



SUMMARY PRINTOUT FOR MULTIPLE PROFILES												
10 YEAR FLOOD WATER SURF												
SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	TW	EG	TOPWID	STENCL	STENCR	VCH
700.00	700.00	0.0	0.0	240.20	350.00	244.14	41.87	244.29	122.09	0.0	0.0	3.72
3950.00	3250.00	0.0	0.0	255.60	100.00	261.25	20.30	261.33	16.60	0.0	0.0	2.13
4000.00	50.00	0.0	0.0	255.70	100.00	261.36	52.23	261.37	69.88	0.0	0.0	1.03
4080.00	80.00	264.90	262.90	255.70	100.00	261.36	52.23	261.37	69.88	0.0	0.0	1.03
4380.00	300.00	0.0	0.0	256.60	100.00	261.55	14.26	261.67	14.54	0.0	0.0	2.76
SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q.	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	Y.W. DIFF	LENGTH				
700.000	350.000	244.141	0.0	0.0	0.0	122.091	0.0	700.000				
3950.000	100.000	261.255	0.0	17.114	0.0	16.601	0.0	3250.000				
4000.000	100.000	261.358	0.0	0.103	0.0	69.880	0.0	50.000				
4080.000	100.000	261.358	0.0	0.0	0.0	69.877	0.0	80.000				
4380.000	100.000	261.553	0.0	0.195	0.0	14.540	0.0	300.000				
DATA FOR LAST CROSS SECTION												
PROFILE	TYPE	ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF							
1	0.0	0.0	0.0	5.643	0.0							

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 HEC2 VERSION UPDATED JAN 1975  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08  
 MODIFICATIONS 52,53,54,55,56,57,58  
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11 TRIB. GARNER 4 BASIN 20  
 12 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 13 50 YEAR FLOOD WATER SURFACE PROFILE

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS 0 WSEL FQ  
 -10. 3. 0. 0. 0.007000 0.0 0.0 0. 246.000 0.0

J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
 2.000 0.0 -1.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0

CCHV= 0.100 CEHV= 0.300  
 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

700.00 4.78 244.98 0.0 246.00 245.15 0.17 0.0 0.0 244.50  
 750. 1. 355. 395. 1. 80. 208. 0. 0. 244.30  
 0.0 0.56 4.42 1.90 0.085 0.060 0.085 0.0 240.20 1134.11  
 0.007085 700. 700. 700. 0 0 5 0.0 182.21 1316.32

3950.00 7.23 262.83 0.0 0.0 262.95 0.12 17.80 0.01 261.80  
 380. 52. 250. 77. 54. 75. 68. 18. 12. 261.70  
 0.35 0.97 3.34 1.14 0.085 0.060 0.085 0.060 255.60 1285.08  
 0.003569 3250. 3250. 3250. 6 0 1 0.0 144.26 1427.34

4000.00 7.30 263.00 0.0 0.0 263.05 0.04 0.09 0.01 258.20  
 380. 119. 169. 92. 117. 79. 91. 18. 12. 258.20  
 0.36 1.02 2.15 1.00 0.085 0.060 0.085 0.060 255.70 1298.66  
 0.001036 50. 50. 50. 2 0 1 0.0 99.80 1398.46

SPECIAL BRIDGE

SB XK XKOR COFO RDLEN HWC BWP BAREA SS ELCHU ELCHD  
 0.90 1.50 3.00 0.0 5.00 0.00 19.60 0.0 256.50 255.70

PRESSURE AND WEIR FLOW

EGPRS EGLWC H3 QWEIR QPR BAREA ELLC ELTRD CLASS  
 271.76 263.05 0.00 163. 218. 20. 262.90 264.90 30.00

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 HEC2 VERSION UPDATED JAN 1975  
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08  
 MODIFICATIONS 52,53,54,55,56,57,58  
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T1 TRIB. GARNER 4 BASIN 20  
 T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 T3 100 YEAR FLOOD WATER SURFACE PROFILE

J1 ICHECK INQ NINV IDIR STRT METRIC HVINS Q WSEL FQ  
 -10. 4. 0. 0. 0.007000 0.0 0.0 0. 247.000 0.0  
 J2 NPROF IPLOT PRFVS XSECV XSECH FN ALLDC IBW CHNIM ITRACE  
 3.000 0.0 -1.000 0.0 0.0 0.0 0.0 0.0 0.0 0.0

CCHV= 0.100 CEHV= 0.300  
 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 ENUST

700.00	5.20	245.40	0.0	247.00	245.58	0.19	0.0	0.0	244.50
1025.	3.	427.	594.	4.	90.	273.	0.	0.	244.30
0.0	0.85	4.73	2.18	0.085	0.060	0.085	0.0	240.20	1129.80
0.006928	700.	700.	700.	0	0	4	0.0	189.07	1318.88
3950.00	8.02	263.62	0.0	0.0	263.78	0.15	18.19	0.00	261.80
740.	169.	368.	203.	111.	89.	123.	26.	14.	261.70
0.32	1.53	4.12	1.65	0.085	0.060	0.085	0.060	255.60	1268.58
0.004305	3250.	3250.	3250.	6	0	1	0.0	173.00	1441.58
4000.00	8.14	263.84	0.0	0.0	263.92	0.08	0.13	0.01	258.20
740.	261.	280.	199.	162.	90.	127.	26.	14.	258.20
0.32	1.61	3.12	1.57	0.085	0.060	0.085	0.060	255.70	1288.15
0.001847	50.	50.	50.	2	0	1	0.0	120.93	1409.08

SPECIAL BRIDGE

SB XK XKOR COFO RDLEN BWC BWP BAREA SS ELCHU ELCHD  
 0.90 1.50 3.00 0.0 5.00 0.00 19.60 0.0 256.50 255.70

PRESSURE AND WEIR FLOW

EGPRS EGLWC H3 QWEIR QPR BAREA ELLC ELTRD CLASS  
 297.04 263.92 0.00 528. 215. 20. 262.90 264.90 30.00

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 MODIFICATIONS 52,53,54,55,56,57,58  
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T1 TKIB. GARNER 4 BASIN 20  
 T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 T3 500 YEAR FLOOD WATER SURFACE PROFILE

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	-10.	5.	0.	0.	0.007000	0.0	0.0	0.	248.000	0.0

J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UHV= 0.100 CEHV= 0.300

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

700.00	6.34	246.54	0.0	248.00	246.80	0.25	0.0	0.0	244.50
2040.	32.	667.	1341.	21.	118.	456.	0.	0.	244.30
0.0	1.47	5.67	2.94	0.085	0.060	0.085	0.0	240.20	1118.02
0.006956	700.	700.	700.	0	0	4	0.0	207.86	1325.88

3950.00	9.40	265.00	0.0	0.0	265.18	0.18	18.38	0.01	261.80
1620.	509.	564.	546.	236.	114.	245.	44.	16.	261.70
0.29	2.16	4.95	2.23	0.085	0.060	0.085	0.060	255.60	1243.61
0.004478	3250.	3250.	3250.	6	0	1	0.0	222.49	1466.10

4000.00	9.51	265.21	0.0	0.0	265.37	0.16	0.18	0.00	258.20
1620.	633.	489.	497.	255.	107.	207.	45.	16.	258.20
0.29	2.48	4.55	2.41	0.085	0.060	0.085	0.060	255.70	1270.80
0.003088	50.	50.	50.	2	0	1	0.0	157.87	1428.67

SPECIAL BRIDGE

SB	XK	XKOR	COFO	RDLN	BWC	BWP	BAREA	SS	ELCHU	ELCHO
	0.90	1.50	3.00	0.0	5.00	0.00	19.60	0.0	256.50	255.70

PRESURE AND WEIR FLOW

EGPRS	EGLWC	H3	OWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
424.35	265.37	0.00	1416.	206.	20.	262.90	264.90	30.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

500 YEAR FLOOD WATER SUR

*Stream Bed*  
*w.s. profile*

SECTION CHANNEL MIN EL OF MAX EL OF MIN EL DISCHARGE CWSEL TW EG TOPWID STENCL STENCR VCH  
NUMBER LENGTH ROADWAY LOW CHORD GROUND (CFS)

A	700.00	700.00	0.0	0.0	240.20	350.00	244.14	41.87	244.29	122.09	0.0	0.0	3.72
	700.00	700.00	0.0	0.0	240.20	750.00	244.98	89.10	245.15	182.21	0.0	0.0	4.42
	700.00	700.00	0.0	0.0	240.20	1025.00	245.40	123.15	245.58	189.07	0.0	0.0	4.73
	700.00	700.00	0.0	0.0	240.20	2040.00	246.54	244.60	246.80	207.86	0.0	0.0	5.67
B	3950.00	3250.00	0.0	0.0	255.60	100.00	261.25	20.30	261.53	16.60	0.0	0.0	2.13
	3950.00	3250.00	0.0	0.0	255.60	300.00	262.83	63.61	262.95	144.26	0.0	0.0	3.34
	3950.00	3250.00	0.0	0.0	255.60	740.00	263.62	112.79	263.78	173.00	0.0	0.0	4.12
	3950.00	3250.00	0.0	0.0	255.60	1620.00	265.00	242.09	265.18	222.49	0.0	0.0	4.95
	4000.00	50.00	0.0	0.0	255.70	100.00	261.36	52.23	261.57	69.88	0.0	0.0	1.03
	4000.00	50.00	0.0	0.0	255.70	380.00	263.00	118.04	263.05	99.80	0.0	0.0	2.15
	4000.00	50.00	0.0	0.0	255.70	740.00	263.84	172.19	263.92	120.93	0.0	0.0	3.12
	4000.00	50.00	0.0	0.0	255.70	1620.00	265.21	291.54	265.57	157.87	0.0	0.0	4.55
C	4080.00	80.00	264.90	262.90	255.70	100.00	261.36	52.23	261.57	69.88	0.0	0.0	1.03
	4080.00	80.00	264.90	262.90	255.70	380.00	265.87	364.43	265.87	175.84	0.0	0.0	0.90
	4080.00	80.00	264.90	262.90	255.70	740.00	266.61	458.99	266.63	195.98	0.0	0.0	1.47
	4080.00	80.00	264.90	262.90	255.70	1620.00	267.74	627.97	267.79	226.14	0.0	0.0	2.53
D	4380.00	300.00	0.0	0.0	256.60	100.00	261.55	14.26	261.67	14.54	0.0	0.0	2.78
	4380.00	300.00	0.0	0.0	256.60	380.00	265.91	231.96	265.92	219.30	0.0	0.0	1.20
	4380.00	300.00	0.0	0.0	256.60	740.00	266.71	333.17	266.74	248.15	0.0	0.0	1.76
	4380.00	300.00	0.0	0.0	256.60	1620.00	267.97	538.54	268.02	292.73	0.0	0.0	2.67

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
700.000	350.000	244.141	0.0	0.0	0.0	122.091	0.0	700.000
700.000	750.000	244.976	0.836	0.0	0.0	182.208	-60.117	700.000
700.000	1025.000	245.396	0.420	0.0	0.0	189.075	-66.984	700.000
700.000	2040.000	246.544	1.148	0.0	0.0	207.858	-85.767	700.000
3950.000	100.000	261.255	0.0	17.114	0.0	16.601	0.0	3250.000
3950.000	300.000	262.830	1.575	17.853	0.0	144.258	-127.658	3250.000
3950.000	740.000	263.624	0.795	18.228	0.0	172.997	-156.397	3250.000
3950.000	1620.000	265.001	1.376	18.457	0.0	222.489	-205.888	3250.000
4000.000	100.000	261.358	0.0	0.103	0.0	69.880	0.0	50.000
4000.000	380.000	263.005	1.646	0.175	0.0	99.802	-29.921	50.000
4000.000	740.000	263.835	0.831	0.211	0.0	120.928	-51.047	50.000
4000.000	1620.000	265.206	1.371	0.205	0.0	157.868	-87.988	50.000
4080.000	100.000	261.358	0.0	0.0	0.0	69.877	0.0	80.000
4080.000	380.000	265.867	4.509	2.862	0.0	175.835	-105.958	80.000
4080.000	740.000	266.613	0.746	2.777	0.0	195.981	-126.104	80.000
4080.000	1620.000	267.740	1.127	2.534	0.0	226.138	-156.261	80.000
4380.000	100.000	261.553	0.0	0.195	0.0	14.540	0.0	300.000
4380.000	380.000	265.912	4.359	0.045	0.0	219.297	-204.757	300.000
4380.000	740.000	266.713	0.801	0.100	0.0	248.152	-233.612	300.000
4380.000	1620.000	267.971	1.257	0.230	0.0	292.726	-278.186	300.000



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 MODIFICATIONS 52,53,54,55,56,57,58  
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T1 TRIB. GARNER 4 BASIN 20  
 T2 FLOODPLAIN STUDY AT WAKE COUNTY M-G JOB NO.6855  
 T3 100 YEAR FLOODWAY

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	-10.	6.	0.	0.	0.0	0.0	0.0	0.	246.400	0.0

J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CCHV= 0.100 CEHV= 0.300  
 2800 NAT Q1= 123.15 WSEL= 245.40 ENC Q1= 123.15 WSEL= 246.40 RATIO= 0.0

NAT Q1=	227.	RATIOS	LOB,CH,ROB=	0.0137	0.3355	0.6508	WSEL=	246.40	
SECNO.	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	LOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=	1132.9	1222.2	TYPE=	4	TARGET=	0.457			
700.00	6.20	246.40	0.0	245.40	246.80	0.40	0.0	0.0	244.50
1025.	21.	681.	323.	10.	114.	125.	0.	0.	244.30
0.0	2.13	5.95	2.50	0.085	0.060	0.085	0.0	240.20	1132.91
0.007992	700.	700.	700.	0	0	1	0.0	89.25	1222.17

2800 NAT Q1= 112.79 WSEL= 263.62 ENC Q1= 112.79 WSEL= 264.32 RATIO= 0.0  
 NAT Q1= 171. RATIOS LOB,CH,ROB= 0.2796 0.4086 0.3118 WSEL= 264.32

3470 ENCROACHMENT STATIONS=	1321.4	1387.9	TYPE=	4	TARGET=	0.340			
3950.00	8.95	264.55	0.0	263.62	264.74	0.20	17.92	0.02	261.80
740.	143.	448.	149.	70.	106.	68.	18.	6.	261.70
0.27	2.05	4.24	2.18	0.085	0.060	0.085	0.060	255.60	1321.37
0.003619	3250.	3250.	3250.	6	0	1	0.0	66.56	1387.93

2800 NAT Q1= 172.19 WSEL= 263.84 ENC Q1= 172.19 WSEL= 264.54 RATIO= 0.0  
 NAT Q1= 228. RATIOS LOB,CH,ROB= 0.3746 0.3351 0.2903 WSEL= 264.54

3470 ENCROACHMENT STATIONS=	1316.6	1386.1	TYPE=	4	TARGET=	0.246			
4000.00	9.08	264.78	0.0	263.84	264.85	0.07	0.09	0.01	258.20
740.	263.	265.	211.	156.	102.	127.	19.	6.	258.20
0.27	1.69	2.60	1.66	0.085	0.060	0.085	0.060	255.70	1316.62
0.001083	50.	50.	50.	2	0	1	0.0	69.44	1386.06



SUMMARY PRINTOUT FOR MULTIPLE PROFILES

100 YEAR FLOODWAY

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	TG	EG	TOPWID	STENCL	STENCR	VCH
700.00	700.00	0.0	0.0	240.20	1025.00	245.40	123.15	245.58	189.07	0.0	0.0	4.73
700.00	700.00	0.0	0.0	240.20	1025.00	246.40	114.66	246.80	89.25	1132.91	1222.17	5.95
3950.00	3250.00	0.0	0.0	255.60	740.00	263.62	112.79	263.78	173.00	0.0	0.0	4.12
3950.00	3250.00	0.0	0.0	255.60	740.00	264.55	123.02	264.74	66.56	1321.37	1387.93	4.24
4000.00	50.00	0.0	0.0	255.70	740.00	263.84	172.19	263.92	120.93	0.0	0.0	3.12
4000.00	50.00	0.0	0.0	255.70	740.00	264.78	224.90	264.85	69.44	1316.62	1386.06	2.60
4080.00	80.00	0.0	0.0	255.70	740.00	266.61	458.99	266.63	195.98	0.0	0.0	1.47
4080.00	80.00	0.0	0.0	255.70	740.00	267.56	501.36	267.58	92.81	1304.44	1397.25	1.43
4380.00	300.00	0.0	0.0	256.60	740.00	266.71	333.17	266.74	248.15	0.0	0.0	1.76
4380.00	300.00	0.0	0.0	256.60	740.00	267.64	397.68	267.66	130.95	1295.59	1426.53	1.60

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
A 700.000	1025.000	245.396	0.0	0.0	0.0	189.075	0.0	700.000
A 700.000	1025.000	246.400	1.004	0.0	0.0	89.251	99.824	700.000
B 3950.000	740.000	263.624	0.0	18.228	0.0	172.997	0.0	3250.000
B 3950.000	740.000	264.546	0.922	18.146	0.0	66.559	106.439	3250.000
4000.000	740.000	263.835	0.0	0.211	0.0	120.928	0.0	50.000
4000.000	740.000	264.780	0.945	0.234	0.0	69.439	51.489	50.000
C 4080.000	740.000	266.613	0.0	2.777	0.0	195.981	0.0	80.000
C 4080.000	740.000	267.557	0.944	2.777	0.0	92.814	103.167	80.000
D 4380.000	740.000	266.713	0.0	0.100	0.0	248.152	0.0	300.000
D 4380.000	740.000	267.636	0.923	0.079	0.0	130.945	117.207	300.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE	ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1		0.0	0.0	15.496	0.0
2		4.000	0.243	6.810	-8.686