficients were taken from charts of the U. S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting water-surface elevations for this study were obtained from the City of Southfield Flood Insurance Study done by the U. S. Corps of Engineers, Detroit District in July 1976.

accepted per R. Zanotti

Discussion

1. There are several small dams along the Pebble Creek. For those dams whose crest elevations are much higher than the minimum ground elevations on the upstream side, the special bridge routine was used to determine the headwater elevations. Weirs were defined by use of the stations and road elevations on BT cards. On the SB card, some arbitrarily small

values for BWC, BAREA, and SS were given. On the other hand, if the elevation differences between the dam crests and the upstream ground were similar, the dams were treated as regular valley sections.

2. The roughness factors (Manning's "n") at bridges are not realistic. The values have been adjusted to get better flow continuity.

3. Sections AT & AV are sections located at two fences surrounding a monastary. These fences have been modeled without allowance for failure. This criteria was used after discussion with the Government Technical Representative (GTR) of the Federal Insurance Administration (FIA).

4. Section BQ is located at the privacy wall for the Hunters Ridge Apartments. No allowance for failure was made for this fence as per the GTR and the FIA.

5. The monastary and Hunter's Ridge Apartment areas were evaluated for overland flow by use of an island flow technique. The energy grade elevations were used as the criteria for the diversion of flow. the technique involved performing an iterative procedure beginning at the downstream point of the reach and then changing the respective flows in each flow path until the energy grade elevations matched each other. The respective flows were adjusted so that there sum always equalled the total flow.

REFERENCES

1. U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U. S. Department of Commerce, Dec. 1965.

4. U. S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

City of Farmington Hills
Pebble Creek
5670-03-1
MSC 2-17-77

Original Cross-Section Location

Cross Section	J&A Section	SECNO	Location
A	1	112	u/s face of Inkster Road Bridge
B	2	212	100' u/s from u/s face of Inkster Road Bridge
C	3	812	700' u/s from u/s face of Inkster Road Bridge
D	4	1312	375' d/s from d/s face of Forest Brook Road Bridge
E	5	1562	125' d/s from d/s face of Forest Brook Road Bridge
F	6	1748	u/s face of Forest Brook Road Bridge
G	7	1818	d/s face of Dam Section, 70' u/s from Forest Brook Road Bridge
H	8	1972	220' u/s from u/s face of Forest Brook Road Bridge
I	9	2573	d/s face of Dam Section, 825' u/s from Forest Brook Road Bridge
J	10	3227	1475' u/s from u/s face of Forest Brook Road Bridge
K	11	3587	750' d/s from d/s face of 12 Mile Road Bridge
L	12	4187	150' d/s from d/s face of 12 Mile Road Bridge
M	12A	4326	u/s face of Abandoned Bridge
N	13	4381	u/s face of 12 Mile Road Bridge
O	14	4462	d/s face of Dam Section, 80' u/s from 12 Mile Road Bridge
P	15	4540	160' u/s from u/s face of 12 Mile Road Bridge
Q	16	4944	u/s face of Footbridge
R	17	5794	125' d/s from d/s face of Danvers Drive Culvert 1
S	18	5994	u/s face of Danvers Drive Culvert 1
T	19	6003	d/s face of Dam Section, 9' u/s from Danvers Drive Culvert 1
U	20	6490	495' u/s from u/s face of Danvers Drive Culvert 1

Cross Section	J&A Section	SECNO	Location
V	21	6740	100' d/s from d/s face of Danvers Drive Culvert 2
W	22	6907	u/s face of Danvers Drive Culvert 2
X	23	7207	300' u/s from u/s face of Danvers Drive Culvert 2
Y	23A	7420	u/s face of Footbridge
Z	24	7515	u/s face of Danvers Court W. Culvert
AA	24A	7644	u/s face of Walk Bridge
AB	25	7906	u/s face of Driveway Bridge
AC	26	8566	660' u/s from u/s face of Driveway Bridge No. AB
AD	27	9066	1155' d/s from d/s face of Wellington Road Bridge
AE	28	9666	555' d/s from d/s face of Wellington Road Bridge
AF	29	10116	75' d/s from d/s face of Wellington Road Bridge
AG	30	10221	u/s face of Wellington Road Culvert
AH	31	10771	550' u/s from u/s face of Wellington Road Bridge
AI	32	11521	1300' u/s from u/s face of Wellington Road Bridge
AJ	33	12121	1900' u/s from u/s face of Wellington Road Bridge
AK	34	12721	2500' u/s from u/s face of Wellington Road Bridge
AL	35	13471	300' d/s from d/s face of Middlebelt Road Bridge
AM	36	13671	100' d/s from d/s face of Middlebelt Road Bridge
AN	37	13824	u/s face of Middlebelt Road Bridge
AO	38	14174	d/s face of Dam Section, 350' u/s from Middlebelt Road
AP	39	14376	550' u/s from u/s face of Middlebelt Road Bridge
AQ	40	14776	950' u/s from u/s face of Middlebelt Road Bridge
AR	41	15025	u/s face of 13 Mile Road Bridge
AS	42	15055	30' u/s from u/s face of 13 Mile Road Bridge
AT	43	15075	Brick Wall & Bridge at Monastery (S. Boundary)

Cross Section	J&A Section	SECNO	Location
AU	44	15204	u/s face of Walk Bridge inside Monastery Property
AV	44A	15340	A.C. Fence & Bridge at Monastery (W. Boundary)
AW	45	15465	150' d/s from d/s face of Bridge to School
AX	46	15660	u/s face of Bridge to School
AY	47	15961	300' u/s from u/s face of Bridge to School
AZ	48	16606	150' d/s from d/s face of West Gate Road Bridge
BA	49	16786	u/s face of West Gate Road Brdige
BB	50	17086	300' u/s from u/s face of West Gate Road Bridge
BC	51	17416	630' u/s from u/s face of West Gate Road Bridge
BD	52	17941	u/s face of Bridge 1 in Golf Course
BE	52A	18270	u/s face of Birdge 2 in Golf Course
BF	53	18479	u/s face of Bridge 3 in Golf Course
BG	53A	19090	u/s face of Bridge 4 in Golf Course
BH	54	19701	u/s face of Stone Dam in Golf Course
BI	55	20423	u/s face of Bridge 5 in Golf Course
BJ	56	20474	2270' d/s from d/s face of Orchard Lake Road Bridge BB
BK	57	21099	1645' d/s from d/s face of Orchard Lake Road Bridge BC
BL	58	21524	1220' d/s from d/s face of Orchard Lake Road Bridge BD
BM	59	22124	620' d/s from d/s face of Orchard Lake Road Bridge BE
BN	60	22674	70' d/s from d/s face of Orchard Lake Road Bridge BF
BO	61	22806	u/s face of Orchard Lake Road Bridge BG
BP	62	23106	300' u/s from u/s face of Orchard Lake Road Bridge
BQ	63	23887	u/s face of Brick Fence & Driveway Bridge
BR	64	23990	u/s face of Stone Spillway, 100' u/s from Bridge Section BQ

City of Farmington Hills
Pebble Creek
5670-03-1
MSC 2-17-77

Original Cross-Section Location

Cross Section	J&A Section	SECNO	Location
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BM	59	22124	620' d/s from d/s face of Orchard Lake Road Bridge BE
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BP	62	23106	300' u/s from u/s face of Orchard Lake Road Bridge
BQ	63	23887	u/s face of Brick Fence & Driveway Bridge
BR	64	23990	u/s face of Stone Spillway, 100' u/s from Bridge Section BQ

Cross Section	J&A Section	SECNO	Location
BS	65	24216	u/s face of Stone Spillway, 330' u/s from Bridge Section BQ
BT	66	24456	u/s face of Hunters Drive Bridge 1
BU	67	24556	100' u/s from u/s face of Hunters Drive Bridge
BV	68	24958	u/s face of Driveway Bridge
BW	69	25196	u/s face of Hunters Drive Bridge 2
BX	70	25321	150' d/s from d/s face of Running Stream Drive Culvert
BY	71	25512	u/s face of Running Stream Drive Culvert
BZ	72	25612	100' u/s from u/s face of Running Stream Drive Culvert
CA	73	26037	u/s face of Wood Fence & Culvert
CB	74	26188	675' d/s from d/s face of Clubhouse Lane Culvert
CC	75	26388	475' d/s from d/s face of Clubhouse Lane Culvert
CD	76	26763	100' d/s from d/s face of Clubhouse Lane Culvert
CE	77	26946	u/s face of Clubhouse Lane Culvert
CF	78	27046	100' u/s from u/s face of Clubhouse Lane Culvert
CG	94	27187	u/s face of 14 Mile Road Culvert

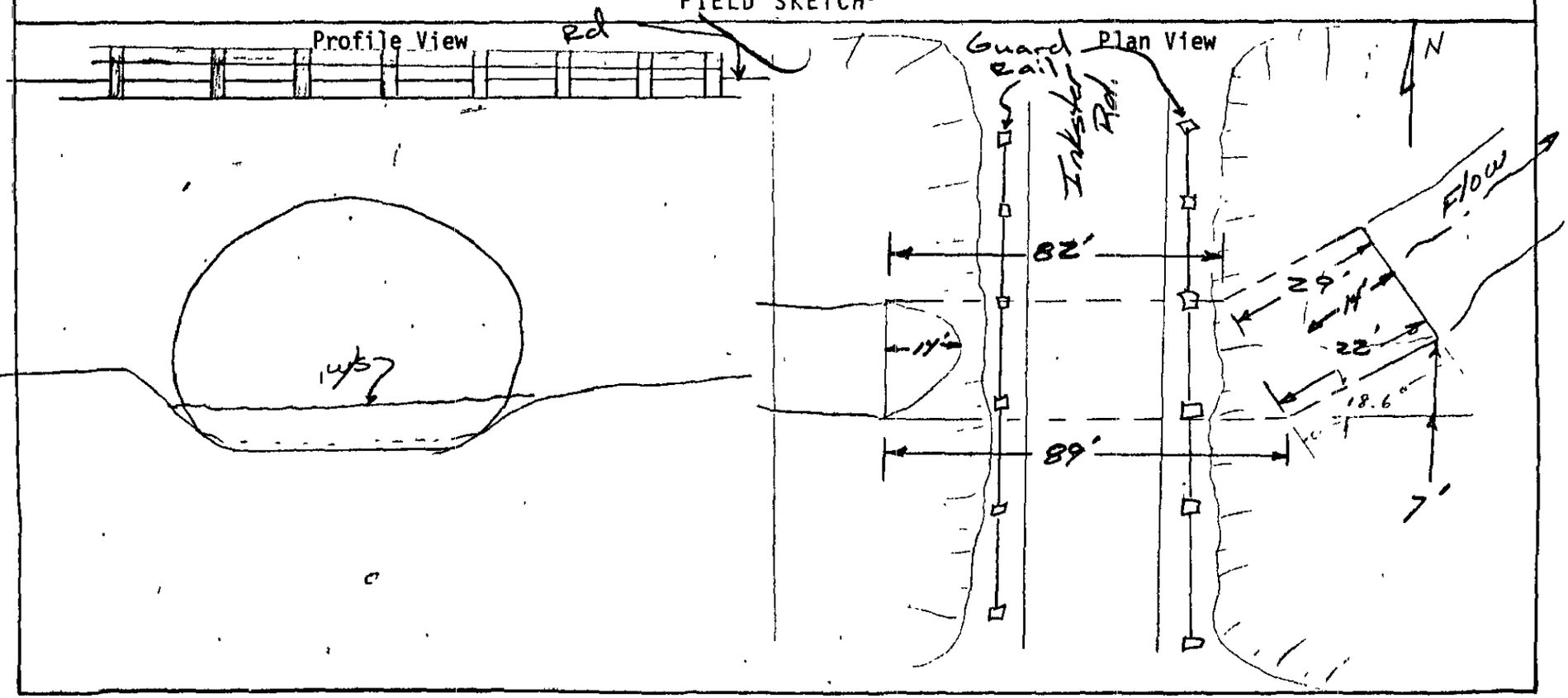
Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#1

Job Name: Farmington Hills			By: G. Norberg
Date: 1-24-77	Feature: 15'-8" x 9'-7" Multi Plate CMP		Water Course: Pebbel Creek
Remarks: Inkster Rd. Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: See Below	Width of Deck: —	Skew: See Below

FIELD SKETCH



JOB NAME: City of Farmington Hills	JOB NO.	5670	03	1	13
WATERCOURSE: Pebble Creek	CULVERT LOCATION: Inkster Road Bridge				
CULVERT DESCRIPTION: 15'8" x 9'7" CMP	BY MSC	DATE 9/9/77			

Multy Plate, Mitered to Conform to Fill slope.

n = 0.0308 Q_{10} = _____ TW_{10} = _____

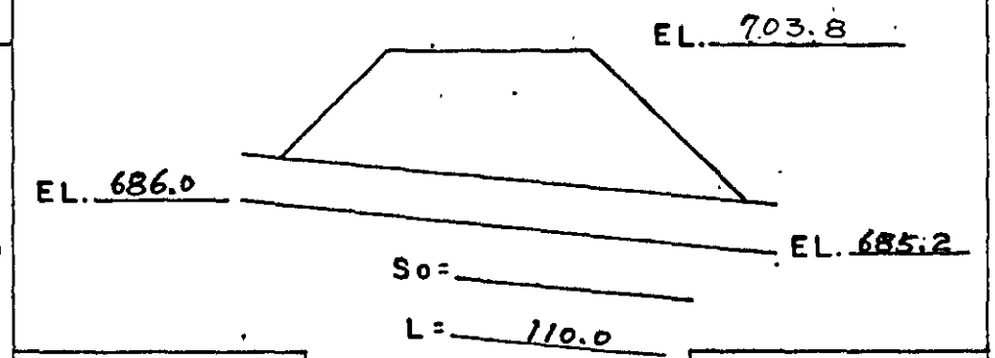
A = 116 ft² Q_{50} = _____ TW_{50} = _____

R = 2.83 ft Q_{100} = _____ TW_{100} = _____

Ke = 0.7 Q_{500} = 1690 cfs TW_{500} = 692.90 (7.70)

D = 9.58 ft.

LSo = 0.8 ft.



HEADWATER ANALYSIS

Q	INLET CONT. HW/D	INLET CONT. HW	OUTLET CONT. H	OUTLET CONT. dc	OUTLET CONT. (dc+D)/2	OUTLET CONT. ho	HW = H + ho − LSo HW	HEC-2 D+(1+Ke) V²/2g	HEC-2 HW	FINAL ENERGY HW	FINAL ~~HW~~ ENERGY ELEV.	ΔH HEC-2
1690	1.70	16.29	8.27	7.20	8.39	8.39	15.86	15.18	–	16.29	702.29	

CALCULATIONS AND COMMENTS $\Sigma K_4 R = 1 + K_e + K_b + K_f = 2.51$

$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.76$

$K_b = 0.05$ (bending)

Johnson & Anderson, Inc.
Consulting Engineers
P. O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

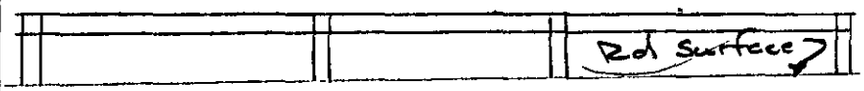
HYDRAULIC STRUCTURAL DATA

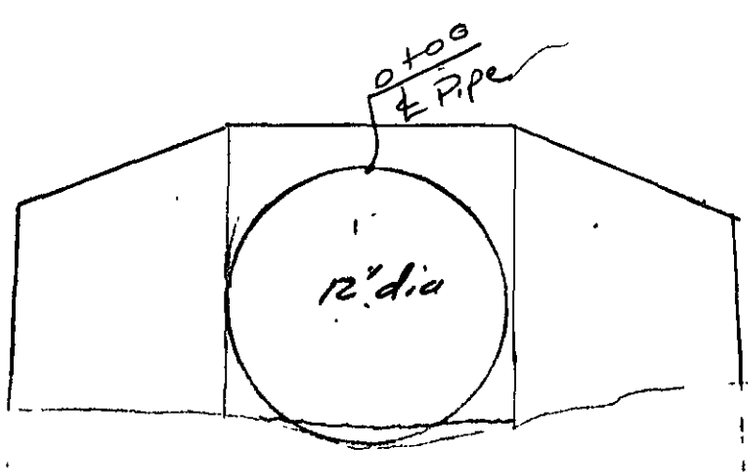
Code No. 5670-03-Rs #6

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-25-77	Feature: 12' dia Multy Plate C.M.P.	Water Course: Pebble Creek	
Remarks: Forest brook Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length:	Width of Deck: —	Skew: See Below

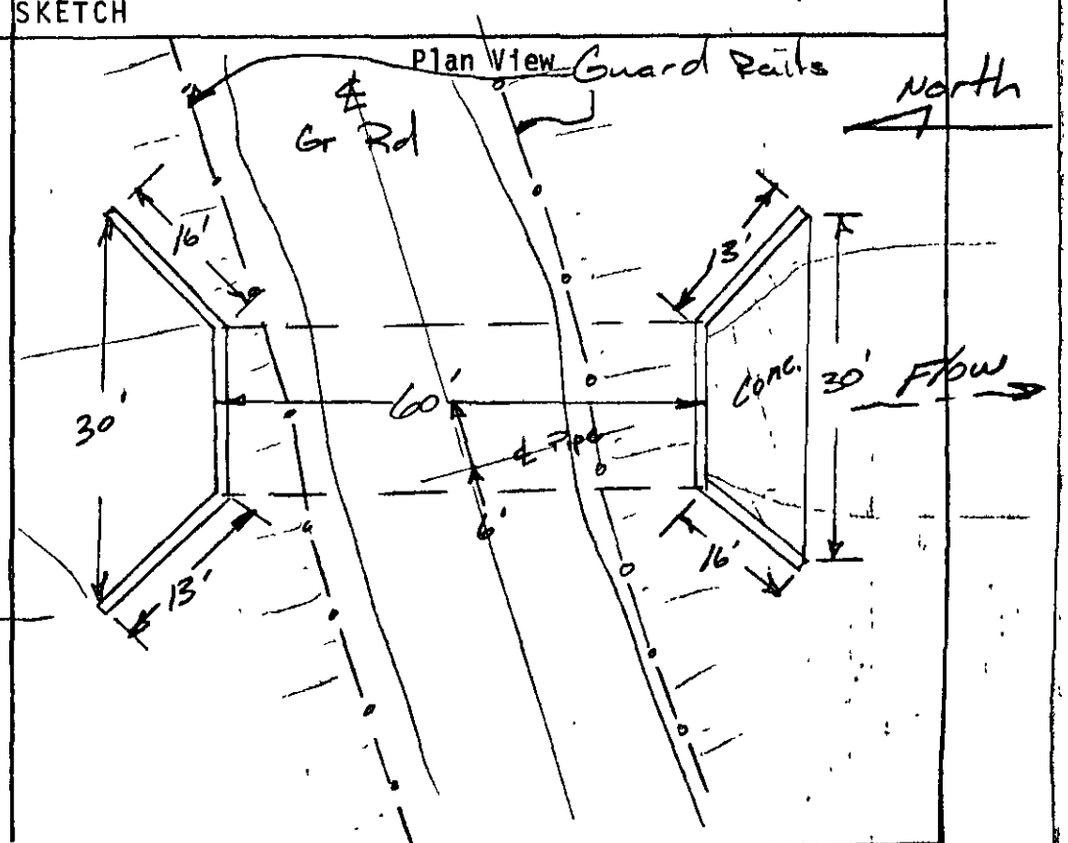
FIELD SKETCH

Profile View U.S.F.





Plan View Guard Rails



JOB NAME: City of Farmington Hills	JOB NO.	5670	03	1	13
WATERCOURSE: Pebble Creek	CULVERT LOCATION: Forest Brook Road				
CULVERT DESCRIPTION: 12'ϕ Multi Plate CMP ; With Headwall & Wingwalls, Square Edge.	BY MSC	DATE 9/9/77			

n = 0.0307 Q_{10} = ____ TW_{10} = ____

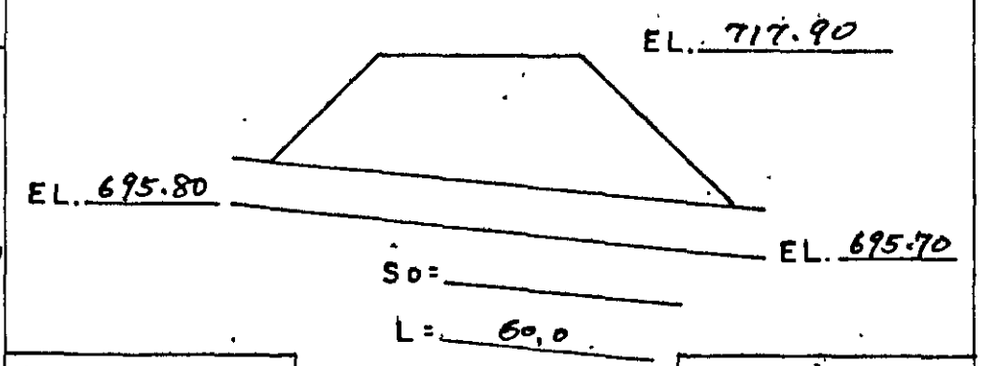
A = 113.1 ft² Q_{50} = ____ TW_{50} = ____

R = 3.0 ft. Q_{100} = ____ TW_{100} = ____

Ke = 0.50 Q_{500} = 1690 TW_{500} = 705.13 (9.43)

D = 12.0 ft.

LSo = 0.1 ft



Q	HEADWATER ANALYSIS									FINAL ENERGY HW	FINAL ~~HW~~ ENERGY ELEV.	ΔH HEC-2
	INLET CONT.		OUTLET CONT. HW = H + ho − LSo					HEC-2				
	HW/D	HW	H	dc	(dc+D)/2	ho	HW	$D+(1+K_e)\frac{V^2}{2g}$	HW			
1690	1.4	16.8	6.52	9.75	10.88	10.88	17.30	17.20	—	17.30	713.1	

CALCULATIONS AND COMMENTS

$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.38$

$\Sigma K \phi R = 1 + K_e + K_f = 1.88$

Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

D.S. #7

HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-DS#7

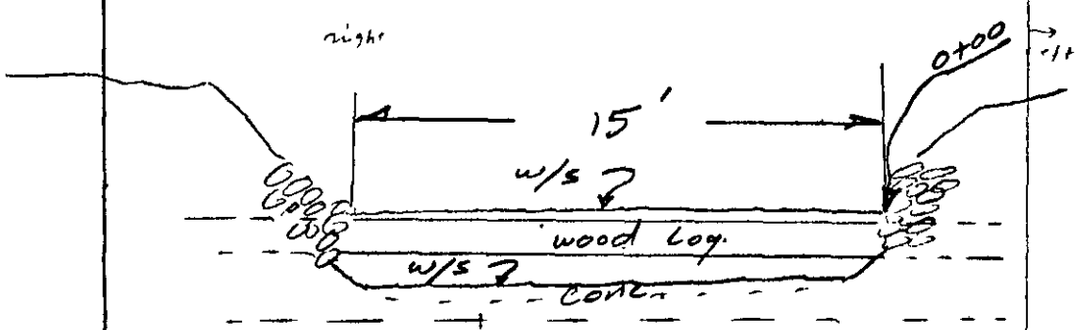
Job Name: Farmington Hills		By: G. Norberg	
Date: 1-25-77	Feature: Conc. & wood Dam	Water Course: Pebble Creek	
Remarks: 70'± U.S. From Forest brook Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Below	Length: —	Width of Deck: —	Skew: —

D/S - 696.8
U/S - 698.4 W/ELEVATION

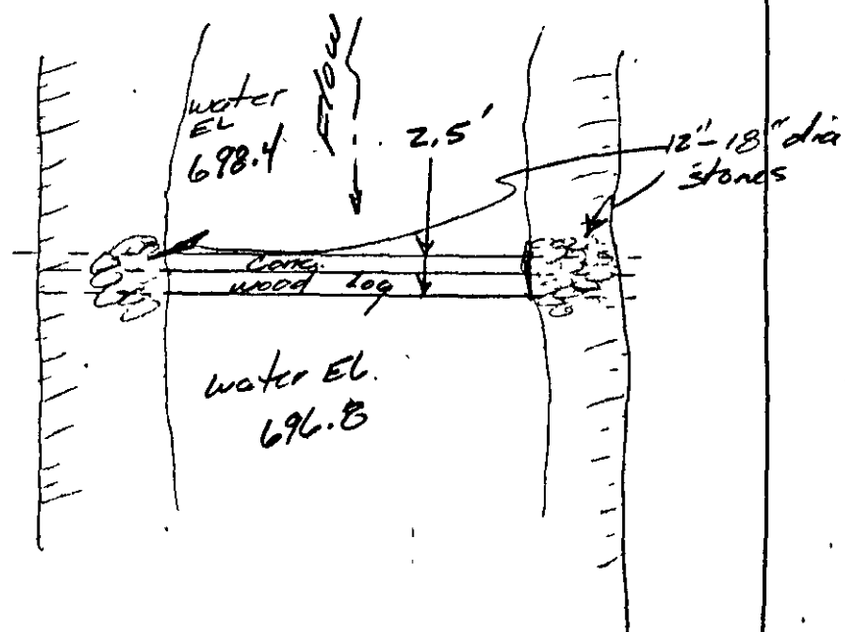
FIELD SKETCH.

Profile View

D.S.F.



Plan View



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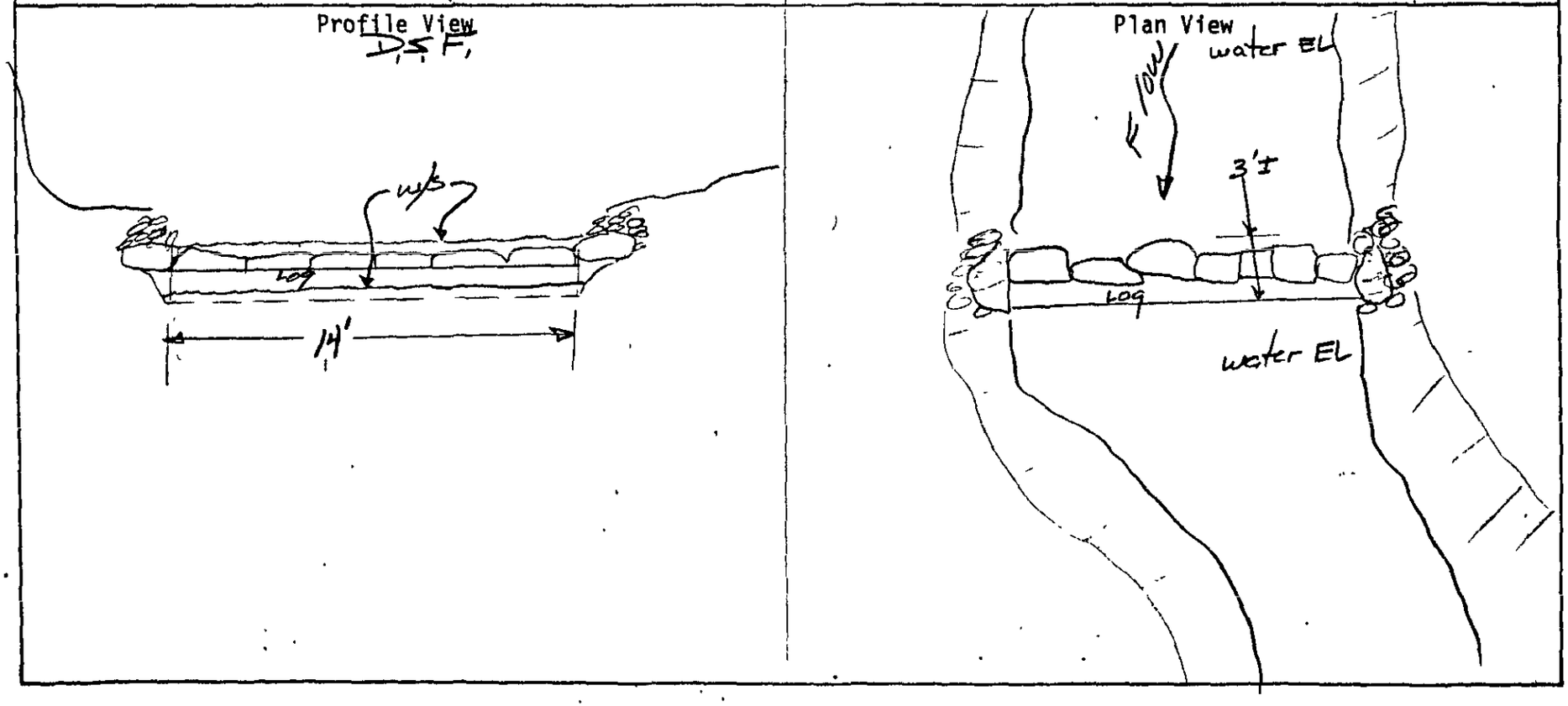
P. O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS #9

Job Name: Farmington Hills		By: G. Norberg	
Date: 2-3-77	Feature: Stone & wood Dam	Water Course: Pebble Creek	
Remarks: 750'± U.S. From BS #6			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Below	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH



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P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

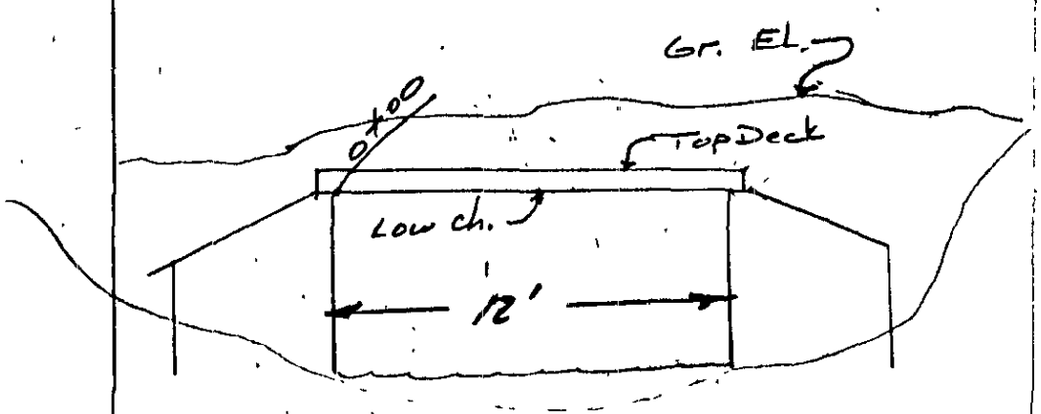
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03 BS# 12

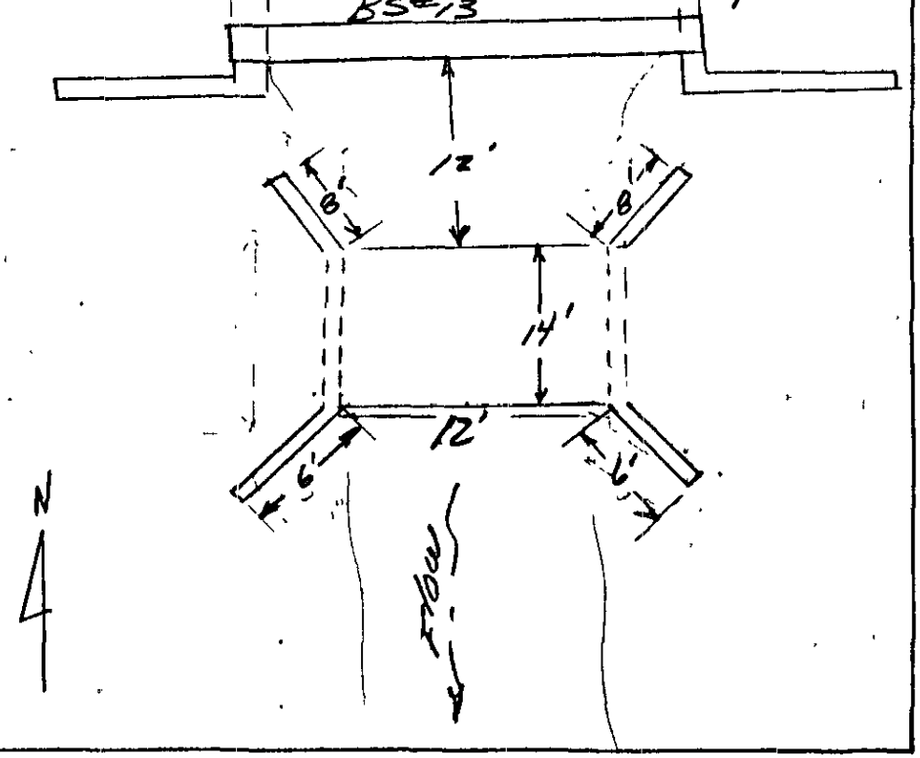
Job Name: Farmington Hills		By: G. Norberg	
Date:	Feature: Conc Bridge	Water Course:	
Remarks: Abandoned Bridge S. of 12' Mile Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 710.6	Length: —	Width of Deck: 14'	Skew: —

FIELD SKETCH

Profile View
U.S.



Plan View
12-Mile Rd. Bridge
BS#13

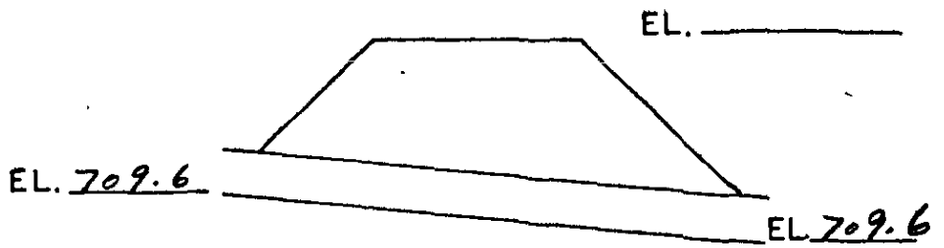


JOB NAME: Farmington Hills JOB NO. 5670 03

WATERCOURSE: Pebble Creek CULVERT LOCATION: 12' D/S of 12 Mi Rd

CULVERT DESCRIPTION: Abandoned concrete bridge, BY: WU DATE 3/9 '77

WEIR DESCRIPTION:



A = 87 ft² D = 7.5

WP = 38.7 Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = 9.881 n = 0.027 (composite)

So =

L = 14

Sta. Sta.

CALCULATIONS AND COMMENTS:

$V = \frac{Q}{A} = \frac{1160}{87} = 13.33$

$K_f = \frac{29.1(.027)^2 \times 14}{R^{4/3}} = 0.081$ 2.76

$XKOR = 1 + K_e + K_f = 1.46 \left(\frac{(13.33)^2}{64.4}\right) = 4.03$ under submergence.

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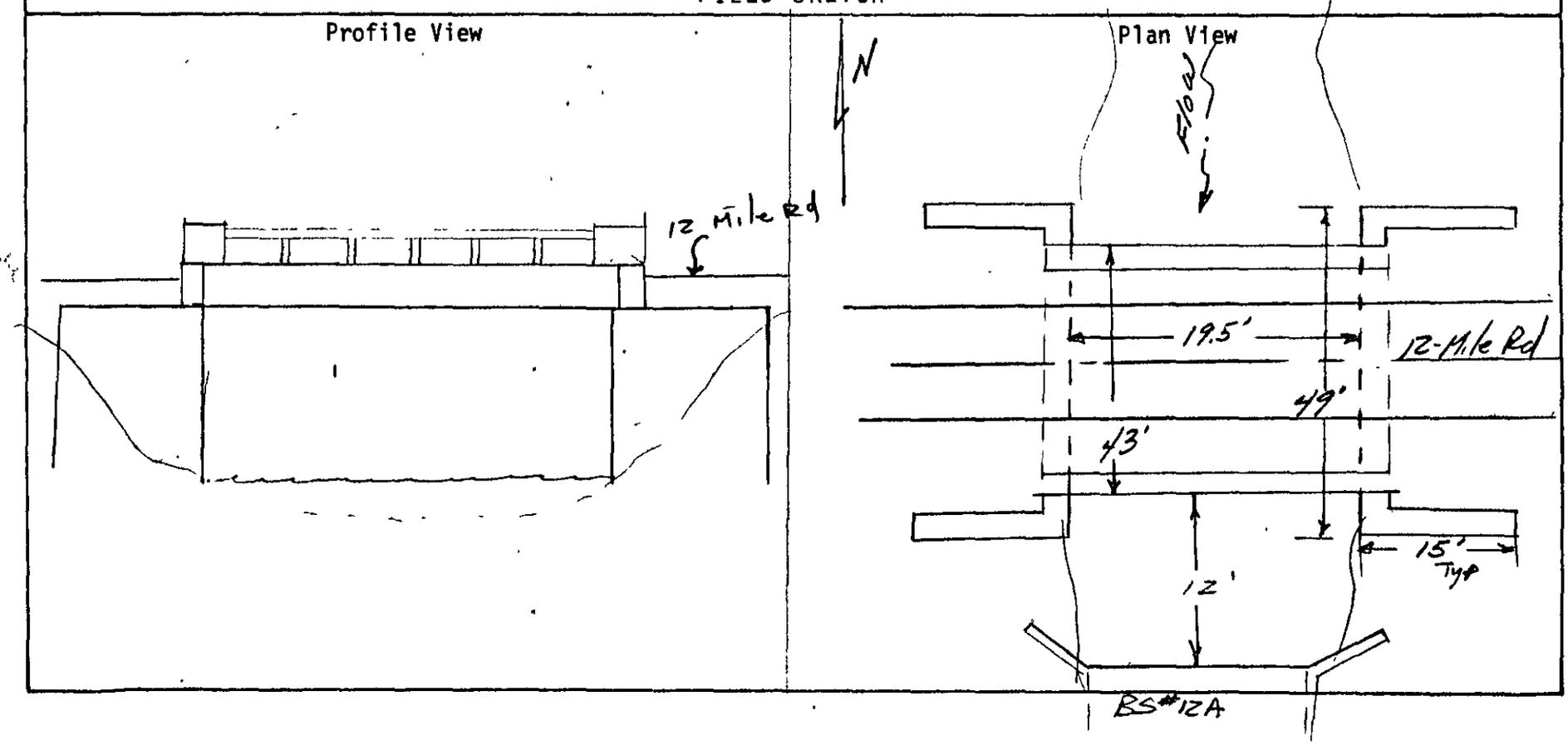
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#13

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-27-77	Feature: Conc Bridge	Water Course: Pebble Creek	
Remarks: 12-Mile Rd Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 710.8	Length:	Width of Deck: 43'	Skew: —

FIELD SKETCH



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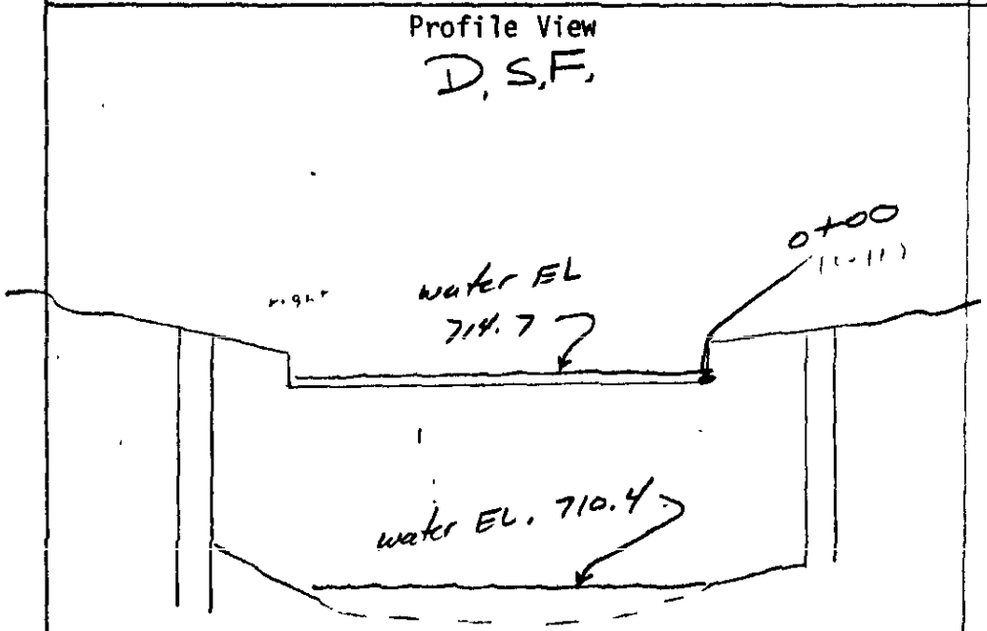
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-DS#14

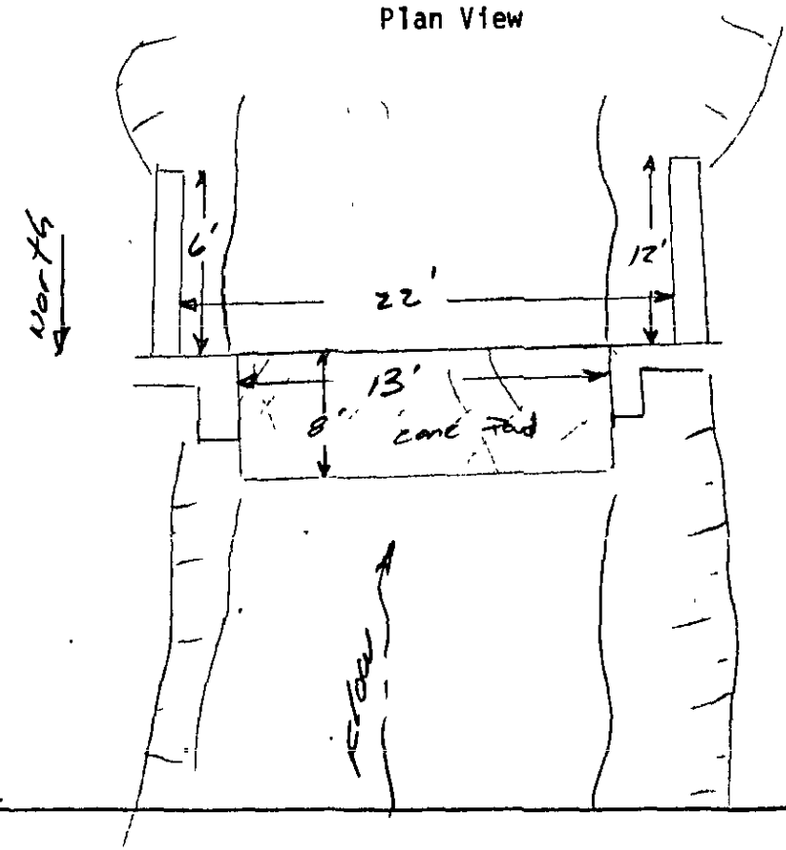
Job Name: Farmington Hills		By: George Norberg	
Date: 1-31-77	Feature: Conc & Brick Dam	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Below	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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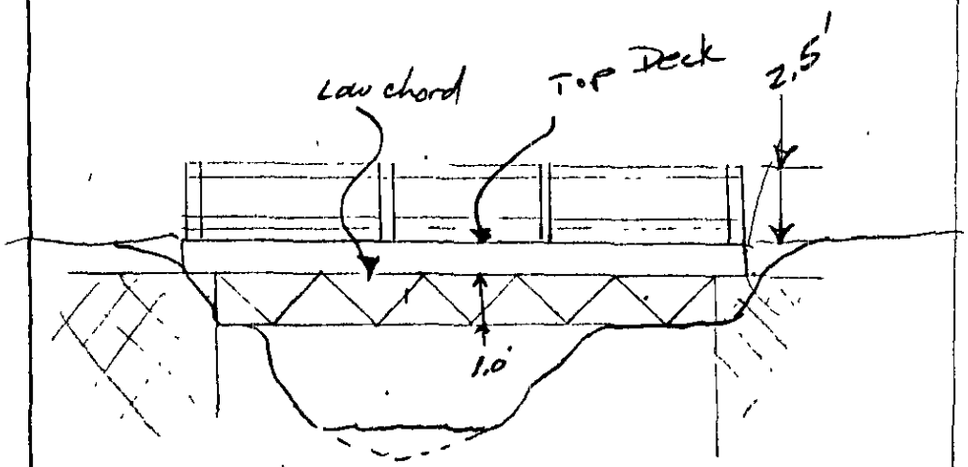
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-Bs #16

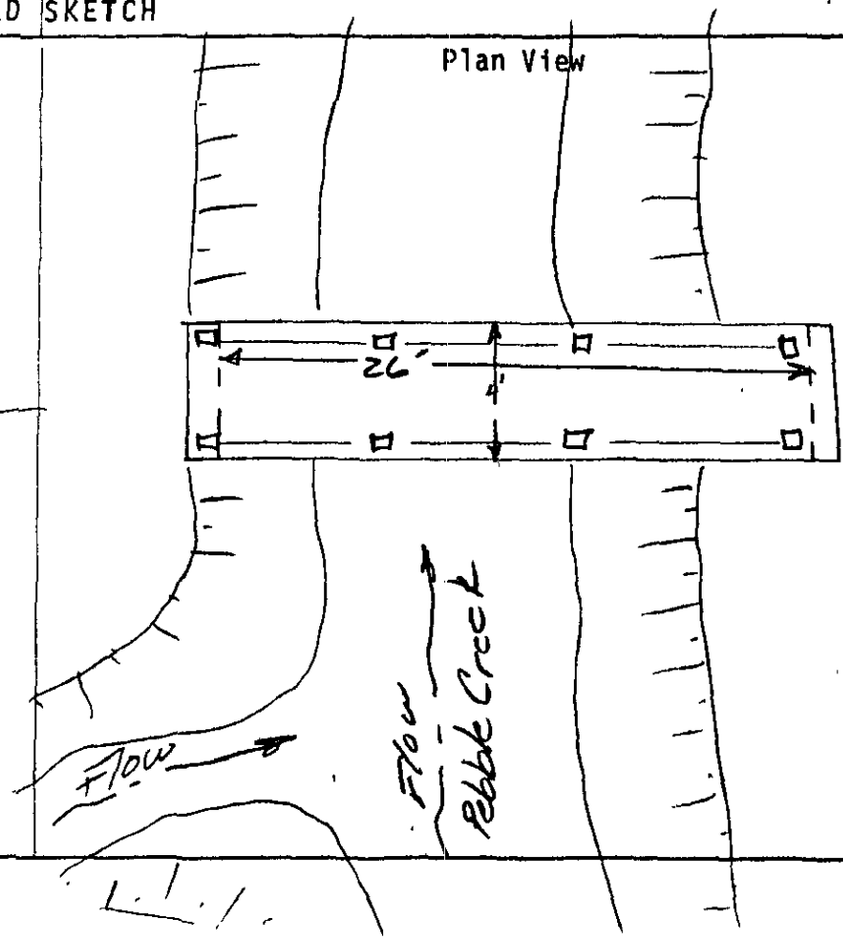
Job Name: Farmington Hills		By: George Norberg	
Date: 1-31-77	Feature: Conc., wood & steel Bridge	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 714.9	Length: 26'	Width of Deck: 4'	Skew: —

FIELD SKETCH

Profile View
U.S.F.



Plan View



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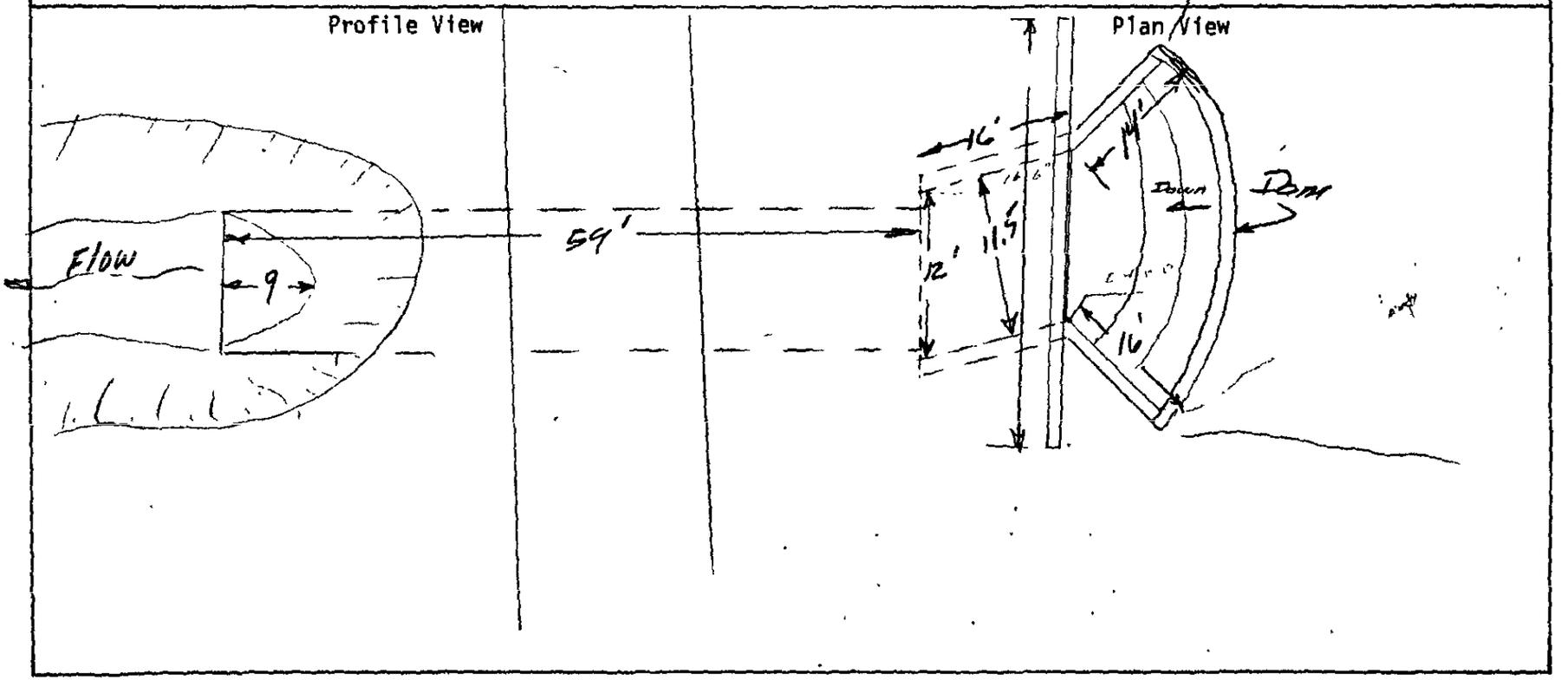
HYDRAULIC STRUCTURAL DATA

sht 1 of 2

Code No. 5670-03-BS #18

Job Name: Farmington Hills FIS			By: G. Norberg
Date: 2-4-77	Feature: 16'-3" x 2'-9" Multi Plate CMP & conc. Bridge		Water Course: Pebble Creek
Remarks: Danver Dr			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 720.2	Length: —	Width of Deck: —	Skew: see Below

FIELD SKETCH



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HYDRAULIC STRUCTURAL DATA

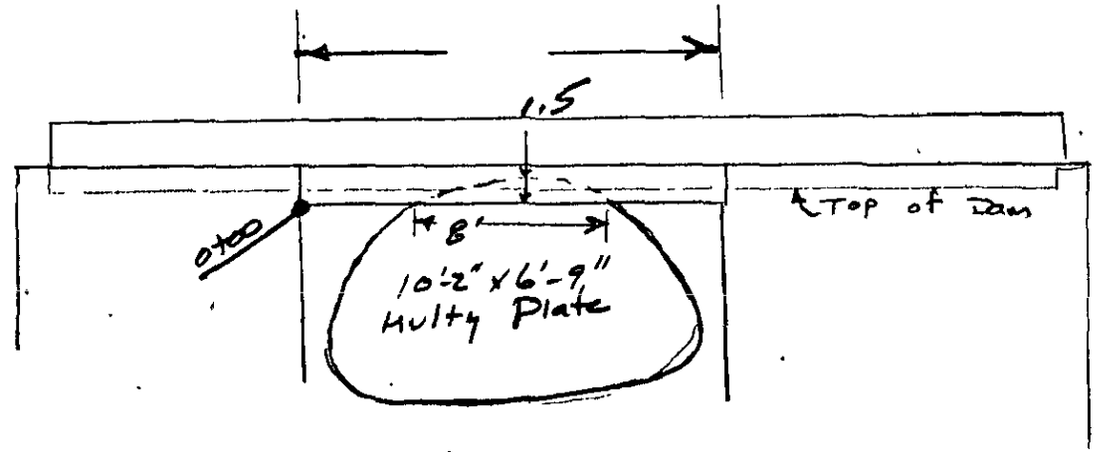
Code No. Bs*B

Job Name:			By:
Date:	Feature:		Water Course:
Remarks:			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

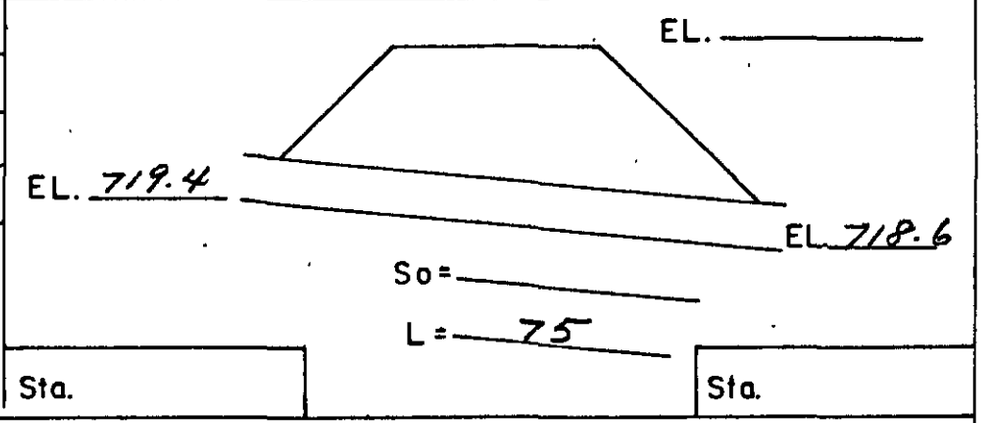
FIELD SKETCH.

Profile View

Plan View



JOB NAME: Farmington Hills	JOB NO.
WATERCOURSE: Pebble Creek	CULVERT LOCATION: under Danvers Dr
CULVERT DESCRIPTION:	BY Wu DATE 3/9 77
59'/long of 10'-2" x 6'-9" multi plate CMP &	
concrete bridge, conc bridge 16.6° skew	
WEIR DESCRIPTION:	



A = 58.65 (conc) ~~53 (CMP)~~

WP = 34.2 (conc) ~~28 (CMP)~~

$\frac{29.1}{R^{4/3}}$ = ~~14.18 (conc)~~ 11.83 (CMP)

D = 5.2 (conc) ~~6.75 (CMP)~~

Ke = 0.4

n = 0.032 (CMP) 0.015 (conc)

CALCULATIONS AND COMMENTS:

CMP.

$K_{f_1} = \frac{29.1\,(0.031)^2 \times 59}{R^{4/3}} = 0.67$

$K_{e_1} = 0.5$

$XKOR_1 = 1 + K_{e_1} + K_{f_1} = 2.17$

concrete bridge

$K_{f_2} = \frac{29.1\,(0.015)^2 \times 16}{R^{4/3}} = 0.051$

$K_{e_2} = 0.4$, No exit loss

$XKOR_2 = 0.051 + 0.4 = 0.451$

$XKOR_2' = \left(\frac{A'}{A}\right)^2 XKOR_2 = 0.40$

Total $XKOR = XKOR_1 + XKOR_2' + K_b$

K_b = bending loss , = 0.03

then $XKOR = 2.17 + 0.40 + 0.03$

$= 2.60$

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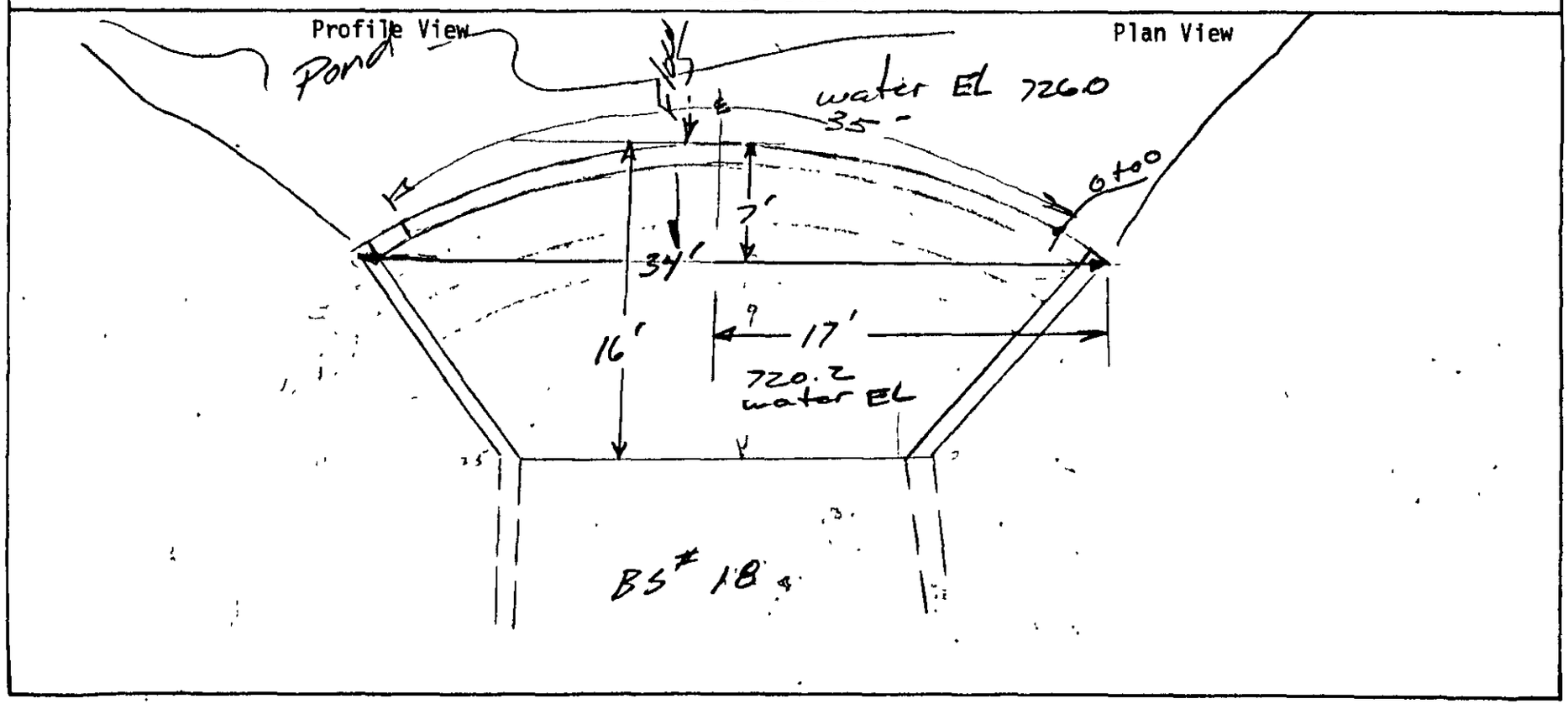
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-DS#19

Job Name: Farmington Hills F.I.S.		By: C. Norberg	
Date: 2-4-77	Feature: Conc Dam	Water Course: Pebble Creek	
Remarks: Danvers Dr			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH



B.S. #22

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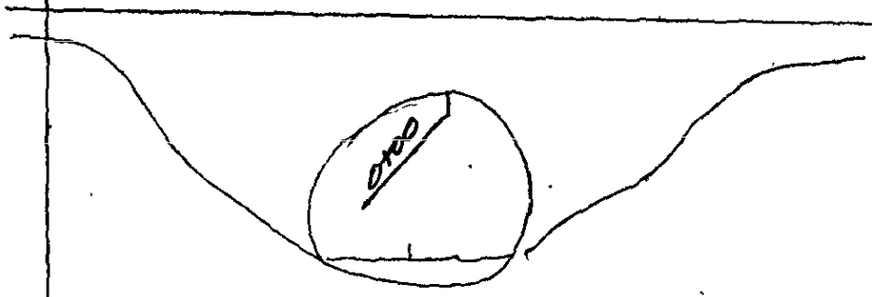
HYDRAULIC STRUCTURAL DATA

Code No. 5620-03-02 BS #27

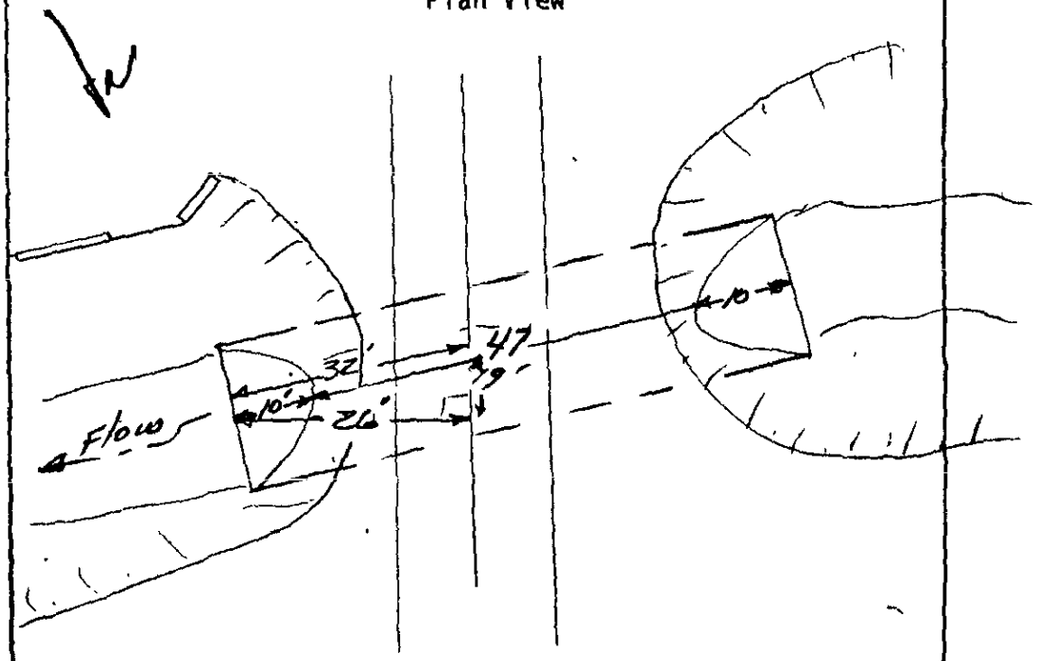
Job Name: Farmington Hills F.I.S.			By: G. Norberg
Date: 2-1-77	Feature: 16'-10" x 7'-1" Multi Plate C.M.P.		Water Course: Pebble Creek
Remarks: Danvers ct.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length:	Width of Deck:	Skew:

FIELD SKETCH

Profile View



Plan View



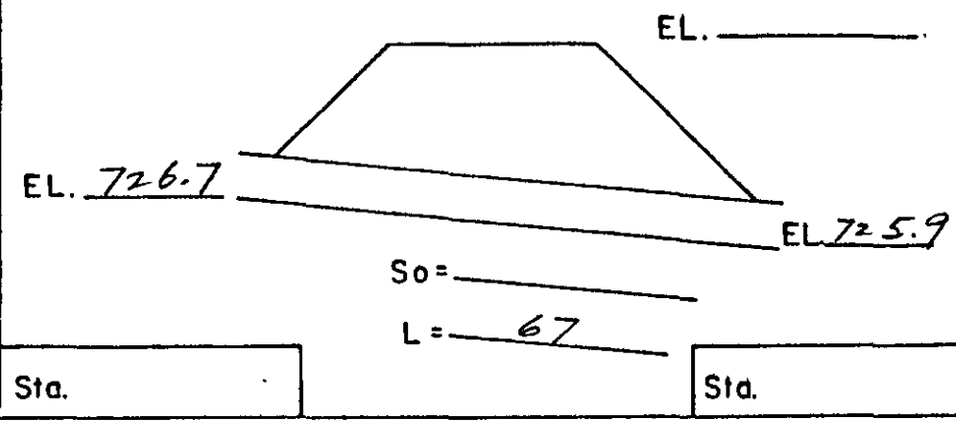
JOB NAME: Farmington Hills	JOB NO.	5670	03
WATERCOURSE: Pebble Creek	CULVERT LOCATION:		

CULVERT DESCRIPTION:

67' long 10'-10" x 7'-1" multiplate CMP

BY ZWU DATE 3/9 '77

WEIR DESCRIPTION:



A = 60 ft² D = 7.1

WP = 28.99 Ke = 0.7

$\frac{29.1}{R^{4/3}}$ = 11.03 n = 0.0316

CALCULATIONS AND COMMENTS:

$$K_f = \frac{29.1\,(0.0316)^2\,67}{R^{4/3}} = 0.74$$

$$\Sigma K_{OR} = 1 + K_e + K_f$$

$$= 1 + 0.7 + 0.74$$

$$= 2.44$$

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HYDRAULIC STRUCTURAL DATA

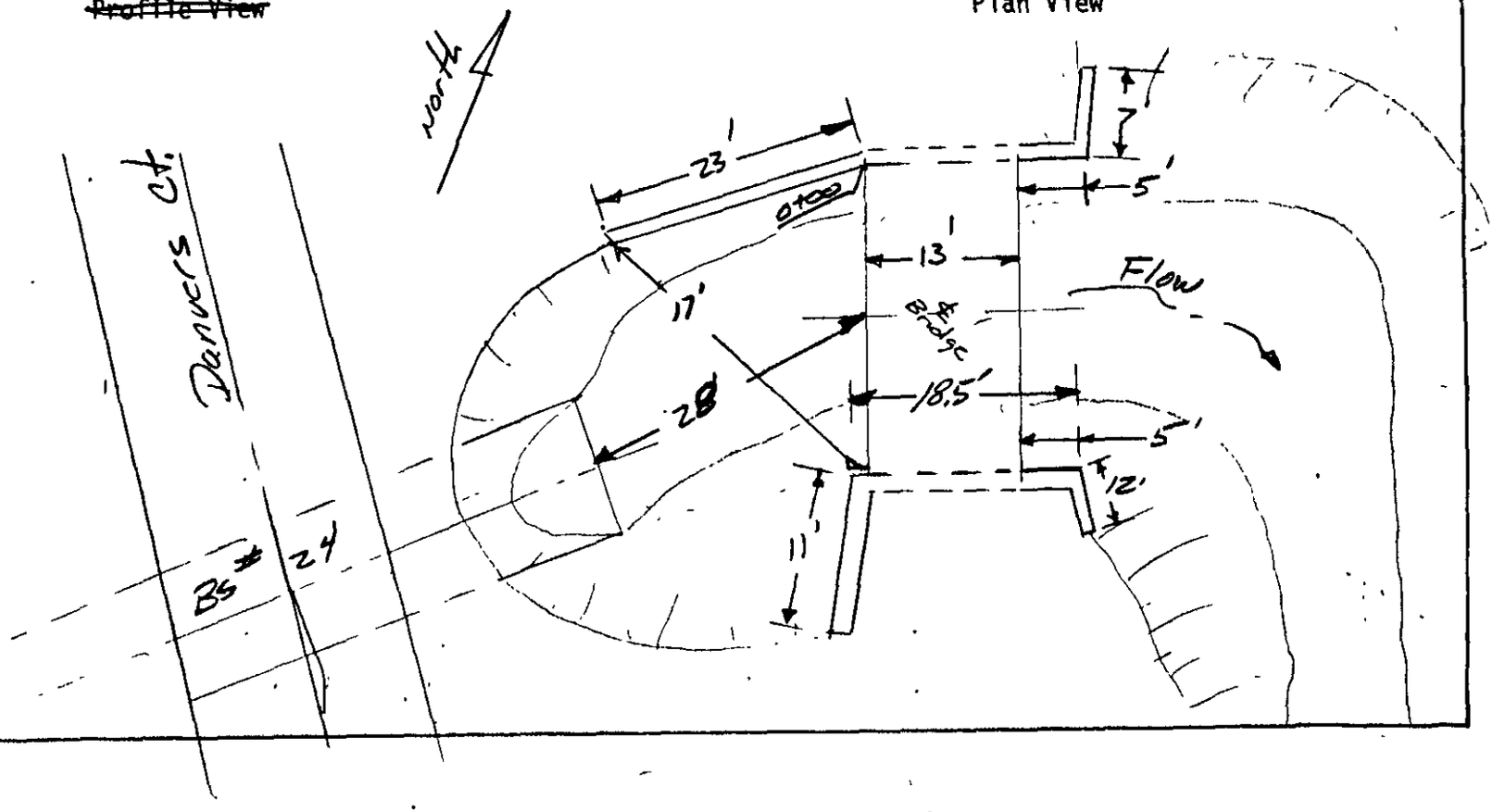
Code No. 5670-03-02-BS# 23A

Job Name: Farmington Hills		By: G. Norberg	
Date: 2-1-77	Feature: Conc & I-Beam Bridge	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 733.1	Length: 13	Width of Deck: —	Skew: —

FIELD SKETCH

~~Profile View~~

Plan View

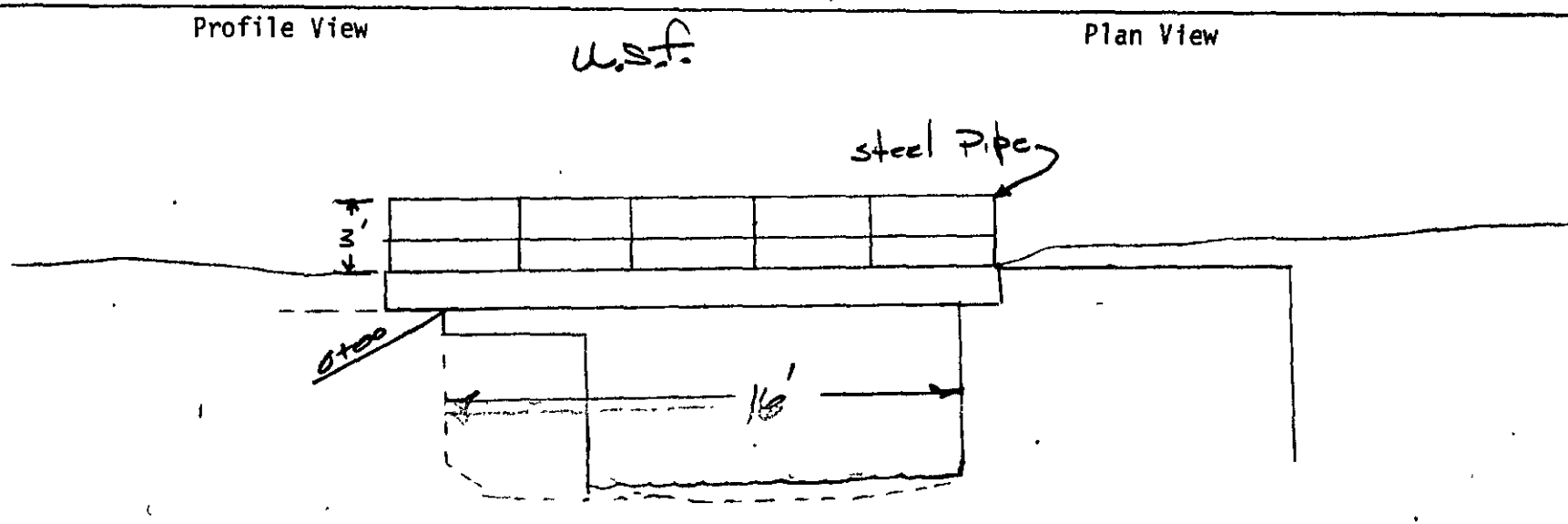


Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

FIELD SKETCH

Profile View

Plan View



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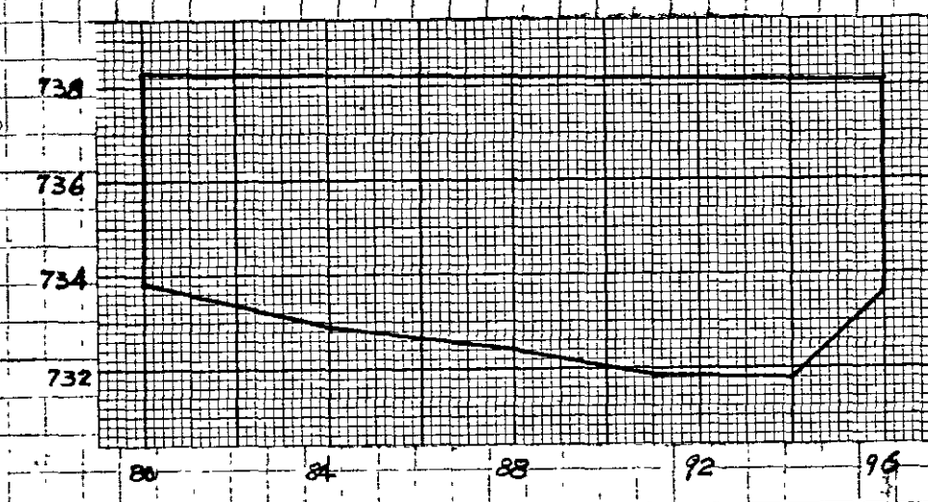
BY MSC DATE 8/19/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Pebble Creek : BS # 23A JOB NO. 5670-03-1



Area : $A = 81.05\ ft^2$ (after skewed by 0.90)

Wetted Perimeter : $P = 38.68$ ft. (after skewed by 0.90)

Hydraulic Radius : $R = A/P = 2.10$ ft.

Length : $L = 13$ ft.

Manning Coefficient : $n = 0.018$ (concrete bridge with sandy bottom)

Entrance Loss : $K_e = 0.40$

Max. Depth : $D = 6.3$ ft

$$BWC = \frac{A}{D} = 12.87 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.05$$

$$XK\phi R = 1 + K_e + K_f = 1.45$$

Weir Coefficient : $C =$

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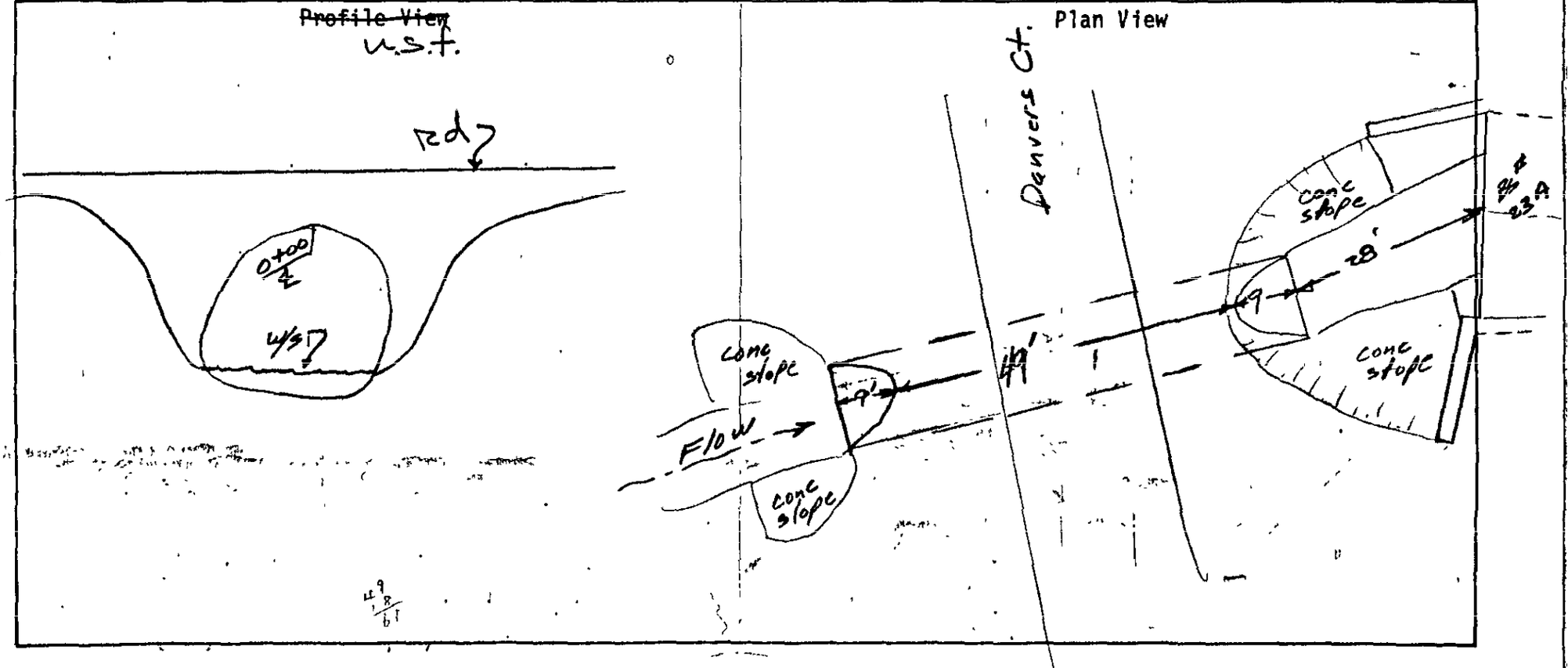
HYDRAULIC STRUCTURAL DATA

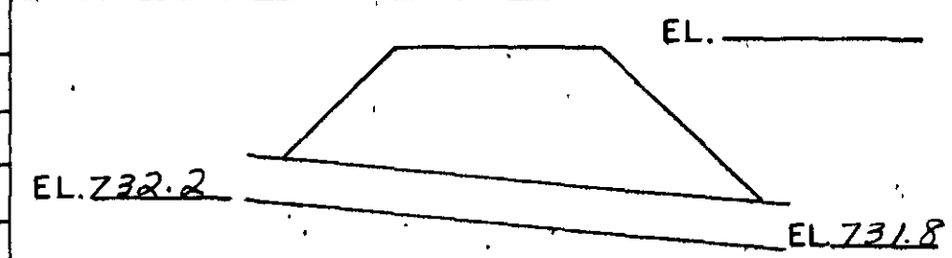
Code No. 5670-03-02-BS #24

Job Name: Farmington Hills			By: G. Norberg
Date: 2-1-77	Feature: Multi Plate C.M.P.		Water Course: Pebble Creek
Remarks: Denvers Ct.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 733.4	Length:	Width of Deck: —	Skew: see Below

FIELD SKETCH



JOB NAME: Farmington Hills		JOB NO. 5670	03
WATERCOURSE: Pebble Creek	CULVERT LOCATION:		
CULVERT DESCRIPTION:	BY	DATE	
67' long, 11'-5" x 7'-3" multi plate CMP			
WEIR DESCRIPTION:			



A = 63 D = 7.25

WP = 29.86 Ke = 0.7

$\frac{29.1}{R^{4/3}}$ = 10.753 n = 0.0315

So =

L = 67

Sta. Sta.

CALCULATIONS AND COMMENTS:

$$K_f = \frac{29.1\,(0.0315)^2 \times 67}{R^{4/3}} = 0.71$$

$$XKOR = 1 + K_f + K_e = 2.41$$

D/S end sediment el. 732.7

Sediment deposition was not considered. It was assumed that sediment would be flushed out. The mean velocity through the pipe

$$\bar{V} = \frac{995}{63} = 15.794$$

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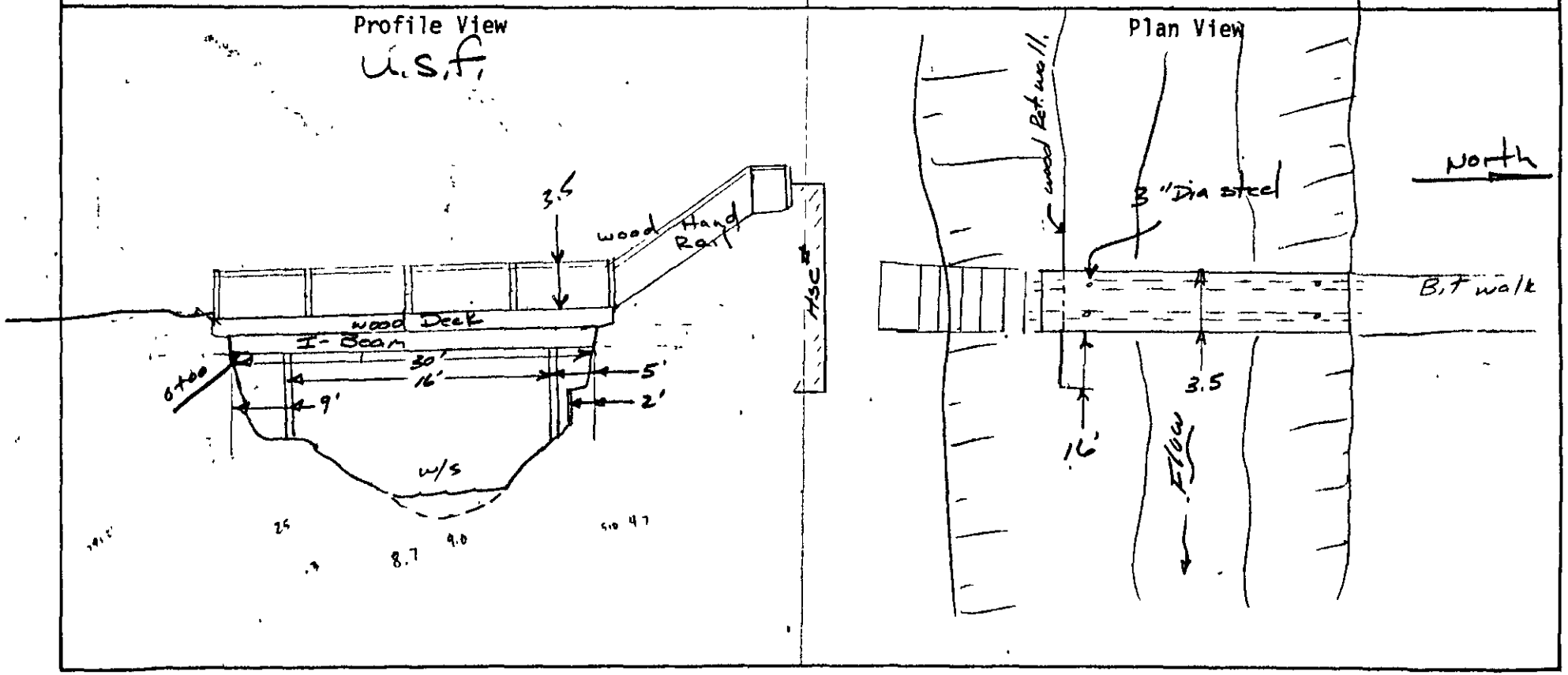
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS#24/A

Job Name: Farmington Hills		By: George Norberg	
Date: 2-2-77	Feature: wood & I-Beam walk Bridge	Water Course: Pebble Creek	
Remarks: walk Bridge 125'± u/s of BS# 24			
Width of Piers: 3"	Pier Shape: 3" Dia steel Post	No. of Piers: 4	Area: —
Water Elevation: 734.0	Length: 30	Width of Deck: 3.5	Skew: —

FIELD SKETCH



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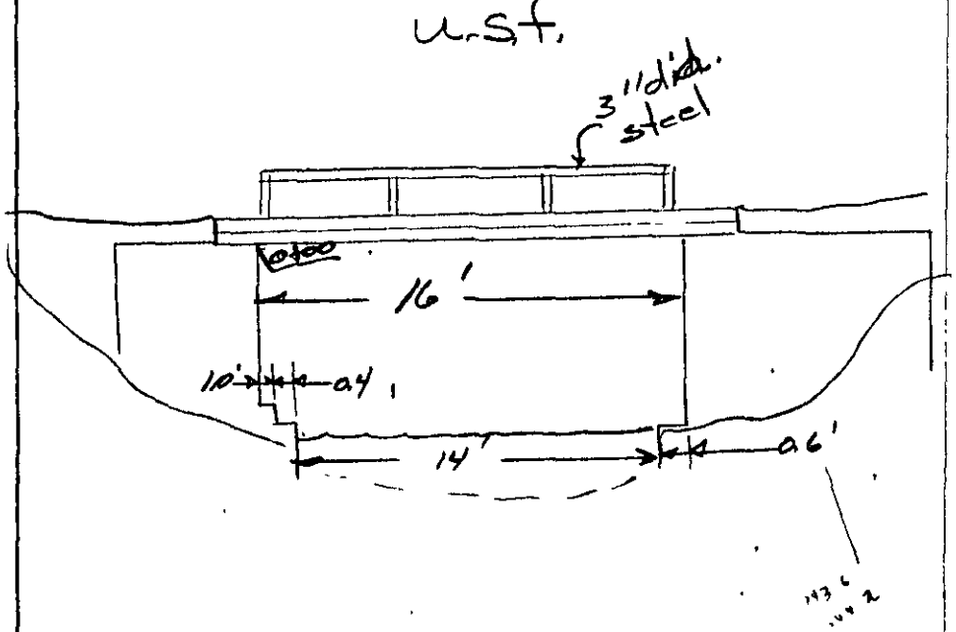
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS#25

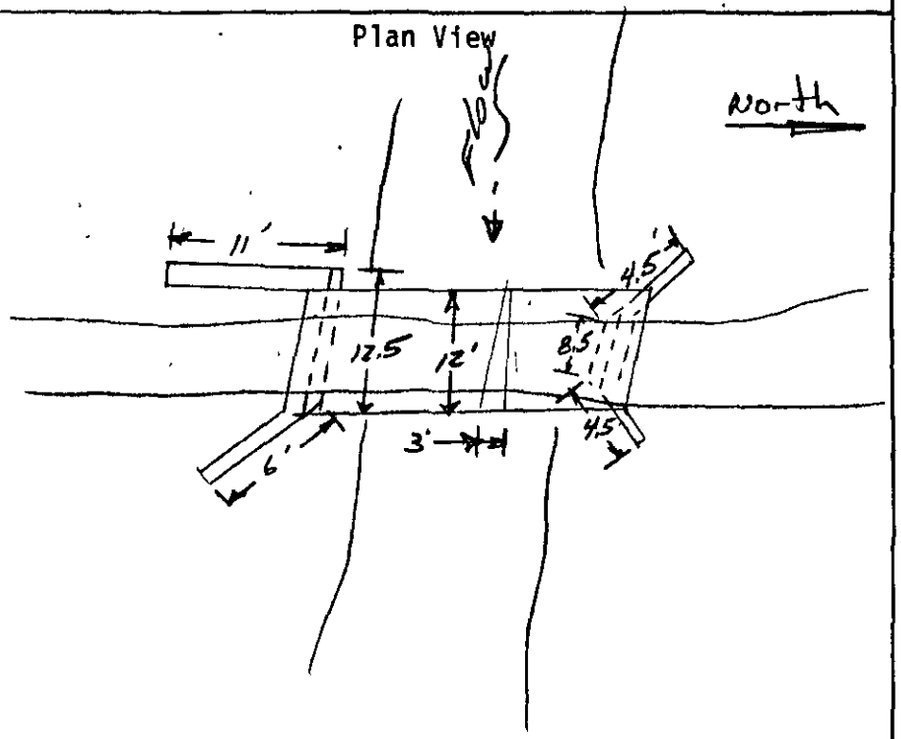
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-2-77	Feature: Conc. Bridge	Water Course: Pebble Creek	
Remarks: Driveway Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 736.7	Length: 16'	Width of Deck: 12'	Skew: see Below

FIELD SKETCH

Profile View



Plan View



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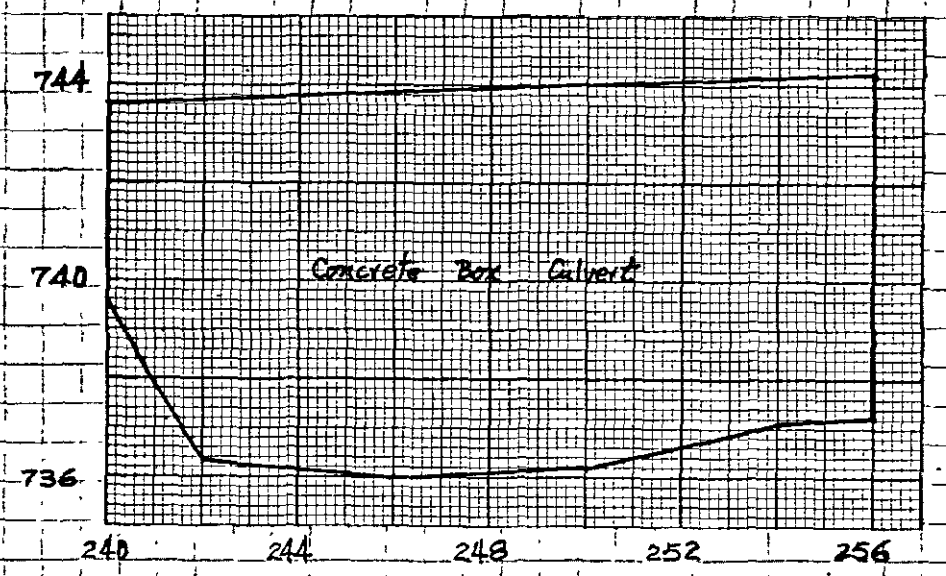
CONSULTING ENGINEERS

BY MSC DATE 8/8/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Driveway Bridge on Pebble Creek ; BS # 25 JOB NO. 5670-03-1



Area = $A = 113.10\ ft^2$ (after skewed by 0.97)

Wetted Perimeter = $P = 43.94$ ft. (after skew)

Hydraulic Radius = $R = A/P = 2.57$ ft.

Length = $L = 12.5$ ft.

Manning Coefficient = $n = 0.018$ (Concrete box Culvert with Sandy Bottom)

Max. Depth = $D = 7.8$ ft.

$BWC = \frac{A}{D} = 14.5$ ft.

Entrance Loss = $K_e = 0.40$ (Headwalls with Wingwalls)

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 0.03$$

$$XK\phi R = 1 + K_e + K_f = 1.43$$

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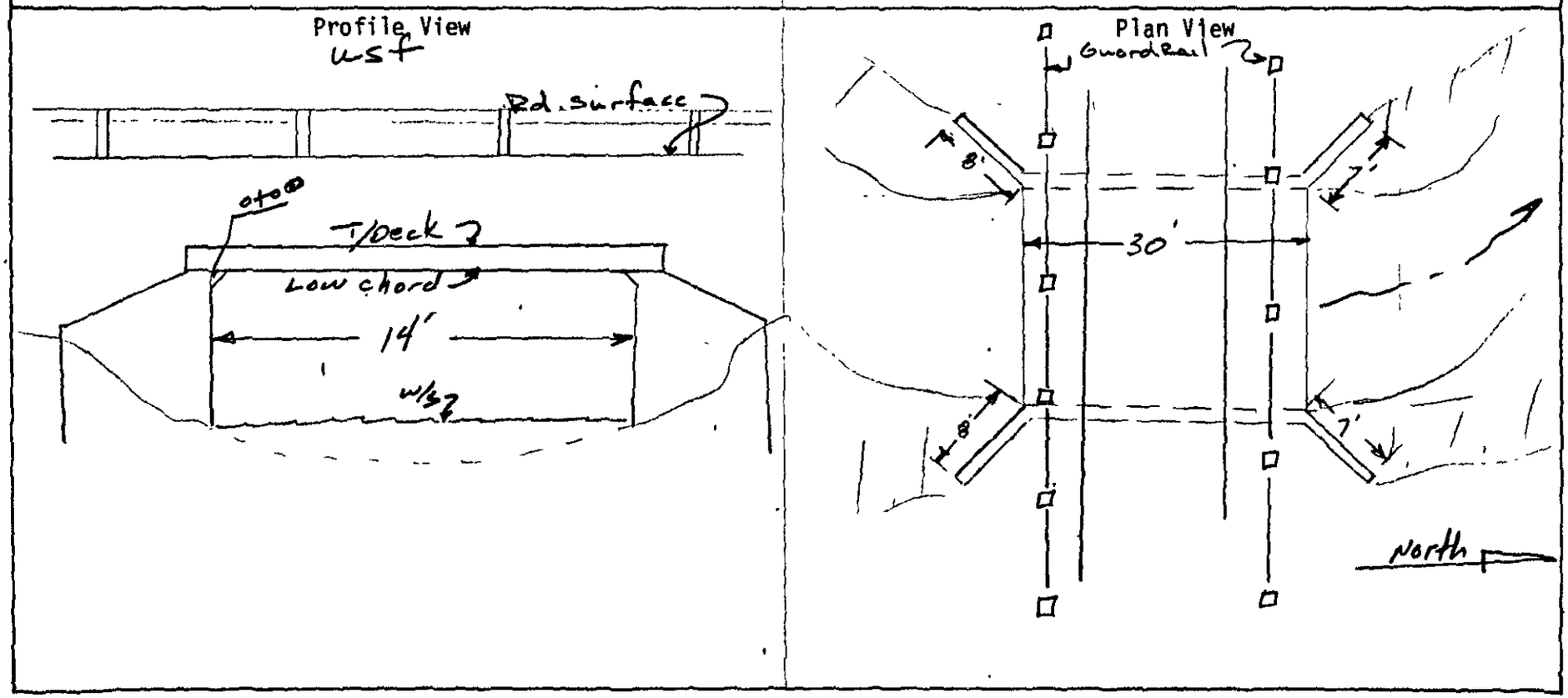
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS# 30

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-27-77	Feature: Conc. Bridge	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 765.2	Length: 14'	Width of Deck: 30'	Skew: —

FIELD SKETCH



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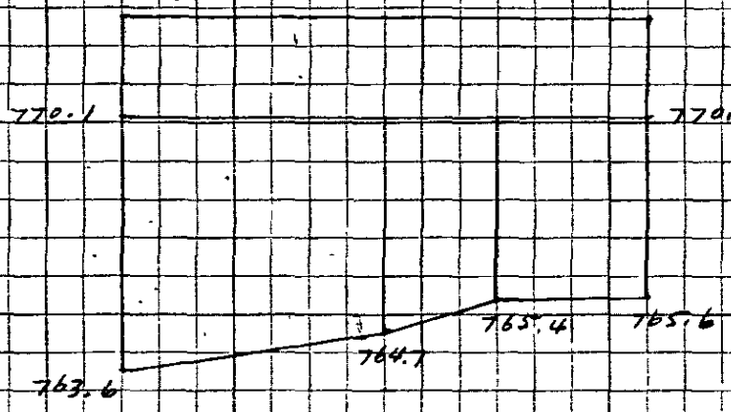
BY_____ DATE_____ JOB DESCRIPTION_____ SHEET _____ OF_____
SUBJECT_____ JOB NO._____

BS#30 PEEBLE CREEK FARMINGTON HILLS



area = 41.65 + 15.3 + 18.8 = 75.75

wet perimeter = 14 + 6.5 + 4.6 + 7.086 + 3.08 + 4

= 25.1 + 14.17

= 39.27

Hydraulics $R = \frac{75.75}{39.27} = 1.929$ $R^{4/3} = 2.4012$

$29.1/R^{4/3} = 12.12$

composite $n = \left(\frac{0.015^2 \times 25.1 + 0.03^2 \times 14.17}{39.27}\right)^{\frac{1}{2}} = 0.02165$

$K_f = \frac{29.1\,(0.02165)^2 \times 30}{R^{4/3}} = 0.17$

$\Sigma K \circ R = 1 + K_e + K_f = 1 + 0.4 + 0.17 = 1.57$

$75.75 = (14 + x)\,\frac{6.55}{2}$ $x = 9.13$ $\frac{x}{2} = 4.56$

slope $(7 - 4.56)/6.55 = 0.373$

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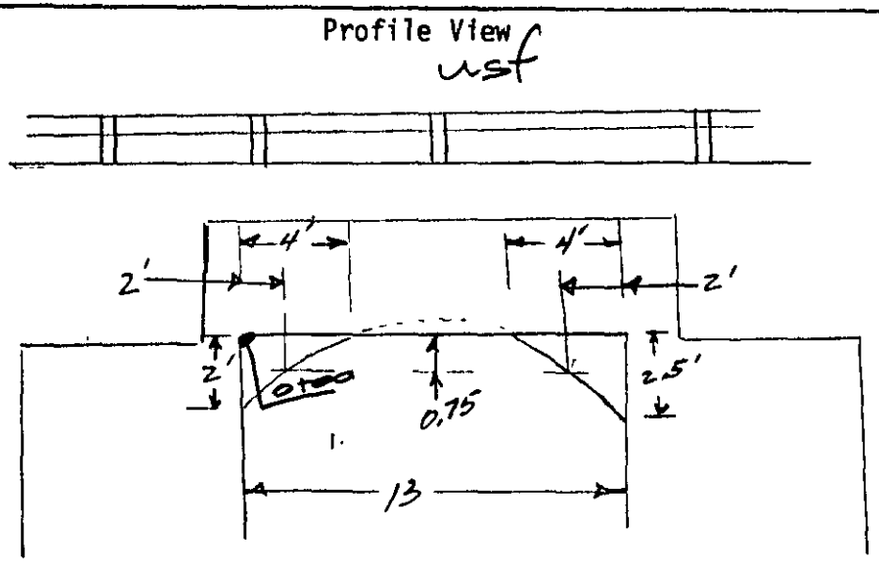
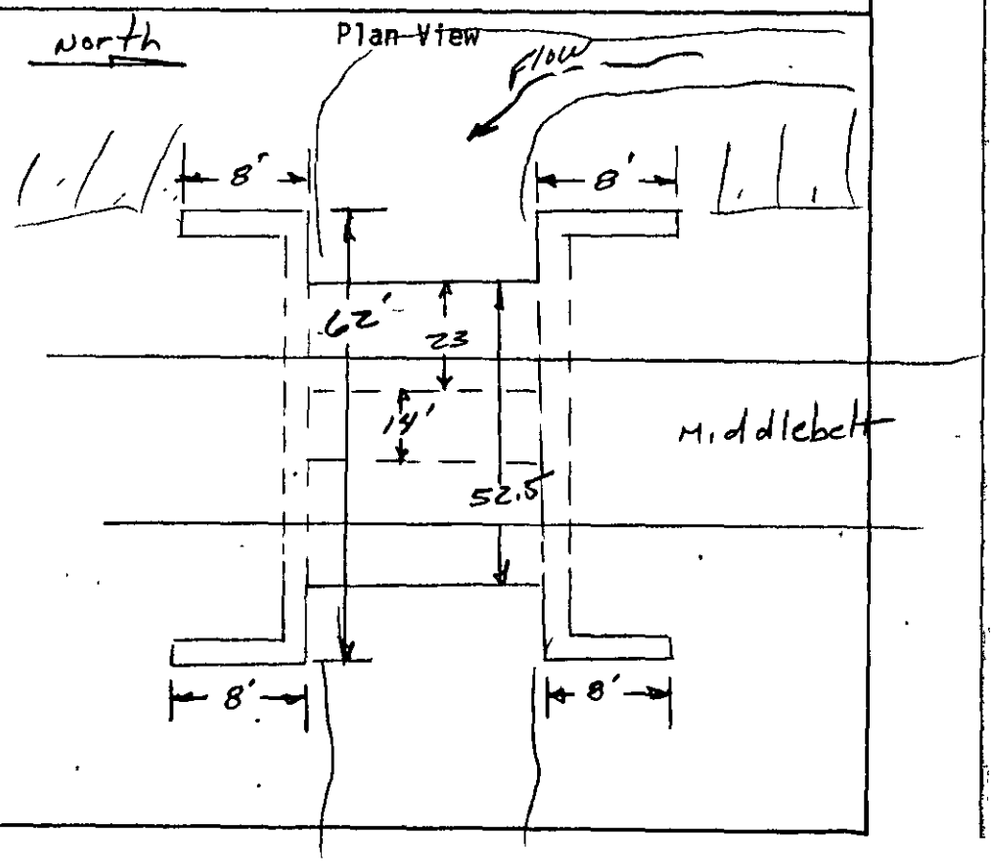
HYDRAULIC STRUCTURAL DATA

Code No. SL70-03-02-BS#57

Job Name: Farmington Hills		By: G. Norberg	
Date: 2-4-77	Feature: Conc Bridge	Water Course: Pebble Creek	
Remarks: Middlebelt Rd Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 806.1	Length: —	Width of Deck: 52.5	Skew: —

FIELD SKETCH





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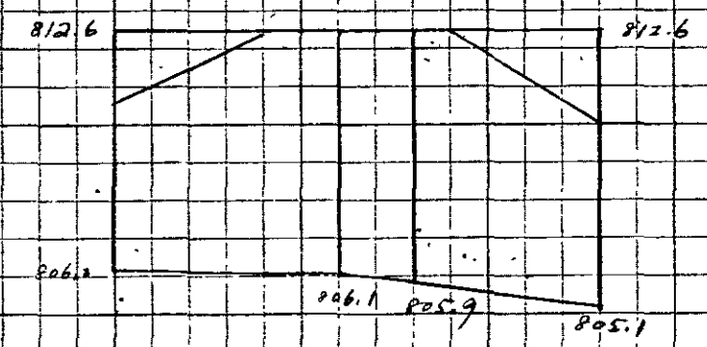
CONSULTING ENGINEERS

BY_____ DATE_____ JOB DESCRIPTION_____ SHEET _____ OF_____
SUBJECT_____ JOB NO._____

B.S. #37 PEBBLE CREEK FARMINGTON HILLS



area = 38.7 + 13.2 + 35 = 86.9 − 9 = 77.9

Wet perimeter = 14.2 + 4.4 + 5 + 6 + 2.01 + 5.06
= 23.6 + 13.07
= 36.67

Hydraulic radius = 77.9 / 36.67 = ~~2.17~~ 2.12 $R^{4/3}$ = 2.73

29.1 / 2.73 = 10.66

composite $\bar{n}$ = $\left(\frac{0.015^2 \times 23.6 + 13.07 \times 0.03^2}{36.67}\right)^{\frac{1}{2}}$ = 0.021

$K_f = \frac{29.1\,(0.021)^2 \times 52.5}{R^{4/3}} \cong 0.246$ $\quad \Sigma K_o R = 1 + K_e + K_f = 1.75$

$77.9 = (13 + x)\,\frac{7.5}{2}$ $\quad x = 7.78$ $\quad \frac{x}{2} = 3.89$

slop = (6.5 − 3.89) / 7.5 = 0.348

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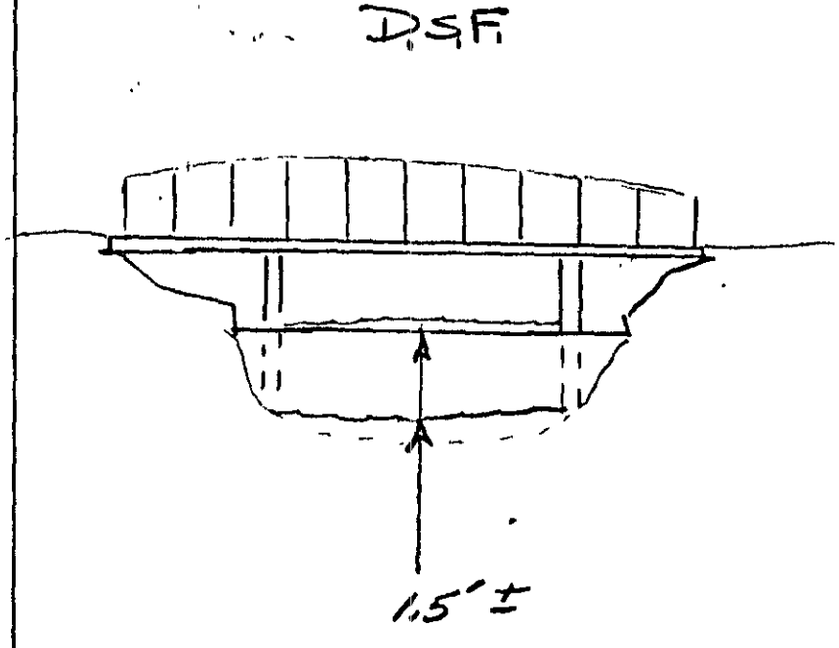
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-38

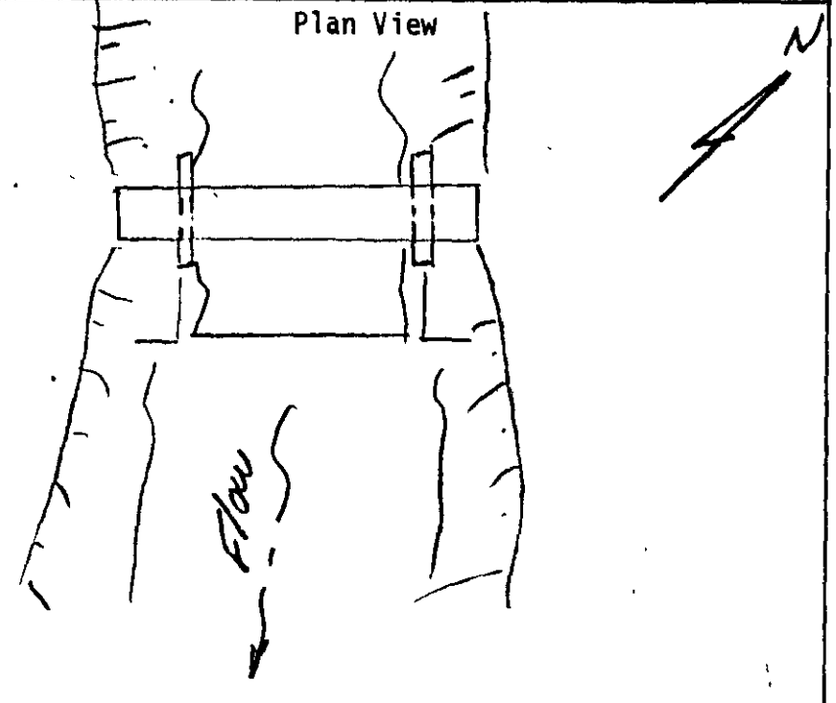
Job Name: Farmington Hills		By: G. Norberg	
Date: 3-30-77	Feature: Conc. Dam	Water Course: Pebble Creek	
Remarks: 350' ± U.S. from BS #37 Middlebelt			
Could not Get Permission			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

FIELD SKETCH

Profile View



Plan View



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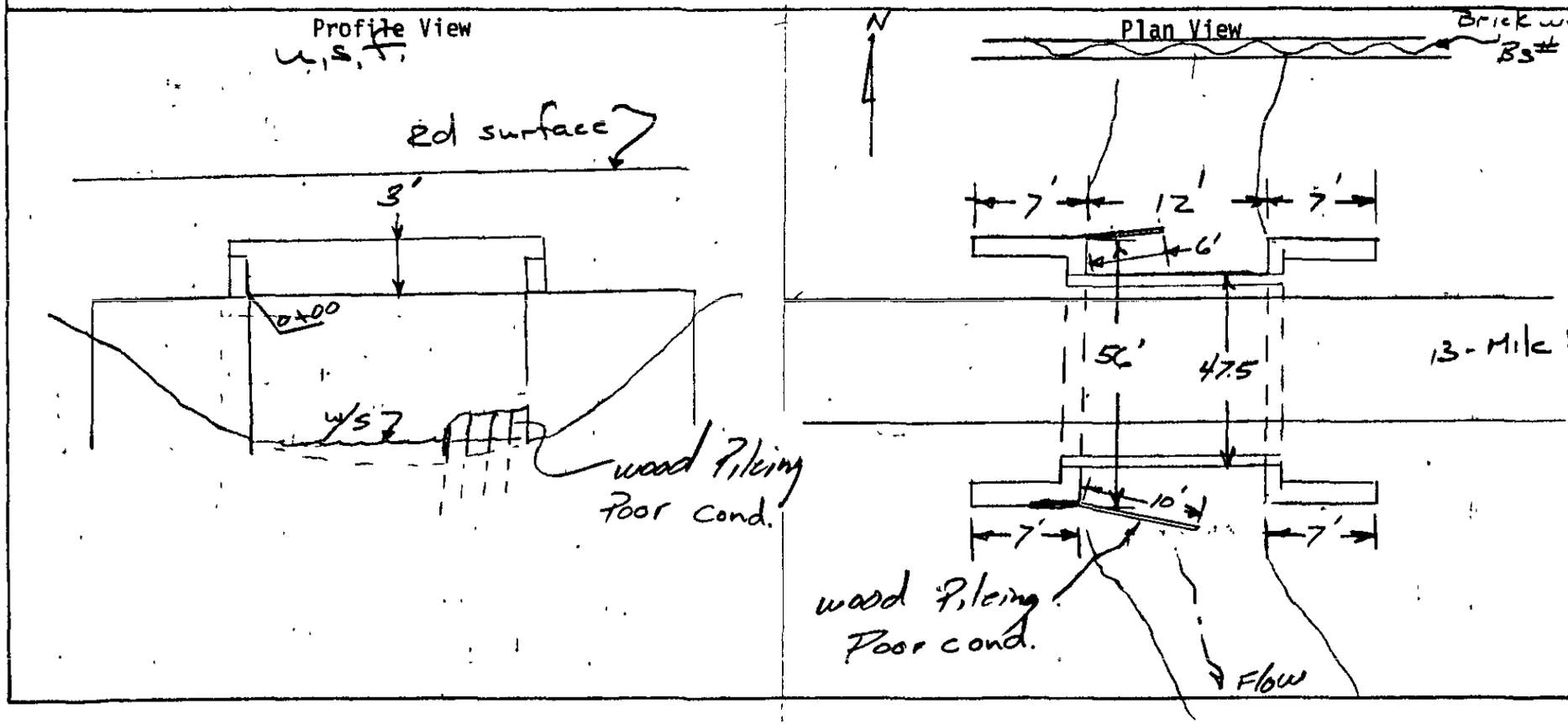
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS#41

Job Name: Farmington Hills		By: G. Norberg	
Date: 2-7-77	Feature: Conc. Box Culv.	Water Course: Pebble Creek	
Remarks: 13-Mile Rd Bridge (wood Pileing @ ust. & DSf are 2"x12" & in very Poor cond.)			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 813.8	Length:	Width of Deck:	Skew: —

FIELD SKETCH



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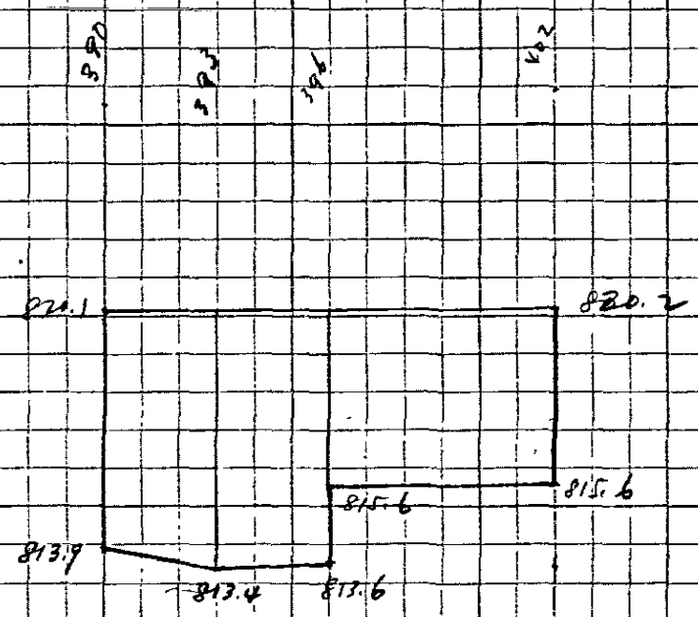
BY_____ DATE_____ JOB DESCRIPTION_____ SHEET _____ OF_____
SUBJECT_____ JOB NO._____

BS # 41 Pebble Creek



area
$19.35 + 19.8 + 27 = 66.15 + 12 = 78.2$

Wet perimeter $= \underbrace{12 + 6.2 + 4.6} + \underbrace{3.04 + 3.01} + \underbrace{2 + 6}$

$= 22.8 + 6.05 + 8$

$= 36.85 \quad = 12.05 + 24.8$

Hydraulic $R = 78.2 / 36.85 = 2.122 \qquad R^{4/3} = 2.727$

$29.1 / R^{4/3} = 10.67$

composite $n = \left(\dfrac{0.035^2 \times 6.05 + 30.8 \times 0.015^2}{36.85} \right)^{\frac{1}{2}} = 0.197$

$n = \left(\dfrac{0.035^2 \times 12.05 + 0.015^2 \times 24.8}{36.85} \right)^{\frac{1}{2}} = 0.0235$

$K_f = \dfrac{29.1 (0.0235)^2 \times 47.5}{R^{4/3}} = 0.78$

$XKOR = 1 + K_e + K_f = 1 + 0.5 + 0.78 = 1.78$

$78.2 = (12 + x) \dfrac{6.7}{2} \qquad x = 11.34 \qquad \dfrac{x}{2} = 5.67$

slope $= (6 - 5.67) / 6.7 = 0.049$

B.S.#43

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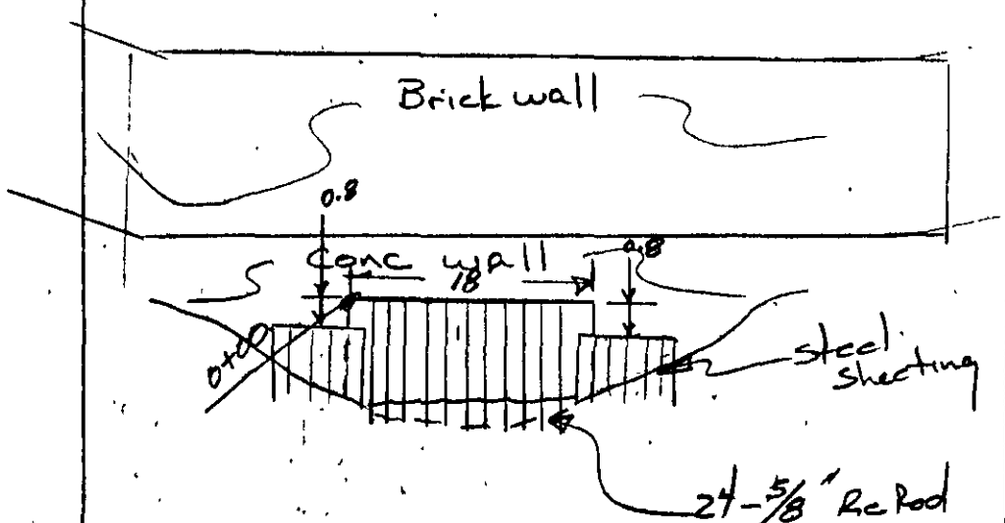
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS#43

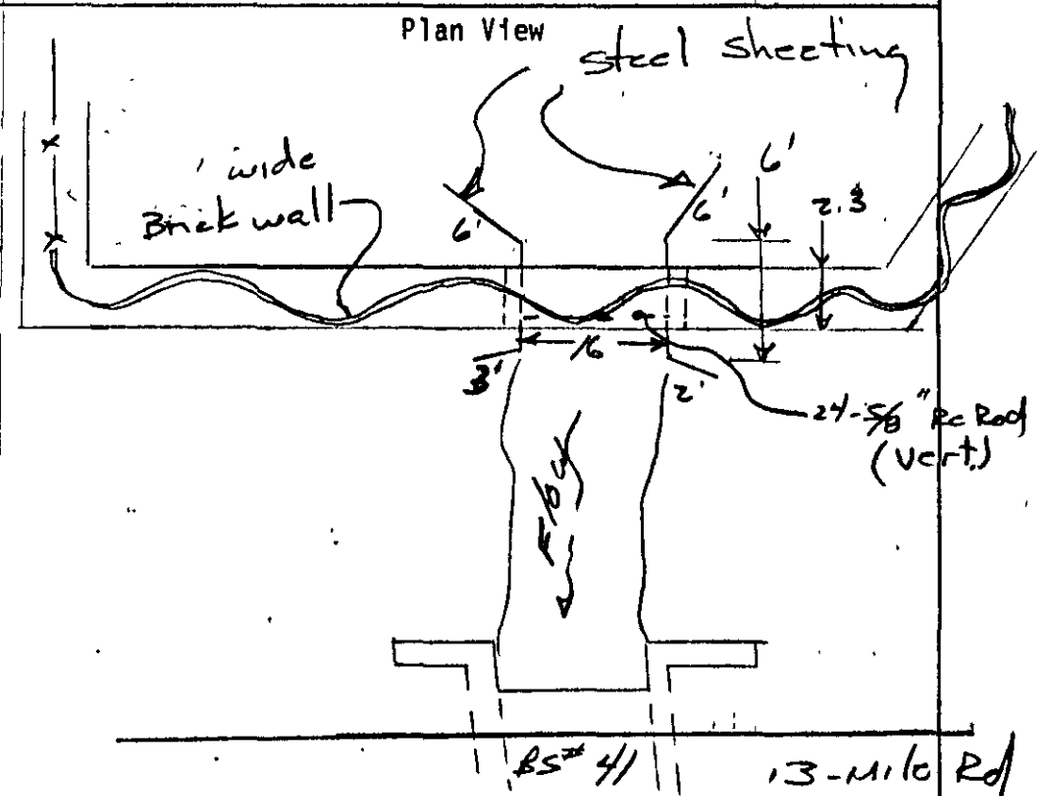
Job Name: Farmington Hills		By: G. Norberg	
Date:	Feature: Conc. & Brick	Water Course: Pebble Creek	
Remarks: Brick wall @ Monastery			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 814.8	Length:	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View

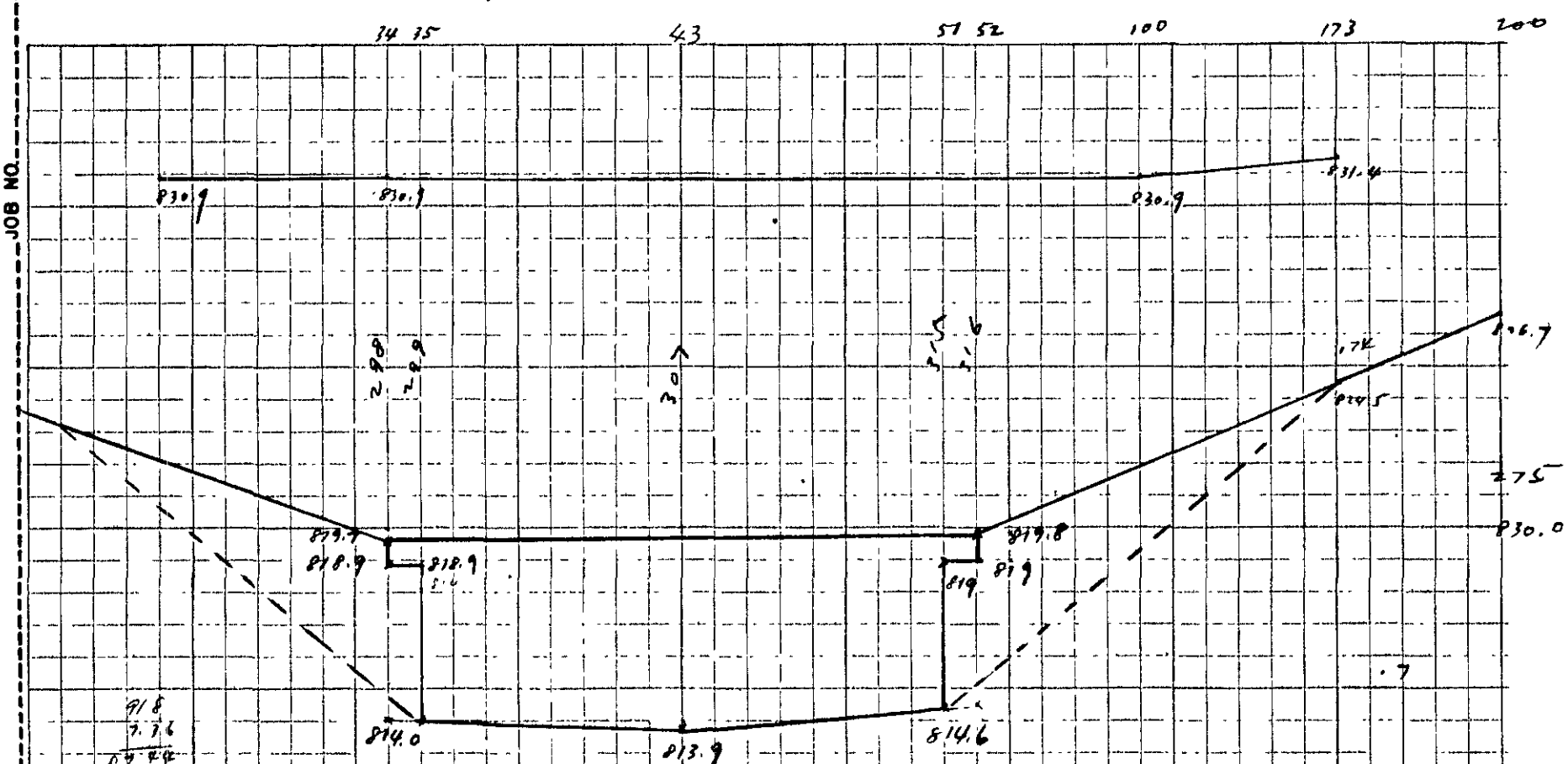


Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY _____ DATE _____ JOB DESCRIPTION _____ SHEET _____ OF _____
SUBJECT _____ JOB NO. _____



91.8
7.36
84.44

24, 5/8" ϕ = 7.363 cuft²

area = 46 + 44.2 + 1.6 = 91.8

Net area = 91.8 − 7.36 = 84.44 ft²

Trash rack loss coeff = 0.1

width = 2.3

$K_{TOR} = 1 + K_e + K_f + K_r = 1 + 0.5 + 0.1 + 0.035$

$= 1.635$

wet perimeter = 16 + 1.6 + 2 + 4.9 + 4.4 + 8 + 8.03

= 44.93

Hyd R = 84.44/44.93 = 1.879

$R^{4/3} = 2.319$

$29.1/R^{4/3} = 12.547$

$K_f = 29.1(0.035)^2 \times 2.3 / R^{4/3} = 0.035$

$84.44 = (16 + x)\frac{5.9}{2}$

$x = 12.624$

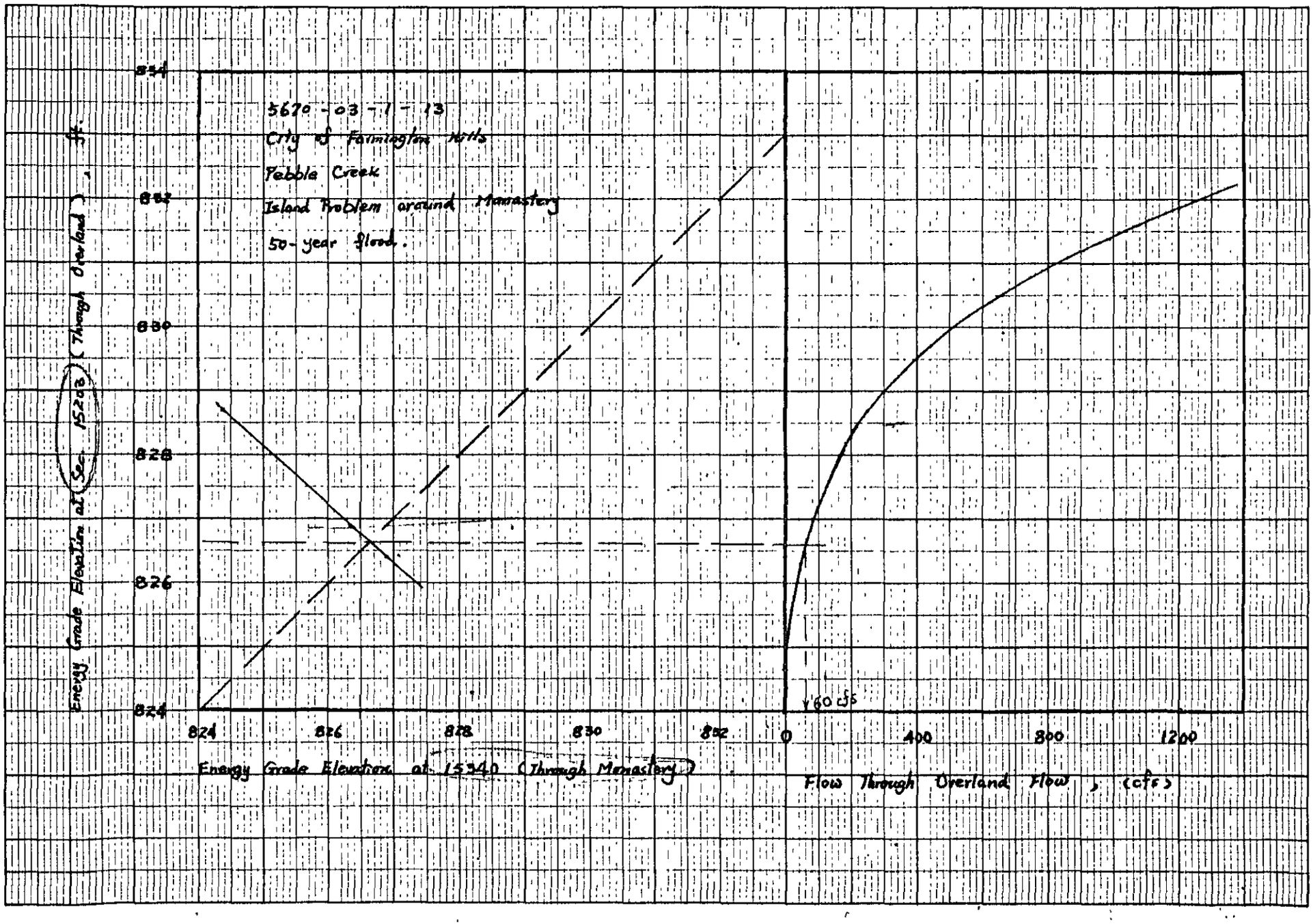
$\frac{x}{2} = 6.312$

slope = 0.286

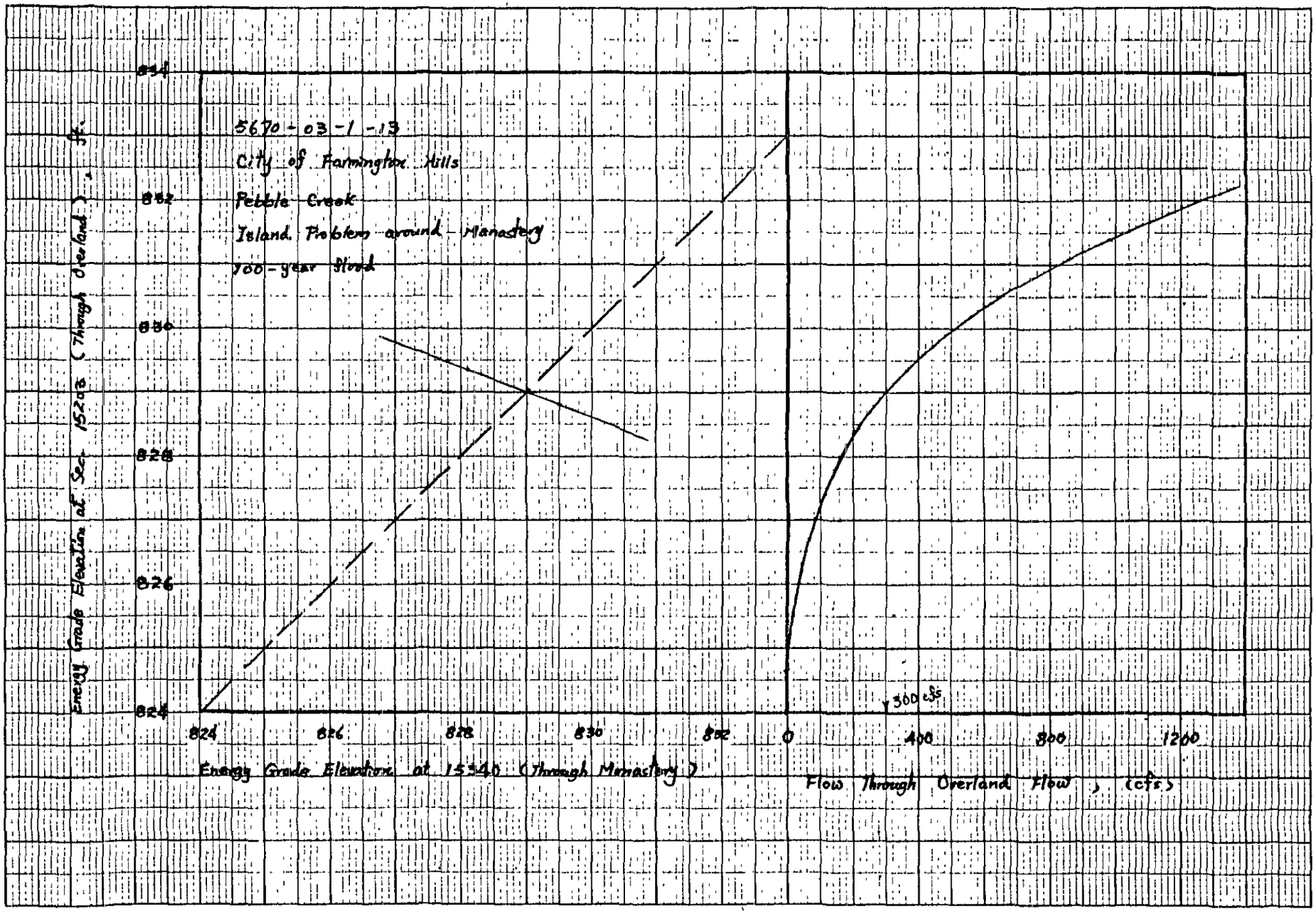
K+E 20 X 20 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

(50)

46 1240

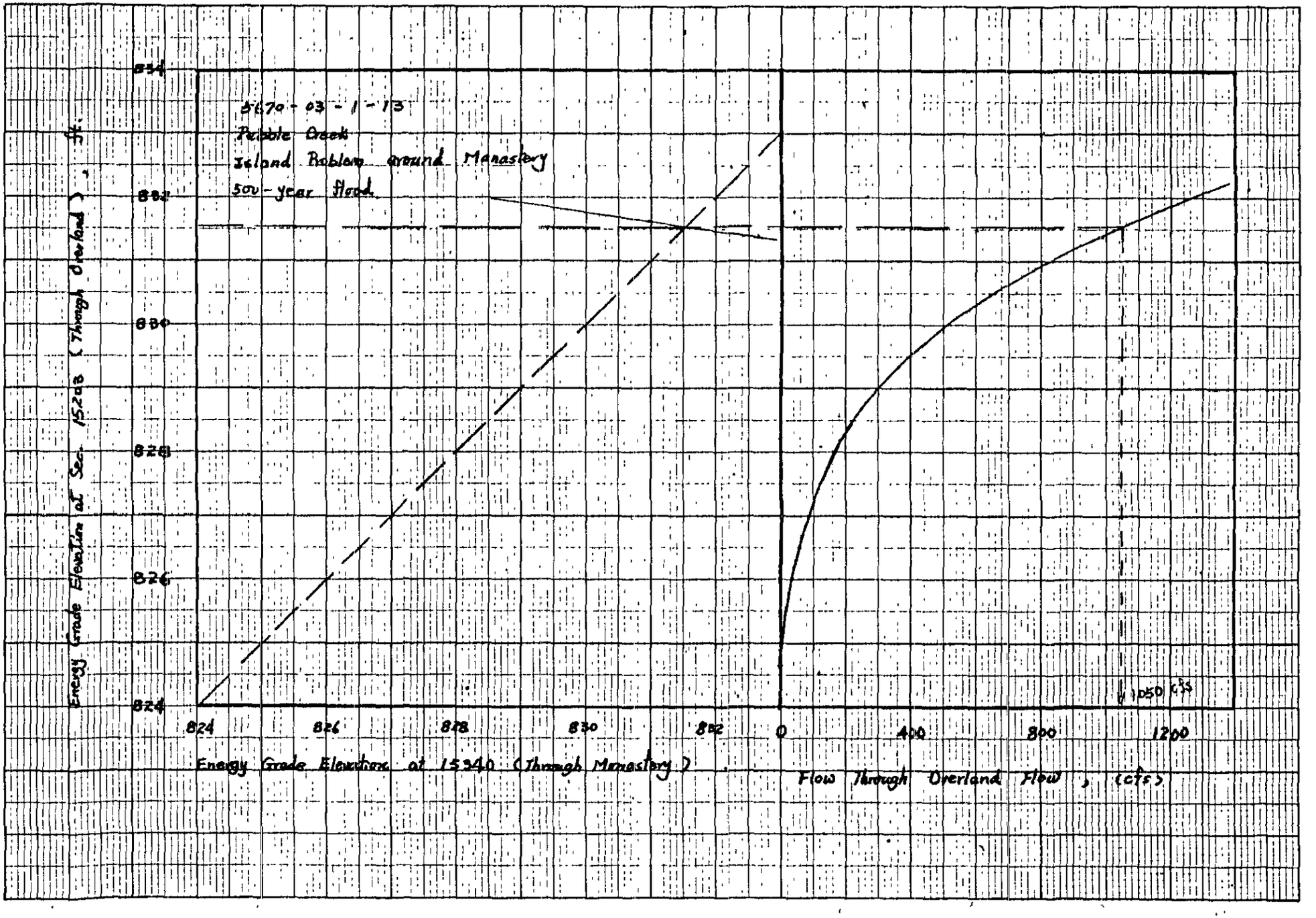


K+E 20 X 20 TO THE INCH & 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.



K+E 20 X 20 TO THE INCH • 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1240



BS #44

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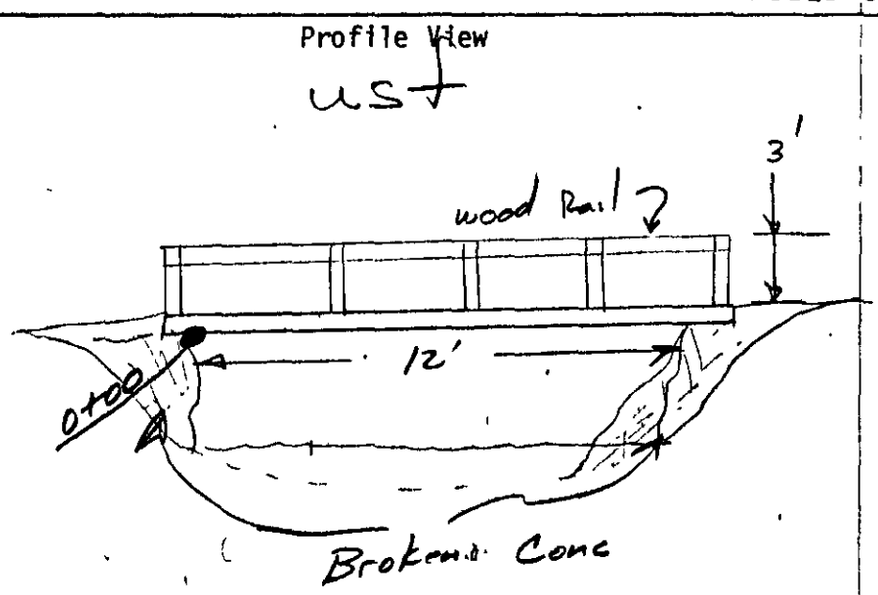
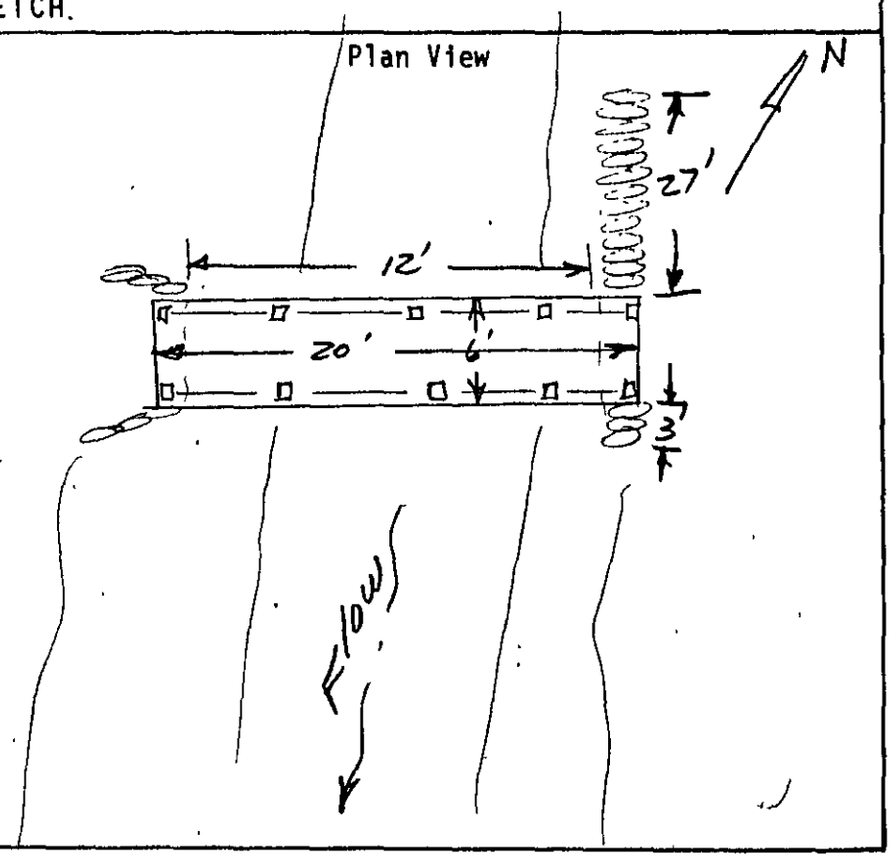
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-#44

Job Name: Farmington Hills		By: George Norberg	
Date: 2-10-77	Feature: wood Bridge	Water Course: Pebble Creek	
Remarks: walk Bridge on Monastary Prop.			
Width of Piers:	Pier Shape:	No. of Piers: —	Area: —
Water Elevation: 815.5	Length:	Width of Deck:	Skew: —

FIELD SKETCH.





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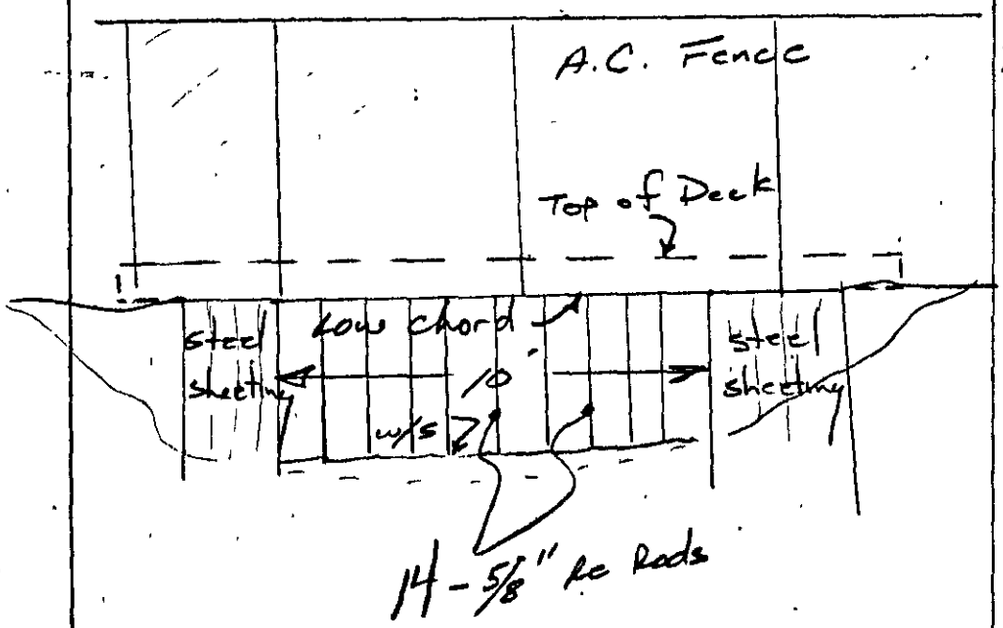
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-#44A

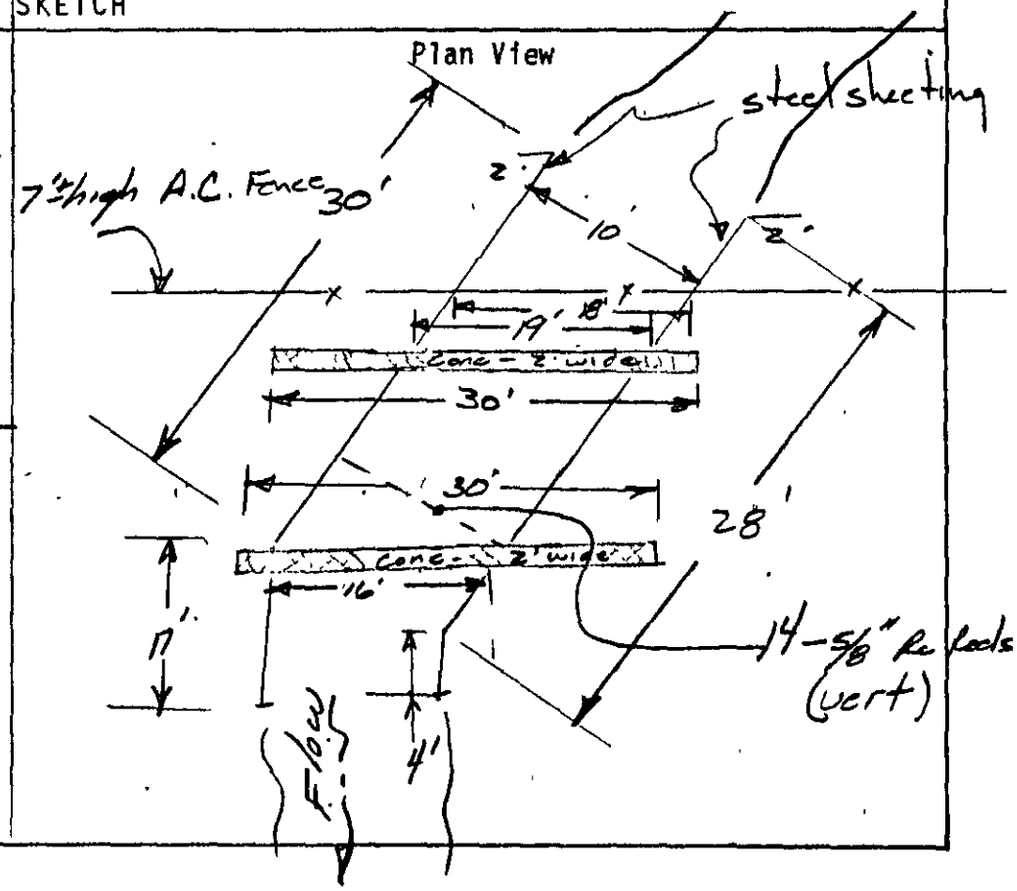
Job Name: Farmington Hills		By: George Norberg	
Date: 2-10-77	Feature:	Water Course: Pebble Creek	
Remarks: Bridge IN Monastery Property			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 816.4	Length:	Width of Deck:	Skew: see Below

FIELD SKETCH

Profile View



Plan View



```
X1   ~~14630.00~~ 14.60   15    232.00   250.00   15.00   15.00   15.00   0.556

BT     9.00   50.00   827.60    0.00   150.00   822.90    0.00   232.00   822.10    0.00

BT   232.00   822.10   821.00   250.00   821.90   821.00   250.00   821.90    0.00   280.00
BT   821.40     0.00   350.00   820.50     0.00   360.00   820.60     0.00

GR   832.10     0.00   827.60    50.00   822.90   150.00   821.90   232.00   816.80   232.00
GR   815.70   241.00   815.60   250.00   822.10   250.00   821.40   280.00   820.50   350.00
GR   820.90   395.00   821.40   396.00   823.20   450.00   825.90   511.00   830.80   537.00
*******************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE*******************

232.00   821.00   250.00   821.00

232.00   821.90   232.00   816.80   241.00   815.70   250.00   815.60   250.00   822.10
************** LISTING OF COORDINATES OF ORIFICE*********************

232.00   821.00   250.00   821.00   250.00   815.60   241.00   815.70   232.00   816.80
232.00   821.00

ORIFICE AREA        50.5 WETTED PERIMETER      29.7   29.1/R**1.333      14.3803
```

$A = 50.5\ ft^2$

$P = 29.7\ ft$

$R = A/P = 1.70\ ft$

$L = 15.0\ ft$

$n = 0.02$

$K_e = 0.50$

$D = 5.4\ ft$

$BWC = A/D = 9.35\ ft.$

$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.09$

$\Sigma K \phi R = 1 + K_e + K_f = 1.59$

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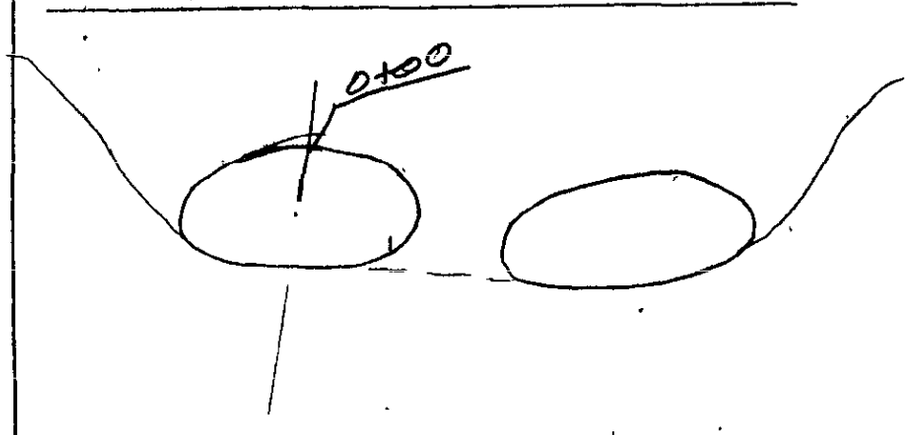
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS #46

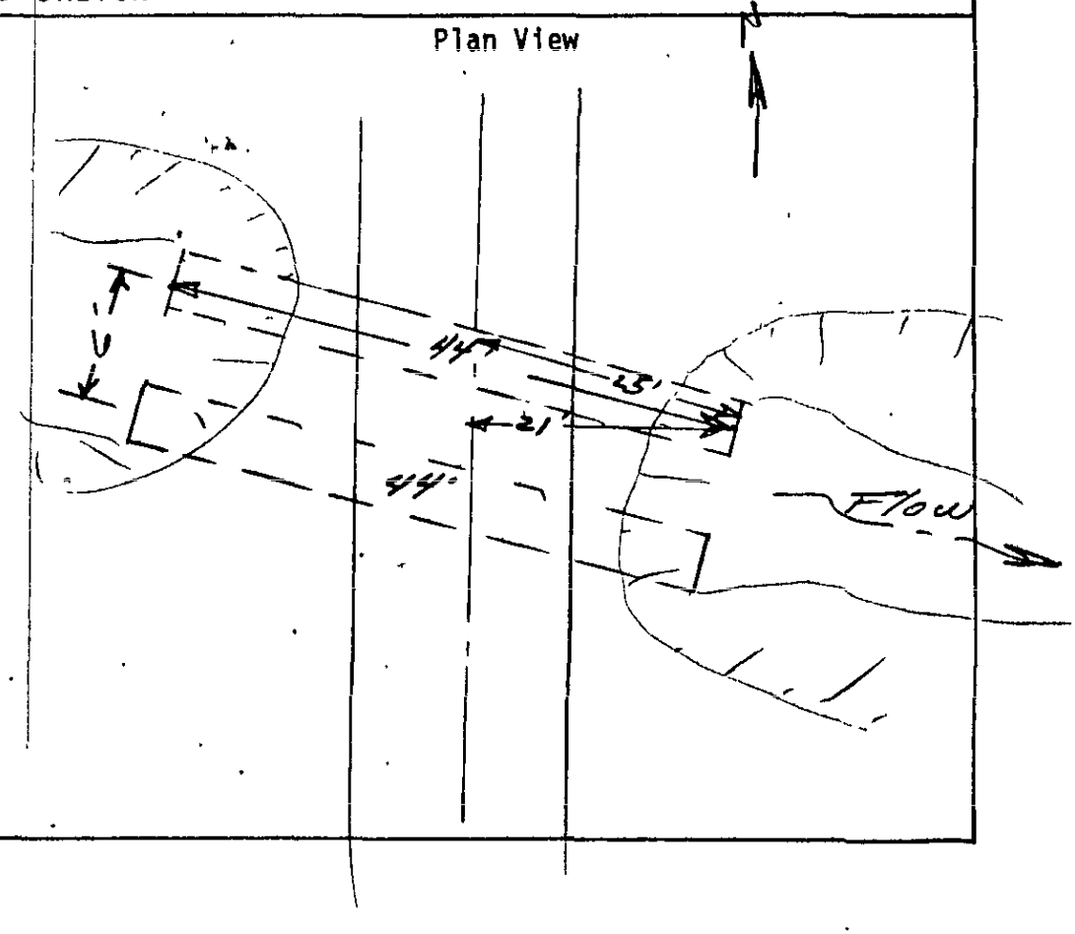
Job Name: Farmington Hills 2.8'		By: G. Norberg	
Date: 2-10-77	Feature: 34"x53" Elliptical conc.	Water Course: Pebble Creek	
Remarks: Drive To school 4"			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 44'	Width of Deck: —	Skew: see Below

FIELD SKETCH

Profile View



Plan View



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BY MSC DATE 9/13/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Driveway to School 1 BS #46 JOB NO. 5670-03-L

Culvert Feature: Twin - 53" x 34" Elliptical Concrete Pipe

Area: $A = 19.66 \text{ ft}^2$

Wetted Perimeter: $P = 23.31 \text{ ft.}$

Hydraulic Radius: $R = A/P = 0.84 \text{ ft.}$

Length: $L = 44 \text{ ft.}$

Manning Coefficient: $n = 0.015$

Entrance Loss: $K_e = 0.5$ (Project from Fill; square end)

Max. Depth: $D = 2.8 \text{ ft.}$

$$BWC = \frac{A}{D} = 7.02 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.36$$

$$XK\phi R = 1 + K_e + K_f = 1.86$$

Weir Coefficient:

$C = 3.04$ ($H \approx 2.0$ ft for 100-year flood)

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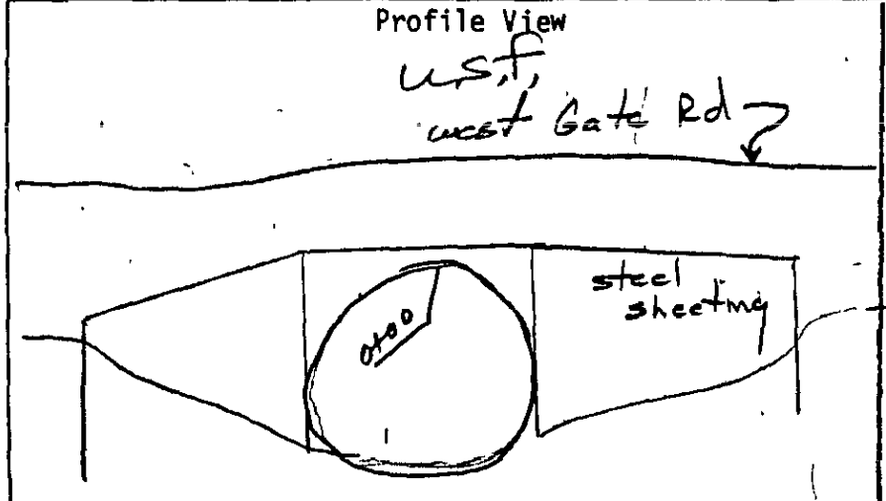
HYDRAULIC STRUCTURAL DATA

Code No. 5670-02-02-49

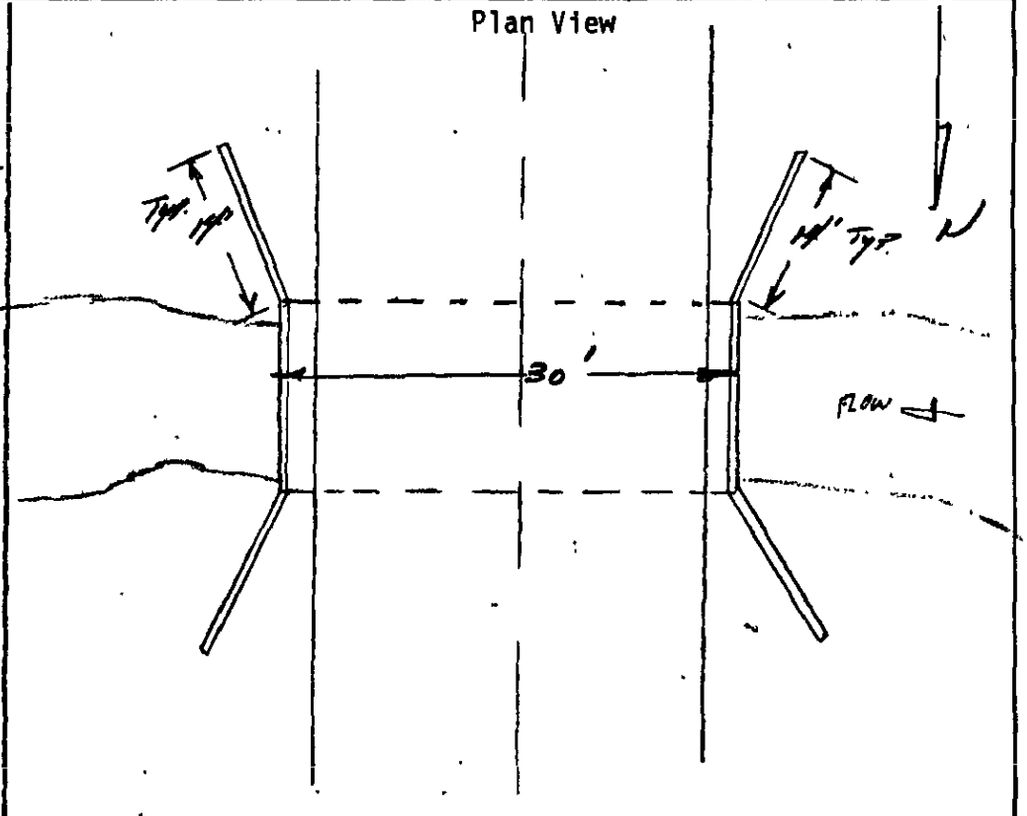
Job Name: Farmington Hills F.I.S.			By: G. Norberg
Date: 2-8-77	Feature: 10'-2" x 6'-9" Multi Plate C.M.P.		Water Course: Pebble Creek
Remarks: West Gate Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 30'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



JOB NAME: Farmington Hills

JOB NO. 5670 03

WATERCOURSE: Pebble Creek

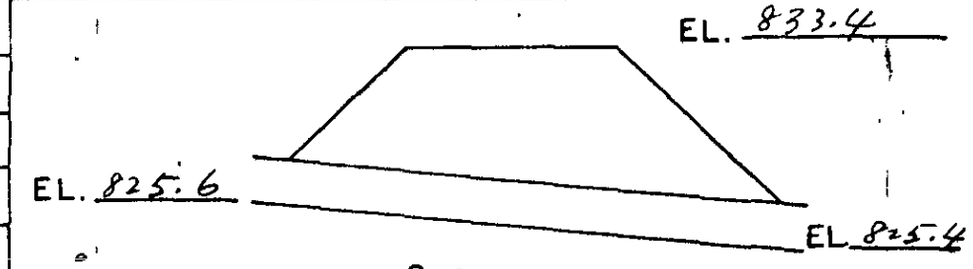
CULVERT LOCATION: Under West Gate Rd.

CULVERT DESCRIPTION:

BY WU. DATE 3/9 '77

30' long, 10'-2" x 6'-9" multi plate cmp

WEIR DESCRIPTION:



A = 54 ft² D = 6.75

WP = 27.41 Ke = 0.4

$\frac{29.1}{R^{4/3}}$ = 11.78 n = 0.0317

So = ____

L = 30

Sta. Sta.

CALCULATIONS AND COMMENTS:

$$K_f = \frac{29.1\,(0.0317)^2\,30}{R^{4/3}} = 0.36$$

$$\Sigma K_o R = 1 + K_e + K_f = 1.76$$

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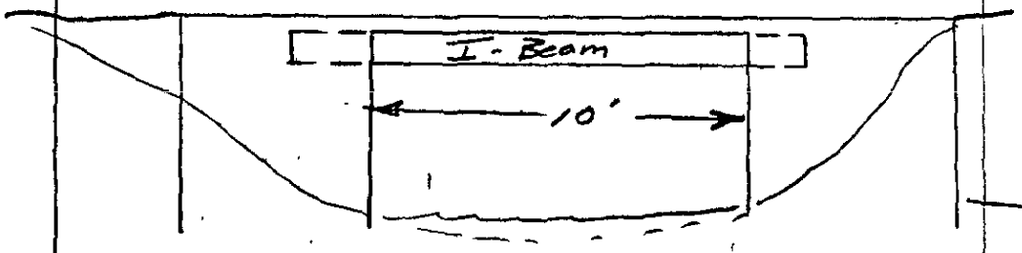
HYDRAULIC STRUCTURAL DATA

Code No. 5670-08-02 #52

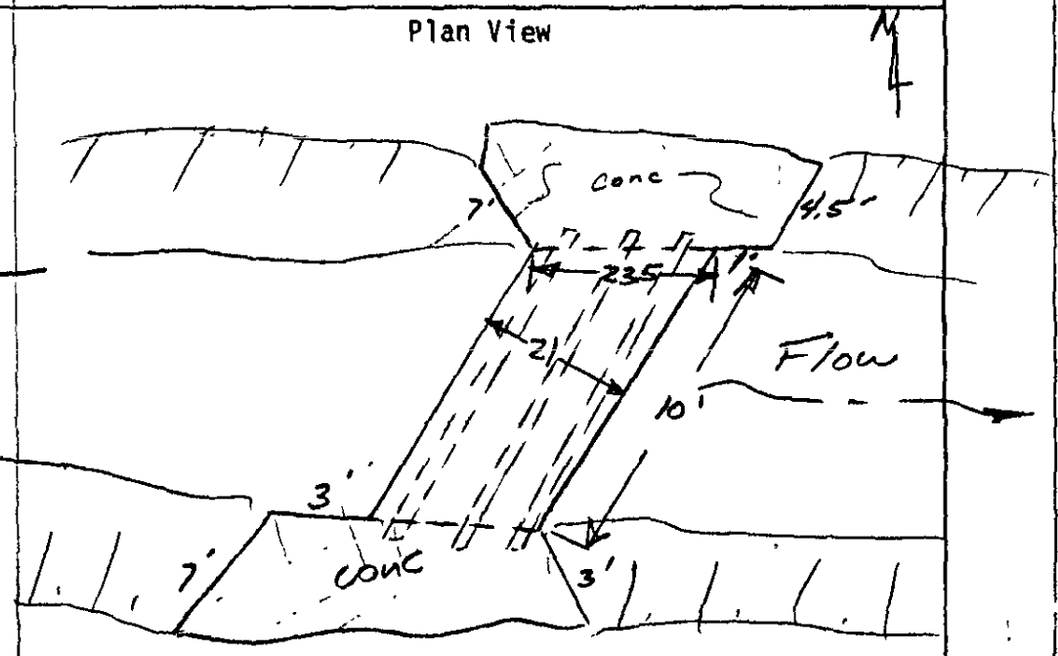
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-14-77	Feature: Conc Bridge	Water Course: Pebble Creek	
Remarks: Bridge IN Golf Course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 835.1	Length: 10'	Width of Deck: 21'	Skew: See Below

FIELD SKETCH

Profile View



Plan View



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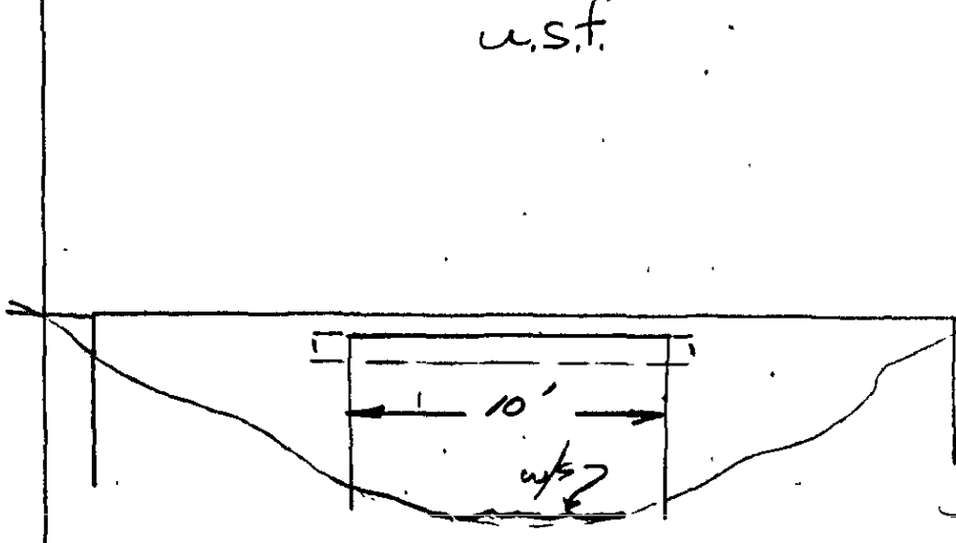
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS#52A

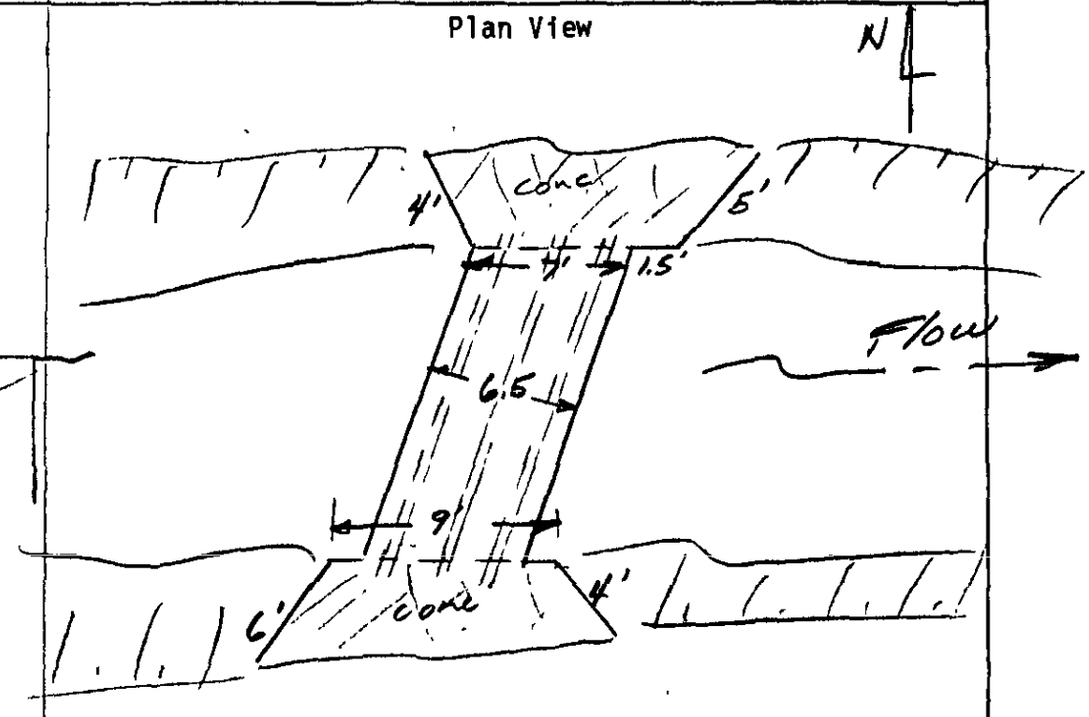
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-14-77	Feature: Conc. Bridge	Water Course: Pebble Creek	
Remarks: Bridge IN Golf Course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 836.7	Length: 10	Width of Deck: 6.5'	Skew: See Below

FIELD SKETCH

Profile View



Plan View



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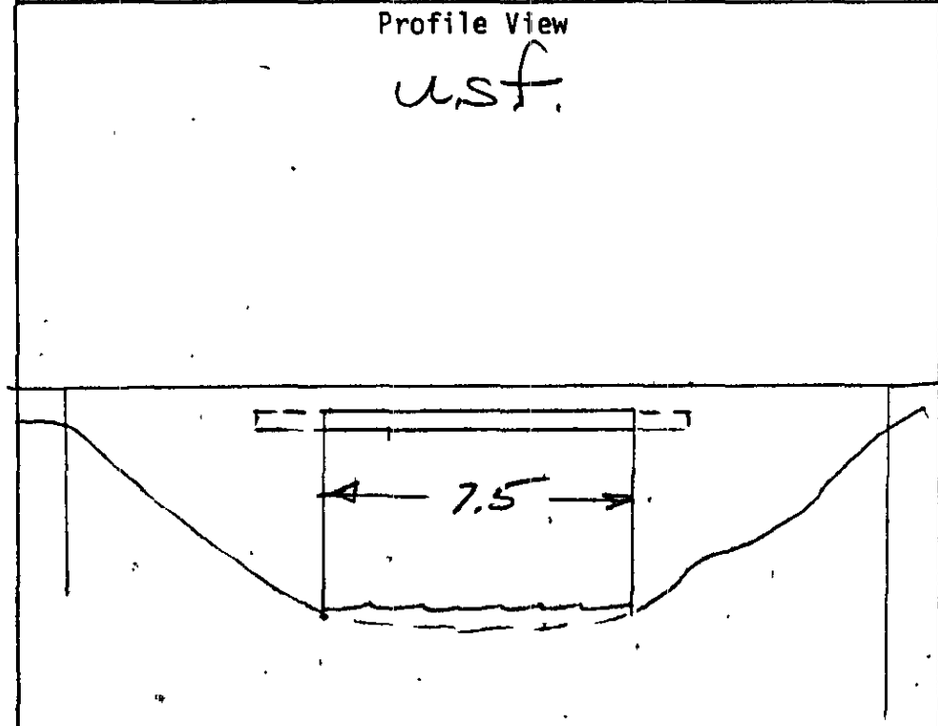
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-BS #53

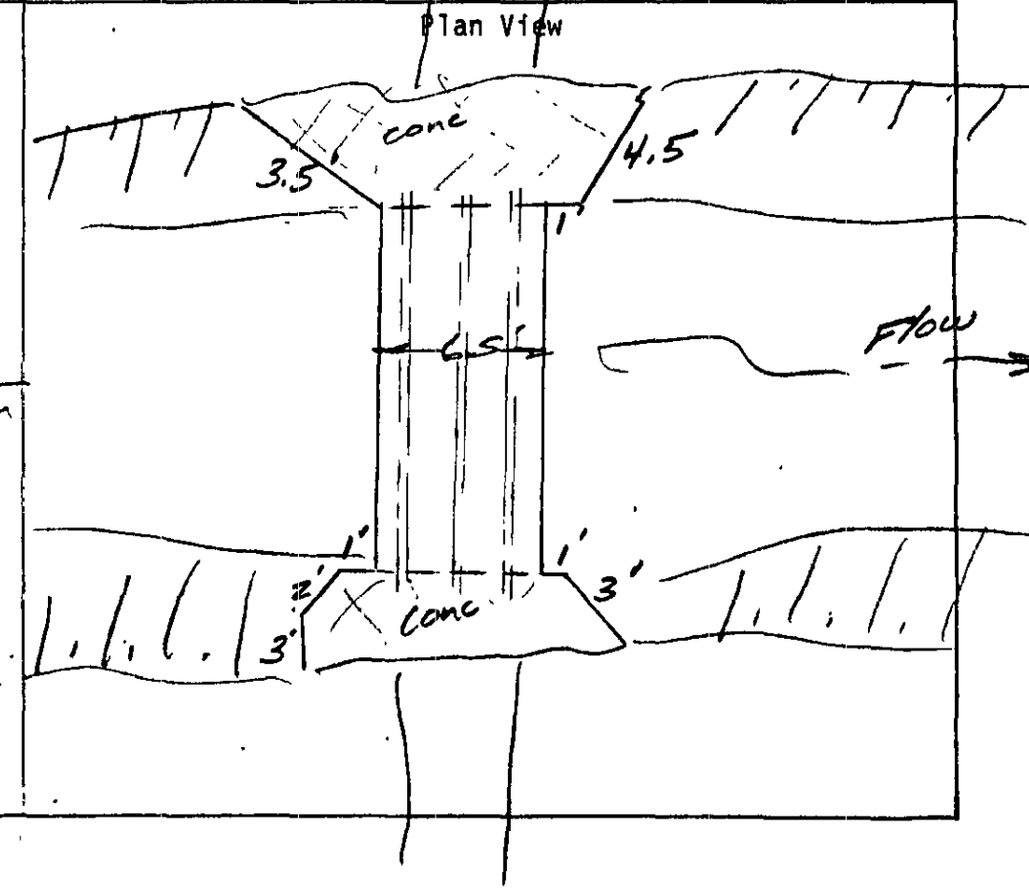
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-14-77	Feature: Conc. Bridge	Water Course: Pebble Creek	
Remarks: Bridge IN Golf Course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 837.5	Length: 7.5	Width of Deck: 6.5	Skew: —

FIELD SKETCH

Profile View



Plan View



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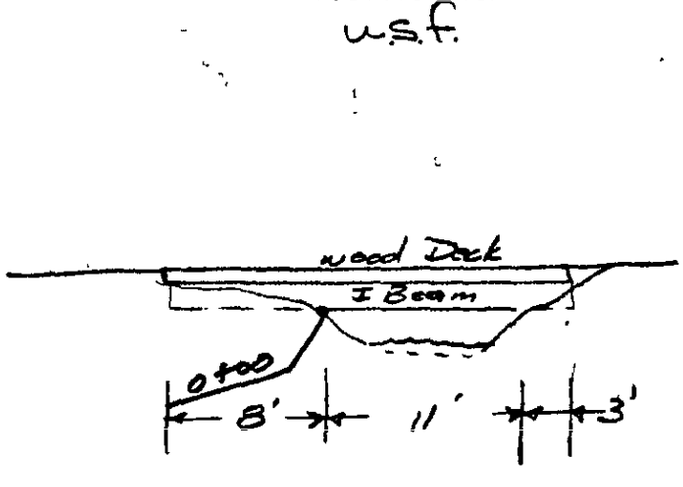
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02 SA

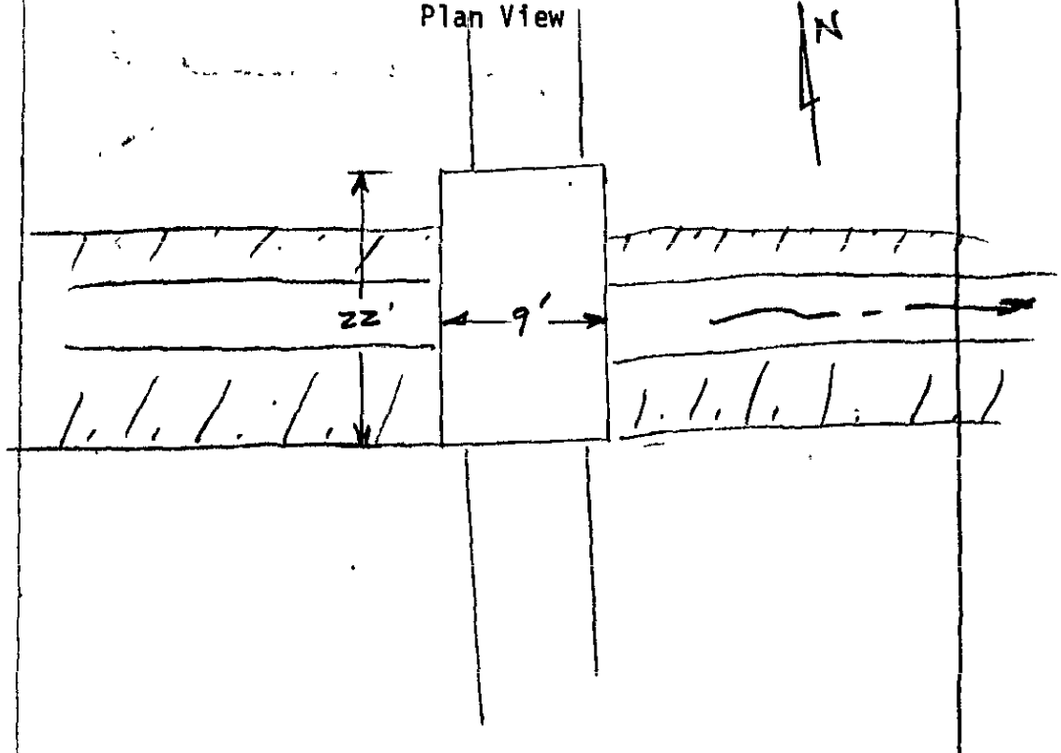
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-15-77	Feature: Conc. & wood Bridge	Water Course: Pebble Creek	
Remarks: Bridge IN Golf course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 839.6	Length: 22	Width of Deck: 9	Skew: —

FIELD SKETCH.

Profile View



Plan View



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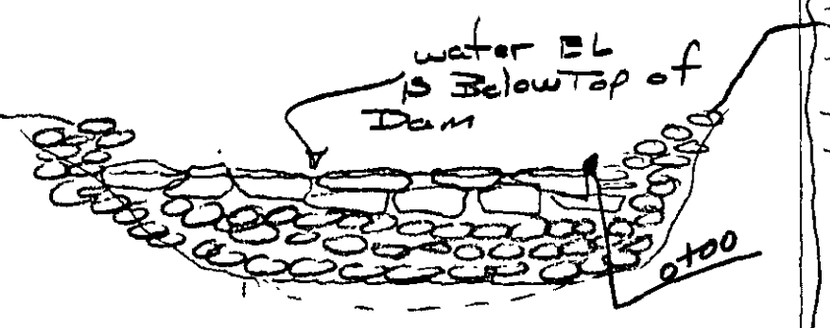
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-DS#54

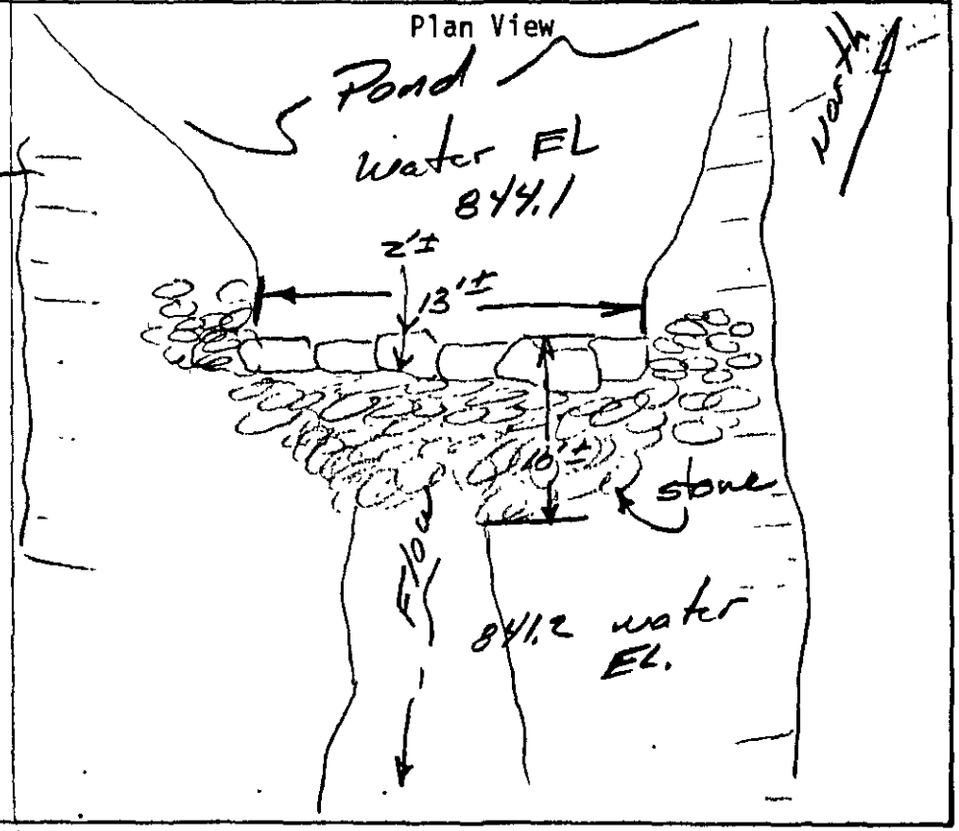
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-16-77	Feature: Stone Dam	Water Course: Pebble Creek	
Remarks: water Flows Between Rocks near Top of Dam not over			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: see Below	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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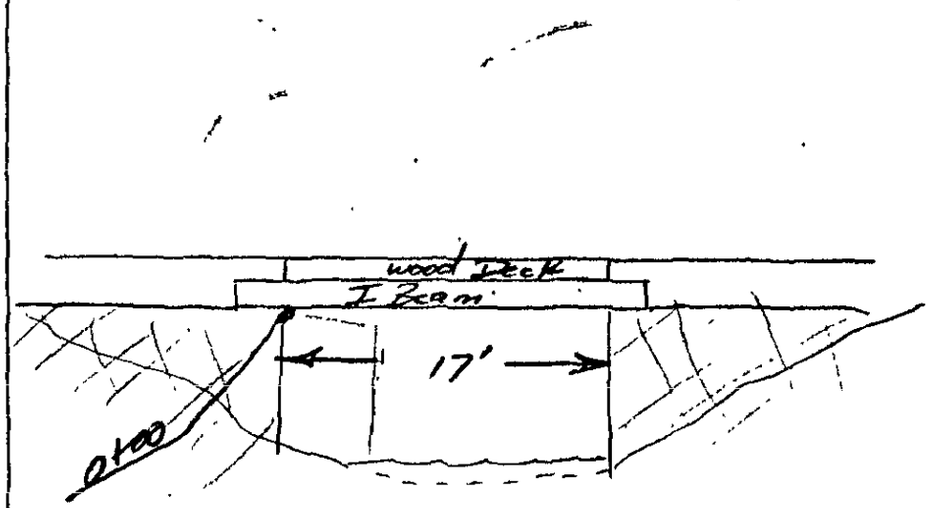
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02 #55

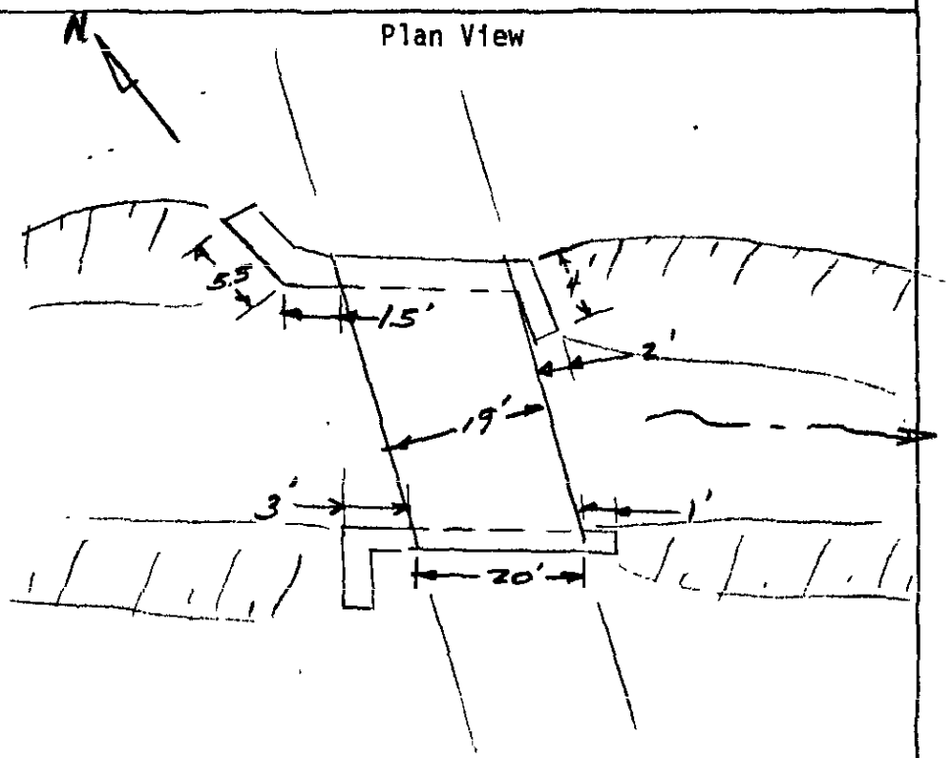
Job Name: Farmington Hills		By: G. Norberg	
Date: 2-15-77	Feature: Concrete wood Bridge	Water Course: Pebble Creek	
Remarks: Bridge in Golf course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 844.17	Length: 17'	Width of Deck: 19'	Skew: See Below

FIELD SKETCH

Profile View



Plan View



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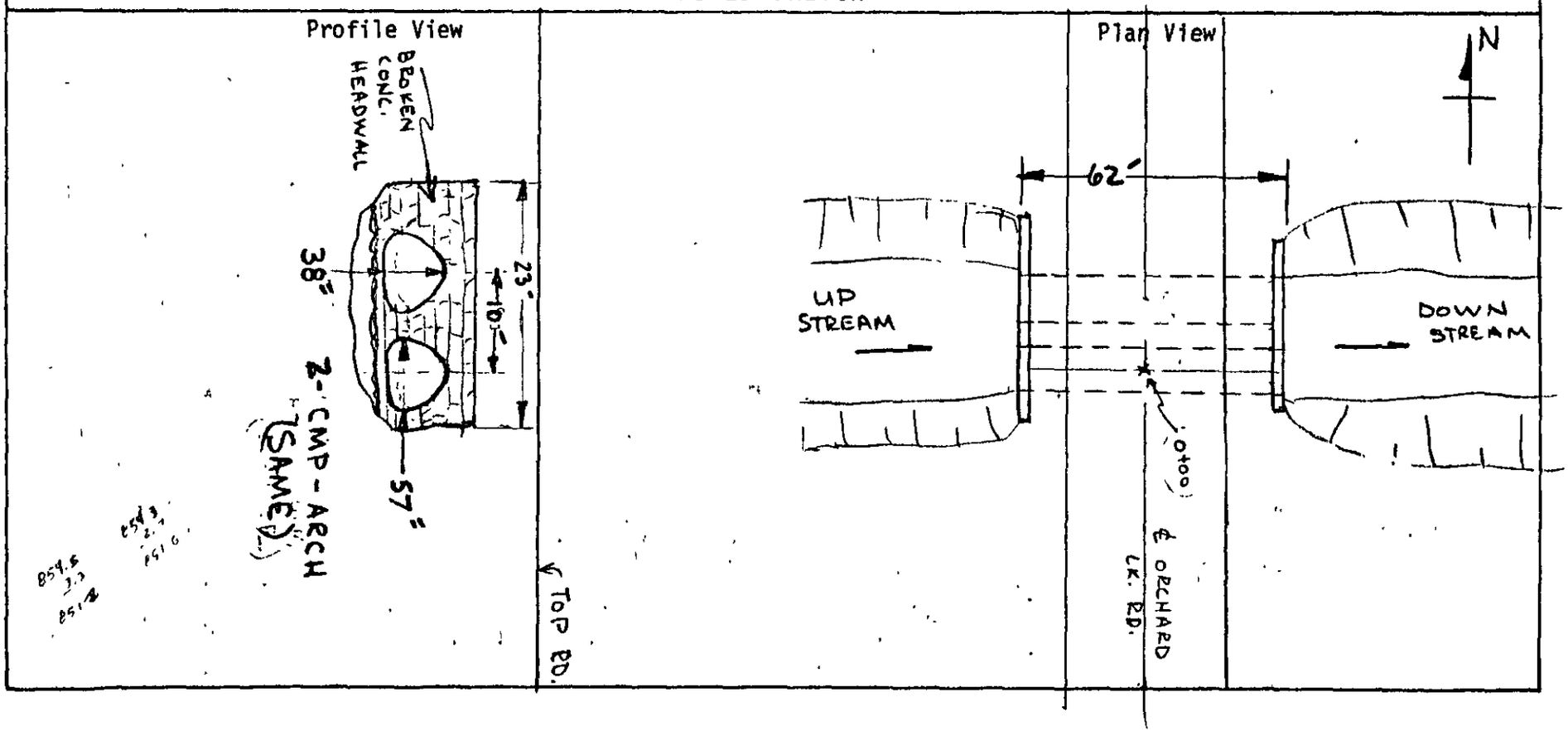
HYDRAULIC STRUCTURAL DATA

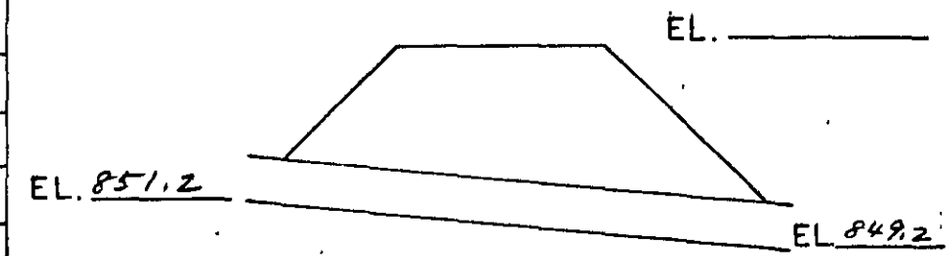
Code No. 03-02-61

Job Name: FARMINGTON HILL F.I.S. -		By: PRUYT - FUENTES	
Date: 2-11-77	Feature: ORCHARD LK. Rd. CULVERTS	Water Course: PEBBLE CREEK	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 851.9	Length: 62'	Width of Deck:	Skew: —

FIELD SKETCH



JOB NAME:		JOB NO.	
WATERCOURSE:	CULVERT LOCATION:		
CULVERT DESCRIPTION:	BY	DATE	
62' long, 57"x 38" CMP-ARCH, Headwall			
WEIR DESCRIPTION:			



A = 11.4 (Single) D = 3.17

WP = 12.568 Ke = 0.5

$\frac{29.1}{R^{4/3}}$ = 33.145 h = 0.033

So =

L = 62

Sta. Sta.

CALCULATIONS AND COMMENTS:

$$K_f = \frac{29.1\,(0.033)^2}{R^{4/3}}\,62 = 2.24$$

$$XKOR = 1 + K_e + K_f$$

$$= 3.74$$

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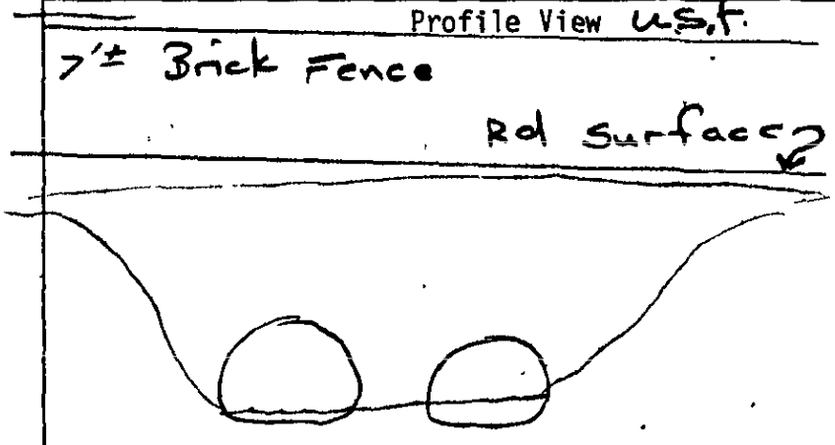
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-6

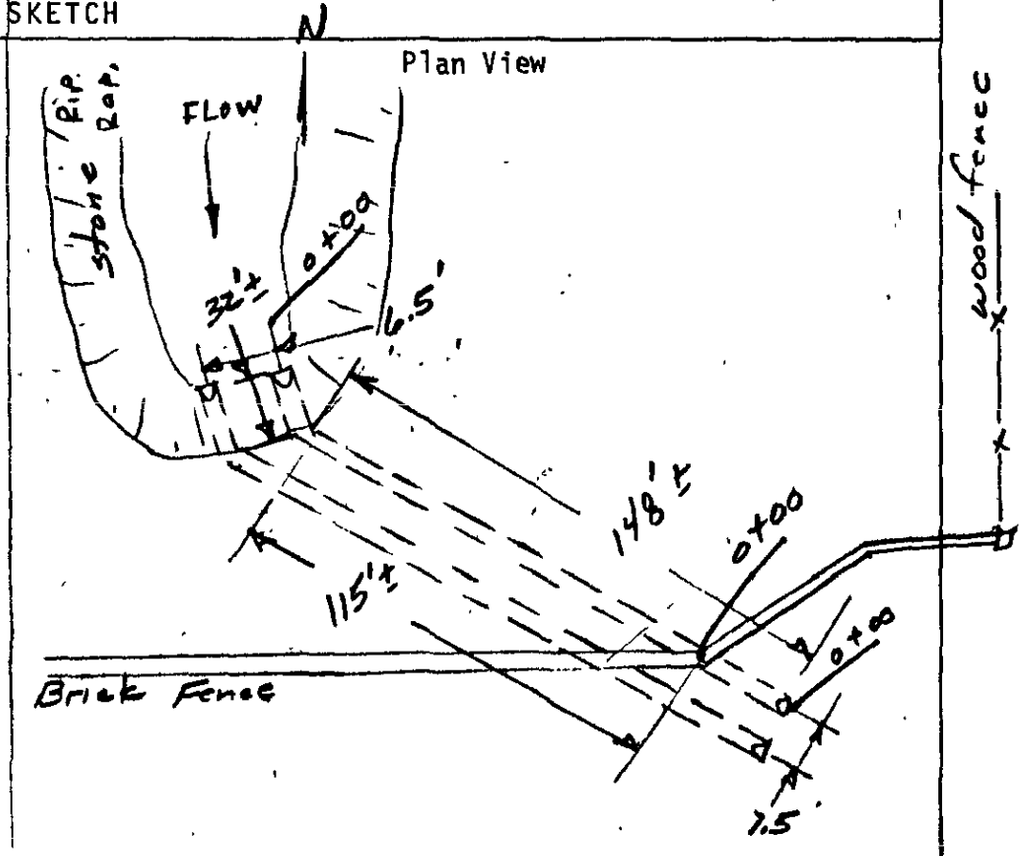
Job Name: Farmington Hills		By: G. Norberg	
Date: 3-30-77	Feature: 65" x 40" C.M.P. (5.5 x 3.4)	Water Course: Pebble Creek	
Remarks: Could not obtain Accurate Meas. because of Angle Pt & small Pipe Size.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: 180'	Width of Deck: —	Skew:

FIELD SKETCH

Profile View U.S.F.



Plan View



FLOW PATTERN FOR HUNTER'S RIDGE COMPLEX ON ~~HUNTER~~ PEBBLE CREEK.

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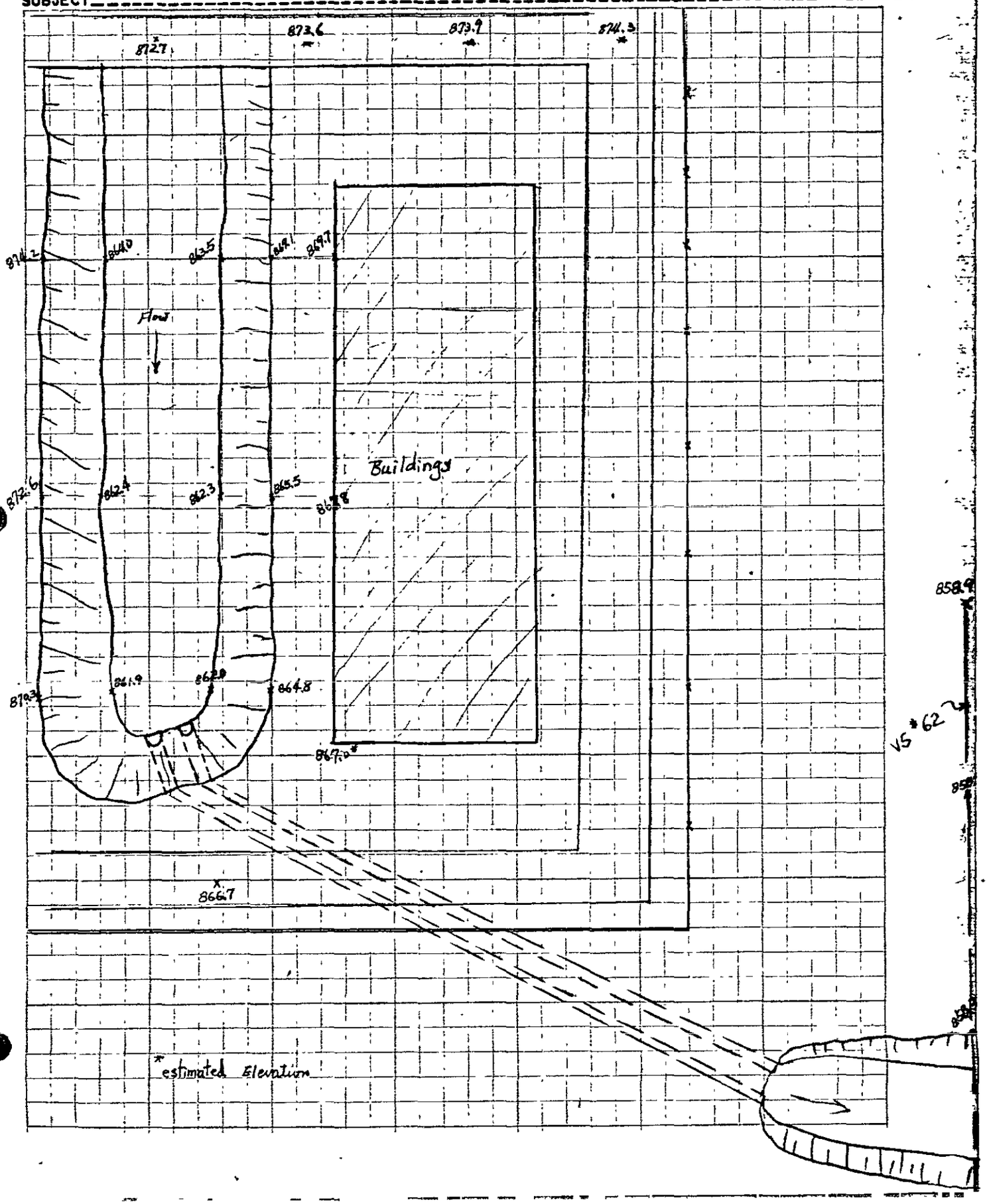
BY_____ DATE_____ JOB DESCRIPTION_____ SHEET _____ OF_____
SUBJECT_____ JOB NO._____



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BY MSS DATE _____ JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT Bridge on Hunters' Ridge Complex over Pebble Creek JOB NO. 5670-03

Culvert Feature : Twin 5.5' x 8.4' CMP

Area : $A = 28.6\ ft^2$

Hydraulic Radius : $R = 1.012\ ft$

Length : $L = 180'$

Manning Coeff. $n = 0.033$

Bend Loss : $K_b = 0.05$ (30° bend)

Entrance Loss : $K_e = 0.50$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 5.61$$

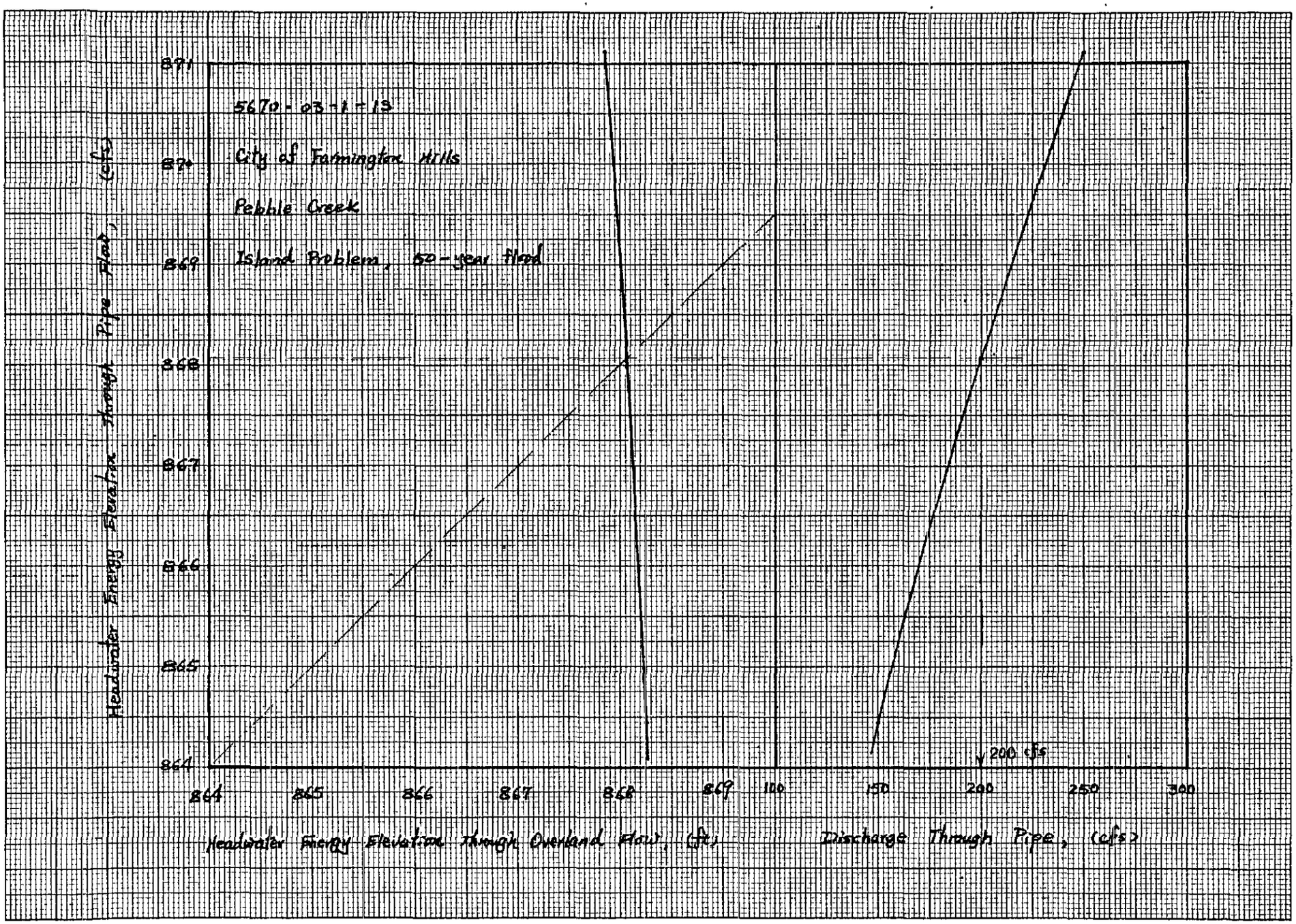
$$\Sigma K \phi R = 1 + K_e + K_b + K_f$$

$$= 7.16$$

Max. Depth : $D = 8.4'$

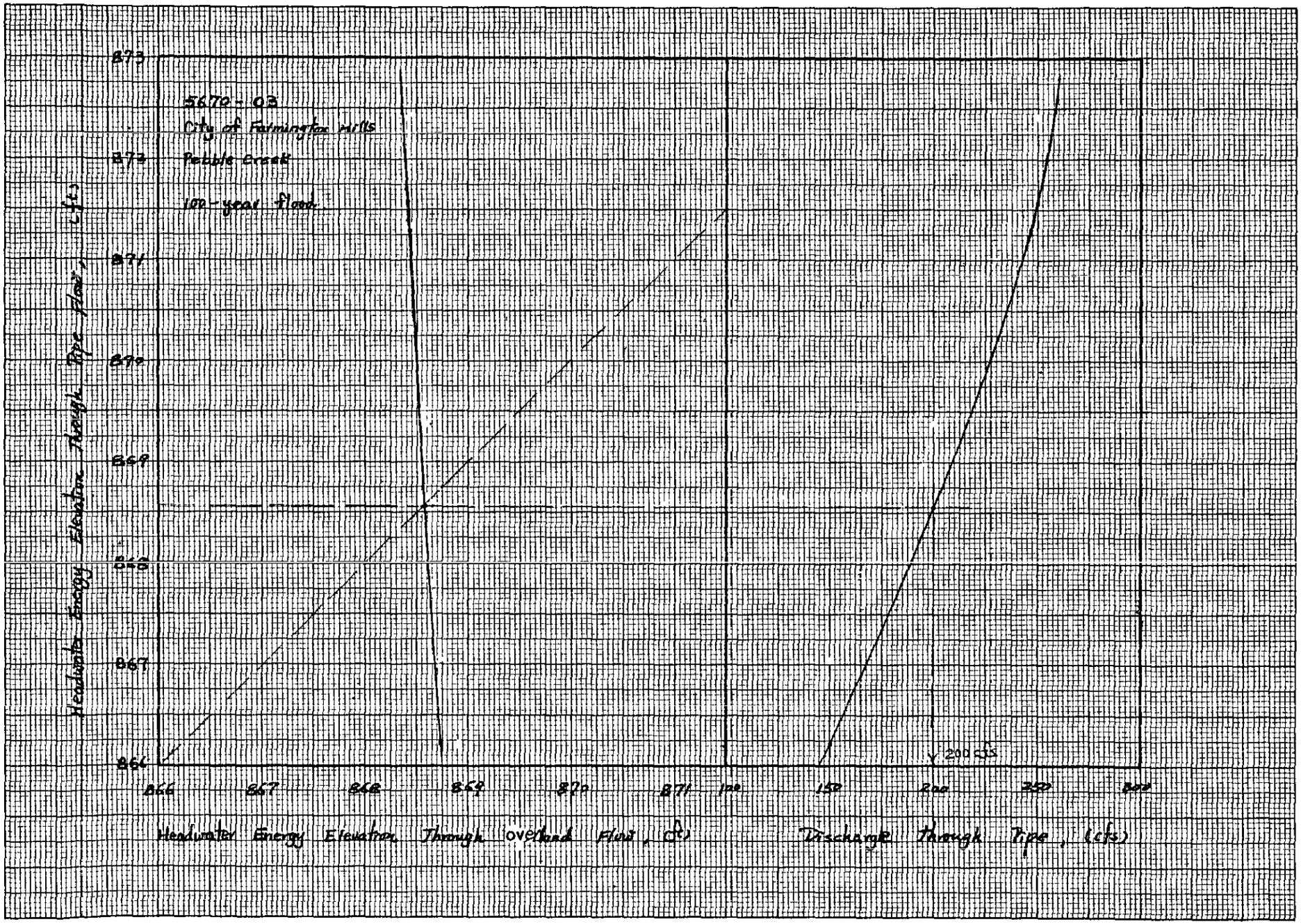
$$BWC = \frac{A}{D} = 8.42'$$

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.
461510

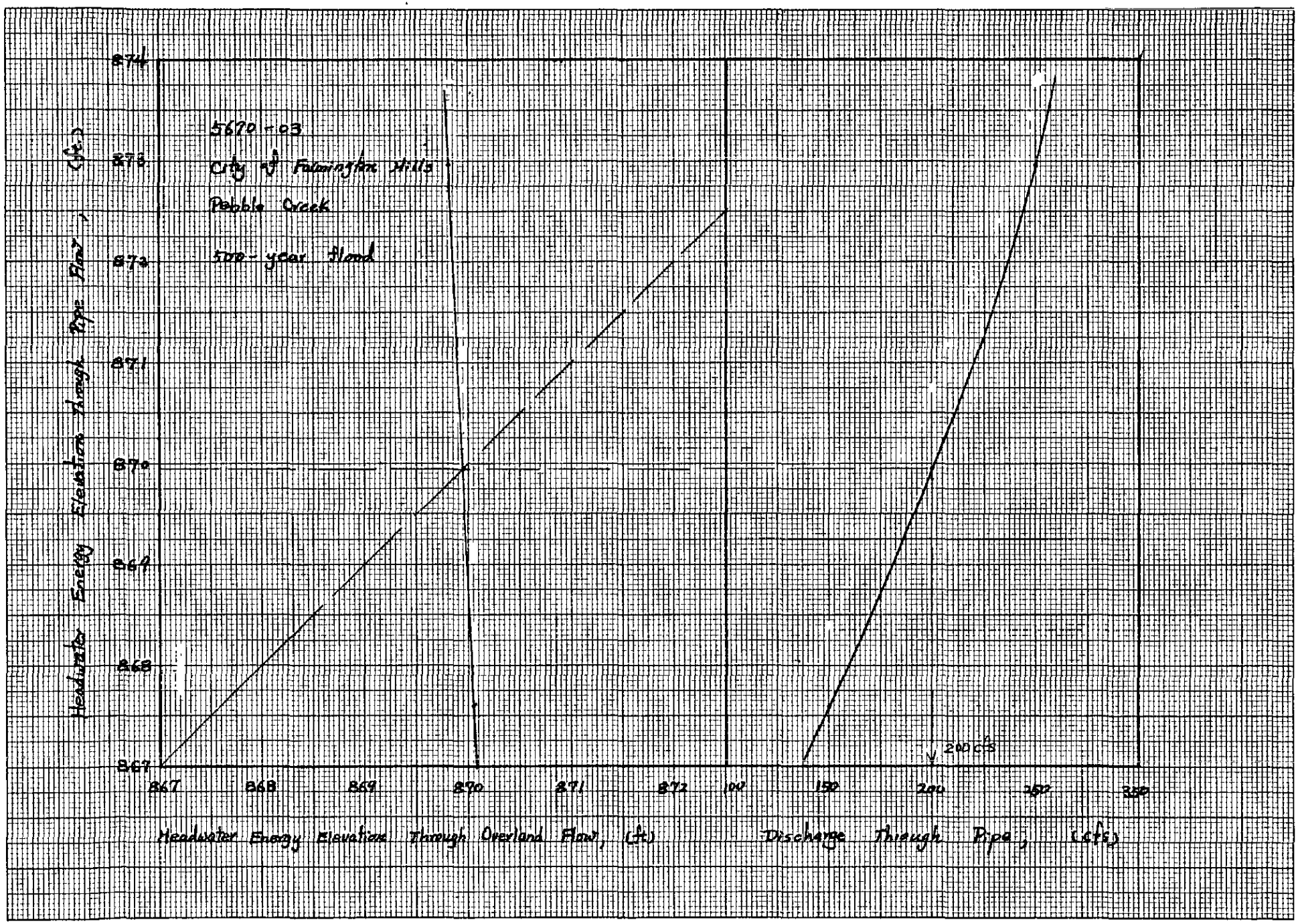


K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.

461510



K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.
46 1510



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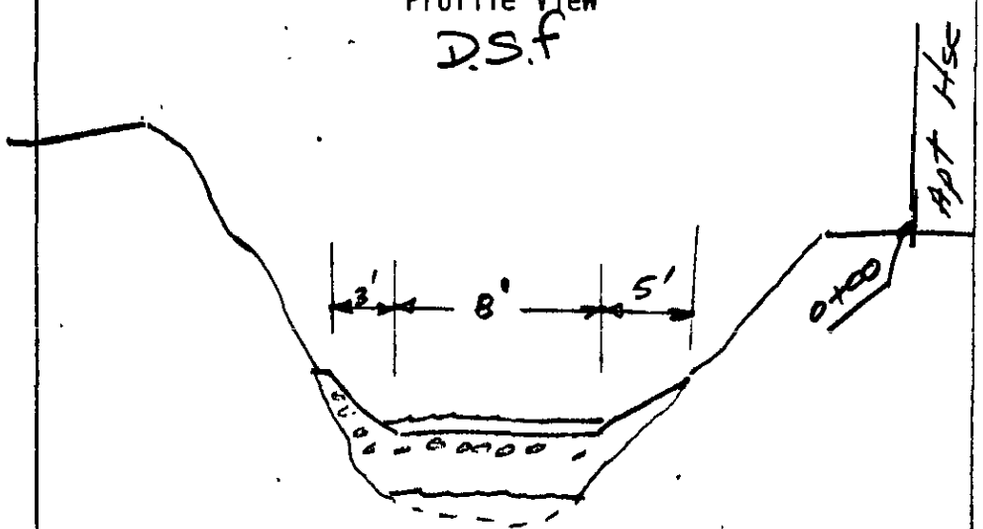
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-64

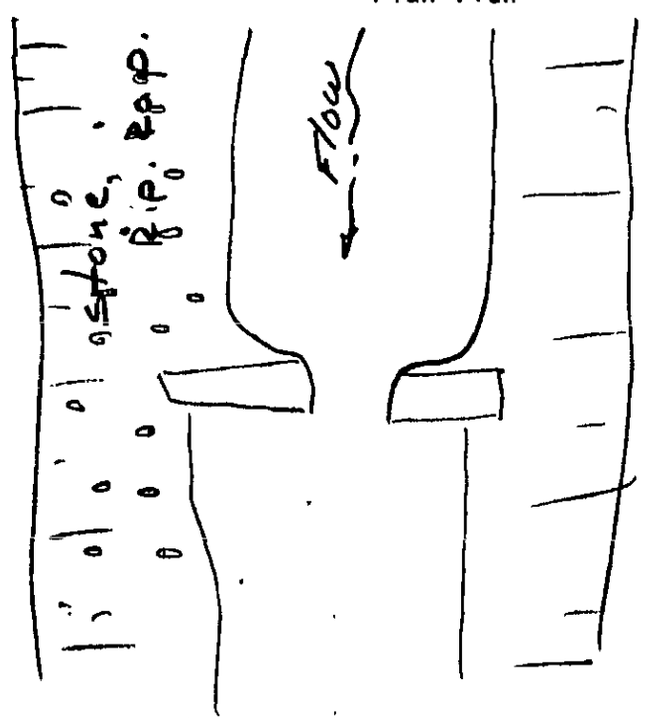
Job Name: Farmington Hills		By: G. Norbery	
Date: 3-30-77	Feature: stone spillway	Water Course: Pebble Creek	
Remarks: 100' upstream of BS # 63			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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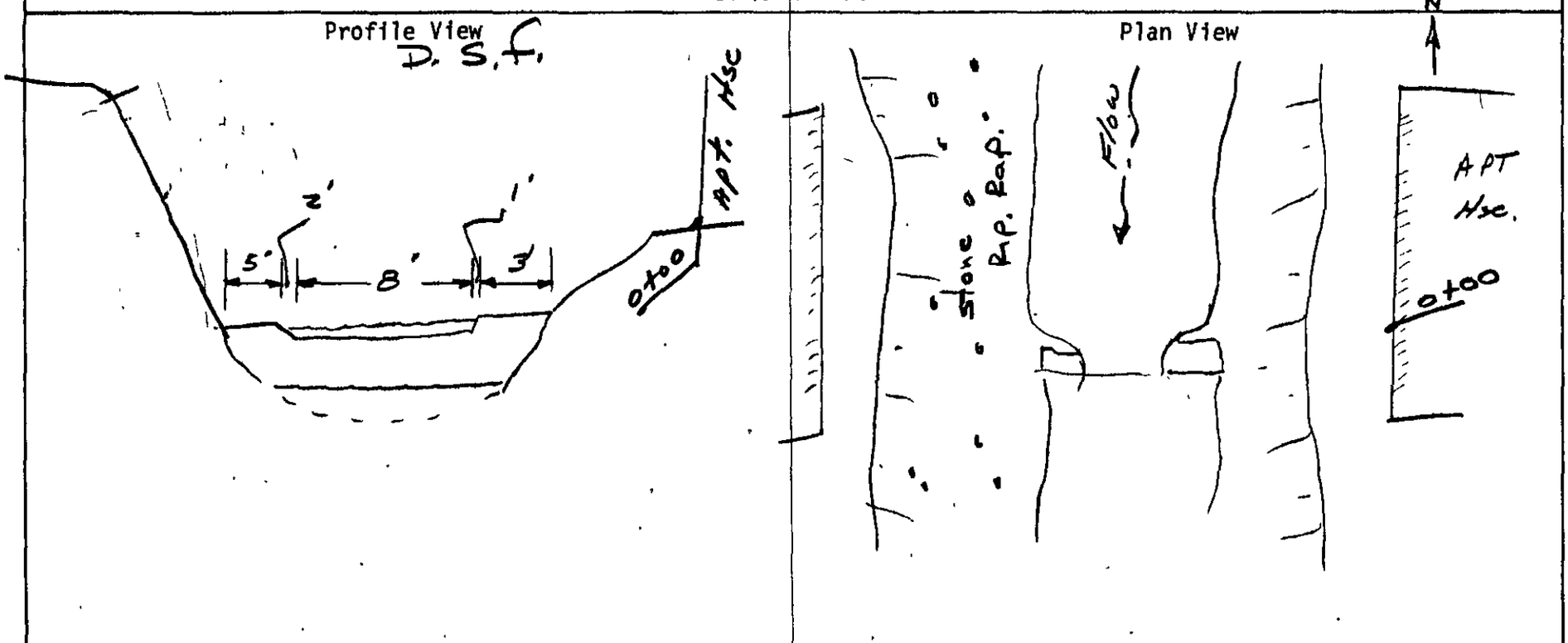
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-65

Job Name: Farmington Hills		By: G. Norberg	
Date: 3-30-77	Feature: stone spillway	Water Course: Pebble Creek	
Remarks: 225' upstream of DS #64			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH



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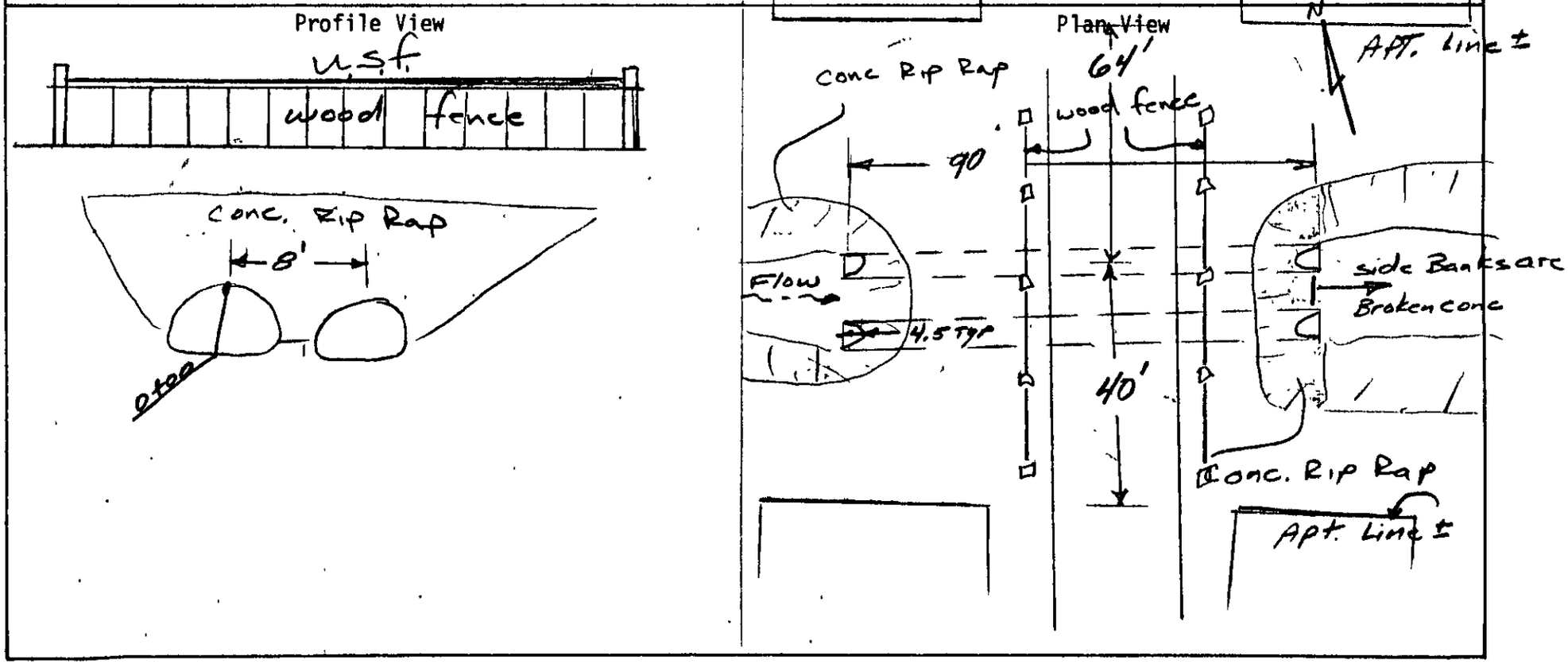
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-46

Job Name: Farmington Hills			By: George Norberg
Date: 2-17-77	Feature: 65'x40' C.M.P.		Water Course: Pebble Creek
Remarks: Hunters Drive			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: No water	Length:	Width of Deck: —	Skew: —

FIELD SKETCH



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BY MSC DATE 9/2/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Hunters Drive Bridge over Pebble Creek ; BS #66 JOB NO. 5670-03-1

Culvert Feature - Twin 65" x 40" CMP

Area - $A = 14.3 \times 2 = 28.6$ ft²

Hydraulic Radius - $R = 1.012$ ft.

Length - $L = 90$ ft.

Manning Coefficient - $n = 0.033$

Entrance Loss - $K_e = 0.5$ (End-Section to Conform to fill Slope)

Max. Depth - $D = 3.33$ ft.

$BWC = \frac{A}{D} = 8.58$ ft

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 2.81$$

$$\Sigma K \phi R = 1 + K_e + K_f = 4.31$$

Weir Coefficient: $C =$

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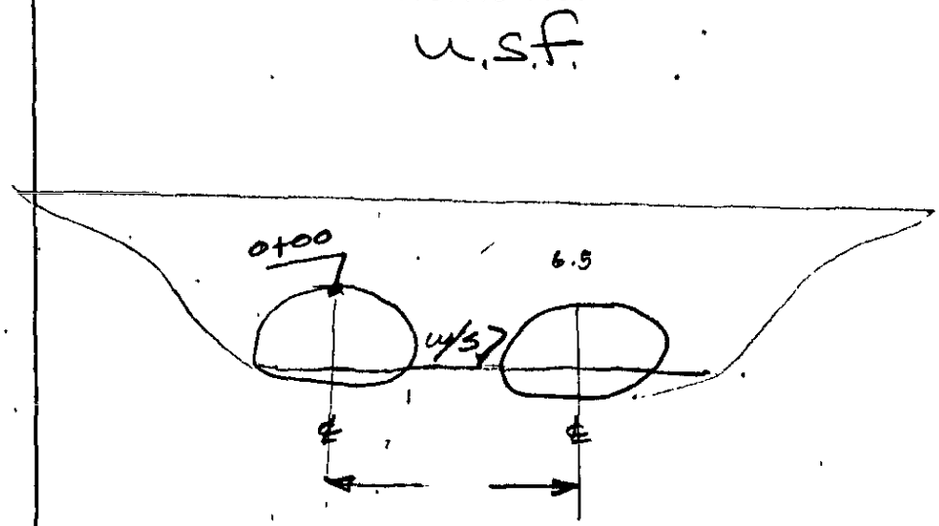
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02 Bs #28

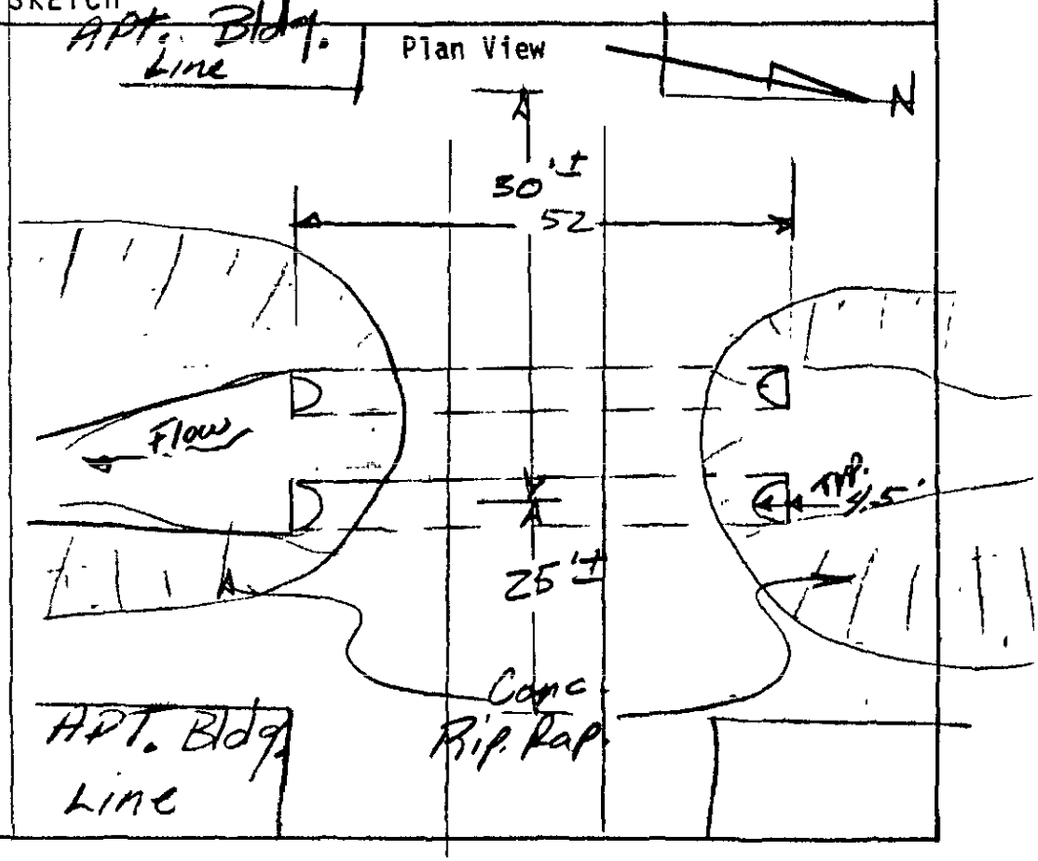
Job Name: Farmington Hills		By: George Norberg	
Date: 2-17-77	Feature: 65"x40" C.M.P	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 872.3	Length:	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



JOB NAME: Farmington Hills

JOB NO.

WATERCOURSE: Pebble Creek

CULVERT LOCATION: under Hunters Drive

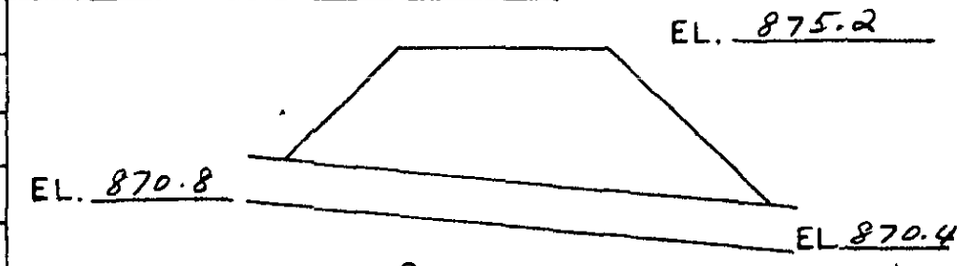
CULVERT DESCRIPTION:

BY WW

DATE 3/16 77

65" x 40" CMP, 52' long, miltered

WEIR DESCRIPTION:



A = 14.3 D = 3.3

WP = 14.13 Ke = 0.5

$\frac{29.1}{R^{4/3}}$ = 28.64 n = 0.033

So =

L = 52

Sta.

Sta.

CALCULATIONS AND COMMENTS:

$$K_f = \frac{29.1\,(0.033)^2\,52}{R^{4/3}} = 1.62$$

$$XKOR = 1 + K_e + K_f = 3.12$$

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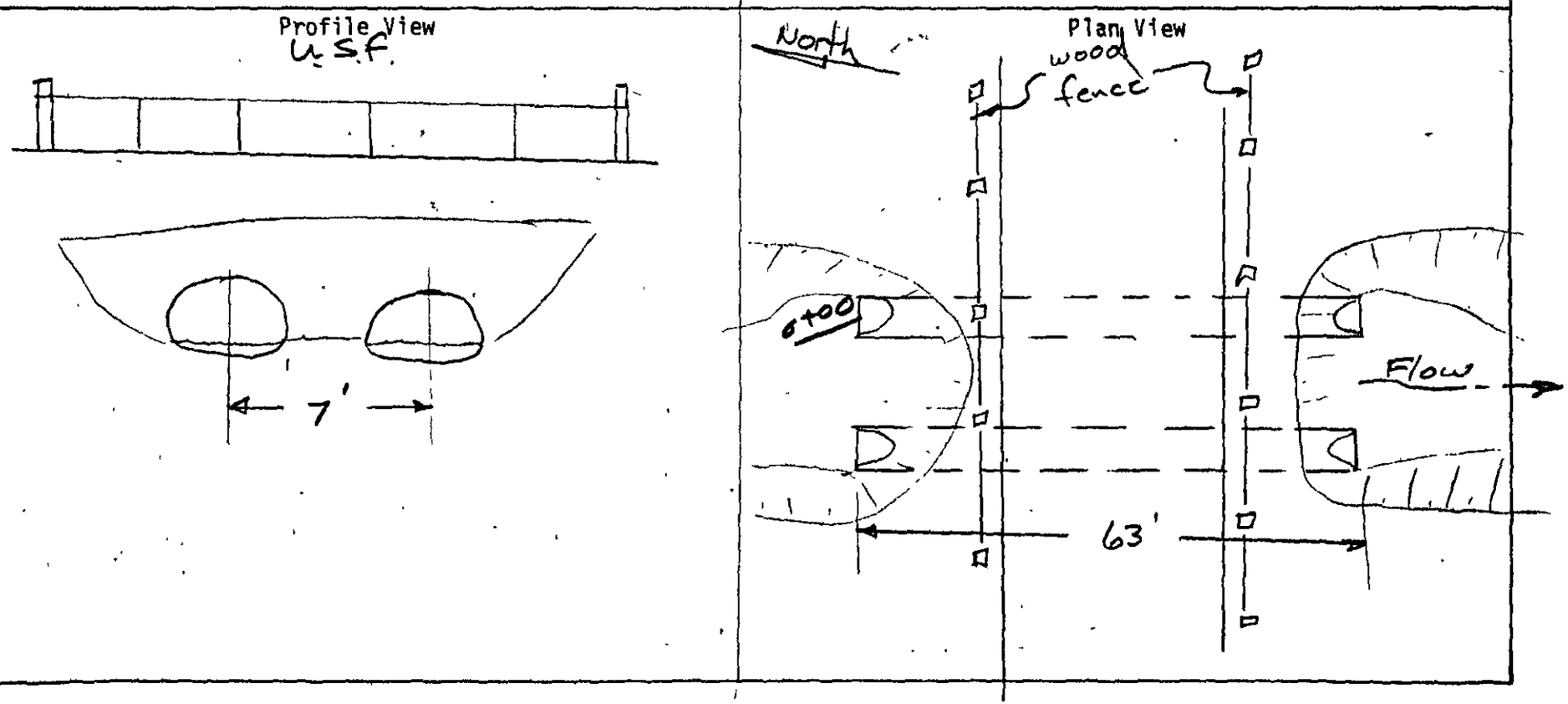
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-B.S. #69

Job Name: Farmington Hills F.I.S.		By: George Norberg	
Date:	Feature: 65" x 40" CMP	Water Course: Pebble Creek	
Remarks: Hunters Dr.			
Conc Rip Rap on Side Banks from Dsf. To Next Bridge 68			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 63'	Width of Deck: —	Skew: —

FIELD SKETCH



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BY MSC DATE 9/2/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Hunter's Drive Bridge over Pebble Creek ; BS # 69 JOB NO. 5670-03-1

Culvert Feature - Twin 65" x 40" CMP

Area - $A = 14.3 \times 2 = 28.6 \text{ ft}^2$

Hydraulic Radius - $R = 1.012$ ft.

Length - $L = 63$ ft.

Manning Coefficient - $n = 0.033$

Entrance Loss - $K_e = 0.7$ (Mitered to Conform to fill Slope)

Max. Depth - $D = 3.33$ ft

$B_{WC} = \frac{A}{D} = 8.58$ ft.

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 1.96$$

$$\Sigma K_{4R} = 1 + K_e + K_f = 3.66$$

Weir Coefficient - $C = 3.04$

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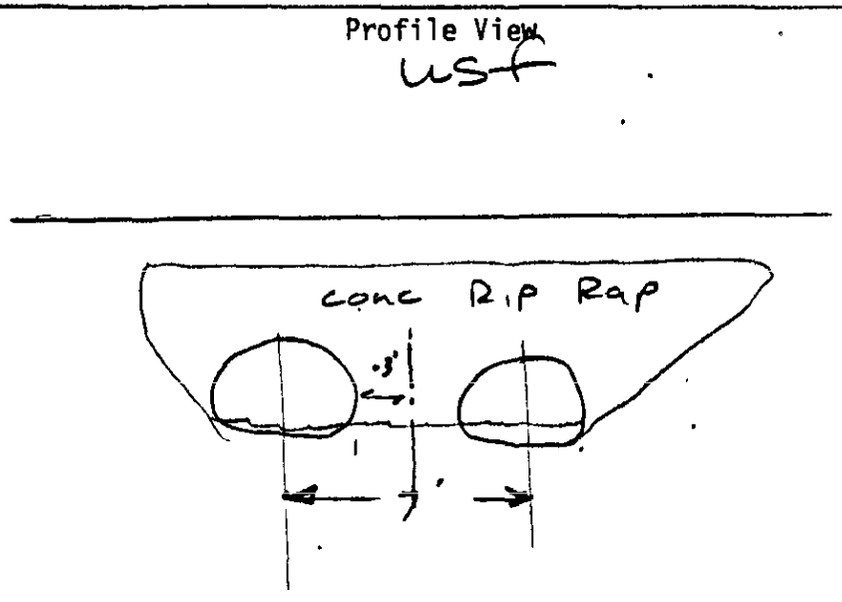
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-71

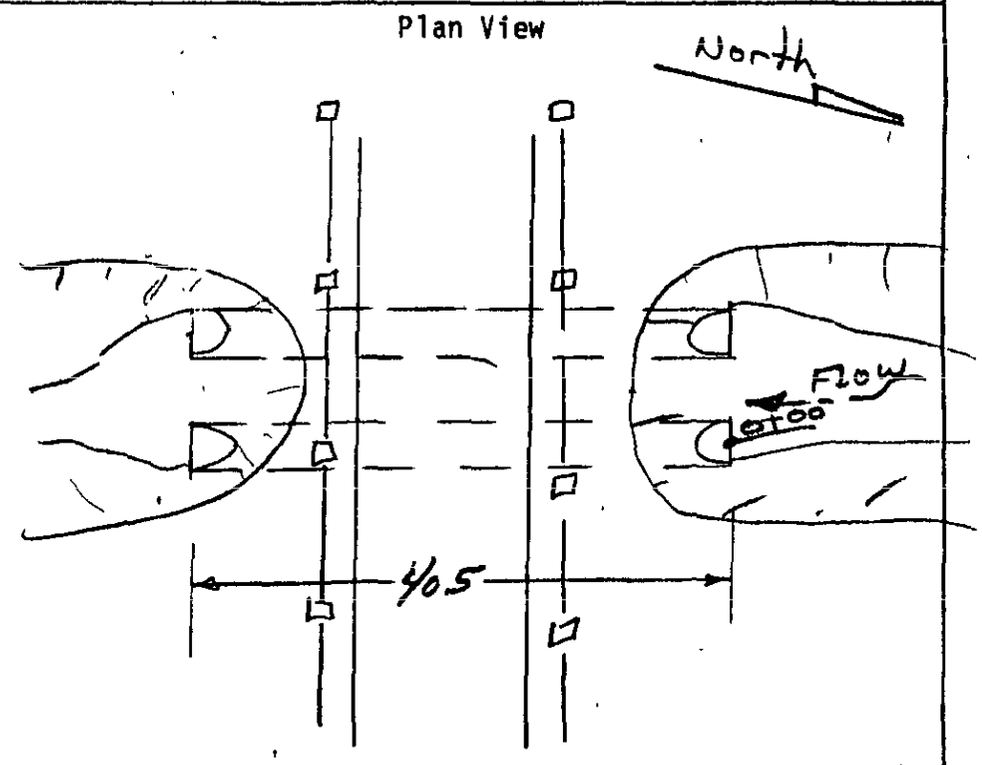
Job Name: Farmington Hill 76" x 57"		By: George Norberg	
Date: 3-29-77	Feature: 6'-4" x 4'-9" CMP (6.4 x 4.8)	Water Course: Pebble Creek	
Remarks: Running Stream Dr.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 874.33	Length: 40.5'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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BY MSC DATE 9/2/77 JOB DESCRIPTION EIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Running Stream Drive Bridge over Pebble Creek ; BS # 71 JOB NO. 5670-03-)

Culvert Feature : Twin - 6'4" x 4'9" CMP

Area : $A = 2 \times 24 = 48 \text{ ft}^2$

Hydraulic Radius : $R = 1.35$ ft.

Length : $L = 41.0$ ft.

Manning Coefficient : $n = 0.0326$

Entrance Losses : $K_e = 0.5$ (End-Section Conforming to Fill Slope)

Max. Depth : $D = 4.75$ ft.

$BWC = \frac{A}{D} = 10.11$ ft.

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.85$$

$$XK\phi R = 1 + K_e + K_f = 2.35$$

Weir Coefficient : $C =$

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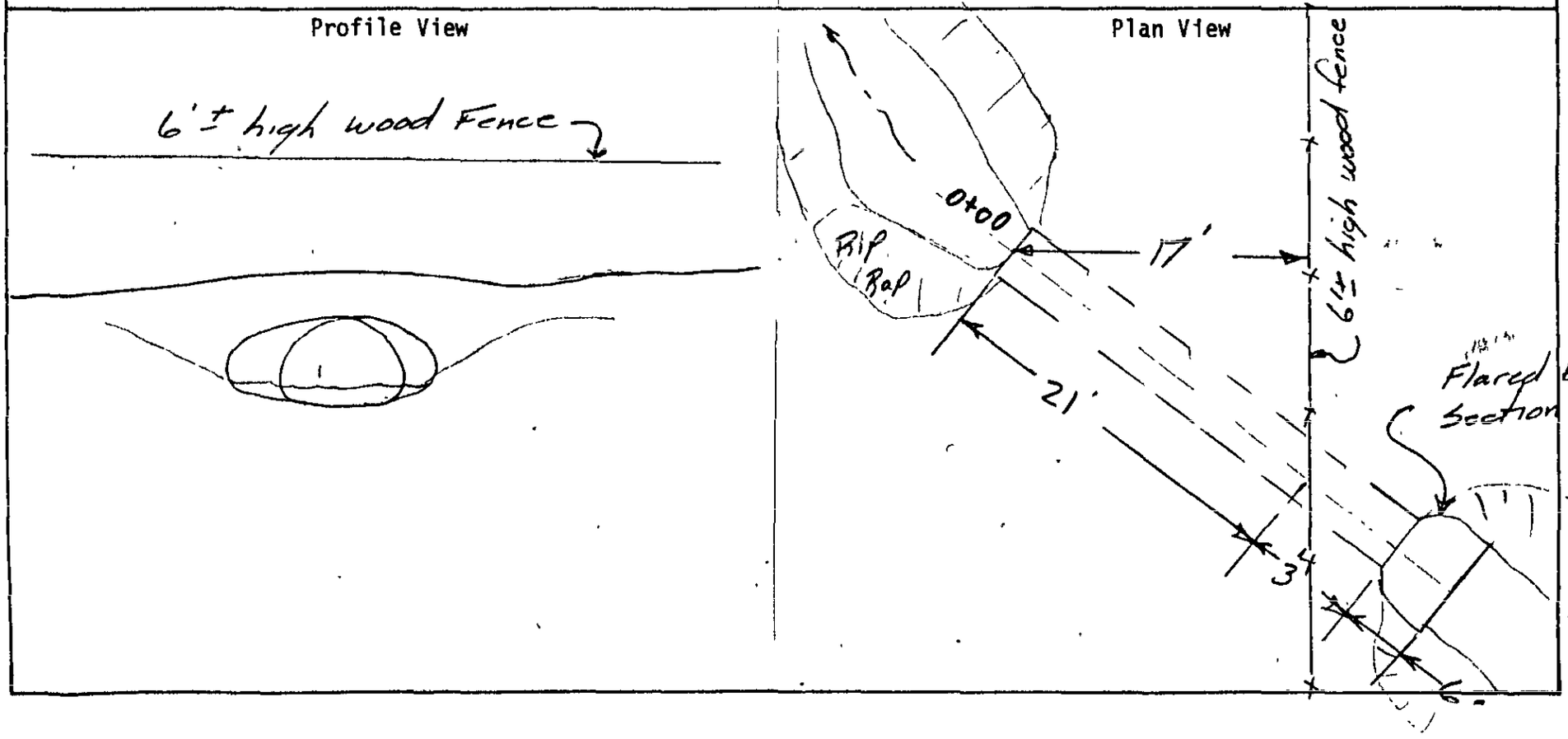
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-02-73

Job Name: Farmington Hills		By: George Norberg	
Date: 3-29-77	Feature: 65" x 46" C.M.P.	Water Course: Pebble Creek	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: 24'	Width of Deck: —	Skew: See Below

FIELD SKETCH



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HYDRAULIC STRUCTURAL DATA

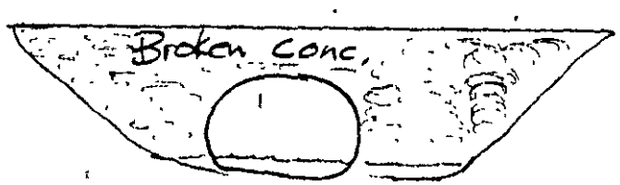
Code No. 5670-03-02-#77

Job Name: Farmington Hills		By: George Norberg	
Date: 3-28-77	Feature: 8'-2" x 5'-9" CMP	Water Course: Pebble Creek	
Remarks: Club Hse' Lane			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 885.4	Length: 86'	Width of Deck: —	Skew: see below

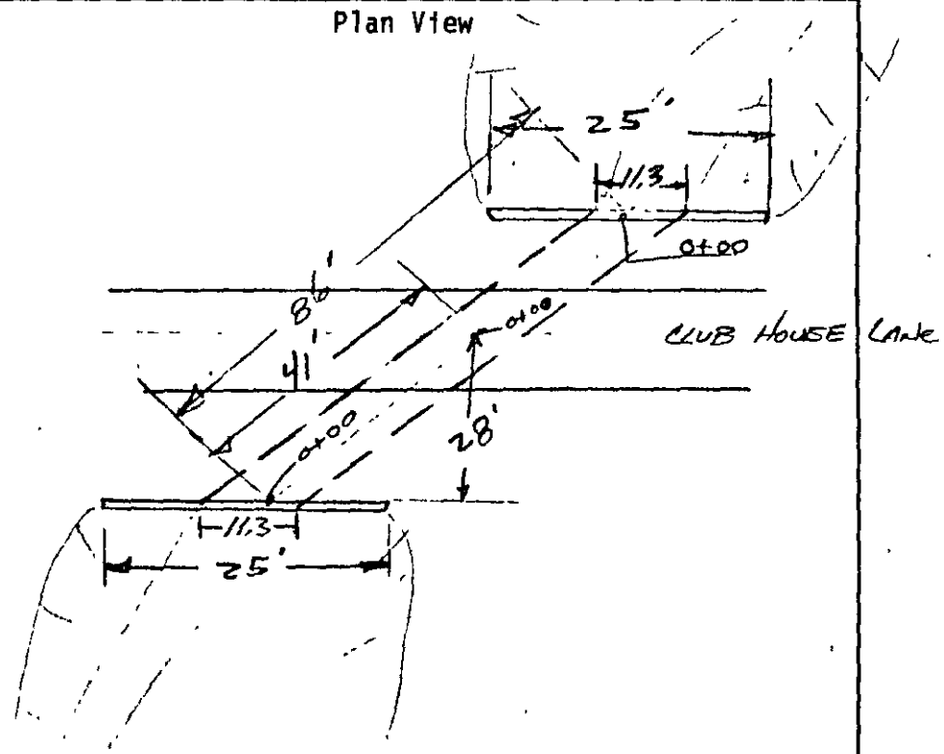
FIELD SKETCH

Profile View

usf



Plan View



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BY MSC DATE 9/6/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Club House Lane Over Pebble Creek : BS # 77 JOB NO. 5670-03-1

Culvert Feature - 8'2" x 5'9" CMP

Area - $A = 38.0$ ft.²

Hydraulic Radius - $R = 1.67$ ft.

Length - $L = 86$ ft.

Manning Coefficient - $n = 0.0321$

Entrance Loss - $K_e = 0.5$ (Headwall ; Square-edge)

Max. Depth - $D = 5.75$ ft.

$BWC = \frac{A}{D} = 6.61$ ft.

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.30$$

$$XKQR = 1 + K_e + K_f = 2.80$$

Weir Coefficient - $C = 3.0$

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BY MSC DATE 3/27/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF
SUBJECT 14 Mile Road Over Pebble Creek 1 B.S. # 94 JOB NO. 5670-08-L

Culvert Feature - Twin 48" CMPs

Area - $A = 25.13$ ft.²

Hydraulic Radius - $R = D/4 = 1.0$ ft.

Length - $L = 70$ ft.

Skewness - $S_K = 44/70 = 0.63$

Manning Coefficient - $n = 0.024$

Entrance Loss - $K_e = 0.5$ (with Headwall)

Max. Depth - $D = 4$ ft.

$BWC = \frac{A}{D} = 6.28$ ft.

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.17$$

$$\Sigma K \& R = 1 + K_e + K_f = 2.67$$

Weir Coefficient - $C = 3.04$ ($H \approx 1.2$ ft for 100-year flood)

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HYDRAULIC STRUCTURAL DATA

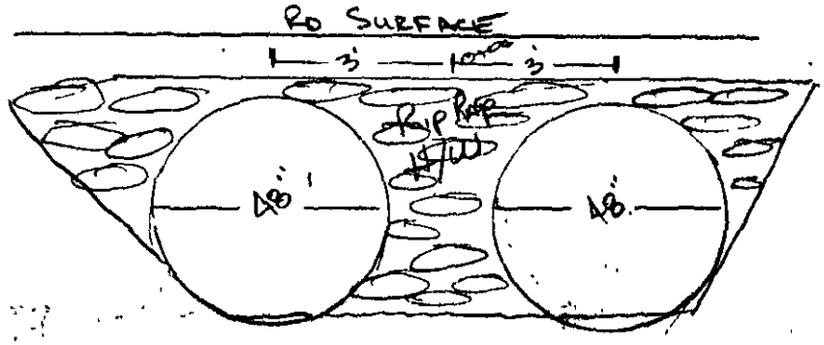
B.S. #94

Code No. 5850-10

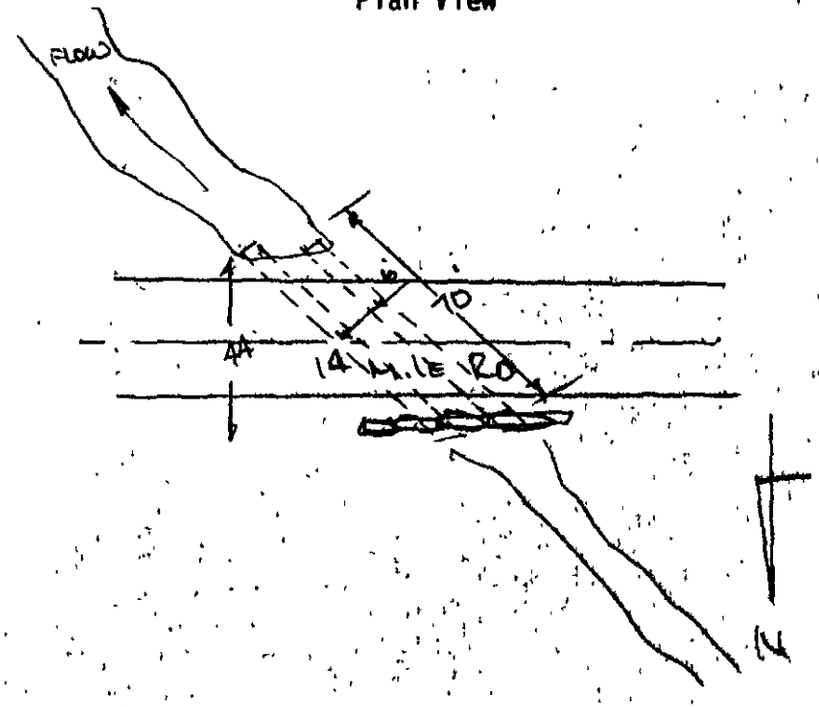
Job Name: W. BLOOMFIED TWP. F.I.S.			By: R. MOSES
Date: 2-21-78	Feature: TWIN 48-CMPs		Water Course: PEBBLE CREEK
Remarks: C.M.P.'S ARE IN POOR CONDITION. BEST MEASUREMENT FOR DIA WAS 48".			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 887.0	Length: 70	Width of Deck: 6'	Skew: —

FIELD SKETCH

Profile View



Plan View



00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLE CREEK

4) DOCUMENT TYPE: MULTIPLE PROFILES

00BREAK00

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

T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      10 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q       WSEL     FQ

      0.       2.       0.       0.   0.000000    0.00     0.0      0.    821.610   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    1.000    0.000   -1.000    0.000    0.000   0.000    0.000   0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    1.000   10.000   11.000   12.000   14.000   8.000    4.000   0.000    0.000    0.000

NC    .075     .075     .040     .300     .500    0.000    0.000    0.000    0.000    0.000
QT   4.000  380.000  780.000  995.000 1.690.000   0.000    0.000    0.000    0.000    0.000
QT   4.000  310.000  650.000  865.000 1.690.000   0.000    0.000    0.000    0.000    0.000
NC    .090     .080     .038    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1 15465.000   13.000  175.000  200.000  125.000  125.000  125.000    0.000    0.000    0.000
X3    0.000    0.000    0.000    0.000    0.000  330.000    0.000    0.000    0.000    0.000
GR  832.600    0.000  823.600  100.000  821.500  175.000  818.000  183.000  817.200  187.000
GR  817.300  190.000  821.800  200.000  821.900  240.000  819.900  245.000  819.900  390.000
GR  825.500  426.000  831.400  500.000  832.900  535.000    0.000    0.000    0.000    0.000
NC     .060     .060     .036    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1 15540.000    0.000    0.000    0.000   85.000   65.000   75.000    0.000     .750    0.000
X3    0.000    0.000    0.000    0.000    0.000  380.000    0.000    0.000    0.000    0.000

X1 15615.000    0.000    0.000    0.000   85.000   65.000   75.000    0.000     .750    0.000
X3    0.000    0.000    0.000    0.000    0.000  435.000    0.000    0.000    0.000    0.000
NC     .035     .035     .800    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1 15616.000    0.000    0.000    0.000    1.000    1.000    1.000    0.000    0.000    0.000
X3    0.000    0.000    0.000    0.000    0.000  435.000    0.000    0.000    0.000    0.000
SB    0.000    1.860    3.040    0.000    7.020    0.000   19.660    0.000  819.500  818.700

X1 15660.000   23.000  472.800  483.200   44.000   44.000   44.000     .840    0.000    0.000
X2    0.000    0.000    1.000  821.800  825.400    0.000    0.000    0.000     .840    0.000
BT   21.000    0.000  834.700    0.000   75.000  831.400    0.000  175.000  828.600    0.000
BT  275.000  827.000    0.000  375.000  825.700    0.000  472.800  825.400    0.000  472.800
BT  825.400  821.400  473.600  825.400  822.100  475.000  825.400  822.300  476.400  825.400
BT  822.100  477.200  825.400  821.400  478.800  825.400  821.800  479.600  825.400  822.500
BT  481.000  825.400  822.700  482.400  825.400  822.500  483.200  825.400  821.800  483.200
BT  825.400    0.000  575.000  827.400    0.000  675.000  828.900    0.000  775.000  831.100
BT    0.000  861.000  834.300    0.000    0.000    0.000    0.000    0.000    0.000    0.000
GR  834.700    0.000  831.400   75.000  828.600  175.000  827.000  275.000  825.700  375.000
GR  825.500  430.000  820.400  472.800  819.700  473.600  819.500  475.000  819.700  476.400
GR  [illegible]  477.200  821.400  477.200  821.800  478.800  820.800  478.800  820.100  479.600
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GR     819.900     481.000     820.100     482.400     820.800     483.200     826.000     520.000     827.400     575.000
GR     828.900     675.000     831.100     775.000     834.300     861.000       0.000       0.000       0.000       0.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000


*PROF 1

CCHV=     .300 CEHV=     .500
*SECNO 15465.000

3265 DIVIDED FLOW

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


3470 ENCROACHMENT STATIONS=        .0     330.0  TYPE=     1  TARGET=     329.999
 15465.00      4.41    821.61      0.00    821.61    821.67       .06       0.00       0.00    821.50
     310.        0.      168.      142.       0.       65.      149.         0.         0.    821.80
      0.00      .09      2.61       .95      .090      .038      .080      0.000     817.20    171.07
  .001339      125.      125.      125.         0         0         0       0.00     117.78    330.00

*SECNO 15540.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=        .0     380.0  TYPE=     1  TARGET=     379.999
 15540.00      3.77    821.72      0.00      0.00    821.79       .08       .11        .01    822.25
     310.        0.      148.      162.       0.       49.      145.         0.         0.    822.55
       .01      0.00      2.99      1.12      .060      .036      .060      .038     817.95    176.23
  .001931       85.       75.       65.         0         0         0       0.00     159.55    380.00

*SECNO 15615.000

3265 DIVIDED FLOW

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


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
 15615.00      3.21    821.91    821.91      0.00    822.22       .31       .24        .12    823.00
     310.        0.      207.      103.       0.       38.      75.         1.         0.    823.30
      .01      0.00      5.42      1.37      .060      .036      .060      .038     818.70    177.49
  .007621       85.       75.       65.         2         9         0       0.00     168.99    393.29


*SECNO 15616.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
```

310.	0.	9.	301.	0.	44.	117.	1.	0.	823.30
.01	0.00	.21	2.58	.035	.800	.035	.043	818.70	176.86
.005179	1.	1.	1.	4	0	0	0.00	172.68	395.05

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.86	3.04	0.00	7.02	0.00	19.66	0.00	819.50	818.70

*SECNO 15660.000

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
829.38	823.92	0.00	87.	224.	20.	16.	821.80	825.40

15660.00	6.42	825.92	0.00	0.00	825.95	.04	3.66	0.00	820.40
310.	186.	5.	119.	123.	50.	78.	1.	1.	820.80
.02	1.51	.09	1.53	.035	.800	.035	.218	819.50	300.83
.000376	44.	44.	44.	2	0	6	0.00	135.49	436.32

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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 CITY OF FARMINGTON HILLS J&A FILE NO: 5670-03 PM: RICHARD ZANOTTI
T2 50 YEAR FLOW
T3 PEBBLE CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.0	0.	826.640	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 2

CCHV= .300 CEHV= .500
*SECNO 15465.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

```
     SLOPE     XLOBL     XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=        .0      330.0  TYPE=     1  TARGET=     329.999
 15465.00     9.44   826.64     0.00    826.64   826.65      .01     0.00      0.00    821.50
     650.      102.     200.     348.     358.     190.     793.       0.        0.    821.80
     0.00      .29     1.05      .44     .090     .038     .080    0.000    817.20     66.22
  .000053     125.     125.     125.        0        0        0     0.00    263.78    330.00

*SECNO 15540.000

3470 ENCROACHMENT STATIONS=        .0      380.0  TYPE=     1  TARGET=     379.999
 15540.00     8.70   826.65     0.00     0.00   826.65      .00      .00      .00    822.25
     650.      83.      138.     429.     280.     172.     996.       2.        0.    822.55
      .04      .30      .80      .43     .060     .036     .060     .038    817.95     74.51
  .000032      85.      75.      65.        0        0        0     0.00    305.49    380.00

*SECNO 15615.000

3470 ENCROACHMENT STATIONS=        .0      435.0  TYPE=     1  TARGET=     434.999
 15615.00     7.95   826.65     0.00     0.00   826.65      .00      .00      .00    823.00
     650.      62.      132.     456.     208.     153.    1003.       5.        1.    823.30
      .08      .30      .86      .45     .060     .036     .060     .038    818.70     82.78
  .000043      85.      75.      65.        0        0        0     0.00    340.97    423.75

*SECNO 15616.000

3470 ENCROACHMENT STATIONS=        .0      435.0  TYPE=     1  TARGET=     434.999
 15616.00     7.95   826.65     0.00     0.00   826.65      .00      .00      .00    823.00
     650.      77.       4.     569.     208.     153.    1003.       5.        1.    823.30
      .08      .37      .03      .57     .035     .800     .035     .043    818.70     82.79
  .000023       1.       1.       1.        0        0        0     0.00    340.95    423.74


SPECIAL BRIDGE

SB  XK      XKOR     COEQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     0.00     1.86     3.04     0.00     7.02     0.00     19.66    0.00     819.50   818.70

*SECNO 15660.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSIA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3       QWEIR    QPR      BAREA    TRAPEZOID AREA    ELLC     ELTRD
 858.22    827.45    0.00     590.     60.      20.      16.               821.80   825.40

 15660.00     7.37   826.87     0.00     0.00   826.92      .05      .26     0.00    820.40
     650.      412.       7.     231.     244.      58.     120.       5.        1.    820.80
      .08      1.69      .12     1.93     .035     .800     .035     .219    819.50    239.51
  .000471       44.      44.      44.        2        0        9     0.00    225.95    465.45
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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*********************************************

T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      100 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       4.        0.        0.  0.000000      0.00       0.0       0.   828.920     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


*PROF 3

CCHV=    .300 CEHV=    .500
*SECNO 15465.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=        .0     330.0  TYPE=     1  TARGET=     329.999
 15465.00     11.72    828.92      0.00    828.92    828.93       .01      0.00      0.00    821.50
     865.      180.      238.      447.      635.      247.     1090.        0.        0.    821.80
     0.00       .28       .96       .41      .090      .038      .080     0.000    817.20     40.89
  .000031      125.      125.      125.         0         0         0      0.00    289.11    330.00

*SECNO 15540.000

3470 ENCROACHMENT STATIONS=        .0     380.0  TYPE=     1  TARGET=     379.999
 15540.00     10.97    828.92      0.00      0.00    828.93       .00       .00       .00    822.25
     865.      156.      162.      547.      538.      229.     1406.        3.        1.    822.55
       .05       .29       .71       .39      .060      .036      .060      .037    817.95     49.20
  .000017       85.       75.       65.         0         0         0      0.00    330.80    380.00

*SECNO 15615.000

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
 15615.00     10.23    828.93      0.00      0.00    828.93       .00       .00       .00    823.00
     865.      126.      148.      590.      447.      210.     1531.        7.        1.    823.30
       .09       .28       .71       .39      .060      .036      .060      .038    818.70     57.48
  .000019       85.       75.       65.         0         0         0      0.00    377.52    435.00

*SECNO 15616.000

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
 15616.00     10.23    828.93      0.00      0.00    828.93       .00       .00       .00    823.00
     865.      152.        5.      709.      447.      210.     1531.        7.        1.    823.30
       .09       .31       .03       .46      .075      .000      .075      .013    818.70     57.48
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.000009	1.	1.	1.	0	0	0	0.00	377.51	435.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.86	3.04	0.00	7.02	0.00	19.66	0.00	819.50	818.70

*SECNO 15660.000

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
884.84	829.73	0.00	839.	28.	20.	16.	821.80	825.40

15660.00	9.48	828.98	0.00	0.00	828.99	.01	.06	0.00	820.40
865.	578.	4.	283.	695.	77.	348.	9.	2.	820.80
.11	.83	.05	.81	.035	.800	.035	.218	819.50	135.56
.000073	44.	44.	44.	1	0	8	0.00	434.54	570.10

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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 CITY OF FARMINGTON HILLS J&A FILE NO: 5670-03 PM: RICHARD ZANOTTI
T2 500 YEAR FLOW
T3 PEBBLE CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.000000	0.00	0.0	0.	831.526	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 4

CCHV= .300 EEHV= .500

*SECNO 15465.000

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

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3470 ENCROACHMENT STATIONS=        .0     330.0  TYPE=     1  TARGET=     329.999
 15465.00     14.33    831.53      0.00    831.53    831.54       .01      0.00      0.00    821.50
    1690.      424.      427.      840.     1022.      313.     1428.        0.        0.    821.80
      0.00       .41      1.37       .59      .090      .038      .080     0.000    817.20     11.93
  .000046      125.      125.      125.         0         0         0      0.00    318.07    330.00

*SECNO 15540.000

3470 ENCROACHMENT STATIONS=        .0     380.0  TYPE=     1  TARGET=     379.999
 15540.00     13.58    831.53      0.00      0.00    831.54       .01       .00       .00    822.25
    1690.      379.      288.     1023.      904.      294.     1875.        5.        1.    822.55
       .03       .42       .98       .55      .060      .036      .060      .037    817.95     20.23
  .000023       85.       75.       65.         0         0         0      0.00    359.77    380.00

*SECNO 15615.000

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
 15615.00     12.84    831.54      0.00      0.00    831.54       .01       .00       .00    823.00
    1690.      313.      257.     1120.      792.      275.     2145.       10.        1.    823.30
       .07       .40       .93       .52      .060      .036      .060      .037    818.70     28.48
  .000023       85.       75.       65.         0         0         0      0.00    406.52    435.00

*SECNO 15616.000

3470 ENCROACHMENT STATIONS=        .0     435.0  TYPE=     1  TARGET=     434.999
 15616.00     12.84    831.54      0.00      0.00    831.54       .01       .00       .00    823.00
    1690.      368.        8.     1314.      792.      275.     2145.       10.        1.    823.30
       .07       .46       .03       .61      .035      .800      .035      .042    818.70     28.48
  .000011        1.        1.        1.         0         0         0      0.00    406.52    435.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.86      3.04      0.00      7.02      0.00      19.66     0.00      819.50    818.70

*SECNO 15660.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA     TRAPEZOID AREA      ELLC      ELTRD
 1044.96    832.34     0.00      1673.     29.       20.       16.                 821.80    825.40

 15660.00     12.09    831.59      0.00      0.00    831.60       .01       .06      0.00    820.40
    1690.     1081.        4.     604.     1483.      99.      907.       13.        2.    820.80
       .09       .73       .04       .67      .035      .800      .035      .216    819.50     59.17
  .000032       44.       44.       44.         0         0         8      0.00    603.12    662.30
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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

PEBBLE CREEK

SUMMARY PRINTOUT

	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
	821.610	.06	0.00	0.00	168.42	4.41	117.78
	826.640	.01	0.00	0.00	200.05	9.44	263.78
	828.920	.01	0.00	0.00	238.35	11.72	289.11
	831.526	.01	0.00	0.00	426.85	14.33	318.07
	821.715	.08	.11	.01	147.89	3.77	159.55
	826.647	.00	.00	.00	137.94	8.70	305.49
	828.925	.00	.00	.00	161.81	10.97	330.80
	831.534	.01	.00	.00	287.71	13.58	359.77
*	821.911	.31	.24	.12	206.58	3.21	168.99
	826.649	.00	.00	.00	132.31	7.95	340.97
	828.926	.00	.00	.00	148.42	10.23	377.52
	831.537	.01	.00	.00	256.53	12.84	406.52
	822.195	.10	.01	.06	9.20	3.49	172.68
	826.649	.00	.00	.00	4.33	7.95	340.95
	828.926	.00	.00	.00	4.68	10.23	377.51
	831.537	.01	.00	.00	7.90	12.84	406.52
	825.919	.04	3.66	0.00	4.63	6.42	135.49
	826.868	.05	.26	0.00	6.69	7.37	225.95
	828.976	.01	.06	0.00	4.16	9.48	434.54
	831.593	.01	.06	0.00	4.26	12.09	603.12

SUMMARY OF ERRORS

```
CAUTION  SECNO=  821.610  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  821.610  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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HEC-2 Run :
to show the difference in elevations at clubhouse Lane culvert over Pebble Creek.

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

T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      10 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.  0.000000      0.00       0.0       0.   689.350     0.000

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

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
     1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000

NC      .075      .075      .040      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   380.000   780.000   995.000  1690.000     0.000     0.000     0.000     0.000     0.000
QT     4.000   150.000   315.000   425.000   830.000     0.000     0.000     0.000     0.000     0.000
NC      .054      .054      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  26763.000    14.000   241.000   261.000   375.000   375.000   375.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   140.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    893.000     0.000   890.400    70.000   887.600   130.000   886.500   230.000   886.300   241.000
GR    884.500   243.000   883.700   248.000   884.500   253.000   887.400   261.000   889.600   290.000
GR    892.000   317.000   891.600   330.000   891.100   372.000   890.600   430.000     0.000     0.000
NC      .062      .062      .048     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     6.100     0.000     0.000   244.000   252.000     0.000     0.000     0.000

X1  26863.000     0.000     0.000     0.000   200.000   100.000   100.000     0.000      .900     0.000
X5      4.000   887.809   888.542   888.612   889.547     0.000     0.000     0.000     0.000     0.000
NC      .055      .055      .032     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     6.100     8.100     8.100   157.900   166.100      .050   262.000     0.000
SB      0.000     2.800     3.030     0.000     6.610     0.000    38.000     0.000   884.600   884.600

X1  26946.000    18.000   150.000   170.000    83.000    83.000    83.000      .730     0.000     0.000
X2      0.000     0.000     1.000   890.000   891.800     0.000     0.000     0.000      .730     0.000
BT     17.000     0.000   891.800     0.000    62.000   892.000     0.000   150.000   891.700     0.000
BT    157.900   891.800     0.000   157.900   891.800   886.800   158.400   891.800   888.200   159.000
BT    891.800   889.200   160.200   891.800   890.000   161.400   891.800   890.400   162.600   891.800
BT    890.400   163.800   891.800   890.000   165.000   891.800   889.200   165.600   891.800   888.200
BT    166.100   891.800   886.800   166.100   891.800     0.000   170.000   891.700     0.000   262.000
BT    891.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    891.800     0.000   892.000    62.000   890.400   150.000   886.000   157.900   886.000   157.900
GR    885.200   158.400   884.900   159.000   884.700   160.200   884.600   161.400   884.600   162.600
GR    884.700   163.800   884.900   165.000   885.200   165.600   886.000   166.100   888.000   170.000
GR    890.600   174.000   890.600   262.000   890.600   322.000     0.000     0.000     0.000     0.000
NC      .050      .050      .040     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  27046.000     9.000   113.000   135.000    10.000   150.000   100.000     0.000     0.000     0.000
GR    891.800     0.000   892.300    72.000   890.400   100.000   889.700   113.000   885.500   119.000
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GR     885.000     122.000     885.500     125.000     8.0.500     135.000     8.2.700     176.000       0.000       0.000
ET       0.000       6.100       0.000       0.000       0.000     116.000     128.000       0.000       0.000       0.000

X1   27116.000       0.000       0.000       0.000      50.000     120.000      70.000       0.000        .200       0.000
NC        .030        .030        .024       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       6.100       0.000       0.000       0.000     116.000     128.000       0.000       0.000       0.000

X1   27117.000       0.000       0.000       0.000       1.000       1.000       1.000       0.000       0.000       0.000
SB       0.000       2.670       3.040       0.000       6.280       0.000      25.130       0.000     886.700     885.200

X1   27187.000      19.000     493.800     512.800      70.000      70.000      70.000        .630       0.000       0.000
X2       0.000       0.000       1.000     890.700     891.800       0.000       0.000       0.000        .630       0.000
X3      10.000       0.000       0.000     360.000       0.000       0.000       0.000     891.800     891.800       0.000
BT      20.000     360.000     891.920       0.000     400.000     892.000       0.000     493.800     892.800       0.000
BT     493.800     892.800     888.000     493.800     892.800     889.400     495.400     892.800     890.500     497.000
BT     892.800     890.700     498.600     892.800     890.500     500.200     892.800     889.400     500.200     892.800
BT     888.000     506.400     892.800     888.000     506.400     892.800     889.400     508.000     892.800     890.500
BT     509.600     892.800     890.700     511.200     892.800     890.500     512.800     892.800     889.400     512.800
BT     892.800     888.000     512.800     892.800       0.000     600.000     895.300       0.000     660.000     897.500
BT       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
GR     893.500       0.000     892.700     100.000     892.100     200.000     891.800     300.000     892.000     400.000
GR     892.000     450.000     888.000     493.800     886.900     495.400     886.700     497.000     886.900     498.600
GR     888.000     500.200     888.000     506.400     886.900     508.000     886.700     509.600     886.900     511.200
GR     888.000     512.800     893.800     550.000     895.300     600.000     897.500     660.000       0.000       0.000
NC        .055        .055        .040       0.000       0.000       0.000       0.000       0.000       0.000       0.000
ET       0.000       6.100       8.100       8.100       8.100     303.000     315.000     220.000     335.000       0.000

X1   27188.000      13.000     300.000     318.000       1.000       1.000       1.000       0.000       0.000       0.000
GR     890.900       0.000     890.700     285.000     890.000     300.000     886.800     307.000     886.700     310.000
GR     886.800     313.000     889.400     318.000     890.900     325.000     892.000     375.000     894.000     440.000
GR     896.000     500.000     898.000     550.000     900.000     650.000       0.000       0.000       0.000       0.000

X1'  27198.000       0.000       0.000       0.000      10.000      10.000      10.000       0.000       0.000       0.000
X3       0.000       0.000       0.000     210.000       0.000     345.000       0.000       0.000       0.000       0.000
EJ       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

*PROF 1

CCHV=     .300 CEHV=     .500
*SECNO 26763.000
   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

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     140.0     430.0  TYPE=     1  TARGET=    -140.000
 26763.00     2.22    885.92    885.92    689.35    886.64      .72      0.00      0.00    886.30
     150.       0.      150.       0.        0.      22.        0.        0.        0.    887.40
     0.00     0.00      6.81     0.00      .054      .045      .054     0.000    883.70    241.43
  .028690     375.      375.     375.         0        14         0      0.00     15.48    256.90

*SECNO 26863.000
 WATER EL=X5 CARD=    887.809

3470 ENCROACHMENT STATIONS=     244.0     252.0  TYPE=     1  TARGET=       8.000
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 26863.00      3.21    887.81      0.00      0.00    888.46       .65      2.43       .02100000.00
     150.        0.     150.        0.        0.       23.        0.        0.        0. 100000.00
      .00      0.00      6.49      0.00      .062      .048      .062      .048    884.60    244.00
  .020915      200.     100.      100.         0         0         0      0.00      8.00    252.00


SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        2.80       3.03       0.00       6.61       0.00       38.00      0.00       884.60     884.60

*SECNO 26946.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=      0.000  EGLWC=    888.931  ELLC=    890.000  PCWSE=    887.809  ELTRD=    891.800

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  891.80 MAX ELLC=  890.00


3470 ENCROACHMENT STATIONS=      115.3      121.3  TYPE=      1  TARGET=        8.200
 26946.00      4.41    889.01      0.00      0.00    889.65       .65      1.19       .00100000.00
     150.        0.     150.        0.        0.       23.        0.        0.        0. 100000.00
      .01      0.00      6.45      0.00      .055      .032      .055      .040    884.60    115.27
  .010426       83.       83.       83.         2         0         0     -1.61      5.99    121.25


*SECNO 27046.000

3301 HV CHANGED MORE THAN HVINS

 27046.00      4.99    889.99      0.00      0.00    890.07       .09       .25       .17    889.70
     150.        0.     150.        0.        1.       63.        0.        0.        0.    890.50
      .02       .27      2.39      0.00      .050      .040      .050      .040    885.00    107.74
  .001107       10.      100.      150.         2         0         0      0.00     26.23    133.97


*SECNO 27116.000
   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=      116.0      128.0  TYPE=      1  TARGET=       12.000
 27116.00      4.85    890.05      0.00      0.00    890.20       .15       .10       .03100000.00
     150.        0.     150.        0.        0.       48.        0.        0.        0. 100000.00
      .03      0.00      3.10      0.00      .050      .040      .050      .040    885.20    116.00
  .001895       50.       70.      120.         2         0         0      0.00     12.00    128.00


*SECNO 27117.000

3470 ENCROACHMENT STATIONS=      116.0      128.0  TYPE=      1  TARGET=       12.000
 27117.00      4.86    890.06      0.00      0.00    890.21       .15       .00       .00100000.00
     150.        0.     150.        0.        0.       48.        0.        0.        0. 100000.00
      .03      0.00      3.10      0.00      .030      .024      .030      .040    885.20    116.00
  .000682        1.        1.        1.         0         0         0      0.00     12.00    128.00


SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
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     0.00      2.67      3.04      0.00      6.28      0.00     25.13      0.00    886.10    885.20

*SECNO 27187.000

6070,LOW FLOW BY NORMAL BRIDGE

EGFRS=   891.533  EGLWC=   891.698  ELLC=   890.700  PCWSE=   890.056  ELTRD=   891.800

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  891.80 MAX ELLC=  890.70

3470 ENCROACHMENT STATIONS=     226.8     415.8  TYPE=     1  TARGET=    -360.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      891.80 ELREA=      891.80

 27187.00      3.33    890.03      0.00      0.00    890.39       .35       .08       .10    888.00
     150.        0.      150.        0.        0.      31.        0.        0.        0.    888.00
      .03      0.00      4.77      0.00      .030      .024      .030      .037    886.70    311.09
  .002374       70.       70.       70.         3         0         0      0.00     11.97    323.06

*SECNO 27188.000

3470 ENCROACHMENT STATIONS=     303.0     315.0  TYPE=     1  TARGET=      12.000
 27188.00      3.44    890.14      0.00      0.00    890.42       .27       .00       .02100000.00
     150.        0.      150.        0.        0.      36.        0.        0.        0. 100000.00
      .03      0.00      4.20      0.00      .055      .040      .055      .037    886.70    303.00
  .004555        1.        1.        1.         2         0         0      0.00     12.00    315.00

*SECNO 27198.000

3470 ENCROACHMENT STATIONS=     210.0     345.0  TYPE=     1  TARGET=     135.000
 27198.00      3.62    890.32      0.00      0.00    890.48       .16       .03       .03    890.00
     150.        0.      148.        2.        1.      46.        2.        0.        0.    889.40
      .03       .39      3.21       .77      .055      .040      .055      .037    886.70    293.04
  .002354       10.       10.       10.         2         0         0      0.00     29.28    322.32


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


T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      50 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000      0.00       0.0       0.   690.700     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=     .300 CEHV=     .500
*SECNO 26763.000
   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

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      140.0      430.0  TYPE=      1  TARGET=     -140.000
 26763.00      3.45    887.15    887.15    690.70    887.64       .50      0.00      0.00    886.30
     315.       49.      266.        0.       27.       44.        0.        0.        0.    887.40
     0.00      1.78      6.11      0.00      .054      .045      .054     0.000    883.70    171.17
  .012563      375.      375.      375.         0        18         0      0.00     89.13    260.30

*SECNO 26863.000
 WATER EL=X5 CARD=    888.542

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      244.0      252.0  TYPE=      1  TARGET=        8.000
 26863.00      3.96    888.56    888.55    887.81    890.38      1.82      2.39      .66100000.00
     315.        0.      315.        0.        0.       29.        0.        0.        0. 100000.00
      .00      0.00     10.82      0.00      .062      .048      .062      .044    884.60    244.00
  .049330      200.      100.      100.         0         8         0      0.00      8.00    252.00


SPECIAL BRIDGE

SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00      2.80      3.03       0.00       6.61       0.00      38.00      0.00     884.60     884.60

*SECNO 26946.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=    891.546  EGLWC=    891.704  ELLC=    890.000  PCWSE=    888.558  ELTRD=    891.800
3280 CROSS SECTION  26946.00 EXTENDED      2.21 FEET


3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  891.80 MAX ELLC=  890.00


3470 ENCROACHMENT STATIONS=      115.3      121.3  TYPE=      1  TARGET=        8.200
 26946.00      8.21    892.81      0.00    889.01    894.16      1.35      3.65      .14100000.00
     315.        0.      315.        0.        0.       34.        0.        0.        0. 100000.00
      .01      0.00      9.34      0.00      .055      .032      .055      .039    884.60    115.27
  .039391       83.       83.       83.         4         0         0    -13.88      5.99    121.25


*SECNO 27046.000
3280 CROSS SECTION  27046.00 EXTENDED      2.77 FEET


3301 HV CHANGED MORE THAN HVINS

 27046.00      9.58    894.58      0.00    889.99    894.58       .01       .01       .40    889.70
     315.       131.      138.        7.      331.         1      122.        1.        0.    890.50
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      .05       .40       .84       .38      .050      .040      .050      .041    885.00      0.00
  .000041       10.      100.      150.         2         0         0      0.00    176.00    176.00

*SECNO 27116.000
3280 CROSS SECTION  27116.00 EXTENDED      2.58 FEET

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

  27116.00      9.38    894.58      0.00    890.05    894.59       .01       .00       .00    889.90
      315.      127.      143.       45.      309.      159.      114.        2.        1.    890.70
       .08       .41       .90       .40      .050      .040      .050      .041    885.20      0.00
  .000048       50.       70.      120.         2         0         0      0.00    176.00    176.00

*SECNO 27117.000
3280 CROSS SECTION  27117.00 EXTENDED      2.58 FEET

  27117.00      9.38    894.58      0.00    890.06    894.59       .01       .00       .00    889.90
      315.      127.      143.       45.      309.      159.      114.        2.        1.    890.70
       .08       .41       .90       .40      .030      .024      .030      .041    885.20      0.00
  .000017        1.        1.        1.         0         0         0      0.00    176.00    176.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.67      3.04      0.00      6.28      0.00     25.13      0.00    886.70    885.20

*SECNO 27187.000
PRESSURE AND WEIR FLOW

  EGPRS     EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                              AREA
  901.09    896.09    0.00      282.       32.       25.       25.       890.70    891.80

3470 ENCROACHMENT STATIONS=      226.8      415.8  TYPE=      1  TARGET=     -360.000
  27187.00      7.93    894.63      0.00    890.03    894.64       .01       .06      0.00    888.00
      315.      165.       95.       55.      279.       87.       95.        2.        1.    888.00
       .10       .59      1.10       .58      .030      .024      .030      .038    886.70    226.80
  .000028       70.       70.       70.         0         0         6      0.00    137.42    364.22

*SECNO 27188.000

3470 ENCROACHMENT STATIONS=      220.0      335.0  TYPE=      1  TARGET=      115.000
  27188.00      7.94    894.64      0.00    890.14    894.64       .01       .00       .00    890.00
      315.      161.      122.       32.      319.      124.       68.        2.        1.    889.40
       .10       .51       .98       .47      .055      .040      .055      .038    886.70    220.00
  .000059        1.        1.        1.         0         0         0      0.00    115.00    335.00

*SECNO 27198.000

3470 ENCROACHMENT STATIONS=      210.0      345.0  TYPE=      1  TARGET=      135.000
  27198.00      7.94    894.64      0.00    890.32    894. 5       .01       .00       .00    890.00
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      315.      163.      10.       43.      358.      124.      102.       3.        1.     88.40
       .11       .46       .88       .42      .055      .040      .055     .038    886.70   210.00
   .000048       10.       10.       10.         0         0         0     0.00    135.00   345.00


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

T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      100 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        4.        0.        0.  0.000000      0.00       0.0       0.   690.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


*PROF 3

CCHV=     .300 CEHV=     .500
*SECNO 26763.000
    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


3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     140.0     430.0  TYPE=     1  TARGET=    -140.000
 26763.00      3.78    887.48    887.48    690.90    887.93       .45      0.00      0.00    886.30
     425.      115.      310.        0.       55.       50.        0.        0.        0.    887.40
     0.00      2.08      6.19       .03      .054      .045      .054     0.000    883.70    141.26
  .011250      375.      375.      375.         0        15         0      0.00    120.75    262.00


*SECNO 26863.000
 WATER EL=X5 CARD=    888.612
 26863.00      4.01    888.61      0.00      0.00    888.90       .29      1.21       .05    887.20
     425.      143.      281.        0.       81.       55.        1.        0.        1.    888.30
      .01      1.77      5.13       .61      .062      .048      .062      .037    884.60    127.60
  .007803      200.      100.      100.         0         0         0      0.00    137.51    265.11


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.80      3.03      0.00      6.61      0.00     38.00      0.00    884.60    884.60

SECNO 2 9  .000
```

3280 CROSS SECTION 26946.00 EXTENDED 1.11 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.05	891.43	0.00	97.	331.	38.	36.	890.00	891.80

3470 ENCROACHMENT STATIONS= .0 191.3 TYPE= 1 TARGET= 261.950

26946.00	7.11	891.71	0.00	889.01	891.92	.21	3.02	0.00	890.40
425.	25.	317.	83.	35.	75.	78.	1.	1.	888.00
.02	.72	4.25	1.06	.055	.032	.055	.035	884.60	56.83
.001263	83.	83.	83.	2	0	5	0.00	134.42	191.26

*SECNO 27046.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27046.00 EXTENDED .10 FEET

27046.00	6.90	891.90	0.00	889.99	892.06	.16	.12	.02	889.70
425.	52.	358.	15.	42.	105.	18.	1.	1.	890.50
.02	1.26	3.41	.82	.050	.040	.050	.036	885.00	0.00
.001222	10.	100.	150.	2	0	0	0.00	98.33	161.17

*SECNO 27116.000

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
27116.00	6.79	891.99	0.00	890.05	892.16	.17	.09	.01	889.90
425.	48.	364.	13.	37.	102.	16.	1.	1.	890.70
.03	1.31	3.55	.82	.050	.040	.050	.037	885.20	79.46
.001366	50.	70.	120.	1	0	0	0.00	79.66	159.12

*SECNO 27117.000

27117.00	6.79	891.99	0.00	890.06	892.16	.17	.00	.00	889.90
425.	48.	364.	13.	37.	102.	15.	1.	1.	890.70
.03	1.31	3.56	.82	.030	.024	.030	.037	885.20	79.57
.000496	1.	1.	1.	0	0	0	0.00	79.40	158.97

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.67	3.04	0.00	6.28	0.00	25.13	0.00	886.70	885.20

*SECNO 27187.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
903.84	893.66	0.00	286.	141.	25.	25.	890.70	891.80

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3470 ENCROACHMENT STATIONS=      226.8      415.8  TYPE=      1  TARGET=     -360.000
 27187.00      6.54    893.24      0.00    890.03    893.29      .05      1.13      0.00    888.00
     425.      185.      171.       69.      161.       70.      56.        2.        1.    888.00
      .04      1.15      2.44      1.25      .030      .024     .030      .035    886.70    226.80
  .000183       70.       70.       70.         2         0        6      0.00    117.44    344.24


*SECNO 27188.000

3470 ENCROACHMENT STATIONS=      220.0      335.0  TYPE=      1  TARGET=      115.000
 27188.00      6.56    893.26      0.00    890.14    893.30      .04       .00       .00    890.00
     425.      189.      197.       39.      208.       99.      44.        2.        1.    889.40
      .04       .91      2.00       .88      .055      .040     .055      .035    886.70    220.00
  .000329        1.        1.        1.         1         0        0      0.00    115.00    335.00


*SECNO 27198.000

3470 ENCROACHMENT STATIONS=      210.0      345.0  TYPE=      1  TARGET=      135.000
 27198.00      6.57    893.27      0.00    890.32    893.30      .03       .00       .00    890.00
     425.      194.      180.       50.      234.       99.      65.        2.        1.    889.40
      .04       .83      1.82       .78      .055      .040     .055      .035    886.70    210.00
  .000272       10.       10.       10.         1         0        0      0.00    135.00    345.00


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


T1      CITY OF FARMINGTON HILLS  J&A FILE NO: 5670-03  PM: RICHARD ZANOTTI
T2      500 YEAR FLOW
T3      PEBBLE CREEK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       5.        0.        0.  0.000000      0.00      0.0       0.    692.900     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


*PROF 4

CCHV=     .300 CEHV=     .500
*SECNO 26763.000
   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


3720 CRITICAL DEPTH ASSUMED
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3470 ENCROACHMENT STATIONS=      140.0      430.0  TYPE=      1  TARGET=     -140.000
 26763.00      4.26    887.96    887.96    692.90    888.59       .62      0.00      0.00    886.30
     830.      356.      471.        3.      104.       60.        2.        0.        0.    887.40
      0.00      3.42      7.87      1.41      .054      .045      .054     0.000    883.70    140.00
   .014361      375.      375.      375.         0        11         0      0.00    128.41    268.41

*SECNO 26863.000
 WATER EL=X5 CARD=    889.547
 26863.00      4.95    889.55      0.00      0.00    889.76       .21      1.17       .12    887.20
     830.      452.      365.       13.      196.       74.       10.        1.        1.    888.30
       .01      2.30      4.97      1.23      .062      .048      .062      .032    884.60    107.56
   .004944      200.      100.      100.         0         0         0      0.00    169.87    277.44

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.80      3.03      0.00      6.61      0.00      38.00     0.00      884.60    884.60

*SECNO 26946.000
3280 CROSS SECTION  26946.00 EXTENDED      1.53 FEET

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID AREA     ELLC      ELTRD
   910.29    895.08      0.00       515.       318.       38.       36.       890.00    891.80

3470 ENCROACHMENT STATIONS=         .0       191.3  TYPE=      1  TARGET=      261.950
 26946.00      7.53    892.13      0.00    889.01    892.59       .46      2.83      0.00    890.40
     830.       88.      538.      204.       71.       81.      107.        1.        1.    888.00
       .02      1.24      6.66      1.91      .055      .032      .055      .032    884.60       .04
   .002794       83.       83.       83.         3         0         6      0.00    191.22    191.26

*SECNO 27046.000
3280 CROSS SECTION  27046.00 EXTENDED       .78 FEET

 27046.00      7.58    892.58      0.00    889.99    892.87       .29       .23       .05    889.70
     830.      175.      597.       58.      106.      120.       40.        2.        1.    890.50
       .02      1.65      4.99      1.43      .050      .040      .050      .035    885.00      0.00
   .002182       10.      100.      150.         2         0         0      0.00    173.85    173.85

*SECNO 27116.000
3280 CROSS SECTION  27116.00 EXTENDED       .73 FEET

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

 27116.00      7.53    892.73      0.00    890.05    893.04       .31       .16       .01    889.90
     830.      167.      607.       56.      100.      119.       38.        2.        1.    890.70
       .03      1.68      5.12      1.45      .050      .040      .050      .036    885.20      0.00
   .002333       50.       70.      120.         2         0         0      0.00    172.80    172.80
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*SECNO 27117.000
3280 CROSS SECTION  27117.00 EXTENDED       .73 FEET

 27117.00      7.53    892.73      0.00    890.06    893.04       .31       .00       .00    889.90
     830.      168.      607.      56.      100.      119.       38.        2.        1.    890.70
      .03      1.68      5.12      1.45      .030      .024      .030      .036    885.20      0.00
 .000838        1.        1.        1.         0         0         0      0.00    172.84    172.84


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.67      3.04      0.00      6.28      0.00      25.13     0.00      886.70    885.20

*SECNO 27187.000
PRESSURE AND WEIR FLOW


 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA     TRAPEZOID      ELLC      ELTRD
                                                                  AREA
  937.96    894.54     0.00      695.      141.      25.       25.            890.70    891.80


3470 ENCROACHMENT STATIONS=      226.8      415.8  TYPE=     I  TARGET=     -360.000
 27187.00      7.24    893.94      0.00    890.03    894.04       .11      1.01      0.00    888.00
     830.      408.      286.      136.      219.      78.       71.        3.        2.    888.00
      .04      1.86      3.66      1.91      .030      .024      .030      .034    886.70    226.80
 .000353        70.       70.       70.         2         0         7      0.00    122.58    349.38


*SECNO 27188.000

3470 ENCROACHMENT STATIONS=      220.0      335.0  TYPE=     I  TARGET=      115.000
 27188.00      7.27    893.97      0.00    890.14    894.05       .08       .00       .01    890.00
     830.      403.      346.      81.       265.      112.      56.        3.        2.    889.40
      .04      1.52      3.10      1.44      .055      .040      .055      .034    886.70    220.00
 .000671        1.        1.        1.         2         0         0      0.00    115.00    335.00


*SECNO 27198.000

3470 ENCROACHMENT STATIONS=      210.0      345.0  TYPE=     1  TARGET=      135.000
 27198.00      7.30    894.00      0.00    890.32    894.06       .06       .01       .01    890.00
     830.      410.      312.      108.      300.      112.      85.        3.        2.    889.40
      .04      1.37      2.78      1.28      .055      .040      .055      .034    886.70    210.00
 .000535        10.       10.       10.         2         0         0      0.00    135.00    345.00


**************************************************
  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
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PEBBLE CREEK

SUMMARY PRINTOUT

	CWSEL	AV	HL	OLOSS	QCH	DEPTH	TOPWID
*	885.915	.72	0.00	0.00	150.00	2.22	15.48
*	887.147	.50	0.00	0.00	266.46	3.45	89.13
*	887.476	.45	0.00	0.00	310.35	3.78	120.75
*	887.962	.62	0.00	0.00	471.10	4.26	128.41
*	887.809	.65	2.43	.02	150.00	3.21	8.00
*	888.558	1.82	2.39	.66	315.00	3.96	8.00
*	888.612	.29	1.21	.05	281.49	4.01	137.51
*	889.547	.21	1.17	.12	365.40	4.95	169.87
	889.009	.65	1.19	.00	150.00	4.41	5.99
	892.809	1.35	3.65	.14	315.00	8.21	5.99
	891.708	.21	3.02	0.00	317.19	7.11	134.42
	892.125	.46	2.83	0.00	538.46	7.53	191.22
	889.986	.09	.25	.17	149.80	4.99	26.23
	894.575	.01	.01	.40	137.75	9.58	176.00
	891.903	.16	.12	.02	357.76	6.90	98.33
	892.582	.29	.23	.05	597.22	7.58	173.85
	890.055	.15	.10	.03	150.00	4.85	12.00
	894.578	.01	.00	.00	142.85	9.38	176.00
	891.985	.17	.09	.01	363.79	6.79	79.66
	892.728	.31	.16	.01	607.02	7.53	172.80
	890.056	.15	.00	.00	150.00	4.86	12.00
	894.578	.01	.00	.00	142.88	9.38	176.00
	891.985	.17	.00	.00	364.20	6.79	79.40
	892.731	.31	.00	.00	606.65	7.53	172.84
	890.035	.35	.08	.10	150.00	3.33	11.97
	894.635	.01	.06	0.00	94.85	7.93	137.42
	893.241	.05	1.13	0.00	170.59	6.54	117.44
	893.937	.11	1.01	0.00	286.01	7.24	122.58
	890.142	.27	.00	.02	150.00	3.44	12.00
	894.636	.01	.00	.00	121.64	7.94	115.00
	893.261	.04	.00	.00	197.17	6.56	115.00
	893.970	.08	.00	.01	345.80	7.27	115.00

CWSEL	AV	HL	OLOSS	QCH	DEPTH	TOPWID
890.324	.16	.03	.03	148.02	3.62	29.28
894.639	.01	.00	.00	109.18	7.94	135.00
893.274	.03	.00	.00	180.15	6.57	135.00
894.002	.06	.01	.01	311.62	7.30	135.00

SUMMARY OF ERRORS

CAUTION. SECNO= 885.915 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 885.915 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 885.915 PROFILE= 3 CRITICAL DEPTH ASSUMED

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: PEBBLES CREEK

4) DOCUMENT TYPE: SUMMARY

00BREAK00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

PEBBLE CREEK

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
0.00	0.00	0.00	0.00	685.20	380.00	689.35	.68	0.00	0.00	380.00	4.15	16.00
0.00	0.00	0.00	0.00	685.20	780.00	690.70	1.52	0.00	0.00	780.00	5.50	16.00
0.00	0.00	0.00	0.00	685.20	995.00	690.90	2.28	0.00	0.00	995.00	5.70	16.00
0.00	0.00	0.00	0.00	685.20	1690.00	692.90	3.41	0.00	0.00	1690.00	7.70	16.00
1.00	1.00	703.80	695.10	685.20	380.00	689.34	.71	.01	.02	380.00	4.14	15.60
1.00	1.00	703.80	695.10	685.20	780.00	690.61	1.72	.01	.10	780.00	5.41	15.60
1.00	1.00	703.80	695.10	685.20	995.00	690.71	2.70	.02	.21	995.00	5.51	15.60
1.00	1.00	703.80	695.10	685.20	1690.00	692.40	4.81	.03	0.00	1690.00	7.20	15.60
112.00	111.00	703.80	695.70	686.00	380.00	689.98	.79	.68	.04	380.00	3.98	15.60
112.00	111.00	703.80	695.70	686.00	780.00	692.22	1.34	1.11	.11	780.00	6.22	15.60
112.00	111.00	703.80	695.70	686.00	995.00	693.69	1.54	1.48	.35	995.00	7.69	15.60
112.00	111.00	703.80	695.70	686.00	1690.00	697.83	3.41	3.62	.42	1690.00	11.83	15.60
113.00	1.00	0.00	0.00	686.00	380.00	690.04	.75	.01	.01	380.00	4.04	15.60
113.00	1.00	0.00	0.00	686.00	780.00	692.59	1.06	.01	.08	780.00	6.59	15.60
113.00	1.00	0.00	0.00	686.00	995.00	694.37	1.03	.01	.15	995.00	8.37	15.60
113.00	1.00	0.00	0.00	686.00	1690.00	701.56	.81	.01	.78	1690.00	15.56	15.60
116.00	3.00	0.00	0.00	686.01	380.00	690.57	.35	.02	.12	375.50	4.56	22.00
116.00	3.00	0.00	0.00	686.01	780.00	693.33	.50	.01	.17	753.32	7.32	22.00
116.00	3.00	0.00	0.00	686.01	995.00	695.06	.51	.01	.16	952.67	9.05	22.00
116.00	3.00	0.00	0.00	686.01	1690.00	702.06	.43	.00	.11	1590.78	16.05	22.00
212.00	96.00	0.00	0.00	686.20	380.00	690.98	.59	.53	.12	363.18	4.78	48.53
212.00	96.00	0.00	0.00	686.20	780.00	694.01	.10	.16	.12	373.85	7.81	204.54
212.00	96.00	0.00	0.00	686.20	995.00	695.74	.04	.08	.14	334.91	9.54	215.00
212.00	96.00	0.00	0.00	686.20	1690.00	702.61	.01	.01	.12	334.52	16.41	215.00
812.00	600.00	0.00	0.00	688.80	380.00	694.08	.22	2.62	.11	379.63	5.28	31.39
812.00	600.00	0.00	0.00	688.80	780.00	695.01	.57	1.23	.24	772.41	6.21	37.64
812.00	600.00	0.00	0.00	688.80	995.00	696.02	.59	.56	.27	967.14	7.22	44.50
812.00	600.00	0.00	0.00	688.80	1690.00	702.64	.07	.06	.03	944.62	13.84	188.73
1312.00	500.00	0.00	0.00	692.20	380.00	696.07	.40	2.08	.09	380.00	3.87	28.50
1312.00	500.00	0.00	0.00	692.20	780.00	697.85	.57	2.83	.00	780.00	5.65	32.60
1312.00	500.00	0.00	0.00	692.20	995.00	698.51	.67	2.53	.04	995.00	6.31	34.16
1312.00	500.00	0.00	0.00	692.20	1690.00	702.83	.15	.23	.04	1141.53	10.63	247.15
1437.00	125.00	0.00	0.00	693.50	380.00	697.08	.52	1.07	.06	380.00	3.58	26.36
1437.00	125.00	0.00	0.00	693.50	780.00	698.68	.68	.89	.06	753.06	5.18	48.42
1437.00	125.00	0.00	0.00	693.50	995.00	699.36	.72	.87	.03	935.19	5.86	50.32
1437.00	125.00	0.00	0.00	693.50	1690.00	702.92	.24	.13	.04	1161.58	9.42	276.68
1562.00	125.00	0.00	0.00	694.70	380.00	698.27	.34	.95	.05	367.40	3.57	46.62
1562.00	125.00	0.00	0.00	694.70	780.00	699.78	.45	.80	.07	701.23	5.08	58.14
1562.00	125.00	0.00	0.00	694.70	995.00	700.38	.50	.74	.07	872.04	5.68	72.46
1562.00	125.00	0.00	0.00	694.70	1690.00	703.05	.41	.21	.09	1318.35	8.35	75.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1625.00	63.00	0.00	0.00	695.10	380.00	698.60	.39	.36	.02	377.51	3.50	34.00
1625.00	63.00	0.00	0.00	695.10	780.00	700.04	.60	.34	.08	758.38	4.94	39.64
1625.00	63.00	0.00	0.00	695.10	995.00	700.60	.72	.33	.11	959.99	5.50	43.00
1625.00	63.00	0.00	0.00	695.10	1690.00	703.04	.76	.17	.18	1580.91	7.94	43.00
1662.00	37.00	0.00	0.00	695.34	380.00	698.78	.47	.22	.04	380.00	3.44	25.00
1662.00	37.00	0.00	0.00	695.34	780.00	700.15	.88	.25	.14	780.00	4.81	25.00
1662.00	37.00	0.00	0.00	695.34	995.00	700.65	1.14	.26	.21	995.00	5.31	25.00
1662.00	37.00	0.00	0.00	695.34	1690.00	702.85	1.51	.19	.37	1690.00	7.51	25.00
1669.00	7.00	0.00	0.00	695.38	380.00	698.78	.58	.05	.06	380.00	3.40	22.00
1669.00	7.00	0.00	0.00	695.38	780.00	700.09	1.14	.07	.13	780.00	4.71	22.00
1669.00	7.00	0.00	0.00	695.38	995.00	700.56	1.49	.08	.18	995.00	5.18	22.00
1669.00	7.00	0.00	0.00	695.38	1690.00	702.67	2.02	.08	.26	1690.00	7.29	22.00
1675.00	6.00	0.00	0.00	695.42	380.00	698.72	.81	.06	.12	380.00	3.30	18.00
1675.00	6.00	0.00	0.00	695.42	780.00	699.87	1.76	.09	.31	780.00	4.45	18.00
1675.00	6.00	0.00	0.00	695.42	995.00	700.36	2.28	.10	0.00	995.00	4.94	18.00
1675.00	6.00	0.00	0.00	695.42	1690.00	702.27	3.27	.11	0.00	1690.00	6.85	18.00
1681.00	6.00	0.00	0.00	695.46	380.00	698.61	1.22	.09	.21	380.00	3.15	15.00
1681.00	6.00	0.00	0.00	695.46	780.00	700.12	2.21	.13	0.00	780.00	4.66	15.00
1681.00	6.00	0.00	0.00	695.46	995.00	700.90	2.59	.15	0.00	995.00	5.44	15.00
1681.00	6.00	0.00	0.00	695.46	1690.00	703.08	3.68	.16	0.00	1690.00	7.62	15.00
1687.00	6.00	0.00	0.00	695.70	380.00	699.78	1.59	.13	0.00	380.00	4.08	12.00
1687.00	6.00	0.00	0.00	695.70	780.00	701.71	2.57	.16	0.00	780.00	6.01	12.00
1687.00	6.00	0.00	0.00	695.70	995.00	702.60	3.02	.16	0.00	995.00	6.90	12.00
1687.00	6.00	0.00	0.00	695.70	1690.00	705.12	4.29	.19	0.00	1690.00	9.42	12.00
1688.00	1.00	717.90	707.50	695.70	380.00	699.88	1.59	.01	0.00	380.00	4.18	12.00
1688.00	1.00	717.90	707.50	695.70	780.00	701.83	2.54	.01	0.00	780.00	6.13	12.00
1688.00	1.00	717.90	707.50	695.70	995.00	702.43	3.39	.02	.19	995.00	6.73	12.00
1688.00	1.00	717.90	707.50	695.70	1690.00	705.26	4.85	.02	0.00	1690.00	9.56	12.00
1748.00	60.00	717.90	707.80	695.80	380.00	701.21	.80	.30	.24	380.00	5.41	12.00
1748.00	60.00	717.90	707.80	695.80	780.00	703.52	1.59	.45	.29	780.00	7.72	12.00
1748.00	60.00	717.90	707.80	695.80	995.00	705.02	1.81	.53	.47	995.00	9.22	12.00
1748.00	60.00	717.90	707.80	695.80	1690.00	708.24	3.30	.95	.47	1690.00	12.44	12.00
1749.00	1.00	0.00	0.00	695.80	380.00	701.22	.80	.01	.00	380.00	5.42	12.00
1749.00	1.00	0.00	0.00	695.80	780.00	703.89	1.30	.01	.08	780.00	8.09	12.00
1749.00	1.00	0.00	0.00	695.80	995.00	705.58	1.39	.01	.13	995.00	9.78	12.00
1749.00	1.00	0.00	0.00	695.80	1690.00	711.68	1.39	.01	.57	1690.00	15.88	12.00
1752.00	3.00	0.00	0.00	695.70	380.00	701.46	.63	.02	.05	368.84	5.76	18.00
1752.00	3.00	0.00	0.00	695.70	820.00	704.38	.94	.02	.11	747.68	8.68	18.00
1752.00	3.00	0.00	0.00	695.70	995.00	706.32	.83	.02	.17	884.48	10.62	18.00
1752.00	3.00	0.00	0.00	695.70	1690.00	712.47	.79	.01	.18	1439.35	16.77	18.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1817.00	65.00	0.00	0.00	695.20	380.00	702.26	.06	.06	.17	349.92	7.06	91.00
1817.00	65.00	0.00	0.00	695.20	820.00	705.58	.05	.04	.27	579.60	10.38	152.00
1817.00	65.00	0.00	0.00	695.20	995.00	707.37	.04	.02	.24	625.08	12.17	152.00
1817.00	65.00	0.00	0.00	695.20	1690.00	713.48	.02	.01	.23	854.13	18.28	152.00
1818.00	1.00	0.00	0.00	698.20	380.00	702.16	.25	.00	.09	355.00	3.96	82.55
1818.00	1.00	0.00	0.00	698.20	820.00	705.56	.09	.00	.02	542.64	7.36	152.00
1818.00	1.00	0.00	0.00	698.20	995.00	707.36	.06	.00	.01	588.52	9.16	152.00
1818.00	1.00	0.00	0.00	698.20	1690.00	713.47	.04	.00	.01	841.95	15.27	152.00
1821.00	3.00	0.00	0.00	698.20	380.00	702.17	.25	.01	.00	354.91	3.97	82.81
1821.00	3.00	0.00	0.00	698.20	820.00	705.56	.09	.00	.00	542.61	7.36	152.00
1821.00	3.00	0.00	0.00	698.20	995.00	707.36	.06	.00	.00	588.50	9.16	152.00
1821.00	3.00	0.00	0.00	698.20	1690.00	713.47	.04	.00	.00	841.95	15.27	152.00
1822.00	1.00	0.00	0.00	697.00	380.00	702.36	.11	.00	.04	330.33	5.36	99.35
1822.00	1.00	0.00	0.00	697.00	820.00	705.62	.05	.00	.01	488.94	8.62	152.00
1822.00	1.00	0.00	0.00	697.00	995.00	707.39	.03	.00	.01	518.54	10.39	152.00
1822.00	1.00	0.00	0.00	697.00	1690.00	713.49	.02	.00	.00	708.41	16.49	152.00
1972.00	150.00	0.00	0.00	696.00	380.00	702.55	.20	.24	.05	357.11	6.55	73.81
1972.00	150.00	0.00	0.00	696.00	820.00	705.67	.07	.07	.01	440.38	9.67	202.52
1972.00	150.00	0.00	0.00	696.00	995.00	707.43	.03	.03	.00	406.43	11.43	210.63
1972.00	150.00	0.00	0.00	696.00	1690.00	713.51	.01	.01	.00	436.65	17.51	238.73
2572.00	600.00	0.00	0.00	699.70	380.00	704.07	.30	1.58	.05	371.58	4.37	45.94
2572.00	600.00	0.00	0.00	699.70	820.00	706.16	.37	.64	.15	701.89	6.46	86.88
2572.00	600.00	0.00	0.00	699.70	995.00	707.62	.24	.29	.11	757.36	7.92	112.92
2572.00	600.00	0.00	0.00	699.70	1690.00	713.54	.06	.06	.02	821.90	13.84	194.74
2573.00	1.00	0.00	0.00	702.10	380.00	704.50	.85	.01	0.00	292.55	2.40	56.88
2573.00	1.00	0.00	0.00	702.10	820.00	705.81	1.07	.00	.35	548.55	3.71	82.20
2573.00	1.00	0.00	0.00	702.10	995.00	707.51	.46	.00	.11	564.57	5.41	112.61
2573.00	1.00	0.00	0.00	702.10	1690.00	713.53	.08	.00	.01	606.47	11.43	194.74
2576.00	3.00	0.00	0.00	702.10	380.00	704.95	.52	.02	.10	278.37	2.85	65.48
2576.00	3.00	0.00	0.00	702.10	820.00	706.25	.75	.02	.10	524.82	4.15	90.87
2576.00	3.00	0.00	0.00	702.10	995.00	707.52	.45	.01	.00	564.30	5.42	112.69
2576.00	3.00	0.00	0.00	702.10	1690.00	713.53	.08	.00	.00	606.45	11.43	194.75
2577.00	1.00	0.00	0.00	700.90	380.00	705.29	.26	.00	.08	322.81	4.39	65.18
2577.00	1.00	0.00	0.00	700.90	820.00	706.69	.42	.00	.10	591.04	5.79	94.24
2577.00	1.00	0.00	0.00	700.90	995.00	707.72	.30	.00	.05	631.34	6.82	112.91
2577.00	1.00	0.00	0.00	700.90	1690.00	713.57	.05	.00	.01	610.84	12.67	195.16
3227.00	650.00	0.00	0.00	704.00	380.00	708.09	.40	2.87	.07	380.00	4.09	21.35
3227.00	650.00	0.00	0.00	704.00	820.00	709.76	.49	3.11	.04	682.39	5.76	172.05
3227.00	650.00	0.00	0.00	704.00	995.00	710.06	.51	2.45	.10	763.66	6.06	193.77
3227.00	650.00	0.00	0.00	704.00	1690.00	713.84	.07	.28	.01	633.56	9.84	210.73

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
3317.00	90.00	0.00	0.00	704.70	380.00	708.66	.44	.59	.02	380.00	3.96	21.17
3317.00	90.00	0.00	0.00	704.70	820.00	710.26	.62	.56	.06	716.74	5.56	154.05
3317.00	90.00	0.00	0.00	704.70	995.00	710.58	.63	.57	.06	803.08	5.88	182.63
3317.00	90.00	0.00	0.00	704.70	1690.00	713.89	.10	.07	.01	684.72	9.19	207.81
3407.00	90.00	0.00	0.00	705.40	380.00	709.29	.46	.64	.01	380.00	3.89	21.07
3407.00	90.00	0.00	0.00	705.40	820.00	710.90	.66	.66	.02	727.66	5.50	148.12
3407.00	90.00	0.00	0.00	705.40	995.00	711.22	.68	.67	.02	815.41	5.82	177.40
3407.00	90.00	0.00	0.00	705.40	1690.00	713.98	.15	.11	.02	746.66	8.58	205.04
3497.00	90.00	0.00	0.00	706.10	380.00	709.92	.47	.65	.01	380.00	3.82	20.98
3497.00	90.00	0.00	0.00	706.10	820.00	711.55	.68	.66	.01	728.18	5.45	144.01
3497.00	90.00	0.00	0.00	706.10	995.00	711.88	.68	.66	.00	811.41	5.78	174.32
3497.00	90.00	0.00	0.00	706.10	1690.00	714.11	.20	.16	.03	784.75	8.01	202.52
3587.00	90.00	0.00	0.00	706.90	380.00	710.64	.99	.97	.26	380.00	3.74	17.27
3587.00	90.00	0.00	0.00	706.90	820.00	712.39	.68	.73	0.00	605.02	5.49	174.25
3587.00	90.00	0.00	0.00	706.90	995.00	712.61	.73	.75	.03	677.07	5.71	185.44
3587.00	90.00	0.00	0.00	706.90	1690.00	714.31	.24	.22	.02	654.73	7.41	216.27
4187.00	600.00	0.00	0.00	707.90	380.00	714.42	.20	2.75	.24	365.72	6.52	62.77
4187.00	600.00	0.00	0.00	707.90	820.00	715.74	.37	2.95	.09	695.81	7.84	86.69
4187.00	600.00	0.00	0.00	707.90	995.00	716.16	.42	3.15	.09	807.98	8.26	87.52
4187.00	600.00	0.00	0.00	707.90	1690.00	716.65	.90	2.67	.33	1306.90	8.75	88.51
4262.00	75.00	0.00	0.00	708.92	380.00	714.54	.34	.20	.07	380.00	5.62	23.68
4262.00	75.00	0.00	0.00	708.92	820.00	715.86	.73	.30	.18	779.17	6.94	57.00
4262.00	75.00	0.00	0.00	708.92	995.00	716.27	.84	.32	.21	919.81	7.35	57.00
4262.00	75.00	0.00	0.00	708.92	1690.00	716.84	1.78	.62	.44	1505.54	7.92	57.00
4312.00	50.00	0.00	0.00	709.60	380.00	714.69	.47	.22	.06	380.00	5.09	21.08
4312.00	50.00	0.00	0.00	709.60	820.00	716.03	1.06	.34	.17	820.00	6.43	23.00
4312.00	50.00	0.00	0.00	709.60	995.00	716.42	1.26	.36	.21	980.47	6.82	32.00
4312.00	50.00	0.00	0.00	709.60	1690.00	717.29	2.45	.63	0.00	1633.89	7.69	32.00
4326.00	14.00	718.70	716.50	709.60	380.00	714.77	.48	.07	.00	380.00	5.17	22.00
4326.00	14.00	718.70	716.50	709.60	820.00	717.69	.36	.95	0.00	820.00	8.09	22.00
4326.00	14.00	718.70	716.50	709.60	995.00	718.92	.33	1.57	0.00	932.40	9.32	25.00
4326.00	14.00	718.70	716.50	709.60	1690.00	721.65	.55	2.47	0.00	1577.71	12.05	25.00
4337.00	11.00	0.00	0.00	709.50	380.00	715.08	.27	.05	.06	380.00	5.58	19.50
4337.00	11.00	0.00	0.00	709.50	820.00	717.64	.52	.03	.08	820.00	8.14	19.50
4337.00	11.00	0.00	0.00	709.50	995.00	718.82	.57	.02	.12	995.00	9.32	19.50
4337.00	11.00	0.00	0.00	709.50	1690.00	721.49	.95	.03	.20	1690.00	11.99	19.50
4338.00	1.00	725.50	722.40	709.50	380.00	715.09	.27	.00	.00	380.00	5.59	19.50
4338.00	1.00	725.50	722.40	709.50	820.00	717.64	.52	.00	.00	820.00	8.14	19.50
4338.00	1.00	725.50	722.40	709.50	995.00	718.83	.57	.00	.00	995.00	9.33	19.50
4338.00	1.00	725.50	722.40	709.50	1690.00	721.49	.95	.00	.00	1690.00	11.99	19.50

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
4381.00	43.00	725.50	722.40	709.50	380.00	715.14	.26	.05	.00	380.00	5.64	19.50
4381.00	43.00	725.50	722.40	709.50	820.00	717.72	.51	.06	.00	820.00	8.22	19.50
4381.00	43.00	725.50	722.40	709.50	995.00	718.90	.56	.06	.00	995.00	9.40	19.50
4381.00	43.00	725.50	722.40	709.50	1690.00	721.60	.93	.08	.01	1690.00	12.10	19.50
4382.00	1.00	0.00	0.00	709.50	380.00	715.14	.26	.00	.00	380.00	5.64	19.50
4382.00	1.00	0.00	0.00	709.50	820.00	717.72	.51	.00	.00	820.00	8.22	19.50
4382.00	1.00	0.00	0.00	709.50	995.00	718.90	.56	.00	.00	995.00	9.40	19.50
4382.00	1.00	0.00	0.00	709.50	1690.00	721.60	.93	.00	.00	1690.00	12.10	19.50
4387.00	5.00	0.00	0.00	709.52	380.00	715.33	.13	.01	.04	379.37	5.81	30.00
4387.00	5.00	0.00	0.00	709.52	820.00	718.10	.23	.01	.09	811.53	8.58	30.00
4387.00	5.00	0.00	0.00	709.52	995.00	719.32	.25	.01	.09	981.83	9.80	30.00
4387.00	5.00	0.00	0.00	709.52	1690.00	722.31	.39	.01	.16	1658.99	12.79	30.00
4462.00	75.00	0.00	0.00	709.80	380.00	715.39	.14	.07	.01	378.85	5.59	39.93
4462.00	75.00	0.00	0.00	709.80	820.00	718.23	.17	.06	.02	730.68	8.43	94.70
4462.00	75.00	0.00	0.00	709.80	995.00	719.50	.14	.05	.03	812.12	9.70	98.00
4462.00	75.00	0.00	0.00	709.80	1690.00	722.68	.14	.04	.07	1169.95	12.88	98.00
4470.00	8.00	714.70	714.50	709.80	380.00	717.91	.08	2.47	0.00	295.13	8.11	66.80
4470.00	8.00	714.70	714.50	709.80	820.00	718.90	.27	.77	0.00	606.78	9.10	86.91
4470.00	8.00	714.70	714.50	709.80	995.00	719.64	.30	.30	0.00	705.86	9.84	98.00
4470.00	8.00	714.70	714.50	709.80	1690.00	722.69	.30	.18	0.00	1006.20	12.89	98.00
4540.00	70.00	0.00	0.00	712.70	380.00	717.83	.31	.03	.11	379.20	5.13	30.76
4540.00	70.00	0.00	0.00	712.70	820.00	718.70	.85	.09	.29	807.62	6.00	40.02
4540.00	70.00	0.00	0.00	712.70	995.00	719.48	.81	.09	.25	960.97	6.78	48.21
4540.00	70.00	0.00	0.00	712.70	1690.00	722.66	.50	.06	.10	1464.64	9.96	81.76
4890.00	350.00	0.00	0.00	712.80	380.00	718.75	.15	.71	.05	344.54	5.95	94.85
4890.00	350.00	0.00	0.00	712.80	820.00	720.42	.15	.80	.21	549.53	7.62	175.90
4890.00	350.00	0.00	0.00	712.80	995.00	721.03	.13	.67	.20	598.42	8.23	181.78
4890.00	350.00	0.00	0.00	712.80	1690.00	723.52	.08	.32	.12	737.48	10.72	242.50
4939.00	49.00	0.00	0.00	712.80	380.00	718.80	.18	.07	.02	370.01	6.00	87.52
4939.00	49.00	0.00	0.00	712.80	820.00	720.47	.17	.06	.01	582.47	7.67	177.22
4939.00	49.00	0.00	0.00	712.80	995.00	721.07	.15	.05	.01	627.29	8.27	182.66
4939.00	49.00	0.00	0.00	712.80	1690.00	723.54	.09	.02	.00	750.83	10.74	243.17
4940.00	1.00	718.10	717.90	712.80	380.00	718.79	.21	.00	.01	368.42	5.99	84.31
4940.00	1.00	718.10	717.90	712.80	820.00	720.55	.11	.00	.02	473.28	7.75	177.25
4940.00	1.00	718.10	717.90	712.80	995.00	721.15	.09	.00	.02	489.12	8.35	182.98
4940.00	1.00	718.10	717.90	712.80	1690.00	723.58	.05	.00	.01	538.63	10.78	244.54
4944.00	4.00	718.10	717.90	712.80	380.00	718.82	.20	.02	.00	367.87	6.02	86.07
4944.00	4.00	718.10	717.90	712.80	820.00	720.56	.11	.01	.00	472.30	7.76	177.32
4944.00	4.00	718.10	717.90	712.80	995.00	721.15	.09	.01	.00	488.47	8.35	183.03
4944.00	4.00	718.10	717.90	712.80	1690.00	723.59	.05	.00	.00	538.46	10.79	244.61

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
4945.00	1.00	0.00	0.00	712.80	380.00	718.86	.17	.00	.01	369.22	6.06	94.76
4945.00	1.00	0.00	0.00	712.80	820.00	720.53	.17	.00	.03	586.60	7.73	177.78
4945.00	1.00	0.00	0.00	712.80	995.00	721.12	.15	.00	.03	637.13	8.32	183.15
4945.00	1.00	0.00	0.00	712.80	1690.00	723.57	.09	.00	.02	776.51	10.77	244.34
4994.00	49.00	0.00	0.00	713.08	380.00	718.92	.20	.08	.01	374.12	5.84	65.54
4994.00	49.00	0.00	0.00	713.08	820.00	720.57	.21	.06	.02	615.66	7.49	175.65
4994.00	49.00	0.00	0.00	713.08	995.00	721.16	.18	.05	.02	665.18	8.08	180.97
4994.00	49.00	0.00	0.00	713.08	1690.00	723.59	.11	.03	.01	799.28	10.51	236.27
5794.00	800.00	0.00	0.00	717.50	340.00	721.12	.32	2.26	.06	336.68	3.62	52.75
5794.00	800.00	0.00	0.00	717.50	710.00	722.40	.42	1.93	.10	624.88	4.90	110.57
5794.00	800.00	0.00	0.00	717.50	950.00	722.82	.50	1.82	.16	790.86	5.32	129.83
5794.00	800.00	0.00	0.00	717.50	1690.00	724.41	.39	.96	.14	1104.26	6.91	168.31
5857.00	63.00	0.00	0.00	718.05	340.00	721.52	.37	.42	.02	338.37	3.47	45.65
5857.00	63.00	0.00	0.00	718.05	710.00	722.75	.48	.38	.03	632.07	4.70	101.53
5857.00	63.00	0.00	0.00	718.05	950.00	723.22	.55	.42	.02	791.27	5.17	122.93
5857.00	63.00	0.00	0.00	718.05	1690.00	724.66	.44	.28	.02	1098.73	6.61	148.05
5882.00	25.00	0.00	0.00	718.27	340.00	721.70	.38	.19	.01	338.81	3.43	43.60
5882.00	25.00	0.00	0.00	718.27	710.00	722.91	.52	.18	.02	637.65	4.64	98.50
5882.00	25.00	0.00	0.00	718.27	950.00	723.39	.58	.18	.01	797.56	5.12	120.48
5882.00	25.00	0.00	0.00	718.27	1690.00	724.77	.48	.13	.02	1116.26	6.50	146.75
5907.00	25.00	0.00	0.00	718.49	340.00	721.90	.39	.20	.00	339.01	3.41	42.58
5907.00	25.00	0.00	0.00	718.49	710.00	723.08	.54	.19	.01	641.34	4.59	96.47
5907.00	25.00	0.00	0.00	718.49	950.00	723.57	.60	.19	.01	802.03	5.08	118.74
5907.00	25.00	0.00	0.00	718.49	1690.00	724.90	.52	.14	.02	1132.76	6.41	145.59
5919.00	12.00	0.00	0.00	718.60	340.00	721.89	1.46	.16	0.00	340.00	3.29	12.00
5919.00	12.00	0.00	0.00	718.60	710.00	723.14	.58	.08	.02	650.59	4.54	94.49
5919.00	12.00	0.00	0.00	718.60	950.00	723.62	.66	.08	.03	820.59	5.02	116.03
5919.00	12.00	0.00	0.00	718.60	1690.00	724.92	.61	.06	.05	1186.20	6.32	144.42
5994.00	75.00	728.00	724.60	719.40	340.00	723.46	1.64	1.66	.09	340.00	4.06	11.50
5994.00	75.00	728.00	724.60	719.40	710.00	728.74	.10	5.12	0.00	513.05	9.34	97.31
5994.00	75.00	728.00	724.60	719.40	950.00	729.59	.12	5.43	0.00	626.29	10.19	104.71
5994.00	75.00	728.00	724.60	719.40	1690.00	730.98	.20	5.65	0.00	976.02	11.58	116.88
6003.00	9.00	0.00	0.00	719.30	340.00	725.45	.11	.00	.46	340.00	6.15	21.70
6003.00	9.00	0.00	0.00	719.30	710.00	728.70	.18	.00	.04	676.42	9.40	98.46
6003.00	9.00	0.00	0.00	719.30	950.00	729.53	.24	.00	.06	873.81	10.23	108.82
6003.00	9.00	0.00	0.00	719.30	1690.00	730.84	.48	.00	.14	1458.79	11.54	110.00
6010.00	7.00	726.00	724.10	724.10	340.00	727.59	.10	2.13	0.00	297.31	3.49	101.25
6010.00	7.00	726.00	724.10	724.10	710.00	728.80	.19	.11	0.00	588.34	4.70	110.00
6010.00	7.00	726.00	724.10	724.10	950.00	729.57	.22	.02	0.00	764.97	5.47	110.00
6010.00	7.00	726.00	724.10	724.10	1690.00	730.94	.38	0.00	0.00	1313.86	6.84	110.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
6130.00	120.00	0.00	0.00	724.45	340.00	727.62	.12	.03	.01	268.91	3.17	99.95
6130.00	120.00	0.00	0.00	724.45	710.00	728.88	.15	.04	.01	486.15	4.43	147.51
6130.00	120.00	0.00	0.00	724.45	950.00	729.70	.14	.04	.02	590.66	5.25	187.16
6130.00	120.00	0.00	0.00	724.45	1690.00	731.28	.16	.04	.07	879.45	6.83	244.31
6250.00	120.00	0.00	0.00	724.80	340.00	727.87	.20	.29	.04	271.69	3.07	77.73
6250.00	120.00	0.00	0.00	724.80	710.00	729.09	.27	.26	.06	495.13	4.29	112.32
6250.00	120.00	0.00	0.00	724.80	950.00	729.85	.26	.21	.06	604.64	5.05	141.95
6250.00	120.00	0.00	0.00	724.80	1690.00	731.39	.28	.18	.06	903.75	6.59	191.92
6370.00	120.00	0.00	0.00	725.15	340.00	728.28	.27	.45	.04	338.10	3.13	55.06
6370.00	120.00	0.00	0.00	725.15	710.00	729.47	.36	.42	.04	627.80	4.32	134.23
6370.00	120.00	0.00	0.00	725.15	950.00	730.17	.31	.34	.03	753.40	5.02	138.39
6370.00	120.00	0.00	0.00	725.15	1690.00	731.64	.33	.27	.02	1152.38	6.49	150.04
6490.00	120.00	0.00	0.00	725.50	340.00	728.79	.28	.51	.01	335.72	3.29	59.54
6490.00	120.00	0.00	0.00	725.50	710.00	729.96	.37	.50	.01	612.42	4.46	122.83
6490.00	120.00	0.00	0.00	725.50	950.00	730.57	.36	.42	.02	747.34	5.07	126.07
6490.00	120.00	0.00	0.00	725.50	1690.00	731.94	.41	.34	.04	1155.87	6.44	135.96
6740.00	250.00	0.00	0.00	724.70	340.00	729.80	.27	.98	.01	340.00	5.10	27.97
6740.00	250.00	0.00	0.00	724.70	710.00	731.04	.46	1.12	.04	665.96	6.34	107.57
6740.00	250.00	0.00	0.00	724.70	950.00	731.57	.51	1.08	.07	828.10	6.87	117.72
6740.00	250.00	0.00	0.00	724.70	1690.00	732.82	.60	.98	.10	1256.17	8.12	152.52
6790.00	50.00	0.00	0.00	725.30	340.00	729.97	.36	.22	.05	340.00	4.67	26.12
6790.00	50.00	0.00	0.00	725.30	710.00	731.23	.65	.29	.10	697.02	5.93	100.55
6790.00	50.00	0.00	0.00	725.30	950.00	731.77	.70	.30	.10	869.15	6.47	110.18
6790.00	50.00	0.00	0.00	725.30	1690.00	733.04	.77	.30	.08	1297.99	7.74	141.98
6820.00	30.00	0.00	0.00	725.66	340.00	730.12	.43	.18	.03	340.00	4.46	25.19
6820.00	30.00	0.00	0.00	725.66	710.00	731.42	.76	.24	.05	706.97	5.76	86.64
6820.00	30.00	0.00	0.00	725.66	950.00	731.95	.83	.24	.06	891.66	6.29	107.00
6820.00	30.00	0.00	0.00	725.66	1690.00	733.21	.89	.23	.06	1331.68	7.55	136.56
6830.00	10.00	0.00	0.00	725.78	340.00	730.18	.45	.07	.01	340.00	4.40	24.94
6830.00	10.00	0.00	0.00	725.78	710.00	731.49	.78	.08	.01	708.18	5.71	77.25
6830.00	10.00	0.00	0.00	725.78	950.00	732.01	.90	.09	.03	902.62	6.23	105.73
6830.00	10.00	0.00	0.00	725.78	1690.00	733.25	.97	.08	.04	1357.84	7.47	134.52
6840.00	10.00	0.00	0.00	725.90	340.00	729.77	1.48	.11	.52	340.00	3.87	11.00
6840.00	10.00	0.00	0.00	725.90	710.00	731.55	.81	.08	.02	708.99	5.65	63.71
6840.00	10.00	0.00	0.00	725.90	950.00	732.10	.89	.08	.00	893.93	6.20	105.12
6840.00	10.00	0.00	0.00	725.90	1690.00	733.83	.57	.06	.12	1193.64	7.93	147.21
6907.00	67.00	734.60	733.00	726.70	340.00	731.25	1.16	1.07	.09	340.00	4.55	10.43
6907.00	67.00	734.60	733.00	726.70	710.00	735.29	.18	3.11	0.00	695.09	8.59	117.83
6907.00	67.00	734.60	733.00	726.70	950.00	735.86	.21	3.08	0.00	873.15	9.16	129.90
6907.00	67.00	734.60	733.00	726.70	1690.00	736.92	.31	2.83	0.00	1340.98	10.22	152.89

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7207.00	300.00	0.00	0.00	729.50	340.00	734.83	.37	2.55	.24	340.00	5.33	26.29
7207.00	300.00	0.00	0.00	729.50	710.00	735.84	.79	.86	.31	707.16	6.34	58.61
7207.00	300.00	0.00	0.00	729.50	950.00	736.48	.82	.93	.31	903.22	6.98	112.08
7207.00	300.00	0.00	0.00	729.50	1690.00	737.77	.78	1.08	.24	1329.87	8.27	140.39
7407.00	200.00	0.00	0.00	731.80	340.00	735.96	.76	1.32	.20	340.00	4.16	14.40
7407.00	200.00	0.00	0.00	731.80	710.00	737.45	1.59	2.02	.40	710.00	5.65	14.40
7407.00	200.00	0.00	0.00	731.80	950.00	738.07	.58	1.27	.07	806.96	6.27	60.50
7407.00	200.00	0.00	0.00	731.80	1690.00	739.10	1.03	1.46	.12	1342.68	7.30	72.45
7420.00	13.00	740.00	738.30	731.80	340.00	735.99	.88	.10	.06	340.00	4.19	14.40
7420.00	13.00	740.00	738.30	731.80	710.00	737.79	1.40	.13	0.00	710.00	5.99	14.40
7420.00	13.00	740.00	738.30	731.80	950.00	740.54	.13	2.03	0.00	642.51	8.74	110.45
7420.00	13.00	740.00	738.30	731.80	1690.00	741.68	.22	1.77	0.00	1006.52	9.88	228.95
7430.00	10.00	0.00	0.00	732.10	340.00	736.43	.60	.07	.08	340.00	4.33	18.27
7430.00	10.00	0.00	0.00	732.10	710.00	738.64	.79	.06	.18	710.00	6.54	22.48
7430.00	10.00	0.00	0.00	732.10	950.00	740.39	.46	.01	.16	849.08	8.29	137.35
7430.00	10.00	0.00	0.00	732.10	1690.00	741.56	.49	.01	.13	1192.55	9.46	250.92
7448.00	18.00	0.00	0.00	732.70	340.00	736.31	1.08	.12	.24	340.00	3.61	11.40
7448.00	18.00	0.00	0.00	732.70	710.00	738.97	.57	.06	.06	500.56	6.27	37.73
7448.00	18.00	0.00	0.00	732.70	950.00	740.41	.50	.03	.02	600.89	7.71	90.77
7448.00	18.00	0.00	0.00	732.70	1690.00	741.45	.80	.04	.16	928.76	8.75	199.12
7515.00	67.00	741.40	739.50	732.20	340.00	737.31	.68	.48	.12	340.00	5.11	11.40
7515.00	67.00	741.40	739.50	732.20	710.00	742.56	.24	3.25	0.00	516.47	10.36	91.55
7515.00	67.00	741.40	739.50	732.20	950.00	743.25	.28	2.63	0.00	628.66	11.05	131.26
7515.00	67.00	741.40	739.50	732.20	1690.00	743.97	.54	2.27	0.00	980.48	11.77	144.00
7520.00	5.00	0.00	0.00	732.30	340.00	737.99	.17	.02	.15	340.00	5.69	32.61
7520.00	5.00	0.00	0.00	732.30	710.00	742.78	.07	.00	.05	614.46	10.48	140.00
7520.00	5.00	0.00	0.00	732.30	950.00	743.52	.08	.00	.06	763.88	11.22	140.00
7520.00	5.00	0.00	0.00	732.30	1690.00	744.47	.16	.00	.11	1243.96	12.17	140.00
7590.00	70.00	0.00	0.00	733.00	340.00	738.16	.23	.20	.03	340.00	5.16	23.22
7590.00	70.00	0.00	0.00	733.00	710.00	742.78	.15	.04	.04	686.36	9.78	70.74
7590.00	70.00	0.00	0.00	733.00	950.00	743.50	.19	.04	.06	882.23	10.50	88.38
7590.00	70.00	0.00	0.00	733.00	1690.00	744.43	.40	.08	.12	1464.48	11.43	111.14
7639.00	49.00	0.00	0.00	733.60	340.00	738.37	.29	.24	.03	340.00	4.77	22.62
7639.00	49.00	0.00	0.00	733.60	710.00	742.84	.18	.08	.02	700.53	9.24	57.31
7639.00	49.00	0.00	0.00	733.60	950.00	743.57	.24	.09	.02	909.93	9.97	75.40
7639.00	49.00	0.00	0.00	733.60	1690.00	744.56	.50	.18	.05	1519.82	10.96	99.62
7640.00	1.00	741.70	740.80	733.60	340.00	738.38	.29	.00	.00	340.00	4.78	22.63
7640.00	1.00	741.70	740.80	733.60	710.00	742.82	.23	.00	.03	682.52	9.22	57.18
7640.00	1.00	741.70	740.80	733.60	950.00	743.56	.27	.00	.01	841.77	9.96	75.33
7640.00	1.00	741.70	740.80	733.60	1690.00	744.68	.41	.01	.03	1255.18	11.08	102.55

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7644.00	4.00	741.70	740.80	733.60	340.00	738.40	.28	.02	.00	340.00	4.80	22.66
7644.00	4.00	741.70	740.80	733.60	710.00	742.84	.23	.02	.00	681.72	9.24	57.52
7644.00	4.00	741.70	740.80	733.60	950.00	743.59	.26	.02	.00	840.05	9.99	75.70
7644.00	4.00	741.70	740.80	733.60	1690.00	744.72	.40	.03	.00	1248.97	11.12	103.24
7645.00	1.00	0.00	0.00	733.60	340.00	738.40	.28	.00	.00	340.00	4.80	22.66
7645.00	1.00	0.00	0.00	733.60	710.00	742.92	.17	.00	.02	697.88	9.32	59.42
7645.00	1.00	0.00	0.00	733.60	950.00	743.63	.23	.00	.01	904.08	10.03	76.81
7645.00	1.00	0.00	0.00	733.60	1690.00	744.70	.46	.00	.03	1491.92	11.10	102.88
7694.00	49.00	0.00	0.00	734.08	340.00	738.68	.32	.29	.02	340.00	4.60	22.35
7694.00	49.00	0.00	0.00	734.08	710.00	743.00	.20	.10	.01	705.35	8.92	49.70
7694.00	49.00	0.00	0.00	734.08	950.00	743.73	.27	.12	.02	921.88	9.65	67.42
7694.00	49.00	0.00	0.00	734.08	1690.00	744.86	.53	.20	.04	1529.61	10.78	95.18
7844.00	150.00	0.00	0.00	735.52	340.00	739.67	.49	1.08	.09	340.00	4.15	19.22
7844.00	150.00	0.00	0.00	735.52	710.00	743.32	.37	.40	.09	710.00	7.80	27.03
7844.00	150.00	0.00	0.00	735.52	950.00	744.09	.50	.48	.11	947.63	8.57	59.49
7844.00	150.00	0.00	0.00	735.52	1690.00	745.46	.74	.70	.11	1497.49	9.94	156.89
7894.00	50.00	0.00	0.00	736.00	340.00	739.93	.66	.34	.09	340.00	3.93	15.52
7894.00	50.00	0.00	0.00	736.00	710.00	743.29	.72	.15	.17	710.00	7.29	15.52
7894.00	50.00	0.00	0.00	736.00	950.00	744.64	.13	.07	.11	752.01	8.64	111.92
7894.00	50.00	0.00	0.00	736.00	1690.00	746.28	.17	.08	.17	1121.75	10.28	158.28
7906.00	12.00	745.00	744.20	736.00	340.00	740.06	.62	.08	.01	340.00	4.06	15.52
7906.00	12.00	745.00	744.20	736.00	710.00	743.34	.72	.04	.00	710.00	7.34	15.52
7906.00	12.00	745.00	744.20	736.00	950.00	745.67	.08	.98	0.00	689.33	9.67	154.47
7906.00	12.00	745.00	744.20	736.00	1690.00	747.02	.13	.70	0.00	1065.45	11.02	162.81
7966.00	60.00	0.00	0.00	736.90	340.00	740.87	.23	.29	.12	301.20	3.97	63.04
7966.00	60.00	0.00	0.00	736.90	710.00	744.24	.09	.08	.19	463.78	7.34	108.88
7966.00	60.00	0.00	0.00	736.90	950.00	745.69	.08	.02	.00	561.69	8.79	116.00
7966.00	60.00	0.00	0.00	736.90	1690.00	747.05	.15	.04	.01	922.50	10.15	116.00
8026.00	60.00	0.00	0.00	737.95	340.00	741.05	.55	.33	.16	319.91	3.10	43.86
8026.00	60.00	0.00	0.00	737.95	710.00	744.25	.17	.05	.04	513.99	6.30	113.49
8026.00	60.00	0.00	0.00	737.95	950.00	745.70	.13	.04	.03	607.90	7.75	145.23
8026.00	60.00	0.00	0.00	737.95	1690.00	747.07	.21	.05	.03	955.89	9.12	186.19
8086.00	60.00	0.00	0.00	739.00	340.00	741.96	.96	.86	0.00	321.52	2.96	33.56
8086.00	60.00	0.00	0.00	739.00	710.00	744.25	.43	.14	.13	486.96	5.25	97.64
8086.00	60.00	0.00	0.00	739.00	950.00	745.73	.23	.07	.05	517.46	6.73	138.47
8086.00	60.00	0.00	0.00	739.00	1690.00	747.13	.29	.09	.04	758.64	8.13	187.11
8146.00	60.00	0.00	0.00	740.05	340.00	743.06	.90	1.04	.02	320.19	3.01	35.04
8146.00	60.00	0.00	0.00	740.05	710.00	744.37	1.04	.42	0.00	566.55	4.32	71.91
8146.00	60.00	0.00	0.00	740.05	950.00	745.76	.52	.18	.14	604.99	5.71	109.47
8146.00	60.00	0.00	0.00	740.05	1690.00	747.17	.56	.18	.14	870.90	7.12	149.06

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
8176.00	30.00	0.00	0.00	740.57	340.00	743.56	.92	.51	.01	320.63	2.99	34.56
8176.00	30.00	0.00	0.00	740.57	710.00	744.90	1.03	.38	0.00	566.02	4.33	72.07
8176.00	30.00	0.00	0.00	740.57	950.00	745.83	.77	.19	.12	650.95	5.26	97.78
8176.00	30.00	0.00	0.00	740.57	1690.00	747.23	.78	.17	.11	930.84	6.66	136.42
8206.00	30.00	0.00	0.00	741.00	340.00	744.07	.95	.52	.01	327.25	3.07	33.58
8206.00	30.00	0.00	0.00	741.00	710.00	745.42	.98	.37	0.00	567.80	4.42	80.77
8206.00	30.00	0.00	0.00	741.00	950.00	746.02	.95	.28	.09	681.06	5.02	102.83
8206.00	30.00	0.00	0.00	741.00	1690.00	747.43	.84	.23	.03	940.13	6.43	151.37
8266.00	60.00	0.00	0.00	742.05	340.00	745.15	.93	1.05	.01	326.74	3.10	34.40
8266.00	60.00	0.00	0.00	742.05	710.00	746.48	.97	.72	0.00	567.03	4.43	81.00
8266.00	60.00	0.00	0.00	742.05	950.00	747.01	1.02	.66	0.00	689.77	4.96	100.06
8266.00	60.00	0.00	0.00	742.05	1690.00	748.07	1.18	.57	0.00	1008.40	6.02	137.08
8326.00	60.00	0.00	0.00	743.10	340.00	746.19	.93	1.05	.00	332.55	3.09	34.23
8326.00	60.00	0.00	0.00	743.10	710.00	747.56	.89	.69	0.00	562.49	4.46	97.23
8326.00	60.00	0.00	0.00	743.10	950.00	748.04	.93	.67	0.00	678.98	4.94	120.21
8326.00	60.00	0.00	0.00	743.10	1690.00	748.97	1.09	.70	0.00	982.71	5.87	165.80
8386.00	60.00	0.00	0.00	744.15	340.00	747.26	.90	1.03	.01	331.03	3.11	35.53
8386.00	60.00	0.00	0.00	744.15	710.00	748.58	.88	.67	0.00	557.67	4.43	95.75
8386.00	60.00	0.00	0.00	744.15	950.00	749.05	.92	.65	0.00	670.73	4.90	118.70
8386.00	60.00	0.00	0.00	744.15	1690.00	750.02	1.03	.68	0.00	957.77	5.87	165.62
8446.00	60.00	0.00	0.00	745.20	340.00	748.29	.93	1.04	.01	337.30	3.09	30.29
8446.00	60.00	0.00	0.00	745.20	710.00	749.67	.74	.63	0.00	540.46	4.47	127.58
8446.00	60.00	0.00	0.00	745.20	950.00	750.06	.79	.63	0.00	645.67	4.86	155.78
8446.00	60.00	0.00	0.00	745.20	1690.00	750.98	.78	.61	0.00	876.84	5.78	225.22
8506.00	60.00	0.00	0.00	746.25	340.00	749.35	.93	1.06	.00	337.33	3.10	30.25
8506.00	60.00	0.00	0.00	746.25	710.00	750.71	.76	.60	0.00	542.24	4.46	126.93
8506.00	60.00	0.00	0.00	746.25	950.00	751.12	.77	.60	0.00	642.17	4.87	157.14
8506.00	60.00	0.00	0.00	746.25	1690.00	751.99	.82	.58	0.00	887.58	5.74	221.69
8566.00	60.00	0.00	0.00	747.30	340.00	750.46	.91	1.08	.01	339.97	3.16	23.71
8566.00	60.00	0.00	0.00	747.30	710.00	751.80	.58	.57	0.00	504.64	4.50	191.02
8566.00	60.00	0.00	0.00	747.30	950.00	752.13	.60	.57	0.00	589.79	4.83	228.32
8566.00	60.00	0.00	0.00	747.30	1690.00	752.79	.69	.62	0.00	815.42	5.49	271.76
9066.00	500.00	0.00	0.00	750.50	340.00	755.05	.33	3.83	.17	322.95	4.55	102.78
9066.00	500.00	0.00	0.00	750.50	710.00	755.75	.54	3.89	.01	551.10	5.25	199.36
9066.00	500.00	0.00	0.00	750.50	950.00	756.16	.51	3.92	.02	634.75	5.66	200.70
9066.00	500.00	0.00	0.00	750.50	1690.00	757.13	.48	4.08	.06	843.75	6.63	203.94
9126.00	60.00	0.00	0.00	751.24	340.00	755.28	.49	.32	.08	334.20	4.04	36.83
9126.00	60.00	0.00	0.00	751.24	710.00	756.39	.64	.43	0.00	572.92	5.15	199.02
9126.00	60.00	0.00	0.00	751.24	950.00	756.79	.61	.42	0.00	659.76	5.55	200.34
9126.00	60.00	0.00	0.00	751.24	1690.00	757.43	.79	.45	.15	949.01	6.19	202.49

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
9186.00	60.00	0.00	0.00	751.98	340.00	755.72	.63	.51	.07	337.88	3.74	30.31
9186.00	60.00	0.00	0.00	751.98	710.00	757.12	.64	.47	0.00	574.65	5.14	199.00
9186.00	60.00	0.00	0.00	751.98	950.00	757.49	.64	.46	0.00	669.74	5.51	200.21
9186.00	60.00	0.00	0.00	751.98	1690.00	758.08	.89	.63	0.00	977.30	6.10	202.16
9246.00	60.00	0.00	0.00	752.72	340.00	756.34	.69	.65	.03	338.83	3.62	27.72
9246.00	60.00	0.00	0.00	752.72	710.00	757.87	.64	.47	0.00	573.89	5.15	199.01
9246.00	60.00	0.00	0.00	752.72	950.00	758.16	.71	.50	0.00	685.85	5.44	199.99
9246.00	60.00	0.00	0.00	752.72	1690.00	758.88	.83	.65	0.00	960.32	6.16	202.35
9306.00	60.00	0.00	0.00	753.46	340.00	757.05	.71	.72	.01	339.05	3.59	26.98
9306.00	60.00	0.00	0.00	753.46	710.00	758.60	.64	.47	0.00	574.21	5.14	199.00
9306.00	60.00	0.00	0.00	753.46	950.00	758.94	.67	.51	0.00	676.35	5.48	200.12
9306.00	60.00	0.00	0.00	753.46	1690.00	759.58	.86	.64	0.00	969.76	6.12	202.24
9426.00	120.00	0.00	0.00	754.90	340.00	758.51	.88	1.55	.08	324.39	3.61	19.91
9426.00	120.00	0.00	0.00	754.90	710.00	760.32	.66	.92	0.00	512.55	5.42	189.99
9426.00	120.00	0.00	0.00	754.90	950.00	760.62	.72	1.00	0.00	603.83	5.72	199.12
9426.00	120.00	0.00	0.00	754.90	1690.00	761.27	.88	1.28	0.00	835.17	6.37	219.14
9546.00	120.00	0.00	0.00	756.40	340.00	760.14	.80	1.53	.02	323.19	3.74	20.28
9546.00	120.00	0.00	0.00	756.40	710.00	761.86	.62	.88	0.00	504.55	5.46	191.11
9546.00	120.00	0.00	0.00	756.40	950.00	762.18	.65	.96	0.00	588.30	5.78	201.04
9546.00	120.00	0.00	0.00	756.40	1690.00	762.85	.80	1.20	0.00	813.34	6.45	221.49
9666.00	120.00	0.00	0.00	757.90	340.00	761.54	.84	1.42	.02	321.21	3.64	20.00
9666.00	120.00	0.00	0.00	757.90	710.00	763.30	.63	.83	0.00	503.60	5.40	189.32
9666.00	120.00	0.00	0.00	757.90	950.00	763.59	.70	.91	0.00	593.26	5.69	197.99
9666.00	120.00	0.00	0.00	757.90	1690.00	764.19	.87	1.15	0.00	821.88	6.29	216.70
9741.00	75.00	0.00	0.00	758.95	340.00	762.45	.94	.96	.05	322.78	3.50	19.59
9741.00	75.00	0.00	0.00	758.95	710.00	764.39	.60	.52	0.00	496.15	5.44	190.33
9741.00	75.00	0.00	0.00	758.95	950.00	764.70	.63	.59	0.00	576.56	5.75	199.98
9741.00	75.00	0.00	0.00	758.95	1690.00	765.35	.76	.76	0.00	790.82	6.40	219.91
9816.00	75.00	0.00	0.00	760.00	340.00	763.49	.94	1.04	.00	322.83	3.49	19.57
9816.00	75.00	0.00	0.00	760.00	710.00	765.42	.62	.51	0.00	500.00	5.42	189.81
9816.00	75.00	0.00	0.00	760.00	950.00	765.71	.67	.58	0.00	586.32	5.71	198.81
9816.00	75.00	0.00	0.00	760.00	1690.00	766.34	.82	.74	0.00	808.80	6.34	218.02
9891.00	75.00	0.00	0.00	761.05	340.00	764.54	.94	1.05	.00	322.85	3.49	19.57
9891.00	75.00	0.00	0.00	761.05	710.00	766.48	.61	.52	0.00	497.89	5.43	190.09
9891.00	75.00	0.00	0.00	761.05	950.00	766.79	.64	.58	0.00	580.08	5.74	199.56
9891.00	75.00	0.00	0.00	761.05	1690.00	767.43	.78	.75	0.00	796.98	6.38	219.25
10116.00	225.00	0.00	0.00	764.20	340.00	767.28	.37	2.00	.17	312.19	3.08	82.28
10116.00	225.00	0.00	0.00	764.20	710.00	768.10	.52	1.50	.03	544.73	3.90	103.42
10116.00	225.00	0.00	0.00	764.20	950.00	768.47	.61	1.64	.01	680.11	4.27	112.71
10116.00	225.00	0.00	0.00	764.20	1690.00	769.33	.80	1.92	.01	1036.76	5.13	118.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
10191.00	75.00	0.00	0.00	763.60	340.00	767.51	.67	.38	.15	340.00	3.91	14.00
10191.00	75.00	0.00	0.00	763.60	710.00	768.11	2.16	.62	0.00	710.00	4.51	14.00
10191.00	75.00	0.00	0.00	763.60	950.00	769.25	.17	.21	.13	535.81	5.65	105.00
10191.00	75.00	0.00	0.00	763.60	1690.00	770.27	.29	.26	.15	858.35	6.67	105.00
10221.00	30.00	771.50	770.20	763.60	340.00	767.39	1.29	.19	.31	340.00	3.79	14.00
10221.00	30.00	771.50	770.20	763.60	710.00	769.01	2.18	.32	0.00	710.00	5.41	14.00
10221.00	30.00	771.50	770.20	763.60	950.00	772.10	.29	2.97	0.00	566.04	6.50	101.55
10221.00	30.00	771.50	770.20	763.60	1690.00	773.12	.58	3.15	0.00	946.16	9.52	154.65
10276.00	55.00	0.00	0.00	764.30	340.00	769.10	.03	.07	.38	201.55	4.80	157.58
10276.00	55.00	0.00	0.00	764.30	710.00	771.85	.02	.03	.65	267.97	7.55	215.42
10276.00	55.00	0.00	0.00	764.30	950.00	772.46	.02	.02	.08	334.96	8.16	219.00
10276.00	55.00	0.00	0.00	764.30	1690.00	773.86	.04	.03	.16	527.87	9.56	219.00
10441.00	165.00	0.00	0.00	766.37	340.00	769.03	.64	.23	.30	331.30	2.66	54.84
10441.00	165.00	0.00	0.00	766.37	710.00	771.87	.07	.05	.03	362.74	5.50	174.63
10441.00	165.00	0.00	0.00	766.37	950.00	772.49	.08	.05	.03	436.78	6.12	189.66
10441.00	165.00	0.00	0.00	766.37	1690.00	773.90	.09	.07	.03	640.36	7.53	225.57
10523.00	82.00	0.00	0.00	767.39	340.00	770.55	1.19	1.73	0.00	339.80	3.16	19.62
10523.00	82.00	0.00	0.00	767.39	710.00	772.38	.66	.17	0.00	519.98	4.99	109.90
10523.00	82.00	0.00	0.00	767.39	950.00	772.71	.77	.17	0.00	631.31	5.32	119.35
10523.00	82.00	0.00	0.00	767.39	1690.00	773.75	.72	.17	.31	833.17	6.36	135.64
10606.00	83.00	0.00	0.00	768.43	340.00	772.55	.50	1.09	.21	317.98	4.12	74.00
10606.00	83.00	0.00	0.00	768.43	710.00	773.38	.70	.83	0.00	527.18	4.95	108.60
10606.00	83.00	0.00	0.00	768.43	950.00	773.64	.88	.98	0.00	650.67	5.21	116.36
10606.00	83.00	0.00	0.00	768.43	1690.00	774.54	.94	.90	.11	890.54	6.11	132.94
10688.00	82.00	0.00	0.00	769.46	340.00	773.25	.69	.79	.10	330.22	3.79	35.08
10688.00	82.00	0.00	0.00	769.46	710.00	774.33	.78	.89	0.00	539.82	4.87	106.36
10688.00	82.00	0.00	0.00	769.46	950.00	774.75	.80	.99	0.00	636.22	5.29	118.58
10688.00	82.00	0.00	0.00	769.46	1690.00	775.59	.93	1.03	.00	887.53	6.13	133.07
10771.00	83.00	0.00	0.00	770.50	340.00	774.25	.71	1.01	.01	331.30	3.75	34.07
10771.00	83.00	0.00	0.00	770.50	710.00	775.40	.74	.93	0.00	534.07	4.90	107.37
10771.00	83.00	0.00	0.00	770.50	950.00	775.74	.85	.98	0.00	645.91	5.24	117.08
10771.00	83.00	0.00	0.00	770.50	1690.00	776.62	.94	1.04	.00	889.49	6.12	132.98
11021.00	250.00	0.00	0.00	772.37	340.00	776.72	.37	2.03	.10	301.57	4.35	91.33
11021.00	250.00	0.00	0.00	772.37	710.00	777.76	.40	1.90	.10	462.49	5.39	121.35
11021.00	250.00	0.00	0.00	772.37	950.00	778.26	.38	1.91	.14	533.55	5.89	130.57
11021.00	250.00	0.00	0.00	772.37	1690.00	779.25	.46	2.00	.14	744.06	6.88	140.91
11271.00	250.00	0.00	0.00	774.23	340.00	778.07	.58	1.45	.11	315.67	3.84	107.19
11271.00	250.00	0.00	0.00	774.23	710.00	779.06	.61	1.41	.11	491.56	4.83	163.73
11271.00	250.00	0.00	0.00	774.23	950.00	779.50	.61	1.36	.12	577.94	5.27	186.86
11271.00	250.00	0.00	0.00	774.23	1690.00	780.52	.59	1.34	.07	778.39	6.29	216.82

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
11396.00	125.00	0.00	0.00	775.17	340.00	778.84	.73	.84	.08	328.49	3.67	97.33
11396.00	125.00	0.00	0.00	775.17	710.00	779.92	.68	.75	0.00	503.24	4.75	159.25
11396.00	125.00	0.00	0.00	775.17	950.00	780.27	.77	.79	0.00	608.22	5.10	179.04
11396.00	125.00	0.00	0.00	775.17	1690.00	781.17	.80	.76	.11	835.62	6.00	208.19
11521.00	125.00	0.00	0.00	776.10	340.00	779.83	.67	.92	.02	324.08	3.73	100.95
11521.00	125.00	0.00	0.00	776.10	710.00	780.75	.79	.86	0.00	518.91	4.65	153.45
11521.00	125.00	0.00	0.00	776.10	950.00	781.20	.77	.89	0.00	608.65	5.10	178.90
11521.00	125.00	0.00	0.00	776.10	1690.00	782.07	.83	.91	.01	842.47	5.97	207.24
11621.00	100.00	0.00	0.00	777.60	340.00	780.72	1.22	1.01	0.00	339.83	3.12	18.40
11621.00	100.00	0.00	0.00	777.60	710.00	782.30	.73	.72	0.00	511.14	4.70	156.29
11621.00	100.00	0.00	0.00	777.60	950.00	782.70	.77	.72	0.00	608.63	5.10	178.90
11621.00	100.00	0.00	0.00	777.60	1690.00	783.52	.88	.78	0.00	853.61	5.92	205.74
11721.00	100.00	0.00	0.00	779.10	340.00	782.33	1.11	1.47	.03	339.54	3.23	19.82
11721.00	100.00	0.00	0.00	779.10	710.00	783.78	.75	.71	0.00	514.06	4.68	155.22
11721.00	100.00	0.00	0.00	779.10	950.00	784.20	.77	.72	0.00	608.63	5.10	178.90
11721.00	100.00	0.00	0.00	779.10	1690.00	784.94	.96	.84	0.00	871.88	5.84	203.38
11821.00	100.00	0.00	0.00	780.60	340.00	784.02	.88	1.39	.07	340.00	3.42	22.52
11821.00	100.00	0.00	0.00	780.60	710.00	785.78	.68	.66	0.00	630.01	5.18	208.13
11821.00	100.00	0.00	0.00	780.60	950.00	786.14	.71	.67	0.00	750.19	5.54	223.70
11821.00	100.00	0.00	0.00	780.60	1690.00	786.82	.87	.81	0.00	1077.46	6.22	249.38
11921.00	100.00	0.00	0.00	782.10	340.00	785.46	.94	1.46	.03	340.00	3.36	22.25
11921.00	100.00	0.00	0.00	782.10	710.00	787.30	.67	.61	0.00	627.56	5.20	208.67
11921.00	100.00	0.00	0.00	782.10	950.00	787.65	.70	.62	0.00	746.76	5.55	224.31
11921.00	100.00	0.00	0.00	782.10	1690.00	788.36	.83	.73	0.00	1064.75	6.26	250.35
12021.00	100.00	0.00	0.00	783.60	340.00	786.99	.91	1.50	.01	340.00	3.39	22.36
12021.00	100.00	0.00	0.00	783.60	710.00	788.79	.67	.60	0.00	628.38	5.19	208.49
12021.00	100.00	0.00	0.00	783.60	950.00	789.14	.71	.62	0.00	748.57	5.54	223.99
12021.00	100.00	0.00	0.00	783.60	1690.00	789.84	.85	.72	0.00	1071.90	6.24	249.80
12121.00	100.00	0.00	0.00	785.10	340.00	788.47	.92	1.48	.00	340.00	3.37	22.34
12121.00	100.00	0.00	0.00	785.10	710.00	790.29	.67	.61	0.00	628.10	5.19	208.55
12121.00	100.00	0.00	0.00	785.10	950.00	790.65	.70	.62	0.00	747.59	5.55	224.16
12121.00	100.00	0.00	0.00	785.10	1690.00	791.35	.84	.72	0.00	1067.67	6.25	250.13
12221.00	100.00	0.00	0.00	786.35	340.00	789.98	.73	1.26	.06	340.00	3.63	23.37
12221.00	100.00	0.00	0.00	786.35	710.00	791.54	.67	.61	0.00	628.20	5.19	208.53
12221.00	100.00	0.00	0.00	786.35	950.00	791.89	.71	.62	0.00	748.11	5.54	224.07
12221.00	100.00	0.00	0.00	786.35	1690.00	792.59	.85	.72	0.00	1070.10	6.24	249.94
12321.00	100.00	0.00	0.00	787.60	340.00	791.10	.82	1.16	.05	340.00	3.50	22.84
12321.00	100.00	0.00	0.00	787.60	710.00	792.79	.67	.61	0.00	628.16	5.19	208.53
12321.00	100.00	0.00	0.00	787.60	950.00	793.15	.70	.62	0.00	747.83	5.55	224.12
12321.00	100.00	0.00	0.00	787.60	1690.00	793.85	.84	.73	0.00	1068.67	6.25	250.05

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
12521.00	200.00	0.00	0.00	790.10	340.00	793.52	.22	1.65	.18	222.13	3.42	177.37
12521.00	200.00	0.00	0.00	790.10	710.00	794.44	.14	.95	.16	280.56	4.34	276.35
12521.00	200.00	0.00	0.00	790.10	950.00	794.82	.13	.93	.17	320.64	4.72	292.30
12521.00	200.00	0.00	0.00	790.10	1690.00	795.72	.14	.96	.21	437.59	5.62	296.71
12621.00	100.00	0.00	0.00	791.35	340.00	794.56	.38	.73	0.00	252.04	3.21	164.26
12621.00	100.00	0.00	0.00	791.35	710.00	795.11	.44	.62	0.00	380.58	3.76	240.92
12621.00	100.00	0.00	0.00	791.35	950.00	795.27	.55	.65	0.00	464.31	3.92	250.77
12621.00	100.00	0.00	0.00	791.35	1690.00	796.15	.37	.55	.11	554.42	4.80	292.68
12721.00	100.00	0.00	0.00	792.60	340.00	795.76	.43	1.02	0.00	260.22	3.16	164.11
12721.00	100.00	0.00	0.00	792.60	710.00	796.33	.47	1.24	.02	387.22	3.73	239.13
12721.00	100.00	0.00	0.00	792.60	950.00	796.74	.35	1.21	.06	413.46	4.14	264.13
12721.00	100.00	0.00	0.00	792.60	1690.00	797.25	.46	1.14	.05	587.39	4.65	291.91
12971.00	250.00	0.00	0.00	795.77	340.00	798.96	.39	2.47	0.00	254.93	3.19	164.21
12971.00	250.00	0.00	0.00	795.77	710.00	799.51	.46	2.88	0.00	383.71	3.74	240.07
12971.00	250.00	0.00	0.00	795.77	950.00	799.76	.47	2.57	0.00	446.57	3.99	255.12
12971.00	250.00	0.00	0.00	795.77	1690.00	800.35	.52	3.13	.03	605.39	4.58	290.02
13096.00	125.00	0.00	0.00	797.34	340.00	800.69	1.10	1.90	0.00	339.87	3.35	21.76
13096.00	125.00	0.00	0.00	797.34	710.00	802.40	.79	1.45	0.00	579.98	5.06	125.35
13096.00	125.00	0.00	0.00	797.34	950.00	802.86	.80	1.46	0.00	690.36	5.52	132.64
13096.00	125.00	0.00	0.00	797.34	1690.00	803.68	1.05	1.67	0.00	1022.77	6.34	146.01
13221.00	125.00	0.00	0.00	798.93	340.00	803.24	.46	1.71	.19	326.11	4.31	63.03
13221.00	125.00	0.00	0.00	798.93	710.00	804.00	.78	1.49	0.00	579.07	5.07	125.45
13221.00	125.00	0.00	0.00	798.93	950.00	804.35	.90	1.51	0.00	706.63	5.42	131.14
13221.00	125.00	0.00	0.00	798.93	1690.00	805.40	.93	1.56	.03	998.88	6.47	148.00
13346.00	125.00	0.00	0.00	800.52	340.00	804.43	.66	1.29	.10	334.99	3.91	35.02
13346.00	125.00	0.00	0.00	800.52	710.00	805.59	.79	1.48	0.00	579.43	5.07	125.41
13346.00	125.00	0.00	0.00	800.52	950.00	805.99	.85	1.56	0.00	698.35	5.47	131.89
13346.00	125.00	0.00	0.00	800.52	1690.00	806.89	1.02	1.54	.04	1016.63	6.37	146.51
13471.00	125.00	0.00	0.00	802.10	340.00	806.09	.62	1.60	.01	333.62	3.99	36.98
13471.00	125.00	0.00	0.00	802.10	710.00	807.17	.79	1.48	0.00	579.28	5.07	125.43
13471.00	125.00	0.00	0.00	802.10	950.00	807.55	.87	1.53	0.00	702.00	5.45	131.56
13471.00	125.00	0.00	0.00	802.10	1690.00	808.53	.96	1.57	.02	1005.25	6.43	147.45
13538.00	67.00	0.00	0.00	803.20	340.00	806.96	.76	.94	.07	337.12	3.76	31.34
13538.00	67.00	0.00	0.00	803.20	710.00	808.16	.97	.88	0.00	610.63	4.96	85.44
13538.00	67.00	0.00	0.00	803.20	950.00	808.65	1.05	.90	0.00	748.36	5.45	88.90
13538.00	67.00	0.00	0.00	803.20	1690.00	809.70	1.33	.92	0.00	1135.16	6.50	95.00
13605.00	67.00	0.00	0.00	804.30	340.00	808.06	.56	.84	.06	340.00	3.76	22.81
13605.00	67.00	0.00	0.00	804.30	710.00	809.08	1.17	1.02	.10	710.00	4.78	26.86
13605.00	67.00	0.00	0.00	804.30	950.00	809.49	1.61	1.13	.28	950.00	5.19	28.47
13605.00	67.00	0.00	0.00	804.30	1690.00	811.34	1.82	1.01	0.00	1655.42	7.04	71.25

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
13671.00	66.00	0.00	0.00	805.40	340.00	808.76	.79	.82	.11	340.00	3.36	21.25
13671.00	66.00	0.00	0.00	805.40	710.00	810.13	1.21	1.07	.02	710.00	4.73	26.65
13671.00	66.00	0.00	0.00	805.40	950.00	811.09	1.21	1.07	.12	950.00	5.69	30.43
13671.00	66.00	0.00	0.00	805.40	1690.00	812.44	1.82	.99	0.00	1655.29	7.04	71.32
13761.00	90.00	0.00	0.00	805.13	340.00	809.99	.33	.64	.14	340.00	4.86	18.00
13761.00	90.00	0.00	0.00	805.13	710.00	811.64	.74	.90	.14	710.00	6.51	18.00
13761.00	90.00	0.00	0.00	805.13	950.00	812.24	1.08	.99	.04	950.00	7.11	18.00
13761.00	90.00	0.00	0.00	805.13	1690.00	813.63	2.30	1.43	.24	1690.00	8.50	18.00
13771.00	10.00	0.00	0.00	805.10	340.00	809.86	.67	.04	.17	340.00	4.76	13.00
13771.00	10.00	0.00	0.00	805.10	710.00	811.29	1.57	.07	.42	710.00	6.19	13.00
13771.00	10.00	0.00	0.00	805.10	950.00	811.62	2.51	.10	.72	950.00	6.52	13.00
13771.00	10.00	0.00	0.00	805.10	1690.00	815.91	.57	.04	.52	985.58	10.81	60.57
13824.00	52.50	817.30	812.60	805.10	340.00	810.19	.57	.20	.03	340.00	5.09	13.00
13824.00	52.50	817.30	812.60	805.10	710.00	812.49	1.06	.68	0.00	710.00	7.39	13.00
13824.00	52.50	817.30	812.60	805.10	950.00	814.56	1.10	1.53	0.00	950.00	9.46	13.00
13824.00	52.50	817.30	812.60	805.10	1690.00	818.53	.20	2.25	0.00	814.35	13.43	254.45
13827.00	3.00	0.00	0.00	805.12	340.00	810.64	.23	.01	.10	340.00	5.52	19.00
13827.00	3.00	0.00	0.00	805.12	710.00	813.36	.40	.01	.20	710.00	8.24	19.00
13827.00	3.00	0.00	0.00	805.12	950.00	815.43	.44	.01	.20	950.00	10.31	19.00
13827.00	3.00	0.00	0.00	805.12	1690.00	818.77	.02	.00	.05	669.08	13.65	454.30
14174.00	347.00	0.00	0.00	807.40	340.00	811.90	.86	1.58	.32	340.00	4.50	15.15
14174.00	347.00	0.00	0.00	807.40	710.00	814.38	.23	.80	.05	419.17	6.98	222.20
14174.00	347.00	0.00	0.00	807.40	950.00	816.23	.06	.31	.11	349.19	8.83	278.73
14174.00	347.00	0.00	0.00	807.40	1690.00	818.82	.04	.06	.01	427.52	11.42	310.00
14176.00	2.00	0.00	0.00	809.40	340.00	813.14	.50	.01	0.00	299.62	3.74	187.61
14176.00	2.00	0.00	0.00	809.40	710.00	814.38	.24	.00	.00	367.64	4.98	222.42
14176.00	2.00	0.00	0.00	809.40	950.00	816.24	.06	.00	.00	307.08	6.84	278.77
14176.00	2.00	0.00	0.00	809.40	1690.00	818.83	.04	.00	.00	388.54	9.43	310.01
14376.00	200.00	0.00	0.00	808.70	340.00	814.29	.40	1.01	.03	324.14	5.59	183.26
14376.00	200.00	0.00	0.00	808.70	710.00	814.99	.53	.76	.15	507.42	6.29	200.18
14376.00	200.00	0.00	0.00	808.70	950.00	816.37	.14	.18	.04	412.16	7.67	251.72
14376.00	200.00	0.00	0.00	808.70	1690.00	818.89	.06	.08	.01	433.67	10.19	295.16
14476.00	100.00	0.00	0.00	809.73	340.00	814.91	.57	.71	.09	339.42	5.18	22.05
14476.00	100.00	0.00	0.00	809.73	710.00	815.96	.59	.81	0.00	520.19	6.23	198.79
14476.00	100.00	0.00	0.00	809.73	950.00	816.57	.40	.33	.13	543.84	6.84	216.08
14476.00	100.00	0.00	0.00	809.73	1690.00	818.97	.10	.10	.02	507.16	9.24	283.60
14526.00	50.00	0.00	0.00	810.24	340.00	815.37	.59	.46	.01	339.61	5.13	21.10
14526.00	50.00	0.00	0.00	810.24	710.00	816.40	.67	.45	0.00	538.08	6.16	196.91
14526.00	50.00	0.00	0.00	810.24	950.00	816.83	.58	.36	.09	598.28	6.59	207.57
14526.00	50.00	0.00	0.00	810.24	1690.00	819.03	.15	.09	.02	554.99	8.79	278.15

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
14576.00	50.00	0.00	0.00	810.75	340.00	815.84	.60	.48	.01	339.72	5.09	20.43
14576.00	50.00	0.00	0.00	810.75	710.00	816.96	.61	.46	0.00	525.35	6.21	198.24
14576.00	50.00	0.00	0.00	810.75	950.00	817.29	.63	.45	0.00	611.71	6.54	206.23
14576.00	50.00	0.00	0.00	810.75	1690.00	819.12	.21	.13	.03	609.74	8.37	273.16
14676.00	100.00	0.00	0.00	811.77	310.00	816.74	.11	.25	.15	268.86	4.97	99.68
14676.00	100.00	0.00	0.00	811.77	650.00	817.84	.17	.31	.13	470.22	6.07	140.00
14676.00	100.00	0.00	0.00	811.77	865.00	818.19	.22	.37	.12	588.76	6.42	140.00
14676.00	100.00	0.00	0.00	811.77	1690.00	819.34	.36	.29	.07	974.28	7.57	140.00
14776.00	100.00	0.00	0.00	812.80	310.00	816.82	.29	.17	.09	308.58	4.02	66.38
14776.00	100.00	0.00	0.00	812.80	650.00	817.92	.49	.24	.16	582.81	5.12	67.90
14776.00	100.00	0.00	0.00	812.80	865.00	818.28	.66	.30	.22	748.30	5.48	87.24
14776.00	100.00	0.00	0.00	812.80	1690.00	819.61	.53	.35	.09	1029.47	6.81	234.68
14926.00	150.00	0.00	0.00	813.18	310.00	817.33	.24	.45	.01	307.31	4.15	29.91
14926.00	150.00	0.00	0.00	813.18	650.00	818.57	.50	.66	.01	628.50	5.39	37.00
14926.00	150.00	0.00	0.00	813.18	865.00	819.07	.69	.81	.02	826.09	5.89	37.00
14926.00	150.00	0.00	0.00	813.18	1690.00	820.47	.26	.50	.08	853.11	7.29	268.87
14966.00	40.00	0.00	0.00	813.28	310.00	817.42	.34	.14	.05	310.00	4.14	17.00
14966.00	40.00	0.00	0.00	813.28	650.00	818.63	.88	.24	.19	650.00	5.35	17.00
14966.00	40.00	0.00	0.00	813.28	865.00	819.07	1.32	.31	.31	865.00	5.79	17.00
14966.00	40.00	0.00	0.00	813.28	1690.00	820.56	.26	.10	.00	855.36	7.28	268.24
14971.00	5.00	0.00	0.00	813.29	310.00	817.41	.43	.03	.04	310.00	4.12	15.00
14971.00	5.00	0.00	0.00	813.29	650.00	818.56	1.12	.05	.12	650.00	5.27	15.00
14971.00	5.00	0.00	0.00	813.29	865.00	818.95	1.71	.08	.20	865.00	5.66	15.00
14971.00	5.00	0.00	0.00	813.29	1690.00	820.57	.26	.01	.00	855.06	7.28	268.32
14976.00	5.00	0.00	0.00	813.30	310.00	817.33	1.38	.06	0.00	310.00	4.03	12.00
14976.00	5.00	0.00	0.00	813.30	650.00	819.07	2.27	.09	0.00	650.00	5.77	12.00
14976.00	5.00	0.00	0.00	813.30	865.00	820.00	2.75	.12	0.00	865.00	6.70	12.00
14976.00	5.00	0.00	0.00	813.30	1690.00	821.28	.29	.02	0.00	511.45	7.98	119.30
14977.00	1.00	0.00	0.00	813.30	310.00	817.91	.94	.01	.13	310.00	4.61	12.00
14977.00	1.00	0.00	0.00	813.30	650.00	820.01	1.55	.01	.22	650.00	6.71	12.00
14977.00	1.00	0.00	0.00	813.30	865.00	821.18	1.85	.01	.27	865.00	7.88	12.00
14977.00	1.00	0.00	0.00	813.30	1690.00	821.26	.32	.00	.02	544.21	7.96	119.22
15025.00	47.50	825.60	820.20	813.30	310.00	818.44	.70	.22	.07	310.00	5.14	12.00
15025.00	47.50	825.60	820.20	813.30	650.00	820.70	1.22	.36	0.00	650.00	7.40	12.00
15025.00	47.50	825.60	820.20	813.30	865.00	823.57	1.00	1.53	0.00	865.00	10.27	12.00
15025.00	47.50	825.60	820.20	813.30	1690.00	826.23	.04	4.68	0.00	368.21	12.93	308.76
15028.00	3.00	0.00	0.00	813.40	310.00	819.16	.15	.01	.16	310.00	5.76	18.00
15028.00	3.00	0.00	0.00	813.40	650.00	821.90	.30	.01	.27	650.00	8.50	18.00
15028.00	3.00	0.00	0.00	813.40	865.00	824.47	.31	.01	.21	865.00	11.07	18.00
15028.00	3.00	0.00	0.00	813.40	1690.00	826.26	.01	.00	.01	591.01	12.86	407.50

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
15055.00	27.00	0.00	0.00	814.30	310.00	819.25	.10	.03	.02	310.00	4.95	28.00
15055.00	27.00	0.00	0.00	814.30	590.00	822.15	.13	.03	.05	590.00	7.85	28.00
15055.00	27.00	0.00	0.00	814.30	565.00	824.60	.06	.02	.07	565.00	10.50	28.00
15055.00	27.00	0.00	0.00	814.30	640.00	826.23	.06	.00	.02	640.00	11.93	28.00
15075.00	20.00	0.00	0.00	813.90	310.00	819.21	.22	.02	.06	310.00	5.31	18.00
15075.00	20.00	0.00	0.00	813.90	590.00	822.08	.30	.02	.09	590.00	8.32	18.00
15075.00	20.00	0.00	0.00	813.90	565.00	824.77	.15	.01	.04	565.00	9.19	18.00
15075.00	20.00	0.00	0.00	813.90	640.00	826.20	.15	.01	.04	640.00	11.88	18.00
15077.00	2.30	830.90	819.80	813.90	310.00	819.22	.22	[illegible]	0.00	565.00	13.64	18.00
15077.00	2.30	830.90	819.80	813.90	590.00	823.09	.23	1.31	0.00	640.00		
15077.00	2.30	830.90	819.80	813.90	565.00	825.78						
15077.00	2.30	830.90	819.80	813.90	640.00	827.53						
15197.00	120.00	0.00	0.00	814.20	310.00	819.19	.67	.34	.22	307.99	5.13	14.34
15197.00	120.00	0.00	0.00	814.20	590.00	823.19	.26	.11	.01	434.33	8.99	56.88
15197.00	120.00	0.00	0.00	814.20	565.00	825.90	.05	.03	.02	295.46	11.70	80.00
15197.00	120.00	0.00	0.00	814.20	640.00	827.67	.03	.02	.03	278.49	13.47	80.00
15198.00	1.00	820.00	819.90	814.20	310.00	819.34	.67	.00	.00	308.11	5.14	14.35
15198.00	1.00	820.00	819.90	814.20	590.00	823.26	.21	.00	.02	357.87	9.06	57.88
15198.00	1.00	820.00	819.90	814.20	565.00	825.92	.04	.00	.00	213.67	11.72	80.00
15198.00	1.00	820.00	819.90	814.20	640.00	827.68	.03	.00	.00	191.82	13.48	80.00
15204.00	6.00	820.00	819.90	814.20	310.00	819.38	.66	.03	.00	308.02	5.18	14.45
15204.00	6.00	820.00	819.90	814.20	590.00	823.28	.20	.01	.00	357.18	9.08	58.01
15204.00	6.00	820.00	819.90	814.20	565.00	825.92	.04	.00	.00	213.63	11.72	80.00
15204.00	6.00	820.00	819.90	814.20	640.00	827.68	.03	.00	.00	191.81	13.48	80.00
15205.00	1.00	0.00	0.00	814.20	310.00	819.39	.65	.00	.00	307.78	5.19	14.48
15205.00	1.00	0.00	0.00	814.20	590.00	823.26	.25	.00	.02	430.04	9.06	57.92
15205.00	1.00	0.00	0.00	814.20	565.00	825.91	.05	.00	.01	295.07	11.71	80.00
15205.00	1.00	0.00	0.00	814.20	640.00	827.67	.03	.00	.00	278.46	13.47	80.00
15325.00	120.00	0.00	0.00	815.60	310.00	820.07	.88	.80	.11	310.00	4.47	10.01
15325.00	120.00	0.00	0.00	815.60	590.00	823.10	1.06	.24	.40	590.00	7.50	10.01
15325.00	120.00	0.00	0.00	815.60	565.00	825.74	.52	.05	.23	565.00	10.14	10.01
15325.00	120.00	0.00	0.00	815.60	640.00	827.48	.48	.03	.22	640.00	11.88	10.01
15340.00	15.00	835.00	821.00	815.60	310.00	820.35	.77	.14	.03	310.00	4.75	10.01
15340.00	15.00	835.00	821.00	815.60	590.00	825.93	.54	2.31	0.00	590.00	10.33	10.01
15340.00	15.00	835.00	821.00	815.60	565.00	828.51	.31	2.57	0.00	565.00	12.91	10.01
15340.00	15.00	835.00	821.00	815.60	640.00	831.17	.27	3.49	0.00	640.00	15.57	10.01
15465.00	125.00	0.00	0.00	817.20	310.00	821.61	.06	.34	.21	167.36	4.41	117.85
15465.00	125.00	0.00	0.00	817.20	650.00	826.64	.01	.02	.16	195.97	9.44	263.74
15465.00	125.00	0.00	0.00	817.20	865.00	828.92	.01	.01	.09	232.30	11.72	289.13
15465.00	125.00	0.00	0.00	817.20	1690.00	831.53	.01	.01	.08	414.01	14.33	318.07

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
15540.00	75.00	0.00	0.00	817.95	310.00	821.71	.14	.13	.04	182.68	3.76	109.56
15540.00	75.00	0.00	0.00	817.95	650.00	826.64	.01	.00	.00	171.58	8.69	255.49
15540.00	75.00	0.00	0.00	817.95	865.00	828.92	.01	.00	.00	196.55	10.97	260.00
15540.00	75.00	0.00	0.00	817.95	1690.00	831.53	.01	.00	.00	346.55	13.58	260.00
15615.00	75.00	0.00	0.00	818.70	310.00	821.99	.47	.35	0.00	244.08	3.29	86.26
15615.00	75.00	0.00	0.00	818.70	650.00	826.65	.01	.00	.00	206.21	7.95	227.20
15615.00	75.00	0.00	0.00	818.70	865.00	828.92	.01	.00	.00	227.54	10.22	235.00
15615.00	75.00	0.00	0.00	818.70	1690.00	831.53	.01	.00	.00	393.07	12.83	235.00
15616.00	1.00	0.00	0.00	818.70	310.00	822.14	.51	.02	0.00	21.25	3.44	87.31
15616.00	1.00	0.00	0.00	818.70	650.00	826.65	.01	.00	.00	7.83	7.95	227.20
15616.00	1.00	0.00	0.00	818.70	865.00	828.92	.01	.00	.00	8.03	10.22	235.00
15616.00	1.00	0.00	0.00	818.70	1690.00	831.53	.01	.00	.00	13.34	12.83	235.00
15660.00	44.00	825.40	821.80	819.50	310.00	825.91	.04	3.30	0.00	4.63	6.41	135.15
15660.00	44.00	825.40	821.80	819.50	650.00	826.87	.05	.26	0.00	6.69	7.37	225.78
15660.00	44.00	825.40	821.80	819.50	865.00	828.97	.01	.05	0.00	4.16	9.47	434.44
15660.00	44.00	825.40	821.80	819.50	1690.00	831.59	.01	.05	0.00	4.26	12.09	602.85
15661.00	1.00	0.00	0.00	819.50	310.00	825.90	.06	.00	.01	141.62	6.40	134.40
15661.00	1.00	0.00	0.00	819.50	650.00	826.84	.10	.00	.03	236.83	7.34	223.36
15661.00	1.00	0.00	0.00	819.50	865.00	828.97	.02	.00	.01	177.97	9.47	434.08
15661.00	1.00	0.00	0.00	819.50	1690.00	831.58	.01	.00	.00	199.44	12.08	602.65
15961.00	300.00	0.00	0.00	820.50	310.00	826.05	.05	.13	.00	193.04	5.55	130.50
15961.00	300.00	0.00	0.00	820.50	650.00	827.05	.07	.17	.01	318.27	6.55	150.22
15961.00	300.00	0.00	0.00	820.50	865.00	829.00	.03	.04	.00	310.60	8.50	186.43
15961.00	300.00	0.00	0.00	820.50	1690.00	831.60	.03	.02	.01	473.06	11.10	234.36
16176.00	215.00	0.00	0.00	822.30	310.00	826.25	.31	.34	.13	270.80	3.95	67.54
16176.00	215.00	0.00	0.00	822.30	650.00	827.34	.37	.43	.15	451.68	5.04	110.41
16176.00	215.00	0.00	0.00	822.30	865.00	829.10	.10	.13	.04	402.96	6.80	154.87
16176.00	215.00	0.00	0.00	822.30	1690.00	831.67	.07	.10	.02	550.86	9.37	202.40
16391.00	215.00	0.00	0.00	824.10	310.00	827.36	.17	.93	.04	212.09	3.26	178.76
16391.00	215.00	0.00	0.00	824.10	650.00	828.29	.09	.60	.08	270.63	4.19	215.03
16391.00	215.00	0.00	0.00	824.10	865.00	829.36	.05	.18	.02	266.24	5.26	236.58
16391.00	215.00	0.00	0.00	824.10	1690.00	831.81	.03	.08	.01	376.07	7.71	271.56
16462.00	71.00	0.00	0.00	824.70	310.00	827.70	.36	.33	0.00	248.21	3.00	151.87
16462.00	71.00	0.00	0.00	824.70	650.00	828.41	.23	.18	.07	339.66	3.71	205.32
16462.00	71.00	0.00	0.00	824.70	865.00	829.40	.08	.06	.02	304.39	4.70	225.30
16462.00	71.00	0.00	0.00	824.70	1690.00	831.82	.05	.02	.01	397.10	7.12	263.40
16534.00	72.00	0.00	0.00	825.30	310.00	828.30	.36	.50	0.00	248.40	3.00	151.65
16534.00	72.00	0.00	0.00	825.30	650.00	828.81	.38	.42	0.00	381.75	3.51	196.47
16534.00	72.00	0.00	0.00	825.30	865.00	829.49	.16	.13	.04	360.22	4.19	215.02
16534.00	72.00	0.00	0.00	825.30	1690.00	831.85	.07	.03	.01	423.52	6.55	255.34

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
16606.00	72.00	0.00	0.00	825.90	310.00	828.90	.36	.50	0.00	248.38	3.00	151.67
16606.00	72.00	0.00	0.00	825.90	650.00	829.36	.43	.56	.02	392.06	3.46	193.19
16606.00	72.00	0.00	0.00	825.90	865.00	829.71	.33	.30	.08	428.30	3.81	207.31
16606.00	72.00	0.00	0.00	825.90	1690.00	831.89	.10	.05	.02	457.59	5.99	247.45
16756.00	150.00	0.00	0.00	825.40	310.00	829.78	.92	1.16	.28	310.00	4.38	10.00
16756.00	150.00	0.00	0.00	825.40	650.00	830.13	.07	.31	.11	295.72	4.73	225.76
16756.00	150.00	0.00	0.00	825.40	865.00	830.35	.10	.34	.07	376.13	4.95	230.36
16756.00	150.00	0.00	0.00	825.40	1690.00	832.02	.10	.13	.00	588.82	6.62	256.20
16786.00	30.00	833.40	831.80	825.60	310.00	830.10	.93	.32	.01	310.00	4.50	12.00
16786.00	30.00	833.40	831.80	825.60	650.00	833.71	.10	3.61	0.00	498.12	8.11	171.31
16786.00	30.00	833.40	831.80	825.60	865.00	834.39	.10	4.03	0.00	583.02	8.79	221.49
16786.00	30.00	833.40	831.80	825.60	1690.00	835.33	.16	3.38	0.00	950.52	9.73	311.11
17086.00	300.00	0.00	0.00	829.90	310.00	832.76	.10	1.58	.25	87.23	2.86	109.83
17086.00	300.00	0.00	0.00	829.90	650.00	833.98	.09	.26	.00	135.64	4.08	147.55
17086.00	300.00	0.00	0.00	829.90	865.00	834.62	.09	.23	.00	160.98	4.72	166.22
17086.00	300.00	0.00	0.00	829.90	1690.00	835.67	.16	.34	.00	270.81	5.77	196.49
17196.00	110.00	0.00	0.00	830.60	310.00	833.15	.17	.43	.04	98.48	2.55	99.98
17196.00	110.00	0.00	0.00	830.60	650.00	834.19	.16	.24	.03	150.21	3.59	132.15
17196.00	110.00	0.00	0.00	830.60	865.00	834.78	.15	.18	.03	177.39	4.18	150.47
17196.00	110.00	0.00	0.00	830.60	1690.00	835.86	.23	.22	.04	289.79	5.26	181.80
17251.00	55.00	0.00	0.00	830.95	310.00	834.53	.32	.30	0.00	207.02	3.58	147.38
17251.00	55.00	0.00	0.00	830.95	650.00	834.97	.43	.25	0.00	313.23	4.02	177.79
17251.00	55.00	0.00	0.00	830.95	865.00	835.17	.49	.22	0.00	369.70	4.22	190.91
17251.00	55.00	0.00	0.00	830.95	1690.00	835.97	.46	.22	.11	485.72	5.02	244.77
17306.00	55.00	0.00	0.00	831.30	310.00	834.80	.40	.30	0.00	219.09	3.50	142.62
17306.00	55.00	0.00	0.00	831.30	650.00	835.42	.34	.34	.03	294.78	4.12	184.26
17306.00	55.00	0.00	0.00	831.30	865.00	835.73	.32	.34	.05	328.62	4.43	205.18
17306.00	55.00	0.00	0.00	831.30	1690.00	836.34	.45	.36	.00	483.79	5.04	244.96
17416.00	110.00	0.00	0.00	832.00	310.00	835.56	.34	.62	0.00	210.36	3.56	146.03
17416.00	110.00	0.00	0.00	832.00	650.00	836.05	.40	.66	.03	308.11	4.05	179.51
17416.00	110.00	0.00	0.00	832.00	865.00	836.31	.40	.63	.04	349.83	4.31	197.41
17416.00	110.00	0.00	0.00	832.00	1690.00	837.06	.44	.70	.00	478.89	5.06	245.45
17516.00	100.00	0.00	0.00	832.48	310.00	836.08	.30	.48	.01	204.16	3.60	148.57
17516.00	100.00	0.00	0.00	832.48	650.00	836.70	.27	.49	.04	275.80	4.22	191.74
17516.00	100.00	0.00	0.00	832.48	865.00	836.95	.29	.50	.03	320.03	4.47	208.60
17516.00	100.00	0.00	0.00	832.48	1690.00	837.67	.36	.51	.02	451.32	5.19	248.42
17616.00	100.00	0.00	0.00	832.96	310.00	836.54	.32	.47	.01	207.43	3.58	147.21
17616.00	100.00	0.00	0.00	832.96	650.00	837.11	.32	.43	.02	288.17	4.15	186.76
17616.00	100.00	0.00	0.00	832.96	865.00	837.38	.33	.44	.02	329.29	4.42	204.92
17616.00	100.00	0.00	0.00	832.96	1690.00	838.12	.38	.46	.01	456.83	5.16	247.79

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
17716.00	100.00	0.00	0.00	833.44	310.00	836.80	.96	.58	.32	265.53	3.36	19.35
17716.00	100.00	0.00	0.00	833.44	650.00	838.67	1.04	.47	0.00	473.39	5.23	84.26
17716.00	100.00	0.00	0.00	833.44	865.00	839.43	.83	.41	0.00	528.92	5.99	131.67
17716.00	100.00	0.00	0.00	833.44	1690.00	840.47	.95	.45	0.00	760.43	7.03	177.80
17816.00	100.00	0.00	0.00	833.92	310.00	837.68	.72	.57	.07	260.83	3.76	20.53
17816.00	100.00	0.00	0.00	833.92	650.00	839.15	1.04	.48	0.00	473.39	5.23	84.27
17816.00	100.00	0.00	0.00	833.92	865.00	839.81	.92	.39	0.00	541.73	5.89	125.85
17816.00	100.00	0.00	0.00	833.92	1690.00	840.96	.94	.43	0.00	756.81	7.04	178.22
17866.00	50.00	0.00	0.00	834.16	310.00	837.91	.73	.23	.00	260.95	3.75	20.50
17866.00	50.00	0.00	0.00	834.16	650.00	839.39	1.04	.24	.00	473.28	5.23	84.34
17866.00	50.00	0.00	0.00	834.16	865.00	840.04	.94	.21	0.00	544.04	5.88	124.81
17866.00	50.00	0.00	0.00	834.16	1690.00	841.19	.95	.22	0.00	758.81	7.03	177.99
17916.00	50.00	0.00	0.00	834.40	310.00	838.07	.96	.27	.12	262.79	3.67	18.24
17916.00	50.00	0.00	0.00	834.40	650.00	839.91	.98	.23	0.00	448.31	5.51	91.79
17916.00	50.00	0.00	0.00	834.40	865.00	840.44	.98	.22	0.00	524.17	6.04	121.40
17916.00	50.00	0.00	0.00	834.40	1690.00	841.56	1.02	.23	0.00	733.00	7.16	163.25
17917.00	1.00	838.60	837.10	834.40	310.00	839.49	.42	.01	0.00	134.86	5.09	67.85
17917.00	1.00	838.60	837.10	834.40	650.00	841.03	.12	.00	.26	112.64	6.63	150.57
17917.00	1.00	838.60	837.10	834.40	865.00	841.57	.11	.00	.26	114.83	7.17	163.37
17917.00	1.00	838.60	837.10	834.40	1690.00	842.67	.17	.00	.26	153.56	8.27	188.86
17941.00	23.50	838.60	837.10	834.40	310.00	839.91	.18	.11	.07	105.02	5.51	91.57
17941.00	23.50	838.60	837.10	834.40	650.00	841.06	.11	.03	.00	105.37	6.66	151.90
17941.00	23.50	838.60	837.10	834.40	865.00	841.59	.11	.02	.00	109.26	7.19	164.31
17941.00	23.50	838.60	837.10	834.40	1690.00	842.70	.17	.02	.00	147.79	8.30	189.19
17942.00	1.00	0.00	0.00	834.40	310.00	839.89	.21	.00	.01	207.19	5.49	91.56
17942.00	1.00	0.00	0.00	834.40	650.00	841.01	.23	.00	.06	307.31	6.61	150.55
17942.00	1.00	0.00	0.00	834.40	865.00	841.54	.22	.00	.05	343.98	7.14	163.06
17942.00	1.00	0.00	0.00	834.40	1690.00	842.64	.29	.00	.06	499.40	8.24	188.42
18102.00	160.00	0.00	0.00	835.30	310.00	839.98	.45	.21	.12	241.23	4.68	45.24
18102.00	160.00	0.00	0.00	835.30	650.00	841.03	.70	.26	.23	409.55	5.73	104.82
18102.00	160.00	0.00	0.00	835.30	865.00	841.58	.62	.24	.20	457.29	6.28	135.59
18102.00	160.00	0.00	0.00	835.30	1690.00	842.75	.60	.27	.15	612.09	7.45	170.47
18262.00	160.00	0.00	0.00	836.20	310.00	840.32	.78	.50	.16	257.25	4.12	35.85
18262.00	160.00	0.00	0.00	836.20	650.00	841.84	.40	.42	.09	330.43	5.64	179.65
18262.00	160.00	0.00	0.00	836.20	865.00	842.35	.30	.35	.10	342.56	6.15	196.22
18262.00	160.00	0.00	0.00	836.20	1690.00	843.50	.26	.31	.10	429.49	7.30	212.46
18263.00	1.00	840.00	839.20	836.20	310.00	840.91	.37	.01	0.00	167.84	4.71	92.37
18263.00	1.00	840.00	839.20	836.20	650.00	842.24	.10	.00	.09	136.67	6.04	193.66
18263.00	1.00	840.00	839.20	836.20	865.00	842.61	.10	.00	.06	145.31	6.41	202.69
18263.00	1.00	840.00	839.20	836.20	1690.00	843.66	.14	.00	.04	184.46	7.46	213.52

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
18270.00	7.00	840.00	839.20	836.20	310.00	841.20	.18	.04	.06	136.50	5.00	120.72
18270.00	7.00	840.00	839.20	836.20	650.00	842.26	.09	.01	.00	135.24	6.06	194.04
18270.00	7.00	840.00	839.20	836.20	865.00	842.62	.10	.01	.00	144.33	6.42	203.00
18270.00	7.00	840.00	839.20	836.20	1690.00	843.67	.14	.01	.00	183.85	7.47	213.59
18271.00	1.00	0.00	0.00	836.20	310.00	841.15	.29	.00	.05	211.66	4.95	115.62
18271.00	1.00	0.00	0.00	836.20	650.00	842.19	.23	.00	.07	282.02	5.99	192.61
18271.00	1.00	0.00	0.00	836.20	865.00	842.56	.22	.00	.06	316.20	6.36	201.54
18271.00	1.00	0.00	0.00	836.20	1690.00	843.62	.24	.00	.05	423.98	7.42	213.26
18471.00	200.00	0.00	0.00	836.70	310.00	841.59	.13	.24	.05	148.09	4.89	169.89
18471.00	200.00	0.00	0.00	836.70	650.00	842.56	.11	.21	.04	189.39	5.86	194.66
18471.00	200.00	0.00	0.00	836.70	865.00	842.92	.12	.22	.03	219.11	6.22	201.13
18471.00	200.00	0.00	0.00	836.70	1690.00	843.97	.16	.25	.02	313.98	7.27	219.99
18472.00	1.00	840.40	840.20	836.70	310.00	841.67	.07	.00	.02	62.71	4.97	174.36
18472.00	1.00	840.40	840.20	836.70	650.00	842.62	.06	.00	.01	77.13	5.92	195.75
18472.00	1.00	840.40	840.20	836.70	865.00	842.98	.07	.00	.01	90.77	6.28	202.23
18472.00	1.00	840.40	840.20	836.70	1690.00	844.04	.12	.00	.01	138.93	7.34	221.10
18479.00	6.50	840.40	840.20	836.70	310.00	841.69	.07	.01	.00	62.23	4.99	174.90
18479.00	6.50	840.40	840.20	836.70	650.00	842.62	.06	.01	.00	76.95	5.92	195.86
18479.00	6.50	840.40	840.20	836.70	865.00	842.99	.07	.01	.00	90.60	6.29	202.34
18479.00	6.50	840.40	840.20	836.70	1690.00	844.04	.12	.01	.00	138.76	7.34	221.23
18480.00	1.00	0.00	0.00	836.70	310.00	841.66	.13	.00	.03	148.10	4.96	173.55
18480.00	1.00	0.00	0.00	836.70	650.00	842.60	.11	.00	.03	195.95	5.90	195.43
18480.00	1.00	0.00	0.00	836.70	865.00	842.96	.13	.00	.03	227.95	6.26	201.90
18480.00	1.00	0.00	0.00	836.70	1690.00	844.02	.17	.00	.03	329.93	7.32	220.75
18600.00	120.00	0.00	0.00	837.24	310.00	841.71	.36	.17	.12	196.76	4.47	147.13
18600.00	120.00	0.00	0.00	837.24	650.00	842.69	.23	.15	.06	239.42	5.45	187.36
18600.00	120.00	0.00	0.00	837.24	865.00	843.07	.22	.15	.05	267.53	5.83	194.31
18600.00	120.00	0.00	0.00	837.24	1690.00	844.16	.25	.18	.04	364.82	6.92	213.60
18720.00	120.00	0.00	0.00	837.78	310.00	842.18	.42	.29	0.00	204.94	4.40	143.44
18720.00	120.00	0.00	0.00	837.78	650.00	842.85	.46	.28	.12	293.09	5.07	179.30
18720.00	120.00	0.00	0.00	837.78	865.00	843.25	.40	.27	.09	316.89	5.47	187.56
18720.00	120.00	0.00	0.00	837.78	1690.00	844.37	.34	.26	.05	400.85	6.59	207.71
18780.00	60.00	0.00	0.00	838.05	310.00	842.85	.45	.19	0.00	235.18	4.80	159.52
18780.00	60.00	0.00	0.00	838.05	650.00	843.43	.49	.24	0.00	335.03	5.38	172.50
18780.00	60.00	0.00	0.00	838.05	865.00	843.65	.55	.24	0.00	392.88	5.60	177.51
18780.00	60.00	0.00	0.00	838.05	1690.00	844.47	.58	.22	.12	535.19	6.42	196.02
18840.00	60.00	0.00	0.00	838.32	310.00	843.17	.40	.22	0.00	226.95	4.85	160.66
18840.00	60.00	0.00	0.00	838.32	650.00	843.83	.37	.25	.03	310.77	5.51	175.41
18840.00	60.00	0.00	0.00	838.32	865.00	844.16	.35	.27	.06	347.58	5.84	182.99
18840.00	60.00	0.00	0.00	838.32	1690.00	844.93	.46	.30	.04	500.42	6.61	200.43

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
18960.00	120.00	0.00	0.00	838.86	310.00	843.68	.43	.44	0.00	232.63	4.82	159.87
18960.00	120.00	0.00	0.00	838.86	650.00	844.28	.44	.49	.04	326.20	5.42	173.51
18960.00	120.00	0.00	0.00	838.86	865.00	844.60	.42	.47	.03	365.03	5.74	180.72
18960.00	120.00	0.00	0.00	838.86	1690.00	845.46	.47	.54	.00	503.44	6.60	200.02
19080.00	120.00	0.00	0.00	839.40	310.00	844.24	.41	.44	0.00	228.47	4.84	160.44
19080.00	120.00	0.00	0.00	839.40	650.00	844.81	.45	.53	.00	328.21	5.41	173.28
19080.00	120.00	0.00	0.00	839.40	865.00	845.12	.44	.52	.01	368.48	5.72	180.30
19080.00	120.00	0.00	0.00	839.40	1690.00	846.01	.46	.54	.00	502.86	6.61	200.10
19081.00	1.00	843.80	842.40	839.40	310.00	844.68	.07	.00	.10	71.56	5.28	170.44
19081.00	1.00	843.80	842.40	839.40	650.00	845.27	.10	.00	.10	97.40	5.87	183.59
19081.00	1.00	843.80	842.40	839.40	865.00	845.52	.13	.00	.09	114.28	6.12	189.29
19081.00	1.00	843.80	842.40	839.40	1690.00	846.34	.21	.00	.08	167.96	6.94	207.84
19090.00	9.00	843.80	842.40	839.40	310.00	844.73	.06	.04	.00	69.12	5.33	171.24
19090.00	9.00	843.80	842.40	839.40	650.00	845.31	.10	.03	.00	95.44	5.91	184.43
19090.00	9.00	843.80	842.40	839.40	865.00	845.57	.12	.03	.00	112.36	6.17	190.15
19090.00	9.00	843.80	842.40	839.40	1690.00	846.39	.20	.04	.00	166.23	6.99	208.71
19091.00	1.00	0.00	0.00	839.40	310.00	844.69	.13	.00	.03	167.88	5.29	170.68
19091.00	1.00	0.00	0.00	839.40	650.00	845.26	.19	.00	.05	258.54	5.86	183.48
19091.00	1.00	0.00	0.00	839.40	865.00	845.52	.23	.00	.05	307.73	6.12	189.20
19091.00	1.00	0.00	0.00	839.40	1690.00	846.33	.32	.00	.06	453.84	6.93	207.59
19691.00	600.00	0.00	0.00	840.10	310.00	845.66	.27	1.04	.07	307.22	5.56	58.01
19691.00	600.00	0.00	0.00	840.10	650.00	846.60	.42	1.45	.11	555.83	6.50	142.01
19691.00	600.00	0.00	0.00	840.10	865.00	847.00	.43	1.58	.10	662.17	6.90	165.47
19691.00	600.00	0.00	0.00	840.10	1690.00	848.04	.45	1.77	.06	968.23	7.94	184.56
19699.00	8.00	0.00	0.00	844.20	310.00	846.30	.43	.03	0.00	171.81	2.10	117.68
19699.00	8.00	0.00	0.00	844.20	650.00	846.94	.46	.04	0.00	263.41	2.74	165.34
19699.00	8.00	0.00	0.00	844.20	865.00	847.18	.50	.04	0.00	312.65	2.98	171.26
19699.00	8.00	0.00	0.00	844.20	1690.00	848.03	.55	.04	.05	455.71	3.83	184.87
19701.00	2.00	0.00	0.00	844.20	310.00	846.56	.24	.01	.06	152.04	2.36	139.85
19701.00	2.00	0.00	0.00	844.20	650.00	847.17	.29	.01	.05	235.89	2.97	171.03
19701.00	2.00	0.00	0.00	844.20	865.00	847.39	.36	.01	.04	288.15	3.19	176.19
19701.00	2.00	0.00	0.00	844.20	1690.00	848.11	.50	.01	.02	445.34	3.91	185.57
19702.00	1.00	0.00	0.00	843.20	310.00	846.70	.14	.00	.03	169.72	3.50	153.26
19702.00	1.00	0.00	0.00	843.20	650.00	847.28	.21	.00	.02	270.22	4.08	173.67
19702.00	1.00	0.00	0.00	843.20	865.00	847.53	.25	.00	.03	325.03	4.33	179.79
19702.00	1.00	0.00	0.00	843.20	1690.00	848.26	.39	.00	.03	496.16	5.06	186.78
19877.00	175.00	0.00	0.00	843.22	310.00	846.99	.08	.22	.02	148.87	3.77	166.05
19877.00	175.00	0.00	0.00	843.22	650.00	847.71	.11	.31	.03	230.13	4.49	182.11
19877.00	175.00	0.00	0.00	843.22	865.00	848.03	.13	.35	.04	273.64	4.81	184.75
19877.00	175.00	0.00	0.00	843.22	1690.00	848.96	.21	.46	.05	420.15	5.74	192.37

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
20052.00	175.00	0.00	0.00	843.25	310.00	847.16	.06	.15	.01	138.92	3.91	169.56
20052.00	175.00	0.00	0.00	843.25	650.00	847.94	.09	.20	.01	214.11	4.69	183.75
20052.00	175.00	0.00	0.00	843.25	865.00	848.29	.10	.22	.01	255.41	5.04	186.61
20052.00	175.00	0.00	0.00	843.25	1690.00	849.30	.16	.28	.01	395.37	6.05	194.90
20227.00	175.00	0.00	0.00	843.27	310.00	847.30	.05	.12	.00	131.45	4.03	172.55
20227.00	175.00	0.00	0.00	843.27	650.00	848.11	.07	.15	.00	203.69	4.84	184.99
20227.00	175.00	0.00	0.00	843.27	865.00	848.48	.09	.17	.01	243.62	5.21	188.02
20227.00	175.00	0.00	0.00	843.27	1690.00	849.55	.14	.22	.01	379.52	6.28	196.78
20402.00	175.00	0.00	0.00	843.30	310.00	847.26	.56	.22	.25	310.00	3.96	16.15
20402.00	175.00	0.00	0.00	843.30	650.00	848.19	.73	.27	0.00	511.22	4.89	122.84
20402.00	175.00	0.00	0.00	843.30	865.00	848.60	.74	.29	0.00	596.83	5.30	136.47
20402.00	175.00	0.00	0.00	843.30	1690.00	849.55	.85	.36	.36	870.05	6.25	168.71
20403.00	1.00	847.70	848.00	843.30	310.00	847.27	.55	.00	.00	310.00	3.97	16.15
20403.00	1.00	847.70	848.00	843.30	650.00	849.02	.51	.01	0.00	394.42	5.72	150.55
20403.00	1.00	847.70	848.00	843.30	865.00	849.22	.59	.01	0.00	453.71	5.92	157.30
20403.00	1.00	847.70	848.00	843.30	1690.00	849.84	.89	.01	0.00	677.36	6.54	178.23
20423.00	20.00	847.70	848.00	843.30	310.00	847.33	.54	.03	.01	310.00	4.03	16.15
20423.00	20.00	847.70	848.00	843.30	650.00	849.51	.21	.10	.09	298.39	6.21	167.07
20423.00	20.00	847.70	848.00	843.30	865.00	849.77	.25	.12	.10	355.64	6.47	176.05
20423.00	20.00	847.70	848.00	843.30	1690.00	850.70	.33	.14	.17	506.87	7.40	207.28
20424.00	1.00	0.00	0.00	843.30	310.00	847.33	.54	.00	.00	310.00	4.03	16.15
20424.00	1.00	0.00	0.00	843.30	650.00	849.64	.11	.00	.03	315.12	6.34	171.79
20424.00	1.00	0.00	0.00	843.30	865.00	849.93	.14	.00	.03	388.35	6.63	181.29
20424.00	1.00	0.00	0.00	843.30	1690.00	850.84	.23	.00	.03	610.92	7.54	212.11
20474.00	50.00	0.00	0.00	841.90	310.00	847.86	.21	.11	.10	305.69	5.96	40.11
20474.00	50.00	0.00	0.00	841.90	650.00	849.66	.15	.03	.02	456.17	7.76	169.30
20474.00	50.00	0.00	0.00	841.90	865.00	849.95	.19	.04	.02	560.20	8.05	176.64
20474.00	50.00	0.00	0.00	841.90	1690.00	850.88	.28	.06	.03	871.78	8.98	200.39
21099.00	625.00	0.00	0.00	844.10	310.00	849.05	.24	1.20	.02	301.86	4.95	70.08
21099.00	625.00	0.00	0.00	844.10	650.00	850.36	.29	.77	.07	499.99	6.26	166.19
21099.00	625.00	0.00	0.00	844.10	865.00	850.79	.31	.91	.06	594.31	6.69	185.07
21099.00	625.00	0.00	0.00	844.10	1690.00	851.98	.36	1.14	.04	879.46	7.88	237.63
21524.00	425.00	0.00	0.00	844.90	310.00	849.88	.16	.73	.02	290.58	4.98	113.67
21524.00	425.00	0.00	0.00	844.90	650.00	851.18	.16	.65	.04	445.87	6.28	239.46
21524.00	425.00	0.00	0.00	844.90	865.00	851.66	.16	.67	.05	518.73	6.76	284.10
21524.00	425.00	0.00	0.00	844.90	1690.00	852.93	.16	.69	.06	733.16	8.03	355.92
22124.00	600.00	0.00	0.00	846.90	190.00	850.91	.24	1.07	.04	183.16	4.01	108.77
22124.00	600.00	0.00	0.00	846.90	390.00	852.07	.15	.87	.00	249.18	5.17	205.00
22124.00	600.00	0.00	0.00	846.90	530.00	852.52	.14	.84	.01	286.38	5.62	205.00
22124.00	600.00	0.00	0.00	846.90	1020.00	853.72	.12	.73	.01	388.42	6.82	205.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
22304.00	180.00	0.00	0.00	847.80	190.00	851.62	.31	.74	.03	190.00	3.82	16.30
22304.00	180.00	0.00	0.00	847.80	390.00	852.53	.45	.62	.15	338.33	4.73	64.58
22304.00	180.00	0.00	0.00	847.80	530.00	852.92	.54	.60	.20	425.02	5.12	115.00
22304.00	180.00	0.00	0.00	847.80	1020.00	853.99	.58	.50	.23	635.73	6.19	115.00
22494.00	190.00	0.00	0.00	848.80	190.00	852.40	.20	.65	.03	190.00	3.60	19.98
22494.00	190.00	0.00	0.00	848.80	390.00	853.50	.41	.91	.01	390.00	4.70	22.63
22494.00	190.00	0.00	0.00	848.80	530.00	853.99	.57	1.09	.02	530.00	5.19	23.83
22494.00	190.00	0.00	0.00	848.80	1020.00	855.46	.34	.78	0.00	692.66	6.66	878.11
22674.00	180.00	0.00	0.00	849.70	190.00	852.94	.27	.57	.03	190.00	3.24	19.09
22674.00	180.00	0.00	0.00	849.70	390.00	854.24	.45	.76	.02	390.00	4.54	22.24
22674.00	180.00	0.00	0.00	849.70	530.00	854.88	.58	.89	.00	530.00	5.18	23.79
22674.00	180.00	0.00	0.00	849.70	1020.00	856.31	.39	.54	0.00	724.67	6.61	808.02
22744.00	70.00	0.00	0.00	849.20	190.00	853.19	.23	.19	.01	190.00	3.99	15.00
22744.00	70.00	0.00	0.00	849.20	390.00	854.83	.02	.03	.13	115.40	5.63	165.00
22744.00	70.00	0.00	0.00	849.20	530.00	855.63	.02	.03	.17	135.92	6.43	165.00
22744.00	70.00	0.00	0.00	849.20	1020.00	856.81	.03	.04	.11	226.99	7.61	165.00
22806.00	62.00	857.25	854.80	851.20	190.00	857.13	.09	3.80	0.00	190.00	5.93	15.00
22806.00	62.00	857.25	854.80	851.20	390.00	857.63	.01	2.79	0.00	89.42	6.43	380.00
22806.00	62.00	857.25	854.80	851.20	530.00	857.84	.01	2.20	0.00	114.39	6.64	380.00
22806.00	62.00	857.25	854.80	851.20	1020.00	858.27	.03	1.45	0.00	195.14	7.07	380.00
22956.00	150.00	0.00	0.00	853.10	190.00	857.27	.00	.02	.03	46.95	4.17	255.00
22956.00	150.00	0.00	0.00	853.10	390.00	857.65	.01	.01	.00	88.72	4.55	255.00
22956.00	150.00	0.00	0.00	853.10	530.00	857.86	.01	.02	.00	116.11	4.76	255.00
22956.00	150.00	0.00	0.00	853.10	1020.00	858.32	.03	.05	.00	208.49	5.22	255.00
23106.00	150.00	0.00	0.00	855.00	190.00	857.19	.22	.03	.11	137.66	2.19	173.62
23106.00	150.00	0.00	0.00	855.00	390.00	857.62	.22	.08	.10	195.67	2.62	174.15
23106.00	150.00	0.00	0.00	855.00	530.00	857.86	.22	.10	.10	229.18	2.86	174.45
23106.00	150.00	0.00	0.00	855.00	1020.00	858.39	.30	.21	.13	350.14	3.39	190.74
23206.00	100.00	0.00	0.00	855.78	190.00	857.96	.24	.78	.01	139.32	2.18	148.60
23206.00	100.00	0.00	0.00	855.78	390.00	858.39	.25	.79	.02	204.82	2.61	149.14
23206.00	100.00	0.00	0.00	855.78	530.00	858.62	.27	.79	.02	244.87	2.84	149.42
23206.00	100.00	0.00	0.00	855.78	1020.00	859.25	.34	.87	.02	371.83	3.47	178.36
23306.00	100.00	0.00	0.00	856.57	190.00	858.76	.24	.80	.00	140.77	2.19	123.61
23306.00	100.00	0.00	0.00	856.57	390.00	859.22	.27	.85	.01	213.92	2.65	124.18
23306.00	100.00	0.00	0.00	856.57	530.00	859.47	.30	.86	.02	258.41	2.90	124.49
23306.00	100.00	0.00	0.00	856.57	1020.00	860.13	.40	.92	.03	404.93	3.56	168.13
23506.00	200.00	0.00	0.00	858.14	190.00	860.39	.29	1.65	.02	152.26	2.25	73.68
23506.00	200.00	0.00	0.00	858.14	390.00	860.96	.37	1.78	.05	251.67	2.82	74.40
23506.00	200.00	0.00	0.00	858.14	530.00	861.25	.44	1.86	.07	316.19	3.11	74.77
23506.00	200.00	0.00	0.00	858.14	1020.00	862.03	.62	2.01	.11	517.91	3.89	174.76

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
23606.00	100.00	0.00	0.00	858.92	190.00	861.23	.34	.87	.03	165.32	2.31	48.75
23606.00	100.00	0.00	0.00	858.92	390.00	861.88	.52	1.00	.08	296.69	2.96	49.56
23606.00	100.00	0.00	0.00	858.92	530.00	862.22	.64	1.07	.10	382.86	3.30	50.26
23606.00	100.00	0.00	0.00	858.92	1020.00	863.04	1.06	1.23	.22	669.57	4.12	63.00
23656.00	50.00	0.00	0.00	859.31	190.00	861.66	.37	.45	.01	172.82	2.35	36.81
23656.00	50.00	0.00	0.00	859.31	200.00	862.66	.12	.25	.12	161.62	3.35	38.00
23656.00	50.00	0.00	0.00	859.31	200.00	863.17	.08	.22	.17	155.90	3.86	38.00
23656.00	50.00	0.00	0.00	859.31	200.00	864.56	.03	.18	.31	145.94	5.25	38.00
23706.00	50.00	0.00	0.00	859.70	190.00	862.10	.69	.60	.16	190.00	2.40	13.00
23706.00	50.00	0.00	0.00	859.70	200.00	862.66	.49	.18	.18	200.00	2.96	13.00
23706.00	50.00	0.00	0.00	859.70	200.00	863.13	.35	.10	.14	200.00	3.43	13.00
23706.00	50.00	0.00	0.00	859.70	200.00	864.52	.17	.03	.07	200.00	4.82	13.00
23707.00	1.00	0.00	0.00	859.70	190.00	862.12	.68	.01	.00	190.00	2.42	13.00
23707.00	1.00	0.00	0.00	859.70	200.00	862.67	.48	.01	.00	200.00	2.97	13.00
23707.00	1.00	0.00	0.00	859.70	200.00	863.14	.35	.00	.00	200.00	3.44	13.00
23707.00	1.00	0.00	0.00	859.70	200.00	864.52	.17	.00	.00	200.00	4.82	13.00
23887.00	180.00	875.00	864.80	861.40	190.00	864.67	.67	2.54	.00	190.00	3.27	12.00
23887.00	180.00	875.00	864.80	861.40	200.00	867.98	.11	4.94	0.00	200.00	6.58	12.00
23887.00	180.00	875.00	864.80	861.40	200.00	868.46	.09	5.07	0.00	200.00	7.06	12.00
23887.00	180.00	875.00	864.80	861.40	200.00	869.88	.06	5.25	0.00	200.00	8.48	12.00
23987.00	100.00	0.00	0.00	861.50	190.00	865.71	.18	.40	.15	189.97	4.21	22.04
23987.00	100.00	0.00	0.00	861.50	390.00	868.03	.18	.09	.03	371.60	6.53	40.73
23987.00	100.00	0.00	0.00	861.50	530.00	868.48	.26	.10	.08	496.44	6.98	41.35
23987.00	100.00	0.00	0.00	861.50	1020.00	869.79	.52	.14	.23	918.35	8.29	43.15
23990.00	3.00	862.50	864.30	862.00	190.00	866.71	.13	.94	0.00	187.37	4.71	30.91
23990.00	3.00	862.50	864.30	862.00	390.00	868.20	.20	.19	0.00	365.34	6.20	41.03
23990.00	3.00	862.50	864.30	862.00	530.00	868.67	.28	.20	0.00	487.31	6.67	41.66
23990.00	3.00	862.50	864.30	862.00	1020.00	869.99	.54	.22	0.00	901.60	7.99	43.47
24215.00	225.00	0.00	0.00	861.70	190.00	866.94	.11	.22	.00	190.00	5.24	22.86
24215.00	225.00	0.00	0.00	861.70	390.00	868.46	.20	.26	.00	390.00	6.76	27.53
24215.00	225.00	0.00	0.00	861.70	530.00	869.00	.28	.34	.00	530.00	7.30	29.19
24215.00	225.00	0.00	0.00	861.70	1020.00	870.49	.54	.50	.00	1005.73	8.79	44.54
24216.00	1.00	0.00	0.00	865.70	190.00	867.81	.72	.00	0.00	188.86	2.11	21.90
24216.00	1.00	0.00	0.00	865.70	390.00	868.71	1.09	.00	0.00	380.01	3.01	26.01
24216.00	1.00	0.00	0.00	865.70	530.00	869.27	1.26	.00	0.00	508.08	3.57	31.69
24216.00	1.00	0.00	0.00	865.70	1020.00	870.73	1.63	.00	0.00	901.96	5.03	43.74
24366.00	150.00	0.00	0.00	865.70	190.00	869.34	.39	1.09	.10	190.00	3.64	13.00
24366.00	150.00	0.00	0.00	865.70	390.00	870.48	.41	.88	.21	302.08	4.78	49.47
24366.00	150.00	0.00	0.00	865.70	530.00	871.16	.39	.76	.26	360.67	5.46	61.97
24366.00	150.00	0.00	0.00	865.70	1020.00	872.97	.32	.53	.39	498.56	7.27	95.10

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
24456.00	90.00	872.70	870.40	867.10	190.00	872.15	.14	2.57	0.00	190.00	5.05	13.00
24456.00	90.00	872.70	870.40	867.10	390.00	873.71	.03	2.85	0.00	157.14	6.61	104.00
24456.00	90.00	872.70	870.40	867.10	530.00	874.05	.04	2.54	0.00	200.66	6.95	104.00
24456.00	90.00	872.70	870.40	867.10	1020.00	874.90	.10	1.71	0.00	338.60	7.80	104.00
24556.00	100.00	0.00	0.00	868.20	190.00	872.21	.30	.14	.08	190.00	4.01	16.67
24556.00	100.00	0.00	0.00	868.20	390.00	873.52	.51	.04	.24	389.75	5.32	22.39
24556.00	100.00	0.00	0.00	868.20	530.00	873.70	.85	.06	.40	528.79	5.50	25.07
24556.00	100.00	0.00	0.00	868.20	1020.00	874.76	1.68	.11	0.00	980.37	6.56	39.41
24906.00	350.00	0.00	0.00	870.40	190.00	873.50	.25	.91	0.00	150.68	3.10	35.04
24906.00	350.00	0.00	0.00	870.40	390.00	874.73	.38	1.03	.04	275.54	4.33	46.36
24906.00	350.00	0.00	0.00	870.40	530.00	875.44	.42	1.19	.13	351.60	5.04	53.02
24906.00	350.00	0.00	0.00	870.40	1020.00	877.49	.46	1.14	.37	554.89	7.09	55.00
24958.00	52.00	875.20	873.80	870.80	190.00	875.46	.06	1.78	0.00	120.52	4.66	51.37
24958.00	52.00	875.20	873.80	870.80	390.00	876.68	.11	1.69	0.00	214.49	5.88	55.00
24958.00	52.00	875.20	873.80	870.80	530.00	877.15	.15	1.44	0.00	278.05	6.35	55.00
24958.00	52.00	875.20	873.80	870.80	1020.00	878.48	.29	.83	0.00	484.91	7.68	55.00
25133.00	175.00	0.00	0.00	871.60	150.00	875.55	.04	.06	.01	84.47	3.95	53.12
25133.00	175.00	0.00	0.00	871.60	315.00	876.82	.06	.07	.01	150.07	5.22	55.00
25133.00	175.00	0.00	0.00	871.60	425.00	877.34	.08	.09	.02	192.87	5.74	55.00
25133.00	175.00	0.00	0.00	871.60	830.00	878.80	.15	.13	.04	342.48	7.20	55.00
25196.00	63.00	876.00	875.90	872.40	150.00	876.68	.02	1.10	0.00	69.89	4.28	55.00
25196.00	63.00	876.00	875.90	872.40	315.00	877.60	.05	.77	0.00	134.23	5.20	55.00
25196.00	63.00	876.00	875.90	872.40	425.00	878.00	.07	.65	0.00	175.89	5.60	55.00
25196.00	63.00	876.00	875.90	872.40	830.00	879.29	.15	.49	0.00	320.76	6.89	55.00
25321.00	125.00	0.00	0.00	872.30	150.00	876.64	.15	.03	.07	130.44	4.34	31.02
25321.00	125.00	0.00	0.00	872.30	315.00	877.53	.29	.06	.12	242.14	5.23	41.48
25321.00	125.00	0.00	0.00	872.30	425.00	877.92	.39	.08	.16	309.89	5.62	43.19
25321.00	125.00	0.00	0.00	872.30	830.00	879.18	.61	.11	.23	520.18	6.88	44.47
25471.00	150.00	0.00	0.00	873.60	150.00	876.81	.22	.20	.04	150.00	3.21	13.40
25471.00	150.00	0.00	0.00	873.60	315.00	877.73	.57	.34	.14	315.00	4.13	13.40
25471.00	150.00	0.00	0.00	873.60	425.00	878.40	.23	.27	.05	346.40	4.80	62.23
25471.00	150.00	0.00	0.00	873.60	830.00	879.89	.29	.30	.10	569.57	6.29	86.09
25512.00	41.00	879.50	878.70	873.90	150.00	876.86	.29	.09	.04	150.00	2.96	13.40
25512.00	41.00	879.50	878.70	873.90	315.00	877.78	.79	.16	.11	315.00	3.88	13.40
25512.00	41.00	879.50	878.70	873.90	425.00	880.22	.07	1.66	0.00	281.92	6.32	90.00
25512.00	41.00	879.50	878.70	873.90	830.00	881.52	.11	1.45	0.00	460.99	7.62	90.00
25612.00	100.00	0.00	0.00	875.00	150.00	877.34	.78	.54	0.00	150.00	2.34	13.86
25612.00	100.00	0.00	0.00	875.00	315.00	878.44	1.04	.79	.13	315.00	3.44	17.44
25612.00	100.00	0.00	0.00	875.00	425.00	880.07	.55	.09	.24	422.48	5.07	28.93
25612.00	100.00	0.00	0.00	875.00	830.00	881.24	.92	.12	.41	775.79	6.24	57.39

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
25812.00	200.00	0.00	0.00	877.25	150.00	879.89	.21	1.82	.17	150.00	2.64	28.53
25812.00	200.00	0.00	0.00	877.25	315.00	880.91	.23	1.41	.24	297.21	3.66	98.96
25812.00	200.00	0.00	0.00	877.25	425.00	881.31	.22	.81	.10	363.99	4.06	107.74
25812.00	200.00	0.00	0.00	877.25	830.00	882.76	.14	.50	.23	521.03	5.51	150.00
26012.00	200.00	0.00	0.00	879.50	150.00	881.72	.62	1.90	0.00	150.00	2.22	19.64
26012.00	200.00	0.00	0.00	879.50	315.00	882.94	.39	1.08	0.00	283.11	3.44	138.10
26012.00	200.00	0.00	0.00	879.50	425.00	883.17	.38	.91	0.00	334.74	3.67	149.03
26012.00	200.00	0.00	0.00	879.50	830.00	883.57	.58	.52	0.00	535.23	4.07	156.64
26013.00	1.00	882.40	882.80	879.50	150.00	883.09	.23	.02	0.00	70.04	3.59	108.79
26013.00	1.00	882.40	882.80	879.50	315.00	883.42	.20	.01	0.00	67.60	3.92	138.79
26013.00	1.00	882.40	882.80	879.50	425.00	883.44	.34	.02	0.00	88.03	3.94	140.02
26013.00	1.00	882.40	882.80	879.50	830.00	883.80	.52	.02	0.00	112.02	4.30	158.52
26037.00	24.00	882.40	883.60	880.30	150.00	883.50	.04	.17	.06	31.87	3.20	143.22
26037.00	24.00	882.40	883.60	880.30	315.00	883.83	.07	.24	.04	41.14	3.53	160.41
26037.00	24.00	882.40	883.60	880.30	425.00	884.05	.08	.27	.08	45.87	3.75	172.08
26037.00	24.00	882.40	883.60	880.30	830.00	884.59	.14	.30	.11	63.45	4.29	190.35
26038.00	1.00	0.00	0.00	880.30	150.00	883.52	.03	.00	.00	91.44	3.22	154.54
26038.00	1.00	0.00	0.00	880.30	315.00	883.84	.07	.00	.00	166.45	3.54	167.92
26038.00	1.00	0.00	0.00	880.30	425.00	884.06	.08	.00	.00	207.92	3.76	176.90
26038.00	1.00	0.00	0.00	880.30	830.00	884.59	.14	.00	.00	351.11	4.29	190.35
26188.00	150.00	0.00	0.00	879.90	150.00	883.73	.06	.23	.01	136.85	3.83	46.59
26188.00	150.00	0.00	0.00	879.90	315.00	884.27	.15	.47	.04	265.99	4.37	68.44
26188.00	150.00	0.00	0.00	879.90	425.00	884.55	.20	.55	.06	340.61	4.65	80.33
26188.00	150.00	0.00	0.00	879.90	830.00	885.31	.35	.82	.10	566.29	5.41	93.00
26388.00	200.00	0.00	0.00	880.80	150.00	884.17	.19	.51	.06	150.00	3.37	20.73
26388.00	200.00	0.00	0.00	880.80	315.00	885.07	.39	.92	.12	314.75	4.27	27.11
26388.00	200.00	0.00	0.00	880.80	425.00	885.50	.51	1.10	.15	421.63	4.70	33.84
26388.00	200.00	0.00	0.00	880.80	830.00	886.58	.86	1.53	.26	774.64	5.78	62.05
26763.00	375.00	0.00	0.00	883.70	150.00	886.42	.38	2.35	.10	149.82	2.72	23.86
26763.00	375.00	0.00	0.00	883.70	315.00	887.48	.25	2.23	.04	229.33	3.78	121.43
26763.00	375.00	0.00	0.00	883.70	425.00	887.90	.18	1.97	.10	248.28	4.20	127.56
26763.00	375.00	0.00	0.00	883.70	830.00	889.06	.14	1.55	.21	325.33	5.36	142.84
26863.00	100.00	0.00	0.00	884.60	150.00	887.81	.65	1.52	.14	150.00	3.21	8.00
26863.00	100.00	0.00	0.00	884.60	315.00	888.54	1.84	1.52	0.00	315.00	3.94	8.00
26863.00	100.00	0.00	0.00	884.60	425.00	888.62	.28	.77	.05	277.84	4.02	125.27
26863.00	100.00	0.00	0.00	884.60	830.00	889.55	.24	.54	.05	379.16	4.95	137.45
26946.00	83.00	891.80	890.00	884.60	150.00	888.90	.36	.71	.09	150.00	4.30	8.20
26946.00	83.00	891.80	890.00	884.60	315.00	890.90	.63	1.15	0.00	315.00	6.30	8.20
26946.00	83.00	891.80	890.00	884.60	425.00	891.72	.12	2.94	0.00	319.46	7.12	184.83
26946.00	83.00	891.80	890.00	884.60	830.00	892.19	.24	2.63	0.00	535.24	7.59	261.95

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
27046.00	100.00	0.00	0.00	885.00	150.00	889.48	.13	.28	.07	150.00	4.48	19.65
27046.00	100.00	0.00	0.00	885.00	315.00	891.75	.10	.16	.16	271.45	6.75	78.13
27046.00	100.00	0.00	0.00	885.00	425.00	891.78	.17	.09	.03	364.50	6.78	79.22
27046.00	100.00	0.00	0.00	885.00	830.00	892.28	.41	.18	.09	650.26	7.28	164.95
-23606.00	100.00	0.00	0.00	858.92	190.00	861.23	.34	.40	0.00	165.12	2.31	48.76
-23606.00	100.00	0.00	0.00	858.92	390.00	861.88	.52	.23	0.00	296.22	2.96	49.57
-23606.00	100.00	0.00	0.00	858.92	530.00	862.22	.64	.37	0.00	382.86	3.30	50.24
-23606.00	100.00	0.00	0.00	858.92	1020.00	863.04	1.07	.67	0.00	670.21	4.12	63.00
23636.00	30.00	0.00	0.00	865.70	.01	865.80	.00	.26	0.00	.01	.10	16.67
23636.00	30.00	0.00	0.00	865.70	190.00	866.61	.39	.27	0.00	190.00	.91	50.00
23636.00	30.00	0.00	0.00	865.70	330.00	866.95	.56	.26	0.00	330.00	1.25	50.00
23636.00	30.00	0.00	0.00	865.70	820.00	867.87	1.02	.25	0.00	820.00	2.17	50.00
23886.00	250.00	0.00	0.00	866.70	.01	866.80	.00	0.00	0.00	.01	.10	16.67
23886.00	250.00	0.00	0.00	866.70	190.00	867.84	.23	1.03	.05	190.00	1.14	50.00
23886.00	250.00	0.00	0.00	866.70	330.00	868.21	.37	1.01	.06	330.00	1.51	50.00
23886.00	250.00	0.00	0.00	866.70	820.00	869.16	.79	.98	.07	820.00	2.46	50.00
-15028.00	3.00	0.00	0.00	813.40	310.00	819.16	.15	0.00	0.00	310.00	5.76	18.00
-15028.00	3.00	0.00	0.00	813.40	650.00	821.90	.30	.01	0.00	650.00	8.50	18.00
-15028.00	3.00	0.00	0.00	813.40	865.00	824.47	.31	.01	0.00	865.00	11.07	18.00
-15028.00	3.00	0.00	0.00	813.40	1690.00	826.26	.01	.00	0.00	591.01	12.86	407.50
15128.00	100.00	0.00	0.00	821.60	.10	821.70	.03	.12	0.00	.10	.10	1.37
15128.00	100.00	0.00	0.00	821.60	60.00	822.99	.35	.20	0.00	60.00	1.39	18.16
15128.00	100.00	0.00	0.00	821.60	300.00	824.63	.42	.22	.06	300.00	3.03	33.33
15128.00	100.00	0.00	0.00	821.60	1050.00	826.06	1.42	.01	0.00	1050.00	4.46	39.65
15203.00	75.00	0.00	0.00	824.50	.10	824.64	.04	0.00	0.00	.10	.14	.86
15203.00	75.00	0.00	0.00	824.50	60.00	826.39	.48	2.71	0.00	60.00	1.89	11.46
15203.00	75.00	0.00	0.00	824.50	300.00	828.13	.87	1.41	0.00	300.00	3.63	23.62
15203.00	75.00	0.00	0.00	824.50	1050.00	830.29	1.24	1.86	0.00	1050.00	5.79	47.68

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.000	380.000	689.350	0.000	0.000	0.000	15.999	0.000	0.000
0.000	780.000	690.700	1.350	0.000	0.000	15.999	-.000	0.000
0.000	995.000	690.900	.200	0.000	0.000	15.999	-.000	0.000
0.000	1690.000	692.900	2.000	0.000	0.000	15.999	-.000	0.000
1.000	380.000	689.341	0.000	-.009	0.000	15.600	0.000	1.000
1.000	780.000	690.615	1.274	-.085	0.000	15.600	0.000	1.000
1.000	995.000	690.713	.098	-.187	0.000	15.600	0.000	1.000
1.000	1690.000	692.397	1.684	-.503	0.000	15.600	0.000	1.000
112.000	380.000	689.979	0.000	.638	0.000	15.600	0.000	111.000
112.000	780.000	692.216	2.236	1.601	0.000	15.600	0.000	111.000
112.000	995.000	693.694	1.478	2.981	0.000	15.600	0.000	111.000
112.000	1690.000	697.827	4.132	5.430	0.000	15.600	0.000	111.000
113.000	380.000	690.040	0.000	.061	0.000	15.599	0.000	1.000
113.000	780.000	692.588	2.548	.372	0.000	15.599	-.000	1.000
113.000	995.000	694.367	1.779	.673	0.000	15.599	-.000	1.000
113.000	1690.000	701.560	7.193	3.733	0.000	15.599	-.000	1.000
116.000	380.000	690.571	0.000	.531	0.000	21.999	0.000	3.000
116.000	780.000	693.327	2.756	.739	0.000	21.999	-.000	3.000
116.000	995.000	695.057	1.730	.689	0.000	21.999	-.000	3.000
116.000	1690.000	702.059	7.003	.499	0.000	21.999	-.000	3.000

212.000	380.000	690.982	0.000	.411	0.000	48.530	0.000	96.000
212.000	780.000	694.013	3.031	.687	0.000	204.538	-156.007	96.000
212.000	995.000	695.740	1.727	.683	0.000	214.999	-166.469	96.000
212.000	1690.000	702.613	6.873	.554	0.000	214.999	-166.469	96.000
812.000	380.000	694.081	0.000	3.099	0.000	31.392	0.000	600.000
812.000	780.000	695.008	.927	.994	0.000	37.641	-6.249	600.000
812.000	995.000	696.024	1.016	.284	0.000	44.505	-13.113	600.000
812.000	1690.000	702.642	6.618	.029	0.000	188.732	-157.340	600.000
1312.000	380.000	696.069	0.000	1.989	0.000	28.499	0.000	500.000
1312.000	780.000	697.846	1.777	2.839	0.000	32.602	-4.104	500.000
1312.000	995.000	698.513	.667	2.490	0.000	34.157	-5.658	500.000
1312.000	1690.000	702.835	4.321	.193	0.000	247.149	-218.651	500.000
1437.000	380.000	697.082	0.000	1.013	0.000	26.359	0.000	125.000
1437.000	780.000	698.685	1.602	.838	0.000	48.419	-22.061	125.000
1437.000	995.000	699.357	.672	.843	0.000	50.317	-23.959	125.000
1437.000	1690.000	702.922	3.565	.087	0.000	276.684	-250.326	125.000
1562.000	380.000	698.267	0.000	1.184	0.000	46.615	0.000	125.000
1562.000	780.000	699.783	1.516	1.098	0.000	58.145	-11.530	125.000
1562.000	995.000	700.381	.599	1.025	0.000	72.456	-25.841	125.000
1562.000	1690.000	703.049	2.668	.127	0.000	74.999	-28.384	125.000
1625.000	380.000	698.603	0.000	.336	0.000	34.005	0.000	63.000
1625.000	780.000	700.043	1.440	.260	0.000	39.644	-5.639	63.000
1625.000	995.000	700.600	.557	.219	0.000	42.999	-8.994	63.000
1625.000	1690.000	703.041	2.441	-.008	0.000	42.999	-8.994	63.000
1662.000	380.000	698.784	0.000	.181	0.000	24.999	0.000	37.000
1662.000	780.000	700.151	1.367	.108	0.000	24.999	-.000	37.000
1662.000	995.000	700.655	.504	.054	0.000	24.999	-.000	37.000
1662.000	1690.000	702.853	2.198	-.188	0.000	24.999	-.000	37.000
1669.000	380.000	698.780	0.000	-.004	0.000	21.999	0.000	7.000
1669.000	780.000	700.091	1.310	-.060	0.000	21.999	-.000	7.000
1669.000	995.000	700.556	.465	-.099	0.000	21.999	-.000	7.000
1669.000	1690.000	702.673	2.117	-.179	0.000	21.999	-.000	7.000
1675.000	380.000	698.725	0.000	-.056	0.000	17.999	0.000	6.000
1675.000	780.000	699.867	1.143	-.223	0.000	17.999	-.000	6.000
1675.000	995.000	700.363	.496	-.193	0.000	17.999	-.000	6.000
1675.000	1690.000	702.269	1.906	-.404	0.000	17.999	-.000	6.000
1681.000	380.000	698.610	0.000	-.114	0.000	14.999	0.000	6.000
1681.000	780.000	700.122	1.512	.254	0.000	14.999	-.000	6.000
1681.000	995.000	700.897	.775	.533	0.000	14.999	-.000	6.000
1681.000	1690.000	703.076	2.179	.806	0.000	14.999	-.000	6.000
1687.000	380.000	699.777	0.000	1.167	0.000	11.999	0.000	6.000
1687.000	780.000	701.707	1.930	1.585	0.000	11.999	-.000	6.000
1687.000	995.000	702.598	.891	1.701	0.000	11.999	-.000	6.000
1687.000	1690.000	705.119	2.521	2.044	0.000	11.999	-.000	6.000
1688.000	380.000	699.875	0.000	.098	0.000	12.000	0.000	1.000
1688.000	780.000	701.834	1.958	.126	0.000	12.000	0.000	1.000
1688.000	995.000	702.431	.597	-.167	0.000	12.000	0.000	1.000
1688.000	1690.000	705.264	2.833	.145	0.000	12.000	0.000	1.000
1748.000	380.000	701.207	0.000	1.332	0.000	12.000	0.000	60.000
1748.000	780.000	703.516	2.309	1.683	0.000	12.000	0.000	60.000
1748.000	995.000	705.019	1.503	2.588	0.000	12.000	0.000	60.000
1748.000	1690.000	708.236	3.218	2.972	0.000	12.000	0.000	60.000

1749.000	380.0	1.215	0.0 0	. 8	0.00	11.999	0. 0	1.000
1749.000	780.000	703.893	2.677	.376	0.000	11.999	-.000	1.000
1749.000	995.000	705.577	1.685	.558	0.000	11.999	-.000	1.000
1749.000	1690.000	711.680	6.103	3.444	0.000	11.999	-.000	1.000
1752.000	380.000	701.460	0.000	.245	0.000	17.999	0.000	3.000
1752.000	820.000	704.383	2.923	.490	0.000	17.999	-.000	3.000
1752.000	995.000	706.321	1.938	.744	0.000	17.999	-.000	3.000
1752.000	1690.000	712.468	6.148	.788	0.000	17.999	-.000	3.000
1817.000	380.000	702.257	0.000	.797	0.000	91.001	0.000	65.000
1817.000	820.000	705.580	3.323	1.197	0.000	151.999	-60.998	65.000
1817.000	995.000	707.370	1.790	1.049	0.000	151.999	-60.998	65.000
1817.000	1690.000	713.477	6.107	1.008	0.000	151.999	-60.998	65.000
1818.000	380.000	702.164	0.000	-.093	0.000	82.545	0.000	1.000
1818.000	820.000	705.559	3.395	-.021	0.000	151.999	-69.454	1.000
1818.000	995.000	707.359	1.799	-.011	0.000	151.999	-69.454	1.000
1818.000	1690.000	713.471	6.112	-.006	0.000	151.999	-69.454	1.000
1821.000	380.000	702.170	0.000	.006	0.000	82.811	0.000	3.000
1821.000	820.000	705.560	3.390	.001	0.000	151.999	-69.188	3.000
1821.000	995.000	707.359	1.799	.001	0.000	151.999	-69.188	3.000
1821.000	1690.000	713.471	6.112	.000	0.000	151.999	-69.188	3.000
1822.000	380.000	702.356	0.000	.186	0.000	99.353	0.000	1.000
1822.000	820.000	705.615	3.259	.055	0.000	151.999	-52.646	1.000
1822.000	995.000	707.394	1.779	.035	0.000	151.999	-52.646	1.000
1822.000	1690.000	713.491	6.097	.020	0.000	151.999	-52.646	1.000
1972.000	380.000	702.546	0.000	.190	0.000	73.814	0.000	150.000
1972.000	820.000	705.674	3.128	.059	0.000	202.519	-128.706	150.000
1972.000	995.000	707.427	1.753	.034	0.000	210.628	-136.814	150.000
1972.000	1690.000	713.510	6.083	.019	0.000	238.734	-164.920	150.000
2572.000	380.000	704.073	0.000	1.528	0.000	45.941	0.000	600.000
2572.000	820.000	706.159	2.086	.485	0.000	86.882	-40.941	600.000
2572.000	995.000	707.616	1.456	.188	0.000	112.921	-66.980	600.000
2572.000	1690.000	713.544	5.928	.034	0.000	194.736	-148.794	600.000
2573.000	380.000	704.503	0.000	.429	0.000	56.876	0.000	1.000
2573.000	820.000	705.812	1.310	-.347	0.000	82.202	-25.326	1.000
2573.000	995.000	707.512	1.699	-.104	0.000	112.606	-55.730	1.000
2573.000	1690.000	713.534	6.022	-.010	0.000	194.737	-137.862	1.000
2576.000	380.000	704.953	0.000	.450	0.000	65.479	0.000	3.000
2576.000	820.000	706.253	1.300	.441	0.000	90.870	-25.391	3.000
2576.000	995.000	707.520	1.267	.009	0.000	112.686	-47.207	3.000
2576.000	1690.000	713.534	6.014	.001	0.000	194.745	-129.266	3.000
2577.000	380.000	705.293	0.000	.341	0.000	65.175	0.000	1.000
2577.000	820.000	706.690	1.397	.437	0.000	94.245	-29.070	1.000
2577.000	995.000	707.722	1.031	.201	0.000	112.907	-47.732	1.000
2577.000	1690.000	713.569	5.848	.035	0.000	195.160	-129.985	1.000
3227.000	380.000	708.086	0.000	2.793	0.000	21.352	0.000	650.000
3227.000	820.000	709.761	1.675	3.071	0.000	172.046	-150.693	650.000
3227.000	995.000	710.064	.303	2.343	0.000	193.770	-172.418	650.000
3227.000	1690.000	713.835	3.771	.266	0.000	210.726	-189.374	650.000
3317.000	380.000	708.657	0.000	.570	0.000	21.167	0.000	90.000
3317.000	820.000	710.261	1.604	.499	0.000	154.052	-132.885	90.000
3317.000	995.000	710.578	.317	.513	0.000	182.633	-161.466	90.000
3317.000	1690.000	713.893	3.316	.058	0.000	207.806	-186.639	90.000
3407.000	380.000	709.286	0.000	.629	0.000	21.066	0.000	90.000

3407.000	820.000	710.895	1.609	.632	0.000	178.121	-127.055	90.000
3407.000	995.000	711.221	.325	.643	0.000	177.402	-156.336	90.000
3407.000	1690.000	713.980	2.759	.087	0.000	205.039	-183.973	90.000
3497.000	380.000	709.925	0.000	.639	0.000	20.979	0.000	90.000
3497.000	820.000	711.552	1.628	.657	0.000	144.009	-123.030	90.000
3497.000	995.000	711.884	.331	.663	0.000	174.321	-153.343	90.000
3497.000	1690.000	714.111	2.227	.131	0.000	202.522	-181.543	90.000
3587.000	380.000	710.638	0.000	.713	0.000	17.272	0.000	90.000
3587.000	820.000	712.392	1.755	.840	0.000	174.251	-156.979	90.000
3587.000	995.000	712.606	.214	.722	0.000	185.444	-168.172	90.000
3587.000	1690.000	714.311	1.705	.201	0.000	216.270	-198.998	90.000
4187.000	380.000	714.419	0.000	3.781	0.000	62.765	0.000	600.000
4187.000	820.000	715.742	1.323	3.350	0.000	86.694	-23.929	600.000
4187.000	995.000	716.161	.419	3.555	0.000	87.522	-24.757	600.000
4187.000	1690.000	716.650	.489	2.339	0.000	88.514	-25.749	600.000
4262.000	380.000	714.542	0.000	.123	0.000	23.680	0.000	75.000
4262.000	820.000	715.861	1.319	.119	0.000	56.999	-33.319	75.000
4262.000	995.000	716.267	.406	.106	0.000	56.999	-33.319	75.000
4262.000	1690.000	716.837	.570	.187	0.000	56.999	-33.319	75.000
4312.000	380.000	714.695	0.000	.153	0.000	21.080	0.000	50.000
4312.000	820.000	716.033	1.339	.172	0.000	23.000	-1.920	50.000
4312.000	995.000	716.415	.382	.149	0.000	31.999	-10.919	50.000
4312.000	1690.000	717.288	.872	.451	0.000	31.999	-10.919	50.000
4326.000	380.000	714.766	0.000	.072	0.000	22.000	0.000	14.000
4326.000	820.000	717.691	2.924	1.657	0.000	22.000	0.000	14.000
4326.000	995.000	718.919	1.228	2.503	0.000	24.999	-2.999	14.000
4326.000	1690.000	721.655	2.736	4.367	0.000	24.999	-2.999	14.000
4337.000	380.000	715.083	0.000	.317	0.000	19.499	0.000	11.000
4337.000	820.000	717.637	2.554	-.053	0.000	19.499	-.000	11.000
4337.000	995.000	718.823	1.186	-.096	0.000	19.499	-.000	11.000
4337.000	1690.000	721.488	2.665	-.167	0.000	19.499	-.000	11.000
4338.000	380.000	715.086	0.000	.002	0.000	19.500	0.000	1.000
4338.000	820.000	717.640	2.554	.003	0.000	19.500	0.000	1.000
4338.000	995.000	718.826	1.186	.003	0.000	19.500	0.000	1.000
4338.000	1690.000	721.492	2.666	.004	0.000	19.500	0.000	1.000
4381.000	380.000	715.140	0.000	.054	0.000	19.500	0.000	43.000
4381.000	820.000	717.718	2.578	.077	0.000	19.500	0.000	43.000
4381.000	995.000	718.900	1.182	.074	0.000	19.500	0.000	43.000
4381.000	1690.000	721.600	2.700	.108	0.000	19.500	0.000	43.000
4382.000	380.000	715.142	0.000	.002	0.000	19.499	0.000	1.000
4382.000	820.000	717.720	2.578	.002	0.000	19.499	-.000	1.000
4382.000	995.000	718.902	1.182	.002	0.000	19.499	-.000	1.000
4382.000	1690.000	721.603	2.701	.003	0.000	19.499	-.000	1.000
4387.000	380.000	715.326	0.000	.185	0.000	29.999	0.000	5.000
4387.000	820.000	718.098	2.772	.378	0.000	29.999	-.000	5.000
4387.000	995.000	719.316	1.218	.414	0.000	29.999	-.000	5.000
4387.000	1690.000	722.314	2.998	.711	0.000	29.999	-.000	5.000
4462.000	380.000	715.391	0.000	.065	0.000	39.932	0.000	75.000
4462.000	820.000	718.229	2.837	.131	0.000	94.698	-54.766	75.000
4462.000	995.000	719.496	1.268	.180	0.000	97.999	-58.067	75.000
4462.000	1690.000	722.678	3.181	.363	0.000	97.999	-58.067	75.000
4470.000	380.000	717.909	0.000	2.517	0.000	66.796	0.000	8.000
4470.000	820.000	718.904	.996	.676	0.000	86.905	-20.109	8.000

4470.000	[illegible]	[illegible]	.74	.148	0.00	[illegible]	-31.203	8.000
4470.000	1690.000	722.693	3.049	.016	0.000	97.999	-31.203	8.000
4540.000	380.000	717.826	0.000	-.082	0.000	30.761	0.000	70.000
4540.000	820.000	718.700	.874	-.204	0.000	40.017	-9.255	70.000
4540.000	995.000	719.477	.777	-.167	0.000	48.209	-17.447	70.000
4540.000	1690.000	722.656	3.179	-.037	0.000	81.762	-51.001	70.000
4890.000	380.000	718.750	0.000	.923	0.000	94.852	0.000	350.000
4890.000	820.000	720.422	1.672	1.721	0.000	175.898	-81.047	350.000
4890.000	995.000	721.032	.610	1.555	0.000	181.778	-86.926	350.000
4890.000	1690.000	723.518	2.486	.861	0.000	242.499	-147.647	350.000
4939.000	380.000	718.804	0.000	.054	0.000	87.515	0.000	49.000
4939.000	820.000	720.466	1.662	.044	0.000	177.220	-89.705	49.000
4939.000	995.000	721.071	.605	.038	0.000	182.663	-95.148	49.000
4939.000	1690.000	723.539	2.468	.021	0.000	243.169	-155.653	49.000
4940.000	380.000	718.793	0.000	-.011	0.000	84.305	0.000	1.000
4940.000	820.000	720.546	1.753	.080	0.000	177.252	-92.946	1.000
4940.000	995.000	721.146	.600	.076	0.000	182.982	-98.677	1.000
4940.000	1690.000	723.583	2.436	.044	0.000	244.540	-160.235	1.000
4944.000	380.000	718.815	0.000	.023	0.000	86.066	0.000	4.000
4944.000	820.000	720.556	1.741	.010	0.000	177.319	-91.253	4.000
4944.000	995.000	721.154	.598	.008	0.000	183.035	-96.969	4.000
4944.000	1690.000	723.586	2.432	.003	0.000	244.614	-156.548	4.000
4945.000	380.000	718.858	0.000	.042	0.000	94.756	0.000	1.000
4945.000	820.000	720.528	1.670	-.029	0.000	177.779	-83.023	1.000
4945.000	995.000	721.125	.597	-.029	0.000	183.149	-88.393	1.000
4945.000	1690.000	723.567	2.442	-.019	0.000	244.340	-149.584	1.000
4994.000	380.000	718.920	0.000	.063	0.000	65.542	0.000	49.000
4994.000	820.000	720.570	1.650	.043	0.000	175.645	-110.103	49.000
4994.000	995.000	721.162	.592	.037	0.000	180.968	-115.425	49.000
4994.000	1690.000	723.586	2.424	.020	0.000	236.272	-170.730	49.000
5794.000	340.000	721.125	0.000	2.205	0.000	52.746	0.000	800.000
5794.000	710.000	722.399	1.274	1.829	0.000	110.572	-57.826	800.000
5794.000	950.000	722.824	.425	1.662	0.000	129.826	-77.079	800.000
5794.000	1690.000	724.406	1.582	.820	0.000	168.313	-115.566	800.000
5857.000	340.000	721.518	0.000	.393	0.000	45.650	0.000	63.000
5857.000	710.000	722.749	1.230	.350	0.000	101.527	-55.877	63.000
5857.000	950.000	723.219	.471	.395	0.000	122.926	-77.276	63.000
5857.000	1690.000	724.665	1.445	.259	0.000	148.048	-102.397	63.000
5882.000	340.000	721.701	0.000	.183	0.000	43.602	0.000	25.000
5882.000	710.000	722.907	1.206	.159	0.000	98.497	-54.895	25.000
5882.000	950.000	723.386	.479	.167	0.000	120.480	-76.877	25.000
5882.000	1690.000	724.774	1.388	.109	0.000	146.753	-103.151	25.000
5907.000	340.000	721.897	0.000	.196	0.000	42.577	0.000	25.000
5907.000	710.000	723.083	1.186	.176	0.000	96.471	-53.895	25.000
5907.000	950.000	723.567	.484	.180	0.000	118.740	-76.163	25.000
5907.000	1690.000	724.896	1.329	.122	0.000	145.589	-103.012	25.000
5919.000	340.000	721.891	0.000	-.006	0.000	11.999	0.000	12.000
5919.000	710.000	723.144	1.253	.061	0.000	94.487	-82.488	12.000
5919.000	950.000	723.619	.475	.052	0.000	116.030	-104.031	12.000
5919.000	1690.000	724.915	1.297	.019	0.000	144.418	-132.419	12.000
5994.000	340.000	723.464	0.000	1.573	0.000	11.495	0.000	75.000
5994.000	710.000	728.739	5.275	5.594	0.000	97.308	-85.813	75.000
5994.000	950.000	729.586	.847	5.967	0.000	104.710	-93.215	75.000

5994.000	1690.000	730.978	1.392	0.65	.0 0	110.878	-105.383	75.0
6003.000	340.000	725.449	0.000	1.985	0.000	21.701	0.000	9.000
6003.000	710.000	728.705	3.256	-.034	0.000	98.460	-76.759	9.000
6003.000	950.000	729.529	.824	-.057	0.000	108.816	-87.115	9.000
6003.000	1690.000	730.841	1.312	-.137	0.000	109.999	-88.298	9.000
6010.000	340.000	727.594	0.000	2.146	0.000	101.251	0.000	7.000
6010.000	710.000	728.802	1.207	.097	0.000	109.999	-8.748	7.000
6010.000	950.000	729.570	.769	.041	0.000	109.999	-8.748	7.000
6010.000	1690.000	730.940	1.370	.099	0.000	109.999	-8.748	7.000
6130.000	340.000	727.620	0.000	.025	0.000	99.945	0.000	120.000
6130.000	710.000	728.883	1.263	.081	0.000	147.510	-47.565	120.000
6130.000	950.000	729.705	.822	.134	0.000	187.162	-87.216	120.000
6130.000	1690.000	731.280	1.575	.340	0.000	244.310	-144.365	120.000
6250.000	340.000	727.869	0.000	.249	0.000	77.727	0.000	120.000
6250.000	710.000	729.085	1.217	.203	0.000	112.316	-34.589	120.000
6250.000	950.000	729.854	.768	.149	0.000	141.955	-64.227	120.000
6250.000	1690.000	731.392	1.539	.113	0.000	191.922	-114.195	120.000
6370.000	340.000	728.285	0.000	.416	0.000	55.055	0.000	120.000
6370.000	710.000	729.466	1.181	.380	0.000	134.232	-79.177	120.000
6370.000	950.000	730.165	.700	.312	0.000	138.385	-83.330	120.000
6370.000	1690.000	731.642	1.476	.249	0.000	150.039	-94.983	120.000
6490.000	340.000	728.794	0.000	.509	0.000	59.542	0.000	120.000
6490.000	710.000	729.964	1.170	.498	0.000	122.827	-63.285	120.000
6490.000	950.000	730.565	.602	.400	0.000	126.074	-66.532	120.000
6490.000	1690.000	731.941	1.375	.299	0.000	135.957	-76.416	120.000
6740.000	340.000	729.798	0.000	1.004	0.000	27.969	0.000	250.000
6740.000	710.000	731.038	1.240	1.074	0.000	107.572	-79.602	250.000
6740.000	950.000	731.569	.531	1.003	0.000	117.721	-89.752	250.000
6740.000	1690.000	732.819	1.251	.879	0.000	152.523	-124.553	250.000
6790.000	340.000	729.971	0.000	.173	0.000	26.124	0.000	50.000
6790.000	710.000	731.232	1.261	.194	0.000	100.553	-74.428	50.000
6790.000	950.000	731.774	.542	.205	0.000	110.183	-84.058	50.000
6790.000	1690.000	733.041	1.267	.222	0.000	141.978	-115.854	50.000
6820.000	340.000	730.121	0.000	.151	0.000	25.188	0.000	30.000
6820.000	710.000	731.416	1.295	.184	0.000	86.637	-61.450	30.000
6820.000	950.000	731.951	.535	.177	0.000	106.995	-81.807	30.000
6820.000	1690.000	733.209	1.258	.168	0.000	136.560	-111.372	30.000
6830.000	340.000	730.178	0.000	.057	0.000	24.935	0.000	10.000
6830.000	710.000	731.489	1.311	.073	0.000	77.248	-52.313	10.000
6830.000	950.000	732.007	.518	.056	0.000	105.731	-80.796	10.000
6830.000	1690.000	733.253	1.246	.044	0.000	134.524	-109.588	10.000
6840.000	340.000	729.770	0.000	-.408	0.000	10.999	0.000	10.000
6840.000	710.000	731.549	1.779	.060	0.000	63.708	-52.709	10.000
6840.000	950.000	732.096	.547	.089	0.000	105.123	-94.124	10.000
6840.000	1690.000	733.826	1.730	.573	0.000	147.207	-136.208	10.000
6907.000	340.000	731.249	0.000	1.479	0.000	10.432	0.000	67.000
6907.000	710.000	735.289	4.040	3.740	0.000	117.828	-107.396	67.000
6907.000	950.000	735.858	.569	3.762	0.000	129.901	-119.469	67.000
6907.000	1690.000	736.924	1.065	3.098	0.000	152.893	-142.461	67.000
7207.000	340.000	734.832	0.000	3.583	0.000	26.292	0.000	300.000
7207.000	710.000	735.841	1.010	.552	0.000	58.608	-32.316	300.000
7207.000	950.000	736.483	.642	.625	0.000	112.078	-85.786	300.000
7207.000	1690.000	737.766	1.282	.842	0.000	140.392	-114.100	300.000

7407.000	340.000	735.959	0.000	1.127	0.000	14.399	0.000	200.000
7407.000	710.000	737.455	1.496	1.613	0.000	14.399	-.000	200.000
7407.000	950.000	738.069	.614	1.585	0.000	60.505	-46.106	200.000
7407.000	1690.000	739.101	1.033	1.336	0.000	72.449	-58.050	200.000
7420.000	340.000	735.994	0.000	.035	0.000	14.399	0.000	13.000
7420.000	710.000	737.786	1.792	.331	0.000	14.399	-.000	13.000
7420.000	950.000	740.542	2.756	2.473	0.000	110.447	-96.048	13.000
7420.000	1690.000	741.677	1.135	2.576	0.000	228.953	-214.554	13.000
7430.000	340.000	736.427	0.000	.434	0.000	18.272	0.000	10.000
7430.000	710.000	738.643	2.216	.857	0.000	22.480	-4.208	10.000
7430.000	950.000	740.392	1.749	-.150	0.000	137.348	-119.076	10.000
7430.000	1690.000	741.559	1.167	-.118	0.000	250.920	-232.648	10.000
7448.000	340.000	736.313	0.000	-.114	0.000	11.400	0.000	18.000
7448.000	710.000	738.974	2.661	.331	0.000	37.735	-26.335	18.000
7448.000	950.000	740.407	1.434	.015	0.000	90.766	-79.366	18.000
7448.000	1690.000	741.445	1.038	-.114	0.000	199.118	-187.718	18.000
7515.000	340.000	737.313	0.000	1.000	0.000	11.400	0.000	67.000
7515.000	710.000	742.562	5.249	3.588	0.000	91.546	-80.146	67.000
7515.000	950.000	743.252	.690	2.844	0.000	131.261	-119.861	67.000
7515.000	1690.000	743.975	.723	2.530	0.000	143.999	-132.599	67.000
7520.000	340.000	737.985	0.000	.672	0.000	32.606	0.000	5.000
7520.000	710.000	742.784	4.798	.222	0.000	139.999	-107.393	5.000
7520.000	950.000	743.515	.732	.264	0.000	139.999	-107.393	5.000
7520.000	1690.000	744.472	.957	.497	0.000	139.999	-107.393	5.000
7590.000	340.000	738.161	0.000	.175	0.000	23.216	0.000	70.000
7590.000	710.000	742.783	4.623	-.001	0.000	70.744	-47.528	70.000
7590.000	950.000	743.504	.721	-.011	0.000	88.380	-65.164	70.000
7590.000	1690.000	744.435	.931	-.037	0.000	111.144	-87.927	70.000
7639.000	340.000	738.373	0.000	.213	0.000	22.620	0.000	49.000
7639.000	710.000	742.844	4.470	.061	0.000	57.310	-34.691	49.000
7639.000	950.000	743.574	.730	.069	0.000	75.405	-52.785	49.000
7639.000	1690.000	744.564	.990	.129	0.000	99.619	-77.000	49.000
7640.000	340.000	738.379	0.000	.006	0.000	22.627	0.000	1.000
7640.000	710.000	742.821	4.442	-.023	0.000	57.176	-34.549	1.000
7640.000	950.000	743.565	.744	-.009	0.000	75.327	-52.699	1.000
7640.000	1690.000	744.682	1.117	.119	0.000	102.547	-79.919	1.000
7644.000	340.000	738.399	0.000	.020	0.000	22.657	0.000	4.000
7644.000	710.000	742.844	4.446	.023	0.000	57.525	-34.868	4.000
7644.000	950.000	743.590	.745	.025	0.000	75.697	-53.041	4.000
7644.000	1690.000	744.720	1.130	.037	0.000	103.239	-80.582	4.000
7645.000	340.000	738.404	0.000	.005	0.000	22.663	0.000	1.000
7645.000	710.000	742.920	4.516	.076	0.000	59.419	-36.756	1.000
7645.000	950.000	743.631	.711	.042	0.000	76.811	-54.148	1.000
7645.000	1690.000	744.697	1.066	-.022	0.000	102.883	-80.220	1.000
7694.000	340.000	738.678	0.000	.274	0.000	22.349	0.000	49.000
7694.000	710.000	743.002	4.325	.082	0.000	49.696	-27.346	49.000
7694.000	950.000	743.727	.725	.096	0.000	67.420	-45.071	49.000
7694.000	1690.000	744.862	1.135	.165	0.000	95.180	-72.831	49.000
7844.000	340.000	739.675	0.000	.997	0.000	19.220	0.000	150.000
7844.000	710.000	743.317	3.642	.314	0.000	27.032	-7.811	150.000
7844.000	950.000	744.089	.772	.362	0.000	59.488	-40.268	150.000
7844.000	1690.000	745.455	1.366	.593	0.000	156.889	-137.668	150.000

7894.000	[illegible]	739.930	0.00	.255	0.0[illegible]	15.519	0.[illegible]0	[illegible].000
7894.000	710.000	743.288	3.358	-.029	0.000	15.519	-.000	50.000
7894.000	950.000	744.642	1.354	.553	0.000	111.918	-96.399	50.000
7894.000	1690.000	746.280	1.638	.825	0.000	158.282	-142.763	50.000
7906.000	340.000	740.064	0.000	.134	0.000	15.519	0.000	12.000
7906.000	710.000	743.337	3.273	.048	0.000	15.519	-.000	12.000
7906.000	950.000	745.668	2.332	1.027	0.000	154.467	-138.948	12.000
7906.000	1690.000	747.023	1.355	.743	0.000	162.811	-147.292	12.000
7966.000	340.000	740.874	0.000	.810	0.000	63.037	0.000	60.000
7966.000	710.000	744.235	3.361	.899	0.000	108.877	-45.840	60.000
7966.000	950.000	745.694	1.459	.026	0.000	115.999	-52.962	60.000
7966.000	1690.000	747.048	1.354	.024	0.000	115.999	-52.962	60.000
8026.000	340.000	741.048	0.000	.175	0.000	43.859	0.000	60.000
8026.000	710.000	744.247	3.198	.011	0.000	113.486	-69.626	60.000
8026.000	950.000	745.704	1.458	.010	0.000	145.229	-101.370	60.000
8026.000	1690.000	747.074	1.370	.026	0.000	186.189	-142.330	60.000
8086.000	340.000	741.957	0.000	.908	0.000	33.557	0.000	60.000
8086.000	710.000	744.254	2.297	.007	0.000	97.645	-64.087	60.000
8086.000	950.000	745.730	1.476	.025	0.000	138.475	-104.918	60.000
8086.000	1690.000	747.125	1.395	.051	0.000	187.106	-153.549	60.000
8146.000	340.000	743.060	0.000	1.104	0.000	35.041	0.000	60.000
8146.000	710.000	744.369	1.309	.115	0.000	71.907	-36.866	60.000
8146.000	950.000	745.765	1.396	.035	0.000	109.467	-74.426	60.000
8146.000	1690.000	747.170	1.405	.045	0.000	149.059	-114.018	60.000
8176.000	340.000	743.558	0.000	.498	0.000	34.560	0.000	30.000
8176.000	710.000	744.895	1.337	.526	0.000	72.071	-37.511	30.000
8176.000	950.000	745.830	.934	.065	0.000	97.783	-63.224	30.000
8176.000	1690.000	747.231	1.401	.061	0.000	136.418	-101.858	30.000
8206.000	340.000	744.070	0.000	.512	0.000	33.581	0.000	30.000
8206.000	710.000	745.425	1.355	.529	0.000	80.767	-47.186	30.000
8206.000	950.000	746.016	.591	.186	0.000	102.828	-69.247	30.000
8206.000	1690.000	747.426	1.410	.195	0.000	151.371	-117.790	30.000
8266.000	340.000	745.149	0.000	1.079	0.000	34.399	0.000	60.000
8266.000	710.000	746.482	1.333	1.058	0.000	81.000	-46.602	60.000
8266.000	950.000	747.007	.525	.991	0.000	100.061	-65.662	60.000
8266.000	1690.000	748.071	1.064	.645	0.000	137.085	-102.686	60.000
8326.000	340.000	746.189	0.000	1.040	0.000	34.233	0.000	60.000
8326.000	710.000	747.562	1.373	1.080	0.000	97.233	-63.000	60.000
8326.000	950.000	748.037	.474	1.030	0.000	120.210	-85.978	60.000
8326.000	1690.000	748.975	.938	.904	0.000	165.797	-131.564	60.000
8386.000	340.000	747.263	0.000	1.074	0.000	35.534	0.000	60.000
8386.000	710.000	748.578	1.315	1.015	0.000	95.752	-60.218	60.000
8386.000	950.000	749.051	.474	1.015	0.000	118.696	-83.162	60.000
8386.000	1690.000	750.021	.969	1.046	0.000	165.617	-130.083	60.000
8446.000	340.000	748.288	0.000	1.025	0.000	30.290	0.000	60.000
8446.000	710.000	749.667	1.379	1.089	0.000	127.581	-97.291	60.000
8446.000	950.000	750.055	.388	1.004	0.000	155.779	-125.489	60.000
8446.000	1690.000	750.980	.925	.960	0.000	225.221	-194.931	60.000
8506.000	340.000	749.348	0.000	1.060	0.000	30.253	0.000	60.000
8506.000	710.000	750.705	1.357	1.038	0.000	126.927	-96.674	60.000
8506.000	950.000	751.123	.418	1.068	0.000	157.137	-126.884	60.000
8506.000	1690.000	751.987	.864	1.007	0.000	221.695	-191.442	60.000
8566.000	340.000	750.458	0.000	1.110	0.000	23.707	0.000	60.000

8566.000	710.000	751.758	1.339	1.092	.000	191.023	-167.316	60.000
8566.000	950.000	752.128	.330	1.005	0.000	228.319	-204.612	60.000
8566.000	1690.000	752.788	.659	.800	0.000	271.765	-248.058	60.000
9066.000	340.000	755.045	0.000	4.587	0.000	102.776	0.000	500.000
9066.000	710.000	755.746	.701	3.948	0.000	199.360	-96.584	500.000
9066.000	950.000	756.156	.410	4.028	0.000	200.699	-97.923	500.000
9066.000	1690.000	757.133	.977	4.345	0.000	203.941	-101.165	500.000
9126.000	340.000	755.283	0.000	.237	0.000	36.834	0.000	60.000
9126.000	710.000	756.390	1.108	.644	0.000	199.024	-162.190	60.000
9126.000	950.000	756.788	.398	.632	0.000	200.342	-163.508	60.000
9126.000	1690.000	757.432	.644	.299	0.000	202.487	-165.653	60.000
9186.000	340.000	755.722	0.000	.440	0.000	30.311	0.000	60.000
9186.000	710.000	757.122	1.400	.732	0.000	198.998	-168.687	60.000
9186.000	950.000	757.487	.365	.699	0.000	200.206	-169.895	60.000
9186.000	1690.000	758.076	.589	.645	0.000	202.159	-171.848	60.000
9246.000	340.000	756.342	0.000	.620	0.000	27.719	0.000	60.000
9246.000	710.000	757.866	1.524	.743	0.000	199.009	-171.290	60.000
9246.000	950.000	758.163	.297	.676	0.000	199.994	-172.275	60.000
9246.000	1690.000	758.875	.712	.799	0.000	202.353	-174.634	60.000
9306.000	340.000	757.048	0.000	.706	0.000	26.982	0.000	60.000
9306.000	710.000	758.604	1.556	.739	0.000	199.004	-172.023	60.000
9306.000	950.000	758.940	.336	.778	0.000	200.118	-173.136	60.000
9306.000	1690.000	759.582	.642	.707	0.000	202.244	-175.263	60.000
9426.000	340.000	758.512	0.000	1.464	0.000	19.912	0.000	120.000
9426.000	710.000	760.324	1.812	1.720	0.000	189.991	-170.079	120.000
9426.000	950.000	760.622	.298	1.682	0.000	199.124	-179.212	120.000
9426.000	1690.000	761.275	.653	1.692	0.000	219.142	-199.230	120.000
9546.000	340.000	760.144	0.000	1.632	0.000	20.284	0.000	120.000
9546.000	710.000	761.861	1.717	1.536	0.000	191.109	-170.824	120.000
9546.000	950.000	762.184	.324	1.563	0.000	201.044	-180.760	120.000
9546.000	1690.000	762.851	.667	1.577	0.000	221.493	-201.209	120.000
9666.000	340.000	761.545	0.000	1.401	0.000	20.004	0.000	120.000
9666.000	710.000	763.302	1.758	1.442	0.000	189.324	-169.320	120.000
9666.000	950.000	763.585	.283	1.401	0.000	197.993	-177.989	120.000
9666.000	1690.000	764.195	.610	1.344	0.000	216.698	-196.694	120.000
9741.000	340.000	762.451	0.000	.907	0.000	19.586	0.000	75.000
9741.000	710.000	764.385	1.934	1.083	0.000	190.331	-170.745	75.000
9741.000	950.000	764.700	.315	1.115	0.000	199.985	-180.399	75.000
9741.000	1690.000	765.350	.650	1.155	0.000	219.909	-200.323	75.000
9816.000	340.000	763.491	0.000	1.039	0.000	19.571	0.000	75.000
9816.000	710.000	765.418	1.928	1.033	0.000	189.808	-170.237	75.000
9816.000	950.000	765.712	.293	1.012	0.000	198.810	-179.238	75.000
9816.000	1690.000	766.338	.626	.988	0.000	218.022	-198.451	75.000
9891.000	340.000	764.535	0.000	1.045	0.000	19.566	0.000	75.000
9891.000	710.000	766.477	1.942	1.059	0.000	190.094	-170.528	75.000
9891.000	950.000	766.786	.309	1.074	0.000	199.557	-179.991	75.000
9891.000	1690.000	767.428	.642	1.090	0.000	219.254	-199.688	75.000
10116.000	340.000	767.277	0.000	2.742	0.000	82.282	0.000	225.000
10116.000	710.000	768.099	.821	1.621	0.000	103.418	-21.136	225.000
10116.000	950.000	768.469	.370	1.683	0.000	112.711	-30.430	225.000
10116.000	1690.000	769.333	.864	1.905	0.000	117.999	-35.717	225.000
10191.000	340.000	767.506	0.000	.229	0.000	13.999	0.000	75.000
10191.000	710.000	768.115	.609	.016	0.000	13.999	-.000	75.000

10191.000	950.000	769.2[illegible]	1.131	.178	0.000	[illegible]	[illegible]	75.000
10191.000	1690.000	770.266	1.020	.933	0.000	104.999	-91.000	75.000
10221.000	340.000	767.389	0.000	-.117	0.000	14.000	0.000	30.000
10221.000	710.000	769.010	1.621	.895	0.000	14.000	0.000	30.000
10221.000	950.000	772.096	3.086	2.849	0.000	101.551	-87.551	30.000
10221.000	1690.000	773.124	1.028	2.858	0.000	154.647	-140.647	30.000
10276.000	340.000	769.099	0.000	1.710	0.000	157.577	0.000	55.000
10276.000	710.000	771.847	2.748	2.838	0.000	215.423	-57.847	55.000
10276.000	950.000	772.461	.614	.365	0.000	218.999	-61.422	55.000
10276.000	1690.000	773.865	1.404	.741	0.000	218.999	-61.422	55.000
10441.000	340.000	769.030	0.000	-.069	0.000	54.844	0.000	165.000
10441.000	710.000	771.868	2.838	.021	0.000	174.633	-119.789	165.000
10441.000	950.000	772.486	.618	.025	0.000	189.657	-134.813	165.000
10441.000	1690.000	773.902	1.415	.037	0.000	225.569	-170.725	165.000
10523.000	340.000	770.549	0.000	1.520	0.000	19.617	0.000	82.000
10523.000	710.000	772.382	1.832	.513	0.000	109.905	-90.288	82.000
10523.000	950.000	772.706	.324	.219	0.000	119.347	-99.730	82.000
10523.000	1690.000	773.754	1.048	-.148	0.000	135.644	-116.027	82.000
10606.000	340.000	772.550	0.000	2.000	0.000	73.995	0.000	83.000
10606.000	710.000	773.377	.827	.995	0.000	108.597	-34.602	83.000
10606.000	950.000	773.643	.267	.938	0.000	116.364	-42.368	83.000
10606.000	1690.000	774.541	.898	.787	0.000	132.937	-58.941	83.000
10688.000	340.000	773.249	0.000	.699	0.000	35.077	0.000	82.000
10688.000	710.000	774.330	1.081	.953	0.000	106.356	-71.279	82.000
10688.000	950.000	774.749	.420	1.106	0.000	118.578	-83.500	82.000
10688.000	1690.000	775.590	.840	1.048	0.000	133.068	-97.991	82.000
10771.000	340.000	774.248	0.000	.999	0.000	34.073	0.000	83.000
10771.000	710.000	775.404	1.156	1.075	0.000	107.367	-73.294	83.000
10771.000	950.000	775.738	.334	.989	0.000	117.084	-83.012	83.000
10771.000	1690.000	776.621	.883	1.032	0.000	132.982	-98.910	83.000
11021.000	340.000	776.722	0.000	2.474	0.000	91.329	0.000	250.000
11021.000	710.000	777.755	1.033	2.351	0.000	121.351	-30.022	250.000
11021.000	950.000	778.258	.503	2.520	0.000	130.570	-39.241	250.000
11021.000	1690.000	779.248	.989	2.627	0.000	140.914	-49.585	250.000
11271.000	340.000	778.069	0.000	1.347	0.000	107.186	0.000	250.000
11271.000	710.000	779.060	.991	1.305	0.000	163.734	-56.548	250.000
11271.000	950.000	779.500	.440	1.242	0.000	186.860	-79.674	250.000
11271.000	1690.000	780.522	1.022	1.275	0.000	216.815	-109.629	250.000
11396.000	340.000	778.836	0.000	.767	0.000	97.329	0.000	125.000
11396.000	710.000	779.921	1.085	.861	0.000	159.248	-61.919	125.000
11396.000	950.000	780.268	.347	.768	0.000	179.039	-81.709	125.000
11396.000	1690.000	781.171	.903	.649	0.000	208.185	-110.856	125.000
11521.000	340.000	779.834	0.000	.998	0.000	100.951	0.000	125.000
11521.000	710.000	780.750	.916	.828	0.000	153.449	-52.498	125.000
11521.000	950.000	781.196	.446	.928	0.000	178.900	-77.949	125.000
11521.000	1690.000	782.067	.872	.896	0.000	207.241	-106.290	125.000
11621.000	340.000	780.720	0.000	.886	0.000	18.401	0.000	100.000
11621.000	710.000	782.300	1.580	1.550	0.000	156.295	-137.894	100.000
11621.000	950.000	782.696	.396	1.500	0.000	178.905	-160.504	100.000
11621.000	1690.000	783.518	.822	1.450	0.000	205.744	-187.343	100.000
11721.000	340.000	782.325	0.000	1.606	0.000	19.821	0.000	100.000
11721.000	710.000	783.781	1.455	1.481	0.000	155.218	-135.397	100.000
11721.000	950.000	784.196	.415	1.500	0.000	178.905	-159.084	100.000

11721.000	169.000	78.936	.771	1.719	0.000	203.371	-183.50	100.000
11821.000	340.000	784.024	0.000	1.699	0.000	22.524	0.000	100.000
11821.000	710.000	785.784	1.759	2.003	0.000	208.128	-185.604	100.000
11821.000	950.000	786.136	.352	1.940	0.000	223.699	-201.175	100.000
11821.000	1690.000	786.820	.684	1.883	0.000	249.379	-226.855	100.000
11921.000	340.000	785.459	0.000	1.434	0.000	22.252	0.000	100.000
11921.000	710.000	787.296	1.837	1.512	0.000	208.666	-186.415	100.000
11921.000	950.000	787.650	.354	1.514	0.000	224.310	-202.058	100.000
11921.000	1690.000	788.361	.712	1.541	0.000	250.350	-228.098	100.000
12021.000	340.000	786.993	0.000	1.534	0.000	22.357	0.000	100.000
12021.000	710.000	788.792	1.799	1.496	0.000	208.485	-186.128	100.000
12021.000	950.000	789.142	.350	1.493	0.000	223.988	-201.631	100.000
12021.000	1690.000	789.838	.695	1.477	0.000	249.801	-227.444	100.000
12121.000	340.000	788.473	0.000	1.481	0.000	22.343	0.000	100.000
12121.000	710.000	790.293	1.820	1.501	0.000	208.548	-186.205	100.000
12121.000	950.000	790.646	.353	1.504	0.000	224.161	-201.818	100.000
12121.000	1690.000	791.352	.705	1.514	0.000	250.126	-227.782	100.000
12221.000	340.000	789.977	0.000	1.503	0.000	23.369	0.000	100.000
12221.000	710.000	791.543	1.566	1.250	0.000	208.527	-185.158	100.000
12221.000	950.000	791.894	.351	1.248	0.000	224.069	-200.700	100.000
12221.000	1690.000	792.594	.699	1.242	0.000	249.939	-226.570	100.000
12321.000	340.000	791.097	0.000	1.120	0.000	22.842	0.000	100.000
12321.000	710.000	792.793	1.696	1.250	0.000	208.534	-185.692	100.000
12321.000	950.000	793.145	.352	1.251	0.000	224.118	-201.276	100.000
12321.000	1690.000	793.848	.703	1.255	0.000	250.048	-227.206	100.000
12521.000	340.000	793.520	0.000	2.423	0.000	177.374	0.000	200.000
12521.000	710.000	794.442	.922	1.649	0.000	276.353	-98.979	200.000
12521.000	950.000	794.824	.381	1.678	0.000	292.297	-114.923	200.000
12521.000	1690.000	795.718	.894	1.870	0.000	296.710	-119.336	200.000
12621.000	340.000	794.559	0.000	1.039	0.000	164.262	0.000	100.000
12621.000	710.000	795.107	.549	.665	0.000	240.917	-76.654	100.000
12621.000	950.000	795.271	.164	.447	0.000	250.769	-86.506	100.000
12621.000	1690.000	796.153	.882	.435	0.000	292.684	-128.422	100.000
12721.000	340.000	795.758	0.000	1.199	0.000	164.106	0.000	100.000
12721.000	710.000	796.331	.573	1.223	0.000	239.130	-75.024	100.000
12721.000	950.000	796.742	.412	1.472	0.000	264.131	-100.024	100.000
12721.000	1690.000	797.249	.506	1.096	0.000	291.913	-127.807	100.000
12971.000	340.000	798.960	0.000	3.203	0.000	164.206	0.000	250.000
12971.000	710.000	799.513	.553	3.182	0.000	240.069	-75.862	250.000
12971.000	950.000	799.763	.250	3.021	0.000	255.119	-90.913	250.000
12971.000	1690.000	800.350	.587	3.101	0.000	290.024	-125.818	250.000
13096.000	340.000	800.695	0.000	1.734	0.000	21.759	0.000	125.000
13096.000	710.000	802.404	1.709	2.891	0.000	125.353	-103.594	125.000
13096.000	950.000	802.855	.451	3.092	0.000	132.639	-110.881	125.000
13096.000	1690.000	803.683	.828	3.333	0.000	146.005	-124.246	125.000
13221.000	340.000	803.241	0.000	2.546	0.000	63.034	0.000	125.000
13221.000	710.000	804.000	.759	1.596	0.000	125.448	-62.414	125.000
13221.000	950.000	804.352	.352	1.497	0.000	131.138	-68.104	125.000
13221.000	1690.000	805.396	1.043	1.713	0.000	147.997	-84.963	125.000
13346.000	340.000	804.429	0.000	1.189	0.000	35.019	0.000	125.000
13346.000	710.000	805.588	1.158	1.588	0.000	125.409	-90.390	125.000
13346.000	950.000	805.989	.401	1.637	0.000	131.894	-96.875	125.000
13346.000	1690.000	806.894	.905	1.498	0.000	146.506	-111.487	125.000

13471.000	340.000	806.090	0.000	1.661	0.000	36.976	0.000	125.000
13471.000	710.000	807.169	1.078	1.581	0.000	125.425	-88.449	125.000
13471.000	950.000	807.548	.380	1.559	0.000	131.558	-94.582	125.000
13471.000	1690.000	808.532	.984	1.638	0.000	147.455	-110.478	125.000
13538.000	340.000	806.955	0.000	.865	0.000	31.345	0.000	67.000
13538.000	710.000	808.162	1.207	.994	0.000	85.444	-54.099	67.000
13538.000	950.000	808.647	.484	1.098	0.000	88.904	-57.559	67.000
13538.000	1690.000	809.702	1.056	1.171	0.000	94.999	-63.654	67.000
13605.000	340.000	808.056	0.000	1.101	0.000	22.815	0.000	67.000
13605.000	710.000	809.084	1.028	.922	0.000	26.863	-4.048	67.000
13605.000	950.000	809.492	.408	.845	0.000	28.475	-5.660	67.000
13605.000	1690.000	811.341	1.849	1.639	0.000	71.253	-48.438	67.000
13671.000	340.000	808.762	0.000	.706	0.000	21.250	0.000	66.000
13671.000	710.000	810.130	1.368	1.045	0.000	26.647	-5.397	66.000
13671.000	950.000	811.089	.960	1.597	0.000	30.428	-9.178	66.000
13671.000	1690.000	812.444	1.354	1.102	0.000	71.321	-50.071	66.000
13761.000	340.000	809.990	0.000	1.228	0.000	17.999	0.000	90.000
13761.000	710.000	811.642	1.653	1.513	0.000	17.999	-.000	90.000
13761.000	950.000	812.236	.594	1.147	0.000	17.999	-.000	90.000
13761.000	1690.000	813.634	1.398	1.190	0.000	17.999	-.000	90.000
13771.000	340.000	809.864	0.000	-.126	0.000	13.000	0.000	10.000
13771.000	710.000	811.292	1.429	-.350	0.000	13.000	0.000	10.000
13771.000	950.000	811.619	.327	-.617	0.000	13.000	0.000	10.000
13771.000	1690.000	815.914	4.294	2.280	0.000	60.569	-47.569	10.000
13824.000	340.000	810.186	0.000	.323	0.000	13.000	0.000	52.500
13824.000	710.000	812.492	2.305	1.199	0.000	13.000	0.000	52.500
13824.000	950.000	814.561	2.069	2.942	0.000	13.000	0.000	52.500
13824.000	1690.000	818.534	3.972	2.620	0.000	254.452	-241.452	52.500
13827.000	340.000	810.636	0.000	.449	0.000	18.999	0.000	3.000
13827.000	710.000	813.357	2.721	.865	0.000	18.999	-.000	3.000
13827.000	950.000	815.434	2.077	.872	0.000	18.999	-.000	3.000
13827.000	1690.000	818.769	3.335	.235	0.000	454.303	-435.304	3.000
14174.000	340.000	811.900	0.000	1.264	0.000	15.146	0.000	347.000
14174.000	710.000	814.382	2.483	1.026	0.000	222.196	-207.050	347.000
14174.000	950.000	816.235	1.852	.801	0.000	278.726	-263.580	347.000
14174.000	1690.000	818.823	2.588	.054	0.000	310.005	-294.859	347.000
14176.000	340.000	813.139	0.000	1.240	0.000	187.608	0.000	2.000
14176.000	710.000	814.382	1.243	.000	0.000	222.420	-34.813	2.000
14176.000	950.000	816.240	1.857	.005	0.000	278.772	-91.164	2.000
14176.000	1690.000	818.825	2.586	.002	0.000	310.009	-122.402	2.000
14376.000	340.000	814.291	0.000	1.152	0.000	183.262	0.000	200.000
14376.000	710.000	814.991	.700	.609	0.000	200.185	-16.923	200.000
14376.000	950.000	816.375	1.383	.135	0.000	251.724	-68.462	200.000
14376.000	1690.000	818.893	2.519	.068	0.000	295.156	-111.894	200.000
14476.000	340.000	814.914	0.000	.623	0.000	22.052	0.000	100.000
14476.000	710.000	815.963	1.049	.971	0.000	198.791	-176.739	100.000
14476.000	950.000	816.570	.607	.195	0.000	216.080	-194.028	100.000
14476.000	1690.000	818.966	2.397	.073	0.000	283.603	-261.551	100.000
14526.000	340.000	815.368	0.000	.453	0.000	21.102	0.000	50.000
14526.000	710.000	816.395	1.028	.432	0.000	196.912	-175.810	50.000
14526.000	950.000	816.835	.440	.265	0.000	207.570	-186.467	50.000
14526.000	1690.000	819.030	2.195	.064	0.000	278.149	-257.047	50.000

14576.000	310.000	815.8[illegible]	.000	.475	.000	20.429	0.000	50.000
14576.000	710.000	816.960	1.116	.565	0.000	198.241	-177.812	50.000
14576.000	950.000	817.290	.330	.455	0.000	206.229	-185.800	50.000
14576.000	1690.000	819.124	1.834	.094	0.000	273.157	-252.728	50.000
14676.000	310.000	816.735	0.000	.892	0.000	99.677	0.000	100.000
14676.000	650.000	817.840	1.104	.879	0.000	139.999	-40.322	100.000
14676.000	865.000	818.193	.354	.903	0.000	139.999	-40.322	100.000
14676.000	1690.000	819.342	1.149	.219	0.000	139.999	-40.322	100.000
14776.000	310.000	816.818	0.000	.083	0.000	66.382	0.000	100.000
14776.000	650.000	817.921	1.103	.082	0.000	67.900	-1.518	100.000
14776.000	865.000	818.280	.359	.087	0.000	87.240	-20.858	100.000
14776.000	1690.000	819.610	1.329	.267	0.000	234.684	-168.302	100.000
14926.000	310.000	817.332	0.000	.513	0.000	29.909	0.000	150.000
14926.000	650.000	818.572	1.241	.651	0.000	36.999	-7.090	150.000
14926.000	865.000	819.073	.501	.793	0.000	36.999	-7.090	150.000
14926.000	1690.000	820.465	1.392	.855	0.000	268.866	-238.957	150.000
14966.000	310.000	817.421	0.000	.090	0.000	16.999	0.000	40.000
14966.000	650.000	818.626	1.204	.053	0.000	16.999	-.000	40.000
14966.000	865.000	819.069	.443	-.004	0.000	16.999	-.000	40.000
14966.000	1690.000	820.559	1.490	.094	0.000	268.240	-251.241	40.000
14971.000	310.000	817.406	0.000	-.015	0.000	14.999	0.000	5.000
14971.000	650.000	818.558	1.152	-.068	0.000	14.999	-.000	5.000
14971.000	865.000	818.946	.388	-.123	0.000	14.999	-.000	5.000
14971.000	1690.000	820.571	1.626	.013	0.000	268.324	-253.325	5.000
14976.000	310.000	817.329	0.000	-.077	0.000	12.000	0.000	5.000
14976.000	650.000	819.067	1.739	.509	0.000	12.000	0.000	5.000
14976.000	865.000	820.001	.934	1.056	0.000	12.000	0.000	5.000
14976.000	1690.000	821.277	1.275	.705	0.000	119.299	-107.299	5.000
14977.000	310.000	817.905	0.000	.577	0.000	12.000	0.000	1.000
14977.000	650.000	820.011	2.106	.944	0.000	12.000	0.000	1.000
14977.000	865.000	821.185	1.174	1.183	0.000	12.000	0.000	1.000
14977.000	1690.000	821.263	.078	-.014	0.000	119.218	-107.218	1.000
15025.000	310.000	818.436	0.000	.530	0.000	12.000	0.000	47.500
15025.000	650.000	820.705	2.269	.694	0.000	12.000	0.000	47.500
15025.000	865.000	823.566	2.861	2.381	0.000	12.000	0.000	47.500
15025.000	1690.000	826.226	2.660	4.963	0.000	308.759	-296.759	47.500
15028.000	310.000	819.155	0.000	.720	0.000	17.999	0.000	3.000
15028.000	650.000	821.902	2.747	1.197	0.000	17.999	-.000	3.000
15028.000	865.000	824.472	2.570	.906	0.000	17.999	-.000	3.000
15028.000	1690.000	826.257	1.785	.031	0.000	407.496	-389.497	3.000
15055.000	310.000	819.250	0.000	.095	0.000	27.999	0.000	27.000
15055.000	590.000	822.149	2.899	.247	0.000	27.999	-.000	27.000
15055.000	565.000	824.804	2.655	.332	0.000	27.999	-.000	27.000
15055.000	640.000	826.234	1.430	-.023	0.000	27.999	-.000	27.000
15075.000	310.000	819.212	0.000	-.038	0.000	18.000	0.000	20.000
15075.000	590.000	822.082	2.870	-.067	0.000	18.000	0.000	20.000
15075.000	565.000	824.769	2.687	-.036	0.000	18.000	0.000	20.000
15075.000	640.000	826.198	1.430	-.036	0.000	18.000	0.000	20.000
15077.000	310.000	819.217	0.000	.004	0.000	18.000	0.000	2.300
15077.000	590.000	823.088	3.871	1.006	0.000	18.000	0.000	2.300
15077.000	565.000	825.782	2.694	1.013	0.000	18.000	0.000	2.300
15077.000	640.000	827.539	1.757	1.340	0.000	18.000	0.000	2.300
15197.000	310.000	819.332	0.000	.115	0.000	14.343	0.000	120.000

15197.0	59 .00	825.187	3.256	.079	0.000	56.878	-42.533	12 .00
15197.000	565.000	825.900	2.713	.118	0.000	79.999	-65.656	120.000
15197.000	640.000	827.667	1.767	.128	0.000	79.999	-65.656	120.000
15198.000	310.000	819.337	0.000	.005	0.000	14.353	0.000	1.000
15198.000	590.000	823.263	3.926	.076	0.000	57.875	-43.522	1.000
15198.000	565.000	825.919	2.656	.018	0.000	79.999	-65.646	1.000
15198.000	640.000	827.677	1.758	.010	0.000	79.999	-65.646	1.000
15204.000	310.000	819.378	0.000	.041	0.000	14.451	0.000	6.000
15204.000	590.000	823.279	3.902	.016	0.000	58.007	-43.556	6.000
15204.000	565.000	825.921	2.641	.002	0.000	79.999	-65.548	6.000
15204.000	640.000	827.678	1.757	.001	0.000	79.999	-65.548	6.000
15205.000	310.000	819.388	0.000	.011	0.000	14.481	0.000	1.000
15205.000	590.000	823.257	3.869	-.022	0.000	57.921	-43.439	1.000
15205.000	565.000	825.914	2.657	-.007	0.000	79.999	-65.518	1.000
15205.000	640.000	827.674	1.760	-.004	0.000	79.999	-65.518	1.000
15325.000	310.000	820.074	0.000	.685	0.000	10.007	0.000	120.000
15325.000	590.000	823.099	3.025	-.158	0.000	10.007	-.000	120.000
15325.000	565.000	825.736	2.637	-.178	0.000	10.007	-.000	120.000
15325.000	640.000	827.483	1.747	-.191	0.000	10.007	-.000	120.000
15340.000	310.000	820.354	0.000	.280	0.000	10.007	0.000	15.000
15340.000	590.000	825.927	5.573	2.828	0.000	10.007	-.000	15.000
15340.000	565.000	828.512	2.585	2.777	0.000	10.007	-.000	15.000
15340.000	640.000	831.175	2.662	3.691	0.000	10.007	-.000	15.000
15465.000	310.000	821.612	0.000	1.258	0.000	117.852	0.000	125.000
15465.000	650.000	826.641	5.029	.714	0.000	263.738	-145.886	125.000
15465.000	865.000	828.922	2.280	.409	0.000	289.129	-171.277	125.000
15465.000	1690.000	831.526	2.605	.352	0.000	318.070	-200.218	125.000
15540.000	310.000	821.709	0.000	.097	0.000	109.559	0.000	75.000
15540.000	650.000	826.645	4.936	.003	0.000	255.494	-145.935	75.000
15540.000	865.000	828.924	2.279	.002	0.000	259.999	-150.440	75.000
15540.000	1690.000	831.530	2.606	.004	0.000	259.999	-150.440	75.000
15615.000	310.000	821.991	0.000	.282	0.000	86.263	0.000	75.000
15615.000	650.000	826.646	4.655	.002	0.000	227.202	-140.939	75.000
15615.000	865.000	828.925	2.278	.001	0.000	234.999	-148.736	75.000
15615.000	1690.000	831.531	2.606	.001	0.000	234.999	-148.736	75.000
15616.000	310.000	822.140	0.000	.149	0.000	87.309	0.000	1.000
15616.000	650.000	826.646	4.506	-.000	0.000	227.203	-139.895	1.000
15616.000	865.000	828.925	2.278	-.000	0.000	234.999	-147.690	1.000
15616.000	1690.000	831.530	2.606	-.000	0.000	234.999	-147.690	1.000
15660.000	310.000	825.914	0.000	3.774	0.000	135.149	0.000	44.000
15660.000	650.000	826.867	.952	.220	0.000	225.781	-90.632	44.000
15660.000	865.000	828.975	2.108	.050	0.000	434.442	-299.293	44.000
15660.000	1690.000	831.586	2.612	.056	0.000	602.854	-467.705	44.000
15661.000	310.000	825.904	0.000	-.011	0.000	134.396	0.000	1.000
15661.000	650.000	826.842	.938	-.025	0.000	223.364	-88.968	1.000
15661.000	865.000	828.969	2.127	-.005	0.000	434.083	-299.687	1.000
15661.000	1690.000	831.584	2.615	-.002	0.000	602.647	-468.251	1.000
15961.000	310.000	826.045	0.000	.142	0.000	130.498	0.000	300.000
15961.000	650.000	827.050	1.004	.208	0.000	150.217	-19.719	300.000
15961.000	865.000	829.003	1.953	.034	0.000	186.428	-55.930	300.000
15961.000	1690.000	831.596	2.593	.012	0.000	234.362	-103.864	300.000
16176.000	310.000	826.252	0.000	.206	0.000	67.541	0.000	215.000
16176.000	650.000	827.337	1.085	.287	0.000	110.414	-42.873	215.000

16176.000	865.000	829.1[illegible]1	1.765	.0[illegible]	0.0[illegible]0	15[illegible].8[illegible]9	-[illegible].328	215.00
16176.000	1690.000	831.672	2.571	.077	0.000	202.399	-134.858	215.000
16391.000	310.000	827.357	0.000	1.105	0.000	178.760	0.000	215.000
16391.000	650.000	828.294	.937	.957	0.000	215.029	-36.269	215.000
16391.000	865.000	829.361	1.067	.260	0.000	236.579	-57.819	215.000
16391.000	1690.000	831.808	2.447	.136	0.000	271.557	-92.797	215.000
16462.000	310.000	827.703	0.000	.346	0.000	151.874	0.000	71.000
16462.000	650.000	828.406	.703	.112	0.000	205.322	-53.447	71.000
16462.000	865.000	829.401	.995	.040	0.000	225.303	-73.429	71.000
16462.000	1690.000	831.823	2.422	.015	0.000	263.397	-111.523	71.000
16534.000	310.000	828.301	0.000	.599	0.000	151.649	0.000	72.000
16534.000	650.000	828.806	.504	.399	0.000	196.466	-44.816	72.000
16534.000	865.000	829.491	.685	.089	0.000	215.019	-63.369	72.000
16534.000	1690.000	831.847	2.356	.024	0.000	255.335	-103.686	72.000
16606.000	310.000	828.901	0.000	.600	0.000	151.670	0.000	72.000
16606.000	650.000	829.363	.462	.558	0.000	193.194	-41.524	72.000
16606.000	865.000	829.707	.343	.216	0.000	207.312	-55.642	72.000
16606.000	1690.000	831.886	2.179	.039	0.000	247.447	-95.778	72.000
16756.000	310.000	829.782	0.000	.880	0.000	9.999	0.000	150.000
16756.000	650.000	830.133	.351	.769	0.000	225.763	-215.764	150.000
16756.000	865.000	830.353	.220	.646	0.000	230.362	-220.363	150.000
16756.000	1690.000	832.015	1.663	.130	0.000	256.196	-246.197	150.000
16786.000	310.000	830.098	0.000	.316	0.000	11.999	0.000	30.000
16786.000	650.000	833.713	3.616	3.581	0.000	171.308	-159.309	30.000
16786.000	865.000	834.391	.677	4.038	0.000	221.488	-209.489	30.000
16786.000	1690.000	835.334	.943	3.318	0.000	311.110	-299.111	30.000
17086.000	310.000	832.760	0.000	2.662	0.000	109.835	0.000	300.000
17086.000	650.000	833.982	1.223	.269	0.000	147.550	-37.716	300.000
17086.000	865.000	834.621	.639	.230	0.000	166.221	-56.386	300.000
17086.000	1690.000	835.673	1.052	.340	0.000	196.489	-86.655	300.000
17196.000	310.000	833.150	0.000	.390	0.000	99.981	0.000	110.000
17196.000	650.000	834.186	1.036	.203	0.000	132.148	-32.167	110.000
17196.000	865.000	834.776	.590	.155	0.000	150.471	-50.490	110.000
17196.000	1690.000	835.862	1.086	.189	0.000	181.798	-81.818	110.000
17251.000	310.000	834.525	0.000	1.375	0.000	147.382	0.000	55.000
17251.000	650.000	834.972	.447	.786	0.000	177.786	-30.403	55.000
17251.000	865.000	835.165	.193	.389	0.000	190.906	-43.524	55.000
17251.000	1690.000	835.966	.801	.104	0.000	244.768	-97.385	55.000
17306.000	310.000	834.805	0.000	.280	0.000	142.616	0.000	55.000
17306.000	650.000	835.419	.614	.447	0.000	184.259	-41.642	55.000
17306.000	865.000	835.728	.309	.563	0.000	205.178	-62.562	55.000
17306.000	1690.000	836.336	.608	.369	0.000	244.957	-102.341	55.000
17416.000	310.000	835.555	0.000	.750	0.000	146.030	0.000	110.000
17416.000	650.000	836.047	.492	.628	0.000	179.512	-33.482	110.000
17416.000	865.000	836.314	.267	.586	0.000	197.411	-51.381	110.000
17416.000	1690.000	837.059	.745	.723	0.000	245.447	-99.417	110.000
17516.000	310.000	836.081	0.000	.526	0.000	148.566	0.000	100.000
17516.000	650.000	836.704	.624	.657	0.000	191.743	-43.177	100.000
17516.000	865.000	836.952	.248	.638	0.000	208.602	-60.036	100.000
17516.000	1690.000	837.667	.715	.608	0.000	248.421	-99.855	100.000
17616.000	310.000	836.539	0.000	.458	0.000	147.215	0.000	100.000
17616.000	650.000	837.114	.576	.410	0.000	186.762	-39.547	100.000
17616.000	865.000	837.381	.267	.429	0.000	204.915	-57.700	100.000

17616.000	169.000	838.122	.701	.456	0.000	247.795	-100.580	100.000
17716.000	310.000	836.799	0.000	.260	0.000	19.348	0.000	100.000
17716.000	650.000	838.669	1.870	1.554	0.000	84.265	-64.916	100.000
17716.000	865.000	839.426	.757	2.045	0.000	131.666	-112.318	100.000
17716.000	1690.000	840.468	1.041	2.345	0.000	177.800	-158.452	100.000
17816.000	310.000	837.682	0.000	.883	0.000	20.529	0.000	100.000
17816.000	650.000	839.149	1.467	.480	0.000	84.266	-63.736	100.000
17816.000	865.000	839.813	.664	.387	0.000	125.854	-105.325	100.000
17816.000	1690.000	840.964	1.150	.496	0.000	178.220	-157.690	100.000
17866.000	310.000	837.913	0.000	.232	0.000	20.498	0.000	50.000
17866.000	650.000	839.392	1.479	.243	0.000	84.343	-63.844	50.000
17866.000	865.000	840.037	.645	.223	0.000	124.808	-104.309	50.000
17866.000	1690.000	841.195	1.158	.231	0.000	177.987	-157.489	50.000
17916.000	310.000	838.070	0.000	.157	0.000	18.238	0.000	50.000
17916.000	650.000	839.912	1.842	.520	0.000	91.791	-73.554	50.000
17916.000	865.000	840.438	.526	.401	0.000	121.400	-103.163	50.000
17916.000	1690.000	841.563	1.125	.368	0.000	163.250	-145.012	50.000
17917.000	310.000	839.487	0.000	1.417	0.000	67.852	0.000	1.000
17917.000	650.000	841.028	1.541	1.116	0.000	150.572	-82.720	1.000
17917.000	865.000	841.568	.540	1.130	0.000	163.373	-95.521	1.000
17917.000	1690.000	842.671	1.103	1.108	0.000	188.858	-121.006	1.000
17941.000	310.000	839.906	0.000	.419	0.000	91.566	0.000	23.500
17941.000	650.000	841.063	1.157	.035	0.000	151.897	-60.331	23.500
17941.000	865.000	841.592	.529	.024	0.000	164.311	-72.745	23.500
17941.000	1690.000	842.697	1.105	.026	0.000	189.190	-97.624	23.500
17942.000	310.000	839.893	0.000	-.013	0.000	91.560	0.000	1.000
17942.000	650.000	841.005	1.112	-.058	0.000	150.545	-58.985	1.000
17942.000	865.000	841.539	.533	-.053	0.000	163.063	-71.503	1.000
17942.000	1690.000	842.636	1.097	-.061	0.000	188.417	-96.857	1.000
18102.000	310.000	839.982	0.000	.089	0.000	45.245	0.000	160.000
18102.000	650.000	841.031	1.049	.026	0.000	104.825	-59.580	160.000
18102.000	865.000	841.577	.546	.038	0.000	135.586	-90.341	160.000
18102.000	1690.000	842.754	1.178	.119	0.000	170.473	-125.228	160.000
18262.000	310.000	840.316	0.000	.334	0.000	35.847	0.000	160.000
18262.000	650.000	841.836	1.519	.805	0.000	179.650	-143.803	160.000
18262.000	865.000	842.346	.510	.769	0.000	196.219	-160.372	160.000
18262.000	1690.000	843.503	1.157	.748	0.000	212.456	-176.609	160.000
18263.000	310.000	840.909	0.000	.593	0.000	92.367	0.000	1.000
18263.000	650.000	842.240	1.331	.404	0.000	193.663	-101.296	1.000
18263.000	865.000	842.609	.369	.263	0.000	202.685	-110.319	1.000
18263.000	1690.000	843.663	1.054	.160	0.000	213.523	-121.156	1.000
18270.000	310.000	841.203	0.000	.294	0.000	120.715	0.000	7.000
18270.000	650.000	842.256	1.053	.016	0.000	194.041	-73.326	7.000
18270.000	865.000	842.622	.366	.013	0.000	202.995	-82.280	7.000
18270.000	1690.000	843.674	1.052	.011	0.000	213.592	-92.877	7.000
18271.000	310.000	841.153	0.000	-.050	0.000	115.616	0.000	1.000
18271.000	650.000	842.190	1.037	-.066	0.000	192.612	-76.996	1.000
18271.000	865.000	842.560	.371	-.061	0.000	201.540	-85.924	1.000
18271.000	1690.000	843.623	1.063	-.050	0.000	213.259	-97.643	1.000
18471.000	310.000	841.589	0.000	.436	0.000	169.887	0.000	200.000
18471.000	650.000	842.556	.967	.366	0.000	194.660	-24.773	200.000
18471.000	865.000	842.918	.362	.358	0.000	201.132	-31.245	200.000
18471.000	1690.000	843.973	1.055	.350	0.000	219.994	-50.107	200.000

18472.000	310.000	841.673	0.000	.084	0.000	174.361	0.000	1.000
18472.000	650.000	842.617	.944	.061	0.000	195.752	-21.391	1.000
18472.000	865.000	842.980	.362	.061	0.000	202.228	-27.867	1.000
18472.000	1690.000	844.035	1.056	.062	0.000	221.101	-46.740	1.000
18479.000	310.000	841.689	0.000	.016	0.000	174.895	0.000	6.500
18479.000	650.000	842.625	.936	.008	0.000	195.863	-20.968	6.500
18479.000	865.000	842.987	.362	.008	0.000	202.342	-27.447	6.500
18479.000	1690.000	844.043	1.056	.008	0.000	221.228	-46.332	6.500
18480.000	310.000	841.660	0.000	-.029	0.000	173.548	0.000	1.000
18480.000	650.000	842.600	.940	-.025	0.000	195.434	-21.886	1.000
18480.000	865.000	842.961	.361	-.026	0.000	201.896	-28.348	1.000
18480.000	1690.000	844.016	1.055	-.028	0.000	220.748	-47.200	1.000
18600.000	310.000	841.709	0.000	.049	0.000	147.129	0.000	120.000
18600.000	650.000	842.688	.979	.088	0.000	187.364	-40.235	120.000
18600.000	865.000	843.068	.380	.107	0.000	194.309	-47.180	120.000
18600.000	1690.000	844.157	1.089	.141	0.000	213.602	-66.473	120.000
18720.000	310.000	842.184	0.000	.475	0.000	143.438	0.000	120.000
18720.000	650.000	842.853	.669	.165	0.000	179.304	-35.866	120.000
18720.000	865.000	843.249	.396	.181	0.000	187.562	-44.124	120.000
18720.000	1690.000	844.366	1.118	.210	0.000	207.712	-64.274	120.000
18780.000	310.000	842.850	0.000	.666	0.000	159.522	0.000	60.000
18780.000	650.000	843.425	.575	.572	0.000	172.496	-12.974	60.000
18780.000	865.000	843.648	.222	.399	0.000	177.515	-17.993	60.000
18780.000	1690.000	844.467	.820	.101	0.000	196.019	-36.497	60.000
18840.000	310.000	843.171	0.000	.320	0.000	160.656	0.000	60.000
18840.000	650.000	843.828	.658	.403	0.000	175.411	-14.755	60.000
18840.000	865.000	844.165	.337	.517	0.000	182.992	-22.336	60.000
18840.000	1690.000	844.928	.764	.461	0.000	200.433	-39.777	60.000
18960.000	310.000	843.676	0.000	.505	0.000	159.868	0.000	120.000
18960.000	650.000	844.280	.604	.451	0.000	173.511	-13.643	120.000
18960.000	865.000	844.603	.324	.439	0.000	180.720	-20.852	120.000
18960.000	1690.000	845.461	.857	.532	0.000	200.022	-40.154	120.000
19080.000	310.000	844.241	0.000	.565	0.000	160.443	0.000	120.000
19080.000	650.000	844.809	.568	.530	0.000	173.276	-12.833	120.000
19080.000	865.000	845.121	.311	.517	0.000	180.296	-19.852	120.000
19080.000	1690.000	846.006	.885	.545	0.000	200.100	-39.656	120.000
19081.000	310.000	844.684	0.000	.443	0.000	170.444	0.000	1.000
19081.000	650.000	845.267	.583	.458	0.000	183.587	-13.143	1.000
19081.000	865.000	845.523	.256	.402	0.000	189.293	-18.850	1.000
19081.000	1690.000	846.342	.819	.336	0.000	207.837	-37.394	1.000
19090.000	310.000	844.727	0.000	.043	0.000	171.242	0.000	9.000
19090.000	650.000	845.307	.580	.040	0.000	184.434	-13.191	9.000
19090.000	865.000	845.566	.259	.043	0.000	190.153	-18.911	9.000
19090.000	1690.000	846.387	.821	.045	0.000	208.710	-37.468	9.000
19091.000	310.000	844.695	0.000	-.032	0.000	170.678	0.000	1.000
19091.000	650.000	845.262	.567	-.045	0.000	183.479	-12.801	1.000
19091.000	865.000	845.515	.253	-.050	0.000	189.200	-18.522	1.000
19091.000	1690.000	846.330	.815	-.057	0.000	207.593	-36.915	1.000
19691.000	310.000	845.664	0.000	.970	0.000	58.015	0.000	600.000
19691.000	650.000	846.601	.936	1.339	0.000	142.010	-83.995	600.000
19691.000	865.000	847.000	.400	1.485	0.000	165.469	-107.454	600.000
19691.000	1690.000	848.041	1.041	1.711	0.000	184.565	-126.550	600.000

19699.000	310.000	846.302	0.000	.637	0.000	117.882	0.0	8.000
19699.000	650.000	846.942	.640	.341	0.000	165.339	-47.657	8.000
19699.000	865.000	847.185	.243	.184	0.000	171.257	-53.575	8.000
19699.000	1690.000	848.027	.842	-.014	0.000	184.867	-67.185	8.000
19701.000	310.000	846.559	0.000	.257	0.000	139.850	0.000	2.000
19701.000	650.000	847.174	.615	.232	0.000	171.032	-31.182	2.000
19701.000	865.000	847.390	.216	.205	0.000	176.186	-36.336	2.000
19701.000	1690.000	848.109	.719	.082	0.000	185.566	-45.716	2.000
19702.000	310.000	846.696	0.000	.137	0.000	153.265	0.000	1.000
19702.000	650.000	847.280	.583	.106	0.000	173.669	-20.404	1.000
19702.000	865.000	847.527	.247	.137	0.000	179.794	-26.529	1.000
19702.000	1690.000	848.261	.735	.152	0.000	186.779	-33.514	1.000
19877.000	310.000	846.989	0.000	.293	0.000	166.055	0.000	175.000
19877.000	650.000	847.710	.721	.431	0.000	182.110	-16.055	175.000
19877.000	865.000	848.032	.322	.505	0.000	184.750	-18.696	175.000
19877.000	1690.000	848.961	.929	.700	0.000	192.369	-26.315	175.000
20052.000	310.000	847.165	0.000	.176	0.000	169.561	0.000	175.000
20052.000	650.000	847.941	.776	.230	0.000	183.749	-14.188	175.000
20052.000	865.000	848.290	.349	.258	0.000	186.614	-17.053	175.000
20052.000	1690.000	849.299	1.009	.338	0.000	194.896	-25.334	175.000
20227.000	310.000	847.299	0.000	.134	0.000	172.553	0.000	175.000
20227.000	650.000	848.113	.813	.172	0.000	184.994	-12.441	175.000
20227.000	865.000	848.482	.369	.192	0.000	188.022	-15.469	175.000
20227.000	1690.000	849.549	1.068	.251	0.000	196.783	-24.230	175.000
20402.000	310.000	847.265	0.000	-.035	0.000	16.150	0.000	175.000
20402.000	650.000	848.194	.929	.081	0.000	122.840	-106.690	175.000
20402.000	865.000	848.598	.404	.116	0.000	136.466	-120.316	175.000
20402.000	1690.000	849.547	.949	-.002	0.000	168.708	-152.558	175.000
20403.000	310.000	847.268	0.000	.003	0.000	16.150	0.000	1.000
20403.000	650.000	849.016	1.748	.822	0.000	150.555	-134.405	1.000
20403.000	865.000	849.216	.200	.618	0.000	157.302	-141.152	1.000
20403.000	1690.000	849.837	.621	.290	0.000	178.235	-162.085	1.000
20423.000	310.000	847.327	0.000	.059	0.000	16.150	0.000	20.000
20423.000	650.000	849.507	2.179	.491	0.000	167.070	-150.920	20.000
20423.000	865.000	849.773	.266	.557	0.000	176.052	-159.902	20.000
20423.000	1690.000	850.704	.931	.867	0.000	207.277	-191.127	20.000
20424.000	310.000	847.330	0.000	.003	0.000	16.150	0.000	1.000
20424.000	650.000	849.645	2.314	.138	0.000	171.788	-155.638	1.000
20424.000	865.000	849.926	.281	.153	0.000	181.291	-165.141	1.000
20424.000	1690.000	850.840	.914	.137	0.000	212.110	-195.960	1.000
20474.000	310.000	847.865	0.000	.534	0.000	40.109	0.000	50.000
20474.000	650.000	849.659	1.794	.014	0.000	169.304	-129.195	50.000
20474.000	865.000	849.946	.287	.020	0.000	176.636	-136.527	50.000
20474.000	1690.000	850.878	.932	.037	0.000	200.395	-160.286	50.000
21099.000	310.000	849.048	0.000	1.183	0.000	70.079	0.000	625.000
21099.000	650.000	850.364	1.316	.706	0.000	166.191	-96.111	625.000
21099.000	865.000	850.791	.426	.845	0.000	185.069	-114.990	625.000
21099.000	1690.000	851.979	1.189	1.102	0.000	237.632	-167.553	625.000
21524.000	310.000	849.881	0.000	.833	0.000	113.672	0.000	425.000
21524.000	650.000	851.182	1.302	.818	0.000	239.463	-125.790	425.000
21524.000	865.000	851.655	.473	.865	0.000	284.104	-170.432	425.000
21524.000	1690.000	852.933	1.278	.954	0.000	355.917	-242.245	425.000
22124.000	190.000	850.914	0.000	1.033	0.000	108.766	0.000	600.000

22124.000	530.000	852.521	.453	.866	0.000	204.999	-96.233	600.000
22124.000	1020.000	853.718	1.197	.785	0.000	204.999	-96.233	600.000
22304.000	190.000	851.618	0.000	.704	0.000	16.302	0.000	180.000
22304.000	390.000	852.531	.913	.463	0.000	64.584	-48.281	180.000
22304.000	530.000	852.921	.390	.400	0.000	114.999	-98.697	180.000
22304.000	1020.000	853.990	1.068	.272	0.000	114.999	-98.697	180.000
22494.000	190.000	852.404	0.000	.786	0.000	19.979	0.000	190.000
22494.000	390.000	853.501	1.096	.970	0.000	22.634	-2.655	190.000
22494.000	530.000	853.990	.489	1.069	0.000	23.827	-3.848	190.000
22494.000	1020.000	855.459	1.469	1.469	0.000	878.112	-858.133	190.000
22674.000	190.000	852.941	0.000	.536	0.000	19.085	0.000	180.000
22674.000	390.000	854.236	1.295	.735	0.000	22.237	-3.152	180.000
22674.000	530.000	854.878	.642	.888	0.000	23.795	-4.709	180.000
22674.000	1020.000	856.312	1.434	.853	0.000	808.016	-788.930	180.000
22744.000	190.000	853.187	0.000	.246	0.000	15.000	0.000	70.000
22744.000	390.000	854.833	1.646	.597	0.000	164.999	-149.999	70.000
22744.000	530.000	855.632	.799	.754	0.000	164.999	-149.999	70.000
22744.000	1020.000	856.813	1.181	.501	0.000	164.999	-149.999	70.000
22806.000	190.000	857.128	0.000	3.941	0.000	15.000	0.000	62.000
22806.000	390.000	857.632	.504	2.799	0.000	379.999	-364.999	62.000
22806.000	530.000	857.835	.204	2.203	0.000	379.999	-364.999	62.000
22806.000	1020.000	858.272	.437	1.459	0.000	379.999	-364.999	62.000
22956.000	190.000	857.266	0.000	.137	0.000	254.999	0.000	150.000
22956.000	390.000	857.646	.380	.014	0.000	254.999	-.000	150.000
22956.000	530.000	857.856	.210	.020	0.000	254.999	-.000	150.000
22956.000	1020.000	858.317	.462	.045	0.000	254.999	-.000	150.000
23106.000	190.000	857.189	0.000	-.077	0.000	173.619	0.000	150.000
23106.000	390.000	857.619	.430	-.027	0.000	174.149	-.530	150.000
23106.000	530.000	857.858	.239	.002	0.000	174.446	-.827	150.000
23106.000	1020.000	858.394	.537	.077	0.000	190.738	-17.119	150.000
23206.000	190.000	857.960	0.000	.771	0.000	148.600	0.000	100.000
23206.000	390.000	858.390	.430	.771	0.000	149.137	-.537	100.000
23206.000	530.000	858.618	.228	.761	0.000	149.422	-.822	100.000
23206.000	1020.000	859.248	.630	.854	0.000	178.362	-29.762	100.000
23306.000	190.000	858.758	0.000	.798	0.000	123.608	0.000	100.000
23306.000	390.000	859.223	.465	.833	0.000	124.180	-.571	100.000
23306.000	530.000	859.467	.244	.848	0.000	124.495	-.887	100.000
23306.000	1020.000	860.132	.665	.883	0.000	168.128	-44.520	100.000
23506.000	190.000	860.385	0.000	1.627	0.000	73.681	0.000	200.000
23506.000	390.000	860.958	.573	1.735	0.000	74.397	-.716	200.000
23506.000	530.000	861.254	.297	1.788	0.000	74.767	-1.087	200.000
23506.000	1020.000	862.032	.777	1.900	0.000	174.764	-101.083	200.000
23606.000	190.000	861.228	0.000	.843	0.000	48.754	0.000	100.000
23606.000	390.000	861.879	.650	.921	0.000	49.560	-.806	100.000
23606.000	530.000	862.221	.343	.967	0.000	50.258	-1.504	100.000
23606.000	1020.000	863.036	.815	1.005	0.000	62.999	-14.245	100.000
23656.000	190.000	861.665	0.000	.436	0.000	36.810	0.000	50.000
23656.000	200.000	862.658	.993	.780	0.000	37.999	-1.189	50.000
23656.000	200.000	863.165	.507	.944	0.000	37.999	-1.189	50.000
23656.000	200.000	864.562	1.397	1.526	0.000	37.999	-1.189	50.000
23706.000	190.000	862.098	0.000	.433	0.000	12.999	0.000	50.000
23706.000	200.000	862.658	.559	-.001	0.000	12.999	-.000	50.000

23706.0[illegible]	2[illegible]0.00	863.130	.479	[illegible].035	0.[illegible]0	12.999	-.000	5[illegible].000
23706.000	200.000	864.523	1.393	-.039	0.000	12.999	-.000	50.000
23707.000	190.000	862.122	0.000	.024	0.000	12.999	0.000	1.000
23707.000	200.000	862.668	.546	.010	0.000	12.999	-.000	1.000
23707.000	200.000	863.136	.468	.006	0.000	12.999	-.000	1.000
23707.000	200.000	864.525	1.389	.002	0.000	12.999	-.000	1.000
23887.000	190.000	864.674	0.000	2.552	0.000	11.999	0.000	180.000
23887.000	200.000	867.979	3.305	5.312	0.000	11.999	-.000	180.000
23887.000	200.000	868.463	.483	5.327	0.000	11.999	-.000	180.000
23887.000	200.000	869.882	1.419	5.357	0.000	11.999	-.000	180.000
23987.000	190.000	865.711	0.000	1.036	0.000	22.041	0.000	100.000
23987.000	390.000	868.034	2.324	.055	0.000	40.734	-18.692	100.000
23987.000	530.000	868.484	.450	.021	0.000	41.351	-19.310	100.000
23987.000	1020.000	869.794	1.310	-.087	0.000	43.150	-21.108	100.000
23990.000	190.000	866.706	0.000	.995	0.000	30.913	0.000	3.000
23990.000	390.000	868.202	1.496	.168	0.000	41.029	-10.116	3.000
23990.000	530.000	868.668	.466	.184	0.000	41.663	-10.750	3.000
23990.000	1020.000	869.995	1.327	.200	0.000	43.475	-12.562	3.000
24215.000	190.000	866.943	0.000	.237	0.000	22.863	0.000	225.000
24215.000	390.000	868.460	1.516	.257	0.000	27.529	-4.666	225.000
24215.000	530.000	869.000	.540	.332	0.000	29.191	-6.329	225.000
24215.000	1020.000	870.493	1.493	.498	0.000	44.542	-21.679	225.000
24216.000	190.000	867.814	0.000	.870	0.000	21.895	0.000	1.000
24216.000	390.000	868.711	.898	.252	0.000	26.010	-4.115	1.000
24216.000	530.000	869.266	.555	.266	0.000	31.686	-9.791	1.000
24216.000	1020.000	870.733	1.467	.239	0.000	43.739	-21.844	1.000
24366.000	190.000	869.335	0.000	1.522	0.000	13.000	0.000	150.000
24366.000	390.000	870.482	1.147	1.770	0.000	49.474	-36.474	150.000
24366.000	530.000	871.157	.675	1.891	0.000	61.972	-48.972	150.000
24366.000	1020.000	872.967	1.810	2.234	0.000	95.103	-82.103	150.000
24456.000	190.000	872.152	0.000	2.817	0.000	13.000	0.000	90.000
24456.000	390.000	873.715	1.563	3.233	0.000	103.999	-90.999	90.000
24456.000	530.000	874.045	.331	2.888	0.000	103.999	-90.999	90.000
24456.000	1020.000	874.901	.855	1.934	0.000	103.999	-90.999	90.000
24556.000	190.000	872.210	0.000	.058	0.000	16.671	0.000	100.000
24556.000	390.000	873.515	1.305	-.200	0.000	22.387	-5.716	100.000
24556.000	530.000	873.704	.189	-.341	0.000	25.067	-8.396	100.000
24556.000	1020.000	874.756	1.052	-.145	0.000	39.414	-22.743	100.000
24906.000	190.000	873.499	0.000	1.289	0.000	35.044	0.000	350.000
24906.000	390.000	874.726	1.227	1.211	0.000	46.360	-11.316	350.000
24906.000	530.000	875.441	.715	1.737	0.000	53.016	-17.972	350.000
24906.000	1020.000	877.489	2.048	2.733	0.000	54.999	-19.955	350.000
24958.000	190.000	875.464	0.000	1.965	0.000	51.374	0.000	52.000
24958.000	390.000	876.679	1.215	1.954	0.000	54.999	-3.625	52.000
24958.000	530.000	877.154	.474	1.713	0.000	54.999	-3.625	52.000
24958.000	1020.000	878.481	1.327	.992	0.000	54.999	-3.625	52.000
25133.000	150.000	875.555	0.000	.091	0.000	53.121	0.000	175.000
25133.000	315.000	876.816	1.261	.136	0.000	54.999	-1.878	175.000
25133.000	425.000	877.335	.520	.182	0.000	54.999	-1.878	175.000
25133.000	830.000	878.796	1.460	.315	0.000	54.999	-1.878	175.000
25196.000	150.000	876.677	0.000	1.122	0.000	54.999	0.000	63.000
25196.000	315.000	877.596	.920	.781	0.000	54.999	-.000	63.000
25196.000	425.000	878.000	.403	.664	0.000	54.999	-.000	63.000

25[illegible]6.000	83[illegible].000	87[illegible]	1.2[illegible]	.4[illegible]8	0.00[illegible]	3[illegible]	[illegible]. 00	3[illegible]. 00
25321.000	150.000	876.644	0.000	-.032	0.000	31.023	0.000	125.000
25321.000	315.000	877.533	.888	-.064	0.000	41.480	-10.456	125.000
25321.000	425.000	877.916	.384	-.083	0.000	43.187	-12.164	125.000
25321.000	830.000	879.175	1.259	-.119	0.000	44.468	-13.445	125.000
25471.000	150.000	876.813	0.000	.169	0.000	13.399	0.000	150.000
25471.000	315.000	877.733	.920	.200	0.000	13.399	-.000	150.000
25471.000	425.000	878.396	.663	.479	0.000	62.226	-48.827	150.000
25471.000	830.000	879.891	1.495	.715	0.000	86.087	-72.688	150.000
25512.000	150.000	876.863	0.000	.050	0.000	13.399	0.000	41.000
25512.000	315.000	877.782	.919	.049	0.000	13.399	-.000	41.000
25512.000	425.000	880.220	2.437	1.824	0.000	89.999	-76.600	41.000
25512.000	830.000	881.523	1.304	1.632	0.000	89.999	-76.600	41.000
25612.000	150.000	877.343	0.000	.479	0.000	13.859	0.000	100.000
25612.000	315.000	878.444	1.101	.661	0.000	17.443	-3.584	100.000
25612.000	425.000	880.071	1.627	-.149	0.000	28.929	-15.070	100.000
25612.000	830.000	881.239	1.168	-.284	0.000	57.392	-43.533	100.000
25812.000	150.000	879.894	0.000	2.551	0.000	28.532	0.000	200.000
25812.000	315.000	880.910	1.016	2.467	0.000	98.959	-70.427	200.000
25812.000	425.000	881.306	.395	1.235	0.000	107.737	-79.205	200.000
25812.000	830.000	882.758	1.452	1.519	0.000	149.998	-121.466	200.000
26012.000	150.000	881.723	0.000	1.829	0.000	19.636	0.000	200.000
26012.000	315.000	882.936	1.213	2.026	0.000	138.099	-118.463	200.000
26012.000	425.000	883.171	.235	1.866	0.000	149.032	-129.396	200.000
26012.000	830.000	883.568	.396	.809	0.000	156.636	-136.999	200.000
26013.000	150.000	883.094	0.000	1.371	0.000	108.792	0.000	1.000
26013.000	315.000	883.421	.327	.484	0.000	138.789	-29.997	1.000
26013.000	425.000	883.444	.023	.273	0.000	140.018	-31.226	1.000
26013.000	830.000	883.795	.351	.228	0.000	158.517	-49.725	1.000
26037.000	150.000	883.505	0.000	.411	0.000	143.221	0.000	24.000
26037.000	315.000	883.834	.330	.414	0.000	160.408	-17.188	24.000
26037.000	425.000	884.053	.218	.609	0.000	172.081	-28.861	24.000
26037.000	830.000	884.588	.535	.792	0.000	190.348	-47.128	24.000
26038.000	150.000	883.518	0.000	.013	0.000	154.536	0.000	1.000
26038.000	315.000	883.843	.325	.008	0.000	167.922	-13.386	1.000
26038.000	425.000	884.059	.216	.006	0.000	176.896	-22.360	1.000
26038.000	830.000	884.589	.530	.001	0.000	190.348	-35.813	1.000
26188.000	150.000	883.731	0.000	.213	0.000	46.586	0.000	150.000
26188.000	315.000	884.267	.537	.424	0.000	68.441	-21.855	150.000
26188.000	425.000	884.551	.284	.492	0.000	80.329	-33.742	150.000
26188.000	830.000	885.310	.759	.721	0.000	93.003	-46.417	150.000
26388.000	150.000	884.174	0.000	.443	0.000	20.732	0.000	200.000
26388.000	315.000	885.071	.897	.804	0.000	27.107	-6.375	200.000
26388.000	425.000	885.503	.432	.952	0.000	33.840	-13.107	200.000
26388.000	830.000	886.582	1.079	1.273	0.000	62.047	-41.315	200.000
26763.000	150.000	886.424	0.000	2.250	0.000	23.864	0.000	375.000
26763.000	315.000	887.483	1.058	2.411	0.000	121.434	-97.570	375.000
26763.000	425.000	887.898	.416	2.395	0.000	127.557	-103.693	375.000
26763.000	830.000	889.060	1.161	2.477	0.000	142.844	-118.980	375.000
26863.000	150.000	887.809	0.000	1.384	0.000	7.999	0.000	100.000
26863.000	315.000	888.542	.734	1.060	0.000	7.999	-.000	100.000
26863.000	425.000	888.619	.077	.721	0.000	125.274	-117.275	100.000
26863.000	830.000	889.547	.928	.488	0.000	137.453	-129.454	100.000

26946.000	150.000	888.904	0.000	1.095	0.000	8.199	0.000	83.000
26946.000	315.000	890.904	2.000	2.362	0.000	8.199	-.000	83.000
26946.000	425.000	891.724	.819	3.105	0.000	184.830	-176.631	83.000
26946.000	830.000	892.186	.462	2.638	0.000	261.949	-253.750	83.000
27046.000	150.000	889.478	0.000	.574	0.000	19.647	0.000	100.000
27046.000	315.000	891.747	2.269	.843	0.000	78.131	-58.483	100.000
27046.000	425.000	891.780	.033	.057	0.000	79.221	-59.574	100.000
27046.000	830.000	892.278	.497	.092	0.000	164.950	-145.302	100.000
-23606.000	190.000	861.228	0.000	-28.250	0.000	48.760	0.000	100.000
-23606.000	390.000	861.879	.650	-29.868	0.000	49.572	-.813	100.000
-23606.000	530.000	862.221	.343	-29.559	0.000	50.244	-1.485	100.000
-23606.000	1020.000	863.036	.815	-29.241	0.000	62.999	-14.239	100.000
23636.000	.010	865.800	0.000	4.572	0.000	16.667	0.000	30.000
23636.000	190.000	866.611	.811	4.733	0.000	50.000	-33.333	30.000
23636.000	330.000	866.951	.340	4.730	0.000	50.000	-33.334	30.000
23636.000	820.000	867.870	.919	4.834	0.000	50.000	-33.334	30.000
23886.000	.010	866.800	0.000	1.000	0.000	16.667	0.000	250.000
23886.000	190.000	867.841	1.041	1.230	0.000	50.000	-33.334	250.000
23886.000	330.000	868.209	.368	1.258	0.000	50.000	-33.334	250.000
23886.000	820.000	869.156	.947	1.285	0.000	50.000	-33.334	250.000
-15028.000	310.000	819.155	0.000	-47.645	0.000	17.999	0.000	3.000
-15028.000	650.000	821.902	2.747	-45.939	0.000	17.999	-.000	3.000
-15028.000	865.000	824.472	2.570	-43.737	0.000	17.999	-.000	3.000
-15028.000	1690.000	826.257	1.785	-42.899	0.000	407.496	-389.497	3.000
15128.000	.100	821.704	0.000	2.549	0.000	1.369	0.000	100.000
15128.000	60.000	822.985	1.281	1.083	0.000	18.157	-16.788	100.000
15128.000	300.000	824.630	1.645	.158	0.000	33.326	-31.957	100.000
15128.000	1050.000	826.055	1.425	-.202	0.000	39.655	-38.286	100.000
15203.000	.100	824.642	0.000	2.937	0.000	.858	0.000	75.000
15203.000	60.000	826.391	1.749	3.406	0.000	11.460	-10.602	75.000
15203.000	300.000	828.126	1.735	3.496	0.000	23.624	-22.767	75.000
15203.000	1050.000	830.291	2.165	4.236	0.000	47.675	-46.817	75.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	0.000	38.974	0.000
2	1.000	0.000	78.459	39.485
3	1.000	0.000	88.706	49.732
4	1.000	0.000	117.742	78.768

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: 10 YR ENCROACHED

00BREAK00

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$$$$$$$$    $$     $$$$$$$   $$$$$$$$   $$$$$ $   $$$$$$$   $$$$$$$$
$$         $$$$    $$    $$     $$     $$    $    $$    $$       $$
$$        $$  $$   $$    $$     $$     $$   $$$   $$    $$       $$
$$$$$    $$    $$   $$    $$     $$     $$  $ $$   $$    $$      $$
$$       $$    $$   $$    $$     $$     $$ $$ $$   $$    $$     $$
$$       $$$$$$$$   $$$$$$$      $$     $$ $  $$   $$    $$    $$
$$       $$    $$   $$  $$       $$     $$$   $$   $$    $$   $$
$$       $$    $$   $$   $$   $$ $$      $    $$   $$    $$  $$
$$       $$    $$   $$    $$   $$$      $ $$$$$   $$$$$$$   $$$$$$$$
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MOORE BUSINESS FORMS, INC

100 Year

with JEA's margin comments

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       FIS-CITY OF FARMINGTON HILLS,  5670-03-1   PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       SEELEY DRAIN

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      -1.      2.       0.       0.  0.000000    0.00     0.0      0.    757.450   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     1.000   10.000   11.000   12.000   14.000    8.000    4.000    0.000    0.000    0.000
NC      .090     .090     .042     .300     .500    0.000    0.000    0.000    0.000    0.000
QT     4.000  625.000 1330.000 1810.000 3410.000    0.000    0.000    0.000    0.000    0.000

X1    28.000   13.000  153.000  183.000    0.000    0.000    0.000    0.000    0.000    0.000
GR   770.000    0.000  760.000   42.000  759.000   75.000  757.000  135.000  756.000  153.000
GR   754.000  165.000  754.000  171.000  756.000  183.000  757.000  207.000  759.000  255.000
GR   760.000  291.000  763.000  315.000  768.500  363.000    0.000    0.000    0.000    0.000
NC      .100     .100     .045    0.000    0.000    0.000    0.000    0.000    0.000    0.000
QT     4.000  300.000  625.000  835.000 1620.000    0.000    0.000    0.000    0.000    0.000

X1     0.000   90.000  143.500  171.700  250.000  250.000  250.000    0.000    0.000    0.000
GR   771.800    0.000  769.900    4.900  768.100    9.800  766.300   14.800  764.700   19.700
GR   763.800   24.700  762.900   29.600  762.000   34.600  761.200   39.500  761.100   44.500
GR   761.000   49.400  760.900   54.400  760.800   59.300  760.600   64.300  760.500   69.200
GR   760.300   74.200  760.200   79.100  760.000   84.100  759.900   89.000  759.700   94.000
GR   759.600   98.900  759.400  103.900  759.200  108.800  759.100  113.800  758.900  118.700
GR   758.800  123.700  758.600  128.600  758.400  133.600  758.100  138.500  757.900  143.500
GR   757.600  144.400  757.400  145.300  757.100  146.300  756.900  147.200  756.800  148.200
GR   756.600  149.100  756.500  150.000  756.400  151.000  756.300  151.900  756.100  152.900
GR   756.000  153.800  755.900  154.800  755.900  155.700  755.900  156.600  755.900  157.600
GR   755.900  158.500  755.900  159.500  755.900  160.400  756.000  161.300  756.200  162.300
GR   756.300  163.200  756.500  164.200  756.700  165.100  756.900  166.100  757.100  167.000
GR   757.300  167.900  757.500  168.900  757.700  169.800  757.900  170.800  758.100  171.700
GR   758.200  176.700  758.400  181.700  758.600  186.700  758.800  191.600  759.000  196.600
GR   759.200  201.600  759.400  206.600  759.600  211.600  759.800  216.500  760.000  221.500
GR   760.200  226.500  760.400  231.500  760.500  236.500  760.700  241.500  760.800  246.400
GR   760.900  251.400  761.200  256.400  761.500  261.400  762.300  266.400  763.100  271.400
GR   763.900  276.300  764.700  281.300  765.400  286.300  766.100  291.300  766.900  296.300
GR   767.600  301.300  768.400  306.200  769.100  311.200  769.900  316.200  770.600  321.200

X1   250.000   90.000  134.000  160.500  250.000  250.000  250.000    0.000    0.000    0.000
GR   773.600    0.000  771.200    4.600  768.800    9.200  766.500   13.800  764.500   18.400
GR   764.000   23.100  763.400   27.700  762.900   32.300  762.400   36.900  762.400   41.500
GR   762.400   46.200  762.300   50.800  762.200   55.400  762.100   60.000  762.000   64.600
GR   761.800   69.300  761.700   73.900  761.600   78.500  761.400   83.100  761.300   87.700
GR   761.200   92.400  761.000   97.000  760.900  101.600  760.800  106.200  760.700  110.800
GR   760.500  115.500  760.400  120.100  760.200  124.700  760.000  129.300  759.800  134.000
GR   759.500  134.800  759.100  135.700  758.800  136.600  758.500  137.500  758.400  138.400
GR   758.300  139.300  758.200  140.100  758.100  141.000  758.100  141.900  758.000  142.800
GR   757.900  143.700  757.800  144.[illegible]  757.[illegible]0  [illegible]  757.8[illegible]0  [illegible]  757.8[illegible]  1[illegible]7.[illegible]
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GR	757.[illegible]	[illegible]	757.800	[illegible]	757.80	[illegible]	757.9[illegible]	[illegible]	75[illegible].000	[illegible]
GR	758.200	152.500	758.400	153.400	758.700	154.300	758.900	155.100	759.100	156.000
GR	759.300	156.900	759.500	157.800	759.700	158.700	759.900	159.600	760.200	160.500
GR	760.300	164.400	760.400	168.400	760.600	172.300	760.700	176.300	760.900	180.300
GR	761.000	184.200	761.100	188.200	761.300	192.200	761.400	196.100	761.600	200.100
GR	761.700	204.100	761.800	208.000	761.900	212.000	762.000	216.000	762.100	219.900
GR	762.200	223.900	762.500	227.900	763.100	231.800	763.900	235.800	764.700	239.800
GR	765.500	243.700	766.400	247.700	767.200	251.700	768.000	255.600	768.800	259.600
GR	769.600	263.600	770.400	267.500	771.200	271.500	772.000	275.500	772.800	279.500
X1	500.000	90.000	124.500	149.200	250.000	250.000	250.000	0.000	0.000	0.000
GR	775.400	0.000	772.400	4.200	769.500	8.500	766.600	12.800	764.300	17.100
GR	764.100	21.400	764.000	25.700	763.800	30.000	763.600	34.300	763.700	38.600
GR	763.800	42.900	763.700	47.200	763.600	51.500	763.500	55.800	763.400	60.100
GR	763.300	64.300	763.200	68.600	763.100	72.900	763.000	77.200	762.900	81.500
GR	762.800	85.800	762.700	90.100	762.600	94.400	762.500	98.700	762.400	103.000
GR	762.300	107.300	762.100	111.600	762.000	115.900	761.900	120.200	761.700	124.500
GR	761.300	125.300	760.900	126.100	760.500	126.900	760.100	127.800	760.000	128.600
GR	760.000	129.400	759.900	130.200	759.900	131.100	759.900	131.900	759.800	132.700
GR	759.800	133.500	759.700	134.300	759.700	135.200	759.700	136.000	759.700	136.800
GR	759.700	137.600	759.700	138.500	759.700	139.300	759.800	140.100	759.900	140.900
GR	760.100	141.800	760.400	142.600	760.600	143.400	760.800	144.200	761.100	145.100
GR	761.300	145.900	761.500	146.700	761.800	147.500	762.000	148.400	762.300	149.200
GR	762.300	152.200	762.400	155.100	762.500	158.000	762.600	161.000	762.700	163.900
GR	762.800	166.900	762.800	169.800	762.900	172.800	763.000	175.700	763.100	178.700
GR	763.200	181.600	763.300	184.600	763.300	187.500	763.400	190.500	763.500	193.400
GR	763.500	196.400	763.900	199.300	764.600	202.300	765.500	205.200	766.300	208.200
GR	767.200	211.100	768.100	214.100	768.900	217.000	769.800	220.000	770.600	222.900
GR	771.500	225.900	772.300	228.800	773.200	231.800	774.000	234.700	774.900	237.700
X1	750.000	10.000	115.000	138.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	777.200	0.000	764.100	15.000	765.300	40.000	763.700	115.000	761.700	118.000
GR	761.700	124.000	761.700	130.000	764.400	138.000	764.900	170.000	777.100	196.000
X1	790.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.510	0.000
X1	830.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	870.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	990.000	90.000	131.200	153.500	120.000	120.000	120.000	0.000	0.000	0.000
GR	781.000	0.000	777.800	4.500	774.600	9.000	771.400	13.500	768.900	18.100
GR	768.700	22.600	768.800	27.100	768.900	31.600	769.100	36.200	769.200	40.700
GR	769.300	45.200	769.200	49.700	769.100	54.300	769.100	58.800	769.000	63.300
GR	768.900	67.800	768.800	72.400	768.700	76.900	768.600	81.400	768.500	85.900
GR	768.400	90.500	768.300	95.000	768.200	99.500	768.200	104.000	768.100	108.600
GR	768.000	113.100	767.900	117.600	767.700	122.100	767.600	126.700	767.500	131.200
GR	766.900	131.900	766.400	132.700	765.800	133.400	765.300	134.200	765.200	134.900
GR	765.000	135.600	764.800	136.400	764.800	137.100	764.800	137.900	764.800	138.600
GR	764.800	139.400	764.900	140.100	764.900	140.800	764.900	141.600	765.000	142.300
GR	765.000	143.100	765.000	143.800	765.000	144.500	765.000	145.300	765.000	146.000
GR	765.200	146.800	765.400	147.500	765.700	148.300	765.900	149.000	766.200	149.700
GR	766.500	150.500	766.700	151.200	767.000	152.000	767.300	152.700	767.500	153.500
GR	767.600	155.400	767.600	157.300	767.700	159.300	767.700	161.200	767.700	163.200
GR	767.800	165.100	767.800	167.100	767.900	169.000	767.900	171.000	767.900	172.900
GR	768.000	174.900	768.000	176.800	768.100	178.800	768.100	180.700	768.200	182.700
GR	768.200	184.600	768.500	186.600	769.200	188.500	769.900	190.500	770.600	192.400
GR	771.300	194.400	772.000	196.300	773.100	198.300	774.100	200.200	775.200	202.200
GR	776.200	204.100	777.200	206.100	778.300	208.000	779.300	210.000	780.400	212.000
NC	.100	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1110.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	1.550	0.000
X1	1150.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	1190.[illegible]	0.00[illegible]	[illegible]	[illegible]	4[illegible]	40.00[illegible]	40.[illegible]0	[illegible]	.[illegible]10	[illegible]

MOORE BUSINESS FORMS INC 70

X1	1230.000	90.000	147.500	169.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	784.800	0.000	781.900	5.000	779.000	10.100	776.100	15.200	773.700	20.300
GR	773.100	25.400	773.200	30.500	773.200	35.600	773.300	40.600	773.300	45.700
GR	773.400	50.800	773.300	55.900	773.200	61.000	773.100	66.100	773.000	71.200
GR	772.900	76.200	772.800	81.300	772.700	86.400	772.600	91.500	772.500	96.600
GR	772.400	101.700	772.300	106.800	772.200	111.800	772.200	116.900	772.100	122.000
GR	772.000	127.100	771.800	132.200	771.700	137.300	771.500	142.400	771.300	147.500
GR	770.700	148.200	770.100	148.900	769.600	149.600	769.000	150.300	768.700	151.000
GR	768.300	151.700	768.000	152.500	767.900	153.200	767.900	153.900	768.000	154.600
GR	768.000	155.300	768.100	156.000	768.100	156.800	768.200	157.500	768.200	158.200
GR	768.300	158.900	768.300	159.600	768.300	160.300	768.300	161.100	768.300	161.800
GR	768.400	162.500	768.600	163.200	768.800	163.900	769.000	164.600	769.300	165.400
GR	769.600	166.100	769.900	166.800	770.100	167.500	770.400	168.200	770.700	169.000
GR	770.800	170.900	770.800	172.900	770.900	174.800	770.900	176.800	771.000	178.800
GR	771.000	180.700	771.100	182.700	771.100	184.700	771.200	186.600	771.200	188.600
GR	771.300	190.600	771.300	192.500	771.400	194.500	771.500	196.500	771.500	198.400
GR	771.600	200.400	771.800	202.400	772.300	204.300	772.800	206.300	773.300	208.300
GR	773.800	210.200	774.300	212.200	775.400	214.200	776.600	216.100	777.800	218.100
GR	779.000	220.100	780.200	222.000	781.300	224.000	782.500	226.000	783.700	228.000
X1	1290.000	90.000	151.500	172.800	60.000	60.000	60.000	0.000	0.000	0.000
GR	785.700	0.000	782.800	5.200	780.000	10.400	777.200	15.600	774.800	20.900
GR	774.200	26.100	774.200	31.300	774.200	36.500	774.300	41.800	774.300	47.000
GR	774.300	52.200	774.300	57.400	774.100	62.700	774.000	67.900	773.900	73.100
GR	773.800	78.300	773.700	83.600	773.600	88.800	773.500	94.000	773.400	99.200
GR	773.300	104.500	773.200	109.700	773.200	114.900	773.100	120.100	773.000	125.400
GR	772.900	130.600	772.700	135.800	772.600	141.000	772.400	146.300	772.200	151.500
GR	771.600	152.200	771.000	152.900	770.400	153.600	769.900	154.300	769.500	155.100
GR	769.100	155.800	768.700	156.500	768.600	157.200	768.700	157.900	768.700	158.600
GR	768.800	159.300	768.900	160.000	768.900	160.700	769.000	161.500	769.000	162.200
GR	769.000	162.900	769.000	163.600	769.000	164.300	769.100	165.000	769.100	165.700
GR	769.200	166.400	769.300	167.100	769.500	167.800	769.800	168.600	770.100	169.300
GR	770.300	170.000	770.600	170.700	770.900	171.400	771.200	172.100	771.500	172.800
GR	771.500	174.800	771.600	176.800	771.600	178.700	771.700	180.700	771.800	182.700
GR	771.800	184.600	771.900	186.600	771.900	188.600	772.000	190.600	772.000	192.500
GR	772.100	194.500	772.100	196.500	772.200	198.400	772.300	200.400	772.300	202.400
GR	772.400	204.400	772.600	206.300	773.000	208.300	773.500	210.300	773.900	212.200
GR	774.400	214.200	774.800	216.200	776.000	218.200	777.200	220.100	778.500	222.100
GR	779.700	224.100	780.900	226.000	782.100	228.000	783.300	230.000	784.500	232.000
X1	1350.000	90.000	155.600	176.700	60.000	60.000	60.000	0.000	0.000	0.000
GR	786.600	0.000	783.900	5.300	781.100	10.700	778.400	16.000	776.000	21.400
GR	775.300	26.800	775.300	32.100	775.300	37.500	775.400	42.900	775.400	48.200
GR	775.300	53.600	775.300	59.000	775.100	64.300	775.000	69.700	774.900	75.100
GR	774.800	80.400	774.700	85.800	774.600	91.200	774.500	96.500	774.400	101.900
GR	774.300	107.300	774.200	112.600	774.200	118.000	774.100	123.400	774.000	128.700
GR	773.900	134.100	773.700	139.500	773.600	144.800	773.400	150.200	773.200	155.600
GR	772.500	156.300	771.900	157.000	771.400	157.700	770.800	158.400	770.400	159.100
GR	769.900	159.800	769.500	160.500	769.400	161.200	769.500	161.900	769.500	162.600
GR	769.600	163.300	769.700	164.000	769.700	164.700	769.800	165.400	769.800	166.100
GR	769.900	166.800	769.900	167.500	769.900	168.200	769.900	168.900	769.900	169.600
GR	770.000	170.400	770.100	171.100	770.300	171.800	770.600	172.500	770.900	173.200
GR	771.100	173.900	771.400	174.600	771.700	175.300	772.000	176.000	772.300	176.700
GR	772.300	178.700	772.400	180.600	772.500	182.600	772.500	184.600	772.600	186.600
GR	772.600	188.500	772.700	190.500	772.700	192.500	772.800	194.500	772.800	196.400
GR	772.900	198.400	773.000	200.400	773.000	202.400	773.100	204.300	773.200	206.300
GR	773.200	208.300	773.400	210.300	773.800	212.200	774.200	214.200	774.600	216.200
GR	775.000	218.200	775.400	220.100	776.600	222.100	777.900	224.100	779.100	226.100
GR	780.400	228.000	781.600	230.000	782.800	232.000	784.100	234.000	785.300	236.000
X1	1410.000	90.000	159.600	180.600	60.000	60.000	60.000	0.000	0.000	0.000
GR	787.500	0.000	784.900	5.500	782.200	11.000	779.600	16.500	777.200	22.000
GR	776.400	27.500	776.400	33.000	776.400	38.500	776.400	44.000	776.400	49.500
GR	776.300	55.000	776.300	60.500	776.100	66.000	776.100	71.500	775.900	77.000
GR	775.[illegible]	8[illegible]	775.7[illegible]	[illegible]	775.[illegible]	93.[illegible]	775.5[illegible]	9[illegible]	775.[illegible]	1[illegible]

MOORE BUSINESS FORMS INC 23

G	775.300	11[illegible].100	[illegible].20	115.60	775.200	1[illegible].1.0	775.1[illegible]	126.6[illegible]0	775.000	13[illegible].10
GR	774.900	137.600	774.800	143.100	774.600	148.600	774.400	154.100	774.100	159.600
GR	773.500	160.300	772.900	161.000	772.300	161.700	771.700	162.400	771.300	163.100
GR	770.800	163.800	770.300	164.500	770.200	165.200	770.300	165.900	770.300	166.600
GR	770.400	167.300	770.500	168.000	770.500	168.700	770.600	169.400	770.600	170.100
GR	770.700	170.800	770.700	171.500	770.700	172.200	770.700	172.900	770.700	173.600
GR	770.800	174.300	770.900	175.000	771.100	175.700	771.400	176.400	771.700	177.100
GR	771.900	177.800	772.200	178.500	772.500	179.200	772.800	179.900	773.000	180.600
GR	773.100	182.600	773.200	184.500	773.300	186.500	773.300	188.500	773.400	190.500
GR	773.400	192.400	773.500	194.400	773.500	196.400	773.600	198.400	773.600	200.400
GR	773.700	202.300	773.800	204.300	773.800	206.300	773.900	208.300	774.000	210.300
GR	774.000	212.200	774.200	214.200	774.600	216.200	774.900	218.200	775.200	220.200
GR	775.600	222.100	775.900	224.100	777.200	226.100	778.500	228.100	779.800	230.100
GR	781.100	232.000	782.400	234.000	783.600	236.000	784.900	238.000	786.100	240.000
X1	1470.000	90.000	163.700	184.500	60.000	60.000	60.000	0.000	0.000	0.000
GR	788.500	0.000	786.000	5.600	783.400	11.200	780.800	16.900	778.400	22.500
GR	777.600	28.200	777.500	33.800	777.500	39.500	777.500	45.100	777.500	50.800
GR	777.400	56.400	777.400	62.100	777.200	67.700	777.100	73.400	777.000	79.000
GR	776.900	84.600	776.800	90.300	776.700	95.900	776.600	101.600	776.500	107.200
GR	776.400	112.900	776.300	118.500	776.200	124.200	776.100	129.800	776.000	135.500
GR	775.900	141.100	775.800	146.800	775.600	152.400	775.400	158.100	775.100	163.700
GR	774.500	164.400	773.900	165.100	773.300	165.800	772.700	166.500	772.200	167.200
GR	771.700	167.800	771.200	168.500	771.000	169.200	771.100	169.900	771.100	170.600
GR	771.200	171.300	771.300	172.000	771.400	172.700	771.500	173.400	771.500	174.100
GR	771.500	174.800	771.500	175.500	771.500	176.100	771.500	176.800	771.600	177.500
GR	771.600	178.200	771.700	178.900	771.900	179.600	772.200	180.300	772.500	181.000
GR	772.700	181.700	773.000	182.400	773.300	183.100	773.600	183.800	773.900	184.500
GR	773.900	186.400	774.000	188.400	774.100	190.400	774.100	192.400	774.200	194.400
GR	774.300	196.300	774.300	198.300	774.400	200.300	774.500	202.300	774.500	204.300
GR	774.600	206.300	774.700	208.200	774.700	210.200	774.800	212.200	774.900	214.200
GR	774.900	216.200	775.100	218.200	775.400	220.100	775.700	222.100	775.900	224.100
GR	776.200	226.100	776.500	228.100	777.800	230.100	779.100	232.000	780.500	234.000
GR	781.800	236.000	783.100	238.000	784.400	240.000	785.700	242.000	787.000	244.000
X1	1530.000	90.000	167.700	188.300	60.000	60.000	60.000	0.000	0.000	0.000
GR	789.400	0.000	787.000	5.700	784.400	11.500	781.900	17.300	779.600	23.100
GR	778.700	28.900	778.600	34.700	778.500	40.400	778.500	46.200	778.500	52.000
GR	778.400	57.800	778.400	63.600	778.200	69.400	778.100	75.200	778.000	80.900
GR	777.900	86.700	777.800	92.500	777.700	98.300	777.600	104.100	777.500	109.900
GR	777.400	115.700	777.300	121.400	777.200	127.200	777.100	133.000	777.000	138.800
GR	776.900	144.600	776.800	150.400	776.500	156.200	776.300	161.900	776.000	167.700
GR	775.400	168.400	774.800	169.100	774.200	169.800	773.600	170.500	773.100	171.200
GR	772.500	171.800	771.900	172.500	771.700	173.200	771.800	173.900	771.900	174.600
GR	772.000	175.300	772.100	176.000	772.200	176.700	772.300	177.300	772.300	178.000
GR	772.300	178.700	772.300	179.400	772.300	180.100	772.300	180.800	772.400	181.500
GR	772.400	182.100	772.500	182.800	772.700	183.500	772.900	184.200	773.200	184.900
GR	773.500	185.600	773.800	186.300	774.100	187.000	774.400	187.600	774.600	188.300
GR	774.700	190.300	774.800	192.300	774.900	194.300	774.900	196.300	775.000	198.300
GR	775.100	200.200	775.100	202.200	775.200	204.200	775.300	206.200	775.300	208.200
GR	775.400	210.200	775.500	212.200	775.500	214.200	775.600	216.100	775.700	218.100
GR	775.700	220.100	775.900	222.100	776.100	224.100	776.400	226.100	776.500	228.100
GR	776.800	230.100	777.000	232.000	778.400	234.000	779.800	236.000	781.200	238.000
GR	782.500	240.000	783.800	242.000	785.100	244.000	786.500	246.000	787.800	248.000
X1	1590.000	90.000	171.800	192.200	60.000	60.000	60.000	0.000	0.000	0.000
GR	790.400	0.000	788.000	5.900	785.500	11.800	783.100	17.700	780.800	23.700
GR	779.800	29.600	779.700	35.500	779.600	41.400	779.600	47.400	779.500	53.300
GR	779.400	59.200	779.400	65.100	779.200	71.100	779.100	77.000	779.000	82.900
GR	778.900	88.800	778.800	94.800	778.700	100.700	778.600	106.600	778.500	112.500
GR	778.400	118.500	778.300	124.400	778.200	130.300	778.100	136.200	778.000	142.200
GR	777.900	148.100	777.800	154.000	777.500	159.900	777.300	165.900	777.000	171.800
GR	776.400	172.500	775.800	173.200	775.100	173.800	774.500	174.500	773.900	175.200
GR	773.300	175.900	772.800	176.600	772.500	177.200	772.600	177.900	772.700	178.600
GR	772.800	179.300	772.900	180.000	773.000	180.600	773.100	181.300	773.100	182.000
GR	773.[illegible]00	182.700	773.[illegible]00	1[illegible]3.4[illegible]0	773.[illegible]	184.000	773.[illegible]0	1[illegible]4.7[illegible]0	773.[illegible]0	1[illegible]5.4[illegible]0

ADORE BUSINESS FORMS, INC.

G	773.2[illegible]	1[illegible].100	773.3[illegible]	1[illegible].8[illegible]	773.4[illegible]	187.[illegible]	773.700	1[illegible].1[illegible]	77[illegible].00[illegible]	1[illegible]
GR	774.300	189.500	774.600	190.200	774.900	190.800	775.200	191.500	775.500	192.200
GR	775.500	194.200	775.600	196.200	775.700	198.200	775.700	200.200	775.800	202.200
GR	775.900	204.100	775.900	206.100	776.000	208.100	776.100	210.100	776.100	212.100
GR	776.200	214.100	776.300	216.100	776.400	218.100	776.400	220.100	776.500	222.100
GR	776.600	224.100	776.700	226.100	776.900	228.000	777.100	230.000	777.200	232.000
GR	777.400	234.000	777.600	236.000	779.000	238.000	780.400	240.000	781.800	242.000
GR	783.200	244.000	784.500	246.000	785.900	248.000	787.300	250.000	788.700	252.000
X1	1650.000	90.000	175.900	196.100	60.000	60.000	60.000	0.000	0.000	0.000
GR	791.400	0.000	789.000	6.000	786.700	12.100	784.300	18.100	782.000	24.200
GR	780.900	30.300	780.800	36.300	780.700	42.400	780.600	48.500	780.600	54.500
GR	780.500	60.600	780.400	66.700	780.300	72.700	780.200	78.800	780.100	84.900
GR	780.000	90.900	779.800	97.000	779.700	103.100	779.600	109.100	779.500	115.200
GR	779.400	121.300	779.300	127.300	779.200	133.400	779.100	139.500	779.000	145.500
GR	778.900	151.600	778.800	157.700	778.500	163.700	778.300	169.800	778.000	175.900
GR	777.300	176.500	776.700	177.200	776.100	177.900	775.400	178.600	774.800	179.200
GR	774.200	179.900	773.600	180.600	773.300	181.300	773.400	181.900	773.500	182.600
GR	773.600	183.300	773.700	184.000	773.800	184.600	773.900	185.300	774.000	186.000
GR	774.000	186.600	774.000	187.300	774.000	188.000	774.000	188.700	774.000	189.300
GR	774.000	190.000	774.100	190.700	774.200	191.400	774.500	192.000	774.800	192.700
GR	775.100	193.400	775.400	194.100	775.700	194.700	776.000	195.400	776.300	196.100
GR	776.300	198.100	776.400	200.100	776.500	202.100	776.500	204.100	776.600	206.100
GR	776.700	208.000	776.800	210.000	776.800	212.000	776.900	214.000	777.000	216.000
GR	777.100	218.000	777.100	220.000	777.200	222.000	777.300	224.000	777.400	226.000
GR	777.400	228.000	777.500	230.000	777.700	232.000	777.800	234.000	777.900	236.000
GR	778.000	238.000	778.200	240.000	779.600	242.000	781.000	244.000	782.500	246.000
GR	783.900	248.000	785.300	250.000	786.700	252.000	788.100	254.000	789.500	256.000
X1	1710.000	11.000	180.000	200.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	792.400	0.000	782.100	28.000	781.600	60.000	779.900	160.000	779.000	180.000
GR	774.100	185.000	774.900	190.000	774.900	195.000	777.100	200.000	778.800	244.000
GR	790.400	260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2160.000	12.000	180.000	195.000	500.000	450.000	450.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	782.600	782.500	0.000
GR	795.100	0.000	789.100	80.000	785.700	170.000	779.700	180.000	778.400	184.000
GR	779.000	188.000	778.500	193.000	779.900	193.500	780.700	195.000	783.100	208.000
GR	784.500	273.000	793.900	305.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2161.000	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	782.600	782.500	0.000
SB	0.000	1.460	3.030	0.000	12.940	0.000	59.530	0.000	778.400	778.400
X1	2173.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	783.000	784.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	784.400	784.400	0.000
BT	8.000	0.000	795.100	0.000	80.000	789.100	0.000	180.000	784.700	0.000
BT	180.000	784.700	783.000	195.000	784.400	782.900	195.000	784.400	0.000	273.000
BT	784.500	0.000	305.000	793.900	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2174.000	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	784.400	784.400	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2294.000	17.000	190.000	213.000	80.000	80.000	120.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	784.000	784.000	0.000
GR	795.100	0.000	786.800	57.000	785.700	65.000	785.700	174.000	786.500	177.000
GR	783.000	187.000	782.400	190.000	782.400	190.000	779.900	197.000	779.100	202.000
GR	779.300	206.000	782.800	213.000	782.800	213.000	782.900	216.000	785.600	228.000
GR	795.000	260.000	795.400	267.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MOORE BUSINESS FORMS, INC 23

X1	2293.[illegible]	0.00[illegible]	.0[illegible]	0.00	1.0[illegible]	1.0	1.0[illegible]	0.0[illegible]	0.00	0.0[illegible]
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	784.000	784.000	0.000
NC	.040	.040	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	3.000	1.530	2.800	0.000	17.670	0.000	99.850	0.000	779.100	779.100
X1	2299.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	784.800	784.900	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	784.900	784.900	0.000
BT	12.000	177.000	786.500	0.000	187.000	786.000	0.000	190.000	785.900	0.000
BT	190.000	786.200	782.400	190.000	786.200	784.800	213.000	786.100	784.700	213.000
BT	786.100	782.800	213.000	785.900	0.000	216.000	784.900	0.000	228.000	785.600
BT	0.000	260.000	795.000	0.000	267.000	795.400	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2300.000	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	784.900	784.900	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2400.000	16.000	200.000	211.000	90.000	110.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	786.000	786.000	0.000
GR	791.600	0.000	788.200	100.000	786.000	165.000	783.900	200.000	783.900	200.000
GR	782.900	203.000	782.800	206.000	783.100	208.000	783.800	211.000	783.800	211.000
GR	786.300	230.000	787.000	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2401.000	16.000	200.000	211.000	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	786.000	786.000	0.000
BT	13.000	0.000	791.600	0.000	100.000	788.200	0.000	197.000	786.500	0.000
BT	200.000	787.500	783.900	200.000	787.500	786.900	211.000	787.500	786.800	211.000
BT	787.500	783.800	216.000	785.300	0.000	237.000	788.100	0.000	252.000	789.700
BT	0.000	262.000	791.600	0.000	306.000	791.600	0.000	338.000	798.600	0.000
GR	791.600	0.000	788.200	100.000	786.500	197.000	783.900	200.000	783.900	200.000
GR	782.900	203.000	782.800	206.000	783.100	208.000	783.800	211.000	783.800	211.000
GR	786.300	216.000	788.100	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2407.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	786.300	786.300	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2408.000	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	786.300	786.300	0.000
X1	2448.000	13.000	200.000	214.000	20.000	70.000	40.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.400	200.000	783.500	202.000	783.100	210.000
GR	782.100	214.000	787.400	214.000	787.400	219.000	788.100	237.000	789.700	252.000
GR	791.600	262.000	791.600	306.000	798.600	338.000	0.000	0.000	0.000	0.000
NC	.070	.070	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2449.000	11.000	200.000	214.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.500	200.000	786.000	200.000	785.900	214.000
GR	787.700	214.000	788.100	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2450.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2451.000	12.000	200.000	214.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	65.000	0.000	249.000	0.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.600	200.000	785.700	203.000	785.200	209.000
GR	785.800	214.000	787.300	217.000	788.100	237.000	789.700	252.000	791.600	262.000
GR	791.600	306.000	796.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2576.00[illegible]	0.000	[illegible].00	0.0[illegible]	140.[illegible]0	[illegible]	1[illegible]5.0[illegible]	0.[illegible]	.[illegible]70	[illegible].0[illegible]

X1	2701.000	14.000	263.000	279.000	140.000	60.000	125.000	0.000	-.870	0.000
GR	803.700	0.000	796.100	63.000	792.600	163.000	791.700	240.000	790.200	258.000
GR	789.900	263.000	788.700	268.000	787.800	275.000	787.900	279.000	787.900	283.000
GR	791.200	300.000	795.300	363.000	800.100	381.000	805.600	388.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2826.000	0.000	0.000	0.000	140.000	60.000	125.000	0.000	.870	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	791.000	791.000	0.000
NC	.040	.040	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2827.000	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	791.000	791.000	0.000
SB	0.000	1.510	3.050	0.000	13.370	0.000	45.450	0.000	787.800	787.800
X1	2839.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	791.950	791.960	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	791.900	791.900	0.000
BT	11.000	0.000	803.700	0.000	63.000	796.100	0.000	163.000	792.600	0.000
BT	262.000	792.200	0.000	263.000	791.900	0.000	263.000	791.900	790.800	279.000
BT	792.300	791.200	279.000	792.300	0.000	363.000	795.300	0.000	381.000	800.100
BT	0.000	388.000	805.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2840.000	14.000	263.000	279.000	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	791.900	791.900	0.000
GR	803.700	0.000	796.100	63.000	792.600	163.000	791.700	240.000	790.200	258.000
GR	789.900	263.000	788.700	268.000	787.800	275.000	787.900	279.000	787.900	283.000
GR	791.200	300.000	795.300	363.000	800.100	381.000	805.600	388.000	0.000	0.000
X1	3000.000	0.000	0.000	0.000	110.000	175.000	160.000	0.000	1.400	0.000
X1	3160.000	0.000	0.000	0.000	110.000	175.000	160.000	0.000	1.400	0.000
NC	.090	.090	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3200.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
X1	3240.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
X1	3280.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
NC	.092	.092	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3320.000	15.000	355.000	375.000	30.000	45.000	40.000	0.000	0.000	0.000
GR	808.100	0.000	806.800	65.000	803.200	165.000	800.800	265.000	798.000	300.000
GR	793.400	355.000	793.000	360.000	792.000	362.000	792.000	365.000	792.000	368.000
GR	793.000	370.000	793.400	375.000	798.000	420.000	806.500	465.000	808.300	490.000
NC	.060	.060	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
X1	3321.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.100	.100	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
SB	0.000	2.320	3.040	0.000	8.000	0.000	54.000	0.000	792.600	792.000
X1	3373.000	0.000	0.000	0.000	52.000	52.000	52.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	797.000	801.800	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	808.100	0.000	65.000	806.800	0.000	165.000	803.200	0.000
BT	265.000	801.800	0.000	300.000	802.100	0.000	355.000	802.460	0.000	360.000
BT	802.500	793.600	360.000	802.500	795.600	362.000	802.500	798.600	365.000	802.500
BT	799.600	368.000	802.600	798.600	370.000	802.700	795.600	370.000	802.700	793.600
BT	375.000	802.900	0.000	420.000	804.700	0.000	465.000	806.500	0.000	490.000
BT	808.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
X1	3374.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3659.000	11.000	124.000	150.000	300.000	235.000	285.000	0.000	-4.050	0.000
GR	816.100	0.000	810.100	70.000	803.800	96.000	803.800	124.000	800.800	128.000
GR	800.700	135.000	800.700	139.000	801.400	142.000	804.100	150.000	808.400	175.000
GR	816.800	199.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3734.000	0.000	0.000	0.000	75.000	60.000	75.000	0.000	1.050	0.000
X1	3804.000	0.000	0.000	0.000	75.000	55.000	70.000	0.000	1.000	0.000
X1	3839.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3874.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3909.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3944.000	11.000	124.000	150.000	40.000	30.000	35.000	0.000	0.000	0.000
GR	816.100	0.000	810.100	70.000	803.800	96.000	803.800	124.000	800.800	128.000
GR	800.700	135.000	800.700	139.000	801.400	142.000	804.100	150.000	808.400	175.000
GR	816.800	199.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4394.000	13.000	300.000	313.000	400.000	400.000	450.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	808.000	808.000	0.000
GR	820.600	0.000	816.200	100.000	812.600	200.000	811.200	250.000	806.700	300.000
GR	803.700	303.000	803.500	307.000	805.000	313.000	810.400	350.000	811.100	400.000
GR	812.700	485.000	816.100	500.000	818.500	510.000	0.000	0.000	0.000	0.000
NC	.055	.055	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4395.000	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	808.000	808.000	0.000
SB	0.000	1.570	3.040	0.000	10.870	0.000	51.080	0.000	803.500	803.500
X1	4406.000	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	808.300	809.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	809.700	809.700	0.000
BT	11.000	0.000	820.600	0.000	100.000	816.200	0.000	200.000	812.600	0.000
BT	300.000	809.800	806.700	300.000	809.800	808.100	313.000	809.700	808.300	313.000
BT	809.700	805.000	400.000	811.100	0.000	485.000	812.700	0.000	500.000	816.100
BT	0.000	510.000	818.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4407.000	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	809.700	809.700	0.000
X1	4617.000	10.000	170.000	193.000	210.000	210.000	210.000	0.000	0.000	0.000
GR	821.800	0.000	812.600	70.000	810.900	170.000	806.400	178.000	806.300	182.000
GR	806.700	188.000	809.100	193.000	809.300	210.000	819.600	245.000	821.900	260.000
X1	4917.000	90.000	149.500	171.500	300.000	300.000	300.000	0.000	0.000	0.000
GR	823.200	0.000	821.600	5.100	820.600	10.300	819.900	15.400	819.300	20.600
GR	818.600	25.700	817.900	30.900	817.300	36.000	816.600	41.200	815.900	46.300
GR	815.200	51.500	814.500	56.700	813.900	61.800	813.700	67.000	813.600	72.100
GR	813.500	77.300	813.400	82.400	813.300	87.600	813.200	92.700	813.100	97.900
GR	813.000	103.100	812.900	108.200	812.800	113.400	812.700	118.500	812.600	123.700
GR	812.500	128.800	812.400	134.000	812.300	139.100	812.200	144.300	812.000	149.500
GR	811.600	150.200	811.100	150.900	810.700	151.600	810.200	152.400	809.800	153.100
GR	809.300	153.800	808.900	154.600	808.400	155.300	808.000	156.000	807.500	156.800
GR	807.400	157.500	807.400	158.200	807.400	159.000	807.400	159.700	807.400	160.400
GR	807.400	161.200	807.400	161.900	807.400	162.600	807.500	163.400	807.500	164.100
GR	807.500	164.800	807.600	165.600	807.600	166.300	807.700	167.000	808.000	167.800
GR	808.400	168.500	808.700	169.200	809.100	170.000	809.400	170.700	809.800	171.500
GR	810.000	173.600	810.100	175.700	810.300	177.800	810.400	180.000	810.600	182.100
GR	810.700	184.200	810.900	186.400	811.100	[illegible]8.500	811.500	190.600	811.900	192.800
GR	812.300	194.900	81[illegible].700	197.[illegible]00	813.100	199.[illegible]00	81[illegible].500	[illegible]01.300	[illegible]12.900	[illegible]3.40[illegible]

GR	81[illegible].30	2[illegible].600	[illegible]	[illegible]	[illegible].10	[illegible].00	[illegible]15.[illegible]00	[illegible]12.0	816.0[illegible]0	[illegible]14.100
GR	816.400	216.200	816.900	218.400	817.900	220.500	818.700	222.600	819.500	224.800
GR	820.200	226.900	821.000	229.000	821.800	231.200	822.500	233.300	823.300	235.500
NC	.075	.095	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5217.000	12.000	129.000	150.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	824.700	0.000	821.400	6.000	818.500	29.000	815.200	54.000	813.300	129.000
GR	808.600	136.000	808.500	141.000	808.700	146.000	810.600	150.000	812.800	166.000
GR	814.800	194.000	824.800	211.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5292.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
X1	5367.000	90.000	159.200	180.000	60.000	60.000	75.000	0.000	.050	0.000
GR	826.500	0.000	824.500	5.400	823.400	10.900	822.800	16.400	822.200	21.900
GR	821.600	27.400	821.000	32.900	820.400	38.400	819.800	43.900	819.200	49.400
GR	818.600	54.900	818.000	60.400	817.400	65.800	817.100	71.300	816.800	76.800
GR	816.600	82.300	816.300	87.800	816.100	93.300	815.900	98.800	815.800	104.300
GR	815.600	109.800	815.500	115.300	815.300	120.800	815.200	126.300	815.000	131.700
GR	814.900	137.200	814.800	142.700	814.600	148.200	814.500	153.700	814.300	159.200
GR	813.800	159.900	813.300	160.600	812.800	161.300	812.200	162.000	811.800	162.700
GR	811.400	163.300	811.000	164.000	810.600	164.700	810.200	165.400	809.900	166.100
GR	809.900	166.800	809.900	167.500	809.900	168.200	809.900	168.900	809.800	169.600
GR	809.800	170.300	809.800	171.000	809.900	171.600	809.900	172.300	809.900	173.000
GR	809.900	173.700	810.100	174.400	810.200	175.100	810.300	175.800	810.600	176.500
GR	811.000	177.200	811.300	177.900	811.700	178.600	812.100	179.300	812.400	180.000
GR	812.600	181.900	812.900	183.900	813.100	185.900	813.300	187.900	813.500	189.900
GR	813.700	191.800	814.000	193.800	814.200	195.800	814.300	197.800	814.400	199.800
GR	814.500	201.800	814.600	203.700	814.800	205.700	814.900	207.700	815.200	209.700
GR	815.500	211.700	815.900	213.700	816.200	215.600	816.500	217.600	816.800	219.600
GR	817.100	221.600	817.700	223.600	818.800	225.600	819.800	227.500	820.900	229.500
GR	822.000	231.500	823.100	233.500	824.200	235.500	825.300	237.500	826.400	239.500
X1	5442.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
X1	5517.000	90.000	189.500	210.000	60.000	60.000	75.000	0.000	0.000	0.000
GR	828.400	0.000	826.800	6.500	825.800	13.000	825.100	19.600	824.500	26.100
GR	823.800	32.600	823.200	39.200	822.600	45.700	822.000	52.200	821.400	58.800
GR	820.700	65.300	820.100	71.800	819.500	78.400	819.100	84.900	818.700	91.400
GR	818.400	98.000	818.000	104.500	817.600	111.000	817.300	117.600	817.200	124.100
GR	817.000	130.600	816.800	137.200	816.600	143.700	816.500	150.200	816.300	156.800
GR	816.100	163.300	815.900	169.800	815.800	176.400	815.600	182.900	815.400	189.500
GR	814.800	190.100	814.200	190.800	813.700	191.500	813.100	192.200	812.600	192.900
GR	812.300	193.500	812.000	194.200	811.700	194.900	811.400	195.600	811.200	196.300
GR	811.200	197.000	811.200	197.600	811.200	198.300	811.200	199.000	811.200	199.700
GR	811.200	200.400	811.200	201.100	811.200	201.700	811.300	202.400	811.300	203.100
GR	811.300	203.800	811.500	204.500	811.800	205.200	812.000	205.800	812.400	206.500
GR	812.700	207.200	813.100	207.900	813.500	208.600	813.900	209.300	814.300	210.000
GR	814.500	211.900	814.600	213.800	814.800	215.700	814.900	217.700	815.100	219.600
GR	815.200	221.500	815.400	223.500	815.600	225.400	815.600	227.300	815.700	229.300
GR	815.800	231.200	815.900	233.100	816.000	235.100	816.200	237.000	816.700	238.900
GR	817.200	240.900	817.600	242.800	818.100	244.700	818.600	246.700	819.000	248.600
GR	819.500	250.500	820.100	252.500	821.100	254.400	822.100	256.300	823.100	258.300
GR	824.100	260.200	825.100	262.100	826.100	264.100	827.100	266.000	828.000	268.000
X1	5592.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
X1	5629.000	0.000	0.000	0.000	30.000	30.000	37.000	0.000	.340	0.000
X1	5667.000	90.000	219.700	240.000	30.000	30.000	38.000	0.000	.050	0.000
GR	830.200	0.000	829.000	7.500	828.200	15.100	827.500	22.700	826.800	30.300
GR	826.100	37.800	825.400	45.400	824.800	53.000	824.200	60.600	823.500	68.100
GR	822.900	75.700	822.300	83.300	821.700	90.900	821.100	98.500	820.600	106.000
GR	820.100	113.600	819.600	121.200	819.100	128.800	818.800	136.300	818.600	143.900
GR	818.400	151.500	818.100	159.100	817.900	166.700	817.700	174.200	817.500	181.800
GR	817.3[illegible]0	189.40[illegible]	[illegible]17.1[illegible]0	[illegible]7.00[illegible]	[illegible]15.900	[illegible]4.[illegible]00	[illegible].700	[illegible].1[illegible]0	[illegible].5[illegible]0	[illegible]19.7[illegible]0

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GR	815.80	220.[illegible]	815.2[illegible]	221.100	814.600	2[illegible]1.7[illegible]0	813.[illegible]	222.[illegible]0	813.50	223.1[illegible]0
GR	813.300	223.700	813.100	224.400	812.900	225.100	812.600	225.800	812.500	226.400
GR	812.500	227.100	812.600	227.800	812.600	228.500	812.600	229.100	812.600	229.800
GR	812.600	230.500	812.600	231.200	812.600	231.800	812.600	232.500	812.700	233.200
GR	812.700	233.900	813.000	234.500	813.400	235.200	813.700	235.900	814.100	236.600
GR	814.500	237.200	814.900	237.900	815.300	238.600	815.800	239.300	816.200	240.000
GR	816.300	241.800	816.400	243.700	816.500	245.600	816.600	247.500	816.700	249.400
GR	816.800	251.200	816.900	253.100	816.900	255.000	817.000	256.900	817.100	258.800
GR	817.100	260.700	817.200	262.500	817.300	264.400	817.500	266.300	818.200	268.200
GR	818.800	270.100	819.400	272.000	820.000	273.800	820.700	275.700	821.300	277.600
GR	821.900	279.300	822.600	281.400	823.500	283.300	824.400	285.100	825.300	287.000
GR	826.200	288.900	827.000	290.800	827.900	292.700	828.800	294.600	829.700	296.500
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5742.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
X1	5817.000	10.000	250.000	270.000	60.000	60.000	75.000	0.000	0.000	0.000
GR	832.100	0.000	827.800	50.000	820.400	150.000	817.600	250.000	814.500	253.000
GR	813.900	256.000	814.100	264.000	818.100	270.000	818.600	295.000	831.400	325.000
ET	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
NH	5.000	.085	246.000	.045	251.000	.080	288.000	.042	300.000	.085
NH	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5887.000	18.000	246.000	300.000	70.000	70.000	70.000	0.000	0.000	0.000
GR	832.500	0.000	827.000	100.000	822.200	200.000	819.600	220.000	815.100	246.000
GR	814.900	251.000	819.400	270.000	820.400	281.000	820.400	283.000	820.300	288.000
GR	815.400	288.000	814.400	291.000	814.400	294.000	814.200	297.000	815.400	300.000
GR	820.700	310.000	821.400	325.000	832.200	346.000	0.000	0.000	0.000	0.000
NH	5.000	.070	246.000	.022	251.000	.100	288.000	.022	300.000	.072
NH	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
X1	5888.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
SB	0.000	1.440	3.080	0.000	17.000	0.000	71.400	0.000	814.200	814.200
X1	5893.000	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	819.500	819.600	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	832.500	0.000	100.000	827.000	0.000	200.000	822.200	0.000
BT	246.000	819.600	815.100	246.000	819.600	818.100	251.000	819.700	818.100	251.000
BT	819.700	814.900	281.000	819.700	819.700	281.000	820.400	820.400	287.000	820.400
BT	820.400	288.000	820.300	820.300	288.000	820.300	815.400	288.000	820.300	819.100
BT	300.000	820.700	819.400	300.000	820.700	815.400	325.000	821.400	0.000	346.000
BT	832.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.075	246.000	.037	251.000	.100	288.000	.037	300.000	.075
NH	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
X1	5894.000	18.000	246.000	300.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	832.500	0.000	827.000	100.000	822.200	200.000	819.600	220.000	815.100	246.000
GR	814.900	251.000	815.400	270.000	820.400	281.000	820.400	283.000	815.600	288.000
GR	815.400	288.000	814.400	291.000	814.400	294.000	814.200	297.000	815.400	300.000
GR	820.700	310.000	821.400	325.000	832.200	346.000	0.000	0.000	0.000	0.000
X1	5984.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.650	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6074.000	14.000	248.000	263.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	819.500	819.500	0.000
GR	832.100	0.000	829.900	48.000	826.700	98.000	821.100	148.000	816.600	248.000
GR	816.600	248.000	815.800	253.000	815.500	258.000	816.200	263.000	816.200	263.000
GR	816.200	263.000	824.800	274.000	825.400	313.000	832.300	328.000	0.000	0.000
NC	.075	.080	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6075.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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	[illegible]	1.73[illegible]	3.[illegible]	[illegible]	12.980	0.00	58.40	0.000	815.50	815.50
X1	6080.000	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	820.000	820.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	820.700	820.700	0.000
BT	12.000	0.000	832.100	0.000	48.000	829.900	0.000	98.000	826.700	0.000
BT	148.000	821.100	0.000	248.000	820.900	816.600	248.000	820.900	820.000	263.000
BT	820.700	819.600	263.000	820.700	816.200	269.000	820.800	0.000	274.000	824.800
BT	0.000	313.000	825.400	0.000	328.000	832.300	0.000	0.000	0.000	0.000
NC	.090	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6081.000	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	820.700	820.700	0.000
NC	.090	.095	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6296.000	0.000	0.000	0.000	185.000	185.000	215.000	0.000	1.300	0.000
X1	6368.000	0.000	0.000	0.000	62.000	62.000	72.000	0.000	.430	0.000
X1	6404.000	0.000	0.000	0.000	31.000	31.000	36.000	0.000	.210	0.000
X1	6440.000	12.000	210.000	230.000	31.000	31.000	36.000	0.000	-1.730	0.000
GR	834.300	0.000	828.600	55.000	824.100	70.000	823.000	100.000	824.200	150.000
GR	823.900	210.000	820.900	213.000	819.400	222.000	821.100	228.000	823.800	230.000
GR	825.800	235.000	839.100	260.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6511.000	0.000	0.000	0.000	62.000	62.000	71.000	0.000	.430	0.000
X1	6726.000	0.000	0.000	0.000	185.000	185.000	215.000	0.000	1.300	0.000
X1	6876.000	0.000	0.000	0.000	165.000	135.000	150.000	0.000	1.770	0.000
NC	.090	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	225.000	470.000	625.000	1220.000	0.000	0.000	0.000	0.000	0.000
X1	7026.000	10.000	318.000	338.000	165.000	135.000	150.000	0.000	-1.770	0.000
GR	836.400	0.000	836.600	18.000	832.400	118.000	830.200	218.000	827.700	318.000
GR	825.400	322.000	824.700	325.000	825.700	328.000	831.200	338.000	831.900	353.000
X1	7176.000	0.000	0.000	0.000	165.000	135.000	150.000	0.000	1.770	0.000
NC	.090	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7396.000	14.000	297.500	302.500	130.000	230.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	831.000	831.000	0.000
GR	842.200	0.000	836.500	45.000	836.100	100.000	833.400	200.000	829.000	292.000
GR	827.700	297.500	827.100	297.900	826.300	298.700	826.000	300.000	826.300	301.300
GR	827.100	302.100	827.700	302.500	829.200	314.000	842.200	360.000	0.000	0.000
NC	.055	.055	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7397.000	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	831.000	831.000	0.000
NC	.065	.065	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.920	2.920	0.000	3.930	0.000	19.630	0.000	826.000	826.000
X1	7415.000	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	831.000	833.300	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	833.300	833.300	0.000
BT	14.000	0.000	842.200	0.000	45.000	836.500	0.000	100.000	836.100	0.000
BT	200.000	833.400	0.000	297.500	833.300	827.700	297.500	833.300	829.300	297.900
BT	833.300	829.900	298.700	833.300	830.700	300.000	833.300	831.000	301.300	833.300
BT	830.700	302.100	833.300	829.900	302.500	833.300	829.300	302.500	833.300	827.700
BT	360.000	842.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7416.000	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	833.300	833.300	0.000
NC	[illegible]	[illegible]	.045	[illegible]	0.[illegible]	.000	0[illegible]	[illegible]	[illegible].000	.

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X1	7536.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	7656.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	7776.000	20.000	105.000	115.000	125.000	110.000	120.000	0.000	-4.650	0.000
GR	853.500	0.000	838.700	40.000	838.000	91.000	836.000	104.000	836.000	105.000
GR	835.800	105.000	835.400	106.000	835.800	107.000	835.400	108.000	835.800	109.000
GR	835.400	110.000	835.800	111.000	835.400	112.000	835.800	113.000	835.400	114.000
GR	835.800	115.000	836.000	115.000	838.000	135.000	841.800	205.000	853.500	300.000
X1	7896.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	8016.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	8076.000	0.000	0.000	0.000	65.000	55.000	60.000	0.000	.780	0.000
NC	.075	.075	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8136.000	0.000	0.000	0.000	65.000	55.000	60.000	0.000	.770	0.000
NH	5.000	.085	91.000	.025	105.000	.031	115.000	.025	120.000	.085
NH	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8137.000	20.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	30.000	0.000	853.500	0.000	40.000	838.700	0.000	91.000	839.500	0.000
BT	104.000	839.500	0.000	105.000	839.500	0.000	105.000	837.500	835.800	105.000
BT	837.500	837.000	106.000	837.500	837.400	107.000	837.500	837.000	107.000	837.500
BT	835.800	107.000	837.500	837.000	108.000	837.500	837.400	109.000	837.500	837.000
BT	109.000	837.500	835.800	109.000	837.500	837.000	110.000	837.500	837.400	111.000
BT	837.500	837.000	111.000	837.500	835.800	111.000	837.500	837.000	112.000	837.500
BT	837.400	113.000	837.500	837.000	113.000	837.500	835.800	113.000	837.500	837.000
BT	114.000	837.500	837.400	115.000	837.500	837.000	115.000	837.500	835.800	115.000
BT	837.500	0.000	120.000	839.400	0.000	205.000	841.800	0.000	300.000	853.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	853.500	0.000	838.700	40.000	839.500	91.000	839.500	104.000	839.500	105.000
GR	835.800	105.000	835.400	106.000	835.800	107.000	835.400	108.000	835.800	109.000
GR	835.400	110.000	835.800	111.000	835.400	112.000	835.800	113.000	835.400	114.000
GR	835.800	115.000	837.500	115.000	839.400	120.000	841.800	205.000	853.500	300.000
X1	8139.000	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
NH	3.000	.085	91.000	.025	120.000	.085	300.000	0.000	0.000	0.000
X1	8140.000	11.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	853.500	0.000	838.700	40.000	839.500	91.000	839.500	104.000	839.500	105.000
GR	836.100	105.000	836.400	115.000	839.500	115.000	839.400	120.000	841.800	205.000
GR	853.500	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8141.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.085	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8142.000	11.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	176.000	0.000	0.000	0.000	0.000
GR	853.500	0.000	838.700	40.000	838.000	91.000	836.000	104.000	835.000	105.000
GR	834.100	105.000	834.400	115.000	835.500	115.000	836.000	135.000	841.800	205.000
GR	853.500	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8442.000	12.000	100.000	111.500	300.000	300.000	300.000	0.000	0.000	0.000
GR	851.900	0.000	841.800	30.000	839.800	95.000	835.500	100.000	835.500	100.000
GR	835.300	106.000	835.800	111.500	835.800	111.500	840.300	118.000	840.300	150.000
GR	842.400	200.000	853.300	280.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8443.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	12.000	0.000	851.900	0.000	30.000	841.800	0.000	95.000	839.800	0.000
BT	100.000	840.000	835.500	100.000	840.000	[illegible]	106.000	840.200	839.200	111.500
BT	840.400	839.400	111.[illegible]00	40.4[illegible]0	835.[illegible]00	11[illegible]	84[illegible].30[illegible]	[illegible].00[illegible]	1[illegible]0.000	[illegible]40.3[illegible]

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BT	0.000	200.00	[illegible]	0.0[illegible]	[illegible]80.0	[illegible]53.30	0.0[illegible]	[illegible].00	[illegible].000	0.[illegible]00
X1	8459.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.070	.070	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8460.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	8660.000	9.000	150.000	157.500	200.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	175.000	0.000	840.000	840.000	0.000
GR	851.800	0.000	844.400	50.000	840.500	125.000	836.800	150.000	836.200	154.000
GR	836.400	157.500	840.500	175.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.055	.055	.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8661.000	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	100.000	0.000	175.000	0.000	840.000	840.000	0.000
NC	.055	.055	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.650	3.060	0.000	6.470	0.000	21.360	0.000	837.800	836.200
X1	8675.000	9.000	150.000	157.500	14.000	14.000	14.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	841.200	842.100	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	175.000	0.000	842.100	842.100	0.000
BT	8.000	0.000	851.800	0.000	50.000	844.400	0.000	150.000	842.100	839.400
BT	150.000	842.100	841.100	154.000	842.100	841.100	157.500	842.100	841.200	157.500
BT	842.100	838.800	175.000	843.900	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	840.500	125.000	838.800	150.000	837.800	154.000
GR	838.800	157.500	840.500	175.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.065	.065	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8676.000	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	100.000	0.000	175.000	0.000	842.100	842.100	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8677.000	9.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	838.800	150.000	837.800	154.000
GR	838.800	157.500	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.055	.055	.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8678.000	8.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	838.800	150.000	838.900	157.500
GR	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000	0.000	0.000
X1	8679.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8680.000	9.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	177.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	837.800	150.000	837.800	154.000
GR	838.800	157.500	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000
X1	9060.000	9.000	96.000	117.000	380.000	380.000	380.000	0.000	-1.000	0.000
X3	0.000	0.000	0.000	98.000	0.000	117.000	0.000	0.000	0.000	0.000
GR	857.100	0.000	848.300	37.000	846.300	96.000	839.500	103.000	839.300	108.000
GR	838.900	114.000	844.900	117.000	847.500	166.000	859.100	208.000	0.000	0.000
X1	9070.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	101.000	0.000	115.000	0.000	0.000	0.000	0.000
X1	9076.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	103.500	0.000	114.500	0.000	0.000	0.000	0.000
X1	9080.000	11.000	95.500	104.500	4.000	4.000	4.000	0.000	0.000	0.000
GR	861.400	[illegible].00	[illegible]1.3[illegible]0	95.500	843.[illegible]	[illegible]7.[illegible]00	8[illegible].[illegible]0	9[illegible].900	838.80	97.10

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GR	837.900	100.000	838.000	102.900	846.[illegible]	[illegible].100	843.[illegible]0	1 4.5 0	861.300	104.5[illegible]
GR	862.200	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.020	.020	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9081.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	9.000	0.000	861.400	0.000	95.500	861.300	843.200	95.900	861.300	845.800
BT	97.100	861.300	847.600	100.000	861.300	848.500	102.900	861.300	847.600	104.100
BT	861.300	845.800	104.500	861.300	843.200	200.000	862.200	0.000	0.000	0.000
X1	9196.000	11.000	95.500	104.500	115.000	115.000	115.000	0.000	0.000	0.000
BT	9.000	0.000	861.400	0.000	95.500	861.300	843.700	95.900	861.300	846.300
BT	97.100	861.300	848.100	100.000	861.300	849.000	102.900	861.300	848.100	104.100
BT	861.300	846.300	104.500	861.300	843.700	200.000	862.200	0.000	0.000	0.000
GR	861.400	0.000	861.300	95.500	843.700	95.500	841.100	95.900	839.300	97.100
GR	838.400	100.000	839.300	102.900	841.100	104.100	843.700	104.500	861.300	104.500
GR	862.200	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9197.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X5	4.000	0.000	0.000	0.000	858.670	0.000	0.000	0.000	0.000	0.000
X1	9200.000	9.000	96.000	117.000	3.000	3.000	3.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	115.000	0.000	0.000	0.000	0.000
GR	857.100	0.000	848.300	37.000	846.300	96.000	839.500	103.000	839.300	108.000
GR	838.900	114.000	844.900	117.000	847.500	166.000	859.100	208.000	0.000	0.000
NH	4.000	.095	65.000	.090	190.000	.045	206.000	.090	270.000	0.000
X1	9650.000	10.000	190.000	206.000	400.000	500.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	866.400	0.000	846.500	65.000	845.000	100.000	845.200	190.000	842.500	195.000
GR	842.100	199.000	841.900	203.000	844.300	206.000	845.400	220.000	866.400	270.000
X1	9765.000	0.000	0.000	0.000	60.000	150.000	115.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	125.000	0.000	245.000	0.000	0.000	0.000	0.000
NC	.095	.095	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9880.000	13.000	300.000	316.500	60.000	150.000	115.000	.890	0.000	0.000
X3	0.000	0.000	0.000	240.000	0.000	340.000	0.000	0.000	0.000	0.000
GR	861.800	0.000	855.800	100.000	851.500	200.000	849.000	280.000	844.500	300.000
GR	844.600	303.000	846.500	306.000	848.300	308.000	848.300	316.500	851.000	340.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.080	.080	.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.890	3.040	0.000	9.440	0.000	22.650	0.000	845.900	844.500
X1	9899.000	13.000	300.000	316.500	19.000	19.000	19.000	.890	0.000	0.000
X2	0.000	0.000	1.000	847.000	849.200	0.000	0.000	0.000	.890	0.000
X3	0.000	0.000	0.000	245.000	0.000	335.000	0.000	0.000	0.000	0.000
BT	8.000	245.000	850.500	0.000	298.000	849.500	0.000	300.000	849.300	848.200
BT	300.000	849.300	848.300	316.500	849.200	848.300	316.500	849.200	846.900	318.000
BT	850.100	0.000	335.000	850.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	861.800	0.000	855.800	100.000	851.500	200.000	848.500	298.000	848.200	300.000
GR	846.300	308.000	845.900	311.000	846.400	314.000	846.900	316.500	848.500	318.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.080	.080	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9900.000	13.000	300.000	316.500	1.000	1.000	1.000	.890	0.000	0.000
X3	0.000	0.000	0.000	245.000	0.000	335.000	0.000	0.000	0.000	0.000
GR	861.800	0.000	855.800	100.000	851.500	200.000	848.500	298.000	848.200	300.000
GR	846.300	308.000	845.900	311.000	846.400	314.000	846.900	316.500	848.500	318.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.070	.070	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	220.000	455.000	605.000	1180.000	0.000	0.000	0.000	0.000	0.000
X1	10000.000	11.000	303.000	335.000	125.000	75.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	298.000	0.000	[illegible].000	0.000	0.000	0.000	0.000
GR	[illegible]2.500	0.000	8[illegible]1.400	35.[illegible]00	857.[illegible]0	1[illegible].00	8[illegible]3.3[illegible]0	235.[illegible]	8[illegible].[illegible]	3 3.[illegible]

MADRI BUSINESS FORMS INC 23

..	8[illegible]6..00	322.0	846.[illegible]	3[illegible]7.[illegible]0	846.[illegible]00	33[illegible].000	849.500	35[illegible].0[illegible]0	85[illegible].300	435.000
GR	863.100	475.000	0.000	0.000	0.000	[redacted].000	0.000	0.000	0.000	0.000
X1	10050.000	13.000	142.500	157.500	50.000	50.000	50.000	0.000	0.000	0.000
GR	862.300	0.000	862.300	100.000	862.300	142.500	848.700	142.500	845.600	143.800
GR	844.300	146.300	844.300	150.000	844.300	153.700	845.600	156.200	848.700	157.500
GR	862.300	157.500	862.300	200.000	862.300	300.000	0.000	0.000	0.000	0.000
NC	.020	.020	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10051.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	13.000	0.000	862.300	0.000	100.000	862.300	0.000	142.500	862.300	0.000
BT	142.500	862.300	848.700	143.800	862.300	851.800	146.300	862.300	853.100	150.000
BT	862.300	853.500	153.700	862.300	853.100	156.200	862.300	851.800	157.500	862.300
BT	848.700	157.500	862.300	0.000	200.000	862.300	0.000	300.000	862.300	0.000
X1	10289.000	13.000	142.500	157.500	238.000	238.000	238.000	0.000	0.000	0.000
BT	13.000	0.000	862.600	0.000	100.000	862.600	0.000	142.500	862.600	0.000
BT	142.500	862.600	850.800	143.800	862.600	853.900	146.300	862.600	855.200	150.000
BT	862.600	855.600	153.700	862.600	855.200	156.200	862.600	853.900	157.500	862.600
BT	850.800	157.500	862.600	0.000	200.000	862.600	0.000	300.000	862.600	0.000
GR	862.600	0.000	862.600	100.000	862.600	142.500	850.800	142.500	847.700	143.800
GR	846.400	146.300	846.000	150.000	846.400	153.700	847.700	156.200	850.800	157.500
GR	862.600	157.500	862.600	200.000	862.600	300.000	0.000	0.000	0.000	0.000
NC	.020	.020	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10290.000	17.000	142.400	157.600	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	0.000	862.600	0.000	100.000	862.600	0.000	142.400	862.600	0.000
BT	142.400	862.600	849.200	143.200	862.600	851.100	144.000	862.600	852.600	146.000
BT	862.600	854.100	148.000	862.600	855.200	150.000	862.600	855.200	152.000	862.600
BT	855.200	154.000	862.600	854.100	156.000	862.600	852.600	156.800	862.600	851.100
BT	157.600	862.600	849.200	157.600	862.600	0.000	200.000	862.600	0.000	300.000
BT	862.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	862.600	0.000	862.600	100.000	862.600	142.400	848.000	142.400	847.200	143.200
GR	846.800	144.000	846.400	146.000	846.000	148.000	846.000	150.000	846.000	152.000
GR	846.400	154.000	846.800	156.000	847.200	156.800	848.000	157.600	862.600	157.600
GR	862.600	200.000	862.600	300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10459.000	17.000	142.400	157.600	169.000	169.000	169.000	0.000	0.000	0.000
BT	17.000	0.000	866.000	0.000	100.000	866.000	0.000	142.400	866.000	0.000
BT	142.400	866.000	850.400	143.200	866.000	852.300	144.000	866.000	853.800	146.000
BT	866.000	855.300	148.000	866.000	856.400	150.000	866.000	856.400	152.000	866.000
BT	856.400	154.000	866.000	855.300	156.000	866.000	853.800	156.800	866.000	852.300
BT	157.600	866.000	850.400	157.600	866.000	0.000	200.000	866.000	0.000	300.000
BT	866.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	866.000	0.000	866.000	100.000	866.000	142.400	849.200	142.400	848.400	143.200
GR	848.000	144.000	847.600	146.000	847.200	148.000	847.200	150.000	847.200	152.000
GR	847.600	154.000	848.000	156.000	848.400	156.800	849.200	157.600	866.000	157.600
GR	866.000	200.000	866.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10460.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X5	4.000	0.000	0.000	0.000	864.950	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11260.000	11.000	200.000	218.000	780.000	800.000	800.000	0.000	0.000	0.000
GR	867.100	0.000	860.300	100.000	859.600	160.000	852.900	192.000	852.900	200.000
GR	850.600	203.000	849.700	208.000	850.800	213.000	854.800	218.000	855.700	275.000
GR	864.700	297.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11385.000	90.000	190.000	205.700	130.000	125.000	125.000	0.000	0.000	0.000
GR	868.200	0.000	867.700	6.500	867.200	13.100	866.700	19.600	866.300	26.200
GR	865.800	32.700	865.400	39.300	864.900	45.800	864.400	52.400	864.000	58.900
GR	863.500	65.500	863.000	72.000	862.600	78.600	862.200	85.100	861.800	91.700
GR	861.500	98.200	861.400	104.800	861.300	111.300	861.200	117.900	861.000	124.400
GR	860.800	131.000	860.700	137.500	860.500	144.100	860.300	150.600	859.300	157.200
GR	[illegible]58.1[illegible]0	163.70[illegible]	[illegible]56.900	170.30[illegible]	8[illegible]5.600	[illegible]7[illegible].[illegible]00	85[illegible].[illegible]00	[illegible]3.400	854.1[illegible]	19[illegible].[illegible]00

NADOR BUSINESS FORMS, INC. 73

GR	853.300	190.[illegible]00	8.3.[illegible]0	190.90	852.600	191.50	852.3[illegible]0	1[illegible].000	[illegible]51.900	1[illegible].5
GR	851.800	193.100	851.800	193.600	851.700	194.100	851.600	194.600	851.500	195.200
GR	851.400	195.700	851.400	196.200	851.300	196.800	851.300	197.300	851.400	197.800
GR	851.500	198.400	851.600	198.900	851.700	199.400	851.800	199.900	851.900	200.500
GR	852.000	201.000	852.200	201.500	852.600	202.100	852.900	202.600	853.300	203.100
GR	853.600	203.700	854.000	204.200	854.400	204.700	854.700	205.200	855.500	205.700
GR	855.600	208.200	855.700	210.700	855.700	213.200	855.800	215.600	855.800	218.100
GR	855.900	220.600	855.900	223.100	856.000	225.600	856.000	228.000	856.100	230.500
GR	856.100	233.000	856.200	235.500	856.300	238.000	856.500	240.500	856.700	242.900
GR	857.000	245.400	857.200	247.900	857.400	250.400	857.600	252.900	857.800	255.400
GR	858.000	257.800	858.500	260.300	859.500	262.800	860.500	265.300	861.400	267.800
GR	862.400	270.300	863.400	272.700	864.400	275.200	865.400	277.700	866.400	280.200
X1	11510.000	90.000	180.000	193.500	130.000	125.000	125.000	0.000	0.000	0.000
GR	869.300	0.000	868.800	6.200	868.300	12.400	867.900	18.600	867.400	24.800
GR	866.900	31.000	866.500	37.200	866.000	43.400	865.500	49.600	865.100	55.800
GR	864.600	62.000	864.200	68.200	863.800	74.400	863.400	80.600	863.100	86.800
GR	862.800	93.100	862.700	99.300	862.500	105.500	862.300	111.700	862.200	117.900
GR	861.900	124.100	861.600	130.300	861.300	136.500	861.000	142.700	860.200	148.900
GR	859.200	155.100	858.200	161.300	857.200	167.500	856.400	173.700	855.400	180.000
GR	854.200	180.300	854.000	180.700	853.800	181.200	853.500	181.600	853.300	182.100
GR	853.200	182.600	853.200	183.000	853.100	183.500	853.100	183.900	853.000	184.400
GR	853.000	184.900	852.900	185.300	852.900	185.800	852.900	186.200	853.000	186.700
GR	853.000	187.200	853.100	187.600	853.200	188.100	853.200	188.500	853.300	189.000
GR	853.400	189.500	853.500	189.900	853.700	190.400	854.000	190.800	854.200	191.300
GR	854.400	191.800	854.700	192.200	854.900	192.700	855.200	193.100	856.200	193.500
GR	856.300	195.800	856.500	198.100	856.600	200.500	856.600	202.800	856.700	205.100
GR	856.700	207.500	856.800	209.800	856.800	212.100	856.900	214.400	857.000	216.800
GR	857.000	219.100	857.100	221.400	857.400	223.800	857.700	226.100	858.100	228.400
GR	858.500	230.800	858.900	233.100	859.300	235.400	859.600	237.800	860.000	240.100
GR	860.400	242.400	860.900	244.800	861.800	247.100	862.700	249.400	863.600	251.800
GR	864.500	254.100	865.400	256.400	866.300	258.800	867.200	261.100	868.100	263.500
X1	11635.000	90.000	170.000	181.200	130.000	125.000	125.000	0.000	0.000	0.000
GR	870.400	0.000	869.900	5.800	869.400	11.700	869.000	17.500	868.500	23.400
GR	868.000	29.300	867.600	35.100	867.100	41.000	866.700	46.800	866.200	52.700
GR	865.700	58.600	865.300	64.400	865.000	70.300	864.700	76.200	864.400	82.000
GR	864.100	87.900	863.900	93.700	863.700	99.600	863.500	105.500	863.300	111.300
GR	862.900	117.200	862.500	123.100	862.100	128.900	861.700	134.800	861.000	140.600
GR	860.300	146.500	859.600	152.400	858.800	158.200	858.100	164.100	856.600	170.000
GR	855.100	170.100	855.000	170.500	854.900	170.900	854.800	171.300	854.700	171.700
GR	854.600	172.100	854.600	172.400	854.600	172.800	854.600	173.200	854.500	173.600
GR	854.500	174.000	854.500	174.400	854.500	174.800	854.500	175.200	854.500	175.600
GR	854.500	176.000	854.600	176.400	854.600	176.700	854.600	177.100	854.700	177.500
GR	854.700	177.900	854.800	178.300	854.900	178.700	855.000	179.100	855.100	179.500
GR	855.200	179.900	855.400	180.300	855.500	180.700	855.600	181.000	856.900	181.200
GR	857.100	183.400	857.300	185.600	857.400	187.700	857.500	189.900	857.500	192.100
GR	857.600	194.300	857.700	196.500	857.700	198.700	857.800	200.800	857.900	203.000
GR	857.900	205.200	858.000	207.400	858.400	209.600	859.000	211.800	859.500	213.900
GR	860.000	216.100	860.600	218.300	861.100	220.500	861.700	222.700	862.200	224.900
GR	862.800	227.000	863.400	229.200	864.200	231.400	865.000	233.600	865.800	235.800
GR	866.600	238.000	867.400	240.100	868.200	242.300	869.000	244.500	869.800	246.700
NC	.085	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11760.000	11.000	160.000	169.000	130.000	125.000	125.000	0.000	0.000	0.000
GR	871.500	0.000	866.500	60.000	864.500	105.000	859.700	157.000	857.900	160.000
GR	856.100	160.000	856.100	169.000	857.600	169.000	858.200	173.000	859.000	194.000
GR	871.600	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.085	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11761.000	10.000	160.000	169.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	871.500	0.000	866.500	60.000	864.500	105.000	859.700	157.000	857.900	160.000
GR	857.600	166.000	857.600	169.000	858.200	173.000	859.000	194.000	871.600	230.000
X1	11762.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.095	.0[illegible]5	.035	0.[illegible]00	0.[illegible]0	1.[illegible]0	.00	.00	.0[illegible]	0.0[illegible]

MOORE BUSINESS FORMS INC 23

X1	11763.000	11.000	160.000	169.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	871.500	0.000	866.500	60.000	864.500	105.000	859.700	157.000	857.900	160.000
GR	857.600	163.000	856.100	166.000	857.600	169.000	858.200	173.000	859.000	194.000
GR	871.600	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12293.000	15.000	265.000	292.000	400.000	540.000	530.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	871.700	0.000	866.400	65.000	863.700	165.000	862.900	265.000	861.300	265.000
GR	857.700	272.000	855.600	280.000	857.500	287.000	860.000	292.000	861.200	295.000
GR	859.700	365.000	865.300	465.000	865.600	565.000	868.200	665.000	871.200	765.000
NC	.045	.045	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12294.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
BT	13.000	0.000	871.700	0.000	65.000	866.400	0.000	165.000	863.700	0.000
BT	265.000	862.900	861.300	265.000	862.900	861.900	292.000	861.400	860.400	292.000
BT	861.400	860.000	295.000	861.200	0.000	365.000	859.700	0.000	465.000	865.300
BT	0.000	565.000	865.600	0.000	665.000	868.200	0.000	765.000	871.200	0.000
X1	12310.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
NC	.045	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12311.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
X1	12641.000	13.000	233.000	258.000	330.000	330.000	330.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.100	133.000	861.400	228.000	859.900	233.000
GR	857.100	243.000	857.700	249.000	859.900	258.000	861.800	261.000	865.900	333.000
GR	867.400	433.000	870.600	533.000	872.900	633.000	0.000	0.000	0.000	0.000
X1	12642.000	14.000	233.000	258.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	14.000	0.000	874.000	0.000	33.000	871.200	0.000	133.000	865.100	0.000
BT	228.000	861.400	0.000	233.000	861.900	0.000	233.000	861.900	859.900	243.000
BT	861.900	859.900	249.000	861.900	859.900	258.000	861.900	859.900	261.000	861.800
BT	0.000	333.000	865.900	0.000	433.000	867.400	0.000	533.000	870.600	0.000
BT	633.000	872.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.100	133.000	861.400	228.000	861.900	233.000
GR	859.900	233.000	857.100	243.000	857.700	249.000	859.900	258.000	861.800	261.000
GR	865.900	333.000	867.400	433.000	870.600	533.000	872.900	633.000	0.000	0.000
X1	12652.000	15.000	233.000	258.000	10.000	10.000	10.000	0.000	0.000	0.000
BT	15.000	0.000	874.000	0.000	33.000	871.200	0.000	133.000	865.100	0.000
BT	228.000	861.400	0.000	233.000	861.900	0.000	233.000	861.900	859.900	237.000
BT	861.900	859.900	243.000	861.900	859.900	249.000	861.900	859.900	258.000	861.900
BT	859.900	261.000	861.800	0.000	333.000	865.900	0.000	433.000	867.400	0.000
BT	533.000	870.600	0.000	633.000	872.900	0.000	0.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.100	133.000	861.400	228.000	861.900	233.000
GR	859.900	233.000	857.900	237.000	857.100	243.000	857.700	249.000	859.900	258.000
GR	861.800	261.000	865.900	333.000	867.400	433.000	870.600	533.000	872.900	633.000
X1	12653.000	14.000	233.000	258.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.100	133.000	861.400	228.000	859.900	233.000
GR	857.900	237.000	857.100	243.000	857.700	249.000	859.900	258.000	861.800	261.000
GR	865.900	333.000	867.400	433.000	870.600	533.000	872.900	633.000	0.000	0.000
QT	4.000	210.000	440.000	590.000	1140.000	0.000	0.000	0.000	0.000	0.000
X1	12803.000	16.000	187.000	202.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	871.100	0.000	864.200	100.000	862.000	185.000	860.100	187.000	858.000	191.000
GR	856.500	195.000	856.500	198.000	857.800	198.000	856.700	199.000	856.500	200.000
GR	856.700	201.000	857.800	202.000	861.500	202.000	864.400	300.000	869.600	400.000
GR	87[illegible].200	[illegible]00.000	0.[illegible]00	0.000	[illegible].00	[illegible].00	0.[illegible]00	0.0[illegible]04	0.000	0.[illegible]

BUSINESS FORMS INC 93

NC	.045	.045	.032	0.000	0.000	.000	0.000	0.000	0.000	0.00
X1	12804.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	15.000	0.000	871.100	0.000	100.000	864.200	0.000	185.000	862.000	0.000
BT	187.000	861.500	861.100	198.000	861.500	861.000	198.000	861.500	857.800	198.000
BT	861.500	859.200	199.000	861.500	860.300	200.000	861.500	860.500	201.000	861.500
BT	860.300	202.000	861.500	859.200	202.000	861.500	857.800	300.000	864.400	0.000
BT	400.000	869.600	0.000	500.000	872.200	0.000	0.000	0.000	0.000	0.000
X1	12814.000	16.000	187.000	202.000	10.000	10.000	10.000	0.000	0.000	0.000
BT	15.000	0.000	871.100	0.000	100.000	864.200	0.000	185.000	862.000	0.000
BT	187.000	861.500	860.900	198.000	861.500	661.000	198.000	861.500	856.700	198.000
BT	861.500	858.100	199.000	861.500	859.200	200.000	861.500	859.400	201.000	861.500
BT	859.200	202.000	861.500	858.100	202.000	861.500	856.700	300.000	864.400	0.000
BT	400.000	869.600	0.000	500.000	872.200	0.000	0.000	0.000	0.000	0.000
GR	871.100	0.000	864.200	100.000	862.000	185.000	860.100	187.000	858.000	191.000
GR	856.500	195.000	856.500	198.000	856.700	198.000	855.600	199.000	855.400	200.000
GR	855.600	201.000	856.700	202.000	861.500	202.000	864.400	300.000	869.600	400.000
GR	872.200	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12815.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.070	.045	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13125.000	13.000	521.000	550.000	310.000	310.000	310.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	502.000	0.000	569.000	0.000	0.000	0.000	0.000
GR	873.800	0.000	869.400	50.000	867.000	150.000	868.400	250.000	866.200	350.000
GR	860.800	450.000	860.700	521.000	858.000	530.000	857.000	534.000	858.100	538.000
GR	863.600	550.000	867.500	650.000	873.900	750.000	0.000	0.000	0.000	0.000
X1	13215.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	1.000	0.000
X3	0.000	0.000	0.000	524.000	0.000	546.000	0.000	0.000	0.000	0.000
X1	13225.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.100	0.000
X3	0.000	0.000	0.000	526.000	0.000	543.000	0.000	0.000	0.000	0.000
NC	.065	.045	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13235.000	15.000	485.000	497.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	864.500	864.500	0.000
GR	873.300	0.000	871.000	85.000	869.100	185.000	868.000	285.000	867.400	385.000
GR	867.300	483.000	858.200	485.000	858.200	491.000	858.600	497.000	867.200	500.000
GR	868.500	585.000	869.800	685.000	870.900	785.000	871.300	885.000	871.200	985.000
NC	.020	.020	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13236.000	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	864.500	864.500	0.000
SB	0.000	1.590	3.000	0.000	11.630	0.000	69.800	0.000	858.200	858.200
X1	13285.000	11.000	485.000	497.000	49.000	49.000	49.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	865.300	867.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	867.400	867.400	0.000
BT	11.000	0.000	873.300	0.000	185.000	869.100	0.000	385.000	867.400	0.000
BT	485.000	867.500	0.000	485.000	867.500	864.100	491.000	867.500	864.100	497.000
BT	867.500	864.200	497.000	867.500	0.000	585.000	868.500	0.000	785.000	870.900
BT	0.000	985.000	871.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	873.300	0.000	869.100	185.000	867.400	385.000	867.500	485.000	858.200	485.000
GR	858.200	491.000	858.600	497.000	867.500	497.000	868.500	585.000	870.900	785.000
GR	871.200	985.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.070	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13286.000	15.000	485.000	497.000	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	867.400	867.400	0.000
GR	873.300	0.000	871.000	85.000	869.100	185.000	868.000	285.000	867.400	385.000
GR	867.450	435.000	858.200	485.000	858.200	491.000	858.600	497.000	868.000	540.000
GR	868.500	585.000	869.800	685.000	870.900	785.000	871.300	885.000	871.200	985.000
X1	13289.000	0.000	0.000	0.000	3.000	.000	3.000	.000	.010	0.000

[illegible]	0.0 0	0.000	.0 0	[illegible]	[illegible]	500.00	[illegible]	0.000	0.000	0.00
NC	.060	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14289.000	15.000	257.000	275.000	1100.000	900.000	1000.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	150.000	0.000	300.000	0.000	0.000	0.000	0.000
GR	876.400	0.000	870.900	35.000	867.400	75.000	863.900	175.000	864.200	257.000
GR	861.000	260.000	860.300	263.000	861.300	267.000	864.800	275.000	866.700	375.000
GR	864.800	475.000	865.200	575.000	865.100	640.000	868.800	675.000	876.900	700.000
X1	14554.000	90.000	228.500	250.000	240.000	270.000	265.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	130.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	878.500	0.000	877.100	7.800	875.700	15.700	874.300	23.600	872.900	31.500
GR	872.000	39.300	871.000	47.200	870.100	55.100	869.100	63.000	868.600	70.900
GR	868.300	78.700	868.000	86.600	867.700	94.500	867.400	102.400	867.100	110.300
GR	866.800	118.100	866.500	126.000	866.200	133.900	865.900	141.800	865.600	149.700
GR	865.300	157.500	865.400	165.400	865.400	173.300	865.500	181.200	865.600	189.100
GR	865.600	196.900	865.700	204.800	865.800	212.700	865.800	220.600	865.900	228.500
GR	865.300	229.200	864.700	229.900	864.100	230.600	863.500	231.300	863.000	232.000
GR	862.800	232.700	862.600	233.500	862.300	234.200	862.100	234.900	861.900	235.600
GR	861.900	236.300	862.000	237.000	862.000	237.800	862.000	238.500	862.000	239.200
GR	862.000	239.900	862.100	240.600	862.200	241.300	862.400	242.100	862.700	242.800
GR	862.900	243.500	863.100	244.200	863.400	244.900	863.900	245.600	864.300	246.400
GR	864.700	247.100	865.100	247.800	865.500	248.500	865.900	249.200	866.300	250.000
GR	866.500	260.800	866.700	271.600	866.900	282.400	867.100	293.300	867.400	304.100
GR	867.600	314.900	867.800	325.800	867.700	336.600	867.600	347.400	867.500	358.300
GR	867.400	369.100	867.300	379.900	867.200	390.800	867.100	401.600	867.200	412.400
GR	867.300	423.300	867.500	434.100	867.600	444.900	867.800	455.800	867.900	466.600
GR	868.000	477.400	868.100	488.300	868.200	499.100	868.300	509.900	868.400	520.800
GR	868.700	531.600	870.000	542.400	871.200	553.300	874.200	564.100	877.700	575.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14819.000	90.000	200.000	225.000	240.000	270.000	265.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	135.000	0.000	225.000	0.000	0.000	0.000	0.000
GR	880.800	0.000	879.300	6.800	877.900	13.700	876.500	20.600	875.000	27.500
GR	873.900	34.400	872.800	41.300	871.700	48.200	870.600	55.100	870.000	62.000
GR	869.700	68.900	869.400	75.800	869.100	82.700	868.800	89.600	868.500	96.500
GR	868.200	103.400	868.000	110.300	867.700	117.200	867.400	124.100	867.100	131.000
GR	866.800	137.900	866.900	144.800	867.000	151.700	867.100	158.600	867.100	165.500
GR	867.200	172.400	867.300	179.300	867.400	186.200	867.500	193.100	867.600	200.000
GR	867.100	200.800	866.600	201.600	866.000	202.400	865.500	203.300	865.000	204.100
GR	864.700	204.900	864.400	205.800	864.200	206.600	863.900	207.400	863.600	208.300
GR	863.500	209.100	863.400	209.900	863.200	210.800	863.100	211.600	863.000	212.400
GR	862.900	213.300	862.800	214.100	862.800	214.900	863.000	215.800	863.200	216.600
GR	863.400	217.400	863.600	218.300	864.000	219.100	864.500	219.900	865.100	220.800
									[illegible].800	225.000
									[illegible].600	262.400
GR	868.800	269.900	868.900	277.400	869.000	284.900	869.000	292.400	[illegible]9.100	299.900
GR	869.200	307.400	869.200	314.900	869.300	322.400	869.400	329.900	869.600	337.400
GR	869.800	344.900	870.000	352.400	870.300	359.900	870.500	367.400	870.700	374.900
GR	870.900	382.400	871.100	389.900	871.300	397.400	871.500	404.900	871.700	412.400
GR	872.100	419.900	873.000	427.400	874.000	434.900	876.100	442.400	878.600	450.000
X1	15084.000	90.000	171.500	200.000	240.000	270.000	265.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	120.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	883.000	0.000	881.500	5.900	880.100	11.800	878.600	17.700	877.200	23.600
GR	875.900	29.500	874.600	35.400	873.300	41.300	872.000	47.300	871.400	53.200
GR	871.100	59.100	870.800	65.000	870.500	70.900	870.300	76.800	870.000	82.700
GR	869.700	88.700	869.400	94.600	869.100	100.500	868.900	106.400	868.600	112.300
GR	868.300	118.200	868.400	124.100	868.500	130.100	868.600	136.000	868.700	141.900
GR	868.800	147.800	869.000	153.700	869.100	159.600	869.200	165.500	869.300	171.500
GR	868.900	172.400	868.400	173.300	867.900	174.300	867.500	175.200	867.000	176.200
GR	866.700	177.100	866.300	178.100	866.000	179.000	865.600	180.000	865.300	180.900
GR	865.000	181.900	864.800	182.800	864.500	183.800	864.200	184.700	864.000	185.700
GR	863.800	186.600	863.500	187.600	863.400	188.500	863.600	189.500	863.700	190.400
GR	863.900	191.400	864.100	192.300	864.500	193.300	865.200	194.200	865.900	195.200
GR	[illegible]	19[illegible].10[illegible]	[illegible]7.[illegible]0	197.1[illegible]0	868.[illegible]00	1[illegible]8.000	[illegible]8.[illegible]0	199.[illegible]	[illegible]9.3[illegible]	[illegible].00

Interpolated

MOORE BUSINESS FORMS INC. 23

GR	869.400	204.100	86[illegible].50	208.3[illegible]	[illegible]6[illegible].70[illegible]	212.400	[illegible]6[illegible].800	21[illegible].600	[illegible]9.90[illegible]	[illegible]20.00
GR	870.000	224.900	870.100	229.100	870.300	233.300	870.500	237.400	870.700	241.600
GR	871.000	245.800	871.200	249.900	871.400	254.100	871.700	258.300	872.000	262.400
GR	872.300	266.600	872.600	270.800	872.900	274.900	873.200	279.100	873.500	283.300
GR	873.900	287.400	874.200	291.600	874.400	295.800	874.700	299.900	875.000	304.100
GR	875.400	308.300	876.100	312.400	876.800	316.600	878.000	320.800	879.500	325.000
X1	15349.000	10.000	143.000	175.000	240.000	270.000	265.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	143.000	0.000	175.000	0.000	0.000	0.000	0.000
GR	885.200	0.000	873.000	41.000	869.800	100.000	871.100	143.000	865.400	158.000
GR	864.000	162.000	864.700	167.000	870.900	175.000	871.300	181.000	880.400	200.000
NC	.095	.090	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	180.000	375.000	500.000	965.000	0.000	0.000	0.000	0.000	0.000
X1	16399.000	10.000	200.000	226.000	1050.000	1050.000	1050.000	0.000	0.000	0.000
GR	881.500	0.000	876.600	100.000	872.300	200.000	866.000	214.000	865.700	216.000
GR	866.000	219.000	871.900	228.000	873.900	300.000	879.700	400.000	882.300	470.000
NC	.085	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17279.000	13.000	300.000	324.000	880.000	880.000	880.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	175.000	0.000	425.000	0.000	0.000	0.000	0.000
GR	885.400	0.000	875.300	100.000	873.300	200.000	872.000	300.000	868.500	310.000
GR	868.000	316.000	868.400	319.000	873.000	324.000	873.200	400.000	872.700	500.000
GR	876.300	600.000	881.000	700.000	886.000	750.000	0.000	0.000	0.000	0.000
X1	17479.000	90.000	289.500	312.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	160.000	0.000	450.000	0.000	0.000	0.000	0.000
GR	886.800	0.000	885.800	9.900	884.700	19.900	883.700	29.900	882.600	39.900
GR	881.600	49.900	880.600	59.800	879.500	69.800	878.600	79.800	877.600	89.800
GR	876.800	99.800	876.500	109.800	876.100	119.700	875.700	129.700	875.400	139.700
GR	875.000	149.700	874.700	159.700	874.300	169.700	874.000	179.600	873.900	189.600
GR	873.800	199.600	873.700	209.600	873.600	219.600	873.500	229.600	873.400	239.500
GR	873.300	249.500	873.200	259.500	873.200	269.500	873.100	279.500	873.000	289.500
GR	872.700	290.200	872.400	291.000	872.000	291.700	871.700	292.500	871.400	293.200
GR	871.100	293.900	870.800	294.700	870.500	295.400	870.200	296.200	869.900	296.900
GR	869.600	297.700	869.300	298.400	869.100	299.200	869.000	299.900	868.900	300.700
GR	868.900	301.400	868.900	302.200	868.900	302.900	868.800	303.700	868.800	304.400
GR	869.000	305.200	869.100	305.900	869.300	306.700	869.600	307.400	870.300	308.200
GR	870.900	308.900	871.500	309.700	872.200	310.400	872.800	311.200	873.500	312.000
GR	873.500	326.600	873.600	341.300	873.600	355.900	873.700	370.600	873.800	385.300
GR	873.800	399.900	873.700	414.600	873.700	429.300	873.700	443.900	873.600	458.600
GR	873.600	473.300	873.500	487.900	873.700	502.600	874.100	517.300	874.500	531.900
GR	874.900	546.600	875.200	561.300	875.700	575.900	876.300	590.600	876.900	605.300
GR	877.600	619.900	878.200	634.600	878.900	649.300	879.600	663.900	880.500	678.600
GR	881.400	693.300	882.600	707.900	884.100	722.600	885.500	737.300	887.000	752.000
X1	17679.000	90.000	279.000	300.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	470.000	0.000	0.000	0.000	0.000
GR	888.300	0.000	887.200	9.600	886.200	19.200	885.100	28.800	884.100	38.400
GR	883.100	48.100	882.000	57.700	881.100	67.300	880.100	76.900	879.200	86.500
GR	878.400	96.200	877.900	105.800	877.400	115.400	876.900	125.000	876.400	134.600
GR	875.900	144.300	875.400	153.900	874.900	163.500	874.500	173.100	874.500	182.700
GR	874.400	192.400	874.400	202.000	874.300	211.600	874.300	221.200	874.200	230.800
GR	874.200	240.500	874.100	250.100	874.100	259.700	874.000	269.300	874.000	279.000
GR	873.700	279.700	873.300	280.400	873.000	281.000	872.600	281.700	872.300	282.400
GR	871.900	283.100	871.600	283.800	871.200	284.500	870.900	285.200	870.600	285.900
GR	870.300	286.600	870.100	287.300	869.900	288.000	869.700	288.700	869.600	289.400
GR	869.600	290.100	869.600	290.800	869.600	291.500	869.600	292.200	869.600	292.900
GR	869.900	293.600	870.100	294.300	870.400	295.000	870.700	295.700	871.200	296.400
GR	871.800	297.100	872.300	297.800	872.900	298.500	873.400	299.200	874.000	300.000
GR	874.100	315.100	874.200	330.200	874.200	345.300	874.300	360.500	874.400	375.600
GR	874.400	390.700	874.400	405.900	874.400	421.000	874.400	436.100	874.400	451.300
GR	874.400	466.400	874.400	481.500	874.500	496.700	874.800	511.800	875.000	526.900
GR	875.200	542.100	875.500	557.200	875.900	572.300	876.500	587.500	877.200	602.600
GR	877.800	617.700	878.500	632.900	879.200	648.000	880.000	663.100	881.100	678.300
GR	8[illegible].700	693.400	8[illegible].600	70[illegible]	885.100	723.700	8[illegible]6.600	738.800	[illegible].1[illegible]0	7[illegible]4.00[illegible]

X1	17879.000	90.000	268.5	288.000	0.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	889.700	0.000	888.700	[illegible]	88[illegible].600	18.500	886.600	27.700	885.600	37.000
GR	884.500	46.200	883.500	55.500	88[illegible].600	64.800	881.700	74.000	880.900	83.300
GR	880.100	92.500	879.400	101.800	878.800	111.100	878.100	120.300	877.500	129.600
GR	876.800	138.800	876.200	148.100	875.500	157.300	875.100	166.600	875.000	175.900
GR	875.000	185.100	875.000	194.400	875.000	203.600	875.000	212.900	875.000	222.200
GR	875.000	231.400	875.000	240.700	875.000	249.900	875.000	259.200	875.000	268.500
GR	874.600	269.100	874.300	269.700	873.900	270.400	873.500	271.000	873.100	271.700
GR	872.800	272.300	872.400	273.000	872.000	273.600	871.600	274.300	871.300	274.900
GR	871.000	275.600	870.800	276.200	870.600	276.900	870.400	277.500	870.200	278.200
GR	870.300	278.800	870.300	279.500	870.400	280.100	870.400	280.800	870.500	281.400
GR	870.800	282.100	871.100	282.700	871.400	283.400	871.800	284.000	872.200	284.700
GR	872.700	285.300	873.100	286.000	873.600	286.600	874.100	287.300	874.500	288.000
GR	874.600	303.600	874.700	319.200	874.800	334.700	874.900	350.300	875.000	365.900
GR	875.100	381.500	875.100	397.100	875.200	412.700	875.200	428.300	875.200	443.900
GR	875.300	459.500	875.300	475.100	875.300	490.700	875.400	506.300	875.500	521.900
GR	875.600	537.500	875.700	553.100	876.100	568.700	876.700	584.300	877.400	599.900
GR	878.100	615.500	878.800	631.100	879.500	646.700	880.400	662.300	881.700	677.900
GR	883.000	693.500	884.500	709.100	886.000	724.700	887.600	740.300	889.100	756.000
NH	4.000	.055	58.000	.080	258.000	.040	276.000	.085	758.000	0.000
X1	18079.000	13.000	258.000	276.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	891.200	0.000	884.500	58.000	875.600	158.000	876.100	258.000	872.000	264.000
GR	870.900	267.000	871.400	270.000	875.100	276.000	875.700	358.000	876.200	458.000
GR	876.000	558.000	880.400	658.000	890.200	758.000	0.000	0.000	0.000	0.000
NC	.065	.065	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18529.000	90.000	184.000	217.000	515.000	385.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	300.000	0.000	0.000	0.000	0.000
GR	891.900	0.000	891.200	6.300	890.600	12.600	889.900	19.000	889.100	25.300
GR	888.400	31.700	887.600	38.000	886.900	44.400	886.300	50.700	885.700	57.100
GR	885.000	63.400	884.400	69.700	883.800	76.100	883.100	82.400	882.500	88.800
GR	881.900	95.100	881.300	101.500	880.600	107.800	880.100	114.200	879.900	120.500
GR	879.700	126.800	879.500	133.200	879.200	139.500	879.000	145.900	878.800	152.200
GR	878.600	158.600	878.400	164.900	878.200	171.300	878.000	177.600	877.800	184.000
GR	877.400	185.100	877.100	186.100	876.800	187.200	876.400	188.300	876.100	189.400
GR	875.900	190.500	875.600	191.600	875.300	192.700	875.100	193.800	874.800	194.900
GR	874.600	196.000	874.500	197.100	874.300	198.200	874.200	199.300	874.200	200.400
GR	874.200	201.500	874.300	202.600	874.400	203.700	874.400	204.800	874.500	205.900
GR	874.700	207.000	874.900	208.100	875.100	209.200	875.300	210.300	875.500	211.400
GR	876.000	212.500	876.500	213.600	876.900	214.700	877.400	215.800	877.900	217.000
GR	877.900	230.000	878.000	243.100	878.100	256.200	878.200	269.200	878.200	282.300
GR	878.300	295.300	878.300	308.400	878.300	321.500	878.300	334.500	878.300	347.600
GR	878.300	360.700	878.300	373.700	878.200	386.800	878.200	399.900	878.100	412.900
GR	878.200	426.000	878.200	439.100	878.400	452.100	878.900	465.200	879.300	478.300
GR	879.700	491.300	880.100	504.400	880.500	517.500	881.100	530.500	881.900	543.600
GR	883.800	556.700	885.600	569.700	887.500	582.800	889.400	595.900	891.300	609.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18979.000	11.000	110.000	158.000	515.000	385.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	892.600	0.000	891.900	10.000	879.500	110.000	878.400	117.000	877.400	130.000
GR	877.900	150.000	880.700	158.000	880.900	210.000	880.300	310.000	881.600	410.000
GR	892.400	460.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19729.000	9.000	120.000	150.000	750.000	750.000	750.000	0.000	0.000	0.000
GR	903.700	0.000	891.900	40.000	887.200	100.000	885.200	120.000	880.200	131.000
GR	879.400	132.000	880.100	133.000	889.600	150.000	896.300	175.000	0.000	0.000
NC	.090	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19879.000	15.000	191.500	198.500	100.000	200.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.[illegible]0	0.[illegible]0	[illegible]	0.[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS, INC 23

G	[illegible]	0.00	[illegible]	95.000	8.3.2	150.00	[illegible]	191.50	[illegible]	[illegible]
GR	882.500	193.000	882.000	194.000	882.000	195.000	882.000	196.000	882.500	197.000
GR	883.500	198.000	884.500	198.500	893.500	215.000	896.200	295.000	897.600	325.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19880.000	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	888.000	888.000	0.000
NC	.095	.095	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.610	2.850	0.000	5.500	0.000	38.480	0.000	881.400	882.000
X1	19930.000	15.000	191.500	198.500	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	890.000	892.800	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	892.800	892.800	0.000
BT	15.000	0.000	897.600	0.000	95.000	893.600	0.000	191.500	892.800	0.000
BT	191.500	892.800	885.900	192.000	892.800	886.900	193.000	892.800	887.900	194.000
BT	892.800	888.400	195.000	892.800	888.400	196.000	892.800	888.400	197.000	892.800
BT	887.900	198.000	892.800	886.900	198.500	892.800	885.900	198.500	892.800	0.000
BT	295.000	896.200	0.000	325.000	897.600	0.000	0.000	0.000	0.000	0.000
GR	897.600	0.000	893.600	95.000	893.200	150.000	883.900	191.500	882.900	192.000
GR	881.900	193.000	881.400	194.000	881.400	195.000	881.400	196.000	881.900	197.000
GR	882.900	198.000	883.900	198.500	893.500	215.000	896.200	295.000	897.600	325.000
NC	.080	.080	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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	128.000	0.000	0.000	0.000	892.800	892.800	0.000
NC	.060	.050	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20131.000	10.000	52.000	92.000	250.000	150.000	200.000	0.000	0.000	0.000
GR	901.200	0.000	890.700	44.000	889.400	52.000	883.700	67.000	883.000	74.000
GR	883.600	82.000	887.200	92.000	888.600	100.000	892.500	125.000	898.200	140.000
NH	5.000	.050	150.000	.055	350.000	.030	368.000	.055	500.000	.045
NH	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20981.000	20.000	350.000	368.000	850.000	850.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	530.000	0.000	0.000	0.000	0.000
GR	905.500	0.000	893.900	50.000	891.300	65.000	885.300	150.000	885.400	250.000
GR	885.800	350.000	885.300	354.000	884.700	360.000	886.000	368.000	885.400	425.000
GR	887.300	450.000	887.300	470.000	890.200	500.000	890.500	515.000	890.400	530.000
GR	887.500	550.000	889.600	650.000	897.400	750.000	899.200	850.000	904.500	900.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: 10 YR NATURAL

00BREAK00

X1	3659.000	11.000	124.000	150.000	300.000	235.000	285.000	0.000	-4.050	0.000
GR	816.100	0.000	810.100	70.000	803.800	96.000	803.800	124.000	800.800	128.000
GR	800.700	135.000	800.700	139.000	801.400	142.000	804.100	150.000	808.400	175.000
GR	816.800	199.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3734.000	0.000	0.000	0.000	75.000	60.000	75.000	0.000	1.050	0.000
X1	3804.000	0.000	0.000	0.000	75.000	55.000	70.000	0.000	1.000	0.000
X1	3839.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3874.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3909.000	0.000	0.000	0.000	40.000	30.000	35.000	0.000	.500	0.000
X1	3944.000	11.000	124.000	150.000	40.000	30.000	35.000	0.000	0.000	0.000
GR	816.100	0.000	810.100	70.000	803.800	96.000	803.800	124.000	800.800	128.000
GR	800.700	135.000	800.700	139.000	801.400	142.000	804.100	150.000	808.400	175.000
GR	816.800	199.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4394.000	13.000	300.000	313.000	400.000	400.000	450.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	808.000	808.000	0.000
GR	820.600	0.000	816.200	100.000	812.600	200.000	811.200	250.000	806.700	300.000
GR	803.700	303.000	803.500	307.000	805.000	313.000	810.400	350.000	811.100	400.000
GR	812.700	485.000	816.100	500.000	818.500	510.000	0.000	0.000	0.000	0.000
NC	.055	.055	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4395.000	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	808.000	808.000	0.000
SR	0.000	1.570	3.040	0.000	10.870	0.000	51.080	0.000	803.500	803.500
X1	4406.000	0.000	0.000	0.000	11.000	11.000	11.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	808.300	809.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	809.700	809.700	0.000
RT	11.000	0.000	820.600	0.000	100.000	816.200	0.000	200.000	812.600	0.000
RT	300.000	809.800	806.700	300.000	809.800	808.100	313.000	809.700	808.300	313.000
RT	809.700	805.000	400.000	811.100	0.000	485.000	812.700	0.000	500.000	816.100
RT	0.000	510.000	818.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4407.000	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	809.700	809.700	0.000
X1	4617.000	10.000	170.000	193.000	210.000	210.000	210.000	0.000	0.000	0.000
GR	821.800	0.000	812.600	70.000	810.900	170.000	806.400	178.000	806.300	182.000
GR	806.700	188.000	809.100	193.000	809.300	210.000	819.600	245.000	821.900	260.000
X1	4917.000	90.000	149.500	171.500	300.000	300.000	300.000	0.000	0.000	0.000
GR	825.200	0.000	821.600	5.100	820.600	10.300	819.900	15.400	819.300	20.600
GR	818.600	25.700	817.900	30.900	817.300	36.000	816.600	41.200	815.900	46.300
GR	815.200	51.500	814.500	56.700	813.900	61.800	813.700	67.000	813.600	72.100
GR	813.500	77.300	813.400	82.400	813.300	87.600	813.200	92.700	813.100	97.900
GR	813.000	103.100	812.900	108.200	812.800	113.400	812.700	118.500	812.600	123.700
GR	812.500	128.800	812.400	134.000	812.300	139.100	812.200	144.300	812.000	149.500
GR	811.800	150.200	811.100	150.900	810.700	151.600	810.200	152.400	809.800	153.100
GR	[illegible]	153.800	808.900	154.600	808.400	155.300	808.000	156.000	807.500	156.800
GR	807.400	157.500	807.400	158.200	807.400	159.000	807.400	159.700	807.400	160.400
GR	807.400	161.200	807.400	161.900	807.400	162.600	807.500	163.400	807.500	164.100
GR	807.500	164.800	807.600	165.600	807.600	166.300	807.700	167.000	808.000	167.800
GR	808.400	168.500	808.700	169.200	809.100	170.000	809.400	170.700	809.800	171.500
GR	810.000	173.600	810.100	175.700	810.300	177.800	810.400	180.000	810.600	182.100
GR	810.700	184.200	810.900	186.400	811.100	188.500	811.500	190.600	811.900	192.800
GR	812.300	194.900	812.700	197.000	813.100	199.200	813.500	201.300	813.900	203.400

GR	816.400	[illegible]	816.900	218.400	817.000	220.500	818.700	222.600	819.500	224.800
GR	820.200	225.900	821.000	229.000	821.800	231.200	822.500	233.300	823.300	235.500
NC	[illegible]	.095	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	5217.000	12.000	129.000	150.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	824.700	0.000	821.400	6.000	818.500	29.000	815.200	54.000	813.300	129.000
GR	808.800	116.000	808.500	141.000	808.700	146.000	810.600	150.000	812.800	166.000
GR	814.800	194.000	824.800	211.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	5292.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
XI	5367.000	90.000	159.200	180.000	60.000	60.000	75.000	0.000	.050	0.000
GR	826.500	0.000	824.500	5.400	823.400	10.900	822.800	16.400	822.200	21.900
GR	821.800	27.400	821.000	32.900	820.400	38.400	819.800	43.900	819.200	49.400
GR	818.800	54.900	818.000	60.400	817.400	65.800	817.100	71.300	816.800	76.800
GR	816.800	82.300	816.300	87.800	816.100	93.300	815.900	98.800	815.800	104.300
GR	[illegible]	109.800	815.500	115.300	815.300	120.800	815.200	126.300	815.000	131.700
GR	814.900	137.200	814.800	142.700	814.600	148.200	814.500	153.700	814.300	159.200
GR	813.800	159.900	813.300	160.600	812.800	161.300	812.200	162.000	811.800	162.700
GR	811.400	163.300	811.000	164.000	810.600	164.700	810.200	165.400	809.900	166.100
GR	809.900	166.800	809.900	167.500	809.900	168.200	809.900	168.900	809.800	169.600
GR	809.800	170.300	809.800	171.000	809.900	171.600	809.900	172.300	809.900	173.000
GR	809.900	173.700	810.100	174.400	810.200	175.100	810.300	175.800	810.600	176.500
GR	811.000	177.200	811.300	177.900	811.700	178.600	812.100	179.300	812.400	180.000
GR	812.800	181.900	812.900	183.900	813.100	185.900	813.300	187.900	813.500	189.900
GR	813.700	191.800	814.000	193.800	814.200	195.800	814.300	197.800	814.400	199.800
GR	814.500	201.800	814.600	203.700	814.800	205.700	814.900	207.700	815.200	209.700
GR	815.500	211.700	815.900	213.700	816.200	215.600	816.500	217.600	816.800	219.600
GR	[illegible]	[illegible]	817.700	223.600	818.800	225.600	819.800	227.500	820.900	229.500
GR	[illegible]	231.500	823.100	233.500	824.200	235.500	825.300	237.500	826.400	239.500
XI	5442.000	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
XI	5517.000	90.000	189.500	210.000	60.000	60.000	75.000	0.000	0.000	0.000
GR	828.[illegible]	0.000	826.800	6.500	825.900	13.000	825.100	19.600	824.500	26.100
GR	823.800	32.500	823.200	39.200	822.600	45.700	822.000	52.200	821.400	58.800
GR	820.700	65.300	820.100	71.800	819.500	78.400	819.100	84.900	818.700	91.400
GR	818.400	98.000	818.000	104.500	817.600	111.000	817.300	117.600	817.200	124.100
GR	[illegible]	130.600	816.800	137.200	816.600	143.700	816.500	150.200	816.300	156.800
GR	816.100	163.300	815.900	169.800	815.800	176.400	815.600	182.900	815.400	189.500
GR	[illegible]	186.100	814.200	190.800	813.700	191.500	813.100	192.200	812.600	192.900
GR	[illegible]	193.500	812.000	194.200	811.700	194.900	811.400	195.600	811.200	196.300
GR	811.200	197.000	811.200	197.600	811.200	198.300	811.200	199.000	811.200	199.700
GR	811.200	200.400	811.200	201.100	811.200	201.700	811.300	202.400	811.300	203.100
GR	811.300	203.800	811.500	204.500	811.800	205.200	812.000	205.800	812.400	206.500
GR	812.700	207.200	813.100	207.900	813.500	208.600	813.900	209.300	814.300	210.000
GR	814.300	211.900	814.600	213.800	814.800	215.700	814.900	217.700	815.100	219.600
GR	815.200	221.500	815.400	223.500	815.600	225.400	815.600	227.300	815.700	229.300
GR	815.800	231.200	815.900	233.100	816.000	235.100	816.200	237.000	816.700	238.900
GR	817.200	240.900	817.600	242.800	818.100	244.700	818.600	246.700	819.000	248.600
GR	819.500	250.500	820.100	252.500	821.100	254.400	822.100	256.300	823.100	258.300
[illegible]	824.100	260.200	825.[illegible]	262.100	826.100	264.100	827.100	266.000	828.000	268.000
XI	5592.[illegible]	[illegible]	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
XI	[illegible]	0.000	0.000	0.000	30.000	30.000	37.000	0.000	.340	0.000
XI	5667.000	90.000	219.700	240.000	30.000	30.000	38.000	0.000	.050	0.000
GR	830.200	0.000	829.000	7.500	828.200	15.100	827.500	22.700	826.800	30.300
GR	826.100	37.800	825.400	45.400	824.800	53.000	824.200	60.600	823.500	68.100
GR	822.900	75.700	822.300	83.300	821.700	90.900	821.100	98.500	820.600	106.000
GR	820.100	113.600	819.600	121.200	819.100	128.800	818.800	136.300	818.600	143.900
GR	[illegible]	[illegible]	818.100	159.100	817.900	166.700	817.700	174.200	817.500	181.800
GR	817.300	189.400	817.100	197.000	816.900	204.500	816.700	212.100	816.500	219.700

GR	[illegible]	[illegible]	813.100	224.400	812.900	225.100	812.600	225.800	812.500	226.400
GR	[illegible]	[illegible]	812.600	227.800	812.600	229.500	812.600	229.100	812.600	229.800
GR	812.800	230.500	812.600	231.200	812.600	231.800	812.600	232.500	812.700	233.200
GR	812.700	233.900	813.000	234.500	813.400	235.200	813.700	235.900	814.100	236.600
GR	[illegible]	237.200	814.900	237.900	815.300	238.600	815.800	239.300	816.200	240.000
GR	816.300	241.800	816.400	243.700	816.500	245.600	816.600	247.500	816.700	249.400
GR	816.800	251.200	816.900	253.100	816.900	255.000	817.000	256.900	817.100	258.800
GR	[illegible]	260.700	817.200	262.500	817.300	264.400	817.500	266.300	818.200	268.200
GR	818.800	270.100	819.400	272.000	820.000	273.800	820.700	275.700	821.300	277.600
GR	821.900	279.500	822.600	281.400	823.500	283.300	824.400	285.100	825.300	287.000
GR	826.200	288.900	827.000	290.800	827.900	292.700	828.800	294.600	829.700	296.500
NC	.095	[illegible]	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	[illegible]	0.000	0.000	0.000	60.000	60.000	75.000	0.000	.680	0.000
X1	[illegible]	10.000	250.000	270.000	60.000	60.000	75.000	0.000	0.000	0.000
GR	832.100	0.000	827.800	50.000	820.400	150.000	817.600	250.000	814.500	253.000
GR	813.900	256.000	814.100	264.000	818.100	270.000	818.600	295.000	831.400	325.000
FT	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
NM	[illegible]	.085	246.000	.045	251.000	.080	288.000	.042	300.000	.085
NM	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	[illegible]	18.000	246.000	300.000	70.000	70.000	70.000	0.000	0.000	0.000
GR	832.500	0.000	827.000	100.000	822.200	200.000	819.600	220.000	815.100	246.000
GR	814.900	251.000	819.400	270.000	820.400	281.000	820.400	283.000	820.300	288.000
GR	815.400	288.000	814.400	291.000	814.400	294.000	814.200	297.000	815.400	300.000
GR	820.700	310.000	821.400	325.000	832.200	346.000	0.000	0.000	0.000	0.000
NM	[illegible]	.070	246.000	.022	251.000	.100	288.000	.022	300.000	.072
NM	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
FT	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
X1	5888.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
FT	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
SB	0.000	1.440	3.080	0.000	17.000	0.000	71.400	0.000	814.200	814.200
X1	5893.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X2	[illegible]	0.000	1.000	819.500	819.600	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	832.500	0.000	100.000	827.000	0.000	200.000	822.200	0.000
BT	240.000	819.600	815.100	246.000	819.400	818.100	251.000	819.700	818.100	251.000
BT	819.700	814.900	281.000	819.700	819.700	281.000	820.400	820.400	287.000	820.400
BT	820.400	288.000	820.300	820.300	288.000	820.300	815.400	288.000	820.300	819.100
BT	[illegible]	820.700	819.400	300.000	820.700	815.400	325.000	821.400	0.000	346.000
BT	832.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NM	5.000	.075	246.000	.037	251.000	.100	288.000	.037	300.000	.075
NM	346.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
FT	0.000	6.100	0.000	0.000	0.000	288.000	300.000	0.000	0.000	0.000
X1	5894.000	18.000	246.000	300.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	832.500	0.000	827.000	100.000	822.200	200.000	819.600	220.000	815.100	246.000
GR	814.900	251.000	815.400	270.000	820.400	281.000	820.400	283.000	815.600	288.000
GR	815.400	288.000	814.400	291.000	814.400	294.000	814.200	297.000	815.400	300.000
GR	820.700	310.000	821.400	325.000	832.200	346.000	0.000	0.000	0.000	0.000
X1	5984.000	0.000	0.000	0.000	90.000	90.000	90.000	0.000	.650	0.000
NC	[illegible]	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6074.000	14.000	248.000	263.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	819.500	819.500	0.000
GR	832.100	0.000	829.900	48.000	826.700	98.000	821.100	148.000	816.600	248.000
GR	816.000	248.000	815.800	253.000	815.500	258.000	816.200	263.000	816.200	263.000
GR	816.200	283.000	824.800	274.000	825.400	313.000	832.300	328.000	0.000	0.000
NC	.075	.080	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6075.000	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	819.500	819.500	0.000

X1	5080.000	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	820.000	820.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	820.700	820.700	0.000
BT	12.000	0.000	832.100	0.000	48.000	829.900	0.000	98.000	826.700	0.000
BT	148.000	821.100	0.000	248.000	820.900	816.600	248.000	820.900	820.000	263.000
BT	820.700	819.600	263.000	820.700	816.200	269.000	820.800	0.000	274.000	824.800
BT	0.000	313.000	525.400	0.000	[illegible]	832.300	0.000	0.000	0.000	0.000
NC	.090	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5081.000	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	820.700	820.700	0.000
NC	.090	.095	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6296.000	0.000	0.000	0.000	185.000	185.000	215.000	0.000	1.300	0.000
X1	6368.000	0.000	0.000	0.000	62.000	62.000	72.000	0.000	.430	0.000
X1	6407.000	0.000	0.000	0.000	31.000	31.000	36.000	0.000	.210	0.000
X1	6440.000	12.000	210.000	230.000	31.000	31.000	36.000	0.000	-1.730	0.000
GR	834.300	0.000	828.600	55.000	824.100	70.000	823.000	100.000	824.200	150.000
GR	823.700	210.000	820.900	213.000	819.400	222.000	821.100	228.000	823.800	230.000
GR	823.800	235.000	839.100	260.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6511.000	0.000	0.000	0.000	62.000	62.000	71.000	0.000	.430	0.000
X1	6120.000	0.000	0.000	0.000	185.000	185.000	215.000	0.000	1.300	0.000
X1	6876.000	0.000	0.000	0.000	165.000	135.000	150.000	0.000	1.770	0.000
NC	.090	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	225.000	470.000	625.000	1220.000	0.000	0.000	0.000	0.000	0.000
X1	7026.000	10.000	318.000	338.000	165.000	135.000	150.000	0.000	-1.770	0.000
GR	836.400	0.000	836.600	18.000	832.400	118.000	830.200	218.000	827.700	318.000
GR	827.700	322.000	824.700	325.000	825.700	328.000	831.200	338.000	831.900	353.000
X1	7176.000	0.000	0.000	0.000	165.000	135.000	150.000	0.000	1.770	0.000
NC	.090	.085	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7396.000	14.000	297.500	302.500	130.000	230.000	220.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	831.000	831.000	0.000
GR	842.600	0.000	836.500	45.000	836.100	100.000	833.400	200.000	829.000	292.000
GR	827.700	297.500	827.100	297.900	826.300	298.700	826.000	300.000	826.300	301.300
GR	827.100	302.100	827.700	302.500	829.200	314.000	842.200	360.000	0.000	0.000
NC	.055	.055	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7397.000	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	831.000	831.000	0.000
NC	.065	.065	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.920	2.920	0.000	3.030	0.000	19.630	0.000	826.000	826.000
X1	7415.000	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	831.000	833.300	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	833.300	833.300	0.000
BT	14.000	0.000	842.200	0.000	45.000	836.500	0.000	100.000	836.100	0.000
BT	200.000	833.400	0.000	297.500	833.300	827.700	297.500	833.300	829.300	297.900
BT	833.300	827.700	298.700	833.300	830.700	300.000	833.300	831.000	301.300	833.300
BT	830.700	302.100	833.300	829.900	302.500	833.300	829.300	302.500	833.300	827.700
BT	300.000	842.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7416.000	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	833.300	833.300	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7536.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	7636.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	7736.000	20.000	105.000	115.000	125.000	110.000	120.000	0.000	-4.650	0.000
GR	833.500	0.000	838.700	40.000	839.500	91.000	836.000	104.000	836.000	105.000
GR	835.000	105.000	835.400	106.000	835.800	107.000	835.400	108.000	835.800	109.000
GR	835.400	110.000	835.800	111.000	835.400	112.000	835.800	113.000	835.400	114.000
GR	835.000	115.000	836.000	115.000	838.000	135.000	841.800	205.000	853.500	300.000
X1	7836.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	8016.000	0.000	0.000	0.000	125.000	110.000	120.000	0.000	1.550	0.000
X1	8076.000	0.000	0.000	0.000	65.000	55.000	60.000	0.000	.780	0.000
NC	.075	.075	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8136.000	0.000	0.000	0.000	65.000	55.000	60.000	0.000	.770	0.000
NH	5.000	.085	91.000	.025	105.000	.031	115.000	.025	120.000	.085
NH	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8137.000	20.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	30.000	0.000	853.500	0.000	40.000	838.700	0.000	91.000	839.500	0.000
BT	105.000	839.500	0.000	105.000	839.500	0.000	105.000	837.500	835.800	105.000
BT	835.500	837.000	106.000	837.500	837.400	107.000	837.500	837.000	107.000	837.500
BT	835.800	107.000	837.500	837.000	108.000	837.500	837.400	109.000	837.500	837.000
BT	109.000	837.500	835.800	109.000	837.500	837.000	110.000	837.500	837.400	111.000
BT	837.500	837.000	111.000	837.500	835.800	111.000	837.500	837.000	112.000	837.500
BT	837.400	113.000	837.500	837.000	113.000	837.500	835.800	113.000	837.500	837.000
BT	114.000	837.500	837.400	115.000	837.500	837.000	115.000	837.500	835.800	115.000
BT	837.500	0.000	120.000	839.400	0.000	205.000	841.800	0.000	300.000	853.500
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	833.500	0.000	838.700	40.000	839.500	91.000	839.500	104.000	839.500	105.000
GR	835.800	105.000	835.400	106.000	835.800	107.000	835.400	108.000	835.800	109.000
GR	835.400	110.000	835.800	111.000	835.400	112.000	835.800	113.000	835.400	114.000
GR	835.000	115.000	837.500	115.000	839.400	120.000	841.800	205.000	853.500	300.000
X1	8139.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
X2	[illegible]	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NH	5.000	.085	91.000	.025	120.000	.085	300.000	0.000	0.000	0.000
X1	8140.000	11.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	833.500	0.000	838.700	40.000	839.500	91.000	839.500	104.000	839.500	105.000
GR	836.100	105.000	836.400	115.000	839.500	115.000	839.400	120.000	841.800	205.000
GR	853.500	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8141.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.085	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8142.000	11.000	105.000	115.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	176.000	0.000	0.000	0.000	0.000
GR	833.500	0.000	838.700	40.000	839.000	91.000	836.000	104.000	835.000	105.000
GR	834.100	105.000	834.400	115.000	835.500	115.000	836.000	135.000	841.800	205.000
GR	853.500	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8442.000	12.000	100.000	111.500	300.000	300.000	300.000	0.000	0.000	0.000
GR	851.900	0.000	841.800	30.000	839.800	95.000	835.500	100.000	835.500	100.000
GR	835.300	106.000	835.800	111.500	835.800	111.500	840.300	118.000	840.300	150.000
GR	842.400	200.000	853.300	280.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8443.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	12.000	0.000	851.900	0.000	30.000	841.800	0.000	95.000	839.800	0.000
BT	100.000	840.000	835.500	100.000	840.000	839.000	106.000	840.200	839.200	111.500
BT	640.400	839.400	111.500	840.400	835.800	118.000	840.300	0.000	150.000	840.300

X1	8459.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.070	.070	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8460.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	8660.000	9.000	150.000	157.500	200.000	200.000	200.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	175.000	0.000	840.000	840.000	0.000
GR	851.800	0.000	844.400	50.000	840.500	125.000	836.800	150.000	836.200	154.000
GR	836.400	157.500	840.500	175.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.055	.055	.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8661.000	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	100.000	0.000	175.000	0.000	840.000	840.000	0.000
NC	.055	.055	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.650	3.060	0.000	6.470	0.000	21.360	0.000	837.800	836.200
X1	8675.000	9.000	150.000	157.500	14.000	14.000	14.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	841.200	842.100	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	175.000	0.000	842.100	842.100	0.000
BT	8.000	0.000	851.800	0.000	50.000	844.400	0.000	150.000	842.100	839.400
BT	150.000	842.100	841.100	154.000	842.100	841.100	157.500	842.100	841.200	157.500
BT	842.100	838.800	175.000	843.900	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	840.500	125.000	838.800	150.000	837.800	154.000
GR	836.000	157.500	840.500	175.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.065	.065	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8676.000	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	100.000	0.000	175.000	0.000	842.100	842.100	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8677.000	9.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	838.800	150.000	837.800	154.000
GR	836.600	157.500	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000
NC	.055	.055	.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8678.000	8.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	838.800	150.000	838.900	157.500
GR	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000	0.000	0.000
X1	8679.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8680.000	9.000	150.000	157.500	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	177.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	844.400	50.000	841.300	145.000	837.800	150.000	837.800	154.000
GR	836.000	157.500	842.700	163.000	845.400	190.000	854.900	230.000	0.000	0.000
X1	9060.000	9.000	96.000	117.000	380.000	380.000	380.000	0.000	-1.000	0.000
X3	0.000	0.000	0.000	98.000	0.000	117.000	0.000	0.000	0.000	0.000
GR	857.100	0.000	848.300	37.000	846.300	96.000	839.500	103.000	839.300	108.000
GR	838.900	114.000	844.900	117.000	847.500	166.000	859.100	208.000	0.000	0.000
X1	9070.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	101.000	0.000	115.000	0.000	0.000	0.000	0.000
X1	9076.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	103.500	0.000	114.500	0.000	0.000	0.000	0.000
X1	9080.000	11.000	95.500	104.500	4.000	4.000	4.000	0.000	0.000	0.000
GR	86[illegible]	0.000	861.300	95.500	843.200	95.500	840.600	95.900	838.800	97.100

GR	862.200	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.020	.020	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9081.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	9.000	0.000	861.400	0.000	95.500	861.300	843.200	95.900	861.300	845.800
BT	97.100	861.300	847.600	100.000	861.300	848.500	102.900	861.300	847.600	104.100
BT	861.300	845.800	104.500	861.300	843.200	200.000	862.200	0.000	0.000	0.000
X1	9196.000	11.000	95.500	104.500	115.000	115.000	115.000	0.000	0.000	0.000
BT	9.000	0.000	861.400	0.000	95.500	861.300	843.700	95.900	861.300	846.300
BT	97.100	861.300	848.100	100.000	861.300	849.000	102.900	861.300	848.100	104.100
BT	861.300	848.300	104.500	861.300	843.700	200.000	862.200	0.000	0.000	0.000
GR	861.400	0.000	861.300	95.500	843.700	95.500	841.100	95.900	839.300	97.100
GR	838.900	100.000	839.300	102.900	841.100	104.100	843.700	104.500	861.300	104.500
GR	862.200	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9197.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	9200.000	9.000	96.000	117.000	3.000	3.000	3.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	115.000	0.000	0.000	0.000	0.000
GR	851.100	0.000	848.300	37.000	846.300	96.000	839.500	103.000	839.300	108.000
GR	838.900	114.000	844.900	117.000	847.500	166.000	859.100	208.000	0.000	0.000
NC	4.000	.095	65.000	.090	190.000	.045	206.000	.090	270.000	0.000
X1	9650.000	10.000	190.000	206.000	400.000	500.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	866.400	0.000	846.500	65.000	845.000	100.000	845.200	190.000	842.500	195.000
GR	842.100	199.000	841.900	203.000	844.300	206.000	845.400	220.000	866.400	270.000
X1	9765.000	0.000	0.000	0.000	60.000	150.000	115.000	0.000	1.300	0.000
X3	0.000	0.000	0.000	125.000	0.000	245.000	0.000	0.000	0.000	0.000
NC	.095	.095	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9880.000	13.000	300.000	316.500	60.000	150.000	115.000	.890	0.000	0.000
X3	0.000	0.000	0.000	240.000	0.000	340.000	0.000	0.000	0.000	0.000
GR	861.800	0.000	855.800	100.000	851.500	200.000	849.000	280.000	844.500	300.000
GR	844.600	303.000	846.500	306.000	848.300	308.000	848.300	316.500	851.000	340.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.080	.080	.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.890	3.040	0.000	0.440	0.000	22.650	0.000	845.900	844.500
X1	9899.000	13.000	300.000	316.500	19.000	19.000	19.000	.890	0.000	0.000
X2	0.000	0.000	1.000	847.000	849.200	0.000	0.000	0.000	.890	0.000
X3	0.000	0.000	0.000	245.000	0.000	335.000	0.000	0.000	0.000	0.000
BT	8.000	245.000	850.500	0.000	298.000	849.500	0.000	300.000	849.300	848.200
BT	300.000	849.300	848.300	316.500	849.200	848.300	316.500	849.200	846.900	318.000
BT	850.100	0.000	335.000	850.800	0.000	0.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	855.800	100.000	851.500	200.000	848.500	298.000	848.200	300.000
GR	846.300	308.000	845.900	311.000	846.400	314.000	846.900	316.500	848.500	318.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.080	.080	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9900.000	13.000	300.000	316.500	1.000	1.000	1.000	.890	0.000	0.000
X3	0.000	0.000	0.000	245.000	0.000	335.000	0.000	0.000	0.000	0.000
GR	851.800	0.000	855.800	100.000	851.500	200.000	848.500	298.000	848.200	300.000
GR	846.300	308.000	845.900	311.000	846.400	314.000	846.900	316.500	848.500	318.000
GR	851.900	360.000	857.200	400.000	860.500	420.000	0.000	0.000	0.000	0.000
NC	.070	.070	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	4.000	220.000	455.000	605.000	1180.000	0.000	0.000	0.000	0.000	0.000
X1	10000.000	11.000	303.000	335.000	125.000	75.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	298.000	0.000	338.000	0.000	0.000	0.000	0.000
GR	862.300	0.000	861.400	35.000	857.800	135.000	853.300	235.000	849.900	303.000
GR	846.900	322.000	846.900	327.000	846.900	332.000	849.500	335.000	859.300	435.000

X1	10050.000	13.000	142.500	157.500	50.000	50.000	50.000	0.000	0.000	0.000
GR	862.300	0.000	862.300	100.000	862.300	142.500	848.700	142.500	845.600	143.800
GR	844.300	145.300	844.300	150.000	844.300	153.700	845.600	156.200	848.700	157.500
GR	862.300	157.500	862.300	200.000	862.300	300.000	0.000	0.000	0.000	0.000
NC	.020	.020	.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10051.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	13.000	0.000	862.300	0.000	100.000	862.300	0.000	142.500	862.300	0.000
BT	142.500	862.300	848.700	143.800	862.300	851.800	146.300	862.300	853.100	150.000
BT	862.300	853.500	153.700	862.300	853.100	156.200	862.300	851.800	157.500	862.300
BT	840.700	157.500	862.300	0.000	300.000	862.300	0.000	300.000	862.300	0.000
X1	10289.000	13.000	142.500	157.500	238.000	238.000	238.000	0.000	0.000	0.000
BT	13.000	0.000	862.600	0.000	100.000	862.600	0.000	142.500	862.600	0.000
BT	142.500	862.600	850.800	143.800	862.600	853.900	146.300	862.600	855.200	150.000
BT	862.600	855.600	153.700	862.600	855.200	156.200	862.600	853.900	157.500	862.600
BT	850.600	157.500	862.600	0.000	300.000	862.600	0.000	300.000	862.600	0.000
GR	862.600	0.000	862.600	100.000	862.600	142.500	850.800	142.500	847.700	143.800
GR	846.400	145.300	846.000	150.000	846.400	153.700	847.700	156.200	850.800	157.500
GR	862.600	157.500	862.600	200.000	862.600	300.000	0.000	0.000	0.000	0.000
NC	.020	.020	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10290.000	17.000	142.400	157.600	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	0.000	862.600	0.000	100.000	862.600	0.000	142.400	862.600	0.000
BT	142.400	862.600	849.200	143.200	862.600	851.100	144.000	862.600	852.600	146.000
BT	862.600	854.100	148.000	862.600	855.200	150.000	862.600	855.200	152.000	862.600
BT	855.200	154.000	862.600	854.100	156.000	862.600	852.600	156.800	862.600	851.100
BT	157.600	862.600	849.200	157.600	862.600	0.000	200.000	862.600	0.000	300.000
BT	862.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	862.600	0.000	862.600	100.000	862.600	142.400	848.000	142.400	847.200	143.200
GR	846.400	144.000	846.800	146.000	847.200	148.000	846.000	150.000	846.000	152.000
GR	847.600	154.000	848.000	156.000	848.400	156.800	848.000	157.600	862.600	157.600
GR	862.600	200.000	862.600	300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10459.000	17.000	142.400	157.600	169.000	169.000	169.000	0.000	0.000	0.000
BT	17.000	0.000	866.000	0.000	100.000	866.000	0.000	142.400	866.000	0.000
BT	142.400	866.000	850.400	143.200	866.000	852.300	144.000	866.000	853.800	146.000
BT	866.000	855.300	148.000	866.000	856.400	150.000	866.000	856.400	152.000	866.000
BT	856.400	154.000	866.000	855.300	156.000	866.000	853.800	156.800	866.000	852.300
BT	157.600	866.000	850.400	157.600	866.000	0.000	200.000	866.000	0.000	300.000
BT	866.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	866.000	0.000	866.000	100.000	866.000	142.400	849.200	142.400	848.400	143.200
GR	848.000	144.000	847.600	146.000	847.200	148.000	847.200	150.000	847.200	152.000
GR	847.600	154.000	848.000	156.000	848.400	156.800	849.200	157.600	866.000	157.600
GR	866.000	200.000	866.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10460.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.095	.095	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11260.000	11.000	200.000	218.000	780.000	800.000	800.000	0.000	0.000	0.000
GR	867.100	0.000	860.300	100.000	859.600	160.000	852.900	192.000	852.900	200.000
GR	850.600	203.000	849.700	208.000	850.800	213.000	854.800	218.000	855.700	275.000
GR	864.700	297.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11385.000	90.000	190.000	205.700	130.000	125.000	125.000	0.000	0.000	0.000
GR	868.200	0.000	867.700	6.500	867.200	13.100	866.700	19.600	866.300	26.200
GR	865.600	32.700	865.400	39.300	864.900	45.800	864.400	52.400	864.000	58.900
GR	863.500	65.500	863.000	72.000	862.600	78.600	862.200	85.100	861.800	91.700
GR	861.500	98.200	861.400	104.800	861.300	111.300	861.200	117.900	861.000	124.400
GR	860.800	131.000	860.700	137.500	860.500	144.100	860.300	150.600	859.300	157.200
GR	856.100	163.700	856.900	170.300	855.600	176.800	854.600	183.400	854.100	190.000
GR	853.300	190.400	853.000	190.900	852.600	191.500	852.300	192.000	851.900	192.500
GR	851.600	193.100	851.800	193.600	851.700	194.100	851.600	194.600	851.500	195.200

GR	851.500	198.400	851.600	198.900	851.700	199.400	851.800	199.900	851.900	200.500
GR	852.000	201.000	852.200	201.500	852.600	202.100	852.900	202.600	853.300	203.100
GR	853.000	203.700	854.000	204.200	854.400	204.700	854.700	205.200	855.500	205.700
GR	855.000	208.200	855.700	210.700	855.700	213.200	855.800	215.600	855.800	218.100
GR	[illegible]	220.000	855.900	223.100	856.000	225.600	856.000	228.000	856.100	230.500
GR	856.100	233.000	856.200	235.500	856.300	238.000	856.500	240.500	856.700	242.900
GR	857.000	245.400	857.200	247.900	857.400	250.400	857.600	252.900	857.800	255.400
GR	858.000	257.800	858.500	260.300	859.500	262.800	860.500	265.300	861.400	267.800
GR	862.400	270.300	863.400	272.700	864.400	275.200	865.400	277.700	866.400	280.200
X1	11510.000	90.000	180.000	193.500	130.000	125.000	125.000	0.000	0.000	0.000
GR	869.300	0.000	868.800	6.200	869.300	12.400	867.900	18.600	867.400	24.800
GR	866.700	31.000	866.500	37.200	866.000	43.400	865.500	49.600	865.100	55.800
GR	864.600	62.000	864.200	68.200	863.800	74.400	863.400	80.600	863.100	86.800
GR	862.600	93.100	862.700	99.300	862.500	105.500	862.300	111.700	862.200	117.900
GR	861.700	124.100	861.600	130.300	861.300	136.500	861.000	142.700	860.200	148.900
GR	[illegible]	155.100	858.200	161.300	857.200	167.500	856.400	173.700	855.400	180.000
GR	854.200	180.300	854.000	180.700	853.800	181.200	853.500	181.600	853.300	182.100
GR	853.200	182.600	853.200	183.000	853.100	183.500	853.100	183.900	853.000	184.400
GR	853.000	184.900	852.900	185.300	852.900	185.800	852.900	186.200	853.000	186.700
GR	853.000	187.200	853.100	187.600	853.200	188.100	853.200	188.500	853.300	189.000
GR	853.400	189.500	853.500	189.900	853.700	190.400	854.000	190.800	854.200	191.300
GR	854.400	191.800	854.700	192.200	854.900	192.700	855.200	193.100	856.200	193.500
GR	856.300	195.800	856.500	198.100	856.600	200.500	856.600	202.800	856.700	205.100
GR	856.700	207.500	856.800	209.800	856.800	212.100	856.900	214.400	857.000	216.800
GR	857.000	219.100	857.100	221.400	857.400	223.800	857.700	226.100	858.100	228.400
GR	858.500	230.800	858.900	233.100	859.300	235.400	859.600	237.800	860.000	240.100
GR	860.400	242.400	860.900	244.800	861.800	247.100	862.700	249.400	863.600	251.800
GR	864.500	254.100	865.400	256.400	866.300	258.800	867.200	261.100	868.100	263.500
X1	11635.000	90.000	170.000	181.200	130.000	125.000	125.000	0.000	0.000	0.000
GR	870.400	0.000	869.900	5.800	869.400	11.700	869.000	17.500	868.500	23.400
GR	868.000	29.300	867.600	35.100	867.100	41.000	866.700	46.800	866.200	52.700
GR	865.700	58.600	865.300	64.400	865.000	70.300	864.700	76.200	864.400	82.000
GR	864.100	87.900	863.900	93.700	863.700	99.600	863.500	105.500	863.300	111.300
GR	862.900	117.200	862.500	123.100	862.100	128.900	861.700	134.800	861.000	140.600
GR	860.300	146.500	859.600	152.400	858.800	158.200	858.100	164.100	856.600	170.000
GR	855.100	170.100	855.000	170.500	854.900	170.900	854.800	171.300	854.700	171.700
GR	854.600	172.100	854.600	172.400	854.600	172.800	854.600	173.200	854.500	173.600
GR	854.500	174.000	854.500	174.400	854.500	174.800	854.500	175.200	854.500	175.600
GR	854.500	176.000	854.600	176.400	854.600	176.700	854.600	177.100	854.700	177.500
GR	854.700	177.900	854.800	178.300	854.900	178.700	855.000	179.100	855.100	179.500
GR	855.200	179.900	855.400	180.300	855.500	180.700	855.600	181.000	856.900	181.200
GR	857.100	183.400	857.300	185.600	857.400	187.700	857.500	189.900	857.500	192.100
GR	857.600	194.300	857.700	196.500	857.700	198.700	857.800	200.800	857.900	203.000
GR	857.900	205.200	858.000	207.400	858.400	209.600	859.000	211.800	859.500	213.900
GR	860.000	216.100	860.600	218.300	861.100	220.500	861.700	222.700	862.200	224.900
GR	862.800	227.000	863.400	229.200	864.200	231.400	865.000	233.600	865.800	235.800
GR	866.600	238.000	867.400	240.100	868.200	242.300	869.000	244.500	869.800	246.700
NC	.085	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11760.000	11.000	160.000	169.000	130.000	125.000	125.000	0.000	0.000	0.000
GR	871.500	0.000	866.500	60.000	864.500	105.000	859.700	157.000	857.900	160.000
GR	856.100	160.000	856.100	169.000	857.600	169.000	858.200	173.000	859.000	194.000
GR	871.600	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.085	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11761.000	10.000	160.000	169.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	871.500	0.000	866.500	60.000	864.500	105.000	859.700	157.000	857.900	160.000
GR	857.600	166.000	857.600	169.000	858.200	173.000	859.000	194.000	871.600	230.000
X1	11762.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.095	.085	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11763.000	11.000	160.000	169.000	1.000	1.000	1.000	0.000	0.000	0.000

GR	[illegible]	0.000	866.500	60.000	866.500	105.000	859.700	157.000	857.900	160.000
GR	[illegible]	163.000	856.100	166.000	857.600	169.000	858.200	173.000	859.000	194.000
GR	871.[illegible]	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.045	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12293.000	1[illegible]	265.000	292.000	400.000	540.000	530.000	0.000	0.000	0.000
X3	0.000	0.0[illegible]	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	871.700	0.000	[illegible].400	65.000	863.700	165.000	862.900	265.000	861.300	265.000
GR	857.700	272.000	8[illegible].000	280.000	857.500	287.000	860.000	292.000	861.200	295.000
GR	859.700	365.000	865.[illegible]	465.000	865.600	565.000	868.200	665.000	871.200	765.000
NC	.045	.045	.0[illegible]	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12294.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
BT	13.000	0.000	871.700	0.000	65.000	866.400	0.000	165.000	863.700	0.000
BT	265.000	862.900	861.300	265.000	862.900	861.900	292.000	861.400	860.400	292.000
BT	861.400	860.000	295.000	861.200	0.000	365.000	859.700	0.000	465.000	865.300
BT	0.000	565.000	865.600	0.000	665.000	868.200	0.000	765.000	871.200	0.000
X1	12310.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	[illegible]	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	[illegible]	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
NC	[illegible]	.045	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12311.000	[illegible].000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	[illegible]	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
X1	12641.000	13.[illegible]	233.000	258.000	330.000	330.000	330.000	0.000	0.000	0.000
GR	874.000	0.000	[illegible].200	33.000	865.100	133.000	861.400	228.000	859.900	233.000
GR	857.100	243.000	857.[illegible]	249.000	859.900	258.000	861.800	261.000	865.900	333.000
GR	867.400	433.000	87[illegible]	533.000	872.900	633.000	0.000	0.000	0.000	0.000
X1	12642.000	14.000	233.[illegible]	258.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	14.000	0.000	874.00[illegible]	0.000	33.000	871.200	0.000	133.000	865.100	0.000
BT	228.000	861.400	0.000	[illegible]3.000	861.900	0.000	233.000	861.900	859.900	243.000
BT	861.900	859.900	249.000	861.[illegible]00	859.900	258.000	861.900	859.900	261.000	861.800
BT	0.000	333.000	865.900	0.000	433.000	867.400	0.000	533.000	870.600	0.000
BT	633.000	872.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.100	133.000	861.400	228.000	861.900	233.000
GR	859.900	233.000	857.100	243.000	857.700	249.000	859.900	258.000	861.800	261.000
GR	865.900	333.000	867.400	433.000	870.600	533.000	872.900	633.000	0.000	0.000
X1	12652.000	15.000	233.000	258.000	10.000	10.000	10.000	0.000	0.000	0.000
BT	15.000	0.000	874.000	0.000	33.000	871.200	0.000	133.000	865.100	0.000
BT	228.000	861.400	0.000	233.000	861.900	0.000	233.000	861.900	859.900	237.000
BT	861.900	859.900	243.000	861.900	859.900	249.000	861.900	859.900	258.000	861.900
BT	859.900	261.000	861.800	0.000	33[illegible].000	865.900	0.000	433.000	867.400	0.000
BT	533.000	870.600	0.000	633.000	87[illegible].900	0.000	0.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.[illegible]00	[illegible]3.000	861.400	228.000	861.900	233.000
GR	859.900	233.000	857.900	237.000	857.[illegible]00	[illegible].000	857.700	249.000	859.900	258.000
GR	861.800	261.000	865.900	333.000	867.4[illegible]	[illegible]33.000	870.600	533.000	872.900	633.000
X1	12653.000	14.000	233.000	258.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	874.000	0.000	871.200	33.000	865.1[illegible]	[illegible].000	861.400	228.000	859.900	233.000
GR	857.900	233.000	857.100	243.000	857.7[illegible]	[illegible].000	859.900	258.000	861.800	261.000
GR	865.900	333.000	867.400	433.000	870.6[illegible]	[illegible].000	872.900	633.000	0.000	0.000
[illegible]	4.000	210.000	440.000	590.000	1140.000	[illegible].700	0.000	0.000	0.000	0.000
X1	12[illegible].000	16.000	187.000	202.000	150.000	1[illegible]	150.000	0.000	0.000	0.000
[illegible]	871.100	0.000	864.200	100.000	862.000	1[illegible]	860.100	187.000	858.000	191.000
GR	856.500	1[illegible].000	856.500	198.000	857.800	198.000	[illegible]56.700	199.000	856.500	200.000
GR	856.700	201.000	857.800	202.000	861.500	[illegible]	[illegible]64.400	300.000	869.600	400.000
GR	872.200	500.000	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000	0.000
NC	.045	.045	.032	0.000	0.000	0.[illegible]	0.000	0.000	0.000	0.000

BT	15.000	0.000	871.100	0.000	100.000	864.200	0.000	185.000	862.000	0.000
BT	187.000	861.500	861.100	198.000	861.500	861.000	198.000	861.500	857.800	198.000
BT	861.500	859.200	199.000	861.500	860.300	200.000	861.500	860.500	201.000	861.500
BT	860.500	202.000	861.500	859.200	202.000	861.500	857.800	300.000	864.400	0.000
BT	400.000	869.600	0.000	500.000	872.200	0.000	0.000	0.000	0.000	0.000
XI	12814.000	16.000	187.000	202.000	10.000	10.000	10.000	0.000	0.000	0.000
BT	[illegible]	0.000	871.100	0.000	[illegible]	864.200	0.000	185.000	862.000	0.000
BT	187.000	861.500	860.900	198.000	[illegible]	861.000	198.000	861.500	856.700	198.000
BT	[illegible]	856.100	199.000	861.500	[illegible]	200.000	861.500	859.400	201.000	861.500
BT	[illegible]	202.000	861.500	858.100	[illegible]	861.500	856.700	300.000	864.400	0.000
BT	400.000	869.600	0.000	500.000	872.200	0.000	0.000	0.000	0.000	0.000
GR	871.100	0.000	864.200	100.000	862.000	[illegible]	860.100	187.000	858.000	191.000
GR	856.300	195.000	856.500	198.000	856.700	198.000	855.600	199.000	855.400	200.000
GR	855.800	201.000	856.700	202.000	861.500	202.000	864.400	300.000	869.600	400.000
GR	872.200	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	12815.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.070	.045	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	13125.000	15.000	521.000	550.000	310.000	310.000	310.000	0.000	0.000	0.000
XS	0.000	0.000	0.000	502.000	0.000	540.000	0.000	0.000	0.000	0.000
GR	873.800	0.000	[illegible]	50.000	867.000	150.000	868.400	250.000	866.200	350.000
GR	860.800	450.000	866.700	521.000	858.000	530.000	857.000	534.000	858.100	538.000
GR	[illegible]	[illegible]	867.300	650.000	873.900	750.000	0.000	0.000	0.000	0.000
XI	[illegible]	0.000	0.000	0.000	90.000	90.000	90.000	0.000	1.000	0.000
XS	0.000	0.000	0.000	524.000	0.000	546.000	0.000	0.000	0.000	0.000
XI	13225.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.100	0.000
XS	0.000	0.000	0.000	526.000	0.000	543.000	0.000	0.000	0.000	0.000
NC	.003	.045	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	13235.000	15.000	485.000	497.000	10.000	10.000	10.000	0.000	0.000	0.000
XS	10.000	0.000	0.000	0.000	0.000	0.000	0.000	864.500	864.500	0.000
GR	873.300	0.000	871.000	85.000	869.100	135.000	868.000	285.000	867.400	385.000
GR	867.300	485.000	858.200	485.000	858.200	491.000	858.600	497.000	867.200	500.000
GR	868.500	585.000	869.800	685.000	870.900	785.000	871.300	985.000	871.200	985.000
NC	[illegible]	[illegible]	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	13236.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
XS	[illegible]	0.000	0.000	0.000	0.000	[illegible]	0.000	864.500	864.500	0.000
SD	0.000	[illegible]	0.000	0.000	11.630	[illegible]	69.800	0.000	858.200	858.200
XI	[illegible]	[illegible]	[illegible]	497.000	49.000	[illegible]	49.000	0.000	0.000	0.000
XS	0.000	0.000	1.000	865.300	867.400	0.000	0.000	0.000	0.000	0.000
XS	1.000	[illegible]	0.000	0.000	0.000	0.000	0.000	867.400	867.400	0.000
GR	11.000	[illegible]	87[illegible]	0.000	185.000	869.100	[illegible]	785.000	867.400	0.000
GR	.85.000	867.500	0.000	405.000	867.500	864.100	491.000	867.500	864.100	497.000
GR	867.500	861.000	.97.000	[illegible]	0.000	535.000	868.500	0.000	785.000	870.900
GR	0.000	985.000	871.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	873.300	0.000	869.100	[illegible]	867.400	385.000	867.500	485.000	858.200	485.000
GR	858.200	491.000	858.600	497.000	867.500	497.000	868.500	585.000	870.900	785.000
GR	871.200	985.000	0.000	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000
NC	.050	.070	.038	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000
XI	13286.000	15.000	485.000	[illegible]	1.000	1.000	1.000	[illegible]	0.000	0.000
XS	10.000	0.000	0.000	0.000	0.000	0.000	0.000	[illegible]	867.400	0.000
GR	873.300	0.000	871.000	[illegible]	869.100	185.000	868.000	[illegible]	867.400	385.000
GR	867.450	435.000	858.200	485.000	858.200	491.000	858.600	497.000	868.000	540.000
GR	868.500	585.000	869.800	685.000	870.900	785.000	871.300	885.000	871.200	985.000
XI	13289.000	0.000	[illegible]	0.000	3.000	3.000	3.000	0.000	.010	0.000
XS	0.000	0.000	0.000	[illegible]	0.000	500.000	0.000	0.000	[illegible]	0.000
NC	.000	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000	[illegible]	0.000

X1	14289.000	15.000	257.000	275.000	[illegible]	400.000	1000.000	0.000	[illegible]	0.000
X3	0.000	0.000	0.000	[illegible]	0.000	420.000	0.000	0.000	[illegible]	0.000
GR	876.400	0.000	870.900	5.000	8[illegible]7.[illegible]00	15.000	863.900	175.000	864.[illegible]	257.000
GR	861.000	260.000	860.300	263.000	8[illegible].000	861.000	864.800	275.000	866.7[illegible]	375.000
GR	864.800	475.000	865.200	575.000	865.1[illegible]	640.000	868.800	675.000	876.9[illegible]	700.000
X1	14554.000	90.000	228.500	250.000	2[illegible]	270.000	265.000	0.000	0.000	[illegible].000
GR	[illegible]	0.000	877.100	7.800	875.7[illegible]	[illegible].00	874.300	23.600	872.900	3[illegible].500
GR	872.000	39.300	871.000	47.200	870.100	55.100	869.100	63.000	868.600	70.[illegible]
GR	868.100	78.700	868.000	86.600	867.700	94.500	[illegible].400	102.400	867.100	110.3[illegible]
GR	866.800	118.100	866.500	126.000	866.200	133.900	[illegible].00	141.800	865.600	149.700
GR	865.300	157.500	865.400	165.400	865.400	173.3[illegible]	86[illegible].300	181.200	865.600	189.100
GR	865.600	196.900	865.700	204.800	865.800	212.700	86[illegible].800	220.600	865.900	228.500
GR	865.300	229.200	864.700	229.900	864.100	230.600	863.5[illegible]	[illegible].300	863.000	232.000
GR	862.800	232.700	862.600	233.500	862.300	234.200	862.1[illegible]	[illegible].00	861.900	235.600
GR	861.900	236.300	862.000	237.000	862.000	237.800	862.000	238.5[illegible]	[illegible].000	239.200
GR	862.000	239.900	862.100	240.600	862.200	241.300	862.400	242.100	86[illegible].00	242.800
GR	862.900	243.500	863.100	244.200	863.400	244.900	863.900	245.600	864.[illegible]	246.400
GR	864.700	247.100	865.100	247.800	865.500	248.500	865.900	249.200	866.[illegible]	250.000
GR	866.500	260.800	866.700	271.600	866.900	282.400	867.100	293.300	867.[illegible]	304.100
GR	867.600	314.900	867.800	325.800	867.700	336.600	867.600	347.400	867.[illegible]	358.300
GR	867.400	369.100	867.300	379.900	867.200	390.800	867.100	401.600	867.[illegible]	412.400
GR	867.300	423.300	867.500	434.100	867.600	444.900	867.800	455.800	8[illegible]7.[illegible]	466.600
GR	868.000	477.400	868.100	488.300	868.200	499.100	868.300	509.900	[illegible].400	5[illegible].800
GR	868.700	531.600	870.000	542.400	871.200	553.300	874.200	564.100	877.[illegible]	575.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14819.000	90.000	200.000	225.000	240.000	270.000	265.000	0.000	0.[illegible]	0.000
GR	880.800	0.000	879.300	6.800	877.900	13.700	876.500	20.600	875.[illegible]	27.500
GR	873.900	34.400	872.800	41.300	871.700	48.200	870.600	55.100	870.[illegible]	62.000
GR	869.700	68.900	869.400	75.800	869.100	82.700	868.800	89.600	868.[illegible]	96.500
GR	868.200	103.400	868.000	110.300	867.700	117.200	867.400	124.100	867.1[illegible]	131.000
GR	866.800	137.900	866.900	144.800	867.000	151.700	867.100	158.600	867.1[illegible]	165.500
GR	867.200	172.400	867.300	179.300	867.400	186.200	867.500	193.100	867.6[illegible]	200.000
GR	867.100	200.800	866.600	201.600	866.000	202.400	865.500	203.300	865.000	204.100
GR	864.700	204.900	864.400	205.800	864.200	206.600	863.900	207.400	863.600	208.300
GR	863.500	209.100	863.400	209.900	863.200	210.800	863.100	211.600	863.000	212.400
GR	862.900	213.300	862.800	214.100	862.800	214.900	863.000	215.800	863.200	216.600
GR	863.400	217.400	863.600	218.300	864.000	219.100	864.500	219.900	865.100	220.8[illegible]
GR	865.600	221.600	866.200	222.400	866.700	223.300	867.300	224.100	867.800	225.[illegible]
GR	868.000	232.500	868.100	239.900	868.300	247.400	868.400	254.900	868.600	262.4[illegible]
GR	868.800	269.900	868.900	277.400	869.000	284.900	869.000	292.400	869.100	299.9[illegible]
GR	869.200	307.400	869.200	314.900	869.300	322.400	869.400	329.900	869.600	337.4[illegible]
GR	869.800	344.900	870.000	352.400	870.300	359.900	870.500	367.400	870.700	374.9[illegible]
GR	870.900	382.400	871.100	389.900	871.300	397.400	871.500	404.900	871.700	412.4[illegible]
GR	872.100	419.900	873.000	427.400	874.000	434.900	876.100	442.400	878.600	450.[illegible]
X1	15084.000	90.000	171.500	200.000	240.000	270.000	265.000	0.000	0.000	0.[illegible]
GR	883.000	0.000	881.500	5.900	880.100	11.800	878.600	17.700	877.200	23.6[illegible]
GR	875.900	29.500	874.600	35.400	873.300	41.300	872.000	47.300	871.400	53.20[illegible]
GR	871.100	59.100	870.800	65.000	870.500	70.900	870.300	76.800	870.000	82.700
GR	869.700	88.700	869.400	94.600	869.100	100.500	868.900	106.400	868.600	112.300
GR	868.300	118.200	868.400	124.100	868.500	130.100	868.600	136.000	868.700	141.900
GR	868.800	147.800	869.000	153.700	869.100	159.600	869.200	165.500	869.300	171.500
GR	868.900	172.400	868.400	173.300	867.900	174.300	867.500	175.200	867.000	176.200
GR	866.700	177.100	866.300	178.100	866.000	179.000	865.600	180.000	865.300	180.900
GR	865.000	181.900	864.800	182.800	864.500	183.800	864.200	184.700	864.000	185.700
GR	863.800	186.600	863.500	187.600	863.400	188.500	863.600	189.500	863.700	190.400
GR	863.900	191.400	864.100	192.300	864.500	193.300	865.200	194.200	865.900	195.200
GR	866.600	196.100	867.300	197.100	868.000	198.000	868.600	199.000	869.300	200.000
GR	869.400	204.100	869.500	208.300	869.700	212.400	869.800	216.600	869.900	220.800
GR	870.000	224.900	870.100	229.100	870.300	233.300	870.500	237.400	870.700	241.600
GR	871.000	245.800	871.200	249.900	871.400	254.100	871.700	258.300	872.000	262.400
GR	872.300	266.600	872.600	270.800	872.900	274.900	873.200	279.100	873.500	283.300
GR	873.900	287.400	874.200	291.600	874.400	295.800	874.700	299.900	875.000	304.100

X1	15349.000	10.000	143.000	175.000	240.000	270.000	265.000	0.000	0.000	0.000
GR	885.200	0.000	873.000	41.000	869.800	100.000	871.100	143.000	865.400	158.000
GR	864.000	162.000	864.700	167.000	870.900	175.000	871.300	181.000	880.400	200.000
NC	.095	.090	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	180.000	375.000	500.000	965.000	0.000	0.000	0.000	0.000	0.000
X1	16399.000	10.000	200.000	226.000	1050.000	1050.000	1050.000	0.000	0.000	0.000
GR	881.500	0.000	876.600	100.000	872.300	200.000	866.000	214.000	865.700	216.000
GR	866.000	219.000	871.900	226.000	873.900	300.000	879.700	400.000	882.300	470.000
NC	.085	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17279.000	13.000	300.000	324.000	880.000	880.000	880.000	0.000	0.000	0.000
GR	885.400	0.000	875.300	100.000	873.300	200.000	872.000	300.000	868.500	310.000
GR	868.000	316.000	868.400	319.000	873.000	324.000	873.200	400.000	872.700	500.000
GR	876.300	600.000	881.000	700.000	886.000	750.000	0.000	0.000	0.000	0.000
X1	17479.000	90.000	289.500	312.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	886.800	0.000	885.800	9.900	884.700	19.900	883.700	29.900	882.600	39.900
GR	881.600	49.900	880.600	59.800	879.500	69.800	878.600	79.800	877.600	89.800
GR	876.800	99.800	876.500	109.800	876.100	119.700	875.700	129.700	875.400	139.700
GR	875.000	149.700	874.700	159.700	874.300	169.700	874.000	179.600	873.900	189.600
GR	873.800	199.600	873.700	209.600	873.600	219.600	873.500	229.600	873.400	239.500
GR	873.300	249.500	873.200	259.500	873.200	269.500	873.100	279.500	873.000	289.500
GR	872.700	290.200	872.400	291.000	872.000	291.700	871.700	292.500	871.400	293.200
GR	871.100	293.900	870.800	294.700	870.500	295.400	870.200	296.200	869.900	296.900
GR	869.600	297.700	869.300	298.400	869.100	299.200	869.000	299.900	868.900	300.700
GR	868.900	301.400	868.900	302.200	868.900	302.900	868.800	303.700	868.800	304.400
GR	869.000	305.200	869.100	305.900	869.300	306.700	869.600	307.400	870.300	308.200
GR	870.900	308.900	871.500	309.700	872.200	310.400	872.800	311.200	873.500	312.000
GR	873.500	326.600	873.600	341.300	873.600	355.900	873.700	370.600	873.800	385.300
GR	873.800	399.900	873.700	414.600	873.700	429.300	873.700	443.900	873.600	458.600
GR	873.600	473.300	873.500	487.900	873.700	502.600	874.100	517.300	874.500	531.900
GR	874.900	546.600	875.200	561.300	875.700	575.900	876.300	590.600	876.900	605.300
GR	877.600	619.900	878.200	634.600	878.900	649.300	879.600	663.900	880.500	678.600
GR	881.400	693.300	882.600	707.900	884.100	722.600	885.500	737.300	887.000	752.000
X1	17679.000	90.000	279.000	300.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	888.300	0.000	887.200	9.600	886.200	19.200	885.100	28.800	884.100	38.400
GR	883.100	48.100	882.000	57.700	881.100	67.300	880.100	76.900	879.200	86.500
GR	878.400	96.200	877.900	105.800	877.400	115.400	876.900	125.000	876.400	134.600
GR	875.900	144.300	875.400	153.900	874.900	163.500	874.500	173.100	874.500	182.700
GR	874.400	192.400	874.400	202.000	874.300	211.600	874.300	221.200	874.200	230.800
GR	874.200	240.500	874.100	250.100	874.100	259.700	874.000	269.300	874.000	279.000
GR	873.700	279.700	873.300	280.400	873.000	281.000	872.600	281.700	872.300	282.400
GR	871.900	283.100	871.600	283.800	871.200	284.500	870.900	285.200	870.600	285.900
GR	870.300	286.600	870.100	287.300	869.900	288.000	869.700	288.700	869.600	289.400
GR	869.600	290.100	869.600	290.800	869.600	291.500	869.600	292.200	869.600	292.900
GR	869.900	293.600	870.100	294.300	870.400	295.000	870.700	295.700	871.200	296.400
GR	871.800	297.100	872.300	297.800	872.900	298.500	873.400	299.200	874.000	300.000
GR	874.100	315.100	874.200	330.200	874.200	345.300	874.300	360.500	874.400	375.600
GR	874.400	390.700	874.400	405.900	874.400	421.000	874.400	436.100	874.400	451.300
GR	874.400	466.400	874.400	481.500	874.500	496.700	874.800	511.800	875.000	526.900
GR	875.200	542.100	875.500	557.200	875.900	572.300	876.500	587.500	877.200	602.600
GR	877.800	617.700	878.500	632.900	879.200	648.000	880.000	663.100	881.100	678.300
GR	882.200	693.400	883.600	708.500	885.100	723.700	886.600	738.800	888.100	754.000
X1	17879.000	90.000	268.500	288.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	889.700	0.000	888.700	9.200	887.600	18.500	886.600	27.700	885.600	37.000
GR	884.500	46.200	883.500	55.500	882.600	64.800	881.700	74.000	880.900	83.300
GR	880.100	92.500	879.400	101.800	878.800	111.100	878.100	120.300	877.500	129.600
GR	876.800	138.800	876.200	148.100	875.500	157.300	875.100	166.600	875.000	175.900
GR	875.000	185.100	875.000	194.400	875.000	203.600	875.000	212.900	875.000	222.200
GR	875.000	231.400	875.000	240.700	875.000	249.900	875.000	259.200	875.000	268.500
GR	874.600	269.100	874.300	269.700	873.900	270.400	873.500	271.000	873.100	271.700

GR	871.000	275.600	870.800	276.200	870.600	276.900	870.400	277.500	870.200	278.200
GR	870.300	278.800	870.300	279.500	870.400	280.100	870.400	280.800	870.500	281.400
GR	870.800	282.100	871.100	282.700	871.400	283.400	871.800	284.000	872.200	284.700
GR	872.700	285.300	873.100	286.000	873.600	286.600	874.100	287.300	874.500	288.000
GR	874.600	303.600	874.700	319.200	874.800	334.700	874.900	350.300	875.000	365.900
GR	875.100	381.500	875.100	397.100	875.200	412.700	875.200	428.300	875.200	443.900
GR	875.300	459.500	875.300	475.100	875.300	490.700	875.400	506.300	875.500	521.900
GR	875.600	537.500	875.700	553.100	876.100	568.700	876.700	584.300	877.400	599.900
GR	878.100	615.500	878.800	631.100	879.500	646.700	880.400	662.300	881.700	677.900
GR	883.000	693.500	884.500	709.100	886.000	724.700	887.600	740.300	889.100	756.000
NH	4.000	.055	58.000	.080	258.000	.040	276.000	.085	758.000	0.000
X1	18079.000	13.000	258.000	276.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	450.000	0.000	0.000	0.000	0.000
GR	891.200	0.000	884.500	58.000	875.600	158.000	876.100	258.000	872.000	264.000
GR	870.900	267.000	871.400	270.000	875.100	276.000	875.700	358.000	876.200	458.000
GR	876.000	558.000	880.400	658.000	890.200	758.000	0.000	0.000	0.000	0.000
NC	.065	.065	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18529.000	90.000	184.000	217.000	515.000	385.000	450.000	0.000	0.000	0.000
GR	891.900	0.000	891.200	6.300	890.600	12.600	889.900	19.000	889.100	25.300
GR	888.400	31.700	887.600	38.000	886.900	44.400	886.300	50.700	885.700	57.100
GR	885.000	63.400	884.400	69.700	883.800	76.100	883.100	82.400	882.500	88.800
GR	881.900	95.100	881.300	101.500	880.600	107.800	880.100	114.200	879.900	120.500
GR	879.700	126.800	879.500	133.200	879.200	139.500	879.000	145.900	878.800	152.200
GR	878.600	158.600	878.400	164.900	878.200	171.300	878.000	177.600	877.800	184.000
GR	877.400	185.100	877.100	186.100	876.800	187.200	876.400	188.300	876.100	189.400
GR	875.900	190.500	875.600	191.600	875.300	192.700	875.100	193.800	874.800	194.900
GR	874.600	196.000	874.500	197.100	874.300	198.200	874.200	199.300	874.200	200.400
GR	874.200	201.500	874.300	202.600	874.400	203.700	874.400	204.800	874.500	205.900
GR	874.700	207.000	874.900	208.100	875.100	209.200	875.300	210.300	875.500	211.400
GR	876.000	212.500	876.500	213.600	876.900	214.700	877.400	215.800	877.900	217.000
GR	877.900	230.000	878.000	243.100	878.100	256.200	878.200	269.200	878.200	282.300
GR	878.300	295.300	878.300	308.400	878.300	321.500	878.300	334.500	878.300	347.600
GR	878.300	360.700	878.300	373.700	878.200	386.800	878.200	399.900	878.100	412.900
GR	878.200	426.000	878.200	439.100	878.400	452.100	878.900	465.200	879.300	478.300
GR	879.700	491.300	880.100	504.400	880.500	517.500	881.100	530.500	881.900	543.600
GR	883.800	556.700	885.600	569.700	887.500	582.800	889.400	595.900	891.300	609.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18979.000	11.000	110.000	158.000	515.000	385.000	450.000	0.000	0.000	0.000
GR	892.600	0.000	891.900	10.000	879.500	110.000	878.400	117.000	877.400	130.000
GR	877.900	150.000	880.700	158.000	880.900	210.000	880.300	310.000	881.600	410.000
GR	892.400	460.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19729.000	9.000	120.000	150.000	750.000	750.000	750.000	0.000	0.000	0.000
GR	903.700	0.000	891.900	40.000	887.200	100.000	885.200	120.000	880.200	131.000
GR	879.400	132.000	880.100	133.000	889.600	150.000	896.300	175.000	0.000	0.000
NC	.090	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19879.000	15.000	191.500	198.500	100.000	200.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	887.500	887.500	0.000
GR	897.600	0.000	893.600	95.000	893.200	150.000	884.500	191.500	883.500	[illegible]
GR	882.500	193.000	882.000	194.000	882.000	195.000	882.000	196.000	882.500	[illegible]
GR	883.500	198.000	884.500	198.500	893.500	215.000	896.200	295.000	897.600	[illegible]
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19880.000	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	888.000	888.000	0.000
NC	.095	.095	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.610	2.850	0.000	5.500	0.000	38.480	0.000	881.400	[illegible]
X1	19930.000	15.000	191.500	198.500	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	890.000	892.800	0.000	0.000	0.000	0.000	0.000

BT	15.000	0.000	897.600	0.000	95.000	893.600	0.000	191.500	89[illegible].000	0.000
BT	191.500	892.800	885.900	192.000	892.800	886.900	193.000	892.800	887.900	194.000
BT	892.800	888.400	195.000	892.800	888.400	196.000	892.800	888.400	197.000	892.800
BT	887.900	198.000	892.800	886.900	198.500	892.800	885.900	198.500	[illegible].000	0.000
BT	295.000	896.200	0.000	325.000	897.600	0.000	0.000	0.000	0.000	0.000
GR	897.600	0.000	893.600	95.000	893.200	150.000	883.900	191.50[illegible]	[illegible].000	192.000
GR	881.900	193.000	881.400	194.000	881.400	195.000	881.400	196.[illegible]	[illegible].000	197.000
GR	882.900	198.000	883.900	198.500	893.500	215.000	896.200	295.[illegible]	[illegible].000	325.000
NC	.080	.080	.030	0.000	0.000	0.000	0.000	0.[illegible]	0.000	0.000
X1	19931.000	0.000	0.000	0.000	1.000	1.000	1.000	[illegible]	0.000	0.000
X3	10.000	0.000	0.000	128.000	0.000	0.000	0.000	892.000	892.800	0.000
NC	.060	.050	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20131.000	10.000	52.000	92.000	250.000	150.000	200.000	0.000	0.000	0.000
GR	901.200	0.000	890.700	44.000	889.400	52.000	883.70[illegible]	[illegible].000	883.000	74.000
GR	883.600	82.000	887.200	92.000	888.600	100.000	892.5[illegible]	[illegible].000	898.200	140.000
NH	5.000	.050	150.000	.055	350.000	.030	368.[illegible]	.055	500.000	.045
NH	900.000	0.000	0.000	0.000	0.000	0.000	0.00[illegible]	0.000	0.000	0.000
X1	20981.000	20.000	350.000	368.000	850.000	850.000	850.00[illegible]	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	530.000	0.00[illegible]	0.000	0.000	0.000
GR	905.500	0.000	893.900	50.000	891.300	65.000	885.3[illegible]	[illegible].000	885.400	250.000
GR	885.800	350.000	885.300	354.000	884.700	360.000	886.[illegible]	[illegible].000	885.400	425.000
GR	887.300	450.000	887.300	470.000	890.200	500.000	890.5[illegible]	[illegible].000	890.400	530.000
GR	887.500	550.000	889.600	650.000	897.400	750.000	899.2[illegible]	[illegible].000	904.500	900.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: 100-YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      FIS-CITY OF FARMINGTON HILLS,  5670-03-1   PM = RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      SEELEY DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000     0.00      0.0       0.   759.080    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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CCHV= .300 CEHV= .500

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
28.00	5.09	759.09	759.09	759.08	760.12	1.03	0.00	0.00	756.00
1810.	270.	1244.	296.	112.	129.	114.	0.	0.	756.00
0.00	2.41	9.67	2.59	.090	.042	.090	0.000	754.00	72.13
.010885	0.	0.	0.	0	4	1	0.00	186.01	258.13

3301 HV CHANGED MORE THAN HVINS

MOUTH OF SEELEY DRAIN

0.00	5.55	761.45	0.00	0.00	761.58	.14	1.20	.27	757.90
835.	176.	507.	152.	177.	136.	152.	2.	1.	758.10
.03	.99	3.74	1.00	.100	.045	.100	.045	755.90	38.01
.001610	250.	250.	250.	2	0	1	0.00	222.44	260.45
250.00	4.21	762.01	0.00	0.00	762.58	.57	.78	.22	759.80
835.	121.	640.	74.	73.	93.	49.	4.	2.	760.20
.04	1.66	6.89	1.52	.100	.045	.100	.045	757.80	64.17
.008399	250.	250.	250.	3	0	1	0.00	152.19	216.36
500.00	4.36	764.06	0.00	0.00	764.53	.47	1.92	.03	761.70
835.	166.	590.	79.	106.	91.	55.	6.	3.	762.30
.05	1.56	6.48	1.43	.100	.045	.100	.045	759.70	22.92
.007029	250.	250.	250.	2	0	1	0.00	177.09	200.01

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

750' U/S FROM THE MOUTH OF SEELEY DRAIN, VS#2 SEC. A

750.00	4.21	765.91	0.00	0.00	766.38	.47	1.85	.00	763.70
835.	221.	552.	62.	138.	83.	41.	7.	4.	764.40
.07	1.60	6.65	1.51	.100	.045	.100	.045	761.70	12.93
.007765	250.	250.	250.	2	0	1	0.00	159.22	172.15
790.00	3.98	766.19	0.00	0.00	766.82	.63	.36	.08	764.21
835.	194.	587.	53.	115.	78.	34.	7.	4.	764.91
.07	1.69	7.54	1.57	.100	.045	.100	.045	762.21	13.18
.010856	40.	40.	40.	1	0	1	0.00	158.50	171.68

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
830.00	3.89	766.62	766.62	0.00	767.35	.73	.47	0.00	764.73
835.	181.	605.	49.	105.	76.	31.	8.	4.	765.43
.07	1.72	8.00	1.59	.100	.045	.100	.045	762.73	13.30
.012748	40.	40.	40.	2	5	1	0.00	158.17	171.47

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
870.00	3.93	767.18	767.18	0.00	767.87	.69	.49	0.00	765.25
835.	187.	597.	51.	110.	77.	32.	8.	5.	765.95
.07	1.71	7.79	1.59	.100	.045	.100	.045	763.25	13.24
.011845	40.	40.	40.	0	5	1	0.00	158.32	171.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
990.00	4.38	769.18	769.18	0.00	769.96	.78	1.39	0.00	767.50
835.	107.	647.	81.	69.	81.	43.	8.	5.	767.50
.08	1.55	8.01	1.88	.100	.045	.100	.045	764.80	17.58
.011342	120.	120.	120.	2	8	1	0.00	160.21	188.45

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1110.00	4.36	770.71	770.71	0.00	771.49	.78	1.37	0.00	769.05
835.	103.	644.	88.	66.	80.	42.	9.	5.	769.05
.08	1.55	8.02	2.08	.100	.045	.090	.045	766.35	17.62
.011472	120.	120.	120.	2	5	1	0.00	158.03	186.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1150.00	4.36	771.23	771.23	0.00	772.01	.78	.46	0.00	769.57
835.	104.	643.	89.	67.	80.	43.	9.	6.	769.57
.08	1.55	7.99	2.08	.100	.045	.090	.045	766.87	17.61
.011384	40.	40.	40.	1	5	1	0.00	158.54	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1190.00	4.36	771.74	771.74	0.00	772.52	.78	.46	0.00	770.08
835.	104.	643.	89.	67.	80.	43.	9.	6.	770.08
.09	1.55	8.00	2.08	.100	.045	.090	.045	767.38	17.62
.011401	40.	40.	40.	1	5	1	0.00	158.45	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1230.00	4.67	772.57	772.57	0.00	773.51	.94	.48	0.00	771.30

.09	1.34	8.53	2.34	.100	.045	.090	.045	767.90	92.86
.012640	40.	40.	40.	4	8	1	0.00	112.54	205.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
1290.00	4.77	773.37	773.37	0.00	774.34	.96	.76	0.00	772.20
835.	31.	688.	116.	24.	80.	49.	10.	6.	771.50
.09	1.29	8.61	2.38	.100	.045	.090	.045	768.60	100.59
.012851	60.	60.	60.	0	8	1	0.00	109.20	209.79

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
1350.00	4.82	774.22	774.22	0.00	775.21	.99	.78	0.00	773.20
835.	21.	692.	122.	17.	79.	50.	10.	6.	772.30
.09	1.22	8.72	2.44	.100	.045	.090	.045	769.40	111.66
.013251	60.	60.	60.	0	5	1	0.00	102.63	214.29

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
1410.00	4.81	775.01	775.00	0.00	776.06	1.05	.82	.03	774.10
835.	11.	698.	126.	10.	78.	50.	10.	6.	773.00
.09	1.13	8.91	2.51	.100	.045	.090	.045	770.20	131.40
.014036	60.	60.	60.	0	5	1	0.00	87.56	218.95

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
1470.00	4.88	775.88	775.88	0.00	776.95	1.07	.85	0.00	775.10

appears the profile from 830 to 1470, L = 640 ft. Simple averaging with the profile takes a parabolic profile instead. Could run as 1710, x L = 240 ft. L = 880 ft.

.10	1.05	9.00	2.54	.100	.045	.090	.045	771.00	142.33
.014395	60.	60.	60.	1	5	1	0.00	81.56	223.88
1530.00	5.18	776.88	776.68	0.00	777.77	.89	.77	.05	776.00
835.	9.	678.	148.	9.	81.	60.	10.	7.	774.60
.10	1.06	8.34	2.45	.100	.045	.090	.045	771.70	145.43
.011587	60.	60.	60.	4	5	1	0.00	85.48	230.91
1590.00	5.07	777.57	777.51	0.00	778.60	1.03	.76	.07	777.00
835.	3.	689.	143.	4.	77.	56.	11.	7.	775.50
.10	.85	8.90	2.56	.100	.045	.090	.045	772.50	158.46
.014050	60.	60.	60.	4	5	1	0.00	77.27	235.73
1650.00	5.13	778.43	778.34	0.00	779.45	1.02	.84	.00	778.00
835.	1.	685.	149.	2.	77.	58.	11.	7.	776.30
.10	.68	8.89	2.56	.100	.045	.090	.045	773.30	166.15
.014047	60.	60.	60.	4	5	1	0.00	74.16	240.31

450' D/S FROM D/S FACE OF DRIVEWAY BRIDGE C, VS#3 SEC. B

1710.00	5.17	779.27	779.26	0.00	780.37	1.10	.88	.04	779.00
835.	0.	693.	142.	1.	75.	58.	11.	7.	777.10
.10	.48	9.18	2.45	.100	.045	.090	.045	774.10	174.17
.015396	60.	60.	60.	0	8	1	0.00	70.47	244.64
2160.00	5.66	784.06	783.69	0.00	785.09	1.03	4.70	.02	779.70
835.	44.	681.	110.	16.	76.	50.	12.	8.	780.70
.12	2.79	8.93	2.21	.070	.040	.070	.044	778.40	172.72
.007499	500.	450.	450.	6	8	1	0.00	80.08	252.81

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

D/S FACE OF DRIVEWAY BRIDGE, BS#4 SEC. C

2161.00	6.55	784.95	0.00	0.00	785.30	.35	.00	.20	779.70
835.	63.	512.	261.	23.	89.	115.	12.	8.	780.70
.12	2.72	5.72	2.28	.035	.030	.035	.044	778.40	171.25
.001396	1.	1.	1.	6	0	1	0.00	103.28	274.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.46	3.03	0.00	12.94	0.00	59.53	0.00	778.40	778.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

789.41	785.30	0.00	471.	367.	60.	783.00	784.40	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS#4 SEC. C

2173.00	7.22	785.62	0.00	0.00	785.81	.19	.51	0.00	779.70
835.	62.	439.	334.	29.	100.	169.	12.	8.	780.70
.12	2.12	4.41	1.98	.035	.030	.035	.044	778.40	170.13
.000719	12.	12.	12.	2	0	4	0.00	106.70	276.82
2174.00	7.14	785.54	0.00	0.00	785.90	.36	.00	.09	779.70
835.	43.	567.	225.	28.	98.	162.	12.	8.	780.70
.12	1.51	5.77	1.39	.075	.035	.075	.044	778.40	170.27
.001707	1.	1.	1.	2	0	1	0.00	106.26	276.53
2294.00	6.57	785.67	0.00	0.00	786.18	.52	.21	.08	782.40
835.	44.	734.	56.	19.	120.	25.	13.	8.	782.80
.13	2.34	6.10	2.22	.045	.032	.045	.043	779.10	179.41
.002043	80.	120.	80.	1	0	1	0.00	48.79	228.20

D/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2295.00	6.56	785.66	0.00	0.00	786.19	.52	.00	.00	782.40
835.	43.	737.	54.	19.	120.	25.	13.	8.	782.80
.13	2.27	6.12	2.15	.035	.024	.035	.043	779.10	179.40
.001158	1.	1.	1.	0	0	1	0.00	48.80	228.20

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.53	2.80	0.00	17.67	0.00	99.85	0.00	779.10	779.10

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
787.33	786.19	0.00	139.	695.	100.	784.80	784.90	30.00

U/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2299.00	7.46	786.56	0.00	0.00	786.82	.25	.63	0.00	782.40
835.	125.	643.	67.	128.	141.	41.	13.	8.	782.80
.13	.98	4.55	1.64	.040	.025	.040	.043	779.10	58.69
.000561	4.	4.	4.	2	0	2	0.00	172.60	231.29

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2300.00	7.44	786.54	0.00	0.00	786.84	.30	.00	.03	782.40
835.	97.	685.	53.	125.	141.	40.	13.	8.	782.80
.13	.78	4.87	1.32	.085	.040	.085	.043	779.10	58.90

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2400.00	4.32	787.12	787.12	0.00	788.02	.90	.36	0.00	783.90
835.	269.	439.	126.	95.	43.	43.	14.	8.	783.80
.13	2.85	10.14	2.96	.090	.042	.090	.043	782.80	131.89
.013622	90.	100.	110.	30	14	1	0.00	105.79	237.67

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

D/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2401.00	5.76	788.56	788.56	0.00	789.24	.68	.01	0.00	783.90
835.	286.	453.	96.	124.	52.	38.	14.	8.	783.80
.13	2.30	8.71	2.53	.075	.024	.075	.043	782.80	89.31
.010898	1.	1.	1.	30	9	1	-21.80	152.04	241.35

NORMAL BRIDGE,NRD=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

U/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2407.00	6.30	789.10	0.00	0.00	789.40	.30	.04	.11	783.90
835.	359.	364.	112.	187.	58.	55.	14.	8.	783.80
.13	1.92	6.29	2.03	.075	.024	.075	.043	782.80	73.69
.004925	6.	6.	6.	14	0	1	-21.80	172.63	246.32

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2408.00	6.23	789.03	0.00	0.00	789.47	.44	.00	.07	783.90

.13	1.46	7.05	1.77	.085	.040	.085	.043	782.80	75.45
.003527	1.	1.	1.	2	0	1	0.00	170.31	245.76
2448.00	7.09	789.19	0.00	0.00	789.64	.44	.16	.00	787.40
835.	236.	534.	65.	154.	81.	41.	14.	8.	787.40
.13	1.54	6.59	1.60	.085	.040	.085	.043	782.10	70.82
.005478	20.	40.	70.	3	0	1	0.00	176.42	247.24

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 CONCRETE & WOOD DAM, DS#4C SEC. F

2449.00	3.49	789.39	789.39	0.00	789.99	.60	.01	0.00	787.50
835.	342.	414.	79.	175.	48.	42.	14.	8.	787.70
.13	1.95	8.58	1.86	.070	.025	.070	.043	785.90	64.86
.005314	1.	1.	1.	30	9	1	0.00	184.28	249.14

U/S FACE OF CONCRETE & WOOD DAM, DS#4C SEC. F

2450.00	3.51	789.41	0.00	0.00	790.00	.59	.01	.00	787.50
835.	343.	413.	79.	176.	48.	42.	14.	8.	787.70
.13	1.95	8.55	1.86	.070	.025	.070	.043	785.90	64.70
.005267	1.	1.	1.	0	0	1	0.00	184.49	249.19

3470 ENCROACHMENT STATIONS= 65.0 249.0 TYPE= 1 TARGET= 184.000

2451.00	4.67	789.87	0.00	0.00	790.11	.23	.00	.11	787.60
835.	381.	336.	118.	236.	58.	67.	14.	8.	785.80
.13	1.62	5.79	1.75	.085	.040	.085	.043	785.20	65.00
.003847	1.	1.	1.	5	0	1	0.00	184.00	249.00
2576.00	4.33	790.40	0.00	0.00	790.78	.38	.60	.07	788.47
835.	346.	377.	112.	189.	53.	55.	15.	9.	786.67
.14	1.83	7.08	2.03	.085	.040	.085	.043	786.07	60.81
.006457	140.	125.	60.	2	0	1	0.00	189.61	250.43

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
2701.00	4.19	791.12	791.03	0.00	792.08	.96	1.01	.29	789.03

.15	2.15	9.51	3.70	.085	.040	.085	.043	786.93	215.24
.012491	140.	125.	60.	4	8	1	0.00	96.89	312.13
2826.00	4.81	792.61	0.00	0.00	793.10	.49	.87	.14	789.90
835.	122.	471.	242.	78.	66.	86.	16.	10.	787.90
.15	1.55	7.12	2.81	.080	.040	.080	.043	787.80	162.63
.005633	140.	125.	60.	3	0	1	0.00	159.09	321.71

D/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2827.00	4.98	792.78	0.00	0.00	793.14	.36	.00	.04	789.90
835.	149.	434.	253.	97.	69.	94.	16.	10.	787.90
.15	1.54	6.29	2.69	.040	.022	.040	.043	787.80	157.60
.001255	1.	1.	1.	2	0	1	0.00	166.82	324.42

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.51	3.05	0.00	13.37	0.00	45.45	0.00	787.80	787.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
800.70	793.14	0.00	568.	267.	45.	791.95	791.96	30.00

U/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2839.00	5.61	793.41	0.00	0.00	793.59	.18	.45	0.00	789.90
635.	216.	375.	244.	168.	79.	125.	16.	10.	787.90
.15	1.28	4.75	1.95	.040	.022	.040	.043	787.80	139.79
.000599	12.	12.	12.	2	0	6	0.00	194.21	334.00
2840.00	5.59	793.39	0.00	0.00	793.62	.23	.00	.02	789.90
835.	198.	410.	227.	165.	79.	124.	16.	10.	787.90
.15	1.20	5.21	1.83	.085	.040	.085	.043	787.80	140.45
.002398	1.	1.	1.	2	0	1	0.00	193.19	333.64
3000.00	4.59	793.79	0.00	0.00	794.44	.65	.61	.21	791.30
835.	98.	503.	234.	58.	63.	77.	17.	10.	789.30
.16	1.68	8.03	3.03	.085	.040	.085	.043	789.20	180.59
.007688	110.	160.	175.	2	0	1	0.00	137.76	318.35
3160.00	4.46	795.06	794.68	0.00	795.80	.74	1.32	.04	792.70
835.	88.	514.	234.	48.	61.	72.	18.	11.	790.70
.17	1.81	8.48	3.23	.085	.040	.085	.043	790.60	191.65
.008967	110.	160.	175.	4	11	1	0.00	124.72	316.37

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

3200.00	4.46	795.41	795.09	0.00	796.19	.78	.37	.02	793.05
835.	84.	525.	225.	48.	61.	72.	18.	11.	791.05
.17	1.75	8.68	3.12	.090	.040	.090	.042	790.95	192.02
.009412	30.	40.	45.	4	5	1	0.00	124.28	316.30
3240.00	4.58	795.88	795.43	0.00	796.57	.69	.35	.03	793.40
835.	94.	515.	226.	57.	62.	77.	18.	11.	791.40
.17	1.64	8.25	2.94	.090	.040	.090	.042	791.30	181.66
.008159	30.	40.	45.	4	5	1	0.00	136.50	318.16
3280.00	4.55	796.20	795.78	0.00	796.91	.71	.33	.01	793.75
835.	92.	517.	226.	56.	62.	76.	18.	11.	791.75
.17	1.65	8.32	2.97	.090	.040	.090	.042	791.65	183.44
.008361	30.	40.	45.	2	5	1	0.00	134.40	317.84
3320.00	4.52	796.52	0.00	0.00	797.28	.76	.34	.03	793.40
835.	120.	617.	98.	58.	77.	48.	18.	11.	793.40
.18	2.05	8.06	2.05	.092	.042	.092	.042	792.00	317.60
.008950	30.	40.	45.	0	0	1	0.00	87.99	405.60

D/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3321.00	4.73	796.73	0.00	0.00	797.33	.60	.01	.05	793.40
835.	136.	588.	111.	66.	81.	54.	18.	11.	793.40
.18	2.05	7.30	2.05	.060	.030	.060	.042	792.00	315.20
.003500	1.	1.	1.	3	0	1	0.00	92.36	407.56

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.32	3.04	0.00	8.00	0.00	54.00	0.00	792.60	792.00

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
805.35	797.84	0.00	146.	691.	54.	797.00	801.80	30.00

high FOB! 3.3 cause small area!

U/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3373.00	10.60	802.60	0.00	0.00	802.63	.03	5.30	0.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.86
.000106	52.	52.	52.	2	0	5	0.00	254.51	444.37
3374.00	10.60	802.60	0.00	0.00	802.63	.03	.00	.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.76
.000106	1.	1.	1.	0	0	1	0.00	254.60	444.38

Q TIME SLOPE	QLOB VLOB XLOBL	QCH VCH XLCH	QROB VROB XLOBR	ALOB XNL ITRIAL	ACH XNCH IDC	AROB XNR ICONT	VOL WTN CORAR	TWA ELMIN TOPWID	LEFT/RIGHT SSTA ENDST
3659.00	5.87	802.52	0.00	0.00	802.88	.36	.08	.17	799.75
835.	138.	681.	16.	93.	128.	18.	23.	12.	800.05
.21	1.48	5.30	.91	.095	.040	.095	.042	796.65	84.57
.002612	300.	285.	235.	2	0	1	0.00	79.80	164.36
3734.00	4.95	802.65	0.00	0.00	803.31	.66	.28	.15	800.80
835.	102.	726.	7.	59.	105.	7.	24.	12.	801.10
.21	1.73	6.94	1.00	.095	.040	.095	.042	797.70	88.34
.005879	75.	75.	60.	2	0	1	0.00	70.70	159.04
3804.00	4.31	803.01	802.89	0.00	804.09	1.08	.57	.21	801.80
835.	69.	764.	2.	37.	88.	2.	24.	12.	802.10
.21	1.86	8.70	.99	.095	.040	.095	.042	798.70	91.01
.011655	75.	70.	55.	4	15	1	0.00	64.29	155.29

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3839.00	4.20	803.40	803.40	0.00	804.58	1.18	.44	0.00	802.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	802.60
.21	1.86	9.07	.97	.095	.040	.095	.042	799.20	91.46
.013251	40.	35.	30.	2	5	1	0.00	63.20	154.65

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3874.00	4.20	803.90	803.90	0.00	805.08	1.19	.47	0.00	802.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.10
.21	1.86	9.08	.97	.095	.040	.095	.042	799.70	91.47
.013291	40.	35.	30.	0	5	1	0.00	63.17	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3909.00	4.20	804.40	804.40	0.00	805.58	1.19	.47	0.00	803.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.60
.21	1.86	9.08	.97	.095	.040	.095	.042	800.20	91.47
.013260	40.	35.	30.	0	5	1	0.00	63.18	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

570' U/S FROM U/S FACE OF DRAKE ROAD BRIDGE, VS#7 SEC. I

3944.00	4.20	804.90	804.90	0.00	806.08	1.19	.47	0.00	803.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	804.10
.22	1.86	9.08	.97	.095	.040	.095	.042	800.70	91.47
.013283	40.	35.	30.	0	5	1	0.00	63.18	154.64

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4394.00	6.09	809.59	0.00	0.00	810.41	.82	4.22	.11	806.70
835.	79.	591.	166.	46.	69.	72.	26.	13.	805.00
.23	1.69	8.54	2.30	.095	.042	.095	.042	803.50	267.91
.007220	400.	450.	400.	3	0	1	0.00	76.53	344.44

D/S FACE OF DRIVEWAY BRIDGE, BS#7A SEC. J

4395.00	6.05	809.55	0.00	0.00	810.46	.92	.00	.05	806.70
835.	71.	610.	153.	45.	69.	71.	26.	13.	805.00
.23	1.59	8.90	2.16	.055	.022	.055	.042	803.50	268.38
.002172	1.	1.	1.	2	0	1	0.00	75.76	344.15

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	3.04	0.00	10.87	0.00	51.08	0.00	803.50	803.50

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

816.06	811.85	0.00	406.	433.	51.	808.30	809.70	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS#7A SEC. J

4406.00	7.43	810.93	0.00	0.00	811.30	.36	.83	0.00	806.70
835.	120.	523.	193.	100.	87.	130.	26.	13.	805.00
.23	1.20	6.03	1.49	.055	.022	.055	.042	803.50	252.97
.000731	11.	11.	11.	2	0	5	0.00	135.11	388.07
4407.00	7.53	811.03	0.00	0.00	811.32	.29	.00	.02	806.70
835.	134.	485.	216.	104.	88.	138.	26.	13.	805.00
.23	1.29	5.52	1.57	.075	.035	.075	.042	803.50	251.87
.001517	1.	1.	1.	2	0	1	0.00	143.24	395.12

3301 HV CHANGED MORE THAN HVINS

210' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#8 SEC. K

4617.00	5.00	811.30	810.82	0.00	812.25	.94	.60	.33	810.90
835.	3.	723.	110.	5.	87.	43.	27.	14.	809.10
.24	.58	8.32	2.58	.075	.035	.075	.042	806.30	146.36
.007197	210.	210.	210.	4	14	1	0.00	70.45	216.80
4917.00	5.82	813.22	0.00	0.00	813.77	.55	1.40	.12	812.00
835.	31.	680.	124.	33.	104.	60.	28.	15.	809.80
.26	.93	6.51	2.09	.075	.035	.075	.041	807.40	91.37
.003276	300.	300.	300.	2	0	1	0.00	108.50	199.86

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

810' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#9 SEC. L

5217.00	5.86	814.36	0.00	0.00	815.02	.66	1.20	.06	813.30
835.	20.	709.	106.	22.	101.	60.	29.	15.	810.60
.27	.92	7.05	1.77	.075	.040	.095	.041	808.50	87.10
.004991	300.	300.	300.	3	0	1	0.00	100.76	187.86
5292.00	5.54	814.72	0.00	0.00	815.54	.83	.44	.08	813.98
835.	7.	729.	98.	11.	94.	48.	30.	15.	811.23
.27	.69	7.78	2.04	.095	.042	.095	.041	809.18	99.95
.007367	60.	75.	60.	2	0	1	0.00	83.36	183.30
5367.00	5.39	815.24	814.75	0.00	816.19	.95	.59	.06	814.35
835.	14.	743.	78.	14.	90.	38.	30.	16.	812.45
.28	.98	8.27	2.06	.095	.042	.095	.041	809.85	126.54
.008733	60.	75.	60.	4	11	1	0.00	83.10	209.64
5442.00	5.35	815.88	815.43	0.00	816.86	.98	.65	.02	815.03

.28	.96	8.39	2.08	.095	.042	.095	.041	810.53	127.67
.009101	60.	75.	60.	4	5	1	0.00	81.69	209.36
5517.00	5.36	816.56	816.27	0.00	817.53	.97	.66	.00	815.40
835.	29.	744.	62.	24.	89.	34.	30.	16.	814.30
.28	1.20	8.36	1.86	.095	.042	.095	.041	811.20	147.17
.008928	60.	75.	60.	4	8	1	0.00	91.15	238.32
5592.00	5.33	817.21	816.95	0.00	818.19	.98	.66	.01	816.08
835.	28.	746.	62.	23.	89.	33.	31.	16.	814.98
.28	1.20	8.41	1.86	.095	.042	.095	.041	811.88	148.25
.009081	60.	75.	60.	4	5	1	0.00	90.00	238.25
5629.00	5.32	817.54	817.29	0.00	818.53	1.00	.33	.01	816.42
835.	27.	747.	61.	23.	88.	33.	31.	16.	815.32
.29	1.20	8.45	1.87	.095	.042	.095	.041	812.22	149.20
.009219	30.	37.	30.	4	5	1	0.00	89.00	238.20
5667.00	5.32	817.87	817.81	0.00	818.91	1.04	.36	.02	816.55
835.	47.	746.	43.	33.	86.	26.	31.	16.	816.25
.29	1.41	8.66	1.65	.095	.042	.095	.041	812.55	169.72
.010068	30.	38.	30.	4	8	1	0.00	97.45	267.17

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5742.00	5.70	818.93	0.00	0.00	819.64	.71	.63	.10	817.23
835.	79.	693.	63.	55.	94.	37.	31.	16.	816.93
.29	1.45	7.39	1.70	.095	.045	.095	.041	813.23	156.48
.007483	60.	75.	60.	4	0	1	0.00	111.73	268.21

70' D/S FROM D/S FACE OF FOOT BRIDGE N, VS#9A SEC. M

5817.00	5.58	819.48	819.17	0.00	820.27	.79	.59	.04	817.60
835.	88.	701.	45.	63.	90.	29.	31.	16.	818.10
.29	1.40	7.77	1.56	.095	.045	.095	.041	813.90	182.92
.008743	60.	75.	60.	4	11	1	0.00	114.14	297.06

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

5887.00	6.37	820.57	0.00	0.00	820.75	.17	.29	.19	815.10
835.	157.	640.	38.	88.	174.	25.	32.	17.	815.40
.30	1.80	3.68	1.49	.085	.051	.085	.041	814.20	212.48
.002402	70.	70.	70.	2	0	1	0.00	97.29	309.77

1490 NH CARD USED

D/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5888.00	6.36	820.56	0.00	0.00	820.77	.21	.00	.02	815.10
835.	120.	687.	28.	87.	173.	25.	32.	17.	815.40

.000969	1.	1.	1.	2	0	1	0.00	97.11	309.73

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.44	3.08	0.00	17.00	0.00	71.40	0.00	814.20	814.20

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
823.62	820.77	0.00	393.	442.	71.	819.50	819.60	30.00

U/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5893.00	7.09	821.29	0.00	0.00	821.42	.13	.65	0.00	815.10
835.	135.	666.	34.	113.	212.	36.	32.	17.	815.40
.30	1.19	3.14	.93	.070	.031	.072	.041	814.20	207.01
.000589	5.	5.	5.	2	0	4	0.00	115.61	322.62

1490 WH CARD USED

5894.00	7.17	821.37	0.00	0.00	821.43	.07	.00	.02	815.10
835.	149.	647.	39.	116.	288.	38.	32.	17.	815.40
.30	1.28	2.25	1.02	.075	.058	.075	.041	814.20	206.40
.000766	1.	1.	1.	2	0	1	0.00	117.91	324.31

5984.00	6.59	821.44	0.00	0.00	821.53	.09	.08	.01	815.75
835.	137.	665.	33.	95.	257.	27.	33.	17.	816.05
.31	1.44	2.59	1.20	.075	.057	.075	.041	814.85	210.89
.001133	90.	90.	90.	1	0	1	0.00	100.91	311.80

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6074.00	6.01	821.51	0.00	0.00	821.71	.20	.13	.06	816.60
835.	399.	413.	23.	267.	84.	18.	33.	17.	816.20
.32	1.49	4.90	1.28	.080	.040	.080	.041	815.50	144.30
.001763	90.	90.	90.	1	0	1	0.00	125.49	269.80

D/S FACE OF FOOT BRIDGE, BS#10A SEC. O

6075.00	5.97	821.47	0.00	0.00	821.75	.28	.00	.04	816.60
835.	353.	463.	19.	263.	84.	18.	34.	17.	816.20
.32	1.34	5.53	1.08	.075	.030	.080	.041	815.50	144.67
.001277	1.	1.	1.	2	0	1	0.00	125.08	269.74

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.73	3.08	0.00	12.98	0.00	58.40	0.00	815.50	815.50

819.5
814.2
5.3
+17.0
A=90.1 ft²
w/ Multiple
BAREA used
[illegible]
[illegible]
[illegible]
[illegible]

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
826.96	821.75	0.00	532.	308.	58.	820.00	820.70	30.00

U/S FACE OF FOOT BRIDGE, BS#10A SEC. 0

6080.00	6.54	822.04	0.00	0.00	822.22	.18	.47	0.00	816.60
835.	387.	429.	20.	323.	92.	22.	34.	17.	816.20
.32	1.20	4.65	.91	.075	.030	.080	.041	815.50	139.62
.000794	5.	5.	5.	2	0	4	0.00	130.84	270.47
6081.00	6.61	822.11	0.00	0.00	822.24	.13	.00	.02	816.60
835.	434.	378.	22.	330.	93.	22.	34.	17.	816.20
.32	1.32	4.06	1.01	.090	.045	.095	.041	815.50	139.01
.001342	1.	1.	1.	2	0	1	0.00	131.54	270.56
6296.00	5.61	822.41	0.00	0.00	822.71	.30	.39	.08	817.90
835.	361.	453.	21.	226.	78.	15.	35.	18.	817.50
.33	1.59	5.79	1.36	.090	.043	.095	.041	816.80	147.87
.003140	185.	215.	185.	2	0	1	0.00	121.41	269.29
6368.00	5.39	822.62	0.00	0.00	822.98	.36	.23	.03	818.33
835.	348.	466.	21.	205.	75.	14.	36.	18.	817.93
.34	1.70	6.23	1.46	.090	.043	.095	.041	817.23	152.66
.003849	62.	72.	62.	2	0	1	0.00	116.34	269.00
6404.00	5.30	822.74	0.00	0.00	823.13	.38	.14	.01	818.54
835.	343.	472.	20.	196.	73.	14.	36.	18.	818.14
.34	1.75	6.43	1.51	.090	.043	.095	.042	817.44	154.79
.004206	31.	36.	31.	0	0	1	0.00	114.09	268.88

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6440.00	5.32	822.99	822.99	0.00	823.71	.71	.21	0.00	822.17
835.	214.	620.	1.	133.	80.	1.	36.	18.	822.07
.34	1.61	7.80	.88	.090	.043	.095	.042	817.67	67.92
.009714	31.	36.	31.	30	5	1	0.00	164.39	232.31

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

6511.00	5.79	823.89	0.00	0.00	824.27	.38	.46	.10	822.60
835.	296.	537.	2.	199.	89.	2.	36.	18.	822.50
.35	1.49	6.04	.83	.090	.043	.095	.042	818.10	66.36
.005031	62.	71.	62.	3	0	1	0.00	167.11	233.48

2355' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#11 SEC. P

6726.00	5.61	825.01	0.00	0.00	825.49	.48	1.16	.05	823.90
835.	267.	567.	2.	173.	85.	2.	38.	19.	823.80
.36	1.54	6.66	.85	.090	.043	.095	.042	819.40	66.98
.006460	185.	215.	185.	3	0	1	0.00	166.04	233.02

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6876.00	5.37	826.54	826.54	0.00	827.21	.67	1.17	0.00	825.67
835.	223.	611.	1.	139.	80.	1.	39.	19.	825.57
.36	1.60	7.59	.88	.090	.043	.095	.042	821.17	67.77
.009070	165.	150.	135.	3	10	1	0.00	164.66	232.43
7026.00	5.10	828.03	827.94	0.00	828.82	.78	1.55	.06	825.93
625.	163.	462.	0.	88.	56.	0.	39.	20.	829.43
.37	1.85	8.19	0.00	.090	.040	.085	.042	822.93	233.88
.011693	165.	150.	135.	4	11	1	0.00	101.57	335.46

1905' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#12 SEC. Q

7176.00	5.13	829.83	829.77	0.00	830.59	.76	1.77	.01	827.70
625.	166.	459.	0.	90.	57.	0.	40.	20.	831.20
.38	1.83	8.09	0.00	.090	.040	.085	.042	824.70	232.92
.011328	165.	150.	135.	5	5	1	0.00	102.58	335.50
7396.00	6.07	832.07	0.00	0.00	832.42	.35	1.70	.12	827.70
625.	249.	206.	170.	119.	28.	56.	40.	21.	827.70
.39	2.10	7.43	3.04	.090	.045	.085	.042	826.00	227.93
.007139	130.	220.	230.	1	0	1	0.00	96.20	324.13

D/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7397.00	6.15	832.15	0.00	0.00	832.44	.29	.00	.02	827.70
625.	265.	193.	168.	125.	28.	58.	40.	21.	827.70
.39	2.12	6.85	2.89	.055	.030	.055	.042	826.00	226.13
.002645	1.	1.	1.	2	0	1	0.00	98.32	324.44

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.92	2.92	0.00	3.93	0.00	19.63	0.00	826.00	826.00

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	CORAH	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
862.37	839.82	0.00	450.	176.	20.	831.00	833.30	30.00

U/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7415.00	8.49	834.49	0.00	0.00	834.53	.04	2.09	0.00	827.70
625.	357.	123.	144.	358.	40.	119.	41.	21.	827.70
.39	1.00	3.10	1.21	.065	.032	.065	.042	826.00	159.62
.000386	18.	18.	18.	2	0	8	0.00	173.10	332.72
7416.00	8.49	834.49	0.00	0.00	834.54	.05	.00	.00	827.70
625.	353.	129.	143.	359.	40.	119.	41.	21.	827.70
.39	.99	3.23	1.20	.090	.042	.090	.042	826.00	159.56
.000724	1.	1.	1.	0	0	1	0.00	173.16	332.72
7536.00	7.04	834.59	0.00	0.00	834.74	.14	.15	.05	829.25
625.	298.	167.	160.	197.	33.	79.	42.	21.	829.25
.41	1.51	5.14	2.02	.090	.045	.090	.042	827.55	207.46
.002749	125.	120.	110.	2	0	1	0.00	120.13	327.60
7656.00	5.89	834.99	0.00	0.00	835.42	.43	.54	.14	830.80
625.	244.	218.	164.	107.	27.	53.	42.	21.	830.80
.41	2.27	8.11	3.12	.090	.045	.090	.042	829.10	231.44
.008862	125.	120.	110.	2	0	1	0.00	92.11	323.54
7776.00	5.12	835.87	0.00	0.00	835.98	.11	.47	.09	831.35
625.	239.	206.	180.	166.	49.	129.	43.	22.	831.35
.43	1.44	4.18	1.39	.090	.045	.090	.042	830.75	35.07
.002219	125.	120.	110.	2	0	1	0.00	146.42	181.49
7896.00	3.90	836.20	0.00	0.00	836.66	.46	.50	.17	832.90
625.	184.	283.	158.	83.	37.	62.	44.	22.	832.90
.44	2.22	7.63	2.55	.090	.045	.090	.042	832.30	38.35
.010769	125.	120.	110.	2	0	1	0.00	120.77	159.13
8016.00	3.74	837.59	0.00	0.00	838.18	.59	1.46	.06	834.45
625.	171.	299.	155.	72.	35.	55.	44.	22.	834.45
.44	2.38	8.45	2.83	.090	.045	.090	.042	833.85	38.81
.014041	125.	120.	110.	3	0	1	0.00	117.23	156.04
8076.00	3.85	838.48	0.00	0.00	838.98	.50	.77	.03	835.23
625.	179.	288.	157.	79.	37.	59.	45.	23.	835.23
.44	2.27	7.90	2.64	.090	.045	.090	.042	834.63	38.51

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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

  8136.00      3.67    839.07    839.05      0.00    839.73       .66       .68       .08    836.00
     625.      164.      308.      153.       67.      35.       52.       45.       23.    836.00
      .45      2.44      8.86      2.92      .075      .037      .075      .042    835.40     38.98
 .010701       65.       60.       55.         4        11         1      0.00    115.86    154.64

1490 NH CARD USED
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=30 MIN ELTRD=  837.50 MAX ELLC=  837.40

        D/S FACE OF ROCK & CONCRETE DAM, DS#13                                  SEC. S

  8137.00      4.86    840.26    840.26      0.00    840.74       .48       .01      0.00    839.50
     625.      214.      300.      111.       73.      43.       22.       45.       23.    837.50
      .45      2.91      6.98      4.98      .067      .031      .034      .042    835.40     35.77
 .015255        1.        1.        1.         30        13         1     -3.60    114.85    150.63

NORMAL BRIDGE,NRD=30 MIN ELTRD=  837.50 MAX ELLC=  837.40

  8139.00      5.13    840.53      0.00      0.00    840.82       .29       .02       .06    839.50
     625.      247.      259.      119.       92.      46.       33.       45.       23.    837.50
      .45      2.69      5.66      3.60      .065      .031      .038      .042    835.40     35.05
 .009283        2.        2.        2.          5         0         1     -3.60    125.00    160.05

1490 NH CARD USED
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

  8140.00      4.48    840.58    840.58      0.00    841.27       .69       .01      0.00    839.50
     625.      206.      369.       50.       95.      43.       30.       45.       23.    839.50
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.005699	1.	1.	1.	30	9	1	0.00	126.75	161.68

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

U/S FACE OF DAM & BRIDGE SECTION, DS#13 SEC. S

8141.00	4.92	841.02	840.63	0.00	841.38	.35	.00	.10	839.50
625.	241.	311.	72.	127.	48.	54.	45.	23.	839.50
.45	1.90	6.52	1.33	.062	.025	.057	.042	836.10	33.72
.002923	1.	1.	1.	10	5	1	0.00	143.74	177.46

3470 ENCROACHMENT STATIONS= .0 176.0 TYPE= 1 TARGET= 175.999

8142.00	7.33	841.43	0.00	0.00	841.47	.05	.00	.09	835.00
625.	177.	198.	251.	231.	72.	266.	45.	23.	835.50
.45	.77	2.75	.94	.085	.035	.085	.042	834.10	32.63
.000388	1.	1.	1.	2	0	1	0.00	143.37	176.00

3301 HV CHANGED MORE THAN HVINS

8442.00	6.09	841.39	0.00	0.00	841.99	.60	.24	.28	835.50
625.	65.	481.	79.	60.	68.	71.	47.	24.	835.80
.46	1.08	7.07	1.12	.085	.035	.085	.042	835.30	43.30
.002594	300.	300.	300.	3	0	1	0.00	132.67	175.97

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

D/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8443.00	6.09	841.39	841.34	0.00	842.00	.61	.00	.00	835.50
625.	88.	423.	113.	49.	57.	56.	48.	24.	835.80
.46	1.81	7.48	2.03	.050	.020	.050	.042	835.30	43.25
.005249	1.	1.	1.	0	9	1	-37.70	132.76	176.01

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

U/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8459.00	6.56	841.86	0.00	0.00	842.15	.29	.06	.09	835.50
625.	121.	348.	156.	78.	62.	88.	48.	24.	835.80
.46	1.55	5.62	1.77	.050	.020	.050	.042	835.30	29.84
.002628	16.	16.	16.	7	0	1	-37.70	157.15	186.99

8460.00	6.54	841.84	0.00	0.00	842.17	.33	.00	.02	835.50
625.	95.	413.	117.	89.	73.	103.	48.	24.	835.80
.46	1.06	5.63	1.14	.070	.035	.070	.042	835.30	29.65
.001489	1.	1.	1.	1	0	1	0.00	157.05	186.90

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3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=       75.000
  8660.00      6.06    842.26      0.00      0.00    842.52      .26       .33       .02    836.80
     625.      220.      259.      146.      118.      44.      67.       49.       24.     836.40
      .48      1.86      5.90      2.19      .070      .035     .070      .041    836.20    100.00
  .001849      200.      200.      200.         0         0        1      0.00     75.00    175.00

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


3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=       75.000

        D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#15                    SEC. U

  8661.00      6.02    842.22      0.00      0.00    842.57      .34       .00       .04    836.80
     625.      202.      288.      135.      116.      44.      66.       49.       24.     836.40
      .48      1.74      6.60      2.04      .055      .023     .055      .041    836.20    100.00
  .001008        1.        1.        1.         2         0        1      0.00     75.00    175.00


SPECIAL BRIDGE

SH  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.65      3.06      0.00      6.47      0.00     21.36      0.00    837.80    836.20

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QNEIR     QPR       BAREA     ELLC      ELTRD     CLASS
  864.16    844.17    0.00      438.      187.      21.       841.20    842.10    30.00


3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=       75.000

        U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#15                    SEC. U

  8675.00      6.21    844.01      0.00      0.00    844.19      .19      1.63      0.00    838.80
     625.      270.      229.      126.      180.      43.      76.       49.       24.     838.80
      .48      1.50      5.34      1.65      .055      .020     .055      .041    837.80    100.00
  .000530       14.       14.       14.         2         0        7      0.00     75.00    175.00


3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=       75.000
  8676.00      6.29    844.09      0.00      0.00    844.21      .13       .00       .02    838.80
     625.      294.      194.      137.      184.      43.      78.       49.       24.     838.80
      .48      1.60      4.47      1.76      .065      .030     .065      .041    837.80    100.00
  .000819        1.        1.        1.         2         0        1      0.00     75.00    175.00


3470 ENCROACHMENT STATIONS=      100.0      230.0  TYPE=      1  TARGET=     -100.000
  8677.00      6.05    843.85      0.00      0.00    844.45      .59       .00       .23    838.80
     625.      234.      339.       52.      101.      42.      24.       49.       24.     838.80
      .48      2.32      8.13      2.16      .060      .032     .060      .041    837.80    100.00
  .003258        1.        1.        1.         2         0        1      0.00     74.60    174.60
```

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS= 100.0 230.0 TYPE= 1 TARGET= -100.000

8678.00	5.20	844.00	844.00	0.00	845.32	1.32	.00	0.00	838.80
625.	162.	428.	35.	108.	39.	26.	49.	24.	838.90
.48	1.50	11.08	1.35	.055	.013	.055	.041	838.80	100.00
.001058	1.	1.	1.	30	15	1	0.00	75.98	175.98

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

3470 ENCROACHMENT STATIONS= 100.0 230.0 TYPE= 1 TARGET= -100.000

8679.00	5.22	844.02	844.01	0.00	845.32	1.30	.00	.01	838.80
625.	163.	427.	35.	109.	39.	26.	49.	24.	838.90
.48	1.49	11.02	1.34	.055	.013	.055	.041	838.80	100.00
.001040	1.	1.	1.	0	5	1	0.00	76.17	176.17

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 100.0 177.0 TYPE= 1 TARGET= 77.000

8680.00	7.68	845.48	0.00	0.00	845.66	.18	.00	.34	837.80
625.	282.	271.	72.	185.	56.	55.	49.	24.	838.80
.48	1.53	4.85	1.30	.060	.030	.060	.041	837.80	100.00
.000676	1.	1.	1.	4	0	1	0.00	77.00	177.00

3470 ENCROACHMENT STATIONS= 98.0 117.0 TYPE= 1 TARGET= 19.000

9060.00	7.84	845.74	0.00	0.00	846.15	.41	.38	.12	99999.00
625.	0.	625.	0.	0.	121.	0.	51.	25.	99999.00
.50	0.00	5.16	0.00	.060	.030	.060	.041	837.90	98.00
.001607	380.	380.	380.	2	0	1	0.00	19.00	117.00

3470 ENCROACHMENT STATIONS= 101.0 115.0 TYPE= 1 TARGET= 14.000

9070.00	7.77	845.67	0.00	0.00	846.27	.60	.02	.09	100000.00
625.	0.	625.	0.	0.	101.	0.	51.	25.	100000.00
.50	0.00	6.19	0.00	.060	.030	.060	.041	837.90	101.00
.002698	10.	10.	10.	2	0	1	0.00	14.00	115.00

3470 ENCROACHMENT STATIONS= 103.5 114.5 TYPE= 1 TARGET= 11.000

9076.00	7.62	845.52	0.00	0.00	846.46	.94	.02	.17	100000.00
625.	0.	625.	0.	0.	80.	0.	51.	25.	100000.00

```
 .005325      6.      6.      6.       2       0       1    0.00   11.00  114.50


3301 HV CHANGED MORE THAN HVINS

 9080.00     7.06  844.96    0.00    0.00  847.09    2.13     .03     .59  861.30
    625.       0.    625.      0.      0.     53.      0.     51.     25.   861.30
     .50     0.00   11.70    0.00    .060    .030    .060    .041  837.90   95.50
 .014236       4.      4.      4.       3       0       1    0.00    9.00  104.50


NORMAL BRIDGE,NRD= 9 MIN ELTRD=  861.30 MAX ELLC=  848.50

        D/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                    SEC. V

 9081.00     7.04  844.94    0.00    0.00  847.14    2.20     .02     .04  861.30
    625.       0.    625.      0.      0.     53.      0.     51.     25.   861.30
     .50     0.00   11.90    0.00    .020    .032    .020    .041  837.90   95.50
 .016549       1.      1.      1.       2       0       1    -.70    9.00  104.50


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


NORMAL BRIDGE,NRD= 9 MIN ELTRD=  861.30 MAX ELLC=  849.00

        U/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                    SEC. V

 9196.00     9.15  847.55    0.00    0.00  848.84    1.29    1.43     .27  861.30
    625.       0.    625.      0.      0.     69.      0.     51.     25.   861.30
     .51     0.00    9.10    0.00    .020    .032    .020    .041  838.40   95.50
 .009645     115.    115.    115.       3       0       1   -3.55    9.00  104.50


 9197.00     9.42  847.82    0.00    0.00  848.91    1.09     .01     .06  861.30
    625.       0.    625.      0.      0.     75.      0.     51.     25.   861.30
     .51     0.00    8.37    0.00    .060    .032    .060    .041  838.40   95.50
 .007119       1.      1.      1.       2       0       1    0.00    9.00  104.50


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      100.0     115.0  TYPE=      1  TARGET=      15.000
 9200.00     9.93  848.83    0.00    0.00  849.14     .32     .01     .23100000.00
    625.       0.    625.      0.      0.    138.      0.     51.     25. 100000.00
     .51     0.00    4.52    0.00    .060    .032    .060    .041  838.90   100.00
 .001338       3.      3.      3.       2       0       1    0.00   15.00   115.00


1490 NH CARD USED

3470 ENCROACHMENT STATIONS=      120.0     270.0  TYPE=      1  TARGET=    -120.000
```

K=2.4/2

2.52

455' U/S FROM U/S FACE OF HALSTEAD ROAD BRIDGE, VS#17 SEC. W

9650.00	7.61	849.51	0.00	0.00	849.55	.05	.32	.08	845.20
625.	293.	257.	76.	307.	106.	85.	54.	25.	844.30
.59	.95	2.42	.89	.090	.045	.090	.040	841.90	120.00
.000465	400.	450.	500.	3	0	1	0.00	109.78	229.78

3470 ENCROACHMENT STATIONS= 125.0 245.0 TYPE= 1 TARGET= 120.000

9765.00	6.35	849.55	0.00	0.00	849.65	.10	.07	.03	846.50
625.	254.	301.	70.	203.	86.	57.	55.	26.	845.60
.60	1.26	3.49	1.22	.090	.045	.090	.040	843.20	125.00
.001270	60.	115.	150.	2	0	1	0.00	101.77	226.77

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 213.6 302.6 TYPE= 1 TARGET= 100.000

D/S FACE OF DRIVEWAY BRIDGE, CONCRETE @ I-BEAM BRIDGE, BS#18 SEC. X

9880.00	4.95	849.45	849.37	0.00	850.42	.97	.34	.43	844.50
625.	272.	343.	10.	51.	36.	5.	55.	26.	848.30
.60	5.32	9.53	2.02	.095	.050	.095	.041	844.50	236.21
.035123	60.	115.	150.	4	15	1	0.00	54.43	290.64

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.89	3.04	0.00	9.44	0.00	22.65	0.00	845.90	844.50

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
871.80	851.82	0.00	441.	184.	23.	847.00	849.20	30.00

3470 ENCROACHMENT STATIONS= 218.1 298.2 TYPE= 1 TARGET= 90.000

U/S FACE OF DRIVEWAY BRIDGE, BS#18 SEC. X

9899.00	5.30	851.20	0.00	0.00	851.39	.19	.97	0.00	849.20
625.	250.	279.	96.	94.	65.	35.	55.	26.	846.90
.60	2.65	4.26	2.74	.080	.085	.080	.041	845.90	218.05
.008393	19.	19.	19.	2	0	6	0.00	80.10	298.15

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 9900.00     5.24   851.14     0.00     0.00   851.46      .32      .01      .07   848.20
    625.      187.     366.      72.      91.      65.      34.      55.      26.   846.90
     .60     2.04     5.67     2.12     .080     .050     .080     .041   845.90   218.05
 .005228       1.       1.       1.        2        0        1     0.00    80.10   298.15


3470 ENCROACHMENT STATIONS=     298.0     338.0  TYPE=     1  TARGET=     40.000

        50' D/S FROM D/S FACE OF I-696 CULVERT, VS#19                  SEC. Y

 10000.00     4.59   851.49     0.00     0.00   851.88      .39      .38      .04   849.90
    605.       11.     585.       9.       7.     114.       6.      56.      26.   849.50
     .61     1.44     5.11     1.68     .070     .035     .070     .041   846.90   298.00
 .002787     125.     100.      75.        2        0        1     0.00    40.00   338.00


 10050.00     7.25   851.55     0.00     0.00   852.14      .59      .16      .10   862.30
    605.        0.     605.       0.       0.      98.       0.      56.      26.   862.30
     .61     0.00     6.17     0.00     .070     .035     .070     .041   844.30   142.50
 .003499      50.      50.      50.        2        0        1     0.00    15.00   157.50


NORMAL BRIDGE,NRD=13 MIN ELTRD=  862.30 MAX ELLC=  853.50

        D/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20                  SEC. Z

 10051.00     7.22   851.52     0.00     0.00   852.17      .64      .00      .03   862.30
    605.        0.     605.       0.       0.      94.       0.      56.      26.   862.30
     .61     0.00     6.44     0.00     .020     .018     .020     .041   844.30   142.50
 .001062       1.       1.       1.        2        0        1    -3.67    15.00   157.50


3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=13 MIN ELTRD=  862.60 MAX ELLC=  855.60

 10289.00     5.60   851.60     0.00     0.00   852.83     1.24      .37      .30   862.60
    605.        0.     605.       0.       0.      68.       0.      56.      26.   862.60
     .62     0.00     8.92     0.00     .020     .018     .020     .040   846.00   142.50
 .002509     238.     238.     238.        2        0        1    -1.04    15.00   157.50

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


NORMAL BRIDGE,NRD=17 MIN ELTRD=  862.60 MAX ELLC=  855.20

 10290.00     6.09   852.09     0.00     0.00   852.95      .86      .00      .11   862.60
    605.        0.     605.       0.       0.      81.       0.      56.      26.   862.60
     .62     0.00     7.44     0.00     .020     .031     .020     .040   846.00   142.40
 .005453       1.       1.       1.        3        0        1    -3.69    15.20   157.60


NORMAL BRIDGE,NRD=17 MIN ELTRD=  866.00 MAX ELLC=  856.40
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U/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20 SEC. Z

10459.00	5.83	853.03	0.00	0.00	853.96	.94	.97	.04	866.00
605.	0.	605.	0.	0.	78.	0.	57.	26.	866.00
.62	0.00	7.76	0.00	.020	.031	.020	.040	847.20	142.40
.006112	169.	169.	169.	2	0	1	-3.26	15.20	157.60
10460.00	5.99	853.19	0.00	0.00	854.00	.81	.01	.04	866.00
605.	0.	605.	0.	0.	84.	0.	57.	26.	866.00
.62	0.00	7.22	0.00	.060	.032	.060	.040	847.20	142.40
.004615	1.	1.	1.	2	0	1	0.00	15.20	157.60

800' U/S FROM U/S FACE OF HOWARD ROAD BRIDGE, VS#21 SEC. AA

11260.00	6.53	856.23	0.00	0.00	856.61	.38	2.47	.13	852.90
605.	71.	493.	41.	53.	91.	56.	59.	27.	854.80
.67	1.33	5.42	.73	.095	.035	.095	.040	849.70	176.08
.002221	780.	800.	800.	3	0	1	0.00	100.22	276.30

3301 HV CHANGED MORE THAN HVINS

11385.00	5.07	856.37	856.17	0.00	857.42	1.06	.47	.34	854.10
605.	44.	547.	14.	23.	63.	15.	60.	28.	855.50
.68	1.90	8.66	.92	.095	.035	.095	.039	851.30	172.93
.007819	130.	125.	125.	4	15	1	0.00	65.98	238.91

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11510.00	4.88	857.78	857.78	0.00	858.93	1.15	1.03	0.00	855.40
605.	35.	522.	48.	19.	57.	32.	60.	28.	856.20
.68	1.87	9.23	1.52	.095	.035	.095	.039	852.90	163.91
.008713	130.	125.	125.	3	5	1	0.00	62.65	226.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11635.00	4.74	859.24	859.24	0.00	860.37	1.13	1.13	0.00	856.60
605.	32.	475.	99.	16.	50.	47.	60.	28.	856.90
.68	1.91	9.57	2.09	.095	.035	.095	.039	854.50	155.02

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11760.00	4.51	860.61	360.61	0.00	861.75	1.15	1.31	0.00	857.90
605.	19.	414.	172.	10.	41.	57.	61.	28.	857.60
.69	1.90	10.21	3.04	.085	.035	.085	.039	856.10	147.19
.011775	130.	125.	125.	2	11	1	0.00	51.40	198.59

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 CONCRETE WEIR, DS#22 SEC. AB

11761.00	3.69	861.29	861.29	0.00	862.53	1.24	.01	0.00	857.90
605.	31.	365.	209.	21.	32.	77.	61.	28.	857.60
.69	1.45	11.32	2.70	.095	.025	.085	.039	857.60	139.82
.006618	1.	1.	1.	30	15	1	0.00	60.71	200.53

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

U/S FACE OF CONCRETE WEIR, 1300' U/S FROM HOWARD RD, DS#22 SEC. AB

11762.00	3.70	861.30	861.29	0.00	862.54	1.24	.01	.00	857.90
605.	31.	365.	209.	21.	32.	78.	61.	28.	857.60
.69	1.44	11.29	2.70	.095	.025	.085	.039	857.60	139.75
.006569	1.	1.	1.	0	5	1	0.00	60.00	200.55

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 140.0 200.0 TYPE= 1 TARGET= 60.000

11763.00	6.38	862.48	0.00	0.00	862.81	.33	.00	.27	857.90
605.	61.	299.	245.	45.	48.	115.	61.	28.	857.60
.69	1.36	6.22	2.14	.095	.035	.085	.039	856.10	140.00

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3470 ENCROACHMENT STATIONS=          .0      350.0  TYPE=      1  TARGET=      349.999
 12293.00      7.62    863.22      0.00      0.00    863.31      .09       .43       .07    862.90
     605.        1.      416.      188.        6.      148.     151.       64.       29.    860.00
      .75       .19      2.81      1.24      .045      .030     .045      .039    855.60    224.77
  .000395      400.      530.      540.         3         0        1      0.00    125.23    350.00

NORMAL BRIDGE,NRD=13 MIN ELTRD=  859.70 MAX ELLC=  861.90

3470 ENCROACHMENT STATIONS=          .0      350.0  TYPE=      1  TARGET=      349.999
          D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#23                    SEC. AC
 12294.00      7.64    863.24      0.00      0.00    863.32      .08       .00       .00    862.90
     605.        2.      297.      306.        7.      121.     151.       64.       29.    860.00
      .75       .32      2.46      2.03      .045      .025     .045      .039    855.60    223.63
  .001062        1.        1.        1.         1         0        1    -28.50    126.37    350.00

NORMAL BRIDGE,NRD=13 MIN ELTRD=  859.70 MAX ELLC=  861.90

3470 ENCROACHMENT STATIONS=          .0      350.0  TYPE=      1  TARGET=      349.999
          U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#23                    SEC. AC
 12310.00      7.66    863.26      0.00      0.00    863.33      .08       .02       .00    862.90
     605.        3.      296.      306.        8.      121.     152.       64.       29.    860.00
      .75       .33      2.44      2.02      .045      .025     .045      .039    855.60    221.27
  .001040       16.       16.       16.         1         0        1    -28.50    128.73    350.00

3470 ENCROACHMENT STATIONS=          .0      350.0  TYPE=      1  TARGET=      349.999
 12311.00      7.65    863.25      0.00      0.00    863.34      .09       .00       .01    862.90
     605.        2.      414.      189.        8.      148.     153.       64.       29.    860.00
      .75       .20      2.79      1.24      .045      .030     .045      .039    855.60    221.14
  .000386        1.        1.        1.         0         0        1      0.00    128.86    350.00

 12641.00      6.27    863.37      0.00      0.00    863.58      .21       .18       .06    859.90
     605.       70.      506.       29.       63.      126.      29.       66.       30.    859.90
      .78      1.10      4.03       .99      .045      .030     .045      .039    857.10    177.50
  .000799      330.      330.      330.         2         0        1      0.00    111.02    288.52

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=14 MIN ELTRD=  861.40 MAX ELLC=  859.90

          D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#24                    SEC. AD
 12642.00      6.25    863.35      0.00      0.00    863.60      .25       .00       .02    861.90
```

.78	3.26	4.56	2.80	.045	.030	.045	.039	857.10	177.68
.008817	1.	1.	1.	1	0	1	-53.00	110.72	288.40

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.40 MAX ELLC= 859.90

U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#24 SEC. AD

12652.00	6.39	863.49	0.00	0.00	863.69	.20	.07	.01	861.90
605.	188.	342.	75.	65.	83.	30.	66.	30.	859.90
.78	2.88	4.12	2.50	.045	.030	.045	.039	857.10	174.35
.006344	10.	10.	10.	2	0	1	-53.00	116.33	290.67
12653.00	6.41	863.51	0.00	0.00	863.70	.18	.00	.00	859.90
605.	73.	502.	31.	71.	133.	33.	66.	30.	859.90
.78	1.02	3.76	.92	.045	.030	.045	.039	857.10	173.99
.000646	1.	1.	1.	1	0	1	0.00	116.93	290.92
12803.00	7.11	863.61	0.00	0.00	863.87	.26	.13	.04	860.10
590.	62.	434.	94.	55.	92.	75.	67.	31.	861.50
.79	1.12	4.74	1.25	.045	.030	.045	.039	856.50	122.93
.001347	150.	150.	150.	3	0	1	0.00	150.25	273.18

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.50 MAX ELLC= 861.10

D/S FACE OF WOOD BRIDGE 3 IN GOLF COURSE, BS#25 SEC. AE

12804.00	7.29	863.79	0.00	0.00	863.91	.13	.00	.04	860.10
590.	115.	296.	179.	67.	83.	89.	67.	31.	861.50
.79	1.71	3.56	2.02	.045	.032	.045	.039	856.50	115.81
.003129	1.	1.	1.	2	0	1	-11.75	163.60	279.41

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.50 MAX ELLC= 861.00

U/S FACE OF WOOD BRIDGE 3 IN GOLF COURSE, BS#25 SEC. AE

12814.00	8.42	863.82	0.00	0.00	863.94	.12	.03	.00	860.10
590.	118.	290.	183.	68.	82.	90.	67.	31.	861.50
.79	1.72	3.52	2.02	.045	.032	.045	.039	855.40	114.95
.003092	10.	10.	10.	0	0	1	-17.45	165.22	280.17

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12815.00	8.39	863.79	0.00	0.00	863.98	.20	.00	.04	860.10
590.	72.	414.	105.	67.	99.	88.	67.	31.	861.50
.79	1.07	4.19	1.19	.045	.032	.045	.039	855.40	115.99
.001084	1.	1.	1.	2	0	1	0.00	163.26	279.25

3470 ENCROACHMENT STATIONS= 502.0 507.0 TYPE= 1 TARGET= 87.000

110' D/S FROM D/S FACE OF 12 MILE ROAD BRIDGE, VS#26 SEC. AF

13125.00	7.19	864.19	0.00	0.00	864.35	.16	.35	.01	860.70
590.	112.	476.	2.	66.	137.	4.	68.	31.	863.60
.82	1.69	3.48	.51	.070	.040	.045	.039	857.00	502.00
.001203	310.	310.	310.	2	0	1	0.00	63.07	565.07

3470 ENCROACHMENT STATIONS= 524.0 546.0 TYPE= 1 TARGET= 22.000

13215.00	6.18	864.18	0.00	0.00	864.75	.58	.20	.21	100000.00
590.	0.	590.	0.	0.	97.	0.	69.	31.	100000.00
.82	0.00	6.09	0.00	.070	.040	.045	.039	858.00	524.00
.005176	90.	90.	90.	2	0	1	0.00	22.00	546.00

3470 ENCROACHMENT STATIONS= 526.0 543.0 TYPE= 1 TARGET= 17.000

13225.00	6.01	864.11	0.00	0.00	864.95	.84	.06	.13	100000.00
590.	0.	590.	0.	0.	80.	0.	69.	31.	100000.00
.82	0.00	7.34	0.00	.070	.040	.045	.039	858.10	526.00
.007968	10.	10.	10.	2	0	1	0.00	17.00	543.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 864.50 ELREA= 864.50

13235.00	5.82	864.02	0.00	0.00	865.17	1.15	.07	.15	858.20
590.	0.	590.	0.	0.	69.	0.	69.	31.	858.60
.83	0.00	8.59	0.00	.065	.037	.045	.039	858.20	485.00
.001687	10.	10.	10.	2	0	1	0.00	12.00	498.89

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 864.50 ELREA= 864.50

D/S FACE OF 12 MILE ROAD BRIDGE, BS#27 SEC. AG

13236.00	5.83	864.03	0.00	0.00	865.17	1.14	.00	.00	858.20
590.	0.	590.	0.	0.	69.	0.	69.	31.	858.60
.83	0.00	8.58	0.00	.020	.018	.020	.039	858.20	485.00
.001341	1.	1.	1.	0	0	1	0.00	12.00	498.89

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.59	3.00	0.00	11.63	0.00	69.80	0.00	858.20	858.20

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 865.172 ELLC= 865.300 PCWSE= 864.028 ELTRD= 867.400

NORMAL BRIDGE,NRD=11 MIN ELTRD= 867.40 MAX ELLC= 865.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 867.40 ELREA= 867.40

U/S FACE OF 12 MILE ROAD BRIDGE, BS#27 SEC. AG

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*********************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       FIS-CITY OF FARMINGTON HILLS,  5670-03-1   PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       SEELEY DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       2.        0.        0.  0.000000      0.00       0.0       0.   757.450    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     1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000
NC      .090      .090      .042      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   625.000  1330.000  1810.000  3410.000     0.000     0.000     0.000     0.000     0.000

X1    28.000    13.000   153.000   183.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   770.000     0.000   760.000    42.000   759.000    75.000   757.000   135.000   756.000   153.000
GR   754.000   165.000   754.000   171.000   756.000   183.000   757.000   207.000   759.000   255.000
GR   760.000   291.000   763.000   315.000   768.500   363.000     0.000     0.000     0.000     0.000
NC      .100      .100      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT     4.000   300.000   625.000   835.000  1620.000     0.000     0.000     0.000     0.000     0.000

X1     0.000    90.000   143.500   171.700   250.000   250.000   250.000     0.000     0.000     0.000
GR   771.800     0.000   769.900     4.900   768.100     9.800   766.300    14.800   764.700    19.700
GR   763.800    24.700   762.900    29.600   762.000    34.600   761.200    39.500   761.100    44.500
GR   761.000    49.400   760.900    54.400   760.800    59.300   760.600    64.300   760.500    69.200
GR   760.300    74.200   760.200    79.100   760.000    84.100   759.900    89.000   759.700    94.000
GR   759.600    98.900   759.400   103.900   759.200   108.800   759.100   113.800   758.900   118.700
GR   758.800   123.700   758.600   128.600   758.400   133.600   758.100   138.500   757.900   143.500
GR   757.600   144.400   757.400   145.300   757.100   146.300   756.900   147.200   756.800   148.200
GR   756.600   149.100   756.500   150.000   756.400   151.000   756.300   151.900   756.100   152.900
GR   756.000   153.800   755.900   154.800   755.900   155.700   755.900   156.600   755.900   157.600
GR   755.900   158.500   755.900   159.500   755.900   160.400   756.000   161.300   756.200   162.300
GR   756.300   163.200   756.500   164.200   756.700   165.100   756.900   166.100   757.100   167.000
GR   757.300   167.900   757.500   168.900   757.700   169.800   757.900   170.800   758.100   171.700
GR   758.200   176.700   758.400   181.700   758.600   186.700   758.800   191.600   759.000   196.600
GR   759.200   201.600   759.400   206.600   759.600   211.600   759.800   216.500   760.000   221.500
GR   760.200   226.500   760.400   231.500   760.500   236.500   760.700   241.500   760.800   246.400
GR   760.900   251.400   761.200   256.400   761.500   261.400   762.300   266.400   763.100   271.400
GR   763.900   276.300   764.700   281.300   765.400   286.300   766.100   291.300   766.900   296.300
GR   767.600   301.300   768.400   306.200   769.100   311.200   769.900   316.200   770.600   321.200

X1   250.000    90.000   134.000   160.500   250.000   250.000   250.000     0.000     0.000     0.000
GR   773.600     0.000   771.200     4.600   768.800     9.200   766.500    13.800   764.500    18.400
GR   764.000    23.100   763.400    27.700   762.900    32.300   762.400    36.900   762.400    41.500
GR   762.400    46.200   762.300    50.800   762.200    55.400   762.100    60.000   762.000    64.600
GR   761.800    69.300   761.700    73.900   761.600    78.500   761.400    83.100   761.300    87.700
GR   761.200    92.400   761.000    97.000   760.900   101.600   760.800   106.200   760.700   110.800
GR   760.500   115.500   760.400   120.100   760.200   124.700   760.000   129.300   759.800   134.000
GR   759.500   134.800   759.100   135.700   758.800   136.600   758.500   137.500   758.400   138.400
GR   758.300   139.300   758.200   140.100   758.100   141.000   758.100   141.900   758.000   142.800
GR   757.900   143.700   757.800   144.600   757.800   145.400   757.800   146.300   757.800   147.200
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GR	758.200	152.500	758.400	153.400	758.700	154.300	758.900	155.100	759.100	156.000
GR	759.300	156.900	759.500	157.800	759.700	158.700	759.900	159.600	760.200	160.500
GR	760.300	164.400	760.400	168.400	760.600	172.300	760.700	176.300	760.900	180.300
GR	761.000	184.200	761.100	188.200	761.300	192.200	761.400	196.100	761.600	200.100
GR	761.700	204.100	761.800	208.000	761.900	212.000	762.000	216.000	762.100	219.900
GR	762.200	223.900	762.500	227.900	763.100	231.800	763.900	235.800	764.700	239.800
GR	765.500	243.700	766.400	247.700	767.200	251.700	768.000	255.600	768.800	259.600
GR	769.600	263.600	770.400	267.500	771.200	271.500	772.000	275.500	772.800	279.500
X1	500.000	90.000	124.500	149.200	250.000	250.000	250.000	0.000	0.000	0.000
GR	775.400	0.000	772.400	4.200	769.500	8.500	766.600	12.800	764.300	17.100
GR	764.100	21.400	764.000	25.700	763.800	30.000	763.600	34.300	763.700	38.600
GR	763.800	42.900	763.700	47.200	763.600	51.500	763.500	55.800	763.400	60.100
GR	763.300	64.300	763.200	68.600	763.100	72.900	763.000	77.200	762.900	81.500
GR	762.800	85.800	762.700	90.100	762.600	94.400	762.500	98.700	762.400	103.000
GR	762.300	107.300	762.100	111.600	762.000	115.900	761.900	120.200	761.700	124.500
GR	761.300	125.300	760.900	126.100	760.500	126.900	760.100	127.800	760.000	128.600
GR	760.000	129.400	759.900	130.200	759.900	131.100	759.900	131.900	759.800	132.700
GR	759.800	133.500	759.700	134.300	759.700	135.200	759.700	136.000	759.700	136.800
GR	759.700	137.600	759.700	138.500	759.700	139.300	759.800	140.100	759.900	140.900
GR	760.100	141.800	760.400	142.600	760.600	143.400	760.800	144.200	761.100	145.100
GR	761.300	145.900	761.500	146.700	761.800	147.500	762.000	148.400	762.300	149.200
GR	762.300	152.200	762.400	155.100	762.500	158.000	762.600	161.000	762.700	163.900
GR	762.800	166.900	762.800	169.800	762.900	172.800	763.000	175.700	763.100	178.700
GR	763.200	181.600	763.300	184.600	763.300	187.500	763.400	190.500	763.500	193.400
GR	763.500	196.400	763.900	199.300	764.600	202.300	765.500	205.200	766.300	208.200
GR	767.200	211.100	768.100	214.100	768.900	217.000	769.800	220.000	770.600	222.900
GR	771.500	225.900	772.300	228.800	773.200	231.800	774.000	234.700	774.900	237.700
X1	750.000	10.000	115.000	138.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	777.200	0.000	764.100	15.000	765.300	40.000	763.700	115.000	761.700	118.000
GR	761.700	124.000	761.700	130.000	764.400	138.000	764.900	170.000	777.100	196.000
X1	790.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.510	0.000
X1	830.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	870.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	990.000	90.000	131.200	153.500	120.000	120.000	120.000	0.000	0.000	0.000
GR	781.000	0.000	777.800	4.500	774.600	9.000	771.400	13.500	768.900	18.100
GR	768.700	22.600	768.800	27.100	768.900	31.600	769.100	36.200	769.200	40.700
GR	769.300	45.200	769.200	49.700	769.100	54.300	769.100	58.800	769.000	63.300
GR	768.900	67.800	768.800	72.400	768.700	76.900	768.600	81.400	768.500	85.900
GR	768.400	90.500	768.300	95.000	768.200	99.500	768.200	104.000	768.100	108.600
GR	768.000	113.100	767.900	117.600	767.700	122.100	767.600	126.700	767.500	131.200
GR	766.900	131.900	766.400	132.700	765.800	133.400	765.300	134.200	765.200	134.900
GR	765.000	135.600	764.800	136.400	764.800	137.100	764.800	137.900	764.800	138.600
GR	764.800	139.400	764.900	140.100	764.900	140.800	764.900	141.600	765.000	142.300
GR	765.000	143.100	765.000	143.800	765.000	144.500	765.000	145.300	765.000	146.000
GR	765.200	146.800	765.400	147.500	765.700	148.300	765.900	149.000	766.200	149.700
GR	766.500	150.500	766.700	151.200	767.000	152.000	767.300	152.700	767.500	153.500
GR	767.600	155.400	767.600	157.300	767.700	159.300	767.700	161.200	767.700	163.200
GR	767.800	165.100	767.800	167.100	767.900	169.000	767.900	171.000	767.900	172.900
GR	768.000	174.900	768.000	176.800	768.100	178.800	768.100	180.700	768.200	182.700
GR	768.200	184.600	768.500	186.600	769.200	188.500	769.900	190.500	770.600	192.400
GR	771.300	194.400	772.000	196.300	773.100	198.300	774.100	200.200	775.200	202.200
GR	776.200	204.100	777.200	206.100	778.300	208.000	779.300	210.000	780.400	212.000
NC	.100	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1110.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	1.550	0.000
X1	1150.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.520	0.000
X1	1190.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.510	0.000

X1	1230.000	90.000	147.500	169.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	784.800	0.000	781.900	5.000	779.000	10.100	776.100	15.200	773.700	20.300
GR	773.100	25.400	773.200	30.500	773.200	35.600	773.300	40.600	773.300	45.700
GR	773.400	50.800	773.300	55.900	773.200	61.000	773.100	66.100	773.000	71.200
GR	772.900	76.200	772.800	81.300	772.700	86.400	772.600	91.500	772.500	96.600
GR	772.400	101.700	772.300	106.800	772.200	111.800	772.200	116.900	772.100	122.000
GR	772.000	127.100	771.800	132.200	771.700	137.300	771.500	142.400	771.300	147.500
GR	770.700	148.200	770.100	148.900	769.600	149.600	769.000	150.300	768.700	151.000
GR	768.300	151.700	768.000	152.500	767.900	153.200	767.900	153.900	768.000	154.600
GR	768.000	155.300	768.100	156.000	768.100	156.800	768.200	157.500	768.200	158.200
GR	768.300	158.900	768.300	159.600	768.300	160.300	768.300	161.100	768.300	161.800
GR	768.400	162.500	768.600	163.200	768.800	163.900	769.000	164.600	769.300	165.400
GR	769.600	166.100	769.900	166.800	770.100	167.500	770.400	168.200	770.700	169.000
GR	770.800	170.900	770.800	172.900	770.900	174.800	770.900	176.800	771.000	178.800
GR	771.000	180.700	771.100	182.700	771.100	184.700	771.200	186.600	771.200	188.600
GR	771.300	190.600	771.300	192.500	771.400	194.500	771.500	196.500	771.500	198.400
GR	771.600	200.400	771.800	202.400	772.300	204.300	772.800	206.300	773.300	208.300
GR	773.800	210.200	774.300	212.200	775.400	214.200	776.600	216.100	777.800	218.100
GR	779.000	220.100	780.200	222.000	781.300	224.000	782.500	226.000	783.700	228.000
X1	1290.000	90.000	151.500	172.800	60.000	60.000	60.000	0.000	0.000	0.000
GR	785.700	0.000	782.800	5.200	780.000	10.400	777.200	15.600	774.800	20.900
GR	774.200	26.100	774.200	31.300	774.200	36.500	774.300	41.800	774.300	47.000
GR	774.300	52.200	774.300	57.400	774.100	62.700	774.000	67.900	773.900	73.100
GR	773.800	78.300	773.700	83.600	773.600	88.800	773.500	94.000	773.400	99.200
GR	773.300	104.500	773.200	109.700	773.200	114.900	773.100	120.100	773.000	125.400
GR	772.900	130.600	772.700	135.800	772.600	141.000	772.400	146.300	772.200	151.500
GR	771.600	152.200	771.000	152.900	770.400	153.600	769.900	154.300	769.500	155.100
GR	769.100	155.800	768.700	156.500	768.600	157.200	768.700	157.900	768.700	158.600
GR	768.800	159.300	768.900	160.000	768.900	160.700	769.000	161.500	769.000	162.200
GR	769.000	162.900	769.000	163.600	769.000	164.300	769.100	165.000	769.100	165.700
GR	769.200	166.400	769.300	167.100	769.500	167.800	769.800	168.600	770.100	169.300
GR	770.300	170.000	770.600	170.700	770.900	171.400	771.200	172.100	771.500	172.800
GR	771.500	174.800	771.600	176.800	771.600	178.700	771.700	180.700	771.800	182.700
GR	771.800	184.600	771.900	186.600	771.900	188.600	772.000	190.600	772.000	192.500
GR	772.100	194.500	772.100	196.500	772.200	198.400	772.300	200.400	772.300	202.400
GR	772.400	204.400	772.600	206.300	773.000	208.300	773.500	210.300	773.900	212.200
GR	774.400	214.200	774.800	216.200	776.000	218.200	777.200	220.100	778.500	222.100
GR	779.700	224.100	780.900	226.000	782.100	228.000	783.300	230.000	784.500	232.000
X1	1350.000	90.000	155.600	176.700	60.000	60.000	60.000	0.000	0.000	0.000
GR	786.600	0.000	783.900	5.300	781.100	10.700	778.400	16.000	776.000	21.400
GR	775.300	26.800	775.300	32.100	775.300	37.500	775.400	42.900	775.400	48.200
GR	775.300	53.600	775.300	59.000	775.100	64.300	775.000	69.700	774.900	75.100
GR	774.800	80.400	774.700	85.800	774.600	91.200	774.500	96.500	774.400	101.900
GR	774.300	107.300	774.200	112.600	774.200	118.000	774.100	123.400	774.000	128.700
GR	773.900	134.100	773.700	139.500	773.600	144.800	773.400	150.200	773.200	155.600
GR	772.500	156.300	771.900	157.000	771.400	157.700	770.800	158.400	770.400	159.100
GR	769.900	159.800	769.500	160.500	769.400	161.200	769.500	161.900	769.500	162.600
GR	769.600	163.300	769.700	164.000	769.700	164.700	769.800	165.400	769.800	166.100
GR	769.900	166.800	769.900	167.500	769.900	168.200	769.900	168.900	769.900	169.600
GR	770.000	170.400	770.100	171.100	770.300	171.800	770.600	172.500	770.900	173.200
GR	771.100	173.900	771.400	174.600	771.700	175.300	772.000	176.000	772.300	176.700
GR	772.300	178.700	772.400	180.600	772.500	182.600	772.500	184.600	772.600	186.600
GR	772.600	188.500	772.700	190.500	772.700	192.500	772.800	194.500	772.800	196.400
GR	772.900	198.400	773.000	200.400	773.000	202.400	773.100	204.300	773.200	206.300
GR	773.200	208.300	773.400	210.300	773.800	212.200	774.200	214.200	774.600	216.200
GR	775.000	218.200	775.400	220.100	776.600	222.100	777.900	224.100	779.100	226.100
GR	780.400	228.000	781.600	230.000	782.800	232.000	784.100	234.000	785.300	236.000
X1	1410.000	90.000	159.600	180.600	60.000	60.000	60.000	0.000	0.000	0.000
GR	787.500	0.000	784.900	5.500	782.200	11.000	779.600	16.500	777.200	22.000
GR	776.400	27.500	776.400	33.000	776.400	38.500	776.400	44.000	776.400	49.500
GR	776.300	55.000	776.300	60.500	776.100	66.000	776.100	71.500	775.900	77.000
GR	775.800	82.500	775.700	88.000	775.600	93.500	775.500	99.000	775.400	104.500

GR	774.900	137.600	774.800	143.100	774.600	148.600	774.400	154.100	774.100	159.600
GR	773.500	160.300	772.900	161.000	772.300	161.700	771.700	162.400	771.300	163.100
GR	770.800	163.800	770.300	164.500	770.200	165.200	770.300	165.900	770.300	166.600
GR	770.400	167.300	770.500	168.000	770.500	168.700	770.600	169.400	770.600	170.100
GR	770.700	170.800	770.700	171.500	770.700	172.200	770.700	172.900	770.700	173.600
GR	770.800	174.300	770.900	175.000	771.100	175.700	771.400	176.400	771.700	177.100
GR	771.900	177.800	772.200	178.500	772.500	179.200	772.800	179.900	773.000	180.600
GR	773.100	182.600	773.200	184.500	773.300	186.500	773.300	188.500	773.400	190.500
GR	773.400	192.400	773.500	194.400	773.500	196.400	773.600	198.400	773.600	200.400
GR	773.700	202.300	773.800	204.300	773.800	206.300	773.900	208.300	774.000	210.300
GR	774.000	212.200	774.200	214.200	774.600	216.200	774.900	218.200	775.200	220.200
GR	775.600	222.100	775.900	224.100	777.200	226.100	778.500	228.100	779.800	230.100
GR	781.100	232.000	782.400	234.000	783.600	236.000	784.900	238.000	786.100	240.000
X1	1470.000	90.000	163.700	184.500	60.000	60.000	60.000	0.000	0.000	0.000
GR	788.500	0.000	786.000	5.600	783.400	11.200	780.800	16.900	778.400	22.500
GR	777.600	28.200	777.500	33.800	777.500	39.500	777.500	45.100	777.500	50.800
GR	777.400	56.400	777.400	62.100	777.200	67.700	777.100	73.400	777.000	79.000
GR	776.900	84.600	776.800	90.300	776.700	95.900	776.600	101.600	776.500	107.200
GR	776.400	112.900	776.300	118.500	776.200	124.200	776.100	129.800	776.000	135.500
GR	775.900	141.100	775.800	146.800	775.600	152.400	775.400	158.100	775.100	163.700
GR	774.500	164.400	773.900	165.100	773.300	165.800	772.700	166.500	772.200	167.200
GR	771.700	167.800	771.200	168.500	771.000	169.200	771.100	169.900	771.100	170.600
GR	771.200	171.300	771.300	172.000	771.400	172.700	771.500	173.400	771.500	174.100
GR	771.500	174.800	771.500	175.500	771.500	176.100	771.500	176.800	771.600	177.500
GR	771.600	178.200	771.700	178.900	771.900	179.600	772.200	180.300	772.500	181.000
GR	772.700	181.700	773.000	182.400	773.300	183.100	773.600	183.800	773.900	184.500
GR	773.900	186.400	774.000	188.400	774.100	190.400	774.100	192.400	774.200	194.400
GR	774.300	196.300	774.300	198.300	774.400	200.300	774.500	202.300	774.500	204.300
GR	774.600	206.300	774.700	208.200	774.700	210.200	774.800	212.200	774.900	214.200
GR	774.900	216.200	775.100	218.200	775.400	220.100	775.700	222.100	775.900	224.100
GR	776.200	226.100	776.500	228.100	777.800	230.100	779.100	232.000	780.500	234.000
GR	781.800	236.000	783.100	238.000	784.400	240.000	785.700	242.000	787.000	244.000
X1	1530.000	90.000	167.700	188.300	60.000	60.000	60.000	0.000	0.000	0.000
GR	789.400	0.000	787.000	5.700	784.400	11.500	781.900	17.300	779.600	23.100
GR	778.700	28.900	778.600	34.700	778.500	40.400	778.500	46.200	778.500	52.000
GR	778.400	57.800	778.400	63.600	778.200	69.400	778.100	75.200	778.000	80.900
GR	777.900	86.700	777.800	92.500	777.700	98.300	777.600	104.100	777.500	109.900
GR	777.400	115.700	777.300	121.400	777.200	127.200	777.100	133.000	777.000	138.800
GR	776.900	144.600	776.800	150.400	776.500	156.200	776.300	161.900	776.000	167.700
GR	775.400	168.400	774.800	169.100	774.200	169.800	773.600	170.500	773.100	171.200
GR	772.500	171.800	771.900	172.500	771.700	173.200	771.800	173.900	771.900	174.600
GR	772.000	175.300	772.100	176.000	772.200	176.700	772.300	177.300	772.300	178.000
GR	772.300	178.700	772.300	179.400	772.300	180.100	772.300	180.800	772.400	181.500
GR	772.400	182.100	772.500	182.800	772.700	183.500	772.900	184.200	773.200	184.900
GR	773.500	185.600	773.800	186.300	774.100	187.000	774.400	187.600	774.600	188.300
GR	774.700	190.300	774.800	192.300	774.900	194.300	774.900	196.300	775.000	198.300
GR	775.100	200.200	775.100	202.200	775.200	204.200	775.300	206.200	775.300	208.200
GR	775.400	210.200	775.500	212.200	775.500	214.200	775.600	216.100	775.700	218.100
GR	775.700	220.100	775.900	222.100	776.100	224.100	776.400	226.100	776.500	228.100
GR	776.800	230.100	777.000	232.000	778.400	234.000	779.800	236.000	781.200	238.000
GR	782.500	240.000	783.800	242.000	785.100	244.000	786.500	246.000	787.800	248.000
X1	1590.000	90.000	171.800	192.200	60.000	60.000	60.000	0.000	0.000	0.000
GR	790.400	0.000	788.000	5.900	785.500	11.800	783.100	17.700	780.800	23.700
GR	779.800	29.600	779.700	35.500	779.600	41.400	779.600	47.400	779.500	53.300
GR	779.400	59.200	779.400	65.100	779.200	71.100	779.100	77.000	779.000	82.900
GR	778.900	88.800	778.800	94.800	778.700	100.700	778.600	106.600	778.500	112.500
GR	778.400	118.500	778.300	124.400	778.200	130.300	778.100	136.200	778.000	142.200
GR	777.900	148.100	777.800	154.000	777.500	159.900	777.300	165.900	777.000	171.800
GR	776.400	172.500	775.800	173.200	775.100	173.800	774.500	174.500	773.900	175.200
GR	773.300	175.900	772.800	176.600	772.500	177.200	772.600	177.900	772.700	178.600
GR	772.800	179.300	772.900	180.000	773.000	180.600	773.100	181.300	773.100	182.000
GR	773.200	182.700	773.200	183.400	773.200	184.000	773.200	184.700	773.200	185.400

GR	774.300	189.500	774.600	190.200	774.900	190.800	775.200	191.500	775.500	192.200
GR	775.500	194.200	775.600	196.200	775.700	198.200	775.700	200.200	775.800	202.200
GR	775.900	204.100	775.900	206.100	776.000	208.100	776.100	210.100	776.100	212.100
GR	776.200	214.100	776.300	216.100	776.400	218.100	776.400	220.100	776.500	222.100
GR	776.600	224.100	776.700	226.100	776.900	228.000	777.100	230.000	777.200	232.000
GR	777.400	234.000	777.600	236.000	779.000	238.000	780.400	240.000	781.800	242.000
GR	783.200	244.000	784.500	246.000	785.900	248.000	787.300	250.000	788.700	252.000
X1	1650.000	90.000	175.900	196.100	60.000	60.000	60.000	0.000	0.000	0.000
GR	791.400	0.000	789.000	6.000	786.700	12.100	784.300	18.100	782.000	24.200
GR	780.900	30.300	780.800	36.300	780.700	42.400	780.600	48.500	780.600	54.500
GR	780.500	60.600	780.400	66.700	780.300	72.700	780.200	78.800	780.100	84.900
GR	780.000	90.900	779.800	97.000	779.700	103.100	779.600	109.100	779.500	115.200
GR	779.400	121.300	779.300	127.300	779.200	133.400	779.100	139.500	779.000	145.500
GR	778.900	151.600	778.800	157.700	778.500	163.700	778.300	169.800	778.000	175.900
GR	777.300	176.500	776.700	177.200	776.100	177.900	775.400	178.600	774.800	179.200
GR	774.200	179.900	773.600	180.600	773.300	181.300	773.400	181.900	773.500	182.600
GR	773.600	183.300	773.700	184.000	773.800	184.600	773.900	185.300	774.000	186.000
GR	774.000	186.600	774.000	187.300	774.000	188.000	774.000	188.700	774.000	189.300
GR	774.000	190.000	774.100	190.700	774.200	191.400	774.500	192.000	774.800	192.700
GR	775.100	193.400	775.400	194.100	775.700	194.700	776.000	195.400	776.300	196.100
GR	776.300	198.100	776.400	200.100	776.500	202.100	776.500	204.100	776.600	206.100
GR	776.700	208.000	776.800	210.000	776.800	212.000	776.900	214.000	777.000	216.000
GR	777.100	218.000	777.100	220.000	777.200	222.000	777.300	224.000	777.400	226.000
GR	777.400	228.000	777.500	230.000	777.700	232.000	777.800	234.000	777.900	236.000
GR	778.000	238.000	778.200	240.000	779.600	242.000	781.000	244.000	782.500	246.000
GR	783.900	248.000	785.300	250.000	786.700	252.000	788.100	254.000	789.500	256.000
X1	1710.000	11.000	180.000	200.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	792.400	0.000	782.100	28.000	781.600	60.000	779.900	160.000	779.000	180.000
GR	774.100	185.000	774.900	190.000	774.900	195.000	777.100	200.000	778.800	244.000
GR	790.400	260.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2160.000	12.000	180.000	195.000	500.000	450.000	450.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	782.600	782.500	0.000
GR	795.100	0.000	789.100	80.000	785.700	170.000	779.700	180.000	778.400	184.000
GR	779.000	188.000	778.500	193.000	779.900	193.500	780.700	195.000	783.100	208.000
GR	784.500	273.000	793.900	305.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2161.000	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	782.600	782.500	0.000
SB	0.000	1.460	3.030	0.000	12.940	0.000	59.530	0.000	778.400	778.400
X1	2173.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	783.000	784.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	784.400	784.400	0.000
BT	8.000	0.000	795.100	0.000	80.000	789.100	0.000	180.000	784.700	0.000
BT	180.000	784.700	783.000	195.000	784.400	782.900	195.000	784.400	0.000	273.000
BT	784.500	0.000	305.000	793.900	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2174.000	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	784.400	784.400	0.000
NC	.045	.045	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2294.000	17.000	190.000	213.000	80.000	80.000	120.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	784.000	784.000	0.000
GR	795.100	0.000	786.800	57.000	785.700	65.000	785.700	174.000	786.500	177.000
GR	783.000	187.000	782.400	190.000	782.400	190.000	779.900	197.000	779.100	202.000
GR	779.300	206.000	782.800	213.000	782.800	213.000	782.900	216.000	785.600	228.000
GR	795.000	260.000	795.400	267.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.024	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	784.000	784.000	0.000
NC	.040	.040	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.530	2.800	0.000	17.670	0.000	99.850	0.000	779.100	779.100
X1	2299.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	784.800	784.900	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	784.900	784.900	0.000
BT	12.000	177.000	786.500	0.000	187.000	786.000	0.000	190.000	785.900	0.000
BT	190.000	786.200	782.400	190.000	786.200	784.800	213.000	786.100	784.700	213.000
BT	786.100	782.800	213.000	785.900	0.000	216.000	784.900	0.000	228.000	785.600
BT	0.000	260.000	795.000	0.000	267.000	795.400	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2300.000	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	784.900	784.900	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2400.000	16.000	200.000	211.000	90.000	110.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	786.000	786.000	0.000
GR	791.600	0.000	788.200	100.000	786.000	165.000	783.900	200.000	783.900	200.000
GR	782.900	203.000	782.800	206.000	783.100	208.000	783.800	211.000	783.800	211.000
GR	786.300	230.000	787.000	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.075	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2401.000	16.000	200.000	211.000	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	786.000	786.000	0.000
BT	13.000	0.000	791.600	0.000	100.000	788.200	0.000	197.000	786.500	0.000
BT	200.000	787.500	783.900	200.000	787.500	786.900	211.000	787.500	786.800	211.000
BT	787.500	783.800	216.000	786.300	0.000	237.000	788.100	0.000	252.000	789.700
BT	0.000	262.000	791.600	0.000	306.000	791.600	0.000	338.000	798.600	0.000
GR	791.600	0.000	788.200	100.000	786.500	197.000	783.900	200.000	783.900	200.000
GR	782.900	203.000	782.800	206.000	783.100	208.000	783.800	211.000	783.800	211.000
GR	786.300	216.000	788.100	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2407.000	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	786.300	786.300	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2408.000	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	786.300	786.300	0.000
X1	2448.000	13.000	200.000	214.000	20.000	70.000	40.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.400	200.000	783.500	202.000	783.100	210.000
GR	782.100	214.000	787.400	214.000	787.400	219.000	788.100	237.000	789.700	252.000
GR	791.600	262.000	791.600	306.000	798.600	338.000	0.000	0.000	0.000	0.000
NC	.070	.070	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2449.000	11.000	200.000	214.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.500	200.000	786.000	200.000	785.900	214.000
GR	787.700	214.000	788.100	237.000	789.700	252.000	791.600	262.000	791.600	306.000
GR	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2450.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2451.000	12.000	200.000	214.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	65.000	0.000	249.000	0.000	0.000	0.000	0.000
GR	791.600	0.000	788.200	100.000	787.600	200.000	785.700	203.000	785.200	209.000
GR	785.800	214.000	787.300	217.000	788.100	237.000	789.700	252.000	791.600	262.000
GR	791.600	306.000	798.600	338.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2576.000	0.000	0.000	0.000	140.000	60.000	125.000	0.000	.870	0.000

X1	2701.000	14.000	263.000	279.000	140.000	60.000	125.000	0.000	-.870	0.000
GR	803.700	0.000	796.100	63.000	792.600	163.000	791.700	240.000	790.200	258.000
GR	789.900	263.000	788.700	268.000	787.800	275.000	787.900	279.000	787.900	283.000
GR	791.200	300.000	795.300	363.000	800.100	381.000	805.600	388.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2826.000	0.000	0.000	0.000	140.000	60.000	125.000	0.000	.870	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	791.000	791.000	0.000
NC	.040	.040	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2827.000	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	791.000	791.000	0.000
SB	0.000	1.510	3.050	0.000	13.370	0.000	45.450	0.000	787.800	787.800
X1	2839.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	791.950	791.960	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	791.900	791.900	0.000
BT	11.000	0.000	803.700	0.000	63.000	796.100	0.000	163.000	792.600	0.000
BT	262.000	792.200	0.000	263.000	791.900	0.000	263.000	791.900	790.800	279.000
BT	792.300	791.200	279.000	792.300	0.000	363.000	795.300	0.000	381.000	800.100
BT	0.000	388.000	805.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2840.000	14.000	263.000	279.000	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	791.900	791.900	0.000
GR	803.700	0.000	796.100	63.000	792.600	163.000	791.700	240.000	790.200	258.000
GR	789.900	263.000	788.700	268.000	787.800	275.000	787.900	279.000	787.900	283.000
GR	791.200	300.000	795.300	363.000	800.100	381.000	805.600	388.000	0.000	0.000
X1	3000.000	0.000	0.000	0.000	110.000	175.000	160.000	0.000	1.400	0.000
X1	3160.000	0.000	0.000	0.000	110.000	175.000	160.000	0.000	1.400	0.000
NC	.090	.090	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3200.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
X1	3240.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
X1	3280.000	0.000	0.000	0.000	30.000	45.000	40.000	0.000	.350	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
NC	.092	.092	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3320.000	15.000	355.000	375.000	30.000	45.000	40.000	0.000	0.000	0.000
GR	808.100	0.000	806.800	65.000	803.200	165.000	800.800	265.000	798.000	300.000
GR	793.400	355.000	793.000	360.000	792.000	362.000	792.000	365.000	792.000	368.000
GR	793.000	370.000	793.400	375.000	798.000	420.000	806.500	465.000	808.300	490.000
NC	.060	.060	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
X1	3321.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.100	.100	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
SB	0.000	2.320	3.040	0.000	8.000	0.000	54.000	0.000	792.600	792.000
X1	3373.000	0.000	0.000	0.000	52.000	52.000	52.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	797.000	801.800	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	808.100	0.000	65.000	806.800	0.000	165.000	803.200	0.000
BT	265.000	801.800	0.000	300.000	802.100	0.000	355.000	802.460	0.000	360.000
BT	802.500	793.600	360.000	802.500	795.600	362.000	802.500	798.600	365.000	802.500
BT	799.600	368.000	802.600	798.600	370.000	802.700	795.600	370.000	802.700	793.600
BT	375.000	802.900	0.000	420.000	804.700	0.000	465.000	806.500	0.000	490.000
BT	808.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	0.000	0.000	0.000	360.000	370.000	0.000	0.000	0.000
X1	3374.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SHELBY DRAIN

4) DOCUMENT TYPE: 100-YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      FIS-CITY OF FARMINGTON HILLS,  5670-03-1   PN = RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      SEELEY DRAIN
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	759.080	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

MOORE BUSINESS FORMS, INC 23

Transferred
J&A Notes

CCHV= .300 CEHV= .500

3720 ASSUMED CRITICAL DEPTH

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
28.00	5.09	759.09	759.09	759.08	760.12	1.03	0.00	0.00	756.00
1810.	270.	1244.	296.	112.	129.	114.	0.	0.	756.00
0.00	2.41	9.67	2.59	.090	.042	.090	0.000	754.00	72.13
.010885	0.	0.	0.	0	4	1	0.00	186.01	258.13

(1) Section M in Upper River Range
(2) 250 ft d/s from Confluence of Seeley and Mannon Ford Drains.

3301 HV CHANGED MORE THAN HVINS

MOUTH OF SEELEY DRAIN

0.00	5.55	761.45	0.00	0.00	761.58	.14	1.20	.27	757.90
835.	176.	507.	152.	177.	136.	152.	2.	1.	758.10
.03	.99	3.74	1.00	.100	.045	.100	.045	755.90	38.01
.001610	250.	250.	250.	2	0	1	0.00	222.44	260.45
250.00	4.21	762.01	0.00	0.00	762.58	.57	.78	.22	759.80
835.	121.	640.	74.	73.	93.	49.	4.	2.	760.20
.04	1.66	6.89	1.52	.100	.045	.100	.045	757.80	64.17
.008399	250.	250.	250.	3	0	1	0.00	152.19	216.36
500.00	4.36	764.06	0.00	0.00	764.53	.47	1.92	.03	761.70
835.	166.	590.	79.	106.	91.	55.	6.	3.	762.30
.05	1.56	6.48	1.43	.100	.045	.100	.045	759.70	22.92
.007029	250.	250.	250.	2	0	1	0.00	177.09	200.01

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

750' U/S FROM THE MOUTH OF SEELEY DRAIN, VS#2 SEC. A

750.00	4.21	765.91	0.00	0.00	766.38	.47	1.85	.00	763.70
835.	221.	552.	62.	138.	83.	41.	7.	4.	764.40
.07	1.60	6.65	1.51	.100	.045	.100	.045	761.70	12.93
.007765	250.	250.	250.	2	0	1	0.00	159.22	172.15
790.00	3.98	766.19	0.00	0.00	766.82	.63	.36	.08	764.21
835.	194.	587.	53.	115.	78.	34.	7.	4.	764.91
.07	1.69	7.54	1.57	.100	.045	.100	.045	762.21	13.18
.010856	40.	40.	40.	1	0	1	0.00	158.50	171.68

718. IN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
830.00	3.89	766.62	766.62	0.00	767.35	.73	.47	0.00	764.73
835.	181.	605.	49.	105.	76.	31.	8.	4.	765.43
.07	1.72	8.00	1.59	.100	.045	.100	.045	762.73	13.30
.012748	40.	40.	40.	2	5	1	0.00	158.17	171.47

The channel slope is steeper than the critical slope

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
870.00	3.93	767.18	767.18	0.00	767.87	.69	.49	0.00	765.25
835.	187.	597.	51.	110.	77.	32.	8.	5.	765.95
.07	1.71	7.79	1.59	.100	.045	.100	.045	763.25	13.24
.011845	40.	40.	40.	0	5	1	0.00	158.32	171.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
990.00	4.38	769.18	769.18	0.00	769.96	.78	1.39	0.00	767.50
835.	107.	647.	81.	69.	81.	43.	8.	5.	767.50
.08	1.55	8.01	1.88	.100	.045	.100	.045	764.80	17.58
.011342	120.	120.	120.	2	8	1	0.00	160.21	188.45

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

MOORE BUSINESS FORMS, INC 93

	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1110.00	4.36	770.71	770.71	0.00	771.49	.78	1.37	0.00	769.05
835.	103.	644.	88.	66.	80.	42.	9.	5.	769.05
.08	1.55	8.02	2.08	.100	.045	.090	.045	766.35	17.62
.011472	120.	120.	120.	2	5	1	0.00	158.03	188.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1150.00	4.36	771.23	771.23	0.00	772.01	.78	.46	0.00	769.57
835.	104.	643.	89.	67.	80.	43.	9.	6.	769.57
.08	1.55	7.99	2.08	.100	.045	.090	.045	766.87	17.61
.011384	40.	40.	40.	1	5	1	0.00	158.54	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1190.00	4.36	771.74	771.74	0.00	772.52	.78	.46	0.00	770.08
835.	104.	643.	89.	67.	80.	43.	9.	6.	770.08
.09	1.55	8.00	2.08	.100	.045	.090	.045	767.38	17.62
.011401	40.	40.	40.	1	5	1	0.00	158.45	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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[illegible]0.00	4.67	77[illegible].57	77[illegible].57	0.00	77[illegible].51	.94	.4[illegible]	[illegible].00	771.30

[illegible]35.	3[illegible]	68[illegible]	113.	[illegible]	[illegible]	4[illegible]	9.	6.	[illegible]7 .70
.09	1.34	8.53	2.34	.100	.045	.090	.045	767.90	92.86
.012640	40.	40.	40.	4	8	1	0.00	112.54	205.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1290.00	4.77	773.37	773.37	0.00	774.34	.96	.76	0.00	772.20
835.	31.	688.	116.	24.	80.	49.	10.	6.	771.50
.09	1.29	8.61	2.38	.100	.045	.090	.045	768.60	100.59
.012851	60.	60.	60.	0	8	1	0.00	109.20	209.79

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1350.00	4.82	774.22	774.22	0.00	775.21	.99	.78	0.00	773.20
835.	21.	692.	122.	17.	79.	50.	10.	6.	772.30
.09	1.22	8.72	2.44	.100	.045	.090	.045	769.40	111.66
.013251	60.	60.	60.	0	5	1	0.00	102.63	214.29

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
1410.00	4.81	775.01	775.00	0.00	776.06	1.05	.82	.03	774.10
835.	11.	698.	126.	10.	78.	50.	10.	6.	773.00
.09	1.13	8.91	2.51	.100	.045	.090	.045	770.20	131.40
.014036	60.	60.	60.	0	5	1	0.00	87.56	218.95

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
147[illegible].00	4.[illegible]	775.[illegible]8	775.8[illegible]	[illegible]	77[illegible].95	1.[illegible]7	.[illegible]5	[illegible]	77[illegible].1[illegible]

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835.	7.	09.	1[illegible].	7.	78.	51.	10.	6.	773.90
.10	1.05	9.00	2.54	.100	.045	.090	.045	771.00	142.33
.014395	60.	60.	60.	1	5	1	0.00	81.56	223.88
1530.00	5.18	776.88	776.68	0.00	777.77	.89	.77	.05	776.00
835.	9.	678.	148.	9.	81.	60.	10.	7.	774.60
.10	1.06	8.34	2.45	.100	.045	.090	.045	771.70	145.43
.011587	60.	60.	60.	4	5	1	0.00	85.48	230.91
1590.00	5.07	777.57	777.51	0.00	778.60	1.03	.76	.07	777.00
835.	3.	689.	143.	4.	77.	56.	11.	7.	775.50
.10	.85	8.90	2.56	.100	.045	.090	.045	772.50	158.46
.014050	60.	60.	60.	4	5	1	0.00	77.27	235.73
1650.00	5.13	778.43	778.34	0.00	779.45	1.02	.84	.00	778.00
835.	1.	685.	149.	2.	77.	58.	11.	7.	776.30
.10	.68	8.89	2.56	.100	.045	.090	.045	773.30	166.15
.014047	60.	60.	60.	4	5	1	0.00	74.16	240.31

450' D/S FROM D/S FACE OF DRIVEWAY BRIDGE C, VS#3 SEC. B

1710.00	5.17	779.27	779.26	0.00	780.37	1.10	.88	.04	779.00
835.	0.	693.	142.	1.	75.	58.	11.	7.	777.10
.10	.48	9.18	2.45	.100	.045	.090	.045	774.10	174.17
.015396	60.	60.	60.	0	8	1	0.00	70.47	244.64
2160.00	5.66	784.06	783.69	0.00	785.09	1.03	4.70	.02	779.70
835.	44.	681.	110.	16.	76.	50.	12.	8.	780.70
.12	2.79	8.93	2.21	.070	.040	.070	.044	778.40	172.72
.007499	500.	450.	450.	6	8	1	0.00	80.08	252.81

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

D/S FACE OF DRIVEWAY BRIDGE, BS#4 SEC. C

2161.00	6.55	784.95	0.00	0.00	785.30	.35	.00	.20	779.70
835.	63.	512.	261.	23.	89.	115.	12.	8.	780.70
.12	2.72	5.72	2.28	.035	.030	.035	.044	778.40	171.25
.001396	1.	1.	1.	6	0	1	0.00	103.28	274.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.46	3.03	0.00	12.94	0.00	59.53	0.00	778.40	778.40

PRESSURE AND WEIR FLOW

E PRS	E[illegible]C	H3	[illegible]IR	QPR	B[illegible]A	ELLC	[illegible]LTRD	CL [illegible]

789.41	785.30	0.00	471.	367.	60.	783.00	784.40	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS#4 SEC. C

2173.00	7.22	785.62	0.00	0.00	785.81	.19	.51	0.00	779.70
835.	62.	439.	334.	29.	100.	169.	12.	8.	780.70
.12	2.12	4.41	1.98	.035	.030	.035	.044	778.40	170.13
.000719	12.	12.	12.	2	0	4	0.00	106.70	276.82
2174.00	7.14	785.54	0.00	0.00	785.90	.36	.00	.09	779.70
835.	43.	567.	225.	28.	98.	162.	12.	8.	780.70
.12	1.51	5.77	1.39	.075	.035	.075	.044	778.40	170.27
.001707	1.	1.	1.	2	0	1	0.00	106.26	276.53
2294.00	6.57	785.67	0.00	0.00	786.18	.52	.21	.08	782.40
835.	44.	734.	56.	19.	120.	25.	13.	8.	782.80
.13	2.34	6.10	2.22	.045	.032	.045	.043	779.10	179.41
.002043	80.	120.	80.	1	0	1	0.00	48.79	228.20

"n" values were adjusted to show better flow continuity

D/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2295.00	6.56	785.66	0.00	0.00	786.19	.52	.00	.00	782.40
835.	43.	737.	54.	19.	120.	25.	13.	8.	782.80
.13	2.27	6.12	2.15	.035	.024	.035	.043	779.10	179.40
.001158	1.	1.	1.	0	0	1	0.00	48.80	228.20

This walk bridge was originally coded as normal bridge Routine. We found that the CWSEL at d/s face of the bridge was lower than ELTRD because the CORAR (but EG is much higher than ELTRD). And so the CWSEL at d/s face of the bridge jumped to a un-reasonable high value. So we decided to use special bridge by the fact that tailwater is higher than ELTRD.

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.53	2.80	0.00	17.67	0.00	99.85	0.00	779.10	779.10

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
787.33	786.19	0.00	139.	695.	100.	784.80	784.90	30.00

U/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2299.00	7.46	786.56	0.00	0.00	786.82	.25	.63	0.00	782.40
835.	125.	643.	67.	128.	141.	41.	13.	8.	782.80
.13	.98	4.55	1.64	.040	.025	.040	.043	779.10	58.69
.000561	4.	4.	4.	2	0	2	0.00	172.60	231.29

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2300.00	7.44	786.54	0.00	0.00	786.84	.30	.00	.03	782.40
835.	97.	685.	53.	125.	141.	40.	13.	8.	782.80
.13	.7[illegible]	4.[illegible]7	1.3[illegible]	.0[illegible]	.040	.085	.[illegible]3	779.1[illegible]	5[illegible].9[illegible]

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.001655	1.	1.	1.	2	0	1	.0	17[illegible]	231.20

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2400.00	4.32	787.12	787.12	0.00	788.02	.90	.36	0.00	783.90
835.	269.	439.	126.	95.	43.	43.	14.	8.	783.80
.13	2.85	10.14	2.96	.090	.042	.090	.043	782.80	131.89
.013622	90.	100.	110.	30	14	1	0.00	105.79	237.67

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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,NRO=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

D/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2401.00	5.76	788.56	788.56	0.00	789.24	.68	.01	0.00	783.90
835.	286.	453.	96.	124.	52.	38.	14.	8.	783.80
.13	2.30	8.71	2.53	.075	.024	.075	.043	782.80	89.31
.010898	1.	1.	1.	30	9	1	-21.80	152.04	241.35

NORMAL BRIDGE,NRD=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

U/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2407.00	6.30	789.10	0.00	0.00	789.40	.30	.04	.11	783.90
835.	359.	364.	112.	187.	58.	55.	14.	8.	783.80
.13	1.92	6.29	2.03	.075	.024	.075	.043	782.80	73.69
.004925	6.	6.	6.	14	0	1	-21.80	172.63	246.32

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2408.00	6.23	789.03	[illegible]	[illegible]	789.47	.44	[illegible]	.07	7[illegible]

835.	27.	45.	111.	1.5.	54.	63.	14.	[illegible]	7[illegible]3.50
.13	1.46	7.05	1.77	.085	.040	.085	.043	782.80	75.45
.003527	1.	1.	1.	2	0	1	0.00	170.31	245.76

2448.00	7.09	789.19	0.00	0.00	789.64	.44	.16	.00	787.40
835.	236.	534.	65.	154.	81.	41.	14.	8.	787.40
.13	1.54	6.59	1.60	.085	.040	.085	.043	782.10	70.82
.005478	20.	40.	70.	3	0	1	0.00	176.42	247.24

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 CONCRETE & WOOD DAM, DS#4C SEC. F

Small Check Dam
Completely submerged, Overland Flow

2449.00	3.49	789.39	789.39	0.00	789.99	.60	.01	0.00	787.50
835.	342.	414.	79.	175.	48.	42.	14.	8.	787.70
.13	1.95	8.58	1.86	.070	.025	.070	.043	785.90	64.86
.005314	1.	1.	1.	30	9	1	0.00	184.28	249.14

U/S FACE OF CONCRETE & WOOD DAM, DS#4C SEC. F

2450.00	3.51	789.41	0.00	0.00	790.00	.59	.01	.00	787.50
835.	343.	413.	79.	176.	48.	42.	14.	8.	787.70
.13	1.95	8.55	1.86	.070	.025	.070	.043	785.90	64.70
.005267	1.	1.	1.	0	0	1	0.00	184.49	249.19

3470 ENCROACHMENT STATIONS= 65.0 249.0 TYPE= 1 TARGET= 184.000

2451.00	4.67	789.87	0.00	0.00	790.11	.23	.00	.11	787.60
835.	381.	336.	118.	236.	58.	67.	14.	8.	785.80
.13	1.62	5.79	1.75	.085	.040	.085	.043	785.20	65.00
.003847	1.	1.	1.	5	0	1	0.00	184.00	249.00

2576.00	4.33	790.40	0.00	0.00	790.78	.38	.60	.07	788.47
835.	346.	377.	112.	189.	53.	55.	15.	9.	786.67
.14	1.83	7.08	2.03	.085	.040	.085	.043	786.07	60.81
.006457	140.	125.	60.	2	0	1	0.00	189.61	250.43

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

2701. 0	[illegible].19	7[illegible]1.1[illegible]	7[illegible]1.[illegible]3	[illegible]. [illegible]	792. [illegible]	[illegible]96	1. 1	[illegible]	7[illegible]9.03

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835.	6.	53[illegible].	232.	[illegible]	56.	63.	15.	[illegible]	7[illegible]7.03
.15	2.15	9.51	3.70	.085	.040	.085	.043	786.93	215.24
.012491	140.	125.	60.	4	8	1	0.00	96.89	312.13

2826.00	4.81	792.61	0.00	0.00	793.10	.49	.87	.14	789.90
835.	122.	471.	242.	78.	66.	86.	16.	10.	787.90
.15	1.55	7.12	2.81	.080	.040	.080	.043	787.80	162.63
.005633	140.	125.	60.	3	0	1	0.00	159.09	321.71

D/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2827.00	4.98	792.78	0.00	0.00	793.14	.36	.00	.04	789.90
835.	149.	434.	253.	97.	69.	94.	16.	10.	787.90
.15	1.54	6.29	2.69	.040	.022	.040	.043	787.80	157.60
.001255	1.	1.	1.	2	0	1	0.00	166.82	324.42

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.51	3.05	0.00	13.37	0.00	45.45	0.00	787.80	787.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
800.70	793.14	0.00	568.	267.	45.	791.95	791.96	30.00

U/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2839.00	5.61	793.41	0.00	0.00	793.59	.18	.45	0.00	789.90
835.	216.	375.	244.	168.	79.	125.	16.	10.	787.90
.15	1.28	4.75	1.95	.040	.022	.040	.043	787.80	139.79
.000599	12.	12.	12.	2	0	6	0.00	194.21	334.00

2840.00	5.59	793.39	0.00	0.00	793.62	.23	.00	.02	789.90
835.	198.	410.	227.	165.	79.	124.	16.	10.	787.90
.15	1.20	5.21	1.83	.085	.040	.085	.043	787.80	140.45
.002398	1.	1.	1.	2	0	1	0.00	193.19	333.64

3000.00	4.59	793.79	0.00	0.00	794.44	.65	.61	.21	791.30
835.	98.	503.	234.	58.	63.	77.	17.	10.	789.30
.16	1.68	8.03	3.03	.085	.040	.085	.043	789.20	180.59
.007688	110.	160.	175.	2	0	1	0.00	137.76	318.35

3160.00	4.46	795.06	794.68	0.00	795.80	.74	1.32	.04	792.70
835.	88.	514.	234.	48.	61.	72.	18.	11.	790.70
.17	1.81	8.48	3.23	.085	.040	.085	.043	790.60	191.65
.008967	110.	160.	175.	4	11	1	0.00	124.72	316.37

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

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3200.00	4.46	795.41	795.09	0.00	796.19	.78	.37	.02	793.05
835.	84.	525.	225.	48.	61.	72.	18.	11.	791.05
.17	1.75	8.68	3.12	.090	.040	.090	.042	790.95	192.02
.009412	30.	40.	45.	4	5	1	0.00	124.28	316.30
3240.00	4.58	795.88	795.43	0.00	796.57	.69	.35	.03	793.40
835.	94.	515.	226.	57.	62.	77.	18.	11.	791.40
.17	1.64	8.25	2.94	.090	.040	.090	.042	791.30	181.66
.008159	30.	40.	45.	4	5	1	0.00	136.50	318.16
3280.00	4.55	796.20	795.78	0.00	796.91	.71	.33	.01	793.75
835.	92.	517.	226.	56.	62.	76.	18.	11.	791.75
.17	1.65	8.32	2.97	.090	.040	.090	.042	791.65	183.44
.008361	30.	40.	45.	2	5	1	0.00	134.40	317.84
3320.00	4.52	796.52	0.00	0.00	797.28	.76	.34	.03	793.40
835.	120.	617.	99.	58.	77.	48.	18.	11.	793.40
.18	2.05	8.06	2.05	.092	.042	.092	.042	792.00	317.60
.008950	30.	40.	45.	0	0	1	0.00	87.99	405.60

D/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3321.00	4.73	796.73	0.00	0.00	797.33	.60	.01	.05	793.40
835.	136.	588.	111.	66.	81.	54.	18.	11.	793.40
.18	2.05	7.30	2.05	.060	.030	.060	.042	792.00	315.20
.003500	1.	1.	1.	3	0	1	0.00	92.36	407.56

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.32	3.04	0.00	8.00	0.00	54.00	0.00	792.60	792.00

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
805.35	797.84	0.00	146.	691.	54.	797.00	801.80	30.00

U/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3373.00	10.60	802.60	0.00	0.00	802.63	.03	5.30	0.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.86
.000106	52.	52.	52.	2	0	5	0.00	254.51	444.37
3374.00	10.60	802.60	0.00	0.00	802.63	.03	.00	.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.78
.000106	1.	1.	1.	0	0	1	0.00	254.60	444.38

Pond was found at u/s,
Free-fall at d/s face

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SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3659.00	5.87	802.52	0.00	0.00	802.88	.36	.08	.17	799.75
835.	138.	681.	16.	93.	128.	18.	23.	12.	800.05
.21	1.48	5.30	.91	.095	.040	.095	.042	796.65	84.57
.002612	300.	285.	235.	2	0	1	0.00	79.80	164.36
3734.00	4.95	802.65	0.00	0.00	803.31	.66	.28	.15	800.80
835.	102.	726.	7.	59.	105.	7.	24.	12.	801.10
.21	1.73	6.94	1.00	.095	.040	.095	.042	797.70	88.34
.005879	75.	75.	60.	2	0	1	0.00	70.70	159.04
3804.00	4.31	803.01	802.89	0.00	804.09	1.08	.57	.21	801.80
835.	69.	764.	2.	37.	88.	2.	24.	12.	802.10
.21	1.86	8.70	.99	.095	.040	.095	.042	798.70	91.01
.011655	75.	70.	55.	4	15	1	0.00	64.29	155.29

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3839.00	4.20	803.40	803.40	0.00	804.58	1.18	.44	0.00	802.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	802.60
.21	1.86	9.07	.97	.095	.040	.095	.042	799.20	91.46
.013251	40.	35.	30.	2	5	1	0.00	63.20	154.65

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3874.00	4.20	803.90	803.90	0.00	805.08	1.19	.47	0.00	802.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.10
.21	1.86	9.08	.97	.095	.040	.095	.042	799.70	91.47
.013291	40.	35.	30.	0	5	1	0.00	63.17	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

MOORE BUSINESS FORMS INC 23

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	C SEL / QCH / VCH / XLCH	C I S / QROB / VROB / XLOBR	SEL / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	LOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
3909.00	4.20	804.40	804.40	0.00	805.58	1.19	.47	0.00	803.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.60
.21	1.86	9.08	.97	.095	.040	.095	.042	800.20	91.47
.013280	40.	35.	30.	0	5	1	0.00	63.18	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

570' U/S FROM U/S FACE OF DRAKE ROAD BRIDGE, VS#7 SEC. I

3944.00	4.20	804.90	804.90	0.00	806.08	1.19	.47	0.00	803.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	804.10
.22	1.86	9.08	.97	.095	.040	.095	.042	800.70	91.47
.013283	40.	35.	30.	0	5	1	0.00	63.18	154.64

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
4394.00	6.09	809.59	0.00	0.00	810.41	.82	4.22	.11	806.70
835.	79.	591.	166.	46.	69.	72.	26.	13.	805.00
.23	1.69	8.54	2.30	.095	.042	.095	.042	803.50	267.91
.007220	400.	450.	400.	3	0	1	0.00	76.53	344.44

D/S FACE OF DRIVEWAY BRIDGE, BS#7A SEC. J

4395.00	6.05	809.55	0.00	0.00	810.46	.92	.00	.05	806.70
835.	71.	610.	153.	45.	69.	71.	26.	13.	805.00
.23	1.59	8.90	2.16	.055	.022	.055	.042	803.50	268.38
.002172	1.	1.	1.	2	0	1	0.00	75.76	344.15

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	3.04	0.00	10.87	0.00	51.08	0.00	803.50	803.50

same as Sec. H

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

MOORE BUSINESS FORMS, INC 23

EGP.S	EGL.C	H3	W*EIK	WPR	BAREA	ELLC	ELTRD	CLASS
816.06	811.85	0.00	406.	433.	51.	808.30	809.70	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS47A — SEC. J

4406.00	7.43	810.93	0.00	0.00	811.30	.36	.83	0.00	806.70
835.	120.	523.	193.	100.	87.	130.	26.	13.	805.00
.23	1.20	6.03	1.49	.055	.022	.055	.042	803.50	252.97
.000731	11.	11.	11.	2	0	5	0.00	135.11	388.07
4407.00	7.53	811.03	0.00	0.00	811.32	.29	.00	.02	806.70
835.	134.	485.	216.	104.	88.	138.	26.	13.	805.00
.23	1.29	5.52	1.57	.075	.035	.075	.042	803.50	251.87
.001517	1.	1.	1.	2	0	1	0.00	143.24	395.12

3301 HV CHANGED MORE THAN HVINS

210' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#8 — SEC. K

4617.00	5.00	811.30	810.82	0.00	812.25	.94	.60	.33	810.90
835.	3.	723.	110.	5.	87.	43.	27.	14.	809.10
.24	.58	8.32	2.58	.075	.035	.075	.042	806.30	146.36
.007197	210.	210.	210.	4	14	1	0.00	70.45	216.80
4917.00	5.82	813.22	0.00	0.00	813.77	.55	1.40	.12	812.00
835.	31.	680.	124.	33.	104.	60.	28.	15.	809.80
.26	.93	6.51	2.09	.075	.035	.075	.041	807.40	91.37
.003276	300.	300.	300.	2	0	1	0.00	108.50	199.86

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

810' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#9 — SEC. L

5217.00	5.86	814.36	0.00	0.00	815.02	.66	1.20	.06	813.30
835.	20.	709.	106.	22.	101.	60.	29.	15.	810.60
.27	.92	7.05	1.77	.075	.040	.095	.041	808.50	87.10
.004991	300.	300.	300.	3	0	1	0.00	100.76	187.86
5292.00	5.54	814.72	0.00	0.00	815.54	.83	.44	.08	813.98
835.	7.	729.	98.	11.	94.	48.	30.	15.	811.28
.27	.69	7.78	2.04	.095	.042	.095	.041	809.18	99.95
.007367	60.	75.	60.	2	0	1	0.00	83.36	183.30
5367.00	5.39	815.24	814.75	0.00	816.19	.95	.59	.06	814.35
835.	14.	743.	78.	14.	90.	38.	30.	16.	812.45
.28	.98	8.27	2.06	.095	.042	.095	.041	809.85	126.54
.008733	60.	75.	60.	4	11	1	0.00	83.10	209.64
5442.00	5.37	815.[illegible]8	815.43	[illegible].00	[illegible]	.98	[illegible]	[illegible]	815.03

MCOFF BUSINESS FORMS INC 23

835.	1[illegible]	746.	77.	13.	[illegible]	37.	3[illegible].	16.	813.13
.28	.96	8.39	2.08	.095	.042	.095	.041	810.53	127.67
.009101	60.	75.	60.	4	5	1	0.00	81.69	209.36
5517.00	5.36	816.56	816.27	0.00	817.53	.97	.66	.00	815.40
835.	29.	744.	62.	24.	89.	34.	30.	16.	814.30
.28	1.20	8.36	1.86	.095	.042	.095	.041	811.20	147.17
.008928	60.	75.	60.	4	8	1	0.00	91.15	238.32
5592.00	5.33	817.21	816.95	0.00	818.19	.98	.66	.01	816.08
835.	28.	746.	62.	23.	89.	33.	31.	16.	814.98
.28	1.20	8.41	1.86	.095	.042	.095	.041	811.88	148.25
.009081	60.	75.	60.	4	5	1	0.00	90.00	238.25
5629.00	5.32	817.54	817.29	0.00	818.53	1.00	.33	.01	816.42
835.	27.	747.	61.	23.	88.	33.	31.	16.	815.32
.29	1.20	8.45	1.87	.095	.042	.095	.041	812.22	149.20
.009219	30.	37.	30.	4	5	1	0.00	89.00	238.20
5667.00	5.32	817.87	817.81	0.00	818.91	1.04	.36	.02	816.55
835.	47.	746.	43.	33.	86.	26.	31.	16.	816.25
.29	1.41	8.66	1.65	.095	.042	.095	.041	812.55	169.72
.010068	30.	38.	30.	4	8	1	0.00	97.45	267.17

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
5742.00	5.70	818.93	0.00	0.00	819.64	.71	.63	.10	817.23
835.	79.	693.	63.	55.	94.	37.	31.	16.	816.93
.29	1.45	7.39	1.70	.095	.045	.095	.041	813.23	156.48
.007483	60.	75.	60.	4	0	1	0.00	111.73	268.21

70' D/S FROM D/S FACE OF FOOT BRIDGE N. VS#9A SEC. M

5817.00	5.58	819.48	819.17	0.00	820.27	.79	.59	.04	817.60
835.	88.	701.	45.	63.	90.	29.	31.	16.	818.10
.29	1.40	7.77	1.56	.095	.045	.095	.041	813.90	182.92
.008743	60.	75.	60.	4	11	1	0.00	114.14	297.06

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

5887.00	6.37	820.57	0.00	0.00	820.75	.17	.29	.19	815.10
835.	157.	640.	38.	88.	174.	25.	32.	17.	815.40
.30	1.80	3.68	1.49	.085	.051	.085	.041	814.20	212.48
.002402	70.	70.	70.	2	0	1	0.00	97.29	309.77

1490 NH CARD USED

D/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5888.00	6.36	820.56	0.00	0.00	820.77	.21	.00	.02	815.10
835.	1[illegible].	[illegible]87.	[illegible]8.	[illegible]7.	173.	[illegible]5.	3[illegible].	17.	1[illegible]

MOORE BUSINESS FORMS, INC 23

.30	1.38	[illegible]	1.11	[illegible]	.30	[illegible]	.041	[illegible]	212.6[illegible]
.000969	1.	1.	1.	2	0	1	0.00	97.11	309.73

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.44	3.08	0.00	17.00	0.00	71.40	0.00	814.20	814.20

PRESSURE AND WEIR FLOW

Combine two "parallel" Culvert

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
823.62	820.77	0.00	393.	442.	71.	819.50	819.60	30.00

U/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5893.00	7.09	821.29	0.00	0.00	821.42	.13	.65	0.00	815.10
835.	135.	666.	34.	113.	212.	36.	32.	17.	815.40
.30	1.19	3.14	.93	.070	.031	.072	.041	814.20	207.01
.000589	5.	5.	5.	2	0	4	0.00	115.61	322.62

1490 NH CARD USED

5894.00	7.17	821.37	0.00	0.00	821.43	.07	.00	.02	815.10
835.	149.	647.	39.	116.	288.	38.	32.	17.	815.40
.30	1.28	2.25	1.02	.075	.058	.075	.041	814.20	206.40
.000766	1.	1.	1.	2	0	1	0.00	117.91	324.31

5984.00	6.59	821.44	0.00	0.00	821.53	.09	.08	.01	815.75
835.	137.	665.	33.	95.	257.	27.	33.	17.	816.05
.31	1.44	2.59	1.20	.075	.057	.075	.041	814.85	210.89
.001133	90.	90.	90.	1	0	1	0.00	100.91	311.80

SECNO	DEPTH	CWSEL	CRIWS	WSELX	EG	HV	HL	OLOSS	BANK ELV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGH
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDS1
6074.00	6.01	821.51	0.00	0.00	821.71	.20	.13	.06	816.60
835.	399.	413.	23.	267.	84.	18.	33.	17.	816.21
.32	1.49	4.90	1.28	.080	.040	.080	.041	815.50	144.30
.001763	90.	90.	90.	1	0	1	0.00	125.49	269.80

D/S FACE OF FOOT BRIDGE, BS#10A SEC. O

6075.00	5.97	821.47	0.00	0.00	821.75	.28	.00	.04	816.60
835.	353.	463.	19.	263.	84.	18.	34.	17.	816.2
.32	1.34	5.53	1.08	.075	.030	.080	.041	815.50	144.67
.001277	1.	1.	1.	2	0	1	0.00	125.08	269.74

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.0[illegible]	1.73	3.0[illegible]	0.00	1[illegible].9[illegible]	[illegible]	58.40	[illegible].00	[illegible]15.5[illegible]	815.50

This bridge was originally coded as normal bridge routine. Then, at d/s face of the bridge, the critical depth which is lower than ELTRD was found. This is obviously wrong (because 1 ft. d/s of this section, CWSEL is almost 1 ft higher than ELTRD). We think this situation is caused by the correction of the area at bridge section.

After making several runs (try to eliminate this situation), we decided

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
826.96	821.75	0.00	532.	308.	58.	820.00	820.70	30.00

to use special bridge routine to determine head water. Because special bridge routine gave us more reasonable answer.

U/S FACE OF FOOT BRIDGE, BS#10A SEC. 0

6080.00	6.54	822.04	0.00	0.00	822.22	.18	.47	0.00	816.60
835.	387.	429.	20.	323.	92.	22.	34.	17.	816.2
.32	1.20	4.65	.91	.075	.030	.080	.041	815.50	139.62
.000794	5.	5.	5.	2	0	4	0.00	130.84	270.47
6081.00	6.61	822.11	0.00	0.00	822.24	.13	.00	.02	816.60
835.	434.	378.	22.	330.	93.	22.	34.	17.	816.2
.32	1.32	4.06	1.01	.090	.045	.095	.041	815.50	139.01
.001342	1.	1.	1.	2	0	1	0.00	131.54	270.56
6296.00	5.61	822.41	0.00	0.00	822.71	.30	.39	.08	817.90
835.	361.	453.	21.	226.	78.	15.	35.	18.	817.50
.33	1.59	5.79	1.36	.090	.043	.095	.041	816.80	147.67
.003140	185.	215.	185.	2	0	1	0.00	121.41	269.29
6368.00	5.39	822.62	0.00	0.00	822.98	.36	.23	.03	818.33
835.	348.	466.	21.	205.	75.	14.	36.	18.	817.93
.34	1.70	6.23	1.46	.090	.043	.095	.041	817.23	152.66
.003849	62.	72.	62.	2	0	1	0.00	116.34	269.00
6404.00	5.30	822.74	0.00	0.00	823.13	.38	.14	.01	818.54
835.	343.	472.	20.	196.	73.	14.	36.	18.	818.14
.34	1.75	6.43	1.51	.090	.043	.095	.042	817.44	154.79
.004206	31.	36.	31.	0	0	1	0.00	114.09	268.88

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6440.00	5.32	822.99	822.99	0.00	823.71	.71	.21	0.00	822.17
835.	214.	620.	1.	133.	80.	1.	36.	18.	822.07
.34	1.61	7.80	.88	.090	.043	.095	.042	817.67	67.92
.009714	31.	36.	31.	30	5	1	0.00	164.39	232.31

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

MOORE BUSINESS FORMS, INC. 23

6511.00	5.79	823.89	0.00	0.00	824.27	.38	.46	.10	822.60
835.	296.	537.	2.	199.	89.	2.	36.	18.	822.50
.35	1.49	6.04	.83	.090	.043	.095	.042	818.10	66.36
.005031	62.	71.	62.	3	0	1	0.00	167.11	233.48

2355' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#11 SEC. P

6726.00	5.61	825.01	0.00	0.00	825.49	.48	1.16	.05	823.90
835.	267.	567.	2.	173.	85.	2.	38.	19.	823.80
.36	1.54	6.66	.85	.090	.043	.095	.042	819.40	66.98
.006460	185.	215.	185.	3	0	1	0.00	166.04	233.02

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	QLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
6876.00	5.37	826.54	826.54	0.00	827.21	.67	1.17	0.00	825.67
835.	223.	611.	1.	139.	80.	1.	39.	19.	825.57
.36	1.60	7.59	.88	.090	.043	.095	.042	821.17	67.77
.009070	165.	150.	135.	3	10	1	0.00	164.66	232.43
7026.00	5.10	828.03	827.94	0.00	828.82	.78	1.55	.06	825.93
625.	163.	462.	0.	88.	56.	0.	39.	20.	829.43
.37	1.85	8.19	0.00	.090	.040	.085	.042	822.93	233.88
.011693	165.	150.	135.	4	11	1	0.00	101.57	335.46

1905' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#12 SEC. Q

7176.00	5.13	829.83	829.77	0.00	830.59	.76	1.77	.01	827.70
625.	166.	459.	0.	90.	57.	0.	40.	20.	831.20
.38	1.83	8.09	0.00	.090	.040	.085	.042	824.70	232.92
.011328	165.	150.	135.	5	5	1	0.00	102.58	335.50
7396.00	6.07	832.07	0.00	0.00	832.42	.35	1.70	.12	827.70
625.	249.	206.	170.	119.	28.	56.	40.	21.	827.70
.39	2.10	7.43	3.04	.090	.045	.085	.042	826.00	227.93
.007139	130.	220.	230.	1	0	1	0.00	96.20	324.13

D/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7397.00	6.15	832.15	0.00	0.00	832.44	.29	.00	.02	827.70
625.	265.	193.	168.	125.	28.	58.	40.	21.	827.70
.39	2.12	6.85	2.89	.055	.030	.055	.042	826.00	226.13
.002645	1.	1.	1.	2	0	1	0.00	98.32	324.44

SPECIAL BRIDGE

MOORE BUSINESS FORMS INC 23

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.92	2.92	0.00	3.93	0.00	19.63	0.00	826.00	826.00

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

PRESSURE AND WEIR FLOW

Free-fall

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
862.37	839.82	0.00	450.	176.	20.	831.00	833.30	30.00

U/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7415.00	8.49	834.49	0.00	0.00	834.53	.04	2.09	0.00	827.70
625.	357.	123.	144.	358.	40.	119.	41.	21.	827.70
.39	1.00	3.10	1.21	.065	.032	.065	.042	826.00	159.62
.000386	18.	18.	18.	2	0	8	0.00	173.10	332.72
7416.00	8.49	834.49	0.00	0.00	834.54	.05	.00	.00	827.70
625.	353.	129.	143.	359.	40.	119.	41.	21.	827.70
.39	.99	3.23	1.20	.090	.042	.090	.042	826.00	159.56
.000724	1.	1.	1.	0	0	1	0.00	173.16	332.72
7536.00	7.04	834.59	0.00	0.00	834.74	.14	.15	.05	829.25
625.	298.	167.	160.	197.	33.	79.	42.	21.	829.25
.41	1.51	5.14	2.02	.090	.045	.090	.042	827.55	207.46
.002749	125.	120.	110.	2	0	1	0.00	120.13	327.60
7656.00	5.89	834.99	0.00	0.00	835.42	.43	.54	.14	830.80
625.	244.	218.	164.	107.	27.	53.	42.	21.	830.80
.41	2.27	8.11	3.12	.090	.045	.090	.042	829.10	231.44
.008862	125.	120.	110.	2	0	1	0.00	92.11	323.54
7776.00	5.12	835.87	0.00	0.00	835.98	.11	.47	.09	831.35
625.	239.	206.	180.	166.	49.	129.	43.	22.	831.35
.43	1.44	4.18	1.39	.090	.045	.090	.042	830.75	35.07
.002219	125.	120.	110.	2	0	1	0.00	146.42	181.49
7896.00	3.90	836.20	0.00	0.00	836.66	.46	.50	.17	832.90
625.	184.	283.	158.	83.	37.	62.	44.	22.	832.90
.44	2.22	7.63	2.55	.090	.045	.090	.042	832.30	38.35
.010769	125.	120.	110.	2	0	1	0.00	120.77	159.13
8016.00	3.74	837.59	0.00	0.00	838.18	.59	1.46	.06	834.45
625.	171.	299.	155.	72.	35.	55.	44.	22.	834.45
.44	2.38	8.45	2.83	.090	.045	.090	.042	833.85	38.81
.014041	125.	120.	110.	3	0	1	0.00	117.23	156.04
8076.00	3.85	838.48	0.00	0.00	838.98	.50	.77	.03	835.23
625.	179.	288.	157.	79.	37.	59.	45.	23.	835.23
.4[illegible]	2.27	7.9	2.6[illegible]	.09[illegible]	.4[illegible]	.09[illegible]	.0[illegible]	[illegible]34.[illegible]3	3[illegible].[illegible]1

MOORE BUSINESS FORMS, INC. 23

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.011/.2     65.     6 .     .5.     3                1     .0     119.54    158.05

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

 8136.00     3.67    839.07    839.05      0.00    839.73       .66       .69       .08    836.00
    625.     164.      308.      153.       67.      35.       52.       45.       23.    836.00
     .45     2.44      8.86      2.92      .075     .037      .075      .042    835.40     38.98
 .010701     65.       60.       55.        4       11         1      0.00    115.86    154.84

1490 NH CARD USED
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=30 MIN ELTRD=  837.50 MAX ELLC=  837.40

        D/S FACE OF ROCK & CONCRETE DAM, DS#13                                  SEC. S

 8137.00     4.86    840.26    840.26      0.00    840.74       .48       .01      0.00    839.50
    625.     214.      300.      111.       73.      43.       22.       45.       23.    837.50
     .45     2.91      6.98      4.98      .067     .031      .034      .042    835.40     35.77
 .015255      1.        1.        1.        30       13         1     -3.60    114.85    150.63

NORMAL BRIDGE,NRD=30 MIN ELTRD=  837.50 MAX ELLC=  837.40

 8139.00     5.13    840.53      0.00      0.00    840.82       .29       .02       .06    839.50
    625.     247.      259.      119.       92.      46.       33.       45.       23.    837.50
     .45     2.69      5.66      3.60      .065     .031      .038      .042    835.40     35.05
 .009283      2.        2.        2.         5        0         1     -3.60    125.00    160.05

1490 NH CARD USED
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

 8140.00     4.48    840.58    840.58      0.00    841.27       .69       .01      0.00    839.50
    [illegible]  20[illegible].  3[illegible].  5[illegible].  [illegible]  43.  3[illegible].  45.  23.  83[illegible].5[illegible]
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5 CMP culverts were built exactly d/s of the weir.

① the bridge is completely submerged
— use normal bridge routine

② Sections 8137 and 8139 are d/s and u/s faces of the bridge, respectively.

③ Sections 8140 and 8141 are d/s and u/s faces of the weir, respectively.

④ For 100-year flood, this weir is not operated as a weir, and is more like overland flow. So a special bridge routine was not used to treat this dam section.

.5	2.16	8.53	1.66	.64	.0[illegible]	.0[illegible]	.4[illegible]	36.1[illegible]	34.[illegible]3
.005699	1.	1.	1.	30	9	1	0.00	126.75	161.68

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

U/S FACE OF DAM & BRIDGE SECTION, DS#13 SEC. S

8141.00	4.92	841.02	840.63	0.00	841.38	.35	.00	.10	839.50
625.	241.	311.	72.	127.	48.	54.	45.	23.	839.50
.45	1.90	6.52	1.33	.062	.025	.057	.042	836.10	33.72
.002923	1.	1.	1.	10	5	1	0.00	143.74	177.46

3470 ENCROACHMENT STATIONS= .0 176.0 TYPE= 1 TARGET= 175.999

8142.00	7.33	841.43	0.00	0.00	841.47	.05	.00	.09	835.00
625.	177.	196.	251.	231.	72.	266.	45.	23.	835.50
.45	.77	2.75	.94	.085	.035	.085	.042	834.10	32.63
.000388	1.	1.	1.	2	0	1	0.00	143.37	176.00

3301 HV CHANGED MORE THAN HVINS

8442.00	6.09	841.39	0.00	0.00	841.99	.60	.24	.28	835.50
625.	65.	481.	79.	60.	68.	71.	47.	24.	835.80
.46	1.08	7.07	1.12	.085	.035	.085	.042	835.30	43.30
.002594	300.	300.	300.	3	0	1	0.00	132.67	175.97

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

D/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8443.00	6.09	841.39	841.34	0.00	842.00	.61	.00	.00	835.50
625.	88.	423.	113.	49.	57.	56.	48.	24.	835.80
.46	1.81	7.48	2.03	.050	.020	.050	.042	835.30	43.25
.005249	1.	1.	1.	0	9	1	-37.70	132.76	176.01

Completely Submerged bridges

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

U/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8459.00	6.56	841.86	0.00	0.00	842.15	.29	.06	.09	835.50
625.	121.	348.	156.	78.	62.	88.	48.	24.	835.80
.46	1.55	5.62	1.77	.050	.020	.050	.042	835.30	29.84
.002628	16.	16.	16.	7	0	1	-37.70	157.15	186.99

8460.00	6.54	841.84	0.00	0.00	842.17	.33	.00	.02	835.50
625.	95.	413.	117.	89.	73.	103.	48.	24.	835.80
.46	1.06	5.63	1.14	.070	.035	.070	.042	835.30	29.85
.001489	1.	1.	1.	1	0	1	0.00	157.05	186.90

MOORE BUSINESS FORMS, INC 23

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3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=      75.000
  8660.00      6.06    842.26      0.00       0.00    842.52       .26       .33       .02    836.30
     625.      220.      259.      146.       118.       44.       67.       49.       24.    836.40
      .48      1.86      5.90      2.19       .070      .035      .070      .041    836.20    100.00
 .001849      200.      200.      200.          0         0         1      0.00     75.00    175.00

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

3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=      75.000
        D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BSW15                    SEC. U
  8661.00      6.02    842.22      0.00       0.00    842.57       .34       .00       .04    836.80
     625.      202.      288.      135.       116.       44.       66.       49.       24.    836.40
      .48      1.74      6.60      2.04       .055      .023      .055      .041    836.20    100.00
 .001008        1.        1.        1.          2         0         1      0.00     75.00    175.00

SPECIAL BRIDGE
SB  XK        XKOR      COFQ     RDLEN       BWC       BWP     BAREA        SS     ELCHU     ELCHD
      0.00      1.65      3.06      0.00      6.47      0.00     21.36      0.00    837.80    836.20
PRESSURE AND WEIR FLOW
   EGPRS     EGLWC        H3     QWEIR       QPR     BAREA      ELLC     ELTRD     CLASS
  864.16    844.17      0.00      438.      187.        21.    841.20    842.10     30.00

3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=      75.000
        U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#15                    SEC. U
  8675.00      6.21    844.01      0.00       0.00    844.19       .19      1.63      0.00    838.80
     625.      270.      229.      126.       180.       43.       76.       49.       24.    838.80
      .48      1.50      5.34      1.65       .055      .020      .055      .041    837.80    100.00
 .000530       14.       14.       14.          2         0         7      0.00     75.00    175.00

3470 ENCROACHMENT STATIONS=      100.0      175.0  TYPE=      1  TARGET=      75.000
  8676.00      6.29    844.09      0.00       0.00    844.21       .13       .00       .02    838.80
     625.      294.      194.      137.       184.       43.       78.       49.       24.    838.80
      .48      1.60      4.47      1.76       .065      .030      .065      .041    837.80    100.00
 .000819        1.        1.        1.          2         0         1      0.00     75.00    175.00

3470 ENCROACHMENT STATIONS=      100.0      230.0  TYPE=      1  TARGET=    -100.000
  8677.00      6.05    843.85      0.00       0.00    844.45       .59       .00       .23    838.80
     625.      234.      339.       52.       101.       42.       24.       49.       24.    838.80
      .48      2.32      8.13      2.16       .060      .032      .060      .041    837.80    100.00
 .003258        1.        1.        1.          2         0         1      0.00     74.60    174.60
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Bridge was built 3' d/s of the weir.

① For the bridge :
Normal bridge routine was original used. ~~with the same problem~~ as Section ⌀ (SECNO = 6080), Special bridge was used.

② Sections 8661 and 8675 are d/s and u/s faces of the bridge, respectively

③ Sections 8678 and 8679 are d/s and u/s faces of the weir, respectively

④ The ~~weir is not operated as a~~ weir when 100-year flood comes. – more like overland flow –

MOORE BUSINESS FORMS INC 73

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3685 20 TRIALS USED WSEL,C EL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=     100.0      230.0  TYPE=      1  TARGET=     -100.000
  8678.00       5.20     844.00     844.00       0.00     845.32       1.32        .00       0.00     838.80
     625.        162.       428.        35.       108.        39.        26.        49.        24.     838.90
      .48       1.50      11.08       1.35       .055       .013       .055       .041     838.80     100.00
  .001058         1.         1.         1.         30         15          1       0.00      75.98     175.98

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

3470 ENCROACHMENT STATIONS=     100.0      230.0  TYPE=      1  TARGET=     -100.000
  8679.00       5.22     844.02     844.01       0.00     845.32       1.30        .00        .01     838.80
     625.        163.       427.        35.       109.        39.        26.        49.        24.     838.90
      .48       1.49      11.02       1.34       .055       .013       .055       .041     838.80     100.00
  .001040         1.         1.         1.          0          5          1       0.00      76.17     176.17


3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     100.0      177.0  TYPE=      1  TARGET=       77.000
  8680.00       7.68     845.48       0.00       0.00     845.66        .18        .00        .34     837.80
     625.        282.       271.        72.       185.        56.        55.        49.        24.     838.80
      .48       1.53       4.85       1.30       .060       .030       .060       .041     837.80     100.00
  .000676         1.         1.         1.          4          0          1       0.00      77.00     177.00


3470 ENCROACHMENT STATIONS=      98.0      117.0  TYPE=      1  TARGET=       19.000
  9060.00       7.84     845.74       0.00       0.00     846.15        .41        .38        .12   99999.00
     625.          0.       625.         0.         0.       121.         0.        51.        25.   99999.00
      .50       0.00       5.16       0.00       .060       .030       .060       .041     837.90      98.00
  .001607        380.       380.       380.          2          0          1       0.00      19.00     117.00


3470 ENCROACHMENT STATIONS=     101.0      115.0  TYPE=      1  TARGET=       14.000
  9070.00       7.77     845.67       0.00       0.00     846.27        .60        .02        .09100000.00
     625.          0.       625.         0.         0.       101.         0.        51.        25. 100000.00
      .50       0.00       6.19       0.00       .060       .030       .060       .041     837.90     101.00
  .002698        10.        10.        10.          2          0          1       0.00      14.00     115.00


3470 ENCROACHMENT STATIONS=     103.5      114.5  TYPE=      1  TARGET=       11.000
  9076.00       7.62     845.52       0.00       0.00     846.46        .94        .02        .17100000.00
     [illegible]   0.       [illegible]25   0          .          [illegible]0.   0.         1          [illegible] 10[illegible].00
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      .50      0.00      7.00      0.00      .60      .30      .060      .041    837.90    103.50
  .005325       6.        6.        6.        2        0         1      0.00     11.00    114.50

3301 HV CHANGED MORE THAN HVINS

  9080.00      7.06    844.96      0.00      0.00   847.09      2.13      .03       .59    861.30
      625.       0.      625.       0.        0.      53.        0.      51.       25.    861.30
      .50      0.00     11.70      0.00      .060     .030      .060     .041    837.90     95.50
  .014236       4.        4.        4.        3        0         1      0.00      9.00    104.50

NORMAL BRIDGE,NRD= 9 MIN ELTRD=  861.30 MAX ELLC=  848.50

        D/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                          SEC. V

  9081.00      7.04    844.94      0.00      0.00   847.14      2.20      .02       .04    861.30
      625.       0.      625.       0.        0.      53.        0.      51.       25.    861.30
      .50      0.00     11.90      0.00      .020     .032      .020     .041    837.90     95.50
  .016549       1.        1.        1.        2        0         1      -.70      9.00    104.50

3301 HV CHANGED MORE THAN HVINS

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

NORMAL BRIDGE,NRD= 9 MIN ELTRD=  861.30 MAX ELLC=  849.00

        U/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                          SEC. V

  9196.00      9.15    847.55      0.00      0.00   848.84      1.29     1.43       .27    861.30
      625.       0.      625.       0.        0.      69.        0.      51.       25.    861.30
      .51      0.00      9.10      0.00      .020     .032      .020     .041    838.40     95.50
  .009645     115.      115.      115.        3        0         1     -3.55      9.00    104.50

  9197.00      9.42    847.82      0.00      0.00   848.91      1.09      .01       .06    861.30
      625.       0.      625.       0.        0.      75.        0.      51.       25.    861.30
      .51      0.00      8.37      0.00      .060     .032      .060     .041    838.40     95.50
  .007119       1.        1.        1.        2        0         1      0.00      9.00    104.50

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      100.0      115.0  TYPE=      1  TARGET=      15.000
  9200.00      9.93    848.83      0.00      0.00   849.14      .32      .01      .23100000.00
      625.       0.      625.       0.        0.     138.        0.      51.       25. 100000.00
      .51      0.00      4.52      0.00      .060     .032      .060     .041    838.90    100.00
  .001338       3.        3.        3.        2        0         1      0.00     15.00    115.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=      100.0      [illegible]  TYPE=      1  TARGET=     -100.000
```

① For 10-, 50-, and 100-year floods, "low flow" is found.
- use normal bridge.

② For 500-year flood, "pressure flow only" is found.
- ~~use hand-calculation~~
(see attached sheet in "Hydraulic Analysis" booklet)

455' U/S FROM U/S FACE OF HALSTEAD ROAD BRIDGE, VS#17 SEC. W

9650.00	7.61	849.51	0.00	0.00	849.55	.05	.32	.08	845.20
625.	293.	257.	76.	307.	106.	85.	54.	25.	844.30
.59	.95	2.42	.89	.090	.045	.090	.040	841.90	120.00
.000465	400.	450.	500.	3	0	1	0.00	109.78	229.78

3470 ENCROACHMENT STATIONS= 125.0 245.0 TYPE= 1 TARGET= 120.000

9765.00	6.35	849.55	0.00	0.00	849.65	.10	.07	.03	846.50
625.	254.	301.	70.	203.	86.	57.	55.	26.	845.60
.60	1.26	3.49	1.22	.090	.045	.090	.040	843.20	125.00
.001270	60.	115.	150.	2	0	1	0.00	101.77	226.77

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 213.6 302.6 TYPE= 1 TARGET= 100.000

D/S FACE OF DRIVEWAY BRIDGE, CONCRETE @ I-BEAM BRIDGE, BS#18 SEC. X

9880.00	4.95	849.45	849.37	0.00	850.42	.97	.34	.43	844.50
625.	272.	343.	10.	51.	36.	5.	55.	26.	848.30
.60	5.32	9.53	2.02	.095	.050	.095	.041	844.50	236.21
.035123	60.	115.	150.	4	15	1	0.00	54.43	290.64

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.89	3.04	0.00	9.44	0.00	22.65	0.00	845.90	844.50

3301 HV CHANGED MORE THAN HVINS

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

① Skewed by 0.89

② little submergence d/s of the bridge

PRESSURE AND WEIR FLOW

EGPRS	EGLHC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
871.80	851.82	0.00	441.	184.	23.	847.00	849.20	30.00

3470 ENCROACHMENT STATIONS= 218.1 298.2 TYPE= 1 TARGET= 90.000

U/S FACE OF DRIVEWAY BRIDGE, BS#18 SEC. X

9899.00	5.30	851.20	0.00	0.00	851.39	.19	.97	0.00	848.20
625.	250.	279.	96.	94.	65.	35.	55.	26.	846.90
.60	2.65	4.26	2.74	.080	.085	.080	.041	845.90	218.05
.008393	19.	19.	19.	2	0	6	0.00	80.10	298.15

MOORE BUSINESS FORMS, INC 23

3470 ENCROACHMENT STATIONS= 218.1 218.2 TYPE= 1 TARGET= 9.00

9900.00	5.24	851.14	0.00	0.00	851.46	.32	.01	.07	848.20
625.	187.	366.	72.	91.	65.	34.	55.	26.	846.90
.60	2.04	5.67	2.12	.080	.050	.080	.041	845.90	218.05
.005228	1.	1.	1.	2	0	1	0.00	80.10	298.15

3470 ENCROACHMENT STATIONS= 298.0 338.0 TYPE= 1 TARGET= 40.000

50' D/S FROM D/S FACE OF I-696 CULVERT, VS#19 SEC. Y

10000.00	4.59	851.49	0.00	0.00	851.88	.39	.38	.04	849.90
605.	11.	585.	9.	7.	114.	6.	56.	26.	849.50
.61	1.44	5.11	1.68	.070	.035	.070	.041	846.90	298.00
.002787	125.	100.	75.	2	0	1	0.00	40.00	338.00

10050.00	7.25	851.55	0.00	0.00	852.14	.59	.16	.10	862.30
605.	0.	605.	0.	0.	98.	0.	56.	26.	862.3
.61	0.00	6.17	0.00	.070	.035	.070	.041	844.30	142.50
.003499	50.	50.	50.	2	0	1	0.00	15.00	157.50

NORMAL BRIDGE, NRD=13 MIN ELTRD= 862.30 MAX ELLC= 853.50

D/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20 SEC. Z

10051.00	7.22	851.52	0.00	0.00	852.17	.64	.00	.03	862.30
605.	0.	605.	0.	0.	94.	0.	56.	26.	862.3
.61	0.00	6.44	0.00	.020	.018	.020	.041	844.30	142.50
.001062	1.	1.	1.	2	0	1	-3.67	15.00	157.50

3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE, NRD=13 MIN ELTRD= 862.60 MAX ELLC= 855.60

10289.00	5.60	851.60	0.00	0.00	852.83	1.24	.37	.30	862.60
605.	0.	605.	0.	0.	68.	0.	56.	26.	862.6
.62	0.00	8.92	0.00	.020	.018	.020	.040	846.00	142.50
.002509	238.	238.	238.	2	0	1	-1.04	15.00	157.50

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

NORMAL BRIDGE, NRD=17 MIN ELTRD= 862.60 MAX ELLC= 855.20

10290.00	6.09	852.09	0.00	0.00	852.95	.86	.00	.11	862.60
605.	0.	605.	0.	0.	81.	0.	56.	26.	862.60
.62	0.00	7.44	0.00	.020	.031	.020	.040	846.00	142.40
.005453	1.	1.	1.	3	0	1	-3.89	15.20	157.60

NORMAL BRIDGE, NRD=17 MIN ELTRD= 866.00 MAX ELLC= 856.40

This is a very long culvert (408' long)

① 1/3 : 238' long, 15'×9'8" Concrete Culvert.

② 1/3 : 170' long, 15'4"×9'2" CMP

③ For 10-, 50-, and 100-year flood, only "low flow" was found
— use normal bridge.

④ For CMP, there is a 172° bend.

bend loss $= K_b \frac{V^2}{2g}$

$= 0.05 \frac{V^2}{2g}$ (see sheet in "Hydraulic Analysis")

for 100-year flood,

$\frac{V^2}{2g} = 0.94$

∴ bend loss = ~~0.05 × 0.94 ≈ 0.05 ft~~
(too small and can be neglected)

⑤ For 500-year flood
— pressure flow only —
— use hand-calculation —

MOORE BUSINESS FORMS, INC 23

U/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20 SEC. Z

10459.00	5.83	853.03	0.00	0.00	853.96	.94	.97	.04	866.00
605.	0.	605.	0.	0.	78.	0.	57.	26.	866.00
.62	0.00	7.76	0.00	.020	.031	.020	.040	847.20	142.40
.006112	169.	169.	169.	2	0	1	-3.26	15.20	157.60

10460.00	5.99	853.19	0.00	0.00	854.00	.81	.01	.04	866.00
605.	0.	605.	0.	0.	84.	0.	57.	26.	866.00
.62	0.00	7.22	0.00	.060	.032	.060	.040	847.20	142.40
.004615	1.	1.	1.	2	0	1	0.00	15.20	157.60

800' U/S FROM U/S FACE OF HOWARD ROAD BRIDGE, VS#21 SEC. AA

11260.00	6.53	856.23	0.00	0.00	856.61	.38	2.47	.13	852.90
605.	71.	493.	41.	53.	91.	56.	59.	27.	854.80
.67	1.33	5.42	.73	.095	.035	.095	.040	849.70	176.08
.002221	780.	800.	800.	3	0	1	0.00	100.22	276.30

3301 HV CHANGED MORE THAN HVINS

11385.00	5.07	856.37	856.17	0.00	857.42	1.06	.47	.34	854.10
605.	44.	547.	14.	23.	63.	15.	60.	28.	855.50
.68	1.90	8.66	.92	.095	.035	.095	.039	851.30	172.93
.007819	130.	125.	125.	4	15	1	0.00	65.98	238.91

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11510.00	4.88	857.78	857.78	0.00	858.93	1.15	1.03	0.00	855.40
605.	35.	522.	48.	19.	57.	32.	60.	28.	856.20
.68	1.87	9.23	1.52	.095	.035	.095	.039	852.90	163.91
.008713	130.	125.	125.	3	5	1	0.00	62.65	226.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11635.00	4.74	859.24	859.24	0.00	860.37	1.13	1.13	0.00	856.60
605.	32.	475.	99.	16.	50.	47.	60.	28.	856.90
.68	1.91	[illegible].57	2.0[illegible]	.09[illegible]	.[illegible]3	.09[illegible]	.039	85[illegible]	155.02

MOORE BUSINESS FORMS, INC. 23

.09355	130.	125.	125.	2	8	1	0.0	57.78	212.80

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11760.00	4.51	860.61	860.61	0.00	861.75	1.15	1.31	0.00	857.90
605.	19.	414.	172.	10.	41.	57.	61.	28.	857.60
.69	1.90	10.21	3.04	.085	.035	.085	.039	856.10	147.19
.011775	130.	125.	125.	2	11	1	0.00	51.40	198.59

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 Weir is in very poor condition

② for 100 yr flood, it is a overbank flow

D/S FACE OF CONCRETE WEIR, DS#22 SEC. AB

11761.00	3.69	861.29	861.29	0.00	862.53	1.24	.01	0.00	857.90
605.	31.	365.	209.	21.	32.	77.	61.	28.	857.60
.69	1.45	11.32	2.70	.095	.025	.085	.039	857.60	139.82
.006618	1.	1.	1.	30	15	1	0.00	60.71	200.53

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

U/S FACE OF CONCRETE WEIR, 1300' U/S FROM HOWARD RD, DS#22 SEC. AB

11762.00	3.70	861.30	861.29	0.00	862.54	1.24	.01	.00	857.90
605.	31.	365.	209.	21.	32.	78.	61.	28.	857.60
.69	1.44	11.29	2.70	.095	.025	.085	.039	857.60	139.75
.006569	1.	1.	1.	0	5	1	0.00	60.80	200.55

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 140.0 200.0 TYPE= 1 TARGET= 60.000

11763.00	6.38	862.48	0.00	0.00	862.81	.33	.00	.27	857.90
605.	61.	299.	245.	45.	48.	115.	61.	28.	857.60
.69	1.3[illegible]	6.[illegible]2	[illegible].14	.[illegible]05	.3[illegible]	.8[illegible]	.[illegible]9	[illegible]5.1	140.[illegible]

```
 .002553      1.      1.      1.                      1     0.00     60.00     .00

3470 ENCROACHMENT STATIONS=        .0     350.0  TYPE=     1  TARGET=     349.999
 12293.00     7.62   863.22    0.00     0.00   863.31     .09      .43      .07   862.90
     605.       1.     416.     188.      6.     148.    151.      64.      29.   860.00
      .75      .19     2.81    1.24    .045     .030    .045     .039   855.60   224.77
  .000395     400.     530.     540.       3        0       1     0.00   125.23   350.00

NORMAL BRIDGE,NRD=13 MIN ELTRD=  859.70 MAX ELLC=  861.90

3470 ENCROACHMENT STATIONS=        .0     350.0  TYPE=     1  TARGET=     349.999
        D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#23                  SEC. AC
 12294.00     7.64   863.24    0.00     0.00   863.32     .08      .00      .00   862.90
     605.       2.     297.     306.      7.     121.    151.      64.      29.   860.00
      .75      .32     2.46    2.03    .045     .025    .045     .039   855.60   223.63
  .001062       1.       1.      1.       1        0       1   -28.50   126.37   350.00

NORMAL BRIDGE,NRD=13 MIN ELTRD=  859.70 MAX ELLC=  861.90

3470 ENCROACHMENT STATIONS=        .0     350.0  TYPE=     1  TARGET=     349.999
        U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#23                  SEC. AC
 12310.00     7.66   863.26    0.00     0.00   863.33     .08      .02      .00   862.90
     605.       3.     296.     306.      8.     121.    152.      64.      29.   860.00
      .75      .33     2.44    2.02    .045     .025    .045     .039   855.60   221.27
  .001040      16.      16.      16.       1        0       1   -28.50   128.73   350.00

3470 ENCROACHMENT STATIONS=        .0     350.0  TYPE=     1  TARGET=     349.999
 12311.00     7.65   863.25    0.00     0.00   863.34     .09      .00      .01   862.90
     605.       2.     414.     189.      8.     148.    153.      64.      29.   860.00
      .75      .20     2.79    1.24    .045     .030    .045     .039   855.60   221.14
  .000386       1.       1.      1.       0        0       1     0.00   128.86   350.00

 12641.00     6.27   863.37    0.00     0.00   863.58     .21      .18      .06   859.90
     605.      70.     506.      29.     63.     126.     29.      66.      30.   859.90
      .78     1.10     4.03     .99    .045     .030    .045     .039   857.10   177.50
  .000799     330.     330.     330.       2        0       1     0.00   111.02   288.52

   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

NORMAL BRIDGE,NRD=14 MIN ELTRD=  861.40 MAX ELLC=  859.90

        D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#24                  SEC. AD
 12642.00     6.25   863.35    0.00     0.00   863.60     .05      .00      .07   861.90
```

Completely Submerged bridge
Normal Bridge Routine

MOORE BUSINESS FORMS, INC 23

3470 ENCROACHMENT STATIONS= 616.0 906.4 TYPE= 1 TARGET= 330.000

U/S FACE OF HAGGARTY ROAD BRIDGE, BS #1A SEC. AR

21232.00	8.08	893.58	0.00	0.00	893.59	.00	.04	0.00	885.70
500.	156.	72.	271.	344.	102.	668.	25.	4.	885.50
.78	.46	.71	.41	.035	.033	.035	.038	885.50	616.00
.000016	50.	50.	50.	0	0	5	0.00	290.40	906.40

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

3470 ENCROACHMENT STATIONS= 616.0 906.4 TYPE= 1 TARGET= 330.000

21233.00	8.08	893.58	0.00	0.00	893.59	.00	.00	.00	885.70
500.	156.	72.	271.	344.	102.	668.	25.	4.	885.50
.78	.46	.71	.41	.035	.033	.035	.038	885.50	616.00
.000016	1.	1.	1.	0	0	1	0.00	290.40	906.40

3280 CROSS SECTION 21283.00 EXTENDED 2.59 FEET

3470 ENCROACHMENT STATIONS= 620.0 943.0 TYPE= 1 TARGET= 323.000

50' U/S FROM U/S FACE OF HAGGARTY ROAD BRIDGE, VS #1B SEC. AS

21283.00	8.39	893.59	0.00	0.00	893.59	.00	.00	.00	887.30
500.	193.	155.	152.	888.	335.	729.	27.	5.	887.40
.83	.22	.46	.21	.065	.037	.065	.038	885.20	620.00
.000008	50.	50.	50.	0	0	1	0.00	323.00	943.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: 100 YR

00BREAK00

MODIFICATIONS 52,53,54,55,56 ,57,58
****

T1 FIS-CITY OF FARMINGTON HILLS, 5670-03-1 PM = RICHARD ZANOTTI
T2 100-YEAR FLOOD
T3 SEELEY DRAIN

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	759.080	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CCHV= .300 CEHV= .500

CCHV= .300 CEHV= .500

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
28.00	5.09	759.09	759.09	759.08	760.12	1.03	0.00	0.00	756.00
1810.	270.	1244.	296.	112.	129.	114.	0.	0.	756.00
0.00	2.41	9.67	2.59	.090	.042	.090	0.000	754.00	72.13
.010885	0.	0.	0.	0	4	1	0.00	186.01	258.13

3301 HV CHANGED MORE THAN HVINS

MOUTH OF SEELEY DRAIN

0.00	5.55	761.45	0.00	0.00	761.58	.14	1.20	.27	757.90
835.	176.	507.	152.	177.	136.	152.	2.	1.	758.10
.03	.99	3.74	1.00	.100	.045	.100	.045	755.90	38.01
.001610	250.	250.	250.	2	0	1	0.00	222.44	260.45
250.00	4.21	762.01	0.00	0.00	762.58	.57	.78	.22	759.80
835.	121.	640.	74.	73.	93.	49.	4.	2.	760.20
.04	1.66	6.89	1.52	.100	.045	.100	.045	757.80	64.17
.008399	250.	250.	250.	3	0	1	0.00	152.19	216.36
500.00	4.36	764.06	0.00	0.00	764.53	.47	1.92	.03	761.70
835.	166.	590.	79.	106.	91.	55.	6.	3.	762.30
.05	1.56	6.48	1.43	.100	.045	.100	.045	759.70	22.92
.007029	250.	250.	250.	2	0	1	0.00	177.09	200.01

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

750' U/S FROM THE MOUTH OF SEELEY DRAIN, VS#2 SEC. A

750.00	4.21	765.91	0.00	0.00	766.38	.47	1.85	.00	763.70
835.	221.	552.	62.	138.	83.	41.	7.	4.	764.40
.07	1.60	6.65	1.51	.100	.045	.100	.045	761.70	12.93
.007765	250.	250.	250.	2	0	1	0.00	159.22	172.15
790.00	3.98	766.19	0.00	0.00	766.82	.63	.36	.08	764.21
835.	194.	587.	53.	115.	78.	34.	7.	4.	764.91
.07	1.69	7.54	1.57	.100	.045	.100	.045	762.21	13.18
.010856	40.	40.	40.	1	0	1	0.00	158.50	171.68

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
830.00	3.89	766.62	766.62	0.00	767.35	.73	.47	0.00	764.73
835.	181.	605.	49.	105.	76.	31.	8.	4.	765.43
.07	1.72	8.00	1.59	.100	.045	.100	.045	762.73	13.30
.012748	40.	40.	40.	2	5	1	0.00	158.17	171.47

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
870.00	3.93	767.18	767.18	0.00	767.87	.69	.49	0.00	765.25
835.	187.	597.	51.	110.	77.	32.	8.	5.	765.95
.07	1.71	7.79	1.59	.100	.045	.100	.045	763.25	13.24
.011845	40.	40.	40.	0	5	1	0.00	158.32	171.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
990.00	4.38	769.18	769.18	0.00	769.96	.78	1.39	0.00	767.50
835.	107.	647.	81.	69.	81.	43.	8.	5.	767.50
.08	1.55	8.01	1.88	.100	.045	.100	.045	764.80	17.58
.011342	120.	120.	120.	2	8	1	0.00	160.21	188.45

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

835.	173.	644.	86.	66.	80.	42.	9.	5.	769.05
.08	1.55	8.02	2.08	.100	.045	.090	.045	766.35	17.62
.011472	120.	120.	120.	2	5	1	0.00	158.03	188.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1150.00	4.36	771.23	771.23	0.00	772.01	.78	.46	0.00	769.57
835.	104.	643.	89.	67.	80.	43.	9.	6.	769.57
.08	1.55	7.99	2.08	.100	.045	.090	.045	766.87	17.61
.011384	40.	40.	40.	1	5	1	0.00	158.54	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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
1190.00	4.36	771.74	771.74	0.00	772.52	.78	.46	0.00	770.08
835.	104.	643.	89.	67.	80.	43.	9.	6.	770.08
.09	1.55	8.00	2.08	.100	.045	.090	.045	767.38	17.62
.011401	40.	40.	40.	1	5	1	0.00	158.45	188.40

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1230.00	4.67	772.57	772.57	0.00	773.51	.94	.48	0.00	771.30
835.	39.	664.	113.	29.	80.	40.	9.	6.	770.70
.09	1.34	8.53	2.34	.100	.045	.090	.045	767.90	92.86
.012640	40.	40.	40.	4	8	1	0.00	112.54	205.39

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1290.00	4.77	773.37	773.37	0.00	774.34	.96	.76	0.00	772.20
835.	31.	688.	116.	24.	80.	49.	10.	6.	771.50
.09	1.29	8.61	2.38	.100	.045	.090	.045	768.60	100.59
.012851	60.	60.	60.	0	8	1	0.00	109.20	209.79

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1350.00	4.82	774.22	774.22	0.00	775.21	.99	.78	0.00	773.20
835.	21.	692.	122.	17.	79.	50.	10.	6.	772.30
.09	1.22	8.72	2.44	.100	.045	.090	.045	769.40	111.66
.013251	60.	60.	60.	0	5	1	0.00	102.63	214.29

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1410.00	4.81	775.01	775.00	0.00	776.06	1.05	.82	.03	774.10
835.	11.	698.	126.	10.	78.	50.	10.	6.	773.00
.09	1.13	8.91	2.51	.100	.045	.090	.045	770.20	131.40
.014036	60.	60.	60.	0	5	1	0.00	87.56	218.95

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
1470.00	4.88	775.88	775.88	0.00	776.95	1.07	.85	0.00	775.10
~~835.~~	~~7.~~	~~699.~~	~~127.~~	~~7.~~	~~78.~~	~~51.~~	~~10.~~	~~6.~~	~~773.90~~
.10	1.05	9.00	2.54	.100	.045	.090	.045	771.00	142.33
.014395	60.	60.	60.	1	5	1	0.00	81.56	223.88

approximate profile from 830 to 1410, ft = 670 ft. maybe assuming critical, or else a supercritical profile instead. Could mean as far as 1710, ft = 880 ft.

1530.00	5.18	776.88	776.68	0.00	777.77	.89	.77	.03	775.00
835.	9.	678.	148.	9.	81.	60.	10.	7.	774.60
.10	1.06	8.34	2.45	.100	.045	.090	.045	771.70	145.43
.011587	60.	60.	60.	4	5	1	0.00	85.48	230.91

1590.00	5.07	777.57	777.51	0.00	778.60	1.03	.76	.07	777.00
835.	3.	689.	143.	4.	77.	56.	11.	7.	775.50
.10	.85	8.90	2.56	.100	.045	.090	.045	772.50	158.46
.014050	60.	60.	60.	4	5	1	0.00	77.27	235.73

1650.00	5.13	778.43	778.34	0.00	779.45	1.02	.84	.00	778.00
835.	1.	685.	149.	2.	77.	58.	11.	7.	776.30
.10	.68	8.89	2.56	.100	.045	.090	.045	773.30	166.15
.014047	60.	60.	60.	4	5	1	0.00	74.16	240.31

450' D/S FROM D/S FACE OF DRIVEWAY BRIDGE C, VS#3 SEC. B

1710.00	5.17	779.27	779.26	0.00	780.37	1.10	.88	.04	779.00
835.	0.	693.	142.	1.	75.	58.	11.	7.	777.10
.10	.48	9.18	2.45	.100	.045	.090	.045	774.10	174.17
.015396	60.	60.	60.	0	8	1	0.00	70.47	244.64

2160.00	5.66	784.06	783.69	0.00	785.09	1.03	4.70	.02	779.70
835.	44.	681.	110.	16.	76.	50.	12.	8.	780.70
.12	2.79	8.93	2.21	.070	.040	.070	.044	778.40	172.72
.007499	500.	450.	450.	6	8	1	0.00	80.08	252.81

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

D/S FACE OF DRIVEWAY BRIDGE, BS#4 SEC. C

2161.00	6.55	784.95	0.00	0.00	785.30	.35	.00	.20	779.70
835.	63.	512.	261.	23.	89.	115.	12.	8.	780.70
.12	2.72	5.72	2.28	.035	.030	.035	.044	778.40	171.25
.001396	1.	1.	1.	6	0	1	0.00	103.28	274.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.46	3.03	0.00	12.94	0.00	59.53	0.00	778.40	778.40

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
789.41	785.30	0.00	471.	367.	60.	783.00	784.40	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS#3

2173.00	7.22	785.62	0.00	0.00	785.81	.19	.51	0.00	779.70
835.	62.	439.	334.	29.	100.	169.	12.	8.	780.70
.12	2.12	4.41	1.98	.035	.030	.035	.044	778.40	170.13
.000719	12.	12.	12.	2	0	4	0.00	106.70	276.82

2174.00	7.14	785.54	0.00	0.00	785.90	.36	.00	.09	779.70
835.	43.	567.	225.	28.	98.	162.	12.	8.	780.70
.12	1.51	5.77	1.39	.075	.035	.075	.044	778.40	170.27
.001707	1.	1.	1.	2	0	1	0.00	106.26	276.53

2294.00	6.57	785.67	0.00	0.00	786.18	.52	.21	.08	782.40
835.	44.	734.	56.	19.	120.	25.	13.	8.	782.80
.13	2.34	6.10	2.22	.045	.032	.045	.043	779.10	179.41
.002043	80.	120.	80.	1	0	1	0.00	48.79	228.20

D/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2295.00	6.56	785.66	0.00	0.00	786.19	.52	.00	.00	782.40
835.	43.	737.	54.	19.	120.	25.	13.	8.	782.80
.13	2.27	6.12	2.15	.035	.024	.035	.043	779.10	179.40
.001158	1.	1.	1.	0	0	1	0.00	48.80	228.20

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.53	2.80	0.00	17.67	0.00	99.85	0.00	779.10	779.10

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
787.33	786.19	0.00	139.	695.	100.	784.80	784.90	30.00

U/S FACE OF WOOD WALK BRIDGE, BS#4A SEC. D

2299.00	7.46	786.56	0.00	0.00	786.82	.25	.63	0.00	782.40
835.	125.	643.	67.	128.	141.	41.	13.	8.	782.80
.13	.98	4.55	1.64	.040	.025	.040	.043	779.10	58.69
.000561	4.	4.	4.	2	0	2	0.00	172.60	231.29

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

2300.00	7.44	786.54	0.00	0.00	786.84	.30	.00	.03	782.40
835.	97.	685.	53.	125.	141.	40.	13.	8.	782.80
.13	.78	4.87	1.32	.085	.040	.085	.043	779.10	58.90
~~.001655~~	~~1.~~	~~1.~~	~~1.~~	~~2~~	~~0~~	~~1~~	~~0.00~~	~~172.29~~	~~231.20~~

3685 20 TRIALS USED WSEL,CWSEL

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2400.00	4.32	787.12	787.12	0.00	788.02	.90	.36	0.00	783.90
835.	269.	439.	126.	95.	43.	43.	14.	8.	783.80
.13	2.85	10.14	2.96	.090	.042	.090	.043	782.80	131.89
.013622	90.	100.	110.	30	14	1	0.00	105.79	237.67

3685 20 TRIALS USED WSEL+CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

D/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2401.00	5.76	788.56	788.56	0.00	789.24	.68	.01	0.00	783.90
835.	286.	453.	96.	124.	52.	38.	14.	8.	783.80
.13	2.30	8.71	2.53	.075	.024	.075	.043	782.80	89.31
.010898	1.	1.	1.	30	9	1	-21.80	152.04	241.35

NORMAL BRIDGE,NRD=13 MIN ELTRD= 786.30 MAX ELLC= 786.90

U/S FACE OF CONCRETE & WOOD BRIDGE, BS#4B SEC. E

2407.00	6.30	789.10	0.00	0.00	789.40	.30	.04	.11	783.90
835.	359.	364.	112.	187.	58.	55.	14.	8.	783.80
.13	1.92	6.29	2.03	.075	.024	.075	.043	782.80	73.69
.004925	6.	6.	6.	14	0	1	-21.80	172.63	246.32

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2408.00	6.23	789.03	0.00	0.00	789.47	.44	.00	.07	783.90
835.	276.	454.	111.	185.	64.	63.	14.	8.	783.80
.13	1.46	7.05	1.77	.085	.040	.085	.043	782.80	75.45
.003527	1.	1.	1.	2	0	1	0.00	170.31	245.76

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   835.     236.     534.      65.     154.      81.      41.      14.       8.   787.40
    .13     1.54     6.59     1.60     .085     .040     .085     .043   782.10    70.82
 .005478     20.      40.      70.        3        0        1     0.00   176.42   247.24

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH      AROB       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 CONCRETE & WOOD DAM, DS#4C                          SEC. F

 2449.00      3.49   789.39    789.39      0.00   789.99       .60       .01      0.00   787.50
   835.      342.     414.      79.     175.      48.      42.      14.       8.   787.70
    .13      1.95     8.58     1.86     .070     .025     .070     .043   785.90    64.86
 .005314        1.       1.       1.       30        9        1     0.00   184.28   249.14

        U/S FACE OF CONCRETE & WOOD DAM, DS#4C                          SEC. F

 2450.00      3.51   789.41      0.00     0.00   790.00       .59       .01       .00   787.50
   835.      343.     413.      79.     176.      48.      42.      14.       8.   787.70
    .13      1.95     8.55     1.86     .070     .025     .070     .043   785.90    64.70
 .005267        1.       1.       1.        0        0        1     0.00   184.49   249.19

3470 ENCROACHMENT STATIONS=      65.0      249.0  TYPE=      1  TARGET=      184.000
 2451.00      4.67   789.87      0.00     0.00   790.11       .23       .00       .11   787.60
   835.      381.     336.     118.     236.      58.      67.      14.       8.   785.80
    .13      1.62     5.79     1.75     .085     .040     .085     .043   785.20    65.00
 .003847        1.       1.       1.        5        0        1     0.00   184.00   249.00

 2576.00      4.33   790.40      0.00     0.00   790.78       .38       .60       .07   788.47
   835.      346.     377.     112.     189.      53.      55.      15.       9.   786.67
    .14      1.83     7.08     2.03     .085     .040     .085     .043   786.07    60.81
 .006457     140.     125.      60.        2        0        1     0.00   189.61   250.43

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

 2701.00      4.19   791.12    791.03      0.00   792.08       .96      1.01       .29   789.03
   835.      69.     534.     232.      32.      56.      63.      15.       9.   787.03
    .15      2.15     9.51     3.70     .085     .040     .085     .043   786.93   215.24
 .012491     140.     125.      60.        4        8        1     0.00    96.89   312.13
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[illegible]	122.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
.15	1.55	7.12	2.81	.080	.040	.080	.043	787.80	162.63
.005633	140.	125.	60.	3	0	1	0.00	159.09	321.71

D/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2827.00	4.98	792.78	0.00	0.00	793.14	.36	.00	.04	789.90
835.	149.	434.	253.	97.	69.	94.	16.	10.	787.90
.15	1.54	6.29	2.69	.040	.022	.040	.043	787.80	157.60
.001255	1.	1.	1.	2	0	1	0.00	166.82	324.42

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.51	3.05	0.00	13.37	0.00	45.45	0.00	787.80	787.80

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
800.70	793.14	0.00	568.	267.	45.	791.95	791.96	30.00

U/S FACE OF CONCRETE DRIVEWAY BRIDGE, BS#5 SEC. G

2839.00	5.61	793.41	0.00	0.00	793.59	.18	.45	0.00	789.90
835.	216.	375.	244.	168.	79.	125.	16.	10.	787.90
.15	1.28	4.75	1.95	.040	.022	.040	.043	787.80	139.79
.000599	12.	12.	12.	2	0	6	0.00	194.21	334.00
2840.00	5.59	793.39	0.00	0.00	793.62	.23	.00	.02	789.90
835.	198.	410.	227.	165.	79.	124.	16.	10.	787.90
.15	1.20	5.21	1.83	.085	.040	.085	.043	787.80	140.45
.002398	1.	1.	1.	2	0	1	0.00	193.19	333.64
3000.00	4.59	793.79	0.00	0.00	794.44	.65	.61	.21	791.30
835.	98.	503.	234.	58.	63.	77.	17.	10.	789.30
.16	1.68	8.03	3.03	.085	.040	.085	.043	789.20	180.59
.007688	110.	160.	175.	2	0	1	0.00	137.76	318.35
3160.00	4.46	795.06	794.68	0.00	795.80	.74	1.32	.04	792.70
835.	88.	514.	234.	48.	61.	72.	18.	11.	790.70
.17	1.81	8.48	3.23	.085	.040	.085	.043	790.60	191.65
.008967	110.	160.	175.	4	11	1	0.00	124.72	316.37

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

3200.00	4.46	795.41	795.09	0.00	796.19	.78	.37	.02	793.05
835.	84.	525.	225.	48.	61.	72.	18.	11.	791.05
.17	1.75	8.68	3.12	.090	.040	.090	.042	790.95	192.02
.009412	30.	40.	45.	4	5	1	0.00	124.28	316.30

3240.00	4.58	795.88	795.43	0.00	796.57	.69	.35	.03	793.40
835.	94.	515.	226.	57.	62.	77.	18.	11.	791.40
.17	1.64	8.25	2.94	.090	.040	.090	.042	791.30	181.66
.008159	30.	40.	45.	4	5	1	0.00	136.50	318.16
3260.00	4.55	796.20	795.78	0.00	796.91	.71	.33	.01	793.75
835.	92.	517.	226.	56.	62.	76.	18.	11.	791.75
.17	1.65	8.32	2.97	.090	.040	.090	.042	791.65	183.44
.008361	30.	40.	45.	2	5	1	0.00	134.40	317.84
3320.00	4.52	796.52	0.00	0.00	797.28	.76	-.34	.03	793.40
835.	120.	617.	98.	58.	77.	48.	18.	11.	793.40
.18	2.05	8.06	2.05	.092	.042	.092	.042	792.00	317.60
.008950	30.	40.	45.	0	0	1	0.00	87.99	405.60

D/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3321.00	4.73	796.73	0.00	0.00	797.33	.60	.01	.05	793.40
835.	136.	588.	111.	66.	81.	54.	18.	11.	793.40
.18	2.05	7.30	2.05	.060	.030	.060	.042	792.00	315.20
.003500	1.	1.	1.	3	0	1	0.00	92.36	407.56

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.32	3.04	0.00	6.00	0.00	54.00	0.00	792.60	792.00

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
805.35	797.84	0.00	146.	691.	54.	797.00	801.80	30.00

High FOB
LOB cannot remember

U/S FACE OF DRAKE ROAD BRIDGE, BS#6 SEC. H

3373.00	10.60	802.60	0.00	0.00	802.63	.03	5.30	0.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.86
.000106	52.	52.	52.	2	0	5	0.00	254.51	444.37
3374.00	10.60	802.60	0.00	0.00	802.63	.03	.00	.00	793.40
835.	257.	392.	186.	560.	198.	367.	19.	11.	793.40
.19	.46	1.98	.51	.100	.035	.100	.042	792.00	189.78
.000106	1.	1.	1.	0	0	1	0.00	254.60	444.38

~~SECNO~~	~~DEPTH~~	~~EWSEL~~	~~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	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3859.30	3.87	807.32	0.00	[illegible]	[illegible]	[illegible]	[illegible]	.17	[illegible]
835.	138.	681.	16.	93.	128.	18.	23.	12.	800.05
.21	1.48	5.30	.91	.095	.040	.095	.042	796.65	84.57
.002612	300.	285.	235.	2	0	1	0.00	79.80	164.36
3734.00	4.95	802.65	0.00	0.00	803.31	.66	.28	.15	800.80
835.	102.	726.	7.	59.	105.	7.	24.	12.	801.10
.21	1.73	6.94	1.00	.095	.040	.095	.042	797.70	88.34
.005879	75.	75.	60.	2	0	1	0.00	70.70	159.04
3804.00	4.31	803.01	802.89	0.00	804.09	1.08	.57	.21	801.80
835.	69.	764.	2.	37.	88.	2.	24.	12.	802.10
.21	1.86	8.70	.99	.095	.040	.095	.042	798.70	91.01
.011655	75.	70.	55.	4	15	1	0.00	64.29	155.29

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3839.00	4.20	803.40	803.40	0.00	804.58	1.18	.44	0.00	802.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	802.60
.21	1.86	9.07	.97	.095	.040	.095	.042	799.20	91.46
.013251	40.	35.	30.	2	5	1	0.00	63.20	154.65

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3874.00	4.20	803.90	803.90	0.00	805.08	1.19	.47	0.00	802.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.10
.21	1.86	9.08	.97	.095	.040	.095	.042	799.70	91.47
.013291	40.	35.	30.	0	5	1	0.00	63.17	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3909.00	4.20	804.40	804.40	0.00	805.58	1.19	.47	0.00	803.30
835.	62.	771.	2.	33.	85.	2.	24.	13.	803.60
.21	1.86	9.08	.97	.095	.040	.095	.042	800.20	91.47
.013280	40.	35.	30.	0	5	1	0.00	63.18	154.64

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

570' U/S FROM U/S FACE OF DRAKE ROAD BRIDGE, VS#7 SEC. I

3944.00	4.20	804.90	804.90	0.00	806.08	1.19	.47	0.00	803.80
835.	62.	771.	2.	33.	85.	2.	24.	13.	804.10
.22	1.86	9.08	.97	.095	.040	.095	.042	800.70	91.47
.013283	40.	35.	30.	0	5	1	0.00	63.18	154.64

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

4394.00	6.09	809.59	0.00	0.00	810.41	.82	4.22	.11	806.70
835.	79.	591.	166.	46.	69.	72.	26.	13.	805.00
.23	1.69	8.54	2.30	.095	.042	.095	.042	803.50	267.91
.007220	400.	450.	400.	3	0	1	0.00	76.53	344.44

D/S FACE OF DRIVEWAY BRIDGE, BS#7A SEC. J

4395.00	6.05	809.55	0.00	0.00	810.46	.92	.00	.05	806.70
835.	71.	610.	153.	45.	69.	71.	26.	13.	805.00
.23	1.59	8.90	2.16	.055	.022	.055	.042	803.50	268.38
.002172	1.	1.	1.	2	0	1	0.00	75.76	344.15

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	3.04	0.00	10.87	0.00	51.08	0.00	803.50	803.50

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
816.06	811.85	0.00	406.	433.	51.	808.30	809.70	30.00

U/S FACE OF DRIVEWAY BRIDGE, BS#7A SEC. J

4406.00	7.43	810.93	0.00	0.00	811.30	.36	.83	0.00	806.70
835.	120.	523.	193.	100.	87.	130.	26.	13.	805.00
.23	1.20	6.03	1.49	.055	.022	.055	.042	803.50	252.97
.000731	11.	11.	11.	2	0	5	0.00	135.11	388.07
4407.00	7.53	811.03	0.00	0.00	811.32	.29	.00	.02	806.70
835.	134.	485.	216.	104.	88.	138.	26.	13.	805.00
.23	1.29	5.52	1.57	.075	.035	.075	.042	803.50	251.87
.001517	1.	1.	1.	2	0	1	0.00	143.24	395.12

3301 HV CHANGED MORE THAN HVINS

210' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#8 SEC. K

4617.00	5.00	811.30	810.82	0.00	812.25	.94	.60	.33	810.90
835.	3.	723.	110.	5.	87.	43.	27.	14.	809.10
.24	.58	8.32	2.58	.075	.035	.075	.042	806.30	146.36
.007197	210.	210.	210.	4	14	1	0.00	70.45	216.80
4917.00	5.82	813.22	0.00	0.00	813.77	.55	1.40	.12	812.00
835.	31.	680.	124.	33.	104.	60.	28.	15.	809.80
.26	.93	6.51	2.09	.075	.035	.075	.041	807.40	91.37
.003276	300.	300.	300.	2	0	1	0.00	108.50	199.86

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

810' U/S FROM U/S FACE OF DRIVEWAY BRIDGE J, VS#9 SEC. L

5217.00	5.86	814.36	0.00	0.00	815.02	.66	1.20	.06	813.30
835.	20.	709.	106.	22.	101.	60.	29.	15.	810.60
.27	.92	7.05	1.77	.075	.040	.095	.041	808.50	87.10
.004991	300.	300.	300.	3	0	1	0.00	100.76	187.86
5292.00	5.54	814.72	0.00	0.00	815.54	.83	.44	.08	813.98
835.	7.	729.	98.	11.	94.	48.	30.	15.	811.28
.27	.69	7.78	2.04	.095	.042	.095	.041	809.18	99.95
.007367	60.	75.	60.	2	0	1	0.00	83.36	183.30
5367.00	5.39	815.24	814.75	0.00	816.19	.95	.59	.06	814.35
835.	14.	743.	78.	14.	90.	38.	30.	16.	812.45
.28	.98	8.27	2.06	.095	.042	.095	.041	809.85	126.54
.008733	60.	75.	60.	4	11	1	0.00	83.10	209.64
5442.00	5.35	815.88	815.43	0.00	816.86	.98	.65	.02	815.03
835.	12.	746.	77.	13.	89.	37.	30.	16.	813.13
.28	.96	8.39	2.08	.095	.042	.095	.041	810.53	127.67
.009101	60.	75.	60.	4	5	1	0.00	81.69	209.36

835.	29.	744.	62.	24.	89.	34.	39.	16.	814.30
.28	1.20	8.36	1.86	.095	.042	.095	.041	811.20	147.17
.008928	60.	75.	60.	4	8	1	0.00	91.15	238.32

5592.00	5.33	817.21	816.95	0.00	818.19	.98	.66	.01	816.08
835.	28.	746.	62.	23.	89.	33.	31.	16.	814.98
.28	1.20	8.41	1.86	.095	.042	.095	.041	811.88	148.25
.009081	60.	75.	60.	4	5	1	0.00	90.00	238.25

5629.00	5.32	817.54	817.29	0.00	818.53	1.00	.33	.01	816.42
835.	27.	747.	61.	23.	88.	33.	31.	16.	815.32
.29	1.20	8.45	1.87	.095	.042	.095	.041	812.22	149.20
.009219	30.	37.	30.	4	5	1	0.00	89.00	238.20

5667.00	5.32	817.87	817.81	0.00	818.91	1.04	.36	.02	816.55
835.	47.	746.	43.	33.	86.	26.	31.	16.	816.25
.29	1.41	8.66	1.65	.095	.042	.095	.041	812.55	169.72
.010068	30.	38.	30.	4	8	1	0.00	97.45	267.17

SECNO Q TIME SLOPE	DEPTH QLOB VLOB KLOBL	CWSEL QCH VCH KLCH	CRI#S QROB VROB KLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
5742.00	5.70	818.93	0.00	0.00	819.64	.71	.63	.10	817.23
835.	79.	693.	63.	55.	94.	37.	31.	16.	816.93
.29	1.45	7.39	1.70	.095	.045	.095	.041	813.23	156.46
.007483	60.	75.	60.	4	0	1	0.00	111.73	268.21

70' D/S FROM D/S FACE OF FOOT BRIDGE N, VS#9A SEC. M

5817.00	5.58	819.48	819.17	0.00	820.27	.79	.59	.04	817.60
835.	88.	701.	45.	63.	90.	29.	31.	16.	818.10
.29	1.40	7.77	1.56	.095	.045	.095	.041	813.90	182.92
.008743	60.	75.	60.	4	11	1	0.00	114.14	297.06

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

5887.00	6.37	820.57	0.00	0.00	820.75	.17	.29	.19	815.10
835.	157.	640.	38.	88.	174.	25.	32.	17.	815.40
.30	1.80	3.68	1.49	.085	.051	.085	.041	814.20	212.48
.002402	70.	70.	70.	2	0	1	0.00	97.29	309.77

1490 NH CARD USED

D/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5888.00	6.36	820.56	0.00	0.00	820.77	.21	.00	.02	815.10
835.	120.	687.	28.	87.	173.	25.	32.	17.	815.40
.30	1.38	3.90	1.11	.070	.030	.072	.041	814.20	212.62
.000969	1.	1.	1.	2	0	1	0.00	97.11	309.73

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.44	3.08	0.00	17.00	0.00	71.40	0.00	814.20	814.20

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
823.62	820.77	0.00	393.	442.	71.	819.50	819.60	30.00

U/S FACE OF FOOT BRIDGE, BS#10 SEC. N

5893.00	7.09	821.29	0.00	0.00	821.42	.13	.65	0.00	815.10
835.	135.	666.	34.	113.	212.	36.	32.	17.	815.40
.30	1.19	3.14	.93	.070	.031	.072	.041	814.20	207.01
.000589	5.	5.	5.	2	0	4	0.00	115.61	322.62

1490 NH CARD USED

5894.00	7.17	821.37	0.00	0.00	821.43	.07	.00	.02	815.10
835.	149.	647.	39.	116.	288.	38.	32.	17.	815.40
.30	1.28	2.25	1.02	.075	.058	.075	.041	814.20	206.40
.000766	1.	1.	1.	2	0	1	0.00	117.91	324.31

5984.00	6.59	821.44	0.00	0.00	821.53	.09	.08	.01	815.75
835.	137.	665.	33.	95.	257.	27.	33.	17.	816.05
.31	1.44	2.59	1.20	.075	.057	.075	.041	814.85	210.89
.001133	90.	90.	90.	1	0	1	0.00	100.91	311.80

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
6074.00	6.01	821.51	0.00	0.00	821.71	.20	.13	.06	816.60
835.	399.	413.	23.	267.	84.	18.	33.	17.	816.20
.32	1.49	4.90	1.28	.080	.040	.080	.041	815.50	144.30
.001763	90.	90.	90.	1	0	1	0.00	125.49	269.80

D/S FACE OF FOOT BRIDGE, BS#10A SEC. O

6075.00	5.97	821.47	0.00	0.00	821.75	.28	.00	.04	816.60
835.	353.	463.	19.	263.	84.	18.	34.	17.	816.20
.32	1.34	5.53	1.08	.075	.030	.080	.041	815.50	144.67
.001277	1.	1.	1.	2	0	1	0.00	125.08	269.74

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.73	3.08	0.00	12.98	0.00	58.40	0.00	815.50	815.50

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

U/S FACE OF FOOT BRIDGE, BS#10A SEC. 0

6080.00	6.54	822.04	0.00	0.00	822.22	.18	.47	0.00	816.60
835.	387.	429.	20.	323.	92.	22.	34.	17.	816.20
.32	1.20	4.65	.91	.075	.030	.080	.041	815.50	139.62
.000794	5.	5.	5.	2	0	4	0.00	130.84	270.47
6081.00	6.61	822.11	0.00	0.00	822.24	.13	.00	.02	816.60
835.	434.	378.	22.	330.	93.	22.	34.	17.	816.20
.32	1.32	4.06	1.01	.090	.045	.095	.041	815.50	139.01
.001342	1.	1.	1.	2	0	1	0.00	131.54	270.56
6296.00	5.61	822.41	0.00	0.00	822.71	.30	.39	.08	817.90
835.	361.	453.	21.	226.	78.	15.	35.	18.	817.50
.33	1.59	5.79	1.36	.090	.043	.095	.041	816.80	147.87
.003140	185.	215.	185.	2	0	1	0.00	121.41	269.29
6368.00	5.39	822.62	0.00	0.00	822.98	.36	.23	.03	818.33
835.	348.	466.	21.	205.	75.	14.	36.	18.	817.93
.34	1.70	6.23	1.46	.090	.043	.095	.041	817.23	152.66
.003849	62.	72.	62.	2	0	1	0.00	116.34	269.00
6404.00	5.30	822.74	0.00	0.00	823.13	.38	.14	.01	818.54
835.	343.	472.	20.	196.	73.	14.	36.	18.	818.14
.34	1.75	6.43	1.51	.090	.043	.095	.042	817.44	154.79
.004206	31.	36.	31.	0	0	1	0.00	114.09	268.88

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	QLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
6440.00	5.32	822.99	822.99	0.00	823.71	.71	.21	0.00	822.17
835.	214.	620.	1.	133.	80.	1.	36.	18.	822.07
.34	1.61	7.80	.88	.090	.043	.095	.042	817.67	67.92
.009714	31.	36.	31.	30	5	1	0.00	164.39	232.31

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	QLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
6511.00	5.79	823.89	0.00	0.00	824.27	.38	.46	.10	822.60
835.	296.	537.	2.	199.	89.	2.	36.	18.	822.50
.35	1.49	6.04	.83	.090	.043	.095	.042	818.10	66.36
.005031	62.	71.	62.	3	0	1	0.00	167.11	233.48

.005031	62.	71.	62.	3	0	1	0.00	167.11	233.48

2355' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#11 SEC. P

6726.00	5.61	825.01	0.00	0.00	825.49	.48	1.16	.05	823.90
835.	267.	567.	2.	173.	85.	2.	38.	19.	823.80
.36	1.54	6.66	.85	.090	.043	.095	.042	819.40	66.98
.006460	185.	215.	185.	3	0	1	0.00	166.04	233.02

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
6876.00	5.37	826.54	826.54	0.00	827.21	.67	1.17	0.00	825.67
835.	223.	611.	1.	139.	80.	1.	39.	19.	825.57
.36	1.60	7.59	.88	.090	.043	.095	.042	821.17	67.77
.009070	165.	150.	135.	3	10	1	0.00	164.66	232.43
7026.00	5.10	828.03	827.94	0.00	828.82	.78	1.55	.06	825.93
625.	163.	462.	0.	88.	56.	0.	39.	20.	829.43
.37	1.85	8.19	0.00	.090	.040	.085	.042	822.93	233.88
.011693	165.	150.	135.	4	11	1	0.00	101.57	335.46

1905' D/S FROM D/S FACE OF HALSTEAD ROAD CULVERT, VS#12 SEC. Q

7176.00	5.13	829.83	829.77	0.00	830.59	.76	1.77	.01	827.70
625.	166.	459.	0.	90.	57.	0.	40.	20.	831.20
.38	1.83	8.09	0.00	.090	.040	.085	.042	824.70	232.92
.011328	165.	150.	135.	5	5	1	0.00	102.58	335.50
7396.00	6.07	832.07	0.00	0.00	832.42	.35	1.70	.12	827.70
625.	249.	206.	170.	119.	28.	56.	40.	21.	827.70
.39	2.10	7.43	3.04	.090	.045	.085	.042	826.00	227.93
.007139	130.	220.	230.	1	0	1	0.00	96.20	324.13

D/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7397.00	6.15	832.15	0.00	0.00	832.44	.29	.00	.02	827.70
625.	265.	193.	168.	125.	28.	58.	40.	21.	827.70
.39	2.12	6.85	2.89	.055	.030	.055	.042	826.00	226.13
.002645	1.	1.	1.	2	0	1	0.00	98.32	324.44

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	B#C	H#P	BAREA	SS	ELCHU	ELCHD
	0.00	1.92	2.92	0.00	3.93	0.00	19.63	0.00	826.00	826.00

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HJ	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
862.37	839.82	0.00	450.	176.	20.	831.00	833.30	30.00

U/S FACE OF DRIVEWAY CULVERT, BS#12A SEC. R

7415.00	8.49	834.49	0.00	0.00	834.53	.04	2.09	0.00	827.70
625.	357.	123.	144.	358.	40.	119.	41.	21.	827.70
.39	1.00	3.10	1.21	.065	.032	.065	.042	826.00	159.62
.000386	18.	18.	18.	2	0	8	0.00	173.10	332.72
7416.00	8.49	834.49	0.00	0.00	834.54	.05	.00	.00	827.70
625.	353.	129.	143.	359.	40.	119.	41.	21.	827.70
.39	.99	3.23	1.20	.090	.042	.090	.042	826.00	159.56
.000724	1.	1.	1.	0	0	1	0.00	173.16	332.72
7536.00	7.04	834.59	0.00	0.00	834.74	.14	.15	.05	829.25
625.	298.	167.	160.	197.	33.	79.	42.	21.	829.25
.41	1.51	5.14	2.02	.090	.045	.090	.042	827.55	207.46
.002749	125.	120.	110.	2	0	1	0.00	120.13	327.60
7656.00	5.89	834.99	0.00	0.00	835.42	.43	.54	.14	830.80
625.	244.	218.	164.	107.	27.	53.	42.	21.	830.80
.41	2.27	8.11	3.12	.090	.045	.090	.042	829.10	231.44
.008862	125.	120.	110.	2	0	1	0.00	92.11	323.54
7776.00	5.12	835.87	0.00	0.00	835.98	.11	.47	.09	831.35
625.	239.	206.	180.	166.	49.	129.	43.	22.	831.35
.43	1.44	4.18	1.39	.090	.045	.090	.042	830.75	35.07
.002219	125.	120.	110.	2	0	1	0.00	146.42	181.49
7896.00	3.90	836.20	0.00	0.00	836.66	.46	.50	.17	832.90
625.	184.	283.	158.	83.	37.	62.	44.	22.	832.90
.44	2.22	7.63	2.55	.090	.045	.090	.042	832.30	38.35
.010769	125.	120.	110.	2	0	1	0.00	120.77	159.13
8016.00	3.74	837.59	0.00	0.00	838.18	.59	1.46	.06	834.45
625.	171.	299.	155.	72.	35.	55.	44.	22.	834.45
.44	2.38	8.45	2.83	.090	.045	.090	.042	833.85	38.81
.014041	125.	120.	110.	3	0	1	0.00	117.23	156.04
8076.00	3.85	838.48	0.00	0.00	838.98	.50	.77	.03	835.23
625.	179.	288.	157.	79.	37.	59.	45.	23.	835.23
.44	2.27	7.90	2.64	.090	.045	.090	.042	834.63	38.51
.011792	65.	60.	55.	3	0	1	0.00	119.54	158.05

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
		QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

8136.00	3.67	839.07	839.05	0.00	839.73	.66	.68	.08	836.00
625.	164.	308.	153.	67.	35.	52.	45.	23.	836.00
.45	2.44	8.86	2.92	.075	.037	.075	.042	835.40	38.98
.010701	65.	60.	55.	4	11	1	0.00	115.86	154.84

1490 NH CARD USED
3685 20 TRIALS USED WSEL+CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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=30 MIN ELTRD= 837.50 MAX ELLC= 837.40

D/S FACE OF ROCK & CONCRETE DAM+ DS#13 SEC. S

8137.00	4.86	840.26	840.26	0.00	840.74	.48	.01	0.00	839.50
625.	214.	300.	111.	73.	43.	22.	45.	23.	837.50
.45	2.91	6.98	4.98	.067	.031	.034	.042	835.40	35.77
.015255	1.	1.	1.	30	13	1	-3.60	114.85	150.63

NORMAL BRIDGE+NRD=30 MIN ELTRD= 837.50 MAX ELLC= 837.40

8139.00	5.13	840.53	0.00	0.00	840.82	.29	.02	.06	839.50
625.	247.	259.	119.	92.	46.	33.	45.	23.	837.50
.45	2.69	5.66	3.60	.065	.031	.038	.042	835.40	35.05
.009283	2.	2.	2.	5	0	1	-3.60	125.00	160.05

1490 NH CARD USED
3685 20 TRIALS USED WSEL+CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

8140.00	4.48	840.58	840.58	0.00	841.27	.69	.01	0.00	839.50
625.	206.	369.	50.	95.	43.	30.	45.	23.	839.50
.45	2.16	8.53	1.66	.064	.025	.052	.042	836.10	3.93
.005699	1.	1.	1.	30	9	1	0.00	126.75	161.68

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

U/S FACE OF DAM & BRIDGE SECTION, DS#13 SEC. S

8141.00	4.92	841.02	840.63	0.00	841.38	.35	.00	.10	839.50
625.	241.	311.	72.	127.	48.	54.	45.	23.	839.50
.45	1.90	6.52	1.33	.062	.025	.057	.042	836.10	33.72
.002923	1.	1.	1.	10	5	1	0.00	143.74	177.46

3470 ENCROACHMENT STATIONS= .0 176.0 TYPE= 1 TARGET= 175.999

8142.00	7.33	841.43	0.00	0.00	841.47	.05	.00	.09	835.00
625.	177.	198.	251.	231.	72.	266.	45.	23.	835.50
.45	.77	2.75	.94	.085	.035	.085	.042	834.10	32.63
.000388	1.	1.	1.	2	0	1	0.00	143.37	176.00

3301 HV CHANGED MORE THAN HVINS

8442.00	6.09	841.39	0.00	0.00	841.99	.60	.24	.28	835.50
625.	65.	481.	79.	60.	68.	71.	47.	24.	835.80
.46	1.08	7.07	1.12	.085	.035	.085	.042	835.30	43.30
.002594	300.	300.	300.	3	0	1	0.00	132.67	175.97

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

D/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8443.00	6.09	841.39	841.34	0.00	842.00	.61	.00	.00	835.50
625.	88.	423.	113.	49.	57.	56.	48.	24.	835.80
.46	1.81	7.48	2.03	.050	.020	.050	.042	835.30	43.25
.005249	1.	1.	1.	0	9	1	-37.70	132.76	176.01

NORMAL BRIDGE,NRD=12 MIN ELTRD= 839.80 MAX ELLC= 839.40

U/S FACE OF CONCRETE & WOOD WALKWAY BRIDGE, BS#14 SEC. T

8459.00	6.56	841.86	0.00	0.00	842.15	.29	.06	.09	835.50
625.	121.	348.	156.	78.	62.	88.	48.	24.	835.80
.46	1.55	5.62	1.77	.050	.020	.050	.042	835.30	29.84
.002628	16.	16.	16.	7	0	1	-37.70	157.15	186.99

8460.00	6.54	841.84	0.00	0.00	842.17	.33	.00	.02	835.50
625.	95.	413.	117.	89.	73.	103.	48.	24.	835.80
.46	1.06	5.63	1.14	.070	.035	.070	.042	835.30	29.65
.001489	1.	1.	1.	1	0	1	0.00	157.05	186.90

3470 ENCROACHMENT STATIONS= 100.0 175.0 TYPE= 1 TARGET= 75.000

8660.00	6.06	842.26	0.00	0.00	842.52	.26	.33	.02	836.80
625.	220.	259.	146.	118.	44.	67.	49.	24.	836.40
.48	1.86	5.90	2.19	.070	.035	.070	.041	836.20	100.00

.001849	200.	200.	200.	0	0	1	0.00	75.00	175.00

SECNO	DEPTH	C*SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T*A	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= 100.0 175.0 TYPE= 1 TARGET= 75.000

D/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#15 SEC. U

8661.00	6.02	842.22	0.00	0.00	842.57	.34	.00	.04	836.80
625.	202.	288.	135.	116.	44.	66.	49.	24.	836.40
.48	1.74	6.60	2.04	.055	.023	.055	.041	836.20	100.00
.001008	1.	1.	1.	2	0	1	0.00	75.00	175.00

SPECIAL BRIDGE

SH	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.65	3.06	0.00	6.47	0.00	21.36	0.00	837.80	836.20

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
864.16	844.17	0.00	438.	187.	21.	841.20	842.10	30.00

3470 ENCROACHMENT STATIONS= 100.0 175.0 TYPE= 1 TARGET= 75.000

U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#15 SEC. U

8675.00	6.21	844.01	0.00	0.00	844.19	.19	1.63	0.00	838.80
625.	270.	229.	126.	180.	43.	76.	49.	24.	838.80
.48	1.50	5.34	1.65	.055	.020	.055	.041	837.80	100.00
.000530	14.	14.	14.	2	0	7	0.00	75.00	175.00

3470 ENCROACHMENT STATIONS= 100.0 175.0 TYPE= 1 TARGET= 75.000

8676.00	6.29	844.09	0.00	0.00	844.21	.13	.00	.02	838.80
625.	294.	194.	137.	184.	43.	78.	49.	24.	838.80
.48	1.60	4.47	1.76	.065	.030	.065	.041	837.80	100.00
.000819	1.	1.	1.	2	0	1	0.00	75.00	175.00

3470 ENCROACHMENT STATIONS= 100.0 230.0 TYPE= 1 TARGET= -100.000

8677.00	6.05	843.85	0.00	0.00	844.45	.59	.00	.23	838.80
625.	234.	339.	52.	101.	42.	24.	49.	24.	838.80
.48	2.32	8.13	2.16	.060	.032	.060	.041	837.80	100.00
.003258	1.	1.	1.	2	0	1	0.00	74.60	174.60

~~3645 28 THALES USEU WSEL C*SEL~~

7185 MIN SPECIFIC ENERGY

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3720 ASSUMED CRITICAL DEPTH

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


3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
  8678.00      5.20    844.00    844.00      0.00    845.32      1.32       .00      0.00    838.80
     625.      162.      428.      35.      108.      39.       26.       49.       24.     838.90
      .48      1.50     11.08     1.35      .055      .013      .055      .041    838.80    100.00
  .001058       1.        1.       1.        30        15         1      0.00     75.98    175.98

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


3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
  8679.00      5.22    844.02    844.01      0.00    845.32      1.30       .00       .01    838.80
     625.      163.      427.      35.      109.      39.       26.       49.       24.     838.90
      .48      1.49     11.02     1.34      .055      .013      .055      .041    838.80    100.00
  .001040       1.        1.       1.         0         5         1      0.00     76.17    176.17


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     100.0     177.0  TYPE=     1  TARGET=      77.000
  8680.00      7.68    845.48      0.00      0.00    845.66       .18       .00       .34    837.80
     625.      282.      271.      72.      185.      56.       55.       49.       24.     838.80
      .48      1.53      4.85     1.30      .060      .030      .060      .041    837.80    100.00
  .000676       1.        1.       1.         4         0         1      0.00     77.00    177.00


3470 ENCROACHMENT STATIONS=      98.0     117.0  TYPE=     1  TARGET=      19.000
  9060.00      7.84    845.74      0.00      0.00    846.15       .41       .38       .12 99999.00
     625.        0.      625.       0.        0.     121.        0.       51.       25.  99999.00
      .50      0.00      5.16      0.00      .060      .030      .060      .041    837.90     98.00
  .001607      380.      380.     380.         2         0         1      0.00     19.00    117.00


3470 ENCROACHMENT STATIONS=     101.0     115.0  TYPE=     1  TARGET=      14.000
  9070.00      7.77    845.67      0.00      0.00    846.27       .60       .02       .09100000.00
     625.        0.      625.       0.        0.     101.        0.       51.       25. 100000.00
      .50      0.00      6.19      0.00      .060      .030      .060      .041    837.90    101.00
  .002698      10.       10.      10.         2         0         1      0.00     14.00    115.00


3470 ENCROACHMENT STATIONS=     103.5     114.5  TYPE=     1  TARGET=      11.000
  9076.00      7.62    845.52      0.00      0.00    846.46       .94       .02       .17100000.00
     625.        0.      625.       0.        0.      80.        0.       51.       25. 100000.00
      .50      0.00      7.60      0.00      .060      .030      .060      .041    837.90    103.50
  .005325       6.        6.       6.         2         0         1      0.00     11.00    114.50
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3301 HV CHANGED MORE THAN HVINS

  9080.00      7.06    844.96      0.00      0.00    847.09      2.13       .03       .59    861.30
     625.        0.      625.        0.        0.       53.        0.       51.       25.    861.30
      .50      0.00     11.70      0.00      .060      .030      .060      .041    837.90     95.50
  .014236        4.        4.        4.         3         0         1      0.00      9.00    104.50

NORMAL BRIDGE,NRO= 9 MIN ELTRD=  861.30 MAX ELLC=  848.50

        D/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                          SEC. V

  9081.00      7.04    844.94      0.00      0.00    847.14      2.20       .02       .04    861.30
     625.        0.      625.        0.        0.       53.        0.       51.       25.    861.30
      .50      0.00     11.90      0.00      .020      .032      .020      .041    837.90     95.50
  .016549        1.        1.        1.         2         0         1      -.70      9.00    104.50

3301 HV CHANGED MORE THAN HVINS

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

NORMAL BRIDGE,NRD= 9 MIN ELTRD=  861.30 MAX ELLC=  849.00

        U/S FACE OF HALSTEAD ROAD BRIDGE, BS#16                          SEC. V

  9196.00      9.15    847.55      0.00      0.00    848.84      1.29      1.43       .27    861.30
     625.        0.      625.        0.        0.       69.        0.       51.       25.    861.30
      .51      0.00      9.10      0.00      .020      .032      .020      .041    838.40     95.50
  .009645      115.      115.      115.         3         0         1     -3.55      9.00    104.50

  9197.00      9.42    847.82      0.00      0.00    848.91      1.09       .01       .06    861.30
     625.        0.      625.        0.        0.       75.        0.       51.       25.    861.30
      .51      0.00      8.37      0.00      .060      .032      .060      .041    838.40     95.50
  .007119        1.        1.        1.         2         0         1      0.00      9.00    104.50

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      100.0      115.0  TYPE=      1  TARGET=       15.000
  9200.00      9.93    848.83      0.00      0.00    849.14       .32       .01       .23100000.00
     625.        0.      625.        0.        0.      138.        0.       51.       25. 100000.00
      .51      0.00      4.52      0.00      .060      .032      .060      .041    838.90    100.00
  .001338        3.        3.        3.         2         0         1      0.00     15.00    115.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=      120.0      270.0  TYPE=      1  TARGET=     -120.000

        455' U/S FROM U/S FACE OF HALSTEAD ROAD BRIDGE, VS#17            SEC. W

  9650.00      7.61    849.51      0.00      0.00    849.55       .05       .32       .08    845.20
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3470 ENCROACHMENT STATIONS= 125.0 245.0 TYPE= 1 TARGET= 120.000

9765.00	6.35	849.55	0.00	0.00	849.65	.10	.07	.03	846.50
625.	254.	301.	70.	203.	86.	57.	55.	26.	845.60
.60	1.26	3.49	1.22	.090	.045	.090	.040	843.20	125.00
.001270	60.	115.	150.	2	0	1	0.00	101.77	226.77

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 213.6 302.6 TYPE= 1 TARGET= 100.000

D/S FACE OF DRIVEWAY BRIDGE, CONCRETE P I-BEAM BRIDGE, BS#18 SEC. X

9880.00	4.95	849.45	849.37	0.00	850.42	.97	.34	.43	844.50
625.	272.	343.	10.	51.	36.	5.	55.	26.	848.30
.60	5.32	9.53	2.02	.095	.050	.095	.041	844.50	236.21
.035123	60.	115.	150.	4	15	1	0.00	54.43	290.64

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.89	3.04	0.00	9.44	0.00	22.65	0.00	845.90	844.50

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

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
871.80	851.82	0.00	441.	184.	23.	847.00	849.20	30.00

3470 ENCROACHMENT STATIONS= 218.1 298.2 TYPE= 1 TARGET= 90.000

U/S FACE OF DRIVEWAY BRIDGE, BS#18 SEC. X

9899.00	5.30	851.20	0.00	0.00	851.39	.19	.97	0.00	848.20
625.	250.	279.	96.	94.	65.	35.	55.	26.	846.90
.60	2.65	4.26	2.74	.080	.085	.080	.041	845.90	218.05
.008393	19.	19.	19.	2	0	6	0.00	80.10	298.15

3470 ENCROACHMENT STATIONS= 219.1 291.2 TYPE= 1 TARGET= 90.000

9900.00	5.24	851.14	0.00	0.00	851.46	.32	.01	.07	848.20
625.	187.	366.	72.	91.	65.	34.	55.	26.	846.90
.60	2.04	5.67	2.12	.080	.050	.080	.041	845.90	218.05
.005228	1.	1.	1.	2	0	1	0.00	80.10	298.15

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 .005228      1.       1.       1.       2        0        1     0.00    40.10   298.15


3470 ENCROACHMENT STATIONS=     298.0     338.0  TYPE=     1  TARGET=      40.000

        50' D/S FROM D/S FACE OF I-696 CULVERT, VS#19                    SEC. Y

 10000.00     4.59   851.49     0.00     0.00   851.88      .39      .38      .04   849.90
     605.      11.     585.      9.       7.     114.       6.      56.      26.    849.50
      .61     1.44     5.11     1.68     .070     .035     .070     .041   846.90   298.00
 .002787     125.     100.      75.       2        0        1     0.00    40.00   338.00


 10050.00     7.25   851.55     0.00     0.00   852.14      .59      .16      .10   862.30
     605.      0.      605.      0.       0.      98.       0.      56.      26.    862.30
      .61     0.00     6.17     0.00     .070     .035     .070     .041   844.30   142.50
 .003499      50.      50.      50.       2        0        1     0.00    15.00   157.50


NORMAL BRIDGE,NRD=13 MIN ELTRD=  862.30 MAX ELLC=  853.50

        D/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20                    SEC. Z

 10051.00     7.22   851.52     0.00     0.00   852.17      .64      .00      .03   862.30
     605.      0.      605.      0.       0.      94.       0.      56.      26.    862.30
      .61     0.00     6.44     0.00     .020     .018     .020     .041   844.30   142.50
 .001062       1.       1.       1.       2        0        1    -3.67    15.00   157.50


3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=13 MIN ELTRD=  862.60 MAX ELLC=  855.60

 10289.00     5.60   851.60     0.00     0.00   852.83     1.24      .37      .30   862.60
     605.      0.      605.      0.       0.      68.       0.      56.      26.    862.60
      .62     0.00     8.92     0.00     .020     .018     .020     .040   846.00   142.50
 .002509     238.     238.     238.       2        0        1    -1.04    15.00   157.50

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


NORMAL BRIDGE,NRD=17 MIN ELTRD=  862.60 MAX ELLC=  855.20

 10290.00     6.09   852.09     0.00     0.00   852.95      .86      .00      .11   862.60
     605.      0.      605.      0.       0.      81.       0.      56.      26.    862.60
      .62     0.00     7.44     0.00     .020     .031     .020     .040   846.00   142.40
 .005453       1.       1.       1.       3        0        1    -3.89    15.20   157.60


NORMAL BRIDGE,NRD=17 MIN ELTRD=  866.00 MAX ELLC=  856.40

        U/S FACE OF I-696 & HOWARD ROAD BRIDGE, BS#20                    SEC. Z

 10459.00     5.83   853.83     0.00     0.00   853.96      .94      .97      .04   860.00
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605.	0.	605.	0.	0.	78.	0.	57.	26.	866.00
.62	0.00	7.76	0.00	.020	.031	.020	.040	847.20	142.40
.006112	169.	169.	169.	2	0	1	-3.26	15.20	157.60
10460.00	5.99	853.19	0.00	0.00	854.00	.81	.01	.04	866.00
605.	0.	605.	0.	0.	84.	0.	57.	26.	866.00
.62	0.00	7.22	0.00	.060	.032	.060	.040	847.20	142.40
.004615	1.	1.	1.	2	0	1	0.00	15.20	157.60

800' U/S FROM U/S FACE OF HOWARD ROAD BRIDGE, VS#21 SEC. AA

11260.00	6.53	856.23	0.00	0.00	856.61	.38	2.47	.13	852.90
605.	71.	493.	41.	53.	91.	56.	59.	27.	854.80
.67	1.33	5.42	.73	.095	.035	.095	.040	849.70	176.08
.002221	780.	800.	800.	3	0	1	0.00	100.22	276.30

3301 HV CHANGED MORE THAN HVINS

11385.00	5.07	856.37	856.17	0.00	857.42	1.06	.47	.34	854.10
605.	44.	547.	14.	23.	63.	15.	60.	28.	855.50
.68	1.90	8.66	.92	.095	.035	.095	.039	851.30	172.93
.007819	130.	125.	125.	4	15	1	0.00	65.98	238.91

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11510.00	4.88	857.78	857.78	0.00	858.93	1.15	1.03	0.00	855.40
605.	35.	522.	48.	19.	57.	32.	60.	28.	856.20
.68	1.87	9.23	1.52	.095	.035	.095	.039	852.90	163.91
.008713	130.	125.	125.	3	5	1	0.00	62.65	226.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
11635.00	4.74	859.24	859.24	0.00	860.37	1.13	1.13	0.00	856.60
605.	32.	475.	99.	16.	50.	47.	60.	28.	856.90
.68	1.91	9.57	2.09	.095	.035	.095	.039	854.50	155.02
.009355	130.	125.	125.	2	0	1	0.00	57.78	212.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

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$$$$$$$$     $$     $$$$$$$   $$$$$$$$   $$$$$ $  $$$$$$$$     $$
$$          $$$$    $$    $$    $$     $$    $       $$     $$$
$$         $$  $$   $$    $$    $$     $$   $$$      $$      $$
$$$$$     $$    $$   $$    $$    $$     $$  $ $$     $$      $$
$$        $$    $$   $$    $$    $$     $$ $$ $$     $$      $$
$$        $$$$$$$$   $$$$$$$     $$     $$ $  $$     $$      $$
$$        $$    $$   $$  $$      $$     $$$   $$     $$      $$
$$        $$    $$   $$   $$   $$ $$     $    $$     $$      $$
$$        $$    $$   $$    $$   $$$     $ $$$$$      $$   $$$$$$$$
FARJ071  JANDA              03/30/78  08.19.03  7600   JO
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MOORE BUSINESS FORMS, INC 23

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      CITY OF FARMINGTON HILLS, FIS,  5670-03-1,  PM = RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      SEELEY DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    RVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000     0.00      0.0       0.   893.502    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CMNIM     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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MOORE BUSINESS FORMS, INC 23

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

200' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS #36 SEC. AP

20131.00	10.50	893.50	0.00	893.50	893.52	.02	0.00	0.00	889.40
500.	16.	416.	68.	44.	338.	120.	0.	0.	887.20
0.00	.36	1.23	.56	.060	.038	.050	0.000	883.00	32.26
.000061	250.	200.	150.	0	0	1	0.00	95.38	127.64

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= .1 530.0 TYPE= 1 TARGET= 529.950

200' D/S FROM D/S FACE OF HAGGARTY ROAD BRIDGE, VS #37 SEC. AQ

20981.00	8.83	893.53	0.00	0.00	893.53	.00	.01	.01	885.80
500.	317.	44.	139.	2071.	149.	988.	36.	6.	886.00
1.46	.15	.30	.14	.054	.030	.054	.038	884.70	52.12
.000002	850.	850.	850.	2	0	1	0.00	477.88	530.00

3470 ENCROACHMENT STATIONS= .0 906.4 TYPE= 1 TARGET= 1029.999

21181.00	8.53	893.53	0.00	0.00	893.54	.00	.00	.00	885.70
500.	235.	86.	179.	1014.	108.	659.	51.	9.	885.50
1.66	.23	.79	.27	.055	.032	.055	.035	885.00	236.84
.000018	400.	200.	5.	0	0	1	0.00	669.56	906.40

3470 ENCROACHMENT STATIONS= .0 906.4 TYPE= 1 TARGET= 1029.999

D/S FACE OF HAGGARTY ROAD BRIDGE, BS #1A SEC. AR

21182.00	8.53	893.53	0.00	0.00	893.54	.00	.00	.00	885.70
500.	252.	57.	192.	1014.	108.	659.	51.	9.	885.50
1.66	.25	.52	.29	.035	.033	.035	.035	885.00	236.84
.000008	1.	1.	1.	0	0	1	0.00	669.56	906.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.26	3.05	0.00	9.59	0.00	35.20	0.00	885.50	885.00

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
903.75	894.04	0.00	482.	23.	35.	888.70	890.20	30.00

3470 ENCROACHMENT STATIONS= .0 906.4 TYPE= 1 TARGET= 1029.999

OCRE BUSINESS FORMS INC 23

U/S FACE OF HAGGARTY ROAD BRIDGE, BS #1A SEC. AR

21232.00	8.05	893.55	0.00	0.00	893.56	.00	.02	0.00	885.70
500.	255.	52.	193.	1021.	102.	662.	53.	10.	885.50
1.71	.25	.51	.29	.035	.033	.035	.035	885.50	235.54
.000008	50.	50.	50.	0	0	5	0.00	670.86	906.40

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

3470 ENCROACHMENT STATIONS= .0 906.4 TYPE= 1 TARGET= 1029.999

21233.00	8.05	893.55	0.00	0.00	893.56	.00	.00	.00	885.70
500.	255.	52.	193.	1021.	102.	662.	53.	10.	885.50
1.71	.25	.51	.29	.035	.033	.035	.035	885.50	235.54
.000008	1.	1.	1.	0	0	1	0.00	670.86	906.40

3280 CROSS SECTION 21283.00 EXTENDED 2.56 FEET

3470 ENCROACHMENT STATIONS= 206.0 943.0 TYPE= 1 TARGET= 737.000

50' U/S FROM U/S FACE OF HAGGARTY ROAD BRIDGE, VS #1B SEC. AS

21283.00	8.36	893.56	0.00	0.00	893.56	.00	.00	.00	887.30
500.	312.	95.	93.	2657.	334.	725.	56.	11.	887.40
1.80	.12	.28	.13	.065	.037	.065	.035	885.20	206.00
.000003	50.	50.	50.	0	0	1	0.00	737.00	943.00

MOORE BUSINESS FORMS, INC 23

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SEELEY DRAIN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	DLOSS	QCH	DEPTH	TOPWID
20131.00	200.00	0.00	0.00	883.00	180.00	887.45	.05	0.00	0.00	179.97	4.45	36.33
20131.00	200.00	0.00	0.00	883.00	375.00	890.58	.04	0.00	0.00	352.68	7.58	68.00
20131.00	200.00	0.00	0.00	883.00	500.00	893.50	.02	0.00	0.00	416.35	10.50	95.38
20131.00	200.00	0.00	0.00	883.00	965.00	894.69	.05	0.00	0.00	762.49	11.70	103.52
20981.00	850.00	0.00	0.00	884.70	180.00	887.77	.01	.27	.01	58.66	3.07	113.00
20981.00	850.00	0.00	0.00	884.70	375.00	890.65	.00	.02	.01	37.49	5.95	455.75
20981.00	850.00	0.00	0.00	884.70	500.00	893.53	.00	.01	.01	43.99	8.83	477.88
20981.00	850.00	0.00	0.00	884.70	965.00	894.77	.00	.01	.01	81.73	10.07	483.75
21181.00	200.00	0.00	0.00	885.00	180.00	887.64	.50	.12	.24	180.00	2.64	13.02
21181.00	200.00	0.00	0.00	885.00	375.00	890.62	.07	.01	.03	193.75	5.62	182.06
21181.00	200.00	0.00	0.00	885.00	500.00	893.53	.00	.00	.00	86.09	8.53	669.56
21181.00	200.00	0.00	0.00	885.00	965.00	894.77	.00	.00	.00	122.19	9.77	753.77
21182.00	1.00	0.00	0.00	885.00	180.00	887.65	.50	.01	.00	180.00	2.65	13.02
21182.00	1.00	0.00	0.00	885.00	375.00	890.66	.04	.00	.01	147.82	5.66	190.93
21182.00	1.00	0.00	0.00	885.00	500.00	893.53	.00	.00	.00	56.87	8.53	669.56
21182.00	1.00	0.00	0.00	885.00	965.00	894.77	.00	.00	.00	79.24	9.77	753.77
21232.00	50.00	890.20	888.70	885.50	180.00	887.94	.73	.40	.11	180.00	2.44	13.02
21232.00	50.00	890.20	888.70	885.50	375.00	891.07	.02	.39	0.00	114.37	5.57	470.68
21232.00	50.00	890.20	888.70	885.50	500.00	893.55	.00	.02	0.00	52.03	8.05	670.86
21232.00	50.00	890.20	888.70	885.50	965.00	894.80	.00	.03	0.00	73.17	9.30	755.03
21233.00	1.00	0.00	0.00	885.50	180.00	888.32	.44	.01	.09	180.00	2.82	13.02
21233.00	1.00	0.00	0.00	885.50	375.00	891.07	.02	.00	.00	114.36	5.57	470.69
21233.00	1.00	0.00	0.00	885.50	500.00	893.55	.00	.00	.00	52.03	8.05	670.86
21233.00	1.00	0.00	0.00	885.50	965.00	894.80	.00	.00	.00	73.17	9.30	755.03
21283.00	50.00	0.00	0.00	885.20	180.00	888.90	.01	.02	.13	144.96	3.70	113.00
21283.00	50.00	0.00	0.00	885.20	375.00	891.09	.00	.00	.01	105.82	5.89	737.00
21283.00	50.00	0.00	0.00	885.20	500.00	893.56	.00	.00	.00	95.03	8.36	737.00
21283.00	50.00	0.00	0.00	885.20	965.00	894.80	.00	.00	.00	164.59	9.60	737.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
20131.000	180.000	887.454	0.000	0.000	0.000	36.330	0.000	200.000
20131.000	375.000	890.584	3.130	0.000	0.000	68.004	-31.674	200.000
20131.000	500.000	893.502	2.918	0.000	0.000	95.379	-59.048	200.000
20131.000	965.000	894.695	1.193	0.000	0.000	103.517	-67.187	200.000
20981.000	180.000	887.768	0.000	.314	0.000	112.999	0.000	850.000
20981.000	375.000	890.647	2.879	.063	0.000	455.755	-342.756	850.000
20981.000	500.000	893.533	2.886	.031	0.000	477.882	-364.883	850.000
20981.000	965.000	894.771	1.237	.076	0.000	483.752	-370.753	850.000
21181.000	180.000	887.642	0.000	-.126	0.000	13.024	0.000	200.000
21181.000	375.000	890.619	2.978	-.028	0.000	182.062	-169.038	200.000
21181.000	500.000	893.533	2.914	.000	0.000	669.557	-656.533	200.000
21181.000	965.000	894.772	1.238	.001	0.000	753.769	-740.745	200.000
21182.000	180.000	887.649	0.000	.007	0.000	13.024	0.000	1.000
21182.000	375.000	890.657	3.008	.038	0.000	190.934	-177.910	1.000
21182.000	500.000	893.535	2.877	.001	0.000	669.558	-656.534	1.000
21182.000	965.000	894.773	1.239	.001	0.000	753.770	-740.746	1.000

MOORE BUSINESS FORMS, INC. 23

21232.000	180.000	887.938	0.000	.289	0.000	13.024	0.000	50.000
21232.000	375.000	891.068	3.130	.411	0.000	470.679	-457.655	50.000
21232.000	500.000	893.554	2.486	.020	0.000	670.856	-657.832	50.000
21232.000	965.000	894.802	1.247	.028	0.000	755.031	-742.007	50.000
21233.000	180.000	888.323	0.000	.385	0.000	13.024	0.000	1.000
21233.000	375.000	891.068	2.745	.000	0.000	470.690	-457.666	1.000
21233.000	500.000	893.554	2.486	.000	0.000	670.857	-657.833	1.000
21233.000	965.000	894.802	1.247	.000	0.000	755.031	-742.007	1.000
21283.000	180.000	888.896	0.000	.573	0.000	112.999	0.000	50.000
21283.000	375.000	891.093	2.197	.025	0.000	736.999	-624.000	50.000
21283.000	500.000	893.556	2.463	.002	0.000	736.999	-624.000	50.000
21283.000	965.000	894.804	1.248	.002	0.000	736.999	-624.000	50.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	113.000	1.839	0.000
2	1.000	737.000	7.734	5.895
3	1.000	737.000	10.792	8.952
4	1.000	737.000	11.491	9.652

MOORE BUSINESS FORMS, INC. 13

605.	189.	344.	73.	5..	75.	26.	66.	30.	85..0
.78	3.26	4.56	2.80	.045	.030	.045	.039	857.10	177.68
.003817	1.	1.	1.	1	0	1	-53.00	110.72	288.40

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.40 MAX ELLC= 859.90

Completely Submerged Wood Bridge

U/S FACE OF WOOD BRIDGE IN GOLF COURSE, BS#24 SEC. 4D

12652.00	6.39	863.49	0.00	0.00	863.69	.20	.07	.01	861.90
605.	188.	342.	75.	65.	83.	30.	66.	30.	859.90
.78	2.88	4.12	2.50	.045	.030	.045	.039	857.10	174.35
.006344	10.	10.	10.	2	0	1	-53.00	116.33	290.67
12653.00	6.41	863.51	0.00	0.00	863.70	.18	.00	.00	859.90
605.	73.	502.	31.	71.	133.	33.	66.	30.	859.90
.78	1.02	3.76	.92	.045	.030	.045	.039	857.10	173.99
.000646	1.	1.	1.	1	0	1	0.00	116.93	290.92
12803.00	7.11	863.61	0.00	0.00	863.87	.26	.13	.04	860.10
590.	62.	434.	94.	55.	92.	75.	67.	31.	861.50
.79	1.12	4.74	1.25	.045	.030	.045	.039	856.50	122.93
.001347	150.	150.	150.	3	0	1	0.00	150.25	273.18

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.50 MAX ELLC= 861.10

D/S FACE OF WOOD BRIDGE 3 IN GOLF COURSE, BS#25 SEC. AE

12804.00	7.29	863.79	0.00	0.00	863.91	.13	.00	.04	860.10
590.	115.	296.	179.	67.	83.	89.	67.	31.	861.50
.79	1.71	3.56	2.02	.045	.032	.045	.039	856.50	115.81
.003129	1.	1.	1.	2	0	1	-11.75	163.60	279.41

NORMAL BRIDGE,NRD=15 MIN ELTRD= 861.50 MAX ELLC= 861.00

same

U/S FACE OF WOOD BRIDGE 3 IN GOLF COURSE, BS#25 SEC. AE

12814.00	8.42	863.82	0.00	0.00	863.94	.12	.03	.00	860.10
590.	118.	290.	183.	68.	82.	90.	67.	31.	861.50
.79	1.72	3.52	2.02	.045	.032	.045	.039	855.40	114.95
.003092	10.	10.	10.	0	0	1	-17.45	165.22	280.17

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12815.00	8.39	863.79	0.00	0.00	863.98	.20	.00	.04	860.10
590.	72.	414.	105.	67.	99.	88.	67.	31.	861.50
.79	1.07	4.19	1.19	.045	.032	.045	.039	855.40	115.99
.001084	1.	1.	1.	2	0	1	0.00	163.26	279.25

347 ENCROACHMENT STATIONS= 502.0 569.0 TYPE= 1 TARGET= 67.000

110' D/S FROM D/S FACE OF 12 MILE ROAD BRIDGE, VS#26 SEC. AF

13125.00	7.19	864.19	0.00	0.00	864.35	.16	.35	.01	860.70
590.	112.	476.	2.	66.	137.	4.	68.	31.	863.60
.82	1.69	3.48	.51	.070	.040	.045	.039	857.00	502.00
.001203	310.	310.	310.	2	0	1	0.00	63.07	565.07

3470 ENCROACHMENT STATIONS= 524.0 546.0 TYPE= 1 TARGET= 22.000

13215.00	6.18	864.18	0.00	0.00	864.75	.58	.20	.21	100000.00
590.	0.	590.	0.	0.	97.	0.	69.	31.	100000.00
.82	0.00	6.09	0.00	.070	.040	.045	.039	858.00	524.00
.005176	90.	90.	90.	2	0	1	0.00	22.00	546.00

3470 ENCROACHMENT STATIONS= 526.0 543.0 TYPE= 1 TARGET= 17.000

13225.00	6.01	864.11	0.00	0.00	864.95	.84	.06	.13	100000.00
590.	0.	590.	0.	0.	80.	0.	69.	31.	100000.00
.82	0.00	7.34	0.00	.070	.040	.045	.039	858.10	526.00
.007968	10.	10.	10.	2	0	1	0.00	17.00	543.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 864.50 ELREA= 864.50

13235.00	5.82	864.02	0.00	0.00	865.17	1.15	.07	.15	858.20
590.	0.	590.	0.	0.	69.	0.	69.	31.	858.60
.83	0.00	8.59	0.00	.065	.037	.045	.039	858.20	485.00
.005687	10.	10.	10.	2	0	1	0.00	12.00	498.89

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 864.50 ELREA= 864.50

D/S FACE OF 12 MILE ROAD BRIDGE, BS#27 SEC. AG

13236.00	5.83	864.03	0.00	0.00	865.17	1.14	.00	.00	858.20
590.	0.	590.	0.	0.	69.	0.	69.	31.	858.60
.83	0.00	8.58	0.00	.020	.018	.020	.039	858.20	485.00
.001341	1.	1.	1.	0	0	1	0.00	12.00	498.89

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.59	3.00	0.00	11.63	0.00	69.80	0.00	858.20	858.20

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 865.172 ELLC= 865.300 PCWSE= 864.028 ELTRD= 867.400

NORMAL BRIDGE,NRD=11 MIN ELTRD= 867.40 MAX ELLC= 865.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 867.40 ELREA= 867.40

U/S FACE OF 12 MILE ROAD BRIDGE, BS#27 SEC. AG

MOORE BUSINESS FORMS, INC 23

13285.00	5.97	864.17	0.00	0.01	865.[illegible]	1.11	.10	.01	867.51
590.	0.	590.	0.	0.	70.	0.	69.	31.	867.50
.83	0.00	8.45	0.00	.020	.018	.020	.038	858.20	485.00
.003332	49.	49.	49.	3	0	1	-.58	12.00	497.00

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

Low Flow only

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 867.40 ELREA= 867.40

13286.00	6.03	864.23	0.00	0.00	865.30	1.07	.00	.01	858.20
590.	0.	590.	0.	0.	71.	0.	69.	31.	858.60
.83	0.00	8.29	0.00	.060	.038	.070	.038	858.20	485.00
.005401	1.	1.	1.	2	0	1	0.00	12.00	522.75

12 Mile Rd U/S

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 482.0 500.0 TYPE= 1 TARGET= 18.000

13289.00	6.84	865.05	0.00	0.00	865.49	.45	.01	.19	858.21
590.	70.	467.	53.	20.	81.	18.	69.	31.	858.61
.83	3.56	5.78	2.89	.060	.038	.070	.038	858.21	482.00
.001718	3.	3.	3.	3	0	1	0.00	18.00	500.00

3470 ENCROACHMENT STATIONS= 150.0 300.0 TYPE= 1 TARGET= 150.000

1005' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#28 SEC. AH

14289.00	6.39	866.69	0.00	0.00	866.74	.05	1.13	.12	864.20
590.	355.	208.	26.	276.	83.	41.	75.	34.	864.80
1.00	1.29	2.50	.64	.060	.042	.090	.039	860.30	150.00
.000765	1100.	1000.	900.	4	0	1	0.00	150.00	300.00

3470 ENCROACHMENT STATIONS= 130.0 250.0 TYPE= 1 TARGET= 120.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 865.90 ELREA= 100000.00

14554.00	5.07	866.97	0.00	0.00	867.19	.22	.36	.08	865.90
590.	228.	362.	0.	129.	79.	0.	77.	34.	100000.00
1.02	1.77	4.57	0.00	.060	.042	.090	.039	861.90	130.00
.003475	240.	265.	270.	2	0	1	0.00	120.00	250.00

3470 ENCROACHMENT STATIONS= 135.0 225.0 TYPE= 1 TARGET= 90.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 867.60 ELREA= 100000.00

14819.00	5.26	868.06	0.00	0.00	868.54	.48	1.22	.13	867.60
590.	71.	519.	0.	58.	88.	0.	78.	35.	100000.00
1.03	1.23	5.89	0.00	.095	.045	.095	.039	862.80	135.00
.006779	240.	265.	270.	3	0	1	0.00	90.00	225.00

347 ENCROACHMENT STATIONS= 1[illegible].0 [illegible].0 TYPE= 1 TARGET= 8[illegible].0

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 869.30 ELREA= 100000.00

15084.00	6.22	869.62	0.00	0.00	869.99	.36	1.42	.03	869.30
590.	41.	549.	0.	42.	109.	0.	79.	35.	100000.00
1.05	.97	5.02	0.00	.095	.045	.095	.039	863.40	120.00
.004402	240.	265.	270.	2	0	1	0.00	80.00	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

3470 ENCROACHMENT STATIONS= 143.0 175.0 TYPE= 1 TARGET= 32.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 871.10 ELREA= 100000.00

2065' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#29 SEC. AI

15349.00	6.77	870.77	0.00	0.00	871.16	.39	1.16	.01	871.10
590.	0.	590.	0.	0.	118.	0.	79.	36.	100000.00
1.06	0.00	4.99	0.00	.095	.045	.095	.039	864.00	143.86
.004392	240.	265.	270.	3	0	1	0.00	30.98	174.84

3115' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#30 SEC. AJ

16399.00	7.85	873.55	0.00	0.00	873.73	.18	2.51	.06	872.30
500.	8.	465.	28.	18.	132.	51.	83.	37.	871.90
1.15	.43	3.51	.54	.095	.043	.090	.039	865.70	170.79
.001393	1050.	1050.	1050.	3	0	1	0.00	116.48	287.27

3470 ENCROACHMENT STATIONS= 175.0 425.0 TYPE= 1 TARGET= 250.000

3995' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#31 SEC. AK

17279.00	6.51	874.51	0.00	0.00	874.57	.06	.80	.04	872.00
500.	136.	288.	75.	212.	118.	143.	90.	41.	873.00
1.30	.65	2.43	.53	.085	.042	.090	.039	868.00	175.00
.000641	880.	880.	880.	3	0	1	0.00	250.00	425.00

3470 ENCROACHMENT STATIONS= 160.0 450.0 TYPE= 1 TARGET= 290.000

17479.00	5.87	874.67	0.00	0.00	874.78	.10	.18	.02	873.00
500.	101.	313.	85.	139.	97.	138.	92.	42.	873.50
1.32	.73	3.24	.61	.085	.042	.090	.039	868.80	160.43
.001363	200.	200.	200.	2	0	1	0.00	289.57	450.00

3470 ENCROACHMENT STATIONS= 150.0 470.0 TYPE= 1 TARGET= 320.000

17679.00	5.40	875.00	0.00	0.00	875.21	.21	.39	.05	874.00
500.	66.	350.	84.	83.	80.	118.	94.	44.	874.00
1.34	.79	4.37	.71	.085	.042	.090	.039	869.60	161.48
.002924	200.	200.	200.	2	0	1	0.00	308.52	470.00

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3470 ENCROACHMENT STATIONS=      200.0      400.0  TYPE=      1  TARGET=      200.000
 17879.00      5.46    875.66      0.00      0.00    875.97       .31       .71       .05    875.00
     500.       40.      370.      90.       46.       72.       92.       95.       45.    874.50
     1.35       .88      5.16      .98      .085      .042      .090      .040    870.20    200.00
  .004381      200.      200.     200.        2         0         1      0.00    200.00    400.00


1490 NH CARD USED

3470 ENCROACHMENT STATIONS=      200.0      400.0  TYPE=      1  TARGET=      200.000

          1800' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#32          SEC. AL

 18079.00      5.58    876.48      0.00      0.00    876.80       .33       .82       .01    876.10
     500.       23.      352.     125.       30.       65.      117.       96.       46.    875.10
     1.36       .75      5.41     1.07      .080      .040      .085      .040    870.90    200.00
  .003886      200.      200.     200.        2         0         1      0.00    200.00    400.00


3470 ENCROACHMENT STATIONS=      100.0      300.0  TYPE=      1  TARGET=      200.000
 18529.00      4.11    878.31      0.00      0.00    878.72       .41      1.87       .04    877.80
     500.        3.      485.      12.        4.       93.       17.       97.       47.    877.90
     1.39       .72      5.20      .67      .065      .038      .065      .040    874.20    167.95
  .004611      515.      450.     385.        1         0         1      0.00    132.05    300.00

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


3470 ENCROACHMENT STATIONS=         .0       200.0  TYPE=      1  TARGET=      199.999

          900' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#33          SEC. AM

 18979.00      3.11    880.51      0.00      0.00    880.82       .30      2.07       .03    879.50
     500.        4.      496.       0.        4.      112.        0.       98.       48.    880.70
     1.42       .91      4.43     0.00      .070      .040      .070      .040    877.40    101.80
  .004590      515.      450.     385.        2         0         1      0.00     55.67    157.48


          150' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#34          SEC. AN

 19729.00      6.18    885.58      0.00      0.00    886.36       .79      5.30       .24    885.20
     500.        0.      500.       0.        1.       70.        0.      100.       49.    889.60
     1.45       .60      7.13     0.00      .090      .045      .090      .040    879.40    116.22
  .012286      750.      750.     750.        3         0         1      0.00     26.58    142.80


3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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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MOORE BUSINESS FORMS, INC 23

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19879.00      5.79    887.79    887.79      0.00    889.29      1.50      2.17      0.00    884.50
    500.        79.      395.       27.       26.       36.       10.      100.       49.    884.50
    1.45      3.05     10.94      2.69      .090      .045      .095      .040    882.00    175.79
 .018040      100.      150.      200.        30        11         1      0.00     28.74    204.54

3685 20 TRIALS USED WSEL,CWSEL
     5730. WSEL ASSUMED BASED ON MIN DIFF + .1

3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
       Q      QLOB       QCH      QROB      ALOB       ACH      AROB       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 13 MILE ROAD BRIDGE, BS#35                          SEC. AO

19880.00      6.01    888.01    888.01      0.00    889.29      1.28       .01      0.00    884.50
    500.        85.      385.       30.       29.       38.       11.      100.       49.    884.50
    1.45      2.89     10.23      2.69      .080      .040      .080      .040    882.00    174.75
 .011786        1.        1.        1.        30        15         1      0.00     30.19    204.94

SPECIAL BRIDGE

SB   XK       XKOR      COFQ     RDLEN       BWC       BWP     BAREA        SS     ELCHU     ELCHD
     0.00      2.61      2.85      0.00      5.50      0.00     38.48      0.00    881.40    882.00

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

PRESSURE AND WEIR FLOW

   EGPRS     EGLWC        H3     QWEIR       QPR     BAREA      ELLC     ELTRD     CLASS

  894.85    890.16      0.00       59.      445.       38.    890.00    892.80     30.00

          U/S FACE OF 13 MILE ROAD BRIDGE, BS#35                          SEC. AO

19930.00     11.81    893.21      0.00      0.00    893.44       .22      4.15      0.00    883.90
    500.       110.      352.       39.      194.       78.       75.      101.       49.    883.90
    1.45       .57      4.50       .52      .095      .018      .095      .040    881.40    147.92
 .000173       50.       50.       50.         2         0         4      0.00     66.59    214.51

3470 ENCROACHMENT STATIONS=      128.0      325.0  TYPE=      1  TARGET=     -128.000
19931.00     11.97    893.37      0.00      0.00    893.47       .10       .00       .04    883.90
    500.       171.      269.       60.      202.       79.       77.      101.       49.    883.90
    1.46       .85      3.39       .78      .080      .030      .080      .040    881.40    128.00
 .000268        1.        1.        1.         2         0         1      0.00     86.78    214.78
```

① Pressure and weir flow

{ 90% of the total flow = Pressure flow
{ 10% of the " " = weir flow

② There is a skew $= \frac{\sqrt{(50)^2-(20)^2}}{50} = 0.92$

This skewness only effect weir flow, and doesn't effect pressure flow. For 100-year flood, 90% of total flow is pressure flow. so this skewness won't change CWSEL much.

Actually, one testing run has been done to verify this, we found that the difference only hundredth.

NOOKE BUSINESS FORMS, INC 23

200' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS#36 SEC. AP

20131.00	10.50	893.50	0.00	0.00	893.52	.02	.02	.02	869.40
500.	16.	416.	68.	44.	338.	120.	103.	50.	867.20
1.51	.36	1.23	.56	.060	.038	.050	.040	883.00	32.27
.000061	250.	200.	150.	2	0	1	0.00	95.37	127.63

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= .0 530.0 TYPE= 1 TARGET= 529.999

1050' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS#37 SEC. AQ

20981.00	8.83	893.53	0.00	0.00	893.53	.00	.01	.01	885.80
500.	317.	44.	139.	2070.	149.	988.	139.	55.	886.00
2.96	.15	.30	.14	.054	.030	.054	.040	884.70	52.13
.000002	850.	850.	850.	2	0	1	0.00	477.87	530.00

590.	0.	590.	0.	0.	70.	0.	69.	31.	867.50
.83	0.00	8.45	0.00	.020	.018	.020	.038	858.20	485.00
.003332	49.	49.	49.	3	0	1	-.58	12.00	497.00

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 867.40 ELREA= 867.40

13286.00	6.03	864.23	0.00	0.00	865.30	1.07	.00	.01	858.20
590.	0.	590.	0.	0.	71.	0.	69.	31.	858.60
.83	0.00	8.29	0.00	.060	.038	.070	.038	858.20	485.00
.005401	1.	1.	1.	2	0	1	0.00	12.00	522.75

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 482.0 500.0 TYPE= 1 TARGET= 18.000

13289.00	6.84	865.05	0.00	0.00	865.49	.45	.01	.19	858.21
590.	70.	467.	53.	20.	81.	18.	69.	31.	858.61
.83	3.56	5.78	2.89	.060	.038	.070	.038	858.21	482.00
.001718	3.	3.	3.	3	0	1	0.00	18.00	500.00

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= .0 420.0 TYPE= 1 TARGET= 419.999

1005' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#28 SEC. AH

14289.00	6.35	866.65	0.00	0.00	866.69	.04	1.08	.12	864.20
590.	352.	196.	41.	321.	82.	107.	76.	35.	864.80
1.02	1.10	2.39	.39	.060	.042	.090	.039	860.30	96.47
.000704	1100.	1000.	900.	4	0	1	0.00	318.13	420.00

LB [illegible] RB [illegible] ∴ 239.3

14554.00	5.00	866.90	0.00	0.00	867.13	.23	.35	.10	865.90
590.	217.	368.	5.	125.	78.	10.	78.	37.	866.30
1.04	1.73	4.74	.52	.060	.042	.090	.039	861.90	115.59
.003689	240.	265.	270.	2	0	1	0.00	166.64	282.22

14819.00	5.23	868.03	0.00	0.00	868.49	.46	1.25	.11	867.60
590.	81.	509.	0.	70.	88.	1.	79.	38.	867.80
1.05	1.15	5.82	.32	.095	.045	.095	.039	862.80	109.13
.006584	240.	265.	270.	3	0	1	0.00	125.89	235.02

Flooding Width 12[illegible] Left of ℄

15084.00	6.16	869.56	0.00	0.00	869.91	.35	1.39	.03	869.30
590.	54.	536.	0.	58.	108.	1.	80.	38.	869.30
1.07	.93	4.97	.31	.095	.045	.095	.039	863.40	91.41
.004364	240.	265.	270.	2	0	1	0.00	118.16	209.57

3265 DIVIDED FLOW

2065' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#29 SEC. AI

15349.00	6.71	870.71	0.00	0.00	871.08	.38	1.16	.01	871.10
590.	13.	577.	0.	21.	116.	0.	81.	39.	870.90
1.08	.61	4.97	0.00	.095	.045	.095	.039	864.00	83.30
.004408	240.	265.	270.	3	0	1	0.00	77.38	174.75

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

3115' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#30 SEC. AJ

16399.00	7.82	873.52	0.00	0.00	873.70	.18	2.56	.06	872.30
500.	7.	466.	26.	17.	131.	48.	85.	41.	871.90
1.17	.43	3.55	.54	.095	.043	.090	.039	865.70	171.66
.001439	1050.	1050.	1050.	3	0	1	0.00	114.23	285.89

3995' U/S FROM U/S FACE OF 12 MILE ROAD BRIDGE, VS#31 SEC. AK

17279.00	6.43	874.43	0.00	0.00	874.46	.04	.72	.04	872.00
500.	113.	254.	133.	209.	116.	290.	94.	46.	873.00
1.35	.54	2.18	.46	.085	.042	.090	.039	868.00	143.72
.000529	880.	880.	880.	4	0	1	0.00	404.22	547.93

17479.00	5.76	874.56	0.00	0.00	874.66	.10	.16	.03	873.00
500.	88.	305.	107.	124.	94.	187.	96.	48.	873.50
1.38	.71	3.24	.57	.085	.042	.090	.039	868.80	163.27
.001412	200.	200.	200.	2	0	1	0.00	370.74	534.01

17679.00	5.30	874.90	0.00	0.00	875.15	.24	.42	.07	874.00
500.	57.	363.	80.	72.	78.	119.	97.	50.	874.00
1.39	.79	4.64	.68	.085	.042	.090	.039	869.60	163.32
.003418	200.	200.	200.	2	0	1	0.00	356.72	520.04

17879.00	5.43	875.63	0.00	0.00	875.88	.25	.73	.00	875.00
500.	53.	343.	103.	68.	71.	133.	99.	52.	874.50
1.41	.79	4.84	.78	.085	.042	.090	.040	870.20	155.52
.003891	200.	200.	200.	2	0	1	0.00	387.57	543.08

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= .0 450.0 TYPE= 1 TARGET= 449.999

1800' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#32 SEC. AL

18079.00	5.49	876.39	0.00	0.00	876.70	.32	.79	.03	876.10
500.	43.	342.	115.	56.	63.	122.	100.	53.	875.10
1.42	.76	5.42	.94	.080	.040	.085	.040	870.90	149.24
.004008	200.	200.	200.	1	0	1	0.00	300.76	450.00

3265 DIVIDED FLOW

18529.00	4.08	878.28	877.32	0.00	878.69	.42	1.94	.05	877.80
500.	3.	485.	12.	4.	92.	21.	102.	56.	877.90
1.45	.70	5.25	.57	.065	.038	.065	.040	874.20	168.84
.004769	515.	450.	385.	4	11	1	0.00	190.79	444.09

3265 DIVIDED FLOW

900' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#33 SEC. AM

18979.00	3.12	880.52	0.00	0.00	880.82	.30	2.09	.04	879.50
500.	4.	494.	2.	4.	112.	6.	103.	57.	880.70
1.48	.91	4.40	.33	.070	.040	.070	.040	877.40	101.77
.004527	515.	450.	385.	2	0	1	0.00	109.53	326.99

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

150' D/S FROM D/S FACE OF 13 MILE ROAD BRIDGE, VS#34 SEC. AN

19729.00	6.16	885.56	0.00	0.00	886.36	.80	5.29	.25	885.20
500.	0.	500.	0.	1.	70.	0.	105.	58.	889.60
1.50	.59	7.16	0.00	.090	.045	.090	.040	879.40	116.38
.012482	750.	750.	750.	3	0	1	0.00	26.39	142.77

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

19879.00	5.79	887.79	887.79	0.00	889.29	1.50	2.19	0.00	884.50
500.	79.	395.	27.	26.	36.	10.	105.	58.	884.50
1.51	3.05	10.94	2.69	.090	.045	.095	.040	882.00	175.79
.018037	100.	150.	200.	20	11	1	0.00	28.74	204.54

3685 20 TRIALS USED WSEL,CWSEL
5730. WSEL ASSUMED BASED ON MIN DIFF + .1

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

D/S FACE OF 13 MILE ROAD BRIDGE, BS#35 SEC. AO

19880.00	6.11	888.11	888.01	0.00	889.31	1.20	.01	0.00	884.50
500.	88.	381.	31.	31.	38.	12.	105.	58.	884.50
1.51	2.83	9.94	2.63	.080	.040	.080	.040	882.00	174.28

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.61	2.85	0.00	5.50	0.00	38.48	0.00	881.40	882.00

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
894.95	890.16	0.00	59.	441.	38.	890.00	892.80	30.00

U/S FACE OF 13 MILE ROAD BRIDGE, BS#35 SEC. AO

19930.00	11.82	893.22	0.00	0.00	893.44	.22	4.13	0.00	883.90
500.	110.	352.	39.	194.	71.	75.	105.	58.	883.90
1.51	.57	4.49	.52	.095	.018	.095	.040	881.40	147.61
.000173	50.	50.	50.	2	0	5	0.00	66.90	214.51

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 128.0 325.0 TYPE= 1 TARGET= -128.000

19931.00	11.97	893.37	0.00	0.00	893.48	.10	.00	.04	883.90
500.	171.	269.	60.	202.	79.	77.	105.	58.	883.90
1.51	.85	3.39	.78	.080	.030	.080	.040	881.40	128.00
.000268	1.	1.	1.	2	0	1	0.00	86.79	214.79

200' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS#36 SEC. AP

20131.00	10.50	893.50	0.00	0.00	893.52	.02	.02	.02	889.40
500.	16.	416.	68.	44.	338.	120.	107.	59.	887.20
1.56	.36	1.23	.56	.060	.038	.050	.040	883.00	32.26
.000061	250.	200.	150.	2	0	1	0.00	95.38	127.64

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= .0 530.0 TYPE= 1 TARGET= 529.999

1050' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS#37 SEC. AQ

20981.00	8.83	893.53	0.00	0.00	893.53	.00	.01	.01	885.80
500.	317.	44.	139.	2071.	149.	988.	143.	64.	886.00
3.02	.15	.30	.14	.054	.030	.054	.040	884.70	52.12
.000002	850.	850.	850.	2	0	1	0.00	477.88	530.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: HYDRAULIC ANALYSIS

00BREAK00

SEELEY DRAIN

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Seeley Drain in the City of Farmington Hills, Oakland County, Michigan. The study starts from the confluence with the Minnow Pond Drain and the Upper River Rouge and runs to Haggerty Road the western corporate boundary. This reach is approximately 4 miles in length. The 10-, 50-, 100-, and 500-year flood frequency flows were calculated by Brater's unit hydrograph-infiltration capacity method. These flows have been approved by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U.S. Corps of Engineers (Reference 1). All bridges have been modeled by the requirements of the HEC-2 normal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs and field descriptions taken in Farmington Hills by survey crews in 1976. To reflect the changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values are indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir coefficients were taken from charts of the U.S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting water-surface elevations for this study were obtained from the confluence elevation of the Minnow Pond Drain - Upper River Rouge backwater calculations.

Discussion

The Seeley Drain investigation was done exclusively with Johnson & Anderson field data. This data was supplemented with on-site investigation by design personnel.

The backwater analysis was run essentially with no attempt to encroach beyond ~~the natural~~ floodway. The encroachment option was used in section 7 & 6 where development is beginning and the floodplain is fairly flat. High water marks were not available for this portion of the stream.

References

1. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U.S. Department of Commerce, Dec. 1965.

4. U.S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

6. U.S. Army Corps of Engineers, Flood Plain Information Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek, Prepared for the Water Resources Commission, Michigan Department of Natural Resources and Southeast Michigan Council of Governments, January 1972.

City of Farmington Hills
Seeley Drain
5670-03-1
MSC 11-30-77

Original Cross-Section Location

Cross Section	J&A Section	SECNO	Location
A	2	750	750' u/s from Mouth of the Seeley Drain
B	3	1710	1710' u/s from Mouth of the Seeley Drain
C	4	2173	u/s face of Driveway Bridge, 2173' u/s from Mouth
D	4A	2299	u/s face of Wood Walk Bridge, 1075' d/s from Drake Road
E	4B	2407	u/s face of Concrete and Wood Walk Bridge, 965' d/s from Drake Road
F	4C	2450	u/s face of Concrete and Wood Dam, 920' d/s from Drake Road
G	5	2839	u/s face of Concrete Driveway Bridge, 530' d/s from Drake Road
H	6	3373	u/s face of Drake Road Bridge
I	7	3944	570' u/s from u/s face of Drake Road Bridge
J	7A	4406	u/s face of Driveway Bridge, 1033' u/s from Drake Road
K	8	4617	210' u/s from u/s face of Driveway Bridge J
L	9	5217	810' u/s from u/s face of Driveway Bridge J
M	9A	5817	70' d/s from d/s face of Footbridge N
N	10	5893	u/s face of Footbridge, 2520' u/s from Drake Road
O	10A	6080	u/s face of Footbridge, 2705' u/s from Drake Road
P	11	6726	2355' d/s from d/s face of Halstead Road Culvert
Q	12	7176	1905' d/s from d/s face of Halstead Road Culvert
R	12A	7415	u/s face of Driveway Bridge, 1665' d/s from Halstead Road
S	13	8141	u/s face of Dam and Bridge Section, 940' d/s from Halstead Road
T	14	8459	u/s face of Walk Bridge, 620' d/s from Halstead Road

City of Farmington Hills
Seeley Drain
5670-03

Cross Section	J&A Section	SECNO	Location
U	15	8675	u/s face of Walk Bridge, 405' d/s from Halstead Road
V	16	9196	u/s face of Halstead Road Bridge
W	17	9650	455' u/s from u/s face of Halstead Road Bridge
X	18	9899	u/s face of Driveway Bridge, 150' d/s from I-696
Y	19	10000	50' d/s from d/s face of Interstate 696 Culvert
Z	20	10051	d/s face of I-696 and Howard Road Culvert
		10459	u/s face of I-696 and Howard Road Culvert
AA	21	11260	800' u/s from u/s face of Howard Road Culvert
AB	22	11762	u/s face of Concrete Weir, 1300' u/s from Howard Road
AC	23	12310	u/s face of Walk Bridge, 1850' u/s from Howard Road
AD	24	12652	u/s face of Walk Bridge, 585' d/s from 12 Mile Road
AE	25	12814	u/s face of Walk Bridge, 420' d/s from 12 Mile Road
AF	26	13125	110' d/s from d/s face of 12 Mile Road Bridge
AG	27	13285	u/s face of 12 Mile Road Bridge
AH	28	14289	1005' u/s from u/s face of 12 Mile Road Bridge
AI	29	15349	2065' u/s from u/s face of 12 Mile Road Bridge
AJ	30	16399	3115' u/s from u/s face of 12 Mile Road Bridge
AK	31	17279	3995' u/s from u/s face of 12 Mile Road Bridge
AL	32	18079	1800' d/s from d/s face of 13 Mile Road Bridge
AM	33	18979	900' d/s from d/s face of 13 Mile Road Bridge
AN	34	19729	150' d/s from d/s face of 13 Mile Road Bridge
AO	35	19930	u/s face of 13 Mile Road Bridge
AP	36	20131	200' u/s from u/s face of 13 Mile Road Bridge
AQ	37	20981	1050' u/s from u/s face of 13 Mile Road Bridge
AR	1A	21232	u/s face of Haggerty Road Bridge

City of Farmington Hills
Seeley Drain
5670-03

Cross Section	J&A Section	SECNO	Location
U	15	8675	u/s face of Walk Bridge, 405' d/s from Halstead Road
V	16	9196	u/s face of Halstead Road Bridge
W	17	9650	455' u/s from u/s face of Halstead Road Bridge
X	18	9899	u/s face of Driveway Bridge, 150' d/s from I-696
Y	19	10000	50' d/s from d/s face of Interstate 696 Culvert
Z	20	10051	d/s face of I-696 and Howard Road Culvert
		10459	u/s face of I-696 and Howard Road Culvert
AA	21	11260	800' u/s from u/s face of Howard Road Culvert
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AD	24	12652	u/s face of Walk Bridge, 585' d/s from 12 Mile Road
AE	25	12814	u/s face of Walk Bridge, 420' d/s from 12 Mile Road
AF	26	13125	110' d/s from d/s face of 12 Mile Road Bridge
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AO	35	19930	u/s face of 13 Mile Road Bridge
AP	36	20131	200' u/s from u/s face of 13 Mile Road Bridge
AQ	37	20981	1050' u/s from u/s face of 13 Mile Road Bridge

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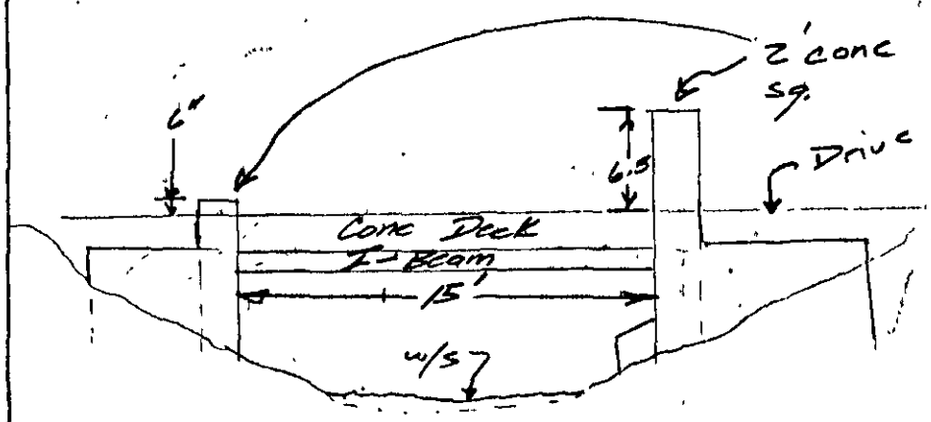
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #4

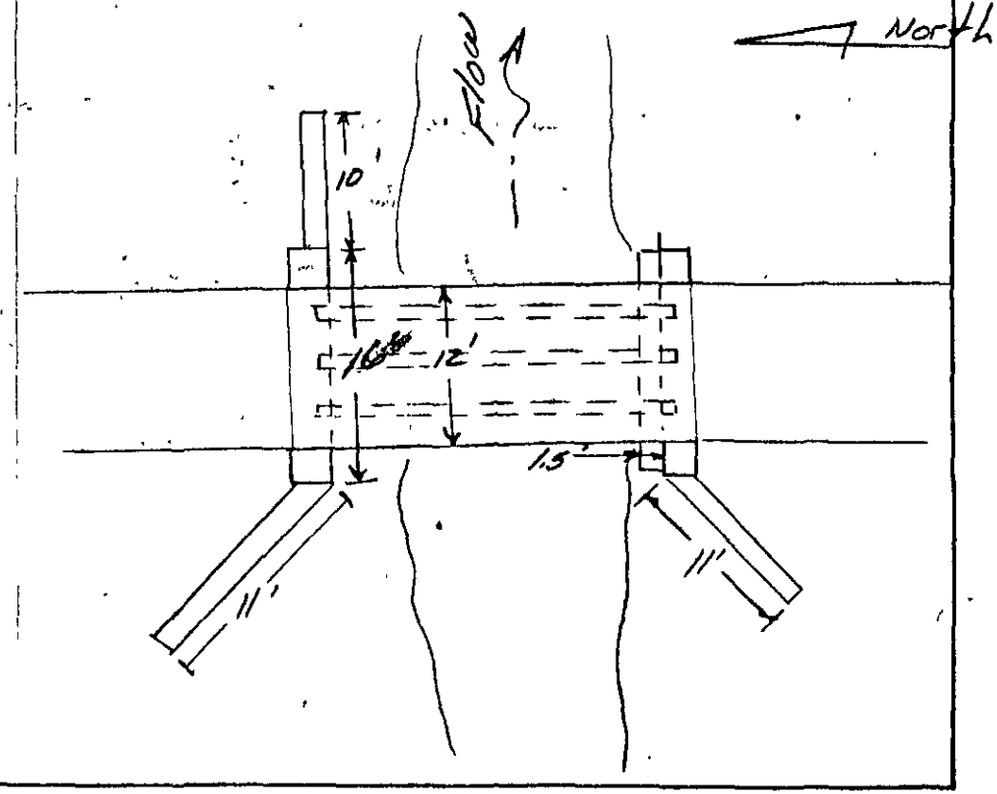
Job Name: Farmington Hills FIS		By: G. Norberg	
Date: 1-18-77	Feature: conc Bridge	Water Course: SEELEY	
Remarks: Drive way Bridge (There are Large stone, 3' I dia, scattered in channel of Drain)			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 778.5	Length: 15	Width of Deck: 12	Skew: —

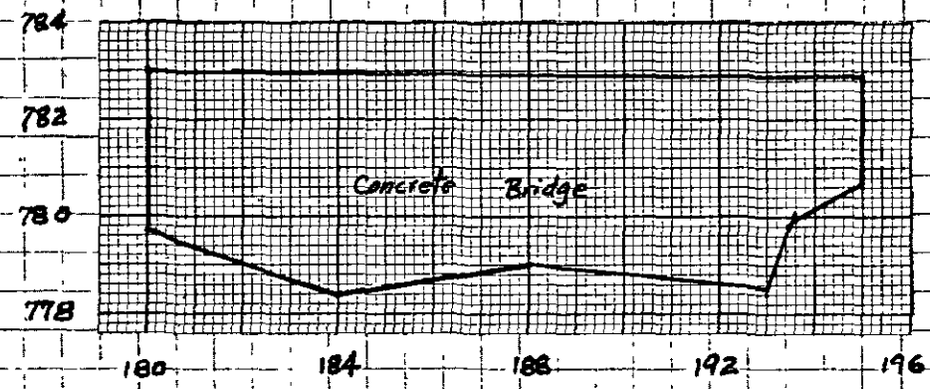
FIELD SKETCH

Profile View



Plan View





Area : $A = 59.53$ ft.²

Wetted Perimeter : $P = 36.97$ ft.

Hydraulic Radius : $R = A/P = 1.61$ ft.

Length : $L = 12.0$ ft.

Manning Coefficient : $n = 0.018$ (Concrete with Sandy Bottom)

Entrance Losses : $K_e = 0.4$
(With Wingwalls & Headwalls)

Depth : $D = 4.60$ ft.

$$BWC = \frac{A}{D} = 12.94 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.06$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.46$$

Weir Discharge Coefficient : $C = 3.05$ (Paved Road &

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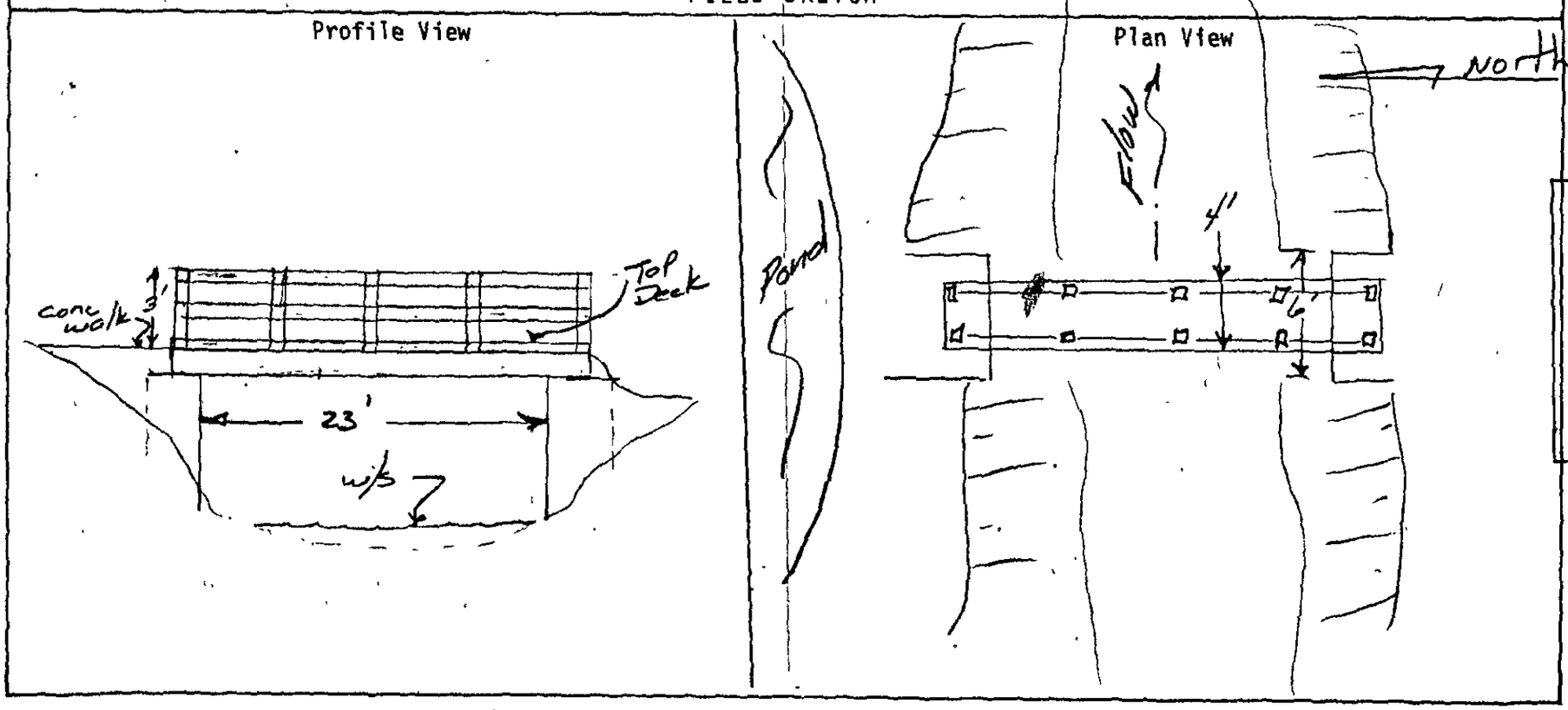
HYDRAULIC STRUCTURAL DATA

Code No. 560-03-4A

Job Name: Farmington Hills FIS			By: G. Norberg
Date: 1-18-77	Feature: wood walk Bridge		Water Course: SEELEY
Remarks: walk Bridge (2'-3'± dia stones in channel)			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 780.3	Length: 23	Width of Deck: 4	Skew: —

FIELD SKETCH



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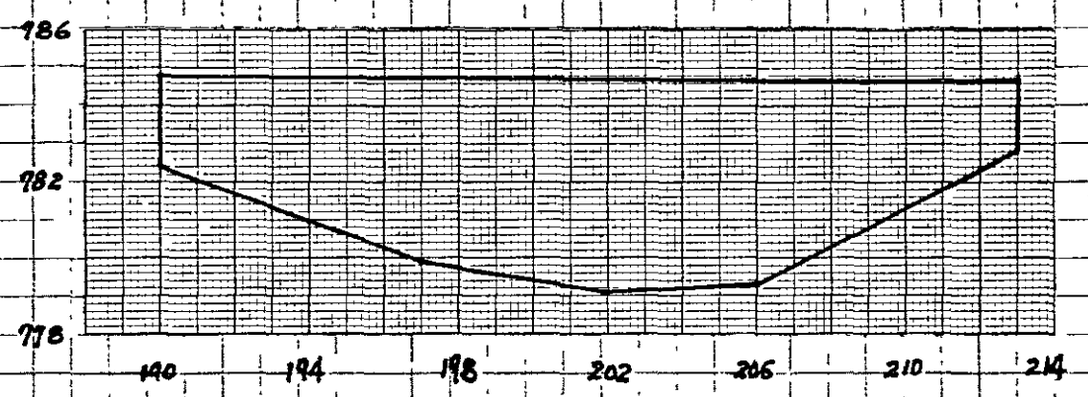
BY MSC DATE 5/19/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Wood Walk Bridge : BS # 4A JOB NO. ____



Area : $A = 99.85 \text{ ft}^2$

Wetted Perimeter : $P = 51.65 \text{ ft.}$

Hydraulic Radius : $R = A/P = 1.93 \text{ ft.}$

Length : $L = 4.0 \text{ ft.}$

Manning Coefficient : $n = 0.024$ (Concrete Walls with Wood Bridge and Sandy Bottom)

Entrance Losses : $K_e = 0.50$ (No Wingwalls)

Depth : $D = 5.65 \text{ ft.}$

$BWC = \frac{A}{D} = 17.67 \text{ ft.}$

$$K_f = \frac{29 n^2 L}{R^{4/3}} = 0.03$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.53$$

Weir Coefficient : $C =$

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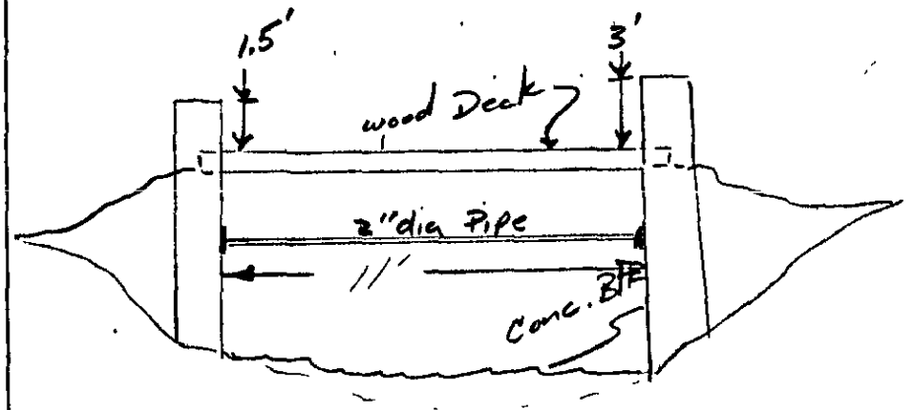
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-4

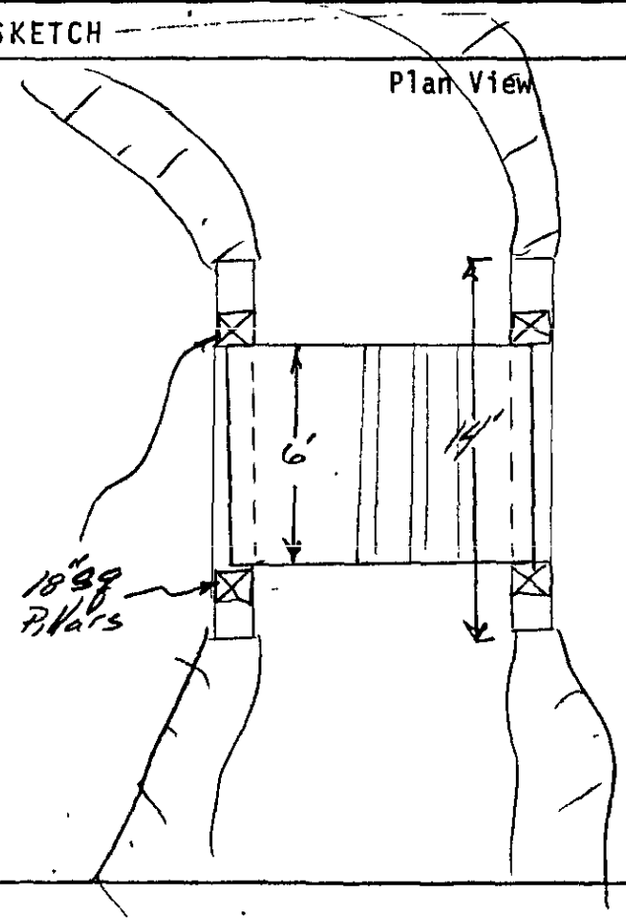
Job Name: Farmington Hills F.I.S.		By: G. Norberg	
Date: 1-17-77	Feature: Conc & wood walk Bridge	Water Course: SEELEY	
Remarks: wood walk Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 788.5	Length: 11	Width of Deck: 6	Skew: —

FIELD SKETCH

Profile View



Plan View



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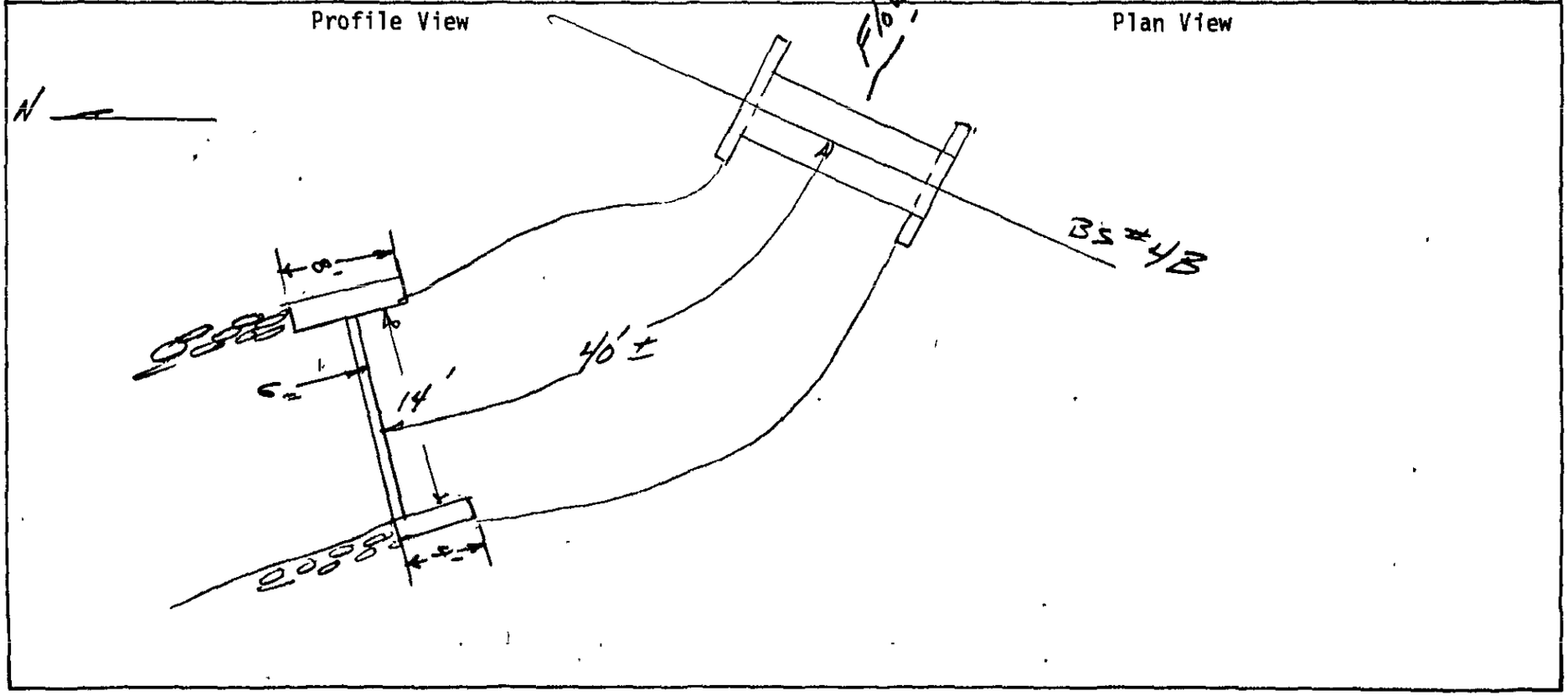
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-4C

Job Name: Farmington Hills FIS		By: G. Norberg	
Date: 1-17-77	Feature: Conc & wood dam	Water Course: SEELEY	
Remarks: 40'± u.s. From BS # 4B			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH



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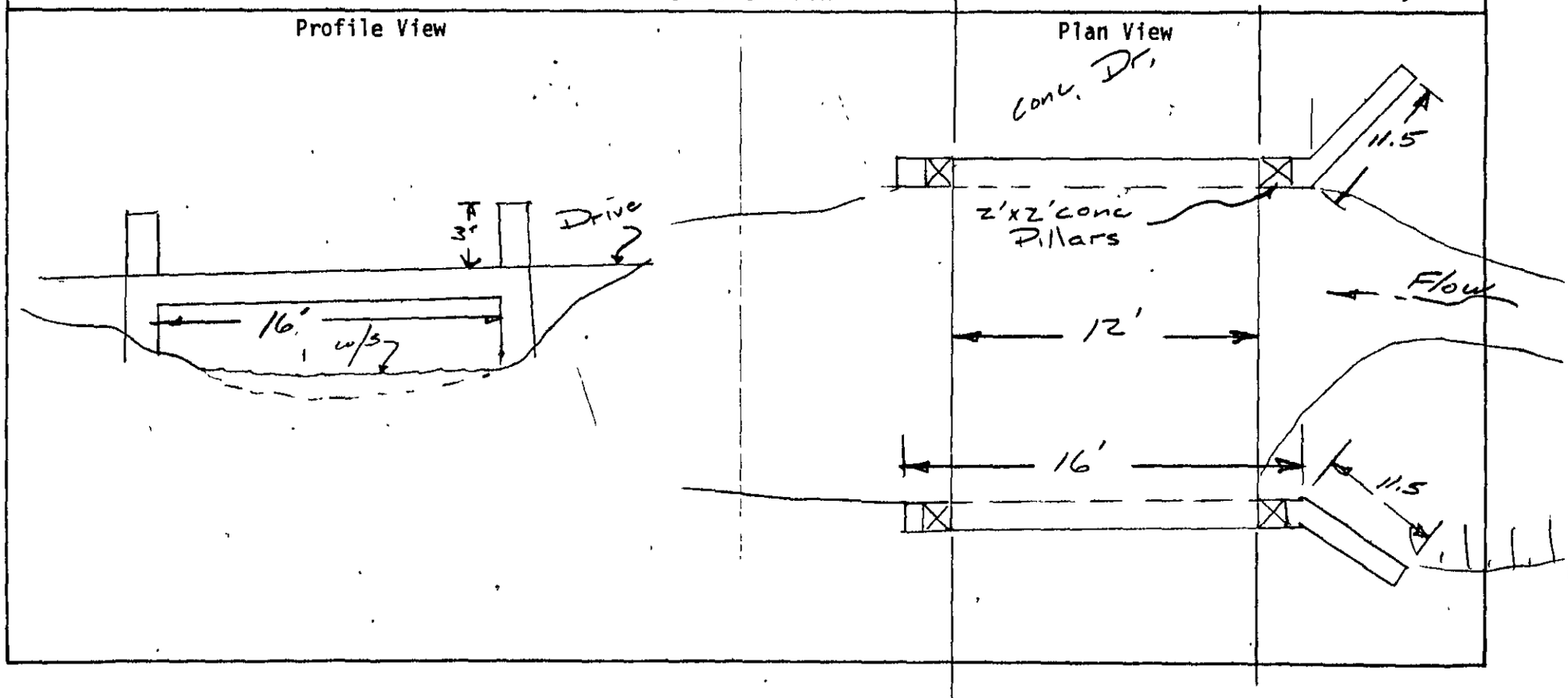
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#5

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-17-77	Feature: Conc Bridge	Water Course: SEELEY	
Remarks: Driveway Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 16'	Width of Deck: 12'	Skew: —

FIELD SKETCH



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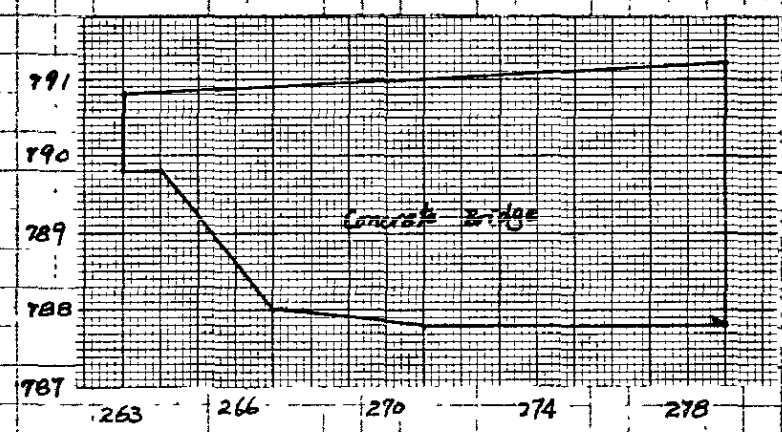
BY MSC DATE 7/13/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT Driveway Bridge ; Seeley Drain ; BS #5 JOB NO. 5670-08-1



Area : $A = 45.45\ ft^2$

Wetted Perimeter : $P = 36.90\ ft.$

Hydraulic Radius : $R = A/P = 1.23\ ft.$

Length : $L = 12.0\ ft$

Manning Coefficient : $n = 0.020$ (Concrete Bridge with Sandy Bottom)

Entrance Loss : $K_e = 0.40$ (with Headwalls & Wingwalls)

Max. Depth $D = 3.4\ ft$

$BWC = A/D = 13.37\ ft.$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.11$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.51$$

Weir Coefficient : $C = 3.06$ ($H \approx 2.0\ ft$; $L = 12.0\ ft$)

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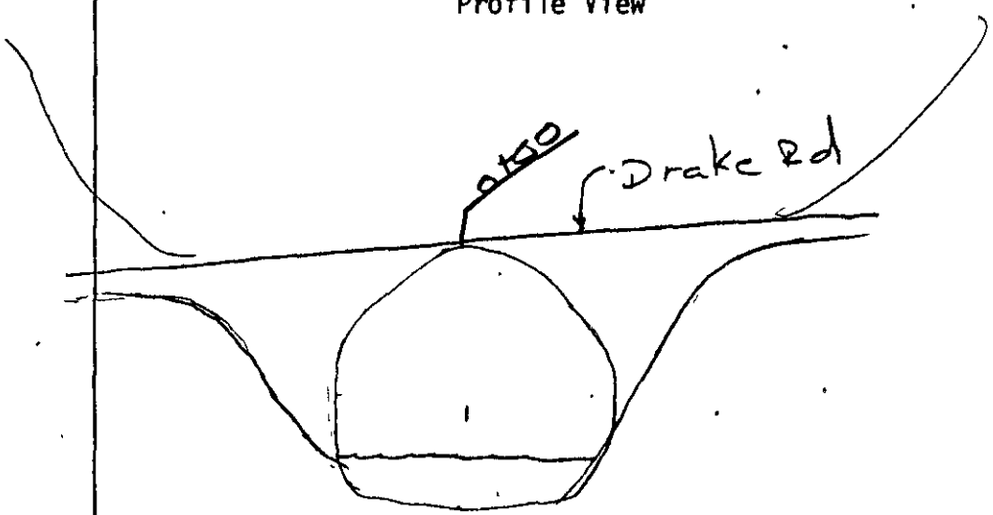
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #6

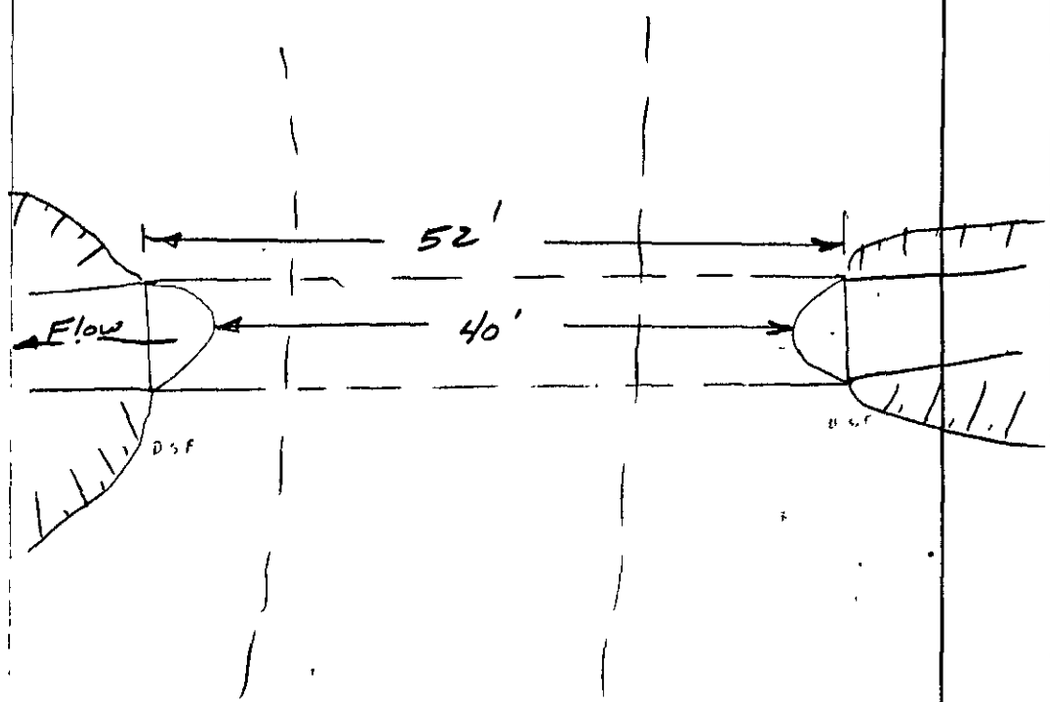
Job Name: Farmington Hills			By: George Norberg
Date: 11-29-76	Feature: 6'-2" x 6'-9" C.M.P.		Water Course: Seeley Drain
Remarks: Drake Rd.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 795.0	Length: 52'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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BY MSC DATE 5/30/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Drake Road Culvert BS # 6 (Seeley Drain) JOB NO. 5670-03-01

Culvert Feature - 10'-2" x 6'-9" CMP

Area - $A = 54.0 \text{ ft}^2$

Hydraulic Radius - $R = 1.97 \text{ ft.}$

Length - $L = 52.0 \text{ ft.}$

Manning Coefficient - $n = 0.0317$

Max. Depth - $D = 6.75 \text{ ft.}$

Entrance Loss - $K_e = 0.7$ (Mitered to Conform to Fill Slope)

$$BWC = \frac{A}{D} = 8.0$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.62$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.32$$

Weir Coefficient - $C = 3.04$

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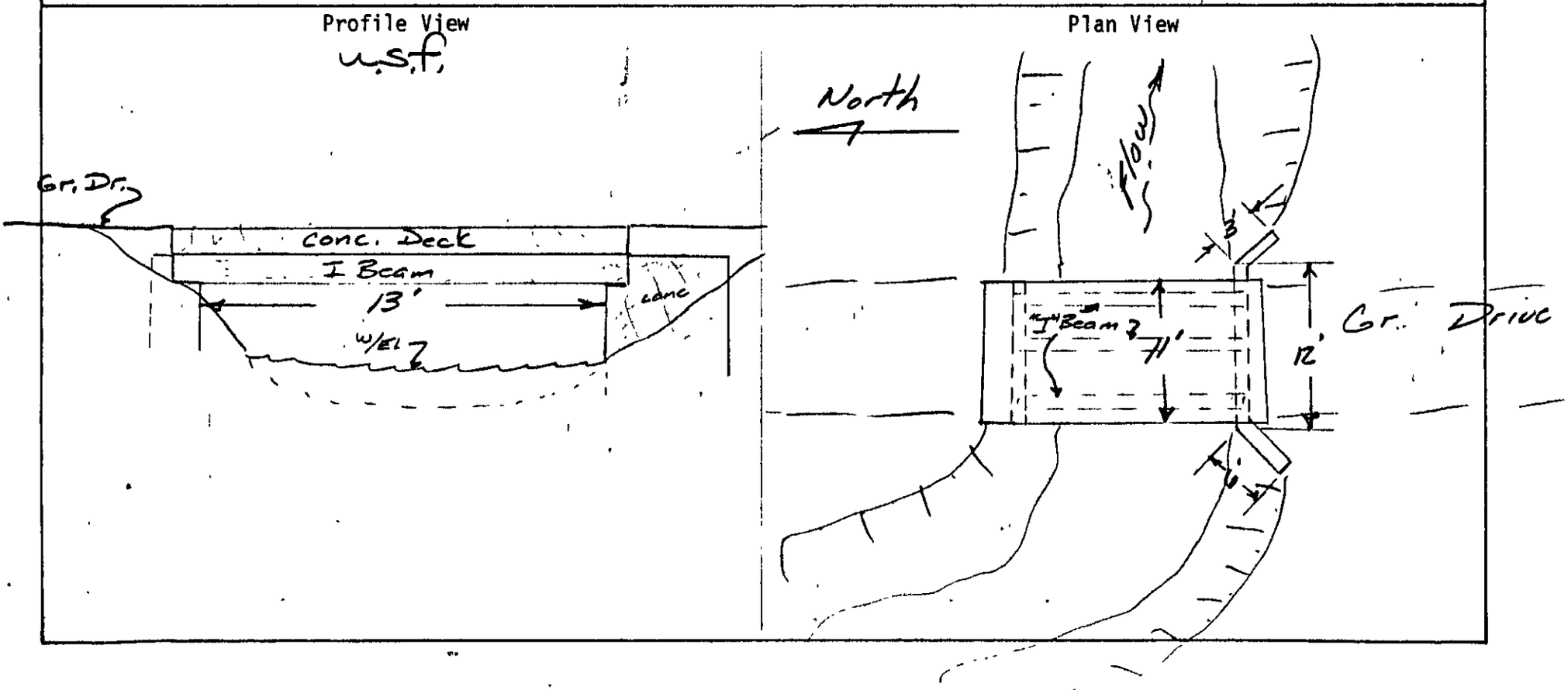
HYDRAULIC STRUCTURAL DATA

Code No. 5670-05-Bs #7A

Job Name: Farmington Hills FIS		By: G. Norberg	
Date: 1-17-77	Feature: Conc & I-Beam Bridge	Water Course: SEELEY	
Remarks: Bridge for Drive To Hse #			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 805.6	Length:	Width of Deck: 11	Skew: —

FIELD SKETCH



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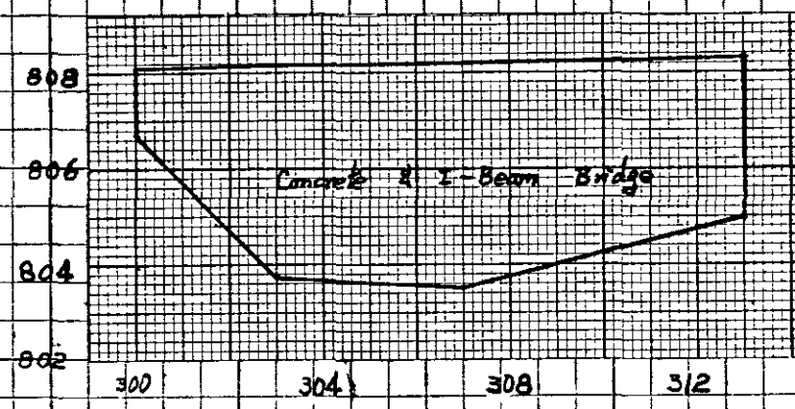
CONSULTING ENGINEERS

BY MSC DATE 6/24/97 JOB DESCRIPTION FIS - Farmington Hills SHEET ____ OF ____
SUBJECT Driveway Bridge 1 BS # 7A JOB NO. 5670-03-1



Area = $A = 51.08\ ft^2$

Wetted Perimeter = $P = 32.15\ ft.$

Hydraulic Radius = $R = A/P = 1.59\ ft.$

Length = $L = 11.0\ ft.$

Manning Coefficient = $n = 0.020$

Entrance Losses = $K_e = 0.50$ (No Wingwalls)

Max. Depth = $D = 4.7\ ft.$

$$BWC = \frac{A}{D} = 10.87\ ft.$$

$$K_f = \frac{29 n^2 L}{R^{4/3}} = 0.07$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.57$$

$$C = 3.04$$

BS#10

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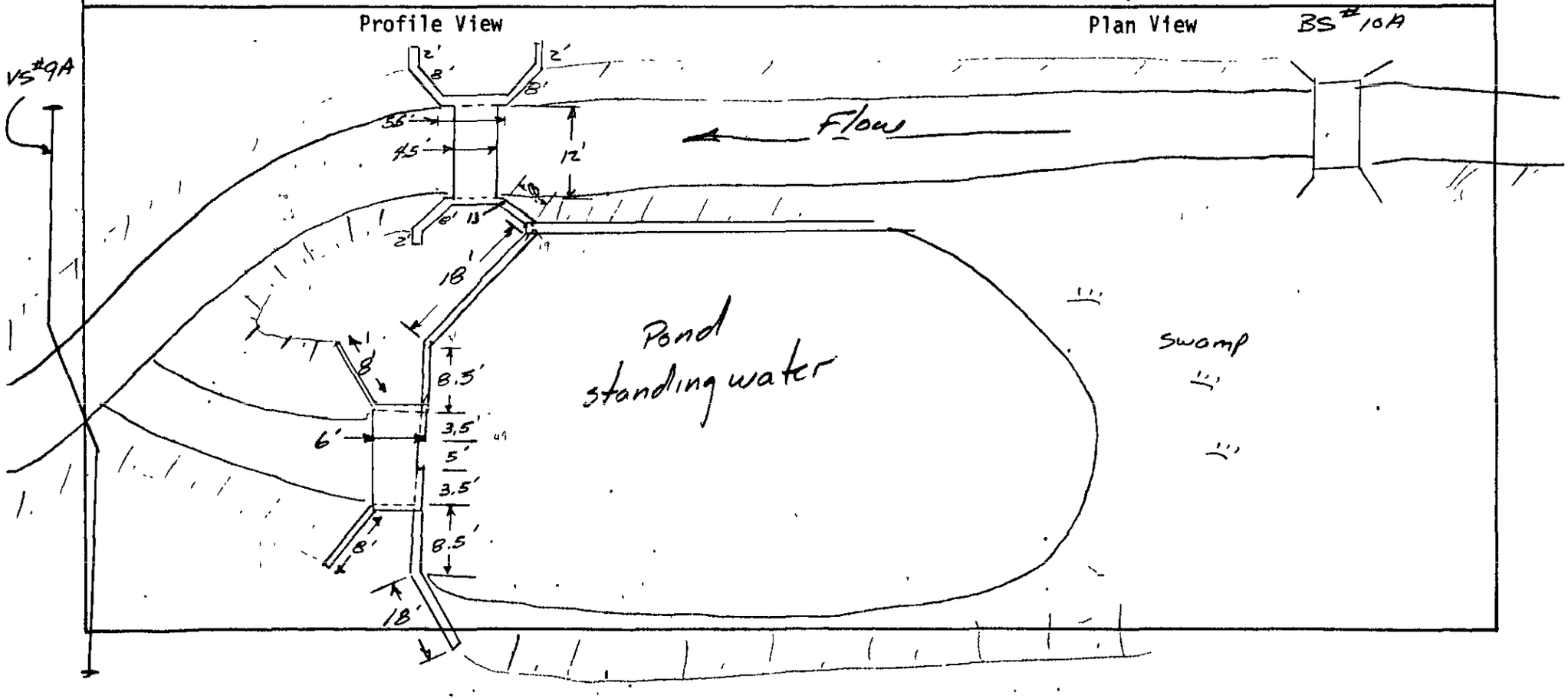
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#10

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-12-77	Feature: Conc Bridges	Water Course: Scelley Drain	
Remarks:			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

FIELD SKETCH



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HYDRAULIC STRUCTURAL DATA

Code No. _____

Job Name:			By:
Date:	Feature:		Water Course:
Remarks:			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

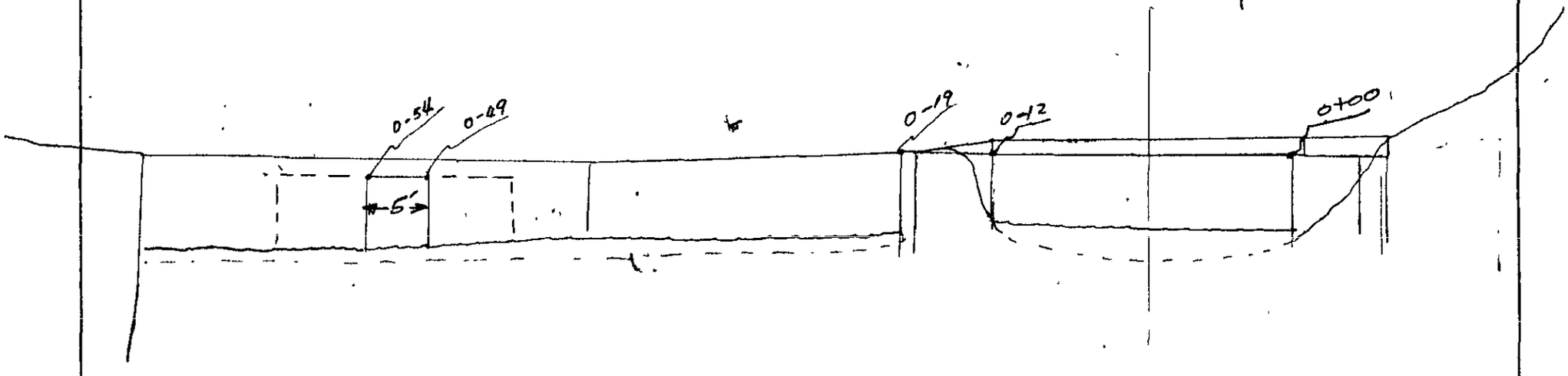
FIELD SKETCH

Profile View

usf

Plan View

℄ Seeley Drain



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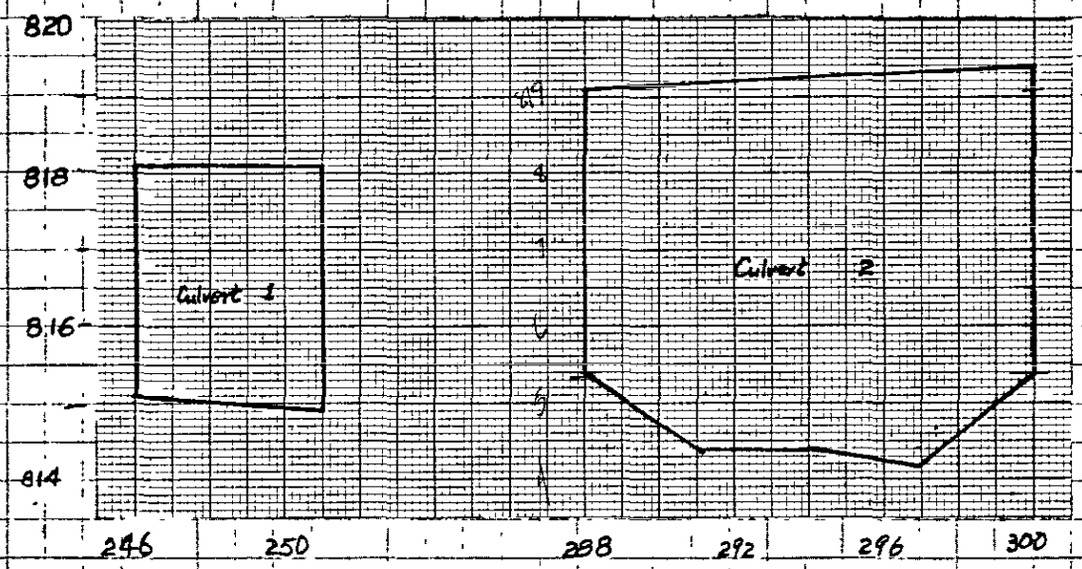
CONSULTING ENGINEERS

BY MSC DATE 7/8/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 3
SUBJECT Walkway Bridge, Seeley Drain; BS #10 JOB NO. 5620-03-01



(1) For Culvert 1 :

Area : $A_1 = 15.5\ ft^2$

Wetted Perimeter : $P_1 = 16.2\ ft$

Hydraulic Radius : $R_1 = A_1/P_1 = 0.96\ ft$

Length : $L_1 = 1.0\ ft$

Manning Coefficient : $n_1 = 0.018$ (Concrete Culvert with Sandy Bottom)

Entrance Losses : $K_{e_1} = 0.50$ (No wingwalls)

$$K_{f_1} = \frac{29.1\, n_1^2 L_1}{R_1^{4/3}} = 0.01$$

$$\times K \phi R_1 = 1 + K_{e_1} + K_{f_1} = 1.51$$

(2) For Culvert 2 :

Area : $A_2 = 55.8\ ft^2$

Wetted Perimeter : $P_2 = 32.11\ ft.$

Hydraulic Radius : $R_2 = A_2/P_2 = 1.74$ ft.

Length : $L_2 = 5$ ft

Manning Coefficient : $n_2 = 0.018$ (Concrete Culvert with Sandy Bottom)

Entrance Loss : $K_{e_2} = 0.4$ (Headwalls & Wingwalls, 45°)

$$K_{f_2} = \frac{29.1\, n_2^2 L_2}{R_2^{4/3}} = 0.02$$

$$\times K\Phi R_2 = 1 + K_{e_2} + K_{f_2} = 1.42$$

(3) For "Compound" $\times K\Phi R$:

The discharge through Culvert 1, $Q_1 = A_1 \sqrt{2gH / \times K\Phi R_1}$

The discharge through Culvert 2, $Q_2 = A_2 \sqrt{2gH / \times K\Phi R_2}$

where H = elevation difference between U/S energy grade and D/S water surface.

Define a "Compound" $\times K\Phi R$ such that the total discharge through Culvert 1 and Culvert 2 is

$$Q = Q_1 + Q_2 = (A_1 + A_2) \sqrt{2gH / \times K\Phi R}$$

Then,

$$A_1 \sqrt{2gH / \times K\Phi R_1} + A_2 \sqrt{2gH / \times K\Phi R_2} = (A_1 + A_2) \sqrt{2gH / \times K\Phi R}$$

The above equation can be simplified as

$$\frac{A_1}{\sqrt{\times K\Phi R_1}} + \frac{A_2}{\sqrt{\times K\Phi R_2}} = \frac{A_1 + A_2}{\sqrt{\times K\Phi R}}$$

or

$$XK\Phi R = \left\{ \frac{A_1 + A_2}{\dfrac{A_1}{\sqrt{XK\Phi R_1}} + \dfrac{A_2}{\sqrt{XK\Phi R_2}}} \right\}^2$$

In this case,

$$XK\Phi R = \left\{ \frac{71.3}{\dfrac{15.5}{\sqrt{1.51}} + \dfrac{55.8}{\sqrt{1.42}}} \right\}^2 = 1.44$$

Area, $A = 71.3\ ft^2$

Bottom Width, $BWC = 17\ ft$

Weir Coefficient, $C = 3.08$ ($H \approx 2.0\ ft$; $L = 5.0\ ft$)

B.S. II 10-A

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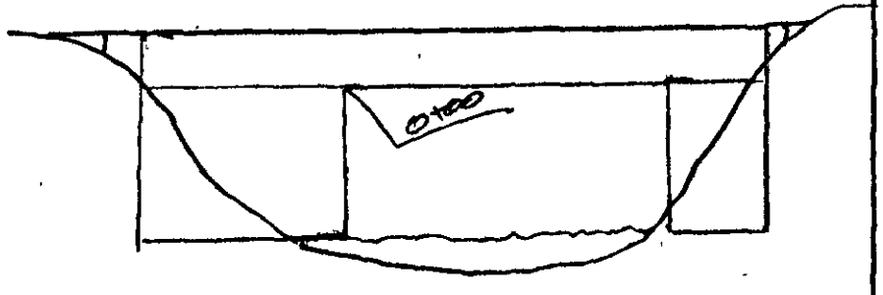
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-10-A

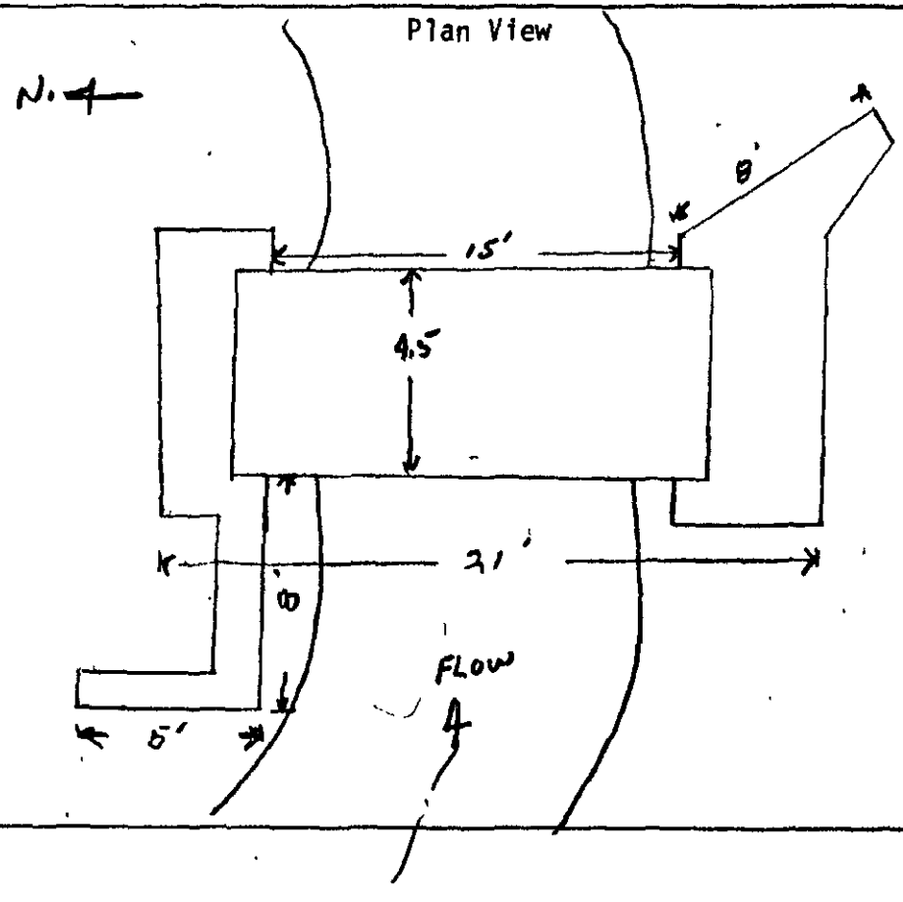
Job Name: FARMINGTON HILLS F.I.S. (SEELEY DRAIN)		By: J. BENNETT	
Date: 1-13-72	Feature: Conc. Bridge	Water Course: Seeley	
Remarks: CONCRETE BRIDGE			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 816.4	Length: 21'	Width of Deck: 4.5'	Skew: —

FIELD SKETCH

Profile View US/FACE



Plan View



X1	10.00	14	-48.00	263.00	1.00	1.00	1.00	1.000	
BT	12.00	0.00	832.10	0.00	48.00	829.90	0.00	98.00	826.70
BT	148.00	821.10	0.00	248.00	820.90	816.60	248.00	820.90	820
BT	820.70	819.60	263.00	820.70	816.20	269.00	820.80	0.00	27
BT	0.00	313.00	825.40	0.00	328.00	832.30	0.00		
GR	832.10	0.00	829.90	48.00	826.70	98.00	821.10	14	
GR	816.60	248.00	815.80	253.00	815.50	258.00	816.20	2	
GR	820.80	269.00	824.80	274.00	825.40	313.00	832.30		

**********LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE**********

248.00	816.60	248.00	820.00	263.00	819.60	263.00	816.20

248.00	820.90	248.00	816.60	253.00	815.80	258.00	815.50	263.00	816
263.00	820.70								

********** LISTING OF COORDINATES OF ORIFICE**********

248.00	816.60	248.00	820.00	263.00	819.60	263.00	816.20	263.00	816
258.00	815.50	253.00	815.80	248.00	816.60	248.00	816.60		

ORIFICE AREA 58.4 WETTED PERIMETER 36.9 29.1/R**1.333 15.794

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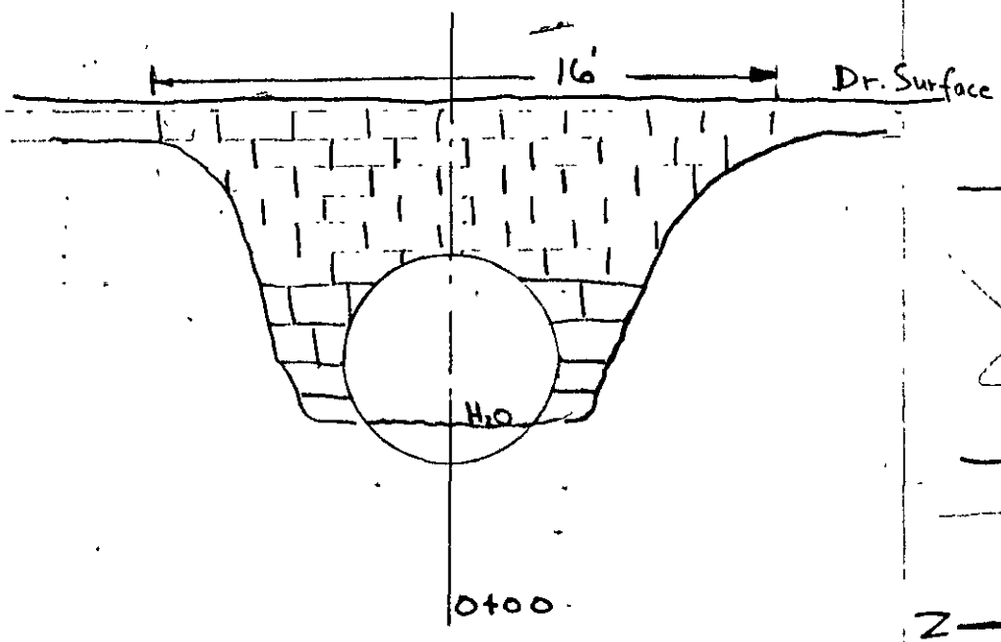
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#12A

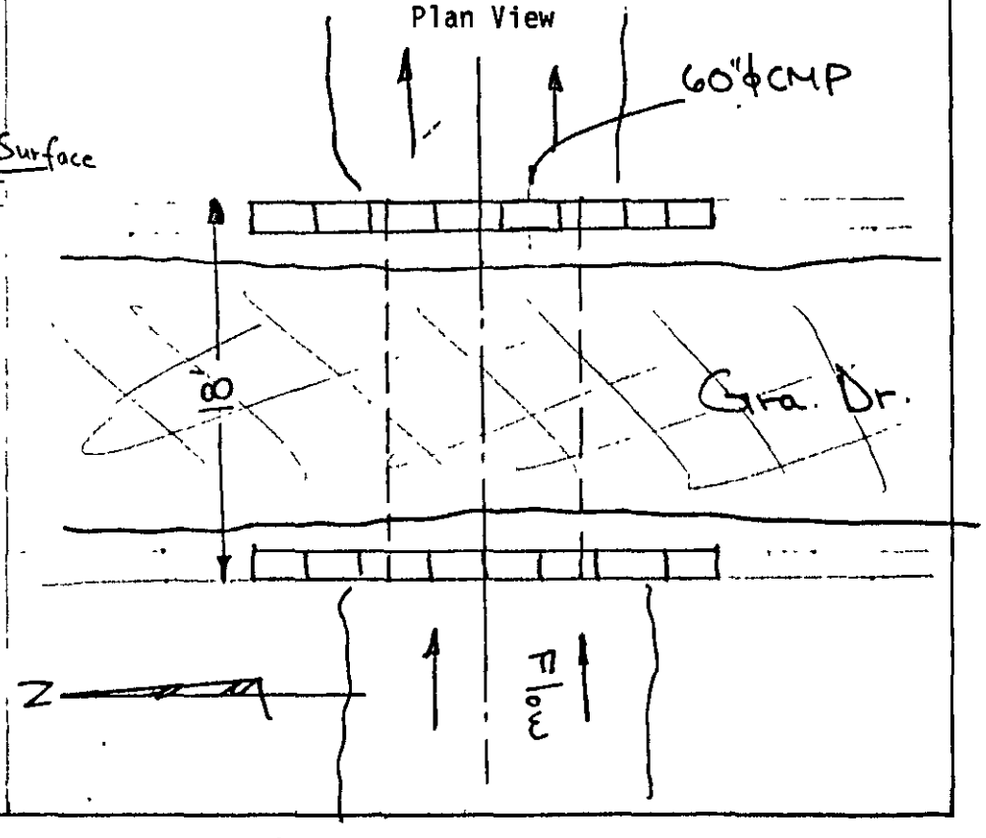
Job Name: Farmington Hills FIS		By: C. Mapley, G. Norberg, T. Pruyt	
Date: 4-2-77	Feature: Driveway culvert	Water Course: Seeley Drain	
Remarks:			
Width of Piers: NA	Pier Shape: NA	No. of Piers: NA	Area: —
Water Elevation: See Notes	Length: 16	Width of Deck: 18'	Skew: —

FIELD SKETCH

Profile View



Plan View



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CONSULTING ENGINEERS

BY MSC DATE 6/9/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Seeley Drain ; Driveway Culvert ; BS #12A JOB NO. 5670-03

Culvert Feature : 60" ϕ CMP

Area : $A = 19.63 \text{ ft}^2$

Wetted Perimeter : $P = 15.71 \text{ ft}$

Hydraulic Radius : $R = D/4 = 1.25 \text{ ft.}$

Length : $L = 18 \text{ ft.}$

Manning Coefficient : $n = 0.0328$

Max. Depth : $D = 5.0 \text{ ft.}$

$BWC = \frac{A}{D} = 3.93 \text{ ft.}$

Entrance Losses : $K_e = 0.50$ (with Headwall)

$$K_f = \frac{29 n^2 L}{R^{4/3}} = 0.42$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.92$$

Weir Coefficient : $C = 2.92$ (Gravel Road ; $H \approx 1.5$ ft)

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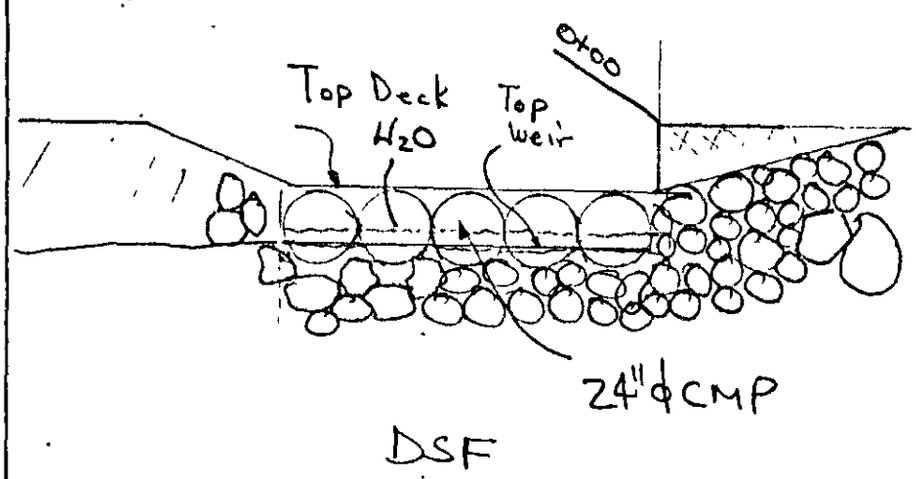
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-DS #3

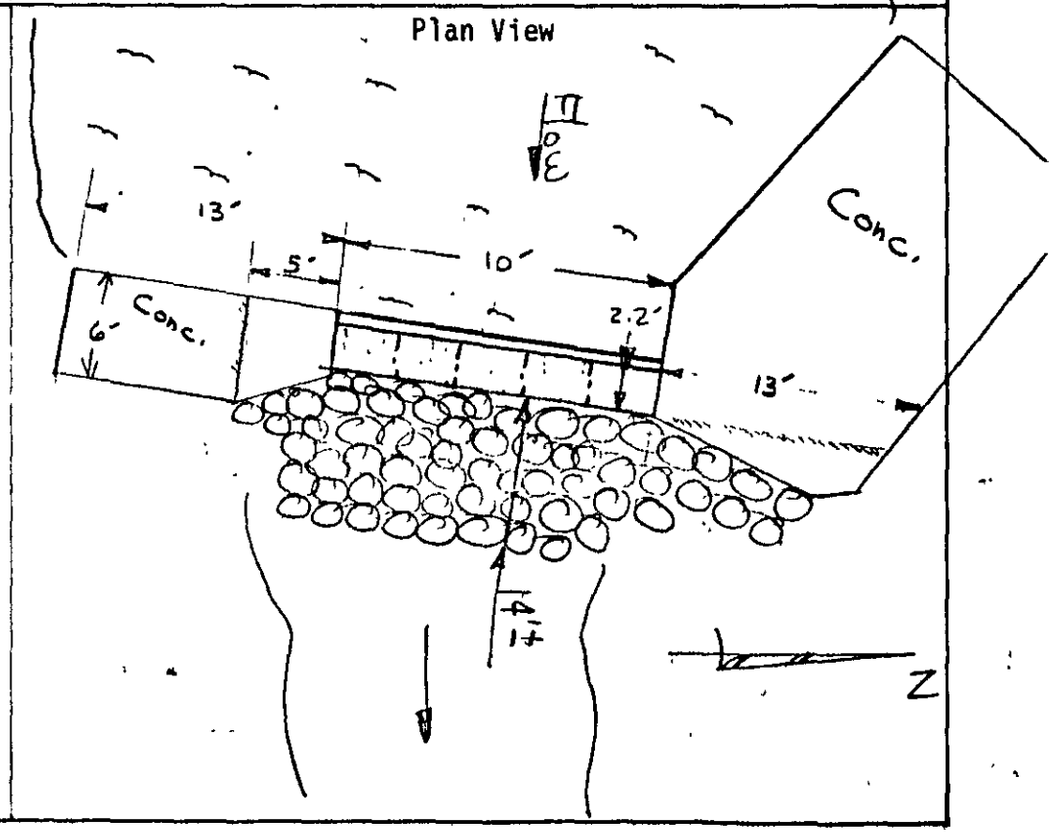
Job Name: Farmington Hills FIS		By: C. Mapley, G. Norberg, T. Pruyt	
Date: 4-2-77	Feature: Dam Section	Water Course: Seeley Drain	
Remarks: Inside top of pipe is 0.08' below top of deck as noted.			
Width of Piers: NA	Pier Shape: NA	No. of Piers: NA	Area:
Water Elevation: U/S 836.7, D/S 832.3	Length: See sketch	Width of Deck: See sketch	Skew:

FIELD SKETCH

Profile View



Plan View



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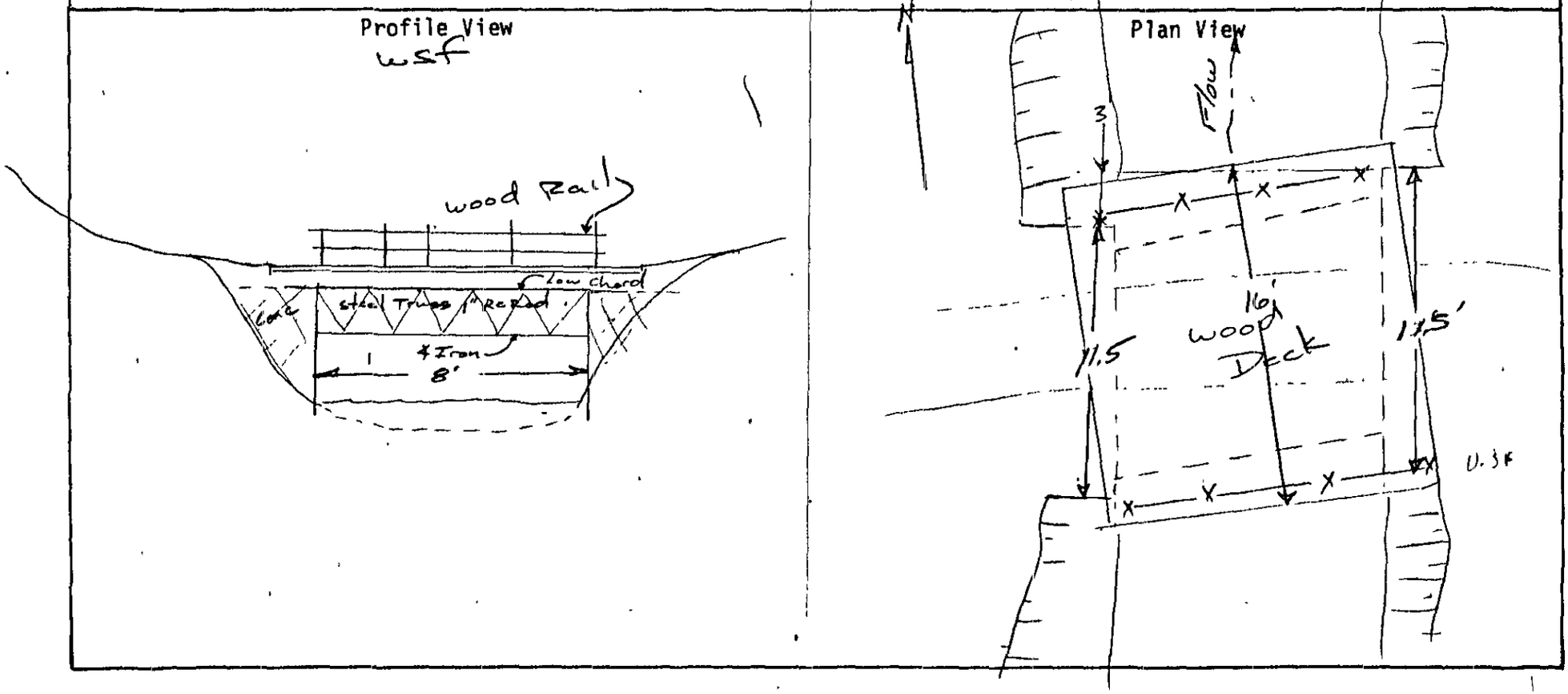
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03BS #14

Job Name: Farmington Hills		By: George Norberg	
Date: 12-1-76	Feature: Conc & wood Bridge	Water Course: Seeley Drain	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 836.3	Length: 16'	Width of Deck:	Skew: —

FIELD SKETCH



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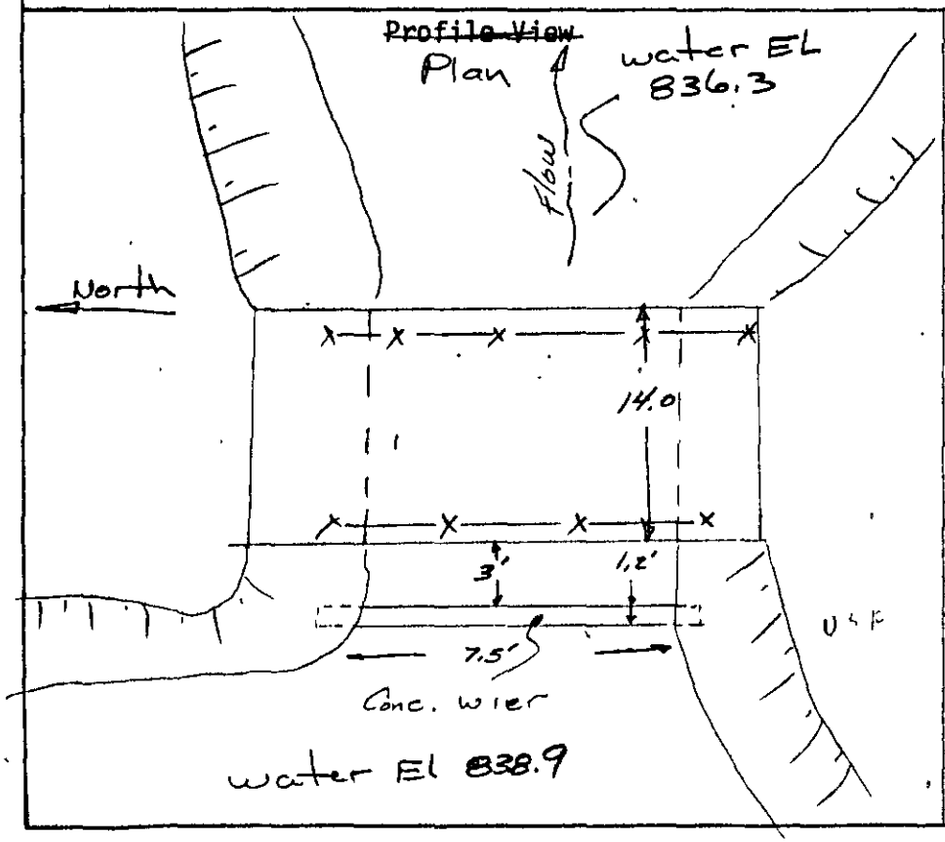
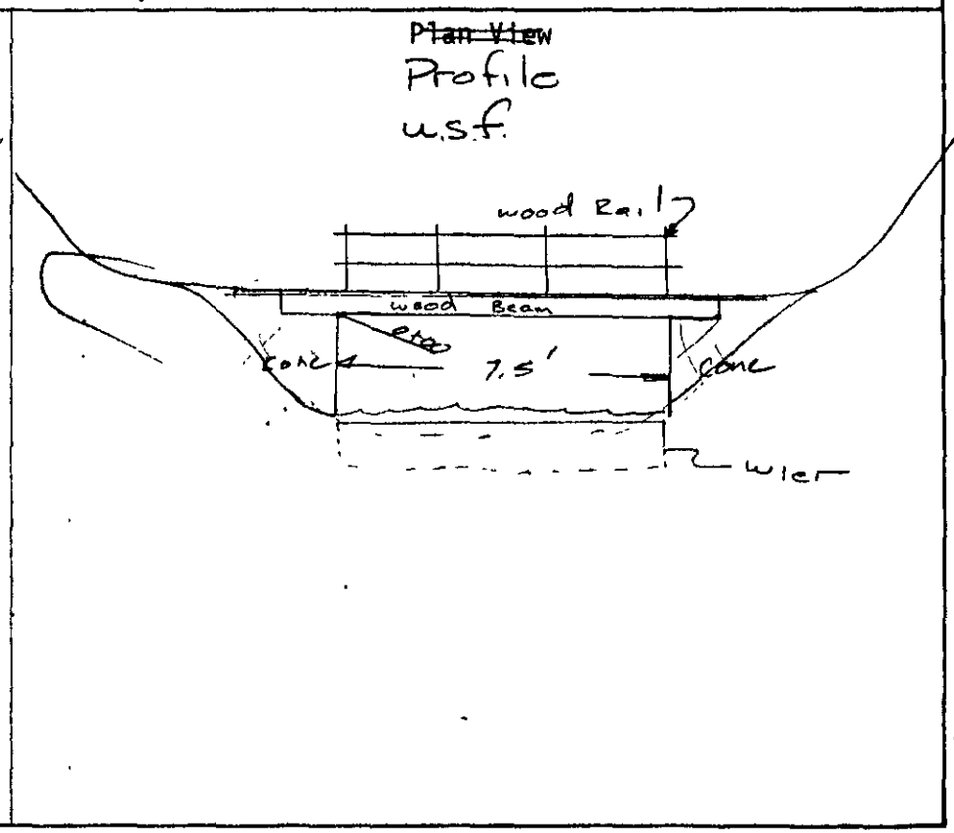
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #15

Job Name: Farmington Hills		By: G. Norberg	
Date: 12-1-76	Feature: Conc. & wood Bridge	Water Course: Seeley Drain	
Remarks: Bridge IN Golf Course			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: see Below	Length: 14.0	Width of Deck:	Skew: —

FIELD SKETCH





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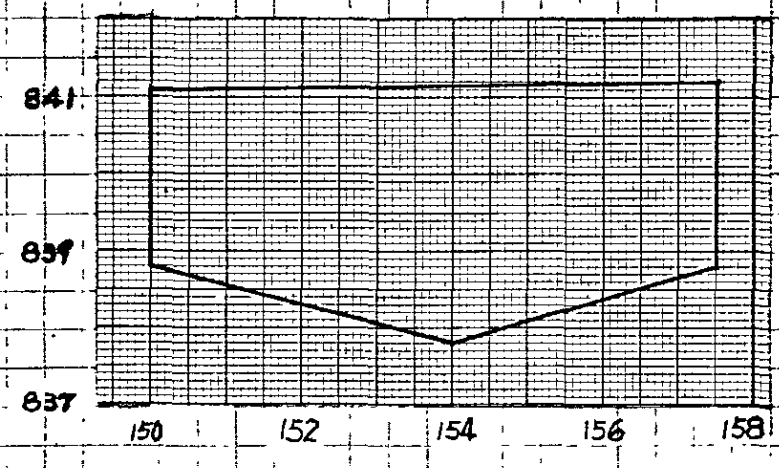
BY MSC DATE 7/11/77 JOB DESCRIPTION EIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Golf Course Bridge 3 BS #15 Seeley Drain JOB NO. 5620-03-1



Area: $A = 21.36 \text{ ft}^2$

Wetted Perimeter: $P = 19.96 \text{ ft.}$

Hydraulic Radius: $R = A/P = 1.07 \text{ ft}$

Length: $L = 14.0 \text{ ft.}$

Manning Coefficient: $n = 0.020$ (Concrete walls; Wood Beam; and Sandy Bottom)

Max. Depth: $D = 3.3 \text{ ft.}$

$BWC = A/D = 6.47 \text{ ft.}$

Entrance losses: $K_e = 0.5$ (Headwalls; no Wingwalls)

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.15$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.65$$

Weir Coefficient: $C = 3.06$ ($H \approx 2.5$ ft; $L = 14$ ft)

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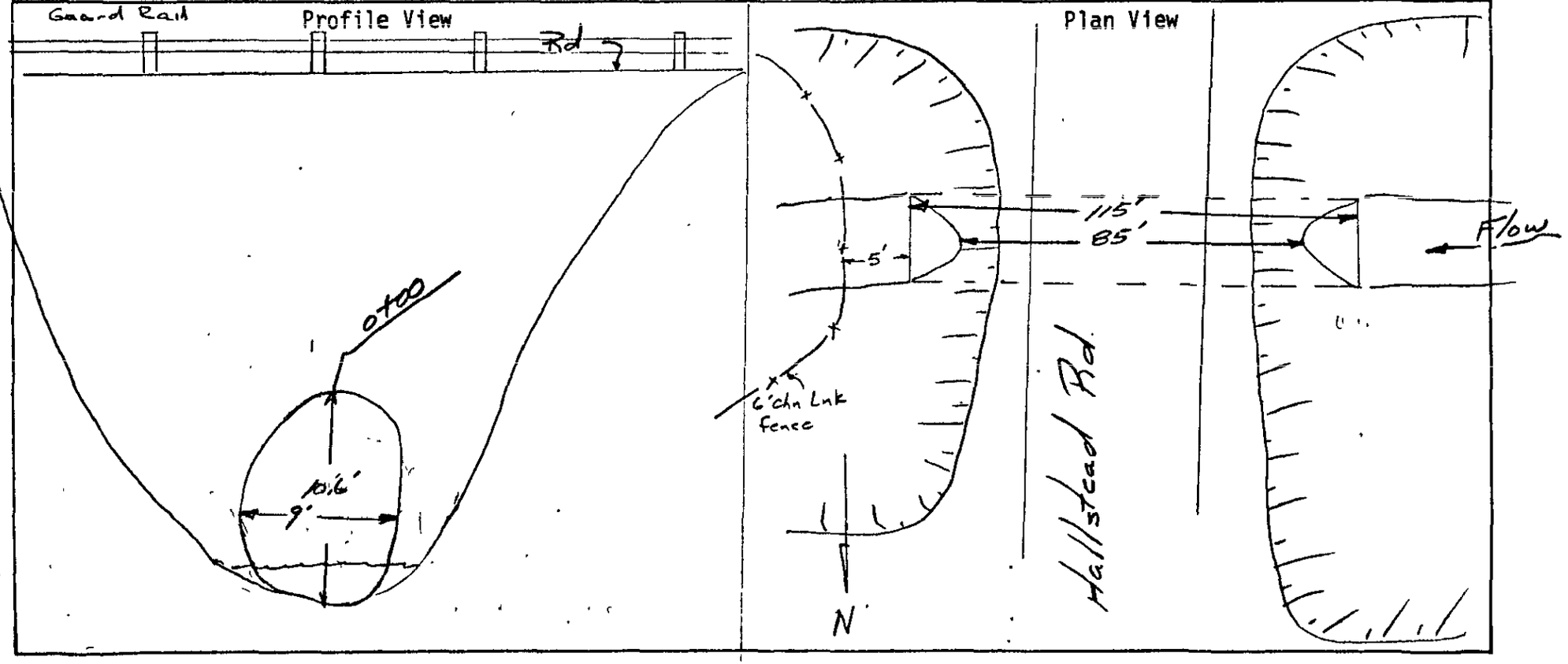
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#16

Job Name: Farmington Hills		By: G. Norberg	
Date: 11-30-76	Feature: 9' x 10.6' C.M.P.	Water Course: Seeley Drain	
Remarks: Halstead Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 839.1	Length: 115	Width of Deck: —	Skew: —

FIELD SKETCH



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BY MSC DATE 2/2/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT Halstead Road over Steeley Drain BS #16 JOB NO. 5670-03-1

Culvert Feature = 9' x 10.6' Elliptical CMP

Area = $A = 74.93$ ft.

Wetted Perimeter = $P = 30.89$ ft²

Hydraulic Radius = $R = A/P = 2.43$ ft.

Length = $L = 115$ ft.

Manning Coefficient = $n = 0.032$

Entrance Loss = $K_e = 0.9$ (Projecting from fills)

Max. Depth = $D = 10.6$ ft

$BWC = \frac{A}{D} = 7.07$ ft.

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 1.05$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.95$$

JOB NAME: City of Farmington Hills	JOB NO.	5670	03	1	13

WATERCOURSE: Seeley Drain

CULVERT LOCATION: Halstead Road

CULVERT DESCRIPTION: 9' x 10.6' Elliptical CMP

BY MSC

DATE 2/2/78

n= 0.032

A= 74.93 ft²

R= 2.43 ft.

Ke= 0.90

D= 10.6 ft.

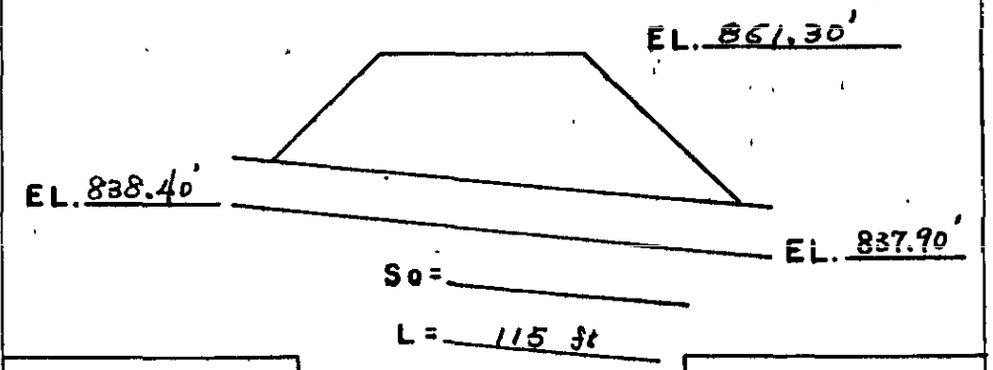
LSo= 0.50 ft.

Q_{10}= _____ TW_{10}= _____

Q_{50}= _____ TW_{50}= _____

Q_{100}= _____ TW_{100}= _____

Q_{500}= 1220 cfs TW_{500}= 847.28' (9.38')



Sta. 9196

Sta. 9081

HEADWATER ANALYSIS

Q	INLET CONT. HW/D	INLET CONT. HW	OUTLET CONT. HW = H + ho − LSo: H	dc	(dc+D)/2	ho	HW	HEC-2: D+(1+Ke) V²/2g	HW	FINAL ENER. HW	FINAL HW ELEV. (ENER.)	ΔH HEC-2
1220	–	16.70	12.14	9.25	9.93	9.93	21.57	–	–	21.57	859.47	
											use 858.67' as WSEL	

CALCULATIONS AND COMMENTS

For Inlet Control -

$$HW = \frac{1}{C^2}\frac{V^2}{2g} + \frac{D}{2} = .0043\,V^2 + \frac{D}{2} = 16.70 \text{ ft.}$$

For Outlet Control -

$$H = XK\phi R\frac{V^2}{2g}$$

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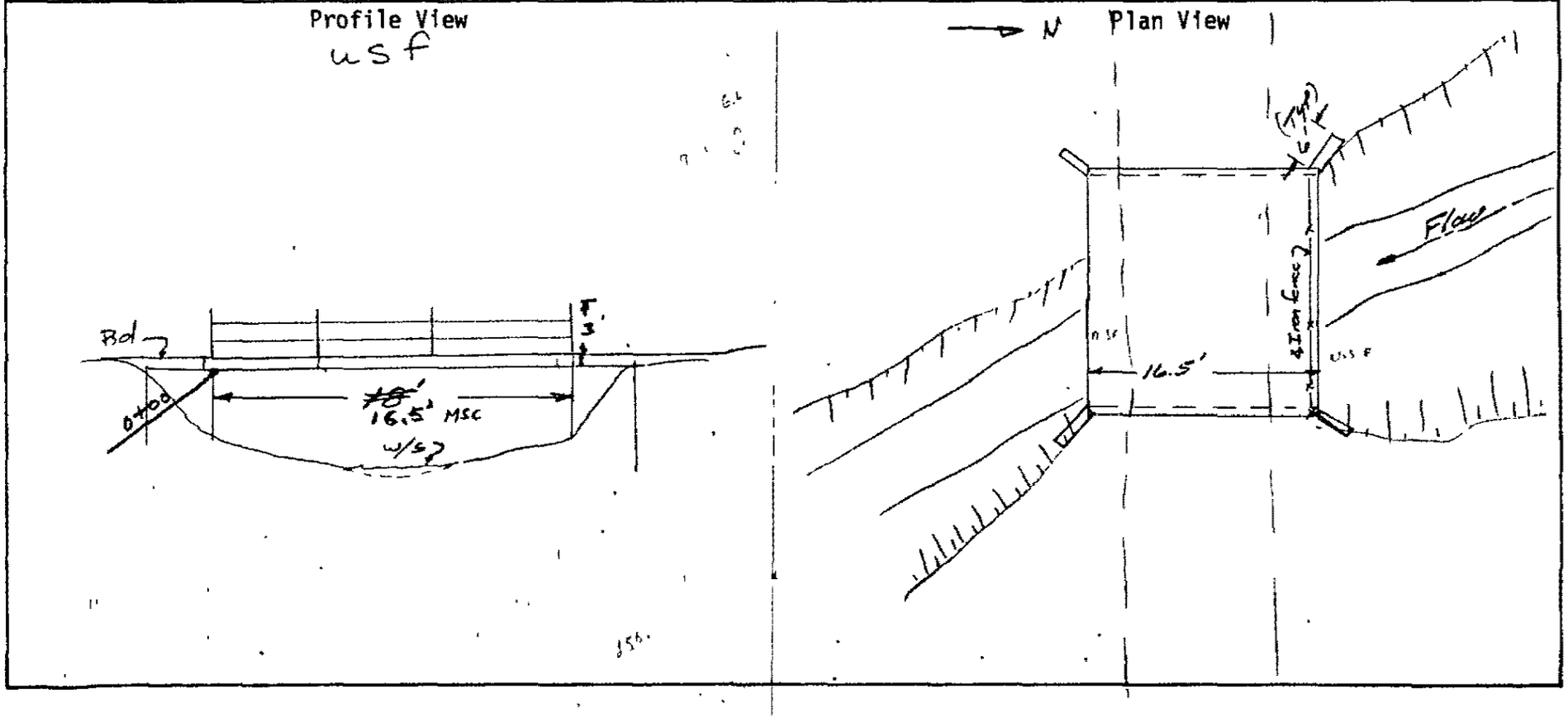
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-#18

Job Name: Farmington Hills		By: G. Norberg	
Date: 11-30-76	Feature: Conc & "I" Beam Bridge	Water Course: Seeley	
Remarks:			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 846.1	Length: 16.5	Width of Deck:	Skew: —

FIELD SKETCH



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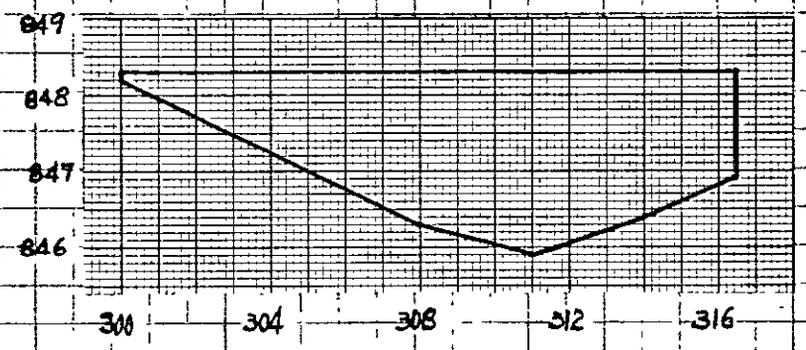
BY MSC DATE 7/11/77 JOB DESCRIPTION EIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Driveway Bridge ; Seeley Drain ; BS # 18 JOB NO. 5670-03-1



Area: $A = 22.65\ ft^2$ (after skew = 0.89)

Wetted Perimeter: $P = 35.57\ ft$ (after skew = 0.89)

Hydraulic Radius: $R = A/P = 0.64\ ft.$

Length: $L = 18.5\ ft.$ (after skew)

Manning Coefficient: $n = 0.020$ (Concrete Bridge with Sandy Bottom)

Entrance losses $K_e = 0.50$ (No wingwalls ; with Headwall)

Max. Depth: $D = 2.4\ ft.$

$BWC = A/D = 9.44\ ft.$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.39$$

$$XKOR = 1 + K_e + K_f = 1.89$$

Weir Coefficient: $C = 3.04$ ($H = 2.0\ ft$; $L = 18.5\ ft.$)

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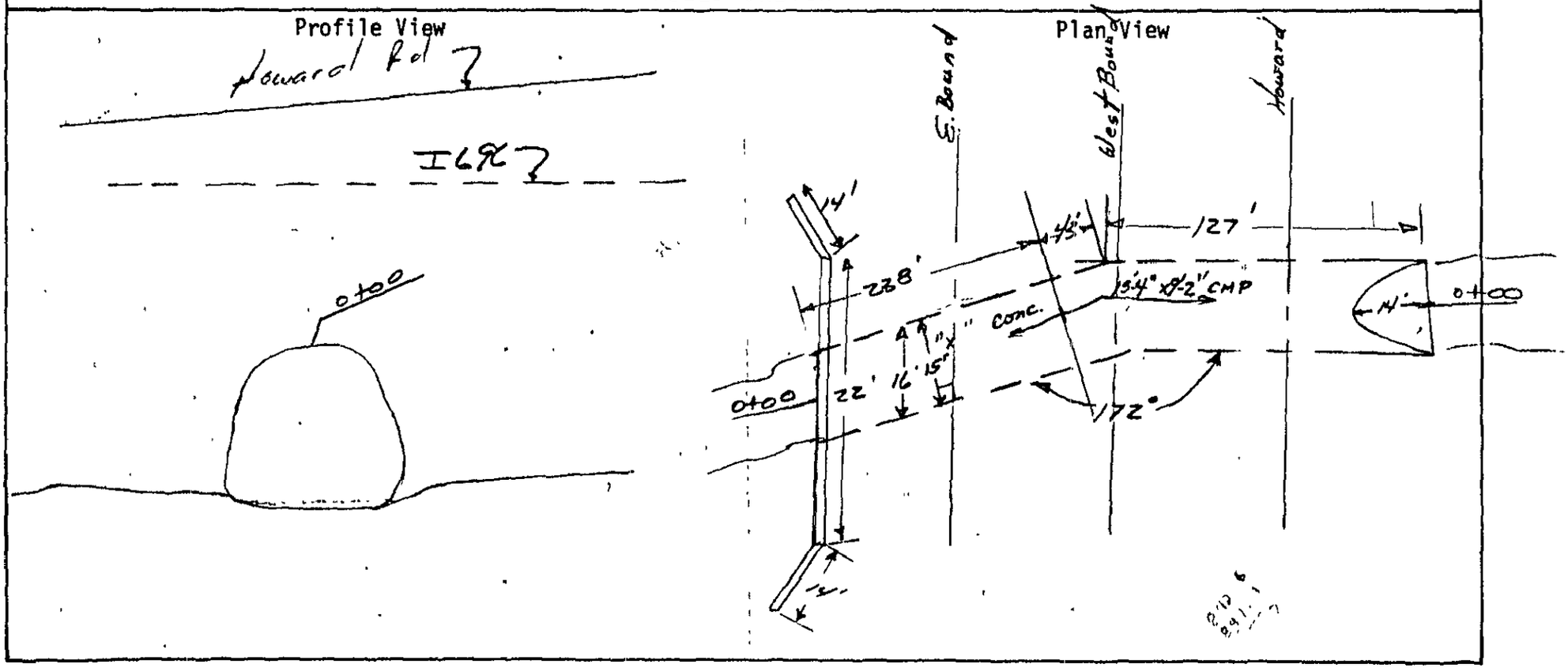
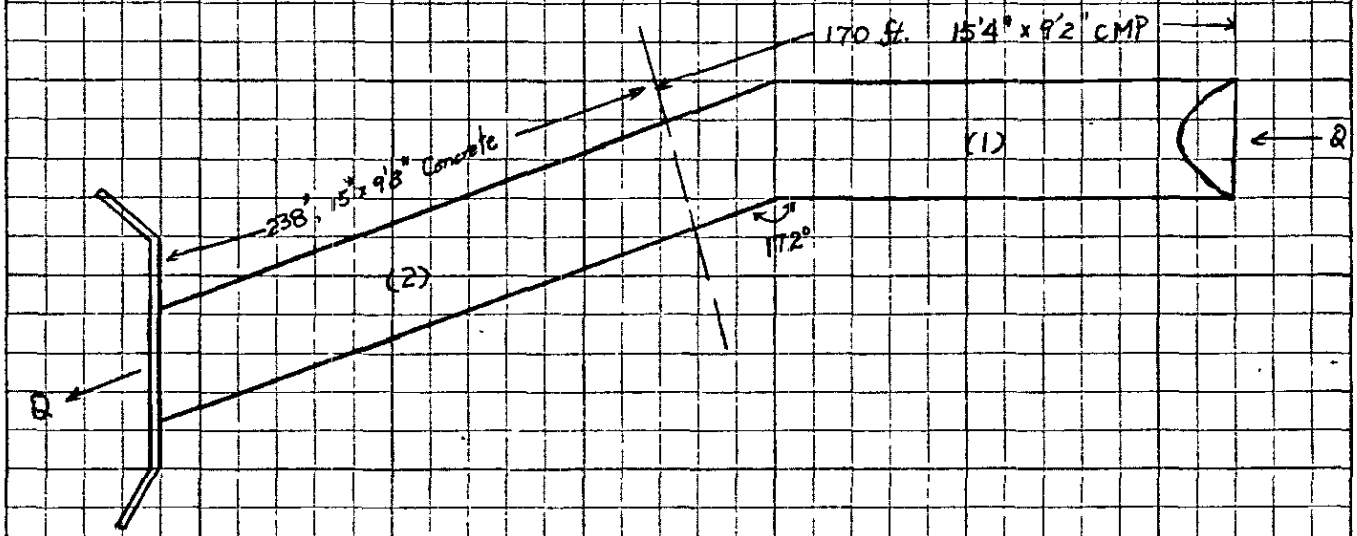
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS# 20

Job Name: Farmington Hills		By: G. Norberg	
Date:	Feature: 15'4" x 9'2" CMP	Water Course: Seeley Drain	
Remarks: I-696 & Howard Rd 180" x 116" Conc " x 9'8"			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: See Notes	Length: 408'	Width of Deck: —	Skew: Shown Below

FIELD SKETCH





Total Energy Losses due to Culvert:

$$K_T = (K_e + K_{f_1} + K_{bend} + K_{tran.}) \frac{V_1^2}{2g} + (1 + K_{f_2}) \frac{V_2^2}{2g}$$

$$= \left(K_e + \frac{29 n_1^2 L_1}{R_1^{4/3}} + K_{bend} + K_{trans.}\right) \frac{Q^2}{2gA_1^2} + \left(1 + \frac{29 n_2^2 L_2}{R_2^{4/3}}\right) \frac{Q^2}{2gA_2^2} \quad \text{--- (A)}$$

where:

$K_e = 0.7$ (CMP, Miltered to Conform to Fill Slope)

$R_1 = 2.71$ ft (15'4" x 9'2" CMP) ; $A_1 = 107$ ft²

$n_1 = 0.0309$

$L_1 = 170$ ft.

$K_{bend} = 0.05$ (From "Hydraulic Design Criteria" by Corps of Engineer Chart 228-2/1)

$K_{trans.} = 0.05$ ($D_2/d_1 = \sqrt{A_2/A_1} = \sqrt{114/107} < 1.2$; "Handbook of Hydraulics" by King & Brater, Table 6-7)

$A_2 = \pi ab = 114 \text{ ft}^2$; $P_2 = 2\pi\left(\frac{a^2+b^2}{2}\right)^{1/2} = 79.29 \text{ ft}$

$R_2 = A_2/P_2 = 1.44$

$n_2 = 0.012$

$L_2 = 238.0 \text{ ft.}$

Determine "Equivalent Length" use 15'4" × 9'2" CMP ; then

$n = n_1 = 0.0309$

$R = R_1 = 2.71 \text{ ft.}$

$K_e = K_{e_1} = 0.7$

$A = A_1 = 107 \text{ ft}^2$

Therefore :

$$K_T = (1 + K_e + K_f)\frac{V^2}{2g}$$

$$= \left(1 + K_e + \frac{29\, n^2 L}{R^{4/3}}\right)\frac{Q^2}{2gA^2} \quad \text{------- (B)}$$

Equate Equations (A) and (B)

$$(0.7 + 1.25 + 0.05 + 0.05)\frac{Q^2}{2g(107)^2} + (1 + 0.61)\frac{Q^2}{2g(114)^2}$$

$$= \left(1 + 0.7 + \frac{29.1(0.0309)^2}{(2.71)^{4/3}}L\right)\frac{Q^2}{2g(107)^2}$$

or

$$2.05 + 1.42 = 1.7 + 0.0073539\,L$$

$$\Rightarrow L = 240.59 \text{ ft.}$$

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CONSULTING ENGINEERS

BY MSC DATE 6/15/22 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT I 696 & Howard Road over Seeley Drain ; BS #20 JOB NO. 5670-03

Culvert Feature - u/s: 170 ft, 15'4" x 9'2" CMP

d/s: 238 ft, 15' x 9'8" Concrete Culvert

Equivalent Length use 15'4" x 9'2" CMP : $L = 240.69$ ft.

Area - $A = 107$ ft^2

Hydraulic Radius: $R = 2.71$ ft.

Manning Coefficient - $n = 0.0309$

Entrance Loss - $K_e = 0.70$ (CMP ; Mitered to Conform to fill slope)

Max. Depth - $D = 9.2$ ft.

$$BWC = \frac{A}{D} = 11.63 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.77$$

$$XKQR = 1 + K_e + K_f = 3.47$$

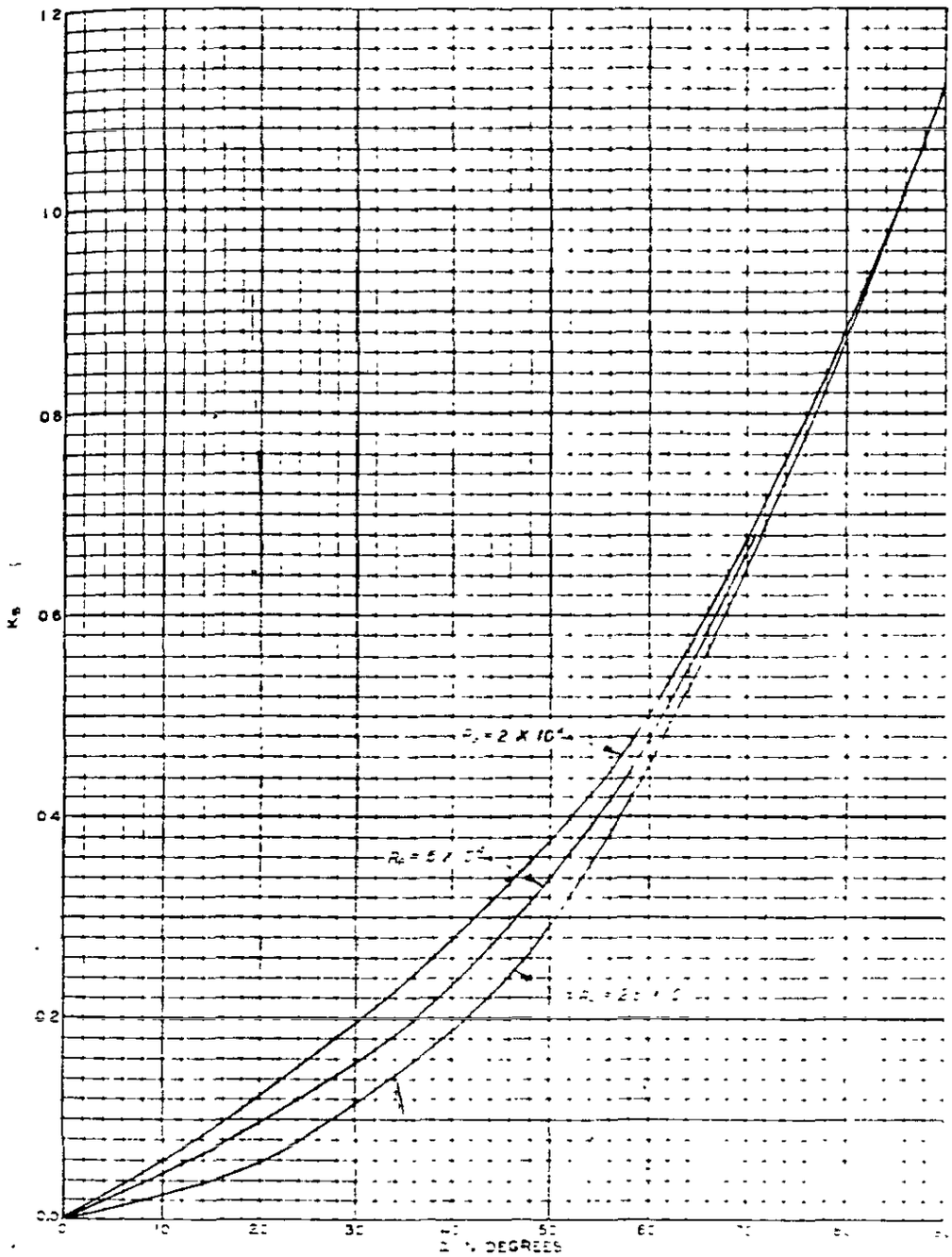
$C = 3.0$

ELCHU = 847.2 ft.

ELCHD = 844.3 ft.

ELLC = 856.3 ft.

ELTRD = 866.0 ft.

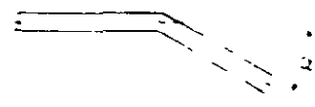


BASIC EQUATION

$$K_B = \frac{h_L}{V^2/2g}$$

WHERE K_B = BEND LOSS COEFFICIENT

h_L = HEAD LOSS DUE TO BEND



SINGLE MITER

BEND LOSS COEFFICIENTS

JOB NAME: City of Farmington Hills	JOB NO.	5670	03	1	13
WATERCOURSE: Seeley Drain	CULVERT LOCATION: I-696 & Howard Road				
CULVERT DESCRIPTION: 15'4" x 9'2" CMP	BY MSC	DATE 2/2/78			

n = 0.0309 Q_{10} = ____ TW_{10} = ____

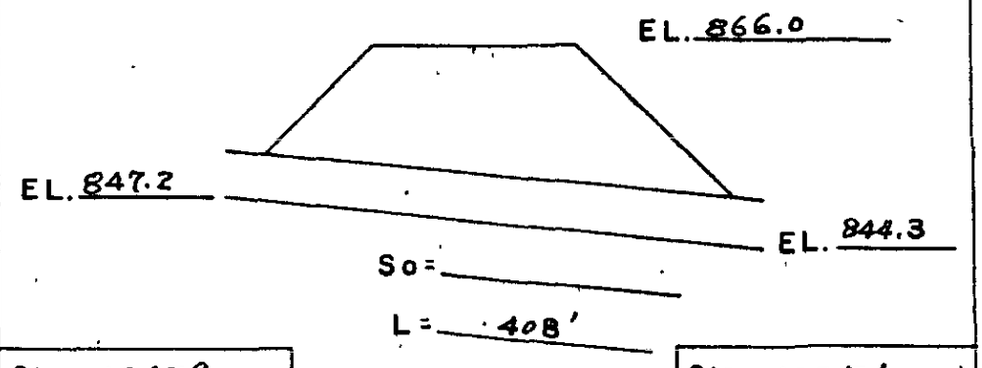
A = 107 Q_{50} = ____ TW_{50} = ____

R = 2.71 Q_{100} = ____ TW_{100} = ____

Ke = 0.70 Q_{500} = 1180 TW_{500} = 858.70 (1440)

D = 9.20

LSo = ____



Q	HEADWATER ANALYSIS									FINAL HW	FINAL HW ELEV. (ENER.)	ΔH HEC-2
	INLET CONT.		OUTLET CONT. HW = H + ho − LSo					HEC-2				
	$\frac{HW}{D}$	HW	H	dc	$\frac{dc+D}{2}$	ho	HW	$D+(1+Ke)\frac{V^2}{2g}$	HW			
1180	1.27	11.68	6.55	–	–	14.40	–	–	–	–	865.75	
											use 864.95' for WSEL	

CALCULATIONS AND COMMENTS

$H = xKPR\frac{V^2}{2g} = 3.47\frac{V^2}{2g}$

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Consulting Engineers
P. O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

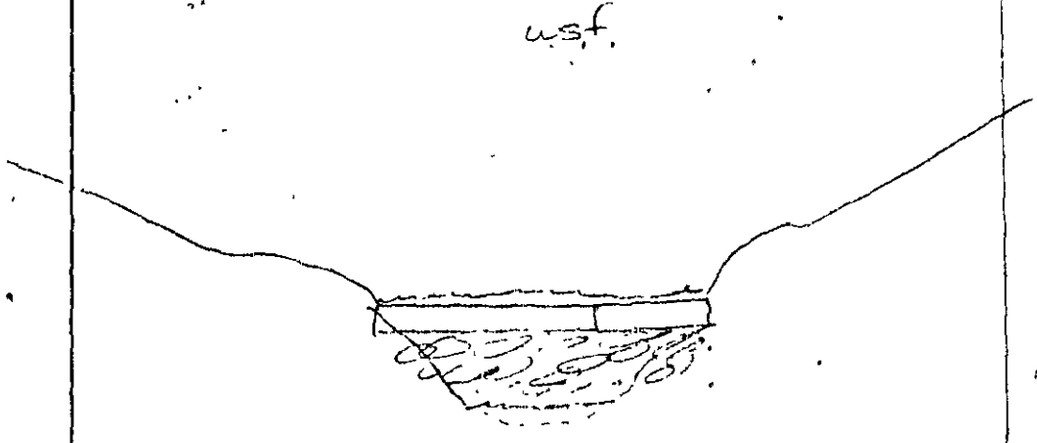
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03 Bs #22

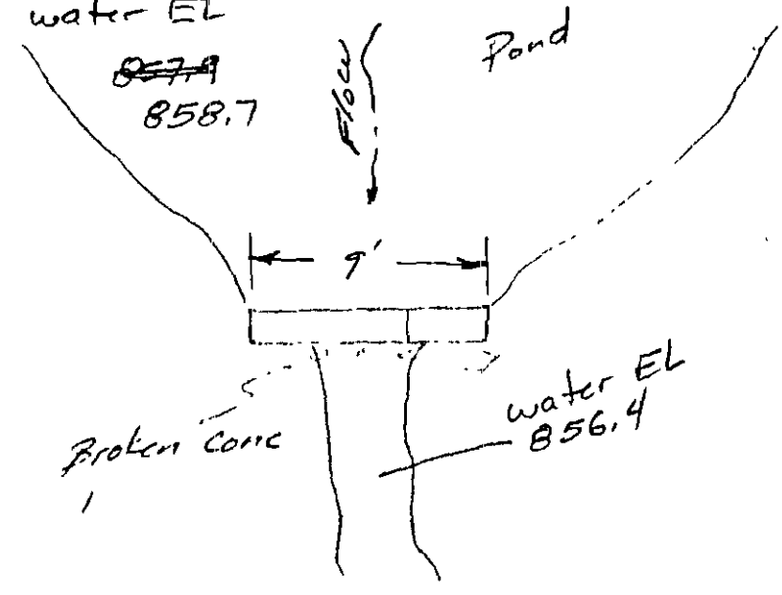
Job Name: Farmington Hills		By: G. Norberg	
Date: 12-2-76	Feature: Broken conc. wier	Water Course: Seeley	
Remarks: Wier is in very Poor cond.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: —	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

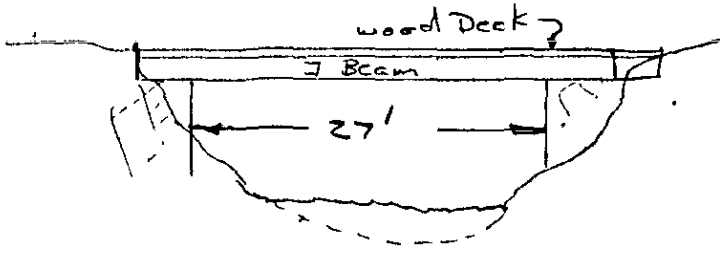
Code No. 5670-03-Bs #23

Job Name: Farmington Hills		By: G. Norberg	
Date: 12-2-76	Feature: "I" Beam & wood	Water Course: Seeley	
Remarks: Golf Course Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 857.6	Length:	Width of Deck:	Skew: —

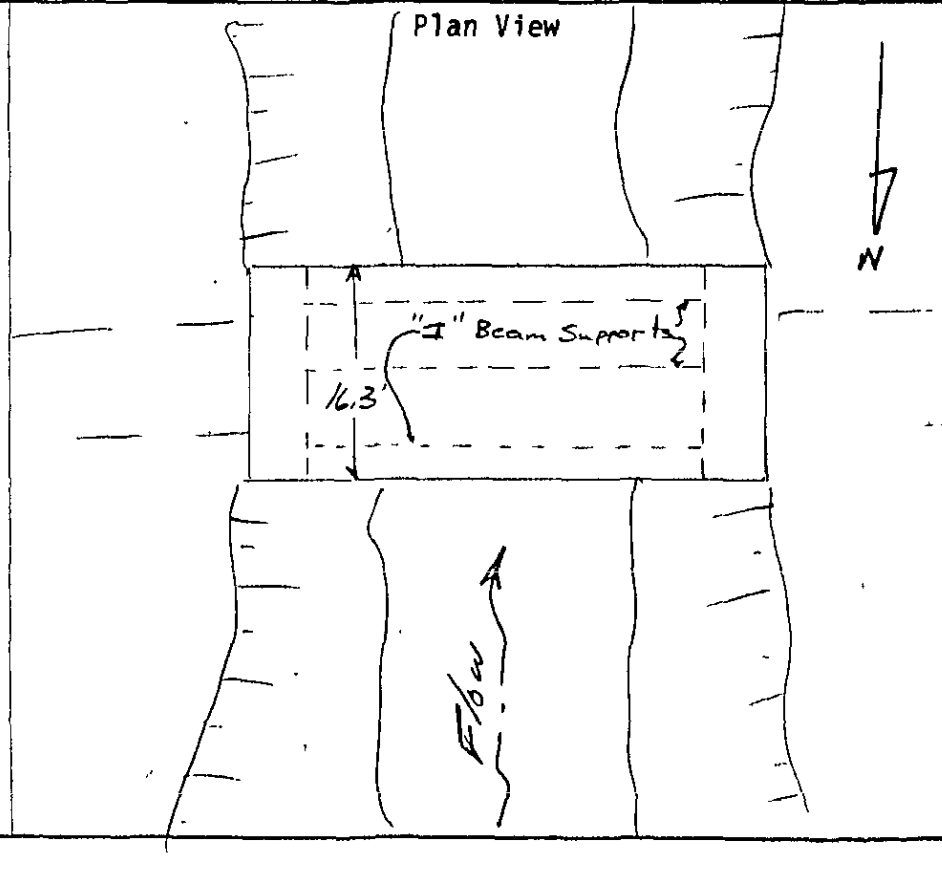
FIELD SKETCH

Profile View

U.S.



Plan View



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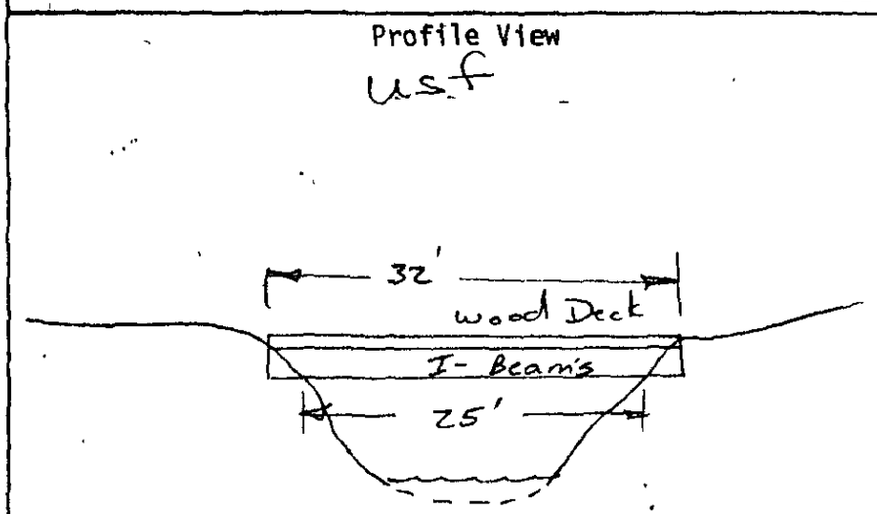
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS#24

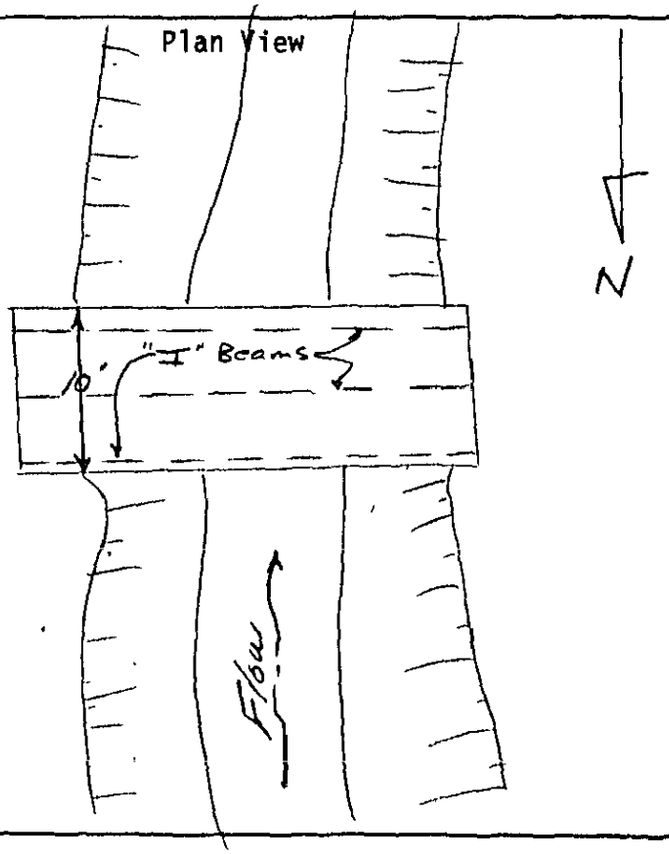
Job Name: Farmington Hills		By: G. Norberg	
Date: 12-2-76	Feature: "I" Beam & wood.	Water Course: Seeley Drain	
Remarks: Golf course Bridge			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 857.8	Length: 32'	Width of Deck: 10'	Skew: —

FIELD SKETCH

Profile View



Plan View



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Consulting Engineers
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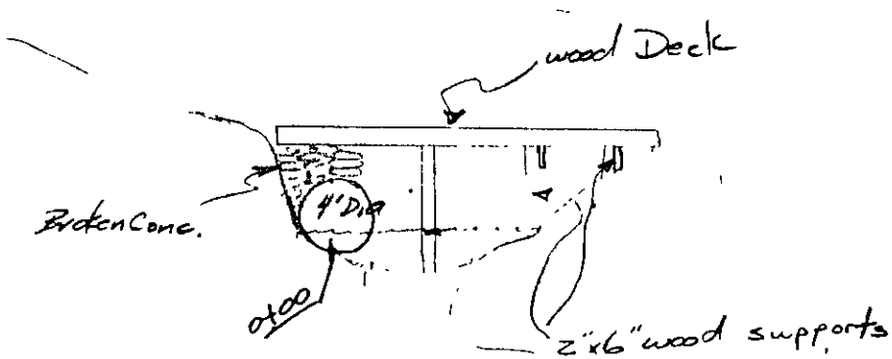
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #25

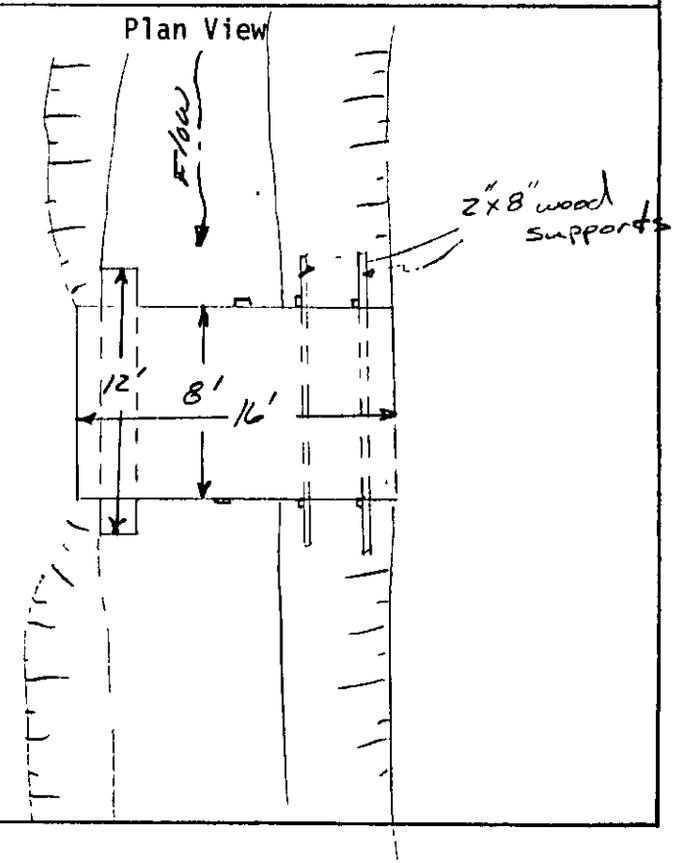
Job Name: Farmington Hills		By: G. Norberg	
Date: 12-3-76	Feature: wood Bridge 4' dia conc pipe	Water Course: Seeley Drain	
Remarks: Golf course Bridge.			
Width of Piers: —	Pier Shape: —	No. of Piers:	Area: —
Water Elevation: 857.9	Length: See Below	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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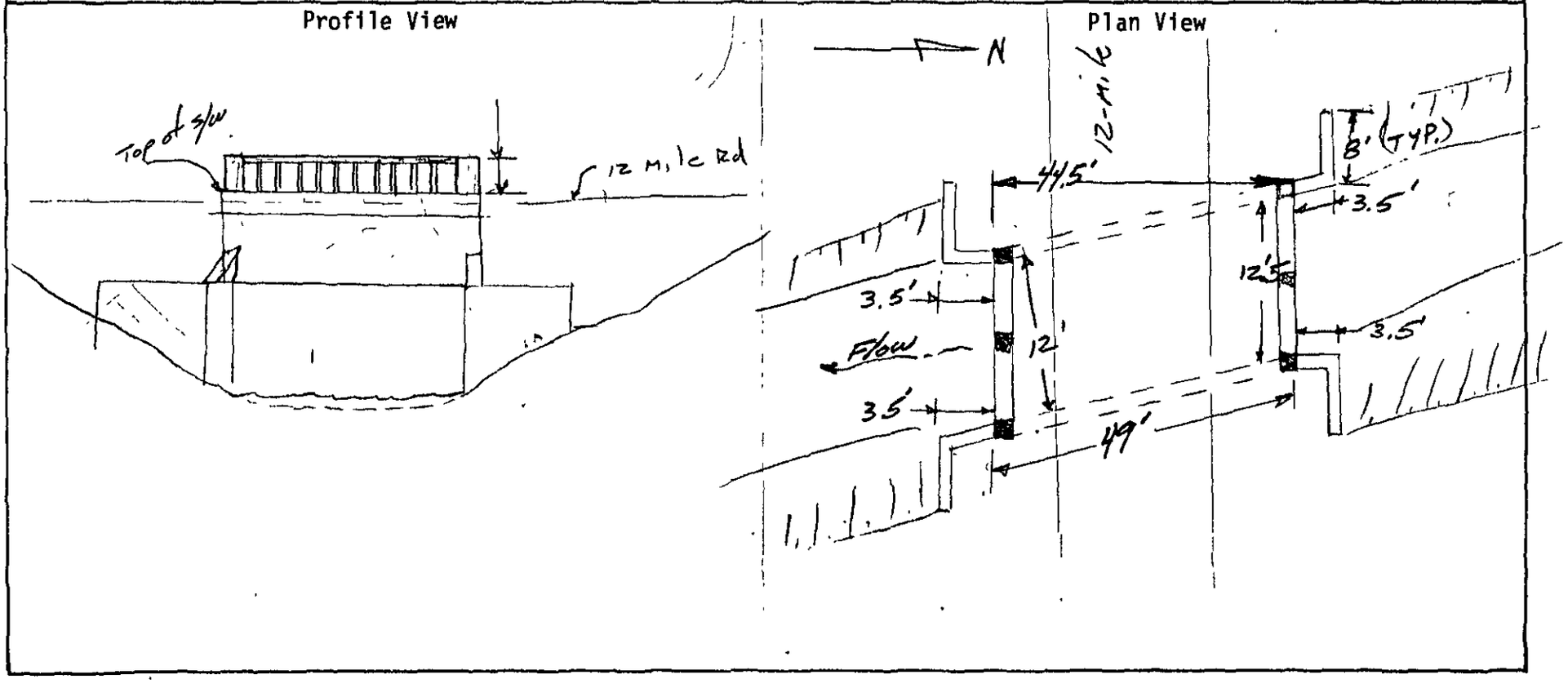
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #27

Job Name: Farmington Hills			By: G. Norberg
Date: 12-3-76	Feature: Conc. Box Culv		Water Course: Seeley Drain
Remarks: 12 - Mile Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 858.5	Length:	Width of Deck: —	Skew: Shown Below

FIELD SKETCH



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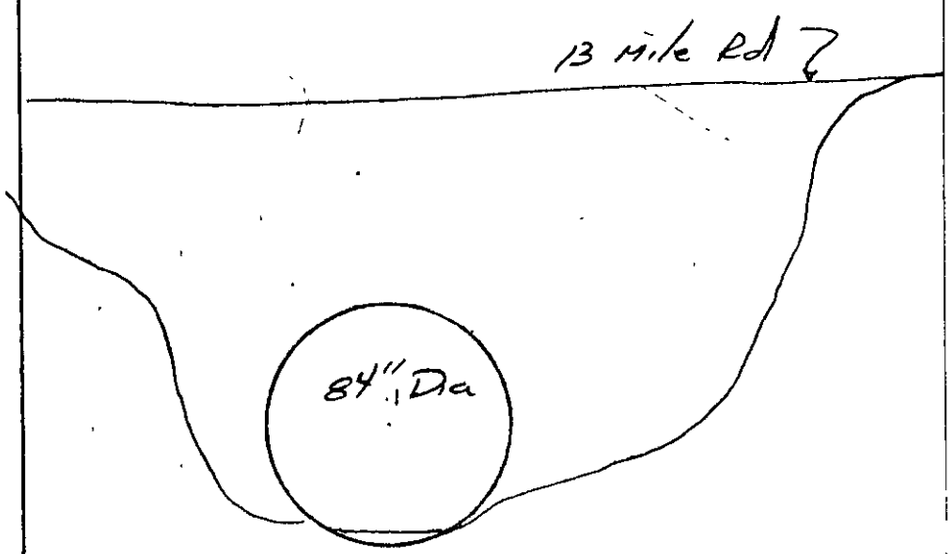
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #35

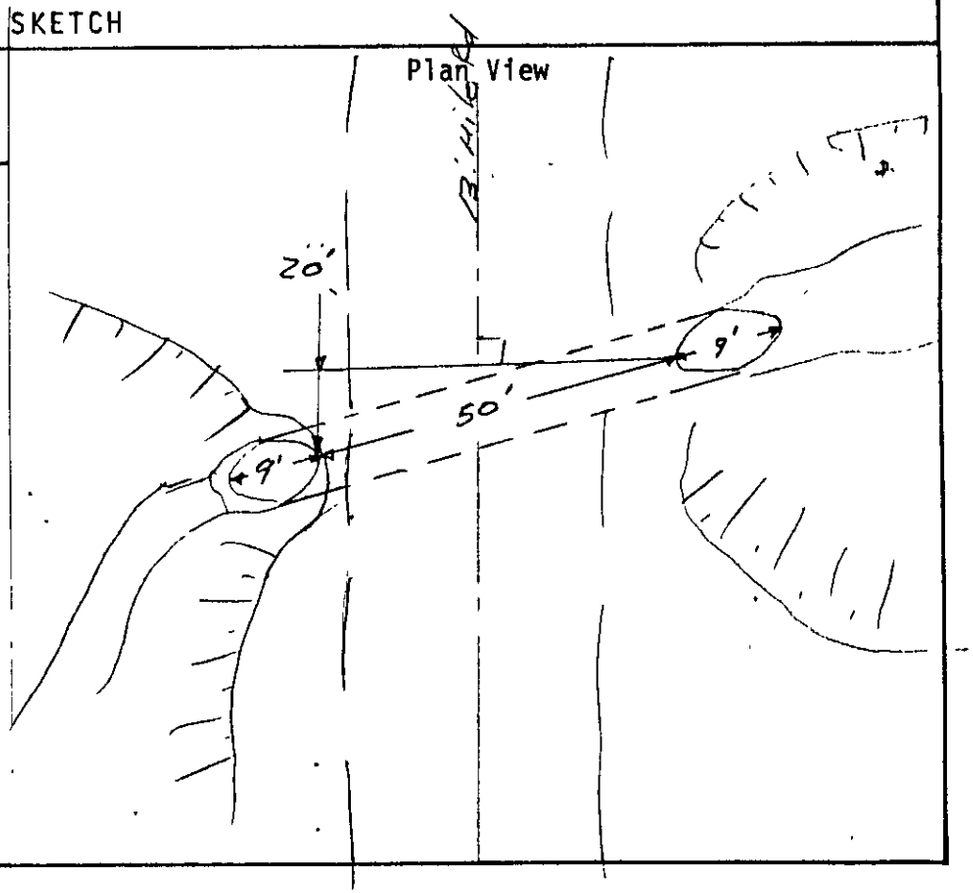
Job Name: Farmington Hills		By: G. Norberg	
Date: 12-7-76	Feature: 84" CMP	Water Course: Seeley Drain	
Remarks: 13 - Mile Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 882.3	Length: 50'	Width of Deck: —	Skew: shown Below

FIELD SKETCH

Profile View



Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 6/22/17 JOB DESCRIPTION FIS - Farmington Hills SHEET ____ OF ____
SUBJECT Seeley Drain : 13 Mile Road Culvert - BS #35 JOB NO. 5670-03

Culvert Feature: 84" ϕ CMP

Area: $A = 38.48 \text{ ft}^2$

Hydraulic Radius: $R = 1.75 \text{ ft.}$

Length: $L = 50 \text{ ft.}$

Manning Coefficient: $n = 0.032$

Entrance Loss: $K_e = 0.90$ (Project From Fill)

Max. Depth: $D = 7.0 \text{ ft.}$

$$BWC = \frac{A}{D} = 5.50 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.71$$

$$\Sigma K\phi R = 1 + K_e + K_f = 2.61$$

Wier Coefficient: $C = 3.04$

Johnson & Anderson, Inc.
Consulting Engineers
P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

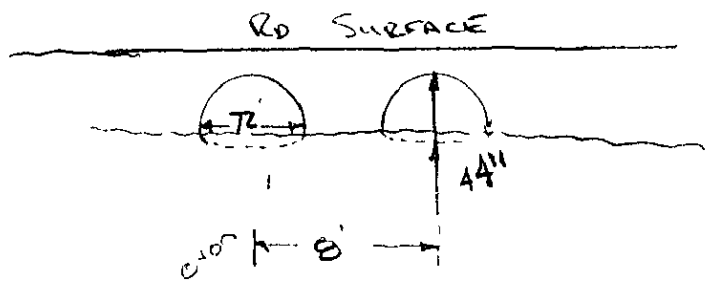
Sec. 1A

Code No. _____

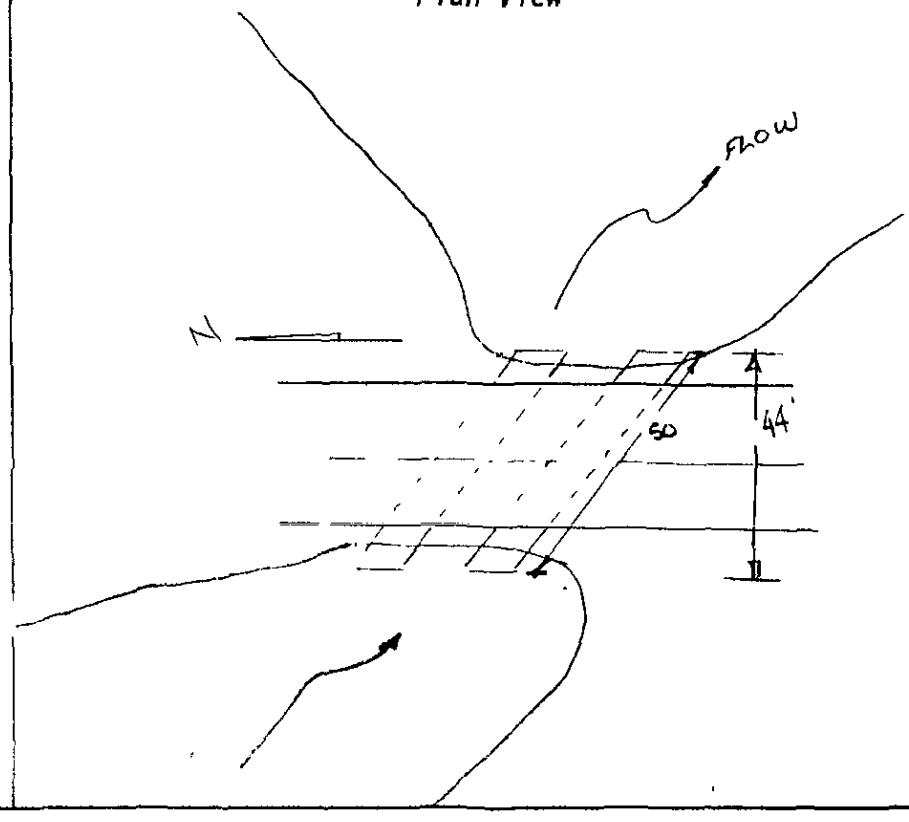
Job Name: FARMINGTON TWP.		By: R MOSES	
Date: 3-15-78	Feature: 2-CMP CULVERTS	Water Course: SELLY DRAIN	
Remarks: ARCH PIPES ARE 72" x 44" IN SIZES. CULVERTS AT [illegible] ARE HALF FULL OF SOLID ICE			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 887.4	Length: 50'	Width of Deck: 8'	Skew:

FIELD SKETCH

Profile View



Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 3/28/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Seeley Drain at Haggarty Road - BS # 1A JOB NO. 5670-03-1-13

Culvert Feature - Twin 72" x 44" CMP

Area - $A = 17.6 \times 2 = 35.2 \text{ ft.}^2$

Hydraulic Radius - $R = 1.12 \text{ ft.}$

Length - $L = 50 \text{ ft.}$

Skewness - $S_k = 44/50 = 0.88$

Manning Coefficient - $n = 0.033$

Max. Depth - $D = 3.67 \text{ ft}$

$BWC = \frac{A}{D} = 9.59 \text{ ft.}$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.36$$

Entrance Loss - $K_e = 0.9$ (No headwalls)

$$\Sigma K \Phi R = 1 + K_e + K_f = 3.26$$

Weir Coefficient - $C = 3.05$ ($H \approx 3.0$ ft for 100-year flood)

```
X1      27.30        11     485.00     497.00      49.00      49.00      49.00      1.000

BT      11.00      0.00     873.30       0.00     185.00     869.10       0.00     385.00     867.40       0.00

BT     485.00    867.50       0.00     485.00     867.50     864.10     491.00     867.50     864.10     497.00
BT     867.50    864.20     497.00     867.50       0.00     585.00     868.50       0.00     785.00     870.90
BT       0.00    985.00     871.20       0.00

GR     873.30      0.00     869.10     185.00     867.40     385.00     867.50     485.00     858.20     485.00
GR     858.20    491.00     858.60     497.00     867.50     497.00     868.50     585.00     870.90     785.00
GR     871.20    985.00
*******************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE*******************

485.00  864.10  491.00  864.10  497.00  864.20

485.00  867.50  485.00  858.20  491.00  858.20  497.00  858.60  497.00  867.50
************** LISTING OF COORDINATES OF ORIFICE*********************

485.00  864.10  491.00  864.10  497.00  864.20  497.00  858.60  491.00  858.20
485.00  858.20  485.00  864.10

ORIFICE AREA        69.8 WETTED PERIMETER      35.5  29.1/R**1.333      11.8253
```

Area: $A = 69.8\ ft^2$

Wetted Perimeter: $P = 35.5\ ft$

Hydraulic Radius: $R = A/P = 1.97\ ft.$

Length: $L = 49\ ft.$

Manning Coeff.: $n = 0.018$ (Concrete Bridge ; Sandy Bottom)

Entrance Loss: $K_e = 0.40$ (with Wingwalls & Headwalls)

Max. Depth: $D = 6.0\ ft$

$BWC = A/D = 11.63\ ft.$

$$K_f = \frac{29 n^2 L}{R^{4/3}} = 11.8253\ n^2 L = 0.19$$

$\Sigma K \phi R = 1 + K_e + K_f = 1.59$

$C = 3.0$ (Pressure flow only ; Arbitrary value)

$ELLC = 865.3\ ft.$

$ELTRD = 867.4\ ft.$

RECEIVED
AUG 31 1981
NATURAL RESOURCES
LAND & WATER MGMT.

SEELEY DRAIN

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Seeley Drain in the City of Farmington Hills, Oakland County, Michigan. The study starts from the confluence with the Minnow Pond Drain and the Upper River Rouge and runs to Haggerty Road the western corporate boundary. This reach is approximately 4 miles in length. The 10-, 50-, 100-, and 500-year flood frequency flows were calculated by Brater's unit hydrograph-infiltration capacity method. These flows have been approved by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U.S. Corps of Engineers (Reference 1). All bridges have been modeled by the requirements of the HEC-2 normal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs and field descriptions taken in Farmington Hills by survey crews in 1976. To reflect the changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values are indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir coefficients were taken from charts of the U.S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting water-surface elevations for this study were obtained from the confluence elevation of the Minnow Pond Drain - Upper River Rouge backwater calculations.

Discussion

The Seeley Drain investigation was done exclusively with Johnson & Anderson field data. This data was supplemented with on-site investigation by design personnel.

The backwater analysis was run essentially with no attempt to encroach beyond the natural floodway. The encroachment option was used in section 7 & 6 where development is beginning and the floodplain is fairly flat. High water marks were not available for this portion of the stream.

y of Farmington Hills
'ley Drain
0-03-1
11-30-77

Original Cross-Section Location

oss tion	J&A Section	SECNO	Location
A	2	750	750' u/s from Mouth of the Seeley Drain
B	3	1710	1710' u/s from Mouth of the Seeley Drain
C	4	2173	u/s face of Driveway Bridge, 2173' u/s from Mouth
D	4A	2299	u/s face of Wood Walk Bridge, 1075' d/s from Drake Road
E	4B	2407	u/s face of Concrete and Wood Walk Bridge, 965' d/s from Drake Road
F	4C	2450	u/s face of Concrete and Wood Dam, 920' d/s from Drake Road
G	5	2839	u/s face of Concrete Driveway Bridge, 530' d/s from Drake Road
H	6	3373	u/s face of Drake Road Bridge
I	7	3944	570' u/s from u/s face of Drake Road Bridge
J	7A	4406	u/s face of Driveway Bridge, 1033' u/s from Drake Road
[illegible]	8	4617	210' u/s from u/s face of Driveway Bridge J
[illegible]	9	5217	810' u/s from u/s face of Driveway Bridge J
[illegible]	9A	5817	70' d/s from d/s face of Footbridge N
[illegible]	10	5893	u/s face of Footbridge, 2520' u/s from Drake Road
[illegible]	10A	6080	u/s face of Footbridge, 2705' u/s from Drake Road
[illegible]	11	6726	2355' d/s from d/s face of Halstead Road Culvert
[illegible]	12	7176	1905' d/s from d/s face of Halstead Road Culvert
[illegible]	12A	7415	u/s face of Driveway Bridge, 1665' d/s from Halstead Road
[illegible]	13	8141	u/s face of Dam and Bridge Section, 940' d/s from Halstead Road
[illegible]	14	8459	u/s face of Walk Bridge, 620' d/s from Halstead Road

ross ction	J&A Section	SECNO	Location
U	15	8675	u/s face of Walk Bridge, 405' d/s from Halstead Road
V	16	9196	u/s face of Halstead Road Bridge
W	17	9650	455' u/s from u/s face of Halstead Road Bridge
X	18	9899	u/s face of Driveway Bridge, 150' d/s from I-696
Y	19	10000	50' d/s from d/s face of Interstate 696 Culvert
Z	20	10051	d/s face of I-696 and Howard Road Culvert
		10459	u/s face of I-696 and Howard Road Culvert
AA	21	11260	800' u/s from u/s face of Howard Road Culvert
AB	22	11762	u/s face of Concrete Weir, 1300' u/s from Howard Road
AC	23	12310	u/s face of Walk Bridge, 1850' u/s from Howard Road
AD	24	12652	u/s face of Walk Bridge, 585' d/s from 12 Mile Road
AE	25	12814	u/s face of Walk Bridge, 420' d/s from 12 Mile Road
AF	26	13125	110' d/s from d/s face of 12 Mile Road Bridge
AG	27	13285	u/s face of 12 Mile Road Bridge
AH	28	14289	1005' u/s from u/s face of 12 Mile Road Bridge
AI	29	15349	2065' u/s from u/s face of 12 Mile Road Bridge
AJ	30	16399	3115' u/s from u/s face of 12 Mile Road Bridge
AK	31	17279	3995' u/s from u/s face of 12 Mile Road Bridge
AL	32	18079	1800' d/s from d/s face of 13 Mile Road Bridge
AM	33	18979	900' d/s from d/s face of 13 Mile Road Bridge
AN	34	19729	150' d/s from d/s face of 13 Mile Road Bridge
AO	35	19930	u/s face of 13 Mile Road Bridge
AP	36	20131	200' u/s from u/s face of 13 Mile Road Bridge
AQ	37	20981	1050' u/s from u/s face of 13 Mile Road Bridge
AR	1A	21232	u/s face of Haggerty Road Bridge

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN

4) DOCUMENT TYPE: SUMMARY

00BREAK00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SEELEY DRAIN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	OCH	DEPTH	TOPWID
28.00	0.00	0.00	0.00	754.00	625.00	757.45	.68	0.00	0.00	555.45	3.45	96.30
28.00	0.00	0.00	0.00	754.00	1330.00	758.53	.95	0.00	0.00	999.35	4.53	154.62
28.00	0.00	0.00	0.00	754.00	1810.00	759.09	1.03	0.00	0.00	1243.77	5.09	186.01
28.00	0.00	0.00	0.00	754.00	3410.00	760.40	1.13	0.00	0.00	1869.98	6.40	253.88
0.00	250.00	0.00	0.00	755.90	300.00	759.55	.13	1.39	.16	256.52	3.65	110.07
0.00	250.00	0.00	0.00	755.90	625.00	760.85	.14	1.26	.24	423.29	4.95	191.24
0.00	250.00	0.00	0.00	755.90	835.00	761.45	.14	1.20	.27	506.81	5.55	222.44
0.00	250.00	0.00	0.00	755.90	1620.00	762.82	.17	1.18	.29	796.14	6.92	239.64
250.00	250.00	0.00	0.00	757.80	300.00	760.45	.49	1.09	.18	294.59	2.65	52.38
250.00	250.00	0.00	0.00	757.80	625.00	761.49	.60	.87	.23	530.98	3.69	116.77
250.00	250.00	0.00	0.00	757.80	835.00	762.01	.57	.78	.22	639.64	4.21	152.19
250.00	250.00	0.00	0.00	757.80	1620.00	763.39	.50	.73	.16	939.10	5.59	205.43
500.00	250.00	0.00	0.00	759.70	300.00	762.82	.31	2.13	.05	278.80	3.12	85.21
500.00	250.00	0.00	0.00	759.70	625.00	763.71	.41	1.99	.06	481.59	4.01	158.78
500.00	250.00	0.00	0.00	759.70	835.00	764.06	.47	1.92	.03	590.22	4.36	177.09
500.00	250.00	0.00	0.00	759.70	1620.00	765.04	.60	1.70	.05	922.80	5.34	188.05
750.00	250.00	0.00	0.00	761.70	300.00	764.62	.41	1.85	.05	281.70	2.92	90.62
750.00	250.00	0.00	0.00	761.70	625.00	765.51	.47	1.82	.03	464.89	3.81	157.91
750.00	250.00	0.00	0.00	761.70	835.00	765.91	.47	1.85	.00	551.80	4.21	159.22
750.00	250.00	0.00	0.00	761.70	1620.00	767.03	.54	1.91	.02	849.19	5.33	162.89
790.00	40.00	0.00	0.00	762.21	300.00	764.98	.49	.40	.04	287.52	2.77	71.70
790.00	40.00	0.00	0.00	762.21	625.00	765.84	.62	.38	0.00	492.62	3.63	157.34
790.00	40.00	0.00	0.00	762.21	835.00	766.19	.63	.36	.08	587.30	3.98	158.50
790.00	40.00	0.00	0.00	762.21	1620.00	767.30	.66	.34	.06	883.14	5.09	162.12
830.00	40.00	0.00	0.00	762.73	300.00	765.44	.53	.48	.02	289.39	2.71	64.43
830.00	40.00	0.00	0.00	762.73	625.00	766.36	.62	.44	0.00	494.07	3.63	157.31
830.00	40.00	0.00	0.00	762.73	835.00	766.62	.73	.47	0.00	605.44	3.89	158.17
830.00	40.00	0.00	0.00	762.73	1620.00	767.67	.77	.42	.05	908.51	4.94	161.61
870.00	40.00	0.00	0.00	763.25	300.00	765.95	.54	.51	.00	289.77	2.70	62.84
870.00	40.00	0.00	0.00	763.25	625.00	766.88	.62	.45	0.00	493.45	3.63	157.32
870.00	40.00	0.00	0.00	763.25	835.00	767.18	.69	.49	0.00	597.06	3.93	158.32
870.00	40.00	0.00	0.00	763.25	1620.00	768.12	.82	.48	.03	921.38	4.87	161.37
990.00	120.00	0.00	0.00	764.80	300.00	767.62	.66	1.72	.06	299.86	2.82	31.84
990.00	120.00	0.00	0.00	764.80	625.00	768.71	.80	1.42	0.00	541.03	3.91	111.40
990.00	120.00	0.00	0.00	764.80	835.00	769.18	.78	1.39	0.00	646.65	4.38	160.21
990.00	120.00	0.00	0.00	764.80	1620.00	770.09	.98	1.52	0.00	1001.35	5.29	175.12
1110.00	120.00	0.00	0.00	766.35	300.00	769.39	.53	1.60	.04	297.44	3.04	48.64
1110.00	120.00	0.00	0.00	766.35	625.00	770.26	.79	1.51	0.00	537.15	3.91	111.37
1110.00	120.00	0.00	0.00	766.35	835.00	770.71	.78	1.37	0.00	643.52	4.36	158.03
1110.00	120.00	0.00	0.00	766.35	1620.00	771.68	.91	1.49	.02	979.65	5.33	175.27

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1150.00	40.00	0.00	0.00	766.87	300.00	769.85	.56	.47	.02	298.38	2.98	44.40
1150.00	40.00	0.00	0.00	766.87	625.00	770.78	.79	.50	0.00	537.14	3.91	111.38
1150.00	40.00	0.00	0.00	766.87	835.00	771.23	.76	.46	0.00	642.63	4.36	158.54
1150.00	40.00	0.00	0.00	766.87	1620.00	772.15	.96	.50	.02	990.59	5.28	175.04
1190.00	40.00	0.00	0.00	767.38	300.00	770.35	.57	.50	.00	298.58	2.97	43.80
1190.00	40.00	0.00	0.00	767.38	625.00	771.29	.79	.50	0.00	537.14	3.91	111.38
1190.00	40.00	0.00	0.00	767.38	835.00	771.74	.78	.46	0.00	642.80	4.36	158.45
1190.00	40.00	0.00	0.00	767.38	1620.00	772.67	.95	.51	.00	987.92	5.29	175.10
1230.00	40.00	0.00	0.00	767.90	300.00	770.86	.75	.60	.09	299.87	2.96	25.87
1230.00	40.00	0.00	0.00	767.90	625.00	772.03	.95	.54	0.00	562.41	4.13	77.78
1230.00	40.00	0.00	0.00	767.90	835.00	772.57	.94	.48	0.00	683.67	4.67	112.54
1230.00	40.00	0.00	0.00	767.90	1620.00	773.76	1.00	.48	0.00	1035.21	5.86	189.86
1290.00	60.00	0.00	0.00	768.60	300.00	771.97	.54	.84	.06	296.37	3.37	38.32
1290.00	60.00	0.00	0.00	768.60	625.00	773.00	.79	.77	.05	547.89	4.40	83.41
1290.00	60.00	0.00	0.00	768.60	835.00	773.37	.96	.76	0.00	688.04	4.77	109.20
1290.00	60.00	0.00	0.00	768.60	1620.00	774.59	1.02	.70	0.00	1045.04	5.99	192.37
1350.00	60.00	0.00	0.00	769.40	300.00	772.66	.63	.74	.05	298.13	3.26	33.63
1350.00	60.00	0.00	0.00	769.40	625.00	773.69	.95	.77	.08	561.08	4.29	71.90
1350.00	60.00	0.00	0.00	769.40	835.00	774.22	.99	.78	0.00	692.14	4.82	102.63
1350.00	60.00	0.00	0.00	769.40	1620.00	775.52	1.00	.69	0.00	1045.24	6.12	195.19
1410.00	60.00	0.00	0.00	770.20	300.00	773.49	.63	.83	.00	297.64	3.29	33.81
1410.00	60.00	0.00	0.00	770.20	625.00	774.61	.87	.82	.02	553.21	4.41	67.68
1410.00	60.00	0.00	0.00	770.20	835.00	775.01	1.05	.82	.03	697.82	4.81	87.56
1410.00	60.00	0.00	0.00	770.20	1620.00	776.36	1.06	.68	0.00	1062.74	6.16	173.33
1470.00	60.00	0.00	0.00	771.00	300.00	774.32	.66	.85	.01	297.46	3.32	33.91
1470.00	60.00	0.00	0.00	771.00	625.00	775.39	.95	.83	.04	557.86	4.39	61.85
1470.00	60.00	0.00	0.00	771.00	835.00	775.88	1.07	.85	0.00	699.03	4.88	81.56
1470.00	60.00	0.00	0.00	771.00	1620.00	777.27	1.09	.70	0.00	1073.37	6.27	163.40
1530.00	60.00	0.00	0.00	771.70	300.00	775.20	.61	.81	.02	295.86	3.50	35.57
1530.00	60.00	0.00	0.00	771.70	625.00	776.37	.81	.79	.04	543.83	4.67	66.21
1530.00	60.00	0.00	0.00	771.70	835.00	776.88	.89	.77	.05	678.04	5.18	85.48
1530.00	60.00	0.00	0.00	771.70	1620.00	778.10	1.12	.72	0.00	1079.89	6.40	158.49
1590.00	60.00	0.00	0.00	772.50	300.00	775.98	.65	.80	.02	296.33	3.48	34.67
1590.00	60.00	0.00	0.00	772.50	625.00	777.09	.91	.77	.05	549.11	4.59	59.81
1590.00	60.00	0.00	0.00	772.50	835.00	777.57	1.03	.76	.07	688.68	5.07	77.27
1590.00	60.00	0.00	0.00	772.50	1620.00	778.94	1.17	.74	0.00	1086.42	6.44	151.29
1650.00	60.00	0.00	0.00	773.30	300.00	776.81	.65	.84	.00	295.72	3.51	35.19
1650.00	60.00	0.00	0.00	773.30	625.00	777.94	.91	.84	.00	546.67	4.64	60.72
1650.00	60.00	0.00	0.00	773.30	835.00	778.43	1.02	.84	.00	684.97	5.13	74.16
1650.00	60.00	0.00	0.00	773.30	1620.00	779.78	1.20	.76	0.00	1092.36	6.48	144.04

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1710.00	60.00	0.00	0.00	774.10	300.00	777.66	.69	.86	.02	296.60	3.56	32.96
1710.00	60.00	0.00	0.00	774.10	625.00	778.82	.96	.86	0.00	555.21	4.72	63.84
1710.00	60.00	0.00	0.00	774.10	835.00	779.27	1.10	.88	.04	692.81	5.17	70.47
1710.00	60.00	0.00	0.00	774.10	1620.00	780.66	1.27	.80	0.00	1104.46	6.56	131.50
2160.00	450.00	0.00	0.00	778.40	300.00	782.25	.58	4.46	.03	300.00	3.85	15.00
2160.00	450.00	0.00	0.00	778.40	625.00	783.45	.90	4.56	.02	544.84	5.05	50.91
2160.00	450.00	0.00	0.00	778.40	835.00	784.06	1.03	4.70	.02	680.57	5.66	80.08
2160.00	450.00	0.00	0.00	778.40	1620.00	785.40	1.27	4.74	.00	1052.37	7.00	105.52
2161.00	1.00	0.00	0.00	778.40	300.00	782.26	.58	.01	.00	300.00	3.86	15.00
2161.00	1.00	0.00	0.00	778.40	625.00	784.00	.49	.00	.12	472.19	5.60	76.69
2161.00	1.00	0.00	0.00	778.40	835.00	784.95	.35	.00	.20	511.59	6.55	103.28
2161.00	1.00	0.00	0.00	778.40	1620.00	786.61	.33	.00	.28	701.07	8.21	134.44
2173.00	12.00	784.40	783.00	778.40	300.00	782.35	.55	.05	.01	300.00	3.95	15.00
2173.00	12.00	784.40	783.00	778.40	625.00	785.05	.18	.74	0.00	373.62	6.65	103.79
2173.00	12.00	784.40	783.00	778.40	835.00	785.62	.19	.51	0.00	439.01	7.22	106.70
2173.00	12.00	784.40	783.00	778.40	1620.00	786.90	.28	.22	0.00	666.75	8.50	142.89
2174.00	1.00	0.00	0.00	778.40	300.00	782.35	.55	.00	.00	300.00	3.95	15.00
2174.00	1.00	0.00	0.00	778.40	625.00	784.98	.31	.00	.07	462.37	6.58	103.45
2174.00	1.00	0.00	0.00	778.40	835.00	785.54	.36	.00	.09	567.15	7.14	106.26
2174.00	1.00	0.00	0.00	778.40	1620.00	786.73	.60	.00	.16	930.63	8.33	137.99
2294.00	120.00	0.00	0.00	779.10	300.00	783.06	.38	.49	.05	300.00	3.96	23.00
2294.00	120.00	0.00	0.00	779.10	625.00	785.13	.39	.18	.04	566.00	6.03	44.97
2294.00	120.00	0.00	0.00	779.10	835.00	785.67	.52	.21	.08	734.35	6.57	48.79
2294.00	120.00	0.00	0.00	779.10	1620.00	787.03	.56	.24	.01	1087.69	7.93	177.42
2295.00	1.00	0.00	0.00	779.10	300.00	783.07	.38	.00	.00	300.00	3.97	23.00
2295.00	1.00	0.00	0.00	779.10	625.00	785.13	.39	.00	.00	567.87	6.03	44.98
2295.00	1.00	0.00	0.00	779.10	835.00	785.66	.52	.00	.00	737.45	6.56	48.80
2295.00	1.00	0.00	0.00	779.10	1620.00	787.02	.58	.00	.01	1100.04	7.92	177.45
2299.00	4.00	784.90	784.80	779.10	300.00	783.06	.41	.01	.02	300.00	3.96	23.00
2299.00	4.00	784.90	784.80	779.10	625.00	785.69	.30	.46	0.00	556.94	6.59	48.96
2299.00	4.00	784.90	784.80	779.10	835.00	786.56	.25	.63	0.00	643.00	7.46	172.60
2299.00	4.00	784.90	784.80	779.10	1620.00	788.62	.18	1.20	0.00	849.53	9.52	193.81
2300.00	1.00	0.00	0.00	779.10	300.00	783.13	.36	.00	.01	300.00	4.03	23.00
2300.00	1.00	0.00	0.00	779.10	625.00	785.68	.32	.00	.01	572.32	6.58	48.97
2300.00	1.00	0.00	0.00	779.10	835.00	786.54	.30	.00	.03	685.02	7.44	172.29
2300.00	1.00	0.00	0.00	779.10	1620.00	788.59	.26	.00	.04	967.34	9.49	193.43
2400.00	100.00	0.00	0.00	782.80	300.00	786.15	.41	.60	0.00	200.67	3.35	68.11
2400.00	100.00	0.00	0.00	782.80	625.00	786.71	.83	.40	0.00	362.12	3.91	90.09
2400.00	100.00	0.00	0.00	782.80	835.00	787.12	.90	.36	0.00	439.20	4.32	105.79
2400.00	100.00	0.00	0.00	782.80	1620.00	788.60	.76	.26	.25	626.77	5.80	157.67

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
2401.00	1.00	786.30	786.90	782.80	300.00	786.02	1.44	.01	0.00	300.00	3.22	17.87
2401.00	1.00	786.30	786.90	782.80	625.00	788.27	.64	.01	0.00	390.66	5.47	140.63
2401.00	1.00	786.30	786.90	782.80	835.00	788.56	.68	.01	0.00	453.42	5.76	152.04
2401.00	1.00	786.30	786.90	782.80	1620.00	789.30	.86	.01	0.00	655.03	6.50	180.62
2407.00	6.00	786.30	786.90	782.80	300.00	786.75	.89	.02	.16	298.51	3.95	38.98
2407.00	6.00	786.30	786.90	782.80	625.00	788.82	.25	.04	.12	302.97	6.02	162.19
2407.00	6.00	786.30	786.90	782.80	835.00	789.10	.30	.04	.11	363.92	6.30	172.63
2407.00	6.00	786.30	786.90	782.80	1620.00	789.95	.40	.05	.14	532.32	7.15	204.77
2408.00	1.00	0.00	0.00	782.80	300.00	787.40	.39	.00	.15	253.10	4.60	83.32
2408.00	1.00	0.00	0.00	782.80	625.00	788.78	.33	.00	.04	366.43	5.98	160.41
2408.00	1.00	0.00	0.00	782.80	835.00	789.03	.44	.00	.07	454.01	6.23	170.31
2408.00	1.00	0.00	0.00	782.80	1620.00	789.80	.72	.01	.16	718.18	7.00	199.60
2448.00	40.00	0.00	0.00	782.10	300.00	787.56	.41	.16	.01	299.27	5.46	42.80
2448.00	40.00	0.00	0.00	782.10	625.00	788.88	.38	.13	.02	445.96	6.78	164.49
2448.00	40.00	0.00	0.00	782.10	835.00	789.19	.44	.16	.00	533.92	7.09	176.42
2448.00	40.00	0.00	0.00	782.10	1620.00	790.40	.40	.20	.09	712.48	8.30	220.49
2449.00	1.00	0.00	0.00	785.90	300.00	788.53	.41	.00	0.00	216.22	2.63	150.73
2449.00	1.00	0.00	0.00	785.90	625.00	789.12	.53	.00	0.00	342.84	3.22	173.66
2449.00	1.00	0.00	0.00	785.90	835.00	789.39	.60	.01	0.00	413.91	3.49	184.28
2449.00	1.00	0.00	0.00	785.90	1620.00	790.26	.71	.01	.15	625.29	4.36	215.51
2450.00	1.00	0.00	0.00	785.90	300.00	788.54	.40	.00	.00	215.79	2.64	150.88
2450.00	1.00	0.00	0.00	785.90	625.00	789.13	.52	.00	.00	342.19	3.23	173.85
2450.00	1.00	0.00	0.00	785.90	835.00	789.41	.59	.01	.00	413.15	3.51	184.49
2450.00	1.00	0.00	0.00	785.90	1620.00	790.27	.71	.01	.00	624.47	4.37	215.70
2451.00	1.00	0.00	0.00	785.20	300.00	788.86	.16	.00	.07	177.99	3.66	163.13
2451.00	1.00	0.00	0.00	785.20	625.00	789.54	.21	.00	.09	280.21	4.34	184.00
2451.00	1.00	0.00	0.00	785.20	835.00	789.87	.23	.00	.11	336.35	4.67	184.00
2451.00	1.00	0.00	0.00	785.20	1620.00	790.72	.36	.01	.10	533.06	5.52	184.00
2576.00	125.00	0.00	0.00	786.07	300.00	789.25	.45	.53	.14	227.28	3.18	144.68
2576.00	125.00	0.00	0.00	786.07	625.00	790.03	.38	.58	.09	323.41	3.96	175.36
2576.00	125.00	0.00	0.00	786.07	835.00	790.40	.38	.60	.07	377.15	4.33	189.61
2576.00	125.00	0.00	0.00	786.07	1620.00	791.40	.42	.71	.03	552.16	5.33	224.90
2701.00	125.00	0.00	0.00	786.93	300.00	790.18	.31	.75	.04	210.97	3.25	51.43
2701.00	125.00	0.00	0.00	786.93	625.00	790.81	.73	.94	.17	415.25	3.88	67.05
2701.00	125.00	0.00	0.00	786.93	835.00	791.12	.96	1.01	.29	534.42	4.19	96.89
2701.00	125.00	0.00	0.00	786.93	1620.00	792.36	1.01	.95	0.00	822.25	5.43	186.12
2826.00	125.00	0.00	0.00	787.80	300.00	790.84	.98	1.00	.34	300.00	3.04	16.00
2826.00	125.00	0.00	0.00	787.80	625.00	791.97	.52	.89	.06	392.05	4.17	95.31
2826.00	125.00	0.00	0.00	787.80	835.00	792.61	.49	.87	.14	471.31	4.81	159.09
2826.00	125.00	0.00	0.00	787.80	1620.00	793.81	.52	.82	.15	704.80	6.01	211.66

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
2827.00	1.00	0.00	0.00	787.80	300.00	790.65	.97	.01	.00	300.00	3.06	16.00
2827.00	1.00	0.00	0.00	787.80	625.00	792.10	.42	.00	.03	370.66	4.30	108.47
2827.00	1.00	0.00	0.00	787.80	835.00	792.76	.36	.00	.04	433.58	4.98	166.82
2827.00	1.00	0.00	0.00	787.80	1620.00	793.99	.36	.00	.04	640.92	6.19	220.06
2839.00	12.00	791.96	791.95	787.80	300.00	791.08	.84	.06	.04	300.00	3.28	16.00
2839.00	12.00	791.96	791.95	787.80	625.00	793.06	.15	.69	0.00	304.45	5.26	178.80
2839.00	12.00	791.96	791.95	787.80	835.00	793.41	.18	.45	0.00	375.18	5.61	194.21
2839.00	12.00	791.96	791.95	787.80	1620.00	794.22	.31	.16	0.00	612.09	6.42	230.06
2840.00	1.00	0.00	0.00	787.80	300.00	791.27	.70	.01	.04	300.00	3.47	16.00
2840.00	1.00	0.00	0.00	787.80	625.00	793.05	.18	.00	.02	329.30	5.25	178.49
2840.00	1.00	0.00	0.00	787.80	835.00	793.39	.23	.00	.02	409.59	5.59	193.19
2840.00	1.00	0.00	0.00	787.80	1620.00	794.18	.40	.00	.05	679.09	6.38	227.77
3000.00	160.00	0.00	0.00	789.20	300.00	792.75	.23	.87	.14	205.90	3.55	58.05
3000.00	160.00	0.00	0.00	789.20	625.00	793.39	.54	.53	.18	399.78	4.19	97.34
3000.00	160.00	0.00	0.00	789.20	835.00	793.79	.65	.61	.21	502.95	4.59	137.76
3000.00	160.00	0.00	0.00	789.20	1620.00	794.82	.83	.86	.21	789.33	5.62	194.59
3160.00	160.00	0.00	0.00	790.60	300.00	793.53	.42	.88	.10	214.87	2.93	46.00
3160.00	160.00	0.00	0.00	790.60	625.00	794.59	.65	1.26	.06	409.75	3.99	77.30
3160.00	160.00	0.00	0.00	790.60	835.00	795.06	.74	1.32	.04	513.62	4.46	124.72
3160.00	160.00	0.00	0.00	790.60	1620.00	796.16	.87	1.36	.02	797.54	5.56	192.43
3200.00	40.00	0.00	0.00	790.95	300.00	793.89	.43	.37	.01	218.20	2.94	46.18
3200.00	40.00	0.00	0.00	790.95	625.00	794.94	.68	.37	.02	417.79	3.99	77.20
3200.00	40.00	0.00	0.00	790.95	835.00	795.41	.78	.37	.02	525.19	4.46	124.28
3200.00	40.00	0.00	0.00	790.95	1620.00	796.49	.96	.38	.05	825.91	5.54	191.07
3240.00	40.00	0.00	0.00	791.30	300.00	794.27	.42	.36	.00	217.98	2.97	46.53
3240.00	40.00	0.00	0.00	791.30	625.00	795.35	.65	.36	.01	415.33	4.05	82.42
3240.00	40.00	0.00	0.00	791.30	835.00	795.88	.69	.35	.03	515.36	4.58	136.50
3240.00	40.00	0.00	0.00	791.30	1620.00	797.12	.73	.34	.07	781.39	5.82	203.09
3280.00	40.00	0.00	0.00	791.65	300.00	794.63	.42	.35	.00	217.87	2.98	46.70
3280.00	40.00	0.00	0.00	791.65	625.00	795.70	.65	.35	.00	415.37	4.05	82.34
3280.00	40.00	0.00	0.00	791.65	835.00	796.20	.71	.33	.01	517.08	4.55	134.40
3280.00	40.00	0.00	0.00	791.65	1620.00	797.40	.78	.30	.02	791.34	5.75	200.31
3320.00	40.00	0.00	0.00	792.00	300.00	795.22	1.53	.59	0.00	300.00	3.22	10.00
3320.00	40.00	0.00	0.00	792.00	625.00	796.05	.65	.35	.00	486.76	4.05	77.59
3320.00	40.00	0.00	0.00	792.00	835.00	796.52	.76	.34	.03	616.71	4.52	87.99
3320.00	40.00	0.00	0.00	792.00	1620.00	797.51	1.35	.39	.28	1079.10	5.51	109.37
3321.00	1.00	0.00	0.00	792.00	300.00	795.89	1.03	.02	.15	300.00	3.89	10.00
3321.00	1.00	0.00	0.00	792.00	625.00	796.21	.53	.01	.04	467.49	4.21	81.13
3321.00	1.00	0.00	0.00	792.00	835.00	796.73	.60	.01	.05	587.93	4.73	92.36
3321.00	1.00	0.00	0.00	792.00	1620.00	798.44	.63	.01	.22	931.25	6.44	127.81

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
3373.00	52.00	801.80	797.00	792.00	300.00	796.73	.75	.49	.08	300.00	4.73	10.00
3373.00	52.00	801.80	797.00	792.00	625.00	801.01	.03	4.30	0.00	329.45	9.01	179.48
3373.00	52.00	801.80	797.00	792.00	835.00	802.60	.03	5.30	0.00	392.15	10.60	254.51
3373.00	52.00	801.80	797.00	792.00	1620.00	803.59	.08	4.59	0.00	707.64	11.59	295.37
3374.00	1.00	0.00	0.00	792.00	300.00	796.90	.63	.01	.04	300.00	4.90	10.00
3374.00	1.00	0.00	0.00	792.00	625.00	801.01	.03	.00	.00	329.40	9.01	179.57
3374.00	1.00	0.00	0.00	792.00	835.00	802.60	.03	.00	.00	392.10	10.60	254.60
3374.00	1.00	0.00	0.00	792.00	1620.00	803.59	.08	.00	.00	707.56	11.59	295.42
3659.00	285.00	0.00	0.00	796.65	300.00	799.37	.62	2.46	.00	300.00	2.72	23.51
3659.00	285.00	0.00	0.00	796.65	625.00	800.79	.69	.12	.33	579.62	4.14	62.69
3659.00	285.00	0.00	0.00	796.65	835.00	802.52	.36	.08	.17	681.02	5.87	79.80
3659.00	285.00	0.00	0.00	796.65	1620.00	803.40	.84	.19	.38	1252.90	6.75	88.52
3734.00	75.00	0.00	0.00	797.70	300.00	800.32	.69	.98	.04	300.00	2.62	23.05
3734.00	75.00	0.00	0.00	797.70	625.00	801.40	1.05	.77	0.00	602.22	3.70	58.19
3734.00	75.00	0.00	0.00	797.70	835.00	802.65	.66	.28	.15	725.94	4.95	70.70
3734.00	75.00	0.00	0.00	797.70	1620.00	803.67	1.28	.50	.22	1312.48	5.97	80.83
3804.00	70.00	0.00	0.00	798.70	300.00	801.31	.70	1.00	.00	300.00	2.61	23.02
3804.00	70.00	0.00	0.00	798.70	625.00	802.40	1.05	.99	0.00	602.18	3.70	58.20
3804.00	70.00	0.00	0.00	798.70	835.00	803.01	1.08	.57	.21	764.05	4.31	64.29
3804.00	70.00	0.00	0.00	798.70	1620.00	804.27	1.64	.75	0.00	1348.01	5.57	76.79
3839.00	35.00	0.00	0.00	799.20	300.00	801.81	.70	.50	.00	300.00	2.61	23.01
3839.00	35.00	0.00	0.00	799.20	625.00	802.90	1.05	.50	0.00	602.19	3.70	58.20
3839.00	35.00	0.00	0.00	799.20	835.00	803.40	1.18	.44	0.00	771.09	4.20	63.20
3839.00	35.00	0.00	0.00	799.20	1620.00	804.78	1.62	.45	0.00	1346.80	5.58	76.92
3874.00	35.00	0.00	0.00	799.70	300.00	802.32	.70	.50	.00	300.00	2.62	23.02
3874.00	35.00	0.00	0.00	799.70	625.00	803.40	1.05	.50	0.00	602.19	3.70	58.20
3874.00	35.00	0.00	0.00	799.70	835.00	803.90	1.19	.47	0.00	771.25	4.20	63.17
3874.00	35.00	0.00	0.00	799.70	1620.00	805.28	1.63	.45	0.00	1347.14	5.58	76.89
3909.00	35.00	0.00	0.00	800.20	300.00	802.82	.69	.50	.00	300.00	2.62	23.03
3909.00	35.00	0.00	0.00	800.20	625.00	803.90	1.05	.50	0.00	602.19	3.70	58.20
3909.00	35.00	0.00	0.00	800.20	835.00	804.40	1.19	.47	0.00	771.20	4.20	63.18
3909.00	35.00	0.00	0.00	800.20	1620.00	805.78	1.63	.45	0.00	1347.04	5.58	76.90
3944.00	35.00	0.00	0.00	800.70	300.00	803.32	.69	.50	.00	300.00	2.62	23.03
3944.00	35.00	0.00	0.00	800.70	625.00	804.40	1.05	.50	0.00	602.19	3.70	58.20
3944.00	35.00	0.00	0.00	800.70	835.00	804.90	1.19	.47	0.00	771.22	4.20	63.18
3944.00	35.00	0.00	0.00	800.70	1620.00	806.28	1.63	.45	0.00	1347.07	5.58	76.89
4394.00	450.00	0.00	0.00	803.50	300.00	807.88	.63	4.48	.02	300.00	4.38	13.00
4394.00	450.00	0.00	0.00	803.50	625.00	809.02	.69	4.16	.11	471.03	5.52	66.28
4394.00	450.00	0.00	0.00	803.50	835.00	809.59	.82	4.22	.11	590.89	6.09	76.53
4394.00	450.00	0.00	0.00	803.50	1620.00	811.21	1.01	4.13	.19	935.54	7.71	156.65

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
4395.00	1.00	0.00	0.00	803.50	300.00	807.89	.63	.00	.00	300.00	4.39	13.00
4395.00	1.00	0.00	0.00	803.50	625.00	808.99	.76	.00	.03	483.79	5.49	65.75
4395.00	1.00	0.00	0.00	803.50	835.00	809.55	.92	.00	.05	610.49	6.05	75.76
4395.00	1.00	0.00	0.00	803.50	1620.00	811.12	1.21	.00	.10	989.09	7.62	149.96
4406.00	11.00	809.70	808.30	803.50	300.00	808.19	.54	.21	0.00	300.00	4.69	13.00
4406.00	11.00	809.70	808.30	803.50	625.00	810.58	.26	1.10	0.00	409.08	7.08	106.39
4406.00	11.00	809.70	808.30	803.50	835.00	810.93	.36	.83	0.00	522.61	7.43	135.11
4406.00	11.00	809.70	808.30	803.50	1620.00	811.12	1.20	0.00	0.00	988.39	7.62	150.27
4407.00	1.00	0.00	0.00	803.50	300.00	808.19	.54	.00	.00	300.00	4.69	13.00
4407.00	1.00	0.00	0.00	803.50	625.00	810.64	.21	.00	.01	383.68	7.14	111.20
4407.00	1.00	0.00	0.00	803.50	835.00	811.03	.29	.00	.02	484.89	7.53	143.24
4407.00	1.00	0.00	0.00	803.50	1620.00	812.08	.47	.00	.22	776.11	8.58	233.40
4617.00	210.00	0.00	0.00	806.30	300.00	809.35	.71	1.24	.08	298.52	3.05	37.44
4617.00	210.00	0.00	0.00	806.30	625.00	810.86	.74	.48	.26	556.62	4.56	45.24
4617.00	210.00	0.00	0.00	806.30	835.00	811.30	.94	.60	.33	722.56	5.00	70.45
4617.00	210.00	0.00	0.00	806.30	1620.00	812.71	1.18	.80	0.00	1195.36	6.41	152.45
4917.00	300.00	0.00	0.00	807.40	300.00	811.32	.30	1.45	.12	283.85	3.92	39.08
4917.00	300.00	0.00	0.00	807.40	625.00	812.55	.51	1.40	.07	545.47	5.15	69.65
4917.00	300.00	0.00	0.00	807.40	835.00	813.22	.55	1.40	.12	680.20	5.82	108.50
4917.00	300.00	0.00	0.00	807.40	1620.00	814.78	.62	1.33	.17	1057.86	7.38	153.37
5217.00	300.00	0.00	0.00	808.50	300.00	812.35	.36	1.06	.03	289.44	3.85	32.32
5217.00	300.00	0.00	0.00	808.50	625.00	813.76	.57	1.24	.03	560.56	5.26	68.60
5217.00	300.00	0.00	0.00	808.50	835.00	814.36	.66	1.20	.06	708.83	5.86	100.76
5217.00	300.00	0.00	0.00	808.50	1620.00	815.86	.76	1.15	.07	1101.60	7.36	146.77
5292.00	75.00	0.00	0.00	809.18	300.00	812.71	.46	.41	.05	292.32	3.53	29.48
5292.00	75.00	0.00	0.00	809.18	625.00	814.13	.70	.43	.06	569.55	4.95	51.93
5292.00	75.00	0.00	0.00	809.18	835.00	814.72	.83	.44	.08	729.43	5.54	83.36
5292.00	75.00	0.00	0.00	809.18	1620.00	816.12	1.10	.43	.17	1193.07	6.94	142.87
5367.00	75.00	0.00	0.00	809.85	300.00	813.25	.56	.60	.05	297.39	3.40	26.22
5367.00	75.00	0.00	0.00	809.85	625.00	814.65	.83	.59	.07	584.72	4.80	55.41
5367.00	75.00	0.00	0.00	809.85	835.00	815.24	.95	.59	.06	742.60	5.39	83.10
5367.00	75.00	0.00	0.00	809.85	1620.00	816.68	1.14	.58	.02	1185.33	6.83	137.19
5442.00	75.00	0.00	0.00	810.53	300.00	813.95	.56	.69	.00	297.35	3.42	26.30
5442.00	75.00	0.00	0.00	810.53	625.00	815.31	.85	.66	.01	585.56	4.78	53.68
5442.00	75.00	0.00	0.00	810.53	835.00	815.88	.98	.65	.02	745.88	5.35	81.69
5442.00	75.00	0.00	0.00	810.53	1620.00	817.27	1.23	.63	.04	1202.35	6.74	134.44
5517.00	75.00	0.00	0.00	811.20	300.00	814.63	.56	.69	.00	299.70	3.43	23.82
5517.00	75.00	0.00	0.00	811.20	625.00	815.97	.88	.68	.01	593.70	4.77	66.79
5517.00	75.00	0.00	0.00	811.20	835.00	816.56	.97	.66	.00	744.01	5.36	91.15
5517.00	75.00	0.00	0.00	811.20	1620.00	818.27	.88	.55	.10	1111.77	7.07	145.21

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
5592.00	75.00	0.00	0.00	811.88	300.00	815.33	.55	.69	.00	299.68	3.45	23.93
5592.00	75.00	0.00	0.00	811.88	625.00	816.65	.88	.68	.00	593.67	4.77	66.84
5592.00	75.00	0.00	0.00	811.88	835.00	817.21	.98	.66	.01	745.60	5.33	90.00
5592.00	75.00	0.00	0.00	811.88	1620.00	818.69	1.07	.52	.10	1157.15	6.81	139.97
5629.00	37.00	0.00	0.00	812.22	300.00	815.66	.55	.34	.00	299.68	3.44	23.93
5629.00	37.00	0.00	0.00	812.22	625.00	816.98	.88	.34	.00	593.90	4.76	66.59
5629.00	37.00	0.00	0.00	812.22	835.00	817.54	1.00	.33	.01	747.00	5.32	89.00
5629.00	37.00	0.00	0.00	812.22	1620.00	818.95	1.14	.30	.03	1171.16	6.73	138.42
5667.00	38.00	0.00	0.00	812.55	300.00	816.01	.60	.37	.02	300.00	3.46	19.33
5667.00	38.00	0.00	0.00	812.55	625.00	817.31	.97	.37	.04	600.51	4.76	72.62
5667.00	38.00	0.00	0.00	812.55	835.00	817.87	1.04	.36	.02	745.51	5.32	97.45
5667.00	38.00	0.00	0.00	812.55	1620.00	819.56	.89	.28	.08	1092.51	7.01	149.56
5742.00	75.00	0.00	0.00	813.23	300.00	816.85	.52	.75	.02	300.00	3.62	19.79
5742.00	75.00	0.00	0.00	813.23	625.00	818.34	.70	.68	.08	571.98	5.11	89.01
5742.00	75.00	0.00	0.00	813.23	835.00	818.93	.71	.63	.10	693.12	5.70	111.73
5742.00	75.00	0.00	0.00	813.23	1620.00	820.09	.94	.56	.03	1094.03	6.86	146.97
5817.00	75.00	0.00	0.00	813.90	300.00	817.58	.51	.71	.00	300.00	3.68	19.19
5817.00	75.00	0.00	0.00	813.90	625.00	818.94	.74	.62	.02	573.06	5.04	93.78
5817.00	75.00	0.00	0.00	813.90	835.00	819.48	.79	.59	.04	701.25	5.58	114.14
5817.00	75.00	0.00	0.00	813.90	1620.00	820.72	.94	.63	.00	1081.42	6.82	154.33
5887.00	70.00	0.00	0.00	814.20	300.00	818.09	.80	.65	.14	300.00	3.89	12.00
5887.00	70.00	0.00	0.00	814.20	625.00	819.98	.15	.27	.18	493.60	5.78	79.97
5887.00	70.00	0.00	0.00	814.20	835.00	820.57	.17	.29	.19	639.92	6.37	97.29
5887.00	70.00	0.00	0.00	814.20	1620.00	821.96	.27	.36	.20	1163.58	7.76	124.21
5888.00	1.00	0.00	0.00	814.20	300.00	818.10	.79	.00	.00	300.00	3.90	12.00
5888.00	1.00	0.00	0.00	814.20	625.00	819.97	.18	.00	.01	527.26	5.77	79.90
5888.00	1.00	0.00	0.00	814.20	835.00	820.56	.21	.00	.02	686.86	6.36	97.11
5888.00	1.00	0.00	0.00	814.20	1620.00	821.93	.32	.00	.03	1255.91	7.73	123.97
5893.00	5.00	819.60	819.50	814.20	300.00	817.99	1.03	.01	.12	300.00	3.79	12.00
5893.00	5.00	819.60	819.50	814.20	625.00	820.74	.10	.69	0.00	510.46	6.54	99.51
5893.00	5.00	819.60	819.50	814.20	835.00	821.29	.13	.65	0.00	666.14	7.09	115.61
5893.00	5.00	819.60	819.50	814.20	1620.00	822.47	.24	.46	0.00	1225.09	8.27	132.75
5894.00	1.00	0.00	0.00	814.20	300.00	818.51	.64	.00	.12	300.00	4.31	12.00
5894.00	1.00	0.00	0.00	814.20	625.00	820.80	.05	.00	.02	497.59	6.60	101.52
5894.00	1.00	0.00	0.00	814.20	835.00	821.37	.07	.00	.02	647.01	7.17	117.91
5894.00	1.00	0.00	0.00	814.20	1620.00	822.61	.14	.00	.03	1176.46	8.41	135.84
5984.00	90.00	0.00	0.00	814.85	300.00	819.42	.04	.13	.18	261.53	4.57	74.23
5984.00	90.00	0.00	0.00	814.85	625.00	820.86	.07	.07	.01	511.62	6.01	91.08
5984.00	90.00	0.00	0.00	814.85	835.00	821.44	.09	.08	.01	665.46	6.59	100.91
5984.00	90.00	0.00	0.00	814.85	1620.00	822.73	.18	.14	.02	1210.64	7.88	125.34

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
6074.00	90.00	0.00	0.00	815.50	300.00	819.32	.53	.15	.25	300.00	3.82	15.00
6074.00	90.00	0.00	0.00	815.50	625.00	820.92	.18	.11	.06	339.87	5.42	117.18
6074.00	90.00	0.00	0.00	815.50	835.00	821.51	.20	.13	.06	412.71	6.01	125.49
6074.00	90.00	0.00	0.00	815.50	1620.00	822.85	.30	.18	.06	668.32	7.35	139.23
6075.00	1.00	0.00	0.00	815.50	300.00	819.32	.53	.00	.00	300.00	3.82	15.00
6075.00	1.00	0.00	0.00	815.50	625.00	820.89	.24	.00	.03	376.00	5.39	116.38
6075.00	1.00	0.00	0.00	815.50	835.00	821.47	.28	.00	.04	462.64	5.97	125.08
6075.00	1.00	0.00	0.00	815.50	1620.00	822.79	.43	.00	.06	764.03	7.29	138.51
6080.00	5.00	820.70	820.00	815.50	300.00	819.35	.52	.02	.00	300.00	3.85	15.00
6080.00	5.00	820.70	820.00	815.50	625.00	821.66	.13	.66	0.00	337.22	6.16	126.96
6080.00	5.00	820.70	820.00	815.50	835.00	822.04	.18	.47	0.00	428.51	6.54	130.84
6080.00	5.00	820.70	820.00	815.50	1620.00	822.99	.39	.15	0.00	748.76	7.49	140.58
6081.00	1.00	0.00	0.00	815.50	300.00	819.36	.52	.00	.00	300.00	3.86	15.00
6081.00	1.00	0.00	0.00	815.50	625.00	821.71	.10	.00	.01	300.08	6.21	127.45
6081.00	1.00	0.00	0.00	815.50	835.00	822.11	.13	.00	.02	378.33	6.61	131.54
6081.00	1.00	0.00	0.00	815.50	1620.00	823.15	.26	.00	.04	648.73	7.65	142.23
6296.00	215.00	0.00	0.00	816.80	300.00	820.66	.17	.85	.10	206.51	3.86	80.40
6296.00	215.00	0.00	0.00	816.80	625.00	821.96	.24	.32	.07	359.54	5.16	110.82
6296.00	215.00	0.00	0.00	816.80	835.00	822.41	.30	.39	.08	453.00	5.61	121.41
6296.00	215.00	0.00	0.00	816.80	1620.00	823.66	.44	.59	.09	728.64	6.86	134.08
6368.00	72.00	0.00	0.00	817.23	300.00	820.84	.22	.21	.03	214.32	3.61	74.60
6368.00	72.00	0.00	0.00	817.23	625.00	822.13	.29	.21	.03	371.56	4.90	104.91
6368.00	72.00	0.00	0.00	817.23	835.00	822.62	.36	.23	.03	466.18	5.39	116.34
6368.00	72.00	0.00	0.00	817.23	1620.00	823.91	.50	.28	.03	744.86	6.68	132.31
6404.00	36.00	0.00	0.00	817.44	300.00	820.96	.25	.13	.01	217.68	3.52	72.20
6404.00	36.00	0.00	0.00	817.44	625.00	822.24	.32	.12	.01	377.05	4.80	102.33
6404.00	36.00	0.00	0.00	817.44	835.00	822.74	.38	.14	.01	471.86	5.30	114.09
6404.00	36.00	0.00	0.00	817.44	1620.00	824.06	.52	.16	.01	751.78	6.62	131.60
6440.00	36.00	0.00	0.00	817.67	300.00	820.90	.92	.27	.33	300.00	3.23	17.87
6440.00	36.00	0.00	0.00	817.67	625.00	822.64	.68	.20	0.00	523.66	4.97	162.33
6440.00	36.00	0.00	0.00	817.67	835.00	822.99	.71	.21	0.00	620.22	5.32	164.39
6440.00	36.00	0.00	0.00	817.67	1620.00	824.21	.62	.20	.05	866.22	6.54	171.37
6511.00	71.00	0.00	0.00	818.10	300.00	822.30	.40	.73	.16	292.53	4.20	61.41
6511.00	71.00	0.00	0.00	818.10	625.00	823.52	.35	.45	.10	449.94	5.42	164.95
6511.00	71.00	0.00	0.00	818.10	835.00	823.89	.38	.46	.10	536.94	5.79	167.11
6511.00	71.00	0.00	0.00	818.10	1620.00	824.80	.53	.48	.03	836.09	6.70	172.26
6726.00	215.00	0.00	0.00	819.40	300.00	823.63	.39	1.31	.00	291.83	4.23	63.12
6726.00	215.00	0.00	0.00	819.40	625.00	824.60	.48	1.14	.06	483.34	5.20	163.69
6726.00	215.00	0.00	0.00	819.40	835.00	825.01	.48	1.16	.05	566.93	5.61	166.04
6726.00	215.00	0.00	0.00	819.40	1620.00	826.11	.52	1.30	.00	834.51	6.71	172.31

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
6876.00	150.00	0.00	0.00	821.17	300.00	824.76	.68	1.27	.14	300.00	3.59	18.49
6876.00	150.00	0.00	0.00	821.17	625.00	826.26	.57	1.10	0.00	503.32	5.09	163.00
6876.00	150.00	0.00	0.00	821.17	835.00	826.54	.67	1.17	0.00	610.90	5.37	164.66
6876.00	150.00	0.00	0.00	821.17	1620.00	827.37	.87	1.32	0.00	934.40	6.20	169.52
7026.00	150.00	0.00	0.00	822.93	225.00	826.66	.60	1.80	.02	215.63	3.73	44.09
7026.00	150.00	0.00	0.00	822.93	470.00	827.59	.77	1.43	0.00	381.37	4.66	83.20
7026.00	150.00	0.00	0.00	822.93	625.00	828.03	.78	1.55	.06	461.76	5.10	101.57
7026.00	150.00	0.00	0.00	822.93	1220.00	829.30	.62	1.59	.08	661.73	6.37	159.10
7176.00	150.00	0.00	0.00	824.70	225.00	828.37	.64	1.74	.02	217.14	3.67	41.66
7176.00	150.00	0.00	0.00	824.70	470.00	829.43	.71	1.75	.02	375.90	4.73	86.07
7176.00	150.00	0.00	0.00	824.70	625.00	829.83	.76	1.77	.01	459.37	5.13	102.58
7176.00	150.00	0.00	0.00	824.70	1220.00	830.80	.84	1.62	.11	703.39	6.10	146.91
7396.00	220.00	0.00	0.00	826.00	225.00	831.08	.14	1.10	0.00	96.32	5.08	72.18
7396.00	220.00	0.00	0.00	826.00	470.00	831.61	.32	1.67	.12	173.94	5.61	84.98
7396.00	220.00	0.00	0.00	826.00	625.00	832.07	.35	1.70	.12	205.72	6.07	96.20
7396.00	220.00	0.00	0.00	826.00	1220.00	833.16	.48	1.89	.11	314.36	7.16	122.99
7397.00	1.00	0.00	0.00	826.00	225.00	831.10	.12	.00	.00	92.73	5.10	72.43
7397.00	1.00	0.00	0.00	826.00	470.00	831.67	.27	.00	.02	163.95	5.67	86.70
7397.00	1.00	0.00	0.00	826.00	625.00	832.15	.29	.00	.02	192.74	6.15	98.32
7397.00	1.00	0.00	0.00	826.00	1220.00	833.28	.39	.01	.03	291.76	7.28	125.89
7415.00	18.00	833.30	831.00	826.00	225.00	833.61	.01	2.40	0.00	53.75	7.61	137.71
7415.00	18.00	833.30	831.00	826.00	470.00	834.22	.03	2.31	0.00	97.99	8.22	162.26
7415.00	18.00	833.30	831.00	826.00	625.00	834.49	.04	2.09	0.00	123.31	8.49	173.10
7415.00	18.00	833.30	831.00	826.00	1220.00	835.22	.10	1.65	0.00	209.32	9.22	202.71
7416.00	1.00	0.00	0.00	826.00	225.00	833.61	.01	.00	.00	55.96	7.61	137.73
7416.00	1.00	0.00	0.00	826.00	470.00	834.22	.03	.00	.00	102.18	8.22	162.32
7416.00	1.00	0.00	0.00	826.00	625.00	834.49	.05	.00	.00	128.65	8.49	173.16
7416.00	1.00	0.00	0.00	826.00	1220.00	835.22	.11	.00	.00	218.67	9.22	202.80
7536.00	120.00	0.00	0.00	827.55	225.00	833.64	.05	.04	.02	74.78	6.09	96.76
7536.00	120.00	0.00	0.00	827.55	470.00	834.30	.11	.11	.04	134.15	6.75	112.86
7536.00	120.00	0.00	0.00	827.55	625.00	834.59	.14	.15	.05	167.44	7.04	120.13
7536.00	120.00	0.00	0.00	827.55	1220.00	835.44	.26	.30	.08	270.06	7.89	148.89
7656.00	120.00	0.00	0.00	829.10	225.00	833.76	.24	.22	.10	110.80	4.66	61.99
7656.00	120.00	0.00	0.00	829.10	470.00	834.59	.37	.43	.13	181.87	5.49	82.31
7656.00	120.00	0.00	0.00	829.10	625.00	834.99	.43	.54	.14	217.78	5.89	92.11
7656.00	120.00	0.00	0.00	829.10	1220.00	836.12	.55	.82	.15	328.23	7.02	119.64
7776.00	120.00	0.00	0.00	830.75	225.00	834.36	.09	.40	.04	112.88	3.61	114.37
7776.00	120.00	0.00	0.00	830.75	470.00	835.40	.10	.45	.08	172.66	4.65	136.36
7776.00	120.00	0.00	0.00	830.75	625.00	835.87	.11	.47	.09	205.92	5.12	146.42
7776.00	120.00	0.00	0.00	830.75	1220.00	837.18	.15	.53	.12	319.15	6.43	173.71

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7896.00	120.00	0.00	0.00	832.30	225.00	834.70	.62	.60	.26	160.99	2.40	40.73
7896.00	120.00	0.00	0.00	832.30	470.00	835.70	.57	.54	.23	253.85	3.40	110.06
7896.00	120.00	0.00	0.00	832.30	625.00	836.20	.46	.50	.17	282.99	3.90	120.77
7896.00	120.00	0.00	0.00	832.30	1220.00	837.53	.38	.47	.12	392.53	5.23	148.84
8016.00	120.00	0.00	0.00	833.85	225.00	836.64	.34	1.59	.08	147.15	2.79	61.57
8016.00	120.00	0.00	0.00	833.85	470.00	837.35	.48	1.54	.03	244.90	3.50	112.14
8016.00	120.00	0.00	0.00	833.85	625.00	837.59	.59	1.46	.06	299.16	3.74	117.23
8016.00	120.00	0.00	0.00	833.85	1220.00	838.57	.63	1.17	.13	439.98	4.72	137.96
8076.00	60.00	0.00	0.00	834.63	225.00	837.26	.45	.67	.05	153.89	2.63	46.63
8076.00	60.00	0.00	0.00	834.63	470.00	838.08	.53	.75	.02	249.86	3.45	110.98
8076.00	60.00	0.00	0.00	834.63	625.00	838.48	.50	.77	.03	288.41	3.85	119.54
8076.00	60.00	0.00	0.00	834.63	1220.00	839.40	.60	.79	.01	435.28	4.77	138.91
8136.00	60.00	0.00	0.00	835.40	225.00	837.93	.52	.70	.04	157.73	2.53	42.87
8136.00	60.00	0.00	0.00	835.40	470.00	838.78	.60	.69	0.00	257.90	3.38	109.50
8136.00	60.00	0.00	0.00	835.40	625.00	839.07	.66	.68	.08	308.00	3.67	115.86
8136.00	60.00	0.00	0.00	835.40	1220.00	840.04	.71	.69	.05	452.86	4.64	136.20
8137.00	1.00	837.50	837.40	835.40	225.00	838.54	1.07	.02	0.00	214.39	3.14	12.72
8137.00	1.00	837.50	837.40	835.40	470.00	839.97	.52	.01	0.00	271.67	4.57	103.53
8137.00	1.00	837.50	837.40	835.40	625.00	840.26	.48	.01	0.00	300.39	4.86	114.85
8137.00	1.00	837.50	837.40	835.40	1220.00	840.75	.76	.02	0.00	451.30	5.35	133.50
8139.00	2.00	837.50	837.40	835.40	225.00	839.47	.38	.04	.21	176.44	4.07	68.86
8139.00	2.00	837.50	837.40	835.40	470.00	840.38	.21	.02	.09	211.06	4.98	119.34
8139.00	2.00	837.50	837.40	835.40	625.00	840.53	.29	.02	.06	258.81	5.13	125.00
8139.00	2.00	837.50	837.40	835.40	1220.00	841.30	.37	.03	.12	356.91	5.90	154.18
8140.00	1.00	0.00	0.00	836.10	225.00	839.27	.78	.01	.20	218.34	3.17	48.24
8140.00	1.00	0.00	0.00	836.10	470.00	840.38	.54	.01	0.00	301.19	4.28	119.41
8140.00	1.00	0.00	0.00	836.10	625.00	840.58	.69	.01	0.00	369.15	4.48	126.75
8140.00	1.00	0.00	0.00	836.10	1220.00	841.46	.76	.01	0.00	525.75	5.36	160.51
8141.00	1.00	0.00	0.00	836.10	225.00	839.29	.78	.01	.00	218.11	3.19	48.79
8141.00	1.00	0.00	0.00	836.10	470.00	840.39	.54	.00	.00	300.61	4.29	119.58
8141.00	1.00	0.00	0.00	836.10	625.00	841.02	.35	.00	.10	311.30	4.92	143.74
8141.00	1.00	0.00	0.00	836.10	1220.00	841.48	.75	.01	.00	524.76	5.38	160.75
8142.00	1.00	0.00	0.00	834.10	225.00	840.28	.01	.00	.23	84.91	6.18	140.30
8142.00	1.00	0.00	0.00	834.10	470.00	841.05	.03	.00	.15	156.37	6.95	142.37
8142.00	1.00	0.00	0.00	834.10	625.00	841.43	.05	.00	.09	197.66	7.33	143.37
8142.00	1.00	0.00	0.00	834.10	1220.00	842.32	.11	.00	.19	348.32	8.22	145.79
8442.00	300.00	0.00	0.00	835.30	225.00	840.28	.19	.08	.09	201.70	4.98	38.68
8442.00	300.00	0.00	0.00	835.30	470.00	841.02	.47	.18	.22	386.04	5.72	111.77
8442.00	300.00	0.00	0.00	835.30	625.00	841.39	.60	.24	.28	480.94	6.09	132.67
8442.00	300.00	0.00	0.00	835.30	1220.00	842.38	.90	.46	.40	758.98	7.08	171.54

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
8443.00	1.00	839.80	839.40	835.30	225.00	840.17	.41	.00	.11	223.63	4.87	34.66
8443.00	1.00	839.80	839.40	835.30	470.00	840.85	.82	.00	.17	396.71	5.55	102.60
8443.00	1.00	839.80	839.40	835.30	625.00	841.39	.61	.00	.00	423.44	6.09	132.76
8443.00	1.00	839.80	839.40	835.30	1220.00	843.33	.17	.00	.22	391.33	8.03	181.30
8459.00	16.00	839.80	839.40	835.30	225.00	840.20	.41	.03	.00	223.33	4.90	35.71
8459.00	16.00	839.80	839.40	835.30	470.00	841.68	.22	.05	.18	282.07	6.38	148.91
8459.00	16.00	839.80	839.40	835.30	625.00	841.86	.29	.06	.09	347.92	6.56	157.15
8459.00	16.00	839.80	839.40	835.30	1220.00	843.36	.16	.02	.00	386.57	8.06	181.73
8460.00	1.00	0.00	0.00	835.30	225.00	840.55	.15	.00	.08	192.31	5.25	84.97
8460.00	1.00	0.00	0.00	835.30	470.00	841.68	.22	.00	.00	322.89	6.38	149.15
8460.00	1.00	0.00	0.00	835.30	625.00	841.84	.33	.00	.02	412.65	6.54	157.05
8460.00	1.00	0.00	0.00	835.30	1220.00	843.29	.31	.00	.07	566.20	7.99	181.00
8660.00	200.00	0.00	0.00	836.20	225.00	840.75	.12	.17	.01	118.74	4.55	54.81
8660.00	200.00	0.00	0.00	836.20	470.00	841.96	.18	.23	.01	203.65	5.76	75.00
8660.00	200.00	0.00	0.00	836.20	625.00	842.26	.26	.33	.02	259.26	6.06	75.00
8660.00	200.00	0.00	0.00	836.20	1220.00	843.60	.43	.37	.06	431.13	7.40	75.00
8661.00	1.00	0.00	0.00	836.20	225.00	840.74	.15	.00	.01	128.81	4.54	54.69
8661.00	1.00	0.00	0.00	836.20	470.00	841.93	.24	.00	.03	225.60	5.73	75.00
8661.00	1.00	0.00	0.00	836.20	625.00	842.22	.34	.00	.04	288.16	6.02	75.00
8661.00	1.00	0.00	0.00	836.20	1220.00	843.53	.58	.00	.07	485.33	7.33	75.00
8675.00	14.00	842.10	841.20	837.80	225.00	842.73	.06	1.91	0.00	94.94	4.93	75.00
8675.00	14.00	842.10	841.20	837.80	470.00	843.73	.12	1.68	0.00	176.40	5.93	75.00
8675.00	14.00	842.10	841.20	837.80	625.00	844.01	.19	1.63	0.00	228.65	6.21	75.00
8675.00	14.00	842.10	841.20	837.80	1220.00	844.58	.52	.99	0.00	426.75	6.78	75.00
8676.00	1.00	0.00	0.00	837.80	225.00	842.75	.04	.00	.01	81.85	4.95	75.00
8676.00	1.00	0.00	0.00	837.80	470.00	843.78	.09	.00	.01	150.21	5.98	75.00
8676.00	1.00	0.00	0.00	837.80	625.00	844.09	.13	.00	.02	193.90	6.29	75.00
8676.00	1.00	0.00	0.00	837.80	1220.00	844.84	.32	.00	.06	356.41	7.04	75.00
8677.00	1.00	0.00	0.00	837.80	225.00	842.62	.30	.00	.13	165.55	4.82	58.42
8677.00	1.00	0.00	0.00	837.80	470.00	843.61	.43	.00	.17	270.05	5.81	72.08
8677.00	1.00	0.00	0.00	837.80	625.00	843.85	.59	.00	.23	339.03	6.05	74.60
8677.00	1.00	0.00	0.00	837.80	1220.00	844.60	1.17	.00	0.00	570.05	6.80	81.97
8678.00	1.00	0.00	0.00	838.80	225.00	842.43	.68	.00	.19	192.52	3.63	52.46
8678.00	1.00	0.00	0.00	838.80	470.00	843.45	1.17	.00	0.00	347.75	4.65	70.50
8678.00	1.00	0.00	0.00	838.80	625.00	844.00	1.32	.00	0.00	428.00	5.20	75.98
8678.00	1.00	0.00	0.00	838.80	1220.00	845.60	1.70	.00	0.00	695.15	6.80	90.86
8679.00	1.00	0.00	0.00	838.80	225.00	842.44	.68	.00	.00	192.49	3.64	52.50
8679.00	1.00	0.00	0.00	838.80	470.00	843.47	1.16	.00	.00	346.94	4.67	70.65
8679.00	1.00	0.00	0.00	838.80	625.00	844.02	1.30	.00	.01	426.95	5.22	76.17
8679.00	1.00	0.00	0.00	838.80	1220.00	845.61	1.69	.00	.00	695.07	6.81	90.86

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
8680.00	1.00	0.00	0.00	837.80	225.00	843.10	.17	.00	.15	152.20	5.30	66.94
8680.00	1.00	0.00	0.00	837.80	470.00	844.76	.17	.00	.30	227.12	6.96	77.00
8680.00	1.00	0.00	0.00	837.80	625.00	845.48	.18	.00	.34	270.89	7.68	77.00
8680.00	1.00	0.00	0.00	837.80	1220.00	847.50	.24	.00	.44	427.59	9.70	77.00
9060.00	380.00	0.00	0.00	837.90	225.00	843.44	.13	.29	.01	225.00	5.54	18.77
9060.00	380.00	0.00	0.00	837.90	470.00	845.04	.30	.34	.07	470.00	7.14	19.00
9060.00	380.00	0.00	0.00	837.90	625.00	845.74	.41	.38	.12	625.00	7.84	19.00
9060.00	380.00	0.00	0.00	837.90	1220.00	847.66	.93	.51	.34	1220.00	9.76	19.00
9070.00	10.00	0.00	0.00	837.90	225.00	843.43	.16	.01	.02	225.00	5.53	14.00
9070.00	10.00	0.00	0.00	837.90	470.00	844.99	.41	.02	.06	470.00	7.09	14.00
9070.00	10.00	0.00	0.00	837.90	625.00	845.67	.60	.02	.09	625.00	7.77	14.00
9070.00	10.00	0.00	0.00	837.90	1220.00	847.44	1.46	.04	.27	1220.00	9.54	14.00
9076.00	6.00	0.00	0.00	837.90	225.00	843.40	.24	.01	.04	225.00	5.50	11.00
9076.00	6.00	0.00	0.00	837.90	470.00	844.90	.64	.02	.11	470.00	7.00	11.00
9076.00	6.00	0.00	0.00	837.90	625.00	845.52	.94	.02	.17	625.00	7.62	11.00
9076.00	6.00	0.00	0.00	837.90	1220.00	846.97	2.50	.05	.52	1220.00	9.07	11.00
9080.00	4.00	0.00	0.00	837.90	225.00	843.26	.54	.01	.15	225.00	5.36	9.00
9080.00	4.00	0.00	0.00	837.90	470.00	844.54	1.39	.02	.37	470.00	6.64	9.00
9080.00	4.00	0.00	0.00	837.90	625.00	844.96	2.13	.03	.59	625.00	7.06	9.00
9080.00	4.00	0.00	0.00	837.90	1220.00	847.28	4.19	.07	0.00	1220.00	9.38	9.00
9081.00	1.00	861.30	848.50	837.90	225.00	843.26	.54	.00	.00	225.00	5.36	9.00
9081.00	1.00	861.30	848.50	837.90	470.00	844.54	1.42	.01	.02	470.00	6.64	9.00
9081.00	1.00	861.30	848.50	837.90	625.00	844.94	2.20	.02	.04	625.00	7.04	9.00
9081.00	1.00	861.30	848.50	837.90	1220.00	847.29	4.67	.03	0.00	1220.00	9.39	9.00
9196.00	115.00	861.30	849.00	838.40	225.00	843.83	.53	.55	.00	225.00	5.43	9.00
9196.00	115.00	861.30	849.00	838.40	470.00	846.08	1.02	1.02	.12	470.00	7.68	9.00
9196.00	115.00	861.30	849.00	838.40	625.00	847.55	1.29	1.43	.27	625.00	9.15	9.00
9196.00	115.00	861.30	849.00	838.40	1220.00	853.05	4.09	5.02	.17	1220.00	14.65	9.00
9197.00	1.00	0.00	0.00	838.40	225.00	843.84	.52	.00	.00	225.00	5.44	9.00
9197.00	1.00	0.00	0.00	838.40	470.00	846.16	.96	.01	.02	470.00	7.76	9.00
9197.00	1.00	0.00	0.00	838.40	625.00	847.82	1.09	.01	.06	625.00	9.42	9.00
9197.00	1.00	0.00	0.00	838.40	1220.00	857.20	.91	.01	.95	1220.00	18.80	9.00
9200.00	3.00	0.00	0.00	838.90	225.00	844.32	.16	.01	.11	225.00	5.42	15.00
9200.00	3.00	0.00	0.00	838.90	470.00	847.06	.28	.01	.21	470.00	8.16	15.00
9200.00	3.00	0.00	0.00	838.90	625.00	848.83	.32	.01	.23	625.00	9.93	15.00
9200.00	3.00	0.00	0.00	838.90	1220.00	858.00	.30	.01	.18	1220.00	19.10	15.00
9650.00	450.00	0.00	0.00	841.90	225.00	845.21	.51	1.06	.18	218.23	3.31	97.54
9650.00	450.00	0.00	0.00	841.90	470.00	847.83	.07	.50	.06	231.64	5.93	105.78
9650.00	450.00	0.00	0.00	841.90	625.00	849.51	.05	.32	.08	256.90	7.61	109.78
9650.00	450.00	0.00	0.00	841.90	1220.00	858.44	.01	.06	.09	362.45	16.54	131.04

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GRDUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
9765.00	115.00	0.00	0.00	843.20	225.00	846.37	.60	1.21	.05	221.46	3.17	31.74
9765.00	115.00	0.00	0.00	843.20	470.00	847.91	.26	.18	.09	299.24	4.71	97.88
9765.00	115.00	0.00	0.00	843.20	625.00	849.55	.10	.07	.03	300.75	6.35	101.77
9765.00	115.00	0.00	0.00	843.20	1220.00	858.44	.02	.01	.00	384.93	15.24	120.00
9880.00	115.00	0.00	0.00	844.50	225.00	848.06	.64	1.72	.02	134.98	3.56	21.02
9880.00	115.00	0.00	0.00	844.50	470.00	848.71	1.11	.99	0.00	248.80	4.21	34.48
9880.00	115.00	0.00	0.00	844.50	625.00	849.45	.97	.34	.43	342.64	4.95	54.43
9880.00	115.00	0.00	0.00	844.50	1220.00	858.44	.04	.01	.01	396.57	13.94	89.00
9899.00	19.00	849.20	847.00	845.90	225.00	849.85	.15	1.29	0.00	161.70	3.95	71.86
9899.00	19.00	849.20	847.00	845.90	470.00	850.81	.16	1.16	0.00	234.21	4.91	80.10
9899.00	19.00	849.20	847.00	845.90	625.00	851.20	.19	.97	0.00	278.89	5.30	80.10
9899.00	19.00	849.20	847.00	845.90	1220.00	858.61	.04	.17	0.00	288.00	12.71	80.10
9900.00	1.00	0.00	0.00	845.90	225.00	849.82	.21	.01	.03	184.06	3.92	70.75
9900.00	1.00	0.00	0.00	845.90	470.00	850.76	.27	.01	.06	298.74	4.86	80.10
9900.00	1.00	0.00	0.00	845.90	625.00	851.14	.32	.01	.07	365.66	5.24	80.10
9900.00	1.00	0.00	0.00	845.90	1220.00	858.61	.05	.00	.01	420.17	12.71	80.10
10000.00	100.00	0.00	0.00	846.90	220.00	850.19	.14	.27	.02	218.84	3.29	40.00
10000.00	100.00	0.00	0.00	846.90	455.00	851.09	.29	.33	.01	443.57	4.19	40.00
10000.00	100.00	0.00	0.00	846.90	605.00	851.49	.39	.38	.04	585.17	4.59	40.00
10000.00	100.00	0.00	0.00	846.90	1180.00	858.59	.15	.03	.05	1081.55	11.69	40.00
10050.00	50.00	0.00	0.00	844.30	220.00	850.27	.12	.06	.01	220.00	5.97	15.00
10050.00	50.00	0.00	0.00	844.30	455.00	851.16	.38	.12	.04	455.00	6.86	15.00
10050.00	50.00	0.00	0.00	844.30	605.00	851.55	.59	.16	.10	605.00	7.25	15.00
10050.00	50.00	0.00	0.00	844.30	1180.00	858.42	.53	.03	.19	1180.00	14.12	15.00
10051.00	1.00	862.30	853.50	844.30	220.00	850.27	.13	.00	.00	220.00	5.97	15.00
10051.00	1.00	862.30	853.50	844.30	455.00	851.15	.41	.00	.01	455.00	6.85	15.00
10051.00	1.00	862.30	853.50	844.30	605.00	851.52	.64	.00	.03	605.00	7.22	15.00
10051.00	1.00	862.30	853.50	844.30	1180.00	857.83	1.72	.00	.59	1180.00	13.53	15.00
10289.00	238.00	862.60	855.60	846.00	220.00	850.27	.31	.10	.09	220.00	4.27	14.55
10289.00	238.00	862.60	855.60	846.00	455.00	851.19	.83	.25	.21	455.00	5.19	15.00
10289.00	238.00	862.60	855.60	846.00	605.00	851.60	1.24	.37	.30	605.00	5.60	15.00
10289.00	238.00	862.60	855.60	846.00	1180.00	859.21	1.67	1.32	.01	1180.00	13.21	15.00
10290.00	1.00	862.60	855.20	846.00	220.00	850.39	.22	.00	.03	220.00	4.39	15.20
10290.00	1.00	862.60	855.20	846.00	455.00	851.51	.59	.00	.07	455.00	5.51	15.20
10290.00	1.00	862.60	855.20	846.00	605.00	852.09	.86	.00	.11	605.00	6.09	15.20
10290.00	1.00	862.60	855.20	846.00	1180.00	859.15	1.81	.01	.07	1180.00	13.15	15.20
10459.00	169.00	866.00	856.40	847.20	220.00	850.71	.36	.38	.07	220.00	3.51	15.20
10459.00	169.00	866.00	856.40	847.20	455.00	852.18	.72	.74	.06	455.00	4.98	15.20
10459.00	169.00	866.00	856.40	847.20	605.00	853.03	.94	.97	.04	605.00	5.83	15.20
10459.00	169.00	866.00	856.40	847.20	1180.00	862.62	1.81	3.47	.00	1180.00	15.42	15.20

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
10460.00	1.00	0.00	0.00	847.20	220.00	850.71	.36	.00	.00	220.00	3.51	15.20
10460.00	1.00	0.00	0.00	847.20	455.00	852.25	.67	.00	.02	455.00	5.05	15.20
10460.00	1.00	0.00	0.00	847.20	605.00	853.19	.51	.01	.04	605.00	5.99	15.20
10460.00	1.00	0.00	0.00	847.20	1180.00	864.55	.33	.00	.44	1180.00	17.35	15.20
11260.00	800.00	0.00	0.00	849.70	220.00	853.61	.35	2.89	.00	214.91	3.91	27.93
11260.00	800.00	0.00	0.00	849.70	455.00	855.37	.41	2.79	.08	407.59	5.67	73.66
11260.00	800.00	0.00	0.00	849.70	605.00	856.23	.38	2.47	.13	493.14	6.53	100.22
11260.00	800.00	0.00	0.00	849.70	1180.00	865.08	.02	.13	.09	453.76	15.38	267.24
11385.00	125.00	0.00	0.00	851.30	220.00	854.20	.86	.84	.25	220.00	2.90	15.77
11385.00	125.00	0.00	0.00	851.30	455.00	855.65	1.05	.60	.32	435.57	4.35	32.89
11385.00	125.00	0.00	0.00	851.30	605.00	856.37	1.06	.47	.34	546.76	5.07	65.98
11385.00	125.00	0.00	0.00	851.30	1180.00	865.08	.04	.01	.01	462.41	13.78	233.43
11510.00	125.00	0.00	0.00	852.90	220.00	855.84	.81	1.59	.01	219.62	2.94	16.14
11510.00	125.00	0.00	0.00	852.90	455.00	857.20	1.10	1.19	0.00	423.78	4.30	54.73
11510.00	125.00	0.00	0.00	852.90	605.00	857.78	1.15	1.03	0.00	521.56	4.88	62.65
11510.00	125.00	0.00	0.00	852.90	1180.00	865.09	.07	.02	.01	477.56	12.19	199.70
11635.00	125.00	0.00	0.00	854.50	220.00	857.33	.92	1.55	.05	218.30	2.83	19.16
11635.00	125.00	0.00	0.00	854.50	455.00	858.71	1.04	1.19	0.00	387.08	4.21	51.74
11635.00	125.00	0.00	0.00	854.50	605.00	859.24	1.13	1.13	0.00	474.51	4.74	57.78
11635.00	125.00	0.00	0.00	854.50	1180.00	865.10	.12	.05	.03	482.46	10.60	165.75
11760.00	125.00	0.00	0.00	856.10	220.00	859.03	.81	1.52	0.00	199.93	2.93	35.97
11760.00	125.00	0.00	0.00	856.10	455.00	860.11	1.04	1.31	0.00	337.93	4.01	44.59
11760.00	125.00	0.00	0.00	856.10	605.00	860.61	1.15	1.31	0.00	413.87	4.51	51.40
11760.00	125.00	0.00	0.00	856.10	1180.00	865.16	.22	.11	.05	459.12	9.06	121.50
11761.00	1.00	0.00	0.00	857.60	220.00	859.82	.75	.01	0.00	155.84	2.22	40.66
11761.00	1.00	0.00	0.00	857.60	455.00	860.79	1.09	.01	0.00	287.99	3.19	53.89
11761.00	1.00	0.00	0.00	857.60	605.00	861.29	1.24	.01	0.00	365.34	3.69	60.71
11761.00	1.00	0.00	0.00	857.60	1180.00	865.02	.50	.00	.14	539.05	7.42	118.03
11762.00	1.00	0.00	0.00	857.60	220.00	859.84	.74	.01	.00	155.69	2.24	40.75
11762.00	1.00	0.00	0.00	857.60	455.00	860.80	1.08	.01	.00	287.80	3.20	53.98
11762.00	1.00	0.00	0.00	857.60	605.00	861.30	1.24	.01	.00	365.12	3.70	60.80
11762.00	1.00	0.00	0.00	857.60	1180.00	865.03	.50	.00	.00	538.99	7.43	118.07
11763.00	1.00	0.00	0.00	856.10	220.00	860.52	.21	.00	.16	138.54	4.42	50.23
11763.00	1.00	0.00	0.00	856.10	455.00	861.83	.29	.00	.24	240.44	5.73	60.00
11763.00	1.00	0.00	0.00	856.10	605.00	862.48	.33	.00	.27	298.73	6.38	60.00
11763.00	1.00	0.00	0.00	856.10	1180.00	865.23	.34	.00	.05	491.02	9.13	60.00
12293.00	530.00	0.00	0.00	855.60	220.00	861.16	.07	.45	.04	204.90	5.56	83.07
12293.00	530.00	0.00	0.00	855.60	455.00	862.54	.08	.44	.06	339.86	6.94	85.00
12293.00	530.00	0.00	0.00	855.60	605.00	863.22	.09	.43	.07	415.60	7.62	125.23
12293.00	530.00	0.00	0.00	855.60	1180.00	865.82	.05	.21	.09	535.00	10.22	263.47

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN UPSTREAM PORTION

4) DOCUMENT TYPE: 10 YR ENCROACHED

00BREAK00

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$$$$$$$$     $$     $$$$$$$   $$$$$$$$   $$$$$ $   $$$$$$    $$$$$$
$$          $$$$    $$    $$     $$     $$    $   $$    $$  $$    $$
$$         $$  $$   $$    $$     $$     $$   $$$  $$    $$  $$    $$
$$$$$     $$    $$   $$    $$     $$     $$  $ $$  $$    $$  $$    $$
$$        $$    $$   $$    $$     $$     $$ $$ $$  $$    $$  $$    $$
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$$        $$    $$   $$  $$       $$     $$$   $$        $$  $$    $$
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FARJ090  JANDA                03/31/78  09.07.40  7600   J0
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DOCU. BUSINESS FORMS INC 73

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*********************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       CITY OF FARMINGTON HILLS, FIS, 5670-03-1,  PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       SEELEY DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.        2.        0.        0.  0.000000     0.00      0.0       0.   887.454    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      1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000
NC       .060      .050      .038      .300      .500     0.000     0.000     0.000     0.000     0.000
QT      4.000   180.000   375.000   500.000   965.000     0.000     0.000     0.000     0.000     0.000
NC       .060      .050      .038     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  20131.000    10.000    52.000    92.000   250.000   150.000   200.000     0.000     0.000     0.000
GR    901.200     0.000   890.700    44.000   889.400    52.000   883.700    67.000   883.000    74.000
GR    883.600    82.000   887.200    92.000   888.600   100.000   892.500   125.000   898.200   140.000
NH      5.000      .050   150.000      .055   350.000      .030   368.000      .055   500.000      .045
NH    900.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     6.100     8.100     8.100     8.100   302.000   415.000   300.000   530.000     0.000

X1  20981.000    20.000   350.000   368.000   850.000   850.000   850.000     0.000     0.000     0.000
GR    905.500     0.000   893.900    50.000   891.300    65.000   885.300   150.000   885.400   250.000
GR    885.800   350.000   885.300   354.000   884.700   360.000   886.000   368.000   885.400   425.000
GR    887.300   450.000   887.300   470.000   890.200   500.000   890.500   515.000   890.400   530.000
GR    887.500   550.000   889.600   650.000   897.400   750.000   899.200   850.000   904.500   900.000
NC       .055      .055      .032     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  21181.000    30.000   796.600   811.400   400.000     5.000   200.000      .880     0.000     0.000
X3     10.000     0.000     0.000   700.000     0.000  1030.000     0.000   889.000   889.000     0.000
GR    898.500     0.000   896.100   100.000   894.300   200.000   893.200   300.000   892.600   400.000
GR    891.000   500.000   891.000   600.000   890.700   700.000   890.800   750.000   885.700   796.600
GR    885.200   797.700   885.200   800.000   885.200   802.300   885.700   803.400   885.700   803.400
GR    885.500   804.600   885.500   804.600   885.000   805.700   885.000   808.000   885.000   810.300
GR    885.500   811.400   890.800   850.000   890.700   900.000   890.300  1000.000   890.200  1100.000
GR    891.300  1200.000   893.000  1300.000   894.300  1400.000   895.000  1500.000   897.700  1600.000
NC       .035      .035      .033     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  21182.000    30.000   796.600   811.400     1.000     1.000     1.000      .880     0.000     0.000
X3     10.000     0.000     0.000   700.000     0.000  1030.000     0.000   889.000   889.000     0.000
GR    898.500     0.000   896.100   100.000   894.300   200.000   893.200   300.000   892.600   400.000
GR    891.000   500.000   891.000   600.000   890.700   700.000   890.800   750.000   885.700   796.600
GR    885.200   797.700   885.200   800.000   885.200   802.300   885.700   803.400   885.700   803.400
GR    885.500   804.600   885.500   804.600   885.000   805.700   885.000   808.000   885.000   810.300
GR    885.500   811.400   890.800   850.000   890.700   900.000   890.300  1000.000   890.200  1100.000
GR    891.300  1200.000   893.000  1300.000   894.300  1400.000   895.000  1500.000   897.700  1600.000
SB      0.000     3.260     3.050     0.000     9.590     0.000    35.200     0.000   885.500   885.000

X1  21232.000    30.000   796.600   811.400    50.000    50.000    50.000      .880     0.000     0.000
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X3	10.000	0.000	0.000	700.000	0.000	1030.000	0.000	890.200	890.200	0.000
BT	20.000	700.000	890.700	0.000	796.600	891.000	0.000	796.600	891.000	886.300
BT	796.600	891.000	887.300	797.700	891.000	888.800	800.000	891.000	889.300	802.300
BT	891.000	888.800	803.400	891.000	887.300	803.400	891.000	886.300	804.600	891.000
BT	886.000	804.600	891.000	887.000	805.700	891.000	888.500	808.000	891.000	889.000
BT	810.300	891.000	888.500	811.400	891.000	888.700	811.400	891.000	886.000	811.400
BT	891.000	0.000	900.000	890.700	0.000	1000.000	890.300	0.000	1030.000	890.270
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	898.500	0.000	896.100	100.000	894.300	200.000	893.200	300.000	892.600	400.000
GR	891.000	500.000	891.000	600.000	890.700	700.000	890.800	750.000	885.700	796.600
GR	885.800	797.700	885.800	800.000	885.800	802.300	886.300	803.400	886.300	803.400
GR	886.000	804.600	886.000	804.600	885.500	805.700	885.500	808.000	885.500	810.300
GR	885.500	811.400	890.800	850.000	890.700	900.000	890.300	1000.000	890.200	1100.000
GR	891.300	1200.000	893.000	1300.000	894.300	1400.000	895.000	1500.000	897.700	1600.000
X1	21233.000	30.000	796.600	811.400	1.000	1.000	1.000	.880	0.000	0.000
X3	10.000	0.000	0.000	700.000	0.000	1030.000	0.000	890.200	890.200	0.000
GR	898.500	0.000	896.100	100.000	894.300	200.000	893.200	300.000	892.600	400.000
GR	891.000	500.000	891.000	600.000	890.700	700.000	890.800	750.000	885.700	796.600
GR	885.800	797.700	885.800	800.000	885.800	802.300	886.300	803.400	886.300	803.400
GR	886.000	804.600	886.000	804.600	885.500	805.700	885.500	808.000	885.500	810.300
GR	885.500	811.400	890.800	850.000	890.700	900.000	890.300	1000.000	890.200	1100.000
GR	891.300	1200.000	893.000	1300.000	894.300	1400.000	895.000	1500.000	897.700	1600.000
NC	.065	.065	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	735.000	848.000	620.000	943.000	0.000
X1	21283.000	19.000	770.000	812.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	899.400	0.000	891.000	15.000	893.000	70.000	891.900	170.000	889.300	270.000
GR	889.400	370.000	889.100	470.000	888.900	570.000	887.700	670.000	887.300	770.000
GR	885.600	775.000	885.200	791.000	885.200	805.000	887.400	812.000	888.900	970.000
GR	888.500	1070.000	888.800	1170.000	890.600	1270.000	891.000	1370.000	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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: SEELEY DRAIN UPSTREAM PORTION

4) DOCUMENT TYPE: 100 YR ENCROACHED

00BREAK00

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*********************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      CITY OF FARMINGTON HILLS, FIS,  5670-03-1,  PM = RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      SEELEY DRAIN
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	893.502	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CCHV=    .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

        200' U/S FROM U/S FACE OF 13 MILE ROAD BRIDGE, VS #36          SEC. AP

 20131.00    10.50    893.50     0.00    893.50    893.52       .02      0.00      0.00    889.40
     500.      16.      416.      68.       44.      338.      120.        0.        0.    887.20
     0.00      .36      1.23      .56      .060      .038      .050     0.000    883.00     32.26
  .000061     250.      200.     150.         0         0         1      0.00     95.38    127.64

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=     300.0     530.0  TYPE=     1  TARGET=     230.000

        200' D/S FROM D/S FACE OF HAGGARTY ROAD BRIDGE, VS #37          SEC. AQ

 20981.00     8.84    893.54     0.00      0.00    893.54       .00       .02       .01    885.80
     500.     125.       90.    285.      392.      149.      991.       20.        3.    886.00
      .67      .32       .60      .29      .055      .030      .054      .038    884.70    300.00
  .000009     850.      850.     850.         1         0         1      0.00    230.00    530.00

3470 ENCROACHMENT STATIONS=     616.0     906.4  TYPE=     1  TARGET=     330.000
 21181.00     8.54    893.54     0.00      0.00    893.55       .01       .00       .00    885.70
     500.     141.      117.    243.      340.      109.      661.       24.        4.    885.50
      .75      .41      1.07      .37      .055      .032      .055      .039    885.00    616.00
  .000033     400.      200.       5.         1         0         1      0.00    290.40    906.40

3470 ENCROACHMENT STATIONS=     616.0     906.4  TYPE=     1  TARGET=     330.000

        D/S FACE OF HAGGARTY ROAD BRIDGE, BS #1A                        SEC. AR

 21182.00     8.55    893.55     0.00      0.00    893.55       .00       .00       .00    885.70
     500.     154.       79.    267.      340.      109.      661.       24.        4.    885.50
      .75      .45      .73      .40      .035      .033      .035      .039    885.00    616.00
  .000016       1.        1.       1.         0         0         1      0.00    290.40    906.40

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.26      3.05      0.00      9.59      0.00     35.20      0.00    885.50    885.00

PRESSURE AND WEIR FLOW

  EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

 903.76    894.05     0.00      469.      31.       35.       888.70    890.20    30.00
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00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: INTERMEDIATE FLOODWAY – NATURAL CHANNEL

00BREAK00

THIS RUN EXECUTED 08 MAY 78 12.01.09

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

1                FARMINGTON FLOOD INSURANCE STUDY  **** 8 MARCH 1978 ****
2          TARABUSI CREEK INTERMEDIATE FLOODWAY DETERMINATION
3        NATURAL CHANNEL

1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     0.       2.       0.       0.   0.000000    0.00    -1.0      0.    728.600   0.000

2  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

3  VARIABLE CODES FOR SUMMARY PRINTOUT

   38.000   39.000   40.000   41.000   42.000   43.000    1.000    4.000   27.000   28.000

  200.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

C     .075     .075     .050     .100     .300    0.000    0.000    0.000    0.000    0.000
T    2.000  930.000  930.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
T    0.000    0.000    1.400    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1  24.000   12.000  868.000  950.000    0.000    0.000    0.000    0.000    0.000    0.000
R  730.000    0.000  726.000  708.000  725.600  756.000  726.900  868.000  721.500  898.000
R  721.500  914.000  727.600  950.000  728.400 1000.000  729.100 1050.000  730.900 1100.000
R  733.300 1150.000  736.300 1200.000    0.000    0.000    0.000    0.000    0.000    0.000
T    0.000    0.000    5.100    0.000  110.000  940.000    0.000    0.000    0.000    0.000

1   30.000   17.000  450.000  472.000   22.000   22.000   22.000    0.000    0.000    0.000
R  750.000    0.000  740.000  110.000  730.000  330.000  728.400  450.000  723.600  458.000
R  722.300  458.500  721.800  459.000  721.700  459.500  721.600  460.000  721.700  460.500
R  721.800  461.000  722.300  461.500  723.600  462.000  728.400  472.000  730.000  850.000
R  740.000  940.000  750.000 1030.000    0.000    0.000    0.000    0.000    0.000    0.000
B     .950    1.150    2.800    0.000    4.000    0.000   13.000    0.000  721.600  721.600
T    0.000    0.000    5.100    0.000  110.000  940.000    0.000    0.000    0.000    0.000

1   35.000    0.000    0.000    0.000   36.000   36.000   36.000    0.000    0.000    0.000
2    0.000    0.000    1.000  725.600  728.400    0.000    0.000    0.000    0.000    0.000
T   11.000    0.000  750.000  750.000  458.000  728.400  723.600  458.500  728.400  725.000
T  459.000  728.400  725.300  459.500  728.400  725.500  460.000  728.400  725.600  460.500
T  728.400  725.500  461.000  728.400  725.300  461.500  728.400  725.000  462.000  728.400
T  723.600 1030.000  750.000  750.000    0.000    0.000    0.000    0.000    0.000    0.000
T    0.000    0.000    1.400    0.000    0.000    0.000    0.000    0.000    0.000    0.000

1   40.000   13.000  340.000  360.000   50.000   50.000   50.000    0.000    0.000    0.000
R  750.000    0.000  740.000   75.000  730.000  310.000  727.200  330.000  728.200  335.000
R  727.200  340.000  722.200  345.000  722.200  355.000  727.500  360.000  728.000  400.000
R  730.000  500.000  740.000  570.000  750.00   [illegible]
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RECEIVED
JUN 28 1978
WATER MANAGEMENT

1	10[illegible]00	14.000	324.000	340.000	783.000	783.000	783.000	0.000	0.000	0.000
R	743.100	0.000	731.100	80.000	729.000	130.000	728.400	180.000	728.600	230.000
R	728.200	280.000	727.200	324.000	724.300	328.000	724.300	333.000	728.200	340.000
R	730.100	380.000	731.800	430.000	734.000	480.000	735.800	530.000	0.000	0.000
1	200.000	12.000	193.000	210.000	800.000	800.000	800.000	0.000	0.000	0.000
R	734.900	0.000	731.900	50.000	731.200	100.000	731.000	150.000	730.300	193.000
R	727.300	197.000	727.300	204.000	731.000	210.000	730.800	250.000	733.900	300.000
R	736.200	350.000	736.600	400.000	0.000	0.000	0.000	0.000	0.000	0.000
1	300.000	11.000	195.000	205.000	600.000	600.000	600.000	0.000	0.000	0.000
R	739.900	0.000	738.000	50.000	734.900	100.000	733.200	150.000	733.200	195.000
R	729.500	198.000	729.500	203.000	733.100	205.000	734.000	300.000	738.400	350.000
R	744.200	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	310.000	11.000	392.000	408.000	817.000	817.000	817.000	0.000	0.000	0.000
R	760.000	0.000	760.000	160.000	750.000	310.000	740.000	370.000	739.200	392.000
R	736.400	395.000	736.400	405.000	739.200	408.000	740.000	460.000	750.000	640.000
R	760.000	810.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	320.000	8.000	220.000	245.000	50.000	50.000	50.000	0.000	0.000	0.000
R	760.000	0.000	750.000	60.000	750.000	220.000	735.800	224.000	735.800	241.000
R	750.000	245.000	750.000	320.000	749.800	400.000	0.000	0.000	0.000	0.000
B	.950	1.200	2.500	375.000	16.000	0.000	69.000	0.000	735.800	735.800
1	330.000	0.000	0.000	0.000	370.000	370.000	370.000	0.000	0.000	0.000
2	0.000	0.000	1.000	740.100	774.000	0.000	0.000	0.000	0.000	0.000
1	340.000	11.000	392.000	408.000	50.000	50.000	50.000	0.000	0.000	0.000
R	760.000	0.000	760.000	160.000	750.000	310.000	740.000	370.000	739.200	392.000
R	736.400	395.000	736.400	405.000	739.200	408.000	740.000	460.000	750.000	640.000
R	760.000	810.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	60.000	13.000	547.000	556.000	10.000	10.000	10.000	0.000	0.000	0.000
R	750.000	0.000	748.000	50.000	746.000	150.000	744.000	235.000	741.600	350.000
R	740.900	450.000	739.600	547.000	736.400	549.000	736.400	554.000	739.600	556.000
R	752.200	661.000	759.100	671.000	763.400	750.000	0.000	0.000	0.000	0.000
1	100.000	12.000	536.000	547.000	40.000	40.000	40.000	0.000	0.000	0.000
R	750.000	0.000	748.000	70.000	746.000	180.000	744.000	318.000	742.000	376.000
R	739.900	536.000	737.700	539.000	737.700	544.000	739.900	547.000	742.000	576.000
R	750.000	610.000	760.000	675.000	0.000	0.000	0.000	0.000	0.000	0.000
1	245.000	11.000	306.000	316.000	145.000	145.000	145.000	0.000	0.000	0.000
R	750.000	0.000	747.800	46.000	746.000	145.000	742.000	290.000	741.700	306.000
R	738.600	308.000	738.600	314.000	741.700	316.000	742.000	336.000	750.000	381.000
R	760.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	375.000	9.000	317.000	331.000	130.000	130.000	130.000	0.000	0.000	0.000
R	750.000	0.000	748.000	125.000	746.000	175.000	743.000	317.000	739.600	320.000
R	739.600	329.000	743.000	331.000	750.000	381.000	760.000	475.000	0.000	0.000
T	0.000	0.000	5.100	0.000	177.000	307.000	0.000	0.000	0.000	0.000

City of Farmington | Farmington Hills

	1	450.000	9.000	293.000	307.000	75.000	75.000	75.000	0.000	0.000	0.000
	R	75[illegible].000	0.000	752.000	50.000	746.000	177.000	744.000	293.000	742.200	296.000
	R	74[illegible].000	305.000	744.000	307.000	750.000	345.000	760.000	452.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	480.000	9.000	290.000	345.000	30.000	30.000	30.000	0.000	0.000	0.000
	R	756.000	0.000	752.000	80.000	746.000	209.000	744.500	290.000	743.200	292.000
	R	743.200	337.000	751.000	345.000	752.000	363.000	760.000	437.000	0.000	0.000
	1	685.000	13.000	295.000	305.000	205.000	205.000	205.000	0.000	0.000	0.000
	R	761.500	0.000	759.000	55.000	756.000	107.000	754.000	155.000	748.000	263.000
A	R	746.700	295.000	743.900	298.000	743.900	303.000	746.700	305.000	748.000	350.000
	R	750.000	402.000	758.000	550.000	761.500	600.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	133.000	400.000	0.000	0.000	0.000	0.000
	1	800.000	13.000	295.000	305.000	115.000	115.000	115.000	0.000	0.000	0.000
	R	758.400	0.000	755.300	50.000	754.000	83.000	750.000	133.000	746.400	233.000
B	R	746.700	295.000	745.700	298.000	745.700	303.000	746.700	305.000	751.000	400.000
	R	752.900	500.000	756.000	550.000	762.500	600.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	960.000	15.000	220.000	230.000	160.000	160.000	160.000	0.000	0.000	0.000
C	R	759.500	0.000	756.000	30.000	754.000	70.000	752.000	100.000	749.000	175.000
	R	749.000	220.000	745.800	220.000	745.800	230.000	749.000	230.000	750.000	270.000
	R	750.400	298.000	746.000	299.000	746.000	301.000	752.000	303.000	756.000	368.000
	1	1160.000	12.000	195.000	205.000	200.000	200.000	200.000	0.000	0.000	0.000
D	R	763.000	0.000	760.000	56.000	750.000	170.000	748.000	187.000	747.700	195.000
	R	746.400	198.000	746.400	202.000	747.700	205.000	748.000	230.000	750.000	285.000
	R	756.000	420.000	760.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	1235.000	9.000	167.000	180.000	75.000	75.000	75.000	0.000	0.000	0.000
E	R	761.900	0.000	759.000	55.000	747.800	90.000	747.800	167.000	747.100	170.000
	R	746.600	175.000	747.100	180.000	753.000	204.000	760.300	445.000	0.000	0.000
	1	1525.000	13.000	118.000	166.000	290.000	290.000	290.000	0.000	0.000	0.000
	R	760.000	0.000	758.000	23.000	756.000	53.000	754.000	78.000	752.000	106.000
F	R	751.200	118.000	747.600	133.000	747.100	138.000	747.600	143.000	753.100	166.000
	R	759.800	255.000	759.800	285.000	758.300	321.000	0.000	0.000	0.000	0.000
	1	1650.000	12.000	234.000	280.000	125.000	125.000	125.000	0.000	0.000	0.000
G	R	764.000	0.000	762.000	50.000	755.000	100.000	752.000	135.000	751.000	234.000
	R	747.900	245.000	747.400	250.000	747.900	255.000	754.000	280.000	759.700	355.000
	R	759.700	385.000	758.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	1800.000	12.000	223.000	280.000	150.000	150.000	150.000	0.000	0.000	0.000
H	R	766.000	0.000	758.000	115.000	746.000	168.000	754.000	208.000	753.000	223.000
	R	748.100	245.000	747.600	250.000	748.100	255.000	754.100	280.000	759.500	345.000
	R	759.500	375.000	758.900	420.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	1950.000	10.000	75.000	140.000	150.000	150.000	150.000	0.000	0.000	0.000
I	R	763.300	0.000	763.300	50.000	762.500	69.000	757.000	75.000	748.400	100.000
	R	747.900	105.000	748.400	110.000	758.000	140.000	759.500	175.000	754.800	225.000
	1	1[illegible].000	35.000	215.000	301.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	R	772.000	0.000	771.000	20.000	771.000	70.000	766.400	90.000	767.000	115.000
	R	76[illegible].000	160.000	760.000	215.000	750.500	266.000	748.900	265.500	746.200	267.500
	R	748.000	278.500	748.200	279.500	748.900	280.500	750.500	281.000	750.500	282.000
	R	748.900	282.500	748.200	283.500	748.000	284.500	748.200	285.500	746.900	286.500
	R	750.500	287.000	750.500	288.000	748.900	288.500	748.200	289.500	748.000	290.500
	R	748.200	291.500	748.900	292.500	750.500	293.000	759.000	301.000	760.000	324.000
	R	760.000	364.000	759.000	395.000	760.000	420.000	760.000	470.000	757.900	570.000
	B	.900	1.250	2.800	0.000	17.000	5.200	85.000	0.000	748.000	748.000
	1	2051.000	0.000	0.000	0.000	62.000	62.000	62.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	753.000	758.500	0.000	0.000	0.000	0.000	0.000
	T	23.000	0.000	772.000	772.000	266.000	758.500	750.500	266.500	758.500	752.100
	T	267.500	758.500	751.800	278.500	758.500	753.000	279.500	758.500	758.100	280.500
	T	758.500	752.100	281.000	758.500	750.500	282.000	758.500	750.500	282.500	758.500
	T	752.100	283.500	758.500	751.800	284.500	758.500	753.000	285.500	758.500	751.800
	T	286.500	758.500	752.100	287.000	758.500	750.500	286.000	758.500	750.500	288.500
	T	758.500	752.100	289.500	758.500	751.800	290.500	758.500	753.000	291.500	758.500
	T	751.800	292.500	758.500	752.100	293.000	758.500	750.500	570.000	757.900	757.900
J	1	2101.000	16.000	237.000	313.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	767.000	0.000	765.000	20.000	764.000	25.000	760.000	90.000	759.000	115.000
	R	761.000	230.000	761.000	237.000	750.000	268.000	749.500	275.000	750.000	280.000
	R	760.200	313.000	759.500	380.000	761.000	455.000	762.000	485.000	764.000	535.000
	R	766.000	570.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
K	1	2300.000	16.000	237.000	313.000	199.000	199.000	199.000	0.000	0.000	0.000
	R	767.000	0.000	765.000	20.000	764.000	25.000	760.000	90.000	759.000	115.000
	R	761.000	230.000	761.000	237.000	750.000	268.000	749.500	275.000	750.000	280.000
	R	760.200	313.000	759.500	380.000	761.000	455.000	762.000	485.000	764.000	535.000
	R	766.000	570.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
L	1	2590.000	15.000	260.000	320.000	290.000	290.000	290.000	0.000	0.000	0.000
	R	762.000	0.000	762.000	60.000	759.000	230.000	758.800	260.000	751.800	285.000
	R	751.300	290.000	751.800	295.000	760.000	320.000	761.000	350.000	762.000	400.000
	R	763.000	420.000	764.000	480.000	766.000	535.000	767.000	550.000	768.000	565.000
M	1	2625.000	15.000	290.000	310.000	35.000	35.000	35.000	0.000	0.000	0.000
	R	762.400	0.000	762.000	100.000	761.000	130.000	758.200	290.000	754.400	297.000
	R	754.400	303.000	758.700	310.000	761.000	360.000	763.000	415.000	766.000	430.000
	R	769.000	540.000	770.000	550.000	771.000	565.000	772.000	585.000	773.000	600.000
	T	0.000	0.000	5.100	0.000	110.000	336.000	0.000	0.000	0.000	0.000
N	1	2800.000	17.000	273.000	307.000	175.000	175.000	175.000	0.000	0.000	0.000
	R	762.000	0.000	762.000	75.000	761.000	110.000	760.000	190.000	759.000	235.000
	R	759.000	260.000	759.500	273.000	755.100	287.000	755.100	293.000	759.700	307.000
	R	761.000	336.000	762.000	357.000	764.000	410.000	766.000	449.000	767.000	460.000
	R	768.000	475.000	774.000	530.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	125.000	385.000	0.000	0.000	0.000	0.000
O	1	2940.000	11.000	250.000	360.000	140.000	140.000	140.000	0.000	0.000	0.000
	R	762.000	0.000	762.000	125.000	760.000	220.000	759.200	250.000	756.700	262.000
	R	756.700	335.000	760.000	360.000	761.000	385.000	764.000	480.000	766.000	516.000
	R	770.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	110.000	405.000	0.000	0.000	0.000	0.000
P	1	3030.000	12.000	250.000	385.000	90.000	90.000	90.000	0.000	0.000	0.000
	R	763.800	0.000	763.000	30.000	762.000	110.000	760.000	220.000	759.200	250.000
	[illegible]	756.700	270.000	756.700	351.000	[illegible]	385.000	[illegible]	[illegible]	[illegible]	[illegible]

	R	764.000	525.000	766.000	545.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	[illegible]	0.000	5.100	0.000	120.000	485.000	0.000	0.000	0.000	0.000
Q	1	3105.000	13.000	250.000	345.000	75.000	75.000	75.000	0.000	0.000	0.000
	R	762.000	0.000	762.000	120.000	761.000	180.000	759.200	250.000	756.700	257.000
	R	756.700	337.000	759.600	345.000	760.000	365.000	761.000	445.000	762.000	465.000
	R	763.000	500.000	764.000	510.000	767.000	532.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	150.000	475.000	0.000	0.000	0.000	0.000
R	1	3155.000	17.000	265.000	315.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	764.600	0.000	764.000	15.000	763.000	110.000	762.000	150.000	761.000	265.000
	R	759.200	282.000	757.300	298.000	757.300	303.000	760.000	315.000	761.000	330.000
	R	761.000	390.000	762.000	475.000	763.000	510.000	764.000	530.000	765.000	540.000
	R	766.000	555.000	771.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	72.000	552.000	0.000	0.000	0.000	0.000
S	1	3320.000	11.000	285.000	317.000	165.000	165.000	165.000	0.000	0.000	0.000
	R	766.000	0.000	766.000	35.000	764.000	72.000	762.000	240.000	761.800	285.000
	R	760.000	298.000	760.000	303.000	761.600	317.000	762.000	342.000	764.000	552.000
	R	768.000	615.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
T	1	3485.000	9.000	275.000	315.000	165.000	165.000	165.000	0.000	0.000	0.000
	R	768.000	0.000	766.000	80.000	764.000	185.000	763.000	275.000	760.800	297.000
	R	760.800	303.000	762.000	315.000	764.000	640.000	766.000	650.000	0.000	0.000
U	1	3650.000	13.000	285.000	317.000	165.000	165.000	165.000	0.000	0.000	0.000
	R	775.000	0.000	774.000	30.000	772.000	82.000	770.000	215.000	768.000	252.000
	R	766.000	280.000	765.900	285.000	761.500	297.000	761.500	303.000	765.000	317.000
	R	764.000	405.000	762.000	535.000	762.000	600.000	0.000	0.000	0.000	0.000
V	1	3885.000	13.000	275.000	326.000	235.000	235.000	235.000	0.000	0.000	0.000
	R	779.000	0.000	778.000	12.000	776.000	55.000	772.000	89.000	770.000	195.000
	R	769.000	275.000	762.600	297.000	762.600	303.000	768.400	326.000	770.000	370.000
	R	772.000	400.000	774.000	570.000	774.000	630.000	0.000	0.000	0.000	0.000
W	1	4060.000	12.000	272.000	325.000	175.000	175.000	175.000	0.000	0.000	0.000
	R	783.500	0.000	782.000	25.000	780.000	47.000	776.000	110.000	774.000	160.000
	R	772.000	223.000	771.400	272.000	764.600	297.000	764.600	303.000	770.700	325.000
	R	772.000	402.000	773.800	627.000	0.000	0.000	0.000	0.000	0.000	0.000
X	1	4225.000	10.000	275.000	330.000	165.000	165.000	165.000	0.000	0.000	0.000
	R	780.000	0.000	776.000	82.000	774.000	140.000	772.000	275.000	768.700	297.000
	R	768.700	303.000	774.000	330.000	774.000	470.000	775.800	520.000	774.000	632.000
	T	0.000	0.000	5.100	0.000	76.000	283.000	0.000	0.000	0.000	0.000
Y	1	4340.000	12.000	238.000	283.000	115.000	115.000	115.000	0.000	0.000	0.000
	R	778.000	0.000	776.000	78.000	774.000	183.000	774.000	208.000	774.200	238.000
	R	770.000	255.000	770.000	261.000	775.700	283.000	776.000	430.000	778.000	478.000
	R	780.000	518.000	778.000	553.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Z	1	4420.000	12.000	247.000	287.000	80.000	80.000	80.000	0.000	0.000	0.000
	R	778.500	0.000	778.000	70.000	776.000	215.000	776.000	235.000	776.500	247.000
	R	770.600	262.000	770.600	268.000	777.500	287.000	775.500	425.000	776.000	460.000
	R	777.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AA	1	4510.000	10.000	260.000	329.000	90.000	90.000	90.000	0.000	0.000	0.000
	R	774.500	0.000	774.100	145.000	776.000	232.000	776.200	260.000	771.300	287.000
	R	771.300	293.000	781.200	329.000	782.000	365.000	784.000	393.000	788.000	530.000
AB	1	4600.000	10.000	256.000	325.000	90.000	90.000	90.000	0.000	0.000	0.000
	R	777.000	0.000	776.000	85.000	776.000	130.000	777.500	256.000	771.300	297.000
	R	771.300	303.000	781.500	325.000	782.000	372.000	784.000	407.000	788.000	557.000
AC	1	4735.000	12.000	237.000	300.000	135.000	135.000	135.000	0.000	0.000	0.000
	R	776.000	0.000	778.000	167.000	778.500	237.000	773.400	272.000	773.400	278.000
	R	778.800	300.000	780.000	328.000	782.000	365.000	784.000	447.000	786.000	477.000
	R	788.000	502.000	790.000	540.000	0.000	0.000	0.000	0.000	0.000	0.000
AD	1	4890.000	9.000	243.000	283.000	155.000	155.000	155.000	0.000	0.000	0.000
	R	776.000	0.000	778.000	108.000	779.200	243.000	775.600	265.000	775.600	271.000
	R	780.400	283.000	782.000	378.000	784.000	440.000	788.000	588.000	0.000	0.000
AE	1	5050.000	12.000	255.000	297.000	160.000	160.000	160.000	0.000	0.000	0.000
	R	786.000	0.000	784.000	65.000	782.000	160.000	780.000	192.000	779.000	255.000
	R	776.500	272.000	776.500	278.000	780.000	297.000	782.000	375.000	786.000	420.000
	R	788.000	531.000	788.000	575.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	170.000	332.000	0.000	0.000	0.000	0.000
AF	1	5230.000	11.000	268.000	332.000	180.000	180.000	180.000	0.000	0.000	0.000
	R	792.000	0.000	790.000	55.000	788.000	98.000	784.000	170.000	782.100	268.000
	R	777.300	296.000	777.300	304.000	782.900	332.000	784.000	360.000	788.000	421.000
	R	792.000	575.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AG	1	5417.000	14.000	7.000	81.000	187.000	187.000	187.000	0.000	0.000	0.000
	R	788.100	0.000	787.900	7.000	781.700	32.000	781.200	37.000	780.000	40.000
	R	781.300	44.000	782.000	51.000	788.900	81.000	789.200	91.000	789.500	101.000
	R	789.900	111.000	791.000	121.000	793.800	139.000	794.000	144.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	195.000	240.000	0.000	0.000	0.000	0.000
	1	5467.000	12.000	195.000	240.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	795.700	0.000	792.400	50.000	790.400	100.000	789.400	150.000	788.700	195.000
	R	779.500	213.000	779.500	223.000	788.800	240.000	789.300	290.000	790.700	340.000
	R	793.300	390.000	795.800	440.000	0.000	0.000	0.000	0.000	0.000	0.000
	B	.950	1.150	2.800	80.000	15.000	3.800	64.500	0.000	779.500	779.500
	T	0.000	0.000	5.100	0.000	195.000	240.000	0.000	0.000	0.000	0.000
	1	5533.000	0.000	0.000	0.000	66.000	66.000	66.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	783.800	788.700	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	195.000	240.000	0.000	0.000	0.000	0.000
AH	1	5583.000	12.000	195.000	240.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	795.700	0.000	792.400	50.000	790.400	100.000	789.400	150.000	788.700	195.000
	R	779.500	213.000	779.500	223.000	788.800	240.000	789.400	290.000	790.700	340.000
	R	793.300	390.000	795.800	440.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AI	1	5826.000	14.000	189.000	200.000	243.000	243.000	243.000	0.000	0.000	0.000
		788.600	0.000	788.400	50.000	788.200	100.000	788.200	150.000	787.700	150.000

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	R	785.700	170.000	782.800	183.000	781.300	186.000	783.000	189.000	785.800	200.000
	R	788.[illegible]00	213.000	788.400	250.000	789.500	300.000	789.400	350.000	0.000	0.000
AJ	1	6037.000	13.000	149.000	200.000	211.000	211.000	211.000	0.000	0.000	0.000
	R	797.600	0.000	789.900	50.000	788.400	100.000	788.400	149.000	786.100	162.000
	R	782.800	168.000	784.200	172.000	790.600	200.000	793.900	250.000	794.900	271.000
	R	795.500	300.000	795.400	350.000	794.600	400.000	0.000	0.000	0.000	0.000
	1	6087.000	10.000	190.000	200.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	792.200	0.000	791.100	50.000	790.800	100.000	790.100	150.000	789.700	190.000
	R	783.900	195.000	790.000	200.000	793.300	250.000	796.700	300.000	798.800	350.000
	B	.950	1.150	2.800	195.000	4.000	.850	16.000	0.000	786.700	783.900
	1	6103.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	787.900	789.800	0.000	0.000	0.000	0.000	0.000
AK	1	6153.000	13.000	149.000	200.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	797.600	0.000	789.900	50.000	788.400	100.000	788.400	149.000	786.100	162.000
	R	783.900	168.000	784.200	172.000	790.600	200.000	793.900	250.000	794.900	271.000
	R	795.500	300.000	795.400	350.000	794.600	400.000	0.000	0.000	0.000	0.000
AL	1	6408.000	12.000	64.000	100.000	255.000	255.000	255.000	0.000	0.000	0.000
	R	797.200	0.000	796.700	14.000	796.300	24.000	796.000	33.000	795.500	52.000
	R	796.200	64.000	789.700	76.000	790.300	80.000	788.700	84.000	790.100	87.000
	R	796.800	100.000	797.000	112.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	16.000	47.000	0.000	0.000	0.000	0.000
	1	6458.000	9.000	16.000	47.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	796.000	0.000	796.700	16.000	791.600	26.000	790.000	30.000	789.000	32.000
	R	790.000	35.000	791.700	37.000	796.700	47.000	796.700	62.000	0.000	0.000
	B	1.250	1.250	3.330	40.000	1.000	.200	.080	0.000	788.600	788.600
	T	0.000	0.000	5.100	0.000	16.000	47.000	0.000	0.000	0.000	0.000
	1	6460.000	0.000	0.000	0.000	2.000	2.000	2.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	790.000	791.700	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	64.000	100.000	0.000	0.000	0.000	0.000
	T	9.000	0.000	796.000	796.000	16.000	796.700	796.700	26.000	791.700	791.700
	T	30.000	791.700	790.000	32.000	791.700	790.000	35.000	791.700	790.000	37.000
	T	791.700	791.700	47.000	796.700	796.700	62.000	796.700	796.700	0.000	0.000
AM	1	6477.000	12.000	64.000	100.000	17.000	17.000	17.000	0.000	0.000	0.000
	R	797.200	0.000	796.700	14.000	796.300	24.000	796.000	33.000	795.500	52.000
	R	796.200	64.000	789.700	76.000	790.300	80.000	788.700	84.000	790.100	87.000
	R	796.800	100.000	797.000	112.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	150.000	218.000	0.000	0.000	0.000	0.000
	1	6494.000	11.000	178.000	211.000	17.000	17.000	17.000	0.000	0.000	0.000
	R	799.200	0.000	797.500	50.000	796.400	100.000	795.400	150.000	797.000	178.000
	R	792.200	183.000	790.300	200.000	793.000	207.000	796.200	211.000	796.100	218.000
	R	797.500	244.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AN	1	6511.000	11.000	178.000	211.000	17.000	17.000	17.000	0.000	0.000	0.000
	R	799.200	0.000	797.500	50.000	796.400	100.000	795.400	150.000	797.000	178.000
	R	792.200	183.000	790.300	200.000	793.000	207.000	796.200	211.000	796.100	218.000
	R	797.500	244.000	0.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	B	.950	1.150	2.800	50.000	5.000	1.000	25.000	1.000	790.300	790.300
	1	6561.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	795.300	796.200	0.000	0.000	0.000	0.000	0.000
AN	1	6612.000	13.000	188.000	210.000	51.000	51.000	51.000	0.000	0.000	0.000
	R	795.700	0.000	794.900	50.000	795.300	150.000	797.100	188.000	791.600	196.000
	R	791.000	200.000	791.700	204.000	796.400	210.000	795.700	218.000	795.800	242.000
	R	797.900	250.000	798.900	300.000	802.300	340.000	0.000	0.000	0.000	0.000
	B	.950	1.150	2.800	100.000	5.000	1.000	25.000	0.000	791.000	791.000
	1	6655.000	0.000	0.000	0.000	43.000	43.000	43.000	0.000	0.000	0.000
	2	0.000	0.000	1.000	796.000	796.800	0.000	0.000	0.000	0.000	0.000
AO	1	6705.000	13.000	188.000	210.000	50.000	50.000	50.000	0.000	0.000	0.000
	R	795.700	0.000	794.900	50.000	795.300	150.000	797.100	188.000	791.600	196.000
	R	791.000	200.000	791.700	204.000	796.400	210.000	795.700	218.000	795.800	242.000
	R	797.900	250.000	798.900	300.000	802.300	340.000	0.000	0.000	0.000	0.000
	T	0.000	0.000	5.100	0.000	50.000	222.000	0.000	0.000	0.000	0.000
AP	1	6843.000	10.000	124.000	150.000	138.000	138.000	138.000	0.000	0.000	0.000
	R	801.000	0.000	799.600	50.000	799.000	100.000	800.200	124.000	793.200	134.000
	R	792.400	137.000	794.000	141.000	800.200	150.000	800.300	174.000	800.700	222.000
	J	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PROF 1

CHV= .100 CFHV= .300

SECNO 24.000

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
24.00	7.10	728.60	0.00	728.60	728.61	.01	0.00	0.00	726.90
930.	431.	493.	6.	996.	391.	31.	0.	0.	727.60
0.00	.43	1.26	.21	.075	.050	.075	0.000	721.50	247.80
.000227	0.	0.	0.	0	0	0	0.00	766.49	1014.29

SECNO 30.000

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

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

30.00	7.99	729.59	729.59	0.00	730.07	.48	.01	.14	728.40
930.	72.	633.	226.	53.	95.	166.	0.	0.	728.40
.00	1.36	6.70	1.36	.075	.050	.075	.048	721.60	360.98
.009388	22.	22.	22.	20	13	0	0.00	391.44	752.42

PECIAL BRIDGE

B	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.95	1.15	2.80	0.00	4.00	0.00	13.00	0.00	721.60	721.60

SECNO 35.000
RESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTPD
820.98	730.07	0.00	799.	131.	13.	16.	725.60	728.40
35.00	9.80	731.40	0.00	0.00	731.41	.01	1.34	0.00	728.40
930.	175.	223.	533.	287.	135.	843.	1.	1.	726.40
.01	.61	1.65	.63	.075	.050	.075	.048	721.60	299.06
.000358	36.	36.	36.	1	0	11	0.00	563.60	862.66

SECNO 40.000

40.00	9.19	731.39	0.00	0.00	731.45	.06	.02	.01	727.20
930.	110.	422.	398.	116.	158.	392.	2.	1.	727.53
.02	.95	2.67	1.02	.075	.050	.075	.049	722.20	277.28
.000666	50.	50.	50.	2	0	0	0.00	232.47	509.75

SECNO 100.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	LOB	CH	[illegible]	[illegible]	T[illegible]	[illegible]

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     TIME      VLOB      VCH      VROB      XNL      XNCH      XNR      WTN      ELMIN      SSTA
     SLOPE     XLOBL     XLCH     XLOBR     ITRIAL   IDC       ICONT    CORAR    TOPWID     ENDST

     100.00     7.52   731.82     0.00      0.00   731.84      .02      .39      .00     727.20
       930.     651.    184.      95.      765.     101.     150.      17.       6.     728.20
        .23      .85     1.83      .63      .075     .050     .075     .050   724.30     75.19
    .000379     783.     783.     783.        2        0        0     0.00   355.30    430.49

   SECNO 200.000
     200.00     5.15   732.45     0.00      0.00   732.69      .24      .78      .07     730.30
       930.     374.    396.     160.      192.      70.      84.      30.      12.     731.00
        .30     1.95     5.63     1.91      .075     .050     .075     .050   727.30     40.91
    .006273     800.     800.     800.        3        0        0     0.00   235.63    276.54

   SECNO 300.000
     300.00     6.00   735.50     0.00      0.00   735.61      .11     2.91      .01     733.20
       930.     338.    223.     369.      179.      51.     198.      35.      15.     733.10
        .36     1.89     4.39     1.86      .075     .050     .075     .050   729.50     90.33
    .003863     600.     600.     600.        5        0        0     0.00   226.71    317.04

   SECNO 310.000

   .301 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

   .185 MINIMUM SPECIFIC ENERGY
   .720 CRITICAL DEPTH ASSUMED
     310.00     4.72   741.12   741.12     0.00   741.82      .70     5.40      .18     739.20
       930.     109.    560.     261.      37.      67.      90.      41.      18.     739.20
        .40     2.93     8.34     2.89      .075     .050     .075     .050   736.40    363.28
    .013836     817.     817.     817.        5       14        0     0.00   116.87    480.15

   SECNO 320.000
     320.00     5.70   741.50     0.00      0.00   742.70     1.19      .73      .15     750.00
       930.       0.    930.       0.        0.     106.       0.      41.      18.     750.00
        .40     0.00     8.76     0.00      .075     .050     .075     .050   735.80    222.39
    .015282      50.      50.      50.        2        0        0     0.00    20.22    242.61

   PECIAL BRIDGE

   B  XK        XKOR      COEQ      BDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
        .95     1.20      2.50    375.00     16.00      0.00     69.00     0.00    735.80    735.80

   SECNO 330.000

   .301 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

   PRESSURE FLOW
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EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
744.89	742.70	0.00	0.	930.	69.	69.	740.10	774.00

330.00	8.61	744.41	0.00	0.00	744.89	.48	2.19	0.00	750.00
930.	0.	930.	0.	0.	167.	0.	42.	19.	750.00
.42	0.00	5.56	0.00	.075	.050	.075	.050	735.80	221.57
.004327	370.	370.	370.	2	0	0	0.00	21.85	243.43

SECNO 340.000

340.00	8.55	744.95	0.00	0.00	744.98	.03	.04	.05	739.20
930.	187.	268.	475.	191.	128.	499.	43.	19.	739.20
.43	.98	2.09	.95	.075	.050	.075	.050	736.40	340.31
.000366	50.	50.	50.	2	0	0	0.00	208.77	549.08

SECNO 60.000

60.00	8.57	744.97	0.00	0.00	744.98	.01	.00	.00	739.60
930.	764.	98.	68.	1100.	71.	120.	43.	19.	739.60
.44	.69	1.39	.56	.075	.050	.075	.050	736.40	193.68
.000218	10.	10.	10.	0	0	0	0.00	407.09	600.77

SECNO 100.000

100.00	7.28	744.98	0.00	0.00	745.00	.02	.01	.00	739.90
930.	679.	133.	118.	794.	74.	136.	44.	19.	739.90
.45	.85	1.81	.87	.075	.050	.075	.050	737.70	250.02
.000347	40.	40.	40.	0	0	0	0.00	338.67	588.69

SECNO 245.000

245.00	6.39	744.99	0.00	0.00	745.17	.18	.12	.05	741.70
930.	415.	298.	217.	212.	58.	88.	46.	20.	741.70
.46	1.96	5.17	2.47	.075	.050	.075	.050	738.60	181.76
.004316	145.	145.	145.	2	0	0	0.00	171.04	352.80

SECNO 375.000

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	RANK ELEV LEFT/RIGHT SSTA ENDST
375.00	5.92	745.52	0.00	0.00	746.06	.53	.78	.11	743.00
930.	330.	551.	49.	151.	74.	23.	47.	20.	743.00
.47	2.18	7.40	2.18	.075	.050	.075	.050	739.60	197.62
.008982	130.	130.	130.	3	0	0	0.00	151.40	349.02

SECNO 450.000

450.00	4.14	746.34	0.00	0.00	746.89	.55	.83	.00	744.00
930.	448.	436.	45.	158.	54.	17.	48.	21.	744.00
.47	2.84	8.15	2.59	.075	.050	.075	.050	742.20	169.62
.013988	75.	75.	75.	3	0	0	0.00	152.25	321.87

SECNO 480.000

480.00	3.72	746.92	0.00	0.00	747.11	.19	.18	.04	744.50
930.	225.	705.	0.	145.	181.	0.	48.	21.	751.00
.47	1.55	3.90	0.00	.075	.050	.075	.050	743.20	189.18
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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SECNO 6[illegible]00

301 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

.685 20 TRIALS ATTEMPTED WSEL,CWSEL
.693 PROBABLE MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
   685.00     5.09    748.99    748.99      0.00    749.71       .72      1.36       .16    746.70
     930.     214.      415.      301.      61.       44.       86.       49.       21.     746.70
      .48     3.50      9.45      3.49      .075      .050      .075      .050    743.90    245.24
  .019061     205.      205.      205.       20        14         0      0.00    130.42    375.66

SECNO 800.000

301 HV CHANGED MORE THAN HVINS

   800.00     4.46    750.16      0.00      0.00    750.21       .05       .43       .07    746.70
     930.     655.      126.      150.      421.      42.      133.       50.       22.     746.70
      .50     1.55      2.98      1.13      .075      .050      .075      .050    745.70    130.92
  .001558     115.      115.      115.        3         0         0      0.00    250.66    381.58

SECNO 960.000

301 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

.685 20 TRIALS ATTEMPTED WSEL,CWSEL
.693 PROBABLE MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
   960.00     4.68    750.48    750.48      0.00    751.10       .62       .62       .17    749.00
     930.     316.      410.      204.      94.       47.       62.       52.       23.     749.00
      .51     3.36      8.76      3.32      .075      .050      .075      .050    745.80    138.04
  .021491     160.      160.      160.       20         8         0      0.00    164.46    302.49

SECNO 1160.000

301 HV CHANGED MORE THAN HVINS

  1160.00     5.57    751.97      0.00      0.00    752.05       .08       .90       .05    747.70
     930.     181.      193.      556.      106.      52.      310.       53.       23.     747.70
      .53     1.71      3.73      1.79      .075      .050      .075      .050    746.40    147.52
  .001884     200.      200.      200.        4         0         0      0.00    181.85    329.37

SECNO 1235.000
  1235.00     5.50    752.10      0.00      0.00    752.17       .07       .12       .00    747.80
     930.     656.      209.       65.      360.      66.       51.       54.       24.     747.10
      .54     1.82      3.15      1.29      .075      .050      .075      .050    746.60     76.57
  .001291      75.       75.       75.        2         0         0      0.00    123.76    200.33
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SECNO 15[illegible]000
 1525.00      5.44    752.54      0.00      0.00    753.09       .55       .78       .14    751.20
    930.       22.      908.       0.       14.      150.        0.       56.       24.    753.10
     .56      1.62      6.04      0.00      .075      .050      .075      .050    747.10     98.31
 .008682      290.      290.      290.         1         0         0      0.00     65.39    163.70

SECNO 1650.000
 1650.00      6.12    753.52      0.00      0.00    753.67       .14       .53       .04    751.00
    930.      329.      601.       0.      214.      168.        0.       57.       25.    754.00
     .57      1.54      3.57      0.00      .075      .050      .075      .050    747.40    117.24
 .002505      125.      125.      125.         2         0         0      0.00    160.80    278.04

SECNO 1800.000

265 DIVIDED FLOW

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

 1800.00      7.85    753.85      0.00      0.00    753.91       .06       .24       .01    753.00
    930.      470.      460.       0.      296.      202.        0.       58.       25.    754.10
     .59      1.59      2.28      0.00      .075      .050      .075      .050    746.00    133.32
 .001100      150.      150.      150.         2         0         0      0.00    142.71    278.97

SECNO 1950.000

*301 HV CHANGED MORE THAN HVINS

 1950.00      5.92    753.82      0.00      0.00    754.45       .64       .37       .17    757.00
    930.        0.      930.       0.        0.      145.        0.       60.       26.    758.00
     .60      0.00      6.40      0.00      .075      .050      .075      .050    747.90     84.24
 .009562      150.      150.      150.         2         0         0      0.00     42.70    126.94

SECNO 1989.000
 1989.00      6.42    754.42      0.00      0.00    754.74       .31       .25       .03    760.00
    930.        0.      930.       0.        0.      207.        0.       60.       26.    759.00
     .60      0.00      4.49      0.00      .075      .050      .075      .050    748.00    244.92
 .004601       39.       39.       39.         2         0         0      0.00     51.77    296.69

PECIAL BRIDGE

227 DOWNSTREAM ELEV IS    750.93 ,NOT    754.42 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

 B  XK        XKOR      COFQ      RDLEN      BWC       BWP     BAREA       SS     ELCHU     ELCHD
     .90      1.25      2.80       0.00    17.00      5.20     85.00     0.00    748.00    748.00

SECNO 2051.000
PRESS FLOW BECAUSE EGLWC OF    757.01  EXCEEDS 1.5 DEPTH
PESSURE FLOW

EGRRS      EGLWC        H3      QWEIR       QPR     BAREA  TRAPEZOID      ELLC     ELTRD
                                                             AREA
 756.75    757.01      0.00        0.      930.      85.       59.    753.00    758.50
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 2051.00      8.63    759.63      0.00      0.00    756.75       .12      2.01      1.22    761.00
    930.        0.      930.        0.        0.      336.        0.       60.       26.    759.00
     .61       0.00     2.76      0.00      .075      .050      .075      .050    748.00    233.11
 .001219        62.      62.       62.         2         0         0      0.00     65.66    298.77

SECNO 2101.000
 2101.00      7.10    756.60      0.00      0.00    756.89       .29       .10       .05    761.00
    930.        0.      930.        0.        0.      214.        0.       60.       26.    760.20
     .61       0.00     4.34      0.00      .075      .050      .075      .050    749.50    249.40
 .003415        50.      50.       50.         2         0         0      0.00     51.96    301.36

SECNO 2300.000
   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

 2300.00      7.73    757.23      0.00      0.00    757.45       .22       .55       .01    761.00
    930.        0.      930.        0.        0.      248.        0.       61.       26.    760.20
     .62       0.00     3.75      0.00      .075      .050      .075      .050    749.50    247.61
 .002295       199.     199.      199.         2         0         0      0.00     55.80    303.41

SECNO 2590.000
 2590.00      6.75    758.05      0.00      0.00    758.41       .35       .91       .04    758.80
    930.        0.      930.        0.        0.      195.        0.       63.       26.    760.00
     .64       0.00     4.78      0.00      .075      .050      .075      .050    751.30    262.65
 .004595       290.     290.      290.         1         0         0      0.00     51.43    314.08

SECNO 2625.000
   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

.685 20 TRIALS ATTEMPTED WSEL,CWSEL
.693 PROBABLE MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
 2625.00      5.67    760.07    760.07      0.00    760.83       .76       .25       .12    758.20
    930.       210.      685.       35.      100.       85.       20.       63.       26.    758.70
     .64       2.10     8.06      1.70      .075      .050      .075      .050    754.40    183.08
 .012242        35.      35.       35.        20        12         0      0.00    156.73    339.81

SECNO 2800.000

.301 HV CHANGED MORE THAN HVINS

 2800.00      6.39    761.49      0.00      0.00    761.62       .13       .72       .06    759.50
    930.       345.      552.       33.      264.      154.       35.       64.       27.    759.70
     .66       1.31     3.58       .93      .075      .050      .075      .050    755.10     92.94
 .002042       175.     175.      175.         3         0         0      0.00    253.29    346.23

SECNO 2940.000
 2940.00      5.00    761.70      0.00      0.00    761.74       .04       .12       .01    759.20
    930.        69.      845.       16.      131.      493.       38.       66.       28.    760.00
     .69       .53     1.71       .42      .075      .050      .075      .050    756.70    139.41
 .000452       140.     140.      140.         2         0         0      0.00    267.64    407.06
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SECNO 3030.000
  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

 3030.00     5.05    761.75      0.00      0.00    761.78       .03       .04       .00    759.20
    930.      68.      861.       1.      148.      583.        6.       68.       29.    761.00
     .70      .46      1.48      .19      .075      .050      .075      .050    756.70    123.97
 .000352      90.       90.      90.         2         0         0      0.00    275.94    399.92

SECNO 3105.000
 3105.00     5.07    761.77      0.00      0.00    761.81       .04       .03       .00    759.20
    930.      70.      785.      75.      135.      462.      154.       69.       29.    759.60
     .72      .51      1.70      .49      .075      .050      .075      .050    756.70    133.44
 .000403      75.       75.      75.         0         0         0      0.00    342.61    476.04

SECNO 3155.000

.301 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

 185 MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
 3155.00     4.09    761.39    761.39      0.00    762.06       .67       .06       .19    761.00
    930.       7.      856.      67.        9.      125.       43.       69.       29.    760.00
     .72      .83      6.82     1.55      .075      .050      .075      .050    757.30    220.25
 .015668      50.       50.      50.         3        15         0      0.00    202.82    423.07

SECNO 3320.000
 3320.00     3.49    763.49      0.00      0.00    763.66       .17      1.55       .05    761.80
    930.     274.      411.     245.      165.       89.      159.       71.       31.    761.60
     .73     1.66      4.63     1.54      .075      .050      .075      .050    760.00    114.71
 .006275     165.      165.     165.         3         0         0      0.00    383.90    498.61

SECNO 3485.000
 3485.00     3.48    764.28      0.00      0.00    764.35       .07       .68       .01    763.00
    930.      65.      335.     530.       73.      108.      419.       73.       32.    762.00
     .76      .89      3.10     1.26      .075      .050      .075      .050    760.80    169.83
 .002901     165.      165.     165.         3         0         0      0.00    471.62    641.45

SECNO 3650.000

.265 DIVIDED FLOW

280 CROSS SECTION   3650.00 EXTENDED      2.79 FEET

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

 3650.00     3.29    764.79      0.00      0.00    764.85       .06       .50       [illegible]    [illegible]
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     930.      0.     165.     785.      0.      56.     441.      75.      35.     765.00
     .78     0.00     2.58     1.78    .075     .050     .075     .050   761.50    288.03
  .003140    165.     165.     165.       2        0        0     0.00   292.55    600.00

 SECNO 3885.000

 .301 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

 .685 20 TRIALS ATTEMPTED WSEL,CWSEL
 .693 PROBABLE MINIMUM SPECIFIC ENERGY
 .720 CRITICAL DEPTH ASSUMED
  3885.00     4.49   767.09   767.09     0.00   768.39     1.31     1.66      .37   769.00
     930.       0.     930.       0.       0.     101.       0.      76.      35.   768.40
     .79     0.00     9.17     0.00     .075     .050     .075     .050   762.60   281.58
  .027929    235.     235.     235.       20       11        0     0.00    39.21   320.79

 SECNO 4060.000

 .301 HV CHANGED MORE THAN HVINS

  4060.00     5.80   770.40     0.00     0.00   770.94      .54     2.48      .08   771.40
     930.       0.     930.       0.       0.     157.       0.      77.      35.   770.70
     .80     0.00     5.91     0.00     .075     .050     .075     .050   764.60   275.67
  .008521    175.     175.     175.        3        0        0     0.00    48.26   323.93

 ;SECNO 4225.000
    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

 '185 MINIMUM SPECIFIC ENERGY
 ;720 CRITICAL DEPTH ASSUMED
  4225.00     3.98   772.68   772.68     0.00   773.62      .94     2.15      .12   772.00
     930.      22.     908.       0.      15.     115.       0.      77.      35.   774.00
     .80     1.44     7.87     0.00     .075     .050     .075     .050   768.70   229.26
  .022307    165.     165.     165.        3       14        0     0.00    94.00   323.26

 ;SECNO 4340.000
  4340.00     4.90   774.90     0.00     0.00   775.49      .59     1.84      .03   774.20
     930.     118.     812.       0.      68.     123.       0.      78.      35.   775.70
     .81     1.74     6.59     0.00     .075     .050     .075     .050   770.00   135.76
  .012068    115.     115.     115.        2        0        0     0.00   144.15   279.91

 ;SECNO 4420.000

 ;265 DIVIDED FLOW

 ;301 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       T         ELMIN      SSTA
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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4420.00	5.10	775.70	775.69	0.00	777.05	1.35	1.33	.23	776.50
930.	0.	928.	2.	0.	100.	3.	78.	36.	777.50
.81	0.00	9.32	.67	.075	.050	.075	.050	770.60	249.03
.024306	80.	80.	80.	6	11	0	0.00	61.17	439.18

SECNO 4510.000
3280 CROSS SECTION 4510.00 EXTENDED 2.81 FEET

3301 HV CHANGED MORE THAN HVINS

4510.00	6.01	777.31	0.00	0.00	777.34	.02	.15	.13	776.20
930.	604.	326.	0.	668.	198.	0.	79.	36.	781.20
.83	.91	1.64	0.00	.075	.050	.075	.050	771.30	0.00
.000570	90.	90.	90.	2	0	0	0.00	314.86	314.86

SECNO 4600.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4600.00 EXTENDED .32 FEET

4600.00	6.01	777.31	0.00	0.00	777.48	.17	.10	.04	777.50
930.	211.	719.	0.	201.	195.	0.	80.	37.	781.50
.84	1.05	3.69	0.00	.075	.050	.075	.050	771.30	0.00
.003253	90.	90.	90.	3	0	0	0.00	299.22	315.97

SECNO 4735.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4735.00 EXTENDED 1.89 FEET

4735.00	4.49	777.89	0.00	0.00	778.18	.28	.66	.03	778.50
930.	257.	673.	0.	150.	137.	0.	81.	37.	778.80
.85	1.72	4.90	0.00	.075	.050	.075	.050	773.40	0.00
.008203	135.	135.	135.	3	0	0	0.00	213.32	296.31

SECNO 4890.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4890.00 EXTENDED 3.15 FEET

4890.00	3.55	779.15	0.00	0.00	779.26	.11	1.07	.02	779.20
930.	655.	275.	0.	307.	76.	0.	83.	38.	780.40
.87	2.14	3.63	0.00	.075	.050	.075	.050	775.60	0.00
.005880	155.	155.	155.	2	0	0	0.00	274.07	279.88

SECNO 5050.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIT S	SELK	EG	HV	HL	OLOSS	BANK ELEV

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Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

.185 MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
5050.00     3.84    780.34   780.34     0.00   781.10      .76     1.54      .20   779.00
   930.      128.     800.      2.      54.     107.       2.      84.      39.   780.00
    .87     2.38     7.50      .83     .075     .050     .075     .050   776.50   186.58
 .018655     160.     160.     160.        2        8        0     0.00   123.62   310.20

SECNO 5230.000
5230.00     5.25    782.55     0.00     0.00   782.92      .36     1.78      .04   782.10
   930.       3.     927.       0.      5.     191.       0.      84.      39.   782.90
    .88      .58     4.85     0.00     .075     .050     .075     .050   777.30   244.50
 .006096     180.     180.     180.        3        0        0     0.00    85.78   330.28

SECNO 5417.000

.301 HV CHANGED MORE THAN HVINS

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

.685 20 TRIALS ATTEMPTED WSEL,CWSEL
.693 PROBABLE MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED
5417.00     4.80    784.80   784.80     0.00   786.03     1.23     2.14      .26   787.90
   930.       0.     930.       0.       0.     105.       0.      85.      40.   788.90
    .89     0.00     8.90     0.00     .075     .050     .075     .050   780.00    19.49
 .029045     187.     187.     187.       20       11        0     0.00    43.69    63.18

SECNO 5467.000

.301 HV CHANGED MORE THAN HVINS

5467.00     6.63    786.13     0.00     0.00   786.73      .60      .64      .06   788.70
   930.       0.     930.       0.       0.     150.       0.      85.      40.   788.80
    .89     0.00     6.22     0.00     .075     .050     .075     .050   779.50   200.02
 .007140      50.      50.      50.        2        0        0     0.00    35.10   235.12

PECIAL BRIDGE

.227 DOWNSTREAM ELEV IS    782.82 ,NOT    786.13 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

B  XK      XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     .95     1.15     2.80    80.00    15.00     3.80    64.50     0.00   779.50   779.50

SECNO 5533.000
RESSURE AND WEIR FLOW

EGPRS    EGLWC    H3       QWEIR    QPR      BAREA    TRAPEZOID AREA    ELLC     ELTRD
789.84   788.72     0.00      85.     849.      65.       48.     783.80   788.70
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5533.00      9.54    789.04      0.00      0.00    789.23       .19      2.49      0.00    788.70
  930.        1.      929.        1.        4.      267.        3.        85.       40.    788.80
   .90        .23      3.47      .18      .075      .050      .075      .050    779.50    173.27
.001445      66.       66.       66.         2         0         2      0.00     90.53    263.80

SECNO 5583.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      QLOSS   BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

5583.00      9.61    789.11      0.00      0.00    789.30       .18       .07       .00    798.70
  930.        1.      928.        1.        6.      271.        4.        86.       40.    788.80
   .90        .26      3.43      .21      .075      .050      .075      .050    779.50    168.35
.001382      50.       50.       50.         2         0         0      0.00     97.85    266.21

SECNO 5826.000
280 CROSS SECTION  5826.00 EXTENDED    1.02 FEET

5826.00      8.31    789.61      0.00      0.00    789.70       .08       .39       .01    783.00
  930.       588.      218.      124.      354.      57.      122.       88.       41.    785.80
   .93      1.66       3.80      1.02      .075      .050      .075      .050    781.30      0.00
.001888     243.      243.      243.         2         0         0      0.00    350.00    350.00

SECNO 6037.000
6037.00      7.27    790.07      0.00      0.00    790.30       .23       .56       .04    788.40
  930.       199.      731.        0.      128.      172.        0.        90.       42.    790.60
   .95      1.55       4.25      0.00      .075      .050      .075      .050    782.80     48.88
.003993     211.      211.      211.         2         0         0      0.00    148.81    197.69

SECNO 6087.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      QLOSS   BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED
6087.00      7.69    791.59    791.59      0.00    792.13       .54       .37       .09    789.70
  930.       491.      395.       44.      162.       47.       19.       90.       43.    790.00
   .95      3.03       8.37      2.28      .075      .050      .075      .050    783.90     27.64
.018058      50.       50.       50.        20         9         0      0.00    196.48    224.12

PECIAL BRIDGE

B  XK        XKOP      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    .95       1.15      2.80    195.00      4.00       .85     16.00      0.00    786.70    783.90

SECNO 6103.000
870 D.S. ENERGY OF  792.13 HIGHER THAN COMPUTED ENERGY OF  791.76
RESSURE AND WEIR FLOW

EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     FLLC      ELTRD
                                                                AREA
851.02    792.40     26       881        40        16          0       787.90    789.80
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 6103.00     7.80   791.70     0.00     0.00   792.13      .44     0.00     0.00   789.70
    930.      513.     370.      47.     180.      48.      22.      90.      43.   790.00
     .95     2.85     7.67     2.15     .075     .050     .075     .050   783.90    22.79
 .014723      16.      16.      16.        2        0       10     0.00   202.95   225.74

*SECNO 6153.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK      EG       HV       HL    QLOSS   BANK ELEV
       Q     QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA   LEFT/RIGHT
    TIME     VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN       SSTA
   SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IDC    ICONT    CORAR   TOPWID      ENDST

 6153.00     8.30   792.20     0.00     0.00   792.25      .05      .07      .04   788.40
    930.      359.     563.       8.     356.     275.      19.      91.      43.   790.60
     .96     1.01     2.05      .39     .075     .050     .075     .050   783.90    35.07
 .000523      50.      50.      50.        2        0        0     0.00   189.18   224.24

*SECNO 6408.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 6408.00     5.69   794.39   794.39     0.00   796.04     1.65      .41      .48   796.20
    930.        0.     930.       0.        0.     90.       0.      93.      43.   796.80
     .97     0.00    10.31     0.00     .075     .050     .075     .050   788.70    67.34
 .028793     255.     255.     255.       20       19        0     0.00    27.98    95.32

*SECNO 6458.000
 6458.00     6.94   795.94     0.00     0.00   797.30     1.36     1.23      .03   796.70
    930.        0.     930.       0.        0.     99.       0.      93.      44.   796.70
     .97     0.00     9.35     0.00     .075     .050     .075     .050   789.00    17.49
 .021264      50.      50.      50.        2        0        0     0.00    28.00    45.48


SPECIAL BRIDGE

SB  XK       XKOR     COEQ     RDLEN    BWC      BWP      BAREA    SS       FLCHU    ELCHD
     1.25     1.25     3.33     40.00    1.00      .20      .08     0.00   788.60   788.60

*SECNO 6460.000
6870 D.S. ENERGY OF  797.30 HIGHER THAN COMPUTED ENERGY OF  796.50
PRESSURE AND WEIR FLOW

 EGPRS     EGLWC      H3      QWEIR      QPR     BAREA  TRAPEZOID    ELLC     ELTRD
                                                          AREA
623967.08  799.20    1.90     930.       0.       0.       1.     790.00   791.70

 6460.00     6.95   795.95     0.00     0.00   797.30     1.34     0.00     0.00   796.70
    930.        0.     930.       0.        0.    100.       0.      93.      44.   796.70
     .97     0.00     9.30     0.00     .075     .050     .075     .050   789.00    17.45
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.020960      2.      2.      2.      3       0       9    0.00   28.07   45.52

*SECNO 6477.000
3280 CROSS SECTION   6477.00 EXTENDED      .21 FEET

3301 HV CHANGED MORE THAN HVINS

  6477.00    8.51   797.21    0.00    0.00  797.51     .31     .11     .10  796.20
     930.     81.     847.      2.     64.    183.      4.     93.     44.  796.80
      .97    1.26    4.63     .51    .075    .050    .075    .050  788.70    0.00
 .003186     17.     17.     17.       3       0       0    0.00  112.00  112.00

*SECNO 6494.000
   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

  6494.00    7.00   797.30    0.00    0.00  797.57     .27     .05     .00  797.00
     930.    146.     763.     20.    119.    167.     21.     93.     44.  796.20
      .97    1.22    4.58     .95    .075    .050    .075    .050  790.30   59.03
 .003149     17.     17.     17.       2       0       0    0.00  181.28  240.31

*SECNO 6511.000
  6511.00    7.07   797.37    0.00    0.00  797.62     .26     .05     .00  797.00
     930.    154.     754.     22.    127.    169.     23.     93.     44.  796.20
      .97    1.22    4.47     .95    .075    .050    .075    .050  790.30   56.33
 .002956     17.     17.     17.       1       0       0    0.00  185.09  241.41

SPECIAL BRIDGE

SB   XK     XKOP    COFQ   RDLEN    BWC    BWP   BARFA     SS   ELCHU   ELCHD
      .95    1.15    2.80   50.00   5.00   1.00   25.00   0.00  790.30  790.30

*SECNO 6561.000
3280 CROSS SECTION   6561.00 EXTENDED     1.56 FEET

PRESSURE AND WEIR FLOW

  EGPRS    EGLWC      H3    QWEIR     QPR   BAREA  TRAPEZOID    ELLC    ELTRD
                                                       AREA
 822.08   797.70     .08     684.     247.     25.      20.  795.30  796.20

  6561.00    8.76   799.06    0.00    0.00  799.12     .05    1.49    0.00  797.00
     930.    332.     531.     67.    380.    225.     79.     94.     44.  796.20
      .98     .87    2.36     .85    .075    .050    .075    .050  790.30    4.02
 .000562     50.     50.     50.       2       0       5    0.00  239.98  244.00

*SECNO 6612.000
3280 CROSS SECTION   6612.00 EXTENDED     3.43 FEET

  6612.00    8.13   799.13    0.00    0.00  799.14     .02     .02     .00  797.10
     930.    612.     312.    106.    705.    131.     1.0      95      4.  79[illegible]
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      1.00       .87      1.52       .65       .075      .050      .075      .050    791.00      0.00
   .000332       51.       51.       51.          2         0         0      0.00    302.55    302.55

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    798.23 ,NOT    799.13 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
      .95      1.15      2.80     100.00     5.00      1.00      25.00     0.00     791.00    791.00

*SECNO 6655.000
3280 CROSS SECTION   6655.00 EXTENDED      3.75 FEET

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                                AREA
 823.84    808.32     0.00       823.      107.       25.       20.      796.00    796.80

 6655.00     8.44   799.44      0.00      0.00    799.45       .01       .31      0.00    797.10
    930.     612.     202.      116.      766.     138.      191.       96.       45.    796.40
    1.01      .80     1.46       .61      .075      .050      .075      .050    791.00      0.00
 .000254      43.      43.       43.         1         0         7      0.00    306.44    306.44

*SECNO 6705.000
3280 CROSS SECTION   6705.00 EXTENDED      3.75 FEET

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

 6705.00     8.45   799.45      0.00      0.00    799.47       .01       .01       .00    797.10
    930.     612.     202.      116.      767.     138.      192.       97.       45.    796.40
    1.02      .80     1.46       .61      .075      .050      .075      .050    791.00      0.00
 .000252      50.      50.       50.         0         0         0      0.00    306.53    306.53

*SECNO 6843.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 6843.00     7.45   799.85    799.85      0.00    800.88     1.03       .11       .31    800.20
    930.      55.     875.        0.       36.     104.        0.       99.       46.    800.20
    1.03     1.53     8.40      0.00      .075      .050      .075      .050    792.40     41.12
 .014753      138      138       138        20        16         0      0.00    100.84    140.49
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THIS RUN EXECUTED 08 MAY 78 12.01.10

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*************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
 ERROR CORR -  01,02
 MODIFICATION -  50,51,52,53
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*1        FARMINGTON MI FLOOD INSURANCE STUDY TARABUSI CREEK
*2        INTERMEDIATE REGIONAL FLOODWAY DETERMINATION BY METHOD 4
T3         ENCROACHMENT PROFILE

I1  ICHECK    INQ       NINV      IDIR      STRT     METRIC    HVINS     Q        WSEL      FQ
       0.       3.        0.        0.  0.000000     0.00     -1.0      0.    728.700    0.000

I2  NPROF    IPLOT     PRFVS     XSECV     XSECH      FN     ALLDC     IBW     CHNIM    ITRACE
    15.000    0.000    -1.000     0.000     0.000    0.000    0.000    0.000    0.000    0.000
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PROF 2

CHV=    .100 CEHV=    .300
SECNO 24.000
2800 NAT Q1=    617.70  WSEL=    728.60  ENC Q1=    617.70  WSEL=    728.70  RATIO=  -.0000
NAT Q1=   655.  RATIOS LOB,CH,ROB=   .4746   .5168   .0086  WSEL=    728.70
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

470 ENCROACHMENT STATIONS=     537.9     950.0  TYPE=     4  TARGET=        .057
   24.00     7.20    728.70     0.00    728.60    728.72     .02      0.00      0.00    726.90
    930.     424.     506.       0.      791.      400.      0.        0.        0.      727.60
    0.00      .54     1.27      0.00      .075      .050     .075     0.000   721.50    537.92
  .000227     0.       0.        0.        0         0        0       0.00   412.08    950.00

SECNO 30.000
   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

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=     110.0     940.0  TYPE=     1  TARGET=      830.000
   30.00     8.00    729.60   729.60    729.59    730.07     .47       .01       .14    728.40
    930.      73.      628.     229.      54.       95.     170.       0.        0.      728.40
     .00     1.35     6.62     1.35-     .075      .050     .075      .048   721.60    360.01
  .009152     22.      22.      22.       20        9        0       0.00   395.47    755.47

PECIAL BRIDGE

B  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80      0.00      4.00      0.00     13.00      0.00    721.60    721.60

SECNO 35.000
RESSURE AND WEIR FLOW

EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     FLLC      ELTRD
                                                                AREA
820.99    730.07    0.00      799.      131.      13.       16.       725.60    728.40

470 ENCROACHMENT STATIONS=     110.0     940.0  TYPE=     1  TARGET=      830.000
   35.00     9.80    731.40     0.00    731.40    731.41     .01      1.35      0.00    728.40
    930.     175.     223.     533.      287.      135.     843.       1.        1.      728.40
     .01      .61     1.65      .63      .075      .050     .075      .048   721.60    299.04
  .000358     36.      36.      36.        1         0       11       0.00   563.62    862.66

SECNO 40.000
2800 AT Q1=    360.27  WSEL=    731.39  ENC Q1=    360.27  WSEL=    731.89  RATIO=  0.0000
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NAT Q1=    376.  RATIOS LOB,CH,ROB=   .1208   .4442   .4350  WSEL=    731.49

.470 ENCROACHMENT STATIONS=     314.0      485.8  TYPE=     4  TARGET=        .041
   40.00      9.19   731.39     0.00   731.39   731.45      .07      .02      .02   727.20
    930.       97.     438.     395.      86.      158.     363.       2.       1.   727.50
     .02      1.13     2.77     1.09     .075     .050     .075     .049   722.20   313.95
 .000720       50.      50.      50.        2        0        0     0.00   171.82   485.78


.SECNO 100.000
 2800 NAT Q1=    477.88  WSEL=    731.82  ENC Q1=    477.88  WSEL=    731.92  RATIO=  0.0000
 NAT Q1=    502.  RATIOS LOB,CH,ROB=   .7010   .1939   .1051  WSEL=    731.92
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


.470 ENCROACHMENT STATIONS=     111.2      377.8  TYPE=     4  TARGET=        .048
  100.00      7.55   731.85     0.00   731.82   731.87      .02      .41      .00   727.20
    930.       659.     192.      79.     726.     101.     104.      16.       5.   728.20
     .22       .91     1.89      .76     .075     .050     .075     .050   724.30   111.25
 .000403       783.     783.     783.        2        0        0     0.00   266.56   377.81


.SECNO 200.000
 2800 NAT Q1=    117.42  WSEL=    732.45  ENC Q1=    117.42  WSEL=    732.55  RATIO=   .0000
 NAT Q1=    128.  RATIOS LOB,CH,ROB=   .4162   .4069   .1770  WSEL=    732.55

.470 ENCROACHMENT STATIONS=      81.4      249.5  TYPE=     4  TARGET=        .082
  200.00      5.20   732.50     0.00   732.45   732.78      .28      .83      .08   730.30
    930.       375.     418.     136.     172.      71.      63.      27.       9.   731.00
     .28      2.18     5.86     2.16     .075     .050     .075     .050   727.30    81.36
 .006673       800.     800.     800.        3        0        0     0.00   168.11   249.48


.SECNO 300.000
 2800 NAT Q1=    149.64  WSEL=    735.50  ENC Q1=    149.64  WSEL=    735.60  RATIO=  0.0000
 NAT Q1=    161.  RATIOS LOB,CH,ROB=   .3680   .2303   .4017  WSEL=    735.60

.470 ENCROACHMENT STATIONS=     123.8      294.3  TYPE=     4  TARGET=        .070
  300.00      6.11   735.61     0.00   735.50   735.74      .12     2.94      .02   733.20
    930.       333.     229.     368.     161.      52.     187.      32.      11.   733.10
     .34      2.08     4.39     1.96     .075     .050     .075     .050   729.50   123.82
 .003749       600.     600.     600.        2        0        0     0.00   170.48   294.30


.SECNO 310.000
 2800 NAT Q1=     79.06  WSEL=    741.12  ENC Q1=     79.06  WSEL=    741.22  RATIO=  0.0000
 NAT Q1=     85.  RATIOS LOB,CH,ROB=   .1222   .5839   .2939  WSEL=    741.22

.301 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


.185 MINIMUM SPECIFIC ENERGY
.720 CRITICAL DEPTH ASSUMED

.470 ENCROACHMENT STATIONS=     375.7      457.9  TYPE=     4  TARGET=        .068
  310.00      4.72   741.12   741.12   741.12   741.96      .84     5.51      .21   739.20
    930.       86.     595.     249.      27.      47.      77.      38.      10.   739.20
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      .37      3.24      8.85      3.25      .075      .050      .075      .050    736.40    375.67
  .015560      817.      817.      817.         3        14         0      0.00     42.18    357.66

SECNO 320.000
2800 NAT Q1=      75.23  WSEL=     741.50  ENC Q1=      77.21  WSEL=     741.60  RATIO=  -.0264
NAT Q1=      77.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     741.60

.470 ENCROACHMENT STATIONS=     220.0     245.0  TYPE=     4  TARGET=       0.000
  320.00      5.86    741.66      0.00    741.50    742.79      1.12       .74       .09    750.00
    930.        0.      930.        0.        0.      109.        0.       38.       14.    750.00
     .38      0.00      8.50      0.00      .075      .050      .075      .050    735.80    222.35
 .014063       50.       50.       50.         2         0         0      0.00     20.30    242.65

SPECIAL BRIDGE

IB  XK        XKOR      COFQ      RDLEN     BWC       BWP       AREA      SS        ELCHU     ELCHD
     .95      1.20      2.50    375.00     16.00      0.00     69.00      0.00    735.80    735.80

SECNO 330.000
2800 NAT Q1=     141.38  WSEL=     744.41  ENC Q1=     143.84  WSEL=     744.51  RATIO=  -.0174
NAT Q1=     144.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     744.51
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
   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

.470 ENCROACHMENT STATIONS=     220.0     245.0  TYPE=     4  TARGET=       0.000
  330.00      8.77    744.57      0.00    744.41    745.03       .46      2.56       .07    750.00
    930.        0.      930.        0.        0.      171.        0.       39.       14.    750.00
     .39      0.00      5.45      0.00      .075      .050      .075      .050    735.80    221.53
 .004096      370.      370.      370.         0         0         0      0.00     21.94    243.47

SECNO 340.000
2800 NAT Q1=     486.32  WSEL=     744.95  ENC Q1=     486.32  WSEL=     745.05  RATIO=  0.0000
NAT Q1=     503.  RATIOS LOB,CH,ROB=   .2017   .2850   .5134  WSEL=     745.05

.470 ENCROACHMENT STATIONS=     359.3     501.7  TYPE=     4  TARGET=        .032
  340.00      8.68    745.08      0.00    744.95    745.11       .03       .04       .04    739.20
    930.      177.      273.      479.      165.      131.      449.       39.       14.    739.20
     .40      1.07      2.10      1.07      .075      .050      .075      .050    736.40    359.30
 .000360       50.       50.       50.         2         0         0      0.00    142.37    501.66

SECNO 60.000
2800 NAT Q1=     630.48  WSEL=     744.97  ENC Q1=     630.48  WSEL=     745.07  RATIO=  0.0000
NAT Q1=     659.  RATIOS LOB,CH,ROB=   .8236   .1033   .0731  WSEL=     745.07

.470 ENCROACHMENT STATIONS=     270.5     571.4  TYPE=     4  TARGET=        .043
   60.00      8.71    745.11      0.00    744.97    745.12       .01       .00       .00    739.60
    930.      781.      100.       49.     1070.       72.       71.       40.       14.    739.60
     .41       .73      1.39       .69      .075      .050      .075      .050    736.40    270.52
 .000212       10.       10.       10.         2         0         0      0.00    300.85    571.38

SECNO 100.000
2800 NAT Q1=     499.33  WSEL=     744.98  ENC Q1=     499.33  WSEL=     745.08  RATIO=  0.0000
NAT Q1=     520.  RATIOS LOB,CH,ROB=   .7323   .1405   .1272  WSEL=     745.08

.470 ENCROACHMENT STATIONS=     330.2     575.1  TYPE=     4  TARGET=        .041
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100.00     7.41    745.11     0.00   744.98   745.13      .02      .01      .00   739.90
  930.     691.     135.     104.     767.      75.     118.      41.      14.   739.90
   .42      .90     1.80      .88     .075     .050     .075     .050   737.70   334.23
.000336     40.      40.      40.        0        0        0     0.00   240.89   575.13


SECNO 245.000
2800 NAT Q1=     141.55  WSEL=    744.99  ENC Q1=     141.55  WSEL=    745.09  RATIO=  0.0000
NAT Q1=    150.  RATIOS LOB,CH,ROB=   .4544   .3116   .2340  WSEL=    745.09

.470 ENCROACHMENT STATIONS=     239.8     339.1  TYPE=     4  TARGET=        .056
 245.00     6.50    745.10     0.00   744.99   745.31      .21      .12      .06   741.70
  930.     423.     307.     200.     173.      59.      74.      43.      15.   741.70
   .43     2.44     5.21     2.71     .075     .050     .075     .050   738.60   239.81
.004264    145.     145.     145.        2        0        0     0.00    99.33   339.13


SECNO 375.000
2800 NAT Q1=      98.13  WSEL=    745.52  ENC Q1=      98.13  WSEL=    745.62  RATIO=  0.0000
NAT Q1=    104.  RATIOS LOB,CH,ROB=   .3702   .5743   .0555  WSEL=    745.62
  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


.470 ENCROACHMENT STATIONS=     260.6     334.8  TYPE=     4  TARGET=        .060
 375.00     6.01    745.61     0.00   745.52   746.20      .59      .78      .12   743.00
  930.     338.     570.      22.     114.      76.       0.      43.      15.   743.00
   .44     2.97     7.52     2.48     .075     .050     .075     .050   739.60   260.63
.009071    130.     130.     130.        2        0        0     0.00    74.16   334.79


SECNO 450.000

.470 ENCROACHMENT STATIONS=     177.0     307.0  TYPE=     1  TARGET=     130.000
 450.00     4.39    746.59     0.00   746.34   746.99      .39      .76      .02   744.00
  930.     535.     395.       0.     185.      57.       0.      44.      15. 100000.00
   .44     2.89     6.94     0.00     .075     .050     .075     .050   742.20   177.00
.011527     75.      75.      75.        2        0        0     0.00   130.00   307.00


SECNO 480.000
2800 NAT Q1=     161.01  WSEL=    746.92  ENC Q1=     161.01  WSEL=    747.02  RATIO=  0.0000
NAT Q1=    171.  RATIOS LOB,CH,ROB=   .2519   .7481  0.0000  WSEL=    747.02

.470 ENCROACHMENT STATIONS=     237.1     345.0  TYPE=     4  TARGET=        .056
 480.00     3.77    746.97     0.00   746.92   747.18      .21      .18      .02   744.50
  930.     190.     740.       0.     105.     183.       0.      44.      15.   751.00
   .44     1.82     4.04     0.00     .075     .050     .075     .050   743.20   237.08
.003517     30.      30.      30.        2        0        0     0.00   103.79   340.87


SECNO 685.000
2800 NAT Q1=      67.36  WSEL=    748.99  ENC Q1=      67.36  WSEL=    749.09  RATIO=  0.0000
NAT Q1=     73.  RATIOS LOB,CH,ROB=   .2374   .4279   .3347  WSEL=    749.09

301 HV CHANGED MORE THAN HVINS

  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOP      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=      267.0     348.2  TYPE=      4  TARGET=        .076
  685.00      5.11    749.01    749.01    748.99    749.87      .86      1.45      .20    746.70
    930.      198.      440.      292.      49.       44.       73.       45.       16.    746.70
     .45      4.05      9.98      4.01     .075      .050      .075      .050    743.90    266.96
 .021099      205.      205.      205.       20        11         0      0.00     81.28    348.24


SECNO 800.000

301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      133.0     400.0  TYPE=      1  TARGET=      267.000
  800.00      4.60    750.30      0.00    750.16    750.35      .04       .39      .08    746.70
    930.      654.      122.      153.      444.       44.      144.       46.       16.    746.70
     .47      1.48      2.81      1.07     .075      .050      .075      .050    745.70    133.00
 .001323      115.      115.      115.        3         0         0      0.00    251.67    384.67


SECNO 960.000
2800 NAT Q1=      63.44  WSEL=    750.48  ENC Q1=      63.44  WSEL=    750.58  RATIO=  0.0000
NAT Q1=      69.  RATIOS LOB,CH,ROB=   .3515   .4182   .2303  WSEL=    750.58

301 HV CHANGED MORE THAN HVINS

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


685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=      168.0     301.2  TYPE=      4  TARGET=        .084
  960.00      4.70    750.50    750.50    750.48    751.19      .69       .55      .19    749.00
    930.      296.      424.      210.      77.       47.       61.       48.       17.    749.00
     .48      3.83      9.01      3.45     .075      .050      .075      .050    745.80    167.97
 .022556      160.      160.      160.       20         8         0      0.00    133.23    301.20


SECNO 1160.000
2800 NAT Q1=     214.26  WSEL=    751.97  ENC Q1=     214.26  WSEL=    752.07  RATIO=  0.0000
NAT Q1=     225.  RATIOS LOB,CH,ROB=   .1961   .2042   .5997  WSEL=    752.07

301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      168.6     293.4  TYPE=      4  TARGET=        .048
 1160.00      5.66    752.06      0.00    751.97    752.16      .09       .90      .06    747.70
    930.      172.      199.      560.      89.       53.      290.       49.       18.    747.70
     .50      1.94      3.77      1.93     .075      .050      .075      .050    746.40    168.63
 .001875      200.      200.      200.        3         0         0      0.00    124.78    293.41


SECNO 1235.000
2800 NAT Q1=     258.87  WSEL=    752.10  ENC Q1=     258.87  WSEL=    752.20  RATIO=  -.0000
NAT Q1=     269.  RATIOS LOB,CH,ROB=   .7056   .2232   .0712  WSEL=    752.20

470 ENCROACHMENT STATIONS=       86.7     188.2  TYPE=      4  TARGET=        .038
 1235.00      5.60    752.20      0.00    752.10    752.28      .08       .12      .00    747.80
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930.      664.      217.      49.      351.      68.      34.      50.      18.      747.10
 .51      1.89      3.21      1.46     .075      .050     .075     .050     746.60    86.68
.001312    75.       75.       75.       1         0        0      0.00     101.55   188.22

SECNO 1525.000
2800 NAT Q1=     99.81  WSEL=    752.54  ENC Q1=    101.45  WSEL=    752.64  RATIO=  -.0165
NAT Q1=    104.  RATIOS LOB,CH,ROB=   .0269   .9731  0.0000  WSEL=    752.64

470 ENCROACHMENT STATIONS=     118.0     166.0  TYPE=     4  TARGET=        .027
 1525.00     5.55   752.65     0.00   752.54   753.21     .56      .79      .14   751.20
    930.       0.     930.       0.       0.     155.       0.      52.      18.   753.10
     .53      0.00     5.99     0.00     .075     .050     .075     .050   747.10  118.00
 .008691     290.     290.     290.       3        0        0      0.00    46.12   164.12

SECNO 1650.000
2800 NAT Q1=    185.80  WSEL=    753.52  ENC Q1=    185.80  WSEL=    753.62  RATIO=  0.0000
NAT Q1=    196.  RATIOS LOB,CH,ROB=   .3642   .6358  0.0000  WSEL=    753.62

470 ENCROACHMENT STATIONS=     149.9     280.0  TYPE=     4  TARGET=        .053
 1650.00     6.23   753.63     0.00   753.52   753.78     .15      .53      .04   751.00
    930.     306.     624.       0.     185.     173.       0.      53.      18.   754.00
     .54     1.65     3.61     0.00     .075     .050     .075     .050   747.40  149.92
 .002495     125.     125.     125.       2        0        0      0.00   128.55   278.47

SECNO 1800.000
2800 NAT Q1=    280.43  WSEL=    753.85  ENC Q1=    280.43  WSEL=    753.95  RATIO=  0.0000
NAT Q1=    291.  RATIOS LOB,CH,ROB=   .5038   .4962  0.0000  WSEL=    753.95

265 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

470 ENCROACHMENT STATIONS=     151.1     280.0  TYPE=     4  TARGET=        .037
 1800.00     7.96   753.96     0.00   753.85   754.02     .06      .24      .01   753.00
    930.     450.     480.       0.     268.     208.       0.      54.      19.   754.10
     .56     1.68     2.31     0.00     .075     .050     .075     .050   746.00  151.06
 .001095     150.     150.     150.       2        0        0      0.00   127.57   279.42

SECNO 1950.000
2800 NAT Q1=     95.10  WSEL=    753.82  ENC Q1=     98.74  WSEL=    753.92  RATIO=  -.0382
NAT Q1=     99.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    753.92

301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      75.0     140.0  TYPE=     4  TARGET=        0.000
 1950.00     6.05   753.95     0.00   753.82   754.54     .59      .36      .16   757.00
    930.       0.     930.       0.       0.     151.       0.      55.      19.   758.00
     .57      0.00     6.16     0.00     .075     .050     .075     .050   747.90   83.86
 .008644     150.     150.     150.       3        0        0      0.00    43.48   127.35

SECNO 1989.000
2800 NAT Q1=    137.11  WSEL=    754.42  ENC Q1=    141.69  WSEL=    754.52  RATIO=  -.0334
NAT Q1=    142.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    754.52

470 ENCROACHMENT STATIONS=     215.0     301.0  TYPE=     4  TARGET=        0.000
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1989.00      6.50    754.50      0.00    754.42    754.83       .30       .23       .03    760.00
   930.        0.      930.        0.        0.      211.        0.       55.       19.    759.00
    .57       0.00     4.41      0.00      .075      .050      .075      .050    748.00    244.52
 .004369      39.      39.       39.         2         0         0      0.00     52.25    296.77


PECIAL BRIDGE

-227 DOWNSTREAM ELEV IS     750.93 ,NOT     754.50 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

 B  XK        XKOR       COFQ       RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
   .90        1.25       2.80       0.00     17.00      5.20      85.00      0.00     748.00    748.00

 SECNO 2051.000
 PRESS FLOW BECAUSE EGLWC OF     756.84  EXCEEDS 1.5 DEPTH
 2800 NAT Q1=     266.34  WSEL=     756.63  ENC Q1=     273.49  WSEL=     756.73  RATIO=  -.0268
 NAT Q1=     273.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     756.73
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

 -470 ENCROACHMENT STATIONS=     215.0      301.0  TYPE=     4  TARGET=       0.000
  2051.00      8.70    756.70      0.00    756.63    756.82       .12       .13       .02    760.00
     930.        0.      930.        0.        0.      341.        0.       56.       19.    759.00
      .57       0.00     2.72      0.00      .075      .050      .075      .050    748.00    232.69
 .001170       62.      62.       62.         0         0         0      0.00     66.15    298.84

 SECNO 2101.000
 2800 NAT Q1=     159.14  WSEL=     756.60  ENC Q1=     164.35  WSEL=     756.70  RATIO=  -.0328
 NAT Q1=     164.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     756.70

 -470 ENCROACHMENT STATIONS=     237.0      313.0  TYPE=     4  TARGET=       0.000
  2101.00      7.18    756.68      0.00    756.60    756.96       .28       .09       .05    761.00
     930.        0.      930.        0.        0.      218.        0.       56.       19.    760.20
      .58       0.00     4.26      0.00      .075      .050      .075      .050    749.50    249.18
 .003246       50.      50.       50.         2         0         0      0.00     52.43    301.61

 SECNO 2300.000
 2800 NAT Q1=     194.11  WSEL=     757.23  ENC Q1=     200.02  WSEL=     757.33  RATIO=  -.0304
 NAT Q1=     200.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     757.33
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 -470 ENCROACHMENT STATIONS=     237.0      313.0  TYPE=     4  TARGET=       0.000
  2300.00      7.79    757.29      0.00    757.23    757.50       .21       .53       .01    761.00
     930.        0.      930.        0.        0.      251.        0.       57.       20.    760.20
      .59       0.00     3.70      0.00      .075      .050      .075      .050    749.50    247.47
 .002227      199.     199.      199.         2         0         0      0.00     56.10    303.57

 SECNO 2590.000
 2800 NAT Q1=     137.19  WSEL=     758.05  ENC Q1=     141.88  WSEL=     758.15  RATIO=  -.0342
 NAT Q1=     142.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     758.15

 470 ENCROACHMENT STATIONS=     260.0      320.0  TYPE=     0  TARGET=       0.000
  2590.00      6.78    758.08      0.00    758.05    758.43       .35       .89       .04    758.80
     930.        0.      930.        0.        0.      196.        0.       59.       20.    760.00
      .61       0.00     4.75      0.00      .075      .050      .075      .050    751.30    262.57
 .004519      290.     290.      290.         2         0         0      0.00     51.58    314.15
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SECNO 2625.000
2800 NAT Q1=      84.05  WSEL=    760.07  ENC Q1=      84.05  WSEL=    760.17  RATIO=  0.0000
NAT Q1=      90.  RATIOS LOB,CH,ROB=    .2421    .7158    .0422  WSEL=    760.17

301 HV CHANGED MORE THAN HVINS

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

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=      244.0      312.6  TYPE=      4  TARGET=        .066
 2625.00      5.56    759.96    759.96    760.07    760.96      1.00       .27       .20    758.20
    930.      186.      737.        7.       62.       83.        3.       59.       20.    758.70
     .61      2.98      8.90      2.19      .075      .050      .075      .050    754.40    244.00
 .015482       35.       35.       35.        20        14         0      0.00     68.64    312.64

SECNO 2800.000

301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      110.0      336.0  TYPE=      1  TARGET=      226.000
 2800.00      6.52    761.62      0.00    761.49    761.73       .11       .68       .09    759.50
    930.      359.      535.       35.      282.      159.       37.       60.       21.    759.70
     .63      1.27      3.37       .96      .075      .050      .075      .050    755.10    110.00
 .001738      175.      175.      175.         3         0         0      0.00    226.00    336.00

SECNO 2940.000

470 ENCROACHMENT STATIONS=      125.0      385.0  TYPE=      1  TARGET=      260.000
 2940.00      5.11    761.81      0.00    761.70    761.85       .04       .10       .01    759.20
    930.       74.      841.       15.      143.      505.       33.       62.       21.    760.00
     .66       .52      1.66       .47      .075      .050      .075      .050    756.70    134.37
 .000413      140.      140.      140.         2         0         0      0.00    250.63    385.00

SECNO 3030.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

470 ENCROACHMENT STATIONS=      110.0      405.0  TYPE=      1  TARGET=      295.000
 3030.00      5.15    761.85      0.00    761.75    761.88       .03       .03       .00    759.20
    930.       73.      856.        1.      162.      597.        7.       63.       22.    761.00
     .67       .45      1.43       .20      .075      .050      .075      .050    756.70    116.27
 .000322       90.       90.       90.         2         0         0      0.00    283.72    401.99

SECNO 3105.000

470 ENCROACHMENT STATIONS=      120.0      485.0  TYPE=      1  TARGET=      365.000
 3105.00      5.17    761.87      0.00    761.77    761.91       .04       .03       .00    759.20
    930.       74.      775.       81.      147.      471.      167.       65.       23.    759.60
     .69       .50      1.64       .48      .075      .050      .075      .050    756.70    127.37
 .000366       75.       75.       75.         0         0         0      0.00    352.72    480.10
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SECNO 3[illegible].000

470 ENCROACHMENT STATIONS=      150.0      475.0  TYPE=      1  TARGET=      325.000
 3155.00      4.32    761.62   761.39   761.39   762.09      .46      .05      .13    761.00
    930.       21.      802.     107.      23.      137.      71.      65.      23.    760.00
     .69       .92      5.84     1.50     .075      .050     .075     .050   757.30   193.02
 .010193       50.       50.      50.        6        15        0     0.00   250.18   443.20

SECNO 3320.000

470 ENCROACHMENT STATIONS=       72.0      552.0  TYPE=      1  TARGET=      480.000
 3320.00      3.38    763.38     0.00   763.49   763.60      .21     1.49      .02    761.80
    930.      264.      434.     233.     146.      85.     139.      66.      24.    761.60
     .70      1.80      5.09     1.67     .075      .050     .075     .050   760.00   124.22
 .008013      165.      165.     165.        2         0        0     0.00   362.52   486.73

SECNO 3485.000
2800 NAT Q1=     172.68  WSEL=     764.28  ENC Q1=     172.68  WSEL=     764.38  RATIO=  -.0000
NAT Q1=     191.  RATIOS LOB,CH,ROB=   .0769   .3450   .5781  WSEL=     764.38

470 ENCROACHMENT STATIONS=      254.9      510.0  TYPE=      4  TARGET=        .094
 3485.00      3.52    764.32     0.00   764.28   764.41      .09      .80      .01    763.00
    930.       30.      360.     540.      24.      109.     335.      68.      25.    762.00
     .72      1.23      3.30     1.61     .075      .050     .075     .050   760.80   254.95
 .003237      165.      165.     165.        2         0        0     0.00   255.02   509.96

SECNO 3650.000
2800 NAT Q1=     165.85  WSEL=     764.79  ENC Q1=     165.85  WSEL=     764.89  RATIO=  0.0000
NAT Q1=     179.  RATIOS LOB,CH,ROB=  0.0000   .1540   .8460  WSEL=     764.89

265 DIVIDED FLOW

280 CROSS SECTION   3650.00 EXTENDED      2.88 FEET

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

470 ENCROACHMENT STATIONS=      285.0      588.4  TYPE=      4  TARGET=        .076
 3650.00      3.38    764.88     0.00   764.79   764.94      .06      .53      .00    765.90
    930.        0.      155.     775.       0.       59.     433.      70.      26.    765.00
     .75      0.00      2.64     1.79     .075      .050     .075     .050   761.50   287.78
 .003183      165.      165.     165.        2         0        0     0.00   289.72   588.45

SECNO 3885.000
2800 NAT Q1=      55.65  WSEL=     767.09  ENC Q1=      58.58  WSEL=     767.19  RATIO=  -.0526
NAT Q1=      59.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     767.19

301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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:685 20 TRIALS ATTEMPTED WSEL,CWSEL
:693 PROBABLE MINIMUM SPECIFIC ENERGY
:720 CRITICAL DEPTH ASSUMED

:470 ENCROACHMENT STATIONS=      275.0      326.0  TYPE=      4  TARGET=        0.000
 3885.00      4.48    767.08    767.08    767.09    768.39      1.31      1.67       .38    769.00
    930.        0.      930.        0.        0.      101.        0.       71.       27.    768.40
     .76      0.00      9.19      0.00      .075      .050      .075      .050    762.60    281.60
 .028083      235.      235.      235.        20        11         0      0.00     39.17    320.77

 SECNO 4060.000
 2800 NAT Q1=     100.75  WSEL=     770.40  ENC Q1=     104.89  WSEL=     770.50  RATIO=  -.0411
 NAT Q1=     105.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     770.50

 301 HV CHANGED MORE THAN HVINS

 470 ENCROACHMENT STATIONS=      272.0      325.0  TYPE=      4  TARGET=        0.000
 4060.00      5.81    770.41      0.00    770.40    770.95       .54      2.48       .08    771.40
    930.        0.      930.        0.        0.      157.        0.       72.       27.    770.70
     .76      0.00      5.91      0.00      .075      .050      .075      .050    764.60    275.66
 .008515      175.      175.      175.         1         0         0      0.00     48.27    323.93

 SECNO 4225.000
 2800 NAT Q1=      62.27  WSEL=     772.68  ENC Q1=      64.64  WSEL=     772.78  RATIO=  -.0381
 NAT Q1=      67.  RATIOS LOB,CH,ROB=   .0322   .9678  0.0000  WSEL=     772.78

 301 HV CHANGED MORE THAN HVINS

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

 :185 MINIMUM SPECIFIC ENERGY
 :720 CRITICAL DEPTH ASSUMED

 470 ENCROACHMENT STATIONS=      275.0      330.0  TYPE=      4  TARGET=         .032
 4225.00      3.82    772.52    772.52    772.68    773.68      1.16      2.37       .18    772.00
    930.        0.      930.        0.        0.      108.        0.       72.       27.    774.00
     .77      0.00      8.63      0.00      .075      .050      .075      .050    768.70    275.00
 .029277      165.      165.      165.         2        14         0      0.00     47.45    322.45

 SECNO 4340.000

 :301 HV CHANGED MORE THAN HVINS

 :470 ENCROACHMENT STATIONS=       78.0      283.0  TYPE=      1  TARGET=      205.000
 4340.00      5.05    775.05      0.00    774.90    775.54       .49      1.80       .07    774.20
    930.      144.      786.        0.       84.      130.        0.       73.       28. 100000.00
     .78      1.72      6.05      0.00      .075      .050      .075      .050    770.00    127.73
 .009710      115.      115.      115.         3         0         0      0.00    152.77    280.50

 SECNO 4420.000
 2800 NAT Q1=      59.65  WSEL=     775.70  ENC Q1=      62.20  WSEL=     775.80  RATIO=  -.0428
 NAT Q1=      63.  RATIOS LOB,CH,ROB=  0.0000   .9943   .0057  WSEL=     775.80

 301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     SELK      EG        HV        HL        QLOSS    BANK ELEV
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Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VCL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      XTN      FLMIN     SSTS
SLOPE    XLOBL    XLCH     XLOBR    TTRIAL   IDC      ICONT    CORAR    TOPWID    ENDST


470 ENCROACHMENT STATIONS=     247.0     287.0  TYPE=     4  TARGET=        .006
 4420.00     4.99   775.59   775.57   775.70   777.04     1.46     1.21      .29   776.50
    930.       0.     930.       0.       0.      96.       0.      73.      28.   777.50
     .78     0.00     9.69     0.00     .075     .050     .075     .050   770.60   249.30
 .026897      80.      80.      80.        6        8        0     0.00    32.45   281.75

SECNO 4510.000
2800 NAT Q1=    389.47  WSEL=    777.31  ENC Q1=    389.47  WSEL=    777.41  RATIO=  0.0000
NAT Q1=    411.  RATIOS LOB,CH,ROB=   .6544   .3456  0.0000  WSEL=    777.41
280 CROSS SECTION   4510.00 EXTENDED      2.83 FEET


301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      18.0     329.0  TYPE=     4  TARGET=        .053
 4510.00     6.03   777.33     0.00   777.31   777.36      .03      .17      .14   776.20
    930.     587.     343.       0.     621.     199.       0.      74.      28.   781.20
     .80      .95     1.72     0.00     .075     .050     .075     .050   771.30    17.97
 .000623      90.      90.      90.        3        0        0     0.00   296.96   314.93

SECNO 4600.000
2800 NAT Q1=    163.05  WSEL=    777.31  ENC Q1=    163.05  WSEL=    777.41  RATIO=  -.0000
NAT Q1=    175.  RATIOS LOB,CH,ROB=   .2489   .7511  0.0000  WSEL=    777.41

265 DIVIDED FLOW

280 CROSS SECTION   4600.00 EXTENDED       .32 FEET


470 ENCROACHMENT STATIONS=      76.1     325.0  TYPE=     4  TARGET=        .066
 4600.00     6.02   777.32     0.00   777.31   777.52      .20      .11      .05   777.50
    930.     167.     763.       0.     144.     195.       0.      75.      29.   781.50
     .81     1.16     3.91     0.00     .075     .050     .075     .050   771.30    76.09
 .003638      90.      90.      90.        2        0        0     0.00   223.82   315.99

SECNO 4735.000
2800 NAT Q1=    102.68  WSEL=    777.89  ENC Q1=    102.68  WSEL=    777.99  RATIO=  0.0000
NAT Q1=    111.  RATIOS LOB,CH,ROB=   .2938   .7062  0.0000  WSEL=    777.99

265 DIVIDED FLOW

280 CROSS SECTION   4735.00 EXTENDED      1.96 FEET


470 ENCROACHMENT STATIONS=      19.1     300.0  TYPE=     4  TARGET=        .075
 4735.00     4.56   777.96     0.00   777.89   778.28      .32      .73      .04   778.50
    930.     209.     721.       0.     125.     141.       0.      76.      29.   778.80
     .81     1.67     5.11     0.00     .075     .050     .075     .050   773.40    19.09
 .008763     135.     135.     135.        2        0        0     0.00   200.53   296.58

SECNO 4890.000
2800 NAT Q1=    121.28  WSEL=    779.15  ENC Q1=    121.28  WSEL=    779.25  RATIO=  0.0000
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NAT Q1=     133.  RATIOS LOB,CH,ROB=    .7105    .2895  0.0000  WSEL=    779.25
280 CROSS SECTION    4890.00 EXTENDED       3.27 FEET


470 ENCROACHMENT STATIONS=        9.3      283.0  TYPE=      4  TARGET=          .086
 4890.00      3.67    779.27     0.00    779.15    779.39      .11      1.08      .02    779.20
    930.      636.      294.       0.      307.       80.       0.       77.      30.    780.40
     .83      2.07      3.67     0.00      .075      .050     .075      .050   775.60      9.34
 .005677      155.      155.     155.         2         0        0      0.00   270.84    280.18


SECNO 5050.000
2800 NAT Q1=      68.09  WSEL=    780.34  ENC Q1=      68.09  WSEL=    780.44  RATIO=  -.0000
NAT Q1=      74.  RATIOS LOB,CH,ROB=   .1530    .8433    .0036  WSEL=    780.44

301 HV CHANGED MORE THAN HVINS

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


470 ENCROACHMENT STATIONS=      235.7      297.0  TYPE=      4  TARGET=          .081
 5050.00      3.79    780.29   780.25    780.34    781.27      .98      1.62      .26    779.00
    930.       70.      860.       0.       22.      105.       0.       78.      31.    780.00
     .84      3.18      8.20     0.00      .075      .050     .075      .050   776.50    235.73
 .023135      160.      160.     160.         5         5        0      0.00    61.27    297.00


SECNO 5230.000

301 HV CHANGED MORE THAN HVINS


470 ENCROACHMENT STATIONS=      170.0      332.0  TYPE=      1  TARGET=      162.000
 5230.00      5.42    782.72     0.00    782.55    783.05      .32      1.71      .07    782.10
    930.        7.      923.       0.       10.      202.       0.       79.      31. 100000.00
     .85       .65      4.58     0.00      .075      .050     .075      .050   777.30    235.84
 .005152      180.      180.     180.         2         0        0      0.00    95.28    331.12


SECNO 5417.000
2800 NAT Q1=      54.57  WSEL=    784.80  ENC Q1=      57.72  WSEL=    784.90  RATIO=  -.0578
NAT Q1=      58.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    784.90

301 HV CHANGED MORE THAN HVINS

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


685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=        7.0       81.0  TYPE=      4  TARGET=          0.000
 5417.00      4.80    784.80   784.80    784.80    786.03     1.23      1.91      .27    787.90
    930.        0.      930.       0.        0.      104.       0.       80.      32.    788.90
     .85      0.00      8.91     0.00      .075      .050     .075      .050   780.00     19.50
 .029141      187.      187.     187.        20        15        0      0.00    43.67     63.17
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SECNO 5467.000

301 HV CHANGED MORE THAN HVINS

470 ENCROACHMENT STATIONS=      195.0      240.0  TYPE=      1  TARGET=      45.000
 5467.00      6.63    786.13      0.00    786.13    786.73      .60       .64       .06    788.70
    930.        0.      930.        0.        0.      150.       0.       80.       32. 100000.00
     .86      0.00      6.22      0.00      .075      .050     .075      .050    779.50    200.02
 .007135       50.       50.       50.         2         0        0      0.00     35.10    235.13


PECIAL BRIDGE

-227 DOWNSTREAM ELEV IS    782.82 ,NOT    786.13 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

B  XK        XKOR      COFQ      RDLEN      BNC       BWP      BAREA      SS        ELCHU     ELCHD
     .95      1.15      2.80      80.00     15.00      3.80     64.50     0.00     779.50    779.50

SECNO 5533.000
RESSURE AND WEIR FLOW

EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                              AREA
 789.85    788.72     0.00       85.      849.       65.       48.      783.80    788.70


470 ENCROACHMENT STATIONS=      195.0      240.0  TYPE=      1  TARGET=      45.000
 5533.00      9.54    789.04      0.00    789.04    789.23      .19      2.49      0.00    788.70
    930.        0.      930.        0.        0.      267.       0.       80.       32. 100000.00
     .86      0.00      3.48      0.00      .075      .050     .075      .050    779.50    195.00
 .001475       66.       66.       66.         2         0        2      0.00     45.00    240.00


SECNO 5583.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


470 ENCROACHMENT STATIONS=      195.0      240.0  TYPE=      1  TARGET=      45.000
 5583.00      9.62    789.12      0.00    789.11    789.30      .18       .07       .00    788.70
    930.        0.      930.        0.        0.      271.       0.       80.       32. 100000.00
     .86      0.00      3.43      0.00      .075      .050     .075      .050    779.50    195.00
 .001419       50.       50.       50.         2         0        0      0.00     45.00    240.00


SECNO 5826.000
2800 NAT Q1=     214.05  WSFL=     789.61  ENC Q1=     214.05  WSFL=     789.71  RATIO=  0.0000
NAT Q1=     229.  RATIOS LOB,CH,ROB=    .6305    .2264    .1431  WSEL=     789.71
280 CROSS SECTION    5826.00 EXTENDED       1.02 FEET


470 ENCROACHMENT STATIONS=       28.7      250.0  TYPE=      4  TARGET=        .065
 5826.00      8.32    789.62      0.00    789.61    789.72      .10       .41       .01    783.00
    930.       593.      230.      107.      325.       57.      81.       82.       32.    785.80
     .89      1.83      4.01      1.32      .075      .050     .075      .050    781.30     28.70
 .002095      243.      243.      243.         2         0        0      0.00    221.32    250.02
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SECNO 6037.000
2800 NAT Q1=     147.18  WSEL=     790.07  ENC Q1=     147.18  WSEL=     790.17  RATIO=  -.0000
NAT Q1=     156.  RATIOS LOB,CH,ROB=    .2274    .7726  0.0000  WSEL=     790.17

470 ENCROACHMENT STATIONS=       96.6      200.0  TYPE=      4  TARGET=          .056
 6037.00      7.32    790.12     0.00    790.07    790.38      .26       .61       .05    788.40
    930.      164.      766.       0.       90.      175.       0.       84.       33.    790.60
     .91      1.82      4.39     0.00      .075      .050     .075      .050    782.80     96.59
 .004213      211.      211.     211.         2         0        0      0.00    101.32    197.91


SECNO 6087.000
2800 NAT Q1=      69.21  WSEL=     791.59  ENC Q1=      69.21  WSEL=     791.69  RATIO=  0.0000
NAT Q1=      76.  RATIOS LOB,CH,ROB=    .5501    .3995    .0504  WSEL=     791.69
  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

-685 20 TRIALS ATTEMPTED WSEL,CWSEL
-693 PROBABLE MINIMUM SPECIFIC ENERGY
-720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=       76.8      200.9  TYPE=      4  TARGET=          .091
 6087.00      7.73    791.63    791.63    791.59    792.29      .66       .40       .12    789.70
    930.      504.      423.       3.      145.       48.       1.       85.       33.    790.00
     .91      3.47      8.90     1.96      .075      .050     .075      .050    783.90     76.82
 .020229       50.       50.       50.        20         9        0      0.00    124.07    200.89


PECIAL BRIDGE

B  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80    195.00      4.00       .85     16.00      0.00    786.70    783.90

SECNO 6103.000
-870 D.S. ENERGY OF  792.29 HIGHER THAN COMPUTED ENERGY OF  791.79
2800 NAT Q1=      76.65  WSEL=     791.70  ENC Q1=      76.65  WSEL=     791.80  RATIO=  0.0000
NAT Q1=      84.  RATIOS LOB,CH,ROB=    .5704    .3759    .0536  WSEL=     791.80
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

470 ENCROACHMENT STATIONS=       69.9      202.0  TYPE=      4  TARGET=          .086
 6103.00      7.83    791.73     0.00    791.70    792.26      .53       .29       .01    789.70
    930.      526.      396.       8.      162.       49.       3.       85.       33.    790.00
     .91      3.24      8.15     2.42      .075      .050     .075      .050    783.90     69.91
 .016474       16.       16.       16.         0         0       10      0.00    132.11    202.02


SECNO 6153.000
2800 NAT Q1=     406.77  WSEL=     792.20  ENC Q1=     406.77  WSEL=     792.30  RATIO=  0.0000
NAT Q1=     423.  RATIOS LOB,CH,ROB=    .3901    .6007    .0092  WSEL=     792.30
  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


470 ENCROACHMENT STATIONS=       56.4      200.0  TYPE=      4  TARGET=          .038
 6153.00      8.44    792.34     0.00    792.20    792.39      .05       .08       .05    788.40
    930.      356.      574.       0.      336.      282.       0.       85.       34.    790.60
     .92      1.06      2.04     0.00      .075      .050     .075      .050    783.90     56.39
 .000523       50.       50.       50.         2         0        0      0.00    147.11    200.00
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SECNO 6[illegible].000
2800 NAT Q1=      54.81  WSEL=     794.39  ENC Q1=      57.16  WSEL=     794.49  RATIO=  -.0430
NAT Q1=      57.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     794.49

301 HV CHANGED MORE THAN HVINS

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

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=      64.0      100.0  TYPE=     4  TARGET=      0.000
 6408.00     5.69   794.39   794.39   794.39   796.04     1.65      .41      .48   796.20
    930.       0.     930.       0.       0.      90.       0.      87.      34.   796.80
     .93      0.00    10.31     0.00     .075     .050     .075     .050   788.70    67.35
 .028834      255.     255.     255.       20       19        0     0.00    27.97    95.32

SECNO 6458.000

470 ENCROACHMENT STATIONS=      16.0       47.0  TYPE=     1  TARGET=     31.000
 6458.00     6.94   795.94     0.00   795.94   797.30     1.36     1.23      .03   796.70
    930.       0.     930.       0.       0.      99.       0.      87.      34. 100000.00
     .93      0.00     9.35     0.00     .075     .050     .075     .050   789.00    17.48
 .021240       50.      50.      50.        2        0        0     0.00    28.00    45.49

PECIAL BRIDGE

 B  XK      XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
    1.25     1.25     3.33    40.00     1.00      .20      .08     0.00   788.60   788.60

SECNO 6460.000
870 D.S. ENERGY OF  797.30 HIGHER THAN COMPUTED ENERGY OF  796.50
RESSURE AND WEIR FLOW

EGPRS      EGLWC      H3       QWEIR    QPR      BAREA    TRAPEZOID      ELIC     ELTRD
                                                          AREA
23867.08   799.20     1.90     930.       0.       0.       1.       790.00   791.70

470 ENCROACHMENT STATIONS=      16.0       47.0  TYPE=     1  TARGET=     31.000
 6460.00     6.96   795.96     0.00   795.95   797.30     1.34     0.00     0.00   796.70
    930.       0.     930.       0.       0.     100.       0.      87.      34. 100000.00
     .93      0.00     9.26     0.00     .075     .050     .075     .050   789.00    17.43
 .020840        2.       2.       2.        3        0       16     0.00    28.10    45.54

SECNO 6477.000
280 CROSS SECTION  6477.00 EXTENDED       .11 FEET

301 HV CHANGED MORE THAN HVINS
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470 ENCROACHMENT STATIONS=      64.0      100.0  TYPE=     1  TARGET=      36.000
 6477.00      8.41    797.11     0.00    797.21    797.53      .42       .14       .09    796.20
    930.        0.      930.       0.        0.      180.       0.       87.       34. 100000.00
     .93      0.00      5.18     0.00      .075      .050      .075      .050    788.70     64.00
 .004274       17.       17.      17.         3         0         0      0.00     36.00    100.00


SECNO 6494.000
  SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL       DLOSS   BANK ELEV
  Q        QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA     LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL       XNCH     XNR      WTN      ELMIN      SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID     ENDST


470 ENCROACHMENT STATIONS=     150.0      218.0  TYPE=     1  TARGET=      68.000
 6494.00      6.87    797.17     0.00    797.30    797.61      .44       .08       .01    797.00
    930.       34.      887.       9.       27.      162.       7.       87.       34.    796.20
     .93      1.27      5.47     1.24      .075      .050      .075      .050    790.30    150.00
 .004669       17.       17.      17.         2         0         0      0.00     68.00    218.00


SECNO 6511.000
2800 NAT Q1=     171.06  WSEL=     797.37  ENC Q1=     171.06  WSEL=     797.47  RATIO=  0.0000
NAT Q1=     181.  RATIOS LOB,CH,ROB=    .1801    .7930    .0269  WSEL=     797.47

470 ENCROACHMENT STATIONS=     106.5      211.0  TYPE=     4  TARGET=        .056
 6511.00      7.11    797.41     0.00    797.37    797.69      .28       .07       .02    797.00
    930.      147.      783.       0.      103.      171.       0.       87.       34.    796.20
     .93      1.43      4.59     0.00      .075      .050      .075      .050    790.30    106.46
 .003223       17.       17.      17.         2         0         0      0.00    104.53    211.00


PECIAL BRIDGE

B   XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80      50.00     5.00      1.00      25.00     0.00     790.30    790.30

SECNO 6561.000
2800 NAT Q1=     392.32  WSEL=     799.06  ENC Q1=     392.32  WSEL=     799.16  RATIO=  0.0000
NAT Q1=     409.  RATIOS LOB,CH,ROB=    .3650    .5609    .0741  WSEL=     799.16
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
280 CROSS SECTION    6561.00 EXTENDED       1.61 FEET


470 ENCROACHMENT STATIONS=      51.0      232.3  TYPE=     4  TARGET=        .041
 6561.00      8.81    799.11     0.00    799.06    799.17      .06       .06       .02    797.00
    930.      330.      548.      52.      348.      226.      58.       88.       34.    796.20
     .94       .95      2.42      .88      .075      .050      .075      .050    790.30     50.99
 .000586       50.       50.      50.         0         0         5      0.00    181.32    232.31


SECNO 6612.000
2800 NAT Q1=     510.03  WSEL=     799.13  ENC Q1=     510.03  WSEL=     799.23  RATIO=  0.0000
NAT Q1=     532.  RATIOS LOB,CH,ROB=    .6581    .2244    .1175  WSEL=     799.23
280 CROSS SECTION    6612.00 EXTENDED       3.47 FEET


470 ENCROACHMENT STATIONS=       6.4      245.0  TYPE=     4  TARGET=        .042
 6612.00      8.17    799.17     0.00    799.13    799.19      .02       .02       .00    797.10
    930.      618.      219.      93.      692.      132.     116.       89.       35.    796.40
     .95       .89      1.66      .80      .075      .050      .075      .050    791.00      6.38
 .000346       51.       51.      51.         3         0         0      0.00    238.65    245.03
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PECIAL BRIDGE

227 DOWNSTREAM ELEV IS    798.23 ,NOT   799.17 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

B  XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80    100.00      5.00      1.00     25.00      0.00    791.00    791.00

SECNO 6655.000
2800 NAT Q1=    583.62  WSEL=    799.44  ENC Q1=    583.62  WSEL=    799.54  RATIO=  0.0000
NAT Q1=    606.  RATIOS LOB,CH,ROB=   .6580   .2146   .1273  WSEL=    799.54
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
280 CROSS SECTION   6655.00 EXTENDED      3.79 FEET


470 ENCROACHMENT STATIONS=        5.5      253.7  TYPE=     4  TARGET=        .036
  6655.00     8.49   799.49     0.00   799.44   799.51      .02       .01       .00    797.10
     930.     617.     208.     104.     752.     139.     144.       90.       35.    796.40
      .96      .82     1.50      .72     .075     .050     .075      .050    791.00      5.48
 .000264      43.      43.      43.        0        0        7      0.00    248.20    253.68

SECNO 6705.000
2800 NAT Q1=    585.36  WSEL=    799.45  ENC Q1=    585.36  WSEL=    799.55  RATIO=  0.0000
NAT Q1=    609.  RATIOS LOB,CH,ROB=   .6580   .2143   .1277  WSEL=    799.55
280 CROSS SECTION   6705.00 EXTENDED      3.80 FEET

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


470 ENCROACHMENT STATIONS=        5.8      252.6  TYPE=     4  TARGET=        .038
  6705.00     8.50   799.50     0.00   799.45   799.52      .02       .01       .00    797.10
     930.     618.     208.     104.     754.     139.     143.       91.       35.    796.40
      .98      .82     1.50      .73     .075     .050     .075      .050    791.00      5.78
 .000262      50.      50.      50.        0        0        0      0.00    246.82    252.60

SECNO 6843.000

265 DIVIDED FLOW

301 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    IOC       ICONT     CORAR     TOPWID      ENDST

685 20 TRIALS ATTEMPTED WSEL,CWSEL
693 PROBABLE MINIMUM SPECIFIC ENERGY
720 CRITICAL DEPTH ASSUMED

470 ENCROACHMENT STATIONS=       50.0      222.0  TYPE=     1  TARGET=     172.000
  6843.00     7.40   799.80   799.80   799.85   800.89     1.09       .11       .32    800.20
     930.      47.     883.       0.       31.      103.       0.       93.       36.    800.20
      .98     1.51     8.57     0.00      .075      .050     .075      .050    792.40     53.00
```

.015471	138.	138.	138.	20	19	0	0.00	90.86	149.42

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: SUMMARY

00BREAK00

THIS RUN EXECUTED 08 MAY 78 12.01.11

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*************************************************
HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
ERROR CORR -  01,02
MODIFICATION -  50,51,52,53
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OTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

NATURAL CHANNEL

UMMARY PRINTOUT

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
24.000	0.00	0.00	0.00	721.50	930.00	728.60	766.49	0.00	0.00
24.000	0.00	0.00	0.00	721.50	930.00	728.70	412.08	537.92	950.00
30.000	22.00	0.00	0.00	721.60	930.00	729.59	391.44	0.00	0.00
30.000	22.00	0.00	0.00	721.60	930.00	729.60	395.47	110.00	940.00
35.000	36.00	728.40	725.60	721.60	930.00	731.40	563.60	0.00	0.00
35.000	36.00	728.40	725.60	721.60	930.00	731.40	563.62	110.00	940.00
40.000	50.00	0.00	0.00	722.20	930.00	731.39	232.47	0.00	0.00
40.000	50.00	0.00	0.00	722.20	930.00	731.39	171.82	313.95	485.78
100.000	783.00	0.00	0.00	724.30	930.00	731.82	355.30	0.00	0.00
100.000	783.00	0.00	0.00	724.30	930.00	731.85	266.56	111.25	377.81
200.000	800.00	0.00	0.00	727.30	930.00	732.45	235.63	0.00	0.00
200.000	800.00	0.00	0.00	727.30	930.00	732.50	168.11	81.36	249.48
300.000	600.00	0.00	0.00	729.50	930.00	735.50	226.71	0.00	0.00
300.000	600.00	0.00	0.00	729.50	930.00	735.61	170.48	123.82	294.31
310.000	817.00	0.00	0.00	736.40	930.00	741.12	116.87	0.00	0.00
310.000	817.00	0.00	0.00	736.40	930.00	741.12	82.18	375.67	457.86
320.000	50.00	0.00	0.00	735.80	930.00	741.50	20.22	0.00	0.00
320.000	50.00	0.00	0.00	735.80	930.00	741.66	20.30	220.00	245.00
330.000	370.00	774.00	740.10	735.80	930.00	744.41	21.85	0.00	0.00
330.000	370.00	999999.00	0.00	735.80	930.00	744.57	21.94	220.00	245.00
340.000	50.00	0.00	0.00	736.40	930.00	744.95	208.77	0.00	0.00
340.000	50.00	0.00	0.00	736.40	930.00	745.08	142.37	359.30	501.66
60.000	10.00	0.00	0.00	736.40	930.00	744.97	407.09	0.00	0.00
60.000	10.00	0.00	0.00	736.40	930.00	745.11	300.85	270.52	571.38
100.000	40.00	0.00	0.00	737.70	930.00	744.93	338.67	0.00	0.00
100.000	40.00	0.00	0.00	737.70	930.00	745.11	240.89	334.23	575.13

City of Farmington — Farmington Hills

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
	245.000	145.00	0.00	0.00	738.60	930.00	744.99	171.04	0.00	0.00
	245.000	145.00	0.00	0.00	738.60	930.00	745.10	99.33	239.81	339.13
	375.000	130.00	0.00	0.00	739.60	930.00	745.52	151.40	0.00	0.00
	375.000	130.00	0.00	0.00	739.60	930.00	745.61	74.16	260.63	334.79
	450.000	75.00	0.00	0.00	742.20	930.00	746.34	152.25	0.00	0.00
	450.000	75.00	0.00	0.00	742.20	930.00	746.59	130.00	177.00	307.00
	480.000	30.00	0.00	0.00	743.20	930.00	746.92	151.64	0.00	0.00
	480.000	30.00	0.00	0.00	743.20	930.00	746.97	103.79	237.08	345.00
A	685.000	205.00	0.00	0.00	743.90	930.00	748.99	130.42	0.00	0.00
	685.000	205.00	0.00	0.00	743.90	930.00	749.01	81.28	266.96	348.24
B	800.000	115.00	0.00	0.00	745.70	930.00	750.16	250.66	0.00	0.00
	800.000	115.00	0.00	0.00	745.70	930.00	750.30	251.67	133.00	400.00
C	960.000	160.00	0.00	0.00	745.80	930.00	750.48	164.46	0.00	0.00
	960.000	160.00	0.00	0.00	745.80	930.00	750.50	133.23	167.97	301.20
D	1160.000	200.00	0.00	0.00	746.40	930.00	751.97	181.85	0.00	0.00
	1160.000	200.00	0.00	0.00	746.40	930.00	752.06	124.78	168.63	293.41
E	1235.000	75.00	0.00	0.00	746.60	930.00	752.10	123.76	0.00	0.00
	1235.000	75.00	0.00	0.00	746.60	930.00	752.20	101.55	86.68	188.22
F	1525.000	290.00	0.00	0.00	747.10	930.00	752.54	65.39	0.00	0.00
	1525.000	290.00	0.00	0.00	747.10	930.00	752.65	46.12	118.00	166.00
G	1650.000	125.00	0.00	0.00	747.40	930.00	753.52	160.80	0.00	0.00
	1650.000	125.00	0.00	0.00	747.40	930.00	753.63	128.55	149.92	280.00
H	1800.000	150.00	0.00	0.00	746.00	930.00	753.85	142.71	0.00	0.00
	1800.000	150.00	0.00	0.00	746.00	930.00	753.96	127.57	151.06	280.00
I	1950.000	150.00	0.00	0.00	747.90	930.00	753.82	42.70	0.00	0.00
	1950.000	150.00	0.00	0.00	747.90	930.00	753.95	43.48	75.00	140.00
	1989.000	39.00	0.00	0.00	748.00	930.00	754.42	51.77	0.00	0.00
	1989.000	39.00	0.00	0.00	748.00	930.00	754.50	52.25	215.00	301.00
	2051.000	62.00	758.50	753.00	748.00	930.00	756.63	65.66	0.00	0.00
	2051.000	62.00	999999.00	0.00	748.00	930.00	756.70	66.15	215.00	301.00
J	2101.000	50.00	0.00	0.00	749.50	930.00	756.60	51.96	0.00	0.00
	2101.000	50.00	0.00	0.00	749.50	930.00	756.68	52.43	237.00	313.00
K	2300.000	199.00	0.00	0.00	749.50	930.00	757.23	55.80	0.00	0.00
	2300.000	199.00	0.00	0.00	749.50	930.00	757.29	56.10	237.00	313.00
L	2590.000	290.00	0.00	0.00	751.30	930.00	758.05	51.43	0.00	0.00
	2590.000	290.00	0.00	0.00	751.30	930.00	758.08	51.58	260.00	320.00
M	2625.000	35.00	0.00	0.00	754.40	930.00	760.07	156.73	0.00	0.00
	2625.000	35.00	0.00	0.00	754.40	930.00	759.96	68.64	244.00	312.64

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
N	2800.000	175.00	0.00	0.00	755.10	930.00	761.49	253.29	0.00	0.00
	2800.000	175.00	0.00	0.00	755.10	930.00	761.62	226.00	110.00	336.00
O	2940.000	140.00	0.00	0.00	756.70	930.00	761.70	267.64	0.00	0.00
	2940.000	140.00	0.00	0.00	756.70	930.00	761.81	250.63	125.00	385.00
P	3030.000	90.00	0.00	0.00	756.70	930.00	761.75	275.94	0.00	0.00
	3030.000	90.00	0.00	0.00	756.70	930.00	761.85	283.72	110.00	405.00
Q	3105.000	75.00	0.00	0.00	756.70	930.00	761.77	342.61	0.00	0.00
	3105.000	75.00	0.00	0.00	756.70	930.00	761.87	352.72	120.00	485.00
R	3155.000	50.00	0.00	0.00	757.30	930.00	761.39	202.82	0.00	0.00
	3155.000	50.00	0.00	0.00	757.30	930.00	761.62	250.18	150.00	475.00
S	3320.000	165.00	0.00	0.00	760.00	930.00	763.49	383.90	0.00	0.00
	3320.000	165.00	0.00	0.00	760.00	930.00	763.38	362.52	72.00	552.00
T	3485.000	165.00	0.00	0.00	760.80	930.00	764.28	471.62	0.00	0.00
	3485.000	165.00	0.00	0.00	760.80	930.00	764.32	255.02	254.95	509.97
U	3650.000	165.00	0.00	0.00	761.50	930.00	764.79	292.55	0.00	0.00
	3650.000	165.00	0.00	0.00	761.50	930.00	764.88	289.72	285.00	588.45
V	3885.000	235.00	0.00	0.00	762.60	930.00	767.09	39.21	0.00	0.00
	3885.000	235.00	0.00	0.00	762.60	930.00	767.08	39.17	275.00	326.00
W	4060.000	175.00	0.00	0.00	764.60	930.00	770.40	48.26	0.00	0.00
	4060.000	175.00	0.00	0.00	764.60	930.00	770.41	48.27	272.00	325.00
X	4225.000	165.00	0.00	0.00	768.70	930.00	772.68	94.00	0.00	0.00
	4225.000	165.00	0.00	0.00	768.70	930.00	772.52	47.45	275.00	330.00
Y	4340.000	115.00	0.00	0.00	770.00	930.00	774.90	144.15	0.00	0.00
	4340.000	115.00	0.00	0.00	770.00	930.00	775.05	152.77	78.00	283.00
Z	4420.000	80.00	0.00	0.00	770.60	930.00	775.70	61.17	0.00	0.00
	4420.000	80.00	0.00	0.00	770.60	930.00	775.59	32.45	247.00	287.00
AA	4510.000	90.00	0.00	0.00	771.30	930.00	777.31	314.86	0.00	0.00
	4510.000	90.00	0.00	0.00	771.30	930.00	777.33	296.96	17.97	329.00
AB	4600.000	90.00	0.00	0.00	771.30	930.00	777.31	299.22	0.00	0.00
	4600.000	90.00	0.00	0.00	771.30	930.00	777.32	223.82	76.09	325.00
AC	4735.000	135.00	0.00	0.00	773.40	930.00	777.89	213.32	0.00	0.00
	4735.000	135.00	0.00	0.00	773.40	930.00	777.96	200.53	19.09	300.00
AD	4890.000	155.00	0.00	0.00	775.60	930.00	779.15	274.07	0.00	0.00
	4890.000	155.00	0.00	0.00	775.60	930.00	779.27	270.84	9.34	283.00
AE	5050.000	160.00	0.00	0.00	776.50	930.00	780.34	123.62	0.00	0.00
	5050.000	160.00	0.00	0.00	776.50	930.00	780.29	61.27	235.73	297.00
AF	5230.000	180.00	0.00	0.00	777.30	930.00	782.55	85.78	0.00	0.00
	5230.000	180.00	0.00	0.00	777.30	930.00	782.72	95.28	170.00	332.00

	SECNO	XLCH	FLTRD	ELLC	ELMTN	W	CWSEL	TOPWID	STENCL	STENCR
AG	5417.000	187.00	0.00	0.00	780.00	930.00	784.80	43.69	0.00	0.00
	5417.000	187.00	0.00	0.00	780.00	930.00	784.80	43.67	7.00	91.00
	5467.000	50.00	0.00	0.00	779.50	930.00	786.13	35.10	0.00	0.00
	5467.000	50.00	0.00	0.00	779.50	930.00	786.13	35.10	195.00	240.00
	5533.000	66.00	788.70	783.80	779.50	930.00	789.04	90.53	0.00	0.00
	5533.000	66.00	788.70	783.80	779.50	930.00	789.04	45.00	195.00	240.00
AH	5583.000	50.00	0.00	0.00	779.50	930.00	789.11	97.85	0.00	0.00
	5583.000	50.00	0.00	0.00	779.50	930.00	789.12	45.00	195.00	240.00
AI	5826.000	243.00	0.00	0.00	781.30	930.00	789.61	350.00	0.00	0.00
	5826.000	243.00	0.00	0.00	781.30	930.00	789.62	221.32	28.70	250.02
AJ	6037.000	211.00	0.00	0.00	782.80	930.00	790.07	148.81	0.00	0.00
	6037.000	211.00	0.00	0.00	782.80	930.00	790.12	101.32	96.59	200.00
	6087.000	50.00	0.00	0.00	783.90	930.00	791.59	196.48	0.00	0.00
	6087.000	50.00	0.00	0.00	783.90	930.00	791.63	124.07	76.82	200.89
	6103.000	16.00	789.80	787.90	783.90	930.00	791.70	202.95	0.00	0.00
	6103.000	16.00	999999.00	0.00	783.90	930.00	791.73	132.11	69.91	202.03
AK	6153.000	50.00	0.00	0.00	783.90	930.00	792.20	189.18	0.00	0.00
	6153.000	50.00	0.00	0.00	783.90	930.00	792.34	143.61	56.39	200.00
AL	6408.000	255.00	0.00	0.00	788.70	930.00	794.39	27.98	0.00	0.00
	6408.000	255.00	0.00	0.00	788.70	930.00	794.39	27.97	64.00	100.00
	6458.000	50.00	0.00	0.00	789.00	930.00	795.94	28.00	0.00	0.00
	6458.000	50.00	0.00	0.00	789.00	930.00	795.94	28.00	16.00	47.00
	6460.000	2.00	791.70	790.00	789.00	930.00	795.95	28.07	0.00	0.00
	6460.000	2.00	791.70	790.00	789.00	930.00	795.96	28.10	16.00	47.00
AM	6477.000	17.00	0.00	0.00	788.70	930.00	797.21	112.00	0.00	0.00
	6477.000	17.00	0.00	0.00	788.70	930.00	797.11	36.00	64.00	100.00
	6494.000	17.00	0.00	0.00	790.30	930.00	797.30	181.28	0.00	0.00
	6494.000	17.00	0.00	0.00	790.30	930.00	797.17	68.00	150.00	218.00
	6511.000	17.00	0.00	0.00	790.30	930.00	797.37	185.09	0.00	0.00
	6511.000	17.00	0.00	0.00	790.30	930.00	797.41	104.53	106.46	211.00
	6561.000	50.00	796.20	795.30	790.30	930.00	799.06	239.98	0.00	0.00
	6561.000	50.00	999999.00	0.00	790.30	930.00	799.11	181.32	50.99	232.31
AN	6612.000	51.00	0.00	0.00	791.00	930.00	799.13	302.65	0.00	0.00
	6612.000	51.00	0.00	0.00	791.00	930.00	799.17	238.65	6.38	245.03
	6655.000	43.00	796.80	796.00	791.00	930.00	799.44	306.44	0.00	0.00
	6655.000	43.00	999999.00	0.00	791.00	930.00	799.49	248.20	5.48	253.68
AO	6705.000	50.00	0.00	0.00	791.00	930.00	799.45	306.53	0.00	0.00
	6705.000	50.00	0.00	0.00	791.00	930.00	799.50	246.82	5.78	252.60

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
AP	6943.000	138.00	0.00	0.00	792.40	930.00	799.85	100.84	0.00	0.00
	6943.000	138.00	0.00	0.00	792.40	930.00	799.80	90.86	50.00	222.00

SUMMARY OF ERRORS

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AUTION  SECNO=   30.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO=   30.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=   30.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO=   30.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO=   30.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=   30.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO=  310.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  310.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
AUTION  SECNO=  310.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  310.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

AUTION  SECNO=  685.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  685.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=  685.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO=  685.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  685.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=  685.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO=  960.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  960.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=  960.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO=  960.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO=  960.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO=  960.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 2051.000  PROFILE= 1  HYDRAULIC JUMP D.S.
AUTION  SECNO= 2051.000  PROFILE= 2  HYDRAULIC JUMP D.S.

AUTION  SECNO= 2625.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 2625.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 2625.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 2625.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 2625.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 2625.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 3155.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 3155.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

AUTION  SECNO= 3885.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 3885.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 3885.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 3885.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 3885.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 3885.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 4225.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 4225.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 4225.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 4225.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

AUTION  SECNO= 5050.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 5050.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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AUTION  SECNO= 5417.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 5417.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 5417.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 5417.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 5417.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 5417.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 5533.000  PROFILE= 1  HYDRAULIC JUMP D.S.
AUTION  SECNO= 5533.000  PROFILE= 2  HYDRAULIC JUMP D.S.

AUTION  SECNO= 6087.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6087.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6087.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 6087.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6087.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6087.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 6408.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6408.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6408.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 6408.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6408.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6408.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

AUTION  SECNO= 6655.000  PROFILE= 1  HYDRAULIC JUMP D.S.
AUTION  SECNO= 6655.000  PROFILE= 2  HYDRAULIC JUMP D.S.

AUTION  SECNO= 6843.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6843.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6843.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
AUTION  SECNO= 6843.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
AUTION  SECNO= 6843.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
AUTION  SECNO= 6843.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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LOODWAY DATA, NATURAL CHANNEL
ROFILE NO. 2

City of Farmington Hills

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
24.000	412.	1191.	.8	728.7	728.6	.1
30.000	395.	319.	2.9	729.6	729.6	0.0
35.000	564.	1264.	.7	731.4	731.4	0.0
40.000	172.	607.	1.5	731.4	731.4	0.0
100.000	267.	932.	1.0	731.8	731.8	0.0
200.000	168.	307.	3.0	732.5	732.4	.1
300.000	170.	400.	2.3	735.6	735.5	.1
310.000	82.	171.	5.5	741.1	741.1	0.0
320.000	20.	109.	8.5	741.7	741.5	.2
330.000	22.	171.	5.4	744.6	744.4	.2
340.000	142.	744.	1.2	745.0	744.9	.1
60.000	301.	1213.	.8	745.1	745.0	.1
100.000	241.	960.	1.0	745.1	745.0	.1
245.000	99.	306.	3.0	745.1	745.0	.1
375.000	74.	199.	4.7	745.6	745.5	.1
450.000	130.	242.	3.8	746.6	746.3	.3
480.000	104.	288.	3.2	746.9	746.9	0.0
A 685.000	81.	166.	5.6	749.0	749.0	0.0
B 800.000	252.	631.	1.5	750.3	750.2	.1
C 960.000	133.	185.	5.0	750.5	750.5	0.0
D 1160.000	125.	431.	2.2	752.1	752.0	.1
E 1235.000	102.	452.	2.1	752.2	752.1	.1
F 1525.000	46.	155.	6.0	752.6	752.5	.1
G 1650.000	129.	358.	2.6	753.6	753.5	.1
H 1800.000	128.	475.	2.0	754.0	753.9	.1
I 1950.000	43.	151.	6.2	753.9	753.8	.1
1989.000	52.	211.	4.4	754.5	754.4	.1
2051.000	66.	341.	2.7	756.7	756.6	.1
J 2101.000	52.	218.	4.3	756.7	756.6	.1
K 2300.000	56.	251.	3.7	757.3	757.2	.1
L 2590.000	52.	196.	4.7	758.1	758.1	0.0
M 2625.000	69.	148.	6.3	760.1	760.1	0.0
N 2800.000	226.	478.	1.9	761.6	761.5	.1
O 2940.000	251.	681.	1.4	761.8	761.7	.1
P 3030.000	284.	766.	1.2	761.8	761.7	.1
Q 3105.000	353.	786.	1.2	761.9	761.8	.1
R 3155.000	250.	231.	4.0	~~761.6~~ 761.4	761.4	~~.2~~ 0.0
S 3320.000	363.	371.	2.5	763.5	763.5	0.0
T 3485.000	255.	469.	2.0	764.3	764.3	0.0
U 3650.000	301.	491.	1.9	764.9	764.8	.1
V 3885.000	39.	101.	9.2	767.1	767.1	0.0
W 4060.000	48.	157.	5.9	770.4	770.4	0.0
X 4225.000	47.	108.	8.6	772.6	772.7	-.1
Y 4340.000	~~153.~~ 144	214.	4.4	~~775.1~~ 774.9	774.9	~~.2~~ 0.0
Z 4420.000	32.	96.	9.7	775.7	775.7	0.0
AA 4510.000	297.	829.	1.1	777.3	777.3	0.0
AB 4600.000	240.	339.	2.7	777.3	777.3	0.0
AC 4735.000	277.	266.	3.5	778.0	777.9	.1
AD 4890.000	271.	387.	2.4	779.3	779.2	.1
AE 5050.000	61.	127.	7.3	780.3	780.3	0.0

'LOODWAY DATA, NATURAL CHANNEL
'ROFILE NO. 2

	STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
AF	5230.000	95.	212.	4.4	~~782.8~~ 782.6	782.6	~~.2~~ 0.0
AG	5417.000	44.	104.	8.9	784.8	784.8	0.0
	5467.000	35.	150.	6.2	786.1	786.1	0.0
	5533.000	45.	267.	3.5	789.0	789.0	0.0
AH	5583.000	45.	271.	3.4	789.1	789.1	0.0
AI	5826.000	221.	463.	2.0	789.6	789.6	0.0
AJ	6037.000	101.	265.	3.5	790.2	790.1	.1
	6087.000	124.	194.	4.8	791.6	791.6	0.0
	6103.000	132.	214.	4.3	791.7	791.7	0.0
AK	6153.000	144.	618.	1.5	792.3	792.2	.1
AL	6408.000	28.	90.	10.3	794.4	794.4	0.0
	6458.000	28.	99.	9.3	795.9	795.9	0.0
	6460.000	28.	100.	9.3	796.0	796.0	0.0
AM	6477.000	36.	180.	5.2	797.2	797.2	0.0
	6494.000	68.	196.	4.7	797.3	797.3	0.0
	6511.000	105.	273.	3.4	797.4	797.4	0.0
	6561.000	181.	633.	1.5	799.1	799.1	0.0
AN	6612.000	239.	940.	1.0	799.1	799.1	0.0
	6655.000	248.	1036.	.9	799.4	799.4	0.0
AO	6705.000	247.	1036.	.9	799.5	799.5	0.0
AP	6843.000	99.	134.	6.9	799.8	799.8	0.0

THIS RUN EXECUTED 08 MAY 78 12.01.53

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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON

3) WATERCOURSE: TARABUSI CREEK
UPSTREAM OF 9 MILE

4) DOCUMENT TYPE: 10 YR

00BREAK00

THIS RUN EXECUTED 02 MAY 78 09.00.58

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

T1                FARMINGTON FLOOD INSURANCE STUDY  **** 8 MARCH 1978 ****
T2                UPSTREAM OF  9 MILE TO CITY LIMIT
T3                10 - YEAR FREQUENCY FLOOD  ON TARABUSI CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       2.      -0.      -0. -0.           -0.      -1.0      0.    727.800   0.

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    1.000     0.      -1.000    0.       0.       0.       0.       0.       0.       0.

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000  201.000   -0.      -0.      -0.      -0.      -0.      -0.      -0.      -0.

NC      .075     .075     .050     .100     .300      0.       0.       0.       0.       0.
QT     4.000  560.000  820.000  930.000 1080.000     -0.      -0.      -0.      -0.      -0.

X1    24.000   12.000  868.000  950.000     0.       0.       0.      -0.      -0.      -0.
GR   730.000    0.     726.000  708.000  725.600  756.000  726.900  868.000  721.500  898.000
GR   721.500  914.000  727.600  950.000  728.400 1000.000  729.100 1050.000  730.900 1100.000
GR   733.300 1150.000  736.300 1200.000    -0.      -0.      -0.      -0.      -0.      -0.

X1    30.000   17.000  450.000  472.000   22.000   22.000   22.000   -0.      -0.      -0.
GR   750.000   -0.     740.000  110.000  730.000  330.000  728.400  450.000  723.600  458.000
GR   722.300  458.500  721.800  459.000  721.700  459.500  721.600  460.000  721.700  460.500
GR   721.800  461.000  722.300  461.500  723.600  462.000  728.400  472.000  730.000  850.000
GR   740.000  940.000  750.000 1030.000    -0.      -0.      -0.      -0.      -0.      -0.
SB      .950    1.150    2.800   -0.       4.000   -0.      13.000   -0.     721.600  721.600

X1    35.000   -0.      -0.      -0.      36.000   36.000   36.000   -0.      -0.      -0.
X2    -0.      -0.       1.000  725.600  728.400   -0.      -0.      -0.      -0.      -0.
BT    11.000    0.     750.000  750.000  458.000  728.400  723.600  458.500  728.400  725.000
BT   459.000  728.400  725.300  459.500  728.400  725.500  460.000  728.400  725.600  460.500
BT   728.400  725.500  461.000  728.400  725.300  461.500  728.400  725.000  462.000  728.400
BT   723.600 1030.000  750.000  750.000    -0.      -0.      -0.      -0.      -0.      -0.

X1    40.000   13.000  340.000  360.000   50.000   50.000   50.000   -0.      -0.      -0.
GR   750.000    0.     740.000   75.000  730.000  310.000  727.200  330.000  728.200  335.000
GR   727.200  340.000  722.200  345.000  722.200  355.000  727.500  360.000  728.000  400.000
GR   730.000  500.000  740.000  570.000  750.000  760.000    -0.      -0.      -0.      -0.

X1   100.000   14.000  324.000  340.000  783.000  783.000  783.000   -0.      -0.      -0.
GR   743.100    0.     731.100   80.000  729.000  130.000  728.400  180.000  728.600     .000
GR   728.200  280.000  727.200  324.000  724.300  328.000  724.300  333.000  728.2       .000
GR   730.100  380.000  731.800  430.000  734.000  480.000  735.800  530.000   -0.
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RECEIVED
MAY 28 1978
WATER MANAGEMENT

X1	200.000	12.000	193.000	210.000	800.000	800.000	800.000	-0.	-0.	-0.
GR	734.300	0.	731.900	50.000	731.200	100.000	731.000	150.000	730.300	193.000
GR	727.300	197.000	727.300	204.000	731.000	210.000	730.800	250.000	733.900	300.000
GR	736.200	350.000	736.600	400.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	300.000	11.000	195.000	205.000	600.000	600.000	600.000	-0.	-0.	-0.
GR	739.900	0.	738.000	50.000	734.900	100.000	733.200	150.000	733.200	195.000
GR	729.500	198.000	729.500	203.000	733.100	205.000	734.000	300.000	738.400	350.000
GR	744.200	400.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	310.000	11.000	392.000	408.000	817.000	817.000	817.000	-0.	-0.	-0.
GR	760.000	0.	760.000	160.000	750.000	310.000	740.000	370.000	739.200	392.000
GR	736.400	395.000	736.400	405.000	739.200	408.000	740.000	460.000	750.000	640.000
GR	760.000	810.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	320.000	8.000	220.000	245.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	760.000	0.	750.000	60.000	750.000	220.000	735.800	224.000	735.800	241.000
GR	750.000	245.000	750.000	320.000	749.800	400.000	-0.	-0.	-0.	-0.
SB	.950	1.200	2.500	375.000	16.000	0.	69.000	0.	735.800	735.800
X1	330.000	0.	0.	0.	370.000	370.000	370.000	-0.	-0.	-0.
X2	0.	0.	1.000	740.100	774.000	-0.	-0.	-0.	-0.	-0.
X1	340.000	11.000	392.000	408.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	760.000	0.	760.000	160.000	750.000	310.000	740.000	370.000	739.200	392.000
GR	736.400	395.000	736.400	405.000	739.200	408.000	740.000	460.000	750.000	640.000
GR	760.000	810.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	60.000	13.000	547.000	556.000	10.000	10.000	10.000	-0.	-0.	-0.
GR	750.000	0.	748.000	50.000	746.000	150.000	744.000	235.000	741.600	350.000
GR	740.900	450.000	739.600	547.000	736.400	549.000	736.400	554.000	739.600	556.000
GR	752.200	661.000	759.100	671.000	763.400	750.000	-0.	-0.	-0.	-0.
X1	100.000	12.000	536.000	547.000	40.000	40.000	40.000	-0.	-0.	-0.
GR	750.000	0.	748.000	70.000	746.000	180.000	744.000	318.000	742.000	376.000
GR	739.900	536.000	737.700	539.000	737.700	544.000	739.900	547.000	742.000	576.000
GR	750.000	610.000	760.000	675.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	245.000	11.000	306.000	316.000	145.000	145.000	145.000	-0.	-0.	-0.
GR	750.000	0.	747.800	46.000	746.000	145.000	742.000	290.000	741.700	306.000
GR	738.600	308.000	738.600	314.000	741.700	316.000	742.000	336.000	750.000	381.000
GR	760.000	420.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	375.000	9.000	317.000	331.000	130.000	130.000	130.000	-0.	-0.	-0.
GR	750.000	0.	748.000	125.000	746.000	175.000	743.000	317.000	739.600	320.000
GR	739.600	329.000	743.000	331.000	750.000	381.000	760.000	475.000	-0.	-0.
X1	450.000	9.000	293.000	307.000	75.000	75.000	75.000	-0.	-0.	-0.
GR	753.000	0.	752.000	50.000	746.000	177.000	744.000	293.000	742.200	296.000
GR	742.200	305.000	744.000	307.000	750.000	345.000	760.000	452.000	-0.	-0.
X1	480.000	9.000	290.000	345.000	30.000	30.000	30.000	-0.	-0.	-0.
GR	756.000	0.	752.000	80.000	746.000	209.000	744.500	290.000	743.200	292.000
GR	743.200	337.000	751.000	345.000	752.000	363.000	760.000	437.000	-0.	-0

Farmington Hills

City of Farmington

A	X1	685.000	13.000	295.000	305.000	205.000	205.000	205.000	-0.	-0.	-0.
	GR	761.500	0.	759.000	55.000	756.000	107.000	754.000	155.000	748.000	263.000
	GR	746.700	295.000	743.900	298.000	743.900	303.000	746.700	305.000	748.000	350.000
	GR	750.000	402.000	758.000	550.000	761.500	600.000	-0.	-0.	-0.	-0.
B	X1	800.000	13.000	295.000	305.000	115.000	115.000	115.000	-0.	-0.	-0.
	GR	758.400	0.	755.300	50.000	754.000	83.000	750.000	133.000	746.400	233.000
	GR	746.700	295.000	745.700	298.000	745.700	303.000	746.700	305.000	751.000	400.000
	GR	752.900	500.000	756.000	550.000	762.500	600.000	-0.	-0.	-0.	-0.
C	X1	960.000	15.000	220.000	230.000	160.000	160.000	160.000	-0.	-0.	-0.
	GR	759.500	0.	756.000	30.000	754.000	70.000	752.000	100.000	749.000	175.000
	GR	749.000	220.000	745.800	220.000	745.800	230.000	749.000	230.000	750.000	270.000
	GR	750.400	298.000	746.000	299.000	746.000	301.000	752.000	303.000	756.000	368.000
D	X1	1160.000	12.000	195.000	205.000	200.000	200.000	200.000	-0.	-0.	-0.
	GR	763.000	0.	760.000	56.000	750.000	170.000	748.000	187.000	747.700	195.000
	GR	746.400	198.000	746.400	202.000	747.700	205.000	748.000	230.000	750.000	285.000
	GR	756.000	420.000	760.000	500.000	-0.	-0.	-0.	-0.	-0.	-0.
E	X1	1235.000	9.000	167.000	180.000	75.000	75.000	75.000	-0.	-0.	-0.
	GR	761.900	0.	759.000	55.000	747.800	90.000	747.800	167.000	747.100	170.000
	GR	746.600	175.000	747.100	180.000	753.000	204.000	760.300	445.000	-0.	-0.
F	X1	1525.000	13.000	118.000	166.000	290.000	290.000	290.000	-0.	-0.	-0.
	GR	760.000	0.	758.000	23.000	756.000	53.000	754.000	78.000	752.000	106.000
	GR	751.200	118.000	747.600	133.000	747.100	138.000	747.600	143.000	753.100	166.000
	GR	759.800	255.000	759.800	285.000	758.300	321.000	-0.	-0.	-0.	-0.
G	X1	1650.000	12.000	234.000	280.000	125.000	125.000	125.000	-0.	-0.	-0.
	GR	764.000	0.	762.000	50.000	755.000	100.000	752.000	135.000	751.000	234.000
	GR	747.900	245.000	747.400	250.000	747.900	255.000	754.000	280.000	759.700	355.000
	GR	759.700	385.000	758.000	420.000	-0.	-0.	-0.	-0.	-0.	-0.
H	X1	1800.000	12.000	223.000	280.000	150.000	150.000	150.000	-0.	-0.	-0.
	GR	766.000	0.	758.000	115.000	746.000	168.000	754.000	208.000	753.000	223.000
	GR	748.100	245.000	747.600	250.000	748.100	255.000	754.100	280.000	759.500	345.000
	GR	759.500	375.000	758.900	420.000	-0.	-0.	-0.	-0.	-0.	-0.
I	X1	1950.000	10.000	75.000	140.000	150.000	150.000	150.000	-0.	-0.	-0.
	GR	763.300	0.	763.300	50.000	762.500	69.000	757.000	75.000	748.400	100.000
	GR	747.900	105.000	748.400	110.000	758.000	140.000	759.500	175.000	754.800	225.000
	X1	1989.000	35.000	215.000	301.000	39.000	39.000	39.000	-0.	-0.	-0.
	GR	772.000	0.	771.000	20.000	771.000	70.000	766.400	90.000	767.000	115.000
	GR	767.000	160.000	760.000	215.000	750.500	266.000	746.900	266.500	748.200	267.500
	GR	748.000	278.500	748.200	279.500	748.900	280.500	750.500	281.000	750.500	282.000
	GR	748.900	282.500	748.200	283.500	748.000	284.500	748.200	285.500	748.900	286.500
	GR	750.500	287.000	750.500	288.000	748.900	288.500	748.200	289.500	748.000	290.500
	GR	748.200	291.500	748.900	292.500	750.500	293.000	759.000	301.000	760.000	324.000
	GR	760.000	364.000	759.000	395.000	760.000	420.000	760.000	470.000	757.900	570.000
	SB	.900	1.250	2.800	0.	17.000	5.200	85.000	0.	748.000	748.000
	X1	2051.000	0.	0.	0.	2.000	62.000	62.000	-0.	-0.	-0

X2	0.	0.	1.000	753.000	758.500	-0.	-0.	-0.	-0.	-0.
BT	23[illegible].000	0.	772.000	772.000	266.000	758.500	750.500	266.500	758.500	752.100
BT	267[illegible].000	758.500	751.800	278.500	758.500	753.000	279.500	758.500	758.100	280.500
BT	758.500	752.100	281.000	758.500	750.500	282.000	758.500	750.500	282.500	758.500
BT	752.100	283.500	758.500	751.800	284.500	758.500	753.000	285.500	758.500	751.800
BT	286.500	758.500	752.100	287.000	758.500	750.500	288.000	758.500	750.500	288.500
BT	758.500	752.100	289.500	758.500	751.800	290.500	758.500	753.000	291.500	758.500
BT	751.800	292.500	758.500	752.100	293.000	758.500	750.500	570.000	757.900	757.900
J X1	2101.000	16.000	237.000	313.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	767.000	0.	765.000	20.000	764.000	25.000	760.000	90.000	759.000	115.000
GR	761.000	230.000	761.000	237.000	750.000	268.000	749.500	275.000	750.000	280.000
GR	760.200	313.000	759.500	380.000	761.000	455.000	762.000	485.000	764.000	535.000
GR	766.000	570.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
K X1	2300.000	16.000	237.000	313.000	199.000	199.000	199.000	-0.	-0.	-0.
GR	767.000	0.	765.000	20.000	764.000	25.000	760.000	90.000	759.000	115.000
GR	761.000	230.000	761.000	237.000	750.000	268.000	749.500	275.000	750.000	280.000
GR	760.200	313.000	759.500	380.000	761.000	455.000	762.000	485.000	764.000	535.000
GR	766.000	570.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
L X1	2590.000	15.000	260.000	320.000	290.000	290.000	290.000	-0.	-0.	-0.
GR	762.000	0.	762.000	60.000	759.000	230.000	758.800	260.000	751.800	285.000
GR	751.300	290.000	751.800	295.000	760.000	320.000	761.000	350.000	762.000	400.000
GR	763.000	420.000	764.000	480.000	766.000	535.000	767.000	550.000	768.000	565.000
M X1	2625.000	15.000	290.000	310.000	35.000	35.000	35.000	-0.	-0.	-0.
GR	762.400	0.	762.000	100.000	761.000	130.000	758.200	290.000	754.400	297.000
GR	754.400	303.000	758.700	310.000	761.000	360.000	763.000	415.000	766.000	430.000
GR	769.000	540.000	770.000	550.000	771.000	565.000	772.000	585.000	773.000	600.000
N X1	2800.000	17.000	273.000	307.000	175.000	175.000	175.000	-0.	-0.	-0.
GR	762.000	0.	762.000	75.000	761.000	110.000	760.000	190.000	759.000	235.000
GR	759.000	260.000	759.500	273.000	755.100	287.000	755.100	293.000	759.700	307.000
GR	761.000	336.000	762.000	357.000	764.000	410.000	766.000	449.000	767.000	460.000
GR	768.000	475.000	774.000	530.000	-0.	-0.	-0.	-0.	-0.	-0.
O X1	2940.000	11.000	250.000	360.000	140.000	140.000	140.000	-0.	-0.	-0.
GR	762.000	0.	762.000	125.000	760.000	220.000	759.200	250.000	756.700	262.000
GR	756.700	335.000	760.000	360.000	761.000	385.000	764.000	480.000	766.000	516.000
GR	770.000	600.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
P X1	3030.000	12.000	250.000	385.000	90.000	90.000	90.000	-0.	-0.	-0.
GR	763.800	0.	763.000	30.000	762.000	110.000	760.000	220.000	759.200	250.000
GR	756.700	270.000	756.700	351.000	761.000	385.000	762.000	405.000	762.000	475.000
GR	764.000	525.000	766.000	545.000	-0.	-0.	-0.	-0.	-0.	-0.
Q X1	3105.000	13.000	250.000	345.000	75.000	75.000	75.000	-0.	-0.	-0.
GR	762.000	0.	762.000	120.000	761.000	180.000	759.200	250.000	756.700	257.000
GR	756.700	337.000	759.600	345.000	760.000	365.000	761.000	445.000	762.000	485.000
GR	763.000	500.000	764.000	510.000	767.000	532.000	-0.	-0.	-0.	-0.
R X1	3155.000	17.000	265.000	315.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	764.600	0.	764.000	15.000	763.000	110.000	762.000	150.000	761.000	265.000
GR	759.200	282.000	757.300	298.000	757.300	303.000	760.000	315.000	761.000	330.000
GR	761.000	390.000	762.000	475.000	763.000	510.000	764.000	530.000	765.000	540.000
GR	766.000	555.000	771.000	600.000	-0.	-0.	-0.	-0.	-0.	-0.

S	X1	332[illegible]0	11.000	285.000	317.000	165.000	165.000	165.000	-0.	-0.	-0.
	GR	766.000	0.	766.000	35.000	764.000	72.000	762.000	240.000	761.800	285.000
	GR	760.000	298.000	760.000	303.000	761.600	317.000	762.000	342.000	764.000	552.000
	GR	768.000	615.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
T	X1	3485.000	9.000	275.000	315.000	165.000	165.000	165.000	-0.	-0.	-0.
	GR	768.000	0.	766.000	80.000	764.000	185.000	763.000	275.000	760.800	297.000
	GR	760.800	303.000	762.000	315.000	764.000	640.000	766.000	650.000	-0.	-0.
U	X1	3650.000	13.000	285.000	317.000	165.000	165.000	165.000	-0.	-0.	-0.
	GR	775.000	0.	774.000	30.000	772.000	82.000	770.000	215.000	768.000	252.000
	GR	766.000	280.000	765.900	285.000	761.500	297.000	761.500	303.000	765.000	317.000
	GR	764.000	405.000	762.000	535.000	762.000	600.000	-0.	-0.	-0.	-0.
V	X1	3885.000	13.000	275.000	326.000	235.000	235.000	235.000	-0.	-0.	-0.
	GR	779.000	0.	778.000	12.000	776.000	55.000	772.000	89.000	770.000	195.000
	GR	769.000	275.000	762.600	297.000	762.600	303.000	768.400	326.000	770.000	370.000
	GR	772.000	400.000	774.000	570.000	774.000	630.000	-0.	-0.	-0.	-0.
W	X1	4060.000	12.000	272.000	325.000	175.000	175.000	175.000	-0.	-0.	-0.
	GR	783.500	0.	782.000	25.000	780.000	47.000	776.000	110.000	774.000	160.000
	GR	772.000	223.000	771.400	272.000	764.600	297.000	764.600	303.000	770.700	325.000
	GR	772.000	402.000	773.800	627.000	-0.	-0.	-0.	-0.	-0.	-0.
X	X1	4225.000	10.000	275.000	330.000	165.000	165.000	165.000	-0.	-0.	-0.
	GR	780.000	0.	776.000	82.000	774.000	140.000	772.000	275.000	768.700	297.000
	GR	768.700	303.000	774.000	330.000	774.000	470.000	775.800	520.000	774.000	632.000
Y	X1	4340.000	12.000	238.000	283.000	115.000	115.000	115.000	-0.	-0.	-0.
	GR	778.000	0.	776.000	78.000	774.000	183.000	774.000	208.000	774.200	238.000
	GR	770.000	255.000	770.000	261.000	775.700	283.000	776.000	430.000	778.000	478.000
	GR	780.000	518.000	778.000	553.000	-0.	-0.	-0.	-0.	-0.	-0.
Z	X1	4420.000	12.000	247.000	287.000	80.000	80.000	80.000	-0.	-0.	-0.
	GR	778.500	0.	778.000	70.000	776.000	215.000	776.000	235.000	776.500	247.000
	GR	770.600	262.000	770.600	268.000	777.500	287.000	775.500	425.000	776.000	460.000
	GR	777.000	495.000	776.000	547.000	-0.	-0.	-0.	-0.	-0.	-0.
AA	X1	4510.000	10.000	260.000	329.000	90.000	90.000	90.000	-0.	-0.	-0.
	GR	774.500	0.	774.100	145.000	776.000	232.000	776.200	260.000	771.300	287.000
	GR	771.300	293.000	781.200	329.000	782.000	365.000	784.000	393.000	788.000	530.000
AB	X1	4600.000	10.000	256.000	325.000	90.000	90.000	90.000	-0.	-0.	-0.
	GR	777.000	0.	776.000	85.000	776.000	130.000	777.500	256.000	771.300	297.000
	GR	771.300	303.000	781.500	325.000	782.000	372.000	784.000	407.000	788.000	557.000
AC	X1	4735.000	12.000	237.000	300.000	135.000	135.000	135.000	-0.	-0.	-0.
	GR	776.000	0.	778.000	167.000	778.500	237.000	773.400	272.000	773.400	278.000
	GR	778.800	300.000	780.000	328.000	782.000	365.000	784.000	447.000	786.000	477.000
	GR	788.000	502.000	790.000	540.000	-0.	-0.	-0.	-0.	-0.	-0.
AD	X1	4890.000	9.000	243.000	283.000	155.000	155.000	155.000	-0.	-0.	-0.
	GR	776.000	0.	778.000	108.000	779.200	243.000	775.600	265.000	775.00	271.000

	GR	790.400	283.000	782.000	378.000	784.000	440.000	786.000	585.000	-0.	-0.
AE	X1	5050.000	12.000	255.000	297.000	160.000	160.000	160.000	-0.	-0.	-0.
	GR	786.000	0.	784.000	65.000	782.000	160.000	780.000	192.000	779.000	255.000
	GR	776.500	272.000	776.500	278.000	780.000	297.000	782.000	375.000	786.000	420.000
	GR	788.000	531.000	788.000	575.000	-0.	-0.	-0.	-0.	-0.	-0.
AF	X1	5230.000	11.000	268.000	332.000	180.000	180.000	180.000	-0.	-0.	-0.
	GR	792.000	0.	790.000	55.000	788.000	98.000	784.000	170.000	782.100	268.000
	GR	777.300	296.000	777.300	304.000	782.900	332.000	784.000	360.000	788.000	421.000
	GR	792.000	575.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
AG	X1	5417.000	14.000	7.000	81.000	187.000	187.000	187.000	-0.	-0.	-0.
	GR	788.100	0.	787.900	7.000	781.700	32.000	781.200	37.000	780.000	40.000
	GR	791.300	44.000	782.000	51.000	788.900	81.000	789.200	91.000	789.500	101.000
	GR	789.900	111.000	791.000	121.000	793.800	139.000	794.000	144.000	-0.	-0.
	X1	5467.000	12.000	195.000	240.000	50.000	50.000	50.000	-0.	-0.	-0.
	GR	795.700	0.	792.400	50.000	790.400	100.000	789.400	150.000	788.700	195.000
	GR	779.500	213.000	779.500	223.000	788.800	240.000	789.300	290.000	790.700	340.000
	GR	793.300	390.000	795.800	440.000	-0.	-0.	-0.	-0.	-0.	-0.
	SB	.950	1.150	2.800	80.000	15.000	3.800	64.500	0.	779.500	779.500
	X1	5533.000	0.	0.	0.	66.000	66.000	66.000	-0.	-0.	-0.
	X2	0.	0.	1.000	783.800	788.700	-0.	-0.	-0.	-0.	-0.
AH	X1	5583.000	12.000	195.000	240.000	50.000	50.000	50.000	-0.	-0.	-0.
	GR	795.700	0.	792.400	50.000	790.400	100.000	789.400	150.000	788.700	195.000
	GR	779.500	213.000	779.500	223.000	788.800	240.000	789.400	290.000	790.700	340.000
	GR	793.300	390.000	795.800	440.000	-0.	-0.	-0.	-0.	-0.	-0.
AI	X1	5826.000	14.000	189.000	200.000	243.000	243.000	243.000	-0.	-0.	-0.
	GR	788.600	0.	788.400	50.000	788.200	100.000	788.200	150.000	787.700	159.000
	GR	785.700	170.000	782.800	183.000	781.300	186.000	783.000	189.000	785.800	200.000
	GR	788.300	213.000	788.400	250.000	789.500	300.000	789.400	350.000	-0.	-0.
AJ	X1	6037.000	13.000	149.000	200.000	211.000	211.000	211.000	-0.	-0.	-0.
	GR	797.600	0.	789.900	50.000	788.400	100.000	788.400	149.000	786.100	162.000
	GR	782.800	168.000	784.200	172.000	790.600	200.000	793.900	250.000	794.900	271.000
	GR	795.500	300.000	795.400	350.000	794.600	400.000	-0.	-0.	-0.	-0.
	X1	6087.000	10.000	190.000	200.000	50.000	50.000	50.000	-0.	-0.	-0.
	GR	792.200	0.	791.100	50.000	790.800	100.000	790.100	150.000	789.700	190.000
	GR	783.900	195.000	790.000	200.000	793.300	250.000	796.700	300.000	798.800	350.000
	SB	.950	1.150	2.800	195.000	4.000	.850	16.000	0.	786.700	783.900
	X1	6103.000	0.	0.	0.	16.000	16.000	16.000	-0.	-0.	-0.
	X2	0.	0.	1.000	787.900	789.800	-0.	-0.	-0.	-0.	-0.
AK	X1	6153.000	13.000	149.000	200.000	50.000	50.000	50.000	-0.	-0.	-0.
	GR	797.600	0.	789.900	50.000	788.400	100.000	788.400	149.000	786.100	162.000
	GR	783.900	168.000	784.200	172.000	790.600	200.000	793.900	250.000	794.900	271.000
	GR	795.500	300.000	795.400	350.000	794.600	400.000	-0.	-0.	-0.	-0.

AL X1	6408.000	12.000	64.000	100.000	255.000	255.000	255.000	-0.	-0.	-0.
GR	797.[illegible]00	0.	796.700	14.000	796.300	24.000	796.000	33.000	795.500	52.000
GR	796.[illegible]00	64.000	789.700	76.000	790.300	80.000	788.700	84.000	790.100	87.000
GR	796.800	100.000	797.000	112.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	6458.000	9.000	16.000	47.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	796.000	0.	796.700	16.000	791.600	26.000	790.000	30.000	789.000	32.000
GR	790.000	35.000	791.700	37.000	796.700	47.000	796.700	62.000	-0.	-0.
SB	1.250	1.250	3.330	40.000	1.000	.200	.080	0.	788.600	788.600
X1	6460.000	0.	0.	0.	2.000	2.000	2.000	-0.	-0.	-0.
X2	0.	0.	1.000	790.000	791.700	-0.	-0.	-0.	-0.	-0.
BT	9.000	0.	796.000	796.000	16.000	796.700	796.700	26.000	791.700	791.700
BT	30.000	791.700	790.000	32.000	791.700	790.000	35.000	791.700	790.000	37.000
BT	791.700	791.700	47.000	796.700	796.700	62.000	796.700	796.700	-0.	-0.
AM X1	6477.000	12.000	64.000	100.000	17.000	17.000	17.000	-0.	-0.	-0.
GR	797.200	0.	796.700	14.000	796.300	24.000	796.000	33.000	795.500	52.000
GR	796.200	64.000	789.700	76.000	790.300	80.000	788.700	84.000	790.100	87.000
GR	796.800	100.000	797.000	112.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	6494.000	11.000	178.000	211.000	17.000	17.000	17.000	-0.	-0.	-0.
GR	799.200	0.	797.500	50.000	796.400	100.000	795.400	150.000	797.000	178.000
GR	792.200	183.000	790.300	200.000	793.000	207.000	796.200	211.000	796.100	218.000
GR	797.500	244.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	6511.000	11.000	178.000	211.000	17.000	17.000	17.000	-0.	-0.	-0.
GR	799.200	0.	797.500	50.000	796.400	100.000	795.400	150.000	797.000	178.000
GR	792.200	183.000	790.300	200.000	793.000	207.000	796.200	211.000	796.100	218.000
GR	797.500	244.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
SB	.950	1.150	2.800	50.000	5.000	1.000	25.000	0.	790.300	790.300
X1	6561.000	0.	0.	0.	50.000	50.000	50.000	-0.	-0.	-0.
X2	0.	0.	1.000	795.300	796.200	-0.	-0.	-0.	-0.	-0.
AN X1	6612.000	13.000	188.000	210.000	51.000	51.000	51.000	-0.	-0.	-0.
GR	795.700	0.	794.900	50.000	795.300	150.000	797.100	188.000	791.600	196.000
GR	791.000	200.000	791.700	204.000	796.400	210.000	795.700	218.000	795.800	242.000
GR	797.900	250.000	798.900	300.000	802.300	340.000	-0.	-0.	-0.	-0.
SB	.950	1.150	2.800	100.000	5.000	1.000	25.000	0.	791.000	791.000
X1	6655.000	0.	0.	0.	43.000	43.000	43.000	-0.	-0.	-0.
X2	0.	0.	1.000	796.000	796.800	-0.	-0.	-0.	-0.	-0.
AO X1	6705.000	13.000	188.000	210.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	795.700	0.	794.900	50.000	795.300	150.000	797.100	188.000	791.600	196.000
GR	791.000	200.000	791.700	204.000	796.400	210.000	795.700	218.000	795.800	242.000
GR	797.900	250.000	798.900	300.000	802.300	340.000	-0.	-0.	-0.	-0.
AP X1	6843.000	10.000	124.000	150.000	138.000	138.000	138.000	-0.	-0.	-0.
GR	801.000	0.	799.600	50.000	799.000	100.000	800.200	124.000	793.200	134.000
GR	792.400	137.000	794.000	141.000	800.200	150.000	800.300	174.000	800.700	222.000
EJ	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

THIS RUN EXECUTED 02 MAY 78 09.01.01

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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                FARMINGTON FLOOD INSURANCE STUDY
T2                UPSTREAM OF  9 MILE TO CITY LIMIT
T3                100 - YEAR FREQUENCY FLOOD ON TARABUSI CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -0.       4.       -0.       -0. -0.            -0.       -1.0      -0.    728.600    0.
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      3.000     0.      -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 3

CCHV=    .100 CEHV=    .300
*SECNO 24.000
   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

    24.00      7.10    728.60      0.     728.60    728.61       .01      0.        0.      726.90
     930.      431.     493.       6.     996.      391.        31.       0.        0.      727.60
       0.       .43     1.26      .21      .075      .050      .075      0.      721.50     247.80
  .000227        0.       0.       0.        0         0         0       0.      766.49    1014.29

*SECNO 30.000
   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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    30.00      7.99    729.59    729.59      0.     730.07       .48       .01       .14     728.40
     930.       72.     633.      226.       53.      95.      166.        0.        0.     728.40
      .00      1.36     6.70      1.36      .075      .050      .075      .048    721.60     360.98
 .009388       22.      22.       22.       20        13         0       0.      391.44     752.42

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80      -0.       4.00      -0.       13.00     -0.      721.60    721.60

*SECNO 35.000
PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BARFA     TRAPEZOID AREA    ELLC      ELTPD
 820.98    730.07     0.        799.      131.      13.       16.               725.60    728.40

    35.00      9.80    731.40      0.        0.     731.41       .01      1.34      0.      728.40
     930.      175.     223.     533.      287.     135.      843.        1.        1.     728.40
      .01       .61     1.65      .63      .075      .050      .075      .048    721.60     299.06
 .000358       36.      36.      36.        1         0        11       0.      563.60     862.66

*SECNO 40.000
    40.00      9.19    731.39      0.        0.     731.45       .06       .02       .01     727.20
     930.      110.     422.     398.      116.     158.      392.        2.        1.     727.50
      .02       .95     2.67     1.02      .075      .050      .075      .049    722.20     277.28
 .000666       50.      50.      50.        2         0         0       0.      232.47     509.75

*SECNO 100.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
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   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

   100.00     7.52   731.82       0.        0.     731.84      .02       .39       .00    727.20
     930.     651.     184.      95.      765.      101.     150.       17.        6.    728.20
      .23      .85     1.83      .63      .075      .050     .075      .050    724.30     75.19
  .000379    783.     783.     783.         2         0        0        0.    355.30    430.49

*SECNO 200.000
   200.00     5.15   732.45       0.        0.     732.69      .24       .78       .07    730.30
     930.     374.     396.     160.      192.       70.      84.       30.       12.    731.00
      .30     1.95     5.63     1.91      .075      .050     .075      .050    727.30     40.91
  .006273    800.     800.     800.         3         0        0        0.    235.63    276.54

*SECNO 300.000
   300.00     6.00   735.50       0.        0.     735.61      .11      2.91       .01    733.20
     930.     338.     223.     369.      179.       51.     198.       35.       15.    733.10
      .36     1.89     4.39     1.86      .075      .050     .075      .050    729.50     90.33
  .003863    600.     600.     600.         5         0        0        0.    226.71    317.04

*SECNO 310.000

3301 HV CHANGED MORE THAN HVINS

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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   310.00     4.72   741.12   741.12       0.     741.82      .70      5.40       .18    739.20
     930.     109.     560.     261.       37.       67.     90.       41.       18.    739.20
      .40     2.93     8.34     2.89      .075      .050     .075      .050    736.40    363.28
  .013836    817.     817.     817.         5        14        0        0.    116.87    480.15

*SECNO 320.000
   320.00     5.70   741.50       0.        0.     742.70     1.19       .73       .15    750.00
     930.       0.     930.       0.        0.      106.      0.       41.       18.    750.00
      .40       0.     8.76       0.      .075      .050     .075      .050    735.80    222.39
  .015282      50.      50.      50.         2         0        0        0.     20.22    242.61

SPECIAL BRIDGE

SB  XK        XKOR      COEQ      BOLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.20      2.50    375.00     16.00       0.      69.00       0.    735.80    735.80

*SECNO 330.000

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

PRESSURE FLOW
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EGPRS	EGLWC	H3	QWFTR	QPR	BARFA	TRAPEZOID AREA	ELLC	ELTRD
744.89	742.70	0.	0.	930.	69.	69.	740.10	774.00

330.00	8.61	744.41	0.	0.	744.89	.48	2.19	0.	750.00
930.	0.	930.	0.	0.	167.	0.	42.	19.	750.00
.42	0.	5.56	0.	.075	.050	.075	.050	735.80	221.57
.004327	370.	370.	370.	2	0	0	0.	21.85	243.43

*SECNO 340.000

340.00	8.55	744.95	0.	0.	744.98	.03	.04	.05	739.20
930.	187.	268.	475.	191.	128.	499.	43.	19.	739.20
.43	.98	2.09	.95	.075	.050	.075	.050	736.40	340.31
.000366	50.	50.	50.	2	0	0	0.	208.77	549.08

*SECNO 60.000

60.00	8.57	744.97	0.	0.	744.98	.01	.00	.00	739.60
930.	764.	98.	68.	1100.	71.	120.	43.	19.	739.60
.44	.69	1.39	.56	.075	.050	.075	.050	736.40	193.68
.000218	10.	10.	10.	0	0	0	0.	407.09	600.77

*SECNO 100.000

100.00	7.28	744.98	0.	0.	745.00	.02	.01	.00	739.90
930.	679.	133.	118.	794.	74.	136.	44.	19.	739.90
.45	.85	1.81	.87	.075	.050	.075	.050	737.70	250.02
.000347	40.	40.	40.	0	0	0	0.	338.67	588.69

*SECNO 245.000

245.00	6.39	744.99	0.	0.	745.17	.18	.12	.05	741.70
930.	415.	298.	217.	212.	58.	88.	46.	20.	741.70
.46	1.96	5.17	2.47	.075	.050	.075	.050	738.60	181.76
.004316	145.	145.	145.	2	0	0	0.	171.04	352.80

*SECNO 375.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	FMDST
375.00	5.92	745.52	0.	0.	746.06	.53	.78	.11	743.00
930.	330.	551.	49.	151.	74.	23.	47.	20.	743.00
.47	2.19	7.40	2.18	.075	.050	.075	.050	739.60	197.62
.008982	130.	130.	130.	3	0	0	0.	151.40	349.02

*SECNO 450.000

450.00	4.14	746.34	0.	0.	746.89	.55	.83	.00	744.00
930.	448.	436.	45.	158.	54.	17.	48.	21.	744.00
.47	2.84	8.15	2.59	.075	.050	.075	.050	742.20	169.62
.013988	75.	75.	75.	3	0	0	0.	152.25	321.87

*SECNO 480.000

480.00	3.72	746.92	0.	0.	747.11	.19	.18	.04	744.50
930.	225.	705.	0.	145.	181.	0.	48.	21.	751.00
.47	1.55	3.90	0.	.075	.050	.075	.050	743.20	189.18
.003336	30.	30.	30.	2	0	0	0.	151.64	340.82

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*SECNO 66[illegible]000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   685.00      5.09    748.99    748.99      0.      749.71      .72      1.36      .16    746.70
     930.      214.      415.      301.     61.        44.      86.       49.      21.    746.70
      .48      3.50      9.45      3.49    .075      .050     .075      .050   743.90    245.24
  .019061      205.      205.      205.      20        14        0        0.   130.42    375.66

*SECNO 800.000

3301 HV CHANGED MORE THAN HVINS

   800.00      4.46    750.16      0.        0.      750.21      .05      .43      .07    746.70
     930.      655.      126.      150.    421.        42.     133.       50.      22.    746.70
      .50      1.55      2.98      1.13    .075      .050     .075      .050   745.70    130.92
  .001558      115.      115.      115.       3         0        0        0.   250.66    381.58

*SECNO 960.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   960.00      4.68    750.48    750.48      0.      751.10      .62      .62      .17    749.00
     930.      316.      410.      204.     94.        47.      62.       52.      23.    749.00
      .51      3.36      8.76      3.32    .075      .050     .075      .050   745.80    138.04
  .021491      160.      160.      160.      20         8        0        0.   164.46    302.49

*SECNO 1160.000

3301 HV CHANGED MORE THAN HVINS

  1160.00      5.57    751.97      0.        0.      752.05      .08      .90      .05    747.70
     930.      181.      193.      556.    106.        52.     310.       53.      23.    747.70
      .53      1.71      3.73      1.79    .075      .050     .075      .050   746.40    147.52
  .001884      200.      200.      200.       4         0        0        0.   181.85    329.37

*SECNO 1235.000
  1235.00      5.50    752.10      0.        0.      752.17      .07      .12      .00    747.80
     930.      656.      209.       65.    360.        66.      51.       54.      24.    747.10
      .54      1.82      3.15      1.29    .075      .050     .075      .050   746.60     76.57
  .001291       75.       75.       75.       2         0        0        0.   123.76    200.33
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*SECNO 15[illegible].000
 1525.00     5.44    752.54      0.        0.     753.09      .55      .78      .14    751.20
    930.      22.      908.       0.       14.     150.       0.      56.      24.     753.10
     .56     1.62      6.04      0.      .075     .050     .075     .050   747.10     98.31
 .008682     290.      290.     290.        1        0        0       0.    65.39    163.70

*SECNO 1650.000
 1650.00     6.12    753.52      0.        0.     753.67      .14      .53      .04    751.00
    930.     329.      601.       0.      214.     168.       0.      57.      25.     754.00
     .57     1.54      3.57      0.      .075     .050     .075     .050   747.40    117.24
 .002505     125.      125.     125.        2        0        0       0.   160.80    278.04

*SECNO 1800.000

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

 1800.00     7.85    753.85      0.        0.     753.91      .06      .24      .01    753.00
    930.     470.      460.       0.      296.     202.       0.      58.      25.     754.10
     .59     1.59      2.28      0.      .075     .050     .075     .050   746.00    133.32
 .001100     150.      150.     150.        2        0        0       0.   142.71    278.97

*SECNO 1950.000

3301 HV CHANGED MORE THAN HVINS

 1950.00     5.92    753.82      0.        0.     754.45      .64      .37      .17    757.00
    930.       0.      930.       0.        0.     145.       0.      60.      26.     758.00
     .60       0.      6.40      0.      .075     .050     .075     .050   747.90     84.24
 .009562     150.      150.     150.        2        0        0       0.    42.70    126.94

*SECNO 1989.000
 1989.00     6.42    754.42      0.        0.     754.74      .31      .25      .03    760.00
    930.       0.      930.       0.        0.     207.       0.      60.      26.     759.00
     .60       0.      4.49      0.      .075     .050     .075     .050   748.00    244.92
 .004601      39.       39.      39.        2        0        0       0.    51.77    296.69

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    750.93 ,NOT    754.42 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COEQ      HDLEN     BWC       BWP       RAREA     SS        ELCHU     ELCHD
     .90      1.25      2.80       0.      17.00      5.20     85.00      0.      748.00    748.00

*SECNO 2051.000
 PRESS FLOW BECAUSE EGLWC OF    757.01  EXCEEDS 1.5 DEPTH
PRESSURE FLOW

 EGPRS     EGLWC      H3       DWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                            AREA
 756.75    757.01     0.         0.      930.       85.      59.      753.00    758.50
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2051.00      8.63    756.63      0.          0.      756.75      .12      2.01      0.      760.00
  930.         0.      930.       0.          0.      336.       0.        60.      26.      759.00
   .61         0.      2.76       0.        .075      .050      .075      .050    748.00    233.11
.001219       62.      62.       62.          2         0         0        0.      65.66    298.77

*SECNO 2101.000
2101.00      7.10    756.60      0.          0.      756.89      .29       .10      .05      761.00
  930.         0.      930.       0.          0.      214.       0.        60.      26.      760.20
   .61         0.      4.34       0.        .075      .050      .075      .050    749.50    249.40
.003415       50.      50.       50.          2         0         0        0.      51.96    301.36

*SECNO 2300.000
  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

2300.00      7.73    757.23      0.          0.      757.45      .22       .55      .01      761.00
  930.         0.      930.       0.          0.      248.       0.        61.      26.      760.20
   .62         0.      3.75       0.        .075      .050      .075      .050    749.50    247.61
.002295      199.     199.      199.          2         0         0        0.      55.80    303.41

*SECNO 2590.000
2590.00      6.75    758.05      0.          0.      758.41      .35       .91      .04      758.80
  930.         0.      930.       0.          0.      195.       0.        63.      26.      760.00
   .64         0.      4.78       0.        .075      .050      .075      .050    751.30    262.65
.004595      290.     290.      290.          1         0         0        0.      51.43    314.08

*SECNO 2625.000
  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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
2625.00      5.67    760.07    760.07      0.      760.83      .76       .25      .12      758.20
  930.       210.      685.      35.       100.       85.      20.        63.      26.      758.70
   .64       2.10      8.06     1.70      .075      .050      .075      .050    754.40    183.08
.012242       35.      35.       35.         20        12         0        0.     156.73    339.81

*SECNO 2800.000

3301 HV CHANGED MORE THAN HVINS

2800.00      6.39    761.49      0.          0.      761.62      .13       .72      .06      759.50
  930.       345.      552.      33.       264.      154.      35.        64.      27.      759.70
   .66       1.31      3.58      .93      .075      .050      .075      .050    755.10     92.94
.002042      175.     175.      175.          3         0         0        0.     253.29    346.23

*SECNO 2940.000
2940.00      5.00    761.70      0.          0.      761.74      .04       .12      .01      759.20
  930.       69.       845.      16.       131.      493.      38.        66.      28.      760.00
   .69       .53       1.71      .42      .075      .050      .075      .050    756.70    139.41
.000452      140.     140.      140.          2         0         0        0.     267.64    407.06
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*SECNO 3030.000
  SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
  Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
  TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 3030.00      5.05    761.75      0.        0.      761.78      .03       .04       .00     759.20
    930.       68.      861.       1.      148.      583.       6.       68.       29.      761.00
     .70       .46     1.48      .19      .075      .050      .075      .050    756.70     123.97
 .000352      90.       90.      90.        2         0         0        0.     275.94     399.92

*SECNO 3105.000
 3105.00      5.07    761.77      0.        0.      761.81      .04       .03       .00     759.20
    930.       70.      785.      75.      135.      462.      154.      69.       29.      759.60
     .72       .51     1.70      .49      .075      .050      .075      .050    756.70     133.44
 .000403      75.       75.      75.        0         0         0        0.     342.61     476.04

*SECNO 3155.000

3301 HV CHANGED MORE THAN HVINS

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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 3155.00      4.09    761.39    761.39      0.      762.06      .67       .06       .19     761.00
    930.        7.      856.      67.       9.      125.       43.      69.       29.      760.00
     .72       .83     6.82     1.55      .075      .050      .075      .050    757.30     220.25
 .015668      50.       50.      50.        3        15         0        0.     202.82     423.07

*SECNO 3320.000
 3320.00      3.49    763.49      0.        0.      763.66      .17      1.55       .05     761.80
    930.      274.      411.     245.      165.       89.      159.      71.       31.      761.60
     .73      1.66     4.63     1.54      .075      .050      .075      .050    760.00     114.71
 .006275     165.      165.     165.        3         0         0        0.     383.90     498.61

*SECNO 3485.000
 3485.00      3.48    764.28      0.        0.      764.35      .07       .68       .01     763.00
    930.       65.      335.     530.       73.      108.      419.      73.       32.      762.00
     .76       .89     3.10     1.26      .075      .050      .075      .050    760.80     169.83
 .002901     165.      165.     165.        3         0         0        0.     471.62     641.45

*SECNO 3650.000

3265 DIVIDED FLOW

3280 CROSS SECTION   3650.00 EXTENDED      2.79 FEET

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

 3650.00      3.29    764.79      0.        0.      764.85      .06       .50       .00     765.90
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930.        0.      145.      785.        0.       56.      441.       75.       34.    765.00
 .78        0.      2.58      1.78      .075      .050      .075      .050    761.50    288.03
.003140    165.      165.      165.         2         0         0        0.    292.55    600.00

*SECNO 3885.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  3885.00     4.49    767.09    767.09        0.    768.39      1.31      1.66       .37    769.00
    930.        0.      930.        0.        0.     101.        0.       76.       35.    768.40
     .79        0.      9.17        0.      .075      .050      .075      .050    762.60    281.58
 .027929     235.      235.      235.        20        11         0        0.     39.21    320.79

*SECNO 4060.000

3301 HV CHANGED MORE THAN HVINS

  4060.00     5.80    770.40        0.        0.    770.94       .54      2.48       .08    771.40
    930.        0.      930.        0.        0.     157.        0.       77.       35.    770.70
     .80        0.      5.91        0.      .075      .050      .075      .050    764.60    275.67
 .008521     175.      175.      175.         3         0         0        0.     48.26    323.93

*SECNO 4225.000
   SECNO     DEPTH     CWSEL     CRIWS    WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB     ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB     XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR    ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  4225.00     3.98    772.68    772.68        0.    773.62       .94      2.15       .12    772.00
    930.       22.      908.        0.       15.     115.        0.       77.       35.    774.00
     .80       1.44      7.87        0.      .075      .050      .075      .050    768.70    229.26
 .022307     165.      165.      165.         3        14         0        0.     94.00    323.26

*SECNO 4340.000
  4340.00     4.90    774.90        0.        0.    775.49       .59      1.84       .03    774.20
    930.      118.      812.        0.       68.     123.        0.       78.       35.    775.70
     .81       1.74      6.59        0.      .075      .050      .075      .050    770.00    135.76
 .012068     115.      115.      115.         2         0         0        0.    144.15    279.91

*SECNO 4420.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS    WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB     ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB     XNL       XNCH      XNR       WTN       ELMIN      SSTA
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SLOPE	XLOPL	XLCH	XLOPR	ITRIAL	IPC	ICONT	CORAR	TCRATIO	ERROST
4420.00	5.10	775.70	775.69	0.	777.05	1.35	1.33	.23	776.50
930.	0.	928.	2.	0.	100.	3.	78.	36.	777.50
.81	0.	9.32	.67	.075	.050	.075	.050	770.60	249.03
.024306	80.	80.	80.	6	11	0	0.	61.17	439.18

*SECNO 4510.000

3280 CROSS SECTION 4510.00 EXTENDED 2.81 FEET

3301 HV CHANGED MORE THAN HVINS

4510.00	6.01	777.31	0.	0.	777.34	.02	.15	.13	776.20
930.	604.	326.	0.	668.	198.	0.	79.	36.	781.20
.83	.91	1.64	0.	.075	.050	.075	.050	771.30	0.
.000570	90.	90.	90.	2	0	0	0.	314.86	314.86

*SECNO 4600.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4600.00 EXTENDED .32 FEET

4600.00	6.01	777.31	0.	0.	777.48	.17	.10	.04	777.50
930.	211.	719.	0.	201.	195.	0.	80.	37.	781.50
.84	1.05	3.69	0.	.075	.050	.075	.050	771.30	0.
.003253	90.	90.	90.	3	0	0	0.	299.22	315.97

*SECNO 4735.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4735.00 EXTENDED 1.89 FEET

4735.00	4.49	777.89	0.	0.	778.18	.28	.66	.03	778.50
930.	257.	673.	0.	150.	137.	0.	81.	37.	778.80
.85	1.72	4.90	0.	.075	.050	.075	.050	773.40	0.
.008203	135.	135.	135.	3	0	0	0.	213.32	296.31

*SECNO 4890.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4890.00 EXTENDED 3.15 FEET

4890.00	3.55	779.15	0.	0.	779.26	.11	1.07	.02	779.20
930.	655.	275.	0.	307.	76.	0.	83.	38.	780.40
.87	2.14	3.63	0.	.075	.050	.075	.050	775.60	0.
.005880	155.	155.	155.	2	0	0	0.	274.07	279.88

*SECNO 5050.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

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Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  5050.00     3.84    780.34    780.34      0.     781.10      .76      1.54      .20    779.00
     930.     128.      800.        2.      54.     107.       2.       84.       30.    780.00
      .87     2.38      7.50      .83     .075     .050     .075      .050    776.50    186.58
 .018655      160.      160.     160.        2        8        0        0.    123.62    310.20

*SECNO 5230.000
  5230.00     5.25    782.55      0.       0.     782.92      .36      1.78      .04    782.10
     930.       3.      927.       0.       5.     191.       0.       84.       30.    782.90
      .88      .58      4.85      0.     .075     .050     .075      .050    777.30    244.50
 .006096      180.      180.     180.        3        0        0        0.     85.78    330.28

*SECNO 5417.000

3301 HV CHANGED MORE THAN HVINS

SECNO      DEPTH     CWSEL     CRIWS     WSELK     FG        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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  5417.00     4.80    784.80    784.80      0.     786.03     1.23      2.14      .26    787.90
     930.       0.      930.       0.       0.     105.       0.       85.       40.    788.90
      .89       0.      8.90      0.     .075     .050     .075      .050    780.00     19.49
 .029045      187.      187.     187.       20       11        0        0.     43.69     63.18

*SECNO 5467.000

3301 HV CHANGED MORE THAN HVINS

  5467.00     6.63    786.13      0.       0.     786.73      .60       .64      .06    788.70
     930.       0.      930.       0.       0.     150.       0.       85.       40.    788.80
      .89       0.      6.22      0.     .075     .050     .075      .050    779.50    200.02
 .007140       50.       50.      50.        2        0        0        0.     35.10    235.12

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    782.82 ,NOT    786.13 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SR   XK        XKOP      COFO      BOLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .95      1.15      2.80     80.00     15.00      3.80     64.50      0.      779.50    779.50

*SECNO 5533.000
PRESSURE AND WEIR FLOW

EGPRS      EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID      ELLC      ELTRO
                                                             AREA
  789.84    788.72     0.         85.      849.      65.       48.      783.80    788.70
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 5533.00     9.54    789.04      0.        0.     789.23      .19      2.43      0.     788.70
    930.       1.      929.       1.        4.      267.       3.       85.      40.     785.80
     .90      .23      3.47      .18      .075      .050     .075      .050   779.50     173.27
 .001445      66.       66.      66.         2         0        2        0.    90.53     263.80


*SECNO 5583.000
   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

 5583.00     9.61    789.11      0.        0.     789.30      .18       .07       .00    788.70
    930.       1.      928.       1.        6.      271.       4.       86.      40.     788.80
     .90      .26      3.43      .21      .075      .050     .075      .050   779.50     168.35
 .001382      50.       50.      50.         2         0        0        0.    97.85     266.21


*SECNO 5826.000
3280 CROSS SECTION   5826.00 EXTENDED     1.02 FEET

 5826.00     8.31    789.61      0.        0.     789.70      .08       .39       .01    783.00
    930.     588.      218.     124.      354.       57.     122.       88.      41.     785.80
     .93     1.66      3.80     1.02      .075      .050     .075      .050   781.30       0.
 .001888     243.      243.     243.         2         0        0        0.   350.00     350.00


*SECNO 6037.000
 6037.00     7.27    790.07      0.        0.     790.30      .23       .56       .04    788.40
    930.     199.      731.       0.      128.      172.       0.       90.      42.     790.60
     .95     1.55      4.25      0.      .075      .050     .075      .050   782.80      48.88
 .003993     211.      211.     211.         2         0        0        0.   148.81     197.69


*SECNO 6087.000
   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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 6087.00     7.69    791.59    791.59      0.     792.13      .54       .37       .09    789.70
    930.     491.      395.      44.      162.       47.      19.       90.      43.     790.00
     .95     3.03      8.37     2.28      .075      .050     .075      .050   783.90      27.64
 .018058      50.       50.      50.        20         9        0        0.   196.48     224.12


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      BOLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80    195.00      4.00      .85      16.00      0.      786.70    783.90

*SECNO 6103.000
6870 D.S. ENERGY OF  792.13 HIGHER THAN COMPUTED ENERGY OF  791.76
PRESSURE AND WEIR FLOW

 EGPRS     EGLWC      H3       QWEIR     QPR       BAREA    TRAPEZOID      ELLC      ELTRU
                                                            AREA
 851.92    792.40     .26      881.      49.       16.        4.       787.90    7 9.80
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 6103.00     7.80    791.70      0.        0.     792.13      .44      0.        0.     789.70
    930.     513.     370.      47.      180.      48.       22.      90.       43.     790.00
     .95     2.85     7.67     2.15      .075      .050      .075     .050    783.90      22.79
 .014723      16.      16.      16.         2         0        10      0.     202.95     225.74

*SECNO 6153.000
   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

 6153.00     8.30    792.20      0.        0.     792.25      .05      .07       .04     788.40
    930.     359.     563.       8.      356.     275.       19.      91.       43.     790.60
     .96     1.01     2.05      .39      .075      .050      .075     .050    783.90      35.07
 .000523      50.      50.      50.         2         0         0      0.     189.18     224.24

*SECNO 6408.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 6408.00     5.69    794.39    794.39      0.     796.04     1.65      .41       .48     796.20
    930.      0.      930.       0.        0.      90.       0.       93.       43.     796.80
     .97      0.     10.31       0.      .075      .050      .075     .050    788.70      67.34
 .028793     255.     255.     255.        20        19         0      0.      27.98      95.32

*SECNO 6458.000
 6458.00     6.94    795.94      0.        0.     797.30     1.36     1.23       .03     796.70
    930.      0.      930.       0.        0.      99.       0.       93.       44.     796.70
     .97      0.      9.35       0.      .075      .050      .075     .050    789.00      17.49
 .021264      50.      50.      50.         2         0         0      0.      28.00      45.48

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      BDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.25      3.33     40.00      1.00      .20       .08      0.      788.60    788.60

*SECNO 6460.000

3265 DIVIDED FLOW

3280 CROSS SECTION   6460.00 EXTENDED      .40 FEET

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                             AREA
623867.08  799.20     1.90     932.        1.        0.        1.       790.00    791.70
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 6460.00     7.40    796.40      0.        0.     797.45     1.05      .15      0.     796.70
    930.       1.      929.      0.        2.      113.      0.       93.      44.     796.70
     .97      .81     8.24      0.      .075      .050     .075     .050   789.00      0.
 .015186       2.       2.       2.         4         0        8       0.    38.98     46.40

*SECNO 6477.000
3280 CROSS SECTION   6477.00 EXTENDED      .35 FEET

3301 HV CHANGED MORE THAN HVINS

 6477.00     8.65    797.35      0.        0.     797.62      .28      .09      .08    796.20
    930.      92.      834.      3.       73.      188.       5.       93.      44.     796.80
     .97     1.26     4.44      .62      .075      .050     .075     .050   788.70      0.
 .002826      17.      17.      17.         3         0        0       0.   112.00    112.00

*SECNO 6494.000
   SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      QLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

 6494.00     7.14    797.44      0.        0.     797.68      .24      .05      .00    797.00
    930.     164.      742.     24.      136.      171.      26.       93.      44.     796.20
     .97     1.20     4.33      .94      .075      .050     .075     .050   790.30     52.80
 .002723      17.      17.      17.         2         0        0       0.   190.05    242.85

*SECNO 6511.000
 6511.00     7.19    797.49      0.        0.     797.72      .23      .05      .00    797.00
    930.     169.      735.     25.      142.      173.      27.       93.      44.     796.20
     .97     1.19     4.25      .94      .075      .050     .075     .050   790.30     50.67
 .002591      17.      17.      17.         0         0        0       0.   193.05    243.72

SPECIAL BRIDGE

SB   XK       XKOR      COFQ      ROLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .95      1.15      2.80      50.00     5.00      1.00      25.00     0.        790.30    790.30

*SECNO 6561.000
3280 CROSS SECTION   6561.00 EXTENDED      1.59 FEET

PRESSURE AND WEIR FLOW

 EGPRS     EGLWC      H3       QWEIR      QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                             AREA
 822.21    797.79     .06      691.      240.       25.       20.      795.30    796.20

 6561.00     8.79    799.09      0.        0.     799.15      .05     1.42      0.     797.00
    930.     334.      528.     66.      385.      226.      80.       94.      44.     796.20
     .98      .87     2.34      .84      .075      .050     .075     .050   790.30      3.18
 .000549      50.      50.      50.         2         0        5       0.   240.82    244.00

*SECNO 6612.000
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3280 CROSS SECTION    6612.00 EXTENDED      3.46 FEET

   6612.00      8.15    799.15      0.        0.      799.17      .02       .02       .00    797.10
      930.      612.     211.     107.      712.      132.     164.       95.       40.    796.40
      1.00       .80     1.60      .66      .075      .050     .075      .050    791.00      0.
   .000322      51.      51.      51.         1         0        0        0.    303.08    303.08


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    798.23 ,NOT    799.15 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB   XK      XKOP      COEQ      RDLEN      RWC      BWP      BAREA      SS      ELCHU      ELCHO
      .95     1.15      2.80     100.00     5.00     1.00     25.00      0.     791.00     791.00

*SECNO 6655.000
3280 CROSS SECTION    6655.00 EXTENDED      3.77 FEET


PRESSURE AND WEIR FLOW

 EGPRS     EGLWC      H3      QWEIR      QPR      BAREA   TRAPEZOID AREA      ELLC      ELTPD
 823.86    808.32     0.       824.      106.      25.       20.            796.00    796.80


   6655.00      8.46    799.46      0.        0.      799.48      .01       .31        0.    797.10
      930.      612.     202.     116.      769.      139.     193.       96.       45.    796.40
      1.01       .80     1.45      .60      .075      .050     .075      .050    791.00      0.
   .000250      43.      43.      43.         1         0        7        0.    306.69    306.69


*SECNO 6705.000
3280 CROSS SECTION    6705.00 EXTENDED      3.78 FEET

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


   6705.00      8.47    799.47      0.        0.      799.49      .01       .01       .00    797.10
      930.      612.     201.     117.      771.      139.     194.       97.       45.    796.40
      1.03       .79     1.45      .60      .075      .050     .075      .050    791.00      0.
   .000248      50.      50.      50.         0         0        0        0.    306.77    306.77


*SECNO 6843.000

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

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


3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

6843.00	7.45	799.85	799.35	0.	800.88	1.03	.11	.51	800.20
930	55.	875.	0.	36.	104.	0.	99.	46.	800.20
1.03	1.53	8.41	0.	.075	.050	.075	.050	792.40	41.12
.014754	138.	138.	138.	20	15	0	0.	100.84	149.40

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: TARABUSI CREEK
UPSTREAM OF 9 MILE

4) DOCUMENT TYPE: 10-YR - SUMMARY

00BREAK00

THIS RUN EXECUTED 02 MAY 78 09.01.05

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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

10 - YEAR FRE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	24.000	0.	0.	0.	721.50	560.00	727.80	0.	727.81	2.29	1.12	883.39	370.24
	24.000	0.	0.	0.	721.50	820.00	728.30	0.	728.32	2.54	1.28	1199.88	514.13
	24.000	0.	0.	0.	721.50	930.00	728.60	0.	728.61	2.27	1.26	1418.69	617.70
	24.000	0.	0.	0.	721.50	1080.00	728.80	0.	728.82	2.42	1.34	1576.95	694.53
*	30.000	22.00	0.	0.	721.60	560.00	727.87	727.87	729.35	347.94	9.79	57.22	30.02
*	30.000	22.00	0.	0.	721.60	820.00	729.43	729.43	729.96	99.01	6.71	256.21	82.41
*	30.000	22.00	0.	0.	721.60	930.00	729.59	729.59	730.07	93.88	6.70	313.77	95.99
*	30.000	22.00	0.	0.	721.60	1080.00	729.68	729.68	730.21	104.79	7.18	352.76	105.50
	35.000	36.00	728.40	725.60	721.60	560.00	730.64	0.	730.66	4.05	1.61	846.67	278.36
	35.000	36.00	728.40	725.60	721.60	820.00	731.23	0.	731.24	3.50	1.61	1168.01	438.18
	35.000	36.00	728.40	725.60	721.60	930.00	731.40	0.	731.41	3.58	1.65	1263.96	491.40
	35.000	36.00	728.40	725.60	721.60	1080.00	731.61	0.	731.63	3.68	1.72	1386.61	562.89
	40.000	50.00	0.	0.	722.20	560.00	730.65	0.	730.69	4.77	2.11	501.06	256.52
	40.000	50.00	0.	0.	722.20	820.00	731.22	0.	731.28	6.00	2.50	626.72	334.88
	40.000	50.00	0.	0.	722.20	930.00	731.39	0.	731.45	6.66	2.67	665.38	360.27
	40.000	50.00	0.	0.	722.20	1080.00	731.60	0.	731.67	7.51	2.89	715.48	394.01
	100.000	783.00	0.	0.	724.30	560.00	730.99	0.	731.00	3.39	1.57	733.71	304.24
	100.000	783.00	0.	0.	724.30	820.00	731.62	0.	731.64	3.60	1.75	945.59	431.98
	100.000	783.00	0.	0.	724.30	930.00	731.82	0.	731.84	3.79	1.83	1016.23	477.88
	100.000	783.00	0.	0.	724.30	1080.00	732.07	0.	732.09	4.00	1.93	1106.91	539.70
*	200.000	800.00	0.	0.	727.30	560.00	731.66	731.66	732.09	107.07	6.39	173.17	54.12
	200.000	800.00	0.	0.	727.30	820.00	732.21	0.	732.50	75.42	5.93	284.85	94.42
	200.000	800.00	0.	0.	727.30	930.00	732.45	0.	732.69	62.73	5.63	345.72	117.42
	200.000	800.00	0.	0.	727.30	1080.00	732.73	0.	732.94	52.58	5.39	415.56	148.98
	300.000	600.00	0.	0.	729.50	560.00	735.05	0.	735.13	28.93	3.58	330.33	104.12
	300.000	600.00	0.	0.	729.50	820.00	735.40	0.	735.50	35.18	4.13	404.48	138.25
	300.000	600.00	0.	0.	729.50	930.00	735.50	0.	735.61	38.63	4.39	427.72	149.64
	300.000	600.00	0.	0.	729.50	1080.00	735.64	0.	735.76	42.16	4.67	460.69	166.32
*	310.000	817.00	0.	0.	736.40	560.00	740.52	740.52	741.13	125.55	7.17	129.22	49.96
*	310.000	817.00	0.	0.	736.40	820.00	740.97	740.97	741.64	133.86	8.01	177.22	70.87
*	310.000	817.00	0.	0.	736.40	930.00	741.12	741.12	741.82	138.36	8.34	194.61	79.06
*	310.000	817.00	0.	0.	736.40	1080.00	741.30	741.30	742.05	144.82	8.78	216.44	89.74

	SE	XLCH	FLTRD	ELLC	ELMIN	Q	CRSEL	CRIWS	FG	10K*S	VCH	AREA	.01K
	320.000	50.00	0.	0.	735.80	560.00	741.09	0.	741.60	69.97	5.72	97.82	66.95
	320.000	50.00	0.	0.	735.80	820.00	741.41	0.	742.37	125.00	7.86	104.30	73.34
	320.000	50.00	0.	0.	735.80	930.00	741.50	0.	742.70	152.82	8.76	106.19	75.23
	320.000	50.00	0.	0.	735.80	1080.00	741.58	0.	743.14	197.73	10.02	107.76	76.80
	330.000	370.00	774.00	740.10	735.80	560.00	741.95	0.	742.32	43.97	4.86	115.27	84.45
	330.000	370.00	774.00	740.10	735.80	820.00	743.58	0.	744.04	45.96	5.49	149.28	120.95
	330.000	370.00	774.00	740.10	735.80	930.00	744.41	0.	744.89	43.27	5.56	167.30	141.38
	330.000	370.00	774.00	740.10	735.80	1080.00	745.67	0.	746.14	38.42	5.53	195.20	174.24
	340.000	50.00	0.	0.	736.40	560.00	742.38	0.	742.44	10.92	2.79	361.08	169.47
	340.000	50.00	0.	0.	736.40	820.00	744.11	0.	744.14	5.14	2.30	650.84	361.52
	340.000	50.00	0.	0.	736.40	930.00	744.95	0.	744.98	3.66	2.09	818.06	486.32
	340.000	50.00	0.	0.	736.40	1080.00	746.20	0.	746.22	2.30	1.83	1097.03	711.92
	60.000	10.00	0.	0.	736.40	560.00	742.41	0.	742.46	16.26	2.92	421.30	138.87
	60.000	10.00	0.	0.	736.40	820.00	744.14	0.	744.15	3.79	1.70	967.28	421.09
	60.000	10.00	0.	0.	736.40	930.00	744.97	0.	744.98	2.18	1.39	1291.15	630.48
	60.000	10.00	0.	0.	736.40	1080.00	746.21	0.	746.22	1.10	1.09	1836.97	1028.40
	100.000	40.00	0.	0.	737.70	560.00	742.47	0.	742.55	27.04	3.69	336.06	107.70
	100.000	40.00	0.	0.	737.70	820.00	744.15	0.	744.17	6.00	2.18	747.88	334.79
	100.000	40.00	0.	0.	737.70	930.00	744.98	0.	745.00	3.47	1.81	1003.76	499.33
	100.000	40.00	0.	0.	737.70	1080.00	746.22	0.	746.23	1.72	1.43	1477.78	823.43
*	245.000	145.00	0.	0.	738.60	560.00	743.32	743.32	743.92	155.53	7.83	130.87	44.90
	245.000	145.00	0.	0.	738.60	820.00	744.11	0.	744.51	101.03	7.09	224.02	81.58
	245.000	145.00	0.	0.	738.60	930.00	744.99	0.	745.17	43.16	5.17	357.25	141.55
	245.000	145.00	0.	0.	738.60	1080.00	746.23	0.	746.30	15.64	3.55	604.52	273.13
	375.000	130.00	0.	0.	739.60	560.00	744.86	0.	745.30	76.14	6.23	159.01	64.18
	375.000	130.00	0.	0.	739.60	820.00	745.27	0.	745.84	95.64	7.39	211.36	83.85
	375.000	130.00	0.	0.	739.60	930.00	745.52	0.	746.06	89.82	7.40	247.69	98.13
	375.000	130.00	0.	0.	739.60	1080.00	746.42	0.	746.66	39.92	5.47	404.03	170.94
*	450.000	75.00	0.	0.	742.20	560.00	745.71	745.71	746.32	162.97	7.78	138.31	43.87
	450.000	75.00	0.	0.	742.20	820.00	746.15	0.	746.75	156.00	8.30	198.72	65.65
	450.000	75.00	0.	0.	742.20	930.00	746.34	0.	746.89	139.88	8.15	228.77	78.63
	450.000	75.00	0.	0.	742.20	1080.00	746.75	0.	747.16	98.59	7.31	292.83	108.77
	480.000	30.00	0.	0.	743.20	560.00	746.40	0.	746.52	23.59	2.98	249.45	115.29
	480.000	30.00	0.	0.	743.20	820.00	746.81	0.	746.97	29.75	3.61	308.26	150.35
	480.000	30.00	0.	0.	743.20	930.00	746.92	0.	747.11	33.36	3.90	325.30	161.01
	480.000	30.00	0.	0.	743.20	1080.00	747.13	0.	747.34	35.21	4.15	357.94	182.00
*	685.000	205.00	0.	0.	743.90	560.00	748.55	748.55	749.10	145.72	7.71	138.42	46.39
* A	685.000	205.00	0.	0.	743.90	820.00	748.86	748.86	749.55	182.42	9.07	175.05	60.71
*	685.000	205.00	0.	0.	743.90	930.00	748.99	748.99	749.71	190.61	9.45	191.34	67.36
*	685.000	205.00	0.	0.	743.90	1080.00	749.19	749.19	749.91	186.61	9.64	219.13	79.06
	800.000	115.00	0.	0.	745.70	560.00	749.48	0.	749.51	13.38	2.46	433.74	153.09
B	800.000	115.00	0.	0.	745.70	820.00	749.99	0.	750.03	15.07	2.85	552.03	211.22
	800.000	115.00	0.	0.	745.70	930.00	750.16	0.	750.21	15.58	2.98	595.91	235.58
	800.000	115.00	0.	0.	745.70	1080.00	750.37	0.	750.43	16.49	3.17	648.60	265.93

City of Farmington ← → Farmington Hills

	SECTS	XLCH	FLTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	960.000	160.00	0.	0.	745.80	560.00	750.04	750.04	750.56	173.48	7.37	137.08	42.52
* C	960.000	160.00	0.	0.	745.80	820.00	750.38	750.38	750.96	200.32	8.34	185.69	53.94
*	960.000	160.00	0.	0.	745.80	930.00	750.48	750.48	751.10	214.91	8.76	202.16	63.44
*	960.000	160.00	0.	0.	745.80	1080.00	750.61	750.61	751.27	230.41	9.24	223.89	71.15
	1160.000	200.00	0.	0.	746.40	560.00	751.26	0.	751.32	14.91	3.01	347.47	145.01
	1160.000	200.00	0.	0.	746.40	820.00	751.78	0.	751.86	17.81	3.54	434.12	194.33
D	1160.000	200.00	0.	0.	746.40	930.00	751.97	0.	752.05	18.84	3.73	467.76	214.26
	1160.000	200.00	0.	0.	746.40	1080.00	752.20	0.	752.29	20.19	3.98	510.76	240.34
	1235.000	75.00	0.	0.	746.60	560.00	751.36	0.	751.41	8.75	2.34	388.19	189.34
	1235.000	75.00	0.	0.	746.60	820.00	751.90	0.	751.97	11.72	2.92	453.10	239.50
E	1235.000	75.00	0.	0.	746.60	930.00	752.10	0.	752.17	12.91	3.15	476.98	258.87
	1235.000	75.00	0.	0.	746.60	1080.00	752.34	0.	752.42	14.50	3.44	506.70	283.63
	1525.000	290.00	0.	0.	747.10	560.00	751.69	0.	752.07	76.10	4.94	115.10	64.19
	1525.000	290.00	0.	0.	747.10	820.00	752.31	0.	752.82	84.29	5.75	149.63	89.31
F	1525.000	290.00	0.	0.	747.10	930.00	752.54	0.	753.09	86.82	6.04	163.95	99.81
	1525.000	290.00	0.	0.	747.10	1080.00	752.82	0.	753.44	89.85	6.38	183.09	113.94
	1650.000	125.00	0.	0.	747.40	560.00	752.52	0.	752.68	31.49	3.53	228.72	99.79
	1650.000	125.00	0.	0.	747.40	820.00	753.26	0.	753.40	26.34	3.55	339.44	159.78
G	1650.000	125.00	0.	0.	747.40	930.00	753.52	0.	753.67	25.05	3.57	381.98	185.80
	1650.000	125.00	0.	0.	747.40	1080.00	753.86	0.	754.00	23.77	3.61	436.96	221.52
	1800.000	150.00	0.	0.	746.00	560.00	752.88	0.	752.92	8.88	1.78	371.76	187.89
	1800.000	150.00	0.	0.	746.00	820.00	753.59	0.	753.64	10.50	2.15	460.82	253.08
H	1800.000	150.00	0.	0.	746.00	930.00	753.85	0.	753.91	11.00	2.28	497.42	260.43
	1800.000	150.00	0.	0.	746.00	1080.00	754.18	0.	754.25	11.50	2.44	545.12	318.53
	1950.000	150.00	0.	0.	747.90	560.00	752.91	0.	753.32	74.80	5.13	109.20	64.75
	1950.000	150.00	0.	0.	747.90	820.00	753.58	0.	754.15	90.04	6.06	135.35	86.42
I	1950.000	150.00	0.	0.	747.90	930.00	753.82	0.	754.45	95.62	6.40	145.36	95.10
	1950.000	150.00	0.	0.	747.90	1080.00	754.11	0.	754.83	102.92	6.83	158.10	106.45
	1989.000	39.00	0.	0.	748.00	560.00	753.34	0.	753.54	37.31	3.62	154.65	91.68
	1989.000	39.00	0.	0.	748.00	820.00	754.13	0.	754.42	43.82	4.26	192.38	123.87
	1989.000	39.00	0.	0.	748.00	930.00	754.42	0.	754.74	46.01	4.49	207.12	137.11
	1989.000	39.00	0.	0.	748.00	1080.00	754.78	0.	755.14	48.66	4.77	226.29	154.82
*	2051.000	62.00	758.50	753.00	748.00	560.00	754.35	0.	754.47	17.59	2.76	203.19	133.54
*	2051.000	62.00	758.50	753.00	748.00	820.00	755.81	0.	755.94	14.92	2.88	284.89	212.26
*	2051.000	62.00	758.50	753.00	748.00	930.00	756.63	0.	756.75	12.19	2.76	336.37	266.34
*	2051.000	62.00	758.50	753.00	748.00	1080.00	757.81	0.	757.92	9.05	2.58	418.67	358.94
	2101.000	50.00	0.	0.	749.50	560.00	754.31	0.	754.71	72.50	5.04	111.14	65.77
	2101.000	50.00	0.	0.	749.50	820.00	755.78	0.	756.13	46.72	4.73	173.52	119.97
J	2101.000	50.00	0.	0.	749.50	930.00	756.60	0.	756.89	34.15	4.34	214.10	159.14
	2101.000	50.00	0.	0.	749.50	1080.00	757.79	0.	758.02	22.36	3.85	280.26	228.39
	2300.000	199.00	0.	0.	749.50	560.00	755.40	0.	755.60	29.11	3.59	155.82	103.79
	2300.000	199.00	0.	0.	749.50	820.00	756.60	0.	756.83	26.60	3.83	213.96	159.00
K	2300.000	199.00	0.	0.	749.50	930.00	757.23	0.	757.45	22.95	3.75	248.25	194.11
	2300.000	199.00	0.	0.	749.50	1080.00	758.23	0.	758.42	17.58	3.52	306.55	257.55

	SEC	XLCH	ELTRD	ELLC	ELMIN	Q	CRSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2590.000	290.00	0.	0.	751.30	560.00	756.47	0.	756.80	59.16	4.61	121.41	72.81
L	2590.000	290.00	0.	0.	751.30	820.00	757.55	0.	757.91	51.81	4.84	169.48	113.92
	2590.000	290.00	0.	0.	751.30	930.00	758.05	0.	758.41	45.95	4.78	194.70	137.19
	2590.000	290.00	0.	0.	751.30	1080.00	758.85	0.	759.17	36.36	4.55	237.43	179.11
*	2625.000	35.00	0.	0.	754.40	560.00	759.14	759.14	760.02	161.00	7.83	93.57	44.13
*M	2625.000	35.00	0.	0.	754.40	820.00	759.86	759.86	760.64	126.45	7.92	174.81	72.92
*	2625.000	35.00	0.	0.	754.40	930.00	760.07	760.07	760.83	122.42	8.06	205.53	84.05
*	2625.000	35.00	0.	0.	754.40	1080.00	760.35	760.35	761.06	112.75	8.07	252.91	101.71
	2800.000	175.00	0.	0.	755.10	560.00	760.75	0.	760.86	19.84	3.14	284.21	125.72
	2800.000	175.00	0.	0.	755.10	820.00	761.30	0.	761.43	20.18	3.46	407.40	182.52
N	2800.000	175.00	0.	0.	755.10	930.00	761.49	0.	761.62	20.42	3.58	453.48	205.79
	2800.000	175.00	0.	0.	755.10	1080.00	761.70	0.	761.84	21.08	3.75	509.57	235.25
	2940.000	140.00	0.	0.	756.70	560.00	760.94	0.	760.97	3.37	1.31	481.09	304.84
O	2940.000	140.00	0.	0.	756.70	820.00	761.51	0.	761.54	4.18	1.60	612.25	401.18
	2940.000	140.00	0.	0.	756.70	930.00	761.70	0.	761.74	4.52	1.71	662.22	437.64
	2940.000	140.00	0.	0.	756.70	1080.00	761.93	0.	761.97	4.99	1.86	725.09	483.53
	3030.000	90.00	0.	0.	756.70	560.00	760.97	0.	760.99	2.65	1.12	546.36	344.11
P	3030.000	90.00	0.	0.	756.70	820.00	761.55	0.	761.58	3.26	1.38	684.41	454.04
	3030.000	90.00	0.	0.	756.70	930.00	761.75	0.	761.78	3.52	1.48	736.87	495.63
	3030.000	90.00	0.	0.	756.70	1080.00	761.98	0.	762.01	3.88	1.61	802.86	547.94
	3105.000	75.00	0.	0.	756.70	560.00	760.99	0.	761.02	3.17	1.34	514.43	314.47
Q	3105.000	75.00	0.	0.	756.70	820.00	761.57	0.	761.61	3.78	1.60	685.19	421.62
	3105.000	75.00	0.	0.	756.70	930.00	761.77	0.	761.81	4.03	1.70	750.92	463.48
	3105.000	75.00	0.	0.	756.70	1080.00	762.00	0.	762.05	4.36	1.83	835.51	517.12
	3155.000	50.00	0.	0.	757.30	560.00	760.63	0.	761.24	193.92	6.30	91.30	40.21
*R	3155.000	50.00	0.	0.	757.30	820.00	761.13	761.13	761.88	193.64	7.06	131.66	58.93
*	3155.000	50.00	0.	0.	757.30	930.00	761.39	761.39	762.06	156.68	6.82	177.28	74.30
	3155.000	50.00	0.	0.	757.30	1080.00	761.73	761.59	762.25	114.34	6.34	257.49	101.00
	3320.000	165.00	0.	0.	760.00	560.00	762.98	0.	763.16	74.70	4.41	241.27	64.80
S	3320.000	165.00	0.	0.	760.00	820.00	763.40	0.	763.56	59.05	4.39	379.63	106.71
	3320.000	165.00	0.	0.	760.00	930.00	763.49	0.	763.66	62.75	4.63	412.97	117.41
	3320.000	165.00	0.	0.	760.00	1080.00	763.57	0.	763.77	72.10	5.05	442.92	127.19
	3485.000	165.00	0.	0.	760.80	560.00	763.85	0.	763.91	29.85	2.79	402.03	102.50
T	3485.000	165.00	0.	0.	760.80	820.00	764.17	0.	764.24	29.65	3.04	544.90	150.60
	3485.000	165.00	0.	0.	760.80	930.00	764.28	0.	764.35	29.01	3.10	600.52	172.68
	3485.000	165.00	0.	0.	760.80	1080.00	764.42	0.	764.50	29.12	3.21	666.12	200.15
	3650.000	165.00	0.	0.	761.50	560.00	764.33	0.	764.37	25.35	2.13	371.70	111.22
U	3650.000	165.00	0.	0.	761.50	820.00	764.68	0.	764.73	29.45	2.45	464.19	151.10
	3650.000	165.00	0.	0.	761.50	930.00	764.79	0.	764.85	31.44	2.58	497.34	165.85
	3650.000	165.00	0.	0.	761.50	1080.00	764.95	0.	765.01	33.36	2.73	543.94	186.96
*	3885.000	235.00	0.	0.	762.60	560.00	766.13	766.13	767.20	302.21	8.30	67.45	32.21
*V	3885.000	235.00	0.	0.	762.60	820.00	766.83	766.83	768.07	285.31	8.96	91.57	48.55
*	3885.000	235.00	0.	0.	762.60	930.00	767.09	767.09	768.39	279.29	9.17	101.39	55.65
*	3885.000	235.00	0.	0.	762.60	1080.00	767.41	767.41	768.79	272.36	9.44	114.44	65.44

	SECTO	XLCH	ELTRD	ELLC	ELMIN	Q	CRSEL	CRTWS	FG	10K*S	VCH	AREA	.01K
	4060.000	175.00	0.	0.	764.60	560.00	769.33	0.	769.73	80.99	5.10	109.82	62.23
	4060.000	175.00	0.	0.	764.60	820.00	770.12	0.	770.62	94.05	5.69	144.02	89.44
W	4060.000	175.00	0.	0.	764.60	930.00	770.40	0.	770.94	85.21	5.91	157.43	100.75
	4060.000	175.00	0.	0.	764.60	1080.00	770.75	0.	771.35	86.39	6.18	174.91	116.20
*	4225.000	165.00	0.	0.	768.70	560.00	771.77	771.77	772.66	313.03	7.58	73.84	31.65
* X	4225.000	165.00	0.	0.	768.70	820.00	772.42	772.42	773.38	251.92	7.90	108.89	51.66
*	4225.000	165.00	0.	0.	768.70	930.00	772.68	772.68	773.62	223.07	7.87	130.87	62.27
*	4225.000	165.00	0.	0.	768.70	1080.00	772.96	772.96	773.89	202.89	7.94	160.48	75.82
	4340.000	115.00	0.	0.	770.00	560.00	774.25	773.48	774.74	114.18	5.69	109.35	52.41
Y	4340.000	115.00	0.	0.	770.00	820.00	774.76	0.	775.32	116.38	6.31	170.29	76.01
	4340.000	115.00	0.	0.	770.00	930.00	774.90	0.	775.49	120.68	6.59	191.06	84.66
	4340.000	115.00	0.	0.	770.00	1080.00	775.09	0.	775.72	123.68	6.88	220.04	97.11
	4420.000	80.00	0.	0.	770.60	560.00	775.13	0.	775.86	151.42	6.87	81.49	45.51
Z	4420.000	80.00	0.	0.	770.60	820.00	775.58	775.26	776.72	212.48	8.59	95.64	56.25
	4420.000	80.00	0.	0.	770.60	930.00	775.70	775.69	777.05	243.06	9.32	102.41	59.65
*	4420.000	80.00	0.	0.	770.60	1080.00	776.59	776.59	777.25	114.40	7.04	243.66	100.97
	4510.000	90.00	0.	0.	771.30	560.00	776.14	0.	776.16	10.19	1.82	497.39	175.43
AA	4510.000	90.00	0.	0.	771.30	820.00	776.98	0.	777.00	6.52	1.68	761.14	321.03
	4510.000	90.00	0.	0.	771.30	930.00	777.31	0.	777.34	5.70	1.64	865.60	389.47
	4510.000	90.00	0.	0.	771.30	1080.00	777.44	0.	777.47	6.71	1.82	905.08	416.78
	4600.000	90.00	0.	0.	771.30	560.00	776.14	0.	776.42	55.24	4.22	140.05	75.35
AB	4600.000	90.00	0.	0.	771.30	820.00	776.97	0.	777.18	41.46	4.02	297.58	127.36
	4600.000	90.00	0.	0.	771.30	930.00	777.31	0.	777.48	32.53	3.69	395.85	163.05
	4600.000	90.00	0.	0.	771.30	1080.00	777.45	0.	777.63	36.52	3.97	435.85	178.72
	4735.000	135.00	0.	0.	773.40	560.00	777.11	0.	777.46	108.71	5.02	148.73	53.71
AC	4735.000	135.00	0.	0.	773.40	820.00	777.70	0.	777.99	87.39	4.92	246.59	87.72
	4735.000	135.00	0.	0.	773.40	930.00	777.89	0.	778.18	82.03	4.90	287.22	102.68
	4735.000	135.00	0.	0.	773.40	1080.00	778.09	0.	778.37	81.39	5.00	329.79	119.71
	4890.000	155.00	0.	0.	775.60	560.00	778.60	0.	778.70	59.21	3.31	251.21	72.78
AD	4890.000	155.00	0.	0.	775.60	820.00	779.01	0.	779.11	59.00	3.55	344.08	106.76
	4890.000	155.00	0.	0.	775.60	930.00	779.15	0.	779.26	58.80	3.63	382.44	121.28
	4890.000	155.00	0.	0.	775.60	1080.00	779.33	0.	779.44	58.01	3.76	431.20	141.80
	5050.000	160.00	0.	0.	776.50	560.00	779.78	779.62	780.38	181.02	6.39	102.54	41.62
*	5050.000	160.00	0.	0.	776.50	820.00	780.18	780.18	780.92	191.13	7.27	143.97	59.31
* AE	5050.000	160.00	0.	0.	776.50	930.00	780.34	780.34	781.10	186.55	7.50	162.69	68.09
*	5050.000	160.00	0.	0.	776.50	1080.00	780.53	780.53	781.33	183.52	7.80	187.05	79.72
	5230.000	180.00	0.	0.	777.30	560.00	781.75	0.	781.99	51.15	3.92	142.84	78.30
AF	5230.000	180.00	0.	0.	777.30	820.00	782.36	0.	782.60	57.56	4.57	181.24	108.08
	5230.000	180.00	0.	0.	777.30	930.00	782.55	0.	782.92	60.96	4.65	196.42	119.11
	5230.000	180.00	0.	0.	777.30	1080.00	782.79	0.	783.21	65.00	5.20	218.17	133.96
*	5417.000	187.00	0.	0.	780.00	560.00	783.94	783.94	784.23	314.11	7.99	70.06	31.60
* AG	5417.000	187.00	0.	0.	780.00	820.00	784.57	784.57	785.14	296.56	8.67	94.56	47.62
*	5417.000	187.00	0.	0.	780.00	930.00	784.80	784.80	786.03	290.45	8.90	104.51	54.57
*	5417.000	187.00	0.	0.	780.00	1080.00	785.09	785.09	786.40	285.37	9.20	117.43	63.93

	SEC	XLCH	ELTRD	FLLC	ELMIN	Q	CHSEL	CRIPS	FG	10K*S	VCH	AREA	.91K
	5467.000	50.00	0.	0.	779.50	560.00	785.16	0.	785.51	50.22	4.78	117.08	79.02
	5467.000	50.00	0.	0.	779.50	820.00	785.88	0.	786.41	65.33	5.82	140.82	101.45
	5467.000	50.00	0.	0.	779.50	930.00	786.13	0.	786.73	71.40	6.22	149.57	110.06
	5467.000	50.00	0.	0.	779.50	1080.00	786.44	0.	787.14	79.39	6.72	160.66	121.21
*	5533.000	66.00	788.70	783.80	779.50	560.00	786.30	0.	786.50	23.29	3.60	155.54	116.03
*	5533.000	66.00	788.70	783.80	779.50	820.00	788.56	0.	788.73	14.56	3.33	245.94	214.91
*	5533.000	66.00	788.70	783.80	779.50	930.00	789.04	0.	789.23	14.45	3.47	273.87	244.68
*	5533.000	66.00	788.70	783.80	779.50	1080.00	789.47	0.	789.68	15.00	3.71	326.92	278.84
	5583.000	50.00	0.	0.	779.50	560.00	786.42	0.	786.62	21.59	3.50	159.99	120.53
AH	5583.000	50.00	0.	0.	779.50	820.00	788.64	0.	788.80	14.03	3.29	249.35	218.91
	5583.000	50.00	0.	0.	779.50	930.00	789.11	0.	789.30	13.82	3.43	280.44	250.20
	5583.000	50.00	0.	0.	779.50	1080.00	789.55	0.	789.75	14.29	3.65	336.12	285.71
	5826.000	243.00	0.	0.	781.30	560.00	787.27	0.	787.69	108.90	6.14	114.54	53.66
AI	5826.000	243.00	0.	0.	781.30	820.00	789.16	0.	789.27	27.41	4.31	390.47	156.63
	5826.000	243.00	0.	0.	781.30	930.00	789.61	0.	789.70	18.88	3.80	533.22	214.05
	5826.000	243.00	0.	0.	781.30	1080.00	790.05	0.	790.11	14.45	3.51	685.27	284.16
	6037.000	211.00	0.	0.	782.80	560.00	789.02	0.	789.28	54.70	4.25	159.98	75.72
AJ	6037.000	211.00	0.	0.	782.80	820.00	789.79	0.	790.03	43.42	4.26	258.95	124.44
	6037.000	211.00	0.	0.	782.80	930.00	790.07	0.	790.30	39.93	4.25	300.26	147.18
	6037.000	211.00	0.	0.	782.80	1080.00	790.40	0.	790.62	37.12	4.27	349.92	177.25
*	6087.000	50.00	0.	0.	783.90	560.00	791.19	791.19	791.67	148.52	7.16	154.96	45.95
*	6087.000	50.00	0.	0.	783.90	820.00	791.47	791.47	792.01	178.36	8.18	205.40	61.40
*	6087.000	50.00	0.	0.	783.90	930.00	791.59	791.59	792.13	180.58	8.37	228.75	69.21
*	6087.000	50.00	0.	0.	783.90	1080.00	791.72	791.72	792.29	190.59	8.76	254.50	78.23
*	6103.000	16.00	789.80	787.90	783.90	560.00	791.30	0.	791.67	118.15	6.49	173.97	51.52
	6103.000	16.00	789.80	787.90	783.90	820.00	791.62	0.	792.01	132.89	7.21	234.34	71.13
	6103.000	16.00	789.80	787.90	783.90	930.00	791.70	0.	792.13	147.23	7.67	250.07	76.65
	6103.000	16.00	789.80	787.90	783.90	1080.00	791.83	0.	792.29	154.56	8.01	278.19	86.87
	6153.000	50.00	0.	0.	783.90	560.00	791.72	0.	791.74	2.82	1.42	561.61	333.72
AK	6153.000	50.00	0.	0.	783.90	820.00	792.07	0.	792.11	4.49	1.87	626.22	386.91
	6153.000	50.00	0.	0.	783.90	930.00	792.20	0.	792.25	5.23	2.05	649.81	406.77
	6153.000	50.00	0.	0.	783.90	1080.00	792.36	0.	792.41	6.25	2.29	679.40	432.01
*	6408.000	255.00	0.	0.	788.70	560.00	793.25	793.25	794.57	308.72	9.20	60.84	31.87
* AL	6408.000	255.00	0.	0.	788.70	820.00	794.09	794.09	795.64	290.60	10.00	82.02	48.10
*	6408.000	255.00	0.	0.	788.70	930.00	794.39	794.39	796.04	287.93	10.31	90.21	54.81
*	6408.000	255.00	0.	0.	788.70	1080.00	794.78	794.78	796.54	282.53	10.66	101.35	64.25
	6458.000	50.00	0.	0.	789.00	560.00	794.82	0.	795.80	191.86	7.93	70.62	40.43
	6458.000	50.00	0.	0.	789.00	820.00	795.64	0.	796.89	208.76	9.00	91.10	56.75
	6458.000	50.00	0.	0.	789.00	930.00	795.94	0.	797.30	212.64	9.35	99.45	63.78
	6458.000	50.00	0.	0.	789.00	1080.00	796.32	795.98	797.80	217.55	9.79	111.39	73.22
	6460.000	2.00	791.70	790.00	789.00	560.00	795.82	0.	796.35	84.73	5.83	95.98	60.84
	6460.000	2.00	791.70	790.00	789.00	820.00	796.34	0.	797.18	123.14	7.38	112.32	73.89
	6460.000	2.00	791.70	790.00	789.00	930.00	796.40	0.	797.45	151.86	8.24	114.54	75.47
	6460.000	2.00	791.70	790.00	789.00	1080.00	796.35	0.	797.80	211.21	9.68	112.91	74.31

	SECTO	YLCH	ELTPD	ELLC	FLMIN	G	CWSEL	CRTWS	FG	10K*S	VCH	AREA	.01K.
	6477.000	17.00	0.	0.	788.70	560.00	796.24	0.	796.45	26.00	3.71	163.35	109.83
AM	6477.000	17.00	0.	0.	788.70	820.00	797.07	0.	797.33	27.68	4.24	236.73	155.86
	6477.000	17.00	0.	0.	788.70	930.00	797.35	0.	797.62	28.26	4.44	266.46	174.96
	6477.000	17.00	0.	0.	788.70	1080.00	797.73	0.	798.02	27.69	4.61	309.23	205.23
	6494.000	17.00	0.	0.	790.30	560.00	796.28	0.	796.51	32.91	4.10	158.58	97.62
	6494.000	17.00	0.	0.	790.30	820.00	797.13	0.	797.38	29.41	4.32	277.54	151.20
	6494.000	17.00	0.	0.	790.30	930.00	797.44	0.	797.68	27.23	4.33	333.00	178.23
	6494.000	17.00	0.	0.	790.30	1080.00	797.86	0.	798.07	23.41	4.23	417.04	223.23
	6511.000	17.00	0.	0.	790.30	560.00	796.33	0.	796.57	31.20	4.02	164.47	100.26
	6511.000	17.00	0.	0.	790.30	820.00	797.19	0.	797.43	27.73	4.23	286.94	155.72
	6511.000	17.00	0.	0.	790.30	930.00	797.49	0.	797.72	25.91	4.25	341.98	182.69
	6511.000	17.00	0.	0.	790.30	1080.00	797.91	0.	798.11	22.39	4.16	425.88	228.25
*	6561.000	50.00	796.20	795.30	790.30	560.00	797.89	0.	797.95	6.10	2.17	423.19	226.72
*	6561.000	50.00	796.20	795.30	790.30	820.00	798.76	0.	798.82	5.67	2.30	613.39	344.43
	6561.000	50.00	796.20	795.30	790.30	930.00	799.09	0.	799.15	5.49	2.34	690.91	397.08
	6561.000	50.00	796.20	795.30	790.30	1080.00	799.52	0.	799.57	5.19	2.37	795.89	473.91
	6612.000	51.00	0.	0.	791.00	560.00	797.96	0.	797.97	3.79	1.49	668.43	287.66
AN	6612.000	51.00	0.	0.	791.00	820.00	798.83	0.	798.84	3.38	1.57	906.34	446.29
	6612.000	51.00	0.	0.	791.00	930.00	799.15	0.	799.17	3.22	1.60	1007.53	518.19
	6612.000	51.00	0.	0.	791.00	1080.00	799.58	0.	799.60	3.06	1.63	1137.28	616.93
*	6655.000	43.00	796.80	796.00	791.00	560.00	798.29	0.	798.30	2.65	1.30	755.09	344.26
*	6655.000	43.00	796.80	796.00	791.00	820.00	799.14	0.	799.15	2.54	1.42	1002.82	514.73
*	6655.000	43.00	796.80	796.00	791.00	930.00	799.46	0.	799.48	2.50	1.45	1100.89	588.54
*	6655.000	43.00	796.80	796.00	791.00	1080.00	799.89	0.	799.90	2.42	1.50	1232.82	693.91
	6705.000	50.00	0.	0.	791.00	560.00	798.30	0.	798.31	2.62	1.30	757.84	346.10
AO	6705.000	50.00	0.	0.	791.00	820.00	799.15	0.	799.17	2.52	1.41	1005.23	516.50
	6705.000	50.00	0.	0.	791.00	930.00	799.47	0.	799.49	2.48	1.45	1103.07	590.23
	6705.000	50.00	0.	0.	791.00	1080.00	799.90	0.	799.91	2.41	1.49	1234.74	695.49
*	6843.000	138.00	0.	0.	792.40	560.00	797.67	797.67	799.19	308.87	9.90	56.57	31.86
*AP	6843.000	138.00	0.	0.	792.40	820.00	798.64	798.64	800.45	300.54	10.79	75.99	47.30
*	6843.000	138.00	0.	0.	792.40	930.00	799.85	799.85	800.88	147.54	8.41	139.88	76.56
*	6843.000	138.00	0.	0.	792.40	1080.00	800.23	800.23	801.17	135.07	8.30	182.52	92.93

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SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	24.000	560.00	727.80	0.	0.	0.	573.10	0.
	24.000	820.00	728.30	.50	0.	0.	692.85	0.
	24.000	930.00	728.60	.30	0.	0.	766.49	0.
	24.000	1080.00	728.80	.20	0.	0.	816.17	0.
*	30.000	560.00	727.87	0.	.07	0.	20.00	22.00
*	30.000	820.00	729.43	1.56	1.13	0.	342.63	22.00
*	30.000	930.00	729.59	.16	.99	0.	391.44	22.00
*	30.000	1080.00	729.68	.10	.88	0.	421.31	22.00
	35.000	560.00	730.64	0.	2.77	0.	540.16	36.00
	35.000	820.00	731.23	.59	1.80	0.	558.29	36.00
	35.000	930.00	731.40	.17	1.81	0.	563.60	36.00
	35.000	1080.00	731.61	.22	1.93	0.	570.30	36.00
	40.000	560.00	730.65	0.	.00	0.	209.81	50.00
	40.000	820.00	731.22	.58	-.00	0.	227.34	50.00
	40.000	930.00	731.39	.17	-.01	0.	232.47	50.00
	40.000	1080.00	731.60	.21	-.01	0.	238.95	50.00
	100.000	560.00	730.99	0.	.34	0.	323.63	783.00
	100.000	820.00	731.62	.63	.40	0.	348.20	783.00
	100.000	930.00	731.82	.20	.43	0.	355.30	783.00
	100.000	1080.00	732.07	.25	.47	0.	362.72	783.00
*	200.000	560.00	731.66	0.	.68	0.	197.08	800.00
	200.000	820.00	732.21	.54	.59	0.	227.72	800.00
	200.000	930.00	732.45	.24	.62	0.	235.63	800.00
	200.000	1080.00	732.73	.28	.66	0.	245.15	800.00
	300.000	560.00	735.05	0.	3.39	0.	214.58	600.00
	300.000	820.00	735.40	.34	3.19	0.	223.88	600.00
	300.000	930.00	735.50	.10	3.05	0.	226.71	600.00
	300.000	1080.00	735.64	.14	2.91	0.	230.68	600.00
*	310.000	560.00	740.52	0.	5.47	0.	102.57	817.00
*	310.000	820.00	740.97	.44	5.57	0.	113.24	817.00
*	310.000	930.00	741.12	.15	5.62	0.	116.87	817.00
*	310.000	1080.00	741.30	.18	5.67	0.	121.27	817.00
	320.000	560.00	741.09	0.	.57	0.	19.98	50.00
	320.000	820.00	741.41	.32	.44	0.	20.16	50.00
	320.000	930.00	741.50	.09	.38	0.	20.22	50.00
	320.000	1080.00	741.56	.07	.27	0.	20.26	50.00
	330.000	560.00	741.95	0.	.86	0.	20.47	370.00
	330.000	820.00	743.58	1.62	2.16	0.	21.38	370.00
	330.000	930.00	744.41	.83	2.91	0.	21.85	370.00
	330.000	1080.00	745.67	1.26	4.09	0.	22.54	370.00
	340.000	560.00	742.38	0.	.43	0.	147.14	50.00
	340.000	820.00	744.11	1.73	.53	0.	188.57	50.00
	340.000	930.00	744.95	.84	.54	0.	208.77	50.00
	340.000	1080.00	746.20	1.25	.53	0.	238.69	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	60.000	560.00	742.41	0.	.03	0.	268.12	10.00
	60.000	820.00	744.14	1.73	.03	0.	364.41	10.00
	60.000	930.00	744.97	.84	.02	0.	407.09	10.00
	60.000	1080.00	746.21	1.24	.02	0.	471.93	10.00
	100.000	560.00	742.47	0.	.06	0.	215.51	40.00
	100.000	820.00	744.15	1.68	.01	0.	277.87	40.00
	100.000	930.00	744.98	.83	.01	0.	338.67	40.00
	100.000	1080.00	746.22	1.24	.00	0.	426.08	40.00
*	245.000	560.00	743.32	0.	.85	0.	101.47	145.00
	245.000	820.00	744.11	.79	-.04	0.	134.52	145.00
	245.000	930.00	744.99	.87	.01	0.	171.04	145.00
	245.000	1080.00	746.23	1.24	.01	0.	227.87	145.00
	375.000	560.00	744.86	0.	1.53	0.	115.15	130.00
	375.000	820.00	745.27	.42	1.16	0.	137.71	130.00
	375.000	930.00	745.52	.25	.54	0.	151.40	130.00
	375.000	1080.00	746.42	.90	.19	0.	191.00	130.00
*	450.000	560.00	745.71	0.	.85	0.	123.81	75.00
	450.000	820.00	746.15	.44	.88	0.	146.72	75.00
	450.000	930.00	746.34	.19	.82	0.	152.25	75.00
	450.000	1080.00	746.75	.41	.33	0.	163.41	75.00
	480.000	560.00	746.40	0.	.69	0.	139.92	30.00
	480.000	820.00	746.81	.41	.66	0.	149.09	30.00
	480.000	930.00	746.92	.11	.58	0.	151.64	30.00
	480.000	1080.00	747.13	.21	.38	0.	156.41	30.00
*	685.000	560.00	748.55	0.	2.15	0.	111.14	205.00
*	685.000	820.00	748.86	.31	2.05	0.	124.81	205.00
*	685.000	930.00	748.99	.13	2.07	0.	130.42	205.00
*	685.000	1080.00	749.19	.21	2.06	0.	139.48	205.00
	800.000	560.00	749.48	0.	.93	0.	218.90	115.00
	800.000	820.00	749.99	.51	1.13	0.	244.36	115.00
	800.000	930.00	750.16	.18	1.18	0.	250.66	115.00
	800.000	1080.00	750.37	.21	1.18	0.	257.83	115.00
*	960.000	560.00	750.04	0.	.56	0.	128.10	160.00
*	960.000	820.00	750.38	.34	.39	0.	160.31	160.00
*	960.000	930.00	750.48	.10	.31	0.	164.46	160.00
*	960.000	1080.00	750.61	.13	.24	0.	167.77	160.00
	1160.000	560.00	751.26	0.	1.22	0.	157.84	200.00
	1160.000	820.00	751.78	.52	1.40	0.	175.47	200.00
	1160.000	930.00	751.97	.19	1.49	0.	181.85	200.00
	1160.000	1080.00	752.20	.23	1.59	0.	189.70	200.00
	1235.000	560.00	751.36	0.	.10	0.	118.49	75.00
	1235.000	820.00	751.90	.54	.12	0.	122.36	75.00
	1235.000	930.00	752.10	.19	.13	0.	123.76	75.00
	1235.000	1080.00	752.34	.24	.14	0.	125.47	75.00

	SECNO	Q	CASEL	DIFASP	DIFASX	DIFASS	TOPWID	XLCH
	1525.000	560.00	751.69	0.	.33	0.	49.67	290.00
	1525.000	820.00	752.31	.62	.41	0.	61.27	290.00
	1525.000	930.00	752.54	.23	.44	0.	65.39	290.00
	1525.000	1080.00	752.82	.28	.49	0.	70.51	290.00
	1650.000	560.00	752.52	0.	.82	0.	145.00	125.00
	1650.000	820.00	753.26	.74	.94	0.	156.57	125.00
	1650.000	930.00	753.52	.27	.98	0.	160.80	125.00
	1650.000	1080.00	753.86	.34	1.04	0.	166.10	125.00
	1800.000	560.00	752.88	0.	.36	0.	116.12	150.00
	1800.000	820.00	753.59	.71	.34	0.	135.18	150.00
	1800.000	930.00	753.85	.26	.33	0.	142.71	150.00
	1800.000	1080.00	754.18	.33	.32	0.	149.06	150.00
	1950.000	560.00	752.91	0.	.04	0.	37.25	150.00
	1950.000	820.00	753.58	.67	-.01	0.	41.26	150.00
	1950.000	930.00	753.82	.24	-.04	0.	42.70	150.00
	1950.000	1080.00	754.11	.29	-.07	0.	44.46	150.00
	1989.000	560.00	753.34	0.	.43	0.	44.92	39.00
	1989.000	820.00	754.13	.79	.55	0.	49.94	39.00
	1989.000	930.00	754.42	.29	.61	0.	51.77	39.00
	1989.000	1080.00	754.78	.36	.67	0.	54.06	39.00
*	2051.000	560.00	754.35	0.	1.01	0.	51.29	62.00
*	2051.000	820.00	755.81	1.46	1.68	0.	60.51	62.00
*	2051.000	930.00	756.63	.82	2.20	0.	65.66	62.00
*	2051.000	1080.00	757.81	1.19	3.03	0.	73.14	62.00
	2101.000	560.00	754.31	0.	-.04	0.	38.12	50.00
	2101.000	820.00	755.78	1.47	-.03	0.	46.99	50.00
	2101.000	930.00	756.60	.82	-.03	0.	51.96	50.00
	2101.000	1080.00	757.79	1.19	-.02	0.	59.17	50.00
	2300.000	560.00	755.40	0.	1.08	0.	44.66	199.00
	2300.000	820.00	756.60	1.20	.82	0.	51.94	199.00
	2300.000	930.00	757.23	.64	.63	0.	55.80	199.00
	2300.000	1080.00	758.23	.99	.43	0.	61.80	199.00
	2590.000	560.00	756.47	0.	1.08	0.	40.92	290.00
	2590.000	820.00	757.55	1.08	.95	0.	48.07	290.00
	2590.000	930.00	758.05	.50	.82	0.	51.43	290.00
	2590.000	1080.00	758.85	.79	.62	0.	63.33	290.00
*	2625.000	560.00	759.14	0.	2.67	0.	53.06	35.00
*	2625.000	820.00	759.86	.73	2.31	0.	140.41	35.00
*	2625.000	930.00	760.07	.21	2.02	0.	156.73	35.00
*	2625.000	1080.00	760.35	.28	1.51	0.	178.99	35.00
	2800.000	560.00	760.75	0.	1.61	0.	200.84	175.00
	2800.000	820.00	761.30	.55	1.44	0.	242.89	175.00
	2800.000	930.00	761.49	.19	1.42	0.	253.29	175.00
	2800.000	1080.00	761.70	.22	1.35	0.	265.40	175.00

	SECNO	Q	CASEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2940.000	560.00	760.94	0.	.19	0.	207.70	140.00
	2940.000	820.00	761.51	.57	.21	0.	252.43	140.00
	2940.000	930.00	761.70	.19	.21	0.	267.64	140.00
	2940.000	1080.00	761.93	.23	.22	0.	285.63	140.00
	3030.000	560.00	760.97	0.	.03	0.	218.41	90.00
	3030.000	820.00	761.55	.58	.04	0.	261.30	90.00
	3030.000	930.00	761.75	.20	.05	0.	275.94	90.00
	3030.000	1080.00	761.98	.23	.05	0.	293.33	90.00
	3105.000	560.00	760.99	0.	.02	0.	264.68	75.00
	3105.000	820.00	761.57	.58	.02	0.	322.85	75.00
	3105.000	930.00	761.77	.20	.02	0.	342.61	75.00
	3105.000	1080.00	762.00	.23	.03	0.	485.17	75.00
	3155.000	560.00	760.63	0.	-.36	0.	56.03	50.00
*	3155.000	820.00	761.13	.50	-.44	0.	151.29	50.00
*	3155.000	930.00	761.39	.26	-.38	0.	202.82	50.00
	3155.000	1080.00	761.73	.34	-.28	0.	270.60	50.00
	3320.000	560.00	762.98	0.	2.35	0.	287.19	165.00
	3320.000	820.00	763.40	.42	2.27	0.	367.12	165.00
	3320.000	930.00	763.49	.09	2.10	0.	363.90	165.00
	3320.000	1080.00	763.57	.08	1.84	0.	398.37	165.00
	3485.000	560.00	763.85	0.	.87	0.	417.63	165.00
	3485.000	820.00	764.17	.32	.77	0.	464.79	165.00
	3485.000	930.00	764.28	.11	.79	0.	471.62	165.00
	3485.000	1080.00	764.42	.14	.86	0.	479.55	165.00
	3650.000	560.00	764.33	0.	.48	0.	248.56	165.00
	3650.000	820.00	764.68	.34	.51	0.	281.61	165.00
	3650.000	930.00	764.79	.12	.51	0.	292.55	165.00
	3650.000	1080.00	764.95	.16	.52	0.	307.27	165.00
*	3885.000	560.00	766.13	0.	1.80	0.	32.17	235.00
*	3885.000	820.00	766.83	.69	2.15	0.	37.31	235.00
*	3885.000	930.00	767.09	.26	2.30	0.	39.21	235.00
*	3885.000	1080.00	767.41	.32	2.46	0.	41.60	235.00
	4060.000	560.00	769.33	0.	3.19	0.	40.44	175.00
	4060.000	820.00	770.12	.79	3.29	0.	46.19	175.00
	4060.000	930.00	770.40	.28	3.32	0.	48.26	175.00
	4060.000	1080.00	770.75	.35	3.34	0.	53.81	175.00
*	4225.000	560.00	771.77	0.	2.44	0.	42.11	165.00
*	4225.000	820.00	772.42	.65	2.30	0.	75.13	165.00
*	4225.000	930.00	772.68	.26	2.28	0.	94.00	165.00
*	4225.000	1080.00	772.96	.28	2.21	0.	114.61	165.00
	4340.000	560.00	774.25	0.	2.48	0.	107.56	115.00
	4340.000	820.00	774.76	.51	2.34	0.	135.78	115.00
	4340.000	930.00	774.90	.14	2.22	0.	144.15	115.00
	4340.000	1080.00	775.09	.19	2.13	0.	155.06	115.00

	SECND	Q	CASEL	DIFWSP	DIFWSX	DIFWWS	TOPWID	XLCH
	4420.000	560.00	775.13	0.	.88	0.	29.99	80.00
	4420.000	820.00	775.58	.45	.82	0.	42.96	80.00
	4420.000	930.00	775.70	.13	.80	0.	61.17	80.00
*	4420.000	1080.00	776.59	.88	1.49	0.	272.70	80.00
	4510.000	560.00	776.14	0.	1.01	0.	300.99	90.00
	4510.000	820.00	776.98	.84	1.40	0.	313.65	90.00
	4510.000	930.00	777.31	.33	1.61	0.	314.86	90.00
	4510.000	1080.00	777.44	.13	.85	0.	315.32	90.00
	4600.000	560.00	776.14	0.	.01	0.	117.62	90.00
	4600.000	820.00	776.97	.82	-.02	0.	264.27	90.00
	4600.000	930.00	777.31	.35	.00	0.	299.22	90.00
	4600.000	1080.00	777.45	.13	.01	0.	311.38	90.00
	4735.000	560.00	777.11	0.	.97	0.	139.10	135.00
	4735.000	820.00	777.70	.59	.73	0.	194.50	135.00
	4735.000	930.00	777.89	.20	.58	0.	213.32	135.00
	4735.000	1080.00	778.09	.19	.64	0.	236.11	135.00
	4890.000	560.00	778.60	0.	1.49	0.	208.15	155.00
	4890.000	820.00	779.01	.40	1.31	0.	256.56	155.00
	4890.000	930.00	779.15	.15	1.26	0.	274.07	155.00
	4890.000	1080.00	779.33	.17	1.24	0.	280.31	155.00
	5050.000	560.00	779.78	0.	1.18	0.	89.93	160.00
*	5050.000	820.00	780.18	.40	1.18	0.	114.99	160.00
*	5050.000	930.00	780.34	.16	1.19	0.	123.62	160.00
*	5050.000	1080.00	780.53	.19	1.20	0.	134.02	160.00
	5230.000	560.00	781.75	0.	1.97	0.	56.20	180.00
	5230.000	820.00	782.36	.61	2.18	0.	75.11	180.00
	5230.000	930.00	782.55	.19	2.22	0.	85.78	180.00
	5230.000	1080.00	782.79	.24	2.26	0.	99.10	180.00
*	5417.000	560.00	783.94	0.	2.19	0.	36.49	187.00
*	5417.000	820.00	784.57	.63	2.20	0.	41.74	187.00
*	5417.000	930.00	784.80	.23	2.25	0.	43.69	187.00
*	5417.000	1080.00	785.09	.29	2.30	0.	46.10	187.00
	5467.000	560.00	785.16	0.	1.21	0.	31.40	50.00
	5467.000	820.00	785.88	.72	1.31	0.	34.14	50.00
	5467.000	930.00	786.13	.25	1.33	0.	35.10	50.00
	5467.000	1080.00	786.44	.31	1.35	0.	36.28	50.00
*	5533.000	560.00	786.30	0.	1.14	0.	35.74	66.00
*	5533.000	820.00	788.56	2.26	2.68	0.	44.29	66.00
*	5533.000	930.00	789.04	.48	2.91	0.	90.53	66.00
*	5533.000	1080.00	789.47	.43	3.02	0.	149.33	66.00
	5583.000	560.00	786.42	0.	.12	0.	36.21	50.00
	5583.000	820.00	788.64	2.21	.08	0.	44.58	50.00
	5583.000	930.00	789.11	.48	.08	0.	97.85	50.00
	5583.000	1080.00	789.55	.43	.08	0.	153.11	50.00

	SECND	Q	WSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5826.000	560.00	787.27	0.	.85	0.	46.35	243.00
	5826.000	820.00	789.16	1.88	.52	0.	264.46	243.00
	5826.000	930.00	789.61	.46	.50	0.	350.00	243.00
	5826.000	1080.00	790.05	.44	.50	0.	350.00	243.00
	6037.000	560.00	789.02	0.	1.75	0.	113.71	211.00
	6037.000	820.00	789.79	.77	.63	0.	142.81	211.00
	6037.000	930.00	790.07	.28	.46	0.	148.81	211.00
	6037.000	1080.00	790.40	.33	.35	0.	152.39	211.00
*	6087.000	560.00	791.19	0.	2.17	0.	172.23	50.00
*	6087.000	820.00	791.47	.28	1.68	0.	189.15	50.00
*	6087.000	930.00	791.59	.12	1.52	0.	196.48	50.00
*	6087.000	1080.00	791.72	.13	1.32	0.	204.27	50.00
*	6103.000	560.00	791.30	0.	.11	0.	178.79	16.00
	6103.000	820.00	791.62	.32	.15	0.	195.20	16.00
	6103.000	930.00	791.70	.08	.10	0.	202.95	16.00
	6103.000	1080.00	791.83	.13	.11	0.	211.19	16.00
	6153.000	560.00	791.72	0.	.42	0.	178.80	50.00
	6153.000	820.00	792.07	.35	.46	0.	186.46	50.00
	6153.000	930.00	792.20	.13	.50	0.	189.18	50.00
	6153.000	1080.00	792.36	.16	.53	0.	192.53	50.00
*	6408.000	560.00	793.25	0.	1.53	0.	23.67	255.00
*	6408.000	820.00	794.09	.84	2.02	0.	26.85	255.00
*	6408.000	930.00	794.39	.30	2.19	0.	27.98	255.00
*	6408.000	1080.00	794.78	.39	2.42	0.	29.45	255.00
	6458.000	560.00	794.82	0.	1.57	0.	23.57	50.00
	6458.000	820.00	795.64	.81	1.55	0.	26.79	50.00
	6458.000	930.00	795.94	.30	1.55	0.	28.00	50.00
	6458.000	1080.00	796.32	.38	1.54	0.	36.75	50.00
	6460.000	560.00	795.82	0.	.99	0.	27.50	2.00
	6460.000	820.00	796.34	.52	.70	0.	37.42	2.00
	6460.000	930.00	796.40	.06	.46	0.	38.98	2.00
	6460.000	1080.00	796.35	-.05	.03	0.	37.84	2.00
	6477.000	560.00	796.24	0.	.42	0.	73.11	17.00
	6477.000	820.00	797.07	.83	.73	0.	108.62	17.00
	6477.000	930.00	797.35	.28	.95	0.	112.00	17.00
	6477.000	1080.00	797.73	.39	1.38	0.	112.00	17.00
	6494.000	560.00	796.26	0.	.02	0.	100.20	17.00
	6494.000	820.00	797.13	.87	.06	0.	170.34	17.00
	6494.000	930.00	797.44	.31	.09	0.	190.05	17.00
	6494.000	1080.00	797.86	.42	.13	0.	204.65	17.00
	6511.000	560.00	796.33	0.	.07	0.	105.20	17.00
	6511.000	820.00	797.19	.87	.06	0.	173.84	17.00
	6511.000	930.00	797.49	.30	.06	0.	193.05	17.00
	6511.000	1080.00	797.91	.42	.05	0.	205.92	17.00

	SECNO	Q	CASEL	DIFWSR	DIFWSX	DIFKWS	TOPWID	XLCH
*	6561.000	560.00	797.89	0.	1.57	0.	205.53	50.00
*	6561.000	820.00	798.76	.87	1.57	0.	231.15	50.00
	6561.000	930.00	799.09	.33	1.60	0.	240.82	50.00
	6561.000	1080.00	799.52	.43	1.61	0.	244.00	50.00
	6612.000	560.00	797.96	0.	.07	0.	252.97	51.00
	6612.000	820.00	798.83	.87	.06	0.	296.28	51.00
	6612.000	930.00	799.15	.33	.06	0.	303.08	51.00
	6612.000	1080.00	799.58	.43	.06	0.	308.08	51.00
*	6655.000	560.00	798.29	0.	.33	0.	269.55	43.00
*	6655.000	820.00	799.14	.85	.31	0.	302.90	43.00
*	6655.000	930.00	799.46	.32	.31	0.	306.69	43.00
*	6655.000	1080.00	799.89	.43	.31	0.	311.71	43.00
	6705.000	560.00	798.30	0.	.01	0.	270.06	50.00
	6705.000	820.00	799.15	.85	.01	0.	302.99	50.00
	6705.000	930.00	799.47	.32	.01	0.	306.77	50.00
	6705.000	1080.00	799.90	.43	.01	0.	311.76	50.00
*	6843.000	560.00	797.67	0.	-.63	0.	18.72	138.00
*	6843.000	820.00	798.64	.97	-.52	0.	21.50	138.00
*	6843.000	930.00	799.85	1.21	.37	0.	100.84	138.00
*	6843.000	1080.00	800.23	.38	.33	0.	129.32	138.00

SUMMARY OF ERRORS

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CAUTION  SECNO=   30.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   30.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   30.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   30.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   30.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   30.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   30.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   30.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   30.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   30.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   30.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   30.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=  200.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  200.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  200.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=  310.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  310.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=  310.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  310.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  310.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  310.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=  245.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  245.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  245.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=  450.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=  450.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  685.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=  685.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=  685.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=  685.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=  685.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=  960.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=  960.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 2051.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 2051.000  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 2051.000  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 2051.000  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO= 2625.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO= 2625.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO= 2625.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO= 3155.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

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CAUTION  SECNO= 3885.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 3885.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO= 4225.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 4225.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO= 4225.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO= 5533.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 5533.000  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 5533.000  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 5533.000  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO= 6087.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 6087.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 6087.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO= 6087.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 6087.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 6087.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 6103.000  PROFILE= 1  HYDRAULIC JUMP D.S.

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CAUTION  SECNO= 6408.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO= 6655.000  PROFILE= 1  HYDRAULIC JUMP D.S.
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CAUTION  SECNO= 6843.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 6843.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOOD INSURANCE ZONE DATA FOR 10 - YEAR FRE

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND* 10	2	0.2
24.000	0.	-.80	-.30	.20
30.000	22.	-1.72	-.16	.10
35.000	58.	-.76	-.17	.22
40.000	108.	-.75	-.17	.21
100.000	891.	-.83	-.20	.25
200.000	1691.	-.78	-.24	.28
300.000	2291.	-.44	-.10	.14
310.000	3108.	-.60	-.15	.18
320.000	3158.	-.41	-.09	.07
330.000	3528.	-2.46	-.83	1.26
340.000	3578.	-2.57	-.84	1.25
60.000	3588.	-2.56	-.84	1.24
100.000	3628.	-2.51	-.83	1.24
245.000	3773.	-1.66	-.87	1.24
375.000	3903.	-.67	-.25	.90
450.000	3978.	-.64	-.19	.41
480.000	4008.	-.52	-.11	.21
685.000	4213.	-.44	-.13	.21
800.000	4328.	-.69	-.18	.21
960.000	4488.	-.44	-.10	.13
1160.000	4688.	-.71	-.19	.23
1235.000	4763.	-.73	-.19	.24
1525.000	5053.	-.85	-.23	.28
1650.000	5178.	-1.00	-.27	.34
1800.000	5328.	-.97	-.26	.33
1950.000	5478.	-.90	-.24	.29
1989.000	5517.	-1.08	-.29	.36
2051.000	5579.	-2.28	-.82	1.19
2101.000	5629.	-2.29	-.82	1.19
2300.000	5828.	-1.84	-.64	.99
2590.000	6118.	-1.58	-.50	.79
2625.000	6153.	-.93	-.21	.28
2800.000	6328.	-.74	-.19	.22
2940.000	6468.	-.76	-.19	.23
3030.000	6558.	-.77	-.20	.23
3105.000	6633.	-.78	-.20	.23
3155.000	6683.	-.76	-.26	.34
3320.000	6848.	-.51	-.09	.08
3485.000	7013.	-.43	-.11	.14
3650.000	7178.	-.46	-.12	.16
3885.000	7413.	-.95	-.26	.32
4060.000	7588.	-1.07	-.28	.35
4225.000	7753.	-.91	-.26	.28
4340.000	7868.	-.65	-.14	.19
4420.000	7948.	-.57	-.13	.88
4510.000	8038.	-1.19	-.33	.13
4600.000	8128.	-1.17	-.35	.13
4735.000	8263.	-.78	-.20	.19
4890.000	8418.	-.55	-.15	.17
5050.000	8578.	-.56	-.16	.19
5230.000	8758.	-.80	-.19	.24
5417.000	8945.	-.86	-.23	.29
5467.000	8995.	-.98	-.25	.31

5533.000	9061.	-2.74	-.48	.43
5583.000	9111.	-2.69	-.48	.43
5826.000	9354.	-2.34	-.46	.44
6037.000	9565.	-1.05	-.28	.33
6087.000	9615.	-.40	-.12	.13
6103.000	9631.	-.40	-.08	.13
6153.000	9681.	-.48	-.13	.15
6408.000	9936.	-1.14	-.30	.39
6458.000	9986.	-1.12	-.30	.38
6460.000	9988.	-.58	-.06	-.05
6477.000	10005.	-1.11	-.28	.39
6494.000	10022.	-1.18	-.31	.42
6511.000	10039.	-1.17	-.30	.42
6561.000	10089.	-1.20	-.33	.43
6612.000	10140.	-1.19	-.33	.43
6655.000	10183.	-1.18	-.32	.43
6705.000	10233.	-1.18	-.32	.43
6843.000	10371.	-2.18	-1.21	.38
WEIGHTED AVG FOR REACH		-.96	-.27	.35

FHF FOR THE REACH = 010 WITH 82.8% OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2

THIS RUN EXECUTED 02 MAY 78 09.01.12

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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE

4) DOCUMENT TYPE: 1968 FLOOD

00BREAK00

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C
T1                FARMINGTON FLOOD INSURANCE STUDY
T2                1968 FLOOD  ** UPPER RIVER ROUGE **   **  8 MARCH 1978  **
T3                CITY OF FARMINGTON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        0.        0.        0.  0.000000     0.00      0.0     1500.    673.900    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    -1.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC     .150      .150      .045      .100      .300     0.000     0.000     0.000     0.000     0.000

          CITY LIMITS

X1  8511.000    14.000   530.000   557.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   695.000     0.000   690.000    40.000   685.000    75.000   680.000   115.000   675.000   150.000
GR   671.000   530.000   667.800   533.000   667.500   541.000   667.900   549.000   671.200   557.000
GR   675.000   665.000   680.000   809.000   685.000   878.000   690.000  1010.000     0.000     0.000

          **** A ****

X1  8940.000    23.000   167.000   200.000   460.000   300.000   429.000     0.000     0.000     0.000
GR   681.500     0.000   679.600    10.000   677.500    30.000   676.500    40.000   676.000    50.000
GR   674.900   100.000   675.000   150.000   673.000   167.000   670.000   170.000   669.500   171.000
GR   669.400   180.000   669.400   186.000   673.000   200.000   674.000   210.000   674.800   250.000
GR   674.000   300.000   677.900   350.000   672.800   400.000   671.900   450.000   672.000   500.000
GR   671.600   550.000   672.000   560.000   681.500   590.000     0.000     0.000     0.000     0.000

X1  9760.000    14.000   329.000   354.000   480.000   920.000   820.000     0.000     0.000     0.000
GR   695.000     0.000   690.000    70.000   685.000   100.000   680.000   240.000   675.000   286.000
GR   674.500   329.000   673.400   331.000   672.700   340.000   673.400   347.000   674.800   354.000
GR   675.000   445.000   680.000   525.000   685.000   590.000   690.000   620.000     0.000     0.000

X1 10300.000    14.000   200.000   230.000   400.000   440.000   540.000     0.000     0.000     0.000
GR   700.000     0.000   695.000    79.000   690.000   103.000   685.500   131.000   680.000   156.000
GR   678.200   190.000   677.400   200.000   675.800   202.000   675.300   210.000   676.900   220.000
GR   679.400   230.000   680.000   360.000   685.000   573.000   690.000   602.000     0.000     0.000

          **** B ****

X1 10680.000    16.000   210.000   240.000   400.000   330.000   380.000     0.000     0.000     0.000
GR   686.200     0.000   684.800    10.000   679.000    30.000   679.700    80.000   679.600   130.000
GR   679.400   180.000   679.200   203.000   678.600   210.000   677.000   212.000   676.500   215.000
GR   676.500   220.000   677.000   230.000   680.600   240.000   683.800   380.000   683.500   390.000
GR   686.900   410.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1 10800.000    13.000   140.000   160.000   105.000   120.000   120.000     0.000     0.000     0.000
GR   695.000     0.000   690.000    10.000   685.500    22.000   680.000    88.000   679.000   140.000
GR   677.400   142.000   676.900   148.000   677.400   156.000   679.800   160.000   680.000   167.000
GR   685.000   308.000   690.000   340.000   695.000   417.000     0.000     0.000     0.000     0.000
NC     0.000     0.000     0.000     .300      .500     0.000     0.000     0.000     0.000     0.000

          **** C ****  D/S OF GRAND RIVER AVE BRIDGE
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X1	10900.000	16.000	49.000	77.000	65.000	165.000	100.000	0.000	0.000	0.000
GR	681.000	0.000	681.000	40.000	680.500	49.000	677.700	52.000	677.200	60.000
GR	677.600	70.000	680.400	77.000	680.500	110.000	682.000	160.000	681.400	210.000
GR	681.500	260.000	682.000	290.000	681.500	300.000	682.000	310.000	686.000	330.000
GR	688.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10941.000	13.000	190.000	215.000	41.000	41.000	41.000	0.000	0.000	0.000
GR	695.500	0.000	695.500	190.000	678.000	190.000	677.600	192.000	677.600	196.000
GR	677.600	200.000	677.600	202.500	677.600	205.000	677.600	209.000	677.600	213.000
GR	678.000	215.000	695.500	215.000	700.000	574.000	0.000	0.000	0.000	0.000
SB	0.000	1.660	2.600	0.000	20.000	0.000	211.000	0.000	679.200	679.200
X1	10999.000	0.000	0.000	0.000	58.000	58.000	58.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	69500.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	689.800	695.500	0.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	695.500	695.500	190.000	695.500	678.000	192.000	695.500	684.000
BT	196.000	695.500	687.900	200.000	695.500	689.500	202.500	695.500	689.800	205.000
BT	695.500	689.500	209.000	695.500	687.900	213.000	695.500	684.000	215.000	695.500
BT	678.000	574.000	700.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF GRAND RIVER AVE BRIDGE

X1	11040.000	10.000	201.000	230.000	57.000	15.000	41.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	21.000	690.000	56.000	685.000	138.000	681.300	201.000
GR	678.600	203.000	678.000	211.000	678.400	221.000	681.200	230.000	690.000	241.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	11440.000	11.000	690.000	709.000	780.000	400.000	400.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	23.000	695.000	57.000	690.000	86.000	685.000	637.000
GR	683.800	690.000	679.800	693.000	678.600	700.000	681.000	709.000	690.000	729.000
GR	695.000	749.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**** D ****

X1	11860.000	26.000	82.000	132.000	680.000	570.000	649.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	10.000	692.500	15.000	690.000	20.000	689.000	22.000
GR	686.500	27.000	686.500	32.000	686.500	42.000	686.500	52.000	686.500	62.000
GR	686.500	72.000	686.500	82.000	685.000	87.000	683.500	92.000	682.000	95.000
GR	680.800	102.000	683.000	112.000	682.500	122.000	685.000	132.000	686.500	135.000
GR	688.300	138.000	690.500	142.000	695.500	147.000	695.600	153.000	700.500	169.000
GR	701.000	182.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12100.000	12.000	375.000	400.000	290.000	180.000	240.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	60.000	690.000	310.000	685.000	361.000	684.700	375.000
GR	683.400	378.000	682.200	385.000	684.400	400.000	685.000	423.000	690.000	489.000
GR	695.000	519.000	700.000	554.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12180.000	12.000	388.000	408.000	80.000	120.000	80.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	90.000	690.000	322.000	685.000	374.000	685.000	388.000
GR	683.900	392.000	682.700	399.000	684.900	408.000	685.000	429.000	690.000	582.000
GR	695.000	615.000	700.000	655.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000
X1	12330.000	14.000	500.000	520.000	190.000	135.000	150.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	55.000	695.000	102.000	690.000	478.000	685.000	493.000
GR	684.500	500.000	683.500	503.000	683.000	510.000	684.500	520.000	685.000	545.000
GR	690.000	590.000	695.000	630.000	700.000	655.000	705.000	705.000	0.000	0.000

**** E **** D/S OF POWERS AVE BRIDGE

X1	12410.000	15.000	195.000	230.000	80.000	55.000	80.000	0.000	0.000	0.000
GR	695.000	0.000	692.100	20.000	693.100	70.000	693.100	120.000	691.000	170.000
GR	688.600	195.000	684.600	204.000	684.000	210.000	684.600	222.000	687.000	230.000
GR	691.000	240.000	691.100	250.000	690.500	260.000	690.000	288.000	700.000	308.000
X1	12427.000	14.000	490.000	513.000	17.000	17.000	17.000	0.000	0.000	0.000
GR	700.000	0.000	698.200	490.000	685.100	490.000	685.100	492.000	685.100	496.000
GR	685.100	500.000	685.100	501.500	685.100	503.000	685.100	507.000	685.100	511.000
GR	685.100	513.000	698.200	513.000	700.000	591.000	705.000	661.000	0.000	0.000
SB	0.000	1.630	3.100	0.000	16.000	0.000	176.000	0.000	683.600	683.600
X1	12473.000	0.000	0.000	0.000	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	694.600	698.200	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
BT	12.000	0.000	700.000	700.000	490.000	698.200	685.100	492.000	698.200	689.700
BT	496.000	698.200	693.300	500.000	698.200	694.000	501.500	698.200	694.100	503.000
BT	698.200	694.000	507.000	698.200	693.300	511.000	698.200	689.700	513.000	698.200
BT	685.100	591.000	700.000	700.000	661.000	705.000	705.000	0.000	0.000	0.000

U/S OF POWERS AVE BRIDGE

X1	12500.000	11.000	69.000	99.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	698.300	0.000	695.000	30.000	690.000	52.000	688.600	69.000	685.800	77.000
GR	685.200	82.000	685.800	92.000	685.800	99.000	694.600	99.000	695.000	128.000
GR	698.200	140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.150	.045	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	12905.000	10.000	513.000	533.000	375.000	421.000	405.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	45.000	690.000	475.000	689.500	513.000	686.300	522.000
GR	686.300	528.000	690.000	533.000	695.000	543.000	700.000	547.000	705.000	552.000
X1	13150.000	13.000	510.000	529.000	174.000	240.000	245.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	42.000	700.000	170.000	700.000	229.000	695.000	270.000
GR	690.200	510.000	687.000	519.000	687.000	524.000	690.700	529.000	695.000	606.000
GR	700.000	620.000	705.000	645.000	715.000	729.000	0.000	0.000	0.000	0.000
X1	13275.000	13.000	404.000	424.000	120.000	218.000	260.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	36.000	700.000	65.000	700.000	270.000	695.000	312.000
GR	690.500	404.000	687.300	413.000	687.300	418.000	691.000	424.000	695.000	478.000
GR	700.000	493.000	705.000	520.000	715.000	589.000	0.000	0.000	0.000	0.000

**** F ****

X1	13650.000	18.000	289.000	333.000	170.000	210.000	375.000	0.000	0.000	0.000
GR	700.800	0.000	699.500	8.000	698.300	60.000	698.200	160.000	697.500	210.000
GR	697.300	289.000	688.300	309.000	688.300	320.000	689.800	329.000	690.900	331.000
GR	693.200	333.000	695.300	359.000	694.300	410.000	696.800	460.000	696.500	510.000
GR	697.400	540.000	699.300	560.000	701.700	570.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 1

X1	13800.000	14.000	450.000	475.000	180.000	60.000	85.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	20.000	705.000	32.000	700.000	60.000	695.000	440.000
GR	695.000	450.000	689.600	460.000	689.600	465.000	691.200	470.000	694.600	475.000
GR	695.000	583.000	700.000	[illegible]	705.000	[illegible]	[illegible]	70.000	0.000	0.000

NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	13894.000	13.000	407.000	437.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	700.800	0.000	699.500	10.000	698.300	60.000	698.200	160.000	697.500	240.000
GR	697.300	400.000	694.400	407.000	693.000	409.000	691.600	422.000	693.400	436.000
GR	694.700	437.000	695.000	494.000	700.000	544.000	0.000	0.000	0.000	0.000
SB	0.000	1.540	2.600	0.000	27.000	0.000	185.000	0.000	691.600	691.600
X1	13906.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	698.400	697.300	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	0.000	0.000	0.000
BT	10.000	0.000	700.800	700.800	10.000	699.500	699.500	60.000	698.300	698.300
BT	160.000	698.200	698.200	240.000	697.500	697.500	400.000	697.300	697.300	407.000
BT	699.700	698.400	437.000	699.700	698.400	494.000	695.000	695.000	544.000	700.000
BT	700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF FOOTBRIDGE NO. 1

X1	13931.000	15.000	465.000	505.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	11.000	705.000	30.000	700.000	79.000	695.000	450.000
GR	698.400	465.000	693.400	475.000	691.900	485.000	691.200	492.000	692.900	501.000
GR	694.700	505.000	695.000	555.000	700.000	580.000	705.000	605.000	715.000	621.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** G ****

X1	14100.000	19.000	404.000	440.000	250.000	100.000	169.000	0.000	0.000	0.000
GR	704.100	0.000	701.800	50.000	700.600	100.000	700.600	150.000	700.800	200.000
GR	698.200	250.000	698.400	300.000	698.600	350.000	700.200	400.000	699.500	404.000
GR	695.600	410.000	693.400	420.000	691.900	430.000	693.300	434.000	697.000	440.000
GR	699.000	450.000	701.500	460.000	703.300	470.000	705.100	480.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 2

X1	14500.000	19.000	278.000	316.000	310.000	378.000	365.000	0.000	0.000	0.000
GR	704.000	0.000	701.800	1.000	700.900	52.000	700.100	72.000	699.700	100.000
GR	698.900	120.000	699.000	220.000	699.500	240.000	700.200	268.000	699.100	278.000
GR	694.200	288.500	692.200	290.000	691.800	300.500	692.200	310.000	695.000	311.000
GR	696.200	316.000	698.000	325.000	700.800	326.000	704.000	330.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000
X1	14594.000	19.000	404.000	440.000	80.000	80.000	80.000	0.000	0.000	0.000
GR	705.700	0.000	703.400	50.000	702.200	100.000	702.200	150.000	702.400	200.000
GR	699.800	250.000	700.000	300.000	700.200	350.000	701.800	400.000	701.100	404.000
GR	697.200	410.000	695.000	420.000	693.500	430.000	694.900	434.000	698.600	440.000
GR	700.600	450.000	703.100	460.000	704.900	470.000	706.700	480.000	0.000	0.000
SB	0.000	1.540	2.600	0.000	32.000	0.000	243.000	0.000	693.500	693.500
X1	14606.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	702.200	699.800	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	0.000	0.000	0.000
BT	19.000	0.000	705.700	705.700	50.000	703.400	703.400	100.000	702.200	702.200
BT	150.000	702.200	702.200	200.000	702.400	702.400	250.000	699.800	699.800	300.000
BT	700.000	700.000	350.000	700.200	700.200	400.000	701.800	701.800	404.000	703.500
BT	702.200	410.000	703.500	702.200	420.000	703.500	702.200	430.000	703.500	702.200
BT	434.000	703.500	702.200	440.000	703.500	702.200	450.000	703.500	702.200	460.000
BT	703.500	703.500	470.000	704.900	704.900	480.000	706.700	706.700	0.000	0.000

U/S OF FOOTBRIDGE NO. 2

X1	14621.000	18.000	81.000	120.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	706.550	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	695.000	95.000
GR	694.500	103.000	693.400	105.000	694.500	108.000	695.000	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.550	205.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

X1	15100.000	10.000	187.000	217.000	250.000	520.000	467.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	180.000	698.300	187.000	695.400	188.000	694.000	192.000
GR	694.900	197.000	699.700	217.000	700.000	242.000	705.000	302.000	715.000	317.000
NC	0.000	0.000	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000

**** H **** D/S OF SHIAWASSEE ROAD BRIDGE

X1	15150.000	18.000	81.000	120.000	40.000	60.000	50.000	0.000	0.000	0.000
GR	706.500	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	697.400	95.000
GR	694.500	103.000	694.300	105.000	694.500	108.000	697.300	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.500	205.000	0.000	0.000	0.000	0.000

X1	15214.000	10.000	70.000	92.000	64.000	64.000	64.000	0.000	0.000	0.000
GR	707.000	0.000	709.300	70.000	696.200	70.000	695.600	75.000	605.200	80.000
GR	694.600	83.000	695.600	87.000	696.800	92.000	709.300	92.000	715.000	187.000
SB	0.000	1.570	2.600	0.000	21.000	0.000	206.000	0.000	694.300	694.300

X1	15246.000	0.000	0.000	0.000	32.000	32.000	32.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	705.600	707.000	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
BT	4.000	0.000	707.000	707.000	70.000	709.300	705.600	92.000	709.300	705.600
BT	185.000	715.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF SHIAWASSEE ROAD BRIDGE

X1	15271.000	15.000	103.000	150.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	715.000	0.000	706.500	1.000	704.500	50.000	702.200	80.000	701.900	90.000
GR	701.500	103.000	697.000	110.000	695.100	120.000	695.600	122.000	695.300	130.000
GR	696.400	132.000	697.500	140.000	703.000	150.000	706.100	160.000	715.000	190.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** I ****

X1	15780.000	15.000	103.000	150.000	535.000	455.000	465.000	0.000	0.000	0.000
GR	715.000	0.000	711.500	1.000	709.500	50.000	707.200	80.000	706.900	90.000
GR	706.500	103.000	702.000	110.000	700.100	120.000	700.600	122.000	700.300	130.000
GR	701.400	132.000	702.500	140.000	708.000	150.000	711.100	160.000	715.000	190.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	16070.000	11.000	453.000	488.000	219.000	300.000	290.000	0.000	0.000	0.000
GR	720.000	0.000	715.000	158.000	710.000	330.000	706.400	453.000	704.300	460.000
GR	703.100	470.000	703.600	472.000	703.100	480.000	704.600	488.000	705.600	496.000
GR	710.000	554.000	715.000	576.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

**** J **** D/S OF ABANDONED FARMINGTON RD BRIDGE

X1	1'120.000	15.000	376.000	450'000	50.000	50'000	50.000	0'000	0.000	0.000

GR	720.000	0.000	715.000	100.000	714.000	200.000	710.400	250.000	708.000	300.000
GR	706.750	350.000	706.300	376.000	704.000	380.000	703.850	388.000	704.500	400.000
GR	703.300	414.000	708.000	435.000	710.300	450.000	716.100	530.000	720.000	570.000
X1	16149.000	26.000	412.000	438.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	720.500	0.000	716.200	60.000	715.200	110.000	713.600	165.000	714.000	199.000
GR	714.000	210.000	710.500	260.000	708.500	310.000	706.800	360.000	706.300	386.000
GR	714.300	402.000	714.300	412.000	704.500	412.000	704.500	414.000	704.300	416.000
GR	704.200	419.000	703.900	422.000	703.300	425.000	703.700	428.000	704.300	431.000
GR	704.200	434.000	704.200	436.000	704.200	438.000	716.000	438.000	717.800	446.000
GR	720.000	546.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	2.500	0.000	20.000	0.000	205.000	0.000	705.300	705.300
X1	16191.000	0.000	0.000	0.000	42.000	42.000	42.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	715.600	710.000	0.000	0.000	0.000	0.000	0.000
BT	26.000	0.000	720.500	720.500	60.000	715.200	715.200	165.000	713.600	713.600
BT	199.000	714.000	714.000	210.000	714.000	714.000	260.000	710.500	710.500	310.000
BT	708.500	708.500	360.000	706.800	706.800	386.000	706.300	706.300	402.000	714.300
BT	714.300	412.000	720.000	704.500	414.000	720.000	708.100	416.000	720.000	711.500
BT	419.000	720.000	714.000	422.000	720.000	715.300	425.000	720.000	715.600	428.000
BT	720.000	715.300	431.000	720.000	714.000	434.000	720.000	711.500	436.000	720.000
BT	708.100	436.000	720.000	704.200	438.000	720.000	704.200	438.000	720.000	716.000
BT	446.000	720.000	717.800	446.000	717.800	717.800	546.000	720.000	720.000	0.000

U/S OF ABANDONED FARMINGTON ROAD BRIDGE

X1	16216.000	14.000	390.000	420.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	14.000	715.000	50.000	710.000	234.000	710.000	390.000
GR	704.500	398.000	703.000	409.000	704.200	415.000	704.200	415.000	710.000	420.000
GR	710.000	450.000	715.000	480.000	720.000	515.000	725.000	535.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** K ****

X1	16750.000	18.000	318.000	347.000	480.000	540.000	534.000	0.000	0.000	0.000
GR	729.000	0.000	717.500	40.000	715.200	70.000	713.200	120.000	714.200	170.000
GR	715.000	187.000	712.000	200.000	710.800	270.000	710.000	318.000	708.200	318.800
GR	707.400	320.800	706.400	332.000	707.500	340.000	709.200	347.000	710.800	355.000
GR	713.100	380.000	715.500	400.000	720.000	420.000	0.000	0.000	0.000	0.000
X1	17200.000	14.000	409.000	437.000	380.000	480.000	450.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	20.000	715.000	301.000	710.000	402.000	712.700	409.000
GR	710.800	410.000	710.200	412.000	708.100	424.000	710.200	430.000	712.100	437.000
GR	710.000	448.000	715.000	489.000	720.000	504.000	725.000	523.000	0.000	0.000

**** L ****

X1	17780.000	21.000	272.000	308.000	360.000	180.000	580.000	0.000	0.000	0.000
GR	725.000	0.000	721.700	110.000	721.000	120.000	719.400	130.000	717.100	140.000
GR	716.000	150.000	714.300	160.000	713.900	170.000	713.600	180.000	715.000	240.000
GR	714.500	272.000	712.900	274.000	712.100	290.000	712.900	301.000	715.000	308.000
GR	717.100	320.000	717.100	340.000	720.000	370.000	719.000	380.000	724.000	400.000
GR	725.000	405.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17938.000	12.000	235.000	263.000	120.000	160.000	138.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	191.000	715.000	229.000	714.900	235.000	713.500	241.000
GR	713.000	243.000	713.900	247.000	713.400	252.000	714.900	263.000	715.000	282.000
GR	720.000	369.000	725.000	395.000	0.000	0.000	0.000	0.000	0.000	0.000

CITY LIMITS

X1	18322.000	10.000	523.000	543.000	418.000	350.000	384.000	0.000	0.000	0.000
GR	750.000	0.000	725.000	130.000	720.000	190.000	719.200	523.000	715.300	530.000
GR	715.100	535.000	719.300	543.000	720.000	602.000	725.000	643.000	750.000	775.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CCHV=     .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


            CITY LIMITS

   8511.00      6.40    673.90      0.00    673.90    674.44       .54      0.00      0.00    671.00
     1500.      366.     1043.       90.      399.      148.      104.        0.        0.    671.20
      0.00       .92      7.06       .87      .150      .045      .150     0.000    667.50    254.50
   .005213        0.        0.        0.         0         0         1      0.00    379.24    633.74


3265 DIVIDED FLOW

            ****  A  ****

   8940.00      6.18    675.58      0.00      0.00    675.74       .16      1.26       .04    673.00
     1500.       29.      755.      716.       69.      172.      770.        7.        4.    673.00
       .04       .43      4.40       .93      .150      .045      .150      .048    669.40     69.26
   .002118      460.      429.      300.         2         0         1      0.00    449.46    571.29

   9760.00      5.34    678.04      0.00      0.00    678.37       .33      2.58       .05    674.50
     1500.      259.      742.      499.      184.      116.      360.       23.       10.    674.80
       .10      1.41      6.42      1.39      .150      .045      .150      .046    672.70    258.04
   .005033      480.      820.      920.         2         0         1      0.00    235.58    493.63

  10300.00      5.74    681.04    680.83      0.00    681.86       .82      3.35       .15    677.40
     1500.      170.     1108.      222.      101.      131.      199.       29.       12.    679.40
       .12      1.68      8.43      1.11      .150      .045      .150      .047    675.30    151.23
   .009508      400.      540.      440.         4         8         1      0.00    253.51    404.73


3301 HV CHANGED MORE THAN HVINS

            ****  B  ****

  10680.00      6.63    683.13      0.00      0.00    683.28       .15      1.35       .07    678.60
     1500.      688.      743.       69.      691.      170.      139.       35.       15.    680.60
       .16      1.00      4.37       .50      .150      .045      .150      .046    676.50     15.77
   .001832      400.      380.      330.         3         0         1      0.00    334.70    350.48

  10800.00      6.27    683.17      0.00      0.00    683.76       .59       .35       .13    679.00
     1500.      419.      891.      190.      251.      113.      165.       37.       16.    679.80
       .17      1.67      7.91      1.15      .150      .045      .150      .046    676.90     49.94
   .006227      105.      120.      120.         3         0         1      0.00    206.50    256.44


CCHV=     .300 CEHV=     .500
3280 CROSS SECTION  10900.00 EXTENDED      3.05 FEET

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


              ****  C  ****  D/S OF GRAND RIVER AVE BRIDGE

   10900.00      6.85     684.05       0.00       0.00     684.24        .20        .36        .12     680.50
     1500.       139.      811.       549.       152.       170.       633.        39.        16.      680.40
       .18        .92       4.78       .87       .150       .045       .150       .046     677.20       0.00
   .002051       65.       100.       165.         2          0          1       0.00     320.27     320.27


   3301 HV CHANGED MORE THAN HVINS

   10941.00      5.92     683.52       0.00       0.00     685.13       1.61        .18        .71     695.50
     1500.         0.      1500.         0.         0.       147.         0.        40.        17.      695.50
       .18       0.00      10.20       0.00       .150       .045       .150       .046     677.60     190.00
   .014648       41.        41.        41.         3          0          1       0.00      25.00     215.00


   SPECIAL BRIDGE

   SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00      1.66       2.60       0.00       20.00      0.00       211.00     0.00       679.20     679.20


   6070.LOW FLOW BY NORMAL BRIDGE

   EGPRS=      0.000  EGLWC=    686.114  ELLC=    689.800  PCWSE=    683.517  ELTRD=    695.500


   NORMAL BRIDGE,NRD=11 MIN ELTRD=  695.50 MAX ELLC=  689.80

   10999.00      7.07     684.67       0.00       0.00     686.06       1.39        .86        .07     695.50
     1500.         0.      1500.         0.         0.       159.         0.        40.        17.      695.50
       .18       0.00       9.45       0.00       .150       .045       .150       .046     677.60     190.00
   .015003       58.        58.        58.         2          0          1     -17.41      25.00     215.00


   3301 HV CHANGED MORE THAN HVINS


              U/S OF GRAND RIVER AVE BRIDGE

   11040.00      8.03     686.03       0.00       0.00     686.55        .52        .23        .26     681.30
     1500.       194.     1295.        12.       190.       208.        15.        40.        17.      681.20
       .18       1.02       6.22       .80       .150       .045       .150       .046     678.00     121.21
   .002776       57.        41.        15.         3          0          1       0.00     114.82     236.03


   CCHV=     .100 CEHV=     .300
   11440.00      8.93     687.53       0.00       0.00     688.02        .50       1.47        .00     683.80
     1500.       443.     1000.        57.       518.       145.        47.        48.        21.      681.00
       .21        .86       6.90       1.20       .150       .045       .150       .045     678.60     358.30
   .003402      780.       400.       400.         3          0          1       0.00     365.21     723.51


              ****  D  ****

   11860.00      8.45     689.25       0.00       0.00     689.52        .27       1.48        .02     686.50
     1500.       132.      1316       13'        159'       310.        17'        57         24'       85.00
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      .25       .77      4.40       .72      .150      .045      .150      .045    680.80     21.50
  .001618      680.      649.      570.         2         0         1      0.00    118.22    139.72


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


 12100.00      7.48    689.68      0.00      0.00    690.06       .38       .51       .03    684.70
     1500.      208.      977.      315.      180.      161.      259.       60.       25.    684.40
       .27      1.16      6.07      1.21      .150      .045      .150      .045    682.20    313.23
  .002908      290.      240.      180.         2         0         1      0.00    171.58    484.82


 12180.00      7.38    690.08      0.00      0.00    690.33       .26       .25       .01    685.00
     1500.      235.      723.      541.      205.      126.      502.       62.       26.    684.90
       .28      1.15      5.72      1.08      .150      .045      .150      .044    682.70    318.54
  .002660       80.       80.      120.         2         0         1      0.00    263.95    582.49


CCHV=     .600 CEHV=     .800
 12330.00      7.48    690.48      0.00      0.00    690.96       .48       .45       .18    684.50
     1500.      128.      947.      425.       93.      137.      278.       64.       26.    684.50
       .29      1.37      6.89      1.53      .150      .045      .150      .044    683.00    441.89
  .003404      190.      150.      135.         2         0         1      0.00    151.95    593.84


3265 DIVIDED FLOW

          **** E  **** D/S OF POWERS AVE BRIDGE

 12410.00      6.73    690.73      0.00      0.00    691.60       .86       .33       .31    688.60
     1500.       18.      1456.      25.       24.      192.       32.       65.       27.    687.00
       .29      .78      7.57      .79      .150      .045      .150      .045    684.00    172.78
  .005669       80.       80.       55.         2         0         1      0.00     99.89    289.47


3301 HV CHANGED MORE THAN HVINS

 12427.00      5.55    690.65      0.00      0.00    692.79      2.15       .17      1.03    698.20
     1500.        0.      1500.       0.        0.      128.        0.       65.       27.    698.20
       .29      0.00     11.76      0.00      .150      .045      .150      .045    685.10    490.00
  .021832       17.       17.       17.         2         0         1      0.00     23.00    513.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN      BWC       BWP     BAREA       SS     ELCHU     ELCHD
      0.00      1.63      3.10      0.00     16.00      0.00    176.00     0.00    683.60    683.60


6070.LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   693.181  ELLC=   694.600  PCWSE=   690.645  ELTRD=   698.200

NORMAL BRIDGE,NRD=12 MIN ELTRD=  698.20 MAX ELLC=  694.60


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       698.20 ELREA=       698.20
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12473.00	6.76	691.86	0.00	0.00	693.96	0.10	1.14	.03	698.20
1500.	0.	1500.	0.	0.	129.	0.	65.	27.	698.20
.29	0.00	11.63	0.00	.150	.045	.150	.044	685.10	490.00
.028221	46.	46.	46.	4	0	1	-26.49	23.00	513.00

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

U/S OF POWERS AVE BRIDGE

12500.00	9.57	694.77	0.00	0.00	695.13	.36	.13	1.04	688.60
1500.	162.	1338.	0.	143.	262.	1.	65.	27.	694.60
.29	1.14	5.11	.08	.150	.045	.150	.044	685.20	31.07
.001908	27.	27.	27.	3	0	1	0.00	79.32	110.39

CCHV= .100 CEHV= .300

12905.00	8.98	695.28	0.00	0.00	695.29	.02	.13	.03	689.50
1500.	1277.	218.	6.	1406.	156.	28.	74.	29.	690.00
.40	.91	1.40	.21	.040	.045	.150	.045	686.30	42.47
.000129	375.	405.	421.	3	0	1	0.00	500.76	543.22

13150.00	8.29	695.29	0.00	0.00	695.35	.06	.04	.01	690.20
1500.	1070.	353.	78.	647.	134.	188.	80.	31.	690.70
.43	1.65	2.63	.41	.040	.045	.150	.045	687.00	267.60
.000530	174.	245.	240.	2	0	1	0.00	339.22	606.82

13275.00	8.02	695.32	0.00	0.00	695.56	.25	.16	.06	690.50
1500.	732.	672.	96.	237.	135.	125.	82.	32.	691.00
.44	3.09	4.98	.77	.040	.045	.150	.046	687.30	309.32
.001977	120.	260.	218.	2	0	1	0.00	169.64	478.96

**** F ****

13650.00	7.65	695.95	0.00	0.00	696.49	.55	.84	.09	697.30
1500.	0.	1408.	92.	0.	230.	130.	85.	33.	693.20
.46	0.00	6.11	.71	.040	.045	.150	.046	688.30	292.00
.003785	170.	375.	210.	2	0	1	0.00	150.99	442.99

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 OF FOOTBRIDGE 0. 1

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13800.00      6.80    696.40    696.40      0.00    697.15       .75       .50      0.00    695.00
    1500.      263.     1014.      273.       88.      122.      181.       86.       33.    694.60
      .46      2.97      8.28      1.23      .040      .045      .150      .046    689.60    333.66
 .008639      180.       85.       60.         2         9         1      0.00    261.09    594.75


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


13894.00      5.60    697.20      0.00      0.00    698.15       .95       .90       .10    694.40
    1500.       40.     1209.      251.        9.      140.      158.       87.       34.    694.70
      .47      4.27      8.67      1.59      .040      .045      .150      .046    691.60    400.25
 .009376      100.      100.      100.         2         0         1      0.00    115.70    515.95


SPECIAL BRIDGE

SB   XK        XKOR      COFQ     RDLEN       BWC       BWP     BAREA        SS     ELCHU     ELCHD
     0.00      1.54      2.60      0.00     27.00      0.00    185.00      0.00    691.60    691.60


6070.LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   698.149  ELLC=   698.400  PCWSE=   697.195  ELTRD=   697.300

3301 HV CHANGED MORE THAN HVINS


NORMAL BRIDGE,NRD=10 MIN ELTRD=  697.30 MAX ELLC=  698.40

13906.00      6.33    697.93      0.00      0.00    698.37       .45       .07       .15    694.40
    1500.      195.     1032.      273.      109.      161.      218.       87.       34.    694.70
      .47      1.79      6.39      1.25      .040      .045      .150      .046    691.60    191.39
 .004202       12.       12.       12.         3         0         1      0.00    331.87    523.25


            U/S OF FOOTBRIDGE NO. 1

13931.00      7.25    698.45      0.00      0.00    698.53       .07       .04       .11    698.40
    1500.      757.      604.      139.      470.      208.      210.       87.       34.    694.70
      .47      1.61      2.90       .66      .040      .045      .150      .046    691.20    193.34
 .000906       25.       25.       25.         2         0         1      0.00    378.95    572.29


CCHV=    .100 CEHV=    .300
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH


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
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            ****  G  ****

 14100.00      7.10    699.00    699.00      0.00    699.89       .89       .39      0.00    699.50
     1500.      162.     1329.        9.       69.      166.       10.       90.       35.    697.00
       .48      2.33      8.00       .89      .040      .045      .150      .046    691.90    234.52
  .008159      250.      169.      100.        30         5         1      0.00    173.38    450.02


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


            D/S OF FOOTBRIDGE NO. 2

 14500.00      8.88    700.68      0.00      0.00    700.85       .16       .88       .07    699.10
     1500.      479.      995.       26.      290.      260.       34.       93.       37.    696.20
       .51      1.65      3.83       .77      .040      .045      .150      .046    691.80     57.35
  .001192      310.      365.      378.         3         0         1      0.00    268.61    325.96


CCHV=     .300 CEHV=     .500

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH


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


 14594.00      7.17    700.67    700.67      0.00    701.49       .82       .20      0.00    701.10
     1500.      185.     1305.       10.       78.      169.       11.       94.       37.    698.60
       .51      2.38      7.75       .89      .040      .045      .150      .046    693.50    233.28
  .007550       80.       80.       80.         3        16         1      0.00    177.00    450.28


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.54      2.60      0.00     32.00      0.00    243.00      0.00    693.50    693.50


6070.LOW FLOW BY NORMAL BRIDGE

EGPRS=      0.000  EGLWC=   701.491  ELLC=   702.200  PCWSE=   700.669  ELTRD=   699.800

NORMAL BRIDGE,NRD=19 MIN ELTRD=  699.80 MAX ELLC=  702.20


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      701.10 ELREA       698  0
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14606.00      7.05    700.55      0.00      0.00    701.82      1.27       .11       .22    701.10
    1500.        0.    1491.        9.        0.    164.        10.       94.       37.    698.60
      .51      0.00      9.06       .99      .040      .045      .150      .046    693.50    404.84
  .010603       12.       12.       12.         2         0         1      0.00     44.93    449.77


            U/S OF FOOTBRIDGE NO. 2

14621.00      7.34    700.74      0.00      0.00    702.25      1.50       .31       .12    702.50
    1500.        0.    1499.        1.        0.    152.        2.        94.       37.    700.00
      .51      0.00      9.85       .61      .040      .045      .150      .046    693.40     86.72
  .014398       25.       25.       25.         2         0         1      0.00     38.34    125.06


CCHV=     .100 CEHV=     .300

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


15100.00      9.51    703.51      0.00      0.00    703.68       .17      1.30       .13    698.30
    1500.       530.      856.       114.      252.      211.      165.       97.       39.    699.70
      .55      2.11      4.05       .69      .040      .045      .150      .046    694.00     53.79
  .001264       250.      467.      520.         4         0         1      0.00    230.28    284.07


CCHV=     .600 CEHV=     .800

            **** H ****  D/S OF SHIAWASSEE ROAD BRIDGE

15150.00      9.26    703.56      0.00      0.00    703.87       .31       .08       .11    702.50
    1500.       322.     1139.        39.       124.      230.       56.       98.       39.    700.00
      .56      2.59      4.95       .69      .040      .045      .150      .046    694.30      3.53
  .002312        40.       50.       60.         2         0         1      0.00    159.75    163.28


15214.00     98.80    704.00      0.00      0.00    704.12       .12       .14       .12    709.30
    1500.        0.    1500.        0.        0.    545.        0.        99.       39.    709.30
      .56      0.00      2.75       .00      .040      .045      .150      .046    605.20     70.00
  .001934        64.       64.       64.         2         0         1      0.00     22.00     92.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.57      2.60      0.00      21.00     0.00      206.00    0.00      694.30    694.30

3840 SECTION NOT HIGH ENOUGH    793.102    757.000    605.200    757.000    703.836        8
 PRESS FLOW BECAUSE EGLWC OF    793.22  EXCEEDS 1.5 DEPTH
PRESSURE FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                AREA
 705.29    793.22    0.00      0.        1500.     206.      237.      705.60    707.00


OVER BANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      709.30 ELPEA=      709.30
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15246.00     99.99    705.19      0.00      0.00    705.29       .11      1.18      0.00    709.30
    1500.        0.     1500.        0.        0.      572.        0.       99.       39.    709.30
      .57      0.00      2.62      0.00      .040      .045      .150      .046    605.20     70.00
  .001680       32.       32.       32.         2         0         1      0.00     22.00     92.00


            U/S OF SHIAWASSEE ROAD BRIDGE

15271.00     10.13    705.23      0.00      0.00    705.39       .15       .05       .04    701.50
    1500.      266.     1232.        2.      141.      367.        8.      100.       39.    703.00
      .57      1.89      3.36       .28      .040      .045      .150      .046    695.10     32.09
  .000734       50.       50.       50.         2         0         1      0.00    125.11    157.20


CCHV=     .100 CEHV=     .300
3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

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


            ****  I  ****

15780.00      5.16    705.26    705.26      0.00    707.02      1.76       .98      0.00    706.50
    1500.        0.     1500.        0.        0.      141.        0.      103.       40.    708.00
      .58      0.00     10.64      0.00      .040      .045      .150      .046    700.10    104.93
  .020920      535.      465.      455.        30         8         1      0.00     40.09    145.02


CCHV=     .300 CEHV=     .500

3301 HV CHANGED MORE THAN HVINS

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


16070.00      5.98    709.08      0.00      0.00    709.47       .40      2.05       .41    706.40
    1500.      335.     1048.      117.      123.      179.      112.      105.       41.    704.60
      .60      2.72      5.85      1.04      .040      .045      .150      .046    703.10    361.27
  .003633      219.      290.      300.         3         0         1      0.00    180.66    541.93


CCHV=     .300 CEHV=     .500

            ****  J  ****  D/S OF ABANDONED FARMINGTON RD BRIDGE

16120.00      6.20    709.50      0.00      0.00    709.66       .16       .12       .07    706.30
    1500.      474.     1026.        0.      184.      293.        0.      106.       41.    710.30
      .60      2.57      3.51      0.00      .040      .045      .150      .046    703.30    273.66
  .001680       50.       50.       50.         2         0         1      0.00    171.13    444.79
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3265 DIVIDED FLOW

16149.00	6.19	709.49	0.00	0.00	709.83	.34	.08	.09	714.30
1500.	757.	743.	0.	191.	141.	0.	106.	41.	716.00
.61	3.97	5.26	0.00	.040	.045	.150	.046	703.30	285.27
.004177	30.	30.	30.	2	0	1	0.00	133.11	438.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.50	0.00	20.00	0.00	205.00	0.00	705.30	705.30

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 711.825 ELLC= 715.600 PCWSE= 709.489 ELTRD= 710.000

3265 DIVIDED FLOW

NORMAL BRIDGE,NRD=26 MIN ELTRD= 710.00 MAX ELLC= 715.60

16191.00	6.42	709.72	0.00	0.00	710.01	.29	.17	.01	714.30
1500.	902.	598.	0.	217.	130.	0.	106.	41.	716.00
.61	4.15	4.60	0.00	.040	.045	.150	.046	703.30	279.32
.004150	42.	42.	42.	3	0	1	-17.26	139.54	438.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

U/S OF ABANDONED FARMINGTON ROAD BRIDGE

16216.00	6.34	709.34	709.34	0.00	711.60	2.26	.20	0.00	710.00
1500.	0.	1500.	0.	0.	124.	0.	106.	41.	710.00
.61	0.00	12.06	0.00	.040	.045	.150	.046	703.00	390.96
.022348	25.	25.	25.	30	6	1	0.00	26.47	719.43

CCHV= .100 CEHV= .300

3265 DIVIDED FLOW

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

**** K ****

16750.00	7.08	713.48	0.00	0.00	713.64	.16	1.85	.21	710.00
1500.	764.	694.	42.	302.	177.	67.	110.	42.	709.20
.66	2.53	3.93	.63	.040	.045	.150	.046	706.40	112.92
.001367	480.	534.	540.	6	0	1	0.00	210.87	383.19

17200.00	6.16	714.26	0.00	0.00	714.54	.27	.86	.03	712.70
1500.	758.	625.	117.	204.	124.	110.	115.	44.	712.10
.68	3.71	5.04	1.06	.040	.045	.150	.046	708.10	315.85
.003522	380.	450.	480.	3	0	1	0.00	167.12	482.97

**** L ****

17780.00	4.05	716.15	0.00	0.00	716.49	.34	1.94	.02	714.50
1500.	860.	638.	2.	212.	119.	4.	119.	46.	715.00
.71	4.06	5.35	.51	.040	.045	.150	.047	712.10	148.54
.005496	360.	580.	180.	2	0	1	0.00	166.09	314.63

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
17938.00	4.56	717.56	717.56	0.00	718.74	1.19	1.17	0.00	714.90
1500.	280.	1016.	204.	40.	102.	106.	120.	46.	714.90
.72	6.92	9.94	1.92	.040	.045	.150	.047	713.00	209.57
.016480	120.	138.	160.	30	8	1	0.00	116.90	326.48

3301 HV CHANGED MORE THAN HVINS

CITY LIMITS

18322.00	5.85	720.95	0.00	0.00	721.08	.13	2.24	.11	719.20
1500.	1087.	363.	49.	455.	85.	80.	124.	49.	719.30
.75	2.39	4.29	.61	.040	.045	.150	.047	715.10	178.61
.002814	418.	384.	350.	6	0	1	0.00	431.17	609.78

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

CITY OF FARMI

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
8511.00	0.00	0.00	0.00	667.50	1500.00	673.90	0.00	674.44	379.24	52.13	0.00	0.00
8940.00	429.00	0.00	0.00	669.40	1500.00	675.58	0.00	675.74	449.46	21.18	.04	7.05
9760.00	820.00	0.00	0.00	672.70	1500.00	678.04	0.00	678.37	235.58	50.33	.10	23.07
10300.00	540.00	0.00	0.00	675.30	1500.00	681.04	680.83	681.86	253.51	95.08	.12	28.73
10680.00	380.00	0.00	0.00	676.50	1500.00	683.13	0.00	683.28	334.70	18.32	.16	34.96
10800.00	120.00	0.00	0.00	676.90	1500.00	683.17	0.00	683.76	206.50	62.27	.17	36.91
10900.00	100.00	0.00	0.00	677.20	1500.00	684.05	0.00	684.24	320.27	20.51	.18	39.04
10941.00	41.00	0.00	0.00	677.60	1500.00	683.52	0.00	685.13	25.00	146.48	.18	39.56
10999.00	58.00	695.50	689.80	677.60	1500.00	684.67	0.00	686.06	25.00	150.03	.18	39.76
11040.00	41.00	0.00	0.00	678.00	1500.00	686.03	0.00	686.55	114.82	27.76	.18	40.06
11440.00	400.00	0.00	0.00	678.60	1500.00	687.53	0.00	688.02	365.21	34.02	.21	48.31
11860.00	649.00	0.00	0.00	680.80	1500.00	689.25	0.00	689.52	118.22	16.18	.25	57.40
12100.00	240.00	0.00	0.00	682.20	1500.00	689.68	0.00	690.06	171.58	29.08	.27	60.40
12180.00	80.00	0.00	0.00	682.70	1500.00	690.08	0.00	690.33	263.95	26.60	.28	62.06
12330.00	150.00	0.00	0.00	683.00	1500.00	690.48	0.00	690.96	151.95	34.04	.29	64.38
12410.00	80.00	0.00	0.00	684.00	1500.00	690.73	0.00	691.60	99.89	56.69	.29	64.98
12427.00	17.00	0.00	0.00	685.10	1500.00	690.65	0.00	692.79	23.00	218.32	.29	65.06
12473.00	46.00	698.20	694.60	685.10	1500.00	691.86	0.00	693.96	23.00	282.21	.29	65.19
12500.00	27.00	0.00	0.00	685.20	1500.00	694.77	0.00	695.13	79.32	19.08	.29	65.36
12905.00	405.00	0.00	0.00	686.30	1500.00	695.28	0.00	695.29	500.76	1.29	.40	74.11
13150.00	245.00	0.00	0.00	687.00	1500.00	695.29	0.00	695.35	339.22	5.30	.43	79.62
13275.00	260.00	0.00	0.00	687.30	1500.00	695.32	0.00	695.56	169.64	19.77	.44	82.42
13650.00	375.00	0.00	0.00	688.30	1500.00	695.95	0.00	696.49	150.99	37.85	.46	85.07
13800.00	85.00	0.00	0.00	689.60	1500.00	696.40	696.40	697.15	261.09	86.39	.46	85.81
13894.00	100.00	0.00	0.00	691.60	1500.00	697.20	0.00	698.15	115.70	93.76	.47	86.61
13906.00	12.00	697.30	698.40	691.60	1500.00	697.93	0.00	698.37	331.87	42.02	.47	86.72
13931.00	25.00	0.00	0.00	691.20	1500.00	698.45	0.00	698.53	378.95	9.06	.47	87.12
14100.00	169.00	0.00	0.00	691.90	1500.00	699.00	699.00	699.89	173.38	81.59	.48	89.65

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	FG	TOPWID	10K*S	TIME	VOL
14500.00	365.00	0.00	0.00	691.80	1500.00	700.68	0.00	700.85	268.61	11.92	.51	92.90
14594.00	80.00	0.00	0.00	693.50	1500.00	700.67	700.67	701.49	177.00	75.50	.51	93.67
14606.00	12.00	699.80	702.20	693.50	1500.00	700.55	0.00	701.82	44.93	106.03	.51	93.73
14621.00	25.00	0.00	0.00	693.40	1500.00	700.74	0.00	702.25	38.34	143.98	.51	93.83
15100.00	467.00	0.00	0.00	694.00	1500.00	703.51	0.00	703.68	230.28	12.64	.55	97.49
15150.00	50.00	0.00	0.00	694.30	1500.00	703.56	0.00	703.87	159.75	23.12	.56	98.07
15214.00	64.00	0.00	0.00	605.20	1500.00	704.00	0.00	704.12	22.00	19.34	.56	98.77
15246.00	32.00	707.00	705.60	605.20	1500.00	705.19	0.00	705.29	22.00	16.80	.57	99.18
15271.00	50.00	0.00	0.00	695.10	1500.00	705.23	0.00	705.39	125.11	7.34	.57	99.81
15780.00	465.00	0.00	0.00	700.10	1500.00	705.26	705.26	707.02	40.09	209.20	.58	103.42
16070.00	290.00	0.00	0.00	703.10	1500.00	709.08	0.00	709.47	180.66	36.33	.60	105.18
16120.00	50.00	0.00	0.00	703.30	1500.00	709.50	0.00	709.66	171.13	16.80	.60	105.69
16149.00	30.00	0.00	0.00	703.30	1500.00	709.49	0.00	709.83	133.11	41.77	.61	105.97
16191.00	42.00	710.00	715.60	703.30	1500.00	709.72	0.00	710.01	139.54	41.50	.61	106.30
16216.00	25.00	0.00	0.00	703.00	1500.00	709.34	709.34	711.60	28.47	223.48	.61	106.44
16750.00	534.00	0.00	0.00	706.40	1500.00	713.48	0.00	713.64	210.87	13.67	.66	110.36
17200.00	450.00	0.00	0.00	708.10	1500.00	714.26	0.00	714.54	167.12	35.22	.68	115.09
17780.00	580.00	0.00	0.00	712.10	1500.00	716.15	0.00	716.49	166.09	54.96	.71	118.66
17938.00	138.00	0.00	0.00	713.00	1500.00	717.56	717.56	718.74	116.90	164.80	.72	119.56
18322.00	384.00	0.00	0.00	715.10	1500.00	720.95	0.00	721.08	431.17	28.14	.75	123.51

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
8511.000	1500.001	673.900	0.000	0.000	0.000	379.237	0.000	0.000
8940.000	1500.001	675.581	0.000	1.681	0.000	449.459	0.000	429.000
9760.000	1500.001	678.040	0.000	2.458	0.000	235.584	0.000	820.000
10300.000	1500.001	681.041	0.000	3.001	0.000	253.506	0.000	540.000
10680.000	1500.001	683.125	0.000	2.084	0.000	334.705	0.000	380.000
10800.000	1500.001	683.171	0.000	.046	0.000	206.502	0.000	120.000
10900.000	1500.001	684.047	0.000	.876	0.000	320.272	0.000	100.000
10941.000	1500.001	683.517	0.000	-.530	0.000	25.000	0.000	41.000
10999.000	1500.001	684.671	0.000	1.155	0.000	25.000	0.000	58.000
11040.000	1500.001	686.026	0.000	1.354	0.000	114.824	0.000	41.000

11440.000	1500.001	68[illegible].525	0.000	1.500	0.000	365.208	0.000	400.000
11860.000	1500.001	689.250	0.000	1.724	0.000	118.222	0.000	649.000
12100.000	1500.001	689.683	0.000	.433	0.000	171.584	0.000	240.000
12180.000	1500.001	690.075	0.000	.393	0.000	263.949	0.000	80.000
12330.000	1500.001	690.480	0.000	.405	0.000	151.952	0.000	150.000
12410.000	1500.001	690.733	0.000	.253	0.000	99.894	0.000	80.000
12427.000	1500.001	690.645	0.000	-.088	0.000	23.000	0.000	17.000
12473.000	1500.001	691.860	0.000	1.214	0.000	23.000	0.000	46.000
12500.000	1500.001	694.767	0.000	2.907	0.000	79.322	0.000	27.000
12905.000	1500.001	695.277	0.000	.510	0.000	500.756	0.000	405.000
13150.000	1500.001	695.292	0.000	.016	0.000	339.217	0.000	245.000
13275.000	1500.001	695.319	0.000	.027	0.000	169.639	0.000	260.000
13650.000	1500.001	695.947	0.000	.628	0.000	150.987	0.000	375.000
13800.000	1500.001	696.399	0.000	.452	0.000	261.094	0.000	85.000
13894.000	1500.001	697.195	0.000	.796	0.000	115.699	0.000	100.000
13906.000	1500.001	697.926	0.000	.731	0.000	331.867	0.000	12.000
13931.000	1500.001	698.454	0.000	.529	0.000	378.952	0.000	25.000
14100.000	1500.001	699.005	0.000	.550	0.000	173.384	0.000	169.000
14500.000	1500.001	700.683	0.000	1.679	0.000	268.613	0.000	365.000
14594.000	1500.001	700.669	0.000	-.014	0.000	177.000	0.000	80.000
14606.000	1500.001	700.553	0.000	-.116	0.000	44.926	0.000	12.000
14621.000	1500.001	700.741	0.000	.188	0.000	38.341	0.000	25.000
15100.000	1500.001	703.505	0.000	2.764	0.000	230.279	0.000	467.000
15150.000	1500.001	703.557	0.000	.051	0.000	159.745	0.000	50.000
15214.000	1500.001	704.002	0.000	.445	0.000	22.000	0.000	64.000
15246.000	1500.001	705.187	0.000	1.186	0.000	22.000	0.000	32.000
15271.000	1500.001	705.231	0.000	.044	0.000	125.111	0.000	50.000
15780.000	1500.001	705.261	0.000	.030	0.000	40.092	0.000	465.000
16070.000	1500.001	709.076	0.000	3.815	0.000	180.660	0.000	290.000
16120.000	1500.001	709.500	0.000	.424	0.000	171.131	0.000	50.000
16149.000	1500.001	709.489	0.000	-.011	0.000	133.105	0.000	30.000
16191.000	1500.001	709.721	0.000	.233	0.000	139.538	0.000	42.000
16216.000	1500.001	709.339	0.000	-.382	0.000	28.470	0.000	25.000

16750.000	1500.001	71[illegible].476	0.000	4.137	0.000	210.870	0.000	534.000
17200.000	1500.001	714.261	0.000	.785	0.000	167.120	0.000	450.000
17780.000	1500.001	716.154	0.000	1.893	0.000	166.090	0.000	580.000
17938.000	1500.001	717.556	0.000	1.402	0.000	116.905	0.000	138.000
18322.000	1500.001	720.948	0.000	3.392	0.000	431.172	0.000	384.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA=ACRES	TOP WIDTH AREA=DIFF
1	0.000	0.000	48.638	0.000

1968 Flood
Upper R. Roug

00BREAK00

1) COUNTY: OAKLAND

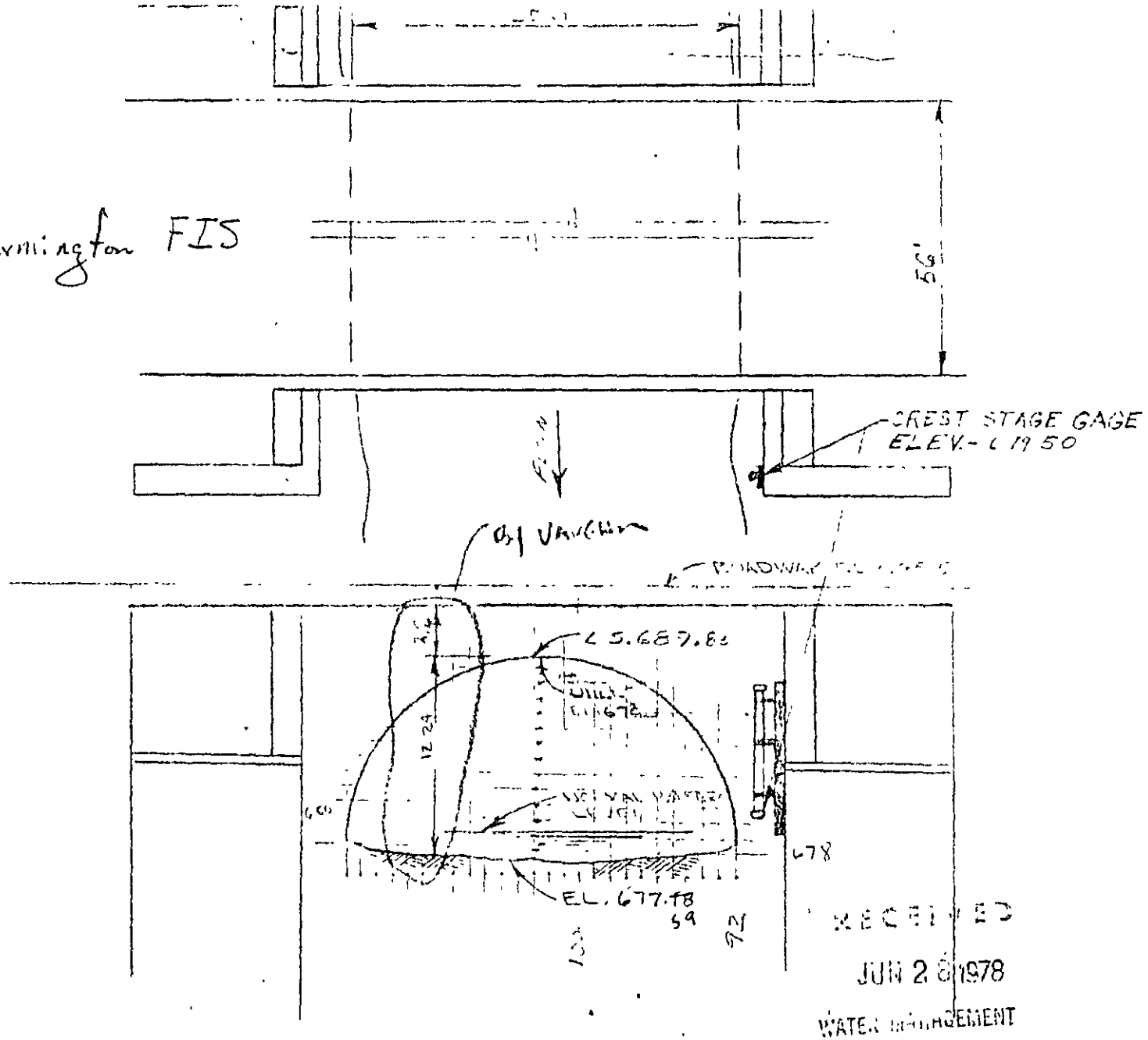
2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGES

4) DOCUMENT TYPE: HYDRAULIC NOTES

00BREAK00

City of Farmington FIS



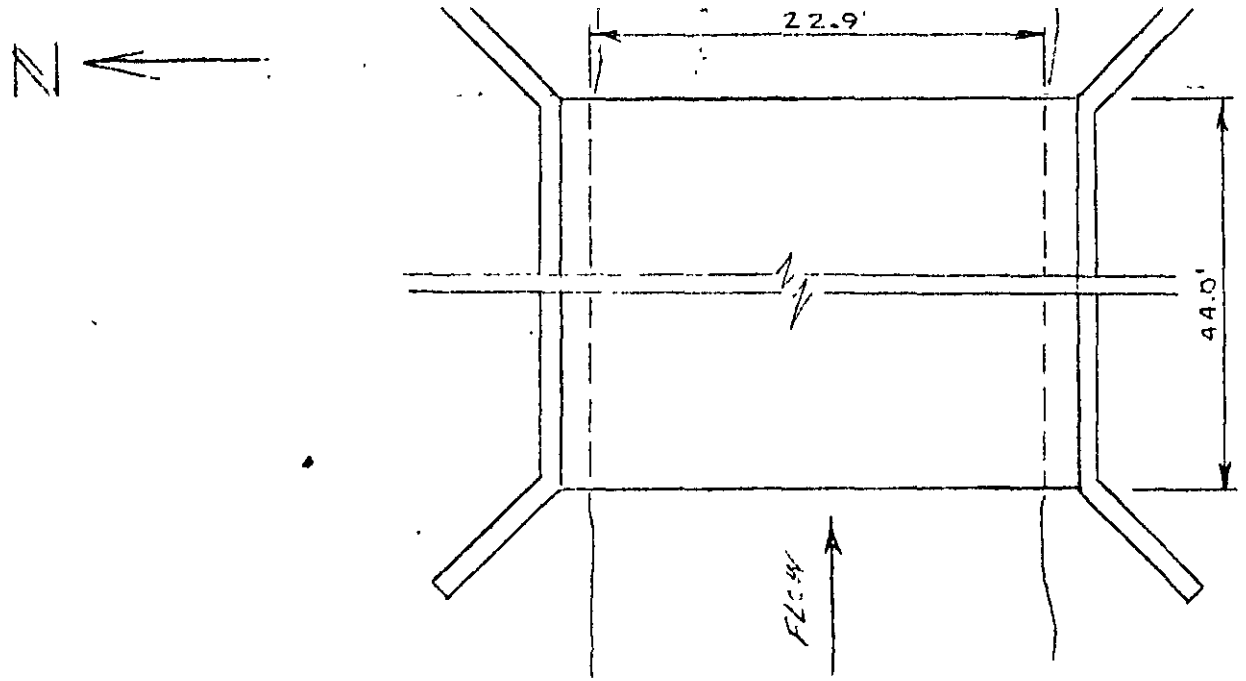
RECEIVED
JUN 28 1978
WATER MANAGEMENT

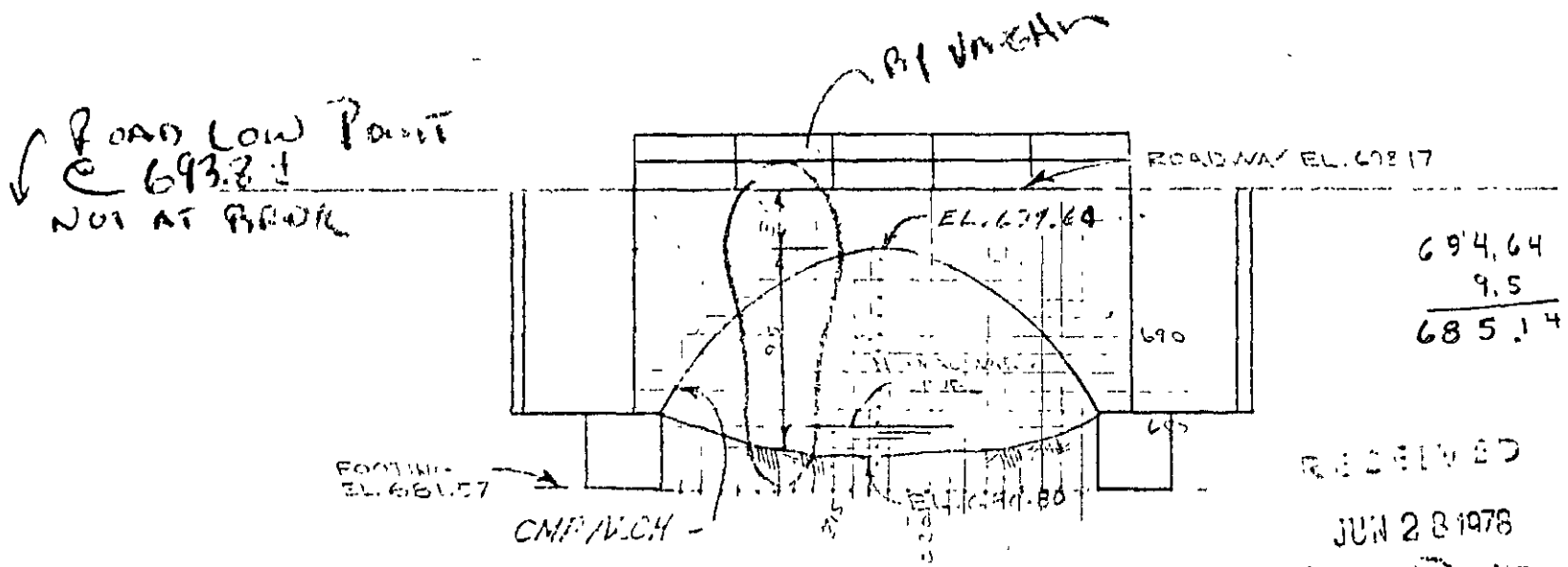
ICE DURING SURVEY

NOTE
A PAVING PLAN OF GRAND RIVER SHOWING BRIDGE IS AVAILABLE

GRAND RIVER

STA. 10+70



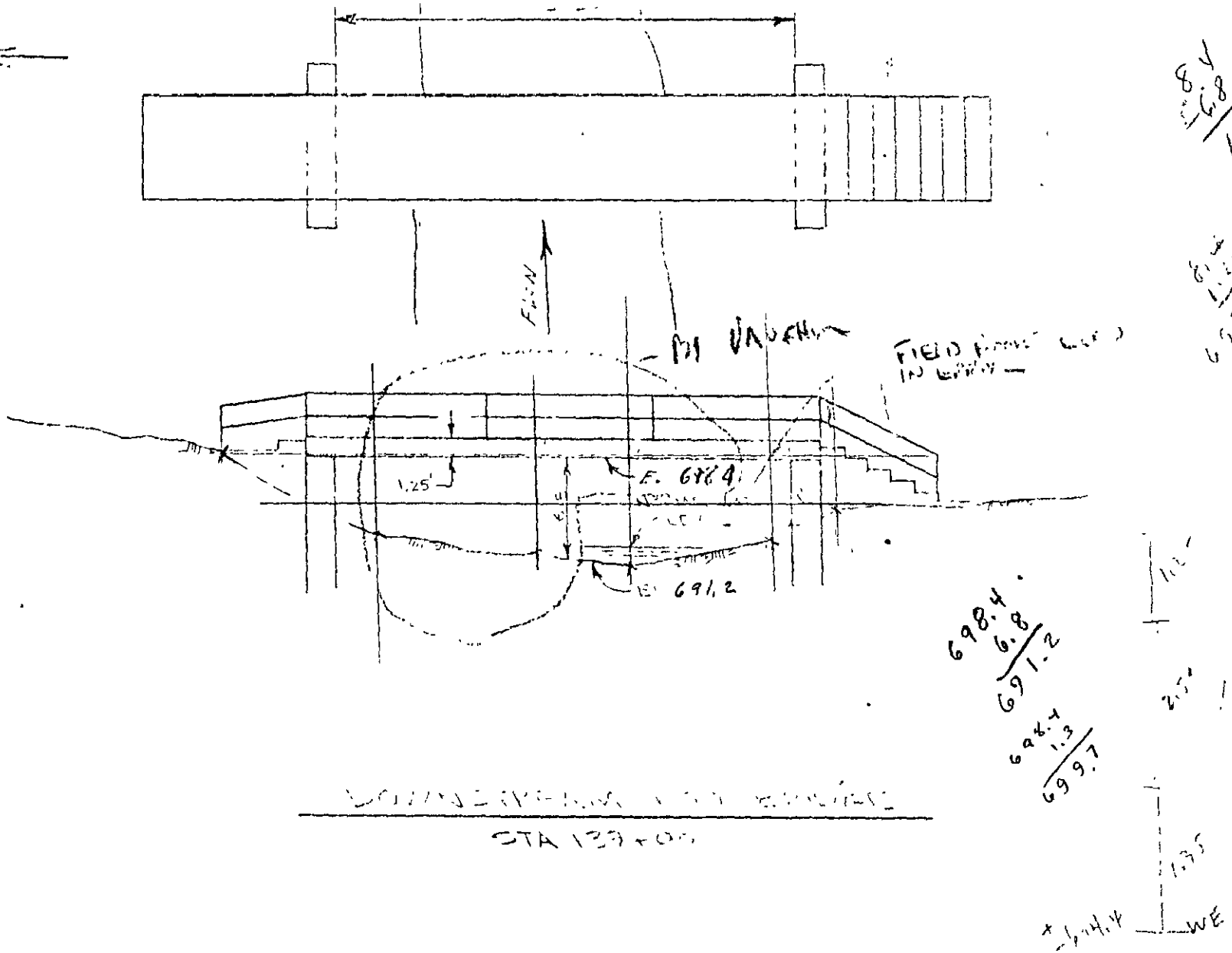


694.64
9.5
685.14

RECEIVED
JUN 28 1978

NOTE
BRIDGE DRAWING IS AVAILABLE.
ORIGINAL WIDTH WAS 16'

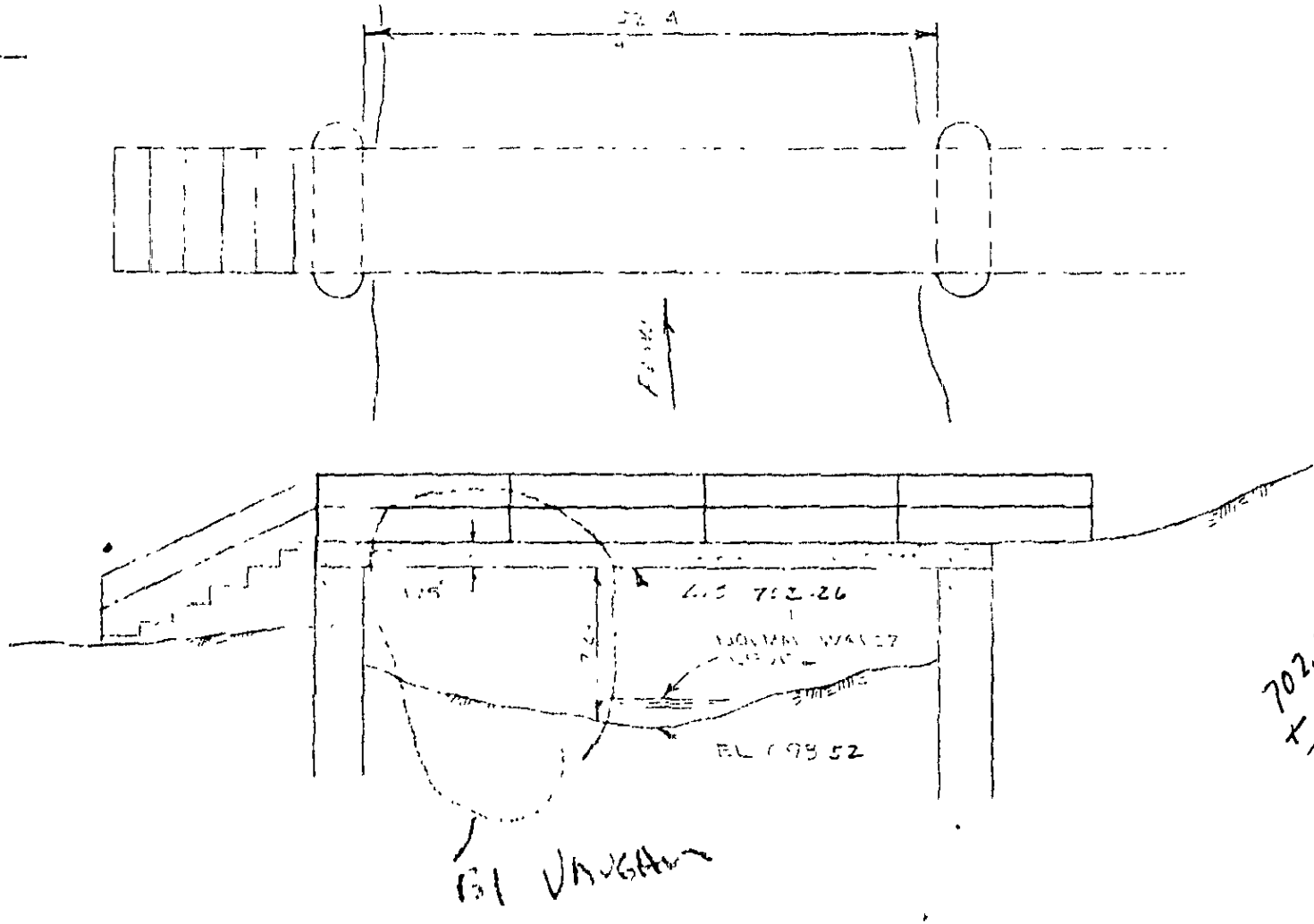
POWERS AVE
STA 12+50



STA 139+00

RECEIVED
JUN 28 1978
WATER MANAGEMENT

PICTURE PROFILE
7/24/74

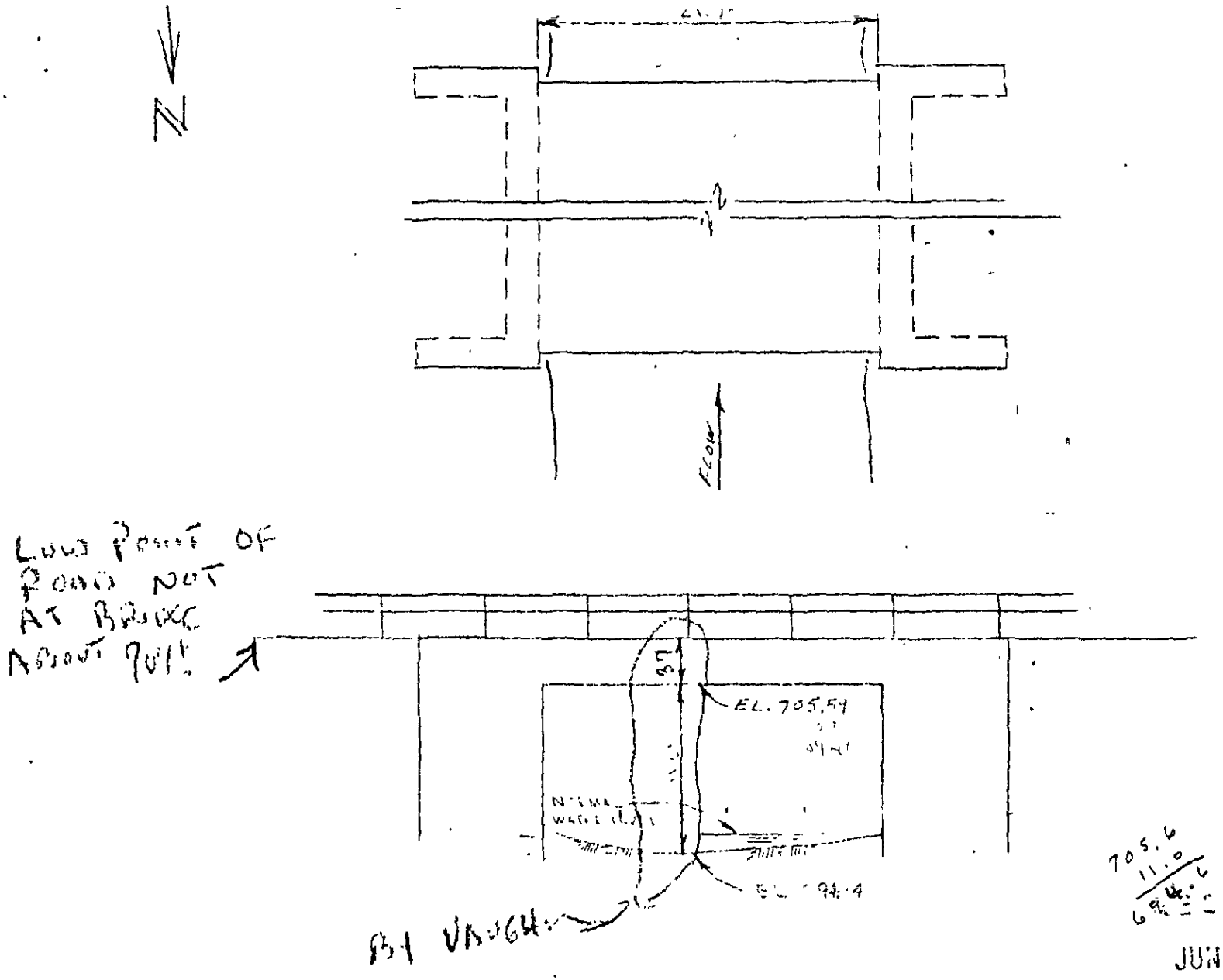


G1 Vaughan

RECEIVED
JUN 28 1978
WATER MANAGEMENT

UPSTREAM FOOT BRIDGE

STA. 146+00

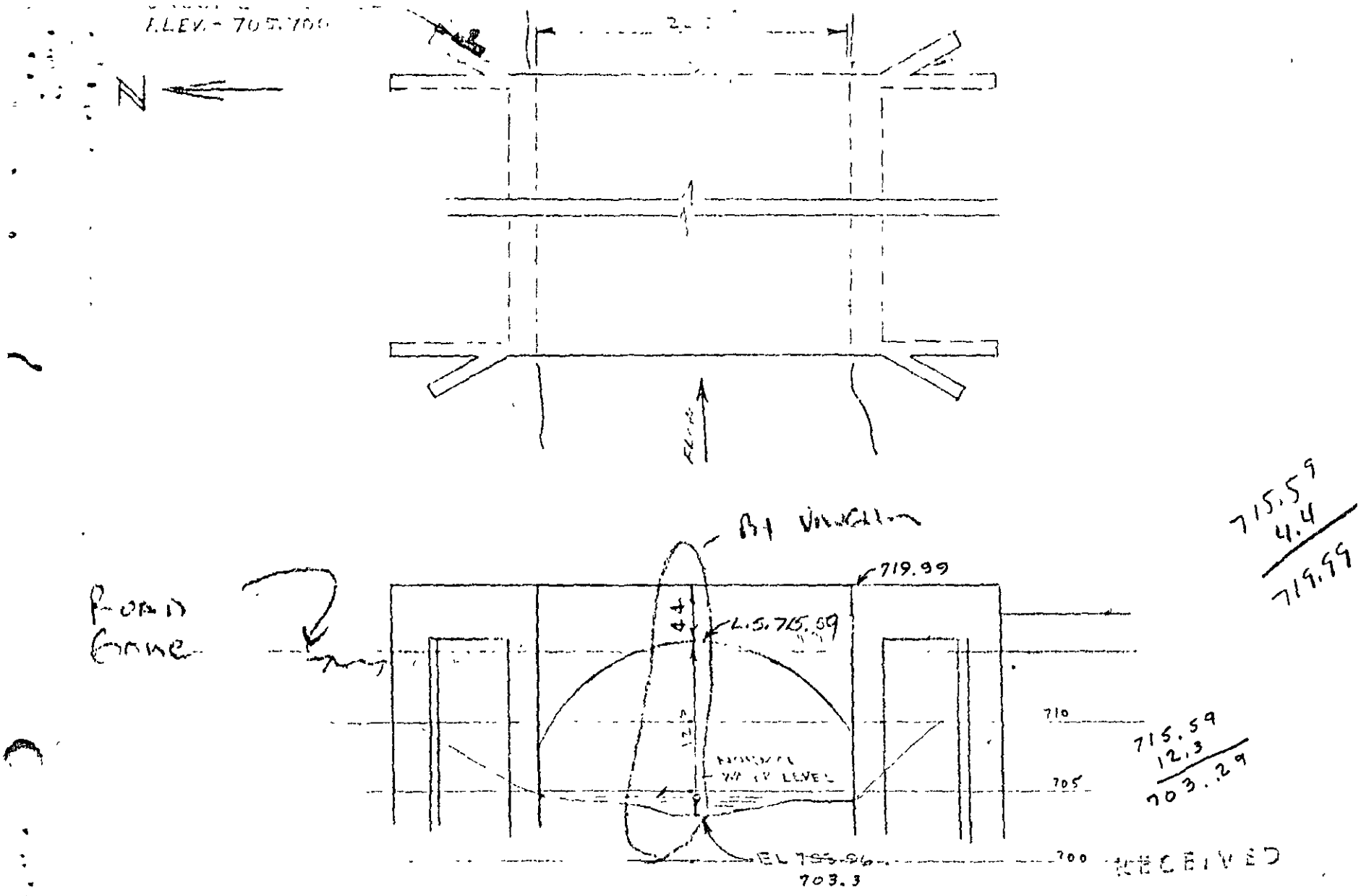


705.6'
3.7
709.3'

705.6
11.0
6

RECEIVED
JUN 23 1978
WATER MANAGEMENT

ICE DURING SUMMER



Road Gone

FARMINGTON POND
STA. 161+70

NOTE
NORTH BRIDGE APPROACH
HAS RECENTLY BEEN REMOVED

RECEIVED
JUN 28 1978
ICE WATER MANAGEMENT

COMPUTATION SHEET	DATE 16 June 1978	PAGE 1 OF 2	FILE NUMBER
NAME OF OFFICE U.S Army Engineer District, Detroit	COMPUTATION Bridge Head Loss at Power Ave. Br.		
SUBJECT FARMINGTON FIS		SOURCE DATA	
COMPUTED BY P.M.	CHECKED BY	APPROVED BY	

RECEIVED JUN 28 1978 WATER MANAGEMENT

Q_{100} = 3800 c.f.s.

U/s energy gradient (HEC-2 printout) = 697.63 feet

$$Q_T = Q_o + Q_w$$

$$= A\sqrt{2gh/K} + CLH^{3/2}$$

where,

A = area of the bridge opening (176 ft^2)

g = gravitional acceleration

h = difference between energy gradient upstream and tailwater elevation downstream

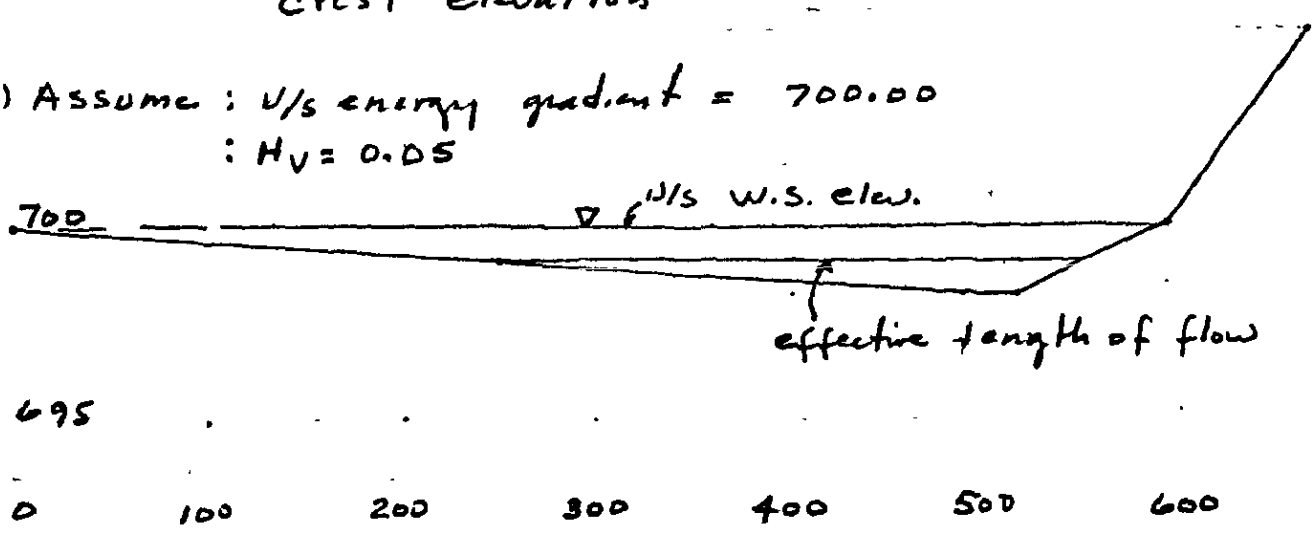
K = total loss coefficient (1.63)

C = coefficient of weir discharge (3.10)

L = effective length of weir controlling flow

H = difference between the upstream energy grade line elevation and the roadway crest elevation

(1) Assume : U/s energy gradient = 700.00
: H_V = 0.05



COMPUTATION SHEET	DATE 16 June 1978	PAGE 2 OF 2	FILE NUMBER
NAME OF OFFICE U.S Army Engineer District, Detroit		COMPUTATION Bridge Head Loss at Power Ave Bridge	
SUBJECT Farmington FIS		SOURCE DATA	
COMPUTED BY P.M	CHECKED BY	APPROVED BY	

Then $L = 300'$

$$Q_T = \left(176 \times 8.025 \sqrt{\frac{3.10}{1.63}}\right) + \left(3.10 \times 300 \, (1.7)^{3/2}\right)$$

$$Q_T = (176 \times 8.025 \times 1.38) + (3.10 \times 300 \times 2.216)$$

$$= 1949 + 2061 = 4010 \text{ cfs.}$$

Too high

(2) Assume: U/s energy gradient = 699.9

$L = 300'$

$$Q_T = \left(176 \times 8.025 \times \sqrt{\frac{3.00}{1.63}}\right) + \left[3.10 \times 300 \times (1.6)^{3/2}\right]$$

$$= (176 \times 8.025 \times 1.35) + (3.10 \times 300 \times 2.024)$$

$$= 1907 + 1882 = 3789 \text{ c.f.s.}$$

Use U/s energy gradient of 699.90

Assume $H_v = 0.05$

Then U/s W.S. elev. = 699.85

will cause only an insignificant increase in flood heights. Thus, at the recommendation of the MICHIGAN DEPARTMENT OF NATURAL REASOURCES Bureau of Water Management, a floodway having no more than a 0.1-foot surcharge has been delineated for this study.

The floodway proposed for this study was computed at each cross section on the basis of equal conveyance reduction from each side of the watercourse for each stream studied in detail. The results of these computations are tabulated at selected cross sections for each stream studied in detail and are listed on Table 4.

As shown on the Flood Boundary and Floodway Map (Exhibit 3), the floodway boundaries were determined at cross sections; between cross sections, the boundaries were interpolated.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood pain that could be completely obstructed without increasing the water surface elevation of the 100-year flood more than one-tenth of a foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown on the Floodway Schematic Figure 3.

IN CASES WHERE THE 500-YR. FLOOD AND THE 100-YR. FLOOD BOUNDARIES ARE TOO CLOSE OR INCIDENTAL ONLY THE 100-YR. FLOOD BOUNDARY IS SHOWN. WHEREVER THE FLOODWAY AND THE 100-YR. FLOOD BOUNDARY ARE TOO CLOSE OR INCIDENTAL ONLY THE FLOODWAY BOUNDARY IS SHOWN.

5.0—INSURANCE APPLICATION

In order to establish actuarial insurance rates, the Federal Insurance Administration has developed a process to transform the data from the engineering study into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors, and flood insurance zone designations for each flooding source studied in detail affecting the City of Farmington.

5.1 - Reach Determinations

Reaches are defined as lengths of watercourses having relatively the same flood hazard, based on the differences in water surface elevations between the 10- and 100-year floods. This difference does not have a variation greater than that indicated in the following table for more than 20 percent of the reach.

Average Difference Between 10- and 100- Year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot

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A total of ~~two~~ five reaches, ONE ~~EACH~~ FOR THE ~~FLOODING SOURCES STUDIED IN DETAIL~~ Tarabusi Creek and four for the Upper River Rouge, were established using the above criteria for the two flooding sources of the City of Farmington. The locations of the reaches are shown on the Flood Profiles (Exhibit 1).

5.2 Flood Hazard Factors

The Flood Hazard Factor (FHF) is the Federal Insurance device used to correlate flood information with insurance rate tables. Correlations between property damage from floods and their FHF are used to set actuarial insurance premium rate tables based on FHFs from 005 to 200.

The FHF for a reach is the average weighted difference between the 10-year and the 100-year flood water surface elevations expressed to the nearest one-half (0.5) foot, and shown as a three digit code. For example, if the difference between water surface elevations of the 10-year and the 100-year flood is 0.7 feet, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference between the 10-year and the 100-year water surface elevation is greater than 10.0 feet, accuracy for the FHF is to the nearest foot.

5.3 Flood Insurance Zones

After the determination of reaches and their respective Flood Hazard Factors was accomplished, the entire incorporated area of the City of Farmington was divided into zones, each having a specific flood potential or hazard. Each zone was assigned one of the following flood insurance zone designations.

Zones A2 & ~~A5~~ A4, A6 and A9	Special flood hazard areas inundated by the 100-year flood, with base flood elevations determined and zone designations assigned according to the Flood Hazard Factor.
Zone B:	Area between Zones A2 & ~~A5~~ A4, A6 and A9 and the limits of the 500-year flood.
Zone C:	Area not subject to flooding by the 500-year flood.

Table 5 "Flood Insurance Zone Data," summarizes the flood elevation differences, Flood Hazard Factor , flood insurance zones, and base flood elevations for each flooding source studied in detail in the City of Farmington.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the City of Farmington is, for insurance purposes, the principal result of the Flood Insurance Study. This map (Exhibit 2) contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by the Federal Insurance Administration.

Flooding Source		Floodway			Base Flood Water Surface Elevation[2]		
Cross Section	Distance[1]	Width (ft.)	Section Area (sq. ft.)	Mean Velocity (F.P.S.)	With Floodway (M.S.L.)	Without Floodway (M.S.L.)	Difference (ft.)
Upper River Rouge							
A	~~8.67~~ 0.43	~~324~~ 447	~~794~~ 1440	~~2.53~~ 1.4	~~675.3~~ 676.6	~~675.2~~ 676.5	0.1
B	~~8.99~~ 2.17	~~256~~ 260	~~871~~ 1135	~~2.31~~ 1.8	~~683.0~~ 683.9	682.9 683.8	0.1
C	~~9.03~~ 2.39	~~161~~ 296	~~546~~ 1172	~~3.68~~ 1.7	~~683.9~~ 684.9	~~683.9~~ 684.8	0.1
D	~~9.23~~ 3.35	~~118~~ 110	~~478~~ 695	~~4.20~~ 2.9	~~689.2~~ 691.3	~~689.2~~ 691.3	0.
E	~~9.32~~ 3.90	~~72~~ 80	~~271~~ 366	~~7.42~~ 5.5	~~691.5~~ 692.5	~~691.4~~ 692.4	0.1
F	~~9.57~~ 5.14	~~230~~ 358	~~510~~ 797	~~3.94~~ 2.5	~~696.8~~ 697.8	~~696.8~~ 697.8	0.
G	~~9.65~~ 5.59	~~189~~ 196	~~295~~ 322	~~6.44~~ 6.2	~~700.2~~ 699.4	~~700.2~~ 699.4	0.
H	~~9.85~~ 6.64	~~188~~ 120	~~660~~ 483	~~2.88~~ 3.9	~~705.0~~ 704.4	~~705.0~~ 704.4	0.
I	~~9.97~~ 7.36	~~63~~ 35	~~222~~ 198	~~8.56~~ 9.6	~~707.0~~ 707.1	~~707.0~~ 707.1	0.
J	~~10.03~~ 7.61	~~169~~ 87	~~468~~ 239	~~4.06~~ 7.9	~~709.4~~ 710.1	~~709.4~~ 710.1	0.
K	~~10.15~~ 8.24	~~179~~ 158	~~404~~ 619	~~4.70~~ 3.1	~~712.7~~ 714.2	~~712.7~~ 714.2	0.
L	~~10.33~~ 9.27	~~208~~ 201	~~606~~ 507	~~3.14~~ 3.7	~~717.6~~ 717.2	~~717.6~~ 717.2	0.

1 ~~MILES ABOVE MOUTH~~ THOUSANDS OF FEET ABOVE CORPORATE LIMITS
2 WATER-SURFACE ELEVATIONS WITHOUT CONSIDERING ICE-JAM EFFECTS

TABLE 4

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

CITY OF FARMINGTON, MI
(OAKLAND CO.)

FLOODWAY DATA TABLE

UPPER RIVER ROUGE

Flooding Source		Floodway			Base Flood Water Surface Elevation[2]		
Cross Section	Distance[1]	Width (ft.)	Section Area (sq. ft.)	Mean Velocity (F.P.S.)	With Floodway (M.S.L.)	Without Floodway (M.S.L.)	Difference (ft.)
Tarabusi Creek							
A	~~7.18~~ 0	~~83~~ 81	~~167~~ 166	~~5.57~~ 5.6	749.0	749.0	0.
B	~~7.20~~ .12	~~227~~ 252	~~613~~ 631	~~1.52~~ 1.5	750.3	750.2	0.1
C	~~7.23~~ .28	~~143~~ 133	~~193~~ 185	~~4.82~~ 5.0	750.5	750.5	0.
D	~~7.26~~ .48	~~136~~ 125	~~443~~ 431	~~2.10~~ 2.2	752.0 752.1	752.0	~~0.~~ 0.1
E	~~7.28~~ .55	~~112~~ 102	~~474~~ 452	~~1.96~~ 2.1	752.2	752.1	0.1
F	~~7.34~~ .84	46	~~151~~ 155	~~6.16~~ 6.0	752.6	752.5	0.1
G	~~7.36~~ .97	~~132~~ 129	359 358	~~2.59~~ 2.6	753.6	753.5	0.1
H	~~7.39~~ 1.12	~~139~~ 128	~~505~~ 475	~~1.84~~ 2.0	753.9	753.9	0.
I	~~7.42~~ 1.27	43	~~148~~ 151	~~6.28~~ 6.2	753.9	753.8	0.1
J	~~7.45~~ 1.42	52	~~216~~ 218	~~4.31~~ 4.3	~~756.6~~ 756.7	756.6	~~0.~~ 0.1
K	~~7.49~~ 1.62	56	249 251	~~3.73~~ 3.7	~~757.2~~ 757.3	757.2	~~0.~~ 0.1
L	~~7.54~~ 1.91	~~51~~ 52	~~195~~ 196	~~4.77~~ 4.7	758.1	758.1	0.
M	~~7.55~~ 1.94	~~124~~ 69	~~198~~ 148	~~4.70~~ 6.3	760.1	760.1	0.
N	~~7.58~~ 2.12	~~127~~ 226	~~410~~ 478	~~2.27~~ 1.9	~~761.5~~ 761.6	761.5	~~0.~~ 0.1
O	~~7.61~~ 2.26	~~156~~ 251	~~585~~ 681	~~1.59~~ 1.4	~~761.7~~ 761.8	761.7	~~0.~~ 0.1
P	~~7.62~~ 2.35	~~160~~ 284	~~643~~ 766	~~1.45~~ 1.2	761.8	761.7	0.1
Q	~~7.64~~ 2.42	~~224~~ 353	~~687~~ 786	~~1.35~~ 1.2	~~761.8~~ 761.9	761.8	~~0.~~ 0.1
R	~~7.65~~ 2.47	203	177	~~5.25~~ 5.3	~~761.5~~ 761.4	761.4	~~0.1~~ 0.0
S	~~7.68~~ 2.64	~~384~~ 363	~~413~~ 371	~~2.25~~ 2.5	763.5	763.5	0.
T	~~7.71~~ 2.80	~~374~~ 255	~~558~~ 469	~~1.67~~ 2.0	764.3	764.3	0.

1 ~~MILES ABOVE MOUTH~~ THOUSANDS OF FEET ABOVE CORPORATE LIMITS
2 WATER-SURFACE ELEVATIONS WITHOUT CONSIDERING ICE-JAM EFFECTS

TABLE 4

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

CITY OF FARMINGTON, MI
(OAKLAND CO.)

FLOODWAY DATA TABLE

TARABUSI CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3]
		10% (10-YR)	2% (50-YR)	0.2% (500-YR)			
Upper River Rouge							
Reach 1		-2.2	-0.8	+5.4	020	A4	Varies *
Reach 2		-4.5	-1.8	+5.8	045	A9	VARIES*
Reach 3		-3.1	-1.1	+3.7	030	A6	VARIES*
Reach 4		-2.0	-0.7	+1.7	020	A4	VARIES*
Tarabusi Creek							
Reach 1		-1.0	-0.3	+0.3	010	A2	Varies *

1 FLOOD INSURANCE RATE MAP PANEL
2 WEIGHTED AVERAGE
3 ROUNDED TO NEAREST FOOT
* FOR ELEVATIONS AT SPECIFIC LOCATIONS REFER TO FLOOD INSURANCE RATE MAP - EXHIBIT 2

TABLE 5

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration
CITY OF FARMINGTON, MI
(OAKLAND CO.)

FLOOD INSURANCE ZONE DATA

UPPER RIVER ROUGE — TARABUSI CREEK

Flooding Source		Floodway			Base Flood Water Surface Elevation[2]		
Cross Section	Distance[1]	Width (ft.)	Section Area (sq. ft.)	Mean Velocity (F.P.S.)	With Floodway (M.S.L.	Without Floodway (M.S.L.)	Difference (ft.)
Tarabusi Creek							
U	~~7.74~~ 2.97	301 ~~283~~	~~472~~ 491	1.9 ~~1.97~~	764.9 ~~764.8~~	764.8	~~0.~~ 0.1
V	~~7.79~~ 3.20	39	101	9.2 ~~9.21~~	767.1	767.1	0.
W	~~7.82~~ 3.38	48	157	5.9 ~~5.92~~	770.4	770.4	0.
X	~~7.85~~ 3.54	47 ~~94~~	~~130~~ 108	8.6 ~~7.15~~	772.6 ~~772.7~~	772.7	0. -.1
Y	~~7.87~~ 3.66	144	~~193~~ 191	4.9 ~~4.82~~	774.9	774.9	0.
Z	~~7.89~~ 3.74	32 ~~34~~	104 96	9.7 ~~8.94~~	775.7 ~~775.8~~	775.7	~~0.1~~ 0.0
AA	~~7.90~~ 3.83	297 ~~298~~	~~823~~ 820	1.1 ~~1.13~~	777.3	777.3	0.
AB	~~7.92~~ 3.92	240 ~~232~~	~~349~~ 339	2.7 ~~2.66~~	777.3	777.3	0.
AC	~~7.95~~ 4.05	277 ~~174~~	~~224~~ 226	3.5 ~~4.15~~	778.0 ~~777.9~~	777.9	~~0.~~ 0.1
AD	~~7.98~~ 4.21	271 ~~274~~	~~383~~ 387	2.4 ~~2.43~~	779.3 ~~779.2~~	779.2	~~0.~~ 0.1
AE	~~8.01~~ 4.37	61 ~~124~~	~~163~~ 127	7.3 ~~5.70~~	780.3	780.3	0.
AF	~~8.04~~ 4.55	86 ~~63~~	~~198~~ 196	4.70	782.6 ~~782.7~~	782.6	~~0.1~~ 0.
AG	~~8.08~~ 5.42	44	104	8.94	784.8	784.8	0.
AH	~~8.11~~ 4.90	45 ~~43~~	~~227~~ 271	3.4 ~~4.10~~	789.1 ~~788.7~~	789.1 ~~788.7~~	0.
AI	~~8.15~~ 5.14	221 ~~275~~	~~335~~ 463	2.0 ~~2.78~~	789.6 ~~788.9~~	789.6 ~~788.9~~	0.
AJ	~~8.19~~ 5.35	101 ~~96~~	~~244~~ 265	3.5 ~~3.81~~	790.2 ~~790.0~~	790.1 ~~789.9~~	0.1
AK	~~8.22~~ 5.47	144 ~~146~~	~~644~~ 618	1.5 ~~1.44~~	792.3 ~~792.5~~	792.2 ~~792.4~~	0.1
AL	~~8.26~~ 5.72	28	~~91~~ 90	10.3 ~~10.22~~	794.4	794.4	0.
AM	~~8.28~~ 5.79	36 ~~202~~	~~399~~ 180	5.2 ~~2.33~~	797.2 ~~797.8~~	797.2 ~~797.8~~	0.
AN	~~8.30~~ 5.93	239 ~~230~~	~~693~~ 940	1.0 ~~1.34~~	799.1 ~~798.2~~	799.1 ~~798.2~~	0.
AO	~~8.31~~ 6.02	247 ~~230~~	~~715~~ 1036	.9 ~~1.30~~	799.5 ~~798.3~~	799.5 ~~798.3~~	0.
AP	~~8.35~~ 6.16	99 ~~91~~	~~135~~ 134	6.9 ~~6.89~~	799.8	799.8	0.

1 ~~MILES ABOVE MOUTH~~ THOUSANDS OF FEET ABOVE CORPORATE LIMITS
2 WATER-SURFACE ELEVATIONS WITHOUT CONSIDERING ICE-JAM EFFECTS

TABLE 4

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

CITY OF FARMINGTON, MI
(OAKLAND CO.)

FLOODWAY DATA TABLE

TARABUSI CREEK

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER ROUGE

4) DOCUMENT TYPE: 10 YR

00BREAK00

Rec'd

THIS RUN EXECUTED 04 MAY 78 12.13.42

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*************************************************
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RECEIVED JUN 20 1978 WATER MANAGEMENT

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C
T1                FARMINGTON FLOOD INSURANCE STUDY
T2                10 YEAR FLOOD - UPPER ROUGE
T3                CITY OF FARMINGTON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.000000     0.00      0.0       0.    672.820    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   201.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .150      .150      .045      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     4.000   710.000  1480.000  2010.000  3800.000     0.000     0.000     0.000     0.000     0.000

        CITY LIMITS

X1   8511.000    14.000   530.000   557.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    695.000     0.000   690.000    40.000   685.000    75.000   680.000   115.000   675.000   150.000
GR    671.000   530.000   667.800   533.000   667.500   541.000   667.900   549.000   671.200   557.000
GR    675.000   665.000   680.000   809.000   685.000   878.000   690.000  1010.000     0.000     0.000

        ****  A  ****

X1   8940.000    23.000   167.000   200.000   460.000   300.000   429.000     0.000     0.000     0.000
GR    681.500     0.000   679.600    10.000   677.500    30.000   676.500    40.000   676.000    50.000
GR    674.900   100.000   675.000   150.000   673.000   167.000   670.000   170.000   669.500   171.000
GR    669.400   180.000   669.400   186.000   673.000   200.000   674.000   210.000   674.800   250.000
GR    674.000   300.000   677.900   350.000   672.800   400.000   671.900   450.000   672.000   500.000
GR    671.600   550.000   672.000   560.000   681.500   590.000     0.000     0.000     0.000     0.000

X1   9760.000    14.000   329.000   354.000   480.000   920.000   820.000     0.000     0.000     0.000
GR    695.000     0.000   690.000    70.000   685.000   100.000   680.000   240.000   675.000   286.000
GR    674.500   329.000   673.400   331.000   672.700   340.000   673.400   347.000   674.800   354.000
GR    675.000   445.000   680.000   525.000   685.000   590.000   690.000   620.000     0.000     0.000

X1  10300.000    14.000   200.000   230.000   400.000   440.000   540.000     0.000     0.000     0.000
GR    700.000     0.000   695.000    79.000   690.000   103.000   685.500   131.000   680.000   156.000
GR    678.200   190.000   677.400   200.000   675.800   202.000   675.300   210.000   676.900   220.000
GR    679.400   230.000   680.000   360.000   685.000   573.000   690.000   602.000     0.000     0.000

        ****  B  ****

X1  10680.000    16.000   210.000   240.000   400.000   330.000   380.000     0.000     0.000     0.000
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X1	10890.000	16.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	686.[illegible]	0.000	684.800	10.000	679.000	30.000	679.700	80.000	679.600	130.000
GR	679.[illegible]	180.000	679.200	203.000	678.600	210.000	677.000	212.000	676.500	215.000
GR	676.500	220.000	677.000	230.000	680.600	240.000	683.800	380.000	683.500	390.000
GR	686.900	410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10800.000	13.000	140.000	160.000	105.000	120.000	120.000	0.000	0.000	0.000
GR	695.000	0.000	690.000	10.000	685.500	22.000	680.000	88.000	679.000	140.000
GR	677.400	142.000	676.000	148.000	677.400	156.000	679.800	160.000	680.000	167.000
GR	685.000	308.000	690.000	340.000	695.000	417.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

**** C **** D/S OF GRAND RIVER AVE BRIDGE

X1	10900.000	16.000	49.000	77.000	65.000	165.000	100.000	0.000	0.000	0.000
GR	681.000	0.000	681.000	40.000	680.500	49.000	677.700	52.000	677.200	60.000
GR	677.600	70.000	680.400	77.000	680.500	110.000	682.000	160.000	681.400	210.000
GR	681.500	260.000	682.000	290.000	681.500	300.000	682.000	310.000	686.000	330.000
GR	688.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10941.000	13.000	190.000	215.000	41.000	41.000	41.000	0.000	0.000	0.000
GR	695.500	0.000	695.500	190.000	678.000	190.000	677.600	192.000	677.600	196.000
GR	677.600	200.000	677.600	202.500	677.600	205.000	677.600	209.000	677.600	213.000
GR	678.000	215.000	695.500	215.000	700.000	574.000	0.000	0.000	0.000	0.000
SB	0.000	1.660	2.600	0.000	20.000	0.000	211.000	0.000	679.200	679.200
X1	10999.000	0.000	0.000	0.000	58.000	58.000	58.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	689.800	695.500	0.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	695.500	695.500	190.000	695.500	678.000	192.000	695.500	684.000
BT	196.000	695.500	687.900	200.000	695.500	689.500	202.500	695.500	689.800	205.000
BT	695.500	689.500	209.000	695.500	687.900	213.000	695.500	684.000	215.000	695.500
BT	678.000	574.000	700.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF GRAND RIVER AVE BRIDGE

X1	11040.000	14.000	92.000	112.000	57.000	15.000	41.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	678.600	95.000
GR	678.000	102.000	679.800	112.000	679.100	122.000	681.600	132.000	690.000	142.000
GR	695.600	147.000	689.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
X1	11440.000	14.000	92.000	112.000	500.000	400.000	400.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	679.800	95.000
GR	678.600	102.000	681.000	112.000	680.300	122.000	685.000	132.000	690.500	142.000
GR	695.600	147.000	698.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** D ****

X1	11860.000	14.000	92.000	112.000	680.000	570.000	649.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	682.000	95.000
GR	680.800	102.000	683.200	112.000	682.500	122.000	685.000	132.000	690.500	142.000
GR	695.600	147.000	698.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
X1	12100.000	12.000	375.000	400.000	290.000	180.000	240.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	60.000	690.000	310.000	685.000	361.000	684.700	375.000
GR	683.400	378.000	682.200	385.000	684.400	400.000	685.000	423.000	690.000	489.000
GR	695.000	519.000	700.000	554.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	12180.000	12.000	388.000	408.000	80.000	120.000	80.000	0.000	0.000	0.000
GR	70[illegible]00	0.000	695.000	90.000	690.000	322.000	685.000	374.000	685.000	388.000
GR	683.[illegible]00	392.000	682.700	399.000	684.900	408.000	685.000	429.000	690.000	582.000
GR	695.000	615.000	700.000	655.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.150	.045	.600	.800	0.000	0.000	0.000	0.000	0.000
X1	12330.000	14.000	500.000	520.000	190.000	135.000	150.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	55.000	695.000	102.000	690.000	478.000	685.000	493.000
GR	684.500	500.000	683.500	503.000	683.000	510.000	684.500	520.000	685.000	545.000
GR	690.000	590.000	695.000	630.000	700.000	655.000	705.000	705.000	0.000	0.000

**** E **** D/S OF POWERS AVE BRIDGE

X1	12410.000	15.000	195.000	230.000	80.000	55.000	80.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	695.000	0.000	692.100	20.000	693.100	70.000	693.100	120.000	691.000	170.000
GR	688.600	195.000	684.600	204.000	684.000	210.000	684.600	222.000	687.000	230.000
GR	691.000	240.000	691.100	250.000	690.500	260.000	690.000	288.000	700.000	308.000
X1	12427.000	14.000	490.000	513.000	17.000	17.000	17.000	0.000	0.000	0.000
GR	700.000	0.000	698.200	490.000	685.100	490.000	685.100	492.000	685.100	496.000
GR	685.100	500.000	685.100	501.500	685.100	503.000	685.100	507.000	685.100	511.000
GR	685.100	513.000	698.200	513.000	700.000	591.000	705.000	661.000	0.000	0.000
SB	0.000	1.630	3.100	0.000	16.000	0.000	176.000	0.000	683.600	683.600
X1	12473.000	0.000	0.000	0.000	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	694.600	698.200	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
BT	12.000	0.000	700.000	700.000	490.000	698.200	685.100	492.000	698.200	689.700
BT	496.000	698.200	693.300	500.000	698.200	694.000	501.500	698.200	694.100	503.000
BT	698.200	694.000	507.000	698.200	693.300	511.000	698.200	689.700	513.000	698.200
BT	685.100	591.000	700.000	700.000	661.000	705.000	705.000	0.000	0.000	0.000

U/S OF POWERS AVE BRIDGE

X1	12500.000	12.000	439.000	474.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	30.000	695.000	400.000	690.000	425.000	688.600	439.000
GR	685.500	448.000	685.100	454.000	685.600	468.000	685.600	474.000	694.600	474.000
GR	698.200	494.000	700.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.150	.045	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	12905.000	10.000	513.000	533.000	375.000	421.000	405.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	45.000	690.000	475.000	689.500	513.000	686.300	522.000
GR	686.300	528.000	690.000	533.000	695.000	543.000	700.000	547.000	705.000	552.000
X1	13150.000	13.000	510.000	529.000	174.000	240.000	245.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	42.000	700.000	170.000	700.000	229.000	695.000	270.000
GR	690.200	510.000	687.000	519.000	687.000	524.000	690.700	529.000	695.000	606.000
GR	700.000	620.000	705.000	645.000	715.000	729.000	0.000	0.000	0.000	0.000
X1	13275.000	13.000	404.000	424.000	120.000	218.000	260.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	36.000	700.000	65.000	700.000	270.000	695.000	312.000
GR	690.500	404.000	687.300	413.000	687.300	418.000	691.000	424.000	695.000	478.000
GR	700.000	493.000	705.000	520.000	715.000	589.000	0.000	0.000	0.000	0.000

**** F ****

X1	13650.000	18.000	289.000	333.000	170.000	210.000	375.000	0.000	0.000	0.000
GR	700.000	0.000	699.500	8.000	698.300	60.000	698.200	160.000	697.500	210.000
GR	697.000	289.000	688.300	309.000	688.300	320.000	688.800	329.000	690.900	331.000
GR	693.200	333.000	695.300	359.000	694.300	410.000	696.800	460.000	696.500	510.000
GR	697.400	540.000	699.300	560.000	701.700	570.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 1

X1	13800.000	14.000	450.000	475.000	180.000	60.000	85.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	20.000	705.000	32.000	700.000	60.000	695.000	440.000
GR	695.000	450.000	689.600	460.000	689.600	465.000	691.200	470.000	694.600	475.000
GR	695.000	583.000	700.000	625.000	705.000	646.000	715.000	670.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	13894.000	13.000	407.000	437.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	700.800	0.000	699.500	10.000	698.300	60.000	698.200	160.000	697.500	240.000
GR	697.300	400.000	694.400	407.000	693.000	409.000	691.600	422.000	693.400	436.000
GR	694.700	437.000	695.000	494.000	700.000	544.000	0.000	0.000	0.000	0.000
SB	0.000	1.540	2.600	0.000	27.000	0.000	185.000	0.000	691.600	691.600

X1	13906.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	698.400	697.300	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	0.000	0.000	0.000
BT	10.000	0.000	700.800	700.800	10.000	699.500	699.500	60.000	698.300	698.300
BT	160.000	698.200	698.200	240.000	697.500	697.500	400.000	697.300	697.300	407.000
BT	699.700	698.400	437.000	699.700	698.400	494.000	695.000	695.000	544.000	700.000
BT	700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF FOOTBRIDGE NO. 1

X1	13931.000	15.000	465.000	505.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	11.000	705.000	30.000	700.000	79.000	695.000	450.000
GR	698.400	465.000	693.400	475.000	691.900	485.000	691.200	492.000	692.900	501.000
GR	694.700	505.000	695.000	555.000	700.000	580.000	705.000	605.000	715.000	621.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** G ****

X1	14100.000	19.000	404.000	440.000	250.000	100.000	169.000	0.000	0.000	0.000
GR	704.100	0.000	701.800	50.000	700.600	100.000	700.600	150.000	700.800	200.000
GR	698.200	250.000	698.400	300.000	698.600	350.000	700.200	400.000	699.500	404.000
GR	695.600	410.000	693.400	420.000	691.900	430.000	693.300	434.000	697.000	440.000
GR	699.000	450.000	701.500	460.000	703.300	470.000	705.100	480.000	0.000	0.000
QT	4.000	670.000	1400.000	1900.000	3600.000	0.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 2

X1	14500.000	19.000	278.000	316.000	310.000	378.000	365.000	0.000	0.000	0.000
GR	704.000	0.000	701.800	1.000	700.900	52.000	700.100	72.000	699.700	100.000
GR	698.900	120.000	699.000	220.000	699.500	240.000	700.200	268.000	699.100	278.000
GR	694.200	288.500	692.200	290.000	691.800	300.500	692.200	310.000	695.000	311.000
GR	696.200	316.000	698.000	325.000	700.800	326.000	704.000	330.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	14594.000	19.000	404.000	440.000	80.000	80.000	80.000	0.000	0.000	0.000
GR	705.700	0.000	703.400	50.000	702.200	100.000	702.200	150.000	702.400	200.000
GR	699.800	250.000	700.000	300.000	700.200	350.000	701.800	400.000	701.100	404.000
GR	697.200	410.000	695.000	420.000	693.500	430.000	694.900	434.000	698.600	440.000
GR	700.600	450.000	703.100	460.000	704.900	470.000	706.700	480.000	0.000	0.000

SB	0.000	1.540	2.600	0.000	32.000	0.000	243.000	0.000	693.500	693.500
X1	14606.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	702.200	699.800	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	0.000	0.000	0.000
BT	10.000	0.000	705.700	705.700	50.000	703.400	703.400	100.000	702.200	702.200
BT	150.000	702.200	702.200	200.000	702.400	702.400	250.000	699.800	699.800	300.000
BT	700.000	700.000	350.000	700.200	700.200	400.000	701.800	701.800	404.000	703.500
BT	702.200	410.000	703.500	702.200	420.000	703.500	702.200	430.000	703.500	702.200
BT	434.000	703.500	702.200	440.000	703.500	702.200	450.000	703.500	702.200	460.000
BT	703.500	703.500	470.000	704.900	704.900	480.000	706.700	706.700	0.000	0.000

U/S OF FOOTBRIDGE NO. 2

X1	14621.000	18.000	81.000	120.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	706.550	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	695.000	95.000
GR	694.500	103.000	693.400	105.000	694.500	108.000	695.000	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.550	205.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	15100.000	10.000	187.000	217.000	250.000	520.000	467.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	180.000	698.300	187.000	695.400	188.000	694.000	192.000
GR	694.900	197.000	699.700	217.000	700.000	242.000	705.000	302.000	715.000	317.000
NC	0.000	0.000	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000

**** H **** D/S OF SHIAWASSEE ROAD BRIDGE

X1	15150.000	18.000	81.000	120.000	40.000	60.000	50.000	0.000	0.000	0.000
GR	706.500	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	697.400	95.000
GR	694.500	103.000	694.300	105.000	694.500	108.000	697.300	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.500	205.000	0.000	0.000	0.000	0.000
X1	15214.000	10.000	70.000	92.000	64.000	64.000	64.000	0.000	0.000	0.000
GR	707.000	0.000	709.300	70.000	696.200	70.000	695.600	75.000	695.200	80.000
GR	694.600	83.000	695.600	87.000	696.800	92.000	709.300	92.000	715.000	187.000
SB	0.000	1.570	2.600	0.000	21.000	0.000	206.000	0.000	694.300	694.300
X1	15246.000	0.000	0.000	0.000	32.000	32.000	32.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	705.600	707.000	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
BT	4.000	0.000	707.000	707.000	70.000	709.300	705.600	92.000	709.300	705.600
BT	185.000	715.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	0.000	.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF SHIAWASSEE ROAD BRIDGE

X1	15271.000	10.000	70.000	92.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	707.000	0.000	709.300	70.000	696.200	70.000	695.600	75.000	695.200	80.000
GR	694.600	83.000	695.600	87.000	696.800	92.000	709.300	92.000	715.000	187.000
NC	0.000	0.000	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15296.000	15.000	103.000	150.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	715.000	0.000	706.500	1.000	704.500	50.000	702.200	80.000	701.900	90.000
GR	701.500	103.000	697.000	110.000	695.100	120.000	695.600	122.000	695.300	130.000
GR	696.400	132.000	697.500	140.000	703.000	150.000	706.100	160.000	715.000	190.000
NC	.070	.150	.045	.100	.300	0.000	0.000	0.000	0.000	0.000

**** I ****

X1	15780.000	23.000	350.000	380.000	535.000	455.000	465.000	0.000	0.000	0.000
GR	714.500	0.000	713.000	71.000	712.000	100.000	711.000	120.000	708.600	170.000
GR	709.000	190.000	710.900	220.000	711.500	240.000	709.500	290.000	707.200	320.000
GR	706.900	330.000	706.400	343.000	702.000	350.000	700.100	360.000	700.600	362.000
GR	700.100	370.000	701.400	372.000	702.600	380.000	708.000	390.000	711.100	400.000
GR	712.500	410.000	713.500	420.000	715.000	430.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	16070.000	11.000	453.000	488.000	219.000	300.000	290.000	0.000	0.000	0.000
GR	720.000	0.000	715.000	158.000	710.000	330.000	706.400	453.000	704.300	460.000
GR	703.100	470.000	703.600	472.000	703.100	480.000	704.600	488.000	705.600	496.000
GR	710.000	554.000	715.000	576.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

**** J **** D/S OF ABANDONED FARMINGTON RD BRIDGE

X1	16120.000	23.000	413.000	438.000	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	460.000	0.000	0.000	0.000
GR	720.500	0.000	716.200	60.000	715.200	110.000	713.600	165.000	714.000	198.000
GR	714.000	210.000	714.100	295.000	711.000	334.000	710.200	350.000	707.400	413.000
GR	704.500	413.000	704.500	414.000	704.300	416.000	704.200	419.000	704.100	421.000
GR	703.900	422.000	703.300	425.000	703.600	429.000	704.200	432.000	704.200	438.000
GR	716.000	438.000	717.800	447.000	720.000	546.000	0.000	0.000	0.000	0.000

X1	16153.000	24.000	406.000	428.000	35.000	35.000	35.000	0.000	0.000	0.000
GR	720.000	0.000	716.200	54.000	715.200	104.000	713.600	159.000	714.000	193.000
GR	712.100	204.000	712.200	289.000	709.100	326.000	709.100	352.000	717.800	358.000
GR	717.800	406.000	704.500	406.000	704.300	408.000	704.200	411.000	703.900	414.000
GR	703.300	417.000	703.700	420.000	704.300	423.000	704.200	426.000	704.200	428.000
GR	717.800	428.000	717.800	438.000	717.800	446.000	720.000	546.000	0.000	0.000
SB	0.000	1.500	2.500	0.000	20.000	0.000	205.000	0.000	705.300	705.300

X1	16185.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	715.600	709.100	0.000	0.000	0.000	0.000	0.000
BT	22.000	0.000	720.000	720.000	54.000	716.200	716.200	104.000	715.200	715.200
BT	159.000	713.600	713.600	193.000	714.000	714.000	204.000	712.100	712.100	289.000
BT	712.200	712.200	326.000	709.100	709.100	352.000	709.100	709.100	358.000	717.800
BT	717.800	406.000	717.800	708.100	408.000	717.600	711.500	411.000	717.800	714.000
BT	414.000	717.800	715.300	417.000	717.800	715.600	420.000	717.800	715.300	423.000
BT	717.800	714.000	426.000	717.800	711.500	428.000	717.800	708.100	438.000	717.800
BT	717.800	446.000	717.800	717.800	546.000	720.000	720.000	0.000	0.000	0.000

U/S OF ABANDONED FARMINGTON ROAD BRIDGE

X1	16216.000	23.000	413.000	438.000	31.000	31.000	31.000	0.000	0.000	0.000
GR	720.500	0.000	716.200	60.000	715.200	110.000	713.600	165.000	714.000	198.000
GR	714.000	210.000	714.100	295.000	711.000	334.000	710.200	350.000	707.400	413.000
GR	704.500	413.000	704.500	414.000	704.300	416.000	704.200	419.000	704.100	421.000
GR	703.900	422.000	703.300	425.000	703.600	429.000	704.200	432.000	704.200	438.000
GR	716.000	438.000	717.800	447.000	720.000	546.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** K ****

X1	16750.000	18.000	318.000	347.000	480.000	540.000	534.000	0.000	0.000	0.000
GR	729.000	0.000	717.500	40.000	715.200	70.000	713.200	120.000	714.200	170.000

GR	715.000	187.000	712.000	200.000	710.800	270.000	710.000	318.000	708.200	318.800
GR	70[illegible]00	320.800	706.400	332.000	707.500	340.000	709.200	347.000	710.800	355.000
GR	713.[illegible]00	380.000	715.500	400.000	720.000	420.000	0.000	0.000	0.000	0.000
X1	17200.000	14.000	409.000	437.000	380.000	460.000	450.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	20.000	715.000	301.000	710.000	402.000	712.700	409.000
GR	710.800	410.000	710.200	412.000	708.100	424.000	710.200	430.000	712.100	437.000
GR	710.000	448.000	715.000	489.000	720.000	504.000	725.000	523.000	0.000	0.000

**** L ****

X1	17780.000	21.000	272.000	308.000	360.000	180.000	580.000	0.000	0.000	0.000
GR	725.000	0.000	721.700	110.000	721.000	120.000	719.400	130.000	717.100	140.000
GR	716.000	150.000	714.300	160.000	713.900	170.000	713.600	180.000	715.000	240.000
GR	714.500	272.000	712.900	274.000	712.100	290.000	712.900	301.000	715.000	308.000
GR	717.100	320.000	717.100	340.000	720.000	370.000	719.000	380.000	724.000	400.000
GR	725.000	405.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17938.000	12.000	235.000	263.000	120.000	160.000	138.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	191.000	715.000	229.000	714.900	235.000	713.500	241.000
GR	713.000	243.000	713.900	247.000	713.400	252.000	714.900	263.000	715.000	282.000
GR	720.000	369.000	725.000	395.000	0.000	0.000	0.000	0.000	0.000	0.000

CITY LIMITS

X1	18322.000	10.000	523.000	543.000	418.000	350.000	384.000	0.000	0.000	0.000
GR	750.000	0.000	725.000	130.000	720.000	190.000	719.200	523.000	715.300	530.000
GR	715.100	535.000	719.300	543.000	720.000	602.000	725.000	643.000	750.000	775.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER ROUGE RIVER

4) DOCUMENT TYPE: 10 YR SUMMARY

00BREAK00

THIS RUN EXECUTED 04 MAY 78 12.13.58

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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

CITY OF FARMI

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8511.000	0.00	0.00	0.00	667.50	710.00	672.82	0.00	673.16	36.16	5.08	313.37	118.08
8511.000	0.00	0.00	0.00	667.50	1480.00	674.65	0.00	674.92	24.88	5.31	970.11	296.71
8511.000	0.00	0.00	0.00	667.50	2010.00	675.90	0.00	676.06	14.65	4.60	1620.80	525.14
8511.000	0.00	0.00	0.00	667.50	3800.00	685.59	0.00	685.60	.60	1.62	8387.38	4902.43
8940.000	429.00	0.00	0.00	669.40	710.00	674.15	0.00	674.28	20.99	3.54	495.95	154.96
8940.000	429.00	0.00	0.00	669.40	1480.00	675.65	0.00	675.80	19.31	4.24	1041.41	336.82
8940.000	429.00	0.00	0.00	669.40	2010.00	676.54	0.00	676.67	16.40	4.34	1470.75	496.31
8940.000	429.00	0.00	0.00	669.40	3800.00	685.61	0.00	685.63	.87	1.83	6681.15	4064.93
9760.000	820.00	0.00	0.00	672.70	710.00	676.67	0.00	676.93	52.84	5.21	361.21	97.67
9760.000	820.00	0.00	0.00	672.70	1480.00	677.98	0.00	678.32	51.72	6.45	645.55	205.80
9760.000	820.00	0.00	0.00	672.70	2010.00	678.61	0.00	679.01	54.79	7.24	797.42	271.56
9760.000	820.00	0.00	0.00	672.70	3800.00	685.71	0.00	685.78	4.46	3.67	3457.52	1796.47
10300.000	540.00	0.00	0.00	675.30	710.00	679.89	679.22	680.53	91.21	6.71	168.72	74.34
10300.000	540.00	0.00	0.00	675.30	1480.00	681.03	680.81	681.85	94.17	8.37	427.82	152.51
10300.000	540.00	0.00	0.00	675.30	2010.00	681.68	0.00	682.51	88.50	8.89	599.80	213.66
10300.000	540.00	0.00	0.00	675.30	3800.00	685.96	0.00	686.17	15.26	5.58	2229.18	972.70
10680.000	380.00	0.00	0.00	676.50	710.00	681.69	0.00	681.79	15.86	3.35	568.21	178.29
10680.000	380.00	0.00	0.00	676.50	1480.00	683.10	0.00	683.25	18.20	4.34	991.78	346.90
10680.000	380.00	0.00	0.00	676.50	2010.00	683.78	0.00	683.96	19.97	4.91	1230.21	449.81
10680.000	380.00	0.00	0.00	676.50	3800.00	686.54	0.00	686.70	13.26	5.09	2316.26	1043.60
10800.000	120.00	0.00	0.00	676.90	710.00	681.79	0.00	682.19	51.66	5.97	281.03	98.78
10800.000	120.00	0.00	0.00	676.90	1480.00	683.15	0.00	683.73	61.86	7.87	523.55	188.17
10800.000	120.00	0.00	0.00	676.90	2010.00	683.81	0.00	684.50	67.58	8.85	667.57	244.51
10800.000	120.00	0.00	0.00	676.90	3800.00	686.54	0.00	687.05	40.05	8.68	1421.92	600.43
10900.000	100.00	0.00	0.00	677.20	710.00	682.34	0.00	682.61	26.05	4.35	428.19	139.10
10900.000	100.00	0.00	0.00	677.20	1480.00	684.01	0.00	684.21	20.52	4.77	944.13	326.74
10900.000	100.00	0.00	0.00	677.20	2010.00	684.81	0.00	685.02	20.25	5.14	1200.39	445.66
10900.000	100.00	0.00	0.00	677.20	3800.00	687.21	0.00	687.44	17.56	5.65	1993.74	906.71
10941.000	41.00	0.00	0.00	677.60	710.00	682.37	0.00	682.73	61.81	5.99	118.54	90.31
10941.000	41.00	0.00	0.00	677.60	1480.00	683.50	0.00	685.05	143.75	10.09	146.72	123.44
10941.000	41.00	0.00	0.00	677.60	2010.00	683.79	0.00	686.43	229.90	13.04	154.14	132.57
* 10941.000	41.00	0.00	0.00	677.60	3800.00	686.55	686.55	691.06	259.11	17.04	223.00	223.49

SFC	XLCH	FLTRD	FLLC	FLMIN	Q	CASEL	CRTAS	FG	10K*S	VCH	ARE	.01K
10999.000	58.00	695.50	689.80	677.60	710.00	682.74	0.00	683.30	64.36	6.01	116.10	88.50
10999.000	58.00	695.50	689.80	677.60	1480.00	684.63	0.00	685.99	147.91	9.37	157.98	121.60
10999.000	58.00	695.50	689.80	677.60	2010.00	685.91	0.00	687.86	191.27	11.18	179.73	145.33
10999.000	58.00	695.50	689.80	677.60	3800.00	693.49	0.00	694.91	62.11	9.50	396.33	482.19
11040.000	41.00	0.00	0.00	678.00	710.00	682.96	0.00	683.67	92.62	7.40	141.62	73.77
11040.000	41.00	0.00	0.00	678.00	1480.00	685.47	0.00	686.49	74.63	9.03	256.01	171.32
11040.000	41.00	0.00	0.00	678.00	2010.00	687.58	0.00	688.49	48.12	8.76	432.78	289.75
11040.000	41.00	0.00	0.00	678.00	3800.00	694.90	0.00	695.31	12.42	6.72	1400.47	1078.33
11440.000	400.00	0.00	0.00	678.60	710.00	685.40	0.00	685.79	31.98	5.46	191.72	125.55
11440.000	400.00	0.00	0.00	678.60	1480.00	687.91	0.00	688.53	33.10	7.12	402.33	257.25
11440.000	400.00	0.00	0.00	678.60	2010.00	689.45	0.00	690.08	28.89	7.48	579.67	373.93
11440.000	400.00	0.00	0.00	678.60	3800.00	695.43	0.00	695.86	12.92	6.91	1350.42	1057.11
11860.000	649.00	0.00	0.00	680.80	710.00	687.34	0.00	687.67	26.80	5.16	264.65	137.15
11860.000	649.00	0.00	0.00	680.80	1480.00	689.89	0.00	690.28	22.54	6.12	560.27	311.75
11860.000	649.00	0.00	0.00	680.80	2010.00	691.25	0.00	691.68	21.44	6.62	727.34	434.06
11860.000	649.00	0.00	0.00	680.80	3800.00	696.30	0.00	696.71	13.09	6.90	1399.05	1050.33
12100.000	240.00	0.00	0.00	682.20	710.00	688.03	0.00	688.25	22.12	4.35	348.22	150.97
12100.000	240.00	0.00	0.00	682.20	1480.00	690.51	0.00	690.75	16.68	4.99	754.33	362.43
12100.000	240.00	0.00	0.00	682.20	2010.00	691.88	0.00	692.11	14.01	5.13	1090.15	536.93
12100.000	240.00	0.00	0.00	682.20	3800.00	696.81	0.00	696.93	5.26	4.25	3113.79	1656.64
12180.000	80.00	0.00	0.00	682.70	710.00	688.26	0.00	688.47	27.75	4.66	422.78	134.78
12180.000	80.00	0.00	0.00	682.70	1480.00	690.75	0.00	690.91	15.43	4.67	1024.78	376.77
12180.000	80.00	0.00	0.00	682.70	2010.00	692.11	0.00	692.24	11.77	4.59	1478.98	585.88
12180.000	80.00	0.00	0.00	682.70	3800.00	696.91	0.00	696.98	4.19	3.70	3823.99	1857.52
12330.000	150.00	0.00	0.00	683.00	710.00	688.64	0.00	688.86	22.44	4.55	305.23	149.89
12330.000	150.00	0.00	0.00	683.00	1480.00	690.99	0.00	691.27	19.71	5.51	599.68	333.36
12330.000	150.00	0.00	0.00	683.00	2010.00	692.29	0.00	692.53	15.72	5.48	924.22	506.93
12330.000	150.00	0.00	0.00	683.00	3800.00	696.99	0.00	697.04	3.28	3.34	3124.21	2097.96
12410.000	80.00	0.00	0.00	684.00	710.00	688.84	0.00	689.33	54.46	5.60	130.81	96.21
12410.000	80.00	0.00	0.00	684.00	1480.00	691.13	0.00	691.81	41.99	6.82	260.96	228.40
12410.000	80.00	0.00	0.00	684.00	2010.00	692.37	0.00	693.11	36.69	7.24	360.85	331.82
12410.000	80.00	0.00	0.00	684.00	3800.00	696.90	0.00	697.63	20.36	7.49	723.67	842.19
12427.000	17.00	0.00	0.00	685.10	710.00	688.88	0.00	689.91	152.16	8.17	86.85	57.56
12427.000	17.00	0.00	0.00	685.10	1480.00	691.03	0.00	692.86	175.51	10.86	136.29	111.72
12427.000	17.00	0.00	0.00	685.10	2010.00	692.16	0.00	694.54	196.03	12.37	162.48	143.56
12427.000	17.00	0.00	0.00	685.10	3800.00	696.47	0.00	699.75	189.19	14.53	261.61	276.27
12473.000	46.00	698.20	694.60	685.10	710.00	689.93	0.00	690.71	130.19	7.10	99.99	62.23
12473.000	46.00	698.20	694.60	685.10	1480.00	691.97	0.00	693.97	264.92	11.32	130.70	90.93
12473.000	46.00	698.20	694.60	685.10	2010.00	693.24	0.00	696.04	335.90	13.43	149.66	109.67
12473.000	46.00	698.20	694.60	685.10	3800.00	692.72	0.00	700.02	546.10	21.68	175.27	159.71
12500.000	27.00	0.00	0.00	685.10	710.00	690.94	0.00	691.16	18.36	3.79	204.54	165.70
12500.000	27.00	0.00	0.00	685.10	1480.00	694.91	0.00	695.11	10.14	3.90	456.91	464.69
12500.000	27.00	0.00	0.00	685.10	2010.00	697.66	0.00	697.71	2.81	2.45	1692.74	1198.64
12500.000	27.00	0.00	0.00	685.10	3800.00	* ~~704.38~~ 699.9	0.00	704.40	.47	1.35	5560.80	5533.88

	SFC	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FR	10K*S	VCH	ARE	.01K
	12905.000	405.00	0.00	0.00	686.30	710.00	691.76	0.00	691.90	18.45	3.55	304.61	165.27
	12905.000	405.00	0.00	0.00	686.30	1480.00	695.23	0.00	695.24	1.32	1.40	1565.20	1287.26
	12905.000	405.00	0.00	0.00	686.30	2010.00	697.74	0.00	697.75	.37	.89	2851.55	3303.33
	12905.000	405.00	0.00	0.00	686.30	3800.00	* ~~704.40~~	700.1	0.00	704.40	.10	.64	6477.25	12295.09
	13150.000	245.00	0.00	0.00	687.00	710.00	692.24	0.00	692.56	50.15	5.55	200.93	100.26
	13150.000	245.00	0.00	0.00	687.00	1480.00	695.24	0.00	695.30	5.43	2.65	952.48	635.07
	13150.000	245.00	0.00	0.00	687.00	2010.00	697.74	0.00	697.77	1.34	1.61	1831.90	1739.28
	13150.000	245.00	0.00	0.00	687.00	3800.00	* ~~704.40~~	700.1	0.00	704.41	.27	1.03	4966.01	7352.88
	13275.000	260.00	0.00	0.00	687.30	710.00	693.15	0.00	693.49	38.34	5.36	194.77	114.67
	13275.000	260.00	0.00	0.00	687.30	1480.00	695.27	0.00	695.52	20.08	5.00	489.55	330.32
	13275.000	260.00	0.00	0.00	687.30	2010.00	697.72	0.00	697.83	5.85	3.32	936.84	831.13
	13275.000	260.00	0.00	0.00	687.30	3800.00	* ~~704.39~~	700.0	0.00	704.42	.76	1.73	3407.49	4345.49
	13650.000	375.00	0.00	0.00	688.30	710.00	694.28	0.00	694.57	25.66	4.30	171.86	140.18
	13650.000	375.00	0.00	0.00	688.30	1480.00	695.91	0.00	696.46	37.63	6.08	355.37	241.28
	13650.000	375.00	0.00	0.00	688.30	2010.00	697.85	0.00	698.18	19.71	5.15	803.25	452.79
	13650.000	375.00	0.00	0.00	688.30	3800.00	* ~~704.41~~	700.2	0.00	704.44	.82	1.63	4385.45	4193.89
*	13800.000	85.00	0.00	0.00	689.60	710.00	694.39	694.39	695.87	222.69	9.77	72.64	47.58
*	13800.000	85.00	0.00	0.00	689.60	1480.00	696.37	696.37	697.13	87.04	8.28	385.36	158.63
	13800.000	85.00	0.00	0.00	689.60	2010.00	698.24	0.00	698.38	15.79	4.38	1014.92	505.91
	13800.000	85.00	0.00	0.00	689.60	3800.00	* ~~704.43~~	700.4	0.00	704.45	.61	1.33	4473.52	4865.67
	13894.000	100.00	0.00	0.00	691.60	710.00	696.63	0.00	696.95	35.87	4.91	242.87	118.54
	13894.000	100.00	0.00	0.00	691.60	1480.00	697.18	0.00	698.12	92.61	8.59	304.82	153.79
	13894.000	100.00	0.00	0.00	691.60	2010.00	698.33	0.00	698.76	43.27	6.81	639.74	305.55
	13894.000	100.00	0.00	0.00	691.60	3800.00	* ~~704.44~~	700.5	0.00	704.46	.74	1.44	3901.65	4402.89
	13906.000	12.00	697.30	698.40	691.60	710.00	696.70	0.00	697.00	33.45	4.80	250.55	122.76
	13906.000	12.00	697.30	698.40	691.60	1480.00	697.87	0.00	698.33	43.61	6.47	472.54	224.12
	13906.000	12.00	697.30	698.40	691.60	2010.00	698.78	0.00	698.92	37.55	4.08	830.91	328.03
	13906.000	12.00	697.30	698.40	691.60	3800.00	* ~~704.54~~	700.5	0.00	704.56	.71	1.42	3961.25	4515.82
	13931.000	25.00	0.00	0.00	691.20	710.00	697.03	0.00	697.11	11.84	2.84	434.87	206.37
	13931.000	25.00	0.00	0.00	691.20	1480.00	698.42	0.00	698.49	9.16	2.90	876.28	488.99
	13931.000	25.00	0.00	0.00	691.20	2010.00	698.89	0.00	698.98	10.30	3.25	1054.18	626.29
	13931.000	25.00	0.00	0.00	691.20	3800.00	* ~~704.54~~	700.6	0.00	704.56	.62	1.27	3993.53	4815.40
	14100.000	169.00	0.00	0.00	691.90	710.00	697.01	0.00	697.81	114.25	7.17	99.05	66.43
*	14100.000	169.00	0.00	0.00	691.90	1480.00	698.99	698.99	699.87	80.82	7.95	243.07	164.63
*	14100.000	169.00	0.00	0.00	691.90	2010.00	699.42	699.42	700.38	86.82	8.71	321.76	213.28
	14100.000	169.00	0.00	0.00	691.90	3800.00	* ~~704.54~~	700.5	0.00	704.59	2.38	2.27	2282.51	2464.35
	14500.000	365.00	0.00	0.00	691.80	670.00	698.87	0.00	699.05	14.44	3.46	207.08	176.29
	14500.000	365.00	0.00	0.00	691.80	1400.00	700.64	0.00	700.79	10.88	3.64	571.81	424.38
	14500.000	365.00	0.00	0.00	691.80	1900.00	701.18	0.00	701.34	11.40	3.92	721.32	562.68
	14500.000	365.00	0.00	0.00	691.80	3600.00	* ~~704.62~~	702.4	0.00	704.68	2.94	2.57	1837.09	2109.44
	14594.000	80.00	0.00	0.00	693.50	670.00	698.89	0.00	699.46	77.40	6.19	108.37	76.16
*	14594.000	80.00	0.00	0.00	693.50	1400.00	700.52	700.52	701.38	78.30	7.76	231.60	158.21
*	14594.000	80.00	0.00	0.00	693.50	1900.00	701.07	701.07	701.57	74.07	8.00	333.00	220.77
	14594.000	80.00	0.00	0.00	693.50	3600.00	* 704.67	702.3	0.00	704.73	6.18	3.29	1576.73	1048.27

* see revised computations at end of these computations

	SEC	XLCH	ELTPO	ELLC	ELMIN	Q	CASEL	CRIKS	FG	10K*S	VCH	ARE	.01K
	14605.000	12.00	699.80	702.20	693.50	670.00	699.03	0.00	699.58	67.98	5.94	113.25	81.26
	14606.000	12.00	699.80	702.20	693.50	1400.00	700.48	0.00	701.62	96.68	8.59	170.92	142.39
	14606.000	12.00	699.80	702.20	693.50	1900.00	701.63	701.11	702.05	37.72	6.11	452.21	309.36
	14606.000	12.00	699.80	702.20	693.50	3600.00	* ~~704.04~~ (702.91)	0.00	704.74	9.47	1.81	1508.30	1169.78
	14621.000	25.00	0.00	0.00	693.40	670.00	699.17	0.00	699.81	79.43	6.42	104.29	75.18
	14621.000	25.00	0.00	0.00	693.40	1400.00	700.65	0.00	702.02	132.45	9.37	150.74	121.65
*	14621.000	25.00	0.00	0.00	693.40	1900.00	701.03	701.03	703.16	194.33	11.72	165.38	136.29
	14621.000	25.00	0.00	0.00	693.40	3600.00	* ~~704.24~~ (703.55)	0.00	705.24	62.94	8.97	554.70	453.78
	15100.000	467.00	0.00	0.00	694.00	670.00	701.27	0.00	701.48	20.16	3.97	232.88	149.22
	15100.000	467.00	0.00	0.00	694.00	1400.00	703.29	0.00	703.46	13.26	4.06	578.71	384.42
	15100.000	467.00	0.00	0.00	694.00	1900.00	704.35	0.00	704.50	10.26	3.94	840.66	593.05
	15100.000	467.00	0.00	0.00	694.00	3600.00	* ~~705.90~~ (706.02)	0.00	706.16	11.02	4.62	1317.25	1084.64
	15150.000	50.00	0.00	0.00	694.30	670.00	701.37	0.00	701.68	30.88	4.52	157.83	120.57
	15150.000	50.00	0.00	0.00	694.30	1400.00	703.34	0.00	703.66	24.42	4.96	376.75	283.29
	15150.000	50.00	0.00	0.00	694.30	1900.00	704.39	0.00	704.67	18.56	4.84	552.51	441.07
	15150.000	50.00	0.00	0.00	694.30	3600.00	* ~~705.09~~ (706.04)	0.00	706.42	22.11	6.09	856.24	765.54
	15214.000	64.00	0.00	0.00	694.60	670.00	701.57	0.00	701.97	36.60	5.08	131.86	110.75
	15214.000	64.00	0.00	0.00	694.60	1400.00	703.46	0.00	704.47	74.07	8.07	173.56	162.87
	15214.000	64.00	0.00	0.00	694.60	1900.00	704.38	0.00	705.87	100.90	9.80	193.79	189.15
	15214.000	64.00	0.00	0.00	694.60	3600.00	* ~~705.58~~ (705.63)	0.00	709.73	256.49	16.34	220.26	224.79
	15246.000	32.00	707.00	705.60	694.60	670.00	701.71	0.00	702.09	34.27	4.96	134.95	114.45
	15246.000	32.00	707.00	705.60	694.60	1400.00	703.81	0.00	704.74	65.81	7.73	181.19	172.57
	15246.000	32.00	707.00	705.60	694.60	1900.00	705.21	0.00	706.46	79.16	8.96	212.00	213.55
	15246.000	32.00	707.00	705.60	694.60	3600.00	* 707.43	0.00	710.38	163.49	13.79	261.12	281.55
	15271.000	25.00	0.00	0.00	694.60	670.00	701.90	0.00	702.26	154.67	4.81	139.31	53.87
	15271.000	25.00	0.00	0.00	694.60	1400.00	704.26	0.00	705.09	280.52	7.32	191.23	83.59
	15271.000	25.00	0.00	0.00	694.60	1900.00	705.79	0.00	706.90	334.02	8.45	224.82	103.96
	15271.000	25.00	0.00	0.00	694.60	3600.00	* 711.63	0.00	712.18	128.46	6.38	642.47	317.63
	15296.000	25.00	0.00	0.00	695.10	670.00	702.34	0.00	702.46	9.63	2.88	242.13	215.95
	15296.000	25.00	0.00	0.00	695.10	1400.00	705.40	0.00	705.55	6.82	3.29	538.06	536.23
	15295.000	25.00	0.00	0.00	695.10	1900.00	707.39	0.00	707.52	4.77	3.19	841.05	869.59
	15296.000	25.00	0.00	0.00	695.10	3600.00	* 712.36	0.00	712.47	2.84	3.22	1695.03	2135.38
*	15780.000	465.00	0.00	0.00	700.10	670.00	703.53	703.53	704.76	223.92	8.92	77.22	44.77
*	15780.000	465.00	0.00	0.00	700.10	1400.00	705.11	705.11	707.02	183.00	11.20	135.48	103.49
	15780.000	465.00	0.00	0.00	700.10	1900.00	707.05	0.00	708.52	86.16	9.97	224.33	204.70
	15780.000	465.00	0.00	0.00	700.10	3600.00	* 712.44	0.00	712.81	14.31	6.22	1181.23	951.81
	16070.000	290.00	0.00	0.00	703.10	670.00	707.33	0.00	707.74	51.62	5.27	170.53	93.25
	16070.000	290.00	0.00	0.00	703.10	1400.00	709.08	0.00	709.53	38.84	6.04	413.58	224.63
	16070.000	290.00	0.00	0.00	703.10	1900.00	709.66	0.00	710.33	36.83	6.47	569.31	313.09
	16070.000	290.00	0.00	0.00	703.10	3600.00	* 713.00	0.00	713.23	14.11	5.32	1425.52	958.26
	16120.000	50.00	0.00	0.00	703.30	670.00	707.47	0.00	708.39	138.40	7.68	87.27	56.95
*	16120.000	50.00	0.00	0.00	703.30	1400.00	708.99	708.99	710.67	175.52	10.66	153.38	105.67
*	16120.000	50.00	0.00	0.00	703.30	1900.00	710.15	710.15	711.68	138.83	10.64	238.83	161.26
	16120.000	50.00	0.00	0.00	703.30	3600.00	* 712.69	0.00	713.83	89.96	10.28	514.20	379.55

* See revised computations at end of these computations

	SEC	XLCH	FLTPD	ELLC	ELMIN	Q	C*SEL	CRIKS	FG	10K*S	VCH	APF	.01K
	16153.000	35.00	0.00	0.00	703.30	670.00	707.94	0.00	708.87	130.39	7.75	86.46	59.67
*	16153.000	35.00	0.00	0.00	703.30	1400.00	709.66	709.66	711.50	187.25	10.99	141.16	102.31
*	16153.000	35.00	0.00	0.00	703.30	1900.00	710.82	710.82	712.56	165.71	11.19	213.59	147.60
*	16153.000	35.00	0.00	0.00	703.30	3600.00	* 713.08	713.08	714.54	143.08	11.61	480.42	300.96
	16185.000	30.00	709.10	715.60	703.30	670.00	708.56	0.00	709.27	94.38	6.74	99.36	68.97
	16185.000	30.00	709.10	715.60	703.30	1400.00	711.62	0.00	712.21	75.81	6.82	265.46	160.79
	16185.000	30.00	709.10	715.60	703.30	1900.00	712.73	0.00	713.24	71.10	6.83	403.00	225.33
	16185.000	30.00	709.10	715.60	703.30	3600.00	* 714.80	0.00	715.15	62.92	6.17	819.02	453.83
	16216.000	31.00	0.00	0.00	703.30	670.00	709.20	0.00	709.54	34.12	4.81	167.12	114.70
	16216.000	31.00	0.00	0.00	703.30	1400.00	712.20	0.00	712.42	18.30	4.50	453.85	327.30
	16216.000	31.00	0.00	0.00	703.30	1900.00	713.18	0.00	713.42	19.04	4.86	576.33	435.44
	16216.000	31.00	0.00	0.00	703.30	3600.00	* 714.94	0.00	715.27	25.51	6.13	978.41	712.81
	16750.000	534.00	0.00	0.00	706.40	670.00	711.26	0.00	711.67	46.81	5.37	171.29	97.93
	16750.000	534.00	0.00	0.00	706.40	1400.00	713.25	0.00	713.51	24.05	5.07	498.09	285.48
	16750.000	534.00	0.00	0.00	706.40	1900.00	714.18	0.00	714.42	20.01	5.11	712.60	424.78
	16750.000	534.00	0.00	0.00	706.40	3600.00	* 716.10	0.00	716.33	17.28	5.60	1322.80	866.04
	17200.000	450.00	0.00	0.00	708.10	670.00	713.26	0.00	713.44	34.47	4.20	284.13	114.11
	17200.000	450.00	0.00	0.00	708.10	1400.00	714.53	0.00	714.80	39.07	5.52	482.40	223.98
	17200.000	450.00	0.00	0.00	708.10	1900.00	715.26	0.00	715.57	37.06	5.92	620.08	312.10
	17200.000	450.00	0.00	0.00	708.10	3600.00	* 717.00	0.00	717.35	34.04	6.83	1061.39	616.99
	17780.000	580.00	0.00	0.00	712.10	670.00	715.43	0.00	715.69	62.16	4.82	216.87	84.96
	17780.000	580.00	0.00	0.00	712.10	1400.00	716.56	0.00	716.86	49.99	5.51	402.83	198.02
	17780.000	580.00	0.00	0.00	712.10	1900.00	717.16	0.00	717.49	48.01	5.95	507.58	274.23
	17780.000	580.00	0.00	0.00	712.10	3600.00	* 718.65	0.00	719.11	47.09	7.19	824.72	524.61
*	17938.000	138.00	0.00	0.00	713.00	670.00	716.37	716.37	717.24	186.47	8.13	127.66	49.06
*	17938.000	138.00	0.00	0.00	713.00	1400.00	717.54	717.54	718.76	172.05	10.13	247.49	106.73
*	17938.000	138.00	0.00	0.00	713.00	1900.00	718.16	718.16	719.55	167.03	11.09	324.73	147.02
*	17938.000	138.00	0.00	0.00	713.00	3600.00	* 719.79	719.79	721.58	156.59	13.33	572.98	287.68
	18322.000	384.00	0.00	0.00	715.10	670.00	720.33	0.00	720.55	46.86	4.99	357.47	97.88
	18322.000	384.00	0.00	0.00	715.10	1400.00	721.21	0.00	721.35	32.47	4.80	732.07	245.71
	18322.000	384.00	0.00	0.00	715.10	1900.00	721.73	0.00	721.85	27.21	4.73	962.05	364.24
	18322.000	384.00	0.00	0.00	715.10	3600.00	* 723.27	0.00	723.38	18.67	4.68	1673.59	833.16

* See revised computations at end of these computations

CITY OF FARMI

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10%	8511.000	710.00	672.82	0.00	0.00	0.00	245.94	0.00
50%	8511.000	1480.00	674.65	1.83	0.00	0.00	471.80	0.00
100%	8511.000	2010.00	675.90	1.25	0.00	0.00	547.22	0.00
500%	8511.000	3800.00	685.59	9.68	0.00	0.00	822.71	0.00
	8940.000	710.00	674.15	0.00	1.33	0.00	252.03	429.00
	8940.000	1480.00	675.65	1.50	1.00	0.00	454.45	429.00
	8940.000	2010.00	676.54	.88	.64	0.00	503.86	429.00
	8940.000	3800.00	685.61	9.08	.02	0.00	590.00	429.00
	9760.000	710.00	676.67	0.00	2.52	0.00	201.22	820.00
	9760.000	1480.00	677.98	1.31	2.33	0.00	234.14	820.00
	9760.000	2010.00	678.61	.63	2.07	0.00	249.95	820.00
	9760.000	3800.00	685.71	7.10	.10	0.00	498.51	820.00
	10300.000	710.00	679.89	0.00	3.22	0.00	175.74	540.00
	10300.000	1480.00	681.03	1.15	3.05	0.00	252.78	540.00
	10300.000	2010.00	681.68	.64	3.07	0.00	283.05	540.00
	10300.000	3800.00	685.96	4.28	.25	0.00	450.46	540.00
	10680.000	710.00	681.69	0.00	1.80	0.00	266.95	380.00
	10680.000	1480.00	683.10	1.41	2.07	0.00	333.53	380.00
	10680.000	2010.00	683.78	.68	2.10	0.00	376.43	380.00
	10680.000	3800.00	686.54	2.76	.58	0.00	407.90	380.00
	10800.000	710.00	681.79	0.00	.10	0.00	150.80	120.00
	10800.000	1480.00	683.15	1.36	.05	0.00	205.52	120.00
	10800.000	2010.00	683.81	.66	.03	0.00	231.99	120.00
	10800.000	3800.00	686.54	2.74	-.00	0.00	298.65	120.00
	10900.000	710.00	682.38	0.00	.60	0.00	311.95	100.00
	10900.000	1480.00	684.01	1.63	.87	0.00	320.11	100.00
	10900.000	2010.00	684.81	.80	1.01	0.00	324.09	100.00
	10900.000	3800.00	687.21	2.40	.67	0.00	342.10	100.00
	10941.000	710.00	682.37	0.00	-.01	0.00	25.00	41.00
	10941.000	1480.00	683.50	1.13	-.51	0.00	25.00	41.00
	10941.000	2010.00	683.79	.29	-1.02	0.00	25.00	41.00
*	10941.000	3800.00	686.55	2.76	-.66	0.00	25.00	41.00
	10999.000	710.00	682.74	0.00	.36	0.00	25.00	58.00
	10999.000	1480.00	684.63	1.89	1.13	0.00	25.00	58.00
	10999.000	2010.00	685.91	1.29	2.12	0.00	25.00	58.00
	10999.000	3800.00	693.49	7.57	6.93	0.00	25.00	58.00
	11040.000	710.00	682.96	0.00	.22	0.00	41.30	41.00
	11040.000	1480.00	685.47	2.51	.84	0.00	51.18	41.00
	11040.000	2010.00	687.58	2.12	1.67	0.00	114.28	41.00
	11040.000	3800.00	694.90	7.32	1.42	0.00	153.44	41.00
	11440.000	710.00	685.40	0.00	2.44	0.00	47.05	400.00
	11440.000	1480.00	687.91	2.51	2.44	0.00	113.11	400.00
	11440.000	2010.00	689.45	1.54	1.86	0.00	118.94	400.00
	11440.000	3800.00	695.43	5.98	.52	0.00	137.69	400.00

SE	C	CASEL	DIFWSP	DIFWSX	DIFKYS	TOPWID	XLCH
11860.000	710.00	687.34	0.00	1.94	0.00	110.93	649.00
11860.000	1480.00	689.89	2.55	1.98	0.00	120.68	649.00
11860.000	2010.00	691.25	1.36	1.81	0.00	125.23	649.00
11860.000	3800.00	696.30	5.05	.87	0.00	143.74	649.00
12100.000	710.00	688.03	0.00	.69	0.00	132.94	240.00
12100.000	1480.00	690.51	2.48	.62	0.00	207.70	240.00
12100.000	2010.00	691.88	1.37	.63	0.00	284.16	240.00
12100.000	3810.00	696.81	4.94	.51	0.00	493.45	240.00
12180.000	710.00	686.26	0.00	.23	0.00	188.59	80.00
12180.000	1480.00	690.75	2.49	.24	0.00	300.00	80.00
12180.000	2010.00	692.11	1.35	.23	0.00	371.68	80.00
12180.000	3800.00	696.91	4.81	.10	0.00	574.56	80.00
12330.000	710.00	688.64	0.00	.37	0.00	95.77	150.00
12330.000	1480.00	690.99	2.36	.24	0.00	195.34	150.00
12330.000	2010.00	692.29	1.30	.19	0.00	303.58	150.00
12330.000	3900.00	696.99	4.69	.07	0.00	556.64	150.00
12410.000	710.00	688.84	0.00	.20	0.00	42.12	80.00
12410.000	1480.00	691.13	2.28	.13	0.00	80.00	80.00
12410.000	2010.00	692.37	1.24	.08	0.00	80.00	80.00
12410.000	3800.00	696.90	4.54	-.08	0.00	80.00	80.00
12427.000	710.00	688.88	0.00	.03	0.00	23.00	17.00
12427.000	1480.00	691.03	2.15	-.10	0.00	23.00	17.00
12427.000	2010.00	692.16	1.14	-.21	0.00	23.00	17.00
12427.000	3800.00	696.47	4.31	-.43	0.00	23.00	17.00
12473.000	710.00	689.93	0.00	1.05	0.00	23.00	46.00
12473.000	1480.00	691.97	2.04	.95	0.00	23.00	46.00
12473.000	2010.00	693.24	1.26	1.07	0.00	23.00	46.00
12473.000	3800.00	692.72	-.52	-3.75	0.00	23.00	46.00
12500.000	710.00	690.94	0.00	1.01	0.00	53.72	27.00
12500.000	1480.00	694.91	3.96	2.93	0.00	75.24	27.00
12500.000	2010.00	697.66	2.75	4.42	0.00	476.98	27.00
12500.000	3800.00	704.38	6.72	11.66	0.00	600.00	27.00
12905.000	710.00	691.78	0.00	.84	0.00	215.50	405.00
12905.000	1480.00	695.23	3.45	.32	0.00	500.26	405.00
12905.000	2010.00	697.74	2.51	.08	0.00	524.86	405.00
12905.000	3800.00	704.40	6.66	.01	0.00	551.40	405.00
13150.000	710.00	692.24	0.00	.46	0.00	148.46	245.00
13150.000	1480.00	695.24	3.01	.02	0.00	338.69	245.00
13150.000	2010.00	697.74	2.50	-.00	0.00	366.14	245.00
13150.000	3800.00	704.40	6.66	-.00	0.00	584.77	245.00
13275.000	710.00	693.15	0.00	.92	0.00	103.30	260.00
13275.000	1480.00	695.27	2.12	.03	0.00	169.13	260.00
13275.000	2010.00	697.72	2.[illegible]	-.02	0.00	196.99	260.00
13275.000	3800.00	704.39	6.67	-.00	0.00	477.28	260.00

	SE	Q	CSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	13650.000	710.00	694.28	0.00	1.13	0.00	50.58	375.00
	13650.000	1480.00	695.91	1.63	.64	0.00	150.27	375.00
	13650.000	2010.00	697.85	1.93	.13	0.00	359.57	375.00
	13650.000	3800.00	704.41	6.57	.02	0.00	570.00	375.00
*	13800.000	710.00	694.39	0.00	.11	0.00	23.56	85.00
*	13800.000	1480.00	695.37	1.98	.46	0.00	259.00	85.00
	13800.000	2010.00	698.24	1.86	.39	0.00	416.36	85.00
	13800.000	3800.00	704.43	6.19	.02	0.00	608.34	85.00
	13894.000	710.00	696.63	0.00	2.24	0.00	108.63	100.00
	13894.000	1480.00	697.18	.55	.80	0.00	115.50	100.00
	13894.000	2010.00	699.33	1.15	.09	0.00	468.53	100.00
	13894.000	3800.00	704.44	6.11	.01	0.00	544.00	100.00
	13906.000	710.00	696.70	0.00	.06	0.00	109.51	12.00
	13906.000	1480.00	697.87	1.17	.69	0.00	325.87	12.00
	13906.000	2010.00	698.78	.91	.45	0.00	491.61	12.00
	13906.000	3800.00	704.54	5.76	.10	0.00	544.00	12.00
	13931.000	710.00	697.03	0.00	.33	0.00	257.16	25.00
	13931.000	1480.00	698.42	1.39	.55	0.00	376.29	25.00
	13931.000	2010.00	698.89	.47	.11	0.00	412.03	25.00
	13931.000	3800.00	704.54	5.66	.00	0.00	568.18	25.00
	14100.000	710.00	697.01	0.00	-.02	0.00	32.22	169.00
*	14100.000	1480.00	698.99	1.98	.57	0.00	172.56	169.00
*	14100.000	2010.00	699.42	.43	.53	0.00	196.46	169.00
	14100.000	3800.00	704.54	5.13	.00	0.00	476.96	169.00
	14500.000	670.00	698.87	0.00	1.86	0.00	46.82	365.00
	14500.000	1400.00	700.64	1.77	1.65	0.00	267.50	365.00
	14500.000	1900.00	701.18	.54	1.76	0.00	290.48	365.00
	14500.000	3600.00	704.62	3.44	.07	0.00	330.00	365.00
	14594.000	670.00	698.89	0.00	.02	0.00	34.06	80.00
*	14594.000	1400.00	700.52	1.64	-.12	0.00	168.73	80.00
*	14594.000	1900.00	701.07	.55	-.11	0.00	199.64	80.00
	14594.000	3600.00	704.63	3.56	.02	0.00	445.45	80.00
	14606.000	670.00	699.03	0.00	.15	0.00	34.99	12.00
	14606.000	1400.00	700.48	1.45	-.04	0.00	44.48	12.00
	14606.000	1900.00	701.63	1.14	.55	0.00	232.73	12.00
	14606.000	3600.00	704.64	3.01	.01	0.00	445.36	12.00
	14621.000	670.00	699.17	0.00	.14	0.00	27.35	25.00
	14621.000	1400.00	700.65	1.48	.17	0.00	37.46	25.00
*	14621.000	1900.00	701.03	.37	-.60	0.00	41.20	25.00
	14621.000	3600.00	704.24	3.22	-.40	0.00	176.84	25.00
	15100.000	670.00	701.27	0.00	2.10	0.00	122.82	467.00
	15100.000	1400.00	703.29	2.02	2.63	0.00	219.74	467.00
	15100.000	1900.00	704.35	1.07	3.33	0.00	270.98	467.00
	15100.000	3600.00	705.96	1.61	1.72	0.00	303.44	467.00

SS	J	CASEL	DIFKSP	DIFASX	DIFKPS	TOPAID	XLCP
15150.000	670.00	701.37	0.00	.10	0.00	66.89	50.00
15150.000	1400.00	703.34	1.97	.06	0.00	154.25	50.00
15150.000	1900.00	704.39	1.05	.04	0.00	179.78	50.00
15150.000	3600.00	705.99	1.60	.02	0.00	199.37	50.00
15214.000	670.00	701.57	0.00	.20	0.00	22.00	64.00
15214.000	1400.00	703.46	1.89	.11	0.00	22.00	64.00
15214.000	1900.00	704.38	.93	-.01	0.00	22.00	64.00
15214.000	3600.00	705.58	1.20	-.40	0.00	22.00	64.00
15246.000	670.00	701.71	0.00	.14	0.00	22.00	32.00
15246.000	1400.00	703.81	2.10	.36	0.00	22.00	32.00
15246.000	1900.00	705.21	1.40	.83	0.00	22.00	32.00
15246.000	3600.00	707.43	2.22	1.85	0.00	22.00	32.00
15271.000	670.00	701.90	0.00	.20	0.00	22.00	25.00
15271.000	1400.00	704.26	2.36	.45	0.00	22.00	25.00
15271.000	1900.00	705.79	1.53	.58	0.00	22.00	25.00
15271.000	3600.00	711.63	5.85	4.20	0.00	130.88	25.00
15296.000	670.00	702.34	0.00	.43	0.00	70.57	25.00
15296.000	1400.00	705.40	3.07	1.14	0.00	130.07	25.00
15296.000	1900.00	707.39	1.99	1.61	0.00	163.47	25.00
15296.000	3600.00	712.36	4.96	.72	0.00	180.77	25.00
* 15780.000	670.00	703.53	0.00	1.20	0.00	34.17	465.00
* 15780.000	1400.00	705.11	1.58	-.29	0.00	39.61	465.00
15780.000	1900.00	707.05	1.94	-.34	0.00	63.50	465.00
15780.000	3600.00	712.44	5.39	.08	0.00	322.37	465.00
16070.000	670.00	707.33	0.00	3.80	0.00	97.77	290.00
16070.000	1400.00	709.08	1.75	3.97	0.00	180.48	290.00
16070.000	1900.00	709.86	.78	2.81	0.00	217.54	290.00
16070.000	3600.00	713.00	3.13	.56	0.00	327.12	290.00
16120.000	670.00	707.47	0.00	.14	0.00	26.84	50.00
* 16120.000	1400.00	708.99	1.52	-.09	0.00	60.79	50.00
* 16120.000	1900.00	710.15	1.16	.28	0.00	86.84	50.00
16120.000	3600.00	712.69	2.54	-.31	0.00	125.29	50.00
16153.000	670.00	707.94	0.00	.46	0.00	22.00	35.00
* 16153.000	1400.00	709.66	1.73	.67	0.00	55.13	35.00
* 16153.000	1900.00	710.82	1.16	.68	0.00	69.77	35.00
* 16153.000	3600.00	713.08	2.26	.40	0.00	178.42	35.00
16185.000	670.00	708.56	0.00	.62	0.00	22.00	30.00
16185.000	1400.00	711.62	3.06	1.96	0.00	79.82	30.00
16185.000	1900.00	712.73	1.11	1.91	0.00	176.16	30.00
16185.000	3600.00	714.80	2.07	1.71	0.00	260.19	30.00
16216.000	670.00	709.20	0.00	.64	0.00	65.66	31.00
16216.000	1400.00	712.20	2.99	.58	0.00	119.08	31.00
16216.000	1900.00	713.18	.98	.45	0.00	131.36	31.00
16216.000	3600.00	714.94	1.76	.14	0.00	319.05	31.00

SEC	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
16750.000	670.00	711.26	0.00	2.06	0.00	117.00	534.00
16750.000	1400.00	713.25	1.00	1.05	0.00	190.27	534.00
16750.000	1900.00	714.18	.94	1.01	0.00	271.68	534.00
16750.000	3600.00	716.10	1.91	1.16	0.00	344.33	534.00
17200.000	670.00	713.25	0.00	2.00	0.00	138.54	450.00
17200.000	1400.00	714.53	1.27	1.28	0.00	174.51	450.00
17200.000	1900.00	715.26	.74	1.08	0.00	203.59	450.00
17200.000	3600.00	717.00	1.73	.90	0.00	306.11	450.00
17780.000	670.00	715.43	0.00	2.17	0.00	157.10	580.00
17780.000	1400.00	716.56	1.13	2.04	0.00	172.05	580.00
17780.000	1900.00	717.16	.59	1.89	0.00	200.75	580.00
17780.000	3600.00	718.65	1.50	1.66	0.00	222.76	580.00
* 17938.000	670.00	716.37	0.00	.94	0.00	87.18	138.00
* 17938.000	1400.00	717.54	1.18	.98	0.00	116.58	138.00
* 17938.000	1900.00	718.16	.62	1.01	0.00	132.11	138.00
* 17938.000	3600.00	719.79	1.63	1.14	0.00	172.82	138.00
18322.000	670.00	720.33	0.00	3.97	0.00	418.71	384.00
18322.000	1400.00	721.21	.88	3.67	0.00	436.41	384.00
18322.000	1900.00	721.73	.52	3.57	0.00	446.93	384.00
18322.000	3600.00	723.27	1.54	3.47	0.00	478.01	384.00

SUMMARY OF ERRORS

```
CAUTION  SECNO=10941.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=10941.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=10941.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=13800.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=13800.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=13800.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=13800.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=13800.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=13800.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=14100.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14100.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=14100.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=14100.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14100.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=14100.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=14594.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14594.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=14594.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14594.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=14621.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14621.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=15780.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=15780.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=15780.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=15780.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=15780.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=16120.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16120.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=16120.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16120.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=16153.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16153.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=16153.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16153.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=16153.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16153.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=17938.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=17938.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=17938.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOOD INSURANCE ZONE DATA FOR CITY OF FARMI

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10.	2.	0.2.
8511.000	0.	-3.08	-1.25	9.69
8940.000	429.	-2.38	-.88	9.08
9760.000	1249.	-1.94	-.63	7.10
10300.000	1789.	-1.79	-.64	4.29
10680.000	2169.	-2.09	-.68	2.76
10800.000	2289.	-2.02	-.66	2.74
10900.000	2389.	-2.43	-.80	2.40
10941.000	2430.	-1.42	-.29	2.76
10999.000	2488.	-3.18	-1.29	7.57
11040.000	2529.	-4.63	-2.12	7.32
11440.000	2929.	-4.05	-1.54	5.98
11860.000	3578.	-3.91	-1.36	5.05
12100.000	3818.	-3.85	-1.37	4.94
12180.000	3898.	-3.94	-1.35	4.81
12330.000	4048.	-3.66	-1.30	4.69
12410.000	4128.	-3.53	-1.24	4.54
12427.000	4145.	-3.29	-1.14	4.31
12473.000	4191.	-3.31	-1.26	-.52
12500.000	4218.	-6.72	-2.75	6.72
12905.000	4623.	-5.96	-2.51	6.66
13150.000	4868.	-5.50	-2.50	6.66
13275.000	5128.	-4.57	-2.44	6.67
13650.000	5503.	-3.57	-1.93	6.57
13800.000	5588.	-3.94	-1.86	6.19
13894.000	5688.	-1.70	-1.15	6.11
13906.000	5700.	-2.08	-.91	5.76
13931.000	5725.	-1.86	-.47	5.66
14100.000	5894.	-2.41	-.43	5.13
14500.000	6259.	-2.31	-.54	3.44
14594.000	6339.	-2.19	-.55	3.56
14606.000	6351.	-2.59	-1.14	3.01
14621.000	6376.	-1.85	-.37	3.22
15100.000	6843.	-3.09	-1.07	1.61
15150.000	6893.	-3.02	-1.05	1.60
15214.000	6957.	-2.82	-.93	1.20
15246.000	6989.	-3.50	-1.40	2.22
15271.000	7014.	-3.88	-1.53	5.85
15296.000	7039.	-5.06	-1.99	4.96
15780.000	7504.	-3.52	-1.94	5.39
16070.000	7794.	-2.53	-.78	3.13
16120.000	7844.	-2.67	-1.16	2.54
16153.000	7879.	-2.89	-1.16	2.26
16185.000	7909.	-4.17	-1.11	2.07
16216.000	7940.	-3.97	-.98	1.76
16750.000	8474.	-2.92	-.94	1.91
17200.000	8924.	-2.01	-.74	1.73
17780.000	9504.	-1.73	-.59	1.50
17938.000	9642.	-1.80	-.62	1.63
18322.000	10026.	-1.40	-.52	1.54
WEIGHTED AVG FOR REACH		-3.12	-1.19	4.73

FHF FOR THE REACH = 030 WITH 59.6% OF THE REACH WITHIN 1.0 FEET

ZONE FOR THE REACH = A 0

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10.	1.	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN	
	0.				SEC.	8511.000		
1	100.	672.98	675.97	-2.99	-2.99	030	100.	(0.00)*
2	200.	673.29	676.12	-2.83	-2.91	030	100.	
3	300.	673.60	676.27	-2.67	-2.83	030	100.	
4	400.	673.91	676.42	-2.51	-2.75	030	100.	
	429.				SEC.	8940.000		A (0.43)*
5	500.	674.22	676.61	-2.39	-2.68	025	100.	
6	600.	674.53	676.84	-2.31	-2.62	025	100.	
7	700.	674.83	677.10	-2.27	-2.57	025	100.	
8	800.	675.14	677.35	-2.21	-2.52	025	100.	
9	900.	675.45	677.60	-2.15	-2.48	025	100.	
10	1000.	675.75	677.85	-2.10	-2.44	025	100.	
11	1100.	676.06	678.11	-2.05	-2.41	025	100.	
12	1200.	676.37	678.36	-1.99	-2.37	025	100.	
	1249.				SEC.	9760.000		
13	1300.	676.75	678.69	-1.94	-2.34	025	100.	
14	1400.	677.27	679.18	-1.91	-2.31	025	100.	
15	1500.	677.87	679.75	-1.88	-2.28	025	100.	
16	1600.	678.47	680.32	-1.85	-2.25	025	100.	
17	1700.	679.06	680.89	-1.83	-2.23	020	100.	
	1789.				SEC.	10300.000		
18	1800.	679.65	681.45	-1.80	-2.20	020	100.	
19	1900.	680.18	682.01	-1.83	-2.18	020	100.	
20	2000.	680.65	682.57	-1.92	-2.17	020	100.	
21	2100.	681.12	683.12	-2.00	-2.16	020	100.	
	2169.				SEC.	10680.000		B (2.17)*
22	2200.	681.54	683.59	-2.05	-2.16	020	100.	
	2289.				SEC.	10800.000		
23	2300.	681.78	683.85	-2.07	-2.15	020	100.	
	2389.				SEC.	10900.000		C (2.39)*
24	2400.	682.12	684.23	-2.11	-2.15	020	100.	
	2430.				SEC.	10941.000		
	2488.				SEC.	10999.000		
25	2500.	682.59	685.47	-2.88	-2.18	020	100.	
	2529.				SEC.	11040.000		(2.53)*
26	2600.	683.10	687.16	-4.06	-2.25	025	96.	
27	2700.	683.70	688.15	-4.45	-2.34	025	93.	
28	2800.	684.31	688.61	-4.30	-2.41	025	89.	
29	2900.	684.92	689.08	-4.16	-2.47	025	86.	
	2929.				SEC.	11440.000		
30	3000.	685.42	689.48	-4.06	-2.52	025	83.	
31	3100.	685.76	689.78	-4.02	-2.57	025	81.	
32	3200.	686.06	690.06	-4.00	-2.61	025	78.	
33	3300.	686.36	690.34	-3.98	-2.65	025	76.	
34	3400.	686.65	690.62	-3.97	-2.69	025	74.	
35	3500.	686.95	690.89	-3.94	-2.73	025	71.	D (3.35)*
	3578.				SEC.	11860.000		
36	3600.	687.25	691.17	-3.92	-2.76	030	69.	
37	3700.	687.54	691.44	-3.90	-2.79	030	68.	
38	3800.	687.83	691.70	-3.87	-2.82	030	63.	
	3818.				SEC.	12100.000		
	3898.				SEC.	12180.000		
39	3900.	688.12	691.97	-3.85	-2.85	030	59.	
40	4000.	688.39	692.17	-3.78	-2.87	030	60.	

Reach No 1
Ave. weighted for reach = 2.18
Allowable range = 1.18 to 3.18
100% of reach falls
within allowable range

FHF = 0.20

ZONE A4

	4048.					SEC.	12330.000	
41	4100.	688.64	692.29	-3.65	-2.89	030		59.
	[illegible]					SEC.	12410.000	
	4145.					SEC.	12427.000	
	4191.					SEC.	12473.000	
42	4200.	689.52	693.53	-4.01	-2.92	030		60.
	4218.					SEC.	12500.000	
43	4300.	690.69	696.20	-5.51	-2.98	030		60.
44	4400.	691.22	697.69	-6.47	-3.06	030		61.
45	4500.	691.42	697.71	-6.29	-3.13	030		53.
46	4600.	691.63	697.73	-6.10	-3.19	030		52.
	4623.					SEC.	12905.000	
47	4700.	691.83	697.74	-5.91	-3.25	035		49.
48	4800.	692.02	697.74	-5.72	-3.30	035		48.
	4868.					SEC.	13150.000	
49	4900.	692.23	697.74	-5.51	-3.35	035		45.
50	5000.	692.53	697.73	-5.20	-3.38	035		44.
51	5100.	692.88	697.72	-4.84	-3.41	035		41.
	5128.					SEC.	13275.000	
52	5200.	693.21	697.73	-4.52	-3.43	035		40.
53	5300.	693.52	697.76	-4.24	-3.45	035		43.
54	5400.	693.82	697.79	-3.97	-3.46	035		44.
55	5500.	694.12	697.83	-3.71	-3.46	035		45.
	5503.			135.91	4.53	SEC.	13650.000	
	5588.					SEC.	13800.000	
56	5600.	694.47	698.05	-3.58	-3.46	035		46.
	5688.					SEC.	13894.000	
57	5700.	695.68	698.51	-2.83	-3.45	035		47.
	5700.					SEC.	13906.000	
	5725.					SEC.	13931.000	
58	5800.	696.86	698.95	-2.09	-3.43	035		45.
	5894.					SEC.	14100.000	
59	5900.	697.03	699.28	-2.25	-3.41	035		44.
60	6000.	697.29	699.69	-2.40	-3.39	035		47.
61	6100.	697.80	700.17	-2.37	-3.38	035		46.
62	6200.	698.31	700.65	-2.34	-3.36	035		47.
	6259.					SEC.	14500.000	
63	6300.	698.72	701.01	-2.29	-3.34	035		48.
	6339.					SEC.	14594.000	
	6351.					SEC.	14606.000	
	6376.					SEC.	14621.000	
64	6400.	699.08	701.16	-2.08	-3.32	035		47.
65	6500.	699.50	701.55	-2.05	-3.30	035		48.
66	6600.	699.95	702.27	-2.32	-3.29	035		48.
67	6700.	700.40	702.98	-2.58	-3.28	035		49.
68	6800.	700.85	703.69	-2.84	-3.27	035		51.
	6843.					SEC.	15100.000	
	6893.					SEC.	15150.000	
69	6900.	701.23	704.22	-2.99	-3.27	035		52.
	6957.					SEC.	15214.000	
	6989.					SEC.	15246.000	
70	7000.	701.59	704.93	-3.34	-3.27	035		53.
	7014.					SEC.	15271.000	
	7038.					SEC.	15296.000	
71	7100.	702.14	706.41	-4.27	-3.28	035		52.
72	7200.	702.62	707.31	-4.69	-3.30	035		51.
73	7300.	702.88	707.24	-4.36	-3.32	035		49.
74	7400.	703.14	707.16	-4.02	-3.33	035		49.
75	7500.	703.40	707.09	-3.69	-3.33	035		49.
	7504.					SEC.	15780.000	
76	7600.	704.16	707.52	-3.36	-3.33	035		50.
77	7700.	705.45	708.47	-3.02	-3.33	035		51.
	7794.					SEC.	16070.000	
78	7800.	706.73	709.43	-2.70	-3.32	035		53.
	7844.					SEC.	16120.000	
	7879.					SEC.	16153.000	

E (3.90)*

F(5.14)*

G (5.59)*

H(6.64)*

I (7.36)*

Reach No 2

Ave. weighted for reach 4.53

Allowable range = 3.53 to 5.53

5 of 35 is greater than 5.53

83 % of reach falls within allowable range

FHF = 045

ZONE A9

Reach No. 3

Ave. weighted for reach = $\frac{59.29}{29}$ = 3.08

Allowable range = 2.08 to 4.08

4 of 29 falls outside allowable range

86 % of reach falls within Allow. range

FHF = 030

ZONE = A6

79	7900.	707.86	711.03	-3.17	-3.32	035	53.
	7900.				SEC.	16185.000	
	[illegible]				SEC.	16216.000	
80	8000.	708.90	712.72	-3.82	-3.32	035	54.
81	8100.	709.63	713.38	-3.75	-3.33	035	53.
82	8200.	710.01	713.57	-3.56	-3.33	035	54.
83	8300.	710.40	713.76	-3.36	-3.33	035	54.
84	8400.	710.78	713.95	-3.17	-3.33	035	55.
	8474.				SEC.	16750.000	
85	8500.	711.18	714.15	-2.97	-3.33	035	55.
86	8600.	711.60	714.37	-2.77	-3.32	035	57.
87	8700.	712.04	714.61	-2.57	-3.31	035	59.
88	8800.	712.49	714.85	-2.36	-3.30	035	59.
89	8900.	712.93	715.09	-2.16	-3.29	035	58.
	8924.				SEC.	17200.000	
90	9000.	713.35	715.36	-2.01	-3.27	035	59.
91	9100.	713.73	715.67	-1.94	-3.26	035	57.
92	9200.	714.10	716.00	-1.90	-3.24	030	58.
93	9300.	714.48	716.33	-1.85	-3.23	030	56.
94	9400.	714.85	716.65	-1.80	-3.21	030	56.
95	9500.	715.23	716.98	-1.75	-3.20	030	56.
	9504.				SEC.	17780.000	
96	9600.	715.75	717.50	-1.75	-3.18	030	55.
	9642.				SEC.	17938.000	
97	9700.	716.52	718.28	-1.76	-3.17	030	55.
98	9800.	717.48	719.17	-1.69	-3.15	030	55.
99	9900.	718.51	720.10	-1.59	-3.14	030	55.
100	10000.	719.55	721.02	-1.47	-3.12	030	54.
	10026.				SEC.	18322.000	

K (8.24)*

Reach No. 4

Ave weighted for reach = $\frac{32.34}{16}$ = 2.02

Allowable range = 1.02 to 3.02

16 of 16 falls within allowable range

100 % of reach falls within allow. range

L (9.27)*

FHF - 020

ZONE - A4

(9.81)*

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 31 100
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

* STREAM STATIONING IN THOUSANDS OF FEET ABOVE CORPORATE LIMIT

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER ROUGE RIVER

4) DOCUMENT TYPE: 100 YR ENCROACHED

00BREAK00

THIS RUN EXECUTED 04 MAY 78 04.56.39

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

T1                FARMINGTON FLOOD INSURANCE STUDY
T2       100 YEAR WITH ENCROACHMENT
T3                CITY OF FARMINGTON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000      0.00      0.0       0.   676.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

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

CCHV=    .100 CEHV=    .300
*SECNO 8511.000
 2800 NAT Q1=     525.14  WSEL=     675.90  ENC Q1=     525.14  WSEL=     676.00  RATIO=  0.0000
 NAT Q1=     547.  RATIOS LOB,CH,ROB=    .4296    .4535    .1169  WSEL=     676.00
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     RANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLORL     XLCH      XLORR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=     261.9     618.5  TYPE=     4  TARGET=        .041

          CITY LIMITS

  8511.00     8.50   676.00      0.00   675.90   676.17      .17      0.00      0.00   671.00
    2010.     854.     953.      203.     962.     205.     229.       0.        0.    671.20
     0.00      .89     4.66       .89     .150     .045     .150    0.000    667.50   261.88
  .001475       0.       0.        0.        0        0        0     0.00    356.66   618.54

*SECNO 8940.000
 2800 NAT Q1=     496.31  WSEL=     676.54  ENC Q1=     496.31  WSEL=     676.64  RATIO=  0.0000
 NAT Q1=     517.  RATIOS LOB,CH,ROB=    .0524    .4326    .5150  WSEL=     676.64

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     112.5     559.0  TYPE=     4  TARGET=        .039

          **** A ****

  8940.00     7.24   676.64      0.00   676.54   676.78      .14       .61       .00   673.00
    2010.      69.     904.     1037.     108.     207.    1085.       12.        3.   673.00
      .04      .64     4.38       .96     .150     .045     .150     .049    669.40   112.48
  .001633     460.     429.      300.        2        0        0     0.00    418.06   558.99

*SECNO 9760.000
 2800 NAT Q1=     271.56  WSEL=     678.61  ENC Q1=     271.56  WSEL=     678.71  RATIO=  0.0000
 NAT Q1=     283.  RATIOS LOB,CH,ROB=    .1825    .4633    .3542  WSEL=     678.71

3470 ENCROACHMENT STATIONS=     280.3     462.2  TYPE=     4  TARGET=        .040
  9760.00     6.01   678.71      0.00   678.61   679.14      .43      2.27       .09   674.50
    2010.     337.     972.      700.     190.     132.     401.       33.        9.   674.80
      .10     1.78     7.35      1.75     .150     .045     .150     .046    672.70   280.30
  .005509     480.     820.      920.        2        0        0     0.00    181.92   462.22

*SECNO 10300.000
 2800 NAT Q1=     213.66  WSEL=     681.68  ENC Q1=     213.66  WSEL=     681.78  RATIO=  0.0000
 NAT Q1=     224.  RATIOS LOB,CH,ROB=    .1243    .6542    .2215  WSEL=     681.78

3470 ENCROACHMENT STATIONS=     167.6     363.6  TYPE=     4  TARGET=        .048
 10300.00     6.48   681.78      0.00   681.66   682.66      .97      3.38       .13   677.40
    2010.     213.    1379.      417.     107.     153.     277.       39.       11.   679.40
      .12     2.00     8.99      1.50     .150     .045     .150     .047    675.30   167.63
  .008782     400.     540.      440.        1        0        0     0.00    196.00   363.63

*SECNO 10680.000
 2800 NAT Q1=     449.81  WSEL=     683.78  ENC Q1=     449.81  WSEL=     683.88  RATIO=  0.0000
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NAT Q1=     467.  RATIOS LOB,CH,ROB=   .4717   .4577   .0706  WSEL=    683.88

3301 HV CHANGED MORE THAN HVTAS

   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       TCONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      28.3     288.3  TYPE=     4  TARGET=        .036

          ****  B  ****

 10680.00      7.40    683.90      0.00    683.78    684.09       .19      1.36       .07    678.60
    2010.      952.      948.      110.      809.      193.      133.       47.       13.    680.60
      .15      1.18      4.91       .83      .150      .045      .150      .046    676.50     28.31
  .001945      400.      380.      330.         2         0         0      0.00    259.97    288.28

*SECNO 10800.000
 2800 NAT Q1=     244.51  WSEL=    683.81  ENC Q1=    244.51  WSEL=    683.91  RATIO=  0.0000
 NAT Q1=     254.  RATIOS LOB,CH,ROB=   .2959   .5454   .1587  WSEL=    683.91

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      73.7     212.6  TYPE=     4  TARGET=        .037
 10800.00      7.00    683.90      0.00    683.81    684.63       .73       .38       .16    679.00
    2010.      578.     1138.      294.      276.      127.      169.       49.       13.    679.80
      .16      2.09      8.95      1.74      .150      .045      .150      .046    676.90     73.71
  .006754      105.      120.      120.         2         0         0      0.00    138.86    212.57


CCHV=     .300 CEHV=     .500
*SECNO 10900.000
 2800 NAT Q1=     446.68  WSEL=    684.81  ENC Q1=    446.68  WSEL=    684.91  RATIO=  0.0000
 NAT Q1=     462.  RATIOS LOB,CH,ROB=   .0990   .4835   .4174  WSEL=    684.91
3280 CROSS SECTION  10900.00 EXTENDED      3.95 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=       7.7     303.7  TYPE=     4  TARGET=        .033

          ****  C  ****  D/S OF GRAND RIVER AVE BRIDGE

 10900.00      7.74    684.94      0.00    684.81    685.16       .21       .37       .16    680.50
    2010.      173.     1000.      837.      166.      195.      812.       51.       14.    680.40
      .17      1.05      5.14      1.03      .150      .045      .150      .046    677.20      7.65
  .001968       65.      100.      165.         2         0         0      0.00    296.04    303.69


*SECNO 10941.000
 2800 NAT Q1=     132.57  WSEL=    683.79  ENC Q1=    135.51  WSEL=    683.89  RATIO=  -.0222
 NAT Q1=     136.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    683.89

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     190.0     215.0  TYPE=     4  TARGET=       0.000
 10941.00      6.40    684.00      0.00    683.79    686.47      2.47       .19      1.13    695.50
    2010.        0.     2010.        0.        0.      159.        0.       52.       14.    695.50
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      .17      0.00     12.41     0.00      .150      .045      .150      .046    677.00    191.00
  .020851      41.       41.       41.         3         0         0      0.00     25.00    215.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.66      2.60      0.00      20.00     0.00      211.00    0.00      679.20    679.20

*SECNO 10999.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   687.443  ELLC=   689.800  PCWSE=   684.004  ELTRD=   695.500
 2800 NAT Q1=     145.33  WSEL=     685.91  ENC Q1=     147.22  WSEL=     686.01  RATIO=  -.0130
 NAT Q1=    147.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    686.01
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=     190.0     215.0  TYPE=     4  TARGET=       0.000
 10999.00     8.53    686.13      0.00    685.91    687.52      1.39       .77       .32    695.50
    2010.       0.     2010.       0.        0.      212.        0.       52.       14.    695.50
      .17      0.00      9.47      0.00      .150      .045      .150      .046    677.60    190.00
  .009268      58.       58.       58.         0         0         0      0.00     25.00    215.00


*SECNO 11040.000
 2800 NAT Q1=     289.75  WSEL=     687.58  ENC Q1=     289.75  WSEL=     687.68  RATIO=  0.0000
 NAT Q1=    297.  RATIOS LOB,CH,ROB=   .0414   .7433   .2153  WSEL=     687.68
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      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=      52.8      132.3  TYPE=     4  TARGET=        .024

          U/S OF GRAND RIVER AVE BRIDGE

 11040.00     8.46    686.46      0.00    687.58    687.86      1.39       .34       .00    683.50
    2010.      17.     1576.      417.       15.      149.      133.       52.       14.    679.80
      .17      1.15     10.58      3.14      .150      .045      .150      .046    678.00     82.12
  .008459      57.       41.       15.         2         0         0      0.00     50.15    132.27


*SECNO 11440.000
 2800 NAT Q1=     373.93  WSEL=     689.45  ENC Q1=     373.93  WSEL=     689.55  RATIO=  0.0000
 NAT Q1=    383.  RATIOS LOB,CH,ROB=   .1253   .7080   .1667  WSEL=     689.55

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      30.4      133.5  TYPE=     4  TARGET=        .024
 11440.00    10.75    689.35      0.00    689.45    690.03       .68      1.96       .21    683.50
    2010.     219.     1461.     330.      190.      190.      160.       56.       15.    681.00
      .19      1.15      7.71      2.06      .150      .045      .150      .046    678.60     30.39
  .003112     500.      400.      400.         2         0         0      0.00    103.15    133.54


CCHV=     .100 CEHV=     .300
*SECNO 11860.000
 2800 NAT Q1=     434.06  WSEL=     691.25  ENC Q1=     434.06  WSEL=     691.35  RATIO=  0.0000
 NAT Q1=    444.  RATIOS LOB,CH,ROB=   .2266   .6130   .1604  WSEL=     691.35

3470 ENCROACHMENT STATIONS=      24.9      134.6  TYPE=     4  TARGET=        .022
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      **** D ****

 11860.00     10.47    691.27      0.00    691.25    691.72       .45      1.67       .02    683.50
    2010.      447.     1260.      303.      334.      187.      174.       66.       17.    683.20
      .23      1.34      6.73      1.75      .150      .045      .150      .046    680.80     24.87
 .002205      680.      649.      570.         2         0         0      0.00    109.68    134.55


*SECNO 12100.000
 2800 NAT Q1=     536.93  WSEL=     691.88  ENC Q1=     536.93  WSEL=     691.98  RATIO=  0.0000
 NAT Q1=     552.  RATIOS LOB,CH,ROB=    .1949    .5461    .2589  WSEL=     691.98

3470 ENCROACHMENT STATIONS=      301.2      477.0  TYPE=      4  TARGET=        .026
 12100.00      9.71    691.91      0.00    691.88    692.16       .25       .42       .02    684.70
    2010.      372.     1130.      507.      340.      217.      420.       70.       18.    684.40
      .25      1.09      5.22      1.18      .150      .045      .150      .046    682.20    301.19
 .001442      290.      240.      180.         2         0         0      0.00    175.80    477.00


*SECNO 12180.000
 2800 NAT Q1=     585.88  WSEL=     692.11  ENC Q1=     585.88  WSEL=     692.21  RATIO=  0.0000
 NAT Q1=     604.  RATIOS LOB,CH,ROB=    .1941    .3774    .4285  WSEL=     692.21

3470 ENCROACHMENT STATIONS=      312.0      564.3  TYPE=      4  TARGET=        .029
 12180.00      9.45    692.15      0.00    692.11    692.30       .14       .12       .01    685.00
    2010.      370.      785.      855.      363.      168.      820.       73.       18.    684.90
      .26      1.02      4.67      1.04      .150      .045      .150      .046    682.70    312.02
 .001213       80.       80.      120.         2         0         0      0.00    252.31    564.33


CCHV=     .600 CEHV=     .800
*SECNO 12330.000
 2800 NAT Q1=     506.93  WSEL=     692.29  ENC Q1=     506.93  WSEL=     692.39  RATIO=  0.0000
 NAT Q1=     522.  RATIOS LOB,CH,ROB=    .2662    .4683    .2655  WSEL=     692.39
   SECNO     DEPTH     CWSEC     CRIWS     WSELK      EG        HV        HL      OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=      406.3      584.8  TYPE=      4  TARGET=        .029
 12330.00      9.34    692.34      0.00    692.29    692.60       .26       .21       .09    684.50
    2010.      517.      972.      521.      260.      175.      394.       77.       19.    684.50
      .27      1.99      5.57      1.32      .070      .045      .150      .045    683.00    406.33
 .001611      190.      150.      135.         2         0         0      0.00    178.48    584.81


*SECNO 12410.000

3470 ENCROACHMENT STATIONS=      170.0      250.0  TYPE=      1  TARGET=      80.000

      **** E **** D/S OF POWERS AVE BRIDGE

 12410.00      8.43    692.43      0.00    692.37    693.15       .72       .18       .37    688.60
    2010.      153.     1804.       53.       66.      252.       48.       78.       19.    687.00
      .27      2.32      7.16      1.10      .070      .045      .150      .045    684.00    170.00
 .003539       80.       80.       55.         1         0         0      0.00     80.00    250.00


*SECNO 12427.000
 2800 NAT Q1=     143.56  WSEL=     692.16  ENC Q1=     146.41  WSEL=     692.26  RATIO=  -.0199
 NAT Q1=     146.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     692.26

3301 HV CHANGED MORE THAN HVINS
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3470 ENCROACHMENT STATIONS=      490.0      513.0  TYPE=      4  TARGET=        0.000
 12427.00      7.12    692.22      0.00    692.16    694.56      2.34       .12      1.29    698.20
    2010.        0.     2010.        0.        0.      164.        0.       78.       19.    698.20
      .27      0.00     12.27      0.00      .070      .045      .150      .045    685.10    490.00
  .019151       17.       17.       17.         2         0         0      0.00     23.00    513.00


SPECIAL BRIDGE

SB  XK        XKOR      COEQ      ROLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.63      3.10      0.00     16.00      0.00    176.00      0.00    683.60    683.60

*SECNO 12473.000
 2800 NAT Q1=     109.67  WSEL=     693.24  ENC Q1=     178.04  WSEL=     693.34  RATIO=  -.6234
 NAT Q1=     178.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     693.34
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      490.0      513.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      698.20 ELREA=      698.20

 12473.00      8.20    693.30      0.00    693.24    695.06      1.77       .72       .34    698.20
    2010.        0.     2010.        0.        0.      188.        0.       78.       19.    698.20
      .27      0.00     10.66      0.00      .070      .045      .150      .045    685.10    490.00
  .012930       46.       46.       46.         0         0         0      0.00     23.00    513.00

*SECNO 12500.000
 2800 NAT Q1=     688.17  WSEL=     697.47  ENC Q1=     688.17  WSEL=     697.57  RATIO=  -.0000
 NAT Q1=     703.  RATIOS LOB,CH,ROB=   .2816   .6940   .0243  WSEL=     697.57

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=       29.9      118.0  TYPE=      4  TARGET=         .021

          U/S OF POWERS AVE BRIDGE

 12500.00     10.45    695.65      0.00    697.47    696.01       .36       .10       .84    688.60
    2010.      467.     1537.        7.       177.      289.       17.       78.       19.    694.60
      .28      2.63      5.32       .39       .070      .045      .150      .045    685.20     29.86
  .001821       27.       27.       27.          4         0         0      0.00     88.18    118.04


CCHV=     .100 CEHV=     .300
*SECNO 12905.000
 2800 NAT Q1=    3288.57  WSEL=     697.72  ENC Q1=    3288.57  WSEL=     697.82  RATIO=  -.0000
 NAT Q1=    3385.  RATIOS LOB,CH,ROB=   .9051   .0904   .0045  WSEL=     697.82
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=       79.9      533.0  TYPE=      4  TARGET=         .029
 12905.00      9.84    696.14      0.00    697.72    696.16       .02       .11       .03    689.50
    2010.     1804.      206.        0.      1760.      173.        0.       89.       21.    690.00
      .38      1.02      1.19      0.00       .040      .045      .150      .046    686.30     79.90
  .000114      375.      405.      421.          2         0         0      0.00    453.10    533.00


*SECNO 13150.000
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2800 NAT Q1=    1727.69  WSEL=    697.72  ENC Q1=    1727.69  WSEL=    697.82  RATIO=  0.0000
NAT Q1=    1782.  RATIOS LOB,CH,ROB=    .7941    .1432    .0626  WSEL=    697.82

3470 ENCROACHMENT STATIONS=     270.7     578.6  TYPE=     4  TARGET=        .030
13150.00     9.15   696.15     0.00   697.72   696.20      .06      .04      .01   690.20
    2010.    1524.     384.     102.     853.     150.     202.      95.      23.   690.70
      .41     1.79     2.56      .50     .040     .045     .150     .046   687.00   270.70
 .000428     174.     245.     240.        1        0        0     0.00   307.87   578.57


*SECNO 13275.000
2800 NAT Q1=     825.70  WSEL=    697.70  ENC Q1=     825.70  WSEL=    697.80  RATIO=  0.0000
NAT Q1=     851.  RATIOS LOB,CH,ROB=    .6137    .2990    .0873  WSEL=    697.80

3470 ENCROACHMENT STATIONS=     310.4     466.2  TYPE=     4  TARGET=        .030
13275.00     8.83   696.13     0.00   697.70   696.39      .26      .13      .06   690.50
    2010.    1099.     769.     142.     313.     151.     151.      99.      24.   691.00
      .42     3.51     5.09      .94     .040     .045     .150     .047   687.30   310.44
 .001773     120.     260.     218.        2        0        0     0.00   155.79   466.24


*SECNO 13650.000
2800 NAT Q1=     449.34  WSEL=    697.83  ENC Q1=     449.34  WSEL=    697.93  RATIO=  0.0000
NAT Q1=     467.  RATIOS LOB,CH,ROB=    .0235    .7887    .1877  WSEL=    697.93

3470 ENCROACHMENT STATIONS=     275.5     472.7  TYPE=     4  TARGET=        .038

          ****  F  ****

13650.00     8.35   696.65     0.00   697.83   697.32      .67      .81      .12   697.30
    2010.       0.     1803.     207.       0.     260.     212.     102.      25.   693.20
      .43     0.00     6.95      .98     .040     .045     .150     .047   688.30   290.44
 .004381     170.     375.     210.        2        0        0     0.00   166.57   457.01
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inc. > allowable
refer natural

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*SECNO 13800.000
2800 NAT Q1=     502.04  WSEL=    698.22  ENC Q1=     502.04  WSEL=    698.32  RATIO=  0.0000
NAT Q1=     529.  RATIOS LOB,CH,ROB=    .4649    .3581    .1770  WSEL=    698.32

3470 ENCROACHMENT STATIONS=     322.2     576.1  TYPE=     4  TARGET=        .050

          D/S OF FOOTBRIDGE NO. 1

13800.00     7.79   697.39     0.00   698.22   697.78      .39      .43      .03   695.00
    2010.     732.     962.     315.     214.     147.     263.     103.      25.   694.60
      .44     3.42     6.54     1.20     .040     .045     .150     .047   689.60   322.18
 .004213     180.      85.      60.        4        0        0     0.00   253.96   576.14


CCHV=    .300 CEHV=    .500
*SECNO 13894.000
2800 NAT Q1=     302.44  WSEL=    698.31  ENC Q1=     302.44  WSEL=    698.41  RATIO=  0.0000
NAT Q1=     325.  RATIOS LOB,CH,ROB=    .2645    .5658    .1697  WSEL=    698.41
   SECNO     DEPTH    CWSEL     CRIWS     WSELK      FG       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     ITERIAL    IDC      ICONT    CORAR  TOP/ID    ENDST


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     233.5     492.2  TYPE=     4  TARGET=        .070
13894.00     6.51   698.11   698.11   698.31   698.82      .71      .52      .16   694.40
    2010.     352.    1354.     304.     132.     167.     180.     104.      26.   694.70
      .44     2.66     8.11     1.69     .040     .045     .150     .047   691.60   233.47
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 .006478     100.     100.     100.      2      10      0     0.00    258.77    692.24

SPECIAL BRIDGE

SR  XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.54      2.60      0.00     27.00      0.00    185.00     0.00    691.60    691.60

*SECNO 13906.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   700.928  EGLWC=   699.588  ELLC=   698.400  PCWSE=   698.106  ELTRD=   697.300
 2800 NAT Q1=    326.72  WSEL=    698.77  ENC Q1=    326.72  WSEL=    698.87  RATIO=  -.0000
 NAT Q1=    352.  RATIOS LOB,CH,ROB=   .4867   .3328   .1804  WSEL=    698.87
 WATER FL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=     129.8     495.3  TYPE=     4  TARGET=        .071
 13906.00     6.96    698.56     0.00    698.77    698.91      .34      .05      .11    694.40
    2010.     621.     1098.     290.     273.      181.     216.     105.      26.    694.70
      .44     2.27      6.08     1.34     .040      .045     .150     .047   691.60    129.83
 .003273      12.       12.      12.        0         0        0     0.00   365.45    495.28

*SECNO 13931.000
 2800 NAT Q1=    626.18  WSEL=    698.89  ENC Q1=    626.18  WSEL=    698.99  RATIO=  0.0000
 NAT Q1=    663.  RATIOS LOB,CH,ROB=   .5558   .3553   .0889  WSEL=    698.99

3470 ENCROACHMENT STATIONS=     309.7     545.8  TYPE=     4  TARGET=        .055

          U/S OF FOOTBRIDGE NO. 1

 13931.00     7.70    698.90     0.00    698.89    699.02      .12      .04      .07    698.40
    2010.    1113.     765.     132.     447.      226.     166.     105.      26.    694.70
      .45     2.49      3.38     .79     .040      .045     .150     .047   691.20    309.71
 .001110      25.       25.      25.        2         0        0     0.00   236.09    545.80

CCHV=    .100 CEHV=    .300
*SECNO 14100.000
 2800 NAT Q1=    213.31  WSEL=    699.42  ENC Q1=    213.31  WSEL=    699.52  RATIO=  0.0000
 NAT Q1=    227.  RATIOS LOB,CH,ROB=   .2313   .7599   .0087  WSEL=    699.52

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     261.1     440.0  TYPE=     4  TARGET=        .059

          ****  G  ****

 14100.00     7.58    699.48    699.48    699.42    700.51     1.03      .49      .27    699.50
    2010.     383.     1627.       0.      106.      183.       0.     108.      27.    697.00
      .45     3.62      8.99     0.00     .040      .045     .150     .047   691.90    261.14
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 .009963      250.      169.      100.       20        5        0     0.00    152.20    440.00

*SECNO 14500.000
 2800 NAT Q1=     562.65  WSEL=     701.18  ENC Q1=     562.65  WSEL=     701.28  RATIO=  -.0000
 NAT Q1=    590.  RATIOS LOB,CH,ROB=    .4228    .5608    .0164  WSEL=     701.28

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     92.5     316.0  TYPE=     4  TARGET=      .047

          D/S OF FOOTBRIDGE NO. 2

 14500.00      9.56    701.36      0.00    701.18    701.51       .15       .92       .09    699.10
     1900.      840.     1060.        0.      397.      286.        0.      111.       28.    696.20
       .49      2.12      3.71      0.00      .040      .045      .150      .047    691.80     92.49
  .001153      310.      365.      378.         2         0         0      0.00    223.50    316.00

CCHV=    .300 CFHV=    .500
*SECNO 14594.000
 2800 NAT Q1=     220.77  WSEL=     701.07  ENC Q1=     220.77  WSEL=     701.17  RATIO=  0.0000
 NAT Q1=    235.  RATIOS LOB,CH,ROB=    .2441    .7470    .0090  WSEL=     701.17

3265 DIVIDED FLOW

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     TTRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS=     260.3     440.0  TYPE=     4  TARGET=      .060
 14594.00      7.75    701.25      0.00    701.07    702.01       .76       .19       .31    701.10
     1900.      433.     1467.        0.      127.      189.        0.      112.       29.    698.60
       .49      3.40      7.75      0.00      .040      .045      .150      .047    693.50    260.33
  .007293       80.       80.       80.         3         0         0      0.00    159.32    440.00

SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.54      2.60      0.00     32.00      0.00    243.00      0.00    693.50    693.50

*SECNO 14606.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS=   702.710  EGLWC=   702.489  ELLC=   702.200  PCWSE=   701.248  ELTRD=   699.800
 2800 NAT Q1=     309.36  WSEL=     701.63  ENC Q1=     309.36  WSEL=     701.73  RATIO=  -.0000
 NAT Q1=    329.  RATIOS LOB,CH,ROB=    .3563    .6327    .0110  WSEL=     701.73
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=     251.3     440.0  TYPE=     4  TARGET=      .058
 14606.00      8.30    701.80      0.00    701.63    702.20       .40       .06       .11    701.10
     1900.      670.     1230.        0.      219.      209.        0.      112.       29.    698.60
       .49      3.06      5.88      0.00      .040      .045      .150      .047    693.50    251.25
  .003738       12.       12.       12.         0         0         0      0.00    188.75    440.00
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*SECNO 14621.000
 2800 NAT Q1=     136.29  WSEL=     701.03  ENC Q1=     140.12  WSEL=     701.13  RATIO=  -.0261
 NAT Q1=    140.  RATIOS LOB,CH,ROB=   .0001   .9970   .0021  WSEL=     701.13

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      81.0      120.0  TYPE=      4  TARGET=        .002

          U/S OF FOOTBRIDGE NO. 2

 14621.00      7.78    701.18      0.00    701.03    703.18      2.01       .18       .81    702.50
    1900.        0.     1900.        0.        0.      167.        0.      113.       29.    700.00
      .49      0.00     11.37      0.00      .040      .045      .150      .047    693.40     85.29
 .018590       25.       25.       25.         3         0         0      0.00     34.71    120.00

CCHV=    .100 CEHV=    .300
*SECNO 15100.000
 2800 NAT Q1=     593.05  WSEL=     704.35  ENC Q1=     593.05  WSEL=     704.45  RATIO=  0.0000
 NAT Q1=    616.  RATIOS LOB,CH,ROB=   .4339   .4824   .0838  WSEL=     704.45

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     102.3      251.4  TYPE=      4  TARGET=        .037
 15100.00     10.37    704.37      0.00    704.35    704.55       .18      1.19       .18    698.30
    1900.      812.      962.      125.      293.      237.      150.      116.       30.    699.70
      .53      2.78      4.05       .83      .040      .045      .150      .047    694.00    102.33
 .001084      250.      467.      520.         3         0         0      0.00    149.03    251.35

CCHV=    .600 CEHV=    .800
*SECNO 15150.000
 2800 NAT Q1=     441.07  WSEL=     704.39  ENC Q1=     441.07  WSEL=     704.49  RATIO=  0.0000
 NAT Q1=    458.  RATIOS LOB,CH,ROB=   .3025   .6600   .0376  WSEL=     704.49

3470 ENCROACHMENT STATIONS=      11.7      132.0  TYPE=      4  TARGET=        .038

          ****  H  ****  D/S OF SHIAWASSEE ROAD BRIDGE

 15150.00     10.11    704.41      0.00    704.39    704.73       .31       .07       .10    702.50
    1900.      546.     1317.       38.      177.      264.       42.      117.       30.    700.00
      .53      3.09      4.99       .89      .040      .045      .150      .047    694.30     11.69
 .001966       40.       50.       60.         2         0         0      0.00    120.34    132.03

*SECNO 15214.000
 2800 NAT Q1=     189.15  WSEL=     704.38  ENC Q1=     192.07  WSEL=     704.48  RATIO=  -.0154
 NAT Q1=    192.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     704.48

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=      70.0       92.0  TYPE=      4  TARGET=       0.000
 15214.00      9.82    704.42      0.00    704.38    705.90      1.48       .24       .93    709.30
    1900.        0.     1900.        0.        0.      195.        0.      118.       30.    709.30
      .53      0.00      9.76      0.00      .040      .045      .150      .047    694.60     70.00
 .009962       64.       64.       64.         2         0         0      0.00     22.00     92.00
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SPECIAL BRIDGE

SB  XK        XKOR      COEQ      BOLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.57      2.60      0.00     21.00      0.00    206.00      0.00    694.30    694.30

*SECNO 15246.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   706.496  EGLWC=   706.530  ELLC=   705.600  PCWSE=   704.422  ELTRD=   707.000
 2800 NAT Q1=    213.55  WSEL=    705.21  ENC Q1=    216.50  WSEL=    705.31  RATIO=  -.0138
 NAT Q1=    217.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    705.31
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      70.0      92.0  TYPE=     4  TARGET=      0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      709.30 ELREA=      709.30

 15246.00    10.65   705.25     0.00   705.21   706.49     1.24      .28      .14   709.30
    1900.       0.    1900.       0.       0.     213.       0.     118.      30.   709.30
      .53     0.00     8.93     0.00     .040     .045     .150     .047   694.60    70.00
  .007828      32.      32.      32.        0        0        0     0.00    22.00    92.00

*SECNO 15271.000
 2800 NAT Q1=    103.96  WSEL=    705.79  ENC Q1=    105.26  WSEL=    705.89  RATIO=  -.0125
 NAT Q1=    105.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    705.89

3470 ENCROACHMENT STATIONS=      70.0      92.0  TYPE=     4  TARGET=      0.000

          U/S OF SHIAWASSEE ROAD BRIDGE

 15271.00    11.22   705.82     0.00   705.79   706.92     1.10      .35      .08   709.30
    1900.       0.    1900.       0.       0.     225.       0.     118.      30.   709.30
      .53     0.00     8.43     0.00     .070     .100     .150     .047   694.60    70.00
  .033182      25.      25.      25.        2        0        0     0.00    22.00    92.00

*SECNO 15296.000
 2800 NAT Q1=    869.59  WSEL=    707.39  ENC Q1=    869.59  WSEL=    707.49  RATIO=  0.0000
 NAT Q1=    889.  RATIOS LOB,CH,ROB=   .2115   .7817   .0068  WSEL=    707.49

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      30.5     150.0  TYPE=     4  TARGET=      .022
 15296.00    12.31   707.41     0.00   707.39   707.55      .13      .04      .58   701.50
    1900.     393.    1507.       0.     299.     469.       0.     118.      30.   703.00
      .53     1.32     3.21     0.00     .070     .045     .150     .047   695.10    30.50
  .000541      25.      25.      25.        3        0        0     0.00   119.50   150.00

CCHV=    .100 CEHV=    .300
*SECNO 15780.000
 2800 NAT Q1=    204.70  WSEL=    707.05  ENC Q1=    204.70  WSEL=    707.15  RATIO=  0.0000
 NAT Q1=    211.  RATIOS LOB,CH,ROB=   .0427   .9429   .0143  WSEL=    707.15

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     345.2     380.1  TYPE=     4  TARGET=      .028
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15780.00      6.97    707.07      0.00    707.05    708.04      1.57       .66       .43    702.00
    1900.       58.      1442.       0.       17.      160.       0.      124.       31.    702.60
      .56      3.42     10.20       .17      .070      .045      .150      .047    700.10    345.22
  .009011      535.      465.      455.         4         0         0      0.00     34.85    380.08

CCHV=    .300 CEHV=    .500
*SECNO 16070.000
 2800 NAT Q1=     313.09  WSEL=     709.86  ENC Q1=     313.09  WSEL=     709.96  RATIO=  -.0000
 NAT Q1=     326.  RATIOS LOB,CH,ROB=    .2076    .6945    .0978  WSEL=     709.96
3280 CROSS SECTION  16070.00 EXTENDED        .00 FEET


3301 HV CHANGED MORE THAN HVINS

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


3470 ENCROACHMENT STATIONS=     398.7     514.1  TYPE=     4  TARGET=        .040
 16070.00      6.89    709.99      0.00    709.86    710.49       .49      1.52       .32    706.40
    1900.      377.     1370.      153.      153.      211.      107.      126.       31.    704.60
      .56      2.47      6.48      1.44      .070      .045      .150      .047    703.10    398.67
  .003587      219.      290.      300.         2         0         0      0.00    115.45    514.12

CCHV=    .300 CEHV=    .500
*SECNO 16120.000
 2800 NAT Q1=     161.26  WSEL=     710.15  ENC Q1=     161.26  WSEL=     710.25  RATIO=  0.0000
 NAT Q1=     167.  RATIOS LOB,CH,ROB=    .1481    .8519  0.0000  WSEL=     710.25

3301 HV CHANGED MORE THAN HVINS

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


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     390.5     438.0  TYPE=     4  TARGET=        .036

          **** J **** D/S OF ABANDONED FARMINGTON RD BRIDGE

709.1
 16120.00      6.46    709.76    709.76    710.15    711.80      2.04       .35       ~~.31~~    707.40
    1900.     (177.)    1723.       0.       42.      144.       0.      126.       31.    716.00
      .56      4.23     11.96      0.00     (.070)     .045      .150      .047    703.30    390.50
  .015865       50.       50.       50.         4        11         0      0.00     47.50    438.00

*SECNO 16153.000
 2800 NAT Q1=     147.60  WSEL=     710.82  ENC Q1=     147.60  WSEL=     710.92  RATIO=  0.0000
 NAT Q1=     152.  RATIOS LOB,CH,ROB=    .1258    .8742  0.0000  WSEL=     710.92

3265 DIVIDED FLOW

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

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7185 MIN[illegible]M SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     326.0      428.0  TYPE=     4  TARGET=      .030
 16153.00      7.36    710.66    710.66    710.82    712.70     2.05       .67       .00    717.80
    1900.      155.     1745.        0.       41.       146.       0.      126.       31.    717.80
      .56      3.76     11.93      0.00      .070      .045     .150      .047    703.30    326.00
  .019216       35.       35.       35.         2         8        0      0.00     49.07    428.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS       ELCHU     ELCHD
     0.00      1.50      2.50      0.00     20.00      0.00     205.00     0.00     705.30    705.30

*SECNO 16185.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   714.876  ELLC=   715.600  PCWSE=   710.656  ELTRD=   709.100
 2800 NAT Q1=    225.33  WSEL=    712.73  ENC Q1=    225.33  WSEL=    712.83  RATIO=  0.0000
 NAT Q1=    234.  RATIOS LOB,CH,ROB=   .3808   .6192  0.0000  WSEL=    712.83
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     274.4      428.0  TYPE=     4  TARGET=      .035
 16185.00      9.26    712.56      0.00    712.73    713.20      .64       .29       .42    717.80
    1900.      525.     1375.        0.      170.      188.       0.      126.       31.    717.80
      .57      3.08      7.31      0.00      .070      .045     .150      .047    703.30    274.40
  .005918       30.       30.       30.         0         0        0      0.00    101.99    428.00

*SECNO 16216.000
 2800 NAT Q1=    435.44  WSEL=    713.18  ENC Q1=    435.44  WSEL=    713.28  RATIO=  0.0000
 NAT Q1=    448.  RATIOS LOB,CH,ROB=   .4191   .5809  0.0000  WSEL=    713.28

3470 ENCROACHMENT STATIONS=     337.2      438.0  TYPE=     4  TARGET=      .027

          U/S OF ABANDONED FARMINGTON ROAD BRIDGE

 16216.00      9.84    713.14      0.00    713.18    713.41      .27       .10       .11    707.40
    1900.      752.     1148.        0.      308.      229.       0.      127.       32.    716.00
      .57      2.45      5.02      0.00      .070      .045     .150      .047    703.30    337.17
  .002032       31.       31.       31.         2         0        0      0.00    100.83    438.00

CCHV=    .100 CEHV=    .300
*SECNO 16750.000
 2800 NAT Q1=    424.78  WSEL=    714.18  ENC Q1=    424.78  WSEL=    714.28  RATIO=  0.0000
 NAT Q1=    444.  RATIOS LOB,CH,ROB=   .4364   .5199   .0437  WSEL=    714.28
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     198.4      356.7  TYPE=     4  TARGET=      .043

          **** K ****
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16750.00     7.81   711.21     0.00   711.18   714.47      .27     1.06      .00   710.00
    1900.     818.     1340.      42.      382.      196.      39.      133.      33.    709.20
      .63     2.14     5.26     1.07      .070      .045     .150      .047   706.40   198.44
  .002110     480.     534.     540.         2         0        0     0.00   158.23   356.67
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*SECNO 17200.000
 2800 NAT Q1=     312.10  WSEL=    715.26  ENC Q1=     312.10  WSEL=    715.36  RATIO=  0.0000
 NAT Q1=     326.  RATIOS LOB,CH,ROB=    .4239    .4669    .1092  WSEL=    715.36

3470 ENCROACHMENT STATIONS=     344.3     463.5  TYPE=     4  TARGET=      .044
 17200.00     7.22   715.32     0.00   715.26   715.67      .35     1.17      .02   712.70
    1900.     797.     931.     172.      252.      154.     115.      139.      34.    712.10
      .63     3.16     6.06     1.50      .070      .045     .150      .047   708.10   344.34
  .003829     380.     450.     480.         2         0        0     0.00   119.12   463.45
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*SECNO 17780.000
 2800 NAT Q1=     274.23  WSEL=    717.16  ENC Q1=     274.23  WSEL=    717.26  RATIO=  -.0000
 NAT Q1=     289.  RATIOS LOB,CH,ROB=    .5152    .4789    .0059  WSEL=    717.26

3470 ENCROACHMENT STATIONS=     161.8     308.0  TYPE=     4  TARGET=      .052

          ****  L  ****

 17780.00     5.21   717.31     0.00   717.16   717.64      .33     1.97      .00   714.50
    1900.     965.     935.       0.      324.      160.       0.      143.      36.    715.00
      .66     2.98     5.84     0.00      .070      .045     .150      .047   712.10   161.79
  .004799     360.     580.     180.         2         0        0     0.00   146.21   308.00
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inc > allowable
refer natural

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*SECNO 17938.000
 2800 NAT Q1=     147.02  WSEL=    718.16  ENC Q1=     147.02  WSEL=    718.26  RATIO=  -.0000
 NAT Q1=     154.  RATIOS LOB,CH,ROB=    .1377    .6898    .1725  WSEL=    718.26

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     220.7     300.5  TYPE=     4  TARGET=      .046
 17938.00     5.08   718.08   718.08   718.16   719.76     1.67     1.15      .40   714.90
    1900.     221.     1388.     291.       40.      117.     107.      145.      34.    714.90
      .66     5.52    11.87     2.73      .070      .045     .150      .047   713.00   220.66
  .019627     120.     138.     160.        20         8        0     0.00    79.86   300.52
```

```
*SECNO 18322.000
 2800 NAT Q1=     364.24  WSEL=    721.73  ENC Q1=     364.24  WSEL=    721.83  RATIO=  0.0000
 NAT Q1=     390.  RATIOS LOB,CH,ROB=    .7008    .2410    .0582  WSEL=    721.83

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     203.3     568.1  TYPE=     4  TARGET=      .065
```

CITY LIMITS

```
 18322.00     6.81   721.91     0.00   721.73   722.03      .12     2.12      .16   719.20
```

1.00.	1370.	478.	52.	744.	104.	62.	150.	38.	719.30
.71	1.84	4.60	.84	.070	.045	.150	.047	715.10	203.34
.00246	418.	384.	350.	3	0	0	0.00	364.72	568.06

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER ROUGE RIVER

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

THIS RUN EXECUTED 04 MAY 78 04:56.38

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

C
T1                FARMINGTON FLOOD INSURANCE STUDY
T2       100 YEAR NATURAL CHANNEL - Upper Rouge
T3                CITY OF FARMINGTON

J1  ICHECK    ING      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
     0.       2.       0.       0.   0.000000     0.00     0.0      0.    675.900   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

   38.000   39.000   40.000   41.000   42.000   43.000    1.000    4.000   27.000   28.000

  200.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC     .150     .150     .045     .100     .300    0.000    0.000    0.000    0.000    0.000
QT    2.000 2010.000 2010.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
ET    0.000    0.000    1.400    0.000    0.000    0.000    0.000    0.000    0.000    0.000

          CITY LIMITS
X1   8511.000   14.000  530.000  557.000    0.000    0.000    0.000    0.000    0.000    0.000
GR    695.000    0.000  690.000   40.000  685.000   75.000  680.000  115.000  675.000  150.000
GR    671.000  530.000  667.800  533.000  667.500  541.000  667.900  549.000  671.200  557.000
GR    675.000  665.000  680.000  809.000  685.000  878.000  690.000 1010.000    0.000    0.000

          ****  A  ****
X1   8940.000   23.000  167.000  200.000  460.000  300.000  429.000    0.000    0.000    0.000
GR    681.500    0.000  679.600   10.000  677.500   30.000  676.500   40.000  676.000   50.000
GR    674.900  100.000  675.000  150.000  673.000  167.000  670.000  170.000  669.500  171.000
GR    669.400  180.000  669.400  186.000  673.000  200.000  674.000  210.000  674.800  250.000
GR    674.000  300.000  677.900  350.000  672.800  400.000  671.900  450.000  672.000  500.000
GR    671.600  550.000  672.000  560.000  681.500  590.000    0.000    0.000    0.000    0.000

X1   9760.000   14.000  329.000  354.000  480.000  920.000  820.000    0.000    0.000    0.000
GR    695.000    0.000  690.000   70.000  685.000  100.000  680.000  240.000  675.000  286.000
GR    674.500  329.000  673.400  331.000  672.700  340.000  673.400  347.000  674.800  354.000
GR    675.000  445.000  680.000  525.000  685.000  590.000  690.000  620.000    0.000    0.000

X1  10300.000   14.000  200.000  230.000  400.000  440.000  540.000    0.000    0.000    0.000
GR    700.000    0.000  695.000   79.000  690.000  103.000  685.500  131.000  680.000  156.000
GR    678.200  190.000  677.400  200.000  675.800  202.000  675.300  210.000  676.900  220.00
GR    679.400  230.000  680.000  360.000  685.000  573.000  690.000  602.000    0.000    0.
```

RECEIVED
JUN 28 1978
WATER MANAGEMENT

**** B ****

X1	10680.000	16.000	210.000	240.000	400.000	330.000	380.000	0.000	0.000	0.000
GR	686.200	0.000	684.800	10.000	679.000	30.000	679.700	80.000	679.600	130.000
GR	679.400	180.000	679.200	203.000	678.600	210.000	677.000	212.000	676.500	215.000
GR	676.500	220.000	677.000	230.000	680.600	240.000	683.800	380.000	683.500	390.000
GR	686.900	410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10800.000	13.000	140.000	160.000	105.000	120.000	120.000	0.000	0.000	0.000
GR	695.000	0.000	690.000	10.000	685.500	22.000	680.000	88.000	679.000	140.000
GR	677.400	142.000	676.900	148.000	677.400	156.000	679.800	160.000	680.000	167.000
GR	685.000	308.000	690.000	340.000	695.000	417.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

**** C **** D/S OF GRAND RIVER AVE BRIDGE

X1	10900.000	16.000	49.000	77.000	65.000	165.000	100.000	0.000	0.000	0.000
GR	681.000	0.000	681.000	40.000	680.500	49.000	677.700	52.000	677.200	60.000
GR	677.600	70.000	680.400	77.000	680.500	110.000	682.000	160.000	681.400	210.000
GR	681.500	260.000	682.000	290.000	681.500	300.000	682.000	310.000	686.000	330.000
GR	688.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10941.000	13.000	190.000	215.000	41.000	41.000	41.000	0.000	0.000	0.000
GR	695.500	0.000	695.500	190.000	678.000	190.000	677.600	192.000	677.600	196.000
GR	677.600	200.000	677.600	202.500	677.600	205.000	677.600	209.000	677.600	213.000
GR	678.000	215.000	695.500	215.000	700.000	574.000	0.000	0.000	0.000	0.000
SR	0.000	1.660	2.600	0.000	20.000	0.000	211.000	0.000	679.200	679.200
X1	10999.000	0.000	0.000	0.000	58.000	58.000	58.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	689.800	695.500	0.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	695.500	695.500	190.000	695.500	678.000	192.000	695.500	684.000
BT	196.000	695.500	687.900	200.000	695.500	689.500	202.500	695.500	689.800	205.000
BT	695.500	689.500	209.000	695.500	687.900	213.000	695.500	684.000	215.000	695.500
BT	678.000	574.000	700.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF GRAND RIVER AVE BRIDGE

X1	11040.000	14.000	92.000	112.000	57.000	15.000	41.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	678.600	95.000
GR	678.000	102.000	679.800	112.000	679.100	122.000	681.600	132.000	690.000	142.000
GR	695.600	147.000	689.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
X1	11440.000	14.000	92.000	112.000	500.000	400.000	400.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	679.800	95.000
GR	678.600	102.000	681.000	112.000	680.300	122.000	685.000	132.000	690.500	142.000
GR	695.600	147.000	698.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** D ****

X1	11860.000	14.000	92.000	112.000	680.000	570.000	649.000	0.000	0.000	0.000
GR	700.000	0.000	686.500	27.000	686.500	82.000	683.500	92.000	682.000	95.000
GR	680.800	102.000	683.200	112.000	682.500	122.000	685.000	132.000	690.500	142.000
GR	695.600	147.000	698.300	163.000	700.500	169.000	701.000	182.000	0.000	0.000
X1	12100.000	12.000	375.000	400.000	290.000	180.000	240.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	60.000	690.000	310.000	685.000	361.000	684.700	375.000
GR	687.400	378.000	683.300	385.000	684.400	400.000	685.000	423.000	690.000	489.000

GR	700.000	0.000	695.000	50.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	683.400	378.000	682.200	385.000	684.400	400.000	685.000	423.000	690.000	489.000
GR	6[illegible]000	519.000	700.000	554.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12180.000	12.000	388.000	408.000	80.000	120.000	80.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	90.000	690.000	322.000	685.000	374.000	685.000	388.000
GR	683.900	392.000	682.700	399.000	684.900	408.000	685.000	429.000	690.000	582.000
GR	695.000	615.000	700.000	655.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.150	.045	.600	.800	0.000	0.000	0.000	0.000	0.000
X1	12330.000	14.000	500.000	520.000	190.000	135.000	150.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	55.000	695.000	102.000	690.000	478.000	685.000	493.000
GR	684.500	500.000	683.500	503.000	683.000	510.000	684.500	520.000	685.000	545.000
GR	690.000	590.000	695.000	630.000	700.000	655.000	705.000	705.000	0.000	0.000

**** E **** D/S OF POWERS AVE BRIDGE

X1	12410.000	15.000	195.000	230.000	80.000	55.000	80.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	695.000	0.000	692.100	20.000	693.100	70.000	693.100	120.000	691.000	170.000
GR	688.600	195.000	684.600	204.000	684.000	210.000	684.600	222.000	687.000	230.000
GR	691.000	240.000	691.100	250.000	690.500	260.000	690.000	288.000	700.000	308.000
X1	12427.000	14.000	490.000	513.000	17.000	17.000	17.000	0.000	0.000	0.000
GR	700.000	0.000	698.200	490.000	685.100	490.000	685.100	492.000	685.100	496.000
GR	685.100	500.000	685.100	501.500	685.100	503.000	685.100	507.000	685.100	511.000
GR	685.100	513.000	698.200	513.000	700.000	591.000	705.000	661.000	0.000	0.000
SB	0.000	1.630	3.100	0.000	16.000	0.000	176.000	0.000	683.600	683.600
X1	12473.000	0.000	0.000	0.000	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	694.600	698.200	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
BT	12.000	0.000	700.000	700.000	490.000	698.200	685.100	492.000	698.200	689.700
BT	496.000	698.200	693.300	500.000	698.200	694.000	501.500	698.200	694.100	503.000
BT	698.200	694.000	507.000	698.200	693.300	511.000	698.200	689.700	513.000	698.200
BT	685.100	591.000	700.000	700.000	661.000	705.000	705.000	0.000	0.000	0.000

U/S OF POWERS AVE BRIDGE

X1	12500.000	11.000	69.000	99.000	27.000	27.000	27.000	0.000	0.000	0.000
GR	698.300	0.000	695.000	30.000	690.000	52.000	686.600	69.000	685.800	77.000
GR	685.200	82.000	685.800	92.000	685.800	99.000	694.600	99.000	695.000	128.000
GR	698.200	140.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.150	.045	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	12905.000	10.000	513.000	533.000	375.000	421.000	405.000	0.000	0.000	0.000
GR	700.000	0.000	695.000	45.000	690.000	475.000	689.500	513.000	686.300	522.000
GR	686.300	528.000	690.000	533.000	695.000	543.000	700.000	547.000	705.000	552.000
X1	13150.000	13.000	510.000	529.000	174.000	240.000	245.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	42.000	700.000	170.000	700.000	229.000	695.000	270.000
GR	690.200	510.000	687.000	519.000	687.000	524.000	690.700	529.000	695.000	606.000
GR	700.000	620.000	705.000	645.000	715.000	729.000	0.000	0.000	0.000	0.000
X1	13275.000	13.000	404.000	424.000	120.000	218.000	260.000	0.000	0.000	0.000
GR	710.000	0.000	705.000	36.000	700.000	65.000	700.000	270.000	695.000	312.000
GR	690.500	404.000	687.300	413.000	687.300	418.000	691.000	424.000	695.000	478.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000

*** F ****

X1	13650.000	18.000	289.000	333.000	170.000	210.000	375.000	0.000	0.000	0.000
GR	700.800	0.000	699.500	8.000	698.300	60.000	698.200	160.000	697.500	210.000
GR	697.300	289.000	688.300	309.000	688.300	320.000	689.800	329.000	690.900	331.000
GR	693.200	333.000	695.300	359.000	694.300	410.000	696.800	460.000	696.500	510.000
GR	697.400	540.000	699.300	560.000	701.700	570.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 1

X1	13800.000	14.000	450.000	475.000	180.000	60.000	85.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	20.000	705.000	32.000	700.000	60.000	695.000	440.000
GR	695.000	450.000	689.600	460.000	689.600	465.000	691.200	470.000	694.600	475.000
GR	695.000	583.000	700.000	625.000	705.000	646.000	715.000	670.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	13894.000	13.000	407.000	437.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	700.800	0.000	699.500	10.000	698.300	60.000	698.200	160.000	697.500	240.000
GR	697.300	400.000	694.400	407.000	693.000	409.000	691.600	422.000	693.400	436.000
GR	694.700	437.000	695.000	494.000	700.000	544.000	0.000	0.000	0.000	0.000
SB	0.000	1.540	2.600	0.000	27.000	0.000	185.000	0.000	691.600	691.600

X1	13906.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	698.400	697.300	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	0.000	0.000	0.000
BT	10.000	0.000	700.800	700.800	10.000	699.500	699.500	60.000	698.300	698.300
BT	160.000	698.200	698.200	240.000	697.500	697.500	400.000	697.300	697.300	407.000
BT	699.700	698.400	437.000	699.700	698.400	494.000	695.000	695.000	544.000	700.000
BT	700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF FOOTBRIDGE NO. 1

X1	13931.000	15.000	465.000	505.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	715.000	0.000	710.000	11.000	705.000	30.000	700.000	79.000	695.000	450.000
GR	698.400	465.000	693.400	475.000	691.900	485.000	691.200	492.000	692.900	501.000
GR	694.700	505.000	695.000	555.000	700.000	580.000	705.000	605.000	715.000	621.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

**** G ****

X1	14100.000	19.000	404.000	440.000	250.000	100.000	169.000	0.000	0.000	0.000
GR	704.100	0.000	701.800	50.000	700.600	100.000	700.600	150.000	700.800	200.000
GR	698.200	250.000	698.400	300.000	698.600	350.000	700.200	400.000	699.500	404.000
GR	695.600	410.000	693.400	420.000	691.900	430.000	693.300	434.000	697.000	440.000
GR	699.000	450.000	701.500	460.000	703.300	470.000	705.100	480.000	0.000	0.000
QT	2.000	1900.000	1900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D/S OF FOOTBRIDGE NO. 2

X1	14500.000	19.000	278.000	316.000	310.000	378.000	365.000	0.000	0.000	0.000
GR	704.000	0.000	701.800	1.000	700.900	52.000	700.100	72.000	699.700	100.000
GR	698.900	120.000	699.000	220.000	699.500	240.000	700.200	268.000	699.100	278.000
GR	694.200	288.500	692.200	290.000	691.800	300.500	692.200	310.000	695.000	311.000
GR	696.200	316.000	698.000	325.000	700.800	326.000	704.000	330.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	14594.000	19.000	404.000	440.000	80.000	80.000	80.000	0.000	0.000	0.000

GR	705.700	0.000	703.400	50.000	702.200	100.000	702.200	150.000	702.400	200.000
GR	699.800	250.000	700.000	300.000	700.200	350.000	701.800	400.000	701.100	404.000
GR	69[illegible].000	410.000	695.000	420.000	693.500	430.000	694.900	434.000	698.600	440.00[illegible]
GR	700.600	450.000	703.100	460.000	704.900	470.000	706.700	480.000	0.000	0.000
SB	0.000	1.540	2.600	0.000	32.000	0.000	243.000	0.000	693.500	693.500
X1	14606.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	702.200	699.800	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	0.000	0.000	0.000
BT	1[illegible].000	0.000	705.700	705.700	50.000	703.400	703.400	100.000	702.200	702.200
BT	150.000	702.200	702.200	200.000	702.400	702.400	250.000	699.800	699.800	300.000
BT	700.000	700.000	350.000	700.200	700.200	400.000	701.800	701.800	404.000	703.500
BT	702.200	410.000	703.500	702.200	420.000	703.500	702.200	430.000	703.500	702.200
BT	434.000	703.500	702.200	440.000	703.500	702.200	450.000	703.500	702.200	460.000
BT	703.500	703.500	470.000	704.900	704.900	480.000	706.700	706.700	0.000	0.000

U/S OF FOOTBRIDGE NO. 2

X1	14621.000	18.000	81.000	120.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	706.550	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	695.000	95.000
GR	694.500	103.000	693.400	105.000	694.500	108.000	695.000	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.550	205.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	15100.000	10.000	187.000	217.000	250.000	520.000	467.000	0.000	0.000	0.000
GR	705.000	0.000	700.000	180.000	698.300	187.000	695.400	188.000	694.000	192.000
GR	694.900	197.000	699.700	217.000	700.000	242.000	705.000	302.000	715.000	317.000
NC	0.000	0.000	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000

**** H **** D/S OF SHIAWASSEE ROAD BRIDGE

X1	15150.000	18.000	81.000	120.000	40.000	60.000	50.000	0.000	0.000	0.000
GR	706.500	0.000	704.100	1.000	701.100	15.000	701.100	25.000	701.300	35.000
GR	702.000	45.000	702.500	65.000	702.500	81.000	698.500	94.000	697.400	95.000
GR	694.500	103.000	694.300	105.000	694.500	108.000	697.300	115.000	700.000	120.000
GR	702.200	135.000	704.600	185.000	706.500	205.000	0.000	0.000	0.000	0.000
X1	15214.000	10.000	70.000	92.000	64.000	64.000	64.000	0.000	0.000	0.000
GR	707.000	0.000	709.300	70.000	696.200	70.000	695.600	75.000	695.200	80.000
GR	694.600	83.000	695.600	87.000	696.800	92.000	709.300	92.000	715.000	187.000
SB	0.000	1.570	2.600	0.000	21.000	0.000	206.000	0.000	694.300	694.300
X1	15246.000	0.000	0.000	0.000	32.000	32.000	32.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	705.600	707.000	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
BT	4.000	0.000	707.000	707.000	70.000	709.300	705.600	92.000	709.300	705.600
BT	185.000	715.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	0.000	.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S OF SHIAWASSEE ROAD BRIDGE

X1	15271.000	10.000	70.000	92.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	707.000	0.000	709.300	70.000	696.200	70.000	695.600	75.000	695.200	80.000
GR	694.600	83.000	695.600	87.000	696.800	92.000	709.300	92.000	715.000	187.000
NC	0.000	0.000	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15296.000	15.000	103.000	150.000	25.000	25.000	25.000	0.000	0.000	0.000

GR	715.000	0.000	706.500	1.000	704.500	50.000	702.200	80.000	701.900	90.000
GR	70[illegible].500	103.000	697.000	110.000	695.100	120.000	695.600	122.000	695.300	130.000
GR	69[illegible].000	132.000	697.500	140.000	703.000	150.000	706.100	160.000	715.000	190.00[illegible]
NC	.070	.150	.045	.100	.300	0.000	0.000	0.000	0.000	0.000

**** I ****

X1	15780.000	23.000	350.000	380.000	535.000	455.000	465.000	0.000	0.000	0.000
GR	714.500	0.000	713.000	71.000	712.000	100.000	711.000	120.000	708.600	170.000
GR	709.000	190.000	710.900	220.000	711.500	240.000	709.500	290.000	707.200	320.000
GR	706.900	330.000	706.400	343.000	702.000	350.000	700.100	360.000	700.600	362.000
GR	700.100	370.000	701.400	372.000	702.600	380.000	708.000	390.000	711.100	400.000
GR	712.500	410.000	713.500	420.000	715.000	430.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

X1	16070.000	11.000	453.000	488.000	219.000	300.000	290.000	0.000	0.000	0.000
GR	720.000	0.000	715.000	158.000	710.000	330.000	706.400	453.000	704.300	460.000
GR	703.100	470.000	703.600	472.000	703.100	480.000	704.600	488.000	705.600	496.000
GR	710.000	554.000	715.000	576.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000

**** J **** D/S OF ABANDONED FARMINGTON RD BRIDGE

X1	16120.000	23.000	413.000	438.000	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	460.000	0.000	0.000	0.000
GR	720.500	0.000	716.200	60.000	715.200	110.000	713.600	165.000	714.000	198.000
GR	714.000	210.000	714.100	295.000	711.000	334.000	710.200	350.000	707.400	413.000
GR	704.500	413.000	704.500	414.000	704.300	416.000	704.200	419.000	704.100	421.000
GR	703.900	422.000	703.300	425.000	703.600	429.000	704.200	432.000	704.200	438.000
GR	716.000	438.000	717.800	447.000	720.000	546.000	0.000	0.000	0.000	0.000

X1	16153.000	24.000	406.000	428.000	35.000	35.000	35.000	0.000	0.000	0.000
GR	720.000	0.000	716.200	54.000	715.200	104.000	713.600	159.000	714.000	193.000
GR	712.100	204.000	712.200	289.000	709.100	326.000	709.100	352.000	717.800	358.000
GR	717.800	406.000	704.500	408.000	704.300	408.000	704.200	411.000	703.900	414.000
GR	703.300	417.000	703.700	420.000	704.300	423.000	704.200	426.000	704.200	428.000
GR	717.800	428.000	717.800	438.000	717.800	446.000	720.000	546.000	0.000	0.000
SB	0.000	1.500	2.500	0.000	20.000	0.000	205.000	0.000	705.300	705.300

X1	16185.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	715.600	709.100	0.000	0.000	0.000	0.000	0.000
BT	22.000	0.000	720.000	720.000	54.000	716.200	716.200	104.000	715.200	715.200
BT	159.000	713.600	713.600	193.000	714.000	714.000	204.000	712.100	712.100	289.000
BT	712.200	712.200	326.000	709.100	709.100	352.000	709.100	709.100	358.000	717.800
BT	717.800	406.000	717.800	708.100	408.000	717.800	711.500	411.000	717.800	714.000
BT	414.000	717.800	715.300	417.000	717.800	715.600	420.000	717.800	715.300	423.000
BT	717.800	714.000	426.000	717.800	711.500	428.000	717.800	708.100	438.000	717.800
BT	717.800	446.000	717.800	717.800	546.000	720.000	720.000	0.000	0.000	0.000

U/S OF ABANDONED FARMINGTON ROAD BRIDGE

X1	16216.000	23.000	413.000	438.000	31.000	31.000	31.000	0.000	0.000	0.000
GR	720.500	0.000	716.200	60.000	715.200	110.000	713.600	165.000	714.000	198.000
GR	714.000	210.000	714.100	295.000	711.000	334.000	710.200	350.000	707.400	413.000
GR	704.500	413.000	704.500	414.000	704.300	416.000	704.200	419.000	704.100	421.000
GR	703.900	422.000	703.300	425.000	703.600	429.000	704.200	432.000	704.200	438.000
GR	716.000	438.000	717.800	447.000	720.000	546.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

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X1	1675[illegible]00	18.000	318.000	347.000	480.000	540.000	534.000	0.000	0.000	0.00[illegible]
GR	724.000	0.000	717.500	40.000	715.200	70.000	713.200	120.000	714.200	170.000
GR	715.000	187.000	712.000	200.000	710.800	270.000	710.000	318.000	708.200	318.800
GR	707.400	320.800	706.400	332.000	707.500	340.000	709.200	347.000	710.800	355.000
GR	713.100	380.000	715.500	400.000	720.000	420.000	0.000	0.000	0.000	0.000
X1	17200.000	14.000	409.000	437.000	380.000	480.000	450.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	20.000	715.000	301.000	710.000	402.000	712.700	409.000
GR	710.800	410.000	710.200	412.000	708.100	424.000	710.200	430.000	712.100	437.000
GR	710.000	448.000	715.000	489.000	720.000	504.000	725.000	523.000	0.000	0.000

**** L ****

X1	17780.000	21.000	272.000	308.000	360.000	180.000	580.000	0.000	0.000	0.000
GR	725.000	0.000	721.700	110.000	721.000	120.000	719.400	130.000	717.100	140.000
GR	716.000	150.000	714.300	160.000	713.900	170.000	713.600	180.000	715.000	240.000
GR	714.500	272.000	712.900	274.000	712.100	290.000	712.900	301.000	715.000	308.000
GR	717.100	320.000	717.100	340.000	720.000	370.000	719.000	380.000	724.000	400.000
GR	725.000	405.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17938.000	12.000	235.000	263.000	120.000	160.000	138.000	0.000	0.000	0.000
GR	725.000	0.000	720.000	191.000	715.000	229.000	714.900	235.000	713.500	241.000
GR	713.000	243.000	713.900	247.000	713.400	252.000	714.900	263.000	715.000	282.000
GR	720.000	369.000	725.000	395.000	0.000	0.000	0.000	0.000	0.000	0.000

CITY LIMITS

X1	18322.000	10.000	523.000	543.000	418.000	350.000	384.000	0.000	0.000	0.000
GR	750.000	0.000	725.000	130.000	720.000	190.000	719.200	523.000	715.300	530.000
GR	715.100	535.000	719.300	543.000	720.000	602.000	725.000	643.000	750.000	775.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 8511.000
   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

          CITY LIMITS

  8511.00     8.40    675.90      0.00    675.90    676.06       .16      0.00      0.00    671.00
    2010.      850.      929.     230.     1105.      202.      314.        0.        0.    671.20
     0.00      .77      4.60      .73      .150      .045      .150     0.000    667.50    143.70
  .001465       0.        0.       0.         0         0         0      0.00    547.22    690.92

*SECNO 8940.000

3265 DIVIDED FLOW

          **** A ****

  8940.00     7.14    676.54      0.00      0.00    676.67       .14       .61       .00    673.00
    2010.      99.      881.    1030.      180.      203.     1088.       14.        5.    673.00
      .05      .55      4.34      .95      .150      .045      .150      .049    669.40     39.63
  .001640     460.      429.     300.         2         0         0      0.00    503.86    574.33

*SECNO 9760.000
  9760.00     5.91    678.61      0.00      0.00    679.01       .40      2.26       .08    674.50
    2010.     364.      940.     706.      226.      130.      442.       35.       12.    674.80
      .10     1.61      7.24     1.60      .150      .045      .150      .046    672.70    252.80
  .005479     480.      820.     820.         3         0         0      0.00    249.95    502.75

*SECNO 10300.000
 10300.00     6.38    681.68      0.00      0.00    682.51       .83      3.37       .13    677.40
    2010.     247.     1336.     427.      133.      150.      317.       42.       14.    679.40
      .12     1.86      8.89     1.35      .150      .045      .150      .047    675.30    148.38
  .008850     400.      540.     440.         3         0         0      0.00    283.05    431.42

*SECNO 10680.000

3265 DIVIDED FLOW

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

          **** B ****

 10680.00     7.28    683.78      0.00      0.00    683.96       .18      1.39       .06    678.60
    2010.     947.      930.     133.      818.      189.      222.       50.       17.    680.60
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      .16      1.16      4.91       .60      .150      .045      .150      .047    676.50     13.52
  .001993      400.      380.      330.         3         0         0      0.00    376.43    391.64

*SECNO 10800.000

3301 HV CHANGED MORE THAN HVINS

 10800.00      6.91    683.81      0.00      0.00    684.50       .69       .38       .15    679.00
     2010.      591.      1109.      310.      311.      125.      232.       53.       18.    679.80
      .16      1.90      8.85      1.34      .150      .045      .150      .047    676.90     42.33
  .006758      105.      120.      120.         3         0         0      0.00    231.99    274.32

CCHV=    .300 CEHV=    .500
*SECNO 10900.000
3280 CROSS SECTION  10900.00 EXTENDED     3.82 FEET


          **** C  ****  D/S OF GRAND RIVER AVE BRIDGE

 10900.00      7.61    684.81      0.00      0.00    685.02       .21       .38       .14    680.50
     2010.      198.      982.      830.      189.      191.      820.       55.       19.    680.40
      .17      1.05      5.14      1.01      .150      .045      .150      .046    677.20      0.00
  .002025       65.      100.      165.         2         0         0      0.00    324.09    324.09

*SECNO 10941.000

3301 HV CHANGED MORE THAN HVINS

 10941.00      6.19    683.79      0.00      0.00    686.43      2.64       .20      1.22    695.50
     2010.        0.      2010.        0.        0.      154.        0.       56.       19.    695.50
      .17      0.00     13.04      0.00      .150      .045      .150      .046    677.60    190.00
  .022990       41.       41.       41.         3         0         0      0.00     25.00    215.00

SPECIAL BRIDGE

SB  XK        XKOR      COFD      RDLEN     BKC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.66      2.60      0.00     20.00      0.00    211.00      0.00    679.20    679.20

*SECNO 10999.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   687.059  ELLC=   689.800  PCWSE=   683.792  ELTRD=   695.500

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD=  695.50 MAX ELLC=  689.80

 10999.00      8.31    685.91      0.00      0.00    687.86      1.94      1.21       .21    695.50
     2010.        0.      2010.        0.        0.      180.        0.       56.       19.    695.50
      .18      0.00     11.18      0.00      .150      .045      .150      .046    677.60    190.00
  .019127       58.       58.       58.         3         0         0    -27.31     25.00    215.00

*SECNO 11040.000

3301 HV CHANGED MORE THAN HVINS

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

            U/S OF GRAND RIVER AVE BRIDGE

   11040.00     9.58    687.58      0.00      0.00    688.49       .91       .33       .31    683.50
      2010.      76.      1501.     433.      86.      171.      175.       56.       19.    679.80
        .18      .88      8.76      2.48     .150      .045      .150      .046    678.00     24.84
   .004812      57.        41.       15.        3         0         0      0.00    114.28    139.12

  *SECNO 11440.000
   11440.00    10.85    689.45      0.00      0.00    690.08       .63      1.50       .08    683.50
      2010.     244.      1431.     335.     215.      191.      174.       61.       20.    681.00
        .20     1.14      7.48      1.93     .150      .045      .150      .046    678.60     21.12
   .002889     500.       400.      400.        2         0         0      0.00    118.94    140.07

  CCHV=     .100 CEHV=     .300
  *SECNO 11860.000

            ****  D  ****

   11860.00    10.45    691.25      0.00      0.00    691.68       .43      1.59       .02    683.50
      2010.     450.      1238.     322.     346.      187.      194.       71.       22.    683.20
        .24     1.30      6.62      1.66     .150      .045      .150      .046    680.80     17.50
   .002144     680.       649.      570.        2         0         0      0.00    125.23    142.73

  *SECNO 12100.000
   12100.00     9.68    691.88      0.00      0.00    692.11       .23       .41       .02    684.70
      2010.     386.      1106.     518.     410.      216.      465.       76.       23.    684.40
        .26      .94      5.13      1.11     .150      .045      .150      .046    682.20    216.10
   .001401     290.       240.      180.        2         0         0      0.00    284.16    500.27

  *SECNO 12180.000
   12180.00     9.41    692.11      0.00      0.00    692.24       .13       .12       .01    685.00
      2010.     386.      746.      858.     442.      167.      870.       79.       24.    684.90
        .27      .87      4.59       .99     .150      .045      .150      .046    682.70    224.23
   .001177      80.        80.      120.        2         0         0      0.00    371.68    595.91

  CCHV=     .600 CEHV=     .800
  *SECNO 12330.000
     SECNO    DEPTH     CWSEL     CRIWS     WSELK     FR        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

   12330.00     9.29    692.29      0.00      0.00    692.53       .24       .21       .08    684.50
      2010.     522.      953.     535.     324.      174.      426.       83.       25.    684.50
        .28     1.61      5.46      1.26     .070      .045      .150      .046    683.00    324.84
   .001572     190.       150.      135.        1         0         0      0.00    303.58    608.42

  *SECNO 12410.000

  3301 HV CHANGED MORE THAN HVINS

  3870 ENCROACHMENT STATIONS=     170.0      250.0  TYPE=      1  TARGET=      80.000
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**** E **** D/S OF POWERS AVE BRIDGE

12410.00     8.37    692.37     0.00     0.00    693.11      .74      .18      .40    688.60
   2010.      149.     1809.      52.      64.      250.      47.      84.      25.    687.00
     .28     2.32      7.24     1.11     .070      .045     .150     .046   684.00    170.00
 .003669      80.       80.      55.        2         0        0     0.00    80.00    250.00

*SECNO 12427.000

3301 HV CHANGED MORE THAN HVINS

12427.00     7.06    692.16     0.00     0.00    694.54     2.38      .12     1.31    698.20
   2010.        0.     2010.       0.       0.      162.       0.      84.      25.    698.20
     .28     0.00     12.37     0.00     .070      .045     .150     .046   685.10    490.00
 .019603      17.       17.      17.        2         0        0     0.00    23.00    513.00


SPECIAL BRIDGE

SB  XK        XKOR      COEQ     RDLEN      BWC      BWP    BAREA      SS     ELCHU    ELCHD
     0.00      1.63      3.10      0.00    16.00     0.00   176.00    0.00    683.60   683.60

*SECNO 12473.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   694.495  ELLC=   694.600  PCWSE=   692.164  ELTRD=   698.200

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  698.20 MAX ELLC=  694.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      698.20 ELREA=      698.20

12473.00     8.14    693.24     0.00     0.00    696.04     2.80     1.16      .34    698.20
   2010.        0.     2010.       0.       0.      150.       0.      85.      25.    698.20
     .28     0.00     13.43     0.00     .070      .045     .150     .046   685.10    490.00
 .033590      46.       46.      46.        3         0        0   -37.50    23.00    513.00

*SECNO 12500.000

3301 HV CHANGED MORE THAN HVINS


          D/S OF POWERS AVE BRIDGE

12500.00    12.27    697.47     0.00     0.00    697.67      .20      .07     1.56    688.60
   2010.      561.     1403.      47.     275.      343.      88.      85.      25.    694.60
     .29     2.04      4.09      .53     .070      .045     .150     .045   685.20      7.63
 .000853      27.       27.      27.        3         0        0     0.00   120.59    137.23


CCHV=     .100 CSHV=     .300
*SECNO 12905.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TKA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

12905.00    11.42    697.72     0.00     0.00    697.73      .01      .04      .02    689.50
   2010.     1817.      164.       9.    2580.      205.      55.     100.      28.    690.00
     .44       .70       .90      .16     .040      .045     .150     .046   686.30     20.53
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 .000037      375.      465.      421.        3         0         0      0.00    524.85    545.18

*SECNO 13150.000
 13150.00     10.72    697.72      0.00      0.00    697.74       .03       .01       .01    690.20
    2010.     1593.      292.      125.     1259.      180.      385.      110.       30.    690.70
      .48      1.27      1.62       .33      .040      .045      .150      .046    687.00    247.71
 .000135      174.      245.      240.         2         0         0      0.00    365.90    613.61

*SECNO 13275.000
 13275.00     10.40    697.70      0.00      0.00    697.81       .11       .04       .03    690.50
    2010.     1227.      608.      174.      486.      182.      265.      115.       31.    691.00
      .49      2.53      3.33       .66      .040      .045      .150      .047    687.30    289.35
 .000593      120.      260.      218.         2         0         0      0.00    196.74    486.09

*SECNO 13650.000

          ****  F  ****

 13650.00      9.53    697.83      0.00      0.00    698.16       .34       .29       .07    697.30
    2010.       34.      1609.     367.       38.      311.      448.      120.       33.    693.20
      .51       .90      5.18       .82      .040      .045      .150      .048    688.30    186.57
 .002001      170.      375.      210.         2         0         0      0.00    357.93    544.51

*SECNO 13800.000

          D/S OF FOOTBRIDGE NO. 1

 13800.00      8.62    698.22      0.00      0.00    698.37       .15       .18       .02    695.00
    2010.      913.      740.      357.      427.      168.      414.      122.       34.    694.60
      .52      2.14      4.40       .86      .040      .045      .150      .047    689.60    194.93
 .001603      180.       85.       60.         2         0         0      0.00    415.16    610.09

CCHV=     .300 CEHV=     .500
*SECNO 13894.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROP      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 13894.00      6.71    698.31      0.00      0.00    698.77       .46       .25       .16    694.40
    2010.      473.     1180.     348.      208.      173.      252.      124.       35.    694.70
      .53      2.28      6.87      1.38      .040      .045      .150      .047    691.60     59.35
 .004417      100.      100.      100.         2         0         0      0.00    467.80    527.16

SPECIAL BRIDGE

SB  XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.54      2.60      0.00     27.00      0.00    185.00      0.00    691.60    691.60

*SECNO 13906.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   701.137  EGLWC=   698.772  ELLC=   698.400  PCWSF=   698.314  ELTRD=   697.300

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  697.30 MAX ELLC=  698.40

 13906.00      7.17    698.77      0.00      0.00    698.92       .14       .05       .09    694.40
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     2010.      912.      720.      378.      369.      176.      284.      124.       35.     694.70
       .53      2.47      4.10      1.33      .040      .045      .150      .047    691.60      40.38
   .003748       12.       12.       12.         6         0         0    -22.99    491.33     531.71

*SECNO 13931.000

          U/S OF FOOTBRIDGE NO. 1

  13931.00      7.69    698.89      0.00      0.00    698.98       .09       .04       .02     698.40
     2010.     1098.      732.      180.      590.      225.      239.      125.       35.     694.70
       .53      1.86      3.25       .76      .040      .045      .150      .047    691.20     162.38
  .001030       25.       25.       25.         0         0         0      0.00    412.00     574.38

CCHV=     .100 CEHV=     .300
*SECNO 14100.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

          ****  G  ****

  14100.00      7.52    699.42    699.42      0.00    700.38       .96       .45       .26     699.50
     2010.      418.     1576.       17.      126.      181.       15.      128.       37.     697.00
       .54      3.31      8.71      1.14      .040      .045      .150      .047    691.90     226.60
  .008879      250.      169.      100.        20         5         0      0.00    196.48     451.67

*SECNO 14500.000

3301 HV CHANGED MORE THAN HVINS

          D/S OF FOOTBRIDGE NO. 2

  14500.00      9.38    701.18      0.00      0.00    701.34       .16       .88       .08     699.10
     1900.      775.     1094.       31.      404.      279.       39.      132.       38.     696.20
       .57      1.92      3.92       .81      .040      .045      .150      .047    691.80      36.00
  .001140      310.      365.      378.         3         0         0      0.00    290.48     326.48

CCHV=     .300 CEHV=     .500
*SECNO 14594.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL     QLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR    TOPWID     ENDST
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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 14594.00      7.57    701.07    701.07      0.00    701.87       .80       .19       .32    701.10
     1900.      420.     1463.       16.      135.      183.       15.      133.       39.    698.60
       .57      3.12      8.00      1.07      .040      .045      .150      .047    693.50    225.51
   .007407       80.       80.       80.         3        14         0      0.00    199.64    451.89


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.54      2.60      0.00      32.00     0.00      243.00    0.00      693.50    693.50

*SECNO 14606.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=    10.000  EGLWC=   701.872  ELLC=   702.200  PCWSE=   701.074  ELTRD=   699.800

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD=  699.80 MAX ELLC=  702.20

 14606.00      8.13    701.63    701.11      0.00    702.05       .42       .06       .11    701.10
     1900.      641.     1239.       20.      227.      203.       22.      133.       39.    698.60
       .58      2.82      6.11       .91      .040      .045      .150      .047    693.50    214.90
   .003772       12.       12.       12.        12        12         0      0.00    232.73    454.10

*SECNO 14621.000

3301 HV CHANGED MORE THAN HVINS

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


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

          U/S OF FOOTBRIDGE NO. 2

 14621.00      7.63    701.03    701.03      0.00    703.16      2.13       .18       .86    702.50
     1900.        0.     1897.        3.        0.      162.        4.      133.       39.    700.00
       .58      0.00     11.72       .88      .040      .045      .150      .047    693.40     85.79
   .019433       25.       25.       25.         3         8         0      0.00     41.20    127.00


CCHV=     .100 CEHV=     .300
*SECNO 15100.000

3301 HV CHANGED MORE THAN HVINS

 15100.00     10.35    704.35      0.00      0.00    704.50       .15      1.15       .20    698.30
     1900.      810.      932.      158.      378.      237.      226.      138.       40.    699.70
       .62      2.14      3.94       .70      .040      .045      .150      .047    694.00     23.26
   .001026      250.      467.      520.         5         0         0      0.00    270.98    294.25


CCHV=     .600 CEHV=     .800
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*SECNO 15150.000

          *** H  **** D/S OF SHIAWASSEE ROAD BRIDGE

 15150.00    10.09   704.39    0.00    0.00   704.67     .28     .06     .11   702.50
    1900.      559.    1272.     69.     190.     263.     90.    139.     41.   700.00
      .62     2.94     4.84     .69     .040     .045    .150    .047  694.30      .88
 .001856      40.      50.      60.       2        0       0    0.00  179.78   180.66

*SECNO 15214.000

3301 HV CHANGED MORE THAN HVINS

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

 15214.00     9.78   704.38     0.00     0.00   705.87     1.49     .23     .97   709.30
    1900.       0.     1900.      0.       0.     194.       0.    139.     41.   709.30
      .62     0.00     9.80     0.00     .040     .045    .150    .047  694.60    70.00
 .010090      64.      64.      64.        2        0       0    0.00   22.00    92.00

SPECIAL BRIDGE

SB  XK       XKOR     COFD     ROLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     0.00     1.57     2.60     0.00   21.00     0.00   206.00    0.00   694.30   694.30

*SECNO 15246.000
PRESSURE FLOW

 EGPRS     EGLWC     H3      QWEIR     OPR      BAREA   TRAPEZOID AREA   ELLC     ELTRD
 706.46    705.68    0.00      0.     1900.     206.      237.           705.60   707.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      709.30 ELREA=      709.30

 15246.00    10.61   705.21    0.00    0.00   706.46     1.25     .58    0.00   709.30
    1900.       0.     1900.      0.       0.     212.       0.    139.     41.   709.30
      .62     0.00     8.96     0.00     .040     .045    .150    .047  694.60    70.00
 .007916      32.      32.      32.        3        0       0    0.00   22.00    92.00

*SECNO 15271.000

          U/S OF SHIAWASSEE ROAD BRIDGE

 15271.00    11.19   705.79    0.00    0.00   706.90     1.11     .36     .08   709.30
    1900.       0.     1900.      0.       0.     225.       0.    140.     41.   709.30
      .62     0.00     8.45     0.00     .070     .100    .150    .047  694.60    70.00
 .033402      25.      25.      25.        2        0       0    0.00   22.00    92.00

*SECNO 15296.000

3301 HV CHANGED MORE THAN HVINS

 15296.00    12.29   707.39    0.00    0.00   707.52     .13     .04     .59   701.50
    1900.      394.    1490.     12.     342.     468.     31.    140.     41.   703.00
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       .63      1.15      1.19       .10      .070      .045      .150      .047    695.13       .50
   .000047       25.       25.       25.         3         0         0      0.00    163.47    164.30

CCHV=    .100 CEHV=    .300
*SECNO 15780.000

3301 HV CHANGED MORE THAN HVINS


            ****  I  ****

  15780.00      6.95    707.05      0.00      0.00    708.52      1.47       .59       .40    702.00
     1900.       77.      1797.       27.       26.      180.       18.      146.       42.    702.60
       .64      2.99      9.97      1.44      .070      .045      .150      .047    700.10    324.75
   .008616      535.      465.      455.         4         0         0      0.00     63.50    388.25

CCHV=    .300 CEHV=    .500
*SECNO 16070.000

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


  16070.00      6.76    709.86      0.00      0.00    710.33       .47      1.52       .30    706.40
     1900.      381.      1336.      184.      205.      206.      158.      148.       43.    704.60
       .65      1.86      6.47      1.16      .070      .045      .150      .047    703.10    334.66
   .003683      219.      290.      300.         3         0         0      0.00    217.54    552.20

CCHV=    .300 CEHV=    .500
*SECNO 16120.000

3301 HV CHANGED MORE THAN HVINS

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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

            ****  J  ****  O/S OF ABANDONED FARMINGTON RD BRIDGE

  16120.00      6.85    710.15    710.15      0.00    711.68      1.54       .32       .53    707.00
     1900.      263.      1637.       0.       85.      154.       0.       149.       43.    716.00
       .66      3.09     10.64      0.00      .070      .045      .150      .047    703.30    351.16
   .013883       50.       50.       50.         5         5         0      0.00     86.84    438.00

*SECNO 16153.000

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
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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 16153.00      7.52    710.82    710.82      0.00    712.56      1.74       .53       .10    717.80
     1900.      222.     167B.       0.       64.     150.        0.      149.       43.    717.80
       .66      3.49     11.19      0.00      .070     .045      .150      .047    703.30    305.42
  .016571       35.       35.       35.         2        B         0      0.00     69.77    428.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS       FLCHU     ELCHD
     0.00      1.50      2.50      0.00     20.00      0.00    205.00     0.00     705.30    705.30

*SECNO 16185.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   714.564  ELLC=   715.600  PCWSE=   710.824  ELTRD=   709.100

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  709.10 MAX ELLC=  715.60

 16185.00      9.43    712.73      0.00      0.00    713.24       .51       .31       .37    717.80
     1900.      694.     1206.       0.      226.     177.        0.      149.       43.    717.80
       .66      3.06      6.83      0.00      .070     .045      .150      .047    703.30    200.35
  .007110       30.       30.       30.         2        0         0    -15.42    176.16    428.00


*SECNO 16216.000

          U/S OF ABANDONED FARMINGTON ROAD BRIDGE

 16216.00      9.B8    713.1B      0.00      0.00    713.42       .25       .10       .08    707.40
     1900.      7B4.     1116.       0.      347.     230.        0.      150.       43.    716.00
       .66      2.26      4.B6      0.00      .070     .045      .150      .047    703.30    306.62
  .001904       31.       31.       31.         2        0         0      0.00    131.38    438.00


CCHV=    .100 CEHV=     .300
*SECNO 16750.000

3265 DIVIDED FLOW

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


          **** B ****

 16750.00      7.7B    714.1B      0.00      0.00    714.42       .24      1.00       .00    710.00
     1900.      813.     1005.       B1.      422.     197.       94.      157.       46.    709.20
       .70      1.93      5.11      .B7      .070     .045      .150      .047    706.40     95.57
  .002001      480.      534.      540.         2        0         0      0.00    271.68    388.98

*SECNO 17200.000
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17200.00	7.1[illegible]	71[illegible].2[illegible]	[illegible]	0.00	715.57	.30	1.12	.02	712.7[illegible]
1900.	794.	930.	200.	308.	152.	160.	163.	48.	712.10
.7[illegible]	2.58	5.92	1.29	.070	.045	.150	.047	708.10	286.20
.003706	380.	450.	480.	2	0	0	0.00	203.59	489.79

*SECNO 17780.000

**** L ****

17780.00	5.06	717.16	0.00	0.00	717.49	.33	1.91	.01	714.50
1900.	968.	922.	10.	338.	155.	14.	168.	50.	715.00
.76	2.86	5.95	.68	.070	.045	.150	.046	712.10	139.78
.004801	360.	580.	180.	2	0	0	0.00	200.75	340.53

*SECNO 17938.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

17938.00	5.16	718.16	718.16	0.00	719.55	1.38	1.09	.32	714.90
1900.	256.	1322.	322.	57.	119.	148.	170.	50.	714.90
.76	4.47	11.09	2.17	.070	.045	.150	.048	713.00	204.95
.016703	120.	138.	160.	20	5	0	0.00	132.11	337.06

*SECNO 18322.000

3301 HV CHANGED MORE THAN HVINS

CITY LIMITS

18322.00	6.63	721.73	0.00	0.00	721.85	.12	2.18	.13	719.20
1900.	1317.	474.	109.	727.	100.	135.	176.	53.	719.30
.81	1.61	4.73	.81	.070	.045	.150	.047	715.10	169.25
.002721	418.	384.	350.	5	0	0	0.00	446.93	616.18

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER ROUGE RIVER

4) DOCUMENT TYPE: SUMMARY

00BREAK00

THIS RUN EXECUTED 04 MAY 78 04.56.40

```
*************************************************
  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

CITY OF FARMI

SUMMARY PRINTOUT

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
8511.000	0.00	0.00	0.00	667.50	2010.00	675.90	547.22	0.00	0.00
8511.000	0.00	0.00	0.00	667.50	2010.00	676.00	356.66	261.88	618.54
8940.000	429.00	0.00	0.00	669.40	2010.00	676.54	503.86	0.00	0.00
8940.000	429.00	0.00	0.00	669.40	2010.00	676.64	418.06	112.48	558.99
9760.000	820.00	0.00	0.00	672.70	2010.00	678.61	249.95	0.00	0.00
9760.000	820.00	0.00	0.00	672.70	2010.00	678.71	181.92	280.30	462.22
10300.000	540.00	0.00	0.00	675.30	2010.00	681.68	283.05	0.00	0.00
10300.000	540.00	0.00	0.00	675.30	2010.00	681.78	196.00	167.63	363.63
10680.000	380.00	0.00	0.00	676.50	2010.00	683.78	376.43	0.00	0.00
10680.000	380.00	0.00	0.00	676.50	2010.00	683.90	259.97	28.31	288.28
10800.000	120.00	0.00	0.00	676.90	2010.00	683.81	231.99	0.00	0.00
10800.000	120.00	0.00	0.00	676.90	2010.00	683.90	138.86	73.71	212.57
10900.000	100.00	0.00	0.00	677.20	2010.00	684.81	324.09	0.00	0.00
10900.000	100.00	0.00	0.00	677.20	2010.00	684.94	296.04	7.65	303.69
10941.000	41.00	0.00	0.00	677.60	2010.00	683.79	25.00	0.00	0.00
10941.000	41.00	0.00	0.00	677.60	2010.00	684.00	25.00	190.00	215.00
10999.000	58.00	695.50	689.80	677.60	2010.00	685.91	25.00	0.00	0.00
10999.000	58.00	999999.00	0.00	677.60	2010.00	686.13	25.00	190.00	215.00
11040.000	41.00	0.00	0.00	678.00	2010.00	687.58	114.28	0.00	0.00
11040.000	41.00	0.00	0.00	678.00	2010.00	686.46	50.15	52.78	132.27
11440.000	400.00	0.00	0.00	678.60	2010.00	689.45	118.94	0.00	0.00
11440.000	400.00	0.00	0.00	678.60	2010.00	689.35	103.15	30.39	133.54
11860.000	649.00	0.00	0.00	680.80	2010.00	691.25	125.23	0.00	0.00
11860.000	649.00	0.00	0.00	680.80	2010.00	691.27	109.68	24.87	134.55
12100.000	240.00	0.00	0.00	682.20	2010.00	691.88	294.16	0.00	0.00
12100.000	240.00	0.00	0.00	682.20	2010.00	691.91	175.80	301.19	477.00

SE	XICH	ELTED	ELLC	ELMIN	D	CWSEL	TOPWTD	STENCL	STENCR
12180.000	80.00	0.00	0.00	682.70	2010.00	692.11	371.68	0.00	0.00
12180.000	80.00	0.00	0.00	682.70	2010.00	692.15	252.31	312.02	564.33
12330.000	150.00	0.00	0.00	683.00	2010.00	692.29	303.58	0.00	0.00
12330.000	150.00	0.00	0.00	683.00	2010.00	692.34	178.48	406.33	584.81
12410.000	80.00	0.00	0.00	684.00	2010.00	692.37	80.00	170.00	250.00
12410.000	80.00	0.00	0.00	684.00	2010.00	692.43	80.00	170.00	250.00
12427.000	17.00	0.00	0.00	685.10	2010.00	692.16	23.00	0.00	0.00
12427.000	17.00	0.00	0.00	685.10	2010.00	692.22	23.00	490.00	513.00
12473.000	46.00	698.20	694.60	685.10	2010.00	693.24	23.00	0.00	0.00
12473.000	46.00	999999.00	0.00	685.10	2010.00	693.30	23.00	490.00	513.00
12500.000	27.00	0.00	0.00	685.20	2010.00	697.47	129.59	0.00	0.00
12500.000	27.00	0.00	0.00	685.20	2010.00	695.65	88.18	29.86	118.04
12905.000	405.00	0.00	0.00	686.30	2010.00	697.72	524.65	0.00	0.00
12905.000	405.00	0.00	0.00	686.30	2010.00	696.14	453.10	79.90	533.00
13150.000	245.00	0.00	0.00	687.00	2010.00	697.72	365.90	0.00	0.00
13150.000	245.00	0.00	0.00	687.00	2010.00	696.15	307.87	270.70	578.57
13275.000	260.00	0.00	0.00	687.30	2010.00	697.70	196.74	0.00	0.00
13275.000	260.00	0.00	0.00	687.30	2010.00	696.13	155.79	310.44	466.24
13650.000	375.00	0.00	0.00	688.30	2010.00	697.83	357.93	0.00	0.00
13650.000	375.00	0.00	0.00	688.30	2010.00	696.65	166.57	275.50	472.72
13800.000	85.00	0.00	0.00	689.60	2010.00	698.22	415.16	0.00	0.00
13800.000	85.00	0.00	0.00	689.60	2010.00	697.39	253.96	322.18	576.14
13894.000	100.00	0.00	0.00	691.60	2010.00	698.31	467.80	0.00	0.00
* 13894.000	100.00	0.00	0.00	691.60	2010.00	698.11	258.77	233.47	492.24
13906.000	12.00	697.30	698.40	691.60	2010.00	698.77	491.33	0.00	0.00
13906.000	12.00	999999.00	0.00	691.60	2010.00	698.56	365.45	129.83	495.28
13931.000	25.00	0.00	0.00	691.20	2010.00	698.89	412.00	0.00	0.00
13931.000	25.00	0.00	0.00	691.20	2010.00	698.90	236.09	309.71	545.80
* 14100.000	169.00	0.00	0.00	691.90	2010.00	699.42	196.48	0.00	0.00
* 14100.000	169.00	0.00	0.00	691.90	2010.00	699.48	152.20	261.14	440.00
14500.000	365.00	0.00	0.00	691.80	1900.00	701.18	290.48	0.00	0.00
14500.000	365.00	0.00	0.00	691.80	1900.00	701.36	223.50	92.49	316.00
* 14594.000	80.00	0.00	0.00	693.50	1900.00	701.07	199.64	0.00	0.00
14594.000	80.00	0.00	0.00	693.50	1900.00	701.25	159.32	260.33	440.00
14606.000	12.00	699.80	702.20	693.50	1900.00	701.63	232.73	0.00	0.00
14606.000	12.00	999999.00	0.00	693.50	1900.00	701.80	188.75	251.25	440.00
* 14621.000	25.00	0.00	0.00	693.40	1900.00	701.03	41.20	0.00	0.00
14621.000	25.00	0.00	0.00	693.40	1900.00	701.18	34.71	81.00	120.00

	SF	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	TOPWID	STENCL	STENCR
	15100.000	467.00	0.00	0.00	694.00	1900.00	704.35	270.98	0.00	0.00
	15100.000	467.00	0.00	0.00	694.00	1900.00	704.37	149.03	102.33	251.35
	15150.000	50.00	0.00	0.00	694.30	1900.00	704.39	179.78	0.00	0.00
	15150.000	50.00	0.00	0.00	694.30	1900.00	704.41	120.34	11.69	132.03
	15214.000	64.00	0.00	0.00	694.60	1900.00	704.36	22.00	0.00	0.00
	15214.000	64.00	0.00	0.00	694.60	1900.00	704.42	22.00	70.00	92.00
	15246.000	32.00	707.00	705.60	694.60	1900.00	705.21	22.00	0.00	0.00
	15246.000	32.00	999999.00	0.00	694.60	1900.00	705.25	22.00	70.00	92.00
	15271.000	25.00	0.00	0.00	694.60	1900.00	705.79	22.00	0.00	0.00
	15271.000	25.00	0.00	0.00	694.60	1900.00	705.82	22.00	70.00	92.00
	15296.000	25.00	0.00	0.00	695.10	1900.00	707.39	163.47	0.00	0.00
	15296.000	25.00	0.00	0.00	695.10	1900.00	707.41	119.50	30.50	150.00
	15780.000	465.00	0.00	0.00	700.10	1900.00	707.05	63.50	0.00	0.00
	15780.000	465.00	0.00	0.00	700.10	1900.00	707.07	34.85	345.22	380.08
	16070.000	290.00	0.00	0.00	703.10	1900.00	709.86	217.54	0.00	0.00
	16070.000	290.00	0.00	0.00	703.10	1900.00	709.99	115.45	398.67	514.12
*	16120.000	50.00	0.00	0.00	703.30	1900.00	710.15	86.84	0.00	0.00
*	16120.000	50.00	0.00	0.00	703.30	1900.00	709.76	47.50	390.50	438.00
*	16153.000	35.00	0.00	0.00	703.30	1900.00	710.82	69.77	0.00	0.00
*	16153.000	35.00	0.00	0.00	703.30	1900.00	710.66	49.07	326.00	428.00
	16185.000	30.00	709.10	715.60	703.30	1900.00	712.73	176.16	0.00	0.00
	16185.000	30.00	999999.00	0.00	703.30	1900.00	712.56	101.99	274.40	428.00
	16216.000	31.00	0.00	0.00	703.30	1900.00	713.18	131.38	0.00	0.00
	16216.000	31.00	0.00	0.00	703.30	1900.00	713.14	100.83	337.17	438.00
	16750.000	534.00	0.00	0.00	706.40	1900.00	714.18	271.68	0.00	0.00
	16750.000	534.00	0.00	0.00	706.40	1900.00	714.21	158.23	198.44	356.67
	17200.000	450.00	0.00	0.00	708.10	1900.00	715.26	203.59	0.00	0.00
	17200.000	450.00	0.00	0.00	708.10	1900.00	715.32	119.12	344.34	463.45
	17780.000	580.00	0.00	0.00	712.10	1900.00	717.16	200.75	0.00	0.00
	17780.000	580.00	0.00	0.00	712.10	1900.00	717.31	146.21	161.79	308.00
*	17938.000	138.00	0.00	0.00	713.00	1900.00	718.16	132.11	0.00	0.00
*	17938.000	138.00	0.00	0.00	713.00	1900.00	718.06	79.86	220.66	300.52
	18322.000	384.00	0.00	0.00	715.10	1900.00	721.73	446.93	0.00	0.00
	18322.000	384.00	0.00	0.00	715.10	1900.00	721.91	364.72	203.34	568.06

SUMMARY OF ERRORS

```
CAUTION  SECNO=13894.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=13894.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=14100.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14100.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=14100.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

```
CAUTION  SECNO=14100.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14100.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=14100.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=14594.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14594.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=14621.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=14621.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=16120.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16120.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=16120.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=16153.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=16153.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=17938.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=17938.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=17938.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
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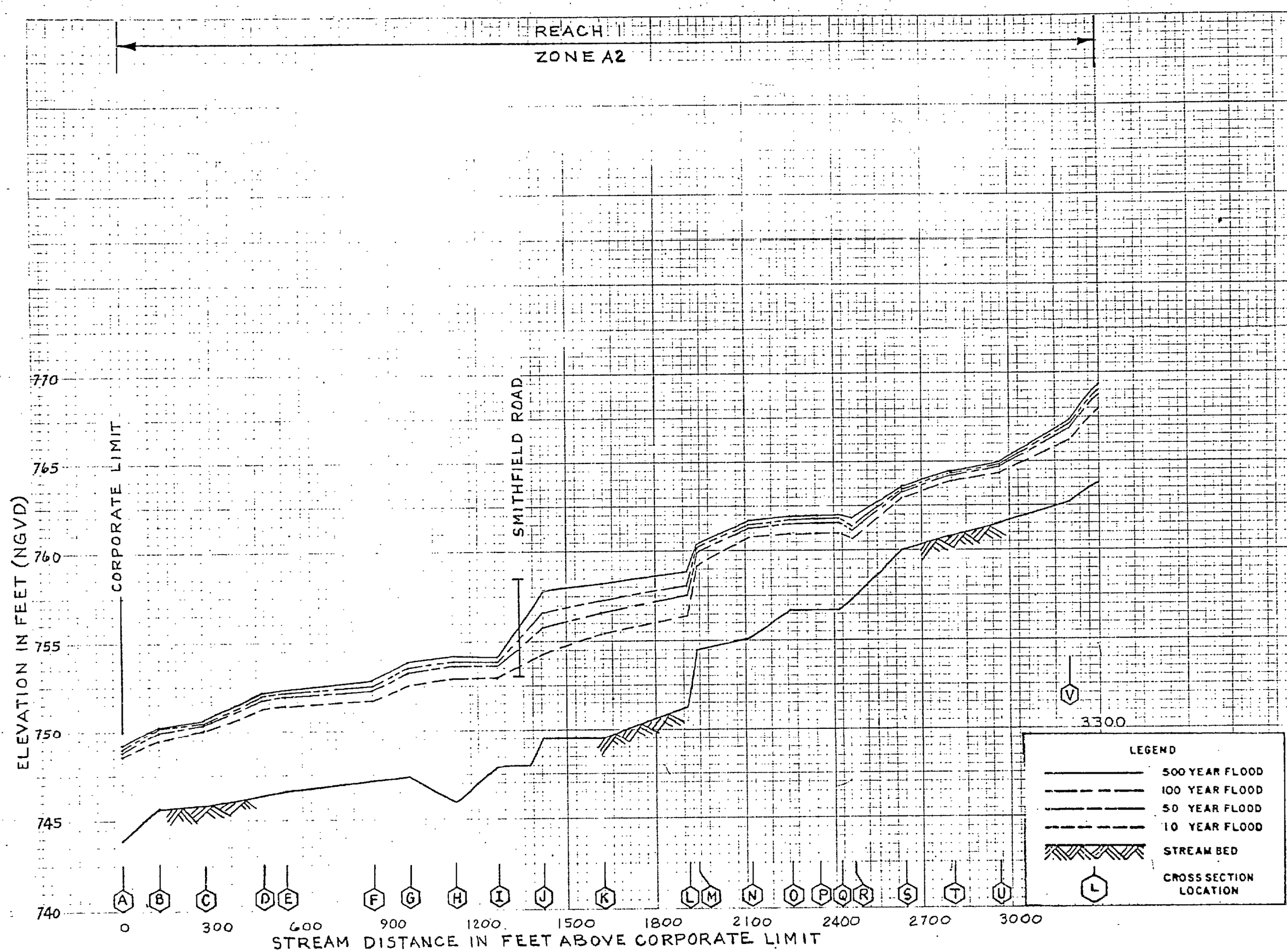


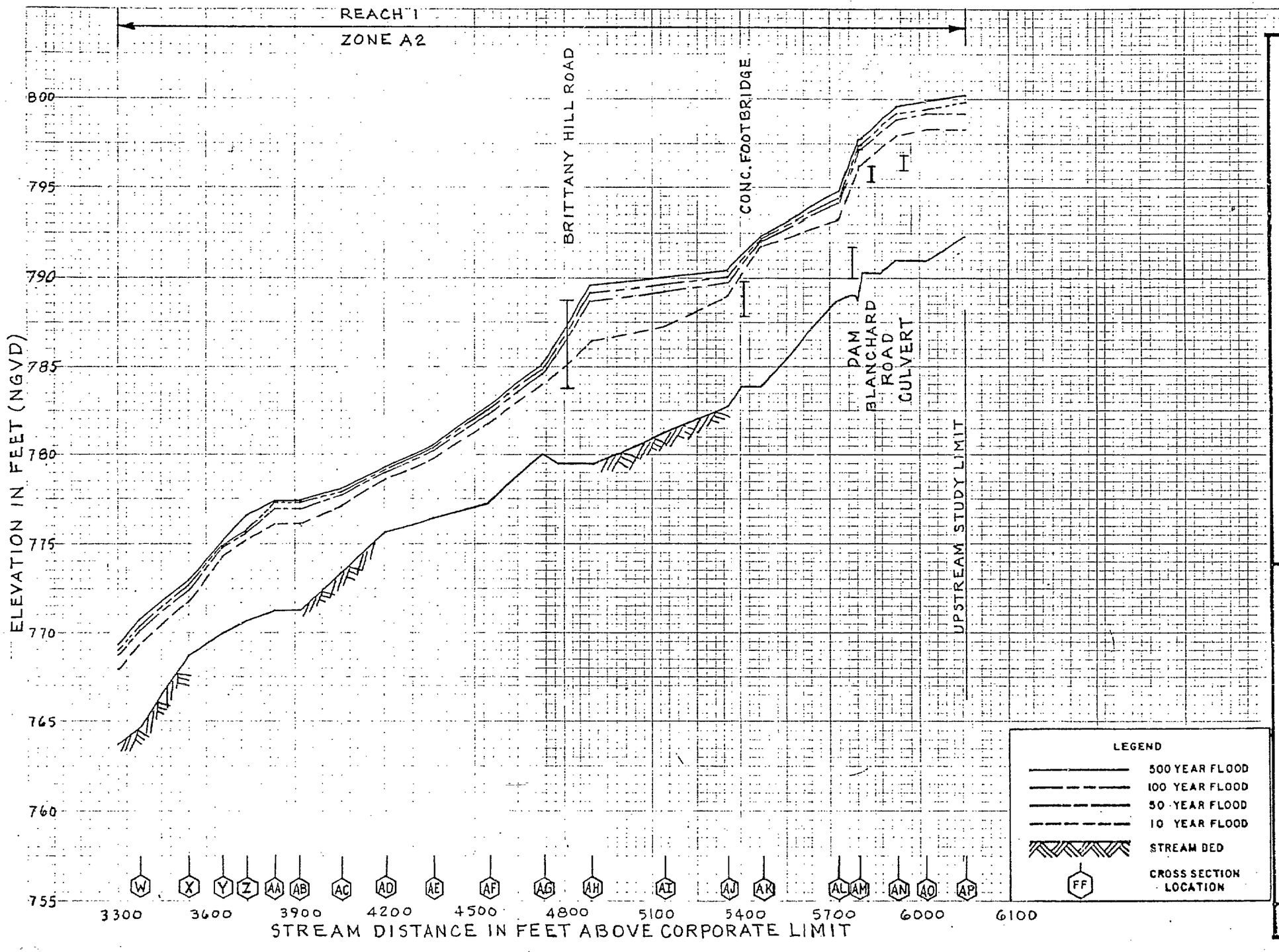
FLOOD PROFILES

TARABUSI CREEK

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

CITY OF FARMINGTON, MI
(OAKLAND CO.)

02P



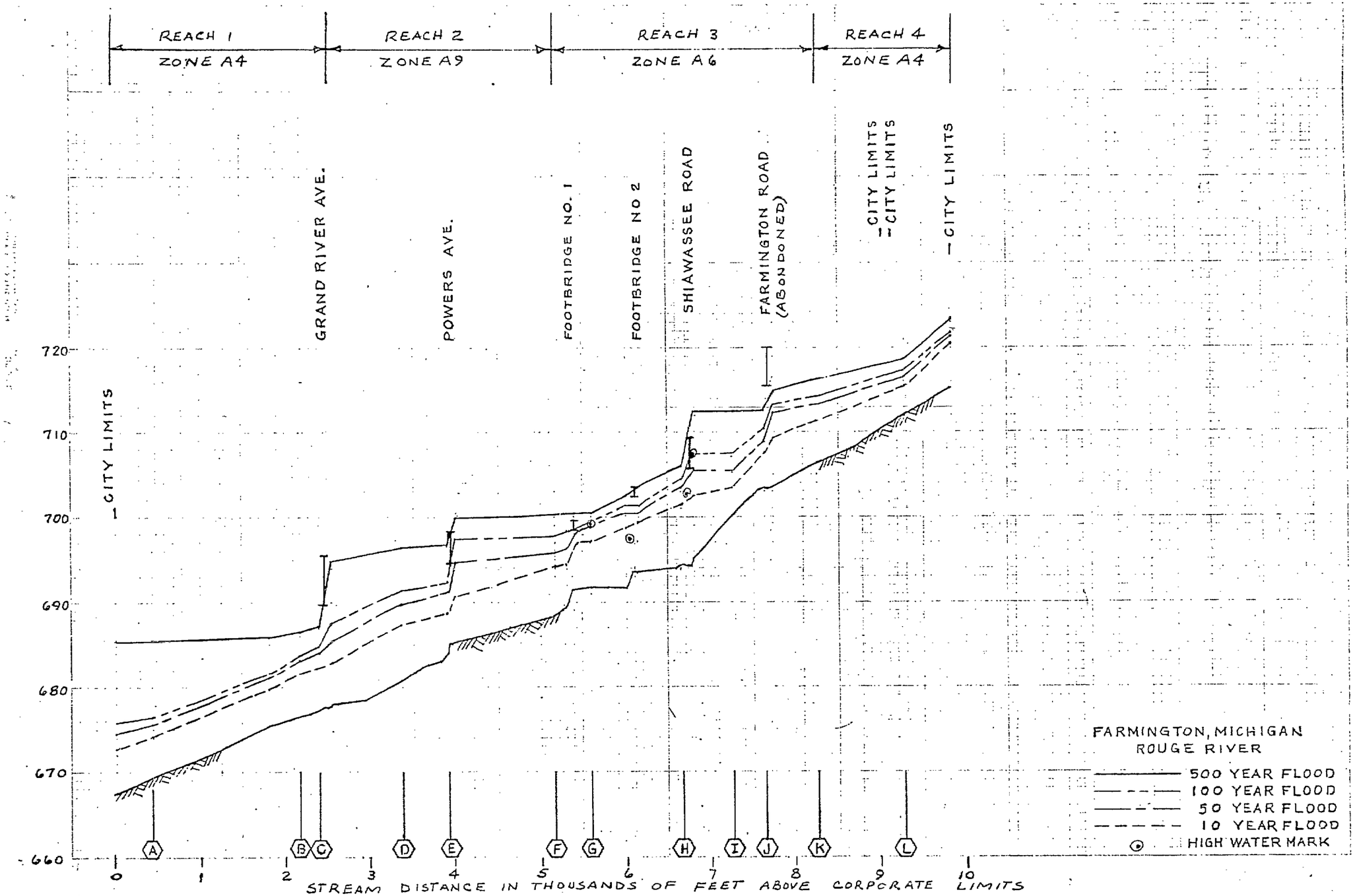
FLOOD PROFILES

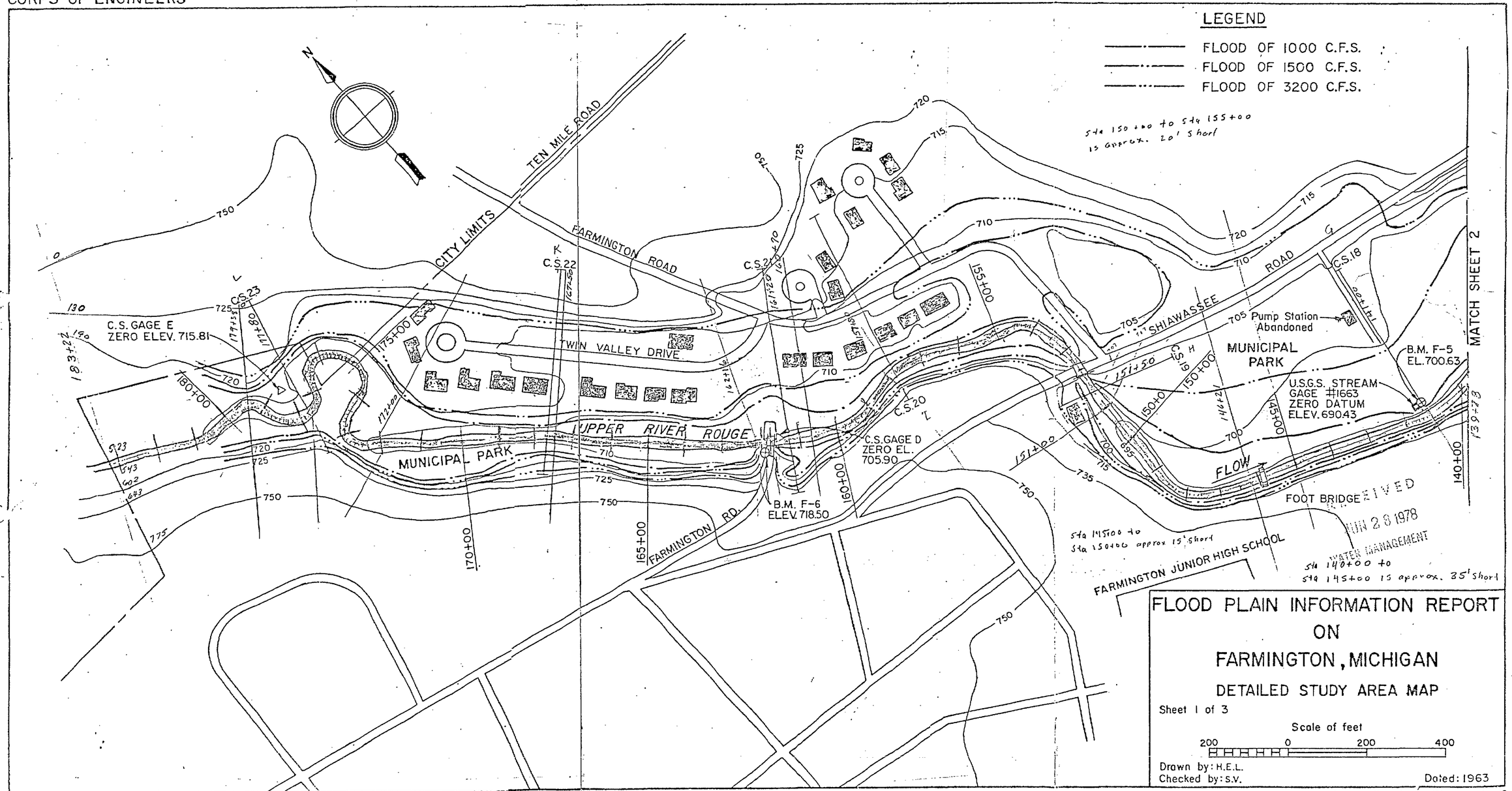
TARABUSI CREEK

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

CITY OF FARMINGTON, MI
(OAKLAND CO.)

03P


REACH 1
ZONE A4
REACH 2
ZONE A9
REACH 3
ZONE A6
REACH 4
ZONE A4
CITY LIMITS
GRAND RIVER AVE.
POWERS AVE.
FOOTBRIDGE NO. 1
FOOTBRIDGE NO 2
SHIAWASSEE ROAD
FARMINGTON ROAD (ABONDONED)
CITY LIMITS
CITY LIMITS
CITY LIMITS
720
710
700
690
680
670
660
A
B
C
D
E
F
G
H
I
J
K
L
0
1
2
3
4
5
6
7
8
9
10
STREAM DISTANCE IN THOUSANDS OF FEET ABOVE CORPORATE LIMITS
FARMINGTON, MICHIGAN
ROUGE RIVER
500 YEAR FLOOD
100 YEAR FLOOD
50 YEAR FLOOD
10 YEAR FLOOD
HIGH WATER MARK



FLOOD PLAIN INFORMATION REPORT ON FARMINGTON, MICHIGAN

DETAILED STUDY AREA MAP

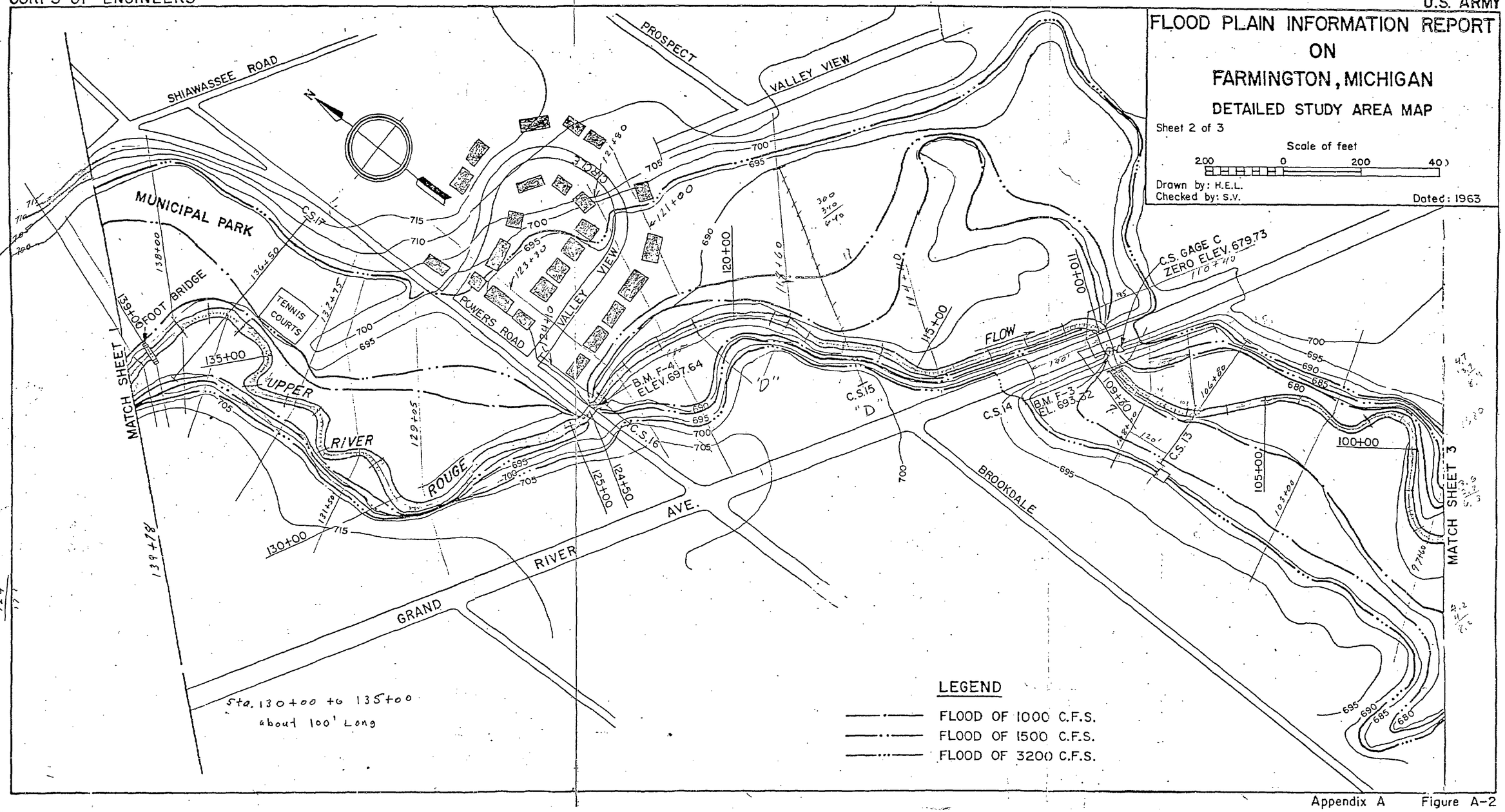
Sheet 1 of 3

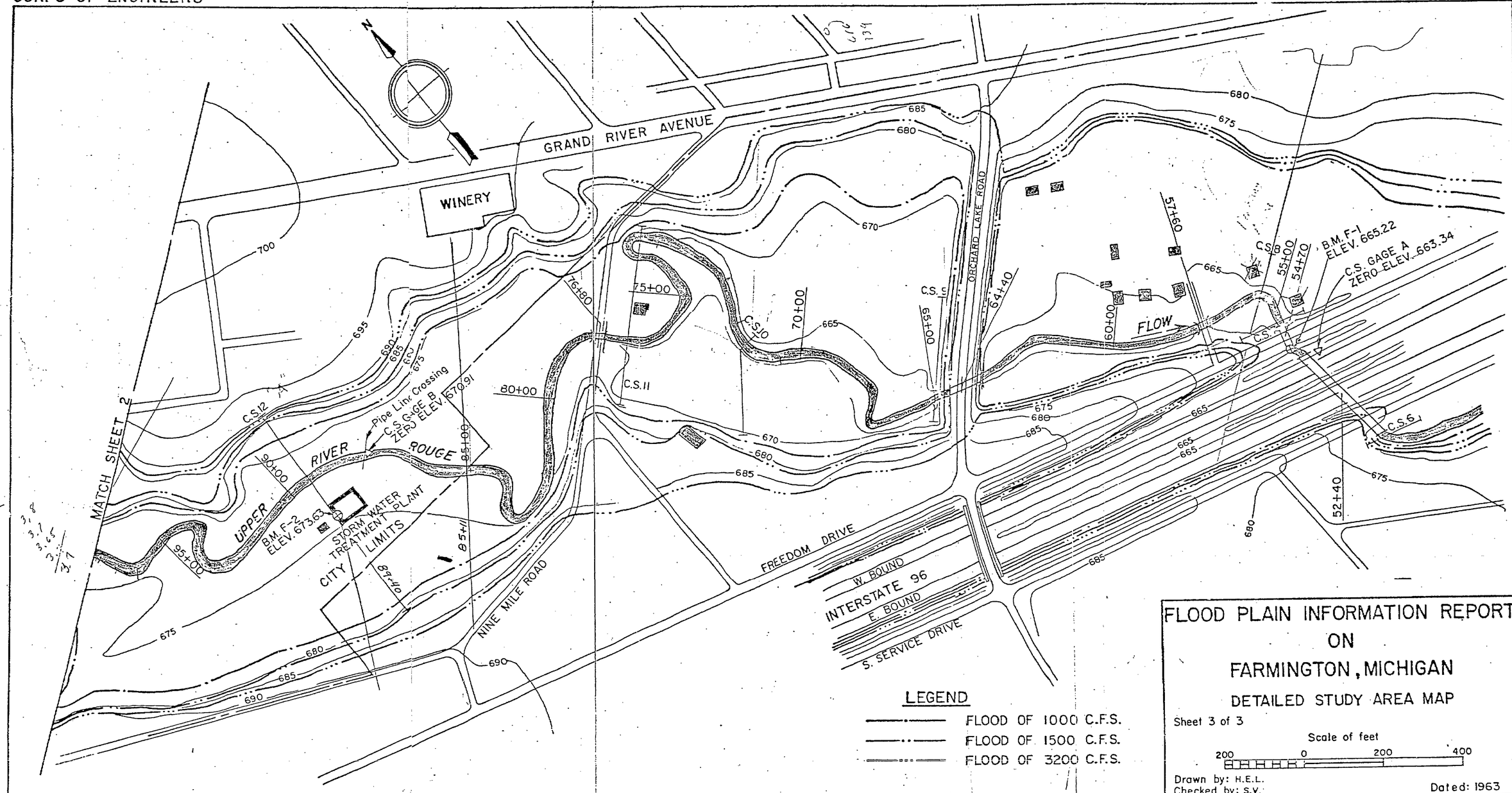
Scale of feet

200 0 200 400

Drawn by: H.E.L.
Checked by: S.V.

Dated: 1963


FLOOD PLAIN INFORMATION REPORT
ON
FARMINGTON, MICHIGAN
DETAILED STUDY AREA MAP
Sheet 2 of 3
Scale of feet
200 0 200 400
Drawn by: H.E.L.
Checked by: S.V.
Dated: 1963
SHIAWASSEE ROAD
PROSPECT
VALLEY VIEW
MUNICIPAL PARK
FOOT BRIDGE
TENNIS COURTS
POWERS ROAD
VALLEY VIEW
UPPER
ROUGE
RIVER
FLOW
GRAND
RIVER
AVE.
BROOKDALE
MATCH SHEET 1
MATCH SHEET 3
C.S. GAGE C
ZERO ELEV. 679.73
B.M. F-4
ELEV. 697.64
B.M. F-3
EL. 693.02
C.S. 13
C.S. 14
C.S. 15
C.S. 16
C.S. 17
"D"
100+00
105+00
110+00
115+00
120+00
125+00
130+00
135+00
Sta. 130+00 to 135+00
about 100' Long
LEGEND
FLOOD OF 1000 C.F.S.
FLOOD OF 1500 C.F.S.
FLOOD OF 3200 C.F.S.



LEGEND

FLOOD OF 1000 C.F.S.
FLOOD OF 1500 C.F.S.
FLOOD OF 3200 C.F.S.

FLOOD PLAIN INFORMATION REPORT ON FARMINGTON, MICHIGAN

DETAILED STUDY AREA MAP

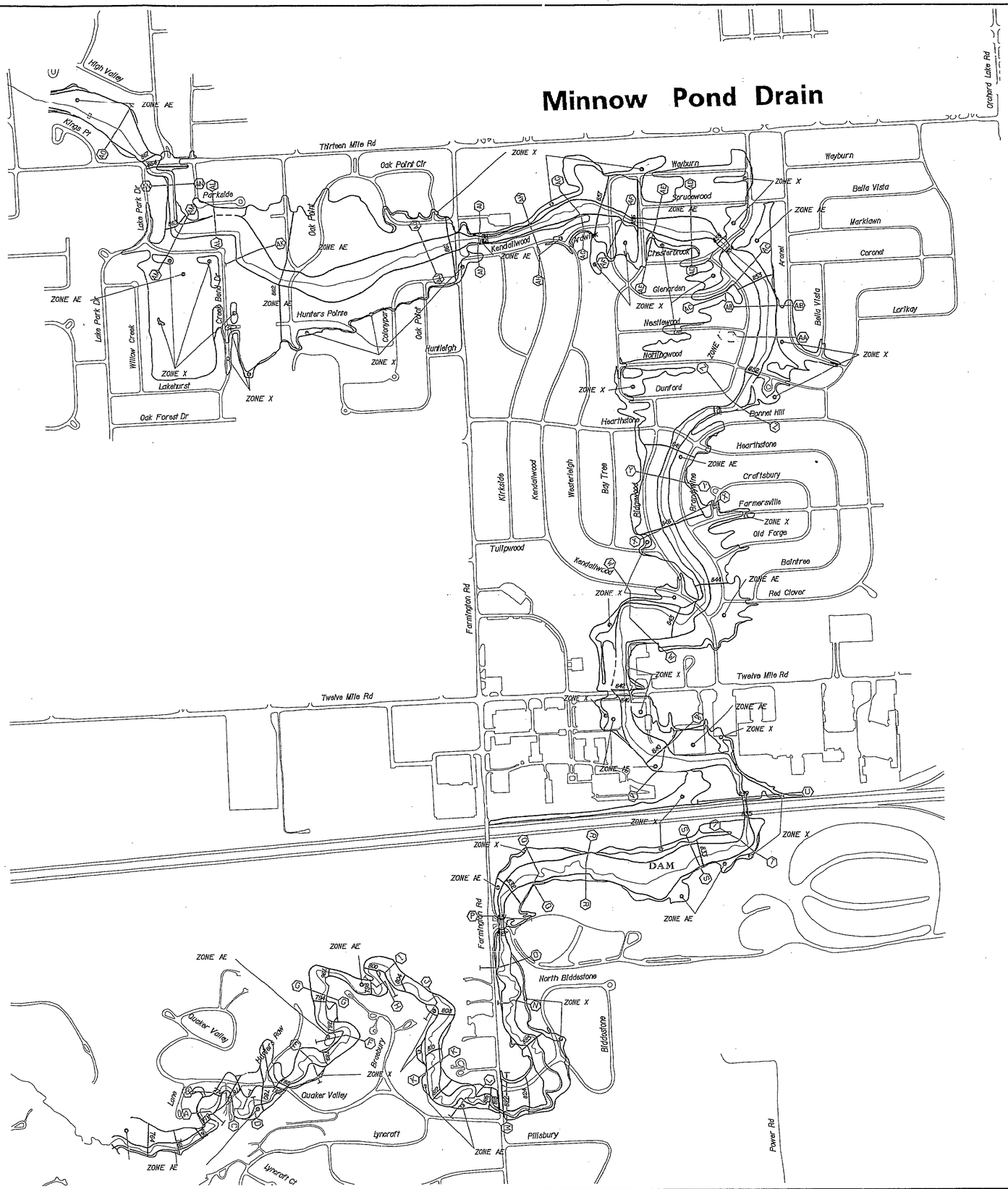
Sheet 3 of 3

Scale of feet
200 0 200 400

Drawn by: H.E.L.
Checked by: S.V.

Dated: 1963

Minnow Pond Drain



LEGEND

- FEMA - 500 Year Flood Boundry
- FEMA - 100 Year Flood Boundry
- FEMA - 100 Year Floodway
- Cross Sections
- Flood Staging

CITY OF FARMINGTON HILLS

MINNOW POND DRAIN FLOOD INSURANCE RATE MAP UPDATE ORIGINAL FLOOD BOUNDRIES

OAKLAND COUNTY MICHIGAN

DATE	ADDITIONS AND/OR REVISIONS				JOB NO. 95340	HUBBELL, ROTH & CLARK, INC.	SHEET NO.
DRAWER	SCALE	DR.	CK.	APP.	DATE	CONSULTING ENGINEERS	
	1" = 500'	K.G.B.	H.B.	K.D.H.	10/8/96	555 HULET DRIVE P.O. BOX 824 BLOOMFIELD HILLS, MICH. 48303-0824	OF

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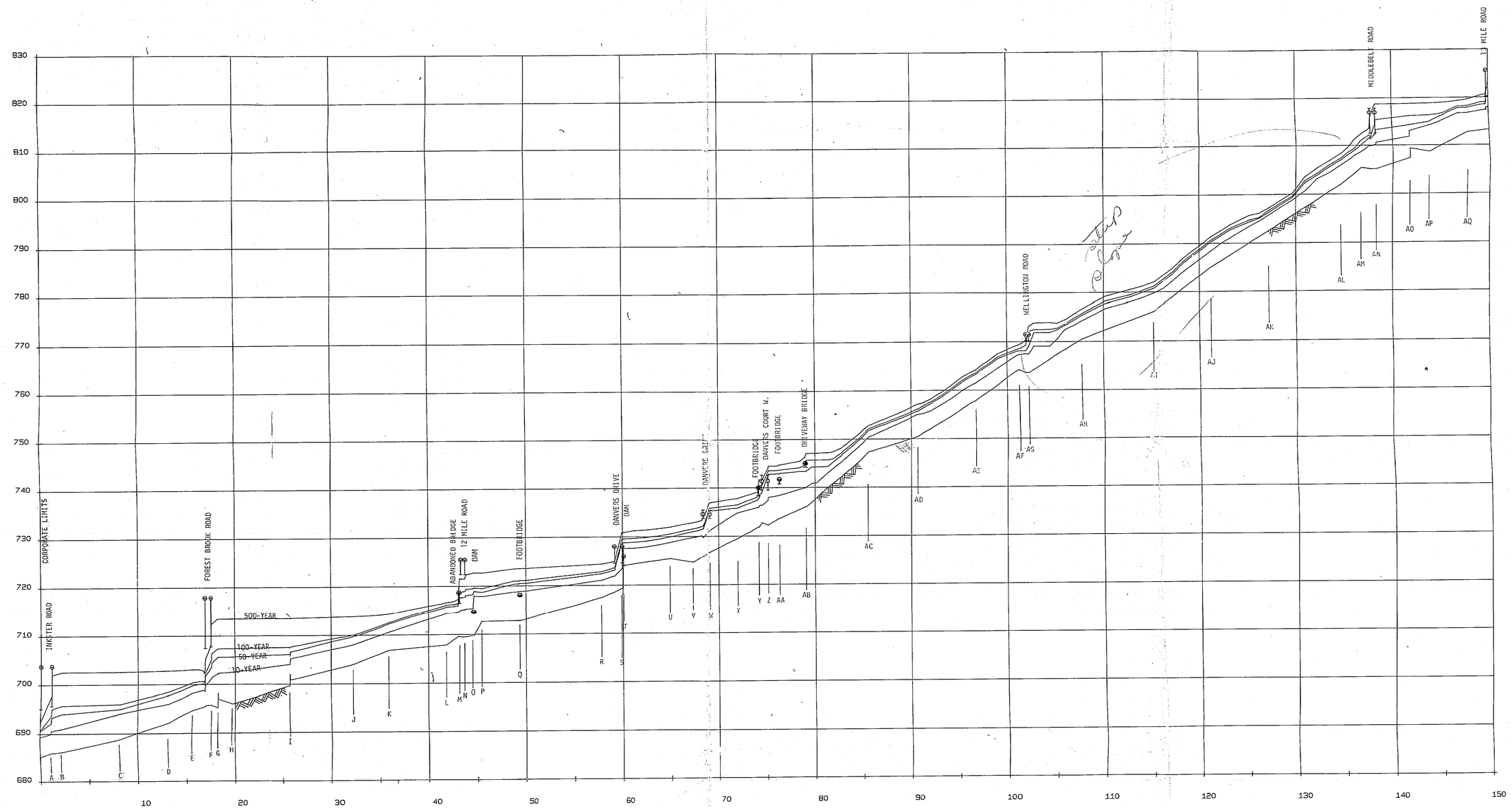
USER NAME = kgbcadd DESIGN FILE = gi\95340\dvlh\c500_fem.dgn PLOT NAME = N/A STROKE TIME = 31-OCT-1996 11:37



Job No. | Contr. No. | Con. Tab No. | Type of Job No. | Sheet No. of Sheet No. of Sheets | As Built | Section | Civ. No. in County | Twp. No. in County | Village No. in County | County No. in State | State | Construction Contract | Job Code No.

MAR 24 1978

DRAWN:
DESIGN:
CHECKED:
FINAL:
DATE COMPLETED:
PRELIMINARY:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

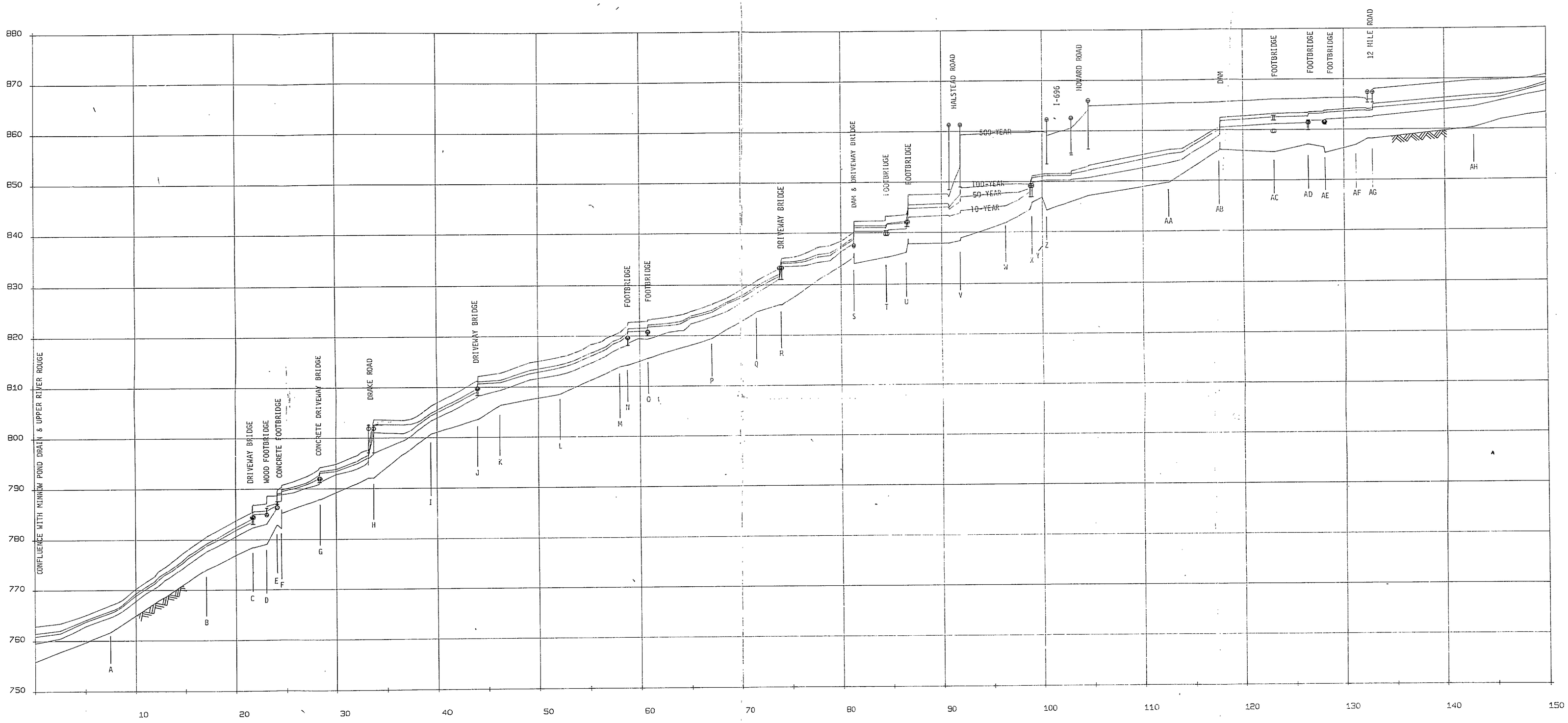
REVISIONS	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

PEBBLE CREEK

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
DATE ISSUED 3-8-78
SHEET NO. 1 OF 2



Job No.	Cont. No.	Cont. Title No.	Type of Job No.	Sheet No. Shee No. of Sheets	As Built	Section	City, Twp. No. in County	Twp. No. in County	Village No. in County	County No. in State	State	Construction Project	Job Code No.
1 2 3 4	5 6 7	8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24	25 26 27	28 29 30	31 32 33	34 35 36	37 38 39	40 41 42	43 44 45	46 47 48	49 50 51	52 53 54	55 56 57	58 59 60

TOPOGRAPHIC INFORMATION
DATE OBTAINED
DATE UPDATED

OWNER
UTILITIES
APPR. AGENCIES
BIDDERS

TEL.

V.I. DATE BY BY BY BY

DRAWING ISSUE DATES

ELEC. GAS PIPE LINE

CHECKED DATE BY
P.M.
P.E.
CONSTR.

DRAWN:
DESIGN:

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE

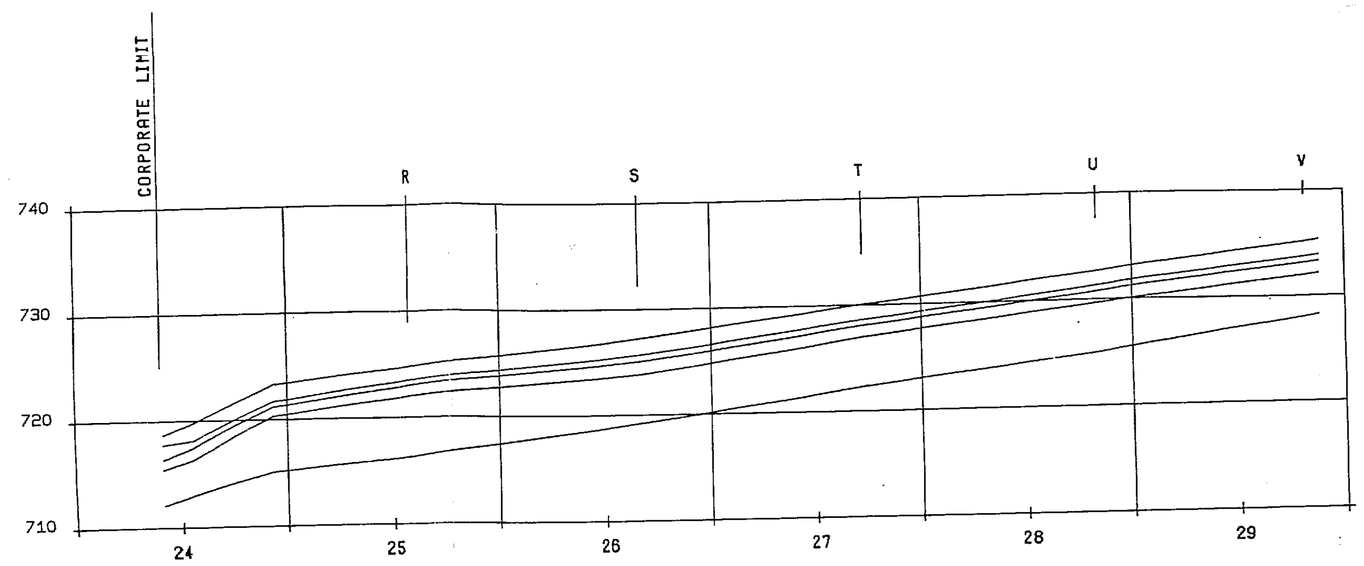
JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

SEELEY DRAIN

CITY OF FARMINGTON HILLS FIS

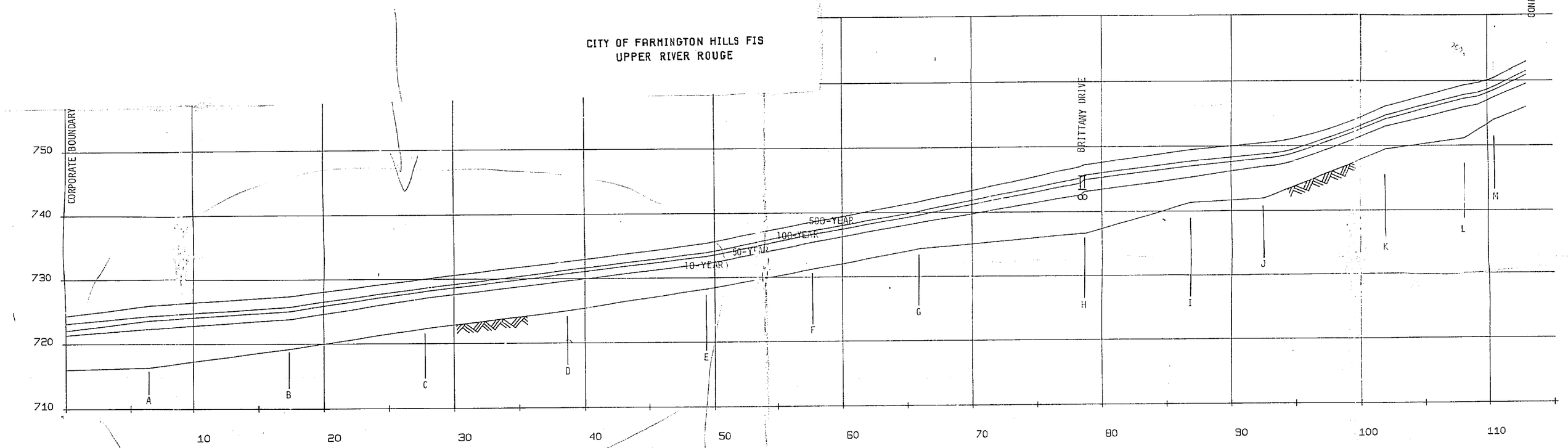
SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

JOB NO. 5670-03
3-20-78
SHEET NO. 1 OF 2



STREAM DISTANCE IN FEET (X 1000) ABOVE EIGHT MILE ROAD

CITY OF FARMINGTON HILLS FIS
UPPER RIVER ROUGE



Ouse

Job No.	Contr. No.	Cont. Tab No.	Type of Job No.	Sheet No. of Sheets	As Built	Section	City No. in County	Twp. No. in County	Village No. in County	County No. in State	State	Construction Contract	Job Code No.

TOPOGRAPHIC INFORMATION
DATE OBTAINED
DATE UPDATED

	V1	DATE	BY	DATE	BY	DATE	BY	DATE	BY

OWNER:
UTILITIES:
APPR. AGENCIES:
BIDDERS:

DRAWING ISSUE DATES

TFL	ELEC.	GAS	PIPE LINE

CHECKED: DATE BY
PER:
OA:
CONSTR.

DRAWN:
DESIGN:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

REVISIONS	MARK	ADDENDUM-CHANGE ORDER	DATE	MARK	ADDENDUM-CHANGE ORDER	DATE	MARK	ADDENDUM-CHANGE ORDER	DATE

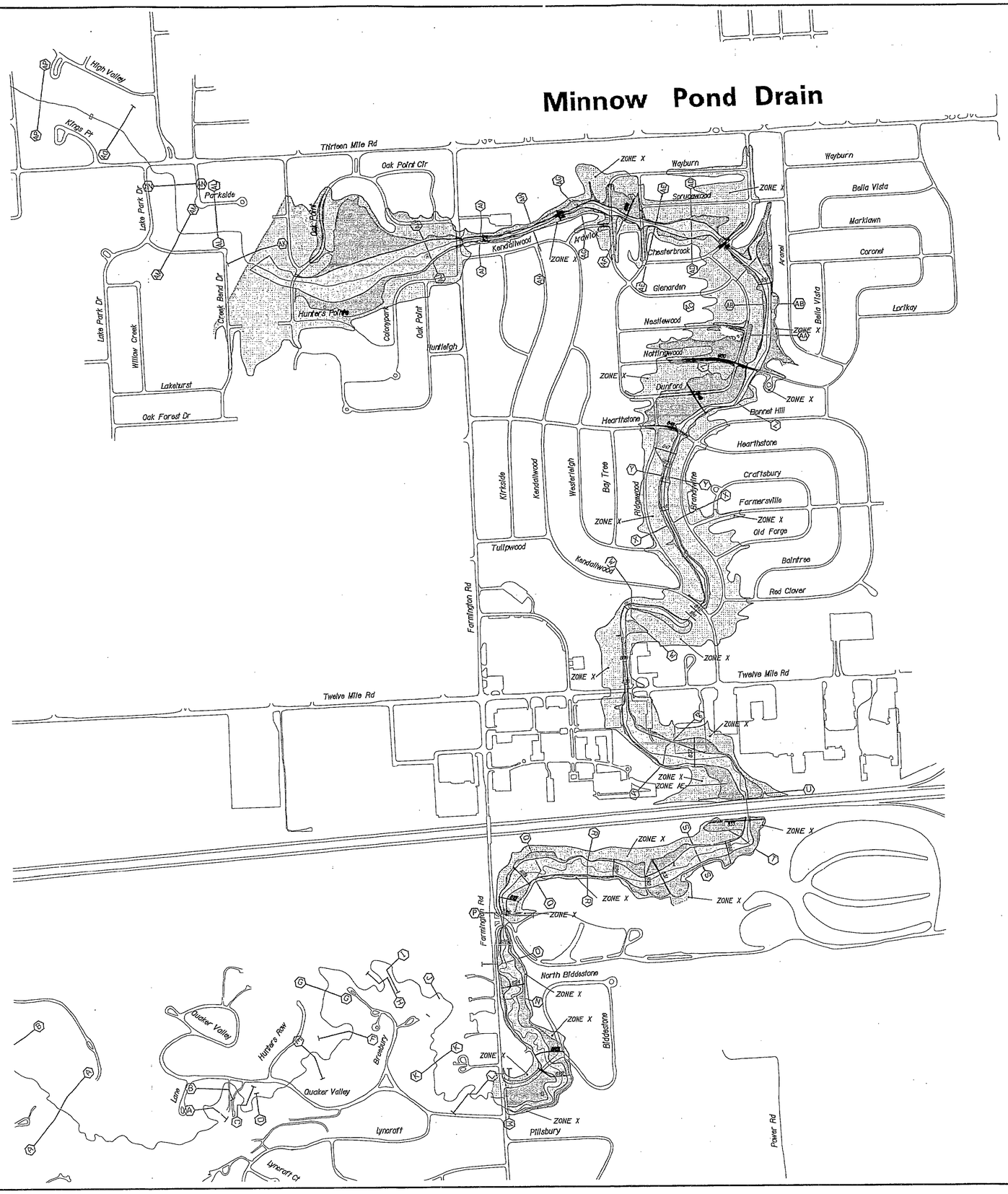
JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

UPPER RIVER ROUGE
U/S OF THE CITY OF FARMINGTON

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
3-20-78
SHEET NO. 1 OF 1

Minnow Pond Drain



N

SCALE: 1" = 500'

LEGEND

- 500 Year Modified Flood Boundry
- 100 Year Modified Flood Boundry
- 100 Year Modified Floodway
- (AB) Cross Sections
- 851 Flood Staging

REVISION

CITY OF FARMINGTON HILLS
MINNOW POND DRAIN FLOOD INSURANCE RATE MAP UPDATE MODIFIED FLOOD BOUNDRIES
OAKLAND COUNTY MICHIGAN

DATE	ADDITIONS AND/OR REVISIONS				JOB NO. 95340	HUBBELL, ROTH & CLARK, INC. CONSULTING ENGINEERS 555 HULET DRIVE BLOOMFIELD HILLS, MICH. P.O. BOX 824 48303-0824	SHEET NO.
DRAWER	SCALE 1" = 500'	DR. K.G.B.	CK. H.B.	APP. K.D.M.	DATE 10/8/96		OF

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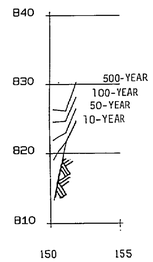
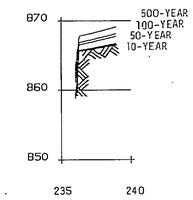
All Rights Reserved

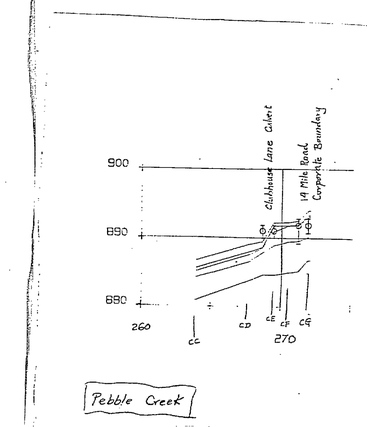
USER NAME = kgbodd DESIGN FILE = gis95340chl\hc500_mod.dgn PLOT NAME = N/A STROKE TIME = 31-OCT-1996 11:49

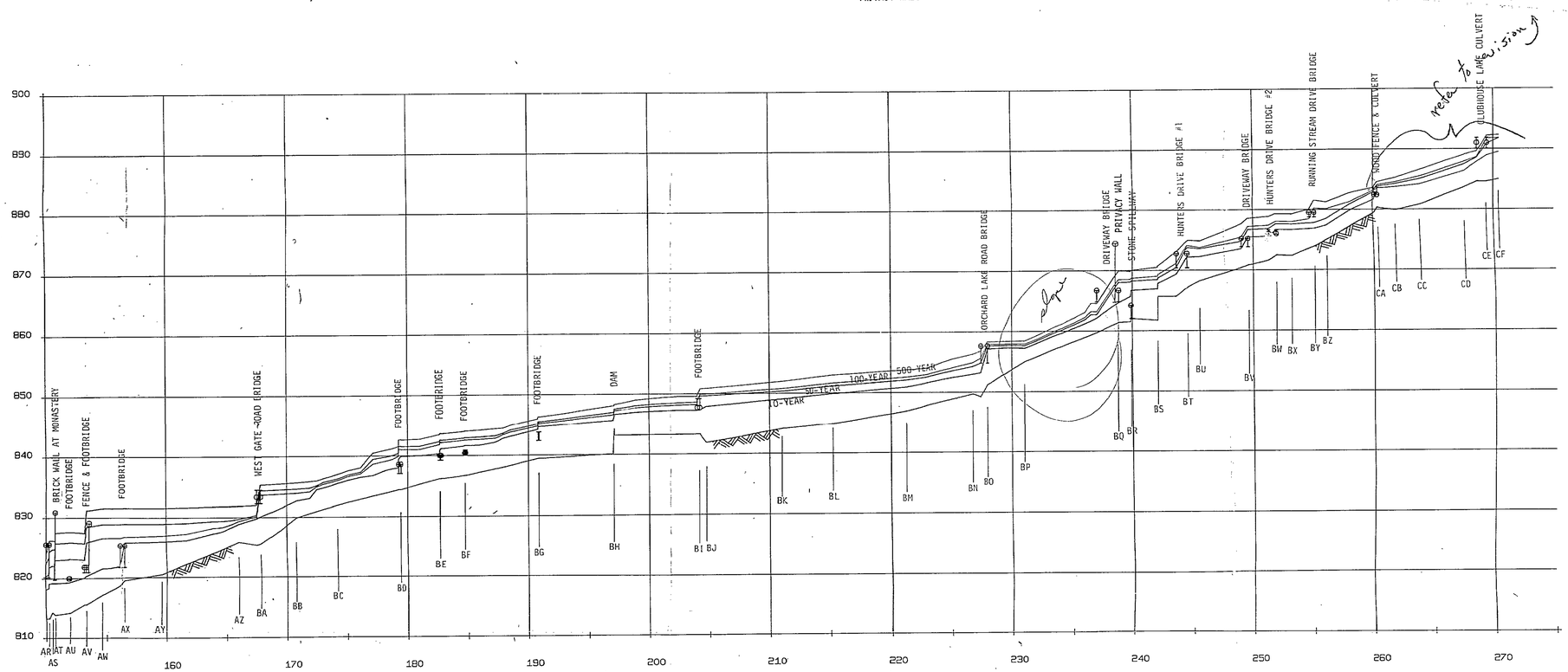


ISLAND FLOW AROUND
MONASTARY WALL



ISLAND FLOW AROUND
HUNTER'S RIDGE
PRIVACY WALL





DRAWN:
DESIGN:
CHECKED:

FINAL:
DATE COMPLETED:
PRELIMINARY:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

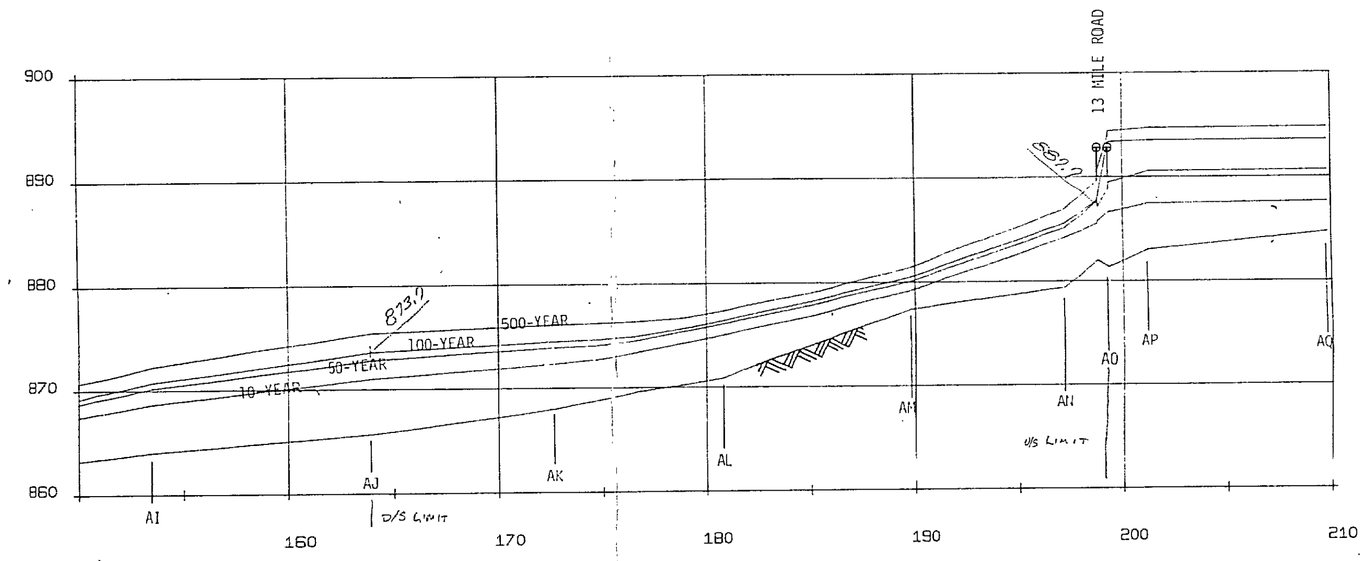
REVISIONS	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE

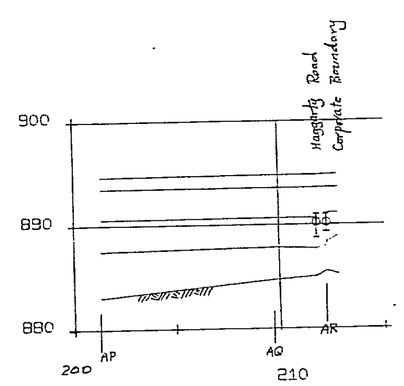
JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

PEBBLE CREEK

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
DATE ISSUED 3-8-78
SHEET NO. 2 OF 2





Seeley Drain

Job No.	Contr. No.	Cost Trk. No.	Type of Job No.	Sheet No. of No. of Sheets	As Built	Section	City No. in County	Twp. No. in County	Village No. in County	County Work in State	State	Construction Contract	Job Code No.
1 2 3 4 5	6 7 8	9 10 11	12 13 14	15 16 17 18 19 20 21 22 23 24	25 26 27	28 29 30	31 32 33	34 35 36	37 38 39	40 41 42	43 44 45	46 47 48	49 50 51 52 53 54 55 56 57 58 59 60

TOPOGRAPHIC INFORMATION	
DATE OBTAINED	
DATE UPDATED	

V.I.	DATE	BY	BY	BY	BY

DRAWING ISSUE DATES		
OWNER		
UTILITIES	ELEC.	GAS
TEL.	PIPE LINE	
APPR. AGENCIES		
BIDDERS		

CHECKED	DATE	BY
P.M.		
O.A.		
CONSTR.		

DRAWN:
DESIGN:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

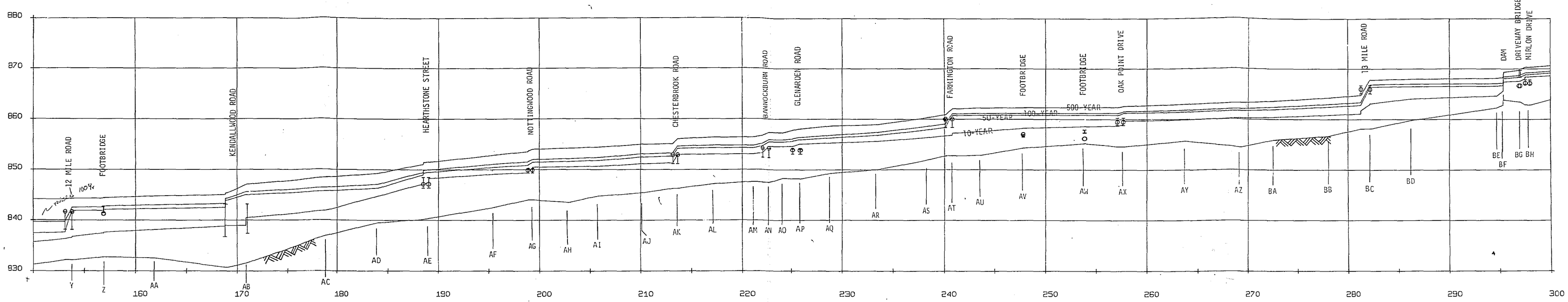
REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE

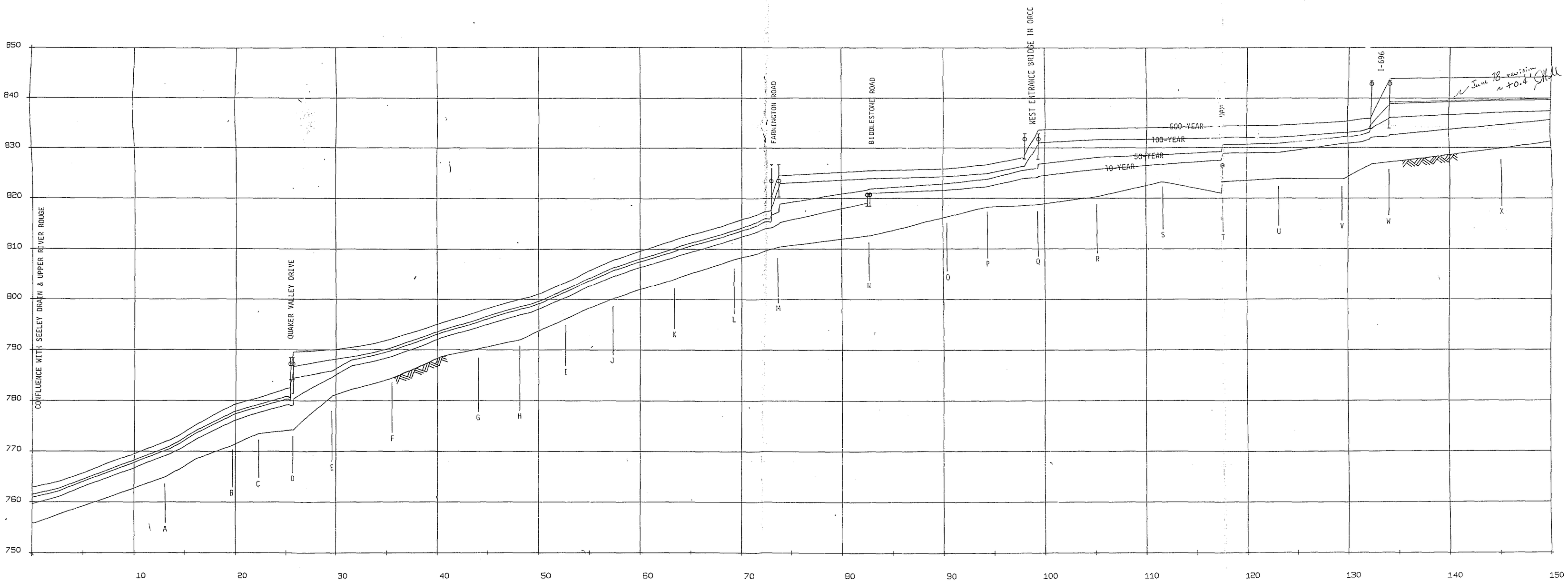
JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

SEELEY DRAIN

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
3-20-78
SHEET NO. 2 OF 2





Job No.	Contr. No.	Cost Tab No.	Type of Job No.	Sheet No.	Sheet No. of Sheets	As Built	Section	City No. in County	Twp. No. in County	Village No. in County	County No. in State	State	Construction Contract	Job Code No.
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DATE	BY	DATE	BY	DATE	BY	DATE	BY
V.I.							

DRAWING ISSUE DATES

ELEC.	GAS	PIPE LINE	

OWNER			
UTILITIES	TEL.		
APPR. AGENCIES			
BIDDERS			

CHECKED	DATE	BY
P.M.		
O.A.		
CONSTR.		

TOPOGRAPHIC INFORMATION	
DATE OBTAINED	
DATE UPDATED	

DRAWN:
DESIGN:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

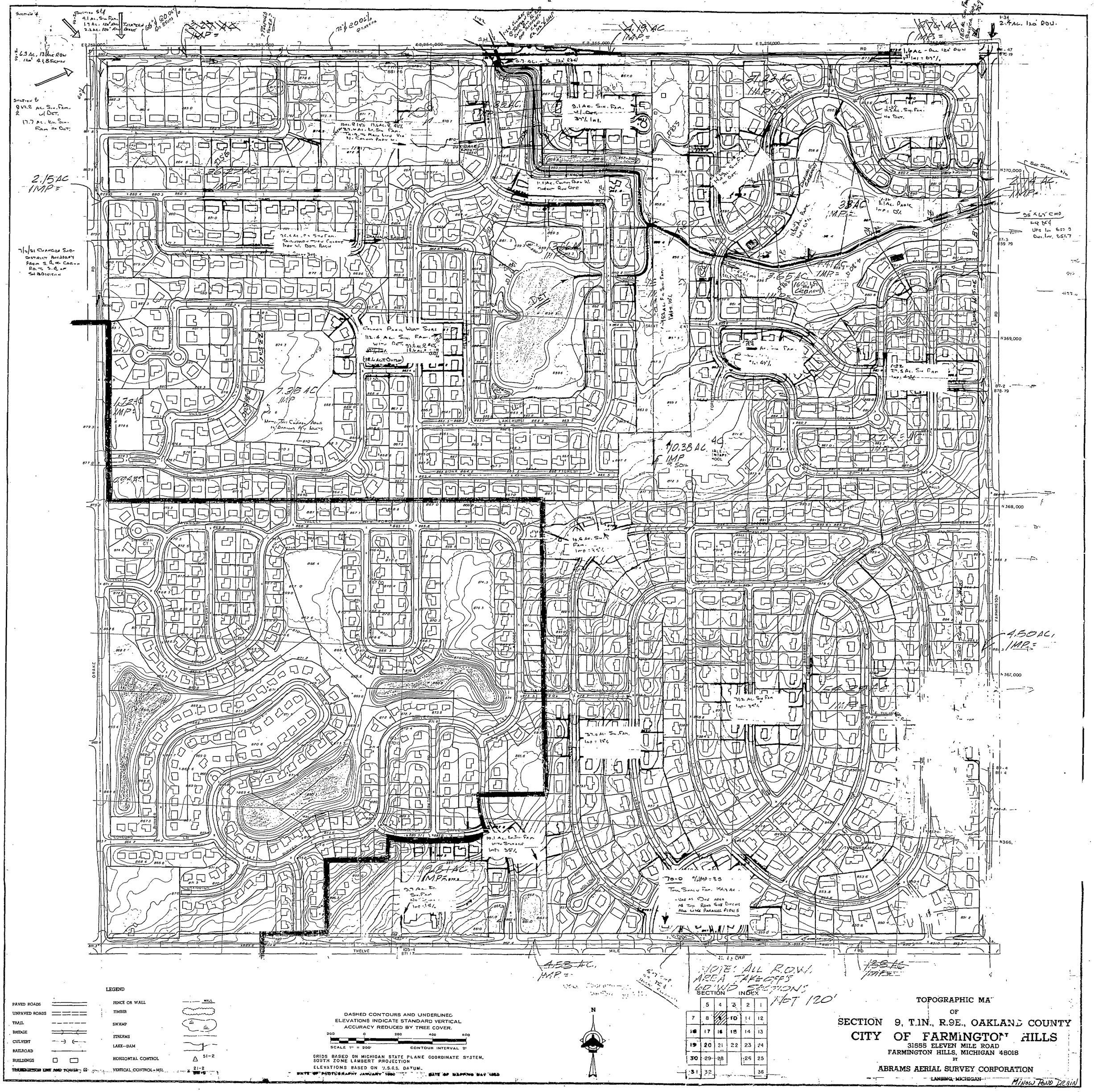
REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE

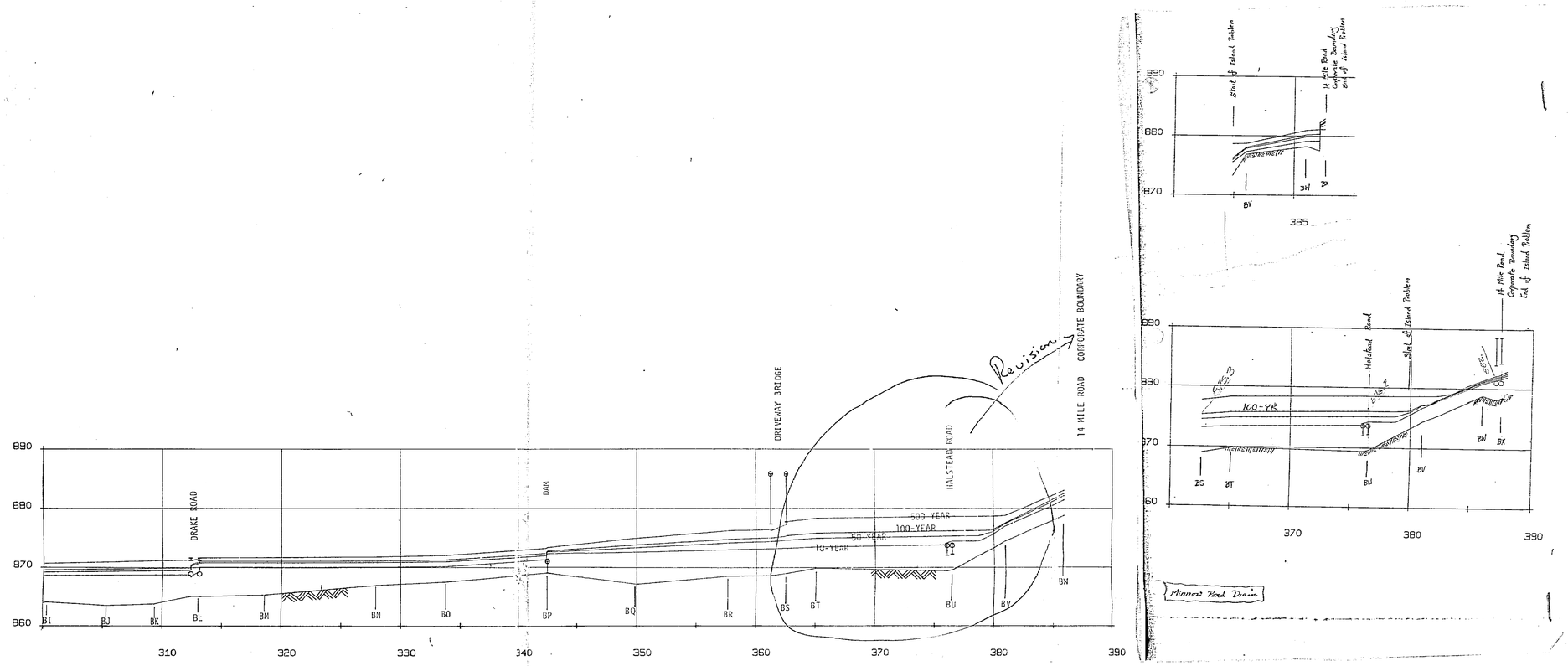
JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

MINNOW POND DRAIN

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
3-20-78
SHEET NO. 1 OF 2


THIRTEEN
TWELVE
MILE
ORAKE
FARMINGTON
LAKEHURST
COLONY PARK WEST SUBS
112.4 AC. SIN. FAM.
WITH DET.
TOTAL SINGLE FAM. 154.7 AC.
NOTE: ALL R.O.W. AREA TAKEOFF'S 60' WD SECTIONS NOT 120'
MINOW POND DRAIN
LEGEND
PAVED ROADS
UNPAVED ROADS
TRAIL
BRIDGE
CULVERT
RAILROAD
BUILDINGS
FENCE OR WALL
TIMBER
SWAMP
STREAMS
LAKE—DAM
HORIZONTAL CONTROL
VERTICAL CONTROL = MSL
DASHED CONTOURS AND UNDERLINED ELEVATIONS INDICATE STANDARD VERTICAL ACCURACY REDUCED BY TREE COVER.
SCALE 1" = 200'
CONTOUR INTERVAL 2'
GRIDS BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE LAMBERT PROJECTION
ELEVATIONS BASED ON U.S.G.S. DATUM.
DATE OF PHOTOGRAPHY JANUARY 1980
DATE OF MAPPING MAY 1983
N
SECTION INDEX
TOPOGRAPHIC MAP
OF
SECTION 9, T.1N., R.9E., OAKLAND COUNTY
CITY OF FARMINGTON HILLS
31555 ELEVEN MILE ROAD
FARMINGTON HILLS, MICHIGAN 48018
BY
ABRAMS AERIAL SURVEY CORPORATION
LANSING, MICHIGAN
A-A.S.C. 1706



Job No.	Conv. No.	Cost Tab. No.	Type of Job No.	Sheet No. or Sheet No. of Sheets	Alt. Built	Section	City No. in County	Twp. No. in County	Village No. in County	County No. in State	State	Construction Contract	Job Code No.

TOPOGRAPHIC INFORMATION	
DATE OBTAINED	
DATE UPDATED	

V.I.	DATE	BY	BY	BY	BY

DRAWING ISSUE DATES			
OWNER			
UTILITIES	TEL.	ELEC.	GAS	PIPE LINE
APPR. AGENCIES			
BIDDERS			

CHECKED	DATE	BY
P.M.		
P.E.		
CONSTR.		

DRAWN:
DESIGN:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

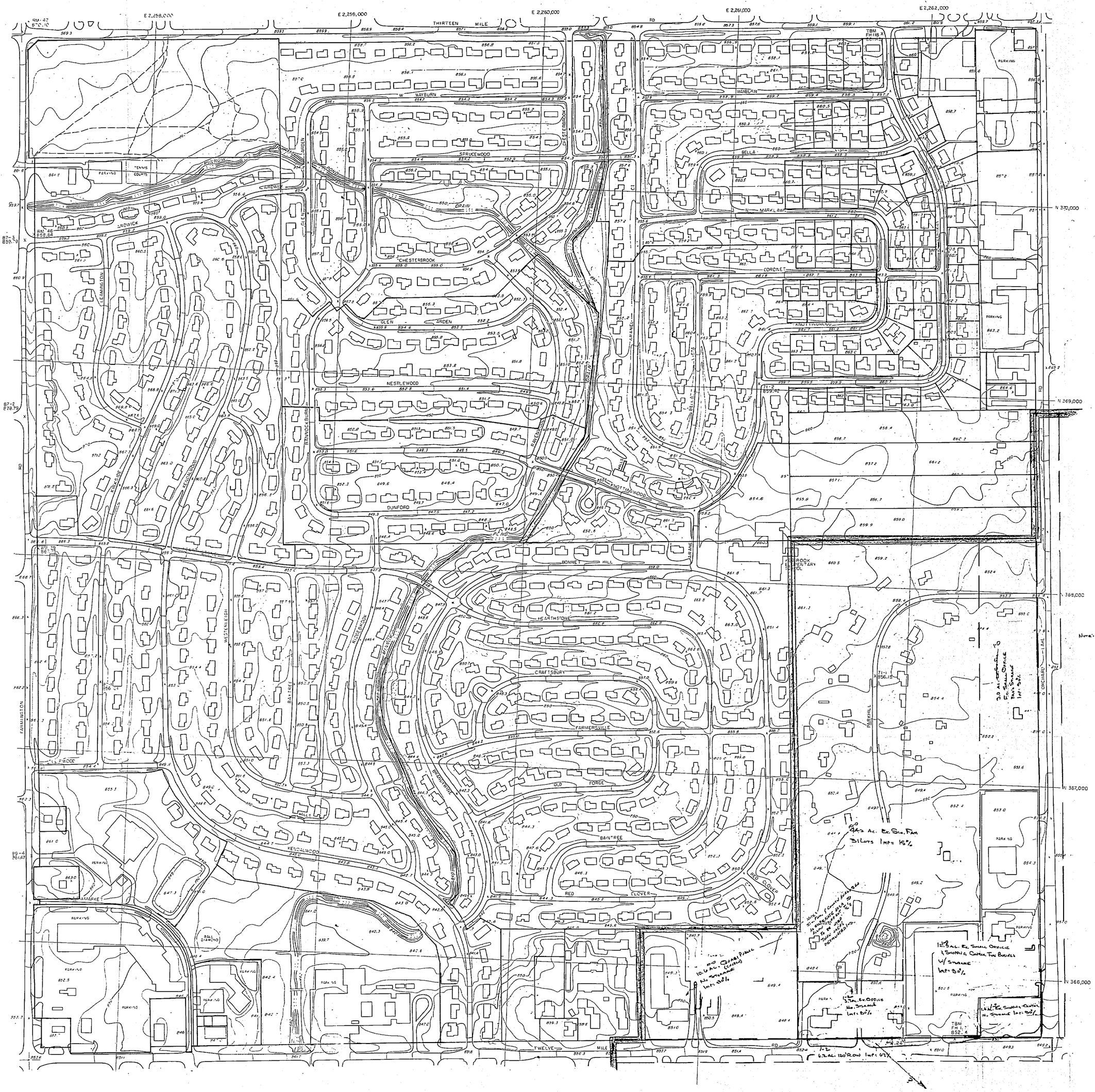
REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

MINNOW POND DRAIN

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
3-20-78
SHEET NO. 2 OF 2



LEGEND

PAVED ROADS	FENCE OR WALL
UNPAVED ROADS	TIMBER
TRAIL	SWAMP
BRIDGE	STREAMS
CULVERT	LAKE—DAM
RAILROAD	HORIZONTAL CONTROL △ 51-2
BUILDINGS	VERTICAL CONTROL = MSL x 21-2 BM-5
TRANSMISSION LINE AND TOWER	

DASHED CONTOURS AND UNDERLINED ELEVATIONS INDICATE STANDARD VERTICAL ACCURACY REDUCED BY TREE COVER.

200 0 200 400 600

SCALE 1" = 200' CONTOUR INTERVAL 2'

GRIDS BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE LAMBERT PROJECTION.

ELEVATIONS BASED ON U.S.G.S. DATUM.

DATE OF PHOTOGRAPHY JANUARY 1980 DATE OF MAPPING MAY 1980

N

SECTION INDEX

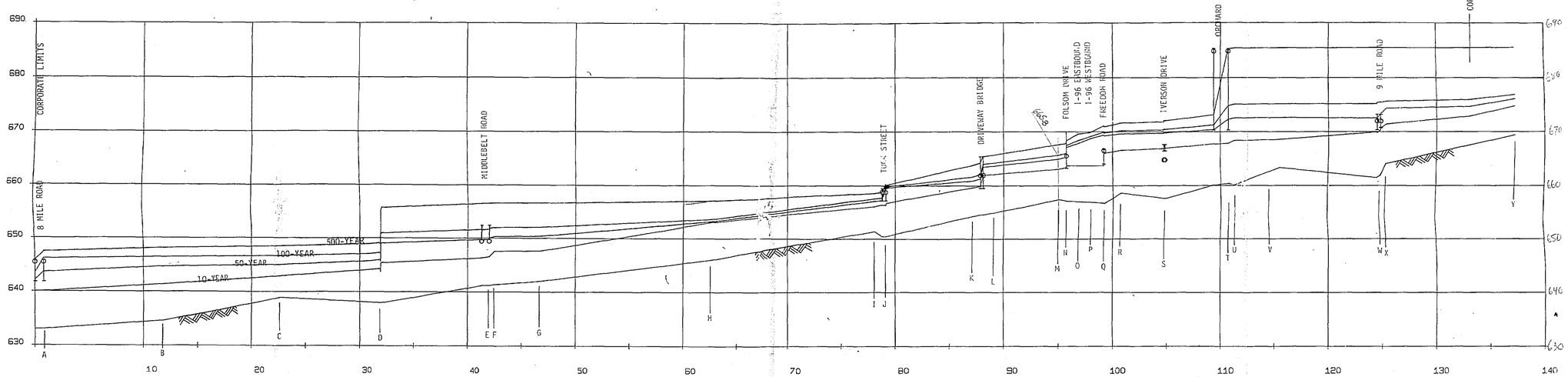
	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28		26	25
31	32				36

TOPOGRAPHIC MAP
OF
SECTION 10, T.1N., R.9E., OAKLAND COUNTY
CITY OF FARMINGTON HILLS

31555 ELEVEN MILE ROAD
FARMINGTON HILLS, MICHIGAN 48018
BY
ABRAMS AERIAL SURVEY CORPORATION
LANSING, MICHIGAN

MAIN RAVINES

A.A.S.C. 17081



DRAWN:
DESIGN:
CHECKED:

FINAL:
DATE COMPLETED:
PRELIMINARY:

SCALE: VERT. 1" = 10'
HORIZ. 1" = 500'

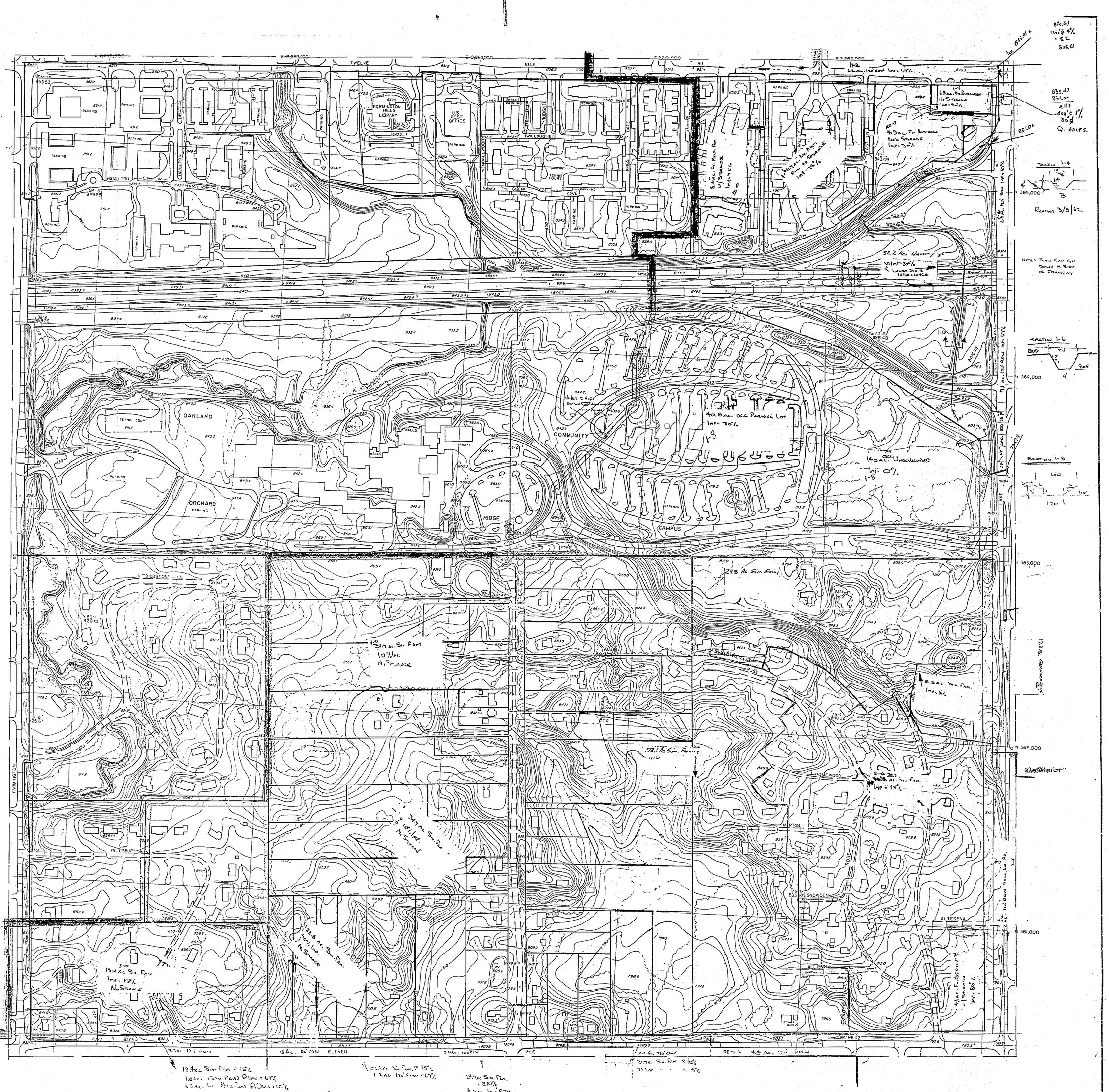
REVISIONS	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

UPPER RIVER ROUGE
D/S OF THE CITY OF FARMINGTON

CITY OF FARMINGTON HILLS FIS

JOB NO. 5670-03
DATE ISSUED
SHEET NO. 1 OF 1



LEGEND

PAVED ROADS	FENCE OR WALL
UNPAVED ROADS	TIMBER
TRAIL	SWAMP
BRIDGE	STREAMS
CULVERT	LAKE—DAM
RAILROAD	HORIZONTAL CONTROL △ 51-2
BUILDINGS	VERTICAL CONTROL-MSL × 21-2 BM-5
TRANSMISSION LINE AND TOWER	

DASHED CONTOURS AND UNDERLINED ELEVATIONS INDICATE STANDARD VERTICAL ACCURACY REDUCED BY TREE COVER.

200 0 200 400 600

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DATE OF PHOTOGRAPHY JANUARY 1980 DATE OF MAPPING MAY 1980

N

SECTION INDEX

	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28		26	25
31	32				36

TOPOGRAPHIC MAP

OF

SECTION 15, T.1N., R.9E., OAKLAND COUNTY

CITY OF FARMINGTON HILLS

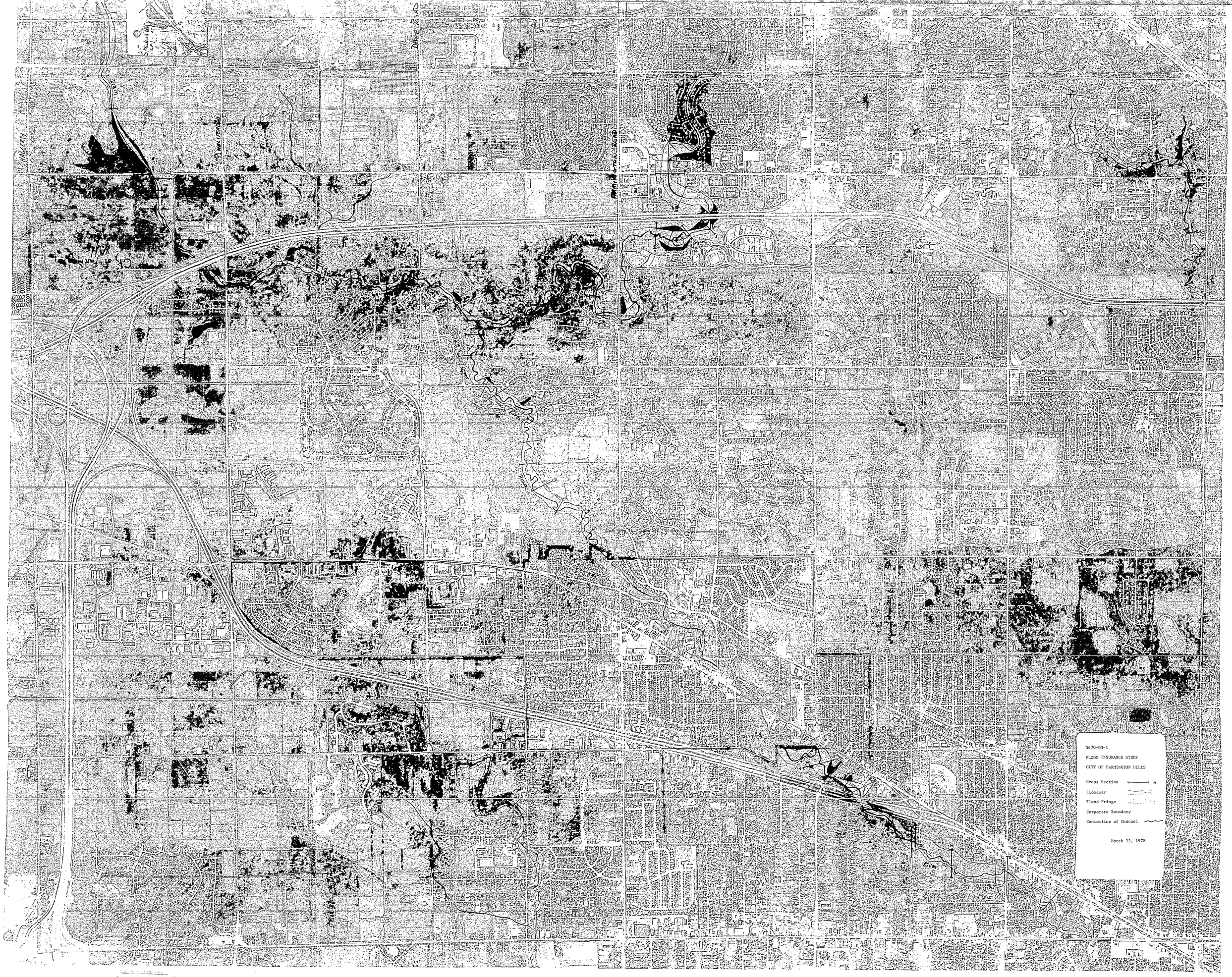
31555 ELEVEN MILE ROAD

FARMINGTON HILLS, MICHIGAN 48018

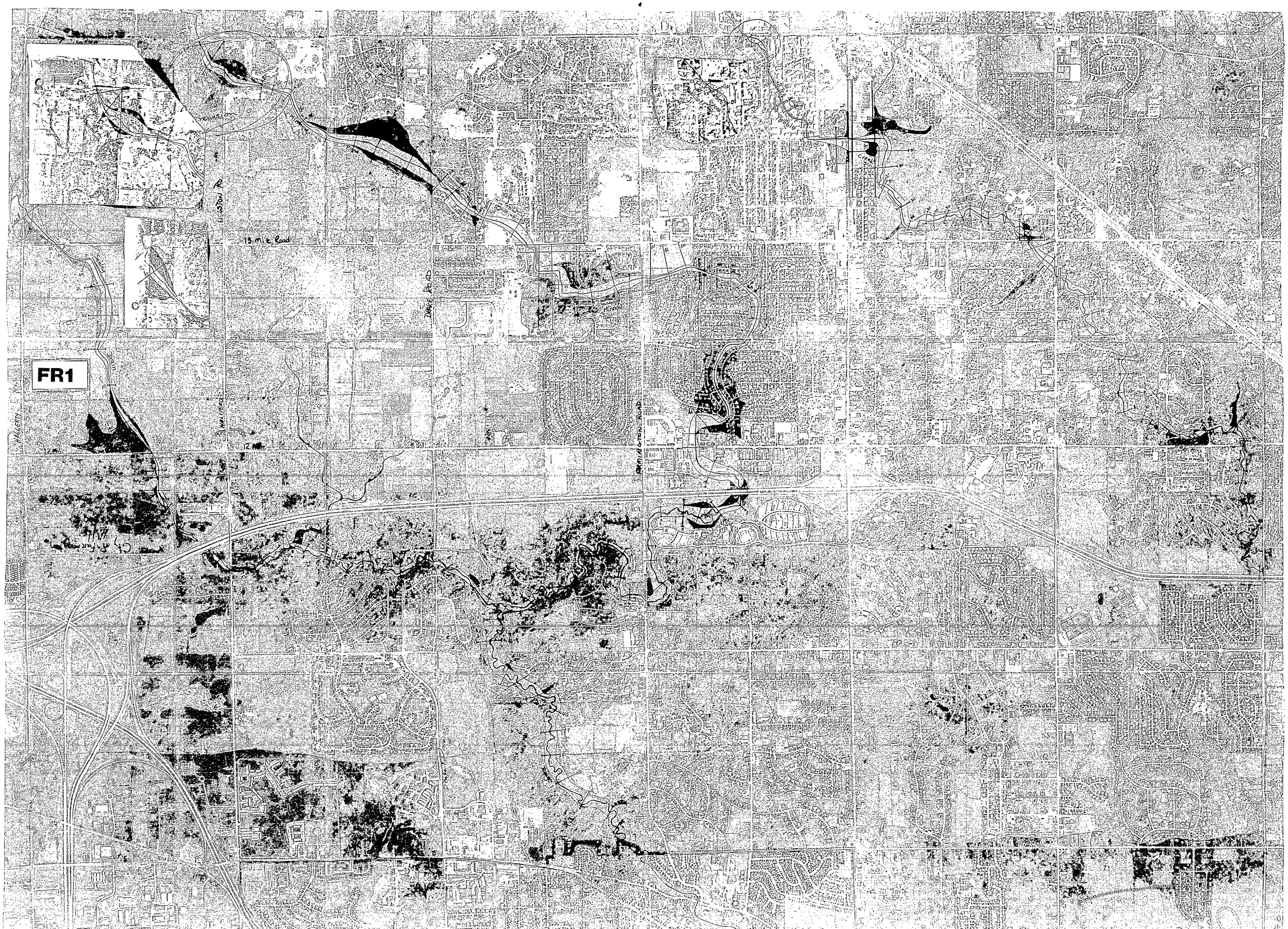
BY

ABRAMS AERIAL SURVEY CORPORATION

MAIN RAVINES LANSING, MICHIGAN


5670-03-1
FLOOD INSURANCE STUDY
CITY OF FARMINGTON HILLS
Cross Section A
Floodway
Flood Fringe
Corporate Boundary
Centerline of Channel
March 22, 1978
FARMINGTON TWP.

FR2


FR1
13 Mile Road
DAVISE ROAD
MAIN ST
12 Mile
Minnow Pond
Lake Minnie
VILLAGE CITY

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: MINNOW POND DRAIN

4) DOCUMENT TYPE: 10 YR SUMMARY

00BREAK00

MINNOW POND
FEMA MAP MODIFICATION
HRC JOB # 95340

HEC-2 OUTPUT FILE
10-YR FLOOD

T1 CITY OF FARMINGTON HILLS, MI

T2 10-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.000	869.00	759.69	0.00	0.00	0.69	120 52	0 00
*	310 000	869 00	762.42	0.00	2 73	0.00	161.87	310.00
	620 000	869.00	763 99	0 00	1 57	0 00	143.24	310 00
	810 000	869.00	765 44	0 00	1.44	0 00	143.97	190 00
	1000.000	869.00	766.89	0.00	1 46	0.00	142.92	190.00
	1190.000	869.00	768 39	0.00	1.50	0.00	140 80	190.00
	1380 000	869.00	769 90	0 00	1.51	0 00	139 65	190 00
	1430.000	869.00	770.35	0.00	0.45	0.00	135.38	50 00
	1480.000	869.00	770.88	0.00	0 53	0.00	133.13	50.00
*	1580.000	869 00	772 02	0.00	1.14	0.00	109 53	100.00
*	1680.000	869.00	773.19	0.00	1.18	0 00	108.46	100.00
*	2080.000	869.00	777.01	0.00	3.82	0.00	170.15	400.00
	2380.000	869.00	778.56	0 00	1.54	0.00	144 26	300.00
*	2680.000	869.00	780 03	0.00	1.47	0.00	177.29	300 00
	2700 000	869 00	780.08	0.00	0.05	0 00	177.67	20.00
	2710.000	869.00	780.11	0.00	0.02	0.00	177.79	10.00
	2720.000	869.00	780.13	0.00	0 02	0.00	177.95	10.00
	2724.000	869 00	780.14	0.00	0.01	0 00	178.32	4 00
	2728 000	869.00	780.15	0.00	0.01	0 00	178.41	4 00
*	2732 000	869.00	780.17	0.00	0 02	0.00	45.95	4.00
*	2733.000	869.00	780.93	0.00	0.76	0.00	53.30	1.00
*	2763 000	869.00	784 84	0 00	3.91	0.00	83 41	30.00
	2764 000	869.00	784.81	0.00	-0.03	0.00	84.18	1.00
	2768.000	869.00	784.88	0.00	0.07	0.00	105.95	4.00
*	3191.000	869.00	785.54	0.00	0 66	0.00	116.06	423 00
*	3381 000	869 00	787 59	0 00	2.04	0.00	149.77	190 00
	3581 000	869.00	788.51	0.00	0 93	0 00	138.45	200.00
	3781.000	869.00	789.57	0.00	1 05	0.00	135.84	200.00
	4451.000	869.00	793 35	0 00	3.79	0 00	140 58	670.00
	5551 000	869 00	797 80	0 00	4.45	0 00	190 27	1100 00
	5664 000	869.00	798.23	0.00	0.43	0 00	156 66	113 00
	5776.000	869.00	799.09	0.00	0 85	0.00	141.14	112 50
	5889.000	869 00	800 18	0.00	1 09	0.00	134.81	112.50
	6001.000	869 00	801 21	0.00	1.03	0.00	124 49	112 00
	6666.000	869 00	805 74	0 00	4.53	0 00	135 88	665 00
	7586 000	869.00	809 48	0.00	3 74	0 00	135.68	920 00
	8506.000	869.00	813.10	0 00	3 63	0.00	115.48	920 00
	8906.000	560 00	814 76	0 00	1.66	0.00	116.75	400.00
	8921 000	560 00	814 79	0.00	0.03	0 00	115.21	15.00
	8936 000	560.00	814 83	0.00	0.04	0 00	113 67	15.00
	8946.000	560.00	814.86	0.00	0 03	0.00	112 86	10 00
	8956.000	560.00	814.88	0 00	0 03	0.00	111.85	10.00
	8966 000	560 00	814 91	0 00	0.03	0.00	111.43	10.00
*	8977 000	560.00	814.96	0 00	0.05	0 00	15 80	11.00
*	9059 000	560.00	818.22	0.00	3 26	0 00	15 80	82 00
*	9070.000	560.00	818.42	0 00	0 20	0.00	35.88	11.00
	10059 000	560 00	819 99	0 00	1 57	0.00	35.50	989 00
*	10060.000	560.00	819.55	0 00	-0.45	0 00	35 50	1.00
	10090.000	560.00	819 93	0.00	0.39	0 00	35 50	30 00
*	10091.000	560.00	821 15	0.00	1.22	0.00	459 49	1.00
	11141 000	560.00	821 99	0 00	0 83	0.00	122 62	1050 00

T1 CITY OF FARMINGTON HILLS, MI

T2 10-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	11711.000	560.00	822.94	0.00	0.95	0.00	76 20	570 00
*	12041.000	560.00	824.13	0 00	1.19	0.00	93 16	330.00
	12061.000	560.00	824.03	0 00	-0 10	0.00	21 00	20.00
	12062.000	560.00	824.03	0 00	0 00	0.00	21 00	1.00
*	12192 000	560.00	824.32	0 00	0 29	0.00	18.00	130.00
	12193 000	560.00	824.32	0.00	0 01	0.00	18 00	1.00
*	12196 000	560.00	824.93	0 00	0 61	0.00	67 14	3.00
*	12823 000	560.00	826.03	0 00	1.10	0.00	226.70	627.00
*	13507 000	560.00	827.04	0 00	1.01	0.00	153.44	684.00
*	14107 000	560.00	827.96	0.00	0 92	0.00	133.79	600.00
*	14131 000	560.00	828.08	0 00	0.12	0.00	97.18	24.00
*	14132.000	560.00	828.25	0.00	0.17	0.00	103 46	1.00
*	14142.000	560.00	828.77	0.00	0.52	0.00	121.82	10.00
	14143.000	560.00	829.28	0.00	0 51	0.00	139.78	1.00
	14685.000	560.00	830.31	0.00	1.03	0.00	161 11	542.00
	15197.000	560.00	831.09	0.00	0 78	0.00	111.85	512.00
*	15372.000	560.00	831.41	0.00	0.32	0.00	46.05	175.00
	15412 000	560.00	831.69	0.00	0 27	0.00	38.29	40 00
	15432.000	560.00	831.84	0.00	0.15	0.00	35.69	20.00
	15452 000	560.00	832.00	0.00	0.16	0.00	34 03	20.00
	15472 000	560.00	832.52	0.00	0.52	0.00	25.00	20.00
*	15473.000	560.00	832.52	0.00	0 00	0 00	25.00	1.00
	15651.000	560.00	832.69	0.00	0.16	0.00	25 00	178.00
*	15652 000	560.00	832.84	0.00	0 15	0.00	25.00	1.00
*	15655 000	560.00	833.13	0.00	0.30	0.00	66.31	3.00
	16738 000	560.00	835.07	0.00	1 94	0.00	243 30	1083.00
*	17491.000	560.00	836.74	0.00	1.67	0.00	24.00	753.00
	17492.000	560.00	836.75	0.00	0.00	0.00	24 00	1.00
	17616.000	560 00	836.69	0 00	-0 06	0.00	24 00	124.00
	17617 000	560.00	836.69	0 00	0.00	0.00	24.00	1.00
	17907.000	560.00	837.60	0 00	0.91	0.00	42 05	290.00
	17908 000	560.00	837.59	0 00	-0.01	0.00	42 03	1 00
	17913 000	560.00	837.61	0.00	0 02	0.00	42 06	5 00
	17914.000	560 00	837.65	0 00	0.04	0.00	42 27	1 00
	18282 000	560.00	838.26	0 00	0.61	0.00	47 71	368 00
	18412.000	560.00	838.43	0 00	0.17	0.00	48.69	130.00
*	18447.000	254.00	838.62	0 00	0.19	0.00	40.79	35 00
*	19134.000	254 00	838.83	0 00	0.22	0.00	33 92	687.00
*	19337.000	254 00	839.34	0 00	0.51	0.00	20.60	203 00
	19338.000	254 00	839.34	0.00	0.00	0.00	20.60	1 00
*	20151.000	254 00	840.36	0 00	1.02	0.00	28.86	813 00
	20631.000	254.00	844 00	0 00	3.64	0.00	29.38	480 00
*	21060 000	254 00	845 83	0 00	1.84	0 00	15.97	429 00
	21061 000	254 00	845 79	0.00	-0.04	0 00	15.97	1.00
	21111.000	254 00	846 03	0.00	0.24	0 00	16 00	50.00
	21112 000	254.00	846 14	0.00	0 10	0 00	16 00	1.00
*	21737.000	254 00	847 25	0.00	1 11	0 00	39 56	625 00
*	22067 000	254 00	847 76	0.00	0 51	0.00	16.20	330.00
	22068.000	254.00	847.76	0.00	0 00	0 00	16 20	1.00
*	22114 000	254 00	847 88	0.00	0 12	0 00	16 20	46 00
	22115.000	254.00	847 97	0 00	0.09	0 00	16 20	1.00

T1 CITY OF FARMINGTON HILLS, MI

T2 10-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	22455.000	254 00	848.72	0.00	0.75	0.00	73.27	340.00
*	22755.000	254.00	848.99	0.00	0 27	0.00	37.58	300.00
	23200.000	238 00	850 01	0 00	1 01	0 00	114.83	445.00
	23500.000	238 00	850.66	0 00	0 65	0 00	15.40	300.00
	23501.000	238.00	850 66	0.00	0.00	0 00	15 40	1.00
*	23548.000	238.00	850.77	0.00	0.11	0 00	15 40	47.00
*	23549.000	238.00	851.03	0.00	0.26	0.00	15 40	1.00
*	23875.000	238.00	851.57	0.00	0.54	0.00	163 81	326.00
*	24240.000	238.00	851.86	0.00	0.28	0.00	26 41	365.00
*	24330.000	238.00	852.21	0.00	0.35	0.00	62.09	90 00
	24331.000	238.00	852.24	0.00	0.03	0.00	62.47	1 00
*	24401.000	238.00	852.13	0.00	-0.10	0.00	61.01	70.00
*	24402 000	238.00	852.71	0.00	0.58	0.00	69.30	1.00
*	24552.000	238.00	852.78	0.00	0 07	0 00	28.35	150.00
*	24664.000	238.00	852.94	0.00	0.15	0 00	15.00	112.00
*	24665.000	238.00	852.83	0.00	-0.11	0.00	15 00	1.00
	24735.000	238 00	853.66	0.00	0.83	0.00	15.00	70.00
*	24736 000	238 00	854.11	0.00	0.45	0.00	55.64	1.00
	25056.000	238.00	854.55	0.00	0 44	0.00	32.64	320 00
	25531.000	238 00	855.02	0.00	0.46	0.00	26.91	475.00
*	26053.000	238.00	855 83	0.00	0.82	0.00	29.04	522.00
	26228.000	238.00	856 25	0.00	0 42	0 00	30.00	175.00
	26229.000	238.00	856 26	0.00	0 00	0.00	30.00	1.00
*	26297.000	238.00	856.31	0.00	0.05	0.00	30 00	68.00
*	26298.000	238 00	856.98	0.00	0.67	0.00	30 00	1.00
	26578 000	597 00	857.50	0.00	0.52	0.00	136.48	280 00
*	27005 000	597 00	858.99	0.00	1.49	0.00	345.89	427 00
	27006 000	597.00	859 00	0 00	0 01	0 00	346.05	1 00
	27009 000	597.00	859 00	0 00	0 00	0 00	346.18	3 00
	27010.000	597.00	859.00	0 00	0 00	0 00	346.20	1.00
	27581.000	597 00	859.30	0 00	0.30	0.00	322 85	571.00
	27582 000	597 00	859.30	0.00	0.00	0.00	322 87	1.00
	27585 000	597 00	859.30	0.00	0.00	0.00	322 99	3 00
	27912 000	597.00	859.38	0.00	0 08	0.00	60 36	327 00
*	27913.000	597.00	858 82	0 00	-0.55	0.00	32.00	1 00
*	27973.000	597.00	861 08	0 00	2 26	0 00	170.00	60.00
*	27974.000	597.00	861 22	0.00	0 13	0 00	170.00	1.00
	28497.000	597.00	861 40	0.00	0.18	0.00	281 75	523.00
*	28967 000	597 00	861.61	0.00	0.21	0.00	110.86	470.00
	29317.000	597 00	861.96	0.00	0.35	0.00	99.70	350 00
	29797.000	597.00	862 48	0.00	0 52	0 00	57.93	480.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: MINNOW POND DRAIN

4) DOCUMENT TYPE: 50 YR ENCROACHED

00BREAK00

MINNOW POND
FEMA MAP MODIFICATION
HRC JOB # 95340

HEC-2 OUTPUT FILE
50-YR FLOOD

T1 CITY OF FARMINGTON HILLS, MI

T2 50-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.000	1400 00	760.80	0.00	0.00	0.00	174.80	0 00
	310 000	1400.00	762.97	0 00	2 17	0.00	197 48	310.00
	620.000	1400.00	764 81	0 00	1 84	0 00	192 59	310.00
	810.000	1400.00	766 18	0.00	1.37	0 00	191 33	190.00
	1000.000	1400.00	767.65	0.00	1 47	0.00	192.19	190.00
	1190.000	1400.00	769.14	0.00	1 49	0.00	196.56	190.00
	1380.000	1400 00	770.65	0.00	1 51	0 00	196.37	190.00
*	1430 000	1400.00	771.14	0 00	0.49	0.00	192.77	50 00
*	1480.000	1400.00	771.69	0.00	0.55	0 00	191.02	50.00
*	1580.000	1400.00	772.93	0.00	1 24	0.00	193.04	100.00
*	1680 000	1400 00	774.07	0.00	1.14	0.00	173 00	100 00
	2080.000	1400.00	777.81	0 00	3.75	0.00	216.00	400 00
	2380.000	1400.00	779.36	0.00	1.55	0 00	174.45	300 00
*	2680.000	1400.00	780.92	0.00	1.56	0.00	204.56	300.00
	2700.000	1400 00	780.97	0.00	0 06	0 00	204.66	20.00
	2710.000	1400 00	781.00	0.00	0.03	0 00	204 69	10 00
	2720 000	1400.00	781.03	0.00	0.03	0 00	204.73	10 00
	2724 000	1400.00	781.04	0.00	0.01	0.00	204.81	4.00
	2728.000	1400 00	781.05	0.00	0 01	0.00	204.83	4.00
*	2732.000	1400 00	781.24	0 00	0 18	0.00	55 67	4.00
*	2733 000	1400.00	782.60	0 00	1.36	0 00	66 13	1.00
*	2763.000	1400.00	787 69	0.00	5.10	0 00	97.00	30 00
	2764.000	1400 00	787.66	0 00	-0 04	0 00	99.00	1.00
	2768.000	1400 00	787.73	0 00	0 07	0.00	140.93	4.00
*	3191 000	1400.00	787 99	0 00	0.26	0 00	188.86	423.00
	3381 000	1400.00	788 51	0 00	0.52	0 00	175 29	190 00
	3581 000	1400.00	789.42	0.00	0.91	0 00	154 19	200.00
	3781.000	1400 00	790.48	0 00	1 06	0.00	151.71	200.00
	4451 000	1400 00	794.15	0 00	3 67	0.00	149.73	670.00
	5551 000	1400.00	798 66	0 00	4 51	0 00	229 02	1100.00
	5664 000	1400.00	799.09	0.00	0.43	0 00	192 95	113 00
	5776 000	1400.00	799.89	0 00	0.80	0 00	171 71	112 50
	5889.000	1400 00	800 96	0.00	1 06	0.00	161.11	112 50
	6001.000	1400.00	802 02	0 00	1 06	0.00	146.96	112.00
	6666.000	1400 00	806 63	0.00	4.61	0 00	158.91	665.00
	7586 000	1400.00	810 41	0.00	3.78	0 00	155 48	920 00
	8506 000	1400.00	814.04	0.00	3.63	0 00	145 12	920 00
	8906.000	900 00	815.74	0.00	1 70	0 00	147 55	400.00
	8921.000	900 00	815.77	0 00	0 03	0.00	146.18	15.00
	8936 000	900.00	815 81	0 00	0 04	0.00	144.80	15.00
	8946.000	900.00	815 83	0.00	0.02	0.00	144.05	10.00
	8956.000	900 00	815.86	0.00	0.03	0 00	143.01	10.00
	8966.000	900 00	815 88	0 00	0.03	0 00	142 29	10.00
*	8977.000	900 00	815 94	0 00	0 05	0 00	15 80	11 00
*	9059 000	900.00	820 60	0 00	4 66	0 00	15 80	82 00
	9070 000	900.00	821.02	0.00	0 41	0 00	51.06	11 00
	10059 000	900 00	822.22	0.00	1.20	0.00	125.00	989 00
*	10060.000	900.00	822 12	0 00	-0.10	0.00	125 00	1.00
	10090 000	900 00	822 37	0 00	0.25	0 00	125 00	30 00
*	10091.000	900 00	822 64	0 00	0 28	0.00	648 57	1.00
*	11141 000	900.00	823.17	0 00	0 52	0 00	150 98	1050 00

T1 CITY OF FARMINGTON HILLS, MI

T2 50-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	11711.000	900 00	824 04	0.00	0.87	0.00	97 03	570.00
*	12041.000	900.00	825.18	0 00	1 14	0 00	115.84	330 00
*	12061 000	900 00	824.91	0.00	-0 27	0.00	21.00	20.00
	12062.000	900 00	824.92	0.00	0.00	0 00	21.00	1.00
*	12192.000	900.00	825.35	0 00	0.43	0 00	21.00	130 00
	12193 000	900 00	825 44	0 00	0 10	0.00	21.00	1.00
*	12196.000	900.00	826.69	0 00	1.25	0.00	91 55	3.00
*	12823.000	900.00	827.51	0.00	0.82	0.00	237 17	627 00
*	13507.000	900 00	828 19	0 00	0.68	0 00	185.66	684.00
*	14107 000	900.00	829 01	0.00	0.82	0 00	156 76	600.00
*	14131 000	900.00	828.73	0.00	-0 28	0.00	120 40	24.00
*	14132.000	900.00	828.93	0.00	0.20	0.00	127.61	1 00
*	14142.000	900 00	829 56	0.00	0.63	0 00	149.83	10 00
	14143.000	900.00	830 37	0 00	0 81	0.00	178.57	1.00
	14685.000	900.00	831.27	0.00	0.89	0.00	191 13	542.00
	15197.000	900.00	832.10	0.00	0.84	0.00	123 25	512 00
*	15372.000	900.00	832 40	0.00	0.30	0 00	119.56	175 00
	15412 000	900 00	832 67	0 00	0 27	0 00	98.93	40.00
	15432 000	900.00	832.84	0.00	0 16	0.00	93 91	20.00
	15452.000	900.00	833.01	0.00	0 17	0.00	91 00	20 00
	15472.000	900.00	833.53	0.00	0.52	0.00	25.00	20 00
*	15473.000	900 00	833.53	0.00	0.00	0.00	25.00	1 00
*	15651 000	900.00	835.30	0 00	1 77	0 00	25.00	178.00
*	15652 000	900.00	835.30	0.00	0.00	0.00	25 00	1.00
	15655.000	900 00	835 40	0.00	0.10	0.00	31 00	3.00
*	16738.000	900 00	836 78	0 00	1.38	0 00	347.13	1083.00
*	17491 000	900 00	837.40	0 00	0.62	0 00	85 12	753.00
	17492 000	900.00	837.41	0.00	0 00	0.00	85 39	1 00
	17616 000	900.00	837 46	0.00	0 05	0.00	24 00	124 00
	17617.000	900 00	837 46	0 00	0.01	0 00	24 00	1 00
*	17907.000	900 00	838 90	0 00	1.43	0 00	47.71	290 00
	17908 000	900.00	838.88	0 00	-0 01	0 00	47 69	1 00
	17913 000	900.00	838 90	0.00	0 02	0.00	47 70	5 00
	17914.000	900 00	838 96	0 00	0.06	0.00	47 97	1 00
	18282.000	900 00	839 60	0 00	0.64	0 00	55.50	368 00
	18412 000	900 00	839.78	0 00	0.18	0 00	56.58	130.00
*	18447 000	420.00	840.00	0.00	0 23	0 00	104 21	35.00
*	19134.000	420.00	840 29	0.00	0 28	0.00	37 44	687.00
*	19337.000	420 00	841 73	0.00	1.44	0.00	20.60	203 00
	19338.000	420.00	841 73	0 00	0.00	0 00	20.60	1 00
*	20151 000	420.00	842.65	0 00	0 92	0 00	47.93	813.00
*	20631 000	420.00	844.57	0.00	1 92	0.00	34.95	480.00
*	21060 000	420.00	847 25	0.00	2 68	0.00	15 99	429 00
*	21061.000	420 00	847 06	0.00	-0.20	0.00	15 99	1 00
	21111.000	420 00	847.74	0 00	0.69	0.00	16 00	50 00
*	21112 000	420.00	848.34	0.00	0.59	0 00	16.00	1 00
*	21737 000	420 00	849 11	0.00	0 77	0 00	83 52	625 00
*	22067 000	420.00	849 34	0 00	0 24	0.00	98 59	330 00
*	22068 000	420 00	849 41	0 00	0 07	0.00	99 51	1 00
*	22114.000	420.00	850 37	0 00	0 96	0 00	130 00	46.00
	22115 000	420 00	850 37	0 00	0.00	0 00	130 00	1.00

T1 CITY OF FARMINGTON HILLS, MI

T2 50-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	22455.000	420.00	850 46	0 00	0.09	0.00	129 14	340 00
*	22755.000	420.00	850 57	0.00	0 11	0 00	89 54	300.00
	23200 000	360.00	851.14	0 00	0 57	0 00	131.93	445.00
	23500 000	360.00	851.41	0.00	0 27	0.00	60 84	300.00
	23501 000	360.00	851.46	0.00	0.05	0.00	61 40	1.00
*	23548.000	360.00	853 31	0.00	1.85	0.00	80 00	47 00
	23549.000	360 00	853.30	0 00	0.00	0 00	80 00	1.00
*	23875.000	360.00	853.38	0 00	0.08	0.00	203.92	326.00
*	24240.000	360.00	853.38	0.00	0.00	0 00	60.77	365.00
*	24330.000	360.00	853.64	0.00	0 26	0.00	82.44	90.00
	24331.000	360.00	853.66	0.00	0 02	0.00	82.73	1 00
*	24401.000	360.00	854.85	0.00	1.18	0.00	90 00	70.00
	24402.000	360.00	854 84	0 00	0.00	0.00	90.00	1.00
*	24552.000	360.00	854 85	0 00	0.01	0 00	34.31	150.00
*	24664.000	360.00	854.91	0.00	0.06	0 00	78.00	112.00
*	24665.000	360.00	854.91	0.00	0.00	0.00	78.00	1.00
*	24735.000	360.00	855.31	0.00	0 40	0.00	78 00	70 00
*	24736 000	360 00	855 31	0.00	0.00	0.00	78 00	1 00
	25056.000	360 00	855 59	0 00	0.28	0.00	87 97	320 00
	25531.000	360.00	856.01	0 00	0.43	0 00	36.48	475.00
	26053.000	360.00	856.79	0.00	0.77	0.00	40.29	522.00
	26228.000	360.00	857.13	0.00	0 34	0 00	30.00	175 00
	26229.000	360.00	857.13	0.00	0.00	0.00	30.00	1.00
*	26297 000	360 00	856.96	0.00	-0 17	0.00	30 00	68 00
*	26298 000	360.00	858 21	0.00	1.25	0.00	30 00	1.00
	26578.000	900 00	858 59	0 00	0.38	0.00	203.72	280 00
*	27005.000	900.00	859.44	0 00	0 84	0 00	350.00	427.00
	27006.000	900.00	859.45	0.00	0 01	0 00	350.00	1.00
	27009.000	900 00	859.45	0.00	0 00	0.00	350 00	3.00
	27010 000	900.00	859 45	0 00	0.00	0.00	350.00	1 00
	27581 000	900 00	859 78	0.00	0.33	0.00	325 00	571 00
	27582.000	900 00	859 78	0 00	0.00	0.00	325 00	1 00
	27585.000	900.00	859.78	0 00	0.00	0.00	325 00	3 00
*	27912.000	900.00	859.83	0.00	0.04	0 00	74 55	327 00
*	27913.000	900.00	860.93	0.00	1 11	0 00	170.00	1.00
*	27973.000	900.00	861 80	0.00	0 86	0 00	170 00	60 00
*	27974.000	900.00	861.85	0.00	0 06	0 00	170.00	1.00
	28497 000	900 00	862 09	0 00	0 23	0 00	299.14	523.00
*	28967 000	900 00	862 31	0.00	0 22	0.00	229 60	470.00
	29317.000	900 00	862 71	0.00	0.40	0.00	182 06	350 00
	29797.000	900.00	863 30	0 00	0.59	0.00	66 01	480 00

MINNOW POND
FEMA MAP MODIFICATION
HRC JOB # 95340

HEC-2 OUTPUT FILE
500-YR FLOOD

T1 CITY OF FARMINGTON HILLS, MI

T2 500-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.000	2200.00	761.25	0 00	0 00	0.45	208.43	0.00
*	310.000	2200.00	764.09	0.00	2.84	0.00	244.59	310.00
	620.000	2200.00	765 64	0.00	1.55	0 00	228.07	310 00
	810.000	2200 00	767.02	0.00	1 38	0.00	224.87	190.00
	1000.000	2200.00	768 47	0.00	1 45	0.00	223.39	190 00
	1190.000	2200.00	769.95	0.00	1 49	0.00	226.39	190.00
	1380.000	2200.00	771.46	0.00	1.50	0.00	230.25	190.00
	1430 000	2200.00	771.89	0.00	0.44	0.00	223.26	50.00
*	1480.000	2200.00	772.43	0.00	0.53	0.00	220.29	50 00
*	1580.000	2200 00	773 70	0.00	1.27	0.00	235.58	100 00
*	1680.000	2200.00	774.77	0 00	1.08	0.00	173.00	100.00
*	2080.000	2200.00	778.83	0.00	4.06	0.00	239.21	400.00
	2380.000	2200.00	780.24	0.00	1.41	0 00	203.06	300.00
*	2680.000	2200 00	781.87	0.00	1.63	0.00	210.46	300 00
	2700.000	2200.00	781 94	0.00	0.07	0.00	210.69	20.00
	2710.000	2200.00	781.97	0.00	0.03	0.00	210.74	10.00
	2720.000	2200.00	782.00	0 00	0.03	0 00	210 81	10.00
	2724 000	2200.00	782.02	0.00	0.02	0 00	210.89	4.00
	2728.000	2200.00	782.03	0.00	0.01	0.00	210.93	4.00
*	2732.000	2200.00	782 59	0.00	0 56	0.00	66.08	4 00
*	2733.000	2200.00	784 20	0 00	1.61	0.00	78 45	1.00
*	2763.000	2200.00	788.86	0 00	4.66	0.00	97 00	30.00
	2764.000	2200.00	788.79	0.00	-0.07	0.00	99.00	1.00
	2768 000	2200.00	788 94	0.00	0.14	0 00	164.39	4.00
*	3191.000	2200.00	789.34	0.00	0 40	0 00	213.77	423.00
	3381.000	2200 00	789 79	0.00	0 45	0.00	200.81	190.00
	3581.000	2200.00	790.56	0 00	0 77	0.00	176.94	200.00
	3781.000	2200 00	791.56	0 00	1.00	0.00	172 68	200.00
	4451.000	2200.00	795.09	0 00	3.53	0 00	170.80	670.00
*	5551 000	2200.00	799.66	0.00	4 57	0 00	273.58	1100.00
	5664.000	2200.00	800.08	0.00	0 43	0.00	231.48	113 00
	5776.000	2200 00	800 83	0 00	0 75	0.00	203.42	112 50
	5889.000	2200 00	801.86	0 00	1.03	0.00	185.47	112 50
	6001.000	2200 00	802.94	0 00	1.08	0.00	168 52	112.00
	6666.000	2200.00	807.62	0.00	4.68	0.00	187.31	665.00
	7586.000	2200.00	811 48	0.00	3.86	0.00	180.66	920 00
	8506.000	2200 00	815.11	0.00	3 63	0 00	174.34	920 00
	8906.000	1560.00	816 89	0.00	1.79	0.00	178.76	400.00
	8921.000	1560.00	816.93	0.00	0.04	0.00	177.71	15 00
	8936.000	1560.00	816.97	0 00	0.04	0.00	176.65	15.00
	8946.000	1560.00	817.00	0 00	0.03	0.00	176.10	10.00
	8956 000	1560.00	817.03	0 00	0.03	0 00	175 28	10.00
	8966 000	1560.00	817.06	0.00	0.03	0 00	174.73	10.00
*	8977 000	1560.00	817 18	0.00	0 12	0 00	15.80	11.00
*	9059 000	1560 00	823.43	0.00	6 25	0.00	15.80	82.00
	9070.000	1560.00	824.35	0.00	0 92	0.00	68.63	11.00
	10059 000	1560.00	825.32	0 00	0 96	0.00	125.00	989.00
	10060.000	1560 00	825 33	0 00	0 01	0.00	125 00	1 00
	10090.000	1560.00	825.34	0.00	0 02	0 00	125.00	30.00
	10091 000	1560.00	825.35	0.00	0.00	0.00	125 00	1 00

T1 CITY OF FARMINGTON HILLS, MI

T2 500-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	11141.000	1560.00	825.98	0 00	0.63	0 00	210 63	1050.00
*	11711 000	1560 00	826.39	0 00	0.41	0.00	148.59	570.00
	12041.000	1560.00	827.06	0.00	0 67	0.00	157.06	330.00
*	12061.000	1560 00	826 40	0.00	-0 56	0.00	21.00	20.00
	12062.000	1560.00	826.41	0.00	0.01	0.00	21.00	1.00
*	12192.000	1560 00	832.59	0.00	6.19	0.00	214 76	130.00
*	12193.000	1560.00	832.58	0 00	-0.01	0.00	214.74	1 00
	12196.000	1560.00	832.58	0 00	0.00	0.00	236.72	3.00
*	12823.000	1560.00	832.76	0.00	0 17	0.00	264.93	627.00
*	13507.000	1560.00	832.87	0.00	0 11	0.00	356.30	684.00
*	14107.000	1560.00	833.01	0.00	0.14	0.00	440 00	600.00
*	14131.000	1560.00	833.02	0.00	0.00	0.00	440.00	24 00
	14132.000	1560.00	832.98	0.00	-0.03	0.00	440.00	1.00
	14142.000	1560.00	833.00	0.00	0.01	0.00	440.00	10.00
*	14143.000	1560.00	833.08	0.00	0.08	0.00	440.00	1.00
*	14685.000	1560.00	833.36	0.00	0 28	0.00	363.41	542.00
	15197.000	1560.00	833 93	0.00	0.58	0.00	143.80	512.00
	15372.000	1560.00	834.27	0.00	0.34	0 00	336 80	175.00
	15412.000	1560 00	834.34	0.00	0.07	0.00	299.50	40.00
	15432 000	1560.00	834.40	0 00	0.06	0.00	284.85	20.00
	15452.000	1560.00	834.48	0.00	0.07	0.00	271.69	20.00
	15472.000	1560.00	834.22	0 00	-0 25	0.00	25.00	20.00
*	15473.000	1560.00	834.23	0.00	0.01	0.00	25.00	1.00
*	15651.000	1560.00	840.46	0.00	6.23	0.00	25.00	178 00
*	15652.000	1560.00	840.46	0.00	0.00	0 00	25 00	1 00
	15655.000	1560 00	840.47	0.00	0.01	0 00	31 00	3 00
*	16738 000	1560.00	841 18	0.00	0.71	0.00	440.82	1083.00
*	17491.000	1560.00	841.26	0 00	0.07	0.00	256.00	753.00
	17492.000	1560.00	841.22	0 00	-0.03	0.00	255.00	1.00
	17616.000	1560.00	842.50	0.00	1.28	0.00	193.00	124.00
	17617.000	1560.00	842.52	0.00	0.01	0.00	194.00	1.00
	17907.000	1560.00	842.72	0.00	0 21	0 00	214.61	290.00
*	17908.000	1560 00	842 68	0.00	-0 04	0 00	208.94	1.00
	17913.000	1560.00	842.73	0.00	0 05	0.00	214 21	5 00
*	17914.000	1560.00	842.84	0.00	0.11	0.00	230 12	1 00
*	18282.000	1560.00	843 17	0 00	0.33	0.00	558 28	368 00
	18412 000	1560 00	843.20	0 00	0.03	0.00	559 89	130 00
*	18447 000	1080.00	843.25	0 00	0.04	0.00	561.50	35 00
	19134 000	1080.00	843.47	0.00	0.22	0.00	213.00	687.00
*	19337.000	1080.00	843.60	0 00	0.13	0.00	110.00	203.00
	19338.000	1080.00	843.61	0 00	0 00	0.00	110.00	1.00
	20151.000	1080.00	845.48	0.00	1 88	0.00	140.00	813.00
*	20631.000	1080.00	846.66	0.00	1 17	0 00	120.00	480.00
*	21060.000	1080.00	849.44	0.00	2.78	0.00	140.00	429.00
	21061.000	1080.00	849 78	0.00	0 34	0.00	140 00	1.00
	21111.000	1080.00	849 96	0.00	0 17	0.00	140.00	50.00
	21112.000	1080.00	849 89	0.00	-0 06	0.00	140.00	1 00
*	21737.000	1080.00	850.94	0.00	1 05	0.00	123 59	625.00
	22067.000	1080 00	851.35	0 00	0 41	0.00	130 00	330 00
*	22068 000	1080 00	851.46	0.00	0 11	0.00	130 00	1.00

T1 CITY OF FARMINGTON HILLS, MI

T2 500-YEAR FLOOD

T3 MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	22114.000	1080.00	851.51	0 00	0 05	0.00	130.00	46.00
	22115.000	1080.00	851.50	0.00	-0 01	0.00	130.00	1 00
	22455.000	1080.00	851.72	0.00	0 22	0.00	212.76	340.00
*	22755.000	1080.00	851 97	0.00	0 25	0.00	170.41	300.00
	23200.000	900.00	852.84	0.00	0.87	0 00	159.40	445 00
*	23500.000	900.00	853.10	0 00	0.26	0.00	79.70	300.00
	23501.000	900.00	853.21	0 00	0.11	0 00	80.00	1.00
*	23548.000	900.00	854.75	0 00	1.54	0.00	80 00	47.00
	23549.000	900.00	854 74	0 00	-0.01	0.00	80.00	1.00
*	23875 000	900.00	854.93	0.00	0.19	0.00	225.00	326.00
*	24240 000	900.00	854.91	0.00	-0 02	0.00	135.00	365.00
*	24330.000	900.00	855.34	0.00	0.43	0.00	90.00	90 00
	24331.000	900.00	855.38	0.00	0.04	0.00	90.00	1 00
	24401.000	900.00	856.06	0.00	0.69	0.00	90.00	70 00
	24402.000	900.00	856.05	0.00	-0.01	0 00	90.00	1.00
*	24552.000	900.00	856.05	0.00	-0.01	0.00	62 73	150.00
	24664.000	900.00	856.28	0.00	0.24	0.00	78.00	112.00
	24665.000	900.00	856.39	0 00	0.11	0.00	78.00	1.00
	24735.000	900.00	856.66	0 00	0.28	0.00	78.00	70.00
	24736.000	900.00	856.65	0 00	-0.01	0.00	78.00	1.00
	25056.000	900.00	857.13	0 00	0 47	0.00	186.99	320 00
	25531.000	900.00	857.77	0.00	0 65	0.00	74.40	475 00
	26053.000	900.00	858.87	0.00	1 09	0.00	71.67	522 00
*	26228 000	900.00	859.35	0.00	0.48	0.00	139.57	175 00
	26229 000	900.00	859.33	0.00	-0 02	0.00	139.40	1 00
*	26297 000	900 00	861.20	0.00	1.87	0 00	160.00	68.00
	26298 000	900 00	861.22	0.00	0.02	0 00	160.00	1.00
	26578.000	1370.00	861.30	0.00	0.07	0.00	305.00	280.00
	27005.000	1370.00	861.43	0.00	0.14	0.00	350.00	427.00
	27006.000	1370.00	861.44	0 00	0.00	0.00	350.00	1.00
	27009.000	1370.00	861.44	0 00	0.00	0.00	350.00	3.00
	27010.000	1370.00	861.44	0 00	0.00	0.00	350 00	1.00
	27581.000	1370.00	861.54	0 00	0.11	0.00	325 00	571.00
	27582.000	1370.00	861.54	0 00	0 00	0.00	325.00	1.00
	27585.000	1370.00	861 54	0 00	0 00	0.00	325.00	3.00
*	27912.000	1370.00	861 49	0 00	-0 05	0 00	170.00	327.00
*	27913.000	1370.00	861 41	0 00	-0 08	0.00	170.00	1.00
*	27973.000	1370.00	862 17	0.00	0 75	0 00	170.00	60.00
*	27974.000	1370.00	862 24	0.00	0 07	0.00	170.00	1.00
	28497 000	1370.00	862 63	0.00	0 39	0.00	312.19	523.00
*	28967.000	1370.00	862 93	0.00	0 30	0 00	289.12	470.00
	29317.000	1370.00	863 40	0.00	0 48	0 00	304.03	350.00
	29797 000	1370.00	864.08	0.00	0 68	0 00	73.83	480.00

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: MINNOW POND DRAIN

4) DOCUMENT TYPE: 100 YR. ENCROACHMENT RUN

00BREAK00

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*****************************************                    ****************************************
*  HEC-2 WATER SURFACE PROFILES          *                    *  U S  ARMY CORPS OF ENGINEERS        *
*                                        *                    *  HYDROLOGIC ENGINEERING CENTER       *
*  Version   4 6 2,  May 1991            *                    *  609 SECOND STREET, SUITE D          *
*                                        *                    *  DAVIS, CALIFORNIA 95616-4687        *
*  RUN DATE    17JUL97    TIME    8 29:13 *                    *          (916) 756-1104              *
*****************************************                    ****************************************

                                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

                                     FULL MICRO-COMPUTER IMPLEMENTATION

                                     ==========================
                                     H A E S T A D   M E T H O D S
                                     ==========================
                          37 Brookside Road  *  Waterbury, Connecticut  06708  *  (203) 755-1666
*************************************
HEC-2 WATER SURFACE PROFILES
Version   4 6 2,  May 1991
*************************************
T1      CITY OF FARMINGTON HILLS, MI
T2      100-YEAR FLOOD
T3      MINNOW POND DRAIN
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      0       2        0        0        0        0        0        0        760 8
J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
      1       0        -1       0        0        0        0        0        0
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    110       115      200
NC    .090      090      042      300      500      0        0        0        0        0
QT      2      1600     1600
ET      0        0      1 4
          INTERPOLATED CROSS SECTION AT MOUTH OF MINNOW POND DRAIN
X1      0       90      140 5    170      0        0        0
GR    771 6     0       770 4    4 8      769 1    9 6      767 9    14 5     766 7    19 3
GR    765 5     24 2    764 2    29       763 1    33 9     762      38 7     761 8    43 6
GR    761 6     48 4    761 4    53.2     761 2    58 1     761      62 9     760 9    67 8
GR    760.7     72 6    760 4    77 5     760 3    82.3     760      87 2     759 9    92
GR    759 7     96 9    759 6    101 7    759 4    106.5    759 2    111 4    759 1    116 2
GR    758 9     121 1   758.7    125 9    758 4    130.8    758.2    135 6    757 9    140 5
GR    757 7     141 4   757.6    142 4    757 4    143 4    757 2    144 4    757      145 4
GR    756 8     146 4   756 6    147.3    756 4    148 3    756.2    149 3    756      150 3
GR    755 9     151.3   755 8    152.3    755 8    153 2    755 8    154 2    755 8    155 2
GR    755.8     156 2   755 8    157 2    755 8    158 2    756      159 1    756.2    160 1
GR    756 4     161 1   756 6    162 1    756 8    163 1    757      164 1    757 1    165
GR    757 3     166     757 5    167      757 7    168      757 9    169      758 1    170
GR    758 3     176 2   758 5    182 5    758.7    188 7    758 9    195      759 1    201 2
GR    759 3     207 5   759 5    213 7    759.8    220      760      226 2    760 3    232 5
GR    760 5     238 7   760 8    245      760 9    251 2    761      257 5    761 2    263 7
GR    761 4     270     761 6    276 2    761.7    282 5    762 4    288 7    763 1    295
GR    763 7     301 2   764.4    307 5    765      313 7    765 6    320      766 2    326 2
GR    767       332 5   767 8    338 7    768 6    345      769 5    351 2    770 3    357 5
ET      0        0      1 4
X1    310       90      127 9    156.9    287      262      310
GR    773 3     0       772      4 4      770 8    8 8      769 7    13 2     768 5    17 6
GR    767.3     22      766 1    26.4     765      30 8     764.1    35 3     763 9    39 7
GR    763 6     44 1    763 4    48.5     763 2    52 9     762 9    57 3     762 8    61 7
GR    762 5     66 2    762 2    70 6     762 1    75       761 8    79 4     761 7    83 8
```

GR	761 5	88 2	761 4	92 6	761 2	97	761	101 5	760 9	105 9
GR	760 8	110 3	760 6	114 7	760 3	119 1	760 1	123 5	760 0	127 9
GR	759 7	128 9	759 5	129 9	759 3	130 8	759 1	131.8	758 9	132.8
GR	758 7	133 7	758 4	134 7	758 2	135 7	758	136 6	757 8	137 6
GR	757 7	138 6	757 6	139 5	757 6	140 5	757 6	141.5	757 6	142.4
GR	757 6	143 4	757 6	144 4	757 7	145 3	757 9	146 3	758 1	147.3
GR	758 3	148 2	758 5	149 2	758 8	150 2	759	151 1	759 1	152 1
GR	759 3	153 1	759 6	154	759 8	155	760	156	760 2	156.9
GR	760 4	163 4	760 5	169 9	760 7	176 4	760 9	182 9	761	189 4
GR	761 3	195 9	761 4	202 4	761 6	208 9	761 9	215 4	762 2	221 9
GR	762 4	228 4	762 6	234 9	762 7	241 4	762 8	247 9	763	254 4
GR	763 2	260 9	763 4	267 4	763 6	273 9	764 1	280 4	764 7	286 9
GR	765 2	293 4	765 8	299 9	766 3	306 4	766 8	312 9	767 4	319 4
GR	768 3	325 9	769 2	332 4	770 2	338 9	771 2	345 4	772 3	351 9
ET	0	0	4 1	70	230					
X1	620	90	115 5	144	275	250	310			
GR	775	0	773 8	3 9	772 6	7 9	771.5	11 9	770 3	15 9
GR	769 2	19 9	768	23 8	767	27 8	766.2	31 8	766	35 8
GR	765 7	39 8	765 4	43 8	765 2	47 7	764.9	51 7	764 7	55 7
GR	764 4	59 7	764 1	63 7	763 9	67 7	763 6	71 6	763 5	75 6
GR	763 3	79 6	763 2	83 6	763 1	87 6	762.9	91 6	762 8	95 5
GR	762 7	99 5	762 5	103 5	762 3	107 5	762.1	111.5	762	115.5
GR	761 7	116.4	761 5	117 4	761 3	118 3	761	119 3	760.8	120.2
GR	760 6	121 1	760 3	122 1	760 1	123	759 9	124	759 6	124.9
GR	759 5	125.9	759 5	126 8	759 5	127 8	759 5	128 7	759.5	129 7
GR	759 5	130 6	759 5	131.6	759.6	132 5	759 9	133 5	760.1	134 4
GR	760 3	135 4	760 5	136.3	760 8	137 3	761	138 2	761 2	139 2
GR	761 4	140 1	761 7	141.1	761.9	142	762 1	143	762 4	144
GR	762.5	150 7	762 6	157 5	762.8	164 2	762 9	171	763	177 7
GR	763 2	184 5	763 3	191 2	763.5	198	763 8	204 7	764 1	211 5
GR	764 3	218 2	764 5	225	764 5	231.7	764 6	238 5	764 8	245 2
GR	765	252	765.2	258 7	765.4	265 5	765 9	272 2	766 4	279
GR	766 8	285 7	767.3	292 5	767 7	299 2	768 1	306	768 6	312 7
GR	769 7	319 5	770 7	326 2	771 8	333	773	339.7	774 2	346 5
ET	0	0	4 1	60	230					
X1	810	90	106 1	134 2	200	185	190			
GR	776 2	0	775	3 6	773 9	7 3	772 8	10.9	771 6	14 6
GR	770 5	18.2	769 4	21 9	768 4	25 6	767 7	29 2	767 5	32.9
GR	767 2	36 5	766 9	40 2	766 6	43 9	766 3	47 5	766 1	51 2
GR	765.8	54 8	765 4	58.5	765 2	62 2	764 9	65 8	764 8	69 5
GR	764 6	73 1	764 5	76 8	764 4	80 5	764 3	84 1	764.2	87 8
GR	764.1	91 4	763 9	95 1	763.7	98 8	763 5	102 4	763.5	106.1
GR	763 1	107	762 9	108	762 7	108 9	762 4	109 8	762.2	110.8
GR	761 9	111 7	761 6	112 6	761 4	113 6	761.2	114 5	760 9	115.4
GR	760 8	116 4	760 8	117 3	760 8	118 3	760.8	119 2	760 8	120.1
GR	760 8	121 1	760 9	122	761	122 9	761.3	123.9	761 5	124.8
GR	761 7	125 8	762	126 7	762 3	127 6	762.5	128.6	762 7	129 5
GR	762 9	130 4	763 2	131 4	763 4	132 3	763.7	133 3	764	134 2
GR	764	141.1	764 1	148 1	764.3	155	764 4	162	764 4	168 9
GR	764 6	175 8	764 7	182 8	764 9	189 7	765 2	196.6	765 5	203 6
GR	765 7	210 5	765 8	217.5	765 8	224 4	765 9	231 3	766 1	238 3
GR	766 3	245.2	766 5	252 1	766 7	259 1	767 2	266	767.6	273
GR	767 9	279 9	768.4	286.8	768 7	293 8	769	300 7	769.5	307 6
GR	770 7	314 6	771 8	321 5	773	328 5	774 3	335 4	775 6	342 3
ET	0	0	4 1	56	226					
X1	1000	90	96 7	124 5	200	185	190			
GR	777 5	0	776 3	3 3	775 2	6 6	774 1	10	773	13 3
GR	771.9	16 6	770 8	20	769 9	23 3	769 3	26.6	769	30
GR	768.7	33 3	768 4	36 6	768 1	40	767 8	43.3	767 5	46 7
GR	767 2	50	766 8	53 3	766 6	56 7	766 2	60	766 1	63 3
GR	766	66 7	765 9	70	765 8	73 3	765 7	76.7	765.6	80
GR	765 5	83 4	765 3	86 7	765.2	90	765	93.4	765	96 7
GR	764 6	97 6	764 4	98 6	764 1	99 5	763 9	100 4	763 6	101 3
GR	763.3	102 2	763	103 2	762 8	104 1	762 5	105	762.2	105.9
GR	762 2	106 9	762 2	107.8	762 2	108 7	762 2	109.6	762.2	110.6
GR	762 2	111 5	762 3	112 4	762 5	113 3	762.7	114.3	763	115 2
GR	763 2	116 1	763 5	117	763 8	118	764	118.9	764.2	119 8

GR	764 5	120 7	764 8	121 7	765	122 6	765 3	123 5	765 5	124 5
GR	765 6	131 6	765 7	138 7	765 8	145 8	765 9	153	765.9	160 1
GR	766	167 2	766 1	174 3	766 3	181 5	766 6	188 6	766.9	195 7
GR	767 1	202 8	767 2	210	767 2	217 1	767 3	224.2	767 4	231 3
GR	767 7	238 5	767 9	245 6	768 1	252 7	768 5	259 8	768 8	267
GR	769 1	274 1	769 5	281 2	769 7	288 3	770	295 5	770 4	302 6
GR	771 7	309 7	772 9	316 8	774 2	324	775 6	331 1	777 1	338 2
ET	0	0	4 1	60	230					
X1	1190	90	87 3	114 7	200	185	190			
GR	778 7	0	777 6	3	776 5	6	775 5	9	774.4	12
GR	773 3	15	772 2	18	771 4	21	770 9	24 1	770.6	27 1
GR	770 2	30 1	769 9	33 1	769 6	36 1	769 2	39.1	768.9	42 1
GR	768 6	45 1	768 2	48 2	767 9	51 2	767 6	54.2	767.5	57 2
GR	767 4	60 2	767 3	63 2	767 2	66 2	767 1	69.2	767	72 3
GR	766 9	75 3	766 8	78 3	766 7	81 3	766 5	84.3	766.5	87 3
GR	766 1	88 2	765 9	89 1	765 6	90 1	765 3	91	765	91 9
GR	764 7	92 8	764 4	93 7	764 2	94 6	763 9	95.5	763 6	96 4
GR	763 6	97 4	763 6	98 3	763 6	99 2	763 6	100.1	763 6	101
GR	763 6	101 9	763 6	102 8	763 9	103 7	764 2	104.7	764 4	105.6
GR	764 7	106 5	765	107 4	765 3	108 3	765 5	109.2	765 8	110 1
GR	766 1	111	766 3	112	766 6	112 9	766 9	113.8	767 1	114.7
GR	767 2	122	767 2	129 3	767 3	136 6	767 4	144	767 4	151.3
GR	767 5	158 6	767 5	165 9	767 7	173 2	768	180.5	768 4	187.8
GR	768.5	195 1	768 6	202 5	768 6	209 8	768 6	217 1	768 8	224.4
GR	769	231 7	769 2	239	769 5	246 3	769 8	253.6	770	261
GR	770 3	268 3	770 6	275 6	770 8	282 9	770 9	290.2	771 3	297.5
GR	772 7	304 8	774	312 1	775 4	319 5	777	326.8	778 5	334.1
ET	0	0	4 1	35	233					
	VALLEY SECTION A OVER MINNOW POND DRAIN									
X1	1380	16	78	105	200	185	190			
GR	780	0	773	18	769	48	768	78	765	87
GR	765	93	768 8	105	768 9	132	769	162	770	183
GR	770	213	771	243	771 8	273	772	291	776	312
GR	780	330	0	0	0	0	0	0	0	
NC				5	1 0					
ET	0	0	4 1	33	233					
X1	1430	0	0	0	50	50	50	0	60	0
ET	0	0	4 1	33	231					
X1	1480	0	0	0	50	50	50	0	600	0
X1	1580	12	36	60	100	100	100	0	-1 2	
GR	774	0	773 5	17	771 5	36	768 5	42	768 5	48
GR	771 5	60	772 2	90	773	120	773 7	150	774 0	180
GR	774 3	210	775	240	0	0	0	0	0	
NC	085	085	042	0	0	0	0	0		
ET	0	4 1	4 1	10	183					
	VALLEY SECTION B									
X1	1680	0	0	0	100	100	100	0	1 2	0
NC	100	100	050	3	5	0	0	0	0	
ET	0	0	4 1	63	275					
	VALLEY SECTION C									
X1	2080	18	96	123	100	490	400			
GR	790	0	785	30	780	45	776 5	75	774.5	96
GR	771 3	102	771 3	108	774	117	774 5	123	775 2	150
GR	776	180	776 6	210	777	240	777 6	270	778	288
GR	780	303	783	330	785	345	0	0	0	0
NC	.090	090	.042	0	0	0	0	0	0	
ET	0	0	4 1	24	196					
	VALLEY SECTION D									
X1	2380	13	63	87	300	200	300			
GR	790	0	780	15	777 8	45	776 3	63	773.5	69
GR	773 5	75	776 5	87	777	105	777 5	135	778	165
GR	779 2	195	780 3	219	786	246	0	0	0	0
ET	0	6 1	6.1	0	0	51	135			
X1	2680	0	0	0	300	200	300	0	6	
ET	0	6 1	6.1	0	0	56	130			
X1	2700	0	0	0	20	20	20	0	040	0
ET	0	6 1	6.1	0	0	59	127			

X1	2710	0	0	0	10	10	10	0	020	0
ET	0	6 1	6 1	0	0	61	125			
X1	2720	0	0	0	10	10	10	0	020	0
NC				5	1 0					
ET	0	6 1	6 1	0	0	62	124			
X1	2724	0	0	0	4	4	4	0	0	0
ET	0	6 1	6 1	0	0	63	123			
X1	2728	0	0	0	4	4	4	0	010	0
ET	0	4 1	4 1	94	198					
X1	2732	15	94	108	4	4	4	0	0	0
GR	797 4	0	791 9	54	781 6	79	778	87	775 1	94
GR	774 9	95 4	774 5	98 7	774 2	101	774 6	103 3	775 4	106 6
GR	775 7	108	778 0	114	780 5	144	787 0	194	790 0	245
NC	055	055	032	3	5	0	0	0		
ET	0	4 1	4.1	94	198					
	DOWNSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE									
X1	2733	0	0	0	1	1	1	0	0	0
SC	1.03	0 5	3 02	0	12	0	30	2 1	774 2	774 2
ET	0	4 1	4 1	94	191					
	UPSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE									
X1	2763	0	0	0	30	30	30	0	0	0
X2	0	0	2	786 2	787 2	0	0	0	0	
BT	15	0	797 4	0	54	791 9	0	87	788 4	778 0
BT	94	788 4	775 1	94	788 4	777 1	95.4	788 4	781 8	98 7
BT	788 4	784 1	103 3	788.4	784 1	106 6	788 4	781 8	108	788 4
BT	777 1	108	788 4	775 7	114	788 4	778 0	144	786 9	0
BT	194	787 0	0	245	790 0	0				
NC	095	095	045	0	0	0	0	0	0	
ET	0	4 1	4.1	93	192					
X1	2764	0	0	0	1	1	1	0	0	0
ET	0	6 1	6 1	0	0	89	196			
X1	2768	0	0	0	4	4	4	0	070	0
ET	0	0	4 1	54	245					
	VALLEY SECTION E									
X1	3191	17	120	144	300	480	423			
GR	800	0	794	24	789	45	786	75	785	99
GR	784	120	781	126	781	132	784	144	784	171
GR	785	189	786	213	787	234	790	264	791 2	279
GR	797	309	800	324	0	0	0	0	0	
X1	3381	0	0	0	215	160	190	0	1 2	0
X1	3581	13	84	108	223	170	200	0	-1 2	0
GR	794	0	789	12	788 2	42	787 5	72	787 2	84
GR	784 5	90	784 5	96	786	105	787 5	108	789	138
GR	791	168	791 8	183	800	213	0	0	0	0
ET	0	0	4 1	8	160					
	VALLEY SECTION F									
X1	3781	0	0	0	225	170	200	0	1 2	0
ET	0	0	4 1	22	167					
	VALLEY SECTION G									
X1	4451	17	62	82	440	490	670			
GR	803	0	795 5	18	791.3	28	791 1	48	791	58
GR	791	62	788.7	70	788.7	74	791	82	791 3	98
GR	791 5	118	792	138	792 5	158	794	168	794 5	178
GR	795 5	198	797 5	210	0	0	0	0	0	0
ET	0	0	4 1	12	238					
	VALLEY SECTION H									
X1	5551	19	64	84	670	820	1100	0	0	0
GR	801	0	798 2	14	796	24	795.5	44	795	64
GR	792	72	792	76	795	84	795 2	94	795.8	114
GR	796	134	796 5	154	797	174	797 5	194	798	214
GR	798 5	234	799	254	799 5	274	800	294	0	0
ET	0	0	4 1	17	207					
X1	5664	90	65 5	85.5	87 5	137 5	113	0	0	0
GR	803 2	0	802 7	2.2	802 1	4 5	801 6	6 7	801	9
GR	800.5	11 2	799 9	13.5	799 4	15.8	798 8	18	798 3	20 3
GR	797 7	22 5	797.2	24 8	797	27 1	796 9	29 3	796.8	31 6
GR	796 7	33 8	796 7	36 1	796 6	38 3	796 6	40 6	796 5	42 9

GR	796 5	45 1	796 4	47 4	796 3	49 6	796 3	51 9	796 2	54 2
GR	796 2	56 4	796 1	58 7	796 1	60.9	796	63 2	796	65 5
GR	795 7	66 1	795 5	66 8	795 2	67.4	795	68 1	794.7	68 8
GR	794 5	69 4	794 2	70 1	794	70 8	793 7	71 4	793.5	72 1
GR	793 2	72 8	793	73 4	793	74 1	793	74 8	793	75 4
GR	793	76 1	793	76 8	793	77 4	793.2	78 1	793 5	78 8
GR	793 7	79 4	794	80 1	794 2	80 8	794 5	81 4	794 7	82 1
GR	795	82 8	795.2	83 4	795 5	84 1	795 7	84 8	796	85 5
GR	796 1	91 7	796.2	98	796 4	104 2	796 6	110 5	796 7	116 7
GR	796 8	123	796 9	129 2	797 1	135.5	797 3	141 7	797 5	148
GR	797 6	154 2	797 8	160 5	797 9	166 7	798 1	173	798 3	179 2
GR	798 5	185 5	798 6	191 7	798 8	198	799	204 2	799 1	210 5
GR	799 3	216 7	799 5	223	799 7	229 2	799 9	235.5	800	241 7
GR	800 2	248	800 4	254 2	800 6	260 5	800 8	266.7	801	273
NC	100	100	047	0	0	0	0	0	0	
ET	0	0	4 1	20	191					
X1	5776	90	67	87	87 5	137 5	112 5	0	0	0
GR	805 5	0	804 8	2 3	804.2	4.6	803 5	6 9	802 9	9 2
GR	802 2	11 5	801 6	13 8	800.9	16.1	800 3	18 4	799 6	20 7
GR	799	23 1	798 5	25 4	798.1	27 7	797 9	30	797 8	32 3
GR	797 8	34 6	797 7	36 9	797 6	39 2	797 6	41 5	797 5	43 8
GR	797 5	46 2	797 4	48 5	797 4	50 8	797 3	53 1	797.2	55 4
GR	797 2	57 7	797 1	60	797 1	62 3	797	64 6	797	67
GR	796 7	67 6	796 5	68.3	796 2	68 9	796	69.6	795.7	70.3
GR	795 5	70 9	795 3	71 6	795	72 3	794 8	72 9	794 5	73.6
GR	794.3	74 3	794.1	74.9	794 1	75 6	794.1	76 3	794 1	76.9
GR	794 1	77 6	794.1	78 3	794 1	78 9	794.3	79 6	794 5	80 3
GR	794 8	80 9	795	81 6	795 3	82 3	795.5	82 9	795 7	83 6
GR	796	84 3	796 2	84 9	796.5	85.6	796 7	86 3	797	87
GR	797 1	92 5	797 2	98	797 4	103.5	797 5	109	797 6	114 5
GR	797 8	120	797 9	125 5	798.1	131	798 3	136 5	798 5	142
GR	798 6	147 5	798 8	153	798 9	158 5	799 1	164	799 2	169 5
GR	799 4	175	799 6	180 5	799 7	186	799 9	191 5	800.1	197
GR	800 3	202 5	800 5	208	800 6	213 5	800 8	219	801	224.5
GR	801 2	230	801 4	235 5	801 6	241	801 8	246 5	802	252
ET	0	0	4 1	21	182					
X1	5889	90	68 5	88 5	87 5	137 5	112 5	0	0	0
GR	807 7	0	807	2 3	806 2	4 7	805 5	7.0	804 7	9 4
GR	804	11 8	803 2	14 1	802 9	16 5	801.7	18.8	801	21 2
GR	800 4	23 6	799 7	25 9	799 2	28 3	798 9	30 7	798 8	33
GR	798 8	35 4	798 7	37 7	798.7	40 1	798 6	42.5	798 5	44 8
GR	798 5	47 2	798.4	49 6	798 4	51 9	798 3	54 3	798 2	56 6
GR	798 2	59	798.1	61 4	798 1	63.7	798	66 1	798	68 5
GR	797 7	69 1	797 5	69 8	797.2	70.4	797	71 1	796 8	71.8
GR	796 5	72 4	796 3	73 1	796.1	73 8	795 8	74 4	795.6	75.1
GR	795 3	75 8	795 1	76 4	795.1	77 1	795 1	77 8	795.1	78.4
GR	795 1	79 1	795 1	79.8	795 1	80 4	795 3	81 1	795.6	81 8
GR	795 8	82 4	796	83 1	796 3	83 8	796 5	84 4	796 8	85 1
GR	797	85 8	797 2	86.4	797 5	87 1	797 7	87 8	798	88 5
GR	798 1	93 2	798 2	98	798 3	102 7	798.4	107 5	798 5	112 2
GR	798 7	117	798 9	121.7	799 1	126 5	799 3	131.2	799 5	136
GR	799 6	140 7	799 7	145 5	799 9	150 2	800	155	800 2	159.7
GR	800 4	164.5	800 5	169 2	800 7	174	800.8	178 7	801	183 5
GR	801 2	188 2	801 4	193	801 6	197 7	801.8	202 5	802	207 2
GR	802 2	212	802 4	216 7	802 6	221 5	802 8	226 2	803	231
ET	0	0	4 1	23	170					
	VALLEY SECTION I									
X1	6001	14	70	90	87 5	137 5	112	0	0	0
GR	810	0	803	20	800	30	799 5	50	799	70
GR	796 2	78	796.2	82	799	90	799 5	110	800 5	130
GR	801 2	150	802	170	803	190	804	210	0	0
ET	0	0	4 1	32	181					
	VALLEY SECTION J									
X1	6666	17	98	118	465	465	665	0	0	0
GR	808	0	807	18	806	38	805	44	804	64
GR	803 5	78	803	98	800.2	106	800 2	110	803	118
GR	804	138	804.2	158	805	168	807	188	809	208

GR	811	228	812 5	248	0	0	0	0	0	
NC	095	095	045	0	0	0	0	0		
ET	0	0	4 1	125	276					
	VALLEY SECTION K									
X1	7586	20	190	210	440	740	920			
GR	820	0	818	20	816 5	40	815	60	813 2	80
GR	812	100	811	110	810	130	808	146	807 5	156
GR	807	170	806 5	190	804 1	198	804 1	202	806 5	210
GR	807	230	808	256	809 5	270	812	290	813 5	306
ET	0	0	4 1	72	209					
	VALLEY SECTION L									
X1	8506	18	126	144	800	400	920	0	0	0
GR	821	0	818 5	24	816 5	44	815	60	813	80
GR	811	100	810 5	112	810	126	808	132	808	136
GR	810	144	810 8	164	812	184	813	192	813 5	204
GR	814 5	224	815 8	244	817	268	0	0	0	0
QT	2	980	980							
ET	0	6 1	1 4	0	0	110	161	0	0	0
X1	8906	0	0	0	300	300	400	0	1 62	0
ET	0	6 1	1.4	0	0	113	157	0	0	0
NC	0	0	0	0 5	1 0					
X1	8921	0	0	0	15	15	15	0	080	0
ET	0	6 1	1 4	0	0	117	153	0	0	0
X1	8936	0	0	0	15	15	15	0	080	0
ET	0	6.1	1 4	0	0	120	151	0	0	0
X1	8946	0	0	0	10	10	10	0	050	0
NC				.5	1.0					
ET	0	6 1	1 4	0	0	122	148	0	0	0
X1	8956	0	0	0	10	10	10	0	06	0
ET	0	6 1	1 4	0	0	124	145	0	0	0
X1	8966	0	0	0	10	10	10	0	050	0
NC	100	100	048	0	0	0	0	0	0	
	Inlet control, 15 8'x9 9' arch pipe approximated by 12 6' circular									
	pipe, so SC method can be used									
	DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE									
X1	8977	22	147.1	162 9	11	11	11	0	0	0
X3	10	0	0	0	0	0	0	818 2	818 2	0
GR	832 6	0	830.6	55	828 7	100	812	147 1	811 2	147 9
GR	810 8	148 7	810 4	150 8	810	152 9	810	155	810	157 1
GR	810 4	159 2	810 8	161 3	811 2	162 1	812	162.9	827.7	200
GR	824 2	255	823 5	355	824	455	825.6	555	827 9	655
GR	830 1	755	832 5	855	0	0	0	0	0	
NC	040	040	032	3	5	0	0	0	0	
SC	1 03	5	3 00	0	12.6	0	82	2 1	810 4	810
	UPSTREAM FACE OF FARMINGTON ROAD BRIDGE									
X1	9059	23	147 1	162 9	82	82	82	0	0	0
X2	0	0	2	820 3	823 5	0	0	0	0	
X3	10	0	0	0	0	0	0	824 5	824.5	0
BT	22	0	832 6	0	100	828 7	0	147 1	826 7	812.4
BT	147.1	826 7	813 7	147 9	826 7	815 8	148 7	826 7	817 5	150.8
BT	826 7	819 2	152 9	826 7	820 3	155	826 7	820 3	157 1	826.7
BT	820 3	159 2	826.7	819 2	161 3	826 7	817 5	162 1	826 7	815 8
BT	162 9	826 7	813 7	163	826 7	812 5	200	827 7	0	355
BT	823 5	0	455	824	0	555	825 6	0	655	827 9
BT	0	755	830 1	0	855	832 5	0	0	0	0
GR	832 6	0	830.6	55	828 7	100	812 4	147 1	811 6	147 9
GR	811.2	148 7	810 8	150.8	810 4	152 9	810 4	155	810 4	157 1
GR	810 8	159 2	811 2	161 3	811.6	162 1	812 4	162 9	812 5	163
GR	827 7	200	824 2	255	823 5	355	824	455	825 6	555
GR	827 9	655	830 1	755	832 5	855	0	0	0	0
NC	.100	100	050	0	0	0	0	0	0	
ET	0	6 1	1 4	0	0	136	174	0	0	0
	VALLEY SECTION M									
X1	9070	9	142	170	11	11	11	0	0	0
GR	832 6	0	830 6	55	826 6	110	820 6	125	816 1	142
GR	811 6	150	810.43	160	819 2	170	825	186	0	0
ET	0	4 1	1 4	225	350					

X1	10059	23	274 5	310	1075	375	989			
GR	827 7	0	823	100	821 7	200	820 9	274 5	815 1	274 5
GR	814 4	275	814 1	276	814 4	277	815 1	277 5	815 1	278.5
GR	814 4	279	814 1	280	814 4	281	815 1	281 5	813 3	300
GR	812 6	310	820 9	310	820 9	400	820 8	500	820 7	600
GR	820 9	700	823 2	800	823 5	823	0	0	0	0
NC	035	035	024	0	0	0	0	0		
ET	0	4 1	0	225	350					
	DOWNSTREAM FACE OF BIDDLESTONE ROAD BRIDGE									
X1	10060	0	0	0	1	1	1	0	0	0
BT	27	0	827 7	0	100	823	0	200	821.7	0
BT	274 5	820 9	815 1	274 5	820 9	816 1	275	820 9	816 8	276
BT	820 9	817 1	277	820 9	816 8	277 5	820 9	816 1	277 5	820 9
BT	815 1	278 5	820 9	815 1	278 5	820 9	816 1	279	820 9	816 8
BT	280	820 9	817 1	281	820 9	816 8	281 5	820 9	816 1	281.5
BT	820 9	815 1	300	820 9	813 3	300	820 9	818 5	310	820 9
BT	818 5	310	820 9	812 6	400	820 9	0	500	820 8	0
BT	600	820 7	0	700	820.9	0	800	823 2	0	823
BT	823 5	0	0	0	0	0	0	0		
ET	0	4 1	0	225	350					
	UPSTREAM FACE OF BIDDLESTONE ROAD BRIDGE									
X1	10090	0	0	0	30	30	30	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
NC	100	100	055	0	0	0	0	0	0	0
ET	0	6 1	1 4	0	0	225	350	225	350	0
X1	10091	0	0	0	1	1	1	0	0	0
ET	0	0	1 4	88	263					
	VALLEY SECTION N									
X1	11141	20	140	184	700	800	1050	0	0	0
GR	829 5	0	828 8	20	828 2	40	826 8	60	825 0	80
GR	823 2	100	821 8	120	821 0	130	820 0	140	817.0	160
GR	816 3	168	816 3	172	818 0	184	819 0	200	820 0	220
GR	822 0	240	824 0	260	826 0	280	828 0	300	830.0	320
ET	0	0	4 1	41	157					
	VALLEY SECTION O									
X1	11711	15	130	150	407	407	570			
GR	827 0	0	826 0	20	825 0	40	824.0	60	822 8	80
GR	821 8	100	820 5	120	820 0	130	819 0	134	818 3	138
GR	818.3	142	819.0	146	821 0	150	825 0	158	830 0	168
NC	090	090	042							
ET	0	6 1	6 1	0	0	125	156			
X1	12041	0	0	0	330	330	330	0	280	
NC	085	080	040							
X1	12061	14	396	417	20	20	20			
X3	10	0	0	235	0	0	0	827 0	827 0	0
GR	835.1	0	833 9	100	832 7	200	831 8	300	823 2	375
GR	820 9	396	818 6	398	818 6	406	819 8	414	821 6	417
GR	826 2	435	832 7	450	836 3	500	837 0	550		
NC	035	035	032							
	DOWNSTREAM FACE OF W. ENTRANCE TO OAKLAND COM COLLEGE									
X1	12062	0	0	0	1	1	1			
X3	10	0	0	235	0	0	0	827 0	827 0	0
SB	0	3 17	3 02	0	14 14	0	127 23	0	818 8	818 6
	UPSTREAM FACE OF W ENTRANCE TO OAKLAND COM COLLEGE									
X1	12192	22	395 5	416.5	130	130	130			
X2	0	0	1	827 0	831 8					
X3	10	0	0	235	0	0	0	831 8	831 8	0
BT	19	0	835 1	0	100	833 9	0	200	832 7	0
BT	300	831 8	0	395 5	832.9	821.5	395.5	832.9	825 1	397 7
BT	832 9	827 3	400	832 9	827 8	402 3	832 9	827.3	404 5	832 9
BT	825 1	407.5	832 9	825 1	409 7	832.9	827 3	412	832 9	827 8
BT	414 3	832 9	827 3	416 5	832 9	825 1	416 6	832 9	821.5	450
BT	834 7	0	500	836 3	0	550	837 0	0		
GR	835 1	0	833 9	100	832 7	200	831 8	300	823 2	375
GR	821 5	395 5	819 3	397 7	818 8	400	819 3	402 3	821 5	404 5
GR	825 1	404 5	825.1	407 5	821 5	407 5	819 3	409 7	818 8	412
GR	819 3	414 3	821.5	416 5	821.5	416 6	826 2	435	832 7	450

GR	836 3	500	837 0	550						
NC	095	085	042							
X1	12193	0	0	0	1	1	1			
X3	10	0	0	235	0	0	0	831 8	831 8	0
ET	0	6 1	6 1	0	0	393	420			
	VALLEY SECTION P									
X1	12196	0	0	0	3	3	3			
NC	120	120	056							
ET	0	0	4 1	30	235					
	VALLEY SECTION Q									
X1	12823	23	96	112	367	767	627			
GR	834 0	0	827 0	6	823 0	10	823 0	26	823 0	46
GR	823 0	66	822 5	86	822 2	96	821 0	102	820 3	106
GR	822 8	112	822 8	126	822 8	146	822 8	166	823 2	186
GR	824 0	206	824 5	216	825 0	226	825 5	231	826 5	236
GR	828 0	246	830 0	256	832 0	266				
NC	120	120	055	3	5					
ET	0	0	4 1	240	440					
	VALLEY SECTION R									
X1	13507	12	283	300	550	550	684			
GR	844 9	0	843 3	100	836 8	200	826 6	283	823 5	286
GR	823 9	292	823.3	296	825 8	300	825 4	400	830 4	500
GR	833 2	600	834.8	700						
ET	0	0	1.4							
X1	14107	10	141	182	390	440	600			
GR	830 9	0	830 9	40	823 8	140	823 3	141	820 3	160
GR	822 4	180	823.8	182	831 1	240	830 5	340	831 9	440
X1	14131	11	141	182	24	24	24			
GR	830.9	0	830.9	40	826 5	141	826.5	160 5	825 5	160 6
GR	825 5	161 5	826 5	161 6	826 5	182	831.1	240	830 5	340
GR	831 9	440								
ET			4 1	100	220					
NC	095	095	022							
	DOWNSTREAM FACE OF DAM									
X1	14132	13	141	182	1	1	1			
BT	9	0	830 9	0	40	830.9	0	140 9	830 9	826.5
BT	141	830 9	830 6	181.9	830 9	830.6	182	830 9	826 5	240
BT	831 1	0	340	830.5	0	440	831 9	0		
GR	830 9	0	830 9	40	826.5	140 9	826 5	141	826 5	160 5
GR	825 5	160 6	825 5	161 5	826 5	161 6	826 5	181 9	826 5	182
GR	831 1	240	830 5	340	831.9	440				
ET			4 1	10	430					
	UPSTREAM FACE OF DAM									
X1	14142	0	0	0	10	10	10			
X2	0	0	0	0	0	0	1			
NC	095	095	040							
X1	14143	0	0	0	1	1	1			
ET	0	0	4 1	180	380					
	VALLEY SECTION S									
X1	14685	13	252	270	672	372	542			
GR	846 2	0	838 5	100	828 3	200	827 8	250	825 3	252
GR	823 9	257	825 5	266	828 6	270	828 4	300	833	400
GR	833 2	500	834 1	580	842 4	605	0	0	0	0
NC	095	095	045	0	0	0	0	0	0	
ET	0	4 1	1 4	75	250	115	250			
	VALLEY SECTION T									
X1	15197	12	165	187	580	570	512			
GR	848 8	0	837 6	65	828 7	165	825	168	823 8	176
GR	826 1	183	829 1	187	831	265	832.9	365	830 2	465
GR	831 2	507	839	535	0	0	0	0	0	
ET	0	6 1	4 1	150	200	140	215	0	0	0
X1	15372	0	0	0	300	120	175	0	1 93	
ET	0	6.1	4.1	150	195	150	205			
X1	15412	0	0	0	40	40	40	0	43	
ET	0	6.1	4.1	159	194	154	199			
X1	15432	0	0	0	20	20	20	0	2	
ET	0	6.1	6.1	0	0	159	194			

X1	15452	0	0	0	20	20	20	0	.200	0
X1	15472	22	395	420	20	20	20	0	0	0
X3	10	0	0	0	0	0	0	835 5	835.5	0
GR	844 8	0	844 6	100	844 3	200	843 7	300	834	350
GR	828 7	395	827 2	396 7	826 8	400	827 2	403.3	828 7	405
GR	831 3	405	831 4	410	828 8	410	827 3	411 7	826 9	415
GR	827 3	418 3	828 8	420	834	460	843 6	500	843 3	600
GR	843	700	842 9	800	0	0	0	0	0	
NC	035	035	020	0	0	0	0	0	0	
	DOWNSTREAM FACE OF I-696									
X1	15473	0	0	0	1	1	1	0	0	0
X3	10	0	0	0	0	0	0	835 5	835 5	
SB	0	1 82	3	0	15 83	0	101 63	0	827 2	826.8
	UPSTREAM FACE OF I-696									
X1	15651	22	395	420	178	178	178	0	0	0
X2	0	0	1	833 9	842 9	0	0	0	0	0
X3	10	0	0	0	0	0	0	842.9	842 9	0
BT	20	0	844.8	0	100	844 6	0	200	844 3	0
BT	300	843 7	0	395	843.5	829.1	395	843 5	831.7	396 7
BT	843 5	833 2	400	843.5	833 6	403 3	843 5	833 2	405	843 5
BT	831 1	410	843 5	832	411 7	843 5	833 5	415	843.5	833 9
BT	418 3	843 5	833 5	420	843 5	832	420	843.5	829 4	460
BT	843 6	834 0	500	843 6	0	600	843 3	0	700	843
BT	0	0	0	0	0	0	0	0	0	
GR	844 8	0	844 6	100	844 3	200	843.7	300	834	350
GR	829.1	395	827 6	396.7	827 2	400	827 6	403 3	829.1	405
GR	831 1	405	832	410	829 4	410	827 9	411 7	827 5	415
GR	827 9	418 3	829 4	420	834	460	843 6	500	843 3	600
GR	843	700	842.9	800	0	0	0	0	0	0
NC	100	100	050	0	0	0	0	0	0	
X1	15652	0	0	0	1	1	1	0	0	0
X3	10	0	0	0	0	0	0	842 9	842.9	0
ET	0	6 1	6 1	0	0	392	423			
	VALLEY SECTION U									
X1	15655	13	397	417	3	3	3	0	0	0
GR	844 8	0	844 6	100	844.3	200	843.7	300	831 3	387
GR	829 2	397	827 3	400	827 2	408	827 3	414	829 2	417
GR	831 3	430	843 6	500	843 3	600	0	0	0	0
NH	4	050	200	095	300	045	321	090	600	0
ET	0	0	4.1	171	441					
	VALLEY SECTION V									
X1	16738	14	300	321	1157	957	1083			
GR	844 5	0	838 6	25	836 7	100	835	200	833 4	300
GR	830 5	307	829 9	311	829 9	317	833 2	321	832 6	400
GR	833 1	434	844 7	464	845 5	500	846 6	600	0	0
NC	080	040	0	0	0	0	0	0		
ET	0	4 1	6 1	318	574	370	465			
X1	17491	19	388	412	603	903	753			
GR	845 6	0	844.3	100	843 0	200	839 7	300	837 5	350
GR	837 0	378	837.3	388	832.3	388	831 8	391	831 8	400
GR	831.8	409	832 3	412	837 3	412	837 0	420	837 5	445
GR	839 8	500	839 9	600	844.4	700	846 1	800		
NC	075	075	037	0	0	0	0	0	0	
ET	0	4.1	1 4	319	574					
	D/S FACE OF 12 MILE ROAD BRIDGE - LIMIT OF CHANNEL IMPROVEMENTS									
X1	17492	0	0	0	1	1	1			
SC	1 013	50	3 05	0	6	24	124	8 1	832 1	831 8
ET	0	4 1	0	302	495					
	UPSTREAM FACE OF 12 MILE ROAD BRIDGE									
X1	17616	19	388	412	124	124	124	0	0	0
X2	0	0	2	838 1	842 0	0	0	0	0	0
BT	16	0	845 6	0	100	844 3	0	200	843 0	0
BT	300	842 0	839.7	350	842 0	840 1	388	842 0	832.6	388
BT	842 0	837 6	391	842 0	838 1	400	842 0	838 1	409	842.0
BT	838 1	412	842 0	837.6	412	842.0	832 6	420	842 0	840 4
BT	500	842 0	839 8	700	844 5	0	800	846.1	0	0
GR	845 6	0	844.3	100	843 0	200	839.7	300	840 1	350

GR	840 1	378	837 6	388	832 6	388	832 1	391	832 1	400
GR	832 1	409	832.6	412	837 6	412	840 4	420	840 4	445
GR	839 8	500	839 9	600	844 5	700	846 1	800		
NC	075	065	036	0	0	0	0	0	0	
ET	0	4 1	6 1	301	495	380	420			
X1	17617	0	0	0	1	1	1	0	0	0
X1	17907	17	200	256	260	260	290			
X3	10	0	0	100	0	0	0	838 5	838 5	0
GR	844 2	0	844 1	100	842 8	200	841 2	200	834 4	214
GR	834 4	215	832 8	225	832 8	237	833 5	239	833 5	240
GR	840	255	840	256	841.3	256	842 2	300	842 6	400
GR	843 5	500	847 2	570	0	0	0	0	0	
NC	065	055	037	0	0	0	0	0	0	
	DOWNSTREAM FACE OF FOOTBRIDGE									
X1	17908	0	0	0	1	1	1	0	0	0
X3	10	0	0	100	0	0	0	838 5	838 5	0
BT	18	0	844 2	0	100	844 1	0	200	842 8	841.2
BT	200	842 8	841 5	214	842 4	841 1	214	842.4	834 4	215
BT	842 4	834 4	215	842 4	841 1	239	841 8	840 5	239	841 8
BT	833 5	240	841.8	833 5	240	841 8	840 5	256	841 3	840
BT	256	841 3	0	300	842.2	0	400	842 6	0	500
BT	843 5	0	570	847 2	0	0	0	0	0	0
	UPSTREAM FACE OF FOOTBRIDGE									
X1	17913	0	0	0	5	5	5	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
X3	10	0	0	100	0	0	0	841 3	841 3	0
NC	062	062	036	0	0	0	0	0	0	
ET	0	6 1	1 4	0	0	200	298			
X1	17914	0	0	0	1	1	1	0	0	0
	VALLEY SECTION TAKEN FROM OCRC PLANS FOR CHANNEL IMPROVEMENT									
X1	18282	12	456	529	315	315	368			
GR	843 0	0	841 6	65	839 9	165	840.1	265	842.6	365
GR	842 6	456	833.0	484	833 0	501	842 6	529	843 3	565
GR	844.3	665	844.4	720						
X1	18412	0	0	0	130	130	130			
NH	5	090	465	.055	481	035	493	015	495	090
NH	720									
QT	2	480	480							
ET	0	0	1.4	145	519					
	VALLEY SECTION W									
X1	18447	15	465	520	35	35	35	0	0	0
GR	843	0	841 6	65	839 9	165	840 1	265	842 6	365
GR	842 6	465	833.7	481	833 8	493	833	495	832 6	499
GR	833	503	842.6	520	843 3	565	844 3	665	844 4	720
NC	060	070	040	0	0	0	0	0	0	
ET	0	4 1	6 1	400	613	475	532			
	DOWNSTREAM FACE OF KENDALLWOOD ROAD									
X1	19134	16	485	529	707	667	687			
GR	846 5	0	843 7	100	842.2	200	842 2	300	842 6	400
GR	843	485	831 2	497	830 7	507	831	512	833	515
GR	843	529	843 1	600	843 1	700	843 3	800	843.7	900
GR	843.8	1000	0	0	0	0	0	0	0	
SC	2 03	0 5	1 0	0	7 3	0	203	2 2		
ET	0	4 1	6 1	460	570	490	520			
	UPSTREAM FACE OF KENDALLWOOD ROAD									
X1	19337	24	495 7	516 3	203	203	203	0	0	0
X2	0	0	2	838 9	842 2					
BT	-12	0	846 5	0	100	843.7	0	200	842 2	0
BT		300	842 2	0	400	842 6	0	495.7	843 3	0
BT		516 3	843.3	0	600	843 1	0	700	843.1	0
BT		800	843 3	0	900	843 7	0	1000	843 8	0
GR	846 5	0	843 7	100	842 2	200	842.2	300	842 6	400
GR	843 3	495.7	832.9	495 7	832.2	497	831 9	500	832 2	503
GR	832 9	504 3	834.9	504.3	834.6	507 7	832 6	507 7	831 9	509
GR	831 6	512	831 9	515	832 6	516.3	843 3	516.3	843.1	600
GR	843 1	700	843 3	800	843 7	900	843.8	1000		
NC	075	070	046	0	500	0	0	0	0	0

X1	19338	24	495 7	516 3	1	1	1	0	0	0
X3	10	0	0	460	0	570	0	841	841	0
GR	846 5	0	843.7	100	842.2	200	842 2	300	842 6	400
GR	843.3	495 7	832 9	495 7	832 2	497	831 9	500	832 2	503
GR	832 9	504 3	834 9	504 3	834 6	507 7	832 6	507 7	831 9	509
GR	831 6	512	831 9	515	832 6	516 3	843 3	516 3	843 1	600
GR	843 1	700	843 3	800	843 7	900	843 8	1000	0	0
ET	0	4 1	6 1	210	350	250	310			
	VALLEY SECTION X									
X1	20151	16	283	300	865	665	813			
GR	844 1	0	841	100	842 7	120	841 1	139	843	145
GR	844 4	200	842 5	255	837 1	283	837	286	837 6	291
GR	843 8	300	845 1	400	842 5	453	843 9	475	844 1	500
GR	845 3	600	0	0	0	0	0	0	0	
NH	5	055	215	090	230	045	241	090	255	065
NH	470	0	0	0	0	0	0	0		
ET	0	4 1	6 1	170	290	215	250			
	VALLEY SECTION Y									
X1	20631	21	230	241	465	495	480			
GR	849 3	0	846 7	30	844 3	50	845 8	70	844.2	88
GR	846 6	105	847 2	130	845.9	215	841 8	230	839.6	232
GR	839 5	234	839 8	238	842 3	241	844 6	255	846 7	330
GR	845.5	386	844 6	390	846	410	844 6	428	846 8	436
GR	847.9	470	0	0	0	0	0	0	0	
NC	085	085	037	0	0	0	0	0	0	0
ET	0	4 1	6 1	220	360	295	312			
X1	21060	22	295 7	311 7	429	429	429			
GR	849 4	0	847 5	100	847 5	122	847.7	200	848	295 7
GR	841 2	295 8	840 5	297	840 2	300	840.5	303	841 2	304 3
GR	843 2	304 3	844 7	306 3	842 7	306.3	841 5	307 1	841	309
GR	841 5	310.9	842 7	311 7	848	311 7	847 2	400	847 2	500
GR	847.5	555	847.8	600	0	0	0	0	0	
NC	040	040	032	0	0	0	0	0	0	
	DOWNSTREAM FACE OF HEARTHSTONE STREET BRIDGE									
X1	21061	0	0	0	1	1	1	0	0	0
X3	10	0	0	220	0	360	0	848	848	0
BT	20	0	849 4	0	100	847.5	0	122	847 5	0
BT	200	847 7	0	295 7	848	0	295 8	848	841 2	297
BT	848	845 1	300	848	846 1	303	848	845 1	304 3	848
BT	843 2	306 3	848	844 7	307 1	848	845 9	309	848	846 4
BT	310.9	848 0	845 9	311 7	848	844 7	311 7	848	0	400
BT	847 2	0	500	847 2	0	555	847 5	0	600	847 8
BT	0	0	0	0	0	0	0	0		
	UPSTREAM FACE OF HEARTHSTONE STREET BRIDGE									
X1	21111	22	295 7	311 7	50	50	50			
X3	10	0	0	220	0	360	0	848 5	848 5	0
BT	20	0	849.4	0	100	847 5	0	122	847 5	0
BT	200	847 7	0	295 7	848 0	841 4	295 7	848 0	843 4	297
BT	848.0	845 3	300	848 0	846 3	303	848 0	845 3	304 3	848 0
BT	843 4	306 3	848.0	844 7	307 1	848 0	845 9	309	848 0	846.4
BT	310 9	848 0	845 9	311 7	848 0	844 7	311 7	848 0	0	400
BT	847.2	0	500	847 2	0	555	847 5	0	600	847 8
BT	0									
GR	849 4	0	847 5	100	847 5	122	847 7	200	848	295 7
GR	841 4	295.7	840.7	297	840 4	300	840 7	303	841 4	304 3
GR	843 4	304 3	844.7	306 3	842 7	306 3	841 5	307 1	841	309
GR	841 5	310 9	842 7	311 7	848	311 7	847 2	400	847 2	500
GR	847 5	555	847 8	600	0	0	0	0	0	
NC	.085	085	040	0	0	0	0	0	0	
X1	21112	0	0	0	1	1	1	0	0	0
X3	10	0	0	220	0	360	0	848 5	848.5	0
ET	0	4 1	1.4	140	305	175	302			
	VALLEY SECTION Z									
X1	21737	14	255	297	602	642	625			
GR	855 2	0	855 5	70	854	110	852 2	155	849 8	205
GR	847 7	255	844 8	267	842 7	269	842 6	274	842 7	280
GR	847 4	297	847.9	305	848 3	335	847 5	405	0	0

X1	22067	17	296 4	312 6	400	300	330	0	0	0
X3	10	0	0	250	0	380	0	849	849	0
GR	852 1	0	850 4	100	850 1	140	849 9	200	845.9	295
GR	846 9	296 4	844 7	296 4	844 1	298	844 1	302	844 6	305 4
GR	844	307	844	311	844 6	312 6	846 8	312 6	850 15	360
GR	850 2	400	850	470	0	0	0	0	0	0
NC	035	035	032	0	0	0	0	0	0	0
	DOWNSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE									
X1	22068	0	0	0	1	1	1	0	0	0
X3	10	0	0	250	0	380	0	849	849	0
SB	0	2 71	3 050	0	8 280	0	60	0	844	844
	UPSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE									
X1	22114	23	296 4	312 6	46	46	46	0	0	
X2	0	0	1	849 3	849 9	0	0	0	0	0
X3	10	0	0	250	0	380	0	850	850	0
BT	15	190	849 93	0	200	849.9	0	295	850	845 9
BT	296 4	850 1	846 9	298	850.1	848.9	300	850 1	849 3	302
BT	850 1	848.9	303 6	850 1	846 9	305 4	850 1	846 8	307	850 1
BT	848 8	309	850.1	849 2	311	850 1	848 8	312 6	850 1	846 8
BT	312.6	850 1	844 8	380	850 17	0	0	0	0	0
GR	852.1	0	850.4	100	850 1	140	849 93	190	849.9	200
GR	845 9	295	846 9	296 4	844 7	296 4	844.1	298	844 1	300
GR	844 1	302	844 7	303 6	846 9	303 6	846 8	305 4	844.6	305 4
GR	844	307	844	309	844	311	844 6	312 6	846 8	312.6
GR	850 17	380	850 2	400	850	470	0	0	0	0
NC	055	055	.035	0	0	0	0	0	0	0
X1	22115	0	0	0	1	1	1	0	0	0
X3	10	0	0	250	0	380	0	850	850	0
ET	0	0	1 4	140	318					
	VALLEY SECTION AA									
X1	22455	11	217	240	340	340	340			
GR	851 5	0	853 4	69	853.3	124	847 5	217	844	230
GR	843 5	235	843 8	239	846.5	240	852.6	324	852 5	359
GR	850 3	424	0	0	0	0	0	0	0	0
ET	0	0	1 4	130	296					
	VALLEY SECTION AB									
X1	22755	14	200	222	300	300	300			
GR	853 8	0	855 8	72	855 5	96	855 1	120	851.5	135
GR	849 8	200	845 2	209	844.8	214	845 2	219	847 7	222
GR	851 7	275	852 9	310	852 9	339	851 6	410	0	0
QT	2	420	420							
ET	0	4 1	1 4	390	570					
	VALLEY SECTION AC									
X1	23200	21	464	473	435	425	445			
GR	856 4	0	857 3	63	857	114	856	147	852 2	167
GR	850 1	247	849 4	325	847 9	346	846 1	350	847 8	355
GR	850	377	849 3	457	847 8	464	845 6	465	845 4	468
GR	845 6	471	847 9	473	852 8	547	852 9	553	852 9	578
GR	852.5	647	0	0	0	0	0	0		
X1	23500	30	516.8	532.2	300	300	300	0	0	0
X3	10	0	0	485	0	565	0	851	851	0
GR	854 2	0	854 1	20	853.9	129	853 6	220	853.2	320
GR	853	420	852 93	485	847 6	516 8	847 6	516 9	846 6	518
GR	846 3	519	846 3	520	846 3	521	846 6	522	847 6	523 2
GR	848 9	523 2	848 8	525 8	847 5	525 8	846.5	527	846 5	528
GR	846 5	529	846.5	530	846 5	531	847 5	532 2	847 5	532.3
GR	853 15	565	853 4	620	853 4	700	853 7	820	853 7	920
NC	035	035	033	0	0	0	0	0	0	
	DOWNSTREAM FACE OF CHESTERBROOK STREET BRIDGE									
X1	23501	0	0	0	1	1	1	0	0	0
X3	10	0	0	485	0	565	0	851	851	0
SB	0	2.88	3.05	0	10 11	0	48	0	846 3	846 3
	UPSTREAM FACE OF CHESTERBROOK STREET BRIDGE									
X1	23548	0	0	0	47	47	47	0	0	
X2	0	0	1	851.2	852 9	0	0	0	0	0
X3	10	0	0	485	0	565	0	852 9	852.9	0
BT	14	485	852 93	0	516.8	852.9	847 6	516.9	852 9	848.9

BT	518	852 9	850 3	520	852 9	851 2	522	852 9	850 3	523 2
BT	852 9	848 9	525 8	852.9	848 8	527	852 9	850 2	529	853
BT	851 1	531	853	850 2	532 2	853	848 8	532 3	853 0	847 5
BT	565	853 15	0							
NC	055	050	035	0	0	0	0	0	0	
X1	23549	0	0	0	1	1	1	0	0	0
X3	10	0	0	485	0	565	0	852.9	852 9	0
ET	0	4 1	1 4	125	350					
	VALLEY SECTION AD									
X1	23875	15	267	287	376	276	326			
GR	854 3	0	856	67	855 3	107	854 5	132	851 7	167
GR	850 6	239	849	267	847 5	270	847.2	274	847 6	280
GR	850 4	287	852 2	367	855 3	467	855 3	499	853 7	567
NC	055	055	035	0	0	0	0	0	0	0
ET	0	4 1	1 4	105	240	110	230			
	VALLEY SECTION AE									
X1	24240	14	150	167	375	375	365			
GR	854.7	0	854 9	67	854 7	105	852 3	150	849 9	151
GR	847 7	156	847 6	160	847 7	164	850 8	167	854 1	197
GR	854 7	267	855 5	367	855 7	467	854.5	544	0	0
ET	0	4 1	1 4	415	505					
X1	24330	30	452	467	90	90	90	0	0	0
GR	856 4	0	855 8	55	855 6	155	854 9	255	854 5	315
GR	854 3	355	854 24	415	849	452	849 0	452 1	848	453
GR	847 6	454	847 6	455	847 6	456	848	457	849	458
GR	850 3	458	850	461	848 7	461	848.7	462	847 5	463
GR	847 5	464	847 5	465	847 7	466	848 7	467	848 8	467 1
GR	854 11	505	854	555	854 3	655	854 7	755	855	855
NC	037	037	035	0	0	0	0	0	0	
ET	0	4 1	1 4	415	505					
	DOWNSTREAM FACE OF BANNOCKBORN STREET BRIDGE									
X1	24331	0	0	0	1	1	1	0	0	0
SB	0	3 45	3 05	0	9.78	0	44	0	847 5	847.5
ET	0	4 1	1 4	415	505					
	UPSTREAM FACE OF BANNOCKBORN STREET BRIDGE									
X1	24401	0	0	0	70	70	70	0	0	0
X2	0	0	1	852 4	854.11	0	0	0	0	0
BT	14	415	854 24	0	452	854 2	849 0	452 1	854 2	850 3
BT	453	854 2	851 6	455	854.2	852 4	457	854 2	851 6	458
BT	854 2	850 3	461	854 2	850	462	854 2	851 3	464	854.2
BT	852 1	466	854 2	851 3	467	854 2	850	467.1	854 2	848 8
BT	505	854 11	0							
NC	055	055	.034	0	0	0	0	0	0	0
ET	0	4.1	1 4	415	505					
X1	24402	0	0	0	1	1	1	0	0	0
ET	0	4 1	1.4	300	375	307	369			
	VALLEY SECTION AF									
X1	24552	21	320	355	150	150	150	0	0	0
GR	856	0	856 6	55	856 8	155	856	255	856 2	311
GR	855 1	320	850 3	321	850 5	327	848 4	329	848 3	332
GR	848 4	336	850 5	341	850 6	343	855.1	355	855 9	380
GR	855 8	455	857 1	555	856 8	655	857 8	755	857 1	855
GR	857	915	0	0	0	0	0	0	0	
X1	24664	25	297	312	113	113	112			
X3	10	0	0	272	0	350	0	853	853	0
GR	855 8	0	855 1	100	854 6	200	854 1	297	849 8	297
GR	848 9	298	848 9	300	848 9	302	849 8	303	851	303
GR	850 9	306	849 7	306	848 7	307	848 2	308	848 2	309
GR	848 2	310	848 7	311	849 7	312	854 1	312	853 9	400
GR	854 1	435	854 6	500	854 9	600	855 7	700	856	800
NC	.035	035	033	0	0	0	0	0	0	0
	DOWNSTREAM FACE OF GLEN ARDEN STREET BRIDGE									
X1	24665	0	0	0	1	1	1	0	0	0
X3	10	0	0	272	0	350	0	853	853	
BT	19	0	855 8	0	100	855 1	0	200	854 6	0
BT	297	854 1	851	298	854 1	852.3	300	854.1	853 1	302
BT	854 1	852 3	303	854.1	851	306	854 1	850 9	307	854 1

BT	852 2	309	854 1	853	311	854.1	852 2	312	854 1	850 9
BT	400	853 9	0	435	854 1	0	500	854 6	0	600
BT	854 9	0	700	855 7	0	800	856	0	0	0
	UPSTREAM FACE OF GLEN ARDEN STREET BRIDGE									
X1	24735	0	0	0	70	70	70	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
X3	10	0	0	272	0	350	0	854 1	854 1	0
NC	050	055	035	0	0	0	0	0	0	0
X1	24736	0	0	0	1	1	1	0	0	0
X3	10	0	0	272	0	350	0	854 1	854.1	0
NH	4	050	600	075	699	034	727	055	900	0
ET	0	4 1	1 4	550	800	608	779			
	VALLEY SECTION AG									
X1	25056	15	699	727	320	320	320			
GR	864 4	0	862 7	100	862 1	200	861 6	300	860 1	400
GR	858 6	500	857 1	600	854 8	699	849 4	711	849 3	713
GR	849 9	719	854 3	727	857 6	795	857 7	825	856 8	900
NC	050	055	038	0	0	0	0	0	0	
ET	0	4 1	1 4	590	800	719	785			
	VALLEY SECTION AH									
X1	25531	16	716	750	472	472	475			
GR	865 2	0	863.8	100	863 2	200	861 9	300	861	400
GR	859 9	500	859 3	600	858 8	700	858 4	716	850	730
GR	850	735	850	738	855 7	750	858 2	800	859 9	840
GR	857 7	900	0	0	0	0	0	0	0	
ET	0	4.1	6 1	800	930	865	929			
	VALLEY SECTION AI									
X1	26053	19	875	912	502	572	522			
GR	869 6	0	868 9	75	866 6	175	865 6	275	864 2	375
GR	864 2	475	863	575	861 6	675	861.9	775	859 2	850
GR	858 2	875	852.1	891	851 9	896	852.2	899	856.4	912
GR	859 6	970	859 5	975	859 7	1010	858 6	1072	0	0
X1	26228	26	485	515	175	175	175	0	0	0
X3	10	0	0	430	0	590	0	858	858	0
GR	866 9	0	865 7	100	863 3	200	862	300	860 9	400
GR	860 65	430	855	485	853 4	495.2	852 7	495 6	852 7	496
GR	852 7	498	852 7	500	852 7	502	852 7	504	852.7	504 4
GR	853 4	504 8	853 4	504 9	854.5	515	859 91	590	859 9	600
GR	860 3	700	861	800	862	900	863.5	1000	866 2	1100
GR	867 0	1130								
NC	070	070	.037	0	0	0	0	0		
	DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE									
X1	26229	0	0	0	1	1	1	0	0	0
X3	10	0	0	430	0	590	0	858	858	0
SB	0	2 730	3.040	0	7 830	0	51	0	852 7	852 7
	UPSTREAM FACE OF FARMINGTON ROAD BRIDGE									
X1	26297	0	0	0	68	68	68	0	0	0
X2	0	0	1	858 3	860	0	0	0	0	
X3	10	0	0	430	0	590	0	860 1	860 1	0
BT	12	430	860.65	0	485	860 18	855 0	495.2	860 1	854 4
BT	496	860	856 7	498	860 1	858	500	860 1	858 3	502
BT	860.1	858	504	860 1	856 7	504 8	860 1	854 4	504.9	860.1
BT	853 4	515	860 09	0	590	859 91	0	0	0	0
NC	.052	052	.037	0	0	0	0	0	0	
X1	26298	0	0	0	1	1	1	0	0	0
X3	10	0	0	430	0	590	0	860 1	860 1	0
NC	057	057	038	0	0	0	0	0	0	
ET	0	4 1	4 1	65	370	115	320			
QT	2	1020	1020							
	VALLEY SECTION AJ									
X1	26578	13	211	223	280	280	280	0	0	0
GR	861 1	0	859 9	50	857 9	100	856 5	200	855	211
GR	852 9	214	852 8	217	852 9	219	855 3	223	859 3	300
GR	860 9	400	860 8	440	859 2	500	0	0	0	0
ET	0	4.1	4.1	750	1100	825	1025			
X1	27005	29	940	962	450	427	427			
GR	865 1	0	865 5	40	864 1	140	861 1	240	860.1	340

GR	859 5	440	859 7	540	858 2	640	858.1	740	857 5	840
GR	857 1	938	857	940	856 3	940	854 3	946	854 9	952
GR	856 4	952	856 4	954	855 5	954	856	959	856 5	962
GR	857 1	962	857	963	857 3	965	857 4	1040	857 4	1075
GR	860 8	1120	861 7	1140	862 1	1167	859 5	1240	0	0
NC	050	055	025	0	0	0	0	0	0	
ET	0	4 1	4 1	750	1100	825	1025			
	DOWNSTREAM FACE OF FOOTBRIDGE									
X1	27006	0	0	0	1	1	1	0	0	0
BT	23	0	865 1	0	40	865 5	0	140	864 1	0
BT	240	861 1	0	340	860 1	0	440	859 5	0	540
BT	859 7	0	640	858 2	0	740	858 1	0	840	857 5
BT	0	938	857 1	0	940	857	856 4	952	857	856 4
BT	954	857	856 4	962	857 1	856 5	963	857	0	965
BT	857 3	0	1040	857 4	0	1075	857 4	0	1120	860 8
BT	0	1140	861 7	0	1167	862 1	0	1240	859 5	0
ET	0	4 1	6 1	750	1100	825	1025			
	UPSTREAM FACE OF FOOTBRIDGE									
X1	27009	0	0	0	3	3	3	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
NC	052	052	036	0	0	0	0	0	0	
ET	0	4 1	6 1	750	1100	825	1025			
X1	27010	0	0	0	1	1	1	0	0	0
X1	27581	16	325	338	600	600	571	0	0	0
X3	10	0	0	175	0	500	0	857	857	0
GR	859 6	0	860 6	125	858 1	225	858 3	310	857 9	325
GR	855 4	325	855 2	332	855 5	338	857 9	338	857 8	355
GR	856 5	425	856 2	505	857 4	525	860 1	569	861 4	625
GR	859 7	675	0	0	0	0	0	0	0	
NC	.050	050	022	0	0	0-	0	0	0	
	DOWNSTREAM FACE OF FOOTBRIDGE									
X1	27582	0	0	0	1	1	1	0	0	0
X3	10	0	0	175	0	500	0	857	857	0
BT	13	0	859 6	0	125	860 6	0	225	858 1	0
BT	310	858 3	0	325	857 9	857	338	857 9	857 3	355
BT	857 8	0	425	856 5	0	505	856.2	0	525	857 4
BT	0	569	860.1	0	625	861 4	0	675	859 7	0
	UPSTREAM FACE OF FOOTBRIDGE									
X1	27585	0	0	0	3	3	3	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
X3	10	0	0	175	0	500	0	857 9	857 9	0
X1	27912	42	397	429	327	327	327			
X3	10	0	0	300	0	470	0	859	859	0
GR	859 5	0	860	100	860 5	200	860 8	300	860 3	385
GR	855 5	397	855 5	397 1	855.5	398	855 5	400	855 5	402
GR	855 5	403	856 2	403	856 2	406	855 2	406	854 6	407
GR	854 6	409	854 6	411	855.2	412	856 2	412	856 2	415
GR	855 2	415	854 9	415.5	854.9	416	854 9	418	854 9	420
GR	854 9	420.5	855 2	421	856.2	421	856 2	423	855 2	423
GR	854 9	423.5	854 9	424	854.9	426	854 9	428	854 9	428 1
GR	855 2	429	855 2	429.1	859.9	450	859 5	500	859 5	600
GR	860 0	700	860.3	800						
NC	035	035	033	0	0	0	0	0		
	DOWNSTREAM FACE OF OAK POINT DRIVE BRIDGE									
X1	27913	0	0	0	1	1	1	0	0	0
X3	10	0	0	300	0	470	0	859	859	0
BT	30	0	859 5	0	100	860	0	200	860.5	0
BT	300	860 8	0	397	860 3	855 5	397 1	860 3	856.2	398
BT	860 3	857.7	400	860 3	858 2	402	860 3	857.7	403	860 3
BT	856 2	406	860 3	856 2	407	860 2	857 7	409	860.2	858 2
BT	411	860 2	857 7	412	860 2	856 2	415	860 2	856 2	416
BT	860 2	857 7	418	860 2	858.2	420	860.1	857 7	421	860.1
BT	856 2	423	860 1	856 2	424	860 1	858	426	860 1	858.8
BT	428	860 1	858	429	860 1	856 2	429 1	860 1	855 2	500
BT	859 5	0	600	859 5	0	700	860	0	800	860 3
BT	0									
	UPSTREAM FACE OF OAK POINT DRIVE BRIDGE									

X1	27973	0	0	0	60	60	60	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
X3	10	0	0	300	0	470	0	859 5	859 5	0
NC	052	052	032	0	0	0	0	0	0	
X1	27974	0	0	0	1	1	1	0	0	0
X3	10	0	0	300	0	470	0	859 5	859 5	0
NC	065	055	035	0	0	0	0	0		
ET	0	4 1	6.1	250	600	250	542			
	VALLEY SECTION AK									
X1	28497	15	457	507	290	790	523			
GR	860 7	0	861 8	57	862 3	117	858 7	157	858 8	257
GR	859 4	357	859 9	457	856 6	472	856 4	480	855 7	485
GR	856 5	490	860 4	507	862.4	557	863 9	592	861.5	667
NC	065	057	037	0	0	0	0	0	0	
ET	0	4 1	6 1	200	755	540	734			
	VALLEY SECTION AL									
X1	28967	30	677	737	740	360	470			
GR	867 9	0	865	35	865	77	867 1	120	867 5	177
GR	865 8	277	864 9	377	862 6	477	861 7	577	861 5	677
GR	856.3	697	854 6	704	854 4	708	856 5	712	862 2	737
GR	864 1	777	862 2	884	861 6	977	862 1	1077	861 9	1177
GR	861 6	1277	861 6	1377	861 9	1477	861 3	1577	861 4	1677
GR	861 9	1777	862 4	1877	862.9	1977	863 4	2077	863.7	2177
ET	0	4 1	6 1	200	750	586	731			
	VALLEY SECTION AM									
X1	29317	26	659	709	350	350	350	0	0	0
GR	866 6	0	864	59	868 4	159	868 5	259	866 1	359
GR	863	459	862 7	559	861 5	659	856 9	677	856 2	684
GR	855 9	688	856.9	694	861 5	709	863 5	759	863 4	804
GR	861.4	866	862 2	959	860 6	1059	860 3	1159	857 2	1259
GR	857.2	1759	858 7	1764	858 8	1859	859 5	1959	861 4	2059
GR	863 6	2159	0	0	0	0	0	0		
NC	.060	055	035	0	0	0	0	0		
ET	0	0	4 1	1525	1588					
	VALLEY SECTION AN									
X1	29797	28	1500	1585	390	690	480			
GR	867 4	0	868 3	100	866.3	200	866 4	300	864 5	390
GR	866 3	500	865 7	600	866 3	700	866.1	800	866 3	900
GR	867 8	1000	867	1100	867 6	1200	869 2	1300	868 2	1400
GR	870.6	1500	866 9	1513	856 8	1545	857 1	1552	856 7	1558
GR	857 9	1564	862 5	1585	864.7	1600	867 5	1700	866	1810
GR	869	1900	868 2	1970	872.9	1995	0	0	0	
NC	070	070	033	0	0	0	0	0		
QT	2	910	910							
ET	0	6 1	8 1	0	0	1269	1504	1269	1504	0
X1	30117	25	1470	1540	260	300	320	940	0	0
GR	871 2	0	870 7	100	870 6	200	870 2	300	869.9	400
GR	869 5	500	869.2	600	868 4	700	867 8	800	867 4	900
GR	867.2	1000	866.7	1100	866 3	1200	866 6	1300	866 2	1400
GR	862 2	1470	859 1	1495	858 1	1497	858 1	1500	858 1	1503
GR	859 1	1505	864 7	1540	869	1600	870.8	1700	872.5	1770
NC	070	070	032	0	0	0	0	0	0	
ET	0	6 1	8 1	0	0	1350	1600	1350	1600	0
	DOWNSTREAM FACE OF 13 MILE ROAD BRIDGE									
X1	30118	25	1470	1540	1	1	1	940	0	0
GR	871 2	0	870 7	100	870 6	200	870 2	300	869 9	400
GR	869.5	500	869.2	600	868 4	700	867 8	800	867 4	900
GR	867 2	1000	866 7	1100	866 3	1200	866 6	1300	866 2	1400
GR	862 2	1470	859 1	1495	858.1	1497	858 1	1500	858 1	1503
GR	859 1	1505	864 7	1540	869	1600	870 8	1700	872.5	1770
SB	0	2 930	2 000	0	8	0	54	0	858 1	858.1
ET	0	6.1	8.11	0	0	1130	1600	1240	1600	
	UPSTREAM FACE OF 13 MILE ROAD BRIDGE									
X1	30205	27	1470	1540	87	87	87	.940	0	0
X2	0	0	1	863	866 2	0	0	0	.940	0
BT	27	0	871.2	0	100	870 7	0	200	870.6	0
BT	300	870 2	0	400	869 9	0	500	869 5	0	600

BT	869 2	0	700	868 4	0	800	867 8	0	900	867 4
BT	0	1000	867 9	0	1100	867 9	0	1200	866 3	0
BT	1300	866.6	0	1400	866 2	0	1470	866 0	862 2	1495
BT	866 7	861 1	1497	866 7	864 1	1500	866 7	865 1	1503	866 8
BT	864 1	1505	866 8	861 1	1505 1	866 8	859 1	1540	867 6	0
BT	1540 1	867 6	864 8	1600	869 0	0	1700	870 8	0	1770
BT	872 5	0								
GR	871 2	0	870 7	100	870 6	200	870.2	300	869 9	400
GR	869 5	500	869 2	600	868 4	700	867 8	800	867 4	900
GR	867 2	1000	866 7	1100	866 3	1200	866 6	1300	866 2	1400
GR	862 2	1470	859 1	1495	858 1	1497	858 1	1500	858 1	1503
GR	859 1	1505	859 1	1505 1	864 7	1540	864 8	1540.1	869	1600
GR	870 8	1700	872 5	1770						
NC	070	070	033	0	0	0	0	0	0	
ET	0	6.1	8 11	0	0	1130	1600	1240	1600	
X1	30206	25	1470	1540	1	1	1	940	0	0
GR	871 2	0	870	100	870 6	200	870 2	300	869 9	400
GR	869 5	500	869 2	600	868 4	700	867 8	800	867 4	900
GR	867 2	1000	866 7	1100	866 3	1200	866 6	1300	866.2	1400
GR	862 2	1470	859 1	1495	858 1	1497	858.1	1500	858 1	1503
GR	859 1	1505	864 7	1540	869	1600	870 8	1700	872.5	1770
NC	053	053	035	0	0	0	0	0	0	0
ET	0	4 1	4 1	220						
	VALLEY SECTION AO									
X1	30613	13	445	488	557	307	407			
GR	874 9	0	872 4	45	873	145	865 3	245 4	864 4	345
GR	863 6	445	859 8	462	859 8	469	860	472	862 1	488
GR	863 6	545	869 4	590	875 2	645	0	0	0	0
NC	052	.052	.037	0	0	0	0	0	0	
ET	0	4 1	6.1	350	500	370	480			
	VALLEY SECTION AP									
X1	31429	18	400	427	850	850	816	0	0	0
GR	873 2	0	872 5	100	870 6	152	871.6	200	872.1	255
GR	867 9	300	866 5	365	865 1	400	862.8	412	862.4	418
GR	862.2	420	862 4	423	864 2	427	865 4	440	866 8	500
GR	868 8	600	872 4	700	877 6	800	0	0	0	0
ET	0	4 1	1 4	80	208					
X1	31590	16	140 5	145.5	161	161	161			
GR	870 0	0	866 0	65	864 4	90	862 0	110	861 4	122
GR	860 6	140 5	859 1	141	858.4	142	858 1	143	858 4	144
GR	859 1	145	860 6	145.5	861 6	152	864 0	185	866 0	225
GR	870 0	255								
NC	050	050	015							
ET	0	4 1	0	80	207					
	DOWNSTREAM FACE OF DAM AND 60" PIPE									
X1	31591	0	0	0	1	1	1			
SC	1 015	20	3 0	0	5	0	40	1 3	858 1	858 1
ET	0	4 1	0	90	197					
	UPSTREAM FACE OF DAM AND 60" PIPE									
X1	31631	16	140 5	145 5	40	40	40			
X2	0	0	2	863 1	866 0					
BT	16	0	870 0	0	65	866 0	0	90	866 0	864 4
BT	110	866 0	862 0	122	866 0	861 4	140 5	866 0	860 6	141
BT	866 0	862 0	142	866 0	862 8	143	866 0	863 1	144	866 0
BT	862 8	145	866.0	862 0	145 5	866.0	860 6	152	866 0	861 6
BT	185	866 0	864 0	225	866 0	0	255	870 0	0	
GR	870 0	0	866 0	65	864 4	90	862 0	110	861 4	122
GR	860 6	140 5	859 1	141	858 4	142	858.1	143	858 4	144
GR	859 1	145	860 6	145 5	861 6	152	864.0	185	866 0	225
GR	870 0	255								
NC	055	055	032							
QT	2	950	950							
ET	0	4 1	0	90	197					
X1	31632	0	0	0	1	1	1			
NC				.5	1 0					
ET	0	4 1	4 1	46	149					
X1	31647	17	49 5	68 5	15	15	15			

GR	870 4	0	869 3	26	868.3	49 5	866 4	49 5	866 4	51
GR	864	51	863 4	55	863.6	58	863 9	61	864 4	64
GR	864 9	67	866 2	67	866 2	68 5	868 1	68 5	867.8	101
GR	866 6	151	867 2	176	0	0	0	0	0	0
NC	050	050	022	0	0	0	0	0	0	0
ET	0	4 1	4 1	47	149					
	DOWNSTREAM FACE OF DRIVEWAY									
X1	31648	0	0	0	1	1	1	0	0	0
BT	15	0	870 4	0	26	869 3	0	49 5	868 3	868 3
BT	49 5	869 7	868 2	51	869 7	868 2	55	869 7	868 2	58
BT	869 6	868 1	61	869 6	868 1	64	869 5	868	67	869 5
BT	868	68 5	869 5	868	68 5	868.1	868 1	101	867 8	0
BT	151	866 6	0	176	867 2	0	0	0	0	
ET	0	4 1	4.1	40	142					
	UPSTREAM FACE OF DRIVEWAY									
X1	31660	0	0	0	12	12	12	0	0	
X2	0	0	0	0	0	0	1	0	0	0
NC	055	055	032	0	0	0	0	0		
ET	0	4 1	4.1	40	138					
X1	31661	0	0	0	1	1	1	0	0	0
NC				3	5					
ET	0	4 1	4.1	494	685					
X1	31711	29	579	599	1	70	50			
GR	881 2	0	875 6	100	872.0	200	870.6	300	870 1	347
GR	869 3	400	868 7	500	867 8	579	863.8	579	863 6	580
GR	863 4	582	863 2	584	863 0	586	862 8	589	863 0	592
GR	863 2	594	863 4	596	863 6	598	863 8	599	867 8	599
GR	868 7	600	868 7	700	868 7	800	868.7	900	870 4	970
GR	871 6	1000	875 8	1100	879 5	1200	880.1	1300		
NC	030	030	013							
ET	0	4.1	4 1	494	685					
	DOWNSTREAM FACE OF MIRLON DRIVE BRIDGE									
X1	31712	29	579	599	1	1	1			
BT	26	0	881 2	0	100	875 6	0	200	872.0	0
BT	300	870 6	0	347	870 1	0	400	869 3	0	500
BT	868 7	0	579	868 7	863 8	580	868 7	866 0	582	868 7
BT	867 0	584	868 7	867.5	586	868 7	867 7	589	868 7	867 8
BT	592	868 7	867 7	594	868 7	867 5	596	868 7	867 0	598
BT	868 7	866 0	599	868.7	863 8	600	868 7	0	700	868 7
BT	0	900	868 7	0	970	870 4	0	1000	871 6	0
BT	1100	875 8	0	1200	879 5	0	1300	880 1	0	
GR	881 2	0	875 6	100	872 0	200	870 6	300	870 1	347
GR	869 3	400	868 7	500	867 8	579	863.8	579	863 6	580
GR	863 4	582	863 2	584	863 0	586	862.8	589	863 0	592
GR	863 2	594	863 4	596	863 6	598	863.8	599	867 8	599
GR	868.7	600	868 7	700	868 7	800	868 7	900	870 4	970
GR	871 6	1000	875 8	1100	879 5	1200	880 1	1300		
ET	0	4 1	4 1	490	690					
	UPSTREAM FACE OF MIRLON DRIVE BRIDGE									
X1	31756	0	0	0	44	44	44			
X2	0	0	0	0	0	0	1			
NC	050	050	034							
ET	0	4 1	4 1	490	690					
X1	31757	0	0	0	1	1	1			
ET	0	4 1	6 1	150	400	198	366			
	VALLEY SECTION AQ									
X1	32007	14	254	281	190	370	250			
GR	871 4	0	870 9	54	871 3	156	867 9	219	866	254
GR	864 2	255	864	266	864 7	277	867.1	281	866 9	304
GR	867 1	354	870.6	394	872 1	454	871.8	554	0	0
ET	0	4 1	4.1	150	400					
X1	32577	16	258	314	520	520	570			
GR	874 2	0	873 1	58	872 5	129	870 4	158	868 1	208
GR	866 8	258	865 5	262	863.9	273	863 4	288	863 7	303
GR	864 9	307	868 0	314	870 9	358	874 5	408	874 2	458
GR	872 6	535	0	0	0	0	0	0	0	
NC	.050	050	035	0	0	0	0	0	0	0

ET	0	4 1	6 1	150	500	230	456			
	VALLEY SECTION AR									
X1	33042	21	261	288	420	420	465			
GR	877 7	0	874 7	61	872 2	161	869 9	236	868 7	261
GR	865.2	267	864	276	865 5	284	867 7	288	868	311
GR	867 5	341	865 5	346	864	351	863.7	358	864 1	365
GR	865 2	373	866 9	375	869 7	461	872.7	488	874 1	561
GR	874 4	647	0	0	0	0	0	0	0	
X1	33367	26	500	509 4	425	225	325			
X3	10	0	0	500	0	835	0	868	868	0
GR	880 1	0	876	100	872 9	200	871 3	300	871 9	400
GR	872 2	424	867 4	500	865 8	500	865 2	501 7	865	502.2
GR	865	504 7	865	507 2	865 2	507 7	865 8	509 4	867 4	509 4
GR	867 5	585	867	600	869 9	700	869 7	800	868 9	900
GR	869 4	1000	871 9	1100	874 4	1165	875.9	1200	880 9	1300
GR	887 1	1400	0	0	0	0	0	0	0	
NC	035	035	032	0	0	0	0	0	0	0
ET	0	4 1	4 1	500	850					
	DOWNSTREAM FACE OF DRAKE ROAD BRIDGE									
X1	33368	26	500	509 4	1	1	1	0	0	0
BT	22	0	880 1	0	100	876	0	200	872 9	0
BT	300	871 3	0	400	871.9	0	424	872 2	0	500
BT	871 6	867 4	501 7	871 6	869 9	504 7	871.6	871 2	507 7	871 5
BT	869 9	509 4	871.5	867 4	585	870 9	0	600	870.8	0
BT	700	869 9	0	800	869 7	0	900	868 9	0	1000
BT	869 4	0	1100	871 9	0	1165	874 4	0	1200	875 9
BT	0	1300	880 9	0	1400	887.1	0	0	0	0
GR	880.1	0	876	100	872 9	200	871 3	300	871 9	400
GR	872.2	424	871 6	500	865 8	500	865 2	501.7	865	502 2
GR	865	504 7	865	507 2	865 2	507 7	865.8	509 4	871 5	509 4
GR	867 5	585	867	600	869 9	700	869 7	800	868.9	900
GR	869 4	1000	871.9	1100	874 4	1165	875 9	1200	880 9	1300
GR	887 1	1400	0	0	0	0	0	0		
ET	0	4 1	4 1	500	850					
	UPSTREAM FACE OF DRAKE ROAD BRIDGE									
X1	33439	0	0	0	71	71	71	0	0	0
X2	0	0	0	0	0	0	1	0	0	0
NC	055	055	035	0	0	0	0	0	0	
ET	0	4 1	4 1	500	840					
X1	33440	26	500	509 4	1	1	1	0	0	0
GR	880 1	0	876	100	872 9	200	871 3	300	871 9	400
GR	872 2	424	867 4	500	865.8	500	865 2	501 7	865	502 2
GR	865	504 7	865	507 2	865 2	507 7	865 8	509 4	867 4	509 4
GR	867 5	585	867	600	869 9	700	869 7	800	868 9	900
GR	869.4	1000	871 9	1100	874 4	1165	875 9	1200	880.9	1300
GR	887 1	1400	0	0	0	0	0	00		
NH	5	055	207	065	322	035	477	065	752	055
NH	932	0	0	0	0	0	0	0	0	0
ET	0	4 1	6 1	250	650	250	550			
	VALLEY SECTION AS									
X1	33970	27	322	477	450	630	530			
GR	881 5	0	879	32	871.7	87	869 8	132	867 4	207
GR	866 8	232	866 7	292	866	302	866	312	866.1	322
GR	865.5	332	865 3	342	865 5	352	865 3	357	865.4	362
GR	865 4	372	865 6	382	865 7	392	866 7	432	867 7	477
GR	867 1	532	867	632	866 5	732	866.8	752	871 1	797
GR	871 1	832	882 7	932	0	0	0	0	0	0
NC	072	072	037	0	0	0	0	0	0	
ET	0	4 1	6 1	825	1275	875	1225			
	VALLEY SECTION AT									
X1	34901	24	1050	1072	885	885	931			
GR	886 2	0	883 3	20	872 4	100	870.9	200	869 9	300
GR	869.4	400	869 1	500	868 3	600	867 8	700	868	800
GR	867 9	900	868 3	1000	868 8	1050	868	1055	866 9	1062
GR	868 1	1068	869	1072	868 5	1100	868 3	1200	870 1	1300
GR	871 2	1400	872.4	1420	881 4	1440	884 1	1460	0	0
ET	0	4 1	6 1	575	975	575	943			

	VALLEY SECTION AU									
X1	35481	18	805	828	580	580	580			
GR	885 3	0	875 9	45	874	100	872 9	200	871 5	300
GR	870 3	400	869 7	500	869 2	600	868 9	700	869 8	805
GR	868 5	811	868 1	818	867 5	825	870 1	828	870 2	900
GR	872 7	1000	873 9	1080	885 1	1120	0	0	0	0
NC	065	065	035	0	0	0	0	0	0	
ET	0	4 1	4 1	286						
	DOWNSTREAM FACE OF DAM									
X1	36337	14	349	382	810	810	856			
GR	892 2	0	883 9	26	879 8	54	872 1	149	870 8	249
GP	871 7	349	869 2	355	869	363	869	371	869 1	378
GR	870 5	382	872	449	875 9	549	884 7	649	0	0
SB	0	1	-3 060	0	010	0	010	0	869	869
ET	0	4 1	4 1	292						
	UPSTREAM FACE OF DAM									
X1	36349	0	0	0	12	12	12	0	0	0
X2	0	0	1	869	871	0	0	0	0	0
BT	6	249	870 8	0	349	872	0	382	872	0
BT	449	872	0	549	875.9	0	649	884.7	0	0
NC	045	060	035	0	0	0	0	0	0	
ET	0	0	4.1	63	140					
	VALLEY SECTION AV									
X1	37069	10	86	110	720	720	720			
GR	883 2	0	877.4	42	870	86	869 1	89	867 1	95
GR	868 9	102	871 8	110	874	143	876 8	210	882 2	245
NC	062	055	033	0	0	0	0	0	0	
ET	0	4 1	6 1	103	303	126	279			
	VALLEY SECTION AW									
X1	37814	12	200	255	745	745	745			
GR	889 7	0	880 1	45	875 2	100	873.5	200	868 6	222
GR	868.5	225	869 1	232	874.1	255	875.4	300	876 8	380
GR	879.9	400	890 4	470	0	0	0	0	0	
QT	2	550	550							
X1	38152	12	93.7	124 9	388	288	338			
GR	887 9	0	885 8	93 7	871 1	93 7	868 6	100	871.1	106 3
GR	871 1	112.3	868 6	118.6	871 1	124.9	885 8	124.9	885.8	200
GR	888 2	235	892	275	0	0	0	0	0	
NC	035	035	031	0	0	0	0	0	0	
	DOWNSTREAM FACE OF DRIVEWAY									
X1	38153	25	93 7	124 9	1	1	1	0	0	0
BT	24	0	887 9	0	93 7	885 8	871.1	93 71	885 8	871 1
BT	94 3	885 8	873 6	96 2	885 8	876 1	98 9	885 8	877 3	100
BT	885 8	877 3	101 1	885.8	877.3	103 8	885 8	876 1	105 7	885 8
BT	873 6	106 3	885 8	871.1	112.3	885 8	871 1	112 9	885 8	873 6
BT	114 8	885 8	876.1	117.5	885 8	877 3	118 6	885 8	877 3	119 7
BT	885 8	877 3	122.4	885 8	876 1	124 3	885 8	873.6	124 9	885 8
BT	871 1	124 9	885.8	0	200	885 8	0	235	888 2	0
BT	275	892	0	0	0	0	0	0	0	
GR	887 9	0	885 8	93 7	871 1	93.7	871.1	93.71	869.4	94 3
GR	869.0	96 2	868 6	98 9	868 6	100	868.6	101 1	869	103 8
GR	869 4	105 7	871 1	106 3	871 1	112 3	869 4	112 9	869	114 8
GR	868 6	117 5	868 6	118 6	868 6	119.7	869	122 4	869 4	124 3
GR	871 1	124 9	885 8	124 9	885 8	200	888 2	235	892	275
	UPSTREAM FACE OF DRIVEWAY									
X1	38292	25	93 7	124 9	139	139	139	0	0	0
BT	24	0	887 9	0	93 7	885 8	871 1	93 71	885 8	871.5
BT	94 3	885 8	874	96 2	885 8	876 5	98 9	885 8	877.7	100
BT	885 8	877 7	101 1	885 8	877 7	103.8	885	876 5	105.7	885 8
BT	874	106 3	885 8	871 5	112 3	885.8	871 5	112 9	885.8	874
BT	114 8	885 8	876 5	117 5	885 8	877.7	118 6	885.8	877 7	119 7
BT	885 8	877 7	122 4	885 6	876.5	124 3	885 8	874	124.9	885 8
BT	871 5	124 9	885 8	0	200	885 8	0	235	888 2	0
BT	275	892	0	0	0	0	0	0	0	
GR	887 9	0	885.8	93 7	871.5	93 7	871.5	93.71	869 8	94.3
GR	869 4	96 2	869	98 9	869	100	869	101 1	869 4	103.8
GR	869 8	105 7	871.5	106.3	871 5	112 3	869 8	112 9	869 4	114 8

GR	869 0	117 5	869	118 6	869	119 7	869 4	122 4	869 8	124 3
GR	871 5	124 9	885 8	124 9	885 8	200	888 2	235	892	275
NC	050	050	033	0	0	0	0	0	0	
X1	38293	12	93 7	124 9	1	1	1	0	400	0
GR	887 9	0	885 8	93 7	871 1	93 7	868 6	100	871 1	106 3
GR	871.1	112 3	868 6	118 6	871 1	124 9	885 8	124 9	885 8	200
GR	888 2	235	892	275	0	0	0	0	0	
ET	0	0	4 1	78	149					
	VALLEY SECTION AX									
X1	38533	14	100	145	240	240	240	0	0	0
GR	889	0	887 9	4	879 1	35	876 3	74	873 4	100
GR	869 9	114	869 9	117	870	124	875 5	145	879 8	200
GR	882 7	245	883 7	400	893 4	446	894	500	0	0
QT	2	360	360							
ET	0	4.1	1 4	600	850					
X1	39630	17	727 9	732 1	1050	1050	1097			
GR	881	0	879 8	30	879 1	55	878 1	130	877 7	230
GR	877.3	330	876	430	874 4	530	873 7	630	869 8	727 9
GR	869 4	730	869.8	732 1	873 9	830	874	930	875 4	1030
GR	877 1	1130	880.1	1230	0	0	0	0	0	
NC	035	035	033	0	0	0	0	0		
ET	0	4 1	0	600	850					
	DOWNSTREAM FACE OF HALSTED ROAD BRIDGE									
X1	39631	24	727.9	732 1	1	1	1	0	0	
BT	23	0	881	0	30	879 8	0	55	879 1	0
BT	130	878 1	0	230	877 7	0	330	877 3	0	430
BT	876	0	530	874 4	0	630	873 7	0	727 9	874 1
BT	869 8	727 91	874.1	870 5	728 8	874 1	871 6	729 6	874.1	872
BT	730	874 1	872 0	730 4	874 1	872 0	731 2	874 1	871.6	732 1
BT	874.1	870 5	732.1	874 1	0	830	873 9	0	930	874 0
BT	0	1030	875.4	0	1130	877 1	0	1230	880.1	0
GR	881	0	879.8	30	879 1	55	878 1	130	877 7	230
GR	877.3	330	876	430	874 4	530	873 7	630	874.1	727 9
GR	869 8	727 9	869 8	727.91	869 4	728 8	869 4	729 6	869 4	730
GR	869 4	730 4	869 4	731 2	869 8	732 1	874 1	732 1	873 9	830
GR	874.0	930	875 4	1030	877 1	1130	880 1	1230	0	0
ET	0	4 1	0	600	850					
	UPSTREAM FACE OF HALSTED ROAD BRIDGE									
X1	39675	24	727.9	732 1	44	44	44	0	0	0
BT	23	0	881	0	30	879 8	0	55	879 1	0
BT	130	878 1	0	230	877 7	0	330	877 3	0	430
BT	876	0	530	874 4	0	630	873 7	0	727 9	874 1
BT	870 0	727 91	874 1	870 7	728 8	874 1	871 8	729 6	874.1	872 2
BT	730	874 1	872.2	730 4	874 1	872 2	731 2	874 1	871 8	732 1
BT	874 1	870 7	732 1	874 1	0	830	873 9	0	930	874
BT	0	1030	875 4	0	1130	877 1	0	1230	880 1	0
GR	881	0	879 8	30	879 1	55	878 1	130	877 7	230
GR	877 3	330	876	430	874 4	530	873 7	630	874 1	727 9
GR	870	727 9	870 0	727.91	869 6	728 8	869 6	729 6	869 6	730
GR	869 6	730 4	869.6	731 2	870	732 1	874.1	732 1	873 9	830
GR	874 0	930	875 4	1030	877 1	1130	880 1	1230	0	0
NC	070	070	037	0	0					
ET	0	4 1	0	600	850					
X1	39676	17	727 9	732 1	1	1	1	0	0	
GR	881	0	879 8	30	879 1	55	878 1	130	877 7	230
GR	877 3	330	876	430	874 4	530	873 7	630	869 8	727 9
GR	869 6	730	869 8	732 1	873 9	830	874	930	875 4	1030
GR	877 1	1130	880 1	1230	0	0	0	0	0	
ET	0	4 1	0	600	850					
X1	39814	90	717 1	722 8	100	150	138			
GR	879 9	0	879.2	24 7	878 6	49 4	878.3	74 1	878 1	98 9
GR	878	123 6	878	148.3	878	173 1	878	197 8	877 9	222 5
GR	877 8	247 3	877 6	272	877.5	296 7	877 5	321.4	877 3	346.2
GR	877 1	370 9	876 9	395 6	876.7	420 4	876.3	445 1	876	469 8
GR	875 7	494 6	875.3	519 3	875 1	544	874 9	568 7	874 6	593 5
GR	874 4	618 2	873.7	642 9	873	667 7	872.2	692 4	871 3	717 1
GR	871 2	717 3	871 2	717 5	871 1	717.7	871	717 9	871	718 1

GR	870 9	718 3	870 9	718 4	870 9	718 6	870 8	718 8	870 8	719
GR	870 8	719 2	870 8	719 4	870 8	719 6	870 8	719 8	870 8	719 9
GR	870 8	720 1	870 8	720 3	870 8	720 5	870 9	720 7	870 9	720 9
GR	871	721 1	871	721 3	871 1	721 5	871 1	721 6	871.2	721 8
GR	871 2	722	871 3	722.2	871 3	722 4	871 3	722.6	871 4	722 8
GR	871 9	738 2	872 5	753 6	873	769 1	873 5	784 5	874 1	799 9
GR	874 6	815 4	874 6	830 8	874 6	846 2	874 7	861 7	874 8	877 1
GR	874 9	892 5	875	907 9	875 2	932 4	875 5	938 8	875.7	954 2
GR	875 9	969 7	876 3	985 1	876 6	1000 5	876 9	1016	877 2	1031 4
GR	877 6	1046 8	877 9	1062 3	878 3	1077.7	878 6	1093 1	879 1	1108 5
GR	879 5	1124	879 9	1139 4	881	1154 8	882 2	1170 3	883 3	1185 7
ET	0	4 1	0	607	843					
X1	39951	90	706 4	713 5	100	150	137	0	0	0
GR	878 9	0	878.4	24 3	878	48 7	877 8	73	877 7	97 4
GR	877 8	121 5	877 9	146 1	878 1	170 5	878 2	194 8	878 1	219 2
GR	878	243 6	877-8	267 9	877.7	292 3	877 7	316 6	877 6	341
GR	877 6	365 4	877 5	389 7	877.3	414 1	877 1	438 4	876 8	462 8
GR	876 6	487 2	867 3	511 5	876	535.9	875 7	560 2	875 4	584 6
GR	875 2	609	874 7	633 3	874 2	657 7	873 6	682	872 9	706 4
GR	872 7	706 6	872 6	706 9	872.5	707 1	872 4	707 3	872.2	707 6
GR	872 1	707 8	872.1	708 1	872 1	708 3	872 1	708 5	872 1	708.8
GR	872	709	872	709 2	872	709 5	872	709.7	872	709.9
GR	872	710 2	872	710 4	872	710 7	872.1	710 9	872 2	711 1
GR	872 3	711.4	872.4	711.6	872.4	711 8	872 5	712 1	872 6	712 3
GR	872 7	712 6	872 8	712 8	872 9	713	873	713 3	873	713 5
GR	873.4	727 8	873 8	742	874 2	756.3	874 5	770 6	874 9	784.8
GR	875 3	799 1	875 3	813 4	875 4	827 6	875 5	841 9	875 7	856 1
GR	875 8	870 4	876	884 7	876 2	898 9	876 5	913 2	876.7	927 5
GR	877	941 7	877 4	956	877 8	970 3	878 2	984 5	878 6	998 8
GR	879	1013 1	879 4	1027 3	879 8	1041.6	880.2	1055 9	880 6	1070.1
GR	880 9	1084 4	881 3	1098 7	882 9	1112 9	884 8	1127 2	886 6	1141 5
NC	090	090	.045	0	0	0	0	0	0	
ET	0	4 1	4 1	630	820					
X1	40089	90	695 7	704 2	100	150	138			
GR	877 9	0	877 6	23 9	877 4	47 9	877 3	71 9	877 4	95 9
GR	877 6	119 9	877.9	143 9	878.2	167 9	878 5	191.9	878.3	215 9
GR	878.1	239 9	878	263 8	877 8	287 8	877 9	311.8	878	335 8
GR	878	359 8	878 1	383 8	878	407 8	877 8	431 8	877 7	455 8
GR	877 5	479 8	877 2	503 8	876 9	527 7	876 6	551 7	876 2	575.7
GR	876	599 7	875.7	623 7	875.4	647.7	875	671 7	874 4	695 7
GR	874 2	696	874	696 2	873 9	696.5	873 7	696 8	873 5	697 1
GR	873 3	697 4	873 3	697 7	873 3	698	873 3	698 2	873 3	698 5
GR	873 3	698 8	873 2	699 1	873 2	699 4	873 2	699 7	873 2	699 9
GR	873 2	700 2	873.2	700 5	873.2	700.8	873 4	701.1	873.5	701 4
GR	873 6	701 7	873 7	701 9	873 8	702 2	874	702.5	874 1	702 8
GR	874 2	703 1	874 3	703 4	874 5	703 7	874 6	703 9	874 7	704 2
GR	874 9	717 3	875 1	730 4	875 3	743 5	875 6	756 6	875 8	769.7
GR	876	782 8	876	795.9	876.1	809	876 3	822 1	876 5	835 2
GR	876 8	846 3	877	861 4	877 2	874 5	877 5	887 6	877 8	900 7
GR	878	913 8	878 5	926 9	878 9	940	879 4	953 1	879 9	966 2
GR	880 3	979 3	880	992 4	881 3	1005 5	881 7	1018 6	882 1	1031.7
GR	882.4	1044 8	882 7	1057 9	884 8	1071	887 4	1084.1	889.9	1097 2
ET	0	4.1	6 1	650	750	655	745			
	VALLEY SECTION AY									
X1	40226	18	685	695	100	150	137			
GR	876 9	0	876 9	85	878 8	185	878	285	878 8	385
GR	878 4	485	876 8	585	876 5	665	876	685	874 6	687
GR	874 5	689	874 5	691	876 4	695	876 8	785	879 1	885
GR	883 5	985	884 1	1019	893 2	1053	0	0	0	0
NC	085	085	042	0	0	0	0	0		
	14 MILE ROAD - CORPORATE LIMITS									
X1	40837	19	616	637	489	589	611	0	0	
GR	881 1	0	878 2	16	878 3	116	880.1	216	880 8	316
GR	882 6	384	889 3	416	891 3	461	891	476	884 1	516
GR	881 6	536	881 3	616	878.8	620	878 8	625	879 1	629
GR	882.6	637	884 8	666	887 8	716	895 4	791	0	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
*PROF 1									
CCHV= 0.300 CEHV= 0 500									
*SECNO 0 000									
INTERPOLATED CROSS SECTION AT MOUTH OF MINNOW POND DRAIN									
0.000	5 00	760 80	760 69	760 80	761 70	0 90	0 00	0 00	757 90
1600 0	235 3	1101 4	263 4	97 6	122 0	107 7	0 0	0 0	758.10
0 00	2 41	9 03	2 44	0 090	0 042	0 090	0 000	755 80	70 20
0 009988	0	0	0.	0	7	0	0 00	174 80	245 00
*SECNO 310 000									
310 000	5 77	763 37	0 00	0 00	763 87	0 50	2 05	0 12	760 00
1600 0	282 4	982 0	335 7	140 9	139 2	174 7	2 6	1 3	760 20
0 02	2 00	7 05	1.92	0 090	0 042	0.090	0 000	757 60	49 18
0 005035	287	310	262	2	0	0	0 00	217 22	266 40
*SECNO 620 000									
620 000	5 53	765 03	0 00	0 00	765 70	0.68	1 75	0.09	762.00
1600 0	253 3	1032 3	314 4	111 3	128 0	150 7	5 2	2 5	762 40
0.03	2 28	8 06	2 09	0.090	0 042	0 090	0 000	759 50	50 00
0 007230	275	310	250	3	0	0	0.00	202 91	252 92
*SECNO 810 000									
810 000	5 62	766 42	0 00	0.00	767 13	0 71	1 41	0 01	763 50
1600 0	244 0	1037 2	318 8	104 3	126.2	154 3	6 9	3 4	764.00
0 04	2 34	8 22	2 07	0 090	0 042	0.090	0 000	760 80	46 03
0 007558	200.	190	185	2	0	0	0 00	203 39	249 42
*SECNO 1000 000									
1000 000	5 68	767 88	0.00	0 00	768 60	0.72	1 46	0 01	765 00
1600 0	233 7	1037 1	329 2	97 5	124.6	160 1	8 6	4.3	765 50
0 05	2 40	8 32	2 06	0 090	0 042	0 090	0 000	762 20	42 47
0 007801	200.	190	185	2	0	0	0 00	202 25	244 72
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 1190 000									
1190 000	5 76	769 36	0 00	0 00	770 09	0.73	1 49	0 00	766 50
1600 0	221 7	1032 7	345 6	91 2	123 6	170.2	10 3	5 2	767 10
0 06	2.43	8 36	2 03	0 090	0 042	0 090	0 000	763 60	37 92
0 007845	200	190	185	1	0	0	0 00	204 92	242 84
*SECNO 1380 000									
VALLEY SECTION A OVER MINNOW POND DRAIN									
1380 000	5 87	770 87	0 00	0 00	771.62	0 75	1 52	0 01	768 00
1600 0	205 6	1036 9	357.5	83 9	122 0	177 4	12 0	6 1	768 80
0 06	2 45	8 50	2.02	0 090	0 042	0 090	0 000	765.00	34 03
0 008140	200	190	185	0	0	0	0 00	204 84	238 87
CCHV= 0 500 CEHV= 1 000									
*SECNO 1430 000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
1430 000	5 76	771 35	771 35	0 00	772 20	0 84	0 43	0 09	768 60
1600 0	201 1	1060 7	338.2	79.2	119 1	163 1	12 4	6.3	769 40
0 07	2 54	8 91	2 07	0 090	0 042	0 090	0 000	765 60	34.84
0 009229	50	50	50.	2	6	0	0 00	200 81	235 65
*SECNO 1480 000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
1480 000	5 70	771 90	771 90	0 00	772 79	0 89	0 48	0 05	769 20
1600 0	198 8	1073 1	328 1	76.9	117 6	156 1	12 8	6 5	770 00
0 07	2 59	9 12	2 10	0 090	0 042	0 090	0 000	766 20	35 25

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 0 009845      50       50       50        2        6        0     0 00   198 77   234 02
*SECNO 1580 000
3280 CROSS SECTION   1580 00 EXTENDED      0 36 FEET
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 1580 000     5 86   773 16   773 16     0 00   774 14     0 98     0 97     0 08   770 30
   1600 0    98 5   1081 6   419 9     45 8   113 7   180 4     13 6      7 0   770 30
     0 07    2 15     9 51    2 33    0 090   0 042   0 090    0.000   767 30     0 00
 0 009633     100      100      100        2        8        0     0 00   212 67   212.67
   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
*SECNO 1680 000
3280 CROSS SECTION   1680 00 EXTENDED      0 27 FEET
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      10 0     183 0  TYPE=      1  TARGET=      173 000
         VALLEY SECTION B
 1680 000     5 77   774 27   774 27     0 00   775 31     1 04     1.00     0 06   771.50
   1600 0    93 3   1088 7   418 0     38 2   111 4   163 2     14 3      7 5   771 50
     0 08    2 44     9.77    2.56    0 085   0 042   0 085    0.000   768.50    10 00
 0 010449    100.      100      100        2        5        0     0.00   173 00   183.00
CCHV=    0 300 CEHV=    0.500
*SECNO 2080 000
3301 HV CHANGED MORE THAN HVINS
         VALLEY SECTION C
 2080 000     6 79   778 09     0 00     0.00   778 51     0.42     3 02     0 19   774 50
   1600.0    124 1   945 7   530 2     65 5   144 1   284 8     18.2      9 4   774 50
     0 10    1 90     6 56    1 86    0 100   0 050   0 100    0 000   771.30    61.31
 0 005547     100      400      490        2        0        0     0 00   227 42   288 73
*SECNO 2380 000
         VALLEY SECTION D
 2380 000    6.10   779 60     0 00     0 00   780 29     0 69     1 64     0 13   776.30
   1600 0   143 8   992 6   463 7     68 0   120.0   209 0     20 7     10 5   776 50
     0 11    2 11     8 27    2 22    0.090   0 042   0 090    0 000   773.50    20 45
 0 006746     300      300      200        3        0        0     0 00   183 27   203.73
*SECNO 2680 000
3470 ENCROACHMENT STATIONS=      51.0     135.0  TYPE=      1  TARGET=       84 000
 2680 000     7 05   781.15     0 00     0 00   781 79     0 64     1 49     0 02   776.90
   1600.0   102 5   1084 5   413 0     45 0   142 9   167 6     22 8     11 2   777 10
     0.13    2 28     7 59    2 46    0 090   0 042   0 090    0 000   774 10    51 00
 0 004500     300      300      200        2        0        0     0 00    84.00   135 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 2700 000
3470 ENCROACHMENT STATIONS=      56 0     130 0  TYPE=      1  TARGET=       74 000
 2700 000     7 06   781 20     0 00     0 00   781 93     0.74     0 09     0 05   776 94
   1600 0    51 1   1142 3   396 6     27 8   143.0   152 3     23.0     11.2   777 14
     0 13    2 20     7 99    2 60    0.090   0 042   0 090    0 000   774.14    56 00
 0 004980      20       20       20        2        0        0     0 00    74 00   130 00
*SECNO 2710 000
3470 ENCROACHMENT STATIONS=      59.0     127 0  TYPE=      1  TARGET=       68 000
 2710 000     7 05   781 21     0 00     0 00   782 03     0.82     0.05     0 04   776 96
   1600 0    32.0   1182 8   385 2     16 3   142 8   142 5     23 1     11 3   777 16
     0 13    1 96     8 28    2 70    0 090   0 042   0 090    0 000   774 16    59 00
 0 005364      10       10       10        2        0        0     0 00    68 00   127 00
*SECNO 2720 000
```

3470 ENCROACHMENT STATIONS=			61 0	125 0	TYPE=	1	TARGET=	64 000	
2720 000	7 06	781 24	0 00	0 00	782 11	0 87	0 05	0.03	776.98
1600 0	12 7	1210 0	377 3	8.3	143 0	136.4	23 1	11 3	777 18
0 13	1 52	8 46	2.77	0 090	0.042	0 090	0 000	774 18	61 00
0 005588	10	10	10	2	0	0	0 00	64 00	125 00
CCHV= 0 500 CEHV= 1 000									
*SECNO 2724 000									
3470 ENCROACHMENT STATIONS=			62.0	124 0	TYPE=	1	TARGET=	62 000	
2724 000	7 08	781 26	0 00	0.00	782 15	0 89	0 02	0 02	776 98
1600 0	4 6	1221 9	373 5	4 2	143 5	133 9	23 1	11 3	777 18
0 13	1 08	8 51	2 79	0 090	0 042	0 090	0 000	774.18	62 00
0.005629	4	4	4.	0	0	0	0 00	62 00	124 00
*SECNO 2728 000									
3470 ENCROACHMENT STATIONS=			63 0	123 0	TYPE=	1	TARGET=	60 000	
2728 000	7 23	781 42	0.00	0 00	782.22	0 80	0 02	0 05	776 99
1600.0	0 0	1193 1	406 9	0 0	147.3	136 3	23.2	11 3	777 19
0 13	0 00	8 10	2.99	0.000	0 042	0 090	0 000	774.19	63 00
0 006126	4	4	4	2	0	0	0.00	60 00	123 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 2732 000									
3301 HV CHANGED MORE THAN HVINS									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
3470 ENCROACHMENT STATIONS=			94 0	198 0	TYPE=	1	TARGET=	104 000	
2732 000	7 42	781 62	781 62	0 00	783 40	1.78	0 04	0.99	775 10
1600.0	0 0	1173.8	426.2	0.0	95 7	104.5	23 2	11 3	775 70
0 13	0.00	12 26	4 08	0 000	0 042	0 090	0 000	774 20	94 00
0 015615	4	4	4	1	8	0	0.00	58 60	152 60
CCHV= 0.300 CEHV= 0 500									
*SECNO 2733 000									
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS=			94 0	198 0	TYPE=	1	TARGET=	104 000	
DOWNSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE									
2733 000	8 85	783 05	0 00	0 00	783.73	0.68	0 01	0 33	775 10
1600 0	0 0	935 0	665 0	0.0	115.8	176.2	23 2	11 3	775 70
0 13	0 00	8 08	3 77	0.000	0 032	0 055	0.000	774 20	94 00
0 003337	1	1	1	9	0	0	0 00	69 61	163.61
SPECIAL CULVERT									
SC CUNO	CUNV	ENTLC	COFQ	RDLEN	RISE	SPAN	CULVLN	CHRT	SCL	ELCHU	ELCHD
1	0 030	0 50	3 02	0 00	12 00	0 00	30 00	2	1	774 20	774 20
CHART 2 - CORRUGATED METAL PIPE CULVERT									
SCALE 1 - HEADWALL									
*SECNO 2763.000									
SPECIAL CULVERT OUTLET CONTROL + WEIR FLOW EG = 788.19									
3301 HV CHANGED MORE THAN HVINS									
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 CULVERT									
EGIC	EGOC	H4	QWEIR	QCULV	VCH	ACULV	ELTRD	WEIRLN	

790 07	790 22	4 45	276	1320	3 116	113 1	787 20	96	
3470 ENCROACHMENT STATIONS=		94 0	191 0	TYPE=	1	TARGET=	97 000		
UPSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE									
2763 000	13 90	788 10	0 00	0 00	788 19	0 09	4 45	0.00	775 10
1600 0	0 0	581 0	1019 0	0 0	186 5	546 5	23.6	11 4	775 70
0 13	0 00	3 12	1 86	0.000	0 032	0 055	0 000	774 20	94 00
0 000346	30	30	30	2	0	0	0 00	97 00	191 00
*SECNO 2764.000									
3470 ENCROACHMENT STATIONS=		93 0	192 0	TYPE=	1	TARGET=	99 000		
2764 000	13 86	788 06	0 00	0 00	788 23	0 18	0 00	0 04	775 10
1600 0	4 6	830 2	765 2	12.7	185 9	544 4	23 6	11 4	775 70
0 13	0 36	4.47	1 41	0.095	0 045	0 095	0 000	774 20	93 00
0 000594	1	1	1	2	0	0	0 00	99 00	192.00
*SECNO 2768 000									
3470 ENCROACHMENT STATIONS=		89 0	196 0	TYPE=	1	TARGET=	107 000		
2768 000	13 81	788 08	0 00	0 00	788 24	0.16	0 00	0 00	775 17
1600 0	52 5	806 6	740 9	59 3	185 0	543 5	23 6	11 4	775 77
0 13	0 89	4 36	1 36	0 095	0 045	0 095	0 000	774 27	89 00
0 000569	4	4	4	1	0	0	0 00	107 00	196 00
*SECNO 3191 000									
VALLEY SECTION E									
3191 000	7 48	788 48	0 00	0 00	788.70	0 22	0 43	0 03	784 00
1600 0	286 2	781 6	532 2	185 7	152.5	316 4	30 9	12 9	784 00
0 17	1 54	5 13	1 68	0 095	0 045	0.095	0 000	781.00	50 23
0 002172	300	423	480	2	0	0	0 00	198 55	248 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
*SECNO 3381 000									
3381.000	6 73	788 93	0 00	0 00	789.30	0 37	0 53	0 07	785 20
1600 0	250 9	861 8	487 3	136 6	134 6	241.3	33 3	13 7	785 20
0 18	1.84	6 40	2 02	0 095	0 045	0 095	0.000	782 20	57 65
0 003996	215	190	160	2	0	0	0 00	183.69	241 35
*SECNO 3581 000									
3581.000	6 45	789 75	0.00	0 00	790 23	0 47	0.87	0 05	786 00
1600 0	466 3	932 0	201 6	211 6	133 3	109 8	35 5	14 4	786 30
0 19	2 20	6 99	1 84	0 095	0 045	0 095	0.000	783 30	7 31
0 004826	223	200	170	2	0	0	0.00	160.01	167 32
*SECNO 3781 000									
VALLEY SECTION F									
3781 000	6 28	790 78	0 00	0 00	791 32	0.54	1 06	0 03	787 20
1600.0	454 2	954 7	191 1	198 3	129 1	99 7	37 6	15.2	787 50
0 20	2 29	7 39	1 92	0 095	0.045	0 095	0 000	784 50	7 73
0 005629	225	200	170	2	0	0	0 00	156 99	164 71
*SECNO 4451 000									
VALLEY SECTION G									
4451 000	5 70	794 40	0 00	0.00	794 86	0 45	3 51	0 03	791 00
1600 0	333.2	720 3	546 4	122 6	95 6	221.3	42 7	17 0	791.00
0 23	2 72	7 53	2 47	0 095	0 045	0.095	0 000	788 70	20 61
0 006736	440	670	490.	3	0	0	0 00	155.43	176 04
*SECNO 5551 000									
VALLEY SECTION H									
5551 000	6 93	798 93	0 00	0 00	799 21	0 27	4 30	0 05	795.00
1600 0	315 6	691 4	593 0	157 4	114 8	340 9	52 8	20 7	795 00
0 30	2 01	6 02	1 74	0 095	0 045	0 095	0 000	792 00	10 30

0 003472	670	1100	820	3	0	0	0 00	241 32	251 62
*SECNO 5664 000									
5664 000	6 37	799 37	0 00	0 00	799 84	0 47	0 53	0 10	796 00
1600 0	313 1	783 3	503 6	127 7	103 7	235 8	54 3	21 3	796 00
0 31	2 45	7 55	2 14	0 095	0 045	0 095	0 000	793 00	15 93
0 006269	88	113	138	2	0	0	0 00	202 85	218 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
*SECNO 5776 000									
5776 000	6 05	800 15	0 00	0 00	800 79	0 64	0 87	0.08	797 00
1600 0	315 4	641 9	442 7	116 4	98 6	186 7	55 5	21 8	797 00
0 32	2 71	8 54	2 37	0 100	0 047	0 100	0 000	794 10	18 88
0 009305	88	113	138	2	0	0	0 00	179 61	198 49
*SECNO 5889 000									
5889 000	6 11	801 21	0 00	0 00	801.87	0 67	1.07	0 01	798 00
1600 0	328 5	857 1	414 4	118.7	99 3	170 7	56 5	22.3	798 00
0 32	2 77	8 63	2.43	0.100	0 047	0 100	0 000	795 10	20 49
0 009412	88	113	138	2	0	0	0 00	167 89	188 38
*SECNO 6001 000									
VALLEY SECTION I									
6001 000	6.07	802 27	0 00	0 00	803 01	0 74	1.10	0.04	799 00
1600 0	340 9	885 3	373 9	119 3	98 9	148 1	57.5	22.7	799 00
0 33	2 86	8 95	2 52	0 100	0 047	0 100	0 000	796.20	22.44
0 010106	88	112	138	1	0	0	0 00	152 90	175 34
*SECNO 6665.000									
VALLEY SECTION J									
6666.000	6 70	806 90	0 00	0 00	807 37	0.46	4.27	0.08	803 00
1600 0	417 3	818 1	364 6	182.0	111 7	165.4	62.4	24.5	803 00
0 36	2 29	7 32	2.20	0 100	0 047	0 100	0 000	800.20	19 89
0 005759	465	665	465	3	0	0	0 00	167 16	187 05
*SECNO 7586 000									
VALLEY SECTION K									
7586 000	6 61	810 71	0.00	0 00	811 07	0 36	3.67	0.03	806 50
1600.0	417 0	750.4	432 6	189 3	112 9	195.7	69 7	26.9	806 50
0 41	2.20	6 65	2 21	0 095	0 045	0 095	0 000	804.10	115 88
0 004218	440	920	740	2	0	0	0 00	163 77	279 65
*SECNO 8506 000									
VALLEY SECTION L									
8506 000	6 34	814 34	0 00	0 00	814 84	0 50	3 69	0.07	810 00
1600 0	400 6	774 7	424 8	155 8	100 0	172 1	76 8	29 2	810 00
0 45	2 57	7 74	2 47	0 095	0 045	0 095	0 000	808 00	66 65
0 005823	800	920	400	2	0	0	0 00	154 06	220 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	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 8906 000									
3470 ENCROACHMENT STATIONS=			110 0	161 0	TYPE=	1	TARGET=	51 000	
8906 000	6 53	816 15	0 00	0.00	816.60	0.46	1 75	0 01	811 62
980 0	161 6	662 7	155 7	67.9	103 5	71 2	79 4	30 0	811 62
0.47	2 38	6.40	2 19	0.095	0 045	0 095	0.000	809 62	110 00
0 003804	300	400	300	2	0	0	0.00	51 00	161.00
CCHV= 0 500 CEHV=		1 000							
*SECNO 8921 000									
3470 ENCROACHMENT STATIONS=			113 0	157.0	TYPE=	1	TARGET=	44 000	
8921 000	6 51	816 21	0 00	0 00	816 79	0 58	0 06	0 13	811 70
980 0	129 3	722 5	128 2	55 7	103 3	55 3	79.5	30 0	811 70
0 47	2 32	7 00	2 32	0 095	0 045	0 095	0 000	809 70	113.00
0 004555	15	15	15.	1	0	0	0 00	44.00	157 00
*SECNO 8936 000									
3470 ENCROACHMENT STATIONS=			117 0	153.0	TYPE=	1	TARGET=	36 000	
8936 000	6 51	816 29	0 00	0 00	817 05	0 76	0.08	0 18	811 78

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    980 0      93 8      793 0      93 2      39.0      103 0      38 9      79 5      30 0      811 78
     0 47      2 40      7 70      2 40      0 095      0.045      0 095      0 000      809.78      117 00
  0 005540      15        15        15         1          0          0      0 00      36 00      153 00
*SECNO 8946 000
3470 ENCROACHMENT STATIONS=      120 0      151 0  TYPE=      1  TARGET=      31 000
  8946 000      6 51      816 34      0.00      0 00      817 26      0 91      0 06      0 15      811 83
    980 0      61 2      845 1      73 7      26 4      103.1      30 6      79 6      30 0      811 83
     0.47      2 32      8 20      2.41      0 095      0 045      0 095      0 000      809 83      120 00
  0 006266      10        10        10         0          0          0      0 00      31 00      151 00
CCHV=    0 500 CEHV=    1 000
*SECNO 8956 000
3470 ENCROACHMENT STATIONS=      122 0      148 0  TYPE=      1  TARGET=      26 000
  8956 000      6 52      816 41      0 00      0 00      817 51      1 10      0 07      0 19      811 89
    980 0      38 7      902 6      38 6      17 8      103 2      -17 7      79 6      30 0      811 89
     0 47      2.18      8 74      2 18      0.095      0 045      0 095      0 000      809 89      122 00
  0 007118      10        10.        10.        0          0      -   0      0 00      26 00      148 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 8966 000
3470 ENCROACHMENT STATIONS=      124 0      145 0  TYPE=      1  TARGET=      21 000
  8966 000      6 55      816 49      0 00      0 00      817 79      1 30      0 08      0 20      811 94
    980 0      15 6      958 9      5.5      9.0      103.7      4.5      79 6      30 0      811 94
     0 47      1.74      9 25      1 22      0 095      0 045      0 095      0 000      809 94      124 00
  0 007918      10        10        10         0          0          0      0 00      21.00      145 00
*SECNO 8977 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      818.20 ELREA=      818 20
        DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE
  8977 000      6 59      816 59      0 00      0.00      818.19      1.60      0 10      0 30      812 00
    980 0      0 0      980 0      0 0      0 0      96 4      0 0      79 7      30 0      812 00
     0 47      0 00      10 17      0.00      0.000      0.048      0 000      0 000      810 00      147 10
  0.010497      11.        11        11         1          0          0      0 00      15 80      162 90
CCHV=    0 300 CEHV=    0 500
SPECIAL CULVERT
SC  CUNO      CUNV      ENTLC      COFQ      RDLEN      RISE      SPAN      CULVLN      CHRT      SCL      ELCHU      ELCHD
    1         0.030      0 50      3 00      0.00      12 60      0.00      82 00      2         1         810.40      810.00
CHART  2 - CORRUGATED METAL PIPE CULVERT
SCALE  1 - HEADWALL
*SECNO 9059 000
SPECIAL CULVERT OUTLET CONTROL
EGIC =    820.796  EGOC =    821 696  PCWSE=    816 586  ELTRD=    823 500
3301 HV CHANGED MORE THAN HVINS
SPECIAL CULVERT
    EGIC      EGOC      H4      QWEIR      QCULV      VCH      ACULV      ELTRD      WEIRLN
    820 80      821 70      3.51      0      980      6 048      124 7      823.50      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=      824 50 ELREA=      824 50
        UPSTREAM FACE OF FARMINGTON ROAD BRIDGE
  9059 000      10 73      821 13      0 00      0 00      821 70      0 57      3 51      0.00      812 40
    980 0      0 0      980 0      0 0      0 0      162 0      0 0      79 9      30 0      812 40
     0 48      0 00      6 05      0 00      0 000      0 032      0 000      0 000      810 40      147 10
  0 000826      82.        82.        82         2          0          0      0 00      15 80      162 90
*SECNO 9070 000
3470 ENCROACHMENT STATIONS=      136 0      174.0  TYPE=      1  TARGET=      38 000
        VALLEY SECTION M
  9070 000      11 13      821.56      0 00      0.00      821 80      0 24      0 01      0 10      816 10
    980 0      29 9      946 0      4 1      28 0      234 6      6.5      80 0      30 1      819 20
     0.48      1 07      4.03      0 63      0 100      0 050      0 100      0 000      810 43      136 00
  0.001321      11        11        11         2          0          0      0 00      38 00      174.00
*SECNO 10059 000
3470 ENCROACHMENT STATIONS=      225 0      350.0  TYPE=      1  TARGET=      125.000
 10059 000      10 13      822 73      0.00      0.00      822 85      0 11      1.00      0 04      820 90
    980 0      43 8      890 9      45 3      77 5      313 2      73 3      87 8      31 6      820 90
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0 58	0 56	2 84	0 62	0 100	0 050	0 100	0 000	812 60	225 00
0 000822	1075	989	375	2	0	0	0 00	125.00	350.00
*SECNO 10060 000									
3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 820 70 MAX ELLC= 818 50									
3470 ENCROACHMENT STATIONS= 225 0 350 0 TYPE= 1 TARGET= 125 000									
DOWNSTREAM FACE OF BIDDLESTONE ROAD BRIDGE									
10060 000	10 09	822 69	0 00	0 00	822.89	0 20	0 00	0.04	820 90
980 0	214 8	541 0	224 1	75 4	133.2	71 6	87 8	31 7	820 90
0 58	2 85	4 06	3.13	0 035	0 024	0 035	0 000	812 60	225 00
0 002655	1	1	1	2	0	0	-178 45	125 00	350 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 10090 000									
3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 820 70 MAX ELLC= 818 50									
3470 ENCROACHMENT STATIONS= 225.0 350 0 TYPE= 1 TARGET= 125 000									
UPSTREAM FACE OF BIDDLESTONE ROAD BRIDGE									
10090 000	10 19	822 79	0 00	0 00	822 97	0 19	0 07	0 01	820 90
980 0	222 8	528 4	228 9	80 3	136 7	75 5	88 0	31 7	820 90
0.58	2 77	3 86	3 03	0 035	0 024	0 035	0 000	812.60	225 00
0 002323	30	30	30	2	0	0	-178 45	125 00	350 00
*SECNO 10091 000									
3470 ENCROACHMENT STATIONS= 225.0 350 0 TYPE= 1 TARGET= 125 000									
10091 000	10 29	822 89	0 00	0 00	823 00	0 10	0 00	0 02	820 90
980 0	53 8	871 8	54 4	85.6	319 0	79.8	88 0	31 7	820 90
0 58	0 63	2 73	0 68	0 100	0 055	0.100	0 000	812 60	225 00
0.000896	1	1	1.	2	0	0	0 00	125 00	350 00
*SECNO 11141.000									
VALLEY SECTION N									

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11141 000      7 46     823 76      0 00      0 00     823.83      0 07      0 82      0 01     820 00
   980 0      58 5      675 7     245 8      82 8      270 9     239 5      99.4      34 5     818 00
    0 72      0 71       2 49      1 03     0 100      0 055     0 100     0 000     816 30      93 86
0 000763       700       1050       800         2          0         0      0 00     163 67     257 53
*SECNO 11711 000
        VALLEY SECTION O
11711 000      6 13     824 43      0 00      0 00     824.76      0 33      0 80      0 13     820 00
   980 0     354 9      609 0     16 1     172 4      108 2      11 8     104 3      35 9     821 00
    0 75      2 06       5 63      1 37     0 100      0 055     0 100     0 000     818 30      51 40
0 004789       407        570       407         2          0         0      0 00     105 46     156.86
   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 12041 000
3470 ENCROACHMENT STATIONS=      125 0     156 0  TYPE=      1  TARGET=      31 000
12041 000      7 03     825 61      0 00      0 00     826 34      0 74      1 38      0 20     820 28
   980 0      49 0      903 0     27 9      26 0      126 1      16 9     106 0      36 4     821.28
    0 77      1 89       7 16      1.65     0 090      0 042     0.090     0 000     818 58     125 00
0 003687       330        330       330         2          0         0      0 00      31 00     156 00
*SECNO 12061.000
3470 ENCROACHMENT STATIONS=      235 0     550.0  TYPE=      1  TARGET=     -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      827.00 ELREA=      827 00
12061 000      7 03     825.63      0 00      0 00     826 46      0.83      0 07      0 04     820 90
   980 0       0 0      980 0       0 0       0.0      134 3       0 0     106 1      36 4     821 60
    0 77      0 00       7 30      0 00     0 000      0 040     0 000     0 000     818 60     396 00
0 003591        20         20        20         2          0         0      0 00     21.00     417.00
*SECNO 12062 000
3470 ENCROACHMENT STATIONS=      235 0     550 0  TYPE=      1  TARGET=     -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      827 00 ELREA=      827.00
        DOWNSTREAM FACE OF W  ENTRANCE TO OAKLAND COM  COLLEGE
12062 000      7 04     825 64      0 00      0.00     826 46      0 83      0 00      0.00     820 90
   980 0       0 0      980 0       0 0       0.0      134 4       0 0     106 1      36 4     821.60
    0.77      0 00       7 29      0 00     0 000      0.032     0 000     0 000     818 60     396 00
0 002294         1          1         1         0          0         0      0 00     21.00     417 00
SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    0 00      3 17      3 02      0 00      14 14     0 00      127.23    0.00      818 80    818 60
*SECNO 12192 000
PRESSURE 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
EGPRS        EGLWC      H3        QWEIR     QPR        BAREA    TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                  AREA
   828 56    827 02     0 00         0       980        127       116      827 00    831 80         0
3470 ENCROACHMENT STATIONS=      235 0     550 0  TYPE=      1  TARGET=     -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      831 80 ELREA=      831 80
        UPSTREAM FACE OF W  ENTRANCE TO OAKLAND COM  COLLEGE
12192 000      9 15     827 95      0 00      0 00     828 56      0 60      2 09      0 00     821 50
   980.0       0 0      980 0       0 0       0 0      157 1       0 0     106 5      36 5     821 50
    0 77      0.00       6 24      0 00     0 000      0 032     0 000     0 000     818 80     395.50
0 002170       130        130       130         2          0         0      0 00     21.00     416 50
*SECNO 12193 000
3470 ENCROACHMENT STATIONS=      235 0     550 0  TYPE=      1  TARGET=     -235.000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      831 80 ELREA=      831 80
12193.000      9 16     827 96      0 00      0 00     828 56      0 61      0 00      0 00     821 50
   980 0       0 0      980 0       0.0       0 0      157.0       0 0     106 5      36.5     821.50
    0 77      0 00       6 24      0 00     0 000      0 042     0 000     0 000     818 80     395 50
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0 003743	1	1	1	0	0	0	0 00	21 00	416.50
*SECNO 12196 000									
3470 ENCROACHMENT STATIONS=		393 0	420 0	TYPE=	1	TARGET=	27 000		
VALLEY SECTION P									
12196 000	9 32	828 12	0 00	0 00	828 61	0 48	0 01	0 04	821 50
980 0	21 1	921 4	37 5	16 3	160 5	21 7	106 6	36 5	821 50
0 77	1 30	5 74	1 73	0 095	0 042	0 085	0 000	818 80	393 00
0 003071	3	3	3	2	0	0	0 00	27 00	420 00
*SECNO 12823 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
VALLEY SECTION Q									
12823 000	8 79	829 09	0 00	0 00	829 10	0 01	0 36	0.14	822 20
980 0	353 1	193 3	433 6	553 7	124 0	719 5	117 5	38 4	822 80
0 98	0.64	1 56	0 60	0 120	0.056	0.120	0.000	820 30	4.21
0 000238	367	627	767	3	0	0	0 00	247 26	251.46
CCHV= 0 300 CEHV= 0 500									
*SECNO 13507 000									
VALLEY SECTION R									
13507 000	6 07	829 37	0 00	0 00	829 44	0 07	0 31	0 03	826 60
980 0	21 7	306 0	652 3	31.3	89 4	535 1	130 8	41 4	825 80
1 07	0 69	3 42	1 22	0 120	0.055	0 120	0.000	823 30	260 44
0 002049	550	684.	550	2	0	0	0 00	219 02	479.46
*SECNO 14107 000									
14107 000	9 51	829 81	0 00	0 00	829 88	0 06	0 43	0 00	823 30
980 0	142 6	760 1	77 3	260 9	334 9	143 7	138 5	43 4	823.80
1.15	0 55	2 27	0.54	0.120	0 055	0 120	0 000	820 30	55 31
0.000440	390	600	440	2	0	0	0.00	174 47	229 78
*SECNO 14131 000									
14131 000	4 22	829 72	0 00	0 00	830 03	0.31	0 03	0 12	826 50
980 0	183 7	695.5	100 8	118 8	132.9	65 3	138.8	43 5	826 50
1 15	1 55	5 23	1 54	0 120	0 055	0.120	0 000	825 50	67 15
0 008283	24	24	24	2	0	0	0 00	155 41	222.57
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 14132 000									
3301 HV CHANGED MORE THAN HVINS									
3370 NORMAL BRIDGE, NRD=		9 MIN ELTRD=	830 50	MAX ELLC=	830 60				
DOWNSTREAM FACE OF DAM									
14132 000	3 84	829 34	829 09	0 00	830 42	1 09	0 01	0 39	826 50

980 0	0 0	980 0	0 0	0 2	117 2	0 0	138 8	43 5	826 50
1 15	0 16	8 36	0 00	0 095	0 022	0.000	0 000	825 50	75 85
0 004357	1	1	1.	6	9	0	-143 21	141.92	217 77
*SECNO 14142 000									
3370 NORMAL BRIDGE, NRD= 9 MIN ELTRD= 830 50 MAX ELLC= 830.60									
UPSTREAM FACE OF DAM									
14142 000	4 10	829 60	829 09	0 00	830 51	0 91	0 04	0 05	826 50
980 0	0 0	980 0	0 0	0 2	127 9	0 0	138 8	43 6	826 50
1 15	0 14	7 66	0 00	0 095	0 022	0 000	0 000	825 50	69 87
0 003284	10	10	10	8	9	0	-170.72	151.18	221 05
*SECNO 14143 000									
3301 HV CHANGED MORE THAN HVINS									
14143 000	5 06	830 56	0 00	0 00	830 74	0.17	0 00	0 22	826 50
980 0	204 2	664 0	111 8	189 2	167 3	104 2	138 8	43.6	826 50
1 15	1 08	3 97	1 07	0 095	0 040	0 095	0 000	825.50	47 86
0.001852	1	1	1	3	0	0	0 00	198 94	344.09
*SECNO 14685 000									
VALLEY SECTION S									
14685 000	7 55	831.45	0 00	0.00	831 63	0 18	0.89	0.00	825 30
980.0	279 4	513 2	187 4	228 2	112 5	189 3	145 0	46 0	828 60
1 20	1 22	4 56	0.99	0 095	0 040	0 095	0 000	823 90	169 15
0 001445	672	542	372	2	0	0	0 00	197 08	366 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
*SECNO 15197 000									
3470 ENCROACHMENT STATIONS= 75 0 250 0 TYPE= 1 TARGET= 175 000									
VALLEY SECTION T									
15197.000	8.50	832 30	0 00	0 00	832.57	0 27	0 89	0 04	828 70
980 0	74 4	717 0	188 6	73.0	149 9	153 5	150 8	48 1	829 10
1.24	1 02	4 78	1.23	0 095	0.045	0 095	0 000	823 80	124 51
0 001949	580	512	570	2	0	0	0 00	125 49	250.00
*SECNO 15372 000									
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS= 140 0 215 0 TYPE= 1 TARGET= 75 000									
15372.000	6 86	832 59	0 00	0 00	833 48	0.89	0 60	0 31	830.63
980.0	29 2	898 2	52.5	21.7	113 8	34 3	151 9	48.5	831 03
1.25	1 35	7 89	1 53	0.095	0 045	0.095	0 000	825 73	142 93
0 007658	300	175	120	2	0	0	0 00	72 07	215 00
*SECNO 15412 000									
3470 ENCROACHMENT STATIONS= 150 0 205 0 TYPE= 1 TARGET= 55 000									
15412 000	6 70	832 86	0 00	0 00	833 88	1 02	0.33	0 06	831 06
980 0	26 7	919 3	34 0	17 0	110 2	21 3	152.1	48 6	831.46
1.25	1 57	8 34	1 60	0 095	0 045	0 095	0 000	826 16	150 00
0 008924	40	40	40	2	0	0	0 00	55 00	205 00
*SECNO 15432 000									
3470 ENCROACHMENT STATIONS= 154 0 199 0 TYPE= 1 TARGET= 45 000									
15432 000	6 65	833 01	0 00	0 00	834 09	1.08	0 18	0.03	831 26
980 0	23 8	932 4	23.8	14 0	109 4	14 6	152 1	48 6	831 66
1 25	1 70	8 53	1 63	0 095	0.045	0 095	0 000	826 36	154 00
0 009429	20	20	20	1	0	0	0 00	45 00	199 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 15452 000									
3470 ENCROACHMENT STATIONS=		159 0	194 0	TYPE=	1	TARGET=	35 000		
15452 000	6 61	833 17	0 00	0 00	834.33	1 17	0 20	0.04	831 46
980 0	15 4	950 7	13 9	8 6	108 1	8 5	152.2	48 6	831 86
1 25	1 78	8 79	1 63	0 095	0 045	0 095	0 000	826 56	159 00
0 010180	20	20	20	2	0	0	0 00	35 00	194 00
*SECNO 15472 000									
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=					835 50	ELREA=	835 50		
15472 000	7 09	833 89	0 00	0 00	834 62	0 73	0 15	0 13	828 70
980 0	0 0	980 0	0.0	0 0	142 9	0 0	152 3	48 6	828 80
1 25	0 00	6 86	0 00	0 000	0 045	0 000	0 000	826 80	395 00
0 006002	20	20	20	3	0	0	0 00	25 00	420.00
*SECNO 15473 000									
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=					835.50	ELREA=	835 50		
DOWNSTREAM FACE OF I-696									
15473 000	7 09	833 89	0.00	0.00	834 62	0 73	0 00	0 00	828 70
980 0	0 0	980 0	0 0	0 0	143 1	0 0	152 3	48 6	828 80
1 25	0 00	6 85	0 00	0 000	0.020	0 000	0 000	826 80	395 00
0.001179	1.	1	1	0	0	0	0.00	25 00	420 00
SPECIAL BRIDGE									
SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0 00	1 82	3 00	0.00	15.83	0 00	101 63	0 00	827 20	826 80
*SECNO 15651.000									
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
836 52	835.03	0.00	0	980.	102	106	833 90	842 90	0
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=					842 90	ELREA=	842 90		
UPSTREAM FACE OF I-696									
15651 000	8 89	836 09	0 00	0 00	836 52	0 43	1 90	0.00	829 10
980 0	0 0	980 0	0.0	0 0	187 2	0 0	152 9	48 7	829 40
1 26	0.00	5 24	0 00	0 000	0 020	0 000	0 000	827 20	395 00
0 000472	178	178	178	2	0	0	0 00	25 00	420 00
*SECNO 15652 000									
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=					842 90	ELREA=	842 90		
15652 000	8 89	836 09	0 00	0 00	836 52	0 43	0 00	0 00	829 10
980 0	0 0	980 0	0 0	0 0	187 1	0 0	152 9	48 7	829 40
1 26	0 00	5 24	0 00	0 000	0 050	0.000	0 000	827 20	395 00
0 002952	1	1	1	0	0	0	0 00	25 00	420 00
*SECNO 15655 000									
3470 ENCROACHMENT STATIONS=		392.0	423.0	TYPE=	1	TARGET=	31 000		
VALLEY SECTION U									
15655 000	8 97	836 17	0 00	0 00	836 54	0.37	0 01	0 02	829 20
980 0	41 7	884 7	53 7	32 2	172 4	38 9	153 0	48 7	829 20
1 26	1 29	5 13	1 38	0 100	0 050	0.100	0 000	827 20	392.00
0.001811	3.	3	3.	2	0	0	0 00	31 00	423.00
1490 NH CARD USED									

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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
*SECNO 16738 000
        VALLEY SECTION V
 16738 000    7 42       837 32     0 00       0.00       837 34     0 02       0 70       0 10       833 40
   980 0      297 0      262 8      420 3      467 9      133 8      524 9      169 6      53 7       833 20
    1 54      0 63       1 96       0.80       0 079      0 045      0 090      0 000      829 90     75 29
 0 000334     1157       1083       957        3          0          0          0 00       369 63     444 93
*SECNO 17491 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=     318 0      574 0  TYPE=      1  TARGET=     256.000
 17491 000    5.91       837 71     0 00       0.00       838 35     0 64       0 70       0 31       837 30
   980 0      19 0       928 2      32 8       19 2       140 5      16 7       181 0      57.6       837 30
    1.57      0 99       6 61       1 96       0 080      0 050      0 040      0 000      831 80     345 10
 0 007479     603        753        903        2          0          0          0 00       105 06     450 16
*SECNO 17492 000
3470 ENCROACHMENT STATIONS=     319 0      574 0  TYPE=      1  TARGET=     255 000
        D/S FACE OF 12 MILE ROAD BRIDGE - LIMIT OF CHANNEL IMPROVEMENTS
 17492 000    5 88       837 68     0 00       0 00       838.39     0 71       0 01       0.03       837 30
   980 0      13 8       954.4      11 9       17 8       139 7      15 4       181.0      57 6       837 30
    1 57      0 77       6 83       0 77       0 075      0 037      0 075      0 000      831 80     345 88
 0 004415     1.         1          1.         2          0          0          0 00       103 46     449 34
SPECIAL CULVERT
SC  CUNO      CUNV       ENTLC      COFQ       RDLEN      RISE       SPAN       CULVLN     CHRT       SCL        ELCHU      ELCHD
   1          0 013      0 50       3 05       0 00       6 00       24 00      124.00     8          1          832 10     831 80
CHART  8 - BOX CULVERT WITH FLARED WINGWALLS, NO INLET TOP EDGE BEVEL
SCALE  1 - WINGWALLS FLARED 30 TO 75 DEGREES
*SECNO 17616 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
SPECIAL CULVERT OUTLET CONTROL
EGIC =    838 117  EGOC =    838 587  PCWSE=    837 681  ELTRD=    842.000
SPECIAL CULVERT
    EGIC       EGOC       H4         QWEIR      QCULV      VCH        ACULV      ELTRD      WEIRLN
   838 12     838.59     0 20       0          980        7 292      144.0      842 00     0.
3470 ENCROACHMENT STATIONS=     302 0      495 0  TYPE=      1  TARGET=     193 000
        UPSTREAM FACE OF 12 MILE ROAD BRIDGE
 17616 000    5 66       837 76     0 00       0 00       838 59     0 83       0 20       0 00       837 60
   980 0      0 0        980 0      0 0        0 1        134 4      0 0        181 4      57 8       837 60
    1 58      0 01       7 29       0 01       0.075      0 037      0.075      0 000      832 10     387 35
 0 005292     124        124        124        3          0          0          0 00       25.11      412 46
*SECNO 17617 000
3470 ENCROACHMENT STATIONS=     301 0      495 0  TYPE=      1  TARGET=     194.000
 17617 000    5 67       837 77     0.00       0 00       838 59     0 82       0 01       0 00       837 60
   980 0      0 0        980 0      0 0        0 1        134 5      0 0        181 4      57 8       837 60
    1 58      0 01       7 29       0.02       0 075      0 036      0 065      0 000      832 10     387 34
 0 004998     1          1          1          0          0          0          0 00       25 14      412 47
*SECNO 17907 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=     100 0      570 0  TYPE=      1  TARGET=     -100.000
 17907 000    6 43       839 23     0 00       0 00       839 54     0 31       0 80       0 15       842 80
   980 0      0 0        980 0      0 0        0 0        218 1      0.0        182 6      58 1       841 30
    1 59      0 00       4 49       0 00       0 000      0 036      0 000      0 000      832 80     204 06
 0 001739     260        290        260.       2          0          0          0 00       49 17      253 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
*SECNO 17908.000
3370 NORMAL BRIDGE, NRD=  18 MIN ELTRD=   841.30 MAX ELLC=   841.50
3470 ENCROACHMENT STATIONS=     100 0      570 0  TYPE=      1  TARGET=     -100 000
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          DOWNSTREAM FACE OF FOOTBRIDGE
17908 000     6 42     839 22     0 00     0 00     839 56     0 35     0 00     0 02     842 80
    980 0     0 0      980 0      0 0      0.0      207 3      0 0      182 6    58.1     841.30
    1 59      0 00     4 73       0 00     0 000    0 037      0 000    0.000    832 80   204.07
 0 003308     1        1.         1        1        0          0        -10 55   49 15    253 21
*SECNO 17913 000
3370 NORMAL BRIDGE, NRD=  18 MIN ELTRD=   841.30 MAX ELLC=   841 50
3470 ENCROACHMENT STATIONS=      100 0     570 0  TYPE=      1  TARGET=     -100 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       841 30 ELREA=       841 30
          UPSTREAM FACE OF FOOTBRIDGE
17913 000     6 43     839 23     0 00     0 00     839 58     0 35     0 02     0 00     842.80
    980 0     0 0      980.0      0 0      0 0      207 4      0 0      182 6    58 1     841.30
    1 59      0 00     4 72       0 00     0 000    0 037      0 000    0 000    832 80   204.06
 0 003301     5        5          5        0        0          0        -10 56   49 16    253 22
*SECNO 17914 000
3470 ENCROACHMENT STATIONS=      200 0     298 0  TYPE=      1  TARGET=       98 000
17914 000     6 49     839 29     0 00     0 00     839 59     0 31     0 00     0 01     842.80
    980 0     0 0      980 0      0 0      0 0      221 0      0.0      182.6    58 1     841.30
    1 59      0 00     4 43       0 00     0 000    0 036      0 000    0 000    832 80   203 94
 0 001677     1        1          1        2        0          0        0 00     49 42    253.36
*SECNO 18282 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
          VALLEY SECTION TAKEN FROM OCRC PLANS FOR CHANNEL IMPROVEMENT
18282 000     6 91     839 91     0 00     0.00     840 14     0 23     0 52     0.02     842.60
    980 0     0 0      980 0      0 0      0 1      257 0      0 0      184 6    58 5     842 60
    1.62      0.01     3 81       0 00     0 062    0 036      0 000    0.000    833.00   164 15
 0 001217     315      368        315      2        0          0        0 00     65.39    521 17
*SECHO 18412 000
18412.000     7 09     840 09     0 00     0 00     840 30     0 21     0 15     0.01     842 60
    980 0     1 8      978 2      0 0      10 7     267 5      0 0      185 4    58 9     842 60
    1 63      0.17     3.66       0 00     0 062    0 036      0 000    0.000    833.00   153 49
 0 001088     130      130        130      1        0          0        0 00     167.77   521 70
1490 NH CARD USED
*SECNO 18447 000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED
          VALLEY SECTION W
18447 000     7 72     840.32     0.00     0 00     840 38     0 06     0 04     0.04     842 60
    480 0     8 7      471 3      0 0      37 8     239.6      0 0      185 6    59 0     842 60
    1 64      0 23     1.97       0 00     0 090    0 067      0 000    0.000    832 60   140 43
 0 000989     35       35         35       2        0          0        0 00     180 13   515 96
*SECNO 19134 000
3470 ENCROACHMENT STATIONS=      400 0     613.0  TYPE=      1  TARGET=      213 000
          DOWNSTREAM FACE OF KENDALLWOOD ROAD
   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
19134 000     9 93     840 63     0.00     0 00     840 68     0 05     0 30     0 00     843 00
    480 0     0 0      480 0      0 0      0 0      257.4      0 0      189 9    60.8     843 00
    1.74      0.00     1 86       0 00     0 000    0 040      0 000    0 000    830 70   487 41
 0 000248     707      687        667      2        0          0        0 00     38 26    525 68
SPECIAL CULVERT
5105, VARIABLE ELCHU ON SC CARD NOT SPECIFIED
SC  CUNO     CUNV     ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    2        0 030    0 50      1 00      0 00      7 30      0 00      203.00    2         2         830 70    830 70
CHART  2 - CORRUGATED METAL PIPE CULVERT
SCALE  2 - MITERED TO CONFORM TO SLOPE
*SECNO 19337 000
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SPECIAL CULVERT OUTLET CONTROL + WEIR FLOW EG =     842 47
SPECIAL CULVERT
    EGIC      EGOC       H4      QWEIR      QCULV       VCH      ACULV     ELTRD    WEIRLN
   836 74    842 61     1 79       19        463     2 356      83 7    842 20       187
3470 ENCROACHMENT STATIONS=      460 0     570 0  TYPE=      1  TARGET=      110 000
          UPSTREAM FACE OF KENDALLWOOD ROAD
 19337 000    10 79    842 39     0.00      0 00    842 47      0 09      1.79      0 00    843 30
    480 0      0 0     480 0      0 0       0.0     203 8       0 0     190 9      60 9     843 30
     1 76     0 00      2 36     0 00     0 000     0 040     0 000     0 000    831 60    495 70
 0 000531      203       203      203         2         0         0      0 00    20 60    516 30
CCHV=    0 300 CEHV=    0 500
*SECNO 19338 000
3470 ENCROACHMENT STATIONS=      460 0     570 0  TYPE=      1  TARGET=      110 000
 19338 000    10 79    842 39     0 00      0 00    842 47      0 09      0 00      0 00    843 30
    480 0      0 0     480 0      0 0       0 0     203 8       0 0     190 9      60 9     843 30
     1 76     0 00      2 36     0 00     0 000     0 046     0 000     0 000    831 60    495 70
 0 000703        1         1        1         0         0         0      0 00    20 60    516 30
*SECNO 20151 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=      210 0     350 0  TYPE=      1  TARGET=      140 000
          VALLEY SECTION X
 20151 000     6 29    843 29     0 00      0.00    843 44      0 15      0 94      0 03    837 10
    480 0    208 3     271.7      0 0     106 9      72.2       0 0     194.6      61 8     843 80
     1 84     1 95      3 76     0 00     0 075     0 046     0 000     0 000    837 00    232 05
 0 002139      865       813      665         2         0         0      0 00    67 21    299 26
1490 NH CARD USED
*SECNO 20631.000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      170 0     290 0  TYPE=      1  TARGET=      120.000
          VALLEY SECTION Y
 20631 000     5.32    844 82     0.00      0.00    845.68      0 86      1.88      0 36    841.80
    480 0    34.4     407.6      38 0      16 6      50 7      19 9     196 0      62.4     842 30
     1.86     2 07      8 04     1 91     0 090     0 045     0 090     0 000    839 50    218 97
 0 009547      465       480      495         3         0         0      0 00    43 67    262 64
*SECNO 21060.000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      220 0     360 0  TYPE=      1  TARGET=      140 000
 21060 000     7 46    847 66     0 00      0 00    848 01      0 34      2 18      0 16    848 00
    480 0      0 0     479 9      0 1       0 0     101 9       0.5     197 0      62 7     848 00
     1 88     0 00      4 71     0 13     0 000     0 037     0 085     0 000    840 20    295 70
 0 003138      429       429      429         2         0         0      0 00    26 89    360 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 21061 000
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  20 MIN ELTRD=   847 20 MAX ELLC=   846 40
3470 ENCROACHMENT STATIONS=      220 0     360 0  TYPE=      1  TARGET=      140 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      848.00 ELREA=      848 00
          DOWNSTREAM FACE OF HEARTHSTONE STREET BRIDGE
 21061 000     7 18    847 38     0 00      0 00    848 30      0 92      0 01      0 29    848 00
    480 0      0 0     480 0      0 0       0 0      62 3       0.0     197 0      62 7     848 00
     1 88     0 00      7 71     0 00     0.000     0 032     0 000     0 000    840 20    295 71
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 0 016920        1        1        1        2        0        0   -35 11    15.99   311 70
*SECNO 21111 000
3280 CROSS SECTION  21111.00 EXTENDED      0.97 FEET
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  20 MIN ELTRD=   847 20 MAX ELLC=   846 40
3470 ENCROACHMENT STATIONS=      220 0     360 0  TYPE=      1  TARGET=      140 000
          UPSTREAM FACE OF HEARTHSTONE STREET BRIDGE
 21111 000     8 37   848 77     0 00     0 00   848 88     0 11     0 33     0 24   848 00
     480 0    135 3    242 2    102 5     67 0     76 1     47 6    197 1     62 8   848 00
      1 89     2 02     3 18     2 15    0 040    0 032    0 040    0 000   840 40   220 00
 0 003542       50       50       50       18        0        0   -41.94   140 00   360 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 21112 000
3280 CROSS SECTION  21112 00 EXTENDED      0 95 FEET
3470 ENCROACHMENT STATIONS=      220 0     360.0  TYPE=      1  TARGET=      140 000
 21112 000     8 35   848.75     0 00     0 00   848 90     0 16     0 00     0 02   848 00
     480 0    41 9    406 3     31 8     65.5    117 7     46.6    197 1     62 8   848 00
      1 89     0 64     3 45     0 68    0 085    0.040    0 085    0 000   840 40   220 00
 0 001654        1        1        1        2        0        0     0 00   140 00   360 00
*SECNO 21737 000
3280 CROSS SECTION  21737 00 EXTENDED      1.89 FEET
3470 ENCROACHMENT STATIONS=      140.0     305.0  TYPE=      1  TARGET=      165 000
          VALLEY SECTION Z
 21737 000     6 79   849 39     0 00     0 00   849.47     0 08     0 54     0 02   847 70
     480 0    12 3    460.5      7 3     34 0    196 8     13 9    200 5     64 5   847 40
      1 96     0 36     2 34     0 52    0 085    0 040    0 085    0 000   842 60   214.79
 0 000536      602      625      642        3        0        0     0 00    90 21   305 00
*SECNO 22067 000
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130 000
 22067 000     5 63   849 63     0 00     0 00   849 74     0 11     0 26     0 01   846.90
     480 0   148 4    289 1     42 4    129 9     88.1     56 8    202.6     65 2   846 80
      2 00     1 14     3 28     0.75    0 085    0 040    0 085    0 000   844.00   250 00
 0 001152      400      330      300        2        0        0     0.00   102 69   352 69
*SECNO 22068 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=      250 0     380 0  TYPE=      1  TARGET=      130 000
          DOWNSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE
 22068 000     5 70   849 70     0 00     0.00   849 76     0 06     0 00     0 02   846 90
     480 0   210 8    207 5     61.7    133 1     89 2     59 6    202 6     65 2   846 80
      2 00     1 58     2 33     1 04    0 035    0 032    0 035    0 000   844.00   250 00
 0 000364       1.       1.        1        2        0        0     0.00   103 66   353 66
SPECIAL BRIDGE
SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     0 00     2 71     3 05     0 00     8 28     0 00    60 00     0.00   844 00   844 00
*SECNO 22114 000
3280 CROSS SECTION  22114 00 EXTENDED      0 51 FEET
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS    EGLWC    H3       QWEIR    QPR      BAREA    TRAPEZOID  ELLC     ELTRD    WEIRLN
                                                        AREA
   852 40   850 20     0 00     214.     267       60       44    849 30   849 90      190
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130 000
          UPSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE
 22114 000     6 51   850 51     0 00     0 00   850 54     0 02     0 78     0 00   846 90
     480.0   215 0    144 7    120.3    170 7     97 7    136 7    203 0     65 4   846 80
      2 01     1.26     1.48     0 88    0 035    0 032    0 035    0 000   844.00   250 00
 0 000169       46.       46       46        2        0        4     0 00   130 00   380 00
*SECNO 22115 000
3280 CROSS SECTION  22115 00 EXTENDED      0 51 FEET
    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
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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=			250 0	380 0	TYPE=	1	TARGET=	130 000	
22115 000	6 51	850 51	0 00	0 00	850 54	0 03	0 00	0 00	846 90
480 0	190.0	183 6	106 3	170 8	97 8	136 7	203 0	65 4	846 80
2 02	1 11	1 88	0 78	0 055	0 035	0 055	0 000	844 00	250 00
0 000325	1	1	1	0	0	0	0 00	130 00	380.00
*SECNO 22455 000									
3280 CROSS SECTION 22455 00 EXTENDED			0 30 FEET						
VALLEY SECTION AA									
22455 000	7 11	850 61	0 00	0 00	850 68	0 07	0 12	0 02	847 50
480 0	55 0	325 4	99 6	77 2	130.6	117 3	205 8	66 4	846 50
2.06	0 71	2 49	0 85	0.055	0 035	0 055	0 000	843 50	167 24
0 000387	340	340	340	1	0	0	0.00	138 24	424 00
*SECNO 22755 000									
VALLEY SECTION AB									
22755 000	5.94	850 74	0 00	0.00	850 94	0 20	0 19	0 07	849 80
480 0	9 9	391 5	78 6	16 9	99 4	61 2	207 5	67 2	847 70
2 09	0 59	3 94	1 28	0 055	0 035	0 055	0 000	844 80	164 04
0 001295	300	300	300	2	0	0	0 00	98 24	262 28
*SECNO 23200 000									
3470 ENCROACHMENT STATIONS=			390 0	570 0	TYPE=	1	TARGET=	180 000	
VALLEY SECTION AC									
23200.000	5 96	851 36	0 00	0 00	851 43	0 07	0 45	0.04	847 80
420 0	162 0	157.2	100 8	138 1	49 0	90 4	209 8	68 4	847 90
2 15	1 17	3 20	1 11	0.055	0 035	0 055	0 000	845 40	390 00
0 000821	435	445	425.	2	0	0	0.00	135 27	525 27
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 23500 000									
3470 ENCROACHMENT STATIONS=			485 0	565 0	TYPE=	1	TARGET=	80 000	
23500 000	5 34	851.64	0 00	0 00	851 78	0 15	0 31	0 04	847 60
420 0	76.9	262.4	80.7	48 6	70.8	49.9	211 4	69 1	847 50
2 18	1 58	3 71	1 62	0 055	0 035	0 055	0.000	846 30	492 [illegible]
0 001371	300	300	300	2	0	0	0 00	63 52	556 24
*SECNO 23501.000									
3470 ENCROACHMENT STATIONS=			485 0	565.0	TYPE=	1	TARGET=	80 000	
DOWNSTREAM FACE OF CHESTERBROOK STREET BRIDGE									
23501 000	5 39	851 69	0 00	0.00	851.80	0 11	0 00	0 01	847 60
420 0	97 4	220 5	102.0	50 0	71 7	51.3	211.4	69 1	847 50
2 18	1.95	3 08	1 99	0 035	0 033	0 035	0 000	846 30	492 39
0 000827	1	1	1	2	0	0	0 00	64 17	556 56
SPECIAL BRIDGE									
SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2 88	3.05	0 00	10 11	0 00	48 00	0 00	846 30	846 30
*SECNO 23548 000									
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape									
EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
855.12	852.23	0 00	109	311	48	50	851 20	852 90	80
3470 ENCROACHMENT STATIONS=			485.0	565 0	TYPE=	1	TARGET=	80 000	
UPSTREAM FACE OF CHESTERBROOK STREET BRIDGE									
23548 000	7 23	853 53	0 00	0 00	853 57	0 03	1 77	0 00	847 60
420 0	123 0	172 8	124 2	104.0	100 0	105 6	211 6	69 1	847 50
2 19	1 18	1.73	1 18	0 035	0 033	0 035	0 000	846 30	485 00
0 000167	47	47	47	2	0	4	0 00	80 00	565 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 23549 000									
3470 ENCROACHMENT STATIONS=			485 0	565 0	TYPE=	1	TARGET=	80 000	
23549 000	7 23	853 53	0 00	0 00	853 57	0 04	0 00	0 00	847 60
420 0	100 2	208 5	111.3	104 0	100.0	105 6	211.6	69.2	847 50
2 19	0 96	2 08	1.05	0 055	0 035	0 050	0 000	846 30	485 00
0 000274	1	1	1	0	0	0	0 00	80 00	565 00

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*SECNO 23875 000
3470 ENCROACHMENT STATIONS=      125 0     350 0  TYPE=      1  TARGET=      225 000
          VALLEY SECTION AD
 23875 000      6 42     853 62      0 00      0 00     853 64      0 01      0 06      0 01     849 00
     420 0     175 7      153 3     91 1      306 8      110 7     157 7     215 0      70 3     850 40
      2 30      0 57      1 38      0 58      0 055      0 035     0 050     0 000     847 20     143 10
  0 000115       376       326       276          1          0         0      0 00     206 90     350 00
*SECNO 24240 000
3470 ENCROACHMENT STATIONS=      105.0     240 0  TYPE=      1  TARGET=      135 000
          VALLEY SECTION AE
 24240 000      6 01     853 61      0 00      0 00     853 85      0 23      0 10      0 11     852 30
     420 0      12 2      362 7     45 0      16 2      87 4      36 0     218 1      71 4     850 80
      2 32      0 76      4 15      1 25      0 055      0 035     0 055     0 000     847 60     125 36
  0 001372       375       365       375          2          0         0      0 00      67 22     192 58
*SECNO 24330 000
3470 ENCROACHMENT STATIONS=      415 0     505 0  TYPE=      1  TARGET=      90.000
 24330 000      6 41     853 91      0 00      0 00     853 97      0 06      0.07      0 05     849 00
     420 0      96 8      213 5     109 6      85 1      82 8      93 7     218 5      71 6     848.70
      2 34      1 14      2 58      1 17      0 055      0 035     0 055     0 000     847 50     417 33
  0 000542        90        90        90          2          0         0      0 00      86 25     503 57
    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 24331 000
3470 ENCROACHMENT STATIONS=      415 0     505 0  TYPE=      1  TARGET=      90 000
          DOWNSTREAM FACE OF BANNOCKBORN STREET BRIDGE
 24331 000      6 43     853 93      0 00      0 00     853 98      0 04      0.00      0 01     849 00
     420 0     116 4      171.8     131 8      86 0      83.1     94.6     218.5      71 6     848 70
      2 34      1 35      2.07      1 39      0 037      0 035     0 037     0 000     847 50     417.16
  0 000346         1         1         1          2          0         0      0.00      86 58     503 74
SPECIAL BRIDGE
SB   XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0 00      3 45      3.05      0 00      9.78      0 00      44.00     0 00      847 50    847 50
*SECNO 24401.000
3280 CROSS SECTION  24401 00 EXTENDED      0 03 FEET
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD     WEIRLN
                                                             AREA
    858.82    853 98     0 00      221       201       44        48.       852 40    854 11       90
3470 ENCROACHMENT STATIONS=      415 0     505 0  TYPE=      1  TARGET=      90 000
          UPSTREAM FACE OF BANNOCKBORN STREET BRIDGE
 24401 000      7 53     855 03      0.00      0 00     855 05      0 02      1 08      0 00     849 00
     420 0     130 4      144 6     145 0      126 2      99 6     136 2     219.0      71 7     848 70
      2 35      1 03      1 45      1 06      0 037      0.035     0.037     0 000     847 50     415 00
  0 000134       70.        70        70          2          0         4      0 00      90 00     505 00
*SECNO 24402 000
3280 CROSS SECTION  24402 00 EXTENDED      0 03 FEET
3470 ENCROACHMENT STATIONS=      415 0     505 0  TYPE=      1  TARGET=      90.000
 24402 000      7 53     855 03      0 00      0.00     855 06      0 03      0 00      0 00     849 00
     420 0     110 2      187 1     122 6      126 2      99 6     136 2     219 0      71 7     848 70
      2 35      0 87      1 88      0 90      0 055      0 034     0 055     0 000     847.50     415.00
  0 000212         1         1         1          0          0         0      0.00      90 00     505 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 24552 000
3470 ENCROACHMENT STATIONS=      300 0     375 0  TYPE=      1  TARGET=      75 000
          VALLEY SECTION AF
 24552 000      6 74     855 04      0 00      0 00     855 16      0 12      0.05      0 04     855 10
     420.0      0 0      420 0      0 0       0 0      151 6      0.0     219 9      72 0     855 10
      2 37      0 00      2 77      0.00      0 000      0.034     0.000     0 000     848 30     320 01
  0 000700       150       150       150          1          0         0      0 00      34.84     354 85
*SECNO 24664 000
3470 ENCROACHMENT STATIONS=      272.0     350.0  TYPE=      1  TARGET=      78.000
 24664.000      6 91     855 11      0 00      0.00     855.32      0 21      0.12      0 04     854 10
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 420 0      25 4      348 2      46 4      23 7      87 8      40 1      220 3      72.1      854 10
   2 38      1 07      3 96      1 16      0 055     0 034     0.055     0 000     848 20     272 00
 0 001780    113       112       113        2         0         0        0 00      78 00     350.00
*SECNO 24665 000
3370 NORMAL BRIDGE, NRD=  19 MIN ELTRD=   853 90 MAX ELLC=   853 10
3470 ENCPOACHMENT STATIONS=      272 0     350 0  TYPE=      1  TARGET=      78 000
          DOWNSTREAM FACE OF GLEN ARDEN STREET BRIDGE
24665 000    6 94      855.14     0 00      0 00      855 33    0 19      0 00      0 01      854 10
 420 0      73 7      212 3     134.0      24.4      57 2      41.2      220 3      72 1      854 10
   2 38      3 02      3 71      3 25      0 035     0 033     0 035     0 000     848 20     272 00
 0 005481     1         1         1.         2         0         0       -31 05     78 00     350 00
*SECNO 24735 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=  19 MIN ELTRD=   853.90 MAX ELLC=   853 10
3470 ENCROACHMENT STATIONS=      272 0     350 0  TYPE=      1  TARGET=      78 000
          UPSTREAM FACE OF GLEN ARDEN STREET BRIDGE
24735 000    7.29      855 49     0 00      0.00      855 62    0 12      0 27      0 02      854.10
 420 0      88 3      177 8     153 9      33.2      62 5      54 6      220 5      72 2      854 10
   2 38      2 66      2 84      2.82      0 035     0.033     0 035     0 000     848.20     272 00
 0 002862    70        70        70         2         0         0       -31 05     78 00     350 00
*SECNO 24736 000
3470 ENCROACHMENT STATIONS=      272.0     350 0  TYPE=      1  TARGET=      78.000
24736 000    7 29      855 49     0 00      0.00      855.62    0 14      0 00      0 01      854 10
 420 0      40 9      314 2      64.8      33 3      93 6      54 8      220 5      72 2      854 10
   2 38      1 23      3 36      1.18      0 050     0 035     0 055     0 000     848.20     272 00
 0 001242     1         1         1.         0         0         0        0 00      78 00     350 00
1490 NH CARD USED
*SECNO 25056 000
3470 ENCROACHMENT STATIONS=      550 0     800 0  TYPE=      1  TARGET=      250 000
          VALLEY SECTION AG
25056 000    6 50      855 80     0 00      0 00      855 95    0 15      0 32      0 01      854 80
 420 0       7 7       397 5      14 8      21 5      124 1     23 2      221 8      72 9      854 30
   2 41      0 36      3 20      0.64      0.075     0 034     0 055     0 000     849 30     655 94
 0 000820    320       320       320        3         0         0        0 00     101 97     757.92
*SECNO 25531 000
3470 ENCROACHMENT STATIONS=      590 0     800 0  TYPE=      1  TARGET=      210 000
          VALLEY SECTION AH
25531 000    6 27      856 27     0 00      0 00      856 45    0 18      0 48      0 01      858 40
 420.0       0 0       418 6      1 4       0 0       124 2     3 3       223 4      73 7      855 70
   2 45      0 00      3 37      0.42      0 000     0 038     0 055     0 000     850 00     719 54
 0 001293    472       475       472        1         0         0        0.00      42 04     761 57
   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 26053 000
3470 ENCROACHMENT STATIONS=      800 0     930 0  TYPE=      1  TARGET=      130 000
          VALLEY SECTION AI
26053.000    5 20      857.10     0 00      0 00      857 32    0 22      0 85      0 02      858.20
 420 0       0 0       417 3      2 7       0 0       109 7     4 4       224 9      74 2      856 40
   2 49      0 00      3 80      0.61      0.000     0 038     0 055     0.000     851.90     877 89
 0 002116    502       522       572        2         0         0        0 00      46 74     924.63
*SECNO 26228 000
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      858.00 ELREA=      858 00
26228 000    4 73      857 43     0 00      0 00      857 64    0.21      0 32      0 00      855 00
 420 0       0 0       420 0      0 0       0 0       113 6     0 0       225 3      74 4      854 50
   2 50      0 00      3 70      0.00      0.000     0 038     0 000     0 000     852 70     485 00
 0 001580    175       175       175        2         0         0        0.00      30 00     515 00
*SECNO 26229 000
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      858 00 ELREA=      858.00
          DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE
26229 000    4 73      857.43     0 00      0 00      857 64    0 21      0 00      0 00      855 00
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    420 0      0 0      420 0      0 0      0 0      113 7      0 0      225 3      74 4      854 50
     2 50      0 00     3 69      0 00     0 000    0 037      0 000    0 000      852.70    485 00
 0 001496      1        1         1        0        0          0        0 00       30.00     515 00
SPECIAL BRIDGE
SB  XK        XYOR     COFQ      RDLEN    BWC      BWP        BAREA    SS         ELCHU     ELCHD
    0 00      2 73     3 04      0 00     7 83     0 00       51 00    0 00       852 70    852 70
*SECNO 26297 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
6070,LOW FLOW BY NORMAL BRIDGE
EGPRS=     0 000  EGLWC=     857 644  ELLC=     858 300  PCWSE=     857 432  ELTRD=     860 000
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  12 MIN ELTRD=   860 00 MAX ELLC=   858 30
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      860 10 ELREA=      860 10
          UPSTREAM FACE OF FARMINGTON ROAD BRIDGE
 26297 000  4 44     857.14    856 02   0 00     858 51     1 37     0 29       0.58      855 00
    420 0   0 0      420 0     0 0      0 0      44 7       0 0      225 4      74 4      854 50
     2 51   0 00     9 39      0.00     0 000    0 037      0 000    0.000      852 70    485 00
 0 044912   68       68        68       4        19         0        -109 20    30 00     515 00
*SECNO 26298 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      860 10 ELREA=      860 10
 26298 000  6 08     858 78    0 00     0 00     858 89     0 12     0 00       0 38      855 00
    420 0   0 0      420 0     0 0      0 0      154 0      0 0      225 5      74 4      854 50
     2.51   0.00     2 73      0 00     0.000    0 037      0 000    0 000      852 70    485 00
 0 000544   1        1         1.       3        0          0        0 00       30.00     515 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 26578.000
3470 ENCROACHMENT STATIONS=       65 0     370 0  TYPE=      1  TARGET=      305 000
          VALLEY SECTION AJ
 26578.000  6 30     859 10    0 00     0 00     859 26     0 16     0 34       0 02      855.00
   1020 0   441 2    335 2     243 5    244 2    66 6       138 6    227 4      75 2      855 30
     2.53   1 81     5 03      1 76     0 057    0 038      0 057    0 000      852 80    70 12
 0 001936   280      280       280      4        0          0        0 00       225.93    296 06
*SECNO 27005 000
3280 CROSS SECTION  27005 00 EXTENDED      0 21 FEET
3470 ENCROACHMENT STATIONS=      750 0    1100 0  TYPE=      1  TARGET=      350.000
 27005 000  5 41     859 71    0.00     0.00     859 75     0 03     0 45       0 04      857 00
   1020 0   464 3    218 1     337 6    416 8    94.0       300.2    233 7      78 2      857 10
     2 62   1.11     2 32      1 12     0 057    0 038      0 057    0 000      854 30    750 00
 0 000638   450      427       427      2        0          0        0 00       350 00    1100 00
*SECNO 27006 000
3280 CROSS SECTION  27006 00 EXTENDED      0 22 FEET
3370 NORMAL BRIDGE, NRD=  23 MIN ELTRD=   857.00 MAX ELLC=   856 50
3470 ENCROACHMENT STATIONS=      750.0    1100.0  TYPE=      1  TARGET=      350 000
          DOWNSTREAM FACE OF FOOTBRIDGE
 27006 000  5 42     859 72    0 00     0 00     859 75     0 03     0 00       0.00      857 00
   1020 0   529.6    140.4     350 0    417 1    80 8       300 5    233 8      78 2      857 10
     2 62   1 27     1 74      1.16     0 050    0 025      0 055    0 000      854 30    750 00
 0 000638   1        1         1        0        0          0        -13 20     350 00    1100 00
*SECNO 27009 000
3280 CROSS SECTION  27009 00 EXTENDED      0 22 FEET
   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=  23 MIN ELTRD=   857 00 MAX ELLC=   856.50
3470 ENCROACHMENT STATIONS=      750 0    1100 0  TYPE=      1  TARGET=      350.000
          UPSTREAM FACE OF FOOTBRIDGE
 27009.000  5 43     859 73    0 00     0 00     859 75     0 03     0.00       0 00      857 00
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   1020 0     529 8     140 1     350 1     418 9      81.0     301 8     233 8      78.2     857 10
     2 62      1 26      1 73      1 16     0 050     0 025     0 055     0 000    854 30     750 00
 0 000629        3         3         3         0         0         0    -13 20    350 00    1100 00
*SECNO 27010 000
3280 CROSS SECTION  27010 00 EXTENDED      0 23 FEET
3470 ENCROACHMENT STATIONS=      750 0    1100 0  TYPE=      1  TARGET=      350 000
 27010 000     5 42    859 72      0 00      0 00    859 75      0 03      0 00      0 00     857 00
   1020.0    468 5     211 0     340 6     419 1      94 3     301 9     233 8      78 2     857 10
     2 62      1 12      2 24      1 13     0 052     0 036     0 052     0 000    854 30     750 00
 0 000531        1         1        1.         0         0         0      0 00    350 00    1100 00
*SECNO 27581 000
3280 CROSS SECTION  27581 00 EXTENDED      0 32 FEET
3470 ENCROACHMENT STATIONS=      175 0     500.0  TYPE=      1  TARGET=      325 000
 27581 000     4 82    860 02      0 00      0 00    860 05      0 03      0 30      0 00     857 90
   1020 0    217 5     123 4     679 1     248 7      61 1     512 9     245 1      82 8     857 90
     2 75      0 87      2 02      1 32     0 052     0 036     0 052     0 000    855 20     175 00
 0.000466       600       571       600         2         0         0      0 00    325 00     500 00
*SECNO 27582 000
3280 CROSS SECTION  27582 00 EXTENDED      0 32 FEET
3370 NORMAL BRIDGE, NRD=  13 MIN ELTRD=   856.20 MAX ELLC=   857 30
3470 ENCROACHMENT STATIONS=      175 0     500 0  TYPE=      1  TARGET=      325 000
          DOWNSTREAM FACE OF FOOTBRIDGE
    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
 27582 000     4 83    860 03      0 00      0 00    860 05      0 03      0 00      0 00     857 90
   1020 0    226 8      85 3     707 9     248 8      51.4     512.9     245 1      82 8     857 90
     2.75      0 91      1 66      1 38     0 050     0 022     0 050     0.000    855 20     175 00
 0 000468        1        1.        1.         0         0         0     -9 75    325.00     500 00
*SECNO 27585.000
3280 CROSS SECTION  27585 00 EXTENDED      0 33 FEET
3370 NORMAL BRIDGE, NRD=  13 MIN ELTRD=   856 20 MAX ELLC=   857 30
3470 ENCROACHMENT STATIONS=      175 0     500 0  TYPE=      1  TARGET=      325 000
          UPSTREAM FACE OF FOOTBRIDGE
 27585 000     4 83    860 03      0 00      0 00    860 05      0 03      0.00      0 00     857 90
   1020.0    227.1      85 2     707 7     249 3      51 4     513 4     245.1      82 9     857.90
     2 75      0 91      1 66      1 38     0 050     0 022     0.050     0 000    855 20     175.00
 0 000467        3         3        3.         0         0         0     -9 75    325 00     500 00
*SECNO 27912.000
3470 ENCROACHMENT STATIONS=      300.0     470 0  TYPE=      1  TARGET=      170 000
 27912.000     5 44    860 04      0 00      0 00    860 50      0 46      0 23      0 21     855 50
   1020 0     43 3     877 5      99 2      25 8     151.4      57 1     249 1      84 4     855 20
     2 77      1 68      5 79      1 74     0 050     0 022     0 050     0 000    854 60     385 64
 0 001179       327       327       327         2         0         0      0 00     84 36     470 00
*SECNO 27913 000
3280 CROSS SECTION  27913.00 EXTENDED      0 72 FEET
3370 NORMAL BRIDGE, NRD=  30 MIN ELTRD=   859 50 MAX ELLC=   858 80
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      300 0     470 0  TYPE=      1  TARGET=      170.000
          DOWNSTREAM FACE OF OAK POINT DRIVE BRIDGE
 27913 000     6 42    861 02    861 02      0 00    861 57      0 55      0 00      0 05     855 50
   1020.0    168.0     569 7     282 3      45.1      90.6      44 7     249 1      84 4     855 20
     2 77      3 72      6 29      6 32     0 035     0 033     0 035     0 000    854 60     300 00
 0 020678        1         1         1         4        10         0   -176 01    170 00     470 00
*SECNO 27973 000
3280 CROSS SECTION  27973 00 EXTENDED      1 61 FEET
3370 NORMAL BRIDGE, NRD=  30 MIN ELTRD=   859 50 MAX ELLC=   858 80
3470 ENCROACHMENT STATIONS=      300.0     470.0  TYPE=      1  TARGET=      170.000
          UPSTREAM FACE OF OAK POINT DRIVE BRIDGE
 27973 000     7 32    861 92      0 00      0 00    862 07      0 15      0 38      0.12     855 50
   1020.0    380 4     347 5     292.0     132 2     119 3      81 5     249 4      84 6     855 20
     2 77      2 88      2 91      3 59     0 035     0 033     0 035     0 000    854 60     300 00
 0 003072       60       60.        60         2         0         0   -176 01    170 00     470 00
*SECNO 27974 000
3280 CROSS SECTION  27974 00 EXTENDED      1 68 FEET
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3470 ENCROACHMENT STATIONS=      300 0      470 0  TYPE=      1  TARGET=      170 000
 27974 000      7 38     861 98      0 00      0 00     862 08      0 11      0 00      0.01     855 50
   1020 0     165 3      662 9     191.8     170 4     213 4     136 4     249 4      84 6     855 20
     2 77      0 97      3 11      1 41     0 052     0 032     0 052     0 000     854 60     300 00
 0 000454         1         1         1         2         0         0      0 00     170 00     470 00
*SECNO 28497 000
3280 CROSS SECTION  28497 00 EXTENDED      0 75 FEET
3470 ENCROACHMENT STATIONS=      250 0      600 0  TYPE=      1  TARGET=      350 000
          VALLEY SECTION AK
 28497 000      6 55     862 25      0 00      0.00     862 29      0 04      0 18      0 02     859 90
   1020.0     504 7      495 4      19 9     598 3     232 1      42 6     256 3      86 9     860 40
     2 86      0 84      2 13      0 47     0 065     0 035     0 055     0 000     855 70     250 00
 0 000334       290       523      790.         2         0         0      0 00     303 14     553 14
   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 28967 000
3470 ENCROACHMENT STATIONS=      200 0      755 0  TYPE=      1  TARGET=      555 000
          VALLEY SECTION AL
 28967 000      8 09     862 49      0.00      0 00     862 68      0 19      0 31      0 07     861 50
   1020 0      79 7      940 1       0 2     123.0     259 5       0 9     265 3      91 1     862 20
     2 91      0 65      3 62      0 25     0 065     0 037     0.057     0 000     854 40     489 59
 0 001207       740       470       360         2         0         0      0 00     253 44     743 03
*SECNO 29317 000
3470 ENCROACHMENT STATIONS=      200 0      750 0  TYPE=      1  TARGET=      550 000
          VALLEY SECTION AM
 29317 000      7 01     862 91      0 00      0 00     863 14      0 23      0 44      0 02     861 50
   1020.0      60.2      941.1      18 7      88.2     233 4      24 8     268 2      93 1     861 50
     2.93      0 68      4 03      0 76     0 065     0 037     0 057     0.000     855 90     489 25
 0 001340       350       350       350         2         0         0      0 00     254 98     744 23
*SECNO 29797 000
          VALLEY SECTION AN
 29797 000      6 82     863 52      0 00      0.00     863 75      0 23      0 61      0.00     870 60
   1020 0       0 0     1017.9       2.1       0 0     264.6       3.6     271 6      94 8     862 50
     2 97      0 00      3 85      0 60     0 000     0 035     0 055     0 000     856.70    1523 69
 0 001211       390.      480       690         2         0         0      0 00      68.29    1591.99
*SECNO 30117 000
3470 ENCROACHMENT STATIONS=     1269 0     1504.0  TYPE=      1  TARGET=      235 000
 30117.000      5 88     863 98      0 00      0 00     864 27      0.29      0 48      0 03     862 20
     910 0     22 8      887 2       0 0      26 0     201 4       0 0     273 4      95 4     864.70
     2 99      0 88      4 41      0 00     0 070     0 033     0 000     0 000     858 10    1352.58
 0 002018       260       320       300         2         0         0      0 00      90 77    1443.35
   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 30118 000
3470 ENCROACHMENT STATIONS=     1350 0     1600 0  TYPE=      1  TARGET=      250 000
          DOWNSTREAM FACE OF 13 MILE ROAD BRIDGE
 30118 000      5 88     863 98      0 00      0 00     864 27      0 29      0 00      0 00     862.20
     910 0     22 2      887 8       0 0      26 0     201 5       0 0     273.4      95 4     864 70
     2 99      0 85      4 41      0 00     0 070     0 032     0 000     0 000     858 10    1352 55
 0.001897         1         1.         1         0         0         0      0 00      90 81    1443 36
SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
   0 00      2 93      2 00      0 00      8 00      0.00      54 00     0 00     858 10     858 10
*SECNO 30205 000
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD     WEIRLN
                                                            AREA
   876 90    864 27      0 00      458       452        54        39     863 00     866 20       353
3470 ENCROACHMENT STATIONS=     1130 0     1600 0  TYPE=      1  TARGET=      470.000
          UPSTREAM FACE OF 13 MILE ROAD BRIDGE
 30205 000      9 02     867 12      0 00      0 00     867.17      0 05      2.90      0 00     862 20
     910 0    128.3      771 3      10 4     321 3     407 0      36 3     274 3      95 8     864.70
     3 00      0 40      1 89      0 29     0 070     0.032     0.070     0 000     858 10    1130 00
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 0 000150      87       87       87        2        0        8     0 00   348 81   1478 81
*SECNO 30206 000
3470 ENCROACHMENT STATIONS=     1130 0    1600 0  TYPE=      1  TARGET=     470 000
 30206 000     9 02   867 12     0 00     0 00   867 17     0 05     0 00     0 00   862 20
    910 0    131 8    766 6     11 6    321 6    406 8     38 5    274 4     95 9   864 70
     3 00     0 41     1 88     0 30    0 070    0 033    0 070    0 000   858 10  1130 00
 0 000158        1        1        1        0        0        0     0 00   349 36  1479 36
   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 30613 000
3470 ENCROACHMENT STATIONS=      220 0     645 0  TYPE=      1  TARGET=    -220 000
          VALLEY SECTION AO
 30613 000     7 41   867 21     0.00     0 00   867 23     0 02     0 06     0 01   863 60
    910 0    291 9    399 2    218 9    513 5    266 2    299 5    284 0     99 7   862.10
     3 12     0 57     1 50     0 73    0 053    0 035    0 053    0 000   859.80   231 69
 0 000112      557      407      307        2        0        0     0 00   341 35   573 04
*SECNO 31429 000
3470 ENCROACHMENT STATIONS=      350 0     500 0  TYPE=      1  TARGET=     150 000
          VALLEY SECTION AP
 31429 000     5 13   867 33     0 00     0.00   867 63     0 29     0 26     0 14   865 10
    910 0    116 4    578 4    215 1     63 5    110 1    106 5    297 2    104 5   864.20
     3 18     1.83     5 25     2 02    0 052    0 037    0 052    0 000   862.20   350 00
 0 002705      850      816     850.        0        0        0     0 00   150 00   500 00
*SECNO 31590 000
3470 ENCROACHMENT STATIONS=       80 0     208 0  TYPE=      1  TARGET=     128 000
 31590 000     9 67   867 77     0 00     0 00   867.80     0 03     0 10     0 08   860 60
    910 0    457.8     94 5    357 7    320.0     45.0    280.8    298 9    105 0   860 60
     3 21     1 43     2 10     1 27    0.052    0 037    0 052    0.000   858 10    80 00
 0 000259      161     161.      161        2        0        0     0 00   128.00   208 00
*SECNO 31591 000
3470 ENCROACHMENT STATIONS=       80 0     207 0  TYPE=      1  TARGET=     127 000
          DOWNSTREAM FACE OF DAM AND 60" PIPE
 31591 000     9 65   867 75     0 00     0 00   867 83     0 08     0 00     0 02   860 60
    910 0    401.6    197 1    311 3    318.5     44.9    276.7    298 9    105 0   860 60
     3 21     1.26     4 39     1 12    0.050    0 015    0 050    0 000   858 10    80 00
 0 000187        1        1        1        2        0        0     0.00   127.00   207.00
   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 CULVERT
SC  CUNO     CUNV     ENTLC    COFQ     RDLEN    RISE     SPAN     CULVLN   CHRT     SCL      ELCHU    ELCHD
  1          0 015    0 20     3 00     0 00     5 00     0 00     40 00    1        3        858 10   858 10
CHART  1 - CONCRETE PIPE CULVERT, NO BEVELED RING ENTRANCE
SCALE  3 - GROOVE END ENTRANCE, PIPE PROJECTING FROM FILL
5130, EGIC=  929 64  MAY BE TOO LARGE IF INLET CONTROLS
5135, EGOC=  914 27 . MAY BE TOO LARGE IF OUTLET CONTROLS.
*SECNO 31631.000
SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =     867 77
5150, EG OF    867 77 LESS THAN XEG OF    867 83
SPECIAL CULVERT
    EGIC     EGOC     H4       QWEIR    QCULV    VCH      ACULV    ELTRD    WEIRLN
    929 64   914.27   0.00     643      275      4 698    19 6     866 00   202
3470 ENCROACHMENT STATIONS=       90 0     197 0  TYPE=      1  TARGET=     107 000
          UPSTREAM FACE OF DAM AND 60" PIPE
 31631 000     9 63   867 73     0 00     0 00   867 83     0.10     0.00     0 00   860 60
    910 0    394 3    210 4    305 3    287 4     44 8    246 9    299 4    105 1   860 60
     3 21     1 37     4 70     1 24    0 050    0.015    0 050    0 000   858 10    90 00
 0 000215       40       40       40        2        0        0     0.00   107 00   197 00
*SECNO 31632.000
3470 ENCROACHMENT STATIONS=       90 0     197 0  TYPE=      1  TARGET=     107 000
 31632 000     9 70   867 80     0 00     0.00   867 84     0 05     0 00     0 02   860 60
    950 0    463.3    126 7    360.0    290 8     45 1    250 4    299 5    105 1   860 60
     3 21     1.59     2 81     1 44    0 055    0 032    0.055    0 000   858 10    90.00
 0 000345        1       1.        1        2        0        0     0 00   107.00   197 00
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CCHV=    0 500 CEHV=    1 000
*SECNO 31647 000
3280 CROSS SECTION  31647 00 EXTENDED      1.44 FEET
3301 HV CHANGED MORE THAN HVINS
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      46 0     149 0  TYPE=      1  TARGET=     103 000
   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
31647 000     5 24       868 64     868 64     0 00       869 53     0 89       0.01       0 85       868.30
   950 0      0 9        710 5      238 6      0 9        82.3       90 3       299 6      105 2      868 10
   3 21       0 94       8 63       2 64       0 055      0 032      0 055      0 000      863 40     46.00
0 007689      15         15         15         1          11         0          0 00       103 00     149 00
*SECNO 31648 000
3280 CROSS SECTION  31648 00 EXTENDED      1 49 FEET
3370 NORMAL BRIDGE, NRD=  15 MIN ELTRD=   866.60 MAX ELLC=   868 30
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      47 0     149 0  TYPE=      1  TARGET=     102 000
        DOWNSTREAM FACE OF DRIVEWAY
31648 000     5 29       868 69     868 69     0 00       869 56     0 88       0 01       0 01       868 30
   950.0      1 0        639 3      309 7      0.8        72.1       94.2       299 6      105 2      868 10
   3 21       1 19       8 86       3 29       0 050      0 022      0 050      0 000      863 40     47 00
0.009427      1          1          1.         0          12         0          -11 05     102.00     149 00
*SECNO 31660 000
3280 CROSS SECTION  31660 00 EXTENDED      1 63 FEET
3370 NORMAL BRIDGE, NRD=  15 MIN ELTRD=   866.60 MAX ELLC=   868 30
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      40 0     142 0  TYPE=      1  TARGET=     102 000
        UPSTREAM FACE OF DRIVEWAY
31660 000     5 43       868 83     868 83     0.00       869.71     0 88       0 11       0 00       868 30
   950 0      4 1        639 5      306 4      3 1        72 1       91 1       299 6      105 2      868 10
   3 21       1 32       8 86       3 36       0 050      0 022      0 050      0.000      863 40     40 00
0 009472      12         12         12         0          9          0          -13 78     102 00     142.00
*SECNO 31661.000
3280 CROSS SECTION  31661 00 EXTENDED      1 64 FEET
   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=      40.0     138 0  TYPE=      1  TARGET=      98.000
31661.000     5 44       868 84     868 77     0 00       869 72     0 88       0 01       0 00       868 30
   950 0      3.5        730 2      216 3      3 2        86 1       83 8       299 6      105 2      868.10
   3 21       1 08       8 48       2 58       0.055      0 032      0.055      0 000      863 40     40 00
0 006979      1          1          1          0          5          0          0 00       98.00      138 00
CCHV=    0 300 CEHV=    0 500
*SECNO 31711 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=     494 0     685 0  TYPE=      1  TARGET=     191 000
31711 000     6.92       869 72     0 00       0 00       870 04     0 32       0 15       0 17       867 80
   950 0      170 4      682 6      97.0       121.7      129 9      87 7       299 9      105 4      867 80
   3 22       1 40       5 25       1 11       0 055      0 032      0.055      0 000      862 80     494 00
0 001664      1          50.        70         4          0          0          0 00       191.00     685 00
*SECNO 31712 000
3370 NORMAL BRIDGE, NRD=  26 MIN ELTRD=   868 70 MAX ELLC=   867 80
3470 ENCROACHMENT STATIONS=     494 0     685 0  TYPE=      1  TARGET=     191 000
        DOWNSTREAM FACE OF MIRLON DRIVE BRIDGE
31712.000     6 87       869 67     0 00       0 00       870 10     0 43       0 00       0 06       867 80
   950 0      166 3      615 3      168 4      82 1       96 6       83 2       299 9      105 4      867.80
   3.22       2.03       6 37       2 03       0.030      0.013      0 030      0.000      862 80     494 00
0 001775      1          1          1          2          0          0          -68.30     191 00     685 00
*SECNO 31756 000
3370 NORMAL BRIDGE, NRD=  26 MIN ELTRD=   868.70 MAX ELLC=   867 80
3470 ENCROACHMENT STATIONS=     490 0     690.0  TYPE=      1  TARGET=     200 000
```

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        UPSTREAM FACE OF MIRLON DRIVE BRIDGE
31756 000     7 15    869 95     0 00     0 00    870 21     0 26     0 06     0.05    867 80
    950 0    206 9    530 9    212 2    110 1    102 1    112 9    300 2    105 6    867 80
    3 22     1 88     5 20     1 88    0 030    0 013    0 030    0 000    862 80    490 00
 0 001099      44       44       44        3        0        0   -68 30    200 00    690 00
*SECNO 31757 000
3470 ENCROACHMENT STATIONS=     490 0     690 0  TYPE=      1  TARGET=     200 000
31757 000     7 26    870 06     0 00     0 00    870 23     0.18     0 00     0 02    867 80
    950 0    225 7    574 4    149 9    156 2    136 8    124.1    300 2    105 6    867 80
    3 22     1 45     4 20     1 21    0 050    0 034    0 050    0 000    862.80    490 00
 0 001120        1        1        1        2        0        0     0 00    200 00    690 00
*SECNO 32007 000
3470 ENCROACHMENT STATIONS=     150 0     400 0  TYPE=      1  TARGET=     250 000
        VALLEY SECTION AQ
32007 000     6 37    870 37     0.00     0 00    870 43     0.06     0.16     0 04    866.00
    950 0    187.8    406.1    356 0    175.8    158 2    306.5    303 6    106 9    867 10
    3 26     1 07     2 57     1 16    0.050    0 034    0 050    0 000    864 00    173 34
 0 000355      190      250      370        1        0        0     0 00    217 97    391 31
*SECNO 32577.000
3470 ENCROACHMENT STATIONS=     150 0     400 0  TYPE=      1  TARGET=     250 000
32577 000     7 12    870 52     0 00     0 00    870.58     0 06     0 15     0 00    866 80
    950 0    179 0    745 8    25 2    217 2    342 5    48 2    311 4    109.4    868 00
    3 35     0 82     2 18     0 52    0 050    0 034    0 050    0.000    863 40    156 33
 0 000228      520      570      520        2        0        0     0 00    195 93    352 25
*SECNO 33042 000
3470 ENCROACHMENT STATIONS=     150 0     500 0  TYPE=      1  TARGET=     350.000
        VALLEY SECTION AR
33042 000     6 97    870 67     0 00     0 00    870 70     0 03     0 11     0 01    868 70
    950 0     22 6    280 1    647 2    43 4    140.3    561 7    318 1    111 7    867 70
    3 43     0 52     2 00     1 15    0 050    0 035    0 050    0.000    863 70    211 21
 0 000267      420      465      420        1        0        0     0 00    258 43    469 64
   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 33367 000
3470 ENCROACHMENT STATIONS=     500 0     835 0  TYPE=      1  TARGET=     335 000
33367 000     5 76    870 76     0 00     0 00    870 79     0 03     0 09     0 00    867 40
    950 0     0 0    112 2    837 8     0 0     52.3    670 8    322 2    113 4    867 40
    3 49     0 00     2 14     1 25    0 000    0 035    0 050    0.000    865 00    500 00
 0 000536     425.      325      225        1        0        0     0 00    335 00    835 00
*SECNO 33368 000
3370 NORMAL BRIDGE, NRD=  22 MIN ELTRD=   868 90 MAX ELLC=   871 20
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=     500 0     850 0  TYPE=      1  TARGET=     350 000
        DOWNSTREAM FACE OF DRAKE ROAD BRIDGE
33368 000     5 68    870 68    870.68     0.00    871 04     0.36     0.00     0 16    871 60
    950 0     0 0    291 7    658.3     0 0     43 3    180.8    322 3    113 4    871.50
    3 49     0 00     6 74     3 64    0.000    0 032    0 035    0 000    865 00    500 00
 0 008986        1        1        1       20        6        0  -344 52    334 50    850.00
*SECNO 33439.000
3370 NORMAL BRIDGE, NRD=  22 MIN ELTRD=   868.90 MAX ELLC=   871 20
3470 ENCROACHMENT STATIONS=     500 0     850 0  TYPE=      1  TARGET=     350 000
        UPSTREAM FACE OF DRAKE ROAD BRIDGE
33439 000     6 29    871.29     0 00     0 00    871.39     0 09     0 27     0 08    871 60
    950 0     0 0    133.4    816 6     0 0     43 9    350 2    322 8    113 9    871 50
    3 49     0 00     3 04     2 33    0 000    0.032    0 035    0 000    865 00    500 00
 0 002070      71.       71       71        2        0        0  -383 73    346.12    850 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 33440 000
3470 ENCROACHMENT STATIONS=     500 0     840 0  TYPE=      1  TARGET=     340 000
33440 000     6 39    871.39     0.00     0 00    871 41     0 02     0 00     0 02    867.40
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    950 0      0 0      97 3     852 7      0 0      58 3     888 2     322 8     113.9     867 40
     3 49      0 00     1 67     0 96     0 000     0 035    0.055     0.000     865.00    500 00
 0 000296      1        1        1          2         0        0         0.00      340 00    840 00
1490 NH CARD USED
*SECNO 33970 000
3470 ENCROACHMENT STATIONS=      250 0     650 0  TYPE=      1  TARGET=      400 000
         VALLEY SECTION AS
 33970 000    6 15     871 45    0 00      0 00     871 45    0 01      0 04      0 00      866 10
    950 0     126 6    579 4     244 0     357 4    817 3     743 4     341 7     118 9     867 70
     3 78     0 35     0 71      0 33      0 065    0 035     0 065     0 000     865 30    250 00
 0 000030     450      530       630.       2        0         0         0 00      400 00    650 00
*SECNO 34901 000
3470 ENCROACHMENT STATIONS=      825 0    1275 0  TYPE=      1  TARGET=      450 000
         VALLEY SECTION AT
 34901 000    4 61     871 51    0 00      0 00     871 51    0 01      0 06      0 00      868 80
    950 0     498 7    107 5     343 9     755 9    79 8      577 4     376 1     127 7     869 00
     4 13     0 66     1.35      0 60      0 072    0 037     0 072     0 000     866.90    825 00
 0 000207     885      931       885        2        0         0         0 00      450 00   1275 00
*SECNO 35481 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=      575 0     975 0  TYPE=      1  TARGET=      400 000
         VALLEY SECTION AU
 35481 000    4 21     871 71    0 00      0.00     871.74    0 03      0 22      0 01      869 80
    950 0     643 7    191 1     115.3     574 9    75 3      157 9     390 8     133 2     870 10
     4 25     1 12     2 54      0 73      0.072    0 037     0 072     0 000     867 50    575 00
 0.000875     580      580.      580        2        0         0         0 00      385.38    960.38
*SECNO 36337 000
3470 ENCROACHMENT STATIONS=      286.0     649 0  TYPE=      1  TARGET=      -286 000
         DOWNSTREAM FACE OF DAM
 36337 000    3 83     872.83    0 00      0 00     873 14    0 31      1.26      0 14      871 70
    950 0     143 1    613 9     192 9     89 0     113 3     114.6     401.4     138 6     870.50
     4 31     1.61     5 42      1.68      0.065    0 035     0 065     0 000     869.00    286 00
 0 003239     810      856       810        3        0         0         0.00      184 25    470 25
SPECIAL BRIDGE
SB  XK        XKOR     COFQ      RDLEN     BWC      BWP       BAREA     SS        ELCHU     ELCHD
    0 00      1.00     3 06      0 00      0 01     0 00      0 01      0 00      869 00    869 00
*SECNO 36349 000
6870 D S  ENERGY OF   873 14 IS HIGHER THAN COMPUTED ENERGY OF   873 02
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS        EGLWC    H3        QWEIR     QPR      BAREA     TRAPEZOID         ELLC      ELTRD     WEIRLN
                                                              AREA
**********    873 14   0 00      948       0        0         0.                869 00    871.00    226
3470 ENCROACHMENT STATIONS=      292.0     649 0  TYPE=      1  TARGET=      -292 000
         UPSTREAM FACE OF DAM
 36349 000    3 81     872 81    0 00      0 00     873 14    0 33      0 00      0 00      871 70
    950 0     126 7    627 9     195 4     78 1     112 8     113 2     401 5     138.6     870 50
     4.31     1 62     5 57      1 73      0 065    0 035     0 065     0 000     869.00    292 00
 0 003440     12       12        12.        2        0         10        0 00      177 85    469 85
   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 37069 000
         VALLEY SECTION AV
 37069 000    7 43     874 53    0.00      0 00     874 90    0 37      1 74      0 02      870.00
    950 0     146 3    723 8     79 9      61 1     132 8     57 3      406 1     140 9     871 80
     4 35     2 39     5 45      1 39      0 045    0 035     0 060     0 000     867 10     59.04
 0 001798     720      720       720        3        0         0         0 00      96 72     155 77
*SECNO 37814 000
3470 ENCROACHMENT STATIONS=      103 0     303.0  TYPE=      1  TARGET=      200 000
         VALLEY SECTION AW
 37814 000    7 09     875 59    0 00      0 00     875 73    0.14      0 76      0 07      873 50
    950.0     88.2     838 4     23.4      122 7    260 3     38 2      411 8     143.4     874.10
     4 42     0 72     3 22      0 61      0 062    0 033     0 055     0 000     868 50    103 00
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 0 000662      745       745       745        3         0         0      0 00    200 00    303 00
*SECNO 38152 000
 38152 000     7 22    875 82      0 00      0 00    875 96      0 15     0 23      0 00    885 80
    550 0      0 0     550 0       0 0       0 0     178 5       0 0    414 2     144 3    885 80
     4 45      0 00     3 08      0 00      0 000    0.033     0 000    0 000    868 60     93 70
 0 000692      388       338       288        2         0         0      0 00     31 20    124 90
*SECNO 38153 000
3370 NORMAL BRIDGE, NRD=  24 MIN ELTRD=   885 80 MAX ELLC=   877 30
          DOWNSTREAM FACE OF DRIVEWAY
 38153.000     7 19    875 79      0.00      0.00    875 99      0 20     0 00      0 02    885 80
    550 0      0 0     550 0       0 0       0 0     155.0       0 0    414.2     144 3    885 80
     4 45      0 00     3 55      0.00      0 000    0 031     0.000    0.000    868 60     93 70
 0 001264        1         1         1.        2         0         0    -43 58     31 20    124 90
    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 38292 000
3370 NORMAL BRIDGE, NRD=  24 MIN ELTRD=   885 00 MAX ELLC=   877 70
          UPSTREAM FACE OF DRIVEWAY
 38292 000     6 97    875 97      0 00      0 00    876 17      0.21     0 18      0 00    885.80
    550.0      0 0     550 0       0 0       0 0     151 3       0 0    414 7     144 4    885 80
     4 46      0.00     3 63      0.00      0 000    0 031     0.000    0 000    869 00     93 70
 0 001330      139       139.      139.       2         0         0    -40 37     31 20    124 90
*SECNO 38293 000
 38293.000     7 03    876 03      0 00      0 00    876 19      0 16     0 00      0 01    886 20
    550 0      0 0     550 0       0 0       0 0     172 9       0 0    414 7     144 4    886.20
     4 46      0 00     3 18      0 00      0 000    0.033     0 000    0 000    869.00     93 70
 0 000761        1.        1         1         2         0         0      0.00     31 20    124.90
*SECNO 38533 000
          VALLEY SECTION AX
 38533 000     6.35    876 25      0 00      0 00    876 35      0 10     0 14      0 02    873 40
    550.0     29 3     519 5       1 2      36 3     200 9       3 6    415.8     144.8    875.50
     4 49      0 81     2 59      0 33      0 050    0 033     0 050    0 000    869 90     74 47
 0 000464      240       240       240        2         0         0      0 00     80.08    154 56
*SECNO 39630 000
3470 ENCROACHMENT STATIONS=      600.0     850 0  TYPE=      1  TARGET=      250.000
 39630 000     7 04    876 44      0.00      0.00    876 45      0 00     0.07      0 03    869 80
    360 0    176 7       19 2    164 1     538.5      28 7     500.2    431 7     148 8    869 80
     5 35      0 33      0.67      0.33      0.050    0 033     0 050    0 000    869 40    600 00
 0.000017     1050      1097      1050        2         0         0      0 00    250 00    850 00
*SECNO 39631.000
    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=  23 MIN ELTRD=   873 70 MAX ELLC=   872 00
3470 ENCROACHMENT STATIONS=      600.0     850 0  TYPE=      1  TARGET=      250 000
          DOWNSTREAM FACE OF HALSTED ROAD BRIDGE
 39631 000     7 04    876 44      0 00      0 00    876 45      0 01     0 00      0.00    874 10
    360 0    190 0        6 9    163 1     328 2      18 4     289 9    431 7     148.8    874.10
     5 35      0 58      0 37      0 56      0 035    0 033     0.035    0 000    869 40    600 00
 0.000054        1         1         1.        0         0         0    -10 82    250 00    850 00
*SECNO 39675 000
3370 NORMAL BRIDGE, NRD=  23 MIN ELTRD=   873 70 MAX ELLC=   872 20
3470 ENCROACHMENT STATIONS=      600 0     850 0  TYPE=      1  TARGET=      250 000
          UPSTREAM FACE OF HALSTED ROAD BRIDGE
 39675 000     6 84    876 44      0 00      0 00    876 45      0 01     0.00      0 00    874 10
    360 0    190.0        6 9    163 1     328 2      18 4     289 9    432 4     149 0    874 10
     5 37      0.58      0 37      0 56      0 035    0.033     0 035    0 000    869 60    600 00
 0 000054       44        44        44.        0         0         0    -9 98    250 00    850 00
*SECNO 39676 000
3470 ENCROACHMENT STATIONS=      600 0     850.0  TYPE=      1  TARGET=      250 000
 39676 000     6 85    876 45      0 00      0 00    876.45      0 00     0 00      0 00    869 80
    360 0    174.6       23 3    162 2     538 8      28 3     500 5    432 4     149 0    869 80
     5.37      0 32      0.82      0 32      0.070    0.037     0 070    0 000    869 60    600 00
 0 000033        1         1.        1.        0         0         0      0 00    250 00    850.00
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*SECNO 39814.000
3470 ENCROACHMENT STATIONS=      600 0     850 0  TYPE=      1  TARGET=      250 000
 39814 000      5 65     876 45      0 00      0 00     876 46      0 00      0 01      0 00     871 30
     360 0     166 2      33 3     160 5     383 8      31 1     383 8     435.1     149 7     871 40
      5 45      0 43      1 07      0 42     0 070     0 037     0 070     0 000    870.80     600 00
  0 000079       100       138       150         0         0         0      0 00    250 00     850 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 39951 000
3470 ENCROACHMENT STATIONS=      607 0     843 0  TYPE=      1  TARGET=      236 000
 39951 000      9 17     876 47      0 00      0 00     876 48      0 01      0 02      0 00     872 90
     360 0     155 5      51 4     153 1     228 8      29 4     244 9     437 0     150 4     873 00
      5 49      0 68      1 75      0 62     0 070     0 037     0 070     0 000    867 30     607 00
  0 000311       100      137.       150         0         0         0      0 00    236 00     843 00
*SECNO 40089 000
3470 ENCROACHMENT STATIONS=      630 0     820 0  TYPE=      1  TARGET=      190 000
 40089 000      3 32     876 52      0 00      0.00     876 62      0 09      0 10      0 04    874.40
     360 0     130 3     100 6     129 2      93 6      24 4     109 9     438.0     151 1     874 70
      5 51      1 39      4 12      1 18     0 090     0 045     0 090     0 000    873 20     630 00
  0 004232       100       138       150         2         0         0      0.00    190 00     820 00
*SECNO 40226.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      650 0     750 0  TYPE=      1  TARGET=      100 000
          VALLEY SECTION AY
 40226 000      2 89     877 39     877 39      0 00     877 88      0 48      1 02      0 20     876 00
     360 0      82 9     178 3      98 7      35 8      23 4      47 9     438 5     151 5    876.40
      5.51      2 31      7 61      2.06     0 090     0 045     0 090     0.000    874.50     650.00
  0 019081      100.       137       150         2         9         0      0 00    100 00     750 00
*SECNO 40837 000
          14 MILE ROAD - CORPORATE LIMITS
 40837 000      2 07     880 27      0 00      0 00     880 29      0 02      2 28      0 14     881 30
     360 0     334 5      25.5       0 0     324 1      16 0       0 0     441 1     153 6     882 60
      5 65      1 03      1.59      0 00     0 085     0 042     0 000     0.000    878 20      4 55
  0 001813       489       611       589         7         0         0      0 00    250.49     631 69
T1      CITY OF FARMINGTON HILLS FIS
T2      100-YEAR FLOOD ENCROACHMENT RUN
T3      MINNOW POND DRAIN
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0       3          0         0         0         0         0         0     760 9
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15         0        -1
    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 0 000
 2800 NAT Q1=      160 10  WSELK=      760 80  ENC Q1=      160 10  WSEL=      760 90  RATIO=    0.0000
 NAT Q1=      170    RATIOS LOB, CH, ROB=   0 1528  0 6764  0.1707  WSEL=      760 90
3470 ENCROACHMENT STATIONS=      104 5     210 9  TYPE=      4  TARGET=        0 056
          INTERPOLATED CROSS SECTION AT MOUTH OF MINNOW POND DRAIN
      0 000      5 10     760 90      0 00     760 80     761 87      0 97      0 00      0 00     757 90
    1600 0     211 7     1146 1     242 2      76 5     125 0      87 7       0 0       0 0     758 10
       0 00      2 77      9 17      2.76     0 090     0 042     0 090     0.000    755 80     104.51
  0.009988         0         0         0         0         0         0      0 00    106 38     210 89
*SECNO 310 000
 2800 NAT Q1=      225 48  WSELK=      763 37  ENC Q1=      225 48  WSEL=      763 47  RATIO=    0.0000
 NAT Q1=      238.   RATIOS LOB, CH, ROB=   0 1808  0.6031  0 2162  WSEL=      763.47
3470 ENCROACHMENT STATIONS=       82 6     216 9  TYPE=      4  TARGET=        0 051
    310 000      5 90     763 50      0 00     763 37     764 02      0 52      2 02      0.13     760 00
     1600.0     263.1     1013.7     323 3     118 3     143 0     149 6       2.3       0.8     760 20
       0 02      2 22      7 09      2.16     0 090     0 042     0 090     0 000    757 60      82 64
  0.004902       287       310       262         2         0         0      0.00    134.23     216 87
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*SECNO 620 000
3470 ENCROACHMENT STATIONS=      70 0     230 0  TYPE=      1  TARGET=      160 000
  620 000      5 61     765 11      0 00     765 03     765 77      0 66      1 68      0 07     762 00
   1600 0     243 6     1033 4     323 0      102 3      130 4     150 8       4.8       1 7     762 40
     0 03      2 38       7 92      2 14      0 090      0 042     0 090     0 000    759 50      70 00
 0 006806       275        310       250          3          0         0      0 00    160 00     230 00
*SECNO 810 000
3470 ENCROACHMENT STATIONS=      60 0     230 0  TYPE=      1  TARGET=      170 000
  810 000      5 65     766 45      0 00     766 42     767 15      0 71      1 36      0 03     763 50
   1600 0     238 1     1041 4     320 4       98 2      126 9     151 2       6 5       2 4     764 00
     0 04      2.43       8 21      2 12      0 090      0 042     0.090     0 000    760 80      60 00
 0 007485       200        190       185          2          0         0      0 00    170 00     230 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 1000 000
3470 ENCROACHMENT STATIONS=      56 0     226 0  TYPE=      1  TARGET=      170.000
 1000 000      5 69     767 89      0 00     767 88     768 63      0.74      1 46      0 01     765 00
   1600 0     225 0     1044 9     330 1       89 5      125.0     156 0       8 1       3.1     765 50
     0 05      2 51       8 36      2 12      0.090      0 042     0 090     0.000    762 20      56 00
 0 007834      200.       190.       185          2          0         0      0.00    170 00     226 00
*SECNO 1190.000
3470 ENCROACHMENT STATIONS=      60 0     230 0  TYPE=      1  TARGET=      170.000
 1190 000      5 79     769 39      0 00     769 36     770 16      0.78      1.52      0 02     766 50
   1600 0     180 2     1060 4     359.4       66 7      124.3     170 5       9 7       3.9     767 10
     0 05      2 70       8 53      2 11      0 090      0 042     0 090     0 000    763 60      60.00
 0 008106       200        190       185.         2          0         0      0 00    170 00     230 00
*SECNO 1380 000
3470 ENCROACHMENT STATIONS=      35 0     233 0  TYPE=      1  TARGET=      198 000
          VALLEY SECTION A OVER MINNOW POND DRAIN
 1380 000      5.97     770 97      0.00     770 87     771 64      0 67      1 45      0.03     768 00
   1600 0     210.5     1013 0     376 5       88 5      124 9     190.6      11.4       4.7     768 80
     0 06      2 38       8.11      1 98      0 090      0 042     0 090     0 000    765 00      35 00
 0.007182       200        190       185          2          0         0      0 00    198 00     233.00
CCHV=     0.500 CEHV=    1 000
*SECNO 1430.000
3470 ENCROACHMENT STATIONS=      33 0     233 0  TYPE=      1  TARGET=      200.000
 1430.000      5 77     771.37      0 00     771 35     772 21      0 83      0.40      0 16     768 60
   1600 0     201.5     1058 4     340 1       79 6      119 3     164 1      11 8       4 9     769 40
     0 07      2 53       8.87      2 07      0 090      0.042     0 090     0.000    765.60      34 77
 0 009129        50         50       50.          1          0         0      0 00    198 23     233 00
*SECNO 1480 000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      33 0     231 0  TYPE=      1  TARGET=      198 000
   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
 1480 000      5 71     771 91     771 91     771.90     772 79      0 88      0.47      0 05     769 20
   1600 0     199 2     1070 1     330 6       77 4      117 9     157 4      12 2       5 1     770.00
     0 07      2.58       9 07      2.10      0 090      0 042     0 090     0.000    766.20      35 16
 0.009704        50        50.        50          2          6         0      0.00    195 84     231 00
*SECNO 1580 000
3280 CROSS SECTION   1580 00 EXTENDED      0 36 FEET
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 1580 000      5 86     773 16     773.16     773.16     774 14      0.98      0 97      0.09     770 30
   1600 0      98 5     1081.5     420.0       45 8      113.7     180 5      13 0       5.6     770 30
     0 07      2 15       9 51      2 33      0.090      0 042     0 090     0 000    767 30       0.00
 0.009627       100        100       100          2          8         0      0.00    212 70     212 70
*SECNO 1680 000
3280 CROSS SECTION   1680.00 EXTENDED      0 27 FEET
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      10 0     183 0  TYPE=      1  TARGET=      173 000
```

VALLEY SECTION B									
1680 000	5 77	774.27	774 27	774 27	775 31	1 04	1 00	0 07	771 50
1600 0	93 3	1088 8	418 0	38 2	111 4	163 2	13 8	6 0	771 50
0 08	2 44	9 78	2 56	0 085	0 042	0.085	0 000	768.50	10 00
0 010454	100	100	100	2	5	0	0 00	173 00	183 00
CCHV= 0 300 CEHV= 0 500									
*SECNO 2080 000									
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS=		63 0	275 0	TYPE=	1	TARGET=	212.000		
VALLEY SECTION C									
2080 000	6 79	778 09	0 00	778 09	778 51	0 42	3 02	0 19	774 50
1600 0	124 7	946 1	529 2	65.3	144 1	281 6	17 6	7 9	774 50
0 10	1 91	6 57	1 88	0 100	0 050	0 100	0 000	771 30	63 00
0 005550	100	400	490	2	0	0	0 00	212.00	275 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 2380 000									
3470 ENCROACHMENT STATIONS=		24.0	196 0	TYPE=	1	TARGET=	172 000		
VALLEY SECTION D									
2380.000	6 10	779.60	0.00	779.60	780 29	0 69	1 65	0 14	776 30
1600 0	145 1	992.9	461.9	67.3	119 9	207.0	20.1	8 9	776.50
0.11	2.16	8 28	2 23	0 090	0 042	0.090	0 000	773 50	24 00
0 006778	300.	300.	200	2	0	0	0 00	172 00	196 00
*SECNO 2680.000									
3470 ENCROACHMENT STATIONS=		51 0	135 0	TYPE=	1	TARGET=	84 000		
2680.000	7 06	781.16	0 00	781.15	781 80	0 63	1 48	0 02	776 90
1600 0	102.6	1083.9	413 5	45 2	143 1	168.0	22 2	9 6	777 10
0.12	2.27	7 57	2 46	0 090	0 042	0 090	0 000	774 10	51 00
0 004472	300	300.	200	2	0	0	0 00	84 00	135 00
*SECNO 2700.000									
3470 ENCROACHMENT STATIONS=		56 0	130 0	TYPE=	1	TARGET=	74 000		
2700 000	7 07	781.21	0.00	781.20	781 94	0 73	0 09	0 05	776.94
1600 0	61.1	1141 8	397 1	27 8	143 2	152 7	22 4	9 7	777 14
0.13	2.20	7 97	2 60	0 090	0 042	0.090	0 000	774 14	56 00
0 004951	20	20.	20	2	0	0	0 00	74.00	130 00
*SECNO 2710.000									
3470 ENCROACHMENT STATIONS=		59 0	127 0	TYPE=	1	TARGET=	68 000		
2710 000	7 06	781.22	0.00	781.21	782 03	0 81	0 05	0.04	776 96
1600 0	32.0	1182 4	385.7	16.4	143 0	142 8	22 5	9 7	777 16
0 13	1 95	8 27	2 70	0 090	0 042	0 090	0 000	774 16	59 00
0 005335	10	10	10	2	0	0	0 00	68 00	127.00
*SECNO 2720 000									
3470 ENCROACHMENT STATIONS=		61 0	125 0	TYPE=	1	TARGET=	64 000		
2720 000	7 07	781.25	0 00	781 24	782 11	0 87	0 05	0 03	776 98
1600.0	12.7	1209.6	377.7	8 4	143 2	136 7	22 5	9 7	777 18
0.13	1 52	8 45	2.76	0 090	0.042	0 090	0 000	774.18	61.00
0 005558	10.	10	10.	2	0	0	0 00	64 00	125 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= 0.500 CEHV= 1 000									
*SECNO 2724.000									
3470 ENCROACHMENT STATIONS=		62 0	124 0	TYPE=	1	TARGET=	62 000		
2724.000	7 09	781 27	0 00	781 26	782 15	0 88	0 02	0 02	776 98
1600 0	4 6	1221 5	373.9	4.2	143 7	134 3	22 5	9 7	777 18
0 13	1 08	8 50	2 79	0 090	0.042	0 090	0 000	774 18	62.00
0 005600	4	4	4	0	0	0	0 00	62 00	124 00
*SECNO 2728 000									
3470 ENCROACHMENT STATIONS=		63.0	123 0	TYPE=	1	TARGET=	60 000		
2728 000	7 24	781.43	0 00	781 42	782 22	0 79	0 02	0 05	776 99
1600 0	0 0	1192 7	407 3	0.0	147 4	136 5	22.6	9.7	777 19
0 13	0 00	8 09	2 98	0 000	0 042	0.090	0 000	774.19	63 00
0 006099	4	4.	4	2	0	0	0 00	60 00	123.00
*SECNO 2732.000									

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3301 HV CHANGED MORE THAN HVINS
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      94 0     198.0  TYPE=      1  TARGET=      104 000
 2732 000      7 42     781 62     781 62     781 62     783 40      1 78      0 04      0 99     775 10
   1600 0      0 0      1173 7     426 3      0 0        95 8      104 5     22 6       9 7      775 70
     0 13      0.00     12 26      4 08       0 000      0 042     0 090     0 000     774 20     94.00
 0 015609        4        4.         4          1          8         0       0 00      58 60     152 60
CCHV=    0 300 CEHV=    0 500
*SECNO 2733 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      94 0     198 0  TYPE=      1  TARGET=      104.000
          DOWNSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE
 2733 000      8 85     783 05     0.00       783 05     783 73     0.68      0 01      0 33     775 10
   1600 0      0 0      935 0      665.0      0 0        115 8     176.2     22 6       9.7      775.70
     0 13      0 00     8 08       3 77       0 000      0 032     0 055     0 000     774 20     94 00
 0 003337        1.       1.         1          9          0         0       0 00      69 61     163 61
SPECIAL CULVERT
SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
  1           0.030     0 50      3.02      0 00      12 00     0.00      30 00     2         1         774 20    774 20
CHART  2 - CORRUGATED METAL PIPE CULVERT
SCALE  1 - HEADWALL
*SECNO 2763 000
SPECIAL CULVERT OUTLET CONTROL + WEIR FLOW EG =    788 19
3301 HV CHANGED MORE THAN HVINS
SPECIAL CULVERT
    EGIC      EGOC      H4        QWEIR     QCULV     VCH       ACULV     ELTRD     WEIRLN
  790 07    790 22      4 45      276.      1320      3 116     113 1     787 20    96.
3470 ENCROACHMENT STATIONS=      94 0     191 0  TYPE=      1  TARGET=      97 000
          UPSTREAM FACE OF QUAKER VALLEY DRIVE BRIDGE
 2763 000     13 90     788 10     0.00       788.10     788 19     0.09      4 45      0 00     775 10
   1600 0      0 0      581 0      1019.0     0 0        186 5     546 5     23 0       9 8      775 70
     0.13      0 00     3.12       1 86       0 000      0 032     0.055     0 000     774 20     94.00
 0 000346       30       30.        30         2          0         0       0 00      97 00     191 00
*SECNO 2764 000
3470 ENCROACHMENT STATIONS=      93 0     192 0  TYPE=      1  TARGET=      99 000
 2764 000     13 86     788.06     0 00       788 06     788 23     0 18      0 00      0.04     775 10
   1600 0      4.6      830.1      765 2      12 7       185 9     544.4     23 0       9 8      775 70
     0 13      0.36     4 47       1 41       0 095      0 045     0 095     0.000     774.20     93 00
 0 000594        1        1          1.         2          0         0       0 00      99 00     192.00
*SECNO 2768 000
3470 ENCROACHMENT STATIONS=      89 0     196 0  TYPE=      1  TARGET=      107 000
 2768 000     13 81     788 08     0 00       788 08     788 24     0 16      0 00      0 00     775.17
   1600 0      52 5     806 6      740 9      59.3       185 0     543 5     23 0       9 8      775 77
     0 13      0 89     4 36       1 36       0.095      0 045     0 095     0.000     774.27     89 00
 0 000569        4.       4.         4          1          0         0       0.00      107 00    196 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 3191 000
3470 ENCROACHMENT STATIONS=      54 0     245 0  TYPE=      1  TARGET=      191 000
          VALLEY SECTION E
 3191 000      7 48     788 48     0 00       788.48     788 70     0 22      0 43      0 03     784 00
   1600 0      287 4    780 6      531.9      185 0      152 5     315 7     30 3      11 2      784 00
     0 17      1 55     5 12       1 69       0 095      0 045     0 095     0 000     781 00     54 00
 0.002166        300      423.       480        2          0         0       0 00      191 00    245 00
*SECNO 3381 000
 3381.000      6 73     788.93     0 00       788 93     789.30     0 37      0 53      0 08     785.20
   1600.0      250 9    861 9      487 2      136.5      134 6     241 2     32 7      12.0      785 20
     0 18      1.84     6 40       2 02       0.095      0.045     0 095     0.000     782.20     57 66
 0.004000        215      190        160        2          0         0       0.00      183 68    241.34
*SECNO 3581 000
 3581.000      6 45     789 75     0.00       789 75     790 22     0 47      0 87      0 05     786 00
   1600.0      466 3    932.1      201.6      211.6      133 3     109 8     34 9      12 8      786.30
     0 19      2 20     6 99       1 84       0 095      0.045     0 095     0.000     783 30     7 31
 0 004827        223.     200        170.       2          0         0       0 00      160 01    167 32
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*SECNO 3781 000
3470 ENCROACHMENT STATIONS=      8.0     160 0  TYPE=      1  TARGET=     152 000
        VALLEY SECTION F
 3781 000     6 28     790 78     0 00     790 78     791 32     0 53     1 06     0 03     787 20
   1600 0     453 7     953 6     192 7     198 3     129 1     98 9     37 0     13 5     787 50
     0 20     2 29     7 39     1 95     0 095     0 045     0 095     0 000     784 50     8 00
 0 005619     225     200     170.     2     0     0     0 00     152 00     160 00
*SECNO 4451 000
3470 ENCROACHMENT STATIONS=     22 0     167 0  TYPE=      1  TARGET=     145 000
        VALLEY SECTION G
 4451 000     5 70     794 40     0 00     794.40     794 86     0 46     3 52     0 02     791 00
   1600 0     333 8     721 0     545 2     122 1     95 6     219 0     42.1     15.2     791 00
     0 23     2 73     7 54     2 49     0 095     0 045     0 095     0 000     788 70     22 00
 0 006762     440     670     490     3     0     0     0 00     145 00     167 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 5551 000
3470 ENCROACHMENT STATIONS=     12 0     238 0  TYPE=      1  TARGET=     226 000
        VALLEY SECTION H
 5551 000     6 94     798 94     0 00     798 93     799.21     0.27     4 30     0 05     795 00
   1600 0     315 7     691 3     593 0     157 3     114.9     339 1     52.2     18 7     795 00
     0 30     2 01     6 02     1 75     0.095     0 045     0 095     0 000     792.00     12 00
 0 003465     670     1100     820     3     0     0     0 00     226 00     238.00
*SECNO 5664 000
3470 ENCROACHMENT STATIONS=     17 0     207 0  TYPE=      1  TARGET=     190 000
 5664 000     6 37     799.37     0 00     799 37     799 84     0 47     0 53     0 10     796 00
   1600 0     313 3     783.5     503.2     127 6     103 8     233 9     53 6     19 3     796 00
     0 31     2 46     7.55     2 15     0 095     0.045     0 095     0 000     793 00     17.00
 0 006266     88.     113     138     2     0     0     0 00     190 00     207 00
*SECNO 5776 000
3470 ENCROACHMENT STATIONS=     20 0     191 0  TYPE=      1  TARGET=     171 000
 5776 000     6 05     800 15     0 00     800.15     800.79     0 64     0 87     0 08     797.00
   1600 0     315 4     842 0     442 5     116.2     98 6     185.8     54 8     19 8     797 00
     0.32     2 71     8 54     2 38     0 100     0.047     0.100     0.000     794 10     20 00
 0 009298     88     113     138.     2     0     0     0.00     171 00     191 00
*SECNO 5889 000
3470 ENCROACHMENT STATIONS=     21.0     182 0  TYPE=      1  TARGET=     161 000
 5889 000     6 11     801 21     0 00     801.21     801 87     0 67     1 07     0 01     798 00
   1600 0     328 6     857 2     414 2     118 7     99.4     169 9     55 8     20 2     798 00
     0 32     2 77     8 63     2 44     0 100     0 047     0 100     0 000     795 10     21.00
 0 009411     88     113     138     2     0     0     0 00     161 00     182 00
*SECNO 6001 000
3470 ENCROACHMENT STATIONS=     23 0     170.0  TYPE=      1  TARGET=     147.000
        VALLEY SECTION I
 6001 000     6.08     802.28     0.00     802.27     803 01     0 74     1.10     0 04     799.00
   1600 0     341 2     885 2     373 5     119.2     98 9     147 4     56 8     20 7     799 00
     0 33     2.86     8 95     2.53     0.100     0 047     0 100     0 000     796 20     23 00
 0 010104     88     112     138     1     0     0     0 00     147 00     170 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 6666 000
3470 ENCROACHMENT STATIONS=     32.0     181 0  TYPE=      1  TARGET=     149 000
        VALLEY SECTION J
 6666 000     6 70     806 90     0 00     806 90     807 37     0 47     4 28     0 08     803 00
   1600 0     416 0     818 3     365 7     178 4     111 7     163.6     61 7     22 3     803 00
     0 36     2.33     7 33     2 24     0 100     0 047     0 100     0.000     800 20     32 00
 0 005763     465     665.     465.     3     0     0     0 00     149 00     181 00
*SECNO 7586.000
3470 ENCROACHMENT STATIONS=     125 0     276 0  TYPE=      1  TARGET=     151.000
        VALLEY SECTION K
 7586 000     6 61     810 71     0 00     810 71     811 07     0.36     3 67     0 03     806 50
   1600 0     416 8     750.2     433 0     187 6     113 0     195 1     69 0     24 5     806 50
     0 41     2 22     6 64     2 22     0 095     0 045     0 095     0 000     804 10     125 00
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 0 004205      440       920       740.        3         0         0      0 00    151 00    276.00
*SECNO 8506 000
3470 ENCROACHMENT STATIONS=      72 0     209 0  TYPE=      1  TARGET=      137 000
          VALLEY SECTION L
 8506 000      6 33    814 33      0 00    814 34    814 84      0 51      3 69      0 07    810 00
   1600 0    400 9     775 6     423 5     154 3     100 0     168 5      76 0      26 6    810 00
     0 45     2.60      7 76      2.51     0 095     0.045     0 095     0 000    808 00     72 00
 0 005846      800       920       400         2         0         0      0 00    137 00    209 00
*SECNO 8906 000
 2800 NAT Q1=     158 88  WSELK=     816 15  ENC Q1=     158 88  WSEL=     816 25  RATIO=   0 0000
 NAT Q1=     237   RATIOS LOB, CH, ROB=   0 2572  0 4662  0 2766  WSEL=     816 25
3470 ENCROACHMENT STATIONS=      111 9     161 4  TYPE=      4  TARGET=       0.330
 8906 000      6 53    816 15      0 00    816 15    816 62      0 47      1 77      0 01    811 62
    980 0    153 3     666 5     160 2      60 5     103 6      72 7      78 5      27 3    811 62
     0 47      2 53      6 44      2 20     0.095     0 045     0 095     0 000    809 62    111 86
 0 003841      300       400       300         3         0         0      0.00     49 53    161.39
CCHV=    0 500 CEHV=    1 000
    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
*SECNO 8921 000
 2800 NAT Q1=     145.20  WSELK=     816 21  ENC Q1=     145 20  WSEL=     816 31  RATIO=   0 0000
 NAT Q1=     235   RATIOS LOB, CH, ROB=   0 2568  0 4672  0 2760  WSEL=     816 31
3470 ENCROACHMENT STATIONS=      115 5     157 3  TYPE=      4  TARGET=       0 383
 8921.000      6 52    816 22      0 00    816 21    816 84      0 62      0.06      0 16    811 70
    980 0    104 8     740 2     135 0      45.5     103 3      56.7      78 6      27 3    811.70
     0 47      2 30      7 17      2 38     0 095     0 045     0 095     0 000    809.70    115 48
 0.004781        15       15.        15         2         0         0      0 00     41 86    157.34
*SECNO 8936 000
 2800 NAT Q1=     131 67  WSELK=     816 29  ENC Q1=     131 67  WSEL=     816 39  RATIO=   0.0000
 NAT Q1=     235   RATIOS LOB, CH, ROB=   0 2567  0.4675  0 2758  WSEL=     816 39
3470 ENCROACHMENT STATIONS=      119 7     153.0  TYPE=      4  TARGET=       0 440
 8936.000      6 51    816 29      0 00    816 29    817 13      0 83      0 08      0 21    811 78
    980 0     63 7     819 8      96 5      27.9     103 3      39 0      78 7      27 3    811.78
     0 47      2 28      7 94      2 47     0 095     0 045     0 095     0 000    809 78    119 65
 0.005868        15        15        15         2         0         0      0 00     33 35    153.01
*SECNO 8946 000
 2800 NAT Q1=     123 81  WSELK=     816.34  ENC Q1=     123 81  WSEL=     816 44  RATIO=   0 0000
 NAT Q1=     236   RATIOS LOB, CH, ROB=   0 2569  0 4670  0 2761  WSEL=     816 44
3470 ENCROACHMENT STATIONS=      122 5     150 3  TYPE=      4  TARGET=       0.475
 8946 000      6 53    816 36      0 00    816 34    817 38      1 02      0 06      0 19    811 83
    980 0     31 5     881 1      67 5      15 6     103 5      27 7      78 7      27 3    811.83
     0 47      2 02      8 51      2 44     0 095     0 045     0 095     0 000    809 83    122 51
 0 006727        10        10        10         2         0         0      0 00     27 78    150 29
CCHV=    0 500 CEHV=    1 000
*SECNO 8956 000
 2800 NAT Q1=     116 16  WSELK=     816 41  ENC Q1=     116 16  WSEL=     816 51  RATIO=   0.0000
 NAT Q1=     237   RATIOS LOB, CH, ROB=   0 2570  0 4666  0 2764  WSEL=     816 51
3470 ENCROACHMENT STATIONS=      125 5     147.6  TYPE=      4  TARGET=       0 509
 8956 000      6 54    816.43      0 00    816 41    817 67      1.24      0 07      0.22    811 89
    980 0      1 8     942 9      35 3       2.2     103 7      16 2      78.7      27 3    811 89
     0 47      0 80      9 09      2 18     0 095     0 045     0 095     0 000    809 89    125 51
 0 007654        10        10        10         2         0         0      0 00     22 11    147.62
    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 8966 000
 2800 NAT Q1=     110 13  WSELK=     816 49  ENC Q1=     111 15  WSEL=     816 59  RATIO=  -0 0092
 NAT Q1=     239   RATIOS LOB, CH, ROB=   0 2576  0 4651  0.2773  WSEL=     816.59
3470 ENCROACHMENT STATIONS=      126.0     144 0  TYPE=      4  TARGET=       0 535
 8966 000      6 59    816.53      0.00    816 49    817.89      1 36      0 10      0 12    811 94
    980 0       0.0     980 0       0 0       0 0     104 6       0 0      78 8      27 3    811 94
      0.47      0 00      9 37      0 00     0 000     0.045     0 000    0.000    809 94    126 00
 0 013718        10        10       10.         2         0         0      0.00     18 00    144 00
*SECNO 8977 000
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2800 NAT Q1=      95 65  WSELK=     816 59  ENC Q1=      98 50  WSEL=     816 69  RATIO=  -0 0298
NAT Q1=      98   RATIOS LOB, CH, ROB=   0.0000  1.0000  0.0000  WSEL=     816 69
3470 ENCROACHMENT STATIONS=      147 1     162 9  TYPE=      4  TARGET=      0 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      818.20 ELREA=      818 20
          DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE
 8977 000      6 68     816 68      0 00     816 59     818 23      1 55      0 15      0.19     812 00
    980 0       0 0      980 0       0 0       0.0       98.0       0.0      78 8      27.3     812.00
     0 47      0.00     10 00      0 00     0.000      0 048     0 000     0 000     810 00     147 10
 0 013776       11        11        11         2          0         0      0 00     15 80     162 90
CCHV=    0 300 CEHV=    0 500
SPECIAL CULVERT
SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
   1          0 030     0 50      3 00      0 00      12 60     0 00      82 00     2         1         810 40    810 00
CHART  2 - CORRUGATED METAL PIPE CULVERT
SCALE  1 - HEADWALL
*SECNO 9059 000
SPECIAL CULVERT OUTLET CONTROL
EGIC =    820 796  EGOC =    821 696  PCWSE=    816 680  ELTRD=    823 500
2800 NAT Q1=     340 91  WSELK=     821.13  ENC Q1=     346 32  WSEL=     821 23  RATIO=  -0 0159
NAT Q1=     346   RATIOS LOB, CH, ROB=   0 0000  1 0000  0 0000  WSEL=     821 23
3301 HV CHANGED MORE THAN HVINS .
   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 CULVERT
    EGIC      EGOC      H4        QWEIR     QCULV     VCH       ACULV     ELTRD     WEIRLN
   820 80    821 70     3 46        0       980.      6 050     124 7     823 50      0
3470 ENCROACHMENT STATIONS=      147 1     162.9  TYPE=      4  TARGET=      0 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      824 50 ELREA=      824 50
          UPSTREAM FACE OF FARMINGTON ROAD BRIDGE
 9059 000     10 73    821.13      0 00     821 13     821 70      0 57      3.46      0.00     812 40
    980 0       0 0      980 0       0 0       0 0       162.0       0 0      79 0      27 4     812.40
     0.47      0 00      6 05      0 00     0 000      0.032     0 000     0 000     810 40     147.10
 0 001445       82        82        82         2          0         0      0 00     15 80     162 90
*SECNO 9070 000
2800 NAT Q1=     269 61  WSELK=     821 56  ENC Q1=     269 61  WSEL=     821.66  RATIO=   0 0000
NAT Q1=     285   RATIOS LOB, CH, ROB=   0 0642  0.9310  0.0048  WSEL=     821 66
3470 ENCROACHMENT STATIONS=      139 5     170 0  TYPE=      4  TARGET=      0 054
          VALLEY SECTION M
 9070.000     11.11    821 54      0 00     821 56     821 80      0 26      0 02      0 09     816 10
    980 0      10 9      969 1      0 0       12.9      234 1       0 0      79.1      27 4     819 20
     0 47      0 84      4 14      0 00     0 100      0 050     0 000     0 000     810 43     139 47
 0.001533       11        11        11         2          0         0      0.00     30 53     170 00
*SECNO 10059 000
2800 NAT Q1=     341 89  WSELK=     822 73  ENC Q1=     341.89  WSEL=     822 83  RATIO=   0 0000
NAT Q1=     542   RATIOS LOB, CH, ROB=   0 0509  0 5848  0 3643  WSEL=     822 83
3470 ENCROACHMENT STATIONS=      274 5     367 8  TYPE=      4  TARGET=      0 369
10059 000     10.22    822 82      0 00     822.73     822.94      0 12      1 09      0 04     820 90
    980 0       0 0      906 8      73 2       0 0      316 2     110 9      86 0      28 4     820 90
     0 57      0 00      2.87      0 66     0 000      0 050     0 100     0 000     812 60     274 50
 0 000866     1075.       989       375         2          0         0      0 00     93 33     367 83
   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 10060 000
2800 NAT Q1=     190 20  WSELK=     822 69  ENC Q1=     190 20  WSEL=     822.79  RATIO=   0 0000
NAT Q1=     727   RATIOS LOB, CH, ROB=   0 1023  0 1509  0 7468  WSEL=     822 79
3370 NORMAL BRIDGE, NRD=  27 MIN ELTRD=   820 70 MAX ELLC=   818 50
3470 ENCROACHMENT STATIONS=      274 5     377 0  TYPE=      4  TARGET=      0 738
          DOWNSTREAM FACE OF BIDDLESTONE ROAD BRIDGE
10060 000     10 17    822 77      0 00     822.69     822.99      0 23      0.00      0 05     820 90
    980 0       0 0      563 8     416 2       0.0      136 0     125 2      86 0      28 4     820 90
     0.57      0 00      4 15      3 32     0 000      0 024     0 035     0 000     812.60     274.50
 0 002764       1.         1         1         2          0         0    -178 45    102.54     377 04
*SECNO 10090 000
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2800 NAT Q1=      203 34  WSELK=      822.79  ENC Q1=      203 34  WSEL=      822 89  RATIO=   0 0000
NAT Q1=      790   RATIOS LOB, CH, ROB=   0 1071  0 1449  0 7480  WSEL=      822 89
3370 NORMAL BRIDGE, NRD=  27 MIN ELTRD=   820 70 MAX ELLC=   818 50
3470 ENCROACHMENT STATIONS=      274 5     378 1  TYPE=      4  TARGET=        0 743
          UPSTREAM FACE OF BIDDLESTONE ROAD BRIDGE
10091 000      10 27     822 87      0 00     822.79     823 08      0 20      0 08      0 01     820 90
    980 0       0 0      548 8     431.2       0 0      139 8     134 4      86 2      28 4     820 90
     0 58       0 00     3 93      3 21      0 000      0 024     0 035     0 000     812 60     274 50
 0 002395        30        30        30          2          0         0   -178 45     103 63     378 13
*SECNO 10091 000
2800 NAT Q1=      327 48  WSELK=      822 89  ENC Q1=      327 48  WSEL=      822.99  RATIO=   0 0000
NAT Q1=      555   RATIOS LOB, CH, ROB=   0 0608  0 5334  0 4058  WSEL=      822.99
3470 ENCROACHMENT STATIONS=      274 5     371 8  TYPE=      4  TARGET=        0.411
10091 000      10 40     823 00     -0 00     822 89     823 11      0 11      0 00      0 03     820 90
    980 0       0 0      885 1     -94 9       0 0      322.8     130 0      86 2      28 4     820 90
     0 58       0 00     2.74      0 73      0 000      0 055     0 100     0 000     812 60     274 50
 0 000936        1         1         1          2          0         0      0 00      97 34     371 84
   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 11141 000
2800 NAT Q1=      354 68  WSELK=      823 76  ENC Q1=      354.68  WSEL=      823.86  RATIO=   0 0000
NAT Q1=      367.  RATIOS LOB, CH, ROB=   0.0623  0 6847  0 2530  WSEL=      823.86
3470 ENCROACHMENT STATIONS=      120 5     235 2  TYPE=      4  TARGET=        0 034
          VALLEY SECTION N
11141 000       7 58     823 88      0 00     823 76     823 95      0 07      0 84      0.01     820 00
    980 0      46 2      693 5     240.2      57 2      276 5     221 0      97 1      30.6     818 00
     0 71       0 81     2 51      1 09      0 100      0 055     0.100     0 000     816 30     120 64
 0 000752      700.      1050       800          2          0         0      0 00     114.53     235 17
*SECNO 11711 000
3470 ENCROACHMENT STATIONS=       41 0     157 0  TYPE=      1  TARGET=      116 000
          VALLEY SECTION O
11711 000       6 24     824 54      0 00     824 43     824 84      0 31      0 77      0 12     820 00
    980 0     361.8      601.4     16 8      181 0      110 4      12 5     101 8      31 8     821 00
     0.74       2 00      5.45      1.34      0 100      0 055     0 100     0.000     818 30      49 24
 0 004373       407       570       407          2          0         0      0 00     107 76     157.00
*SECNO 12041 000
3470 ENCROACHMENT STATIONS=      125 0     156 0  TYPE=      1  TARGET=       31.000
12041 000       7 06     825 64      0 00     825 61     826.37      0 73      1 31      0 21     820 28
    980.0      49 0      902 9     28 1       26 2      126 7      17 1     103 6      32 3     821 28
     0.76       1 87      7 23      1.64      0 090      0 042     0 090     0 000     818 58     125 00
 0 003626       330       330       330          2          0         0      0 00      31 00     156.00
*SECNO 12061 000
3470 ENCROACHMENT STATIONS=      235 0     550 0  TYPE=      1  TARGET=     -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      827 00 ELREA=      827 00
12061 000       7 06     825 66      0 00     825 63     826.48      0 82      0.07      0 04     820 90
    980 0       0 0      980 0       0 0        0.0      134 9       0 0     103 7      32 3     821 60
     0 75       0.00     7 26      0 00      0 000      0.040     0.000     0.000     818 60     396 00
 0 003536        20        20        20          2          0         0      0 00      21.00     417 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 12062 000
3470 ENCROACHMENT STATIONS=      235 0     550 0  TYPE=      1  TARGET=     -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      827 00 ELREA=      827 00
          DOWNSTREAM FACE OF W  ENTRANCE TO OAKLAND COM  COLLEGE
12062.000       7 07     825 67      0 00     825 64     826.49      0 82      0 00      0 00     820 90
    980 0       0 0      980.0       0 0        0 0      135 0       0 0     103 7      32 3     821.60
     0.76       0 00     7 26      0 00      0 000      0 032     0 000     0.000     818 60     396 00
 0.002259        1         1         1          0          0         0      0.00      21 00     417 00
SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN     BWC        BWP       BAREA     SS        ELCHU     ELCHD
    0 00       3 17      3 02      0.00      14 14      0 00     127.23     0 00     818 80     818 60
*SECNO 12192.000
PRESSURE FLOW
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EGPRS     EGLWC     H3      QWEIR     QPR      BAREA   TRAPEZOID   ELLC     ELTRD    WEIRLN
                                                         AREA
 828 59    827 03    0 00     0.       980      127      116      827 00   831 80      0
3470 ENCROACHMENT STATIONS=     235 0     550 0  TYPE=     1  TARGET=    -235 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     831 80 ELREA=     831 80
        UPSTREAM FACE OF W  ENTRANCE TO OAKLAND COM  COLLEGE
12192 000    9 19    827 99    .0 00    827 95   828 59    0.60     2 10     0 00    821 50
  980 0      0 0     980 0     0 0      0 0      157 8     0 0      104 1    32.4    821 50
   0 77      0 00    6 21      0 00     0 000    0 032     0 000    0 000    818 80  395 50
 0 002136    130     130       130      2        0         0        0 00     21 00   416 50
*SECNO 12193 000
3470 ENCROACHMENT STATIONS=     235 0     550 0  TYPE=     1  TARGET=    -235 000
  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=     831 80 ELREA=     831.80
12193 000    9 19    827 99    0 00     827 96   828 59    0 60     0 00     0 00    821 50
  980 0      0 0     980 0     0 0      0 0      157 7     0.0      104 1    32 4    821 50
   0 77      0.00    6 21      0 00     0 000    0 042     0 000    0 000    818 80  395 50
 0 003685    1       1         1        0        0         0        0 00     21.00   416 50
*SECNO 12196 000
3470 ENCROACHMENT STATIONS=     393 0     420 0  TYPE=     1  TARGET=      27 000
        VALLEY SECTION P
12196 000    9 36    828 16    0 00     828 12   828.64    0 48     0 01     0.04    821 50
  980 0      21 1    921 4     37 5     16 4     161 2     21 8     104 1    32 4    821 50
   0.77      1 29    5 71      1 72     0 095    0.042     0 085    0.000    818 80  393.00
 0 003028    3       3         3        2        0         0        0 00     27.00   420 00
*SECNO 12823 000
3470 ENCROACHMENT STATIONS=      30 0     235 0  TYPE=     1  TARGET=     205.000
        VALLEY SECTION Q
12823 000    8 88    829 18    0 00     829 09   829 19    0 02     0 42     0.14    822 20
  980.0      287 3   215 5     477 2    419 1    125 3     705 6    114 4    34 0    822 80
   0.96      0 69    1 72      0 68     0 120    0 056     0 120    0.000    820.30  30 00
 0.000285    367     627       767      3        0         0        0 00     205.00  235 00
CCHV=   0.300 CEHV=   0 500
*SECNO 13507 000
3470 ENCROACHMENT STATIONS=     240 0     440.0  TYPE=     1  TARGET=     200 000
        VALLEY SECTION R
13507.000    6 19    829 49    0 00     829 37   829 56    0.07     0 35     0 03    826 60
  980 0      23 3    304 0     652 8    34 1     91.5      513.3    126 7    36 5    825.80
   1.04      0 68    3 32      1 27     0 120    0 055     0 120    1.000    823.30  259 45
 0 001873    550     684       550      2        0         0        0 00     180 55  440 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 14107 000
2800 NAT Q1=     467 38  WSELK=     829 81  ENC Q1=     467 38  WSEL=     829 91  RATIO=   0 0000
NAT Q1=     479   RATIOS LOB, CH, ROB=   0 1482  0 7715  0.0803  WSEL=     829 91
3470 ENCROACHMENT STATIONS=      99.2     203.4  TYPE=     4  TARGET=      0 025
14107 000    9 62    829 92    0.00     829 81   829 98    0 07     0.42     0 00    823.30
  980.0      136 4   775 9     67 7     196.9    339 2     102 0    133 8    38 0    823 80
   1 12      0 69    2 29      0 66     0 120    0.055     0 120    0.000    820 30  99 19
 0 000439    390     600       440      2        0         0        0 00     104 18  203 38
*SECNO 14131 000
2800 NAT Q1=     107 68  WSELK=     829 72  ENC Q1=     107 68  WSEL=     829 82  RATIO=   0 0000
NAT Q1=     114   RATIOS LOB, CH, ROB=   0 1916  0 7034  0 1051  WSEL=     829 82
3470 ENCROACHMENT STATIONS=     109 8     196 1  TYPE=     4  TARGET=      0.058
14131 000    4 30    829 80    0.00     829.72   830 15    0 35     0 03     0 14    826.50
  980 0      169 7   732 1     78 2     81 8     136 5     38 8     134 0    38 1    826 50
   1 12      2 07    5 36      2 02     0 120    0 055     0.120    0 000    825 50  109 83
 0 008395    24      24        24       2        0         0        0.00     86 28   196 12
*SECNO 14132 000
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=   9 MIN ELTRD=   830 50 MAX ELLC=   830 60
3470 ENCROACHMENT STATIONS=     100 0     220 0  TYPE=     1  TARGET=     120 000
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        DOWNSTREAM FACE OF DAM
14132 000     4 00     829 50     829 07     829 34     830 47     0.97     0.01     0 31     826 50
   980 0      0 0      980 0      0 0        0 2        124 2      0 0      134 0    38 1     826 50
    1 12      0 15     7 89       0 00       0 095      0 022      0 000    0 000    825 50   100 00
 0 003607     1        1          1          4          16         0        -143 85  119 93   219 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
*SECNO 14142 000
3370 NORMAL BRIDGE, NRD=   9 MIN ELTRD=   830 50 MAX ELLC=   830 60
3470 ENCROACHMENT STATIONS=      10 0     430 0  TYPE=      1  TARGET=      420 000
        UPSTREAM FACE OF DAM
14142 000     4 14     829 64     829 08     829 60     830 52     0 89     0 03     0 02     826 50
   980 0      0.0      980 0      0 0        0 2        129 5      0 0      134 1    38 1     826 50
    1 12      0 13     7 57       0 00       0 095      0 022      0 000    0 000    825.50   68.94
 0 003150     10       10         10         4          12         0        -175 22  152 62   221 57
*SECNO 14143 000
3301 HV CHANGED MORE THAN HVINS
14143 000     5 07     830.57     0 00       830 56     830 74     0 17     0 00     0 22     826 50
   980 0      204 5    663 6      111 9      190 0      167 7      104 7    134.1    38 1     826 50
    1 12      1.08     3 96       1 07       0 095      0 040      0 095    0 000    825 50   47 66
 0 001837     1        1          1.         3          0          0        0 00     201 30   344.71
*SECNO 14685 000
3470 ENCROACHMENT STATIONS=      180 0    380.0  TYPE=      1  TARGET=      200 000
        VALLEY SECTION S
14685 000     7 56     831 46     0 00       831 45     831 63     0 18     0 89     0 00     825 30
   980 0      280 3    512 4      187 2      222 3      112 6      189 5    140 3    40 4     828 60
    1.17      1.26     4 55       0 99       0 095      0 040      0 095    0 000    823 90   180 00
 0 001439     672      542.       372        2          0          0        0 00     186 27   366.27
*SECNO 15197 000
2800 NAT Q1=     221 97  WSELK=     832 30  ENC Q1=     221 97  WSEL=     832.40  RATIO=   0 0000
NAT Q1=     273   RATIOS LOB, CH, ROB=   0 0664   0 6095   0 3241  WSEL=     832 40
3470 ENCROACHMENT STATIONS=      165.0    289 3  TYPE=      4  TARGET=      0 187
        VALLEY SECTION T
15197.000     8 57     832 37     0 00       832 30     832 64     0 27     0 96     0.04     828 70
   980.0      0 0      720 8      259 2      0 0        151 3      208 7    145 9    42.5     829.10
    1 21      0 00     4 76       1.24       0 000      0 045      0 095    0 000    823 80   165 00
 0.002287     580      512        570        2          0          0        0 00     124 34   289 34
   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 15372 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      150 0    200 0  TYPE=      1  TARGET=      50 000
15372 000     6 96     832 69     0 00       832.59     833 59     0 90     0 64     0 32     830 63
   980 0      34.0     913 6      32 4       20 9       116.0      19 5     146 8    42 8     831 03
    1.22      1 63     7 88       1 66       0 095      0 045      0 095    0.000    825 73   150 00
 0 007445     300      175.       120.       2          0          0        0 00     50 00    200 00
*SECNO 15412.000
3470 ENCROACHMENT STATIONS=      150 0    195 0  TYPE=      1  TARGET=      45 000
15412 000     6 79     832.95     0 00       832 86     833 97     1 02     0 32     0 06     831 06
   980 0      29 8     931 9      18 3       18 4       112 2      11 2     147 0    42 8     831 46
    1.22      1.62     8 30       1 64       0 095      0 045      0 095    0 000    826 16   150 00
 0 008635     40       40         40         2          0          0        0 30     45 00    195 00
*SECNO 15432 000
3470 ENCROACHMENT STATIONS=      159 0    194 0  TYPE=      1  TARGET=      35 000
15432 000     6 74     833 10     0 00       833.01     834 19     1 09     0 18     0 04     831 26
   980 0      16 8     947 5      15.7       9 5        111 2      9.5      147 0    42 8     831.66
    1 22      1 78     8 52       1 65       0 095      0 045      0.095    0 000    826 36   159.00
 0 009210     20       20         20         1          0          0        0 00     35 00    194 00
*SECNO 15452 000
3470 ENCROACHMENT STATIONS=      159 0    194 0  TYPE=      1  TARGET=      35.000
15452 000     6 71     833 27     0 00       833 17     834 38     1.11     0 19     0 01     831 46
   980 0      16.5     948.2      15 3       9 3        110 5      9 3      147 1    42 8     831 86
    1.22      1 78     8 58       1 64       0 095      0 045      0 095    0 000    826 56   159 00
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 0 009419      20       20       20        0        0        0    0 00    35 00   194 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 15472 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      835 50 ELREA=      835 50
 15472 000     7 12   833 92     0 00   833 89   834.64     0 72     0 15     0 12   828 70
    980 0      0 0    980 0      0 0      0 0    143.9      0 0    147 1     42.9   828 80
     1 22      0 00     6 81     0 00    0 000    0.045    0 000    0 000   826 80   395 00
 0 005871      20       20.      20        3        0        0     0 00    25 00   420 00
*SECNO 15473 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      835 50 ELREA=      835.50
        DOWNSTREAM FACE OF I-696
 15473 000     7 13   833 93     0 00   833 89   834 65    0.72     0 00     0.00   828 70
    980 0      0 0    980 0      0 0      0.0    144 1      0.0    147 1     42.9   828 80
     1 22      0 00     6 80     0 00    0 000    0 020    0.000    0 000   826 80   395 00
 0 001154       1        1        1        0        0        0     0 00    25 00   420 00
SPECIAL BRIDGE
SB  XK       XKOR     COFQ    RDLEN      BWC      BWP    BAREA       SS    ELCHU    ELCHD
    0 00     1 82     3 00     0 00    15 83     0 00   101 63     0 00   827.20   826 80
*SECNO 15651 000
PRESSURE FLOW
 EGPRS      EGLWC       H3    QWEIR      QPR    BAREA  TRAPEZOID     ELLC    ELTRD   WEIRLN
                                                          AREA
   836 56   835 06     0 00        0      980      102      106   833 90   842.90        0
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      842 90 ELREA=      842 90
        UPSTREAM FACE OF I-696
 15651 000     8 93   836 13     0 00   836.09   836 56    0 42     1 91     0 00   829 10
    980.0      0 0    980.0      0 0      0.0    188 2      0.0    147 8     43 0   829 40
     1 23      0.00     5 21     0 00    0.000    0 020    0.000    0 000   827 20   395.00
 0.000463      178      178      178        2        0        0     0 00    25.00   420 00
*SECNO 15652 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      842 90 ELREA=      842 90
 15652 000     8 94   836 14     0 00   836 09   836 56    0 42     0 00     0.00   829 10
    980 0      0.0    980.0      0 0      0 0    188 2      0.0    147 8     43.0   829 40
     1 23      0 00     5 21     0 00    0 000    0 050    0 000    0 000   827 20   395.00
 0 002898       1        1.       1        0        0        0     0 00    25 00   420 00
*SECNO 15655.000
3470 ENCROACHMENT STATIONS=      392 0     423 0  TYPE=      1  TARGET=      31 000
        VALLEY SECTION U
 15655 000     9 01   836 21     0 00   836 17   836 58    0 37     0 01     0 02   829.20
    980 0     41.7    884 6     53 7     32 4    173 2    39 2    147 8     43.0   829 20
     1 23      1 28     5 11     1 37    0 100    0 050    0.100    0 000   827 20   392.00
 0 001783       3        3        3        2        0        0     0 00    31.00   423 00
1490 NH CARD USED
*SECNO 16738 000
3470 ENCROACHMENT STATIONS=      171 0     441.0  TYPE=      1  TARGET=     270 000
        VALLEY SECTION V
 16738 000     7 48   837 38     0 00   837 32   837 41    0 03     0.73     0 10   833 40
    980 0     259 6    276 2    444 2    380 5    135 0   529.0    163 4     46 6   833 20
     1.49      0.68     2 05     0 84    0.085    0 045    0 090    0.000   829.90   171 00
 0 000358     1157     1083      957        3        0        0     0 00   270 00   441 00
*SECNO 17491 000
3301 HV CHANGED MORE THAN HVINS
   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=      370 0     465 0  TYPE=      1  TARGET=      95 000
 17491 000     6 02   837 82     0 00   837 71   838 43    0 60     0.73     0 29   837 30
    980 0     15 5    919.3     45.2     12 9    143 2    21 2    174.2     49 7   837 30
     1 52      1.20     6 42     2 13    0 080    0.050    0 040    0.000   831 80   370 00
 0 006878      603      753      903        2        0        0     0.00    82 89   452 89
*SECNO 17492.000
2800 NAT Q1=     147 48  WSELK=     837 68  ENC Q1=     147 76  WSEL=     837.78  RATIO=  -0 0019
NAT Q1=     153   RATIOS LOB, CH, ROB=  0 0189  0 9647  0 0164  WSEL=     837 78
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3470 ENCROACHMENT STATIONS=      388 0      412 0  TYPE=      4  TARGET=        0 035
          D/S FACE OF 12 MILE ROAD BRIDGE - LIMIT OF CHANNEL IMPROVEMENTS
 17492 000      5 96     837 76      0 00     837 68     838 50      0 74      0 01      0 07     837 30
     980 0      0 0      980 0       0 0       0 0       141.5       0 0      174 2     49.7 100000.00
      1 52      0 00      6 92      0 00      0 000      0 037      0 000     0 000    831.80     388 00
  0 004614        1         1         1          2          0          0      0 00     24.00     412 00
SPECIAL CULVERT
SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
   1          0 013     0 50      3 05      0 00      6.00      24 00     124 00    8         1         832 10    831 80
CHART  8 - BOX CULVERT WITH FLARED WINGWALLS, NO INLET TOP EDGE BEVEL
SCALE  1 - WINGWALLS FLARED 30 TO 75 DEGREES
*SECNO 17616 000
SPECIAL CULVERT OUTLET CONTROL
EGIC =     838 117   EGOC =     838 599   PCWSE=     837 759   ELTRD=     842 000
 2800 NAT Q1=      134 72   WSELK=      837 76   ENC Q1=      138 71   WSEL=      837.86   RATIO=   -0 0297
 NAT Q1=      139    RATIOS LOB, CH, ROB=    0 0000   0 9999   0 0000   WSEL=      837 86
SPECIAL CULVERT
    EGIC      EGOC      H4        QWEIR     QCULV     VCH       ACULV     ELTRD     WEIRLN
   838 12    838 60     0 09      0         980       7.271     144 0     842 00    0
3470 ENCROACHMENT STATIONS=      388 0      412 0  TYPE=      4  TARGET=        0 000
          UPSTREAM FACE OF 12 MILE ROAD 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
 17616 000      5 68     837 78      0 00     837 76     838 60      0 82      0 09      0 00     837 60
     980 0      0 0      980.0       0 0       0 0       134 8       0 0      174 6     49 8 100000.00
      1 53      0 00      7 27      0 00      0 000      0 037      0.000     0 000    832 10     388 00
  0.005315      124       124       124          2          0          0      0 00     24 00     412 00
*SECNO 17617.000
3470 ENCROACHMENT STATIONS=      380.0      420 0  TYPE=      1  TARGET=       40 000
 17617 000      5.68     837 78      0.00     837 77     838 60      0 82      0 01      0.00     837 60
     980 0      0.0      980 0       0.0       0 1       134 9       0.0      174.6     49 8      837 60
      1.53      0 01      7 27      0 02      0 075      0 036      0 065     0 000    832 10     387 27
  0 004948        1         1         1          0          0          0      0 00     25.25     412.52
*SECNO 17907 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      100.0      570 0  TYPE=      1  TARGET=     -100 000
 17907 000      6 44     839.24      0 00     839 23     839 55      0 31      0 79      0 15     842 80
     980 0      0 0      980.0       0 0       0 0       218 4       0 0      175 8     50 0      841.30
      1 55      0 00      4 49      0 00      0 000      0 036      0 000     0 000    832.80     204 04
  0.001732      260       290       260.         2          0          0      0.00     49 20     253 24
*SECNO 17908 000
3370 NORMAL BRIDGE, NRD=  18 MIN ELTRD=   841.30 MAX ELLC=   841 50
3470 ENCROACHMENT STATIONS=      100 0      570.0  TYPE=      1  TARGET=     -100 000
          DOWNSTREAM FACE OF FOOTBRIDGE
 17908 000      6 42     839 22      0 00     839 22     839 57      0 35      0.00      0 02     842 80
     980 0      0 0      980 0       0 0       0 0       207 6       0 0      175 8     50 0      841 30
      1 55      0 00      4 72      0 00      0 000      0 037      0 000     0.000    832 80     204 05
  0 003294        1.        1         1          1          0          0     -10.56     49 18     253 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
*SECNO 17913 000
3370 NORMAL BRIDGE, NRD=  18 MIN ELTRD=   841 30 MAX ELLC=   841 50
3470 ENCROACHMENT STATIONS=      100 0      570 0  TYPE=      1  TARGET=     -100 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      841 30 ELREA=      841 30
          UPSTREAM FACE OF FOOTBRIDGE
 17913 000      6.44     839 24      0 00     839 23     839 59      0 35      0 02      0.00     842 80
     980 0      0 0      980 0       0.0       0 0       207 8       0 0      175 8     50 0      841.30
      1 55      0 00      4.72      0.00      0 000      0 037      0.000     0 000    832 80     204.05
  0.003288        5.        5         5          0          0          0     -10 57     49 19     253.24
*SECNO 17914 000
 2800 NAT Q1=      239.33   WSELK=      839 29   ENC Q1=      246 84   WSEL=      839 39   RATIO=   -0 0314
 NAT Q1=      247.   RATIOS LOB, CH, ROB=    0 0000   1.0000   0.0000   WSEL=      839.39
3470 ENCROACHMENT STATIONS=      200 0      256 0  TYPE=      4  TARGET=        0 000
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17914 000      6 50    839 30     0 00    839 29    839 60     0.30     0 00     0 01    842.80
   980 0       0 0     980 0      0 0      0 0      221 3      0.0     175 8     50 0 100000 00
   1 55        0 00    4 43       0 00     0 000    0 036     0 000    0 000    832 80    203 92
 0 001670      1       1          1.       2        0         0        0 00     49 45     253 37
*SECNO 18282 000
2800 NAT Q1=     280 92  WSELK=     839 91  ENC Q1=     289 51  WSEL=     840 01  RATIO=  -0 0306
NAT Q1=     290   RATIOS LOB, CH, ROB=  0.0005  0 9995  0.0000  WSEL=     840 01
3470 ENCROACHMENT STATIONS=     456 0     529 0  TYPE=     4  TARGET=     0 000
        VALLEY SECTION TAKEN FROM OCRC PLANS FOR CHANNEL IMPROVEMENT
18282 000      6 92    839 92     0 00    839 91    840 14     0 23     0 52     0 02    842 60
   980 0       0 0     980 0      0 0      0.0      257 2      0 0     177 9     50 5     842.60
   1 57        0 00    3 81       0 00     0 000    0 036     0 000    0 000    833 00    463 82
 0 001214      315     368        315      2        0         0        0 00     57 36     521.18
   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 18412 000
2800 NAT Q1=     297 13  WSELK=     840 09  ENC Q1=     304 77  WSEL=     840 19  RATIO=  -0.0257
NAT Q1=     306   RATIOS LOB, CH, ROB=  0 0054  0.9946  0 0000  WSEL=     840 19
3470 ENCROACHMENT STATIONS=     456 0     529 0  TYPE=     4  TARGET=     0 005
18412.000      7 09    840 09     0 00    840 09    840 30     0 21     0.15     0 00    842 60
   980 0       0 0     980 0      0 0      0.0      267 1      0 0     178 7     50 7     842 60
   1.58        0 00    3 67       0 00     0 000    0 036     0 000    0 000    833 00    463 32
 0.001096      130     130.       130      2        0         0        0 00     58 36     521 68
1490 NH CARD USED
*SECNO 18447 000
1530 MANNINGS N VALUES FOR CHANNEL COMPOSITED
2600 NAT Q1=     152 66  WSELK=     840 32  ENC Q1=     153 87  WSEL=     840 42  RATIO=  -0.0080
NAT Q1=     158.  RATIOS LOB, CH, ROB=  0 0283  0.9717  0 0000  WSEL=     840 42
3470 ENCROACHMENT STATIONS=     465 0     520 0  TYPE=     4  TARGET=     0.028
        VALLEY SECTION W
18447 000      7 72    840 32     0.00    840 32    840.38     0 06     0.04     0 04    842.60
   480 0       0.0     480.0      0 0      0 0      239 6      0 0     178 9     50 7     842.60
   1 59        0 00    2 00       0 00     0 000    0 067     0 000    0 000    832 60    469 10
 0 001025      35      35         35       2        0         0        0 00     46 86     515 96
*SECNO 19134 000
3470 ENCROACHMENT STATIONS=     475 0     532 0  TYPE=     1  TARGET=     57 000
        DOWNSTREAM FACE OF KENDALLWOOD ROAD
19134 000      9 93    840 63     0 00    840 63    840.69     0 05     0.31     0 00    843 00
   480 0       0 0     480 0      0.0      0 0      257 7      0 0     182 8     51 4     843 00
   1 69        0 00    1 86       0 00     0 000    0 040     0.000    0.000    830 70    487 41
 0 000247      707     687        667      2        0         0        0 00     38.28     525 69
   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 CULVERT
5105, VARIABLE ELCHU ON SC CARD NOT SPECIFIED
SC  CUNO       CUNV    ENTLC      COFQ     RDLEN    RISE      SPAN     CULVLN   CHRT     SCL      ELCHU    ELCHD
   2           0 030   0 50       1 00     0 00     7 30      0 00     203 00   2        2        830 70   830.70
CHART  2 - CORRUGATED METAL PIPE CULVERT
SCALE  2 - MITERED TO CONFORM TO SLOPE
*SECNO 19337 000
SPECIAL CULVERT OUTLET CONTROL + WEIR FLOW EG =     842 45
SPECIAL CULVERT
   EGIC        EGOC    H4         QWEIR    QCULV    VCH       ACULV    ELTRD    WEIRLN
   836 74      842 62  1 76       16       459      2 361     83 7     842 20   180
3470 ENCROACHMENT STATIONS=     490.0     520 0  TYPE=     1  TARGET=     30 000
        UPSTREAM FACE OF KENDALLWOOD ROAD
19337 000      10 76   842 36     0 00    842.39    842 45     0 09     1 76     0.00    843.30
   480.0       0.0     480 0      0 0      0 0      203.3      0 0     183 9     51 5     843.30
   1.71        0.00    2 36       0.00     0 000    0.040     0.000    0 000    831 60    495.70
 0 000535      203     203        203      2        0         0        0 00     20 60     516.30
CCHV=    0 300 CEHV=    0 500
*SECNO 19338 000
3470 ENCROACHMENT STATIONS=     460.0     570 0  TYPE=     1  TARGET=     110 000
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19338 000     10 77     842 37     0 00     842 39     842.45     0 09     0 00     0 00     843 30
   480 0      0 0       480 0      0 0      0 0        203.3      0.0      183 9    51 5     843 30
    1 71      0 00      2 36       0 00     0 000      0 046      0 000    0 000    831 60   495 70
 0 000707     1         1          1        0          0          0        0 00     20 60    516 30
*SECNO 20151 000
3470 ENCROACHMENT STATIONS=      250 0     310 0  TYPE=      1  TARGET=      60 000
        VALLEY SECTION X
20151.000     6 28      843.28     0 00     843 29     843 43     0 16     0 95     0 03     837 10
   480 0      206 8     273 2      0 0      100 8      72 0       0 0      187 4    52 2     843 80
    1 79      2 05      3 80       0 00     0 075      0 046      0 000    0 000    837 00   250 00
 0 002184     865       813        665      2          0          0        0 00     49 24    299 24
   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 20631 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      215 0     250 0  TYPE=      1  TARGET=      35 000
        VALLEY SECTION Y
20631 000     5 33      844 83     0 00     844 82     845 70     0.87     1 91     0.36     841 80
   480 0      34 8      410.0      35 2     16 7       50 8       16 1     188 8    52 6     842 30
    1 81      2.08      8 07       2 19     0 090      0 045      0 090    0.000    839 50   218 93
 0 009577     465       480        495      3          0          0        0 00     31 07    250 00
*SECNO 21060.000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      295 0     312 0  TYPE=      1  TARGET=      17 000
21060 000     7 48      847 68     0 00     847 66     848.03     0 34     2 17     0 16     848 00
   480.0      0 0       480.0      0 0      0.0        102.2      0 0      189 7    52 8     848 00
    1 83      0.00      4 70       0 00     0 000      0.037      0 000    0 000    840 20   295 70
 0 003112     429       429.       429.     2          0          0        0 00     16 00    311 70
*SECNO 21061 000
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  20 MIN ELTRD=   847 20 MAX ELLC=   846 40
   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=      220 0     360 0  TYPE=      1  TARGET=     140 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      848 00 ELREA=      848 00
        DOWNSTREAM FACE OF HEARTHSTONE STREET BRIDGE
21061.000     7 20      847 40     0 00     847 38     848 32     0 92     0 01     0 29     848 00
   480 0      0 0       480 0      0 0      0 0        62 3       0 0      189 7    52 8     848 00
    1 83      0 00      7 71       0.00     0 000      0 032      0 000    0 000    840 20   295 71
 0.016920     1.        1          1        2          0          0        -35.40   15 99    311.70
*SECNO 21111 000
3280 CROSS SECTION  21111 00 EXTENDED      0 98 FEET
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  20 MIN ELTRD=   847 20 MAX ELLC=   846.40
3470 ENCROACHMENT STATIONS=      220.0     360.0  TYPE=      1  TARGET=     140 000
        UPSTREAM FACE OF HEARTHSTONE STREET BRIDGE
21111 000     8 38      848 78     0 00     848.77     848.89     0 11     0 33     0 24     848.00
   480 0      136 9     239 7      103 4    68.1       76 3       48 3     189 9    52 9     848.00
    1 84      2 01      3 14       2 14     0 040      0 032      0 040    0 000    840.40   220 00
 0 003433     50        50         50       5          0          0        -41 94   140 00   360 00
*SECNO 21112 000
3280 CROSS SECTION  21112 00 EXTENDED      0 96 FEET
3470 ENCROACHMENT STATIONS=      220 0     360 0  TYPE=      1  TARGET=     140 000
21112 000     8 36      848 76     0 00     848 75     848 92     0.16     0 00     0 02     848 00
   480 0      42 8      404 8      32 4     66 6       117 9      47.3     189 9    52 9     848 00
    1 84      0 64      3 43       0 69     0 085      0 040      0 085    0 000    840.40   220 00
 0 001631     1         1          1        2          0          0        0 00     140 00   360 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 21737.000
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```
2800 NAT Q1=     207 32  WSELK=     849 39  ENC Q1=     207 32  WSEL=     849 49  RATIO=    0 0000
NAT Q1=     251   RATIOS LOB, CH, ROB=   0 0246  0 8205  0 1549  WSEL=     849 49
3280 CROSS SECTION  21737 00 EXTENDED      1 92 FEET
3470 ENCROACHMENT STATIONS=      255 0     300 2  TYPE=      4  TARGET=       0.174
        VALLEY SECTION Z
21737 000      6 82    849 42      0 00    849 39    849 51      0 09      0 58      0 02    847 70
    480 0      0 0     477 0       3 0       0 0     198 2       6 1     193 0      54 3    847 40
     1 91      0 00      2 41      0 49     0 000     0 040     0 085     0 000    842 60    255 00
 0 000591      602       625       642         2         0         0      0 00     45 20    300 20
*SECNO 22067 000
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130 000
22067 000      5.68    849 68      0 00    849 63    849 79      0 10      0 27      0.01    846 90
    480 0    149 4     287 1      43 5     132 2      88 9      58 8     194 9      54 8    846.80
     1 95     1.13      3 23      0 74     0 085     0 040     0 085     0 000    844.00    250 00
 0.001102      400       330       300         2         0         0      0 00    103 39    353.39
*SECNO 22068 000
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130.000
        DOWNSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE
22068 000      5 75    849 75      0 00    849 70    849 80      0 05      0 00      0 02    846.90
    480 0    211 5     205 6      63 0     135 2      89 9      61.5     194 9      54 8    846 80
     1 95     1 56      2 29      1 02     0 035     0 032     0 035     0 000    844 00    250 00
 0 000348        1         1        1.         2         0         0      0 00    104 32    354 32
   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 71      3 05      0 00      8 28      0 00      60 00     0 00      844 00  844.00
*SECNO 22114 000
3280 CROSS SECTION  22114 00 EXTENDED      0 52 FEET
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID ELLC      ELTRD     WEIRLN
                                                            AREA
    852 44   852 31    0.00      220       261       60        44        849 30    849.90    190.
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130 000
        UPSTREAM FACE OF NOTTINGWOOD ROAD BRIDGE
22114 000      6.52    850 52      0 00    850.51    850 55      0 02      0 75      0.00    846 90
    480 0    214 9     144 4     120 7     171 2      97 9     137 4     195 3      55 0    846 80
     1 96     1 26      1 47      0 88     0 035     0 032     0 035     0.000    844 00    250 00
 0.000167       46        46       46.         2         0         4      0 00    130 00    380 00
*SECNO 22115 000
3280 CROSS SECTION  22115 00 EXTENDED      0 52 FEET
3470 ENCROACHMENT STATIONS=      250 0     380 0  TYPE=      1  TARGET=      130 000
22115 000      6 52    850 52      0 00    850 51    850 55      0 03      0 00      0 00    846 90
    480 0    190 0     183 3     106 7     171 2      97.9     137 4     195.3      55 0    846 80
     1 96     1.11      1 87      0 78     0 055     0 035     0 055     0.000    844.00    250 00
 0.000322        1        1.         1         0         0         0      0 00    130 00    380 00
*SECNO 22455 000
2800 NAT Q1=     243.87  WSELK=     850 61  ENC Q1=     243.87  WSEL=     850 71  RATIO=    0 0000
NAT Q1=     256.   RATIOS LOB, CH, ROB=   0 1197  0 6676  0 2127  WSEL=     850 71
3280 CROSS SECTION  22455 00 EXTENDED      0 33 FEET
   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=      197.1     266 7  TYPE=      4  TARGET=        0 046
        VALLEY SECTION AA
22455 000      7 12    850 62      0 00    850 61    850 70      0 08      0 12      0 02    847 50
    480 0     47 5     338 1      94 3      49 9     131 2      84 3     197 9      55.7    846 50
     2 01     0 95      2 58      1 12     0 055     0 035     0 055     0.000    843.50    197 08
 0 000412      340       340      340.         1         0         0      0 00     69 62    266 70
*SECNO 22755 000
2800 NAT Q1=     133 37  WSELK=     850 74  ENC Q1=     133 37  WSEL=     850 84  RATIO=    0 0000
NAT Q1=     140   RATIOS LOB, CH, ROB=   0.0258  0 8045  0 1697  WSEL=     850 84
3470 ENCROACHMENT STATIONS=      199 3     239 8  TYPE=      4  TARGET=        0 049
        VALLEY SECTION AB
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22755 000	5 95	850 75	0.00	85	74	850.98	0 23	0.21	0.07
480 0	0 4	408 0	71 7		7	99 7	42 4	199.3	56 1
2 03	0 56	4 09	1 69	0	55	0 035	0 055	0 000	844 80
0 001393	300	300	300.		2	0	0	0 00	40 5
*SECNO 23200 000									
2800 NAT Q1=	146 55	WSELK=	851 36	E	Q1=	146 55	WSEL=	851.46	RATIO=
NAT Q1=	311	RATIOS LOB, CH, ROB=		0 69	0 1817	0 1220	WSEL=	851.46	
3470 ENCROACHMENT STATIONS=			357 5	47	TYPE=	4	TARGET=	0 529	
VALLEY SECTION AC									
23200 000	6 07	851 47	0 00	85	6	851 53	0 06	0 50	0 05
420 0	276 0	144 0	0 0		7	50 0	0 0	201 4	56 9
2 10	1 29	2 88	0 00	0	5	0 035	0 000	0 000	845 40
0 000926	435	445	425			0	0	0 00	115.47
*SECNO 23500 000									
3470 ENCROACHMENT STATIONS=			485 0	565	TYPE=	1	TARGET=	80 000	
23500 000	5 45	851 75	0.00	85.		851 89	0 14	0 32	0 0
420 0	78 6	259 1	82 3			72 6	52 7	202 9	57.5
2 12	1 53	3 57	1 56	0		0 035	0 055	0 000	846 30
0 001231	300	300	300.			0	0	0 00	64.88
SECNO	DEPTH	CWSEL	CRIWS	WS		EG	HV	HL	OLOSS
Q	QLOB	QCH	QROB	AL		ACH	AROB	VOL	TWA
TIME	VLOB	VCH	VROB	XN		XNCH	XNR	WTN	ELMIN
SLOPE	XLOBL	XLCH	XLOBR	IT		IDC	ICONT	CORAR	TOPWID
*SECNO 23501 000									
3470 ENCROACHMENT STATIONS=			485 0	565.		R=	1 TARGET=	80 000	
DOWNSTREAM FACE OF CHESTERBROOK STREE						DGE			
23501 000	5 50	851 80	0 00	851		851 90	0 10	0 00	0 01
420 0	99 1	217.3	103 6	5		73 4	54 0	202 9	57 5
2 12	1 88	2 96	1 92	0		0 033	0 035	0.000	846.30
0 000742	1	1	1.			0	0	0.00	65.49
SPECIAL BRID E									
SB XK	KOR	COFQ	RDLEN	BWC		BWP	BAREA	SS	ELCHD
0 00	2.98	3 05	0.00	10		0 00	48.00	0 00	846.30
*SECNO 235	0								
PRESS FLO	AUSE EGLWC OF		858.92	EXCEED		PTH			
PRESSURE A	R FLOW, Weir Submergence Based					PEZOIDAL Shape			
EGPRS	C	H3	QWEIR	QPR		BAREA	TRAPEZOID AREA	ELLC	ELTRL
855 23	92	0.00	117	3		48	50	851 20	852 9
3470 ENCROA	STATIONS=		485 0	565 0		=	1 TARGET=	80 000	
U	M FACE OF CHESTERBROOK STREET E								
23548 000	26	853 56	0.00	853		853.59	0 03	1 69	0 00
420.0	3.3	172.2	124 5	10		300 4	106 4	203 2	57 6
2 13	18	1 71	1 17	0 0		0 033	0 035	0 000	846.30
0 000164	7	47	47			0	4	0 00	80.00
*SECNO 2354									
3470 ENCROAC	STATIONS=		485 0	565 0			1 TARGET=	80 000	
23549 000	26	853 56	0 00	853		53 60	0 04	0 00	0 00
420 0	5	207 9	111 7	104		100 4	106 4	203 2	57.6
2.13	6	2 07	1 05	0 0		0 035	0.050	0 000	846.30
0.000268		1	1			0	0	0 00	80.00
SECNO		CWSEL	CRIWS	WSELF			HV	HL	OLOSS
Q		QCH	QROB	ALOB			AROB	VOL	TWA
TIME		VCH	VROB	XNL			XNR	WTN	ELMIN
SLOPE		XLCH	XLOBR	ITRIA			ICONT	CORAR	TOPWID
*SECNO 23875									
2800 NAT Q1=	1 05	WSELK=	853 62	ENC		391 05	WSEL=	853 72	RATIO=
NAT Q1=	RATIOS LOB, CH, ROB=			0 4012		0 2599	WSEL=	853.72	
3470 ENCROACH	TIONS=		180 8	350 3		4	TARGET=	0.101	
VALL	TION AD								
23875 000		853.65	0 00	853 62		66	0 02	0 06	0.01
420 0		160 2	96 6	259 1		4	160 4	206 4	58.6
2 23		1.44	0.60	0 055		035	0 050	0 000	847.20
0 000123		326	276.	2		0	0	0 00	169.49
*SECNO 24240 0									
2800 NAT Q1=		40 WSELK=	853.61	ENC Q		113.40	WSEL=	853.71	RATIO=
NAT Q1=	12	RATIOS LOB, CH, ROB=		0 0339		0.1126	WSEL=	853 71	

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3470 ENCROACHMENT STATIONS=      146 2     177 8  TYPE=      4  TARGET=       0 043
          VALLEY SECTION AE
24240 000      6 03     853 63      0 00     853 61     853 89      0 26      0 11      0 12     852 30
    420 0      4 7      376 6      38 7       4 7       87 7      24 1     209 1      59 4     850 80
     2 26      1 00      4 29      1 60      0 055     0 035     0 055     0 000    847 60     146 18
 0 001460      375       365       375         2         0         0      0 00     31 59     177 77
*SECNO 24330 000
2800 NAT Q1=     180 39  WSELK=     853 91  ENC Q1=     180 39  WSEL=     854 01  RATIO=   0 0000
NAT Q1=     188   RATIOS LOB, CH, ROB=   0 2334  0 5028  0 2638  WSEL=     854 01
3470 ENCROACHMENT STATIONS=      433 8     486.6  TYPE=      4  TARGET=       0 040
24330 000      6 46     853 96      0 00     853 91     854 03      0 07      0 08      0 06     849.00
    420 0     93 1      220 5     106 5      66 7      83 4      74 3     209 5      59 5     848 70
     2 27      1 40      2 64      1 43      0 055     0 035     0.055     0 000    847 50     433 82
 0 000562      90        90        90         2         0         0      0 00     52 73     486.55
    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 24331 000
2800 NAT Q1=     225 86  WSELK=     853 93  ENC Q1=     225 86  WSEL=     854 03  RATIO=   0 0000
NAT Q1=     236   RATIOS LOB, CH, ROB=   0 2801  0 4035  0 3164  WSEL=     854 03
3470 ENCROACHMENT STATIONS=      433 3     487 0  TYPE=      4  TARGET=       0 042
          DOWNSTREAM FACE OF BANNOCKBORN STREET BRIDGE
24331 000      6 48     853.98      0 00     853.93     854.03      0 05      0 00      0 01     849 00
    420 0    113 3      177 4     129 3      68 2      83 8      75.9     209 5      59 5     848.70
     2 27      1 66      2 12      1 70      0.037     0.035     0 037     0 000    847 50     433 34
 0 000359       1         1         1         2         0         0      0.00     53 69     487 03
SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    0 00      3 45      3 05      0 00      9 78      0 00      44 00     0 00     847 50     847 50
*SECNO 24401.000
2800 NAT Q1=     362 54  WSELK=     855 03  ENC Q1=     362 54  WSEL=     855 13  RATIO=   0 0000
NAT Q1=     501.  RATIOS LOB, CH, ROB=   0 3084  0 2557  0 4360  WSEL=     855 13
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION  24401 00 EXTENDED      0 08 FEET
3470 ENCROACHMENT STATIONS=      435.1     542 0  TYPE=      4  TARGET=       0 276
          UPSTREAM FACE OF BANNOCKBORN STREET BRIDGE
24401 000      7 58     855.08      0 00     855 03     855 10      0 02      0 01      0 01     849 00
    420 0     98 8      149 8     171 5      82 6     100 2     175.1     210 0      59 6     848 70
     2 29      1 20      1 49      0 98      0 037     0.035     0 037     0 000    847 50     435 06
 0 000141      70        70        70         0         0         4      0 00    106 97     542 03
*SECNO 24402.000
2800 NAT Q1=     288.43  WSELK=     855 03  ENC Q1=     288.43  WSEL=     855.13  RATIO=   0 0000
NAT Q1=     381   RATIOS LOB, CH, ROB=   0 2714  0.3452  0.3834  WSEL=     855 13
3280 CROSS SECTION  24402 00 EXTENDED      0 08 FEET
3470 ENCROACHMENT STATIONS=      435 2     540 8  TYPE=      4  TARGET=       0 243
24402 000      7 57     855 07      0 00     855 03     855 10      0 03      0 00      0 00     849 00
    420 0     82 8      193 2     144.0      82.2     100.2     173 8     210 0      59 6     848 70
     2 29      1.01      1.93      0 83      0 055     0 034     0.055     0 000    847 50     435.18
 0 000221       1         1         1         0         0         0      0 00    105 63     540 81
    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 24552 000
2800 NAT Q1=     158 80  WSELK=     855 04  ENC Q1=     163.84  WSEL=     855 14  RATIO=  -0 0317
NAT Q1=     164   RATIOS LOB, CH, ROB=   0 0000  1 0000  0 0000  WSEL=     855 14
3470 ENCROACHMENT STATIONS=      320.0     355 0  TYPE=      4  TARGET=       0.000
          VALLEY SECTION AF
24552 000      6 78     855 08      0 00     855 04     855 20      0 12      0.05      0 04     855 10
    420 0      0 0      420 0      0 0       0 0      152.9      0 0     210 9      59 9     855 10
     2.30      0 00      2 75      0 00      0 000     0 034     0.000     0 000    848 30     320 00
 0.000683     150       150       150         2         0         0      0 00     34 95     354 95
*SECNO 24664.000
3470 ENCROACHMENT STATIONS=      272 0     350 0  TYPE=      1  TARGET=      78 000
24664.000      6 96     855.16      0.00     855 11     855 35      0 20      0 11      0 04     854.10
    420 0     26 8      344.5      48 7      24 8      88 5      41 8     211 3      60 0     854 10
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    2 31      1 08      3 89      1 16      0 055     0 034     0 055     0 000     848 20    272.00
 0 001698     113       112       113         2         0         0       0.00      78 00    350 00
*SECNO 24665 000
3370 NORMAL BRIDGE, NRD=  19 MIN ELTRD=   853 90 MAX ELLC=   853 10
3470 ENCROACHMENT STATIONS=      272 0     350 0  TYPE=      1  TARGET=      78 000
          DOWNSTREAM FACE OF GLEN ARDEN STREET BRIDGE
 24665 000     6 99     855 19     0 00     855 14    855 36     0 17      0.00      0 01    854 10
    420 0     76 1      206 5     137 3      25 6      58 0      43 1     211.3      60 0    854 10
    2 31      2 97      3 56      3 19     0 035     0 033     0 035     0 000     848 20    272 00
 0 004971       1         1         1         2         0         0     -31 05      78 00    350.00
   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 24735 000
3370 NORMAL BRIDGE, NRD=  19 MIN ELTRD=   853 90 MAX ELLC=   853 10
3470 ENCROACHMENT STATIONS=      272.0     350 0  TYPE=      1  TARGET=      78 000
          UPSTREAM FACE OF GLEN ARDEN STREET BRIDGE
 24735 000     7 31     855 51     0 00     855 49    855 63     0 12      0 25      0 02    854 10
    420 0     89 0      176 1     154 9      33 8      62 8      55 4     211 5      60 2    854 10
    2 32      2 64      2 80      2.80     0 035     0 033     0.035     0 000     848 20    272.00
 0 002761      70        70        70         2         0         0     -31 05      78 00    350 00
*SECNO 24736 000
3470 ENCROACHMENT STATIONS=      272 0     350 0  TYPE=      1  TARGET=      78 000
 24736 000     7 31     855 51     0 00     855 49    855 64     0 13      0 00      0.01    854 10
    420 0     41 5      312 8      65 7      33 9      93.9      55 6     211 5      60 2    854 10
    2 32      1 23      3 33      1 18     0 050     0 035     0 055     0 000     848 20    272 00
 0 001216       1         1         1.         0         0         0      0 00      78 00    350 00
1490 NH CARD USED
*SECNO 25056 000
 2800 NAT Q1=     146 66  WSELK=     855 80  ENC Q1=     146 66  WSEL=     855 90  RATIO=   0 0000
 NAT Q1=     154.  RATIOS LOB, CH, ROB=   0 0225  0 9375  0 0399  WSEL=     855 90
3470 ENCROACHMENT STATIONS=      699 0     732 6  TYPE=      4  TARGET=       0 046
          VALLEY SECTION AG
 25056 000     6 53     855 83     0 00     855 80    855 99     0 17      0 33      0 02    854 80
    420 0      0 0      413 1      6 9       0 0      124 7      7 8     212 6      60 6    854 30
    2 35      0 00      3 31      0 89     0 000     0 034     0 055     0 000     849 30    699 00
 0 000910     320       320       320.         0         0         0      0 00      33 59    732 59
*SECNO 25531 000
 2800 NAT Q1=     116 80  WSELK=     856 27  ENC Q1=     120.40  WSEL=     856 37  RATIO=  -0 0308
 NAT Q1=     121   RATIOS LOB, CH, ROB=   0 0000  0 9952  0 0048  WSEL=     856 37
3470 ENCROACHMENT STATIONS=      716 0     750 0  TYPE=      4  TARGET=       0 005
          VALLEY SECTION AH
 25531.000     6 33     856 33     0 00     856 27    856 51     0 17      0 51      0.00    858 40
    420 0      0 0      420 0      0 0       0 0      125 7      0 0     214 1      60 9    855.70
    2 38      0 00      3.34      0 00     0 000     0 038     0 000     0 000     850.00    719 45
 0 001287     472       475.      472         0         0         0      0 00      30 55    750 00
*SECNO 26053 000
3470 ENCROACHMENT STATIONS=      865 0     929 0  TYPE=      1  TARGET=       64 000
          VALLEY SECTION AI
 26053 000     5 24     857 14     0 00     857 10    857 36     0 22      0 83      0 02    858.20
    420 0      0 0      416 8      3 2       0 0      111 4      5 0     215 5      61 4    856 40
    2 42      0 00      3 74      0 63     0 000     0 038     0.055     0 000     851 90    877.77
 0 002021     502       522       572.         2         0         0      0.00      47 72    925 49
*SECNO 26228.000
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      858 00 ELREA=      858.00
 26228 000     4 75     857 46     0 00     857 43    857 67     0 21      0 31      0.00    855 00
    420 0      0 0      420 0      0 0       0.0      114 6      0 0     216 0      61.5    854 50
    2 44      0 00      3 67      0 00     0 000     0 038     0 000     0 000     852 70    485.00
 0 001538     175       175       175         2         0         0      0 00      30.00    515 00
*SECNO 26229 000
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      858 00 ELREA=      858 00
          DOWNSTREAM FACE OF FARMINGTON ROAD BRIDGE
 26229 000     4 76     857.46     0 00     857 43    857 67     0 21      0 00      0 00    855.00
    420 0      0 0      420 0      0.0       0 0      114 6      0 0     216 0      61 5    854 50
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    2 44      0 00      3.66      0 00      0 000     0 037     0 000     0 000     852 70    485 00
 0 001456       1         1.        1         0         0         0       0 00      30 00    515 00
SPECIAL BRIDGE
SB  XK        XWOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    0 00      2 73      3 04      0 00      7 83      0 00      51 00     0 00      852 70    852 70
*SECNO 26297 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
6070,LOW FLOW BY NORMAL BRIDGE
EGPRS=      0 000  EGLWC=     857 672  ELLC=     858 300  PCWSE=     857 463  ELTRD=     860 000
3301 HV CHANGED MORE THAN HVINS
3370 NORMAL BRIDGE, NRD=  12 MIN ELTRD=   860 00 MAX ELLC=   858 30
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      860 10 ELREA=      860 10
         UPSTREAM FACE OF FARMINGTON ROAD BRIDGE
 26297 000     4 47      857 17    856 02    857 14    858 53      1 36      0 28      0 58    855 00
   420 0       0 0       420 0     0.0       0 0       44 9      0 0       216 1     61 6      854 50
    2 44       0.00      9 35      0 00      0 000     0 037     0 000     0 000     852 70    485.00
 0 044465      68        68        68.       4         19        0       -110 87     30 00    515 00
*SECNO 26298 000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      430 0     590 0  TYPE=      1  TARGET=      160 000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      860 10 ELREA=      860 10
 26298 000     6 09      858 79    0 00      858 78    858 91      0 11      0 00      0 37    855 00
   420.0       0 0       420 0     0 0       0 0       154 4     0 0       216 1     61 6      854 50
    2 44       0 00      2 72      0 00      0 000     0 037     0.000     0 000     852 70    485 00
 0 000539      1.        1         1         3         0         0       0 00      30.00    515 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 26578 000
3470 ENCROACHMENT STATIONS=       65 0     370 0  TYPE=      1  TARGET=      305 000
         VALLEY SECTION AJ
 26578 000     6 31      859 11    0 00      859 10    859 27      0 16      0 34      0 02    855 00
   1020 0      442.3     334 0     243 7     245 7     66 8      139 4     218 1     62 4      855 30
    2 47       1 80      5 00      1.75      0.057     0.038     0 057     0 000     852 80     69 85
 0 001909      280       280.      280       4         0         0       0 00      226 42   296 27
*SECNO 27005 000
3280 CROSS SECTION  27005 00 EXTENDED      0 22 FEET
3470 ENCROACHMENT STATIONS=      750 0    1100 0  TYPE=      1  TARGET=      350.000
 27005.000     5 42      859 72    0.00      859 71    859 75      0 03      0 45      0 04    857 00
   1020 0      464 5     217 8     337 7     417 6     94 1      300 9     224.4     65.3      857.10
    2.56       1.11      2 32      1 12      0 057     0 038     0 057     0 000     854.30    750 00
 0 000635      450       427       427.      2         0         0       0 00      350 00   1100 00
*SECNO 27006 000
3280 CROSS SECTION  27006 00 EXTENDED      0 22 FEET
3370 NORMAL BRIDGE, NRD=  23 MIN ELTRD=   857 00 MAX ELLC=   856.50
3470 ENCROACHMENT STATIONS=      750 0    1100 0  TYPE=      1  TARGET=      350 000
         DOWNSTREAM FACE OF FOOTBRIDGE
 27006 000     5 43      859 73    0 00      859 72    859 75      0 03      0.00      0 00    857 00
   1020 0      529 7     140 2     350 1     417 9     80 9      301 1     224.4     65.3      857 10
    2 56       1 27      1.73      1 16      0 050     0 025     0 055     0 000     854 30    750 00
 0 000634      1         1         1         0         0         0       -13 20      350 00   1100 00
*SECNO 27009 000
3280 CROSS SECTION  27009 00 EXTENDED      0.22 FEET
   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=  23 MIN ELTRD=   857.00 MAX ELLC=   856 50
3470 ENCROACHMENT STATIONS=      825 0    1025 0  TYPE=      1  TARGET=      200 000
         UPSTREAM FACE OF FOOTBRIDGE
 27009 000     5.41      859 71    0.00      859 73    859 78      0 07      0 00      0 02    857 00
   1020 0      544 3     209 2     266 5     275.1     80 9      150 6     224 5     65 4      857 10
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    2 56      1 98      2 58      1 77      0 050     0 025     0 055     0 000     854.30    825 00
 0 001409      3         3         3         1         0         0       -13 20    200 00    1025 00
*SECNO 27010 000
3280 CROSS SECTION  27010 00 EXTENDED      0 21 FEET
3470 ENCROACHMENT STATIONS=      825 0    1025 0  TYPE=      1  TARGET=      200 000
 27010 000     5 40     859 70     0 00     859 72    859 78     0 08      0 00      0 01     857 00
   1020 0     464 5     305 2     250 3     274 1      93 9     150 0     224 5      65 4     857 10
    2 56      1 69      3 25      1 67      0 052     0 036     0 052     0 000     854 30    825 00
 0 001124      1         1         1         0         0         0         0 00      200 00    1025 00
*SECNO 27581 000
3280 CROSS SECTION  27581 00 EXTENDED      0.45 FEET
3470 ENCROACHMENT STATIONS=      175 0    500 0  TYPE=      1  TARGET=      325 000
 27581 000     4 95     860 15     0 00     860 02    860 18     0 03      0 37      0 02     857 90
   1020 0     227 7     119 9     672 4     267 3      62 7     532 9     234 0      69 0     857 90
    2 69      0 85      1 91      1 26      0 052     0 036     0 052     0 000     855.20    175 00
 0 000404     600       571       600         2         0         0         0 00      325 00    500 00
*SECNO 27582 000
3280 CROSS SECTION  27582 00 EXTENDED      0 45 FEET
    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=  13 MIN ELTRD=   856 20 MAX ELLC=   857 30
3470 ENCROACHMENT STATIONS=      175 0    500 0  TYPE=      1  TARGET=      325 000
          DOWNSTREAM FACE OF FOOTBRIDGE
 27582 000     4 95     860 15     0 00     860 03    860 18     0 02      0 00      0 00     857 90
   1020 0     237 2      83 3     699 5     267 9      53 0     533 6     234 0      69 0     857 90
    2 69      0 89      1 57      1 31      0.050     0 022     0 050     0 000     855 20    175.00
 0.000402      1         1         1         0         0         0        -9 75    325.00    500 00
*SECNO 27585.000
3280 CROSS SECTION  27585 00 EXTENDED      0 45 FEET
3370 NORMAL BRIDGE, NRD=  13 MIN ELTRD=   856 20 MAX ELLC=   857 30
3470 ENCROACHMENT STATIONS=      175 0    500 0  TYPE=      1  TARGET=      325.000
          UPSTREAM FACE OF FOOTBRIDGE
 27585 000     4 95     860.15     0 00     860.03    860.18     0 02      0.00      0 00     857.90
   1020 0     237 4      83.3     699 3     268 3      53 0     534 0     234 0      69 0     857 90
    2 69      0 88      1 57      1 31      0 050     0 022     0 050     0 000     855 20    175 00
 0 000401      3         3         3         0         0         0        -9 75    325 00    500 00
*SECNO 27912 000
3470 ENCROACHMENT STATIONS=      300 0    470 0  TYPE=      1  TARGET=      170.000
 27912 000     5.55     860 15     0 00     860 04    860 58     0 43      0 20      0.20     855 50
   1020 0      44.2     872 4     103 4      27 1     155 0      61 6     238 2      70 5     855.20
    2.71      1 63      5 63      1.68      0 050     0 022     0 050     0 000     854 60    385 36
 0.001078     327       327       327         2         0         0         0 00      84 64     470 00
*SECNO 27913 000
3280 CROSS SECTION  27913 00 EXTENDED      0 72 FEET
    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=  30 MIN ELTRD=   859.50 MAX ELLC=   858 80
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      300 0    470 0  TYPE=      1  TARGET=      170 000
          DOWNSTREAM FACE OF OAK POINT DRIVE BRIDGE
 27913 000     6 42     861 02    861 02     861 02    861.57     0 55      0 00      0.06     855 50
   1020 0     168 0     569 7     282 3      45 1      90 6      44 7     238 2      70.5     855 20
    2.71      3 72      6 29      6 32      0 035     0.033     0 035     0 000     854 60    300 00
 0 020678      1         1         1         8        10         0      -176 01    170.00    470 00
*SECNO 27973 000
3280 CROSS SECTION  27973 00 EXTENDED      1 61 FEET
3370 NORMAL BRIDGE, NRD=  30 MIN ELTRD=   859 50 MAX ELLC=   858 80
3470 ENCROACHMENT STATIONS=      300 0    470 0  TYPE=      1  TARGET=      170 000
          UPSTREAM FACE OF OAK POINT DRIVE BRIDGE
 27973 000     7 32     861 92     0 00     861 92    862.07     0 15      0 38      0 12     855.50
   1020 0     380 4     347 5     292.0     132 2     119.3      81 5     238.5      70.8     855 20
    2 71      2 88      2 91      3 59      0 035     0 033     0 035     0 000     854.60    300 00
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 0 003072      60       60       60        2        0        0  -176 01   170 00   470 00
*SECNO 27974 000
3280 CROSS SECTION  27974.00 EXTENDED      1 68 FEET
3470 ENCROACHMENT STATIONS=      300 0     470.0  TYPE=      1  TARGET=      170 000
 27974 000      7 38    861 98     0 00    861.98    862 08     0 11      0 00      0 01    855 50
   1020 0     165 3     662 9    191 8     170 4     213 4    136 4     238 5      70 8    855 20
     2 71      0 97      3 11     1 41     0 052     0 032    0 052     0 000    854 60    300 00
 0 000454         1         1        1         2         0        0      0 00    170 00    470 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       VPOB      XNL        XNCH     XNR       WTN       ELMIN   SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC      ICONT     CORAR     TOPWID  ENDST
*SECNO 28497 000
3280 CROSS SECTION  28497 00 EXTENDED      0 75 FEET
3470 ENCROACHMENT STATIONS=      250 0     542 0  TYPE=      1  TARGET=      292 000
         VALLEY SECTION AK
 28497 000      6 55    862 25     0 00    862 25    862 29     0 04      0 18      0 02    859 90
   1020 0     503 9     494 6     21.5     598 2     232 1    40 1     245 4      73 0    860 40
     2 80      0 84      2 13     0 54     0 065     0 035    0 055     0 000    855 70    250 00
 0.000333       290       523      790         2         0        0      0 00    292.00    542 00
*SECNO 28967 000
3470 ENCROACHMENT STATIONS=      540 0     734 0  TYPE=      1  TARGET=      194 000
         VALLEY SECTION AL
 28967 000      8 08    862.48     0 00    862 49    862 68     0 19      0 31      0 08    861 50
   1020 0      76 9     943 1      0 0     111 0     257 3      0 0     254 2      76.6 100000.00
     2 85      0 69      3.66     0 00     0 065     0 037    0.000     0 000    854 40    540 00
 0 001192       740       470      360         2         0        0      0 00    194 00    734 00
*SECNO 29317 000
3470 ENCROACHMENT STATIONS=      586 0     731 0  TYPE=      1  TARGET=      145.000
         VALLEY SECTION AM
 29317 000      7 00    862 90     0 00    862 91    863.14     0 24      0 44      0 02    861 50
   1020 0      57 6     942 8     19 5      70.6     233.2    21 2     257 0      78 0    861 50
     2 87      0.82      4 04     0 92     0 065     0 037    0 057     0 000    855 90    586 00
 0 001349       350       350      350         2         0        0      0 00    145 00    731 00
*SECNO 29797 000
3470 ENCROACHMENT STATIONS=     1525 0    1588.0  TYPE=      1  TARGET=       63 000
         VALLEY SECTION AN
 29797 000      6 82    863 52     0 00    863 52    863 75     0 23      0.61      0 00 100000 00
   1020 0       0 0    1018.3      1.7       0 0     264 0      2 4     260 2      79 1    862 50
     2 91      0 00      3 86     0.71     0.000     0 035    0 055     0 000    856 70   1525 00
 0 001196       390       480      690         2         0        0      0 00     63.00   1588 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 30117 000
3470 ENCROACHMENT STATIONS=     1269.0    1504 0  TYPE=      1  TARGET=      235 000
 30117 000      5.87    863 97     0.00    863.98    864 26     0 30      0 48      0 03    862 20
    910 0      22 7     887 3      0 0      25 7     200 9      0 0     262 0      79 7    864 70
     2 93      0.88      4 42     0 00     0 070     0 033    0 000     0 000    858.10   1352 70
 0.002032       260      320.      300         2         0        0      0 00     90 61   1443 31
*SECNO 30118 000
3470 ENCROACHMENT STATIONS=     1350 0    1600.0  TYPE=      1  TARGET=      250 000
         DOWNSTREAM FACE OF 13 MILE ROAD BRIDGE
 30118 000      5 87    863 97     0.00    863 98    864 27     0 30      0 00      0 00    862 20
    910 0      22 0     888 0      0 0      25 8     201 0      0 0     262 0      79 7    864 70
     2 93      0 85      4 42     0 00     0 070     0 032    0 000     0 000    858 10   1352 67
 0 001911        1.         1        1         0         0        0      0 00     90 64   1443 31
SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP      BAREA     SS        ELCHU   ELCHD
     0 00      2 93      2 00     0 00      8 00      0 00     54 00     0 00    858 10   858 10
*SECNO 30205 000
BTCARD, BRIDGE STENCL=     1165 60   STENCR=     1504 00
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD     WEIRLN
                                                            AREA
    876 89    864 27     0 00      450       460       54        39        863 00    866 20    269.
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3470 ENCROACHMENT STATIONS=     1240 0    1600 0  TYPE=      1  TARGET=      360 000
        UPSTREAM FACE OF 13 MILE ROAD BRIDGE
 30205 000      9 13     867 23      0 00     867 12     867 27      0 05      3 01      0.00     862.20
     910 0     121 2      777 3     11 5      265 0      414 0      39.7      263 0      80 0      864 70
      2 94      0 46      1 88      0 29      0 070      0 032      0 070      0 000    858 10     1240 00
  0 000144       87        87        87          2          0          6       0 00    240 23     1480 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
*SECNO 30206 000
3470 ENCROACHMENT STATIONS=     1240 0    1600 0  TYPE=      1  TARGET=      360 000
 30206 000      9 13     867 23      0 00     867 12     867 27      0 05      0 00      0 00     862 20
     910 0     124 5      772 7     12.8      265 1      413 8      41 9      263 0      80 0      864 70
      2 94      0 47      1 87      0 31      0 070      0.033      0 070      0 000    858 10     1240 00
  0 000152        1         1         1          0          0          0       0 00    240 76     1480 76
*SECNO 30613 000
3470 ENCROACHMENT STATIONS=      220 0     645 0  TYPE=      1  TARGET=     -220 000
        VALLEY SECTION AO
 30613 000      7 52     867 32      0 00     867 21     867 34      0 02      0 05      0 01     863 60
     910 0     298 2      393 0    218 8      535 8      270 7      308 4      272 5      83 2      862 10
      3 06      0 56      1.45      0 71      0 053      0 035      0 053      0 000    859 80     230 13
  0 000102       557       407       307          2          0          0       0 00    343 72     573 85
*SECNO 31429.000
3470 ENCROACHMENT STATIONS=      370 0     480 0  TYPE=      1  TARGET=      110 000
        VALLEY SECTION AP
 31429 000      5 21     867 41      0 00     867 33     867 72      0 30      0 24      0 14     865 10
     910 0     105 6      590 4    214.0       51 6      112 6      96 2      285 8      87 6      864 20
      3 12      2 05      5 24      2 22      0.052      0 037      0 052      0 000    862 20     370 00
  0 002617       850       816       850          1          0          0       0 00    110.00     480 00
*SECNO 31590 000
 2800 NAT Q1=      565 27  WSELK=      867 77  ENC Q1=      565 27  WSEL=      867 87  RATIO=    0 0000
 NAT Q1=      636   RATIOS LOB, CH, ROB=   0 5046  0 0940  0.4014  WSEL=      867 87
3470 ENCROACHMENT STATIONS=       84 9      201.9  TYPE=      4  TARGET=        0 111
 31590 000      9 76     867.86      0 00     867.77     867.89      0 04      0 10      0 08     860 60
     910 0     459 1       96 6    354 3      310 9       45 4      268 9      287 4      88 0      860 60
      3 15      1 48      2 13      1 32      0 052      0 037      0.052      0.000    858 10      84 87
  0 000262      161.       161       161          2          0          0       0.00    117 02     201 89
    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 31591.000
 2800 NAT Q1=      665 34  WSELK=      867.75  ENC Q1=      665 34  WSEL=      867 85  RATIO=    0 0000
 NAT Q1=      741   RATIOS LOB, CH, ROB=   0 4468  0 1982  0 3550  WSEL=      867 85
3470 ENCROACHMENT STATIONS=       85.8      201 0  TYPE=      4  TARGET=        0.102
        DOWNSTREAM FACE OF DAM AND 60" PIPE
 31591 000      9 73     867 83      0 00     867 75     867 92      0 09      0 00      0 03     860 60
     910 0     400 4      201 6    308 1      306 5       45 3      264 8      287 5      88.0      860 60
      3 15      1 31      4 45      1 16      0 050      0 015      0.050      0 000    858 10      85 82
  0 000189        1         1         1          2          0          0       0 00    115 18     201 00
SPECIAL CULVERT
SC  CUNO      CUNV      ENTLC     COFQ      RDLEN     RISE      SPAN      CULVLN    CHRT      SCL       ELCHU     ELCHD
    1         0 015     0 20      3 00      0 00      5 00      0.00      40 00     1         3         858 10    858.10
CHART  1 - CONCRETE PIPE CULVERT, NO BEVELED RING ENTRANCE
SCALE  3 - GROOVE END ENTRANCE, PIPE PROJECTING FROM FILL
5130, EGIC=  929 64  MAY BE TOO LARGE IF INLET CONTROLS
5135, EGOC=  914 36  MAY BE TOO LARGE IF OUTLET CONTROLS
*SECNO 31631 000
SPECIAL CULVERT INLET CONTROL + WEIR FLOW, EG =     867 85
5150, EG OF   867 85 LESS THAN XEG OF   867 92
 2800 NAT Q1=      621 16  WSELK=      867 73  ENC Q1=      621 16  WSEL=      867 83  RATIO=    0.0000
 NAT Q1=      736   RATIOS LOB, CH, ROB=   0 4467  0 1987  0.3546  WSEL=      867.83
SPECIAL CULVERT
    EGIC      EGOC      H4        QWEIR     QCULV     VCH       ACULV     ELTRD     WEIRLN
    929.64    914 36    0 00      634       277       4 750     19 6      866 00    204
3470 ENCROACHMENT STATIONS=       91 7      190.7  TYPE=      4  TARGET=        0 157
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        UPSTREAM FACE OF DAM AND 60" PIPE
31631 000      9 72     867 82      0 00     867 73     867 92      0 10      0 00      0.00     860 60
    910 0    399 6     215 0     295 4     286 0      45 3     230 3     288 0      88 1     860 60
     3 16     1 40      4 75      1 28     0 050     0 015     0 050     0 000    858 10      91 74
 0 000216       40        40        40         1         0         0      0.00     98 95     190 69
*SECNO 31632 000
2800 NAT Q1=     511 23  WSELK=     867 80  ENC Q1=     511 23  WSEL=     867 90  RATIO=   0 0000
NAT Q1=     620   RATIOS LOB, CH, ROB=   0 4943   0 1121   0 3936  WSEL=     867 90
3470 ENCROACHMENT STATIONS=       91 4     191.0  TYPE=      4  TARGET=       0 175
31632 000      9 79     867 89      0 00     867 80     867 94      0 05      0 00      0 02     860 60
    950 0    470 9     129 6     349 5     290 2      45 6     234 5     288 0      88 1     860 60
     3 16     1 62      2 84      1 49     0 055     0 032     0 055     0 000    858 10      91 44
 0 000349        1         1         1         2         0         0      0 00     99 58     191.02
    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=    0.500 CEHV=    1 000
*SECNO 31647 000
3280 CROSS SECTION  31647 00 EXTENDED      1 43 FEET
3301 HV CHANGED MORE THAN HVINS
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=       46 0     149.0  TYPE=      1  TARGET=     103 000
31647 000      5 23     868 63    868 63    868.64     869 53      0.90      0 01      0 85     868 30
    950 0      0 8     711 3     237.8       0 9      82 2      89 9     288 1      88 2     868 10
     3 16     0 93      8 65      2 64     0.055     0 032     0.055     0 000    863 40      46 00
 0 007734       15        15        15         1        11         0      0 00    103 00     149 00
*SECNO 31648 000
3280 CROSS SECTION  31648 00 EXTENDED      1 49 FEET
3370 NORMAL BRIDGE, NRD=  15 MIN ELTRD=   866 60 MAX ELLC=   868 30
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=       47.0     149.0  TYPE=      1  TARGET=     102 000
        DOWNSTREAM FACE OF DRIVEWAY
31648 000      5 29    868.69    868 69    868 69     869 56      0 88      0 01      0 01     868 30
    950.0      1 0     639 3     309 7       0 8      72.1      94 2     288 1      88.2     868 10
     3 16     1.19      8 86      3 29     0 050     0 022     0 050     0 000    863 40      47 00
 0 009427        1        1.         1         0        12         0    -11 05    102 00     149 00
*SECNO 31660.000
3280 CROSS SECTION  31660 00 EXTENDED      1 63 FEET
3370 NORMAL BRIDGE, NRD=  15 MIN ELTRD=   866 60 MAX ELLC=   868 30
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    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=       40 0     142 0  TYPE=      1  TARGET=     102 000
        UPSTREAM FACE OF DRIVEWAY
31660 000      5 43     868 83    868 83    868 83     869.71      0 88      0.11      0 00     868 30
    950 0      4 1     639 5     306 4       3 1      72 1      91 1     288 2      88 2     868 10
     3 16     1.32      8 86      3 36     0 050     0 022     0 050     0 000    863.40      40.00
 0 009472       12        12        12         0         9         0    -13 78    102 00     142 00
*SECNO 31661 000
3280 CROSS SECTION  31661 00 EXTENDED      1 64 FEET
3470 ENCROACHMENT STATIONS=       40 0     138 0  TYPE=      1  TARGET=      98 000
31661 000      5.44     868 84    868 77    868 84     869 72      0 88      0 01      0 00     868 30
    950 0      3 5     730 2     216 3       3 2      86 1      83 8     288 2      88 2     868 10
     3 16     1 08      8.48      2 58     0 055     0 032     0.055     0 000    863 40      40 00
 0 006979        1         1         1         0         5         0      0 00     98 00     138 00
CCHV=    0 300 CEHV=    0 500
*SECNO 31711.000
3301 HV CHANGED MORE THAN HVINS
3470 ENCROACHMENT STATIONS=      494 0     685 0  TYPE=      1  TARGET=     191 000
31711 000      6 92    869.72      0 00    869.72     870 04      0.32      0 15      0 17     867 80
    950 0    170 4     682.6      97 0     121.7      129 9      87 7     288 5      88 3     867 80
```

```
   3 16      1 40      5 25      1.11      0 055     0 032     0 055     0 000     862 80    494 00
 0 001664      1        50        70         4         0         0      0 00     191 00    685 00
*SECNO 31712 000
3370 NORMAL BRIDGE, NRD=  26 MIN ELTRD=   868 70 MAX ELLC=   867 80
3470 ENCROACHMENT STATIONS=      494 0     685 0  TYPE=      1  TARGET=      191 000
          DOWNSTREAM FACE OF MIRLON DRIVE 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
31712 000    6 87     869 67      0 00     869 67    870 10      0 43      0 00      0 06    867 80
   950 0    166 3     615 3     168 4      82 1      96 6      83 2     288 5      88 3    867 80
   3 16      2 03      6.37      2 03     0 030     0 013     0 030     0 000     862 80    494 00
 0 001775      1         1         1         2         0         0    -68 30     191 00    685 00
*SECNO 31756 000
3370 NORMAL BRIDGE, NRD=  26 MIN ELTRD=   868 70 MAX ELLC=   867 80
3470 ENCROACHMENT STATIONS=      490 0     690 0  TYPE=      1  TARGET=      200 000
          UPSTREAM FACE OF MIRLON DRIVE BRIDGE
31756 000    7 15     869 95      0 00     869 95    870 21      0 26      0 06      0 05    867 80
   950 0    206 9     530 9     212 2     110 1     102 1     112 9     288 8      88 5    867 80
   3 16      1.88      5 20      1 88     0 030     0 013     0 030     0 000     862 80    490 00
 0 001099     44        44        44         3         0         0    -68 30     200 00    690 00
*SECNO 31757 000
3470 ENCROACHMENT STATIONS=      490 0     690 0  TYPE=      1  TARGET=      200 000
31757 000    7 26     870 06      0 00     870 06    870 23      0 18      0 00      0 02    867 80
   950 0    225 7     574 4     149 9     156 2     136 8     124 1     288 8      88 5    867 80
   3.16      1 45      4 20      1 21     0 050     0 034     0 050     0 000     862 80    490 00
 0 001120      1         1         1.        2         0         0      0 00     200 00    690 00
*SECNO 32007.000
3470 ENCROACHMENT STATIONS=      198.0     366 0  TYPE=     -1  TARGET=      168.000
          VALLEY SECTION AQ
32007 000    6 37     870 37      0 00     870.37    870 43      0 06      0 16      0 04    866.00
   950 0    188 1     414 2     347 7     159 3     158 2     278 4     292.0      89 7    867 10
   3 20      1 18      2.62      1 25     0 050     0 034     0 050     0 000     864 00    198 00
 0 000370    190       250       370         1         0         0      0 00     168 00    366 00
*SECNO 32577 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=      150 0     400 0  TYPE=      1  TARGET=      250 000
32577 000    7 13     870 53      0 00     870.52    870 59      0 06      0 16      0 00    866 80
   950.0    179 3     745 4      25 3     217.8     342 8     48 4     299 5      92 0    868 00
   3 29      0 82      2.17      0 52     0 050     0 034     0 050     0 000     863.40    156.25
 0 000227    520       570       520.        2         0         0      0 00     196 09    352 34
*SECNO 33042 000
3470 ENCROACHMENT STATIONS=      230 0     456 0  TYPE=      1  TARGET=      226.000
          VALLEY SECTION AR
33042 000    6.97     870 67      0 00     870 67    870 70      0 03      0 11      0 01    868.70
   950 0     21 8     281 3     646 9      38 1     140 4     552 9     306 2      94.0    867 70
   3 37      0 57      2 00      1.17     0 050     0.035     0 050     0 000     863 70    230 00
 0 000268    420       465       420         1         0         0      0 00     226 00    456 00
*SECNO 33367 000
3470 ENCROACHMENT STATIONS=      500 0     835 0  TYPE=      1  TARGET=      335 000
33367 000    5.77     870 77      0 00     870 76    870 80      0 03      0 09      0 00    867 40
   950 0      0 0     112 1     837 9       0 0      52 3     671 5     310 3      95 6    867 40
   3 42      0 00      2 14      1 25     0 000     0 035     0 050     0 000     865 00    500 00
 0 000534    425       325       225         1         0         0      0 00     335 00    835 00
*SECNO 33368 000
3370 NORMAL BRIDGE, NRD=  22 MIN ELTRD=   868 90 MAX ELLC=   871 20
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      500 0     850 0  TYPE=      1  TARGET=      350 000
          DOWNSTREAM FACE OF DRAKE ROAD BRIDGE
33368 000    5 68     870 68     870 68     870.68    871 04      0 36      0 00      0 16    871 60
   950 0      0 0     291 7     658 3       0.0      43 3     180 8     310 3      95 6    871 50
```

3 42	0 00	6 74	3 64	0 000	0 032	0 035	0 000	865 00	500 00
0 008986	1	1	1	20	6	0	-344 52	334 50	850 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 33439 000									
3370 NORMAL BRIDGE, NRD= 22 MIN ELTRD= 868 90 MAX ELLC= 871 20									
3470 ENCROACHMENT STATIONS= 500 0 850 0 TYPE= 1 TARGET= 350 000									
UPSTREAM FACE OF DRAKE ROAD BRIDGE									
33439 000	6 29	871 29	0.00	871 29	871 39	0 09	0 27	0 08	871 60
950 0	0 0	133 4	816 6	0.0	43 9	350 2	310 8	96 2	871 50
3 43	0.00	3 04	2 33	0 000	0 032	0 035	0 000	865 00	500 00
0.002070	71	71	71.	2	0	0	-383 73	346 12	850 00
*SECNO 33440 000									
3470 ENCROACHMENT STATIONS= 500 0 840 0 TYPE= 1 TARGET= 340 000									
33440 000	6 39	871 39	0.00	871 39	871 41	0 02	0 00	0 02	867 40
950 0	0 0	97 3	852 7	0 0	58 3	888.2	310 8	96 2	867.40
3.43	0 00	1 67	0 96	0 000	0 035	0 055	0 000	865 00	500 00
0 000296	1	1	1.	2	0	0	0 00	340 00	840 00
1490 NH CARD USED									
*SECNO 33970 000									
3470 ENCROACHMENT STATIONS= 250.0 550 0 TYPE= 1 TARGET= 300 000									
VALLEY SECTION AS									
33970 000	6 16	871 46	0 00	871.45	871.46	0 01	0 05	0.00	866 10
950 0	150 3	687 9	111 8	357 9	818 4	301 6	326 6	100 5	867 70
3 65	0 42	0.84	0 37	0.065	0.035	0 065	0.000	865 30	250 00
0 000043	450	530	630	2	0	0	0 00	300 00	550 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 34901 000									
3470 ENCROACHMENT STATIONS= 875.0 1225 0 TYPE= 1 TARGET= 350.000									
VALLEY SECTION AT									
34901.000	4 64	871.54	0 00	871.51	871 55	0 01	0 08	0.00	868 80
950 0	465.5	132 9	351 7	583 4	80.4	466 8	353 6	107 2	869 00
3.93	0 80	1 65	0.75	0.072	0 037	0 072	0 000	866 90	875 00
0 000307	885	931	885	2	0	0	0 00	350 00	1225 00
*SECNO 35481 000									
3470 ENCROACHMENT STATIONS= 575 0 943 0 TYPE= 1 TARGET= 368 000									
VALLEY SECTION AU									
35481 000	4.30	871 80	0 00	871 71	871 83	0 03	0 27	0 01	869 80
950 0	640 5	187 7	121 8	594.5	77 3	163 9	366 6	111 9	870 10
4 06	1 08	2 43	0 74	0 072	0 037	0 072	0.000	867 50	575 00
0 000775	580	580	580	2	0	0	0 00	368 00	943 00
*SECNO 36337 000									
3470 ENCROACHMENT STATIONS= 286 0 649.0 TYPE= 1 TARGET= -286 000									
DOWNSTREAM FACE OF DAM									
36337 000	3 82	872 82	0 00	872.83	873 13	0 31	1 17	0 14	871 70
950 0	142 5	615 3	192 2	88 4	113.0	113 7	377 4	117.1	870 50
4 11	1.61	5 45	1 69	0 065	0 035	0 065	0 000	869.00	286 00
0 003285	810	856	810	3	0	0	0 00	184.00	470 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 00	3.06	0 00	0.01	0 00	0.01	0 00	869 00	869 00
*SECNO 36349 000									
6870 D.S ENERGY OF 873 13 IS HIGHER THAN COMPUTED ENERGY OF 873 02									
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape									
EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
**********	873 13	0.00	948	0	0	0	869 00	871 00	226
3470 ENCROACHMENT STATIONS= 292 0 649 0 TYPE= 1 TARGET= -292 000									

```
        UPSTREAM FACE OF DAM
36349 000     3 80     872 80     0 00     872 81     873 13     0 34     0.00     0 00     871 70
    950 0     126 1     629 2     194 6     77 6     112 5     112 4     377.5     117 1     870 50
     4 11     1 63     5 59     1 73     0 065     0 035     0.065     0 000     869 00     292 00
 0 003485     12     12     12     2     0     10     0 00     177 62     469 62
*SECNO 37069 000
3470 ENCROACHMENT STATIONS=     63 0     140 0  TYPE=     1  TARGET=     77 000
        VALLEY SECTION AV
37069 000     7 43     874 53     0 00     874 53     874 89     0 37     1.75     0 01     870 00
    950 0     152 9     720 2     76 9     59 7     132 7     51 9     382 0     119 3     871 80
     4 16     2 56     5 43     1 48     0 045     0 035     0 060     0 000     867 10     63 00
 0 001785     720     720.     720     3     0     0     0 00     77 00     140 00
*SECNO 37814 000
3470 ENCROACHMENT STATIONS=     126 0     279 0  TYPE=     1  TARGET=     153 000
        VALLEY SECTION AW
37814.000     7 08     875 58     0 00     875 59     875 73     0 15     0 77     0 07     873 50
    950 0     85 3     844 3     20 4     107 6     259 9     27 3     387 5     121 2     874 10
     4 23     0 79     3 25     0 75     0 062     0 033     0 055     0 000     868 50     126.00
 0 000673     745     745     745.     3     0     0     0.00     153 00     279 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 38152.000
38152 000     7 21     875 81     0 00     875 82     875 96     0 15     0 23     0 00     885.80
    550.0     0 0     550 0     0 0     0 0     178 6     0 0     389 8     122 0     885 80
     4 26     0 00     3 08     0 00     0 000     0 033     0.000     0 000     868 60     93 70
 0 000691     388.     338     288     2     0     0     0.00     31 20     124 90
*SECNO 38153 000
3370 NORMAL BRIDGE, NRD=  24 MIN ELTRD=   885 80 MAX ELLC=   877 30
        DOWNSTREAM FACE OF DRIVEWAY
38153 000     7 19     875 79     0 00     875 79     875 99     0.20     0 00     0 02     885.80
    550 0     0 0     550 0     0 0     0.0     155 0     0 0     389 8     122.0     885 80
     4 26     0 00     3 55     0 00     0 000     0 031     0.000     0 000     868 60     93.70
 0 001264     1.     1     1     2     0     0     -43 66     31 20     124 90
*SECNO 38292.000
3370 NORMAL BRIDGE, NRD=  24 MIN ELTRD=   885 00 MAX ELLC=   877 70
        UPSTREAM FACE OF DRIVEWAY
38292 000     6 97     875 97     0 00     875 97     876 17     0 21     0 18     0.00     885.80
    550 0     0 0     550 0     0 0     0.0     151 3     0 0     390 3     122 1     885 80
     4 27     0 00     3 64     0 00     0 000     0 031     0 000     0 000     869 00     93 70
 0.001330     139.     139     139     2     0     0     -40 36     31 20     124 90
*SECNO 38293.000
38293 000     7 03     876 03     0 00     876 03     876 19     0 16     0 00     0 01     886 20
    550 0     0 0     550 0     0 0     0.0     172 8     0 0     390 3     122 1     886 20
     4 27     0 00     3 18     0 00     0 000     0 033     0 000     0 000     869.00     93.70
 0 000762     1.     1     1     2     0     0     0 00     31 20     124 90
*SECNO 38533.000
3470 ENCROACHMENT STATIONS=     78 0     149 0  TYPE=     1  TARGET=     71 000
        VALLEY SECTION AX
   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
38533 000     6 35     876 25     0.00     876 25     876 34     0 10     0 14     0 02     873 40
    550.0     30 9     518 1     1 0     35 6     200 9     2 4     391 4     122 3     875 50
     4 30     0 87     2 58     0 42     0 050     0 033     0 050     0.000     869 90     78 00
 0 000461     240     240.     240     2     0     0     0 00     71 00     149 00
*SECNO 39630 000
 2800 NAT Q1=     865 85  WSELK=     876 44  ENC Q1=     865.85  WSEL=     876 54  RATIO=   0 0000
 NAT Q1=   1248   RATIOS LOB, CH, ROB=   0 4668   0 0378   0.4954   WSEL=     876 54
3470 ENCROACHMENT STATIONS=     628 3     861 2  TYPE=     4  TARGET=     0 306
39630.000     7 04     876 44     0 00     876 44     876 45     0 00     0 07     0 03     869 80
    360 0     164 5     19 7     175.8     464 4     28 7     528 8     406 7     126 0     869 80
     5 12     0 35     0 69     0 33     0 050     0 033     0 050     0 000     869 40     628 25
 0 000018     1050.     1097.     1050     2     0     0     0 00     232.95     861.20
*SECNO 39631 000
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2800 NAT Q1=     488 38  WSELK=     876 44  ENC Q1=     488 38  WSEL=     876 54  RATIO=   0 0000
NAT Q1=    1018   RATIOS LOB, CH, ROB=   0 4670   0 0095   0 5235  WSEL=     876.54
3370 NORMAL BRIDGE, NRD=  23 MIN ELTRD=   873 70 MAX ELLC=   872 00
3470 ENCROACHMENT STATIONS=      629 7     865.0  TYPE=      4  TARGET=       0 520
          DOWNSTREAM FACE OF HALSTED ROAD BRIDGE
39631 000      7 04     876 44      0 00     876 44     876 45      0 01      0 00      0 00     874 10
    360 0     155 3       7 3     197 4      250 0       18.4     327 7     406 8     126 0     874 10
     5.12      0 62      0 40      0 60      0 035      0 033     0 035     0 000     869 40     629 68
 0 000062         1         1         1          0          0         0    -10 82     235 27     864 96
*SECNO 39675 000
2800 NAT Q1=     488 34  WSELK=     876.44  ENC Q1=     488 34  WSEL=     876 54  RATIO=   0 0000
NAT Q1=    1020   RATIOS LOB, CH, ROB=   0 4670   0 0095   0 5235  WSEL=     876 54
    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=  23 MIN ELTRD=   873 70 MAX ELLC=   872 20
3470 ENCROACHMENT STATIONS=      629 9     864 8  TYPE=      4  TARGET=       0 521
          UPSTREAM FACE OF HALSTED ROAD BRIDGE
39675.000      6 85     876 45      0 00     876 44     876 45      0 01      0 00      0.00     874.10
    360 0     155 3       7 4     197 3      249 5       18.4     327 2     407 4     126 3     874 10
     5 14      0 62      0 40      0 60      0 035      0 033     0.035     0.000     869.60     629 85
 0 000062        44        44        44          0          0         0     -9 98     234 91     864 77
*SECNO 39676 000
2800 NAT Q1=     626 53  WSELK=     876 45  ENC Q1=     626.53  WSEL=     876 55  RATIO=   0 0000
NAT Q1=     901   RATIOS LOB, CH, ROB=   0.4628   0.0461   0 4912  WSEL=     876 55
3470 ENCROACHMENT STATIONS=      628 6     860 8  TYPE=      4  TARGET=       0 305
39676.000      6 85     876 45      0 00     876 45     876 45      0 00      0 00      0 00     869 80
    360 0     162 5      24 0     173 6      463 6       28 3     528 0     407 4     126 3     869 80
     5 14      0 35      0.85      0 33      0.070      0 037     0 070     0 000     869 60     628 59
 0 000035         1         1         1          0          0         0      0 00     232 25     860.84
*SECNO 39814.000
2800 NAT Q1=     406 20  WSELK=     876 45  ENC Q1=     406.20  WSEL=     876.55  RATIO=   0 0000
NAT Q1=     524   RATIOS LOB, CH, ROB=   0.4685   0.0740   0 4576  WSEL=     876 55
3470 ENCROACHMENT STATIONS=      614.7     835 2  TYPE=      4  TARGET=       0.224
39814 000      5 66     876 46      0 00     876 45     876 46      0 00      0.01      0 00     871 30
    360 0     165 2      34.9     159 9      355 1       31 1     356 6     409 9     126 9     871 40
     5.21      0 47      1 12      0 45      0 070      0 037     0 070     0 000     870 80     614 69
 0.000086       100       138       150          0          0         0      0 00     220 49     835 18
*SECNO 39951 000
2800 NAT Q1=     204 12  WSELK=     876.47  ENC Q1=     204 12  WSEL=     876 57  RATIO=   0 0000
NAT Q1=     376   RATIOS LOB, CH, ROB=   0 6489   0 0808   0 2703  WSEL=     876 57
    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=      513 4     725.0  TYPE=      4  TARGET=       0 458
39951 000      9 17     876 47      0.00     876 47     876 48      0.01      0 02      0 01     872 90
    360 0     276.5      54 9      28 5      393 4       29 4     37 9     411 6     127 5     873 00
     5 24      0 70      1 87      0 75      0 070      0 037     0 070     0 000     867 30     513 42
 0 000353       100      137.       150          0          0         0      0 00     211 53     724 95
*SECNO 40089 000
3470 ENCROACHMENT STATIONS=      630.0     820 0  TYPE=      1  TARGET=     190 000
40089 000      3 33     876 53      0 00     876 52     876 62      0 09      0 10      0 04     874 40
    360 0     130 3     100 2     129 5       94.0       24 5     110 7     412 5     128 1     874 70
     5 26      1 39      4 09      1 17      0 090      0 045     0 090     0 000     873 20     630 00
 0.004168       100       138       150          2          0         0      0 00     190 00     820 00
*SECNO 40226 000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
3470 ENCROACHMENT STATIONS=      655 0     745.0  TYPE=      1  TARGET=      90 000
          VALLEY SECTION AY
40226 000      2 97     877 47     877 47     877 39     877 94      0 47      0 98      0 19     876.00
    360 0      79.5     180.2     100 3      33 8       24 2     47 8     413 0     128 5     876 40
     5.27      2 35      7 45      2 10      0 090      0 045     0.090     0 000     874 50     655 00
 0 017566       100       137       150          3         10         0      0 00      90 00     745 00
*SECNO 40837 000
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14 MILE ROAD - CORPORATE LIMITS

40837.000	2 08	880 28	0.00	880 27	880 30	0 02	2 22	0 14	881 30
360 0	334 5	25 5	0 0	324.7	16.0	0 0	415 6	130 5	882 60
5 41	1 03	1 59	0.00	0 085	0 042	0 000	0 000	878 20	4 54
0 001803	489	611	589	6	0	0	0 00	250 91	631.69

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HEC-2 WATER SURFACE PROFILES

Version 4 6 2, May 1991

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

MINNOW POND DRAIN

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	0 000	760 80	0 00	761 70	174 80	235 26	1101 37	263 37	0 00	0 00	140 50	170 00	0 00
	0 000	760 90	0 10	761 87	106 38	211.67	1146 12	242 21	0 06	104 51	140 50	170 00	210.89
*	310 000	763 37	0 00	763 87	217 22	282 35	981 99	335 66	0 00	0 00	127 90	156 90	0 00
*	310 000	763 50	0 13	764 02	134 23	263.09	1013 65	323 26	0 05	82 64	127 90	156 90	216 87
	620 000	765 03	0.00	765 70	202 91	253 35	1032 25	314 40	0 00	0 00	115 50	144 00	0 00
	620.000	765 11	0 09	765 77	160 00	243.61	1033 43	322 96	160 00	70 00	115 50	144 00	230 00
	810 000	766 42	0 00	767 13	203 39	244 05	1037 20	318 75	0 00	0 00	106 10	134 20	0 00
	810.000	766 45	0 02	767 15	170 00	238.15	1041 45	320 41	170 00	60 00	106 10	134 20	230 00
	1000 000	767 88	0.00	768 60	202.25	233 74	1037 09	329 17	0 00	0 00	96 70	124.50	0 00
	1000 000	767 89	0 01	768 63	170 00	225.01	1044 93	330 06	170 00	56 00	96 70	124 50	226.00
	1190 000	769 36	0 00	770 09	204 92	221 68	1032 69	345.63	0 00	0 00	87 30	114.70	0 00
	1190 000	769 39	0 02	770 16	170 00	180.22	1060 39	359 38	170 00	60 00	87 30	114 70	230 00
	1380 000	770 87	0 00	771 62	204.84	205 59	1036 94	357 47	0 00	0.00	78.00	105.00	0 00
	1380 000	770 97	0 10	771 64	198 00	210 48	1013.01	376 51	198 00	35 00	78 00	105 00	233 00
*	1430 000	771 35	0 00	772 20	200 81	201 15	1060 68	338.17	0 00	0 00	78 00	105 00	0 00
	1430.000	771 37	0 02	772.21	198 23	201.46	1058.42	340 11	200 00	33 00	78 00	105 00	233 00
*	1480 000	771.90	0 00	772 79	198.77	198 77	1073 09	328.14	0 00	0 00	78.00	105 00	0 00
*	1480 000	771 91	0 01	772.79	195 84	199 23	1070 12	330 64	198 00	33 00	78 00	105 00	231 00
*	1580 000	773.16	0 00	774 14	212 67	98 48	1081 61	419.92	0 00	0 00	36 00	60 00	0 00
*	1580.000	773 16	0 00	774.14	212 70	98.51	1081.47	420 02	0 00	0 00	36 00	60 00	0 00
*	1680 000	774 27	0 00	775 31	173 00	93 31	1088 65	418 04	173 00	10 00	36.00	60 00	183.00
*	1680 000	774 27	0 00	775 31	173 00	93.29	1088 75	417 96	173 00	10 00	36 00	60 00	183 00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2080 000	778 09	0 00	778.51	227 42	124.10	945 70	530 20	0 00	0 00	96 00	123 00	0 00
	2080 000	778 09	0 00	778 51	212.00	124 71	946 07	529 21	212.00	63 00	96.00	123.00	275.00
	2380 000	779 60	0 00	780 29	183 27	143 79	992 55	463 66	0 00	0 00	63 00	87 00	0 00
	2380 000	779 60	0 00	780 29	172 00	145 14	992 92	461 94	172 00	24 00	63 00	87 00	196.00
	2680 000	781 15	0 00	781 79	84 00	102 51	1084 48	413 01	84 00	51 00	63 00	87 00	135 00
	2680 000	781 16	0 01	781 80	84 00	102 58	1083 92	413 51	84.00	51 00	63.00	87 00	135 00
	2700 000	781 20	0 00	781 93	74 00	61 10	1142 29	396.61	74 00	56 00	63 00	87 00	130 00
	2700 000	781 21	0 01	781 94	74 00	61 12	1141.82	397 06	74 00	56 00	63.00	87 00	130.00
	2710 000	781 21	0 00	782 03	68 00	31 97	1182 80	385.23	68 00	59 00	63 00	87 00	127 00
	2710 000	781 22	0 01	782 03	68 00	31 97	1182 37	385 65	68 00	59.00	63.00	87 00	127 00
	2720 000	781 24	0 00	782 11	64 00	12 71	1209.98	377.31	64 00	61 00	63 00	87 00	125 00
	2720 000	781 25	0 01	782 11	64 00	12 70	1209 58	377 72	64 00	61 00	63 00	87 00	125.00
	2724 000	781.26	0 00	782 15	62.00	4 58	1221 88	373 54	62 00	62 00	63 00	87 00	124 00
	2724.000	781 27	0 01	782 15	62 00	4 58	1221 49	373 93	62 00	62 00	63 00	87 00	124.00
	2728 000	781 42	0 00	782 22	60.00	0 00	1193 09	406 91	60 00	63 00	63 00	87 00	123 00
	2728 000	781 43	0 01	782.22	60 00	0.00	1192 70	407 30	60 00	63 00	63 00	87 00	123 00
*	2732 000	781 62	0 00	783 40	58 60	0 00	1173 78	426 22	104.00	94.00	94 00	108 00	198 00
*	2732 000	781 62	0 00	783 40	58 60	0 00	1173 70	426.30	104 00	94 00	94 00	108 00	198 00
*	2733.000	783 05	0 00	783 73	69 61	0 00	935 02	664 98	104 00	94 00	94 00	108 00	198 00
*	2733 000	783.05	0 00	783 73	69 61	0 00	935 04	664 96	104 00	94 00	94 00	108 00	198.00
*	2763 000	788 10	0 00	788 19	97 00	0 00	581 04	1018 96	97 00	94.00	94.00	108 00	191 00
*	2763.000	788 10	0 00	788 19	97 00	0 00	581 03	1018 97	97 00	94 00	94 00	108 00	191 00
	2764 000	788 06	0 00	788.23	99 00	4.65	830 15	765 20	99 00	93 00	94 00	108 00	192 00
	2764 000	788 06	0.00	788 23	99.00	4 65	830 15	765 20	99.00	93.00	94 00	108 00	192.00
	2768 000	788 08	0 00	788 24	107 00	52 49	806 62	740 89	107 00	89.00	94.00	108 00	196 00
	2768 000	788 08	0 00	788 24	107 00	52 49	806.61	740 90	107 00	89.00	94 00	108 00	196.00
*	3191.000	788 48	0 00	788 70	198 55	286 22	781 59	532 19	0.00	0 00	120 00	144 00	0.00
*	3191 000	788 48	0 00	788 70	191 00	287 43	780 62	531 95	191.00	54 00	120 00	144 00	245.00
	3381.000	788 93	0 00	789.30	183 69	250 91	861 79	487 30	0 00	0 00	120.00	144.00	0 00
	3381 000	788 93	0.00	789 30	183 68	250.86	861 91	487 24	0.00	0.00	120 00	144 00	0 00
	3581 000	789.75	0 00	790 23	160 01	466 32	932.03	201.64	0 00	0 00	84.00	108 00	0.00

	3581 000	789 75	0 00	790.22	160 01	466 30	932 08	201.62	0 00	0 00	84 00	108 00	0 00
	3781 000	790 78	0 00	791 32	156 99	454.19	954 67	191 14	0 00	0 00	84 00	108 00	0 00
	3781 000	790 78	0 00	791 32	152 00	453 70	953 62	192.67	152 00	8 00	84 00	108 00	160 00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	4451 000	794 40	0 00	794 86	155 43	333 21	720 34	546 45	0 00	0 00	62 00	82 00	0 00
	4451 000	794 40	0 00	794 86	145 00	333 77	721 02	545 21	145.00	22.00	62 00	82 00	167 00
	5551 000	798 93	0 00	799 21	241 32	315 59	691 38	593 03	0 00	0.00	64 00	84 00	0 00
	5551 000	798 94	0 00	799 21	226 00	315 70	691 29	593 01	226.00	12 00	64 00	84 00	238.00
	5664 000	799 37	0 00	799 84	202 85	313 13	783 25	503 62	0 00	0 00	65 50	85 50	0 00
	5664 000	799 37	0 00	799 84	190 00	313 33	783 50	503 17	190 00	17 00	65 50	85 50	207 00
	5776 000	800 15	0 00	800 79	179 61	315 38	841.94	442 68	0 00	0 00	67 00	87 00	0 00
	5776 000	800 15	0 00	800.79	171 00	315 45	842 01	442 54	171 00	20 00	67 00	87 00	191 00
	5889 000	801 21	0 00	801 87	167 89	328 49	857.12	414 39	0 00	0 00	68 50	88 50	0 00
	5889 000	801 21	0 00	801.87	161 00	328 60	857 24	414 17	161 00	21 00	68 50	88 50	182 00
	6001 000	802 27	0 00	803 01	152 90	340 85	885.25	373 89	0 00	0 00	70 00	90 00	0 00
	6001 000	802 28	0 00	803 01	147 00	341 24	885.24	373 52	147 00	23 00	70 00	90 00	170 00
	6666 000	806 90	0 00	807 37	167 16	417 33	818.06	364 61	0 00	0 00	98 00	118 00	0 00
	6666 000	806 90	0 00	807.37	149 00	415 99	818 33	365 68	149 00	32 00	98 00	118 00	181 00
	7586 000	810 71	0 00	811.07	163 77	417 04	750 38	432 58	0 00	0 00	190 00	210 00	0 00
	7586 000	810 71	0 00	811 07	151.00	416 79	750 23	432 98	151 00	125 00	190 00	210 00	276 00
	8506 000	814 34	0 00	814.84	154.06	400 56	774 68	424 76	0 00	0 00	126 00	144 00	0 00
	8506 000	814 33	0 00	814 84	137.00	400 89	775 62	423 49	137 00	72 00	126 00	144 00	209 00
	8906 000	816.15	0 00	816 60	51 00	161 57	662 74	155.70	51.00	110 00	126 00	144.00	161 00
	8906 000	816 15	0 00	816 62	49 53	153 27	666 50	160 23	0.33	111.86	126 00	144.00	161 39
	8921 000	816.21	0 00	816 79	44 00	129 34	722 47	128 19	44.00	113 00	126.00	144 00	157 00
	8921 000	816 22	0 00	816 84	41 86	104 81	740 15	135 04	0 38	115 48	126.00	144.00	157 34
	8936 000	816 29	0 00	817 05	36 00	93 75	793 03	93 22	36 00	117 00	126.00	144 00	153 00
	8936 000	816 29	0 01	817 13	33 35	63 68	819 78	96 53	0 44	119 65	126.00	144 00	153 01
	8946.000	816 34	0 00	817 26	31 00	61.21	845 05	73 74	31 00	120 00	126.00	144 00	151.00
	8946 000	816 36	0 01	817 38	27 78	31.48	881 07	67 45	0 48	122 51	126.00	144 00	150 29
	8956 000	816 41	0 00	817 51	26 00	38.72	902 65	38 63	26 00	122 00	126 00	144 00	148 00
	8956 000	816 43	0 02	817.67	22.11	1.78	942 93	35 29	0 51	125 51	126 00	144 00	147 62
	8966 000	816 49	0 00	817 79	21 00	15.63	958 86	5 51	21 00	124 00	126 00	144 00	145 00
	8966 000	816 53	0.04	817 89	18 00	0 00	980 00	0.00	0.53	126 00	126 00	144 00	144 00
	8977 000	816 59	0 00	818 19	15.80	0 00	980 00	0.00	0.00	0.00	147 10	162 90	0 00
	8977 000	816 68	0.09	818 23	15.80	0 00	980 00	0.00	0.00	147.10	147 10	162 90	162 90
*	9059 000	821.13	0.00	821 70	15.80	0 00	980 00	0.00	0.00	0.00	147 10	162 90	0 00
*	9059 000	821 13	0.00	821 70	15.80	0 00	980 00	0 00	0.00	147.10	147 10	162 90	162 90
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	9070.000	821.56	0 00	821 80	38 00	29 90	945 96	4 14	38 00	136 00	142 00	170 00	174 00
	9070.000	821 54	-0 02	821 80	30 53	10 91	969.09	0 00	0 05	139 47	142 00	170 00	170 00
	10059.000	822 73	0 00	822 85	125 00	43 76	890.89	45 35	125 00	225 00	274 50	310 00	350 00
	10059 000	822 82	0 09	822 94	93 33	0 00	906 80	73 20	0 37	274 50	274.50	310 00	367 83
*	10060 000	822 69	0 00	822 89	125 00	214 82	541 04	224 14	125 00	225 00	274 50	310.00	350 00
*	10060 000	822 77	0 08	822 99	102 54	0 00	563 83	416 17	0 74	274 50	274 50	310.00	377 04
	10090 000	822 79	0 00	822.97	125 00	222 75	528 38	228.87	125 00	225 00	274 50	310 00	350.00
	10090 000	822 87	0 09	823.08	103 63	0 00	548 79	431 21	0 74	274 50	274 50	310 00	378 13
*	10091 000	822.89	0 00	823.00	125.00	53 78	871 78	54 44	125.00	225 00	274 50	310 00	350.00
*	10091 000	823.00	0.11	823 11	97.34	0 00	885 13	94 87	0 41	274.50	274 50	310 00	371.84
	11141 000	823 76	0 00	823 83	163 67	58 52	675.70	245 78	0 00	0 00	140 00	184 00	0.00
	11141 000	823.88	0 12	823 95	114 53	46 24	693.52	240 23	0 03	120 64	140 00	184 00	235 17
*	11711 000	824 43	0 00	824 76	105 46	354.89	609 02	16 09	0 00	0 00	130 00	150 00	0 00
*	11711 000	824 54	0 11	824 84	107 76	361.82	601 42	16 76	116 00	41 00	130 00	150 00	157.00
	12041 000	825 61	0 00	826 34	31 00	49 02	903 04	27 94	31 00	125 00	130.00	150 00	156 00
	12041 000	825 64	0 03	826 37	31 00	48 99	902 86	28 14	31 00	125 00	130.00	150 00	156.00
	12061 000	825 63	0 00	826 46	21 00	0 00	980 00	0 00	-235 00	235 00	396 00	417 00	550.00
	12061 000	825 66	0 03	826 48	21 00	0 00	980 00	0 00	-235 00	235 00	396 00	417 00	550.00
	12062 000	825 64	0.00	826 46	21.00	0 00	980 00	0 00	-235.00	235 00	396 00	417 00	550 00
	12062 000	825 67	0 03	826.49	21 00	0 00	980.00	0 00	-235 00	235 00	396 00	417 00	550 00
	12192 000	827 95	0 00	828 56	21 00	0 00	980.00	0 00	-235 00	235.00	395 50	416 50	550 00
	12192 000	827 99	0 04	828 59	21 00	0.00	980.00	0 00	-235 00	235.00	395.50	416 50	550 00
	12193 000	827 96	0 00	828.56	21.00	0 00	980 00	0 00	-235 00	235 00	395 50	416 50	550 00
	12193 000	827 99	0.04	828 59	21.00	0 00	980 00	0 00	-235 00	235 00	395 50	416 50	550.00
	12196.000	828 12	0 00	828 61	27 00	21 12	921 39	37 49	27.00	393 00	395 50	416 50	420 00
	12196 000	828 16	0.03	828 64	27 00	21 09	921 44	37 47	27.00	393 00	395 50	416 50	420 00
*	12823 000	829 09	0.00	829 10	247 26	353 09	193 34	433 58	0.00	0 00	96 00	112 00	0 00
*	12823 000	829 18	0 08	829 19	205 00	287 30	215 54	477.17	205.00	30 00	96 00	112.00	235 00

*	13507 000	829 37	0 00	829 44	219 02	21 70	306 02	652 28	0 00	0 00	283 00	300 00	0 00
*	13507 000	829 49	0 12	829 56	180 55	23 26	303 96	652.78	200.00	240 00	283 00	300 00	440 00
*	14107 000	829 81	0 00	829 88	174 47	142 65	760 06	77 30	0 00	0 00	141 00	182 00	0 00
*	14107 000	829 92	0 10	829 98	104 18	136 40	775 94	67 67	0 03	99 19	141 00	182 00	203 38
*	14131 000	829 72	0 00	830 03	155 41	183 70	695 54	100 76	0 00	0 00	141.00	182 00	0 00
*	14131 000	829 80	0 09	830 15	86 28	169 68	732 14	78 18	0 06	109 83	141.00	182 00	196 12
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	14132 000	829 34	0 00	830 42	141 92	0 03	979 97	0 00	0 00	0 00	141.00	182 00	0 00
*	14132 000	829 50	0 17	830 47	119 93	0 03	979 97	0 00	120 00	100 00	141.00	182 00	220 00
	14142 000	829 60	0 00	830 51	151 18	0 03	979 97	0 00	0 00	0 00	141 00	182 00	0 00
	14142 000	829 64	0 04	830 52	152 62	0 03	979 97	0 00	420 00	10 00	141 00	182 00	430 00
	14143 000	830 56	0 00	830 74	198 94	204 20	664 03	111 76	0 00	0 00	141 00	182 00	0 00
	14143 000	830 57	0 01	830 74	201 30	204 50	663 57	111 93	0 00	0 00	141 00	182.00	0 00
	14685 000	831 45	0 00	831 63	197 08	279 37	513 22	187 41	0 00	0 00	252 00	270 00	0 00
	14685 000	831 46	0 00	831 63	186 27	280 35	512 41	187 24	200 00	180 00	252 00	270.00	380 00
	15197 000	832 30	0 00	832 57	125.49	74 42	716 99	188 59	175.00	75 00	165 00	187 00	250 00
	15197 000	832 37	0 07	832 64	124.34	0 00	720 81	259 19	0 19	165 00	165 00	187.00	289 34
*	15372 000	832 59	0 00	833 48	72 07	29 24	898 23	52.52	75.00	140 00	165 00	187 00	215 00
*	15372 000	832.69	0 10	833 59	50.00	34 04	913 55	32.41	50.00	150 00	165 00	187 00	200.00
	15412 000	832.86	0 00	833 88	55 00	26 72	919 33	33.96	55.00	150 00	165 00	187 00	205 00
	15412 000	832 95	0 09	833 97	45.00	29 78	931 90	18 32	45.00	150 00	165 00	187 00	195 00
	15432 000	833 01	0 00	834.09	45 00	23 77	932 40	23 82	45 00	154 00	165 00	187 00	199 00
	15432 000	833 10	0 08	834.19	35 00	16.85	947.47	15 68	35 00	159 00	165.00	187 00	194 00
	15452 000	833 17	0 00	834 33	35 00	15 38	950 70	13 92	35 00	159 00	165 00	187 00	194 00
	15452 000	833 27	0 11	834 38	35 00	16.52	948.19	15 29	35 00	159 00	165 00	187 00	194 00
	15472 000	833 89	0 00	834 62	25 00	0 00	980.00	0 00	0 00	0 00	395 00	420 00	0 00
	15472 000	833 92	0 04	834 64	25 00	0.00	980 00	0 00	0 00	0 00	395 00	420 00	0 00
*	15473 000	833 89	0 00	834 62	25 00	0 00	980 00	0 00	0 00	0 00	395 00	420 00	0 00
*	15473.000	833 93	0 04	834 65	25 00	0 00	980 00	0 00	0 00	0 00	395 00	420 00	0 00
*	15651 000	836 09	0 00	836 52	25 00	0 00	980 00	0 00	0 00	0 00	395 00	420 00	0 00
*	15651 000	836 13	0 04	836 56	25 00	0 00	980 00	0 00	0 00	0 00	395 00	420 00	0 00
*	15652 000	836 09	0 00	836 52	25.00	0 00	980 00	0.00	0.00	0 00	395 00	420 00	0 00
*	15652 000	836 14	0 04	836 56	25 00	0 00	980 00	0.00	0 00	0 00	395 00	420 00	0 00
	15655 000	836 17	0 00	836.54	31 00	41 66	884 66	53 68	31.00	392 00	397 00	417 00	423 00
	15655 000	836 21	0 04	836.58	31 00	41 67	884 64	53 69	31 00	392 00	397 00	417 00	423 00
*	16738 000	837 32	0.00	837.34	369 63	296.99	262 76	420 26	0 00	0 00	300 00	321.00	0 00
*	16738 000	837 38	0.06	837 41	270 00	259.62	276 21	444 17	270 00	171 00	300.00	321 00	441 00
*	17491.000	837 71	0.00	838 35	105 06	18 99	928 21	32 81	256 00	318 00	388.00	412 00	574 00
*	17491.000	837 82	0 12	838 43	82 89	15 46	919 31	45 23	95 00	370 00	388 00	412 00	465 00
	17492 000	837 68	0 00	838 39	103 46	13 76	954 36	11 88	255 00	319 00	388.00	412 00	574.00
	17492 000	837 76	0 08	838 50	24.00	0 00	980 00	0 00	0 04	388.00	388 00	412 00	412.00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	17616 000	837 76	0 00	838 59	25 11	0 00	980 00	0 00	193.00	302.00	388 00	412 00	495 00
	17616 000	837 78	0 02	838 60	24 00	0 00	980 00	0.00	0.00	388.00	388 00	412 00	412 00
	17617 000	837 77	0 00	838 59	25 14	0 00	980 00	0.00	194.00	301 00	388 00	412 00	495 00
	17617 000	837 78	0 02	838.60	25 25	0 00	980.00	0.00	40.00	380 00	388 00	412 00	420.00
*	17907 000	839 23	0.00	839.54	49 17	0.00	980.00	0 00	-100 00	100 00	200 00	256 00	570 00
*	17907.000	839 24	0 01	839 55	49 20	0.00	980.00	0 00	-100 00	100 00	200 00	256 00	570 00
	17908 000	839 22	0 00	839 56	49 15	0 00	980 00	0 00	-100 00	100 00	200 00	256 00	570.00
	17908.000	839 22	0 01	839 57	49 18	0 00	980 00	0 00	-100 00	100 00	200 00	256 00	570 00
	17913 000	839 23	0 00	839 58	49 16	0 00	980 00	0 00	-100 00	100 00	200 00	256 00	570.00
	17913 000	839 24	0 01	839 59	49 19	0 00	980 00	0 00	-100 00	100 00	200 00	256 00	570.00
*	17914 000	839 29	0.00	839 59	49 42	0 00	980 00	0 00	98 00	200 00	200.00	256 00	298.00
*	17914 000	839 30	0 01	839 60	49 45	0 00	980 00	0 00	0.00	200.00	200 00	256 00	256 00
	18282 000	839 91	0 00	840.14	65 39	0 00	980.00	0 00	0.00	0.00	456 00	529 00	0.00
	18282 000	839 92	0 00	840.14	57 36	0 00	980 00	0 00	0 00	456 00	456 00	529 00	529 00
	18412.000	840 09	0.00	840.30	167 77	1 80	978 20	0 00	0 00	0 00	456 00	529 00	0 00
	18412 000	840 09	0.00	840 30	58 36	0 00	980 00	0 00	0 01	456 00	456 00	529.00	529 00
*	18447 000	840 32	0 00	840 38	180 13	8 73	471 27	0 00	0 00	0 00	465 00	520 00	0 00
*	18447 000	840 32	0 00	840 38	46 86	0 00	480 00	0 00	0 03	465 00	465 00	520 00	520 00
*	19134 000	840 63	0 00	840 68	38 26	0 00	480 00	0 00	213 00	400.00	485 00	529 00	613 00
*	19134 000	840 63	0 01	840 69	38 28	0 00	480 00	0 00	57.00	475 00	485 00	529 00	532 00
*	19337 000	842 39	0 00	842 47	20 60	0 00	480.00	0 00	110 00	460.00	495 70	516 30	570 00
*	19337 000	842.36	-0 02	842 45	20 60	0 00	480 00	0 00	30 00	490 00	495 70	516 30	520 00
	19338 000	842.39	0.00	842.47	20 60	0.00	480 00	0 00	110 00	460 00	495 70	516 30	570 00
	19338.000	842 37	-0.02	842.45	20.60	0.00	480 00	0.00	110 00	460 00	495 70	516 30	570 00
*	20151 000	843 29	0 00	843.44	67 21	208 31	271 69	0.00	140 00	210 00	283 00	300.00	350 00

*	20151 000	843 28	-0 01	843 43	49.24	206 76	273.24	0 00	60 00	250 00	283 00	300 00	310 00
*	20631 000	844 82	0 00	845 68	43 67	34.40	407 63	37 97	120 00	170 00	230.00	241 00	290 00
*	20631 000	844 83	0 01	845 70	31 07	34 80	409 95	35 24	35 00	215 00	230 00	241 00	250 00
*	21060 000	847 66	0 00	848.01	26 89	0 00	479 93	0 07	140 00	220.00	295 70	311 70	360 00
*	21060 000	847 68	0 02	848 03	16 00	0 00	480 00	0 00	17 00	295 00	295 70	311 70	312 00
*	21061 000	847 38	0 00	848 30	15 99	0 00	480 00	0.00	140.00	220 00	295 70	311.70	360 00
*	21061 000	847 40	0 02	848 32	15 99	0 00	480 00	0 00	140 00	220.00	295 70	311.70	360 00
*	21111 000	848 77	0 00	848 88	140 00	135 33	242 21	102 45	140 00	220 00	295 70	311 70	360 00
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*	21112 000	848 75	0 00	848 90	140 00	41.89	406 27	31 84	140 00	220 00	295 70	311 70	360 00
*	21112 000	848 76	0 01	848 92	140 00	42 78	404 79	32 42	140 00	220 00	295 70	311 70	360.00
*	21737 000	849 39	0 00	849 47	90 21	12 27	460 47	7 26	165 00	140 00	255 00	297 00	305 00
*	21737 000	849 42	0 03	849 51	45.20	0 00	477 01	2 99	0 17	255 00	255 00	297 00	300 20
*	22067 000	849 63	0 00	849 74	102 69	148 44	289 12	42 44	130 00	250 00	296.40	312 60	380 00
	22067 000	849 68	0 05	849 79	103 39	149 40	287 14	43 47	130 00	250 00	296 40	312 60	380.00
*	22068 000	849 70	0 00	849 76	103 66	210 80	207 45	61.75	130 00	250 00	296 40	312 60	380 00
*	22068 000	849 75	0 05	849 80	104.32	211 46	205 58	62 96	130 00	250 00	296 40	312 60	380 00
*	22114 000	850 51	0 00	850 54	130 00	215 02	144 66	120 32	130 00	250 00	296 40	312 60	380 00
*	22114 000	850 52	0 01	850 55	130 00	214 93	144 36	120 71	130 00	250 00	296 40	312.60	380.00
	22115 000	850 51	0 00	850 54	130 00	190 01	183 65	106.34	130.00	250.00	296 40	312 60	380 00
	22115 000	850 52	0 01	850.55	130 00	189 97	183 32	106 71	130 00	250 00	296 40	312 60	380 00
	22455 000	850 61	0 00	850 68	138 24	54 97	325 45	99 58	0 00	0 00	217.00	240 00	0 00
	22455 000	850 62	0.01	850 70	69.62	47 53	338.13	94 34	0 05	197 08	217 00	240 00	266.70
*	22755 000	850 74	0 00	850 94	98.24	9 94	391 48	78 58	0 00	0.00	200 00	222 00	0.00
*	22755 000	850 75	0 01	850 98	40.54	0.38	407 96	71 66	0 05	199 28	200 00	222 00	239 83
	23200 000	851 36	0 00	851 43	135 27	162 04	157 17	100 79	180 00	390 00	464 00	473 00	570 00
	23200 000	851 47	0 11	851 53	115 47	275 97	144 03	0.00	0 53	357 53	464 00	473.00	473 00
	23500 000	851 64	0 00	851.78	63 52	76 93	262 39	80 68	80 00	485.00	516 80	532 20	565.00
	23500 000	851 75	0 12	851 89	64 88	78 61	259 13	82 26	80 00	485 00	516 80	532 20	565 00
	23501 000	851 69	0 00	851 80	64 17	97 41	220.55	102 05	80 00	485 00	516 80	532 20	565 00
	23501.000	851.80	0.11	851 90	65 49	99 11	217 27	103.62	80 00	485 00	516 80	532.20	565.00
*	23548 000	853 53	0 00	853.57	80.00	122.99	172 79	124 22	80 00	485.00	516 80	532 20	565.00
*	23548 000	853 56	0 03	853 59	80 00	123 28	172 17	124 55	80 00	485 00	516 80	532 20	565.00
	23549 000	853 53	0 00	853 57	80 00	100 18	208.51	111.31	80 00	485 00	516 80	532 20	565 00
	23549 000	853 56	0 03	853.60	80.00	100 47	207 87	111 66	80.00	485.00	516.80	532 20	565 00
*	23875.000	853 62	0 00	853 64	206 90	175.68	153 27	91 05	225 00	125.00	267 00	287 00	350 00
*	23875 000	853 65	0 02	853 66	169 49	163 18	160.21	96 61	0 10	180 82	267 00	287 00	350 31
*	24240 000	853.61	0.00	853 85	67 22	12 23	362 73	45.04	135.00	105 00	150 00	167 00	240 00
*	24240 000	853 63	0 02	853.89	31.59	4 69	376 62	38 69	0 04	146 18	150 00	167 00	177 77
*	24330 000	853 91	0 00	853 97	86 25	96.82	213 54	109 64	90 00	415 00	452 00	467.00	505 00
*	24330 000	853 96	0.05	854 03	52 73	93 08	220 45	106.47	0 04	433 82	452 00	467 00	486 55
	24331 000	853 93	0 00	853.98	86 58	116.44	171 77	131 79	90.00	415 00	452 00	467 00	505.00
	24331.000	853 98	0 04	854 03	53 69	113 29	177 37	129 34	0 04	433.34	452 00	467 00	487 03
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	24401 000	855.03	0.00	855 05	90 00	130 37	144 61	145.01	90.00	415 00	452 00	467 00	505 00
*	24401 000	855 08	0 04	855.10	106.97	98 75	149 76	171 48	0 28	435.06	452.00	467 00	542 03
	24402 000	855 03	0 00	855 06	90 00	110 25	187 12	122 63	90 00	415 00	452 00	467 00	505 00
	24402 000	855 07	0 04	855 10	105 63	82 79	193 18	144.03	0 24	435 18	452 00	467 00	540 81
*	24552.000	855.04	0.00	855 16	34.84	0 00	420 00	0 00	75.00	300 00	320 00	355 00	375.00
*	24552 000	855 08	0 05	855 20	34 95	0 00	420 00	0 00	0 00	320.00	320 00	355 00	355.00
*	24664 000	855 11	0 00	855 32	78 00	25 42	348.16	46 42	78 00	272 00	297 00	312 00	350 00
*	24664 000	855.16	0 05	855 35	78 00	26 84	344 51	48.65	78 00	272 00	297 00	312.00	350 00
*	24665 000	855 14	0 00	855 33	78 00	73 73	212 27	134 00	78 00	272 00	297 00	312.00	350 00
*	24665 000	855 19	0 05	855 36	78 00	76.14	206 52	137 33	78 00	272.00	297 00	312 00	350 00
	24735 000	855 49	0.00	855 62	78 00	88 30	177 75	153.95	78.00	272 00	297 00	312 00	350 00
	24735 000	855 51	0 02	855 63	78 00	89 01	176 09	154 90	78 00	272 00	297 00	312 00	350 00
*	24736 000	855 49	0 00	855 62	78 00	40 92	314.25	64 83	78 00	272 00	297 00	312 00	350 00
*	24736 000	855 51	0 02	855 64	78 00	41 54	312 76	65 70	78 00	272 00	297 00	312 00	350.00
	25056 000	855 80	0 00	855 95	101.97	7 70	397 50	14.80	250 00	550 00	699 00	727 00	800 00
	25056 000	855 83	0 03	855 99	33 59	0.00	413.12	6 88	0 05	699 00	699 00	727 00	732 60
	25531 000	856 27	0 00	856 45	42 04	0 00	418 58	1 42	210.00	590.00	716 00	750.00	800 00
	25531.000	856 33	0 06	856 51	30 55	0.00	420 00	0 00	0 00	716 00	716.00	750 00	750 00
	26053 000	857 10	0 00	857.32	46.74	0 00	417 29	2 71	130.00	800 00	875 00	912 00	930 00
	26053.000	857 14	0 05	857 36	47 72	0 00	416 85	3 15	64.00	865.00	875 00	912 00	929 00
	26228 000	857 43	0 00	857.64	30 00	0.00	420 00	0 00	160 00	430 00	485 00	515 00	590 00
	26228 000	857 46	0 03	857.67	30 00	0 00	420 00	0 00	160 00	430 00	485 00	515 00	590.00

	26229 000	857 43	0 00	857 64	30 00	0 00	420.00	0 00	160 00	430 00	485 00	515 00	590 00
	26229 000	857 46	0.03	857 67	30 00	0 00	420.00	0 00	160 00	430 00	485 00	515 00	590 00
*	26297 000	857 14	0 00	858 51	30 00	0 00	420 00	0 00	160 00	430 00	485 00	515 00	590 00
*	26297 000	857 17	0 03	858.53	30 00	0 00	420 00	0 00	160 00	430 00	485 00	515 00	590 00
*	26298 000	858 78	0 00	858 89	30 00	0 00	420 00	0 00	160 00	430 00	485 00	515 00	590 00
*	26298 000	858 79	0 01	858 91	30 00	0 00	420 00	0 00	160.00	430 00	485 00	515 00	590 00
	26578.000	859 10	0 00	859 26	225 93	441 24	335 25	243 52	305 00	65 00	211.00	223 00	370 00
	26578 000	859 11	0 01	859 27	226 42	442 26	334 04	243 71	305 00	65 00	211 00	223 00	370 00
*	27005 000	859 71	0 00	859 75	350 00	464 33	218 11	337 56	350 00	750 00	940 00	962 00	1100 00
*	27005.000	859 72	0 00	859 75	350 00	464 49	217 84	337 67	350 00	750 00	940 00	962 00	1100 00
	27006 000	859 72	0 00	859 75	350 00	529 59	140 40	350.01	350 00	750 00	940 00	962 00	1100 00
	27006 000	859 73	0 00	859 75	350 00	529 69	140 24	350 07	350 00	750 00	940 00	962 00	1100 00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	27009 000	859 73	0.00	859 75	350 00	529 80	140 06	350 14	350 00	750 00	940 00	962 00	1100 00
*	27009 000	859 71	-0 01	859 78	200 00	544 25	209 20	266 55	200 00	825 00	940 00	962 00	1025 00
	27010 000	859 72	0 00	859 75	350 00	468 46	210 98	340 56	350.00	750 00	940 00	962 00	1100 00
	27010 000	859 70	-0 02	859 78	200 00	464 55	305 18	250 27	200.00	825 00	940.00	962 00	1025 00
	27581 000	860 02	0 00	860 05	325 00	217 51	123.44	679 05	325 00	175 00	325 00	338 00	500 00
*	27581 000	860 15	0 13	860 18	325 00	227 66	119 92	672 43	325 00	175 00	325 00	338 00	500 00
	27582.000	860 03	0.00	860 05	325 00	226 81	85 29	707 90	325 00	175 00	325 00	338.00	500 00
	27582 000	860 15	0 13	860 18	325 00	237 20	83 33	699 47	325 00	175 00	325 00	338.00	500 00
	27585 000	860 03	0 00	860 05	325.00	227 07	85.24	707.69	325 00	175.00	325 00	338 00	500 00
	27585 000	860 15	0 13	860 18	325 00	237 39	83.29	699.32	325 00	175 00	325 00	338 00	500 00
*	27912 000	860 04	0 00	860 50	84 36	43 29	877.48	99 23	170 00	300 00	397.00	429 00	470.00
*	27912 000	860 15	0 11	860.58	84 64	44 17	872 40	103 43	170 00	300 00	397 00	429 00	470.00
*	27913.000	861 02	0 00	861 57	170 00	167 99	569 66	282 35	170 00	300 00	397 00	429 00	470 00
*	27913 000	861 02	0 00	861 57	170 00	167 99	569 66	282 35	170.00	300 00	397 00	429 00	470 00
*	27973 000	861 92	0 00	862 07	170 00	380 44	347 54	292 02	170.00	300 00	397 00	429 00	470 00
*	27973 000	861.92	0 00	862 07	170 00	380 44	347 54	292 02	170 00	300.00	397 00	429 00	470 00
*	27974 000	861 98	0 00	862 08	170 00	165 29	662 87	191 84	170 00	300 00	397 00	429 00	470 00
*	27974 000	861 98	0.00	862.08	170 00	165.29	662 87	191 84	170 00	300 00	397.00	429 00	470 00
	28497.000	862 25	0 00	862.29	303 14	504.72	495 36	19 92	350 00	250 00	457 00	507 00	600.00
	28497 000	862 25	0 00	862.29	292.00	503 94	494.61	21.45	292 00	250 00	457 00	507 00	542 00
*	28967 000	862.49	0 00	862 68	253.44	79 65	940.13	0 21	555 00	200 00	677 00	737.00	755 00
*	28967 000	862.48	0 00	862 68	194 00	76 94	943 06	0 00	194 00	540.00	677 00	737.00	734 00
	29317 000	862 91	0 00	863 14	254 98	60 16	941 09	18 75	550 00	200.00	659 00	709 00	750 00
	29317.000	862 90	0.00	863.14	145 00	57 64	942 84	19 52	145.00	586 00	659 00	709 00	731 00
	29797 000	863 52	0 00	863 75	68.29	0 00	1017.86	2 14	0.00	0 00	1500 00	1585 00	0 00
	29797.000	863 52	-0 01	863 75	63 00	0 00	1018 29	1 71	63.00	1525 00	1500 00	1585 00	1588 00
*	30117 000	863.98	0 00	864 27	90 77	22 84	887 16	0 00	235 00	1269 00	1381 80	1447 60	1504 00
*	30117 000	863 97	-0 01	864 26	90 61	22 67	887 33	0 00	235 00	1269.00	1381 80	1447 60	1504 00
	30118 000	863 98	0.00	864 27	90 81	22 21	887 79	0 00	250 00	1350 00	1381 80	1447 60	1600 00
	30118.000	863 97	-0 01	864.27	90 64	22.03	887 97	0.00	250 00	1350 00	1381.80	1447 60	1600 00
*	30205 000	867 12	0 00	867 17	348.81	128 32	771 25	10 43	470.00	1130 00	1381 80	1447 60	1600 00
*	30205 000	867 23	0 11	867 27	240 23	121 21	777 28	11 51	360 00	1240 00	1381 80	1447 60	1600 00
	30206 000	867 12	0 00	867 17	349 36	131 76	766 60	11 64	470 00	1130 00	1381 80	1447 60	1600 00
	30206 000	867 23	0 11	867 27	240 76	124.46	772 75	12 79	360 00	1240 00	1381 80	1447 60	1600 00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	30613 000	867 21	0 00	867 23	341 35	291 85	399 20	218 94	-220.00	220 00	445 00	488 00	645 00
	30613 000	867 32	0 10	867 34	343.72	298 18	392 97	218 84	-220 00	220 00	445.00	488 00	645 00
*	31429 000	867 33	0 00	867 63	150 00	116 44	578 42	215 14	150 00	350 00	400 00	427 00	500 00
*	31429 000	867 41	0 08	867 72	110 00	105 59	590 45	213.96	110 00	370.00	400 00	427 00	480 00
*	31590.000	867 77	0.00	867 80	128 00	457.84	94.47	357.68	128.00	80 00	140 50	145 50	208 00
*	31590 000	867 86	0 09	867.89	117.02	459 11	96 63	354 26	0 11	84 87	140 50	145 50	201 89
	31591 000	867 75	0 00	867 83	127 00	401 63	197 09	311 28	127 00	80 00	140.50	145 50	207 00
	31591 000	867 83	0 09	867 92	115 18	400 35	201 58	308 07	0 10	85 82	140 50	145 50	201.00
	31631 000	867 73	0 00	867 83	107 00	394.30	210 43	305 27	107 00	90.00	140 50	145 50	197.00
	31631 000	867 82	0 09	867 92	98 95	399 57	215 00	295 42	0.16	91 74	140 50	145 50	190 69
	31632 000	867 80	0 00	867 84	107 00	463 31	126 70	359 99	107 00	90 00	140 50	145 50	197 00
	31632 000	867 89	0 09	867 94	99 58	470 95	129 55	349 50	0 17	91 44	140 50	145 50	191 02
*	31647 000	868 64	0 00	869 53	103 00	0.87	710.49	238 63	103 00	46 00	49 50	68 50	149 00
*	31647 000	868 63	0.00	869 53	103 00	0 85	711 33	237 82	103.00	46.00	49 50	68 50	149 00
*	31648 000	868 69	0 00	869 56	102 00	0 99	639 33	309 68	102 00	47.00	49.50	68 50	149 00
*	31648 000	868 69	0 00	869.56	102 00	0 99	639 33	309 68	102 00	47 00	49 50	68 50	149 00
*	31660 000	868 83	0 00	869 71	102.00	4.11	639 51	306 38	102 00	40 00	49 50	68 50	142.00
*	31660 000	868 83	0 00	869 71	102.00	4 11	639.51	306 38	102.00	40 00	49 50	68.50	142 00
	31661.000	868 84	0.00	869 72	98 00	3 48	730 22	216 30	98 00	40.00	49 50	68 50	138 00

	31661 000	868 84	0 00	869 72	98 00	3 48	730 22	216 30	98 00	40 00	49 50	68 50	138 00
*	31711 000	869 72	0 00	870 04	191 00	170 44	682.60	96 96	191 00	494 00	579.00	599 00	685 00
*	31711 000	869 72	0 00	870 04	191 00	170 44	682 60	96 96	191 00	494 00	579 00	599 00	685 00
	31712 000	869 67	0 00	870 10	191 00	166.28	615 30	168 41	191 00	494 00	579 00	599 00	685 00
	31712 000	869 67	0 00	870 10	191 00	166 28	615 30	168 41	191.00	494 00	579 00	599 00	685 00
	31756 000	869 95	0 00	870 21	200 00	206.89	530 88	212 23	200 00	490 00	579 00	599 00	690 00
	31756 000	869 95	0 00	870 21	200 00	206 89	530 88	212 23	200 00	490 00	579 00	599 00	690 00
	31757 000	870 06	0 00	870 23	200 00	225 70	574 38	149 92	200 00	490 00	579 00	599 00	690 00
	31757 000	870 06	0 00	870 23	200 00	225 70	574 38	149 92	200 00	490 00	579 00	599 00	690 00
*	32007 000	870 37	0 00	870 43	217 97	187 82	406 14	356 04	250 00	150 00	254 00	281 00	400 00
*	32007.000	870 37	0 00	870 43	168 00	188 06	414 23	347 71	168 00	198 00	254 00	281 00	366.00
	32577 000	870 52	0 00	870 58	195 93	179 03	745.76	25 22	250 00	150 00	258.00	314.00	400 00
	32577 000	870 53	0 00	870 59	196 09	179 33	745 36	25 31	250 00	150 00	258 00	314 00	400 00
	33042 000	870 67	0 00	870 70	258 43	22 64	280.12	647 23	350 00	150 00	261.00	288 00	500 00
	33042 000	870 67	0 00	870 70	226.00	21 81	281 32	646 87	226 00	230 00	261 00	288 00	456 00
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	33367 000	870 76	0 00	870 79	335.00	0 00	112.16	837 84	335 00	500 00	500 00	509 40	835 00
	33367 000	870 77	0 00	870 80	335.00	0.00	112.06	837 94	335 00	500 00	500 00	509 40	835 00
*	33368.000	870 68	0.00	871.04	334.50	0 00	291.72	658 28	350 00	500 00	500 00	509 40	850 00
*	33368 000	870 68	0.00	871.04	334.50	0.00	291 72	658 28	350 00	500 00	500 00	509 40	850 00
*	33439 000	871 29	0 00	871 39	346 12	0.00	133 39	816.61	350 00	500 00	500 00	509 40	850 00
*	33439 000	871 29	0 00	871 39	346.12	0.00	133 39	816 61	350 00	500 00	500 00	509 40	850.00
*	33440 000	871 39	0.00	871.41	340 00	0.00	97 31	852 69	340.00	500 00	500 00	509 40	840 00
*	33440.000	871 39	0 00	871.41	340 00	0.00	97 31	852.69	340.00	500 00	500 00	509 40	840.00
*	33970 000	871 45	0 00	871.45	400 00	126.58	579 40	244.02	400 00	250 00	322 00	477 00	650.00
*	33970 000	871 46	0 01	871 46	300.00	150.30	687 91	111.79	300.00	250 00	322 00	477 00	550.00
*	34901 000	871 51	0 00	871 51	450 00	498.65	107 48	343.87	450.00	825 00	1050 00	1072 00	1275 00
*	34901 000	871.54	0 03	871 55	350 00	465.47	132 86	351.67	350.00	875 00	1050 00	1072 00	1225.00
*	35481.000	871.71	0.00	871 74	385 38	643.67	191 07	115.26	400.00	575 00	805 00	828 00	975 00
*	35481.000	871.80	0 09	871 83	368 00	640.53	187 72	121.75	368 00	575 00	805 00	828 00	943.00
*	36337 000	872.83	0 00	873 14	184 25	143.15	613 92	192 93	-286.00	286 00	349 00	382 00	649.00
*	36337.000	872.82	-0 01	873 13	184 00	142 52	615 31	192.17	-286.00	286 00	349 00	382 00	649.00
	36349.000	872.81	0 00	873 14	177 85	126 71	627 92	195 37	-292 00	292 00	349 00	382 00	649.00
	36349 000	872.80	-0 01	873 13	177 62	126 15	629 24	194 62	-292 00	292 00	349 00	382 00	649 00
	37069.000	874.53	0 00	874 90	96 72	146 29	723 81	79.90	0 00	0 00	86 00	110 00	0.00
	37069 000	874.53	0 00	874 89	77 00	152.94	720 20	76 86	77 00	63 00	86 00	110 00	140.00
*	37814.000	875 59	0 00	875 73	200 00	88 16	838 41	23 44	200 00	103 00	200 00	255 00	303.00
*	37814 000	875 58	-0 01	875 73	153 00	85 31	844.30	20 39	153 00	126 00	200 00	255 00	279.00
*	38152 000	875 82	0 00	875 96	31 20	0 00	550.00	0 00	0 00	0 00	93.70	124 90	0.00
*	38152 000	875 81	0 00	875 96	31 20	0 00	550.00	0 00	0 00	0 00	93.70	124 90	0.00
	38153 000	875 79	0 00	875 99	31 20	0 00	550 00	0 00	0 00	0 00	93.70	124 90	0.00
	38153 000	875 79	0 00	875 99	31.20	0 00	550 00	0 00	0 00	0 00	93.70	124 90	0 00
	38292 000	875 97	0 00	876 17	31 20	0 00	550 00	0 00	0 00	0 00	93.70	124 90	0.00
	38292 000	875 97	0 00	876 17	31.20	0 00	550 00	0 00	0 00	0.00	93.70	124 90	0.00
	38293 000	876 03	0.00	876 19	31.20	0.00	550 00	0 00	0 00	0.00	93.70	124 90	0.00
	38293 000	876 03	0.00	876.19	31 20	0 00	550 00	0 00	0 00	0.00	93 70	124 90	0.00
	38533 000	876 25	0.00	876.35	80.08	29.31	519 51	1.18	0.00	0.00	100.00	145 00	0 00
	38533 000	876 25	0.00	876 34	71.00	30 88	518 13	0 99	71.00	78.00	100.00	145 00	149 00
*	39630 000	876 44	0.00	876.45	250 00	176.70	19 16	164.14	250.00	600 00	727.90	732 10	850.00
*	39630 000	876 44	0.00	876.45	232 95	164.49	19 74	175.77	0.31	628 25	727.90	732 10	861.20
	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	39631 000	876 44	0 00	876.45	250 00	190.05	6 88	163.07	250 00	600 00	727 90	732 10	850.00
*	39631 000	876 44	0 00	876 45	235 27	155 26	7 35	197 39	0 52	629 68	727.90	732 10	864 96
	39675 000	876 44	0 00	876 45	250 00	190 05	6 88	163 07	250 00	600 00	727 90	732 10	850.00
	39675 000	876 45	0 00	876 45	234 91	155 34	7 36	197 31	0 52	629 85	727 90	732 10	864 77
	39676 000	876 45	0 00	876 45	250 00	174 57	23 27	162 16	250 00	600 00	727 90	732 10	850.00
	39676 000	876 45	0 00	876 45	232 25	162 45	23 99	173 56	0 30	628 59	727 90	732 10	860 84
*	39814 000	876 45	0 00	876 46	250 00	166 20	33.30	160 50	250 00	600 00	717 10	722 80	850 00
*	39814.000	876 46	0 00	876 46	220 49	165 23	34.86	159 91	0 22	614 69	717 10	722 80	835.18
*	39951 000	876 47	0 00	876 48	236 00	155 52	51.42	153 06	236 00	607 00	706 40	713 50	843 00
*	39951 000	876 47	0 00	876.48	211.53	276 54	54.95	28 52	0 46	513 42	706.40	713.50	724 95
*	40089 000	876 52	0 00	876 62	190 00	130.28	100.56	129 16	190 00	630 00	695 70	704 20	820.00
*	40089 000	876 53	0.01	876 62	190 00	130.30	100 19	129 51	190 00	630 00	695 70	704 20	820 00
*	40226 000	877.39	0.00	877 88	100 00	82.91	178 34	98 74	100 00	650 00	685 00	695 00	750.00
*	40226.000	877 47	0 07	877.94	90 00	79.54	180 16	100 30	90 00	655.00	685 00	695 00	745 00
*	40837.000	880 27	0 00	880 29	250.49	334.54	25 46	0 00	0 00	0.00	616 00	637 00	0 00
*	40837.000	880 28	0 00	880.30	250.91	334 53	25 47	0 00	0 00	0 00	616 00	637 00	0 00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO=	1430 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1430 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1480 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1480 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1480 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1480 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1580 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1580 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1580 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1580.000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1680 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1680 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	1680 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	1680 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	2732 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	2732.000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	2732 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	2732 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	27913 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	27913 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	27913 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	27913 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31647 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31647 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31647 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31647 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31648 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31648 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31648 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31648 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31660.000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31660 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	31660 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	31660 000	PROFILE=	2	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	33368 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	33368 000	PROFILE=	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	33368.000	PROFILE=	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	33368 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	33368 000	PROFILE=	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	33368 000	PROFILE=	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=	40226 000	PROFILE=	1	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	40226 000	PROFILE=	1	MINIMUM SPECIFIC ENERGY
CAUTION SECNO=	40226 000	PROFILE=	2	CRITICAL DEPTH ASSUMED
CAUTION SECNO=	40226.000	PROFILE=	2	MINIMUM SPECIFIC ENERGY

Floodway width summary MINNOW POND DRAIN

Profile No. 2

Section Number	Elevation Increase	Top Width	Left Encroach Station	Left Sta Distance From Center	Center Station	Right Sta Distance From Center	Right Encroach Station
0 000	0 10	106.38	104 51	50 74	155 25	55 64	210.89
310.000	0 13	134 23	82 64	59 76	142 40	74.47	216 87
620 000	0.09	160 00	70 00	59 75	129 75	100 25	230 00
810 000	0 02	170 00	60 00	60 15	120 15	109 85	230 00
1000.000	0 01	170.00	56.00	54.60	110.60	115 40	226 00
1190 000	0 02	170 00	60.00	41 00	101 00	129 00	230 00
1380 000	0 10	198 00	35 00	56 50	91 50	141 50	233.00
1430.000	0 02	200 00	33 00	58 50	91 50	141 50	233.00
1480.000	0 01	198.00	33 00	58 50	91 50	139.50	231 00
1580 000	*** Encroachments not set ***						
1680.000	0 00	173 00	10 00	38 00	48.00	135 00	183 00
2080 000	0 00	212 00	63 00	46 50	109 50	165 50	275 00
2380 000	0 00	172.00	24.00	51 00	75 00	121 00	196 00
2680 000	0 01	84 00	51 00	24 00	75 00	60.00	135.00
2700 000	0 01	74 00	56 00	19 00	75 00	55.00	130.00

2710.000	0 01	68 00	59 00	16 00	75 00	52.00	127 00
2720 000	0 01	64 00	61 00	14.00	75 00	50.00	125 00
2724 000	0 01	62 00	62 00	13 00	75 00	49.00	124 00
2728 000	0 01	60 00	63 00	12 00	75 00	48.00	123 00
2732 000	0 00	104 00	94 00	7 00	101 00	97 00	198 00
2733 000	0 00	104 00	94 00	7 00	101 00	97 00	198 00
2763 000	0 00	97 00	94 00	7 00	101 00	90 00	191 00
2764 000	0 00	99 00	93 00	8 00	101 00	91 00	192 00
2768 000	0 00	107 00	89 00	12 00	101 00	95 00	196 00
3191.000	0 00	191 00	54 00	78 00	132 00	113 00	245 00
3381 000	*** Encroachments not set ***						
3581 000	*** Encroachments not set ***						
3781 000	0 00	152 00	8 00	88 00	96 00	64 00	160 00
4451 000	0 00	145 00	22 00	50 00	72 00	95 00	167 00
5551 000	0 00	226 00	12 00	62 00	74 00	164 00	238 00
5664 000	0 00	190 00	17 00	58 50	75.50	131 50	207 00
5776 000	0 00	171 00	20 00	57 00	77 00	114 00	191 00
5889 000	0 00	161 00	21 00	57 50	78.50	103 50	182 00
6001 000	0 00	147 00	23 00	57 00	80.00	90 00	170 00
6666 000	0 00	149 00	32 00	76 00	108.00	73 00	181 00
7586 000	0 00	151 00	125 00	75 00	200.00	76 00	276 00
8506.000	0 00	137 00	72 00	63 00	135 00	74.00	209 00
8906 000	0 00	49 53	111 86	23 14	135 00	26.39	161 39
8921 000	0 00	41 87	115 48	19 52	135 00	22 34	157.34
8936 000	0 01	33 35	119.65	15 35	135 00	18.01	153.01
8946 000	0 01	27 78	122 51	12.49	135 00	15 29	150 29
8956 000	0 02	22 11	125 51	9 49	135 00	12 62	147 62
8966 000	0 04	18 00	126 00	9 00	135 00	9 00	144.00
8977 000	0 09	15 80	147 10	7.90	155 00	7 90	162 90
9059 000	0 00	15 80	147 10	7 90	155 00	7 90	162 90
9070 000	-0 02	30 53	139 47	16.53	156 00	14 00	170 00
10059 000	0.09	93 33	274 50	17 75	292.25	75 58	367 83
10060 000	0 08	102 54	274 50	17 75	292 25	84 79	377 04
10090.000	0 09	103 63	274 50	17 75	292 25	85 88	378 13
10091 000	0 11	97 34	274 50	17 75	292 25	79 59	371 84
11141.000	0 12	114.53	120 64	41 36	162.00	73.17	235 17
11711 000	0 11	116.00	41 00	99 00	140.00	17.00	157 00
12041 000	0 03	31.00	125.00	15 00	140.00	16.00	156 00
12061 000	0 03	315.00	235.00	171 50	406.50	143.50	550 00
12062 000	0 03	315 00	235.00	171 50	406 50	143 50	550.00
12192 000	0 04	315 00	235 00	171 00	406 00	144 00	550 00
12193 000	0 04	315 00	235 00	171 00	406 00	144 00	550.00
12196 000	0 03	27 00	393 00	13 00	406 00	14 00	420 00
12823 000	0.08	205 00	30 00	74 00	104 00	131 00	235 00
13507 000	0 12	200 00	240 00	51.50	291 50	148 50	440 00
14107 000	0.10	104 19	99 19	62.31	161 50	41 88	203 38
14131 000	0 09	86 28	109 83	51 67	161 50	34 62	196 12
14132.000	0 17	120 00	100 00	61.50	161.50	58 50	220 00
14142 000	0 04	420 00	10 00	151 50	161.50	268 50	430 00
14143 000	*** Encroachments not set ***						
14685 000	0 00	200 00	180.00	81 00	261.00	119 00	380.00
15197 000	0 07	124 34	165 00	11 00	176.00	113 34	289 34
15372 000	0 10	50 00	150.00	26 00	176 00	24 00	200.00
15412 000	0 09	45 00	150.00	26 00	176 00	19 00	195 00
15432 000	0.08	35 00	159 00	17 00	176 00	18 00	194 00
15452 000	0 11	35 00	159 00	17 00	176 00	18 00	194 00
15472 000	*** Encroachments not set ***						
15473 000	*** Encroachments not set ***						
15651 000	*** Encroachments not set ***						
15652 000	*** Encroachments not set ***						
15655.000	0 04	31 00	392.00	15 00	407 00	16.00	423 00
16738 000	0.06	270 00	171 00	139 50	310 50	130.50	441 00
17491 000	0.12	95 00	370 00	30.00	400 00	65.00	465 00
17492 000	0 08	24 00	388 00	12.00	400 00	12 00	412.00
17616 000	0 02	24 00	388.00	12 00	400 00	12 00	412.00
17617 000	0 02	40.00	380.00	20 00	400 00	20 00	420.00
17907.000	0 01	470.00	100 00	128 00	228.00	342 00	570 00

17908 000	0 01	470 00	100 00	128 00	228 00	342 00	570 00
17913 000	0 01	470 00	100 00	128 00	228.00	342 00	570 00
17914 000	0 01	56 00	200 00	28 00	228 00	28 00	256 00
18282 000	0 00	73 00	456 00	36 50	492.50	36 50	529 00
18412 000	0 00	73 00	456 00	36 50	492 50	36 50	529 00
18447 000	0 00	55 00	465 00	27 50	492 50	27 50	520 00
19134 000	0 01	57 00	475.00	32.00	507 00	25 00	532 00
19337 000	-0 02	30 00	490 00	16 00	506 00	14 00	520 00
19338 000	-0 02	110 00	460 00	46.00	506 00	64 00	570.00
20151 000	-0 01	60 00	250 00	41 50	291 50	18 50	310.00
20631 000	0 01	35 00	215 00	20.50	235 50	14 50	250 00
21060 000	0 02	17 00	295 00	8.70	303 70	8 30	312 00
21061 000	0 02	140 00	220 00	83.70	303 70	56 30	360 00
21111 000	0 02	140 00	220 00	83 70	303 70	56 30	360 00
21112 000	0 01	140 00	220 00	83 70	303 70	56 30	360 00
21737 000	0 03	45 20	255 00	21 00	276 00	24 20	300 20
22067 000	0 05	130 00	250 00	54 50	304 50	75 50	380 00
22068 000	0 05	130 00	250.00	54 50	304 50	75.50	380 00
22114 000	0 01	130 00	250.00	54.50	304 50	75 50	380 00
22115 000	0 01	130 00	250 00	54 50	304 50	75.50	380 00
22455 000	0 01	69 62	197 08	31 42	228 50	38.20	266 70
22755 000	0 01	40 54	199.28	11 72	211.00	28.83	239 83
23200 000	0 11	115 47	357 53	110 97	468 50	4.50	473.00
23500 000	0.12	80 00	485 00	39 50	524.50	40 50	565 00
23501 000	0.11	80 00	485 00	39 50	524 50	40 50	565 00
23548.000	0 03	80 00	485 00	39 50	524.50	40 50	565.00
23549 000	0 03	80 00	485 00	39 50	524.50	40 50	565 00
23875 000	0 02	169 49	180 82	96 18	277 00	73 31	350 31
24240 000	0 02	31.59	146 18	12 32	158 50	19 27	177 77
24330 000	0 05	52.73	433 82	25 68	459 50	27 05	486 55
24331 000	0 04	53 69	433 34	26.16	459 50	27 53	487 03
24401 000	0 04	106.97	435 06	24 44	459 50	82 53	542 03
24402 000	0 04	105 63	435 18	24.32	459 50	81 31	540.81
24552 000	0 05	35.00	320 00	17 50	337 50	17 50	355.00
24664 000	0 05	78 00	272.00	32.50	304 50	45 50	350 00
24665 000	0 05	78 00	272.00	32 50	304 50	45 50	350.00
24735 000	0 02	78 00	272.00	32 50	304 50	45 50	350.00
24736.000	0.02	78 00	272.00	32 50	304 50	45 50	350.00
25056 000	0 03	33 60	699.00	14 00	713 00	19 60	732 60
25531.000	0.06	34 00	716 00	17 00	733 00	17 00	750.00
26053.000	0 05	64 00	865.00	28 50	893 50	35 50	929 00
26228 000	0.03	160 00	430 00	70 00	500 00	90 00	590 00
26229.000	0.03	160 00	430.00	70 00	500.00	90 00	590 00
26297.000	0 03	160 00	430 00	70 00	500 00	90 00	590 00
26298 000	0 01	160 00	430 00	70 00	500 00	90 00	590 00
26578 000	0 01	305 00	65 00	152 00	217 00	153 00	370 00
27005 000	0 00	350 00	750 00	201.00	951 00	149 00	1100 00
27006 000	0 00	350 00	750 00	201.00	951 00	149.00	1100 00
27009 000	-0 01	200.00	825 00	126.00	951 00	74.00	1025 00
27010.000	-0.02	200 00	825 00	126.00	951 00	74.00	1025.00
27581 000	0.13	325 00	175 00	156.50	331 50	168 50	500.00
27582.000	0.13	325 00	175 00	156.50	331 50	168 50	500.00
27585 000	0 13	325 00	175 00	156 50	331 50	168 50	500 00
27912 000	0 11	170 00	300.00	113.00	413 00	57 00	470 00
27913 000	0 00	170 00	300.00	113 00	413 00	57 00	470 00
27973 000	0 00	170 00	300.00	113 00	413.00	57 00	470 00
27974 000	0 00	170 00	300 00	113 00	413.00	57 00	470 00
28497 000	0 00	292.00	250 00	232 00	482.00	60 00	542 00
28967 000	0 00	194.00	540 00	167 00	707 00	27 00	734 00
29317 000	0 00	145.00	586 00	98 00	684 00	47 00	731.00
29797 000	-0.01	63 00	1525.00	17 50	1542 50	45 50	1588.00
30117 000	-0 01	235 00	1269 00	145 70	1414 70	89 30	1504 00
30118 000	-0 01	250 00	1350 00	64 70	1414 70	185 30	1600.00
30205 000	0 11	360 00	1240 00	174 70	1414 70	185 30	1600.00
30206.000	0 11	360 00	1240 00	174 70	1414.70	185 30	1600.00
30613 000	0 10	425 00	220 00	246 50	466 50	178 50	645.00
31429 000	0.08	110.00	370 00	43 50	413 50	66 50	480.00

31590 000	0 09	117 02	84 87	58 13	143 00	58 89	201.89
31591 000	0 09	115 18	85 82	57 18	143 00	58 00	201.00
31631 000	0.09	98 95	91 74	51 26	143 00	47 69	190 69
31632 000	0 09	99 58	91 44	51 56	143 00	48 02	191 02
31647 000	0 00	103.00	46 00	13 00	59 00	90 00	149 00
31648 000	0.00	102 00	47 00	12 00	59 00	90 00	149 00
31660 000	0 00	102.00	40 00	19 00	59.00	83 00	142 00
31661 000	0 00	98 00	40 00	19 00	59 00	79 00	138 00
31711.000	0.00	191.00	494 00	95 00	589 00	96 00	685 00
31712 000	0 00	191 00	494 00	95 00	589 00	96 00	685 00
31756 000	0 00	200 00	490 00	99 00	589 00	101.00	690 00
31757 000	0 00	200 00	490 00	99 00	589 00	101 00	690 00
32007 000	0 00	168 00	198 00	69 50	267 50	98 50	366 00
32577 000	0 00	250 00	150 00	136 00	286 00	114 00	400 00
33042 000	0.00	226 00	230 00	44 50	274 50	181 50	456 00
33367 000	0 00	335 00	500 00	4 70	504 70	330.30	835 00
33368 000	0.00	350.00	500.00	4 70	504 70	345 30	850 00
33439 000	0 00	350 00	500.00	4 70	504 70	345 30	850.00
33440 000	0 00	340 00	500.00	4.70	504 70	335 30	840.00
33970 000	0 01	300 00	250 00	149 50	399 50	150 50	550 00
34901 000	0 03	350 00	875.00	186.00	1061 00	164 00	1225 00
35481 000	0 09	368 00	575 00	241 50	816 50	126 50	943 00
36337 000	-0 01	363 00	286.00	79.50	365 50	283 50	649 00
36349 000	-0 01	357 00	292 00	73.50	365 50	283 50	649 00
37069 000	0 00	77 00	63 00	35 00	98.00	42 00	140 00
37814 000	-0 01	153 00	126 00	101.50	227 50	51.50	279 00
38152 000	*** Encroachments not set ***						
38153 000	*** Encroachments not set ***						
38292 000	*** Encroachments not set ***						
38293 000	*** Encroachments not set ***						
38533 000	0 00	71 00	78 00	44 50	122 50	26.50	149 00
39630 000	0 00	232.95	628 25	101 75	730 00	131.20	861 20
39631.000	0 00	235.27	629 68	100 32	730 00	134.96	864.96
39675.000	0 00	234 91	629 85	100 15	730 00	134 77	864 77
39676.000	0.00	232 25	628 59	101 41	730 00	130 84	860 84
39814.000	0 00	220.49	614 69	105 26	719 95	115.23	835.18
39951.000	0 00	211 53	513 42	196 53	709 95	15 00	724.95
40089.000	0 01	190 00	630.00	69.95	699 95	120 05	820.00
40226 000	0 07	90 00	655.00	35 00	690 00	55 00	745.00
40837.000	*** Encroachments not set ***						

FLOODWAY DATA, MINNOW POND DRAIN

PROFILE NO 2

STATION	WIDTH	------- FLOODWAY ------- SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0 000	106	289	5 5	760 9	760 8	0 1
310 000	134	411.	3 9	763 5	763 4	0 1
620 000	160.	384	4 2	765.1	765 0	0 1
810 000	170.	376	4 3	766.4	766 4	0 0
1000 000	170.	370	4 3	767.9	767 9	0 0
1190.000	170	362	4 4	769.4	769 4	0 0
1380 000	198	404	4 0	771.0	770.9	0 1
1430 000	198	363	4.4	771 4	771 4	0.0
1480 000	196	353	4 5	771.9	771 9	0.0
1580 000	213.	340	4 7	773 2	773 2	0.0
1680 000	173	313	5 1	774 3	774 3	0 0
2080 000	212	491	3 3	778 1	778 1	0 0
2380 000	172	394	4 1	779 6	779 6	0 0
2680 000	84	356	4 5	781 2	781 2	0 0
2700 000	74	324	4 9	781 2	781 2	0 0
2710 000	68	302	5 3	781 2	781 2	0 0
2720 000	64	288	5 6	781 2	781.2	0.0
2724 000	62	282.	5 7	781 3	781.3	0.0
2728 000	60	284	5 6	781 4	781.4	0.0
2732 000	59	200	8 0	781 6	781.6	0.0
2733.000	70	292	5 5	783 1	783.1	0.0
2763 000	97.	733	2 2	788 1	788 1	0.0

2764 000	99	743	2 2	788 1	788 1	0 0
2768 000	107	788	2 0	788 1	788 1	0 0
3191 000	191	653.	2 4	788.5	788 5	0 0
3381 000	184	512	3 1	788 9	788 9	0 0
3581 000	160	455	3 5	789 8	789 8	0.0
3781 000	152	426	3 8	790 8	790 8	0 0
4451 000	145	437	3 7	794 4	794 4	0 0
5551 000	226	611	2 6	798 9	798 9	0 0
5664 000	190	465	3 4	799 4	799 4	0 0
5776 000	171	401	4.0	800 2	800 2	0 0
5889 000	161	388	4 1	801 2	801 2	0 0
6001 000	147	366	4 4	802 3	802 3	0 0
6666 000	149	454	3 5	806 9	806 9	0 0
7586.000	151	496	3 2	810 7	810 7	0 0
8506.000	137	423	3 8	814 3	814 3	0 0
8906 000	50	237	4 1	816 1	816 1	0 0
8921 000	42.	205	4 8	816 2	816 2	0 0
8936.000	33.	170	5 8	816 3	816 3	0 0
8946.000	28.	147	6 7	816 3	816 3	0 0
8956.000	22.	122	8.0	816 4	816 4	0 0

FLOODWAY DATA, MINNOW POND DRAIN

PROFILE NO 2

STATION	WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
8966 000	18	105.	9 4	816 5	816.5	0 0
8977 000	16	98	10 0	816 7	816.6	0 1
9059.000	16	162	6.0	821 1	821 1	0 0
9070.000	31.	247	4 0	821 6	821 6	0 0
10059 000	93.	427	2.3	822.8	822 7	0 1
10060 000	103	261	3 8	822.8	822 7	0 1
10090 000	104	274	3 6	822 9	822 8	0 1
10091 000	97	453	2 2	823.0	822 9	0 1
11141.000	115.	555.	1 8	823.9	823.8	0 1
11711 000	108	304	3 2	824 5	824.4	0 1
12041.000	31.	170	5 8	825 6	825.6	0 0
12061.000	21.	135	7 3	825 6	825 6	0.0
12062.000	21.	135	7.3	825 6	825 6	0.0
12192 000	21	158	6 2	828 0	828 0	0 0
12193 000	21	158.	6 2	828 0	828 0	0 0
12196 000	27	199.	4 9	828.1	828 1	0 0
12823 000	205	1250.	0 8	829 2	829.1	0 1
13507 000	181	639	1 5	829 5	829.4	0 1
14107 000	104.	638	1 5	829 9	829 8	0 1
14131 000	86	257	3.8	829 8	829 7	0 1
14132 000	120	124	7 9	829 5	829 3	0 2
14142.000	153	130	7.6	829.6	829 6	0 0
14143 000	297	462	2 1	830.6	830 6	0 0
14685 000	186	524	1 9	831.5	831 5	0 0
15197 000	124.	360.	2 7	832 4	832.3	0 1
15372 000	50.	156	6 3	832 7	832 6	0.1
15412 000	45.	142	6 9	833 0	832 9	0.1
15432 000	35	130	7 5	833 1	833 0	0 1
15452 000	35	129	7.6	833 3	833 2	0 1
15472 000	25.	144	6 8	833.9	833.9	0 0
15473 000	25	144	6 8	833.9	833 9	0 0
15651.000	25	188	5 2	836 1	836.1	0.0
15652 000	25.	188	5 2	836 1	836.1	0 0
15655 000	31.	245	4 0	836 2	836 2	0 0
16738 000	270	1045	0.9	837 4	837 3	0 1
17491 000	83.	177	5 5	837.8	837 7	0 1
17492 000	24	142.	6.9	837 8	837.7	0.1
17616.000	24	135	7 3	837 8	837 8	0.0
17617 000	25	135.	7 3	837.8	837 8	0 0
17907.000	49	218	4 5	839 2	839 2	0 0
17908 000	49	208	4 7	839 2	839 2	0 0
17913 000	49.	208	4.7	839 2	839.2	0 0

FLOODWAY DATA, MINNOW POND DRAIN

PROFILE NO 2

STATION	WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
17914 000	49	221	4 4	839 3	839 3	0 0
18282 000	57	257	3 8	839 9	839 9	0 0
18412 000	58	267	3 7	840 1	840 1	0.0
18447 000	47	240	2 0	840 3	840 3	0 0
19134 000	38	258	1 9	840 6	840 6	0 0
19337 000	21	203	2 4	842 4	842 4	0 0
19338 000	21	203	2 4	842 4	842 4	0 0
20151 000	49	173	2 8	843 3	843.3	0 0
20631 000	31.	84	5 7	844 8	844 8	0 0
21060 000	16	102	4 7	847 7	847 7	0 0
21061 000	16	62	7 7	847 4	847 4	0 0
21111.000	140	193	2 5	848 8	848 8	0 0
21112 000	140	232	2.1	848 7	848 7	0 0
21737 000	45	204	2 3	849 4	849 4	0 0
22067 000	103	280	1 7	849 6	849 6	0 0
22068 000	104	287	1 7	849.7	849 7	0.0
22114 000	130.	406	1 2	850 5	850 5	0 0
22115 000	130	407	1 2	850 5	850.5	0 0
22455.000	70	265	1.8	850 6	850.6	0 0
22755 000	41	143	3.4	850 7	850 7	0.0
23200 000	115	264	1 6	851 5	851 4	0 1
23500 000	65	177	2 4	851 7	851 6	0 1
23501 000	65	180	2 3	851.8	851 7	0 1
23548 000	80	312	1 3	853 5	853 5	0 0
23549 000	80	312	1 3	853 5	853 5	0 0
23875.000	169	531	0 8	853 6	853 6	0 0
24240 000	32.	117	3 6	853 6	853 6	0.0
24330 000	53	224	1 9	853 9	853 9	0 0
24331 000	54	228	1 8	853 9	853.9	0 0
24401.000	107	358	1.2	855.0	855 0	0.0
24402.000	106	356	1.2	855 0	855 0	0 0
24552.000	35	153.	2 7	855 0	855 0	0 0
24664 000	78	155	2.7	855 1	855 1	0 0
24665 000	78	127	3.3	855 1	855 1	0 0
24735 000	78	152	2 8	855 5	855 5	0 0
24736.000	78	183	2 3	855 5	855 5	0 0
25056 000	34.	133	3 2	855.8	855 8	0.0
25531 000	31	126	3 3	856 4	856 3	0 1
26053 000	48	116.	3 6	857 1	857 1	0 0
26228.000	30.	115	3 7	857 4	857.4	0.0
26229 000	30	115	3.7	857.4	857 4	0 0
26297 000	30	45	9 4	857 1	857 1	0 0

FLOODWAY DATA, MINNOW POND DRAIN

PROFILE NO 2

STATION	WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
26298 000	30	154	2.7	858 8	858 8	0 0
26578.000	226	452	2 3	859 1	859 1	0 0
27005 000	350.	813	1 3	859 7	859 7	0.0
27006 000	350	800	1 3	859.7	859 7	0 0
27009 000	200	507	2 0	859 7	859 7	0 0
27010.000	200	518	2 0	859 7	859.7	0 0
27581.000	325	863	1 2	860 1	860 0	0 1
27582 000	325	854.	1.2	860 1	860 0	0 1
27585 000	325	855	1.2	860.1	860 0	0.1
27912 000	85.	244.	4 2	860 1	860 0	0 1
27913.000	170	180	5 7	861 0	861.0	0 0
27973.000	170	333	3 1	861.9	861.9	0.0
27974 000	170	520	2 0	862 0	862 0	0 0
28497 000	292	870.	1 2	862.2	862 2	0 0
28967 000	194	368	2 8	862.5	862 5	0.0

29317 000	145	325	3 1	862 9	862 9	0 0
29797 000	63	266	3 8	863 5	863 5	0 0
30117 000	91	227	4.0	864 0	864 0	0 0
30118 000	91	227	4 0	864 0	864 0	0 0
30205 000	240	719	1 3	867 2	867 1	0 1
30206 000	241	721	1 3	867 2	867 1	0 1
30613 000	344	1115	0 8	867 3	867 2	0 1
31429 000	110	260	3 5	867 4	867 3	0 1
31590 000	117	625	1 5	867 9	867 8	0 1
31591 000	115	617	1 5	867 8	867 7	0 1
31631 000	99	562	1 6	867 8	867 7	0 1
31632 000	100	570	1 7	867 9	867 8	0 1
31647 000	103	173	5 5	868 6	868 6	0 0
31648 000	102	167	5 7	868.7	868 7	0 0
31660 000	102	166	5 7	868 8	868 8	0 0
31661 000	98	173	5 5	868 8	868 8	0 0
31711 000	191	339	2 8	869 7	869 7	0 0
31712 000	191	262	3 6	869 7	869 7	0 0
31756 000	200	325	2.9	869.9	869 9	0 0
31757 000	200	417	2.3	870 1	870 1	0 0
32007 000	168	596	1 6	870 4	870 4	0 0
32577.000	196	609	1 6	870 5	870 5	0 0
33042 000	226	731	1 3	870 7	870 7	0.0
33367 000	335	724	1 3	870.8	870 8	0.0
33368 000	350	224.	4 2	870.7	870.7	0 0
33439 000	350	394	2 4	871 3	871 3	0 0
33440.000	340	946	1 0	871 4	871 4	0 0

FLOODWAY DATA, MINNOW POND DRAIN

PROFILE NO 2

STATION	WIDTH	------- FLOODWAY ------- SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
33970 000	300	1478	0 6	871 4	871.4	0 0
34901 000	350	1131	0 8	871.5	871.5	0.0
35481 000	368	836.	1 1	871.8	871 7	0.1
36337 000	184	315	3 0	872 8	872 8	0 0
36349.000	178	302	3 1	872 8	872 8	0 0
37069 000	77	244	3 9	874 5	874 5	0 0
37814 000	153.	395	2.4	875.6	875 6	0 0
38152.000	31	179.	3 1	875 8	875 8	0 0
38153 000	31	155	3 5	875 8	875 8	0 0
38292 000	31	151	3 6	876 0	876 0	0 0
38293 000	31	173	3 2	876 0	876 0	0.0
38533 000	71	239.	2 3	876.2	876.2	0 0
39630 000	233	1022	0 4	876 4	876 4	0 0
39631 000	235	596	0 6	876 4	876 4	0 0
39675 000	235	595	0 6	876 4	876 4	0 0
39676 000	232	1020	0.4	876 4	876 4	0.0
39814.000	220	743	0 5	876.5	876.5	0 0
39951 000	212	461	0 8	876 5	876 5	0 0
40089 000	190	229	1 6	876 5	876 5	0 0
40226 000	90	106	3 4	877 5	877 4	0 1
40837 000	627	341	1 1	880.3	880 3	0 0

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: MINNOW POND DRAIN

4) DOCUMENT TYPE: 10 YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1     CITY OF FARMINGTON HILLS, FIS, 5670-03-1,  PM = RICHARD ZANOTTI
T2      10-YEAR FLOOD
T3      MINNOW POND DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.       2.        0.        0.  0.000000      0.00      0.0       0.   873.245    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     1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000
NC      .050      .050      .033      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   210.000   460.000   640.000  1230.000     0.000     0.000     0.000     0.000     0.000
NC      .050      .050      .033     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  36263.000    12.000    93.700   124.900     1.000     1.000     1.000     0.000      .400     0.000
GR    887.900     0.000   885.800    93.700   871.100    93.700   868.600   100.000   871.100   106.300
GR    871.100   112.300   868.600   118.600   871.100   124.900   885.800   124.900   885.800   200.000
GR    888.200   235.000   892.000   275.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  36503.000    14.000   100.000   145.000   240.000   240.000   240.000     0.000     0.000     0.000
GR    889.000     0.000   887.900     4.000   879.100    35.000   876.300    74.000   873.400   100.000
GR    869.900   114.000   869.900   117.000   870.000   124.000   875.500   145.000   879.800   200.000
GR    882.700   245.000   883.700   400.000   893.400   446.000   894.000   500.000     0.000     0.000
QT      4.000   160.000   350.000   480.000   920.000     0.000     0.000     0.000     0.000     0.000

X1  37603.000    17.000   727.900   732.100  1100.000  1100.000  1100.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   520.000     0.000   930.000     0.000     0.000     0.000     0.000
GR    881.000     0.000   879.800    30.000   879.100    55.000   878.100   130.000   877.700   230.000
GR    877.300   330.000   876.000   430.000   874.400   530.000   873.700   630.000   869.800   727.900
GR    869.400   730.000   869.800   732.100   873.900   830.000   874.000   930.000   875.400  1030.000
GR    877.100  1130.000   880.100  1230.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      .035      .035      .033     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  37604.000    23.000   727.900   732.100     1.000     1.000     1.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   520.000     0.000   930.000     0.000     0.000     0.000     0.000
BT     23.000     0.000   881.000     0.000    30.000   879.800     0.000    55.000   879.100     0.000
BT    130.000   878.100     0.000   230.000   877.700     0.000   330.000   877.300     0.000   430.000
BT    876.000     0.000   530.000   874.400     0.000   630.000   873.700     0.000   727.900   874.100
BT      0.000   727.900   874.100   870.500   728.800   874.100   871.600   729.600   874.100   872.000
BT    730.000   874.100   872.000   730.400   874.100   872.000   731.200   874.100   871.600   732.100
BT    874.100   870.500   732.100   874.100     0.000   830.000   873.900     0.000   930.000   874.000
BT      0.000  1030.000   875.400     0.000  1130.000   877.100     0.000  1230.000   880.100     0.000
GR    881.000     0.000   879.800    30.000   879.100    55.000   878.100   130.000   877.700   230.000
GR    877.300   330.000   876.000   430.000   874.400   530.000   873.700   630.000   874.100   727.900
GR    869.800   727.900   869.400   728.800   869.400   729.600   869.400   730.000   869.400   730.400
GR    869.400   731.200   869.800   732.100   874.100   732.100   873.900   830.000   874.000   930.000
GR    875.400  1030.000   877.100  1130.000   880.100  1230.000     0.000     0.000     0.000     0.000

X1  37648.000    23.000   727.900   732.100    44.000    44.000    44.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   520.000     0.000   930.000     0.000     0.000     0.000     0.000
BT     23.000     0.000   881.000     0.000    30.000   879.800     0.000    55.000   879.100     0.000
BT    130.000   878.100     0.000   230.000   877.700     0.000   330.000   877.300     0.000   430.000
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BT	876.000	0.000	530.000	874.400	0.000	630.000	873.700	0.000	727.900	874.100
BT	0.000	727.900	874.100	870.700	728.800	874.100	871.800	729.600	874.100	872.200
BT	730.000	874.100	872.200	730.400	874.100	872.200	731.200	874.100	871.800	732.100
BT	874.100	870.700	732.100	874.100	0.000	830.000	873.900	0.000	930.000	874.000
BT	0.000	1030.000	875.400	0.000	1130.000	877.100	0.000	1230.000	880.100	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	874.100	727.900
GR	870.000	727.900	869.600	728.800	869.600	729.600	869.600	730.000	869.600	730.400
GR	869.600	731.200	870.000	732.100	874.100	732.100	873.900	830.000	874.000	930.000
GR	875.400	1030.000	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000
NC	.070	.070	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37649.000	17.000	727.900	732.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	520.000	0.000	930.000	0.000	0.000	0.000	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	869.800	727.900
GR	869.600	730.000	869.800	732.100	873.900	830.000	874.000	930.000	875.400	1030.000
GR	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37762.000	90.000	717.100	722.800	75.000	125.000	113.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	540.000	0.000	695.000	0.000	0.000	0.000	0.000
GR	879.900	0.000	879.200	24.700	878.600	49.400	878.300	74.100	878.100	98.900
GR	878.000	123.600	878.000	148.300	878.000	173.100	878.000	197.800	877.900	222.500
GR	877.800	247.300	877.600	272.000	877.500	296.700	877.500	321.400	877.300	346.200
GR	877.100	370.900	876.900	395.600	876.700	420.400	876.300	445.100	876.000	469.800
GR	875.700	494.600	875.300	519.300	875.100	544.000	874.900	568.700	874.600	593.500
GR	874.400	618.200	873.700	642.900	873.000	667.700	872.200	692.400	871.300	717.100
GR	871.200	717.300	871.200	717.500	871.100	717.700	871.000	717.900	871.000	718.100
GR	870.900	718.300	870.900	718.400	870.900	718.600	870.800	718.800	870.800	719.000
GR	870.800	719.200	870.800	719.400	870.800	719.600	870.800	719.800	870.800	719.900
GR	870.800	720.100	870.800	720.300	870.800	720.500	870.900	720.700	870.900	720.900
GR	871.000	721.100	871.000	721.300	871.100	721.500	871.100	721.600	871.200	721.800
GR	871.200	722.000	871.300	722.200	871.300	722.400	871.300	722.600	871.400	722.800
GR	871.900	738.200	872.500	753.600	873.000	769.100	873.500	784.500	874.100	799.900
GR	874.600	815.400	874.600	830.800	874.600	846.200	874.700	861.700	874.800	877.100
GR	874.900	892.500	875.000	907.900	875.200	923.400	875.500	938.800	875.700	954.200
GR	875.900	969.700	876.300	985.100	876.600	1000.500	876.900	1016.000	877.200	1031.400
GR	877.600	1046.800	877.900	1062.300	878.300	1077.700	878.600	1093.100	879.100	1108.500
GR	879.500	1124.000	879.900	1139.400	881.000	1154.800	882.200	1170.300	883.300	1185.700
X1	37874.000	90.000	706.400	713.500	75.000	125.000	112.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	555.000	0.000	855.000	0.000	0.000	0.000	0.000
GR	878.900	0.000	878.400	24.300	878.000	48.700	877.800	73.000	877.700	97.400
GR	877.800	121.800	877.900	146.100	878.100	170.500	878.200	194.800	878.100	219.200
GR	878.000	243.600	877.800	267.900	877.700	292.300	877.700	316.600	877.600	341.000
GR	877.600	365.400	877.500	389.700	877.300	414.100	877.100	438.400	876.800	462.800
GR	876.600	487.200	876.300	511.500	876.000	535.900	875.700	560.200	875.400	584.600
GR	875.200	609.000	874.700	633.300	874.200	657.700	873.600	682.000	872.900	706.400
GR	872.700	706.600	872.600	706.900	872.500	707.100	872.400	707.300	872.200	707.600
GR	872.100	707.800	872.100	708.100	872.100	708.300	872.100	708.500	872.100	708.800
GR	872.000	709.000	872.000	709.200	872.000	709.500	872.000	709.700	872.000	709.900
GR	872.000	710.200	872.000	710.400	872.000	710.700	872.100	710.900	872.200	711.100
GR	872.300	711.400	872.400	711.600	872.400	711.800	872.500	712.100	872.600	712.300
GR	872.700	712.600	872.800	712.800	872.900	713.000	873.000	713.300	873.000	713.500
GR	873.400	727.800	873.800	742.000	874.200	756.300	874.500	770.600	874.900	784.800
GR	875.300	799.100	875.300	813.400	875.400	827.600	875.500	841.900	875.700	856.100
GR	875.800	870.400	876.000	884.700	876.200	898.900	876.500	913.200	876.700	927.500
GR	877.000	941.700	877.400	956.000	877.800	970.300	878.200	984.500	878.600	998.800
GR	879.000	1013.100	879.400	1027.300	879.800	1041.600	880.200	1055.900	880.600	1070.100
GR	880.900	1084.400	881.300	1098.700	882.900	1112.900	884.800	1127.200	886.600	1141.500
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37987.000	90.000	695.700	704.200	75.000	125.000	113.000	0.000	0.000	0.000
GR	877.900	0.000	877.600	23.900	877.400	47.900	877.300	71.900	877.400	95.900
GR	877.600	119.900	877.900	143.900	878.200	167.900	878.500	191.900	878.300	215.900
GR	878.100	239.900	878.000	263.900	[illegible]	287.900	[illegible]	311.900	878.000	335.900

GR	878.000	359.800	878.100	383.800	878.000	407.800	877.800	431.800	877.700	455.800
GR	877.500	479.800	877.200	503.800	876.900	527.700	876.600	551.700	876.200	575.700
GR	876.000	599.700	875.700	623.700	875.400	647.700	875.000	671.700	874.400	695.700
GR	874.200	696.000	874.000	696.200	873.900	696.500	873.700	696.800	873.500	697.100
GR	873.300	697.400	873.300	697.700	873.300	698.000	873.300	698.200	873.300	698.500
GR	873.300	698.800	873.200	699.100	873.200	699.400	873.200	699.700	873.200	699.900
GR	873.200	700.200	873.200	700.500	873.200	700.800	873.400	701.100	873.500	701.400
GR	873.600	701.700	873.700	701.900	873.800	702.200	874.000	702.500	874.100	702.800
GR	874.200	703.100	874.300	703.400	874.500	703.700	874.600	703.900	874.700	704.200
GR	874.900	717.300	875.100	730.400	875.300	743.500	875.600	756.600	875.800	769.700
GR	876.000	782.800	876.000	795.900	876.100	809.000	876.300	822.100	876.500	835.200
GR	876.800	848.300	877.000	861.400	877.200	874.500	877.500	887.600	877.800	900.700
GR	878.000	913.800	878.500	926.900	878.900	940.000	879.400	953.100	879.900	966.200
GR	880.300	979.300	880.800	992.400	881.300	1005.500	881.700	1018.600	882.100	1031.700
GR	882.400	1044.800	882.700	1057.900	884.800	1071.000	887.400	1084.100	889.900	1097.200
QT	4.000	95.000	115.000	132.000	157.000	0.000	0.000	0.000	0.000	0.000
X1	38099.000	18.000	685.000	695.000	75.000	125.000	112.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	565.000	0.000	750.000	0.000	0.000	0.000	0.000
GR	876.900	0.000	876.900	85.000	878.800	185.000	878.000	285.000	878.800	385.000
GR	878.400	485.000	876.800	585.000	876.500	665.000	876.000	685.000	874.600	687.000
GR	874.500	689.000	874.500	691.000	876.400	695.000	876.800	785.000	879.100	885.000
GR	883.500	985.000	884.100	1019.000	893.200	1053.000	0.000	0.000	0.000	0.000
X1	38162.000	90.000	281.800	293.200	50.000	75.000	62.500	0.000	0.000	0.000
GR	880.300	0.000	880.200	9.700	880.200	19.400	880.100	29.100	880.000	38.800
GR	879.800	48.500	879.700	58.300	879.500	68.000	879.400	77.700	879.200	87.400
GR	879.000	97.100	878.800	106.900	878.600	116.600	878.300	126.300	878.100	136.000
GR	878.000	145.700	877.800	155.500	877.600	165.200	877.500	174.900	877.400	184.600
GR	877.300	194.300	877.300	204.000	877.200	213.800	877.200	223.500	877.200	233.200
GR	877.100	242.900	877.100	252.600	877.100	262.400	876.800	272.100	876.600	281.800
GR	876.300	282.200	876.100	282.600	875.800	282.900	875.500	283.300	875.300	283.700
GR	875.100	284.100	875.000	284.500	875.000	284.800	875.000	285.200	875.000	285.600
GR	875.000	286.000	875.000	286.400	875.000	286.700	875.000	287.100	875.000	287.500
GR	875.000	287.900	875.000	288.300	875.000	288.600	875.200	289.000	875.300	289.400
GR	875.500	289.800	875.700	290.200	875.800	290.500	876.000	290.900	876.200	291.300
GR	876.400	291.700	876.600	292.100	876.800	292.400	876.900	292.800	877.100	293.200
GR	877.200	304.300	877.300	315.400	877.400	326.400	877.500	337.500	877.600	348.600
GR	877.700	359.700	877.700	370.800	877.900	381.900	878.200	392.900	878.500	404.000
GR	878.800	415.100	879.100	426.200	879.300	437.300	879.600	448.400	879.900	459.400
GR	880.200	470.500	880.700	481.600	881.200	492.700	881.800	503.800	882.300	514.900
GR	882.800	525.900	883.300	537.000	883.900	548.100	884.400	559.200	884.700	570.300
GR	885.000	581.400	885.200	592.400	887.700	603.500	890.600	614.600	893.400	625.700
X1	38224.000	90.000	263.700	276.500	50.000	75.000	62.500	0.000	0.000	0.000
GR	881.900	0.000	881.800	9.000	881.800	18.100	881.700	27.200	881.400	36.300
GR	881.100	45.400	880.900	54.500	880.600	63.600	880.400	72.700	880.100	81.800
GR	879.800	90.900	879.500	100.000	879.200	109.100	878.900	118.200	878.600	127.300
GR	878.500	136.400	878.400	145.500	878.200	154.600	878.100	163.700	878.000	172.800
GR	877.900	181.800	877.900	190.900	877.800	200.000	877.800	209.100	877.800	218.200
GR	877.700	227.300	877.700	236.400	877.700	245.500	877.500	254.600	877.300	263.700
GR	877.000	264.100	876.700	264.500	876.400	265.000	876.100	265.400	875.900	265.800
GR	875.600	266.200	875.600	266.700	875.600	267.100	875.600	267.500	875.600	267.900
GR	875.500	268.400	875.500	268.800	875.500	269.200	875.500	269.600	875.600	270.100
GR	875.600	270.500	875.600	270.900	875.600	271.300	875.800	271.800	875.900	272.200
GR	876.100	272.600	876.300	273.000	876.500	273.500	876.700	273.900	876.900	274.300
GR	877.100	274.700	877.300	275.200	877.500	275.600	877.700	276.000	877.900	276.500
GR	878.000	286.700	878.200	296.900	878.300	307.100	878.400	317.400	878.600	327.600
GR	878.700	337.800	878.800	348.100	879.000	358.300	879.300	368.500	879.600	378.800
GR	879.900	389.000	880.200	399.200	880.400	409.500	880.700	419.700	881.000	429.900
GR	881.300	440.200	881.900	450.400	882.400	460.600	882.900	470.900	883.400	481.100
GR	884.000	491.300	884.500	501.600	885.000	511.800	885.500	522.000	885.900	532.300
GR	886.200	542.500	886.500	552.700	888.600	563.000	891.200	573.200	893.700	583.500
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	383[illegible]9.0 0	90.000	[illegible]27.50[illegible]	[illegible]	100.0	15[illegible].0 0	125.000	0.000	0.0[illegible]	[illegible].0 0

GR	885.000	0.000	884.900	7.800	884.900	15.600	884.700	23.500	884.200	31.300
GR	883.700	39.200	883.300	47.000	882.800	54.900	882.300	62.700	881.800	70.600
GR	881.300	78.400	880.900	86.200	880.400	94.100	880.000	101.900	879.600	109.800
GR	879.500	117.600	879.400	125.500	879.300	133.300	879.200	141.200	879.100	149.000
GR	879.100	156.800	879.000	164.700	879.000	172.500	879.000	180.400	879.000	188.200
GR	878.900	196.100	878.900	203.900	878.900	211.800	878.700	219.600	878.600	227.500
GR	878.300	228.000	877.900	228.500	877.600	229.000	877.300	229.500	876.900	230.000
GR	876.700	230.500	876.600	231.100	876.600	231.600	876.600	232.100	876.600	232.600
GR	876.600	233.100	876.600	233.600	876.600	234.200	876.600	234.700	876.700	235.200
GR	876.700	235.700	876.700	236.200	876.700	236.700	876.900	237.300	877.100	237.800
GR	877.400	238.300	877.600	238.800	877.800	239.300	878.100	239.800	878.300	240.400
GR	878.500	240.900	878.800	241.400	879.000	241.900	879.200	242.400	879.500	243.000
GR	879.700	251.500	879.900	260.000	880.100	268.500	880.300	277.100	880.600	285.600
GR	880.800	294.100	880.900	302.700	881.200	311.200	881.500	319.700	881.800	328.300
GR	882.000	336.800	882.300	345.300	882.600	353.900	882.900	362.400	883.200	370.900
GR	883.600	379.500	884.100	388.000	884.600	396.500	885.100	405.100	885.700	413.600
GR	886.200	422.100	886.700	430.700	887.200	439.200	887.800	447.700	888.200	456.300
GR	888.500	464.800	888.900	473.300	890.500	481.900	892.400	490.400	894.300	499.000
X1	38474.000	90.000	191.200	209.500	100.000	150.000	125.000	0.000	0.000	0.000
GR	888.100	0.000	888.000	6.500	887.900	13.100	887.700	19.700	887.000	26.300
GR	886.300	32.900	885.600	39.500	884.900	46.100	884.200	52.700	883.500	59.300
GR	882.800	65.900	882.200	72.500	881.700	79.100	881.100	85.700	880.600	92.300
GR	880.500	98.900	880.500	105.500	880.400	112.100	880.300	118.700	880.300	125.300
GR	880.300	131.800	880.200	138.400	880.200	145.000	880.200	151.600	880.200	158.200
GR	880.100	164.800	880.100	171.400	880.100	178.000	880.000	184.600	879.900	191.200
GR	879.500	191.800	879.200	192.400	878.800	193.000	878.400	193.600	878.000	194.200
GR	877.700	194.800	877.700	195.500	877.700	196.100	877.700	196.700	877.700	197.300
GR	877.700	197.900	877.700	198.500	877.700	199.100	877.700	199.700	877.800	200.300
GR	877.800	200.900	877.800	201.500	877.900	202.100	878.000	202.800	878.300	203.400
GR	878.600	204.000	878.800	204.600	879.100	205.200	879.400	205.800	879.700	206.400
GR	879.900	207.000	880.200	207.600	880.500	208.200	880.700	208.800	881.000	209.500
GR	881.300	216.300	881.600	223.100	881.900	229.900	882.200	236.800	882.500	243.600
GR	882.800	250.400	883.100	257.300	883.300	264.100	883.600	270.900	883.900	277.800
GR	884.200	284.600	884.500	291.400	884.800	298.300	885.100	305.100	885.400	311.900
GR	885.800	318.800	886.300	325.600	886.900	332.400	887.400	339.300	887.900	346.100
GR	888.400	352.900	889.000	359.800	889.500	366.600	890.000	373.400	890.500	380.300
GR	890.900	387.100	891.300	393.900	892.400	400.800	893.600	407.600	894.800	414.500
X1	38599.000	19.000	616.000	637.000	100.000	150.000	125.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	881.100	0.000	878.200	16.000	878.300	116.000	880.100	216.000	880.800	316.000
GR	882.600	384.000	889.300	416.000	891.300	461.000	891.000	476.000	884.100	516.000
GR	881.600	536.000	881.300	616.000	878.800	620.000	878.800	625.000	879.100	629.000
GR	882.600	637.000	884.800	666.000	887.800	716.000	895.400	791.000	0.000	0.000
X1	38709.000	0.000	0.000	0.000	90.000	130.000	110.000	0.000	-.700	0.000
X3	0.000	0.000	0.000	618.000	0.000	626.600	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	38710.000	20.000	1095.700	1104.300	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	888.600	888.600	0.000
BT	22.000	0.000	890.000	0.000	100.000	886.200	0.000	200.000	883.300	0.000
BT	300.000	881.200	0.000	400.000	881.000	0.000	425.000	881.100	0.000	500.000
BT	881.300	0.000	600.000	881.700	0.000	700.000	882.600	0.000	800.000	883.800
BT	0.000	900.000	884.600	0.000	1000.000	886.300	0.000	1095.700	888.600	0.000
BT	1095.700	888.600	879.100	1095.700	888.600	881.100	1097.000	888.600	883.000	1100.000
BT	888.600	884.000	1103.000	888.600	883.000	1104.300	888.600	881.100	1104.300	888.600
BT	879.100	1104.300	888.600	0.000	1200.000	892.500	0.000	0.000	0.000	0.000
GR	890.000	0.000	886.200	100.000	883.300	200.000	881.200	300.000	881.000	400.000
GR	881.100	425.000	881.300	500.000	881.700	600.000	882.600	700.000	883.800	800.000
GR	884.600	900.000	886.300	1000.000	888.600	1095.700	879.100	1095.700	878.400	1097.000
GR	878.100	1100.000	878.400	1103.000	879.100	1104.300	888.600	1104.300	892.500	1200.000
X1	38752.000	20.000	1095.700	1104.300	42.000	42.000	42.000	0.000	0.000	0.000
X3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BT	22.000	0.000	890.000	0.000	100.000	886.200	0.000	200.000	883.300	0.000
BT	300.000	881.200	0.000	400.000	881.000	0.000	425.000	881.100	0.000	500.000
BT	881.300	0.000	600.000	881.700	0.000	700.000	882.600	0.000	800.000	883.800
BT	0.000	900.000	884.600	0.000	1000.000	886.300	0.000	1095.700	888.600	0.000
BT	1095.700	888.600	879.400	1095.700	888.600	881.400	1097.000	888.600	883.300	1100.000
BT	888.600	884.300	1103.000	888.600	883.300	1104.300	888.600	881.400	1104.300	888.600
BT	879.400	1104.300	888.600	0.000	1200.000	892.500	0.000	0.000	0.000	0.000
GR	890.000	0.000	886.200	100.000	883.300	200.000	881.200	300.000	881.000	400.000
GR	881.100	425.000	881.300	500.000	881.700	600.000	882.600	700.000	883.800	800.000
GR	884.600	900.000	886.300	1000.000	888.600	1095.700	879.400	1095.700	878.700	1097.000
GR	878.400	1100.000	878.700	1103.000	879.400	1104.300	888.600	1104.300	892.500	1200.000
NC	.052	.052	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	38753.000	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	888.600	888.600	0.000
QT	4.000	160.000	350.000	480.000	920.000	0.000	0.000	0.000	0.000	0.000
X1	38803.000	19.000	1100.000	1114.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	1150.000	0.000	0.000	0.000	0.000
GR	881.500	0.000	880.100	100.000	879.500	200.000	879.800	300.000	879.500	400.000
GR	880.800	425.000	879.300	500.000	879.700	600.000	881.200	700.000	881.800	800.000
GR	881.900	900.000	882.500	1000.000	881.600	1100.000	879.800	1103.000	879.400	1107.000
GR	879.700	1111.000	881.700	1114.000	888.500	1200.000	892.900	1270.000	0.000	0.000
QT	4.000	160.000	350.000	480.000	920.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	-37987.000	90.000	695.700	704.200	75.000	125.000	113.000	0.000	0.000	0.000
GR	877.900	0.000	877.600	23.900	877.400	47.900	877.300	71.900	877.400	95.900
GR	877.600	119.900	877.900	143.900	878.200	167.900	878.500	191.900	878.300	215.900
GR	878.100	239.900	878.000	263.800	877.800	287.800	877.900	311.800	878.000	335.800
GR	878.000	359.800	878.100	383.800	878.000	407.800	877.800	431.800	877.700	455.800
GR	877.500	479.800	877.200	503.800	876.900	527.700	876.600	551.700	876.200	575.700
GR	876.000	599.700	875.700	623.700	875.400	647.700	875.000	671.700	874.400	695.700
GR	874.200	696.000	874.000	696.200	873.900	696.500	873.700	696.800	873.500	697.100
GR	873.300	697.400	873.300	697.700	873.300	698.000	873.300	698.200	873.300	698.500
GR	873.300	698.800	873.200	699.100	873.200	699.400	873.200	699.700	873.200	699.900
GR	873.200	700.200	873.200	700.500	873.200	700.800	873.400	701.100	873.500	701.400
GR	873.600	701.700	873.700	701.900	873.800	702.200	874.000	702.500	874.100	702.800
GR	874.200	703.100	874.300	703.400	874.500	703.700	874.400	703.900	874.700	704.200
GR	874.900	717.300	875.100	730.400	875.300	743.500	875.600	756.600	875.800	769.700
GR	876.000	782.800	876.000	795.900	876.100	809.000	876.300	822.100	876.500	835.200
GR	876.800	848.300	877.000	861.400	877.200	874.500	877.500	887.600	877.800	900.700
GR	878.000	913.800	878.500	926.900	878.900	940.000	879.400	953.100	879.900	966.200
GR	880.300	979.300	880.800	992.400	881.300	1005.500	881.700	1018.600	882.100	1031.700
GR	882.400	1044.800	882.700	1057.900	884.800	1071.000	887.400	1084.100	889.900	1097.200
QT	4.000	65.000	235.000	348.000	763.000	0.000	0.000	0.000	0.000	0.000
X1	38099.000	18.000	685.000	695.000	75.000	125.000	112.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	420.000	0.000	0.000	0.000	0.000
GR	876.900	0.000	876.900	85.000	878.800	185.000	878.000	285.000	878.800	385.000
GR	878.400	485.000	876.800	585.000	876.500	665.000	876.000	685.000	874.600	687.000
GR	874.500	689.000	874.500	691.000	876.400	695.000	876.800	785.000	879.100	885.000
GR	883.500	985.000	884.100	1019.000	893.200	1053.000	0.000	0.000	0.000	0.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	38599.000	19.000	616.000	637.000	400.000	600.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	881.100	0.000	878.200	16.000	878.300	116.000	880.100	216.000	880.800	316.000
GR	882.600	384.000	889.300	416.000	891.300	461.000	891.000	476.000	884.100	516.000
GR	881.600	536.000	881.300	616.000	878.800	620.000	878.800	625.000	879.100	629.000
GR	882.600	637.000	884.800	666.000	887.800	716.000	895.400	791.000	0.000	0.000
X1	38709.000	0.000	0.000	0.000	90.000	130.000	110.000	0.000	-.700	0.000
X3	0.000	0.000	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000
NC	.035	.035	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	38710.000	14.000	0.000	1200.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	450.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	890.000	0.000	886.200	100.000	883.300	200.000	881.200	300.000	881.000	400.000
GR	881.100	425.000	881.300	500.000	881.700	600.000	882.600	700.000	883.800	800.000
GR	884.600	900.000	886.300	1000.000	888.600	1100.000	892.500	1200.000	0.000	0.000
X1	38752.000	0.000	0.000	0.000	42.000	42.000	42.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	450.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.052	.052	.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	38753.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	450.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: MINNOW POND DRAIN UPSTREAM PORTION

4) DOCUMENT TYPE: 100 YR

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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*USE

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T1      5670-03,  FIS - CITY OF FARMINGTON HILLS,  PM   DICK ZANOTTI
T2      100-YEAR FLOOD
T3      MINNOW POND DRAIN - U/S PORTION,  14 MILE ROAD

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00      0.0       0.   875.410    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 3

CCHV=     .300 CEHV=     .500
*SECNO 36263.000
   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

 36263.00      6.41    875.41      0.00    875.41    875.68       .27      0.00      0.00    886.20
     640.        0.      640.        0.        0.      153.        0.        0.        0.    886.20
     0.00      0.00      4.17      0.00      .050      .033      .050     0.000    869.00     93.70
  .001472        1.        1.        1.         0         0         0      0.00     31.20    124.90

*SECNO 36503.000

          24" U/S FROM U/S FACE OF DRIVEWAY BRIDGE =BS,  VS=4            SEC. BT

 36503.00      5.91    875.81      0.00      0.00    875.98       .17       .27       .03    873.40
     640.       26.      613.        0.       26.      181.        1.        1.        0.    875.50
      .02      1.01      3.38       .26      .050      .033      .050      .033    869.90     78.37
  .000910      240.      240.      240.         2         0         0      0.00     70.62    149.00

*SECNO 37603.000

3470 ENCROACHMENT STATIONS=     520.0     930.0  TYPE=     1  TARGET=     410.000
 37603.00      6.72    876.12      0.00      0.00    876.12       .00       .08       .05    869.80
     350.      169.       16.      165.      649.       27.      633.       20.        6.    869.80
     1.13       .26       .59       .26      .050      .033      .050      .033    869.40    520.00
  .000015     1100.     1100.     1100.         2         0         0      0.00    410.00    930.00

*SECNO 37604.000

3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  873.70 MAX ELLC=  872.00

3470 ENCROACHMENT STATIONS=     520.0     930.0  TYPE=     1  TARGET=     410.000
 37604.00      6.72    876.12      0.00      0.00    876.12       .00       .00       .00    874.10
     350.      176.        4.      170.      440.       17.      424.       20.        6.    874.10
     1.13       .40       .22       .40      .035      .033      .035      .033    869.40    520.00
  .000033        1.        1.        1.         0         0         0    -10.85    410.00    930.00

*SECNO 37648.000
   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= 23 MIN ELTRD=  873.70 MAX ELLC=  872.20

3470 ENCROACHMENT STATIONS=     520.0     930.0  TYPE=     1  TARGET=     410.000

          U/S FACE OF HALSTEAD ROAD CULVERT, BS=3                      SEC. BU

 37648.00      6.52    876.12      0.00      0.00    876.12       .00       .00       .00    874.10
     350.      176.        4.      170.      440.       17.      424.       21.        7.    874.10
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 .000033      44.      44.      44.        0        0        0   -10.01   410.00   930.00


*SECNO 37649.000

3470 ENCROACHMENT STATIONS=      520.0      930.0  TYPE=      1  TARGET=      410.000
 37649.00     6.52   876.12     0.00     0.00   876.12      .00      .00      .00   869.80
     350.     168.      20.     163.     651.      27.     635.      21.       7.   869.80
     1.16      .26      .73      .26     .070     .037     .070     .033   869.60   520.00
 .000028       1.       1.       1.        0        0        0     0.00   410.00   930.00


*SECNO 37762.000

3470 ENCROACHMENT STATIONS=      540.0      895.0  TYPE=      1  TARGET=      355.000
 37762.00     5.32   876.12     0.00     0.00   876.13      .00      .00      .00   871.30
     350.     164.      31.     155.     421.      29.     403.      24.       8.   871.40
     1.22      .39     1.07      .38     .070     .037     .070     .033   870.80   540.00
 .000085      75.     113.     125.        0        0        0     0.00   355.00   895.00


*SECNO 37874.000

3470 ENCROACHMENT STATIONS=      555.0      855.0  TYPE=      1  TARGET=      300.000
 37874.00     4.13   876.13     0.00     0.00   876.15      .02      .02      .01   872.90
     350.     157.      53.     139.     230.      27.     208.      25.       8.   873.00
     1.25      .68     1.97      .67     .070     .037     .070     .034   872.00   555.00
 .000441      75.     112.     125.        0        0        0     0.00   300.00   855.00


*SECNO 37987.000

        STARTING SECTION OF ISLAND PROBLEM

 37987.00     2.97   876.17     0.00     0.00   876.36      .19      .12      .09   874.40
     350.     130.     118.     102.      82.      21.      68.      26.       9.   874.70
     1.26     1.58     5.55     1.50     .090     .045     .090     .035   873.20   580.34
 .009199      75.     113.     125.        0        0        0     0.00   232.68   813.02


*SECNO 38099.000
   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=      565.0      750.0  TYPE=      1  TARGET=      185.000

        450" U/S FROM U/S FACE OF HALSTEAD ROAD, VS=2                SEC. BV

 38099.00     2.55   877.05     0.00     0.00   877.14      .09      .75      .03   876.00
     117.      33.      64.      20.      49.      20.      29.      26.       9.   876.40
     1.28      .67     3.20      .69     .090     .045     .090     .036   874.50   569.67
 .004183      75.     112.     125.        3        0        0     0.00   180.33   750.00


*SECNO 38162.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK      EG       HV       HL    OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB       ACH      AROB     VOL   TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL        XNCH     XNR      WTN   ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL     IDC      ICONT    CORAR TOPWID    ENDST
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3720 CRITICAL DEPTH ASSUMED
 38162.00      2.37    877.37    877.37      0.00    877.65      .28       .38       .10    876.60
     117.       19.      96.       2.       23.       20.       4.       26.       10.     877.10
     1.28       .84     4.70       .51      .090      .045      .090      .036    875.00    187.92
  .010406       50.      63.       75.        2        11         0      0.00    134.71    322.63


*SECNO 38224.000
 38224.00      2.49    877.99    877.85      0.00    878.25      .26       .59       .01    877.30
     117.       16.     101.       0.       22.       23.       0.       26.       10.     877.90
     1.29       .74     4.41       .19      .090      .045      .090      .036    875.50    174.03
  .009149       50.      63.       75.        4         5         0      0.00    111.27    285.30


*SECNO 38349.000
 38349.00      2.43    879.03    878.50      0.00    879.32      .29      1.06       .02    878.60
     117.        5.     112.       0.        8.       25.       0.       26.       10.     879.50
     1.29       .57     4.42      0.00      .085      .042      .085      .037    876.60    162.34
  .008146      100.     125.      150.        6        13         0      0.00     79.64    241.97


*SECNO 38474.000
 38474.00      2.34    880.04      0.00      0.00    880.32      .28      1.00       .00    879.90
     117.        0.     117.       0.        1.       27.       0.       26.       10.     881.00
     1.30       .29     4.28      0.00      .085      .042      .085      .037    877.70    182.09
  .007911      100.     125.      150.        2         0         0      0.00     25.19    207.28


*SECNO 38599.000
   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=      500.0      791.0  TYPE=      1  TARGET=     -500.000

        950' U/S FROM U/S FACE OF HALSTEAD ROAD, VS=1                    SEC. BW

 38599.00      2.24    881.04      0.00      0.00    881.31      .27       .99       .00    881.30
     117.        0.     117.       0.        0.       28.       0.       27.       10.     882.60
     1.31      0.00     4.19      0.00      .085      .042      .085      .037    878.80    616.41
  .007879      100.     125.      150.        0         0         0      0.00     17.02    633.44


*SECNO 38709.000

3470 ENCROACHMENT STATIONS=      618.0      626.6  TYPE=      1  TARGET=        8.600
 38709.00      3.65    881.75      0.00      0.00    881.99      .24       .66      .01100000.00
     117.        0.     117.       0.        0.       30.       0.       27.       10. 100000.00
     1.32      0.00     3.89      0.00      .085      .042      .085      .037    878.10    618.00
  .004751       90.     110.      130.        2         0         0      0.00      8.60    626.60


*SECNO 38710.000

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  881.00 MAX ELLC=  884.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      888.60 ELREA=      888.60

        D/S FACE OF 14 MILE ROAD CULVERT, BS=4A                          SEC. BX
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 38710.00      3.02    881.72      0.0       0.00    882.05      .30       .00       .03    888.60
    117.        0.      117.       0.        0.       26.        0.       27.       10.     888.60
    1.32       0.00     4.42      0.00      .035      .032      .035      .037    878.10   1095.70
  .004462       1.       1.        1.        2         0         0      -2.11      8.60    1104.30

*SECNO 38752.000

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD=  881.00 MAX ELLC=  884.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      888.60 ELREA=      888.60

          U/S FACE OF 14 MILE ROAD CULVERT, BS=4A                      SEC. BX

          SECTION 1" U/S IS END OF ISLAND PROBLEM

 38752.00      3.51    881.91      0.00      0.00    882.23      .32       .20       .01    888.60
    117.        0.      117.       0.        0.       26.        0.       27.       10.     888.60
    1.32       0.00     4.56      0.00      .035      .032      .035      .037    878.40   1095.70
  .004839      42.      42.       42.        0         0         0      -1.97      8.60    1104.30

*SECNO 38753.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      888.60 ELREA=      888.60

 38753.00      3.58    881.98      0.00      0.00    882.25      .27       .00       .02    888.60
    117.        0.      117.       0.        0.       28.        0.       27.       10.     888.60
    1.32       0.00     4.14      0.00      .052      .032      .052      .037    878.40   1095.70
  .003171       1.       1.        1.        2         0         0      0.00      8.60    1104.30

*SECNO -37987.000
START TRIB COMP
 -37987.000 37987.000   876.169
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 -37987.00      2.97    876.17      0.00      0.00    876.35      .18      0.00      0.00    874.40
    350.       130.      118.      102.       83.       21.       69.       27.       11.     874.70
    1.33       1.57      5.50      1.48      .090      .045      .090      .038    873.20    579.43
  .009001       75.      113.      125.        0         0         0      0.00    234.09    813.52

*SECNO 38100.000

3470 ENCROACHMENT STATIONS=        .0      420.0  TYPE=      1  TARGET=      419.999
 38100.00       .72    877.62    877.48      0.00    877.77      .15      1.41      .01100000.00
    233.       233.        0.        0.       75.        0.        0.       27.       11. 100000.00
    1.34       3.10      0.00      0.00      .090      .045      .090      .038    876.90       .00
  .063153       75.      112.      125.        4        21         0      0.00    123.03    123.03

*SECNO 38600.000

3470 ENCROACHMENT STATIONS=        .0      500.0  TYPE=      1  TARGET=      499.999
 38600.00      1.74    879.94      0.00      0.00    879.95      .01      2.14      .04100000.00
    233.       233.        0.        0.      251.        0.        0.       29.       12. 100000.00
    1.46        .93      0.00      0.00      .085      .042      .085      .040    878.20      6.42
  .001830      400.      500.      600.        8         0         0      0.00    200.51    206.93
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Start of Island Problem (East side)

"stations" have been added by hand to show the position of connect. cont.

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*SECNO 38711.000

3470 ENCROACHMENT STATIONS=          .0      500.0  TYPE=      1  TARGET=      499.999
 38711.00      2.51    880.01      0.00      0.00    880.02      .00       .06       .00100000.00
    233.       233.       0.        0.      443.       0.        0.       29.        13.  100000.00
    1.51       .53      0.00      0.00      .085      .042      .085      .040    877.50      2.12
  .000381      90.      110.      130.         3         0         0      0.00    301.93    304.04


*SECNO 38711.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         OLOB      OCH       OROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      450.0     1200.0  TYPE=      1  TARGET=     -450.000
 38711.00       .67    881.84    881.84      0.00    882.04      .20       .00       .10100000.00
    233.        0.       233.       0.        0.       65.        0.       29.        13.  100000.00
    1.51      0.00      3.60      0.00      .035      .035      .035      .040    881.17    450.00
  .025172       1.        1.        1.        20        14         0      0.00    165.10    615.10
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d/s face of 14 Mile Road

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*SECNO 38753.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         OLOB      OCH       OROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=      450.0     1200.0  TYPE=      1  TARGET=     -450.000
 38753.00      1.11    882.27      0.00      0.00    882.31      .04       .23       .05100000.00
    233.        0.       233.       0.        0.      148.        0.       29.        13.    892.50
    1.52      0.00      1.58      0.00      .035      .035      .035      .040    881.17    450.00
  .002278       42.       42.       42.         4         0         0      0.00    213.73    663.73


*SECNO 38754.000

3470 ENCROACHMENT STATIONS=      450.0     1200.0  TYPE=      1  TARGET=     -450.000

        END OF ISLAND PROBLEM

 38754.00      1.11    882.28      0.00      0.00    882.32      .04       .00       .00100000.00
    233.        0.       233.       0.        0.      151.        0.       29.        13.    892.50
    1.52      0.00      1.55      0.00      .052      .052      .052      .040    881.17    450.00
  .004760       1.        1.        1.         0         0         0      0.00    215.22    665.22
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00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS CITY OF

3) WATERCOURSE: MINNOW POND DRAIN
UPSTREAM PORTION

4) DOCUMENT TYPE: 10 YR

00BREAK00

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C
C       9
C   36503  24" U/S FROM U/S FACE OF DRIVEWAY BRIDGE =BS,  VS=4            SEC. BT
C   37648  U/S FACE OF HALSTEAD ROAD CULVERT, BS=3                        SEC. BU
C   37987  STARTING SECTION OF ISLAND PROBLEM
C   38099  450" U/S FROM U/S FACE OF HALSTEAD ROAD, VS=2                  SEC. BV
C   38599  950" U/S FROM U/S FACE OF HALSTEAD ROAD, VS=1                  SEC. BW
C   38710  D/S FACE OF 14 MILE ROAD CULVERT, BS=4A                        SEC. BX
C   38752  U/S FACE OF 14 MILE ROAD CULVERT, BS=4A                        SEC. BX
C   38752  SECTION 1" U/S IS END OF ISLAND PROBLEM
C   38754  END OF ISLAND PROBLEM
T1       5670-03,  FIS - CITY OF FARMINGTON HILLS,   PM   DICK ZANOTTI
T2       10-YEAR FLOOD
T3       MINNOW POND DRAIN - U/S PORTION,  14 MILE ROAD
J1     -1       2                                                  873.245
J2      1              -1
J3     38      39      40      41      42      43       1      10      11      12
J3     14       8       4
NC  0.05    0.05   0.033     0.3     0.5
QT      4     210     460     640    1230
NC  0.05    0.05   0.033
X1  36263      12    93.7   124.9       1       1       1             0.4
GR  887.9       0   885.8    93.7   871.1    93.7   868.6     100   871.1   106.3
GR  871.1   112.3   868.6   118.6   871.1   124.9   885.8   124.9   885.8     200
GR  888.2     235     892     275
X1  36503      14     100     145     240     240     240
GR  889.0       0   887.9       4   879.1      35   876.3      74   873.4     100
GR  869.9     114   869.9     117   870.0     124   875.5     145   879.8     200
GR  882.7     245   883.7     400   893.4     446   894.0     500
QT      4     135     260     350     615
X1  37603      17   727.9   732.1    1100    1100    1100
X3                          520             930
GR  881.0       0   879.8      30   879.1      55   878.1     130   877.7     230
GR  877.3     330   876.0     430   874.4     530   873.7     630   869.8   727.9
GR  869.4     730   869.8   732.1   873.9     830   874.0     930   875.4    1030
GR  877.1    1130   880.1    1230
NC  0.035   0.035   0.033
X1  37604      23   727.9   732.1       1       1       1
X3                          520             930
BT     23     0.0   881.0     0.0    30.0   879.8     0.0    55.0   879.1     0.0
BT  130.0   878.1     0.0   230.0   877.7     0.0   330.0   877.3     0.0   430.0
BT  876.0     0.0   530.0   874.4     0.0   630.0   873.7     0.0   727.9   874.1
BT    0.0   727.9   874.1   870.5   728.8   874.1   871.6   729.6   874.1   872.0
BT  730.0   874.1   872.0   730.4   874.1   872.0   731.2   874.1   871.6   732.1
BT  874.1   870.5   732.1   874.1     0.0   830.0   873.9     0.0   930.0   874.0
BT    0.0  1030.0   875.4     0.0  1130.0   877.1     0.0  1230.0   880.1     0.0
GR  881.0       0   879.8      30   879.1      55   878.1     130   877.7     230
GR  877.3     330   876.0     430   874.4     530   873.7     630   874.1   727.9
GR  869.8   727.9   869.4   728.8   869.4   729.6   869.4     730   869.4   730.4
GR  869.4   731.2   869.8   732.1   874.1   732.1   873.9     830   874.0     930
GR  875.4    1030   877.1    1130   880.1    1230
X1  37648      23   727.9   732.1      44      44      44
X3                          520             930
BT     23     0.0   881.0     0.0    30.0   879.8     0.0    55.0   879.1     0.0
BT  130.0   878.1     0.0   230.0   877.7     0.0   330.0   877.3     0.0   430.0
BT  876.0     0.0   530.0   874.4     0.0   630.0   873.7     0.0   727.9   874.1
BT    0.0   727.9   874.1   870.7   728.8   874.1   871.8   729.6   874.1   872.2
BT  730.0   874.1   872.2   730.4   874.1   872.2   731.2   874.1   871.8   732.1
BT  874.1   870.7   732.1   874.1     0.0   830.0   873.9     0.0   930.0   874.0
BT    0.0  1030.0   875.4     0.0  1130.0   877.1     0.0  1230.0   880.1     0.0
GR  881.0       0   879.8      30   879.1      55   878.1     130   877.7     230
GR  877.3     330   876.0     430   874.4     530   873.7     630   874.1   727.9
GR  870.0   727.9   869.6   728.8   869.6   729.6   869.6     730   869.6   730.4
GR  869.6   731.2   870.0   732.1   874.1   732.1   873.9     830   874.0     930
GR  875.4    1030   877.1    1130   880.1    1230
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NC  0.07     0.07     0.057
X1 37649       17    727.9    732.1        1        1        1
X3                     520              930
GR 881.0        0    879.8       30    879.1       55    878.1      130    877.7      230
GR 877.3      330    876.0      430    874.4      530    873.7      630    869.8    727.9
GR 869.6      730    869.8    732.1    873.9      830    874.0      930    875.4     1030
GR 877.1     1130    880.1     1230
X1 37762       90    717.1    722.8       75      125      113
X3                     540              895
GR 879.9      0.0    879.2     24.7    878.6     49.4    878.3     74.1    878.1     98.9
GR 878.0    123.6    878.0    148.3    878.0    173.1    878.0    197.8    877.9    222.5
GR 877.8    247.3    877.6    272.0    877.5    296.7    877.5    321.4    877.3    346.2
GR 877.1    370.9    876.9    395.6    876.7    420.4    876.3    445.1    876.0    469.8
GR 875.7    494.6    875.3    519.3    875.1    544.0    874.9    568.7    874.6    593.5
GR 874.4    618.2    873.7    642.9    873.0    667.7    872.2    692.4    871.3    717.1
GR 871.2    717.3    871.2    717.5    871.1    717.7    871.0    717.9    871.0    718.1
GR 870.9    718.3    870.9    718.4    870.9    718.6    870.8    718.8    870.8    719.0
GR 870.8    719.2    870.8    719.4    870.8    719.6    870.8    719.8    870.8    719.9
GR 870.8    720.1    870.8    720.3    870.8    720.5    870.9    720.7    870.9    720.9
GR 871.0    721.1    871.0    721.3    871.1    721.5    871.1    721.6    871.2    721.8
GR 871.2    722.0    871.3    722.2    871.3    722.4    871.3    722.6    871.4    722.8
GR 871.9    738.2    872.5    753.6    873.0    769.1    873.5    784.5    874.1    799.9
GR 874.6    815.4    874.6    830.8    874.6    846.2    874.7    861.7    874.8    877.1
GR 874.9    892.5    875.0    907.9    875.2    923.4    875.5    938.8    875.7    954.2
GR 875.9    969.7    876.3    985.1    876.6   1000.5    876.9   1016.0    877.2   1031.4
GR 877.6   1046.8    877.9   1062.3    878.3   1077.7    878.6   1093.1    879.1   1108.5
GR 879.5   1124.0    879.9   1139.4    881.0   1154.8    882.2   1170.3    883.3   1185.7
X1 37874       90    706.4    713.5       75      125      112
X3                     555              855
GR 878.9      0.0    878.4     24.3    878.0     48.7    877.8     73.0    877.7     97.4
GR 877.8    121.8    877.9    146.1    878.1    170.5    878.2    194.8    878.1    219.2
GR 878.0    243.6    877.8    267.9    877.7    292.3    877.7    316.6    877.6    341.0
GR 877.6    365.4    877.5    389.7    877.3    414.1    877.1    438.4    876.8    462.8
GR 876.6    487.2    876.3    511.5    876.0    535.9    875.7    560.2    875.4    584.6
GR 875.2    609.0    874.7    633.3    874.2    657.7    873.6    682.0    872.9    706.4
GR 872.7    706.6    872.6    706.9    872.5    707.1    872.4    707.3    872.2    707.6
GR 872.1    707.8    872.1    708.1    872.1    708.3    872.1    708.5    872.1    708.8
GR 872.0    709.0    872.0    709.2    872.0    709.5    872.0    709.7    872.0    709.9
GR 872.0    710.2    872.0    710.4    872.0    710.7    872.1    710.9    872.2    711.1
GR 872.3    711.4    872.4    711.6    872.4    711.8    872.5    712.1    872.6    712.3
GR 872.7    712.6    872.8    712.8    872.9    713.0    873.0    713.3    873.0    713.5
GR 873.4    727.8    873.8    742.0    874.2    756.3    874.5    770.6    874.9    784.8
GR 875.3    799.1    875.3    813.4    875.4    827.6    875.5    841.9    875.7    856.1
GR 875.8    870.4    876.0    884.7    876.2    898.9    876.5    913.2    876.7    927.5
GR 877.0    941.7    877.4    956.0    877.8    970.3    878.2    984.5    878.6    998.8
GR 879.0   1013.1    879.4   1027.3    879.8   1041.6    880.2   1055.9    880.6   1070.1
GR 880.9   1084.4    881.3   1098.7    882.9   1112.9    884.8   1127.2    886.6   1141.5
NC  0.09     0.09    0.045
X1 37987       90    695.7    704.2       75      125      113
GR 877.9      0.0    877.6     23.9    877.4     47.9    877.3     71.9    877.4     95.9
GR 877.6    119.9    877.9    143.9    878.2    167.9    878.5    191.9    878.3    215.9
GR 878.1    239.9    878.0    263.8    877.8    287.8    877.9    311.8    878.0    335.8
GR 878.0    359.8    878.1    383.8    878.0    407.8    877.8    431.8    877.7    455.8
GR 877.5    479.8    877.2    503.8    876.9    527.7    876.6    551.7    876.2    575.7
GR 876.0    599.7    875.7    623.7    875.4    647.7    875.0    671.7    874.4    695.7
GR 874.2    696.0    874.0    696.2    873.9    696.5    873.7    696.8    873.5    697.1
GR 873.3    697.4    873.3    697.7    873.3    698.0    873.3    698.2    873.3    698.5
GR 873.3    698.8    873.2    699.1    873.2    699.4    873.2    699.7    873.2    699.9
GR 873.2    700.2    873.2    700.5    873.2    700.8    873.4    701.1    873.5    701.4
GR 873.6    701.7    873.7    701.9    873.8    702.2    874.0    702.5    874.1    702.8
GR 874.2    703.1    874.3    703.4    874.5    703.7    874.6    703.9    874.7    704.2
GR 874.9    717.3    875.1    730.4    875.3    743.5    875.6    756.6    875.8    769.7
GR 876.0    782.8    876.0    795.9    876.1    809.0    876.3    822.1    876.5    835.2
GR 876.8    848.3    877.0    861.4    877.2    874.5    877.5    887.6    877.8    900.7
GR 878.0    913.8    878.5    926.9    878.9    940.0    879.4    953.1    879.9    966.2
GR 880.3    979.3    880.8    992.4    881.3   1005.5    881.7   1018.6    882.1   1031.7
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GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
QT	4	90	105	117	140					
X1	38099	18	685	695	75	125	112			
X3				565		750				
GR	876.9	0	876.9	85	878.8	135	878.0	285	878.8	385
GR	878.4	485	876.8	585	876.5	665	876.0	685	874.6	687
GR	874.5	689	874.5	691	876.4	695	876.8	785	879.1	885
GR	883.5	985	884.1	1019	893.2	1053				
X1	38162	90	281.8	293.2	50.0	75.0	62.5			
GR	880.3	0.0	880.2	9.7	880.2	19.4	880.1	29.1	880.0	38.8
GR	879.8	48.5	879.7	58.3	879.5	68.0	879.4	77.7	879.2	87.4
GR	879.0	97.1	878.8	106.9	878.6	116.6	878.3	126.3	878.1	136.0
GR	878.0	145.7	877.8	155.5	877.6	165.2	877.5	174.9	877.4	184.6
GR	877.3	194.3	877.3	204.0	877.2	213.8	877.2	223.5	877.2	233.2
GR	877.1	242.9	877.1	252.6	877.1	262.4	876.8	272.1	876.6	281.8
GR	876.3	282.2	876.1	282.6	875.8	282.9	875.5	283.3	875.3	283.7
GR	875.1	284.1	875.0	284.5	875.0	284.8	875.0	285.2	875.0	285.6
GR	875.0	286.0	875.0	286.4	875.0	286.7	875.0	287.1	875.0	287.5
GR	875.0	287.9	875.0	288.3	875.0	288.6	875.2	289.0	875.3	289.4
GR	875.5	289.8	875.7	290.2	875.8	290.5	876.0	290.9	876.2	291.3
GR	876.4	291.7	876.6	292.1	876.8	292.4	876.9	292.8	877.1	293.2
GR	877.2	304.3	877.3	315.4	877.4	326.4	877.5	337.5	877.6	348.6
GR	877.7	359.7	877.7	370.8	877.9	381.9	878.2	392.9	878.5	404.0
GR	878.8	415.1	879.1	426.2	879.3	437.3	879.6	448.4	879.9	459.4
GR	880.2	470.5	880.7	481.6	881.2	492.7	881.8	503.8	882.3	514.9
GR	882.8	525.9	883.3	537.0	883.9	548.1	884.4	559.2	884.7	570.3
GR	885.0	581.4	885.2	592.4	887.7	603.5	890.6	614.6	893.4	625.7
X1	38224	90.0	263.7	276.5	50	75	62.5			
GR	881.9	0.0	881.8	9.0	881.8	18.1	881.7	27.2	881.4	36.3
GR	881.1	45.4	880.9	54.5	880.6	63.6	880.4	72.7	880.1	81.8
GR	879.8	90.9	879.5	100.0	879.2	109.1	878.9	118.2	878.6	127.3
GR	878.5	136.4	878.4	145.5	878.2	154.6	878.1	163.7	878.0	172.8
GR	877.9	181.8	877.9	190.9	877.8	200.0	877.8	209.1	877.8	218.2
GR	877.7	227.3	877.7	236.4	877.7	245.5	877.5	254.6	877.3	263.7
GR	877.0	264.1	876.7	264.5	876.4	265.0	876.1	265.4	875.9	265.8
GR	875.6	266.2	875.6	266.7	875.6	267.1	875.6	267.5	875.6	267.9
GR	875.5	268.4	875.5	268.8	875.5	269.2	875.5	269.6	875.6	270.1
GR	875.6	270.5	875.6	270.9	875.6	271.3	875.8	271.8	875.9	272.2
GR	876.1	272.6	876.3	273.0	876.5	273.5	876.7	273.9	876.9	274.3
GR	877.1	274.7	877.3	275.2	877.5	275.6	877.7	276.0	877.9	276.5
GR	878.0	286.7	878.2	296.9	878.3	307.1	878.4	317.4	878.6	327.6
GR	878.7	337.8	878.8	348.1	879.0	358.3	879.3	368.5	879.6	378.8
GR	879.9	389.0	880.2	399.2	880.4	409.5	880.7	419.7	881.0	429.9
GR	881.3	440.2	881.9	450.4	882.4	460.6	882.9	470.9	883.4	481.1
GR	884.0	491.3	884.5	501.6	885.0	511.8	885.5	522.0	885.9	532.3
GR	886.2	542.5	886.5	552.7	888.6	563.0	891.2	573.2	893.7	583.5
NC	0.085	0.085	0.042							
X1	38349	90.0	227.5	243.0	100	150	125			
GR	885.0	0.0	884.9	7.8	884.9	15.6	884.7	23.5	884.2	31.3
GR	883.7	39.2	883.3	47.0	882.8	54.9	882.3	62.7	881.8	70.6
GR	881.3	78.4	880.9	86.2	880.4	94.1	880.0	101.9	879.6	109.8
GR	879.5	117.6	879.4	125.5	879.3	133.3	879.2	141.2	879.1	149.0
GR	879.1	156.8	879.0	164.7	879.0	172.5	879.0	180.4	879.0	188.2
GR	878.9	196.1	878.9	203.9	878.9	211.8	878.7	219.6	878.6	227.5
GR	878.3	228.0	877.9	228.5	877.6	229.0	877.3	229.5	876.9	230.0
GR	876.7	230.5	876.6	231.1	876.6	231.6	876.6	232.1	876.6	232.6
GR	876.6	233.1	876.6	233.6	876.6	234.2	876.6	234.7	876.7	235.2
GR	876.7	235.7	876.7	236.2	876.7	236.7	876.9	237.3	877.1	237.8
GR	877.4	238.3	877.6	238.8	877.8	239.3	878.1	239.8	878.3	240.4
GR	878.5	240.9	878.8	241.4	879.0	241.9	879.2	242.4	879.5	243.0
GR	879.7	251.5	879.9	260.0	880.1	268.5	880.3	277.1	880.6	285.6
GR	880.8	294.1	880.9	302.7	881.2	311.2	881.5	319.7	881.8	328.3
GR	882.0	336.8	882.3	345.3	882.6	353.9	882.9	362.4	883.2	370.9
GR	883.6	379.5	884.1	388.0	884.6	396.5	885.1	405.1	885.7	413.6
GR	886.2	422.1	886.7	430.7	887.2	439.2	887.8	447.7	888.2	456.3
GR	888.5	464.8	888.9	473.3	890.5	481.9	892.4	490.4	894.3	499.0

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AT 384.4    90.0   111.2   203.5     [illegible]   [illegible]   [illegible]
GR 888.1     0.0   888.0     6.5   887.9    13.1   887.7    19.7   887.0    26.3
GR 886.3    32.9   885.6    39.5   884.9    46.1   884.2    52.7   883.5    59.3
GR 882.8    65.9   882.2    72.5   881.7    79.1   881.1    85.7   880.6    92.3
GR 880.5    98.9   880.5   105.5   880.4   112.1   880.3   118.7   880.3   125.3
GR 880.3   131.8   880.2   138.4   880.2   145.0   880.2   151.6   880.2   158.2
GR 880.1   164.8   880.1   171.4   880.1   178.0   880.0   184.6   879.9   191.2
GR 879.5   191.8   879.2   192.4   878.8   193.0   878.4   193.6   878.0   194.2
GR 877.7   194.8   877.7   195.5   877.7   196.1   877.7   196.7   877.7   197.3
GR 877.7   197.9   877.7   198.5   877.7   199.1   877.7   199.7   877.8   200.3
GR 877.8   200.9   877.8   201.5   877.9   202.1   878.0   202.8   878.3   203.4
GR 878.6   204.0   878.8   204.6   879.1   205.2   879.4   205.8   879.7   206.4
GR 879.9   207.0   880.2   207.6   880.5   208.2   880.7   208.8   881.0   209.5
GR 881.3   216.3   881.6   223.1   881.9   229.9   882.2   236.8   882.5   243.6
GR 882.8   250.4   883.1   257.3   883.3   264.1   883.6   270.9   883.9   277.8
GR 884.2   284.6   884.5   291.4   884.8   298.3   885.1   305.1   885.4   311.9
GR 885.8   318.8   886.3   325.6   886.9   332.4   887.4   339.3   887.9   346.1
GR 888.4   352.9   889.0   359.8   889.5   366.6   890.0   373.4   890.5   380.3
GR 890.9   387.1   891.3   393.9   892.4   400.8   893.6   407.6   894.8   414.5
X1 38599      19     616     637     100     150     125
X3                           500
GR 881.1       0   878.2      16   878.3     116   880.1     216   880.8     316
GR 882.6     384   889.3     416   891.3     461   891.0     476   884.1     516
GR 881.6     536   881.3     616   878.8     620   878.8     625   879.1     629
GR 882.6     637   884.8     666   887.8     716   895.4     791
X1 38709                                 90     130     110            -0.7
X3                           618           626.6
NC 0.035   0.035   0.032
X1 38710      20  1095.7  1104.3       1       1       1
X3    10                                                   888.6   888.6
BT    22     0.0   890.0     0.0   100.0   886.2     0.0   200.0   883.3     0.0
BT 300.0   881.2     0.0   400.0   881.0     0.0   425.0   881.1     0.0   500.0
BT 881.3     0.0   600.0   881.7     0.0   700.0   882.6     0.0   800.0   883.8
BT   0.0   900.0   884.6     0.0  1000.0   886.3     0.0  1095.7   888.6     0.0
BT1095.7   888.6   879.1  1095.7   888.6   881.1  1097.0   888.6   883.0  1100.0
BT 888.6   884.0  1103.0   888.6   883.0  1104.3   888.6   881.1  1104.3   888.6
BT 879.1  1104.3   888.6     0.0  1200.0   892.5     0.0
GR 890.0       0   886.2     100   883.3     200   881.2     300   881.0     400
GR 881.1     425   881.3     500   881.7     600   882.6     700   883.8     800
GR 884.6     900   886.3    1000   888.6  1095.7   879.1  1095.7   878.4    1097
GR 878.1    1100   878.4    1103   879.1  1104.3   888.6  1104.3   892.5    1200
X1 38752      20  1095.7  1104.3      42      42      42
X3    10                                                   888.6   888.6
BT    22     0.0   890.0     0.0   100.0   886.2     0.0   200.0   883.3     0.0
BT 300.0   881.2     0.0   400.0   881.0     0.0   425.0   881.1     0.0   500.0
BT 881.3     0.0   600.0   881.7     0.0   700.0   882.6     0.0   800.0   883.8
BT   0.0   900.0   884.6     0.0  1000.0   886.3     0.0  1095.7   888.6     0.0
BT1095.7   888.6   879.4  1095.7   888.6   881.4  1097.0   888.6   883.3  1100.0
BT 888.6   884.3  1103.0   888.6   883.3  1104.3   888.6   881.4  1104.3   888.6
BT 879.4  1104.3   888.6     0.0  1200.0   892.5     0.0
GR 890.0       0   886.2     100   883.3     200   881.2     300   881.0     400
GR 881.1     425   881.3     500   881.7     600   882.6     700   883.8     800
GR 884.6     900   886.3    1000   888.6  1095.7   879.4  1095.7   878.7    1097
GR 878.4    1100   878.7    1103   879.4  1104.3   888.6  1104.3   892.5    1200
NC 0.052   0.052   0.032
X1 38753                                  1       1       1
X3    10                                                   888.6   888.6
QT     4     135     260     350     615
NC  0.09    0.09   0.045
X1 37987      90   695.7   704.2      75     125     113
GR 877.9     0.0   877.6    23.9   877.4    47.9   877.3    71.9   877.4    95.9
GR 877.6   119.9   877.9   143.9   878.2   167.9   878.5   191.9   878.3   215.9
GR 878.1   239.9   878.0   263.8   877.8   287.8   877.9   311.8   878.0   335.8
GR 878.0   359.8   878.1   383.8   878.0   407.8   877.8   431.8   877.7   455.8
GR 877.5   479.8   877.2   503.8   876.9   527.7   876.6   551.7   876.2   575.7
GR 876.0   599.7   875.7   623.7   875.4   647.7   875.0   671.7   874.4   695.7
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GR 874.2   698.0   874.0   698.2   873.7   698.3   873.7   698.5   873.3   698.7
GR 873.3   697.4   873.3   697.7   873.3   698.0   873.3   698.2   873.3   698.5
GR 873.3   698.8   873.2   699.1   873.2   699.4   873.2   699.7   873.2   699.9
GR 873.2   700.2   873.2   700.5   873.2   700.8   873.4   701.1   873.5   701.4
GR 873.6   701.7   873.7   701.9   873.8   702.2   874.0   702.5   874.1   702.8
GR 874.2   703.1   874.3   703.4   874.5   703.7   874.6   703.9   874.7   704.2
GR 874.9   717.3   875.1   730.4   875.3   743.5   875.6   756.6   875.8   769.7
GR 876.0   782.8   876.0   795.9   876.1   809.0   876.3   822.1   876.5   835.2
GR 876.8   848.3   877.0   861.4   877.2   874.5   877.5   887.6   877.8   900.7
GR 878.0   913.8   878.5   926.9   878.9   940.0   879.4   953.1   879.9   966.2
GR 880.3   979.3   880.8   992.4   881.3  1005.5   881.7  1018.6   882.1  1031.7
GR 882.4  1044.8   882.7  1057.9   884.8  1071.0   887.4  1084.1   889.9  1097.2
QT     4      45     155     233     475
X1 38100      18     685     695      75     125     112
X3                                     420
GR 876.9       0   876.9      85   878.8     185   878.0     285   878.8     385
GR 878.4     485   876.8     585   876.5     665   876.0     685   874.6     687
GR 874.5     689   874.5     691   876.4     695   876.8     785   879.1     885
GR 883.5     985   884.1    1019   893.2    1053
NC 0.085   0.085   0.042
X1 38600      19     616     637     400     600     500
X3                                     500
GR 881.1       0   878.2      16   878.3     116   880.1     216   880.8     316
GR 882.6     384   889.3     416   891.3     461   891.0     476   884.1     516
GR 881.6     536   881.3     616   878.8     620   878.8     625   879.1     629
GR 882.6     637   884.8     666   887.8     716   895.4     791
X1 38711                              90     130     110            -0.7
X3                                     500
NC 0.035   0.035   0.035
X1 38711      14       0    1200       1       1       1
X3                                     450
GR 890.0       0   886.2     100   883.3     200   881.2     300   881.0     400
GR 881.1     425   881.3     500   881.7     600   882.6     700   883.8     800
GR 884.6     900   886.3    1000   888.6    1100   892.5    1200
X1 38753                              42      42      42
X3                                     450
NC 0.052   0.052   0.052
X1 38754                               1       1       1
X3                                     450
EJ
T1      5670-03,  FIS - CITY OF FARMINGTON HILLS,  PM   DICK ZANOTTI
T2      50-YEAR FLOOD
T3      MINNOW POND DRAIN - U/S PORTION,  14 MILE ROAD
J1     -1       3                                                    874.634
J2      2              -1
T1      5670-03,  FIS - CITY OF FARMINGTON HILLS,  PM   DICK ZANOTTI
T2      100-YEAR FLOOD
T3      MINNOW POND DRAIN - U/S PORTION,  14 MILE ROAD
J1     -1       4                                                    875.410
J2      3              -1
T1      5670-03,  FIS - CITY OF FARMINGTON HILLS,   PM  DICK ZANOTTI
T2      500-YEAR FLOOD
T3      MINNOW POND DRAIN - U/S PORTION,  14 MILE ROAD
J1     -1       5                                                    877.720
J2     15              -1

ER
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00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY

3) WATERCOURSE: MINNOW POND DRAIN UPSTREAM PORTION

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

MINNOW POND DRAIN - U/S

SUMMARY PRINTOUT

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
	36263.000	1.00	0.00	0.00	869.00	210.00	873.25	.09	0.00	0.00	210.00	4.25	31.20
	36263.000	1.00	0.00	0.00	869.00	460.00	874.63	.20	0.00	0.00	460.00	5.63	31.20
	36263.000	1.00	0.00	0.00	869.00	640.00	875.41	.27	0.00	0.00	640.00	6.41	31.20
	36263.000	1.00	0.00	0.00	869.00	1230.00	877.72	.46	0.00	0.00	1230.00	8.72	31.20
	36503.000	240.00	0.00	0.00	869.90	210.00	873.48	.10	.24	.00	210.00	3.58	37.98
	36503.000	240.00	0.00	0.00	869.90	460.00	874.97	.15	.27	.01	451.26	5.07	56.99
	36503.000	240.00	0.00	0.00	869.90	640.00	875.81	.17	.27	.03	613.45	5.91	70.62
	36503.000	240.00	0.00	0.00	869.90	1230.00	878.31	.16	.21	.09	1029.99	8.41	135.06
	37603.000	1100.00	0.00	0.00	869.40	135.00	873.79	.00	.18	.03	13.39	4.39	209.91
	37603.000	1100.00	0.00	0.00	869.40	260.00	875.27	.00	.11	.04	14.96	5.87	410.00
	37603.000	1100.00	0.00	0.00	869.40	350.00	876.12	.00	.08	.05	16.19	6.72	410.00
	37603.000	1100.00	0.00	0.00	869.40	615.00	878.57	.00	.05	.05	19.84	9.17	410.00
*	37604.000	1.00	873.70	872.00	869.40	135.00	874.17	.04	.00	.02	19.98	4.77	366.92
	37604.000	1.00	873.70	872.00	869.40	260.00	875.26	.00	.00	.00	4.37	5.86	410.00
	37604.000	1.00	873.70	872.00	869.40	350.00	876.12	.00	.00	.00	3.76	6.72	410.00
	37604.000	1.00	873.70	872.00	869.40	615.00	878.57	.00	.00	.00	4.10	9.17	410.00
	37648.000	44.00	873.70	872.20	869.60	135.00	874.34	.01	.13	.01	9.97	4.74	391.12
	37648.000	44.00	873.70	872.20	869.60	260.00	875.27	.00	.00	.00	4.42	5.67	410.00
	37648.000	44.00	873.70	872.20	869.60	350.00	876.12	.00	.00	.00	3.81	6.52	410.00
	37648.000	44.00	873.70	872.20	869.60	615.00	878.57	.00	.00	.00	4.16	8.97	410.00
	37649.000	1.00	0.00	0.00	869.60	135.00	874.35	.00	.00	.00	12.99	4.75	391.64
	37649.000	1.00	0.00	0.00	869.60	260.00	875.27	.00	.00	.00	18.05	5.67	410.00
	37649.000	1.00	0.00	0.00	869.60	350.00	876.12	.00	.00	.00	19.63	6.52	410.00
	37649.000	1.00	0.00	0.00	869.60	615.00	878.57	.00	.00	.00	24.34	8.97	410.00
	37762.000	113.00	0.00	0.00	870.80	135.00	874.36	.01	.01	.00	21.85	3.56	188.05
	37762.000	113.00	0.00	0.00	870.80	260.00	875.28	.01	.01	.00	30.25	4.48	355.00
	37762.000	113.00	0.00	0.00	870.80	350.00	876.12	.00	.00	.00	31.18	5.32	355.00
	37762.000	113.00	0.00	0.00	870.80	615.00	878.58	.00	.00	.00	36.12	7.78	355.00
	37874.000	112.00	0.00	0.00	872.00	135.00	874.36	.09	.05	.04	52.48	2.36	114.63
	37874.000	112.00	0.00	0.00	872.00	260.00	875.29	.04	.03	.02	59.11	3.29	200.06
	37874.000	112.00	0.00	0.00	872.00	350.00	876.13	.02	.02	.01	53.26	4.13	300.00
	37874.000	112.00	0.00	0.00	872.00	615.00	878.58	.01	.00	.00	52.41	6.58	300.00

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
*	37987.000	113.00	0.00	0.00	873.20	135.00	875.46	.27	.62	.09	80.56	2.26	107.31
*	37987.000	113.00	0.00	0.00	873.20	260.00	875.81	.30	.31	.13	115.42	2.61	155.57
	37987.000	113.00	0.00	0.00	873.20	350.00	876.17	.19	.12	.09	118.31	2.97	232.68
	37987.000	113.00	0.00	0.00	873.20	615.00	878.59	.01	.01	.00	56.66	5.39	929.68
	38099.000	112.00	0.00	0.00	874.50	90.00	876.72	.24	1.23	.01	72.73	2.22	142.31
	38099.000	112.00	0.00	0.00	874.50	105.00	877.01	.08	.92	.06	59.32	2.51	178.45
	38099.000	112.00	0.00	0.00	874.50	117.00	877.05	.09	.75	.03	63.88	2.55	180.33
	38099.000	112.00	0.00	0.00	874.50	140.00	878.61	.00	.02	.00	30.83	4.11	185.00
	38162.000	62.50	0.00	0.00	875.00	90.00	877.29	.21	.54	.01	77.76	2.29	110.46
	38162.000	62.50	0.00	0.00	875.00	105.00	877.27	.31	.37	.11	91.98	2.27	106.11
*	38162.000	62.50	0.00	0.00	875.00	117.00	877.37	.28	.38	.10	95.75	2.37	134.71
	38162.000	62.50	0.00	0.00	875.00	140.00	878.62	.01	.01	.00	39.36	3.62	293.17
	38224.000	62.50	0.00	0.00	875.50	90.00	877.79	.26	.53	.02	85.35	2.29	57.45
	38224.000	62.50	0.00	0.00	875.50	105.00	877.96	.23	.58	.02	91.79	2.46	106.31
	38224.000	62.50	0.00	0.00	875.50	117.00	877.99	.26	.59	.01	100.64	2.49	111.27
	38224.000	62.50	0.00	0.00	875.50	140.00	878.64	.05	.03	.02	73.14	3.14	205.18
	38349.000	125.00	0.00	0.00	876.60	90.00	878.83	.24	1.02	.01	89.21	2.23	27.12
	38349.000	125.00	0.00	0.00	876.60	105.00	878.93	.29	1.00	.03	103.15	2.33	47.34
	38349.000	125.00	0.00	0.00	876.60	117.00	879.03	.29	1.06	.02	112.34	2.43	79.64
	38349.000	125.00	0.00	0.00	876.60	140.00	878.85	.56	.47	.26	138.52	2.25	28.02
	38474.000	125.00	0.00	0.00	877.70	90.00	879.77	.24	.93	.00	90.00	2.07	15.20
	38474.000	125.00	0.00	0.00	877.70	105.00	879.95	.26	.99	.01	105.00	2.25	18.85
	38474.000	125.00	0.00	0.00	877.70	117.00	880.04	.28	1.00	.00	116.82	2.34	25.19
	38474.000	125.00	0.00	0.00	877.70	140.00	880.39	.22	1.10	.10	130.69	2.69	95.79
	38599.000	125.00	0.00	0.00	878.80	90.00	880.75	.24	.98	.00	90.00	1.95	15.85
	38599.000	125.00	0.00	0.00	878.80	105.00	880.92	.25	.96	.00	105.00	2.12	16.57
	38599.000	125.00	0.00	0.00	878.80	117.00	881.04	.27	.99	.00	117.00	2.24	17.02
	38599.000	125.00	0.00	0.00	878.80	140.00	881.19	.33	.85	.05	140.00	2.39	17.59
	38709.000	110.00	0.00	0.00	878.10	90.00	881.42	.17	.58	.02	90.00	3.32	8.60
	38709.000	110.00	0.00	0.00	878.10	105.00	881.60	.21	.62	.01	105.00	3.50	8.60
	38709.000	110.00	0.00	0.00	878.10	117.00	881.75	.24	.66	.01	117.00	3.65	8.60
	38709.000	110.00	0.00	0.00	878.10	140.00	882.00	.29	.77	.01	140.00	3.90	8.60
	38710.000	1.00	881.00	884.00	878.10	90.00	881.40	.22	.00	.02	90.00	3.30	8.60
	38710.000	1.00	881.00	884.00	878.10	105.00	881.58	.27	.00	.03	105.00	3.48	8.60
	38710.000	1.00	881.00	884.00	878.10	117.00	881.72	.30	.00	.03	117.00	3.62	8.60
	38710.000	1.00	881.00	884.00	878.10	140.00	881.96	.38	.01	.04	140.00	3.86	8.60
	38752.000	42.00	881.00	884.30	878.40	90.00	881.54	.24	.15	.01	90.00	3.14	8.60
	38752.000	42.00	881.00	884.30	878.40	105.00	881.74	.29	.18	.01	105.00	3.34	8.60
	38752.000	42.00	881.00	884.30	878.40	117.00	881.91	.32	.20	.01	117.00	3.51	8.60
	38752.000	42.00	881.00	884.30	878.40	140.00	882.19	.40	.23	.01	140.00	3.79	8.60
	38753.000	1.00	0.00	0.00	878.40	90.00	881.59	.20	.00	.01	90.00	3.19	8.60
	38753.000	1.00	0.00	0.00	878.40	105.00	881.81	.24	.00	.01	105.00	3.41	8.60
	38753.000	1.00	0.00	0.00	878.40	117.00	881.98	.27	.00	.02	117.00	3.58	8.60
	38753.000	1.00	0.00	0.00	878.40	140.00	882.29	.32	.00	.02	140.00	3.89	8.60

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
*	-37987.000	113.00	0.00	0.00	873.20	135.00	875.47	.26	.63	-.63	80.01	2.27	108.28
	-37987.000	113.00	0.00	0.00	873.20	260.00	875.81	.30	0.00	0.00	115.42	2.61	155.57
	-37987.000	113.00	0.00	0.00	873.20	350.00	876.17	.18	0.00	0.00	117.63	2.97	234.09
	-37987.000	113.00	0.00	0.00	873.20	615.00	878.59	.00	0.00	0.00	56.48	5.39	929.90
	38100.000	112.00	0.00	0.00	876.90	45.00	877.21	.04	1.46	.07	0.00	.31	100.88
	38100.000	112.00	0.00	0.00	876.90	155.00	877.65	.06	1.53	.07	0.00	.75	124.71
	38100.000	112.00	0.00	0.00	876.90	233.00	877.62	.15	1.41	.01	0.00	.72	123.03
	38100.000	112.00	0.00	0.00	876.90	475.00	878.62	.05	.05	.02	0.00	1.72	328.86
	38600.000	500.00	0.00	0.00	878.20	45.00	878.99	.00	1.73	.01	0.00	.79	142.26
	38600.000	500.00	0.00	0.00	878.20	155.00	879.59	.01	1.87	.01	0.00	1.39	179.44
	38600.000	500.00	0.00	0.00	878.20	233.00	879.94	.01	2.14	.04	0.00	1.74	200.51
	38600.000	500.00	0.00	0.00	878.20	475.00	880.43	.03	1.79	.01	0.00	2.23	261.55
	38711.000	110.00	0.00	0.00	877.50	45.00	879.02	.00	.03	.00	0.00	1.52	187.09
	38711.000	110.00	0.00	0.00	877.50	155.00	879.66	.00	.06	.00	0.00	2.16	248.71
	38711.000	110.00	0.00	0.00	877.50	233.00	880.01	.00	.06	.00	0.00	2.51	301.93
	38711.000	110.00	0.00	0.00	877.50	475.00	880.56	.01	.10	.01	0.00	3.06	333.21
*	38711.000	1.00	0.00	0.00	881.17	45.00	881.50	.09	.00	.05	45.00	.33	99.91
*	38711.000	1.00	0.00	0.00	881.17	155.00	881.73	.16	.00	.08	155.00	.56	153.45
*	38711.000	1.00	0.00	0.00	881.17	233.00	881.84	.20	.00	.10	233.00	.67	165.10
*	38711.000	1.00	0.00	0.00	881.17	475.00	882.09	.29	.00	.14	475.00	.92	193.03
	38753.000	42.00	0.00	0.00	881.17	45.00	881.78	.01	.17	.03	45.00	.61	158.59
	38753.000	42.00	0.00	0.00	881.17	155.00	882.12	.03	.21	.04	155.00	.95	196.43
	38753.000	42.00	0.00	0.00	881.17	233.00	882.27	.04	.23	.05	233.00	1.11	213.73
	38753.000	42.00	0.00	0.00	881.17	475.00	882.63	.07	.25	.07	475.00	1.46	252.39
	38754.000	1.00	0.00	0.00	881.17	45.00	881.78	.01	.00	.00	45.00	.62	159.99
	38754.000	1.00	0.00	0.00	881.17	155.00	882.12	.03	.00	.00	155.00	.95	197.21
	38754.000	1.00	0.00	0.00	881.17	233.00	882.28	.04	.00	.00	233.00	1.11	215.22
	38754.000	1.00	0.00	0.00	881.17	475.00	882.63	.06	.00	.00	475.00	1.47	253.33

SUMMARY OF ERRORS

```
CAUTION  SECNO=37604.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=37604.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=37604.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=37987.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=37987.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=37987.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=37987.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=37987.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=37987.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=38162.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=38162.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

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

CAUTION  SECNO=38711.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=38711.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=38711.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=38711.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=38711.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=38711.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=38711.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=38711.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=38711.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=38711.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=38711.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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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

UPPER RIVER ROUGE & MINN

SUMMARY PRINTOUT

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
	17780.000	580.00	0.00	0.00	712.10	670.00	715.43	.26	0.00	0.00	447.72	3.33	157.10
	17780.000	580.00	0.00	0.00	712.10	1400.00	716.36	.36	0.00	0.00	761.20	4.26	169.04
	17780.000	580.00	0.00	0.00	712.10	1900.00	717.76	.22	0.00	0.00	859.75	5.66	209.70
	17780.000	580.00	0.00	0.00	712.10	3600.00	718.65	.46	0.00	0.00	1501.96	6.55	222.77
*	17938.000	138.00	0.00	0.00	713.00	670.00	716.37	.87	1.35	.18	560.01	3.37	87.18
*	17938.000	138.00	0.00	0.00	713.00	1400.00	717.52	1.24	1.35	.26	1034.11	4.52	116.00
*	17938.000	138.00	0.00	0.00	713.00	1900.00	718.14	1.41	.74	.36	1325.24	5.14	131.47
*	17938.000	138.00	0.00	0.00	713.00	3600.00	719.79	1.79	1.05	.40	2196.43	6.79	172.83
	18322.000	384.00	0.00	0.00	715.10	670.00	720.33	.22	3.25	.07	360.67	5.23	418.71
	18322.000	384.00	0.00	0.00	715.10	1400.00	721.22	.14	2.49	.11	429.90	6.12	436.52
	18322.000	384.00	0.00	0.00	715.10	1900.00	721.74	.12	2.18	.13	472.76	6.64	447.05
	18322.000	384.00	0.00	0.00	715.10	3600.00	723.27	.11	1.63	.17	613.16	8.17	478.00
	640.000	640.00	0.00	0.00	716.30	670.00	722.05	.15	1.63	.02	524.62	5.75	179.25
	640.000	640.00	0.00	0.00	716.30	1400.00	723.01	.27	1.86	.07	931.34	6.71	224.66
	640.000	640.00	0.00	0.00	716.30	1900.00	723.49	.34	1.86	.11	1173.29	7.19	243.52
	640.000	640.00	0.00	0.00	716.30	3600.00	724.78	.50	1.71	.19	1867.11	8.48	292.32
	1730.000	1090.00	0.00	0.00	719.20	670.00	723.81	.17	1.77	.01	406.83	4.61	192.23
	1730.000	1090.00	0.00	0.00	719.20	1400.00	725.08	.18	1.95	.03	650.97	5.88	281.58
	1730.000	1090.00	0.00	0.00	719.20	1900.00	725.70	.20	2.02	.04	792.42	6.50	293.96
	1730.000	1090.00	0.00	0.00	719.20	3600.00	727.24	.25	2.13	.07	1223.27	8.04	330.00
	2780.000	1050.00	0.00	0.00	722.30	670.00	726.99	.25	3.22	.04	489.29	4.69	217.31
	2780.000	1050.00	0.00	0.00	722.30	1400.00	728.06	.28	3.03	.05	770.03	5.76	292.66
	2780.000	1050.00	0.00	0.00	722.30	1900.00	728.61	.29	2.96	.05	919.58	6.31	331.09
	2780.000	1050.00	0.00	0.00	722.30	3600.00	730.07	.30	2.86	.02	1322.97	7.77	427.60
	3880.000	1100.00	0.00	0.00	725.00	670.00	729.66	.10	2.49	.04	385.58	4.66	221.25
	3880.000	1100.00	0.00	0.00	725.00	1400.00	730.76	.15	2.52	.04	664.85	5.76	274.47
	3880.000	1100.00	0.00	0.00	725.00	1900.00	731.30	.17	2.54	.03	835.44	6.30	301.93
	3880.000	1100.00	0.00	0.00	725.00	3600.00	732.63	.25	2.51	.01	1345.02	7.63	372.49
	4935.000	1055.00	0.00	0.00	728.20	670.00	732.12	.25	2.54	.07	455.34	3.92	151.48
	4935.000	1055.00	0.00	0.00	728.20	1400.00	733.31	.32	2.63	.09	773.54	5.11	221.16
	4935.000	1055.00	0.00	0.00	728.20	1900.00	733.91	.35	2.69	.09	950.52	5.71	278.25
	4935.000	1055.00	0.00	0.00	728.20	3600.00	735.37	.38	2.80	.07	1413.59	7.17	395.51

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
5785.000	850.00	0.00	0.00	731.20	670.00	735.45	.26	3.33	.01	491.50	4.25	153.44
5785.000	850.00	0.00	0.00	731.20	1400.00	736.66	.34	3.36	.01	827.39	5.46	221.07
5785.000	850.00	0.00	0.00	731.20	1900.00	737.23	.37	3.34	.01	1014.61	6.03	254.17
5785.000	850.00	0.00	0.00	731.20	3600.00	738.61	.46	3.28	.04	1549.24	7.41	340.78
6595.000	810.00	0.00	0.00	734.40	670.00	738.42	.27	2.97	.01	488.87	4.02	144.63
6595.000	810.00	0.00	0.00	734.40	1400.00	739.61	.37	2.97	.01	836.85	5.21	198.65
6595.000	810.00	0.00	0.00	734.40	1900.00	740.19	.41	2.98	.02	1039.23	5.79	219.94
6595.000	810.00	0.00	0.00	734.40	3600.00	741.63	.54	3.06	.04	1621.76	7.23	248.65
7835.000	1240.00	0.00	0.00	736.60	670.00	742.54	.19	4.02	.02	562.61	5.94	45.57
7835.000	1240.00	0.00	0.00	736.60	1400.00	744.39	.34	4.74	.01	1052.09	7.79	141.46
7835.000	1240.00	0.00	0.00	736.60	1900.00	745.16	.38	4.92	.01	1281.42	8.56	161.72
7835.000	1240.00	0.00	0.00	736.60	3600.00	746.90	.45	5.16	.03	1850.69	10.30	223.12
7836.000	1.00	0.00	0.00	736.60	670.00	742.55	.19	.00	.00	560.74	5.95	45.58
7836.000	1.00	0.00	0.00	736.60	1400.00	744.40	.33	.00	.00	1046.36	7.80	141.52
7836.000	1.00	0.00	0.00	736.60	1900.00	745.18	.37	.00	.00	1272.42	8.58	162.06
7836.000	1.00	0.00	0.00	736.60	3600.00	746.92	.44	.00	.00	1830.66	10.32	223.32
7866.000	30.00	742.20	742.20	736.60	670.00	743.09	.15	.50	0.00	550.67	6.49	47.40
7866.000	30.00	742.20	742.20	736.60	1400.00	744.93	.23	.44	0.00	970.33	8.33	149.07
7866.000	30.00	742.20	742.20	736.60	1900.00	745.61	.28	.34	0.00	1189.89	9.01	193.65
7866.000	30.00	742.20	742.20	736.60	3600.00	747.20	.37	.21	0.00	1751.67	10.60	228.94
7867.000	1.00	0.00	0.00	736.60	670.00	743.09	.15	.00	.00	557.06	6.49	47.40
7867.000	1.00	0.00	0.00	736.60	1400.00	744.93	.24	.00	.01	989.70	8.33	149.08
7867.000	1.00	0.00	0.00	736.60	1900.00	745.60	.29	.00	.01	1219.04	9.00	193.58
7867.000	1.00	0.00	0.00	736.60	3600.00	747.19	.40	.00	.01	1812.83	10.59	228.77
8687.000	820.00	0.00	0.00	741.30	670.00	745.22	.30	2.20	.07	488.53	3.92	140.48
8687.000	820.00	0.00	0.00	741.30	1400.00	746.94	.23	2.00	.00	751.88	5.64	223.68
8687.000	820.00	0.00	0.00	741.30	1900.00	747.71	.23	2.03	.02	907.61	6.41	260.89
8687.000	820.00	0.00	0.00	741.30	3600.00	749.51	.26	2.14	.04	1364.95	8.21	348.11
9247.000	560.00	0.00	0.00	741.90	670.00	746.84	.21	1.50	.03	524.90	4.94	188.60
9247.000	560.00	0.00	0.00	741.90	1400.00	748.10	.24	1.16	.00	820.76	6.20	305.62
9247.000	560.00	0.00	0.00	741.90	1900.00	748.77	.23	1.06	.00	963.42	6.87	306.80
9247.000	560.00	0.00	0.00	741.90	3600.00	750.48	.25	.97	.00	1400.67	8.58	309.80
9327.000	80.00	0.00	0.00	742.50	670.00	746.98	.34	.21	.06	575.43	4.48	159.65
9327.000	80.00	0.00	0.00	742.50	1400.00	748.25	.37	.22	.07	907.67	5.75	264.03
9327.000	80.00	0.00	0.00	742.50	1900.00	748.91	.36	.20	.06	1062.55	6.41	286.00
9327.000	80.00	0.00	0.00	742.50	3600.00	750.62	.35	.18	.05	1513.99	8.12	288.99
9407.000	80.00	0.00	0.00	743.20	670.00	747.27	.40	.32	.03	573.90	4.07	137.04
9407.000	80.00	0.00	0.00	743.20	1400.00	748.52	.46	.32	.04	927.30	5.32	229.87
9407.000	80.00	0.00	0.00	743.20	1900.00	749.16	.45	.29	.05	1103.78	5.96	268.09
9407.000	80.00	0.00	0.00	743.20	3600.00	750.84	.40	.24	.02	1529.49	7.64	385.10
9447.000	40.00	0.00	0.00	743.50	670.00	747.46	.45	.22	.02	584.46	3.96	129.42
9447.000	40.00	0.00	0.00	743.50	1400.00	748.70	.52	.21	.03	950.30	5.20	221.88
9447.000	40.00	0.00	0.00	743.50	1900.00	749.32	.51	.19	.03	1130.85	5.82	259.42
9447.000	40.00	0.00	0.00	743.50	3600.00	750.96	.45	.15	.02	1566.40	7.46	381.47

MOORE BUSINESS FORMS INC 73

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
9487.000	40.00	0.00	0.00	743.80	670.00	747.71	.48	.26	.01	590.28	3.91	124.87
9487.000	40.00	0.00	0.00	743.80	1400.00	748.93	.55	.25	.02	962.37	5.13	218.37
9487.000	40.00	0.00	0.00	743.80	1900.00	749.54	.56	.24	.02	1151.31	5.74	254.17
9487.000	40.00	0.00	0.00	743.80	3600.00	751.12	.50	.18	.03	1606.38	7.32	378.34

SUMMARY OF ERRORS

```
CAUTION  SECNO=17938.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=17938.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=17938.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=17938.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=17938.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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MOORE BUSINESS FORMS, INC 93

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: 10-YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
*****************************************
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C
1       CITY OF FARMINGTON HILLS, 5670-03, PN = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       TARABUSI CREEK

J1  ICHECK    INQ      NINV     IDIR      STRT     METRIC    HVINS      TW       WSEL      FQ
     -1.       2.       0.       0.  0.000000     0.00      0.0       0.     594.340    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    1.000    0.100     0.000

J3     1.000   10.000   11.000   12.000   14.000    0.000    4.000    0.000    0.000    0.000
NC      .050     .050     .031     .300     .500    0.000    0.000    0.000    0.000    0.000
QT     4.000  730.000 1070.000 1210.000 1410.000    0.000    0.000    0.000    0.000    0.000
ET     0.000    6.100    8.100    8.100    8.100  249.000  261.000     .050  354.000    0.000

X1     4.779    8.000  235.000  279.000   12.000   12.000   12.000    0.000    0.000    0.000
GR   698.500    0.000  692.500  235.000  690.500  242.000  689.200  255.000  690.500  269.000
GR   692.500  278.000  695.500  430.000  696.000  530.000    0.000    0.000    0.000    0.000
ET     0.000    6.100    0.000    0.000    0.000  494.000  506.000    0.000    0.000    0.000
NH     3.000     .050  494.000     .031  520.000     .050 1000.000    0.000    0.000    0.000
SA     0.000   2.250    3.020    0.000    9.070    0.000   77.000    0.000  689.200  689.200

X1     4.795   21.000  480.000  520.000   81.000   61.000   61.000    0.000    0.000    0.000
X2     0.000    0.000    1.000  697.000  699.700    0.000    0.000    0.000    0.000    0.000
BT    21.000    0.000  705.400    0.000  100.000  704.400    0.000  700.000  703.000    0.000
BT   300.000  701.300    0.000  400.000  700.100    0.000  480.000  699.750  694.000  494.000
BT   699.700  690.300  494.000  699.700  692.900  495.000  699.700  694.300  497.000  699.700
BT   696.200  500.000  699.700  697.000  503.000  699.700  696.200  505.000  699.700  694.300
BT   506.000  699.700  692.900  506.000  699.700  690.800  520.000  699.800  694.000  500.000
BT   700.400    0.000  700.000  702.000    0.000  800.000  703.500    0.000  900.000  704.800
BT     0.000 1000.000  705.600    0.000    0.000    0.000    0.000    0.000    0.000    0.000
GR   705.400    0.000  704.400  100.000  703.000  200.000  701.300  300.000  700.100  400.000
GR   699.900  450.000  694.000  430.000  690.800  494.000  689.300  495.000  689.400  497.000
GR   689.200  500.000  689.400  503.000  689.800  505.000  690.300  506.000  694.000  520.000
GR   700.000  550.000  700.400  600.000  702.000  700.000  703.500  800.000  704.800  900.000
GR   705.600 1000.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
NC     .095     .095     .042    0.000    0.000    0.000    0.000    0.000    0.000    0.000
ET     0.000    6.100    0.000    0.000    0.000  494.000  506.000    0.000    0.000    0.000

X1     4.795    0.000    0.000    0.000    1.000    1.000    1.000    0.000    0.000    0.000
X5     4.000    0.000  700.120  700.360  700.620    0.000    0.000    0.000    0.000    0.000
NC     .095     .095     .045     .300     .500    0.000    0.000    0.000    0.000    0.000
QT     4.000  640.000  940.000 1070.000 1240.000    0.000    0.000    0.000    0.000    0.000

X1     4.932   15.000   93.000  138.000  700.000  750.000  750.000    0.000    0.000    0.000
GR   710.000    0.000  700.500   [illegible].000  698.000   79.000  697.000   86.000  696.000   99.000
GR   695.000  107.000  694.000  115.500  693.600  116.000  693.500  120.000  694.000  120.500
GR   695.000  129.000  696.000  139.000  697.000  166.000  698.000  210.000  700.500  292.000
NC     .096     .096     .046    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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X1	5.011	19.000	123.000	163.000	415.000	415.000	415.000	0.000	-1.500	0.000
GR	706.000	0.000	703.600	11.000	703.000	36.000	702.000	71.000	701.000	114.000
GR	700.000	126.000	699.000	133.500	696.000	139.500	697.200	142.000	697.200	150.000
GR	698.000	152.500	699.000	158.500	700.000	166.000	701.000	178.000	702.000	221.000
GR	703.000	256.000	703.600	281.000	708.500	300.000	710.000	340.000	0.000	0.000
X1	5.049	0.000	0.000	0.000	415.000	415.000	415.000	0.000	1.100	0.000
NC	.100	.100	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.226	16.000	205.000	235.000	725.000	725.000	725.000	0.000	0.000	0.000
GR	711.000	0.000	707.000	100.000	705.000	150.000	704.000	170.000	703.000	200.000
GR	702.000	205.000	701.000	212.500	700.300	218.500	700.300	221.500	701.000	227.500
GR	702.000	235.000	703.000	240.000	704.000	270.000	705.000	290.000	707.000	340.000
GR	710.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.287	0.000	0.000	0.000	380.000	230.000	320.000	0.000	2.200	0.000
X1	5.317	16.000	387.000	410.000	190.000	115.000	160.000	0.000	-1.100	0.000
GR	720.700	0.000	717.000	100.000	713.700	200.000	708.900	300.000	708.500	377.000
GR	706.200	387.000	704.800	395.000	704.700	400.000	705.200	404.000	707.200	410.000
GR	708.500	433.000	708.900	500.000	712.600	600.000	714.700	700.000	716.200	800.000
GR	716.700	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.347	0.000	0.000	0.000	190.000	115.000	160.000	0.000	1.100	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.348	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
SB	0.000	2.720	2.850	0.000	7.910	0.000	42.700	0.000	705.000	704.700
X1	5.357	17.000	387.000	410.000	52.000	52.000	52.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	709.800	711.600	0.000	0.000	0.000	0.000	0.000
BT	19.000	0.000	720.700	0.000	100.000	717.000	0.000	200.000	713.700	0.000
BT	300.000	711.900	0.000	397.000	711.700	0.000	395.100	711.600	705.000	395.100
BT	711.600	707.200	396.600	711.600	709.300	400.000	711.600	710.400	403.400	711.600
BT	709.300	404.900	711.600	707.200	404.900	711.600	705.000	410.000	711.600	0.000
BT	433.000	711.600	0.000	500.000	711.700	0.000	600.000	712.500	0.000	700.000
BT	714.700	0.000	800.000	716.200	0.000	900.000	716.700	0.000	0.000	0.000
GR	720.700	0.000	717.000	100.000	713.700	200.000	711.500	300.000	706.200	387.000
GR	705.000	395.100	705.000	396.500	705.000	400.000	705.000	403.400	705.000	404.900
GR	707.800	410.000	709.000	433.000	711.200	500.000	712.600	600.000	714.700	700.000
GR	716.200	800.000	716.700	900.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.358	16.000	387.000	410.000	1.000	1.000	1.000	0.000	0.000	0.000
GR	720.700	0.000	717.000	100.000	713.700	200.000	711.500	300.000	707.200	377.000
GR	706.200	387.000	705.100	395.000	705.000	400.000	705.500	404.000	707.800	410.000
GR	709.000	433.000	711.200	500.000	712.600	600.000	714.700	700.000	716.200	800.000
GR	716.700	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.414	10.000	273.000	293.000	200.000	400.000	300.000	0.000	0.000	0.000
GR	718.800	0.000	719.200	100.000	709.500	200.000	707.800	273.000	705.500	277.000
GR	705.700	281.000	705.800	285.000	710.400	293.000	711.500	300.000	721.200	400.000
X1	5.453	14.000	230.000	245.000	150.000	200.000	230.000	0.000	0.000	0.000
GR	721.000	0.000	718.600	10.000	718.800	25.000	720.200	128.000	709.500	200.000
GR	707.900	230.000	706.100	233.000	705.800	237.000	706.300	242.000	707.300	245.000
GR	708.500	300.000	712.500	365.000	717.600	400.000	722.600	500.000	0.000	0.000
X1	5.505	0.000	0.000	0.000	275.000	200.000	250.000	0.000	.550	0.000
NC	.097	.097	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.552	13.000	195.000	222.000	275.000	200.000	250.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	724.700	0.000	714.500	115.000	714.900	135.000	712.000	195.000	709.000	208.000
GR	707.000	211.000	706.900	215.000	707.100	218.000	709.000	222.000	711.400	230.000

GR	717.400	315.000	722.100	415.000	725.100	515.000	0.000	0.000	0.000	0.000
NC	.050	.050	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.553	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.770	2.900	0.000	9.430	0.000	56.550	0.000	706.900	706.900
X1	5.557	22.000	195.000	222.000	22.000	22.000	22.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	712.500	714.500	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	25.000	115.000	714.500	0.000	135.000	714.900	0.000	195.000	714.600	712.000
BT	208.000	714.500	708.900	208.000	714.500	710.900	208.500	714.500	711.600	209.500
BT	714.500	712.600	211.000	714.500	712.900	212.500	714.500	712.600	213.500	714.500
BT	711.600	214.000	714.500	710.900	214.000	714.500	708.900	215.000	714.500	709.000
BT	216.000	714.500	711.000	216.500	714.500	711.700	217.500	714.500	712.700	219.000
BT	714.500	713.000	220.500	714.500	712.700	221.500	714.500	711.700	222.000	714.500
BT	711.000	222.000	714.500	709.000	230.000	714.900	711.400	315.000	717.400	0.000
BT	415.000	722.100	0.000	515.000	725.100	0.000	0.000	0.000	0.000	0.000
GR	727.400	0.000	714.500	115.000	714.900	135.000	712.000	195.000	708.900	208.000
GR	708.200	208.500	707.200	209.500	706.900	211.000	707.200	212.500	708.200	213.500
GR	708.900	214.000	709.000	216.000	708.300	216.500	707.300	217.500	707.000	219.000
GR	707.300	220.500	708.300	221.500	709.000	222.000	711.400	230.000	717.400	315.000
GR	722.100	415.000	725.100	515.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.557	13.000	195.000	222.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	724.700	0.000	714.500	115.000	714.900	135.000	712.000	195.000	709.000	208.000
GR	707.000	211.000	706.900	215.000	707.100	218.000	709.000	222.000	711.400	230.000
GR	717.400	315.000	722.100	415.000	725.100	515.000	0.000	0.000	0.000	0.000
X1	5.566	25.000	134.000	174.000	60.000	40.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	240.000	0.000	0.000	0.000	0.000
GR	717.000	0.000	715.000	20.000	714.200	30.000	713.300	40.000	713.200	48.000
GR	712.000	80.000	711.000	84.000	710.000	116.000	709.500	134.000	709.400	144.000
GR	709.000	145.000	708.000	147.000	707.000	150.000	707.000	153.000	708.000	158.000
GR	709.000	159.000	709.400	159.000	709.500	174.000	710.000	264.000	711.000	274.000
GR	712.000	285.000	713.200	299.000	713.300	295.000	714.200	305.000	715.000	425.000
X1	5.625	18.000	330.000	370.000	400.000	250.000	310.000	0.000	0.000	0.000
GR	730.000	0.000	720.000	170.000	715.000	275.000	714.000	290.000	713.000	310.000
GR	712.000	330.000	711.000	336.000	710.000	342.500	709.500	348.500	709.500	351.500
GR	710.000	357.500	711.000	364.000	712.000	370.000	713.000	380.000	714.000	405.000
GR	715.000	430.000	723.000	500.000	730.000	650.000	0.000	0.000	0.000	0.000
X1	5.900	12.000	136.000	164.000	1350.000	1350.000	1450.000	0.000	0.000	0.000
GR	730.000	0.000	718.200	102.000	715.000	132.000	714.000	136.000	713.000	142.000
GR	712.600	146.000	712.600	154.000	713.000	158.000	714.000	164.000	715.000	222.000
GR	715.000	286.000	720.000	336.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5.947	90.000	95.500	129.500	250.000	250.000	250.000	0.000	0.000	0.000
GR	730.000	0.000	729.500	3.200	729.000	6.500	728.500	9.800	728.000	13.100
GR	727.500	16.400	727.000	19.700	726.500	23.000	726.000	26.300	725.500	29.600
GR	725.000	32.900	724.500	36.200	724.000	39.500	723.600	42.800	723.100	46.100
GR	722.600	49.300	722.100	52.600	721.600	55.900	721.100	59.200	720.600	62.500
GR	720.100	65.800	719.600	69.100	719.000	72.400	718.500	75.700	717.900	79.000
GR	717.500	82.300	717.100	85.600	716.600	88.900	716.200	92.200	715.500	95.500
GR	715.200	96.600	715.000	97.700	714.800	98.800	714.500	100.000	714.500	101.100
GR	714.400	102.200	714.200	103.400	714.100	104.500	714.000	105.500	714.000	106.800
GR	714.000	107.900	714.000	109.000	714.000	110.200	714.100	111.300	714.100	112.400
GR	714.200	113.600	714.200	114.700	714.300	115.800	714.300	117.000	714.400	118.100
GR	714.500	119.200	714.600	120.400	714.600	121.500	714.700	122.500	714.900	123.800
GR	715.000	124.900	715.100	126.000	715.200	127.200	715.300	128.300	715.500	129.500
GR	716.000	141.600	716.500	153.700	716.600	165.800	716.300	177.500	716.900	190.000
GR	717.000	202.100	717.100	214.300	717.200	226.400	717.300	238.500	717.400	250.600
GR	717.500	262.700	717.500	274.800	717.600	287.000	717.700	299.100	717.700	311.200

GR	717.200	323.300	717.900	333.400	718.100	347.500	718.300	359.100	718.300	371.000
GR	718.800	383.400	719.200	396.000	719.700	408.100	720.500	420.200	721.200	432.400
GR	722.000	444.500	722.700	456.600	723.500	468.700	724.200	480.300	725.000	493.000
X1	5.994	15.000	55.000	95.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	730.000	0.000	720.700	40.000	719.000	45.000	718.000	50.000	717.000	55.000
GR	716.000	60.000	715.400	67.000	715.400	70.000	716.000	78.000	717.000	95.000
GR	718.000	115.000	719.000	133.000	720.700	400.000	723.500	520.000	730.000	550.000
BT	4.000	560.000	820.000	930.000	1050.000	0.000	0.000	0.000	0.000	0.000
X1	6.143	90.000	172.500	217.500	650.000	850.000	787.500	0.000	0.000	0.000
GR	730.000	0.000	729.600	5.900	729.300	11.900	728.900	17.600	728.600	23.700
GR	728.300	29.700	727.900	35.600	727.600	41.500	727.200	47.500	726.900	53.500
GR	726.600	59.400	726.200	65.400	725.900	71.300	725.600	77.300	725.200	83.200
GR	724.900	89.200	724.500	95.100	724.200	101.100	723.700	107.000	723.300	113.000
GR	722.800	118.900	722.300	124.900	721.800	130.800	721.300	135.800	720.900	142.700
GR	720.600	148.700	720.300	154.600	720.000	160.600	719.700	166.500	719.500	172.500
GR	719.200	174.000	719.000	175.400	718.800	176.900	718.600	178.400	718.500	179.900
GR	718.300	181.400	718.100	182.900	717.900	184.400	717.700	185.900	717.500	187.400
GR	717.300	188.900	717.200	190.400	717.200	191.900	717.200	193.400	717.200	194.900
GR	717.300	196.400	717.400	197.900	717.500	199.400	717.700	200.900	717.900	202.400
GR	718.100	203.900	718.300	205.400	718.500	206.900	718.700	208.400	718.800	209.900
GR	719.000	211.400	719.100	212.900	719.200	214.400	719.300	215.900	719.500	217.500
GR	720.000	229.500	720.500	241.600	720.700	253.700	720.800	265.800	720.900	277.900
GR	721.000	289.900	721.100	302.000	721.200	314.100	721.400	326.200	721.500	338.300
GR	721.600	350.400	721.800	362.400	721.900	374.500	722.000	386.500	722.100	398.700
GR	722.300	410.800	722.500	422.900	722.800	434.500	723.100	447.000	723.400	459.100
GR	723.600	471.200	723.900	483.300	724.200	495.400	724.800	507.400	725.300	519.500
GR	725.800	531.600	726.400	543.700	726.900	555.800	727.400	567.900	728.000	580.000
X1	6.293	17.000	290.000	340.000	850.000	850.000	787.500	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	730.000	0.000	726.000	170.000	723.500	220.000	723.000	240.000	722.000	290.000
GR	721.000	300.000	720.000	305.000	719.000	310.000	718.800	313.500	718.800	316.500
GR	719.000	320.000	720.000	325.000	721.000	330.000	722.000	340.000	723.000	390.000
GR	723.500	410.000	726.000	510.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.478	24.000	186.000	206.000	850.000	1100.000	950.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	232.000	0.000	0.000	0.000	0.000
GR	730.000	0.000	728.500	15.000	727.000	36.000	725.500	56.000	723.500	76.000
GR	723.500	96.000	723.500	116.000	723.500	120.000	726.000	132.000	726.000	142.000
GR	725.000	160.000	724.800	166.000	724.500	186.000	724.200	192.000	721.000	196.000
GR	723.000	201.000	723.500	205.000	723.800	215.000	724.200	226.000	724.000	232.000
GR	724.500	236.000	725.500	256.000	726.000	276.000	727.000	300.000	0.000	0.000
NC	.080	.080	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.488	48.000	400.000	446.900	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	731.000	731.000	0.000
GR	732.800	0.000	729.400	375.000	723.100	400.100	721.900	400.500	721.800	401.100
GR	721.800	402.200	721.800	403.400	721.800	404.000	721.800	404.700	721.800	406.000
GR	721.800	407.300	721.900	408.100	723.100	408.800	723.300	411.500	722.500	412.200
GR	722.500	412.900	722.500	414.100	722.500	415.300	722.500	416.000	722.500	416.700
GR	722.500	417.900	722.500	419.100	722.500	419.800	723.300	420.400	723.400	425.100
GR	722.400	425.700	722.400	426.400	722.400	427.600	722.400	428.800	722.400	429.500
GR	722.400	430.200	722.400	431.400	722.400	432.500	722.400	433.300	723.400	433.900
GR	723.400	438.100	722.200	438.700	722.200	439.400	722.200	440.500	722.200	441.800
GR	722.200	442.500	722.200	443.200	722.200	444.400	722.200	445.500	722.200	446.300
GR	723.400	446.900	729.600	452.000	737.000	700.000	0.000	0.000	0.000	0.000
NC	.020	.020	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	5.530	3.040	0.000	28.200	0.000	172.000	0.000	722.500	721.800
X1	6.540	48.000	400.000	446.900	295.000	254.000	275.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	727.700	731.800	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	731.800	731.800	0.000
BT	48.000	0.000	732.800	0.000	400.000	731.800	0.000	400.000	731.800	723.100
BT	400.500	731.800	724.900	401.100	731.800	726.000	402.200	731.800	726.900	403.400

BT	731.600	727.400	404.000	731.500	727.400	404.700	731.600	727.400	405.000	731.600
BT	726.900	407.300	731.800	726.300	408.100	731.800	724.900	408.800	731.300	723.100
BT	411.600	731.800	723.300	412.200	731.800	725.100	412.900	731.600	726.200	414.100
BT	731.800	727.100	415.300	731.800	727.600	416.000	731.800	727.600	416.700	731.800
BT	727.600	417.900	731.800	727.100	419.100	731.800	726.200	419.800	731.300	725.100
BT	420.400	731.800	723.300	425.100	731.800	724.100	425.700	731.800	725.200	426.400
BT	731.300	726.300	427.600	731.400	727.200	428.300	731.800	727.700	429.500	731.800
BT	727.700	430.200	731.800	727.700	431.400	731.800	727.200	432.600	731.600	726.300
BT	433.300	731.800	725.200	433.900	731.900	724.100	432.100	731.900	723.400	438.700
BT	731.900	725.200	439.400	731.900	726.300	440.500	731.900	727.200	441.800	731.900
BT	727.700	442.500	731.900	727.700	443.200	731.900	727.700	444.400	731.900	727.200
BT	445.600	731.900	726.300	446.300	731.900	725.200	446.900	731.900	723.400	446.900
BT	731.900	0.000	700.000	737.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	732.800	0.000	729.400	375.000	723.100	400.000	722.500	400.500	722.500	401.100
GR	722.500	402.200	722.500	403.400	722.500	404.000	722.500	404.700	722.500	406.000
GR	722.500	407.300	722.500	408.100	723.100	408.800	723.300	411.600	722.900	412.200
GR	722.900	412.900	722.900	414.100	722.900	415.300	722.900	416.000	722.900	416.700
GR	722.900	417.900	722.900	419.100	722.900	419.800	723.300	420.400	724.100	425.100
GR	724.100	425.700	724.100	426.400	724.100	427.500	724.100	428.300	724.100	429.500
GR	724.100	430.200	724.100	431.400	724.100	432.600	724.100	433.300	724.100	433.900
GR	723.400	438.100	723.000	438.700	723.000	439.400	723.000	440.600	723.000	441.800
GR	723.000	442.500	723.000	443.200	723.000	444.400	723.000	445.600	723.000	446.300
GR	723.400	446.900	729.600	452.000	737.000	700.000	0.000	0.000	0.000	0.000
NC	.085	.070	.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.549	12.000	85.000	110.000	10.000	30.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	50.000	0.000	150.000	0.000	0.000	0.000	0.000
GR	731.500	0.000	729.900	25.000	724.800	85.000	722.700	92.000	722.400	96.000
GR	722.600	101.000	726.200	110.000	728.400	185.000	726.300	205.000	726.300	283.000
GR	740.500	363.000	740.800	390.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.060	.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.607	90.000	156.500	177.500	315.000	295.000	305.000	0.000	0.000	0.000
GR	735.600	0.000	734.900	5.300	734.200	10.700	733.500	16.100	732.800	21.500
GR	732.000	26.900	731.400	32.300	731.100	37.700	730.900	43.100	730.600	48.500
GR	730.300	53.900	730.100	59.300	729.900	64.700	729.700	70.100	729.500	75.500
GR	729.300	80.900	729.100	85.300	728.900	91.700	728.700	97.100	728.500	102.500
GR	728.400	107.900	728.200	113.300	728.000	118.700	727.900	124.100	727.700	129.500
GR	727.600	134.900	727.400	140.300	727.300	145.700	727.100	151.100	726.900	156.500
GR	726.700	157.200	726.400	157.900	726.100	158.600	725.800	159.300	725.500	160.000
GR	725.300	160.700	725.000	161.400	724.700	162.100	724.500	162.800	724.400	163.500
GR	724.300	164.200	724.300	164.900	724.200	165.600	724.200	166.300	724.200	167.000
GR	724.200	167.700	724.200	168.400	724.300	169.100	724.300	169.800	724.500	170.500
GR	724.700	171.200	725.000	171.900	725.200	172.600	725.600	173.300	726.000	174.000
GR	726.400	174.700	726.800	175.400	727.200	176.100	727.600	176.800	727.900	177.500
GR	728.200	188.100	728.400	198.600	728.700	209.100	728.900	219.500	729.200	230.200
GR	729.400	240.700	729.700	251.200	730.100	261.700	729.600	272.200	729.200	282.800
GR	729.300	293.300	729.500	303.800	729.700	314.300	729.900	324.800	730.000	335.400
GR	730.000	345.900	730.000	356.400	730.100	356.900	730.500	377.400	731.700	388.000
GR	732.900	398.500	734.000	409.000	735.200	419.500	736.600	430.100	737.900	440.600
GR	739.200	451.100	740.500	461.600	740.900	472.100	741.200	482.700	741.400	493.200
NC	.070	.055	.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.665	90.000	228.400	245.400	315.000	295.000	305.000	0.000	0.000	0.000
GR	739.900	0.000	738.600	7.800	737.300	15.700	736.100	23.600	734.800	31.500
GR	733.600	39.300	732.500	47.200	732.100	55.100	731.800	63.000	731.400	70.800
GR	731.100	78.700	731.000	86.600	730.800	94.500	730.700	102.300	730.500	110.200
GR	730.400	118.100	730.200	126.000	730.100	133.800	729.900	141.700	729.800	149.600
GR	729.700	157.500	729.700	165.300	729.600	173.200	729.500	181.100	729.500	189.000
GR	729.400	196.900	729.300	204.700	729.300	212.600	729.200	220.500	729.200	228.400
GR	728.800	228.900	728.500	229.500	728.200	230.100	727.900	230.600	727.600	231.200
GR	727.300	231.800	727.000	232.300	726.600	232.900	726.400	233.500	726.300	234.000
GR	726.200	234.600	726.100	235.200	726.100	235.700	726.000	236.300	726.000	236.900
GR	726.000	237.400	725.000	238.000	726.000	238.500	726.100	239.100	726.200	239.700
GR	726.300	240.300	726.400	240.800	726.600	241.400	727.000	242.000	727.500	242.500
GR	727.900	243.100	728.400	243.700	728.800	244.200	729.300	244.600	729.800	245.400

GR	730.000	237.100	730.200	265.600	730.400	280.500	730.600	292.200	730.800	303.900
GR	731.000	315.600	731.300	327.300	731.800	339.000	731.900	350.800	732.000	362.500
GR	732.300	374.200	732.700	385.900	733.100	397.600	733.500	409.300	733.700	421.000
GR	733.800	432.700	733.800	444.500	733.900	456.200	734.200	467.900	734.800	479.600
GR	735.400	491.300	736.000	503.000	736.800	514.700	737.800	526.400	738.800	538.200
GR	739.800	549.900	740.700	561.600	741.200	573.300	741.700	585.000	742.200	596.700
NC	.065	.055	.043	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	6.722	14.000	300.000	313.000	315.000	245.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	744.100	0.000	733.700	60.000	732.000	100.000	731.100	200.000	731.400	300.000
GR	728.200	304.000	727.800	307.000	728.000	310.000	731.600	313.000	732.800	400.000
GR	737.500	500.000	738.000	590.000	738.000	600.000	742.900	700.000	0.000	0.000
NH	3.000	.075	330.000	.045	345.000	.055	496.000	0.000	0.000	0.000
X1	6.831	13.000	330.000	345.000	550.000	600.000	575.000	0.000	0.000	0.000
GR	746.200	0.000	741.300	18.000	741.500	30.000	738.900	130.000	734.700	230.000
GR	732.800	330.000	729.800	335.000	729.800	338.000	729.400	341.000	733.100	345.000
GR	732.100	430.000	732.000	450.000	745.200	498.000	0.000	0.000	0.000	0.000
NH	3.000	.075	277.500	.045	293.700	.070	485.700	0.000	0.000	0.000
X1	6.862	90.000	277.500	293.700	150.000	180.000	165.000	0.000	0.000	0.000
GR	747.000	0.000	744.500	9.500	743.000	19.100	742.900	28.700	742.500	38.200
GR	742.100	47.800	741.700	57.400	741.300	66.900	740.900	76.500	740.500	86.100
GR	740.100	95.600	739.700	105.200	739.300	114.800	738.700	124.300	738.200	133.400
GR	737.700	143.500	737.200	153.100	736.600	162.600	736.200	172.200	735.900	181.800
GR	735.500	191.300	735.300	200.900	735.200	210.500	735.000	220.000	734.800	229.600
GR	734.700	239.200	734.500	248.700	734.400	258.300	734.200	267.900	734.000	277.500
GR	733.700	278.000	733.300	278.500	733.000	279.100	732.600	279.600	732.200	280.200
GR	731.900	280.700	731.500	281.200	731.200	281.800	731.000	282.300	730.700	282.900
GR	730.700	283.400	730.700	284.000	730.700	284.500	730.700	285.000	730.600	285.600
GR	730.700	286.100	730.700	286.700	730.600	287.200	730.600	287.700	730.600	288.300
GR	730.600	288.800	730.600	289.400	731.000	289.900	731.500	290.500	731.900	291.000
GR	732.400	291.500	732.900	292.100	733.300	292.600	733.800	293.200	734.300	293.700
GR	734.200	300.100	734.100	306.500	734.000	312.900	734.000	319.300	733.900	325.700
GR	733.800	332.100	733.800	338.500	733.700	344.900	733.700	351.300	733.700	357.700
GR	733.700	364.100	733.800	370.500	733.800	375.900	733.800	383.300	733.800	389.700
GR	733.800	396.100	733.800	402.500	733.900	408.900	734.000	415.300	734.100	421.700
GR	734.300	428.100	735.500	434.500	736.700	440.900	737.900	447.300	739.200	453.700
GR	740.600	460.100	742.000	466.500	743.400	472.900	744.800	479.300	746.200	485.700
NH	3.000	.070	225.000	.043	242.500	.080	475.500	0.000	0.000	0.000
X1	6.893	90.000	225.000	242.500	150.000	170.000	165.000	0.000	0.000	0.000
GR	747.800	0.000	745.900	7.700	744.700	15.500	744.400	23.200	743.900	31.000
GR	743.400	38.700	742.900	46.500	742.500	54.300	742.000	62.000	741.500	69.800
GR	741.000	77.500	740.500	85.300	740.000	93.100	739.400	100.800	738.800	108.600
GR	738.300	116.300	737.700	124.100	737.100	131.800	736.700	139.600	736.500	147.400
GR	736.300	155.100	736.100	162.900	736.000	170.600	735.900	178.400	735.800	186.200
GR	735.700	193.900	735.600	201.700	735.500	209.400	735.400	217.200	735.400	225.000
GR	734.900	225.500	734.500	226.100	734.100	226.700	733.700	227.300	733.200	227.900
GR	732.800	228.500	732.400	229.000	732.100	229.500	731.900	230.200	731.700	230.800
GR	731.700	231.400	731.600	231.900	731.600	232.500	731.600	233.100	731.500	233.700
GR	731.600	234.300	731.600	234.900	731.700	235.400	731.700	236.000	731.700	236.600
GR	731.800	237.200	731.800	237.800	732.200	238.400	732.700	238.900	733.100	239.500
GR	733.600	240.100	734.100	240.700	734.500	241.300	735.000	241.900	735.500	242.500
GR	735.400	250.200	735.300	258.000	735.200	265.800	735.100	273.500	735.000	281.300
GR	735.000	289.100	734.900	296.900	734.900	304.600	734.900	312.400	735.000	320.100
GR	735.100	327.900	735.200	335.700	735.300	343.400	735.300	351.200	735.400	359.000
GR	735.500	366.700	735.600	374.500	735.800	382.200	736.000	390.000	736.200	397.800
GR	736.500	405.500	737.400	413.300	738.300	421.100	739.300	428.800	740.500	436.600
GR	741.800	444.400	743.100	452.100	744.500	459.900	745.800	467.700	747.200	475.500
NH	3.000	.065	172.500	.043	191.200	.085	465.200	0.000	0.000	0.000
X1	6.924	90.000	172.500	191.200	150.000	150.000	165.000	0.000	0.000	0.000
GR	748.600	0.000	747.300	5.900	746.400	11.800	745.900	17.800	745.300	23.700
GR	744.800	29.700	744.200	35.600	743.600	41.600	743.000	47.500	742.400	53.500

GR	741.900	59.400	741.300	65.400	740.700	71.300	740.100	77.500	739.400	83.200
GR	738.800	89.200	738.200	95.100	737.600	101.100	737.200	107.000	737.100	113.000
GR	737.000	118.900	737.000	124.900	736.900	130.800	736.900	136.800	736.900	142.700
GR	736.800	148.700	736.800	154.600	736.700	160.600	736.700	166.500	736.700	172.500
GR	736.200	173.100	735.700	173.700	735.200	174.300	734.700	175.000	734.200	175.600
GR	733.700	176.200	733.300	176.800	733.000	177.400	732.800	178.100	732.700	178.700
GR	732.600	179.300	732.500	179.900	732.500	180.500	732.500	181.200	732.500	181.800
GR	732.500	182.400	732.600	183.100	732.700	183.700	732.800	184.300	732.900	184.900
GR	733.000	185.600	733.000	186.200	733.400	186.800	733.900	187.400	734.300	188.100
GR	734.800	188.700	735.300	189.300	735.700	189.900	736.200	190.600	736.600	191.200
GR	736.600	200.300	736.500	209.500	736.400	218.600	736.300	227.700	736.200	236.900
GR	736.100	246.000	736.000	255.100	736.000	264.300	736.100	273.400	736.300	282.500
GR	736.400	291.700	735.600	300.800	735.700	309.900	736.900	319.100	737.700	328.200
GR	737.200	337.300	737.400	346.500	737.600	355.600	737.900	364.700	738.300	373.900
GR	738.600	383.000	739.300	392.100	740.000	401.300	740.600	410.400	741.800	419.500
GR	743.000	428.700	744.300	437.800	745.600	446.900	746.900	456.100	748.200	465.200
NH	3.000	.060	120.000	.042	140.000	.090	455.000	0.000	0.000	0.000
X1	6.956	11.000	120.000	150.000	150.000	170.000	165.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	749.500	0.000	737.800	72.000	738.000	120.000	733.900	125.000	733.400	130.000
GR	734.400	135.000	737.900	140.000	737.100	220.000	739.200	320.000	742.200	395.000
GR	749.200	455.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.991	0.000	0.000	0.000	175.000	200.000	185.000	0.000	.500	0.000
X3	0.000	0.000	0.000	75.000	0.000	185.000	0.000	0.000	0.000	0.000
NC	.090	.090	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.008	0.000	0.000	0.000	90.000	100.000	92.000	0.000	.250	0.000
X3	0.000	0.000	0.000	97.000	0.000	150.000	0.000	0.000	0.000	0.000
X1	7.017	0.000	0.000	0.000	45.000	50.000	46.000	0.000	.130	0.000
X3	0.000	0.000	0.000	110.000	0.000	150.000	0.000	0.000	0.000	0.000
NC	.075	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.026	4.000	100.000	117.000	45.000	50.000	46.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	755.000	755.000	0.000
GR	755.000	0.000	734.400	100.000	734.400	117.000	755.000	217.000	0.000	0.000
NC	.018	.018	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.390	3.000	0.000	14.000	0.000	103.600	0.000	735.900	734.400
X1	7.095	4.000	100.000	114.000	371.000	353.000	365.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	743.300	770.000	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	770.000	770.000	0.000
BT	6.000	0.000	770.000	0.000	100.000	770.000	0.000	100.000	770.000	743.300
BT	114.000	770.000	743.300	114.000	770.000	0.000	214.000	770.000	0.000	0.000
GR	770.000	0.000	735.900	100.000	735.900	114.000	770.000	214.000	0.000	0.000
NH	3.000	.056	650.000	.054	662.000	.085	755.000	0.000	0.000	0.000
X1	7.096	15.000	650.000	662.000	6.000	6.000	6.000	0.000	-1.700	0.000
X3	0.000	0.000	0.000	643.000	0.000	669.000	0.000	0.000	0.000	0.000
GR	756.300	0.000	750.000	50.000	746.800	150.000	745.200	250.000	744.700	350.000
GR	743.800	450.000	741.900	550.000	740.700	650.000	738.100	653.000	737.800	656.000
GR	738.400	659.000	741.200	652.000	745.400	715.000	749.000	741.000	758.600	755.000
X1	7.104	0.000	0.000	0.000	50.000	40.000	44.000	0.000	1.700	0.000
X3	0.000	0.000	0.000	600.000	0.000	714.000	0.000	0.000	0.000	0.000
X1	7.112	0.000	0.000	0.000	50.000	40.000	40.000	0.000	.350	0.000
X3	0.000	0.000	0.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.080	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.126	0.000	0.000	0.000	90.000	50.000	75.000	0.000	1.590	0.000
X3	0.000	0.000	0.000	570.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.070	.070	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7.136	0.000	0.000	0.000	55.000	40.000	50.000	0.000	1.060	0.000
X3	0.000	0.000	0.000	593.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.145	0.000	0.000	0.000	60.000	45.000	50.000	0.000	1.060	0.000
X3	0.000	0.000	0.000	615.000	0.000	500.000	0.000	0.000	0.000	0.000
NH	5.000	.035	522.000	.032	536.000	.150	550.000	.032	570.000	.085
NH	690.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.152	23.000	522.000	571.000	35.000	35.000	35.000	0.000	0.000	0.000
GR	760.400	0.000	758.800	50.000	756.700	150.000	755.300	250.000	751.200	350.000
GR	749.600	450.000	748.800	522.000	744.200	525.000	743.100	531.000	743.600	535.500
GR	746.600	539.300	747.000	541.000	747.100	543.000	747.000	544.500	747.100	546.500
GR	746.900	548.000	746.600	550.000	744.400	553.000	743.900	567.000	749.600	570.000
GR	749.100	571.000	756.000	660.000	761.500	690.000	0.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7.180	13.000	295.000	305.000	50.000	200.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	257.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	761.500	0.000	759.000	55.000	756.000	107.000	754.000	155.000	748.000	252.000
GR	746.700	295.000	743.900	297.500	743.900	302.500	746.700	305.000	748.000	352.500
GR	750.000	404.000	758.000	550.000	761.500	600.000	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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: 100YR

00BREAK00

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

T1 CITY OF FARMINGTON HILLS, 5670-03, PM = RICHARD ZANOTTI
T2 100-YEAR FLOOD
T3 TARABUSI CREEK

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	695.110	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
CCHV=     .300 CEHV=     .500
   SECNO     DEPTH     CRSEL     CRINS     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       TM        ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS=        .1      354.0  TYPE=      1  TARGET=      353.-51
     4.78      5.91    695.11      0.00    695.11    695.32       .21      0.00      0.00    6-2.-0
    1210.      154.      849.      207.      133.      200.      141.        0.        0.    652.50
     0.00      1.16      4.25      1.46      .050      .031      .050     0.000    689.20    132.77
  .001060       12.       12.       12.         0         0         1      0.00    221.22    354.00

1490 NH CARD USED

SPECIAL BRIDGE

SB  XR        XKOR      COEQ      RDLEN     SKC       BRP       BAREA     SS        ELCRD     ELCRD
     0.00      2.25      3.02      0.00      3.07      0.00     77.00      0.00    689.20    689.20

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLLC=   596.205  ELLC=   697.000  PCHSE=   693.110  ELTRD=   699.700
3685 20 TRIALS USED WSEL,CRSEL

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF   697.000 EGLC=   700.028 EGC=   701.348 WSEL=   700.809

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CRSEL     CRINS     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       TM        ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

NORMAL BRIDGE,NRD=21 MIN ELTRD=  699.70 MAX ELLC=  697.00

        U/S FACE OF 8 MILE ROAD BRIDGE: BS#5A                          SEC. 0

        12'6"X7'11" CMP ARCH PIPE, WITH HEADWALL & WINGWALLS

        LENGTH = 81.0 FT.

     4.79      6.48    695.68    695.68      0.00    699.23      3.54       .21      0.00    694.00
    1210.        0.      1210.        0.        0.       80.        0.        1.        0.    694.00
      .00      0.00     15.10      0.00      .050      .031      .050      .031    689.20    471.44
  .014984       81.       81.       81.        30        14         1    -99.49     56.97    528.42

WATER EL=X5 CARD=    700.360
     4.79     11.16    700.36      0.00      0.00    700.48       .12       .00      1.03    694.00
```

1210.	77.	1061.	72.	123.	352.	109.	1.	0.	594.00
.00	.62	3.01	.66	.095	.042	.095	.031	689.20	373.33
.000420	1.	1.	1.	0	0	1	0.00	216.67	555.00

CCHV= .300 CEHV= .500

3280 CROSS SECTION 4.93 EXTENDED .2 FEET

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

725' U/S FROM U/S FACE OF 8 MILE ROAD BRIDGE, VS#12B SEC. B

4.93	7.19	700.79	0.00	0.00	700.87	.08	.37	.01	695.00
1070.	95.	653.	322.	116.	238.	392.	12.	4.	696.00
.10	.82	2.74	.82	.095	.045	.095	.043	693.60	50.39
.000650	700.	725.	750.	3	0	1	0.00	241.51	292.00

5.01	5.79	701.19	0.00	0.00	701.45	.26	.49	.09	[illegible]
1070.	122.	825.	122.	111.	180.	111.	17.	6.	699.20
.13	1.10	4.60	1.10	.096	.046	.096	.044	695.40	35.20
.002780	415.	415.	415.	2	0	1	0.00	219.59	255.50

1555' U/S FROM U/S FACE OF 8 MILE ROAD BRIDGE, VS#12A SEC. C

5.09	5.37	702.57	0.00	0.00	702.95	.38	1.44	.06	700.00
1070.	94.	883.	94.	77.	163.	77.	21.	8.	700.00
.16	1.22	5.43	1.22	.096	.046	.096	.045	697.20	51.06
.004427	415.	415.	415.	2	0	1	0.00	159.83	240.94

640' D/S FROM D/S FACE OF GILL ROAD CULVERT, VS#114 SEC. D

5.23	5.35	705.65	0.00	0.00	705.99	.34	3.02	.01	702.00
1070.	157.	756.	157.	108.	138.	108.	26.	11.	702.00
.20	1.45	5.47	1.45	.100	.047	.100	.045	700.30	133.79
.003938	725.	725.	725.	3	0	1	0.00	172.43	305.21

5.29	4.72	707.22	0.00	0.00	707.82	.60	1.70	.13	704.20
1070.	118.	834.	118.	69.	119.	69.	28.	12.	704.20
.22	1.72	6.98	1.72	.100	.047	.100	.046	702.50	149.48
.007799	380.	320.	230.	2	0	1	0.00	141.03	290.52

5.32	4.92	708.52	708.45	0.00	709.20	.68	1.34	.04	705.10
1070.	144.	753.	173.	94.	96.	104.	26.	13.	708.10
.23	1.52	7.81	1.59	.100	.047	.100	.046	703.60	255.04
.009266	190.	160.	115.	5	8	1	0.00	234.36	519.40

5.35	5.22	709.92	0.00	0.00	710.36	.44	1.19	.07	707.20
1070.	178.	682.	210.	127.	104.	144.	31.	14.	707.20
.24	1.41	6.59	1.46	.095	.045	.095	.045	704.70	275.65
.005506	190.	160.	115.	2	0	1	0.00	249.04	527.70

5.35	5.57	710.27	0.00	0.00	710.45	.14	.00	.05	705.20
1070.	258.	514.	298.	164.	111.	105.	31.	14.	707.20
.24	1.57	4.62	1.61	.050	.035	.050	.046	704.70	271.54
.001489	1.	1.	1.	3	0	1	0.00	265.16	536.80

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	B'C	BWP	BAREA	SS	ELCHO	ELCRO
	0.00	2.72	2.85	0.00	7.91	0.00	42.70	0.00	705.00	704.70

SECND	DEPTH	CHSEL	CRINS	XSELR	EG	AV	HL	HLOSS	BR	ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TW	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	STA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
736.79	710.82	0.00	747.	326.	43.	709.80	711.60	30.00

adjusted area

full area equal to 51 ft.² was adjusted due to the Broken & U/S Concrete d/s

U/S FACE OF GILL ROAD CULVERT, BS#4A SEC. E

117"X79" MULTI-PLATE ARCH PIPE, PROJECT FROM FILL SLOPE

LENGTH=52 FT SKEW=0.94, ROCK AT BOTTOM UP TO 750.0 FT

5.36	7.68	712.68	0.00	0.00	712.72	.04	2.28	0.00	705.20
1070.	383.	390.	298.	365.	165.	350.	31.	14.	707.80
.25	1.05	2.37	.35	.050	.035	.050	.045	705.00	246.20
.000236	52.	52.	52.	2	0	5	0.00	357.78	603.98

5.36	7.66	712.66	0.00	0.00	712.74	.08	.00	.02	705.20
1070.	308.	510.	253.	346.	160.	346.	31.	14.	707.80
.25	.89	3.19	.73	.095	.042	.095	.045	705.00	247.08
.000630	1.	1.	1.	2	0	1	0.00	355.97	603.05

can the OB "pahs change this foot, XCH = 1 ft. error ? section could be omitted

300' U/S FROM U/S FACE OF GILL ROAD CULVERT, VS#3A SEC. F

5.41	7.38	712.88	0.00	0.00	713.03	.15	.25	.04	707.80
1070.	537.	515.	17.	368.	121.	23.	36.	16.	710.40
.27	1.46	4.27	.73	.095	.042	.095	.045	705.50	165.15
.001487	200.	300.	400.	2	0	1	0.00	149.08	314.23

530' U/S FROM U/S FACE OF GILL ROAD CULVERT, VS#2A SEC. G

5.46	7.41	713.21	0.00	0.00	713.28	.07	.22	.02	707.50
1070.	185.	352.	533.	178.	103.	470.	39.	17.	707.50
.31	1.04	3.43	1.13	.095	.042	.095	.045	705.90	175.49
.000767	150.	230.	280.	2	0	1	0.00	194.38	355.87

5.51	7.05	713.40	0.00	0.00	713.49	.09	.20	.01	705.45

1070.	190.	367.	524.	19.	47.	425.	42.	19.	707.83
.34	1.13	3.77	1.23	.095	.042	.095	.045	706.35	177.53
.000996	275.	250.	200.	2	0	1	0.00	189.48	367.40

3301 HV CHANGED TO E THRU AVINS

3470 ENCROACHMENT STATIONS= 115.0 515.0 TYPE= 1 TARGET= -115.000

5.55	6.68	713.58	0.00	0.00	714.31	.72	.51	.32	712.00
1070.	29.	918.	123.	26.	125.	61.	45.	19.	709.00
.35	1.11	7.33	2.02	.057	.046	.047	.045	705.00	162.23
.007116	275.	250.	200.	2	0	1	0.00	98.71	260.94

3470 ENCROACHMENT STATIONS= 115.0 515.0 TYPE= 1 TARGET= -115.000

5.55	6.95	713.85	0.00	0.00	714.37	.53	.00	.06	712.00
1070.	49.	851.	170.	35.	132.	72.	45.	19.	709.00
.35	1.40	6.43	2.38	.050	.032	.050	.046	706.90	156.83
.002461	1.	1.	1.	3	0	1	0.00	107.81	264.54

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.77	2.90	0.00	9.43	0.00	56.55	0.00	706.90	706.90

SECNO	DEPTH	CTSEL	CRITS	WSELR	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TW	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
723.69	714.37	0.00	571.	504.	57.	712.90	714.50	30.00

3470 ENCROACHMENT STATIONS= 115.0 515.0 TYPE= 1 TARGET= -115.000

U/S FACE OF BRIDGEMAN AVE. CULVERT, BS#1A SEC. H

TWIN-6FT.DIA CMP, WITH HEADWALL & WINGWALLS

LENGTH = 22 FT.

5.56	9.02	715.92	0.00	0.00	715.03	.11	1.06	0.00	712.00
1070.	193.	623.	253.	173.	185.	191.	45.	19.	709.00
.35	1.12	3.36	1.33	.050	.032	.050	.046	706.90	115.00
.000475	22.	22.	22.	2	0	5	0.00	179.05	294.05

3470 ENCROACHMENT STATIONS= 115.0 515.0 TYPE= 1 TARGET= -115.000

5.56	9.00	715.90	0.00	0.00	716.06	.16	.00	.02	712.00
1070.	151.	719.	199.	171.	188.	189.	45.	19.	709.00
.35	.89	3.83	1.05	.095	.045	.095	.045	706.90	115.00

```
.001084      1.      1.      1.      2      0      1    0.00   170.73   293.73

3280 CROSS SECTION      5.57 EXTENDED      1.09 FEET

3470 ENCROACHMENT STATIONS=        .0      240.0  TYPE=     1  TARGET=     239.999

        50' U/S FROM U/S FACE OF BRIDGEMAN AVE CULVERT, VS#14          SEC. I

    5.57      9.09    716.09      0.00      0.00    716.12       .02       .02       .04    709.50
   1070.      238.     475.      303.      490.     292.      423.       46.       19.    709.50
     .36       .59     1.63       .72      .095      .045      .095      .045    707.30      4.07
 .000180       60.      50.       40.         2         0         1      0.00    230.93    240.00

        360' U/S FROM U/S FACE OF BRIDGEMAN AVE CULVERT, VS#11-        SEC. J

    5.62      6.65    716.15      0.00      0.00    716.28       .13       .11       .06    712.00
   1070.      163.     767.      140.      165.     226.      150.       53.       20.    712.00
     .39       .99     3.39       .93      .095      .045      .095      .045    709.50    250.79
 .001061      400.     310.      250.         2         0         1      0.00    189.30    440.09

        1450' U/S FROM SECTION J, VS#14A                               SEC. K

    5.90      5.32    717.92      0.00      0.00    718.03       .10      1.74       .01    714.00
   1070.       49.     492.      529.       54.     137.      429.       71.       27.    714.00
     .56       .91     3.60      1.23      .095      .045      .095      .046    712.60    104.58
 .001449     1350.    1450.     1350.         3         0         1      0.00    210.66    315.24

    5.95      4.41    718.41      0.00      0.00    718.69       .28       .57       .09    715.50
   1070.       39.     687.      344.       27.     132.      270.       74.       28.    715.50
     .58      1.45     5.20      1.28      .095      .045      .095      .046    714.00     75.20
 .004102       250.     250.      250.         2         0         1      0.00    257.89    364.19

        2310' U/S FROM U/S FACE OF BRIDGEMAN AVE CULVERT, VS#115       SEC. L

    5.99      4.21    719.61      0.00      0.00    720.15       .54      1.33       .13    717.00
   1070.       31.     898.      141.       17.     140.       93.       76.       30.    717.00
     .59      1.85     6.43      1.51      .095      .045      .095      .046    715.40     43.20
 .007192       250.     250.      250.         2         0         1      0.00    186.93    230.14

   SECNO     DEPTH    CLSEL    CRINS    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

    6.14      5.29    722.49      0.00      0.00    722.62       .12      2.34       .13    719.50
    930.       85.     645.      200.       86.     193.      247.       83.       34.    719.50
     .68       .99     3.34       .81      .095      .045      .095      .045    717.20    122.66
 .001485       650.     788.      850.         2         0         1      0.00    299.45    422.11

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

        1030' D/S FROM D/S FACE OF 9 MILE ROAD CULVERT, VS#117         SEC. M
```

flow distribution appears unstable in the ROB. along with the change of channel velocity

6.29	5.21	724.01	0.00	0.00	724.22	.21	1.56	.04	722.00
930.	94.	747.	89.	93.	182.	84.	91.	39.	722.00
.74	1.00	4.11	1.06	.095	.045	.095	.045	718.80	209.75
.002800	650.	788.	850.	3	0	1	0.00	190.25	400.00

3280 CROSS SECTION 6.48 EXTENDED .53 FEET

3470 ENCROACHMENT STATIONS= 160.0 232.0 TYPE= 1 TARGET= 72.000

50' D/S FROM D/S FACE OF 4 MILE ROAD CULVERT, VS#15 SEC. N

6.48	6.53	727.53	0.00	0.00	727.88	.35	3.59	.07	724.50
930.	161.	521.	247.	73.	88.	95.	98.	41.	723.50
.80	2.20	5.94	2.61	.095	.045	.095	.045	721.00	160.00
.004961	450.	930.	1100.	3	0	1	0.00	72.00	232.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 731.00 ELREA= 731.00

6.49	5.99	727.79	0.00	0.00	728.01	.22	.09	.04	723.10
930.	0.	930.	0.	0.	245.	0.	98.	41.	723.40
.81	0.00	3.79	0.00	.080	.032	.080	.045	721.80	400.00
.000942	50.	50.	50.	2	0	1	0.00	46.90	450.51

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RULEN	BWC	BWP	BAREA	SS	ELCHO	ELCHD
	0.00	5.53	3.04	0.00	28.20	0.00	172.00	0.00	722.50	721.80

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
730.30	728.71	0.00	0.	930.	172.	727.70	731.80	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 731.80 ELREA= 731.80

U/S FACE OF 4 MILE RD & DRAKE RD CULVERT, VS#1 SEC. O

4-8'9"X6'1" CMP CULVERTS, WITH HEADWALL

AVERAGE LENGTH = 275 FT.

6.54	7.67	730.17	0.00	0.00	730.30	.13	2.24	0.00	723.10
930.	0.	930.	0.	0.	324.	0.	100.	42.	723.40
.83	0.00	2.87	0.00	.020	.032	.020	.045	722.50	400.00
.000359	296.	276.	254.	2	0	1	0.00	46.90	440.40

3470 ENCROACHMENT STATIONS= 50.0 160.0 TYPE= 1 TARGET= 110.000

50' U/S FROM U/S FACE OF DRAKE ROAD CULVERT, VS#2 SEC. P

6.55	7.82	730.22	0.00	0.00	730.33	.11	.03	.01	724.80
930.	168.	546.	215.	138.	167.	164.	100.	42.	726.20
.84	1.22	3.27	1.32	.085	.044	.070	.045	722.40	50.00
.000787	10.	50.	80.	2	0	1	0.00	110.00	160.00

SECNO	DEPTH	CWSEL	CRIWS	WSELR	EE	HV	HL	DLOSS	BR C FLOW
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TW	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	STN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORWR	TOP WD	ENDST
6.61	6.34	730.54	0.00	0.00	730.64	.10	.31	.00	7[illegible]
930.	275.	400.	255.	207.	110.	221.	104.	43.	727.90
.88	1.33	3.64	1.15	.075	.044	.060	.045	724.20	49.68
.001385	315.	305.	295.	2	0	1	0.00	326.35	376.03
6.67	5.20	731.20	0.00	0.00	731.50	.31	.76	.11	724.20
930.	393.	429.	107.	189.	70.	57.	107.	45.	729.80
.90	2.08	6.17	1.90	.070	.043	.055	.045	726.00	76.20
.005633	315.	305.	295.	3	0	1	0.00	246.99	323.20

3470 ENCROACHMENT STATIONS= 150.0 700.0 TYPE= 1 TARGET= -150.000

960' U/S FROM U/S FACE OF DRAKE ROAD CULVERT, VS#3 SEC. Q

6.72	5.15	732.95	0.00	0.00	733.13	.13	1.52	.04	731.40
930.	557.	273.	100.	251.	52.	65.	109.	47.	731.60
.93	2.22	5.25	1.53	.065	.043	.055	.045	727.80	150.00
.004731	315.	300.	295.	3	0	1	0.00	253.17	403.17

1490 NH CARD USED

1535' U/S FROM U/S FACE OF DRAKE ROAD CULVERT, VS#4 SEC. Q

6.83	5.44	734.84	0.00	0.00	734.95	.11	1.80	.02	732.80
930.	108.	243.	579.	109.	63.	260.	115.	50.	733.10
.99	.99	3.87	2.22	.075	.045	.055	.045	729.40	229.69
.002230	550.	575.	600.	3	0	1	0.00	233.21	459.69

1490 NH CARD USED

6.86	4.76	735.36	0.00	0.00	735.68	.33	.63	.11	734.00
930.	77.	395.	458.	52.	60.	200.	116.	51.	734.30
1.00	1.49	6.59	2.29	.075	.045	.070	.045	730.60	198.22
.006994	150.	165.	180.	2	0	1	0.00	235.52	433.73

1490 NH CARD USED

6.89	5.02	736.52	0.00	0.00	736.96	.45	1.22	.08	735.40
930.	86.	480.	364.	54.	66.	192.	117.	52.	735.50
1.01	1.59	7.25	1.89	.070	.043	.080	.044	731.50	145.71
.007352	150.	165.	180.	3	0	1	0.00	253.94	405.65

1490 NH CARD USED

6.92	5.20	737.70	0.00	0.00	738.15	.45	1.18	.00	735.70
930.	90.	518.	322.	55.	73.	190.	119.	53.	736.60
1.02	1.62	7.09	1.69	.065	.043	.085	.044	732.50	100.09
.006652	150.	165.	180.	0	0	1	0.00	258.58	358.67

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999

370' D/S FROM D/S FACE OF I-96 CULVERT, VS#5 SEC. S

6.96	5.41	739.81	0.00	0.00	739.35	.54	1.15	.04	739.30
930.	39.	575.	266.	47.	78.	164.	120.	54.	737.90
1.03	1.91	7.38	1.62	.060	.042	.090	.044	733.40	65.30
.007079	150.	165.	180.	2	0	1	0.00	204.20	270.00

SECNO	DEPTH	C SEL	CHI#S	#SELK	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	CORWR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 75.0 185.0 TYPE= 1 TARGET= 110.000

6.99	6.23	740.13	0.00	0.00	740.54	.41	1.15	.04	738.50
930.	173.	591.	166.	77.	94.	88.	121.	55.	738.40
1.04	2.24	6.27	1.89	.070	.045	.090	.044	733.90	75.00
.005392	175.	165.	200.	2	0	1	0.00	110.00	185.00

3470 ENCROACHMENT STATIONS= 97.0 160.0 TYPE= 1 TARGET= 63.000

7.01	6.44	740.59	0.00	0.00	741.29	.69	.61	.14	738.75
930.	99.	733.	98.	43.	99.	41.	121.	55.	738.65
1.05	2.28	7.43	2.40	.090	.048	.090	.044	734.15	97.00
.008129	90.	92.	100.	2	0	1	0.00	63.00	160.00

3470 ENCROACHMENT STATIONS= 110.0 150.0 TYPE= 1 TARGET= 40.000

7.02	6.61	740.89	0.00	0.00	741.79	.90	.40	.11	738.82
930.	51.	822.	57.	20.	102.	22.	122.	55.	738.76
1.05	2.53	8.07	2.64	.090	.048	.090	.044	734.28	110.00
.009166	45.	46.	50.	2	0	1	0.00	40.00	150.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 755.00 ELREA= 755.00

7.03	6.70	741.10	0.00	0.00	742.13	1.04	.28	.07	734.40
930.	0.	930.	0.	0.	114.	0.	122.	55.	734.40
1.05	0.00	8.17	0.00	.075	.040	.080	.044	734.40	100.00
.004216	45.	46.	50.	2	0	1	0.00	17.00	149.51

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	SKC	BWP	BAREA	SS	ELCHD	FLCHD
	0.00	3.39	3.00	0.00	14.00	0.00	10[illegible].00	0.00	735.[illegible]	734.40

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
745.34	744.12	0.00	0.	930.	104.	743.00	770.00	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 770.00 ELREA= 770.00

U/S FACE OF I-96 & FREEDOM ROAD BRIDGE, BS#6 SEC. T

CONCRETE BOX CULVERT, WITH WINGWALLS & HEADWALLS

LENGTH = 365 FT. ASSUME SILT WILL BE GONE FOR 100-YEAR FLOOD

with the high channel velocity u/s of DS slope or no silt.

7.09	8.49	744.35	0.00	0.00	745.34	.95	3.21	0.00	735.50
930.	0.	530.	0.	0.	119.	1.	123.	55.	735.00
1.06	0.00	7.83	0.00	.018	.018	.018	.044	735.90	100.00
.000639	371.	365.	363.	3	0	1	0.00	14.00	135.89

1490 MH CARD USED

3470 ENCROACHMENT STATIONS= 643.0 669.0 TYPE= 1 TARGET= 26.000

7.10	8.74	744.84	0.00	0.00	745.45	.61	.01	.10	739.00
930.	144.	656.	130.	41.	93.	36.	123.	55.	739.50
1.06	3.54	7.06	3.65	.096	.054	.085	.044	736.10	643.00
.005012	6.	6.	5.	2	0	1	0.00	25.00	669.00

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

3470 ENCROACHMENT STATIONS= 600.0 714.0 TYPE= 1 TARGET= 114.000

530' U/S FROM U/S FACE OF FREEDOM ROAD BRIDGE, VS#7 SEC. U

7.10	7.81	745.61	0.00	0.00	745.73	.12	.13	.15	741.70
930.	435.	329.	166.	231.	82.	122.	123.	55.	741.20
1.07	1.88	4.03	1.36	.096	.054	.085	.043	737.80	600.00
.001928	50.	44.	40.	2	0	1	0.00	114.00	714.00

3470 ENCROACHMENT STATIONS= 560.0 755.0 TYPE= 1 TARGET= -560.000

7.11	7.07	745.72	0.00	0.00	745.82	.10	.09	.01	741.55
930.	545.	283.	102.	327.	73.	85.	123.	55.	742.05
1.07	1.67	3.89	1.19	.096	.054	.085	.043	738.65	560.00
.002077	50.	40.	30.	2	0	1	0.00	148.36	708.36

3470 ENCROACHMENT STATIONS= 570.0 755.0 TYPE= 1 TARGET= -570.000

7.13	5.66	745.90	0.00	0.00	746.26	.37	.31	.13	743.14
930.	485.	365.	60.	192.	56.	32.	124.	56.	743.64
1.08	2.66	6.91	1.87	.090	.050	.080	.043	740.24	570.00
.008680	90.	75.	60.	2	0	1	0.00	120.48	690.48

$S_o = 0.0212$

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=     594.0     755.0  TYPE=     1  TARGET=     -543.000
     7.14      5.11    746.41    746.41      0.00    747.21       .80       .54      0.00    744.00
     930.      425.      462.      44.      106.      49.       18.      124.      55.     744.70
     1.08      3.99      9.39      2.37      .070      .045      .070      .043    741.30    593.00
  .015381       55.      50.       40.        2        10         1      0.00     90.56    613.56

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=     615.0     690.0  TYPE=     1  TARGET=     -75.000
     7.15      5.23    747.59    747.59      0.00    748.67      1.08       .90      0.00    745.26
     930.      349.      525.      56.       74.       51.       21.      125.      56.     745.76
     1.08      4.71      10.39     2.68      .070      .045      .070      .043    742.30    615.00
  .018110       60.      50.       45.        2         8         1      0.00     70.03    645.03

1490 NH CARD USED

3301 HV CHANGED MORE THAN HVINS

SECNO     DEPTH     C/SEL     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

        3001 U/S FROM U/S FACE OF FREEDOM ROAD BRIDGE, BS#8                    SEC. V

        A FAILURED BRIDGE, TREATED AS A VALLEY SECTION

     7.15      5.46    748.56      0.00      0.00    749.05       .49       .17       .18    748.50
     930.        0.      920.       0.        0.      166.        0.      125.      56.     749.10
     1.08      0.00      5.60      0.00      .070      .033      .070      .043    743.10    522.16
  .002760       35.      35.       35.        3         0         1      0.00     47.29    569.45

3470 ENCROACHMENT STATIONS=     267.0     350.0  TYPE=     1  TARGET=     43.000

        CORPORATE BOUNDARY

     7.18      5.11    749.01      0.00      0.00    749.96       .95       .69       .23    745.70
     930.      187.      460.      283.      49.       44.       78.      125.      56.     745.70
     1.09      3.82      10.45     3.72      .055      .032      .055      .043    743.90    267.00
  .009458       50.      150.      200.        3         0         1      0.00     83.00    350.00
```

So = 0.0272

deck removed

? not sure what's going on here.

Is the encroachment high because unusual profile?

does the type of profile change

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: 100 YR CONVERGENT

00BREAK00

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$$$$$$$$     $$     $$$$$$$   $$$$$$$$   $$$$$ $   $$$$$$   $$$$$$$
$$          $$$$    $$    $$     $$     $$    $   $$    $$  $$    $$
$$         $$  $$   $$    $$     $$     $$   $$$  $$    $$  $$    $$
$$$$$     $$    $$   $$    $$     $$     $$  $ $$  $$    $$  $$$$$$$$
$$        $$    $$   $$    $$     $$     $$ $$ $$  $$    $$  $$    $$
$$        $$$$$$$$   $$$$$$$      $$     $$ $  $$   $$$$$$$  $$    $$
$$        $$    $$   $$  $$       $$     $$$   $$         $$  $$    $$
$$        $$    $$   $$   $$   $$ $$      $   $$   $$    $$  $$    $$
$$        $$    $$   $$    $$   $$$       $ $$$$$    $$$$$$   $$$$$$$$
FARJ096  JANDA                12/13/77  13.54.07  7600   J0
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5670-03-1-13

City of Farmington Hills

Tarabusi Creek

Convergent Run (100-year flood)

Profiles cross within the first three valley sections ?

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       CITY OF FARMINGTON HILLS, 5670-03  PM:RICHARD ZANOTTI
T2       CONVERGENT RUN -100 YEAR FLOOD
T3       TARABUSI CREEK

J1  ICHECK    INQ     NINV    IDIR    STRT    METRIC   HVINS    Q       WSEL    FQ

       0.      2.      0.      0.  0.000000   0.00     0.0      0.    675.500  0.000

J2  NPROF     IPLOT   PRFVS   XSECV   XSECH   FN       ALLDC    IBW     CHNIM   ITRACE

     1.000    0.000  -1.000   0.000   0.000   0.000    0.000   0.000   0.000   0.000

J3     1.000   10.000   11.000   12.000   14.000    9.000    4.000    0.000    0.000    0.000
NC      .095     .095     .048     .300     .500    0.000    0.000    0.000    0.000    0.000
QT     6.000 1210.000 1210.000 1210.000 1210.000 1210.000 1210.000    0.000    0.000    0.000

X1     3.599   13.000  100.000  180.000    0.000    0.000    0.000    0.000    0.000    0.000
GR   677.500    0.000  677.000  100.000  674.000  140.000  672.400  155.000  671.600  160.000
GR   671.600  164.000  672.600  170.000  675.700  171.000  678.000  180.000  677.500  200.000
GR   678.300  226.000  681.800  245.000  682.600  280.000    0.000    0.000    0.000    0.000

X1     4.012   12.000  275.000  330.000  450.000  750.000  600.000    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   680.000    0.000  680.000  124.000  681.500  150.000  681.500  152.000  680.000  185.000
GR   677.900  275.000  676.000  280.000  674.400  295.000  674.400  308.000  680.000  330.000
GR   682.000  368.000  684.000  385.000    0.000    0.000    0.000    0.000    0.000    0.000

X1     4.202   12.000  565.000  645.000 1150.000  850.000 1000.000    0.000    0.000    0.000
GR   690.200    0.000  688.100   65.000  685.900  265.000  684.000  335.000  682.000  565.000
GR   681.500  575.000  677.500  580.000  677.500  590.000  680.000  625.000  682.000  645.000
GR   684.000  785.000  685.000 1035.000    0.000    0.000    0.000    0.000    0.000    0.000

X1     4.306    7.000  130.000  230.000  400.000  700.000  550.000    0.000    0.000    0.000
GR   700.000    0.000  690.000  130.000  680.600  195.000  680.600  205.000  684.100  230.000
GR   690.000  378.000  700.000 1000.000    0.000    0.000    0.000    0.000    0.000    0.000

X1     4.457   10.000  460.000  510.000  950.000  650.000  800.000    0.000    0.000    0.000
GR   693.800    0.000  692.000  240.000  690.200  330.000  685.000  460.000  684.000  464.000
GR   684.000  480.000  686.000  502.000  690.000  510.000  692.300  635.000  692.000  880.000

X1     4.505   90.000  530.000  561.500  250.000  250.000  250.000    0.000    0.000    0.000
GR   697.300    0.000  696.900   18.200  696.600   36.500  696.300   54.800  695.900   73.100
GR   695.600   91.300  695.200  109.600  694.800  127.900  694.500  146.200  694.100  164.400
GR   693.700  182.700  693.500  201.000  693.300  219.300  693.000  237.500  692.800  255.800
GR   692.600  274.100  692.200  292.400  691.900  310.600  691.500  328.900  691.200  347.200
GR   690.900  365.500  690.500  383.700  690.100  402.000  689.700  420.300  689.300  438.600
GR   688.900  456.800  688.700  475.100  688.400  493.400  687.900  511.700  687.000  530.000
GR   686.400  531.000  685.800  532.000  685.300  533.100  684.900  534.100  684.700  535.200
GR   684.600  536.200  684.600  537.300  684.500  538.300  684.500  539.400  684.400  540.400
GR   684.400  541.500  684.300  542.500  684.300  543.600  684.400  544.600  684.500  545.700
GR   684.600  546.700  684.800  547.800  684.900  548.800  685.100  549.900  685.200  550.900
GR   685.300  552.000  685.500  553.000  685.600  554.100  685.900  555.100  686.200  556.200
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GR	686.800	557.200	687.500	558.300	688.100	559.300	688.800	560.400	689.400	561.500
GR	690.600	570.700	691.700	580.000	692.200	589.300	692.800	598.600	693.300	607.900
GR	693.800	617.100	694.400	626.400	694.900	635.700	695.500	645.000	695.700	654.300
GR	695.700	663.600	695.700	672.800	695.700	682.100	695.800	691.400	695.800	700.700
GR	695.800	710.000	695.900	719.300	695.900	728.500	696.000	737.800	696.000	747.100
GR	696.000	756.400	696.100	765.700	696.100	775.000	696.100	784.200	696.200	793.500
GR	696.200	802.800	696.200	812.100	696.300	821.400	696.300	830.700	696.400	840.000
X1	4.521	90.000	553.300	578.600	84.000	84.000	84.000	0.000	0.000	0.000
GR	698.400	0.000	698.000	19.000	697.600	38.100	697.200	57.200	696.800	76.300
GR	696.400	95.300	695.900	114.400	695.400	133.500	695.000	152.600	694.500	171.700
GR	694.100	190.700	693.800	209.800	693.600	228.900	693.300	248.000	693.000	267.100
GR	692.800	286.100	692.400	305.200	692.000	324.300	691.600	343.400	691.300	362.500
GR	691.000	381.500	690.700	400.600	690.300	419.700	690.000	438.800	689.600	457.900
GR	689.400	476.900	689.200	496.000	689.100	515.100	688.700	534.200	687.600	553.300
GR	686.900	554.100	686.300	554.900	685.700	555.800	685.200	556.600	684.900	557.500
GR	684.800	558.300	684.800	559.200	684.700	560.000	684.600	560.900	684.500	561.700
GR	684.500	562.600	684.400	563.400	684.400	564.200	684.400	565.100	684.500	565.900
GR	684.600	566.800	684.800	567.600	684.900	568.500	685.100	569.300	685.200	570.200
GR	685.300	571.000	685.500	571.800	685.600	572.700	685.900	573.500	686.300	574.400
GR	686.900	575.200	687.500	576.100	688.000	576.900	688.600	577.800	689.200	578.600
GR	690.700	586.900	692.100	595.100	692.700	603.400	693.400	611.700	694.000	619.900
GR	694.600	628.200	695.300	636.500	695.900	644.700	696.600	653.000	696.800	661.300
GR	696.800	669.500	696.800	677.800	696.900	686.100	697.000	694.300	697.000	702.600
GR	697.000	710.900	697.100	719.100	697.100	727.400	697.200	735.700	697.300	744.000
GR	697.300	752.200	697.400	760.500	697.400	768.800	697.400	777.000	697.500	785.300
GR	697.600	793.600	697.600	801.800	697.700	810.100	697.700	818.400	697.800	826.600
X1	4.536	90.000	576.600	595.800	83.000	83.000	83.000	0.000	0.000	0.000
GR	699.600	0.000	699.100	19.800	698.600	39.700	698.200	59.600	697.700	79.500
GR	697.200	99.400	696.700	119.300	696.100	139.200	695.600	159.000	695.000	178.900
GR	694.500	198.800	694.200	218.700	693.900	238.600	693.600	258.500	693.300	278.400
GR	693.000	298.200	692.600	318.100	692.200	338.000	691.800	357.900	691.400	377.800
GR	691.100	397.700	690.900	417.600	690.600	437.400	690.300	457.300	690.000	477.200
GR	689.900	497.100	689.900	517.000	689.800	536.900	689.500	556.800	688.300	576.600
GR	687.600	577.300	686.900	577.900	686.200	578.600	685.600	579.200	685.200	579.800
GR	685.100	580.500	685.000	581.100	684.900	581.700	684.800	582.400	684.700	583.000
GR	684.600	583.700	684.500	584.300	684.400	584.900	684.400	585.600	684.600	586.200
GR	684.700	586.900	684.800	587.500	684.900	588.100	685.100	588.800	685.200	589.400
GR	685.300	590.100	685.500	590.700	685.600	591.300	686.000	592.000	686.400	592.600
GR	686.900	593.200	687.500	593.900	688.000	594.500	688.500	595.200	689.000	595.800
GR	690.900	603.000	692.500	610.300	693.300	617.500	694.000	624.800	694.800	632.000
GR	695.500	639.300	696.300	646.500	697.000	653.800	697.800	661.000	698.000	668.300
GR	698.000	675.500	698.000	682.800	698.100	690.000	698.200	697.300	698.200	704.500
GR	698.300	711.800	698.400	719.000	698.400	726.300	698.500	733.500	698.600	740.800
GR	698.600	748.000	698.700	755.300	698.800	762.500	698.800	769.800	698.900	777.000
GR	699.000	784.300	699.000	791.500	699.100	798.800	699.200	806.000	699.300	813.300
X1	4.552	16.000	600.000	613.000	83.000	83.000	83.000	0.000	0.000	0.000
GR	700.800	0.000	698.200	100.000	695.100	200.000	693.400	300.000	691.500	400.000
GR	690.400	500.000	690.600	575.000	689.000	600.000	685.500	602.000	684.500	606.000
GR	685.700	610.000	688.900	613.000	692.800	624.000	699.100	670.000	699.400	700.000
GR	700.800	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.547	5.000	270.000	330.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	701.000	0.000	690.000	270.000	687.500	295.000	687.500	305.000	690.000	330.000
GR	700.000	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.775	8.000	235.000	278.000	550.000	800.000	676.000	0.000	-.040	0.000
GR	698.500	0.000	692.500	235.000	690.500	242.000	689.200	255.000	690.500	269.000
GR	692.500	278.000	695.500	430.000	696.000	530.000	0.000	0.000	0.000	0.000
X1	4.777	0.000	0.000	0.000	12.000	12.000	12.000	0.000	.020	0.000
NC	.050	.050	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.779	0.000	0.000	0.000	12.000	12.000	12.000	0.000	.020	0.000

XS	0.000	0.000	0.000	0.000	0.000	354.000	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

CCHV= .300 CEHV= .500

3720 ASSUMED CRITICAL DEPTH

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

50' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11

3.90	4.55	676.15	676.15	675.50	677.30	1.14	0.00	0.00	677.00
1210.	0.	1210.	0.	0.	141.	0.	0.	0.	678.00
0.00	0.00	8.58	0.00	.095	.048	.095	0.000	671.60	111.27
.026877	0.	0.	0.	0	7	1	0.00	61.51	172.78

3265 DIVIDED FLOW

3280 CROSS SECTION 4.01 EXTENDED .58 FEET

3301 HV CHANGED MORE THAN HVINS

650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#111

4.01	6.17	680.57	0.00	0.00	680.78	.21	3.20	.28	677.90
1210.	189.	1020.	1.	224.	253.	3.	4.	2.	680.00
.05	.84	4.03	.32	.095	.048	.095	.049	674.40	0.00
.002267	450.	600.	750.	6	0	1	0.00	302.58	340.94

1650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11A

4.20	5.69	683.19	0.00	0.00	683.41	.22	2.62	.01	682.00
1210.	48.	1132.	29.	80.	288.	49.	15.	10.	682.00
.12	.60	3.93	.60	.095	.048	.095	.048	677.50	429.02
.002938	1150.	1000.	850.	5	0	1	0.00	298.74	727.77

2200' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#112

4.31	4.92	685.52	0.00	0.00	685.99	.47	2.46	.12	690.00
1210.	0.	1183.	27.	0.	212.	25.	19.	12.	684.10
.15	0.00	5.58	1.07	.095	.048	.095	.048	680.60	161.01
.007375	400.	550.	700.	2	0	1	0.00	104.51	265.52

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

1700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, BS#11B

4.46	5.32	689.32	0.00	0.00	689.53	.21	3.46	.08	685.00
1210.	318.	892.	0.	233.	210.	0.	25.	15.	690.00
.22	1.37	4.24	0.00	.095	.048	.095	.048	684.00	352.11
.002739	950.	800.	650.	3	0	1	0.00	156.52	508.63
4.50	5.83	690.13	0.00	0.00	690.60	.47	.95	.13	687.00
1210.	293.	915.	1.	174.	147.	2.	28.	15.	689.40
.23	1.69	6.24	.60	.095	.048	.095	.048	684.30	400.31
.005570	250.	250.	250.	2	0	1	0.00	166.84	567.15
4.52	6.19	690.59	0.00	0.00	691.18	.60	.52	.07	687.60
1210.	302.	903.	5.	177.	127.	5.	28.	16.	689.20
.23	1.71	7.11	1.00	.095	.048	.095	.048	684.40	406.03
.006807	84.	34.	84.	2	0	1	0.00	180.24	586.27
4.54	6.75	691.15	691.01	0.00	691.89	.74	.63	.07	688.30
1210.	346.	850.	14.	194.	104.	9.	29.	16.	689.00
.24	1.79	8.16	1.59	.095	.048	.095	.048	684.40	394.47
.008651	83.	83.	83.	4	8	1	0.00	209.67	604.13

1200' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, J-A SECTION

4.55	7.63	692.13	0.00	0.00	692.64	.51	.68	.07	689.00
1210.	556.	627.	27.	307.	81.	15.	29.	17.	688.90
.24	1.81	7.77	1.81	.095	.048	.095	.048	684.50	367.20
.007698	83.	83.	83.	5	0	1	0.00	254.89	622.09

700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, VS#113

4.65	6.33	693.83	0.00	0.00	693.96	.14	1.22	.11	690.00
1210.	149.	1019.	42.	180.	317.	51.	35.	19.	690.00
.29	.83	3.21	.82	.095	.048	.095	.048	687.50	176.05
.001177	500.	500.	500.	4	0	1	0.00	180.75	356.79
4.77	5.82	694.98	0.00	0.00	695.24	.26	1.21	.06	692.46
1210.	126.	920.	163.	124.	196.	160.	43.	23.	692.46
.34	1.02	4.70	1.02	.095	.048	.095	.048	689.16	136.42
.003115	550.	676.	800.	3	0	1	0.00	269.10	405.52
4.78	5.84	695.02	0.00	0.00	695.28	.26	.04	.00	692.48
1210.	127.	919.	164.	125.	196.	162.	43.	23.	692.48
.34	1.01	4.68	1.01	.095	.048	.095	.048	689.18	135.93
.003075	12.	12.	12.	1	0	1	0.00	270.22	406.15

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

3470 ENCROACHMENT STATIONS= .0 354.0 TYPE= 1 TARGET= 353.999

D/S FACE OF 8 MILE ROAD BRIDGE

4.78	5.91	695.11	0.00	0.00	695.32	.20	.02	.02	692.50
1210.	154.	849.	207.	134.	200.	142.	43.	23.	692.50
.34	1.15	4.24	1.46	.050	.031	.050	.048	689.20	132.65
.001057	12.	12.	12.	2	0	1	0.00	221.35	354.00

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1
T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	3.	0.	0.	0.000000	0.00	0.0	0.	676.500	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

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

50' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11

3.90	4.90	676.50	0.00	676.50	677.35	.85	0.00	0.00	677.00
1210.	0.	1210.	0.	0.	163.	0.	0.	0.	678.00
0.00	0.00	7.41	0.00	.095	.048	.095	0.000	671.60	106.67
.018578	0.	0.	0.	0	0	1	0.00	67.46	174.13

3265 DIVIDED FLOW

3280 CROSS SECTION 4.01 EXTENDED .47 FEET

3301 HV CHANGED MORE THAN HVINS

650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#111

4.01	6.08	680.48	0.00	0.00	680.72	.23	3.18	.19	677.90
1210.	172.	1037.	1.	200.	248.	2.	4.	2.	680.00
.04	.86	4.19	.30	.095	.048	.095	.049	674.40	0.00
.002525	450.	600.	750.	5	0	1	0.00	296.68	339.02

1650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11A

4.20	5.72	683.22	0.00	0.00	683.44	.22	2.72	.01	682.00
1210.	52.	1127.	31.	86.	291.	52.	14.	10.	682.00
.12	.60	3.87	.60	.095	.048	.095	.048	677.50	424.70
.002861	1150.	1000.	850.	5	0	1	0.00	305.71	730.40

2200' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#112

4.31	4.90	685.50	0.00	0.00	685.98	.48	2.41	.13	690.00
1210.	0.	1184.	26.	0.	211.	25.	19.	12.	684.10
.15	0.00	5.62	1.07	.095	.048	.095	.048	680.60	161.13
.007508	400.	550.	700.	2	0	1	0.00	103.95	265.08

1700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, BS#11B

4.46	5.32	689.32	0.00	0.00	689.53	.21	3.47	.08	685.00
1210.	318.	892.	0.	233.	211.	0.	25.	15.	690.00
.21	1.36	4.24	0.00	.095	.048	.095	.048	684.00	351.98
.002727	950.	800.	650.	3	0	1	0.00	156.66	508.64

SECNO	DEPTH	CWSEL	CRIT.S	SELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	4.50	5.84	690.14	0.00	0.00	690.60	.47	.94	.13	687.00
	1210.	294.	915.	1.	174.	147.	2.	27.	16.	689.40
	.23	1.69	6.23	.60	.095	.048	.095	.048	684.30	400.22
	.005558	250.	250.	250.	2	0	1	0.00	166.95	567.17
	4.52	6.19	690.59	0.00	0.00	691.19	.60	.52	.07	687.60
	1210.	302.	903.	5.	177.	127.	5.	28.	16.	689.20
	.23	1.71	7.11	1.00	.095	.048	.095	.048	684.40	405.98
	.006799	84.	84.	84.	2	0	1	0.00	180.30	586.28
	4.54	6.75	691.15	691.01	0.00	691.89	.74	.63	.07	688.30
	1210.	346.	850.	14.	194.	104.	9.	29.	16.	689.00
	.24	1.79	8.16	1.59	.095	.048	.095	.048	684.40	394.44
	.008647	83.	83.	83.	4	8	1	0.00	209.70	604.14

1200' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, J A SECTION

4.55	7.63	692.13	0.00	0.00	692.64	.51	.68	.07	689.00
1210.	556.	627.	27.	307.	81.	15.	29.	17.	688.90
.24	1.81	7.77	1.81	.095	.048	.095	.048	684.50	367.20
.007699	83.	83.	83.	5	0	1	0.00	254.89	622.09

700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, VS#113

4.65	6.33	693.83	0.00	0.00	693.96	.14	1.22	.11	690.00
1210.	149.	1019.	42.	180.	317.	51.	35.	19.	690.00
.29	.83	3.21	.82	.095	.048	.095	.048	687.50	176.05
.001177	500.	500.	500.	4	0	1	0.00	180.74	356.79
4.77	5.82	694.98	0.00	0.00	695.24	.26	1.21	.06	692.46
1210.	126.	920.	163.	124.	196.	160.	43.	23.	692.46
.34	1.02	4.70	1.02	.095	.048	.095	.048	689.16	136.42
.003115	550.	676.	800.	3	0	1	0.00	269.10	405.52
4.78	5.84	695.02	0.00	0.00	695.28	.26	.04	.00	692.48
1210.	127.	919.	164.	125.	196.	162.	43.	23.	692.48
.34	1.01	4.68	1.01	.095	.048	.095	.048	689.18	135.93
.003075	12.	12.	12.	1	0	1	0.00	270.22	406.15

3470 ENCROACHMENT STATIONS= .0 354.0 TYPE= 1 TARGET= 353.999

D/S FACE OF 8 MILE ROAD BRIDGE

4.78	5.91	695.11	0.00	0.00	695.32	.20	.02	.02	692.50
1210.	154.	849.	207.	134.	200.	142.	43.	23.	692.50
.34	1.15	4.24	1.46	.050	.031	.050	.048	689.20	132.65
.001057	12.	12.	12.	2	0	1	0.00	221.35	354.00

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1
T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.000000	0.00	0.0	0.	678.000	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

CCHV= .300 CEHV= .500

3280 CROSS SECTION 3.90 EXTENDED .50 FEET

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

50' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11

3.90	6.40	678.00	0.00	678.00	678.25	.25	0.00	0.00	677.00
1210.	58.	1149.	3.	75.	277.	9.	0.	0.	678.00
0.00	.77	4.14	.37	.095	.048	.095	0.000	671.60	0.00
.003583	0.	0.	0.	0	0	1	0.00	216.25	216.25

3265 DIVIDED FLOW

3280 CROSS SECTION 4.01 EXTENDED .12 FEET

650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#111

4.01	5.72	680.12	0.00	0.00	680.44	.33	2.15	.04	677.90
1210.	114.	1096.	0.	119.	228.	0.	5.	3.	680.00
.04	.95	4.81	.14	.095	.048	.095	.049	674.40	0.00
.003721	450.	600.	750.	1	0	1	0.00	275.72	332.19

1650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11A

4.20	5.84	683.34	0.00	0.00	683.53	.20	3.05	.04	682.00
1210.	61.	1111.	37.	103.	301.	62.	14.	10.	682.00
.12	.60	3.70	.60	.095	.048	.095	.048	677.50	411.36
.002505	1150.	1000.	850.	3	0	1	0.00	327.16	738.52

2200' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#112

4.31	4.84	685.44	0.00	0.00	685.94	.50	2.26	.15	690.00
1210.	0.	1186.	24.	0.	207.	23.	19.	13.	684.10
.15	0.00	5.73	1.07	.095	.048	.095	.048	680.60	161.51
.007942	400.	550.	700.	2	0	1	0.00	102.19	263.70

1700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, BS#11B

4.46	5.34	689.34	0.00	0.00	689.55	.21	3.52	.09	685.00
1210.	319.	891.	0.	235.	211.	0.	25.	15.	690.00
.21	1.36	4.21	0.00	.095	.048	.095	.048	684.00	351.57
.002689	950.	800.	650.	3	0	1	0.00	157.11	508.67

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.50	5.84	690.14	0.00	0.00	690.61	.46	.93	.13	687.00
1210.	295.	914.	1.	175.	147.	2.	27.	16.	689.40
.22	1.68	6.21	.60	.095	.048	.095	.048	684.30	399.91
.005519	250.	250.	250.	2	0	1	0.00	167.31	567.22
4.52	6.19	690.59	0.00	0.00	691.19	.60	.51	.07	687.60
1210.	302.	902.	5.	177.	127.	5.	28.	17.	689.20
.23	1.71	7.10	1.00	.095	.048	.095	.048	684.40	405.83
.006776	84.	84.	84.	2	0	1	0.00	180.47	586.29
4.54	6.75	691.15	691.01	0.00	691.89	.74	.63	.07	688.30
1210.	346.	850.	14.	194.	104.	9.	29.	17.	689.00
.23	1.79	8.16	1.58	.095	.048	.095	.048	684.40	394.36
.008634	83.	83.	83.	4	8	1	0.00	209.78	604.14

1200' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, JWA SECTION

4.55	7.62	692.12	0.00	0.00	692.64	.51	.68	.07	689.00
1210.	556.	628.	27.	307.	81.	15.	29.	18.	688.90
.24	1.81	7.77	1.81	.095	.048	.095	.048	684.50	367.23
.007703	83.	83.	83.	5	0	1	0.00	254.86	622.09

700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, VS#113

4.65	6.33	693.83	0.00	0.00	693.96	.14	1.22	.11	690.00
1210.	149.	1019.	42.	180.	317.	51.	35.	20.	690.00
.29	.83	3.21	.82	.095	.048	.095	.048	687.50	176.05
.001177	500.	500.	500.	4	0	1	0.00	180.74	356.79
4.77	5.82	694.98	0.00	0.00	695.24	.26	1.21	.06	692.46
1210.	126.	920.	163.	124.	196.	160.	42.	23.	692.46
.33	1.02	4.70	1.02	.095	.048	.095	.048	689.16	136.42
.003116	550.	676.	800.	3	0	1	0.00	269.10	405.52
4.78	5.84	695.02	0.00	0.00	695.28	.26	.04	.00	692.48
1210.	127.	919.	164.	125.	196.	162.	43.	24.	692.48
.34	1.01	4.68	1.01	.095	.048	.095	.048	689.18	135.94
.003075	12.	12.	12.	1	0	1	0.00	270.21	406.15

3470 ENCROACHMENT STATIONS= .0 354.0 TYPE= 1 TARGET= 353.999

D/S FACE OF 8 MILE ROAD BRIDGE

4.78	5.91	695.11	0.00	0.00	695.32	.20	.02	.02	692.50
1210.	154.	849.	207.	134.	200.	142.	43.	24.	692.50
.34	1.15	4.24	1.46	.050	.031	.050	.048	689.20	132.65
.001057	12.	12.	12.	2	0	1	0.00	221.35	354.00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
*****************************************
T1
T2
T3
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        7.        0.        0.  0.000000     0.00      0.0       0.   679.000    0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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CCHV=     .300 CEHV=     .500
3280 CROSS SECTION      3.90 EXTENDED      1.50 FEET

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

          50' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11

      3.90      7.40    679.00      0.00    679.00    679.11       .11      0.00      0.00    677.00
    1210.       139.    1037.       33.     175.      357.      55.       0.        0.      678.00
      0.00       .80      2.90       .61     .095      .048     .095    0.000    671.60      0.00
  .001255        0.       0.        0.        0         0         1     0.00    229.80    229.80

3265 DIVIDED FLOW

3280 CROSS SECTION      4.01 EXTENDED       .09 FEET

          650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#111

      4.01      5.68    680.08      0.00      0.00    680.42       .33      1.19       .11    677.90
    1210.       110.    1100.        0.     113.      226.        0.        6.        3.      680.00
       .04       .97      4.86       .01     .095      .048     .095     .049    674.40      0.00
  .003834      450.     600.      750.        2         0         1     0.00    274.07    331.65

          1650' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#11A

      4.20      5.84    683.34      0.00      0.00    683.54       .19      3.08       .04    682.00
    1210.        62.    1111.       38.     103.      301.      63.       16.       10.      682.00
       .12       .60      3.69       .60     .095      .048     .095     .048    677.50    410.87
  .002493     1150.     1000.      850.        3         0         1     0.00    327.95    738.82

          2200' U/S FROM U/S FACE OF FARMINGTON ROAD BRIDGE, VS#112

      4.31      4.84    685.44      0.00      0.00    685.94       .50      2.25       .15    690.00
    1210.        0.     1186.       24.       0.      207.      23.       20.       13.      684.10
       .14      0.00      5.73      1.07     .095      .048     .095     .048    680.60    161.50
  .007936      400.     550.      700.        2         0         1     0.00    102.21    263.72

          1700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, BS#11B

      4.46      5.33    689.33      0.00      0.00    689.54       .21      3.51       .09    685.00
    1210.       320.     890.        0.     236.      211.        0.       26.       16.      690.00
       .21      1.36      4.21      0.00     .095      .048     .095     .048    684.00    351.48
  .002681      950.     800.      650.        2         0         1     0.00    157.20    508.68
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.50	5.84	690.14	0.00	0.00	690.60	.47	.93	.13	687.00
1210.	294.	915.	1.	174.	147.	2.	29.	17.	689.40
.22	1.69	6.23	.60	.095	.048	.095	.048	684.30	400.21
.005557	250.	250.	250.	2	0	1	0.00	166.96	567.17
4.52	6.19	690.59	0.00	0.00	691.18	.60	.52	.07	687.60
1210.	302.	903.	5.	177.	127.	5.	29.	17.	689.20
.23	1.71	7.11	1.00	.095	.048	.095	.048	684.40	406.00
.006803	84.	84.	84.	2	0	1	0.00	180.27	586.27
4.54	6.75	691.15	691.01	0.00	691.39	.74	.63	.07	688.30
1210.	346.	850.	14.	194.	104.	9.	30.	17.	689.00
.23	1.79	8.16	1.59	.095	.048	.095	.048	684.40	394.45
.008649	83.	83.	83.	4	8	1	0.00	209.68	604.14

1200' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, JUA SECTION

4.55	7.63	692.13	0.00	0.00	692.64	.51	.68	.07	689.00
1210.	556.	627.	27.	307.	81.	15.	31.	18.	688.90
.24	1.81	7.77	1.81	.095	.048	.095	.048	684.50	367.20
.007699	83.	83.	83.	5	0	1	0.00	254.89	622.09

700' D/S FROM D/S FACE OF 8 MILE ROAD BRIDGE, VS#113

4.65	6.33	693.83	0.00	0.00	693.96	.14	1.22	.11	690.00
1210.	149.	1019.	42.	180.	317.	51.	36.	20.	690.00
.29	.83	3.21	.82	.095	.048	.095	.048	687.50	176.05
.001177	500.	500.	500.	4	0	1	0.00	180.75	356.79
4.77	5.82	694.98	0.00	0.00	695.24	.26	1.21	.06	692.46
1210.	126.	920.	163.	124.	196.	160.	44.	24.	692.46
.33	1.02	4.70	1.02	.095	.048	.095	.048	689.16	136.42
.003115	550.	676.	800.	3	0	1	0.00	269.10	405.52
4.78	5.84	695.02	0.00	0.00	695.28	.26	.04	.00	692.48
1210.	127.	919.	164.	125.	196.	162.	44.	24.	692.48
.34	1.01	4.68	1.01	.095	.048	.095	.048	689.18	135.93
.003075	12.	12.	12.	1	0	1	0.00	270.22	406.15

3470 ENCROACHMENT STATIONS= .0 354.0 TYPE= 1 TARGET= 353.999

D/S FACE OF 8 MILE ROAD BRIDGE

4.78	5.91	695.11	0.00	0.00	695.32	.20	.02	.02	692.50
1210.	154.	849.	207.	134.	200.	142.	44.	24.	692.50
.34	1.15	4.24	1.46	.050	.031	.050	.048	689.20	132.65
.001057	12.	12.	12.	2	0	1	0.00	221.35	354.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	WSELK	TOPWID
3.90	0.00	0.00	0.00	671.60	1210.00	676.15	1.14	0.00	0.00	1210.00	675.50	61.51
3.90	0.00	0.00	0.00	671.60	1210.00	676.50	.85	0.00	0.00	1210.00	676.50	67.46
3.90	0.00	0.00	0.00	671.60	1210.00	678.00	.25	0.00	0.00	1148.85	678.00	216.25
3.90	0.00	0.00	0.00	671.60	1210.00	679.00	.11	0.00	0.00	1037.28	679.00	229.80
4.01	600.00	0.00	0.00	674.40	1210.00	680.57	.21	3.20	.28	1019.58	0.00	302.58
4.01	600.00	0.00	0.00	674.40	1210.00	680.48	.23	3.18	.19	1037.11	0.00	296.68
4.01	600.00	0.00	0.00	674.40	1210.00	680.12	.33	2.15	.04	1095.95	0.00	275.72
4.01	600.00	0.00	0.00	674.40	1210.00	680.08	.33	1.19	.11	1100.00	0.00	274.07
4.20	1000.00	0.00	0.00	677.50	1210.00	683.19	.22	2.62	.01	1132.11	0.00	298.74
4.20	1000.00	0.00	0.00	677.50	1210.00	683.22	.22	2.72	.01	1127.14	0.00	305.71
4.20	1000.00	0.00	0.00	677.50	1210.00	683.34	.20	3.05	.04	1111.22	0.00	327.16
4.20	1000.00	0.00	0.00	677.50	1210.00	683.34	.19	3.08	.04	1110.62	0.00	327.95
4.31	550.00	0.00	0.00	680.60	1210.00	685.52	.47	2.46	.12	1183.18	0.00	104.51
4.31	550.00	0.00	0.00	680.60	1210.00	685.50	.48	2.41	.13	1183.83	0.00	103.95
4.31	550.00	0.00	0.00	680.60	1210.00	685.44	.50	2.26	.15	1185.81	0.00	102.19
4.31	550.00	0.00	0.00	680.60	1210.00	685.44	.50	2.25	.15	1185.79	0.00	102.21
4.46	800.00	0.00	0.00	684.00	1210.00	689.32	.21	3.46	.08	891.92	0.00	156.52
4.46	800.00	0.00	0.00	684.00	1210.00	689.32	.21	3.47	.08	891.60	0.00	156.66
4.46	800.00	0.00	0.00	684.00	1210.00	689.34	.21	3.52	.09	890.58	0.00	157.11
4.46	800.00	0.00	0.00	684.00	1210.00	689.33	.21	3.51	.09	890.38	0.00	157.20
4.50	250.00	0.00	0.00	684.30	1210.00	690.13	.47	.95	.13	915.48	0.00	166.84
4.50	250.00	0.00	0.00	684.30	1210.00	690.14	.47	.94	.13	915.18	0.00	166.95
4.50	250.00	0.00	0.00	684.30	1210.00	690.14	.46	.93	.13	914.19	0.00	167.31
4.50	250.00	0.00	0.00	684.30	1210.00	690.14	.47	.93	.13	915.15	0.00	166.96
4.52	84.00	0.00	0.00	684.40	1210.00	690.59	.60	.52	.07	903.08	0.00	180.24
4.52	84.00	0.00	0.00	684.40	1210.00	690.59	.60	.52	.07	902.90	0.00	180.30
4.52	84.00	0.00	0.00	684.40	1210.00	690.59	.60	.51	.07	902.30	0.00	180.47
4.52	84.00	0.00	0.00	684.40	1210.00	690.59	.60	.52	.07	902.98	0.00	180.27
4.54	83.00	0.00	0.00	684.40	1210.00	691.15	.74	.63	.07	850.11	0.00	209.67
4.54	83.00	0.00	0.00	684.40	1210.00	691.15	.74	.63	.07	850.02	0.00	209.70
4.54	83.00	0.00	0.00	684.40	1210.00	691.15	.74	.63	.07	849.72	0.00	209.78
4.54	83.00	0.00	0.00	684.40	1210.00	691.15	.74	.63	.07	850.06	0.00	209.68
4.55	83.00	0.00	0.00	684.50	1210.00	692.13	.51	.68	.07	627.47	0.00	254.89
4.55	83.00	0.00	0.00	684.50	1210.00	692.13	.51	.68	.07	627.50	0.00	254.89
4.55	83.00	0.00	0.00	684.50	1210.00	692.12	.51	.68	.07	627.60	0.00	254.86
4.55	83.00	0.00	0.00	684.50	1210.00	692.13	.51	.68	.07	627.48	0.00	254.89
4.65	500.00	0.00	0.00	687.50	1210.00	693.83	.14	1.22	.11	1019.23	0.00	180.75
4.65	500.00	0.00	0.00	687.50	1210.00	693.83	.14	1.22	.11	1019.24	0.00	180.74
4.65	500.00	0.00	0.00	687.50	1210.00	693.83	.14	1.22	.11	1019.25	0.00	180.74
4.65	500.00	0.00	0.00	687.50	1210.00	693.83	.14	1.22	.11	1019.24	0.00	180.75

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	WSELK	TOPWID
4.77	676.00	0.00	0.00	689.16	1210.00	694.98	.26	1.21	.06	920.47	0.00	269.10
4.77	676.00	0.00	0.00	689.16	1210.00	694.98	.26	1.21	.06	920.47	0.00	269.10
4.77	676.00	0.00	0.00	689.16	1210.00	694.98	.26	1.21	.06	920.48	0.00	269.10
4.77	676.00	0.00	0.00	689.16	1210.00	694.98	.26	1.21	.06	920.47	0.00	269.10
4.78	12.00	0.00	0.00	689.18	1210.00	695.02	.26	.04	.00	918.57	0.00	270.22
4.78	12.00	0.00	0.00	689.18	1210.00	695.02	.26	.04	.00	918.57	0.00	270.22
4.78	12.00	0.00	0.00	689.18	1210.00	695.02	.26	.04	.00	918.58	0.00	270.21
4.78	12.00	0.00	0.00	689.18	1210.00	695.02	.26	.04	.00	918.57	0.00	270.22
4.78	12.00	0.00	0.00	689.20	1210.00	695.11	.20	.02	.02	848.51	0.00	221.35
4.78	12.00	0.00	0.00	689.20	1210.00	695.11	.20	.02	.02	848.51	0.00	221.35
4.78	12.00	0.00	0.00	689.20	1210.00	695.11	.20	.02	.02	848.52	0.00	221.35
4.78	12.00	0.00	0.00	689.20	1210.00	695.11	.20	.02	.02	848.51	0.00	221.35

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
3.899	1210.000	676.155	0.000	0.000	0.000	61.508	0.000	0.000
3.899	1210.000	676.500	.345	0.000	0.000	67.464	-5.955	0.000
3.899	1210.000	678.000	1.500	0.000	0.000	216.250	-154.742	0.000
3.899	1210.000	679.000	1.000	0.000	0.000	229.800	-168.292	0.000
4.012	1210.000	680.567	0.000	4.412	0.000	302.579	0.000	600.000
4.012	1210.000	680.481	-.085	3.981	0.000	296.680	5.899	600.000
4.012	1210.000	680.116	-.365	2.116	0.000	275.720	26.860	600.000
4.012	1210.000	680.081	-.035	1.081	0.000	274.073	28.506	600.000
4.202	1210.000	683.185	0.000	2.618	0.000	298.744	0.000	1000.000
4.202	1210.000	683.222	.037	2.741	0.000	305.707	-6.963	1000.000
4.202	1210.000	683.336	.113	3.220	0.000	327.164	-28.420	1000.000
4.202	1210.000	683.344	.009	3.264	0.000	327.953	-29.209	1000.000
4.306	1210.000	685.517	0.000	2.332	0.000	104.512	0.000	550.000
4.306	1210.000	685.499	-.018	2.277	0.000	103.947	.565	550.000
4.306	1210.000	685.443	-.056	2.108	0.000	102.189	2.322	550.000
4.306	1210.000	685.444	.001	2.100	0.000	102.212	2.300	550.000
4.457	1210.000	689.315	0.000	3.798	0.000	156.523	0.000	800.000
4.457	1210.000	689.321	.005	3.822	0.000	156.662	-.139	800.000
4.457	1210.000	689.337	.017	3.894	0.000	157.109	-.587	800.000
4.457	1210.000	689.331	-.006	3.887	0.000	157.200	-.678	800.000
4.505	1210.000	690.135	0.000	.819	0.000	166.838	0.000	250.000
4.505	1210.000	690.137	.002	.816	0.000	166.949	-.112	250.000
4.505	1210.000	690.143	.006	.806	0.000	167.313	-.475	250.000
4.505	1210.000	690.136	-.007	.805	0.000	166.959	-.121	250.000
4.521	1210.000	690.586	0.000	.451	0.000	180.243	0.000	84.000
4.521	1210.000	690.587	.001	.450	0.000	180.296	-.052	84.000
4.521	1210.000	690.590	.003	.447	0.000	180.466	-.223	84.000
4.521	1210.000	690.586	-.004	.450	0.000	180.271	-.028	84.000
4.536	1210.000	691.148	0.000	.563	0.000	209.670	0.000	83.000
4.536	1210.000	691.149	.000	.562	0.000	209.696	-.026	83.000
4.536	1210.000	691.150	.001	.560	0.000	209.782	-.113	83.000
4.536	1210.000	691.149	-.001	.562	0.000	209.683	-.013	83.000
4.552	1210.000	692.126	0.000	.977	0.000	254.891	0.000	83.000
4.552	1210.000	692.126	-.000	.977	0.000	254.887	.005	83.000
4.552	1210.000	692.125	-.001	.975	0.000	254.865	.027	83.000

4.552	1210.000	692.125	.001	.977	0.000	254.889	.002	83.000
4.647	1210.000	693.827	0.000	1.702	0.000	180.747	0.000	500.000
4.647	1210.000	693.827	-.000	1.702	0.000	180.745	.003	500.000
4.647	1210.000	693.827	-.000	1.702	0.000	180.738	.009	500.000
4.647	1210.000	693.827	.000	1.702	0.000	180.746	.001	500.000
4.775	1210.000	694.977	0.000	1.150	0.000	269.105	0.000	676.000
4.775	1210.000	694.977	-.000	1.150	0.000	269.103	.002	676.000
4.775	1210.000	694.977	-.000	1.150	0.000	269.097	.007	676.000
4.775	1210.000	694.977	.000	1.150	0.000	269.103	.001	676.000
4.777	1210.000	695.018	0.000	.041	0.000	270.222	0.000	12.000
4.777	1210.000	695.018	-.000	.041	0.000	270.220	.002	12.000
4.777	1210.000	695.018	-.000	.041	0.000	270.215	.007	12.000
4.777	1210.000	695.018	.000	.041	0.000	270.220	.001	12.000
4.779	1210.000	695.113	0.000	.095	0.000	221.353	0.000	12.000
4.779	1210.000	695.113	-.000	.095	0.000	221.352	.001	12.000
4.779	1210.000	695.113	-.000	.095	0.000	221.350	.003	12.000
4.779	1210.000	695.113	.000	.095	0.000	221.352	.000	12.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	353.999	22.689	0.000
2	0.000	353.999	22.739	.050
3	0.000	353.999	23.631	.942
4	0.000	353.999	23.732	1.043

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: HYRAULIC ANALYSIS

00BREAK00

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Tarabusi Creek in the City of Farmington Hills, Oakland County, Michigan. The study starts from 8 Mile Road, the southern corporate boundary of the City, to the northwestern corporate boundary, about 450 feet north of Freedom Road, covering a distance of approximately 2.40 river miles. The drainage areas at the upstream and downstream ends of the study are 3.20 square miles and 4.39 square miles, respectively. The flows used for the Tarabusi Creek were selected to coincide with those used by the U.S. Corps of Engineers (COE) for the City of Farmington. These values were recommended by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the COE (Reference 1). All bridges have been modeled by the requirements of the HEC-2 normal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by both (1) comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs or field descriptions taken in Farmington Hills by survey crews in 1976 and (2) matching the water-surface elevations at the upstream end of this

study with those obtained by the COE for the City of Farmington flood insurace study. To reflect the generally gradual changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values were indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir discharge coefficients were taken from charts of the U.S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The convergence technique was utilized for Tarabusi Creek to determine a proper water-surface elevation at the corporate boundary (8 Mile Road). Cross sections used for the convergence run were provided by the COE. Elevations representing different water-surface elevations at Section 3.8986 (river miles above mouth) were inputted into the HEC-2 model. Elevations ranged from 675.5 to 679.0 (USC&GS datum) and a 1-foot to 1.5-feet increment between elevations was utilized. The resulting elevations at the upstream face of 8 Mile Road (SECNO - 4.7946) were then considered as starting elevations for the hydraulic analysis for the City of Farmington Hills.

Discussion

1. In January, 1972, the COE published a flood plain information report (Reference 6) for the Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek in Wayne and Oakland Counties. Our investigation showed that the resulting profiles of this study are basically similar to those obtained

by the COE. The major difference in the profile between these two studies was a result of new information at the Gill Road Bridge. The following table shows these differences:

were the new surveys rechecked against like a problem, were of the datum of the checks?

Table 1. Different Information at the Gill Road Culvert Between COE's Study and J&A's Study

	J & A	Corps of Engineers
Invert Elevation	705.0	702.6
Inside Top (low chord)	710.4	707.8
Min. Road Elevation	711.6	709.0

Gill name from J. Bd. ft. 2.6 ft. ?

2. For the 8 Mile Road Culvert, since both normal bridge and special bridge routines did not provide satisfactory results, the hand-calculation was used.

3. The Manning coefficients used at bridge sections were not realistic. These "n" values have been adjusted to get better continuity of flows.

References

1. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U.S. Department of Commerce, Dec. 1965.

4. U.S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

6. U.S. Army Corps of Engineers, Flood Plain Information Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek, Prepared for the Water Resources Commission, Michigan Department of Natural Resources and Southeast Michigan Council of Governments, January 1972.

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X1      4.30        17     377.00     433.00      52.00      52.00      52.00      1.000
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Gill Road Bridge

```
BT     19.00      0.00     720.70       0.00     100.00     717.00       0.00     200.00     713.70       0.00

BT    300.00    711.90       0.00     377.00     711.80     710.00     395.10     711.60     705.00     395.10
BT    711.60    707.20     396.60     711.60     709.30     400.00     711.60     710.40     403.40     711.60
BT    709.30    404.90     711.60     707.20     404.90     711.60     705.00     414.00     711.60     709.00
BT    433.00    711.60     710.10     500.00     711.70       0.00     600.00     712.60       0.00     700.00
BT    714.70      0.00     800.00     716.20       0.00     900.00     716.70       0.00

GR    720.70      0.00     717.00     100.00     713.70     200.00     711.90     300.00     710.00     377.00
GR    705.00    395.10     705.00     396.60     705.00     400.00     705.00     403.40     705.00     404.90
GR    709.00    414.00     710.10     433.00     711.70     500.00     712.60     600.00     714.70     700.00
GR    716.20    800.00     716.70     900.00
*******************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE*******************

377.00  710.00  395.10  705.00  395.10  707.20  396.60  709.30  400.00  710.40
403.40  709.30  404.90  707.20  404.90  705.00  414.00  709.00  433.00  710.10

377.00  710.00  395.10  705.00  396.60  705.00  400.00  705.00  403.40  705.00
404.90  705.00  414.00  709.00  433.00  710.10
************** LISTING OF COORDINATES OF ORIFICE*********************

377.00  710.00  395.10  705.00  395.10  707.20  396.60  709.30  400.00  710.40
403.40  709.30  404.90  707.20  404.90  705.00  414.00  709.00  433.00  710.10
414.00  709.00  404.90  705.00  403.40  705.00  400.00  705.00  396.60  705.00
395.10  705.00  377.00  710.00

ORIFICE AREA        42.7 WETTED PERIMETER      26.5  29.1/R**1.333      15.4385
```

Area :- $A = 42.7\ ft^2$

Wetted Perimeter :- $P = 26.5\ ft$

Hydraulic Radius :- $R = A/P = 1.61\ ft$

Length :- $L = 52.0\ ft.$

Manning Coefficient :- $n = 0.032$ (Adjusted for Rock & Broken Concrete)

Entrance Loss :- $K_e = 0.9$ (Projected from fill)

Max. Depth :- $D = 5.4\ ft$

$BWC = A/D = 7.91\ ft.$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.82$$

$$XKDR = 1 + K_e + K_f = 2.72$$

Weir Coefficient :- $C = 2.85$ (Gravel Road ; $H \approx 1.1\ ft$ for 100-year flood)

City of Farmington Hills
Tarabusi Creek
5670-03-1
MSC 10-25-77

Original Cross-Section Location

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
A	5A	4.7946	u/s face of 8 Mile Road Bridge
B	12B*	4.9319	725' u/s from u/s face of 8 Mile Road Bridge
C	12A*	5.0891	1555' u/s from u/s face of 8 Mile Road Bridge
D	114*	5.2264	640' d/s from d/s face of Gill Road Culvert
E	4A	5.3574	u/s face of Gill Road Culvert
F	3A	5.4142	300' u/s from u/s face of Gill Road Culvert
G	2A	5.4578	530' u/s from u/s face of Gill Road Culvert
H	1A	5.5567	u/s face of Bridgeman Avenue Culvert
I	14*	5.5662	50' u/s from u/s face of Bridgeman Avenue Culvert
J	115*	5.6249	360' u/s from u/s face of Bridgeman Avenue Culvert
K	14A*	5.8995	1810' u/s from u/s face of Bridgeman Avenue Culvert
L	116*	5.9942	2310' u/s from u/s face of Bridgemen Avenue Culvert
M	117*	6.2925	1030' d/s from d/s face of 9 Mile Road Culvert
N	15*	6.4781	50' d/s from d/s face of 9 Mile Road Culvert
O	1	6.5399	u/s face of 9 Mile Road & Drake Road Culvert
P	2	6.5494	50' u/s from u/s face of Drake Road Culvert
			May need add section u/s of P
Q	3	6.7217	960' u/s from u/s face of Drake Road Culvert
R	4	6.8306	1535' u/s from u/s face of Drake Road Culvert
S	5	6.9556	370' d/s from d/s face of I-96 Culvert
T	6	7.0948	u/s face of I-96 & Freedom Road Culvert

* Provided by Corps of Engineers (COE)

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
U	7	7.1043	50' u/s from u/s face of Freedom Road Culvert
V	8	7.1516	300' u/s from u/s face of Freedom Road Culvert
W	FIRST SECTION OF CITY OF FARMINGTON REPORT (C.O.E)	7.1800	450' u/s from u/s face of Freedom Road Culvert; Corporate Boundary

Johnson & Anderson, Inc.
Consulting Engineers
P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

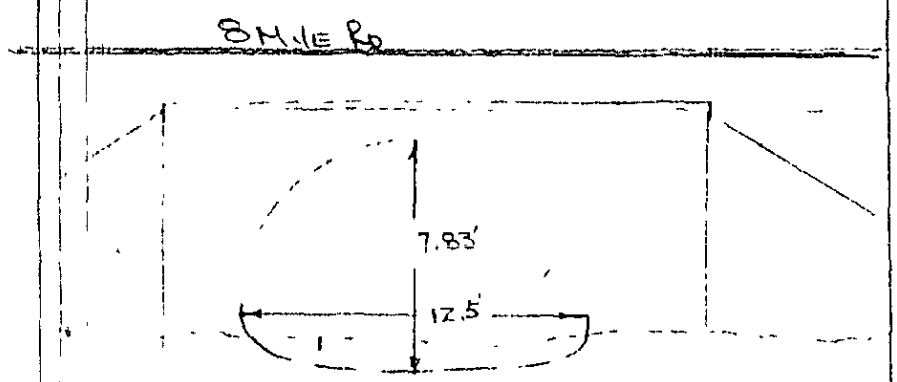
B.S.# 5A

Code No. 5670-03

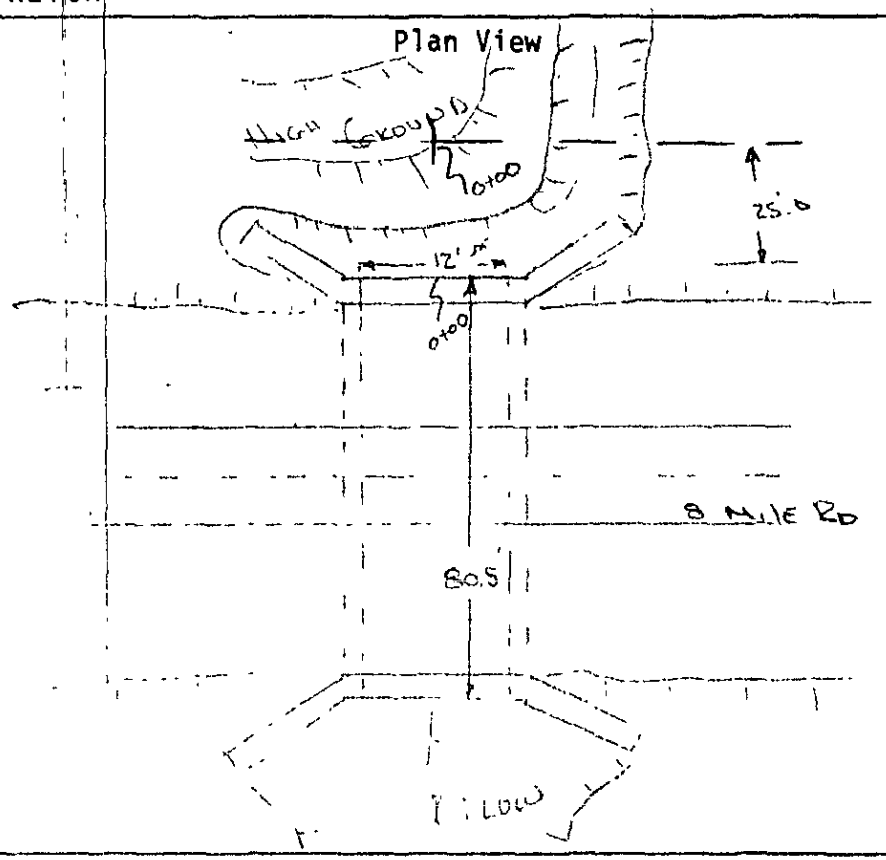
Job Name: City of Farmington Hills F.L.S.		By: R. Moses	
Date: 8-23-77	Feature: C.M.P. Arch Pipe	Water Course: Tarabusi Creek	
Remarks: Culvert is on 8 Mile Rd, 200'± E of Gill Rd. Heavy Brush Upstream. Med. Brush Downstream w/ scattered large trees along banks			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 691.5	Length: 80.5	Width of Deck: 12	Skew: —

FIELD SKETCH

Profile View



Plan View



Culvert Feature: 12'6" x 7'11" CMP Arch Pipe

Area: $A = 77.0\ ft^2$

Hydraulic Radius: $R = 2.32\ ft.$

Length: $L = 81.0\ ft.$

Manning Coefficient: $n = 0.0318$

Entrance Losses: $K_e = 0.5$ (Headwall & Wingwalls)

Max. Depth: $D = 7.83\ ft.$

$$BWC = \frac{A}{D} = 9.07\ ft$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.75$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.25$$

Weir Coefficient: $C = 3.02$ ($H \approx 0.5$ ft for 100-year flood)

JOB NAME: City of Farmington Hills	JOB NO. 5670	03	1	13
WATERCOURSE: Tarabusi Creek	CULVERT LOCATION: 8 Mile Road Culvert			
CULVERT DESCRIPTION: 12'6" x 7'11" CMP Arch	BY MSC	DATE 12/19/77		

Pipe ; With Wingwalls & Headwall

n = 0.0313 Q_{10} = 730 cfs TW_{10} = 5.14' (694.34)

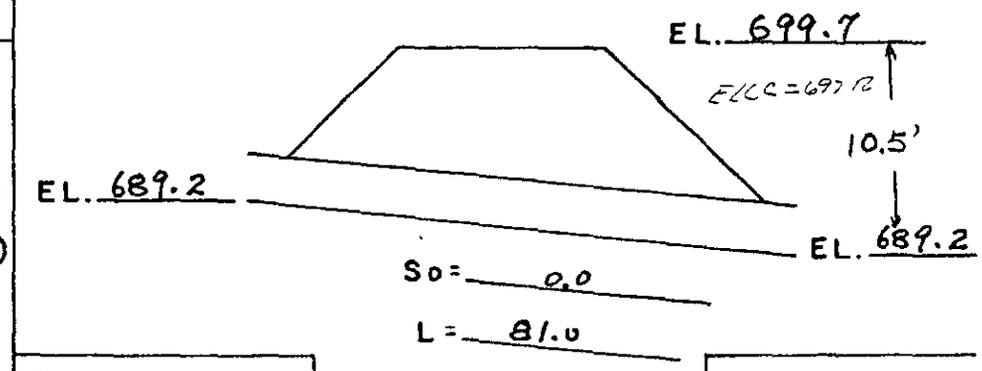
A = 77.0 Q_{50} = 1070 TW_{50} = 5.65' (694.85)

R = 2.32' Q_{100} = 1210 TW_{100} = 5.91' (695.11)

Ke = 0.5 Q_{500} = 1410 TW_{500} = 6.26' (695.46)

D = 7.83'

LSo = 0



Sta. 4.795 Sta 4.779

Q	HEADWATER ANALYSIS									FINAL HW	FINAL HW ELEV. (ENERGY)	ΔH HEC-2
	INLET CONT.		OUTLET CONT. HW = H + ho − LSo					HEC-2				
	HW/D	HW	H	dc	(dc+D)/2	ho	HW	D+(1+Ke) V²/2g	HW			
730	1.09	8.53	3.14	5.05	6.44	6.44	9.58	9.92	8.74	8.74	697.94	(Use HEC-2 Resu
1070	1.59	12.45	6.75	6.20	7.02	7.02	13.77					
1210	1.86	14.56	8.63	6.65	7.24	7.24	15.87	Go to Weir + Pressure Flow				
1410	2.31	18.09	11.72	7.10	7.47	7.47	19.19					

CALCULATIONS AND COMMENTS

$H = (1 + K_e + K_f)\frac{V^2}{2g}$

$= 2.25 \frac{Q^2}{64.4\,(77)^2} = Q^2/169{,}701$

JOB NAME: City of Farmington Hills | JOB NO. 5670 | 03 | 1 | 1

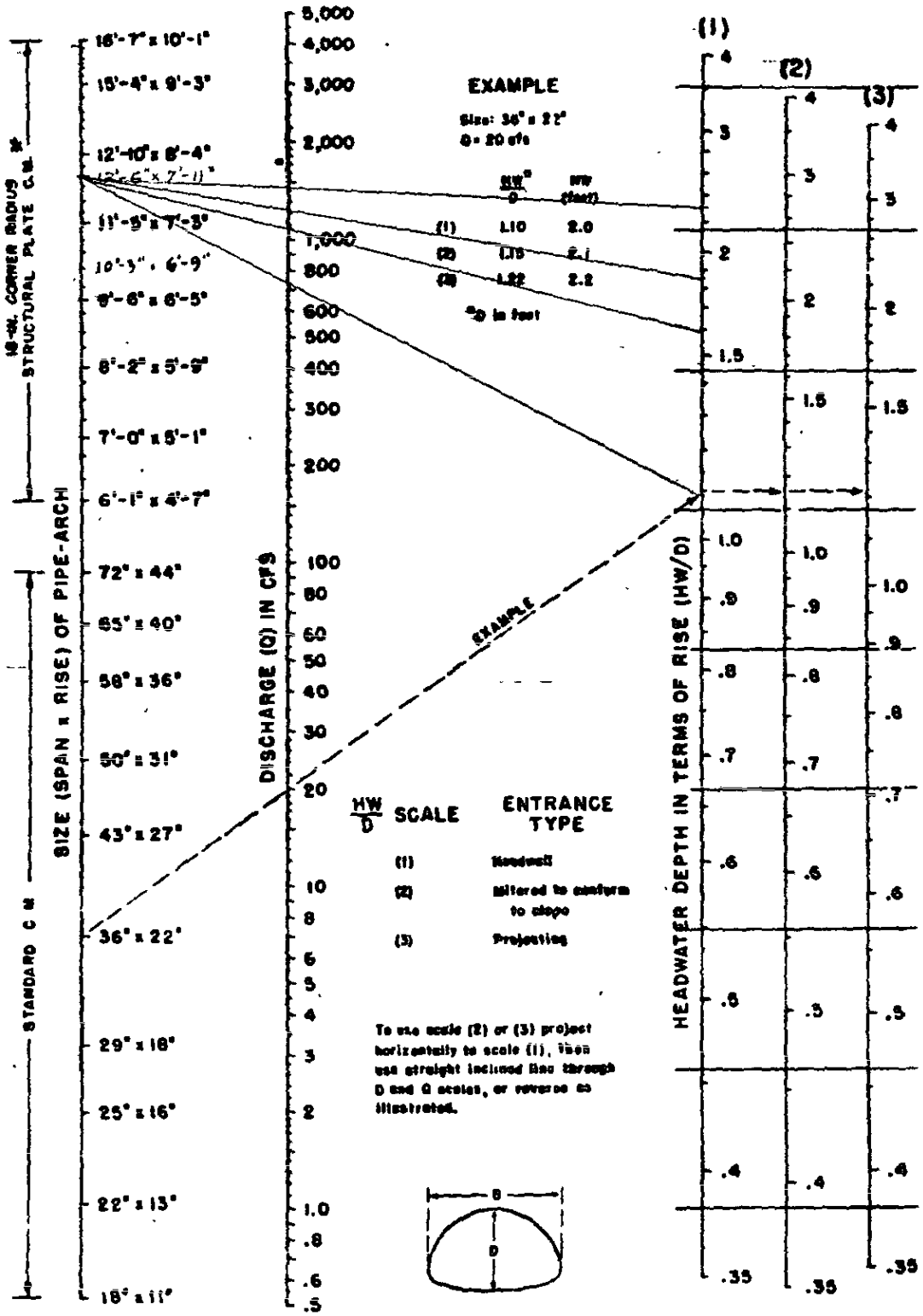
WATERCOURSE: Tarabusi Creek | WEIR LOCATION: 8-Mile Road Culvert

WEIR DESCRIPTION: Paved Road ; | BY MSC | DATE 12/19/71

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Q_T	HW ENERGY ELEV.	TW ELEV.	H_c (2-3)	$Q_c = A\sqrt{\frac{2gH_c}{1+Ke+\frac{29n^2L}{R^{4/3}}}}$	L	AVG. RD.EL.	(6X7)	HW (2-7)	C	$Q_w = CLH_w^{3/2}$	MIN. RD.EL.	$\frac{D}{H}\left(\frac{3-12}{2-12}\right)$	C_s / C_f	(11 X 14)	(5 + 1
1070	700.25	694.85	5.40	957.29	-	-	-	-	-	113.69	699.7	<0	1.0	113.69	1070.
1210	700.49	695.11	5.38	955.51	-	-	-	-	-	255.12	699.7	<0	1.0	255.12	1210.
1410	700.74	695.46	5.28	946.59	-	-	-	-	-	466.03	699.7	<0	1.0	466.03	141

CALCULATIONS AND COMMENTS

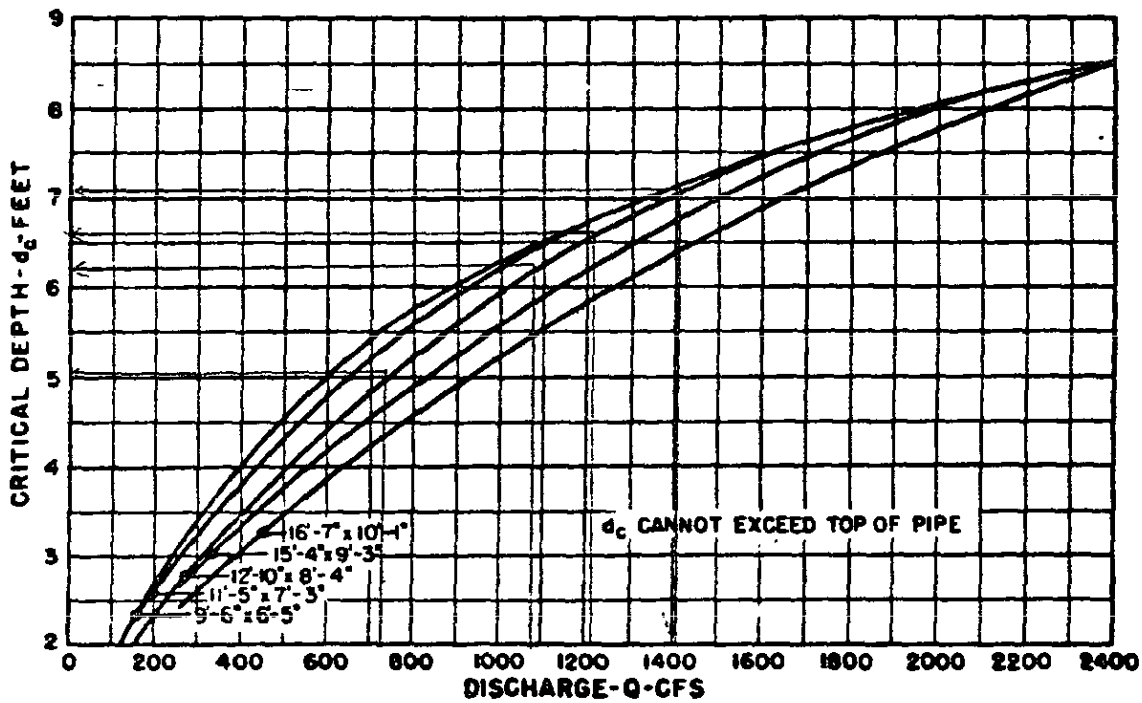
$$Q_c = A\sqrt{\frac{2gH_c}{xK\phi R}} = 77\sqrt{\frac{64.4}{2.25}}\,H_c^{1/2} = 411.95\,H_c^{1/2}$$



*ADDITIONAL SIZES NOT DIMENSIONED ARE LISTED IN FABRICATOR'S CATALOG

BUREAU OF PUBLIC ROADS JAN. 1963

HEADWATER DEPTH FOR C. M. PIPE-ARCH CULVERTS WITH INLET CONTROL



BUREAU OF PUBLIC ROADS

JAN. 1964

CRITICAL DEPTH
STRUCTURAL PLATE
C.M. PIPE-ARCH

18 INCH CORNER RADIUS

5670-03 CITY OF FARMINGTON HILLS
TARABUSI CREEK
8 MILE ROAD CULVERT 12.5 FT BY 7.83 FT CMP ARCH PIPE
PAVED SURFACE
WEIR BREADTH = 81 FT.
NUMBER OF POINTS= 12

STATION	ELEVATION
0.0	705.40
100.00	704.40
200.00	703.00
300.00	701.30
400.00	700.10
494.00	699.70
506.00	699.70
600.00	700.40
700.00	702.00
800.00	703.50
900.00	704.80
1000.00	705.60

WIDTH OF ROADWAY= 81.00
ROAD SURFACE:PAVED

ELEVATION FEET	FLOW CFS	CAV	TOP WIDTH FEET	AREA SFT
699.70	0.0	0.0	0.	0.0
699.80	2.47	2.903	49.	3.04
699.90	10.94	2.929	86.	9.77
700.00	27.44	2.946	123.	20.18
700.10	53.60	2.960	159.	34.26
700.20	90.26	2.978	181.	51.28
700.30	137.12	2.988	203.	70.48
700.40	194.30	2.995	225.	91.83
700.50	261.88	3.004	239.	115.02
700.60	339.44	3.009	254.	139.65
700.70	427.01	3.012	269.	165.74
700.80	524.56	3.016	283.	193.29
700.90	632.14	3.018	298.	222.28
701.00	749.89	3.020	312.	252.73
701.10	877.90	3.021	327.	284.63
701.20	1016.40	3.022	341.	317.99
701.30	1165.49	3.023	356.	352.81
701.40	1325.28	3.025	368.	388.96
701.50	1495.67	3.026	380.	426.32

Johnson & Anderson, Inc.
Consulting Engineers
P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

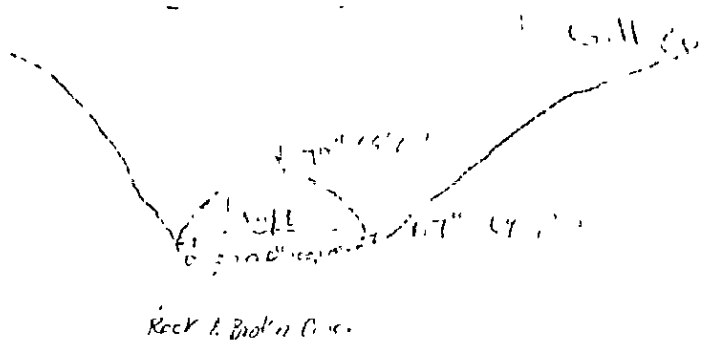
HYDRAULIC STRUCTURAL DATA

Code No. 5670-[illegible]

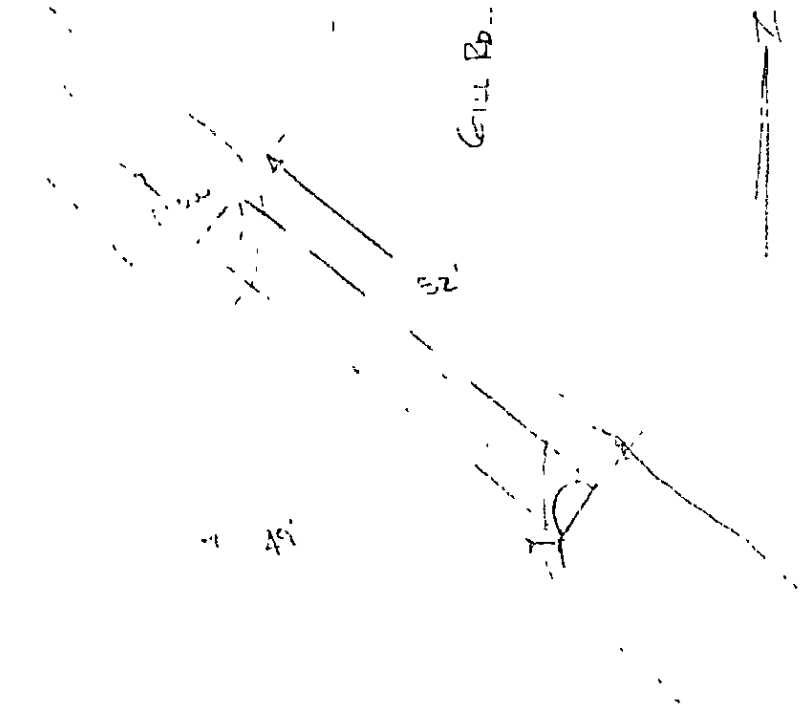
Job Name: CITY OF FARMINGTON HILLS, FIR.			By: [illegible]
Date: Aug. 23, 1977	Feature: [illegible] Pipe		Water Course: [illegible]
Remarks: Pipe [illegible] Gill Rd, [illegible] Pipe Has Some [illegible] [illegible] Upstream and Downstream of Culvert and on both ends [illegible] is [illegible]			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 705.9	Length: 52'	Width of Deck: 117"	Skew:

FIELD SKETCH

Profile View



Plan View



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P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

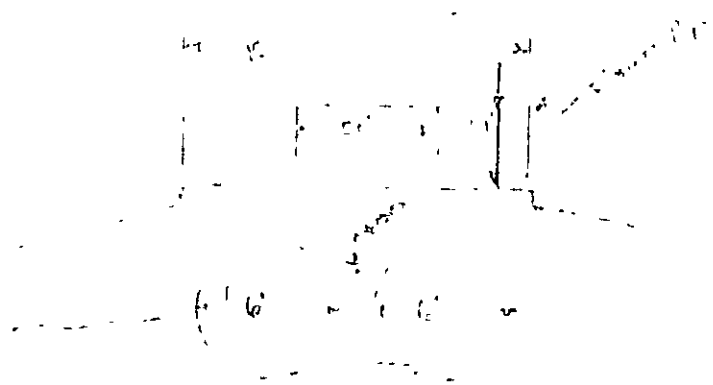
Sheet 1

Code No. [illegible]

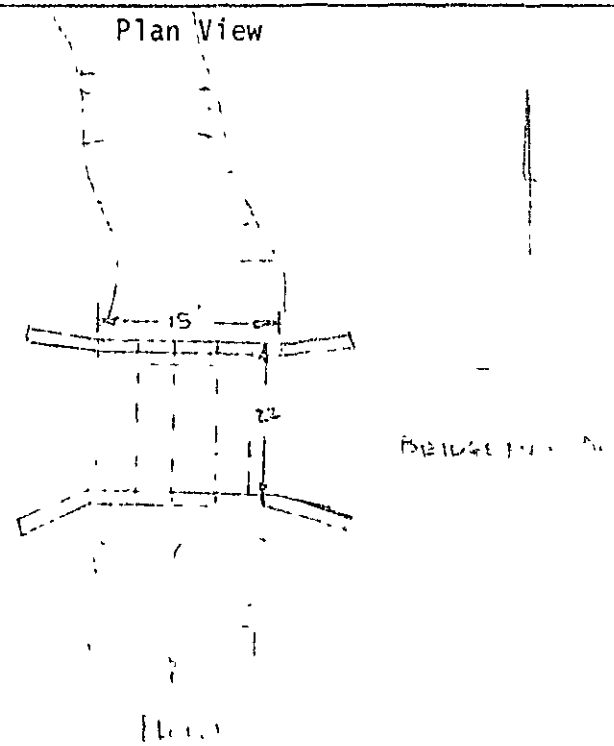
Job Name: City of [illegible] Hills			By: R. Moses
Date: [illegible]	Feature: [illegible]		Water Course: TARABICK [illegible]
Remarks: Light [illegible] [illegible]			
[illegible]			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 701.1	Length: 15'	Width of Deck: 22'	Skew:

FIELD SKETCH

Profile View



Plan View



Culvert Feature - Twin - 6' Diameter CMP's

Area - $A = 56.55\ ft^2$

Hydraulic Radius - $R = 1.50\ ft.$

Length - $L = 22\ ft.$

Manning Coefficient - $n = 0.027$ (CMP)

Max. Depth - $D = 6.0\ ft$

$BWC = \frac{A}{D} = 9.43\ ft.$

Entrance Loss - $K_e = 0.50$ (with Wingwalls & Headwall)

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 0.27$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.77$$

Weir Coefficient - $C = 2.90$ (Gravel Road ; $H \approx 1.4$ ft for 100-year flood)

Johnson & Anderson, Inc.
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P.O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

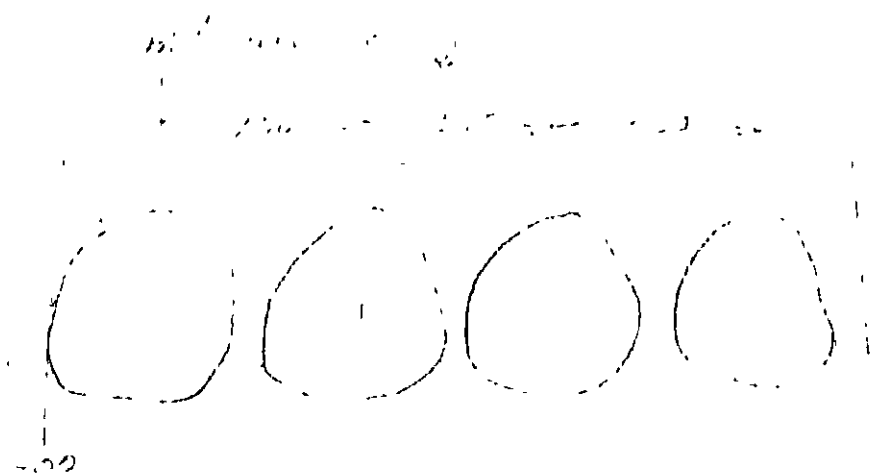
HYDRAULIC STRUCTURAL DATA

Code No. [illegible]

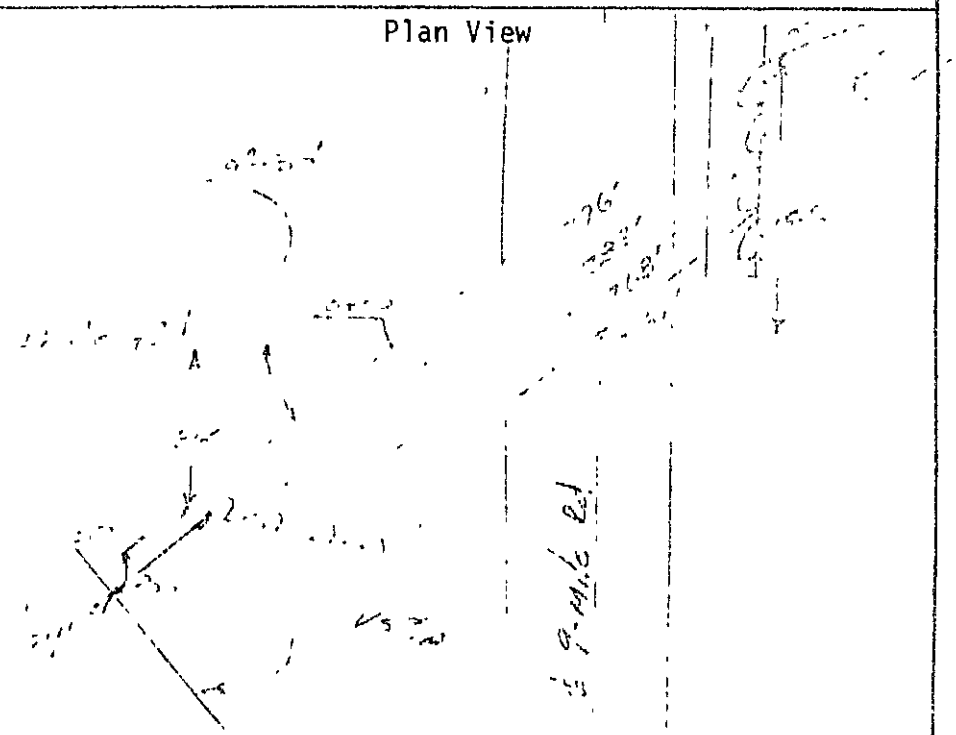
Job Name: [illegible]			By: [illegible]
Date: 11-23-[illegible]	Feature: [illegible]		Water Course: [illegible]
Remarks: Draft [illegible]			
Width of Piers: [illegible]	Pier Shape: [illegible]	No. of Piers: [illegible]	Area: [illegible]
Water Elevation: [illegible]	Length: [illegible]	Width of Deck: [illegible]	Skew:

FIELD SKETCH

Profile View



Plan View



Culvert Feature - Four 8'10" x 6'1" CMP

Total Area - $A = 172$ ft.²

Hydraulic Radius - $R = 1.77$ ft.

Max. Depth - $D = 6.1$ ft.

$BWC = \frac{A}{D} = 28.20$ ft.

Culvert Length (Average) - $L = 275$ ft.

Manning Coefficient - $n = 0.032$

Entrance Loss - $K_e = 0.70$ (Mitered to Conform to Fill Slope)

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 3.83$$

$$\Sigma K \phi R = 1 + K_e + K_f = 5.53$$

Weir Coefficient - $C = 3.04$ (Pressure flow only ; Any Arbitrary Value)

Johnson & Anderson, Inc.
Consulting Engineers
P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

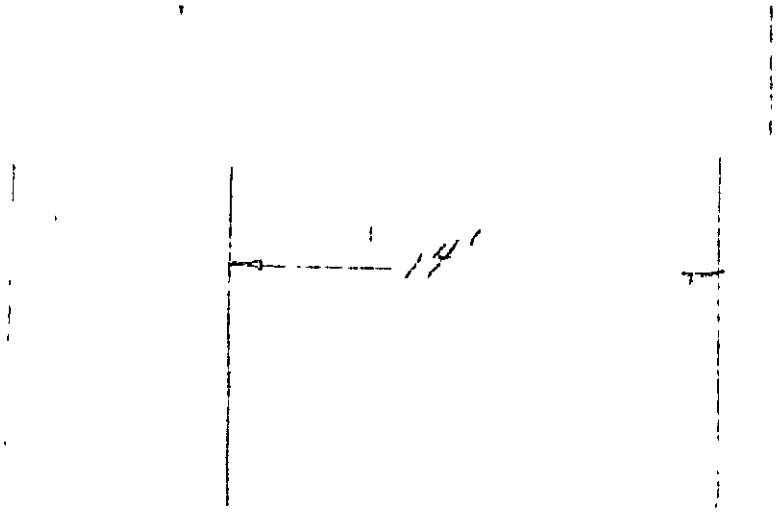
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-5

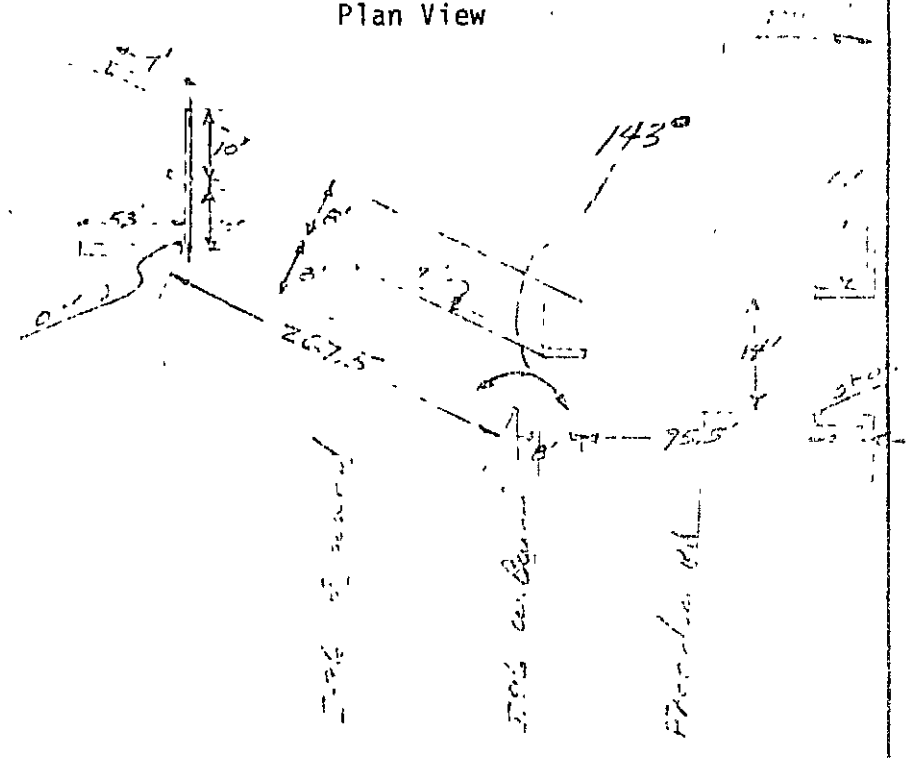
Job Name: Farmington Hills			By: C. Norberg
Date: 11-13-76	Feature: Gone Pipe Culv		Water Course: Tarabusi Drain
Remarks: I-96 & Freedom Rd Bridge			
Width of Piers: ———	Pier Shape: ———	No. of Piers: ———	Area: ———
Water Elevation: 725.3	Length:	Width of Deck:	Skew: Shown Below

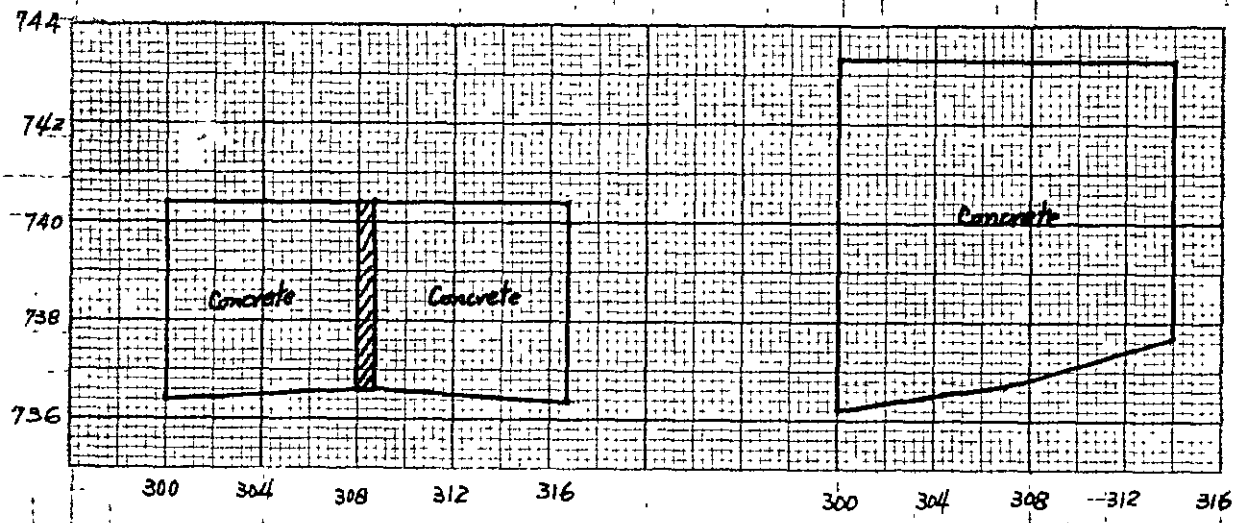
FIELD SKETCH

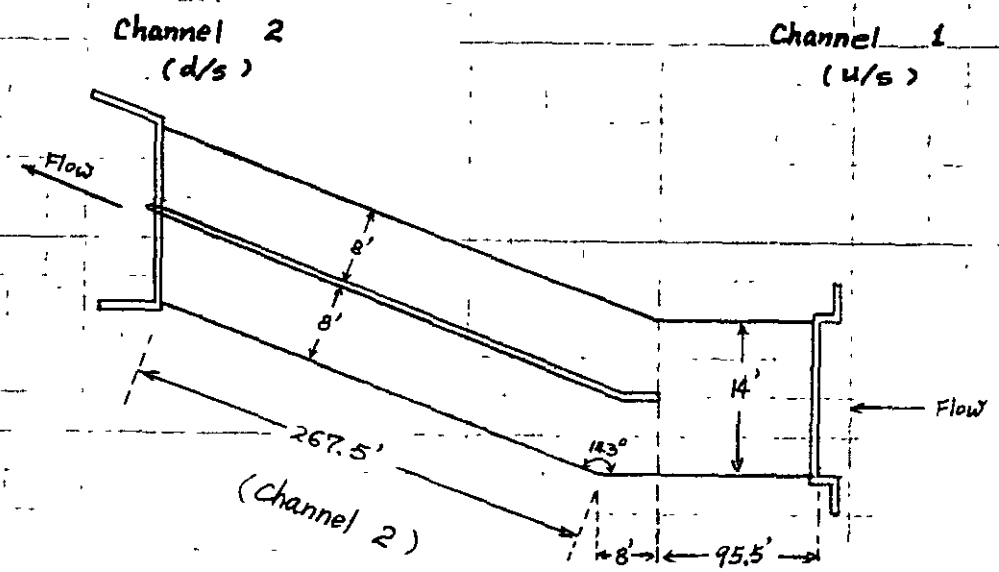
Profile View



Plan View







$$\text{Total Losses} = (K_e + K_{f_1})\frac{V_1^2}{2g} + (K_c + K_b + K_{f_2} + 1)\frac{V_2^2}{2g} \quad \text{----(1)}$$

Where: K_e : Entrance Loss

K_{f_1} & K_{f_2} : Frictional loss of Channel 1 and 2, respectively.

K_c : Transation (Contraction) Loss.

K_b : Bend Loss

1 : Exit Loss

Determine "Equivalent Length" using Channel 1 as basis: ie.,

$$\text{Total Losses} = (1 + K_e + K_f)\frac{V_1^2}{2g}$$

$$= \left(1 + K_e + \frac{29.1\, n_1^2 L_e}{R_1^{4/3}}\right)\frac{Q^2}{2gA_1^2} \quad \text{------(2)}$$

Also, Eq (1) can be rewritten as

$$\text{Total Loss} = \left(K_e + \frac{29.1\, n_1^2 L_1}{R_1^{4/3}}\right)\frac{Q^2}{2gA_1^2} + \left(K_c + K_b + \frac{29.1\, n_2^2 L_2}{R_2^{4/3}} + 1\right)\frac{Q^2}{2gA_2^2} \quad \text{----(3}$$

Equate Eqs. (2) and (3),

$$\left(1 + \frac{29.1\, n_1^2 L_e}{R_1^{4/3}}\right)\frac{1}{A_1^2}$$

$$= \frac{29.1\, n_1^2 L_1}{R_1^{4/3}}\,\frac{1}{A_1^2} + \left(K_c + K_b + \frac{29.1\, n_2^2 L_2}{R_2^{4/3}} + 1\right)\frac{1}{A_2^2}$$

Or,

$$(L_e - L_1)\frac{29.1\, n_1^2}{R_1^{4/3}} = \left(K_c + K_b + \frac{29.1\, n_2^2 L_2}{R_2^{4/3}} + 1\right)\frac{A_1^2}{A_2^2} - 1$$

or,

$$\boxed{L_e = L_1 + \left\{\left(K_c + K_b + \frac{29.1\, n_2^2 L_2}{R_2^{4/3}} + 1\right)\frac{A_1^2}{A_2^2} - 1\right\}\frac{R_1^{4/3}}{29.1\, n_1^2}}$$

where : $L_1 = 95.5$ ft

$A_1 = 103.6$ ft^2

$R_1 = 2.42$ ft

$n_1 = 0.018$

$L_2 = 272.0$ ft

$A_2 = 96.0$ ft^2

$R_2 = 1.71$ ft

$n_2 = 0.015$

$K_e = 0.70$

K_c calculations : (From Table 6-10 in "Handbook of Hydraulics" by King)

$d_1/d_2 = \sqrt{A_1/A_2} = 1.04$

$V_2 = Q/A_2 = 930/96 = 9.69$ ft/sec (100-year flood)

$\Rightarrow K_c = 0.04$

K_b calculations : (From Hydraulic Design Chart 228-2/1)

$$\mathbb{R} = \frac{V_2(4R_2)}{\nu} = \frac{9.69 \times 4 \times 1.71}{10^{-5}} = 6.63 \times 10^6$$

$\alpha = 180° - 143° = 37°$

$\Rightarrow K_b = 0.15$

Therefore :

$$L_e = 95.5 + \left\{\left(0.04 + 0.15 + \frac{29.1 \times (0.015)^2 \times 272}{1.71^{4/3}} + 1\right)\left(\frac{103.6}{96.0}\right)^2 - 1\right\} \frac{2.42^{4/3}}{29.1\,(0.018)^2}$$

$$= 95.5 + \{(0.19 + 0.87 + 1) \times 1.1646 - 1\} \times 344.6$$

$$= 581.63 \text{ ft}$$

Summarily,

$A = 103.6 \ ft^2$

$R = 2.42 \ ft$

$n = 0.018 \ ft$

$L = 581.63 \ ft$

$K_e = 0.70$

$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 1.69$

$BWC = 14.0 \ ft.$

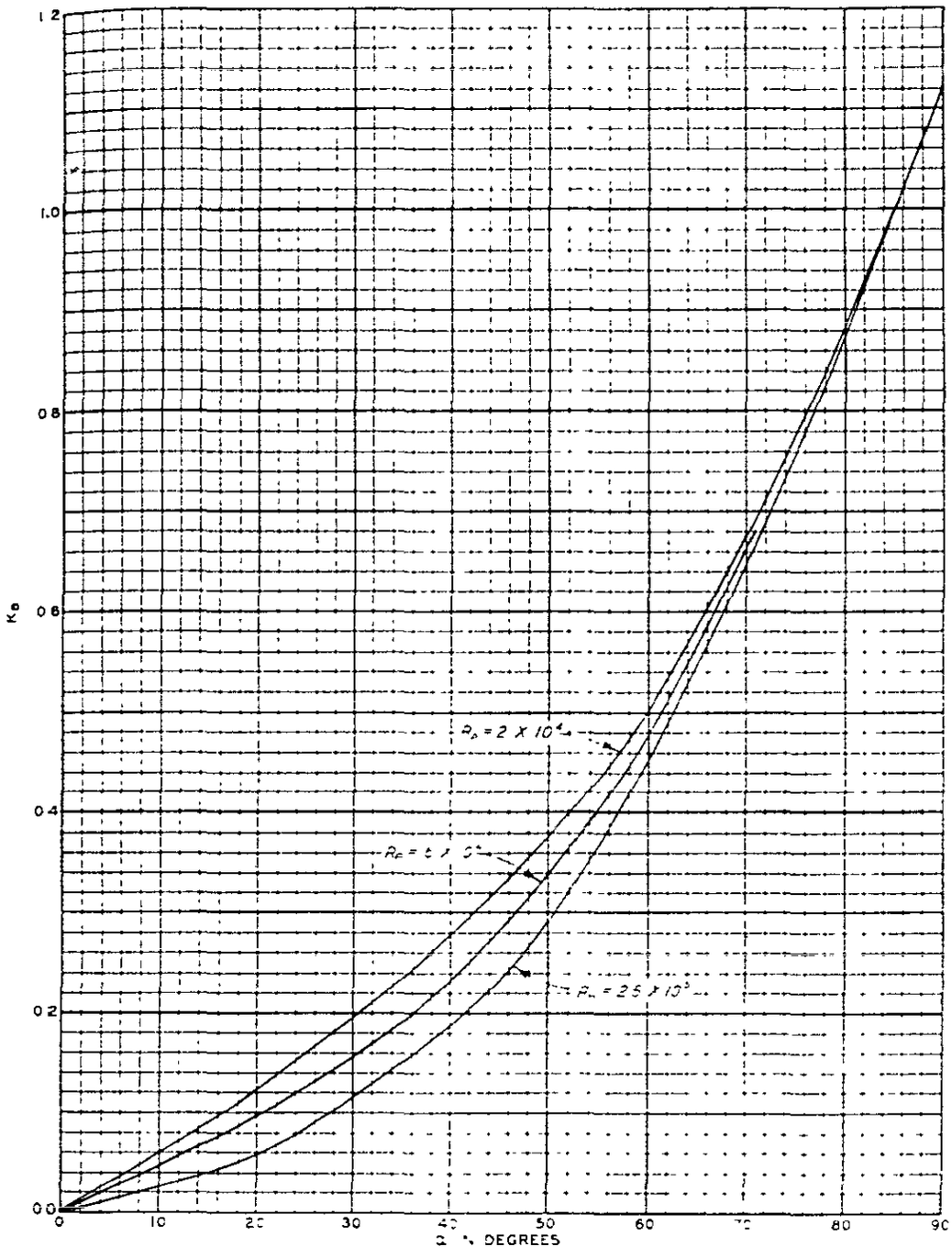
$XK\Phi R = 1 + K_e + K_f = 3.39$

$C = 3.00$ (Pressure Flow only, Arbitrary Value)

For $Q = 930$ cfs

$V = \frac{Q}{A} = 8.98$

$XK\Phi R \frac{V^2}{2g} = 4.25$



BASIC EQUATION

$$K_B = \frac{h_L}{V^2/2g}$$

WHERE K_B = BEND LOSS COEFFICIENT

h_L = HEAD LOSS DUE TO BEND

SINGLE MITER

BEND LOSS COEFFICIENTS

K_B VS α

HYDRAULIC DESIGN CHART [illegible]

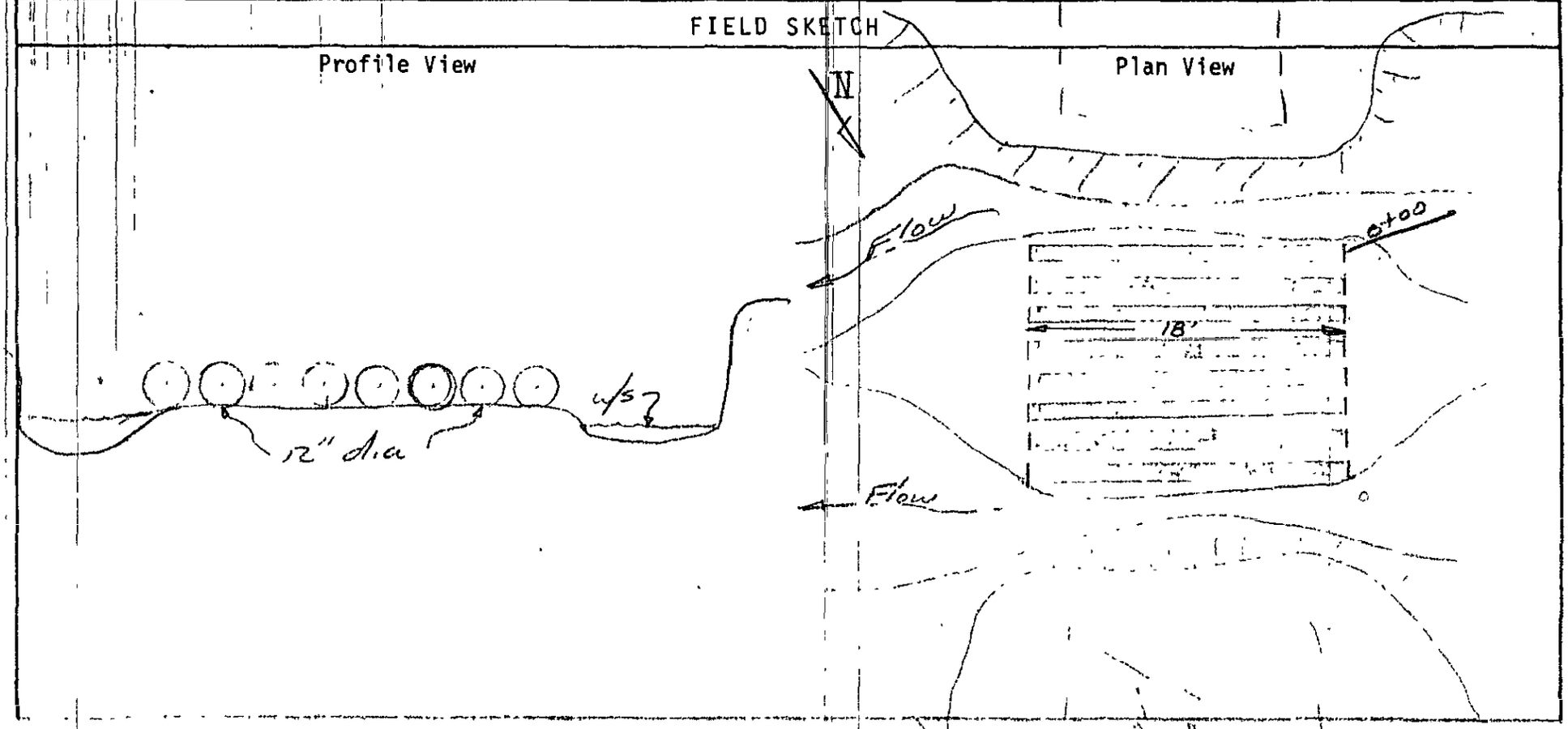
Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

Code No. 5670-03 BS^{t}

Job Name: Farmington Hills		By: George Norberg	
Date: 11-29-76	Feature: 8-12" Conc Pipe	Water Course: Tarabusi Drain	
Remarks: All 8. Pipe are Completly Exposed & Begining To Fall Apart @ Joints			
400' U.S from U.S.E.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 745.7	Length: 18'	Width of Deck: —	Skew: —

FIELD SKETCH



00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: TARABUSI CREEK

4) DOCUMENT TYPE: SUMMARY

00BREAK00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

TARABUSI CREEK

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	AV	HL	OLOSS	VOL	DEPTH	TOPWID
4.78	12.00	0.00	0.00	689.20	730.00	694.34	2.44	0.00	0.00	730.00	5.14	12.00
4.78	12.00	0.00	0.00	689.20	1070.00	694.85	.21	0.00	0.00	756.92	5.65	211.04
4.78	12.00	0.00	0.00	689.20	1210.00	695.11	.21	0.00	0.00	849.00	5.91	221.22
4.78	12.00	0.00	0.00	689.20	1410.00	695.46	.20	0.00	0.00	932.05	6.26	234.93
4.79	81.00	699.70	697.00	689.20	730.00	695.99	1.74	.74	.21	730.00	6.79	12.00
4.79	81.00	699.70	697.00	689.20	1070.00	694.30	3.73	.24	0.00	1070.00	5.10	43.06
4.79	81.00	699.70	697.00	689.20	1210.00	695.68	3.54	.21	0.00	1210.00	6.48	56.97
4.79	81.00	699.70	697.00	689.20	1410.00	695.92	4.59	.21	0.00	1410.00	6.72	59.32
4.79	1.00	0.00	0.00	689.20	730.00	696.65	1.09	.01	.20	730.00	7.65	12.00
4.79	1.00	0.00	0.00	689.20	1070.00	700.12	.11	.00	1.09	949.42	10.92	166.37
4.79	1.00	0.00	0.00	689.20	1210.00	700.35	.12	.00	1.03	1051.11	11.16	216.57
4.79	1.00	0.00	0.00	689.20	1410.00	700.62	.15	.00	1.33	1217.12	11.42	257.08
4.93	725.00	0.00	0.00	693.60	640.00	699.54	.06	1.36	.31	450.73	5.94	198.79
4.93	725.00	0.00	0.00	693.60	940.00	700.51	.07	.34	.01	593.65	6.91	240.03
4.93	725.00	0.00	0.00	693.60	1070.00	700.79	.08	.37	.01	652.61	7.19	241.61
4.93	725.00	0.00	0.00	693.60	1240.00	701.13	.08	.42	.02	728.33	7.53	243.44
5.01	415.00	0.00	0.00	695.40	640.00	699.99	.29	.57	.11	539.67	4.59	132.27
5.01	415.00	0.00	0.00	695.40	940.00	700.90	.26	.49	.09	759.50	5.50	199.24
5.01	415.00	0.00	0.00	695.40	1070.00	701.19	.26	.49	.09	825.60	5.79	219.59
5.01	415.00	0.00	0.00	695.40	1240.00	701.53	.25	.49	.09	903.42	6.13	247.93
5.09	415.00	0.00	0.00	697.20	640.00	701.72	.31	1.74	.01	594.36	4.52	125.40
5.09	415.00	0.00	0.00	697.20	940.00	702.34	.37	1.49	.05	804.27	5.14	173.61
5.09	415.00	0.00	0.00	697.20	1070.00	702.57	.38	1.44	.06	882.96	5.37	189.83
5.09	415.00	0.00	0.00	697.20	1240.00	702.84	.40	1.38	.07	979.57	5.64	209.20
5.23	725.00	0.00	0.00	700.30	640.00	704.74	.28	2.99	.01	520.29	4.44	129.52
5.23	725.00	0.00	0.00	700.30	940.00	705.41	.32	3.02	.01	688.41	5.11	160.72
5.23	725.00	0.00	0.00	700.30	1070.00	705.65	.34	3.02	.01	756.09	5.35	172.43
5.23	725.00	0.00	0.00	700.30	1240.00	705.93	.36	3.04	.01	840.70	5.63	186.28
5.29	320.00	0.00	0.00	702.50	640.00	706.36	.51	1.73	.12	569.01	3.86	106.25
5.29	320.00	0.00	0.00	702.50	940.00	706.99	.58	1.70	.13	753.84	4.49	131.46
5.29	320.00	0.00	0.00	702.50	1070.00	707.22	.60	1.70	.13	833.58	4.72	141.03
5.29	320.00	0.00	0.00	702.50	1240.00	707.50	.62	1.70	.13	924.43	5.00	154.93
5.32	160.00	0.00	0.00	703.60	640.00	707.73	.74	1.48	.11	571.99	4.13	169.62
5.32	160.00	0.00	0.00	703.60	940.00	708.31	.72	1.39	.07	710.85	4.71	223.82
5.32	160.00	0.00	0.00	703.60	1070.00	708.52	.68	1.34	.04	753.13	4.92	234.36
5.32	160.00	0.00	0.00	703.60	1240.00	708.77	.64	1.28	.01	805.88	5.17	246.46
5.35	160.00	0.00	0.00	704.70	640.00	709.29	.39	1.10	.11	500.07	4.59	218.79
5.35	160.00	0.00	0.00	704.70	940.00	709.79	.40	1.08	.09	623.55	5.09	242.99
5.35	160.00	0.00	0.00	704.70	1070.00	709.92	.44	1.10	.07	682.09	5.22	249.04
5.35	150.00	0.00	0.00	704.70	1240.00	710.10	.47	1.11	.05	750.56	5.40	257.33

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	WCH	DEPTH	TOPWID
5.35	1.00	0.00	0.00	704.70	640.00	709.55	.19	.00	.05	415.84	4.85	230.05
5.35	1.00	0.00	0.00	704.70	940.00	710.10	.18	.00	.07	479.68	5.40	257.07
5.35	1.00	0.00	0.00	704.70	1070.00	710.27	.18	.00	.08	514.25	5.57	265.16
5.35	1.00	0.00	0.00	704.70	1240.00	710.48	.18	.00	.09	555.96	5.78	275.16
5.36	52.00	711.60	709.80	705.00	640.00	712.27	.02	2.56	0.00	254.34	7.27	311.97
5.36	52.00	711.60	709.80	705.00	940.00	712.54	.03	2.34	0.00	350.25	7.54	347.77
5.36	52.00	711.60	709.80	705.00	1070.00	712.63	.04	2.23	0.00	389.90	7.68	357.78
5.36	52.00	711.60	709.80	705.00	1240.00	712.81	.05	2.20	0.00	439.86	7.81	369.32
5.36	1.00	0.00	0.00	705.00	640.00	712.27	.04	.00	.01	326.26	7.27	312.07
5.36	1.00	0.00	0.00	705.00	940.00	712.57	.07	.00	.02	455.09	7.57	346.91
5.36	1.00	0.00	0.00	705.00	1070.00	712.66	.08	.00	.02	509.67	7.66	355.97
5.36	1.00	0.00	0.00	705.00	1240.00	712.78	.10	.00	.02	577.97	7.78	367.09
5.41	300.00	0.00	0.00	705.50	640.00	712.38	.07	.13	.02	323.56	6.89	138.69
5.41	300.00	0.00	0.00	705.50	940.00	712.75	.13	.21	.03	458.45	7.25	146.33
5.41	300.00	0.00	0.00	705.50	1070.00	712.88	.15	.25	.04	515.41	7.38	149.08
5.41	300.00	0.00	0.00	705.50	1240.00	713.04	.19	.30	.04	588.51	7.54	152.45
5.46	230.00	0.00	0.00	705.80	640.00	712.55	.04	.13	.01	227.79	6.75	185.35
5.46	230.00	0.00	0.00	705.80	940.00	713.03	.06	.19	.02	315.53	7.23	191.89
5.46	230.00	0.00	0.00	705.80	1070.00	713.21	.07	.22	.02	351.85	7.41	194.38
5.46	230.00	0.00	0.00	705.80	1240.00	713.44	.09	.26	.03	397.92	7.64	197.49
5.51	250.00	0.00	0.00	706.35	640.00	712.66	.05	.12	.01	239.95	6.31	175.80
5.51	250.00	0.00	0.00	706.35	940.00	713.20	.08	.18	.01	330.37	6.85	186.69
5.51	250.00	0.00	0.00	706.35	1070.00	713.40	.09	.20	.01	366.70	7.05	189.48
5.51	250.00	0.00	0.00	706.35	1240.00	713.65	.10	.23	.01	412.59	7.30	192.94
5.55	250.00	0.00	0.00	706.90	640.00	712.30	.44	.33	.20	581.45	5.90	71.22
5.55	250.00	0.00	0.00	706.90	940.00	713.37	.64	.46	.28	820.23	6.47	91.56
5.55	250.00	0.00	0.00	706.90	1070.00	713.58	.72	.50	.32	918.48	6.68	98.71
5.55	250.00	0.00	0.00	706.90	1240.00	713.85	.81	.55	.36	1040.71	6.95	107.95
5.55	1.00	0.00	0.00	706.90	640.00	712.89	.38	.00	.02	559.21	5.99	74.48
5.55	1.00	0.00	0.00	706.90	940.00	713.56	.50	.00	.04	770.05	6.66	94.18
5.55	1.00	0.00	0.00	706.90	1070.00	713.85	.55	.00	.06	850.64	6.95	107.81
5.55	1.00	0.00	0.00	706.90	1240.00	714.20	.55	.00	.08	946.37	7.30	120.06
5.56	22.00	714.50	712.90	706.90	640.00	715.12	.07	1.92	0.00	422.17	8.22	167.66
5.56	22.00	714.50	712.90	706.90	940.00	715.71	.10	1.75	0.00	564.54	8.81	176.13
5.56	22.00	714.50	712.90	706.90	1070.00	715.92	.11	1.65	0.00	623.26	9.02	179.05
5.56	22.00	714.50	712.90	706.90	1240.00	716.15	.13	1.53	0.00	699.07	9.25	182.27
5.56	1.00	0.00	0.00	706.90	640.00	715.11	.09	.00	.01	473.53	8.21	167.60
5.56	1.00	0.00	0.00	706.90	940.00	715.70	.14	.00	.02	647.33	8.80	175.86
5.56	1.00	0.00	0.00	706.90	1070.00	715.90	.16	.00	.02	719.43	9.00	178.73
5.56	1.00	0.00	0.00	706.90	1240.00	716.12	.19	.00	.03	812.50	9.22	181.85

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	ACH	DEPTH	TOPWID
5.57	50.00	0.00	0.00	707.00	640.00	715.23	.01	.01	.03	295.75	8.23	222.26
5.57	50.00	0.00	0.00	707.00	940.00	715.87	.02	.02	.04	422.05	8.97	228.58
5.57	50.00	0.00	0.00	707.00	1070.00	716.09	.02	.02	.04	475.45	9.09	230.93
5.57	50.00	0.00	0.00	707.00	1240.00	716.35	.03	.02	.05	544.78	9.35	233.48
5.62	310.00	0.00	0.00	709.50	640.00	715.26	.09	.07	.04	504.49	5.76	162.76
5.62	310.00	0.00	0.00	709.50	940.00	715.92	.12	.10	.05	690.28	6.42	182.37
5.62	310.00	0.00	0.00	709.50	1070.00	716.15	.13	.11	.05	767.27	6.65	189.30
5.62	310.00	0.00	0.00	709.50	1240.00	716.42	.15	.13	.06	866.10	6.92	197.19
5.90	1450.00	0.00	0.00	712.60	640.00	716.85	.10	1.59	.00	345.54	4.25	189.67
5.90	1450.00	0.00	0.00	712.60	940.00	717.63	.10	1.69	.01	448.65	5.03	204.99
5.90	1450.00	0.00	0.00	712.60	1070.00	717.92	.10	1.74	.01	491.99	5.32	210.66
5.90	1450.00	0.00	0.00	712.60	1240.00	718.27	.11	1.80	.01	547.42	5.67	217.38
5.95	250.00	0.00	0.00	714.00	640.00	717.43	.37	.72	.14	529.95	3.43	172.57
5.95	250.00	0.00	0.00	714.00	940.00	718.13	.31	.61	.10	650.06	4.13	272.07
5.95	250.00	0.00	0.00	714.00	1070.00	718.41	.28	.57	.09	686.70	4.41	287.89
5.95	250.00	0.00	0.00	714.00	1240.00	718.74	.25	.53	.07	730.47	4.74	306.04
5.99	250.00	0.00	0.00	715.40	640.00	718.97	.36	1.52	.00	575.11	3.57	69.26
5.99	250.00	0.00	0.00	715.40	940.00	719.44	.49	1.40	.09	806.08	4.04	160.28
5.99	250.00	0.00	0.00	715.40	1070.00	719.61	.54	1.33	.13	898.10	4.21	186.93
5.99	250.00	0.00	0.00	715.40	1240.00	719.81	.60	1.24	.17	1010.07	4.41	219.68
6.14	787.50	0.00	0.00	717.20	560.00	721.59	.12	2.31	.07	450.99	4.39	216.40
6.14	787.50	0.00	0.00	717.20	820.00	722.25	.12	2.33	.11	595.09	5.05	282.65
6.14	787.50	0.00	0.00	717.20	930.00	722.49	.12	2.34	.13	644.90	5.29	299.45
6.14	787.50	0.00	0.00	717.20	1080.00	722.76	.13	2.34	.14	709.35	5.56	314.41
6.29	787.50	0.00	0.00	718.80	560.00	723.24	.18	1.64	.03	509.79	4.44	169.15
6.29	787.50	0.00	0.00	718.80	820.00	723.80	.20	1.59	.04	679.76	5.00	186.10
6.29	787.50	0.00	0.00	718.80	930.00	724.01	.21	1.56	.04	746.92	5.21	190.25
6.29	787.50	0.00	0.00	718.80	1080.00	724.25	.23	1.54	.05	837.04	5.45	195.21
6.48	980.00	0.00	0.00	721.00	560.00	726.65	.23	3.44	.03	334.26	5.65	72.00
6.48	980.00	0.00	0.00	721.00	820.00	727.30	.31	3.55	.05	466.40	6.30	72.00
6.48	980.00	0.00	0.00	721.00	930.00	727.53	.35	3.59	.07	521.43	6.53	72.00
6.48	980.00	0.00	0.00	721.00	1080.00	727.84	.39	3.67	.08	595.61	6.84	72.00
6.49	50.00	0.00	0.00	721.80	560.00	726.86	.12	.07	.03	560.00	5.06	46.90
6.49	50.00	0.00	0.00	721.80	820.00	727.54	.19	.05	.04	820.00	5.74	46.90
6.49	50.00	0.00	0.00	721.80	930.00	727.79	.22	.09	.04	930.00	5.99	46.90
6.49	50.00	0.00	0.00	721.80	1080.00	728.10	.27	.10	.04	1080.00	6.30	46.90
6.54	276.00	731.80	727.70	722.50	560.00	727.13	.37	.40	.13	560.00	4.63	46.90
6.54	276.00	731.80	727.70	722.50	820.00	729.37	.13	1.75	0.00	820.00	6.87	46.90
6.54	276.00	731.80	727.70	722.50	930.00	730.17	.13	2.29	0.00	930.00	7.67	46.90
6.54	276.00	731.80	727.70	722.50	1080.00	731.33	.13	3.13	0.00	1080.00	8.83	46.90

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	WCA	DEPTH	TOPWID
6.55	50.00	0.00	0.00	722.40	560.00	727.39	.35	.23	.01	486.45	4.99	95.79
6.55	50.00	0.00	0.00	722.40	820.00	729.39	.14	.03	.00	524.5	6.99	110.00
6.55	50.00	0.00	0.00	722.40	930.00	730.22	.11	.03	.01	545.09	7.82	110.00
6.55	50.00	0.00	0.00	722.40	1080.00	731.44	.08	.02	.01	577.36	9.04	110.00
6.61	305.00	0.00	0.00	724.20	560.00	728.83	.41	1.45	.03	429.02	4.63	122.63
6.61	305.00	0.00	0.00	724.20	820.00	729.87	.21	.91	.03	451.79	5.67	247.37
6.61	305.00	0.00	0.00	724.20	930.00	730.54	.10	.31	.00	399.95	6.34	326.35
6.61	305.00	0.00	0.00	724.20	1080.00	731.64	.04	.15	.01	326.76	7.44	357.37
6.67	305.00	0.00	0.00	726.00	560.00	730.69	.29	1.71	.04	332.56	4.69	195.31
6.67	305.00	0.00	0.00	726.00	820.00	731.02	.33	1.21	.06	413.14	5.02	231.07
6.67	305.00	0.00	0.00	726.00	930.00	731.20	.31	.75	.10	429.33	5.20	246.99
6.67	305.00	0.00	0.00	726.00	1080.00	731.68	.14	.29	.15	369.93	5.68	287.66
6.72	300.00	0.00	0.00	727.80	560.00	732.42	.18	1.59	.03	225.61	4.62	222.28
6.72	300.00	0.00	0.00	727.80	820.00	732.84	.17	1.61	.05	256.45	5.04	250.81
6.72	300.00	0.00	0.00	727.80	930.00	732.95	.18	1.58	.04	273.33	5.15	253.17
6.72	300.00	0.00	0.00	727.80	1080.00	732.98	.23	1.14	.04	312.54	5.18	253.74
6.83	575.00	0.00	0.00	729.40	560.00	734.27	.08	1.72	.03	179.94	4.87	205.30
6.83	575.00	0.00	0.00	729.40	820.00	734.68	.10	1.76	.02	226.72	5.28	228.35
6.83	575.00	0.00	0.00	729.40	930.00	734.84	.11	1.80	.02	243.37	5.44	233.21
6.83	575.00	0.00	0.00	729.40	1080.00	735.07	.11	1.95	.03	262.04	5.67	239.63
6.86	165.00	0.00	0.00	730.60	560.00	734.73	.45	.62	0.00	336.16	4.13	193.94
6.86	165.00	0.00	0.00	730.60	820.00	735.19	.55	.63	.12	378.83	4.59	221.89
6.86	165.00	0.00	0.00	730.60	930.00	735.36	.33	.63	.11	395.08	4.76	235.52
6.86	165.00	0.00	0.00	730.60	1080.00	735.58	.20	.60	.09	413.73	4.98	245.45
6.89	165.00	0.00	0.00	731.50	560.00	736.05	.43	1.25	.01	371.79	4.55	225.57
6.89	165.00	0.00	0.00	731.50	820.00	736.39	.45	1.25	.05	453.03	4.89	250.92
6.89	165.00	0.00	0.00	731.50	930.00	736.52	.45	1.22	.06	480.45	5.02	250.94
6.89	165.00	0.00	0.00	731.50	1080.00	736.68	.44	1.17	.07	515.13	5.18	266.64
6.92	165.00	0.00	0.00	732.50	560.00	737.13	.52	1.13	.04	415.91	4.63	223.29
6.92	165.00	0.00	0.00	732.50	820.00	737.56	.47	1.13	.01	490.12	5.06	251.92
6.92	165.00	0.00	0.00	732.50	930.00	737.70	.45	1.18	.00	517.88	5.20	258.58
6.92	165.00	0.00	0.00	732.50	1080.00	737.87	.45	1.19	.00	555.26	5.37	265.46
6.96	165.00	0.00	0.00	733.40	560.00	738.26	.55	1.14	.01	443.84	4.86	200.78
6.96	165.00	0.00	0.00	733.40	820.00	738.67	.54	1.14	.03	537.90	5.27	203.33
6.96	165.00	0.00	0.00	733.40	930.00	738.81	.54	1.15	.04	575.23	5.41	204.20
6.96	165.00	0.00	0.00	733.40	1080.00	738.99	.54	1.17	.05	621.62	5.59	205.34
6.99	185.00	0.00	0.00	733.90	560.00	739.55	.28	.94	.08	405.84	5.65	110.00
6.99	185.00	0.00	0.00	733.90	820.00	739.97	.37	1.09	.05	538.14	6.07	110.00
6.99	185.00	0.00	0.00	733.90	930.00	740.13	.41	1.15	.04	590.70	6.23	110.00
6.99	185.00	0.00	0.00	733.90	1080.00	740.31	.47	1.22	.02	661.55	6.41	110.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	C/SEL	HV	HL	OLOSS	TCH	DEPTH	TOPWID
7.01	92.00	0.00	0.00	734.15	560.00	739.91	.43	.43	.07	478.55	5.75	63.00
7.01	92.00	0.00	0.00	734.15	820.00	740.41	.52	.20	.12	654.32	6.26	63.00
7.01	92.00	0.00	0.00	734.15	930.00	740.59	.64	.51	.14	733.03	6.44	63.00
7.01	92.00	0.00	0.00	734.15	1080.00	740.82	.80	.67	.17	831.70	6.67	63.00
7.02	46.00	0.00	0.00	734.28	560.00	740.14	.51	.27	.04	517.52	5.86	40.00
7.02	46.00	0.00	0.00	734.28	820.00	740.69	.78	.35	.09	732.25	6.41	40.00
7.02	46.00	0.00	0.00	734.28	930.00	740.89	.90	.40	.11	821.73	6.61	40.00
7.02	46.00	0.00	0.00	734.28	1080.00	741.13	1.07	.45	.14	942.27	6.85	40.00
7.03	46.00	0.00	0.00	734.40	560.00	740.35	.48	.16	.01	560.00	5.95	17.00
7.03	46.00	0.00	0.00	734.40	820.00	740.89	.86	.24	.04	820.00	6.49	17.00
7.03	46.00	0.00	0.00	734.40	930.00	741.10	1.04	.23	.07	930.00	6.70	17.00
7.03	46.00	0.00	0.00	734.40	1080.00	741.34	1.30	.32	.11	1090.00	6.94	17.00
7.09	365.00	770.00	743.00	735.90	560.00	740.67	1.09	.63	.31	550.00	4.77	14.00
7.09	365.00	770.00	743.00	735.90	820.00	743.19	1.00	2.44	0.00	820.00	7.29	14.00
7.09	365.00	770.00	743.00	735.90	930.00	744.39	.95	3.21	0.00	930.00	8.49	14.00
7.09	365.00	770.00	743.00	735.90	1080.00	746.19	.87	4.42	1.00	1080.00	10.29	14.00
7.10	6.00	0.00	0.00	736.10	560.00	741.05	1.39	.02	0.00	478.31	4.95	26.00
7.10	6.00	0.00	0.00	736.10	820.00	743.50	.77	.01	.07	605.35	7.40	26.00
7.10	6.00	0.00	0.00	736.10	930.00	744.84	.61	.01	.10	656.20	8.74	26.00
7.10	6.00	0.00	0.00	736.10	1080.00	746.70	.48	.01	.12	730.71	10.60	26.00
7.10	44.00	0.00	0.00	737.80	560.00	742.98	.37	.60	.31	310.69	5.18	84.33
7.10	44.00	0.00	0.00	737.80	820.00	744.48	.20	.24	.17	340.79	6.68	103.40
7.10	44.00	0.00	0.00	737.80	930.00	745.61	.12	.13	.15	329.33	7.81	114.00
7.10	44.00	0.00	0.00	737.80	1080.00	747.30	.07	.07	.12	317.00	9.50	114.00
7.11	40.00	0.00	0.00	738.55	560.00	743.38	.44	.44	.04	310.52	4.73	118.75
7.11	40.00	0.00	0.00	738.65	820.00	744.68	.18	.18	.01	304.75	6.03	135.25
7.11	40.00	0.00	0.00	738.65	930.00	745.72	.10	.09	.01	283.19	7.07	148.36
7.11	40.00	0.00	0.00	738.65	1080.00	747.36	.05	.04	.01	261.36	8.71	163.04
7.13	75.00	0.00	0.00	740.24	560.00	744.80	.58	1.10	0.00	329.23	4.56	106.63
7.13	75.00	0.00	0.00	740.24	820.00	745.19	.39	.64	0.00	417.85	4.94	111.45
7.13	75.00	0.00	0.00	740.24	930.00	745.90	.37	.31	.13	384.93	5.66	120.48
7.13	75.00	0.00	0.00	740.24	1080.00	747.43	.14	.11	.04	334.14	7.19	139.78
7.14	50.00	0.00	0.00	741.30	560.00	745.82	.64	.75	0.00	334.39	4.52	83.12
7.14	50.00	0.00	0.00	741.30	820.00	746.16	.84	.90	0.00	437.44	4.86	87.45
7.14	50.00	0.00	0.00	741.30	930.00	746.41	.80	.59	0.00	461.73	5.11	90.53
7.14	50.00	0.00	0.00	741.30	1080.00	747.50	.57	.19	.11	419.10	5.20	104.42
7.15	50.00	0.00	0.00	742.36	560.00	746.95	.81	.77	0.00	367.32	4.59	61.98
7.15	50.00	0.00	0.00	742.36	820.00	747.42	1.00	.92	0.00	479.96	5.06	67.94
7.15	50.00	0.00	0.00	742.36	930.00	747.59	1.08	.90	0.00	525.10	5.23	70.03
7.15	50.00	0.00	0.00	742.36	1080.00	747.91	1.08	.49	0.00	570.39	5.55	74.15

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	WCH	DEPTH	TOPWID
7.15	35.00	0.00	0.00	743.10	560.00	747.77	.29	.15	.15	560.00	4.67	46.37
7.15	35.00	0.00	0.00	743.10	820.00	748.35	.42	.13	.17	820.00	5.25	47.16
7.15	35.00	0.00	0.00	743.10	930.00	748.55	.49	.21	.19	930.00	5.45	47.25
7.15	35.00	0.00	0.00	743.10	1080.00	748.74	.59	.22	.14	1080.00	5.64	47.52
7.18	150.00	0.00	0.00	743.90	560.00	748.48	.71	.51	0.00	331.69	4.58	83.00
7.18	150.00	0.00	0.00	743.90	820.00	748.95	.77	.60	0.00	410.49	5.06	83.00
7.18	150.00	0.00	0.00	743.90	930.00	749.01	.95	.69	.23	460.15	5.11	83.00
7.18	150.00	0.00	0.00	743.90	1080.00	749.32	.96	.73	.15	489.87	5.42	83.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELX	TOPWID	T.. DIFF	LENGTH
4.779	730.000	694.340	0.000	0.000	0.000	11.999	0.000	12.000
4.779	1070.000	694.850	.510	0.000	0.000	211.141	-194.042	12.000
4.779	1210.000	695.110	.260	0.000	0.000	221.224	-204.225	12.000
4.779	1410.000	695.460	.350	0.000	0.000	234.932	-222.933	12.000
4.795	730.000	695.987	0.000	1.647	0.000	11.999	0.000	81.000
4.795	1070.000	694.303	-1.684	-.547	0.000	43.056	-31.057	81.000
4.795	1210.000	695.683	1.380	.573	0.000	56.973	-44.974	81.000
4.795	1410.000	695.915	.232	.455	0.000	59.417	-47.418	81.000
4.795	730.000	696.649	0.000	.863	0.000	11.999	0.000	1.000
4.795	1070.000	700.120	3.271	5.817	0.000	166.667	-154.668	1.000
4.795	1210.000	700.360	.240	4.677	0.000	216.667	-204.668	1.000
4.795	1410.000	700.620	.260	4.705	0.000	257.083	-245.084	1.000
4.932	640.000	699.537	0.000	2.688	0.000	198.787	0.000	725.000
4.932	940.000	700.506	.968	.386	0.000	240.033	-41.247	725.000
4.932	1070.000	700.794	.289	.434	0.000	241.611	-42.825	725.000
4.932	1240.000	701.128	.334	.508	0.000	243.444	-44.657	725.000
5.011	640.000	699.991	0.000	.454	0.000	132.273	0.000	415.000
5.011	940.000	700.902	.911	.397	0.000	199.235	-66.962	415.000
5.011	1070.000	701.193	.291	.399	0.000	219.593	-87.319	415.000
5.011	1240.000	701.534	.341	.406	0.000	247.927	-115.654	415.000
5.089	640.000	701.718	0.000	1.727	0.000	125.804	0.000	415.000
5.089	940.000	702.336	.618	1.434	0.000	173.611	-47.807	415.000
5.089	1070.000	702.568	.231	1.374	0.000	189.881	-64.078	415.000
5.089	1240.000	702.842	.275	1.308	0.000	209.197	-83.394	415.000
5.226	640.000	704.740	0.000	3.023	0.000	129.619	0.000	725.000
5.226	940.000	705.415	.674	3.079	0.000	160.721	-31.103	725.000
5.226	1070.000	705.649	.234	3.081	0.000	172.427	-42.809	725.000
5.226	1240.000	705.926	.277	3.084	0.000	186.281	-56.662	725.000
5.287	640.000	706.355	0.000	1.615	0.000	106.250	0.000	320.000
5.287	940.000	706.986	.630	1.571	0.000	131.457	-25.207	320.000
5.287	1070.000	707.220	.234	1.571	0.000	141.031	-34.780	320.000
5.287	1240.000	707.499	.279	1.573	0.000	154.976	-48.727	320.000
5.317	640.000	707.725	0.000	1.370	0.000	165.623	0.000	160.000
5.317	940.000	708.308	.582	1.322	0.000	223.321	-54.199	160.000
5.317	1070.000	708.518	.210	1.299	0.000	234.357	-64.734	160.000
5.317	1240.000	708.771	.253	1.272	0.000	246.459	-76.836	160.000
5.347	640.000	709.292	0.000	1.566	0.000	218.788	0.000	160.000
5.347	940.000	709.794	.503	1.487	0.000	242.893	-24.105	160.000
5.347	1070.000	709.924	.129	1.406	0.000	249.044	-30.256	160.000

5.347	1240.000	710.097	.174	1.326	0.000	237.532	-35.344	160.000
5.348	640.000	709.551	0.000	.259	0.000	230.848	0.000	1.000
5.348	940.000	710.096	.545	.301	0.000	257.057	-26.219	1.000
5.348	1070.000	710.266	.170	.343	0.000	265.163	-34.314	1.000
5.348	1240.000	710.475	.209	.378	0.000	275.159	-44.311	1.000
5.357	640.000	712.275	0.000	2.724	0.000	311.971	0.000	52.000
5.357	940.000	712.581	.306	2.485	0.000	347.775	-35.804	52.000
5.357	1070.000	712.684	.103	2.418	0.000	357.784	-45.814	52.000
5.357	1240.000	712.808	.124	2.332	0.000	369.320	-57.349	52.000
5.358	640.000	712.265	0.000	-.009	0.000	312.070	0.000	1.000
5.358	940.000	712.565	.300	-.016	0.000	346.905	-34.835	1.000
5.358	1070.000	712.664	.099	-.019	0.000	355.970	-43.899	1.000
5.358	1240.000	712.784	.119	-.024	0.000	367.085	-55.015	1.000
5.414	640.000	712.376	0.000	.111	0.000	138.686	0.000	300.000
5.414	940.000	712.747	.371	.182	0.000	146.328	-7.642	300.000
5.414	1070.000	712.881	.134	.216	0.000	149.034	-10.347	300.000
5.414	1240.000	713.044	.163	.260	0.000	152.455	-13.768	300.000
5.458	640.000	712.548	0.000	.172	0.000	185.353	0.000	230.000
5.458	940.000	713.026	.478	.279	0.000	191.885	-6.532	230.000
5.458	1070.000	713.209	.183	.328	0.000	194.379	-9.025	230.000
5.458	1240.000	713.437	.228	.393	0.000	197.487	-12.134	230.000
5.505	640.000	712.664	0.000	.116	0.000	175.801	0.000	250.000
5.505	940.000	713.196	.532	.170	0.000	186.691	-10.889	250.000
5.505	1070.000	713.400	.204	.191	0.000	189.476	-13.675	250.000
5.505	1240.000	713.653	.253	.217	0.000	192.936	-17.135	250.000
5.552	640.000	712.803	0.000	.139	0.000	71.223	0.000	250.000
5.552	940.000	713.371	.568	.175	0.000	91.557	-20.334	250.000
5.552	1070.000	713.584	.213	.184	0.000	98.707	-27.484	250.000
5.552	1240.000	713.849	.265	.195	0.000	107.946	-36.723	250.000
5.553	640.000	712.888	0.000	.085	0.000	74.484	0.000	1.000
5.553	940.000	713.564	.675	.193	0.000	98.183	-23.699	1.000
5.553	1070.000	713.846	.283	.262	0.000	107.809	-33.324	1.000
5.553	1240.000	714.200	.354	.352	0.000	120.059	-45.576	1.000
5.557	640.000	715.117	0.000	2.229	0.000	167.654	0.000	22.000
5.557	940.000	715.715	.597	2.151	0.000	176.130	-8.476	22.000
5.557	1070.000	715.921	.206	2.074	0.000	179.045	-11.391	22.000
5.557	1240.000	716.148	.228	1.948	0.000	182.272	-14.608	22.000
5.557	640.000	715.107	0.000	-.011	0.000	167.599	0.000	1.000
5.557	940.000	715.696	.589	-.019	0.000	175.853	-8.254	1.000
5.557	1070.000	715.898	.202	-.022	0.000	178.727	-11.128	1.000
5.557	1240.000	716.121	.223	-.027	0.000	181.833	-14.234	1.000
5.566	640.000	715.226	0.000	.115	0.000	222.262	0.000	50.000
5.566	940.000	715.868	.642	.172	0.000	228.682	-6.420	50.000
5.566	1070.000	716.093	.225	.195	0.000	230.933	-8.672	50.000
5.566	1240.000	716.348	.255	.227	0.000	233.481	-11.219	50.000
5.625	640.000	715.261	0.000	.035	0.000	162.760	0.000	310.000
5.625	940.000	715.920	.659	.052	0.000	182.370	-19.610	310.000
5.625	1070.000	716.153	.233	.059	0.000	189.295	-26.536	310.000
5.625	1240.000	716.418	.265	.070	0.000	197.135	-34.427	310.000
5.900	640.000	716.847	0.000	1.586	0.000	189.671	0.000	1450.000
5.900	940.000	717.632	.785	1.712	0.000	204.983	-15.317	1450.000
5.900	1070.000	717.925	.293	1.772	0.000	210.662	-20.991	1450.000
5.900	1240.000	718.274	.350	1.856	0.000	217.384	-27.714	1450.000

5.947	640.000	717.433	0.000	.536	0.000	172.574	0.000	250.000
5.947	940.000	718.134	.702	.503	0.000	272.062	-99.494	250.000
5.947	1070.000	718.407	.273	.483	0.000	287.890	-115.316	250.000
5.947	1240.000	718.738	.330	.453	0.000	306.141	-133.467	250.000
5.994	640.000	719.971	0.000	1.508	0.000	179.199	0.000	250.000
5.994	940.000	719.443	.472	1.305	0.000	150.283	-71.084	250.000
5.994	1070.000	719.606	.163	1.199	0.000	146.532	-97.733	250.000
5.994	1240.000	719.803	.202	1.070	0.000	219.675	-130.476	250.000
6.143	560.000	721.589	0.000	2.618	0.000	216.401	0.000	787.500
6.143	820.000	722.255	.666	2.812	0.000	242.547	-66.146	787.500
6.143	930.000	722.493	.238	2.887	0.000	299.450	-83.049	787.500
6.143	1080.000	722.762	.269	2.954	0.000	314.414	-95.013	787.500
6.293	560.000	723.238	0.000	1.649	0.000	169.143	0.000	787.500
6.293	820.000	723.800	.562	1.546	0.000	186.098	-16.949	787.500
6.293	930.000	724.007	.207	1.514	0.000	190.245	-21.097	787.500
6.293	1080.000	724.255	.248	1.493	0.000	195.209	-26.061	787.500
6.478	560.000	726.647	0.000	3.409	0.000	71.999	0.000	980.000
6.478	820.000	727.297	.650	3.497	0.000	71.999	-.000	980.000
6.478	930.000	727.532	.235	3.525	0.000	71.999	-.000	980.000
6.478	1080.000	727.840	.307	3.585	0.000	71.999	-.000	980.000
6.488	560.000	726.860	0.000	.213	0.000	46.900	0.000	50.000
6.488	820.000	727.541	.681	.244	0.000	46.900	0.000	50.000
6.488	930.000	727.786	.244	.253	0.000	46.900	0.000	50.000
6.488	1080.000	728.102	.316	.262	0.000	46.900	0.000	50.000
6.540	560.000	727.130	0.000	.270	0.000	46.900	0.000	276.000
6.540	820.000	729.365	2.235	1.824	0.000	46.900	0.000	276.000
6.540	930.000	730.168	.803	2.382	0.000	46.900	0.000	276.000
6.540	1080.000	731.362	1.194	3.260	0.000	46.900	0.000	276.000
6.549	560.000	727.392	1.000	.262	0.000	95.792	0.000	50.000
6.549	820.000	729.393	2.000	.027	0.000	109.999	-14.207	50.000
6.549	930.000	730.220	.827	.052	0.000	109.999	-14.207	50.000
6.549	1080.000	731.437	1.217	.075	0.000	109.999	-14.207	50.000
6.607	560.000	728.825	0.000	1.433	0.000	122.633	0.000	305.000
6.607	820.000	729.871	1.045	.479	0.000	247.368	-124.734	305.000
6.607	930.000	730.539	.665	.320	0.000	326.352	-203.719	305.000
6.607	1080.000	731.545	1.106	.208	0.000	357.371	-234.738	305.000
6.665	560.000	730.689	0.000	1.863	0.000	195.314	0.000	305.000
6.665	820.000	731.019	.330	1.148	0.000	231.073	-35.759	305.000
6.665	930.000	731.196	.177	.657	0.000	246.991	-51.677	305.000
6.665	1080.000	731.381	.185	.236	0.000	297.665	-92.350	305.000
6.722	560.000	732.418	0.000	1.729	0.000	222.278	0.000	300.000
6.722	820.000	732.839	.421	1.820	0.000	250.810	-28.532	300.000
6.722	930.000	732.950	.111	1.754	0.000	253.167	-30.889	300.000
6.722	1080.000	732.976	.026	1.095	0.000	253.741	-31.462	300.000
6.831	560.000	734.270	0.000	1.853	0.000	205.301	0.000	575.000
6.831	820.000	734.681	.411	1.842	0.000	228.360	-23.059	575.000
6.831	930.000	734.839	.158	1.889	0.000	233.206	-27.905	575.000
6.831	1080.000	735.074	.236	2.095	0.000	239.626	-34.326	575.000
6.862	560.000	734.729	0.000	.455	0.000	193.942	0.000	165.000
6.862	820.000	735.190	.461	.509	0.000	221.893	-27.952	165.000
6.862	930.000	735.356	.166	.517	0.000	235.516	-41.575	165.000
6.862	1080.000	735.575	.220	.501	0.000	245.446	-51.505	165.000

6.893	560.000	735.047	0.000	1.318	0.000	225.575	0.000	165.000
6.893	820.000	736.389	.341	1.196	0.000	250.923	-25.345	165.000
6.893	930.000	736.518	.130	1.162	0.000	258.942	-33.367	165.000
6.893	1080.000	736.679	.162	1.104	0.000	266.639	-41.064	165.000
6.924	560.000	737.132	0.000	1.085	0.000	223.287	0.000	165.000
6.924	820.000	737.557	.426	1.169	0.000	241.918	-24.632	165.000
6.924	930.000	737.696	.139	1.178	0.000	258.579	-35.292	165.000
6.924	1080.000	737.872	.175	1.192	0.000	265.458	-42.172	165.000
6.956	560.000	738.258	0.000	1.126	0.000	200.779	0.000	165.000
6.956	820.000	738.667	.409	1.109	0.000	203.333	-2.554	165.000
6.956	930.000	738.807	.141	1.111	0.000	204.199	-3.420	165.000
6.956	1080.000	738.992	.185	1.120	0.000	205.335	-4.556	165.000
6.991	560.000	739.550	0.000	1.292	0.000	109.999	0.000	185.000
6.991	820.000	739.971	.420	1.304	0.000	109.999	-.000	185.000
6.991	930.000	740.126	.155	1.318	0.000	109.999	-.000	185.000
6.991	1080.000	740.310	.184	1.318	0.000	109.999	-.000	185.000
7.008	560.000	739.911	0.000	.381	0.000	62.999	0.000	92.000
7.008	820.000	740.411	.500	.441	0.000	62.999	-.000	92.000
7.008	930.000	740.593	.182	.467	0.000	62.999	-.000	92.000
7.008	1080.000	740.815	.222	.505	0.000	62.999	-.000	92.000
7.017	560.000	740.142	0.000	.231	0.000	39.999	0.000	46.000
7.017	820.000	740.691	.548	.280	0.000	39.999	-.000	46.000
7.017	930.000	740.886	.196	.294	0.000	39.999	-.000	46.000
7.017	1080.000	741.127	.240	.311	0.000	39.999	-.000	46.000
7.026	560.000	740.349	0.000	.207	0.000	17.000	0.000	46.000
7.026	820.000	740.894	.545	.204	0.000	17.000	0.000	46.000
7.026	930.000	741.097	.202	.210	0.000	17.000	0.000	46.000
7.026	1080.000	741.337	.240	.210	0.000	17.000	0.000	46.000
7.095	560.000	740.672	0.000	.323	0.000	14.000	0.000	365.000
7.095	820.000	743.190	2.518	2.296	0.000	14.000	0.000	365.000
7.095	930.000	744.388	1.198	3.291	0.000	14.000	0.000	365.000
7.095	1080.000	746.185	1.798	4.849	0.000	14.000	0.000	365.000
7.096	560.000	741.052	0.000	.380	0.000	25.999	0.000	6.000
7.096	820.000	743.500	2.448	.310	0.000	25.999	-.000	6.000
7.096	930.000	744.345	1.345	.457	0.000	25.999	-.000	6.000
7.096	1080.000	746.698	1.653	.512	0.000	25.999	-.000	6.000
7.104	560.000	742.979	0.000	1.927	0.000	84.326	0.000	44.000
7.104	820.000	744.483	1.504	.983	0.000	103.402	-19.076	44.000
7.104	930.000	745.609	1.126	.764	0.000	113.999	-29.673	44.000
7.104	1080.000	747.303	1.695	.606	0.000	113.999	-29.673	44.000
7.112	560.000	743.377	0.000	.398	0.000	118.753	0.000	40.000
7.112	820.000	744.685	1.308	.202	0.000	135.250	-16.497	40.000
7.112	930.000	745.724	1.039	.115	0.000	148.358	-29.604	40.000
7.112	1080.000	747.363	1.640	.060	0.000	163.040	-44.287	40.000
7.126	560.000	744.799	0.000	1.422	0.000	106.628	0.000	75.000
7.126	820.000	745.181	.382	.496	0.000	111.448	-4.821	75.000
7.126	930.000	745.897	.716	.173	0.000	120.479	-13.851	75.000
7.126	1080.000	747.427	1.530	.063	0.000	139.776	-33.148	75.000
7.136	560.000	745.819	0.000	1.019	0.000	53.116	0.000	50.000
7.136	820.000	746.162	.344	.981	0.000	87.453	-4.337	50.000
7.136	930.000	746.409	.246	.512	0.000	90.561	-7.445	50.000
7.136	1080.000	747.501	1.092	.074	0.000	104.418	-21.303	50.000
7.145	560.000	746.947	0.000	1.129	0.000	61.981	0.000	50.000

7.145	820.000	747.420	.472	1.237	0.000	57.942	-5.931	50.000
7.145	930.000	747.585	.166	1.177	0.000	70.033	-3.052	50.000
7.145	1080.000	747.913	.327	.412	0.000	74.152	-12.161	50.000
7.152	560.000	747.766	0.000	.819	0.000	46.369	0.000	35.000
7.152	820.000	748.352	.585	.932	0.000	47.062	-.654	35.000
7.152	930.000	748.558	.216	.973	0.000	47.273	-.925	35.000
7.152	1080.000	748.742	.134	.830	0.000	47.519	-1.150	35.000
7.180	560.000	748.483	0.000	.716	0.000	82.999	0.000	150.000
7.180	820.000	748.965	.482	.613	0.000	82.999	-.000	150.000
7.180	930.000	749.013	.048	.455	0.000	82.999	-.000	150.000
7.180	1080.000	749.315	.302	.573	0.000	82.999	-.000	150.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	83.000	42.381	0.000
2	1.000	83.000	53.013	10.132
3	1.000	83.000	56.156	13.275
4	1.000	83.000	59.362	16.481

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW LAKE DRAIN

4) DOCUMENT TYPE: 100 YR

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      CITY OF FARMINGTON HILLS, FIS, 5670-03,  PM=RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      UPPER RIVER ROUGE & MINNOW POND DRAIN

J1  ICHECK   INQ    NINV    IDIR    STRT    METRIC  HVINS   Q       WSEL    FQ

      -1.      4.      0.      0.  0.000000   0.00    0.0     0.    723.100  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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MOORE BUSINESS FORMS INC 23

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*PROF 3

CCHV=     .300 CEHV=     .500
*SECNO .000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

      0.00      7.10    723.10      0.00    723.10    723.33       .23      0.00      0.00    719.70
     1900.       756.     1001.      143.      474.      196.      100.        0.        0.    719.60
      0.00      1.60      5.11      1.43      .085      .042      .085     0.000    716.00     12.41
   .002076        0.        0.        0.         0         0         0      0.00    265.56    277.97

*SECNO 640.000
    640.00      7.99    724.29      0.00      0.00    724.48       .19      1.14       .01    720.00
     1900.       467.     1050.      383.      319.      231.      287.       12.        4.    720.00
       .06      1.47      4.55      1.33      .085      .042      .085      .040    716.30     11.88
   .001437       750.      640.      550.         2         0         0      0.00    273.86    285.74

*SECNO 1730.000
3280 CROSS SECTION    1730.00 EXTENDED        .69 FEET

    1730.00      6.49    725.69      0.00      0.00    725.89       .20      1.40       .00    721.80
     1900.       583.      794.      523.      348.      154.      298.       24.        8.    721.80
       .13      1.68      5.14      1.75      .085      .042      .085      .050    719.20      0.00
   .002332       600.     1090.      350.         2         0         0      0.00    293.74    293.74

*SECNO 2780.000
    2780.00      6.32    728.62      0.00      0.00    728.91       .29      2.98       .05    725.30
     1900.       822.      919.      159.      475.      155.       88.       42.       15.    725.00
       .20      1.73      5.94      1.81      .090      .045      .090      .049    722.30     82.96
   .003733      1000.     1050.     1000.         3         0         0      0.00    331.20    414.16

*SECNO 3880.000
   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

    3880.00      6.30    731.30      0.00      0.00    731.47       .17      2.53       .03    727.00
     1900.      1060.      835.        5.      632.      179.        6.       55.       20.    729.00
       .28      1.68      4.67       .83      .090      .045      .090      .051    725.00    254.89
   .002423       600.     1100.     1100.         2         0         0      0.00    301.98    556.88

*SECNO 4935.000
    4935.00      5.71    733.91      0.00      0.00    734.25       .35      2.69       .09    730.00
     1900.       677.      951.      273.      302.      150.      158.       67.       25.    730.00
       .34      2.24      6.36      1.73      .090      .045      .090      .052    728.20    106.42
   .004401       600.     1055.     1000.         1         0         0      0.00    278.21    384.63

*SECNO 5785.000
    5785.00      6.03    737.23      0.00      0.00    737.60       .37      3.34       .01    733.20
     1900.       591.     1015.      294.      299.      158.      154.       77.       29.    733.00
       .39      1.98      6.42      1.92      .090      .045      .090      .052    731.20    238.41
   .004190       700.      850.      700.         6         0         0      0.0    254.18    492.59
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MOORE BUSINESS FORMS, INC 23

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*SECNO 6595.000
  6595.00      5.79    740.19      0.00      0.00    740.61       .41      2.98       .02    736.00
    1900.       609.     1039.      252.      283.      155.      132.       85.       32.    736.00
      .43      2.15      6.72      1.91      .090      .045      .090      .052    734.40    117.64
  .004691      450.      810.      650.         2         0         0      0.00    219.94    337.57

1490 NH CARD USED
*SECNO 7835.000

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
  7835.00      8.56    745.16      0.00      0.00    745.54       .38      4.92       .01    737.20
    1900.       453.     1281.      166.      192.      224.       53.       98.       37.    737.00
      .49      2.36      5.72      3.11      .070      .065      .070      .051    736.60    400.00
  .004050     1100.     1240.      600.         3         0         0      0.00    161.72    561.72

1490 NH CARD USED
*SECNO 7836.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
  7836.00      8.58    745.18      0.00      0.00    745.55       .37       .00       .00    737.20
    1900.       459.     1272.      168.      192.      224.       54.       98.       37.    737.00
      .49      2.39      5.68      3.14      .045      .044      .045      .051    736.60    400.00
  .001712        1.        1.        1.         0         0         0      0.00    162.06    562.06

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.83      3.05      0.00     19.07      0.00    129.67      0.00    736.60    736.60

*SECNO 7866.000
PRESSURE AND WEIR FLOW

 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                 AREA
 751.28     745.55     0.00      1256.     648.      130.      107.      742.20    742.20

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
  7866.00      9.01    745.61      0.00      0.00    745.89       .28       .34      0.00    737.20
    1900.       529.     1190.      181.      237.      236.       76.       98.       37.    737.00
      .50      2.24      5.04      2.39      .045      .044      .045      .051    736.60    400.00
  .001257       30.       30.       30.         2         0         4      0.00    193.65    593.65

1490 NH CARD USED
*SECNO 7867.000

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
  7867.00      9.00    745.60      0.00      0.00    745.90       .29       .00       .01    737.20
    1900.       507.     1219.      174.      237.      236.       76.       98.       37.    737.00
      .50      2.14      5.17      2.29      .070      .060      .070      .051    736.60    400.00
  .002800         1         1         1         0         0         0      0.00    193.58    593.58
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*SECNO 8687.000
  8687.00      6.41    747.71      0.00      0.00    747.94       .23      2.03       .02    743.00
    1900.       821.      908.      171.      451.      172.       97.      110.       41.    743.00
      .56      1.82      5.29      1.76      .080      .042      .080      .050    741.30    223.83
  .002204       820.      820.      820.         2         0         0      0.00    260.89    484.72

*SECNO 9247.000

3470 ENCROACHMENT STATIONS=     182.0     527.0  TYPE=    1  TARGET=      345.000
  9247.00      6.87    748.77      0.00      0.00    749.00       .23      1.06       .00    745.10
    1900.       422.      963.      514.      330.      184.      305.      119.       44.    744.60
      .60      1.28      5.23      1.68      .085      .042      .085      .050    741.90    182.00
  .002025       500.      560.      350.         2         0         0      0.00    306.80    488.80

*SECNO 9327.000
   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=     202.0     507.0  TYPE=    1  TARGET=      305.000
  9327.00      6.41    748.91      0.00      0.00    749.27       .36       .20       .06    745.70
    1900.       343.     1063.      495.      239.      171.      260.      120.       45.    745.20
      .61      1.43      6.21      1.90      .085      .042      .085      .050    742.50    202.00
  .003161        70.       80.       92.         2         0         0      0.00    286.00    488.00

*SECNO 9407.000
  9407.00      5.96    749.16      0.00      0.00    749.61       .45       .29       .05    745.90
    1900.       338.     1104.      458.      194.      160.      220.      121.       45.    745.60
      .61      1.74      6.91      2.08      .085      .042      .085      .050    743.20    192.31
  .004207        70.       80.       92.         2         0         0      0.00    268.09    460.40

*SECNO 9447.000
  9447.00      5.82    749.32      0.00      0.00    749.84       .51       .19       .03    746.20
    1900.       320.     1131.      449.      175.      156.      206.      122.       45.    745.90
      .62      1.83      7.27      2.17      .090      .045      .090      .050    743.50    200.58
  .005541       35.       40.       46.         1         0         0      0.00    259.42    459.99

*SECNO 9487.000
  9487.00      5.74    749.54      0.00      0.00    750.09       .56       .24       .02    746.50
    1900.       308.     1151.      441.      163.      153.      198.      122.       46.    746.20
      .62      1.89      7.52      2.23      .090      .045      .090      .050    743.80    205.58
  .006069        35.       40.       46.         1         0         0      0.00    254.17    459.75
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9967.00	5.24	752.84	0.00	0.00	753.49	.65	1.78	.02	749.50
1810.	331.	1122.	356.	147.	140.	156.	128.	48.	749.40
.64	2.25	8.02	2.28	.095	.045	.095	.050	747.60	187.98
.007650	210.	240.	275.	2	0	1	0.00	214.19	402.17

2340' U/S FROM U/S FACE OF BRITTANY DR CULVERT, VS #1U8 SEC. K

10207.00	5.21	754.71	0.00	0.00	755.36	.65	1.86	.00	751.00
1810.	351.	1111.	347.	152.	138.	153.	130.	49.	751.00
.65	2.31	8.04	2.27	.095	.045	.095	.049	749.50	169.16
.007810	210.	240.	275.	2	0	1	0.00	199.86	369.02

1490 NH CARD USED

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

2950' U/S FROM U/S FACE OF BRITTANY DR CULVERT, VS#1 SEC. L

10817.00	6.74	757.84	0.00	0.00	758.25	.41	2.82	.07	754.10
1810.	317.	1102.	391.	192.	170.	326.	138.	53.	755.40
.69	1.65	6.47	1.20	.100	.040	.100	.049	751.10	27.67
.003054	610.	610.	610.	3	0	1	0.00	288.76	316.44

3470 ENCROACHMENT STATIONS= 46.0 290.0 TYPE= 1 TARGET= 244.000

10932.00	5.70	758.20	0.00	0.00	758.92	.72	.51	.16	755.00
1810.	323.	1185.	302.	144.	143.	160.	139.	53.	755.70
.70	2.25	8.28	1.89	.090	.042	.090	.049	752.50	46.00
.007077	115.	115.	115.	2	0	1	0.00	244.00	290.00

3470 ENCROACHMENT STATIONS= 50.0 266.0 TYPE= 1 TARGET= 216.000

10990.00	5.39	758.59	0.00	0.00	759.43	.85	.45	.06	755.50
1810.	304.	1204.	303.	129.	135.	133.	140.	54.	755.80
.70	2.36	8.90	2.28	.090	.042	.090	.049	753.20	50.00
.008694	58.	58.	58.	2	0	1	0.00	216.00	266.00

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

250' D/S FROM CONFLUENCE OF SEELEY @MINNOW POND DRAINS, VS #2U8 SEC. M

11047.00	5.08	759.08	759.08	0.00	760.12	1.03	.55	0.00	756.00
1810	[illegible]	1245	[illegible]	112	[illegible]	114	[illegible]	[illegible]	756.00

MOORE BUSINESS FORMS, INC 23

.70	2.41	9.68	2.59	.090	.042	.090	.049	754.00	72.24
.010928	57.	57.	57.	0	11	1	0.00	185.77	258.01

3301 HV CHANGED MORE THAN HVINS

12' FROM THE MOUTH OF MINNOW POND DRAIN

12.00	5.76	761.56	0.00	0.00	761.90	.34	1.58	.21	757.90
1410.	264.	851.	294.	159.	144.	178.	143.	55.	758.10
.72	1.66	5.90	1.66	.090	.042	.090	.049	755.80	49.44
.003410	275.	262.	250.	2	0	1	0.00	225.41	274.85

275.00	5.09	762.69	0.00	0.00	763.43	.74	1.33	.20	760.00
1410.	202.	977.	231.	92.	120.	109.	145.	56.	760.20
.73	2.19	8.16	2.13	.090	.042	.090	.049	757.60	63.24
.008232	275.	263.	250.	2	0	1	0.00	177.97	241.21

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

537.00	5.31	764.81	0.00	0.00	765.46	.65	2.01	.03	762.00
1410.	209.	948.	253.	97.	122.	128.	147.	58.	762.40
.74	2.15	7.78	1.98	.090	.042	.090	.048	759.50	53.50
.007195	275.	262.	250.	3	0	1	0.00	192.03	245.53

732.00	5.42	766.22	0.00	0.00	766.89	.67	1.42	.01	763.50
1410.	204.	950.	256.	93.	121.	132.	149.	58.	764.00
.75	2.20	7.87	1.94	.090	.042	.090	.048	760.80	48.85
.007349	205.	195.	190.	3	0	1	0.00	193.83	242.68

927.00	5.48	767.68	0.00	0.00	768.37	.69	1.47	.01	765.00
1410.	196.	952.	262.	87.	119.	136.	151.	59.	765.50
.76	2.26	8.00	1.92	.090	.042	.090	.048	762.20	44.75
.007673	205.	195.	190.	1	0	1	0.00	193.09	237.84

1122.00	5.58	769.18	0.00	0.00	769.86	.68	1.49	.00	766.50
1410.	187.	945.	278.	82.	119.	147.	152.	60.	767.10
.77	2.27	7.97	1.88	.090	.042	.090	.048	763.60	39.34
.007538	205.	195.	190.	2	0	1	0.00	198.79	238.13

1317' FROM THE MOUTH OF MINNOW POND DRAIN, VS #109 SEC. A

1317.00	5.67	770.67	0.00	0.00	771.39	.72	1.51	.02	768.00
1410.	174.	952.	284.	76.	117.	152.	154.	61.	768.80
.78	2.30	8.14	1.87	.090	.042	.090	.048	765.00	35.46
.007914	205.	195.	190.	0	0	1	0.00	197.69	233.15

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DE TH

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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
1367.00	5.56	771.16	771.16	0.00	771.97	.81	.42	0.00	768.60
1410.	169.	976.	265.	71.	114.	138.	154.	61.	769.40
.78	2.39	8.58	1.92	.090	.042	.090	.048	765.60	36.33
.009108	50.	50.	50.	2	6	1	0.00	193.36	229.69

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1417.00	5.51	771.71	771.71	0.00	772.57	.86	.47	0.00	769.20
1410.	167.	987.	256.	69.	112.	132.	154.	62.	770.00
.78	2.43	8.78	1.95	.090	.042	.090	.048	766.20	36.70
.009683	50.	50.	50.	2	6	1	0.00	191.51	224.21

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1517.00	5.62	772.92	772.92	0.00	773.92	1.00	.98	0.00	770.30
1410.	67.	1011.	332.	30.	108.	146.	155.	62.	770.30
.78	2.25	9.37	2.28	.090	.042	.090	.048	767.30	16.93
.010017	100.	100.	100.	2	8	1	0.00	175.23	192.16

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1617.00	5.60	774.10	774.10	0.00	775.08	.98	1.00	0.00	771.50
1410.	69.	1000.	342.	29.	107.	143.	156.	62.	771.50
.79	2.36	9.31	2.40	.085	.042	.095	.048	768.50	16.98
.009965	100.	100.	100.	1	5	1	0.00	172.79	189.76

MOORE BUSINESS FORMS, INC 23

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3301 HV CHANGED MORE THAN HVINS

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

          1977' FROM THE MOUTH OF MINNOW POND DRAIN, VS #2U9                    SEC. B

  1977.00       6.45     777.75       0.00       0.00     778.20        .45       2.96        .16     774.50
    1410.        100.       892.       417.        54.       135.       228.       159.        64.     774.50
      .81       1.86       6.63       1.83       .100       .050       .100       .048     771.30      64.31
 .006194       100.       360.       500.          2          0          1       0.00     212.31     276.62

          2237' FROM THE MOUTH OF MINNOW POND DRAIN, VS #3U9                    SEC. C

  2237.00       5.78     779.28       0.00       0.00     780.00        .73       1.67        .14     776.30
    1410.        114.       930.       366.        55.       112.       172.       161.        65.     776.50
      .82       2.08       8.30       2.13       .090       .042       .090       .048     773.50      24.93
 .007433       300.       260.       200.          2          0          1       0.00     171.64     196.57

  3470 ENCROACHMENT STATIONS=      55.0       95.0  TYPE=      1  TARGET=      40.000
  2492.00       6.75     780.85       0.00       0.00     781.97       1.12       1.77        .19     776.90
    1410.        93.       1223.       94.        29.       136.        29.       162.        66.     777.10
      .83       3.20       9.02       3.22       .090       .042       .090       .048     774.10      55.00
 .006804       300.       255.       200.          2          0          1       0.00      40.00      95.00

  3470 ENCROACHMENT STATIONS=      60.0       90.0  TYPE=      1  TARGET=      30.000
  2512.00       6.70     780.84       0.00       0.00     782.28       1.44        .15        .16     776.94
    1410.        41.       1330.       39.        11.       134.        11.       162.        66.     777.14
      .83       3.64       9.89       3.57       .090       .042       .090       .048     774.14      60.00
 .008294        20.        20.        20.          2          0          1       0.00      30.00      90.00

  3470 ENCROACHMENT STATIONS=      62.0       87.0  TYPE=      1  TARGET=      25.000
  2522.00       6.66     780.82       0.00       0.00     782.50       1.68        .10        .12     776.96
    1410.        16.       1394.        0.         4.       133.         0.       163.        66. 100000.00
      .83       4.26      10.45       0.00       .090       .042       .090       .048     774.16      62.00
 .011211        10.        10.        10.          2          0          1       0.00      25.00      87.00

3301 HV CHANGED MORE THAN HVINS

  3470 ENCROACHMENT STATIONS=      65.0       85.0  TYPE=      1  TARGET=      20.000
  2532.00       6.39     780.57       0.00       0.00     783.04       2.47        .15        .40100000.00
    1410.         0.       1410.        0.         0.       112.         0.       163.        66. 100000.00
      .83       0.00      12.62       0.00       .090       .042       .090       .048     774.18      65.00
 .021195        10.        10.        10.          2          0          1       0.00      20.00      85.00

7185 MIN SPECIFIC ENERGY
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3720 ASSUMED CRITICAL DEPTH

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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=       66.0       84.0  TYPE=      1  TARGET=       18.000
  2536.00       6.42     780.60     780.60       0.00     783.49       2.89        .09       0.00100000.00
    1410.         0.      1410.         0.         0.      103.         0.       163.        66. 100000.00
      .83       0.00      13.65       0.00       .090       .042       .090       .048     774.18     66.00
 .025817         4.         4.         4.          3          5          1       0.00      18.00     84.00

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=       67.0       83.0  TYPE=      1  TARGET=       16.000
  2540.00       6.76     780.95     780.95       0.00     784.09       3.14        .11       0.00100000.00
    1410.         0.      1410.         0.         0.       99.         0.       163.        66. 100000.00
      .83       0.00      14.22       0.00       .090       .042       .090       .048     774.19     67.00
 .028552         4.         4.         4.          4          8          1       0.00      16.00     83.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      785.00 ELREA=      785.00

  2544.00       7.38     781.58     781.58       0.00     785.01       3.43        .09       0.00     775.10
    1410.         0.      1410.         0.         0.       95.         0.       163.        66.     775.70
      .83       0.00      14.85       0.00       .090       .042       .090       .048     774.20     94.00
 .018249         4.         4.         4.         30          8          1       0.00      14.00    108.00

3301 HV CHANGED MORE THAN HVINS

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST
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MOORE BUSINESS FORMS, INC 23

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 785.00 ELREA= 785.00

2545.00	8.77	782.97	781.58	0.00	785.34	2.36	.01	.32	775.10
1410.	0.	1410.	0.	0.	114.	0.	163.	66.	775.70
.83	0.00	12.33	0.00	.055	.032	.055	.048	774.20	94.00
.006163	1.	1.	1.	28	5	1	0.00	14.00	108.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.70	3.02	0.00	11.33	0.00	112.13	0.00	774.20	774.20

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
787.15	785.33	0.00	0.	1410.	112.	784.10	787.20	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 787.20 ELREA= 787.20

U/S FACE OF QUAKER VALLEY DR CULVERT, BS#17Q SEC. D

2575.00	11.66	785.86	0.00	0.00	787.15	1.29	1.81	0.00	775.10
1410.	0.	1410.	0.	0.	155.	0.	163.	66.	775.70
.83	0.00	9.11	0.00	.055	.032	.055	.048	774.20	94.00
.002638	30.	30.	30.	3	0	1	0.00	14.00	108.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 787.20 ELREA= 787.20

2576.00	11.67	785.87	0.00	0.00	787.15	1.29	.00	.00	775.10
1410.	0.	1410.	0.	0.	155.	0.	163.	66.	775.70
.83	0.00	9.10	0.00	.095	.045	.095	.048	774.20	94.00
.005210	1.	1.	1.	0	0	1	0.00	14.00	108.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 90.0 112.0 TYPE= 1 TARGET= 22.000

2580.00	12.43	786.70	0.00	0.00	787.35	.66	.01	.19	775.17
1410.	128.	1164.	118.	43.	166.	41.	163.	66.	775.77
.83	2.98	7.03	2.90	.095	.045	.095	.048	774.27	90.00
.001713	4.	4.	4.	2	0	1	0.00	22.00	112.00

385' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #1U10 SEC. E

2960.00	7.04	788.04	0.00	0.00	788.27	.23	.79	.13	784.00
1410.	235.	728.	447.	156.	142.	272.	167.	67.	784.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS INC 73

.002389	300.	380.	500.	2	0	1	0.00	189.82	244.41

SECNO Q TIME SLOPE	DEPTH QLOB VLOB XLOBL	CWSEL QCH VCH XLCH	CRIWS QROB VROB XLOBR	WSELK ALOB XNL ITRIAL	EG ACH XNCH IDC	HV AROB XNR ICONT	HL VOL WTN CORAR	OLOSS TWA ELMIN TOPWID	BANK ELEV LEFT/RIGHT SSTA ENDST
3160.00	6.38	788.58	0.00	0.00	788.96	.38	.61	.08	785.20
1410.	203.	801.	406.	115.	126.	207.	169.	68.	785.20
.88	1.77	6.36	1.96	.095	.045	.095	.047	782.20	61.23
.004301	225.	200.	170.	2	0	1	0.00	176.54	237.77
3360.00	6.15	789.45	0.00	0.00	789.91	.46	.92	.04	786.00
1410.	392.	857.	161.	189.	126.	93.	171.	68.	786.30
.89	2.08	6.80	1.74	.095	.045	.095	.047	783.30	8.03
.004916	225.	200.	170.	2	0	1	0.00	154.75	162.79

985' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #2U10 SEC. F

3560.00	6.00	790.50	0.00	0.00	791.02	.52	1.08	.03	787.20
1410.	380.	877.	153.	177.	122.	84.	173.	69.	787.50
.90	2.15	7.17	1.81	.095	.045	.095	.047	784.50	8.41
.005693	225.	200.	170.	2	0	1	0.00	152.04	160.45

1465' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #3U10 SEC. G

4040.00	5.17	793.87	0.00	0.00	794.42	.55	3.39	.01	791.00
1410.	285.	687.	439.	101.	85.	174.	177.	71.	791.00
.92	2.82	8.08	2.52	.095	.045	.095	.047	788.70	21.89
.009090	450.	480.	500.	4	0	1	0.00	145.23	167.12

2235' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #4U10 SEC. H

4810.00	6.59	798.59	0.00	0.00	798.88	.29	4.38	.08	795.00
1410.	272.	651.	486.	139.	108.	285.	185.	74.	795.00
.98	1.96	6.04	1.71	.095	.045	.095	.047	792.00	12.04
.003796	700.	770.	850.	4	0	1	0.00	225.62	237.67
4923.00	6.06	799.06	0.00	0.00	799.55	.49	.57	.10	796.00
1410.	268.	733.	410.	113.	98.	197.	186.	75.	796.00
.99	2.37	7.50	2.08	.095	.045	.095	.047	793.00	17.02
.006691	88.	113.	138.	2	0	1	0.00	191.35	208.37
5035.00	5.80	799.90	0.00	0.00	800.53	.64	.91	.07	797.00
1410.	269.	780.	361.	104.	94.	159.	187.	75.	797.00
.99	2.58	8.33	2.27	.100	.047	.100	.047	794.10	19.71
.009513	88.	113.	138.	2	0	1	0.00	171.83	191.54
5148.00	5.87	800.97	0.00	0.00	801.61	.65	1.08	.00	798.00
1410.	281.	789.	340.	107.	95.	148.	188.	76.	798.00
1.00	2.61	8.34	2.31	.100	.047	.100	.047	795.10	21.32
.009388	88.	113.	138.	2	0	1	0.00	161.45	182.77

MOORE BUSINESS FORMS, INC 23

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOSL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
2685' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #5U10 SEC. I									
5260.00	5.83	802.03	0.00	0.00	802.74	.71	1.09	.03	799.00
1410.	291.	812.	307.	108.	94.	129.	189.	76.	799.00
1.00	2.69	8.62	2.39	.100	.047	.100	.047	796.20	23.23
.010008	88.	112.	138.	0	0	1	0.00	147.40	170.63
3150' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #6U10 SEC. J									
5725.00	6.10	806.30	0.00	0.00	806.89	.59	4.11	.04	803.00
1410.	334.	791.	286.	139.	100.	126.	193.	78.	803.00
1.03	2.41	7.93	2.27	.100	.047	.100	.047	800.20	31.92
.007867	465.	465.	465.	2	0	1	0.00	149.12	181.04
3760' U/S FROM U/S FACE OF QUAKER VALLEY DR CULVERT, VS #7U10 SEC. K									
6335.00	6.15	810.25	0.00	0.00	810.64	.39	3.69	.06	806.50
1410.	347.	702.	361.	157.	104.	165.	198.	80.	806.50
1.07	2.21	6.77	2.19	.095	.045	.095	.047	804.10	125.06
.004897	450.	610.	750.	3	0	1	0.00	150.91	275.97
370' D/S FROM D/S FACE OF FARMINGTON RD CULVERT, VS #8U10 SEC. L									
6935.00	5.76	813.76	0.00	0.00	814.36	.61	3.62	.11	810.00
1410.	330.	739.	341.	123.	90.	131.	203.	82.	810.00
1.10	2.67	8.25	2.60	.095	.045	.095	.047	808.00	72.43
.007646	800.	600.	400.	2	0	1	0.00	136.71	209.14
3470 ENCROACHMENT STATIONS=			110.0	161.0	TYPE=	1	TARGET=	51.000	
7235.00	6.35	815.97	0.00	0.00	816.92	.95	2.39	.17	811.62
1410.	236.	929.	245.	65.	100.	68.	205.	82.	811.62
1.11	3.63	9.26	3.59	.095	.045	.095	.047	809.62	110.00
.008295	300.	300.	300.	2	0	1	0.00	51.00	161.00
3470 ENCROACHMENT STATIONS=			113.0	157.0	TYPE=	1	TARGET=	44.000	
7250.00	6.30	816.00	0.00	0.00	817.17	1.17	.14	.11	811.70
1410.	209.	995.	206.	53.	99.	52.	205.	82.	811.70
1.11	3.95	10.02	3.93	.095	.045	.095	.047	809.70	113.00
.009839	15.	15.	15.	2	0	1	0.00	44.00	157.00
3470 ENCROACHMENT STATIONS=			117.0	153.0	TYPE=	1	TARGET=	36.000	
7265.00	6.18	815.96	0.00	0.00	817.53	1.57	.17	.20	811.78
1410.	161.	1089.	160.	36.	97.	36.	205.	82.	811.78
1.11	4.45	11.20	4.43	.095	.045	.095	.047	809.78	117.00
.012644	15.	15.	15.	2	0	1	0.00	36.00	153.00

MOORE BUSINESS FORMS, INC 23

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3470 ENCROACHMENT STATIONS=      120.0      151.0  TYPE=      1  TARGET=      31.000
 7275.00      6.08    815.91      0.00      0.00    817.87      1.96       .14       .19    811.83
   1410.       116.     1161.      133.       24.      95.       28.      205.       82.    811.83
    1.11      4.85     12.17      4.83      .095      .045      .095      .047    809.83    120.00
 .015311       10.       10.       10.         2         0         1      0.00     31.00    151.00


7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL     OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      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=      122.0      149.0  TYPE=      1  TARGET=      26.000
 7285.00      5.99    815.88    815.88      0.00    818.34      2.46       .17      0.00    811.89
   1410.       83.     1244.      83.       16.      94.       16.      206.       82.    811.89
    1.11      5.30     13.25      5.29      .095      .045      .095      .047    809.89    122.00
 .018555       10.       10.       10.         2         5         1      0.00     26.00    148.00


7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL     OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      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=      124.0      145.0  TYPE=      1  TARGET=      21.000
 7295.00      6.29    816.23    816.23      0.00    818.94      2.71       .18      0.00    811.94
   1410.       47.     1340.      23.        9.      99.        4.      206.       82.    811.94
    1.11      5.49     13.50      5.50      .095      .045      .095      .047    809.94    124.00
 .017877       10.       10.       10.         3         6         1      0.00     21.00    145.00


3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY


3720 ASSUMED CRITICAL DEPTH

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


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      817.50 ELREA=      817.50

 7305.00      6.73    816.73    816.73      0.00    819.89      3.16       .22      0.00    812.00
   1410
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MOORE BUSINESS FORMS, INC. 23

1.11	0.00	14.27	0.00	.100	.048	.100	.047	810.00	147.10
.027414	10.	10.	10.	30	8	1	0.00	15.80	174.07

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 818.20 ELREA= 818.20

7300.00	8.04	818.04	0.00	0.00	820.20	2.16	.01	.30	812.00
1410.	0.	1410.	0.	0.	120.	0.	206.	82.	812.00
1.11	0.00	11.80	0.00	.040	.032	.040	.047	810.00	147.10
.006990	1.	1.	1.	11	0	1	0.00	15.80	177.17

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.45	3.02	0.00	12.41	0.00	122.00	0.00	810.40	810.00

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
823.12	820.60	0.00	0.	1410.	122.	820.30	823.50	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 823.50 ELREA= 823.50

U/S FACE OF FARMINGTON ROAD CULVERT, BS #16P SEC. M

7388.00	11.75	822.15	0.00	0.00	823.12	.97	2.92	0.00	812.40
1410.	0.	1410.	0.	0.	178.	0.	206.	82.	812.40
1.11	0.00	7.91	0.00	.040	.032	.040	.047	810.40	147.10
.002260	82.	82.	82.	3	0	1	0.00	15.80	186.55

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 823.50 ELREA= 823.50

7389.00	11.76	822.16	0.00	0.00	823.13	.97	.00	.00	812.40
1410.	0.	1410.	0.	0.	178.	0.	206.	82.	812.40
1.11	0.00	7.91	0.00	.100	.050	.100	.047	810.40	147.10
.005512	1.	1.	1.	0	0	1	0.00	15.80	186.56

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 137.0 173.0 TYPE= 1 TARGET= 36.000

7399.00 12.56 823.09 0.00 0. 823.34 .35 .03 .10 816.10

MOORE BUSINESS FORMS INC 23

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     1410.      61.     1337.      12.      31.     275.      10.     206.      82.    819.20
      1.11     1.94      4.87     1.24    .100     .050    .100     .047   810.43    137.00
  .001560      10.       10.      10.       2        0       1     0.00    36.00    173.00

3280 CROSS SECTION   8249.00 EXTENDED        .40 FEET

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

3470 ENCROACHMENT STATIONS=        .0      600.0  TYPE=      1  TARGET=     599.999
   8249.00    11.29   823.89     0.00     0.00   823.93      .04      .49      .09   820.90
     1410.     162.     722.     526.     357.     355.     889.     220.      86.   820.90
      1.27      .45     2.04      .59     .100     .050     .100     .047   812.60    80.94
  .000357    1000.     850.     300.        3        0        1     0.00   519.06   600.00

3280 CROSS SECTION   8250.00 EXTENDED        .42 FEET

NORMAL BRIDGE,NRD=27 MIN ELTRD=  820.70 MAX ELLC=  818.50

3470 ENCROACHMENT STATIONS=        .0      600.0  TYPE=      1  TARGET=     599.999
   8250.00    11.32   823.92     0.00     0.00   823.94      .02      .00      .01   820.90
     1410.     296.     157.     957.     361.     160.     896.     220.      86.   820.90
      1.27      .82      .98     1.07     .035     .024     .035     .047   812.60    80.43
  .000141        1.       1.       1.        2        0        1  -194.95   519.57   600.00

3280 CROSS SECTION   8280.00 EXTENDED        .43 FEET

NORMAL BRIDGE,NRD=27 MIN ELTRD=  820.70 MAX ELLC=  818.50

3470 ENCROACHMENT STATIONS=        .0      600.0  TYPE=      1  TARGET=     599.999
          U/S FACE OF BRIDGESTONE ST. CULVERT, BS #150                    SEC. N
   8280.00    11.32   823.92     0.00     0.00   823.94      .02      .00      .00   820.90
     1410.     297.     157.     956.     363.     161.     898.     221.      87.   820.90
      1.28      .82      .98     1.06     .035     .024     .035     .047   812.60    80.27
  .000139       30.      30.      30.        0        0        1  -194.95   519.73   600.00

3280 CROSS SECTION   8281.00 EXTENDED        .42 FEET

3470 ENCROACHMENT STATIONS=        .1      600.0  TYPE=      1  TARGET=     599.950
   8281.00    11.32   823.92     0.00     0.00   823.95      .03      .00      .01   820.90
     1410.     172.     684.     554.     362.     355.     896.     221.      87.   820.90
      1.28      .47     1.92      .62     .100     .055     .100     .047   812.60    80.38
  .000384        1.       1.       1.        1        0        1     0.00   519.62   600.00

          750' U/S FROM U/S FACE OF BRIDGE SECTION AA, U'S MAIN                   SEC. O
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 9031.00     8.01   824.31     0.00     0.00   824.40      .09      .42      .03   820.00
    1290.      95.     857.     339.     110.     295.     282.     241.      93.   818.00
     1.37      .86     2.90     1.20     .100     .055     .100     .047   816.30    87.67
  .000920     700.     750.     800.        2        0        1     0.00   175.42   263.09

3701 D/S FROM D/S FACE OF W. ENTRANCE BRIDGE TO ORCC+ VS #B-U SEC. P

 9436.00     6.60   824.90     0.00     0.00   825.32      .42      .76      .16   820.00
    1290.     506.     759.      25.     212.     118.      15.     246.      94.   821.00
     1.40     2.38     6.45     1.62     .100     .055     .100     .048   818.30    41.87
  .005621     405.     405.     405.        2        0        1     0.00   115.94   157.81

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     125.0     156.0  TYPE=     1  TARGET=      31.000
 9786.00     7.74   826.32     0.00     0.00   827.24      .92     1.67      .25   820.28
    1290.     102.    1139.      48.      30.     140.      21.     248.      95.   821.28
     1.41     3.46     8.12     2.28     .090     .042     .090     .047   818.58   125.00
  .004101     350.     350.     350.        2        0        1     0.00    31.00   156.00

3470 ENCROACHMENT STATIONS=     235.0     550.0  TYPE=     1  TARGET=    -235.000
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      827.00 ELREA=      827.00

 9806.00     7.69   826.29     0.00     0.00   827.47     1.18      .10      .13   820.90
    1290.       0.    1290.       0.       0.     148.       0.     248.      95.   821.60
     1.41     0.00     8.71     0.00     .085     .040     .080     .047   818.60   396.00
  .005835      20.      20.      20.        2        0        1     0.00    21.00   417.00

3470 ENCROACHMENT STATIONS=     235.0     550.0  TYPE=     1  TARGET=    -235.000
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      827.00 ELREA=      827.00

 9807.00     7.70   826.30     0.00     0.00   827.47     1.18      .00      .00   820.90
    1290.       0.    1290.       0.       0.     148.       0.     248.      95.   821.60
     1.41     0.00     8.71     0.00     .035     .032     .035     .047   818.60   396.00
  .003726       1.       1.       1.        0        0        1     0.00    21.00   417.00

SPECIAL BRIDGE

  SB   XK      XKOR     COFQ    RDLEN      BWC      BWP    BAREA       SS    ELCHU    ELCHD
       0.00     3.17     3.02     0.00    14.14     0.00   127.23     0.00   818.80   818.60

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW
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EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
831.36	828.11	0.00	0.	1290.	127.	827.80	831.80	10.00

3470 ENCROACHMENT STATIONS= 235.0 550.0 TYPE= 1 TARGET= -235.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 831.80 ELREA= 831.80

U/S FACE OF W. ENTRANCE BRIDGE TO ORCC, BS #14N SEC. Q

9937.00	12.01	830.81	0.00	0.00	831.36	.55	3.88	0.00	821.50
1290.	0.	1290.	0.	0.	217.	0.	248.	95.	821.50
1.42	0.00	5.95	0.00	.035	.032	.035	.047	818.80	395.50
.001760	130.	130.	130.	2	0	1	0.00	21.00	416.50

3470 ENCROACHMENT STATIONS= 235.0 550.0 TYPE= 1 TARGET= -235.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 831.80 ELREA= 831.80

9938.00	12.01	830.81	0.00	0.00	831.36	.55	.00	.00	821.50
1290.	0.	1290.	0.	0.	217.	0.	248.	95.	821.50
1.42	0.00	5.95	0.00	.095	.042	.085	.047	818.80	395.50
.003029	1.	1.	1.	0	0	1	0.00	21.00	416.50

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

3470 ENCROACHMENT STATIONS= 393.0 420.0 TYPE= 1 TARGET= 27.000

9941.00	12.25	831.05	0.00	0.00	831.42	.37	.01	.05	821.50
1290.	65.	1130.	94.	24.	222.	32.	248.	95.	821.50
1.42	2.76	5.09	2.96	.095	.042	.085	.047	818.80	393.00
.001570	3.	3.	3.	2	0	1	0.00	27.00	420.00

580' U/S FROM U/S FACE OF W. ENTRANCE BRIDGE TO ORCC, VS #U12 SEC. R

10518.00	11.40	831.70	0.00	0.00	831.71	.01	.18	.11	822.20
1290.	460.	227.	603.	796.	166.	1100.	265.	97.	822.80
1.65	.58	1.37	.55	.120	.056	.120	.048	820.30	1.97
.000124	397.	577.	797.	2	0	1	0.00	262.51	264.49

CCHV= .300 CEHV= .500

575' D/S FROM D/S FACE OF DAM IN ORCC PROP., VS#13M SEC. S

11168.00	8.53	831.83	0.00	0.00	831.86	.03	.14	.01	826.60
1290.	62.	306.	922.	111.	131.	1053.	288.	101.	825.80
1.79	.56	2.33	.88	.120	.055	.120	.048	823.30	240.44
.000570	600.	650.	600.	2	0	1	0.00	310.66	551.10

3280 CROSS SECTION 11743.00 EXTENDED 1.08 FEET

MOORE BUSINESS FORMS, INC

11743.00	10.98	831.98	0.00	0.00	832.02	.04	.15	.01	823.30
1290.	281.	821.	188.	514.	410.	458.	304.	105.	823.80
1.89	.55	2.00	.41	.095	.045	.095	.048	821.00	0.00
.000174	450.	575.	500.	2	0.	1	0.00	440.00	440.00

SPECIAL-BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.00	3.08	0.00	.01	0.00	.01	0.00	823.30	821.00

3280 CROSS SECTION 11756.00 EXTENDED 1.18 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
*********	834.32	0.00	1292.	0.	0.	822.00	826.50	30.00

U/S FACE OF DAM SECTION IN ORCC PROP., DS#12L SEC. T

11756.00	8.78	832.08	0.00	0.00	832.12	.04	.10	0.00	823.80
1290.	336.	718.	236.	528.	345.	487.	304.	105.	823.80
1.90	.64	2.08	.48	.095	.045	.095	.048	823.30	0.00
.000231	13.	13.	13.	2	0	10	0.00	440.00	440.00

570' U/S FROM U/S FACE OF DAM IN ORCC PROP., VS#11K SEC. U

12326.00	8.37	832.27	0.00	0.00	832.44	.16	.26	.06	825.30
1290.	410.	588.	292.	300.	127.	276.	318.	109.	828.60
1.95	1.37	4.62	1.06	.090	.040	.095	.048	823.90	161.04
.001254	700.	570.	400.	2	0	1	0.00	223.17	384.21

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 75.0 250.0 TYPE= 1 TARGET= 175.000

280' D/S FROM D/S FACE OF I-696 CULVERT, VS#10J SEC. V

12951.00	9.36	833.16	0.00	0.00	833.43	.27	.94	.05	828.70
1290.	128.	852.	310.	112.	169.	208.	326.	112.	829.10
2.00	1.15	5.05	1.49	.095	.045	.095	.048	823.80	114.85
.001853	630.	625.	620.	2	0	1	0.00	135.15	250.00

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 140.0 215.0 TYPE= 1 TARGET= 75.000

13131.00	7.69	833.42	0.00	0.00	834.33	.91	.58	.32	830.63
129	[illegible]	[illegible]	[illegible]	[illegible]	132	[illegible]	[illegible]	[illegible]	[illegible]

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     2.01      1.83      8.28      2.10      .095      .045      .095      .048    825.73    140.00
  .006910      300.      180.      120.         2         0         1      0.00     75.00    215.00


3470 ENCROACHMENT STATIONS=      150.0      205.0  TYPE=      1  TARGET=      55.000
 13171.00      7.45    833.61      0.00      0.00    834.76      1.15       .31       .12    831.06
    1290.       63.      1149.       79.       28.      127.       35.      328.      112.    831.46
     2.01      2.23      9.07      2.27      .095      .045      .095      .048    826.16    150.00
  .008788       40.       40.       40.         1         0         1      0.00     55.00    205.00


3470 ENCROACHMENT STATIONS=      154.0      199.0  TYPE=      1  TARGET=      45.000
 13191.00      7.37    833.73      0.00      0.00    835.01      1.28       .18       .07    831.26
    1290.       53.      1182.       55.       22.      125.       23.      328.      112.    831.66
     2.01      2.43      9.46      2.39      .095      .045      .095      .048    826.36    154.00
  .009707       20.       20.       20.         2         0         1      0.00     45.00    199.00


3470 ENCROACHMENT STATIONS=      159.0      194.0  TYPE=      1  TARGET=      35.000
 13211.00      7.29    833.85      0.00      0.00    835.30      1.45       .21       .09    831.46
    1290.       34.      1222.       33.       13.      123.       13.      328.      112.    831.86
     2.01      2.69      9.92      2.51      .095      .045      .095      .048    826.56    159.00
  .010890       20.       20.       20.         2         0         1      0.00     35.00    194.00


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      835.50 ELREA=      835.50

 13231.00      7.85    834.65      0.00      0.00    835.64       .98       .19       .14    828.70
    1290.        0.      1290.        0.        0.      162.        0.      328.      112.    828.80
     2.01      0.00      7.96      0.00      .095      .045      .095      .048    826.80    395.00
  .008390       20.       20.       20.         3         0         1      0.00     25.00    420.00


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      835.50 ELREA=      835.50

 13232.00      7.86    834.66      0.00      0.00    835.64       .98       .00       .00    828.70
    1290.        0.      1290.        0.        0.      162.        0.      328.      112.    828.80
     2.01      0.00      7.95      0.00      .035      .020      .035      .048    826.80    395.00
  .001650        1.        1.        1.         0         0         1      0.00     25.00    420.00


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.82      3.00      0.00      15.83     0.00      101.63    0.00      827.20    826.80


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


PRESSURE FLOW

     EGPRS     EGLWC     H3        QWEIR     WPR       BAREA     ELLC      ELTRD     CLASS
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839.21	836.07	0.00	0.	1290.	102.	833.90	842.90	10.00	

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 842.90 ELREA= 842.90

U/S FACE OF I-696 CULVERT, BS#9I 839.64 SEC. W

13410.00	11.61	838.81	0.00	0.00	839.21	.40	3.57	0.00	829.10
1290.	0.	1290.	0.	0.	254.	0.	329.	113.	829.40
2.02	0.00	5.09	0.00	.035	.020	.035	.047	827.20	395.00
.000422	178.	178.	178.	2	0	1	0.00	25.00	420.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 842.90 ELREA= 842.90

13411.00	11.61	838.81	0.00	0.00	839.21	.40	.00	.00	829.10
1290.	0.	1290.	0.	0.	254.	0.	329.	113.	829.40
2.02	0.00	5.09	0.00	.100	.050	.100	.047	827.20	395.00
.002635	1.	1.	1.	0	0	1	0.00	25.00	420.00

3470 ENCROACHMENT STATIONS= 392.0 423.0 TYPE= 1 TARGET= 31.000

13414.00	11.75	838.95	0.00	0.00	839.25	.30	.00	.01	829.20
1290.	97.	1076.	117.	46.	228.	56.	329.	113.	829.20
2.02	2.09	4.72	2.11	.100	.050	.100	.047	827.20	392.00
.001056	3.	3.	3.	2	0	1	0.00	31.00	423.00

1490 NH CARD USED

1105' U/S FROM U/S FACE OF I-696 CULVERT, VS#8H SEC. X

14514.00	9.68	839.58	0.00	0.00	839.59	.01	.26	.09	833.40
1290.	589.	241.	460.	1058.	181.	811.	359.	119.	833.20
2.45	.56	1.33	.57	.070	.045	.090	.047	829.90	20.84
.000099	1200.	1100.	1000.	3	0	1	0.00	429.92	450.76

3470 ENCROACHMENT STATIONS= 300.0 650.0 TYPE= 1 TARGET= 350.000

15314.00	7.49	839.69	0.00	0.00	839.78	.08	.15	.04	832.30
1170.	358.	495.	318.	320.	148.	281.	384.	124.	833.00
2.56	1.12	3.34	1.13	.080	.040	.080	.047	832.20	300.07
.000594	650.	800.	950.	2	0	1	0.00	198.67	498.75

3470 ENCROACHMENT STATIONS= 300.0 650.0 TYPE= 1 TARGET= 350.000

15315.00	7.49	839.69	0.00	0.00	839.78	.09	.00	.00	832.30
1170.	356.	498.	316.	320.	148.	281.	384.	124.	833.00
2.56	1.11	3.37	1.12	.075	.037	.075	.047	832.20	300.07
.000516	1.	1.	1.	0	0	1	0.00	198.68	498.75

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.83	3.05	0.00	14.14	0.00	86.00	0.00	832.20	832.20

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Refer to attached modified analysis

increase of 0.4 feet

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
847.83	840.67	0.00	470.	707.	86.	838.20	841.70	30.00

3470 ENCROACHMENT STATIONS= 300.0 650.0 TYPE= 1 TARGET= 350.000

U/S FACE OF ~~12-~~MILE ROAD BRIDGE, BS#7G SEC. Y

15382.00	10.42	842.62	0.00	0.00	842.67	.05	2.89	0.00	832.30
1170.	244.	538.	388.	360.	209.	672.	386.	124.	833.00
2.57	.68	2.58	.58	.080	.038	.080	.047	832.20	300.00
.000201	67.	67.	67.	2	0	5	0.00	350.00	650.00

3470 ENCROACHMENT STATIONS= 300.0 650.0 TYPE= 1 TARGET= 350.000

15383.00	10.43	842.63	0.00	0.00	842.67	.04	.00	.00	832.30
1170.	234.	509.	428.	360.	209.	672.	386.	124.	833.00
2.57	.65	2.44	.64	.075	.036	.065	.047	832.20	300.00
.000162	1.	1.	1.	0	0	1	0.00	350.00	650.00

3470 ENCROACHMENT STATIONS= 100.0 570.0 TYPE= 1 TARGET= -100.000

15683.00	9.86	842.66	0.00	0.00	842.78	.12	.07	.04	842.80
1170.	0.	1148.	22.	0.	405.	67.	392.	126.	841.30
2.60	0.00	2.83	.33	.075	.036	.065	.047	832.80	200.00
.000386	300.	300.	300.	1	0	1	0.00	207.22	407.22

NORMAL BRIDGE, NRD=18 MIN ELTRD= 841.30 MAX ELLC= 841.50

3470 ENCROACHMENT STATIONS= 100.0 570.0 TYPE= 1 TARGET= -100.000

15684.00	9.77	842.57	0.00	0.00	842.87	.30	.00	.09	842.80
1170.	0.	1077.	93.	0.	236.	53.	392.	126.	841.30
2.60	0.00	4.57	1.75	.065	.037	.055	.047	832.80	200.00
.008625	1.	1.	1.	2	0	1	-164.03	192.28	392.28

NORMAL BRIDGE, NRD=18 MIN ELTRD= 841.30 MAX ELLC= 841.50

3470 ENCROACHMENT STATIONS= 100.0 570.0 TYPE= 1 TARGET= -100.000

U/S FACE OF SIDEWALK-WAY BRIDGE, BS#6F SEC. Z

15689.00	9.84	842.64	0.00	0.00	842.92	.28	.04	.01	842.80
1170.	0.	1061.	109.	0.	239.	63.	392.	126.	841.30
2.60	0.00	4.44	1.73	.065	.037	.055	.047	832.80	200.00
.007994	5.	5.	5.	2	0	1	-164.51	204.11	404.11

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

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 15690.00    10.06   842.86     0.00     0.00   842.97      .11      .00      .05   842.80
    1170.       0.     1134.      36.       0.     416.      97.     392.     126.   841.30
     2.60     0.00     2.73      .37     .062     .036     .062     .047   832.80   200.00
  .000346       1.       1.       1.        2        0        1     0.00   208.00   408.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=     120.0     720.0  TYPE=     1  TARGET=    -120.000

        500' U/S FROM U/S FACE OF SIDEWALK-WAY BRIDGE, VS#5E            SEC. AA

 16190.00    10.50   843.10     0.00     0.00   843.15      .05      .16      .02   842.60
    1170.     354.     815.       1.     663.     383.       8.     400.     130.   842.60
     2.69      .53     2.13      .12     .090     .047     .090     .047   832.60   120.00
  .000318     400.     500.     700.        2        0        1     0.00   432.37   552.37

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

3470 ENCROACHMENT STATIONS=     460.0     570.0  TYPE=     1  TARGET=     110.000
 16890.00    12.63   843.33     0.00     0.00   843.49      .15      .28      .05   843.00
    1170.       3.     1164.       3.      10.     370.      13.     412.     135.   843.00
     2.75      .31     3.15      .22     .060     .040     .070     .047   830.70   460.00
  .000534     720.     700.     680.        0        0        1     0.00   110.00   570.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION  16891.00 EXTENDED       .45 FEET

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

3470 ENCROACHMENT STATIONS=     460.0     570.0  TYPE=     1  TARGET=     110.000
 16891.00    13.55   844.25   844.25     0.00   844.88      .64      .00     0.00   843.30
     695.     262.      79.     354.      38.      20.      54.     412.     135.   843.30
     2.75     6.82     4.03     6.54     .035     .032     .035     .047   830.70   460.00
  .023399       1.       1.       1.       30       10        1     0.00   110.00   570.00

3280 CROSS SECTION  17094.00 EXTENDED      1.84 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     460.0     570.0  TYPE=     1  TARGET=     110.000
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WOOD BUSINESS FORMS, INC. 23

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17094.00     14.04    845.64      0.00      0.00    845.75       .11       .71       .16    843.30
    695.      249.      87.      359.      88.       48.      129.      413.      135.    843.30
    2.77      2.83      1.80      2.78     .035      .032      .035      .047    831.60    460.00
 .001337      203.      203.      203.        5         0         1      0.00    110.00    570.00

3280 CROSS SECTION  17095.00 EXTENDED      1.82 FEET

3470 ENCROACHMENT STATIONS=     460.0     570.0  TYPE=     1  TARGET=     110.000
17095.00     14.02    845.62      0.00      0.00    845.77       .14       .00       .01    843.30
    1170.     102.      911.     157.      88.      270.      128.      413.      135.    843.30
    2.77      1.16      3.37      1.22     .075      .046      .070      .047    831.60    460.00
 .001040        1.        1.        1.        2         0         1      0.00    110.00    570.00

3280 CROSS SECTION  17895.00 EXTENDED      1.19 FEET

3470 ENCROACHMENT STATIONS=     210.0     350.0  TYPE=     1  TARGET=     140.000
          800' U/S FROM U/S FACE OF KENDALLWOOD RD CULVERT, VS#3C        SEC. AC

17895.00      9.49    846.49      0.00      0.00    846.59       .10       .81       .01    837.10
    1170.     590.      443.     136.     332.      126.      118.      423.      137.    843.80
    2.87      1.78      3.51      1.16     .075      .046      .070      .047    837.00    210.00
 .000942      900.      800.      700.        2         0         1      0.00    140.00    350.00

1490 NH CARD USED
   SECNO      DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     QLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH      AROB       VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH     XNR       WTN       ELMIN     SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC      ICONT     CORAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS=     170.0     290.0  TYPE=     1  TARGET=     120.000
          450' D/S FROM D/S FACE OF HEARTHSTONE ST CULVERT, VS#2B        SEC. AD

18395.00      7.67    847.17      0.00      0.00    847.75       .59       .92       .24    841.80
    1170.     206.      620.     343.      91.       77.      125.      428.      139.    842.30
    2.89      2.25      8.10      2.75     .077      .045      .076      .046    839.50    170.00
 .005214      485.      500.      515.        2         0         1      0.00    120.00    290.00

3280 CROSS SECTION  18845.00 EXTENDED      1.65 FEET

3470 ENCROACHMENT STATIONS=     220.0     360.0  TYPE=     1  TARGET=     140.000
18845.00      9.25    849.45      0.00      0.00    849.94       .49      2.16       .03    848.00
    1170.     187.      852.     132.     119.      131.       81.      431.      140.    848.00
    2.92      1.57      6.51      1.64     .085      .037      .085      .046    840.20    220.00
 .004415      450.      450.      450.        3         0         1      0.00    140.00    360.00

3280 CROSS SECTION  18846.00 EXTENDED      2.05 FEET

*OR AL BRIDGE NBD-20  IN ELTP =  847.20 MAX ELE =  846.0
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MOORE BUSINESS FORMS, INC 23

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3470 ENCROACHMENT STATIONS=      220.0      360.0  TYPE=      1  TARGET=      140.000
 18846.00      9.66    849.86      0.00      0.00    850.04      .18       .00       .09    848.00
    1170.      505.      315.      350.      149.      93.      100.      431.      140.    848.00
     2.92      3.38      3.37      3.49      .040     .032      .040      .046    840.20    220.00
  .003345        1.        1.        1.         3         0         1    -43.86    140.00    360.00

3280 CROSS SECTION  18896.00 EXTENDED      2.24 FEET

NORMAL BRIDGE,NRD=20 MIN ELTRD=  847.20 MAX ELLC=  846.40

3470 ENCROACHMENT STATIONS=      220.0      360.0  TYPE=      1  TARGET=      140.000

          U/S FACE OF HEARTHSTONE CULVERT, BS#1A                          SEC. AE

 18896.00      9.63    850.03      0.00      0.00    850.19      .16       .15       .01    848.00
    1170.      519.      295.      357.      164.      96.      109.      432.      140.    848.00
     2.92      3.17      3.05      3.27      .040     .032      .040      .046    840.40    220.00
  .002610       50.       50.       50.         1         0         1    -41.94    140.00    360.00

3280 CROSS SECTION  18897.00 EXTENDED      2.17 FEET

3470 ENCROACHMENT STATIONS=      220.0      360.0  TYPE=      1  TARGET=      140.000
 18897.00      9.57    849.97      0.00      0.00    850.26      .30       .00       .07    848.00
    1170.      257.      736.      177.      158.     137.      106.      432.      140.    848.00
     2.92      1.63      5.36      1.68      .085     .040      .085      .046    840.40    220.00
  .003250        1.        1.        1.         2         0         1      0.00    140.00    360.00

3280 CROSS SECTION  19547.00 EXTENDED      3.62 FEET

3470 ENCROACHMENT STATIONS=      140.0      305.0  TYPE=      1  TARGET=      165.000

          650' U/S FROM U/S FACE OF HEARTHSTONE CULVERT, VS#44            SEC. AF

 19547.00      8.52    851.12      0.00      0.00    851.31      .19      1.02       .03    847.70
    1170.      119.     1018.       34.      136.     269.       28.      438.      142.    847.40
     2.97       .87      3.78      1.21      .085     .040      .085      .046    842.60    177.57
  .000920      630.      650.      670.         3         0         1      0.00    127.43    305.00

3280 CROSS SECTION  19877.00 EXTENDED      1.54 FEET

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

3470 ENCROACHMENT STATIONS=      250.0      380.0  TYPE=      1  TARGET=      130.000
 19877.00      7.54    851.54      0.00      0.00    851.71      .17       .39       .01    846.90
    1170.      407.      536.      227.      218.     119.      173.      442.      143.    846.80
     3.00      1.86      4.51      1.31      .085     .040      .085      .046    844.00    250.00
  .001452       400.      330.       3.0         2                   1      0.00    [illegible]    380.0
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MOORE BUSINESS FORMS INC 23

3280 CROSS SECTION 19878.00 EXTENDED 1.65 FEET

3470 ENCROACHMENT STATIONS=			250.0	380.0	TYPE=	1	TARGET=	130.000	
19878.00	7.65	851.65	0.00	0.00	851.73	.09	.00	.02	846.90
1170.	522.	349.	299.	223.	121.	180.	442.	143.	846.80
3.00	2.34	2.89	1.66	.035	.032	.035	.046	844.00	250.00
.000376	1.	1.	1.	2	0	1	0.00	130.00	380.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.71	3.05	0.00	8.28	0.00	60.00	0.00	844.00	844.00

3280 CROSS SECTION 19924.00 EXTENDED 2.02 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
867.65	851.73	0.00	984.	193.	60.	849.30	849.90	30.00

3470 ENCROACHMENT STATIONS= 250.0 380.0 TYPE= 1 TARGET= 130.000

U/S FACE OF NOTTINGWOOD ROAD CULVERT, BS443 SEC. AG

19924.00	8.02	852.02	0.00	0.00	852.08	.06	.35	0.00	846.90
1170.	509.	270.	392.	241.	122.	238.	442.	144.	846.80
3.01	2.11	2.21	1.64	.035	.032	.035	.046	844.00	250.00
.000279	46.	46.	46.	2	0	5	0.00	130.00	380.00

3280 CROSS SECTION 19925.00 EXTENDED 2.02 FEET

3470 ENCROACHMENT STATIONS=			250.0	380.0	TYPE=	1	TARGET=	130.000	
19925.00	8.02	852.02	0.00	0.00	852.09	.07	.00	.01	846.90
1170.	462.	352.	356.	241.	122.	238.	442.	144.	846.80
3.01	1.92	2.88	1.49	.055	.035	.055	.046	844.00	250.00
.000568	1.	1.	1.	0	0	1	0.00	130.00	380.00

3280 CROSS SECTION 20275.00 EXTENDED 1.90 FEET

3470 ENCROACHMENT STATIONS= 140.0 325.0 TYPE= 1 TARGET= 185.000

350' U/S FROM U/S FACE OF NOTTINGWOOD RD BRIDGE, VS#42 SEC. AH

20275.00	8.70	852.20	0.00	0.00	852.33	.14	.21	.03	847.50
1170.	217.	642.	311.	177.	167.	223.	447.	145.	846.50
3.05	1.23	3.84	1.39	.055	.035	.055	.046	843.50	141.69
.000661	350.	350.	350.	2	0	1	0.00	176.76	318.45

MOORE BUSINESS FORMS, INC 23

3280 CROSS SECTION 20585.00 EXTENDED .82 FEET

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

3470 ENCROACHMENT STATIONS= 130.0 300.0 TYPE= 1 TARGET= 170.000

660' U/S FROM U/S FACE OF NOTTINGWOOD RD BRIDGE, VS#41 SEC. AI

20585.00	7.62	852.42	0.00	0.00	852.69	.27	.29	.06	849.80
1170.	175.	702.	293.	117.	136.	152.	450.	146.	847.70
3.07	1.49	5.14	1.93	.055	.035	.055	.046	844.80	131.15
.001449	310.	310.	310.	2	0	1	0.00	164.99	296.14

3280 CROSS SECTION 21005.00 EXTENDED .58 FEET

3470 ENCROACHMENT STATIONS= 390.0 570.0 TYPE= 1 TARGET= 180.000

300' D/S FROM D/S FACE OF CHESTERBROOK RD, VS#40 SEC. AJ

21005.00	7.68	853.08	0.00	0.00	853.14	.06	.38	.06	847.80
820.	381.	196.	242.	265.	65.	207.	455.	148.	847.90
3.14	1.44	3.04	1.17	.055	.035	.055	.046	845.40	390.00
.000513	450.	420.	440.	2	0	1	0.00	180.00	570.00

3470 ENCROACHMENT STATIONS= 485.0 565.0 TYPE= 1 TARGET= 80.000

21305.00	6.95	853.25	0.00	0.00	853.45	.20	.24	.07	847.60
820.	194.	432.	194.	95.	96.	96.	458.	149.	847.50
3.16	2.05	4.52	2.02	.055	.035	.055	.046	846.30	485.00
.001362	300.	300.	300.	2	0	1	0.00	80.00	565.00

3470 ENCROACHMENT STATIONS= 485.0 565.0 TYPE= 1 TARGET= 80.000

21306.00	7.03	853.33	0.00	0.00	853.46	.14	.00	.02	847.60
820.	237.	347.	236.	97.	97.	98.	458.	149.	847.50
3.16	2.43	3.59	2.40	.035	.033	.035	.046	846.30	485.00
.000749	1.	1.	1.	2	0	1	0.00	80.00	565.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.88	3.05	0.00	10.11	0.00	48.00	0.00	846.30	846.30

3280 CROSS SECTION 21353.00 EXTENDED .94 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
866.38	853.46	0.00	553.	267.	48.	851.20	852.90	30.00

MOORE BUSINESS FORMS, INC. 23

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3470 ENCROACHMENT STATIONS=      485.0      565.0  TYPE=      1  TARGET=      80.000

        U/S FACE OF CHESTERBROOK RD CULVERT, BS#39                          SEC. AK

 21353.00      8.34    854.64      0.00      0.00    854.71       .07      1.25      0.00    847.60
     820.      263.      292.      265.      139.      117.      142.      458.      149.    847.50
     3.17      1.89      2.49      1.87      .035      .033      .035      .046    846.30    485.00
  .000282       47.       47.       47.         2         0         5      0.00     80.00    565.00

3280 CROSS SECTION  21354.00 EXTENDED       .94 FEET

3470 ENCROACHMENT STATIONS=      485.0      565.0  TYPE=      1  TARGET=      80.000
 21354.00      8.33    854.63      0.00      0.00    854.72       .09       .00       .01    847.60
     820.      218.      360.      242.      139.      117.      142.      458.      149.    847.50
     3.17      1.57      3.07      1.71      .055      .035      .050      .046    846.30    485.00
  .000480        1.        1.        1.         0         0         1      0.00     80.00    565.00

3280 CROSS SECTION  21704.00 EXTENDED      1.11 FEET

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

3470 ENCROACHMENT STATIONS=      125.0      350.0  TYPE=      1  TARGET=     225.000

        350' U/S FROM U/S FACE OF CHESTERBROOK RD, VS#38                    SEC. AL

 21704.00      7.61    854.81      0.00      0.00    854.83       .02       .09       .02    849.00
     820.      373.      243.      204.      465.      135.      233.      463.      150.    850.40
     3.26       .80      1.81       .88      .055      .035      .050      .045    847.20    125.00
  .000152      400.      350.      300.         2         0         1      0.00    225.00    350.00

3280 CROSS SECTION  22104.00 EXTENDED       .30 FEET

3470 ENCROACHMENT STATIONS=      110.0      230.0  TYPE=      1  TARGET=     120.000

        90' D/S FROM D/S FACE OF BANNOCKBURN RD, VS#37                      SEC. AM

 22104.00      7.19    854.79      0.00      0.00    855.13       .34       .15       .16    852.30
     820.       82.      583.      155.       57.      107.       89.      468.      152.    850.80
     3.28      1.44      5.42      1.75      .055      .035      .055      .045    847.60    110.00
  .001775      400.      400.      400.         2         0         1      0.00    120.00    230.00

3280 CROSS SECTION  22194.00 EXTENDED       .19 FEET

3470 ENCROACHMENT STATIONS=      415.0      505.0  TYPE=      1  TARGET=      90.000
 22194.00      7.69    855.19      0.00      0.00    855.30       .10       .10       .07    849.00
     820.      220.      352.      249.      132.      103.      144.      469.      152.    848.70
     3.29      1.66      3.41      1.73      .055      .035      .055      .045    847.50    415.00
  .000710        [illegible]       [illegible]       [illegible]         [illegible]         [illegible]         1      [illegible]     [illegible]    505.0[illegible]
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MOORE BUSINESS FORMS, INC. 23

3280 CROSS SECTION 22195.00 EXTENDED .23 FEET

3470 ENCROACHMENT STATIONS=			415.0	505.0	TYPE=	1	TARGET=	90.000	
22195.00	7.73	855.23	0.00	0.00	855.31	.08	.00	.01	849.00
820.	256.	274.	290.	134.	104.	145.	469.	152.	848.70
3.29	1.92	2.65	1.99	.037	.035	.037	.045	847.50	415.00
.000418	1.	1.	1.	2	0	1	0.00	90.00	505.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.45	3.05	0.00	9.78	0.00	44.00	0.00	847.50	847.50

3280 CROSS SECTION 22265.00 EXTENDED .97 FEET

? to D. due to [illegible]

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
873.84	855.31	0.00	653.	169.	44.	852.40	854.11	30.00

169 / 3.84 / [illegible]

3470 ENCROACHMENT STATIONS=			415.0	505.0	TYPE=	1	TARGET=	90.000	

U/S FACE OF BANNOCKBURN RD CULVERT, BS#36 SEC. AN

22265.00	8.47	855.97	0.00	0.00	856.02	.05	.72	0.00	849.00
820.	270.	250.	300.	161.	115.	173.	470.	152.	848.70
3.31	1.68	2.18	1.73	.037	.035	.037	.045	847.50	415.00
.000249	70.	70.	70.	2	0	5	0.00	90.00	505.00

3280 CROSS SECTION 22266.00 EXTENDED .97 FEET

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

3470 ENCROACHMENT STATIONS=			415.0	505.0	TYPE=	1	TARGET=	90.000	
22266.00	8.46	855.96	0.00	0.00	856.03	.07	.00	.01	849.00
820.	232.	330.	258.	161.	115.	173.	470.	152.	848.70
3.31	1.44	2.88	1.49	.055	.034	.055	.045	847.50	415.00
.000407	1.	1.	1.	0	0	1	0.00	90.00	505.00

flow [illegible]

3470 ENCROACHMENT STATIONS=			300.0	375.0	TYPE=	1	TARGET=	75.000	

150' U/S FROM U/S FACE OF BANNOCKBURN ROAD, VS#35 SEC. AO

22416.00	7.65	855.95	0.00	0.00	856.25	.30	.10	.11	855.10
820.	2.	811.	7.	3.	183.	11.	471.	152.	855.10
3.31	57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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 .001398     150.     150.     150.       2        0        1     0.00    61.94   375.00

3280 CROSS SECTION  22511.00 EXTENDED       .12 FEET

3470 ENCROACHMENT STATIONS=      272.0     350.0  TYPE=      1  TARGET=      78.000
 22511.00     7.92   856.12     0.00      0.00   856.43      .31      .18      .00   854.10
     820.     104.     543.     173.       49.     103.      78.     471.     152.   854.10
     3.32     2.13     5.27     2.21      .055     .034     .055     .045   848.20   272.00
 .002548      95.      95.      95.        2        0        1     0.00    78.00   350.00

3280 CROSS SECTION  22512.00 EXTENDED       .19 FEET

NORMAL BRIDGE.NRD=19 MIN ELTRD=  853.90 MAX ELLC=  853.10

3470 ENCROACHMENT STATIONS=      272.0     350.0  TYPE=      1  TARGET=      78.000
 22512.00     7.99   856.19     0.00      0.00   856.45      .26      .00      .02   854.10
     820.     215.     248.     356.       51.      73.      81.     471.     152.   854.10
     3.32     4.25     3.40     4.40      .035     .033     .035     .045   848.20   272.00
 .003909       1.       1.       1.        2        0        1   -31.05    78.00   350.00

3280 CROSS SECTION  22582.00 EXTENDED       .48 FEET

NORMAL BRIDGE.NRD=19 MIN ELTRD=  853.90 MAX ELLC=  853.10

3470 ENCROACHMENT STATIONS=      272.0     350.0  TYPE=      1  TARGET=      78.000

        U/S FACE OF GLENARDEN ROAD CULVERT, BS#34                          SEC. AP

 22582.00     8.28   856.48     0.00      0.00   856.69      .21      .23      .01   854.10
     820.     224.     228.     368.       58.      77.      92.     472.     152.   854.10
     3.33     3.88     2.96     4.00      .035     .033     .035     .045   848.20   272.00
 .002731      70.      70.      70.        2        0        1   -31.05    78.00   350.00

3280 CROSS SECTION  22583.00 EXTENDED       .48 FEET

3470 ENCROACHMENT STATIONS=      272.0     350.0  TYPE=      1  TARGET=      78.000
 22583.00     8.27   856.47     0.00      0.00   856.70      .22      .00      .01   854.10
     820.     131.     494.     195.       58.     108.      92.     472.     152.   854.10
     3.33     2.26     4.56     2.12      .050     .035     .055     .045   848.20   272.00
 .001888       1.       1.       1.        0        0        1     0.00    78.00   350.00

1490 NH CARD USED
3280 CROSS SECTION  22883.00 EXTENDED       .09 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST
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MOORE BUSINESS FORMS, INC 23

3470 ENCROACHMENT STATIONS= 550.0 800.0 TYPE= 1 TARGET= 250.000

300' U/S FROM U/S FACE OF GLENARDEN RD, VS#33 SEC. AQ

22883.00	7.58	856.88	0.00	0.00	857.08	.20	.38	.01	854.80
820.	127.	626.	67.	94.	155.	69.	474.	153.	854.30
3.35	1.36	4.05	.97	.034	.034	.055	.045	849.30	609.21
.000912	300.	300.	300.	2	0	1	0.00	171.07	780.29

3470 ENCROACHMENT STATIONS= 590.0 800.0 TYPE= 1 TARGET= 210.000

750' U/S FROM U/S FACE OF GLENARDEN RD, VS#32 SEC. AR

23333.00	7.41	857.41	0.00	0.00	857.77	.36	.60	.08	858.40
820.	0.	787.	33.	0.	160.	29.	476.	155.	855.70
3.38	0.00	4.93	1.13	.050	.038	.055	.045	850.00	717.66
.002158	450.	450.	450.	2	0	1	0.00	66.45	784.10

3470 ENCROACHMENT STATIONS= 800.0 930.0 TYPE= 1 TARGET= 130.000

175' D/S FROM D/S FACE OF FARMINGTON RD CULVERT, VS#31 SEC. AS

23833.00	6.64	858.54	0.00	0.00	858.87	.33	1.09	.01	858.20
820.	1.	767.	52.	1.	162.	30.	479.	155.	856.40
3.41	.43	4.75	1.76	.050	.038	.055	.045	851.90	866.43
.002198	480.	500.	550.	3	0	1	0.00	63.57	930.00

3470 ENCROACHMENT STATIONS= 430.0 590.0 TYPE= 1 TARGET= 160.000

24008.00	6.33	859.03	0.00	0.00	859.15	.12	.21	.06	855.00
820.	104.	531.	185.	79.	162.	142.	480.	156.	854.50
3.43	1.32	3.28	1.30	.050	.038	.055	.045	852.70	445.74
.000778	175.	175.	175.	2	0	1	0.00	132.11	577.85

3470 ENCROACHMENT STATIONS= 430.0 590.0 TYPE= 1 TARGET= 160.000

24009.00	6.32	859.02	0.00	0.00	859.17	.15	.00	.02	855.00
820.	80.	585.	156.	79.	161.	142.	480.	156.	854.50
3.43	1.01	3.62	1.10	.070	.037	.070	.045	852.70	445.80
.000900	1.	1.	1.	1	0	1	0.00	131.95	577.75

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.73	3.04	0.00	7.83	0.00	51.00	0.00	852.70	852.70

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
869.98	859.42	0.00	464.	359.	51.	858.30	860.00	30.00

3470 ENCROACHMENT STATIONS= 430.0 590.0 TYPE= 1 TARGET= 160.000

MOORE BUSINESS FORMS INC 23

U/S FACE OF FARMINGTON ROAD CULVERT, BS#30 SEC. AT

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24077.00    8.38   861.08    0.00    0.00   861.12     .05    1.95     0.00   855.00
    820.     120.     481.    219.    179.     223.    290.     481.     156.   854.50
    3.44      .67     2.16     .75    .070     .037    .070     .045   852.70   430.00
 .000208      68.      68.     68.       2        0       5     0.00   160.00   590.00

3470 ENCROACHMENT STATIONS=      430.0     590.0  TYPE=      1  TARGET=      160.000
 24078.00    9.39   861.09    0.00    0.00   861.13     .03      .00      .00   855.00
    820.     141.     421.    258.    179.     223.    291.     481.     156.   854.50
    3.44      .79     1.88     .89    .052     .037    .052     .045   852.70   430.00
 .000158       1.       1.      1.       1        0       1     0.00   160.00   590.00

3280 CROSS SECTION  24358.00 EXTENDED      1.96 FEET

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

3470 ENCROACHMENT STATIONS=       65.0     370.0  TYPE=      1  TARGET=      305.000

280' U/S FROM U/S FACE OF FARMINGTON RD CULVERT, VS#29 SEC. AU

 24358.00    8.36   861.16    0.00    0.00   861.17     .01     .04      .01   855.00
    820.     373.     138.    309.    545.      91.    472.     486.     157.   855.30
    3.53      .69     1.51     .65    .057     .038    .057     .045   852.80    65.00
 .000114     280.     280.    280.       2        0       1     0.00   305.00   370.00

3280 CROSS SECTION  24778.00 EXTENDED      1.71 FEET

3470 ENCROACHMENT STATIONS=      650.0    1100.0  TYPE=      1  TARGET=      450.000
 24778.00    6.90   861.20    0.00    0.00   861.21     .00     .03      .00   857.00
    820.     467.     110.    243.   1008.     127.    507.     500.     161.   857.10
    3.77      .46      .86     .48    .057     .038    .057     .045   854.30   650.00
 .000059     450.     420.    420.       1        0       1     0.00   450.00  1100.00

3280 CROSS SECTION  24779.00 EXTENDED      1.71 FEET

NORMAL BRIDGE,NRD=23 MIN ELTRD=  857.00 MAX ELLC=  856.50

3470 ENCROACHMENT STATIONS=      650.0    1100.0  TYPE=      1  TARGET=      450.000
 24779.00    6.90   861.20    0.00    0.00   861.21     .00     .00      .00   857.00
    820.     510.      69.    242.   1008.     114.    507.     500.     161.   857.10
    3.77      .51      .60     .48    .050     .025    .055     .045   854.30   650.00
 .000054       1.       1.      1.       0        0       1  -13.20   450.00  1100.00

3280 CROSS SECTION  24782.00 EXTENDED      1.71 FEET

NORMAL BRIDGE,NRD=23 MIN ELTRD=  857.00 MAX ELLC=  856.50
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MOORE BUSINESS FORMS INC 23

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3470 ENCROACHMENT STATIONS=     650.0    1100.0  TYPE=     1  TARGET=     450.000
          U/S FACE OF WALKBRIDGE, BS#28                                   SEC. AV
 24782.00      6.90   861.20      0.00      0.00   861.21       .00       .00       .00    857.00
     820.      510.      69.      242.     1009.     114.      507.      500.      161.    857.10
     3.77       .51      .60       .48      .050     .025      .055      .045    854.30    650.00
  .000054        3.        3.        3.        0        0         1    -13.20    450.00   1100.00

3280 CROSS SECTION  24783.00 EXTENDED      1.71 FEET

3470 ENCROACHMENT STATIONS=     650.0    1100.0  TYPE=     1  TARGET=     450.000
 24783.00      6.90   861.20      0.00      0.00   861.21       .00       .00       .00    857.00
     820.      469.     106.      245.     1009.     127.      507.      500.      161.    857.10
     3.77       .47      .84       .48      .052     .036      .052      .045    854.30    650.00
  .000050        1.        1.        1.        0        0         1      0.00    450.00   1100.00

3280 CROSS SECTION  25383.00 EXTENDED      1.54 FEET

3470 ENCROACHMENT STATIONS=     175.0     500.0  TYPE=     1  TARGET=     325.000
 25383.00      6.04   861.24      0.00      0.00   861.25       .01       .04       .00    857.90
     820.      233.      78.      509.      432.      77.      710.      520.      167.    857.90
     4.01       .54     1.01       .72      .052     .036      .052      .044    855.20    175.00
  .000086      600.      600.      600.        0        0         1      0.00    325.00    500.00

3280 CROSS SECTION  25384.00 EXTENDED      1.54 FEET

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

NORMAL BRIDGE,NRD=13 MIN ELTRD=  856.20 MAX ELLC=  857.30

3470 ENCROACHMENT STATIONS=     175.0     500.0  TYPE=     1  TARGET=     325.000
 25384.00      6.04   861.24      0.00      0.00   861.25       .01       .00       .00    857.90
     820.      240.      55.      525.      432.      67.      710.      520.      167.    857.90
     4.01       .56       .83       .74      .050     .022      .050      .044    855.20    175.00
  .000085        1.        1.        1.        0        0         1     -9.75    325.00    500.00

3280 CROSS SECTION  25387.00 EXTENDED      1.54 FEET

NORMAL BRIDGE,NRD=13 MIN ELTRD=  856.20 MAX ELLC=  857.30

3470 ENCROACHMENT STATIONS=     175.0     500.0  TYPE=     1  TARGET=     325.000
          U/S FACE OF WALKBRIDGE, BS#27                                   SEC. AW
 25387      6.04   861.24      0.00      0.00   861.25       .01       .00       .00    857.90
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     820.      240.      55.      525.      432.      67.      710.      520.      167.      857.90
     4.01       .56      .83       .74      .050     .022      .050      .044    855.20     175.00
 .000085        3.        3.        3.         0        0         1     -9.75    325.00     500.00

3280 CROSS SECTION  25388.00 EXTENDED      1.54 FEET

3470 ENCROACHMENT STATIONS=      175.0      500.0  TYPE=      1  TARGET=      325.000
 25388.00     6.04    861.24      0.00      0.00   861.25      .01       .00       .00    857.90
     820.      233.      78.      509.      432.      77.      710.      520.      167.    857.90
     4.01       .54     1.01       .72      .052     .036      .052      .044    855.20     175.00
 .000086        1.        1.        1.         0        0         1      0.00    325.00     500.00

3280 CROSS SECTION  25708.00 EXTENDED      .96 FEET

3470 ENCROACHMENT STATIONS=      300.0      470.0  TYPE=      1  TARGET=      170.000
 25708.00     6.66    861.26      0.00      0.00   861.34      .08       .05       .04    855.50
     730.       85.     506.      139.      101.     191.      107.      526.      168.    855.20
     4.05       .84     2.65      1.30      .052     .036      .052      .044    854.60     300.00
 .000488      320.      320.      320.         1        0         1      0.00    170.00     470.00

3280 CROSS SECTION  25709.00 EXTENDED      .91 FEET

NORMAL BRIDGE,NRD=28 MIN ELTRD=  859.50 MAX ELLC=  858.80

3470 ENCROACHMENT STATIONS=      300.0      470.0  TYPE=      1  TARGET=      170.000
 25709.00     6.61    861.21      0.00      0.00   861.39      .18       .00       .05    855.50
     730.      154.     312.      264.       68.      97.       63.      526.      168.    855.20
     4.05     2.27     3.22      4.18      .035     .033      .035      .044    854.60     300.00
 .005518        1.        1.        1.         2        0         1   -161.00    170.00     470.00

3280 CROSS SECTION  25769.00 EXTENDED      1.23 FEET

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

NORMAL BRIDGE,NRD=28 MIN ELTRD=  859.50 MAX ELLC=  858.80

3470 ENCROACHMENT STATIONS=      300.0      470.0  TYPE=      1  TARGET=      170.000
        U/S FACE OF OAK POINT DRIVE CULVERT, BS#26                                  SEC. AX
 25769.00     6.92    861.52      0.00      0.00   861.64      .12       .23       .02    855.50
     730.      207.     264.      258.       99.     107.       76.      526.      169.    855.20
     4.06     2.10     2.47      3.39      .035     .033      .035      .044    854.60     300.00
 .002834       60.       60.       60.         2        0         1   -161.00    170.00     470.00

3280 CROSS SECTION  25770.00 EXTENDED      1.29 FEET
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3470 ENCROACHMENT STATIONS= 300.0 470.0 TYPE= 1 TARGET= 170.000

25770.00	6.99	861.59	0.00	0.00	861.66	.07	.00	.01	855.50
730.	97.	500.	134.	132.	201.	120.	526.	169.	855.20
4.06	.73	2.49	1.11	.052	.032	.052	.044	854.60	300.00
.000316	1.	1.	1.	2	0	1	0.00	170.00	470.00

391

422

3280 CROSS SECTION 26370.00 EXTENDED .27 FEET

3470 ENCROACHMENT STATIONS= 150.0 600.0 TYPE= 1 TARGET= 450.000

600' U/S FROM U/S FACE OF OAK POINT DRIVE, VS#25 SEC. AY

26370.00	6.07	861.77	0.00	0.00	861.78	.01	.11	.02	859.90
730.	440.	284.	6.	799.	208.	23.	534.	171.	860.40
4.22	.55	1.37	.26	.065	.035	.055	.044	855.70	150.00
.000158	300.	600.	800.	2	0	1	0.00	391.15	541.15

3470 ENCROACHMENT STATIONS= 200.0 755.0 TYPE= 1 TARGET= 555.000

1040' U/S FROM U/S FACE OF OAK POINT DRIVE, VS#24 SEC. AZ

26910.00	7.50	861.90	0.00	0.00	862.06	.16	.20	.07	861.50
730.	10.	720.	0.	32.	224.	0.	544.	176.	862.20
4.27	.33	3.21	0.00	.065	.037	.057	.044	854.40	555.09
.001115	750.	540.	370.	0	0	1	0.00	180.58	735.67

3470 ENCROACHMENT STATIONS= 200.0 750.0 TYPE= 1 TARGET= 550.000

1390' U/S FROM U/S FACE OF OAK POINT DRIVE, VS#23 SEC. BA

27260.00	6.39	862.29	0.00	0.00	862.48	.19	.41	.02	861.50
730.	11.	715.	4.	26.	203.	8.	546.	177.	861.50
4.30	.43	3.53	.50	.065	.037	.057	.044	855.90	592.78
.001237	350.	350.	350.	2	0	1	0.00	136.09	728.87

3470 ENCROACHMENT STATIONS= 1455.0 1700.0 TYPE= 1 TARGET= 245.000

320' D/S FROM D/S FACE OF 13 MILE RD, VS#22 SEC. BB

27810.00	6.23	862.93	0.00	0.00	863.09	.16	.60	.01	870.60
730.	0.	730.	0.	0.	229.	1.	549.	178.	862.50
4.35	0.00	3.18	.30	.060	.035	.055	.044	856.70	1525.54
.000961	400.	550.	700.	0	0	1	0.00	62.47	1588.01

3470 ENCROACHMENT STATIONS= 1269.0 1504.0 TYPE= 1 TARGET= 250.000

28130.00	5.23	863.33	0.00	0.00	863.63	.30	.47	.07	862.20
730.	8.	722.	0.	10.	163.	0.	550.	179.	864.70
4.37	.72	4.44	0.00	.070	.033	.070	.044	858.10	1363.24
.002501	260.	320.	300.	2	0	1	0.00	76.30	1439.54

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	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= 1269.0 1504.0 TYPE= 1 TARGET= 250.000

28131.00	5.23	863.33	0.00	0.00	863.63	.30	.00	.00	862.20
730.	7.	723.	0.	11.	163.	0.	550.	179.	864.70
4.37	.70	4.44	0.00	.070	.032	.070	.044	858.10	1363.21
.002349	1.	1.	1.	0	0	1	0.00	76.34	1439.55

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.93	3.04	0.00	0.00	0.00	54.00	0.00	858.10	858.10

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	Q WEIR	QPR	BAREA	ELLC	ELTRD	CLASS
871.65	863.63	0.00	255.	480.	54.	863.00	866.20	30.00

3470 ENCROACHMENT STATIONS= 1269.0 1504.0 TYPE= 1 TARGET= 250.000

U/S FACE OF 13 MILE ROAD CULVERT, BS#21 SEC. BC

28218.00	8.79	866.89	0.00	0.00	866.93	.04	3.29	0.00	862.20
730.	83.	639.	8.	205.	392.	31.	551.	179.	864.70
4.39	.41	1.63	.24	.070	.032	.070	.044	858.10	1269.00
.000117	87.	87.	87.	2	0	5	0.00	207.32	1476.32

3470 ENCROACHMENT STATIONS= 1269.0 1504.0 TYPE= 1 TARGET= 250.000

28219.00	8.79	866.89	0.00	0.00	866.93	.04	.00	.00	862.20
730.	85.	637.	8.	205.	392.	31.	551.	179.	864.70
4.39	.42	1.63	.25	.070	.033	.070	.044	858.10	1269.00
.000124	1.	1.	1.	0	0	1	0.00	207.34	1476.34

3470 ENCROACHMENT STATIONS= 220.0 645.0 TYPE= 1 TARGET= =220.000

400' U/S FROM U/S FACE OF 13 MILE ROAD, VS#20 SEC. BD

28619.00	7.16	866.96	0.00	0.00	866.98	.01	.04	.01	863.60
730.	221.	333.	176.	461.	255.	278.	559.	182.	862.10
4.52	.48	1.30	.63	.053	.035	.053	.044	859.80	235.12
.000089	550.	400.	300.	2	0	1	0.00	335.96	571.08

3470 ENCROACHMENT STATIONS= 300.0 450.0 TYPE= 1 TARGET= 150.000

1250' U/S FROM U/S FACE OF 13 MILE ROAD, VS#19 SEC. BE

29469.00	4.82	867.02	0.00	0.00	867.36	.34	.22	.16	865.10
730.	81.	540.	109.	49.	102.	44.	571.	186.	864.20
4.57	1.66	5.30	2.48	.052	.037	.052	.044	862.20	340.86
.003065	850.	850.	850.	2	0	1	0.00	109.14	450.00

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3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
 29534.00      4.36   867.16      0.00      0.00   867.71      .55       .24       .10   865.00
     730.       82.      612.       36.       44.      95.      19.      571.      187.   865.00
     4.57      1.87     6.43      1.93      .052     .037     .052      .044   862.80   100.00
  .004700       65.       65.       65.         2        0        1      0.00   113.84   213.84

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
 29535.00      2.89   867.79   867.79      0.00   868.46      .67       .01      0.00   865.60
     730.      199.      446.       85.       78.      54.      37.      571.      187.   865.60
     4.57      2.55     8.20      2.29      .050     .022     .050      .044   864.90   100.00
  .005334        1.        1.        1.        30       19        1      0.00   127.49   227.49

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

3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
          U/S FACE OF CHECK DAM, 65' FROM SEC.BE, DS#18                    SEC. BF
 29536.00      2.90   867.80   867.79      0.00   868.47      .67       .01      .00   865.60
     730.      200.      445.       85.       79.      55.      37.      571.      187.   865.60
     4.57      2.54     8.17      2.28      .050     .022     .050      .044   864.90   100.00
  .005280        1.        1.        1.         0        5        1      0.00   127.61   227.61

3280 CROSS SECTION  29537.00 EXTENDED      .50 FEET

3470 ENCROACHMENT STATIONS=     100.0     230.0  TYPE=     1  TARGET=    -100.000
 29537.00      4.60   868.40      0.00      0.00   868.61      .21       .00      .14   865.60
     730.      189.      451.       90.      118.     100.      63.      571.      187.   865.60
     4.57      1.60     4.50      1.44      .055     .032     .055      .044   863.80   100.00
  .001533        1.        1.        1.         4        0        1      0.00   130.00   230.00

3280 CROSS SECTION  29687.00 EXTENDED     1.46 FEET

 29687.00      5.26   868.66      0.00      0.00   868.98      .32       .32      .06   868.30
     730.        1.      460.      269.        2.      83.     141.      572.      187.   868.10
     4.58       .49     5.56      1.92      .055     .032     .055      .043   863.40    40.93
  .003159      150.      150.      150.         2        0        1      0.00   135.07   176.00
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3280 CROSS SECTION  29688.00 EXTENDED      1.51 FEET

NORMAL BRIDGE,NRD=15 MIN ELTRD=  866.60 MAX ELLC=  868.30

 29688.00      5.30    868.70      0.00      0.00    869.00       .29       .00       .01    868.30
     730.        1.      397.      332.        2.      72.      145.      572.      187.    868.10
      4.58       .61      5.50      2.29      .050      .022      .050      .043    863.40     39.98
  .003603        1.        1.        1.         2         0         1    -11.40    136.02    176.00

3280 CROSS SECTION  29700.00 EXTENDED      1.59 FEET

NORMAL BRIDGE,NRD=15 MIN ELTRD=  866.60 MAX ELLC=  868.30

        U/S FACE OF DRIVEWAY BRIDGE, BS#17                                    SEC. BG

 29700.00      5.39    868.79      0.00      0.00    869.05       .26       .04       .01    868.30
     730.        2.      380.      348.        3.      72.      154.      572.      187.    868.10
      4.58       .66      5.27      2.27      .050      .022      .050      .043    863.40     38.08
  .003302       12.       12.       12.         2         0         1    -12.93    137.92    176.00

3280 CROSS SECTION  29701.00 EXTENDED      1.59 FEET

 29701.00      5.38    868.78      0.00      0.00    869.06       .28       .00       .01    868.30
     730.        2.      443.      286.        3.      85.      154.      572.      187.    868.10
      4.58       .55      5.20      1.85      .055      .032      .055      .043    863.40     38.00
  .002667        1.        1.        1.         0         0         1      0.00    138.00    176.00

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

3470 ENCROACHMENT STATIONS=      435.0      626.4  TYPE=      1  TARGET=     220.000
 29751.00      6.38    869.18      0.00      0.00    869.29       .11       .18       .05    867.80
     730.      148.       89.      493.       81.      21.      196.      572.      187.    867.80
      4.59      1.82      4.30      2.52      .055      .032      .055      .043    862.80    435.00
  .004103        1.       50.       70.         3         0         1      0.00    191.40    626.40

NORMAL BRIDGE,NRD=25 MIN ELTRD=  867.10 MAX ELLC=  866.80

3470 ENCROACHMENT STATIONS=      435.0      626.4  TYPE=      1  TARGET=     220.000
 29752.00      6.39    869.19      0.00      0.00    869.29       .10       .00       .00    867.80
     730.      158.       51.      522.       82.      16.      197.      572.      187.    867.80
      4.59      1.92      3.22      2.65      .030      .015      .030      .043    862.80    435.00
  .001344        1.        1.        1.         1         0         1     -4.99    191.40    626.40

NORMAL BRIDGE,NRD=25 MIN ELTRD=  867.10 MAX ELLC=  866.80
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3470 ENCROACHMENT STATIONS=      435.0      626.4  TYPE=     1  TARGET=      220.000

          U/S FACE OF MIRLON DRIVE CULVERT, BS#16                    SEC. BH

  29796.00      6.46    869.26      0.00      0.00    869.35       .09       .05       .00    867.80
      730.      163.       48.      519.       88.       16.      205.      573.      187.    867.80
      4.60      1.86      3.01      2.53      .030      .015      .030      .043    862.80    435.00
   .001156       44.       44.       44.         2         0         1     -4.99    191.40    626.40

3470 ENCROACHMENT STATIONS=      435.0      626.4  TYPE=     1  TARGET=      220.000
  29797.00      6.46    869.26      0.00      0.00    869.35       .09       .00       .00    867.80
      730.      157.       73.      500.       88.       21.      205.      573.      187.    867.80
      4.60      1.79      3.47      2.43      .050      .034      .050      .043    862.80    435.00
   .002975        1.        1.        1.         0         0         1      0.00    191.40    626.40

3470 ENCROACHMENT STATIONS=      150.0      400.0  TYPE=     1  TARGET=      250.000

          230' U/S FROM U/S FACE OF MIRLON DRIVE CULVERT, VS#15          SEC. BI

  30027.00      5.56    869.56      0.00      0.00    869.62       .06       .26       .01    866.00
      730.      124.      360.      246.      117.      137.      222.      575.      189.    867.10
      4.64      1.06      2.63      1.11      .050      .034      .050      .043    864.00    188.22
   .000452      170.      230.      350.         2         0         1      0.00    193.91    382.13

3470 ENCROACHMENT STATIONS=      150.0      400.0  TYPE=     1  TARGET=      250.000

          730' U/S FROM U/S FACE OF MIRLON DRIVE CULVERT, VS#14          SEC. BJ

  30527.00      6.33    869.73      0.00      0.00    869.79       .06       .16       .00    866.80
      730.      104.      616.       10.      143.      298.       23.      581.      191.    868.00
      4.71       .73      2.07       .42      .050      .034      .050      .043    863.40    172.53
   .000247      500.      500.      500.         2         0         1      0.00    167.74    340.27

3470 ENCROACHMENT STATIONS=      150.0      500.0  TYPE=     1  TARGET=      350.000

          300' D/S FROM D/S FACE OF DRAKE ROAD, VS#13                    SEC. BK

  30927.00      6.17    869.87      0.00      0.00    869.90       .03       .10       .01    868.70
      640.        5.       210.      425.       14.      119.      421.      585.      193.    867.70
      4.80       .33      1.76      1.01      .050      .035      .050      .043    863.70    236.60
   .000259      400.      400.      400.         0         0         1      0.00    225.94    462.54

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

3470 ENCROACHMENT STATIONS=      500.0      850.0  TYPE=     1  TARGET=      350.000
  31227.00      4.96    869.96      0.00      0.00    870.00       .04       .09       .00    867.40
      640.        0.       108.      532.        0.       45.      419.      588.      194.    867.40
      4.84      0.00      2.40      1.27      .050      .035      .050      .043    865.00    500.00
   .000775      400.      300.      200.         1         0         1      0.00    350.00    850.00

3487 20 TRIAL USED (CFL CHSEL
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MOORE BUSINESS FORMS, INC 23

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7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3265 DIVIDED FLOW

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

NORMAL BRIDGE,NRD=22 MIN ELTRD=  868.90 MAX ELLC=  871.20

3470 ENCROACHMENT STATIONS=     500.0     850.0  TYPE=     1  TARGET=     350.000
 31228.00      5.48    870.48    870.48      0.00    870.73       .24       .00      0.00    871.60
     640.        0.      228.      412.        0.       42.      147.      588.      194.    871.50
     4.84      0.00      5.42      2.80      .035      .032      .035      .043    865.00    500.00
  .007154        1.        1.        1.        30         8         1   -314.47    330.79    850.00


3265 DIVIDED FLOW

NORMAL BRIDGE,NRD=22 MIN ELTRD=  868.90 MAX ELLC=  871.20

3470 ENCROACHMENT STATIONS=     500.0     850.0  TYPE=     1  TARGET=     350.000
          U/S FACE OF DRAKE ROAD CULVERT, BS#12                                SEC. BL

 31299.00      5.95    870.95      0.00      0.00    871.03       .08       .25       .05    871.60
     640.        0.      127.      513.        0.       43.      250.      588.      195.    871.50
     4.85      0.00      2.94      2.05      .035      .032      .035      .043    865.00    500.00
  .002130       71.       71.       71.         2         0         1   -365.63    339.58    850.00


3470 ENCROACHMENT STATIONS=     500.0     850.0  TYPE=     1  TARGET=     350.000
 31300.00      6.04    871.04      0.00      0.00    871.05       .01       .00       .02    867.40
     640.        0.       72.      568.        0.       55.      788.      588.      195.    867.40
     4.85      0.00      1.32       .72      .055      .035      .055      .043    865.00    500.00
  .000194        1.        1.        1.         2         0         1      0.00    350.00    650.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS=     175.0     932.0  TYPE=     1  TARGET=    -175.000
        550' U/S FROM U/S FACE OF DRAKE ROAD CULVERT, VS#11                    SEC. BM

 31850.00      5.77    871.07      0.00      0.00    871.07       .00       .02       .00    866.10
     640.       118.      299.      223.      607.      758.     1218.      612.      201.    867.70
     5.45       .19       .39       .18      .063      .035      .064      .043    865.30    175.00
  .000010      470.      550.      650.         2         0         1      0.00    621.64    796.64

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

3470 ENCROACHMENT STATIONS= 500.0 1460.0 TYPE= 1 TARGET= -500.000

1485' U/S FROM U/S FACE OF DRAKE ROAD CULVERT, VS#10 SEC. BN

32785.00	4.18	871.08	0.00	0.00	871.09	.00	.02	.00	868.80
640.	464.	42.	134.	1599.	70.	566.	663.	217.	869.00
6.31	.29	.59	.24	.072	.037	.072	.043	866.90	500.00
.000047	935.	935.	935.	2	0	1	0.00	889.43	1389.43

3470 ENCROACHMENT STATIONS= 500.0 1120.0 TYPE= 1 TARGET= -500.000

850' D/S FROM D/S FACE OF CHECK DAM, VS#9 SEC. BO

33385.00	3.65	871.15	0.00	0.00	871.17	.02	.07	.01	869.80
640.	471.	125.	45.	568.	62.	90.	684.	227.	870.10
6.48	.83	2.00	.50	.072	.037	.072	.043	867.50	500.00
.000698	600.	600.	600.	2	0	1	0.00	437.83	937.83

3470 ENCROACHMENT STATIONS= 275.0 649.0 TYPE= 1 TARGET= -275.000

34235.00	3.17	872.17	0.00	0.00	872.50	.33	1.18	.15	871.70
640.	75.	480.	85.	60.	92.	62.	693.	233.	870.50
6.53	1.25	5.23	1.37	.065	.035	.065	.043	869.00	275.00
.004007	850.	850.	850.	4	0	1	0.00	178.47	453.47

c/s of side dam?

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.00	3.06	0.00	.01	0.00	.01	0.00	869.00	869.00

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
*********	872.50	0.00	644.	0.	0.	869.00	871.00	30.00

3470 ENCROACHMENT STATIONS= 275.0 649.0 TYPE= 1 TARGET= -275.000

U/S FACE OF CHECK DAM, DS#8 SEC. BP

34247.00	3.76	872.76	0.00	0.00	872.90	.14	.40	0.00	871.70
640.	114.	404.	122.	103.	111.	109.	693.	233.	870.50
6.53	1.11	3.64	1.12	.065	.035	.065	.043	869.00	275.00
.001501	12.	12.	12.	2	0	19	0.00	193.53	468.53

1105' D/S FROM D/S FACE OF DRIVEWAY BRIDGE #BS, VS#7 SEC. BQ

34997.00	6.72	873.82	0.00	0.00	874.09	.27	1.13	.07	870.00
640.	85.	526.	30.	43.	116.	31.	697.	235.	871.80
6.58	1.95	4.55	.97	.045	.035	.060	.042	867.10	63.29
.001504	750.	750.	750.	3	0	1	0.00	77.00	140.29

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350' D/S FROM D/S FACE OF DRIVEWAY BRIDGE #BS, VS#6 SEC. BR

35772.00	6.26	874.76	0.00	0.00	874.89	.12	.75	.04	873.50
640.	22.	616.	3.	47.	215.	8.	701.	237.	874.10
6.66	.46	2.87	.34	.062	.033	.055	.042	868.50	125.67
.000676	775.	775.	775.	2	0	1	0.00	152.30	277.97

36122.00	6.43	875.03	0.00	0.00	875.30	.27	.34	.07	885.80
640.	0.	640.	0.	0.	154.	0.	703.	238.	885.80
6.69	0.00	4.15	0.00	.062	.033	.055	.042	868.60	93.70
.001456	400.	350.	300.	2	0	1	0.00	31.20	124.90

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

NORMAL BRIDGE,NRD=24 MIN ELTRD= 885.80 MAX ELLC= 877.30

36123.00	6.40	875.00	0.00	0.00	875.33	.33	.00	.03	885.80
640.	0.	640.	0.	0.	139.	0.	703.	238.	885.80
6.69	0.00	4.61	0.00	.035	.031	.035	.042	868.60	93.70
.002309	1.	1.	1.	2	0	1	-35.06	31.20	124.90

NORMAL BRIDGE,NRD=24 MIN ELTRD= 885.80 MAX ELLC= 877.70

U/S FACE OF DRIVEWAY BRIDGE, BS#5 SEC. BS

36262.00	6.32	875.32	0.00	0.00	875.66	.34	.33	.00	885.80
640.	0.	640.	0.	0.	137.	0.	704.	238.	885.80
6.69	0.00	4.66	0.00	.035	.031	.035	.042	869.00	93.70
.002382	139.	139.	139.	2	0	1	-34.12	31.20	124.90

36263.00	6.41	875.41	0.00	0.00	875.68	.27	.00	.02	886.20
640.	0.	640.	0.	0.	153.	0.	704.	238.	886.20
6.69	0.00	4.17	0.00	.050	.033	.050	.042	869.00	93.70
.001471	1.	1.	1.	2	0	1	0.00	31.20	124.90

revised as follows

240' U/S FROM U/S FACE OF DRIVEWAY BRIDGE #BS, VS#4 SEC. BT

36503.00	5.91	875.81	0.00	0.00	875.98	.17	.27	.03	873.40
640.	26.	613.	0.	26.	181.	1.	705.	238.	875.50
6.71	1.01	3.38	.26	.050	.033	.050	.042	869.90	78.37
.000910	240.	240.	240.	2	0	1	0.00	70.62	148.99

3470 ENCROACHMENT STATIONS= 600.0 850.0 TYPE= 1 TARGET= 250.000

37603.00	6.77	876.17	0.00	0.00	876.17	.00	.14	.05	869.80
480.	235.	26.	218.	502.	28.	467.	720.	242.	869.80
7.33	.47	.96	.47	.050	.033	.050	.042	869.40	600.00
.000038	1100.	1100.	1100.	2	0	1	0.00	250.00	850.00

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9727.00	240.00	0.00	0.00	745.70	625.00	749.38	.46	1.64	.01	542.67	3.68	117.17
9727.00	240.00	0.00	0.00	745.70	1330.00	750.54	.58	1.62	.01	920.32	4.84	197.13
9727.00	240.00	0.00	0.00	745.70	1810.00	751.08	.62	1.58	.03	1123.06	5.38	230.78
9727.00	240.00	0.00	0.00	745.70	3410.00	752.41	.69	1.39	.09	1665.85	6.71	290.99
9967.00	240.00	0.00	0.00	747.60	625.00	751.13	.46	1.75	.00	526.26	3.53	115.85
9967.00	240.00	0.00	0.00	747.60	1330.00	752.29	.59	1.76	.01	908.80	4.69	184.94
9967.00	240.00	0.00	0.00	747.60	1810.00	752.84	.65	1.78	.02	1122.45	5.24	214.19
9967.00	240.00	0.00	0.00	747.60	3410.00	754.15	.79	1.78	.05	1717.62	6.55	265.13

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
10207.00	240.00	0.00	0.00	749.50	625.00	753.00	.43	1.82	.01	503.06	3.50	118.21
10207.00	240.00	0.00	0.00	749.50	1330.00	754.15	.59	1.86	.00	898.67	4.65	174.96
10207.00	240.00	0.00	0.00	749.50	1810.00	754.71	.65	1.86	.00	1111.40	5.21	199.86
10207.00	240.00	0.00	0.00	749.50	3410.00	756.06	.79	1.91	.00	1718.11	6.56	258.82
10817.00	610.00	0.00	0.00	751.10	625.00	755.90	.37	2.83	.02	570.30	4.80	145.99
10817.00	610.00	0.00	0.00	751.10	1330.00	757.24	.40	2.83	.06	919.96	6.14	285.62
10817.00	610.00	0.00	0.00	751.10	1810.00	757.84	.41	2.82	.07	1102.09	6.74	288.76
10817.00	610.00	0.00	0.00	751.10	3410.00	759.35	.46	2.87	.10	1639.71	8.25	296.63
10932.00	115.00	0.00	0.00	752.50	625.00	756.33	.66	.57	.15	585.46	3.83	98.46
10932.00	115.00	0.00	0.00	752.50	1330.00	757.60	.73	.53	.17	988.70	5.10	203.42
10932.00	115.00	0.00	0.00	752.50	1810.00	758.20	.72	.51	.16	1185.26	5.70	244.00
10932.00	115.00	0.00	0.00	752.50	3410.00	759.72	.70	.48	.12	1713.04	7.22	244.00
10990.00	58.00	0.00	0.00	753.20	625.00	756.88	.65	.54	.00	567.75	3.68	102.59
10990.00	58.00	0.00	0.00	753.20	1330.00	758.05	.79	.48	.03	980.25	4.85	177.86
10990.00	58.00	0.00	0.00	753.20	1810.00	758.59	.85	.45	.06	1203.82	5.39	216.00
10990.00	58.00	0.00	0.00	753.20	3410.00	760.00	.92	.39	.11	1803.83	6.80	216.00
11047.00	57.00	0.00	0.00	754.00	625.00	757.45	.68	.58	.02	555.82	3.45	96.06
11047.00	57.00	0.00	0.00	754.00	1330.00	758.53	.95	.57	.08	1000.12	4.53	154.35
11047.00	57.00	0.00	0.00	754.00	1810.00	759.08	1.03	.55	0.00	1244.56	5.08	185.77
11047.00	57.00	0.00	0.00	754.00	3410.00	760.40	1.13	.51	.11	1871.98	6.40	253.80
12.00	262.00	0.00	0.00	755.80	505.00	759.70	.30	1.75	.12	423.96	3.90	120.68
12.00	262.00	0.00	0.00	755.80	1060.00	760.98	.33	1.64	.19	707.62	5.18	191.87
12.00	262.00	0.00	0.00	755.80	1410.00	761.56	.34	1.58	.21	851.44	5.76	225.41
12.00	262.00	0.00	0.00	755.80	2740.00	762.90	.44	1.61	.21	1343.79	7.10	258.49
275.00	263.00	0.00	0.00	757.60	505.00	761.13	.57	1.57	.13	465.63	3.53	93.56
275.00	263.00	0.00	0.00	757.60	1060.00	762.18	.71	1.40	.19	806.70	4.58	150.72
275.00	263.00	0.00	0.00	757.60	1410.00	762.69	.74	1.33	.20	976.50	5.09	177.97
275.00	263.00	0.00	0.00	757.60	2740.00	764.07	.79	1.34	.17	1493.05	6.47	244.43
537.00	262.00	0.00	0.00	759.50	505.00	763.33	.45	2.06	.03	453.57	3.83	113.42
537.00	262.00	0.00	0.00	759.50	1060.00	764.37	.59	2.03	.04	776.26	4.87	160.30
537.00	262.00	0.00	0.00	759.50	1410.00	764.81	.65	2.01	.03	947.99	5.31	192.03
537.00	262.00	0.00	0.00	759.50	2740.00	766.02	.81	1.96	.01	1484.12	6.52	238.63
732.00	195.00	0.00	0.00	760.80	505.00	764.70	.50	1.39	.02	462.13	3.90	111.54
732.00	195.00	0.00	0.00	760.80	1060.00	765.76	.63	1.40	.02	784.59	4.96	159.17
732.00	195.00	0.00	0.00	760.80	1410.00	766.22	.67	1.42	.01	949.74	5.42	193.83
732.00	195.00	0.00	0.00	760.80	2740.00	767.53	.76	1.45	.01	1457.61	6.73	239.59
927.00	195.00	0.00	0.00	762.20	505.00	766.18	.52	1.48	.01	464.76	3.98	116.27
927.00	195.00	0.00	0.00	762.20	1060.00	767.21	.65	1.47	.01	786.88	5.01	168.29
927.00	195.00	0.00	0.00	762.20	1410.00	767.68	.69	1.47	.01	952.12	5.48	193.09
927.00	195.00	0.00	0.00	762.20	2740.00	768.95	.80	1.43	.02	1461.11	6.75	240.07

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SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	C#SEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1122.00	195.00	0.00	0.00	763.60	505.00	767.67	.52	1.49	.00	466.29	4.07	118.57
1122.00	195.00	0.00	0.00	763.60	1060.00	768.71	.65	1.50	.00	786.68	5.11	176.82
1122.00	195.00	0.00	0.00	763.60	1410.00	769.18	.68	1.49	.00	945.26	5.58	198.79
1122.00	195.00	0.00	0.00	763.60	2740.00	770.43	.79	1.48	.00	1448.69	6.83	243.11
1317.00	195.00	0.00	0.00	765.00	505.00	769.18	.56	1.53	.02	472.11	4.18	118.96
1317.00	195.00	0.00	0.00	765.00	1060.00	770.22	.68	1.52	.01	791.83	5.22	160.64
1317.00	195.00	0.00	0.00	765.00	1410.00	770.67	.72	1.51	.02	951.55	5.67	197.69
1317.00	195.00	0.00	0.00	765.00	2740.00	771.93	.82	1.51	.01	1450.34	6.93	258.12
1367.00	50.00	0.00	0.00	765.60	505.00	769.57	.72	.47	.08	488.63	3.97	102.66
1367.00	50.00	0.00	0.00	765.60	1060.00	770.62	.85	.45	0.00	827.45	5.02	173.30
1367.00	50.00	0.00	0.00	765.60	1410.00	771.16	.81	.42	0.00	975.84	5.56	193.36
1367.00	50.00	0.00	0.00	765.60	2740.00	772.27	1.02	.44	.10	1516.40	6.67	240.23
1417.00	50.00	0.00	0.00	766.20	505.00	770.13	.75	.57	.02	490.57	3.93	89.46
1417.00	50.00	0.00	0.00	766.20	1060.00	771.22	.86	.52	0.00	828.39	5.02	173.11
1417.00	50.00	0.00	0.00	766.20	1410.00	771.71	.86	.47	0.00	986.57	5.51	191.51
1417.00	50.00	0.00	0.00	766.20	2740.00	772.81	1.07	.52	0.00	1533.77	6.61	237.40
1517.00	100.00	0.00	0.00	767.30	505.00	771.26	.72	1.10	.01	477.46	3.96	72.82
1517.00	100.00	0.00	0.00	767.30	1060.00	772.40	.97	1.04	0.00	840.07	5.10	127.78
1517.00	100.00	0.00	0.00	767.30	1410.00	772.92	1.00	.98	0.00	1011.10	5.62	175.23
1517.00	100.00	0.00	0.00	767.30	2740.00	774.09	1.20	1.08	0.00	1550.13	6.79	225.07
1617.00	100.00	0.00	0.00	768.50	505.00	772.34	.82	1.13	.05	483.94	3.84	66.62
1617.00	100.00	0.00	0.00	768.50	1060.00	773.56	.98	1.06	0.00	836.22	5.06	126.03
1617.00	100.00	0.00	0.00	768.50	1410.00	774.10	.98	1.00	0.00	999.53	5.60	172.79
1617.00	100.00	0.00	0.00	768.50	2740.00	775.26	1.16	1.08	0.00	1519.91	6.76	225.02
1977.00	360.00	0.00	0.00	771.30	505.00	776.04	.34	3.08	.15	441.50	4.74	102.55
1977.00	360.00	0.00	0.00	771.30	1060.00	777.25	.42	2.97	.17	740.25	5.95	184.29
1977.00	360.00	0.00	0.00	771.30	1410.00	777.75	.45	2.96	.16	892.44	6.45	212.31
1977.00	360.00	0.00	0.00	771.30	2740.00	779.20	.50	3.08	.20	1341.40	7.90	245.13
2237.00	260.00	0.00	0.00	773.50	505.00	777.66	.56	1.72	.11	461.03	4.16	97.82
2237.00	260.00	0.00	0.00	773.50	1060.00	778.78	.68	1.66	.13	770.85	5.28	152.81
2237.00	260.00	0.00	0.00	773.50	1410.00	779.28	.73	1.67	.14	930.45	5.78	171.64
2237.00	260.00	0.00	0.00	773.50	2740.00	780.63	.85	1.60	.18	1428.68	7.13	206.51
2492.00	255.00	0.00	0.00	774.10	505.00	779.14	.34	1.19	.07	460.77	5.04	40.00
2492.00	255.00	0.00	0.00	774.10	1060.00	780.31	.80	1.59	.06	931.55	6.21	40.00
2492.00	255.00	0.00	0.00	774.10	1410.00	780.85	1.12	1.77	.19	1223.30	6.75	40.00
2492.00	255.00	0.00	0.00	774.10	2740.00	782.33	.41	1.12	.13	1235.57	8.23	213.32
2512.00	20.00	0.00	0.00	774.14	505.00	779.18	.39	.07	.03	485.34	5.04	30.00
2512.00	20.00	0.00	0.00	774.14	1060.00	780.33	1.00	.12	.10	1004.33	6.19	30.00
2512.00	20.00	0.00	0.00	774.14	1410.00	780.84	1.44	.15	.16	1329.63	6.70	30.00
2512.00	20.00	0.00	0.00	774.14	2740.00	782.40	.40	.06	.00	1229.95	8.26	213.57

MODEL BUSINESS FORMS IF-C 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
2522.00	10.00	0.00	0.00	774.16	505.00	779.20	.43	.04	.02	501.01	5.04	25.00
2522.00	10.00	0.00	0.00	774.16	1060.00	780.33	1.14	.07	.07	1048.77	6.17	25.00
2522.00	10.00	0.00	0.00	774.16	1410.00	780.82	1.68	.10	.12	1393.74	6.66	25.00
2522.00	10.00	0.00	0.00	774.16	2740.00	782.44	.40	.03	.00	1228.33	8.28	213.65
2532.00	10.00	0.00	0.00	774.18	505.00	779.18	.56	.05	.07	505.00	5.00	20.00
2532.00	10.00	0.00	0.00	774.18	1060.00	780.21	1.60	.11	.23	1060.00	6.03	20.00
2532.00	10.00	0.00	0.00	774.18	1410.00	780.57	2.47	.15	.40	1410.00	6.39	20.00
2532.00	10.00	0.00	0.00	774.18	2740.00	782.47	.40	.03	.00	1226.78	8.29	213.72
2536.00	4.00	0.00	0.00	774.18	505.00	779.16	.66	.03	.05	505.00	4.98	18.00
2536.00	4.00	0.00	0.00	774.18	1060.00	780.10	1.96	.07	.18	1060.00	5.92	18.00
2536.00	4.00	0.00	0.00	774.18	1410.00	780.60	2.89	.09	0.00	1410.00	6.42	18.00
2536.00	4.00	0.00	0.00	774.18	2740.00	782.49	.39	.01	.00	1225.08	8.31	213.79
2540.00	4.00	0.00	0.00	774.19	505.00	779.12	.81	.03	.07	505.00	4.93	16.00
2540.00	4.00	0.00	0.00	774.19	1060.00	779.89	2.58	.09	0.00	1060.00	5.70	16.00
2540.00	4.00	0.00	0.00	774.19	1410.00	780.95	3.14	.11	0.00	1410.00	6.76	16.00
2540.00	4.00	0.00	0.00	774.19	2740.00	782.50	.39	.01	.00	1224.07	8.31	213.84
2544.00	4.00	0.00	0.00	774.20	505.00	778.99	1.15	.04	.17	505.00	4.79	14.00
2544.00	4.00	0.00	0.00	774.20	1060.00	780.40	2.83	.09	0.00	1060.00	6.20	14.00
2544.00	4.00	0.00	0.00	774.20	1410.00	781.58	3.43	.09	0.00	1410.00	7.38	14.00
2544.00	4.00	0.00	0.00	774.20	2740.00	785.13	.90	.01	0.00	1450.84	10.93	109.16
2545.00	1.00	0.00	0.00	774.20	505.00	779.01	1.14	.01	.00	505.00	4.81	14.00
2545.00	1.00	0.00	0.00	774.20	1060.00	781.58	1.94	.01	.27	1060.00	7.38	14.00
2545.00	1.00	0.00	0.00	774.20	1410.00	782.97	2.36	.01	.32	1410.00	8.77	14.00
2545.00	1.00	0.00	0.00	774.20	2740.00	785.53	.59	.00	.09	1263.32	11.33	113.28
2575.00	30.00	787.20	784.10	774.20	505.00	779.14	1.38	.25	.12	505.00	4.94	14.00
2575.00	30.00	787.20	784.10	774.20	1060.00	781.37	2.94	.29	.50	1060.00	7.17	14.00
2575.00	30.00	787.20	784.10	774.20	1410.00	785.86	1.29	1.81	0.00	1410.00	11.66	14.00
2575.00	30.00	787.20	784.10	774.20	2740.00	789.57	.15	3.61	0.00	970.45	15.37	177.99
2576.00	1.00	0.00	0.00	774.20	505.00	779.95	.76	.01	.18	505.00	5.75	14.00
2576.00	1.00	0.00	0.00	774.20	1060.00	783.76	1.11	.01	.55	1060.00	9.56	14.00
2576.00	1.00	0.00	0.00	774.20	1410.00	785.87	1.29	.00	.00	1410.00	11.67	14.00
2576.00	1.00	0.00	0.00	774.20	2740.00	789.54	.21	.00	.03	1104.43	15.34	177.50
2580.00	4.00	0.00	0.00	774.27	505.00	780.39	.43	.02	.10	435.14	6.12	22.00
2580.00	4.00	0.00	0.00	774.27	1060.00	784.46	.58	.01	.16	883.10	10.19	22.00
2580.00	4.00	0.00	0.00	774.27	1410.00	786.70	.66	.01	.19	1164.19	12.43	22.00
2580.00	4.00	0.00	0.00	774.27	2740.00	789.54	.21	.00	.00	1108.73	15.27	176.18
2960.00	380.00	0.00	0.00	781.00	505.00	784.71	.81	2.24	0.00	466.13	3.71	78.50
2960.00	380.00	0.00	0.00	781.00	1060.00	785.89	.89	1.58	.16	785.33	4.89	132.84
2960.00	380.00	0.00	0.00	781.00	1410.00	788.04	.23	.79	.13	728.02	7.04	189.82
2960.00	380.00	0.00	0.00	781.00	2740.00	790.01	.27	.50	.03	1136.71	9.01	223.45

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
3160.00	200.00	0.00	0.00	782.20	505.00	786.81	.27	1.41	.16	394.27	4.61	119.57
3160.00	200.00	0.00	0.00	782.20	1060.00	787.95	.37	1.39	.15	668.32	5.75	161.22
3160.00	200.00	0.00	0.00	782.20	1410.00	788.59	.38	.61	.08	801.09	6.38	176.54
3160.00	200.00	0.00	0.00	782.20	2740.00	790.49	.40	.54	.06	1221.11	8.29	213.13
3360.00	200.00	0.00	0.00	783.30	505.00	787.66	.35	.88	.04	425.36	4.36	118.24
3360.00	200.00	0.00	0.00	783.30	1060.00	788.87	.43	.95	.03	706.11	5.57	144.64
3360.00	200.00	0.00	0.00	783.30	1410.00	789.45	.46	.92	.04	856.94	6.15	154.75
3360.00	200.00	0.00	0.00	783.30	2740.00	791.22	.53	.80	.07	1338.99	7.92	181.46
3560.00	200.00	0.00	0.00	784.50	505.00	788.71	.41	1.08	.03	437.41	4.21	109.43
3560.00	200.00	0.00	0.00	784.50	1060.00	789.92	.49	1.09	.03	724.70	5.42	142.04
3560.00	200.00	0.00	0.00	784.50	1410.00	790.50	.52	1.08	.03	877.05	6.00	152.04
3560.00	200.00	0.00	0.00	784.50	2740.00	792.18	.61	1.00	.04	1372.41	7.68	180.04
4040.00	480.00	0.00	0.00	788.70	505.00	792.36	.45	3.67	.02	349.79	3.66	126.64
4040.00	480.00	0.00	0.00	788.70	1060.00	793.37	.51	3.46	.01	565.00	4.67	140.73
4040.00	480.00	0.00	0.00	788.70	1410.00	793.87	.55	3.39	.01	686.87	5.17	145.23
4040.00	480.00	0.00	0.00	788.70	2740.00	795.35	.68	3.21	.04	1101.96	6.65	176.66
4810.00	770.00	0.00	0.00	792.00	505.00	796.95	.22	4.30	.07	341.37	4.95	152.57
4810.00	770.00	0.00	0.00	792.00	1060.00	798.07	.27	4.39	.07	546.25	6.07	201.99
4810.00	770.00	0.00	0.00	792.00	1410.00	798.59	.29	4.38	.08	651.25	6.59	225.62
4810.00	770.00	0.00	0.00	792.00	2740.00	800.10	.33	4.29	.11	975.29	8.10	289.51
4923.00	113.00	0.00	0.00	793.00	505.00	797.40	.45	.56	.11	392.27	4.40	121.31
4923.00	113.00	0.00	0.00	793.00	1060.00	798.54	.48	.57	.10	617.46	5.54	168.81
4923.00	113.00	0.00	0.00	793.00	1410.00	799.06	.49	.57	.10	732.81	6.06	191.35
4923.00	113.00	0.00	0.00	793.00	2740.00	800.56	.52	.55	.10	1090.31	7.56	248.34
5035.00	112.50	0.00	0.00	794.10	505.00	798.34	.52	.97	.03	402.07	4.24	111.40
5035.00	112.50	0.00	0.00	794.10	1060.00	799.40	.61	.93	.06	651.53	5.30	153.63
5035.00	112.50	0.00	0.00	794.10	1410.00	799.90	.64	.91	.07	779.80	5.80	171.83
5035.00	112.50	0.00	0.00	794.10	2740.00	801.32	.71	.86	.09	1180.99	7.22	218.64
5148.00	112.50	0.00	0.00	795.10	505.00	799.44	.47	1.03	.02	394.24	4.34	107.34
5148.00	112.50	0.00	0.00	795.10	1060.00	800.49	.60	1.07	.00	653.34	5.39	144.85
5148.00	112.50	0.00	0.00	795.10	1410.00	800.97	.65	1.08	.00	788.89	5.87	161.45
5148.00	112.50	0.00	0.00	795.10	2740.00	802.36	.78	1.07	.03	1222.06	7.26	198.84
5260.00	112.00	0.00	0.00	796.20	505.00	800.44	.53	1.03	.03	403.23	4.24	100.18
5260.00	112.00	0.00	0.00	796.20	1060.00	801.53	.64	1.07	.02	667.29	5.33	133.68
5260.00	112.00	0.00	0.00	796.20	1410.00	802.03	.71	1.09	.03	812.06	5.83	147.40
5260.00	112.00	0.00	0.00	796.20	2740.00	803.44	.88	1.13	.05	1275.23	7.24	180.15
5725.00	465.00	0.00	0.00	800.20	505.00	804.62	.46	4.10	.02	401.13	4.42	111.74
5725.00	465.00	0.00	0.00	800.20	1060.00	805.75	.55	4.10	.03	655.88	5.55	136.00
5725.00	465.00	0.00	0.00	800.20	1410.00	806.30	.59	4.11	.04	790.74	6.10	149.12
5725.00	465.00	0.00	0.00	800.20	2740.00	807.83	.71	4.17	.05	1233.92	7.63	193.24

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
6335.00	610.00	0.00	0.00	804.10	505.00	808.48	.27	3.62	.06	342.76	4.38	118.38
6335.00	610.00	0.00	0.00	804.10	1060.00	809.68	.35	3.67	.06	572.81	5.58	138.97
6335.00	610.00	0.00	0.00	804.10	1410.00	810.25	.39	3.69	.06	701.93	6.15	150.91
6335.00	610.00	0.00	0.00	804.10	2740.00	811.86	.51	3.78	.06	1128.81	7.76	187.50
6935.00	600.00	0.00	0.00	808.00	505.00	811.98	.44	3.58	.08	358.61	3.98	93.43
6935.00	600.00	0.00	0.00	808.00	1060.00	813.17	.56	3.60	.11	606.48	5.17	118.07
6935.00	600.00	0.00	0.00	808.00	1410.00	813.76	.61	3.62	.11	739.14	5.76	136.71
6935.00	600.00	0.00	0.00	808.00	2740.00	815.39	.72	3.63	.10	1162.89	7.39	181.88
7235.00	300.00	0.00	0.00	809.62	505.00	814.02	.39	1.98	.01	373.07	4.40	51.00
7235.00	300.00	0.00	0.00	809.62	1060.00	815.35	.73	2.26	.08	717.45	5.73	51.00
7235.00	300.00	0.00	0.00	809.62	1410.00	815.97	.95	2.39	.17	928.95	6.35	51.00
7235.00	300.00	0.00	0.00	809.62	2000.00	817.37	.31	1.44	.12	814.50	7.75	191.27
7250.00	15.00	0.00	0.00	809.70	505.00	814.08	.45	.09	.03	390.93	4.38	44.00
7250.00	15.00	0.00	0.00	809.70	1060.00	815.39	.88	.12	.08	764.51	5.69	44.00
7250.00	15.00	0.00	0.00	809.70	1410.00	816.00	1.17	.14	.11	995.10	6.30	44.00
7250.00	15.00	0.00	0.00	809.70	2000.00	817.41	.32	.05	.00	817.93	7.71	190.29
7265.00	15.00	0.00	0.00	809.78	505.00	814.13	.55	.10	.05	416.54	4.35	36.00
7265.00	15.00	0.00	0.00	809.78	1060.00	815.40	1.15	.14	.14	831.55	5.62	36.00
7265.00	15.00	0.00	0.00	809.78	1410.00	815.96	1.57	.17	.20	1089.50	6.18	36.00
7265.00	15.00	0.00	0.00	809.78	2000.00	817.46	.32	.05	.00	821.07	7.68	189.40
7275.00	10.00	0.00	0.00	809.83	505.00	814.17	.63	.08	.04	436.06	4.34	31.00
7275.00	10.00	0.00	0.00	809.83	1060.00	815.39	1.40	.11	.12	882.42	5.56	31.00
7275.00	10.00	0.00	0.00	809.83	1410.00	815.91	1.96	.14	.19	1161.28	6.08	31.00
7275.00	10.00	0.00	0.00	809.83	2000.00	817.49	.33	.03	.00	822.79	7.66	188.92
7285.00	10.00	0.00	0.00	809.89	505.00	814.20	.75	.09	.06	459.04	4.31	26.00
7285.00	10.00	0.00	0.00	809.89	1060.00	815.35	1.75	.14	.18	942.12	5.46	26.00
7285.00	10.00	0.00	0.00	809.89	1410.00	815.88	2.46	.17	0.00	1244.11	5.99	26.00
7285.00	10.00	0.00	0.00	809.89	2000.00	817.52	.33	.03	.00	825.41	7.63	188.19
7295.00	10.00	0.00	0.00	809.94	505.00	814.23	.89	.10	.07	486.24	4.29	21.00
7295.00	10.00	0.00	0.00	809.94	1060.00	815.28	2.27	.17	0.00	1012.22	5.34	21.00
7295.00	10.00	0.00	0.00	809.94	1410.00	816.23	2.71	.18	0.00	1339.77	6.29	21.00
7295.00	10.00	0.00	0.00	809.94	2000.00	817.55	.34	.03	.00	827.05	7.61	187.73
7305.00	10.00	0.00	0.00	810.00	505.00	814.24	1.12	.13	.11	505.00	4.24	15.80
7305.00	10.00	0.00	0.00	810.00	1060.00	815.64	2.62	.23	0.00	1060.00	5.64	15.80
7305.00	10.00	0.00	0.00	810.00	1410.00	816.73	3.16	.22	0.00	1410.00	6.73	15.80
7305.00	10.00	0.00	0.00	810.00	2000.00	817.88	2.68	.06	0.00	1670.14	7.88	46.27
7306.00	1.00	0.00	0.00	810.00	505.00	814.26	1.11	.01	.00	505.00	4.26	15.80
7306.00	1.00	0.00	0.00	810.00	1060.00	816.75	1.78	.01	.25	1060.00	6.75	15.80
7306.00	1.00	0.00	0.00	810.00	1410.00	818.04	2.16	.01	.30	1410.00	8.04	15.80
7306.00	1.00	0.00	0.00	810.00	2000.00	820.30	.82	.00	.56	1319.54	10.30	58.85

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7388.00	82.00	823.50	820.30	810.40	505.00	815.00	.95	.53	.05	505.00	4.60	15.80
7388.00	82.00	823.50	820.30	810.40	1060.00	817.34	1.81	.61	.01	1060.00	6.94	15.80
7388.00	82.00	823.50	820.30	810.40	1410.00	822.15	.97	2.92	0.00	1410.00	11.75	15.80
7388.00	82.00	823.50	820.30	810.40	2000.00	824.62	.20	3.71	0.00	1025.63	14.22	326.42
7389.00	1.00	0.00	0.00	810.40	505.00	815.08	.90	.01	.01	505.00	4.68	15.80
7389.00	1.00	0.00	0.00	810.40	1060.00	817.81	1.45	.01	.11	1060.00	7.41	15.80
7389.00	1.00	0.00	0.00	810.40	1410.00	822.16	.97	.00	.00	1410.00	11.76	15.80
7389.00	1.00	0.00	0.00	810.40	2000.00	824.55	.35	.00	.07	1264.88	14.15	320.37
7399.00	10.00	0.00	0.00	810.43	505.00	815.27	.86	.14	.01	505.00	4.84	22.02
7399.00	10.00	0.00	0.00	810.43	1060.00	818.96	.63	.08	.25	1040.22	8.53	32.71
7399.00	10.00	0.00	0.00	810.43	1410.00	822.99	.35	.03	.19	1337.36	12.56	36.00
7399.00	10.00	0.00	0.00	810.43	2000.00	824.54	.41	.01	.03	1732.80	14.11	69.57
8249.00	850.00	0.00	0.00	812.60	505.00	819.10	.12	2.87	.22	505.00	6.50	35.50
8249.00	850.00	0.00	0.00	812.60	1060.00	821.63	.16	2.06	.14	940.50	9.03	393.46
8249.00	850.00	0.00	0.00	812.60	1410.00	823.89	.04	.49	.09	721.64	11.29	519.06
8249.00	850.00	0.00	0.00	812.60	2000.00	825.42	.03	.39	.11	771.95	12.82	551.49
8250.00	1.00	820.70	818.50	812.60	505.00	818.46	1.41	.00	.65	505.00	5.86	35.50
8250.00	1.00	820.70	818.50	812.60	1060.00	821.63	.17	.00	.01	329.03	9.03	393.78
8250.00	1.00	820.70	818.50	812.60	1410.00	823.92	.02	.00	.01	157.35	11.32	519.57
8250.00	1.00	820.70	818.50	812.60	2000.00	825.44	.01	.00	.00	177.09	12.84	551.67
8280.00	30.00	820.70	818.50	812.60	505.00	819.26	1.40	.79	.00	505.00	6.66	35.50
8280.00	30.00	820.70	818.50	812.60	1060.00	821.85	.10	.13	.02	271.50	9.25	411.43
8280.00	30.00	820.70	818.50	812.60	1410.00	823.92	.02	.00	.00	157.11	11.32	519.73
8280.00	30.00	820.70	818.50	812.60	2000.00	825.44	.01	.00	.00	176.99	12.84	551.77
8281.00	1.00	0.00	0.00	812.60	505.00	821.00	.06	.00	.40	505.00	8.40	35.50
8281.00	1.00	0.00	0.00	812.60	1060.00	821.84	.13	.00	.01	880.39	9.24	411.23
8281.00	1.00	0.00	0.00	812.60	1410.00	823.92	.03	.00	.01	683.99	11.32	519.62
8281.00	1.00	0.00	0.00	812.60	2000.00	825.43	.02	.00	.00	725.69	12.83	551.78
9031.00	750.00	0.00	0.00	816.30	465.00	821.60	.06	.59	.00	372.85	5.30	113.73
9031.00	750.00	0.00	0.00	816.30	970.00	822.91	.11	1.05	.00	709.48	6.61	144.74
9031.00	750.00	0.00	0.00	816.30	1290.00	824.31	.09	.42	.03	856.61	8.01	175.42
9031.00	750.00	0.00	0.00	816.30	2510.00	825.80	.18	.44	.08	1516.06	9.50	206.83
9436.00	405.00	0.00	0.00	818.30	465.00	822.32	.41	.90	.18	375.37	4.02	63.13
9436.00	405.00	0.00	0.00	818.30	970.00	823.83	.50	1.12	.19	646.93	5.53	92.94
9436.00	405.00	0.00	0.00	818.30	1290.00	824.90	.42	.76	.16	759.46	6.60	115.94
9436.00	405.00	0.00	0.00	818.30	2510.00	826.68	.55	1.07	.18	1219.99	8.38	155.18
9786.00	350.00	0.00	0.00	818.58	465.00	823.92	.31	1.45	.03	426.57	5.34	30.27
9786.00	350.00	0.00	0.00	818.58	970.00	825.52	.68	1.79	.09	866.00	6.94	31.00
9786.00	350.00	0.00	0.00	818.58	1290.00	826.32	.92	1.67	.25	1139.37	7.74	31.00
9786.00	350.00	0.00	0.00	818.58	2510.00	828.08	.39	1.18	.05	1201.26	9.50	163.59

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
9806.00	20.00	0.00	0.00	818.60	465.00	823.95	.34	.05	.02	465.00	5.35	21.00
9806.00	20.00	0.00	0.00	818.60	970.00	825.53	.84	.08	.08	970.00	6.93	21.00
9806.00	20.00	0.00	0.00	818.60	1290.00	826.29	1.18	.10	.13	1290.00	7.69	21.00
9806.00	20.00	0.00	0.00	818.60	2510.00	827.85	.95	.06	.28	1690.64	9.25	104.39
9807.00	1.00	0.00	0.00	818.60	465.00	823.95	.34	.00	.00	465.00	5.35	21.00
9807.00	1.00	0.00	0.00	818.60	970.00	825.53	.84	.00	.00	970.00	6.93	21.00
9807.00	1.00	0.00	0.00	818.60	1290.00	826.30	1.18	.00	.00	1290.00	7.70	21.00
9807.00	1.00	0.00	0.00	818.60	2510.00	828.57	.40	.00	.17	1220.41	9.97	112.32
9937.00	130.00	831.80	827.80	818.80	465.00	824.18	.52	.32	.09	465.00	5.38	18.00
9937.00	130.00	831.80	827.80	818.80	970.00	825.98	1.21	.64	.19	970.00	7.18	21.00
9937.00	130.00	831.80	827.80	818.80	1290.00	830.81	.55	3.86	0.00	1290.00	12.01	21.00
9937.00	130.00	831.80	827.80	818.80	2510.00	833.71	.06	4.79	0.00	624.69	14.91	229.00
9938.00	1.00	0.00	0.00	818.80	465.00	824.19	.52	.01	.00	465.00	5.39	18.00
9938.00	1.00	0.00	0.00	818.80	970.00	826.29	.98	.01	.07	970.00	7.49	21.00
9938.00	1.00	0.00	0.00	818.80	1290.00	830.81	.55	.00	.00	1290.00	12.01	21.00
9938.00	1.00	0.00	0.00	818.80	2510.00	833.69	.10	.00	.02	1004.37	14.89	228.69
9941.00	3.00	0.00	0.00	818.80	465.00	824.38	.39	.02	.04	431.94	5.58	24.00
9941.00	3.00	0.00	0.00	818.80	970.00	826.78	.62	.02	.11	866.86	7.98	27.00
9941.00	3.00	0.00	0.00	818.80	1290.00	831.05	.37	.01	.05	1130.48	12.25	27.00
9941.00	3.00	0.00	0.00	818.80	2510.00	833.69	.10	.00	.00	994.23	14.89	345.97
10518.00	577.00	0.00	0.00	820.30	465.00	825.72	.02	.86	.11	128.12	5.42	224.82
10518.00	577.00	0.00	0.00	820.30	970.00	828.15	.02	.59	.18	203.50	7.85	241.73
10518.00	577.00	0.00	0.00	820.30	1290.00	831.70	.01	.18	.11	226.53	11.40	262.51
10518.00	577.00	0.00	0.00	820.30	2510.00	833.98	.02	.19	.02	411.92	13.68	265.99
11168.00	650.00	0.00	0.00	823.30	465.00	826.75	.30	1.17	.14	256.61	3.45	145.21
11168.00	650.00	0.00	0.00	823.30	970.00	828.67	.12	.57	.05	335.00	5.37	199.27
11168.00	650.00	0.00	0.00	823.30	1290.00	831.83	.03	.14	.01	305.93	8.53	310.66
11168.00	650.00	0.00	0.00	823.30	2510.00	834.18	.04	.20	.01	484.39	10.88	439.61
11743.00	575.00	0.00	0.00	821.00	465.00	827.57	.04	.48	.08	399.53	6.57	125.01
11743.00	575.00	0.00	0.00	821.00	970.00	829.25	.08	.52	.01	758.50	8.25	161.94
11743.00	575.00	0.00	0.00	821.00	1290.00	831.98	.04	.15	.01	821.14	10.98	440.00
11743.00	575.00	0.00	0.00	821.00	2510.00	834.33	.05	.16	.01	1237.52	13.33	440.00
11756.00	13.00	826.50	822.00	823.30	465.00	828.93	.03	1.35	0.00	329.58	5.63	155.28
11756.00	13.00	826.50	822.00	823.30	970.00	830.57	.05	1.30	0.00	629.17	7.27	208.79
11756.00	13.00	826.50	822.00	823.30	1290.00	832.08	.04	.10	0.00	717.56	8.78	440.00
11756.00	13.00	826.50	822.00	823.30	2510.00	834.41	.05	.07	0.00	1081.52	11.11	440.00
12326.00	570.00	0.00	0.00	823.90	465.00	829.09	.39	.35	.18	385.54	5.19	122.88
12326.00	570.00	0.00	0.00	823.90	970.00	830.88	.27	.41	.11	550.66	6.98	179.13
12326.00	570.00	0.00	0.00	823.90	1290.00	832.27	.16	.26	.06	588.13	8.37	223.17
12326.00	570.00	0.00	0.00	823.90	2510.00	834.60	.14	.23	.05	815.41	10.70	443.21

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
12951.00	625.00	0.00	0.00	823.80	465.00	830.81	.18	1.43	.06	415.24	7.01	108.65
12951.00	625.00	0.00	0.00	823.80	970.00	832.22	.27	1.34	.00	715.13	8.42	124.49
12951.00	625.00	0.00	0.00	823.80	1290.00	833.16	.27	.94	.05	852.11	9.36	135.15
12951.00	625.00	0.00	0.00	823.80	2510.00	835.32	.36	.84	.11	1363.09	11.52	159.37
13131.00	180.00	0.00	0.00	825.73	465.00	831.13	.50	.48	.16	464.29	5.40	31.62
13131.00	180.00	0.00	0.00	825.73	970.00	832.54	.90	.64	.31	892.08	6.81	71.49
13131.00	180.00	0.00	0.00	825.73	1290.00	833.42	.91	.58	.32	1092.59	7.69	75.00
13131.00	180.00	0.00	0.00	825.73	2510.00	835.85	.22	.35	.04	1043.93	10.12	410.49
13171.00	40.00	0.00	0.00	826.16	465.00	831.37	.56	.27	.03	464.79	5.21	25.35
13171.00	40.00	0.00	0.00	826.16	970.00	832.82	1.02	.34	.06	911.05	6.66	55.00
13171.00	40.00	0.00	0.00	826.16	1290.00	833.61	1.15	.31	.12	1148.71	7.45	55.00
13171.00	40.00	0.00	0.00	826.16	2510.00	835.90	.31	.10	.05	1140.90	9.74	404.80
13191.00	20.00	0.00	0.00	826.36	465.00	831.51	.58	.15	.01	464.89	5.15	24.54
13191.00	20.00	0.00	0.00	826.36	970.00	832.98	1.07	.18	.03	922.15	6.62	45.00
13191.00	20.00	0.00	0.00	826.36	1290.00	833.73	1.28	.18	.07	1181.99	7.37	45.00
13191.00	20.00	0.00	0.00	826.36	2510.00	835.94	.36	.06	.03	1186.27	9.58	402.47
13211.00	20.00	0.00	0.00	826.56	465.00	831.66	.60	.16	.01	464.93	5.10	23.93
13211.00	20.00	0.00	0.00	826.56	970.00	833.13	1.15	.20	.04	938.71	6.57	35.00
13211.00	20.00	0.00	0.00	826.56	1290.00	833.85	1.45	.21	.09	1222.27	7.29	35.00
13211.00	20.00	0.00	0.00	826.56	2510.00	835.97	.43	.07	.03	1239.11	9.41	399.96
13231.00	20.00	0.00	0.00	826.80	465.00	832.12	.34	.13	.08	465.00	5.32	25.00
13231.00	20.00	0.00	0.00	826.80	970.00	833.86	.72	.17	.13	970.00	7.06	25.00
13231.00	20.00	0.00	0.00	826.80	1290.00	834.65	.98	.19	.14	1290.00	7.85	25.00
13231.00	20.00	0.00	0.00	826.80	2510.00	836.03	.47	.08	.02	1384.09	9.23	129.00
13232.00	1.00	0.00	0.00	826.80	465.00	832.12	.34	.00	.00	465.00	5.32	25.00
13232.00	1.00	0.00	0.00	826.80	970.00	833.86	.72	.00	.00	970.00	7.06	25.00
13232.00	1.00	0.00	0.00	826.80	1290.00	834.66	.98	.00	.00	1290.00	7.86	25.00
13232.00	1.00	0.00	0.00	826.80	2510.00	836.17	.37	.00	.03	1253.98	9.37	130.20
13410.00	178.00	842.90	833.90	827.20	465.00	832.31	.44	.23	.05	465.00	5.11	25.00
13410.00	178.00	842.90	833.90	827.20	970.00	836.00	.43	1.85	0.00	970.00	8.80	25.00
13410.00	178.00	842.90	833.90	827.20	1290.00	838.81	.40	3.57	0.00	1290.00	11.61	25.00
13410.00	178.00	842.90	833.90	827.20	2510.00	843.95	.03	7.45	0.00	819.25	16.75	541.95
13411.00	1.00	0.00	0.00	827.20	465.00	832.37	.39	.00	.01	465.00	5.17	25.00
13411.00	1.00	0.00	0.00	827.20	970.00	836.00	.43	.00	.00	970.00	8.80	25.00
13411.00	1.00	0.00	0.00	827.20	1290.00	838.81	.40	.00	.00	1290.00	11.61	25.00
13411.00	1.00	0.00	0.00	827.20	2510.00	843.95	.04	.00	.00	894.55	16.75	542.00
13414.00	3.00	0.00	0.00	827.20	465.00	832.57	.25	.01	.04	418.61	5.37	31.00
13414.00	3.00	0.00	0.00	827.20	970.00	836.17	.31	.01	.04	825.85	8.97	31.00
13414.00	3.00	0.00	0.00	827.20	1290.00	838.95	.30	.00	.03	1076.07	11.75	31.00
13414.00	3.00	0.00	0.00	827.20	2510.00	843.93	.08	.00	.02	1092.48	16.73	337.84

Refer to Attached Modified Run

MOORE BUSINESS FORMS, INC 73

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
14514.00	1100.00	0.00	0.00	829.90	465.00	834.75	.08	1.97	.05	239.28	4.85	222.91
14514.00	1100.00	0.00	0.00	829.90	970.00	837.24	.02	.70	.09	268.96	7.34	366.62
14514.00	1100.00	0.00	0.00	829.90	1290.00	839.58	.01	.26	.09	241.08	9.68	429.92
14514.00	1100.00	0.00	0.00	829.90	2510.00	844.13	.01	.10	.02	315.70	14.23	460.95
15314.00	800.00	0.00	0.00	832.20	420.00	836.35	.45	1.78	.18	420.00	4.15	20.80
15314.00	800.00	0.00	0.00	832.20	880.00	837.67	.16	.49	.07	449.90	5.47	144.67
15314.00	800.00	0.00	0.00	832.20	1170.00	839.69	.08	.15	.04	494.57	7.49	198.67
15314.00	800.00	0.00	0.00	832.20	2280.00	844.17	.03	.06	.01	586.97	11.97	350.00
15315.00	1.00	0.00	0.00	832.20	420.00	836.35	.45	.00	.00	420.00	4.15	20.80
15315.00	1.00	0.00	0.00	832.20	880.00	837.67	.16	.00	.00	452.80	5.47	144.69
15315.00	1.00	0.00	0.00	832.20	1170.00	839.69	.09	.00	.00	498.40	7.49	198.68
15315.00	1.00	0.00	0.00	832.20	2280.00	844.17	.03	.00	.00	592.83	11.97	350.00
15382.00	67.00	841.70	838.20	832.20	420.00	836.66	.48	.32	.02	420.00	4.46	20.80
15382.00	67.00	841.70	838.20	832.20	880.00	841.94	.05	4.15	0.00	456.09	9.74	344.33
15382.00	67.00	841.70	838.20	832.20	1170.00	842.62	.05	2.89	0.00	537.85	10.42	350.00
15382.00	67.00	841.70	838.20	832.20	2280.00	844.31	.07	.18	0.00	823.01	12.11	350.00
15383.00	1.00	0.00	0.00	832.20	420.00	836.83	.35	.00	.04	420.00	4.63	20.80
15383.00	1.00	0.00	0.00	832.20	880.00	841.95	.04	.00	.00	434.56	9.75	344.34
15383.00	1.00	0.00	0.00	832.20	1170.00	842.63	.04	.00	.00	508.70	10.43	350.00
15383.00	1.00	0.00	0.00	832.20	2280.00	844.33	.06	.00	.00	767.78	12.13	350.00
15683.00	300.00	0.00	0.00	832.80	420.00	837.55	.14	.45	.06	420.00	4.75	41.83
15683.00	300.00	0.00	0.00	832.80	880.00	841.98	.09	.06	.02	877.71	9.18	89.71
15683.00	300.00	0.00	0.00	832.80	1170.00	842.66	.12	.07	.04	1148.05	9.86	207.22
15683.00	300.00	0.00	0.00	832.80	2280.00	844.36	.18	.10	.06	1885.21	11.56	416.27
15684.00	1.00	841.30	841.50	832.80	420.00	837.49	.26	.00	.06	420.00	4.69	41.56
15684.00	1.00	841.30	841.50	832.80	880.00	841.90	.26	.00	.09	871.46	9.10	85.33
15684.00	1.00	841.30	841.50	832.80	1170.00	842.57	.30	.00	.09	1076.99	9.77	192.28
15684.00	1.00	841.30	841.50	832.80	2280.00	844.45	.12	.00	.02	1113.73	11.65	417.93
15689.00	5.00	841.30	841.50	832.80	420.00	837.51	.26	.02	.00	420.00	4.71	41.63
15689.00	5.00	841.30	841.50	832.80	880.00	841.94	.26	.03	.00	870.51	9.14	86.58
15689.00	5.00	841.30	841.50	832.80	1170.00	842.64	.28	.04	.01	1061.06	9.84	204.11
15689.00	5.00	841.30	841.50	832.80	2280.00	844.46	.12	.01	.00	1110.66	11.66	418.08
15690.00	1.00	0.00	0.00	832.80	420.00	837.69	.13	.00	.04	420.00	4.89	42.45
15690.00	1.00	0.00	0.00	832.80	880.00	842.16	.08	.00	.05	875.83	9.36	98.15
15690.00	1.00	0.00	0.00	832.80	1170.00	842.86	.11	.00	.05	1134.20	10.06	208.00
15690.00	1.00	0.00	0.00	832.80	2280.00	844.44	.17	.00	.03	1838.06	11.64	517.73
16190.00	500.00	0.00	0.00	832.60	420.00	838.22	.12	.52	.00	420.00	5.62	39.35
16190.00	500.00	0.00	0.00	832.60	880.00	842.35	.05	.14	.01	683.68	9.75	289.36
16190.00	500.00	0.00	0.00	832.60	1170.00	843.10	.05	.16	.02	815.49	10.50	432.37
16190.00	500.00	0.00	0.00	832.60	2280.00	844.79	.06	.21	.03	1220.35	12.19	600.00

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
16890.00	700.00	0.00	0.00	830.70	420.00	838.84	.11	.61	.00	420.00	8.14	20.60
16890.00	700.00	0.00	0.00	830.70	880.00	842.57	.11	.25	.03	880.00	11.87	42.94
16890.00	700.00	0.00	0.00	830.70	1170.00	843.33	.15	.28	.05	1164.15	12.63	110.00
16890.00	700.00	0.00	0.00	830.70	2280.00	845.05	.33	.40	.14	2125.99	14.35	110.00
16891.00	1.00	0.00	0.00	830.70	.01	838.98	.00	.00	.03	.01	8.28	.01
16891.00	1.00	0.00	0.00	830.70	390.00	843.88	.49	.00	0.00	40.84	13.18	110.00
16891.00	1.00	0.00	0.00	830.70	695.00	844.25	.64	.00	0.00	78.67	13.55	110.00
16891.00	1.00	0.00	0.00	830.70	1810.00	845.29	1.06	.00	0.00	219.07	14.59	110.00
17094.00	203.00	0.00	0.00	831.60	.01	838.98	.00	0.00	.00	.01	7.38	.01
17094.00	203.00	0.00	0.00	831.60	390.00	845.05	.06	.61	.13	47.92	13.45	110.00
17094.00	203.00	0.00	0.00	831.60	695.00	845.64	.11	.71	.16	86.90	14.04	110.00
17094.00	203.00	0.00	0.00	831.60	1810.00	847.10	.30	.83	.23	231.02	15.50	110.00
17095.00	1.00	0.00	0.00	831.60	420.00	840.50	.10	0.00	.05	420.00	8.90	20.60
17095.00	1.00	0.00	0.00	831.60	880.00	845.03	.11	.00	.02	738.42	13.43	110.00
17095.00	1.00	0.00	0.00	831.60	1170.00	845.62	.14	.00	.01	911.43	14.02	110.00
17095.00	1.00	0.00	0.00	831.60	2280.00	847.13	.28	.00	.01	1489.74	15.53	110.00
17895.00	800.00	0.00	0.00	837.00	420.00	841.95	.30	1.54	.10	265.32	4.95	39.44
17895.00	800.00	0.00	0.00	837.00	880.00	845.75	.09	.69	.01	364.57	8.75	140.00
17895.00	800.00	0.00	0.00	837.00	1170.00	846.49	.10	.81	.01	443.38	9.49	140.00
17895.00	800.00	0.00	0.00	837.00	2280.00	848.47	.16	1.18	.04	722.23	11.47	140.00
18395.00	500.00	0.00	0.00	839.50	420.00	844.75	.71	3.01	.21	361.86	5.25	41.05
18395.00	500.00	0.00	0.00	839.50	880.00	846.38	.74	.95	.33	571.31	6.88	106.37
18395.00	500.00	0.00	0.00	839.50	1170.00	847.17	.59	.92	.24	620.47	7.67	120.00
18395.00	500.00	0.00	0.00	839.50	2280.00	849.25	.46	.93	.15	798.79	9.75	120.00
18845.00	450.00	0.00	0.00	840.20	420.00	847.23	.30	1.95	.12	420.00	7.03	16.00
18845.00	450.00	0.00	0.00	840.20	880.00	848.99	.42	2.20	.10	713.56	8.79	140.00
18845.00	450.00	0.00	0.00	840.20	1170.00	849.45	.49	2.16	.03	851.57	9.25	140.00
18845.00	450.00	0.00	0.00	840.20	2280.00	851.09	.53	1.88	.04	1205.79	10.89	140.00
18846.00	1.00	847.20	846.40	840.20	420.00	847.05	.67	.01	.19	420.00	6.85	16.00
18846.00	1.00	847.20	846.40	840.20	880.00	849.32	.17	.00	.08	303.65	9.12	140.00
18846.00	1.00	847.20	846.40	840.20	1170.00	849.86	.18	.00	.09	315.43	9.66	140.00
18846.00	1.00	847.20	846.40	840.20	2280.00	851.46	.26	.00	.08	392.37	11.26	140.00
18896.00	50.00	847.20	846.40	840.40	420.00	847.72	.67	.67	.00	420.00	7.32	16.00
18896.00	50.00	847.20	846.40	840.40	880.00	849.54	.13	.18	.01	271.96	9.14	140.00
18896.00	50.00	847.20	846.40	840.40	1170.00	850.03	.16	.15	.01	294.58	9.63	140.00
18896.00	50.00	847.20	846.40	840.40	2280.00	851.59	.24	.11	.00	384.29	11.19	140.00
18897.00	1.00	0.00	0.00	840.40	420.00	848.30	.22	.00	.13	420.00	7.90	16.00
18897.00	1.00	0.00	0.00	840.40	880.00	849.48	.26	.00	.06	618.29	9.08	140.00
18897.00	1.00	0.00	0.00	840.40	1170.00	849.97	.30	.00	.07	735.74	9.57	140.00
18897.00	1.00	0.00	0.00	840.40	2280.00	851.52	.38	.00	.07	1077.60	11.12	140.00

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
19547.00	650.00	0.00	0.00	842.60	420.00	849.11	.07	.61	.05	406.67	6.51	83.52
19547.00	650.00	0.00	0.00	842.60	880.00	850.49	.15	.87	.03	794.44	7.89	114.46
19547.00	650.00	0.00	0.00	842.60	1170.00	851.12	.19	1.02	.03	1017.77	8.52	127.43
19547.00	650.00	0.00	0.00	842.60	2280.00	852.91	.33	1.32	.02	1779.46	10.31	165.00
19877.00	330.00	0.00	0.00	844.00	420.00	849.34	.10	.25	.01	262.27	5.34	98.58
19877.00	330.00	0.00	0.00	844.00	880.00	850.85	.15	.35	.00	441.14	6.85	130.00
19877.00	330.00	0.00	0.00	844.00	1170.00	851.54	.17	.39	.01	536.13	7.54	130.00
19877.00	330.00	0.00	0.00	844.00	2280.00	853.52	.25	.50	.02	867.87	9.52	130.00
19878.00	1.00	0.00	0.00	844.00	420.00	849.41	.05	.00	.01	190.96	5.41	99.48
19878.00	1.00	0.00	0.00	844.00	880.00	850.94	.08	.00	.02	294.97	6.94	130.00
19878.00	1.00	0.00	0.00	844.00	1170.00	851.65	.09	.00	.02	349.33	7.65	130.00
19878.00	1.00	0.00	0.00	844.00	2280.00	853.66	.14	.00	.03	541.07	9.66	130.00
19924.00	46.00	849.90	849.30	844.00	420.00	850.49	.02	1.05	0.00	124.79	6.49	130.00
19924.00	46.00	849.90	849.30	844.00	880.00	851.48	.05	.51	0.00	218.49	7.48	130.00
19924.00	46.00	849.90	849.30	844.00	1170.00	852.02	.06	.35	0.00	269.61	8.02	130.00
19924.00	46.00	849.90	849.30	844.00	2280.00	853.99	.11	.30	0.00	433.76	9.99	130.00
19925.00	1.00	0.00	0.00	844.00	420.00	850.48	.02	.00	.00	158.87	6.48	130.00
19925.00	1.00	0.00	0.00	844.00	880.00	851.48	.05	.00	.00	283.19	7.48	130.00
19925.00	1.00	0.00	0.00	844.00	1170.00	852.02	.07	.00	.01	351.93	8.02	130.00
19925.00	1.00	0.00	0.00	844.00	2280.00	853.99	.12	.00	.01	575.38	9.99	130.00
20275.00	350.00	0.00	0.00	843.50	420.00	850.57	.05	.10	.02	286.78	7.07	127.85
20275.00	350.00	0.00	0.00	843.50	880.00	851.63	.11	.18	.03	519.30	8.13	159.91
20275.00	350.00	0.00	0.00	843.50	1170.00	852.20	.14	.21	.03	641.89	8.70	176.76
20275.00	350.00	0.00	0.00	843.50	2280.00	854.20	.16	.23	.02	943.59	10.70	185.00
20585.00	310.00	0.00	0.00	844.80	420.00	850.67	.16	.16	.05	345.61	5.87	94.78
20585.00	310.00	0.00	0.00	844.80	880.00	851.83	.26	.27	.07	598.54	7.03	145.01
20585.00	310.00	0.00	0.00	844.80	1170.00	852.42	.27	.29	.06	701.92	7.62	164.99
20585.00	310.00	0.00	0.00	844.80	2280.00	854.41	.25	.26	.05	991.40	9.61	170.00
21005.00	420.00	0.00	0.00	845.40	295.00	851.16	.05	.33	.03	117.99	5.76	132.17
21005.00	420.00	0.00	0.00	845.40	615.00	852.48	.05	.38	.06	168.40	7.08	152.20
21005.00	420.00	0.00	0.00	845.40	820.00	853.08	.06	.38	.06	196.24	7.68	180.00
21005.00	420.00	0.00	0.00	845.40	1600.00	854.98	.07	.33	.06	274.40	9.58	180.00
21305.00	300.00	0.00	0.00	846.30	295.00	851.34	.09	.20	.02	191.00	5.04	59.96
21305.00	300.00	0.00	0.00	846.30	615.00	852.65	.16	.23	.06	346.86	6.35	75.45
21305.00	300.00	0.00	0.00	846.30	820.00	853.25	.20	.24	.07	432.27	6.95	80.00
21305.00	300.00	0.00	0.00	846.30	1600.00	855.10	.29	.23	.11	693.66	8.80	80.00
21306.00	1.00	0.00	0.00	846.30	295.00	851.37	.07	.00	.01	162.52	5.07	60.34
21306.00	1.00	0.00	0.00	846.30	615.00	852.72	.11	.00	.01	284.46	6.42	76.20
21306.00	1.00	0.00	0.00	846.30	820.00	853.33	.14	.00	.02	347.42	7.03	80.00
21306.00	1.00	0.00	0.00	846.30	1600.00	855.19	.21	.00	.02	540.22	8.89	80.00

JACORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
21353.00	47.00	852.90	851.20	846.30	295.00	852.97	.02	1.56	0.00	132.21	6.67	78.96
21353.00	47.00	852.90	851.20	846.30	615.00	854.18	.05	1.40	0.00	230.98	7.88	80.00
21353.00	47.00	852.90	851.20	846.30	820.00	854.64	.07	1.25	0.00	292.14	8.34	80.00
21353.00	47.00	852.90	851.20	846.30	1600.00	856.12	.15	.87	0.00	501.72	9.82	80.00
21354.00	1.00	0.00	0.00	846.30	295.00	852.97	.03	.00	.00	157.50	6.67	78.96
21354.00	1.00	0.00	0.00	846.30	615.00	854.17	.06	.00	.01	282.31	7.87	80.00
21354.00	1.00	0.00	0.00	846.30	820.00	854.63	.09	.00	.01	359.52	8.33	80.00
21354.00	1.00	0.00	0.00	846.30	1600.00	856.10	.19	.00	.02	627.31	9.80	80.00
21704.00	350.00	0.00	0.00	847.20	295.00	853.04	.01	.05	.01	122.33	5.84	199.71
21704.00	350.00	0.00	0.00	847.20	615.00	854.30	.02	.07	.01	197.22	7.10	215.51
21704.00	350.00	0.00	0.00	847.20	820.00	854.81	.02	.09	.02	243.42	7.61	225.00
21704.00	350.00	0.00	0.00	847.20	1600.00	856.42	.04	.12	.04	394.40	9.22	225.00
22104.00	400.00	0.00	0.00	847.60	295.00	853.06	.17	.10	.08	269.83	5.46	51.83
22104.00	400.00	0.00	0.00	847.60	615.00	854.28	.30	.13	.14	484.89	6.68	105.83
22104.00	400.00	0.00	0.00	847.60	820.00	854.79	.34	.15	.16	582.58	7.19	120.00
22104.00	400.00	0.00	0.00	847.60	1600.00	856.44	.36	.17	.16	839.42	8.84	120.00
22194.00	90.00	0.00	0.00	847.50	295.00	853.28	.05	.06	.04	162.13	5.78	77.43
22194.00	90.00	0.00	0.00	847.50	615.00	854.66	.08	.08	.07	283.11	7.16	90.00
22194.00	90.00	0.00	0.00	847.50	820.00	855.19	.10	.10	.07	351.80	7.69	90.00
22194.00	90.00	0.00	0.00	847.50	1600.00	856.77	.19	.12	.05	590.96	9.27	90.00
22195.00	1.00	0.00	0.00	847.50	295.00	853.30	.03	.00	.00	132.81	5.80	77.55
22195.00	1.00	0.00	0.00	847.50	615.00	854.69	.06	.00	.01	223.16	7.19	90.00
22195.00	1.00	0.00	0.00	847.50	820.00	855.23	.08	.00	.01	274.01	7.73	90.00
22195.00	1.00	0.00	0.00	847.50	1600.00	856.82	.15	.00	.01	450.15	9.32	90.00
22265.00	70.00	854.11	852.40	847.50	295.00	854.60	.01	1.28	0.00	108.43	7.10	90.00
22265.00	70.00	854.11	852.40	847.50	615.00	855.53	.04	.82	0.00	197.56	8.03	90.00
22265.00	70.00	854.11	852.40	847.50	820.00	855.97	.05	.72	0.00	250.37	8.47	90.00
22265.00	70.00	854.11	852.40	847.50	1600.00	857.41	.12	.56	0.00	430.08	9.91	90.00
22266.00	1.00	0.00	0.00	847.50	295.00	854.60	.02	.00	.00	138.86	7.10	90.00
22266.00	1.00	0.00	0.00	847.50	615.00	855.52	.05	.00	.01	258.31	8.02	90.00
22266.00	1.00	0.00	0.00	847.50	820.00	855.96	.07	.00	.01	329.73	8.46	90.00
22266.00	1.00	0.00	0.00	847.50	1600.00	857.39	.15	.00	.02	576.29	9.89	90.00
22416.00	150.00	0.00	0.00	848.30	295.00	854.61	.07	.03	.03	295.00	6.31	33.62
22416.00	150.00	0.00	0.00	848.30	615.00	855.52	.21	.08	.08	613.90	7.22	51.70
22416.00	150.00	0.00	0.00	848.30	820.00	855.95	.30	.10	.11	811.37	7.65	61.94
22416.00	150.00	0.00	0.00	848.30	1600.00	857.34	.59	.17	.22	1481.67	9.04	75.00
22511.00	95.00	0.00	0.00	848.20	295.00	854.63	.16	.07	.05	271.71	6.43	78.00
22511.00	95.00	0.00	0.00	848.20	615.00	855.64	.26	.14	.03	450.22	7.44	78.00
22511.00	95.00	0.00	0.00	848.20	820.00	856.12	.31	.18	.00	542.74	7.92	78.00
22511.00	95.00	0.00	0.00	848.20	1600.00	857.82	.40	.23	.06	808.24	9.62	78.00

COURT DUTINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
22512.00	1.00	853.90	853.10	848.20	295.00	854.60	.23	.00	.03	208.04	6.40	78.00
22512.00	1.00	853.90	853.10	848.20	615.00	855.70	.21	.00	.01	222.37	7.50	78.00
22512.00	1.00	853.90	853.10	848.20	820.00	856.19	.26	.00	.02	248.35	7.99	78.00
22512.00	1.00	853.90	853.10	848.20	1600.00	857.83	.39	.00	.00	338.77	9.63	78.00
22582.00	70.00	853.90	853.10	848.20	295.00	855.13	.09	.35	.04	142.52	6.93	78.00
22582.00	70.00	853.90	853.10	848.20	615.00	856.01	.17	.24	.01	197.74	7.81	78.00
22582.00	70.00	853.90	853.10	848.20	820.00	856.48	.21	.23	.01	228.33	8.28	78.00
22582.00	70.00	853.90	853.10	848.20	1600.00	858.05	.36	.18	.01	328.08	9.85	78.00
22583.00	1.00	0.00	0.00	848.20	295.00	855.13	.09	.00	.00	239.30	6.93	78.00
22583.00	1.00	0.00	0.00	848.20	615.00	856.00	.18	.00	.01	406.72	7.80	78.00
22583.00	1.00	0.00	0.00	848.20	820.00	856.47	.22	.00	.01	494.32	8.27	78.00
22583.00	1.00	0.00	0.00	848.20	1600.00	858.09	.33	.00	.01	756.73	9.89	78.00
22883.00	300.00	0.00	0.00	849.30	295.00	855.33	.10	.21	.00	288.01	6.03	71.96
22883.00	300.00	0.00	0.00	849.30	615.00	856.35	.19	.35	.00	523.40	7.05	136.74
22883.00	300.00	0.00	0.00	849.30	820.00	856.88	.20	.38	.01	626.29	7.58	171.07
22883.00	300.00	0.00	0.00	849.30	1600.00	858.65	.13	.30	.06	778.04	9.35	250.00
23333.00	450.00	0.00	0.00	850.00	295.00	855.66	.12	.33	.01	295.00	5.66	29.31
23333.00	450.00	0.00	0.00	850.00	615.00	856.86	.28	.55	.04	604.37	6.86	54.56
23333.00	450.00	0.00	0.00	850.00	820.00	857.41	.36	.60	.08	787.21	7.41	66.45
23333.00	450.00	0.00	0.00	850.00	1600.00	858.92	.58	.49	.22	1374.56	8.92	123.46
23833.00	500.00	0.00	0.00	851.90	295.00	856.37	.18	.74	.03	295.00	4.47	32.09
23833.00	500.00	0.00	0.00	851.90	615.00	857.86	.28	1.00	.00	593.56	5.96	54.09
23833.00	500.00	0.00	0.00	851.90	820.00	858.54	.33	1.09	.01	767.10	6.64	63.57
23833.00	500.00	0.00	0.00	851.90	1600.00	860.31	.46	1.24	.04	1334.50	8.41	110.73
24008.00	175.00	0.00	0.00	852.70	295.00	856.73	.16	.33	.01	295.00	4.03	30.00
24008.00	175.00	0.00	0.00	852.70	615.00	858.31	.11	.22	.05	431.16	5.61	115.00
24008.00	175.00	0.00	0.00	852.70	820.00	859.03	.12	.21	.06	530.56	6.33	132.11
24008.00	175.00	0.00	0.00	852.70	1600.00	860.93	.14	.20	.10	834.18	8.23	160.00
24009.00	1.00	0.00	0.00	852.70	295.00	856.73	.16	.00	.00	295.00	4.03	30.00
24009.00	1.00	0.00	0.00	852.70	615.00	858.30	.14	.00	.01	467.56	5.60	114.88
24009.00	1.00	0.00	0.00	852.70	820.00	859.02	.15	.00	.02	584.53	6.32	131.95
24009.00	1.00	0.00	0.00	852.70	1600.00	860.90	.19	.00	.03	955.71	8.20	160.00
24077.00	68.00	860.00	858.30	852.70	295.00	856.82	.42	.22	.13	295.00	4.12	30.00
24077.00	68.00	860.00	858.30	852.70	615.00	860.72	.03	2.32	0.00	374.43	8.02	160.00
24077.00	68.00	860.00	858.30	852.70	820.00	861.08	.05	1.95	0.00	481.34	8.38	160.00
24077.00	68.00	860.00	858.30	852.70	1600.00	862.03	.11	1.04	0.00	865.46	9.33	160.00
24078.00	1.00	0.00	0.00	852.70	295.00	857.22	.12	.00	.09	295.00	4.52	30.00
24078.00	1.00	0.00	0.00	852.70	615.00	860.73	.02	.00	.00	329.75	8.03	160.00
24078.00	1.00	0.00	0.00	852.70	820.00	861.09	.03	.00	.00	420.75	8.39	160.00
24078.00	1.00	0.00	0.00	852.70	1600.00	862.07	.08	.00	.01	744.15	9.37	160.00

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
24358.00	280.00	0.00	0.00	852.80	295.00	857.54	.12	.32	.00	170.55	4.74	154.87
24358.00	280.00	0.00	0.00	852.80	615.00	860.78	.01	.03	.00	111.90	7.98	305.00
24358.00	280.00	0.00	0.00	852.80	820.00	861.16	.01	.04	.01	137.87	8.36	305.00
24358.00	280.00	0.00	0.00	852.80	1600.00	862.21	.02	.07	.02	226.15	9.41	305.00
24778.00	420.00	0.00	0.00	854.30	295.00	858.18	.04	.54	.02	135.10	3.88	429.42
24778.00	420.00	0.00	0.00	854.30	615.00	860.81	.00	.03	.00	87.76	6.51	450.00
24778.00	420.00	0.00	0.00	854.30	820.00	861.20	.00	.03	.00	109.59	6.90	450.00
24778.00	420.00	0.00	0.00	854.30	1600.00	862.29	.01	.06	.00	186.71	7.99	450.00
24779.00	1.00	857.00	856.50	854.30	295.00	858.21	.02	.00	.01	82.47	3.91	435.71
24779.00	1.00	857.00	856.50	854.30	615.00	860.81	.00	.00	.00	54.59	6.51	450.00
24779.00	1.00	857.00	856.50	854.30	820.00	861.20	.00	.00	.00	68.76	6.90	450.00
24779.00	1.00	857.00	856.50	854.30	1600.00	862.29	.01	.00	.00	119.54	7.99	450.00
24782.00	3.00	857.00	856.50	854.30	295.00	858.21	.02	.00	.00	82.13	3.91	435.76
24782.00	3.00	857.00	856.50	854.30	615.00	860.81	.00	.00	.00	54.58	6.51	450.00
24782.00	3.00	857.00	856.50	854.30	820.00	861.20	.00	.00	.00	68.75	6.90	450.00
24782.00	3.00	857.00	856.50	854.30	1600.00	862.29	.01	.00	.00	119.54	7.99	450.00
24783.00	1.00	0.00	0.00	854.30	295.00	858.21	.03	.00	.01	128.68	3.91	435.77
24783.00	1.00	0.00	0.00	854.30	615.00	860.81	.00	.00	.00	84.96	6.51	450.00
24783.00	1.00	0.00	0.00	854.30	820.00	861.20	.00	.00	.00	106.05	6.90	450.00
24783.00	1.00	0.00	0.00	854.30	1600.00	862.29	.01	.00	.00	180.56	7.99	450.00
25383.00	600.00	0.00	0.00	855.20	295.00	858.56	.01	.32	.01	58.81	3.36	292.97
25383.00	600.00	0.00	0.00	855.20	615.00	860.84	.01	.03	.00	62.20	5.64	325.00
25383.00	600.00	0.00	0.00	855.20	820.00	861.24	.01	.04	.00	78.02	6.04	325.00
25383.00	600.00	0.00	0.00	855.20	1600.00	862.35	.02	.06	.00	133.74	7.15	325.00
25384.00	1.00	856.20	857.30	855.20	295.00	858.56	.01	.00	.00	35.91	3.36	292.99
25384.00	1.00	856.20	857.30	855.20	615.00	860.84	.01	.00	.00	43.62	5.64	325.00
25384.00	1.00	856.20	857.30	855.20	820.00	861.24	.01	.00	.00	55.50	6.04	325.00
25384.00	1.00	856.20	857.30	855.20	1600.00	862.35	.02	.00	.00	98.20	7.15	325.00
25387.00	3.00	856.20	857.30	855.20	295.00	858.56	.01	.00	.00	35.90	3.36	293.04
25387.00	3.00	856.20	857.30	855.20	615.00	860.84	.01	.00	.00	43.62	5.64	325.00
25387.00	3.00	856.20	857.30	855.20	820.00	861.24	.01	.00	.00	55.50	6.04	325.00
25387.00	3.00	856.20	857.30	855.20	1600.00	862.35	.02	.00	.00	98.19	7.15	325.00
25388.00	1.00	0.00	0.00	855.20	295.00	858.56	.01	.00	.00	58.75	3.36	293.06
25388.00	1.00	0.00	0.00	855.20	615.00	860.84	.01	.00	.00	62.19	5.64	325.00
25388.00	1.00	0.00	0.00	855.20	820.00	861.24	.01	.00	.00	78.01	6.04	325.00
25388.00	1.00	0.00	0.00	855.20	1600.00	862.35	.02	.00	.00	133.73	7.15	325.00
25708.00	320.00	0.00	0.00	854.60	255.00	858.69	.09	.17	.04	255.00	4.09	32.00
25708.00	320.00	0.00	0.00	854.60	540.00	860.86	.06	.04	.03	397.54	6.26	170.00
25708.00	320.00	0.00	0.00	854.60	730.00	861.26	.08	.05	.04	505.64	6.66	170.00
25708.00	320.00	0.00	0.00	854.60	1420.00	862.37	.14	.08	.06	832.34	7.77	170.00

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
25709.00	1.00	859.50	858.80	854.60	255.00	858.62	.24	.00	.07	255.00	4.02	32.00
25709.00	1.00	859.50	858.80	854.60	540.00	860.78	.22	.00	.08	304.28	6.18	166.32
25709.00	1.00	859.50	858.80	854.60	730.00	861.21	.18	.00	.05	312.35	6.61	170.00
25709.00	1.00	859.50	858.80	854.60	1420.00	862.35	.19	.00	.03	381.46	7.75	170.00
25769.00	60.00	859.50	858.80	854.60	255.00	859.05	.23	.43	.00	255.00	4.45	32.00
25769.00	60.00	859.50	858.80	854.60	540.00	861.22	.10	.28	.04	229.57	6.62	170.00
25769.00	60.00	859.50	858.80	854.60	730.00	861.52	.12	.23	.02	264.43	6.92	170.00
25769.00	60.00	859.50	858.80	854.60	1420.00	862.53	.17	.15	.01	363.38	7.93	170.00
25770.00	1.00	0.00	0.00	854.60	255.00	859.70	.03	.00	.06	211.74	5.10	62.61
25770.00	1.00	0.00	0.00	854.60	540.00	861.29	.05	.00	.02	386.02	6.69	170.00
25770.00	1.00	0.00	0.00	854.60	730.00	861.59	.07	.00	.01	499.67	6.99	170.00
25770.00	1.00	0.00	0.00	854.60	1420.00	862.57	.14	.00	.01	852.51	7.97	170.00
26370.00	600.00	0.00	0.00	855.70	255.00	859.85	.02	.14	.00	167.74	4.15	345.07
26370.00	600.00	0.00	0.00	855.70	540.00	861.42	.01	.09	.01	222.77	5.72	382.40
26370.00	600.00	0.00	0.00	855.70	730.00	861.77	.01	.11	.02	284.24	6.07	391.15
26370.00	600.00	0.00	0.00	855.70	1420.00	862.88	.02	.16	.03	480.85	7.18	418.13
26910.00	540.00	0.00	0.00	854.40	255.00	860.11	.06	.28	.02	255.00	5.71	45.51
26910.00	540.00	0.00	0.00	854.40	540.00	861.53	.11	.16	.05	540.00	7.13	68.35
26910.00	540.00	0.00	0.00	854.40	730.00	861.90	.16	.20	.07	719.54	7.50	180.58
26910.00	540.00	0.00	0.00	854.40	1420.00	863.04	.22	.26	.10	1194.58	8.64	296.97
27260.00	350.00	0.00	0.00	855.90	255.00	860.36	.08	.26	.01	255.00	4.46	41.84
27260.00	350.00	0.00	0.00	855.90	540.00	861.85	.14	.33	.01	538.48	5.95	87.41
27260.00	350.00	0.00	0.00	855.90	730.00	862.29	.19	.41	.02	714.66	6.39	136.09
27260.00	350.00	0.00	0.00	855.90	1420.00	863.50	.26	.47	.02	1175.00	7.60	307.02
27810.00	550.00	0.00	0.00	856.70	255.00	860.83	.07	.46	.00	255.00	4.13	45.18
27810.00	550.00	0.00	0.00	856.70	540.00	862.38	.12	.51	.01	540.00	5.68	57.09
27810.00	550.00	0.00	0.00	856.70	730.00	862.93	.16	.60	.01	729.80	6.23	62.47
27810.00	550.00	0.00	0.00	856.70	1420.00	864.24	.32	.78	.03	1410.36	7.54	75.45
28130.00	320.00	0.00	0.00	858.10	255.00	861.13	1.43	.67	0.00	255.00	3.03	9.40
28130.00	320.00	0.00	0.00	858.10	540.00	862.75	.26	.44	.07	538.83	4.65	63.44
28130.00	320.00	0.00	0.00	858.10	730.00	863.33	.30	.47	.07	722.42	5.23	76.30
28130.00	320.00	0.00	0.00	858.10	1420.00	864.78	.43	.59	.05	1352.68	6.68	109.18
28131.00	1.00	0.00	0.00	858.10	255.00	861.75	.96	.01	.14	255.00	3.65	9.40
28131.00	1.00	0.00	0.00	858.10	540.00	862.76	.26	.00	.00	538.86	4.66	63.48
28131.00	1.00	0.00	0.00	858.10	730.00	863.33	.30	.00	.00	722.62	5.23	76.34
28131.00	1.00	0.00	0.00	858.10	1420.00	864.78	.43	.00	.00	1354.56	6.68	109.24
28218.00	87.00	866.20	863.00	858.10	255.00	862.92	.63	.75	.10	255.00	4.82	9.40
28218.00	87.00	866.20	863.00	858.10	540.00	866.43	.03	3.43	0.00	486.21	8.33	201.24
28218.00	87.00	866.20	863.00	858.10	730.00	866.89	.04	3.29	0.00	639.23	8.79	207.32
28218.00	87.00	866.20	863.00	858.10	1420.00	867.78	.09	2.66	0.00	1177.13	9.68	218.99

u/s face of bridge

MOORE BUSINESS FORMS

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
28219.00	1.00	0.00	0.00	858.10	255.00	863.11	.49	.01	.04	255.00	5.01	9.40
28219.00	1.00	0.00	0.00	858.10	540.00	866.43	.03	.00	.00	484.67	8.33	201.26
28219.00	1.00	0.00	0.00	858.10	730.00	866.89	.04	.00	.00	636.71	8.79	207.34
28219.00	1.00	0.00	0.00	858.10	1420.00	867.78	.09	.00	.00	1170.78	9.68	219.00
28619.00	400.00	0.00	0.00	859.80	255.00	864.04	.04	.33	.14	212.45	4.24	159.30
28619.00	400.00	0.00	0.00	859.80	540.00	866.48	.01	.04	.00	268.59	6.68	324.86
28619.00	400.00	0.00	0.00	859.80	730.00	866.96	.01	.04	.01	333.20	7.16	335.96
28619.00	400.00	0.00	0.00	859.80	1420.00	867.94	.03	.08	.02	562.63	8.14	358.20
29469.00	850.00	0.00	0.00	862.20	255.00	864.60	.72	.90	0.00	253.91	2.40	28.68
29469.00	850.00	0.00	0.00	862.20	540.00	866.52	.32	.20	.15	438.41	4.32	86.03
29469.00	850.00	0.00	0.00	862.20	730.00	867.02	.34	.22	.16	540.21	4.82	109.14
29469.00	850.00	0.00	0.00	862.20	1420.00	868.08	.46	.35	.22	863.62	5.88	150.00
29534.00	65.00	0.00	0.00	862.80	255.00	865.64	.27	.45	.14	252.09	2.84	34.38
29534.00	65.00	0.00	0.00	862.80	540.00	866.69	.49	.25	.08	493.10	3.89	68.29
29534.00	65.00	0.00	0.00	862.80	730.00	867.16	.55	.24	.10	612.17	4.36	113.84
29534.00	65.00	0.00	0.00	862.80	1420.00	868.26	.63	.26	.08	917.47	5.46	130.00
29535.00	1.00	0.00	0.00	864.90	255.00	866.90	.46	.00	0.00	204.41	2.00	96.96
29535.00	1.00	0.00	0.00	864.90	540.00	867.52	.57	.00	0.00	353.81	2.62	121.73
29535.00	1.00	0.00	0.00	864.90	730.00	867.79	.67	.01	0.00	446.07	2.89	127.49
29535.00	1.00	0.00	0.00	864.90	1420.00	868.54	.95	.01	0.00	739.76	3.64	130.00
29536.00	1.00	0.00	0.00	864.90	255.00	866.91	.45	.01	.00	204.09	2.01	97.70
29536.00	1.00	0.00	0.00	864.90	540.00	867.53	.56	.00	.00	353.31	2.63	121.84
29536.00	1.00	0.00	0.00	864.90	730.00	867.80	.67	.01	.00	445.48	2.90	127.61
29536.00	1.00	0.00	0.00	864.90	1420.00	868.55	.95	.01	.00	739.03	3.65	130.00
29537.00	1.00	0.00	0.00	863.80	255.00	867.39	.09	.00	.11	203.05	3.59	118.73
29537.00	1.00	0.00	0.00	863.80	540.00	868.05	.17	.00	.12	363.13	4.25	130.00
29537.00	1.00	0.00	0.00	863.80	730.00	868.40	.21	.00	.14	451.09	4.60	130.00
29537.00	1.00	0.00	0.00	863.80	1420.00	869.34	.34	.00	.18	740.27	5.54	130.00
29687.00	150.00	0.00	0.00	863.40	255.00	867.50	.20	.17	.06	229.30	4.10	81.82
29687.00	150.00	0.00	0.00	863.40	540.00	868.27	.30	.29	.07	385.87	4.87	126.50
29687.00	150.00	0.00	0.00	863.40	730.00	868.66	.32	.32	.06	459.91	5.26	135.07
29687.00	150.00	0.00	0.00	863.40	1420.00	869.72	.38	.40	.02	676.22	6.32	159.81
29688.00	1.00	866.60	868.30	863.40	255.00	867.50	.22	.00	.01	235.24	4.10	81.66
29688.00	1.00	866.60	868.30	863.40	540.00	868.29	.29	.00	.00	367.10	4.89	126.50
29688.00	1.00	866.60	868.30	863.40	730.00	868.70	.29	.00	.01	396.90	5.30	136.02
29688.00	1.00	866.60	868.30	863.40	1420.00	869.91	.24	.00	.04	379.62	6.51	164.42
29700.00	12.00	866.60	868.30	863.40	255.00	867.52	.21	.01	.00	234.44	4.12	82.43
29700.00	12.00	866.60	868.30	863.40	540.00	868.37	.25	.04	.01	350.82	4.97	128.13
29700.00	12.00	866.60	868.30	863.40	730.00	868.79	.26	.04	.01	380.00	5.39	137.92
29700.00	12.00	866.60	868.30	863.40	1420.00	869.97	.23	.05	.00	375.67	6.57	165.58

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
29701.00	1.00	0.00	0.00	863.40	255.00	867.54	.19	.00	.01	228.06	4.14	82.76
29701.00	1.00	0.00	0.00	863.40	540.00	868.37	.26	.00	.00	373.28	4.97	128.20
29701.00	1.00	0.00	0.00	863.40	730.00	868.78	.28	.00	.01	442.96	5.38	138.00
29701.00	1.00	0.00	0.00	863.40	1420.00	869.93	.31	.00	.04	645.02	6.53	164.79
29751.00	50.00	0.00	0.00	862.80	255.00	868.04	.30	.23	0.00	106.01	5.24	145.38
29751.00	50.00	0.00	0.00	862.80	540.00	868.74	.14	.22	.04	95.41	5.94	191.40
29751.00	50.00	0.00	0.00	862.80	730.00	869.18	.11	.18	.05	88.84	6.38	191.40
29751.00	50.00	0.00	0.00	862.80	1420.00	870.32	.12	.14	.06	96.38	7.52	191.40
29752.00	1.00	867.10	866.80	862.80	255.00	868.34	.07	.00	.07	40.58	5.54	183.59
29752.00	1.00	867.10	866.80	862.80	540.00	868.79	.11	.00	.01	50.96	5.99	191.40
29752.00	1.00	867.10	866.80	862.80	730.00	869.19	.10	.00	.00	50.58	6.39	191.40
29752.00	1.00	867.10	866.80	862.80	1420.00	870.32	.12	.00	.00	58.24	7.52	191.40
29796.00	44.00	867.10	866.80	862.80	255.00	868.42	.06	.06	.00	36.13	5.62	191.40
29796.00	44.00	867.10	866.80	862.80	540.00	868.89	.09	.07	.00	46.90	6.09	191.40
29796.00	44.00	867.10	866.80	862.80	730.00	869.26	.09	.05	.00	48.21	6.46	191.40
29796.00	44.00	867.10	866.80	862.80	1420.00	870.36	.12	.04	.00	57.53	7.56	191.40
29797.00	1.00	0.00	0.00	862.80	255.00	868.42	.06	.00	.00	56.04	5.62	191.40
29797.00	1.00	0.00	0.00	862.80	540.00	868.89	.09	.00	.00	72.22	6.09	191.40
29797.00	1.00	0.00	0.00	862.80	730.00	869.26	.09	.00	.00	72.90	6.46	191.40
29797.00	1.00	0.00	0.00	862.80	1420.00	870.37	.12	.00	.00	82.00	7.57	191.40
30027.00	230.00	0.00	0.00	864.00	255.00	868.60	.02	.13	.01	156.54	4.60	165.06
30027.00	230.00	0.00	0.00	864.00	540.00	869.18	.05	.24	.01	288.33	5.18	182.48
30027.00	230.00	0.00	0.00	864.00	730.00	869.56	.06	.26	.01	360.32	5.56	193.91
30027.00	230.00	0.00	0.00	864.00	1420.00	870.68	.10	.29	.01	580.15	6.68	229.49
30527.00	500.00	0.00	0.00	863.40	255.00	868.66	.01	.06	.00	236.27	5.26	128.30
30527.00	500.00	0.00	0.00	863.40	540.00	869.32	.04	.13	.00	472.94	5.92	152.60
30527.00	500.00	0.00	0.00	863.40	730.00	869.73	.06	.16	.00	616.29	6.33	167.74
30527.00	500.00	0.00	0.00	863.40	1420.00	870.91	.11	.24	.00	1073.75	7.51	207.03
30927.00	400.00	0.00	0.00	863.70	210.00	868.71	.01	.03	.00	78.30	5.01	169.95
30927.00	400.00	0.00	0.00	863.70	460.00	869.43	.02	.08	.01	159.18	5.73	207.15
30927.00	400.00	0.00	0.00	863.70	640.00	869.87	.03	.10	.01	209.81	6.17	225.94
30927.00	400.00	0.00	0.00	863.70	1230.00	871.13	.04	.14	.02	342.33	7.43	278.14
31227.00	300.00	0.00	0.00	865.00	210.00	868.75	.03	.05	.01	63.94	3.75	159.97
31227.00	300.00	0.00	0.00	865.00	460.00	869.51	.04	.08	.01	94.60	4.51	211.27
31227.00	300.00	0.00	0.00	865.00	640.00	869.96	.04	.09	.00	107.64	4.96	350.00
31227.00	300.00	0.00	0.00	865.00	1230.00	871.23	.03	.08	.00	119.48	6.23	350.00
31228.00	1.00	868.90	871.20	865.00	210.00	868.32	.88	.00	.43	210.00	3.32	85.91
31228.00	1.00	868.90	871.20	865.00	460.00	870.30	.23	.00	0.00	214.63	5.30	327.25
31228.00	1.00	868.90	871.20	865.00	640.00	870.48	.24	.00	0.00	228.49	5.48	330.79
31228.00	1.00	868.90	871.20	865.00	1230.00	871.15	.19	.00	.08	192.54	6.15	343.41

MOORE BUSINESS FORMS INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
31299.00	71.00	868.90	871.20	865.00	210.00	869.42	.52	.62	.11	209.57	4.42	158.45
31299.00	71.00	868.90	871.20	865.00	460.00	870.74	.06	.22	.05	117.81	5.74	335.75
31299.00	71.00	868.90	871.20	865.00	640.00	870.95	.08	.25	.05	127.42	5.95	339.58
31299.00	71.00	868.90	871.20	865.00	1230.00	871.48	.11	.23	.02	126.38	6.48	349.71
31300.00	1.00	0.00	0.00	865.00	210.00	870.08	.00	.00	.15	35.78	5.08	350.00
31300.00	1.00	0.00	0.00	865.00	460.00	870.82	.01	.00	.02	56.59	5.82	350.00
31300.00	1.00	0.00	0.00	865.00	640.00	871.04	.01	.00	.02	72.48	6.04	350.00
31300.00	1.00	0.00	0.00	865.00	1230.00	871.60	.02	.00	.03	116.33	6.60	350.00
31850.00	550.00	0.00	0.00	865.30	210.00	870.09	.00	.00	.00	103.05	4.79	611.44
31850.00	550.00	0.00	0.00	865.30	460.00	870.83	.00	.01	.00	217.05	5.53	619.21
31850.00	550.00	0.00	0.00	865.30	640.00	871.07	.00	.02	.00	298.96	5.77	621.64
31850.00	550.00	0.00	0.00	865.30	1230.00	871.66	.00	.04	.01	560.17	6.36	661.85
32785.00	935.00	0.00	0.00	866.90	210.00	870.10	.00	.01	.00	15.35	3.20	799.84
32785.00	935.00	0.00	0.00	866.90	460.00	870.84	.00	.01	.00	30.70	3.94	867.70
32785.00	935.00	0.00	0.00	866.90	640.00	871.08	.00	.02	.00	41.77	4.18	889.43
32785.00	935.00	0.00	0.00	866.90	1230.00	871.70	.00	.04	.00	76.31	4.80	908.39
33385.00	600.00	0.00	0.00	867.50	210.00	870.13	.02	.04	.01	64.56	2.63	348.24
33385.00	600.00	0.00	0.00	867.50	460.00	870.89	.02	.05	.01	97.10	3.39	427.57
33385.00	600.00	0.00	0.00	867.50	640.00	871.15	.02	.07	.01	124.54	3.65	437.83
33385.00	600.00	0.00	0.00	867.50	1230.00	871.81	.03	.12	.02	205.08	4.31	464.41
34235.00	850.00	0.00	0.00	869.00	210.00	871.26	.16	1.20	.07	201.52	2.26	90.76
34235.00	850.00	0.00	0.00	869.00	460.00	871.81	.32	1.07	.15	390.40	2.81	164.98
34235.00	850.00	0.00	0.00	869.00	640.00	872.17	.33	1.18	.15	479.94	3.17	178.47
34235.00	850.00	0.00	0.00	869.00	1230.00	873.04	.36	1.39	.16	728.16	4.04	200.54
34247.00	12.00	871.00	869.00	869.00	210.00	872.27	.03	.88	0.00	152.81	3.27	180.83
34247.00	12.00	871.00	869.00	869.00	460.00	872.58	.09	.54	0.00	305.17	3.58	188.79
34247.00	12.00	871.00	869.00	869.00	640.00	872.76	.14	.40	0.00	404.34	3.76	193.53
34247.00	12.00	871.00	869.00	869.00	1230.00	873.27	.28	.14	0.00	692.23	4.27	206.64
34997.00	750.00	0.00	0.00	867.10	210.00	872.58	.07	.33	.02	191.00	5.48	50.83
34997.00	750.00	0.00	0.00	867.10	460.00	873.35	.19	.83	.05	393.84	6.25	67.24
34997.00	750.00	0.00	0.00	867.10	640.00	873.82	.27	1.13	.07	525.76	6.72	77.00
34997.00	750.00	0.00	0.00	867.10	1230.00	874.97	.46	1.80	.09	892.13	7.87	109.89
35772.00	775.00	0.00	0.00	868.50	210.00	872.99	.05	.38	.01	210.00	4.49	47.56
35772.00	775.00	0.00	0.00	868.50	460.00	874.15	.10	.67	.03	456.43	5.65	94.72
35772.00	775.00	0.00	0.00	868.50	640.00	874.76	.12	.75	.04	615.88	6.26	152.30
35772.00	775.00	0.00	0.00	868.50	1230.00	876.20	.15	.82	.09	998.23	7.70	256.68
36122.00	350.00	0.00	0.00	868.60	210.00	873.16	.07	.19	.01	210.00	4.56	31.20
36122.00	350.00	0.00	0.00	868.60	460.00	874.40	.18	.30	.04	460.00	5.80	31.20
36122.00	350.00	0.00	0.00	868.60	640.00	875.03	.27	.34	.07	640.00	6.43	31.20
36122.00	350.00	0.00	0.00	868.60	1230.00	876.36	.61	.40	.23	1230.00	7.76	31.20

MOORE BUSINESS FORMS, INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
36123.00	1.00	885.80	877.30	868.60	210.00	873.17	.07	.00	.00	210.00	4.57	31.20
36123.00	1.00	885.80	877.30	868.60	460.00	874.39	.20	.00	.01	460.00	5.79	31.20
36123.00	1.00	885.80	877.30	868.60	640.00	875.00	.33	.00	.03	640.00	6.40	31.20
36123.00	1.00	885.80	877.30	868.60	1230.00	876.22	.91	.00	.15	1230.00	7.62	31.20
36262.00	139.00	885.80	877.70	869.00	210.00	873.25	.08	.08	.01	210.00	4.25	31.20
36262.00	139.00	885.80	877.70	869.00	460.00	874.61	.21	.22	.01	460.00	5.61	31.20
36262.00	139.00	885.80	877.70	869.00	640.00	875.32	.34	.33	.00	640.00	6.32	31.20
36262.00	139.00	885.80	877.70	869.00	1230.00	877.22	.84	.92	.02	1230.00	8.22	31.20
36263.00	1.00	0.00	0.00	869.00	210.00	873.25	.09	.00	.01	210.00	4.25	31.20
36263.00	1.00	0.00	0.00	869.00	460.00	874.63	.20	.00	.01	460.00	5.63	31.20
36263.00	1.00	0.00	0.00	869.00	640.00	875.41	.27	.00	.02	640.00	6.41	31.20
36263.00	1.00	0.00	0.00	869.00	1230.00	877.72	.46	.00	.11	1230.00	8.72	31.20
36503.00	240.00	0.00	0.00	869.90	210.00	873.48	.10	.24	.00	210.00	3.58	38.04
36503.00	240.00	0.00	0.00	869.90	460.00	874.97	.15	.27	.01	451.26	5.07	56.99
36503.00	240.00	0.00	0.00	869.90	640.00	875.81	.17	.27	.03	613.45	5.91	70.62
36503.00	240.00	0.00	0.00	869.90	1230.00	878.31	.16	.21	.09	1030.05	8.41	135.03
37603.00	1100.00	0.00	0.00	869.40	160.00	873.81	.00	.20	.03	15.78	4.41	213.18
37603.00	1100.00	0.00	0.00	869.40	350.00	875.31	.00	.16	.04	22.35	5.91	250.00
37603.00	1100.00	0.00	0.00	869.40	480.00	876.17	.00	.14	.05	26.44	6.77	250.00
37603.00	1100.00	0.00	0.00	869.40	920.00	878.62	.01	.10	.05	39.53	9.22	250.00
37604.00	1.00	873.70	872.00	869.40	160.00	874.19	.08	.00	0.00	25.62	4.79	250.00
37604.00	1.00	873.70	872.00	869.40	350.00	875.31	.02	.00	.01	8.64	5.91	250.00
37604.00	1.00	873.70	872.00	869.40	480.00	876.17	.01	.00	.00	7.94	6.77	250.00
37604.00	1.00	873.70	872.00	869.40	920.00	878.62	.01	.00	.00	9.73	9.22	250.00
37648.00	44.00	873.70	872.20	869.60	160.00	874.44	.02	.17	.02	11.70	4.84	250.00
37648.00	44.00	873.70	872.20	869.60	350.00	875.32	.02	.02	.00	8.69	5.72	250.00
37648.00	44.00	873.70	872.20	869.60	480.00	876.17	.01	.01	.00	8.03	6.57	250.00
37648.00	44.00	873.70	872.20	869.60	920.00	878.62	.01	.00	.00	9.85	9.02	250.00
37649.00	1.00	0.00	0.00	869.60	160.00	874.46	.00	.00	.01	14.68	4.86	436.24
37649.00	1.00	0.00	0.00	869.60	350.00	875.34	.00	.00	.00	23.20	5.74	553.21
37649.00	1.00	0.00	0.00	869.60	480.00	876.18	.00	.00	.00	24.40	6.58	660.34
37649.00	1.00	0.00	0.00	869.60	920.00	878.63	.00	.00	.00	27.94	9.03	780.82
37762.00	113.00	0.00	0.00	870.80	160.00	874.47	.01	.01	.00	24.90	3.67	201.82
37762.00	113.00	0.00	0.00	870.80	350.00	875.35	.01	.01	.00	39.45	4.55	415.14
37762.00	113.00	0.00	0.00	870.80	480.00	876.19	.01	.01	.00	39.89	5.39	527.19
37762.00	113.00	0.00	0.00	870.80	920.00	878.63	.00	.00	.00	43.57	7.83	550.00
37874.00	112.00	0.00	0.00	872.00	160.00	874.48	.09	.05	.04	57.47	2.48	125.85
37874.00	112.00	0.00	0.00	872.00	350.00	875.37	.06	.05	.03	76.45	3.37	234.41
37874.00	112.00	0.00	0.00	872.00	480.00	876.21	.02	.03	.01	70.05	4.21	379.66
37874.00	112.00	0.00	0.00	872.00	920.00	878.64	.01	.01	.00	62.31	6.64	500.00

Rec. 500 Follows

MOORE BUSINESS FORMS, INC. 23

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

MINNOW POND DRAIN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
36263.00	1.00	0.00	0.00	869.00	210.00	873.24	.09	0.00	0.00	210.00	4.25	31.20
36263.00	1.00	0.00	0.00	869.00	460.00	874.63	.20	0.00	0.00	460.00	5.63	31.20
36263.00	1.00	0.00	0.00	869.00	640.00	875.41	.27	0.00	0.00	640.00	6.41	31.20
36263.00	1.00	0.00	0.00	869.00	1230.00	877.72	.46	0.00	0.00	1230.00	8.72	31.20
36503.00	240.00	0.00	0.00	869.90	210.00	873.48	.10	.24	.00	210.00	3.58	37.98
36503.00	240.00	0.00	0.00	869.90	460.00	874.97	.15	.27	.01	451.26	5.07	56.99
36503.00	240.00	0.00	0.00	869.90	640.00	875.81	.17	.27	.03	613.45	5.91	70.62
36503.00	240.00	0.00	0.00	869.90	1230.00	878.31	.16	.21	.09	1029.99	8.41	135.06
37603.00	1100.00	0.00	0.00	869.40	160.00	873.81	.00	.20	.03	15.77	4.41	213.46
37603.00	1100.00	0.00	0.00	869.40	350.00	875.29	.00	.13	.04	19.97	5.89	410.00
37603.00	1100.00	0.00	0.00	869.40	480.00	876.14	.00	.11	.05	22.01	6.74	410.00
37603.00	1100.00	0.00	0.00	869.40	920.00	878.59	.00	.06	.05	29.41	9.19	410.00
37604.00	1.00	873.70	872.00	869.40	160.00	874.17	.06	.00	0.00	23.67	4.77	366.92
37604.00	1.00	873.70	872.00	869.40	350.00	875.29	.01	.00	.00	5.76	5.89	410.00
37604.00	1.00	873.70	872.00	869.40	480.00	876.14	.00	.00	.00	5.10	6.74	410.00
37604.00	1.00	873.70	872.00	869.40	920.00	878.59	.00	.00	.00	6.06	9.19	410.00
37648.00	44.00	873.70	872.20	869.60	160.00	874.37	.01	.15	.01	10.45	4.77	396.77
37648.00	44.00	873.70	872.20	869.60	350.00	875.29	.01	.01	.00	5.81	5.69	410.00
37648.00	44.00	873.70	872.20	869.60	480.00	876.14	.00	.00	.00	5.16	6.54	410.00
37648.00	44.00	873.70	872.20	869.60	920.00	878.59	.00	.00	.00	6.14	8.99	410.00
37649.00	1.00	0.00	0.00	869.60	160.00	874.39	.00	.00	.00	15.14	4.79	397.71
37649.00	1.00	0.00	0.00	869.60	350.00	875.30	.00	.00	.00	24.09	5.70	410.00
37649.00	1.00	0.00	0.00	869.60	480.00	876.14	.00	.00	.00	26.74	6.54	410.00
37649.00	1.00	0.00	0.00	869.60	920.00	878.59	.00	.00	.00	36.09	8.99	410.00
37762.00	113.00	0.00	0.00	870.80	160.00	874.39	.01	.01	.00	25.55	3.59	190.63
37762.00	113.00	0.00	0.00	870.80	350.00	875.31	.01	.01	.00	40.30	4.51	355.00
37762.00	113.00	0.00	0.00	870.80	480.00	876.15	.01	.01	.00	42.48	5.35	355.00
37762.00	113.00	0.00	0.00	870.80	920.00	878.59	.01	.00	.00	53.75	7.79	355.00
37874.00	112.00	0.00	0.00	872.00	160.00	874.40	.11	.06	.05	60.40	2.40	118.72
37874.00	112.00	0.00	0.00	872.00	350.00	875.34	.06	.06	.03	77.88	3.34	224.41
37874.00	112.00	0.00	0.00	872.00	480.00	876.17	.03	.03	.01	72.06	4.17	300.00
37874.00	112.00	0.00	0.00	872.00	920.00	878.60	.01	.01	.00	77.82	6.60	300.00
37987.00	113.00	0.00	0.00	873.20	160.00	875.56	.26	.71	0.00	87.62	2.36	119.65
37987.00	113.00	0.00	0.00	873.20	350.00	876.00	.31	.45	0.00	134.46	2.80	182.42
37987.00	113.00	0.00	0.00	873.20	480.00	876.25	.27	.21	.12	151.32	3.05	246.54
37987.00	113.00	0.00	0.00	873.20	920.00	878.63	.01	.03	.00	83.15	5.43	931.08
38099.00	112.00	0.00	0.00	874.50	95.00	876.78	.21	1.15	.02	71.93	2.28	158.23
38099.00	112.00	0.00	0.00	874.50	115.00	877.17	.05	.85	.08	55.35	2.67	185.00
38099.00	112.00	0.00	0.00	874.50	132.00	877.31	.04	.76	.07	55.18	2.81	185.00
38099.00	112.00	0.00	0.00	874.50	157.00	878.67	.00	.04	.00	33.71	4.17	185.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
38162.00	62.50	0.00	0.00	875.00	95.00	877.30	.23	.53	.01	81.89	2.30	111.15
38162.00	62.50	0.00	0.00	875.00	115.00	877.36	.28	.28	0.00	94.80	2.36	132.89
38162.00	62.50	0.00	0.00	875.00	132.00	877.45	.26	.23	0.00	100.13	2.45	152.37
38162.00	62.50	0.00	0.00	875.00	157.00	878.68	.01	.01	.00	42.59	3.68	298.48
38224.00	62.50	0.00	0.00	875.50	95.00	877.83	.26	.55	.01	88.55	2.33	79.84
38224.00	62.50	0.00	0.00	875.50	115.00	877.98	.26	.59	.01	99.54	2.48	109.37
38224.00	62.50	0.00	0.00	875.50	132.00	878.03	.28	.59	.01	109.48	2.53	119.61
38224.00	62.50	0.00	0.00	875.50	157.00	878.70	.05	.04	.02	78.17	3.20	213.74
38349.00	125.00	0.00	0.00	876.60	95.00	878.87	.25	1.03	.00	93.86	2.27	28.70
38349.00	125.00	0.00	0.00	876.60	115.00	879.02	.29	1.06	.02	110.85	2.42	78.52
38349.00	125.00	0.00	0.00	876.60	132.00	879.12	.30	1.10	.01	122.55	2.52	94.85
38349.00	125.00	0.00	0.00	876.60	157.00	879.14	.41	.44	0.00	144.62	2.54	96.28
38474.00	125.00	0.00	0.00	877.70	95.00	879.83	.24	.94	.00	95.00	2.13	15.47
38474.00	125.00	0.00	0.00	877.70	115.00	880.02	.28	.99	.00	114.87	2.32	24.13
38474.00	125.00	0.00	0.00	877.70	132.00	880.14	.31	1.03	.01	130.99	2.44	45.63
38474.00	125.00	0.00	0.00	877.70	157.00	880.38	.29	1.09	.04	147.36	2.68	94.78
38599.00	125.00	0.00	0.00	878.80	95.00	880.81	.25	.98	.00	95.00	2.01	16.09
38599.00	125.00	0.00	0.00	878.80	115.00	881.02	.27	.98	.00	115.00	2.22	16.94
38599.00	125.00	0.00	0.00	878.80	132.00	881.18	.29	1.01	.01	132.00	2.38	17.57
38599.00	125.00	0.00	0.00	878.80	157.00	861.34	.35	.94	.03	156.99	2.54	26.21
38709.00	110.00	0.00	0.00	878.10	95.00	881.48	.18	.59	.02	95.00	3.38	8.60
38709.00	110.00	0.00	0.00	878.10	115.00	881.73	.23	.66	.01	115.00	3.63	8.60
38709.00	110.00	0.00	0.00	878.10	132.00	881.92	.27	.71	.01	132.00	3.82	8.60
38709.00	110.00	0.00	0.00	878.10	157.00	882.17	.34	.82	.00	157.00	4.07	8.60
38710.00	1.00	881.00	884.00	878.10	95.00	881.46	.23	.00	.03	95.00	3.36	8.60
38710.00	1.00	881.00	884.00	878.10	115.00	881.70	.30	.00	.03	115.00	3.60	8.60
38710.00	1.00	881.00	884.00	878.10	132.00	881.88	.35	.01	.04	132.00	3.78	8.60
38710.00	1.00	881.00	884.00	878.10	157.00	882.12	.44	.01	.05	157.00	4.02	8.60
38752.00	42.00	881.00	884.30	878.40	95.00	881.61	.25	.16	.01	95.00	3.21	8.60
38752.00	42.00	881.00	884.30	878.40	115.00	881.88	.32	.19	.01	115.00	3.48	8.60
38752.00	42.00	881.00	884.30	878.40	132.00	882.09	.37	.22	.01	132.00	3.69	8.60
38752.00	42.00	881.00	884.30	878.40	157.00	882.38	.45	.26	.00	157.00	3.98	8.60
38753.00	1.00	0.00	0.00	878.40	95.00	881.66	.22	.00	.01	95.00	3.26	8.60
38753.00	1.00	0.00	0.00	878.40	115.00	881.96	.26	.00	.02	115.00	3.56	8.60
38753.00	1.00	0.00	0.00	878.40	132.00	882.19	.30	.00	.02	132.00	3.79	8.60
38753.00	1.00	0.00	0.00	878.40	157.00	882.50	.36	.00	.03	157.00	4.10	8.60
38803.00	50.00	0.00	0.00	879.30	160.00	881.95	.00	.00	.06	9.81	2.65	563.55
38803.00	50.00	0.00	0.00	879.30	350.00	882.30	.00	.01	.08	20.58	3.00	665.92
38803.00	50.00	0.00	0.00	879.30	480.00	882.58	.00	.01	.09	26.95	3.28	725.15
38803.00	50.00	0.00	0.00	879.30	920.00	882.97	.01	.01	.11	48.21	3.67	730.07

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
-37987.00	113.00	0.00	0.00	873.20	160.00	875.56	.26	.01	0.00	87.62	2.36	119.65
-37987.00	113.00	0.00	0.00	873.20	350.00	876.00	.31	.02	0.00	134.46	2.80	182.42
-37987.00	113.00	0.00	0.00	873.20	480.00	876.25	.27	.03	0.00	151.41	3.05	246.43
-37987.00	113.00	0.00	0.00	873.20	920.00	878.63	.01	.02	0.00	83.15	5.43	931.08
38099.00	112.00	0.00	0.00	876.90	65.00	877.31	.04	1.46	.07	0.00	.41	106.38
38099.00	112.00	0.00	0.00	876.90	235.00	877.85	.08	1.56	.07	0.00	.95	135.30
38099.00	112.00	0.00	0.00	876.90	348.00	878.02	.11	1.57	.05	0.00	1.12	149.36
38099.00	112.00	0.00	0.00	876.90	763.00	878.68	.11	.11	.05	0.00	1.78	351.42
38599.00	500.00	0.00	0.00	878.20	65.00	879.13	.01	1.77	.01	0.00	.93	151.10
38599.00	500.00	0.00	0.00	878.20	235.00	879.69	.01	1.96	.02	0.00	1.69	197.78
38599.00	500.00	0.00	0.00	878.20	348.00	880.24	.02	2.10	.03	0.00	2.04	230.58
38599.00	500.00	0.00	0.00	878.20	763.00	881.00	.03	2.21	.02	0.00	2.80	322.74
38709.00	110.00	0.00	0.00	877.50	65.00	879.17	.00	.03	.00	0.00	1.67	196.33
38709.00	110.00	0.00	0.00	877.50	235.00	879.98	.00	.07	.00	0.00	2.48	296.23
38709.00	110.00	0.00	0.00	877.50	348.00	880.34	.01	.08	.00	0.00	2.84	324.76
38709.00	110.00	0.00	0.00	877.50	763.00	881.13	.01	.11	.01	0.00	3.63	355.07
38710.00	1.00	0.00	0.00	881.17	65.00	881.56	.11	.00	0.00	65.00	.39	114.28
38710.00	1.00	0.00	0.00	881.17	235.00	881.84	.20	.00	0.00	235.00	.67	165.45
38710.00	1.00	0.00	0.00	881.17	348.00	881.97	.25	.00	0.00	348.00	.80	179.80
38710.00	1.00	0.00	0.00	881.17	763.00	882.32	.37	.00	0.00	763.00	1.15	218.56
38752.00	42.00	0.00	0.00	881.17	65.00	881.86	.01	.18	.03	65.00	.70	167.75
38752.00	42.00	0.00	0.00	881.17	235.00	882.28	.04	.23	.05	235.00	1.11	214.10
38752.00	42.00	0.00	0.00	881.17	348.00	882.46	.05	.24	.06	348.00	1.29	234.42
38752.00	42.00	0.00	0.00	881.17	763.00	882.93	.09	.26	.08	763.00	1.76	277.11
38753.00	1.00	0.00	0.00	881.17	65.00	881.87	.01	.00	.00	65.00	.70	169.55
38753.00	1.00	0.00	0.00	881.17	235.00	882.28	.04	.00	.00	235.00	1.12	215.61
38753.00	1.00	0.00	0.00	881.17	348.00	882.46	.05	.00	.00	348.00	1.30	235.84
38753.00	1.00	0.00	0.00	881.17	763.00	882.94	.09	.00	.00	763.00	1.77	278.09

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
36263.000	210.000	873.245	0.000	0.000	0.000	31.200	0.000	1.000
36263.000	460.000	874.634	1.389	0.000	0.000	31.200	0.000	1.000
36263.000	640.000	875.410	.776	0.000	0.000	31.200	0.000	1.000
36263.000	1230.000	877.720	2.310	0.000	0.000	31.200	0.000	1.000
36503.000	210.000	873.484	0.000	.239	0.000	37.980	0.000	240.000
36503.000	460.000	874.965	1.481	.331	0.000	56.989	-19.010	240.000
36503.000	640.000	875.812	.847	.402	0.000	70.624	-32.645	240.000
36503.000	1230.000	878.314	2.502	.594	0.000	135.058	-97.079	240.000
37603.000	160.000	873.809	0.000	.325	0.000	213.459	0.000	1100.000
37603.000	350.000	875.289	1.480	.324	0.000	409.999	-196.541	1100.000
37603.000	480.000	876.137	.848	.325	0.000	409.999	-196.541	1100.000
37603.000	920.000	878.588	2.451	.273	0.000	409.999	-196.541	1100.000
37604.000	160.000	874.168	0.000	.360	0.000	366.924	0.000	1.000
37604.000	350.000	875.287	1.119	-.002	0.000	409.999	-43.075	1.000
37604.000	480.000	876.136	.849	-.001	0.000	409.999	-43.075	1.000
37604.000	920.000	878.587	2.451	-.001	0.000	409.999	-43.075	1.000
37648.000	160.000	874.372	0.000	.204	0.000	396.771	0.000	44.000
37648.000	350.000	875.295	.922	.007	0.000	409.999	-13.228	44.000
37648.000	480.000	876.139	.844	.003	0.000	409.999	-13.228	44.000
37648.000	920.000	878.588	2.449	.001	0.000	409.999	-13.228	44.000
37649.000	160.000	87[illegible]	0[illegible]	1[illegible]	0.00[illegible]	397.712	0.00[illegible]	1.00

37649.000	350.000	875.299	.911	.005	0.000	409.999	-12.287	1.000
37649.000	480.000	876.141	.842	.003	0.000	409.999	-12.287	1.000
37649.000	920.000	878.589	2.448	.001	0.000	409.999	-12.287	1.000
37762.000	160.000	874.394	0.000	.006	0.000	190.629	0.000	113.000
37762.000	350.000	875.308	.913	.008	0.000	354.999	-164.370	113.000
37762.000	480.000	876.147	.840	.006	0.000	354.999	-164.370	113.000
37762.000	920.000	878.592	2.445	.003	0.000	354.999	-164.370	113.000
37874.000	160.000	874.402	0.000	.007	0.000	118.716	0.000	112.000
37874.000	350.000	875.336	.934	.028	0.000	224.415	-105.699	112.000
37874.000	480.000	876.167	.831	.020	0.000	299.999	-181.283	112.000
37874.000	920.000	878.600	2.433	.007	0.000	299.999	-181.283	112.000
37987.000	160.000	875.558	0.000	1.156	0.000	119.654	0.000	113.000
37987.000	350.000	875.995	.438	.659	0.000	182.423	-62.769	113.000
37987.000	480.000	876.252	.257	.085	0.000	246.537	-126.883	113.000
37987.000	920.000	878.628	2.375	.028	0.000	931.081	-811.427	113.000
38099.000	95.000	876.781	0.000	1.224	0.000	158.230	0.000	112.000
38099.000	115.000	877.166	.385	1.171	0.000	184.999	-26.769	112.000
38099.000	132.000	877.308	.142	1.056	0.000	184.999	-26.769	112.000
38099.000	157.000	878.673	1.364	.045	0.000	184.999	-26.769	112.000
38162.000	95.000	877.297	0.000	.516	0.000	111.146	0.000	62.500
38162.000	115.000	877.357	.060	.191	0.000	132.891	-21.745	62.500
38162.000	132.000	877.451	.094	.143	0.000	152.368	-41.222	62.500
38162.000	157.000	878.684	1.233	.012	0.000	298.483	-187.337	62.500
38224.000	95.000	877.834	0.000	.537	0.000	79.839	0.000	62.500
38224.000	115.000	877.976	.142	.619	0.000	109.375	-29.535	62.500
38224.000	132.000	878.031	.055	.580	0.000	119.615	-39.775	62.500
38224.000	157.000	878.701	.670	.017	0.000	213.738	-133.899	62.500
38349.000	95.000	878.872	0.000	1.038	0.000	28.704	0.000	125.000
38349.000	115.000	879.016	.144	1.040	0.000	78.525	-49.821	125.000
38349.000	132.000	879.121	.105	1.090	0.000	94.854	-66.150	125.000
38349.000	157.000	879.139	.018	.438	0.000	96.285	-67.581	125.000
38474.000	95.000	879.826	0.000	.954	0.000	15.469	0.000	125.000
38474.000	115.000	880.023	.197	1.006	0.000	24.128	-8.658	125.000
38474.000	132.000	880.144	.122	1.023	0.000	45.633	-30.163	125.000
38474.000	157.000	880.383	.239	1.244	0.000	94.779	-79.309	125.000
38599.000	95.000	880.807	0.000	.981	0.000	16.086	0.000	125.000
38599.000	115.000	881.020	.213	.997	0.000	16.942	-.856	125.000
38599.000	132.000	881.182	.162	1.038	0.000	17.568	-1.483	125.000
38599.000	157.000	881.336	.154	.953	0.000	26.208	-10.123	125.000
38709.000	95.000	881.484	0.000	.677	0.000	8.599	0.000	110.000
38709.000	115.000	881.729	.245	.709	0.000	8.599	-.000	110.000
38709.000	132.000	881.919	.190	.736	0.000	8.599	-.000	110.000
38709.000	157.000	882.170	.251	.834	0.000	8.599	-.000	110.000
38710.000	95.000	881.462	0.000	-.021	0.000	8.600	0.000	1.000
38710.000	115.000	881.700	.238	-.029	0.000	8.600	0.000	1.000
38710.000	132.000	881.883	.183	-.036	0.000	8.600	0.000	1.000
38710.000	157.000	882.124	.241	-.047	0.000	8.600	0.000	1.000
38752.000	95.000	881.612	0.000	.150	0.000	8.600	0.000	42.000
38752.000	115.000	881.882	.270	.182	0.000	8.600	0.000	42.000
38752.000	132.000	882.093	.211	.210	0.000	8.600	0.000	42.000
38752.000	157.000	882.377	.283	.253	0.000	8.600	0.000	42.000
38753.000	95.000	881.664	0.000	.052	0.000	8.600	0.000	1.000
38753.000	115.00	881.956	.292	.074	0.00	8.600	0.00	1.000

38753.000	132.000	882.188	.232	.095	0.000	8.600	0.000	1.000
38753.000	157.000	882.505	.317	.128	0.000	8.600	0.000	1.000
38803.000	160.000	881.947	0.000	.283	0.000	563.553	0.000	50.000
38803.000	350.000	882.300	.353	.343	0.000	665.919	-102.366	50.000
38803.000	480.000	882.581	.282	.393	0.000	725.146	-161.593	50.000
38803.000	920.000	882.971	.389	.466	0.000	730.068	-166.516	50.000
-37987.000	160.000	875.558	0.000	-6.390	0.000	119.654	0.000	113.000
-37987.000	350.000	875.995	.438	-6.304	0.000	182.423	-62.769	113.000
-37987.000	480.000	876.252	.257	-6.329	0.000	246.433	-126.779	113.000
-37987.000	920.000	878.628	2.375	-4.343	0.000	931.081	-811.427	113.000
38099.000	65.000	877.307	0.000	1.749	0.000	106.379	0.000	112.000
38099.000	235.000	877.855	.548	1.859	0.000	135.302	-28.923	112.000
38099.000	348.000	878.021	.167	1.769	0.000	149.360	-42.981	112.000
38099.000	763.000	878.685	.664	.057	0.000	351.418	-245.039	112.000
38599.000	65.000	879.127	0.000	1.821	0.000	151.102	0.000	500.000
38599.000	235.000	879.893	.766	2.039	0.000	197.785	-46.683	500.000
38599.000	348.000	880.243	.350	2.222	0.000	230.584	-79.482	500.000
38599.000	763.000	880.996	.753	2.311	0.000	322.738	-171.637	500.000
38709.000	65.000	879.167	0.000	.040	0.000	196.329	0.000	110.000
38709.000	235.000	879.977	.810	.084	0.000	296.226	-99.896	110.000
38709.000	348.000	880.340	.362	.097	0.000	324.758	-128.429	110.000
38709.000	763.000	881.134	.794	.138	0.000	355.067	-158.738	110.000
38710.000	65.000	881.557	0.000	2.390	0.000	114.276	0.000	1.000
38710.000	235.000	881.839	.282	1.862	0.000	165.445	-51.169	1.000
38710.000	348.000	881.968	.129	1.628	0.000	179.799	-65.523	1.000
38710.000	763.000	882.317	.349	1.183	0.000	218.560	-104.284	1.000
38752.000	65.000	881.864	0.000	.307	0.000	167.750	0.000	42.000
38752.000	235.000	882.277	.413	.438	0.000	214.099	-46.349	42.000
38752.000	348.000	882.457	.181	.489	0.000	234.420	-66.670	42.000
38752.000	763.000	882.931	.474	.614	0.000	277.112	-109.362	42.000
38753.000	65.000	881.867	0.000	.004	0.000	169.550	0.000	1.000
38753.000	235.000	882.282	.414	.005	0.000	215.615	-46.064	1.000
38753.000	348.000	882.463	.181	.006	0.000	235.837	-66.287	1.000
38753.000	763.000	882.938	.475	.007	0.000	278.088	-108.538	1.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	-450.000	8.816	0.000
2	0.000	-450.000	13.519	4.703
3	0.000	-450.000	14.740	5.924
4	0.000	-450.000	20.601	11.785

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
37987.00	113.00	0.00	0.00	873.20	160.00	875.55	.27	.62	0.00	88.33	2.35	118.48
37987.00	113.00	0.00	0.00	873.20	350.00	876.01	.30	.42	0.00	133.38	2.81	196.66
37987.00	113.00	0.00	0.00	873.20	480.00	876.28	.25	.19	.11	149.04	3.08	220.86
37987.00	113.00	0.00	0.00	873.20	920.00	878.65	.03	.03	.01	122.51	5.45	235.00
38099.00	112.00	0.00	0.00	874.50	160.00	876.98	.21	1.17	0.00	91.56	2.48	218.75
38099.00	112.00	0.00	0.00	874.50	350.00	877.37	.18	1.22	.03	126.31	2.87	250.61
38099.00	112.00	0.00	0.00	874.50	480.00	877.54	.20	1.19	.02	148.91	3.04	261.28
38099.00	112.00	0.00	0.00	874.50	920.00	878.79	.06	.16	.01	147.46	4.29	380.00
38599.00	500.00	0.00	0.00	878.80	160.00	881.38	.34	4.47	.07	159.82	2.58	40.50
38599.00	500.00	0.00	0.00	878.80	350.00	882.08	.47	4.85	.14	284.77	3.28	103.64
38599.00	500.00	0.00	0.00	878.80	480.00	882.42	.47	5.02	.14	346.34	3.62	107.07
38599.00	500.00	0.00	0.00	878.80	920.00	883.01	.73	2.47	0.00	564.00	4.21	117.74

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.000	670.000	721.300	0.000	0.000	0.000	223.325	0.000	0.000
0.000	1400.000	722.000	.700	0.000	0.000	242.980	-19.655	0.000
0.000	1900.000	723.100	1.100	0.000	0.000	265.560	-42.235	0.000
0.000	3600.000	724.300	1.200	0.000	0.000	296.353	-73.028	0.000
640.000	670.000	722.286	0.000	.986	0.000	192.491	0.000	640.000
640.000	1400.000	723.576	1.289	1.576	0.000	246.589	-54.098	640.000
640.000	1900.000	724.287	.712	1.187	0.000	273.857	-81.365	640.000
640.000	3600.000	725.886	1.599	1.586	0.000	300.000	-107.509	640.000
1730.000	670.000	723.779	0.000	1.492	0.000	191.081	0.000	1090.000
1730.000	1400.000	725.044	1.266	1.469	0.000	280.828	-89.747	1090.000
1730.000	1900.000	725.688	.643	1.400	0.000	293.736	-102.655	1090.000
1730.000	3600.000	727.322	1.635	1.436	0.000	330.000	-138.919	1090.000
2780.000	670.000	727.000	0.000	3.221	0.000	219.191	0.000	1050.000
2780.000	1400.000	728.077	1.077	3.033	0.000	293.674	-74.483	1050.000
2780.000	1900.000	728.618	.541	2.930	0.000	331.202	-112.011	1050.000
2780.000	3600.000	730.064	1.446	2.742	0.000	427.443	-208.252	1050.000
3880.000	670.000	729.657	0.000	2.657	0.000	221.019	0.000	1100.000
3880.000	1400.000	730.758	1.102	2.681	0.000	274.266	-53.247	1100.000
3880.000	1900.000	731.302	.543	2.684	0.000	301.981	-80.962	1100.000
3880.000	3600.000	732.642	1.340	2.578	0.000	373.317	-152.298	1100.000
4935.000	670.000	732.128	0.000	2.471	0.000	151.589	0.000	1055.000
4935.000	1400.000	733.315	1.187	2.556	0.000	220.914	-69.325	1055.000
4935.000	1900.000	733.907	.592	2.605	0.000	278.213	-126.624	1055.000
4935.000	3600.000	735.358	1.451	2.716	0.000	395.437	-243.848	1055.000
5785.000	670.000	735.450	0.000	3.322	0.000	153.373	0.000	850.000
5785.000	1400.000	736.663	1.213	3.348	0.000	221.340	-67.967	850.000
5785.000	1900.000	737.234	.571	3.328	0.000	254.175	-100.802	850.000
5785.000	3600.000	738.608	1.374	3.250	0.000	340.786	-187.413	850.000
6595.000	670.000	738.420	0.000	2.970	0.000	144.648	0.000	810.000
6595.000	1400.000	739.610	1.190	2.947	0.000	198.569	-53.921	810.000
6595.000	1900.000	740.195	.585	2.961	0.000	219.936	-75.288	810.000
6595.000	3600.000	741.634	1.439	3.025	0.000	248.648	-104.000	810.000
7835.000	670.000	742.543	0.000	4.124	0.000	45.570	0.000	1240.000
7835.000	1400.000	744.391	1.847	4.781	0.000	141.468	-95.898	1240.000
7835.000	1900.000	745.161	.771	4.966	0.000	161.501	-115.931	1240.000
7835.000	3600.000	746.891	1.730	5.258	0.000	222.904	-177.334	1240.000
7836.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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7836.000	1400.000	744.399	1.852	.008	0.000	141.527	-95.944	1.000
7836.000	1900.000	745.172	.773	.010	0.000	161.813	-116.231	1.000
7836.000	3600.000	746.907	1.736	.016	0.000	223.092	-177.510	1.000
7866.000	670.000	743.086	0.000	.539	0.000	47.397	0.000	30.000
7866.000	1400.000	744.934	1.847	.535	0.000	149.091	-101.694	30.000
7866.000	1900.000	745.609	.675	.437	0.000	193.684	-146.288	30.000
7866.000	3600.000	747.197	1.588	.289	0.000	228.879	-181.483	30.000
7867.000	670.000	743.086	0.000	-.000	0.000	47.400	0.000	1.000
7867.000	1400.000	744.930	1.844	-.004	0.000	149.110	-101.710	1.000
7867.000	1900.000	745.604	.673	-.005	0.000	193.790	-146.390	1.000
7867.000	3600.000	747.187	1.583	-.010	0.000	228.760	-181.360	1.000
8687.000	670.000	745.217	0.000	2.131	0.000	140.476	0.000	820.000
8687.000	1400.000	746.936	1.719	2.006	0.000	223.550	-83.074	820.000
8687.000	1900.000	747.703	.767	2.099	0.000	260.605	-120.129	820.000
8687.000	3600.000	749.493	1.790	2.306	0.000	347.434	-206.959	820.000
9247.000	670.000	746.835	0.000	1.619	0.000	188.606	0.000	560.000
9247.000	1400.000	748.099	1.264	1.163	0.000	305.612	-117.005	560.000
9247.000	1900.000	748.769	.670	1.066	0.000	306.799	-118.192	560.000
9247.000	3600.000	750.478	1.709	.985	0.000	309.791	-121.185	560.000
9327.000	670.000	746.982	0.000	.146	0.000	159.655	0.000	80.000
9327.000	1400.000	748.250	1.268	.151	0.000	264.097	-104.441	80.000
9327.000	1900.000	748.911	.661	.142	0.000	285.996	-126.341	80.000
9327.000	3600.000	750.613	1.702	.135	0.000	288.976	-129.321	80.000
9407.000	670.000	747.272	0.000	.290	0.000	137.038	0.000	80.000
9407.000	1400.000	748.524	1.252	.274	0.000	229.902	-92.864	80.000
9407.000	1900.000	749.156	.632	.245	0.000	268.027	-130.990	80.000
9407.000	3600.000	750.831	1.675	.219	0.000	385.009	-247.972	80.000
9447.000	670.000	747.463	0.000	.191	0.000	129.425	0.000	40.000
9447.000	1400.000	748.701	1.239	.177	0.000	221.911	-92.486	40.000
9447.000	1900.000	749.322	.620	.165	0.000	259.366	-129.941	40.000
9447.000	3600.000	750.958	1.636	.127	0.000	381.340	-251.915	40.000
9487.000	670.000	747.707	0.000	.244	0.000	124.867	0.000	40.000
9487.000	1400.000	748.933	1.227	.232	0.000	218.384	-93.518	40.000
9487.000	1900.000	749.536	.603	.214	0.000	254.746	-129.879	40.000
9487.000	3600.000	751.116	1.580	.159	0.000	376.138	-253.271	40.000
9727.000	625.000	749.377	0.000	1.670	0.000	117.172	0.000	240.000
9727.000	1330.000	750.538	1.161	1.605	0.000	197.132	-79.960	240.000
9727.000	1810.000	751.080	.542	1.544	0.000	230.783	-113.611	240.000
9727.000	3410.000	752.414	1.334	1.297	0.000	290.987	-173.815	240.000
9967.000	625.000	751.131	0.000	1.754	0.000	115.849	0.000	240.000
9967.000	1330.000	752.294	1.163	1.756	0.000	184.943	-69.094	240.000
9967.000	1810.000	752.841	.547	1.762	0.000	214.186	-98.337	240.000
9967.000	3410.000	754.151	1.310	1.738	0.000	265.135	-149.286	240.000
10207.000	625.000	752.997	0.000	1.866	0.000	118.208	0.000	240.000
10207.000	1330.000	754.151	1.153	1.857	0.000	174.965	-56.757	240.000
10207.000	1810.000	754.707	.557	1.866	0.000	199.858	-81.650	240.000
10207.000	3410.000	756.057	1.349	1.905	0.000	258.824	-140.615	240.000
10817.000	625.000	755.904	0.000	2.907	0.000	145.988	0.000	610.000
10817.000	1330.000	757.237	1.333	3.086	0.000	285.624	-139.635	610.000
10817.000	1810.000	757.841	.604	3.133	0.000	288.763	-142.774	610.000
10817.000	3410.000	759.354	1.514	3.298	0.000	296.629	-150.640	610.000
10932.000	625.000	756.330	0.000	.426	0.000	98.461	0.000	115.000
10932.000	1330.000	757.600	1.270	[illegible]	0.000	[illegible]	[illegible]	[illegible]

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10932.000	1810.000	758.196	.596	.356	0.000	243.999	-145.538	115.000
10932.000	3410.000	759.716	1.519	.361	0.000	243.999	-145.538	115.000
10990.000	625.000	756.884	0.000	.554	0.000	102.587	0.000	58.000
10990.000	1330.000	758.048	1.164	.447	0.000	177.858	-75.271	58.000
10990.000	1810.000	758.588	.540	.391	0.000	215.999	-113.412	58.000
10990.000	3410.000	760.001	1.414	.286	0.000	215.999	-113.412	58.000
11047.000	625.000	757.445	0.000	.561	0.000	96.058	0.000	57.000
11047.000	1330.000	758.531	1.086	.484	0.000	154.355	-58.297	57.000
11047.000	1810.000	759.084	.552	.496	0.000	185.770	-89.712	57.000
11047.000	3410.000	760.401	1.317	.400	0.000	253.799	-157.741	57.000
12.000	505.000	759.698	0.000	2.253	0.000	120.685	0.000	262.000
12.000	1060.000	760.976	1.278	2.445	0.000	191.869	-71.184	262.000
12.000	1410.000	761.559	.583	2.475	0.000	225.405	-104.720	262.000
12.000	2740.000	762.905	1.346	2.504	0.000	258.493	-137.808	262.000
275.000	505.000	761.130	0.000	1.432	0.000	93.556	0.000	263.000
275.000	1060.000	762.185	1.054	1.208	0.000	150.716	-57.161	263.000
275.000	1410.000	762.687	.503	1.128	0.000	177.972	-84.416	263.000
275.000	2740.000	764.075	1.387	1.170	0.000	244.426	-150.870	263.000
537.000	505.000	763.334	0.000	2.203	0.000	113.415	0.000	262.000
537.000	1060.000	764.373	1.039	2.188	0.000	160.303	-46.888	262.000
537.000	1410.000	764.810	.437	2.122	0.000	192.028	-78.613	262.000
537.000	2740.000	766.025	1.215	1.950	0.000	238.627	-125.212	262.000
732.000	505.000	764.701	0.000	1.367	0.000	111.541	0.000	195.000
732.000	1060.000	765.755	1.055	1.382	0.000	159.168	-47.627	195.000
732.000	1410.000	766.224	.469	1.415	0.000	193.835	-82.294	195.000
732.000	2740.000	767.534	1.310	1.510	0.000	239.595	-128.053	195.000
927.000	505.000	766.176	0.000	1.476	0.000	116.274	0.000	195.000
927.000	1060.000	767.215	1.038	1.459	0.000	168.292	-52.017	195.000
927.000	1410.000	767.680	.465	1.456	0.000	193.088	-76.814	195.000
927.000	2740.000	768.952	1.272	1.418	0.000	240.068	-123.794	195.000
1122.000	505.000	767.668	0.000	1.492	0.000	118.574	0.000	195.000
1122.000	1060.000	768.708	1.040	1.494	0.000	176.822	-58.248	195.000
1122.000	1410.000	769.180	.471	1.500	0.000	198.791	-80.217	195.000
1122.000	2740.000	770.434	1.254	1.482	0.000	243.113	-124.539	195.000
1317.000	505.000	769.182	0.000	1.513	0.000	118.961	0.000	195.000
1317.000	1060.000	770.220	1.038	1.512	0.000	180.638	-61.677	195.000
1317.000	1410.000	770.671	.451	1.491	0.000	197.692	-78.731	195.000
1317.000	2740.000	771.928	1.257	1.494	0.000	258.119	-139.158	195.000
1367.000	505.000	769.570	0.000	.388	0.000	102.661	0.000	50.000
1367.000	1060.000	770.621	1.052	.401	0.000	173.304	-70.642	50.000
1367.000	1410.000	771.156	.535	.485	0.000	193.365	-90.703	50.000
1367.000	2740.000	772.272	1.115	.344	0.000	240.234	-137.573	50.000
1417.000	505.000	770.126	0.000	.556	0.000	89.463	0.000	50.000
1417.000	1060.000	771.216	1.091	.595	0.000	173.110	-83.647	50.000
1417.000	1410.000	771.707	.491	.551	0.000	191.511	-102.048	50.000
1417.000	2740.000	772.809	1.102	.537	0.000	237.398	-147.935	50.000
1517.000	505.000	771.262	0.000	1.136	0.000	72.817	0.000	100.000
1517.000	1060.000	772.398	1.136	1.181	0.000	127.783	-54.966	100.000
1517.000	1410.000	772.922	.524	1.215	0.000	175.230	-102.412	100.000
1517.000	2740.000	774.091	1.170	1.282	0.000	225.071	-152.253	100.000
1617.000	505.000	772.336	0.000	1.074	0.000	66.624	0.000	100.000
1617.000	1060.000	773.558	1.222	1.161	0.000	126.028	-59.405	100.000
1617.00	1410.0	774.09	[illegible]	1.17[illegible]	[illegible]	17[illegible]	-106.1[illegible]	100.00

"DORF BUSINESS FORMS INC 77

1617.000	2740.000	775.263	1.166	1.172	0.000	225.023	-158.399	100.000
1977.000	505.000	776.045	0.000	3.709	0.000	102.552	0.000	360.000
1977.000	1060.000	777.254	1.209	3.695	0.000	184.287	-81.735	360.000
1977.000	1410.000	777.746	.492	3.648	0.000	212.309	-109.757	360.000
1977.000	2740.000	779.202	1.456	3.939	0.000	245.135	-142.583	360.000
2237.000	505.000	777.659	0.000	1.614	0.000	97.825	0.000	260.000
2237.000	1060.000	778.778	1.120	1.525	0.000	152.806	-54.981	260.000
2237.000	1410.000	779.275	.497	1.529	0.000	171.640	-73.815	260.000
2237.000	2740.000	780.631	1.356	1.429	0.000	206.508	-108.684	260.000
2492.000	505.000	779.138	0.000	1.480	0.000	39.999	0.000	255.000
2492.000	1060.000	780.312	1.173	1.533	0.000	39.999	-.000	255.000
2492.000	1410.000	780.854	.542	1.579	0.000	39.999	-.000	255.000
2492.000	2740.000	782.327	1.473	1.696	0.000	213.324	-173.325	255.000
2512.000	505.000	779.179	0.000	.040	0.000	29.999	0.000	20.000
2512.000	1060.000	780.331	1.152	.019	0.000	29.999	-.000	20.000
2512.000	1410.000	780.840	.509	-.014	0.000	29.999	-.000	20.000
2512.000	2740.000	782.403	1.563	.076	0.000	213.573	-183.574	20.000
2522.000	505.000	779.199	0.000	.020	0.000	24.999	0.000	10.000
2522.000	1060.000	780.334	1.135	.003	0.000	24.999	-.000	10.000
2522.000	1410.000	780.818	.484	-.021	0.000	24.999	-.000	10.000
2522.000	2740.000	782.437	1.619	.035	0.000	213.646	-188.647	10.000
2532.000	505.000	779.184	0.000	-.015	0.000	19.999	0.000	10.000
2532.000	1060.000	780.214	1.030	-.120	0.000	19.999	-.000	10.000
2532.000	1410.000	780.572	.358	-.246	0.000	19.999	-.000	10.000
2532.000	2740.000	782.472	1.900	.034	0.000	213.715	-193.716	10.000
2536.000	505.000	779.162	0.000	-.021	0.000	17.999	0.000	4.000
2536.000	1060.000	780.099	.936	-.115	0.000	17.999	-.000	4.000
2536.000	1410.000	780.599	.500	.027	0.000	17.999	-.000	4.000
2536.000	2740.000	782.488	1.889	.016	0.000	213.793	-195.794	4.000
2540.000	505.000	779.122	0.000	-.040	0.000	15.999	0.000	4.000
2540.000	1060.000	779.892	.770	-.207	0.000	15.999	-.000	4.000
2540.000	1410.000	780.946	1.054	.347	0.000	15.999	-.000	4.000
2540.000	2740.000	782.502	1.556	.014	0.000	213.838	-197.839	4.000
2544.000	505.000	778.991	0.000	-.131	0.000	14.000	0.000	4.000
2544.000	1060.000	780.405	1.414	.513	0.000	14.000	0.000	4.000
2544.000	1410.000	781.581	1.176	.635	0.000	14.000	0.000	4.000
2544.000	2740.000	785.128	3.547	2.626	0.000	109.165	-95.165	4.000
2545.000	505.000	779.006	0.000	.015	0.000	14.000	0.000	1.000
2545.000	1060.000	781.579	2.574	1.175	0.000	14.000	0.000	1.000
2545.000	1410.000	782.974	1.394	1.393	0.000	14.000	0.000	1.000
2545.000	2740.000	785.526	2.553	.398	0.000	113.275	-99.275	1.000
2575.000	505.000	779.142	0.000	.136	0.000	14.000	0.000	30.000
2575.000	1060.000	781.374	2.232	-.206	0.000	14.000	0.000	30.000
2575.000	1410.000	785.860	4.487	2.887	0.000	14.000	0.000	30.000
2575.000	2740.000	789.568	3.707	4.042	0.000	177.994	-163.994	30.000
2576.000	505.000	779.948	0.000	.806	0.000	14.000	0.000	1.000
2576.000	1060.000	783.756	3.809	2.383	0.000	14.000	0.000	1.000
2576.000	1410.000	785.865	2.109	.005	0.000	14.000	0.000	1.000
2576.000	2740.000	789.543	3.677	-.025	0.000	177.502	-163.502	1.000
2580.000	505.000	780.394	0.000	.447	0.000	21.999	0.000	4.000
2580.000	1060.000	784.460	4.066	.704	0.000	21.999	-.000	4.000
2580.000	1410.000	786.695	2.235	.830	0.000	21.999	-.000	4.000
2580.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS, INC 23

2960.000	505.000	784.705	0.000	4.311	0.000	78.499	0.000	380.000
2960.000	1060.000	785.886	1.181	1.426	0.000	132.836	-54.337	380.000
2960.000	1410.000	788.041	2.155	1.346	0.000	189.816	-111.317	380.000
2960.000	2740.000	790.015	1.974	.471	0.000	223.446	-144.947	380.000
3160.000	505.000	786.814	0.000	2.109	0.000	119.568	0.000	200.000
3160.000	1060.000	787.948	1.134	2.062	0.000	161.224	-41.655	200.000
3160.000	1410.000	788.577	.629	.536	0.000	176.542	-56.974	200.000
3160.000	2740.000	790.491	1.914	.476	0.000	213.132	-93.563	200.000
3360.000	505.000	787.661	0.000	.847	0.000	118.237	0.000	200.000
3360.000	1060.000	788.868	1.207	.920	0.000	144.638	-26.401	200.000
3360.000	1410.000	789.452	.584	.875	0.000	154.752	-36.515	200.000
3360.000	2740.000	791.218	1.766	.727	0.000	181.464	-63.227	200.000
3560.000	505.000	788.712	0.000	1.051	0.000	109.435	0.000	200.000
3560.000	1060.000	789.922	1.210	1.054	0.000	142.042	-32.607	200.000
3560.000	1410.000	790.497	.575	1.044	0.000	152.041	-42.606	200.000
3560.000	2740.000	792.183	1.686	.965	0.000	180.041	-70.606	200.000
4040.000	505.000	792.357	0.000	3.645	0.000	126.644	0.000	480.000
4040.000	1060.000	793.369	1.012	3.447	0.000	140.726	-14.083	480.000
4040.000	1410.000	793.868	.499	3.371	0.000	145.234	-18.590	480.000
4040.000	2740.000	795.352	1.484	3.169	0.000	176.665	-50.021	480.000
4810.000	505.000	796.955	0.000	4.598	0.000	152.572	0.000	770.000
4810.000	1060.000	798.066	1.112	4.698	0.000	201.991	-49.419	770.000
4810.000	1410.000	798.592	.525	4.724	0.000	225.623	-73.051	770.000
4810.000	2740.000	800.102	1.510	4.750	0.000	289.514	-136.943	770.000
4923.000	505.000	797.404	0.000	.449	0.000	121.305	0.000	113.000
4923.000	1060.000	798.538	1.134	.471	0.000	168.813	-47.507	113.000
4923.000	1410.000	799.064	.526	.472	0.000	191.345	-70.040	113.000
4923.000	2740.000	800.560	1.496	.458	0.000	248.342	-127.036	113.000
5035.000	505.000	798.338	0.000	.934	0.000	111.402	0.000	112.500
5035.000	1060.000	799.400	1.062	.862	0.000	153.633	-42.231	112.500
5035.000	1410.000	799.898	.498	.834	0.000	171.826	-60.424	112.500
5035.000	2740.000	801.320	1.423	.760	0.000	218.642	-107.240	112.500
5148.000	505.000	799.437	0.000	1.099	0.000	107.338	0.000	112.500
5148.000	1060.000	800.485	1.048	1.086	0.000	144.852	-37.513	112.500
5148.000	1410.000	800.969	.484	1.072	0.000	161.454	-54.116	112.500
5148.000	2740.000	802.358	1.389	1.038	0.000	198.839	-91.500	112.500
5260.000	505.000	800.436	0.000	.999	0.000	100.179	0.000	112.000
5260.000	1060.000	801.533	1.097	1.048	0.000	133.676	-33.498	112.000
5260.000	1410.000	802.033	.499	1.063	0.000	147.397	-47.219	112.000
5260.000	2740.000	803.444	1.411	1.085	0.000	180.147	-79.969	112.000
5725.000	505.000	804.619	0.000	4.183	0.000	111.736	0.000	465.000
5725.000	1060.000	805.746	1.127	4.213	0.000	136.005	-24.269	465.000
5725.000	1410.000	806.301	.555	4.269	0.000	149.119	-37.383	465.000
5725.000	2740.000	807.830	1.529	4.386	0.000	193.242	-81.506	465.000
6335.000	505.000	808.485	0.000	3.865	0.000	118.375	0.000	610.000
6335.000	1060.000	809.683	1.198	3.937	0.000	138.965	-20.590	610.000
6335.000	1410.000	810.246	.564	3.945	0.000	150.910	-32.535	610.000
6335.000	2740.000	811.861	1.615	4.031	0.000	187.500	-69.125	610.000
6935.000	505.000	811.978	0.000	3.494	0.000	93.430	0.000	600.000
6935.000	1060.000	813.173	1.195	3.491	0.000	118.065	-24.635	600.000
6935.000	1410.000	813.755	.582	3.509	0.000	136.714	-43.284	600.000
6935.000	2740.000	815.391	1.636	3.530	0.000	181.878	-88.448	600.000

MOORE BUSINESS FORMS INC 23

7235.000	505.000	814.022	0.000	2.044	0.000	50.999	0.000	300.000
7235.000	1060.000	815.353	1.331	2.179	0.000	50.999	-.000	300.000
7235.000	1410.000	815.973	.620	2.217	0.000	50.999	-.000	300.000
7235.000	2000.000	817.371	1.399	1.980	0.000	191.269	-140.270	300.000
7250.000	505.000	814.080	0.000	.058	0.000	43.999	0.000	15.000
7250.000	1060.000	815.393	1.313	.040	0.000	43.999	-.000	15.000
7250.000	1410.000	815.995	.602	.023	0.000	43.999	-.000	15.000
7250.000	2000.000	817.414	1.418	.042	0.000	190.291	-146.292	15.000
7265.000	505.000	814.133	0.000	.052	0.000	35.999	0.000	15.000
7265.000	1060.000	815.400	1.267	.007	0.000	35.999	-.000	15.000
7265.000	1410.000	815.960	.560	-.035	0.000	35.999	-.000	15.000
7265.000	2000.000	817.458	1.498	.044	0.000	189.403	-153.404	15.000
7275.000	505.000	814.169	0.000	.036	0.000	30.999	0.000	10.000
7275.000	1060.000	815.393	1.224	-.007	0.000	30.999	-.000	10.000
7275.000	1410.000	815.907	.514	-.053	0.000	30.999	-.000	10.000
7275.000	2000.000	817.488	1.580	.030	0.000	188.918	-157.919	10.000
7285.000	505.000	814.199	0.000	.030	0.000	25.999	0.000	10.000
7285.000	1060.000	815.352	1.152	-.041	0.000	25.999	-.000	10.000
7285.000	1410.000	815.884	.532	-.024	0.000	25.999	-.000	10.000
7285.000	2000.000	817.518	1.634	.030	0.000	188.188	-162.189	10.000
7295.000	505.000	814.225	0.000	.026	0.000	20.999	0.000	10.000
7295.000	1060.000	815.284	1.059	-.068	0.000	20.999	-.000	10.000
7295.000	1410.000	816.232	.948	.348	0.000	20.999	-.000	10.000
7295.000	2000.000	817.549	1.317	.031	0.000	187.733	-166.734	10.000
7305.000	505.000	814.242	0.000	.016	0.000	15.800	0.000	10.000
7305.000	1060.000	815.643	1.401	.359	0.000	15.800	0.000	10.000
7305.000	1410.000	816.728	1.085	.496	0.000	15.800	0.000	10.000
7305.000	2000.000	817.879	1.152	.330	0.000	46.274	-30.474	10.000
7306.000	505.000	814.262	0.000	.021	0.000	15.800	0.000	1.000
7306.000	1060.000	816.746	2.484	1.103	0.000	15.800	0.000	1.000
7306.000	1410.000	818.043	1.297	1.315	0.000	15.800	0.000	1.000
7306.000	2000.000	820.304	2.261	2.425	0.000	59.852	-43.052	1.000
7388.000	505.000	815.005	0.000	.743	0.000	15.800	0.000	82.000
7388.000	1060.000	817.344	2.339	.598	0.000	15.800	0.000	82.000
7388.000	1410.000	822.152	4.808	4.109	0.000	15.800	0.000	82.000
7388.000	2000.000	824.623	2.472	4.320	0.000	326.422	-310.622	82.000
7389.000	505.000	815.076	0.000	.071	0.000	15.800	0.000	1.000
7389.000	1060.000	817.811	2.735	.467	0.000	15.800	0.000	1.000
7389.000	1410.000	822.156	4.345	.004	0.000	15.800	0.000	1.000
7389.000	2000.000	824.551	2.395	-.072	0.000	320.367	-304.567	1.000
7399.000	505.000	815.265	0.000	.189	0.000	22.020	0.000	10.000
7399.000	1060.000	818.958	3.693	1.147	0.000	32.714	-10.693	10.000
7399.000	1410.000	822.989	4.031	.833	0.000	35.999	-13.979	10.000
7399.000	2000.000	824.537	1.548	-.014	0.000	69.566	-47.546	10.000
8249.000	505.000	819.102	0.000	3.837	0.000	35.500	0.000	850.000
8249.000	1060.000	821.628	2.526	2.670	0.000	393.464	-357.964	850.000
8249.000	1410.000	823.894	2.267	.905	0.000	519.062	-483.562	850.000
8249.000	2000.000	825.420	1.526	.883	0.000	551.489	-515.989	850.000
8250.000	505.000	818.460	0.000	-.642	0.000	35.500	0.000	1.000
8250.000	1060.000	821.625	3.166	-.002	0.000	393.785	-358.285	1.000
8250.000	1410.000	823.920	2.295	.026	0.000	519.571	-484.071	1.000
8250.000	2000.000	825.436	1.516	.016	0.000	551.671	-516.171	1.000
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MOORE BUSINESS FORMS, INC. 23

8280.000	1060.000	821.847	2.583	.222	0.000	411.433	-375.933	30.000
8280.000	1410.000	823.924	2.077	.004	0.000	519.729	-484.229	30.000
8280.000	2000.000	825.438	1.514	.002	0.000	551.774	-516.274	30.000
8281.000	505.000	821.003	0.000	1.740	0.000	35.499	0.000	1.000
8281.000	1060.000	821.838	.835	-.009	0.000	411.229	-375.730	1.000
8281.000	1410.000	823.917	2.079	-.007	0.000	519.621	-484.122	1.000
8281.000	2000.000	825.434	1.517	-.004	0.000	551.776	-516.277	1.000
9031.000	465.000	821.605	0.000	.601	0.000	113.733	0.000	750.000
9031.000	970.000	822.907	1.302	1.069	0.000	144.740	-31.007	750.000
9031.000	1290.000	824.309	1.402	.392	0.000	175.418	-61.685	750.000
9031.000	2510.000	825.797	1.488	.363	0.000	206.833	-93.100	750.000
9436.000	465.000	822.324	0.000	.720	0.000	63.133	0.000	405.000
9436.000	970.000	823.830	1.506	.923	0.000	92.935	-29.802	405.000
9436.000	1290.000	824.903	1.073	.594	0.000	115.940	-52.806	405.000
9436.000	2510.000	826.684	1.780	.886	0.000	155.182	-92.049	405.000
9786.000	465.000	823.917	0.000	1.592	0.000	30.269	0.000	350.000
9786.000	970.000	825.522	1.605	1.692	0.000	30.999	-.730	350.000
9786.000	1290.000	826.321	.799	1.418	0.000	30.999	-.730	350.000
9786.000	2510.000	828.076	1.755	1.392	0.000	163.592	-133.323	350.000
9806.000	465.000	823.948	0.000	.032	0.000	21.000	0.000	20.000
9806.000	970.000	825.525	1.577	.003	0.000	21.000	0.000	20.000
9806.000	1290.000	826.289	.764	-.032	0.000	21.000	0.000	20.000
9806.000	2510.000	827.850	1.561	-.226	0.000	104.390	-83.390	20.000
9807.000	465.000	823.951	0.000	.003	0.000	21.000	0.000	1.000
9807.000	970.000	825.530	1.580	.005	0.000	21.000	0.000	1.000
9807.000	1290.000	826.296	.766	.007	0.000	21.000	0.000	1.000
9807.000	2510.000	828.573	2.277	.723	0.000	112.325	-91.325	1.000
9937.000	465.000	824.184	0.000	.233	0.000	18.000	0.000	130.000
9937.000	970.000	825.981	1.797	.451	0.000	21.000	-3.000	130.000
9937.000	1290.000	830.807	4.826	4.511	0.000	21.000	-3.000	130.000
9937.000	2510.000	833.708	2.901	5.135	0.000	228.998	-210.998	130.000
9938.000	465.000	824.190	0.000	.006	0.000	18.000	0.000	1.000
9938.000	970.000	826.288	2.098	.307	0.000	21.000	-3.000	1.000
9938.000	1290.000	830.810	4.521	.003	0.000	21.000	-3.000	1.000
9938.000	2510.000	833.686	2.876	-.022	0.000	228.694	-210.694	1.000
9941.000	465.000	824.378	0.000	.187	0.000	23.999	0.000	3.000
9941.000	970.000	826.782	2.404	.494	0.000	26.999	-3.000	3.000
9941.000	1290.000	831.050	4.268	.240	0.000	26.999	-3.000	3.000
9941.000	2510.000	833.694	2.643	.008	0.000	345.965	-321.966	3.000
10518.000	465.000	825.718	0.000	1.340	0.000	224.816	0.000	577.000
10518.000	970.000	828.149	2.431	1.366	0.000	241.728	-16.912	577.000
10518.000	1290.000	831.700	3.551	.649	0.000	262.514	-37.698	577.000
10518.000	2510.000	833.983	2.283	.289	0.000	265.985	-41.169	577.000
11168.000	465.000	826.749	0.000	1.031	0.000	145.208	0.000	650.000
11168.000	970.000	828.669	1.920	.520	0.000	199.267	-54.059	650.000
11168.000	1290.000	831.831	3.162	.131	0.000	310.664	-165.456	650.000
11168.000	2510.000	834.175	2.345	.193	0.000	439.605	-294.397	650.000
11743.000	465.000	827.568	0.000	.819	0.000	125.010	0.000	575.000
11743.000	970.000	829.249	1.681	.580	0.000	161.937	-36.927	575.000
11743.000	1290.000	831.977	2.728	.146	0.000	440.000	-314.990	575.000
11743.000	2510.000	834.333	2.356	.157	0.000	440.000	-314.990	575.000
11756.000	465.000	828.928	0.000	1.361	0.000	155.276	0.000	13.000
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11756.000	1290.000	832.076	1.503	.100	0.000	440.000	-284.724	13.000
11756.000	2510.000	834.411	2.334	.078	0.000	440.001	-284.725	13.000
12326.000	465.000	829.094	0.000	.166	0.000	122.883	0.000	570.000
12326.000	970.000	830.877	1.783	.304	0.000	179.127	-56.244	570.000
12326.000	1290.000	832.274	1.396	.197	0.000	223.166	-100.283	570.000
12326.000	2510.000	834.595	2.322	.185	0.000	443.212	-320.328	570.000
12951.000	465.000	830.806	0.000	1.712	0.000	108.646	0.000	625.000
12951.000	970.000	832.218	1.412	1.341	0.000	124.492	-15.846	625.000
12951.000	1290.000	833.163	.945	.890	0.000	135.145	-26.499	625.000
12951.000	2510.000	835.318	2.155	.723	0.000	159.369	-50.724	625.000
13131.000	465.000	831.127	0.000	.321	0.000	31.618	0.000	180.000
13131.000	970.000	832.542	1.415	.324	0.000	71.492	-39.874	180.000
13131.000	1290.000	833.422	.879	.258	0.000	74.999	-43.381	180.000
13131.000	2510.000	835.851	2.430	.533	0.000	410.493	-378.875	180.000
13171.000	465.000	831.369	0.000	.241	0.000	25.350	0.000	40.000
13171.000	970.000	832.819	1.450	.276	0.000	54.999	-29.649	40.000
13171.000	1290.000	833.614	.795	.192	0.000	54.999	-29.649	40.000
13171.000	2510.000	835.901	2.288	.050	0.000	404.802	-379.453	40.000
13191.000	465.000	831.509	0.000	.141	0.000	24.541	0.000	20.000
13191.000	970.000	832.978	1.468	.159	0.000	44.999	-20.458	20.000
13191.000	1290.000	833.732	.754	.118	0.000	44.999	-20.458	20.000
13191.000	2510.000	835.937	2.205	.036	0.000	402.467	-377.926	20.000
13211.000	465.000	831.660	0.000	.150	0.000	23.929	0.000	20.000
13211.000	970.000	833.132	1.472	.154	0.000	34.999	-11.070	20.000
13211.000	1290.000	833.851	.719	.119	0.000	34.999	-11.070	20.000
13211.000	2510.000	835.975	2.124	.038	0.000	399.958	-376.029	20.000
13231.000	465.000	832.113	0.000	.458	0.000	25.000	0.000	20.000
13231.000	970.000	833.856	1.738	.725	0.000	25.000	0.000	20.000
13231.000	1290.000	834.651	.795	.800	0.000	25.000	0.000	20.000
13231.000	2510.000	836.031	1.380	.057	0.000	129.003	-104.003	20.000
13232.000	465.000	832.122	0.000	.003	0.000	25.000	0.000	1.000
13232.000	970.000	833.862	1.740	.006	0.000	25.000	0.000	1.000
13232.000	1290.000	834.658	.796	.007	0.000	25.000	0.000	1.000
13232.000	2510.000	836.167	1.509	.135	0.000	130.203	-105.203	1.000
13410.000	465.000	832.305	0.000	.184	0.000	25.000	0.000	178.000
13410.000	970.000	836.002	3.696	2.140	0.000	25.000	0.000	178.000
13410.000	1290.000	838.809	2.808	4.151	0.000	25.000	0.000	178.000
13410.000	2510.000	843.952	5.142	7.785	0.000	541.945	-516.945	178.000
13411.000	465.000	832.367	0.000	.061	0.000	25.000	0.000	1.000
13411.000	970.000	836.003	3.637	.001	0.000	25.000	0.000	1.000
13411.000	1290.000	838.810	2.807	.001	0.000	25.000	0.000	1.000
13411.000	2510.000	843.949	5.139	-.003	0.000	542.001	-517.001	1.000
13414.000	465.000	832.569	0.000	.202	0.000	30.999	0.000	3.000
13414.000	970.000	836.168	3.599	.165	0.000	30.999	-.000	3.000
13414.000	1290.000	838.947	2.779	.137	0.000	30.999	-.000	3.000
13414.000	2510.000	843.927	4.980	-.022	0.000	337.844	-306.845	3.000
14514.000	465.000	834.755	0.000	2.185	0.000	222.906	0.000	1100.000
14514.000	970.000	837.245	2.490	1.076	0.000	366.618	-143.711	1100.000
14514.000	1290.000	839.582	2.337	.634	0.000	429.924	-207.018	1100.000
14514.000	2510.000	844.129	4.547	.202	0.000	460.948	-238.042	1100.000
15314.000	420.000	836.347	0.000	1.593	0.000	20.800	0.000	800.000
15314.000	880.000	837.669	1.322	.425	0.000	144.670	-1[illegible]3.870	800.000
15314.000	1170.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS INC.

15314.000	2280.000	844.172	4.477	.044	0.000	349.999	-329.199	800.000
15315.000	420.000	836.352	0.000	.004	0.000	20.800	0.000	1.000
15315.000	880.000	837.670	1.318	.000	0.000	144.695	-123.895	1.000
15315.000	1170.000	839.695	2.025	-.000	0.000	198.682	-177.882	1.000
15315.000	2280.000	844.172	4.477	-.000	0.000	349.999	-329.199	1.000
15382.000	420.000	836.660	0.000	.309	0.000	20.800	0.000	67.000
15382.000	880.000	841.939	5.279	4.269	0.000	344.326	-323.526	67.000
15382.000	1170.000	842.617	.678	2.922	0.000	349.999	-329.199	67.000
15382.000	2280.000	844.311	1.694	.138	0.000	349.999	-329.199	67.000
15383.000	420.000	836.830	0.000	.169	0.000	20.800	0.000	1.000
15383.000	880.000	841.947	5.117	.008	0.000	344.343	-323.543	1.000
15383.000	1170.000	842.626	.680	.009	0.000	349.999	-329.199	1.000
15383.000	2280.000	844.325	1.699	.015	0.000	349.999	-329.199	1.000
15683.000	420.000	837.554	0.000	.725	0.000	41.331	0.000	300.000
15683.000	880.000	841.985	4.430	.038	0.000	89.710	-47.879	300.000
15683.000	1170.000	842.658	.673	.032	0.000	207.222	-165.391	300.000
15683.000	2280.000	844.360	1.702	.035	0.000	416.273	-374.442	300.000
15684.000	420.000	837.492	0.000	-.062	0.000	41.580	0.000	1.000
15684.000	880.000	841.900	4.408	-.085	0.000	85.331	-43.750	1.000
15684.000	1170.000	842.569	.669	-.089	0.000	192.278	-150.698	1.000
15684.000	2280.000	844.447	1.878	.087	0.000	417.928	-376.347	1.000
15689.000	420.000	837.511	0.000	.019	0.000	41.629	0.000	5.000
15689.000	880.000	841.935	4.424	.035	0.000	86.576	-44.947	5.000
15689.000	1170.000	842.637	.702	.068	0.000	204.106	-162.477	5.000
15689.000	2280.000	844.462	1.825	.015	0.000	418.082	-376.453	5.000
15690.000	420.000	837.691	0.000	.180	0.000	42.449	0.000	1.000
15690.000	880.000	842.162	4.471	.227	0.000	98.150	-55.701	1.000
15690.000	1170.000	842.859	.697	.222	0.000	207.999	-165.550	1.000
15690.000	2280.000	844.437	1.578	-.025	0.000	517.735	-475.285	1.000
16190.000	420.000	838.215	0.000	.525	0.000	39.348	0.000	500.000
16190.000	880.000	842.351	4.136	.189	0.000	289.358	-250.010	500.000
16190.000	1170.000	843.101	.750	.242	0.000	432.366	-393.018	500.000
16190.000	2280.000	844.790	1.688	.352	0.000	599.999	-560.651	500.000
16890.000	420.000	838.835	0.000	.620	0.000	20.599	0.000	700.000
16890.000	880.000	842.569	3.733	.218	0.000	42.941	-22.342	700.000
16890.000	1170.000	843.335	.766	.233	0.000	109.999	-89.400	700.000
16890.000	2280.000	845.054	1.720	.265	0.000	109.999	-89.400	700.000
16891.000	.010	838.983	0.000	.148	0.000	.007	0.000	1.000
16891.000	390.000	843.878	4.896	1.310	0.000	109.999	-109.992	1.000
16891.000	695.000	844.245	.367	.911	0.000	109.999	-109.992	1.000
16891.000	1810.000	845.287	1.041	.232	0.000	109.999	-109.992	1.000
17094.000	.010	838.983	0.000	-.000	0.000	.006	0.000	203.000
17094.000	390.000	845.054	6.071	1.175	0.000	109.999	-109.993	203.000
17094.000	695.000	845.636	.582	1.391	0.000	109.999	-109.993	203.000
17094.000	1810.000	847.105	1.469	1.818	0.000	109.999	-109.993	203.000
17095.000	420.000	840.500	0.000	1.517	0.000	20.600	0.000	1.000
17095.000	880.000	845.031	4.531	-.022	0.000	109.999	-89.399	1.000
17095.000	1170.000	845.623	.591	-.013	0.000	109.999	-89.399	1.000
17095.000	2280.000	847.132	1.510	.028	0.000	109.999	-89.399	1.000
17895.000	420.000	841.947	0.000	1.447	0.000	39.442	0.000	800.000
17895.000	880.000	845.752	3.805	.720	0.000	139.999	-100.557	800.000
17895.000	1170.000	846.486	.735	.864	0.000	139.999	-100.557	800.000
17895.00	2280.0	848.472	1.985	1.3[illegible]	0.0[illegible]	13[illegible].99	-1[illegible].557	[illegible]

BUSINESS FORMS INC 23

18395.000	420.000	844.747	0.000	2.800	0.000	41.052	0.000	500.000
18395.000	880.000	846.375	1.628	.624	0.000	106.372	-65.320	500.000
18395.000	1170.000	847.166	.791	.680	0.000	119.999	-78.947	500.000
18395.000	2280.000	849.250	2.084	.778	0.000	119.999	-78.947	500.000
18845.000	420.000	847.229	0.000	2.481	0.000	16.000	0.000	450.000
18845.000	880.000	848.985	1.756	2.610	0.000	139.999	-123.999	450.000
18845.000	1170.000	849.451	.466	2.286	0.000	139.999	-123.999	450.000
18845.000	2280.000	851.094	1.643	1.844	0.000	139.999	-123.999	450.000
18846.000	420.000	847.049	0.000	-.180	0.000	16.000	0.000	1.000
18846.000	880.000	849.321	2.272	.336	0.000	139.999	-123.999	1.000
18846.000	1170.000	849.855	.534	.405	0.000	139.999	-123.999	1.000
18846.000	2280.000	851.460	1.604	.366	0.000	139.999	-123.999	1.000
18896.000	420.000	847.716	0.000	.668	0.000	16.000	0.000	50.000
18896.000	880.000	849.543	1.826	.222	0.000	139.999	-123.999	50.000
18896.000	1170.000	850.034	.492	.179	0.000	139.999	-123.999	50.000
18896.000	2280.000	851.588	1.553	.128	0.000	139.999	-123.999	50.000
18897.000	420.000	848.304	0.000	.588	0.000	16.000	0.000	1.000
18897.000	880.000	849.485	1.180	-.058	0.000	139.999	-123.999	1.000
18897.000	1170.000	849.967	.482	-.067	0.000	139.999	-123.999	1.000
18897.000	2280.000	851.520	1.553	-.067	0.000	139.999	-123.999	1.000
19547.000	420.000	849.107	0.000	.803	0.000	83.516	0.000	650.000
19547.000	880.000	850.494	1.387	1.009	0.000	114.460	-30.943	650.000
19547.000	1170.000	851.116	.622	1.149	0.000	127.426	-43.909	650.000
19547.000	2280.000	852.911	1.794	1.390	0.000	164.999	-81.483	650.000
19877.000	420.000	849.343	0.000	.235	0.000	98.576	0.000	330.000
19877.000	880.000	850.846	1.504	.352	0.000	129.999	-31.423	330.000
19877.000	1170.000	851.541	.695	.425	0.000	129.999	-31.423	330.000
19877.000	2280.000	853.517	1.976	.606	0.000	129.999	-31.423	330.000
19878.000	420.000	849.406	0.000	.064	0.000	99.477	0.000	1.000
19878.000	880.000	850.941	1.534	.094	0.000	129.999	-30.522	1.000
19878.000	1170.000	851.647	.706	.106	0.000	129.999	-30.522	1.000
19878.000	2280.000	853.659	2.012	.142	0.000	129.999	-30.522	1.000
19924.000	420.000	850.487	0.000	1.080	0.000	129.999	0.000	46.000
19924.000	880.000	851.484	.998	.544	0.000	129.999	-.000	46.000
19924.000	1170.000	852.020	.536	.374	0.000	129.999	-.000	46.000
19924.000	2280.000	853.991	1.970	.332	0.000	129.999	-.000	46.000
19925.000	420.000	850.484	0.000	-.002	0.000	129.999	0.000	1.000
19925.000	880.000	851.480	.996	-.004	0.000	129.999	-.000	1.000
19925.000	1170.000	852.016	.535	-.005	0.000	129.999	-.000	1.000
19925.000	2280.000	853.985	1.969	-.006	0.000	129.999	-.000	1.000
20275.000	420.000	850.565	0.000	.081	0.000	127.846	0.000	350.000
20275.000	880.000	851.632	1.066	.151	0.000	159.912	-32.066	350.000
20275.000	1170.000	852.197	.565	.181	0.000	176.761	-48.915	350.000
20275.000	2280.000	854.202	2.005	.217	0.000	184.999	-57.153	350.000
20585.000	420.000	850.673	0.000	.108	0.000	94.778	0.000	310.000
20585.000	880.000	851.825	1.152	.194	0.000	145.005	-50.227	310.000
20585.000	1170.000	852.425	.600	.228	0.000	164.990	-70.212	310.000
20585.000	2280.000	854.414	1.989	.212	0.000	169.999	-75.221	310.000
21005.000	295.000	851.156	0.000	.483	0.000	132.170	0.000	420.000
21005.000	615.000	852.482	1.327	.657	0.000	152.196	-20.026	420.000
21005.000	820.000	853.082	.600	.658	0.000	179.999	-47.829	420.000
21005.000	1600.000	854.979	1.897	.566	0.000	179.999	-47.829	420.000

MOORE BUSINESS FORMS INC 23

21305.000	295.000	851.336	0.000	.180	0.000	59.959	0.000	300.000
21305.000	615.000	852.652	1.316	.169	0.000	75.447	-15.489	300.000
21305.000	820.000	853.248	.596	.165	0.000	79.999	-20.040	300.000
21305.000	1600.000	855.097	1.849	.117	0.000	79.999	-20.040	300.000
21306.000	295.000	851.369	0.000	.033	0.000	60.343	0.000	1.000
21306.000	615.000	852.716	1.347	.064	0.000	76.203	-15.860	1.000
21306.000	820.000	853.328	.612	.080	0.000	79.999	-19.656	1.000
21306.000	1600.000	855.192	1.865	.096	0.000	79.999	-19.656	1.000
21353.000	295.000	852.971	0.000	1.603	0.000	78.962	0.000	47.000
21353.000	615.000	854.178	1.207	1.462	0.000	79.999	-1.037	47.000
21353.000	820.000	854.642	.464	1.315	0.000	79.999	-1.037	47.000
21353.000	1600.000	856.120	1.478	.928	0.000	79.999	-1.037	47.000
21354.000	295.000	852.968	0.000	-.003	0.000	78.964	0.000	1.000
21354.000	615.000	854.172	1.204	-.006	0.000	79.999	-1.035	1.000
21354.000	820.000	854.634	.462	-.009	0.000	79.999	-1.035	1.000
21354.000	1600.000	856.105	1.471	-.016	0.000	79.999	-1.035	1.000
21704.000	295.000	853.042	0.000	.074	0.000	199.709	0.000	350.000
21704.000	615.000	854.301	1.259	.129	0.000	215.514	-15.805	350.000
21704.000	820.000	854.807	.505	.173	0.000	224.999	-25.290	350.000
21704.000	1600.000	856.422	1.615	.317	0.000	224.999	-25.290	350.000
22104.000	295.000	853.061	0.000	.019	0.000	51.829	0.000	400.000
22104.000	615.000	854.285	1.224	-.016	0.000	105.832	-54.004	400.000
22104.000	820.000	854.795	.510	-.012	0.000	119.999	-68.170	400.000
22104.000	1600.000	856.437	1.642	.014	0.000	119.999	-68.170	400.000
22194.000	295.000	853.282	0.000	.221	0.000	77.426	0.000	90.000
22194.000	615.000	854.656	1.374	.371	0.000	89.999	-12.573	90.000
22194.000	820.000	855.193	.537	.398	0.000	89.999	-12.573	90.000
22194.000	1600.000	856.769	1.576	.333	0.000	89.999	-12.573	90.000
22195.000	295.000	853.300	0.000	.017	0.000	77.551	0.000	1.000
22195.000	615.000	854.686	1.386	.030	0.000	89.999	-12.448	1.000
22195.000	820.000	855.229	.543	.036	0.000	89.999	-12.448	1.000
22195.000	1600.000	856.824	1.595	.055	0.000	89.999	-12.448	1.000
22265.000	295.000	854.603	0.000	1.304	0.000	89.999	0.000	70.000
22265.000	615.000	855.531	.927	.845	0.000	89.999	-.000	70.000
22265.000	820.000	855.968	.438	.739	0.000	89.999	-.000	70.000
22265.000	1600.000	857.407	1.438	.583	0.000	89.999	-.000	70.000
22266.000	295.000	854.601	0.000	-.003	0.000	89.999	0.000	1.000
22266.000	615.000	855.524	.924	-.006	0.000	89.999	-.000	1.000
22266.000	820.000	855.960	.436	-.009	0.000	89.999	-.000	1.000
22266.000	1600.000	857.391	1.431	-.016	0.000	89.999	-.000	1.000
22416.000	295.000	854.609	0.000	.008	0.000	33.615	0.000	150.000
22416.000	615.000	855.523	.915	-.001	0.000	51.697	-18.082	150.000
22416.000	820.000	855.948	.424	-.012	0.000	61.936	-28.321	150.000
22416.000	1600.000	857.342	1.394	-.049	0.000	74.999	-41.384	150.000
22511.000	295.000	854.635	0.000	.026	0.000	77.999	0.000	95.000
22511.000	615.000	855.636	1.001	.113	0.000	77.999	-.000	95.000
22511.000	820.000	856.119	.483	.171	0.000	77.999	-.000	95.000
22511.000	1600.000	857.819	1.701	.477	0.000	77.999	-.000	95.000
22512.000	295.000	854.604	0.000	-.031	0.000	77.999	0.000	1.000
22512.000	615.000	855.703	1.100	.067	0.000	77.999	-.000	1.000
22512.000	820.000	856.189	.486	.071	0.000	77.999	-.000	1.000
22512.000	1600.000	857.829	1.639	.009	0.000	77.999	-.000	1.000
22582.0	295.0	855.137	0.0	[illegible]	000	77.99[illegible]	0.000	70.00[illegible]

MOORE BUSINESS FORMS INC 23

22582.000	615.000	856.010	.878	.307	0.000	77.999	-.000	70.000
22582.000	820.000	856.476	.466	.286	0.000	77.999	-.000	70.000
22582.000	1600.000	858.053	1.577	.224	0.000	77.999	-.000	70.000
22583.000	295.000	855.132	0.000	-.000	0.000	77.999	0.000	1.000
22583.000	615.000	856.005	.873	-.005	0.000	77.999	-.000	1.000
22583.000	820.000	856.472	.468	-.003	0.000	77.999	-.000	1.000
22583.000	1600.000	858.085	1.613	.032	0.000	77.999	-.000	1.000
22883.000	295.000	855.334	0.000	.202	0.000	71.959	0.000	300.000
22883.000	615.000	856.350	1.016	.345	0.000	136.744	-64.785	300.000
22883.000	820.000	856.884	.534	.412	0.000	171.072	-99.112	300.000
22883.000	1600.000	858.650	1.766	.565	0.000	249.999	-178.040	300.000
23333.000	295.000	855.659	0.000	.326	0.000	29.313	0.000	450.000
23333.000	615.000	856.857	1.198	.507	0.000	54.559	-25.246	450.000
23333.000	820.000	857.405	.549	.521	0.000	66.446	-37.133	450.000
23333.000	1600.000	858.915	1.510	.265	0.000	123.457	-94.143	450.000
23833.000	295.000	856.367	0.000	.708	0.000	32.088	0.000	500.000
23833.000	615.000	857.856	1.489	1.000	0.000	54.094	-22.006	500.000
23833.000	820.000	858.543	.687	1.138	0.000	63.568	-31.480	500.000
23833.000	1600.000	860.306	1.763	1.391	0.000	110.731	-78.643	500.000
24008.000	295.000	856.728	0.000	.361	0.000	30.000	0.000	175.000
24008.000	615.000	858.308	1.581	.452	0.000	115.003	-85.003	175.000
24008.000	820.000	859.033	.725	.491	0.000	132.113	-102.113	175.000
24008.000	1600.000	860.927	1.894	.621	0.000	159.999	-129.999	175.000
24009.000	295.000	856.729	0.000	.002	0.000	30.000	0.000	1.000
24009.000	615.000	858.297	1.567	-.012	0.000	114.884	-84.884	1.000
24009.000	820.000	859.018	.721	-.015	0.000	131.951	-101.951	1.000
24009.000	1600.000	860.902	1.884	-.025	0.000	159.999	-129.999	1.000
24077.000	295.000	856.821	0.000	.091	0.000	30.000	0.000	68.000
24077.000	615.000	860.719	3.899	2.423	0.000	159.999	-129.999	68.000
24077.000	820.000	861.077	.358	2.059	0.000	159.999	-129.999	68.000
24077.000	1600.000	862.028	.951	1.126	0.000	159.999	-129.999	68.000
24078.000	295.000	857.221	0.000	.400	0.000	30.000	0.000	1.000
24078.000	615.000	860.730	3.509	.011	0.000	159.999	-129.999	1.000
24078.000	820.000	861.093	.363	.016	0.000	159.999	-129.999	1.000
24078.000	1600.000	862.068	.976	.040	0.000	159.999	-129.999	1.000
24358.000	295.000	857.542	0.000	.321	0.000	154.867	0.000	280.000
24358.000	615.000	860.777	3.235	.047	0.000	304.999	-150.132	280.000
24358.000	820.000	861.159	.382	.066	0.000	304.999	-150.132	280.000
24358.000	1600.000	862.210	1.051	.142	0.000	304.999	-150.132	280.000
24778.000	295.000	858.184	0.000	.642	0.000	429.423	0.000	420.000
24778.000	615.000	860.812	2.628	.035	0.000	449.999	-20.576	420.000
24778.000	820.000	861.203	.391	.044	0.000	449.999	-20.576	420.000
24778.000	1600.000	862.289	1.085	.078	0.000	449.999	-20.576	420.000
24779.000	295.000	858.209	0.000	.025	0.000	435.706	0.000	1.000
24779.000	615.000	860.813	2.604	.001	0.000	449.999	-14.293	1.000
24779.000	820.000	861.204	.391	.001	0.000	449.999	-14.293	1.000
24779.000	1600.000	862.290	1.086	.001	0.000	449.999	-14.293	1.000
24782.000	295.000	858.213	0.000	.005	0.000	435.755	0.000	3.000
24782.000	615.000	860.813	2.599	.000	0.000	449.999	-14.244	3.000
24782.000	820.000	861.204	.391	.000	0.000	449.999	-14.244	3.000
24782.000	1600.000	862.290	1.086	.000	0.000	449.999	-14.244	3.000
24783.000	295.000	858.208	0.000	-.005	0.000	435.774	0.000	1.000

MOORE BUSINESS FORMS, INC. 23

24783.000	820.000	861.204	.391	-.000	0.000	449.999	-14.225	1.000
24783.000	1600.000	862.290	1.086	-.000	0.000	449.999	-14.225	1.000
25383.000	295.000	858.556	0.000	.348	0.000	292.970	0.000	600.000
25383.000	615.000	860.843	2.286	.030	0.000	324.999	-32.029	600.000
25383.000	820.000	861.241	.398	.037	0.000	324.999	-32.029	600.000
25383.000	1600.000	862.350	1.109	.060	0.000	324.999	-32.029	600.000
25384.000	295.000	858.558	0.000	.002	0.000	292.994	0.000	1.000
25384.000	615.000	860.843	2.285	.000	0.000	324.999	-32.005	1.000
25384.000	820.000	861.241	.398	.000	0.000	324.999	-32.005	1.000
25384.000	1600.000	862.350	1.109	.001	0.000	324.999	-32.005	1.000
25387.000	295.000	858.559	0.000	.001	0.000	293.041	0.000	3.000
25387.000	615.000	860.843	2.284	.000	0.000	324.999	-31.958	3.000
25387.000	820.000	861.242	.398	.000	0.000	324.999	-31.958	3.000
25387.000	1600.000	862.351	1.109	.000	0.000	324.999	-31.958	3.000
25388.000	295.000	858.559	0.000	-.000	0.000	293.057	0.000	1.000
25388.000	615.000	860.843	2.284	-.000	0.000	324.999	-31.942	1.000
25388.000	820.000	861.242	.398	-.000	0.000	324.999	-31.942	1.000
25388.000	1600.000	862.351	1.109	-.000	0.000	324.999	-31.942	1.000
25708.000	255.000	858.693	0.000	.133	0.000	32.000	0.000	320.000
25708.000	540.000	860.857	2.164	.014	0.000	169.999	-137.999	320.000
25708.000	730.000	861.257	.400	.015	0.000	169.999	-137.999	320.000
25708.000	1420.000	862.373	1.117	.023	0.000	169.999	-137.999	320.000
25709.000	255.000	858.620	0.000	-.073	0.000	32.000	0.000	1.000
25709.000	540.000	860.778	2.158	-.079	0.000	166.319	-134.319	1.000
25709.000	730.000	861.207	.429	-.050	0.000	169.999	-137.999	1.000
25709.000	1420.000	862.349	1.142	-.024	0.000	169.999	-137.999	1.000
25769.000	255.000	859.053	0.000	.433	0.000	32.000	0.000	60.000
25769.000	540.000	861.219	2.165	.441	0.000	169.999	-137.999	60.000
25769.000	730.000	861.525	.306	.318	0.000	169.999	-137.999	60.000
25769.000	1420.000	862.533	1.008	.184	0.000	169.999	-137.999	60.000
25770.000	255.000	859.700	0.000	.647	0.000	62.606	0.000	1.000
25770.000	540.000	861.285	1.585	.067	0.000	169.999	-107.393	1.000
25770.000	730.000	861.586	.301	.061	0.000	169.999	-107.393	1.000
25770.000	1420.000	862.569	.982	.036	0.000	169.999	-107.393	1.000
26370.000	255.000	859.853	0.000	.153	0.000	345.071	0.000	600.000
26370.000	540.000	861.420	1.566	.134	0.000	382.404	-37.334	600.000
26370.000	730.000	861.770	.350	.184	0.000	391.152	-46.081	600.000
26370.000	1420.000	862.879	1.109	.310	0.000	418.131	-73.060	600.000
26910.000	255.000	860.113	0.000	.260	0.000	45.515	0.000	540.000
26910.000	540.000	861.532	1.418	.112	0.000	68.350	-22.835	540.000
26910.000	730.000	861.900	.368	.130	0.000	180.578	-135.063	540.000
26910.000	1420.000	863.042	1.143	.164	0.000	296.973	-251.458	540.000
27260.000	255.000	860.363	0.000	.249	0.000	41.842	0.000	350.000
27260.000	540.000	861.845	1.483	.314	0.000	87.414	-45.572	350.000
27260.000	730.000	862.295	.449	.395	0.000	136.090	-94.248	350.000
27260.000	1420.000	863.496	1.201	.454	0.000	307.019	-265.177	350.000
27810.000	255.000	860.834	0.000	.471	0.000	45.177	0.000	550.000
27810.000	540.000	862.384	1.550	.538	0.000	57.092	-11.915	550.000
27810.000	730.000	862.933	.549	.638	0.000	62.469	-17.292	550.000
27810.000	1420.000	864.241	1.309	.745	0.000	75.453	-30.276	550.000
28130.000	255.000	861.132	0.000	.298	0.000	9.399	0.000	320.000
28130.000	540.000	862.752	1.620	.368	0.000	63.441	-54.042	320.000
[illegible]	730	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS INC 2J

28130.000	1420.000	864.775	1.447	.534	0.000	109.184	-99.785	320.000
28131.000	255.000	861.754	0.000	.622	0.000	9.399	0.000	1.000
28131.000	540.000	862.755	1.001	.003	0.000	63.480	-54.081	1.000
28131.000	730.000	863.331	.576	.003	0.000	76.343	-66.944	1.000
28131.000	1420.000	864.777	1.446	.002	0.000	109.241	-99.842	1.000
28218.000	255.000	862.923	0.000	1.169	0.000	9.399	0.000	87.000
28218.000	540.000	866.426	3.503	3.671	0.000	201.241	-191.842	87.000
28218.000	730.000	866.890	.463	3.559	0.000	207.319	-197.920	87.000
28218.000	1420.000	867.779	.889	3.002	0.000	218.986	-209.587	87.000
28219.000	255.000	863.108	0.000	.185	0.000	9.399	0.000	1.000
28219.000	540.000	866.427	3.318	.000	0.000	201.258	-191.859	1.000
28219.000	730.000	866.890	.464	.001	0.000	207.336	-197.937	1.000
28219.000	1420.000	867.781	.891	.002	0.000	219.003	-209.603	1.000
28619.000	255.000	864.038	0.000	.929	0.000	159.304	0.000	400.000
28619.000	540.000	866.479	2.441	.053	0.000	324.860	-165.556	400.000
28619.000	730.000	866.962	.483	.072	0.000	335.965	-176.661	400.000
28619.000	1420.000	867.942	.980	.161	0.000	358.199	-198.895	400.000
29469.000	255.000	864.597	0.000	.559	0.000	28.681	0.000	850.000
29469.000	540.000	866.522	1.925	.043	0.000	86.031	-57.350	850.000
29469.000	730.000	867.020	.498	.058	0.000	109.136	-80.455	850.000
29469.000	1420.000	868.079	1.059	.137	0.000	149.999	-121.318	850.000
29534.000	255.000	865.636	0.000	1.039	0.000	34.377	0.000	65.000
29534.000	540.000	866.686	1.050	.164	0.000	68.287	-33.910	65.000
29534.000	730.000	867.161	.475	.141	0.000	113.841	-79.464	65.000
29534.000	1420.000	868.260	1.098	.181	0.000	129.999	-95.622	65.000
29535.000	255.000	866.897	0.000	1.260	0.000	96.964	0.000	1.000
29535.000	540.000	867.522	.625	.836	0.000	121.726	-24.761	1.000
29535.000	730.000	867.785	.264	.624	0.000	127.492	-30.528	1.000
29535.000	1420.000	868.535	.750	.275	0.000	129.999	-33.035	1.000
29536.000	255.000	866.909	0.000	.012	0.000	97.698	0.000	1.000
29536.000	540.000	867.533	.624	.011	0.000	121.835	-24.138	1.000
29536.000	730.000	867.798	.265	.012	0.000	127.610	-29.912	1.000
29536.000	1420.000	868.549	.751	.014	0.000	130.000	-32.302	1.000
29537.000	255.000	867.386	0.000	.477	0.000	118.732	0.000	1.000
29537.000	540.000	868.046	.660	.513	0.000	129.999	-11.267	1.000
29537.000	730.000	868.399	.353	.602	0.000	129.999	-11.267	1.000
29537.000	1420.000	869.339	.939	.790	0.000	129.999	-11.267	1.000
29687.000	255.000	867.505	0.000	.119	0.000	81.822	0.000	150.000
29687.000	540.000	868.269	.765	.223	0.000	126.500	-44.678	150.000
29687.000	730.000	868.662	.393	.262	0.000	135.066	-53.244	150.000
29687.000	1420.000	869.715	1.053	.376	0.000	159.807	-77.985	150.000
29688.000	255.000	867.498	0.000	-.007	0.000	81.662	0.000	1.000
29688.000	540.000	868.290	.792	.021	0.000	126.500	-44.838	1.000
29688.000	730.000	868.705	.415	.043	0.000	136.021	-54.359	1.000
29688.000	1420.000	869.905	1.201	.190	0.000	164.419	-82.757	1.000
29700.000	255.000	867.516	0.000	.015	0.000	82.429	0.000	12.000
29700.000	540.000	868.369	.853	.079	0.000	128.129	-45.700	12.000
29700.000	730.000	868.785	.417	.081	0.000	137.916	-55.487	12.000
29700.000	1420.000	869.965	1.180	.060	0.000	165.584	-83.155	12.000
29701.000	255.000	867.540	0.000	.024	0.000	82.764	0.000	1.000
29701.000	540.000	868.368	.828	-.001	0.000	128.198	-45.434	1.000
29701.000	730.000	868.782	.414	-.004	0.000	137.997	-55.233	1.000
29701.000	[illegible]	[illegible]	1.144	[illegible]	0.000	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS, INC 23

29751.000	255.000	868.035	0.000	.495	0.000	145.379	0.000	50.000
29751.000	540.000	868.741	.706	.373	0.000	191.399	-46.020	50.000
29751.000	730.000	869.177	.436	.395	0.000	191.399	-46.020	50.000
29751.000	1420.000	870.320	1.143	.394	0.000	191.399	-46.020	50.000
29752.000	255.000	868.337	0.000	.302	0.000	163.589	0.000	1.000
29752.000	540.000	868.792	.454	.051	0.000	191.399	-7.810	1.000
29752.000	730.000	869.193	.401	.016	0.000	191.399	-7.810	1.000
29752.000	1420.000	870.323	1.130	.003	0.000	191.399	-7.810	1.000
29796.000	255.000	868.423	0.000	.086	0.000	191.399	0.000	44.000
29796.000	540.000	868.885	.462	.093	0.000	191.399	-.000	44.000
29796.000	730.000	869.260	.375	.067	0.000	191.399	-.000	44.000
29796.000	1420.000	870.364	1.104	.041	0.000	191.399	-.000	44.000
29797.000	255.000	868.422	0.000	-.001	0.000	191.399	0.000	1.000
29797.000	540.000	868.886	.464	.001	0.000	191.399	-.000	1.000
29797.000	730.000	869.261	.376	.001	0.000	191.399	-.000	1.000
29797.000	1420.000	870.367	1.106	.003	0.000	191.399	-.000	1.000
30027.000	255.000	868.601	0.000	.179	0.000	165.057	0.000	230.000
30027.000	540.000	869.182	.582	.297	0.000	182.484	-17.427	230.000
30027.000	730.000	869.562	.379	.301	0.000	193.906	-28.850	230.000
30027.000	1420.000	870.676	1.114	.309	0.000	229.490	-64.433	230.000
30527.000	255.000	868.664	0.000	.063	0.000	128.305	0.000	500.000
30527.000	540.000	869.323	.659	.140	0.000	152.604	-24.300	500.000
30527.000	730.000	869.732	.409	.170	0.000	167.740	-39.435	500.000
30527.000	1420.000	870.910	1.179	.234	0.000	207.033	-78.728	500.000
30927.000	210.000	868.707	0.000	.043	0.000	169.948	0.000	400.000
30927.000	460.000	869.430	.723	.107	0.000	207.146	-37.198	400.000
30927.000	640.000	869.873	.443	.141	0.000	225.941	-55.993	400.000
30927.000	1230.000	871.134	1.261	.223	0.000	278.140	-108.192	400.000
31227.000	210.000	868.746	0.000	.039	0.000	159.975	0.000	300.000
31227.000	460.000	869.506	.760	.076	0.000	211.271	-51.296	300.000
31227.000	640.000	869.962	.456	.089	0.000	349.999	-190.024	300.000
31227.000	1230.000	871.229	1.267	.095	0.000	349.999	-190.024	300.000
31228.000	210.000	868.321	0.000	-.425	0.000	85.910	0.000	1.000
31228.000	460.000	870.297	1.975	.790	0.000	327.253	-241.344	1.000
31228.000	640.000	870.484	.187	.522	0.000	330.795	-244.885	1.000
31228.000	1230.000	871.149	.665	-.080	0.000	343.406	-257.496	1.000
31299.000	210.000	869.416	0.000	1.094	0.000	158.446	0.000	71.000
31299.000	460.000	870.740	1.325	.444	0.000	335.747	-177.301	71.000
31299.000	640.000	870.948	.208	.465	0.000	339.576	-181.129	71.000
31299.000	1230.000	871.484	.535	.335	0.000	349.708	-191.262	71.000
31300.000	210.000	870.084	0.000	.668	0.000	349.999	0.000	1.000
31300.000	460.000	870.816	.732	.075	0.000	349.999	-.000	1.000
31300.000	640.000	871.038	.223	.090	0.000	349.999	-.000	1.000
31300.000	1230.000	871.601	.562	.117	0.000	349.999	-.000	1.000
31850.000	210.000	870.092	0.000	.008	0.000	611.440	0.000	550.000
31850.000	460.000	870.833	.741	.018	0.000	619.206	-7.766	550.000
31850.000	640.000	871.066	.233	.026	0.000	621.639	-10.199	550.000
31850.000	1230.000	871.664	.598	.063	0.000	661.852	-50.412	550.000
32785.000	210.000	870.097	0.000	.005	0.000	799.841	0.000	935.000
32785.000	460.000	870.845	.748	.011	0.000	867.696	-67.854	935.000
32785.000	640.000	871.084	.239	.018	0.000	889.429	-89.587	935.000
32785.000	1230.000	871.704	.620	.040	0.000	908.392	-108.551	935.000

MCORE BUSINESS FORMS INC 23

33385.000	210.000	870.128	0.000	.031	0.000	348.242	0.000	600.000
33385.000	460.000	870.889	.761	.045	0.000	427.570	-79.328	600.000
33385.000	640.000	871.146	.256	.062	0.000	437.826	-89.584	600.000
33385.000	1230.000	871.810	.665	.107	0.000	464.412	-116.170	600.000
34235.000	210.000	871.257	0.000	1.129	0.000	90.764	0.000	850.000
34235.000	460.000	871.806	.549	.917	0.000	164.976	-74.213	850.000
34235.000	640.000	872.174	.369	1.029	0.000	178.468	-87.704	850.000
34235.000	1230.000	873.037	.862	1.226	0.000	200.536	-109.773	850.000
34247.000	210.000	872.266	0.000	1.009	0.000	180.829	0.000	12.000
34247.000	460.000	872.576	.310	.771	0.000	188.790	-7.961	12.000
34247.000	640.000	872.760	.184	.586	0.000	193.528	-12.699	12.000
34247.000	1230.000	873.266	.506	.229	0.000	206.643	-25.814	12.000
34997.000	210.000	872.575	0.000	.309	0.000	50.825	0.000	750.000
34997.000	460.000	873.353	.778	.777	0.000	67.242	-16.417	750.000
34997.000	640.000	873.819	.466	1.059	0.000	77.004	-26.179	750.000
34997.000	1230.000	874.974	1.155	1.708	0.000	109.889	-59.063	750.000
35772.000	210.000	872.986	0.000	.410	0.000	47.565	0.000	775.000
35772.000	460.000	874.147	1.162	.794	0.000	94.721	-47.156	775.000
35772.000	640.000	874.765	.617	.945	0.000	152.303	-104.738	775.000
35772.000	1230.000	876.196	1.431	1.222	0.000	256.678	-209.113	775.000
36122.000	210.000	873.162	0.000	.176	0.000	31.200	0.000	350.000
36122.000	460.000	874.403	1.241	.255	0.000	31.200	0.000	350.000
36122.000	640.000	875.028	.625	.263	0.000	31.200	0.000	350.000
36122.000	1230.000	876.362	1.334	.166	0.000	31.200	0.000	350.000
36123.000	210.000	873.174	0.000	.012	0.000	31.200	0.000	1.000
36123.000	460.000	874.394	1.220	-.009	0.000	31.200	0.000	1.000
36123.000	640.000	874.999	.605	-.029	0.000	31.200	0.000	1.000
36123.000	1230.000	876.220	1.221	-.142	0.000	31.200	0.000	1.000
36262.000	210.000	873.252	0.000	.078	0.000	31.200	0.000	139.000
36262.000	460.000	874.610	1.358	.216	0.000	31.200	0.000	139.000
36262.000	640.000	875.321	.711	.322	0.000	31.200	0.000	139.000
36262.000	1230.000	877.219	1.898	1.000	0.000	31.200	0.000	139.000
36263.000	210.000	873.245	0.000	-.007	0.000	31.200	0.000	1.000
36263.000	460.000	874.634	1.389	.024	0.000	31.200	0.000	1.000
36263.000	640.000	875.410	.776	.089	0.000	31.200	0.000	1.000
36263.000	1230.000	877.720	2.310	.500	0.000	31.200	0.000	1.000
36503.000	210.000	873.483	0.000	.237	0.000	38.038	0.000	240.000
36503.000	460.000	874.965	1.483	.331	0.000	56.991	-18.953	240.000
36503.000	640.000	875.812	.847	.402	0.000	70.622	-32.584	240.000
36503.000	1230.000	878.313	2.501	.593	0.000	135.033	-96.996	240.000
37603.000	160.000	873.807	0.000	.324	0.000	213.179	0.000	1100.000
37603.000	350.000	875.312	1.505	.347	0.000	249.999	-36.820	1100.000
37603.000	480.000	876.170	.857	.357	0.000	249.999	-36.820	1100.000
37603.000	920.000	878.620	2.450	.307	0.000	249.999	-36.820	1100.000
37604.000	160.000	874.194	0.000	.387	0.000	249.999	0.000	1.000
37604.000	350.000	875.306	1.112	-.006	0.000	249.999	-.000	1.000
37604.000	480.000	876.166	.860	-.004	0.000	249.999	-.000	1.000
37604.000	920.000	878.618	2.452	-.002	0.000	249.999	-.000	1.000
37648.000	160.000	874.438	0.000	.245	0.000	249.999	0.000	44.000
37648.000	350.000	875.322	.884	.016	0.000	249.999	-.000	44.000
37648.000	480.000	876.172	.850	-.006	0.000	249.999	-.000	44.000
37648.000	920.000	878.620	2.447	.002	0.000	249.999	-.000	44.000
37649.00	160.00	874.65	0.000	[illegible]	0.000	[illegible]	0.000	[illegible]

MOORE BUSINESS FORMS, INC. 23

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW POND DRAIN

4) DOCUMENT TYPE: 10 YR, 100 YR

00BREAK00

Minnow Pond Drain (2)

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*****************************************
   HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
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Please turn to "Profile 3"

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 T1       CITY OF FARMINGTON HILLS, 5670-03,  PM = RICHARD ZANOTTI

 J1   ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q       WSEL      FQ
        -1.      2.       6.       0.    0.000000    0.00      0.0      0.    721.300    0.000

      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

 NC    .085     .085     .042     .300     .500    0.000    0.000    0.000    0.000    0.000
 QT   4.000  670.000 1400.000 1200.000 3600.000    0.000    0.000    0.000    0.000    0.000
 QT   4.000  465.000  970.000 1090.000 2510.000    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 [illegible] [illegible] 0.000
 GR 844.800    0.000  844.600  100.000  844.300  200.000  843.700  300.000  834.000  350.000
 GR 828.700  395.000  827.200  396.700  826.800  400.000  827.200  403.300  828.700  405.000

 NC    .035     .025     .020    0.000    0.000    0.000    0.000    0.000    0.000    0.000

 SB   0.000    1.990    3.000    0.000 [illegible] [illegible] [illegible] [illegible] [illegible] 828.000

 BT  20.000    0.000  844.800    0.000  100.000  844.300    0.000  200.000  844.200    0.000
 BT 300.000   84.700    0.000  395.000  843.500    0.000  395.000  843.500  833.200  396.700
 BT 843.500  833.200  400.000  843.500  833.600  403.300  843.500  833.200  405.000  843.500

 BT   0.000    0.000    0.000    0.000    0.000    0.000 [illegible] [illegible]   0.000    0.000
 GR 844.800    0.000  844.600  100.000  844.300  200.000  843.700  300.000  838.000  350.000
 GR 829.100  395.000  827.600  396.700  827.200  400.000  827.600  403.300  829.100  405.000
```

XI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000
NM	[illegible]	[illegible]	[illegible]	[illegible]	300.000	[illegible]	[illegible]	[illegible]	500.000	0.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	500.000	[illegible]	600.000	0.000	0.000
QT	[illegible]	[illegible]	[illegible]	[illegible]	2280.000	0.000	0.000	0.000	0.000	0.000
NC	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	650.000	0.000	837.000	837.000	0.000
GR	845.600	0.000	844.300	100.000	843.000	200.000	839.700	300.000	834.600	375.000
GR	832.300	395.600	832.200	400.000	832.500	403.000	833.000	418.400	834.700	439.000
X1	15315.000	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	300.000	0.000	650.000	10.000	837.000	837.000	0.000
X1	15382.000	14.000	395.400	416.400	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	838.200	841.700	0.000	0.000	0.000	0.000	0.000
BT	841.700	839.500	407.400	841.700	835.300	408.900	841.700	837.300	412.000	841.700
BT	838.100	415.100	841.700	837.300	416.400	841.700	835.300	416.400	841.700	0.000
BT	500.000	842.900	0.000	600.000	842.900	0.000	650.000	843.700	0.000	0.000
NC	.075	[illegible]	[illegible]	0.000	0.000	[illegible]	[illegible]	[illegible]	0.000	0.000
X1	15683.000	17.000	200.000	236.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	0.000	0.000	838.500	838.500	0.000
BP	843.500	500.000	[illegible]	670.000	0.000	0.000	0.00	[illegible]	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.	[illegible]	[illegible]	[illegible]	[illegible]

```
 .40      56      .02      .065      .043   832.20   300.00
.000144    1       4        1        0       0       0      0.00   245.31   245.31

3470 ENCROACHMENT STATIONS=     LAN 0     920.0  TYPE=     1  TARGET=    -100.000
 17283.00    9.22    247.01    0.07    837.56    842.11     .09     .06     .02    842.80
```

100 Yr

```
*****************************************************************
 HECJ RELEASE DATED NOV 76 UPDATED AUG1977

T1     CITY OF FARMINGTON UTILITY FES# 5670-03  PM-RICHARD ZANOTTI

JI  ICHECK    INQ     NINQ    KDIR    STRT    METRIC    HVINS     Q      WSEL     FV
   -1.         4.      0.      0.    0.000000   0.00     010      0.    220.100   0.000

   3.000     0.000   1.000   0.000   0.000     0.000     0.000   0.000   0.000   0.000

CONV=     .300 CENV=     .500
*SECND 13231.000

   SLOPE    XLORL    XLCH    XLORR    THRIAL    IDC     ICONT    COKAR    TOPWID    ENDST

 13231.00    3.72   152.52   872.52   723.10   834.70    2.18     0.00     0.00   828.30
   1290.      0.    1290.      0.       0.      109.      0.       0.       0.     832.80
```

① T-696 Culvert

② n value changes from 0.012 to 0.015

③ XKØR then changes from 1.82 to 1.99 and

```
13234.00   .066   [illegible]   .00   [illegible]   .178   .00   .066   [illegible]
  1290.     0.     [illegible]   0.    [illegible]   0.     0.    [illegible]
   .100     0.00   [illegible]   .015   .020   .055   .010   [illegible]   [illegible]

SPECIAL BRIDGE

*SECNO [illegible]
3301 HV CHANGED MORE THAN HV ONE

LOPRS    EDLWC    HS    OWEIR    OPR    BAREA    TRAPEZOID AREA    ELLE    ELTRD

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE ELLEA=    842.90 ELREA=    842.90

.000369=   178.   178.   178.   2=   0   0   0.00   25.00   [illegible]

13311.00   12.07   839.27   0.00   0.00   839.64   .37   .00   .00   [illegible]
  1290.     0.     1290.    [illegible]   0.    [illegible]   0.    1.    0.    [illegible]

*SECNO 13414.000
 SECNO   DEPTH   CWSEL   CRIWS   WSELK   EG   HV   HL   [illegible]   BANK ELEV

 .01   1.[illegible]   [illegible]   1.21   .100   .050   .100   .020   [illegible]   [illegible]
.001172   3.   [illegible]   13.   2   0   0   0.00   31.00   [illegible]
```

so head water [illegible]
838.81 to 839.27 (increased by 0.46 ft.)

④ About 1100' U/S from this section, the water surface elevation is 839.96 which is 0.38 ft. higher than the original elev.

⑤ This [illegible] increase [illegible] water elevation has been carried U/S until next bridge (12 Mile Road bridge)

⑥ The water elevation at U/S face of 12 Mile Road bridge is only 0.04' higher (from 842.62 to 842.66)

⑦ Therefore, if n value increases from 0.015 to 0.015 at I-696 culvert, the effect of this changes in "n" value is about 0.4' increase in water elevation between I-696 and 12-Mile Road (Reach length is about 2000 ft)

```
*SECNO 15683.000
3470 ENCROACHMENT STATIONS=     300.0     650.0  TYPE=     1  TARGET=     350.000

 .000466-     .50     .800,                    0                0     0.00     308.25     [illegible]

15315.00     [illegible]                    .07      .00      .00    832.30
 11703.     383.     [illegible]     .353     155.     331.     41.     131.    833.00
  .61     1.08     3.08     .98     .075     .037     .075     .044    832.20    300.00

SPECIAL BRIDGE

*SECNO 15382.000
PRESSURE AND WEIR FLOW

848.18=    840.93     0.00     509.     [illegible]     85.     85.     838.20     842.20

Y

 1170.     243.     536.     [illegible]     [illegible]     [illegible]     681.     63.     [illegible]     832.00
   .62     .67     2.54     .58     .080     .038     .080     .043    832.20    300.00
 .000197     67.     [illegible]     [illegible]     0.     5     0.00    350.00    650.00

SECNO     DEPTH     ANGLE     ORIG     [illegible]     EG     HV     [illegible]     [illegible]     [illegible]
Q         QLOB      QCH       QROB     [illegible]     ACH    ANCH   ANR     QOL     TWA     EPT/KIGHT
TIME      VLOB      VCH       VROB     XNL     XNCH     XNR     WTN     ELMIN     SSTA

3470 ENCROACHMENT STATIONS=     300.0     650.0  TYPE=     1  TARGET=     350.000
 15383.00     10.57     842.67     0.00     836.84     842.71     .04     .00     .00     832.30

*SECNO 15683.000
```

833.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.12	20.00
831.747	[illegible]	[illegible]	[illegible]	[illegible]	970.00	[illegible]	25.00
SECOND							
13232							
832.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.12	25.00
833.882	[illegible]	[illegible]	[illegible]	[illegible]	970.00	7.06	25.00
834.858	[illegible]	[illegible]	[illegible]	[illegible]	1290.00	7.84	25.00
13410							
838.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.07	25.00
839.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1290.00	12.07	25.00
843.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	816.61	16.79	548.78
13411							
839.269	.37	.00	.00	1290.00	12.07	25.00	
843.990	.04	.00	.00	891.80	16.79	548.84	
13414							
843.968	.08	.00	.00	1087.16	16.77	344.72	
834.800	.07	2.00	.06	230.20	4.90	225.84	
14514							
836.367	.44	1.73	.19	420.00	4.17	20.80	
837.789	.15	.43	.08	444.39	5.59	147.86	
15314							
836.372	.44	.00	.00	420.00	4.17	20.80	
837.789	.15	.00	.00	447.34	5.59	147.86	
840.048	.07	.00	.00	478.01	7.85	303.22	
15315							

CWSEL	HV	HL	OLOSS	QCR	DEPTH	TOPWTD
842.657	.05	2.59	0.00	575.73	10.46	350.00
844.347	.07	.10	0.00	824.86	12.15	350.00
844.362	.08	.00	.00	769.24	12.16	350.00
837.563	.14	.34	.06	420.00	4.76	41.87

```
OHH.MN.SS CPU SECONDS [illegible]
          14.13.00.MF67, 3 [illegible] L04[illegible] [illegible] LYNRELEASE447 02/04/78
 14.13.38 00000.000 MFZ.      FAR.003.710.0TMFZ.  FARMINGTON HILLS FIS                    000100

 14.13.39.0000[illegible]
 14.21.32.0000[illegible].897 MFZ.      [illegible] PCS REQUIRED TO LOAD - 0027777 OU.COG
 14.21.37 00000.896 MFZ.           LD603 - EXECUTION INITIATED OS.EXP

Ready..
E
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Minnow Pond Drain (1)

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COMMAND- COPY,PRINT,OUT
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Please turn to "Profile 3" (100-year flood)

I have detail descriptions there.

Thank you.

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   ***********

   MODIFICATION - 50-51-52-53
 ******************************************************

T3     UPPER RIVER ROUGE * MINNOW POND DRAIN
J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
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
```

X1	2409.000	22.000	147.100	162.700	10.000	10.000	10.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	817.500	817.500	0.000
GR	824.200	255.000	824.500	255.000	824.000	455.000	825.500	0.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.035	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	818.200	818.200	0.000
X5	4.000	824.200	818.200	818.000	820.300	0.000	0.000	0.000	0.000	0.000
SB	0.000	0.000	1.000	0.000	12.410	0.000	122.000	0.000	810.400	810.000
X2	0.000	0.000	1.000	820.300	823.500	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	823.500	823.500	0.000
BT	22.000	0.000	832.600	0.000	55.000	830.600	0.000	147.100	826.700	0.000
BT	162.900	828.700	818.000	162.900	828.700	0.000	255.000	824.200	0.000	355.000
BT	823.500	0.000	455.000	824.000	0.000	555.000	825.600	0.000	655.000	827.900
BT	0.000	755.000	830.100	0.000	855.000	832.500	0.000	0.000	0.000	0.000
GR	824.200	255.000	824.500	255.000	824.000	455.000	825.500	555.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7399.000	9.000	142.000	170.000	10.000	10.000	10.000	0.000	0.000	0.000
X1	8249.000	23.000	274.500	310.000	1000.000	300.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	812.200	310.000	820.900	310.000	820.900	400.000	820.900	500.000	820.200	600.000
GR	820.900	700.000	823.200	800.000	823.500	823.000	0.000	0.000	0.000	0.000
NC	.035	.035	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0.000	0.000	0.000
BT	27.000	0.000	827.700	0.000	100.000	823.000	0.000	0.000	821.700	0.000
BT	274.500	820.900	815.100	274.500	820.900	816.100	275.000	820.900	816.800	276.000

FORM 1411 00 PRINTED BY ROTARY HAMILTON FORMS

X1	8280.000	[illegible]	[illegible]	0.000	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000
X2	0.000	0.000	[illegible]	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0.000	0.000	0.000
X1	8281.000	0.000	[illegible]	0.000	1.000	1.000	1.000	0.000	0.000	0.000
GT	4.000	[illegible]	[illegible]	1290.000	2510.000	0.000	0.000	0.000	0.000	0.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	828.200	40.000	828.000	60.000	828.000	80.000
GR	821.200	[illegible]	[illegible]	120.000	821.000	130.000	820.000	140.000	817.000	160.000
GR	816.300	[illegible]	[illegible]	124.000	819.000	184.000	819.000	200.000	820.000	220.000
X1	9436.000	15.000	150.000	150.000	405.000	405.000	405.000	0.000	0.000	0.000
GR	827.000	0.000	826.000	20.000	825.000	40.000	824.000	60.000	822.800	80.000
GR	821.800	100.000	820.500	120.000	820.000	130.000	819.000	134.000	818.300	138.000
X1	9686.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.200	0.000
ET	0.000	4.100	4.100	4.100	0.000	112.000	[illegible]	0.000	0.000	0.000
NC	.090	[illegible]	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	4.100	0.000	125.000	196.000	0.000	0.000	0.000
X1	9806.000	14.000	[illegible]	[illegible]	20.000	20.000	20.000	0.000	0.000	0.000
GR	[illegible]	[illegible]	[illegible]	0.000	[illegible]	[illegible]	[illegible]	[illegible]	0.000	0.000
NC	.035	[illegible]	.022	0.000	0.000	0.000	[illegible]	0.000	0.000	0.000
CO	0.000	3.170	3.020	0.000	14.140	0.000	127.260	0.000	818.900	818.600
BT	19.900	[illegible]	835.100	0.000	100.000	833.900	0.000	[illegible]	832.700	0.000
BT	300.000	831.800	0.000	398.500	832.900	0.000	325.500	[illegible]	835.100	397.700
BT	832.900	[illegible]	400.000	832.900	827.800	402.300	832.900	27.300	404.500	832.900

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X1    9938.000    0.000    0.000    0.000    1.000    1.000    1.000    0.000    0.000    0.000

X1    9941.000    0.000    0.000    0.000    3.000    3.000    3.000    0.000    0.000    0.000
NC     .120       .120     .054     0.000    0.000    0.000    0.000    0.000    0.000    0.000

GR    [illegible]                    [illegible]    10.000    823.000    26.000    823.000    [illegible]
GR    823.000    [illegible]    [illegible]    [illegible]    822.200    96.000    821.000    102.000    820.300    106.000
GR    822.800    [illegible]    [illegible]    126.000    822.600    146.000    822.800    166.000    823.200    186.000

*SECNO 9303.000
  SECNO     DEPTH    CWSEL    CNTWS    WSELN    EG       HV       HL       OLOSS    BANK ELEV
  Q         OLOB     OCH      OROB     ALOB     ACH      AROB     VOL      TWA      LEFT/RIGHT

3*CO CRITICAL DEPTH ASSUMED

  505.      0.       [illegible]    0.       0.       50.      0.       0.       0.       812.00
  0.00      0.00     10.15    0.00     100.     .048     .100     0.000    810.00   147.10
 .028135    10.      10.      10.      0.       14       0        0.00     15.80    162.90

WATER EL=XS BARD=    814.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=    818.20 ELREM=    818.20

  .00       0.00     0.45     0.00     .040     .032     .040     .016     810.00   147.10
 .007091    14.      1.       1.       0        0        0        0.00     15.80    162.90

SB  XK       XROK     COFM     RDLEN    DWO      DWP      BAREA    SS       ELNOW    ELEWN
    0.00     2.47     1.02     0.00     12.41    0.00     122.00   0.00     810.40   810.00
```

```
JT   ICHECK   INQ   NINV   IDIR   STRT   METRIC   HTINS   Q   WSEL   IQ

*SECNO 7605.000
  SECNO     DEPTH    CWSEL    CAPACI   CUMELK    EG       HV       HL       QLOSS    BANK ELEV
  Q         ELOB     CEH      ORDB     ACOB      ACH      ARDB     VOL      TWA      LEFT/RIGHT

3720 CRITICAL DEPTH ASSUMED

  1410.      0.      1410.      0.       0.      .99      0.       0.       0.       1.00
  0.00      0.00     14.77     10.00     100      .048    .100     0.000    810.00   147.10
 .027411     10.      10.       10.       0       17       0       0.00     15.00    142.90

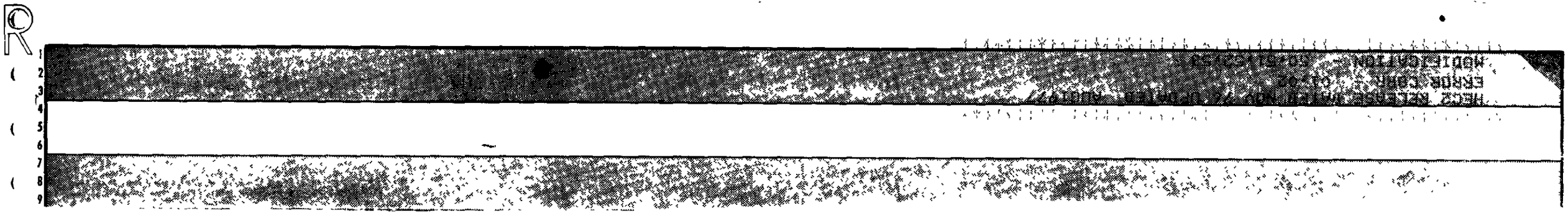
*WATER EL=XS CARD=    810.040
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=    810.20 ELREA=    810.20

  .00       0.00     11.80      .00      .040     .032     .040     .010    810.00    147.10
 .006988     1.       1.        1.       0        0        0       0.00     15.00    142.90

SB   XK      XKOR     BOFB     BRLEN     BWC      BWR      BAREA     SS      BESCHU   BLCHU
     0.00     2.45     3.02     0.00     12.41     0.00    122.00    0.00    810.40   810.00

3301 HV CHANGED MORE THAN HVTHR
PRESSURE FLOW

 823.12   820.60     0.00      0.      1410.     122.     123.     820.00   820.50
```



```
*SECNO 7389.000

 1410.      240.      [illegible]      [illegible]      [illegible]      138.      0.      [illegible]
  .00      1.46      5.08      [illegible]      .100      .050      .100      .031      810.40      118.31
 .001119      1.      [illegible]      [illegible]      2.      0.      0.      0.00      72.42      188.74

 SECNO      REF      [illegible]      [illegible]      [illegible]      EO      HV      HL      QLOSS      BANK ELEV
   Q      QLOB      [illegible]      [illegible]      [illegible]      ACH      AROB      VOL      TWA      LEFT/RIGHT
 TIME      VLOB      [illegible]      [illegible]      [illegible]      XNCH      XNR      WTN      ELMIN      SBTA

 7399.00      12.62      [illegible]      [illegible]      [illegible]      823.45      .30      .01      .01      818.10
  1410.      126.      [illegible]      [illegible]      [illegible]      297.      21.      0.      0.      819.20
   .00      1.43      [illegible]      [illegible]      [illegible]      .050      .100      .033      810.43      118.85

*SECNO 8249.000
3280 CROSS SECTION    8249.00 EXTENDED    1.37 FEET

 8249.00      11.27      823.87      0.00      0.00      823.91      .04      .48      .08      820.00
  1410.      161.      727.      528.      392.      354.      882.      15.      4.      820.28
   .16      .46      5.06      .187      .100      .050      .100      .053      812.64      81.42

*SECNO 8250.000
3280 CROSS SECTION    8250.00 EXTENDED    .40 FEET

3470 ENCROACHMENT STATIONS=      .0      600.0 TYPE=      1 INRDEJ=      599.999

 .000140      1.      1.      1.      2.      0.      0.      174.99      519.14      600.00

3370 NORMAL BRIDGE:NRM= 27 MIN ELTRD=  820.70 MAX ELLE=  818.50
```

Farmington Road Bridge:

① 4/5 of this Bridge is a pond, so take encroachments at Sections 7389 and 7399 which are 1' and 10' 4/5 from the bridge, respectively.

② at Section 7389, since velocity head drops by 0.7', the water elevation at this section increases from 822.16 to 823.05. (increased by 0.9')

③ at Section 7399, the water elevation increases from 822.99 to 823.05 (increased by 0.06')

④ Therefore, this is only a local effect.

```
*SECNO 9031.000
SECNO      DEP CH     BWCH      DEP CR     WSEL S     EG      HV      HL      QLOSS    BANK ELEV
 Q         QLOB       QCH       QROB       ALOB       ACH     AROB    VOL     TWA      LEFT/RIGHT

9031.00     8.00     824.30      0.00     821.89     824.39    .09     .43     .03    820.00
 1290.       94.      857.       338.      109.       295.     281.     36.     11.    818.00

*SECNO 9436.000
9436.00     6.60     824.70      0.00     822.32     825.31    .82     .76     .16    820.00

*SECNO 9686.000

 1290.      399.      848.       42.       121.       138.     24.     43.     15.     820.20
  .30       2.64      6.17      1.00       .100       .055    .100    .054   818.50   100.00
 .004174    250.      250.      250.        2          0       0     0.00   59.80    159.80

3470 ENCROACHMENT STATIONS=     182.0     148.0  TYPE=     1  THROAT=     34.000
9711.00     7.22     826.26      0.00     823.70    826.82     .54     .23     .07    820.74

*SECNO 9786.000

 1290.      64.       185.       42.       29.       139.     21.     43.     13.     821.28
  .30       2.18      8.51      2.00       .090      .042    .090    .053   818.58   125.00
 .004567    50.       50.       50.        2          0       0     0.00   31.00    136.00
```

① Between Sections 9436 and 9786, I add another two sections which are sections 9686 and 9711

② After adding these two sections and giving proper encroachments, I found that the water elevation at Section 9786 drops from 826.32 to 826.46 (dropped by 0.06')

③ Through our telephone conversation on June 9, 1978, I told you that the water elevation at section 9786 drops by 0.3'. That information (0.3' drop) is not true. Because at that time I didn't give proper encroachments at sections 9686 and 9711. Having proper encroachments at Section 9686 and 9711 to show proper contraction

to bridge section 9937, the water elevation at section 9926 is almost same as that appears at the computer run we send you before. (only 0.05' difference)

```
3470 ENCROACHMENT STATIONS=  235.0   350.0  TYPE=   1  TARGET=   -235.000

  1270.      0.      1270.      0.      0.     148.      0.     43.     13.    831.80
   .30     0.00      3.70     0.00    .035    .032    .035    .053   818.40   398.00
.003725     1.        1.       1.       0       0       0     0.00    21.00   417.00

SPECIAL BRIDGE

SB   XK      XKOR    COFQ     BLLEN     BWC      BWF      BAREA    SS     ELCHU    ELCHD

3301 HV CHANGED MORE THAN HVINS

 EGPRS     EGLWQ     HS      TWTA      HPR      BAREA   TRAPEZOID   ELLO     ELJED
                                                          AREA
 831.36    829.14    0.00                1290.     127.     127.    837.80   831.80

3470 ENCROACHMENT STATIONS=  235.0   350.0  TYPE=   1  TARGET=   -235.000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=   831.80 ELREA=   831.80

   .31     0.00      3.00     0.00    .035    .032    .035    .052   818.30   398.50
.001870    130.      130.     130.      2       0       0     0.00    21.00   416.50

3470 ENCROACHMENT STATIONS=  235.0   350.0  TYPE=   1  TARGET=   -235.000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=   831.80 ELREA=   831.80
```

```
3170 ENCROACHMENT STATIONS                                                    PROFILE                    17 030
9741.00          12.48                                                   .47          .01          .02    825.10
1150                12                                                    1.          .10           13.    827.50

*SECNO 10518.000
  SECNO     DEPTH     CUSEL     CHIDP     WSELK     EG        NV        HL        OLOSS     BANK ELEV

10518.00    11.42     83.72                 .00   833.80    831.73      .01       .20       .14   822.20
```

*	815.657	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
*	816.726	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
*	816.750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
*	818.040	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.04	15.80
*	820.300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.30	58.82
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.73	15.80
	824.163	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.22	326.38
	824.551	[illegible]	[illegible]	[illegible]	[illegible]	1224.96	14.15	320.32
	815.471	[illegible]	[illegible]	[illegible]	[illegible]	505.00	5.04	22.63
	819.075	[illegible]	[illegible]	[illegible]	[illegible]	505.00	6.47	35.50
	821.630	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.03	392.96
	818.429	1.42	.00	[illegible]	[illegible]	505.00	5.83	35.50
	821.617	.19	.00	[illegible]	[illegible]	366.21	9.02	393.11
	823.900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.30	519.14
	821.847	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.25	411.64
	823.904	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.30	519.31
	825.441	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.84	551.99
	CWSEL	HW	AL	[illegible]	WCH	DEPTH	TOPWID	
	825.436	[illegible]	.00	[illegible]	728.38	12.84	551.93	
	821.592	.06	.60	.00	373.17	5.29	118.45	
	82.321	[illegible]	[illegible]	.48	375.54	4.02	64.05	
	823.829	.60	1.12	.19	647.02	5.53	92.91	

824.229	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
828.204	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
828.2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
828.288	[illegible]	[illegible]	[illegible]	[illegible]	9.74	164.02	[illegible]
828.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.48	106.93	[illegible]
824.010	[illegible]	[illegible]	.00	985.00	5.41	21.00	[illegible]
824.236	[illegible]	[illegible]	[illegible]	985.00	[illegible]	17.78	[illegible]
826.022	1.23	.64	.21	970.00	7.72	21.00	[illegible]
824.242	[illegible]	.01	.00	985.00	5.94	17.78	[illegible]
826.348	199	.01	.07	970.00	8.05	21.00	[illegible]
830.801	[illegible]	190	.00	1270.00	12.50	21.00	[illegible]
828.409	.37	.03	.07	923.03	8.36	27.00	[illegible]
830.927	.47	.01	.03	1224.23	12.63	27.00	[illegible]
833.705	.10	.00	.00	984.94	15.40	346.99	[illegible]

CWSEL	HV	HL	[illegible]	QCH	DEPTH	TOPWID	[illegible]
834.008	.00	.20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAUTION SECNO= 813.626 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 813.626 PROFILE= 2 CRITICAL DEPTH ASSUMED

NOTE SECNO= [illegible] PROFILE= 1 WSEL BASED ON X5 CARD
NOTE SECNO= [illegible] PROFILE= 2 WSEL BASED ON X5 CARD
NOTE SECNO= 813.626 PROFILE= 3 WSEL BASED ON X5 CARD

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$$$$$$$$    $$    $$$$$$$   $$$$$$$$   $$$$$ $    $$    $$$$$$$$
$$        $$$$   $$   $$   $$    $$   $$    $   $$$$      $$
$$       $$  $$  $$   $$   $$    $$   $$$   $$  $$       $$
$$$$$    $$    $$ $$   $$   $$    $$   $ $$  $$    $$     $$
$$       $$    $$ $$   $$   $$    $$   $$ $$ $$    $$     $$
$$       $$$$$$$$ $$$$$$$   $$    $$   $$  $ $$ $$$$$$$$   $$
$$       $$    $$ $$  $$    $$    $$   $$$   $$ $$    $$   $$
$$       $$    $$ $$   $$   $$ $$$$     $    $$ $$    $$   $$
$$       $$    $$ $$    $$   $$$$      $ $$$$$  $$    $$  $$$$$$$$
FARJOAI  JANDA              03/16/78  08.54.31  7600   J0
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DNR

UPPER RIVER ROUGE

MINNOW POND DRAIN

ENCROACHED

MOORE BUSINESS FORMS INC 23

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW POND DRAIN

4) DOCUMENT TYPE: 10-YR

00BREAK00

```
$$$$$$$$     $$     $$$$$$$   $$$$$$$$   $$$$$ $   $$$$$$    $$$$$$
$$          $$$$    $$    $$   $$    $$   $$    $   $$    $$  $$    $$
$$         $$  $$   $$    $$   $$    $$   $$   $$$         $$  $$
$$$$$     $$    $$   $$    $$   $$    $$   $$  $ $$     $$$$  $$$$$$$
$$        $$    $$   $$    $$   $$    $$   $$ $$ $$   $$      $$    $$
$$        $$$$$$$$   $$$$$$$       $$    $$ $ $$   $$       $$    $$
$$        $$    $$   $$  $$        $$    $$$   $$  $$        $$    $$
$$        $$    $$   $$    $$   $$ $$    $   $$  $$        $$    $$
$$        $$    $$   $$    $$   $$$     $ $$$$$   $$$$$$$$   $$$$$$
FARJ026  JANDA              03/13/79  09.19.26  7600   JO
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Upper River Rouge & Minnow Pond Drain

(Original Sections)

(New Program)

Upper River Rouge
&
Minnow Pond Drain
w/s Farmington

Rec'd
3/21/79

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

T1      CITY OF FARMINGTON HILLS, 5670-03,   PM = RICHARD ZANOTTI
T2      10-YEAR FLOOD
T3      UPPER RIVER ROUGE & MINNOW POND DRAIN

J1  ICHECK   INQ    NINV    IDIR    STRT    METRIC   HVINS    O     WSEL     FQ

      -1.     2.      0.      0.  0.000000   0.00     0.0     0.   721.300  0.000

J2  NPROF    IPLOT   PRFVS   XSECV   XSECH   FN       ALLDC   IBW   CHNIM    ITRACE

     1.000   0.000  -1.000   0.000   0.000   0.000    0.000   0.000  0.000   0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38.000  39.000  40.000  41.000  42.000  43.000   1.000  10.000  11.000  12.000

    14.000   8.000   4.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000

NC    .085    .085    .042    .300    .500   0.000   0.000   0.000   0.000   0.000
QT   4.000  670.000 1400.000 1900.000 3600.000 0.000   0.000   0.000   0.000   0.000

X1     0.000  90.000 193.600 227.200   0.000   0.000   0.000   0.000   1.200   0.000
GR   724.700   0.000 723.200   6.600 721.700  13.300 721.100  20.000 720.600  26.700
GR   720.200  33.300 719.800  40.000 719.800  46.700 719.800  53.400 719.700  60.000
GR   719.700  66.700 719.800  73.400 719.800  80.100 719.600  86.700 719.300  93.400
GR   719.100 100.100 719.000 106.800 719.000 113.400 718.200 120.100 718.300 126.800
GR   718.400 133.500 718.500 140.100 718.500 146.800 718.700 153.500 718.800 160.200
GR   718.800 166.800 718.700 173.500 718.600 180.200 718.500 186.900 718.500 193.600
GR   718.100 194.700 717.700 195.800 717.400 196.900 717.000 198.000 716.600 199.100
GR   716.300 200.300 716.000 201.400 715.700 202.500 715.600 203.600 715.400 204.700
GR   715.200 205.900 715.100 207.000 714.900 208.100 714.800 209.200 714.800 210.300
GR   715.000 211.500 715.100 212.600 715.300 213.700 715.400 214.800 715.400 215.900
GR   715.400 217.100 715.400 218.200 715.400 219.300 715.600 220.400 716.100 221.500
GR   716.500 222.700 717.000 223.800 717.500 224.900 717.900 226.000 718.400 227.200
GR   718.600 230.600 718.800 234.100 719.000 237.500 719.100 241.000 719.300 244.500
GR   719.600 247.900 719.800 251.400 720.000 254.900 720.100 258.300 720.400 261.800
GR   720.600 265.300 721.000 268.700 721.300 272.200 721.700 275.700 722.000 279.100
GR   722.300 282.600 722.600 286.100 723.000 289.500 723.000 293.000 723.100 296.500
GR   723.100 299.900 723.200 303.400 723.300 306.900 723.300 310.300 723.400 313.800
GR   723.400 317.300 723.400 320.700 723.300 324.200 723.100 327.700 723.000 331.200

X1   640.000  21.000 124.000 160.000 750.000 550.000 640.000   0.000   0.000   0.000
GR   725.000   0.000 723.800  20.000 722.200  40.000 721.000  60.000 720.800  80.000
GR   720.500 100.000 720.100 120.000 720.000 124.000 718.000 130.000 717.000 134.000
GR   716.300 140.000 716.300 142.000 718.000 150.000 720.000 160.000 720.500 180.000
GR   721.200 200.000 722.000 220.000 722.500 240.000 723.200 260.000 724.000 280.000
GR   725.000 300.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000

X1  1730.000  22.000 145.000 174.000 600.000 350.000 1090.000   0.000   0.000   0.000
GR   725.000   0.000 724.500  20.000 724.200  40.000 724.000  60.000 723.000  80.000
GR   722.300 100.000 722.000 120.000 721.800 140.000 721.800 145.000 721.000 150.000
GR   719.200 150.000 719.200 162.000 721.800 176.000 721.900 180.000 722.000 200.000
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MOORE BUSINESS FORMS, INC. 23

GR	722.500	220.000	723.000	240.000	724.000	260.000	725.000	280.000	726.000	300.000
GR	726.500	320.000	727.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2780.000	14.000	342.000	372.000	1000.000	1000.000	1050.000	0.000	0.000	0.000
GR	730.000	0.000	729.000	60.000	728.000	120.000	727.000	180.000	726.500	240.000
GR	725.700	300.000	725.300	330.000	725.300	342.000	722.300	357.000	722.300	363.000
GR	725.000	372.000	726.000	390.000	732.500	450.000	734.000	468.000	0.000	0.000
X1	3880.000	16.000	516.000	552.000	600.000	1100.000	1100.000	0.000	0.000	0.000
GR	740.000	0.000	737.500	60.000	735.000	120.000	733.000	168.000	732.200	210.000
GR	731.000	270.000	730.000	318.000	729.000	360.000	728.200	420.000	727.500	480.000
GR	727.000	516.000	725.000	540.000	729.000	552.000	737.500	570.000	740.000	576.000
GR	750.000	588.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4935.000	14.000	225.000	255.000	600.000	1000.000	1055.000	0.000	0.000	0.000
GR	740.000	0.000	737.000	60.000	733.000	120.000	731.000	162.000	730.200	210.000
GR	730.000	225.000	728.200	237.000	728.200	243.000	730.000	255.000	731.000	270.000
GR	732.700	300.000	733.700	360.000	734.200	420.000	735.200	480.000	0.000	0.000
X1	5785.000	17.000	390.000	420.000	700.000	700.000	850.000	0.000	0.000	0.000
GR	750.000	0.000	748.000	18.000	745.000	48.000	743.000	78.000	740.000	120.000
GR	738.500	180.000	737.200	240.000	735.700	300.000	734.000	360.000	733.200	390.000
GR	731.200	405.000	731.200	411.000	733.000	420.000	736.500	480.000	740.000	540.000
GR	745.000	600.000	750.000	660.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6595.000	13.000	246.000	276.000	450.000	650.000	810.000	0.000	0.000	0.000
GR	750.000	0.000	745.000	60.000	740.000	120.000	738.000	180.000	736.000	246.000
GR	734.400	261.000	734.400	267.000	736.000	276.000	740.000	336.000	743.000	360.000
GR	750.000	408.000	750.000	468.000	750.000	528.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.065	527.300	.070	850.000	0.000	0.000	0.000
X1	7835.000	20.000	500.000	527.300	1100.000	600.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
GR	749.500	0.000	746.500	100.000	744.100	200.000	743.100	300.000	743.300	400.000
GR	743.800	450.000	743.800	486.000	740.000	495.000	737.200	500.000	737.100	506.000
GR	737.100	512.600	736.600	521.000	737.000	527.300	741.000	533.000	744.000	536.000
GR	745.000	550.000	745.700	600.000	750.900	700.000	756.600	800.000	757.500	850.000
NH	5.000	.045	500.000	.044	512.600	.200	514.700	.044	527.300	.045
NH	850.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7836.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
SB	0.000	1.830	3.050	0.000	19.070	0.000	129.670	0.000	736.600	736.600
X1	7866.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	742.200	742.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
BT	21.000	400.000	743.300	0.000	450.000	743.800	0.000	492.900	742.200	0.000
BT	493.000	745.400	0.000	500.000	745.500	0.000	501.700	745.500	742.100	506.300
BT	745.500	743.400	510.900	745.500	742.100	512.600	745.500	738.100	512.600	745.500
BT	737.100	514.700	745.500	737.000	516.400	745.500	742.100	521.000	745.500	743.400
BT	525.600	745.500	742.100	527.300	745.500	738.100	527.300	745.500	0.000	535.000
BT	745.400	0.000	535.100	743.900	0.000	550.000	745.000	0.000	600.000	745.700
BT	0.000	650.000	748.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.060	527.300	.070	850.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

X1	7867.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
NC	.080	.080	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8687.000	20.000	414.000	444.000	820.000	820.000	820.000	0.000	0.000	0.000
GR	760.000	0.000	757.000	42.000	752.200	102.000	750.000	132.000	748.500	192.000
GR	747.000	252.000	745.500	312.000	744.000	372.000	743.000	414.000	741.300	429.000
GR	741.300	435.000	743.000	444.000	745.000	462.000	750.000	504.000	751.000	537.000
GR	749.800	579.000	750.000	642.000	750.000	684.000	754.500	744.000	760.000	816.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9247.000	15.000	361.000	390.000	500.000	350.000	560.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	182.000	0.000	527.000	0.000	0.000	0.000	0.000
GR	760.300	0.000	753.200	40.000	749.000	80.000	748.000	100.000	747.900	200.000
GR	746.800	300.000	745.100	361.000	742.400	366.000	741.900	375.000	742.000	388.000
GR	744.600	390.000	746.600	485.000	768.300	523.000	769.900	600.000	776.400	700.000
X1	9327.000	0.000	0.000	0.000	70.000	92.000	80.000	0.000	.600	0.000
X3	0.000	0.000	0.000	202.000	0.000	507.000	0.000	0.000	0.000	0.000
X1	9407.000	90.000	333.700	363.000	70.000	92.000	80.000	0.000	-.600	0.000
GR	762.700	0.000	760.700	11.500	758.600	23.000	756.600	34.500	755.100	46.000
GR	753.800	57.500	752.400	69.000	751.400	80.500	750.800	92.000	750.700	103.500
GR	750.600	115.000	750.500	126.500	750.400	138.100	750.200	149.600	750.100	161.100
GR	750.000	172.600	749.900	184.100	749.700	195.600	749.500	207.100	749.300	218.600
GR	749.100	230.100	748.900	241.600	748.700	253.100	748.500	264.600	748.300	276.200
GR	748.000	287.700	747.600	299.200	747.300	310.700	746.900	322.200	746.500	333.700
GR	746.100	334.700	745.700	335.600	745.300	336.600	744.900	337.600	744.400	338.600
GR	744.300	339.500	744.300	340.500	744.200	341.500	744.100	342.500	744.100	343.400
GR	744.000	344.400	743.900	345.400	743.900	346.400	743.800	347.300	743.800	348.300
GR	743.800	349.300	743.800	350.300	743.800	351.200	743.800	352.200	743.800	353.200
GR	743.800	354.200	743.800	355.100	743.900	356.100	743.900	357.100	744.000	358.100
GR	744.000	359.000	744.100	360.000	744.200	361.000	745.200	362.000	746.200	363.000
GR	746.500	373.500	746.800	384.000	747.000	394.500	747.300	405.000	747.600	415.400
GR	747.800	425.900	748.100	436.400	748.400	446.900	748.700	457.400	752.400	467.900
GR	757.000	478.400	761.500	488.900	765.500	499.400	765.800	509.900	766.000	520.400
GR	766.300	530.900	766.500	541.400	766.800	551.900	767.100	562.400	767.400	572.900
GR	767.900	583.400	768.500	593.900	769.300	604.400	770.000	614.900	770.800	625.400
GR	771.600	635.900	772.400	646.400	773.200	656.900	774.000	667.400	774.800	678.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9447.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
X1	9487.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW POND DRAIN

4) DOCUMENT TYPE: 10-YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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C
1       CITY OF FARMINGTON HILLS, 5670-03,   PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       UPPER RIVER ROUGE & MINNOW POND DRAIN

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -1.       2.        0.        0.  0.000000      0.00       0.0       0.   721.300    0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH      FN      ALLDC     IBN      CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3     1.000    10.000    11.000    12.000    14.000     3.000     4.000     0.000     0.000     0.000
NC      .085      .085      .042      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     4.000   670.000  1400.000  1900.000  3600.000     0.000     0.000     0.000     0.000     0.000

X1     0.000    90.000   193.600   227.200     0.000     0.000     0.000     0.000     1.200     0.000
GR   724.700     0.000   723.200     6.600   721.700    13.300   721.100    20.000   720.600    26.700
GR   720.200    33.300   719.800    40.000   719.800    46.700   719.800    53.400   719.700    60.000
GR   719.700    66.700   719.800    73.400   719.800    80.100   719.600    86.700   719.300    93.400
GR   719.100   100.100   719.000   106.800   719.000   113.400   718.200   120.100   718.300   126.800
GR   718.400   133.500   718.500   140.100   718.500   146.800   718.700   153.500   718.800   160.200
GR   718.800   166.800   718.700   173.500   718.600   180.200   718.500   186.900   718.500   193.600
GR   718.100   194.700   717.700   195.800   717.400   196.900   717.000   198.000   716.600   199.100
GR   716.300   200.300   716.000   201.400   715.700   202.500   715.600   203.600   715.400   204.700
GR   715.200   205.900   715.100   207.000   714.900   208.100   714.800   209.200   714.800   210.300
GR   715.000   211.500   715.100   212.600   715.300   213.700   715.400   214.800   715.400   215.900
GR   715.400   217.100   715.400   218.200   715.400   219.300   715.600   220.400   716.100   221.500
GR   716.500   222.700   717.000   223.800   717.500   224.900   717.900   226.000   718.400   227.200
GR   718.600   230.600   718.800   234.100   719.000   237.500   719.100   241.000   719.300   244.500
GR   719.600   247.900   719.800   251.400   720.000   254.900   720.100   258.300   720.400   261.800
GR   720.600   265.300   721.000   268.700   721.300   272.200   721.700   275.700   722.000   279.100
GR   722.300   282.600   722.600   286.100   723.000   289.500   723.000   293.000   723.100   296.500
GR   723.100   299.900   723.200   303.400   723.300   306.900   723.300   310.300   723.400   313.800
GR   723.400   317.300   723.400   320.700   723.300   324.200   723.100   327.700   723.000   331.200

X1   640.000    21.000   124.000   160.000   750.000   550.000   640.000     0.000     0.000     0.000
GR   725.000     0.000   723.800    20.000   722.200    40.000   721.000    60.000   720.800    80.000
GR   720.500   100.000   720.100   120.000   720.000   124.000   718.000   130.000   717.000   134.000
GR   716.300   140.000   716.300   142.000   718.000   150.000   720.000   160.000   720.500   180.000
GR   721.200   200.000   722.000   220.000   722.500   240.000   723.200   260.000   724.000   280.000
GR   725.000   300.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  1730.000    22.000   145.000   174.000   600.000   350.000  1090.000     0.000     0.000     0.000
GR   725.000     0.000   724.500    20.000   724.200    40.000   724.000    60.000   723.000    80.000
GR   722.300   100.000   722.000   120.000   721.800   140.000   721.800   145.000   721.000   150.000
GR   719.200   158.000   719.200   162.000   721.800   174.000   721.900   190.000   722.000   200.000
GR   722.500   220.000   723.000   240.000   724.000   260.000   725.000   280.000   726.000   300.000
GR   726.500   320.000   727.000   330.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      .090      .090      .045     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  2780.000    14.000   342.000   372.000  1000.000  1000.000  1050.000     0.000     0.000     0.000
GR   730.000     0.000   729.000    60.000   728.000   120.000   727.000   180.000   726.500   240.000
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GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	725.000	372.000	726.000	390.000	732.500	450.000	734.000	468.000	0.000	0.000
X1	3880.000	16.000	516.000	552.000	600.000	1100.000	1100.000	0.000	0.000	0.000
GR	740.000	0.000	737.500	60.000	735.000	120.000	733.000	168.000	732.200	210.000
GR	731.000	270.000	730.000	318.000	729.000	360.000	728.200	420.000	727.500	480.000
GR	727.000	516.000	725.000	540.000	729.000	552.000	737.500	570.000	740.000	576.000
GR	750.000	588.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4935.000	14.000	225.000	255.000	600.000	1000.000	1055.000	0.000	0.000	0.000
GR	740.000	0.000	737.000	60.000	733.000	120.000	731.000	162.000	730.200	210.000
GR	730.000	225.000	728.200	237.000	728.200	243.000	730.000	255.000	731.000	270.000
GR	732.700	300.000	733.700	360.000	734.200	420.000	735.200	480.000	0.000	0.000
X1	5785.000	17.000	390.000	420.000	700.000	700.000	850.000	0.000	0.000	0.000
GR	750.000	0.000	748.000	18.000	745.000	48.000	743.000	78.000	740.000	120.000
GR	738.500	180.000	737.200	240.000	735.700	300.000	734.000	360.000	733.200	390.000
GR	731.200	405.000	731.200	411.000	733.000	420.000	736.500	480.000	740.000	540.000
GR	745.000	600.000	750.000	660.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6595.000	13.000	246.000	276.000	450.000	650.000	810.000	0.000	0.000	0.000
GR	750.000	0.000	745.000	60.000	740.000	120.000	738.000	180.000	736.000	246.000
GR	734.400	261.000	734.400	267.000	736.000	276.000	740.000	336.000	743.000	360.000
GR	750.000	408.000	750.000	468.000	750.000	528.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.065	527.300	.070	850.000	0.000	0.000	0.000
X1	7835.000	20.000	500.000	527.300	1100.000	600.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
GR	749.500	0.000	746.500	100.000	744.100	200.000	743.100	300.000	743.300	400.000
GR	743.800	450.000	743.800	486.000	740.000	495.000	737.200	500.000	737.100	506.000
GR	737.100	512.600	736.600	521.000	737.000	527.300	741.000	533.000	744.000	536.000
GR	745.000	550.000	745.700	600.000	750.900	700.000	756.600	800.000	757.500	850.000
NH	5.000	.045	500.000	.044	512.600	.200	514.700	.044	527.300	.045
NH	850.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7836.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
SB	0.000	1.830	3.050	0.000	19.070	0.000	129.670	0.000	736.600	736.600
X1	7866.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	742.200	742.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
BT	21.000	400.000	743.300	0.000	450.000	743.800	0.000	492.900	742.200	0.000
BT	493.000	745.400	0.000	500.000	745.500	0.000	501.700	745.500	742.100	506.300
BT	745.500	743.400	510.900	745.500	742.100	512.600	745.500	738.100	512.600	745.500
BT	737.100	514.700	745.500	737.000	516.400	745.500	742.100	521.000	745.500	743.400
BT	525.600	745.500	742.100	527.300	745.500	738.100	527.300	745.500	0.000	535.000
BT	745.400	0.000	535.100	743.900	0.000	550.000	745.000	0.000	600.000	745.700
BT	0.000	650.000	748.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.060	527.300	.070	850.000	0.000	0.000	0.000
X1	7867.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
NC	.080	.080	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8687.000	20.000	414.000	444.000	820.000	820.000	820.000	0.000	0.000	0.000
GR	760.000	0.000	757.000	42.000	752.200	102.000	750.000	132.000	748.500	192.000
GR	747.000	252.000	745.500	312.000	744.000	372.000	743.000	414.000	741.300	429.000
GR	741.300	435.000	743.000	444.000	745.000	462.000	750.000	504.000	751.000	537.000
GR	749.800	579.000	750.000	642.000	750.000	684.000	754.500	744.000	760.000	816.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9247.000	15.000	361.000	390.000	500.000	350.000	560.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	182.000	0.000	527.000	0.000	0.000	0.000	0.000
GR	760.300	0.000	753.200	40.000	749.000	80.000	748.000	100.000	747.900	200.000
GR	746.800	300.000	745.100	361.000	742.400	366.000	741.900	375.000	742.000	388.000

MOORE BUSINESS FORMS, INC 23

X1	9327.000	0.000	0.000	0.000	70.000	92.000	80.000	0.000	.600	0.000
X3	0.000	0.000	0.000	202.000	0.000	507.000	0.000	0.000	0.000	0.000
X1	9407.000	90.000	333.700	363.000	70.000	92.000	80.000	0.000	-.600	0.000
GR	762.700	0.000	760.700	11.500	758.600	23.000	756.600	34.500	755.100	46.000
GR	753.800	57.500	752.400	69.000	751.400	80.500	750.800	92.000	750.700	103.500
GR	750.600	115.000	750.500	126.500	750.400	138.100	750.200	149.600	750.100	161.100
GR	750.000	172.600	749.900	184.100	749.700	195.600	749.500	207.100	749.300	218.600
GR	749.100	230.100	748.900	241.600	748.700	253.100	748.500	264.600	748.300	276.200
GR	748.000	287.700	747.600	299.200	747.300	310.700	746.900	322.200	746.500	333.700
GR	746.100	334.700	745.700	335.600	745.300	336.600	744.900	337.600	744.400	338.600
GR	744.300	339.500	744.300	340.500	744.200	341.500	744.100	342.500	744.100	343.400
GR	744.000	344.400	743.900	345.400	743.900	346.400	743.800	347.300	743.800	348.300
GR	743.800	349.300	743.800	350.300	743.800	351.200	743.800	352.200	743.800	353.200
GR	743.800	354.200	743.800	355.100	743.900	356.100	743.900	357.100	744.000	358.100
GR	744.000	359.000	744.100	360.000	744.200	361.000	745.200	362.000	746.200	363.000
GR	746.500	373.500	746.800	384.000	747.000	394.500	747.300	405.000	747.600	415.400
GR	747.800	425.900	748.100	436.400	748.400	446.900	748.700	457.400	752.400	467.900
GR	757.000	478.400	761.500	488.900	765.500	499.400	765.800	509.900	766.000	520.400
GR	766.300	530.900	766.500	541.400	766.800	551.900	767.100	562.400	767.400	572.900
GR	767.900	583.400	768.500	593.900	769.300	604.400	770.000	614.900	770.800	625.400
GR	771.600	635.900	772.400	646.400	773.200	656.900	774.000	667.400	774.800	678.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9447.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
X1	9487.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
QT	4.000	625.000	1330.000	1810.000	3410.000	0.000	0.000	0.000	0.000	0.000
X1	9727.000	90.000	306.500	336.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	765.100	0.000	763.300	10.500	761.400	21.100	759.600	31.700	758.100	42.200
GR	756.800	52.800	755.400	63.400	754.300	73.900	753.700	84.500	753.500	95.100
GR	753.300	105.600	753.000	116.200	752.800	126.800	752.600	137.300	752.400	147.900
GR	752.200	158.500	752.000	169.100	751.700	179.600	751.400	190.200	751.100	200.800
GR	750.900	211.300	750.600	221.900	750.400	232.500	750.100	243.000	749.800	253.600
GR	749.500	264.200	749.100	274.700	748.800	285.300	748.400	295.900	748.000	306.500
GR	747.700	307.400	747.400	308.400	747.100	309.400	746.800	310.400	746.400	311.400
GR	746.300	312.300	746.300	313.300	746.200	314.300	746.100	315.300	746.000	316.300
GR	745.900	317.300	745.900	318.200	745.800	319.200	745.700	320.200	745.700	321.200
GR	745.700	322.200	745.700	323.200	745.700	324.100	745.700	325.100	745.700	326.100
GR	745.700	327.100	745.800	328.100	745.800	329.100	745.900	330.000	746.000	331.000
GR	746.100	332.000	746.200	333.000	746.300	334.000	747.000	335.000	747.800	336.000
GR	748.200	346.600	748.500	357.300	748.900	368.000	749.200	378.600	749.500	389.300
GR	749.800	400.000	750.100	410.600	750.500	421.300	750.900	431.900	753.500	442.600
GR	756.700	453.300	759.900	463.900	762.700	474.600	763.000	485.300	763.300	495.900
GR	763.600	506.600	763.900	517.300	764.300	527.900	764.600	538.600	764.900	549.300
GR	765.400	559.900	766.100	570.600	766.900	581.300	767.800	591.900	768.600	602.600
GR	769.500	613.300	770.400	623.900	771.300	634.600	772.200	645.300	773.200	656.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9967.000	90.000	279.200	309.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	767.500	0.000	765.900	9.600	764.200	19.200	762.600	28.800	761.100	38.500
GR	759.700	48.100	758.300	57.700	757.100	67.400	756.600	77.000	756.300	86.600
GR	755.900	96.200	755.600	105.900	755.300	115.500	754.900	125.100	754.600	134.800
GR	754.300	144.400	754.000	154.000	753.700	163.600	753.300	173.300	753.000	182.900
GR	752.700	192.500	752.300	202.200	752.000	211.800	751.700	221.400	751.400	231.100
GR	751.000	240.700	750.600	250.300	750.300	259.900	749.900	269.600	749.500	279.200
GR	749.300	280.200	749.100	281.200	748.900	282.200	748.700	283.200	748.400	284.200
GR	748.300	285.100	748.300	286.100	748.200	287.100	748.100	288.100	748.000	289.100
GR	747.900	290.100	747.800	291.100	747.700	292.100	747.600	293.100	747.600	294.100
GR	747.600	295.100	747.600	296.100	747.600	297.000	747.600	298.000	747.600	299.000
GR	747.600	300.000	747.700	301.000	747.800	302.000	747.900	303.000	748.100	304.000
GR	748.200	305.000	748.300	306.000	748.500	307.000	748.900	308.000	749.400	309.000
GR	749.900	319.800	750.300	330.600	750.700	341.500	751.100	352.300	751.400	363.100

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GR	756.400	428.100	758.300	439.000	759.900	449.800	760.300	460.600	760.600	471.400
GR	761.000	482.300	761.300	493.100	761.700	503.900	762.100	514.800	762.500	525.600
GR	763.000	536.400	763.600	547.300	764.600	558.100	765.500	568.900	766.500	579.800
GR	767.400	590.600	768.500	601.400	769.500	612.300	770.500	623.100	771.600	634.000
X1	10207.000	16.000	252.000	282.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	770.000	0.000	760.000	60.000	757.000	120.000	754.200	180.000	751.600	240.000
GR	751.000	252.000	749.500	267.000	749.500	273.000	751.000	282.000	752.000	300.000
GR	754.300	360.000	757.000	420.000	759.200	480.000	761.000	522.000	765.000	564.000
GR	770.000	612.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.100	97.000	.040	127.000	.100	332.000	.070	487.000	0.000
X1	10817.000	14.000	97.000	127.000	610.000	610.000	610.000	0.000	0.000	0.000
GR	770.900	0.000	755.800	32.000	754.100	97.000	751.100	108.000	751.300	116.000
GR	751.700	122.000	755.400	127.000	756.000	187.000	756.500	287.000	756.400	312.000
GR	762.900	332.000	765.900	387.000	768.800	417.000	788.000	487.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10932.000	90.000	125.000	155.000	115.000	115.000	115.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	46.000	0.000	290.000	0.000	0.000	0.000	0.000
GR	770.400	0.000	769.000	4.300	767.600	8.600	766.100	12.900	764.700	17.200
GR	763.300	21.500	761.900	25.800	760.500	30.100	759.100	34.400	758.200	38.700
GR	757.700	43.100	757.500	47.400	757.400	51.700	757.300	56.000	757.200	60.300
GR	757.000	64.600	756.900	68.900	756.800	73.200	756.600	77.500	756.500	81.800
GR	756.400	86.200	756.300	90.500	756.100	94.800	756.000	99.100	755.900	103.400
GR	755.700	107.700	755.600	112.000	755.400	116.300	755.200	120.600	755.000	125.000
GR	754.800	126.000	754.600	127.000	754.300	128.000	754.100	129.000	753.900	130.000
GR	753.700	131.000	753.500	132.000	753.200	133.000	753.000	134.000	752.800	135.000
GR	752.600	136.000	752.500	137.000	752.500	138.000	752.500	139.000	752.600	140.000
GR	752.600	141.000	752.600	142.000	752.600	143.000	752.700	144.000	752.800	145.000
GR	752.900	146.000	753.000	147.000	753.100	148.000	753.300	149.000	753.400	150.000
GR	753.800	151.000	754.300	152.000	754.700	153.000	755.200	154.000	755.700	155.000
GR	755.800	162.800	756.000	170.600	756.200	178.500	756.300	186.300	756.500	194.100
GR	756.700	202.000	756.800	209.800	757.000	217.600	757.100	225.400	757.300	233.300
GR	757.400	241.100	757.600	248.900	757.700	256.800	757.800	264.600	757.900	272.400
GR	758.000	280.300	758.100	288.100	758.200	295.900	758.500	303.800	760.300	311.600
GR	762.200	319.400	763.100	327.300	763.700	335.100	764.300	342.900	764.900	350.800
GR	765.500	358.600	766.200	366.400	767.000	374.300	767.800	382.100	768.600	390.000
X1	10990.000	90.000	139.000	169.000	58.000	58.000	58.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	50.000	0.000	266.000	0.000	0.000	0.000	0.000
GR	770.200	0.000	768.800	4.700	767.500	9.500	766.100	14.300	764.800	19.100
GR	763.500	23.900	762.100	28.700	760.800	33.500	759.500	38.300	759.000	43.100
GR	758.600	47.900	758.500	52.700	758.300	57.500	758.200	62.300	758.100	67.100
GR	757.900	71.800	757.700	76.600	757.600	81.400	757.400	86.200	757.300	91.000
GR	757.100	95.800	757.000	100.600	756.800	105.400	756.700	110.200	756.500	115.000
GR	756.400	119.800	756.200	124.600	755.900	129.400	755.700	134.200	755.500	139.000
GR	755.300	140.000	755.100	141.000	754.900	142.000	754.700	143.000	754.500	144.000
GR	754.300	145.000	754.100	146.000	753.900	147.000	753.700	148.000	753.500	149.000
GR	753.300	150.000	753.200	151.000	753.200	152.000	753.200	153.000	753.300	154.000
GR	753.300	155.000	753.300	156.000	753.300	157.000	753.400	158.000	753.500	159.000
GR	753.700	160.000	753.800	161.000	753.900	162.000	754.100	163.000	754.200	164.000
GR	754.500	165.000	754.900	166.000	755.100	167.000	755.500	168.000	755.800	169.000
GR	756.000	175.900	756.200	182.800	756.400	189.700	756.600	196.600	756.800	203.500
GR	757.000	210.400	757.200	217.400	757.500	224.300	757.600	231.200	757.900	238.100
GR	758.000	245.000	758.300	251.900	758.400	258.900	758.500	265.800	758.700	272.700
GR	758.800	279.600	758.900	286.500	759.100	293.400	759.600	300.400	760.900	307.300
GR	762.200	314.200	763.000	321.100	763.600	328.000	764.300	334.900	764.900	341.900
GR	765.600	348.800	766.300	355.700	767.000	362.600	767.800	369.500	768.500	376.500
X1	11047.000	13.000	153.000	183.000	57.000	57.000	57.000	0.000	0.000	0.000
GR	770.000	0.000	760.000	42.000	759.000	75.000	757.000	135.000	756.000	153.000
GR	754.000	165.000	754.000	171.000	756.000	183.000	757.000	207.000	759.000	255.000
GR	760.000	291.000	763.000	315.000	768.500	363.000	0.000	0.000	0.000	0.000
QT	4.000	505.000	1060.000	1410.000	2740.000	0.000	0.000	0.000	0.000	0.000

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X1	12.000	90.000	140.500	170.000	275.000	250.000	262.000	0.000	0.000	0.000
GR	771.600	0.000	770.400	4.800	769.100	9.600	767.900	14.500	766.700	19.300
GR	765.500	24.200	764.200	29.000	763.100	33.900	762.000	38.700	761.800	43.600
GR	761.600	48.400	761.400	53.200	761.200	58.100	761.000	62.900	760.900	67.800
GR	760.700	72.600	760.400	77.500	760.300	82.300	760.000	87.200	759.900	92.000
GR	759.700	96.900	759.600	101.700	759.400	106.500	759.200	111.400	759.100	116.200
GR	758.900	121.100	758.700	125.900	758.400	130.800	758.200	135.600	757.900	140.500
GR	757.700	141.400	757.600	142.400	757.400	143.400	757.200	144.400	757.000	145.400
GR	756.800	146.400	756.600	147.300	756.400	148.300	756.200	149.300	756.000	150.300
GR	755.900	151.300	755.800	152.300	755.800	153.200	755.800	154.200	755.800	155.200
GR	755.800	156.200	755.800	157.200	755.800	158.200	756.000	159.100	756.200	160.100
GR	756.400	161.100	756.600	162.100	756.800	163.100	757.000	164.100	757.100	165.000
GR	757.300	166.000	757.500	167.000	757.700	168.000	757.900	169.000	758.100	170.000
GR	758.300	176.200	758.500	182.500	758.700	188.700	758.900	195.000	759.100	201.200
GR	759.300	207.500	759.500	213.700	759.800	220.000	760.000	226.200	760.300	232.500
GR	760.500	238.700	760.800	245.000	760.900	251.200	761.000	257.500	761.200	263.700
GR	761.400	270.000	761.600	276.200	761.700	282.500	762.400	288.700	763.100	295.000
GR	763.700	301.200	764.400	307.500	765.000	313.700	765.600	320.000	766.200	326.200
GR	767.000	332.500	767.800	338.700	768.600	345.000	769.500	351.200	770.300	357.500
X1	275.000	90.000	127.900	156.900	275.000	250.000	263.000	0.000	0.000	0.000
GR	773.300	0.000	772.000	4.400	770.800	8.800	769.700	13.200	768.500	17.600
GR	767.300	22.000	766.100	26.400	765.000	30.800	764.100	35.300	763.900	39.700
GR	763.600	44.100	763.400	48.500	763.200	52.900	762.900	57.300	762.800	61.700
GR	762.500	66.200	762.200	70.600	762.100	75.000	761.800	79.400	761.700	83.800
GR	761.500	88.200	761.400	92.600	761.200	97.000	761.000	101.500	760.900	105.900
GR	760.800	110.300	760.600	114.700	760.300	119.100	760.100	123.500	760.000	127.900
GR	759.700	128.900	759.500	129.900	759.300	130.800	759.100	131.800	758.900	132.800
GR	758.700	133.700	758.400	134.700	758.200	135.700	758.000	136.600	757.800	137.600
GR	757.700	138.600	757.600	139.500	757.600	140.500	757.600	141.500	757.600	142.400
GR	757.600	143.400	757.600	144.400	757.700	145.300	757.900	146.300	758.100	147.300
GR	758.300	148.200	758.500	149.200	758.800	150.200	759.000	151.100	759.100	152.100
GR	759.300	153.100	759.600	154.000	759.800	155.000	760.000	156.000	760.200	156.900
GR	760.400	163.400	760.500	169.900	760.700	176.400	760.900	182.900	761.000	189.400
GR	761.300	195.900	761.400	202.400	761.600	208.900	761.900	215.400	762.200	221.900
GR	762.400	228.400	762.600	234.900	762.700	241.400	762.800	247.900	763.000	254.400
GR	763.200	260.900	763.400	267.400	763.600	273.900	764.100	280.400	764.700	286.900
GR	765.200	293.400	765.800	299.900	766.300	306.400	766.800	312.900	767.400	319.400
GR	768.300	325.900	769.200	332.400	770.200	338.900	771.200	345.400	772.300	351.900
X1	537.000	90.000	115.500	144.000	275.000	250.000	262.000	0.000	0.000	0.000
GR	775.000	0.000	773.800	3.900	772.600	7.900	771.500	11.900	770.300	15.900
GR	769.200	19.900	768.000	23.800	767.000	27.800	766.200	31.800	766.000	35.800
GR	765.700	39.800	765.400	43.800	765.200	47.700	764.900	51.700	764.700	55.700
GR	764.400	59.700	764.100	63.700	763.900	67.700	763.600	71.600	763.500	75.600
GR	763.300	79.600	763.200	83.600	763.100	87.600	762.900	91.600	762.800	95.500
GR	762.700	99.500	762.500	103.500	762.300	107.500	762.100	111.500	762.000	115.500
GR	761.700	116.400	761.500	117.400	761.300	118.300	761.000	119.300	760.800	120.200
GR	760.600	121.100	760.300	122.100	760.100	123.000	759.900	124.000	759.600	124.900
GR	759.500	125.900	759.500	126.800	759.500	127.800	759.500	128.700	759.500	129.700
GR	759.500	130.600	759.500	131.600	759.600	132.500	759.900	133.500	760.100	134.400
GR	760.300	135.400	760.500	136.300	760.800	137.300	761.000	138.200	761.200	139.200
GR	761.400	140.100	761.700	141.100	761.900	142.000	762.100	143.000	762.400	144.000
GR	762.500	150.700	762.600	157.500	762.800	164.200	762.900	171.000	763.000	177.700
GR	763.200	184.500	763.300	191.200	763.500	198.000	763.800	204.700	764.100	211.500
GR	764.300	218.200	764.500	225.000	764.500	231.700	764.600	238.500	764.800	245.200
GR	765.000	252.000	765.200	258.700	765.400	265.500	765.900	272.200	766.400	279.000
GR	766.800	285.700	767.300	292.500	767.700	299.200	768.100	306.000	768.600	312.700
GR	769.700	319.500	770.700	326.200	771.800	333.000	773.000	339.700	774.200	346.500
X1	732.000	90.000	106.100	134.200	205.000	190.000	195.000	0.000	0.000	0.000
GR	776.200	0.000	775.000	3.600	773.900	7.300	772.800	10.900	771.600	14.600
GR	770.500	18.200	769.400	21.900	768.400	25.600	767.700	29.200	767.500	32.900
GR	767.200	36.500	766.900	40.200	766.600	43.900	766.300	47.500	766.100	51.200
GR	765.800	54.800	765.400	58.500	765.200	62.200	764.900	65.800	764.800	69.500

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GR	764.100	91.400	763.900	95.100	763.700	98.800	763.500	102.400	763.500	106.100
GR	763.100	107.000	762.900	108.000	762.700	108.900	762.400	109.800	762.200	110.800
GR	761.900	111.700	761.600	112.600	761.400	113.600	761.200	114.500	760.900	115.400
GR	760.800	116.400	760.800	117.300	760.800	118.300	760.800	119.200	760.800	120.100
GR	760.800	121.100	760.900	122.000	761.000	122.900	761.300	123.900	761.500	124.800
GR	761.700	125.800	762.000	126.700	762.300	127.600	762.500	128.600	762.700	129.500
GR	762.900	130.400	763.200	131.400	763.400	132.300	763.700	133.300	764.000	134.200
GR	764.000	141.100	764.100	148.100	764.300	155.000	764.400	162.000	764.400	168.900
GR	764.600	175.800	764.700	182.800	764.900	189.700	765.200	196.600	765.500	203.600
GR	765.700	210.500	765.800	217.500	765.800	224.400	765.900	231.300	766.100	238.300
GR	766.300	245.200	766.500	252.100	766.700	259.100	767.200	266.000	767.600	273.000
GR	767.900	279.900	768.400	286.800	768.700	293.800	769.000	300.700	769.500	307.600
GR	770.700	314.600	771.800	321.500	773.000	328.500	774.300	335.400	775.600	342.300
X1	927.000	90.000	96.700	124.500	205.000	190.000	195.000	0.000	0.000	0.000
GR	777.500	0.000	776.300	3.300	775.200	6.600	774.100	10.000	773.000	13.300
GR	771.900	16.600	770.800	20.000	769.900	23.300	769.300	26.600	769.000	30.000
GR	768.700	33.300	768.400	36.600	768.100	40.000	767.800	43.300	767.500	46.700
GR	767.200	50.000	766.800	53.300	766.600	56.700	766.200	60.000	766.100	63.300
GR	766.000	66.700	765.900	70.000	765.800	73.300	765.700	76.700	765.600	80.000
GR	765.500	83.400	765.300	86.700	765.200	90.000	765.000	93.400	765.000	96.700
GR	764.600	97.600	764.400	98.600	764.100	99.500	763.900	100.400	763.600	101.300
GR	763.300	102.200	763.000	103.200	762.800	104.100	762.500	105.000	762.200	105.900
GR	762.200	106.900	762.200	107.800	762.200	108.700	762.200	109.600	762.200	110.600
GR	762.200	111.500	762.300	112.400	762.500	113.300	762.700	114.300	763.000	115.200
GR	763.200	116.100	763.500	117.000	763.800	118.000	764.000	118.900	764.200	119.800
GR	764.500	120.700	764.800	121.700	765.000	122.600	765.300	123.500	765.500	124.500
GR	765.600	131.600	765.700	138.700	765.800	145.800	765.900	153.000	765.900	160.100
GR	766.000	167.200	766.100	174.300	766.300	181.500	766.600	188.600	766.900	195.700
GR	767.100	202.800	767.200	210.000	767.200	217.100	767.300	224.200	767.400	231.300
GR	767.700	238.500	767.900	245.600	768.100	252.700	768.500	259.800	768.800	267.000
GR	769.100	274.100	769.500	281.200	769.700	288.300	770.000	295.500	770.400	302.600
GR	771.700	309.700	772.900	316.800	774.200	324.000	775.600	331.100	777.100	338.200
X1	1122.000	90.000	87.300	114.700	205.000	190.000	195.000	0.000	0.000	0.000
GR	778.700	0.000	777.600	3.000	776.500	6.000	775.500	9.000	774.400	12.000
GR	773.300	15.000	772.200	18.000	771.400	21.000	770.900	24.100	770.600	27.100
GR	770.200	30.100	769.900	33.100	769.600	36.100	769.200	39.100	768.900	42.100
GR	768.600	45.100	768.200	48.200	767.900	51.200	767.600	54.200	767.500	57.200
GR	767.400	60.200	767.300	63.200	767.200	66.200	767.100	69.200	767.000	72.300
GR	766.900	75.300	766.800	78.300	766.700	81.300	766.500	84.300	766.500	87.300
GR	766.100	88.200	765.900	89.100	765.600	90.100	765.300	91.000	765.000	91.900
GR	764.700	92.800	764.400	93.700	764.200	94.600	763.900	95.500	763.600	96.400
GR	763.600	97.400	763.600	98.300	763.600	99.200	763.600	100.100	763.600	101.000
GR	763.600	101.900	763.600	102.800	763.900	103.700	764.200	104.700	764.400	105.600
GR	764.700	106.500	765.000	107.400	765.300	108.300	765.500	109.200	765.800	110.100
GR	766.100	111.000	766.300	112.000	766.600	112.900	766.900	113.800	767.100	114.700
GR	767.200	122.000	767.200	129.300	767.300	136.600	767.400	144.000	767.400	151.300
GR	767.500	158.600	767.500	165.900	767.700	173.200	768.000	180.500	768.400	187.800
GR	768.500	195.100	768.600	202.500	768.600	209.800	768.600	217.100	768.800	224.400
GR	769.000	231.700	769.200	239.000	769.500	246.300	769.800	253.600	770.000	261.000
GR	770.300	268.300	770.600	275.600	770.800	282.900	770.900	290.200	771.300	297.500
GR	772.700	304.800	774.000	312.100	775.400	319.500	777.000	326.800	778.500	334.100
X1	1317.000	16.000	78.000	105.000	205.000	190.000	195.000	0.000	0.000	0.000
GR	780.000	0.000	773.000	18.000	769.000	48.000	768.000	78.000	765.000	87.000
GR	765.000	93.000	768.800	105.000	768.900	132.000	769.000	162.000	770.000	183.000
GR	770.000	213.000	771.000	243.000	771.800	273.000	772.000	291.000	776.000	312.000
GR	780.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1367.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.600	0.000
X1	1417.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.600	0.000
X1	1517.000	12.000	36.000	60.000	100.000	100.000	100.000	0.000	-1.200	0.000

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GR	771.500	60.000	772.200	90.000	773.000	120.000	773.700	150.000	774.000	180.000
GR	774.300	210.000	775.000	240.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1617.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.200	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1977.000	18.000	96.000	123.000	100.000	500.000	360.000	0.000	0.000	0.000
GR	790.000	0.000	785.000	30.000	780.000	45.000	776.500	75.000	774.500	96.000
GR	771.300	102.000	771.300	108.000	774.000	117.000	774.500	123.000	775.200	150.000
GR	776.000	180.000	776.600	210.000	777.000	240.000	777.600	270.000	778.000	288.000
GR	780.000	303.000	783.000	330.000	785.000	345.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2237.000	13.000	63.000	87.000	300.000	200.000	260.000	0.000	0.000	0.000
GR	790.000	0.000	780.000	15.000	777.800	45.000	776.300	63.000	773.500	69.000
GR	773.500	75.000	776.500	87.000	777.000	105.000	777.500	135.000	778.000	165.000
GR	779.200	195.000	780.300	219.000	786.000	246.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	55.000	95.000	0.000	0.000	0.000
X1	2492.000	0.000	0.000	0.000	300.000	200.000	255.000	0.000	.600	0.000
ET	0.000	6.100	6.100	6.100	0.000	60.000	90.000	0.000	0.000	0.000
X1	2512.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.040	0.000
ET	0.000	6.100	6.100	6.100	0.000	62.000	87.000	0.000	0.000	0.000
X1	2522.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.020	0.000
ET	0.000	6.100	6.100	6.100	0.000	65.000	85.000	0.000	0.000	0.000
X1	2532.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.020	0.000
ET	0.000	6.100	6.100	6.100	0.000	66.000	84.000	0.000	0.000	0.000
X1	2536.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	67.000	83.000	0.000	0.000	0.000
X1	2540.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	.010	0.000
X1	2544.000	11.000	94.000	108.000	4.000	4.000	4.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000
GR	797.400	0.000	791.900	54.000	781.600	79.000	778.000	87.000	775.100	94.000
GR	774.200	101.000	775.700	108.000	778.000	114.000	780.500	144.000	787.000	194.000
GR	790.000	245.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2545.000	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	785.000	785.000	0.000
SB	0.000	1.700	3.020	0.000	11.330	0.000	112.130	0.000	774.200	774.200
X1	2575.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	784.100	787.200	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	787.200	787.200	0.000
BT	13.000	0.000	797.400	0.000	54.000	791.900	0.000	94.000	788.400	0.000
BT	94.000	788.400	777.100	95.400	788.400	781.800	98.700	788.400	784.100	103.300
BT	788.400	784.100	106.600	788.400	781.800	108.000	788.400	777.100	108.000	788.400
BT	0.000	144.000	786.900	0.000	194.000	787.000	0.000	245.000	790.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2576.000	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	787.200	787.200	0.000
ET	0.000	6.100	6.100	6.100	0.000	90.000	112.000	0.000	0.000	0.000
X1	2580.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	.070	0.000
X1	2960.000	17.000	120.000	144.000	300.000	500.000	380.000	0.000	0.000	0.000
GR	800.000	0.000	794.000	24.000	789.000	45.000	786.000	75.000	785.000	99.000

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GR	784.000	120.000	781.000	126.000	781.000	132.000	78[illegible]	1[illegible].000	784.000	1[illegible].000
GR	785.000	189.000	786.000	213.000	787.000	234.000	790.000	264.000	791.200	279.000
GR	797.000	309.000	800.000	324.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3160.000	0.000	0.000	0.000	225.000	170.000	200.000	0.000	1.200	0.000
X1	3360.000	13.000	84.000	108.000	225.000	170.000	200.000	0.000	-1.200	0.000
GR	794.000	0.000	789.000	12.000	788.200	42.000	787.500	72.000	787.200	84.000
GR	784.500	90.000	784.500	96.000	786.000	105.000	787.500	108.000	789.000	138.000
GR	791.000	168.000	791.800	183.000	800.000	213.000	0.000	0.000	0.000	0.000
X1	3560.000	0.000	0.000	0.000	225.000	170.000	200.000	0.000	1.200	0.000
X1	4040.000	17.000	62.000	82.000	450.000	500.000	480.000	0.000	0.000	0.000
GR	803.000	0.000	795.500	18.000	791.300	28.000	791.100	48.000	791.000	58.000
GR	791.000	62.000	788.700	70.000	788.700	74.000	791.000	82.000	791.300	98.000
GR	791.500	118.000	792.000	138.000	792.500	158.000	794.000	168.000	794.500	178.000
GR	795.500	198.000	797.500	210.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4810.000	19.000	64.000	84.000	700.000	850.000	770.000	0.000	0.000	0.000
GR	801.000	0.000	798.200	14.000	796.000	24.000	795.500	44.000	795.000	64.000
GR	792.000	72.000	792.000	76.000	795.000	84.000	795.200	94.000	795.800	114.000
GR	796.000	134.000	796.500	154.000	797.000	174.000	797.500	194.000	798.000	214.000
GR	798.500	234.000	799.000	254.000	799.500	274.000	800.000	294.000	0.000	0.000
X1	4923.000	90.000	65.500	85.500	87.500	137.500	113.000	0.000	0.000	0.000
GR	803.200	0.000	802.700	2.200	802.100	4.500	801.600	6.700	801.000	9.000
GR	800.500	11.200	799.900	13.500	799.400	15.800	798.800	18.000	798.300	20.300
GR	797.700	22.500	797.200	24.800	797.000	27.100	796.900	29.300	796.800	31.600
GR	796.700	33.800	796.700	36.100	796.600	38.300	796.600	40.600	796.500	42.900
GR	796.500	45.100	796.400	47.400	796.300	49.600	796.300	51.900	796.200	54.200
GR	796.200	56.400	796.100	58.700	796.100	60.900	796.000	63.200	796.000	65.500
GR	795.700	66.100	795.500	66.800	795.200	67.400	795.000	68.100	794.700	68.800
GR	794.500	69.400	794.200	70.100	794.000	70.800	793.700	71.400	793.500	72.100
GR	793.200	72.800	793.000	73.400	793.000	74.100	793.000	74.800	793.000	75.400
GR	793.000	76.100	793.000	76.800	793.000	77.400	793.200	78.100	793.500	78.800
GR	793.700	79.400	794.000	80.100	794.200	80.800	794.500	81.400	794.700	82.100
GR	795.000	82.800	795.200	83.400	795.500	84.100	795.700	84.800	796.000	85.500
GR	796.100	91.700	796.200	98.000	796.400	104.200	796.600	110.500	796.700	116.700
GR	796.800	123.000	796.900	129.200	797.100	135.500	797.300	141.700	797.500	148.000
GR	797.600	154.200	797.800	160.500	797.900	166.700	798.100	173.000	798.300	179.200
GR	798.500	185.500	798.600	191.700	798.800	198.000	799.000	204.200	799.100	210.500
GR	799.300	216.700	799.500	223.000	799.700	229.200	799.900	235.500	800.000	241.700
GR	800.200	248.000	800.400	254.200	800.600	260.500	800.800	266.700	801.000	273.000
NC	.100	.100	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5035.000	90.000	67.000	87.000	87.500	137.500	112.500	0.000	0.000	0.000
GR	805.500	0.000	804.800	2.300	804.200	4.600	803.500	6.900	802.900	9.200
GR	802.200	11.500	801.600	13.800	800.900	16.100	800.300	18.400	799.600	20.700
GR	799.000	23.100	798.500	25.400	798.100	27.700	797.900	30.000	797.800	32.300
GR	797.800	34.600	797.700	36.900	797.600	39.200	797.600	41.500	797.500	43.800
GR	797.500	46.200	797.400	48.500	797.400	50.800	797.300	53.100	797.200	55.400
GR	797.200	57.700	797.100	60.000	797.100	62.300	797.000	64.600	797.000	67.000
GR	796.700	67.600	796.500	68.300	796.200	68.900	796.000	69.600	795.700	70.300
GR	795.500	70.900	795.300	71.600	795.000	72.300	794.800	72.900	794.500	73.600
GR	794.300	74.300	794.100	74.900	794.100	75.600	794.100	76.300	794.100	76.900
GR	794.100	77.600	794.100	78.300	794.100	78.900	794.300	79.600	794.500	80.300
GR	794.800	80.900	795.000	81.600	795.300	82.300	795.500	82.900	795.700	83.600
GR	796.000	84.300	796.200	84.900	796.500	85.600	796.700	86.300	797.000	87.000
GR	797.100	92.500	797.200	98.000	797.400	103.500	797.500	109.000	797.600	114.500
GR	797.800	120.000	797.900	125.500	798.100	131.000	798.300	136.500	798.500	142.000
GR	798.600	147.500	798.800	153.000	798.900	158.500	799.100	164.000	799.200	169.500
GR	799.400	175.000	799.600	180.500	799.700	186.000	799.900	191.500	800.100	197.000
GR	800.300	202.500	800.500	208.000	800.600	213.500	800.800	219.000	801.000	224.500
GR	801.200	230.000	801.400	235.500	801.600	241.000	801.800	246.500	802.000	252.000

MOORE BUSINESS FORMS, INC. 23

X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	807.700	0.000	807.000	2.300	806.200	4.700	805.500	7.000	804.700	9.400
GR	804.000	11.800	803.200	14.100	802.500	16.500	801.700	18.800	801.000	21.200
GR	800.400	23.600	799.700	25.900	799.200	28.300	798.900	30.700	798.800	33.000
GR	798.800	35.400	798.700	37.700	798.700	40.100	798.600	42.500	798.500	44.800
GR	798.500	47.200	798.400	49.600	798.400	51.900	798.300	54.300	798.200	56.600
GR	798.200	59.000	798.100	61.400	798.100	63.700	798.000	66.100	798.000	68.500
GR	797.700	69.100	797.500	69.800	797.200	70.400	797.000	71.100	796.800	71.800
GR	796.500	72.400	796.300	73.100	796.100	73.800	795.800	74.400	795.600	75.100
GR	795.300	75.800	795.100	76.400	795.100	77.100	795.100	77.800	795.100	78.400
GR	795.100	79.100	795.100	79.800	795.100	80.400	795.300	81.100	795.600	81.800
GR	795.800	82.400	796.000	83.100	796.300	83.800	796.500	84.400	796.800	85.100
GR	797.000	85.800	797.200	86.400	797.500	87.100	797.700	87.800	798.000	88.500
GR	798.100	93.200	798.200	98.000	798.300	102.700	798.400	107.500	798.500	112.200
GR	798.700	117.000	798.900	121.700	799.100	126.500	799.300	131.200	799.500	136.000
GR	799.600	140.700	799.700	145.500	799.900	150.200	800.000	155.000	800.200	159.700
GR	800.400	164.500	800.500	169.200	800.700	174.000	800.800	178.700	801.000	183.500
GR	801.200	188.200	801.400	193.000	801.600	197.700	801.800	202.500	802.000	207.200
GR	802.200	212.000	802.400	216.700	802.600	221.500	802.800	226.200	803.000	231.000
X1	5260.000	14.000	70.000	90.000	87.500	137.500	112.000	0.000	0.000	0.000
GR	810.000	0.000	803.000	20.000	800.000	30.000	799.500	50.000	799.000	70.000
GR	796.200	78.000	796.200	82.000	799.000	90.000	799.500	110.000	800.500	130.000
GR	801.200	150.000	802.000	170.000	803.000	190.000	804.000	210.000	0.000	0.000
X1	5725.000	17.000	98.000	118.000	465.000	465.000	465.000	0.000	0.000	0.000
GR	808.000	0.000	807.000	18.000	806.000	38.000	805.000	44.000	804.000	64.000
GR	803.500	78.000	803.000	98.000	800.200	106.000	800.200	110.000	803.000	118.000
GR	804.000	138.000	804.200	158.000	805.000	168.000	807.000	188.000	809.000	208.000
GR	811.000	228.000	812.500	248.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6335.000	20.000	190.000	210.000	450.000	750.000	610.000	0.000	0.000	0.000
GR	820.000	0.000	818.000	20.000	816.500	40.000	815.000	60.000	813.200	80.000
GR	812.000	100.000	811.000	110.000	810.000	130.000	808.000	146.000	807.500	156.000
GR	807.000	170.000	806.500	190.000	804.100	198.000	804.100	202.000	806.500	210.000
GR	807.000	230.000	808.000	256.000	809.500	270.000	812.000	290.000	813.500	306.000
X1	6935.000	18.000	126.000	144.000	800.000	400.000	600.000	0.000	0.000	0.000
GR	821.000	0.000	818.500	24.000	816.500	44.000	815.000	60.000	813.000	80.000
GR	811.000	100.000	810.500	112.000	810.000	126.000	808.000	132.000	808.000	136.000
GR	810.000	144.000	810.800	164.000	812.000	184.000	813.000	192.000	813.500	204.000
GR	814.500	224.000	815.800	244.000	817.000	268.000	0.000	0.000	0.000	0.000
QT	4.000	505.000	1060.000	1410.000	2000.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	110.000	161.000	0.000	0.000	0.000
X1	7235.000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	1.620	0.000
ET	0.000	6.100	6.100	6.100	0.000	113.000	157.000	0.000	0.000	0.000
X1	7250.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	.080	0.000
ET	0.000	6.100	6.100	6.100	0.000	117.000	153.000	0.000	0.000	0.000
X1	7265.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	.080	0.000
ET	0.000	6.100	6.100	6.100	0.000	120.000	151.000	0.000	0.000	0.000
X1	7275.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.050	0.000
ET	0.000	6.100	6.100	6.100	0.000	122.000	148.000	0.000	0.000	0.000
X1	7285.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.060	0.000
ET	0.000	6.100	6.100	6.100	0.000	124.000	145.000	0.000	0.000	0.000
X1	7295.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.050	0.000
NC	.100	.100	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7305.000	22.000	147.100	162.900	10.000	10.000	10.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	817.500	817.500	0.000

MOORE BUSINESS FORMS INC 21

GR	810.800	148.700	810.400	150.800	810.000	152.900	810.000	155.000	810.000	157.100
GR	810.400	159.200	810.800	161.300	811.200	162.100	812.000	162.900	827.700	200.000
GR	824.200	255.000	823.500	355.000	824.000	455.000	825.600	555.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7306.000	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	818.200	818.200	0.000
SB	0.000	2.450	3.020	0.000	12.410	0.000	122.000	0.000	810.400	810.000
X1	7388.000	22.000	147.100	162.900	82.000	82.000	82.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	820.300	823.500	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	823.500	823.500	0.000
BT	22.000	0.000	832.600	0.000	55.000	830.600	0.000	147.100	826.700	0.000
BT	147.100	826.700	813.700	147.900	826.700	815.800	148.700	826.700	817.500	150.800
BT	826.700	819.200	152.900	826.700	820.300	155.000	826.700	820.300	157.100	826.700
BT	820.300	159.200	826.700	819.200	161.300	826.700	817.500	162.100	826.700	815.800
BT	162.900	826.700	813.700	162.900	826.700	0.000	255.000	824.200	0.000	355.000
BT	823.500	0.000	455.000	824.000	0.000	555.000	825.600	0.000	655.000	827.900
BT	0.000	755.000	830.100	0.000	855.000	832.500	0.000	0.000	0.000	0.000
GR	832.600	0.000	830.600	55.000	828.700	100.000	812.400	147.100	811.600	147.900
GR	811.200	148.700	810.800	150.800	810.400	152.900	810.400	155.000	810.400	157.100
GR	810.800	159.200	811.200	161.300	811.600	162.100	812.400	162.900	827.700	200.000
GR	824.200	255.000	823.500	355.000	824.000	455.000	825.600	555.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7389.000	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	823.500	823.500	0.000
ET	0.000	6.100	6.100	6.100	0.000	137.000	173.000	0.000	0.000	0.000
X1	7399.000	9.000	142.000	170.000	10.000	10.000	10.000	0.000	0.000	0.000
GR	832.600	0.000	830.600	55.000	826.600	110.000	820.600	125.000	816.100	142.000
GR	811.600	150.000	810.430	160.000	819.200	170.000	825.000	186.000	0.000	0.000
X1	8249.000	23.000	274.500	310.000	1000.000	300.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
GR	827.700	0.000	823.000	100.000	821.700	200.000	820.900	274.500	815.100	274.500
GR	814.400	275.000	814.100	276.000	814.400	277.000	815.100	277.500	815.100	278.500
GR	814.400	279.000	814.100	280.000	814.400	281.000	815.100	281.500	813.300	300.000
GR	812.600	310.000	820.900	310.000	820.900	400.000	820.800	500.000	820.700	600.000
GR	820.900	700.000	823.200	800.000	823.500	823.000	0.000	0.000	0.000	0.000
NC	.035	.035	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8250.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
BT	27.000	0.000	827.700	0.000	100.000	823.000	0.000	200.000	821.700	0.000
BT	274.500	820.900	815.100	274.500	820.900	816.100	275.000	820.900	816.800	276.000
BT	820.900	817.100	277.000	820.900	816.800	277.500	820.900	816.100	277.500	820.900
BT	815.100	278.500	820.900	815.100	278.500	820.900	816.100	279.000	820.900	816.800
BT	280.000	820.900	817.100	281.000	820.900	816.800	281.500	820.900	816.100	281.500
BT	820.900	815.100	300.000	820.900	813.300	300.000	820.900	818.500	310.000	820.900
BT	818.500	310.000	820.900	812.600	400.000	820.900	0.000	500.000	820.800	0.000
BT	600.000	820.700	0.000	700.000	820.900	0.000	800.000	823.200	0.000	823.000
BT	823.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8280.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
NC	.100	.100	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	274.500	310.000	.050	600.000	0.000
X1	8281.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
QT	4.000	465.000	970.000	1290.000	2510.000	0.000	0.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	829.500	0.000	828.800	20.000	828.200	40.000	826.800	60.000	825.000	80.000
GR	823.200	100.000	821.800	120.000	821.000	130.000	820.000	140.000	817.000	160.000
GR	816.300	168.000	816.300	172.000	818.000	184.000	819.000	200.000	820.000	220.000
GR	822.000	240.000	824.000	260.000	826.000	280.000	828.000	300.000	830.000	320.000
X1	9436.000	15.000	130.000	150.000	405.000	405.000	405.000	0.000	0.000	0.000
GR	827.000	0.000	826.000	20.000	825.000	40.000	824.000	60.000	822.800	80.000
GR	821.800	100.000	820.500	120.000	820.000	130.000	819.000	134.000	818.300	138.000
GR	818.300	142.000	819.000	146.000	821.000	150.000	825.000	158.000	830.000	168.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	125.000	156.000	0.000	0.000	0.000
X1	9786.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.280	0.000
NC	.085	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9806.000	14.000	396.000	417.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	235.000	0.000	0.000	0.000	827.000	827.000	0.000
GR	835.100	0.000	833.900	100.000	832.700	200.000	831.800	300.000	823.200	375.000
GR	820.900	396.000	818.600	398.000	818.600	406.000	819.800	414.000	821.600	417.000
GR	826.200	435.000	832.700	450.000	836.300	500.000	837.000	550.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9807.000	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	235.000	0.000	0.000	0.000	827.000	827.000	0.000
SB	0.000	3.170	3.020	0.000	14.140	0.000	127.230	0.000	818.800	818.600
X1	9937.000	21.000	395.500	416.500	130.000	130.000	130.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	827.800	831.800	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	235.000	0.000	0.000	0.000	831.800	831.800	0.000
BT	19.000	0.000	835.100	0.000	100.000	833.900	0.000	200.000	832.700	0.000
BT	300.000	831.800	0.000	395.500	832.900	0.000	395.500	832.900	825.100	397.700
BT	832.900	827.300	400.000	832.900	827.800	402.300	832.900	827.300	404.500	832.900
BT	825.100	407.500	832.900	825.100	409.700	832.900	827.300	412.000	832.900	827.800
BT	414.300	832.900	827.300	416.500	832.900	825.100	416.500	832.900	0.000	450.000
BT	834.700	0.000	500.000	836.300	0.000	550.000	837.000	0.000	0.000	0.000
GR	835.100	0.000	833.900	100.000	832.700	200.000	831.800	300.000	823.200	375.000
GR	821.500	395.500	819.300	397.700	818.800	400.000	819.300	402.300	821.500	404.500
GR	825.100	404.500	825.100	407.500	821.500	407.500	819.300	409.700	818.800	412.000
GR	819.300	414.300	821.500	416.500	826.200	435.000	832.700	450.000	836.300	500.000
GR	837.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9938.000	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	235.000	0.000	0.000	0.000	831.800	831.800	0.000
ET	0.000	6.100	6.100	6.100	0.000	393.000	420.000	0.000	0.000	0.000
X1	9941.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
NC	.120	.120	.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10518.000	23.000	96.000	112.000	397.000	797.000	577.000	0.000	0.000	0.000
GR	834.000	0.000	827.000	6.000	823.000	10.000	823.000	26.000	823.000	46.000
GR	823.000	66.000	822.500	86.000	822.200	96.000	821.000	102.000	820.300	106.000
GR	822.800	112.000	822.800	126.000	822.800	146.000	822.800	166.000	823.200	186.000
GR	824.000	206.000	824.500	216.000	825.000	226.000	825.500	231.000	826.500	236.000
GR	828.000	246.000	830.000	256.000	832.000	266.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	.300	.500	0.000	0.000	0.000	0.000	0.000
UT	4.000	465.000	970.000	1290.000	2510.000	0.000	0.000	0.000	0.000	0.000
X1	11168.000	12.000	283.000	300.000	600.000	600.000	650.000	0.000	0.000	0.000
GR	844.900	0.000	843.300	100.000	836.800	200.000	826.600	283.000	823.500	286.000
GR	823.900	292.000	823.300	296.000	825.800	300.000	825.400	400.000	830.400	500.000
GR	833.200	600.000	834.800	700.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11743.000	10.000	141.000	182.000	450.000	500.000	575.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	822.400	180.000	823.800	182.000	831.100	240.000	830.500	340.000	831.900	440.000
SB	0.000	1.000	3.080	0.000	.010	0.000	.010	0.000	823.300	821.000
X1	11756.000	13.000	141.000	182.000	13.000	13.000	13.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	822.000	826.500	0.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	830.900	0.000	40.000	830.900	0.000	140.000	831.200	0.000
BT	141.000	831.200	0.000	142.000	826.500	0.000	160.000	826.500	0.000	182.000
BT	826.500	0.000	182.000	831.100	0.000	183.000	831.100	0.000	240.000	831.100
BT	0.000	340.000	830.500	0.000	440.000	831.900	0.000	0.000	0.000	0.000
GR	830.900	0.000	830.900	40.000	823.800	140.000	823.800	141.000	823.800	142.000
GR	823.300	150.000	823.600	160.000	823.800	165.000	823.800	182.000	823.800	183.000
GR	831.100	240.000	830.500	340.000	831.900	440.000	0.000	0.000	0.000	0.000
NC	.090	.095	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12326.000	13.000	252.000	270.000	700.000	400.000	570.000	0.000	0.000	0.000
GR	846.200	0.000	838.500	100.000	828.300	200.000	827.800	250.000	825.300	252.000
GR	823.900	257.000	825.500	266.000	828.600	270.000	828.400	300.000	833.000	400.000
GR	833.200	500.000	834.100	580.000	842.400	605.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12951.000	12.000	165.000	187.000	630.000	620.000	625.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	848.800	0.000	837.600	65.000	828.700	165.000	825.000	168.000	823.800	176.000
GR	826.100	183.000	829.100	187.000	831.000	265.000	832.900	365.000	830.200	465.000
GR	831.200	507.000	839.000	535.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	140.000	215.000	0.000	0.000	0.000
X1	13131.000	0.000	0.000	0.000	300.000	120.000	180.000	0.000	1.930	0.000
ET	0.000	6.100	6.100	6.100	0.000	150.000	205.000	0.000	0.000	0.000
X1	13171.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.430	0.000
ET	0.000	6.100	6.100	6.100	0.000	154.000	199.000	0.000	0.000	0.000
X1	13191.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
ET	0.000	6.100	6.100	6.100	0.000	159.000	194.000	0.000	0.000	0.000
X1	13211.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	13231.000	22.000	395.000	420.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	835.500	835.500	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	834.000	350.000
GR	828.700	395.000	827.200	396.700	826.800	400.000	827.200	403.300	828.700	405.000
GR	831.300	405.000	831.400	410.000	828.800	410.000	827.300	411.700	826.900	415.000
GR	827.300	418.300	828.800	420.000	834.000	460.000	843.600	500.000	843.300	600.000
GR	843.000	700.000	842.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13232.000	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	835.500	835.500	0.000
SB	0.000	1.820	3.000	0.000	15.830	0.000	101.630	0.000	827.200	826.800
X1	13410.000	22.000	395.000	420.000	178.000	178.000	178.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	833.900	842.900	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	842.900	842.900	0.000
BT	20.000	0.000	844.800	0.000	100.000	844.600	0.000	200.000	844.300	0.000
BT	300.000	843.700	0.000	395.000	843.500	0.000	395.000	843.500	831.700	396.700
BT	843.500	833.200	400.000	843.500	833.600	403.300	843.500	833.200	405.000	843.500
BT	831.700	410.000	843.500	832.000	411.700	843.500	833.500	415.000	843.500	833.900
BT	418.300	843.500	833.500	420.000	843.500	832.000	420.000	843.500	0.000	500.000
BT	843.600	0.000	600.000	843.300	0.000	700.000	843.000	0.000	800.000	842.900
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	834.000	350.000
GR	829.100	395.000	827.600	396.700	827.200	400.000	827.600	403.300	829.100	405.000
GR	831.700	405.000	832.000	410.000	829.400	410.000	827.900	411.700	827.500	415.000
GR	827.900	418.300	829.400	420.000	834.000	460.000	843.600	500.000	843.300	600.000

MOORE BUSINESS FORMS, INC 73

GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13411.000	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	842.900	842.900	0.000
ET	0.000	6.100	6.100	6.100	0.000	342.000	423.000	0.000	0.000	0.000
X1	13414.000	13.000	397.000	417.000	3.000	3.000	3.000	0.000	0.000	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	831.300	387.000
GR	829.200	397.000	827.300	400.000	827.200	408.000	827.300	414.000	829.200	417.000
GR	831.300	430.000	843.600	500.000	843.300	600.000	0.000	0.000	0.000	0.000
NH	4.000	.050	200.000	.095	300.000	.045	321.000	.090	600.000	0.000
X1	14514.000	14.000	300.000	321.000	1200.000	1000.000	1100.000	0.000	0.000	0.000
GR	844.500	0.000	838.600	25.000	836.700	100.000	835.000	200.000	833.400	300.000
GR	830.500	307.000	829.900	311.000	829.900	317.000	833.200	321.000	832.600	400.000
GR	833.100	434.000	844.700	464.000	845.500	500.000	846.600	600.000	0.000	0.000
QT	4.000	420.000	880.000	1170.000	2280.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15314.000	14.000	395.600	416.400	650.000	950.000	800.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	650.000	0.000	837.000	837.000	0.000
GR	845.600	0.000	844.300	100.000	843.000	200.000	839.700	300.000	834.600	375.000
GR	832.300	395.600	832.200	400.000	832.500	403.000	833.000	416.400	834.700	439.000
GR	839.800	500.000	839.900	600.000	844.500	700.000	846.100	800.000	0.000	0.000
NC	.075	.075	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15315.000	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	300.000	0.000	650.000	0.000	837.000	837.000	0.000
NC	.080	.080	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.830	3.050	0.000	14.140	0.000	86.000	0.000	832.200	832.200
X1	15382.000	14.000	395.600	416.400	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	838.200	841.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	650.000	0.000	841.700	841.700	0.000
BT	16.000	300.000	842.200	0.000	395.600	841.700	0.000	395.600	841.700	835.300
BT	396.900	841.700	837.300	400.000	841.700	838.100	403.100	841.700	837.300	404.400
BT	841.700	835.300	407.600	841.700	835.300	408.900	841.700	837.300	412.000	841.700
BT	838.100	415.100	841.700	837.300	416.400	841.700	835.300	416.400	841.700	0.000
BT	500.000	842.000	0.000	600.000	842.900	0.000	650.000	843.700	0.000	0.000
GR	845.600	0.000	844.300	100.000	843.000	200.000	839.700	300.000	839.600	375.000
GR	832.300	395.600	832.200	400.000	832.500	403.000	833.000	416.400	839.700	439.000
GR	839.800	500.000	839.900	600.000	844.500	700.000	846.100	800.000	0.000	0.000
NC	.075	.065	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15383.000	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	300.000	0.000	650.000	0.000	841.700	841.700	0.000
X1	15683.000	17.000	200.000	256.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	0.000	0.000	838.500	838.500	0.000
GR	844.200	0.000	844.100	100.000	842.800	200.000	841.200	200.000	834.400	214.000
GR	834.400	215.000	832.800	225.000	832.800	237.000	833.500	239.000	833.500	240.000
GR	840.000	255.000	840.000	256.000	841.300	256.000	842.200	300.000	842.600	400.000
GR	843.500	500.000	847.200	570.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.055	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15684.000	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	100.000	0.000	0.000	0.000	838.500	838.500	0.000
BT	18.000	0.000	844.200	0.000	100.000	844.100	0.000	200.000	842.800	0.000
BT	200.000	842.800	841.500	214.000	842.400	841.100	214.000	842.400	834.400	215.000
BT	842.400	834.400	215.000	842.400	841.100	239.000	841.800	840.500	239.000	841.800
BT	833.500	240.000	841.800	833.500	240.000	841.800	840.500	256.000	841.300	840.000
BT	256.000	841.300	0.000	300.000	842.200	0.000	400.000	842.600	0.000	500.000
BT	843.500	0.000	570.000	847.200	0.000	0.000	0.000	0.000	0.000	0.000
X1	15689.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000

MOORE BUSINESS FORMS INC 23

[illegible]	0.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.0	0.0	0.00	[illegible]
X3	10.000	0.000	0.000	100.000	0.000	0.000	0.000	841.300	841.300	0.000
NC	.062	.062	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	0.000	200.000	256.000	700.000	400.000	0.000
X1	15690.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NH	5.000	.090	465.000	.055	481.000	.035	493.000	.015	495.000	.090
NH	720.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16190.000	15.000	465.000	520.000	400.000	700.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	843.000	0.000	841.600	65.000	839.900	165.000	840.100	265.000	842.600	365.000
GR	842.600	465.000	833.700	481.000	833.800	493.000	833.000	499.000	832.600	499.000
GR	833.000	503.000	842.600	520.000	843.300	565.000	844.300	665.000	844.400	720.000
NC	.060	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	495.700	516.300	460.000	570.000	0.000
X1	16890.000	16.000	485.000	529.000	720.000	680.000	700.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.000	485.000	831.200	497.000	830.700	507.000	831.000	512.000	833.000	515.000
GR	843.000	529.000	843.100	600.000	843.100	700.000	843.300	800.000	843.700	900.000
GR	843.800	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	.010	390.000	695.000	1810.000	0.000	0.000	0.000	0.000	0.000
X1	16891.000	14.000	495.700	516.300	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	830.700	495.700	843.300	495.710	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
X1	17094.000	14.000	495.700	516.300	203.000	203.000	203.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	831.600	495.700	843.300	495.710	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
QT	4.000	420.000	880.000	1170.000	2280.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.070	.046	0.000	.500	0.000	0.000	0.000	0.000	0.000
X1	17095.000	24.000	495.700	516.300	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	460.000	0.000	570.000	0.000	841.000	841.000	0.000
X5	4.000	840.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	832.900	495.700	832.200	497.000	831.900	500.000	832.200	503.000
GR	832.900	504.300	834.900	504.300	834.600	507.700	832.600	507.700	831.900	509.000
GR	831.600	512.000	831.900	515.000	832.600	516.300	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
X1	17895.000	16.000	283.000	300.000	900.000	700.000	800.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	210.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	844.100	0.000	841.000	100.000	842.700	120.000	841.100	139.000	843.000	145.000
GR	844.400	200.000	842.500	255.000	837.100	283.000	837.000	286.000	837.600	291.000
GR	843.800	300.000	845.100	400.000	842.500	453.000	843.900	475.000	844.100	500.000
GR	845.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.055	215.000	.090	230.000	.045	241.000	.090	255.000	.065
NH	470.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18395.000	21.000	230.000	241.000	485.000	515.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	290.000	0.000	0.000	0.000	0.000
GR	849.300	0.000	846.700	30.000	844.300	50.000	845.800	70.000	844.200	88.000
GR	846.600	105.000	847.200	130.000	845.900	215.000	841.800	230.000	839.600	232.000
GR	839.500	234.000	839.800	238.000	842.300	241.000	844.600	255.000	846.700	330.000
GR	845.500	386.000	844.600	390.000	846.000	410.000	844.600	428.000	846.800	436.000
GR	847.900	470.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MOORE BUSINESS FORMS, INC 23

X1	18895.000	22.000	295.700	311.700	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	220.000	0.000	360.000	0.000	848.000	848.000	0.000
GR	849.400	0.000	847.500	100.000	847.500	122.000	847.700	200.000	848.000	295.700
GR	841.200	295.700	840.500	297.000	840.200	300.000	840.500	303.000	841.200	304.300
GR	843.200	304.300	844.700	306.300	842.700	306.300	841.500	307.100	841.000	309.000
GR	841.500	310.900	842.700	311.700	848.000	311.700	847.200	400.000	847.200	500.000
GR	847.500	555.000	847.800	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18846.000	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	220.000	0.000	360.000	0.000	848.000	848.000	0.000
BT	20.000	0.000	849.400	0.000	100.000	847.500	0.000	122.000	847.500	0.000
BT	200.000	847.700	0.000	295.700	848.000	0.000	295.700	848.000	843.200	297.000
BT	848.000	845.100	300.000	848.000	846.100	303.000	848.000	845.100	304.300	848.000
BT	843.200	306.300	848.000	844.700	307.100	848.000	845.900	309.000	848.000	846.400
BT	310.900	848.000	845.900	311.700	848.000	844.700	311.700	848.000	0.000	400.000
BT	847.200	0.000	500.000	847.200	0.000	555.000	847.500	0.000	600.000	847.800
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18896.000	22.000	295.700	311.700	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	220.000	0.000	360.000	0.000	848.500	848.500	0.000
BT	20.000	0.000	849.400	0.000	100.000	847.500	0.000	122.000	847.500	0.000
BT	200.000	847.700	0.000	295.700	848.000	0.000	295.700	848.000	843.400	297.000
BT	848.000	845.300	300.000	848.000	846.300	303.000	848.000	845.300	304.300	848.000
BT	843.400	306.300	848.000	844.700	307.100	848.000	845.900	309.000	848.000	846.400
BT	310.900	848.000	845.900	311.700	848.000	844.700	311.700	848.000	0.000	400.000
BT	847.200	0.000	500.000	847.200	0.000	555.000	847.500	0.000	600.000	847.800
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	849.400	0.000	847.500	100.000	847.500	122.000	847.700	200.000	848.000	295.700
GR	841.400	295.700	840.700	297.000	840.400	300.000	840.700	303.000	841.400	304.300
GR	843.400	304.300	844.700	306.300	842.700	306.300	841.500	307.100	841.000	309.000
GR	841.500	310.900	842.700	311.700	848.000	311.700	847.200	400.000	847.200	500.000
GR	847.500	555.000	847.800	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18897.000	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	220.000	0.000	360.000	0.000	848.500	848.500	0.000
X1	19547.000	14.000	255.000	297.000	630.000	670.000	650.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	305.000	0.000	0.000	0.000	0.000
GR	855.200	0.000	855.500	70.000	854.000	110.000	852.200	155.000	849.800	205.000
GR	847.700	255.000	844.800	267.000	842.700	269.000	842.600	274.000	842.700	280.000
GR	847.400	297.000	847.900	305.000	848.300	335.000	847.500	405.000	0.000	0.000
X1	19877.000	17.000	296.400	312.600	400.000	300.000	330.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	250.000	0.000	380.000	0.000	849.000	849.000	0.000
GR	852.100	0.000	850.400	100.000	850.100	140.000	849.900	200.000	845.900	295.000
GR	846.900	296.400	844.700	296.400	844.100	298.000	844.100	302.000	844.600	305.400
GR	844.000	307.000	844.000	311.000	844.600	312.600	846.800	312.600	850.150	360.000
GR	850.200	400.000	850.000	470.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19878.000	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	250.000	0.000	380.000	0.000	849.000	849.000	0.000
SB	0.000	2.710	3.050	0.000	8.280	0.000	60.000	0.000	844.000	844.000
X1	19924.000	23.000	296.400	312.600	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	849.300	849.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	250.000	0.000	380.000	0.000	850.000	850.000	0.000
BT	14.000	250.000	849.950	0.000	250.000	849.950	0.000	295.000	850.000	0.000
BT	296.400	850.100	846.900	298.000	850.100	848.900	300.000	850.100	849.300	302.000
BT	850.100	848.900	303.600	850.100	846.900	305.400	850.100	846.800	307.000	850.100
BT	848.800	309.000	850.100	849.200	311.000	850.100	848.800	312.600	850.100	846.800
BT	380.000	850.170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	852.100	0.000	850.400	100.000	850.100	140.000	849.930	190.000	849.900	200.000
GR	845.900	295.000	846.900	296.400	844.700	296.400	844.100	298.000	844.100	300.000

HOOKE BUSINESS FORMS INC 23

GR	[illegible]	[illegible]	[illegible]	303.6	[illegible]	303.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	844.000	307.000	844.000	309.000	844.000	311.000	844.600	312.600	846.800	312.600
GR	850.170	380.000	850.200	400.000	850.000	470.000	0.000	0.000	0.000	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19925.000	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	250.000	0.000	380.000	0.000	850.000	850.000	0.000
X1	20275.000	11.000	217.000	240.000	350.000	350.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	325.000	0.000	0.000	0.000	0.000
GR	851.500	0.000	853.400	69.000	853.300	124.000	847.500	217.000	844.000	230.000
GR	843.500	235.000	843.800	239.000	846.500	240.000	852.600	324.000	852.500	359.000
GR	850.300	424.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20585.000	14.000	200.000	222.000	310.000	310.000	310.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	130.000	0.000	300.000	0.000	0.000	0.000	0.000
GR	853.800	0.000	855.800	72.000	855.500	96.000	855.100	120.000	851.500	135.000
GR	849.800	200.000	845.200	209.000	844.800	214.000	845.200	219.000	847.700	222.000
GR	851.700	275.000	852.900	310.000	852.900	339.000	851.600	410.000	0.000	0.000
QT	4.000	295.000	615.000	820.000	1600.000	0.000	0.000	0.000	0.000	0.000
X1	21005.000	21.000	464.000	473.000	450.000	440.000	420.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	390.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	856.400	0.000	857.300	63.000	857.000	114.000	856.000	147.000	852.200	167.000
GR	850.100	247.000	849.400	325.000	847.900	346.000	846.100	350.000	847.800	355.000
GR	850.000	377.000	849.300	457.000	847.800	464.000	845.600	465.000	845.400	468.000
GR	845.600	471.000	847.900	473.000	852.800	547.000	852.900	553.000	852.900	578.000
GR	852.500	647.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21305.000	28.000	516.800	532.200	300.000	300.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	485.000	0.000	565.000	0.000	851.000	851.000	0.000
GR	854.200	0.000	854.100	20.000	853.900	120.000	853.600	220.000	853.200	320.000
GR	853.000	420.000	852.930	485.000	847.600	516.800	846.600	518.000	846.300	519.000
GR	846.300	520.000	846.300	521.000	846.600	522.000	847.600	523.200	848.900	523.200
GR	848.800	525.800	847.500	525.800	846.500	527.000	846.500	528.000	846.500	529.000
GR	846.500	530.000	846.500	531.000	847.500	532.200	853.150	565.000	853.400	620.000
GR	853.400	700.000	853.700	820.000	853.700	920.000	0.000	0.000	0.000	0.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21306.000	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	485.000	0.000	565.000	0.000	851.000	851.000	0.000
SB	0.000	2.880	3.050	0.000	10.110	0.000	48.000	0.000	846.300	846.300
X1	21353.000	0.000	0.000	0.000	47.000	47.000	47.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	851.200	852.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	485.000	0.000	565.000	0.000	852.900	852.900	0.000
BT	12.000	485.000	852.930	0.000	516.800	852.900	848.900	518.000	852.900	850.300
BT	520.000	852.900	851.200	522.000	852.900	850.300	523.200	852.900	848.900	525.800
BT	852.900	848.800	527.000	852.900	850.200	529.000	853.000	851.100	531.000	853.000
BT	850.200	532.200	853.000	848.800	565.000	853.150	0.000	0.000	0.000	0.000
NC	.055	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21354.000	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	485.000	0.000	565.000	0.000	852.900	852.900	0.000
X1	21704.000	15.000	267.000	287.000	400.000	300.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	125.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	854.300	0.000	856.000	67.000	855.300	107.000	854.500	132.000	851.700	167.000
GR	850.600	239.000	849.000	267.000	847.500	270.000	847.200	274.000	847.600	280.000
GR	850.400	287.000	852.200	367.000	855.300	467.000	855.300	499.000	853.700	567.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22104.000	14.000	150.000	167.000	400.000	400.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	110.000	0.000	230.000	0.000	0.000	0.000	0.000
GR	854.700	0.000	854.900	67.000	854.700	105.000	852.300	150.000	849.900	151.000
GR	847.700	156.000	847.600	160.000	847.700	164.000	850.800	167.000	854.100	197.000

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X1	22194.000	28.000	452.000	467.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	415.000	0.000	505.000	0.000	852.000	852.000	0.000
GR	856.400	0.000	855.800	55.000	855.600	155.000	854.900	255.000	854.500	315.000
GR	854.300	355.000	854.240	415.000	849.000	452.000	848.000	453.000	847.600	454.000
GR	847.600	455.000	847.600	456.000	848.000	457.000	849.000	458.000	850.300	458.000
GR	850.000	461.000	848.700	461.000	847.700	462.000	847.500	463.000	847.500	464.000
GR	847.500	465.000	847.700	466.000	848.700	467.000	854.110	505.000	854.000	555.000
GR	854.300	655.000	854.700	755.000	855.000	855.000	0.000	0.000	0.000	0.000
NC	.037	.037	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22195.000	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	415.000	0.000	505.000	0.000	852.000	852.000	0.000
SB	0.000	3.450	3.050	0.000	9.780	0.000	44.000	0.000	847.500	847.500
X1	22265.000	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	852.400	854.110	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	415.000	0.000	505.000	0.000	854.200	854.200	0.000
BT	12.000	415.000	854.240	0.000	452.000	854.200	850.300	453.000	854.200	851.600
BT	455.000	854.200	852.400	457.000	854.200	851.600	458.000	854.200	850.300	461.000
BT	854.200	850.000	462.000	854.200	851.300	464.000	854.200	852.100	466.000	854.200
BT	851.300	467.000	854.200	850.000	505.000	854.110	0.000	0.000	0.000	0.000
NC	.055	.055	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22266.000	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	415.000	0.000	505.000	0.000	854.200	854.200	0.000
X1	22416.000	21.000	320.000	355.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	375.000	0.000	0.000	0.000	0.000
GR	856.000	0.000	856.600	55.000	856.800	155.000	856.000	255.000	856.200	311.000
GR	855.100	320.000	850.300	321.000	850.500	327.000	848.400	329.000	848.300	332.000
GR	848.400	336.000	850.500	341.000	850.600	343.000	855.100	355.000	855.900	380.000
GR	855.800	455.000	857.100	555.000	856.800	655.000	857.800	755.000	857.100	855.000
GR	857.000	915.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22511.000	25.000	297.000	312.000	95.000	95.000	95.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	272.000	0.000	350.000	0.000	853.000	853.000	0.000
GR	855.800	0.000	855.100	100.000	854.600	200.000	854.100	297.000	849.800	297.000
GR	848.900	298.000	848.900	300.000	848.900	302.000	849.800	303.000	851.000	303.000
GR	850.900	306.000	849.700	306.000	848.700	307.000	848.200	308.000	848.200	309.000
GR	848.200	310.000	848.700	311.000	849.700	312.000	854.100	312.000	853.900	400.000
GR	854.100	435.000	854.600	500.000	854.900	600.000	855.700	700.000	856.000	800.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22512.000	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	272.000	0.000	350.000	0.000	853.000	853.000	0.000
BT	19.000	0.000	855.800	0.000	100.000	855.100	0.000	200.000	854.600	0.000
BT	297.000	854.100	851.000	298.000	854.100	852.300	300.000	854.100	853.100	302.000
BT	854.100	852.300	303.000	854.100	851.000	306.000	854.100	850.900	307.000	854.100
BT	852.200	309.000	854.100	853.000	311.000	854.100	852.200	312.000	854.100	850.900
BT	400.000	853.900	0.000	435.000	854.100	0.000	500.000	854.600	0.000	600.000
BT	854.900	0.000	700.000	855.700	0.000	800.000	856.000	0.000	0.000	0.000
X1	22582.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	272.000	0.000	350.000	0.000	854.100	854.100	0.000
NC	.050	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22583.000	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	272.000	0.000	350.000	0.000	854.100	854.100	0.000
NH	4.000	.050	600.000	.075	689.000	.034	727.000	.055	900.000	0.000
X1	22883.000	15.000	699.000	727.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	550.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	864.400	0.000	862.700	100.000	862.100	200.000	861.600	300.000	860.100	400.000

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GR	849.900	719.000	854.300	727.000	857.600	795.000	857.700	825.000	856.800	900.000
NC	.050	.055	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23333.000	16.000	716.000	750.000	450.000	450.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	590.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	865.200	0.000	863.800	100.000	863.200	200.000	861.900	300.000	861.000	400.000
GR	859.900	500.000	859.300	600.000	858.800	700.000	858.400	716.000	850.000	730.000
GR	850.000	735.000	850.000	738.000	855.700	750.000	858.200	800.000	859.900	840.000
GR	857.700	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23833.000	19.000	875.000	912.000	480.000	550.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	800.000	0.000	930.000	0.000	0.000	0.000	0.000
GR	869.600	0.000	868.900	75.000	866.600	175.000	865.600	275.000	864.200	375.000
GR	864.200	475.000	863.000	575.000	861.600	675.000	861.900	775.000	859.200	850.000
GR	858.200	875.000	852.100	891.000	851.900	896.000	852.200	899.000	856.400	912.000
GR	859.600	970.000	859.500	975.000	859.700	1010.000	858.600	1072.000	0.000	0.000
X1	24008.000	25.000	485.000	515.000	175.000	175.000	175.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	430.000	0.000	590.000	0.000	858.000	858.000	0.000
GR	866.900	0.000	865.700	100.000	863.300	200.000	862.000	300.000	860.900	400.000
GR	860.650	430.000	855.000	485.000	853.400	495.200	852.700	495.600	852.700	496.000
GR	852.700	498.000	852.700	500.000	852.700	502.000	852.700	504.000	852.700	504.400
GR	853.400	504.800	854.500	515.000	859.910	590.000	859.900	600.000	860.300	700.000
GR	861.000	800.000	862.000	900.000	863.500	1000.000	866.200	1100.000	867.000	1130.000
NC	.070	.070	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24009.000	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	430.000	0.000	590.000	0.000	858.000	858.000	0.000
SB	0.000	2.730	3.040	0.000	7.830	0.000	51.000	0.000	852.700	852.700
X1	24077.000	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	858.300	860.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	430.000	0.000	590.000	0.000	860.100	860.100	0.000
BT	11.000	430.000	860.650	0.000	485.000	860.180	0.000	495.200	860.100	854.400
BT	496.000	860.100	856.700	498.000	860.100	858.000	500.000	860.100	858.300	502.000
BT	860.100	858.000	504.000	860.100	856.700	504.800	860.100	854.400	515.000	860.090
BT	0.000	590.000	859.910	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.052	.052	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24078.000	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	430.000	0.000	590.000	0.000	860.100	860.100	0.000
NC	.057	.057	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24358.000	13.000	211.000	223.000	280.000	280.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	65.000	0.000	370.000	0.000	0.000	0.000	0.000
GR	861.100	0.000	859.900	50.000	857.900	100.000	856.500	200.000	855.000	211.000
GR	852.900	214.000	852.800	217.000	852.900	219.000	855.300	223.000	858.300	300.000
GR	860.900	400.000	860.800	440.000	859.200	500.000	0.000	0.000	0.000	0.000
X1	24778.000	29.000	940.000	962.000	450.000	420.000	420.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	750.000	0.000	1100.000	0.000	857.000	857.000	0.000
GR	865.100	0.000	865.500	40.000	864.100	140.000	861.100	240.000	860.100	340.000
GR	859.500	440.000	859.700	540.000	858.200	640.000	858.100	740.000	857.500	840.000
GR	857.100	938.000	857.000	940.000	856.300	940.000	854.300	946.000	854.900	952.000
GR	856.400	952.000	856.400	954.000	855.500	954.000	856.000	959.000	856.500	962.000
GR	857.100	962.000	857.000	963.000	857.300	965.000	857.400	1040.000	857.400	1075.000
GR	860.800	1120.000	861.700	1140.000	862.100	1167.000	859.500	1240.000	0.000	0.000
NC	.050	.055	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24779.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	750.000	0.000	1100.000	0.000	857.000	857.000	0.000
BT	23.000	0.000	865.100	0.000	40.000	865.500	0.000	140.000	864.100	0.000
BT	240.000	861.100	0.000	340.000	860.100	0.000	440.000	859.500	0.000	540.000
BT	859.700	0.000	640.000	858.200	0.000	740.000	858.100	0.000	840.000	857.500
BT	0.000	938.000	857.100	0.000	940.000	857.000	856.400	952.000	857.000	85[illegible].400

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BT	[illegible]	857.0	850.40	862.00	857.100	856.300	863.0	857.0	0.00	855.000
BT	857.300	0.000	1040.000	857.400	0.000	1075.000	857.400	0.000	1120.000	860.800
BT	0.000	1140.000	861.700	0.000	1167.000	862.100	0.000	1240.000	859.500	0.000
X1	24782.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	750.000	0.000	1100.000	0.000	857.000	857.000	0.000
NC	.052	.052	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24783.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	750.000	0.000	1100.000	0.000	857.000	857.000	0.000
X1	25383.000	16.000	325.000	338.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	175.000	0.000	500.000	0.000	857.000	857.000	0.000
GR	859.600	0.000	860.600	125.000	858.100	225.000	858.300	310.000	857.900	325.000
GR	855.400	325.000	855.200	332.000	855.500	338.000	857.900	338.000	857.800	355.000
GR	856.500	425.000	856.200	505.000	857.400	525.000	860.100	569.000	861.400	625.000
GR	859.700	675.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25384.000	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	175.000	0.000	500.000	0.000	857.000	857.000	0.000
BT	13.000	0.000	859.600	0.000	125.000	860.600	0.000	225.000	858.100	0.000
BT	310.000	858.300	0.000	325.000	857.900	857.000	338.000	857.900	857.300	355.000
BT	857.800	0.000	425.000	856.500	0.000	505.000	856.200	0.000	525.000	857.400
BT	0.000	569.000	860.100	0.000	625.000	861.400	0.000	675.000	859.700	0.000
X1	25387.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	175.000	0.000	500.000	0.000	857.900	857.900	0.000
NC	.052	.052	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25388.000	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	175.000	0.000	500.000	0.000	857.900	857.900	0.000
QT	4.000	255.000	540.000	730.000	1420.000	0.000	0.000	0.000	0.000	0.000
X1	25708.000	40.000	397.000	429.000	320.000	320.000	320.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	470.000	0.000	859.000	859.000	0.000
GR	859.500	0.000	860.000	100.000	860.500	200.000	860.800	300.000	860.300	385.000
GR	855.500	397.000	855.500	398.000	855.500	400.000	855.500	402.000	855.500	403.000
GR	856.200	403.000	856.200	406.000	855.200	406.000	854.600	407.000	854.600	409.000
GR	854.600	411.000	855.200	412.000	856.200	412.000	856.200	415.000	855.200	415.000
GR	854.900	415.500	854.900	416.000	854.900	418.000	854.900	420.000	854.900	420.500
GR	855.200	421.000	856.200	421.000	856.200	423.000	855.200	423.000	854.900	423.500
GR	854.900	424.000	854.900	426.000	854.900	428.000	854.900	428.500	855.200	429.000
GR	859.900	450.000	859.500	500.000	859.500	600.000	860.000	700.000	860.300	800.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25709.000	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	300.000	0.000	470.000	0.000	859.000	859.000	0.000
BT	28.000	0.000	859.500	0.000	100.000	860.000	0.000	200.000	860.500	0.000
BT	300.000	860.800	0.000	397.000	860.300	856.200	398.000	860.300	857.700	400.000
BT	860.300	858.200	402.000	860.300	857.700	403.000	860.300	856.200	406.000	860.300
BT	856.200	407.000	860.200	857.700	409.000	860.200	858.200	411.000	860.200	857.700
BT	412.000	860.200	856.200	415.000	860.200	856.200	416.000	860.200	857.700	418.000
BT	860.200	858.200	420.000	860.100	857.700	421.000	860.100	856.200	423.000	860.100
BT	856.200	424.000	860.100	858.000	426.000	860.100	858.800	428.000	860.100	858.000
BT	429.000	860.100	856.200	500.000	859.500	0.000	600.000	859.500	0.000	700.000
BT	860.000	0.000	800.000	860.300	0.000	0.000	0.000	0.000	0.000	0.000
X1	25769.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	470.000	0.000	859.500	859.500	0.000
NC	.052	.052	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25770.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

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X3	[illegible]	0.	0.	[illegible]	0.0	[illegible]	0. 0	859.5	[illegible]	[illegible]
X5	4.000	859.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26370.000	15.000	457.000	507.000	300.000	800.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	600.000	0.000	0.000	0.000	0.000
GR	860.700	0.000	861.800	57.000	862.300	117.000	858.700	157.000	858.800	257.000
GR	859.400	357.000	859.900	457.000	856.600	472.000	856.400	480.000	855.700	485.000
GR	856.500	490.000	860.400	507.000	862.400	557.000	863.900	592.000	861.500	667.000
NC	.065	.057	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26910.000	30.000	677.000	737.000	750.000	370.000	540.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	755.000	0.000	0.000	0.000	0.000
GR	867.900	0.000	865.000	35.000	865.000	77.000	867.100	120.000	867.500	177.000
GR	865.800	277.000	864.900	377.000	862.600	477.000	861.700	577.000	861.500	677.000
GR	856.300	697.000	854.600	704.000	854.400	708.000	856.500	712.000	862.200	737.000
GR	864.100	777.000	862.200	884.000	861.600	977.000	862.100	1077.000	861.900	1177.000
GR	861.600	1277.000	861.600	1377.000	861.900	1477.000	861.300	1577.000	861.400	1677.000
GR	861.900	1777.000	862.400	1877.000	862.900	1977.000	863.400	2077.000	863.700	2177.000
X1	27260.000	26.000	659.000	709.000	350.000	350.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	750.000	0.000	0.000	0.000	0.000
GR	866.600	0.000	864.000	59.000	868.400	159.000	868.500	259.000	866.100	359.000
GR	863.000	459.000	862.700	559.000	861.500	659.000	856.900	677.000	856.200	684.000
GR	855.900	688.000	856.900	694.000	861.500	709.000	863.500	759.000	863.400	804.000
GR	861.400	866.000	862.200	959.000	860.600	1059.000	860.300	1159.000	857.200	1259.000
GR	857.200	1759.000	858.700	1764.000	858.800	1859.000	859.500	1959.000	861.400	2059.000
GR	863.600	2159.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27810.000	28.000	1500.000	1585.000	400.000	700.000	550.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1455.000	0.000	1700.000	0.000	0.000	0.000	0.000
GR	867.400	0.000	868.300	100.000	866.300	200.000	866.400	300.000	864.500	390.000
GR	866.300	500.000	865.700	600.000	866.300	700.000	866.100	800.000	866.300	900.000
GR	867.800	1000.000	867.000	1100.000	867.600	1200.000	869.200	1300.000	868.200	1400.000
GR	870.600	1500.000	866.900	1513.000	856.800	1545.000	857.100	1552.000	856.700	1558.000
GR	857.900	1564.000	862.500	1585.000	864.700	1600.000	867.500	1700.000	866.000	1810.000
GR	869.000	1900.000	868.200	1970.000	872.900	1995.000	0.000	0.000	0.000	0.000
NC	.070	.070	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28130.000	25.000	1470.000	1540.000	260.000	300.000	320.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.070	.070	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28131.000	25.000	1470.000	1540.000	1.000	1.000	1.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
SB	0.000	2.930	3.040	0.000	0.000	0.000	54.000	0.000	858.100	858.100
X1	28218.000	25.000	1470.000	1540.000	87.000	87.000	87.000	.940	0.000	0.000
X2	0.000	0.000	1.000	863.000	866.200	0.000	0.000	0.000	.940	0.000
BT	10.000	1350.000	866.400	0.000	1400.000	866.200	0.000	1470.000	866.000	0.000
BT	1495.000	866.700	861.100	1497.000	866.700	864.100	1500.000	866.700	865.100	1503.000
BT	866.800	864.100	1505.000	866.800	861.100	1540.000	867.600	0.000	1600.000	869.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000

GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.070	.070	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28219.000	25.000	1470.000	1540.000	1.000	1.000	1.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.053	.053	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	28619.000	13.000	445.000	488.000	550.000	300.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	220.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	874.900	0.000	872.400	45.000	873.000	145.000	866.300	245.000	864.400	345.000
GR	863.600	445.000	859.800	462.000	859.800	469.000	860.000	472.000	862.100	488.000
GR	863.600	545.000	869.400	590.000	875.200	645.000	0.000	0.000	0.000	0.000
NC	.052	.052	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29469.000	18.000	400.000	427.000	850.000	850.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	450.000	0.000	0.000	0.000	0.000
GR	873.200	0.000	872.500	100.000	870.600	152.000	871.600	200.000	872.100	255.000
GR	867.900	300.000	866.500	365.000	865.100	400.000	862.800	412.000	862.400	418.000
GR	862.200	420.000	862.400	423.000	864.200	427.000	865.400	440.000	866.800	500.000
GR	868.800	600.000	872.400	700.000	877.600	800.000	0.000	0.000	0.000	0.000
X1	29534.000	14.000	165.000	188.000	65.000	65.000	65.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.000	165.000	863.100	165.000
GR	862.900	169.000	862.800	171.000	863.300	175.000	862.800	179.000	862.900	181.000
GR	863.300	188.000	865.000	188.000	866.300	195.000	867.900	230.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29535.000	16.000	165.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.600	165.000	865.500	169.000
GR	864.900	169.000	864.900	171.000	865.500	171.000	865.500	175.000	865.500	179.000
GR	864.900	179.000	864.900	181.000	865.500	181.000	865.600	188.000	866.300	195.000
GR	867.900	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29536.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29537.000	14.000	165.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.600	165.000	864.100	165.000
GR	863.900	169.000	863.800	171.000	864.300	175.000	863.800	179.000	863.900	181.000
GR	864.400	188.000	865.600	188.000	866.300	195.000	867.900	230.000	0.000	0.000
X1	29687.000	17.000	49.500	68.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	870.400	0.000	869.300	26.000	868.300	49.500	866.400	49.500	866.400	51.000
GR	864.000	51.000	863.400	55.000	863.600	58.000	863.900	61.000	864.400	64.000
GR	864.900	67.000	866.200	67.000	866.200	68.500	868.100	68.500	867.800	101.000
GR	866.600	151.000	867.200	176.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29688.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	15.000	0.000	870.400	0.000	26.000	869.300	0.000	49.500	868.300	868.300
BT	49.500	869.700	868.200	51.000	869.700	868.200	55.000	869.700	868.200	58.000
BT	869.600	868.100	61.000	869.600	868.100	64.000	869.500	868.000	67.000	869.500
BT	868.000	68.500	869.500	868.000	68.500	868.100	868.100	101.000	867.800	0.000
BT	151.000	866.600	0.000	176.000	867.200	0.000	0.000	0.000	0.000	0.000

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X1	29700.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29701.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	29751.000	27.000	587.000	591.000	1.000	70.000	50.000	.870	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.000	867.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.030	.030	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29752.000	27.000	587.000	591.000	1.000	1.000	1.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.000	867.000	0.000
BT	25.000	0.000	881.200	0.000	100.000	875.600	0.000	200.000	872.000	0.000
BT	300.000	870.600	0.000	347.000	870.100	0.000	400.000	869.300	0.000	500.000
BT	868.400	0.000	587.000	867.800	864.800	587.200	867.800	865.800	587.600	867.800
BT	866.300	588.100	867.800	866.600	589.000	867.800	866.800	589.900	867.800	866.600
BT	590.400	867.800	866.300	590.800	867.800	865.800	591.000	867.800	864.800	600.000
BT	867.700	0.000	700.000	867.200	0.000	800.000	867.100	0.000	900.000	868.500
BT	0.000	970.000	870.400	0.000	1000.000	871.600	0.000	1100.000	875.800	0.000
BT	1200.000	879.500	0.000	1300.000	880.100	0.000	0.000	0.000	0.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29796.000	27.000	587.000	591.000	44.000	44.000	44.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.800	867.800	0.000
BT	25.000	0.000	881.200	0.000	100.000	875.600	0.000	200.000	872.000	0.000
BT	300.000	870.600	0.000	347.000	870.100	0.000	400.000	869.300	0.000	500.000
BT	868.400	0.000	587.000	867.800	864.800	587.200	867.800	865.800	587.600	867.800
BT	866.300	588.100	867.800	866.600	589.000	867.800	866.800	589.900	867.800	866.600
BT	590.400	867.800	866.300	590.800	867.800	865.800	591.000	867.800	864.800	600.000
BT	867.700	0.000	700.000	867.200	0.000	800.000	867.100	0.000	900.000	868.500
BT	0.000	970.000	870.400	0.000	1000.000	871.600	0.000	1100.000	875.800	0.000
BT	1200.000	879.500	0.000	1300.000	880.100	0.000	0.000	0.000	0.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29797.000	27.000	587.000	591.000	1.000	1.000	1.000	.870	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.800	867.800	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	30027.000	14.000	254.000	281.000	170.000	350.000	230.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	871.400	0.000	870.900	54.000	871.300	156.000	867.900	219.000	866.000	254.000

MOORE BUSINESS FORMS, INC 23

GR	867.100	354.000	870.600	394.000	872.100	454.000	871.800	554.000	0.000	0.000
X1	30527.000	16.000	258.000	314.000	500.000	500.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	874.200	0.000	873.100	58.000	872.500	129.000	870.400	158.000	868.100	208.000
GR	866.800	258.000	865.500	262.000	863.900	273.000	863.400	288.000	863.700	303.000
GR	864.900	307.000	868.000	314.000	870.900	358.000	874.500	408.000	874.200	458.000
GR	872.600	535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	210.000	460.000	640.000	1230.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	30927.000	21.000	261.000	288.000	400.000	400.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	877.700	0.000	874.700	61.000	872.200	161.000	869.900	236.000	868.700	261.000
GR	865.200	267.000	864.000	276.000	865.500	284.000	867.700	288.000	868.000	311.000
GR	867.500	341.000	865.500	346.000	864.000	351.000	863.700	358.000	864.100	365.000
GR	865.200	373.000	866.900	375.000	869.700	461.000	872.700	488.000	874.100	561.000
GR	874.400	647.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31227.000	26.000	500.000	509.400	400.000	200.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	850.000	0.000	868.000	868.000	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	867.400	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	867.400	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31228.000	26.000	500.000	509.400	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	850.000	0.000	868.000	868.000	0.000
BT	22.000	0.000	880.100	0.000	100.000	876.000	0.000	200.000	872.900	0.000
BT	300.000	871.300	0.000	400.000	871.900	0.000	424.000	872.200	0.000	500.000
BT	871.600	867.400	501.700	871.600	869.900	504.700	871.600	871.200	507.700	871.500
BT	869.900	509.400	871.500	867.400	585.000	870.900	0.000	600.000	870.800	0.000
BT	700.000	869.900	0.000	800.000	869.700	0.000	900.000	868.900	0.000	1000.000
BT	869.400	0.000	1100.000	871.900	0.000	1165.000	874.400	0.000	1200.000	875.900
BT	0.000	1300.000	880.900	0.000	1400.000	887.100	0.000	0.000	0.000	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	871.600	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	871.500	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31299.000	0.000	0.000	0.000	71.000	71.000	71.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	850.000	0.000	868.900	868.900	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31300.000	26.000	500.000	509.400	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	850.000	0.000	868.900	868.900	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	867.400	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	867.400	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.055	207.000	.065	322.000	.035	477.000	.065	752.000	.055
NH	932.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31850.000	27.000	322.000	477.000	470.000	650.000	550.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	650.000	0.000	0.000	0.000	0.000
GR	881.500	0.000	879.000	32.000	871.700	87.000	869.800	132.000	867.400	207.000
GR	866.800	232.000	866.700	292.000	866.000	302.000	866.000	312.000	866.100	322.000

MOORE BUSINESS FORMS, INC.

GR	865.400	372.000	865.600	382.000	865.700	392.000	866.700	432.000	867.700	477.000
GR	867.100	532.000	867.000	632.000	866.500	732.000	866.800	752.000	871.100	797.000
GR	871.100	832.000	882.700	932.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.072	.072	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	32785.000	24.000	1050.000	1072.000	935.000	935.000	935.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	825.000	0.000	1275.000	0.000	0.000	0.000	0.000
GR	886.200	0.000	883.300	20.000	872.400	100.000	870.900	200.000	869.900	300.000
GR	869.400	400.000	869.100	600.000	868.300	600.000	867.800	700.000	868.000	800.000
GR	867.900	900.000	868.300	1000.000	868.800	1050.000	868.000	1055.000	866.900	1062.000
GR	868.100	1068.000	869.000	1072.000	868.500	1100.000	868.300	1200.000	870.100	1300.000
GR	871.200	1400.000	872.400	1420.000	881.400	1440.000	884.100	1460.000	0.000	0.000
X1	33385.000	18.000	805.000	828.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	575.000	0.000	975.000	0.000	0.000	0.000	0.000
GR	885.300	0.000	875.900	45.000	874.000	100.000	872.900	200.000	871.500	300.000
GR	870.300	400.000	869.700	500.000	869.200	600.000	868.900	700.000	869.800	805.000
GR	868.500	811.000	868.100	818.000	867.500	825.000	870.100	828.000	870.200	900.000
GR	872.700	1000.000	873.900	1080.000	885.100	1120.000	0.000	0.000	0.000	0.000
NC	.065	.065	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34235.000	14.000	349.000	382.000	850.000	850.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	892.200	0.000	883.900	26.000	879.800	54.000	872.100	149.000	870.800	249.000
GR	871.700	349.000	869.200	355.000	869.000	363.000	869.000	371.000	869.100	378.000
GR	870.500	382.000	872.000	449.000	875.900	549.000	884.700	649.000	0.000	0.000
SB	0.000	1.000	3.060	0.000	.010	0.000	.010	0.000	869.000	869.000
X1	34247.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	869.000	871.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	275.000	871.000	0.000	349.000	872.000	0.000	382.000	872.000	0.000
BT	449.000	872.000	0.000	549.000	875.900	0.000	649.000	884.700	0.000	0.000
NC	.045	.060	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34997.000	10.000	86.000	110.000	750.000	750.000	750.000	0.000	0.000	0.000
GR	883.200	0.000	877.400	42.000	870.000	86.000	869.100	89.000	867.100	95.000
GR	868.900	102.000	871.800	110.000	874.000	143.000	876.800	210.000	882.200	245.000
NC	.062	.055	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	35772.000	12.000	200.000	255.000	775.000	775.000	775.000	0.000	0.000	0.000
GR	889.700	0.000	880.100	45.000	875.200	100.000	873.500	200.000	868.600	222.000
GR	868.500	225.000	869.100	232.000	874.100	255.000	875.400	300.000	876.800	380.000
GR	879.900	400.000	890.400	470.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36122.000	12.000	93.700	124.900	400.000	300.000	350.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	868.600	100.000	871.100	106.300
GR	871.100	112.300	868.600	118.600	871.100	124.900	885.800	124.900	885.800	200.000
GR	888.200	235.000	892.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36123.000	24.000	93.700	124.900	1.000	1.000	1.000	0.000	0.000	0.000
BT	24.000	0.000	887.900	0.000	93.700	885.800	0.000	93.700	885.800	871.100
BT	94.300	885.800	873.600	96.700	885.800	876.100	98.900	885.800	877.300	100.000
BT	885.800	877.300	101.100	885.800	877.300	103.800	885.800	876.100	105.700	885.800
BT	873.600	106.300	885.800	871.100	112.300	885.800	871.100	112.900	885.800	873.600
BT	114.800	885.800	876.100	117.500	885.800	877.300	118.600	885.800	877.300	119.700
BT	885.800	877.300	122.400	885.800	876.100	124.300	885.800	873.600	124.900	885.800
BT	871.100	124.900	885.800	0.000	200.000	885.800	0.000	235.000	888.200	0.000
BT	275.000	892.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	869.400	94.300	869.000	96.200
GR	868.600	98.900	868.600	100.000	868.600	101.100	869.000	103.800	869.400	105.700
GR	871.100	106.300	871.100	112.300	869.400	112.900	869.000	114.800	868.600	117.500
GR	868.600	118.600	868.600	119.700	869.000	122.400	869.400	124.300	871.100	124.900
GR	885.800	124.900	885.800	200.000	888.200	235.000	892.000	275.000	0.000	0.000

MOORE BUSINESS FORMS, INC 23

X1	36262.000	24.000	93.700	124.900	139.000	139.000	139.000	0.000	0.000	0.000
BT	24.000	0.000	887.900	0.000	93.700	885.800	0.000	93.700	885.800	871.500
BT	94.300	885.800	874.000	96.200	885.800	876.500	98.900	885.800	877.700	100.000
BT	885.800	877.700	101.100	885.800	877.700	103.800	885.800	876.500	105.700	885.800
BT	874.000	106.300	885.800	871.500	112.300	885.800	871.500	112.900	885.800	874.000
BT	114.800	885.800	876.500	117.500	885.800	877.700	118.600	885.800	877.700	119.700
BT	885.800	877.700	122.400	885.800	876.500	124.300	885.800	874.000	124.900	885.800
BT	871.500	124.900	885.800	0.000	200.000	885.800	0.000	235.000	888.200	0.000
BT	275.000	892.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.500	93.700	869.800	94.300	869.400	96.200
GR	869.000	98.900	869.000	100.000	869.000	101.100	869.400	103.800	869.800	105.700
GR	871.500	106.300	871.500	112.300	869.800	112.900	869.400	114.800	869.000	117.500
GR	869.000	118.600	869.000	119.700	869.400	122.400	869.800	124.300	871.500	124.900
GR	885.800	124.900	885.800	200.000	888.200	235.000	892.000	275.000	0.000	0.000
NC	.050	.050	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36263.000	12.000	93.700	124.900	1.000	1.000	1.000	0.000	.400	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	868.600	100.000	871.100	106.300
GR	871.100	112.300	868.600	118.600	871.100	124.900	885.800	124.900	885.800	200.000
GR	888.200	235.000	892.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36503.000	14.000	100.000	145.000	240.000	240.000	240.000	0.000	0.000	0.000
GR	889.000	0.000	887.900	4.000	879.100	35.000	876.300	74.000	873.400	100.000
GR	869.900	114.000	869.900	117.000	870.000	124.000	875.500	145.000	879.800	200.000
GR	882.700	245.000	883.700	400.000	893.400	446.000	894.000	500.000	0.000	0.000
QT	4.000	160.000	350.000	480.000	920.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37603.000	17.000	727.900	732.100	1100.000	1100.000	1100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	869.800	727.900
GR	869.400	730.000	869.800	732.100	873.900	830.000	874.000	930.000	875.400	1030.000
GR	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37604.000	23.000	727.900	732.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
BT	23.000	0.000	881.000	0.000	30.000	879.800	0.000	55.000	879.100	0.000
BT	130.000	878.100	0.000	230.000	877.700	0.000	330.000	877.300	0.000	430.000
BT	876.000	0.000	530.000	874.400	0.000	630.000	873.700	0.000	727.900	874.100
BT	0.000	727.900	874.100	870.500	728.800	874.100	871.600	729.600	874.100	872.000
BT	730.000	874.100	872.000	730.400	874.100	872.000	731.200	874.100	871.600	732.100
BT	874.100	870.500	732.100	874.100	0.000	830.000	873.900	0.000	930.000	874.000
BT	0.000	1030.000	875.400	0.000	1130.000	877.100	0.000	1230.000	880.100	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	874.100	727.900
GR	869.800	727.900	869.400	728.800	869.400	729.600	869.400	730.000	869.400	730.400
GR	869.400	731.200	869.800	732.100	874.100	732.100	873.900	830.000	874.000	930.000
GR	875.400	1030.000	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37648.000	23.000	727.900	732.100	44.000	44.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
BT	23.000	0.000	881.000	0.000	30.000	879.800	0.000	55.000	879.100	0.000
BT	130.000	878.100	0.000	230.000	877.700	0.000	330.000	877.300	0.000	430.000
BT	876.000	0.000	530.000	874.400	0.000	630.000	873.700	0.000	727.900	874.100
BT	0.000	727.900	874.100	870.700	728.800	874.100	871.800	729.600	874.100	872.200
BT	730.000	874.100	872.200	730.400	874.100	872.200	731.200	874.100	871.800	732.100
BT	874.100	870.700	732.100	874.100	0.000	830.000	873.900	0.000	930.000	874.000
BT	0.000	1030.000	875.400	0.000	1130.000	877.100	0.000	1230.000	880.100	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	874.100	727.900
GR	870.000	727.900	869.600	728.800	869.600	729.600	869.600	730.000	869.600	730.400

MOORE BUSINESS FORMS INC. 27

GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	830.00	[illegible]	930.00
GR	875.400	1030.000	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000
NC	.070	.070	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37649.000	17.000	727.900	732.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	869.800	727.900
GR	869.600	730.000	869.800	732.100	873.900	830.000	874.000	930.000	875.400	1030.000
GR	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000	0.000	0.000
XI	37762.000	90.000	717.100	722.800	75.000	125.000	113.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	879.900	0.000	879.200	24.700	878.600	49.400	878.300	74.100	878.100	98.900
GR	878.000	123.600	878.000	148.300	878.000	173.100	878.000	197.800	877.900	222.500
GR	877.800	247.300	877.600	272.000	877.500	296.700	877.500	321.400	877.300	346.200
GR	877.100	370.900	876.900	395.600	876.700	420.400	876.300	445.100	876.000	469.800
GR	875.700	494.600	875.300	519.300	875.100	544.000	874.900	568.700	874.600	593.500
GR	874.400	618.200	873.700	642.900	873.000	667.700	872.200	692.400	871.300	717.100
GR	871.200	717.300	871.200	717.500	871.100	717.700	871.000	717.900	871.000	718.100
GR	870.900	718.300	870.900	718.400	870.900	718.600	870.800	718.800	870.800	719.000
GR	870.800	719.200	870.800	719.400	870.800	719.600	870.800	719.800	870.800	719.900
GR	870.800	720.100	870.800	720.300	870.800	720.500	870.900	720.700	870.900	720.900
GR	871.000	721.100	871.000	721.300	871.100	721.500	871.100	721.600	871.200	721.800
GR	871.200	722.000	871.300	722.200	871.300	722.400	871.300	722.600	871.400	722.800
GR	871.900	738.200	872.500	753.600	873.000	769.100	873.500	784.500	874.100	799.900
GR	874.600	815.400	874.600	830.800	874.600	846.200	874.700	861.700	874.800	877.100
GR	874.900	892.500	875.000	907.900	875.200	923.400	875.500	938.800	875.700	954.200
GR	875.900	969.700	876.300	985.100	876.600	1000.500	876.900	1016.000	877.200	1031.400
GR	877.600	1046.800	877.900	1062.300	878.300	1077.700	878.600	1093.100	879.100	1108.500
GR	879.500	1124.000	879.900	1139.400	881.000	1154.800	882.200	1170.300	883.300	1185.700
XI	37874.000	90.000	706.400	713.500	75.000	125.000	112.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	878.900	0.000	878.400	24.300	878.000	48.700	877.800	73.000	877.700	97.400
GR	877.800	121.800	877.900	146.100	878.100	170.500	878.200	194.800	878.100	219.200
GR	878.000	243.600	877.800	267.900	877.700	292.300	877.700	316.600	877.600	341.000
GR	877.600	365.400	877.500	389.700	877.300	414.100	877.100	438.400	876.800	462.800
GR	876.600	487.200	876.300	511.500	876.000	535.900	875.700	560.200	875.400	584.600
GR	875.200	609.000	874.700	633.300	874.200	657.700	873.600	682.000	872.900	706.400
GR	872.700	706.600	872.600	706.900	872.500	707.100	872.400	707.300	872.200	707.600
GR	872.100	707.800	872.100	708.100	872.100	708.300	872.100	708.500	872.100	708.800
GR	872.000	709.000	872.000	709.200	872.000	709.500	872.000	709.700	872.000	709.900
GR	872.000	710.200	872.000	710.400	872.000	710.700	872.100	710.900	872.200	711.100
GR	872.300	711.400	872.400	711.600	872.400	711.800	872.500	712.100	872.600	712.300
GR	872.700	712.600	872.800	712.800	872.900	713.000	873.000	713.300	873.000	713.500
GR	873.400	727.800	873.800	742.000	874.200	756.300	874.500	770.600	874.900	784.800
GR	875.300	799.100	875.300	813.400	875.400	827.600	875.500	841.900	875.700	856.100
GR	875.800	870.400	876.000	884.700	876.200	898.900	876.500	913.200	876.700	927.500
GR	877.000	941.700	877.400	956.000	877.800	970.300	878.200	984.500	878.600	998.800
GR	879.000	1013.100	879.400	1027.300	879.800	1041.600	880.200	1055.900	880.600	1070.100
GR	880.900	1084.400	881.300	1098.700	882.900	1112.900	884.800	1127.200	886.600	1141.500
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37987.000	90.000	695.700	704.200	75.000	125.000	113.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	877.900	0.000	877.600	23.900	877.400	47.900	877.300	71.900	877.400	95.900
GR	877.600	119.900	877.900	143.900	878.200	167.900	878.500	191.900	878.300	215.900
GR	878.100	239.900	878.000	263.800	877.800	287.800	877.900	311.800	878.000	335.800
GR	878.000	359.800	878.100	383.800	878.000	407.800	877.800	431.800	877.700	455.800
GR	877.500	479.800	877.200	503.800	876.900	527.700	876.600	551.700	876.200	575.700
GR	876.000	599.700	875.700	623.700	875.400	647.700	875.000	671.700	874.400	695.700
GR	874.200	696.000	874.000	696.200	873.900	696.500	873.700	696.800	873.500	697.100
GR	873.300	697.400	873.300	697.700	873.300	698.000	873.300	698.200	873.300	698.500
GR	873.300	698.800	873.200	699.100	873.200	699.400	873.200	699.700	873.200	699.900

MOORE BUSINESS FORMS, INC 23

GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	873.600	701.700	873.700	701.900	873.800	702.200	874.000	702.500	874.100	702.800
GR	874.200	703.100	874.300	703.400	874.500	703.700	874.600	703.900	874.700	704.200
GR	874.900	717.300	875.100	730.400	875.300	743.500	875.600	756.600	875.800	769.700
GR	876.000	782.800	876.000	795.900	876.100	809.000	876.300	822.100	876.500	835.200
GR	876.800	848.300	877.000	861.400	877.200	874.500	877.500	887.600	877.800	900.700
GR	878.000	913.800	878.500	926.900	878.900	940.000	879.400	953.100	879.900	966.200
GR	880.300	979.300	880.800	992.400	881.300	1005.500	881.700	1018.600	882.100	1031.700
GR	882.400	1044.800	882.700	1057.900	884.800	1071.000	887.400	1084.100	889.900	1097.200
X1	38099.000	18.000	685.000	695.000	75.000	125.000	112.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	876.900	0.000	876.900	85.000	878.800	185.000	878.000	285.000	878.800	385.000
GR	878.400	485.000	876.800	585.000	876.500	665.000	876.000	685.000	874.600	687.000
GR	874.500	689.000	874.500	691.000	876.400	695.000	876.800	785.000	879.100	885.000
GR	883.500	985.000	884.100	1019.000	893.200	1053.000	0.000	0.000	0.000	0.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	38599.000	19.000	616.000	637.000	400.000	600.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	881.100	0.000	878.200	16.000	878.300	116.000	880.100	216.000	880.800	316.000
GR	882.600	384.000	889.300	416.000	891.300	461.000	891.000	476.000	884.100	516.000
GR	881.600	536.000	881.300	616.000	878.800	620.000	878.800	625.000	879.100	629.000
GR	882.600	637.000	884.800	666.000	887.800	716.000	895.400	791.000	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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW POND DRAIN

4) DOCUMENT TYPE: 100-YR.

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      CITY OF FARMINGTON HILLS, FIS, 5670-03,  PM=RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      UPPER RIVER ROUGE & MINNOW POND DRAIN
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	717.760	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	0.00	0.000	0.000

23 INC 15/03/53 BUSINESS CO.

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*PROF 3

CCHV=     .100 CEHV=     .300
*SECNO 17780.000
   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

 17780.00     5.66    717.76      0.00    717.76    717.98       .22      0.00      0.00    714.50
    1900.     1020.     860.       21.      420.      177.       36.       0.        0.     715.00
     0.00      2.43      4.86      .57      .070      .045      .150     0.000    712.10    137.13
  .002686      360.      580.      180.       0         0         0      0.00    209.70    346.83

*SECNO 17938.000

3301 HV CHANGED MORE THAN HVINS

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

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 17938.00     5.14    718.14    718.14      0.00    719.55     1.41       .74       .36    714.90
    1900.     255.     1325.     320.      57.      118.      146.       1.        1.     714.90
     .00      4.50     11.19     2.19      .070      .045      .150      .046    713.00    205.15
  .017120     120.      138.      160.      20        11         0      0.00    131.47    336.61

*SECNO 18322.000

3301 HV CHANGED MORE THAN HVINS

 18322.00     6.64    721.74      0.00      0.00    721.86       .12      2.18       .13    719.20
    1900.     1318.     473.      109.      729.      100.      135.       7.        3.     719.30
      .05      1.81      4.71      .81      .070      .045      .150      .044    715.10    169.18
  .002699      418.      384.      350.       5         0         0      0.00    447.05    616.23

CCHV=     .300 CEHV=     .500
*SECNO 640.000
   640.00     7.19    723.49      0.00      0.00    723.83       .34      1.86       .11    720.00
    1900.     413.     1173.     314.      235.      202.      194.       20.       9.     720.00
      .09      1.76      5.81     1.61      .085      .042      .085      .042    716.30     23.83
  .002786      750.      640.      550.       4         0         0      0.00    243.52    267.34

*SECNO 1730.000
3280 CROSS SECTION    1730.00 EXTENDED       .70 FEET

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

 1730.00     6.50    725.70      0.00      0.00    725.90       .20      2.02       .04    721.80
    1900.     587      792       524       379       155       300       70        12     721.80
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MOORE BUSINESS FORMS INC 23

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      .16      1.67      5.12      1.75      .085      .042      .085      .048    719.20      0.00
  .002308      600.     1090.      350.         2         0         0      0.00    293.96    293.96

*SECNO 2780.000
 2780.00      6.31    728.61      0.00      0.00    728.90       .29      2.96       .05    725.30
   1900.      822.      920.      159.      474.      155.       88.       48.       19.    725.00
     .24      1.73      5.94      1.81      .090      .045      .090      .047    722.30     83.06
  .003740     1000.     1050.     1000.         2         0         0      0.00    331.09    414.14

*SECNO 3880.000
 3880.00      6.30    731.30      0.00      0.00    731.47       .17      2.54       .03    727.00
   1900.     1060.      835.        5.      631.      179.        6.       61.       24.    729.00
     .32      1.68      4.67       .83      .090      .045      .090      .050    725.00    254.94
  .002425      600.     1100.     1100.         2         0         0      0.00    301.93    556.87

*SECNO 4935.000
 4935.00      5.71    733.91      0.00      0.00    734.26       .35      2.69       .09    730.00
   1900.      677.      951.      273.      302.      150.      158.       73.       29.    730.00
     .37      2.24      6.36      1.73      .090      .045      .090      .051    728.20    106.42
  .004400      600.     1055.     1000.         1         0         0      0.00    278.25    384.66

*SECNO 5785.000
 5785.00      6.03    737.23      0.00      0.00    737.60       .37      3.34       .01    733.20
   1900.      591.     1015.      294.      299.      158.      154.       84.       34.    733.00
     .42      1.98      6.42      1.92      .090      .045      .090      .051    731.20    238.42
  .004190      700.      850.      700.         4         0         0      0.00    254.17    492.59

*SECNO 6595.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
   Q         OLOB      OCH       QROB      ALOB       ACH      AROB       VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH     XNR        WTN      ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC      ICONT      CORAR    TOPWID      ENDST

 6595.00      5.79    740.19      0.00      0.00    740.61       .41      2.98       .02    736.00
   1900.      609.     1039.      252.      283.      155.      132.       92.       37.    736.00
     .46      2.15      6.72      1.91      .090      .045      .090      .051    734.40    117.64
  .004691      450.      810.      650.         2         0         0      0.00    219.94    337.57

1490 NH CARD USED
*SECNO 7835.000

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
 7835.00      8.56    745.16      0.00      0.00    745.54       .38      4.92       .01    737.20
   1900.      453.     1281.      166.      192.      224.       53.      104.       41.    737.00
     .53      2.36      5.72      3.11      .070      .065      .070      .051    736.60    400.00
  .004051     1100.     1240.      600.         3         0         0      0.00    161.72    561.72

1490 NH CARD USED
*SECNO 7836.000

3470 ENCROACHMENT STATIONS=      400.0      650.0  TYPE=      1  TARGET=      250.000
 7836.00      8.58    745.18      0.00      0.00    745.55       .37       .00       .00    737.20
   1900.      459.     1272.      168.      192.      224.       54.      104.       41.    737.00
     .53      2.39      5.68      3.14      .045      .044      .045      .051    736.60    400.00
  .001712        1.        1.        1.         0         0         0      0.00    162.06    562.06
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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.83	3.05	0.00	19.07	0.00	129.67	0.00	736.60	736.60

*SECNO 7866.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
751.28	745.55	0.00	1256.	648.	130.	107.	742.20	742.20

3470 ENCROACHMENT STATIONS= 400.0 650.0 TYPE= 1 TARGET= 250.000

7866.00	9.01	745.61	0.00	0.00	745.89	.28	.34	0.00	737.20
1900.	529.	1190.	181.	237.	236.	76.	105.	41.	737.00
.53	2.24	5.04	2.39	.045	.044	.045	.051	736.60	400.00
.001257	30.	30.	30.	2	0	4	0.00	193.65	593.65

1490 NH CARD USED
*SECNO 7867.000

3470 ENCROACHMENT STATIONS= 400.0 650.0 TYPE= 1 TARGET= 250.000

7867.00	9.00	745.60	0.00	0.00	745.90	.29	.00	.01	737.20
1900.	507.	1219.	174.	237.	236.	76.	105.	41.	737.00
.53	2.14	5.17	2.29	.070	.060	.070	.051	736.60	400.00
.002800	1.	1.	1.	0	0	0	0.00	193.58	593.58

*SECNO 8687.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8687.00	6.41	747.71	0.00	0.00	747.94	.23	2.03	.02	743.00
1900.	821.	908.	171.	451.	172.	97.	117.	45.	743.00
.60	1.82	5.29	1.76	.080	.042	.080	.050	741.30	223.83
.002204	820.	820.	820.	2	0	0	0.00	260.89	484.72

*SECNO 9247.000

3470 ENCROACHMENT STATIONS= 182.0 527.0 TYPE= 1 TARGET= 345.000

9247.00	6.87	748.77	0.00	0.00	749.00	.23	1.06	.00	745.10
1900.	422.	963.	514.	330.	184.	305.	125.	48.	744.60
.64	1.28	5.23	1.68	.085	.042	.085	.050	741.90	182.00
.002025	500.	560.	350.	2	0	0	0.00	306.80	488.80

*SECNO 9327.000

3470 ENCROACHMENT STATIONS= 202.0 507.0 TYPE= 1 TARGET= 305.000

9327.00	6.41	748.91	0.00	0.00	749.27	.36	.20	.06	745.70
1900.	343.	1063.	495.	239.	171.	260.	126.	49.	745.20
.65	1.43	6.21	1.90	.085	.042	.085	.050	742.50	202.00
.003161	70.	80.	92.	2	0	0	0.00	286.00	488.00

*SECNO 9407.000

9407.00	5.96	749.16	0.00	0.00	749.61	.45	.29	.05	745.90
1900	338	1101	658	194	160	220	123	49	745.60

```
      .65      1.74      6.91      2.08      .085      .042      .085      .049    743.20    192.31
  .004207       70.       80.       92.         2         0         0      0.00    268.09    460.40

*SECNO 9447.000
  9447.00      5.82    749.32      0.00      0.00    749.84       .51       .19       .03    746.20
    1900.      320.     1131.      449.      175.      156.      206.      128.       50.    745.90
      .65      1.83      7.27      2.17      .090      .045      .090      .049    743.50    200.58
  .005541       35.       40.       46.         1         0         0      0.00    259.42    459.99

*SECNO 9487.000
    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

  9487.00      5.74    749.54      0.00      0.00    750.09       .56       .24       .02    746.50
    1900.      308.     1151.      441.      163.      153.      198.      129.       50.    746.20
      .65      1.89      7.52      2.23      .090      .045      .090      .049    743.80    205.58
  .006069       35.       40.       46.         1         0         0      0.00    254.17    459.75
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00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW POND DRAIN

4) DOCUMENT TYPE: 10-YR

00BREAK00

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

T1      CITY OF FARMINGTON HILLS, 5670-03,   PM = RICHARD ZANOTTI
T2      10-YEAR FLOOD
T3      UPPER RIVER ROUGE & MINNOW POND DRAIN

J1  ICHECK    INQ     NINV     IDIR     STRT    METRIC    HVINS     O      WSEL     FQ

      -1.      2.       0.       0.  0.000000    0.00      0.0      0.   715.430   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN     ALLDC    IBW    CHNIM   ITRACE

    1.000    0.000   -1.000    0.000    0.000   0.000   0.000   0.000   0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38.000   39.000   40.000   41.000   42.000   43.000   1.000   10.000   11.000   12.000

    14.000    8.000    4.000    0.000    0.000    0.000   0.000    0.000    0.000    0.000

NC    .070     .150     .045     .100     .300    0.000   0.000    0.000    0.000    0.000
QT   4.000  670.000 1400.000 1900.000 3600.000    0.000   0.000    0.000    0.000    0.000

X1  17780.000   21.000  272.000  308.000  360.000  180.000  580.000    0.000    0.000    0.000
GR    725.000    0.000  721.700  110.000  721.000  120.000  719.400  130.000  717.100  140.000
GR    716.000  150.000  714.300  160.000  713.900  170.000  713.600  180.000  715.000  240.000
GR    714.500  272.000  712.900  274.000  712.100  290.000  712.900  301.000  715.000  308.000
GR    717.100  320.000  717.100  340.000  720.000  370.000  719.000  380.000  724.000  400.000
GR    725.000  405.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1  17938.000   12.000  235.000  263.000  120.000  160.000  138.000    0.000    0.000    0.000
GR    725.000    0.000  720.000  191.000  715.000  229.000  714.900  235.000  713.500  241.000
GR    713.000  243.000  713.900  247.000  713.400  252.000  714.900  263.000  715.000  282.000
GR    720.000  369.000  725.000  395.000    0.000    0.000    0.000    0.000    0.000    0.000

X1  18322.000   10.000  523.000  543.000  418.000  350.000  384.000    0.000    0.000    0.000
GR    750.000    0.000  725.000  130.000  720.000  190.000  719.200  523.000  715.300  530.000
GR    715.100  535.000  719.300  543.000  720.000  602.000  725.000  643.000  750.000  775.000
NC       .085     .085     .042     .300     .500    0.000   0.000    0.000    0.000    0.000

X1    640.000   21.000  124.000  160.000  750.000  550.000  640.000    0.000    0.000    0.000
GR    725.000    0.000  723.800   20.000  722.200   40.000  721.000   60.000  720.800   80.000
GR    720.500  100.000  720.100  120.000  720.000  124.000  718.000  130.000  717.000  134.000
GR    716.300  140.000  716.300  142.000  718.000  150.000  720.000  160.000  720.500  180.000
GR    721.200  200.000  722.000  220.000  722.500  240.000  723.200  260.000  724.000  280.000
GR    725.000  300.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

X1   1730.000   22.000  145.000  174.000  600.000  350.000 1090.000    0.000    0.000    0.000
GR    725.000    0.000  724.500   20.000  724.200   40.000  724.000   60.000  723.000   80.000
GR    722.300  100.000  722.000  120.000  721.800  140.000  721.800  145.000  721.000  150.000
GR    719.200  158.000  719.200  162.000  721.800  174.000  721.900  190.000  722.000  200.000
GR    722.500  220.000  723.000  260.000  724.000  260.000  725.000  280.000  726.000  300.000
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GR	726.500	320.000	727.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2780.000	14.000	342.000	372.000	1000.000	1000.000	1050.000	0.000	0.000	0.000
GR	730.000	0.000	729.000	60.000	728.000	120.000	727.000	180.000	726.500	240.000
GR	725.700	300.000	725.300	330.000	725.300	342.000	722.300	357.000	722.300	363.000
GR	725.000	372.000	726.000	390.000	732.500	450.000	734.000	468.000	0.000	0.000
X1	3880.000	16.000	516.000	552.000	600.000	1100.000	1100.000	0.000	0.000	0.000
GR	740.000	0.000	737.500	60.000	735.000	120.000	733.000	168.000	732.200	210.000
GR	731.000	270.000	730.000	318.000	729.000	360.000	728.200	420.000	727.500	480.000
GR	727.000	516.000	725.000	540.000	729.000	552.000	737.500	570.000	740.000	576.000
GR	750.000	588.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4935.000	14.000	225.000	255.000	600.000	1000.000	1055.000	0.000	0.000	0.000
GR	740.000	0.000	737.000	60.000	733.000	120.000	731.000	162.000	730.200	210.000
GR	730.000	225.000	728.200	237.000	728.200	243.000	730.000	255.000	731.000	270.000
GR	732.700	300.000	733.700	360.000	734.200	420.000	735.200	480.000	0.000	0.000
X1	5785.000	17.000	390.000	420.000	700.000	700.000	850.000	0.000	0.000	0.000
GR	750.000	0.000	748.000	18.000	745.000	48.000	743.000	78.000	740.000	120.000
GR	738.500	180.000	737.200	240.000	735.700	300.000	734.000	360.000	733.200	390.000
GR	731.200	405.000	731.200	411.000	733.000	420.000	736.500	480.000	740.000	540.000
GR	745.000	600.000	750.000	660.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6595.000	13.000	246.000	276.000	450.000	650.000	810.000	0.000	0.000	0.000
GR	750.000	0.000	745.000	60.000	740.000	120.000	738.000	180.000	736.000	246.000
GR	734.400	261.000	734.400	267.000	736.000	276.000	740.000	336.000	743.000	360.000
GR	750.000	408.000	750.000	468.000	750.000	528.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.065	527.300	.070	850.000	0.000	0.000	0.000
X1	7835.000	20.000	500.000	527.300	1100.000	600.000	1240.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
GR	749.500	0.000	746.500	100.000	744.100	200.000	743.100	300.000	743.300	400.000
GR	743.800	450.000	743.800	436.000	740.000	495.000	737.200	500.000	737.100	506.000
GR	737.100	512.600	736.600	521.000	737.000	527.300	741.000	533.000	744.000	536.000
GR	745.000	550.000	745.700	600.000	750.900	700.000	756.600	800.000	757.500	850.000
NH	5.000	.045	500.000	.044	512.600	.200	514.700	.044	527.300	.045
NH	850.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7836.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
SB	0.000	1.830	3.050	0.000	19.070	0.000	129.670	0.000	736.600	736.600
X1	7866.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	742.200	742.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
BT	21.000	400.000	743.300	0.000	450.000	743.800	0.000	492.900	742.200	0.000
BT	493.000	745.400	0.000	500.000	745.500	0.000	501.700	745.500	742.100	506.300
BT	745.500	743.400	510.900	745.500	742.100	512.600	745.500	738.100	512.600	745.500
BT	737.100	514.700	745.500	737.000	516.400	745.500	742.100	521.000	745.500	743.400
BT	525.600	745.500	742.100	527.300	745.500	738.100	527.300	745.500	0.000	535.000
BT	745.400	0.000	535.100	743.900	0.000	550.000	745.000	0.000	600.000	745.700
BT	0.000	650.000	748.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	3.000	.070	512.600	.060	527.300	.070	850.000	0.000	0.000	0.000
X1	7867.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

MOORE BUSINESS FORMS, INC. 23

X3	0.000	0.000	0.000	400.000	0.000	650.000	0.000	0.000	0.000	0.000
NC	.080	.080	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8687.000	20.000	414.000	444.000	820.000	820.000	820.000	0.000	0.000	0.000
GR	760.000	0.000	757.000	42.000	752.200	102.000	750.000	132.000	748.500	192.000
GR	747.000	252.000	745.500	312.000	744.000	372.000	743.000	414.000	741.300	429.000
GR	741.300	435.000	743.000	444.000	745.000	462.000	750.000	504.000	751.000	537.000
GR	749.800	579.000	750.000	642.000	750.000	684.000	754.500	744.000	760.000	816.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9247.000	15.000	361.000	390.000	500.000	350.000	560.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	182.000	0.000	527.000	0.000	0.000	0.000	0.000
GR	760.300	0.000	753.200	40.000	749.000	80.000	748.000	100.000	747.900	200.000
GR	746.800	300.000	745.100	361.000	742.400	366.000	741.900	375.000	742.000	388.000
GR	744.600	390.000	746.600	485.000	768.300	523.000	769.900	600.000	776.400	700.000
X1	9327.000	0.000	0.000	0.000	70.000	92.000	80.000	0.000	.600	0.000
X3	0.000	0.000	0.000	202.000	0.000	507.000	0.000	0.000	0.000	0.000
X1	9407.000	90.000	333.700	363.000	70.000	92.000	80.000	0.000	-.600	0.000
GR	762.700	0.000	760.700	11.500	758.600	23.000	756.600	34.500	755.100	46.000
GR	753.800	57.500	752.400	69.000	751.400	80.500	750.800	92.000	750.700	103.500
GR	750.600	115.000	750.500	126.500	750.400	138.100	750.200	149.600	750.100	161.100
GR	750.000	172.600	749.900	184.100	749.700	195.600	749.500	207.100	749.300	218.600
GR	749.100	230.100	748.900	241.600	748.700	253.100	748.500	264.600	748.300	276.200
GR	748.000	287.700	747.600	299.200	747.300	310.700	746.900	322.200	746.500	333.700
GR	746.100	334.700	745.700	335.600	745.300	336.600	744.900	337.600	744.400	338.600
GR	744.300	339.500	744.300	340.500	744.200	341.500	744.100	342.500	744.100	343.400
GR	744.000	344.400	743.900	345.400	743.900	346.400	743.800	347.300	743.800	348.300
GR	743.800	349.300	743.800	350.300	743.800	351.200	743.800	352.200	743.800	353.200
GR	743.800	354.200	743.800	355.100	743.900	356.100	743.900	357.100	744.000	358.100
GR	744.000	359.000	744.100	360.000	744.200	361.000	745.200	362.000	746.200	363.000
GR	746.500	373.500	746.800	384.000	747.000	394.500	747.300	405.000	747.600	415.400
GR	747.800	425.900	748.100	436.400	748.400	446.900	748.700	457.400	752.400	467.900
GR	757.000	478.400	761.500	488.900	765.500	499.400	765.800	509.900	766.000	520.400
GR	766.300	530.900	766.500	541.400	766.800	551.900	767.100	562.400	767.400	572.900
GR	767.900	583.400	768.500	593.900	769.300	604.400	770.000	614.900	770.800	625.400
GR	771.600	635.900	772.400	646.400	773.200	656.900	774.000	667.400	774.800	678.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9447.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
X1	9487.000	0.000	0.000	0.000	35.000	46.000	40.000	0.000	.300	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MOOR BUSINESS FORMS INC 23

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE & MINNOW LAKE DRAIN

4) DOCUMENT TYPE: SUMMARY

00BREAK00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

UPPER RIVER ROUGE & MINN

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
0.00	0.00	0.00	0.00	716.00	670.00	721.30	.16	0.00	0.00	503.44	5.30	223.33
0.00	0.00	0.00	0.00	716.00	1400.00	722.00	.33	0.00	0.00	899.96	6.00	242.98
0.00	0.00	0.00	0.00	716.00	1900.00	723.10	.23	0.00	0.00	1001.13	7.10	265.56
0.00	0.00	0.00	0.00	716.00	3600.00	724.30	.37	0.00	0.00	1617.21	8.30	296.35
640.00	640.00	0.00	0.00	716.30	670.00	722.29	.12	.93	.01	503.15	5.99	192.49
640.00	640.00	0.00	0.00	716.30	1400.00	723.58	.17	1.37	.05	854.19	7.28	246.59
640.00	640.00	0.00	0.00	716.30	1900.00	724.29	.19	1.14	.01	1050.17	7.99	273.86
640.00	640.00	0.00	0.00	716.30	3600.00	725.89	.27	1.45	.03	1653.18	9.59	300.00
1730.00	1090.00	0.00	0.00	719.20	670.00	723.78	.17	1.52	.03	409.58	4.58	191.08
1730.00	1090.00	0.00	0.00	719.20	1400.00	725.04	.19	1.48	.01	655.64	5.84	280.83
1730.00	1090.00	0.00	0.00	719.20	1900.00	725.69	.20	1.40	.00	793.82	6.49	293.74
1730.00	1090.00	0.00	0.00	719.20	3600.00	727.32	.24	1.40	.01	1210.98	8.12	330.00
2780.00	1050.00	0.00	0.00	722.30	670.00	727.00	.24	3.26	.04	487.38	4.70	219.19
2780.00	1050.00	0.00	0.00	722.30	1400.00	728.08	.28	3.08	.04	767.26	5.78	293.67
2780.00	1050.00	0.00	0.00	722.30	1900.00	728.62	.29	2.98	.05	919.24	6.32	331.20
2780.00	1050.00	0.00	0.00	722.30	3600.00	730.06	.30	2.77	.03	1326.72	7.76	427.44
3880.00	1100.00	0.00	0.00	725.00	670.00	729.66	.10	2.47	.04	385.99	4.66	221.02
3880.00	1100.00	0.00	0.00	725.00	1400.00	730.76	.15	2.51	.04	665.26	5.76	274.27
3880.00	1100.00	0.00	0.00	725.00	1900.00	731.30	.17	2.53	.03	835.32	6.30	301.98
3880.00	1100.00	0.00	0.00	725.00	3600.00	732.64	.25	2.51	.02	1342.76	7.64	373.32
4935.00	1055.00	0.00	0.00	728.20	670.00	732.13	.25	2.54	.07	455.11	3.93	151.59
4935.00	1055.00	0.00	0.00	728.20	1400.00	733.31	.32	2.64	.09	773.97	5.11	220.91
4935.00	1055.00	0.00	0.00	728.20	1900.00	733.91	.35	2.69	.09	950.57	5.71	278.21
4935.00	1055.00	0.00	0.00	728.20	3600.00	735.36	.38	2.78	.07	1414.62	7.16	395.44
5785.00	850.00	0.00	0.00	731.20	670.00	735.45	.26	3.33	.01	491.61	4.25	153.37
5785.00	850.00	0.00	0.00	731.20	1400.00	736.66	.33	3.35	.01	826.66	5.46	221.34
5785.00	850.00	0.00	0.00	731.20	1900.00	737.23	.37	3.34	.01	1014.60	6.03	254.17
5785.00	850.00	0.00	0.00	731.20	3600.00	738.61	.46	3.29	.04	1549.23	7.41	340.79
6595.00	810.00	0.00	0.00	734.40	670.00	738.42	.27	2.98	.01	488.82	4.02	144.65
6595.00	810.00	0.00	0.00	734.40	1400.00	739.61	.37	2.96	.02	837.09	5.21	198.57
6595.00	810.00	0.00	0.00	734.40	1900.00	740.19	.41	2.98	.02	1039.23	5.79	219.94
6595.00	810.00	0.00	0.00	734.40	3600.00	741.63	.54	3.06	.04	1621.83	7.23	248.65
7835.00	1240.00	0.00	0.00	736.60	670.00	742.54	.19	4.02	.02	562.62	5.94	45.57
7835.00	1240.00	0.00	0.00	736.60	1400.00	744.39	.34	4.74	.01	1051.48	7.79	141.47
7835.00	1240.00	0.00	0.00	736.60	1900.00	745.16	.38	4.92	.01	1279.57	8.56	161.50
7835.00	1240.00	0.00	0.00	736.60	3600.00	746.89	.45	5.14	.03	1841.62	10.29	222.90
7836.00	1.00	0.00	0.00	736.60	670.00	742.55	.19	.00	.00	560.76	5.95	45.58
7836.00	1.00	0.00	0.00	736.60	1400.00	744.40	.33	.00	.00	1045.82	7.80	141.53
7836.00	1.00	0.00	0.00	736.60	1900.00	745.17	.37	.00	.00	1270.69	8.57	161.81
7836.00	1.00	0.00	0.00	736.60	3600.00	746.91	.44	.00	.00	1821.74	10.31	223.09

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	NCH	DEPTH	TOPWID
7866.00	30.00	742.20	742.20	736.60	670.00	743.09	.15	.50	0.00	550.70	6.49	47.40
7866.00	30.00	742.20	742.20	736.60	1400.00	744.93	.23	.44	0.00	968.83	8.33	149.09
7866.00	30.00	742.20	742.20	736.60	1900.00	745.61	.28	.34	0.00	1186.23	9.01	193.68
7866.00	30.00	742.20	742.20	736.60	3600.00	747.20	.37	.22	0.00	1739.32	10.60	228.88
7867.00	1.00	0.00	0.00	736.60	670.00	743.09	.15	.00	.00	557.06	6.49	47.40
7867.00	1.00	0.00	0.00	736.60	1400.00	744.93	.24	.00	.01	988.02	8.33	149.11
7867.00	1.00	0.00	0.00	736.60	1900.00	745.60	.29	.00	.01	1214.94	9.00	193.79
7867.00	1.00	0.00	0.00	736.60	3600.00	747.19	.39	.00	.01	1799.66	10.59	228.76
8687.00	820.00	0.00	0.00	741.30	670.00	745.22	.30	2.20	.07	488.54	3.92	140.48
8687.00	820.00	0.00	0.00	741.30	1400.00	746.94	.23	1.99	.00	752.20	5.64	223.55
8687.00	820.00	0.00	0.00	741.30	1900.00	747.70	.23	2.03	.02	908.38	6.40	260.60
8687.00	820.00	0.00	0.00	741.30	3600.00	749.49	.26	2.14	.04	1367.15	8.19	347.43
9247.00	560.00	0.00	0.00	741.90	670.00	746.84	.21	1.50	.03	524.89	4.94	188.61
9247.00	560.00	0.00	0.00	741.90	1400.00	748.10	.24	1.17	.00	821.14	6.20	305.61
9247.00	560.00	0.00	0.00	741.90	1900.00	748.77	.23	1.06	.00	963.52	6.87	306.80
9247.00	560.00	0.00	0.00	741.90	3600.00	750.48	.25	.98	.00	1399.49	8.58	309.79
9327.00	80.00	0.00	0.00	742.50	670.00	746.98	.34	.21	.06	575.43	4.48	159.66
9327.00	80.00	0.00	0.00	742.50	1400.00	748.25	.37	.22	.07	907.53	5.75	264.10
9327.00	80.00	0.00	0.00	742.50	1900.00	748.91	.36	.20	.06	1062.69	6.41	266.00
9327.00	80.00	0.00	0.00	742.50	3600.00	750.61	.35	.18	.05	1512.35	8.11	288.98
9407.00	80.00	0.00	0.00	743.20	670.00	747.27	.40	.32	.03	573.90	4.07	137.04
9407.00	80.00	0.00	0.00	743.20	1400.00	748.52	.46	.32	.04	927.20	5.32	229.90
9407.00	80.00	0.00	0.00	743.20	1900.00	749.16	.46	.29	.05	1104.01	5.96	268.03
9407.00	80.00	0.00	0.00	743.20	3600.00	750.83	.40	.24	.02	1531.13	7.63	385.01
9447.00	40.00	0.00	0.00	743.50	670.00	747.46	.45	.22	.02	584.45	3.96	129.42
9447.00	40.00	0.00	0.00	743.50	1400.00	748.70	.52	.21	.03	950.20	5.20	221.91
9447.00	40.00	0.00	0.00	743.50	1900.00	749.32	.51	.20	.03	1131.04	5.82	259.37
9447.00	40.00	0.00	0.00	743.50	3600.00	750.96	.45	.15	.03	1568.03	7.46	381.34
9487.00	40.00	0.00	0.00	743.80	670.00	747.71	.48	.26	.01	590.28	3.91	124.87
9487.00	40.00	0.00	0.00	743.80	1400.00	748.93	.55	.25	.02	962.31	5.13	218.38
9487.00	40.00	0.00	0.00	743.80	1900.00	749.54	.55	.23	.02	1149.02	5.74	254.75
9487.00	40.00	0.00	0.00	743.80	3600.00	751.12	.50	.19	.03	1609.03	7.32	378.14
9727.00	240.00	0.00	0.00	745.70	625.00	749.38	.46	1.64	.01	542.67	3.68	117.17
9727.00	240.00	0.00	0.00	745.70	1330.00	750.54	.58	1.62	.01	920.32	4.84	197.13
9727.00	240.00	0.00	0.00	745.70	1810.00	751.08	.62	1.58	.03	1123.06	5.38	230.78
9727.00	240.00	0.00	0.00	745.70	3410.00	752.41	.69	1.39	.09	1665.85	6.71	290.99
9967.00	240.00	0.00	0.00	747.60	625.00	751.13	.46	1.75	.00	526.26	3.53	115.85
9967.00	240.00	0.00	0.00	747.60	1330.00	752.29	.59	1.76	.01	908.80	4.69	184.94
9967.00	240.00	0.00	0.00	747.60	1810.00	752.84	.65	1.78	.02	1122.45	5.24	214.19
9967.00	240.00	0.00	0.00	747.60	3410.00	754.15	.79	1.78	.05	1717.62	6.55	265.13

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
10207.00	240.00	0.00	0.00	749.50	625.00	753.00	.43	1.82	.01	503.06	3.50	118.21
10207.00	240.00	0.00	0.00	749.50	1330.00	754.15	.59	1.86	.00	898.67	4.65	174.96
10207.00	240.00	0.00	0.00	749.50	1810.00	754.71	.65	1.86	.00	1111.40	5.21	199.86
10207.00	240.00	0.00	0.00	749.50	3410.00	756.06	.79	1.91	.00	1718.11	6.56	258.82
10817.00	610.00	0.00	0.00	751.10	625.00	755.90	.37	2.83	.02	570.30	4.80	145.99
10817.00	610.00	0.00	0.00	751.10	1330.00	757.24	.40	2.83	.06	919.96	6.14	285.62
10817.00	610.00	0.00	0.00	751.10	1810.00	757.84	.41	2.82	.07	1102.09	6.74	288.76
10817.00	610.00	0.00	0.00	751.10	3410.00	759.35	.46	2.87	.10	1639.71	8.25	296.63
10932.00	115.00	0.00	0.00	752.50	625.00	756.33	.66	.57	.15	585.46	3.83	98.46
10932.00	115.00	0.00	0.00	752.50	1330.00	757.60	.73	.53	.17	988.70	5.10	203.42
10932.00	115.00	0.00	0.00	752.50	1810.00	758.20	.72	.51	.16	1185.26	5.70	244.00
10932.00	115.00	0.00	0.00	752.50	3410.00	759.72	.70	.48	.12	1713.04	7.22	244.00
10990.00	58.00	0.00	0.00	753.20	625.00	756.88	.65	.54	.00	567.75	3.68	102.59
10990.00	58.00	0.00	0.00	753.20	1330.00	758.05	.79	.48	.03	980.25	4.85	177.86
10990.00	58.00	0.00	0.00	753.20	1810.00	758.59	.85	.45	.06	1203.62	5.39	216.00
10990.00	58.00	0.00	0.00	753.20	3410.00	760.00	.92	.39	.11	1803.83	6.80	216.00
11047.00	57.00	0.00	0.00	754.00	625.00	757.45	.68	.58	.02	555.82	3.45	96.06
11047.00	57.00	0.00	0.00	754.00	1330.00	758.53	.95	.57	.08	1000.12	4.53	154.35
11047.00	57.00	0.00	0.00	754.00	1810.00	759.08	1.03	.55	0.00	1244.56	5.08	185.77
11047.00	57.00	0.00	0.00	754.00	3410.00	760.40	1.13	.51	.11	1871.98	6.40	253.80
12.00	262.00	0.00	0.00	755.80	505.00	759.70	.30	1.75	.12	423.96	3.90	120.68
12.00	262.00	0.00	0.00	755.80	1060.00	760.98	.33	1.64	.19	707.62	5.18	191.87
12.00	262.00	0.00	0.00	755.80	1410.00	761.56	.34	1.58	.21	851.44	5.76	225.41
12.00	262.00	0.00	0.00	755.80	2740.00	762.90	.44	1.61	.21	1343.79	7.10	258.49
275.00	263.00	0.00	0.00	757.60	505.00	761.13	.57	1.57	.13	465.63	3.53	93.56
275.00	263.00	0.00	0.00	757.60	1060.00	762.18	.71	1.40	.19	806.70	4.58	150.72
275.00	263.00	0.00	0.00	757.60	1410.00	762.69	.74	1.33	.20	976.50	5.09	177.97
275.00	263.00	0.00	0.00	757.60	2740.00	764.07	.79	1.34	.17	1493.05	6.47	244.43
537.00	262.00	0.00	0.00	759.50	505.00	763.33	.45	2.06	.03	453.57	3.83	113.42
537.00	262.00	0.00	0.00	759.50	1060.00	764.37	.59	2.03	.04	776.26	4.87	160.30
537.00	262.00	0.00	0.00	759.50	1410.00	764.81	.65	2.01	.03	947.99	5.31	192.03
537.00	262.00	0.00	0.00	759.50	2740.00	766.02	.81	1.96	.01	1484.12	6.52	238.63
732.00	195.00	0.00	0.00	760.80	505.00	764.70	.50	1.39	.02	462.13	3.90	111.54
732.00	195.00	0.00	0.00	760.80	1060.00	765.76	.63	1.40	.02	784.59	4.96	159.17
732.00	195.00	0.00	0.00	760.80	1410.00	766.22	.67	1.42	.01	949.74	5.42	193.83
732.00	195.00	0.00	0.00	760.80	2740.00	767.53	.76	1.45	.01	1457.61	6.73	239.59
927.00	195.00	0.00	0.00	762.20	505.00	766.18	.52	1.48	.01	464.76	3.98	116.27
927.00	195.00	0.00	0.00	762.20	1060.00	767.21	.65	1.47	.01	786.88	5.01	168.29
927.00	195.00	0.00	0.00	762.20	1410.00	767.68	.69	1.47	.01	952.12	5.48	193.09
927.00	195.00	0.00	0.00	762.20	2740.00	768.95	.80	1.43	.02	1461.11	6.75	240.07

MOORE BUSINESS FORMS, INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1122.00	195.00	0.00	0.00	763.60	505.00	767.67	.52	1.49	.00	466.29	4.07	118.57
1122.00	195.00	0.00	0.00	763.60	1060.00	768.71	.65	1.50	.00	786.68	5.11	176.82
1122.00	195.00	0.00	0.00	763.60	1410.00	769.18	.68	1.49	.00	945.26	5.58	198.79
1122.00	195.00	0.00	0.00	763.60	2740.00	770.43	.79	1.48	.00	1448.69	6.83	243.11
1317.00	195.00	0.00	0.00	765.00	505.00	769.18	.56	1.53	.02	472.11	4.18	118.96
1317.00	195.00	0.00	0.00	765.00	1060.00	770.22	.68	1.52	.01	791.83	5.22	180.64
1317.00	195.00	0.00	0.00	765.00	1410.00	770.67	.72	1.51	.02	951.55	5.67	197.69
1317.00	195.00	0.00	0.00	765.00	2740.00	771.93	.82	1.51	.01	1450.34	6.93	258.12
1367.00	50.00	0.00	0.00	765.60	505.00	769.57	.72	.47	.08	488.63	3.97	102.66
1367.00	50.00	0.00	0.00	765.60	1060.00	770.62	.85	.45	0.00	827.45	5.02	173.30
1367.00	50.00	0.00	0.00	765.60	1410.00	771.16	.81	.42	0.00	975.84	5.56	193.36
1367.00	50.00	0.00	0.00	765.60	2740.00	772.27	1.02	.44	.10	1516.40	6.67	240.23
1417.00	50.00	0.00	0.00	766.20	505.00	770.13	.75	.57	.02	490.57	3.93	89.46
1417.00	50.00	0.00	0.00	766.20	1060.00	771.22	.86	.52	0.00	828.39	5.02	173.11
1417.00	50.00	0.00	0.00	766.20	1410.00	771.71	.86	.47	0.00	986.57	5.51	191.51
1417.00	50.00	0.00	0.00	766.20	2740.00	772.81	1.07	.52	0.00	1533.77	6.61	237.40
1517.00	100.00	0.00	0.00	767.30	505.00	771.26	.72	1.10	.01	477.46	3.96	72.82
1517.00	100.00	0.00	0.00	767.30	1060.00	772.40	.97	1.04	0.00	840.07	5.10	127.78
1517.00	100.00	0.00	0.00	767.30	1410.00	772.92	1.00	.98	0.00	1011.10	5.62	175.23
1517.00	100.00	0.00	0.00	767.30	2740.00	774.09	1.20	1.08	0.00	1550.13	6.79	225.07
1617.00	100.00	0.00	0.00	768.50	505.00	772.34	.82	1.13	.05	483.94	3.84	66.62
1617.00	100.00	0.00	0.00	768.50	1060.00	773.56	.98	1.06	0.00	836.22	5.06	126.03
1617.00	100.00	0.00	0.00	768.50	1410.00	774.10	.98	1.00	0.00	999.53	5.60	172.79
1617.00	100.00	0.00	0.00	768.50	2740.00	775.26	1.16	1.08	0.00	1519.91	6.76	225.02
1977.00	360.00	0.00	0.00	771.30	505.00	776.04	.34	3.08	.15	441.50	4.74	102.55
1977.00	360.00	0.00	0.00	771.30	1060.00	777.25	.42	2.97	.17	740.25	5.95	184.29
1977.00	360.00	0.00	0.00	771.30	1410.00	777.75	.45	2.96	.16	892.44	6.45	212.31
1977.00	360.00	0.00	0.00	771.30	2740.00	779.20	.50	3.08	.20	1341.40	7.90	245.13
2237.00	260.00	0.00	0.00	773.50	505.00	777.66	.56	1.72	.11	461.03	4.16	97.82
2237.00	260.00	0.00	0.00	773.50	1060.00	778.78	.68	1.66	.13	770.85	5.28	152.81
2237.00	260.00	0.00	0.00	773.50	1410.00	779.28	.73	1.67	.14	930.45	5.78	171.64
2237.00	260.00	0.00	0.00	773.50	2740.00	780.63	.85	1.60	.18	1428.68	7.13	206.51
2492.00	255.00	0.00	0.00	774.10	505.00	779.14	.34	1.19	.07	460.77	5.04	40.00
2492.00	255.00	0.00	0.00	774.10	1060.00	780.31	.80	1.59	.06	931.55	6.21	40.00
2492.00	255.00	0.00	0.00	774.10	1410.00	780.85	1.12	1.77	.19	1223.30	6.75	40.00
2492.00	255.00	0.00	0.00	774.10	2740.00	782.33	.41	1.12	.13	1235.57	8.23	213.32
2512.00	20.00	0.00	0.00	774.14	505.00	779.18	.39	.07	.03	485.34	5.04	30.00
2512.00	20.00	0.00	0.00	774.14	1060.00	780.33	1.00	.12	.10	1004.33	6.19	30.00
2512.00	20.00	0.00	0.00	774.14	1410.00	780.84	1.44	.15	.16	1329.63	6.70	30.00
2512.00	20.00	0.00	0.00	774.14	2740.00	782.40	.40	.06	.00	1229.95	8.26	213.57

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
2522.00	10.00	0.00	0.00	774.16	505.00	779.20	.43	.04	.02	501.01	5.04	25.00
2522.00	10.00	0.00	0.00	774.16	1060.00	780.33	1.14	.07	.07	1048.77	6.17	25.00
2522.00	10.00	0.00	0.00	774.16	1410.00	780.82	1.68	.10	.12	1393.74	6.66	25.00
2522.00	10.00	0.00	0.00	774.16	2740.00	782.44	.40	.03	.00	1228.33	8.28	213.65
2532.00	10.00	0.00	0.00	774.18	505.00	779.18	.56	.05	.07	505.00	5.00	20.00
2532.00	10.00	0.00	0.00	774.18	1060.00	780.21	1.60	.11	.23	1060.00	6.03	20.00
2532.00	10.00	0.00	0.00	774.18	1410.00	780.57	2.47	.15	.40	1410.00	6.39	20.00
2532.00	10.00	0.00	0.00	774.18	2740.00	782.47	.40	.03	.00	1226.78	8.29	213.72
2536.00	4.00	0.00	0.00	774.18	505.00	779.16	.66	.03	.05	505.00	4.98	18.00
2536.00	4.00	0.00	0.00	774.18	1060.00	780.10	1.96	.07	.18	1060.00	5.92	18.00
2536.00	4.00	0.00	0.00	774.18	1410.00	780.60	2.89	.09	0.00	1410.00	6.42	18.00
2536.00	4.00	0.00	0.00	774.18	2740.00	782.49	.39	.01	.00	1225.08	8.31	213.79
2540.00	4.00	0.00	0.00	774.19	505.00	779.12	.81	.03	.07	505.00	4.93	16.00
2540.00	4.00	0.00	0.00	774.19	1060.00	779.89	2.58	.09	0.00	1060.00	5.70	16.00
2540.00	4.00	0.00	0.00	774.19	1410.00	780.95	3.14	.11	0.00	1410.00	6.76	16.00
2540.00	4.00	0.00	0.00	774.19	2740.00	782.50	.39	.01	.00	1224.07	8.31	213.84
2544.00	4.00	0.00	0.00	774.20	505.00	778.99	1.15	.04	.17	505.00	4.79	14.00
2544.00	4.00	0.00	0.00	774.20	1060.00	780.40	2.83	.09	0.00	1060.00	6.20	14.00
2544.00	4.00	0.00	0.00	774.20	1410.00	781.58	3.43	.09	0.00	1410.00	7.38	14.00
2544.00	4.00	0.00	0.00	774.20	2740.00	785.13	.90	.01	0.00	1450.84	10.93	109.16
2545.00	1.00	0.00	0.00	774.20	505.00	779.01	1.14	.01	.00	505.00	4.81	14.00
2545.00	1.00	0.00	0.00	774.20	1060.00	781.58	1.94	.01	.27	1060.00	7.38	14.00
2545.00	1.00	0.00	0.00	774.20	1410.00	782.97	2.36	.01	.32	1410.00	8.77	14.00
2545.00	1.00	0.00	0.00	774.20	2740.00	785.53	.69	.00	.09	1263.32	11.33	113.28
2575.00	30.00	787.20	784.10	774.20	505.00	779.14	1.38	.25	.12	505.00	4.94	14.00
2575.00	30.00	787.20	784.10	774.20	1060.00	781.37	2.94	.29	.50	1060.00	7.17	14.00
2575.00	30.00	787.20	784.10	774.20	1410.00	785.86	1.29	1.81	0.00	1410.00	11.66	14.00
2575.00	30.00	787.20	784.10	774.20	2740.00	789.57	.15	3.61	0.00	970.45	15.37	177.99
2576.00	1.00	0.00	0.00	774.20	505.00	779.95	.76	.01	.18	505.00	5.75	14.00
2576.00	1.00	0.00	0.00	774.20	1060.00	783.76	1.11	.01	.55	1060.00	9.56	14.00
2576.00	1.00	0.00	0.00	774.20	1410.00	785.87	1.29	.00	.00	1410.00	11.67	14.00
2576.00	1.00	0.00	0.00	774.20	2740.00	789.54	.21	.00	.03	1104.43	15.34	177.50
2580.00	4.00	0.00	0.00	774.27	505.00	780.39	.43	.02	.10	435.14	6.12	22.00
2580.00	4.00	0.00	0.00	774.27	1060.00	784.46	.58	.01	.16	883.10	10.19	22.00
2580.00	4.00	0.00	0.00	774.27	1410.00	786.70	.66	.01	.19	1164.19	12.43	22.00
2580.00	4.00	0.00	0.00	774.27	2740.00	789.54	.21	.00	.00	1108.73	15.27	176.18
2960.00	380.00	0.00	0.00	781.00	505.00	784.71	.81	2.24	0.00	466.13	3.71	78.50
2960.00	380.00	0.00	0.00	781.00	1060.00	785.89	.89	1.58	.16	785.33	4.89	132.84
2960.00	380.00	0.00	0.00	781.00	1410.00	788.04	.23	.79	.13	728.02	7.04	189.82
2960.00	380.00	0.00	0.00	781.00	2740.00	790.01	.27	.50	.03	1136.71	9.01	223.45

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
3160.00	200.00	0.00	0.00	782.20	505.00	786.81	.27	1.41	.16	394.27	4.61	119.57
3160.00	200.00	0.00	0.00	782.20	1060.00	787.95	.37	1.39	.15	668.32	5.75	161.22
3160.00	200.00	0.00	0.00	782.20	1410.00	788.58	.38	.61	.08	801.09	6.38	176.54
3160.00	200.00	0.00	0.00	782.20	2740.00	790.49	.40	.54	.06	1221.11	8.29	213.13
3360.00	200.00	0.00	0.00	783.30	505.00	787.66	.35	.88	.04	425.36	4.36	118.24
3360.00	200.00	0.00	0.00	783.30	1060.00	788.87	.43	.95	.03	706.11	5.57	144.64
3360.00	200.00	0.00	0.00	783.30	1410.00	789.45	.46	.92	.04	856.94	6.15	154.75
3360.00	200.00	0.00	0.00	783.30	2740.00	791.22	.53	.80	.07	1338.99	7.92	181.46
3560.00	200.00	0.00	0.00	784.50	505.00	788.71	.41	1.08	.03	437.41	4.21	109.43
3560.00	200.00	0.00	0.00	784.50	1060.00	789.92	.49	1.09	.03	724.70	5.42	142.04
3560.00	200.00	0.00	0.00	784.50	1410.00	790.50	.52	1.08	.03	877.05	6.00	152.04
3560.00	200.00	0.00	0.00	784.50	2740.00	792.18	.61	1.00	.04	1372.41	7.68	180.04
4040.00	480.00	0.00	0.00	788.70	505.00	792.36	.45	3.67	.02	349.79	3.66	126.64
4040.00	480.00	0.00	0.00	788.70	1060.00	793.37	.51	3.46	.01	565.00	4.67	140.73
4040.00	480.00	0.00	0.00	788.70	1410.00	793.87	.55	3.39	.01	686.87	5.17	145.23
4040.00	480.00	0.00	0.00	788.70	2740.00	795.35	.68	3.21	.04	1101.96	6.65	176.66
4810.00	770.00	0.00	0.00	792.00	505.00	796.95	.22	4.30	.07	341.37	4.95	152.57
4810.00	770.00	0.00	0.00	792.00	1060.00	798.07	.27	4.39	.07	546.25	6.07	201.99
4810.00	770.00	0.00	0.00	792.00	1410.00	798.59	.29	4.38	.08	651.25	6.59	225.62
4810.00	770.00	0.00	0.00	792.00	2740.00	800.10	.33	4.29	.11	975.29	8.10	289.51
4923.00	113.00	0.00	0.00	793.00	505.00	797.40	.45	.56	.11	392.27	4.40	121.31
4923.00	113.00	0.00	0.00	793.00	1060.00	798.54	.48	.57	.10	617.46	5.54	168.81
4923.00	113.00	0.00	0.00	793.00	1410.00	799.06	.49	.57	.10	732.81	6.06	191.35
4923.00	113.00	0.00	0.00	793.00	2740.00	800.56	.52	.55	.10	1090.31	7.58	248.34
5035.00	112.50	0.00	0.00	794.10	505.00	798.34	.52	.97	.03	402.07	4.24	111.40
5035.00	112.50	0.00	0.00	794.10	1060.00	799.40	.61	.93	.06	651.53	5.30	153.63
5035.00	112.50	0.00	0.00	794.10	1410.00	799.90	.64	.91	.07	779.80	5.80	171.83
5035.00	112.50	0.00	0.00	794.10	2740.00	801.32	.71	.86	.09	1180.99	7.22	218.64
5148.00	112.50	0.00	0.00	795.10	505.00	799.44	.47	1.03	.02	394.24	4.34	107.34
5148.00	112.50	0.00	0.00	795.10	1060.00	800.49	.60	1.07	.00	653.34	5.39	144.85
5148.00	112.50	0.00	0.00	795.10	1410.00	800.97	.65	1.08	.00	788.89	5.87	161.45
5148.00	112.50	0.00	0.00	795.10	2740.00	802.36	.78	1.07	.03	1222.06	7.26	198.84
5260.00	112.00	0.00	0.00	796.20	505.00	800.44	.53	1.03	.03	403.23	4.24	100.18
5260.00	112.00	0.00	0.00	796.20	1060.00	801.53	.64	1.07	.02	667.29	5.33	133.68
5260.00	112.00	0.00	0.00	796.20	1410.00	802.03	.71	1.09	.03	812.06	5.83	147.40
5260.00	112.00	0.00	0.00	796.20	2740.00	803.44	.88	1.13	.05	1275.23	7.24	180.15
5725.00	465.00	0.00	0.00	800.20	505.00	804.62	.46	4.10	.02	401.13	4.42	111.74
5725.00	465.00	0.00	0.00	800.20	1060.00	805.75	.55	4.10	.03	655.88	5.55	136.00
5725.00	465.00	0.00	0.00	800.20	1410.00	806.30	.59	4.11	.04	790.74	6.10	149.12
5725.00	465.00	0.00	0.00	800.20	2740.00	807.83	.71	4.17	.05	1233.92	7.63	193.24

MOORE BUSINESS FORMS INC 93

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
6335.00	610.00	0.00	0.00	804.10	505.00	808.48	.27	3.62	.06	342.76	4.38	118.38
6335.00	610.00	0.00	0.00	804.10	1060.00	809.68	.35	3.67	.06	572.81	5.58	138.97
6335.00	610.00	0.00	0.00	804.10	1410.00	810.25	.39	3.69	.06	701.93	6.15	150.91
6335.00	610.00	0.00	0.00	804.10	2740.00	811.86	.51	3.78	.06	1128.81	7.76	187.50
6935.00	600.00	0.00	0.00	808.00	505.00	811.98	.44	3.58	.08	358.61	3.98	93.43
6935.00	600.00	0.00	0.00	808.00	1060.00	813.17	.56	3.60	.11	606.48	5.17	118.07
6935.00	600.00	0.00	0.00	808.00	1410.00	813.76	.61	3.62	.11	739.14	5.76	136.71
6935.00	600.00	0.00	0.00	808.00	2740.00	815.39	.72	3.63	.10	1162.89	7.39	181.88
7235.00	300.00	0.00	0.00	809.62	505.00	814.02	.39	1.98	.01	373.07	4.40	51.00
7235.00	300.00	0.00	0.00	809.62	1060.00	815.35	.73	2.26	.08	717.45	5.73	51.00
7235.00	300.00	0.00	0.00	809.62	1410.00	815.97	.95	2.39	.17	928.95	6.35	51.00
7235.00	300.00	0.00	0.00	809.62	2000.00	817.37	.31	1.44	.12	814.50	7.75	191.27
7250.00	15.00	0.00	0.00	809.70	505.00	814.08	.45	.09	.03	390.93	4.38	44.00
7250.00	15.00	0.00	0.00	809.70	1060.00	815.39	.88	.12	.08	764.51	5.69	44.00
7250.00	15.00	0.00	0.00	809.70	1410.00	816.00	1.17	.14	.11	995.10	6.30	44.00
7250.00	15.00	0.00	0.00	809.70	2000.00	817.41	.32	.05	.00	817.93	7.71	190.29
7265.00	15.00	0.00	0.00	809.78	505.00	814.13	.55	.10	.05	416.54	4.35	36.00
7265.00	15.00	0.00	0.00	809.78	1060.00	815.40	1.15	.14	.14	831.55	5.62	36.00
7265.00	15.00	0.00	0.00	809.78	1410.00	815.96	1.57	.17	.20	1089.50	6.18	36.00
7265.00	15.00	0.00	0.00	809.78	2000.00	817.46	.32	.05	.00	821.07	7.68	189.40
7275.00	10.00	0.00	0.00	809.83	505.00	814.17	.63	.08	.04	436.06	4.34	31.00
7275.00	10.00	0.00	0.00	809.83	1060.00	815.39	1.40	.11	.12	882.42	5.56	31.00
7275.00	10.00	0.00	0.00	809.83	1410.00	815.91	1.96	.14	.19	1161.28	6.08	31.00
7275.00	10.00	0.00	0.00	809.83	2000.00	817.49	.33	.03	.00	822.79	7.66	188.92
7285.00	10.00	0.00	0.00	809.89	505.00	814.20	.75	.09	.06	459.04	4.31	26.00
7285.00	10.00	0.00	0.00	809.89	1060.00	815.35	1.75	.14	.18	942.12	5.46	26.00
7285.00	10.00	0.00	0.00	809.89	1410.00	815.88	2.46	.17	0.00	1244.11	5.99	26.00
7285.00	10.00	0.00	0.00	809.89	2000.00	817.52	.33	.03	.00	825.41	7.63	188.19
7295.00	10.00	0.00	0.00	809.94	505.00	814.23	.89	.10	.07	486.24	4.29	21.00
7295.00	10.00	0.00	0.00	809.94	1060.00	815.28	2.27	.17	0.00	1012.22	5.34	21.00
7295.00	10.00	0.00	0.00	809.94	1410.00	816.23	2.71	.18	0.00	1339.77	6.29	21.00
7295.00	10.00	0.00	0.00	809.94	2000.00	817.55	.34	.03	.00	827.05	7.61	187.73
7305.00	10.00	0.00	0.00	810.00	505.00	814.24	1.12	.13	.11	505.00	4.24	15.80
7305.00	10.00	0.00	0.00	810.00	1060.00	815.64	2.62	.23	0.00	1060.00	5.64	15.80
7305.00	10.00	0.00	0.00	810.00	1410.00	816.73	3.16	.22	0.00	1410.00	6.73	15.80
7305.00	10.00	0.00	0.00	810.00	2000.00	817.88	2.68	.06	0.00	1670.14	7.88	46.27
7306.00	1.00	0.00	0.00	810.00	505.00	814.26	1.11	.01	.00	505.00	4.26	15.80
7306.00	1.00	0.00	0.00	810.00	1060.00	816.75	1.78	.01	.25	1060.00	6.75	15.80
7306.00	1.00	0.00	0.00	810.00	1410.00	818.04	2.16	.01	.30	1410.00	8.04	15.80
7306.00	1.00	0.00	0.00	810.00	2000.00	820.30	.82	.00	.56	1319.54	10.30	58.85

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7388.00	82.00	823.50	820.30	810.40	505.00	815.00	.95	.53	.05	505.00	4.60	15.80
7388.00	82.00	823.50	820.30	810.40	1060.00	817.34	1.81	.61	.01	1060.00	6.94	15.80
7388.00	82.00	823.50	820.30	810.40	1410.00	822.15	.97	2.92	0.00	1410.00	11.75	15.80
7388.00	82.00	823.50	820.30	810.40	2000.00	824.62	.20	3.71	0.00	1025.63	14.22	326.42
7389.00	1.00	0.00	0.00	810.40	505.00	815.08	.90	.01	.01	505.00	4.68	15.80
7389.00	1.00	0.00	0.00	810.40	1060.00	817.81	1.45	.01	.11	1060.00	7.41	15.80
7389.00	1.00	0.00	0.00	810.40	1410.00	822.16	.97	.00	.00	1410.00	11.76	15.80
7389.00	1.00	0.00	0.00	810.40	2000.00	824.55	.35	.00	.07	1264.88	14.15	320.37
7399.00	10.00	0.00	0.00	810.43	505.00	815.27	.86	.14	.01	505.00	4.84	22.02
7399.00	10.00	0.00	0.00	810.43	1060.00	818.96	.63	.08	.25	1040.22	8.53	32.71
7399.00	10.00	0.00	0.00	810.43	1410.00	822.99	.35	.03	.19	1337.36	12.56	36.00
7399.00	10.00	0.00	0.00	810.43	2000.00	824.54	.41	.01	.03	1732.80	14.11	69.57
8249.00	850.00	0.00	0.00	812.60	505.00	819.10	.12	2.87	.22	505.00	6.50	35.50
8249.00	850.00	0.00	0.00	812.60	1060.00	821.63	.16	2.06	.14	940.50	9.03	393.46
8249.00	850.00	0.00	0.00	812.60	1410.00	823.89	.04	.49	.09	721.64	11.29	519.06
8249.00	850.00	0.00	0.00	812.60	2000.00	825.42	.03	.39	.11	771.95	12.82	551.49
8250.00	1.00	820.70	818.50	812.60	505.00	818.46	1.41	.00	.65	505.00	5.86	35.50
8250.00	1.00	820.70	818.50	812.60	1060.00	821.63	.17	.00	.01	329.03	9.03	393.78
8250.00	1.00	820.70	818.50	812.60	1410.00	823.92	.02	.00	.01	157.35	11.32	519.57
8250.00	1.00	820.70	818.50	812.60	2000.00	825.44	.01	.00	.00	177.09	12.84	551.67
8280.00	30.00	820.70	818.50	812.60	505.00	819.26	1.40	.79	.00	505.00	6.66	35.50
8280.00	30.00	820.70	818.50	812.60	1060.00	821.85	.10	.13	.02	271.50	9.25	411.43
8280.00	30.00	820.70	818.50	812.60	1410.00	823.92	.02	.00	.00	157.11	11.32	519.73
8280.00	30.00	820.70	818.50	812.60	2000.00	825.44	.01	.00	.00	176.99	12.84	551.77
8281.00	1.00	0.00	0.00	812.60	505.00	821.00	.06	.00	.40	505.00	8.40	35.50
8281.00	1.00	0.00	0.00	812.60	1060.00	821.84	.13	.00	.01	880.39	9.24	411.23
8281.00	1.00	0.00	0.00	812.60	1410.00	823.92	.03	.00	.01	683.99	11.32	519.62
8281.00	1.00	0.00	0.00	812.60	2000.00	825.43	.02	.00	.00	725.69	12.83	551.78
9031.00	750.00	0.00	0.00	816.30	465.00	821.60	.06	.59	.00	372.85	5.30	113.73
9031.00	750.00	0.00	0.00	816.30	970.00	822.91	.11	1.05	.00	709.48	6.61	144.74
9031.00	750.00	0.00	0.00	816.30	1290.00	824.31	.09	.42	.03	856.61	8.01	175.42
9031.00	750.00	0.00	0.00	816.30	2510.00	825.80	.18	.44	.09	1516.06	9.50	206.83
9436.00	405.00	0.00	0.00	818.30	465.00	822.32	.41	.90	.18	375.37	4.02	63.13
9436.00	405.00	0.00	0.00	818.30	970.00	823.83	.50	1.12	.19	646.93	5.53	92.94
9436.00	405.00	0.00	0.00	818.30	1290.00	824.90	.42	.76	.16	759.46	6.60	115.94
9436.00	405.00	0.00	0.00	818.30	2510.00	826.68	.55	1.07	.18	1219.99	8.38	155.18
9786.00	350.00	0.00	0.00	818.58	465.00	823.92	.31	1.45	.03	426.57	5.34	30.27
9786.00	350.00	0.00	0.00	818.58	970.00	825.52	.68	1.79	.09	866.00	6.94	31.00
9786.00	350.00	0.00	0.00	818.58	1290.00	826.32	.92	1.67	.25	1139.37	7.74	31.00
9786.00	350.00	0.00	0.00	818.58	2510.00	828.08	.39	1.18	.05	1201.26	9.50	163.59

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	AV	HL	OLOSS	QCH	DEPTH	TOPWID
9806.00	20.00	0.00	0.00	818.60	465.00	823.95	.34	.05	.02	465.00	5.35	21.00
9806.00	20.00	0.00	0.00	818.60	970.00	825.53	.84	.08	.08	970.00	6.93	21.00
9806.00	20.00	0.00	0.00	818.60	1290.00	826.29	1.18	.10	.13	1290.00	7.69	21.00
9806.00	20.00	0.00	0.00	818.60	2510.00	827.85	.95	.06	.28	1690.64	9.25	104.39
9807.00	1.00	0.00	0.00	818.60	465.00	823.95	.34	.00	.00	465.00	5.35	21.00
9807.00	1.00	0.00	0.00	818.60	970.00	825.53	.84	.00	.00	970.00	6.93	21.00
9807.00	1.00	0.00	0.00	818.60	1290.00	826.30	1.18	.00	.00	1290.00	7.70	21.00
9807.00	1.00	0.00	0.00	818.60	2510.00	828.57	.40	.00	.17	1220.41	9.97	112.32
9937.00	130.00	831.80	827.80	818.80	465.00	824.18	.52	.32	.09	465.00	5.38	18.00
9937.00	130.00	831.80	827.80	818.80	970.00	825.98	1.21	.64	.19	970.00	7.18	21.00
9937.00	130.00	831.80	827.80	818.80	1290.00	830.81	.55	3.88	0.00	1290.00	12.01	21.00
9937.00	130.00	831.80	827.80	818.80	2510.00	833.71	.06	4.79	0.00	624.69	14.91	229.00
9938.00	1.00	0.00	0.00	818.80	465.00	824.19	.52	.01	.00	465.00	5.39	18.00
9938.00	1.00	0.00	0.00	818.80	970.00	826.29	.98	.01	.07	970.00	7.49	21.00
9938.00	1.00	0.00	0.00	818.80	1290.00	830.81	.55	.00	.00	1290.00	12.01	21.00
9938.00	1.00	0.00	0.00	818.80	2510.00	833.69	.10	.00	.02	1004.37	14.89	228.69
9941.00	3.00	0.00	0.00	818.80	465.00	824.38	.39	.02	.04	431.94	5.58	24.00
9941.00	3.00	0.00	0.00	818.80	970.00	826.78	.62	.02	.11	866.86	7.98	27.00
9941.00	3.00	0.00	0.00	818.80	1290.00	831.08	.37	.01	.05	1130.48	12.25	27.00
9941.00	3.00	0.00	0.00	818.80	2510.00	833.69	.10	.00	.00	994.23	14.89	345.97
10518.00	577.00	0.00	0.00	820.30	465.00	825.72	.02	.86	.11	128.12	5.42	224.82
10518.00	577.00	0.00	0.00	820.30	970.00	828.15	.02	.59	.18	203.50	7.85	241.73
10518.00	577.00	0.00	0.00	820.30	1290.00	831.70	.01	.18	.11	226.53	11.40	262.51
10518.00	577.00	0.00	0.00	820.30	2510.00	833.98	.02	.19	.02	411.92	13.68	265.99
11168.00	650.00	0.00	0.00	823.30	465.00	826.75	.30	1.17	.14	256.61	3.45	145.21
11168.00	650.00	0.00	0.00	823.30	970.00	828.67	.12	.57	.05	335.00	5.37	199.27
11168.00	650.00	0.00	0.00	823.30	1290.00	831.83	.03	.14	.01	305.93	8.53	310.66
11168.00	650.00	0.00	0.00	823.30	2510.00	834.18	.04	.20	.01	484.39	10.88	439.61
11743.00	575.00	0.00	0.00	821.00	465.00	827.57	.04	.48	.08	399.53	6.57	125.01
11743.00	575.00	0.00	0.00	821.00	970.00	829.25	.08	.52	.01	758.50	8.25	161.94
11743.00	575.00	0.00	0.00	821.00	1290.00	831.98	.04	.15	.01	821.14	10.98	440.00
11743.00	575.00	0.00	0.00	821.00	2510.00	834.33	.05	.16	.01	1237.52	13.33	440.00
11756.00	13.00	826.50	822.00	823.30	465.00	828.93	.03	1.35	0.00	329.58	5.63	155.28
11756.00	13.00	826.50	822.00	823.30	970.00	830.57	.05	1.30	0.00	629.17	7.27	208.79
11756.00	13.00	826.50	822.00	823.30	1290.00	832.08	.04	.10	0.00	717.56	8.78	440.00
11756.00	13.00	826.50	822.00	823.30	2510.00	834.41	.05	.07	0.00	1081.52	11.11	440.00
12326.00	570.00	0.00	0.00	823.90	465.00	829.09	.39	.35	.18	385.54	5.19	122.88
12326.00	570.00	0.00	0.00	823.90	970.00	830.88	.27	.41	.11	550.66	6.98	179.13
12326.00	570.00	0.00	0.00	823.90	1290.00	832.27	.16	.26	.06	588.13	8.37	223.17
12326.00	570.00	0.00	0.00	823.90	2510.00	834.60	.14	.23	.05	815.41	10.70	443.21

MOORE BUSINESS FORMS, INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
12951.00	625.00	0.00	0.00	823.80	465.00	830.81	.18	1.43	.06	415.24	7.01	108.65
12951.00	625.00	0.00	0.00	823.80	970.00	832.22	.27	1.34	.00	715.13	8.42	124.49
12951.00	625.00	0.00	0.00	823.80	1290.00	833.16	.27	.94	.05	852.11	9.36	135.15
12951.00	625.00	0.00	0.00	823.80	2510.00	835.32	.36	.84	.11	1363.09	11.52	159.37
13131.00	180.00	0.00	0.00	825.73	465.00	831.13	.50	.48	.16	464.29	5.40	31.62
13131.00	180.00	0.00	0.00	825.73	970.00	832.54	.90	.64	.31	892.08	6.81	71.49
13131.00	180.00	0.00	0.00	825.73	1290.00	833.42	.91	.58	.32	1092.59	7.69	75.00
13131.00	180.00	0.00	0.00	825.73	2510.00	835.85	.22	.35	.04	1043.93	10.12	410.49
13171.00	40.00	0.00	0.00	826.16	465.00	831.37	.56	.27	.03	464.79	5.21	25.35
13171.00	40.00	0.00	0.00	826.16	970.00	832.82	1.02	.34	.06	911.05	6.66	55.00
13171.00	40.00	0.00	0.00	826.16	1290.00	833.61	1.15	.31	.12	1148.71	7.45	55.00
13171.00	40.00	0.00	0.00	826.16	2510.00	835.90	.31	.10	.05	1140.90	9.74	404.80
13191.00	20.00	0.00	0.00	826.36	465.00	831.51	.58	.15	.01	464.89	5.15	24.54
13191.00	20.00	0.00	0.00	826.36	970.00	832.98	1.07	.18	.03	922.15	6.62	45.00
13191.00	20.00	0.00	0.00	826.36	1290.00	833.73	1.28	.18	.07	1181.99	7.37	45.00
13191.00	20.00	0.00	0.00	826.36	2510.00	835.94	.36	.06	.03	1186.27	9.58	402.47
13211.00	20.00	0.00	0.00	826.56	465.00	831.66	.60	.16	.01	464.93	5.10	23.93
13211.00	20.00	0.00	0.00	826.56	970.00	833.13	1.15	.20	.04	938.71	6.57	35.00
13211.00	20.00	0.00	0.00	826.56	1290.00	833.85	1.45	.21	.09	1222.27	7.29	35.00
13211.00	20.00	0.00	0.00	826.56	2510.00	835.97	.43	.07	.03	1239.11	9.41	399.96
13231.00	20.00	0.00	0.00	826.80	465.00	832.12	.34	.13	.08	465.00	5.32	25.00
13231.00	20.00	0.00	0.00	826.80	970.00	833.86	.72	.17	.13	970.00	7.06	25.00
13231.00	20.00	0.00	0.00	826.80	1290.00	834.65	.98	.19	.14	1290.00	7.85	25.00
13231.00	20.00	0.00	0.00	826.80	2510.00	836.03	.47	.08	.02	1384.09	9.23	129.00
13232.00	1.00	0.00	0.00	826.80	465.00	832.12	.34	.00	.00	465.00	5.32	25.00
13232.00	1.00	0.00	0.00	826.80	970.00	833.86	.72	.00	.00	970.00	7.06	25.00
13232.00	1.00	0.00	0.00	826.80	1290.00	834.66	.98	.00	.00	1290.00	7.86	25.00
13232.00	1.00	0.00	0.00	826.80	2510.00	836.17	.37	.00	.03	1253.98	9.37	130.20
13410.00	178.00	842.90	833.90	827.20	465.00	832.31	.44	.23	.05	465.00	5.11	25.00
13410.00	178.00	842.90	833.90	827.20	970.00	836.00	.43	1.85	0.00	970.00	8.80	25.00
13410.00	178.00	842.90	833.90	827.20	1290.00	838.81	.40	3.57	0.00	1290.00	11.61	25.00
13410.00	178.00	842.90	833.90	827.20	2510.00	843.95	.03	7.45	0.00	819.25	16.75	541.95
13411.00	1.00	0.00	0.00	827.20	465.00	832.37	.39	.00	.01	465.00	5.17	25.00
13411.00	1.00	0.00	0.00	827.20	970.00	836.00	.43	.00	.00	970.00	8.80	25.00
13411.00	1.00	0.00	0.00	827.20	1290.00	838.81	.40	.00	.00	1290.00	11.61	25.00
13411.00	1.00	0.00	0.00	827.20	2510.00	843.95	.04	.00	.00	894.55	16.75	542.00
13414.00	3.00	0.00	0.00	827.20	465.00	832.57	.25	.01	.04	418.61	5.37	31.00
13414.00	3.00	0.00	0.00	827.20	970.00	836.17	.31	.01	.04	825.85	8.97	31.00
13414.00	3.00	0.00	0.00	827.20	1290.00	838.95	.30	.00	.03	1076.07	11.75	31.00
13414.00	3.00	0.00	0.00	827.20	2510.00	843.93	.08	.00	.02	1092.48	16.73	337.84

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
14514.00	1100.00	0.00	0.00	829.90	465.00	834.75	.08	1.97	.05	239.28	4.85	222.91
14514.00	1100.00	0.00	0.00	829.90	970.00	837.24	.02	.70	.09	268.96	7.34	366.62
14514.00	1100.00	0.00	0.00	829.90	1290.00	839.58	.01	.26	.09	241.08	9.68	429.92
14514.00	1100.00	0.00	0.00	829.90	2510.00	844.13	.01	.10	.02	315.70	14.23	460.95
15314.00	800.00	0.00	0.00	832.20	420.00	836.35	.45	1.78	.18	420.00	4.15	20.80
15314.00	800.00	0.00	0.00	832.20	880.00	837.67	.16	.49	.07	449.90	5.47	144.67
15314.00	800.00	0.00	0.00	832.20	1170.00	839.69	.08	.15	.04	494.57	7.49	198.67
15314.00	800.00	0.00	0.00	832.20	2280.00	844.17	.03	.06	.01	586.97	11.97	350.00
15315.00	1.00	0.00	0.00	832.20	420.00	836.35	.45	.00	.00	420.00	4.15	20.80
15315.00	1.00	0.00	0.00	832.20	880.00	837.67	.16	.00	.00	452.80	5.47	144.69
15315.00	1.00	0.00	0.00	832.20	1170.00	839.69	.09	.00	.00	498.40	7.49	198.68
15315.00	1.00	0.00	0.00	832.20	2280.00	844.17	.03	.00	.00	592.83	11.97	350.00
15382.00	67.00	841.70	838.20	832.20	420.00	836.66	.48	.32	.02	420.00	4.46	20.80
15382.00	67.00	841.70	838.20	832.20	880.00	841.94	.05	4.15	0.00	456.09	9.74	344.33
15382.00	67.00	841.70	838.20	832.20	1170.00	842.62	.05	2.89	0.00	537.85	10.42	350.00
15382.00	67.00	841.70	838.20	832.20	2280.00	844.31	.07	.18	0.00	823.01	12.11	350.00
15383.00	1.00	0.00	0.00	832.20	420.00	836.83	.35	.00	.04	420.00	4.63	20.80
15383.00	1.00	0.00	0.00	832.20	880.00	841.95	.04	.00	.00	434.56	9.75	344.34
15383.00	1.00	0.00	0.00	832.20	1170.00	842.63	.04	.00	.00	508.70	10.43	350.00
15383.00	1.00	0.00	0.00	832.20	2280.00	844.33	.06	.00	.00	767.78	12.13	350.00
15683.00	300.00	0.00	0.00	832.80	420.00	837.55	.14	.45	.06	420.00	4.75	41.83
15683.00	300.00	0.00	0.00	832.80	880.00	841.98	.09	.06	.02	877.71	9.18	89.71
15683.00	300.00	0.00	0.00	832.80	1170.00	842.66	.12	.07	.04	1148.05	9.86	207.22
15683.00	300.00	0.00	0.00	832.80	2280.00	844.36	.18	.10	.06	1885.21	11.56	416.27
15684.00	1.00	841.30	841.50	832.80	420.00	837.49	.26	.00	.06	420.00	4.69	41.58
15684.00	1.00	841.30	841.50	832.80	880.00	841.90	.26	.00	.09	871.46	9.10	85.33
15684.00	1.00	841.30	841.50	832.80	1170.00	842.57	.30	.00	.09	1076.99	9.77	192.28
15684.00	1.00	841.30	841.50	832.80	2280.00	844.45	.12	.00	.02	1113.73	11.65	417.93
15689.00	5.00	841.30	841.50	832.80	420.00	837.51	.26	.02	.00	420.00	4.71	41.63
15689.00	5.00	841.30	841.50	832.80	880.00	841.94	.26	.03	.00	870.51	9.14	86.58
15689.00	5.00	841.30	841.50	832.80	1170.00	842.64	.28	.04	.01	1061.06	9.84	204.11
15689.00	5.00	841.30	841.50	832.80	2280.00	844.46	.12	.01	.00	1110.66	11.66	418.08
15690.00	1.00	0.00	0.00	832.80	420.00	837.69	.13	.00	.04	420.00	4.89	42.45
15690.00	1.00	0.00	0.00	832.80	880.00	842.16	.08	.00	.05	875.83	9.36	98.15
15690.00	1.00	0.00	0.00	832.80	1170.00	842.86	.11	.00	.05	1134.20	10.06	208.00
15690.00	1.00	0.00	0.00	832.80	2280.00	844.44	.17	.00	.03	1838.06	11.64	517.73
16190.00	500.00	0.00	0.00	832.60	420.00	838.22	.12	.52	.00	420.00	5.62	39.35
16190.00	500.00	0.00	0.00	832.60	880.00	842.35	.05	.14	.01	683.68	9.75	289.36
16190.00	500.00	0.00	0.00	832.60	1170.00	843.10	.05	.16	.02	815.49	10.50	432.37
16190.00	500.00	0.00	0.00	832.60	2280.00	844.79	.06	.21	.03	1220.35	12.19	600.00

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QC4	DEPTH	TOPWID
16890.00	700.00	0.00	0.00	830.70	420.00	838.84	.11	.61	.00	420.00	8.14	20.60
16890.00	700.00	0.00	0.00	830.70	880.00	842.57	.11	.25	.03	880.00	11.87	42.94
16890.00	700.00	0.00	0.00	830.70	1170.00	843.33	.15	.29	.05	1164.15	12.63	110.00
16890.00	700.00	0.00	0.00	830.70	2280.00	845.05	.33	.40	.14	2125.99	14.35	110.00
16891.00	1.00	0.00	0.00	830.70	.01	838.98	.00	.00	.03	.01	8.28	.01
16891.00	1.00	0.00	0.00	830.70	390.00	843.88	.49	.00	0.00	40.84	13.18	110.00
16891.00	1.00	0.00	0.00	830.70	695.00	844.25	.64	.00	0.00	78.67	13.55	110.00
16891.00	1.00	0.00	0.00	830.70	1810.00	845.29	1.06	.00	0.00	219.07	14.59	110.00
17094.00	203.00	0.00	0.00	831.60	.01	838.98	.00	0.00	.00	.01	7.38	.01
17094.00	203.00	0.00	0.00	831.60	390.00	845.05	.06	.61	.13	47.92	13.45	110.00
17094.00	203.00	0.00	0.00	831.60	695.00	845.64	.11	.71	.16	86.90	14.04	110.00
17094.00	203.00	0.00	0.00	831.60	1810.00	847.10	.30	.83	.23	231.02	15.50	110.00
17095.00	1.00	0.00	0.00	831.60	420.00	840.50	.10	0.00	.05	420.00	8.90	20.60
17095.00	1.00	0.00	0.00	831.60	880.00	845.03	.11	.00	.02	738.42	13.43	110.00
17095.00	1.00	0.00	0.00	831.60	1170.00	845.62	.14	.00	.01	911.43	14.02	110.00
17095.00	1.00	0.00	0.00	831.60	2280.00	847.13	.28	.00	.01	1489.74	15.53	110.00
17895.00	800.00	0.00	0.00	837.00	420.00	841.95	.30	1.54	.10	265.32	4.95	39.44
17895.00	800.00	0.00	0.00	837.00	880.00	845.75	.09	.69	.01	364.57	8.75	140.00
17895.00	800.00	0.00	0.00	837.00	1170.00	846.49	.10	.81	.01	443.38	9.49	140.00
17895.00	800.00	0.00	0.00	837.00	2280.00	848.47	.16	1.18	.04	722.23	11.47	140.00
18395.00	500.00	0.00	0.00	839.50	420.00	844.75	.71	3.01	.21	361.86	5.25	41.05
18395.00	500.00	0.00	0.00	839.50	880.00	846.38	.74	.95	.33	571.31	6.88	106.37
18395.00	500.00	0.00	0.00	839.50	1170.00	847.17	.59	.92	.24	620.47	7.67	120.00
18395.00	500.00	0.00	0.00	839.50	2280.00	849.25	.46	.93	.15	798.79	9.75	120.00
18845.00	450.00	0.00	0.00	840.20	420.00	847.23	.30	1.95	.12	420.00	7.03	16.00
18845.00	450.00	0.00	0.00	840.20	880.00	848.99	.42	2.20	.10	713.56	8.79	140.00
18845.00	450.00	0.00	0.00	840.20	1170.00	849.45	.49	2.16	.03	851.57	9.25	140.00
18845.00	450.00	0.00	0.00	840.20	2280.00	851.09	.53	1.88	.04	1205.79	10.89	140.00
18846.00	1.00	847.20	846.40	840.20	420.00	847.05	.67	.01	.19	420.00	6.85	16.00
18846.00	1.00	847.20	846.40	840.20	880.00	849.32	.17	.00	.08	303.65	9.12	140.00
18846.00	1.00	847.20	846.40	840.20	1170.00	849.86	.18	.00	.09	315.43	9.66	140.00
18846.00	1.00	847.20	846.40	840.20	2280.00	851.46	.26	.00	.08	392.37	11.26	140.00
18896.00	50.00	847.20	846.40	840.40	420.00	847.72	.67	.67	.00	420.00	7.32	16.00
18896.00	50.00	847.20	846.40	840.40	880.00	849.54	.13	.18	.01	271.96	9.14	140.00
18896.00	50.00	847.20	846.40	840.40	1170.00	850.03	.16	.15	.01	294.58	9.63	140.00
18896.00	50.00	847.20	846.40	840.40	2280.00	851.59	.24	.11	.00	384.29	11.19	140.00
18897.00	1.00	0.00	0.00	840.40	420.00	848.30	.22	.00	.13	420.00	7.90	16.00
18897.00	1.00	0.00	0.00	840.40	880.00	849.48	.26	.00	.06	618.29	9.08	140.00
18897.00	1.00	0.00	0.00	840.40	1170.00	849.97	.30	.00	.07	735.74	9.57	140.00
18897.00	1.00	0.00	0.00	840.40	2280.00	851.52	.38	.00	.07	1077.60	11.12	140.00

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
19547.00	650.00	0.00	0.00	842.60	420.00	849.11	.07	.61	.05	406.67	6.51	83.52
19547.00	650.00	0.00	0.00	842.60	880.00	850.49	.15	.87	.03	794.44	7.89	114.46
19547.00	650.00	0.00	0.00	842.60	1170.00	851.12	.19	1.02	.03	1017.77	8.52	127.43
19547.00	650.00	0.00	0.00	842.60	2280.00	852.91	.33	1.32	.02	1779.46	10.31	165.00
19877.00	330.00	0.00	0.00	844.00	420.00	849.34	.10	.25	.01	262.27	5.34	98.58
19877.00	330.00	0.00	0.00	844.00	880.00	850.85	.15	.35	.00	441.14	6.85	130.00
19877.00	330.00	0.00	0.00	844.00	1170.00	851.54	.17	.39	.01	536.13	7.54	130.00
19877.00	330.00	0.00	0.00	844.00	2280.00	853.52	.25	.50	.02	867.87	9.52	130.00
19878.00	1.00	0.00	0.00	844.00	420.00	849.41	.05	.00	.01	190.96	5.41	99.48
19878.00	1.00	0.00	0.00	844.00	880.00	850.94	.08	.00	.02	294.97	6.94	130.00
19878.00	1.00	0.00	0.00	844.00	1170.00	851.65	.09	.00	.02	349.33	7.65	130.00
19878.00	1.00	0.00	0.00	844.00	2280.00	853.66	.14	.00	.03	541.07	9.66	130.00
19924.00	46.00	849.90	849.30	844.00	420.00	850.49	.02	1.05	0.00	124.79	6.49	130.00
19924.00	46.00	849.90	849.30	844.00	880.00	851.48	.05	.51	0.00	218.49	7.48	130.00
19924.00	46.00	849.90	849.30	844.00	1170.00	852.02	.06	.35	0.00	269.61	8.02	130.00
19924.00	46.00	849.90	849.30	844.00	2280.00	853.99	.11	.30	0.00	433.76	9.99	130.00
19925.00	1.00	0.00	0.00	844.00	420.00	850.48	.02	.00	.00	158.87	6.48	130.00
19925.00	1.00	0.00	0.00	844.00	880.00	851.48	.05	.00	.00	283.19	7.48	130.00
19925.00	1.00	0.00	0.00	844.00	1170.00	852.02	.07	.00	.01	351.93	8.02	130.00
19925.00	1.00	0.00	0.00	844.00	2280.00	853.99	.12	.00	.01	575.38	9.99	130.00
20275.00	350.00	0.00	0.00	843.50	420.00	850.57	.05	.10	.02	286.78	7.07	127.85
20275.00	350.00	0.00	0.00	843.50	880.00	851.63	.11	.18	.03	519.30	8.13	159.91
20275.00	350.00	0.00	0.00	843.50	1170.00	852.20	.14	.21	.03	641.89	8.70	176.76
20275.00	350.00	0.00	0.00	843.50	2280.00	854.20	.16	.23	.02	943.59	10.70	185.00
20585.00	310.00	0.00	0.00	844.80	420.00	850.67	.16	.16	.05	345.61	5.87	94.78
20585.00	310.00	0.00	0.00	844.80	880.00	851.83	.26	.27	.07	598.54	7.03	145.01
20585.00	310.00	0.00	0.00	844.80	1170.00	852.42	.27	.29	.06	701.92	7.62	164.99
20585.00	310.00	0.00	0.00	844.80	2280.00	854.41	.25	.26	.05	991.40	9.61	170.00
21005.00	420.00	0.00	0.00	845.40	295.00	851.16	.05	.33	.03	117.99	5.76	132.17
21005.00	420.00	0.00	0.00	845.40	615.00	852.48	.05	.38	.06	168.40	7.08	152.20
21005.00	420.00	0.00	0.00	845.40	820.00	853.08	.06	.38	.06	196.24	7.68	180.00
21005.00	420.00	0.00	0.00	845.40	1600.00	854.98	.07	.33	.06	274.40	9.58	180.00
21305.00	300.00	0.00	0.00	846.30	295.00	851.34	.09	.20	.02	191.00	5.04	59.96
21305.00	300.00	0.00	0.00	846.30	615.00	852.65	.16	.23	.06	346.86	6.35	75.45
21305.00	300.00	0.00	0.00	846.30	820.00	853.25	.20	.24	.07	432.27	6.95	80.00
21305.00	300.00	0.00	0.00	846.30	1600.00	855.10	.29	.23	.11	693.66	8.80	80.00
21306.00	1.00	0.00	0.00	846.30	295.00	851.37	.07	.00	.01	162.52	5.07	60.34
21306.00	1.00	0.00	0.00	846.30	615.00	852.72	.11	.00	.01	284.46	6.42	76.20
21306.00	1.00	0.00	0.00	846.30	820.00	853.33	.14	.00	.02	347.42	7.03	80.00
21306.00	1.00	0.00	0.00	846.30	1600.00	855.19	.21	.00	.02	540.22	8.89	80.00

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
21353.00	47.00	852.90	851.20	846.30	295.00	852.97	.02	1.56	0.00	132.21	6.67	78.96
21353.00	47.00	852.90	851.20	846.30	615.00	854.18	.05	1.40	0.00	230.98	7.88	80.00
21353.00	47.00	852.90	851.20	846.30	820.00	854.64	.07	1.25	0.00	292.14	8.34	80.00
21353.00	47.00	852.90	851.20	846.30	1600.00	856.12	.15	.87	0.00	501.72	9.82	80.00
21354.00	1.00	0.00	0.00	846.30	295.00	852.97	.03	.00	.00	157.50	6.67	78.96
21354.00	1.00	0.00	0.00	846.30	615.00	854.17	.06	.00	.01	282.31	7.87	80.00
21354.00	1.00	0.00	0.00	846.30	820.00	854.63	.09	.00	.01	359.52	8.33	80.00
21354.00	1.00	0.00	0.00	846.30	1600.00	856.10	.19	.00	.02	627.31	9.80	80.00
21704.00	350.00	0.00	0.00	847.20	295.00	853.04	.01	.05	.01	122.33	5.84	199.71
21704.00	350.00	0.00	0.00	847.20	615.00	854.30	.02	.07	.01	197.22	7.10	215.51
21704.00	350.00	0.00	0.00	847.20	820.00	854.81	.02	.09	.02	243.42	7.61	225.00
21704.00	350.00	0.00	0.00	847.20	1600.00	856.42	.04	.12	.04	394.40	9.22	225.00
22104.00	400.00	0.00	0.00	847.60	295.00	853.06	.17	.10	.08	269.83	5.46	51.83
22104.00	400.00	0.00	0.00	847.60	615.00	854.28	.30	.13	.14	484.89	6.68	105.83
22104.00	400.00	0.00	0.00	847.60	820.00	854.79	.34	.15	.16	582.58	7.19	120.00
22104.00	400.00	0.00	0.00	847.60	1600.00	856.44	.36	.17	.16	839.42	8.84	120.00
22194.00	90.00	0.00	0.00	847.50	295.00	853.28	.05	.06	.04	162.13	5.78	77.43
22194.00	90.00	0.00	0.00	847.50	615.00	854.66	.08	.08	.07	283.11	7.16	90.00
22194.00	90.00	0.00	0.00	847.50	820.00	855.19	.10	.10	.07	351.80	7.69	90.00
22194.00	90.00	0.00	0.00	847.50	1600.00	856.77	.19	.12	.05	590.96	9.27	90.00
22195.00	1.00	0.00	0.00	847.50	295.00	853.30	.03	.00	.00	132.81	5.80	77.55
22195.00	1.00	0.00	0.00	847.50	615.00	854.69	.06	.00	.01	223.16	7.19	90.00
22195.00	1.00	0.00	0.00	847.50	820.00	855.23	.08	.00	.01	274.01	7.73	90.00
22195.00	1.00	0.00	0.00	847.50	1600.00	856.82	.15	.00	.01	450.15	9.32	90.00
22265.00	70.00	854.11	852.40	847.50	295.00	854.60	.01	1.28	0.00	108.43	7.10	90.00
22265.00	70.00	854.11	852.40	847.50	615.00	855.53	.04	.82	0.00	197.56	8.03	90.00
22265.00	70.00	854.11	852.40	847.50	820.00	855.97	.05	.72	0.00	250.37	8.47	90.00
22265.00	70.00	854.11	852.40	847.50	1600.00	857.41	.12	.56	0.00	430.08	9.91	90.00
22266.00	1.00	0.00	0.00	847.50	295.00	854.60	.02	.00	.00	138.86	7.10	90.00
22266.00	1.00	0.00	0.00	847.50	615.00	855.52	.05	.00	.01	258.31	8.02	90.00
22266.00	1.00	0.00	0.00	847.50	820.00	855.96	.07	.00	.01	329.73	8.46	90.00
22266.00	1.00	0.00	0.00	847.50	1600.00	857.39	.15	.00	.02	576.29	9.89	90.00
22416.00	150.00	0.00	0.00	848.30	295.00	854.61	.07	.03	.03	295.00	6.31	33.62
22416.00	150.00	0.00	0.00	848.30	615.00	855.52	.21	.08	.08	613.90	7.22	51.70
22416.00	150.00	0.00	0.00	848.30	820.00	855.95	.30	.10	.11	811.37	7.65	61.94
22416.00	150.00	0.00	0.00	848.30	1600.00	857.34	.59	.17	.22	1481.67	9.04	75.00
22511.00	95.00	0.00	0.00	848.20	295.00	854.63	.16	.07	.05	271.71	6.43	78.00
22511.00	95.00	0.00	0.00	848.20	615.00	855.64	.26	.14	.03	450.22	7.44	78.00
22511.00	95.00	0.00	0.00	848.20	820.00	856.12	.31	.18	.00	542.74	7.92	78.00
22511.00	95.00	0.00	0.00	848.20	1600.00	857.82	.40	.23	.06	808.24	9.62	78.00

MOORE BUSINESS FORMS INC 21

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
22512.00	1.00	853.90	853.10	848.20	295.00	854.60	.23	.00	.03	208.04	6.40	78.00
22512.00	1.00	853.90	853.10	848.20	615.00	855.70	.21	.00	.01	222.37	7.50	78.00
22512.00	1.00	853.90	853.10	848.20	820.00	856.19	.26	.00	.02	248.35	7.99	78.00
22512.00	1.00	853.90	853.10	848.20	1600.00	857.83	.39	.00	.00	338.77	9.63	78.00
22582.00	70.00	853.90	853.10	848.20	295.00	855.13	.09	.35	.04	142.52	6.93	78.00
22582.00	70.00	853.90	853.10	848.20	615.00	856.01	.17	.24	.01	197.74	7.81	78.00
22582.00	70.00	853.90	853.10	848.20	820.00	856.48	.21	.23	.01	228.33	8.28	78.00
22582.00	70.00	853.90	853.10	848.20	1600.00	858.05	.36	.18	.01	328.08	9.85	78.00
22583.00	1.00	0.00	0.00	848.20	295.00	855.13	.09	.00	.00	239.30	6.93	78.00
22583.00	1.00	0.00	0.00	848.20	615.00	856.00	.18	.00	.01	406.72	7.80	78.00
22583.00	1.00	0.00	0.00	848.20	820.00	856.47	.22	.00	.01	494.32	8.27	78.00
22583.00	1.00	0.00	0.00	848.20	1600.00	858.09	.33	.00	.01	756.73	9.89	78.00
22883.00	300.00	0.00	0.00	849.30	295.00	855.33	.10	.21	.00	288.01	6.03	71.96
22883.00	300.00	0.00	0.00	849.30	615.00	856.35	.19	.35	.00	523.40	7.05	136.74
22883.00	300.00	0.00	0.00	849.30	820.00	856.88	.20	.38	.01	626.29	7.58	171.07
22883.00	300.00	0.00	0.00	849.30	1600.00	858.65	.13	.30	.06	778.04	9.35	250.00
23333.00	450.00	0.00	0.00	850.00	295.00	855.66	.12	.33	.01	295.00	5.66	29.31
23333.00	450.00	0.00	0.00	850.00	615.00	856.86	.28	.55	.04	604.37	6.86	54.56
23333.00	450.00	0.00	0.00	850.00	820.00	857.41	.36	.60	.08	787.21	7.41	66.45
23333.00	450.00	0.00	0.00	850.00	1600.00	858.92	.58	.49	.22	1374.56	8.92	123.46
23833.00	500.00	0.00	0.00	851.90	295.00	856.37	.18	.74	.03	295.00	4.47	32.09
23833.00	500.00	0.00	0.00	851.90	615.00	857.86	.28	1.00	.00	593.56	5.96	54.09
23833.00	500.00	0.00	0.00	851.90	820.00	858.54	.33	1.09	.01	767.10	6.64	63.57
23833.00	500.00	0.00	0.00	851.90	1600.00	860.31	.46	1.24	.04	1334.50	8.41	110.73
24008.00	175.00	0.00	0.00	852.70	295.00	856.73	.16	.33	.01	295.00	4.03	30.00
24008.00	175.00	0.00	0.00	852.70	615.00	858.31	.11	.22	.05	431.16	5.61	115.00
24008.00	175.00	0.00	0.00	852.70	820.00	859.03	.12	.21	.06	530.56	6.33	132.11
24008.00	175.00	0.00	0.00	852.70	1600.00	860.93	.14	.20	.10	834.18	8.23	160.00
24009.00	1.00	0.00	0.00	852.70	295.00	856.73	.16	.00	.00	295.00	4.03	30.00
24009.00	1.00	0.00	0.00	852.70	615.00	858.30	.14	.00	.01	467.56	5.60	114.88
24009.00	1.00	0.00	0.00	852.70	820.00	859.02	.15	.00	.02	584.53	6.32	131.95
24009.00	1.00	0.00	0.00	852.70	1600.00	860.90	.19	.00	.03	955.71	8.20	160.00
24077.00	68.00	860.00	858.30	852.70	295.00	856.82	.42	.22	.13	295.00	4.12	30.00
24077.00	68.00	860.00	858.30	852.70	615.00	860.72	.03	2.32	0.00	374.43	8.02	160.00
24077.00	68.00	860.00	858.30	852.70	820.00	861.08	.05	1.95	0.00	481.34	8.38	160.00
24077.00	68.00	860.00	858.30	852.70	1600.00	862.03	.11	1.04	0.00	865.46	9.33	160.00
24078.00	1.00	0.00	0.00	852.70	295.00	857.22	.12	.00	.09	295.00	4.52	30.00
24078.00	1.00	0.00	0.00	852.70	615.00	860.73	.02	.00	.00	329.75	8.03	160.00
24078.00	1.00	0.00	0.00	852.70	820.00	861.09	.03	.00	.00	420.75	8.39	160.00
24078.00	1.00	0.00	0.00	852.70	1600.00	862.07	.08	.00	.01	744.15	9.37	160.00

MOORE BUSINESS FORMS, INC. 73

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
24358.00	280.00	0.00	0.00	852.80	295.00	857.54	.12	.32	.00	170.55	4.74	154.87
24358.00	280.00	0.00	0.00	852.80	615.00	860.78	.01	.03	.00	111.90	7.98	305.00
24358.00	280.00	0.00	0.00	852.80	820.00	861.16	.01	.04	.01	137.87	8.36	305.00
24358.00	280.00	0.00	0.00	852.80	1600.00	862.21	.02	.07	.02	226.15	9.41	305.00
24778.00	420.00	0.00	0.00	854.30	295.00	858.18	.04	.54	.02	135.14	3.88	335.37
24778.00	420.00	0.00	0.00	854.30	615.00	860.82	.00	.03	.00	103.50	6.52	350.00
24778.00	420.00	0.00	0.00	854.30	820.00	861.21	.01	.04	.00	130.25	6.91	350.00
24778.00	420.00	0.00	0.00	854.30	1600.00	862.30	.02	.07	.00	225.39	8.00	350.00
24779.00	1.00	857.00	856.50	854.30	295.00	858.21	.02	.00	.01	82.72	3.91	335.70
24779.00	1.00	857.00	856.50	854.30	615.00	860.82	.00	.00	.00	65.52	6.52	350.00
24779.00	1.00	857.00	856.50	854.30	820.00	861.21	.01	.00	.00	83.16	6.91	350.00
24779.00	1.00	857.00	856.50	854.30	1600.00	862.30	.01	.00	.00	146.78	8.00	350.00
24782.00	3.00	857.00	856.50	854.30	295.00	858.21	.02	.00	.00	82.41	3.91	335.75
24782.00	3.00	857.00	856.50	854.30	615.00	860.82	.00	.00	.00	65.51	6.52	350.00
24782.00	3.00	857.00	856.50	854.30	820.00	861.21	.01	.00	.00	83.15	6.91	350.00
24782.00	3.00	857.00	856.50	854.30	1600.00	862.30	.01	.00	.00	146.78	8.00	350.00
24783.00	1.00	0.00	0.00	854.30	295.00	858.21	.03	.00	.01	129.03	3.91	335.77
24783.00	1.00	0.00	0.00	854.30	615.00	860.82	.00	.00	.00	100.28	6.52	350.00
24783.00	1.00	0.00	0.00	854.30	820.00	861.21	.01	.00	.00	126.16	6.91	350.00
24783.00	1.00	0.00	0.00	854.30	1600.00	862.30	.01	.00	.00	218.17	8.00	350.00
25383.00	600.00	0.00	0.00	855.20	295.00	858.56	.01	.32	.01	58.80	3.36	292.99
25383.00	600.00	0.00	0.00	855.20	615.00	860.85	.01	.04	.00	62.09	5.65	325.00
25383.00	600.00	0.00	0.00	855.20	820.00	861.25	.01	.05	.00	77.84	6.05	325.00
25383.00	600.00	0.00	0.00	855.20	1600.00	862.37	.02	.08	.00	133.41	7.17	325.00
25384.00	1.00	856.20	857.30	855.20	295.00	858.56	.01	.00	.00	35.90	3.36	293.02
25384.00	1.00	856.20	857.30	855.20	615.00	860.85	.01	.00	.00	43.56	5.65	325.00
25384.00	1.00	856.20	857.30	855.20	820.00	861.25	.01	.00	.00	55.40	6.05	325.00
25384.00	1.00	856.20	857.30	855.20	1600.00	862.37	.02	.00	.00	98.01	7.17	325.00
25387.00	3.00	856.20	857.30	855.20	295.00	858.56	.01	.00	.00	35.89	3.36	293.06
25387.00	3.00	856.20	857.30	855.20	615.00	860.85	.01	.00	.00	43.56	5.65	325.00
25387.00	3.00	856.20	857.30	855.20	820.00	861.26	.01	.00	.00	55.40	6.06	325.00
25387.00	3.00	856.20	857.30	855.20	1600.00	862.37	.02	.00	.00	98.01	7.17	325.00
25388.00	1.00	0.00	0.00	855.20	295.00	858.56	.01	.00	.00	58.74	3.36	293.08
25388.00	1.00	0.00	0.00	855.20	615.00	860.85	.01	.00	.00	62.08	5.65	325.00
25388.00	1.00	0.00	0.00	855.20	820.00	861.26	.01	.00	.00	77.83	6.06	325.00
25388.00	1.00	0.00	0.00	855.20	1600.00	862.37	.02	.00	.00	133.40	7.17	325.00
25708.00	320.00	0.00	0.00	854.60	255.00	858.69	.09	.17	.04	255.00	4.09	32.00
25708.00	320.00	0.00	0.00	854.60	540.00	860.87	.06	.04	.03	396.94	6.27	170.00
25708.00	320.00	0.00	0.00	854.60	730.00	861.27	.08	.05	.04	504.50	6.67	170.00
25708.00	320.00	0.00	0.00	854.60	1420.00	862.40	.14	.08	.06	829.61	7.80	170.00

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
25709.00	1.00	859.50	858.80	854.60	255.00	858.62	.24	.00	.07	255.00	4.02	32.00
25709.00	1.00	859.50	858.80	854.60	540.00	860.79	.22	.00	.08	301.98	6.19	168.50
25709.00	1.00	859.50	858.80	854.60	730.00	861.22	.18	.00	.05	309.67	6.62	170.00
25709.00	1.00	859.50	858.80	854.60	1420.00	862.37	.19	.00	.02	378.93	7.77	170.00
25769.00	60.00	859.50	858.80	854.60	255.00	859.05	.23	.43	.00	255.00	4.45	32.00
25769.00	60.00	859.50	858.80	854.60	540.00	861.22	.10	.28	.04	229.25	6.62	170.00
25769.00	60.00	859.50	858.80	854.60	730.00	861.53	.12	.23	.02	263.72	6.93	170.00
25769.00	60.00	859.50	858.80	854.60	1420.00	862.55	.16	.15	.01	361.74	7.95	170.00
25770.00	1.00	0.00	0.00	854.60	255.00	859.70	.03	.00	.06	211.74	5.10	62.61
25770.00	1.00	0.00	0.00	854.60	540.00	861.29	.05	.00	.02	385.91	6.69	170.00
25770.00	1.00	0.00	0.00	854.60	730.00	861.59	.07	.00	.01	499.32	6.99	170.00
25770.00	1.00	0.00	0.00	854.60	1420.00	862.59	.14	.00	.01	850.75	7.99	170.00
26370.00	600.00	0.00	0.00	855.70	255.00	859.87	.04	.18	.01	209.59	4.17	248.80
26370.00	600.00	0.00	0.00	855.70	540.00	861.44	.02	.12	.01	294.12	5.74	282.93
26370.00	600.00	0.00	0.00	855.70	730.00	861.80	.03	.15	.01	375.27	6.10	291.89
26370.00	600.00	0.00	0.00	855.70	1420.00	862.93	.05	.22	.03	632.42	7.23	319.28
26910.00	540.00	0.00	0.00	854.40	255.00	860.19	.06	.33	.01	255.00	5.79	46.15
26910.00	540.00	0.00	0.00	854.40	540.00	861.62	.10	.22	.04	539.64	7.22	117.89
26910.00	540.00	0.00	0.00	854.40	730.00	862.02	.14	.28	.06	712.04	7.62	194.38
26910.00	540.00	0.00	0.00	854.40	1420.00	863.20	.19	.35	.07	1161.50	8.80	304.19
27260.00	350.00	0.00	0.00	855.90	255.00	860.42	.08	.24	.01	255.00	4.52	42.28
27260.00	350.00	0.00	0.00	855.90	540.00	861.91	.13	.30	.01	537.65	6.01	94.54
27260.00	350.00	0.00	0.00	855.90	730.00	862.37	.18	.37	.02	711.01	6.47	144.56
27260.00	350.00	0.00	0.00	855.90	1420.00	863.59	.24	.41	.02	1151.86	7.69	310.16
27810.00	550.00	0.00	0.00	856.70	255.00	860.87	.07	.44	.00	255.00	4.17	45.46
27810.00	550.00	0.00	0.00	856.70	540.00	862.42	.11	.49	.01	540.00	5.72	57.46
27810.00	550.00	0.00	0.00	856.70	730.00	862.97	.15	.57	.01	729.77	6.27	62.74
27810.00	550.00	0.00	0.00	856.70	1420.00	864.28	.32	.73	.04	1409.89	7.58	75.85
28130.00	320.00	0.00	0.00	858.10	255.00	861.13	1.42	.65	0.00	255.00	3.03	9.40
28130.00	320.00	0.00	0.00	858.10	540.00	862.78	.26	.43	.07	538.71	4.68	63.98
28130.00	320.00	0.00	0.00	858.10	730.00	863.36	.30	.46	.07	721.98	5.26	77.01
28130.00	320.00	0.00	0.00	858.10	1420.00	864.80	.42	.57	.05	1351.69	6.70	109.95
28131.00	1.00	0.00	0.00	858.10	255.00	861.73	.98	.01	.13	255.00	3.63	9.40
28131.00	1.00	0.00	0.00	858.10	540.00	862.78	.26	.00	.00	538.74	4.68	64.01
28131.00	1.00	0.00	0.00	858.10	730.00	863.36	.30	.00	.00	722.20	5.26	77.04
28131.00	1.00	0.00	0.00	858.10	1420.00	864.80	.42	.00	.00	1353.59	6.70	110.00
28218.00	87.00	866.20	863.00	858.10	255.00	862.93	.63	.75	.10	255.00	4.83	9.40
28218.00	87.00	866.20	863.00	858.10	540.00	866.43	.03	3.42	0.00	486.09	8.33	201.30
28218.00	87.00	866.20	863.00	858.10	730.00	866.89	.04	3.27	0.00	639.09	8.79	207.37
28218.00	87.00	866.20	863.00	858.10	1420.00	867.78	.09	2.65	0.00	1177.00	9.68	219.01

MOORE BUSINESS FORMS, INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
28219.00	1.00	0.00	0.00	858.10	255.00	863.11	.49	.01	.04	255.00	5.01	9.40
28219.00	1.00	0.00	0.00	858.10	540.00	866.43	.03	.00	.00	484.54	8.33	201.32
28219.00	1.00	0.00	0.00	858.10	730.00	866.89	.04	.00	.00	636.56	8.79	207.38
28219.00	1.00	0.00	0.00	858.10	1420.00	867.78	.09	.00	.00	1170.65	9.68	219.03
28619.00	400.00	0.00	0.00	859.80	255.00	864.04	.04	.33	.14	212.34	4.24	159.65
28619.00	400.00	0.00	0.00	859.80	540.00	866.48	.01	.04	.00	268.36	6.68	324.96
28619.00	400.00	0.00	0.00	859.80	730.00	866.97	.01	.04	.01	333.02	7.17	336.04
28619.00	400.00	0.00	0.00	859.80	1420.00	867.94	.03	.08	.02	562.50	8.14	358.24
29469.00	850.00	0.00	0.00	862.20	255.00	864.60	.72	.90	0.00	253.91	2.40	28.68
29469.00	850.00	0.00	0.00	862.20	540.00	866.53	.32	.20	.15	438.05	4.33	86.23
29469.00	850.00	0.00	0.00	862.20	730.00	867.02	.34	.22	.16	539.89	4.82	109.29
29469.00	850.00	0.00	0.00	862.20	1420.00	868.08	.46	.35	.22	863.36	5.88	150.00
29534.00	65.00	0.00	0.00	862.80	255.00	865.64	.27	.45	.14	252.09	2.84	34.38
29534.00	65.00	0.00	0.00	862.80	540.00	866.69	.49	.25	.08	492.90	3.89	68.70
29534.00	65.00	0.00	0.00	862.80	730.00	867.16	.55	.24	.10	611.32	4.36	113.90
29534.00	65.00	0.00	0.00	862.80	1420.00	868.26	.63	.26	.08	917.22	5.46	130.00
29535.00	1.00	0.00	0.00	864.90	255.00	866.90	.46	.00	0.00	204.41	2.00	96.96
29535.00	1.00	0.00	0.00	864.90	540.00	867.52	.57	.00	0.00	353.81	2.62	121.73
29535.00	1.00	0.00	0.00	864.90	730.00	867.79	.67	.00	0.00	446.06	2.89	127.49
29535.00	1.00	0.00	0.00	864.90	1420.00	868.54	.95	.01	0.00	739.76	3.64	130.00
29536.00	1.00	0.00	0.00	864.90	255.00	866.91	.45	.01	.00	204.09	2.01	97.70
29536.00	1.00	0.00	0.00	864.90	540.00	867.53	.56	.00	.00	353.30	2.63	121.84
29536.00	1.00	0.00	0.00	864.90	730.00	867.80	.67	.01	.00	445.48	2.90	127.61
29536.00	1.00	0.00	0.00	864.90	1420.00	868.55	.95	.01	.00	739.03	3.65	130.00
29537.00	1.00	0.00	0.00	863.80	255.00	867.39	.09	.00	.11	203.05	3.59	118.73
29537.00	1.00	0.00	0.00	863.80	540.00	868.05	.17	.00	.12	363.13	4.25	130.00
29537.00	1.00	0.00	0.00	863.80	730.00	868.40	.21	.00	.14	451.09	4.60	130.00
29537.00	1.00	0.00	0.00	863.80	1420.00	869.34	.34	.00	.18	740.26	5.54	130.00
29687.00	150.00	0.00	0.00	863.40	255.00	867.50	.20	.17	.06	229.30	4.10	81.82
29687.00	150.00	0.00	0.00	863.40	540.00	868.27	.30	.29	.07	385.87	4.87	126.50
29687.00	150.00	0.00	0.00	863.40	730.00	868.66	.32	.32	.06	459.91	5.26	135.07
29687.00	150.00	0.00	0.00	863.40	1420.00	869.72	.38	.40	.02	676.22	6.32	159.81
29688.00	1.00	866.60	868.30	863.40	255.00	867.50	.22	.00	.01	235.24	4.10	81.66
29688.00	1.00	866.60	868.30	863.40	540.00	868.29	.29	.00	.00	367.11	4.89	126.50
29688.00	1.00	866.60	868.30	863.40	730.00	868.70	.29	.00	.01	396.90	5.30	136.02
29688.00	1.00	866.60	868.30	863.40	1420.00	869.91	.24	.00	.04	379.62	6.51	164.42
29700.00	12.00	866.60	868.30	863.40	255.00	867.52	.21	.01	.00	234.44	4.12	82.43
29700.00	12.00	866.60	868.30	863.40	540.00	868.37	.25	.04	.01	350.83	4.97	128.13
29700.00	12.00	866.60	868.30	863.40	730.00	868.79	.26	.04	.01	380.00	5.39	137.92
29700.00	12.00	866.60	868.30	863.40	1420.00	869.97	.23	.05	.00	375.67	6.57	165.58

MOORE BUSINESS FORMS, INC.

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
29701.00	1.00	0.00	0.00	863.40	255.00	867.54	.19	.00	.01	228.06	4.14	82.76
29701.00	1.00	0.00	0.00	863.40	540.00	868.37	.26	.00	.00	373.28	4.97	128.20
29701.00	1.00	0.00	0.00	863.40	730.00	868.78	.28	.00	.01	442.96	5.38	138.00
29701.00	1.00	0.00	0.00	863.40	1420.00	869.93	.31	.00	.04	645.01	6.53	164.79
29751.00	50.00	0.00	0.00	862.80	255.00	868.04	.30	.23	0.00	106.01	5.24	145.38
29751.00	50.00	0.00	0.00	862.80	540.00	868.74	.14	.22	.04	95.41	5.94	191.40
29751.00	50.00	0.00	0.00	862.80	730.00	869.18	.11	.18	.05	88.84	6.38	191.40
29751.00	50.00	0.00	0.00	862.80	1420.00	870.32	.12	.14	.06	96.38	7.52	191.40
29752.00	1.00	867.10	866.80	862.80	255.00	868.34	.07	.00	.07	40.58	5.54	183.59
29752.00	1.00	867.10	866.80	862.80	540.00	868.79	.11	.00	.01	50.96	5.99	191.40
29752.00	1.00	867.10	866.80	862.80	730.00	869.19	.10	.00	.00	50.58	6.39	191.40
29752.00	1.00	867.10	866.80	862.80	1420.00	870.32	.12	.00	.00	58.24	7.52	191.40
29796.00	44.00	867.10	866.80	862.80	255.00	868.42	.06	.06	.00	36.13	5.62	191.40
29796.00	44.00	867.10	866.80	862.80	540.00	868.89	.09	.07	.00	46.90	6.09	191.40
29796.00	44.00	867.10	866.80	862.80	730.00	869.26	.09	.05	.00	48.21	6.46	191.40
29796.00	44.00	867.10	866.80	862.80	1420.00	870.36	.12	.04	.00	57.53	7.56	191.40
29797.00	1.00	0.00	0.00	862.80	255.00	868.42	.06	.00	.00	56.04	5.62	191.40
29797.00	1.00	0.00	0.00	862.80	540.00	868.89	.09	.00	.00	72.22	6.09	191.40
29797.00	1.00	0.00	0.00	862.80	730.00	869.26	.09	.00	.00	72.90	6.46	191.40
29797.00	1.00	0.00	0.00	862.80	1420.00	870.37	.12	.00	.00	82.00	7.57	191.40
30027.00	230.00	0.00	0.00	864.00	255.00	868.60	.02	.13	.01	156.54	4.60	165.06
30027.00	230.00	0.00	0.00	864.00	540.00	869.18	.05	.24	.01	288.33	5.18	182.48
30027.00	230.00	0.00	0.00	864.00	730.00	869.56	.06	.26	.01	360.32	5.56	193.91
30027.00	230.00	0.00	0.00	864.00	1420.00	870.68	.10	.29	.01	580.15	6.68	229.49
30527.00	500.00	0.00	0.00	863.40	255.00	868.66	.01	.06	.00	236.27	5.26	128.30
30527.00	500.00	0.00	0.00	863.40	540.00	869.32	.04	.13	.00	472.94	5.92	152.60
30527.00	500.00	0.00	0.00	863.40	730.00	869.73	.06	.16	.00	616.29	6.33	167.74
30527.00	500.00	0.00	0.00	863.40	1420.00	870.91	.11	.24	.00	1073.75	7.51	207.03
30927.00	400.00	0.00	0.00	863.70	210.00	868.71	.01	.03	.00	78.30	5.01	169.95
30927.00	400.00	0.00	0.00	863.70	460.00	869.43	.02	.08	.01	159.18	5.73	207.15
30927.00	400.00	0.00	0.00	863.70	640.00	869.87	.03	.10	.01	209.81	6.17	225.94
30927.00	400.00	0.00	0.00	863.70	1230.00	871.13	.04	.14	.02	342.33	7.43	278.14
31227.00	300.00	0.00	0.00	865.00	210.00	868.75	.03	.05	.01	63.94	3.75	159.97
31227.00	300.00	0.00	0.00	865.00	460.00	869.51	.04	.08	.01	94.60	4.51	211.27
31227.00	300.00	0.00	0.00	865.00	640.00	869.96	.04	.09	.00	107.64	4.96	350.00
31227.00	300.00	0.00	0.00	865.00	1230.00	871.23	.03	.08	.00	119.48	6.23	350.00
31228.00	1.00	868.90	871.20	865.00	210.00	868.32	.88	.00	.43	210.00	3.32	85.91
31228.00	1.00	868.90	871.20	865.00	460.00	870.30	.23	.00	0.00	214.63	5.30	327.25
31228.00	1.00	868.90	871.20	865.00	640.00	870.48	.24	.00	0.00	228.49	5.48	330.79
31228.00	1.00	868.90	871.20	865.00	1230.00	871.15	.19	.00	.08	192.54	6.15	343.41

MOORE BUSINESS FORMS, INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
31299.00	71.00	868.90	871.20	865.00	210.00	869.42	.52	.62	.11	209.57	4.42	158.45
31299.00	71.00	868.90	871.20	865.00	460.00	870.74	.06	.22	.05	117.81	5.74	335.75
31299.00	71.00	868.90	871.20	865.00	640.00	870.95	.08	.25	.05	127.42	5.95	339.58
31299.00	71.00	868.90	871.20	865.00	1230.00	871.48	.11	.23	.02	126.37	6.48	349.71
31300.00	1.00	0.00	0.00	865.00	210.00	870.08	.00	.00	.15	35.78	5.08	350.00
31300.00	1.00	0.00	0.00	865.00	460.00	870.82	.01	.00	.02	56.59	5.82	350.00
31300.00	1.00	0.00	0.00	865.00	640.00	871.04	.01	.00	.02	72.48	6.04	350.00
31300.00	1.00	0.00	0.00	865.00	1230.00	871.60	.02	.00	.03	116.33	6.60	350.00
31850.00	550.00	0.00	0.00	865.30	210.00	870.09	.00	.01	.00	132.77	4.79	400.00
31850.00	550.00	0.00	0.00	865.30	460.00	870.84	.00	.02	.00	283.53	5.54	400.00
31850.00	550.00	0.00	0.00	865.30	640.00	871.07	.00	.02	.00	391.96	5.77	400.00
31850.00	550.00	0.00	0.00	865.30	1230.00	871.68	.01	.06	.00	742.81	6.38	400.00
32785.00	935.00	0.00	0.00	866.90	210.00	870.10	.00	.01	.00	27.26	3.20	450.00
32785.00	935.00	0.00	0.00	866.90	460.00	870.86	.00	.02	.00	54.27	3.96	450.00
32785.00	935.00	0.00	0.00	866.90	640.00	871.11	.01	.04	.00	73.90	4.21	450.00
32785.00	935.00	0.00	0.00	866.90	1230.00	871.76	.01	.08	.00	136.07	4.86	450.00
33385.00	600.00	0.00	0.00	867.50	210.00	870.19	.02	.10	.01	68.98	2.69	321.42
33385.00	600.00	0.00	0.00	867.50	460.00	870.98	.02	.13	.01	109.71	3.48	356.09
33385.00	600.00	0.00	0.00	867.50	640.00	871.27	.03	.17	.01	141.12	3.77	367.63
33385.00	600.00	0.00	0.00	867.50	1230.00	872.02	.04	.27	.01	233.36	4.52	397.65
34235.00	850.00	0.00	0.00	869.00	210.00	871.30	.15	1.17	.07	200.35	2.30	97.09
34235.00	850.00	0.00	0.00	869.00	460.00	871.94	.25	1.08	.12	373.54	2.94	171.26
34235.00	850.00	0.00	0.00	869.00	640.00	872.32	.26	1.17	.12	458.08	3.32	182.17
34235.00	850.00	0.00	0.00	869.00	1230.00	873.22	.29	1.33	.13	699.85	4.22	205.27
34247.00	12.00	871.00	869.00	869.00	210.00	872.27	.03	.85	0.00	152.81	3.27	180.83
34247.00	12.00	871.00	869.00	869.00	460.00	872.58	.09	.48	0.00	304.82	3.58	188.90
34247.00	12.00	871.00	869.00	869.00	640.00	872.77	.13	.33	0.00	403.06	3.77	193.85
34247.00	12.00	871.00	869.00	869.00	1230.00	873.37	.25	.11	0.00	678.53	4.37	209.23
34997.00	750.00	0.00	0.00	867.10	210.00	872.58	.07	.33	.02	190.99	5.48	50.84
34997.00	750.00	0.00	0.00	867.10	460.00	873.35	.19	.83	.05	393.82	6.25	67.25
34997.00	750.00	0.00	0.00	867.10	640.00	873.82	.27	1.12	.07	525.94	6.72	76.92
34997.00	750.00	0.00	0.00	867.10	1230.00	874.97	.46	1.70	.11	893.30	7.87	109.54
35772.00	775.00	0.00	0.00	868.50	210.00	872.99	.05	.38	.01	210.00	4.49	47.56
35772.00	775.00	0.00	0.00	868.50	460.00	874.15	.10	.67	.03	456.42	5.65	94.77
35772.00	775.00	0.00	0.00	868.50	640.00	874.77	.12	.75	.05	615.73	6.27	152.62
35772.00	775.00	0.00	0.00	868.50	1230.00	876.20	.15	.82	.09	999.15	7.70	256.23
36122.00	350.00	0.00	0.00	868.60	210.00	873.16	.07	.19	.01	210.00	4.56	31.20
36122.00	350.00	0.00	0.00	868.60	460.00	874.40	.18	.30	.04	460.00	5.80	31.20
36122.00	350.00	0.00	0.00	868.60	640.00	875.03	.27	.33	.07	640.00	6.43	31.20
36122.00	350.00	0.00	0.00	868.60	1230.00	876.36	.61	.40	.23	1230.00	7.76	31.20

MOORE BUSINESS FORMS INC 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
36123.00	1.00	885.80	877.30	868.60	210.00	873.17	.07	.00	.00	210.00	4.57	31.20
36123.00	1.00	885.80	877.30	868.60	460.00	874.39	.20	.00	.01	460.00	5.79	31.20
36123.00	1.00	885.80	877.30	868.60	640.00	875.00	.33	.00	.03	640.00	6.40	31.20
36123.00	1.00	885.80	877.30	868.60	1230.00	876.22	.91	.00	.15	1230.00	7.62	31.20
36262.00	139.00	885.80	877.70	869.00	210.00	873.25	.08	.08	.01	210.00	4.25	31.20
36262.00	139.00	885.80	877.70	869.00	460.00	874.61	.21	.22	.01	460.00	5.61	31.20
36262.00	139.00	885.80	877.70	869.00	640.00	875.32	.34	.33	.00	640.00	6.32	31.20
36262.00	139.00	885.80	877.70	869.00	1230.00	877.22	.84	.92	.02	1230.00	8.22	31.20
36263.00	1.00	0.00	0.00	869.00	210.00	873.24	.09	.00	.01	210.00	4.24	31.20
36263.00	1.00	0.00	0.00	869.00	460.00	874.63	.20	.00	.01	460.00	5.63	31.20
36263.00	1.00	0.00	0.00	869.00	640.00	875.41	.27	.00	.02	640.00	6.41	31.20
36263.00	1.00	0.00	0.00	869.00	1230.00	877.72	.46	.00	.11	1230.00	8.72	31.20
36503.00	240.00	0.00	0.00	869.90	210.00	873.48	.10	.24	.00	210.00	3.58	38.04
36503.00	240.00	0.00	0.00	869.90	460.00	874.97	.15	.27	.01	451.26	5.07	56.99
36503.00	240.00	0.00	0.00	869.90	640.00	875.81	.17	.27	.03	613.42	5.91	70.66
36503.00	240.00	0.00	0.00	869.90	1230.00	878.31	.16	.21	.09	1029.93	8.41	135.03
37603.00	1100.00	0.00	0.00	869.40	160.00	873.81	.00	.20	.03	15.78	4.41	213.16
37603.00	1100.00	0.00	0.00	869.40	350.00	875.31	.00	.16	.04	22.35	5.91	250.00
37603.00	1100.00	0.00	0.00	869.40	480.00	876.17	.00	.14	.05	26.44	6.77	250.00
37603.00	1100.00	0.00	0.00	869.40	920.00	878.62	.01	.10	.05	39.52	9.22	250.00
37604.00	1.00	873.70	872.00	869.40	160.00	874.19	.08	.00	0.00	25.62	4.79	250.00
37604.00	1.00	873.70	872.00	869.40	350.00	875.31	.02	.00	.01	8.64	5.91	250.00
37604.00	1.00	873.70	872.00	869.40	480.00	876.17	.01	.00	.00	7.94	6.77	250.00
37604.00	1.00	873.70	872.00	869.40	920.00	878.62	.01	.00	.00	9.73	9.22	250.00
37648.00	44.00	873.70	872.20	869.60	160.00	874.44	.02	.17	.02	11.70	4.84	250.00
37648.00	44.00	873.70	872.20	869.60	350.00	875.32	.02	.02	.00	8.69	5.72	250.00
37648.00	44.00	873.70	872.20	869.60	480.00	876.17	.01	.01	.00	8.03	6.57	250.00
37648.00	44.00	873.70	872.20	869.60	920.00	878.62	.01	.00	.00	9.85	9.02	250.00
37649.00	1.00	0.00	0.00	869.60	160.00	874.46	.00	.00	.01	15.14	4.86	250.00
37649.00	1.00	0.00	0.00	869.60	350.00	875.34	.00	.00	.00	26.86	5.74	250.00
37649.00	1.00	0.00	0.00	869.60	480.00	876.18	.00	.00	.00	32.00	6.58	250.00
37649.00	1.00	0.00	0.00	869.60	920.00	878.63	.01	.00	.00	48.37	9.03	250.00
37762.00	113.00	0.00	0.00	870.80	160.00	874.47	.01	.01	.00	24.90	3.67	201.84
37762.00	113.00	0.00	0.00	870.80	350.00	875.35	.01	.01	.00	41.10	4.55	250.00
37762.00	113.00	0.00	0.00	870.80	480.00	876.19	.01	.01	.00	46.48	5.39	250.00
37762.00	113.00	0.00	0.00	870.80	920.00	878.63	.01	.01	.00	65.55	7.83	250.00
37874.00	112.00	0.00	0.00	872.00	160.00	874.48	.09	.05	.04	57.46	2.48	125.88
37874.00	112.00	0.00	0.00	872.00	350.00	875.38	.06	.05	.02	76.37	3.38	223.30
37874.00	112.00	0.00	0.00	872.00	480.00	876.21	.03	.03	.01	73.18	4.21	250.00
37874.00	112.00	0.00	0.00	872.00	920.00	878.64	.01	.01	.00	86.12	6.64	250.00

MOORE BUSINESS FORMS, INC. 23

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
37987.00	113.00	0.00	0.00	873.20	160.00	875.55	.27	.62	0.00	88.33	2.35	118.48
37987.00	113.00	0.00	0.00	873.20	350.00	876.01	.29	.42	0.00	133.26	2.81	196.81
37987.00	113.00	0.00	0.00	873.20	480.00	876.31	.23	.20	.10	145.81	3.11	222.92
37987.00	113.00	0.00	0.00	873.20	920.00	878.67	.03	.04	.01	118.62	5.47	250.00
38099.00	112.00	0.00	0.00	874.50	160.00	876.97	.22	1.20	0.00	93.00	2.47	192.52
38099.00	112.00	0.00	0.00	874.50	350.00	877.38	.20	1.26	.03	131.20	2.88	200.00
38099.00	112.00	0.00	0.00	874.50	480.00	877.54	.25	1.23	.01	159.44	3.04	200.00
38099.00	112.00	0.00	0.00	874.50	920.00	878.81	.11	.17	.04	178.52	4.31	200.00
38599.00	500.00	0.00	0.00	878.80	160.00	881.40	.34	4.49	.06	159.71	2.60	45.11
38599.00	500.00	0.00	0.00	878.80	350.00	882.11	.44	4.84	.12	281.33	3.31	103.97
38599.00	500.00	0.00	0.00	878.80	480.00	882.48	.42	5.04	.09	338.21	3.68	107.82
38599.00	500.00	0.00	0.00	878.80	920.00	883.02	.72	3.21	0.00	563.06	4.22	117.89

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.000	670.000	721.300	0.000	0.000	0.000	223.325	0.000	0.000
0.000	1400.000	722.000	.700	0.000	0.000	242.980	-19.655	0.000
0.000	1900.000	723.100	1.100	0.000	0.000	265.560	-42.235	0.000
0.000	3600.000	724.300	1.200	0.000	0.000	296.353	-73.028	0.000
640.000	670.000	722.286	0.000	.986	0.000	192.491	0.000	640.000
640.000	1400.000	723.576	1.289	1.576	0.000	246.589	-54.098	640.000
640.000	1900.000	724.287	.712	1.187	0.000	273.857	-81.365	640.000
640.000	3600.000	725.886	1.599	1.586	0.000	300.000	-107.509	640.000
1730.000	670.000	723.779	0.000	1.492	0.000	191.081	0.000	1090.000
1730.000	1400.000	725.044	1.266	1.469	0.000	280.828	-89.747	1090.000
1730.000	1900.000	725.688	.643	1.400	0.000	293.736	-102.655	1090.000
1730.000	3600.000	727.322	1.635	1.436	0.000	330.000	-138.919	1090.000
2780.000	670.000	727.000	0.000	3.221	0.000	219.191	0.000	1050.000
2780.000	1400.000	728.077	1.077	3.033	0.000	293.674	-74.483	1050.000
2780.000	1900.000	728.618	.541	2.930	0.000	331.202	-112.011	1050.000
2780.000	3600.000	730.064	1.446	2.742	0.000	427.443	-208.252	1050.000
3880.000	670.000	729.657	0.000	2.657	0.000	221.019	0.000	1100.000
3880.000	1400.000	730.758	1.102	2.681	0.000	274.266	-53.247	1100.000
3880.000	1900.000	731.302	.543	2.684	0.000	301.981	-80.962	1100.000
3880.000	3600.000	732.642	1.340	2.578	0.000	373.317	-152.298	1100.000
4935.000	670.000	732.128	0.000	2.471	0.000	151.589	0.000	1055.000
4935.000	1400.000	733.315	1.187	2.556	0.000	220.914	-69.325	1055.000
4935.000	1900.000	733.907	.592	2.605	0.000	278.213	-126.624	1055.000
4935.000	3600.000	735.358	1.451	2.716	0.000	395.437	-243.848	1055.000
5785.000	670.000	735.450	0.000	3.322	0.000	153.373	0.000	850.000
5785.000	1400.000	736.663	1.213	3.348	0.000	221.340	-67.967	850.000
5785.000	1900.000	737.234	.571	3.328	0.000	254.175	-100.802	850.000
5785.000	3600.000	738.608	1.374	3.250	0.000	340.786	-187.413	850.000
6595.000	670.000	738.420	0.000	2.970	0.000	144.648	0.000	810.000
6595.000	1400.000	739.610	1.190	2.947	0.000	198.569	-53.921	810.000
6595.000	1900.000	740.195	.585	2.961	0.000	219.936	-75.288	810.000
6595.000	3600.000	741.634	1.439	3.025	0.000	248.648	-104.000	810.000
7835.000	670.000	742.543	0.000	4.124	0.000	45.570	0.000	1240.000
7835.000	1400.000	744.391	1.847	4.781	0.000	141.468	-95.898	1240.000
7835.000	1900.000	745.161	.771	4.966	0.000	161.501	-115.931	1240.000
7835.000	3600.000	746.891	1.730	5.258	0.000	222.904	-177.334	1240.000

MOORE BUSINESS FORMS INC. 23

7836.000	670.000	742.547	0.000	.004	0.000	45.582	0.000	1.000
7836.000	1400.000	744.399	1.852	.008	0.000	141.527	-95.944	1.000
7836.000	1900.000	745.172	.773	.010	0.000	161.813	-116.231	1.000
7836.000	3600.000	746.907	1.736	.016	0.000	223.092	-177.510	1.000
7866.000	670.000	743.086	0.000	.539	0.000	47.397	0.000	30.000
7866.000	1400.000	744.934	1.847	.535	0.000	149.091	-101.694	30.000
7866.000	1900.000	745.609	.675	.437	0.000	193.684	-146.288	30.000
7866.000	3600.000	747.197	1.588	.289	0.000	228.879	-181.483	30.000
7867.000	670.000	743.086	0.000	-.000	0.000	47.400	0.000	1.000
7867.000	1400.000	744.930	1.844	-.004	0.000	149.110	-101.710	1.000
7867.000	1900.000	745.604	.673	-.005	0.000	193.790	-146.390	1.000
7867.000	3600.000	747.187	1.583	-.010	0.000	228.760	-181.360	1.000
8687.000	670.000	745.217	0.000	2.131	0.000	140.476	0.000	820.000
8687.000	1400.000	746.936	1.719	2.006	0.000	223.550	-83.074	820.000
8687.000	1900.000	747.703	.767	2.099	0.000	260.605	-120.129	820.000
8687.000	3600.000	749.493	1.790	2.306	0.000	347.434	-206.959	820.000
9247.000	670.000	746.835	0.000	1.619	0.000	188.606	0.000	560.000
9247.000	1400.000	748.099	1.264	1.163	0.000	305.612	-117.005	560.000
9247.000	1900.000	748.769	.670	1.066	0.000	306.799	-118.192	560.000
9247.000	3600.000	750.478	1.709	.985	0.000	309.791	-121.185	560.000
9327.000	670.000	746.982	0.000	.146	0.000	159.655	0.000	80.000
9327.000	1400.000	748.250	1.268	.151	0.000	264.097	-104.441	80.000
9327.000	1900.000	748.911	.661	.142	0.000	285.996	-126.341	80.000
9327.000	3600.000	750.613	1.702	.135	0.000	286.976	-129.321	80.000
9407.000	670.000	747.272	0.000	.290	0.000	137.038	0.000	80.000
9407.000	1400.000	748.524	1.252	.274	0.000	229.902	-92.864	80.000
9407.000	1900.000	749.156	.632	.245	0.000	268.027	-130.990	80.000
9407.000	3600.000	750.831	1.675	.219	0.000	385.009	-247.972	80.000
9447.000	670.000	747.463	0.000	.191	0.000	129.425	0.000	40.000
9447.000	1400.000	748.701	1.239	.177	0.000	221.911	-92.486	40.000
9447.000	1900.000	749.322	.620	.165	0.000	259.366	-129.941	40.000
9447.000	3600.000	750.958	1.636	.127	0.000	381.340	-251.915	40.000
9487.000	670.000	747.707	0.000	.244	0.000	124.867	0.000	40.000
9487.000	1400.000	748.933	1.227	.232	0.000	218.384	-93.518	40.000
9487.000	1900.000	749.536	.603	.214	0.000	254.746	-129.879	40.000
9487.000	3600.000	751.116	1.580	.159	0.000	378.138	-253.271	40.000
9727.000	625.000	749.377	0.000	1.670	0.000	117.172	0.000	240.000
9727.000	1330.000	750.538	1.161	1.605	0.000	197.132	-79.960	240.000
9727.000	1810.000	751.080	.542	1.544	0.000	230.783	-113.611	240.000
9727.000	3410.000	752.414	1.334	1.297	0.000	290.987	-173.815	240.000
9967.000	625.000	751.131	0.000	1.754	0.000	115.849	0.000	240.000
9967.000	1330.000	752.294	1.163	1.756	0.000	184.943	-69.094	240.000
9967.000	1810.000	752.841	.547	1.762	0.000	214.186	-98.337	240.000
9967.000	3410.000	754.151	1.310	1.738	0.000	265.135	-149.286	240.000
10207.000	625.000	752.997	0.000	1.866	0.000	118.208	0.000	240.000
10207.000	1330.000	754.151	1.153	1.857	0.000	174.965	-56.757	240.000
10207.000	1810.000	754.707	.557	1.866	0.000	199.858	-81.650	240.000
10207.000	3410.000	756.057	1.349	1.905	0.000	258.824	-140.615	240.000
10817.000	625.000	755.904	0.000	2.907	0.000	145.988	0.000	610.000
10817.000	1330.000	757.237	1.333	3.086	0.000	285.624	-139.635	610.000
10817.000	1810.000	757.841	.604	3.133	0.000	288.763	-142.774	610.000
10817.000	3410.000	759.354	1.514	3.298	0.000	296.629	-150.640	610.000

MOORE BUSINESS FORMS INC 23

10932.000	1330.000	757.600	1.270	.363	0.000	203.420	-104.959	115.000
10932.000	1810.000	758.196	.596	.356	0.000	243.999	-145.538	115.000
10932.000	3410.000	759.716	1.519	.361	0.000	243.999	-145.538	115.000
10990.000	625.000	756.884	0.000	.554	0.000	102.587	0.000	58.000
10990.000	1330.000	758.048	1.164	.447	0.000	177.858	-75.271	58.000
10990.000	1810.000	758.588	.540	.391	0.000	215.999	-113.412	58.000
10990.000	3410.000	760.001	1.414	.286	0.000	215.999	-113.412	58.000
11047.000	625.000	757.445	0.000	.561	0.000	96.058	0.000	57.000
11047.000	1330.000	758.531	1.086	.484	0.000	154.355	-58.297	57.000
11047.000	1810.000	759.084	.552	.496	0.000	185.770	-89.712	57.000
11047.000	3410.000	760.401	1.317	.400	0.000	253.799	-157.741	57.000
12.000	505.000	759.698	0.000	2.253	0.000	120.685	0.000	262.000
12.000	1060.000	760.976	1.278	2.445	0.000	191.869	-71.184	262.000
12.000	1410.000	761.559	.583	2.475	0.000	225.405	-104.720	262.000
12.000	2740.000	762.905	1.346	2.504	0.000	258.493	-137.808	262.000
275.000	505.000	761.130	0.000	1.432	0.000	93.556	0.000	263.000
275.000	1080.000	762.185	1.054	1.208	0.000	150.716	-57.161	263.000
275.000	1410.000	762.687	.503	1.128	0.000	177.972	-84.416	263.000
275.000	2740.000	764.075	1.387	1.170	0.000	244.426	-150.870	263.000
537.000	505.000	763.334	0.000	2.203	0.000	113.415	0.000	262.000
537.000	1060.000	764.373	1.039	2.188	0.000	160.303	-46.888	262.000
537.000	1410.000	764.810	.437	2.122	0.000	192.028	-78.613	262.000
537.000	2740.000	766.025	1.215	1.950	0.000	238.627	-125.212	262.000
732.000	505.000	764.701	0.000	1.367	0.000	111.541	0.000	195.000
732.000	1060.000	765.755	1.055	1.382	0.000	159.168	-47.627	195.000
732.000	1410.000	766.224	.469	1.415	0.000	193.835	-82.294	195.000
732.000	2740.000	767.534	1.310	1.510	0.000	239.595	-128.093	195.000
927.000	505.000	766.176	0.000	1.476	0.000	116.274	0.000	195.000
927.000	1060.000	767.215	1.038	1.459	0.000	168.292	-52.017	195.000
927.000	1410.000	767.680	.465	1.456	0.000	193.088	-76.814	195.000
927.000	2740.000	768.952	1.272	1.418	0.000	240.068	-123.794	195.000
1122.000	505.000	767.668	0.000	1.492	0.000	118.574	0.000	195.000
1122.000	1060.000	768.708	1.040	1.494	0.000	176.822	-58.248	195.000
1122.000	1410.000	769.180	.471	1.500	0.000	198.791	-80.217	195.000
1122.000	2740.000	770.434	1.254	1.482	0.000	243.113	-124.539	195.000
1317.000	505.000	769.182	0.000	1.513	0.000	118.961	0.000	195.000
1317.000	1060.000	770.220	1.038	1.512	0.000	180.638	-61.677	195.000
1317.000	1410.000	770.671	.451	1.491	0.000	197.692	-78.731	195.000
1317.000	2740.000	771.928	1.257	1.494	0.000	258.119	-139.158	195.000
1367.000	505.000	769.570	0.000	.388	0.000	102.661	0.000	50.000
1367.000	1060.000	770.621	1.052	.401	0.000	173.304	-70.642	50.000
1367.000	1410.000	771.156	.535	.485	0.000	193.365	-90.703	50.000
1367.000	2740.000	772.272	1.115	.344	0.000	240.234	-137.573	50.000
1417.000	505.000	770.126	0.000	.556	0.000	89.463	0.000	50.000
1417.000	1060.000	771.216	1.091	.595	0.000	173.110	-83.647	50.000
1417.000	1410.000	771.707	.491	.551	0.000	191.511	-102.048	50.000
1417.000	2740.000	772.809	1.102	.537	0.000	237.398	-147.935	50.000
1517.000	505.000	771.262	0.000	1.136	0.000	72.817	0.000	100.000
1517.000	1060.000	772.398	1.136	1.181	0.000	127.783	-54.966	100.000
1517.000	1410.000	772.922	.524	1.215	0.000	175.230	-102.412	100.000
1517.000	2740.000	774.091	1.170	1.282	0.000	225.071	-152.253	100.000
1617.000	505.000	772.336	0.000	1.074	0.000	66.624	0.000	100.000

MOORE BUSINESS FORMS INC 93

1617.000	1410.000	774.098	.539	1.176	0.000	172.786	-106.162	100.000
1617.000	2740.000	775.263	1.166	1.172	0.000	225.023	-158.399	100.000
1977.000	505.000	776.045	0.000	3.709	0.000	102.552	0.000	360.000
1977.000	1060.000	777.254	1.209	3.695	0.000	184.287	-81.735	360.000
1977.000	1410.000	777.746	.492	3.648	0.000	212.309	-109.757	360.000
1977.000	2740.000	779.202	1.456	3.939	0.000	245.135	-142.583	360.000
2237.000	505.000	777.659	0.000	1.614	0.000	97.825	0.000	260.000
2237.000	1060.000	778.778	1.120	1.525	0.000	152.806	-54.981	260.000
2237.000	1410.000	779.275	.497	1.529	0.000	171.640	-73.815	260.000
2237.000	2740.000	780.631	1.356	1.429	0.000	206.508	-108.684	260.000
2492.000	505.000	779.138	0.000	1.480	0.000	39.999	0.000	255.000
2492.000	1060.000	780.312	1.173	1.533	0.000	39.999	-.000	255.000
2492.000	1410.000	780.854	.542	1.579	0.000	39.999	-.000	255.000
2492.000	2740.000	782.327	1.473	1.696	0.000	213.324	-173.325	255.000
2512.000	505.000	779.179	0.000	.040	0.000	29.999	0.000	20.000
2512.000	1060.000	780.331	1.152	.019	0.000	29.999	-.000	20.000
2512.000	1410.000	780.840	.509	-.014	0.000	29.999	-.000	20.000
2512.000	2740.000	782.403	1.563	.076	0.000	213.573	-183.574	20.000
2522.000	505.000	779.199	0.000	.020	0.000	24.999	0.000	10.000
2522.000	1060.000	780.334	1.135	.003	0.000	24.999	-.000	10.000
2522.000	1410.000	780.818	.484	-.021	0.000	24.999	-.000	10.000
2522.000	2740.000	782.437	1.619	.035	0.000	213.646	-188.647	10.000
2532.000	505.000	779.184	0.000	-.015	0.000	19.999	0.000	10.000
2532.000	1060.000	780.214	1.030	-.120	0.000	19.999	-.000	10.000
2532.000	1410.000	780.572	.358	-.246	0.000	19.999	-.000	10.000
2532.000	2740.000	782.472	1.900	.034	0.000	213.715	-193.716	10.000
2536.000	505.000	779.162	0.000	-.021	0.000	17.999	0.000	4.000
2536.000	1060.000	780.099	.936	-.115	0.000	17.999	-.000	4.000
2536.000	1410.000	780.599	.500	.027	0.000	17.999	-.000	4.000
2536.000	2740.000	782.488	1.889	.016	0.000	213.793	-195.794	4.000
2540.000	505.000	779.122	0.000	-.040	0.000	15.999	0.000	4.000
2540.000	1060.000	779.892	.770	-.207	0.000	15.999	-.000	4.000
2540.000	1410.000	780.946	1.054	.347	0.000	15.999	-.000	4.000
2540.000	2740.000	782.502	1.556	.014	0.000	213.838	-197.839	4.000
2544.000	505.000	778.991	0.000	-.131	0.000	14.000	0.000	4.000
2544.000	1060.000	780.405	1.414	.513	0.000	14.000	0.000	4.000
2544.000	1410.000	781.581	1.176	.635	0.000	14.000	0.000	4.000
2544.000	2740.000	785.128	3.547	2.626	0.000	109.165	-95.165	4.000
2545.000	505.000	779.006	0.000	.015	0.000	14.000	0.000	1.000
2545.000	1060.000	781.579	2.574	1.175	0.000	14.000	0.000	1.000
2545.000	1410.000	782.974	1.394	1.393	0.000	14.000	0.000	1.000
2545.000	2740.000	785.526	2.553	.398	0.000	113.275	-99.275	1.000
2575.000	505.000	779.142	0.000	.136	0.000	14.000	0.000	30.000
2575.000	1060.000	781.374	2.232	-.206	0.000	14.000	0.000	30.000
2575.000	1410.000	785.860	4.487	2.887	0.000	14.000	0.000	30.000
2575.000	2740.000	789.568	3.707	4.042	0.000	177.994	-163.994	30.000
2576.000	505.000	779.948	0.000	.806	0.000	14.000	0.000	1.000
2576.000	1060.000	783.756	3.809	2.383	0.000	14.000	0.000	1.000
2576.000	1410.000	785.865	2.109	.005	0.000	14.000	0.000	1.000
2576.000	2740.000	789.543	3.677	-.025	0.000	177.502	-163.502	1.000
2580.000	505.000	780.394	0.000	.447	0.000	21.999	0.000	4.000
2580.000	1060.000	784.460	4.066	.704	0.000	21.999	-.000	4.000

MOORE BUSINESS FORMS, INC 23

2580.000	2740.000	789.543	2.848	.001	0.000	176.182	-154.183	4.000
2960.000	505.000	784.705	0.000	4.311	0.000	78.499	0.000	380.000
2960.000	1060.000	785.886	1.181	1.426	0.000	132.836	-54.337	380.000
2960.000	1410.000	788.041	2.155	1.346	0.000	189.816	-111.317	380.000
2960.000	2740.000	790.015	1.974	.471	0.000	223.446	-144.947	380.000
3160.000	505.000	786.814	0.000	2.109	0.000	119.568	0.000	200.000
3160.000	1060.000	787.948	1.134	2.062	0.000	161.224	-41.655	200.000
3160.000	1410.000	788.577	.629	.536	0.000	176.542	-56.974	200.000
3160.000	2740.000	790.491	1.914	.476	0.000	213.132	-93.563	200.000
3360.000	505.000	787.661	0.000	.847	0.000	118.237	0.000	200.000
3360.000	1060.000	788.868	1.207	.920	0.000	144.638	-26.401	200.000
3360.000	1410.000	789.452	.584	.875	0.000	154.752	-36.515	200.000
3360.000	2740.000	791.218	1.766	.727	0.000	181.464	-63.227	200.000
3560.000	505.000	788.712	0.000	1.051	0.000	109.435	0.000	200.000
3560.000	1060.000	789.922	1.210	1.054	0.000	142.042	-32.607	200.000
3560.000	1410.000	790.497	.575	1.044	0.000	152.041	-42.606	200.000
3560.000	2740.000	792.183	1.686	.965	0.000	180.041	-70.606	200.000
4040.000	505.000	792.357	0.000	3.645	0.000	126.644	0.000	480.000
4040.000	1060.000	793.369	1.012	3.447	0.000	140.726	-14.083	480.000
4040.000	1410.000	793.868	.499	3.371	0.000	145.234	-18.590	480.000
4040.000	2740.000	795.352	1.484	3.169	0.000	176.665	-50.021	480.000
4810.000	505.000	796.955	0.000	4.598	0.000	152.572	0.000	770.000
4810.000	1060.000	798.066	1.112	4.698	0.000	201.991	-49.419	770.000
4810.000	1410.000	798.592	.525	4.724	0.000	225.623	-73.051	770.000
4810.000	2740.000	800.102	1.510	4.750	0.000	289.514	-136.943	770.000
4923.000	505.000	797.404	0.000	.449	0.000	121.305	0.000	113.000
4923.000	1060.000	798.538	1.134	.471	0.000	168.813	-47.507	113.000
4923.000	1410.000	799.064	.526	.472	0.000	191.345	-70.040	113.000
4923.000	2740.000	800.560	1.496	.458	0.000	248.342	-127.036	113.000
5035.000	505.000	798.338	0.000	.934	0.000	111.402	0.000	112.500
5035.000	1060.000	799.400	1.062	.862	0.000	153.633	-42.231	112.500
5035.000	1410.000	799.898	.498	.834	0.000	171.826	-60.424	112.500
5035.000	2740.000	801.320	1.423	.760	0.000	218.642	-107.240	112.500
5148.000	505.000	799.437	0.000	1.099	0.000	107.338	0.000	112.500
5148.000	1060.000	800.485	1.048	1.086	0.000	144.852	-37.513	112.500
5148.000	1410.000	800.969	.484	1.072	0.000	161.454	-54.116	112.500
5148.000	2740.000	802.358	1.389	1.038	0.000	198.839	-91.500	112.500
5260.000	505.000	800.436	0.000	.999	0.000	100.179	0.000	112.000
5260.000	1060.000	801.533	1.097	1.048	0.000	133.676	-33.498	112.000
5260.000	1410.000	802.033	.499	1.063	0.000	147.397	-47.219	112.000
5260.000	2740.000	803.444	1.411	1.085	0.000	180.147	-79.969	112.000
5725.000	505.000	804.619	0.000	4.183	0.000	111.736	0.000	465.000
5725.000	1060.000	805.746	1.127	4.213	0.000	136.005	-24.269	465.000
5725.000	1410.000	806.301	.555	4.269	0.000	149.119	-37.383	465.000
5725.000	2740.000	807.830	1.529	4.386	0.000	193.242	-81.506	465.000
6335.000	505.000	808.485	0.000	3.865	0.000	118.375	0.000	610.000
6335.000	1060.000	809.683	1.198	3.937	0.000	138.965	-20.590	610.000
6335.000	1410.000	810.246	.564	3.945	0.000	150.910	-32.535	610.000
6335.000	2740.000	811.861	1.615	4.031	0.000	187.500	-69.125	610.000
6935.000	505.000	811.978	0.000	3.494	0.000	93.430	0.000	600.000
6935.000	1060.000	813.173	1.195	3.491	0.000	118.065	-24.635	600.000
6935.000	1410.000	813.755	.582	3.509	0.000	136.714	-43.284	600.000

MOORE BUSINESS FORMS INC. 79

[illegible]	2740.000	815.3[illegible]	1.030	3.33	0.00	181.878	[illegible]	600.0
7235.000	505.000	814.022	0.000	2.044	0.000	50.999	0.000	300.000
7235.000	1060.000	815.353	1.331	2.179	0.000	50.999	-.000	300.000
7235.000	1410.000	815.973	.620	2.217	0.000	50.999	-.000	300.000
7235.000	2000.000	817.371	1.399	1.980	0.000	191.269	-140.270	300.000
7250.000	505.000	814.080	0.000	.058	0.000	43.999	0.000	15.000
7250.000	1060.000	815.393	1.313	.040	0.000	43.999	-.000	15.000
7250.000	1410.000	815.995	.602	.023	0.000	43.999	-.000	15.000
7250.000	2000.000	817.414	1.418	.042	0.000	190.291	-146.292	15.000
7265.000	505.000	814.133	0.000	.052	0.000	35.999	0.000	15.000
7265.000	1060.000	815.400	1.267	.007	0.000	35.999	-.000	15.000
7265.000	1410.000	815.960	.560	-.035	0.000	35.999	-.000	15.000
7265.000	2000.000	817.458	1.498	.044	0.000	189.403	-153.404	15.000
7275.000	505.000	814.169	0.000	.036	0.000	30.999	0.000	10.000
7275.000	1060.000	815.393	1.224	-.007	0.000	30.999	-.000	10.000
7275.000	1410.000	815.907	.514	-.053	0.000	30.999	-.000	10.000
7275.000	2000.000	817.488	1.580	.030	0.000	188.918	-157.919	10.000
7285.000	505.000	814.199	0.000	.030	0.000	25.999	0.000	10.000
7285.000	1060.000	815.352	1.152	-.041	0.000	25.999	-.000	10.000
7285.000	1410.000	815.884	.532	-.024	0.000	25.999	-.000	10.000
7285.000	2000.000	817.518	1.634	.030	0.000	188.188	-162.189	10.000
7295.000	505.000	814.225	0.000	.026	0.000	20.999	0.000	10.000
7295.000	1060.000	815.284	1.059	-.068	0.000	20.999	-.000	10.000
7295.000	1410.000	816.232	.948	.348	0.000	20.999	-.000	10.000
7295.000	2000.000	817.549	1.317	.031	0.000	187.733	-166.734	10.000
7305.000	505.000	814.242	0.000	.016	0.000	15.800	0.000	10.000
7305.000	1060.000	815.643	1.401	.359	0.000	15.800	0.000	10.000
7305.000	1410.000	816.728	1.085	.496	0.000	15.800	0.000	10.000
7305.000	2000.000	817.879	1.152	.330	0.000	46.274	-30.474	10.000
7306.000	505.000	814.262	0.000	.021	0.000	15.800	0.000	1.000
7306.000	1060.000	816.746	2.484	1.103	0.000	15.800	0.000	1.000
7306.000	1410.000	818.043	1.297	1.315	0.000	15.800	0.000	1.000
7306.000	2000.000	820.304	2.261	2.425	0.000	58.852	-43.052	1.000
7388.000	505.000	815.005	0.000	.743	0.000	15.800	0.000	82.000
7388.000	1060.000	817.344	2.339	.598	0.000	15.800	0.000	82.000
7388.000	1410.000	822.152	4.808	4.109	0.000	15.800	0.000	82.000
7388.000	2000.000	824.623	2.472	4.320	0.000	326.422	-310.622	82.000
7389.000	505.000	815.076	0.000	.071	0.000	15.800	0.000	1.000
7389.000	1060.000	817.811	2.735	.467	0.000	15.800	0.000	1.000
7389.000	1410.000	822.156	4.345	.004	0.000	15.800	0.000	1.000
7389.000	2000.000	824.551	2.395	-.072	0.000	320.367	-304.567	1.000
7399.000	505.000	815.265	0.000	.189	0.000	22.020	0.000	10.000
7399.000	1060.000	818.958	3.693	1.147	0.000	32.714	-10.693	10.000
7399.000	1410.000	822.989	4.031	.833	0.000	35.999	-13.979	10.000
7399.000	2000.000	824.537	1.548	-.014	0.000	69.566	-47.546	10.000
8249.000	505.000	819.102	0.000	3.837	0.000	35.500	0.000	850.000
8249.000	1060.000	821.628	2.526	2.670	0.000	393.464	-357.964	850.000
8249.000	1410.000	823.894	2.267	.905	0.000	519.062	-483.562	850.000
8249.000	2000.000	825.420	1.526	.883	0.000	551.489	-515.989	850.000
8250.000	505.000	818.460	0.000	-.642	0.000	35.500	0.000	1.000
8250.000	1060.000	821.625	3.166	-.002	0.000	393.785	-358.285	1.000
8250.000	1410.000	823.920	2.295	.026	0.000	519.571	-484.071	1.000
8250.000	2000.000	825.436	1.516	.016	0.000	551.671	-516.171	1.000

MOORE BUSINESS FORMS, INC. 23

8280.000	505.000	819.264	0.000	.804	0.000	35.500	0.000	30.000
8280.000	1060.000	821.847	2.583	.222	0.000	411.433	-375.933	30.000
8280.000	1410.000	823.924	2.077	.004	0.000	519.729	-484.229	30.000
8280.000	2000.000	825.438	1.514	.002	0.000	551.774	-516.274	30.000
8281.000	505.000	821.003	0.000	1.740	0.000	35.499	0.000	1.000
8281.000	1060.000	821.838	.835	-.009	0.000	411.229	-375.730	1.000
8281.000	1410.000	823.917	2.079	-.007	0.000	519.621	-484.122	1.000
8281.000	2000.000	825.434	1.517	-.004	0.000	551.776	-516.277	1.000
9031.000	465.000	821.605	0.000	.601	0.000	113.733	0.000	750.000
9031.000	970.000	822.907	1.302	1.069	0.000	144.740	-31.007	750.000
9031.000	1290.000	824.309	1.402	.392	0.000	175.418	-61.685	750.000
9031.000	2510.000	825.797	1.488	.363	0.000	206.833	-93.100	750.000
9436.000	465.000	822.324	0.000	.720	0.000	63.133	0.000	405.000
9436.000	970.000	823.830	1.506	.923	0.000	92.935	-29.802	405.000
9436.000	1290.000	824.903	1.073	.594	0.000	115.940	-52.806	405.000
9436.000	2510.000	826.684	1.780	.886	0.000	155.182	-92.049	405.000
9786.000	465.000	823.917	0.000	1.592	0.000	30.269	0.000	350.000
9786.000	970.000	825.522	1.605	1.692	0.000	30.999	-.730	350.000
9786.000	1290.000	826.321	.799	1.418	0.000	30.999	-.730	350.000
9786.000	2510.000	828.076	1.755	1.392	0.000	163.592	-133.323	350.000
9806.000	465.000	823.948	0.000	.032	0.000	21.000	0.000	20.000
9806.000	970.000	825.525	1.577	.003	0.000	21.000	0.000	20.000
9806.000	1290.000	826.289	.764	-.032	0.000	21.000	0.000	20.000
9806.000	2510.000	827.850	1.561	-.226	0.000	104.390	-83.390	20.000
9807.000	465.000	823.951	0.000	.003	0.000	21.000	0.000	1.000
9807.000	970.000	825.530	1.580	.005	0.000	21.000	0.000	1.000
9807.000	1290.000	826.296	.766	.007	0.000	21.000	0.000	1.000
9807.000	2510.000	828.573	2.277	.723	0.000	112.325	-91.325	1.000
9937.000	465.000	824.184	0.000	.233	0.000	18.000	0.000	130.000
9937.000	970.000	825.981	1.797	.451	0.000	21.000	-3.000	130.000
9937.000	1290.000	830.807	4.826	4.511	0.000	21.000	-3.000	130.000
9937.000	2510.000	833.708	2.901	5.135	0.000	228.998	-210.998	130.000
9938.000	465.000	824.190	0.000	.006	0.000	18.000	0.000	1.000
9938.000	970.000	826.288	2.098	.307	0.000	21.000	-3.000	1.000
9938.000	1290.000	830.810	4.521	.003	0.000	21.000	-3.000	1.000
9938.000	2510.000	833.686	2.876	-.022	0.000	228.694	-210.694	1.000
9941.000	465.000	824.378	0.000	.187	0.000	23.999	0.000	3.000
9941.000	970.000	826.782	2.404	.494	0.000	26.999	-3.000	3.000
9941.000	1290.000	831.050	4.268	.240	0.000	26.999	-3.000	3.000
9941.000	2510.000	833.694	2.643	.008	0.000	345.965	-321.966	3.000
10518.000	465.000	825.718	0.000	1.340	0.000	224.816	0.000	577.000
10518.000	970.000	828.149	2.431	1.366	0.000	241.728	-16.912	577.000
10518.000	1290.000	831.700	3.551	.649	0.000	262.514	-37.698	577.000
10518.000	2510.000	833.983	2.283	.289	0.000	265.985	-41.169	577.000
11168.000	465.000	826.749	0.000	1.031	0.000	145.208	0.000	650.000
11168.000	970.000	828.669	1.920	.520	0.000	199.267	-54.059	650.000
11168.000	1290.000	831.831	3.162	.131	0.000	310.664	-165.456	650.000
11168.000	2510.000	834.175	2.345	.193	0.000	439.605	-294.397	650.000
11743.000	465.000	827.568	0.000	.819	0.000	125.010	0.000	575.000
11743.000	970.000	829.249	1.681	.580	0.000	161.937	-36.927	575.000
11743.000	1290.000	831.977	2.728	.146	0.000	440.000	-314.990	575.000
11743.000	2510.000	834.333	2.356	.157	0.000	440.000	-314.990	575.000

MOORE BUSINESS FORMS, INC 23

11756.000	970.000	830.573	1.645	1.325	0.000	208.786	-53.510	13.000
11756.000	1290.000	832.076	1.503	.100	0.000	440.000	-284.724	13.000
11756.000	2510.000	834.411	2.334	.078	0.000	440.001	-284.725	13.000
12326.000	465.000	829.094	0.000	.166	0.000	122.883	0.000	570.000
12326.000	970.000	830.877	1.783	.304	0.000	179.127	-56.244	570.000
12326.000	1290.000	832.274	1.396	.197	0.000	223.166	-100.283	570.000
12326.000	2510.000	834.595	2.322	.185	0.000	443.212	-320.328	570.000
12951.000	465.000	830.806	0.000	1.712	0.000	108.646	0.000	625.000
12951.000	970.000	832.218	1.412	1.341	0.000	124.492	-15.846	625.000
12951.000	1290.000	833.163	.945	.890	0.000	135.145	-26.499	625.000
12951.000	2510.000	835.318	2.155	.723	0.000	159.369	-50.724	625.000
13131.000	465.000	831.127	0.000	.321	0.000	31.618	0.000	180.000
13131.000	970.000	832.542	1.415	.324	0.000	71.492	-39.874	180.000
13131.000	1290.000	833.422	.879	.258	0.000	74.999	-43.381	180.000
13131.000	2510.000	835.851	2.430	.533	0.000	410.493	-378.875	180.000
13171.000	465.000	831.369	0.000	.241	0.000	25.350	0.000	40.000
13171.000	970.000	832.819	1.450	.276	0.000	54.999	-29.649	40.000
13171.000	1290.000	833.614	.795	.192	0.000	54.999	-29.649	40.000
13171.000	2510.000	835.901	2.288	.050	0.000	404.802	-379.453	40.000
13191.000	465.000	831.509	0.000	.141	0.000	24.541	0.000	20.000
13191.000	970.000	832.978	1.468	.159	0.000	44.999	-20.458	20.000
13191.000	1290.000	833.732	.754	.118	0.000	44.999	-20.458	20.000
13191.000	2510.000	835.937	2.205	.036	0.000	402.467	-377.926	20.000
13211.000	465.000	831.660	0.000	.150	0.000	23.929	0.000	20.000
13211.000	970.000	833.132	1.472	.154	0.000	34.999	-11.070	20.000
13211.000	1290.000	833.851	.719	.119	0.000	34.999	-11.070	20.000
13211.000	2510.000	835.975	2.124	.036	0.000	399.958	-376.029	20.000
13231.000	465.000	832.118	0.000	.458	0.000	25.000	0.000	20.000
13231.000	970.000	833.856	1.738	.725	0.000	25.000	0.000	20.000
13231.000	1290.000	834.651	.795	.800	0.000	25.000	0.000	20.000
13231.000	2510.000	836.031	1.380	.057	0.000	129.003	-104.003	20.000
13232.000	465.000	832.122	0.000	.003	0.000	25.000	0.000	1.000
13232.000	970.000	833.862	1.740	.006	0.000	25.000	0.000	1.000
13232.000	1290.000	834.658	.796	.007	0.000	25.000	0.000	1.000
13232.000	2510.000	836.167	1.509	.135	0.000	130.203	-105.203	1.000
13410.000	465.000	832.305	0.000	.184	0.000	25.000	0.000	178.000
13410.000	970.000	836.002	3.696	2.140	0.000	25.000	0.000	178.000
13410.000	1290.000	838.809	2.808	4.151	0.000	25.000	0.000	178.000
13410.000	2510.000	843.952	5.142	7.785	0.000	541.945	-516.945	178.000
13411.000	465.000	832.367	0.000	.061	0.000	25.000	0.000	1.000
13411.000	970.000	836.003	3.637	.001	0.000	25.000	0.000	1.000
13411.000	1290.000	838.810	2.807	.001	0.000	25.000	0.000	1.000
13411.000	2510.000	843.949	5.139	-.003	0.000	542.001	-517.001	1.000
13414.000	465.000	832.569	0.000	.202	0.000	30.999	0.000	3.000
13414.000	970.000	836.168	3.599	.165	0.000	30.999	-.000	3.000
13414.000	1290.000	838.947	2.779	.137	0.000	30.999	-.000	3.000
13414.000	2510.000	843.927	4.980	-.022	0.000	337.844	-306.845	3.000
14514.000	465.000	834.755	0.000	2.185	0.000	222.906	0.000	1100.000
14514.000	970.000	837.245	2.490	1.076	0.000	366.618	-143.711	1100.000
14514.000	1290.000	839.582	2.337	.634	0.000	429.924	-207.018	1100.000
14514.000	2510.000	844.129	4.547	.202	0.000	460.948	-238.042	1100.000
15314.000	420.000	836.347	0.000	1.593	0.000	20.800	0.000	800.000

MOORE BUSINESS FORMS, INC 23

15314.000	[illegible]	[illegible]	1.322	.425	[illegible]	[illegible]	[illegible]	[illegible]
15314.000	1170.000	839.695	2.026	.113	0.000	198.673	-177.873	800.000
15314.000	2280.000	844.172	4.477	.044	0.000	349.999	-329.199	800.000
15315.000	420.000	836.352	0.000	.004	0.000	20.800	0.000	1.000
15315.000	880.000	837.670	1.318	.000	0.000	144.695	-123.895	1.000
15315.000	1170.000	839.695	2.025	-.000	0.000	198.682	-177.882	1.000
15315.000	2280.000	844.172	4.477	-.000	0.000	349.999	-329.199	1.000
15382.000	420.000	836.660	0.000	.309	0.000	20.800	0.000	67.000
15382.000	880.000	841.939	5.279	4.269	0.000	344.326	-323.526	67.000
15382.000	1170.000	842.617	.678	2.922	0.000	349.999	-329.199	67.000
15382.000	2280.000	844.311	1.694	.138	0.000	349.999	-329.199	67.000
15383.000	420.000	836.830	0.000	.169	0.000	20.800	0.000	1.000
15383.000	880.000	841.947	5.117	.008	0.000	344.343	-323.543	1.000
15383.000	1170.000	842.626	.680	.009	0.000	349.999	-329.199	1.000
15383.000	2280.000	844.325	1.699	.015	0.000	349.999	-329.199	1.000
15683.000	420.000	837.554	0.000	.725	0.000	41.831	0.000	300.000
15683.000	880.000	841.985	4.430	.038	0.000	89.710	-47.879	300.000
15683.000	1170.000	842.658	.673	.032	0.000	207.222	-165.391	300.000
15683.000	2280.000	844.360	1.702	.035	0.000	416.273	-374.442	300.000
15684.000	420.000	837.492	0.000	-.062	0.000	41.580	0.000	1.000
15684.000	880.000	841.900	4.408	-.085	0.000	85.331	-43.750	1.000
15684.000	1170.000	842.569	.669	-.089	0.000	192.278	-150.698	1.000
15684.000	2280.000	844.447	1.878	.087	0.000	417.928	-376.347	1.000
15689.000	420.000	837.511	0.000	.019	0.000	41.629	0.000	5.000
15689.000	880.000	841.935	4.424	.035	0.000	86.576	-44.947	5.000
15689.000	1170.000	842.637	.702	.068	0.000	204.106	-162.477	5.000
15689.000	2280.000	844.462	1.825	.015	0.000	418.082	-376.453	5.000
15690.000	420.000	837.691	0.000	.180	0.000	42.449	0.000	1.000
15690.000	880.000	842.162	4.471	.227	0.000	98.150	-55.701	1.000
15690.000	1170.000	842.859	.697	.222	0.000	207.999	-165.550	1.000
15690.000	2280.000	844.437	1.578	-.025	0.000	517.735	-475.285	1.000
16190.000	420.000	838.215	0.000	.525	0.000	39.348	0.000	500.000
16190.000	880.000	842.351	4.136	.189	0.000	289.358	-250.010	500.000
16190.000	1170.000	843.101	.750	.242	0.000	432.366	-393.018	500.000
16190.000	2280.000	844.790	1.688	.352	0.000	599.999	-560.651	500.000
16890.000	420.000	838.835	0.000	.620	0.000	20.599	0.000	700.000
16890.000	880.000	842.569	3.733	.218	0.000	42.941	-22.342	700.000
16890.000	1170.000	843.335	.766	.233	0.000	109.999	-89.400	700.000
16890.000	2280.000	845.054	1.720	.265	0.000	109.999	-89.400	700.000
16891.000	.010	838.983	0.000	.148	0.000	.007	0.000	1.000
16891.000	390.000	843.878	4.896	1.310	0.000	109.999	-109.992	1.000
16891.000	695.000	844.245	.367	.911	0.000	109.999	-109.992	1.000
16891.000	1810.000	845.287	1.041	.232	0.000	109.999	-109.992	1.000
17094.000	.010	838.983	0.000	-.000	0.000	.006	0.000	203.000
17094.000	390.000	845.054	6.071	1.175	0.000	109.999	-109.993	203.000
17094.000	695.000	845.636	.582	1.391	0.000	109.999	-109.993	203.000
17094.000	1810.000	847.105	1.469	1.818	0.000	109.999	-109.993	203.000
17095.000	420.000	840.500	0.000	1.517	0.000	20.600	0.000	1.000
17095.000	880.000	845.031	4.531	-.022	0.000	109.999	-89.399	1.000
17095.000	1170.000	845.623	.591	-.013	0.000	109.999	-89.399	1.000
17095.000	2280.000	847.132	1.510	.028	0.000	109.999	-89.399	1.000
17895.000	420.000	841.947	0.000	1.447	0.000	39.442	0.000	800.000
17895.000	880.000	845.752	3.805	.720	0.000	139.999	-100.557	800.000

MOORE BUSINESS FORMS, INC 23

[illegible]	[illegible]	[illegible]	.735	.667	.00	139.999	[illegible]	800.000
17895.000	2280.000	848.472	1.985	1.340	0.000	139.999	-100.557	800.000
18395.000	420.000	844.747	0.000	2.800	0.000	41.052	0.000	500.000
18395.000	880.000	846.375	1.628	.624	0.000	106.372	-65.320	500.000
18395.000	1170.000	847.166	.791	.680	0.000	119.999	-78.947	500.000
18395.000	2280.000	849.250	2.084	.778	0.000	119.999	-78.947	500.000
18845.000	420.000	847.229	0.000	2.481	0.000	16.000	0.000	450.000
18845.000	880.000	848.985	1.756	2.610	0.000	139.999	-123.999	450.000
18845.000	1170.000	849.451	.466	2.285	0.000	139.999	-123.999	450.000
18845.000	2280.000	851.094	1.643	1.844	0.000	139.999	-123.999	450.000
18846.000	420.000	847.049	0.000	-.180	0.000	16.000	0.000	1.000
18846.000	880.000	849.321	2.272	.336	0.000	139.999	-123.999	1.000
18846.000	1170.000	849.855	.534	.405	0.000	139.999	-123.999	1.000
18846.000	2280.000	851.460	1.604	.366	0.000	139.999	-123.999	1.000
18896.000	420.000	847.716	0.000	.668	0.000	16.000	0.000	50.000
18896.000	880.000	849.543	1.826	.222	0.000	139.999	-123.999	50.000
18896.000	1170.000	850.034	.492	.179	0.000	139.999	-123.999	50.000
18896.000	2280.000	851.588	1.553	.128	0.000	139.999	-123.999	50.000
18897.000	420.000	848.304	0.000	.588	0.000	16.000	0.000	1.000
18897.000	880.000	849.485	1.180	-.058	0.000	139.999	-123.999	1.000
18897.000	1170.000	849.967	.482	-.067	0.000	139.999	-123.999	1.000
18897.000	2280.000	851.520	1.553	-.067	0.000	139.999	-123.999	1.000
19547.000	420.000	849.107	0.000	.803	0.000	83.516	0.000	650.000
19547.000	880.000	850.494	1.387	1.009	0.000	114.460	-30.943	650.000
19547.000	1170.000	851.116	.622	1.149	0.000	127.426	-43.909	650.000
19547.000	2280.000	852.911	1.794	1.390	0.000	164.999	-81.483	650.000
19877.000	420.000	849.343	0.000	.235	0.000	98.576	0.000	330.000
19877.000	880.000	850.846	1.504	.352	0.000	129.999	-31.423	330.000
19877.000	1170.000	851.541	.695	.425	0.000	129.999	-31.423	330.000
19877.000	2280.000	853.517	1.976	.606	0.000	129.999	-31.423	330.000
19878.000	420.000	849.406	0.000	.064	0.000	99.477	0.000	1.000
19878.000	880.000	850.941	1.534	.094	0.000	129.999	-30.522	1.000
19878.000	1170.000	851.647	.706	.106	0.000	129.999	-30.522	1.000
19878.000	2280.000	853.659	2.012	.142	0.000	129.999	-30.522	1.000
19924.000	420.000	850.487	0.000	1.080	0.000	129.999	0.000	46.000
19924.000	880.000	851.484	.998	.544	0.000	129.999	-.000	46.000
19924.000	1170.000	852.020	.536	.374	0.000	129.999	-.000	46.000
19924.000	2280.000	853.991	1.970	.332	0.000	129.999	-.000	46.000
19925.000	420.000	850.484	0.000	-.002	0.000	129.999	0.000	1.000
19925.000	880.000	851.480	.996	-.004	0.000	129.999	-.000	1.000
19925.000	1170.000	852.016	.535	-.005	0.000	129.999	-.000	1.000
19925.000	2280.000	853.985	1.969	-.006	0.000	129.999	-.000	1.000
20275.000	420.000	850.565	0.000	.081	0.000	127.846	0.000	350.000
20275.000	880.000	851.632	1.066	.151	0.000	159.912	-32.066	350.000
20275.000	1170.000	852.197	.565	.181	0.000	176.761	-48.915	350.000
20275.000	2280.000	854.202	2.005	.217	0.000	184.999	-57.153	350.000
20585.000	420.000	850.673	0.000	.108	0.000	94.778	0.000	310.000
20585.000	880.000	851.825	1.152	.194	0.000	145.005	-50.227	310.000
20585.000	1170.000	852.425	.600	.228	0.000	164.990	-70.212	310.000
20585.000	2280.000	854.414	1.989	.212	0.000	169.999	-75.221	310.000
21005.000	295.000	851.156	0.000	.483	0.000	132.170	0.000	420.000
21005.000	615.000	852.482	1.327	.657	0.000	152.196	-20.026	420.000
21005.000	820.000	853.082	.600	.658	0.000	179.999	-47.829	420.000

MOORE BUSINESS FORMS, INC 70

21305.000	295.000	851.336	0.000	.180	0.000	59.959	0.000	300.000
21305.000	615.000	852.652	1.316	.169	0.000	75.447	-15.489	300.000
21305.000	820.000	853.248	.596	.165	0.000	79.999	-20.040	300.000
21305.000	1600.000	855.097	1.849	.117	0.000	79.999	-20.040	300.000
21306.000	295.000	851.369	0.000	.033	0.000	60.343	0.000	1.000
21306.000	615.000	852.716	1.347	.064	0.000	76.203	-15.860	1.000
21306.000	820.000	853.328	.612	.080	0.000	79.999	-19.656	1.000
21306.000	1600.000	855.192	1.865	.096	0.000	79.999	-19.656	1.000
21353.000	295.000	852.971	0.000	1.603	0.000	78.962	0.000	47.000
21353.000	615.000	854.178	1.207	1.462	0.000	79.999	-1.037	47.000
21353.000	820.000	854.642	.464	1.315	0.000	79.999	-1.037	47.000
21353.000	1600.000	856.120	1.478	.928	0.000	79.999	-1.037	47.000
21354.000	295.000	852.968	0.000	-.003	0.000	78.964	0.000	1.000
21354.000	615.000	854.172	1.204	-.006	0.000	79.999	-1.035	1.000
21354.000	820.000	854.634	.462	-.009	0.000	79.999	-1.035	1.000
21354.000	1600.000	856.105	1.471	-.016	0.000	79.999	-1.035	1.000
21704.000	295.000	853.042	0.000	.074	0.000	199.709	0.000	350.000
21704.000	615.000	854.301	1.259	.129	0.000	215.514	-15.805	350.000
21704.000	820.000	854.807	.505	.173	0.000	224.999	-25.290	350.000
21704.000	1600.000	856.422	1.615	.317	0.000	224.999	-25.290	350.000
22104.000	295.000	853.061	0.000	.019	0.000	51.829	0.000	400.000
22104.000	615.000	854.285	1.224	-.016	0.000	105.832	-54.004	400.000
22104.000	820.000	854.795	.510	-.012	0.000	119.999	-68.170	400.000
22104.000	1600.000	856.437	1.642	.014	0.000	119.999	-68.170	400.000
22194.000	295.000	853.282	0.000	.221	0.000	77.426	0.000	90.000
22194.000	615.000	854.656	1.374	.371	0.000	89.999	-12.573	90.000
22194.000	820.000	855.193	.537	.398	0.000	89.999	-12.573	90.000
22194.000	1600.000	856.769	1.576	.333	0.000	89.999	-12.573	90.000
22195.000	295.000	853.300	0.000	.017	0.000	77.551	0.000	1.000
22195.000	615.000	854.686	1.386	.030	0.000	89.999	-12.448	1.000
22195.000	820.000	855.229	.543	.036	0.000	89.999	-12.448	1.000
22195.000	1600.000	856.824	1.595	.055	0.000	89.999	-12.448	1.000
22265.000	295.000	854.603	0.000	1.304	0.000	89.999	0.000	70.000
22265.000	615.000	855.531	.927	.845	0.000	89.999	-.000	70.000
22265.000	820.000	855.968	.438	.739	0.000	89.999	-.000	70.000
22265.000	1600.000	857.407	1.438	.583	0.000	89.999	-.000	70.000
22266.000	295.000	854.601	0.000	-.003	0.000	89.999	0.000	1.000
22266.000	615.000	855.524	.924	-.006	0.000	89.999	-.000	1.000
22266.000	820.000	855.960	.436	-.009	0.000	89.999	-.000	1.000
22266.000	1600.000	857.391	1.431	-.016	0.000	89.999	-.000	1.000
22416.000	295.000	854.609	0.000	.008	0.000	33.615	0.000	150.000
22416.000	615.000	855.523	.915	-.001	0.000	51.697	-18.082	150.000
22416.000	820.000	855.948	.424	-.012	0.000	61.936	-28.321	150.000
22416.000	1600.000	857.342	1.394	-.049	0.000	74.999	-41.384	150.000
22511.000	295.000	854.635	0.000	.026	0.000	77.999	0.000	95.000
22511.000	615.000	855.636	1.001	.113	0.000	77.999	-.000	95.000
22511.000	820.000	856.119	.483	.171	0.000	77.999	-.000	95.000
22511.000	1600.000	857.819	1.701	.477	0.000	77.999	-.000	95.000
22512.000	295.000	854.604	0.000	-.031	0.000	77.999	0.000	1.000
22512.000	615.000	855.703	1.100	.067	0.000	77.999	-.000	1.000
22512.000	820.000	856.189	.486	.071	0.000	77.999	-.000	1.000
22512.000	1600.000	857.829	1.639	.009	0.000	77.999	-.000	1.000

22582.000	295.000	855.132	0.000	.529	0.000	77.999	0.000	70.000
22582.000	615.000	856.010	.878	.307	0.000	77.999	-.000	70.000
22582.000	820.000	856.476	.466	.286	0.000	77.999	-.000	70.000
22582.000	1600.000	858.053	1.577	.224	0.000	77.999	-.000	70.000
22583.000	295.000	855.132	0.000	-.000	0.000	77.999	0.000	1.000
22583.000	615.000	856.005	.873	-.005	0.000	77.999	-.000	1.000
22583.000	820.000	856.472	.468	-.003	0.000	77.999	-.000	1.000
22583.000	1600.000	858.085	1.613	.032	0.000	77.999	-.000	1.000
22883.000	295.000	855.334	0.000	.202	0.000	71.959	0.000	300.000
22883.000	615.000	856.350	1.016	.345	0.000	136.744	-64.785	300.000
22883.000	820.000	856.884	.534	.412	0.000	171.072	-99.112	300.000
22883.000	1600.000	858.650	1.766	.565	0.000	249.999	-178.040	300.000
23333.000	295.000	855.659	0.000	.325	0.000	29.313	0.000	450.000
23333.000	615.000	856.857	1.198	.507	0.000	54.559	-25.246	450.000
23333.000	820.000	857.405	.549	.521	0.000	66.446	-37.133	450.000
23333.000	1600.000	858.915	1.510	.265	0.000	123.457	-94.143	450.000
23833.000	295.000	856.367	0.000	.708	0.000	32.088	0.000	500.000
23833.000	615.000	857.856	1.489	1.000	0.000	54.094	-22.006	500.000
23833.000	820.000	858.543	.687	1.138	0.000	63.568	-31.480	500.000
23833.000	1600.000	860.306	1.763	1.391	0.000	110.731	-78.643	500.000
24008.000	295.000	856.728	0.000	.361	0.000	30.000	0.000	175.000
24008.000	615.000	858.308	1.581	.452	0.000	115.003	-85.003	175.000
24008.000	820.000	859.033	.725	.491	0.000	132.113	-102.113	175.000
24008.000	1600.000	860.927	1.894	.621	0.000	159.999	-129.999	175.000
24009.000	295.000	856.729	0.000	.002	0.000	30.000	0.000	1.000
24009.000	615.000	858.297	1.567	-.012	0.000	114.884	-84.884	1.000
24009.000	820.000	859.018	.721	-.015	0.000	131.951	-101.951	1.000
24009.000	1600.000	860.902	1.884	-.025	0.000	159.999	-129.999	1.000
24077.000	295.000	856.821	0.000	.091	0.000	30.000	0.000	68.000
24077.000	615.000	860.719	3.899	2.423	0.000	159.999	-129.999	68.000
24077.000	820.000	861.077	.358	2.059	0.000	159.999	-129.999	68.000
24077.000	1600.000	862.028	.951	1.126	0.000	159.999	-129.999	68.000
24078.000	295.000	857.221	0.000	.400	0.000	30.000	0.000	1.000
24078.000	615.000	860.730	3.509	.011	0.000	159.999	-129.999	1.000
24078.000	820.000	861.093	.363	.016	0.000	159.999	-129.999	1.000
24078.000	1600.000	862.068	.976	.040	0.000	159.999	-129.999	1.000
24358.000	295.000	857.542	0.000	.321	0.000	154.867	0.000	280.000
24358.000	615.000	860.777	3.235	.047	0.000	304.999	-150.132	280.000
24358.000	820.000	861.159	.382	.066	0.000	304.999	-150.132	280.000
24358.000	1600.000	862.210	1.051	.142	0.000	304.999	-150.132	280.000
24778.000	295.000	858.184	0.000	.642	0.000	335.373	0.000	420.000
24778.000	615.000	860.815	2.631	.038	0.000	349.999	-14.626	420.000
24778.000	820.000	861.208	.392	.049	0.000	349.999	-14.626	420.000
24778.000	1600.000	862.295	1.088	.085	0.000	349.999	-14.626	420.000
24779.000	295.000	858.208	0.000	.024	0.000	335.698	0.000	1.000
24779.000	615.000	860.816	2.608	.001	0.000	349.999	-14.301	1.000
24779.000	820.000	861.209	.392	.001	0.000	349.999	-14.301	1.000
24779.000	1600.000	862.297	1.088	.002	0.000	349.999	-14.301	1.000
24782.000	295.000	858.213	0.000	.005	0.000	335.748	0.000	3.000
24782.000	615.000	860.817	2.604	.000	0.000	349.999	-14.251	3.000
24782.000	820.000	861.209	.392	.000	0.000	349.999	-14.251	3.000
24782.000	1600.000	862.297	1.089	.000	0.000	349.999	-14.251	3.000

MOORE BUSINESS FORMS, INC 20

24783.0	295.0	860.2[illegible]	0.0	[illegible]	.0 0	335.768	0.000	1. 0
24783.000	615.000	860.816	2.609	-.000	0.000	349.999	-14.233	1.000
24783.000	820.000	861.209	.392	-.000	0.000	349.999	-14.233	1.000
24783.000	1600.000	862.297	1.088	-.000	0.000	349.999	-14.233	1.000
25383.000	295.000	858.557	0.000	.349	0.000	292.992	0.000	600.000
25383.000	615.000	860.853	2.296	.037	0.000	324.999	-32.007	600.000
25383.000	820.000	861.254	.401	.046	0.000	324.999	-32.007	600.000
25383.000	1600.000	862.374	1.119	.076	0.000	324.999	-32.007	600.000
25384.000	295.000	858.559	0.000	.002	0.000	293.016	0.000	1.000
25384.000	615.000	860.853	2.295	.000	0.000	324.999	-31.983	1.000
25384.000	820.000	861.255	.401	.000	0.000	324.999	-31.983	1.000
25384.000	1600.000	862.374	1.119	.001	0.000	324.999	-31.983	1.000
25387.000	295.000	858.560	0.000	.001	0.000	293.063	0.000	3.000
25387.000	615.000	860.854	2.293	.000	0.000	324.999	-31.936	3.000
25387.000	820.000	861.255	.401	.000	0.000	324.999	-31.936	3.000
25387.000	1600.000	862.375	1.119	.000	0.000	324.999	-31.936	3.000
25388.000	295.000	858.560	0.000	-.000	0.000	293.080	0.000	1.000
25388.000	615.000	860.854	2.294	-.000	0.000	324.999	-31.919	1.000
25388.000	820.000	861.255	.401	-.000	0.000	324.999	-31.919	1.000
25388.000	1600.000	862.375	1.119	-.000	0.000	324.999	-31.919	1.000
25708.000	255.000	858.693	0.000	.133	0.000	32.000	0.000	320.000
25708.000	540.000	860.867	2.174	.013	0.000	169.999	-137.999	320.000
25708.000	730.000	861.270	.403	.015	0.000	169.999	-137.999	320.000
25708.000	1420.000	862.397	1.127	.022	0.000	169.999	-137.999	320.000
25709.000	255.000	858.621	0.000	-.073	0.000	32.000	0.000	1.000
25709.000	540.000	860.790	2.170	-.076	0.000	168.496	-136.496	1.000
25709.000	730.000	861.222	.431	-.048	0.000	169.999	-137.999	1.000
25709.000	1420.000	862.373	1.151	-.023	0.000	169.999	-137.999	1.000
25769.000	255.000	859.054	0.000	.433	0.000	32.000	0.000	60.000
25769.000	540.000	861.221	2.167	.430	0.000	169.999	-137.999	60.000
25769.000	730.000	861.531	.310	.309	0.000	169.999	-137.999	60.000
25769.000	1420.000	862.551	1.020	.178	0.000	169.999	-137.999	60.000
25770.000	255.000	859.700	0.000	.646	0.000	62.606	0.000	1.000
25770.000	540.000	861.287	1.587	.067	0.000	169.999	-107.393	1.000
25770.000	730.000	861.591	.304	.061	0.000	169.999	-107.393	1.000
25770.000	1420.000	862.586	.994	.035	0.000	169.999	-107.393	1.000
26370.000	255.000	859.871	0.000	.171	0.000	248.803	0.000	600.000
26370.000	540.000	861.440	1.569	.152	0.000	282.932	-34.128	600.000
26370.000	730.000	861.798	.358	.207	0.000	291.893	-43.089	600.000
26370.000	1420.000	862.927	1.129	.342	0.000	319.279	-70.476	600.000
26910.000	255.000	860.190	0.000	.320	0.000	46.148	0.000	540.000
26910.000	540.000	861.621	1.430	.181	0.000	117.888	-71.740	540.000
26910.000	730.000	862.017	.396	.219	0.000	194.385	-148.236	540.000
26910.000	1420.000	863.202	1.186	.275	0.000	304.191	-258.043	540.000
27260.000	255.000	860.423	0.000	.233	0.000	42.276	0.000	350.000
27260.000	540.000	861.911	1.488	.290	0.000	94.540	-52.264	350.000
27260.000	730.000	862.373	.462	.356	0.000	144.562	-102.286	350.000
27260.000	1420.000	863.594	1.221	.391	0.000	310.164	-267.888	350.000
27810.000	255.000	860.870	0.000	.447	0.000	45.457	0.000	550.000
27810.000	540.000	862.422	1.551	.511	0.000	57.455	-11.998	550.000
27810.000	730.000	862.974	.552	.601	0.000	62.741	-17.284	550.000
27810.000	1420.000	864.281	1.307	.688	0.000	75.849	-30.392	550.000
28130.000	255.000	861.134	0.000	.264	0.000	9.399	0.000	320.000

MOORE BUSINESS FORMS INC. 23

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28130.000	730.000	863.360	.584	.386	0.000	77.005	-67.606	320.000
28130.000	1420.000	864.802	1.442	.520	0.000	109.948	-100.549	320.000
28131.000	255.000	861.730	0.000	.596	0.000	9.399	0.000	1.000
28131.000	540.000	862.779	1.049	.003	0.000	64.015	-54.615	1.000
28131.000	730.000	863.362	.583	.002	0.000	77.043	-67.644	1.000
28131.000	1420.000	864.803	1.441	.002	0.000	110.004	-100.604	1.000
28218.000	255.000	862.934	0.000	1.204	0.000	9.399	0.000	87.000
28218.000	540.000	866.431	3.497	3.652	0.000	201.302	-191.903	87.000
28218.000	730.000	866.893	.462	3.531	0.000	207.366	-197.967	87.000
28218.000	1420.000	867.781	.888	2.978	0.000	219.010	-209.611	87.000
28219.000	255.000	863.114	0.000	.180	0.000	9.399	0.000	1.000
28219.000	540.000	866.431	3.318	.000	0.000	201.318	-191.919	1.000
28219.000	730.000	866.894	.463	.001	0.000	207.382	-197.983	1.000
28219.000	1420.000	867.783	.889	.002	0.000	219.027	-209.628	1.000
28619.000	255.000	864.041	0.000	.927	0.000	159.648	0.000	400.000
28619.000	540.000	866.484	2.443	.052	0.000	324.961	-165.313	400.000
28619.000	730.000	866.965	.482	.072	0.000	336.042	-176.394	400.000
28619.000	1420.000	867.944	.978	.161	0.000	358.238	-198.590	400.000
29469.000	255.000	864.597	0.000	.556	0.000	28.680	0.000	850.000
29469.000	540.000	866.527	1.929	.043	0.000	86.232	-57.552	850.000
29469.000	730.000	867.023	.497	.058	0.000	109.287	-80.607	850.000
29469.000	1420.000	868.081	1.058	.137	0.000	149.999	-121.319	850.000
29534.000	255.000	865.636	0.000	1.039	0.000	34.378	0.000	65.000
29534.000	540.000	866.689	1.053	.163	0.000	68.698	-34.320	65.000
29534.000	730.000	867.164	.475	.141	0.000	113.897	-79.519	65.000
29534.000	1420.000	868.261	1.097	.180	0.000	129.999	-95.621	65.000
29535.000	255.000	866.897	0.000	1.260	0.000	96.964	0.000	1.000
29535.000	540.000	867.522	.625	.833	0.000	121.727	-24.763	1.000
29535.000	730.000	867.785	.264	.622	0.000	127.493	-30.529	1.000
29535.000	1420.000	868.535	.750	.274	0.000	129.999	-33.035	1.000
29536.000	255.000	866.909	0.000	.012	0.000	97.697	0.000	1.000
29536.000	540.000	867.533	.624	.011	0.000	121.836	-24.139	1.000
29536.000	730.000	867.798	.265	.012	0.000	127.611	-29.914	1.000
29536.000	1420.000	868.549	.751	.014	0.000	130.000	-32.303	1.000
29537.000	255.000	867.386	0.000	.477	0.000	118.732	0.000	1.000
29537.000	540.000	868.046	.660	.513	0.000	129.999	-11.267	1.000
29537.000	730.000	868.399	.353	.602	0.000	129.999	-11.267	1.000
29537.000	1420.000	869.339	.939	.790	0.000	129.999	-11.267	1.000
29687.000	255.000	867.505	0.000	.119	0.000	81.822	0.000	150.000
29687.000	540.000	868.269	.765	.223	0.000	126.500	-44.678	150.000
29687.000	730.000	868.662	.393	.262	0.000	135.065	-53.243	150.000
29687.000	1420.000	869.715	1.054	.376	0.000	159.807	-77.985	150.000
29688.000	255.000	867.498	0.000	-.007	0.000	81.663	0.000	1.000
29688.000	540.000	868.290	.792	.021	0.000	126.500	-44.838	1.000
29688.000	730.000	868.705	.415	.043	0.000	136.021	-54.358	1.000
29688.000	1420.000	869.905	1.201	.190	0.000	164.419	-82.757	1.000
29700.000	255.000	867.516	0.000	.018	0.000	82.429	0.000	12.000
29700.000	540.000	868.369	.853	.079	0.000	128.128	-45.699	12.000
29700.000	730.000	868.785	.417	.081	0.000	137.916	-55.487	12.000
29700.000	1420.000	869.965	1.180	.060	0.000	165.584	-83.155	12.000
29701.000	255.000	867.540	0.000	.024	0.000	82.764	0.000	1.000
29701.000	540.000	868.368	.828	-.001	0.000	128.198	-45.434	1.000

MOORE BUSINESS FORMS, INC. 23

29701.000	730.000	[illegible]	[illegible]	-.004	0.000	137.997	[illegible]	1.000
29701.000	1420.000	869.926	1.144	-.040	0.000	164.790	-82.026	1.000
29751.000	255.000	868.035	0.000	.495	0.000	145.379	0.000	50.000
29751.000	540.000	868.741	.706	.373	0.000	191.399	-46.020	50.000
29751.000	730.000	869.177	.436	.395	0.000	191.399	-46.020	50.000
29751.000	1420.000	870.320	1.143	.394	0.000	191.399	-46.020	50.000
29752.000	255.000	868.337	0.000	.302	0.000	183.589	0.000	1.000
29752.000	540.000	868.792	.454	.051	0.000	191.399	-7.810	1.000
29752.000	730.000	869.193	.401	.016	0.000	191.399	-7.810	1.000
29752.000	1420.000	870.323	1.130	.003	0.000	191.399	-7.810	1.000
29796.000	255.000	868.423	0.000	.086	0.000	191.399	0.000	44.000
29796.000	540.000	868.885	.462	.093	0.000	191.399	-.000	44.000
29796.000	730.000	869.260	.375	.067	0.000	191.399	-.000	44.000
29796.000	1420.000	870.364	1.104	.041	0.000	191.399	-.000	44.000
29797.000	255.000	868.422	0.000	-.001	0.000	191.399	0.000	1.000
29797.000	540.000	868.886	.464	.001	0.000	191.399	-.000	1.000
29797.000	730.000	869.261	.376	.001	0.000	191.399	-.000	1.000
29797.000	1420.000	870.367	1.106	.003	0.000	191.399	-.000	1.000
30027.000	255.000	868.601	0.000	.179	0.000	165.057	0.000	230.000
30027.000	540.000	869.182	.582	.297	0.000	182.484	-17.427	230.000
30027.000	730.000	869.562	.379	.301	0.000	193.906	-28.850	230.000
30027.000	1420.000	870.676	1.114	.309	0.000	229.490	-64.433	230.000
30527.000	255.000	868.664	0.000	.063	0.000	128.305	0.000	500.000
30527.000	540.000	869.323	.659	.140	0.000	152.604	-24.300	500.000
30527.000	730.000	869.732	.409	.170	0.000	167.740	-39.435	500.000
30527.000	1420.000	870.910	1.179	.234	0.000	207.033	-78.728	500.000
30927.000	210.000	868.707	0.000	.043	0.000	169.948	0.000	400.000
30927.000	460.000	869.430	.723	.107	0.000	207.146	-37.198	400.000
30927.000	640.000	869.873	.443	.141	0.000	225.941	-55.993	400.000
30927.000	1230.000	871.134	1.261	.223	0.000	278.140	-108.192	400.000
31227.000	210.000	868.746	0.000	.039	0.000	159.975	0.000	300.000
31227.000	460.000	869.506	.760	.076	0.000	211.271	-51.296	300.000
31227.000	640.000	869.962	.456	.089	0.000	349.999	-190.024	300.000
31227.000	1230.000	871.229	1.267	.095	0.000	349.999	-190.024	300.000
31228.000	210.000	868.321	0.000	-.425	0.000	85.910	0.000	1.000
31228.000	460.000	870.297	1.975	.790	0.000	327.253	-241.344	1.000
31228.000	640.000	870.484	.187	.522	0.000	330.795	-244.885	1.000
31228.000	1230.000	871.149	.665	-.080	0.000	343.406	-257.496	1.000
31299.000	210.000	869.416	0.000	1.094	0.000	158.446	0.000	71.000
31299.000	460.000	870.740	1.325	.444	0.000	335.747	-177.301	71.000
31299.000	640.000	870.948	.208	.465	0.000	339.576	-181.129	71.000
31299.000	1230.000	871.484	.535	.335	0.000	349.708	-191.262	71.000
31300.000	210.000	870.084	0.000	.668	0.000	349.999	0.000	1.000
31300.000	460.000	870.816	.732	.075	0.000	349.999	-.000	1.000
31300.000	640.000	871.038	.223	.090	0.000	349.999	-.000	1.000
31300.000	1230.000	871.601	.562	.117	0.000	349.999	-.000	1.000
31850.000	210.000	870.094	0.000	.010	0.000	399.999	0.000	550.000
31850.000	460.000	870.838	.744	.022	0.000	399.999	-.000	550.000
31850.000	640.000	871.073	.235	.034	0.000	399.999	-.000	550.000
31850.000	1230.000	871.678	.606	.078	0.000	399.999	-.000	550.000
32785.000	210.000	870.103	0.000	.009	0.000	449.999	0.000	935.000
32785.000	460.000	870.860	.756	.022	0.000	449.999	-.000	935.000
32785.000	640.000	871.107	.248	.035	0.000	449.999	-.000	935.000

MOORE BUSINESS FORMS INC. 23

32785.000	1230.000	871.751	.650	.079	0.000	49.9[illegible]	0.000	535.000
33385.000	210.000	870.195	0.000	.092	0.000	321.425	0.000	600.000
33385.000	460.000	870.977	.782	.118	0.000	356.093	-34.668	600.000
33385.000	640.000	871.266	.288	.158	0.000	367.629	-46.204	600.000
33385.000	1230.000	872.016	.751	.259	0.000	397.651	-76.226	600.000
34235.000	210.000	871.298	0.000	1.103	0.000	97.087	0.000	850.000
34235.000	460.000	871.941	.643	.963	0.000	171.256	-74.168	850.000
34235.000	640.000	872.320	.379	1.054	0.000	182.168	-85.080	850.000
34235.000	1230.000	873.219	.900	1.203	0.000	205.268	-108.181	850.000
34247.000	210.000	872.266	0.000	.968	0.000	180.829	0.000	12.000
34247.000	460.000	872.581	.314	.640	0.000	188.898	-8.070	12.000
34247.000	640.000	872.773	.192	.453	0.000	193.850	-13.021	12.000
34247.000	1230.000	873.369	.596	.150	0.000	209.233	-28.405	12.000
34997.000	210.000	872.575	0.000	.309	0.000	50.843	0.000	750.000
34997.000	460.000	873.354	.779	.773	0.000	67.254	-16.411	750.000
34997.000	640.000	873.822	.468	1.049	0.000	76.925	-26.082	750.000
34997.000	1230.000	874.965	1.144	1.596	0.000	109.541	-58.698	750.000
35772.000	210.000	872.985	0.000	.410	0.000	47.562	0.000	775.000
35772.000	460.000	874.148	1.163	.794	0.000	94.767	-47.205	775.000
35772.000	640.000	874.768	.620	.946	0.000	152.620	-105.058	775.000
35772.000	1230.000	876.197	1.429	1.231	0.000	256.225	-208.663	775.000
36122.000	210.000	873.161	0.000	.176	0.000	31.200	0.000	350.000
36122.000	460.000	874.403	1.242	.255	0.000	31.200	0.000	350.000
36122.000	640.000	875.030	.627	.262	0.000	31.200	0.000	350.000
36122.000	1230.000	876.365	1.335	.168	0.000	31.200	0.000	350.000
36123.000	210.000	873.173	0.000	.012	0.000	31.200	0.000	1.000
36123.000	460.000	874.394	1.221	-.009	0.000	31.200	0.000	1.000
36123.000	640.000	875.001	.607	-.029	0.000	31.200	0.000	1.000
36123.000	1230.000	876.222	1.221	-.143	0.000	31.200	0.000	1.000
36262.000	210.000	873.252	0.000	.079	0.000	31.200	0.000	139.000
36262.000	460.000	874.610	1.359	.216	0.000	31.200	0.000	139.000
36262.000	640.000	875.323	.713	.322	0.000	31.200	0.000	139.000
36262.000	1230.000	877.221	1.898	.999	0.000	31.200	0.000	139.000
36263.000	210.000	873.245	0.000	-.007	0.000	31.200	0.000	1.000
36263.000	460.000	874.634	1.390	.024	0.000	31.200	0.000	1.000
36263.000	640.000	875.412	.778	.089	0.000	31.200	0.000	1.000
36263.000	1230.000	877.722	2.310	.500	0.000	31.200	0.000	1.000
36503.000	210.000	873.482	0.000	.238	0.000	38.036	0.000	240.000
36503.000	460.000	874.965	1.483	.331	0.000	56.994	-18.958	240.000
36503.000	640.000	875.814	.848	.402	0.000	70.658	-32.621	240.000
36503.000	1230.000	878.315	2.501	.593	0.000	135.081	-97.045	240.000
37603.000	160.000	873.807	0.000	.325	0.000	213.163	0.000	1100.000
37603.000	350.000	875.312	1.505	.347	0.000	249.999	-36.836	1100.000
37603.000	480.000	876.171	.858	.357	0.000	249.999	-36.836	1100.000
37603.000	920.000	878.621	2.450	.307	0.000	249.999	-36.836	1100.000
37604.000	160.000	874.194	0.000	.387	0.000	249.999	0.000	1.000
37604.000	350.000	875.307	1.113	-.006	0.000	249.999	-.000	1.000
37604.000	480.000	876.167	.861	-.004	0.000	249.999	-.000	1.000
37604.000	920.000	878.619	2.452	-.002	0.000	249.999	-.000	1.000
37648.000	160.000	874.438	0.000	.245	0.000	249.999	0.000	44.000
37648.000	350.000	875.322	.884	.016	0.000	249.999	-.000	44.000
37648.000	480.000	876.173	.851	.006	0.000	249.999	-.000	44.000
37648.000	920.000	878.621	2.448	.002	0.000	249.999	-.000	44.000

MOORE BUSINESS FORMS, INC 23

37649.000	160.000	874.464	0.000	.026	0.000	249.999	0.000	1.000
37649.000	350.000	875.337	.873	.015	0.000	249.999	-.000	1.000
37649.000	480.000	876.182	.845	.009	0.000	249.999	-.000	1.000
37649.000	920.000	878.626	2.444	.005	0.000	249.999	-.000	1.000
37762.000	160.000	874.470	0.000	.006	0.000	201.839	0.000	113.000
37762.000	350.000	875.347	.877	.010	0.000	249.999	-48.160	113.000
37762.000	480.000	876.191	.844	.009	0.000	249.999	-48.160	113.000
37762.000	920.000	878.632	2.441	.006	0.000	249.999	-48.160	113.000
37874.000	160.000	874.480	0.000	.009	0.000	125.879	0.000	112.000
37874.000	350.000	875.377	.898	.030	0.000	223.302	-97.422	112.000
37874.000	480.000	876.214	.837	.023	0.000	249.999	-124.120	112.000
37874.000	920.000	878.643	2.429	.011	0.000	249.999	-124.120	112.000
37987.000	160.000	875.548	0.000	1.068	0.000	118.481	0.000	113.000
37987.000	350.000	876.007	.459	.630	0.000	196.814	-78.333	113.000
37987.000	480.000	876.311	.304	.097	0.000	222.921	-104.440	113.000
37987.000	920.000	878.675	2.363	.032	0.000	249.999	-131.518	113.000
38099.000	160.000	876.973	0.000	1.425	0.000	192.521	0.000	112.000
38099.000	350.000	877.384	.411	1.377	0.000	199.999	-7.478	112.000
38099.000	480.000	877.537	.153	1.226	0.000	199.999	-7.478	112.000
38099.000	920.000	878.810	1.273	.135	0.000	199.999	-7.478	112.000
38599.000	160.000	881.401	0.000	4.428	0.000	45.114	0.000	500.000
38599.000	350.000	882.111	.710	4.727	0.000	103.972	-58.858	500.000
38599.000	480.000	882.485	.374	4.948	0.000	107.819	-62.705	500.000
38599.000	920.000	883.020	.535	4.210	0.000	117.895	-72.781	500.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	-500.000	137.769	0.000
2	1.000	-500.000	202.136	64.367
3	1.000	-500.000	231.549	93.780
4	1.000	-500.000	287.616	149.847

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE DOWNSTREAM OF FARMINGTON

4) DOCUMENT TYPE: 100 YR CONVERGENT

00BREAK00

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$$$$$$$$     $$     $$$$$$$   $$$$$$$$   $$$$$ $   $$$$$$$$   $$$$$$$$
$$          $$$$    $$    $$     $$     $$    $      $$       $$
$$         $$  $$   $$    $$     $$     $$   $$$     $$       $$
$$$$$     $$    $$   $$    $$     $$     $$  $ $$     $$       $$$$$
$$        $$    $$   $$    $$     $$     $$ $$ $$     $$       $$
$$        $$$$$$$$   $$$$$$$      $$     $$ $  $$     $$       $$
$$        $$    $$   $$  $$       $$     $$$  $$      $$       $$
$$        $$    $$   $$   $$   $$ $$      $   $$   $$ $$       $$
$$        $$    $$   $$    $$   $$$      $ $$$$$     $$$       $$
FARJOJF  JANDA                 03/23/78  17.37.37  7600   JO
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5670-03-1

CITY OF FARMINGTON HILLS

UPPER RIVER ROUGE - D/S OF FARMINGTON

CONVERGENT RUN (100-YEAR FLOOD)

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1       CITY OF FARMINGTON HILLS, FIS-5670-03, PM:RICHARD ZANOTTI
T2       CONVERGENT RUN - 100-YEAR FLOOD
T3       UPPER RIVER ROUGE - D/S OF FARMINGTON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       2.        0.        0.  0.000000      0.00       0.0       0.   635.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3     1.000    10.000    11.000    12.000    14.000     8.000     4.000     0.000     0.000     0.000
NC      .095      .095      .053      .300      .500     0.000     0.000     0.000     0.000     0.000
QT     5.000  2080.000  2080.000  2080.000  2080.000  2080.000     0.000     0.000     0.000     0.000

X1    35.000    17.000    55.000    98.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   640.000     0.000   634.000    55.000   630.200    60.000   629.100    68.000   626.800    75.000
GR   626.800    79.000   630.000    92.000   631.800    96.000   634.000    98.000   633.000   140.000
GR   632.000   160.000   633.100   200.000   632.500   220.000   633.100   240.000   634.600   270.000
GR   637.000   280.000   640.000   292.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      .097      .097      .055     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    36.000    20.000    57.000    84.000   900.000  1000.000  1400.000     0.000     0.000     0.000
GR   640.000     0.000   635.600    24.000   633.200    44.000   633.600    57.000   626.200    67.000
GR   626.200    70.000   628.600    71.000   632.700    84.000   632.700   104.000   632.500   124.000
GR   632.500   164.000   633.000   184.000   632.600   204.000   632.500   224.000   632.800   244.000
GR   633.200   264.000   634.200   284.000   635.600   304.000   638.500   324.000   640.000   344.000

X1    36.300    90.000    99.600   129.200   635.000   565.000   605.000     0.000     0.000     0.000
GR   643.300     0.000   642.900     3.400   642.500     6.800   642.200    10.300   641.800    13.700
GR   641.400    17.100   641.000    20.600   640.700    24.000   640.300    27.400   639.900    30.900
GR   639.500    34.300   639.200    37.700   638.800    41.200   638.400    44.600   637.800    48.000
GR   637.200    51.500   636.600    54.900   636.000    58.400   635.400    61.800   634.900    65.200
GR   634.600    68.700   634.300    72.100   634.000    75.500   633.800    79.000   633.700    82.400
GR   633.500    85.800   633.400    89.300   633.300    92.700   633.200    96.100   633.100    99.600
GR   632.600   100.600   632.000   101.600   631.500   102.500   631.000   103.500   630.500   104.500
GR   630.000   105.500   629.400   106.500   628.900   107.500   628.400   108.500   627.900   109.500
GR   627.400   110.500   627.200   111.400   627.200   112.400   627.200   113.400   628.000   114.400
GR   628.900   115.400   629.100   116.400   629.200   117.400   629.400   118.400   629.600   119.300
GR   629.800   120.300   630.100   121.300   630.400   122.300   630.700   123.300   630.900   124.300
GR   631.200   125.300   631.500   126.300   631.800   127.300   632.100   128.200   632.400   129.200
GR   632.500   138.100   632.600   147.000   632.600   155.900   632.600   164.800   632.600   173.700
GR   632.700   182.600   632.700   191.500   632.800   200.300   632.900   209.200   633.100   218.100
GR   633.300   227.000   633.400   235.900   633.300   244.800   633.300   253.700   633.300   262.600
GR   633.400   271.500   633.600   280.300   633.800   289.200   634.000   298.100   634.200   307.000
GR   634.500   315.900   634.900   324.800   635.300   333.700   635.800   342.600   636.300   351.500
GR   637.100   360.300   638.000   369.200   638.900   378.100   639.400   387.000   640.000   395.900

X1    36.600    90.000   142.300   174.700   635.000   565.000   605.000     0.000     0.000     0.000
GR   646.600     0.000   646.200     4.900   645.800     9.800   645.500    14.700   645.100    19.600
GR   644.700    24.500   644.300    29.400   643.900    34.300   643.500    39.200   643.100    44.100
GR   642.800    49.000   642.400    54.000   642.000    58.900   641.400    63.800   640.400    68.700
GR   639.500    73.600   638.600    78.500   637.600    93.400   636.700    88.300   635.900    93.200
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GR	635.500	98.100	635.100	103.000	634.700	108.000	634.400	112.900	634.100	117.800
GR	633.800	122.700	633.500	127.600	633.200	132.500	632.900	137.400	632.600	142.300
GR	632.200	143.400	631.900	144.500	631.500	145.600	631.100	146.600	630.800	147.700
GR	630.400	148.800	630.000	149.900	629.600	150.900	629.300	152.000	628.900	153.100
GR	628.500	154.200	628.300	155.300	628.200	156.300	628.200	157.400	628.600	158.500
GR	629.100	159.600	629.200	160.600	629.200	161.700	629.300	162.800	629.400	163.900
GR	629.500	165.000	629.700	166.000	630.100	167.100	630.400	168.200	630.700	169.300
GR	631.000	170.400	631.300	171.400	631.600	172.500	631.900	173.600	632.200	174.700
GR	632.300	183.800	632.400	192.900	632.600	202.000	632.700	211.100	632.800	220.200
GR	632.900	229.300	633.100	238.400	633.200	247.600	633.300	256.700	633.500	265.800
GR	633.700	274.900	633.900	284.000	633.900	293.100	634.000	302.200	634.100	311.300
GR	634.300	320.400	634.600	329.600	634.900	338.700	635.100	347.800	635.400	356.900
GR	635.700	366.000	636.100	375.100	636.500	384.200	636.900	393.300	637.300	402.400
GR	637.900	411.600	638.500	420.700	639.100	429.800	639.500	438.900	640.000	448.000
NC	-.100	.100	.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37.000	9.000	185.000	220.000	635.000	565.000	605.000	0.000	0.000	0.000
GR	650.000	0.000	645.000	80.000	637.000	120.000	632.200	185.000	629.300	200.000
GR	629.300	210.000	632.000	220.000	635.000	360.000	640.000	500.000	0.000	0.000
X1	37.300	90.000	148.700	183.300	600.000	735.000	680.000	0.000	0.000	0.000
GR	650.500	0.000	650.200	5.100	649.800	10.200	649.500	15.300	649.000	20.500
GR	648.500	25.600	647.900	30.700	647.300	35.800	646.800	41.000	646.200	46.100
GR	645.600	51.200	645.000	56.400	644.500	61.500	643.800	66.600	642.900	71.700
GR	642.000	76.900	641.100	82.000	640.100	87.100	639.100	92.200	638.200	97.400
GR	637.700	102.500	637.200	107.600	636.800	112.800	636.300	117.900	635.900	123.000
GR	635.500	128.100	635.100	133.300	634.700	138.400	634.400	143.500	634.000	148.700
GR	633.700	149.800	633.400	151.000	633.000	152.100	632.700	153.300	632.400	154.400
GR	632.000	155.600	631.700	156.700	631.300	157.900	631.100	159.100	630.900	160.200
GR	630.700	161.400	630.500	162.500	630.300	163.700	630.200	164.800	630.200	166.000
GR	630.200	167.100	630.200	168.300	630.300	169.500	630.400	170.600	630.500	171.800
GR	630.600	172.900	630.900	174.100	631.200	175.200	631.500	176.400	631.800	177.500
GR	632.200	178.700	632.600	179.900	633.100	181.000	633.500	182.200	634.100	183.300
GR	634.400	192.300	635.400	201.300	635.900	210.300	636.100	219.300	636.300	228.300
GR	636.500	237.300	636.700	246.300	636.900	255.300	637.200	264.300	637.400	273.300
GR	637.600	282.300	637.900	291.300	638.100	300.300	638.300	309.300	638.500	318.300
GR	638.900	327.300	639.200	336.300	639.500	345.300	639.800	354.300	640.100	363.300
GR	640.400	372.300	640.800	381.300	641.100	390.300	641.400	399.300	641.700	408.300
GR	642.000	417.300	642.300	426.300	642.600	435.300	643.000	444.300	643.300	453.300
NC	.105	.105	.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	37.600	90.000	112.200	146.600	600.000	735.000	680.000	0.000	0.000	0.000
GR	651.100	0.000	650.800	3.800	650.500	7.700	650.200	11.600	649.700	15.400
GR	649.000	19.300	648.300	23.200	647.500	27.100	646.800	30.900	646.000	34.800
GR	645.300	38.700	644.500	42.500	643.800	46.400	643.300	50.300	642.800	54.200
GR	642.300	58.000	641.600	61.900	640.900	65.800	640.100	69.700	639.500	73.500
GR	639.000	77.400	638.500	81.300	638.100	85.100	637.600	89.000	637.200	92.900
GR	636.900	96.800	636.600	100.600	636.400	104.500	636.200	108.400	636.000	112.200
GR	635.500	113.400	635.000	114.500	634.600	115.700	634.100	116.800	633.700	118.000
GR	633.200	119.100	632.800	120.300	632.300	121.400	632.100	122.500	631.900	123.700
GR	631.700	124.800	631.500	126.000	631.300	127.100	631.200	128.300	631.200	129.400
GR	631.200	130.600	631.200	131.700	631.300	132.800	631.600	134.000	631.800	135.100
GR	632.000	136.300	632.300	137.400	632.600	138.600	633.000	139.700	633.300	140.900
GR	633.700	142.000	634.300	143.100	634.800	144.300	635.400	145.400	636.300	146.600
GR	636.600	155.200	638.400	163.900	639.300	172.600	639.400	181.200	639.600	189.900
GR	639.800	198.600	640.100	207.200	640.400	215.900	640.600	224.600	640.900	233.200
GR	641.100	241.900	641.400	250.600	641.600	259.200	641.900	267.900	642.100	276.600
GR	642.400	285.200	642.700	293.900	643.000	302.600	643.300	311.200	643.600	319.900
GR	643.900	328.600	644.200	337.200	644.500	345.900	644.800	354.600	645.100	363.200
GR	645.400	371.900	645.700	380.600	646.000	389.200	646.300	397.900	646.600	406.600
X1	38.000	18.000	76.000	110.000	600.000	680.000	735.000	0.000	0.000	0.000
GR	651.700	0.000	651.000	8.000	650.000	12.000	642.900	32.000	642.500	40.000
GR	638.700	62.000	638.100	70.000	637.900	76.000	633.400	85.000	632.200	92.000
GR	632.300	96.000	635.000	105.000	638.000	110.000	638.500	110.000	638.900	120.000
GR	642.700	130.000	642.900	150.000	650.000	360.000	0.000	0.000	0.000	0.000

X1	1.100	21.000	600.000	627.000	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	643.000	643.000	0.000
GR	650.000	0.000	648.900	100.000	648.200	200.000	646.900	300.000	646.900	400.000
GR	646.300	500.000	641.200	575.000	634.000	599.000	633.500	600.000	633.000	610.000
GR	633.500	620.000	633.800	627.000	634.200	630.000	637.400	646.000	642.700	660.000
GR	645.400	700.000	646.900	800.000	650.000	900.000	653.900	1000.000	658.100	1100.000
GR	661.100	1278.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1.200	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	643.000	643.000	0.000
SB	0.000	2.680	3.000	0.000	25.950	0.000	228.400	0.000	633.000	633.000
X1	1.300	21.000	600.000	627.000	77.000	77.000	77.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	641.800	645.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	645.400	645.400	0.000
BT	16.000	0.000	650.000	0.000	100.000	648.900	0.000	200.000	648.200	0.000
BT	300.000	646.900	0.000	400.000	646.900	0.000	500.000	646.300	0.000	600.000
BT	645.800	0.000	600.000	645.800	641.800	627.000	645.800	641.600	627.000	645.800
BT	0.000	700.000	645.400	0.000	800.000	646.900	0.000	900.000	650.000	0.000
BT	1000.000	653.900	0.000	1100.000	658.000	0.000	1278.000	661.100	0.000	0.000
GR	650.000	0.000	648.900	100.000	648.200	200.000	646.900	300.000	646.900	400.000
GR	646.300	500.000	641.200	575.000	633.500	600.000	633.100	605.000	633.100	610.000
GR	633.300	615.000	633.400	620.000	633.200	625.000	633.000	627.000	637.400	646.000
GR	645.400	700.000	646.900	800.000	650.000	900.000	653.900	1000.000	658.100	1100.000
GR	661.100	1278.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	645.400	645.400	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	[illegible]	6.5.[illegible]00	1330.000	1810.000	3410.000	0.000	0.000	0.000	0.000	0.000
X1	9727.000	90.000	306.500	336.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	765.100	0.000	763.300	10.500	761.400	21.100	759.600	31.700	758.100	42.200
GR	756.800	52.800	755.400	63.400	754.300	73.900	753.700	84.500	753.500	95.100
GR	753.300	105.600	753.000	116.200	752.800	126.800	752.600	137.300	752.400	147.900
GR	752.200	158.500	752.000	169.100	751.700	179.600	751.400	190.200	751.100	200.800
GR	750.900	211.300	750.600	221.900	750.400	232.500	750.100	243.000	749.800	253.600
GR	749.500	264.200	749.100	274.700	748.800	285.300	748.400	295.900	748.000	306.500
GR	747.700	307.400	747.400	308.400	747.100	309.400	746.800	310.400	746.400	311.400
GR	746.300	312.300	746.300	313.300	746.200	314.300	746.100	315.300	746.000	316.300
GR	745.900	317.300	745.900	318.200	745.800	319.200	745.700	320.200	745.700	321.200
GR	745.700	322.200	745.700	323.200	745.700	324.100	745.700	325.100	745.700	326.100
GR	745.700	327.100	745.800	328.100	745.800	329.100	745.900	330.000	746.000	331.000
GR	746.100	332.000	746.200	333.000	746.300	334.000	747.000	335.000	747.800	336.000
GR	748.200	346.600	748.500	357.300	748.900	368.000	749.200	378.600	749.500	389.300
GR	749.800	400.000	750.100	410.600	750.500	421.300	750.900	431.900	753.500	442.600
GR	756.700	453.300	759.900	463.900	762.700	474.600	763.000	485.300	763.300	495.900
GR	763.600	506.600	763.900	517.300	764.300	527.900	764.600	538.600	764.900	549.300
GR	765.400	559.900	766.100	570.600	766.900	581.300	767.800	591.900	768.600	602.600
GR	769.500	613.300	770.400	623.900	771.300	634.600	772.200	645.300	773.200	656.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9967.000	90.000	279.200	309.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	767.500	0.000	765.900	9.600	764.200	19.200	762.600	28.800	761.100	38.500
GR	759.700	48.100	758.300	57.700	757.100	67.400	756.600	77.000	756.300	86.600
GR	755.900	96.200	755.600	105.900	755.300	115.500	754.900	125.100	754.600	134.800
GR	754.300	144.400	754.000	154.000	753.700	163.600	753.300	173.300	753.000	182.900
GR	752.700	192.500	752.300	202.200	752.000	211.800	751.700	221.400	751.400	231.100
GR	751.000	240.700	750.600	250.300	750.300	259.900	749.900	269.600	749.500	279.200
GR	749.300	280.200	749.100	281.200	748.900	282.200	748.700	283.200	748.400	284.200
GR	748.300	285.100	748.300	286.100	748.200	287.100	748.100	288.100	748.000	289.100
GR	747.900	290.100	747.800	291.100	747.700	292.100	747.600	293.100	747.600	294.100
GR	747.600	295.100	747.600	296.100	747.600	297.000	747.600	298.000	747.600	299.000
GR	747.600	300.000	747.700	301.000	747.800	302.000	747.900	303.000	748.100	304.000
GR	748.200	305.000	748.300	306.000	748.500	307.000	748.900	308.000	749.400	309.000
GR	749.900	319.800	750.300	330.600	750.700	341.500	751.100	352.300	751.400	363.100
GR	751.800	374.000	752.200	384.800	752.600	395.600	753.000	406.500	754.600	417.300
GR	756.400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

GR	761.000	482.300	761.300	493.100	761.700	503.900	762.100	514.800	762.500	525.600
GR	763.000	536.400	763.600	547.300	764.600	558.100	765.500	568.900	766.500	579.800
GR	767.400	590.600	768.500	601.400	769.500	612.300	770.500	623.100	771.600	634.000
X1	10207.000	16.000	252.000	282.000	210.000	275.000	240.000	0.000	0.000	0.000
GR	770.000	0.000	760.000	60.000	757.000	120.000	754.200	180.000	751.600	240.000
GR	751.000	252.000	749.500	267.000	749.500	273.000	751.000	282.000	752.000	300.000
GR	754.300	360.000	757.000	420.000	759.200	480.000	761.000	522.000	765.000	564.000
GR	770.000	612.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.100	97.000	.040	127.000	.100	332.000	.070	487.000	0.000
X1	10817.000	14.000	97.000	127.000	610.000	610.000	610.000	0.000	0.000	0.000
GR	770.900	0.000	755.800	32.000	754.100	97.000	751.100	108.000	751.300	116.000
GR	751.700	122.000	755.400	127.000	756.000	187.000	756.500	287.000	756.400	312.000
GR	762.900	332.000	765.900	387.000	766.800	417.000	788.000	487.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10932.000	90.000	125.000	155.000	115.000	115.000	115.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	46.000	0.000	290.000	0.000	0.000	0.000	0.000
GR	770.400	0.000	769.000	4.300	767.600	8.600	766.100	12.900	764.700	17.200
GR	763.300	21.500	761.900	25.800	760.500	30.100	759.100	34.400	758.200	38.700
GR	757.700	43.100	757.500	47.400	757.400	51.700	757.300	56.000	757.200	60.300
GR	757.000	64.600	756.900	68.900	756.800	73.200	756.600	77.500	756.500	81.800
GR	756.400	86.200	756.300	90.500	756.100	94.800	756.000	99.100	755.900	103.400
GR	755.700	107.700	755.600	112.000	755.400	116.300	755.200	120.600	755.000	125.000
GR	754.800	126.000	754.600	127.000	754.300	128.000	754.100	129.000	753.900	130.000
GR	753.700	131.000	753.500	132.000	753.200	133.000	753.000	134.000	752.800	135.000
GR	752.600	136.000	752.500	137.000	752.500	138.000	752.500	139.000	752.600	140.000
GR	752.600	141.000	752.600	142.000	752.600	143.000	752.700	144.000	752.800	145.000
GR	752.900	146.000	753.000	147.000	753.100	148.000	753.300	149.000	753.400	150.000
GR	753.800	151.000	754.300	152.000	754.700	153.000	755.200	154.000	755.700	155.000
GR	755.800	162.800	756.000	170.600	756.200	178.500	756.300	186.300	756.500	194.100
GR	756.700	202.000	756.800	209.800	757.000	217.600	757.100	225.400	757.300	233.300
GR	757.400	241.100	757.600	248.900	757.700	256.800	757.800	264.600	757.900	272.400
GR	758.000	280.300	758.100	288.100	758.200	295.900	758.500	303.800	760.300	311.600
GR	762.200	319.400	763.100	327.300	763.700	335.100	764.300	342.900	764.900	350.800
GR	765.500	358.600	766.200	366.400	767.000	374.300	767.800	382.100	768.600	390.000
X1	10990.000	90.000	139.000	169.000	58.000	58.000	58.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	50.000	0.000	266.000	0.000	0.000	0.000	0.000
GR	770.200	0.000	768.800	4.700	767.500	9.500	766.100	14.300	764.800	19.100
GR	763.500	23.900	762.100	28.700	760.800	33.500	759.500	38.300	759.000	43.100
GR	758.600	47.900	758.500	52.700	758.300	57.500	758.200	62.300	758.100	67.100
GR	757.900	71.800	757.700	76.600	757.600	81.400	757.400	86.200	757.300	91.000
GR	757.100	95.800	757.000	100.600	756.800	105.400	756.700	110.200	756.500	115.000
GR	756.400	119.800	756.200	124.600	755.900	129.400	755.700	134.200	755.500	139.000
GR	755.300	140.000	755.100	141.000	754.900	142.000	754.700	143.000	754.500	144.000
GR	754.300	145.000	754.100	146.000	753.900	147.000	753.700	148.000	753.500	149.000
GR	753.300	150.000	753.200	151.000	753.200	152.000	753.200	153.000	753.300	154.000
GR	753.300	155.000	753.300	156.000	753.300	157.000	753.400	158.000	753.500	159.000
GR	753.700	160.000	753.800	161.000	753.900	162.000	754.100	163.000	754.200	164.000
GR	754.500	165.000	754.900	166.000	755.100	167.000	755.500	168.000	755.800	169.000
GR	756.000	175.900	756.200	182.800	756.400	189.700	756.600	196.600	756.800	203.500
GR	757.000	210.400	757.200	217.400	757.500	224.300	757.600	231.200	757.900	238.100
GR	758.000	245.000	758.300	251.900	758.400	258.900	758.500	265.800	758.700	272.700
GR	758.800	279.600	758.900	286.500	759.100	293.400	759.600	300.400	760.900	307.300
GR	762.200	314.200	763.000	321.100	763.600	328.000	764.300	334.900	764.900	341.900
GR	765.600	348.800	766.300	355.700	767.000	362.600	767.800	369.500	768.500	376.500
X1	11047.000	13.000	153.000	183.000	57.000	57.000	57.000	0.000	0.000	0.000
GR	770.000	0.000	760.000	42.000	759.000	75.000	757.000	135.000	756.000	153.000
GR	754.000	165.000	754.000	171.000	756.000	183.000	757.000	207.000	759.000	255.000
GR	760.000	291.000	763.000	315.000	768.500	363.000	0.000	0.000	0.000	0.000
QT	4.000	505.000	1060.000	1410.000	2740.000	0.000	0.000	0.000	0.000	0.000
X1	12.000	90.000	14[illegible]	170.[illegible]	275.000	250.000	262.300	0.000	0.000	0.000

MOORE BUSINESS FORMS, INC 23

GR	771.600	0.000	770.400	4.800	769.100	9.600	767.900	14.500	766.700	19.300
GR	765.500	24.200	764.200	29.000	763.100	33.900	762.000	38.700	761.800	43.600
GR	761.600	48.400	761.400	53.200	761.200	58.100	761.000	62.900	760.900	67.800
GR	760.700	72.600	760.400	77.500	760.300	82.300	760.000	87.200	759.900	92.000
GR	759.700	96.900	759.600	101.700	759.400	106.500	759.200	111.400	759.100	116.200
GR	758.900	121.100	758.700	125.900	758.400	130.800	758.200	135.600	757.900	140.500
GR	757.700	141.400	757.600	142.400	757.400	143.400	757.200	144.400	757.000	145.400
GR	756.800	146.400	756.600	147.300	756.400	148.300	756.200	149.300	756.000	150.300
GR	755.900	151.300	755.800	152.300	755.800	153.200	755.800	154.200	755.800	155.200
GR	755.800	156.200	755.800	157.200	755.800	158.200	756.000	159.100	756.200	160.100
GR	756.400	161.100	756.600	162.100	756.800	163.100	757.000	164.100	757.100	165.000
GR	757.300	166.000	757.500	167.000	757.700	168.000	757.900	169.000	758.100	170.000
GR	758.300	176.200	758.500	182.500	758.700	188.700	758.900	195.000	759.100	201.200
GR	759.300	207.500	759.500	213.700	759.800	220.000	760.000	226.200	760.300	232.500
GR	760.500	238.700	760.800	245.000	760.900	251.200	761.000	257.500	761.200	263.700
GR	761.400	270.000	761.600	276.200	761.700	282.500	762.400	288.700	763.100	295.000
GR	763.700	301.200	764.400	307.500	765.000	313.700	765.600	320.000	766.200	326.200
GR	767.000	332.500	767.800	338.700	768.600	345.000	769.500	351.200	770.300	357.500
X1	275.000	90.000	127.900	156.900	275.000	250.000	263.000	0.000	0.000	0.000
GR	773.300	0.000	772.000	4.400	770.800	8.800	769.700	13.200	768.500	17.600
GR	767.300	22.000	766.100	26.400	765.000	30.800	764.100	35.300	763.900	39.700
GR	763.600	44.100	763.400	48.500	763.200	52.900	762.900	57.300	762.800	61.700
GR	762.500	66.200	762.200	70.600	762.100	75.000	761.800	79.400	761.700	83.800
GR	761.500	88.200	761.400	92.600	761.200	97.000	761.000	101.500	760.900	105.900
GR	760.800	110.300	760.600	114.700	760.300	119.100	760.100	123.500	760.000	127.900
GR	759.700	128.900	759.500	129.900	759.300	130.800	759.100	131.800	758.900	132.800
GR	758.700	133.700	758.400	134.700	758.200	135.700	758.000	136.600	757.800	137.600
GR	757.700	138.600	757.600	139.500	757.600	140.500	757.600	141.500	757.600	142.400
GR	757.600	143.400	757.600	144.400	757.700	145.300	757.900	146.300	758.100	147.300
GR	758.300	148.200	758.500	149.200	758.800	150.200	759.000	151.100	759.100	152.100
GR	759.300	153.100	759.600	154.000	759.800	155.000	760.000	156.000	760.200	156.900
GR	760.400	163.400	760.500	169.900	760.700	176.400	760.900	182.900	761.000	189.400
GR	761.300	195.900	761.400	202.400	761.600	208.900	761.900	215.400	762.200	221.900
GR	762.400	228.400	762.600	234.900	762.700	241.400	762.800	247.900	763.000	254.400
GR	763.200	260.900	763.400	267.400	763.600	273.900	764.100	280.400	764.700	286.900
GR	765.200	293.400	765.800	299.900	766.300	306.400	766.800	312.900	767.400	319.400
GR	768.300	325.900	769.200	332.400	770.200	338.900	771.200	345.400	772.300	351.900
X1	537.000	90.000	115.500	144.000	275.000	250.000	262.000	0.000	0.000	0.000
GR	775.000	0.000	773.800	3.900	772.600	7.900	771.500	11.900	770.300	15.900
GR	769.200	19.900	768.000	23.800	767.000	27.800	766.200	31.800	766.000	35.800
GR	765.700	39.800	765.400	43.800	765.200	47.700	764.900	51.700	764.700	55.700
GR	764.400	59.700	764.100	63.700	763.900	67.700	763.600	71.600	763.500	75.600
GR	763.300	79.600	763.200	83.600	763.100	87.600	762.900	91.600	762.800	95.500
GR	762.700	99.500	762.500	103.500	762.300	107.500	762.100	111.500	762.000	115.500
GR	761.700	116.400	761.500	117.400	761.300	118.300	761.000	119.300	760.800	120.200
GR	760.600	121.100	760.300	122.100	760.100	123.000	759.900	124.000	759.600	124.900
GR	759.500	125.900	759.500	126.800	759.500	127.800	759.500	128.700	759.500	129.700
GR	759.500	130.600	759.500	131.600	759.600	132.500	759.900	133.500	760.100	134.400
GR	760.300	135.400	760.500	136.300	760.800	137.300	761.000	138.200	761.200	139.200
GR	761.400	140.100	761.700	141.100	761.900	142.000	762.100	143.000	762.400	144.000
GR	762.500	150.700	762.600	157.500	762.800	164.200	762.900	171.000	763.000	177.700
GR	763.200	184.500	763.300	191.200	763.500	198.000	763.800	204.700	764.100	211.500
GR	764.300	218.200	764.500	225.000	764.500	231.700	764.600	238.500	764.800	245.200
GR	765.000	252.000	765.200	258.700	765.400	265.500	765.900	272.200	766.400	279.000
GR	766.800	285.700	767.300	292.500	767.700	299.200	768.100	306.000	768.600	312.700
GR	769.700	319.500	770.700	326.200	771.800	333.000	773.000	339.700	774.200	346.500
X1	732.000	90.000	106.100	134.200	205.000	190.000	195.000	0.000	0.000	0.000
GR	776.200	0.000	775.000	3.600	773.900	7.300	772.800	10.900	771.600	14.600
GR	770.500	18.200	769.400	21.900	768.400	25.600	767.700	29.200	767.500	32.900
GR	767.200	36.500	766.900	40.200	766.600	43.900	766.300	47.500	766.100	51.200
GR	765.800	54.800	765.400	58.500	765.200	62.200	764.900	65.800	764.800	69.500
GR	764.600	73.100	764.500	76.800	764.400	80.500	764.300	84.100	764.200	87.800
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

GR	763.100	107.000	762.900	108.000	762.700	108.900	762.400	109.800	762.200	110.800
GR	761.900	111.700	761.600	112.600	761.400	113.600	761.200	114.500	760.900	115.400
GR	760.800	116.400	760.800	117.300	760.800	118.300	760.800	119.200	760.800	120.100
GR	760.800	121.100	760.900	122.000	761.000	122.900	761.300	123.900	761.500	124.800
GR	761.700	125.800	762.000	126.700	762.300	127.600	762.500	128.600	762.700	129.500
GR	762.900	130.400	763.200	131.400	763.400	132.300	763.700	133.300	764.000	134.200
GR	764.000	141.100	764.100	148.100	764.300	155.000	764.400	162.000	764.400	168.900
GR	764.600	175.800	764.700	182.800	764.900	189.700	765.200	196.600	765.500	203.600
GR	765.700	210.500	765.800	217.500	765.800	224.400	765.900	231.300	766.100	238.300
GR	766.300	245.200	766.500	252.100	766.700	259.100	767.200	266.000	767.600	273.000
GR	767.900	279.900	768.400	286.800	768.700	293.800	769.000	300.700	769.500	307.600
GR	770.700	314.600	771.800	321.500	773.000	328.500	774.300	335.400	775.600	342.300
X1	927.000	90.000	96.700	124.500	205.000	190.000	195.000	0.000	0.000	0.000
GR	777.500	0.000	776.300	3.300	775.200	6.600	774.100	10.000	773.000	13.300
GR	771.900	16.600	770.800	20.000	769.900	23.300	769.300	26.600	769.000	30.000
GR	768.700	33.300	768.400	36.600	768.100	40.000	767.800	43.300	767.500	46.700
GR	767.200	50.000	766.800	53.300	766.600	56.700	766.200	60.000	766.100	63.300
GR	766.000	66.700	765.900	70.000	765.800	73.300	765.700	76.700	765.600	80.000
GR	765.500	83.400	765.300	86.700	765.200	90.000	765.000	93.400	765.000	96.700
GR	764.600	97.600	764.400	98.600	764.100	99.500	763.900	100.400	763.600	101.300
GR	763.300	102.200	763.000	103.200	762.800	104.100	762.500	105.000	762.200	105.900
GR	762.200	106.900	762.200	107.800	762.200	108.700	762.200	109.600	762.200	110.600
GR	762.200	111.500	762.300	112.400	762.500	113.300	762.700	114.300	763.000	115.200
GR	763.200	116.100	763.500	117.000	763.800	118.000	764.000	118.900	764.200	119.800
GR	764.500	120.700	764.800	121.700	765.000	122.600	765.300	123.500	765.500	124.500
GR	765.600	131.600	765.700	138.700	765.800	145.800	765.900	153.000	765.900	160.100
GR	766.000	167.200	766.100	174.300	766.300	181.500	766.600	188.600	766.900	195.700
GR	767.100	202.800	767.200	210.000	767.200	217.100	767.300	224.200	767.400	231.300
GR	767.700	238.500	767.900	245.600	768.100	252.700	768.500	259.800	768.800	267.000
GR	769.100	274.100	769.500	281.200	769.700	288.300	770.000	295.500	770.400	302.600
GR	771.700	309.700	772.900	316.800	774.200	324.000	775.600	331.100	777.100	338.200
X1	1122.000	90.000	87.300	114.700	205.000	190.000	195.000	0.000	0.000	0.000
GR	778.700	0.000	777.600	3.000	776.500	6.000	775.500	9.000	774.400	12.000
GR	773.300	15.000	772.200	18.000	771.400	21.000	770.900	24.100	770.600	27.100
GR	770.200	30.100	769.900	33.100	769.600	36.100	769.200	39.100	768.900	42.100
GR	768.600	45.100	768.200	48.200	767.900	51.200	767.600	54.200	767.500	57.200
GR	767.400	60.200	767.300	63.200	767.200	66.200	767.100	69.200	767.000	72.300
GR	766.900	75.300	766.800	78.300	766.700	81.300	766.500	84.300	766.500	87.300
GR	766.100	88.200	765.900	89.100	765.600	90.100	765.300	91.000	765.000	91.900
GR	764.700	92.800	764.400	93.700	764.200	94.600	763.900	95.500	763.600	96.400
GR	763.600	97.400	763.600	98.300	763.600	99.200	763.600	100.100	763.600	101.000
GR	763.600	101.900	763.600	102.800	763.900	103.700	764.200	104.700	764.400	105.600
GR	764.700	106.500	765.000	107.400	765.300	108.300	765.500	109.200	765.800	110.100
GR	766.100	111.000	766.300	112.000	766.600	112.900	766.900	113.800	767.100	114.700
GR	767.200	122.000	767.200	129.300	767.300	136.600	767.400	144.000	767.400	151.300
GR	767.500	158.600	767.500	165.900	767.700	173.200	768.000	180.500	768.400	187.800
GR	768.500	195.100	768.600	202.500	768.600	209.800	768.600	217.100	768.800	224.400
GR	769.000	231.700	769.200	239.000	769.500	246.300	769.800	253.600	770.000	261.000
GR	770.300	268.300	770.600	275.600	770.800	282.900	770.900	290.200	771.300	297.500
GR	772.700	304.800	774.000	312.100	775.400	319.500	777.000	326.800	778.500	334.100
X1	1317.000	16.000	78.000	105.000	205.000	190.000	195.000	0.000	0.000	0.000
GR	780.000	0.000	773.000	18.000	769.000	48.000	768.000	78.000	765.000	87.000
GR	765.000	93.000	768.800	105.000	768.900	132.000	769.000	162.000	770.000	183.000
GR	770.000	213.000	771.000	243.000	771.800	273.000	772.000	291.000	776.000	312.000
GR	780.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1367.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.600	0.000
X1	1417.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.600	0.000
X1	1517.000	12.000	36.000	60.000	100.000	100.000	100.000	0.000	-1.200	0.000
GR	784.000	0.000	773.500	18.000	771.500	36.000	768.500	42.000	768.500	48.000
GR	[illegible]	60.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	150.000	[illegible]	[illegible]

MOORE BUSINESS FORMS, INC 23

GR	774.300	210.000	775.000	240.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1617.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.200	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1977.000	18.000	96.000	123.000	100.000	500.000	360.000	0.000	0.000	0.000
GR	790.000	0.000	785.000	30.000	780.000	45.000	776.500	75.000	774.500	96.000
GR	771.300	102.000	771.300	108.000	774.000	117.000	774.500	123.000	775.200	150.000
GR	776.000	180.000	776.600	210.000	777.000	240.000	777.600	270.000	778.000	288.000
GR	780.000	303.000	783.000	330.000	785.000	345.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2237.000	13.000	63.000	87.000	300.000	200.000	260.000	0.000	0.000	0.000
GR	790.000	0.000	780.000	15.000	777.800	45.000	776.300	63.000	773.500	69.000
GR	773.500	75.000	776.500	87.000	777.000	105.000	777.500	135.000	778.000	165.000
GR	779.200	195.000	780.300	219.000	786.000	246.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	55.000	95.000	0.000	0.000	0.000
X1	2492.000	0.000	0.000	0.000	300.000	200.000	255.000	0.000	.600	0.000
ET	0.000	6.100	6.100	6.100	0.000	60.000	90.000	0.000	0.000	0.000
X1	2512.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.040	0.000
ET	0.000	6.100	6.100	6.100	0.000	62.000	87.000	0.000	0.000	0.000
X1	2522.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.020	0.000
ET	0.000	6.100	6.100	6.100	0.000	65.000	85.000	0.000	0.000	0.000
X1	2532.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.020	0.000
ET	0.000	6.100	6.100	6.100	0.000	66.000	84.000	0.000	0.000	0.000
X1	2536.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	67.000	83.000	0.000	0.000	0.000
X1	2540.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	.010	0.000
X1	2544.000	11.000	94.000	108.000	4.000	4.000	4.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000
GR	797.400	0.000	791.900	54.000	781.600	79.000	778.000	87.000	775.100	94.000
GR	774.200	101.000	775.700	108.000	778.000	114.000	780.500	144.000	787.000	194.000
GR	790.000	245.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2545.000	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	785.000	785.000	0.000
SB	0.000	1.700	3.020	0.000	11.330	0.000	112.130	0.000	774.200	774.200
X1	2575.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	784.100	787.200	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	787.200	787.200	0.000
BT	13.000	0.000	797.400	0.000	54.000	791.900	0.000	94.000	788.400	0.000
BT	94.000	788.400	777.100	95.400	788.400	781.800	98.700	788.400	784.100	103.300
BT	788.400	784.100	106.600	788.400	781.800	108.000	788.400	777.100	108.000	788.400
BT	0.000	144.000	786.900	0.000	194.000	787.000	0.000	245.000	790.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2576.000	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	787.200	787.200	0.000
ET	0.000	6.100	6.100	6.100	0.000	90.000	112.000	0.000	0.000	0.000
X1	2580.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	.070	0.000
X1	2960.000	17.000	120.000	144.000	300.000	500.000	380.000	0.000	0.000	0.000
GR	800.000	0.000	794.000	24.000	789.000	45.000	786.000	75.000	785.000	99.000
GR	784.000	120.000	781.000	126.000	781.000	132.000	784.000	144.000	784.000	171.000
GR	705.000	199.[illegible]	[illegible]	213.000	787.000	[illegible]	790.000	[illegible]	[illegible]	[illegible]

MOORE LUMBESC FORMS INC 29

GR	797.000	309.000	800.000	324.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3160.000	0.000	0.000	0.000	225.000	170.000	200.000	0.000	1.200	0.000
X1	3360.000	13.000	84.000	108.000	225.000	170.000	200.000	0.000	-1.200	0.000
GR	794.000	0.000	789.000	12.000	788.200	42.000	787.500	72.000	787.200	84.000
GR	784.500	90.000	784.500	96.000	786.000	105.000	787.500	108.000	789.000	138.000
GR	791.000	168.000	791.800	183.000	800.000	213.000	0.000	0.000	0.000	0.000
X1	3560.000	0.000	0.000	0.000	225.000	170.000	200.000	0.000	1.200	0.000
X1	4040.000	17.000	62.000	82.000	450.000	500.000	480.000	0.000	0.000	0.000
GR	803.000	0.000	795.500	18.000	791.300	28.000	791.100	48.000	791.000	58.000
GR	791.000	62.000	788.700	70.000	788.700	74.000	791.000	82.000	791.300	98.000
GR	791.500	118.000	792.000	138.000	792.500	158.000	794.000	168.000	794.500	178.000
GR	795.500	198.000	797.500	210.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4810.000	19.000	64.000	84.000	700.000	850.000	770.000	0.000	0.000	0.000
GR	801.000	0.000	798.200	14.000	796.000	24.000	795.500	44.000	795.000	64.000
GR	792.000	72.000	792.000	76.000	795.000	84.000	795.200	94.000	795.800	114.000
GR	796.000	134.000	796.500	154.000	797.000	174.000	797.500	194.000	798.000	214.000
GR	798.500	234.000	799.000	254.000	799.500	274.000	800.000	294.000	0.000	0.000
X1	4923.000	90.000	65.500	85.500	87.500	137.500	113.000	0.000	0.000	0.000
GR	803.200	0.000	802.700	2.200	802.100	4.500	801.600	6.700	801.000	9.000
GR	800.500	11.200	799.900	13.500	799.400	15.800	798.800	18.000	798.300	20.300
GR	797.700	22.500	797.200	24.800	797.000	27.100	796.900	29.300	796.800	31.600
GR	796.700	33.800	796.700	36.100	796.600	38.300	796.600	40.600	796.500	42.900
GR	796.500	45.100	796.400	47.400	796.300	49.600	796.300	51.900	796.200	54.200
GR	796.200	56.400	796.100	58.700	796.100	60.900	796.000	63.200	796.000	65.500
GR	795.700	66.100	795.500	66.800	795.200	67.400	795.000	68.100	794.700	68.800
GR	794.500	69.400	794.200	70.100	794.000	70.800	793.700	71.400	793.500	72.100
GR	793.200	72.800	793.000	73.400	793.000	74.100	793.000	74.800	793.000	75.400
GR	793.000	76.100	793.000	76.800	793.000	77.400	793.200	78.100	793.500	78.800
GR	793.700	79.400	794.000	80.100	794.200	80.800	794.500	81.400	794.700	82.100
GR	795.000	82.800	795.200	83.400	795.500	84.100	795.700	84.800	796.000	85.500
GR	796.100	91.700	796.200	98.000	796.400	104.200	796.600	110.500	796.700	116.700
GR	796.800	123.000	796.900	129.200	797.100	135.500	797.300	141.700	797.500	148.000
GR	797.600	154.200	797.800	160.500	797.900	166.700	798.100	173.000	798.300	179.200
GR	798.500	185.500	798.600	191.700	798.800	198.000	799.000	204.200	799.100	210.500
GR	799.300	216.700	799.500	223.000	799.700	229.200	799.900	235.500	800.000	241.700
GR	800.200	248.000	800.400	254.200	800.600	260.500	800.800	266.700	801.000	273.000
NC	.100	.100	.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5035.000	90.000	67.000	87.000	87.500	137.500	112.500	0.000	0.000	0.000
GR	805.500	0.000	804.800	2.300	804.200	4.600	803.500	6.900	802.900	9.200
GR	802.200	11.500	801.600	13.800	800.900	16.100	800.300	18.400	799.600	20.700
GR	799.000	23.100	798.500	25.400	798.100	27.700	797.900	30.000	797.800	32.300
GR	797.800	34.600	797.700	36.900	797.600	39.200	797.600	41.500	797.500	43.800
GR	797.500	46.200	797.400	48.500	797.400	50.800	797.300	53.100	797.200	55.400
GR	797.200	57.700	797.100	60.000	797.100	62.300	797.000	64.600	797.000	67.000
GR	796.700	67.600	796.500	68.300	796.200	68.900	796.000	69.600	795.700	70.300
GR	795.500	70.900	795.300	71.600	795.000	72.300	794.800	72.900	794.500	73.600
GR	794.300	74.300	794.100	74.900	794.100	75.600	794.100	76.300	794.100	76.900
GR	794.100	77.600	794.100	78.300	794.100	78.900	794.300	79.600	794.500	80.300
GR	794.800	80.900	795.000	81.600	795.300	82.300	795.500	82.900	795.700	83.600
GR	796.000	84.300	796.200	84.900	796.500	85.600	796.700	86.300	797.000	87.000
GR	797.100	92.500	797.200	98.000	797.400	103.500	797.500	109.000	797.600	114.500
GR	797.800	120.000	797.900	125.500	798.100	131.000	798.300	136.500	798.500	142.000
GR	798.600	147.500	798.800	153.000	798.900	158.500	799.100	164.000	799.200	169.500
GR	799.400	175.000	799.600	180.500	799.700	186.000	799.900	191.500	800.100	197.000
GR	800.300	202.500	800.500	208.000	800.600	213.500	800.800	219.000	801.000	224.500
GR	801.200	230.000	801.400	235.500	801.600	241.000	801.800	246.500	802.000	252.000
X1	5148.000	90.000	68.500	88.500	87.500	137.500	112.500	0.000	0.000	0.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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GR	804.000	11.800	803.200	14.100	802.500	16.500	801.700	18.800	801.000	21.200
GR	800.400	23.600	799.700	25.900	799.200	28.300	798.900	30.700	798.800	33.000
GR	798.800	35.400	798.700	37.700	798.700	40.100	798.600	42.500	798.500	44.800
GR	798.500	47.200	798.400	49.600	798.400	51.900	798.300	54.300	798.200	56.600
GR	798.200	59.000	798.100	61.400	798.100	63.700	798.000	66.100	798.000	68.500
GR	797.700	69.100	797.500	69.800	797.200	70.400	797.000	71.100	796.800	71.800
GR	796.500	72.400	796.300	73.100	796.100	73.800	795.800	74.400	795.600	75.100
GR	795.300	75.800	795.100	76.400	795.100	77.100	795.100	77.800	795.100	78.400
GR	795.100	79.100	795.100	79.800	795.100	80.400	795.300	81.100	795.600	81.800
GR	795.800	82.400	796.000	83.100	796.300	83.800	796.500	84.400	796.800	85.100
GR	797.000	85.800	797.200	86.400	797.500	87.100	797.700	87.800	798.000	88.500
GR	798.100	93.200	798.200	98.000	798.300	102.700	798.400	107.500	798.500	112.200
GR	798.700	117.000	798.900	121.700	799.100	126.500	799.300	131.200	799.500	136.000
GR	799.600	140.700	799.700	145.500	799.900	150.200	800.000	155.000	800.200	159.700
GR	800.400	164.500	800.500	169.200	800.700	174.000	800.800	178.700	801.000	183.500
GR	801.200	188.200	801.400	193.000	801.600	197.700	801.800	202.500	802.000	207.200
GR	802.200	212.000	802.400	216.700	802.600	221.500	802.800	226.200	803.000	231.000
X1	5260.000	14.000	70.000	90.000	87.500	137.500	112.000	0.000	0.000	0.000
GR	810.000	0.000	803.000	20.000	800.000	30.000	799.500	50.000	799.000	70.000
GR	796.200	78.000	796.200	82.000	799.000	90.000	799.500	110.000	800.500	130.000
GR	801.200	150.000	802.000	170.000	803.000	190.000	804.000	210.000	0.000	0.000
X1	5725.000	17.000	98.000	118.000	465.000	465.000	465.000	0.000	0.000	0.000
GR	808.000	0.000	807.000	18.000	806.000	38.000	805.000	44.000	804.000	64.000
GR	803.500	78.000	803.000	98.000	800.200	106.000	800.200	110.000	803.000	118.000
GR	804.000	138.000	804.200	158.000	805.000	168.000	807.000	188.000	809.000	208.000
GR	811.000	228.000	812.500	248.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6335.000	20.000	190.000	210.000	450.000	750.000	610.000	0.000	0.000	0.000
GR	820.000	0.000	818.000	20.000	816.500	40.000	815.000	60.000	813.200	80.000
GR	812.000	100.000	811.000	110.000	810.000	130.000	808.000	146.000	807.500	156.000
GR	807.000	170.000	806.500	190.000	804.100	198.000	804.100	202.000	806.500	210.000
GR	807.000	230.000	808.000	256.000	809.500	270.000	812.000	290.000	813.500	306.000
X1	6935.000	18.000	126.000	144.000	800.000	400.000	600.000	0.000	0.000	0.000
GR	821.000	0.000	818.500	24.000	816.500	44.000	815.000	60.000	813.000	80.000
GR	811.000	100.000	810.500	112.000	810.000	126.000	808.000	132.000	808.000	136.000
GR	810.000	144.000	810.800	164.000	812.000	184.000	813.000	192.000	813.500	204.000
GR	814.500	224.000	815.800	244.000	817.000	268.000	0.000	0.000	0.000	0.000
QT	4.000	505.000	1060.000	1410.000	2000.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	110.000	161.000	0.000	0.000	0.000
X1	7235.000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	1.620	0.000
ET	0.000	6.100	6.100	6.100	0.000	113.000	157.000	0.000	0.000	0.000
X1	7250.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	.080	0.000
ET	0.000	6.100	6.100	6.100	0.000	117.000	153.000	0.000	0.000	0.000
X1	7265.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	.080	0.000
ET	0.000	6.100	6.100	6.100	0.000	120.000	151.000	0.000	0.000	0.000
X1	7275.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.050	0.000
ET	0.000	6.100	6.100	6.100	0.000	122.000	148.000	0.000	0.000	0.000
X1	7285.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.060	0.000
ET	0.000	6.100	6.100	6.100	0.000	124.000	145.000	0.000	0.000	0.000
X1	7295.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	.050	0.000
NC	.100	.100	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7305.000	22.000	147.100	162.900	10.000	10.000	10.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	817.500	817.500	0.000
GR	832.600	0.000	830.600	55.000	828.700	100.000	812.000	147.100	811.200	147.900
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BOOTH BUSINESS FORMS INC 23

GR	810.400	159.200	810.800	161.300	811.200	162.100	812.000	162.900	827.700	200.000
GR	824.200	255.000	823.500	355.000	824.000	455.000	825.600	555.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7306.000	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	818.200	818.200	0.000
SB	0.000	2.450	3.020	0.000	12.410	0.000	122.000	0.000	810.400	810.000
X1	7388.000	22.000	147.100	162.900	82.000	82.000	82.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	820.300	823.500	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	823.500	823.500	0.000
BT	22.000	0.000	832.600	0.000	55.000	830.600	0.000	147.100	826.700	0.000
BT	147.100	826.700	813.700	147.900	826.700	815.800	148.700	826.700	817.500	150.800
BT	826.700	819.200	152.900	826.700	820.300	155.000	826.700	820.300	157.100	826.700
BT	820.300	159.200	826.700	819.200	161.300	826.700	817.500	162.100	826.700	815.800
BT	162.900	826.700	813.700	162.900	826.700	0.000	255.000	824.200	0.000	355.000
BT	823.500	0.000	455.000	824.000	0.000	555.000	825.600	0.000	655.000	827.900
BT	0.000	755.000	830.100	0.000	855.000	832.500	0.000	0.000	0.000	0.000
GR	832.600	0.000	830.600	55.000	828.700	100.000	812.400	147.100	811.600	147.900
GR	811.200	148.700	810.800	150.800	810.400	152.900	810.400	155.000	810.400	157.100
GR	810.800	159.200	811.200	161.300	811.600	162.100	812.400	162.900	827.700	200.000
GR	824.200	255.000	823.500	355.000	824.000	455.000	825.600	555.000	827.900	655.000
GR	830.100	755.000	832.500	855.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7389.000	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	823.500	823.500	0.000
ET	0.000	6.100	6.100	6.100	0.000	137.000	173.000	0.000	0.000	0.000
X1	7399.000	9.000	142.000	170.000	10.000	10.000	10.000	0.000	0.000	0.000
GR	832.600	0.000	830.600	55.000	826.600	110.000	820.600	125.000	816.100	142.000
GR	811.600	150.000	810.430	160.000	819.200	170.000	825.000	186.000	0.000	0.000
X1	8249.000	23.000	274.500	310.000	1000.000	300.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
GR	827.700	0.000	823.000	100.000	821.700	200.000	820.900	274.500	815.100	274.500
GR	814.400	275.000	814.100	276.000	814.400	277.000	815.100	277.500	815.100	278.500
GR	814.400	279.000	814.100	280.000	814.400	281.000	815.100	281.500	813.300	300.000
GR	812.600	310.000	820.900	310.000	820.900	400.000	820.800	500.000	820.700	600.000
GR	820.900	700.000	823.200	800.000	823.500	823.000	0.000	0.000	0.000	0.000
NC	.035	.035	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8250.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
BT	27.000	0.000	827.700	0.000	100.000	823.000	0.000	200.000	821.700	0.000
BT	274.500	820.900	815.100	274.500	820.900	816.100	275.000	820.900	816.800	276.000
BT	820.900	817.100	277.000	820.900	816.800	277.500	820.900	816.100	277.500	820.900
BT	815.100	278.500	820.900	815.100	278.500	820.900	816.100	279.000	820.900	816.800
BT	280.000	820.900	817.100	281.000	820.900	816.800	281.500	820.900	816.100	281.500
BT	820.900	815.100	300.000	820.900	813.300	300.000	820.900	818.500	310.000	820.900
BT	818.500	310.000	820.900	812.600	400.000	820.900	0.000	500.000	820.800	0.000
BT	600.000	820.700	0.000	700.000	820.900	0.000	800.000	823.200	0.000	823.000
BT	823.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8280.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000
NC	.100	.100	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	274.500	310.000	.050	600.000	0.000
X1	8281.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
QT	4.000	465.000	970.000	1290.000	2510.000	0.000	0.000	0.000	0.000	0.000
X1	9031.000	20.000	140.000	184.000	700.000	800.000	750.000	0.000	0.000	0.000
GR	829.500	0.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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GR	823.200	100.000	821.800	120.000	821.000	130.000	820.000	140.000	817.000	160.000
GR	816.300	168.000	816.300	172.000	818.000	184.000	819.000	200.000	820.000	220.000
GR	822.000	240.000	824.000	260.000	826.000	280.000	828.000	300.000	830.000	320.000
X1	9436.000	15.000	130.000	150.000	405.000	405.000	405.000	0.000	0.000	0.000
GR	827.000	0.000	326.000	20.000	825.000	40.000	824.000	60.000	822.800	80.000
GR	821.800	100.000	820.500	120.000	820.000	130.000	819.000	134.000	818.300	138.000
GR	818.300	142.000	819.000	146.000	821.000	150.000	825.000	158.000	830.000	168.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	125.000	156.000	0.000	0.000	0.000
X1	9786.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.280	0.000
NC	.085	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9806.000	14.000	396.000	417.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	235.000	0.000	0.000	0.000	827.000	827.000	0.000
GR	835.100	0.000	833.900	100.000	832.700	200.000	831.800	300.000	823.200	375.000
GR	820.900	396.000	818.600	398.000	818.600	406.000	819.800	414.000	821.600	417.000
GR	826.200	435.000	832.700	450.000	836.300	500.000	837.000	550.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9807.000	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	235.000	0.000	0.000	0.000	827.000	827.000	0.000
SB	0.000	3.170	3.020	0.000	14.140	0.000	127.230	0.000	818.800	818.600
X1	9937.000	21.000	395.500	416.500	130.000	130.000	130.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	827.800	831.800	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	235.000	0.000	0.000	0.000	831.800	831.800	0.000
BT	19.000	0.000	835.100	0.000	100.000	833.900	0.000	200.000	832.700	0.000
BT	300.000	831.800	0.000	395.500	832.900	0.000	395.500	832.900	828.100	397.700
BT	832.900	827.300	400.000	832.900	827.800	402.300	832.900	827.300	404.500	832.900
BT	825.100	407.500	832.900	825.100	409.700	832.900	827.300	412.000	832.900	827.800
BT	414.300	832.900	827.300	416.500	832.900	825.100	416.500	832.900	0.000	450.000
BT	834.700	0.000	500.000	836.300	0.000	550.000	837.000	0.000	0.000	0.000
GR	835.100	0.000	833.900	100.000	832.700	200.000	831.800	300.000	823.200	375.000
GR	821.500	395.500	819.300	397.700	818.800	400.000	819.300	402.300	821.500	404.500
GR	825.100	404.500	825.100	407.500	821.500	407.500	819.300	409.700	818.800	412.000
GR	819.300	414.300	821.500	416.500	826.200	435.000	832.700	450.000	836.300	500.000
GR	837.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.085	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9938.000	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	235.000	0.000	0.000	0.000	831.800	831.800	0.000
ET	0.000	6.100	6.100	6.100	0.000	393.000	420.000	0.000	0.000	0.000
X1	9941.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
NC	.120	.120	.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10518.000	23.000	96.000	112.000	397.000	797.000	577.000	0.000	0.000	0.000
GR	834.000	0.000	827.000	6.000	823.000	10.000	823.000	26.000	823.000	46.000
GR	823.000	66.000	822.500	86.000	822.200	96.000	821.000	102.000	820.300	106.000
GR	822.800	112.000	822.800	126.000	822.800	146.000	822.800	166.000	823.200	186.000
GR	824.000	206.000	824.500	216.000	825.000	226.000	825.500	231.000	826.500	236.000
GR	828.000	246.000	830.000	256.000	832.000	266.000	0.000	0.000	0.000	0.000
NC	.120	.120	.055	.300	.500	0.000	0.000	0.000	0.000	0.000
QT	4.000	465.000	970.000	1290.000	2510.000	0.000	0.000	0.000	0.000	0.000
X1	11168.000	12.000	283.000	300.000	600.000	600.000	650.000	0.000	0.000	0.000
GR	844.900	0.000	843.300	100.000	836.800	200.000	826.600	283.000	823.500	286.000
GR	823.900	292.000	823.300	296.000	825.800	300.000	825.400	400.000	830.400	500.000
GR	833.200	600.000	834.800	700.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11743.000	10.000	141.000	182.000	450.000	500.000	575.000	0.000	0.000	0.000
GR	830.900	0.000	830.900	40.000	823.800	140.000	823.300	141.000	821.000	160.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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SB	0.000	1.000	3.080	0.000	.010	0.000	.010	0.000	823.300	821.000
X1	11756.000	13.000	141.000	182.000	13.000	13.000	13.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	822.000	826.500	0.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	830.900	0.000	40.000	830.900	0.000	140.000	831.200	0.000
BT	141.000	831.200	0.000	142.000	826.500	0.000	160.000	826.500	0.000	182.000
BT	826.500	0.000	182.000	831.100	0.000	183.000	831.100	0.000	240.000	831.100
BT	0.000	340.000	830.500	0.000	440.000	831.900	0.000	0.000	0.000	0.000
GR	830.900	0.000	830.900	40.000	823.800	140.000	823.800	141.000	823.800	142.000
GR	823.300	150.000	823.600	160.000	823.800	165.000	823.800	182.000	823.800	183.000
GR	831.100	240.000	830.500	340.000	831.900	440.000	0.000	0.000	0.000	0.000
NC	.090	.095	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12326.000	13.000	252.000	270.000	700.000	400.000	570.000	0.000	0.000	0.000
GR	846.200	0.000	838.500	100.000	828.300	200.000	827.800	250.000	825.300	252.000
GR	823.900	257.000	825.500	266.000	828.600	270.000	828.400	300.000	833.000	400.000
GR	833.200	500.000	834.100	580.000	842.400	605.000	0.000	0.000	0.000	0.000
NC	.095	.095	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12951.000	12.000	165.000	187.000	630.000	620.000	625.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	250.000	0.000	0.000	0.000	0.000
GR	848.800	0.000	837.600	65.000	828.700	165.000	825.000	168.000	823.800	176.000
GR	826.100	183.000	829.100	187.000	831.000	265.000	832.900	365.000	830.200	465.000
GR	831.200	507.000	839.000	535.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	6.100	0.000	140.000	215.000	0.000	0.000	0.000
X1	13131.000	0.000	0.000	0.000	300.000	120.000	180.000	0.000	1.930	0.000
ET	0.000	6.100	6.100	6.100	0.000	150.000	205.000	0.000	0.000	0.000
X1	13171.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	.430	0.000
ET	0.000	6.100	6.100	6.100	0.000	154.000	199.000	0.000	0.000	0.000
X1	13191.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
ET	0.000	6.100	6.100	6.100	0.000	159.000	194.000	0.000	0.000	0.000
X1	13211.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	.200	0.000
X1	13231.000	22.000	395.000	420.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	835.500	835.500	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	834.000	350.000
GR	828.700	395.000	827.200	396.700	826.800	400.000	827.200	403.300	828.700	405.000
GR	831.300	405.000	831.400	410.000	828.800	410.000	827.300	411.700	826.900	415.000
GR	827.300	418.300	828.800	420.000	834.000	460.000	843.600	500.000	843.300	600.000
GR	843.000	700.000	842.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13232.000	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	835.500	835.500	0.000
SB	0.000	1.820	3.000	0.000	15.830	0.000	101.630	0.000	827.200	826.800
X1	13410.000	22.000	395.000	420.000	178.000	178.000	178.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	833.900	842.900	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	842.900	842.900	0.000
BT	20.000	0.000	844.800	0.000	100.000	844.600	0.000	200.000	844.300	0.000
BT	300.000	843.700	0.000	395.000	843.500	0.000	395.000	843.500	831.700	396.700
BT	843.500	833.200	400.000	843.500	833.600	403.300	843.500	833.200	405.000	843.500
BT	831.700	410.000	843.500	832.000	411.700	843.500	833.500	415.000	843.500	833.900
BT	418.300	843.500	833.500	420.000	843.500	832.000	420.000	843.500	0.000	500.000
BT	843.600	0.000	600.000	843.300	0.000	700.000	843.000	0.000	800.000	842.900
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	834.000	350.000
GR	829.100	395.000	827.600	396.700	827.200	400.000	827.600	403.300	829.100	405.000
GR	831.700	405.000	832.000	410.000	829.400	410.000	827.900	411.700	827.500	415.000
GR	827.900	418.300	829.400	420.000	834.000	460.000	843.600	500.000	843.300	600.000
GR	843.000	700.000	842.900	800.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.100	.10	.050	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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X1	13411.000	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	842.900	842.900	0.000
ET	0.000	6.100	6.100	6.100	0.000	392.000	423.000	0.000	0.000	0.000
X1	13414.000	13.000	397.000	417.000	3.000	3.000	3.000	0.000	0.000	0.000
GR	844.800	0.000	844.600	100.000	844.300	200.000	843.700	300.000	831.300	387.000
GR	829.200	397.000	827.300	400.000	827.200	408.000	827.300	414.000	829.200	417.000
GR	831.300	430.000	843.600	500.000	843.300	600.000	0.000	0.000	0.000	0.000
NH	4.000	.050	200.000	.095	300.000	.045	321.000	.090	600.000	0.000
X1	14514.000	14.000	300.000	321.000	1200.000	1000.000	1100.000	0.000	0.000	0.000
GR	844.500	0.000	838.600	25.000	836.700	100.000	835.000	200.000	833.400	300.000
GR	830.500	307.000	829.900	311.000	829.900	317.000	833.200	321.000	832.600	400.000
GR	833.100	434.000	844.700	464.000	845.500	500.000	846.600	600.000	0.000	0.000
QT	4.000	420.000	880.000	1170.000	2280.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15314.000	14.000	395.600	416.400	650.000	950.000	800.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	650.000	0.000	837.000	837.000	0.000
GR	845.600	0.000	844.300	100.000	843.000	200.000	839.700	300.000	834.600	375.000
GR	832.300	395.600	832.200	400.000	832.500	403.000	833.000	416.400	834.700	439.000
GR	839.800	500.000	839.900	600.000	844.500	700.000	846.100	800.000	0.000	0.000
NC	.075	.075	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15315.000	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	300.000	0.000	650.000	0.000	837.000	837.000	0.000
NC	.080	.080	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.830	3.050	0.000	14.140	0.000	86.000	0.000	832.200	832.200
X1	15382.000	14.000	395.600	416.400	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	838.200	841.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	650.000	0.000	841.700	841.700	0.000
BT	16.000	300.000	842.200	0.000	395.600	841.700	0.000	395.600	841.700	835.300
BT	396.900	841.700	837.300	400.000	841.700	838.100	403.100	841.700	837.300	404.400
BT	841.700	835.300	407.600	841.700	835.300	408.900	841.700	837.300	412.000	841.700
BT	838.100	415.100	841.700	837.300	416.400	841.700	835.300	416.400	841.700	0.000
BT	500.000	842.000	0.000	600.000	842.900	0.000	650.000	843.700	0.000	0.000
GR	845.600	0.000	844.300	100.000	843.000	200.000	839.700	300.000	839.600	375.000
GR	832.300	395.600	832.200	400.000	832.500	403.000	833.000	416.400	839.700	439.000
GR	839.800	500.000	839.900	600.000	844.500	700.000	846.100	800.000	0.000	0.000
NC	.075	.065	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15383.000	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	300.000	0.000	650.000	0.000	841.700	841.700	0.000
X1	15683.000	17.000	200.000	256.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	100.000	0.000	0.000	0.000	838.500	838.500	0.000
GR	844.200	0.000	844.100	100.000	842.800	200.000	841.200	200.000	834.400	214.000
GR	834.400	215.000	832.800	225.000	832.800	237.000	833.500	239.000	833.500	240.000
GR	840.000	255.000	840.000	256.000	841.300	256.000	842.200	300.000	842.600	400.000
GR	843.500	500.000	847.200	570.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.055	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	15684.000	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	100.000	0.000	0.000	0.000	838.500	838.500	0.000
BT	18.000	0.000	844.200	0.000	100.000	844.100	0.000	200.000	842.800	0.000
BT	200.000	842.800	841.500	214.000	842.400	841.100	214.000	842.400	834.400	215.000
BT	842.400	834.400	215.000	842.400	841.100	239.000	841.800	840.500	239.000	841.800
BT	833.500	240.000	841.800	833.500	240.000	841.800	840.500	256.000	841.300	840.000
BT	256.000	841.300	0.000	300.000	842.200	0.000	400.000	842.600	0.000	500.000
BT	843.500	0.000	570.000	847.200	0.000	0.000	0.000	0.000	0.000	0.000
X1	15689.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.00	[illegible]	[illegible]	1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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NC	.062	.062	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	0.000	200.000	256.000	200.000	408.000	0.000
X1	15690.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NH	5.000	.090	465.000	.055	481.000	.035	493.000	.015	495.000	.090
NH	720.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16190.000	15.000	465.000	520.000	400.000	700.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	843.000	0.000	841.600	65.000	839.900	165.000	840.100	265.000	842.600	365.000
GR	842.600	465.000	833.700	481.000	833.800	493.000	833.000	495.000	832.600	499.000
GR	833.000	503.000	842.600	520.000	843.300	565.000	844.300	665.000	844.400	720.000
NC	.060	.070	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	495.700	516.300	460.000	570.000	0.000
X1	16890.000	16.000	485.000	529.000	720.000	680.000	700.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.000	485.000	831.200	497.000	830.700	507.000	831.000	512.000	833.000	515.000
GR	843.000	529.000	843.100	600.000	843.100	700.000	843.300	800.000	843.700	900.000
GR	843.800	1000.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	.010	390.000	695.000	1810.000	0.000	0.000	0.000	0.000	0.000
X1	16891.000	14.000	495.700	516.300	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	830.700	495.700	843.300	495.710	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
X1	17094.000	14.000	495.700	516.300	203.000	203.000	203.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	831.600	495.700	843.300	495.710	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
QT	4.000	420.000	880.000	1170.000	2280.000	0.000	0.000	0.000	0.000	0.000
NC	.075	.070	.046	0.000	.500	0.000	0.000	0.000	0.000	0.000
X1	17095.000	24.000	495.700	516.300	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	460.000	0.000	570.000	0.000	841.000	841.000	0.000
X5	4.000	840.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	846.500	0.000	843.700	100.000	842.200	200.000	842.200	300.000	842.600	400.000
GR	843.300	495.700	832.900	495.700	832.200	497.000	831.900	500.000	832.200	503.000
GR	832.900	504.300	834.900	504.300	834.600	507.700	832.600	507.700	831.900	509.000
GR	831.600	512.000	831.900	515.000	832.600	516.300	843.300	516.300	843.100	600.000
GR	843.100	700.000	843.300	800.000	843.700	900.000	843.800	1000.000	0.000	0.000
X1	17895.000	16.000	283.000	300.000	900.000	700.000	800.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	210.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	844.100	0.000	841.000	100.000	842.700	120.000	841.100	139.000	843.000	145.000
GR	844.400	200.000	842.500	255.000	837.100	283.000	837.000	286.000	837.600	291.000
GR	843.800	300.000	845.100	400.000	842.500	453.000	843.900	475.000	844.100	500.000
GR	845.300	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.055	215.000	.090	230.000	.045	241.000	.090	255.000	.065
NH	470.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18395.000	21.000	230.000	241.000	485.000	515.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	170.000	0.000	290.000	0.000	0.000	0.000	0.000
GR	849.300	0.000	846.700	30.000	844.300	50.000	845.800	70.000	844.200	88.000
GR	846.600	105.000	847.200	130.000	845.900	215.000	841.800	230.000	839.600	232.000
GR	839.500	234.000	839.800	238.000	842.300	241.000	844.600	255.000	846.700	330.000
GR	845.500	386.000	844.600	390.000	846.000	410.000	844.600	428.000	846.800	436.000
GR	847.900	470.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18845.000	22.000	295.700	311.700	450.000	450.000	450.000	0.000	0.000	0.000
X3	10.000	0.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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GR	849.400	0.000	847.500	100.000	847.500	122.000	847.700	200.000	848.000	295.700
GR	841.200	295.700	840.500	297.000	840.200	300.000	840.500	303.000	841.200	304.300
GR	843.200	304.300	844.700	306.300	842.700	306.300	841.500	307.100	841.000	309.000
GR	841.500	310.900	842.700	311.700	848.000	311.700	847.200	400.000	847.200	500.000
GR	847.500	555.000	847.800	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18846.000	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	220.000	0.000	360.000	0.000	848.000	848.000	0.000
BT	20.000	0.000	849.400	0.000	100.000	847.500	0.000	122.000	847.500	0.000
BT	200.000	847.700	0.000	295.700	848.000	0.000	295.700	848.000	843.200	297.000
BT	848.000	845.100	300.000	848.000	846.100	303.000	848.000	845.100	304.300	848.000
BT	843.200	306.300	848.000	844.700	307.100	848.000	845.900	309.000	848.000	846.400
BT	310.900	848.000	845.900	311.700	848.000	844.700	311.700	848.000	0.000	400.000
BT	847.200	0.000	500.000	847.200	0.000	555.000	847.500	0.000	600.000	847.800
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18896.000	22.000	295.700	311.700	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	220.000	0.000	360.000	0.000	848.500	848.500	0.000
BT	20.000	0.000	849.400	0.000	100.000	847.500	0.000	122.000	847.500	0.000
BT	200.000	847.700	0.000	295.700	848.000	0.000	295.700	848.000	843.400	297.000
BT	848.000	845.300	300.000	848.000	846.300	303.000	848.000	845.300	304.300	848.000
BT	843.400	306.300	848.000	844.700	307.100	848.000	845.900	309.000	848.000	846.400
BT	310.900	848.000	845.900	311.700	848.000	844.700	311.700	848.000	0.000	400.000
BT	847.200	0.000	500.000	847.200	0.000	555.000	847.500	0.000	600.000	847.800
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	849.400	0.000	847.500	100.000	847.500	122.000	847.700	200.000	848.000	295.700
GR	841.400	295.700	840.700	297.000	840.400	300.000	840.700	303.000	841.400	304.300
GR	843.400	304.300	844.700	306.300	842.700	306.300	841.500	307.100	841.000	309.000
GR	841.500	310.900	842.700	311.700	848.000	311.700	847.200	400.000	847.200	500.000
GR	847.500	555.000	847.800	600.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18897.000	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	220.000	0.000	360.000	0.000	848.500	848.500	0.000
X1	19547.000	14.000	255.000	297.000	630.000	670.000	650.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	305.000	0.000	0.000	0.000	0.000
GR	855.200	0.000	855.500	70.000	854.000	110.000	852.200	155.000	849.800	205.000
GR	847.700	255.000	844.800	267.000	842.700	269.000	842.600	274.000	842.700	280.000
GR	847.400	297.000	847.900	305.000	848.300	335.000	847.500	405.000	0.000	0.000
X1	19877.000	17.000	296.400	312.600	400.000	300.000	330.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	250.000	0.000	380.000	0.000	849.000	849.000	0.000
GR	852.100	0.000	850.400	100.000	850.100	140.000	849.900	200.000	845.900	295.000
GR	846.900	296.400	844.700	296.400	844.100	298.000	844.100	302.000	844.600	305.400
GR	844.000	307.000	844.000	311.000	844.600	312.600	846.800	312.600	850.150	360.000
GR	850.200	400.000	850.000	470.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19878.000	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	250.000	0.000	380.000	0.000	849.000	849.000	0.000
SB	0.000	2.710	3.050	0.000	8.280	0.000	60.000	0.000	844.000	844.000
X1	19924.000	23.000	296.400	312.600	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	849.300	849.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	250.000	0.000	380.000	0.000	850.000	850.000	0.000
BT	14.000	250.000	849.950	0.000	250.000	849.950	0.000	295.000	850.000	0.000
BT	296.400	850.100	846.900	298.000	850.100	848.900	300.000	850.100	849.300	302.000
BT	850.100	848.900	303.600	850.100	846.900	305.400	850.100	846.800	307.000	850.100
BT	848.800	309.000	850.100	849.200	311.000	850.100	848.800	312.600	850.100	846.800
BT	380.000	850.170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	852.100	0.000	850.400	100.000	850.100	140.000	849.930	190.000	849.900	200.000
GR	845.900	295.000	846.900	296.400	844.700	296.400	844.100	298.000	844.100	300.000
GR	844.100	302.000	844.700	303.600	846.900	303.600	846.800	305.400	844.600	305.400
GR	844.00	307.0	844.0.0	[illegible]	[illegible]	311.000	[illegible]	[illegible]	[illegible]	[illegible]

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GR	850.170	380.000	850.200	400.000	850.000	470.000	0.000	0.000	0.000	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19925.000	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	250.000	0.000	330.000	0.000	850.000	850.000	0.000
X1	20275.000	11.000	217.000	240.000	350.000	350.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	325.000	0.000	0.000	0.000	0.000
GR	851.500	0.000	853.400	69.000	853.300	124.000	847.500	217.000	844.000	230.000
GR	843.500	235.000	843.800	239.000	846.500	240.000	852.600	324.000	852.500	359.000
GR	850.300	424.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	20585.000	14.000	200.000	222.000	310.000	310.000	310.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	130.000	0.000	300.000	0.000	0.000	0.000	0.000
GR	853.800	0.000	855.800	72.000	855.500	96.000	855.100	120.000	851.500	135.000
GR	849.800	200.000	845.200	209.000	844.800	214.000	845.200	219.000	847.700	222.000
GR	851.700	275.000	852.900	310.000	852.900	339.000	851.600	410.000	0.000	0.000
QT	4.000	295.000	615.000	820.000	1600.000	0.000	0.000	0.000	0.000	0.000
X1	21005.000	21.000	464.000	473.000	450.000	440.000	420.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	390.000	0.000	570.000	0.000	0.000	0.000	0.000
GR	856.400	0.000	857.300	63.000	857.000	114.000	856.000	147.000	852.200	167.000
GR	850.100	247.000	849.400	325.000	847.900	346.000	846.100	350.000	847.800	355.000
GR	850.000	377.000	849.300	457.000	847.800	464.000	845.600	465.000	845.400	468.000
GR	845.600	471.000	847.900	473.000	852.800	547.000	852.900	553.000	852.900	578.000
GR	852.500	647.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21305.000	28.000	516.800	532.200	300.000	300.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	485.000	0.000	565.000	0.000	851.000	851.000	0.000
GR	854.200	0.000	854.100	20.000	853.900	120.000	853.600	220.000	853.200	320.000
GR	853.000	420.000	852.930	485.000	847.600	516.800	846.600	518.000	846.300	519.000
GR	846.300	520.000	846.300	521.000	846.600	522.000	847.600	523.200	848.900	523.200
GR	848.800	525.800	847.500	525.800	846.500	527.000	846.500	528.000	846.500	529.000
GR	846.500	530.000	846.500	531.000	847.500	532.200	853.150	565.000	853.400	620.000
GR	853.400	700.000	853.700	820.000	853.700	920.000	0.000	0.000	0.000	0.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21306.000	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	485.000	0.000	565.000	0.000	851.000	851.000	0.000
SB	0.000	2.880	3.050	0.000	10.110	0.000	40.000	0.000	846.300	846.300
X1	21353.000	0.000	0.000	0.000	47.000	47.000	47.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	851.200	852.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	485.000	0.000	565.000	0.000	852.900	852.900	0.000
BT	12.000	485.000	852.930	0.000	516.800	852.900	848.900	518.000	852.900	850.300
BT	520.000	852.900	851.200	522.000	852.900	850.300	523.200	852.900	848.900	525.800
BT	852.900	848.800	527.000	852.900	850.200	529.000	853.000	851.100	531.000	853.000
BT	850.200	532.200	853.000	848.800	565.000	853.150	0.000	0.000	0.000	0.000
NC	.055	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	21354.000	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	485.000	0.000	565.000	0.000	852.900	852.900	0.000
X1	21704.000	15.000	267.000	287.000	400.000	300.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	125.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	854.300	0.000	856.000	67.000	855.300	107.000	854.500	132.000	851.700	167.000
GR	850.600	239.000	849.000	267.000	847.500	270.000	847.200	274.000	847.600	280.000
GR	850.400	287.000	852.200	367.000	855.300	467.000	855.300	499.000	853.700	567.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22104.000	14.000	150.000	167.000	400.000	400.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	110.000	0.000	230.000	0.000	0.000	0.000	0.000
GR	854.700	0.000	854.900	67.000	854.700	105.000	852.300	150.000	849.900	151.000
GR	847.700	156.000	847.600	160.000	847.700	164.000	850.800	167.000	854.100	197.000
GR	854.700	267.000	855.500	367.000	855.700	467.000	854.500	544.000	0.000	0.000

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X1	22194.000	28.000	452.000	467.000	90.000	90.000	90.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	415.000	0.000	505.000	0.000	852.000	852.000	0.000
GR	856.400	0.000	855.600	55.000	855.600	155.000	854.900	255.000	854.500	315.000
GR	854.300	355.000	854.240	415.000	849.000	452.000	848.000	453.000	847.600	454.000
GR	847.600	455.000	847.600	456.000	848.000	457.000	849.000	458.000	850.300	458.000
GR	850.000	461.000	848.700	461.000	847.700	462.000	847.500	463.000	847.500	464.000
GR	847.500	465.000	847.700	466.000	848.700	467.000	854.110	505.000	854.000	555.000
GR	854.300	655.000	854.700	755.000	855.000	855.000	0.000	0.000	0.000	0.000
NC	.037	.037	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22195.000	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	415.000	0.000	505.000	0.000	852.000	852.000	0.000
SB	0.000	3.450	3.050	0.000	9.780	0.000	44.000	0.000	847.500	847.500
X1	22265.000	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	852.400	854.110	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	415.000	0.000	505.000	0.000	854.200	854.200	0.000
BT	12.000	415.000	854.240	0.000	452.000	854.200	850.300	453.000	854.200	851.600
BT	455.000	854.200	852.400	457.000	854.200	851.600	458.000	854.200	850.300	461.000
BT	854.200	850.000	462.000	854.200	851.300	464.000	854.200	852.100	466.000	854.200
BT	851.300	467.000	854.200	850.000	505.000	854.110	0.000	0.000	0.000	0.000
NC	.055	.055	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22266.000	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	415.000	0.000	505.000	0.000	854.200	854.200	0.000
X1	22416.000	21.000	320.000	355.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	375.000	0.000	0.000	0.000	0.000
GR	856.000	0.000	856.600	55.000	856.800	155.000	856.000	255.000	856.200	311.000
GR	855.100	320.000	850.300	321.000	850.500	327.000	848.400	329.000	848.300	332.000
GR	848.400	336.000	850.500	341.000	850.600	343.000	855.100	355.000	855.900	380.000
GR	855.800	455.000	857.100	555.000	856.800	655.000	857.800	755.000	857.100	855.000
GR	857.000	915.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22511.000	25.000	297.000	312.000	95.000	95.000	95.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	272.000	0.000	350.000	0.000	853.000	853.000	0.000
GR	855.800	0.000	855.100	100.000	854.600	200.000	854.100	297.000	849.800	297.000
GR	848.900	298.000	848.900	300.000	848.900	302.000	849.800	303.000	851.000	303.000
GR	850.900	306.000	849.700	306.000	848.700	307.000	848.200	308.000	848.200	309.000
GR	848.200	310.000	848.700	311.000	849.700	312.000	854.100	312.000	853.900	400.000
GR	854.100	435.000	854.600	500.000	854.900	600.000	855.700	700.000	856.000	800.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22512.000	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	272.000	0.000	350.000	0.000	853.000	853.000	0.000
BT	19.000	0.000	855.800	0.000	100.000	855.100	0.000	200.000	854.600	0.000
BT	297.000	854.100	851.000	298.000	854.100	852.300	300.000	854.100	853.100	302.000
BT	854.100	852.300	303.000	854.100	851.000	306.000	854.100	850.900	307.000	854.100
BT	852.200	309.000	854.100	853.000	311.000	854.100	852.200	312.000	854.100	850.900
BT	400.000	853.900	0.000	435.000	854.100	0.000	500.000	854.600	0.000	600.000
BT	854.900	0.000	700.000	855.700	0.000	800.000	856.000	0.000	0.000	0.000
X1	22582.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	272.000	0.000	350.000	0.000	854.100	854.100	0.000
NC	.050	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22583.000	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	272.000	0.000	350.000	0.000	854.100	854.100	0.000
NH	4.000	.050	600.000	.075	689.000	.034	727.000	.055	900.000	0.000
X1	22883.000	15.000	699.000	727.000	300.000	300.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	550.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	864.400	0.000	862.700	100.000	862.100	200.000	861.600	300.000	860.100	400.000
GR	858.600	500.000	857.100	600.000	854.800	699.000	849.400	711.000	849.300	713.000
GR	849.900	719.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS INC 23

NC	.050	.055	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23333.000	16.000	716.000	750.000	450.000	450.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	590.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	865.200	0.000	863.800	100.000	863.200	200.000	861.900	300.000	861.000	400.000
GR	859.900	500.000	859.300	600.000	858.800	700.000	858.400	716.000	850.000	730.000
GR	850.000	735.000	850.000	738.000	855.700	750.000	858.200	800.000	859.900	840.000
GR	857.700	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23833.000	19.000	875.000	912.000	480.000	550.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	800.000	0.000	930.000	0.000	0.000	0.000	0.000
GR	869.600	0.000	868.900	75.000	866.600	175.000	865.600	275.000	864.200	375.000
GR	864.200	475.000	863.000	575.000	861.600	675.000	861.900	775.000	859.200	850.000
GR	858.200	875.000	852.100	891.000	851.900	896.000	852.200	899.000	856.400	912.000
GR	859.600	970.000	859.500	975.000	859.700	1010.000	858.600	1072.000	0.000	0.000
X1	24008.000	25.000	485.000	515.000	175.000	175.000	175.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	430.000	0.000	590.000	0.000	858.000	858.000	0.000
GR	866.900	0.000	865.700	100.000	863.300	200.000	862.000	300.000	860.900	400.000
GR	860.650	430.000	855.000	485.000	853.400	495.200	852.700	495.600	852.700	496.000
GR	852.700	498.000	852.700	500.000	852.700	502.000	852.700	504.000	852.700	504.400
GR	853.400	504.800	854.500	515.000	859.910	590.000	859.900	600.000	860.300	700.000
GR	861.000	800.000	862.000	900.000	863.500	1000.000	866.200	1100.000	867.000	1130.000
NC	.070	.070	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24009.000	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	430.000	0.000	590.000	0.000	858.000	858.000	0.000
SB	0.000	2.730	3.040	0.000	7.830	0.000	51.000	0.000	852.700	852.700
X1	24077.000	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	858.300	860.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	430.000	0.000	590.000	0.000	860.100	860.100	0.000
BT	11.000	430.000	860.650	0.000	485.000	860.180	0.000	495.200	860.100	854.400
BT	496.000	860.100	856.700	498.000	860.100	858.000	500.000	860.100	858.300	502.000
BT	860.100	858.000	504.000	860.100	856.700	504.800	860.100	854.400	515.000	860.090
BT	0.000	590.000	859.910	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.052	.052	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24078.000	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	430.000	0.000	590.000	0.000	860.100	860.100	0.000
NC	.057	.057	.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24358.000	13.000	211.000	223.000	280.000	280.000	280.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	65.000	0.000	370.000	0.000	0.000	0.000	0.000
GR	861.100	0.000	859.900	50.000	857.900	100.000	856.500	200.000	855.000	211.000
GR	852.900	214.000	852.800	217.000	852.900	219.000	855.300	223.000	858.300	300.000
GR	860.900	400.000	860.800	440.000	859.200	500.000	0.000	0.000	0.000	0.000
X1	24778.000	29.000	940.000	962.000	450.000	420.000	420.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	650.000	0.000	1100.000	0.000	0.000	0.000	0.000
GR	865.100	0.000	865.500	40.000	864.100	140.000	861.100	240.000	860.100	340.000
GR	859.500	440.000	859.700	540.000	858.200	640.000	858.100	740.000	857.500	840.000
GR	857.100	938.000	857.000	940.000	856.300	940.000	854.300	946.000	854.900	952.000
GR	856.400	952.000	856.400	954.000	855.500	954.000	856.000	959.000	856.500	962.000
GR	857.100	962.000	857.000	963.000	857.300	965.000	857.400	1040.000	857.400	1075.000
GR	860.800	1120.000	861.700	1140.000	862.100	1167.000	859.500	1240.000	0.000	0.000
NC	.050	.055	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24779.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	650.000	0.000	1100.000	0.000	0.000	0.000	0.000
BT	23.000	0.000	865.100	0.000	40.000	865.500	0.000	140.000	864.100	0.000
BT	240.000	861.100	0.000	340.000	860.100	0.000	440.000	859.500	0.000	540.000
BT	859.700	0.000	640.000	858.200	0.000	740.000	858.100	0.000	840.000	857.500
BT	0.000	938.000	857.100	0.000	940.000	857.000	856.400	952.000	857.000	856.400
BT	954.000	857.000	856.400	962.000	857.100	856.500	963.000	857.000	0.000	965.000
BT	857.300	[illegible]	[illegible]	857.100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS, INC 23

BT	0.000	1140.000	861.700	0.000	1167.000	862.100	0.000	1240.000	859.500	0.000
X1	24782.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	650.000	0.000	1100.000	0.000	0.000	0.000	0.000
NC	.052	.052	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	24783.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	650.000	0.000	1100.000	0.000	0.000	0.000	0.000
X1	25383.000	16.000	325.000	338.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	175.000	0.000	500.000	0.000	857.000	857.000	0.000
GR	859.600	0.000	860.600	125.000	858.100	225.000	858.300	310.000	857.900	325.000
GR	855.400	325.000	855.200	332.000	855.500	338.000	857.900	338.000	857.800	355.000
GR	856.500	425.000	856.200	505.000	857.400	525.000	860.100	569.000	861.400	625.000
GR	859.700	675.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25384.000	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	175.000	0.000	500.000	0.000	857.000	857.000	0.000
BT	13.000	0.000	859.600	0.000	125.000	860.600	0.000	225.000	858.100	0.000
BT	310.000	858.300	0.000	325.000	857.900	857.000	338.000	857.900	857.300	355.000
BT	857.800	0.000	425.000	856.500	0.000	505.000	856.200	0.000	525.000	857.400
BT	0.000	569.000	860.100	0.000	625.000	861.400	0.000	675.000	859.700	0.000
X1	25387.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	175.000	0.000	500.000	0.000	857.900	857.900	0.000
NC	.052	.052	.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25388.000	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	175.000	0.000	500.000	0.000	857.900	857.900	0.000
QT	4.000	255.000	540.000	730.000	1420.000	0.000	0.000	0.000	0.000	0.000
X1	25708.000	40.000	397.000	429.000	320.000	320.000	320.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	470.000	0.000	859.000	859.000	0.000
GR	859.500	0.000	860.000	100.000	860.500	200.000	860.800	300.000	860.300	385.000
GR	855.500	397.000	855.500	398.000	855.500	400.000	855.500	402.000	855.500	403.000
GR	856.200	403.000	856.200	406.000	855.200	406.000	854.600	407.000	854.600	409.000
GR	854.600	411.000	855.200	412.000	856.200	412.000	856.200	415.000	855.200	415.000
GR	854.900	415.500	854.900	416.000	854.900	418.000	854.900	420.000	854.900	420.500
GR	855.200	421.000	856.200	421.000	856.200	423.000	855.200	423.000	854.900	423.500
GR	854.900	424.000	854.900	426.000	854.900	428.000	854.900	428.500	855.200	429.000
GR	859.900	450.000	859.500	500.000	859.500	600.000	860.000	700.000	860.300	800.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25709.000	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	300.000	0.000	470.000	0.000	859.000	859.000	0.000
BT	28.000	0.000	859.500	0.000	100.000	860.000	0.000	200.000	860.500	0.000
BT	300.000	860.800	0.000	397.000	860.300	856.200	398.000	860.300	857.700	400.000
BT	860.300	858.200	402.000	860.300	857.700	403.000	860.300	856.200	406.000	860.300
BT	856.200	407.000	860.200	857.700	409.000	860.200	858.200	411.000	860.200	857.700
BT	412.000	860.200	856.200	415.000	860.200	856.200	416.000	860.200	857.700	418.000
BT	860.200	858.200	420.000	860.100	857.700	421.000	860.100	856.200	423.000	860.100
BT	856.200	424.000	860.100	858.000	426.000	860.100	858.800	428.000	860.100	858.000
BT	429.000	860.100	856.200	500.000	859.500	0.000	600.000	859.500	0.000	700.000
BT	860.000	0.000	800.000	860.300	0.000	0.000	0.000	0.000	0.000	0.000
X1	25769.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	300.000	0.000	470.000	0.000	859.500	859.500	0.000
NC	.052	.052	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25770.000	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	300.000	0.000	470.000	0.000	859.500	859.500	0.000

MOORE BUSINESS FORMS INC 73

NC	.065	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26370.000	15.000	457.000	507.000	300.000	800.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	600.000	0.000	0.000	0.000	0.000
GR	860.700	0.000	861.800	57.000	862.300	117.000	858.700	157.000	858.800	257.000
GR	859.400	357.000	859.900	457.000	856.600	472.000	856.400	480.000	855.700	485.000
GR	856.500	490.000	860.400	507.000	862.400	557.000	863.900	592.000	861.500	667.000
NC	.065	.057	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26910.000	30.000	677.000	737.000	750.000	370.000	540.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	755.000	0.000	0.000	0.000	0.000
GR	867.900	0.000	865.000	35.000	865.000	77.000	867.100	120.000	867.500	177.000
GR	865.800	277.000	864.900	377.000	862.600	477.000	861.700	577.000	861.500	677.000
GR	856.300	697.000	854.600	704.000	854.400	708.000	856.500	712.000	862.200	737.000
GR	864.100	777.000	862.200	884.000	861.600	977.000	862.100	1077.000	861.900	1177.000
GR	861.600	1277.000	861.600	1377.000	861.900	1477.000	861.300	1577.000	861.400	1677.000
GR	861.900	1777.000	862.400	1877.000	862.900	1977.000	863.400	2077.000	863.700	2177.000
X1	27260.000	26.000	659.000	709.000	350.000	350.000	350.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	750.000	0.000	0.000	0.000	0.000
GR	866.600	0.000	864.000	59.000	868.400	159.000	868.500	259.000	866.100	359.000
GR	863.000	459.000	862.700	559.000	861.500	659.000	856.900	677.000	856.200	684.000
GR	855.900	688.000	856.900	694.000	861.500	709.000	863.500	759.000	863.400	804.000
GR	861.400	866.000	862.200	959.000	860.600	1059.000	860.300	1159.000	857.200	1259.000
GR	857.200	1759.000	858.700	1764.000	858.800	1859.000	859.500	1959.000	861.400	2059.000
GR	863.600	2159.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27810.000	28.000	1500.000	1585.000	400.000	700.000	550.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1455.000	0.000	1700.000	0.000	0.000	0.000	0.000
GR	867.400	0.000	868.300	100.000	866.300	200.000	866.400	300.000	864.500	390.000
GR	866.300	500.000	865.700	600.000	866.300	700.000	866.100	800.000	866.300	900.000
GR	867.800	1000.000	867.000	1100.000	867.600	1200.000	869.200	1300.000	868.200	1400.000
GR	870.600	1500.000	866.900	1513.000	856.800	1545.000	857.100	1552.000	856.700	1558.000
GR	857.900	1564.000	862.500	1585.000	864.700	1600.000	867.500	1700.000	866.000	1810.000
GR	869.000	1900.000	868.200	1970.000	872.900	1995.000	0.000	0.000	0.000	0.000
NC	.070	.070	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28130.000	25.000	1470.000	1540.000	260.000	300.000	320.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.070	.070	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28131.000	25.000	1470.000	1540.000	1.000	1.000	1.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
SB	0.000	2.930	3.040	0.000	8.000	0.000	54.000	0.000	858.100	858.100
X1	28218.000	25.000	1470.000	1540.000	87.000	87.000	87.000	.940	0.000	0.000
X2	0.000	0.000	1.000	863.000	866.200	0.000	0.000	0.000	.940	0.000
BT	10.000	1350.000	866.400	0.000	1400.000	866.200	0.000	1470.000	866.000	0.000
BT	1495.000	866.700	861.100	1497.000	866.700	864.100	1500.000	866.700	865.100	1503.000
BT	866.800	864.100	1505.000	866.800	861.100	1540.000	867.600	0.000	1600.000	869.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.070	.070	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	1495.000	1505.000	1350.000	1600.000	0.000
X1	28219.000	25.000	1470.000	1540.000	1.000	1.000	1.000	.940	0.000	0.000
GR	871.200	0.000	870.700	100.000	870.600	200.000	870.200	300.000	869.900	400.000
GR	869.500	500.000	869.200	600.000	868.400	700.000	867.800	800.000	867.400	900.000
GR	867.200	1000.000	866.700	1100.000	866.300	1200.000	866.600	1300.000	866.200	1400.000
GR	862.200	1470.000	859.100	1495.000	858.100	1497.000	858.100	1500.000	858.100	1503.000
GR	859.100	1505.000	864.700	1540.000	869.000	1600.000	870.800	1700.000	872.500	1770.000
NC	.053	.053	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	28619.000	13.000	445.000	488.000	550.000	300.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	220.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	874.900	0.000	872.400	45.000	873.000	145.000	866.300	245.000	864.400	345.000
GR	863.600	445.000	859.800	462.000	859.800	469.000	860.000	472.000	862.100	488.000
GR	863.600	545.000	869.400	590.000	875.200	645.000	0.000	0.000	0.000	0.000
NC	.052	.052	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29469.000	18.000	400.000	427.000	850.000	850.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	450.000	0.000	0.000	0.000	0.000
GR	873.200	0.000	872.500	100.000	870.600	152.000	871.600	200.000	872.100	255.000
GR	867.900	300.000	866.500	365.000	865.100	400.000	862.800	412.000	862.400	418.000
GR	862.200	420.000	862.400	423.000	864.200	427.000	865.400	440.000	866.800	500.000
GR	868.800	600.000	872.400	700.000	877.600	800.000	0.000	0.000	0.000	0.000
X1	29534.000	14.000	165.000	188.000	65.000	65.000	65.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.000	165.000	863.100	165.000
GR	862.900	169.000	862.800	171.000	863.300	175.000	862.800	179.000	862.900	181.000
GR	863.300	188.000	865.000	188.000	866.300	195.000	867.900	230.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29535.000	16.000	165.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.600	165.000	865.500	169.000
GR	864.900	169.000	864.900	171.000	865.500	171.000	865.500	175.000	865.500	179.000
GR	864.900	179.000	864.900	181.000	865.500	181.000	865.600	188.000	866.300	195.000
GR	867.900	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29536.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29537.000	14.000	165.000	188.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	870.100	0.000	867.300	65.000	866.600	145.000	865.600	165.000	864.100	165.000
GR	863.900	169.000	863.800	171.000	864.300	175.000	863.800	179.000	863.900	181.000
GR	864.400	188.000	865.600	188.000	866.300	195.000	867.900	230.000	0.000	0.000
X1	29687.000	17.000	49.500	68.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	870.400	0.000	869.300	26.000	868.300	49.500	866.400	49.500	866.400	51.000
GR	864.000	51.000	863.400	55.000	863.600	58.000	863.900	61.000	864.400	64.000
GR	864.900	67.000	866.200	67.000	866.200	68.500	868.100	68.500	867.800	101.000
GR	866.600	151.000	867.200	176.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29688.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	15.000	0.000	870.400	0.000	26.000	869.300	0.000	49.500	868.300	868.300
BT	49.500	869.700	868.200	51.000	869.700	868.200	55.000	869.700	868.200	58.000
BT	869.600	868.100	61.000	869.600	868.100	64.000	869.500	868.000	67.000	869.500
BT	868.000	68.500	869.500	868.000	68.500	868.100	868.100	101.000	867.800	0.000
BT	151.000	866.600	0.000	176.000	867.200	0.000	0.000	0.000	0.000	0.000
X1	29700.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.055	.055	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29701.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	29751.000	27.000	587.000	591.000	1.000	70.000	50.000	.870	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.000	867.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.030	.030	.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29752.000	27.000	587.000	591.000	1.000	1.000	1.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.000	867.000	0.000
BT	25.000	0.000	881.200	0.000	100.000	875.600	0.000	200.000	872.000	0.000
BT	300.000	870.600	0.000	347.000	870.100	0.000	400.000	869.300	0.000	500.000
BT	868.400	0.000	587.000	867.800	864.800	587.200	867.800	865.800	587.600	867.800
BT	866.300	588.100	867.800	866.600	589.000	867.800	866.800	589.900	867.800	866.600
BT	590.400	867.800	866.300	590.800	867.800	865.800	591.000	867.800	864.800	600.000
BT	867.700	0.000	700.000	867.200	0.000	800.000	867.100	0.000	900.000	868.500
BT	0.000	970.000	870.400	0.000	1000.000	871.600	0.000	1100.000	875.800	0.000
BT	1200.000	879.500	0.000	1300.000	880.100	0.000	0.000	0.000	0.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29796.000	27.000	587.000	591.000	44.000	44.000	44.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.800	867.800	0.000
BT	25.000	0.000	881.200	0.000	100.000	875.600	0.000	200.000	872.000	0.000
BT	300.000	870.600	0.000	347.000	870.100	0.000	400.000	869.300	0.000	500.000
BT	868.400	0.000	587.000	867.800	864.800	587.200	867.800	865.800	587.600	867.800
BT	866.300	588.100	867.800	866.600	589.000	867.800	866.800	589.900	867.800	866.600
BT	590.400	867.800	866.300	590.800	867.800	865.800	591.000	867.800	864.800	600.000
BT	867.700	0.000	700.000	867.200	0.000	800.000	867.100	0.000	900.000	868.500
BT	0.000	970.000	870.400	0.000	1000.000	871.600	0.000	1100.000	875.800	0.000
BT	1200.000	879.500	0.000	1300.000	880.100	0.000	0.000	0.000	0.000	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	29797.000	27.000	587.000	591.000	1.000	1.000	1.000	.870	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	720.000	0.000	867.800	867.800	0.000
GR	881.200	0.000	875.600	100.000	872.000	200.000	870.600	300.000	870.100	347.000
GR	869.300	400.000	868.400	500.000	867.800	587.000	864.800	587.000	863.800	587.200
GR	863.300	587.600	863.000	588.100	862.800	589.000	863.000	589.900	863.300	590.400
GR	863.800	590.800	864.800	591.000	867.800	591.000	867.700	600.000	867.200	700.000
GR	867.100	800.000	868.500	900.000	870.400	970.000	871.600	1000.000	875.800	1100.000
GR	879.500	1200.000	880.100	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	30027.000	14.000	254.000	281.000	170.000	350.000	230.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	871.400	0.000	870.900	54.000	871.300	156.000	867.900	219.000	866.000	254.000
GR	864.200	255.000	864.000	268.000	864.700	277.000	867.100	281.000	866.900	304.000
GR	867.100	354.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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X1	30527.000	16.000	258.000	314.000	500.000	500.000	500.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	874.200	0.000	873.100	58.000	872.500	129.000	870.400	158.000	868.100	208.000
GR	866.800	258.000	865.500	262.000	863.900	273.000	863.400	288.000	863.700	303.000
GR	864.900	307.000	868.000	314.000	870.900	358.000	874.500	408.000	874.200	458.000
GR	872.600	535.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	210.000	460.000	640.000	1230.000	0.000	0.000	0.000	0.000	0.000
NC	.050	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	30927.000	21.000	261.000	288.000	400.000	400.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	150.000	0.000	500.000	0.000	0.000	0.000	0.000
GR	877.700	0.000	874.700	61.000	872.200	161.000	869.900	236.000	868.700	261.000
GR	865.200	267.000	864.000	276.000	865.500	284.000	867.700	288.000	868.000	311.000
GR	867.500	341.000	865.500	346.000	864.000	351.000	863.700	358.000	864.100	365.000
GR	865.200	373.000	866.900	375.000	869.700	461.000	872.700	488.000	874.100	561.000
GR	874.400	647.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31227.000	26.000	500.000	509.400	400.000	200.000	300.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	850.000	0.000	868.000	868.000	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	867.400	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	867.400	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31228.000	26.000	500.000	509.400	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	850.000	0.000	868.000	868.000	0.000
BT	22.000	0.000	880.100	0.000	100.000	876.000	0.000	200.000	872.900	0.000
BT	300.000	871.300	0.000	400.000	871.900	0.000	424.000	872.200	0.000	500.000
BT	871.600	867.400	501.700	871.600	869.900	504.700	871.600	871.200	507.700	871.500
BT	869.900	509.400	871.500	867.400	585.000	870.900	0.000	600.000	870.800	0.000
BT	700.000	869.900	0.000	800.000	869.700	0.000	900.000	868.900	0.000	1000.000
BT	869.400	0.000	1100.000	871.900	0.000	1165.000	874.400	0.000	1200.000	875.900
BT	0.000	1300.000	880.900	0.000	1400.000	887.100	0.000	0.000	0.000	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	871.600	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	871.500	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31299.000	0.000	0.000	0.000	71.000	71.000	71.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	850.000	0.000	868.900	868.900	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31300.000	26.000	500.000	509.400	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	500.000	0.000	850.000	0.000	868.900	868.900	0.000
GR	880.100	0.000	876.000	100.000	872.900	200.000	871.300	300.000	871.900	400.000
GR	872.200	424.000	867.400	500.000	865.800	500.000	865.200	501.700	865.000	502.200
GR	865.000	504.700	865.000	507.200	865.200	507.700	865.800	509.400	867.400	509.400
GR	867.500	585.000	867.000	600.000	869.900	700.000	869.700	800.000	868.900	900.000
GR	869.400	1000.000	871.900	1100.000	874.400	1165.000	875.900	1200.000	880.900	1300.000
GR	887.100	1400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	5.000	.055	207.000	.065	322.000	.035	477.000	.065	752.000	.055
NH	932.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	31850.000	27.000	322.000	477.000	470.000	650.000	550.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	175.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	881.500	0.000	879.000	32.000	871.700	87.000	869.800	132.000	867.400	207.000
GR	866.800	232.000	866.700	292.000	866.000	302.000	866.000	312.000	866.100	322.000
GR	865.500	332.000	865.300	342.000	865.500	352.000	865.300	357.000	865.400	362.000
GR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MOORE BUSINESS FORMS INC 23

GR	867.100	532.000	867.000	632.000	866.500	732.000	866.800	752.000	871.100	797.000
GR	871.100	832.000	882.700	932.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.072	.072	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	32785.000	24.000	1050.000	1072.000	935.000	935.000	935.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	886.200	0.000	883.300	20.000	872.400	100.000	870.900	200.000	869.900	300.000
GR	869.400	400.000	869.100	500.000	868.300	600.000	867.800	700.000	868.000	800.000
GR	867.900	900.000	868.300	1000.000	868.800	1050.000	868.000	1055.000	866.900	1062.000
GR	868.100	1068.000	869.000	1072.000	868.500	1100.000	868.300	1200.000	870.100	1300.000
GR	871.200	1400.000	872.400	1420.000	881.400	1440.000	884.100	1460.000	0.000	0.000
X1	33385.000	18.000	805.000	828.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	885.300	0.000	875.900	45.000	874.000	100.000	872.900	200.000	871.500	300.000
GR	870.300	400.000	869.700	500.000	869.200	600.000	868.900	700.000	869.800	805.000
GR	868.500	811.000	868.100	818.000	867.500	825.000	870.100	828.000	870.200	900.000
GR	872.700	1000.000	873.900	1080.000	885.100	1120.000	0.000	0.000	0.000	0.000
NC	.065	.065	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34235.000	14.000	349.000	382.000	850.000	850.000	850.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	892.200	0.000	883.900	26.000	879.800	54.000	872.100	149.000	870.800	249.000
GR	871.700	349.000	869.200	355.000	869.000	363.000	869.000	371.000	869.100	378.000
GR	870.500	382.000	872.000	449.000	875.900	549.000	884.700	649.000	0.000	0.000
SB	0.000	1.000	3.060	0.000	.010	0.000	.010	0.000	869.000	869.000
X1	34247.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	869.000	871.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	6.000	275.000	871.000	0.000	349.000	872.000	0.000	382.000	872.000	0.000
BT	449.000	872.000	0.000	549.000	875.900	0.000	649.000	884.700	0.000	0.000
NC	.045	.060	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34997.000	10.000	86.000	110.000	750.000	750.000	750.000	0.000	0.000	0.000
GR	883.200	0.000	877.400	42.000	870.000	86.000	869.100	89.000	867.100	95.000
GR	868.900	102.000	871.800	110.000	874.000	143.000	876.800	210.000	882.200	245.000
NC	.062	.055	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	35772.000	12.000	200.000	255.000	775.000	775.000	775.000	0.000	0.000	0.000
GR	889.700	0.000	880.100	45.000	875.200	100.000	873.500	200.000	868.600	222.000
GR	868.500	225.000	869.100	232.000	874.100	255.000	875.400	300.000	876.800	380.000
GR	879.900	400.000	890.400	470.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36122.000	12.000	93.700	124.900	400.000	300.000	350.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	868.600	100.000	871.100	106.300
GR	871.100	112.300	868.600	118.600	871.100	124.900	885.800	124.900	885.800	200.000
GR	888.200	235.000	892.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36123.000	24.000	93.700	124.900	1.000	1.000	1.000	0.000	0.000	0.000
BT	24.000	0.000	887.900	0.000	93.700	885.800	0.000	93.700	885.800	871.100
BT	94.300	885.800	873.600	96.200	885.800	876.100	98.900	885.800	877.300	100.000
BT	885.800	877.300	101.100	885.800	877.300	103.800	885.800	876.100	105.700	885.800
BT	873.600	106.300	885.800	871.100	112.300	885.800	871.100	112.900	885.800	873.600
BT	114.800	885.800	876.100	117.500	885.800	877.300	118.600	885.800	877.300	119.700
BT	885.800	877.300	122.400	885.800	876.100	124.300	885.800	873.600	124.900	885.800
BT	871.100	124.900	885.800	0.000	200.000	885.800	0.000	235.000	888.200	0.000
BT	275.000	892.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	869.400	94.300	869.000	96.200
GR	868.600	98.900	868.600	100.000	868.600	101.100	869.000	103.800	869.400	105.700
GR	871.100	106.300	871.100	112.300	869.400	112.900	869.000	114.800	868.600	117.500
GR	868.600	118.600	868.600	119.700	869.000	122.400	869.400	124.300	871.100	124.900
GR	885.800	124.900	885.800	200.000	886.200	235.000	892.000	275.000	0.000	0.000
X1	36242.000	24.000	93.700	124.900	130.000	130.000	130.000	0.000	0.000	0.000

MOORE BUSINESS FORMS, INC 23

BT	24.000	0.000	887.900	0.000	93.700	885.800	0.000	93.700	885.800	871.500
BT	94.300	885.800	874.000	96.200	885.800	876.500	98.900	885.800	877.700	100.000
BT	885.800	877.700	101.100	885.800	877.700	103.800	885.800	876.500	105.700	885.800
BT	874.000	106.300	885.800	871.500	112.300	885.800	871.500	112.900	885.800	874.000
BT	114.800	885.800	876.500	117.500	885.800	877.700	118.600	885.800	877.700	119.700
BT	885.800	877.700	122.400	885.800	876.500	124.300	885.800	874.000	124.900	885.800
BT	871.500	124.900	885.800	0.000	200.000	885.800	0.000	235.000	888.200	0.000
BT	275.000	892.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	887.900	0.000	885.800	93.700	871.500	93.700	869.800	94.300	869.400	96.200
GR	869.000	98.900	869.000	100.000	869.000	101.100	869.400	103.800	869.800	105.700
GR	871.500	106.300	871.500	112.300	869.800	112.900	869.400	114.800	869.000	117.500
GR	869.000	118.600	869.000	119.700	869.400	122.400	869.800	124.300	871.500	124.900
GR	885.800	124.900	885.800	200.000	888.200	235.000	892.000	275.000	0.000	0.000
NC	.050	.050	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36263.000	12.000	93.700	124.900	1.000	1.000	1.000	0.000	.400	0.000
GR	887.900	0.000	885.800	93.700	871.100	93.700	868.600	100.000	871.100	106.300
GR	871.100	112.300	868.600	118.600	871.100	124.900	885.800	124.900	885.800	200.000
GR	888.200	235.000	892.000	275.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36503.000	14.000	100.000	145.000	240.000	240.000	240.000	0.000	0.000	0.000
GR	889.000	0.000	887.900	4.000	879.100	35.000	876.300	74.000	873.400	100.000
GR	869.900	114.000	869.900	117.000	870.000	124.000	875.500	145.000	879.800	200.000
GR	882.700	245.000	883.700	400.000	893.400	446.000	894.000	500.000	0.000	0.000
QT	4.000	160.000	350.000	480.000	920.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37603.000	17.000	727.900	732.100	1100.000	1100.000	1100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	869.800	727.900
GR	869.400	730.000	869.800	732.100	873.900	830.000	874.000	930.000	875.400	1030.000
GR	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.035	.035	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37604.000	23.000	727.900	732.100	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
BT	23.000	0.000	881.000	0.000	30.000	879.800	0.000	55.000	879.100	0.000
BT	130.000	878.100	0.000	230.000	877.700	0.000	330.000	877.300	0.000	430.000
BT	876.000	0.000	530.000	874.400	0.000	630.000	873.700	0.000	727.900	874.100
BT	0.000	727.900	874.100	870.500	728.800	874.100	871.600	729.600	874.100	872.000
BT	730.000	874.100	872.000	730.400	874.100	872.000	731.200	874.100	871.600	732.100
BT	874.100	870.500	732.100	874.100	0.000	830.000	873.900	0.000	930.000	874.000
BT	0.000	1030.000	875.400	0.000	1130.000	877.100	0.000	1230.000	880.100	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	874.100	727.900
GR	869.800	727.900	869.400	728.800	869.400	729.600	869.400	730.000	869.400	730.400
GR	869.400	731.200	869.800	732.100	874.100	732.100	873.900	830.000	874.000	930.000
GR	875.400	1030.000	877.100	1130.000	880.100	1230.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	6.100	400.000	1230.000	0.000	0.000	0.000
X1	37648.000	23.000	727.900	732.100	44.000	44.000	44.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	850.000	0.000	0.000	0.000	0.000
BT	23.000	0.000	881.000	0.000	30.000	879.800	0.000	55.000	879.100	0.000
BT	130.000	878.100	0.000	230.000	877.700	0.000	330.000	877.300	0.000	430.000
BT	876.000	0.000	530.000	874.400	0.000	630.000	873.700	0.000	727.900	874.100
BT	0.000	727.900	874.100	870.700	728.800	874.100	871.800	729.600	874.100	872.200
BT	730.000	874.100	872.200	730.400	874.100	872.200	731.200	874.100	871.800	732.100
BT	874.100	870.700	732.100	874.100	0.000	830.000	873.900	0.000	930.000	874.000
BT	0.000	1030.000	875.400	0.000	1130.000	877.100	0.000	1230.000	880.100	0.000
GR	881.000	0.000	879.800	30.000	879.100	55.000	878.100	130.000	877.700	230.000
GR	877.300	330.000	876.000	430.000	874.400	530.000	873.700	630.000	874.100	727.900
GR	870.000	727.900	869.600	728.800	869.600	729.600	869.600	730.000	869.600	730.400
GR	869.600	731.200	870.000	732.100	874.100	732.100	873.900	830.000	874.000	930.000
GR	87[illegible].400	1030.000	877.10[illegible]	1130.0[illegible]	880.100	1230.000	0.000	0.000	0.00[illegible]	0.000

FOOTE BUSINESS FORMS INC 2

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE DOWNSTREAM OF FARMINGTON

4) DOWNSTREAM TYPE: HYDRAULIC ANALYSIS

00BREAK00

UPPER RIVER ROUGE D/S OF CITY OF FARMINGTON

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Upper River Rouge in the City of Farmington Hills, Oakland County, Michigan. The portion being considered extends from 8 Mile Road, the southern corporate boundary of the City of Farmington, to north of Nine Mile Road, covering a distance of approximately 2.52 river miles. The drainage araes at the upstream and downstream ends of the study are 17.5 and 19.5 acres, respectively. The 10-, 50-, 100- and 500-year flood frequency flows were calculated by Brater's unit-hydrograph-infiltration capacity method. These flood frequency values were compared to those used by the U. S. Army Corps of Engineers for the city of Farmington FIS. The values generated were within the confidence limits required by the Federal Insurance Administration, therefore those used by the COE were used for this reach. These flows have been approved by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U. S. Corps of Engineers (Reference 1). All bridges have been modeled by the requirements of the HEC-2 mormal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs and field descriptions taken in Farmington Hills by survey crews in 1976. Additional field reconnaisance and verifications of U. S. Army Corps of Engineers cross-sections were also conducted to reflect the changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values were indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3).

The weir discharge coefficients were taken from charts of the U. S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting water-surface elevations for this study were obtained by a two-step approach. The first step being to use the high water marks as taken for the 1968 flood as a calibration run for "n" values. When calibration was

completed, the second step was to use a convergence approach by beginning 5490 feet downstream of 8 Mile Road. Elevations ranged from 635.0 to 640.0 (USGS) and 0.5 foot increment between elevations was utilized. The resulting elevations at the upstream face of 8 Mile Road were then considered as starting elevations for the hydraulic analysis for the City of Farmington Hills.

Discussion

1. The analysis of the Upper River Rouge revealed a constriction at Section D. An examination of previous studies done by the U. S. Corps of Engineers show an oxbow that has since been short circuited as a result of the 1968 flood. A field examination verified the short circuit and has shown that the area has been filled and a parking lot constructed at this point. The resulting profile discloses the constructive effect of the reduced section.

   The constriction also has precluded the usefulness of the existing high water mark located at Middlebelt Road.

2. The water surface elevations at the upstream limits of this reach do not match the U. S. Corps of Engineers study at the City of Farmington. The bridge data as well as coefficients used for the previous report has been revised and as a result the ending elevations are not consistent with the previous Flood Insurance Report.

What has been done to resolve this?

References

1. U. S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U. S. Department of Commerce, Dec. 1965.

4. U. S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

6. U. S. Army Corps of Engineers, Flood Plain Information Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek, Prepared for the Water Resources Commission, Michigan Department of Natural Resources and Southeast Michigan Council of Governments, January 1972.

City of Farmington Hills
Upper River Rouge, d/s of Farmington
5670-03-1
MCS 1-26-78

Original Cross-Section Location

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
A	1	78	u/s face of 8 Mile Road Bridge
B	2	1179	±1100' u/s from u/s face of 8 Mile Road Bridge
C	3	2279	±2200' u/s from u/s face of 8 Mile Road Bridge
D	4	3204	±935' d/s from d/s face of Middlebelt Road Bridge
E	5	4211	u/s face of Middlebelt Road Bridge
F	CS1*	4262	±50' u/s from u/s face of Middlebelt Road Bridge
G	CS2*	4687	±475' u/s from u/s face of Middlebelt Road Bridge
H	CS3*	6247	±2035' u/s from u/s face of Middlebelt Road Bridge
I	CS4*	7797	±70' d/s from d/s face of Tuck Street Bridge
J	6	7903	u/s face of Tuck Street Bridge
K	CS5*	8704	±70' d/s from d/s face of Private Driveway
L	7	8802	u/s face of Private Driveway Bridge
M	CS6*	9503	±70/ d/s from d/s face of Folsom Drive Bridge
N	8	9574	d/s face of Folsom Drive Bridge
O	9	9684	Center of Eastbound I-96
P	10	9794	Center of Westbound I-96
Q	11	9924	u/s face of Freedom Road Bridge

* Provided by U.S. Corps of Engineers (COE)

City of Farmington Hills
Upper River Rouge, d/s of Farmington
5670-03-1
MCS 1-26-78

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
R	12	10075	±105' u/s from u/s face of Freedom Road Bridge
S	13	10487	u/s face of Iverson Driveway Bridge
T	14	11073	u/s face of Orchard Lake Road Bridge
U	CS9*	11123	±50' u/s from u/s face of Orchard Lake Road Bridge
V	15	11548	±475' u/s from u/s face of Orchard Lake Road Bridge
W	16	12481	u/s face of Nine Mile Road

* Provided by U.S. Corps of Engineers (COE)

...nson & Anderson, In...
Consulting Engineers
...x 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDR[illegible]IC STRUCTURAL DATA

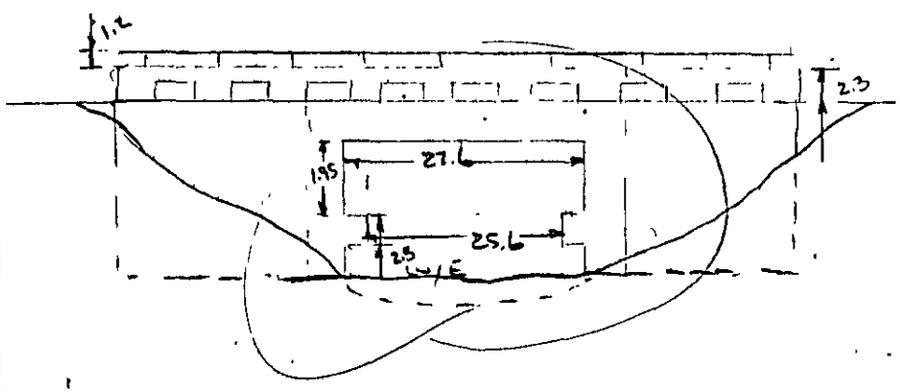
B.S. 1

Code No. 5670-03

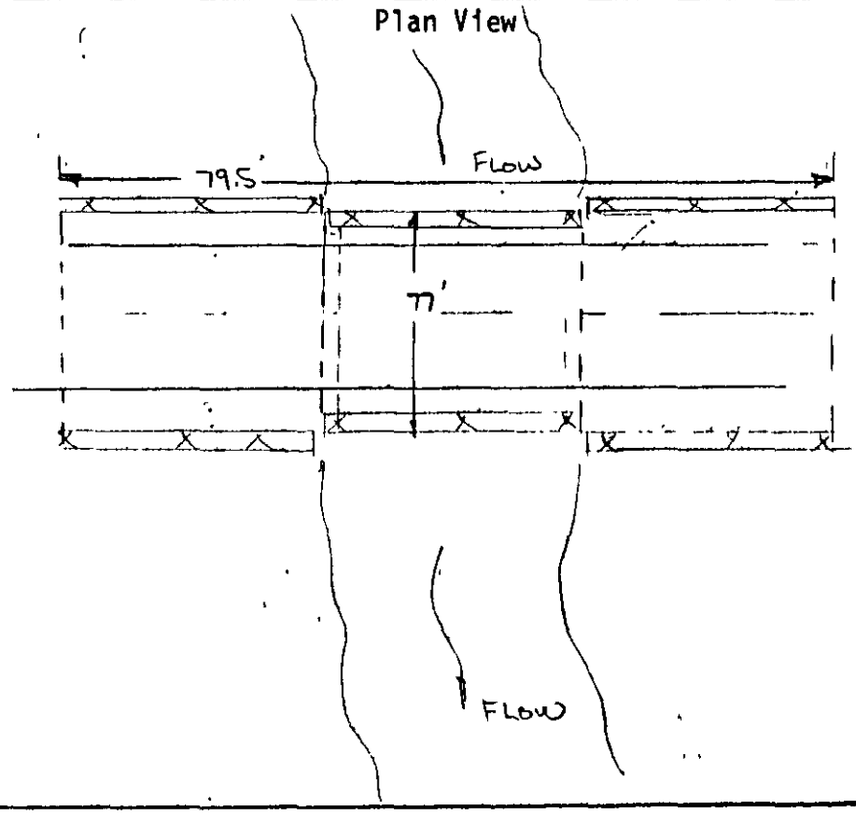
Job Name: City of Farmington Hills F.I.S.		By: R. Moses	
Date: 8-23-77	Feature: Conc. Box Culvert Bridge	Water Course: Upper Rouge River	
Remarks: Bridge is on 8 Mile Rd, East of Middlebelt Rd. Up & Dn. Stream of Bridge Along Banks, are Large Willow Tree w/ Heavy Brush Surrounding. Fd W.C.R.C. Tablet on Sidewalk S side of Bridge.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 636.4	Length: 27.6	Width of Deck: 77	Skew:

FIELD SKETCH

Profile View



Plan View



Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

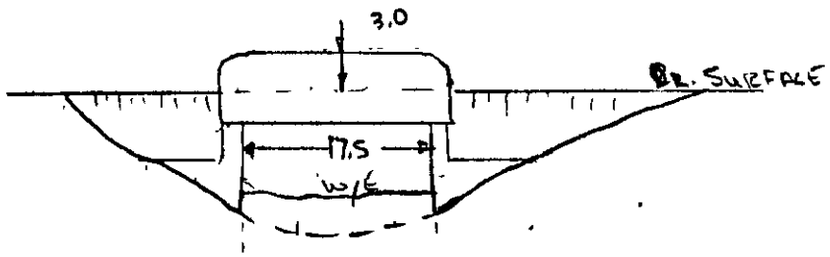
B.S. #7

Code No. 5670-03

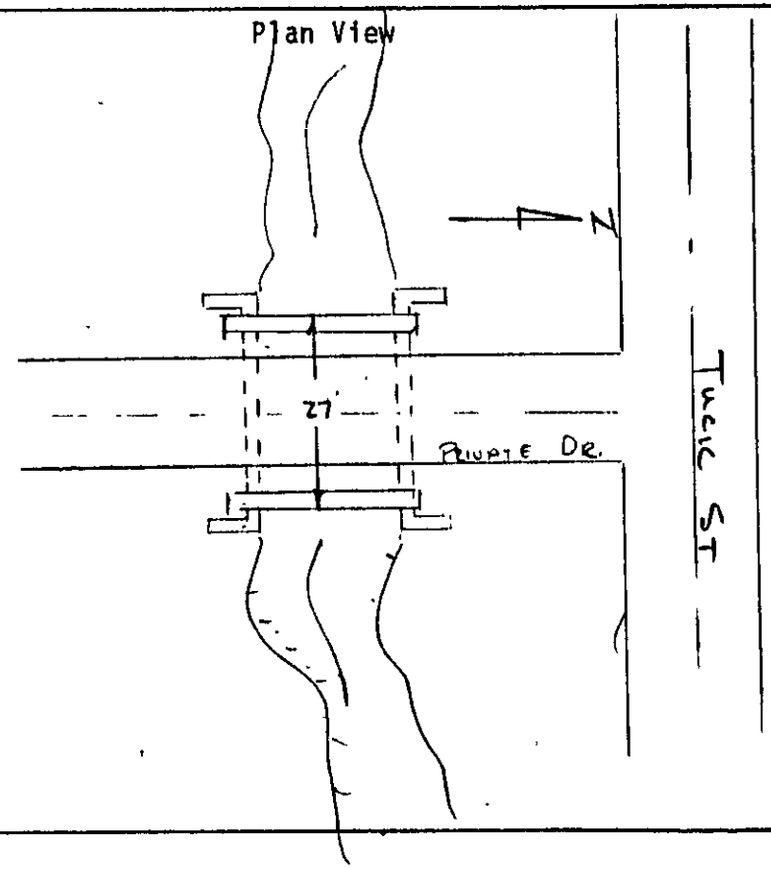
Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 8-23-77	Feature: Conc. Box Culvert	Water Course: Upper Rouge River	
Remarks: Bridge is on Private Dr. of Tuck St to Farmington Nursing Home			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 655.3	Length: 17.5	Width of Deck: 27'	Skew:

FIELD SKETCH

Profile View



Plan View



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X1      7.20      14     140.00     157.50      1.00      1.00      1.00      1.000

BT     14.00      0.00   663.80      0.00     40.00    662.00      0.00    138.90    661.9

BT    139.00    665.40     0.00    140.00    665.40      0.00    140.00    665.40
BT    665.40    659.40   157.50    665.40    659.50    157.50    665.40      0.0
BT      0.00    159.10   662.40      0.00    240.00    667.30      0.00    340.
BT    440.00    674.50     0.00

GR    663.80      0.00   662.00     40.00    661.90    138.90    665.
GR    654.60    140.00   654.60    148.00    654.90    157.50    665.
GR    662.40    159.10   667.30    240.00    671.00    340.00    674.
*******************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE******

140.00  659.30  148.00  659.40  157.50  659.50

140.00  665.40  140.00  654.60  148.00  654.60  157.50  654.90  157.5
************** LISTING OF COORDINATES OF ORIFICE*********************

140.00  659.30  148.00  659.40  157.50  659.50  157.50  654.90  148.0
140.00  654.60  140.00  659.30

ORIFICE AREA        82.6 WETTED PERIMETER     44.3  29.1/R**1.333
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Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

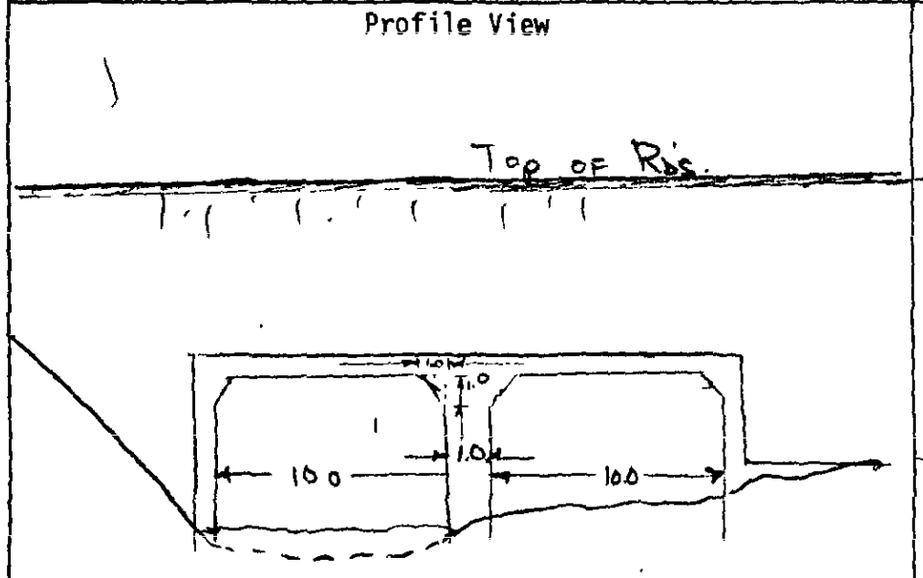
B.S # 8-9-10-11

Code No. 5670-03

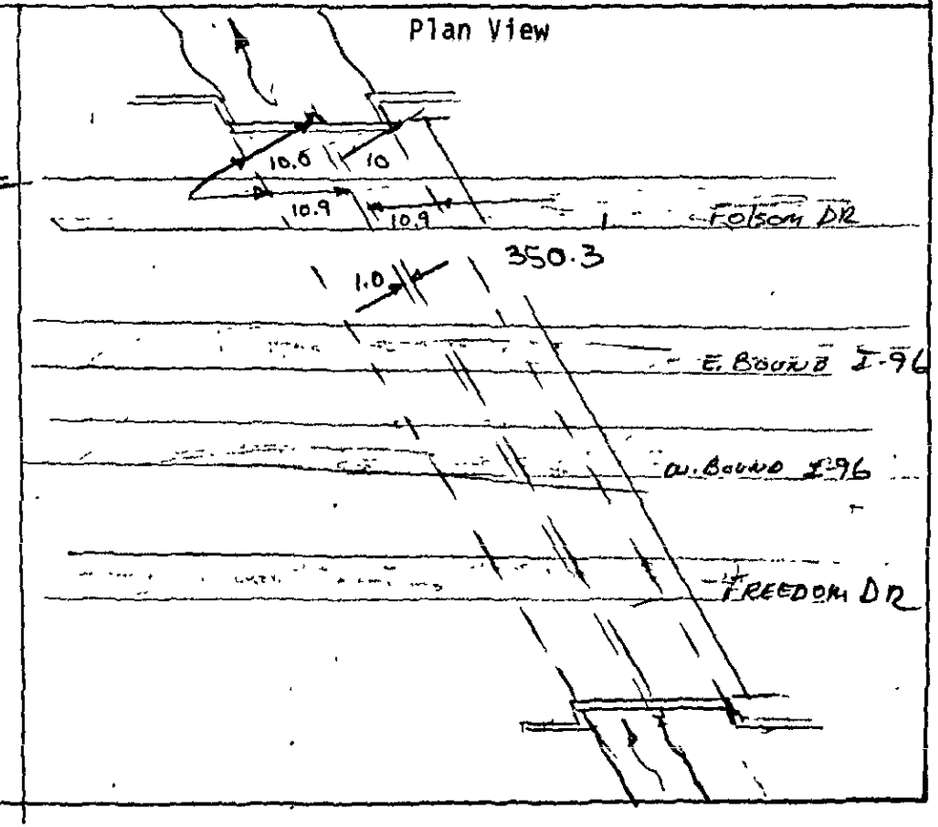
Job Name: City of Farmington Hills			By: R. Moses
Date: 10-4-77	Feature: Twin Box Culvert		Water Course: Upper Rouge River
Remarks: Under Folsom Dr – I-96 – & Freedom Dr			
Width of Piers: 1.0'	Pier Shape:	No. of Piers: 1	Area:
Water Elevation: 658.5	Length: 350.3	Width of Deck: 21	Skew:

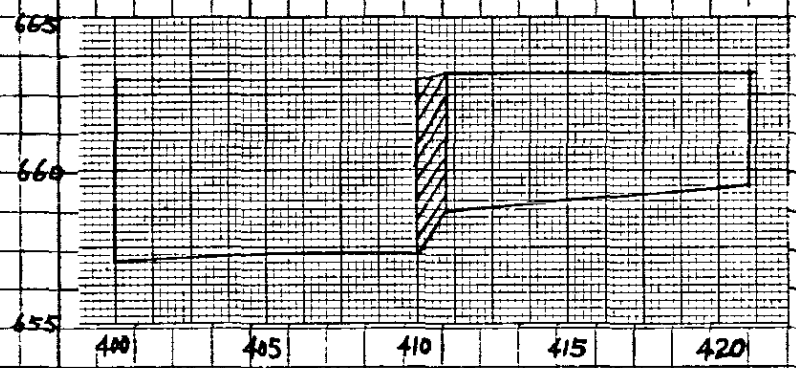
FIELD SKETCH

Profile View

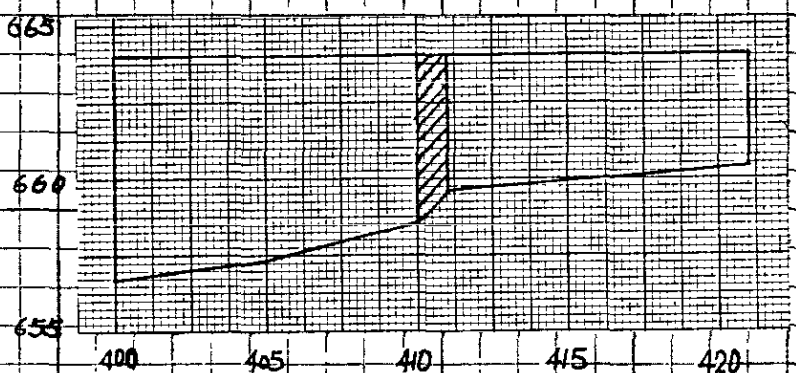


Plan View





d/s Face



u/s Face

Culvert Feature - Twin - Concrete Box Culvert

Area -

Left Culvert at d/s Face = 57.5 ft²
Left Culvert at u/s Face = 65.3 ft²
} Ave. = 61.4 ft²

Right Culvert at d/s Face = 41.0 ft²
Right Culvert at u/s Face = 40.0 ft²
} Ave. = 40.5 ft²

Wetted Perimeter -

Left Culvert at d/s Face = 31.6 ft
Left Culvert at u/s Face = 32.9 ft
} Ave. = 32.3 ft

Right Culvert at d/s Face = 28.2 ft.
Right Culvert at u/s Face = 28.0 ft.
} Ave. = 28.1 ft.

Hydraulic Radius :-

Left Culvert :- $R_l = A/p = 61.4/32.3 = 1.90$ ft.

Right Culvert :- $R_r = A/p = 40.5/28.1 = 1.44$ ft.

Length :- $L = 350$ ft.

Manning Coefficient :- $n = 0.020$ (Concrete Culvert with Sandy Bottom)

Entrance Loss :- $K_e = 0.7$ (Wingwall Parallel)

$$K_{f_1} = \frac{29.1\, n^2 L}{R_l^{4/3}} = 1.73$$

$$K_{f_2} = \frac{29.1\, n^2 L}{R_r^{4/3}} = 2.51$$

$$XK\phi R_1 = 1 + K_e + K_{f_1} = 3.43$$

$$XK\phi R_2 = 1 + K_e + K_{f_2} = 4.21$$

$$\therefore XK\phi R = \frac{[A_1 + A_2]^2}{\left[\sqrt{A_1^2/XK\phi R_1} + \sqrt{A_2^2/XK\phi R_2}\right]^2} = 3.71$$

Total Area :- $A = 101.9$ ft^2

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 1/13/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT I-96 Over Upper River Rouge JOB NO. 5670-03-1

Rating Curve for Pressure Flow.

10 - Year Flood

Tailwater Elevation = 663.40 ft.

XKΦR = 3.71

Total Area = 101.9 ft.²

Q (cfs)	V = Q/A (fps)	V²/2g (ft.)	H_c* (ft.)	EG** (ft.)
400	3.93	0.24	0.89	664.29
500	4.91	0.37	1.37	664.77
600	5.89	0.54	2.00	665.40
725	7.11	0.79	2.93	666.33

* $H_c = XK\Phi R \cdot \frac{V^2}{2g}$

** $EG = TW + H_c$

Pressure Flow Only ; EG. = 666.33 ft.

Use Water Surface Elevation = 666.05 ft

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 1/13/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT I-96 Over Upper River Rouge JOB NO. 5670-03-1

Rating Curve for Pressure Flow:

50 - Year Flood

Tailwater Elevation = 665.35 ft.

XKΦR = 3.71

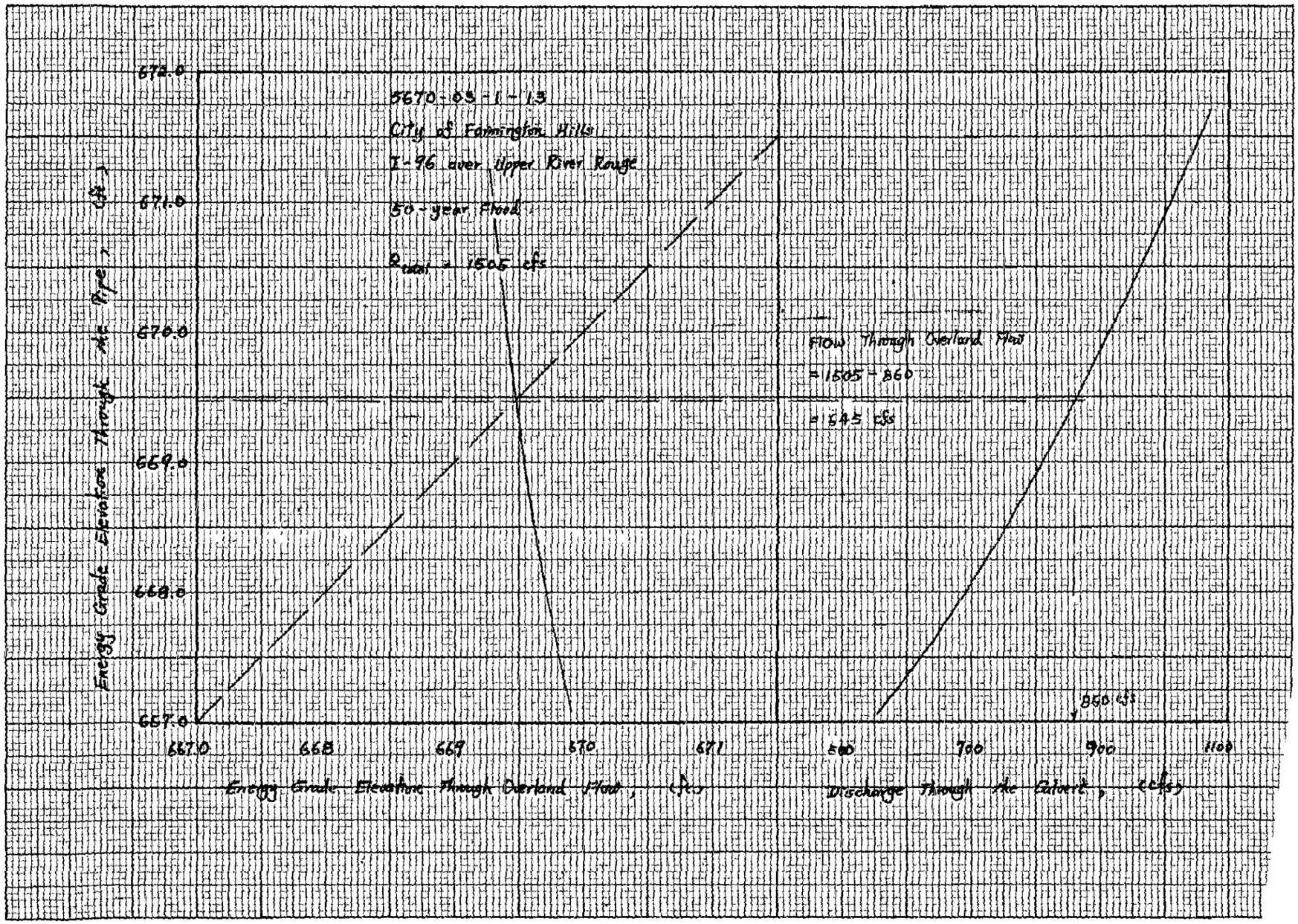
Total Area = 101.9 ft.²

Q (cfs)	V = Q/A (fps)	$V^2/2g$ (ft.)	H_c* (ft.)	EG** (ft.)
1205	11.83	2.17	8.05	673.40
1005	9.86	1.51	5.60	670.95
805	7.90	0.97	3.60	668.95
605	5.94	0.55	2.04	667.39

* $H_c = XK\Phi R \cdot \frac{V^2}{2g}$

** $EG = TW + H_c$

K+E 20 X 20 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 1/13/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT I-96 Over Upper River Rouge JOB NO. 5620-03-1

Rating Curve for Pressure Flow:

100 + Year Flood

Tailwater Elevation = 666.00 ft.

$XK\phi R$ = 3.71

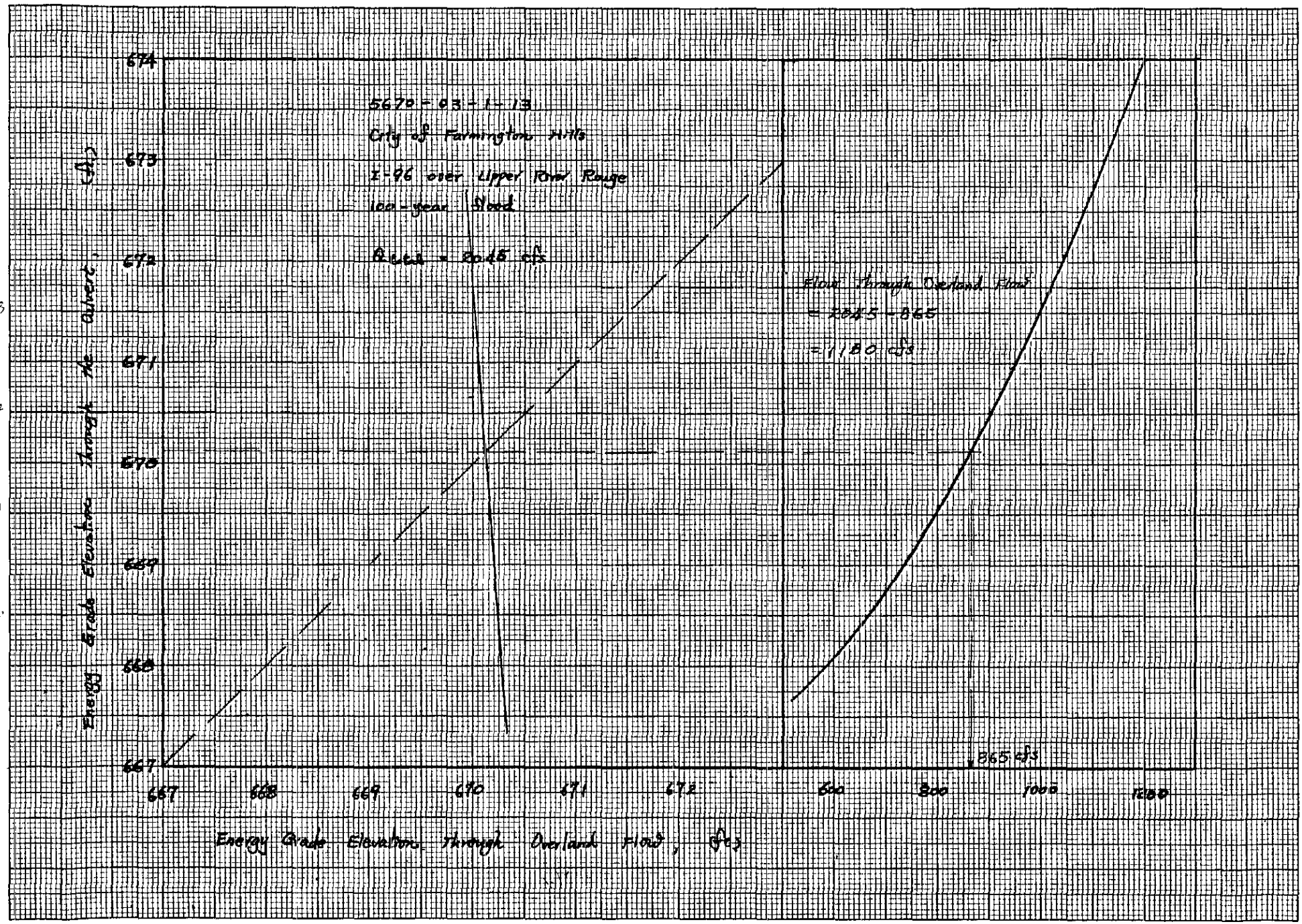
Total Area = 101.9 ft^2

Q (cfs)	$V = Q/A$ (fps)	$V^2/2g$ (ft.)	H_c* (ft.)	EG** (ft.)
1045	10.26	1.63	6.06	672.06
945	9.27	1.34	4.95	670.95
845	8.29	1.07	3.96	669.96
745	7.31	0.83	3.08	669.08

* $H_c = XK\phi R + \frac{V^2}{2g}$

** $EG = TW + H_c$

K•E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1510



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 1/13/78 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT I-96 Over Upper River Rouge JOB NO. 5670-03-1

Rating Curve for Pressure Flow.

500 - Year Flood

Tailwater Elevation = 667.74 ft.

XKΦR = 3.71

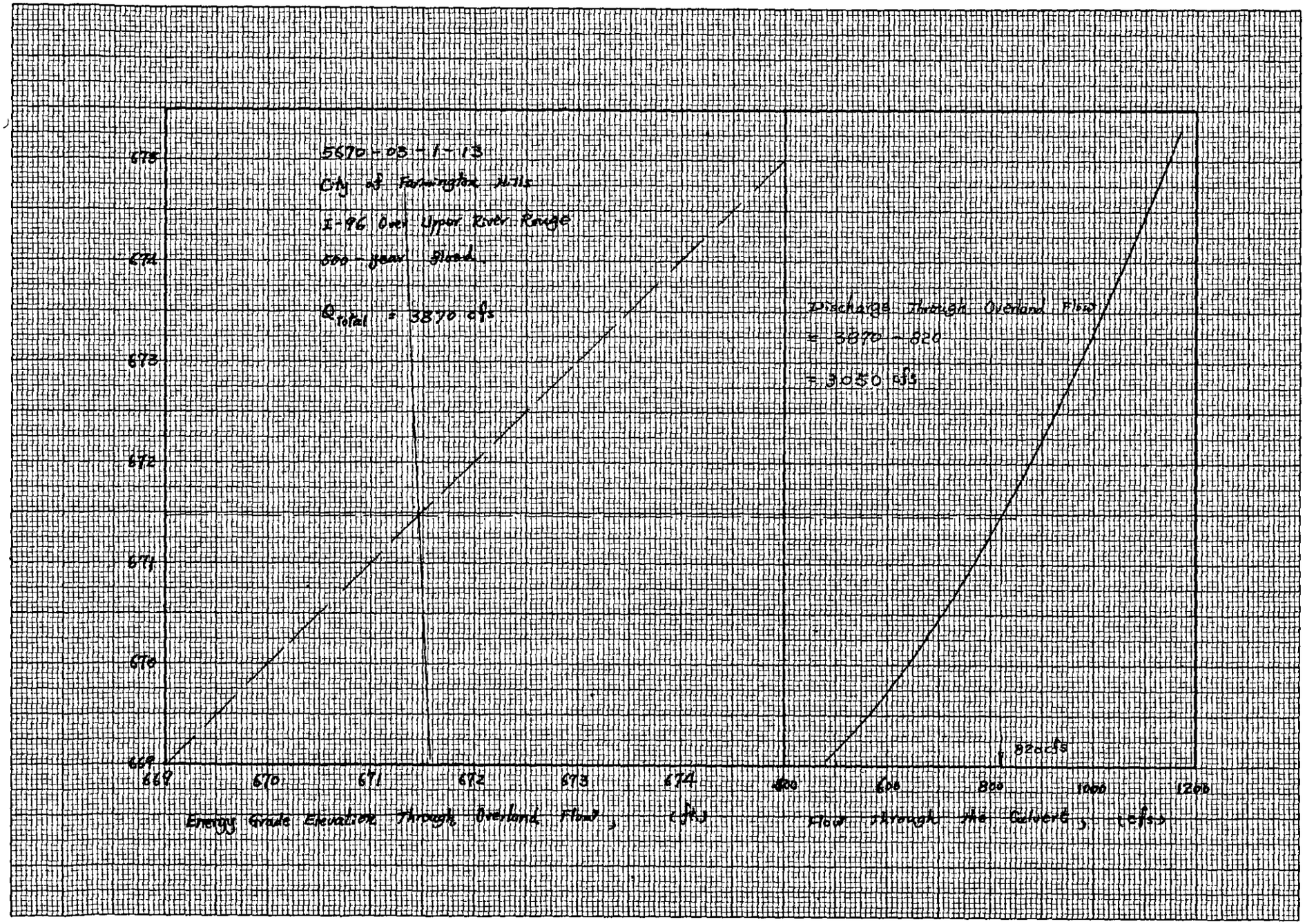
Total Area = 101.9 ft.²

Q (cfs)	V = Q/A (fps)	V²/2g (ft.)	H_c* (ft.)	EG** (ft.)
1070	10.50	1.71	6.35	674.09
920	9.03	1.27	4.70	672.44
770	7.56	0.89	3.29	671.03
570	5.59	0.49	1.80	669.54

* $H_c = XK\Phi R \cdot \frac{V^2}{2g}$

** $EG = TW + H_c$

K•E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1510



IVERSON DRIVEWAY

Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

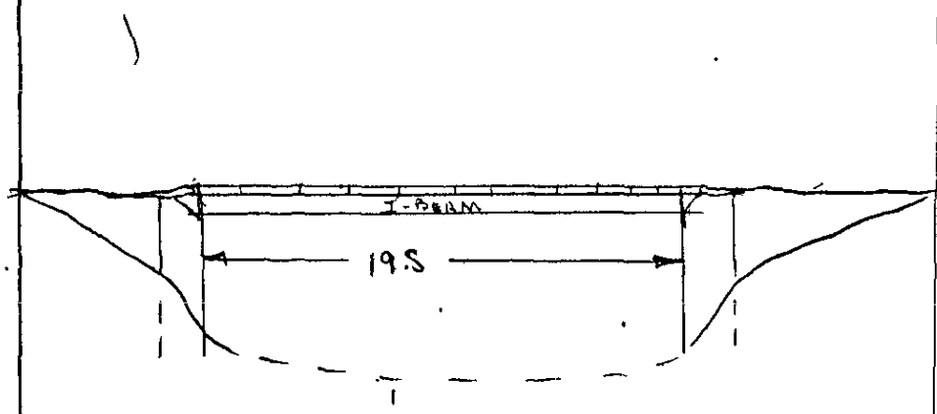
B.S. #13

Code No. 5670-03

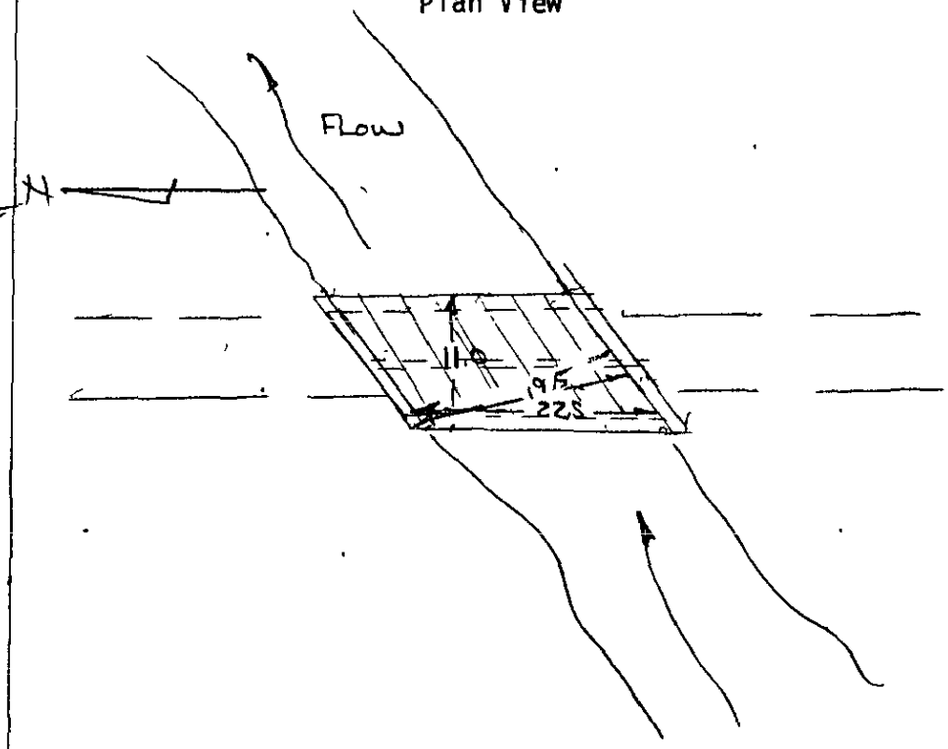
Job Name: City of Farmington Hills		By: R. Moses	
Date: 9-8-77	Feature: Conc & Wood Plank Bridge	Water Course: Upper Rouge River	
Remarks: Bridge is located on Freedom Dr — 800' E. of Orchard Lk Rd 100' N. of Freedom Dr — Deck is in very poor cond.			
Iverson (?)			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 659.4	Length: 19.5'	Width of Deck: 11'	Skew:

FIELD SKETCH

Profile View



Plan View



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X1      1.20        21     600.00     627.00      1.00      1.00      1.00      1.000

BT     16.00      0.00     650.00       0.00    100.00    648.90      0.00    200.00    648.20

BT    300.00    646.90       0.00     400.00    646.90      0.00    500.00    646.30
BT    645.80      0.00     600.00     645.80    641.80    627.00    645.80    641.60
BT      0.00    700.00     645.40       0.00    800.00    646.90      0.00    900.0
BT   1000.00    653.90       0.00    1100.00    658.00      0.00   1278.00    661

GR    650.00      0.00     648.90     100.00    648.20    200.00    646.90
GR    646.30    500.00     645.80     600.00    633.50    600.00    633.10
GR    633.30    615.00     633.40     620.00    633.20    625.00    633.00
GR    645.40    700.00     646.90     800.00    650.00    900.00    653.90
GR    661.10   1278.00       -
*****************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE********

 600.00  641.80  627.00  641.60

 600.00  645.80  600.00  633.50  605.00  633.10  610.00  633.10  615.00
 620.00  633.40  625.00  633.20  627.00  633.00  627.00  645.80
************** LISTING OF COORDINATES OF ORIFICE********************

 600.00  641.80  627.00  641.60  627.00  633.00  625.00  633.20  620.00
 615.00  633.30  610.00  633.10  605.00  633.10  600.00  633.50  600.00

 ORIFICE AREA      228.4 WETTED PERIMETER      70.9  29.1/R**1.333      6
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Johnson & Anderson, Inc.
Consulting Engineers
P. O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

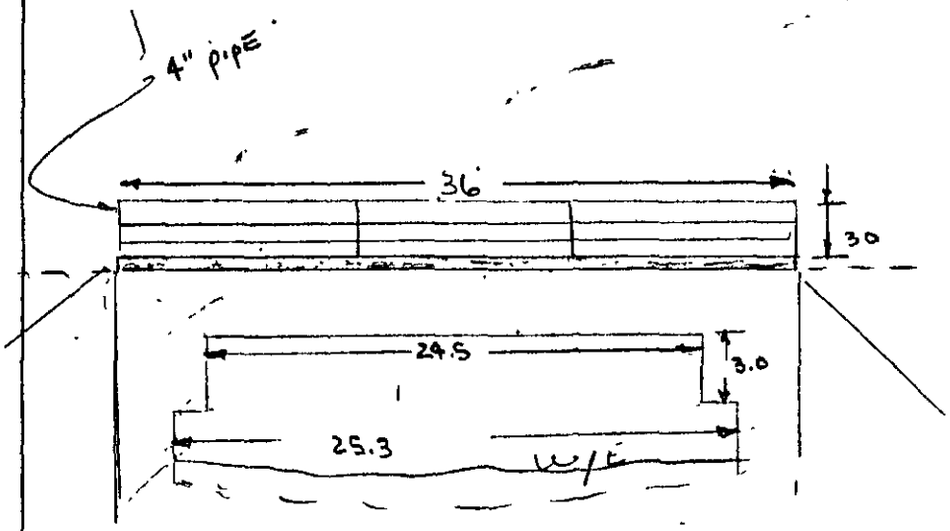
B.S. #5

Code No. 5670-03

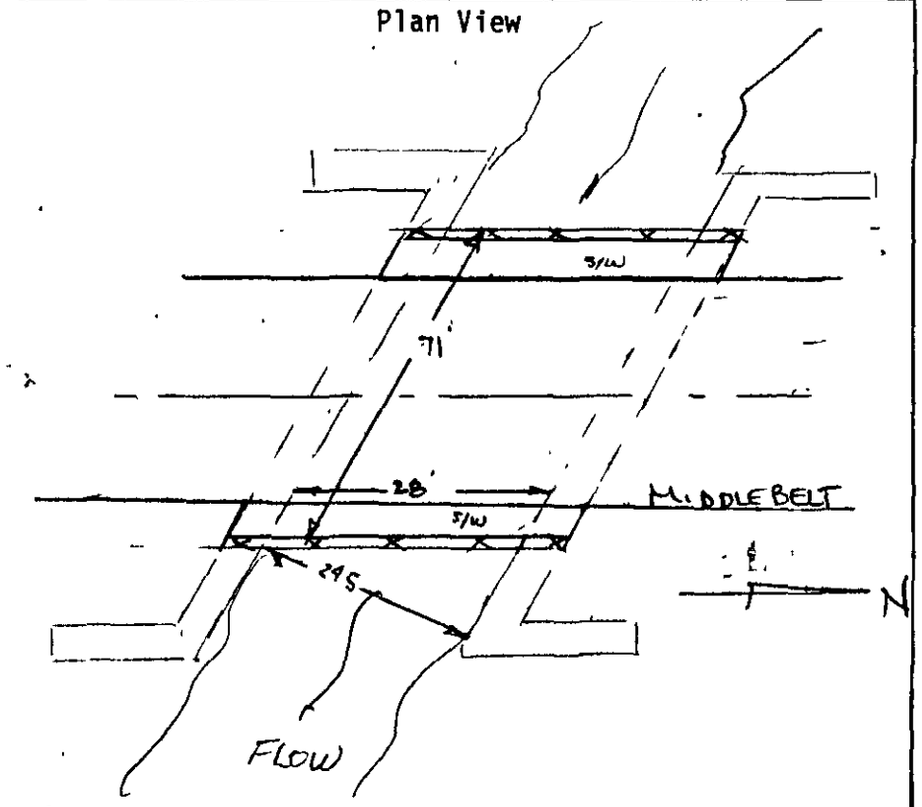
Job Name: City of Farmington Hills F.I.S.		By: R. Moses	
Date: 8-23-77	Feature: Conc Bridge	Water Course: Upper Rouge River	
Remarks: Bridge is on Middlebelt Rd, just S. of Grand River Ave Look like heavy brush & large trees up & dn stream			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 643.4	Length: 24.5	Width of Deck: 71	Skew:

FIELD SKETCH

Profile View



Plan View



Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

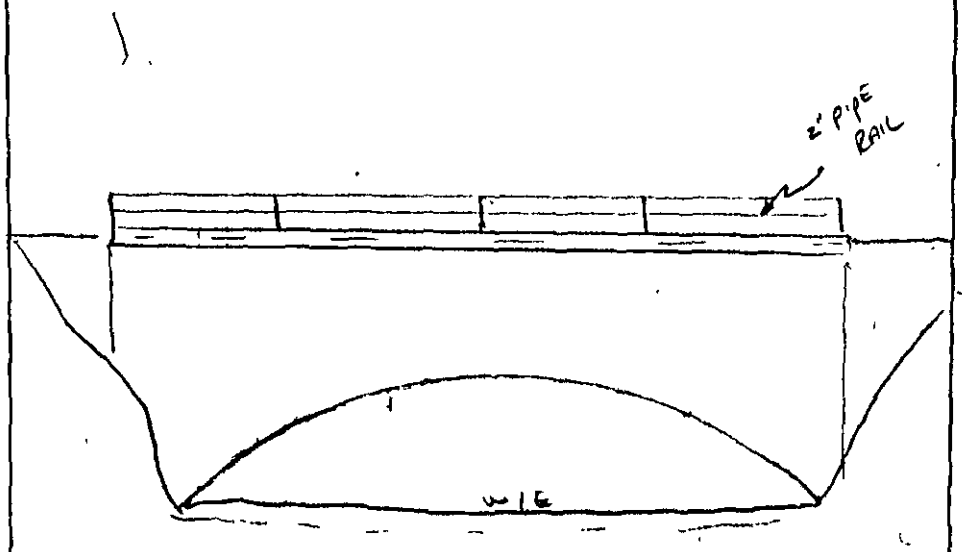
B.S. #6

Code No. 5670-03

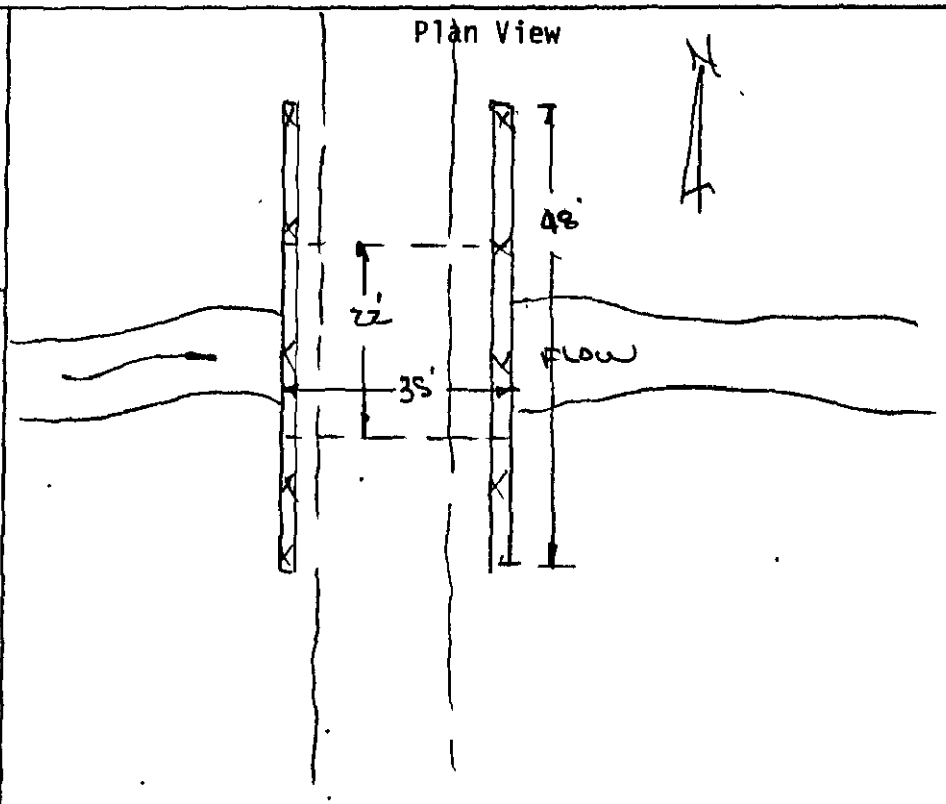
Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: Sept. 8, 1977	Feature: Conc. Arch	Water Course: Upper Rouge River	
Remarks: Heavy woods & brush up & dn stream of of bridge			
Tuck Rd?			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length: 22	Width of Deck: 35	Skew:

FIELD SKETCH

Profile View



Plan View



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X1      6.20      16      400.00      422.00      1.00      1.00      1.00      1.000

BT      16.00      0.00      665.90      0.00      100.00      660.90      0.00      200.00      659.00

BT      300.00      658.80      0.00      400.00      659.50      0.00      400.00      659.50
BT      659.50      656.20      410.80      659.50      657.20      416.50      659.50      656.20
BT      652.60      422.00      659.50      0.00      500.00      658.90      0.00      600.0
BT      700.00      661.40      0.00      800.00      663.70      0.00      830.00      664

GR      665.90      0.00      660.90      100.00      659.00      200.00      658.8(
GR      650.50      400.00      651.00      405.00      651.40      410.80      651.6(
GR      659.50      422.00      658.90      500.00      659.70      600.00      661.4(
GR      664.30      830.00
*******************LISTING OF TOP AND BOTTOM SECTIONS OF ORIFICE********

400.00  651.00  405.00  656.20  410.80  657.20  416.50  656.20  422.00

400.00  659.50  400.00  650.50  405.00  651.00  410.80  651.40  416.50
422.00  652.60  422.00  659.50
************** LISTING OF COORDINATES OF ORIFICE*********************

400.00  651.00  405.00  656.20  410.80  657.20  416.50  656.20  422.00
422.00  652.60  416.50  651.60  410.80  651.40  405.00  651.00  400.00
400.00  651.00

ORIFICE AREA        88.4 WETTED PERIMETER      48.0  29.1/R**1.333      1
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00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE D/S FARMINGTON

4) DOCUMENT TYPE: 10 YR

00BREAK00

FARGO

UPPER RIVER ROUGE

D/S OF CITY OF FARMINGTON

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


C
1       CITY OF FARMINGTON HILLS, 5670-03-1  PM = RICHARD ZANOTTI
T2       10-YEAR FLOOD
T3       UPPER RIVER ROUGE - D/S OF FARMINGTON

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       2.        0.        0.  0.000000     0.00      0.0       0.   640.010    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      1.000     10.000     11.000     12.000     14.000      8.000      4.000      0.000      0.000      0.000
NC       .105       .105       .056       .300       .500      0.000      0.000      0.000      0.000      0.000
QT      4.000    735.000   1530.000   2080.000   3940.000      0.000      0.000      0.000      0.000      0.000
NH      3.000       .105    600.000       .056    627.000       .105   1278.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      0.000      0.000    600.000    627.000      0.000      0.000      0.000

X1      0.000     21.000    590.000    635.000     70.000     70.000     70.000      0.000      0.000      0.000
GR    650.000      0.000    648.900    100.000    648.200    200.000    646.900    300.000    646.900    400.000
GR    646.300    500.000    641.200    575.000    635.000    590.000    633.500    600.000    633.000    610.000
GR    633.500    620.000    633.800    627.000    635.000    635.000    637.400    646.000    642.700    660.000
GR    645.400    700.000    646.900    800.000    650.000    900.000    653.900   1000.000    658.100   1100.000
GR    661.100   1278.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NH      3.000       .085    600.000       .025    627.000       .085   1278.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      0.000      0.000    600.000    627.000      0.000      0.000      0.000

X1      1.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      0.000      0.000    600.000    627.000      0.000      0.000      0.000
SB      0.000      2.680      3.000      0.000     25.950      0.000    228.400      0.000    633.000    633.000

X1     78.000     23.000    590.000    635.000     77.000     77.000     77.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    641.800    645.400      0.000      0.000      0.000      0.000      0.000
BT     18.000      0.000    650.000      0.000    100.000    648.900      0.000    200.000    648.200      0.000
BT    300.000    646.900      0.000    400.000    646.900      0.000    500.000    646.300      0.000    590.000
BT    645.850      0.000    600.000    645.800      0.000    600.000    645.800    641.800    627.000    645.800
BT    641.600    627.000    645.800      0.000    635.000    645.760      0.000    700.000    645.400      0.000
BT    800.000    646.900      0.000    900.000    650.000      0.000   1000.000    653.900      0.000   1100.000
BT    658.000      0.000   1278.000    661.100      0.000      0.000      0.000      0.000      0.000      0.000
GR    650.000      0.000    648.900    100.000    648.200    200.000    646.900    300.000    646.900    400.000
GR    646.300    500.000    641.200    575.000    635.000    590.000    633.500    600.000    633.100    605.000
GR    633.100    610.000    633.300    615.000    633.400    620.000    633.200    625.000    633.000    627.000
GR    635.000    635.000    637.400    646.000    645.400    700.000    646.900    800.000    650.000    900.000
GR    653.900   1000.000    658.100   1100.000    661.100   1278.000      0.000      0.000      0.000      0.000
ET      0.000      6.100      6.100      0.000      0.000    600.000    627.000      0.000      0.000      0.000
NH      3.000       .095    600.000       .042    627.000       .095   1278.000      0.000      0.000      0.000

X1     79.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
NC      .090       .090       .042      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X1   1179.000     16.000    468.000    486.000   1000.000    650.000   1100.000      0.000      0.000      0.000
GR    649.300      0.000    648.700     50.000    646.700    150.000    649.000    169.000    639.800    190.000
GR    639.700    250.000    639.500    350.000    640.500    450.000    639.600    468.000    636.500    471.000
```

GR	661.400	650.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2279.000	23.000	277.000	480.000	700.000	900.000	1100.000	0.000	0.000	0.000
GR	653.600	0.000	652.100	80.000	650.700	180.000	649.400	230.000	647.400	277.000
GR	642.600	294.000	641.700	331.000	639.900	349.000	639.300	356.000	640.700	358.000
GR	641.400	380.000	641.400	415.000	639.500	419.000	639.400	435.000	641.300	437.000
GR	641.500	454.000	638.900	458.000	639.100	464.000	639.800	469.000	642.800	470.000
GR	652.300	480.000	652.500	580.000	652.800	680.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3104.000	9.000	100.000	117.000	700.000	800.000	825.000	2.500	.110	0.000
X3	0.000	0.000	0.000	85.000	0.000	125.000	0.000	0.000	0.000	0.000
GR	663.500	0.000	663.000	45.000	642.500	100.000	639.600	102.000	637.900	110.000
GR	638.700	114.000	642.200	117.000	657.500	129.000	658.300	200.000	0.000	0.000
X1	3184.000	0.000	0.000	0.000	80.000	80.000	80.000	2.500	-.080	0.000
X3	0.000	0.000	0.000	250.000	0.000	292.000	0.000	0.000	0.000	0.000
X1	3199.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	-.020	0.000
X3	0.000	0.000	0.000	254.000	0.000	259.000	0.000	0.000	0.000	0.000
X1	3204.000	9.000	100.000	117.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	663.500	0.000	663.000	45.000	642.500	100.000	639.600	102.000	637.900	110.000
GR	638.700	114.000	642.200	117.000	657.500	129.000	658.300	200.000	0.000	0.000
X1	3205.000	0.000	0.000	0.000	1.000	1.000	1.000	2.500	0.000	0.000
X3	0.000	0.000	0.000	254.000	0.000	288.000	0.000	0.000	0.000	0.000
X1	3214.000	0.000	0.000	0.000	9.000	9.000	9.000	0.000	.030	0.000
X3	0.000	0.000	0.000	244.000	0.000	296.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4139.000	24.000	418.000	446.000	850.000	950.000	925.000	.890	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	675.000	0.000	649.000	649.000	0.000
GR	663.800	0.000	662.300	118.000	659.100	218.000	655.000	318.000	653.800	364.000
GR	647.400	384.000	647.600	403.000	645.000	415.000	642.900	416.000	643.400	418.000
GR	642.200	423.000	642.400	428.000	641.700	433.000	641.200	438.000	643.800	443.000
GR	642.900	446.000	648.800	518.000	649.400	618.000	650.100	718.000	651.200	785.000
GR	652.100	818.000	654.500	918.000	656.200	1018.000	656.700	1070.000	0.000	0.000
NC	.040	.040	.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4140.000	24.000	418.000	446.000	1.000	1.000	1.000	.890	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.890	0.000
X3	10.000	0.000	0.000	0.000	0.000	675.000	0.000	649.000	649.000	0.000
BT	16.000	0.000	663.800	0.000	118.000	662.300	0.000	218.000	659.100	0.000
BT	318.000	655.000	0.000	418.000	652.400	643.400	418.000	652.400	649.700	446.000
BT	652.400	649.000	446.000	652.400	642.900	518.000	650.200	0.000	618.000	649.400
BT	0.000	718.000	650.100	0.000	785.000	651.200	0.000	818.000	652.100	0.000
BT	918.000	654.500	0.000	1018.000	656.200	0.000	1070.000	656.700	0.000	0.000
GR	663.800	0.000	662.300	118.000	659.100	218.000	655.000	318.000	653.800	364.000
GR	647.400	384.000	647.600	403.000	645.000	415.000	642.900	416.000	643.400	418.000
GR	642.200	423.000	642.400	428.000	641.700	433.000	641.200	438.000	643.800	443.000
GR	642.900	446.000	648.800	518.000	649.400	618.000	650.100	718.000	651.200	785.000
GR	652.100	818.000	654.500	918.000	656.200	1018.000	656.700	1070.000	0.000	0.000
X1	4211.000	24.000	418.000	446.000	71.000	71.000	71.000	.890	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.890	0.000
X3	10.000	0.000	0.000	0.000	0.000	675.000	0.000	649.000	649.000	0.000
BT	16.000	0.000	663.800	0.000	118.000	662.300	0.000	218.000	659.100	0.000
BT	318.000	655.000	0.000	418.000	652.400	643.400	418.000	652.400	649.700	446.000
BT	652.400	649.000	446.000	652.400	642.900	518.000	650.200	0.000	618.000	649.400
BT	0.000	718.000	650.100	0.000	785.000	651.200	0.000	818.000	652.100	0.000
BT	918.000	654.500	0.000	1018.000	656.200	0.000	1070.000	656.700	0.000	0.000
GR	663.800	0.000	662.300	118.000	659.100	218.000	655.000	318.000	653.800	364.000

GR	642.200	423.000	642.400	428.000	641.700	433.000	641.200	438.000	643.800	443.000
GR	642.900	446.000	648.800	518.000	649.400	618.000	650.100	718.000	651.200	785.000
GR	652.100	818.000	654.500	918.000	656.200	1018.000	656.700	1070.000	0.000	0.000
NC	.092	.092	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4212.000	24.000	418.000	446.000	1.000	1.000	1.000	.890	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	675.000	0.000	649.000	649.000	0.000
GR	663.800	0.000	662.300	118.000	659.100	218.000	655.000	318.000	653.800	364.000
GR	647.400	384.000	647.600	403.000	645.000	415.000	642.900	416.000	643.400	418.000
GR	642.200	423.000	642.400	428.000	641.700	433.000	641.200	438.000	643.800	443.000
GR	642.900	446.000	648.800	518.000	649.400	618.000	650.100	718.000	651.200	785.000
GR	652.100	818.000	654.500	918.000	656.200	1018.000	656.700	1070.000	0.000	0.000
X1	4262.000	18.000	60.000	100.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	400.000	0.000	0.000	0.000	0.000
GR	652.400	0.000	652.300	10.000	652.000	20.000	650.300	30.000	645.700	50.000
GR	644.500	60.000	643.000	62.000	641.400	80.000	643.000	96.000	644.300	100.000
GR	646.000	150.000	646.000	200.000	645.300	250.000	645.300	300.000	645.000	350.000
GR	645.500	400.000	646.000	435.000	648.000	450.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4687.000	19.000	280.000	320.000	350.000	300.000	425.000	0.000	0.000	0.000
GR	652.000	0.000	651.000	10.000	649.500	20.000	648.600	30.000	648.000	80.000
GR	647.000	130.000	648.000	230.000	647.500	280.000	645.000	290.000	643.500	292.000
GR	642.000	296.000	643.500	300.000	647.800	320.000	647.800	330.000	650.000	390.000
GR	654.000	410.000	660.000	430.000	662.500	560.000	662.000	580.000	0.000	0.000
NC	.085	.085	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6247.000	27.000	410.000	450.000	1560.000	1560.000	1560.000	0.000	0.000	0.000
GR	657.500	0.000	655.000	10.000	653.000	30.000	650.800	40.000	651.900	60.000
GR	652.100	110.000	651.700	160.000	651.800	210.000	652.400	260.000	652.600	310.000
GR	652.500	360.000	651.700	410.000	647.500	420.000	646.000	430.000	647.500	434.000
GR	650.600	440.000	652.500	450.000	652.600	490.000	653.500	500.000	658.000	520.000
GR	658.100	530.000	661.000	540.000	661.900	560.000	662.000	610.000	662.500	660.000
GR	662.000	740.000	662.500	760.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	725.000	1505.000	2045.000	3870.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	330.000	387.000	83.000	568.000	0.000
X1	7797.000	20.000	342.000	373.000	1350.000	1350.000	1550.000	0.000	0.000	0.000
GR	663.000	0.000	658.000	20.000	656.500	50.000	656.400	100.000	655.000	150.000
GR	654.500	200.000	655.200	250.000	654.600	300.000	656.000	342.000	652.500	345.000
GR	651.400	350.000	651.500	361.000	652.500	369.000	655.000	373.000	656.000	400.000
GR	655.700	450.000	655.000	500.000	654.000	550.000	654.800	600.000	655.700	620.000
NC	.087	.087	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	346.000	368.000	100.000	550.000	0.000
X1	7867.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	-.900	0.000
NC	.050	.050	.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	346.000	368.000	100.000	550.000	0.000
X1	7868.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.055	.055	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.680	3.050	0.000	15.240	0.000	88.400	0.000	650.500	650.500
X1	7903.000	16.000	400.000	422.000	35.000	35.000	35.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	657.200	658.800	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	658.800	658.800	0.000
BT	16.000	0.000	665.900	0.000	100.000	660.900	0.000	200.000	659.000	0.000
BT	300.000	658.800	0.000	400.000	659.500	0.000	400.000	659.500	651.000	405.000
BT	659.500	656.200	410.800	659.500	657.200	416.500	659.500	656.200	422.000	659.500
BT	652.600	422.000	659.500	0.000	500.000	658.900	0.000	600.000	659.700	0.000
BT	700.000	661.400	0.000	800.000	663.700	0.000	830.000	664.300	0.000	0.000
GR	665.900	0.000	660.900	100.000	659.000	200.000	658.800	300.000	659.200	350.000
GR	650.500	400.000	651.000	405.000	651.400	410.800	651.600	416.500	652.600	422.000

GR	664.300	830.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.087	.087	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7904.000	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	658.800	658.800	0.000
NC	.090	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8704.000	13.000	124.000	160.000	850.000	750.000	800.000	0.000	0.000	0.000
GR	663.500	0.000	663.000	14.000	658.800	30.000	658.700	50.000	659.000	80.000
GR	659.000	100.000	658.900	124.000	655.200	130.000	654.300	140.000	655.200	150.000
GR	658.200	160.000	663.200	200.000	665.600	250.000	0.000	0.000	0.000	0.000
NC	.090	.090	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8774.000	0.000	0.000	0.000	100.000	45.000	70.000	0.000	.300	0.000
NC	.080	.080	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8775.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	.080	.080	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.820	3.050	0.000	17.200	0.000	82.600	0.000	654.600	654.600
X1	8802.000	14.000	140.000	157.500	27.000	27.000	27.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	659.500	661.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	265.000	0.000	661.900	661.900	0.000
BT	13.000	0.000	663.800	0.000	40.000	662.000	0.000	138.900	661.900	0.000
BT	139.000	665.400	0.000	140.000	665.400	0.000	140.000	665.400	659.300	148.000
BT	665.400	659.400	157.500	665.400	659.500	157.500	665.400	0.000	159.000	665.400
BT	0.000	159.100	662.400	0.000	240.000	667.300	0.000	265.000	668.200	0.000
GR	663.800	0.000	662.000	40.000	661.900	100.000	659.000	120.000	654.600	140.000
GR	654.600	140.000	654.600	148.000	654.900	157.500	654.900	157.500	659.400	170.000
GR	662.400	180.000	667.300	240.000	671.000	340.000	674.500	440.000	0.000	0.000
NC	.092	.092	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8802.000	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	265.000	0.000	661.900	661.900	0.000
NC	.092	.092	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9503.000	15.000	270.000	320.000	550.000	700.000	700.000	0.000	0.000	0.000
GR	664.000	0.000	664.500	200.000	665.100	230.000	664.500	240.000	665.000	250.000
GR	663.900	260.000	663.600	270.000	661.000	280.000	658.700	290.000	657.400	300.000
GR	658.500	310.000	664.300	320.000	668.600	330.000	670.600	340.000	672.200	350.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9573.000	0.000	0.000	0.000	5.000	150.000	70.000	0.000	-.300	0.000
NC	.035	.035	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	.010	645.000	1180.000	3050.000	0.000	0.000	0.000	0.000	0.000
X1	9574.000	11.000	0.000	700.000	1.000	1.000	1.000	.910	0.000	0.000
GR	665.500	0.000	666.300	100.000	667.100	200.000	668.400	300.000	670.000	400.000
GR	657.100	400.000	670.000	400.010	670.000	423.100	672.600	500.000	675.600	600.000
GR	679.100	700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9684.000	11.000	0.000	800.000	110.000	110.000	110.000	.910	0.000	0.000
X3	0.000	0.000	0.000	250.000	0.000	560.000	0.000	0.000	0.000	0.000
GR	666.400	0.000	666.400	100.000	666.600	200.000	666.600	300.000	666.600	400.000
GR	657.000	400.000	666.600	400.010	666.600	423.100	666.600	500.000	666.600	650.000
GR	666.600	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9794.000	12.000	0.000	800.000	110.000	110.000	110.000	.910	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	615.000	0.000	0.000	0.000	0.000
GR	672.900	0.000	671.700	100.000	670.500	700.000	669.500	300.000	668.800	400.000
GR	656.900	400.000	668.800	400.010	668.800	423.100	668.100	500.000	667.400	600.000
GR	666.800	700.000	666.600	800.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9924.000	12.000	400.000	423.100	130.000	130.000	130.000	.910	0.000	0.000
X3	0.000	0.000	0.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000

GR	656.700	400.000	666.700	400.010	666.700	423.100	667.400	500.000	668.700	600.000
GR	671.000	700.000	674.100	800.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	725.000	1505.000	2045.000	3870.000	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9925.000	15.000	400.000	423.100	1.000	1.000	1.000	.910	0.000	0.000
X3	0.000	0.000	0.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000
X5	4.000	666.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	667.500	0.000	667.000	100.000	666.500	200.000	666.700	300.000	666.700	400.000
GR	656.700	400.000	657.300	405.500	658.600	411.000	659.600	412.100	660.400	423.100
GR	666.700	423.100	667.400	500.000	668.700	600.000	671.000	700.000	674.100	800.000
NC	.060	.090	.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10075.000	12.000	385.000	410.000	300.000	20.000	150.000	0.000	0.000	0.000
GR	683.000	0.000	677.700	100.000	675.700	145.000	670.400	200.000	666.100	300.000
GR	663.800	385.000	659.000	391.000	658.600	398.000	658.900	408.000	662.200	410.000
GR	667.200	500.000	669.100	600.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	710.000	1480.000	2010.000	3800.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10475.000	12.000	400.000	422.500	400.000	250.000	400.000	.870	0.000	0.000
X3	0.000	0.000	0.000	290.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	671.500	0.000	667.900	100.000	664.900	200.000	664.800	300.000	667.600	400.000
GR	659.900	400.000	659.100	405.800	657.600	417.300	659.200	422.500	667.600	422.500
GR	672.800	500.000	673.600	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.065	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10476.000	12.000	400.000	422.500	1.000	1.000	1.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	0.000	0.000	0.000	290.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	10.000	0.000	671.500	0.000	100.000	667.900	0.000	200.000	664.900	0.000
BT	300.000	664.800	0.000	400.000	667.600	0.000	400.000	667.600	666.400	422.500
BT	667.600	666.400	422.500	667.600	0.000	500.000	672.800	0.000	525.000	673.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	671.500	0.000	667.900	100.000	664.900	200.000	664.800	300.000	667.600	400.000
GR	659.900	400.000	659.100	405.800	657.600	417.300	659.200	422.500	667.600	422.500
GR	672.800	500.000	673.600	525.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10487.000	12.000	400.000	422.500	11.000	11.000	11.000	.870	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.870	0.000
X3	0.000	0.000	0.000	290.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	10.000	0.000	671.500	0.000	100.000	667.900	0.000	200.000	664.900	0.000
BT	300.000	664.800	0.000	400.000	667.600	0.000	400.000	667.600	666.400	422.500
BT	667.600	666.400	422.500	667.600	0.000	500.000	672.800	0.000	525.000	673.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	671.500	0.000	667.900	100.000	664.900	200.000	664.800	300.000	667.600	400.000
GR	659.900	400.000	659.100	405.800	657.600	417.300	659.200	422.500	667.600	422.500
GR	672.800	500.000	673.600	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.095	.095	.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10488.000	12.000	400.000	422.500	1.000	1.000	1.000	.870	0.000	0.000
X3	0.000	0.000	0.000	290.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	671.500	0.000	667.900	100.000	664.900	200.000	664.800	300.000	667.600	400.000
GR	659.900	400.000	659.100	405.800	657.600	417.300	659.200	422.500	667.600	422.500
GR	672.800	500.000	673.600	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.090	.090	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10938.000	21.000	500.000	547.000	400.000	500.000	450.000	.860	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	671.800	671.800	0.000
GR	685.200	0.000	684.900	100.000	685.200	200.000	685.400	300.000	685.400	400.000
GR	685.400	450.000	660.100	500.000	662.300	505.800	662.400	511.600	662.400	512.800
GR	661.600	518.600	663.000	524.400	663.000	527.000	662.700	531.700	662.600	536.400
GR	663.200	537.600	662.600	542.300	664.100	547.000	686.000	600.000	686.400	700.000
GR	686.900	793.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.065	.065	.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	11073.000	21.000	500.000	547.000	135.000	135.000	135.000	.860	0.000	0.000
X2	0.000	0.000	1.000	670.300	684.900	0.000	0.000	0.000	.860	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	684.900	684.900	0.000
BT	24.000	0.000	685.200	0.000	100.000	684.900	0.000	200.000	685.200	0.000
BT	300.000	685.400	0.000	400.000	685.400	0.000	500.000	685.400	660.400	500.000
BT	685.400	670.300	511.600	685.400	670.300	511.600	685.400	662.700	512.800	685.400
BT	662.700	512.800	685.400	670.300	524.400	685.400	670.300	524.400	685.400	663.300
BT	527.000	685.400	663.300	527.000	685.400	665.600	536.400	685.400	665.600	536.400
BT	685.400	662.900	537.600	685.400	663.500	537.600	685.400	665.600	547.000	685.400
BT	665.600	547.000	685.400	664.400	600.000	686.000	0.000	700.000	686.400	0.000
BT	793.000	686.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	685.200	0.000	684.900	100.000	685.200	200.000	685.400	300.000	685.400	400.000
GR	685.400	450.000	660.400	500.000	662.600	505.800	662.700	511.600	662.700	512.800
GR	661.900	518.600	663.300	524.400	663.300	527.000	663.000	531.700	662.900	536.400
GR	663.500	537.600	662.900	542.300	664.400	547.000	686.000	600.000	686.400	700.000
GR	686.900	793.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.100	.100	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11123.000	15.000	520.000	580.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	480.000	0.000	620.000	0.000	0.000	0.000	0.000
GR	675.000	0.000	670.000	55.000	669.500	290.000	667.800	330.000	667.100	340.000
GR	666.100	470.000	666.100	500.000	666.400	510.000	666.100	520.000	663.800	530.000
GR	660.500	540.000	660.100	550.000	660.800	560.000	666.100	580.000	675.900	630.000
NH	5.000	.050	100.000	.090	397.000	.037	427.000	.090	586.000	.060
NH	848.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11548.000	19.000	397.000	427.000	200.000	500.000	425.000	0.000	0.000	0.000
GR	687.300	0.000	685.400	10.000	671.100	45.000	669.500	100.000	669.200	200.000
GR	668.400	300.000	666.400	397.000	664.700	400.000	664.100	410.000	663.300	420.000
GR	663.900	425.000	667.300	427.000	667.500	450.000	666.700	500.000	667.600	586.000
GR	681.000	616.000	685.100	700.000	688.200	800.000	688.600	848.000	0.000	0.000
NC	.095	.095	.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12448.000	19.000	310.000	324.300	900.000	400.000	900.000	0.000	0.000	0.000
GR	683.200	0.000	677.100	17.000	673.100	117.000	671.900	217.000	672.300	267.000
GR	672.800	295.000	663.900	310.000	662.200	310.700	661.800	312.800	661.400	315.800
GR	661.400	318.500	661.800	321.500	662.200	323.600	663.900	324.300	673.600	335.000
GR	675.100	367.000	678.000	417.000	680.500	455.000	682.700	517.000	0.000	0.000
NC	.055	.055	.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12449.000	19.000	310.000	324.300	1.000	1.000	1.000	0.000	0.000	0.000
BT	19.000	0.000	683.200	0.000	17.000	677.100	0.000	117.000	673.100	0.000
BT	217.000	671.900	0.000	267.000	672.300	0.000	310.000	673.200	0.000	310.000
BT	673.200	663.900	310.700	673.200	666.400	312.800	673.200	669.000	315.800	673.200
BT	670.300	318.500	673.200	670.300	321.500	673.200	669.000	323.600	673.200	666.400
BT	324.300	673.200	663.900	324.300	673.200	0.000	367.000	675.100	0.000	417.000
BT	678.000	0.000	455.000	680.500	0.000	517.000	682.700	0.000	0.000	0.000
GR	683.200	0.000	677.100	17.000	673.100	117.000	671.900	217.000	672.300	267.000
GR	673.200	310.000	663.900	310.000	662.200	310.700	661.800	312.800	661.400	315.800
GR	661.400	318.500	661.800	321.500	662.200	323.600	663.900	324.300	673.200	324.300
GR	675.100	367.000	678.000	417.000	680.500	455.000	682.700	517.000	0.000	0.000
X1	12481.000	19.000	310.000	324.300	32.000	32.000	32.000	0.000	0.000	0.000
BT	19.000	0.000	683.200	0.000	17.000	677.100	0.000	117.000	673.100	0.000
BT	217.000	671.900	0.000	267.000	672.300	0.000	310.000	673.200	0.000	310.000
BT	673.200	664.300	310.700	673.200	666.800	312.800	673.200	669.400	315.800	673.200
BT	670.700	318.500	673.200	670.700	321.500	673.200	669.400	323.600	673.200	666.800
BT	324.300	673.200	664.300	324.300	673.200	0.000	367.000	675.100	0.000	417.000
BT	678.000	0.000	455.000	680.500	0.000	517.000	682.700	0.000	0.000	0.000
GR	683.200	0.000	677.100	17.000	673.100	117.000	671.900	217.000	672.300	267.000
GR	673.200	310.000	664.300	310.000	662.600	310.700	662.200	312.800	661.800	315.800
GR	661.800	318.500	662.200	321.500	662.600	323.600	664.300	324.300	673.200	324.300
GR	675.100	367.000	678.000	417.000	680.500	455.000	682.700	517.000	0.000	0.000
NC	.095	.095	.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	12482.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
XS	4.000	0.000	673.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	6.100	8.100	8.100	8.100	338.000	452.000	70.000	450.000	0.000
X1	12532.000	23.000	378.000	410.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	685.000	0.000	680.000	70.000	670.000	110.000	669.600	370.000	669.000	378.000
GR	666.800	380.000	664.600	387.000	664.200	390.000	664.100	395.000	664.500	400.000
GR	664.500	406.000	666.600	408.000	667.100	410.000	668.200	420.000	670.600	430.000
GR	671.000	450.000	670.000	460.000	669.000	510.000	670.000	540.000	671.500	550.000
GR	674.000	560.000	680.000	570.000	685.000	800.000	0.000	0.000	0.000	0.000
X1	13302.000	23.000	167.000	200.000	600.000	800.000	770.000	0.000	-1.900	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	0.000	0.000	0.000	0.000
GR	681.500	0.000	679.600	10.000	677.500	30.000	676.500	40.000	676.000	50.000
GR	674.900	100.000	675.000	150.000	673.000	167.000	670.000	170.000	669.500	171.000
GR	669.400	180.000	669.400	186.000	673.000	200.000	674.000	210.000	674.800	250.000
GR	674.000	300.000	677.900	350.000	672.800	400.000	671.900	450.000	672.000	500.000
GR	671.600	550.000	672.000	560.000	681.500	590.000	0.000	0.000	0.000	0.000
X1	13727.000	0.000	0.000	0.000	400.000	400.000	425.000	0.000	1.900	0.000
X3	0.000	0.000	0.000	0.000	0.000	350.000	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

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE
D/S FARMINGTON

4) DOCUMENT TYPE: 100 YR

00BREAK00

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*****************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      CITY OF FARMINGTON HILLS, 5670-03-1  PM = RICHARD ZANOTTI
T2      100-YEAR FLOOD
T3      UPPER RIVER ROUGE - D/S OF FARMINGTON
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.	0.	0.	0.000000	0.00	0.0	0.	643.470	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 8 MILE ROAD, CORPORATED BOUNDARY SEC. A

0.00	10.47	643.47	0.00	643.47	643.67	.20	0.00	0.00	635.00
2080.	151.	1708.	221.	118.	438.	132.	0.	0.	635.00
0.00	1.28	3.90	1.67	.105	.067	.105	0.000	633.00	541.62
.001506	70.	70.	70.	0	0	1	0.00	129.79	671.41

1490 NH CARD USED

1.00	10.45	643.45	0.00	0.00	643.69	.24	.00	.02	635.00
2080.	99.	1835.	145.	117.	437.	131.	0.	0.	635.00
.00	.85	4.20	1.11	.085	.033	.085	.028	633.00	541.92
.000434	1.	1.	1.	2	0	1	0.00	129.18	671.10

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.68	3.00	0.00	25.95	0.00	228.40	0.00	633.00	633.00

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
646.90	643.67	0.00	201.	1866.	228.	641.80	645.40	30.00

U/S FACE OF 8 MILE ROAD BRIDGE, BS#1 SEC. A

78.00	13.12	646.12	0.00	0.00	646.23	.11	2.53	0.00	635.00
2080.	169.	1647.	264.	298.	563.	381.	2.	0.	635.00
.01	.57	2.92	.69	.085	.034	.085	.055	633.00	502.65
.000153	77.	77.	77.	2	0	3	0.00	245.36	748.01

1490 NH CARD USED

79.00	13.15	646.15	0.00	0.00	646.23	.08	.00	.01	635.00
2080.	220.	1519.	342.	301.	565.	385.	2.	0.	635.00
.01	.73	2.69	.89	.095	.053	.095	.054	633.00	502.23
.000317	1.	1.	1.	2	0	1	0.00	247.66	749.89

1100' U/S FROM U/S FACE OF 8 MILE RD BRIDGE, VSW2 SEC. B

1179.00	11.87	646.47	0.00	0.00	646.49	.02	.24	.02	639.60
2080.	1514.	418.	148.	1904.	190.	206.	41.	7.	636.20
.27	.80	2.20	.72	.090	.042	.090	.047	634.60	174.77
.000189	1000.	1100.	650.	2	0	1	0.00	349.26	524.04

HW=646.23

How dist. and in "radius" the water was
What figure represents the bridge?
Used for the
WSW2 why?

411.8
633.
8.8

8.8 x 2595 =

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

2200' U/S FROM U/S FACE OF 8 MILE RD BRIDGE, VS#3 SEC. C

2279.00	7.80	646.70	0.00	0.00	646.77	.06	.25	.02	647.40
2080.	0.	2080.	0.	0.	1043.	0.	74.	12.	652.30
.40	0.00	2.00	0.00	.090	.045	.090	.049	638.90	279.49
.000408	700.	1100.	900.	0	0	1	0.00	194.62	474.10

3470 ENCROACHMENT STATIONS= 212.5 312.5 TYPE= 1 TARGET= 40.000

3104.00	9.09	647.10	0.00	0.00	647.63	.52	.63	.23	642.61
2080.	84.	1969.	27.	68.	331.	23.	88.	15.	642.31
.44	1.24	5.96	1.20	.090	.042	.090	.047	638.01	219.85
.001934	700.	825.	800.	2	0	1	0.00	82.05	301.90

3470 ENCROACHMENT STATIONS= 250.0 292.0 TYPE= 1 TARGET= 42.000

3184.00	9.32	647.25	0.00	0.00	647.84	.59	.18	.03	642.53
2080.	0.	2080.	0.	0.	338.	0.	88.	15.	100000.00
.44	0.00	6.16	0.00	.090	.042	.090	.047	637.93	250.00
.002605	80.	80.	80.	2	0	1	0.00	42.00	292.00

3470 ENCROACHMENT STATIONS= 254.0 289.0 TYPE= 1 TARGET= 35.000

3199.00	9.30	647.21	0.00	0.00	647.97	.77	.05	.09	100000.00
2080.	0.	2080.	0.	0.	295.	0.	89.	15.	100000.00
.45	0.00	7.04	0.00	.090	.042	.090	.047	637.91	254.00
.003641	15.	15.	15.	2	0	1	0.00	35.00	289.00

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

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

935' D/S FROM D/S FACE OF MIDDLEBELT ROAD BRIDGE, VS#4 SEC. D

3204.00	9.09	646.99	646.99	0.00	650.25	3.26	.03	0.00	642.50
2080.	89.	1968.	23.	27.	132.	9.	89.	15.	642.20
.45	3.28	14.88	2.59	.090	.042	.090	.047	637.90	87.94
.014616	5.	5.	5.	30	5	1	0.00	32.82	120.76

3301 HV CHANGED MORE THAN HVINS

Is this cross section natural?
no: natural

Feedback isn't okay with IDOT

3205.00	12.81	650.71	0.00	0.00	651.11	.40	.00	.86	100000.00
2080.	0.	2080.	0.	0.	408.	0.	89.	15.	100000.00
.45	0.00	5.10	0.00	.090	.042	.090	.047	637.90	254.00
.001461	1.	1.	1.	3	0	1	0.00	34.00	288.00

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

3470 ENCROACHMENT STATIONS= 244.0 296.0 TYPE= 1 TARGET= 52.000

3214.00	13.01	650.94	0.00	0.00	651.17	.23	.01	.05	642.53
2080.	70.	1973.	37.	48.	497.	27.	89.	15.	642.23
.45	1.46	3.97	1.35	.090	.042	.090	.047	637.93	244.00
.000499	9.	9.	9.	2	0	1	0.00	52.00	296.00

3470 ENCROACHMENT STATIONS= .0 600.8 TYPE= 1 TARGET= 674.999

4139.00	10.43	651.63	0.00	0.00	651.78	.16	.59	.02	643.40
2080.	221.	1015.	844.	173.	231.	698.	106.	18.	642.90
.54	1.28	4.39	1.21	.090	.042	.090	.046	641.20	330.01
.000834	850.	925.	950.	2	0	1	0.00	270.74	600.75

should it be increased more

NORMAL BRIDGE,NRD=16 MIN ELTRD= 649.40 MAX ELLC= 649.70

3470 ENCROACHMENT STATIONS= .0 600.8 TYPE= 1 TARGET= 674.999

D/S FACE OF MIDDLEBELT ROAD BRIDGE, BS#5 SEC. E

4140.00	10.37	651.57	0.00	0.00	651.84	.27	.00	.06	643.40
2080.	0.	924.	1156.	0.	161.	496.	106.	18.	642.90
.54	0.00	5.75	2.33	.040	.018	.040	.046	641.20	330.17
.001049	1.	1.	1.	2	0	1	-429.69	270.58	600.75

NORMAL BRIDGE,NRD=16 MIN ELTRD= 649.40 MAX ELLC= 649.70

3470 ENCROACHMENT STATIONS= .0 600.8 TYPE= 1 TARGET= 674.999

U/S FACE OF MIDDLEBELT ROAD BRIDGE, BS#5 SEC. E

4211.00	10.46	651.66	0.00	0.00	651.92	.26	.07	.01	643.40
2080.	0.	900.	1180.	0.	161.	513.	108.	19.	642.90
.54	0.00	5.60	2.30	.040	.018	.040	.045	641.20	329.90
.000995	71.	71.	71.	2	0	1	-439.11	270.85	600.75

3470 ENCROACHMENT STATIONS= .0 600.8 TYPE= 1 TARGET= 674.999

4212.00	10.63	651.83	0.00	0.00	651.96	.13	.00	.04	643.40
2080.	229.	967.	884.	182.	236.	739.	108.	19.	642.90
.54	1.26	4.09	1.20	.092	.045	.092	.045	641.20	329.45
.000810	1.	1.	1.	2	0	1	0.00	271.30	600.75

3280 CROSS SECTION 4262.00 EXTENDED 3.99 FEET

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

50' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#C1 SEC. F

4262.00	10.59	651.99	0.00	0.00	652.01	.02	.01	.03	644.50
2080.	87.	666.	1327.	157.	383.	1971.	110.	19.	644.30
.56	.55	1.74	.67	.092	.045	.092	.045	641.40	20.08
.000141	50.	50.	50.	2	0	1	0.00	379.92	400.00

3280 CROSS SECTION 4687.00 EXTENDED .06 FEET

475' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#C2 SEC. G

4687.00	10.06	652.06	0.00	0.00	652.11	.05	.09	.02	647.50
2080.	1111.	773.	196.	1140.	276.	242.	126.	22.	647.80
.62	.97	2.80	.81	.090	.042	.090	.046	642.00	0.00
.000505	350.	425.	300.	2	0	1	0.00	400.28	400.28

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

2035' U/S FROM U/S FACE OF MIDDLEBELT RD BRIDGE, VS#C3 SEC. H

6247.00	7.62	653.62	0.00	0.00	653.97	.35	1.71	.15	651.70
2080.	874.	1153.	53.	584.	184.	48.	170.	38.	652.50
.72	1.50	6.26	1.10	.085	.040	.085	.044	646.00	23.86
.003970	1560.	1560.	1560.	4	0	1	0.00	476.65	500.51

3280 CROSS SECTION 7797.00 EXTENDED 1.85 FEET

3470 ENCROACHMENT STATIONS= 83.0 568.0 TYPE= 1 TARGET= 485.000

70' D/S FROM D/S FACE OF TUCK ST BRIDGE, VS#C4 SEC. I

7797.00	6.14	657.54	0.00	0.00	657.66	.11	3.61	.07	656.00
2045.	763.	697.	585.	613.	165.	464.	203.	53.	655.00
.90	1.24	4.24	1.26	.090	.042	.090	.044	651.40	83.00
.001719	1350.	1550.	1350.	4	0	1	0.00	485.00	568.00

3280 CROSS SECTION 7867.00 EXTENDED 2.89 FEET

3470 ENCROACHMENT STATIONS= 100.0 550.0 TYPE= 1 TARGET= 450.000

7867.00	7.19	657.69	0.00	0.00	657.74	.06	.07	.02	655.10
2045.	857.	610.	578.	846.	197.	586.	205.	54.	654.10
.91	1.01	3.10	.99	.087	.040	.087	.044	650.50	100.00
.000657	70.	70.	70.	2	0	1	0.00	450.00	550.00

3280 CROSS SECTION 7868.00 EXTENDED 2.89 FEET

3470 ENCROACHMENT STATIONS= 100.0 550.0 TYPE= 1 TARGET= 450.000

D/S FACE OF TUCK ST BRIDGE, BS#6 SEC. J

7868.00	7.19	657.69	0.00	0.00	657.74	.06	.00	.00	655.10
2045.	846.	629.	571.	846.	197.	587.	205.	54.	654.10
.91	1.00	3.19	.97	.050	.022	.050	.044	650.50	100.00
.000211	1.	1.	1.	0	0	1	0.00	450.00	550.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.68	3.05	0.00	15.24	0.00	88.40	0.00	650.50	650.50

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
671.65	661.08	0.00	1207.	850.	88.	657.20	658.80	30.00

U/S FACE OF TUCK ST BRIDGE, BS#6 SEC. J

7903.00	9.37	659.87	0.00	0.00	660.10	.23	2.35	0.00	650.50
2045.	707.	979.	358.	412.	186.	242.	206.	54.	652.60
.92	1.72	5.26	1.48	.055	.035	.055	.044	650.50	154.12
.000894	35.	35.	35.	2	0	6	0.00	455.99	610.10

7904.00	9.30	659.80	0.00	0.00	660.16	.36	.00	.07	650.50
2045.	590.	1160.	295.	395.	185.	229.	206.	54.	652.60
.92	1.49	6.28	1.29	.087	.040	.087	.044	650.50	157.69
.001684	1.	1.	1.	2	0	1	0.00	448.42	606.11

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

70' D/S FROM D/S FACE OF PRIVATE DRIVEWAY BRIDGE, VS#C5 SEC. K

8704.00	7.34	661.64	0.00	0.00	662.16	.52	1.92	.08	658.90
2045.	523.	1455.	67.	275.	215.	47.	219.	60.	658.20
.96	1.90	6.77	1.41	.090	.042	.090	.044	654.30	19.16
.003579	850.	800.	750.	2	0	1	0.00	168.40	187.56

8774.00	7.47	662.07	0.00	0.00	662.49	.42	.30	.03	659.20
2045.	607.	1358.	80.	289.	220.	51.	220.	60.	658.50
.96	2.10	6.18	1.55	.090	.050	.090	.044	654.60	18.65
.004100	100.	70.	45.	2	0	1	0.00	170.00	188.65

D/S FACE OF PRIVATE DRIVEWAY BRIDGE, BS#7 SEC. L

2045.	665.	1292.	88.	297.	222.	53.	220.	60.	658.50
.96	2.24	5.81	1.65	.080	.050	.080	.044	654.60	18.37
.003567	1.	1.	1.	2	0	1	0.00	170.86	189.23

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.82	3.05	0.00	17.20	0.00	82.60	0.00	654.60	654.60

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
679.48	662.51	0.00	1333.	713.	83.	659.50	661.90	30.00

3470 ENCROACHMENT STATIONS= .0 265.0 TYPE= 1 TARGET= 264.999

U/S FACE OF PRIVATE DRIVEWAY BRIDGE, BS#7 SEC. L

8802.00	9.43	664.03	0.00	0.00	664.26	.23	1.74	0.00	654.60
2045.	847.	862.	337.	386.	164.	134.	220.	60.	654.90
.96	2.19	5.27	2.52	.080	.060	.080	.044	654.60	.00
.002300	27.	27.	27.	2	0	6	0.00	199.94	199.94

3470 ENCROACHMENT STATIONS= .0 265.0 TYPE= 1 TARGET= 264.999

8802.00	9.37	663.97	0.00	0.00	664.32	.35	.00	.06	654.60
2045.	723.	1033.	289.	378.	163.	131.	220.	60.	654.90
.96	1.91	6.35	2.21	.092	.050	.092	.044	654.60	.00
.002340	1.	1.	1.	2	0	1	0.00	199.23	199.23

3280 CROSS SECTION 9503.00 EXTENDED 1.69 FEET

70' D/S FROM D/S FACE OF FOLSOM DR BRIDGE, VS#C6 SEC. M

9503.00	8.29	665.69	0.00	0.00	666.10	.41	1.75	.03	663.60
2045.	401.	1643.	1.	364.	289.	2.	230.	64.	664.30
1.00	1.10	5.69	.66	.092	.045	.092	.044	657.40	0.00
.003034	550.	700.	700.	2	0	1	0.00	323.23	323.23

3280 CROSS SECTION 9573.00 EXTENDED 2.33 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9573.00	8.93	666.03	0.00	0.00	666.27	.23	.12	.05	663.30
2045.	580.	1462.	3.	539.	321.	5.	230.	64.	664.00
1.01	1.08	4.55	.65	.090	.045	.090	.044	657.10	0.00
.001688	5.	70.	150.	2	0	1	0.00	324.73	324.73

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3265 DIVIDED FLOW

3280 CROSS SECTION 9574.00 EXTENDED 1.91 FEET

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

FOLSOM DRIVE BRIDGE, ONLY ROAD PROFILE WAS CODED, BS#8 SEC. N

9574.00	10.31	667.41	667.41	0.00	667.92	.51	.00	0.00	665.50
1180.	0.	1180.	0.	0.	206.	0.	230.	64.	679.10
1.01	0.00	5.73	0.00	.035	.035	.035	.044	657.10	0.00
.020681	1.	1.	1.	20	13	1	0.00	203.87	364.01

HW = 663.20 (Good) #10 glass fig.

3280 CROSS SECTION 9684.00 EXTENDED 1.79 FEET

3470 ENCROACHMENT STATIONS= 227.5 509.6 TYPE= 1 TARGET= 310.000

EAST BOUND I-96 BRIDGE, ONLY ROAD PROFILE WAS CODED, BS#9 SEC. O

9684.00	11.39	668.39	0.00	0.00	668.47	.09	.42	.13	100000.00
1180.	0.	1180.	0.	0.	504.	0.	231.	64.	100000.00
1.02	0.00	2.34	0.00	.035	.035	.035	.044	657.00	227.50
.001555	110.	110.	110.	4	0	1	0.00	282.10	509.60

Are the LOB of the 9574 profile a LOB of the 9684? Looks like it would be better if one piece from

3685 20 TRIALS USED WSEL,CWSEL

7185 MIN SPECIFIC ENERGY

3720 ASSUMED CRITICAL DEPTH

3280 CROSS SECTION 9794.00 EXTENDED 2.51 FEET

Invert 1 flow
Pass 1 flow

Solved as a divided flow Section.

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

3470 ENCROACHMENT STATIONS= .0 559.7 TYPE= 1 TARGET= 614.999

WEST BOUND I-96 BRIDGE, ONLY ROAD PROFILE WAS CODED, BS#10 SEC. P

9794.00	12.21	669.11	669.11	0.00	669.62	.50	.44	0.00	100000.00
1180.	0.	1180.	0.	0.	208.	0.	232.	65.	100000.00
1.03	0.00	5.69	0.00	.035	.035	.035	.044	656.90	323.27
.024479	110.	110.	110.	30	10	1	0.00	236.38	559.65

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

3470 ENCROACHMENT STATIONS=     300.3     728.0  TYPE=     1  TARGET=    -330.000

        FREEDOM ROAD BRIDGE, ONLY ROAD PROFILE WAS CODED, BS#11          SEC. Q

  9924.00     13.21    669.91      0.00      0.00    669.96       .05       .21       .14    666.70
     1180.      431.      91.      658.      205.      68.      399.      233.       66.    666.70
      1.05      2.10      1.35      1.65      .035      .035      .035      .044    656.70    300.30
   .000518      130.      130.      130.         3         0         1      0.00    293.67    593.97

3470 ENCROACHMENT STATIONS=     300.3     728.0  TYPE=     1  TARGET=    -330.000
  9925.00     13.08    669.78      0.00      0.00    670.08       .30       .00       .12    666.70
     2045.      314.     1265.      466.      196.     232.      372.      233.       66.    666.70
      1.05      1.60      5.46      1.25      .080      .037      .080      .044    656.70    300.30
   .001653        1.        1.        1.         2         0         1      0.00    288.57    588.87

3280 CROSS SECTION  10075.00 EXTENDED      1.09 FEET

        150' U/S FROM U/S FACE OF FREEDOM ROAD BRIDGE, VS#12             SEC. R

 10075.00     11.59    670.19      0.00      0.00    670.25       .06       .10       .07    663.80
     2045.      739.      751.      555.      641.     266.      699.      237.       67.    662.20
      1.07      1.15      2.82       .79      .060      .042      .090      .044    658.60    204.77
   .000324      300.      150.       20.         2         0         1      0.00    395.23    600.00

3470 ENCROACHMENT STATIONS=     252.3     456.8  TYPE=     1  TARGET=    -290.000
 10475.00     12.74    670.34      0.00      0.00    670.60       .26       .25       .10    667.60
     2010.      802.     1163.       45.      409.     229.       49.      246.       69.    667.60
      1.10      1.96      5.09       .92      .090      .045      .090      .044    657.60    252.30
   .002024      400.      400.      250.         2         0         1      0.00    150.83    403.13

NORMAL BRIDGE,NRD=10 MIN ELTRD=  664.80 MAX ELLC=  666.40

3470 ENCROACHMENT STATIONS=     252.3     456.8  TYPE=     1  TARGET=    -290.000

        D/S FACE OF IVERSON DRIVEWAY BRIDGE, BS#13                       SEC. S

 10476.00     12.85    670.45      0.00      0.00    670.63       .17       .00       .03    667.60
     2010.     1154.      788.       68.      419.     191.       53.      247.       69.    667.60
      1.10      2.75      4.13      1.29      .065      .030      .065      .044    657.60    252.30
   .002003        1.        1.        1.         2         0         1    -39.89    152.28    404.58

NORMAL BRIDGE,NRD=10 MIN ELTRD=  664.80 MAX ELLC=  666.40

3470 ENCROACHMENT STATIONS=     252.3     456.8  TYPE=     1  TARGET=    -290.000
```

U/S FACE OF IVERSON DRIVEWAY BRIDGE, BS#13 SEC. S

10487.00	12.88	670.48	0.00	0.00	670.65	.17	.02	.00	667.60
2010.	1155.	785.	69.	421.	191.	54.	247.	69.	667.60
1.10	2.74	4.10	1.29	.065	.030	.065	.044	657.60	252.30
.001976	11.	11.	11.	0	0	1	-39.89	152.57	404.87

3470 ENCROACHMENT STATIONS= 252.3 456.8 TYPE= 1 TARGET= -290.000

10488.00	12.84	670.44	0.00	0.00	670.69	.24	.00	.04	667.60
2010.	818.	1144.	48.	418.	231.	52.	247.	69.	667.60
1.10	1.95	4.96	.92	.095	.048	.095	.044	657.60	252.30
.002165	1.	1.	1.	2	0	1	0.00	152.16	404.46

$S_o = \frac{660.1 - 652.6}{150} = 0.0056$

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 671.80 ELREA= 671.80

D/S FACE OF ORCHARD LAKE ROAD BRIDGE, BS#14 SEC. T

10938.00	11.12	671.22	0.00	0.00	671.72	.50	.91	.13	660.10
2010.	0.	2010.	0.	0.	355.	0.	252.	70.	664.10
1.12	0.00	5.67	0.00	.090	.045	.090	.044	660.10	430.00
.001954	400.	450.	500.	2	0	1	0.00	40.42	485.24

drop the 450 ft. based on 1 ft. rise and 1 section at 10817 fully open

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.41	3.00	0.00	30.24	0.00	198.55	0.00	660.40	660.10

PRESSURE FLOW

EGPRS	EGLWC	HJ	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
675.06	672.02	0.00	0.	2010.	199.	670.30	684.90	10.00

$\frac{2010}{198.55} = 10.12$

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 684.90 ELREA= 684.90

U/S FACE OF ORCHARD LAKE ROAD BRIDGE, BS#14 SEC. T

11073.00	14.39	674.79	0.00	0.00	675.06	.26	3.34	0.00	660.40
2010.	0.	2010.	0.	0.	487.	0.	253.	70.	664.40
1.13	0.00	4.13	0.00	.065	.025	.065	.044	660.40	430.00
.000228	135.	135.	135.	2	0	1	0.00	40.42	492.35

3470 ENCROACHMENT STATIONS= 480.0 620.0 TYPE= 1 TARGET= 140.000

50' U/S FROM U/S FACE OF ORCHARD LAKE ROAD BRIDGE, VSWC9 SEC. U

2010.	302.	1592.	116.	356.	757.	202.	254.	70.	666.10
1.14	.85	2.10	.57	.100	.050	.100	.044	660.10	480.00
.000176	50.	50.	50.	2	0	1	0.00	140.00	620.00

1490 NH CARD USED

475' U/S FROM U/S FACE OF ORCHARD LAKE ROAD BRIDGE, VS#15 SEC. V

11548.00	11.87	675.17	0.00	0.00	675.17	.01	.03	.01	666.40
2010.	966.	438.	606.	2256.	328.	1334.	274.	73.	667.30
1.30	.43	1.34	.45	.083	.037	.089	.044	663.30	35.07
.000048	200.	425.	500.	1	0	1	0.00	567.85	602.92
12448.00	13.76	675.16	0.00	0.00	675.41	.25	.11	.12	663.90
2010.	841.	1035.	134.	647.	191.	94.	316.	81.	663.90
1.37	1.30	5.43	1.42	.095	.055	.095	.045	661.40	65.54
.001570	900.	900.	400.	2	0	1	0.00	302.46	368.00

NORMAL BRIDGE,NRD=19 MIN ELTRD= 671.90 MAX ELLC= 670.30

D/S FACE OF NINE MILE ROAD BRIDGE, BS#16 SEC. W

12449.00	13.95	675.35	0.00	0.00	675.45	.10	.00	.04	673.20
2010.	1624.	308.	78.	624.	130.	52.	316.	81.	673.20
1.37	2.60	2.37	1.50	.055	.050	.055	.045	661.40	60.62
.002457	1.	1.	1.	2	0	1	-63.50	310.77	371.40

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

NORMAL BRIDGE,NRD=19 MIN ELTRD= 671.90 MAX ELLC= 670.70

U/S FACE OF NINE MILE ROAD BRIDGE, BS#16 SEC. W

12481.00	13.64	675.44	0.00	0.00	675.53	.09	.08	.00	673.20
2010.	1626.	301.	83.	642.	131.	55.	317.	81.	673.20
1.37	2.53	2.30	1.49	.055	.050	.055	.045	661.80	58.81
.002257	32.	32.	32.	1	0	1	-57.78	313.84	372.65
12482.00	13.60	675.40	0.00	0.00	675.57	.17	.00	.04	673.20
2010.	1090.	866.	54.	636.	188.	54.	317.	81.	673.20
1.37	1.71	4.59	1.00	.095	.056	.095	.045	661.80	59.43
.003115	1.	1.	1.	2	0	1	0.00	312.79	372.22

3470 ENCROACHMENT STATIONS= 70.0 450.0 TYPE= 1 TARGET= 380.000

US COE SECTION FROM CITY OF FARMINGTON FIS

50' U/S FROM U/S FACE OF NINE MILE ROAD BRIDGE

2010.	1212.	612.	186.	1627.	337.	238.	319.	81.	667.10
1.38	.75	1.82	.78	.095	.056	.095	.045	664.10	87.53
.000223	50.	50.	50.	2	0	1	0.00	362.47	450.00

3470 ENCROACHMENT STATIONS= .0 350.0 TYPE= 1 TARGET= 349.999

CITY OF FARMINGTON HILLS FIS CORPORATE BOUNDARY

CITY OF FARMINGTON D/S CORPORATE BOUNDARY

13302.00	8.40	675.90	0.00	0.00	676.03	.13	.34	.06	671.10
2010.	433.	972.	604.	349.	245.	442.	344.	86.	671.10
1.46	1.24	3.97	1.37	.095	.056	.095	.046	667.50	27.10
.001658	600.	770.	800.	2	0	1	0.00	321.67	348.77

3470 ENCROACHMENT STATIONS= .0 350.0 TYPE= 1 TARGET= 349.999

SECTION A US COE SECTION FROM CITY OF FARMINGTON FIS

13727.00	7.42	676.82	0.00	0.00	677.11	.29	1.00	.08	673.00
2010.	319.	1173.	518.	217.	213.	303.	352.	89.	673.00
1.49	1.47	5.51	1.71	.095	.056	.095	.047	669.40	36.73
.003862	400.	425.	400.	2	0	1	0.00	299.52	336.25

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON HILLS, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE
DOWNSTREAM FARMINGTON

4) DOWNSTREAM TYPE: SUMMARY - ~~DTS~~

~~FARMINGTON~~

00BREAK00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

UPPER RIVER ROUGE - D/S

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
0.00 D/S FACE	70.00	0.00	0.00	633.00	735.00	640.01	.26	0.00	0.00	735.00	7.01	27.00
0.00	70.00	0.00	0.00	633.00	1530.00	642.18	.64	0.00	0.00	1530.00	9.18	27.00
0.00	70.00	0.00	0.00	633.00	2080.00	643.47	.20	0.00	0.00	1708.01	10.47	129.79
0.00	70.00	0.00	0.00	633.00	3940.00	645.94	.34	0.00	0.00	2912.58	12.94	230.71
1.00	1.00	0.00	0.00	633.00	735.00	640.01	.26	.00	.00	735.00	7.01	27.00
1.00	1.00	0.00	0.00	633.00	1530.00	642.18	.64	.00	.00	1530.00	9.18	27.00
1.00	1.00	0.00	0.00	633.00	2080.00	643.45	.24	.00	.02	1835.22	10.45	129.18
1.00	1.00	0.00	0.00	633.00	3940.00	645.88	.45	.00	.06	3242.62	12.88	226.02
78.00 U/S FACE SEC. A	77.00	645.40	641.80	633.00	735.00	640.05	.25	.03	.00	735.00	7.05	27.00
78.00	77.00	645.40	641.80	633.00	1530.00	643.58	.47	1.23	0.00	1530.00	10.58	27.00
78.00	77.00	645.40	641.80	633.00	2080.00	646.12	.11	2.53	0.00	1647.33	13.12	245.36
78.00	77.00	645.40	641.80	633.00	3940.00	647.35	.26	1.27	0.00	2921.50	14.35	549.24
79.00	1.00	0.00	0.00	633.00	735.00	640.05	.25	.00	.00	735.00	7.05	27.00
79.00	1.00	0.00	0.00	633.00	1530.00	643.58	.47	.00	.00	1530.00	10.58	27.00
79.00	1.00	0.00	0.00	633.00	2080.00	646.15	.06	.00	.01	1518.63	13.15	247.66
79.00	1.00	0.00	0.00	633.00	3940.00	647.44	.19	.00	.02	2626.43	14.44	559.06
SEC. B -1179.00	1100.00	0.00	0.00	634.60	735.00	641.40	.10	1.15	.04	352.34	6.80	325.94
1179.00	1100.00	0.00	0.00	634.60	1530.00	644.66	.03	.50	.13	365.70	10.06	340.92
1179.00	1100.00	0.00	0.00	634.60	2080.00	646.47	.02	.24	.02	418.12	11.87	349.26
1179.00	1100.00	0.00	0.00	634.60	3940.00	648.09	.05	.46	.04	709.86	13.49	437.83
SEC. C -2279.00	1100.00	0.00	0.00	638.90	735.00	642.91	.07	1.48	.01	735.00	4.01	177.25
2279.00	1100.00	0.00	0.00	638.90	1530.00	645.03	.07	.39	.02	1530.00	6.13	186.95
2279.00	1100.00	0.00	0.00	638.90	2080.00	646.70	.06	.25	.02	2080.00	7.80	194.62
2279.00	1100.00	0.00	0.00	638.90	3940.00	648.46	.12	.41	.04	3936.54	9.56	223.95
3104.00	825.00	0.00	0.00	638.01	735.00	644.13	.20	1.28	.06	729.43	6.12	56.30
3104.00	325.00	0.00	0.00	638.01	1530.00	645.76	.44	.92	.19	1484.61	7.75	70.44
3104.00	825.00	0.00	0.00	638.01	2080.00	647.10	.52	.63	.23	1969.08	9.09	82.05
3104.00	825.00	0.00	0.00	638.01	3940.00	648.91	1.09	.93	.48	3577.82	10.90	92.94
3184.00	80.00	0.00	0.00	637.93	735.00	644.25	.19	.11	.00	735.00	6.32	42.00
3184.00	80.00	0.00	0.00	637.93	1530.00	645.94	.46	.18	.01	1530.00	8.01	42.00
3184.00	80.00	0.00	0.00	637.93	2080.00	647.25	.59	.18	.03	2080.00	9.32	42.00
3184.00	80.00	0.00	0.00	637.93	3940.00	649.07	1.41	.32	.16	3940.00	11.14	42.00
3199.00	15.00	0.00	0.00	637.91	735.00	644.25	.23	.02	.02	735.00	6.34	35.00
3199.00	15.00	0.00	0.00	637.91	1530.00	645.92	.58	.04	.06	1530.00	8.01	35.00
3199.00	15.00	0.00	0.00	637.91	2080.00	647.21	.77	.05	.09	2080.00	9.30	35.00
3199.00	15.00	0.00	0.00	637.91	3940.00	648.92	1.91	.09	.25	3940.00	11.01	35.00
SEC. D -3204.00	5.00	0.00	0.00	637.90	735.00	643.66	1.45	.02	.61	731.80	5.76	21.26
3204.00	5.00	0.00	0.00	637.90	1530.00	645.65	2.78	.03	0.00	1484.33	7.75	28.15
3204.00	5.00	0.00	0.00	637.90	2080.00	646.99	3.26	.03	0.00	1967.76	9.09	32.82
3204.00	5.00	0.00	0.00	637.90	3940.00	650.76	4.18	.05	0.00	3433.91	12.86	45.87

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
3205.00	1.00	0.00	0.00	637.90	735.00	645.33	.17	.00	.39	735.00	7.43	34.00
3205.00	1.00	0.00	0.00	637.90	1530.00	648.87	.31	.00	.74	1530.00	10.97	34.00
3205.00	1.00	0.00	0.00	637.90	2080.00	650.71	.40	.00	.86	2080.00	12.81	34.00
3205.00	1.00	0.00	0.00	637.90	3940.00	655.20	.77	.00	1.02	3940.00	17.30	34.00
3214.00	9.00	0.00	0.00	637.93	735.00	645.40	.12	.01	.01	719.82	7.47	52.00
3214.00	9.00	0.00	0.00	637.93	1530.00	649.03	.18	.01	.04	1462.91	11.10	52.00
3214.00	9.00	0.00	0.00	637.93	2080.00	650.94	.23	.01	.05	1973.44	13.01	52.00
3214.00	9.00	0.00	0.00	637.93	3940.00	655.67	.41	.01	.11	3692.74	17.74	52.00
4139.00	925.00	0.00	0.00	641.20	735.00	646.34	.84	1.30	.36	735.00	5.14	24.92
4139.00	925.00	0.00	0.00	641.20	1530.00	649.74	.28	.76	.05	960.81	8.54	258.02
4139.00	925.00	0.00	0.00	641.20	2080.00	651.63	.16	.59	.02	1014.81	10.43	270.74
4139.00	925.00	0.00	0.00	641.20	3940.00	656.49	.08	.39	.10	1286.45	15.29	350.06
4140.00 D/S	1.00	649.40	649.70	641.20	735.00	646.34	.84	.00	.00	735.00	5.14	24.92
4140.00	1.00	649.40	649.70	641.20	1530.00	649.67	.42	.00	.07	993.79	8.47	248.75
4140.00	1.00	649.40	649.70	641.20	2080.00	651.57	.27	.00	.06	923.65	10.37	270.58
4140.00	1.00	649.40	649.70	641.20	3940.00	656.51	.07	.00	.00	712.11	15.31	350.27
4211.00 U/S	71.00	649.40	649.70	641.20	735.00	646.54	.77	.09	.02	735.00	5.34	24.92
4211.00	71.00	649.40	649.70	641.20	1530.00	649.76	.42	.09	.00	990.64	8.56	261.70
4211.00	71.00	649.40	649.70	641.20	2080.00	651.66	.26	.07	.01	899.66	10.46	270.85
4211.00	71.00	649.40	649.70	641.20	3940.00	656.52	.07	.01	.00	710.95	15.32	350.68
4212.00	1.00	0.00	0.00	641.20	735.00	646.54	.77	.00	.00	735.00	5.34	24.92
4212.00	1.00	0.00	0.00	641.20	1530.00	650.02	.22	.00	.06	906.66	8.82	266.29
4212.00	1.00	0.00	0.00	641.20	2080.00	651.83	.13	.00	.04	967.02	10.63	271.30
4212.00	1.00	0.00	0.00	641.20	3940.00	656.52	.08	.00	.00	1243.81	15.32	350.69
4262.00	50.00	0.00	0.00	641.40	735.00	647.55	.03	.05	.22	383.87	6.15	358.04
4262.00	50.00	0.00	0.00	641.40	1530.00	650.30	.02	.02	.06	551.83	8.90	369.98
4262.00	50.00	0.00	0.00	641.40	2080.00	651.99	.02	.01	.03	666.16	10.59	379.92
4262.00	50.00	0.00	0.00	641.40	3940.00	656.60	.02	.01	.02	1048.12	15.20	400.00
4687.00	425.00	0.00	0.00	642.00	735.00	647.59	.80	.43	.38	712.43	5.59	137.86
4687.00	425.00	0.00	0.00	642.00	1530.00	650.39	.09	.14	.04	717.91	8.39	377.94
4687.00	425.00	0.00	0.00	642.00	2080.00	652.06	.05	.09	.02	773.03	10.06	400.28
4687.00	425.00	0.00	0.00	642.00	3940.00	656.64	.03	.04	.01	1091.55	14.64	418.80
6247.00	1560.00	0.00	0.00	646.00	735.00	653.01	.11	4.52	.21	508.79	7.01	464.63
6247.00	1560.00	0.00	0.00	646.00	1530.00	653.19	.35	2.93	.13	984.45	7.19	468.55
6247.00	1560.00	0.00	0.00	646.00	2080.00	653.62	.35	1.71	.15	1153.10	7.62	476.65
6247.00	1560.00	0.00	0.00	646.00	3940.00	657.10	.08	.48	.02	1164.18	11.10	514.39
7797.00	1550.00	0.00	0.00	651.40	725.00	656.13	.53	3.33	.21	709.74	4.73	57.00
7797.00	1550.00	0.00	0.00	651.40	1505.00	657.08	.10	3.56	.08	583.39	5.68	485.00
7797.00	1550.00	0.00	0.00	651.40	2045.00	657.54	.11	3.61	.07	697.26	6.14	485.00
7797.00	1550.00	0.00	0.00	651.40	3870.00	658.56	.17	1.51	.05	1082.27	7.16	485.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
7867.00	70.00	0.00	0.00	650.50	725.00	656.45	.52	.31	.00	725.00	5.95	22.00
7867.00	70.00	0.00	0.00	650.50	1505.00	657.22	.04	.06	.02	485.86	6.72	450.00
7867.00	70.00	0.00	0.00	650.50	2045.00	657.69	.06	.07	.02	609.69	7.19	450.00
7867.00	70.00	0.00	0.00	650.50	3870.00	658.75	.10	.11	.02	1006.61	8.25	450.00
7868.00 D/S	1.00	0.00	0.00	650.50	725.00	656.45	.52	.00	.00	725.00	5.95	22.00
7868.00	1.00	0.00	0.00	650.50	1505.00	657.22	.05	.00	.00	500.34	6.72	450.00
7868.00	1.00	0.00	0.00	650.50	2045.00	657.69	.06	.00	.00	628.55	7.19	450.00
7868.00	1.00	0.00	0.00	650.50	3870.00	658.75	.11	.00	.00	1039.50	8.25	450.00
7903.00 U/S	35.00	658.80	657.20	650.50	725.00	656.37	.87	.09	.17	725.00	5.87	22.00
7903.00	35.00	658.80	657.20	650.50	1505.00	659.62	.15	2.51	0.00	762.29	9.12	422.97
7903.00	35.00	658.80	657.20	650.50	2045.00	659.87	.23	2.35	0.00	979.43	9.37	455.99
7903.00	35.00	658.80	657.20	650.50	3870.00	660.34	.53	2.01	0.00	1655.71	9.84	508.38
7904.00	1.00	0.00	0.00	650.50	725.00	656.73	.59	.01	.08	725.00	6.23	22.00
7904.00	1.00	0.00	0.00	650.50	1505.00	659.58	.23	.00	.04	889.26	9.08	416.06
7904.00	1.00	0.00	0.00	650.50	2045.00	659.80	.36	.00	.07	1160.28	9.30	448.42
7904.00	1.00	0.00	0.00	650.50	3870.00	660.10	1.00	.00	.24	2065.42	9.60	482.49
8704.00	800.00	0.00	0.00	654.30	725.00	659.64	.31	2.54	.08	665.40	5.34	144.74
8704.00	800.00	0.00	0.00	654.30	1505.00	660.91	.46	1.45	.12	1161.52	6.61	159.77
8704.00	800.00	0.00	0.00	654.30	2045.00	661.64	.52	1.92	.08	1455.02	7.34	168.40
8704.00	800.00	0.00	0.00	654.30	3870.00	663.76	.61	3.15	.12	2298.30	9.46	211.67
8774.00	70.00	0.00	0.00	654.60	725.00	659.89	.31	.25	.00	660.60	5.29	144.15
8774.00	70.00	0.00	0.00	654.60	1505.00	661.31	.38	.29	.02	1097.27	6.71	161.02
8774.00	70.00	0.00	0.00	654.60	2045.00	662.07	.42	.30	.03	1358.12	7.47	170.00
8774.00	70.00	0.00	0.00	654.60	3870.00	664.21	.48	.27	.04	2105.54	9.61	214.88
8775.00 D/S	1.00	0.00	0.00	654.60	725.00	659.92	.29	.00	.01	649.90	5.32	144.49
8775.00	1.00	0.00	0.00	654.60	1505.00	661.38	.33	.00	.01	1052.50	6.78	161.70
8775.00	1.00	0.00	0.00	654.60	2045.00	662.15	.36	.00	.02	1292.11	7.55	170.86
8775.00	1.00	0.00	0.00	654.60	3870.00	664.31	.40	.00	.02	1974.76	9.71	216.92
8802.00	27.00	661.90	659.50	654.60	725.00	661.92	.10	1.81	0.00	400.66	7.32	91.27
8802.00	27.00	661.90	659.50	654.60	1505.00	663.46	.17	1.92	0.00	687.57	8.86	185.33
8802.00	27.00	661.90	659.50	654.60	2045.00	664.03	.23	1.74	0.00	861.95	9.43	199.94
8802.00	27.00	661.90	659.50	654.60	3870.00	665.50	.37	1.16	0.00	1340.79	10.90	218.02
8802.00	1.00	0.00	0.00	654.60	725.00	661.91	.14	.00	.02	457.15	7.31	87.39
8802.00 U/S	1.00	0.00	0.00	654.60	1505.00	663.42	.26	.00	.04	812.31	8.82	183.95
8802.00	1.00	0.00	0.00	654.60	2045.00	663.97	.35	.00	.06	1032.66	9.37	199.23
8802.00	1.00	0.00	0.00	654.60	3870.00	665.40	.59	.00	.11	1654.31	10.80	216.69
9503.00	700.00	0.00	0.00	657.40	725.00	663.05	.32	1.24	.09	725.00	5.65	45.73
9503.00	700.00	0.00	0.00	657.40	1505.00	664.94	.43	1.61	.09	1384.84	7.54	309.04
9503.00	700.00	0.00	0.00	657.40	2045.00	665.69	.41	1.75	.03	1642.52	8.29	323.23
9503.00	700.00	0.00	0.00	657.40	3870.00	667.58	.37	1.90	.06	2348.15	10.18	327.62

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	C#SEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
9573.00	70.00	0.00	0.00	657.10	725.00	663.38	.23	.21	.03	724.99	6.28	51.65
9573.00	70.00	0.00	0.00	657.10	1505.00	665.35	.22	.14	.06	1210.57	8.25	323.16
9573.00	70.00	0.00	0.00	657.10	2045.00	666.03	.23	.12	.05	1461.66	8.93	324.73
9573.00	70.00	0.00	0.00	657.10	3870.00	667.79	.27	.09	.03	2196.79	10.69	328.84
9574.00	1.00	0.00	0.00	657.10	.01	663.68	.00	.00	.07	.00	6.58	.00
9574.00	1.00	0.00	0.00	657.10	645.00	667.05	.35	.00	0.00	645.00	9.95	176.14
9574.00	1.00	0.00	0.00	657.10	1180.00	667.41	.51	.00	0.00	1180.00	10.31	203.87
9574.00	1.00	0.00	0.00	657.10	3050.00	668.29	.85	.00	0.00	3050.00	11.19	265.29
9684.00	110.00	0.00	0.00	657.00	.01	663.68	.00	0.00	.00	.01	6.68	.01
9684.00	110.00	0.00	0.00	657.00	645.00	667.84	.05	.41	.09	645.00	10.84	282.10
9684.00	110.00	0.00	0.00	657.00	1180.00	668.39	.09	.42	.13	1180.00	11.39	282.10
9684.00	110.00	0.00	0.00	657.00	3050.00	669.61	.20	.47	.20	3050.00	12.61	282.10
9794.00	110.00	0.00	0.00	656.90	.01	663.68	.00	0.00	.00	.00	6.78	.01
9794.00	110.00	0.00	0.00	656.90	645.00	668.71	.42	.43	0.00	645.00	11.81	165.46
9794.00	110.00	0.00	0.00	656.90	1180.00	669.11	.50	.44	0.00	1180.00	12.21	236.38
9794.00	110.00	0.00	0.00	656.90	3050.00	669.86	.83	.49	0.00	3050.00	12.96	319.11
9924.00	130.00	0.00	0.00	656.70	.01	663.68	.00	0.00	.00	.01	6.98	.01
9924.00	130.00	0.00	0.00	656.70	645.00	669.36	.03	.14	.12	53.85	12.66	272.15
9924.00	130.00	0.00	0.00	656.70	1180.00	669.91	.05	.21	.14	91.10	13.21	293.67
9924.00	130.00	0.00	0.00	656.70	3050.00	671.10	.14	.34	.21	206.86	14.40	339.59
9925.00	1.00	0.00	0.00	656.70	725.00	666.05	.35	0.00	.17	725.00	9.35	21.02
9925.00	1.00	0.00	0.00	656.70	1505.00	669.25	.24	.00	.11	1039.50	12.55	267.55
9925.00	1.00	0.00	0.00	656.70	2045.00	669.78	.30	.00	.12	1264.74	13.08	288.57
9925.00	1.00	0.00	0.00	656.70	3870.00	670.93	.47	.00	.17	1916.00	14.23	334.06
10075.00	150.00	0.00	0.00	658.60	725.00	666.53	.09	.15	.08	501.58	7.93	198.07
10075.00	150.00	0.00	0.00	658.60	1505.00	669.59	.04	.08	.06	605.72	10.99	381.19
10075.00	150.00	0.00	0.00	658.60	2045.00	670.19	.06	.10	.07	750.78	11.59	395.23
10075.00	150.00	0.00	0.00	658.60	3870.00	671.57	.10	.16	.11	1174.59	12.97	412.17
10475.00	400.00	0.00	0.00	657.60	710.00	666.84	.23	.38	.07	642.10	9.24	91.71
10475.00	400.00	0.00	0.00	657.60	1480.00	669.71	.19	.19	.07	923.97	12.11	142.66
10475.00	400.00	0.00	0.00	657.60	2010.00	670.34	.26	.25	.10	1163.06	12.74	150.83
10475.00	400.00	0.00	0.00	657.60	3800.00	671.79	.49	.41	.19	1881.83	14.19	169.59
10476.00	1.00	664.80	666.40	657.60	710.00	666.82	.27	.00	.02	606.52	9.22	91.09
10476.00	1.00	664.80	666.40	657.60	1480.00	669.79	.13	.00	.02	642.89	12.19	143.67
10476.00	1.00	664.80	666.40	657.60	2010.00	670.45	.17	.00	.03	787.98	12.85	152.28
10476.00	1.00	664.80	666.40	657.60	3800.00	672.01	.31	.00	.05	1220.57	14.41	172.54
10487.00	11.00	664.80	666.40	657.60	710.00	666.85	.27	.03	.00	604.00	9.25	91.83
10487.00	11.00	664.80	666.40	657.60	1480.00	669.81	.13	.02	.00	641.02	12.21	143.90
10487.00	11.00	664.80	666.40	657.60	2010.00	670.48	.17	.02	.00	785.45	12.88	152.57
10487.00	11.00	664.80	666.40	657.60	3800.00	672.05	.31	.03	.00	1215.67	14.45	173.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
10488.00	1.00	0.00	0.00	657.60	710.00	666.92	.22	.00	.02	636.52	9.32	94.17
10488.00	1.00	0.00	0.00	657.60	1480.00	669.79	.18	.00	.03	911.88	12.19	143.62
10488.00	1.00	0.00	0.00	657.60	2010.00	670.44	.24	.00	.04	1144.23	12.84	152.16
10488.00	1.00	0.00	0.00	657.60	3800.00	671.99	.44	.00	.07	1835.27	14.39	172.18
10938.00	450.00	0.00	0.00	660.10	710.00	667.69	.17	.71	.01	710.00	7.59	40.42
10938.00	450.00	0.00	0.00	660.10	1480.00	670.40	.33	.68	.07	1480.00	10.30	40.42
10938.00	450.00	0.00	0.00	660.10	2010.00	671.22	.50	.91	.13	2010.00	11.12	40.42
10938.00	450.00	0.00	0.00	660.10	3800.00	673.09	.76	1.27	.17	3207.13	12.99	81.22
11073.00	135.00	684.90	670.30	660.40	710.00	667.80	.42	.23	.12	710.00	7.40	40.42
11073.00	135.00	684.90	670.30	660.40	1480.00	672.24	.23	1.75	0.00	1480.00	11.84	40.42
11073.00	135.00	684.90	670.30	660.40	2010.00	674.79	.26	3.34	0.00	2010.00	14.39	40.42
11073.00	135.00	684.90	670.30	660.40	3800.00	685.36	.14	11.62	0.00	3032.64	24.96	367.77
11123.00	50.00	0.00	0.00	660.10	710.00	668.32	.05	.04	.11	663.96	8.22	111.32
11123.00	50.00	0.00	0.00	660.10	1480.00	672.48	.06	.01	.05	1236.40	12.38	132.56
11123.00	50.00	0.00	0.00	660.10	2010.00	675.07	.06	.01	.06	1592.39	14.97	140.00
11123.00	50.00	0.00	0.00	660.10	3800.00	685.48	.04	.00	.03	2666.52	25.38	140.00
11548.00	425.00	0.00	0.00	663.30	710.00	668.54	.15	.27	.05	482.41	5.24	305.61
11548.00	425.00	0.00	0.00	663.30	1480.00	672.59	.01	.06	.01	416.99	9.29	555.79
11548.00	425.00	0.00	0.00	663.30	2010.00	675.17	.01	.03	.01	437.78	11.87	567.85
11548.00	425.00	0.00	0.00	663.30	3800.00	685.54	.00	.01	.01	555.30	22.24	705.06
12448.00	900.00	0.00	0.00	661.40	710.00	669.95	.41	1.54	.13	630.04	8.55	31.16
12448.00	900.00	0.00	0.00	661.40	1480.00	672.44	.83	.26	.41	1217.19	11.04	141.26
12448.00	900.00	0.00	0.00	661.40	2010.00	675.16	.25	.11	.12	1035.31	13.76	302.46
12448.00	900.00	0.00	0.00	661.40	3800.00	685.55	.01	.01	.00	546.04	24.15	517.00
12449.00 D/S	1.00	671.90	670.30	661.40	710.00	669.73	.85	.01	.22	710.00	8.33	14.30
12449.00	1.00	671.90	670.30	661.40	1480.00	671.14	3.46	.01	1.31	1480.00	9.74	14.30
12449.00	1.00	671.90	670.30	661.40	2010.00	675.35	.10	.00	.04	307.55	13.95	310.77
12449.00	1.00	671.90	670.30	661.40	3800.00	685.56	.01	.00	.00	117.76	24.16	517.00
12481.00 U/S	32.00	671.90	670.70	661.80	710.00	670.29	.83	.54	.00	710.00	8.49	14.30
12481.00	32.00	671.90	670.70	661.80	1480.00	675.68	.04	.10	1.02	202.44	13.88	324.41
12481.00	32.00	671.90	670.70	661.80	2010.00	675.44	.09	.08	.00	301.23	13.64	313.84
12481.00	32.00	671.90	670.70	661.80	3800.00	685.56	.01	.00	.00	118.71	23.76	517.00
12482.00	1.00	0.00	0.00	661.80	710.00	670.69	.53	.01	.09	710.00	8.89	14.30
12482.00	1.00	0.00	0.00	661.80	1480.00	673.34	.75	.00	.35	1213.01	11.54	216.45
12482.00	1.00	0.00	0.00	661.80	2010.00	675.40	.17	.00	.04	865.85	13.60	312.79
12482.00	1.00	0.00	0.00	661.80	3800.00	685.56	.01	.00	.00	352.03	23.76	517.00
12532.00	50.00	0.00	0.00	664.10	710.00	671.36	.11	.12	.13	585.98	7.26	114.00
12532.00	50.00	0.00	0.00	664.10	1480.00	674.32	.02	.04	.22	515.98	10.22	357.28
12532.00	50.00	0.00	0.00	664.10	2010.00	675.62	.02	.03	.04	611.77	11.52	362.47
12532.00	50.00	0.00	0.00	664.10	3800.00	685.56	.01	.00	.00	743.92	21.46	380.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
13302.00	770.00	0.00	0.00	667.50	710.00	672.82	.31	1.57	.10	665.23	5.32	148.45
13302.00	770.00	0.00	0.00	667.50	1480.00	674.65	.21	.42	.09	918.10	7.15	293.27
13302.00	770.00	0.00	0.00	667.50	2010.00	675.90	.13	.34	.06	972.38	8.40	321.67
13302.00	770.00	0.00	0.00	667.50	3800.00	685.59	.02	.04	.00	884.80	18.09	350.00
13727.00	425.00	0.00	0.00	669.40	710.00	674.76	.31	1.93	.00	662.61	5.36	152.67
13727.00	425.00	0.00	0.00	669.40	1480.00	676.04	.35	1.46	.07	1038.73	6.64	276.89
13727.00	425.00	0.00	0.00	669.40	2010.00	676.82	.29	1.00	.08	1173.21	7.42	299.52
13727.00	425.00	0.00	0.00	669.40	3800.00	685.63	.02	.04	.00	943.76	16.23	350.00

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.000	735.000	640.010	0.000	0.000	0.000	26.999	0.000	70.000
0.000	1530.000	642.180	2.170	0.000	0.000	26.999	-.000	70.000
0.000	2080.000	643.470	1.290	0.000	0.000	129.790	-102.791	70.000
0.000	3940.000	645.940	2.470	0.000	0.000	230.706	-203.707	70.000
1.000	735.000	640.011	0.000	.001	0.000	26.999	0.000	1.000
1.000	1530.000	642.182	2.171	.002	0.000	26.999	-.000	1.000
1.000	2080.000	643.449	1.267	-.021	0.000	129.175	-102.176	1.000
1.000	3940.000	645.882	2.433	-.058	0.000	226.015	-199.016	1.000
78.000	735.000	640.054	0.000	.043	0.000	26.999	0.000	77.000
78.000	1530.000	643.583	3.529	1.402	0.000	26.999	-.000	77.000
78.000	2080.000	646.120	2.537	2.671	0.000	245.363	-218.364	77.000
78.000	3940.000	647.351	1.231	1.468	0.000	549.245	-522.246	77.000
79.000	735.000	640.055	0.000	.001	0.000	26.999	0.000	1.000
79.000	1530.000	643.584	3.529	.001	0.000	26.999	-.000	1.000
79.000	2080.000	646.148	2.564	.028	0.000	247.662	-220.663	1.000
79.000	3940.000	647.441	1.293	.090	0.000	559.062	-532.063	1.000
1179.000	735.000	641.401	0.000	1.346	0.000	325.942	0.000	1100.000
1179.000	1530.000	644.657	3.257	1.073	0.000	340.917	-14.975	1100.000
1179.000	2080.000	646.471	1.813	.322	0.000	349.263	-23.321	1100.000
1179.000	3940.000	648.092	1.622	.652	0.000	437.830	-111.888	1100.000
2279.000	735.000	642.911	0.000	1.511	0.000	177.253	0.000	1100.000
2279.000	1530.000	645.030	2.119	.372	0.000	186.952	-9.698	1100.000
2279.000	2080.000	646.705	1.675	.234	0.000	194.618	-17.365	1100.000
2279.000	3940.000	648.463	1.759	.371	0.000	223.950	-46.697	1100.000
3104.000	735.000	644.134	0.000	1.223	0.000	56.299	0.000	825.000
3104.000	1530.000	645.765	1.631	.735	0.000	70.437	-14.139	825.000
3104.000	2080.000	647.104	1.339	.400	0.000	82.046	-25.747	825.000
3104.000	3940.000	648.911	1.806	.447	0.000	92.941	-36.642	825.000
3184.000	735.000	644.252	0.000	.118	0.000	41.999	0.000	80.000
3184.000	1530.000	645.936	1.684	.171	0.000	41.999	-.000	80.000
3184.000	2080.000	647.250	1.313	.145	0.000	41.999	-.000	80.000
3184.000	3940.000	649.074	1.824	.163	0.000	41.999	-.000	80.000
3199.000	735.000	644.253	0.000	.001	0.000	34.999	0.000	15.000
3199.000	1530.000	645.915	1.662	-.021	0.000	34.999	-.000	15.000
3199.000	2080.000	647.205	1.290	-.044	0.000	34.999	-.000	15.000
3199.000	3940.000	648.916	1.711	-.158	0.000	34.999	-.000	15.000
3204.000	735.000	643.660	0.000	-.593	0.000	21.260	0.000	5.000
3204.000	1530.000	645.649	1.989	-.266	0.000	28.154	-6.894	5.000
3204.000	2080.000	646.995	1.346	-.210	0.000	32.819	-11.559	5.000
3204.000	3940.000	650.760	3.765	1.843	0.000	45.874	-24.613	5.000

3205.000	735.000	645.331	0.000	1.671	0.000	33.999	0.000	1.000
3205.000	1530.000	648.866	3.534	3.217	0.000	33.999	-.000	1.000
3205.000	2080.000	650.711	1.845	3.716	0.000	33.999	-.000	1.000
3205.000	3940.000	655.200	4.489	4.441	0.000	33.999	-.000	1.000
3214.000	735.000	645.403	0.000	.072	0.000	51.999	0.000	9.000
3214.000	1530.000	649.029	3.626	.163	0.000	51.999	-.000	9.000
3214.000	2080.000	650.939	1.910	.228	0.000	51.999	-.000	9.000
3214.000	3940.000	655.671	4.732	.471	0.000	51.999	-.000	9.000
4139.000	735.000	646.338	0.000	.935	0.000	24.920	0.000	925.000
4139.000	1530.000	649.740	3.402	.711	0.000	258.016	-233.096	925.000
4139.000	2080.000	651.625	1.885	.686	0.000	270.742	-245.822	925.000
4139.000	3940.000	656.489	4.864	.818	0.000	350.056	-325.136	925.000
4140.000	735.000	646.343	0.000	.005	0.000	24.920	0.000	1.000
4140.000	1530.000	649.669	3.326	-.071	0.000	248.753	-223.833	1.000
4140.000	2080.000	651.568	1.899	-.058	0.000	270.581	-245.661	1.000
4140.000	3940.000	656.509	4.941	.019	0.000	350.270	-325.350	1.000
4211.000	735.000	646.535	0.000	.192	0.000	24.920	0.000	71.000
4211.000	1530.000	649.762	3.227	.093	0.000	261.699	-236.779	71.000
4211.000	2080.000	651.663	1.901	.095	0.000	270.846	-245.926	71.000
4211.000	3940.000	656.524	4.861	.015	0.000	350.682	-325.762	71.000
4212.000	735.000	646.538	0.000	.003	0.000	24.920	0.000	1.000
4212.000	1530.000	650.021	3.483	.259	0.000	266.287	-241.367	1.000
4212.000	2080.000	651.826	1.804	.163	0.000	271.299	-246.379	1.000
4212.000	3940.000	656.520	4.694	-.004	0.000	350.686	-325.766	1.000
4262.000	735.000	647.546	0.000	1.007	0.000	358.043	0.000	50.000
4262.000	1530.000	650.296	2.750	.275	0.000	369.981	-11.938	50.000
4262.000	2080.000	651.987	1.691	.161	0.000	379.921	-21.878	50.000
4262.000	3940.000	656.601	4.614	.081	0.000	399.998	-41.955	50.000
4687.000	735.000	647.594	0.000	.049	0.000	137.859	0.000	425.000
4687.000	1530.000	650.395	2.800	.099	0.000	377.940	-240.081	425.000
4687.000	2080.000	652.056	1.661	.069	0.000	400.280	-262.421	425.000
4687.000	3940.000	656.639	4.583	.038	0.000	418.796	-280.937	425.000
6247.000	735.000	653.008	0.000	5.414	0.000	464.630	0.000	1560.000
6247.000	1530.000	653.193	.185	2.799	0.000	468.553	-3.923	1560.000
6247.000	2080.000	653.618	.424	1.562	0.000	476.654	-12.023	1560.000
6247.000	3940.000	657.099	3.481	.460	0.000	514.391	-49.761	1560.000
7797.000	725.000	656.134	0.000	3.126	0.000	56.999	0.000	1550.000
7797.000	1505.000	657.078	.944	3.885	0.000	484.999	-428.000	1550.000
7797.000	2045.000	657.545	.467	3.927	0.000	484.999	-428.000	1550.000
7797.000	3870.000	658.558	1.014	1.459	0.000	484.999	-428.000	1550.000
7867.000	725.000	656.450	0.000	.316	0.000	21.999	0.000	70.000
7867.000	1505.000	657.216	.766	.138	0.000	449.999	-428.000	70.000
7867.000	2045.000	657.687	.471	.143	0.000	449.999	-428.000	70.000
7867.000	3870.000	658.749	1.062	.191	0.000	449.999	-428.000	70.000
7868.000	725.000	656.453	0.000	.003	0.000	21.999	0.000	1.000
7868.000	1505.000	657.215	.762	-.001	0.000	449.999	-428.000	1.000
7868.000	2045.000	657.686	.471	-.002	0.000	449.999	-428.000	1.000
7868.000	3870.000	658.746	1.061	-.003	0.000	449.999	-428.000	1.000
7903.000	725.000	656.370	0.000	-.083	0.000	22.000	0.000	35.000
7903.000	1505.000	659.621	3.251	2.406	0.000	422.967	-400.967	35.000
7903.000	2045.000	659.869	.248	2.184	0.000	455.985	-433.985	35.000
7903.000	3870.000	660.339	.469	1.592	0.000	508.377	-486.377	35.000

7904.000	1505.000	659.583	2.851	-.038	0.000	416.059	-394.059	1.000
7904.000	2045.000	659.804	.221	-.066	0.000	448.420	-426.420	1.000
7904.000	3870.000	660.104	.300	-.235	0.000	482.493	-460.493	1.000
8704.000	725.000	659.641	0.000	2.909	0.000	144.739	0.000	800.000
8704.000	1505.000	660.915	1.274	1.332	0.000	159.773	-15.034	800.000
8704.000	2045.000	661.640	.726	1.837	0.000	168.396	-23.657	800.000
8704.000	3870.000	663.762	2.122	3.658	0.000	211.667	-66.928	800.000
8774.000	725.000	659.892	0.000	.251	0.000	144.153	0.000	70.000
8774.000	1505.000	661.313	1.421	.398	0.000	161.017	-16.864	70.000
8774.000	2045.000	662.075	.762	.434	0.000	170.000	-25.847	70.000
8774.000	3870.000	664.213	2.138	.450	0.000	214.877	-70.724	70.000
8775.000	725.000	659.920	0.000	.028	0.000	144.489	0.000	1.000
8775.000	1505.000	661.377	1.457	.065	0.000	161.696	-17.207	1.000
8775.000	2045.000	662.153	.776	.078	0.000	170.859	-26.370	1.000
8775.000	3870.000	664.312	2.159	.099	0.000	216.919	-72.430	1.000
8802.000	725.000	661.922	0.000	2.001	0.000	91.272	0.000	27.000
8802.000	1505.000	663.457	1.535	2.079	0.000	185.327	-94.055	27.000
8802.000	2045.000	664.027	.571	1.874	0.000	199.940	-108.667	27.000
8802.000	3870.000	665.501	1.474	1.190	0.000	218.020	-126.748	27.000
8802.000	725.000	661.906	0.000	-.016	0.000	87.391	0.000	1.000
8802.000	1505.000	663.417	1.512	-.039	0.000	183.953	-96.562	1.000
8802.000	2045.000	663.970	.553	-.057	0.000	199.229	-111.838	1.000
8802.000	3870.000	665.396	1.426	-.105	0.000	216.687	-129.297	1.000
9503.000	725.000	663.050	0.000	1.144	0.000	45.734	0.000	700.000
9503.000	1505.000	664.938	1.888	1.521	0.000	309.040	-263.305	700.000
9503.000	2045.000	665.689	.751	1.718	0.000	323.229	-277.494	700.000
9503.000	3870.000	667.575	1.886	2.179	0.000	327.616	-281.882	700.000
9573.000	725.000	663.380	0.000	.330	0.000	51.646	0.000	70.000
9573.000	1505.000	665.353	1.973	.415	0.000	323.155	-271.509	70.000
9573.000	2045.000	666.033	.680	.344	0.000	324.731	-273.085	70.000
9573.000	3870.000	667.793	1.761	.218	0.000	328.837	-277.191	70.000
9574.000	.010	663.679	0.000	.299	0.000	.005	0.000	1.000
9574.000	645.000	667.048	3.369	1.695	0.000	176.139	-176.135	1.000
9574.000	1180.000	667.412	.364	1.379	0.000	203.870	-203.865	1.000
9574.000	3050.000	668.290	.877	.496	0.000	265.290	-265.286	1.000
9684.000	.010	663.679	0.000	-.000	0.000	.006	0.000	110.000
9684.000	645.000	667.844	4.165	.796	0.000	282.099	-282.093	110.000
9684.000	1180.000	668.386	.542	.974	0.000	282.099	-282.093	110.000
9684.000	3050.000	669.610	1.224	1.320	0.000	282.099	-282.093	110.000
9794.000	.010	663.679	0.000	.000	0.000	.005	0.000	110.000
9794.000	645.000	668.708	5.029	.864	0.000	165.463	-165.458	110.000
9794.000	1180.000	669.113	.405	.727	0.000	236.384	-236.378	110.000
9794.000	3050.000	669.857	.743	.247	0.000	319.108	-319.103	110.000
9924.000	.010	663.679	0.000	-.000	0.000	.006	0.000	130.000
9924.000	645.000	669.360	5.681	.652	0.000	272.153	-272.147	130.000
9924.000	1180.000	669.905	.545	.792	0.000	293.671	-293.665	130.000
9924.000	3050.000	671.096	1.191	1.239	0.000	339.595	-339.589	130.000
9925.000	725.000	666.050	0.000	2.371	0.000	21.021	0.000	1.000
9925.000	1505.000	669.252	3.202	-.108	0.000	267.546	-246.525	1.000
9925.000	2045.000	669.783	.531	-.122	0.000	288.570	-267.549	1.000
9925.000	3870.000	670.933	1.150	-.164	0.000	334.064	-313.043	1.000
10075.000	725.000	666.534	0.000	.484	0.000	198.068	0.000	150.000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10075.000	2045.000	670.195	.604	.412	0.000	395.232	-197.165	150.000
10075.000	3870.000	671.572	1.377	.639	0.000	412.167	-214.099	150.000
10475.000	710.000	666.842	0.000	.308	0.000	91.715	0.000	400.000
10475.000	1480.000	669.712	2.870	.121	0.000	142.662	-50.948	400.000
10475.000	2010.000	670.342	.630	.147	0.000	150.834	-59.119	400.000
10475.000	3800.000	671.787	1.445	.215	0.000	169.585	-77.871	400.000
10476.000	710.000	666.822	0.000	-.020	0.000	91.089	0.000	1.000
10476.000	1480.000	669.790	2.968	.078	0.000	143.668	-52.579	1.000
10476.000	2010.000	670.454	.664	.112	0.000	152.285	-61.195	1.000
10476.000	3800.000	672.015	1.561	.228	0.000	172.537	-81.448	1.000
10487.000	710.000	666.852	0.000	.031	0.000	91.830	0.000	11.000
10487.000	1480.000	669.810	2.957	.020	0.000	143.898	-52.068	11.000
10487.000	2010.000	670.478	.669	.024	0.000	152.572	-60.742	11.000
10487.000	3800.000	672.052	1.574	.038	0.000	173.003	-81.173	11.000
10488.000	710.000	666.921	0.000	.068	0.000	94.174	0.000	1.000
10488.000	1480.000	669.786	2.865	-.024	0.000	143.619	-49.445	1.000
10488.000	2010.000	670.445	.659	-.034	0.000	152.158	-57.984	1.000
10488.000	3800.000	671.988	1.544	-.064	0.000	172.176	-78.002	1.000
10938.000	710.000	667.685	0.000	.765	0.000	40.420	0.000	450.000
10938.000	1480.000	670.395	2.710	.609	0.000	40.420	0.000	450.000
10938.000	2010.000	671.222	.827	.777	0.000	40.420	0.000	450.000
10938.000	3800.000	673.094	1.872	1.105	0.000	81.220	-40.800	450.000
11073.000	710.000	667.795	0.000	.110	0.000	40.420	0.000	135.000
11073.000	1480.000	672.244	4.449	1.849	0.000	40.420	0.000	135.000
11073.000	2010.000	674.792	2.549	3.571	0.000	40.420	0.000	135.000
11073.000	3800.000	685.359	10.566	12.265	0.000	367.772	-327.352	135.000
11123.000	710.000	668.318	0.000	.523	0.000	111.319	0.000	50.000
11123.000	1480.000	672.483	4.165	.239	0.000	132.564	-21.245	50.000
11123.000	2010.000	675.073	2.590	.281	0.000	139.999	-28.680	50.000
11123.000	3800.000	685.484	10.411	.126	0.000	139.999	-28.680	50.000
11548.000	710.000	668.538	0.000	.220	0.000	305.614	0.000	425.000
11548.000	1480.000	672.593	4.055	.111	0.000	555.788	-250.174	425.000
11548.000	2010.000	675.166	2.573	.093	0.000	567.849	-262.235	425.000
11548.000	3800.000	685.543	10.378	.059	0.000	705.060	-399.445	425.000
12448.000	710.000	669.949	0.000	1.411	0.000	31.164	0.000	900.000
12448.000	1480.000	672.443	2.494	-.151	0.000	141.260	-110.095	900.000
12448.000	2010.000	675.158	2.715	-.008	0.000	302.459	-271.295	900.000
12448.000	3800.000	685.554	10.395	.010	0.000	517.001	-485.836	900.000
12449.000	710.000	669.735	0.000	-.214	0.000	14.300	0.000	1.000
12449.000	1480.000	671.143	1.408	-1.300	0.000	14.300	0.000	1.000
12449.000	2010.000	675.354	4.211	.196	0.000	310.775	-296.475	1.000
12449.000	3800.000	685.557	10.204	.004	0.000	517.001	-502.701	1.000
12481.000	710.000	670.291	0.000	.556	0.000	14.300	0.000	32.000
12481.000	1480.000	675.678	5.387	4.535	0.000	324.414	-310.114	32.000
12481.000	2010.000	675.436	-.242	.082	0.000	313.839	-299.539	32.000
12481.000	3800.000	685.558	10.122	.001	0.000	517.001	-502.701	32.000
12482.000	710.000	670.694	0.000	.403	0.000	14.300	0.000	1.000
12482.000	1480.000	673.340	2.646	-2.338	0.000	216.446	-202.146	1.000
12482.000	2010.000	675.403	2.063	-.033	0.000	312.791	-298.491	1.000
12482.000	3800.000	685.558	10.156	.000	0.000	517.001	-502.701	1.000
12532.000	710.000	671.360	0.000	.666	0.000	113.999	0.000	50.000
12532.000	1480.000	674.322	2.962	.982	0.000	357.284	-243.285	50.000

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12532.000	3800.000	685.561	9.943	.003	0.000	379.999	-266.000	50.000
13302.000	710.000	672.825	0.000	1.465	0.000	148.448	0.000	770.000
13302.000	1480.000	674.646	1.821	.324	0.000	293.267	-144.819	770.000
13302.000	2010.000	675.900	1.255	.282	0.000	321.668	-173.220	770.000
13302.000	3800.000	685.593	9.693	.032	0.000	349.998	-201.550	770.000
13727.000	710.000	674.764	0.000	1.939	0.000	152.667	0.000	425.000
13727.000	1480.000	676.038	1.275	1.392	0.000	276.888	-124.221	425.000
13727.000	2010.000	676.821	.783	.920	0.000	299.521	-146.853	425.000
13727.000	3800.000	685.634	8.813	.040	0.000	349.998	-197.331	425.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	1.000	349.999	47.012	0.000
2	1.000	349.999	82.138	35.127
3	1.000	349.999	89.310	42.298
4	1.000	349.999	104.478	57.466

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
[illegible].00	0.00	0.00	0.00	626.80	2080.00	635.00	.41	0.00	0.00	1480.14	8.20	225.83
[illegible].00	0.00	0.00	0.00	626.80	2080.00	635.50	.29	0.00	0.00	1375.22	8.70	232.50
[illegible].00	0.00	0.00	0.00	626.80	2080.00	636.00	.20	0.00	0.00	1288.02	9.20	239.17
[illegible].00	0.00	0.00	0.00	626.80	2080.00	636.50	.15	0.00	0.00	1215.02	9.70	245.83
[illegible].00	0.00	0.00	0.00	626.80	2080.00	637.00	.12	0.00	0.00	1153.25	10.20	252.50
[illegible].00	0.00	0.00	0.00	626.80	2080.00	637.50	.09	0.00	0.00	1099.93	10.70	259.08
[illegible].00	0.00	0.00	0.00	626.80	2080.00	638.00	.07	0.00	0.00	1053.83	11.20	265.67
35.00	0.00	0.00	0.00	626.80	2080.00	638.50	.06	0.00	0.00	1013.55	11.70	272.25
35.00	0.00	0.00	0.00	626.80	2080.00	639.00	.05	0.00	0.00	978.02	12.20	278.83
35.00	0.00	0.00	0.00	626.80	2080.00	639.50	.04	0.00	0.00	946.41	12.70	285.42
35.00	0.00	0.00	0.00	626.80	2080.00	640.00	.03	0.00	0.00	918.05	13.20	292.00
36.00	1400.00	0.00	0.00	626.20	2080.00	637.61	.06	2.14	.11	612.52	11.41	304.78
36.00	1400.00	0.00	0.00	626.20	2080.00	637.63	.06	1.83	.07	610.80	11.43	305.09
36.00	1400.00	0.00	0.00	626.20	2080.00	637.72	.05	1.52	.05	604.98	11.52	306.17
36.00	1400.00	0.00	0.00	626.20	2080.00	637.87	.05	1.24	.03	595.37	11.67	308.03
36.00	1400.00	0.00	0.00	626.20	2080.00	638.09	.04	.99	.02	582.44	11.89	310.69
36.00	1400.00	0.00	0.00	626.20	2080.00	638.36	.04	.79	.02	567.49	12.16	314.03
36.00	1400.00	0.00	0.00	626.20	2080.00	638.67	.03	.62	.01	551.12	12.47	319.16
36.00	1400.00	0.00	0.00	626.20	2080.00	639.03	.03	.50	.01	535.10	12.83	325.68
36.00	1400.00	0.00	0.00	626.20	2080.00	639.43	.03	.40	.01	518.72	13.23	333.06
36.00	1400.00	0.00	0.00	626.20	2080.00	639.84	.02	.32	.01	503.12	13.64	340.86
36.00	1400.00	0.00	0.00	626.20	2080.00	640.28	.02	.26	.00	488.12	14.08	344.00
36.30	605.00	0.00	0.00	627.20	2080.00	638.08	.05	.48	.00	686.92	10.88	323.63
36.30	605.00	0.00	0.00	627.20	2080.00	638.10	.05	.47	.00	685.90	10.90	323.83
36.30	605.00	0.00	0.00	627.20	2080.00	638.17	.05	.45	.00	680.69	10.97	324.91
36.30	605.00	0.00	0.00	627.20	2080.00	638.28	.05	.41	.00	672.09	11.08	326.74
36.30	605.00	0.00	0.00	627.20	2080.00	638.45	.05	.37	.00	660.40	11.25	329.48
36.30	605.00	0.00	0.00	627.20	2080.00	638.67	.04	.32	.00	645.82	11.47	333.56
36.30	605.00	0.00	0.00	627.20	2080.00	638.94	.04	.27	.00	629.38	11.74	338.88
36.30	605.00	0.00	0.00	627.20	2080.00	639.26	.03	.23	.00	611.54	12.06	347.44
36.30	605.00	0.00	0.00	627.20	2080.00	639.61	.03	.19	.00	592.95	12.41	356.95
36.30	605.00	0.00	0.00	627.20	2080.00	639.99	.02	.15	.00	574.84	12.79	365.89
36.30	605.00	0.00	0.00	627.20	2080.00	640.40	.02	.13	.00	557.45	13.20	369.39

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
36.60	605.00	0.00	0.00	628.20	2080.00	638.49	.05	.40	.00	749.28	10.29	341.44
36.60	605.00	0.00	0.00	628.20	2080.00	638.50	.05	.40	.00	748.14	10.30	341.72
36.60	605.00	0.00	0.00	628.20	2080.00	638.55	.05	.38	.00	744.01	10.35	342.75
36.60	605.00	0.00	0.00	628.20	2080.00	638.64	.05	.36	.00	736.70	10.44	344.63
36.60	605.00	0.00	0.00	628.20	2080.00	638.78	.05	.33	.00	726.30	10.58	347.44
36.60	605.00	0.00	0.00	628.20	2080.00	638.96	.04	.29	.00	712.89	10.76	351.22
36.60	605.00	0.00	0.00	628.20	2080.00	639.19	.04	.25	.00	697.02	10.99	356.69
36.60	605.00	0.00	0.00	628.20	2080.00	639.47	.03	.22	.00	678.57	11.27	364.78
36.60	605.00	0.00	0.00	628.20	2080.00	639.79	.03	.18	.00	660.19	11.59	372.14
36.60	605.00	0.00	0.00	628.20	2080.00	640.14	.03	.15	.00	640.29	11.94	377.94
36.60	605.00	0.00	0.00	628.20	2080.00	640.52	.02	.12	.00	621.19	12.32	379.93
37.00	605.00	0.00	0.00	629.30	2080.00	638.86	.06	.37	.00	825.72	9.56	357.37
37.00	605.00	0.00	0.00	629.30	2080.00	638.87	.06	.37	.00	824.77	9.57	357.74
37.00	605.00	0.00	0.00	629.30	2080.00	638.91	.05	.36	.00	821.28	9.61	359.09
37.00	605.00	0.00	0.00	629.30	2080.00	638.99	.05	.34	.00	815.00	9.69	361.55
37.00	605.00	0.00	0.00	629.30	2080.00	639.10	.05	.32	.00	805.85	9.80	365.24
37.00	605.00	0.00	0.00	629.30	2080.00	639.25	.05	.29	.00	793.21	9.95	370.51
37.00	605.00	0.00	0.00	629.30	2080.00	639.45	.04	.26	.00	778.26	10.15	377.04
37.00	605.00	0.00	0.00	629.30	2080.00	639.69	.04	.22	.00	760.95	10.39	385.02
37.00	605.00	0.00	0.00	629.30	2080.00	639.98	.03	.19	.00	742.27	10.68	394.18
37.00	605.00	0.00	0.00	629.30	2080.00	640.30	.03	.16	.00	719.31	11.00	396.52
37.00	605.00	0.00	0.00	629.30	2080.00	640.65	.02	.13	.00	696.77	11.35	398.28
37.30	680.00	0.00	0.00	630.20	2080.00	639.49	.21	.71	.08	1251.62	9.29	254.88
37.30	680.00	0.00	0.00	630.20	2080.00	639.50	.21	.70	.08	1250.50	9.30	255.13
37.30	680.00	0.00	0.00	630.20	2080.00	639.53	.20	.69	.07	1246.33	9.33	256.07
37.30	680.00	0.00	0.00	630.20	2080.00	639.58	.20	.66	.07	1238.64	9.38	257.81
37.30	680.00	0.00	0.00	630.20	2080.00	639.65	.19	.62	.07	1226.97	9.45	260.48
37.30	680.00	0.00	0.00	630.20	2080.00	639.76	.18	.57	.07	1210.95	9.56	264.24
37.30	680.00	0.00	0.00	630.20	2080.00	639.90	.16	.52	.06	1189.69	9.70	269.34
37.30	680.00	0.00	0.00	630.20	2080.00	640.09	.15	.45	.05	1163.22	9.89	275.94
37.30	680.00	0.00	0.00	630.20	2080.00	640.32	.13	.39	.05	1132.15	10.12	284.00
37.30	680.00	0.00	0.00	630.20	2080.00	640.59	.11	.33	.04	1097.99	10.39	291.94
37.30	680.00	0.00	0.00	630.20	2080.00	640.90	.10	.28	.04	1060.92	10.70	301.15

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
37.60	680.00	0.00	0.00	631.20	2080.00	641.03	.39	1.63	.09	1590.62	9.83	173.63
37.60	680.00	0.00	0.00	631.20	2080.00	641.03	.39	1.62	.09	1590.37	9.83	173.72
37.60	680.00	0.00	0.00	631.20	2080.00	641.04	.39	1.60	.09	1589.42	9.84	174.06
37.60	680.00	0.00	0.00	631.20	2080.00	641.05	.39	1.57	.10	1587.58	9.85	174.72
37.60	680.00	0.00	0.00	631.20	2080.00	641.07	.39	1.52	.10	1584.58	9.87	175.80
37.60	680.00	0.00	0.00	631.20	2080.00	641.10	.38	1.45	.10	1579.98	9.90	177.38
37.60	680.00	0.00	0.00	631.20	2080.00	641.15	.37	1.35	.10	1573.05	9.95	179.13
37.60	680.00	0.00	0.00	631.20	2080.00	641.23	.36	1.24	.11	1562.94	10.03	181.68
37.60	680.00	0.00	0.00	631.20	2080.00	641.33	.34	1.11	.11	1548.90	10.13	185.22
37.60	680.00	0.00	0.00	631.20	2080.00	641.47	.32	.98	.10	1530.41	10.27	190.84
37.60	680.00	0.00	0.00	631.20	2080.00	641.64	.29	.85	.10	1506.29	10.44	198.82
38.00	735.00	0.00	0.00	632.20	2080.00	643.11	.44	2.10	.02	1732.29	10.91	124.68
38.00	735.00	0.00	0.00	632.20	2080.00	643.11	.44	2.10	.02	1732.26	10.91	124.69
38.00	735.00	0.00	0.00	632.20	2080.00	643.11	.44	2.09	.02	1732.14	10.91	124.73
38.00	735.00	0.00	0.00	632.20	2080.00	643.11	.44	2.09	.02	1731.90	10.91	124.82
38.00	735.00	0.00	0.00	632.20	2080.00	643.12	.44	2.07	.02	1731.51	10.92	124.96
38.00	735.00	0.00	0.00	632.20	2080.00	643.12	.43	2.05	.03	1730.88	10.92	125.18
38.00	735.00	0.00	0.00	632.20	2080.00	643.13	.43	2.01	.03	1729.89	10.93	125.53
38.00	735.00	0.00	0.00	632.20	2080.00	643.15	.43	1.96	.04	1728.33	10.95	126.08
38.00	735.00	0.00	0.00	632.20	2080.00	643.18	.43	1.89	.04	1725.95	10.98	126.91
38.00	735.00	0.00	0.00	632.20	2080.00	643.21	.42	1.80	.05	1722.49	11.01	128.12
38.00	735.00	0.00	0.00	632.20	2080.00	643.27	.41	1.68	.06	1717.41	11.07	129.89
1.10	70.00	0.00	0.00	633.00	2080.00	643.46	.28	.15	.05	1373.80	10.46	129.61
1.10	70.00	0.00	0.00	633.00	2080.00	643.46	.28	.15	.05	1373.78	10.46	129.62
1.10	70.00	0.00	0.00	633.00	2080.00	643.47 use	.28	.15	.05	1373.71	10.47	129.65
1.10	70.00	0.00	0.00	633.00	2080.00	643.47 643.47	.28	.15	.05	1373.58	10.47	129.72
1.10	70.00	0.00	0.00	633.00	2080.00	643.47	.28	.15	.05	1373.35	10.47	129.82
1.10	70.00	0.00	0.00	633.00	2080.00	643.48	.28	.15	.05	1372.99	10.48	130.00
1.10	70.00	0.00	0.00	633.00	2080.00	643.49	.28	.15	.05	1372.43	10.49	130.27
1.10	70.00	0.00	0.00	633.00	2080.00	643.50	.27	.15	.05	1371.56	10.50	130.68
1.10	70.00	0.00	0.00	633.00	2080.00	643.52	.27	.15	.05	1370.25	10.52	131.31
1.10	70.00	0.00	0.00	633.00	2080.00	643.55	.27	.14	.04	1368.36	10.55	132.22
1.10	70.00	0.00	0.00	633.00	2080.00	643.60	.27	.14	.04	1365.58	10.60	133.54

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	HV	HL	OLOSS	QCH	DEPTH	TOPWID
1.20	1.00	0.00	0.00	633.00	2080.00	643.41	.38	.00	.05	1542.85	10.41	128.11
1.20	1.00	0.00	0.00	633.00	2080.00	643.41	.38	.00	.05	1542.84	10.41	128.12
1.20	1.00	0.00	0.00	633.00	2080.00	643.41	.38	.00	.05	1542.78	10.41	128.15
1.20	1.00	0.00	0.00	633.00	2080.00	643.42	.38	.00	.05	1542.66	10.42	128.22
1.20	1.00	0.00	0.00	633.00	2080.00	643.42	.38	.00	.05	1542.46	10.42	128.33
1.20	1.00	0.00	0.00	633.00	2080.00	643.43	.38	.00	.05	1542.16	10.43	128.50
1.20	1.00	0.00	0.00	633.00	2080.00	643.44	.38	.00	.05	1541.67	10.44	128.78
1.20	1.00	0.00	0.00	633.00	2080.00	643.45	.38	.00	.05	1540.92	10.45	129.20
1.20	1.00	0.00	0.00	633.00	2080.00	643.47	.37	.00	.05	1539.79	10.47	129.83
1.20	1.00	0.00	0.00	633.00	2080.00	643.50	.37	.00	.05	1538.15	10.50	130.75
1.20	1.00	0.00	0.00	633.00	2080.00	643.55	.36	.00	.05	1535.74	10.55	132.09
1.30	77.00	645.40	641.80	633.00	2080.00	646.06	.15	2.42	0.00	1335.16	13.06	240.59
1.30	77.00	645.40	641.80	633.00	2080.00	646.06	.15	2.42	0.00	1335.15	13.06	240.60
1.30	77.00	645.40	641.80	633.00	2080.00	646.06	.15	2.42	0.00	1335.12	13.06	240.64
1.30	77.00	645.40	641.80	633.00	2080.00	646.06	.15	2.42	0.00	1335.06	13.06	240.71
1.30	77.00	645.40	641.80	633.00	2080.00	646.06	.15	2.42	0.00	1334.97	13.06	240.83
1.30	77.00	645.40	641.80	633.00	2080.00	646.07	.15	2.41	0.00	1334.82	13.07	241.01
1.30	77.00	645.40	641.80	633.00	2080.00	646.07	.15	2.41	0.00	1334.59	13.07	241.30
1.30	77.00	645.40	641.80	633.00	2080.00	646.08	.15	2.40	0.00	1334.23	13.08	241.75
1.30	77.00	645.40	641.80	633.00	2080.00	646.08	.15	2.39	0.00	1333.69	13.08	242.42
1.30	77.00	645.40	641.80	633.00	2080.00	646.10	.15	2.37	0.00	1332.92	13.10	243.39
1.30	77.00	645.40	641.80	633.00	2080.00	646.11	.15	2.35	0.00	1331.79	13.11	244.79
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.78	13.10	243.70
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.77	13.10	243.71
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.74	13.10	243.75
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.68	13.10	243.82
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.58	13.10	243.93
1.40	1.00	0.00	0.00	633.00	2080.00	646.10	.12	.00	.01	1236.43	13.10	244.12
1.40	1.00	0.00	0.00	633.00	2080.00	646.11	.12	.00	.01	1236.19	13.11	244.41
1.40	1.00	0.00	0.00	633.00	2080.00	646.11	.12	.00	.01	1235.81	13.11	244.85
1.40	1.00	0.00	0.00	633.00	2080.00	646.12	.12	.00	.01	1235.25	13.12	245.52
1.40	1.00	0.00	0.00	633.00	2080.00	646.13	.12	.00	.01	1234.45	13.13	246.48
1.40	1.00	0.00	0.00	633.00	2080.00	646.15	.12	.00	.01	1233.28	13.15	247.87

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
35.000	2080.000	635.000	0.000	0.000	0.000	225.833	0.000	0.000
35.000	2080.000	635.500	.500	0.000	0.000	232.500	-6.667	0.000
35.000	2080.000	636.000	.500	0.000	0.000	239.167	-13.333	0.000
35.000	2080.000	636.500	.500	0.000	0.000	245.833	-20.000	0.000
35.000	2080.000	637.000	.500	0.000	0.000	252.500	-26.667	0.000
35.000	2080.000	637.500	.500	0.000	0.000	259.083	-33.250	0.000
35.000	2080.000	638.000	.500	0.000	0.000	265.667	-39.833	0.000
35.000	2080.000	638.500	.500	0.000	0.000	272.250	-46.417	0.000
35.000	2080.000	639.000	.500	0.000	0.000	278.833	-53.000	0.000
35.000	2080.000	639.500	.500	0.000	0.000	285.417	-59.583	0.000
35.000	2080.000	640.000	.500	0.000	0.000	292.000	-66.167	0.000
36.000	2080.000	637.605	0.000	2.605	0.000	304.778	0.000	1400.000
36.000	2080.000	637.629	.024	2.129	0.000	305.089	-.311	1400.000
36.000	2080.000	637.719	.090	1.719	0.000	306.169	-1.390	1400.000
36.000	2080.000	637.872	.153	1.372	0.000	308.027	-3.249	1400.000
36.000	2080.000	638.085	.213	1.085	0.000	310.691	-5.913	1400.000
36.000	2080.000	638.355	.270	.855	0.000	314.031	-9.253	1400.000
36.000	2080.000	638.674	.318	.674	0.000	319.164	-14.386	1400.000
36.000	2080.000	639.034	.361	.534	0.000	325.681	-20.903	1400.000
36.000	2080.000	639.425	.391	.425	0.000	333.062	-28.284	1400.000
36.000	2080.000	639.841	.416	.341	0.000	340.862	-36.084	1400.000
36.000	2080.000	640.275	.435	.275	0.000	[illegible]	[illegible]	[illegible]

36.300	2080.000	638.083	0.000	.478	0.000	323.626	0.000	605.000
36.300	2080.000	638.100	.017	.472	0.000	323.832	-.206	605.000
36.300	2080.000	638.167	.066	.448	0.000	324.908	-1.282	605.000
36.300	2080.000	638.284	.117	.412	0.000	326.737	-3.111	605.000
36.300	2080.000	638.452	.168	.367	0.000	329.485	-5.859	605.000
36.300	2080.000	638.672	.221	.317	0.000	333.563	-9.937	605.000
36.300	2080.000	638.942	.269	.268	0.000	338.879	-15.253	605.000
36.300	2080.000	639.258	.317	.224	0.000	347.438	-23.812	605.000
36.300	2080.000	639.609	.351	.184	0.000	356.946	-33.320	605.000
36.300	2080.000	639.992	.383	.151	0.000	365.892	-42.266	605.000
36.300	2080.000	640.400	.407	.124	0.000	369.391	-45.766	605.000
36.600	2080.000	638.487	0.000	.404	0.000	341.444	0.000	605.000
36.600	2080.000	638.501	.014	.400	0.000	341.724	-.280	605.000
36.600	2080.000	638.552	.051	.385	0.000	342.753	-1.309	605.000
36.600	2080.000	638.645	.093	.361	0.000	344.634	-3.189	605.000
36.600	2080.000	638.781	.136	.329	0.000	347.437	-5.993	605.000
36.600	2080.000	638.964	.183	.292	0.000	351.224	-9.779	605.000
36.600	2080.000	639.195	.230	.253	0.000	356.692	-15.248	605.000
36.600	2080.000	639.473	.278	.214	0.000	364.782	-23.337	605.000
36.600	2080.000	639.789	.316	.180	0.000	372.136	-30.692	605.000
36.600	2080.000	640.141	.352	.149	0.000	377.940	-36.495	605.000
36.600	2080.000	640.523	.382	.123	0.000	379.930	-38.486	605.000
37.000	2080.000	638.860	0.000	.373	0.000	357.373	0.000	605.000
37.000	2080.000	638.871	.011	.370	0.000	357.738	-.365	605.000
37.000	2080.000	638.912	.041	.360	0.000	359.089	-1.716	605.000
37.000	2080.000	638.987	.075	.342	0.000	361.555	-4.182	605.000
37.000	2080.000	639.098	.112	.317	0.000	365.243	-7.869	605.000
37.000	2080.000	639.251	.153	.287	0.000	370.514	-13.141	605.000
37.000	2080.000	639.449	.197	.254	0.000	377.044	-19.670	605.000
37.000	2080.000	639.692	.243	.219	0.000	385.019	-27.645	605.000
37.000	2080.000	639.977	.285	.188	0.000	394.177	-36.804	605.000
37.000	2080.000	640.298	.321	.157	0.000	396.522	-39.149	605.000
37.000	2080.000	640.654	.356	.131	0.000	398.282	-40.909	605.000
37.300	2080.000	639.492	0.000	.632	0.000	254.877	0.000	680.000
37.300	2080.000	639.499	.007	.629	0.000	255.128	-.251	680.000
37.300	2080.000	639.526	.027	.614	0.000	256.065	-1.188	680.000
37.300	2080.000	639.576	.050	.589	0.000	257.807	-2.930	680.000
37.300	2080.000	639.652	.076	.554	0.000	260.484	-5.607	680.000
37.300	2080.000	639.759	.107	.508	0.000	264.235	-9.358	680.000
37.300	2080.000	639.905	.146	.456	0.000	269.343	-14.466	680.000
37.300	2080.000	640.092	.188	.400	0.000	275.936	-21.059	680.000
37.300	2080.000	640.322	.230	.345	0.000	284.005	-29.128	680.000
37.300	2080.000	640.589	.266	.291	0.000	291.938	-37.061	680.000
37.300	2080.000	640.896	.308	.242	0.000	301.151	-46.274	680.000
37.600	2080.000	641.027	0.000	1.535	0.000	173.630	0.000	680.000
37.600	2080.000	641.029	.002	1.530	0.000	173.721	-.090	680.000
37.600	2080.000	641.036	.007	1.510	0.000	174.062	-.432	680.000
37.600	2080.000	641.049	.013	1.474	0.000	174.724	-1.093	680.000
37.600	2080.000	641.071	.022	1.419	0.000	175.804	-2.174	680.000
37.600	2080.000	641.104	.033	1.345	0.000	177.381	-3.750	680.000
37.600	2080.000	641.155	.050	1.250	0.000	179.130	-5.500	680.000
37.600	2080.000	641.228	.073	1.136	0.000	181.678	-8.047	680.000
37.600	2080.000	641.331	.103	1.008	0.000	185.225	-11.595	680.000
37.600	2080.000	641.466	.135	.877	0.000	190.844	-17.214	680.000
37.600	2080.000	641.643	.177	.747	0.000	198.818	-25.188	680.000
38.000	2080.000	643.107	0.000	2.080	0.000	124.681	0.000	735.000
38.000	2080.000	643.108	.000	2.079	0.000	124.692	-.011	735.000
38.000	2080.000	643.109	.001	2.073	0.000	124.734	-.054	735.000
38.000	2080.000	643.112	.003	2.062	0.000	124.818	-.137	735.000
38.000	2080.000	643.116	.00[illegible]	2.0[illegible]5	0.000	124.958	-.278	735.000

38.000	2080.000	643.123	.007	2.019	0.000	125.180	-.499	735.000
38.000	2080.000	643.134	.011	1.980	0.000	125.532	-.851	735.000
38.000	2080.000	643.151	.017	1.923	0.000	126.081	-1.401	735.000
38.000	2080.000	643.177	.026	1.846	0.000	126.913	-2.232	735.000
38.000	2080.000	643.214	.037	1.748	0.000	128.122	-3.442	735.000
38.000	2080.000	643.268	.054	1.625	0.000	129.886	-5.205	735.000
1.100	2080.000	643.464	0.000	.356	0.000	129.608	0.000	70.000
1.100	2080.000	643.464	.000	.356	0.000	129.617	-.009	70.000
1.100	2080.000	643.465	.001	.356	0.000	129.650	-.042	70.000
1.100	2080.000	643.467	.002	.356	0.000	129.716	-.107	70.000
1.100	2080.000	643.471	.004	.355	0.000	129.825	-.216	70.000
1.100	2080.000	643.477	.006	.354	0.000	129.996	-.387	70.000
1.100	2080.000	643.486	.009	.352	0.000	130.266	-.657	70.000
1.100	2080.000	643.500	.014	.349	0.000	130.683	-1.075	70.000
1.100	2080.000	643.521	.021	.344	0.000	131.309	-1.701	70.000
1.100	2080.000	643.552	.031	.338	0.000	132.218	-2.609	70.000
1.100	2080.000	643.597	.045	.329	0.000	133.544	-3.935	70.000
1.200	2080.000	643.413	0.000	-.051	0.000	128.110	0.000	1.000
1.200	2080.000	643.413	.000	-.051	0.000	128.119	-.009	1.000
1.200	2080.000	643.415	.001	-.051	0.000	128.153	-.043	1.000
1.200	2080.000	643.417	.002	-.050	0.000	128.219	-.109	1.000
1.200	2080.000	643.421	.004	-.050	0.000	128.329	-.219	1.000
1.200	2080.000	643.426	.006	-.050	0.000	128.502	-.392	1.000
1.200	2080.000	643.436	.009	-.050	0.000	128.775	-.665	1.000
1.200	2080.000	643.450	.014	-.050	0.000	129.197	-1.087	1.000
1.200	2080.000	643.471	.021	-.050	0.000	129.831	-1.720	1.000
1.200	2080.000	643.502	.031	-.050	0.000	130.749	-2.639	1.000
1.200	2080.000	643.548	.045	-.049	0.000	132.091	-3.980	1.000
1.300	2080.000	646.061	0.000	2.648	0.000	240.591	0.000	77.000
1.300	2080.000	646.062	.000	2.648	0.000	240.601	-.009	77.000
1.300	2080.000	646.062	.000	2.647	0.000	240.637	-.046	77.000
1.300	2080.000	646.063	.001	2.646	0.000	240.708	-.116	77.000
1.300	2080.000	646.064	.001	2.644	0.000	240.826	-.235	77.000
1.300	2080.000	646.067	.002	2.640	0.000	241.011	-.419	77.000
1.300	2080.000	646.070	.004	2.635	0.000	241.303	-.711	77.000
1.300	2080.000	646.076	.006	2.626	0.000	241.752	-1.161	77.000
1.300	2080.000	646.084	.008	2.613	0.000	242.424	-1.832	77.000
1.300	2080.000	646.096	.012	2.593	0.000	243.392	-2.800	77.000
1.300	2080.000	646.113	.017	2.565	0.000	244.793	-4.201	77.000
1.400	2080.000	646.100	0.000	.038	0.000	243.702	0.000	1.000
1.400	2080.000	646.100	.000	.038	0.000	243.711	-.009	1.000
1.400	2080.000	646.100	.000	.038	0.000	243.747	-.045	1.000
1.400	2080.000	646.101	.001	.038	0.000	243.817	-.115	1.000
1.400	2080.000	646.103	.001	.038	0.000	243.934	-.232	1.000
1.400	2080.000	646.105	.002	.038	0.000	244.117	-.416	1.000
1.400	2080.000	646.108	.004	.038	0.000	244.407	-.705	1.000
1.400	2080.000	646.114	.005	.038	0.000	244.852	-1.150	1.000
1.400	2080.000	646.122	.008	.038	0.000	245.517	-1.816	1.000
1.400	2080.000	646.134	.012	.038	0.000	246.477	-2.775	1.000
1.400	2080.000	646.151	.017	.038	0.000	247.865	-4.163	1.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	30.789	0.000
2	0.000	0.000	30.883	.094
3	0.000	0.000	31.043	.255
4	0.000	0.000	31.274	.485
5	0.000	0.000	31.585	.796
6	0.000	0.000	31.989	1.200
7	0.000	0.000	32.508	1.720

8	0.000	0.000	33.191	2.402
9	0.000	0.000	33.954	3.165
10	0.000	0.000	34.629	3.840
11	0.000	0.000	35.156	4.367

00BREAK00

1) COUNTY: OAKLAND

2) STUDY NAME: FARMINGTON, CITY OF

3) WATERCOURSE: UPPER RIVER ROUGE

4) DOCUMENT TYPE: HYDRAULIC ANALYSIS

00BREAK00

JOHNSON & ANDERSON, INC.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway
Pontiac, Michigan 48056
Phone (313) 334-9901

LETTER OF TRANSMITTAL

Date 3/16/79	Job No. 5670-03-1
Re: CITY OF FARMINGTON HILLS	
FLOOD INSURANCE STUDY	

GREENHORNE & OMARA, INC.
6715 KENILWORTH AVE
RIVERDALE, MD 20840

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover

☐ Shop drawing ☐ Prints ☐ Plans ☐ Specifications

☐ Copy of letter ☐ Change Order ☐ Samples ☐ _____

Copies	Date	No.	Description
1			REVISIONS AS A RESULT OF FINAL
			COMMUNITY MEETING & COORDINATION
			WITH U.S CORPS OF ENGINEERS,
			DETROIT DISTRICT TO FARMINGTON
			HILLS FLOOD INSURANCE STUDY

These are transmitted as checked below:

☐ For approval ☐ Reviewed ☐ _____

☒ For your use ☐ Rejected ☐ Submit____copies for distribution

☐ As requested ☐ As noted ☐ Return____corrected prints

☐ For review & comment ☐ Revise and resubmit____copies for approval

REMARKS:

RECEIVED
MAR 21 1979
WATER MANAGEMENT

CC:

SIGNED:
Richard Zonetti
PROJECT LEADER

(Yellow copy to File)
GU-030 (10-78)

Telex: 23-5793
Phone: (313) 334-9901

Johnson&Anderson,Inc.
CONSULTING ENGINEERS
P.O. Box 1166 • 2300 Dixie Highway • Pontiac, Mich. 48056

March 16, 1979

Greenhorne & Omara, Inc.
6715 Kenilworth Ave.
Riverdale, Md 20840

Attn: Mr. Robert Wasnicky

Re: City of Farmington Hills FIS

Ref: J & A Project No. 5670-03

Gentlemen:

The City of Farmington Hills FIS has been reviewed by our office. The following items have been noted as additions, deletions or corrections:

TEXT:

Page 2, paragraph 1, first sentence should read:
"On January 30, 1979, the results....."

Page 14, paragraph 2, last sentence should read:
"The Michigan Flood Plain Act (Act 167, P.A. 1968), however, limits flood plain encroachment to that which will cause no <u>significant</u> increase in flood heights (reference 15)."

TABLES:

Floodway Data Tables
There were 35 cross sections deleted from one original draft report dated May, 1978. Classified by stream these are:

STREAM	SECTION
Upper River Rouge	4211
	9503
	9684
	9794
	9924
	11073

STREAM	SECTION
Minnow Pond Drain	38315
	43128
	62110
	65276
	65440
	74492
Seeley Drain	2299
	2407
	5817
	5893
	9899
	10459
	21283
Tarabusi Creek	4.795
	5.357
	6.540
Pebble Creek	112
	4326
	4381
	4540
	5994
	6907
	7515
	13824
	15025
	15660
	20423
	23990
	26037

These sections have also been omitted from the FLOODWAY map even though the proper floodway width has been shown on the map. The floodway data at field verified cross sections is necessary for regulation of the flood plain and therefore should not be eliminated without prior approval of the study contractor.

MAP

As per the latest city map of the City of Farmington Hills, the revision to the corporate boundaries have been included in this submittal. There have also been revisions on the map at the City of Farmington Corporate limits in order to match the U.S. Army Corps of Engineers report.

PROFILES

Revisions have been made in order to match the U.S. Army Corps of Engineers report for the city of Farmington. The same cross sections previously listed have been eliminated on the profiles.

REFERENCE MARKS

The following revisions should be made to the reference mark listing as follows:

RM 8 The elevation should be corrected to 843.02.

RM 13 The description should be corrected to read:

PK nail in southwest side of telephone pole located approximately 36 feet north of centerline Howard Road, 900 feet west of Seeley Drain.

RM 15 The description should read:

PK nail in east side of power pole located about 97 feet north of Twelve Mile Road, 32 feet west of Haggerty Road.

RM 34 The elevation should read:

870.49

RM 82 The elevation should read:

853.71

RM 83 The description should read:

Chisled cross on east bolt of fire hydrant flange located in the northeasterly corner of intersection or Ardwick Street and Kendalwood Street.

RM 85 The elevation should read:

710.42

REFERENCE MARKS (Cont'd)

RM 92 The elevation should read:

698.10

STREET NAMES:

The following street names should be revised:

Halstead Road	should read	Halsted Road
Powers Road	should read	Power Road

PROFILES:

The profile for Upper River Rouge should be revised to reflect the change as included in this submittal.

Sincerely,

JOHNSON & ANDERSON, INC.

Richard Zanotti

Richard Zanotti
Project Leader

RZ/klp
encl.
cc: Mr. Karl Mohr, FIA
Mr. Frank Finch, FIA-Chicago
Mr. Daniel Morgan, MDNR
File
RZ

UPPER RIVER ROUGE U/S OF CITY OF FARMINGTON

HYDRAULIC ANALYSIS

Introduction

The stream being investigated is the Upper River Rouge in the City of Farmington Hills, Oakland County, Michigan. The portion being considered extends from the northern corporate boundary of the City of Farmington to its confluence with the Minnow Pond Drain and Seeley Drain, a distance of approximately 2.04 miles. The flows were determined by the Brater method adn were adjusted to coincide with those used by the U.S. Corps of Engineers (COE) for the City of Farmington. These values were recommended by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the COE (Reference 1). All bridges have been modeled by the requirements of the HEC-2 normal bridge routine and special bridge routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by both (1) comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs or field descriptions taken in Farmington Hills by survey crews during the course of the study and (2) by visual on-site inspection and aerial photography interpretation by designers.

To reflect the changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respecitvley; "n" values were indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir discharge coefficients were taken from charts of the U.S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting elevations were taken from the City of Farmington Flood Insurance Study as done by the U.S. Corps of Engineers (Reference 6). The starting elevations are subject to change as soon as the hydraulics for the Upper River Rouge through the City of Farmington are redone by the COE. The effects on upstream elevations should be minimal and confined to a short reach of the river. The steepness of the stream and rather open floodplain should also minimize the effect to upstream elevations.

Discussion

This section of the river was done by using principally U.S. COE of Engineers cross-section data (Reference 7). Due to the age of this data (1963-1966) the stream reach lengths and geometry were verified by aerial photography, personal reconnaisance, and sample cross-sections taken at areas of visible change. This reach of the Upper River Rouge is basically deeply entrenched with sparse development and few obstructions.

References

1. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U.S. Department of Commerce, Dec. 1965.

4. U.S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

6. Department of Housing & Urban Development, Federal Insurance Adminstration, City of Farmington Flood Insurance Study, Preliminary Draft, 1976.

7. U.S. Army Corps of Engineers, Flood Plain Information Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek, Prepared for the Water Resources Commission, Michigan Department of Natural Resources and Southeast Michigan Council of Governments, January 1972.

MINNOW POND DRAIN

HYDRAULIC ANALYSIS

Introduction

The Minnow Pond Drain is located in the City of Farmington Hills, Oakland County, Michigan. It was investigated from its confluence with the Seeley Drain & Upper River Rouge to 14 Mile Road, the Farmington Hills corporate boundary. This is a distance of approximately 7.4 miles. The flows were determined by the Brater method and approved by the Michigan Department of Natural Resources (MDNR), Water Management Division. The project manager is Richard Zanotti.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by U.S. Corps of Engineers (COE) (Reference 1). All bridges have been modeled by the requirements of the HEC-2 Normal Bridge Routine and Special Bridge Routine.

Variables and Coefficients

The roughness factors (Manning's "n") were determined by both (1) comparing the descriptions in Ven Te Chow's Open-Channel Hydraulics (Reference 2) with photographs or field descriptions taken in Farmington Hills by survey crews during the course of the study and (3) by visual on-site inspection and aerial photography interpretation by designers.

To reflect the changes in cross-section geometry, the contraction and expansion coefficients used in this study were .3 and .5, respectively; "n" values were indicative of summer conditions.

The inlet loss coefficients and outlet loss coefficients used in this study were taken from Hydraulic Charts for the Selection of Highway Culverts (Reference 3). The weir discharge coefficients were taken from charts of the U.S. Geological Survey (Reference 4) and Bureau of Public Roads (Reference 5) supplied by the MDNR.

Starting Conditions

The starting elevations were taken from the upstream portion of the Upper River Rouge hydraulic analysis.

Discussion

The special areas of interest on the Minnow Pond Drain are located in sections 4, 5, 9 and 10. These are the only areas where encroachment runs were performed in an effort to reduce the natural floodway. Other areas along the streams are urbanized to such an extent that additional encroachment was not warranted.

The lower portion of the Minnow Pond Drain, up to and including Nottingham Road, was investigated by principally using the U.S. COE cross-section data (Reference 6). Bridge data and supplementary cross-section data were taken where applicable. Due to the age of the COE data (1963-66) the stream reach length and geometry were verified by aerial photography, personal reconnaisance, and sample cross-section taken at areas of visible change. The remainder of the stream, to the corporate limits, was field surveyed by Johnson & Anderson, crews with additional inspection by design personnel.

The high water elevations given for the 1968 flood on the Minnow Pond Drain were reviewed and were found to be in generally acceptable limits of the hydraulic analysis. Modifications have taken place since the 1968 flood and therefore have a bearing on the elevation as related to the high water marks.

References

1. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Manual, User's Manual, Oct. 1973.

2. Chow, Ven Te, Open-Channel Hydraulics, McGraw-Hill, 1959, pp. 101-123.

3. Herr, Lester A., Hydraulic Charts for the Selection of Highway Culverts, Hydraulic Engineering Circular No. 5, Bureau of Public Roads, U.S. Department of Commerce, Dec. 1965.

4. U.S. Geological Survey, Measurements of Peak Discharge at Dams by Indirect Methods, Book 3, Chapter A5, 1976.

5. Bureau of Public Roads, Hydraulics of Bridge Waterways, 1970.

6. U.S. Army Corps of Engineers, Flood Plain Information Upper River Rouge, Minnow Pond Drain, Bell Branch and Tarabusi Creek, Prepared for the Water Resources Commission, Michigan Department of Natural Resources and Southeast Michigan Council of Governments, January 1972.

Original Cross-Section Location

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
Upper River Rouge			
A	1U6*	640	± 640' u/s from Northern Corporate Boundary of Farmington
B	2U6*	1730	± 1730' u/s from Corporate Boundary
C	3U6*	2780	± 2780' u/s from Corporate Boundary
D	4U6*	3880	± 3880' u/s from Corporate Boundary
E	5U6*	4935	± 4935' u/s from Corporate Boundary
F	6U6*	5785	± 2050' d/s from d/s Face of Brittany Drive Culvert
G	7U6*	6594	± 1240' d/s from d/s Face of Brittany Drive Culvert
H	19S	7866	u/s Face of Brittany Drive Culvert
I	1U7*	8687	± 820' u/s from u/s Face of Brittany Drive Culvert
J	18R	9247	± 1380' u/s from u/s Face of Brittany Drive Culvert
K	1U8*	10207	± 2340' u/s from u/s Face of Brittany Drive Culvert
L	1	10817	± 2950' u/s from u/s Face of Brittany Drive Culvert
M	2U8*	11047	250' u/s from Confluence of Seeley and Minnow Pond Drain
Minnow Pond Drain			
A	1U9*	1317	± 1317' u/s from Mouth of Minnow Pond Drain
B	2U9*	1977	± 1977' u/s from the Mouth

* Cross-sections provided by the Corps of Engineers (COE).

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
Minnow Pond Drain (cont.)			
C	3U9*	2237	± 2237' u/s from the Mouth of Minnow Pond Drain
D	17Q	2575	u/s Face of Quaker Valley Drive Culvert
E	1U10*	2960	± 385' u/s from u/s Face of Quaker Valley Drive Culvert
F	2U10*	3560	± 985' u/s from u/s Face of Quaker Valley Drive Culvert
G	3U10*	4040	± 1465' u/s from u/s face of Quaker Valley Drive Culvert
H	4U10*	4810	± 2235' u/s from u/s Face of Quaker Valley Drive Culvert
I	5U10*	5260	± 2685' u/s from u/s Face of Quaker Valley Drive Culvert
J	6U10*	5725	± 3150' u/s from u/s Face of Quaker Valley Drive Culvert
K	7U10*	6335	± 3760' u/s from u/s Face of Quaker Valley Drive Culvert
L	8U10*	6935	± 370' d/s from d/s Face of Farmington Road Culvert
M	16P	7388	u/s Face of Farmington Road Culvert
N	15O	8280	u/s Face of Biddlestone Street Culvert
O	A-U*	9031	± 750' u/s from u/s Face of Biddlestone Street Culvert
P	B-U*	9436	± 370' d/s from d/s Face of West Entrance Bridge in ORCC
Q	14N	9937	u/s Face of West Entrance Bridge in ORCC
R	U12*	10518	± 580' u/s from u/s Face of West Entrance Bridge in ORCC
S	13M	11168	± 575' d/s from d/s Face of Dam in ORCC

* Cross-sections provided by the Corps of Engineers (COE).

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
Minnow Pond Drain (cont.)			
T	12L	11756	u/s face of Dam Section in ORCC
U	11K	12326	± 570' u/s from u/s Face of Dam in ORCC
V	10J	12951	± 280' d/s from d/s Face of I-696 Culvert
W	9I	13410	u/s Face of I-696 Culvert
X	8H	14514	± 1105' u/s from u/s Face of I-696 Culvert
Y	7G	15382	u/s Face of 12 Mile Road Bridge
Z	6F	15689	u/s Face of Sidewalk-Way Bridge
AA	5E	16190	± 500' u/s from u/s Face of Sidewalk-Way Bridge
AB	4D	17094	u/s Face of Kendallwood Road Culvert
AC	3C	17895	± 800' u/s from u/s Face of Kendallwood Road Culvert
AD	2B	18395	± 450' d/s from d/s Face of Hearthstone Street Culvert
AE	1A	18896	u/s Face of Hearthstone Street Culvert
AF	44	19547	± 650' u/s from u/s Face of Hearthstone Street Culvert
AG	43	19924	u/s Face of Nottingwood Road Culvert
AH	42	20275	± 350' u/s from u/s Face of Nottingwood Road Bridge
AI	41	20585	± 660' u/s from u/s Face of Nottingwood Road Bridge
AJ	40	21005	± 300' d/s from d/s Face of Chesterbrook Road
AK	39	21353	u/s Face of Chesterbrook Road Culvert
AL	38	21704	± 370' u/s from u/s Face of Chesterbrook Road

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
Minnow Pond Drain (cont.)			
AM	37	22104	± 90' d/s from d/s Face of Bannockburn Road
AN	36	22265	u/s Face of Bannockburn Road Culvert
AO	35	22416	± 150' u/s from u/s Face of Bannockburn Road
AP	34	22582	u/s Face of Clenarden Road Culvert
AQ	33	22883	± 300' u/s from u/s Face of Clenarden Road
AR	32	23333	± 750' u/s from u/s Face of Clenarden Road
AS	31	23833	± 175' d/s from d/s Face of Farmington Road Culvert
AT	30	24077	u/s Face of Farmington Road Culvert
AU	29	24358	± 280' u/s from u/s Face of Farmington Road Culvert
AV	28	24782	u/s Face of Walk Bridge #1
AW	27	25387	u/s Face of Walk Bridge #2
AX	26	25769	u/s Face of Oak Point Drive Culvert
AY	25	26370	± 600' u/s from u/s Face of Oak Point Drive Culvert
AZ	24	26910	± 1040' u/s from u/s Face of Oak Point Drive Culvert
BA	23	27260	± 1390' u/s form u/s Face of Oak Point Drive Culvert
BB	22	27810	± 320' d/s from d/s Face of 13 Mile Road Culvert
BC	21	28218	u/s Face of 13 Mile Road Culvert
BD	20	28619	± 400' u/s from u/s Face of 13 Mile Road Culvert
BE	19	29469	± 1250' u/s from u/s Face of 13 Mile Road Culvert

Cross Section	J&A Section No. or COE Section No.	SECNO	Location
Minnow Pond Drain (cont.)			
BF	18	29536	u/s Face of Check Dam, ± 1315' u/s from u/s Face of 13 Mile Road Culvert
BG	17	29700	u/s Face of Driveway Bridge
BH	16	29796	u/s Face of Mirlon Drive Culvert
BI	15	30027	± 230' u/s from u/s Face of Mirlon Drive Culvert
BJ	14	30527	± 730' u/s from u/s Face of Mirlon Drive Culvert
BK	13	30927	± 300' d/s from d/s Face of Drake Road
BL	12	31299	u/s Face of Drake Road Bridge
BM	11	31850	± 500' u/s from u/s Face of Drake Road Bridge
BN	10	32785	± 1485' u/s from u/s Face of Drake Road Culvert
BO	9	33385	± 850' d/s from d/s Face of Check Dam
BP	8	34247	u/s Face of Check Dam, ± 1855' d/s from d/s Face of Driveway Bridge #BS
BQ	7	34997	± 1105' d/s from d/s Face of Driveway Bridge #BS
BR	6	35772	± 350' d/s from d/s Face of Driveway Bridge #BS
BS	5	36262	u/s Face of Driveway Bridge
BT	4	36503	± 240' u/s from u/s Face of Driveway Bridge #BS
BU	3	37648	u/s Face of Halstead Road Culvert
BV	2	38099	± 450' u/s from u/s Face of Halstead Road Culvert
BW	1	38599	± 950' u/s from u/s Face of Halstead Road Culvert
BX	4A	38752	u/s face of 14 Mile Road Culvert

Johnson & Anderson, Inc.
Consulting Engineers
P O Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

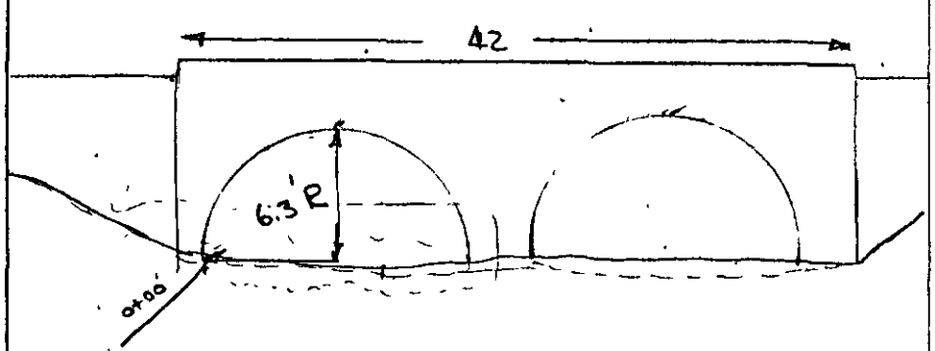
B.S.#S

Code No. 5670-03

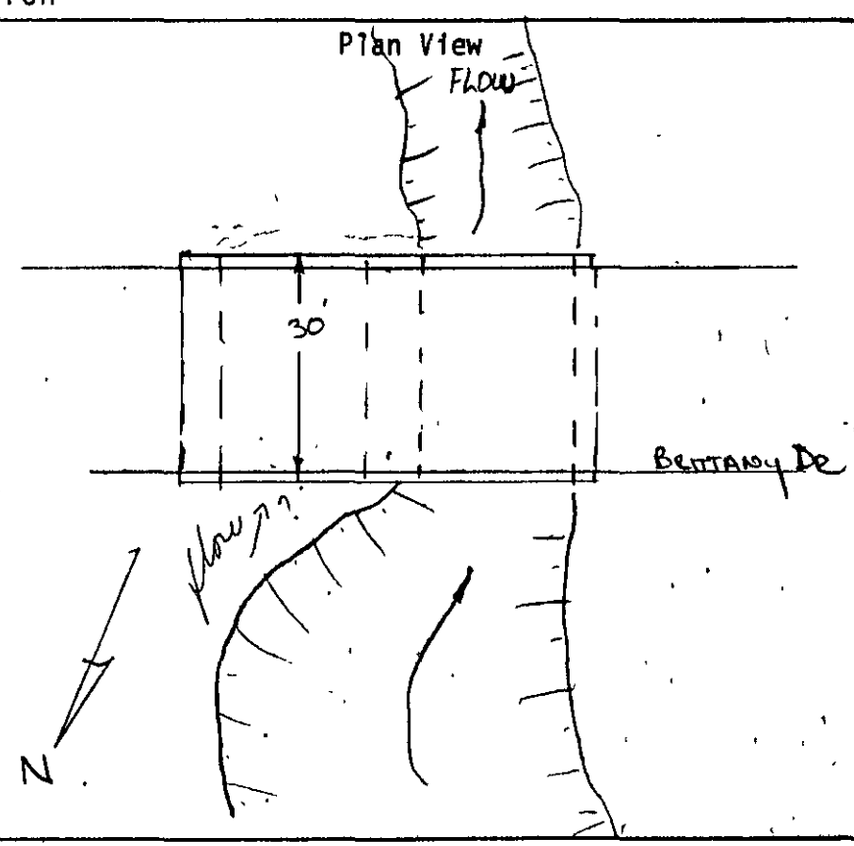
Job Name: City of Farmington F.I.S.			By: R. Moses
Date: 9-8-77	Feature: 2-6.3' Rad. Multi-Plate Arch Culvert		Water Course: Minnow Pond & Upper Rouge
Remarks: On Brittany Dr at Upper Rouge River — Culvert at upstream end (0+00) has dirt in it.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 737.7	Length: 42'	Width of Deck: 30	Skew: —

FIELD SKETCH

Profile View



Plan View



JOHNSON & ANDERSON, INC
CONSULTING ENGINEERS

BY MSC DATE 9/29/77 JOB DESCRIPTION FIS - City of Farmington
SUBJECT Brittany Dr. Culvert over Upper River Rouge

Left Culvert:

Area: $A_1 = 62.34$ ft.^{2}

Wetted Perimeter: $P_1 = 32.39$ ft.

Hydraulic Radius: $R_1 = A_1/P_1 = 1.92$ ft.

Length: $L_1 = 30$ ft.

Manning Coeff.: $n_1 = 0.031$

Entrance Loss: $K_e = 0.50$ (with Headwall)

$$K_f = \frac{29.1\, n_1^2 L_1}{R_1^{4/3}} = 0.35$$

$$\Sigma K \phi R_1 = 1 + 0.50 + 0.35 = 1.85$$

Right Culvert:

Area: $A_2 = 67.33$ ft.^{2}

Wetted Perimeter: $P_2 = 32.59$ ft.

Hydraulic Radius: $R_2 = A_2/P_2 = 2.07$ ft.

Length: $L_2 = 30$ ft.

Manning Coeff.: $n_2 = 0.031$

Entrance Loss: $K_e = 0.50$

$$K_f = 0.32$$

$$\Sigma K \phi R_2 = 1 + 0.5 + 0.32 = 1.83$$

Total :-

Area :- $A = A_1 + A_2 = 129.67 \text{ ft}^2$

$$xK\phi R = \frac{A^2}{\left\{ \sqrt{A_1^2 / xK\phi R_1} + \sqrt{A_2^2 / xK\phi R_2} \right\}^2} = 1.83$$

Max. Depth :- $D = 6.8 \text{ ft}$

$BWC = A/D = 19.07 \text{ ft}$

Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

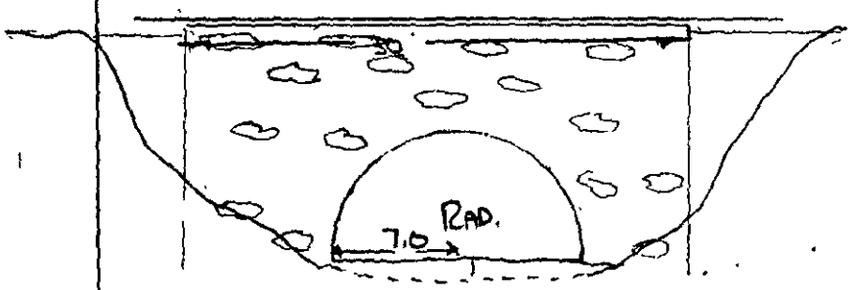
B.S.Q.

Code No. 5670-03

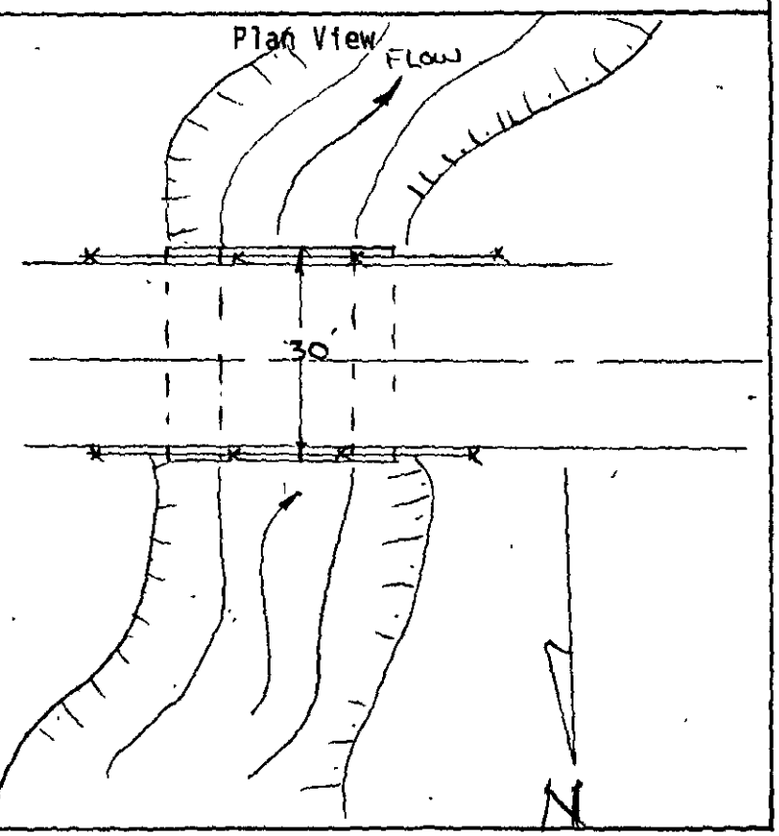
Job Name: City of Farmington F.I.S.			By: R. Moses
Date: 9-8-77	Feature: 7.0' Rad Multi-plate		Water Course: Minnow Pond
Remarks: On Quaker Valley Dr at Minnow Pond. Thick woods up & downstream of culvert over both banks.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 775.9	Length: 30	Width of Deck: 30	Skew: —

FIELD SKETCH

Profile View



Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 9/29/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF 1
SUBJECT Quaker Valley Dr. at Minnow Pond Drain JOB NO. 5670-03

Culvert Feature : Semi - Circular Bridge

Area : $A = 153.9/2 + 35.16 = 112.13$ ft.^{2}

Wetted Perimeter : $P = 39.71$ ft.

Hydraulic Radius : $R = A/P = 2.82$ ft.

Length : $L = 30$ ft.

Manning Coeff : $n = 0.03$ (Multi - Plate)

Entrance Loss : $K_e = 0.50$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.20$$

$$\Sigma K \phi R = 1 + 0.50 + 0.20 = 1.70$$

Max. Depth : $D = 9.9$ ft.

$$BWC = A/D = 11.33 \text{ ft.}$$

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HYDRAULIC STRUCTURAL DATA

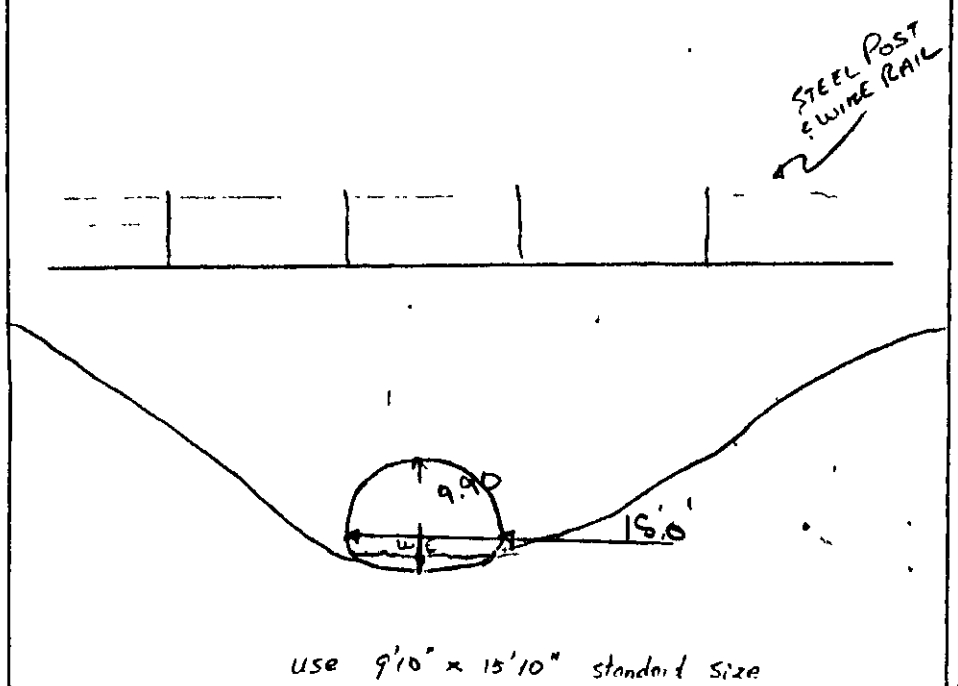
B.S. #P

Code No. 5670-03

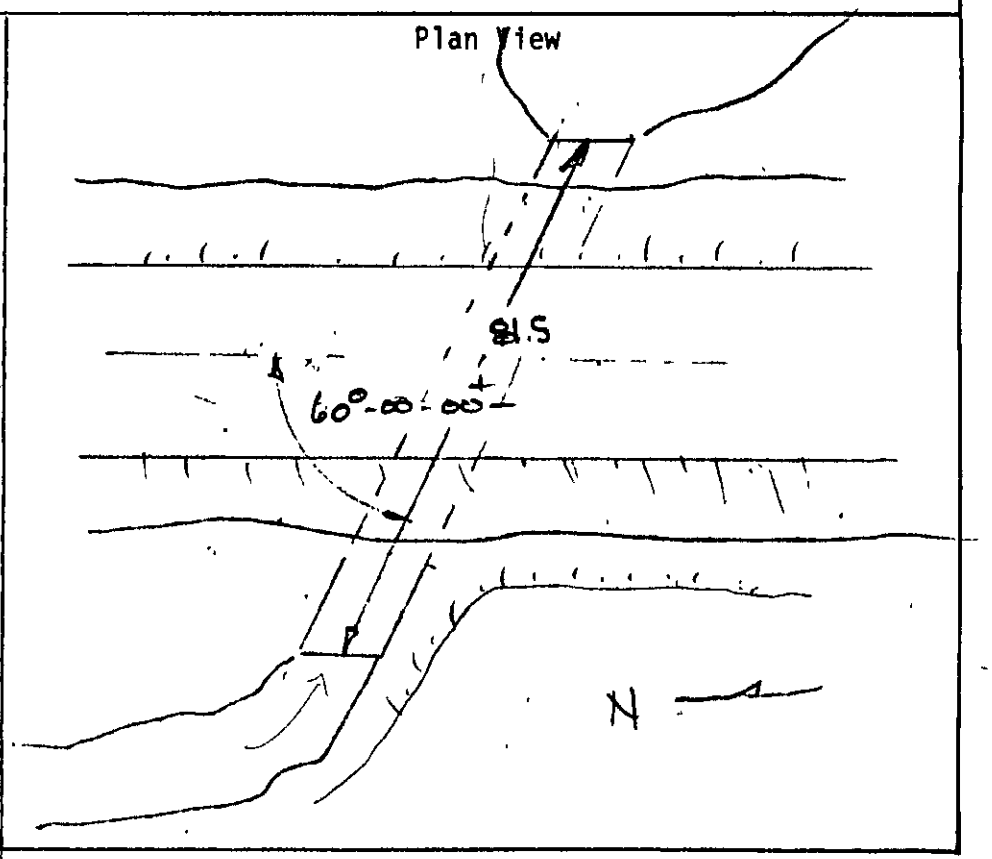
Job Name: City of Farmington			By: R. Moses
Date: 9-2-77	Feature: 9.7 x 15.8' Multi-Plate Arch		Water Course: Minnow Pond
Remarks: Culvert is on Farmington Rd 1400'± N. of 11 Mile Rd			
Heavy brush & woods on both banks, Up & Downstream			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 811.8	Length: 81.5	Width of Deck:	Skew: 60°

FIELD SKETCH

Profile View



Plan View



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BY MSS DATE 9/29/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF
SUBJECT Minnow Pond Drain : Farmington Road Bridge (d/s) JOB NO. 5670-08-1

Culvert Feature : 15'10" x 9'10" CMP Arch Pipe

Area : $A = 122.0\ ft^2$

Hydraulic Radius : $R = 2.89\ ft.$

Length : $L = 82\ ft.$

Manning Coefficient : $n = 0.0307$

Max. Depth : $D = 9.83\ ft.$

$BWC = \frac{A}{D} = 12.41\ ft.$

Entrance Loss : $K_e = 0.9$ (Project from Fill)

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 0.55$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.45$$

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HYDRAULIC STRUCTURAL DATA

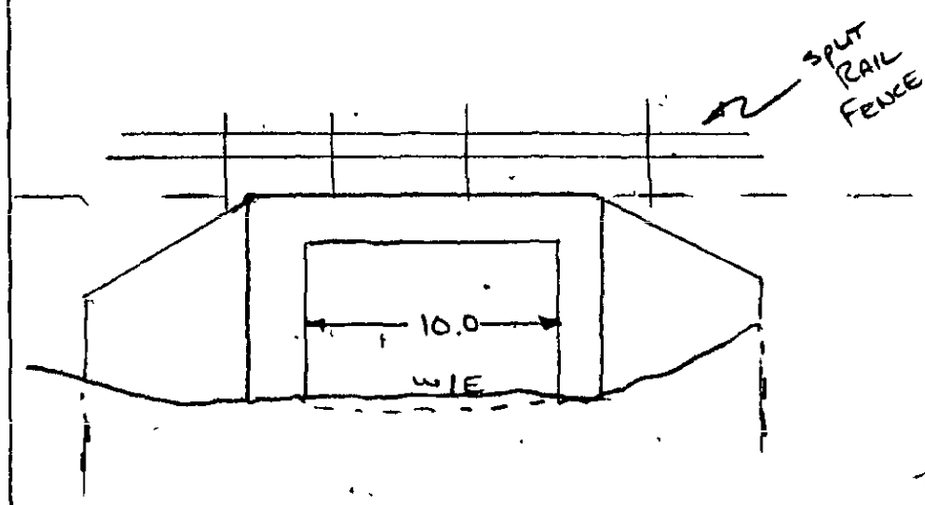
L.S. = 0

Code No. 5670.03

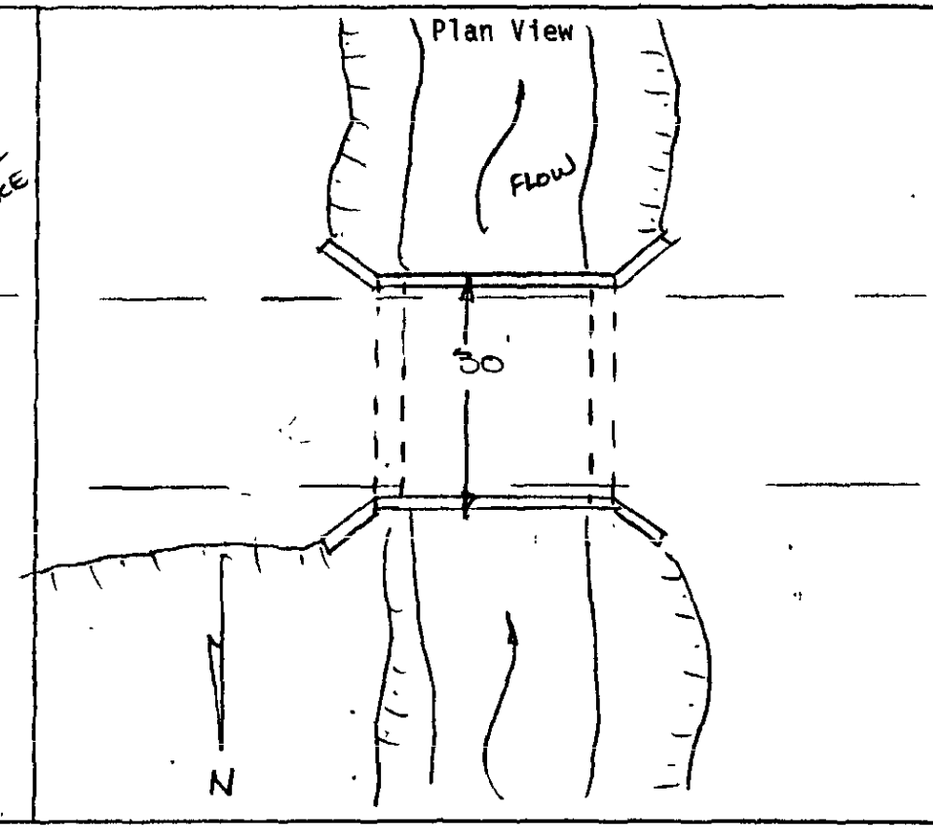
Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 9-2-77	Feature: Conc. Box Culvert	Water Course: Minnow Pond	
Remarks: Box culvert is on Brookstone off Farmington Rd channel is clear of object. Downstream of culv. is wooded area both sides of banks.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 814.5	Length: 10.0	Width of Deck: 30.0	Skew: —

FIELD SKETCH

Profile View



Plan View



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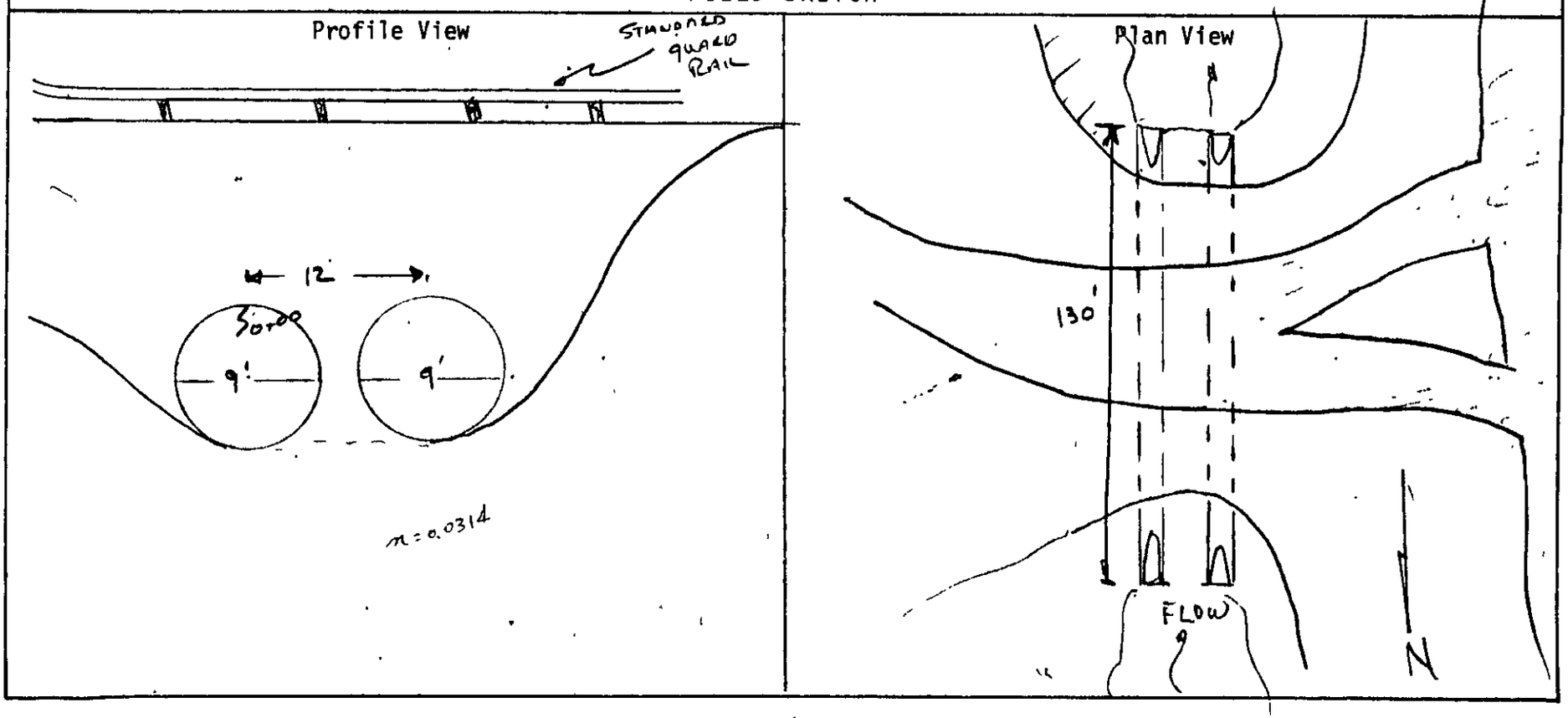
HYDRAULIC STRUCTURAL DATA

B.S. N

Code No. 5670-03

Job Name: City of Farmington F.I.S			By: R. Moses
Date: 9-1-77	Feature: 2 - C.M.P.		Water Course: Minnow Pond
Remarks: At W. Entrance To Orchard Ridge C.C. off Farmington Rd			
Pipes Have Small Sizes of Broken Conc. in Bottom			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 820.1	Length: 130'	Width of Deck:	Skew: —

FIELD SKETCH



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CONSULTING ENGINEERS

BY MSC DATE 9/29/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF
SUBJECT W. Entrance to Orchard Ridge C.C. over Minnow Pond Drain JOB NO. 5670-03-1

Culvert Feature: Twin - 9' Diameter Circular CMP

Area: $A = 127.23\ ft^2$

Hydraulic Radius: $R = D/4 = 2.25\ ft.$

Length: $L = 130\ ft.$

Manning Coefficient: $n = 0.0314$

Max. Depth: $D = 9.0\ ft$

$BWC = \frac{A}{D} = 14.14\ ft.$

Entrance Loss: $K_e = 0.9$ (Project from fill)

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 1.27$$

$$\Sigma K \& R = 1 + K_e + K_f = 3.17$$

Weir Coefficient: $C =$

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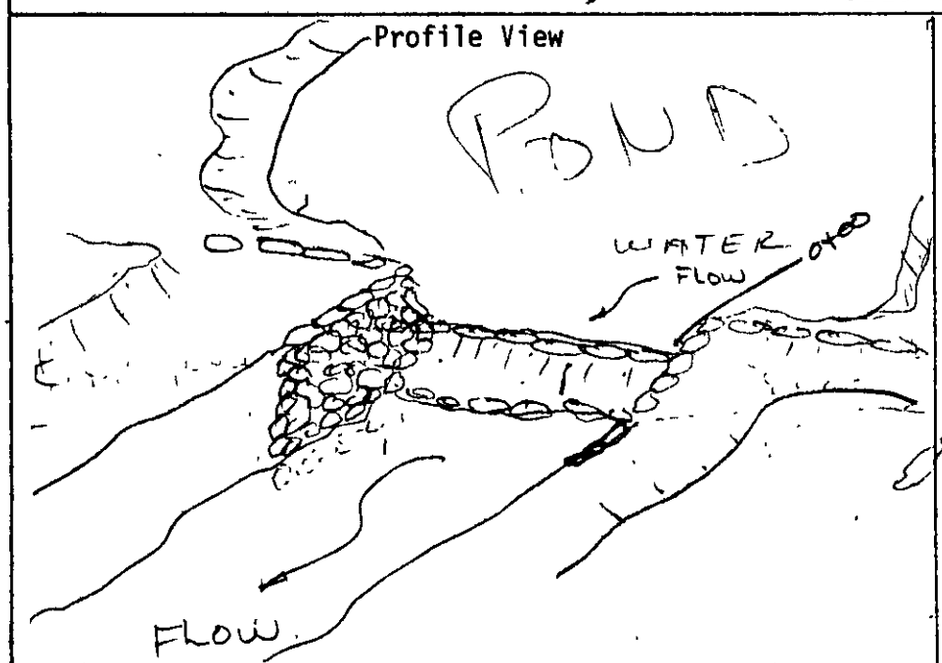
HYDRAULIC STRUCTURAL DATA

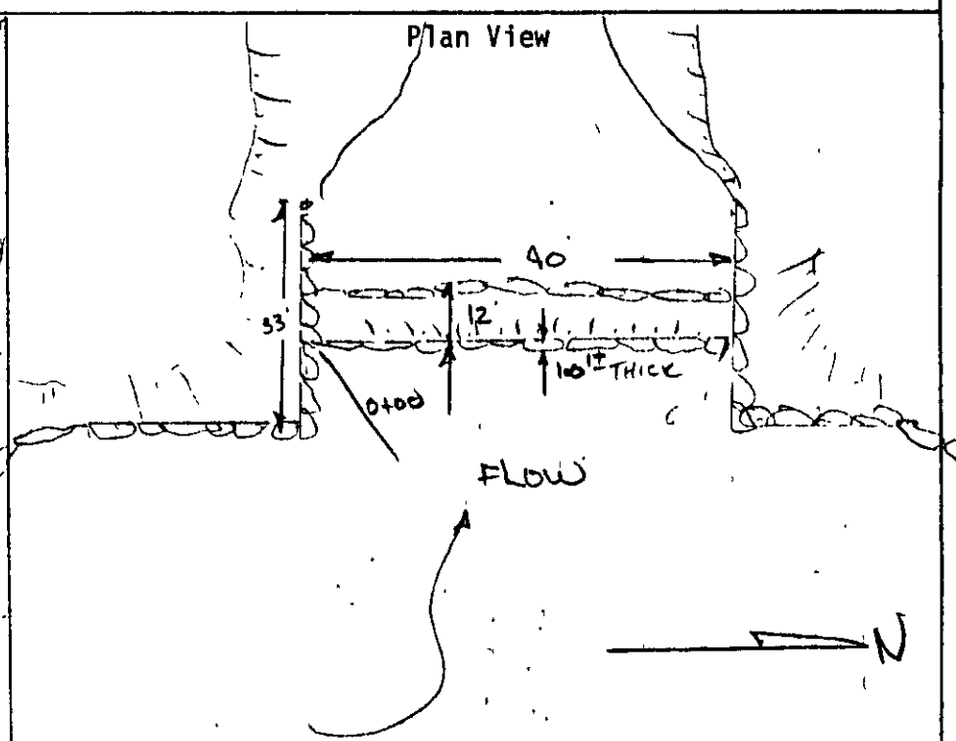
DAM #L

Code No. 5670-07

Job Name: City of Farmington F.I.S			By: R. Moses
Date: 9-1-77	Feature: STONE & MORTAR DAM		Water Course: MINNOW POND
Remarks: ON O.R.C.C PROP. NEW CONSTRUCTION OF BLDGS. IS GOING ON AT LEFT OVER BANK. RIGHT BANK IS OPEN FIELD DNSTREAM OF DAM IS MED SIZE TREES & HEAVY BRUSH ON BANKS			
Width of Piers:	Pier Shape:	No. of Piers:	Area:
Water Elevation:	Length:	Width of Deck:	Skew:

FIELD SKETCH





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HYDRAULIC STRUCTURAL DATA

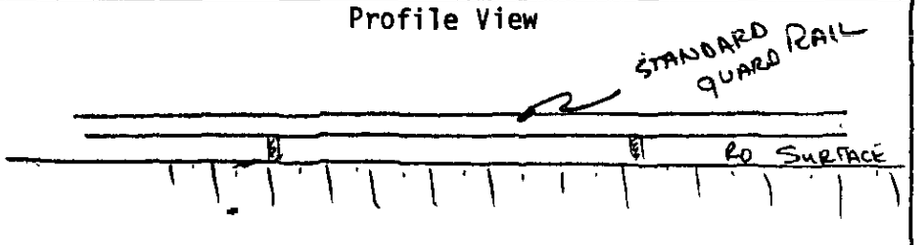
B.S. I

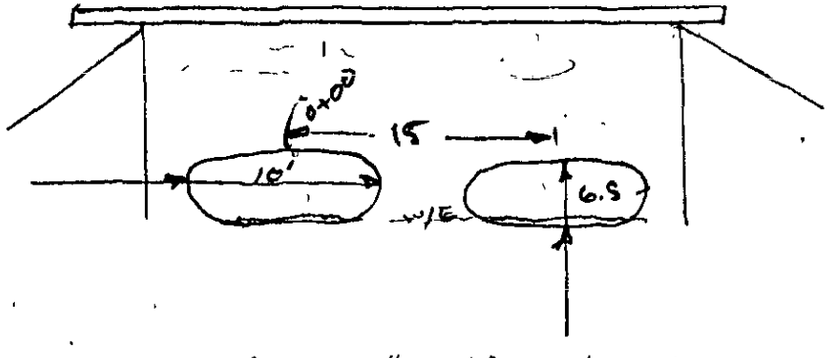
Code No. 5670-03

Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 9-1-77	Feature: 2 - Conc. X-culvert	Water Course: Minnow Pond	
Remarks: Culvert Bridge is under I-696 - Pipes are clean (Concrete)			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 827.7	Length: 178'	Width of Deck:	Skew: —

FIELD SKETCH

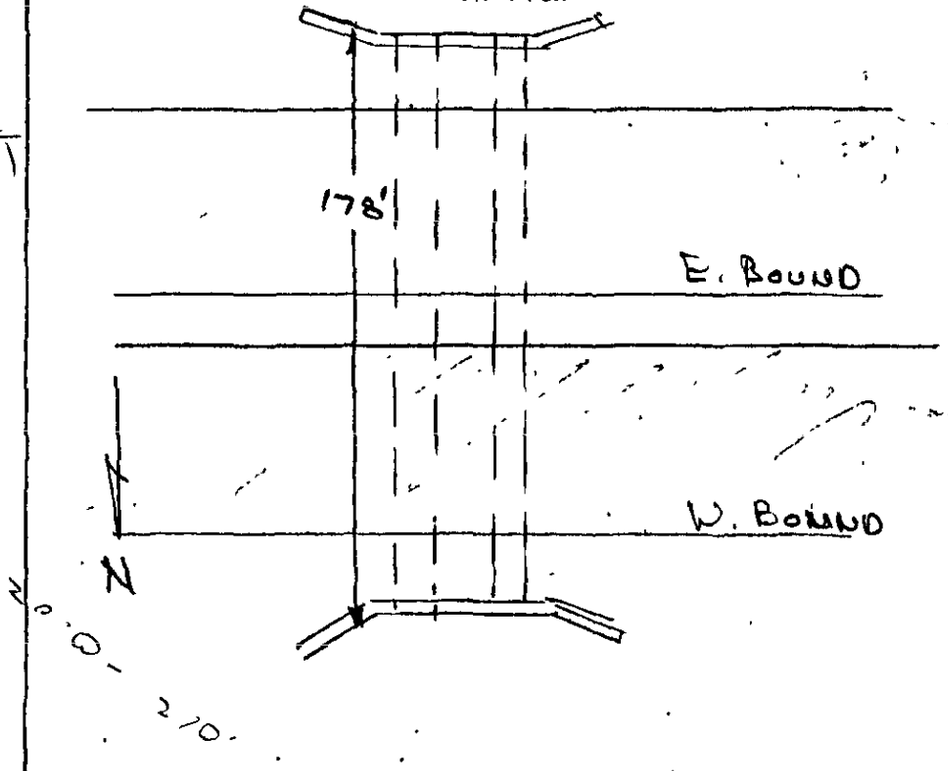
Profile View





(use 121" x 77" Elliptical shape)

Plan View



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BY MSC DATE 10/3/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF
SUBJECT I-696 Bridge over Minnow Pond Drain (BS # I) JOB NO. 5670-03-1

Culvert Feature - Twin - 121" x 77" Concrete Elliptical Culvert

Area - $A = 101.63 \ ft^2$

Wetted Perimeter - $P = 53.10 \ ft.$

Hydraulic Radius - $R = A/P = 1.91 \ ft.$

Length - $L = 178 \ ft.$

Manning Coefficient - $n = 0.012$ (Clean Concrete)

Max. Depth - $D = 6.42 \ ft.$

$BWC = \frac{A}{D} = 15.83 \ ft.$

Entrance Loss - $K_e = 0.5$ (Square Edge Headwall)

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 0.32$$ n 0.015 = 0.49

$$\alpha K \phi R = 1 + K_e + K_f = 1.82$$

Weir Coefficient - $C = 3.0$

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HYDRAULIC STRUCTURAL DATA

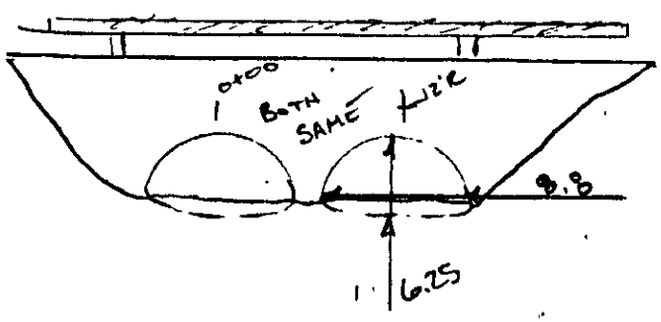
B.S.# G

Code No. 5670-03

Job Name: City of Farmington F.I.S		By: R. Moses	
Date:	Feature: 2 - CMP. X-culvert	Water Course: Minnow Pond	
Remarks: on 12 Mile Rd 1300' E. of Farmington Rd Upstream are Parking & Playground Area — Dnstream Parking & Commerical Bdlg.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 832.5	Length: 66.5	Width of Deck:	Skew: —

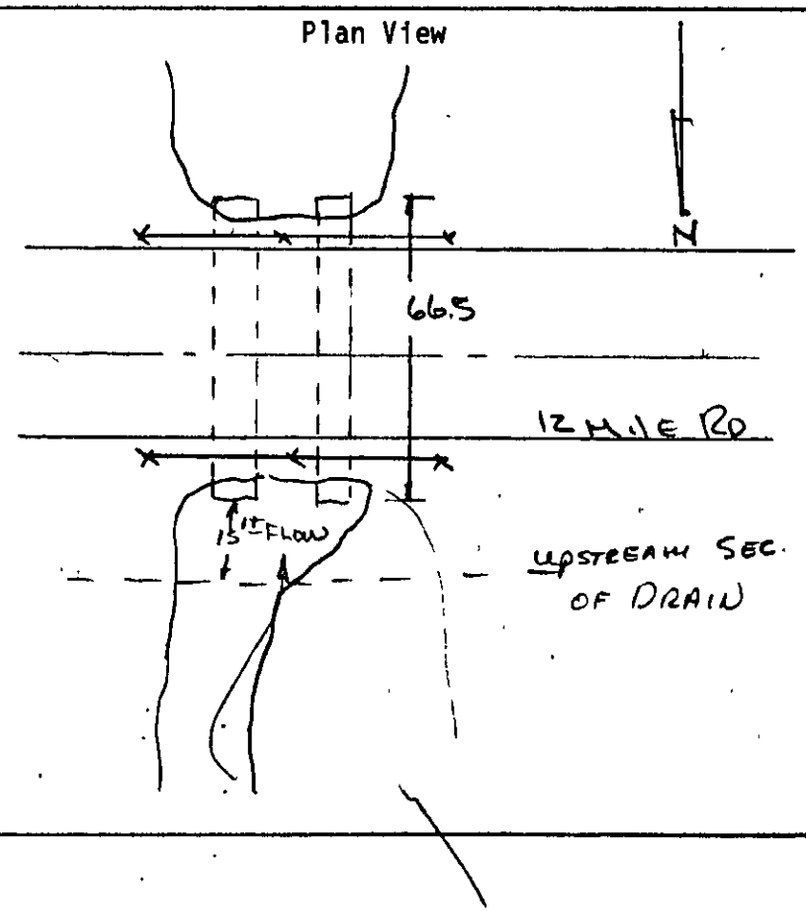
FIELD SKETCH

Profile View



use 8.8' x 6.08' size

Plan View



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BY MSC DATE 10/4/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET 1 OF
SUBJECT Minnow Pond Drain at 12-Mile Road BS#G JOB NO. 5670-03-1

Culvert Feature :- Twin - 8.8' x 6.08' CMP Culvert

Area : $A = 43 \times 2 = 86 \text{ ft}^2$

Hydraulic Radius : $R = 1.77$ ft.

Length : $L = 67$ ft.

Manning Coefficient : $n = 0.032$

Max. Depth. $D = 6.08$ ft.

$BWC = \frac{A}{D} = 14.14$ ft

Entrance Loss : $K_e = 0.9$ (Projecting from fill)

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.93$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.83$$

Weir Coefficient : $C = 3.05$

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HYDRAULIC STRUCTURAL DATA

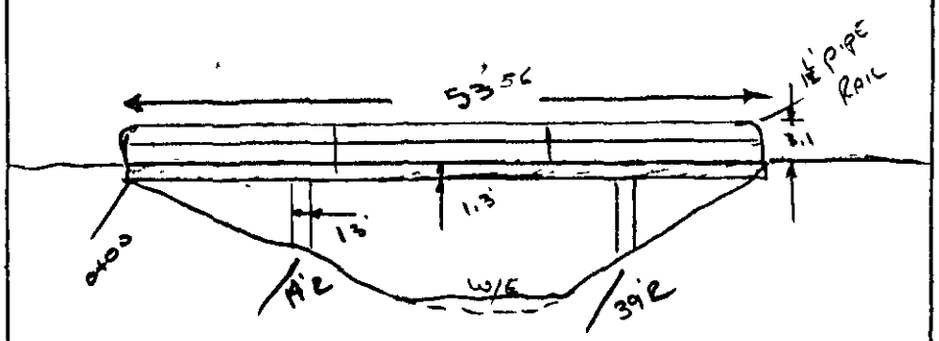
B.S. # F

Code No. 5670-03

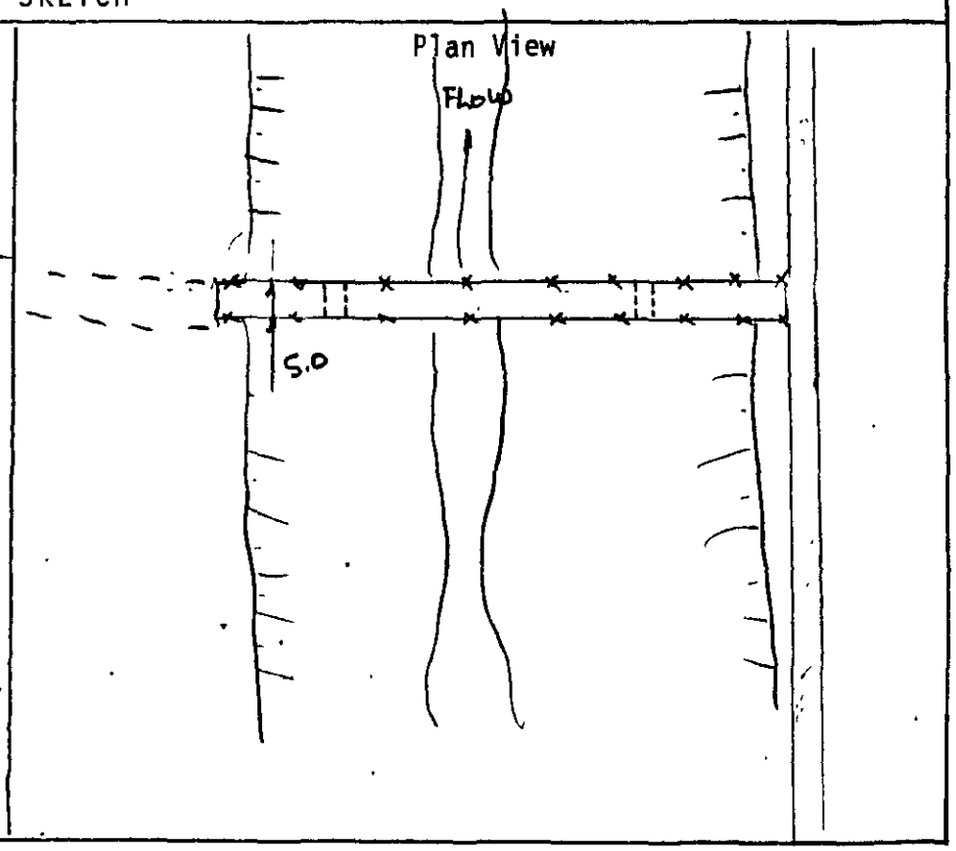
Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 8-31-77	Feature: Conc. Sidewalk-way	Water Course: Minnow Pond	
Remarks: 1300' E. of Farmington Rd, 300' N. of 12 Mile Rd			
Playground & Parking over both banks			
Width of Piers: 1.3	Pier Shape: Deck / Pier	No. of Piers: 2	Area: —
Water Elevation: 833.1	Length: 53'5"	Width of Deck: 5.0	Skew: —

FIELD SKETCH

Profile View



Plan View



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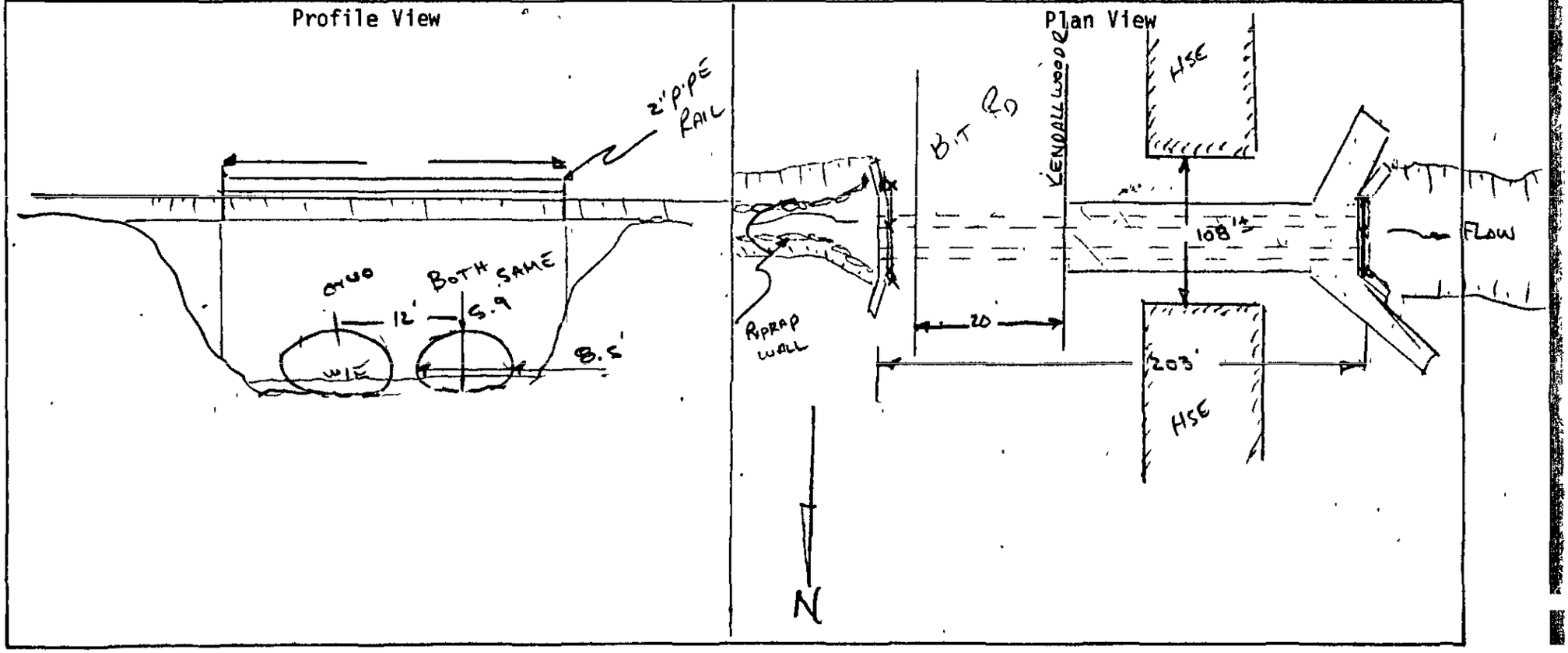
HYDRAULIC STRUCTURAL DATA

B.S. #D

Code No. 5670-03

Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 8-30-77	Feature: 2-Multi-Plate	Water Course: Minnow Pond	
Remarks: On Kendallwood Rd 100'± N. of Brandywine Rd			
Upstream Homes & Landscaped Yards. Dnstream School Playground			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 834.7	Length: 203'	Width of Deck: 2-8.5'	Skew: —

FIELD SKETCH



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BY MSC DATE 12/22/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Kendallwood Drive over Minnow Pond Drain JOB NO. 5620-03-L

Culvert Feature - Twin - Multiplate 8'7" x 5'11"

Total Area - $A = 40 \times 2 = 80 \text{ ft}^2$

Hydraulic Radius - $R = 1.71 \text{ ft.}$

Length - $L = 203 \text{ ft.}$

Manning Coefficient - $n = 0.032$

Entrance Loss - $K_e = 0.5$ (Wingwall with Headwall)

Max Depth - $D = 5.92 \text{ ft}$

$$BWC = \frac{A}{D} = 13.51 \text{ ft.}$$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 2.96$$

$$\times K \phi R = 1 + K_e + K_f = 4.46$$

Rating Curve : for Pressure Flow

10 - year Flood

Tailwater Elevation = 838.69 ft.

$XK\phi R$ = 4.46

Area = 80 ft²

Q (cfs)	$V = Q/A$ (fps)	$V^2/2g$ (ft.)	H_c (ft.)	EG (ft.)
270	3.38	0.18	0.80	839.54
320	4.00	0.25	1.12	839.86
370	4.63	0.33	1.47	840.21
410	5.13	0.41	1.83	840.57

$$H_c^* = XK\phi R \cdot \frac{V^2}{2g}$$

Pressure Flow Only -

$$EG. = 838.69 + 4.46 \left[\frac{1}{2g} \left(\frac{420}{80} \right)^2 \right]$$

$$= 840.60 \text{ ft.}$$

Use Water Elevation = 840.50 ft.

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BY MSC DATE 12/28/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Kendallwood Drive over Minnow Pond Drain JOB NO. 5670-03-1

Rating Curve : for Pressure Flow

50 - year Flood

Tailwater Elevation = 842.57 ft.

$XK\phi R$ = 4.46

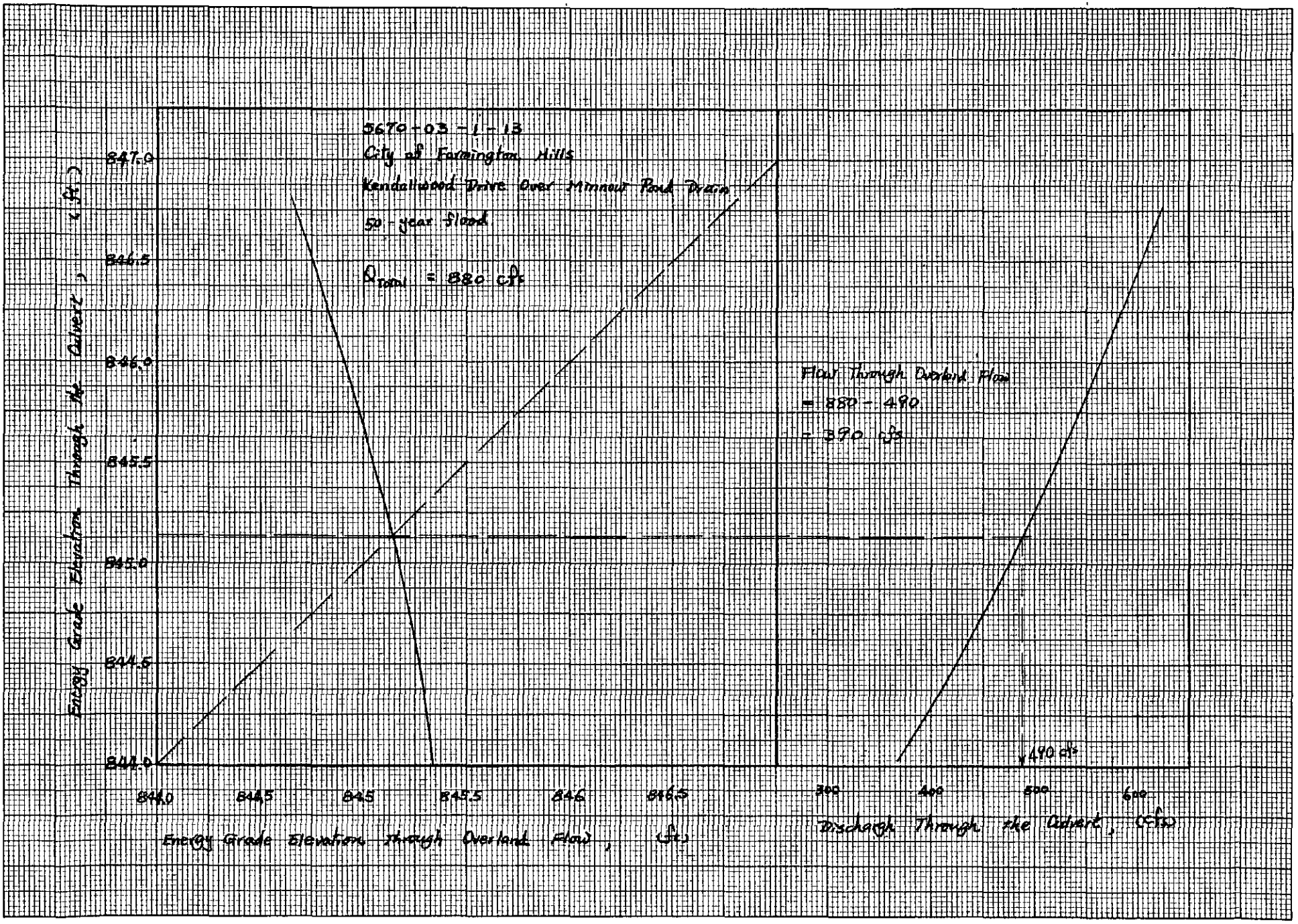
Area = 80 ft^2

Q (cfs)	$V = Q/A$ (fps)	$V^2/2g$ (ft.)	H_c (ft.)	EG (ft.)
380	4.75	0.35	1.56	844.13
480	6.00	0.56	2.49	845.06
580	7.25	0.82	3.64	846.21
680	8.50	1.12	5.00	847.57

$$H_c^* = XK\phi R - \frac{V^2}{2g}$$

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.

46 1510



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BY MSC DATE 12/28/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Kendallwood Drive over Minnow Pond Drain JOB NO. 5670-03-1

Rating Curve : for Pressure Flow

100 - year Flood

Tailwater Elevation = 843.33 ft.

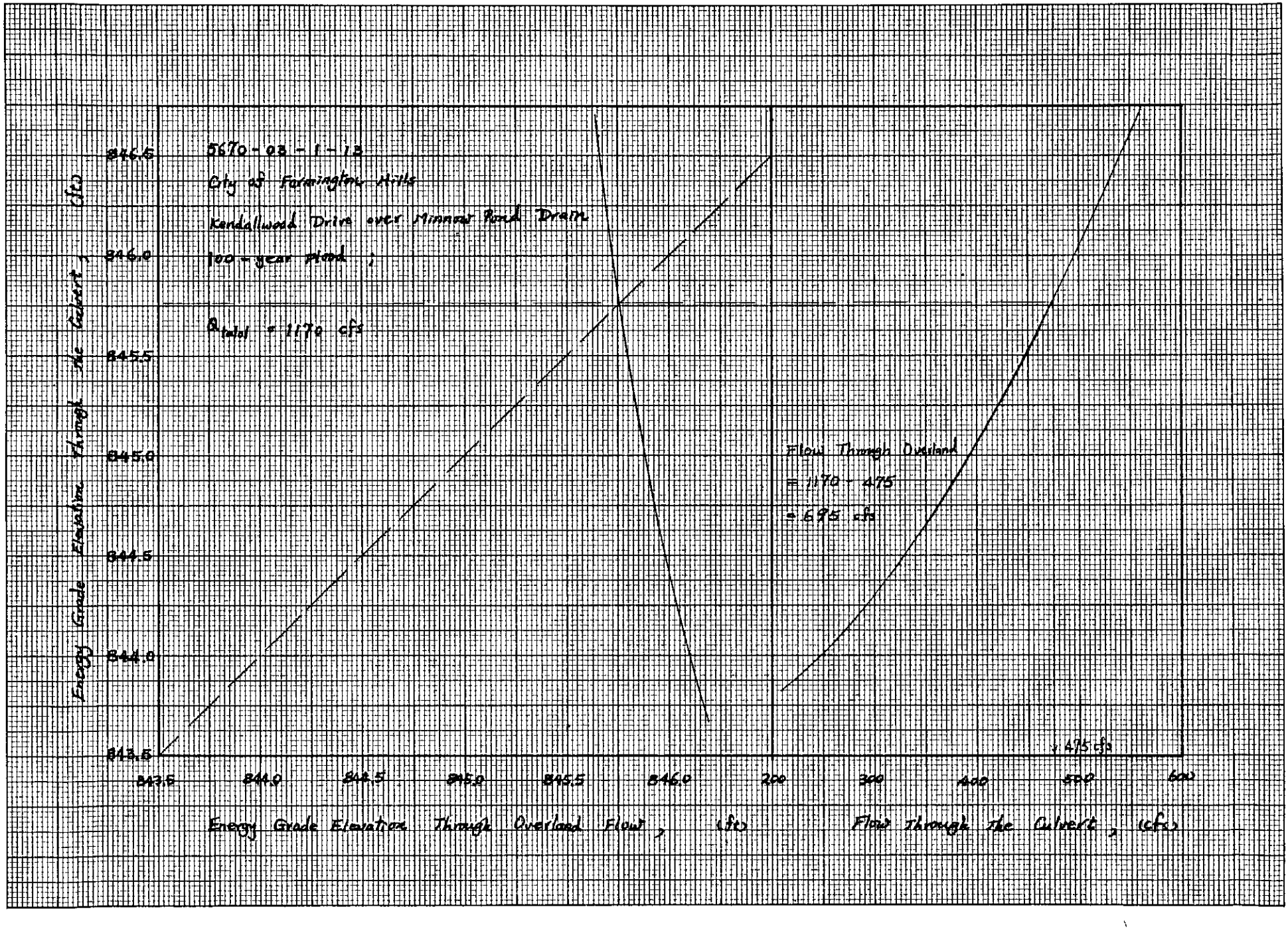
$XK\phi R$ = 4.46

Area = 80 ft²

Q (cfs)	V=Q/A (fps)	$V^2/2g$ (ft.)	H_c* (ft.)	EG (ft.)
250	3.125	0.15	0.68	844.01
350	4.375	0.30	1.33	844.66
450	5.625	0.49	2.19	845.52
550	6.875	0.73	3.27	846.60

$$H_c^* = XK\phi R - \frac{V^2}{2g}$$

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.



Rating Curve : for Pressure Flow

500 - year Flood

Tailwater Elevation = 845.05 ft.

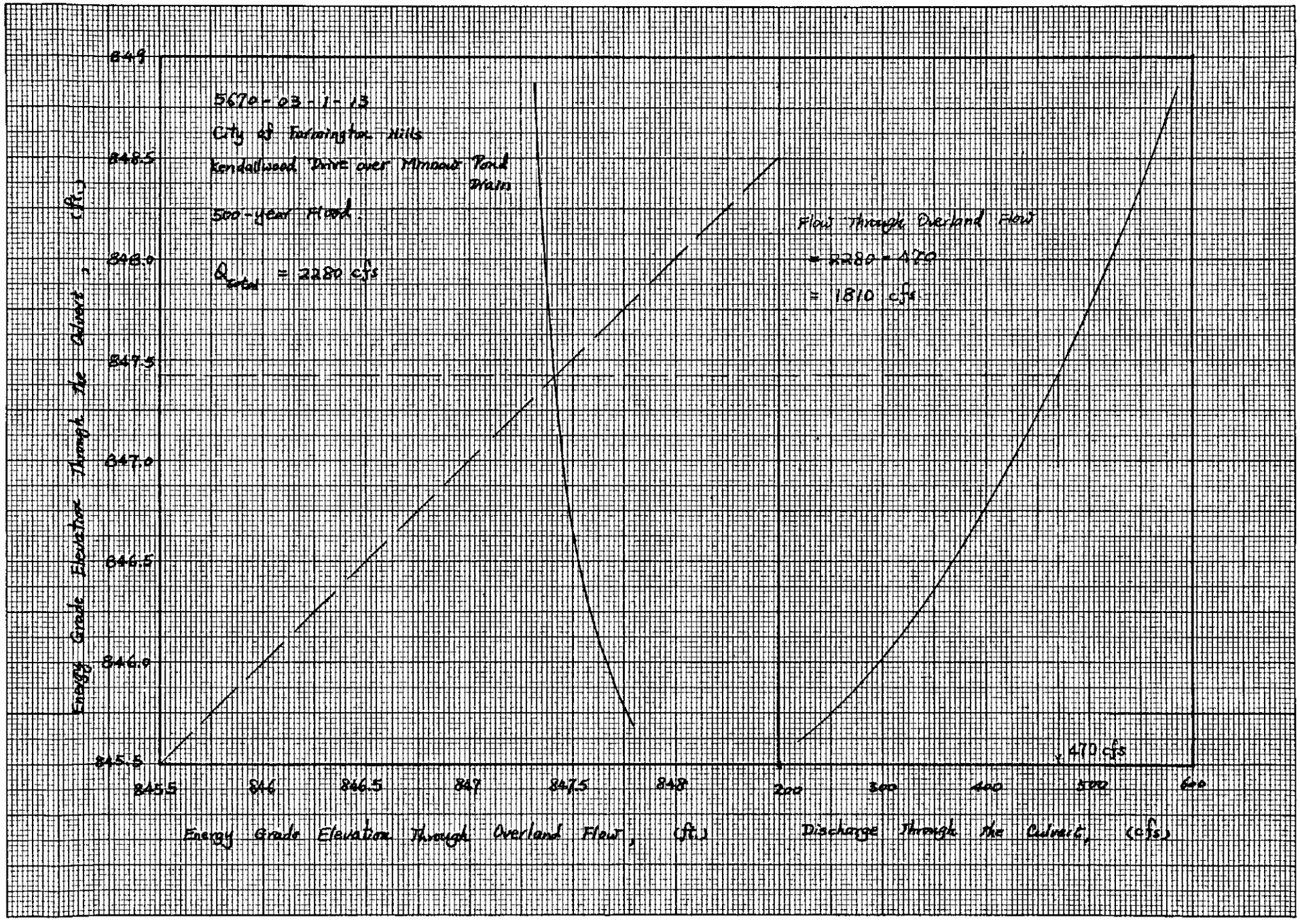
XKΦR = 4.46

Area = 80 ft²

Q (cfs)	V=Q/A (fps)	V²/2g (ft.)	Hc (ft.)	EG (ft.)
280	3.50	0.19	0.85	845.90
380	4.75	0.35	1.56	846.61
480	6.00	0.56	2.49	847.54
580	7.25	0.82	3.64	848.69

$$H_c^* = XK\Phi R - \frac{V^2}{2g}$$

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.
46 1510



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HYDRAULIC STRUCTURAL DATA

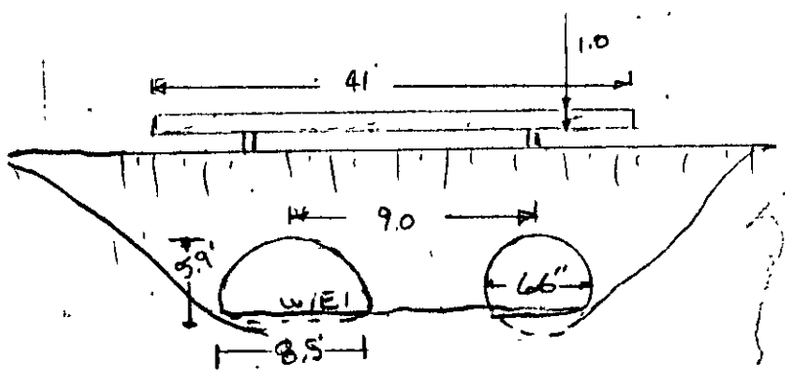
B.S.#A

Code No. 5670-03

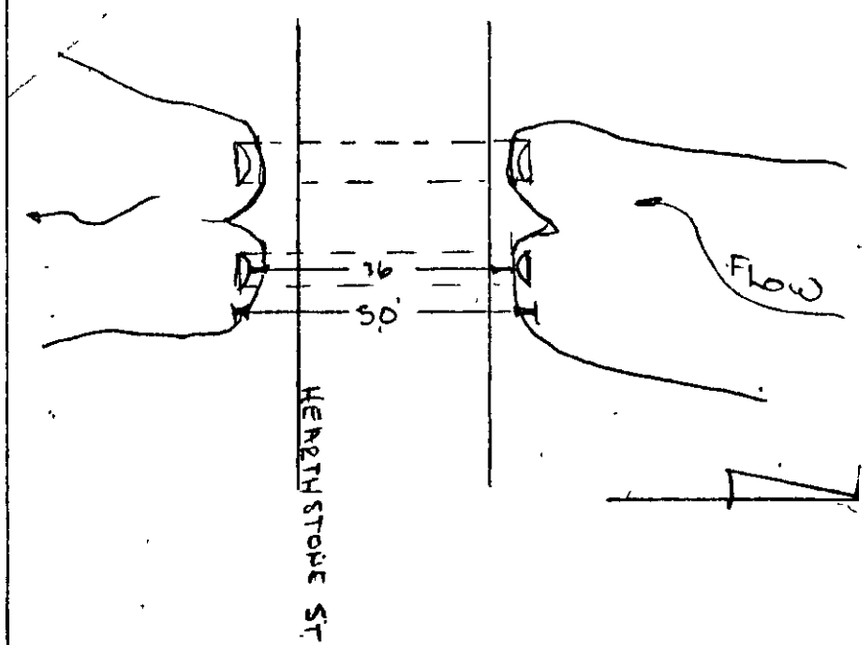
Job Name: City of Farmington F.I.S.		By: R. Moses	
Date: 8-30-77	Feature: 1-Multi-Plate 1-66" Dia	Water Course: Minnow Pond	
Remarks: Scattered Willows & Fruit Trees Med Size Lawns & Shrubs. Up & Dn. Stream			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation:	Length: 8.5 & 5.5	Width of Deck: 36'	Skew: —

FIELD SKETCH

Profile View



Plan View



13.5 # 43

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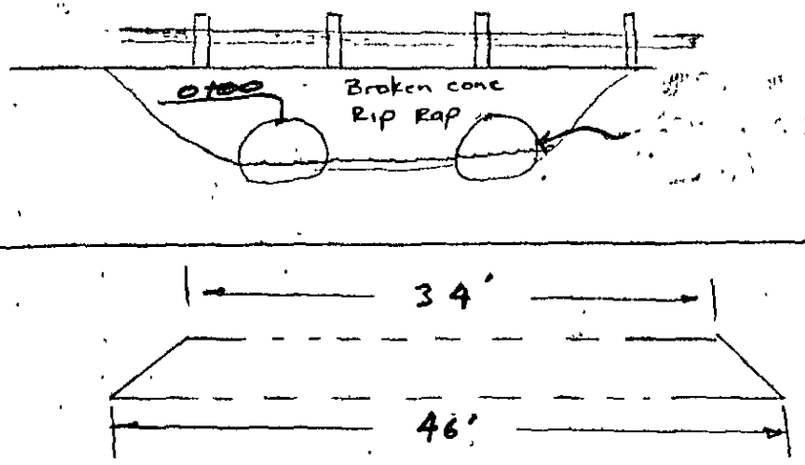
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-43

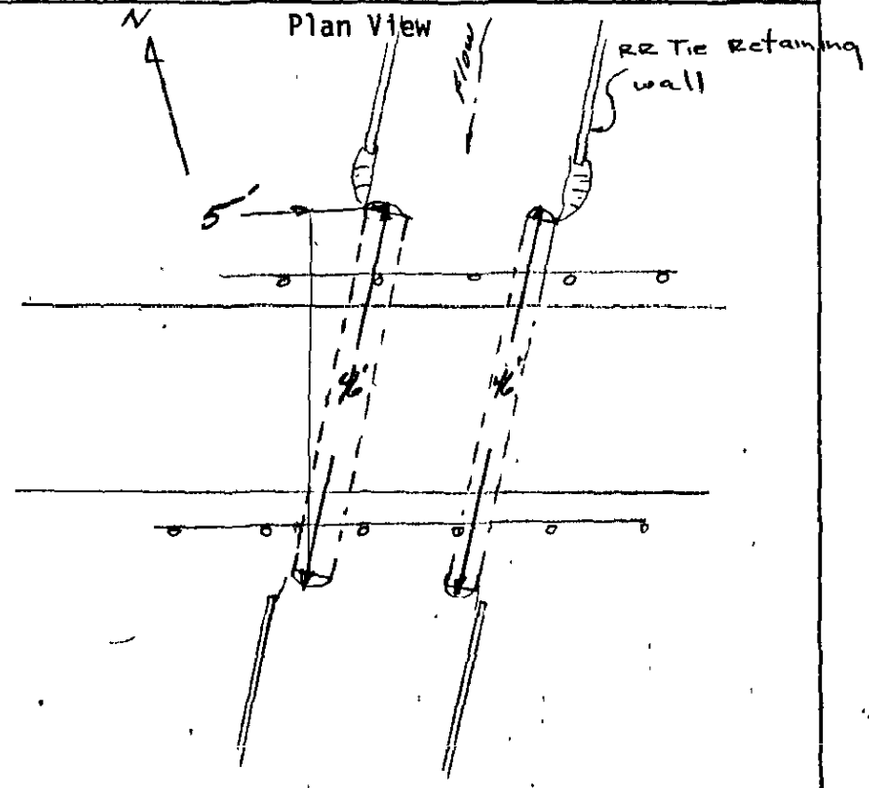
Job Name: Farmington Hills		By: G. Norberg	
Date: 1-13-77	Feature: 87"x63" CMP	Water Course: Minnow Pond Creek	
Remarks: Nottingwood Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 844.4	Length: 46'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View
u.s.f.



Plan View



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CONSULTING ENGINEERS

BY MSC DATE 4/29/77 JOB DESCRIPTION City of Farmington Hills SHEET 1 OF ____
SUBJECT Nottingwood Road Culverts - BS #43 JOB NO. 5620-03-01

Bridge Characteristics :- Twin 87" x 63" CMP

Area :- $A = 30 \times 2 = 60\ ft^2$

Wetted Perimeter :- $P = 39.74\ ft.$

Hydraulic Radius :- $R = 1.51\ ft.$

Length :- $L = 46\ ft.$

Manning Coefficient :- $n = 0.0324$

Max. Depth :- $D = 7.25\ ft$

BWC :- $BWC = A/D = 8.28\ ft.$

Entrance Loss :- $K_e = 0.9$ (Projecting from Fill)

$$K_f = \frac{29\, n^2 L}{R^{4/3}} = 0.81$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.71$$

B.S. #39

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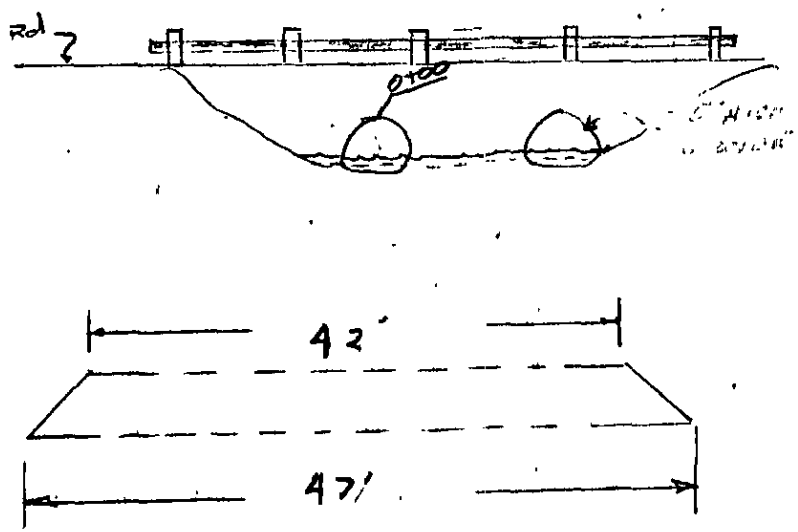
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-#39

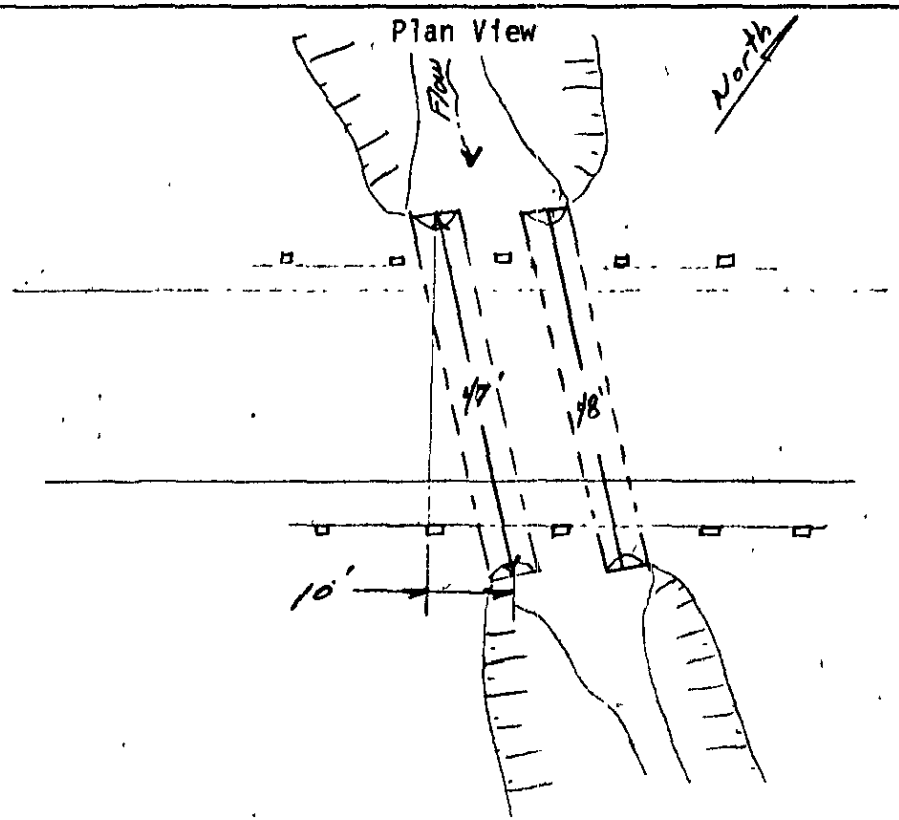
Job Name: Farmington Hills		By: G. Norberg	
Date: 1-13-77	Feature: 6'-4"X4'-9" CMP.	Water Course: Minnow Pond Creek	
Remarks: Chesterbrook Rd.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 896.9	Length: See Below	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View
u.s.f.



Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 5/2/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Chesterbrook Road Culvert, BS # 39 JOB NO. ____

Culvert Characteristics : Twin 6'-4" x 4'-9" CMP

Area : $A = 2 \times 24 = 48$ ft.²

Hydraulic Radius : $R = 1.35$ ft.

Length : $L = 47.0$ ft.

Manning Coefficient : $n = 0.0336$

Entrance Loss : $K_e = 0.90$ (Projecting from Fill)

Max. Depth : $D = 4.75$ ft.

$BWC = A/D = 10.11$ ft.

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 0.98$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.88$$

B.S. #34

HYDRAULIC STRUCTURAL DATA

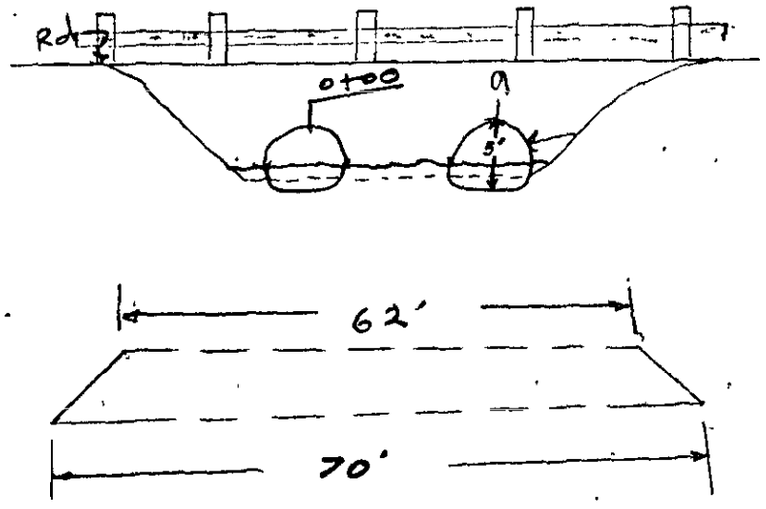
Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

Code No. 5670-03-36

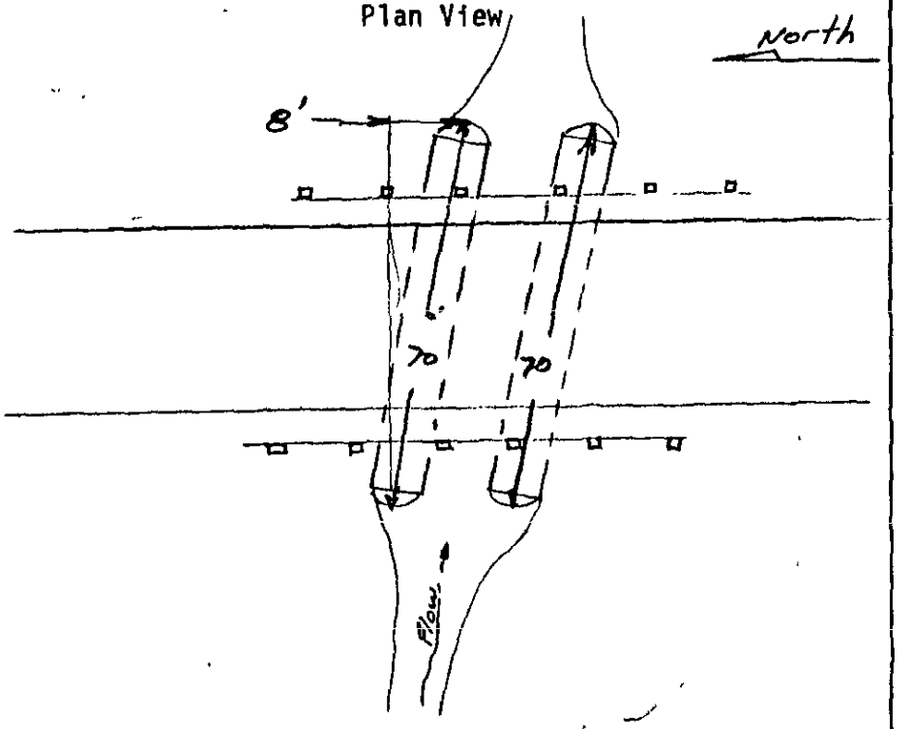
Job Name: Farmington Hills		By: G Morberg	
Date:	Feature: 6'-1" x 4'-6" CMP	Water Course: Minnow Pond Creek	
Remarks: Bannockburn Rd			
2' of sand & gravel in CMP's			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 848.3	Length: 70'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS

BY MSC DATE 5/2/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Bannockburn Road Culvert - BS # 36 JOB NO. 5670-03-01

Culvert Characteristics :-	Twin 6'-1" x 4'-6" CMP
Area :-	$A = 22.0 \times 2 = 44.0\ ft^2$
Hydraulic Radius :-	$R = 1.29\ ft$
Length :-	$L = 70\ ft$
Manning Coefficient :-	$n = 0.0327$
Entrance Losses :-	$K_e = 0.90$ (Projecting from Fill)
Max. Depth :-	$D = 4.50\ ft.$
	$BWC = A/D = 9.78\ ft.$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.55$$

$$\Sigma K \phi R = 1 + K_e + K_f = 3.45$$

BS #34

Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

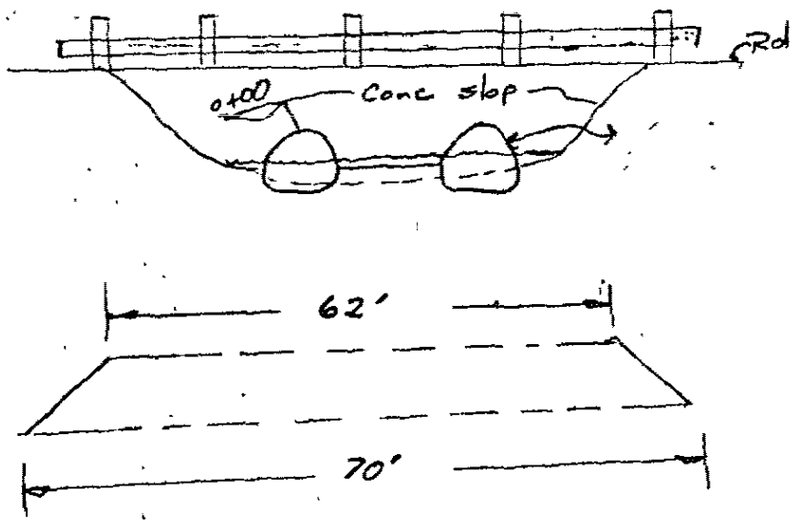
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-#34

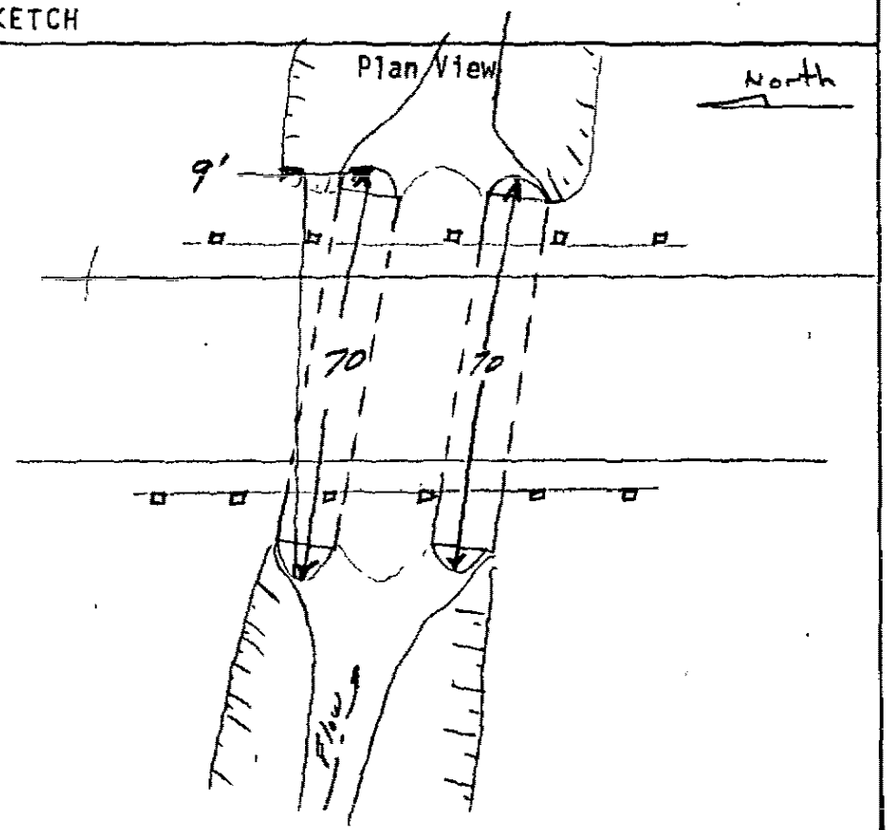
Job Name: Farmington Hills			By:
Date:	Feature: 6'-1" x 4'-6" CMP		Water Course: Minnow Pond Creek
Remarks: GLENARDEN RD.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 849.1	Length: 70'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View
U.S.F.



Plan View



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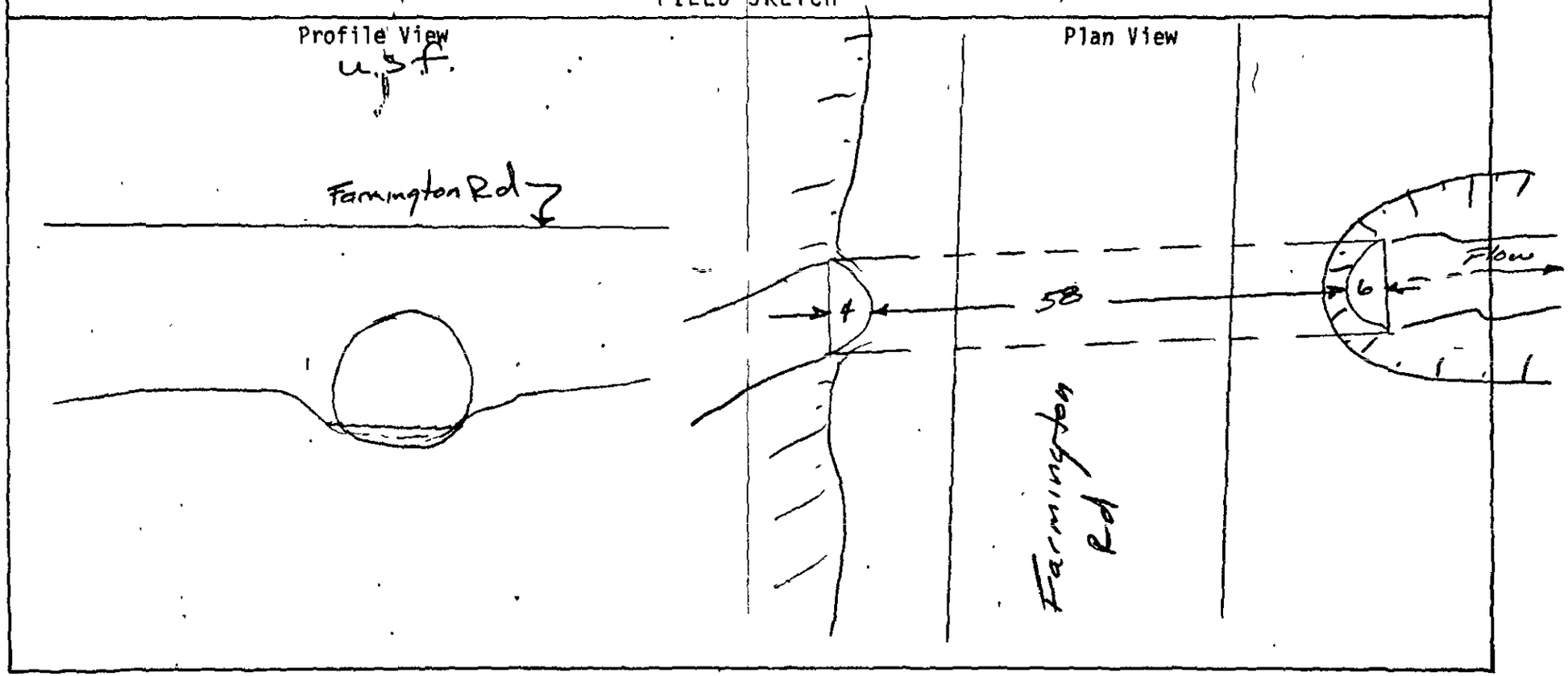
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03 BS #30

Job Name: Farmington Hills			By: G. Norberg
Date: 1-11-77	Feature: 9'-8" x 6'-7" Multi Plate C.M.P.		Water Course: Minnow Pond
Remarks: Farmington Rd.			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 853.4	Length: 68	Width of Deck: —	Skew: —

FIELD SKETCH



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CONSULTING ENGINEERS

BY MSC DATE 5/2/77 JOB DESCRIPTION EIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Farmington Road Culvert, BS #30, JOB NO. 5620-03-01

Culvert Characteristics: Multi-Plate 9'-8" x 6'-7" CMP

Area: $A = 51.0\ ft^2$

Hydraulic Radius: $R = 1.93\ ft.$

Length: $L = 68\ ft.$

Manning Coefficient: $n = 0.0318$

Entrance Losses: $K_e = 0.90$ (Projecting from Fill)

Max. Depth: $D = 6.51\ ft.$

$BWC = A/D = 7.83\ ft.$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.83$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1 + 0.9 + 0.83 = 2.73$$

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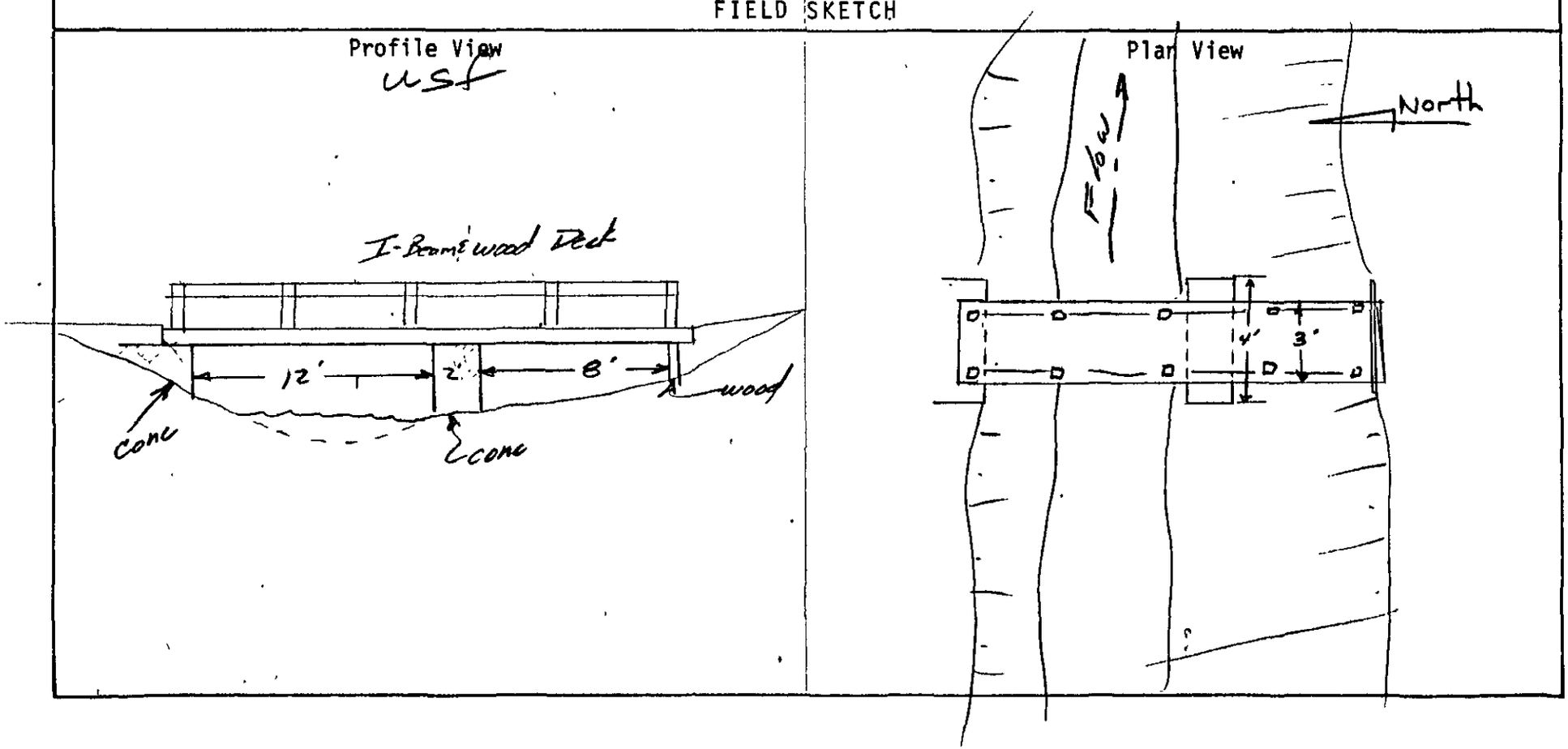
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-B5 #28

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-20-77	Feature: Conc & wood Brdge	Water Course: Minnow Pond	
Remarks: walk Bridge 800± u.s. from Farmington Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 855.3	Length: 22'	Width of Deck: 3'	Skew: —

FIELD SKETCH



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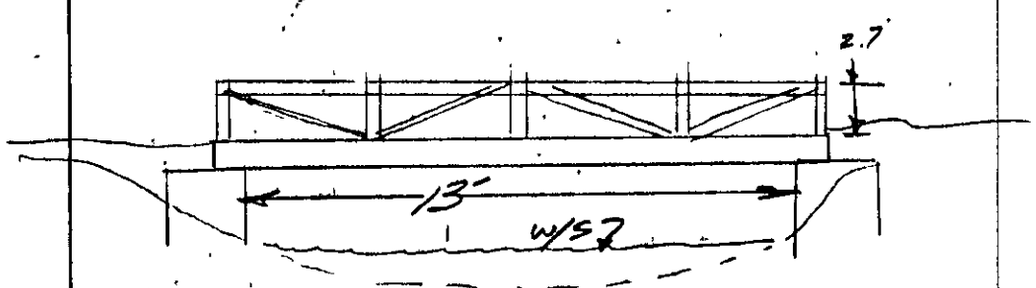
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #27

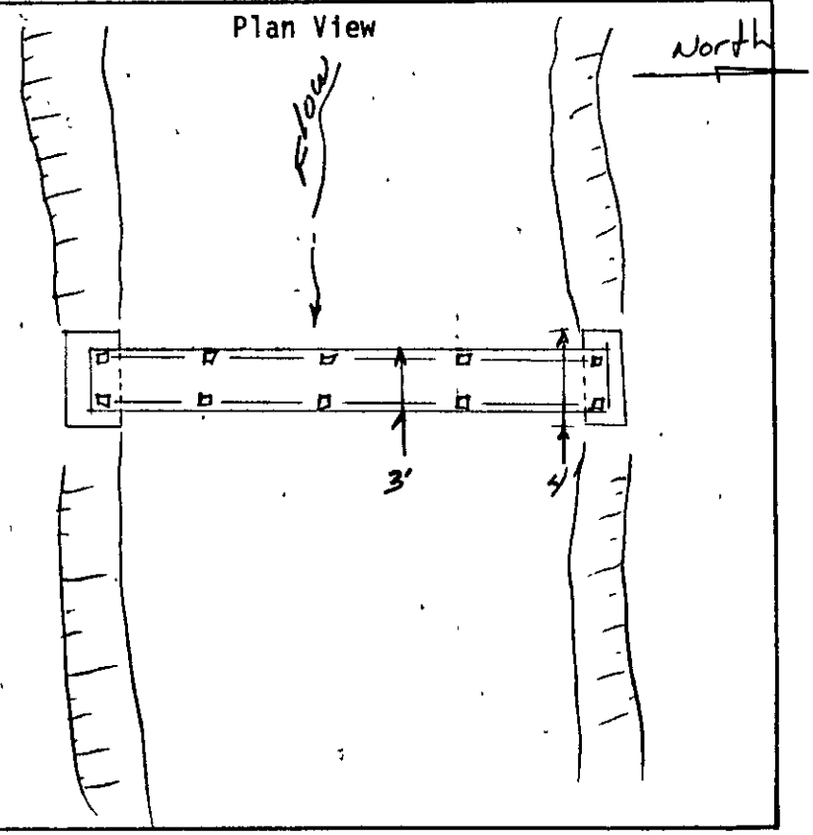
Job Name: Farmington Hills		By: G. Norberg	
Date: 1-20-77	Feature: Conc & wood Bridge	Water Course: Minnow Pond	
Remarks: walk Bridge 350'± D.S from oak Point Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 856.2	Length: 13'	Width of Deck: 3'	Skew: —

FIELD SKETCH

Profile View



Plan View



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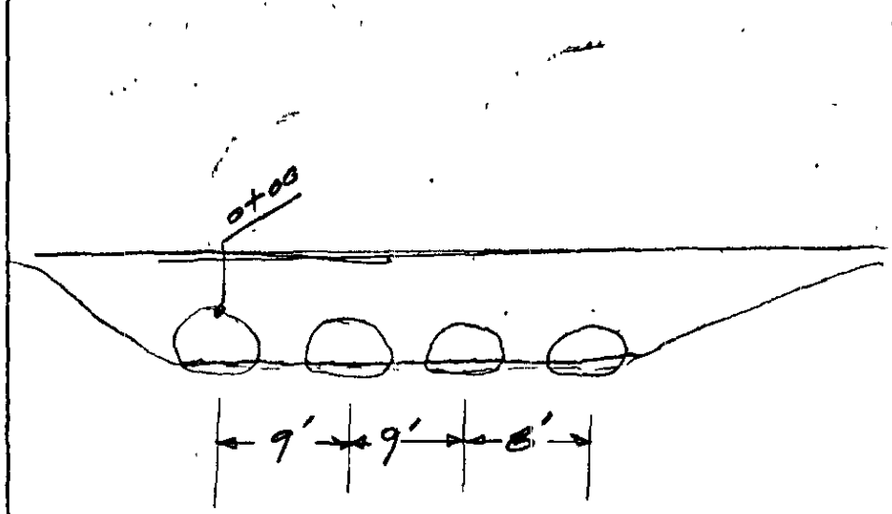
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #26

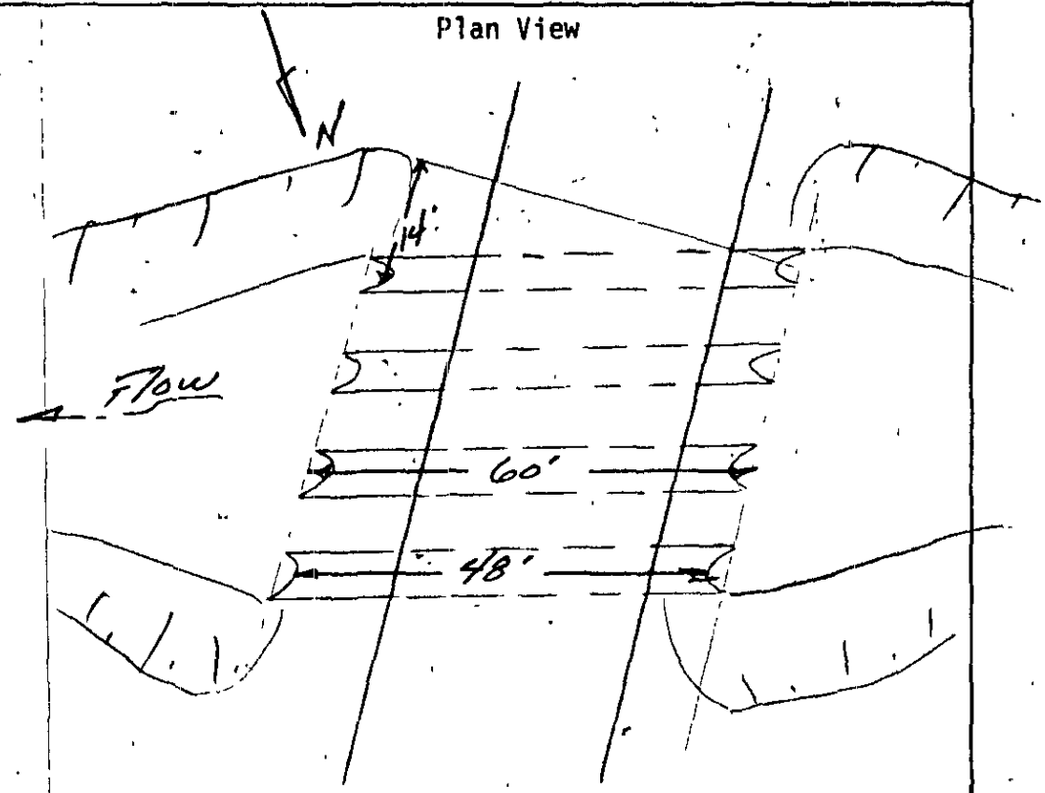
Job Name: Farmington Hills FIS		By: G. Norberg	
Date: 1-19-77	Feature: 44"x72" CMP	Water Course: Minnow Pond Drain	
Remarks: Oak Point Drive			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 856.6	Length: 60'	Width of Deck: —	Skew: —

FIELD SKETCH

Profile View



Plan View



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CONSULTING ENGINEERS

BY MSC DATE 5/3/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Oak Point Drive Culvert - BS #26 JOB NO. 5670-03-01

Culvert Feature - 4 - 44" x 72" CMP

Area - $A = 17.6 \times 4 = 70.4 \text{ ft}^2$

Hydraulic Radius - $R = 1.12$ ft.

Length - $L = 60.0$ ft.

Manning Coefficient - $n = 0.033$

Entrance Losses - $K_e = 0.90$ (Projecting from Fill)

Max. Depth - $D = 3.7$ ft.

$BWC = \frac{A}{D} = 19.03$ ft

Weir Coefficient - $C = 3.04$

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 1.63$$

$$\Sigma K \phi R = 1 + K_e + K_f = 3.53$$

JOB NAME: City of Farmington Hills | JOB NO. 5670 | 03 | 01

WATERCOURSE: Minnow Pond Drain | CULVERT LOCATION: Oak Point Drive Culvert

CULVERT DESCRIPTION: 44" x 72" CMP (4 pipes) | BY MSC | DATE 7/13/77

Projected from Fill

n= 0.033 Q_{10}= 255 cfs TW_{10}= 859.05 (4.45)

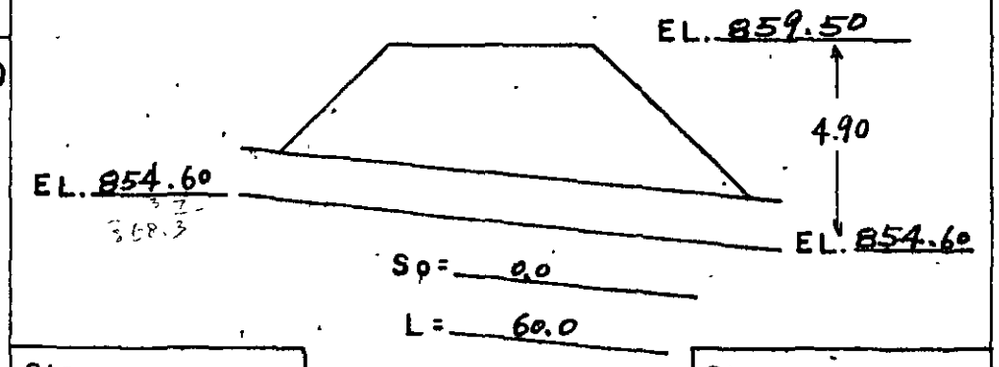
A= 70.40 ft² Q_{50}= TW_{50}=

R= 1.12 ft. Q_{100}= TW_{100}=

Ke= 0.90 Q_{500}= TW_{500}=

D= 3.67 ft.

LSo= 0.0



Sta. | Sta.

Q	HEADWATER ANALYSIS									FINAL HW	FINAL HW ELEV.	ΔH HEC-2
	INLET CONT.		OUTLET CONT. HW = H + ho − LSo					HEC-2				
	HW/D	HW	H	dc	(dc+D)/2	ho	HW	D+(1+Ke) V²/2g	HW			
255			0.72	–	–	4.45	5.17	← GΦ TΦ Weir + Pressure Flow				

CALCULATIONS AND COMMENTS

$K_p = \frac{29.1 n^2 L}{R^{4/3}} = 1.63$

$XK\Phi R = 1 + K_e + K_f = 3.53$

$H = XK\Phi R \frac{V^2}{2g} = 3.53 \frac{V^2}{2g}$

JOB NAME: City of Farmington Hills	JOB NO. 5670	03	01
WATERCOURSE: Minnow Pond Drain	WEIR LOCATION: Oak Point Drive Culvert		
WEIR DESCRIPTION: 4 - 44" x 72" CMP ; Projected from Fill	BY MSC	DATE 7/13/77	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Q_T	HW ENER. ELEV.	TW ELEV.	H_c (2-3)	$Q_c = A\sqrt{\frac{2gH_c}{1+Ke+\frac{29n^2L}{R^{4/3}}}}$	L	AVG. RD.EL.	(6X7)	HW (2-7)	C	$Q_w = CLH_w^{3/2}$	MIN. RD.EL.	$\frac{D}{H}\left(\frac{3-12}{2-12}\right)$	C_s / C_f	(11 X 14)	(5 + 15)
255	859.73	859.05	0.68	247.96	—	—	—	—	—	8.14	859.5	< 0	1.0	8.14	256.1 (OK)

CALCULATIONS AND COMMENTS

$$Q_c = A\sqrt{\frac{2gH_c}{XKPR}} = 300.7\ H_c^{1/2}$$

#0.95

5670-03-1 CITY OF FARMINGTON HILLS
MINNOW POND DRAIN
OAK POINT DRIVE CULVERT

PAVED SURFACE
WEIR BREADTH = 60.0 FEET
NUMBER OF POINTS= 10

STATION	ELEVATION
313.00	865.00
313.00	860.73
397.00	860.30
406.00	860.30
407.00	860.20
420.00	860.10
429.00	860.10
500.00	859.50
513.00	859.50
513.00	865.00

WIDTH OF ROADWAY= 60.00

ROAD SURFACE:PAVED

ELEVATION FEET	FLOW CFS	CAV	TOP WIDTH FEET	AREA SFT
859.50	0.0	0.0	0.	0.0
859.60	1.65	2.913	25.	1.91
859.70	6.03	2.940	37.	5.03
859.80	13.06	2.954	48.	9.07
859.90	23.93	2.968	60.	14.53
860.00	38.77	2.977	72.	21.21
860.10	57.95	2.985	84.	29.10
860.20	82.38	2.984	106.	39.03
860.30	111.85	3.003	107.	49.59
860.40	146.51	2.992	135.	61.86
860.50	190.25	2.995	155.	76.81
860.60	238.48	2.998	174.	92.70
860.70	298.33	3.001	194.	111.64
860.80	363.92	3.012	200.	131.27
860.90	437.30	3.021	200.	151.24
861.00	516.66	3.027	200.	171.21

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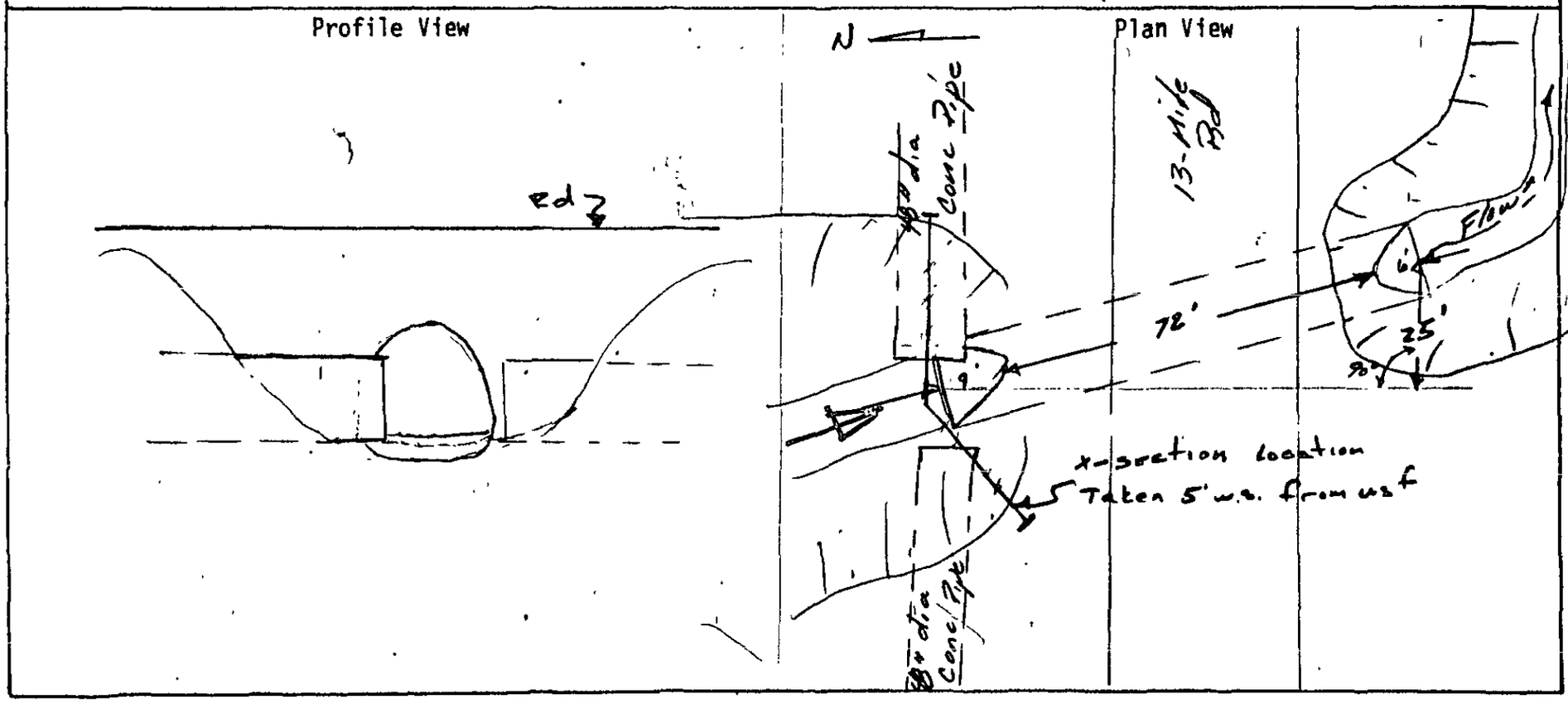
HYDRAULIC STRUCTURAL DATA

Code No. 5670-03-BS #4

Job Name: Farmington Hills		By: G. Norberg	
Date: 1-10-79	Feature: 10'-2" x 6'-9" Multi Plate CMP.	Water Course: Minnow Pond	
Remarks: 13-Mile Rd			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 858.6	Length: 87	Width of Deck: —	Skew: Shown Below

FIELD SKETCH



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CONSULTING ENGINEERS

BY MSC DATE 5/3/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT 13 - Mile Road Culvert, BS # 21 JOB NO. 5670-03-01

Culvert Feature :- 10' 2" x 6' 9" Multi Plate CMP

Area :- $A = 54.0$ ft.²

Hydraulic Radius :- $R = 1.97$ ft.

Length :- $L = 87.0$ ft.

Manning Coefficient :- $n = 0.0317$

Entrance Coefficient :- $K_e = 0.90$ (Projecting from Fill)

Max. Depth :- $D = 6.75'$

$$BWC = \frac{A}{D} = 8.0 \text{ ft.}$$

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = 1.03$$

$$\Sigma K \phi R = 1 + K_e + K_f = 2.93$$

Weir Coefficient :- $C = 3.04$

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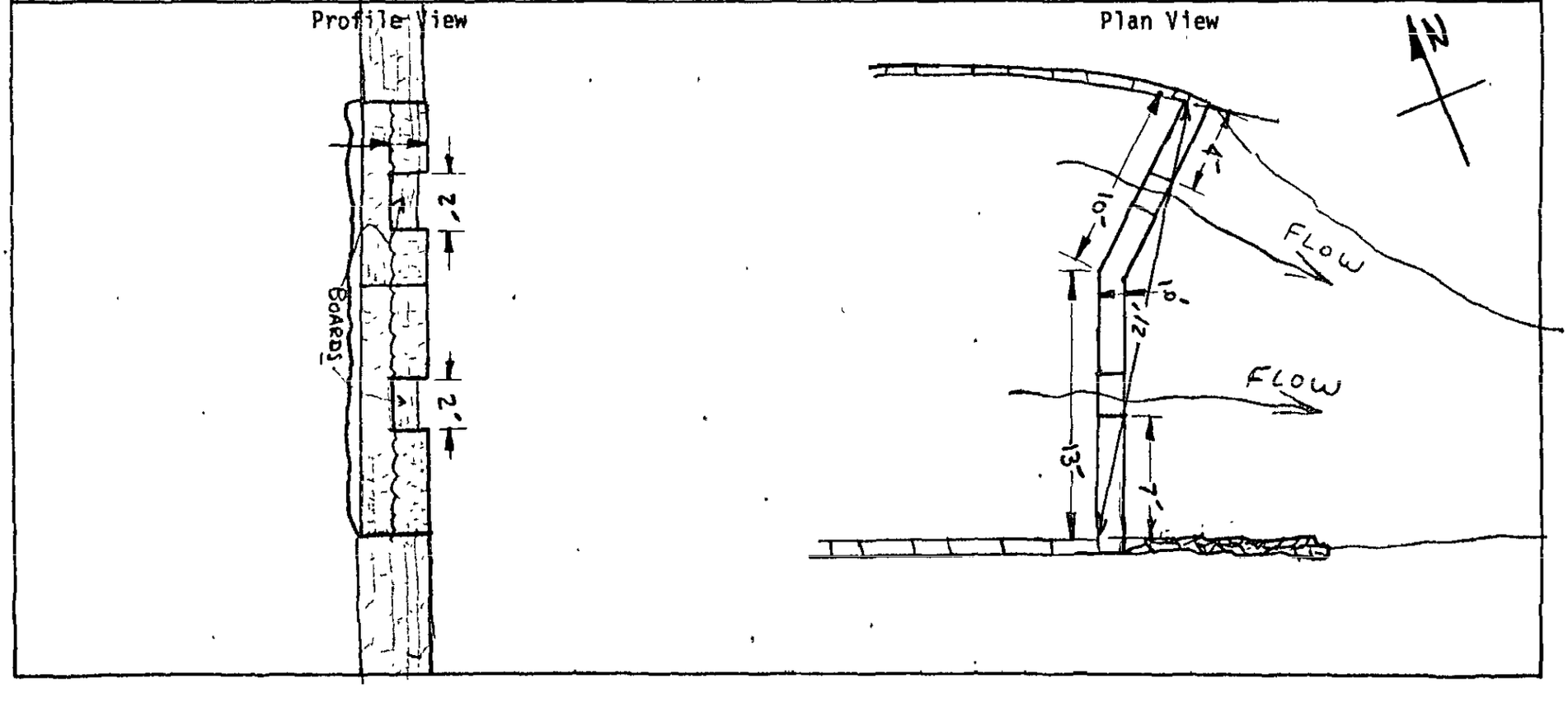
HYDRAULIC STRUCTURAL DATA

Code No. 03-18

Job Name: FARMINGTON HILLS F.I.S.		By: T.R. PRUYT	
Date: 12-9-76	Feature: CHECK DAM	Water Course: MINNOW POND DRAIN	
Remarks: Bottom: SAND WITH ROCKS & BROKEN CONC. DOWNSTREAM			
65' U.S. from SECTION #19			
Photos: MPDD11 - U.S. FACE; MPDD12 - U.S.; MPDD13 Left; MPDD 14 Right.; MPDD15 - D.S. MPDD 16 - D.S. FACE			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: UP/S = 864.9 DOWN/S = 862.6	Length: 23'	Width of Deck: DAM	Skew: SEE BELOW

FIELD SKETCH



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HYDRAULIC STRUCTURAL DATA

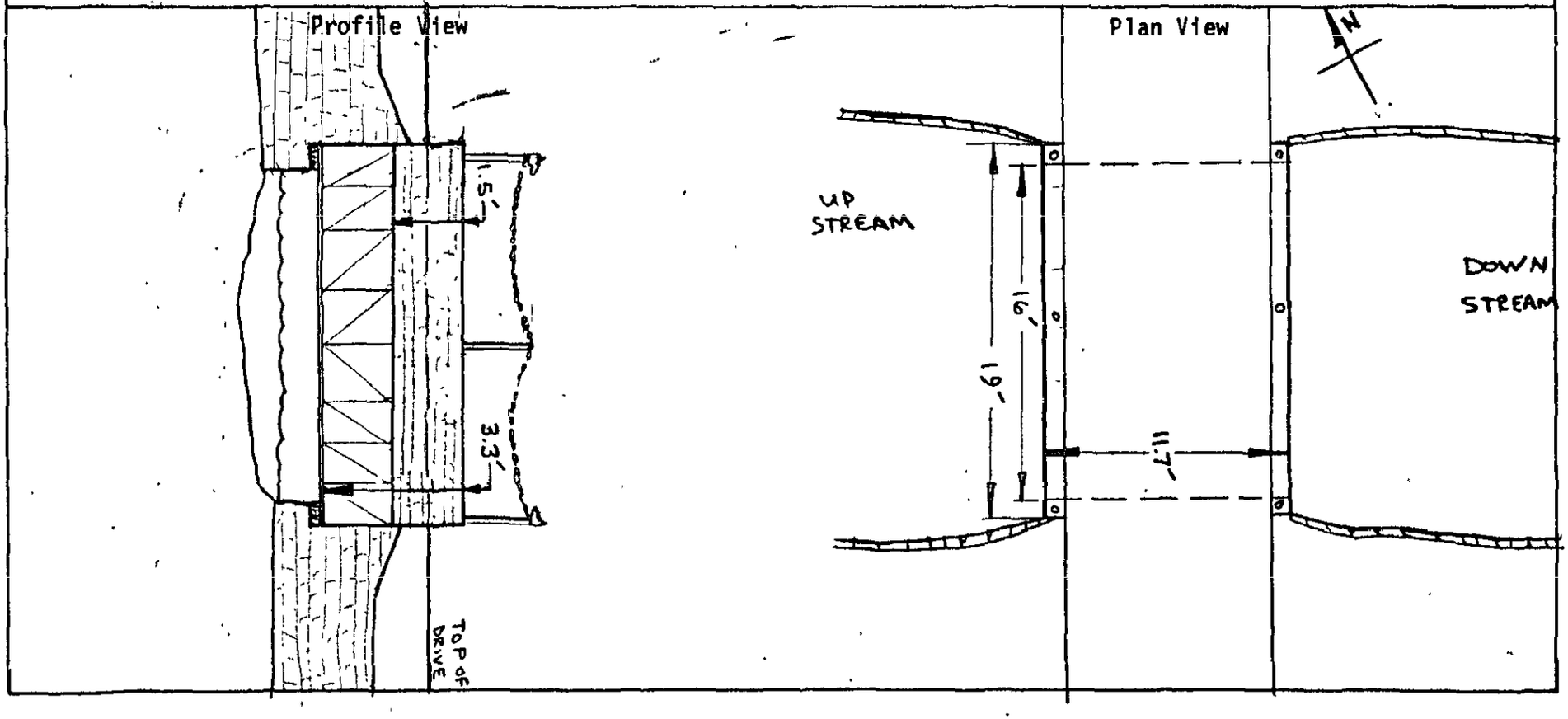
Code No. 03-17

Job Name: FARMINGTON HILLS F.I.S.		By: T.R. PRUYT
Date: 12-9-76	Feature: DRIVEWAY BRIDGE	Water Course: MINNOW POND DRAIN.
Remarks: Bottom: SAND		

Photos: MPDD5 - U.S. FACE ; MPDD6 - U.S. ; MPDD7 - Left ; MPDD8 - Right ; MPDD9 - D.S. ; MPDD10 - D.S. Face

Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 865.0	Length: 16	Width of Deck: 11.7	Skew: —

FIELD SKETCH



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HYDRAULIC STRUCTURAL DATA

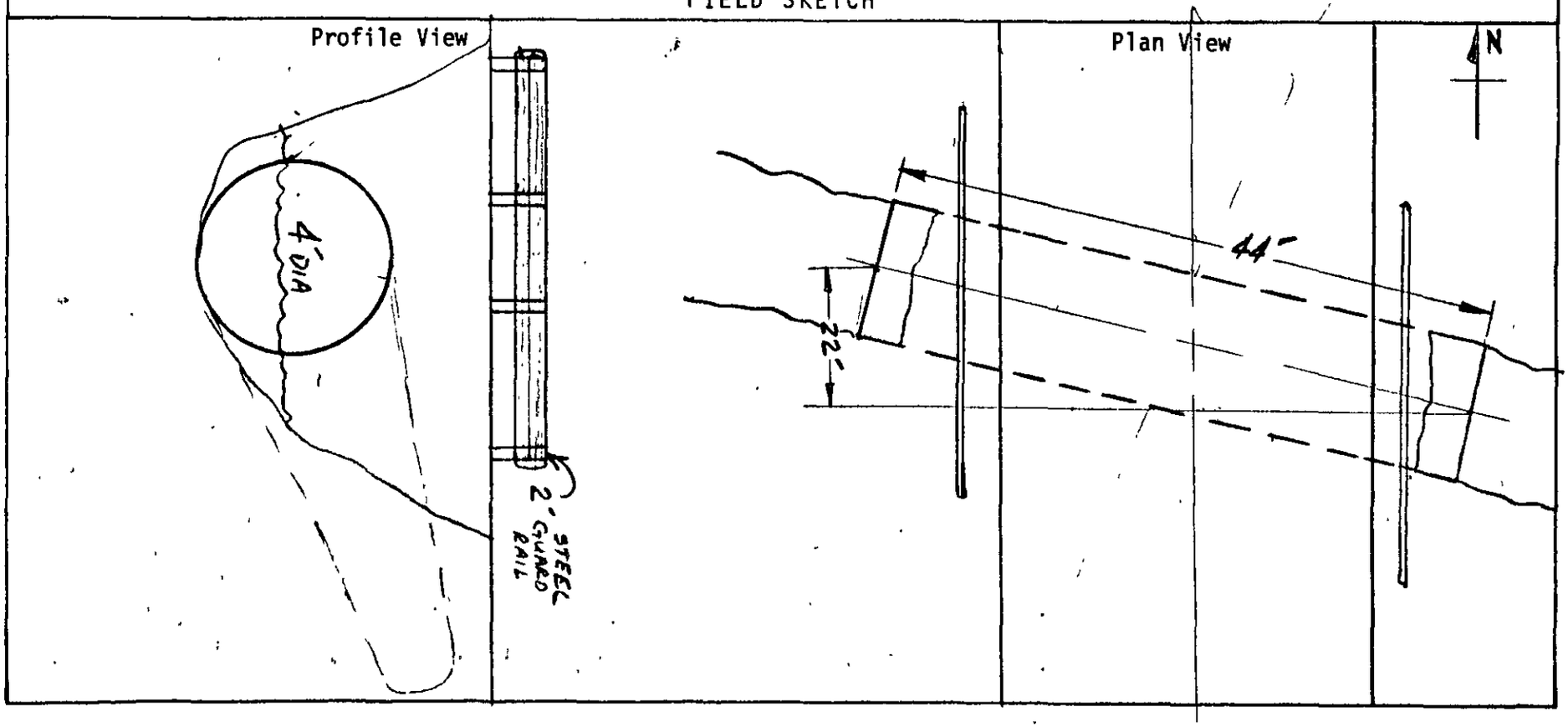
Code No. 03-16

Job Name: Farmington Hills F.I.S.		By: T.R. Pruyt
Date: 12-7-76	Feature: MIRLON DRIVE R.C.P.	Water Course: MINNOW POND DRAIN
Remarks: BOTTOM : MUCK & BROKEN CONCRETE		

Photo MPDC7-u.s. Face ; MPDC-8 U.S. ; MPDC-9 Left ; MPDC 10-Right ; MPDC-11 D.S. ; MPDC-12 D.S. face

Width of Piers: —	Pier Shape: —	No. of Piers: NONE	Area:
Water Elevation: 864.9	Length: 44'	Width of ~~Deck~~: CULVERT; 48" RCP	Skew: SEE SKETCH

FIELD SKETCH



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CONSULTING ENGINEERS

BY MSC DATE 5/3/77 JOB DESCRIPTION FIS - City of Farmington Hills SHEET ____ OF ____
SUBJECT Mirlon Drive Culvert : BS # 16 JOB NO. 5670-03-01

Culvert Feature : 4 feet Diameter Circular RCP

Area : $A = 12.57 \text{ ft}^2$

Hydraulic Radius :- $R = 1.0$ ft.

Max. Depth :- $D = 4$ ft.

Manning Coefficient : $n = 0.015$ (Broken Concrete)

Length :- $L = 44.0$ ft.

Entrance Losses : $K_e = 0.50$ (Projecting from Fill)

skew = 0.87 (only for overbanks)

$$K_f = \frac{29.1\, n^2 L}{R^{4/3}} = 0.29$$

$$\Sigma K \phi R = 1 + K_e + K_f = 1.79$$

Johnson & Anderson, Inc.
Consulting Engineers
P. O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

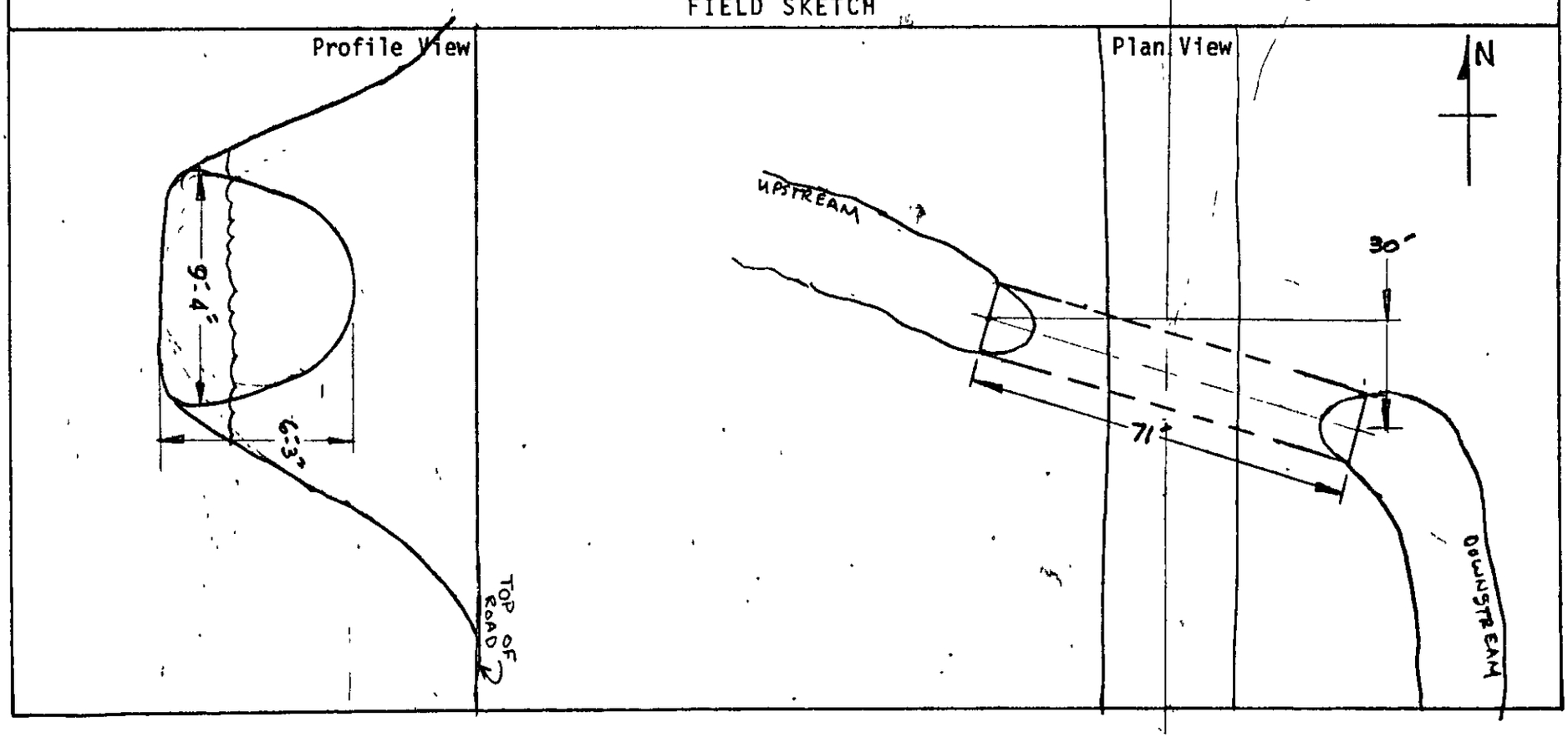
HYDRAULIC STRUCTURAL DATA

Code No. 03-12

Job Name: FARMINGTON HILLS F.I.S.		By: T.R. PRUYT
Date: 12-7-76	Feature: DRAKE Rd. Multi-plate arch	Water Course: MINNOW POND DRAIN
Remarks: Bottom: GRAVEL		
PHOTOS: MPDB9- U.S. Face ; MPDB10- U.S. ; MPDB11- Left ; MPDB12 - Right ; MPDB13 D.S. ; MPDB14 - D.S. face		

Width of Piers: —	Pier Shape: —	No. of Piers: —	Area:
Water Elevation: 866.1	Length: 71'	Width of ~~Deck~~ MULTI-PLATE: CULVERT: 6'-3" X 9'-4"	Skew: SEE SKETCH (0.91)

FIELD SKETCH



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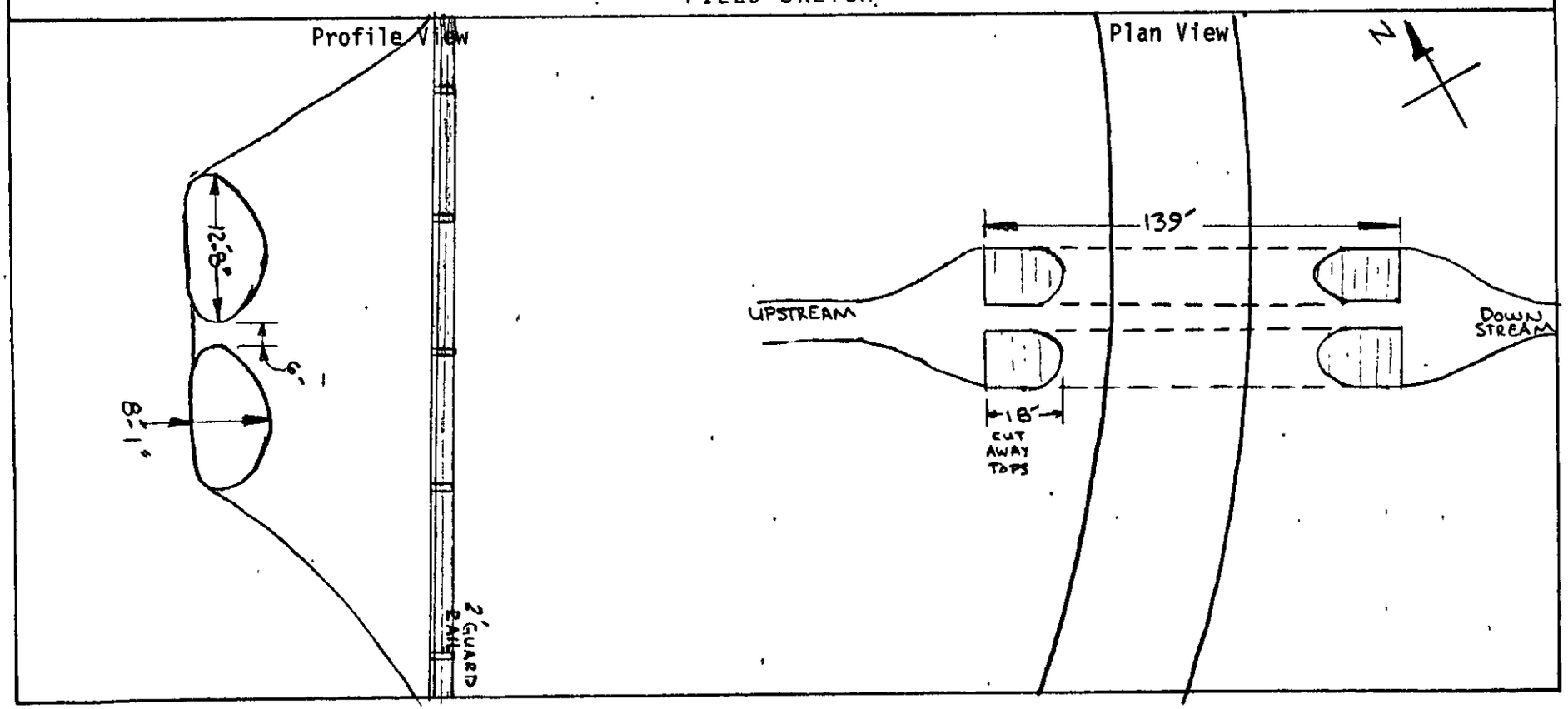
HYDRAULIC STRUCTURAL DATA

Code No. 03 - 05

Job Name: FARMINGTON HILLS F.I.S.		By: T.R. PRUYT
Date: 12-6-76	Feature: 2- MULTIPLATE ARCH CULVERTS	Water Course: MINNOW POND DRAIN
Remarks: Bottom : SAND — CULVERTS NEW		
PHOTOS : MPDA 19 U.S. FACE ; MPDA 20 · U.S. ; MPDB1 Left ; MPDB2 Right ; MPDB3 U.S. ; MPDB4 D.S. FACE		

Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 869.2	Length: 139' OVERALL	Width of ~~Deck~~ CULVERT: 12'-8" x 8'-1"	Skew: 90°

FIELD SKETCH



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Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

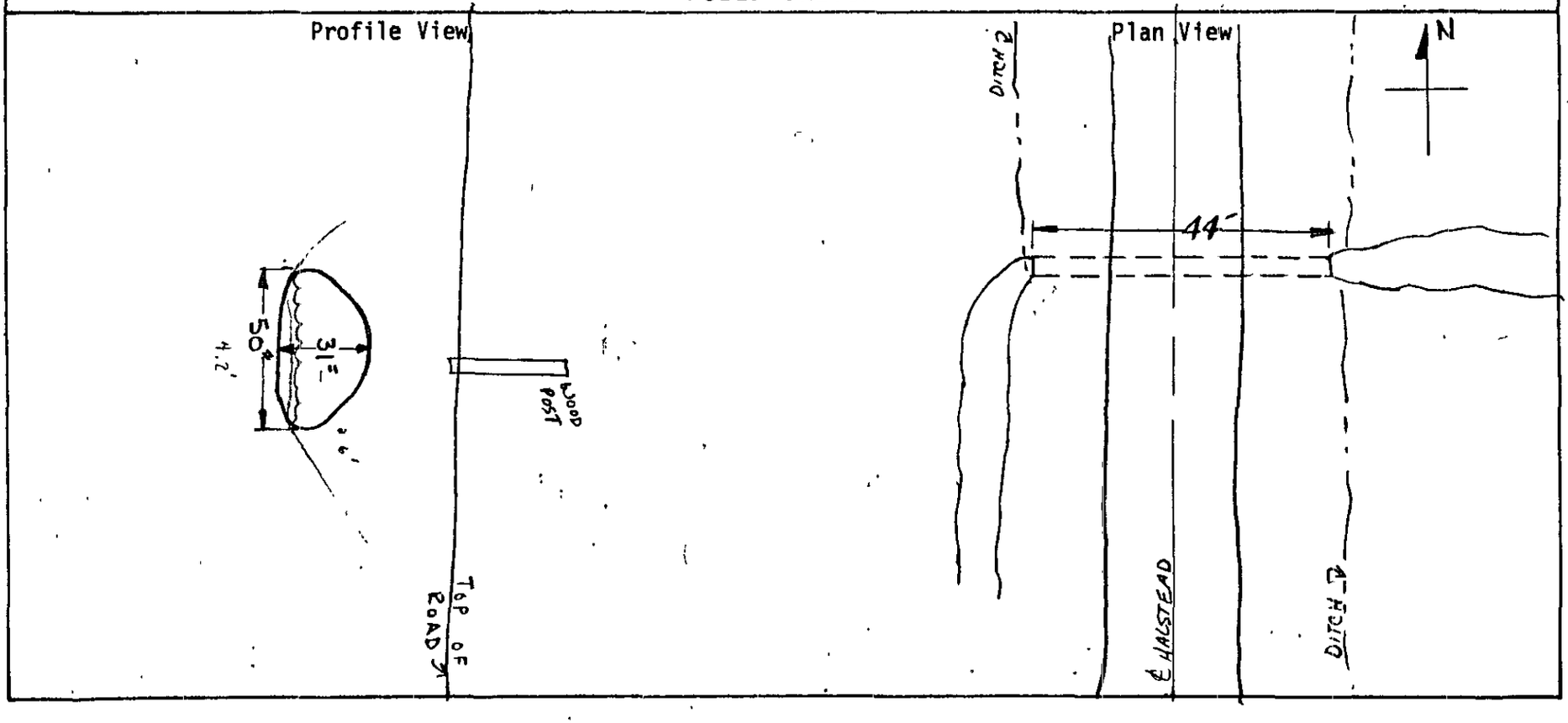
HYDRAULIC STRUCTURAL DATA

Code No. 03-03

Job Name: FARMINGTON HILLS F.I.S.		By: T.R. PRUYT
Date: 12-6-76	Feature: HALSTEAD RD. C.M.P.	Water Course: MINNOW POND DRAIN
Remarks: BOTTOM: SAND & WEEDS - SAND IN CULVERT.		
PHOTOS: MBDA9 - U.S. Face; MBDA10 - U.S.; MBD11-Left; MBD12-Right; MBD13-D.S.; MBD14 D.S. face.		

Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 872.7	Length: 44	Width of ~~Deck~~: CULVERT: 50"x31" PIPE ARCH	Skew: 90°

FIELD SKETCH



Johnson & Anderson, Inc.
Consulting Engineers
P.O. Box 1166 2300 Dixie Highway Pontiac, Michigan 48056

HYDRAULIC STRUCTURAL DATA

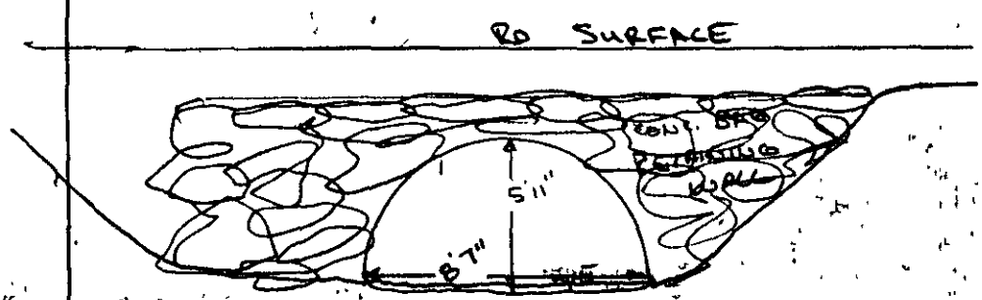
B.S. # 4

Code No. 5850-10

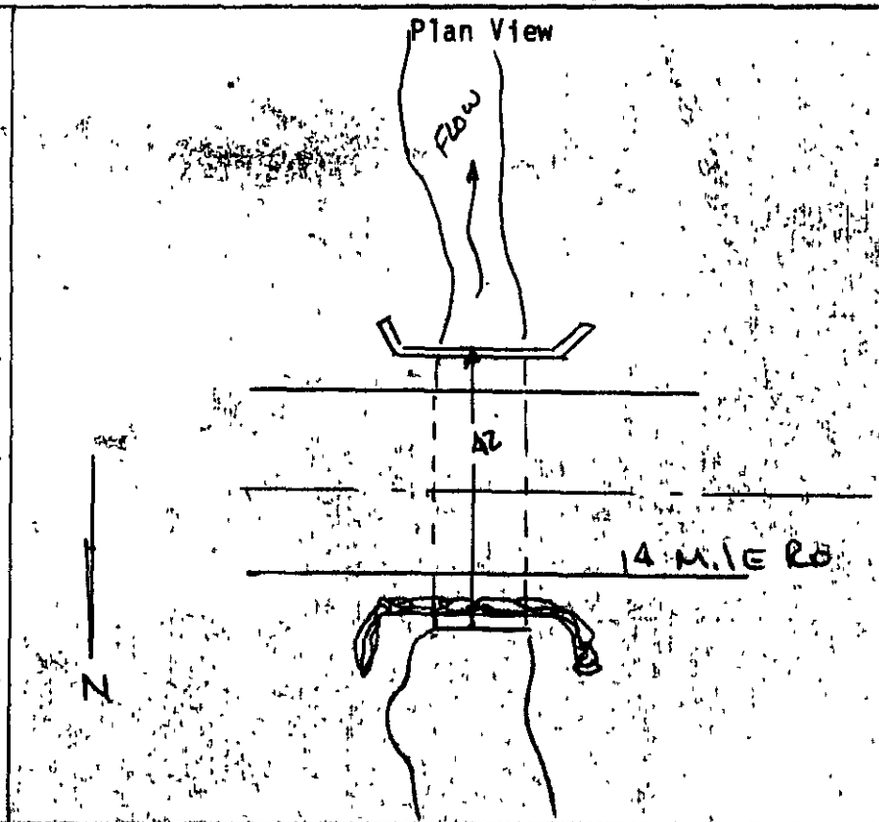
Job Name: WEST BLOOMFIELD TWP. F.I.S		By: R. MOSES	
Date: 3-15-78	Feature: 8'7" x 5'11" MULTI-PLATE	Water Course: MINNOW POND	
Remarks: THIS CULVERT IS C.M.P & ON 14 MILE RD			
Width of Piers: —	Pier Shape: —	No. of Piers: —	Area: —
Water Elevation: 879.9	Length: 42'	Width of Deck: 8'7"	Skew: —

FIELD SKETCH

Profile View

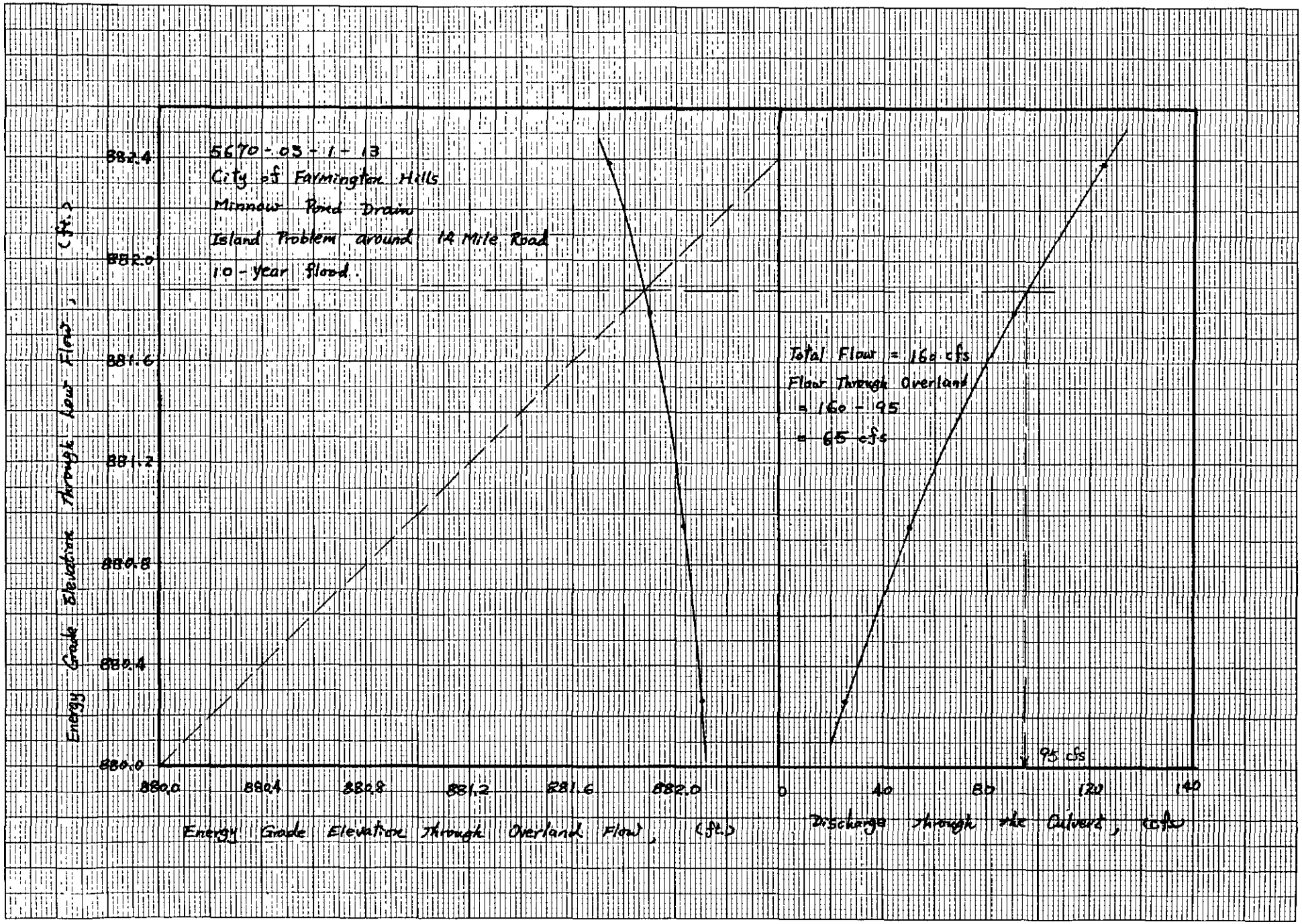


Plan View



K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.

46 1510



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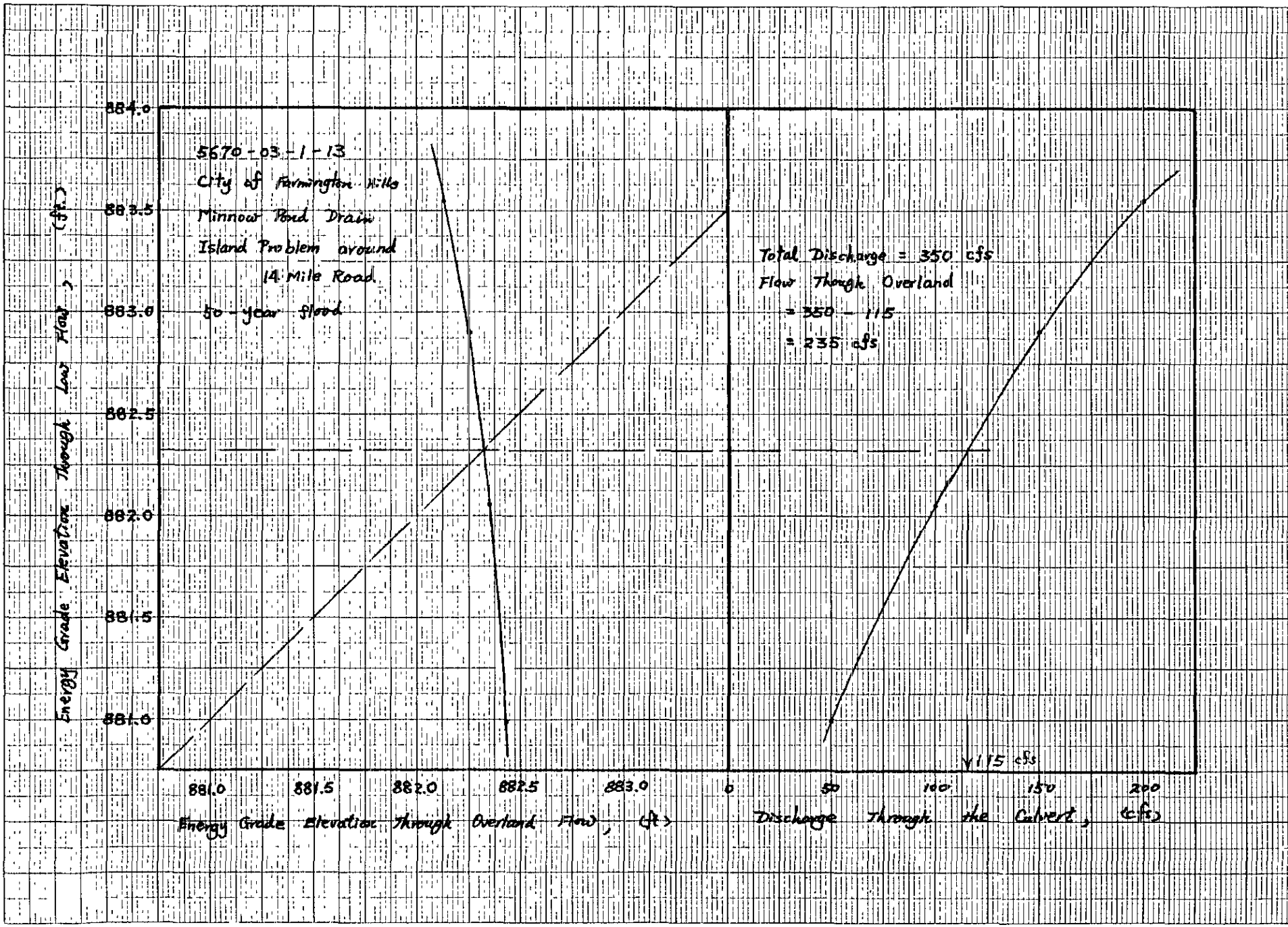
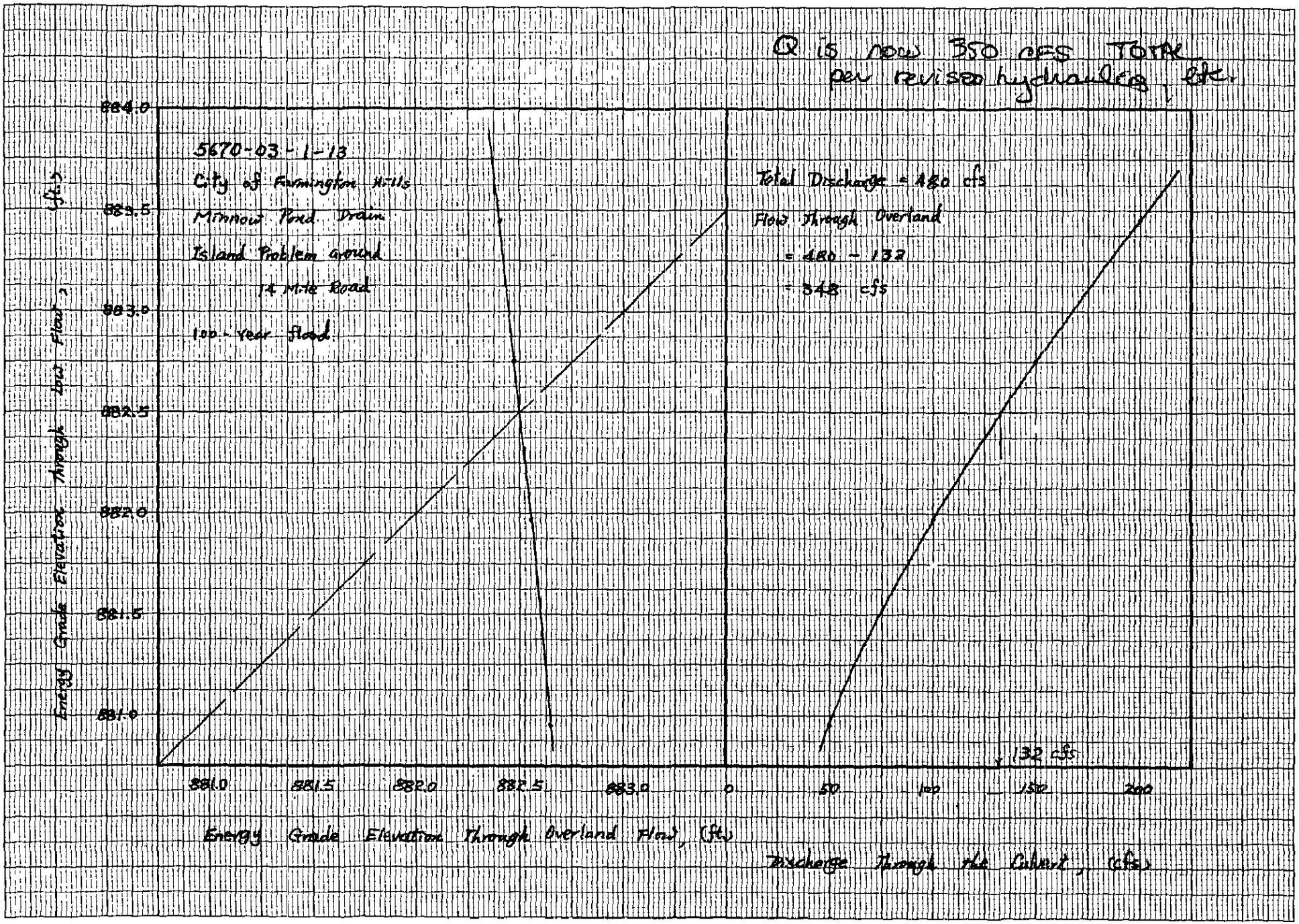


K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.

Q is now 350 cfs TOTAL
per revised hydraulics, etc.



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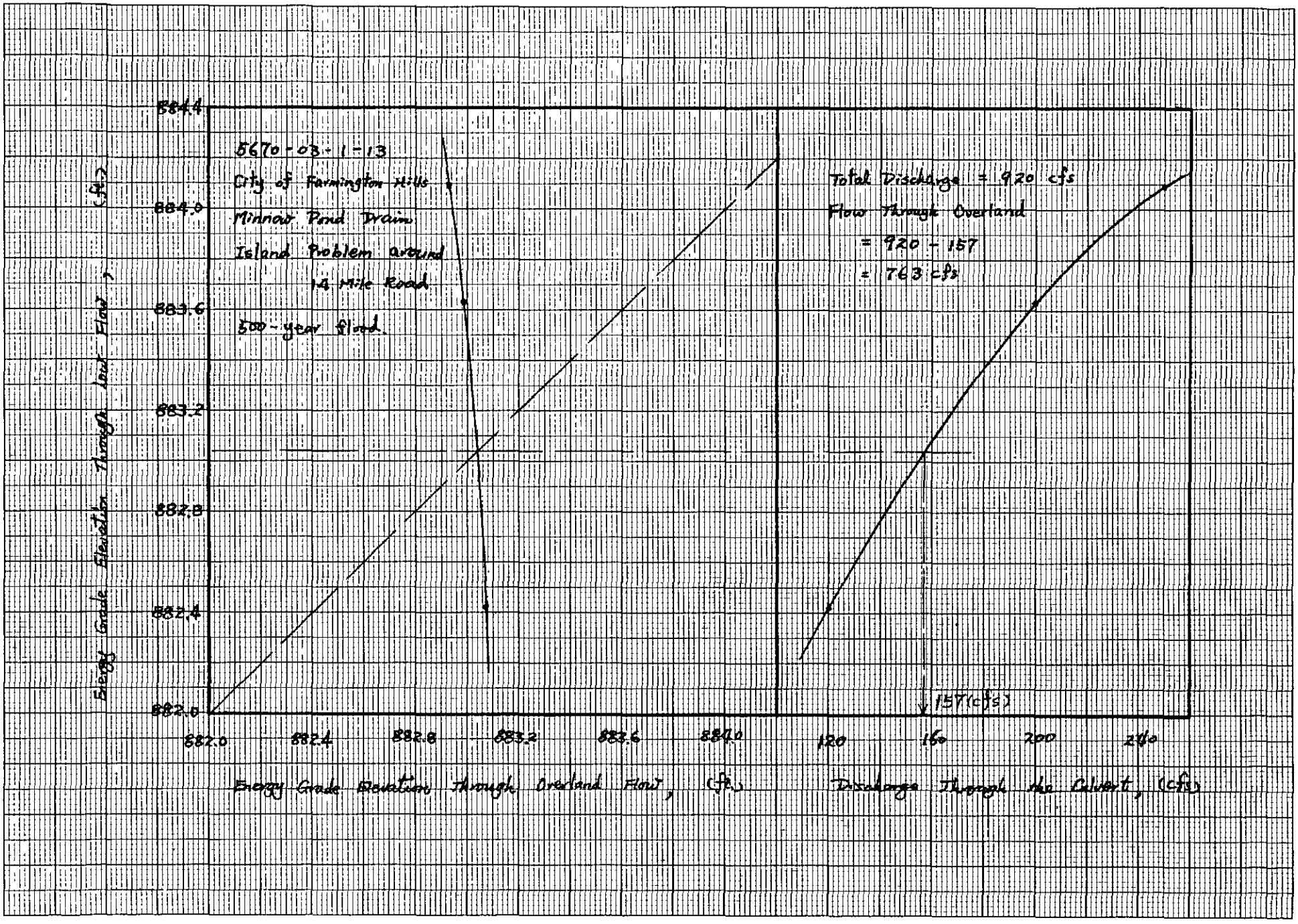
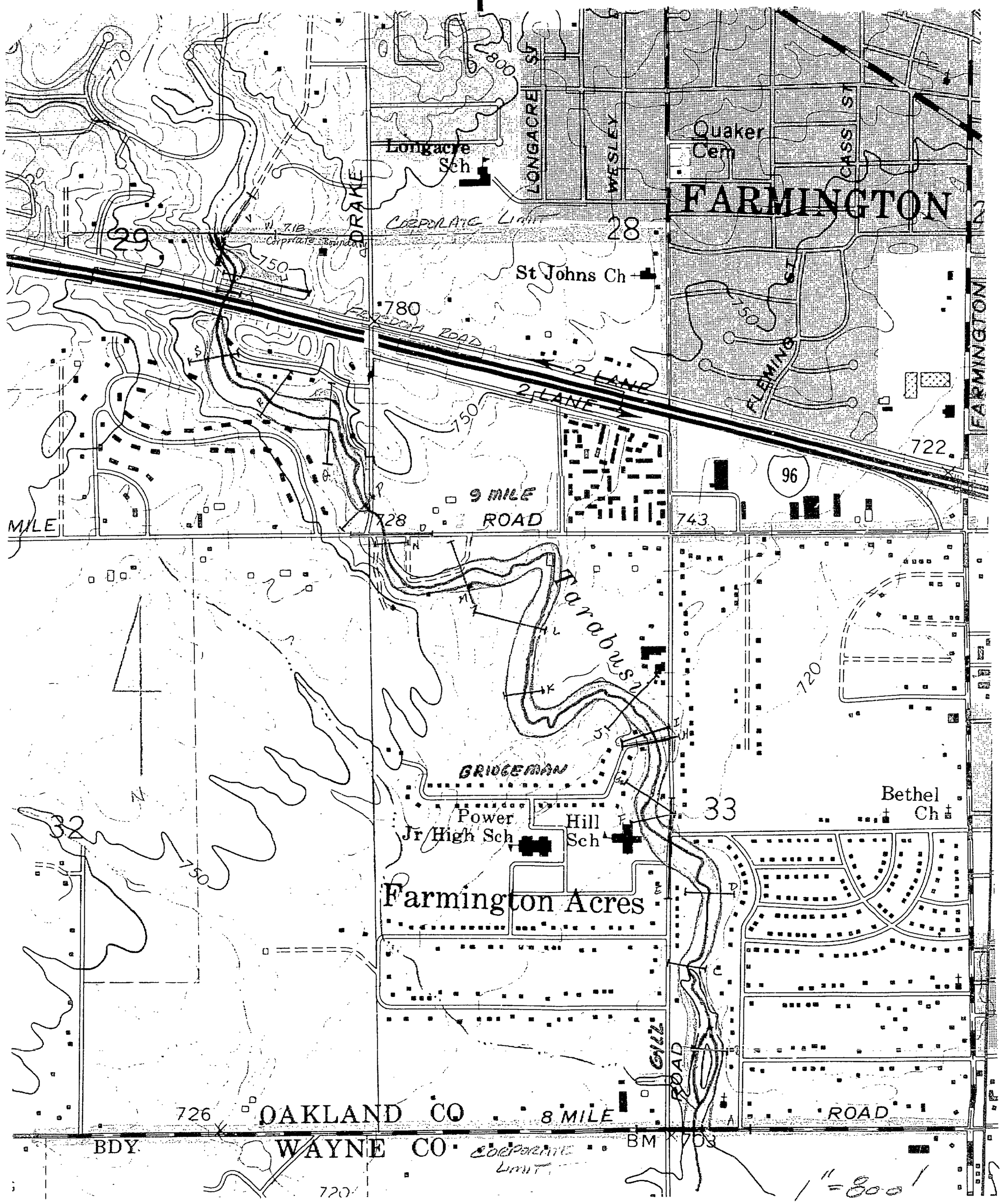
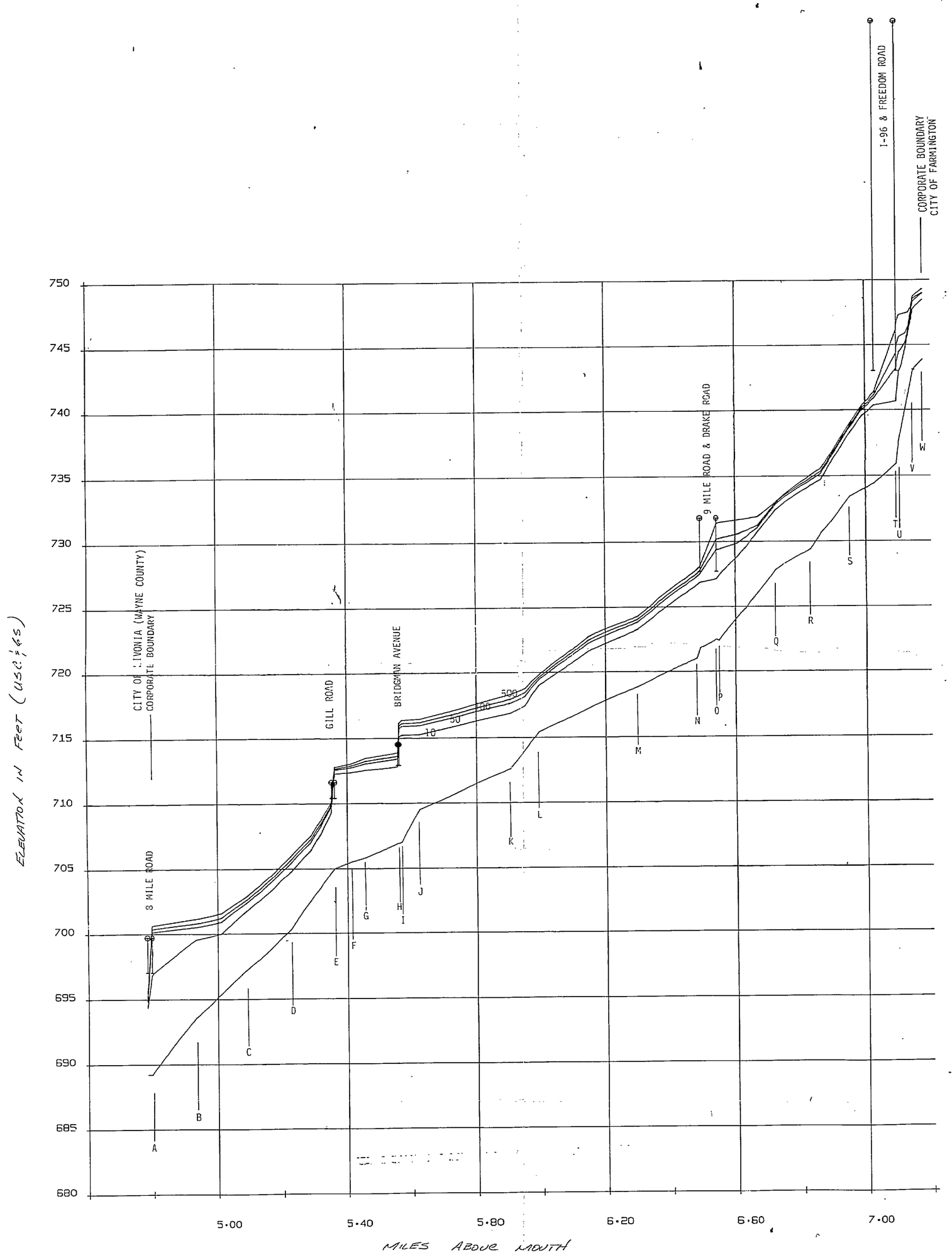




City of Farmington Hill Fig — Tarabusi Creek



Job No.	Cont. No.	Cost Tab No.	Type of Job No.	Sheet No. of Sheet No. of Sheets	As Built	Section in County	City No. in County	Twp. No. in County	Village No. in County	County No. in State	State	Construction Contract	Job Code No.
1 2 3 4 5	6 7 8	9 10 11	12 13 14	15 16 17 18 19 20 21 22 23	24 25 26	27 28 29 30	31 32	33 34 35	36 37	38 39	40 41 42	43 44 45	46 47 48 49 50	51 52 53 54 55 56 57 58 59 60

DRAWN:
DESIGN:
CHECKED:
FINAL:
DATE COMPLETED:
PRELIMINARY:

SCALE: VERT. 1" = 5'
HORIZ. 1" = 0.2 MI

REVISIONS	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE	MARK	BULLETIN	DATE

JOHNSON & ANDERSON, INC.
CONSULTING ENGINEERS
PONTIAC, MICHIGAN

TARABUSI CREEK

CITY OF FARMINGTON HILLS FIS
OAKLAND COUNTY, MI

JOB NO. 5670-03
DATE ISSUED
SHEET NO.