DRAINAGE REPORT

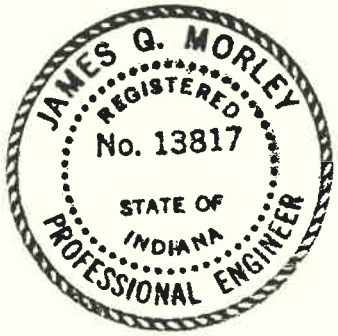
FOR:

BAUMGART ROAD COMMERCIAL SUBDIVISION

Approved 8-23-93

OWNER: BRUCE BIGGERSTAFF
W. C. BUSSING, JR.

ENGINEER: MORLEY AND ASSOCIATES, INC.
605 SE M.L. KING, JR. BLVD.
EVANSVILLE, IN 47713
(812) 464-9585



AUGUST 18, 1993

BAUMGART ROAD COMMERCIAL SUBDIVISION

The site is located on the north side of Heinlein Road and on the east side of Baumgart Road in Section 28, Township 5 South, Range 10 West.

The 10 acre site is a small section of a large drainage basin that drains through an unnamed tributary to Little Pigeon Creek. This is located on the 10 acre site. The drainage basin is encompassed by Baumgart Road, Browning Road and Petersburg Road, resulting in a watershed of 518 acres.

The proposed commercial subdivision is to be located on flat pasture land. The overall watershed characteristics north of the site would be described as following woodland currently developed as residential. The current storm runoff flows overland to the unnamed ditch located in the proposed commercial subdivision, south to a roadway culvert under Baumgart Road. Retention in the commercial subdivision will be addressed by each lot owner, and will provide 100% of the required 25 year detention volume.

It is planned to relocate the existing ditch to the east along the boundary line. This drain improvements will align the ditch to a more preferable location for the Baumgart Road culvert. The new ditch will also provide runoff storage for the 100 year storm within its bank.

I N D E X

BAUMGART ROAD COMMERCIAL

Undeveloped Conditions

Total Watershed Area (A) = 518 Acres

Commercial Sub Area (A_{SUB}) = 10 acres

Undeveloped Coefficient

Pasture / Farm land, silt and clay (0-5% slopes) $C_u = 0.33$

Time of Concentration (t_c) - Kerby formula

N = 0.4

L = 11,000'

S = 0.005 FT/FT

$$t_c = 0.827\left[\frac{NL}{\sqrt{S}}\right]^{0.467}$$

$\therefore t_c =$ 143.3 mins → 2.4 hours

$i_{25} = 1.1$ inches / hr

$Q_u^{25} = 1.1(0.33)(10 \text{ acres}) = 3.63$ cfs

Developed Conditions

Area of Commercial Sub (A_d) = 10 acres

Property zoned C4 and M1 - Vanderbrough County

allowable lot coverage 75%

STRUCTURES & PAVEMENT	75% (.95)	= 0.71
GREEN SPACE	25% (.33)	= 0.08
		C_d = 0.79

PROJECT: Baumgart Road DATE:
ENGINEER:MORLEY AND ASSOCIATES,INC

DESIGN RETURN PERIOD:	5\25\100
RELEASE RATE PERIOD:	5\25\100
WATERSHED AREA (ACRES):	10
TIME OF CONCENTRATION(UNDEVELOPED):	143
RAINFALL INTENSITY (INCHES/HR):	1.1
UNDEVELOPED RUNOFF COEFFICIENT:	0.33
UNDEVELOPED RUNOFF RATE (CFS):	3.63
DEVELOPED RUNOFF COEFFICIENT:	0.79

25 YEAR STORM

STORM DURATION (HRS)	RAINFALL INTENSITY (INCH/HR)	INFLOW RATE (CFS)	OUTFLOW RATE (CFS)	STORAGE RATE (CFS)	REQUIRED STORAGE (ACRE-FT)
0.08	6.85	54.12	3.63	50.49	0.337
0.17	5.45	43.06	3.63	39.43	0.559
0.25	4.65	36.74	3.63	33.11	0.690
0.33	4.15	32.79	3.63	29.16	0.802
0.42	3.80	30.02	3.63	26.39	0.924
0.50	3.40	26.86	3.63	23.23	0.968
0.58	3.20	25.28	3.63	21.65	1.046
0.67	2.85	22.52	3.63	18.89	1.054
0.75	2.75	21.73	3.63	18.10	1.131
0.83	2.60	20.54	3.63	16.91	1.170
0.92	2.45	19.36	3.63	15.73	1.206
1.00	2.30	18.17	3.63	14.54	1.212
1.25	2.05	16.20	3.63	12.57	1.309
1.50	1.85	14.62	3.63	10.99	1.373
1.75	1.60	12.64	3.63	9.01	1.314
2.00	1.40	11.06	3.63	7.43	1.238
2.50	1.25	9.88	3.63	6.25	1.301
3.00	1.10	8.69	3.63	5.06	1.265
4.00	0.84	6.64	3.63	3.01	1.002

PEAK STORAGE (ACRE/FT):	1.37
PEAK STORAGE (CUBIC FT):	59813.33

(4)

HEC-2 ANALYSIS OF UNNAMED TRIBUTARY TO LITTLE PIGEON CREEK

A hydraulic analysis of the unnamed tributary to Little Pigeon Creek was conducted for 100-year storm conditions. The actual computer printout is enclosed in the Appendix.

Nine (9) cross sections of the ditch were input for our analysis. The 100 year flood surface water elevation at the point of discharge was input as 387.00, as obtained from the Flood Insurance Rate Map. The cross section locations are shown on the enclosed map. The corresponding surface water elevations for a 100 year storm event are shown on page 10 of the computer output under "CWSEL".

The runoff calculations for the water shed are as follows:

Total Area = (A_+) = 517.68 acres

L_t = 7200 FT

H_t = 100' Tc = 38 min.

L_t^{100} = 3.45 in/hr.

Q_{total} = (.33)(3.45)(517.68 ac.) = 589.37 cfs

600 cfs was used in analysis

n = .03
S = .005
.0047

Area = 140 sf
Q = 1148 cfs
Vel = 8.204 fps

A P P E N D I X

HEC-2 COMPUTER PRINT-OUT

PROPOSED COMMERCIAL SUBDIVISION DEVELOPMENT

UNDEVELOPED WATERSHED MAP

APPENDIX

THIS RUN EXECUTED 29JUN93 8:59:38

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**************************************
 HEC-2 WATER SURFACE PROFILES

 Version  4.6.2;  May 1991
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T1BAUMGART AND HIEMLEN DEVELOPMENT
T2100 YEAR PROFILE
T3      WEST DITCH WITH S BRIDGE
  SUBCRITICAL PROFILE ENERGY SLOPE=0.0025 FLOWRATE=300

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         0         0         0     .0025          0        .1       600        87
  MANNINGS N OVERBANK=.05 CHANNEL=.4

NC      .05       .05       .04        .1        .3
  0+00 100' WEST OF BRIDGE
X1        1         9       260       300         0         0         0
GR     89.1       115      89.9       200      88.5       260      83.7       266        81       272
GR     83.5       290      87.8       300      89.2       364      89.9       485
  CHANGE MANNINGS CARD TO REFLECT BRIDGE

NC                                     .3        .5
  1+00 STATION 1 OF SPECIAL BRIDGE
X1        2                                    100       100       100
X3       10

SB     1.25       1.5       2.5                  7         0       180         2      82.2      82.0
  1+50 STATION 2 OF SPECIAL BRIDGE
X1        3                 232       300        50        50        50
X2                            1      89.6      92.6
X3       10
  ROADWAY ELEVATIONS
BT        4         0        91                  100      91.8                 184        93
BT      284        92
  1+70 STATION 4 OF SPECIAL BRIDGE

X1        4                                    20        20        20
  CHANGE MANNINGS TO REFLECT NORMAL CREEK

NC                                    .1        .3
  STATION 3+00
X1        5         5       267       300       130       130       130
GR     91.8       267      82.9       282      88.2       294      91.3       300      92.8      1100
  STATION 6+00
```

X1	6	7	272	300	300	300	300			
GR	93.6	232	87.1	272	84.6	284	84.4	287	88.4	293
GR	92.0	300	92.2	800						
STATION 9+00										
X1	7	10	278	300	300	300	300			
GR	97	0	94.1	100	93.3	265	89.8	278	86.8	282
GR	86.3	287	91.3	294	92.6	300	93.7	350	93.6	600
STATION 12+00										
X1	8	10	280	300	300	300	300			
GR	95.9	100	95.5	268	90.3	280	98.1	282	87.9	283
GR	87.7	286	91.3	290	94.3	300	94.7	~~300~~ 460	~~96.2~~ 96.1	700 870
STATION 13+29										
X1	9	10	279	300	129	129	129			
GR	97.8	0	96.6	200	93.8	277	91.1	279	88.3	285
GR	88.4	290	90.8	292	95.1	300	95.3	400	95.7	800

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= .100 CEHV= .300
*SECNO 1.000

1.000	6.12	87.12	.00	87.00	87.41	.29	.00	.00	88.50
600.0	.0	600.0	.0	.0	138.9	.0	.0	.0	87.80
.00	.00	4.32	.00	.000	.040	.000	.000	81.00	261.72
.002519	0.	0.	0.	0	0	4	.00	36.70	298.42

CCHV= .300 CEHV= .500
*SECNO 2.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 88.50 ELREA= 87.80

2.000	6.40	87.40	.00	.00	87.65	.25	.23	.01	88.50
600.0	.0	600.0	.0	.0	149.3	.0	.3	.1	87.80
.01	.00	4.02	.00	.000	.040	.000	.000	81.00	261.37
.002058	100.	100.	100.	2	0	0	.00	37.70	299.07

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.50	.00	7.00	.00	180.00	2.00	82.20	82.00

*SECNO 3.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 88.740 ELLC= 89.600 PCWSE= 87.400 ELTRD= 92.600

1645 INT SEC ADDED BY RAISING SEC 3.00, .000 FT AND MULTIPLYING BY 1.026

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 88.50 ELREA= 87.80

1.010	6.46	87.46	.00	.00	87.69	.23	.03	.01	88.50
600.0	.0	600.0	.0	.0	155.3	.0	.4	.1	87.80
.01	.00	3.86	.00	.000	.040	.000	.000	81.00	265.04
.001874	17.	17.	17.	2	0	0	.00	38.87	303.91

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

1645 INT SEC ADDED BY RAISING SEC 1.01, .000 FT AND MULTIPLYING BY .988

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 88.50 ELREA= 87.80

1.020	6.49	87.49	.00	.00	87.72	.23	.03	.00	88.50
600.0	.0	600.0	.0	.0	154.5	.0	.4	.1	87.80
.01	.00	3.88	.00	.000	.040	.000	.000	81.00	263.14
.001885	17.	17.	17.	2	0	0	.00	38.49	301.63

1645 INT SEC ADDED BY RAISING SEC 1.02, .000 FT AND MULTIPLYING BY .987

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 88.50 ELREA= 87.80

3.000	6.52	87.52	.00	.00	87.75	.24	.03	.00	88.50
600.0	.0	600.0	.0	.0	153.7	.0	.5	.1	87.80
.01	.00	3.90	.00	.000	.040	.000	.000	81.00	261.23
.001898	17.	17.	17.	2	0	0	.00	38.12	299.34

*SECNO 4.000

4.000	6.56	87.56	.00	.00	87.79	.23	.04	.00	88.50
600.0	.0	600.0	.0	.0	155.4	.0	.6	.1	87.80
.01	.00	3.86	.00	.000	.040	.000	.000	81.00	261.17
.001841	20.	20.	20.	2	0	0	.00	38.27	299.45

CCHV= .100 CEHV= .300
*SECNO 5.000

1645 INT SEC ADDED BY RAISING SEC 5.00, -1.425 FT AND MULTIPLYING BY 1.625

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

1.010	6.06	87.53	.00	.00	87.93	.40	.09	.05	90.38
600.0	.0	600.0	.0	.0	117.8	.0	.7	.2	89.88
.01	.00	5.09	.00	.000	.040	.000	.000	81.47	274.77
.004510	33.	33.	33.	2	0	0	.00	38.51	313.27

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

1645 INT SEC ADDED BY RAISING SEC 1.01, .475 FT AND MULTIPLYING BY .872

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .68

1.020	5.54	87.49	.00	.00	88.25	.76	.21	.11	90.85
600.0	.0	600.0	.0	.0	85.9	.0	.8	.2	90.35
.01	.00	6.98	.00	.000	.040	.000	.000	81.95	275.02
.009814	33.	33.	33.	3	0	0	.00	30.89	305.91

1645 INT SEC ADDED BY RAISING SEC 1.02, .475 FT AND MULTIPLYING BY .853

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.030	5.20	87.63	87.63	.00	88.97	1.34	.44	.17	91.32
600.0	.0	600.0	.0	.0	64.6	.0	.8	.2	90.82
.02	.00	9.29	.00	.000	.040	.000	.000	82.42	274.53
.019492	33.	33.	33.	4	11	0	.00	24.83	299.36

1645 INT SEC ADDED BY RAISING SEC 1.03, .475 FT AND MULTIPLYING BY .828

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

5.000	5.61	88.51	88.51	.00	89.96	1.45	.64	.03	91.80
600.0	.0	600.0	.0	.0	62.2	.0	.9	.2	91.30
.02	.00	9.65	.00	.000	.040	.000	.000	82.90	272.54
.019793	33.	33.	33.	20	8	0	.00	22.06	294.60

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

*SECNO 6.000

1645 INT SEC ADDED BY RAISING SEC 6.00, -1.125 FT AND MULTIPLYING BY .764

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.56

1.010	6.39	90.17	.00	.00	90.53	.36	.47	.11	85.97
600.0	109.0	491.0	.0	41.4	94.2	.0	1.0	.3	90.87
.02	2.64	5.21	.00	.050	.040	.000	.000	83.27	242.85
.003020	75.	75.	75.	3	0	0	.00	40.08	282.92

1645 INT SEC ADDED BY RAISING SEC 1.01, .375 FT AND MULTIPLYING BY 1.103

1.020	6.78	90.43	.00	.00	90.75	.32	.21	.00	86.35
600.0	104.8	495.2	.0	43.1	101.3	.0	1.3	.4	91.25
.03	2.43	4.89	.00	.050	.040	.000	.000	83.65	244.56
.002646	75.	75.	75.	2	0	0	.00	43.41	287.97

1645 INT SEC ADDED BY RAISING SEC 1.02, .375 FT AND MULTIPLYING BY 1.093

1.030	6.52	90.65	.00	.00	90.94	.30	.19	.00	86.72
600.0	99.5	500.5	.0	43.6	106.9	.0	1.5	.4	91.62
.03	2.29	4.68	.00	.050	.040	.000	.000	84.02	246.62
.002448	75.	75.	75.	2	0	0	.00	46.29	292.91

1645 INT SEC ADDED BY RAISING SEC 1.03, .375 FT AND MULTIPLYING BY 1.085

6.000	6.44	90.84	.00	.00	91.13	.28	.18	.00	87.10
600.0	93.6	506.4	.0	43.1	111.4	.0	1.8	.5	92.00
.04	2.17	4.54	.00	.050	.040	.000	.000	84.40	248.96
.002352	75.	75.	75.	2	0	0	.00	48.79	297.75

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

*SECNO 7.000

1645 INT SEC ADDED BY RAISING SEC 7.00, -1.425 FT AND MULTIPLYING BY 1.281

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .65

1.010	6.05	90.93	.00	.00	91.46	.53	.26	.08	88.38
600.0	39.7	560.3	.0	15.5	93.0	.0	2.0	.6	91.17
.04	2.57	6.02	.00	.050	.040	.000	.000	84.88	343.85
.005542	75.	75.	75.	3	0	0	.00	38.84	382.69

1645 INT SEC ADDED BY RAISING SEC 1.01, .475 FT AND MULTIPLYING BY .927

3301 HV CHANGED MORE THAN HVINS

1.020	5.95	91.30	.00	.00	91.97	.66	.47	.04	88.85
600.0	37.3	562.7	.0	13.3	83.8	.0	2.2	.7	91.65
.04	2.82	6.72	.00	.050	.040	.000	.000	85.35	319.18
.007069	75.	75.	75.	2	0	0	.00	35.02	354.20

1645 INT SEC ADDED BY RAISING SEC 1.02, .475 FT AND MULTIPLYING BY .921

3301 HV CHANGED MORE THAN HVINS

1.030	5.98	91.80	.00	.00	92.57	.77	.57	.03	89.33
600.0	38.2	561.8	.0	12.5	77.8	.0	2.4	.7	92.13
.05	3.07	7.22	.00	.050	.040	.000	.000	85.83	293.93
.008314	75.	75.	75.	2	0	0	.00	32.50	326.43

1645 INT SEC ADDED BY RAISING SEC 1.03, .475 FT AND MULTIPLYING BY .914

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
7.000	5.11	92.41	.00	.00	93.25	.84	.65	.02	89.80
600.0	42.1	557.9	.0	12.7	73.9	.0	2.5	.8	92.60
.05	3.32	7.55	.00	.050	.040	.000	.000	86.30	268.30
.009160	75.	75.	75.	2	0	0	.00	30.83	299.13

*SECNO 8.000

1645 INT SEC ADDED BY RAISING SEC 8.00, -1.050 FT AND MULTIPLYING BY 1.379

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.010	6.81	93.46	92.28	.00	93.90	.44	.61	.04	89.25
600.0	113.7	477.9	8.4	28.2	85.1	15.0	2.7	1.0	93.25
.05	4.03	5.62	.56	.050	.040	.050	.000	86.65	334.90
.007263	75.	75.	75.	6	12	0	.00	183.24	519.89

1645 INT SEC ADDED BY RAISING SEC 1.01, .350 FT AND MULTIPLYING BY .908

3265 DIVIDED FLOW

1.020	7.06	94.06	93.66	.00	94.40	.35	.50	.01	89.60
600.0	109.0	432.4	58.6	28.7	83.0	63.9	3.0	1.4	93.60
.06	3.81	5.21	.92	.050	.040	.050	.000	87.00	312.66
.006081	75.	75.	75.	6	5	0	.00	313.14	627.29

1645 INT SEC ADDED BY RAISING SEC 1.02, .350 FT AND MULTIPLYING BY .899

3265 DIVIDED FLOW

1.030	7.22	94.57	.00	.00	94.84	.27	.43	.01	89.95
600.0	100.7	380.2	119.2	27.7	78.1	104.3	3.3	2.0	93.95
.06	3.63	4.87	1.14	.050	.040	.050	.000	87.35	290.77
.005374	75.	75.	75.	3	0	0	.00	356.03	648.06

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

1645 INT SEC ADDED BY RAISING SEC 1.03, .350 FT AND MULTIPLYING BY .888

3265 DIVIDED FLOW

8.000	7.29	94.99	.00	.00	95.26	.27	.42	.00	90.30
600.0	96.8	351.7	151.5	25.4	70.8	115.8	3.6	2.6	94.30
.07	3.81	4.97	1.31	.050	.040	.050	.000	87.70	269.17
.005901	75.	75.	75.	2	0	0	.00	347.03	617.30

*SECNO 9.000

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

9.000	7.13	95.43	93.22	.00	95.79	.36	.50	.03	91.10
600.0	63.8	520.1	16.1	42.7	101.4	32.2	4.2	3.5	95.10
.08	1.50	5.13	.50	.050	.040	.050	.000	88.30	232.08
.002768	129.	129.	129.	4	19	0	.00	301.33	533.41

THIS RUN EXECUTED 29JUN93 9:03:43

****
HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991
****

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

WEST DITCH WITH S BRIDGE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	1.000	.00	.00	.00	81.00	600.00	87.12	.00	87.41	25.19	4.32	138.91	119.55
	2.000	100.00	.00	.00	81.00	600.00	87.40	.00	87.65	20.58	4.02	149.32	132.27
*	3.000	50.00	.00	.00	81.00	600.00	87.52	.00	87.75	18.98	3.90	153.71	137.73
	4.000	20.00	.00	.00	81.00	600.00	87.56	.00	87.79	18.41	3.86	155.39	139.84
*	5.000	130.00	.00	.00	82.90	600.00	88.51	88.51	89.96	197.93	9.65	62.19	42.65
*	6.000	300.00	.00	.00	84.40	600.00	90.84	.00	91.13	23.52	4.54	154.56	123.72
*	7.000	300.00	.00	.00	86.30	600.00	92.41	.00	93.25	91.60	7.55	86.56	62.69
*	8.000	300.00	.00	.00	87.70	600.00	94.99	.00	95.26	59.01	4.97	212.04	78.10
*	9.000	120.00	.00	.00	88.30	600.00	95.43	93.22	95.79	27.68	5.13	176.24	114.03

WEST DITCH WITH S BRIDGE

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1.000	600.00	87.12	.00	.00	.12	36.70	.00
	2.000	600.00	87.40	.00	.28	.00	37.70	100.00
*	3.000	600.00	87.52	.00	.03	.00	38.12	50.00
	4.000	600.00	87.56	.00	.04	.00	38.27	20.00
*	5.000	600.00	88.51	.00	.88	.00	22.06	130.00
*	6.000	600.00	90.84	.00	.20	.00	48.79	300.00
*	7.000	600.00	92.41	.00	.61	.00	30.83	300.00
*	8.000	600.00	94.99	.00	.43	.00	347.03	300.00
*	9.000	600.00	95.43	.00	.44	.00	301.33	129.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 3.000 PROFILE= 1 INTERPOLATED X-SECTIONS USED

CAUTION SECNO= 5.000 PROFILE= 1 INTERPOLATED X-SECTIONS USED

CAUTION SECNO= 6.000 PROFILE= 1 INTERPOLATED X-SECTIONS USED

CAUTION SECNO= 7.000 PROFILE= 1 INTERPOLATED X-SECTIONS USED

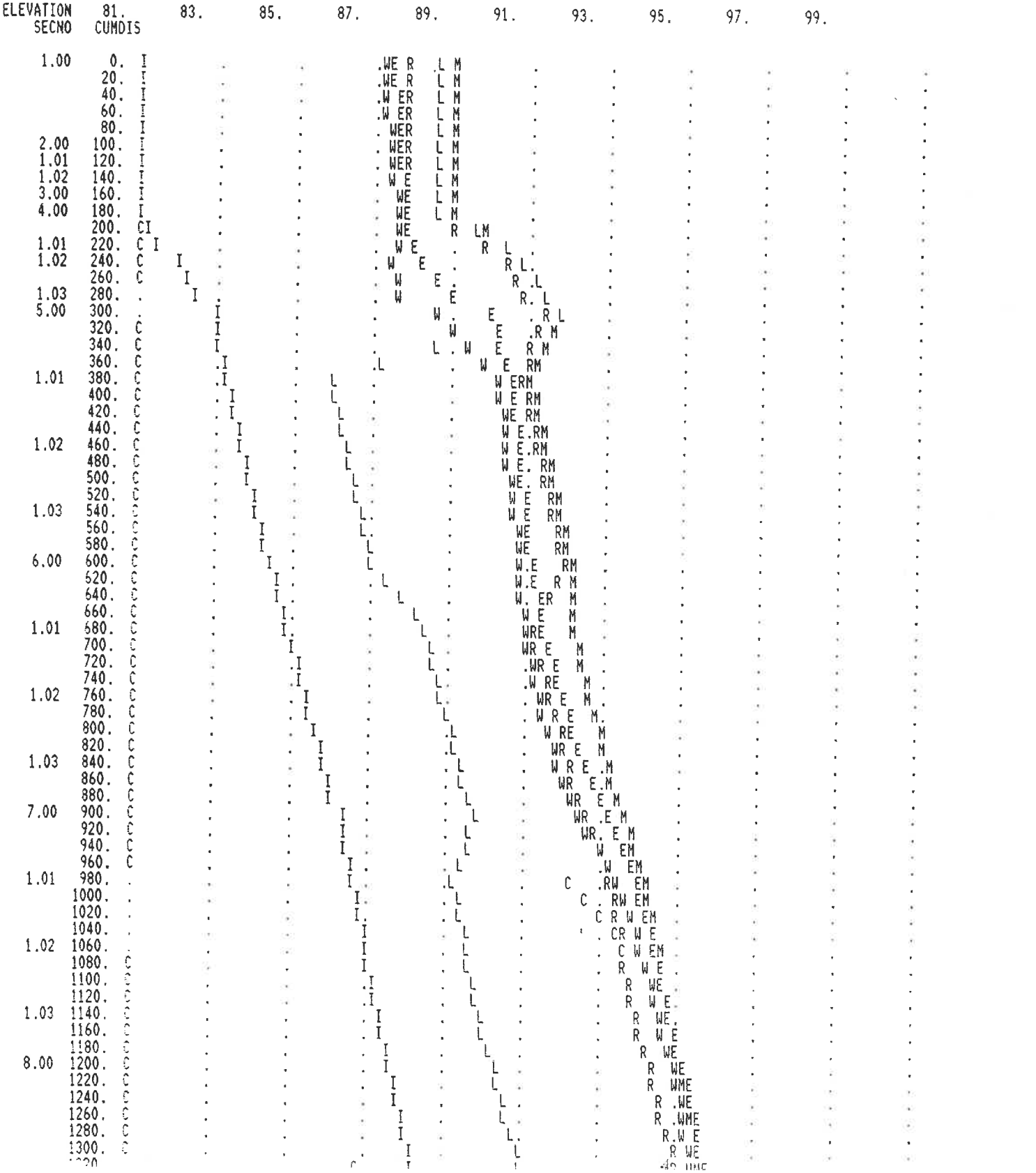
CAUTION SECNO= 8.000 PROFILE= 1 INTERPOLATED X-SECTIONS USED

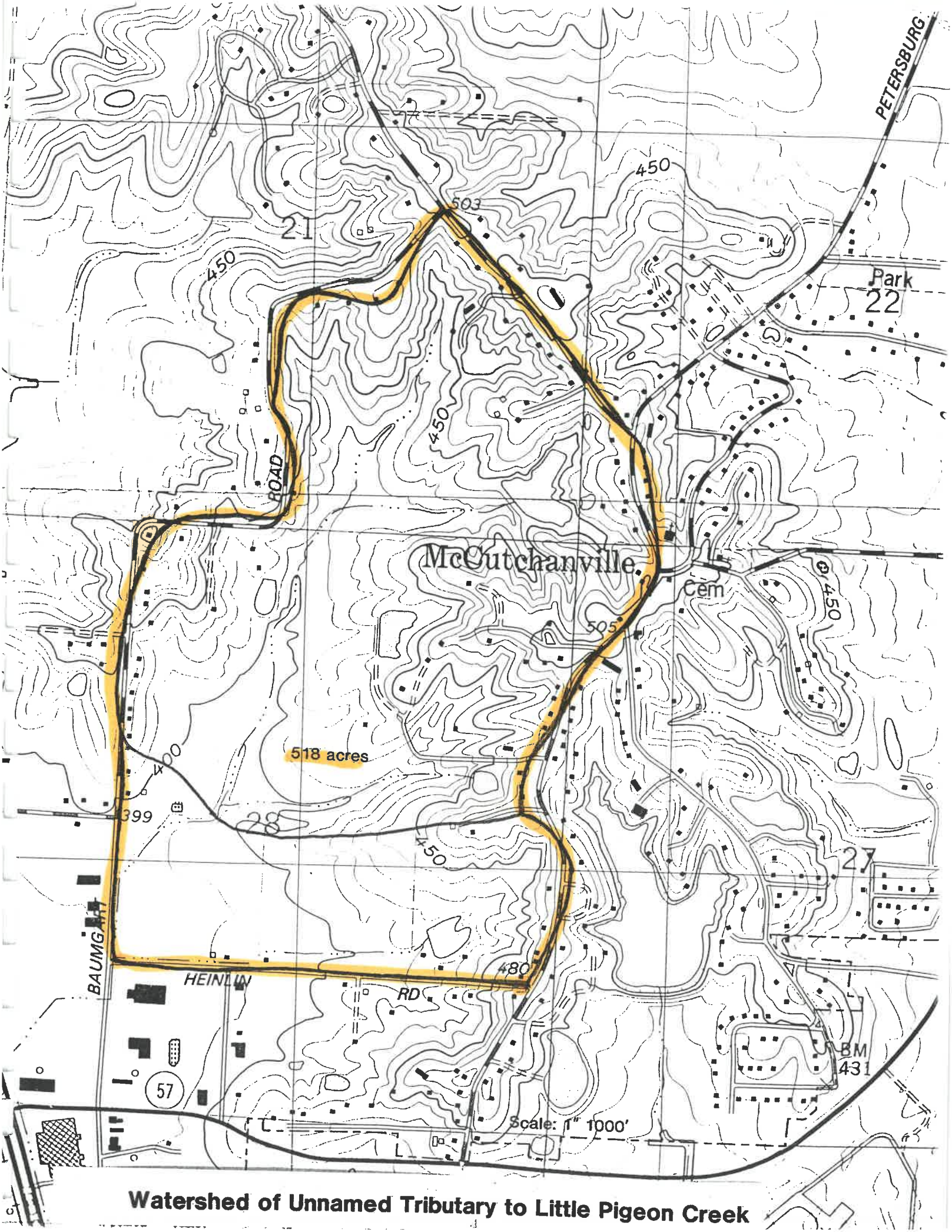
WARNING SECNO= 9.000 PROFILE= 1 CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

Normal program termination

PROFILE FOR STREAM WEST DITCH WITH S BRIDGE

PLOTTED POINTS (BY PRIORITY) E-ENERGY,W-WATER SURFACE,I-INVERT,C-CRITICAL W.S.,L-LEFT BANK,R-RIGHT BANK,M-LOWER END STA





Watershed of Unnamed Tributary to Little Pigeon Creek