



July 17, 2000

Ms. Vicky Huang
City of Wichita
455 N. Main - 7th Floor
Wichita, KS 67202

&

Mr. Jim Weber
Sedgwick County, Dept. of
Public Works
1144 S. Seneca
Wichita, KS 67213

Re: Ellson Court Addition
Sanitary Sewer Plan

Dear Vicky and Jim:

Enclosed is a copy for your review of the Drainage and Utility Plan. The sanitary sewer plan indicates existing lines adjacent to the property on the south, west and north lines of this property. The sanitary sewer line on the south and west edge was constructed with The Fountains development. We are proposing that the four lots in Ellson Court Addition adjacent to The Fountains connect to the City of Wichita, sanitary sewer system. Lot 5, Ellson Court Addition would then connect to the Sedgwick County sanitary sewer system and pay the County Sewer District Impact Fee. We realize that Lots 1-4 would need to be removed from the County Sewer District but understand it may be possible to do this.

Please review this and let me know if the City of Wichita has capacity to include these four additional lots into The Fountains, sanitary sewer system.

Included is the Drainage Report for this plat. It includes the TR-20 Report, HEC-RAS model and HY-8 culvert analysis.

Sincerely,

MKEC ENGINEERING CONSULTANTS, INC.

Greg Allison, P.E.

GA/wb

Enclosure, as noted

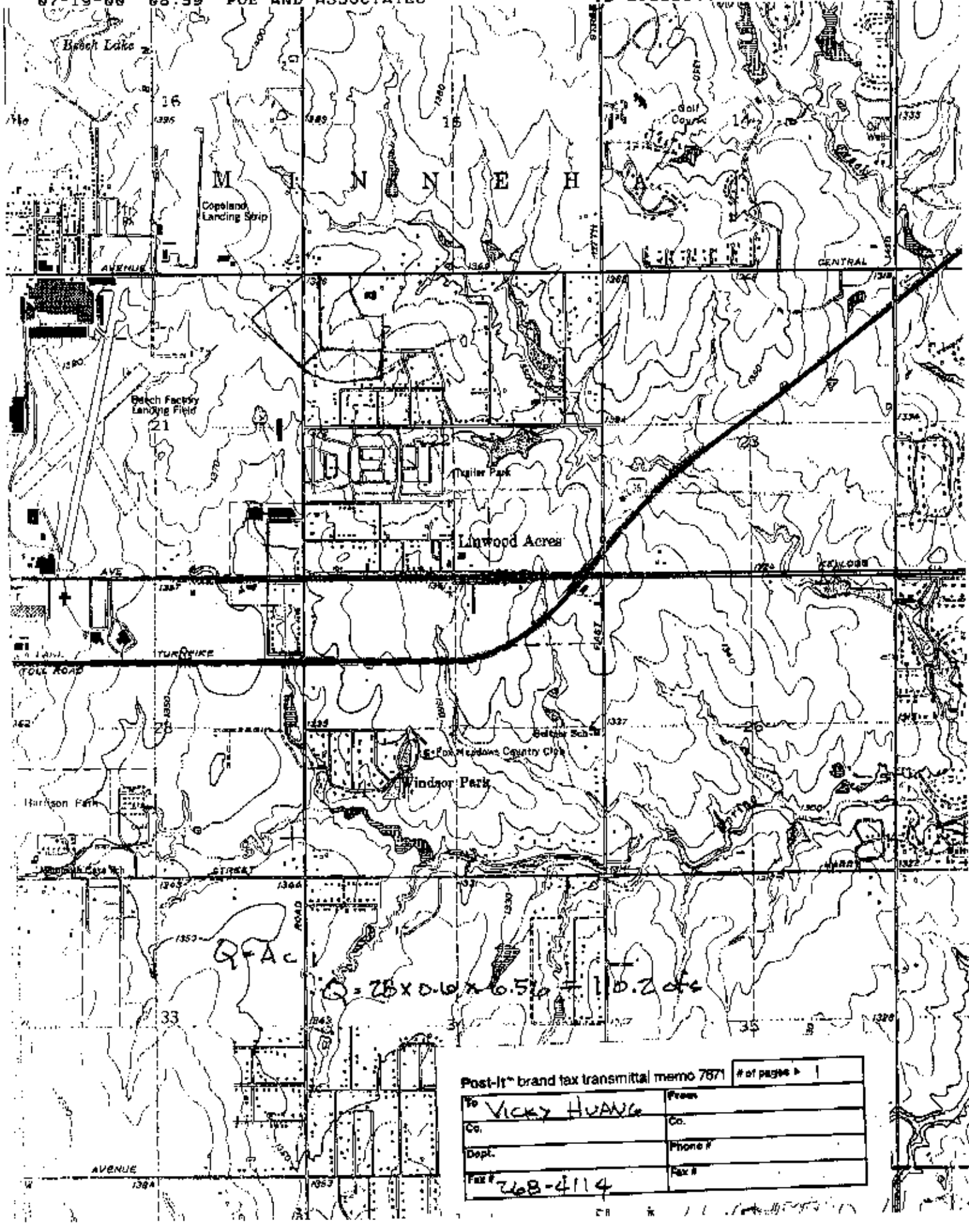
c: Neil Cable

K:\WMP\PROJECT\2000\00168\Huang@COW.wpd

RECEIVED

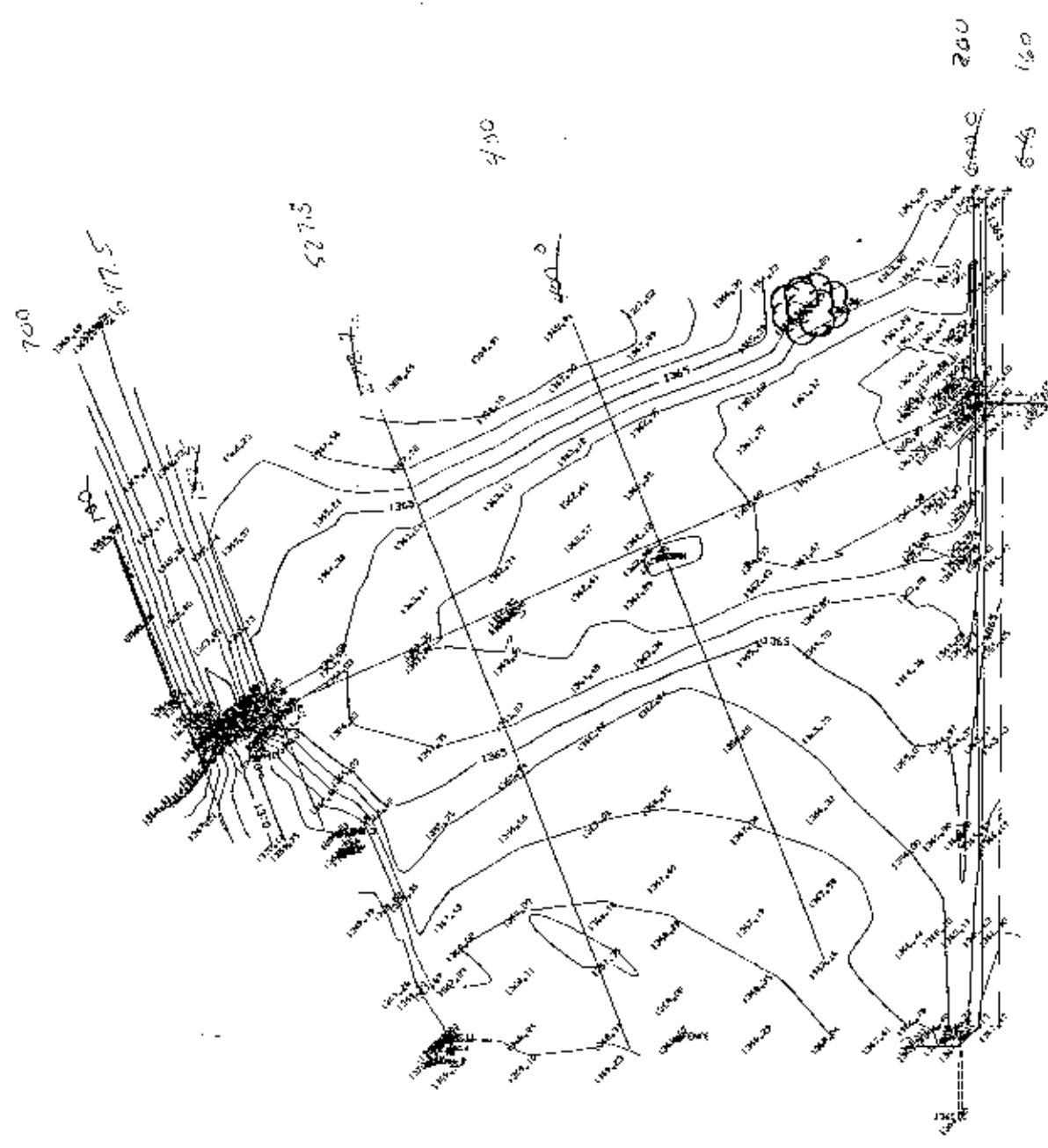
JUL 17 2000

CITY - ENGINEERING



Post-It® brand tax transmittal memo 7871 # of pages 1

To	Vicky HUANG	From	
Co.		Co.	
Dept.		Phone #	
Fax #	208-4114	Fax #	



Arizona 19

*****80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****

JOB TR-20		SUMMARY				
TITLE 003 POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS						
TITLE FAA TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20						
4	DIMHYD		0.02			484
8		.000	.030	.100	.190	.310
8		.470	.660	.820	.930	.990
8		1.000	.990	.930	.860	.780
8		.680	.560	.460	.390	.330
8		.280	.241	.207	.174	.147
8		.126	.107	.091	.077	.066
8		.055	.047	.040	.034	.029
8		.025	.021	.018	.015	.013
8		.011	.009	.008	.007	.006
8		.005	.004	.003	.002	.001
8		.000	.000	.000	.000	.000
9	ENDTBL					
5	RAINFL 7		0.08333			6-HR M&L
8		0.0000	0.0033	0.0066	0.0099	0.0132
8		0.0166	0.0198	0.0248	0.0296	0.0346
8		0.0404	0.0463	0.0522	0.0590	0.0658
8		0.0727	0.0796	0.0864	0.0933	0.1136
8		0.1340	0.1572	0.1832	0.2124	0.2473
8		0.2850	0.3400	0.4464	0.6034	0.6752
8		0.7220	0.7409	0.7598	0.7758	0.7919
8		0.8072	0.8224	0.8310	0.8396	0.8468
8		0.8540	0.8628	0.8714	0.8773	0.8832
8		0.8890	0.8939	0.8988	0.9038	0.9086
8		0.9136	0.9184	0.9233	0.9282	0.9332
8		0.9380	0.9429	0.9478	0.9527	0.9576
8		0.9626	0.9664	0.9704	0.9742	0.9782
8		0.9821	0.9860	0.9884	0.9906	0.9930
8		0.9954	0.9976	1.0000	1.0000	1.0000
9	ENDTBL					
5	RAINFL 8		0.5			24-HRSCS ZONE 5
8		.000	.002	.005	.009	.013
8		.018	.023	.029	.035	.042
8		.050	.059	.068	.078	.089
8		.101	.114	.128	.144	.162
8		.183	.208	.244	.339	.723
8		.773	.802	.825	.844	.861
8		.876	.890	.903	.914	.924
8		.934	.943	.951	.959	.966
8		.972	.977	.982	.986	.990
8		.993	.996	.998	1.000	1.000
9	ENDTBL					
2	XSECTN	011	1.0	1309.5		VOID

Ec.out
*****80-80 LIST OF INPUT DATA (CONTINUED)*****

8		1307.0	0.0	0.0					
8		1307.5	31.3	4.89					
8		1308.0	33.0	7.31					
8		1308.5	34.4	7.75					
8		1309.0	35.8	8.23					
8		1309.5	37.3	8.62					
8		1310.0	38.9	8.84					
9	ENDTBL								
3	STRUCT	05						E Fond	
8		190.0	0.0	0.0				VOID	
8		190.5	4.4	0.0883					
8		191.0	12.9	0.1869					
8		191.5	29.5	0.3041					
8		192.0	55.3	0.4477					
9	ENDTBL								
3	STRUCT	10						Fount Po	
8		1364.4	0.0	0.0					
8		1365.4	12.05	1.12					
8		1366.4	24.34	2.45					
8		1367.4	57.46	4.02					
8		1368.4	139.39	5.83					
8		1369.4	263.57	7.91					
9	ENDTBL								
6	RUNOFF	1 001	2 0.0939	90.3	0.6492			1 FOUNT	
6	RESVOR	2 10 2	3 1364.41					1 FOUNT PO	
6	RUNOFF	1 015	1 0.0064	85.0	0.4707			1 CHURCH	
6	RUNOFF	1 020	2 0.0036	80.0	0.4279			1 EC PRE	
6	RUNOFF	1 025	4 0.0036	87.0	0.3160			1 EC POST	
6	ADDHYD	4 030	1 4 5						
6	ADDHYD	4 035	5 3 1						
	ENDATA								
7	INCREM	6	0.0833						
7	COMPUT	7 001 035	0.0	2.52	1.0	7 2 11	01	2-YR 6-H	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	3.42	1.0	7 2 12	02	5-YR 6-H	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	4.02	1.0	7 2 13	03	10-YR 6-	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	5.94	1.0	7 2 16	06	100-YR 6	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	3.48	1.0	2 2 21	01	2-YR TYP	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	4.55	1.0	2 2 22	02	5-YR TYP	
	ENDCMP	1							
7	COMPUT	7 001 035	0.0	5.25	1.0	2 2 23	03	10-YR TY	
	ENDCMP	1							

1

*****80-80 LIST OF INPUT DATA (CONTINUED)*****

7	COMPUT	7 001 035	0.0	7.80	1.0	2 2 26	06	100-YR T	
	ENDCMP	1							

				Ec.out				
7	COMPUT	7 001	035	0.0	3.48	1.0	8 2	41 01 2-YR ZON
	ENDCMP	1						
7	COMPUT	7 001	035	0.0	4.55	1.0	8 2	42 02 5-YR ZON
	ENDCMP	1						
7	COMPUT	7 001	035	0.0	5.25	1.0	8 2	43 03 10-YR ZO
	ENDCMP	1						
7	COMPUT	7 001	035	0.0	7.80	1.0	8 2	46 06 100-YR Z
	ENDCMP	1						
	ENDJOB	2						

*****END OF 80-80 LIST*****

1
 TR20 -----
 POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
 07/13/** TC 28SEP99 PRELDM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
 16:27:34 PASS 1 PAGE 1

COMPUTED PEAK RATE FACTOR = 484.00

EXECUTIVE CONTROL INCREM MAIN TIME INCREMENT = .08 HOURS

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 2-YR 6-H
 STARTING TIME = .00 RAIN DEPTH = 2.52 RAIN DURATION= 1.00
 ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
 ALTERNATE NO.=11 STORM NO.= 1 RAIN TABLE NO.= 7

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
 WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

*** WARNING - XSECTION 20, HYDROGRAPH VOLUME TRUNCATED AT 0 CFS
 (21. % OF MAX. HYDROGRAPH COORDINATE)
 MAIN TIME INCREMENT TOO SMALL. ***

*** WARNING - XSECTION 25, HYDROGRAPH VOLUME TRUNCATED AT 0 CFS
 (12. % OF MAX. HYDROGRAPH COORDINATE)
 MAIN TIME INCREMENT TOO SMALL. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 1

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 5-YR 6-H
 STARTING TIME = .00 RAIN DEPTH = 3.42 RAIN DURATION= 1.00
 ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
 ALTERNATE NO.=12 STORM NO.= 2 RAIN TABLE NO.= 7

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
 WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

*** WARNING - XSECTION 20, HYDROGRAPH VOLUME TRUNCATED AT 0 CFS
 (11. % OF MAX. HYDROGRAPH COORDINATE)
 MAIN TIME INCREMENT TOO SMALL. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 2

1

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TR20 -----
07/13/**      POND @ ELLSON COURT ADDITION NGG 2,5,10,100-YR EVENTS      VERSION
16:27:34      TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20      10/01/90
                                           PASS 3                          PAGE 2

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EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35      10-YR 6-
STARTING TIME = .00      RAIN DEPTH = 4.02      RAIN DURATION= 1.00
ANT. MOIST. COND. = 2      MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=13      STORM NO.= 3      RAIN TABLE NO.= 7

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*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION ( 1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

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EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 3

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EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35      100-YR 6
STARTING TIME = .00      RAIN DEPTH = 5.94      RAIN DURATION= 1.00
ANT. MOIST. COND. = 2      MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=16      STORM NO.= 6      RAIN TABLE NO.= 7

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*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION ( 1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

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EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 4

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EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35      2-YR TYP
STARTING TIME = .00      RAIN DEPTH = 3.48      RAIN DURATION= 1.00
ANT. MOIST. COND. = 2      MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=21      STORM NO.= 1      RAIN TABLE NO.= 2

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*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION ( 1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

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*** WARNING - XSECTION 20, HYDROGRAPH VOLUME TRUNCATED AT      0 CFS
( 13. % OF MAX. HYDROGRAPH COORDINATE)
MAIN TIME INCREMENT TOO SMALL. ***

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EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 5

1

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TR20 -----
07/13/**      POND @ ELLSON COURT ADDITION NGG 2,5,10,100-YR EVENTS      VERSION
16:27:34      TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20      10/01/90
                                           PASS 6                          PAGE 3

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Ec.out
EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 5-YR TYP
STARTING TIME = .00 RAIN DEPTH = 4.55 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=22 STORM NO.= 2 RAIN TABLE NO.= 2

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 6

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 10-YR TY
STARTING TIME = .00 RAIN DEPTH = 5.25 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=23 STORM NO.= 3 RAIN TABLE NO.= 2

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 7

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 100-YR T
STARTING TIME = .00 RAIN DEPTH = 7.80 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=26 STORM NO.= 5 RAIN TABLE NO.= 2

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 8

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 2-YR ZON
STARTING TIME = .00 RAIN DEPTH = 3.48 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=41 STORM NO.= 1 RAIN TABLE NO.= 8

1
TR20 -----
POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
16:27:34 PASS 9 PAGE 4

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

*** WARNING - XSECTION 20, HYDROGRAPH VOLUME TRUNCATED AT 0 CFS
(15. % OF MAX. HYDROGRAPH COORDINATE)
MAIN TIME INCREMENT TOO SMALL. ***

*** WARNING - XSECTION 25, HYDROGRAPH VOLUME TRUNCATED AT 0 CFS
(11. % OF MAX. HYDROGRAPH COORDINATE)

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 9

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 5-YR ZON
STARTING TIME = .00 RAIN DEPTH = 4.55 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=42 STORM NO.= 2 RAIN TABLE NO.= 8

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 10

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 10-YR ZO
STARTING TIME = .00 RAIN DEPTH = 5.25 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=43 STORM NO.= 3 RAIN TABLE NO.= 8

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 11

1
TR20 -----
POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
16:27:34 PASS 12 PAGE 5

EXECUTIVE CONTROL COMPUT FROM XSECTION 1 TO XSECTION 35 100-YR Z
STARTING TIME = .00 RAIN DEPTH = 7.80 RAIN DURATION= 1.00
ANT. MOIST. COND. = 2 MAIN TIME INCREMENT = .08 HOURS
ALTERNATE NO.=45 STORM NO.= 6 RAIN TABLE NO.= 8

*** MESSAGE - STRUCTURE 10, USER ENTERED STARTING ELEVATION (1364.4 FEET)
WILL DECREASE OUTFLOW HYDROGRAPH VOLUME. ***

EXECUTIVE CONTROL ENDCMP COMPUTATIONS COMPLETED FOR PASS 12

1
TR20 -----
POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
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SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.

Ec.out

A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
RAINFALL OF		2.52 inches AND	6.00 hr DURATION,	BEGINS AT		.0 hrs.	
RAINTABLE NUMBER		7, AMC 2					
MAIN TIME INCREMENT		.08 HOURS					
ALTERNATE 11 STORM 1							
XSECTION 1	RUNOFF	.09	1.57	---	2.71	83	922.2
STRUCTURE 10	RESVOR	.09	-5.04	1364.97	5.59	7	77.8
XSECTION 15	RUNOFF	.01	1.19	---	2.61	5	500.0
XSECTION 20	RUNOFF	.00	.90	---	2.60T	2T*****	
XSECTION 25	RUNOFF	.00	1.33	---	2.51T	4T*****	
XSECTION 30	ADDHYD	.01	1.24	---	2.56	9	900.0
XSECTION 35	ADDHYD	.10	-4.43	---	5.51	7	70.0

RAINFALL OF		3.42 inches AND	6.00 hr DURATION,	BEGINS AT		.0 hrs.	
ALTERNATE 12 STORM 2							
XSECTION 1	RUNOFF	.09	2.40	---	2.70	128	1422.2
STRUCTURE 10	RESVOR	.09	-4.21	1365.77	4.07	17	188.9
XSECTION 15	RUNOFF	.01	1.94	---	2.60	9	900.0
XSECTION 20	RUNOFF	.00	1.57	---	2.59T	4T*****	
XSECTION 25	RUNOFF	.00	2.11	---	2.50	6	*****
XSECTION 30	ADDHYD	.01	2.00	---	2.55	14	1400.0
XSECTION 35	ADDHYD	.10	-3.61	---	3.99	18	180.0

RAINFALL OF		4.02 inches AND	6.00 hr DURATION,	BEGINS AT		.0 hrs.	
ALTERNATE 13 STORM 3							
XSECTION 1	RUNOFF	.09	2.96	---	2.69	158	1755.6
STRUCTURE 10	RESVOR	.09	-3.65	1367.46	3.27	63	700.0
XSECTION 15	RUNOFF	.01	2.47	---	2.60	11	1100.0
XSECTION 20	RUNOFF	.00	2.06	---	2.58	5	*****
XSECTION 25	RUNOFF	.00	2.65	---	2.50	8	*****

1
 TR20 -----
 POND @ ELLSON COURT ADDITION NGG 2,5,10,100-YR EVENTS VERSION
 07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
 16:27:34 PAGE 7

SUMMARY TABLE 1

 SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
				ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 13 STORM 3							
XSECTION 30	ADDHYD	.01	2.54	---	2.54	18	1800.0
XSECTION 35	ADDHYD	.10	-3.05	---	3.25	67	670.0
RAINFALL OF 5.94 inches AND 6.00 hr DURATION, BEGINS AT .0 hrs.							
ALTERNATE 16 STORM 6							
XSECTION 1	RUNOFF	.09	4.82	---	2.69	256	2844.4
STRUCTURE 10	RESVOR	.09	-1.79	1368.56	3.02	160	1777.8
XSECTION 15	RUNOFF	.01	4.24	---	2.59	19	1900.0
XSECTION 20	RUNOFF	.00	3.72	---	2.57	10	*****
XSECTION 25	RUNOFF	.00	4.43	---	2.49	13	*****
XSECTION 30	ADDHYD	.01	4.31	---	2.54	31	3100.0
XSECTION 35	ADDHYD	.10	-1.20	---	3.01	170	1700.0
RAINFALL OF 3.48 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.							
RAINTABLE NUMBER 2, AMC 2							
ALTERNATE 21 STORM 1							
XSECTION 1	RUNOFF	.09	2.45	---	12.26	105	1166.7
STRUCTURE 10	RESVOR	.09	-4.15	1367.28	12.66	54	600.0
XSECTION 15	RUNOFF	.01	2.00	---	12.17	7	700.0
XSECTION 20	RUNOFF	.00	1.62	---	12.15T	3T*****	
XSECTION 25	RUNOFF	.00	2.16	---	12.07	5	*****
XSECTION 30	ADDHYD	.01	2.06	---	12.12	12	1200.0
XSECTION 35	ADDHYD	.10	-3.55	---	12.62	57	570.0

1
 TR20 -----
 POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
 07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90
 16:27:34 PAGE 8

SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA	RUNOFF AMOUNT	PEAK DISCHARGE			
				ELEVATION	TIME	RATE	RATE

Ec.out

	(SQ MI)	(IN)	(FT)	(HR)	(CFS)	(CSM)
RAINFALL OF	4.55 inches AND	24.00 hr	DURATION,	BEGINS AT	.0 hrs.	
ALTERNATE 22 STORM 2						
XSECTION 1	RUNOFF	.09	3.47	---	12.26	146 1622.2
STRUCTURE 10	RESVOR	.09	-3.14	1367.86	12.56	95 1055.6
XSECTION 15	RUNOFF	.01	2.95	---	12.16	11 1100.0
XSECTION 20	RUNOFF	.00	2.50	---	12.14	5 *****
XSECTION 25	RUNOFF	.00	3.14	---	12.07	8 *****
XSECTION 30	ADDHYD	.01	3.02	---	12.11	18 1800.0
XSECTION 35	ADDHYD	.10	-2.54	---	12.54	100 1000.0

RAINFALL OF 5.25 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.

ALTERNATE 23 STORM 3

XSECTION 1	RUNOFF	.09	4.15	---	12.26	174 1933.3
STRUCTURE 10	RESVOR	.09	-2.46	1368.17	12.53	121 1344.4
XSECTION 15	RUNOFF	.01	3.60	---	12.16	13 1300.0
XSECTION 20	RUNOFF	.00	3.11	---	12.14	7 *****
XSECTION 25	RUNOFF	.00	3.80	---	12.07	9 *****
XSECTION 30	ADDHYD	.01	3.67	---	12.11	21 2100.0
XSECTION 35	ADDHYD	.10	-1.87	---	12.51	128 1280.0

RAINFALL OF 7.80 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.

ALTERNATE 26 STORM 6

1

TR20 -----

POND @ ELLSON COURT ADDITION NGG 2,5,10,100-YR EVENTS VERSION

07/13/** TC 28SEP99 PRELIM. EVALUATIONS K=484 FILENAME EC.T20 10/01/90

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SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	ELEVATION (FT)	PEAK DISCHARGE		
					TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE 26 STORM 6

XSECTION 1	RUNOFF	.09	6.63	---	12.25	273	3033.3
------------	--------	-----	------	-----	-------	-----	--------

		Ea.out					
STRUCTURE	10 RESVOR	.09	.03	1369.02	12.46	217	2411.1
XSECTION	15 RUNOFF	.01	6.02	---	12.15	21	2100.0
XSECTION	20 RUNOFF	.00	5.43	---	12.13	11	*****
XSECTION	25 RUNOFF	.00	6.25	---	12.07	15	*****
XSECTION	30 ADDHYD	.01	6.10	---	12.11	35	3500.0
XSECTION	35 ADDHYD	.10	.61	---	12.44	232	2320.0

RAINFALL OF 3.48 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.
 RAINFALL NUMBER 8, AMC 2

ALTERNATE 41 STORM 1

XSECTION	1 RUNOFF	.09	2.46	---	12.17	102	1133.3
STRUCTURE	10 RESVOR	.09	-4.15	1367.37	12.55	56	622.2
XSECTION	15 RUNOFF	.01	2.00	---	12.08	7	700.0
XSECTION	20 RUNOFF	.00	1.62	---	12.06T	3T	*****
XSECTION	25 RUNOFF	.00	2.16	---	12.01T	4T	*****
XSECTION	30 ADDHYD	.01	2.06	---	12.05	11	1100.0
XSECTION	35 ADDHYD	.10	-3.55	---	12.52	60	600.0

RAINFALL OF 4.55 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.

ALTERNATE 42 STORM 2

XSECTION	1 RUNOFF	.09	3.47	---	12.17	140	1555.6
----------	----------	-----	------	-----	-------	-----	--------

TR20 -----
 POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
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SUMMARY TABLE 1

SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
 A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
 F-FLAT TOP HYDROGRAPH T-TRUNCATED HYDROGRAPH R-RISING TRUNCATED HYDROGRAPH

XSECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RUNOFF AMOUNT (IN)	ELEVATION (FT)	PEAK DISCHARGE		
					TIME (HR)	RATE (CFS)	RATE (CSM)

ALTERNATE 42 STORM 2

STRUCTURE	10 RESVOR	.09	-3.14	1367.92	12.45	100	1111.1
XSECTION	15 RUNOFF	.01	2.95	---	12.08	10	1000.0
XSECTION	20 RUNOFF	.00	2.50	---	12.06	5	*****
XSECTION	25 RUNOFF	.00	3.14	---	12.01	6	*****
XSECTION	30 ADDHYD	.01	3.02	---	12.05	15	1600.0
XSECTION	35 ADDHYD	.10	-2.54	---	12.43	105	1050.0

Ec.out

RAINFALL OF 5.25 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.

ALTERNATE 43		STORM 3						
XSECTION	1	RUNOFF	.09	4.14	---	12.17	166	1844.4
STRUCTURE	10	RESVOR	.09	-2.46	1368.22	12.42	125	1388.9
XSECTION	15	RUNOFF	.01	3.60	---	12.08	12	1200.0
XSECTION	20	RUNOFF	.00	3.11	---	12.06	6	*****
XSECTION	25	RUNOFF	.00	3.80	---	12.01	8	*****
XSECTION	30	ADDHYD	.01	3.67	---	12.05	19	1900.0
XSECTION	35	ADDHYD	.10	-1.87	---	12.39	132	1320.0

RAINFALL OF 7.80 inches AND 24.00 hr DURATION, BEGINS AT .0 hrs.

ALTERNATE 46		STORM 6						
XSECTION	1	RUNOFF	.09	6.64	---	12.17	262	2911.1
STRUCTURE	10	RESVOR	.09	.03	1369.05	12.36	220	2444.4
XSECTION	15	RUNOFF	.01	6.01	---	12.08	19	1900.0
XSECTION	20	RUNOFF	.00	5.43	---	12.06	10	*****
XSECTION	25	RUNOFF	.00	6.25	---	12.00	12	*****
XSECTION	30	ADDHYD	.01	6.10	---	12.05	31	3100.0
XSECTION	35	ADDHYD	.10	.62	---	12.33	236	2360.0

1
TR20 -----
POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
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SUMMARY TABLE 3

STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....			
		1	2	3	6
STRUCTURE 10	.09				
ALTERNATE 11		7	*****	*****	*****
ALTERNATE 12		*****	17	*****	*****
ALTERNATE 13		*****	*****	63	*****
ALTERNATE 16		*****	*****	*****	160
ALTERNATE 21		54	*****	*****	*****
ALTERNATE 22		*****	95	*****	*****
ALTERNATE 23		*****	*****	121	*****
ALTERNATE 26		*****	*****	*****	217
ALTERNATE 41		56	*****	*****	*****
ALTERNATE 42		*****	100	*****	*****

```

          EC.out
ALTERNATE 43 ***** 125 *****
ALTERNATE 46 ***** 220 *****

XSECTION 1 .09
-----
ALTERNATE 11 B3 ***** *****
ALTERNATE 12 ***** 128 *****
ALTERNATE 13 ***** ***** 158 *****
ALTERNATE 16 ***** ***** 256 *****
ALTERNATE 21 ***** 105 *****

ALTERNATE 22 ***** 146 *****
ALTERNATE 23 ***** ***** 174 *****
ALTERNATE 26 ***** ***** 273 *****
ALTERNATE 41 ***** 102 *****
ALTERNATE 42 ***** 140 *****

ALTERNATE 43 ***** ***** 166 *****
ALTERNATE 46 ***** ***** 262 *****

XSECTION 15 .01
-----
ALTERNATE 11 5 ***** *****
ALTERNATE 12 ***** 9 *****
ALTERNATE 13 ***** ***** 11 *****
ALTERNATE 16 ***** ***** 19 *****
ALTERNATE 21 ***** 7 *****

ALTERNATE 22 ***** 11 *****
ALTERNATE 23 ***** ***** 13 *****

```

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1
TR20 -----
07/13/** POND @ ELLSON COURT ADDITION NCG 2,5,10,100-YR EVENTS VERSION
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SUMMARY TABLE 3

STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA {SQ MI}	STORM NUMBERS.....			
		1	2	3	6
XSECTION 15 .01					
ALTERNATE 26		*****	*****	*****	21
ALTERNATE 41		7	*****	*****	*****
ALTERNATE 42		*****	10	*****	*****
ALTERNATE 43		*****	*****	12	*****
ALTERNATE 46		*****	*****	*****	19
XSECTION 20 .00					

```

Ec.out
ALTERNATE 11      2 *****
ALTERNATE 12      ***** 4 *****
ALTERNATE 13      ***** ***** 5 *****
ALTERNATE 16      ***** ***** ***** 10
ALTERNATE 21      3 ***** ***** *****

ALTERNATE 22      ***** 5 *****
ALTERNATE 23      ***** ***** 7 *****
ALTERNATE 26      ***** ***** ***** 11
ALTERNATE 41      3 ***** ***** *****
ALTERNATE 42      ***** 5 *****

ALTERNATE 43      ***** ***** 6 *****
ALTERNATE 46      ***** ***** ***** 10

```

XSECTION 25 .00

```

-----
ALTERNATE 11      4 ***** *****
ALTERNATE 12      ***** 6 *****
ALTERNATE 13      ***** ***** 8 *****
ALTERNATE 16      ***** ***** ***** 13
ALTERNATE 21      5 ***** *****

ALTERNATE 22      ***** 8 *****
ALTERNATE 23      ***** ***** 9 *****
ALTERNATE 26      ***** ***** ***** 15
ALTERNATE 41      4 ***** ***** *****
ALTERNATE 42      ***** 6 ***** *****

ALTERNATE 43      ***** ***** 8 *****
ALTERNATE 46      ***** ***** ***** 12

```

XSECTION 30 .01

```

-----
ALTERNATE 11      9 ***** *****
ALTERNATE 12      ***** 14 *****

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1

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TR20 -----
POND @ ELLSON COURT ADDITION NGG 2,5,10,100-YR EVENTS VERSION
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SUMMARY TABLE 3

STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....			
		1	2	3	6

```

XSECTION 30 .01
-----
ALTERNATE 13      ***** ***** 18 *****
ALTERNATE 16      ***** ***** ***** 31

```

```

                                Ec.out
ALTERNATE 21                    12 *****
ALTERNATE 22                    ***** 18 *****
ALTERNATE 23                    ***** 21 *****

ALTERNATE 26                    ***** 35
ALTERNATE 41                    11 *****
ALTERNATE 42                    ***** 16 *****
ALTERNATE 43                    ***** 19 *****
ALTERNATE 46                    ***** 31

XSECTION 35                      .10
-----
ALTERNATE 11                    7 *****
ALTERNATE 12                    ***** 18 *****
ALTERNATE 13                    ***** 67 *****
ALTERNATE 16                    ***** 170
ALTERNATE 21                    57 *****

ALTERNATE 22                    ***** 100 *****
ALTERNATE 23                    ***** 128 *****
ALTERNATE 26                    ***** 232
ALTERNATE 41                    60 *****
ALTERNATE 42                    ***** 105 *****

ALTERNATE 43                    ***** 132 *****
ALTERNATE 46                    ***** 236

```

END OF 1 JOBS IN THIS RUN
1

SCS TR-20, VERSION 10/01/90
FILES

INPUT = EC.T20
OUTPUT = EC.OUT , DATED 07/13/**,16:27:34

FILES GENERATED - DATED 07/13/**,16:27:34

NONE!

*** TR-20 RUN COMPLETED ***

**DRAINAGE ANALYSIS SUMMARY
ELLSON COURT ADDITION**

Irwin (Ia) and Rosehill (Rd) - Soil Group D

Area ID	Area ac	Accum. Area ac	C2	C5	C10	C100	Elev		Flow Length	Tc2 min	Tc5 min	Tc10 min	Tc100 min	I2 in/hr	I5 in/hr	I10 in/hr	I100 in/hr	Q2 cfs	Q5 cfs	Q10 cfs	Q100 cfs
							Max	Min													
A	0.89		0.50	0.54	0.62	0.76	1368.50	1365.00	230.00	15	15	15	15	3.83	4.56	5.22	7.37	1.71	2.20	2.89	5.00
B	0.47		0.50	0.54	0.62	0.76	1368.50	1364.60	400.00	22	20	17	15	3.25	4.00	4.95	7.37	0.76	1.00	1.43	2.60
C	0.13		0.50	0.54	0.62	0.76	1368.50	1366.00	50.00	15	15	15	15	3.83	4.56	5.22	7.37	0.25	0.32	0.42	0.73
D	0.14		0.50	0.54	0.62	0.76	1367.50	1365.00	50.00	15	15	15	15	3.83	4.56	5.22	7.37	0.28	0.35	0.47	0.81