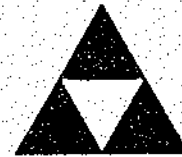


**ORCHARD AVENUE
DRAINAGE BASIN PLANNING STUDY
TECHNICAL ADDENDUM
FOR
CANON CITY, COLORADO**

PREPARED BY:

**GRAEF ANHALT SCHLOEMER
AND ASSOCIATION, INC.
102 EAST PIKES PEAK AVENUE
SUITE 305
COLORADO SPRINGS, CO 80903**

November, 1994
Job No. 941210



**GRAEF
ANHALT
SCHLOEMER**
and ASSOCIATES

ENGINEERS & SCIENTISTS

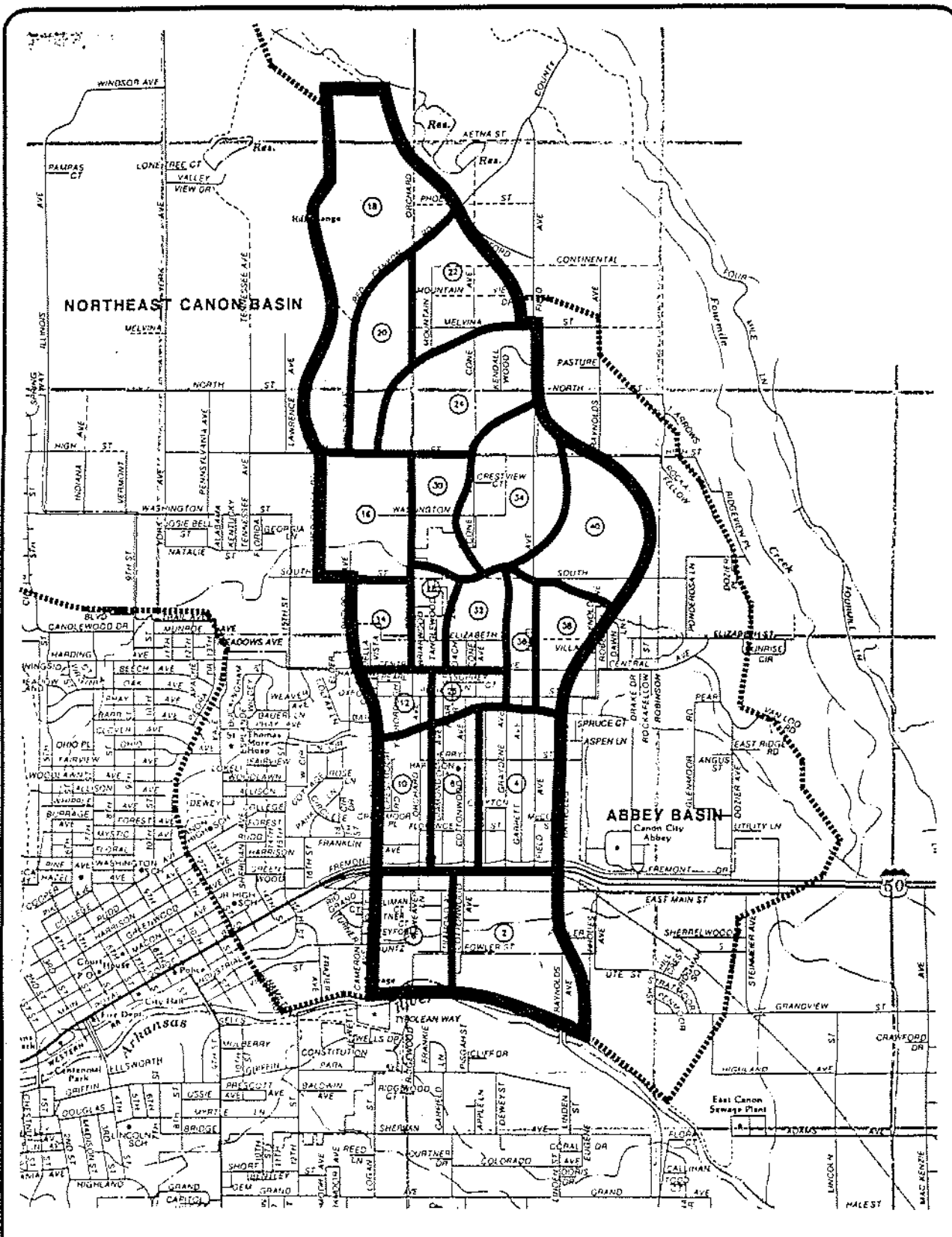
TECHNICAL ADDENDUM

The following information was produced in conjunction with Orchard Avenue Drainage Basin Planning Study. It contains the complete computer output for the 24-hour, 100-year, 50-year and 25-year flow calculations for the existing conditions and developed conditions with detention.

The following is the order of listing:

- Appendix A TR20 Output
 - 24-hour, 100-year existing conditions
 - 24-hour, 50-year existing conditions
 - 24-hour, 25-year existing conditions

- Appendix B TR20 Output
 - 24-hour, 100-year developed conditions with detention
 - 24-hour, 50-year developed conditions with detention
 - 24-hour, 25-year developed conditions with detention



**ORCHARD AVE. DRAINAGE
BASIN PLANNING STUDY**

BASIN MAP

DESIGNED BY:
MAB

DRAWN BY:
JJW

CHECKED BY:
JRW

DATE:
7/20/94

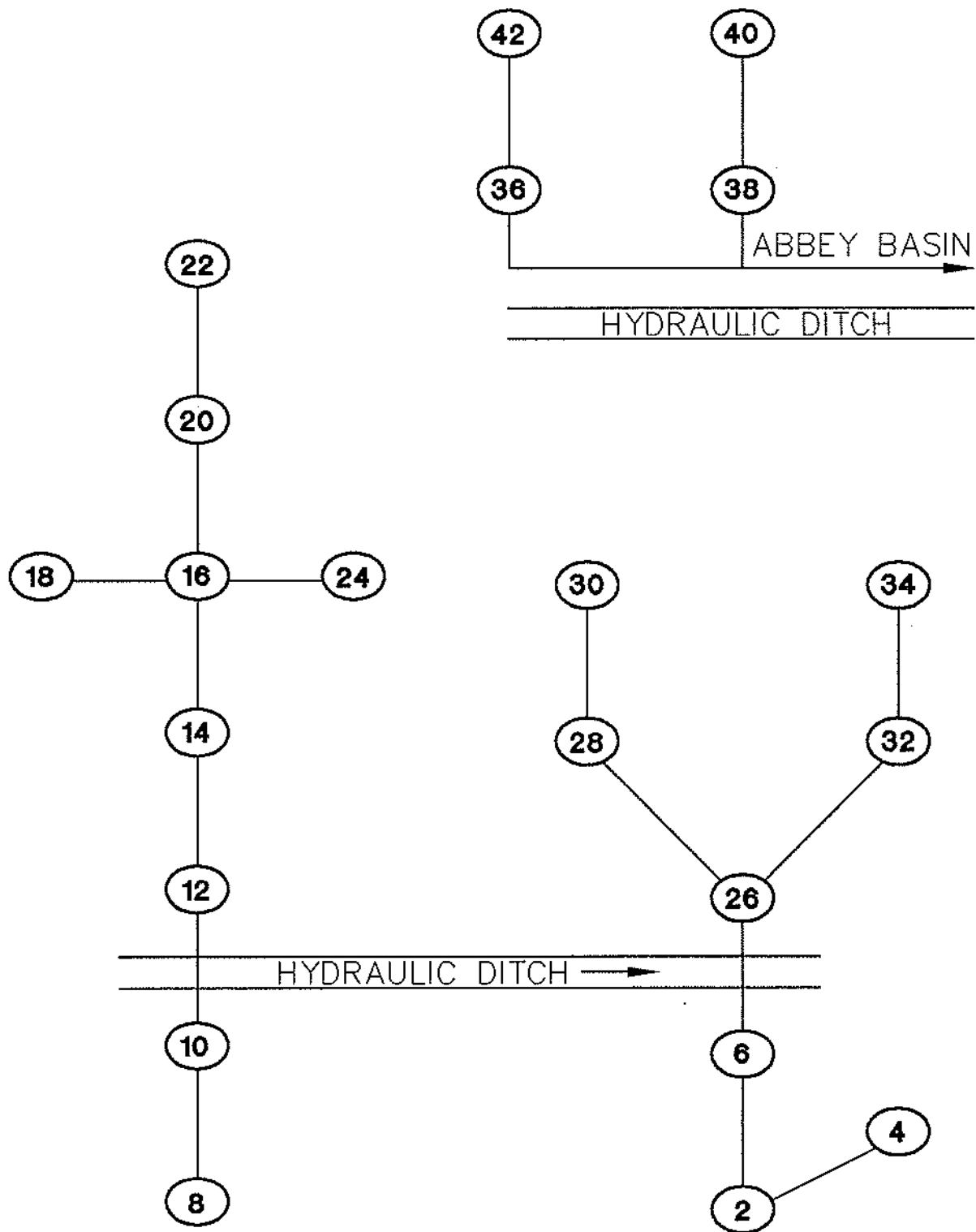
FILE NO:
941210

PREPARED BY:

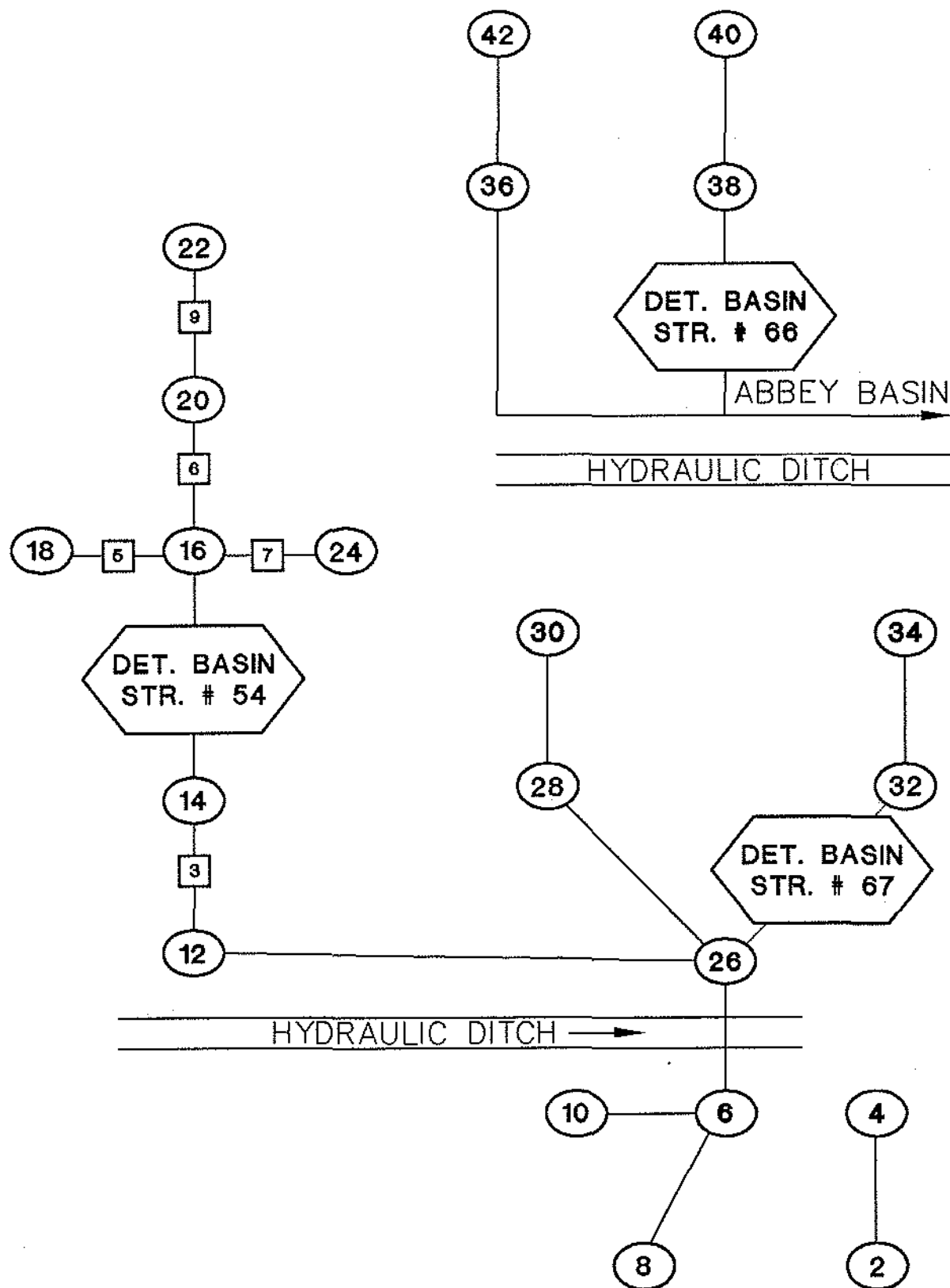


**GRAEF
ANHALT
SCHLOEMER**

and ASSOCIATES
ENGINEERS & SCIENTISTS
102 E Pikes Peak Ave, Suite 305
Colorado Springs, CO. 80903
(719) 634-8902 TEL.
(719) 634-0860 FAX



ORCHARD AVE.
DRAINAGE BASIN
TR-20 FLOW DIAGRAM
EXISTING CONDITIONS



ORCHARD AVE.
DRAINAGE BASIN
TR-20 FLOW DIAGRAM
FUTURE CONDITIONS

ORCHARD AVENUE BASIN
CN CALCULATION

BASIN #	AREA(SM)	LAND USE CN						SOIL TYPE %		EXIST CN	DEV CN	BASIN #
		AGRICULT %	ESTATE %	SING FAM %	MULT-FA %	INDUST %	COMM %	PARK %	% C D			
2	0.271	84 45		87 35	92 10		95 10			100	86.95	2
4	0.226			87 80	92 5		95 15			100	88.45	4
6	0.110			87 80	92 5		95 15			100	88.45	6
8	0.165	84 20		87 60	92 10		95 10			100	87.70	8
10	0.126			87 75	92 10		95 15			100	88.70	10
12	0.068			87 100						100	87.00	12
14	0.092			87 90	92 10					100	87.50	14
16	0.188		79 25	83 50 87 25					70	30	83.00	16
18	0.427	79 60 84 30	79 10						70	30	80.50	18
20	0.127		79 75 84 25						80	20	80.25	20
22	0.121		79 60 84 40						50	50	81.00	22
24	0.222		79 25 84 50	83 10 87 15					25	75	83.10	24
26	0.063			87 90	92 10					100	87.50	26
28	0.093			87 60	92 40					100	89.00	28
30	0.109		79 25	83 65	90 10				100		82.70	30
32	0.157			87 50	92 50					100	89.50	32
34	0.152			87 20 83 15	90 30		94 10	74 25	70	30	84.75	34
36	0.062			87 90	92 10					100	87.50	36
38	0.100			83 10 87 30	90 20 92 30		95 10		30	70	89.50	38
40	0.188			83 40 87 50	92 10				30	70	85.90	40
42	0.075			87 35 83 15	90 20		94 15	74 10	70	30	82.40	42

ORCHARD AVENUE BASIN
TIME OF CONCENTRATION AND CN CALCULATIONS
PROPOSED CONDITIONS

AREA DESIG.	C10 (10 yr)	L (ft)	Initial Tci Slope (%)	ti (min)	L (ft)	Travel Time Slope (%)	V (fps)	Tt (min)	TC (min)	TC (hr)	EXIST CN	DEV CN	AREA DESIG.
2	0.60	300	1.33	14.74	3300	1.33	7.50	7.33	22.07	0.368	86.2	86.95	2
4	0.60	300	0.95	16.47	3500	0.95	7.00	8.33	24.80	0.413	88.15	88.45	4
6	0.60	300	0.99	16.25	3200	0.99	7.10	7.51	23.76	0.396	88.45	88.45	6
8	0.60	300	1.33	14.74	2700	1.33	7.50	6.00	20.74	0.346	86.2	87.7	8
10	0.60	300	1.13	15.55	3000	1.13	7.40	6.76	22.31	0.372	88.7	88.7	10
12	0.60	300	1.00	16.19	1000	1.00	3.50	4.76	20.96	0.349	86.25	87	12
14	0.60	300	1.74	13.49	2000	1.74	5.00	6.67	20.16	0.336	84.75	87.5	14
16	0.40	300	0.90	23.47	2600	0.90	4.60	9.42	32.90	0.548	81.7	83	16
18	0.30	300	4.70	15.55	7100	4.70	5.60	21.13	36.68	0.611	80.5	80.5	18
20	0.40	300	2.88	15.99	3900	2.88	4.40	14.77	30.76	0.513	80	80.25	20
22	0.40	300	4.58	13.72	2100	4.58	5.40	6.48	20.20	0.337	81.25	81.25	22
24	0.40	300	3.78	14.62	3400	3.78	4.60	12.32	26.94	0.449	82.75	83.1	24
26	0.60	300	0.89	16.83	600	0.89	3.20	3.13	19.95	0.333	87.1	87.5	26
28	0.60	300	1.91	13.08	1900	1.91	5.70	5.56	18.64	0.311	86.4	89	28
30	0.40	300	2.89	15.97	2400	2.89	5.40	7.41	23.38	0.390	79	82.7	30
32	0.60	300	1.92	13.06	2200	1.92	6.90	5.31	18.37	0.306	84.95	89.5	32
34	0.60	300	4.46	9.89	3200	4.46	5.10	10.46	20.35	0.339	79.85	84.75	34
36	0.60	300	2.15	12.58	2300	2.15	5.60	6.85	19.42	0.324	84.6	87.5	36
38	0.60	300	1.83	13.27	2700	1.83	4.00	11.25	24.52	0.409	82.95	89.5	38
40	0.60	300	3.65	10.56	3100	3.65	5.50	9.39	19.96	0.333	82.5	85.9	40
42	0.60	300	4.46	9.89	3200	4.46	5.50	9.70	19.58	0.326	79.85	82.5	42

ORCHARD AVENUE BASIN
SUMMARY OF DISCHARGES

AREA DESI	SUBBASIN FLOW			ACCUMULATED FLOW			DETAINED FLOWS			AREA DESIG
	100 YR FLOW	50 YR FLOW	25 YR FLOW	100 YR FLOW	50 YR FLOW	25 YR FLOW	100 YR FLOW	50 YR FLOW	25 YR FLOW	
2	442	375	319	1920	1648	1395	775	656	556	2
4	375	320	274							4
6	185	158	135	1179	996	843	1180	1000	848	6
8	286	244	208	1259	981	760	1464	1242	1054	8
10	223	191	163	1148	907	699				10
12	115	97	83	1078	851	665	302	255	214	12
14	160	136	117	1047	827	647	278	188	144	14
16	206	170	141	1011	817	661	270	181	137	16
18	381	310	252							18
20	125	102	83	278	229	186				20
22	159	131	108							22
24	275	228	189							24
26	109	93	80	995	839	709	776	654	550	26
28	176	151	130	288	242	203				28
30	142	118	98							30
32	299	262	226	497	420	356	141	102	88	32
34	231	194	163							34
36	109	93	79							36
38	174	150	129	462	394	333	117	95	83	38
40	306	258	218							40
42	105	87	72							42

APPENDIX A
TR-20 OUTPUT
EXISTING CONDITIONS



GRAEF
ANHALT
SCHLOEMER
and Associates Inc.

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

JOB TR-20 SUMMARY NOPLOTS
 TITLE 001 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM
 TITLE EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

5 RAINFL 7	0.5				
8	0.0000	0.0040	0.0080	0.0100	0.0140
8	0.0190	0.0220	0.0260	0.0300	0.0450
8	0.0500	0.1000	0.7100	0.7500	0.7750
8	0.8000	0.8200	0.8300	0.8400	0.8500
8	0.8600	0.8700	0.8750	0.8850	0.8900
8	0.9000	0.9050	0.9100	0.9200	0.9250
8	0.9300	0.9350	0.9400	0.9450	0.9500
8	0.9550	0.9600	0.9650	0.9700	0.9730
8	0.9750	0.9800	0.9830	0.9870	0.9900
8	0.9930	0.9960	0.9999	1.0000	1.0000

9 ENDTBL

2 XSECTN 002	1.0			
8	5270.0	0.0	0.0	
8	5270.3	50.0	9.91	
8	5270.8	200.0	23.03	
8	5271.4	500.0	40.49	
8	5272.1	1000.0	62.45	
8	5274.2	3000.0	126.55	

9 ENDTBL

2 XSECTN 004	1.0			
8	5318.0	0.0	0.0	
8	5318.4	50.0	10.97	
8	5318.9	200.0	25.53	
8	5319.5	500.0	44.95	
8	5320.3	1000.0	69.46	

9 ENDTBL

2 XSECTN 006	1.0			
8	5319.0	0.0	0.0	
8	5319.4	50.0	10.54	
8	5319.8	200.0	25.21	
8	5320.5	500.0	44.37	
8	5321.3	1000.0	68.56	
8	5323.7	3000.0	139.51	

9 ENDTBL

2 XSECTN 008	1.0			
8	5280.0	0.0	0.0	
8	5280.3	50.0	9.91	
8	5280.8	200.0	23.03	
8	5281.4	500.0	40.49	
8	5282.1	1000.0	62.45	
8	5284.2	3000.0	126.55	

9 ENDTBL

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

2 XSECTN 010	1.0			
8	5320.0	0.0	0.0	

8	5320.8	200.0	24.21
8	5321.4	500.0	42.59
8	5322.2	1000.0	65.75
8	5323.4	2000.0	102.43
9 ENDTBL			
2 XSECTN	012	1.0	
8	5352.0	0.0	0.0
8	5354.7	100.0	17.69
8	5355.8	200.0	29.59
8	5357.9	500.0	58.82
8	5360.2	1000.0	99.13
8	5363.1	2000.0	167.19
9 ENDTBL			
2 XSECTN	014	1.0	
8	5366.0	0.0	0.0
8	5367.8	100.0	16.80
8	5368.5	200.0	28.09
8	5369.7	400.0	55.61
8	5371.0	600.0	93.39
8	5372.6	1500.0	156.94
9 ENDTBL			
2 XSECTN	016	1.0	
8	5406.0	0.0	0.0
8	5407.6	100.0	22.68
8	5408.2	200.0	37.18
8	5409.5	500.0	72.42
8	5410.9	1000.0	120.73
8	5412.7	2000.0	202.01
9 ENDTBL			
2 XSECTN	020	1.0	
8	5434.0	0.0	0.0
8	5435.7	100.0	15.96
8	5436.4	200.0	26.67
8	5437.6	500.0	52.79
8	5439.7	1500.0	120.08
9 ENDTBL			
2 XSECTN	026	1.0	
8	5352.0	0.0	0.0
8	5353.8	100.0	10.09
8	5354.5	200.0	16.91
8	5355.3	500.0	70.99
8	5357.0	1500.0	161.79
9 ENDTBL			

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

2 XSECTN	028	1.0	
8	5360.0	0.0	0.0
8	5361.3	50.0	8.16
8	5361.8	100.0	13.52
8	5363.8	500.0	44.51
8	5365.2	1000.0	74.72
9 ENDTBL			
2 XSECTN	032	1.0	
8	5360.0	0.0	0.0
8	5561.3	50.0	8.62
8	5561.8	100.0	14.41
8	5562.4	200.0	24.14
8	5563.5	500.0	47.87
8	5564.1	700.0	61.58
9 ENDTBL			
2 XSECTN	035	1.0	

8	5350.8	100.0	19.28
8	5351.6	200.0	30.62
8	5353.9	500.0	58.39
8	5357.2	1000.0	98.54
8	5379.3	3000.0	243.70

9 ENDTBL
2 XSECTN 038

8	5351.0	0.0	0.0
8	5352.3	50.0	8.40
8	5352.7	100.0	14.03
8	5353.3	200.0	23.51
8	5354.5	500.0	46.61
8	5355.1	700.0	59.96

9 ENDTBL
3 STRUCT 01

8	5324.0	0.0	0.0
8	5326.0	55.0	0.10
8	5328.0	125.0	0.67
8	5330.0	190.0	1.58
8	5331.0	850.0	4.33

9 ENDTBL
3 STRUCT 02

8	5348.0	0.0	0.0
8	5350.0	23.0	0.08
8	5352.0	72.0	0.28
8	5354.0	115.0	3.09
8	5355.0	770.0	5.67

9 ENDTBL
3 STRUCT 03

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

8	5362.5	0.0	0.0
8	5365.5	55.0	0.16
8	5367.5	125.0	0.33
8	5369.5	190.0	0.77
8	5371.5	240.0	2.48
8	5372.5	880.0	3.91

9 ENDTBL
3 STRUCT 04

8	5371.0	0.0	0.0
8	5373.0	23.0	0.02
8	5375.0	72.0	0.06
8	5377.0	115.0	0.29
8	5379.0	150.0	1.09
8	5380.0	800.0	1.60

9 ENDTBL
3 STRUCT 05

8	5440.0	0.0	0.0
8	5443.0	55.0	0.28
8	5445.0	125.0	0.68
8	5447.0	190.0	1.37
8	5448.0	210.0	1.84
8	5449.0	880.0	2.76

9 ENDTBL
3 STRUCT 06

8	5440.0	0.0	0.0
8	5442.0	19.0	0.10
8	5443.0	35.0	0.20
8	5445.0	60.0	0.62
8	5446.0	710.0	1.30

9 ENDTBL

8	5395.0	0.0	0.0
8	5397.0	23.0	0.11
8	5399.0	72.0	0.43
8	5401.7	125.0	0.85
8	5402.7	760.0	1.54

```

9 ENDTBL
3 STRUCT      09
8             5432.0      0.0      0.0
8             5434.0      19.0     0.02
8             5435.0      35.0     0.11
8             5436.6      58.0     0.52
8             5437.6      705.0    0.92

```

```

9 ENDTBL
3 STRUCT      09
8             5545.0      0.0      0.0

```

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

8	5548.0	55.0	0.26
8	5550.0	125.0	0.60
8	5552.0	190.0	1.17
8	5554.0	240.0	2.20
8	5558.0	300.0	7.80
8	5559.0	950.0	9.40

```

9 ENDTBL
3 STRUCT      10
8             5660.0      0.0      0.0
8             5662.0      23.0     0.01
8             5664.0      72.0     0.03
8             5668.0      150.0    0.72
8             5672.0      200.0     3.00
8             5674.0      215.0     5.06
8             5675.0      880.0     6.36

```

```

9 ENDTBL
3 STRUCT      11
8             5620.0      0.0      0.0
8             5621.0       4.0      6.40
8             5622.0       8.0     12.85
8             5623.0      10.0     19.35
8             5624.0      11.0     25.90
8             5626.0      12.0     38.20

```

```

9 ENDTBL
3 STRUCT      22
8             5348.0      0.0      0.0
8             5350.0     110.0     1.84
8             5352.0     250.0     5.97
8             5354.0     606.0    10.57
8             5355.0    1450.0    15.67

```

```

9 ENDTBL
3 STRUCT      27
8             5395.0      0.0      0.0
8             5397.0     110.0     1.84
8             5399.0     250.0     5.97
8             5401.0     606.0    10.57
8             5403.0    1450.0    15.67

```

```

9 ENDTBL
3 STRUCT      29
8             5545.0      0.0      0.0
8             5547.0      55.0     1.84
8             5549.0     125.0     5.97
8             5551.0     190.0    10.57
8             5553.0     240.0    15.67

```

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

6	RUNOFF	1	040	7	0.191	82.5	0.423	1
6	REACH	3	038	7 5	2700.0			1
6	RUNOFF	1	038	6	0.100	83.0	0.541	1
6	ADDHYD	4	038	6 5 7				1
6	RUNOFF	1	036	6	0.062	84.6	0.450	1
6	ADDHYD	4	038	7 6 1				1
6	RUNOFF	1	034	7	0.225	79.9	0.416	1
6	REACH	3	032	7 6	2500.0			1
6	RUNOFF	1	032	7	0.157	85.0	0.437	1
6	ADDHYD	4	032	7 6 4				1
6	REACH	3	026	4 3	900.0			1
6	RUNOFF	1	030	5	0.109	79.0	0.428	1
6	REACH	3	028	5 7	2300.0			1
6	RUNOFF	1	028	5	0.093	86.4	0.311	1
6	ADDHYD	4	028	7 5 6				1
6	REACH	3	026	6 7	900.0			1
6	RUNOFF	1	026	5	0.063	87.1	0.333	1
6	ADDHYD	4	026	3 7 6				1
6	ADDHYD	4	026	6 5 4				1
6	REACH	3	006	4 2	3300.0			1
6	SAVMOV	5	006	2 3				1
6	RUNOFF	1	024	6	0.222	82.8	0.422	1
6	REACH	3	016	6 5	2900.0			1
6	RUNOFF	1	022	7	0.121	81.3	0.312	1
6	REACH	3	020	7 6	2700.0			1
6	RUNOFF	1	020	4	0.127	80.0	0.491	1
6	ADDHYD	4	020	4 6 7				1
6	RUNOFF	1	018	4	0.427	80.5	0.447	1
6	REACH	3	016	4 6	2900.0			1
6	ADDHYD	4	016	5 6 4				1
6	RUNOFF	1	016	5	0.188	81.7	0.604	1
6	ADDHYD	4	016	5 7 6				1
6	ADDHYD	4	016	6 4 5				1
6	REACH	3	014	5 7	2300.0			1
6	RUNOFF	1	014	5	0.092	88.8	0.471	1
6	ADDHYD	4	014	7 5 6				1
6	REACH	3	012	6 7	1300.0			1
6	RUNOFF	1	012	5	0.068	86.3	0.349	1
6	ADDHYD	4	012	5 7 4				1
6	REACH	3	010	4 7	3000.0			1
6	RUNOFF	1	010	5	0.126	88.7	0.372	1
6	ADDHYD	4	010	5 7 6				1
6	REACH	3	008	6 4	3000.0			1
6	RUNOFF	1	008	5	0.165	86.2	0.346	1
6	ADDHYD	4	008	4 5 2				1
6	RUNOFF	1	006	5	0.110	88.5	0.396	1

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

6	ADDHYD	4	006	3 5 7				1
6	RUNOFF	1	004	5	0.226	88.2	0.578	1
6	REACH	3	002	5 3	3600.0			1
6	REACH	3	002	7 4	3600.0			1
6	ADDHYD	4	002	4 3 7				1
6	RUNOFF	1	002	5	0.271	86.2	0.368	1

ENDDATA
 7 INCREM 6 0.10
 7 COMPUT 7 040 002 0.0 3.40 1.0 7 2 01 01
 ENDCMP 1
 ENDJOB 2
 *****END OF 80-80 LIST*****

EXECUTIVE CONTROL OPERATION INCREM
 ID
 MAIN TIME INCREMENT = .10 HOURS
 RECORD

EXECUTIVE CONTROL OPERATION COMPUT
 ID
 FROM XSECTION 40
 TO XSECTION 2
 STARTING TIME = .00 RAIN DEPTH = 3.40 RAIN DURATION= 1.00 RAIN TABLE NO.= 7 ANT. MOIST. COND= 2
 ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS
 RECORD

OPERATION RUNOFF CROSS SECTION 40

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	236.84	(RUNOFF)
10.42	6.61	(RUNOFF)
11.56	6.24	(RUNOFF)
12.56	6.26	(RUNOFF)
14.06	6.31	(RUNOFF)
18.90	3.43	(RUNOFF)
23.49	2.59	(RUNOFF)

*** WARNING REACH 38 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

TR20 XEQ 07-11-94 09:44 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 1 PASS 1
 REV PC 09/83(2) EXISTING CONDITIONS W/ TYPE II STORM INPUT:QREX1
 PAGE 1

OPERATION REACH CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.23	232.51	5353.43
10.53	6.61	5351.17
11.67	6.21	5351.16
12.67	6.23	5351.16
14.17	6.27	5351.16
19.00	3.43	5351.09
23.60	2.58	5351.07

OPERATION RUNOFF CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	110.69	(RUNOFF)
10.39	3.50	(RUNOFF)
11.61	3.16	(RUNOFF)
12.62	3.17	(RUNOFF)
14.12	3.17	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	341.69	5353.87
10.45	10.11	5351.26
11.65	9.34	5351.24
12.65	9.38	5351.24
14.16	9.42	5351.25
18.91	5.24	5351.14
20.68	4.76	5351.12
23.58	3.90	5351.10

OPERATION RUNOFF CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	82.47	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 38

TR20 XEQ 07-11-94 09:44 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 1

REV PC 09/83(2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:QPEX1

PAGE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	418.08	5354.17
10.45	12.37	5351.32
11.63	11.38	5351.30
12.63	11.43	5351.30
14.14	11.46	5351.30
18.89	6.40	5351.17
20.67	5.80	5351.15
21.63	4.94	5351.13
23.56	4.76	5351.12

OPERATION RUNOFF CROSS SECTION 34

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	249.13	(RUNOFF)
10.41	7.31	(RUNOFF)
11.56	6.92	(RUNOFF)
12.56	6.96	(RUNOFF)
14.06	7.00	(RUNOFF)
18.88	3.82	(RUNOFF)
20.58	3.56	(RUNOFF)
23.49	2.90	(RUNOFF)

*** WARNING REACH 32 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 32

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.23	245.51	5562.57
10.51	7.31	5389.42

12.68	8.74	5387.93
14.17	6.98	5388.08
18.97	3.82	5375.38
20.68	3.54	5374.27
23.59	2.87	5371.63

OPERATION RUNOFF CROSS SECTION 32

1

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 1

REV PC 09/83(2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

PAGE 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	216.26	(RUNOFF)
10.40	5.75	(RUNOFF)
11.57	5.38	(RUNOFF)
12.56	5.40	(RUNOFF)
14.07	5.43	(RUNOFF)
18.90	2.96	(RUNOFF)
23.50	2.22	(RUNOFF)

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 30

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	112.83	(RUNOFF)
10.45	3.47	(RUNOFF)
11.56	3.25	(RUNOFF)
12.56	3.29	(RUNOFF)
14.07	3.31	(RUNOFF)
18.95	1.82	(RUNOFF)
23.49	1.37	(RUNOFF)

*** WARNING REACH 28 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.06	158.40	(RUNOFF)
7.45	8.58	(RUNOFF)
10.39	3.50	(RUNOFF)
11.50	3.41	(RUNOFF)
12.50	3.43	(RUNOFF)
14.00	3.44	(RUNOFF)
18.87	1.79	(RUNOFF)
23.46	1.40	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 28

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	237.86	5362.49
10.45	6.98	5360.19
11.57	6.50	5360.17
12.57	6.54	5360.17
14.07	6.56	5360.17
18.90	3.61	5360.09
23.50	2.71	5360.07

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	107.68	(RUNOFF)
7.45	5.90	(RUNOFF)
10.38	2.41	(RUNOFF)
11.51	2.33	(RUNOFF)
12.51	2.33	(RUNOFF)
14.01	2.34	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	669.25	5355.59
10.45	20.04	5352.36
11.60	18.60	5352.33
12.60	18.70	5352.34
14.10	18.79	5352.34
18.94	10.38	5352.19
20.62	9.51	5352.17
21.59	8.05	5352.15
23.53	7.76	5352.14

OPERATION ADDHYD CROSS SECTION 26

TR20 XEQ 07-11-94 09:44 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 1 PASS 1
 REV PC 09/83(.2) EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1
 PAGE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	764.23	5355.75
10.45	22.46	5352.40
11.56	20.89	5352.38
12.58	20.99	5352.38
14.09	21.08	5352.38
18.94	11.61	5352.21
20.61	10.66	5352.19
21.56	9.01	5352.16
23.52	8.69	5352.16

*** WARNING REACH 6 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	764.23	5320.92
10.45	22.46	5319.18
11.58	20.89	5319.17
12.58	20.99	5319.17
14.09	21.08	5319.17
18.94	11.61	5317.09
20.61	10.66	5317.09
21.50	9.01	5317.07
23.52	8.69	5317.07

OPERATION RUNOFF CROSS SECTION 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	278.36	(RUNOFF)
10.39	7.74	(RUNOFF)
11.56	7.29	(RUNOFF)
12.56	7.35	(RUNOFF)
14.06	7.37	(RUNOFF)
18.87	4.01	(RUNOFF)
20.58	3.73	(RUNOFF)
23.49	3.03	(RUNOFF)

*** WARNING REACH 16 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 22

TR20 XEQ 07-11-94 09:44
1 PASS 1
REV PC 09/83(.2)
PAGE 6

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR, 100 YR. STORM
EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

JOB

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	163.86	(RUNOFF)
7.46	9.84	(RUNOFF)
10.40	4.07	(RUNOFF)
11.50	3.98	(RUNOFF)
12.50	4.00	(RUNOFF)
14.00	4.03	(RUNOFF)
18.88	2.12	(RUNOFF)
23.46	1.66	(RUNOFF)

*** WARNING REACH 20 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 20

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.17	126.23	(RUNOFF)
10.40	4.13	(RUNOFF)
11.59	3.80	(RUNOFF)
12.59	3.83	(RUNOFF)
14.09	3.84	(RUNOFF)
18.89	2.16	(RUNOFF)
23.52	1.61	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 20

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	282.33	5436.73
10.44	8.20	5434.14
11.61	7.73	5434.13
12.61	7.78	5434.13
14.11	7.82	5434.13
18.91	4.28	5434.07
20.63	3.98	5434.07
23.55	3.25	5434.06

OPERATION RUNOFF CROSS SECTION 18

TR20 XER 07-11-94 09:44 CANNON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB

PASS 1

REV PC 09/83(,2) EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	462.28	(RUNOFF)
10.43	14.08	(RUNOFF)
11.57	13.18	(RUNOFF)
12.57	13.23	(RUNOFF)
14.07	13.31	(RUNOFF)
18.89	7.35	(RUNOFF)
20.59	6.76	(RUNOFF)
21.57	5.71	(RUNOFF)
23.51	5.52	(RUNOFF)

*** WARNING REACH 16 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.28	440.05	5409.24
10.55	14.10	5406.23
11.70	12.97	5406.21
12.70	13.03	5406.21
14.20	13.09	5406.21
18.99	7.34	5406.12
20.72	6.65	5406.11
21.69	5.67	5406.09
23.63	5.46	5406.09

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.27	698.55	5410.06
10.54	21.81	5406.35
11.69	20.11	5406.32
12.70	20.22	5406.32
14.20	20.29	5406.32
18.99	11.35	5406.18
20.72	10.29	5406.16
21.69	8.76	5406.14
	5.46	5406.14

OPERATION RUNOFF CROSS SECTION 16

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 1

REV PC 09/83(1.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	180.96	(RUNOFF)
10.40	6.38	(RUNOFF)
11.64	5.65	(RUNOFF)
12.64	5.67	(RUNOFF)
14.15	5.64	(RUNOFF)
18.94	3.32	(RUNOFF)
23.56	2.41	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	461.28	5409.33
10.42	14.58	5406.23
11.62	13.37	5406.21
12.62	13.44	5406.21
14.13	13.45	5406.22
18.92	7.59	5406.12
20.65	6.83	5406.11
21.61	5.86	5406.09
23.55	5.66	5406.09

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.24	1141.43	5411.15
10.46	36.40	5406.58
11.67	33.33	5406.53
12.67	33.53	5406.54
14.17	33.61	5406.54
18.95	18.95	5406.30
20.70	17.05	5406.27
21.66	14.59	5406.23
23.59	14.04	5406.22

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 14

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 1

REV PC 09/83(1.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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8.08	222.36	(RUNOFF)
10.36	4.95	(RUNOFF)
11.54	4.72	(RUNOFF)
12.54	4.74	(RUNOFF)
14.04	4.74	(RUNOFF)
18.89	2.52	(RUNOFF)
23.48	1.92	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.29	1382.99	5322.66
10.46	47.52	5320.19
11.71	42.05	5320.17
12.71	42.26	5320.17
14.22	42.31	5320.17
18.95	24.63	5320.10
20.75	21.48	5320.09
21.70	18.66	5320.07
23.60	17.74	5320.07

*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 9

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	268.68	(RUNOFF)
10.38	6.19	(RUNOFF)
11.52	5.96	(RUNOFF)
12.52	5.99	(RUNOFF)
14.02	6.00	(RUNOFF)
18.88	3.17	(RUNOFF)
23.47	2.44	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.26	1325.17	5282.65
10.45	53.74	5280.31
11.67	47.20	5280.28
12.67	47.44	5280.28
14.18	47.43	5280.28
18.95	27.78	5280.17
20.72	24.06	5280.14
21.67	21.00	5280.13
23.57	20.06	5280.12

OPERATION RUNOFF CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	184.53	(RUNOFF)
10.45	53.74	(RUNOFF)

11.55	4.07	(RUNOFF)
12.55	4.08	(RUNOFF)
14.05	4.11	(RUNOFF)
18.87	2.19	(RUNOFF)
23.49	1.67	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	943.56	5321.21
10.45	26.72	5319.21
11.58	24.95	5319.20
12.58	25.06	5319.20
14.08	25.18	5319.20
18.92	13.80	5319.11
20.60	12.71	5319.10
21.58	10.72	5319.09
23.51	10.35	5319.08

TR20 XEQ 07-11-94 09:44 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB

1 PASS 1

REV PC 09/83(2) EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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OPERATION RUNOFF CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	305.77	(RUNOFF)
10.38	8.80	(RUNOFF)
11.63	7.81	(RUNOFF)
12.63	7.82	(RUNOFF)
14.14	7.79	(RUNOFF)
18.86	4.49	(RUNOFF)
23.55	3.26	(RUNOFF)

*** WARNING REACH 2 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.30	303.25	5271.01
10.48	8.79	5270.05
11.74	7.78	5270.05
12.74	7.80	5270.05
14.24	7.76	5270.05
18.95	4.49	5270.03
23.66	3.25	5270.02

*** WARNING REACH 2 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	943.56	5272.02
10.45	26.72	5270.16
11.58	24.95	5270.15

17.00	23.16	5270.10
18.92	13.80	5270.08
20.60	12.71	5270.08
21.58	10.72	5270.06
23.51	10.35	5270.06

OPERATION ADDHYD CROSS SECTION 2

1

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	1191.37	5272.30
10.45	35.57	5270.21
11.60	32.27	5270.19
12.60	32.39	5270.19
14.11	32.39	5270.19
18.92	18.29	5270.11
20.63	16.31	5270.10
21.60	14.04	5270.08
23.54	13.46	5270.08

OPERATION RUNOFF CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	427.00	(RUNOFF)
10.45	10.21	(RUNOFF)
11.53	9.70	(RUNOFF)
12.53	9.74	(RUNOFF)
14.03	9.78	(RUNOFF)
18.87	5.21	(RUNOFF)
20.55	4.95	(RUNOFF)
23.48	4.00	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	1595.50	5272.73
10.45	45.78	5270.27
11.58	41.87	5270.25
12.58	42.04	5270.25
14.09	42.04	5270.25
18.90	23.50	5270.14
20.61	21.17	5270.13
21.58	18.10	5270.11
23.52	17.43	5270.10

EXECUTIVE CONTROL OPERATION ENDCMP

RECORD

ID

COMPUTATIONS COMPLETED FOR PASS 1

EXECUTIVE CONTROL OPERATION ENDCMP

RECORD

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 SUMMARY

REV PC 09/83(.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:DPEX1

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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
 (A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
 A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE	STANDARD CONTROL	DRAINAGE	RAIN TABLE	ANTEC MOIST	MAIN TIME	PRECIPITATION			RUNOFF	PEAK DISCHARGE		
ID	OPERATION	AREA	#	COND	INCREM	BEGIN	AMOUNT	DURATION	AMOUNT	ELEVATION	TIME	RATE
RATE		(SQ MI)			(HR)	(HR)	(IN)	(HR)	(IN)	(FT)	(HR)	(CFS)
(CSK)												
ALTERNATE	1	STORM	1									
XSECTION 40	RUNOFF	.19	7	2	.10	.0	3.40	24.00	1.74	---	6.12	236.04
1240.0												
XSECTION 38	REACH	.19	7	2	.10	.0	3.40	24.00	1.74	5353.43	6.23	232.51
1217.3												
XSECTION 38	RUNOFF	.10	7	2	.10	.0	3.40	24.00	1.77	---	6.19	110.69
1106.9												
XSECTION 38	ADDDHYD	.29	7	2	.10	.0	3.40	24.00	1.75	5353.87	6.22	341.69
1174.2												
XSECTION 36	RUNOFF	.06	7	2	.10	.0	3.40	24.00	1.90	---	6.13	82.47
1330.1												
XSECTION 38	ADDDHYD	.35	7	2	.10	.0	3.40	24.00	1.77	5354.17	6.20	418.08
1184.4												
XSECTION 34	RUNOFF	.22	7	2	.10	.0	3.40	24.00	1.55	---	6.12	249.13
1107.2												
XSECTION 32	REACH	.22	7	2	.10	.0	3.40	24.00	1.55	5562.57	6.23	245.51
1091.2												
XSECTION 32	RUNOFF	.16	7	2	.10	.0	3.40	24.00	1.93	---	6.12	216.26
1377.4												
XSECTION 32	ADDDHYD	.38	7	2	.10	.0	3.40	24.00	1.71	5563.29	6.19	443.74
1161.6												
XSECTION 26	REACH	.38	7	2	.10	.0	3.40	24.00	1.71	5355.15	6.19	443.74
1161.6												
XSECTION 30	RUNOFF	.11	7	2	.10	.0	3.40	24.00	1.49	---	6.13	112.83
1035.2												
XSECTION 28	REACH	.11	7	2	.10	.0	3.40	24.00	1.49	5361.85	6.24	110.81
1016.6												
XSECTION 28	RUNOFF	.09	7	2	.10	.0	3.40	24.00	2.04	---	6.06	158.40
1703.2												
XSECTION 28	ADDDHYD	.20	7	2	.10	.0	3.40	24.00	1.74	5362.49	6.12	237.26
1177.5												
XSECTION 26	REACH	.20	7	2	.10	.0	3.40	24.00	1.74	5354.60	6.12	237.86
1177.5												
XSECTION 26	RUNOFF	.06	7	2	.10	.0	3.40	24.00	2.10	---	6.07	107.68
1709.1												
XSECTION 26	ADDDHYD	.58	7	2	.10	.0	3.40	24.00	1.72	5355.59	6.16	669.25

1633.4

XSECTION 12	ADDHYD	1.25	7	2	.10	.0	3.40	24.00	1.71	5360.99	6.32	1272.38
1022.0												
XSECTION 10	REACH	1.25	7	2	.10	.0	3.40	24.00	1.71	5322.53	6.32	1272.38
1022.0												
XSECTION 10	RUNOFF	.13	7	2	.10	.0	3.40	24.00	2.24	---	6.08	222.56
1766.3												
XSECTION 10	ADDHYD	1.37	7	2	.10	.0	3.40	24.00	1.76	5322.66	6.29	1382.99
1008.7												
XSECTION 8	REACH	1.37	7	2	.10	.0	3.40	24.00	1.76	5282.50	6.29	1382.99
1008.7												
XSECTION 8	RUNOFF	.17	7	2	.10	.0	3.40	24.00	2.03	---	6.07	268.68
1628.4												
XSECTION 8	ADDHYD	1.54	7	2	.10	.0	3.40	24.00	1.79	5282.65	6.26	1525.17
993.0												
XSECTION 6	RUNOFF	.11	7	2	.10	.0	3.40	24.00	2.22	---	6.09	184.53
1677.5												
XSECTION 6	ADDHYD	.76	7	2	.10	.0	3.40	24.00	1.82	5321.21	6.13	943.56
1246.5												
XSECTION 4	RUNOFF	.23	7	2	.10	.0	3.40	24.00	2.19	---	6.19	305.77
1353.0												
XSECTION 2	REACH	.23	7	2	.10	.0	3.40	24.00	2.19	5271.01	6.30	303.25
1341.8												
XSECTION 2	REACH	.76	7	2	.10	.0	3.40	24.00	1.82	5272.02	6.13	943.56
1246.5												
XSECTION 2	ADDHYD	.98	7	2	.10	.0	3.40	24.00	1.91	5272.30	6.16	1191.37
1212.0												
XSECTION 2	RUNOFF	.27	7	2	.10	.0	3.40	24.00	2.03	---	6.08	427.00
1575.6												
XSECTION 2	ADDHYD	1.25	7	2	.10	.0	3.40	24.00	1.93	5272.73	6.14	1595.50
1272.3												

1

TR20 XEQ 07-11-94 09:44

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 SUMMARY

REV PC 09/83(.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS

(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 1

% OF PEAK

A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARN

INGS)

HYDROGRAPH INFORMATION

ROUTING PARAMETERS

PEAK

TRAVEL TIME

XSEC REACH
STOR- KINE-ID LENGTH
AGE MATIC
(FT)

INFLOW

OUTFLOW

INTERV.AREA

BASE-

ABOVE

TIME

ATION

EQUATION

LENGTH

RATIO

QPEAK

KIN

PEAK TIME
(CFS) (HR)PEAK TIME
(CFS) (HR)PEAK TIME
(CFS) (HR)FLOW
(CFS)BASE
(IN)INCR
(HR)

#

COEFF POWER
(X) (H)FACTOR
(K)Q/I
(Q*)(K)
(SEC)COEFF
(C)

ALTERNATE	1	STORM	1
+ 38 2700	235	6.1	230
+ 36 900	443	6.2	443
+ 32 2500	247	6.1	243
+ 30 900	237	6.1	237
+ 28 2300	111	6.1	108
+ 26 900	237	6.1	237
+ 24 900	443	6.2	443
+ 22 2500	247	6.1	243
+ 20 2700	162	6.1	156
+ 18 2900	277	6.1	268
+ 16 2900	452	6.1	437
+ 14 2300	1125	6.2	1109
+ 12 1300	1216	6.3	1216
+ 10 3000	1268	6.3	1268
+ 8 3000	1383	6.3	1383
+ 6 3000	932	6.1	932

1 SUMMARY

REV PC 09/83(1.2)

EXISTING CONDITIONS W/ TYPE II STORM INPUT:OPEX1

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1
0 XSECTION 2	1.25	
+		
ALTERNATE 1		1595.50
0 XSECTION 4	.23	
+		
ALTERNATE 1		305.77
0 XSECTION 6	.76	
+		
ALTERNATE 1		943.56
0 XSECTION 8	1.54	
+		
ALTERNATE 1		1525.17
0 XSECTION 10	1.37	
+		
ALTERNATE 1		1382.99
0 XSECTION 12	1.25	
+		
ALTERNATE 1		1272.38
0 XSECTION 14	1.18	
+		
ALTERNATE 1		1226.54
0 XSECTION 16	1.09	
+		
ALTERNATE 1		1141.43
0 XSECTION 18	.43	
+		
ALTERNATE 1		462.28
0 XSECTION 20	.25	
+		
ALTERNATE 1		282.33
0 XSECTION 22	.12	
+		
ALTERNATE 1		163.86
0 XSECTION 24	.22	
+		
ALTERNATE 1		278.36
0 XSECTION 26	.65	
+		
ALTERNATE 1		764.23
0 XSECTION 28	.20	
+		
ALTERNATE 1		237.86

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1
0 XSECTION 30	.11	
+		
ALTERNATE 1		112.83
0 XSECTION 32	.38	
+		
ALTERNATE 1		443.74
0 XSECTION 34	.22	
+		
ALTERNATE 1		249.13
0 XSECTION 36	.06	
+		
ALTERNATE 1		82.47
0 XSECTION 38	.35	
+		
ALTERNATE 1		418.08
0 XSECTION 40	.19	
+		
ALTERNATE 1		236.84
END OF 1 JOB IN THIS RUN		

APPENDIX B
TR-20 OUTPUT
DEVELOPED CONDITIONS
WITH DETENTION



GRAEF
ANHALT
SCHLOEMER
and Associates Inc.

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

JOB TR-20 SUMMARY NOPLOTS
 TITLE 001 CANNON CITY ORCHARD AVE BASIN TR20 RUN 24 HR. 100 YR. STORM
 TITLE DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2

5 RAINFL 7	0.5				
8	0.0000	0.0040	0.0080	0.0100	0.0140
8	0.0190	0.0220	0.0260	0.0300	0.0450
8	0.0600	0.1000	0.7100	0.7500	0.7750
8	0.8000	0.8200	0.8300	0.8400	0.8500
8	0.8600	0.8700	0.8750	0.8850	0.8900
8	0.9000	0.9050	0.9100	0.9200	0.9250
8	0.9300	0.9350	0.9400	0.9450	0.9500
8	0.9550	0.9600	0.9650	0.9700	0.9730
8	0.9750	0.9800	0.9830	0.9870	0.9900
8	0.9930	0.9960	0.9999	1.0000	1.0000

9 ENDTBL

2 XSECTN 002	1.0		
8	5270.0	0.0	0.0
8	5270.3	50.0	9.91
8	5270.8	200.0	23.03
8	5271.4	500.0	40.49
8	5272.1	1000.0	62.45
8	5274.2	3000.0	126.55

9 ENDTBL

2 XSECTN 004	1.0		
8	5318.0	0.0	0.0
8	5318.4	50.0	10.97
8	5318.9	200.0	25.53
8	5319.5	500.0	44.95
8	5320.3	1000.0	69.46

9 ENDTBL

2 XSECTN 006	1.0		
8	5319.0	0.0	0.0
8	5319.4	50.0	10.84
8	5319.8	200.0	25.21
8	5320.5	500.0	44.37
8	5321.3	1000.0	68.56
8	5323.7	3000.0	139.51

9 ENDTBL

2 XSECTN 008	1.0		
8	5280.0	0.0	0.0
8	5280.3	50.0	9.91
8	5280.8	200.0	23.03
8	5281.4	500.0	40.49
8	5282.1	1000.0	62.45
8	5284.2	3000.0	126.55

9 ENDTBL

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

2 XSECTN 010	1.0		
8	5320.0	0.0	0.0
8	5320.3	50.0	10.41

8	5320.8	200.0	24.21
8	5321.4	500.0	42.59
8	5322.2	1000.0	65.75
8	5323.4	2000.0	102.43
9 ENDTBL			
2 XSECTN	011	1.0	
8	5352.0	0.0	0.0
8	5353.5	50.0	4.88
8	5354.15	100.0	8.07
8	5355.3	200.0	13.68
8	5356.7	280.0	19.02
9 ENDTBL			
2 XSECTN	012	1.0	
8	5352.0	0.0	0.0
8	5354.7	100.0	17.69
8	5355.8	200.0	29.59
8	5357.9	500.0	58.82
8	5360.2	1000.0	99.13
8	5363.1	2000.0	167.19
9 ENDTBL			
2 XSECTN	014	1.0	
8	5366.0	0.0	0.0
8	5367.8	100.0	16.80
8	5368.5	200.0	28.09
8	5369.7	400.0	55.61
8	5371.0	600.0	93.39
8	5372.6	1500.0	156.94
9 ENDTBL			
2 XSECTN	016	1.0	
8	5406.0	0.0	0.0
8	5407.6	100.0	22.68
8	5408.2	200.0	37.18
8	5409.5	500.0	72.42
8	5410.9	1000.0	120.73
8	5412.7	2000.0	202.01
9 ENDTBL			
2 XSECTN	020	1.0	
8	5434.0	0.0	0.0
8	5435.7	100.0	15.96
8	5436.4	200.0	26.67
8	5437.6	500.0	52.79
8	5439.7	1500.0	120.08
9 ENDTBL			

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

2 XSECTN	026	1.0	
8	5352.0	0.0	0.0
8	5353.8	100.0	10.09
8	5354.5	200.0	16.91
8	5355.3	500.0	70.99
8	5357.0	1500.0	161.79
9 ENDTBL			
2 XSECTN	028	1.0	
8	5360.0	0.0	0.0
8	5361.3	50.0	8.16
8	5361.8	100.0	13.52
8	5363.8	500.0	44.51
8	5365.2	1000.0	74.72
9 ENDTBL			
2 XSECTN	032	1.0	
8	5360.0	0.0	0.0

8	5561.8	100.0	14.41
8	5562.4	200.0	24.14
8	5563.5	500.0	47.87
8	5564.1	700.0	61.58
9 ENDTBL			
2 XSECTN	035	1.0	
8	5359.0	0.0	0.0
8	5360.6	100.0	19.28
8	5361.6	200.0	30.62
8	5363.9	500.0	58.39
8	5367.2	1000.0	98.54
8	5379.3	3000.0	243.70
9 ENDTBL			
2 XSECTN	036	1.0	
8	5351.0	0.0	0.0
8	5352.3	50.0	8.40
8	5352.7	100.0	14.03
8	5353.3	200.0	23.51
8	5354.5	500.0	46.61
8	5355.1	700.0	59.96
9 ENDTBL			
2 XSECTN	038	1.0	
8	5351.0	0.0	0.0
8	5352.3	50.0	8.40
8	5352.7	100.0	14.03
8	5353.3	200.0	23.51
8	5354.5	500.0	46.61
8	5355.1	700.0	59.96
9 ENDTBL			

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

3 STRUCT	04		
8	5406.0	0.0	0.0
8	5408.0	35.0	0.05
8	5410.0	90.0	0.28
8	5412.0	160.0	0.97
8	5413.0	303.0	1.45
8	5414.0	798.0	2.14
9 ENDTBL			
3 STRUCT	05		
8	5432.0	0.0	0.0
8	5434.0	26.0	0.06
8	5435.0	44.0	0.23
8	5436.0	57.0	0.57
8	5437.0	70.0	1.14
8	5438.0	395.0	2.17
9 ENDTBL			
3 STRUCT	06		
8	5434.0	0.0	0.0
8	5436.0	14.0	0.06
8	5437.0	26.0	0.23
8	5438.0	147.0	0.57
8	5439.0	628.0	1.14
9 ENDTBL			
3 STRUCT	07		
8	5450.0	0.0	0.0
8	5451.0	6.0	0.03
8	5452.0	13.0	0.09
8	5453.0	131.0	0.35
8	5454.0	345.0	0.70
9 ENDTBL			

8	5488.0	0.0	0.0
8	5489.0	4.0	0.02
8	5490.0	9.0	0.05
8	5491.0	13.0	0.10
8	5492.0	176.0	0.18
8	5493.0	470.0	0.30
9 ENDTBL			
3 STRUCT	54		
8	5406.0	0.0	0.0
8	5408.0	35.0	3.67
8	5410.0	90.0	18.18
8	5412.0	160.0	32.63
8	5413.0	254.0	39.94
8	5414.0	391.0	47.34
9 ENDTBL			

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

3 STRUCT	66		
8	5351.0	0.0	0.0
8	5353.0	24.0	2.76
8	5355.0	70.0	8.52
8	5357.0	110.0	14.54
8	5358.0	189.0	17.61
8	5359.0	326.0	27.66
9 ENDTBL			
3 STRUCT	67		
8	5360.0	0.0	0.0
8	5362.0	24.0	2.76
8	5364.0	70.0	8.52
8	5366.0	110.0	14.54
8	5367.0	189.0	17.61
8	5368.0	326.0	27.66
9 ENDTBL			
6 RUNOFF	1 040	7	0.188 85.9 0.333 1
6 REACH	3 038	7 5	2700.0 1
6 RUNOFF	1 038	6	0.100 89.5 0.409 1
6 ADDHYD	4 038	6 5 7	1
6 RESVOR	2 66 7	4	5351.0 1
6 RUNOFF	1 042	6	0.075 82.5 0.333 1
6 REACH	3 036	6 5	2300.0 1
6 RUNOFF	1 036	6	0.062 87.5 0.324 1
6 ADDHYD	4 036	5 6 3	1
6 ADDHYD	4 038	4 3 1	1
6 RUNOFF	1 034	7	0.152 84.8 0.345 1
6 REACH	3 032	7 6	2500.0 1
6 RUNOFF	1 032	7	0.157165 89.5 0.306 1
6 ADDHYD	4 032	7 6 4	
6 RESVOR	2 67 4	5	5360.0 1
6 REACH	3 026	5 3	900.0
6 RUNOFF	1 030	5	0.109 82.7 0.390 1
6 REACH	3 028	5 7	2300.0
6 RUNOFF	1 028	5	0.093 89.0 0.311 1
6 ADDHYD	4 028	7 5 6	1
6 REACH	3 026	6 7	900.0
6 RUNOFF	1 026	5	0.063 87.5 0.333 1
6 ADDHYD	4 026	3 7 6	1
6 ADDHYD	4 026	6 5 4	1
6 SAVMOV	5 026	4 3	
6 RUNOFF	1 024	6	0.222 83.1 0.449 1
6 RESVOR	2 07 6	4	5450.0 1
6 REACH	3 016	4 5	2900.0

6 RESVOR 2 09 7 4 5488.0

1

*****B0-B0 LIST OF INPUT DATA (CONTINUED)*****

6 REACH 3 020 4 6 2700.0
6 RUNOFF 1 020 4 0.127 80.3 0.513 1
6 ADDHYD 4 020 4 6 7 1
6 RESVOR 2 06 7 2 5434.0 1
6 RUNOFF 1 018 4 0.427 80.5 0.611 1
6 RESVOR 2 05 4 7 5432.0 1
6 REACH 3 016 7 6 2900.0 1
6 ADDHYD 4 016 5 6 4 1
6 RUNOFF 1 016 5 0.188 83.0 0.548 1
6 ADDHYD 4 016 5 2 6 1
6 ADDHYD 4 016 6 4 5 1
6 RESVOR 2 54 5 6 5406.0 1
6 REACH 3 014 6 7 2300.0
6 RUNOFF 1 014 5 0.092 87.5 0.336 1
6 ADDHYD 4 014 7 5 6 1
6 REACH 3 012 6 7 1300.0
6 RUNOFF 1 012 5 0.068 87.0 0.349 1
6 ADDHYD 4 012 5 7 4 1
6 REACH 3 011 4 7 800.0
6 ADDHYD 4 026 7 3 5 1
6 REACH 3 006 5 7 3000.0
6 RUNOFF 1 010 5 0.126 88.7 0.372 1
6 ADDHYD 4 010 5 7 6 1
6 RUNOFF 1 006 5 0.110 88.5 0.396 1
6 ADDHYD 4 006 6 5 7 1
6 REACH 3 008 7 4 3000.0
6 RUNOFF 1 008 5 0.165 87.7 0.346 1
6 ADDHYD 4 008 4 5 2 1
6 RUNOFF 1 004 5 0.226 88.5 0.413 1
6 REACH 3 002 5 4 3600.0 1
6 RUNOFF 1 002 5 0.271 87.0 0.368 1
6 ADDHYD 4 002 4 5 7 1
ENDATA
7 INCREM 6 0.10
7 COMPUT 7 040 002 0.0 3.40 1.0 7 2 01 01
ENDCMP 1
7 INCREM 6 0.10
7 COMPUT 7 040 002 0.0 3.05 1.0 7 2 01 02
ENDCMP 1
7 INCREM 6 0.10
7 COMPUT 7 040 002 0.0 2.75 1.0 7 2 01 03
ENDCMP 1
ENDJOB 2

*****END OF B0-B0 LIST*****

EXECUTIVE CONTROL OPERATION INCREM

RECORD

ID

MAIN TIME INCREMENT = .10 HOURS

EXECUTIVE CONTROL OPERATION COMPUT

RECORD

ID

FROM XSECTION 40

TO XSECTION 2

STARTING TIME = .00 RAIN DEPTH = 3.40 RAIN DURATION = 1.00 RAIN TABLE NO. = 7 ANT. MOIST. COND = 2
ALTERNATE NO. = 1 STORM NO. = 1 MAIN TIME INCREMENT = .10 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	305.53	(RUNOFF)
7.45	17.15	(RUNOFF)
10.38	7.01	(RUNOFF)
11.51	6.79	(RUNOFF)
12.51	6.80	(RUNOFF)
14.01	6.84	(RUNOFF)
18.91	3.60	(RUNOFF)
20.53	3.45	(RUNOFF)
23.47	2.78	(RUNOFF)

*** WARNING REACH 38 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	301.92	5353.71
7.55	17.15	5351.45
10.48	7.01	5351.18
11.62	6.77	5351.18
12.62	6.78	5351.18
14.12	6.82	5351.18
19.05	3.60	5351.09
20.64	3.44	5351.09
23.57	2.77	5351.07

OPERATION RUNOFF CROSS SECTION 38

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

PAGE 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	174.39	(RUNOFF)
10.37	3.98	(RUNOFF)
11.55	3.76	(RUNOFF)
12.56	3.77	(RUNOFF)
14.05	3.77	(RUNOFF)
18.86	2.02	(RUNOFF)
23.49	1.53	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	461.73	5354.35
10.42	10.99	5351.29
11.59	10.49	5351.27
12.59	10.52	5351.27
14.09	10.54	5351.27
18.89	5.62	5351.15
20.61	5.31	5351.14
21.59	4.40	5351.11
23.54	4.26	5351.11

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.53	117.06	5357.09
14.28	8.99	5351.75
23.67	3.83	5351.32

OPERATION RUNOFF CROSS SECTION 42

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	104.80	(RUNOFF)
7.46	6.30	(RUNOFF)
10.39	2.60	(RUNOFF)
11.51	2.52	(RUNOFF)
12.51	2.53	(RUNOFF)
14.01	2.55	(RUNOFF)
23.47	1.04	(RUNOFF)

*** WARNING REACH 36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 36

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2

PAGE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	102.33	5352.71
7.55	6.29	5351.16
10.50	2.60	5351.07
11.63	2.51	5351.06
12.62	2.51	5351.07
14.12	2.53	5351.07
23.57	1.04	5351.03

OPERATION RUNOFF CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.06	109.13	(RUNOFF)
10.45	2.40	(RUNOFF)
11.50	2.31	(RUNOFF)
12.50	2.32	(RUNOFF)
14.01	2.33	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	197.48	5353.28
10.45	5.00	5351.13
11.56	4.77	5351.12
12.56	4.79	5351.12
14.06	4.82	5351.13
18.95	2.57	5351.07
23.50	1.96	5351.05

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.16

265.89

5353.56

11.39

19.88

5351.52

12.53

16.29

5351.42

14.09

13.65

5351.35

23.53

5.75

5351.15

OPERATION RUNOFF CROSS SECTION 34

TR20 XEQ 12-01-94 11:20

CANDON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP102

PAGE 3

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.08

231.14

(RUNOFF)

7.45

13.52

(RUNOFF)

10.39

5.54

(RUNOFF)

11.52

5.35

(RUNOFF)

12.52

5.37

(RUNOFF)

14.02

5.39

(RUNOFF)

18.93

2.85

(RUNOFF)

23.47

2.20

(RUNOFF)

*** WARNING REACH 32 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 32

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.18

227.95

5562.50

7.55

13.52

5414.42

10.50

5.54

5382.31

11.63

5.33

5381.46

12.63

5.35

5381.52

14.13

5.37

5381.61

19.05

2.85

5371.48

23.58

2.19

5368.83

OPERATION RUNOFF CROSS SECTION 32

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.05

299.39

(RUNOFF)

7.45

15.43

(RUNOFF)

10.37

6.25

(RUNOFF)

11.50

6.10

(RUNOFF)

12.49

6.11

(RUNOFF)

14.00

6.14

(RUNOFF)

18.86

3.18

(RUNOFF)

20.51

3.08

(RUNOFF)

23.46

2.48

(RUNOFF)

OPERATION RESVOR STRUCTURE 67

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

14.23
23.629.64
4.115360.80
5360.34

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2

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OPERATION RUNOFF CROSS SECTION 30

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	142.11	(RUNOFF)
10.45	3.81	(RUNOFF)
11.55	3.61	(RUNOFF)
12.54	3.62	(RUNOFF)
14.05	3.64	(RUNOFF)
18.87	1.96	(RUNOFF)
23.49	1.50	(RUNOFF)

*** WARNING REACH 28 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.05	175.60	(RUNOFF)
7.45	9.05	(RUNOFF)
10.38	3.67	(RUNOFF)
11.50	3.57	(RUNOFF)
12.50	3.58	(RUNOFF)
14.00	3.60	(RUNOFF)
18.87	1.87	(RUNOFF)
23.46	1.45	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	288.22	5362.74
10.44	7.46	5360.19
11.56	7.05	5360.18
12.56	7.08	5360.18
14.07	7.11	5360.18
18.92	3.83	5360.10
20.58	3.58	5360.09
23.50	2.90	5360.08

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 26

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	109.46	(RUNOFF)
10.38	2.42	(RUNOFF)
11.51	2.35	(RUNOFF)
12.51	2.35	(RUNOFF)
14.01	2.36	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	371.04	5354.96
11.48	22.92	5352.41
12.55	19.37	5352.35
14.08	16.63	5352.30
20.60	8.35	5352.15
21.57	7.59	5352.14
23.52	6.98	5352.13

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	474.43	5355.23
11.49	25.26	5352.45
12.54	21.68	5352.39
14.07	18.96	5352.34
20.59	9.53	5352.17
21.55	8.57	5352.15
23.50	7.93	5352.14

OPERATION RUNOFF CROSS SECTION 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	274.90	(RUNOFF)
10.39	7.79	(RUNOFF)
11.57	7.28	(RUNOFF)
12.57	7.30	(RUNOFF)
14.07	7.32	(RUNOFF)
18.87	4.03	(RUNOFF)
20.59	3.71	(RUNOFF)
23.50	3.02	(RUNOFF)

OPERATION RESVOR STRUCTURE 7

TR20 XEQ 12-01-94 11:20

CANYON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	271.90	5453.66
10.45	7.79	5451.26
11.65	7.05	5451.15

14.16	7.09	5451.16
18.90	4.03	5450.67
23.56	3.00	5450.50

*** WARNING REACH 16 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 22

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	158.56	(RUNOFF)
7.46	9.84	(RUNOFF)
10.40	4.07	(RUNOFF)
11.52	3.95	(RUNOFF)
12.51	3.97	(RUNOFF)
14.01	4.00	(RUNOFF)
18.90	2.12	(RUNOFF)
23.47	1.65	(RUNOFF)

OPERATION RESVOR STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	161.89	5491.91
10.45	4.08	5489.02
11.57	3.91	5488.98
12.57	3.93	5488.98
14.07	3.96	5488.99
18.95	2.12	5488.53
23.51	1.62	5488.40

*** WARNING REACH 20 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 20

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	124.96	(RUNOFF)
10.40	4.16	(RUNOFF)
11.60	3.80	(RUNOFF)
12.60	3.82	(RUNOFF)
14.10	3.83	(RUNOFF)
18.89	2.17	(RUNOFF)
23.53	1.61	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 20

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	277.66	5436.71
10.44	8.23	5434.14
11.65	7.60	5434.13
12.65	7.64	5434.13
14.15	7.67	5434.13
18.91	4.29	5434.07

23.57

3.20

5434.05

OPERATION RESVOR STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	269.82	5438.26
10.46	8.23	5435.18
11.70	7.54	5435.08
12.70	7.58	5435.08
14.20	7.61	5435.09
18.95	4.29	5434.61
20.73	3.67	5434.55
23.61	3.16	5434.45

OPERATION RUNOFF CROSS SECTION 18

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.23	380.72	(RUNOFF)
10.45	14.09	(RUNOFF)
11.65	12.43	(RUNOFF)
12.65	12.48	(RUNOFF)
14.15	12.44	(RUNOFF)
18.88	7.34	(RUNOFF)
20.69	6.32	(RUNOFF)
21.64	5.58	(RUNOFF)
23.56	5.30	(RUNOFF)

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

PAGE 8

*** WARNING - STRUCTURE 5 DELTA T IS TOO LARGE. 0 / 2 > 9 / DELTA T OCCURED 3 TIMES STARTING WITH POINT256

OPERATION RESVOR STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.28	374.08	5437.94
10.46	14.08	5433.08
11.68	12.41	5432.95
12.68	12.46	5432.96
14.19	12.42	5432.96
18.90	7.34	5432.56
20.72	6.31	5432.49
21.67	5.58	5432.43
23.58	5.28	5432.41

*** WARNING REACH 16 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.42	358.42	5408.89
10.56	14.07	5406.23
11.81	12.24	5406.20
12.81	12.29	5406.20

19.03	7.34	5406.12
20.86	6.21	5406.10
21.80	5.54	5406.09
23.70	5.22	5406.08

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.36	591.19	5409.76
10.56	21.86	5406.35
11.80	19.17	5406.31
12.80	19.24	5406.31
14.31	19.20	5406.31
19.02	11.37	5406.18
20.83	9.77	5406.16
21.78	8.62	5406.14
23.69	8.17	5406.13

OPERATION RUNOFF CROSS SECTION 16

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB

1 PASS 1

REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	205.97	(RUNOFF)
10.40	6.58	(RUNOFF)
11.62	5.92	(RUNOFF)
12.62	5.95	(RUNOFF)
14.12	5.95	(RUNOFF)
18.95	3.41	(RUNOFF)
23.55	2.49	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	475.33	5409.39
10.44	14.81	5406.24
11.66	13.39	5406.21
12.66	13.47	5406.22
14.17	13.47	5406.22
18.95	7.71	5406.12
20.70	6.84	5406.11
21.66	5.90	5406.09
23.57	5.65	5406.09

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.29	1011.37	5410.92
10.46	36.65	5406.59
11.74	32.09	5406.51
12.74	32.21	5406.52
14.25	32.14	5406.51
18.96	19.07	5406.31
23.73	14.33	5406.24

21.72	14.44	3406.22
23.63	13.65	5406.22

OPERATION RESVOR STRUCTURE 54

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.87	269.84	5413.12
20.96	15.26	5406.87
23.76	12.88	5406.74

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 PASS 1
 REV PC 09/83(2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2
 PAGE 10

OPERATION RUNOFF CROSS SECTION 14

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	160.16	(RUNOFF)
10.38	3.54	(RUNOFF)
11.51	3.42	(RUNOFF)
12.51	3.43	(RUNOFF)
14.01	3.44	(RUNOFF)
18.88	1.81	(RUNOFF)
23.47	1.39	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 14

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	188.83	5368.42
6.99	277.67	5368.97
21.23	16.43	5366.30

*** WARNING REACH 12 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	114.53	(RUNOFF)
10.38	2.59	(RUNOFF)
11.52	2.49	(RUNOFF)
12.52	2.50	(RUNOFF)
14.02	2.51	(RUNOFF)
23.47	1.02	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	302.42	5356.52
6.99	284.52	5356.39
21.31	17.39	5352.47
23.45	15.16	5352.41

*** WARNING - INFLOW EXCEEDED MAX.FLOW IN XSECTN TABLE 11 BY 22.2 CFS

OPERATION ADDHYD CROSS SECTION 26

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	775.51	5355.77
6.91	417.43	5355.08
12.37	89.17	5353.60
13.97	72.17	5353.30
20.51	27.77	5352.50
21.47	25.82	5352.46
23.48	23.09	5352.42

*** WARNING REACH 6 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	222.56	(RUNOFF)
10.38	4.95	(RUNOFF)
11.54	4.72	(RUNOFF)
12.54	4.74	(RUNOFF)
14.04	4.74	(RUNOFF)
18.89	2.52	(RUNOFF)
23.48	1.92	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	996.48	5322.19
6.88	432.90	5321.27
11.33	110.37	5320.44
12.42	93.65	5320.37
13.99	76.86	5320.31
20.52	30.14	5320.12
21.49	27.78	5320.11
23.48	25.02	5320.10

OPERATION RUNOFF CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	184.53	(RUNOFF)
10.40	4.31	(RUNOFF)
11.55	4.07	(RUNOFF)
12.55	4.08	(RUNOFF)
14.05	4.11	(RUNOFF)
18.87	2.19	(RUNOFF)
23.49	1.67	(RUNOFF)

1

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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OPERATION ADDHYD CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	1180.82	5321.52
11.38	114.03	5319.57
12.45	97.63	5319.53
14.00	80.92	5319.48
20.53	32.19	5319.26
21.50	29.48	5319.24
23.48	26.68	5319.21

*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	286.07	(RUNOFF)
10.38	6.37	(RUNOFF)
11.52	6.12	(RUNOFF)
12.52	6.16	(RUNOFF)
14.02	6.16	(RUNOFF)
18.87	3.25	(RUNOFF)
20.54	3.10	(RUNOFF)
23.47	2.50	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	1464.40	5282.59
11.42	119.90	5280.53
12.47	103.72	5280.48
14.00	87.07	5280.42
20.53	35.29	5280.21
21.50	32.04	5280.19
23.48	29.18	5280.17

OPERATION RUNOFF CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	375.29	(RUNOFF)
10.38	8.85	(RUNOFF)
11.55	8.34	(RUNOFF)
12.56	8.39	(RUNOFF)
14.06	8.39	(RUNOFF)

TR20 XEQ 12-01-74 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 1

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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ID

FROM XSECTION 40

TO XSECTION 2

STARTING TIME = .00 RAIN DEPTH = 3.05 RAIN DURATION = 1.00 RAIN TABLE NO. = 7 ANT. MOIST. COND = 2
ALTERNATE NO. = 1 STORM NO. = 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 40

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	258.31	(RUNOFF)
7.45	14.90	(RUNOFF)
10.38	6.11	(RUNOFF)
11.51	5.93	(RUNOFF)
12.51	5.94	(RUNOFF)
14.01	5.98	(RUNOFF)
18.92	3.15	(RUNOFF)
20.53	3.02	(RUNOFF)
23.47	2.44	(RUNOFF)

*** WARNING REACH 38 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 38

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 2

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	254.17	5353.52
7.55	14.90	5351.39
10.49	6.11	5351.16
11.62	5.90	5351.15
12.62	5.92	5351.15
14.12	5.95	5351.15
19.05	3.15	5351.08
23.57	2.43	5351.06

OPERATION RUNOFF CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	149.65	(RUNOFF)
10.37	3.51	(RUNOFF)
11.55	3.31	(RUNOFF)
12.56	3.33	(RUNOFF)
14.05	3.32	(RUNOFF)
18.86	1.79	(RUNOFF)
23.49	1.35	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	392.98	5354.07

11.59	9.18	5351.24
12.59	9.21	5351.24
14.09	9.24	5351.24
18.90	4.93	5351.13
20.61	4.66	5351.12
23.54	3.74	5351.10

OPERATION RESVDR STRUCTURE 66

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.54	95.91	5356.30
14.29	7.83	5351.65
23.67	3.37	5351.28

OPERATION RUNOFF CROSS SECTION 42

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 2

REV PC 09/83(2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	87.07	(RUNOFF)
7.46	5.41	(RUNOFF)
10.40	2.24	(RUNOFF)
12.51	2.19	(RUNOFF)
14.01	2.20	(RUNOFF)

*** WARNING REACH 36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	84.44	5352.58
7.56	5.40	5351.14
10.52	2.24	5351.06
12.63	2.17	5351.06
14.13	2.19	5351.06

OPERATION RUNOFF CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	93.04	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	164.85	5353.09
10.45	4.34	5351.11
11.56	4.15	5351.11
12.56	4.16	5351.11
14.06	4.19	5351.11
18.95	2.24	5351.06
23.50	1.71	5351.04

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.17	223.57	5353.39
11.41	17.00	5351.44
12.54	14.07	5351.37
14.09	11.88	5351.31
23.53	5.04	5351.13

TR20 XEQ 12-01-94 11:20

CANDON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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OPERATION RUNOFF CROSS SECTION 34

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.08	194.21	(RUNOFF)
7.45	11.70	(RUNOFF)
10.40	4.82	(RUNOFF)
11.52	4.65	(RUNOFF)
12.52	4.67	(RUNOFF)
14.02	4.69	(RUNOFF)
18.94	2.49	(RUNOFF)
23.47	1.92	(RUNOFF)

*** WARNING REACH 32 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 32

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.19	190.63	5562.34
7.55	11.70	5407.10
10.51	4.82	5379.39
11.63	4.63	5378.65
12.63	4.65	5378.71
14.13	4.67	5378.80
18.90	2.49	5370.02
23.58	1.92	5367.71

* FIRST POINT OF FLAT PEAK

OPERATION RUNOFF CROSS SECTION 32

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.05	261.60	(RUNOFF)
7.45	13.56	(RUNOFF)
10.37	5.51	(RUNOFF)
11.50	5.38	(RUNOFF)
12.49	5.39	(RUNOFF)
14.00	5.41	(RUNOFF)
18.86	2.81	(RUNOFF)
23.46	2.19	(RUNOFF)

OPERATION RESVOR STRUCTURE 67

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

14.24
23.62

8.41
3.61

5360.70
5360.30

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 30

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	117.83	(RUNOFF)
10.45	3.29	(RUNOFF)
11.55	3.12	(RUNOFF)
12.54	3.13	(RUNOFF)
14.05	3.15	(RUNOFF)
23.49	1.30	(RUNOFF)

*** WARNING REACH 28 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.06	150.89	(RUNOFF)
7.45	7.95	(RUNOFF)
10.38	3.23	(RUNOFF)
11.50	3.15	(RUNOFF)
12.50	3.16	(RUNOFF)
14.00	3.17	(RUNOFF)
23.46	1.28	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	241.76	5362.51
10.45	6.52	5360.17
11.56	6.14	5360.16
12.56	6.17	5360.16
14.07	6.20	5360.16
18.90	3.35	5360.09
23.50	2.53	5360.07

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	93.27	(RUNOFF)
7.45	5.20	(RUNOFF)

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	312.54	5354.80
11.49	19.61	5352.36
12.55	16.83	5352.30
14.08	14.51	5352.26
20.60	7.32	5352.13
21.57	6.66	5352.12
23.52	6.12	5352.11

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	400.48	5355.03
11.49	21.87	5352.39
12.54	18.85	5352.34
14.07	16.56	5352.30
20.59	8.35	5352.15
21.56	7.52	5352.14
23.50	6.96	5352.13

OPERATION RUNOFF CROSS SECTION 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	227.85	(RUNOFF)
10.40	6.73	(RUNOFF)
11.57	6.30	(RUNOFF)
12.57	6.32	(RUNOFF)
14.07	6.35	(RUNOFF)
18.87	3.50	(RUNOFF)
23.50	2.63	(RUNOFF)

OPERATION RESVOR STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	225.39	5453.44
10.45	6.74	5451.10
11.64	6.16	5451.02
12.64	6.18	5451.03
14.14	6.20	5451.03
18.90	3.50	5450.58
23.56	2.61	5450.44

TR20 XEQ 12-01-94 11:20

CANDON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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OPERATION RUNOFF CROSS SECTION 22

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	130.84	(RUNOFF)
7.46	8.41	(RUNOFF)
10.41	3.50	(RUNOFF)
11.52	3.40	(RUNOFF)
12.51	3.42	(RUNOFF)
14.01	3.44	(RUNOFF)
18.90	1.83	(RUNOFF)
23.47	1.42	(RUNOFF)

OPERATION RESVOR STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	136.51	5491.76
10.45	3.51	5488.88
11.57	3.37	5488.84
12.57	3.39	5488.85
14.07	3.41	5488.85
18.95	1.83	5488.46
23.51	1.40	5488.35

*** WARNING REACH 20 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 20

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	101.82	(RUNOFF)
10.41	3.57	(RUNOFF)
11.60	3.26	(RUNOFF)
12.60	3.28	(RUNOFF)
14.10	3.29	(RUNOFF)
18.89	1.87	(RUNOFF)
23.53	1.38	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 20

1

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB

PASS 2

REV PC 09/83(2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	228.29	5436.51
10.45	7.06	5434.12
11.65	6.53	5434.11
12.65	6.56	5434.11
14.15	6.59	5434.11
18.94	3.70	5434.06
23.57	2.76	5434.05

OPERATION RESVOR STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	225.41	5438.16
10.46	7.06	5435.01
11.70	6.47	5434.92
12.70	6.50	5434.92

14.20	6.53	5434.93
19.95	3.70	5434.53
23.61	2.73	5434.39

OPERATION RUNOFF CROSS SECTION 18

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.24	309.60	(RUNOFF)
10.45	12.07	(RUNOFF)
11.65	10.66	(RUNOFF)
12.65	10.72	(RUNOFF)
14.15	10.70	(RUNOFF)
18.89	6.33	(RUNOFF)
20.69	5.45	(RUNOFF)
23.56	4.57	(RUNOFF)

*** WARNING - STRUCTURE 5 DELTA T IS TOO LARGE. 0 / 2 > S / DELTA T OCCURED 3 TIMES STARTING WITH POINT256

OPERATION RESVOR STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.28	304.36	5437.72
10.46	12.06	5432.93
11.68	10.64	5432.82
12.68	10.69	5432.82
14.19	10.68	5432.82
18.91	6.33	5432.49
20.72	5.44	5432.42
23.58	4.56	5432.35

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 PASS 2
 REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2
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*** WARNING REACH 16 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.43	288.43	5408.56
10.56	12.05	5406.19
11.81	10.48	5406.17
12.82	10.53	5406.17
14.32	10.49	5406.17
19.03	6.33	5406.10
23.70	4.50	5406.07

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.37	478.46	5409.41
10.56	18.78	5406.30
11.80	16.52	5406.26
12.80	16.59	5406.27
14.31	16.56	5406.27

20.84	8.43	5406.13
21.78	7.45	5406.12
23.69	7.06	5406.11

OPERATION RUNOFF CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	170.38	(RUNOFF)
10.41	5.68	(RUNOFF)
11.62	5.12	(RUNOFF)
12.62	5.15	(RUNOFF)
14.12	5.15	(RUNOFF)
18.95	2.96	(RUNOFF)
23.55	2.16	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 16

1

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 PASS 2
 REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2
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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	395.22	5409.05
10.45	12.75	5406.20
11.66	11.52	5406.18
12.66	11.60	5406.19
14.17	11.61	5406.19
18.95	6.67	5406.11
20.70	5.92	5406.09
21.66	5.10	5406.08
23.57	4.89	5406.08

OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.30	816.62	5410.39
10.47	31.51	5406.50
11.74	27.66	5406.44
12.74	27.78	5406.44
14.25	27.74	5406.44
18.96	16.49	5406.26
20.78	14.14	5406.23
21.72	12.48	5406.20
23.63	11.80	5406.19

OPERATION RESVOR STRUCTURE 54

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.97	180.64	5412.22
20.97	13.11	5406.75
23.76	11.14	5406.64

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.07

136.48

(RUNOFF)

10.38

3.10

(RUNOFF)

11.51

2.99

(RUNOFF)

12.51

3.01

(RUNOFF)

14.01

3.02

(RUNOFF)

23.47

1.23

(RUNOFF)

OPERATION ADDHYD CROSS SECTION 14

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

PAGE 24

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.11

158.09

5368.21

7.09

187.86

5368.42

21.25

14.15

5366.25

23.25

12.28

5366.22

*** WARNING REACH 12 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 12

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.08

97.32

(RUNOFF)

10.38

2.27

(RUNOFF)

12.52

2.19

(RUNOFF)

14.03

2.20

(RUNOFF)

OPERATION ADDHYD CROSS SECTION 12

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.10

254.54

5356.18

7.09

193.52

5355.73

20.26

16.18

5352.44

21.33

15.01

5352.41

23.45

13.16

5352.36

*** WARNING REACH 11 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)

PEAK DISCHARGE(CFS)

PEAK ELEVATION(FEET)

6.11

653.90

5355.56

6.95

305.75

5354.78

12.38

79.45

5353.43

13.97

63.92

5353.15

20.51

24.05

5352.43

21.48

22.41

5352.40

23.48

20.11

5352.36

*** WARNING REACH 6 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	190.53	(RUNOFF)
10.38	4.35	(RUNOFF)
11.54	4.15	(RUNOFF)
12.54	4.17	(RUNOFF)
14.04	4.17	(RUNOFF)
18.89	2.22	(RUNOFF)
23.48	1.70	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	843.00	5321.95
11.32	98.62	5320.39
12.42	83.35	5320.33
13.99	68.05	5320.27
20.53	26.14	5320.10
21.49	24.14	5320.10
23.48	21.80	5320.09

OPERATION RUNOFF CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	157.60	(RUNOFF)
10.41	3.78	(RUNOFF)
11.55	3.58	(RUNOFF)
12.55	3.59	(RUNOFF)
14.05	3.62	(RUNOFF)
18.88	1.93	(RUNOFF)
23.49	1.47	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	1000.45	5321.30
11.37	101.80	5319.54
12.45	86.80	5319.50
14.00	71.61	5319.46
20.54	27.94	5319.22
21.50	25.64	5319.21
23.48	23.27	5319.19

*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 2

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

OPERATION RUNOFF CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	243.90	(RUNOFF)
10.38	5.58	(RUNOFF)
11.52	5.37	(RUNOFF)
12.52	5.40	(RUNOFF)
14.02	5.41	(RUNOFF)
18.88	2.86	(RUNOFF)
23.47	2.20	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	1242.17	5282.35
11.41	106.92	5280.49
12.47	92.18	5280.44
14.00	77.02	5280.39
20.54	30.67	5280.18
21.51	27.89	5280.17
23.48	25.47	5280.15

OPERATION RUNOFF CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	320.38	(RUNOFF)
10.38	7.77	(RUNOFF)
11.55	7.33	(RUNOFF)
12.56	7.38	(RUNOFF)
14.06	7.38	(RUNOFF)
18.92	3.97	(RUNOFF)
20.58	3.71	(RUNOFF)
23.49	3.00	(RUNOFF)

*** WARNING REACH 2 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 2

TR20 XEQ 12-01-94 11:20

CANDON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

PASS 2

REV PC 09/83(2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	316.89	5271.03
10.48	7.77	5270.05
11.66	7.31	5270.04
12.66	7.36	5270.04
14.17	7.36	5270.04
18.90	3.97	5270.02
	*	
20.68	3.69	5270.02
23.59	2.99	5270.02

* FIRST POINT OF FLAT PEAK

OPERATION RUNOFF CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	375.09	(RUNOFF)
10.45	9.07	(RUNOFF)
11.53	8.62	(RUNOFF)
12.53	8.66	(RUNOFF)
14.03	8.69	(RUNOFF)
18.87	4.64	(RUNOFF)
20.55	4.41	(RUNOFF)
23.48	3.56	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	655.78	5271.62
10.45	16.84	5270.10
11.58	15.72	5270.09
12.58	15.80	5270.09
14.08	15.81	5270.09
18.88	8.61	5270.05
20.60	7.96	5270.05
21.58	6.68	5270.04
23.52	6.46	5270.04

EXECUTIVE CONTROL OPERATION ENDCMP

RECORD

ID

COMPUTATIONS COMPLETED FOR PASS 2

EXECUTIVE CONTROL OPERATION INCREM

RECORD

ID

MAIN TIME INCREMENT = .10 HOURS

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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EXECUTIVE CONTROL OPERATION COMPUT

RECORD

ID

FROM XSECTION 40

TO XSECTION 2

STARTING TIME = .00 RAIN DEPTH = 2.75 RAIN DURATION= 1.00 RAIN TABLE NO.= 7 ANT. MDIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 40

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	218.71	(RUNOFF)
7.46	12.98	(RUNOFF)
10.39	5.34	(RUNOFF)
11.51	5.19	(RUNOFF)
12.51	5.20	(RUNOFF)

14.01	3.24	(RUNOFF)
18.93	2.76	(RUNOFF)
23.47	2.14	(RUNOFF)

*** WARNING REACH 38 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	214.17	5353.36
7.55	12.97	5351.34
10.49	5.34	5351.14
11.63	5.16	5351.13
12.62	5.17	5351.13
14.12	5.21	5351.14
18.90	2.76	5351.07
+	*	* FIRST POINT OF FLAT PEAK
23.57	2.13	5351.06

OPERATION RUNOFF CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	128.71	(RUNOFF)
10.38	3.10	(RUNOFF)
11.55	2.93	(RUNOFF)
12.56	2.95	(RUNOFF)
14.05	2.94	(RUNOFF)
23.49	1.20	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 38

1

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB

1 PASS 3

REV PC 09/83(2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	333.13	5353.83
10.44	8.44	5351.22
11.59	8.05	5351.21
12.59	8.08	5351.21
14.09	8.12	5351.21
18.89	4.35	5351.11
20.61	4.10	5351.11
23.54	3.30	5351.09

OPERATION RESVOR STRUCTURE 66

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.54	82.52	5355.63
14.29	6.84	5351.57
23.67	2.97	5351.25

OPERATION RUNOFF CROSS SECTION 42

6.09
7.4672.37
4.65(RUNOFF)
(RUNOFF)

*** WARNING REACH 36 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	69.64	5352.46
7.56	4.65	5351.12

OPERATION RUNOFF CROSS SECTION 36

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	79.48	(RUNOFF)
7.45	4.48	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 36

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
1 PASS 3
REV PC 09/83(2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INFLU:OP1D2
PAGE 30

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	137.72	5352.93
10.45	3.78	5351.10
11.56	3.61	5351.09
12.56	3.63	5351.09
14.06	3.66	5351.10
18.95	1.96	5351.05
23.50	1.49	5351.04

OPERATION ADDHYD CROSS SECTION 38

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	186.86	5353.22
11.43	14.61	5351.38
12.55	12.20	5351.32
14.09	10.36	5351.27
23.53	4.43	5351.12

OPERATION RUNOFF CROSS SECTION 34

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	163.36	(RUNOFF)
7.46	10.15	(RUNOFF)
10.41	4.19	(RUNOFF)
11.52	4.06	(RUNOFF)
12.52	4.07	(RUNOFF)
14.02	4.10	(RUNOFF)
18.95	2.19	(RUNOFF)
23.47	1.69	(RUNOFF)

*** WARNING REACH 32 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 32

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	159.49	5362.16
7.55	10.15	5400.85
10.52	4.19	5376.89
11.63	4.03	5376.24
12.63	4.05	5376.31
14.13	4.07	5376.40
18.90	2.18	5368.76
23.58	1.68	5366.75

* FIRST POINT OF FLAT PEAK

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:QP1D2

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OPERATION RUNOFF CROSS SECTION 32

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.05	225.85	(RUNOFF)
7.45	11.95	(RUNOFF)
10.38	4.87	(RUNOFF)
11.50	4.76	(RUNOFF)
12.49	4.77	(RUNOFF)
14.00	4.79	(RUNOFF)
18.87	2.49	(RUNOFF)
23.46	1.94	(RUNOFF)

OPERATION RESVOR STRUCTURE 67

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.50	88.05	5364.90
14.24	7.35	5360.61
23.62	3.18	5360.27

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 30

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	97.74	(RUNOFF)
10.45	2.84	(RUNOFF)
11.55	2.70	(RUNOFF)
12.54	2.71	(RUNOFF)
14.05	2.73	(RUNOFF)
23.49	1.14	(RUNOFF)

*** WARNING REACH 28 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.06	129.94	(RUNOFF)

10.39	2.85	(RUNOFF)
11.50	2.78	(RUNOFF)
12.50	2.79	(RUNOFF)
14.00	2.80	(RUNOFF)
23.46	1.14	(RUNOFF)

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 1 PASS 3
 REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2
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OPERATION ADDHYD CROSS SECTION 28

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	203.07	5362.31
10.45	5.70	5360.15
11.56	5.36	5360.14
12.56	5.39	5360.14
14.07	5.42	5360.14
18.91	2.94	5360.08
23.50	2.22	5360.06

*** WARNING REACH 26 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.07	79.62	(RUNOFF)
7.45	4.55	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	263.05	5354.67
11.49	17.07	5352.31
12.55	14.62	5352.26
14.08	12.68	5352.23
23.52	5.39	5352.10

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	337.78	5354.87
11.50	18.87	5352.34
12.54	16.39	5352.29
14.07	14.48	5352.26
20.59	7.34	5352.13
21.56	6.61	5352.12
23.50	6.12	5352.11

OPERATION RUNOFF CROSS SECTION 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	188.94	(RUNOFF)
10.40	5.83	(RUNOFF)
11.57	5.46	(RUNOFF)
12.57	5.48	(RUNOFF)
14.07	5.51	(RUNOFF)
18.88	3.05	(RUNOFF)
23.50	2.29	(RUNOFF)

OPERATION RESVOR STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	186.93	5453.26
10.45	5.84	5450.97
11.62	5.38	5450.90
12.62	5.41	5450.90
14.13	5.43	5450.91
18.91	3.05	5450.51
23.56	2.28	5450.38

OPERATION RUNOFF CROSS SECTION 22

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	107.96	(RUNOFF)
7.46	7.20	(RUNOFF)
10.42	3.01	(RUNOFF)
11.52	2.93	(RUNOFF)
12.51	2.95	(RUNOFF)
14.01	2.97	(RUNOFF)
23.47	1.24	(RUNOFF)

OPERATION RESVOR STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	112.37	5491.61
7.46	7.18	5489.64
10.45	3.02	5488.75
11.57	2.90	5488.73
12.57	2.92	5488.73
14.07	2.94	5488.74
23.51	1.21	5488.30

*** WARNING REACH 20 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(1.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:CP1D2

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OPERATION RUNOFF CROSS SECTION 20

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	141.00	(RUNOFF)
10.41	4.92	(RUNOFF)
11.62	4.44	(RUNOFF)
12.62	4.47	(RUNOFF)
14.12	4.47	(RUNOFF)
18.95	2.58	(RUNOFF)
23.55	1.89	(RUNOFF)

--- OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	324.69	5408.74
10.45	10.99	5406.18
11.66	9.93	5406.16
12.66	10.01	5406.16
14.17	10.03	5406.16
18.95	5.78	5406.09
20.70	5.12	5406.08
23.57	4.25	5406.07

--- OPERATION ADDHYD CROSS SECTION 16

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.32	660.50	5409.95
10.47	27.13	5406.43
11.74	23.82	5406.38
12.74	23.95	5406.38
14.25	23.94	5406.38
18.96	14.28	5406.23
20.79	12.23	5406.20
21.73	10.82	5406.17
23.63	10.22	5406.16

--- OPERATION RESVOR STRUCTURE 54

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.07	137.03	5411.34
20.98	11.30	5406.65
23.76	9.65	5406.55

*** WARNING REACH 14 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

--- OPERATION RUNOFF CROSS SECTION 14

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
4.07	114.53	(RUNOFF)

10.38	2.72	(RUNOFF)
11.51	2.63	(RUNOFF)
12.51	2.65	(RUNOFF)
14.01	2.66	(RUNOFF)
23.47	1.08	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 14

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	132.07	5368.02
7.20	143.57	5368.10
21.27	12.24	5366.22
23.26	10.67	5366.19

*** WARNING REACH 12 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	82.83	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	214.10	5355.90
7.19	148.44	5355.23
20.27	13.97	5352.38
21.34	12.99	5352.35
23.45	11.44	5352.31

*** WARNING REACH 11 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION ADDHYD CROSS SECTION 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	550.90	5355.39
12.36	69.12	5353.24
13.97	55.67	5353.00
20.52	20.92	5352.38
21.48	19.52	5352.35
23.48	17.55	5352.32

TR20 XED 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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*** WARNING REACH 6 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	163.44	(RUNOFF)
10.38	3.84	(RUNOFF)
11.54	3.66	(RUNOFF)
12.51	3.66	(RUNOFF)

14.04	3.69	(RUNOFF)
18.90	1.97	(RUNOFF)
23.48	1.50	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	713.04	5321.74
11.32	85.75	5320.34
12.42	72.58	5320.29
13.97	59.32	5320.24
20.53	22.77	5320.09
21.50	21.05	5320.08
23.48	19.06	5320.08

OPERATION RUNOFF CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	134.87	(RUNOFF)
10.41	3.33	(RUNOFF)
11.55	3.15	(RUNOFF)
12.55	3.16	(RUNOFF)
14.05	3.20	(RUNOFF)
23.49	1.30	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.11	847.78	5321.06
11.38	88.57	5319.50
12.45	75.67	5319.47
14.00	62.47	5319.43
20.54	24.36	5319.19
21.50	22.38	5319.18
23.48	20.36	5319.16

1

TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
 1 PASS 3
 REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2
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*** WARNING REACH 8 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION RUNOFF CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.08	208.34	(RUNOFF)
10.38	4.91	(RUNOFF)
11.52	4.72	(RUNOFF)
12.52	4.76	(RUNOFF)
14.02	4.77	(RUNOFF)
18.88	2.52	(RUNOFF)
23.47	1.94	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	1054.21	5282.16
11.42	93.09	5280.44
12.47	80.36	5280.40
14.00	67.23	5280.36
20.54	26.77	5280.16
21.51	24.37	5280.15
23.48	22.30	5280.13

OPERATION RUNOFF CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	274.05	(RUNOFF)
10.38	6.85	(RUNOFF)
11.55	6.47	(RUNOFF)
12.56	6.51	(RUNOFF)
14.06	6.52	(RUNOFF)
18.93	3.51	(RUNOFF)
20.58	3.28	(RUNOFF)
23.49	2.66	(RUNOFF)

*** WARNING REACH 2 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 2

1

TR20 XEQ 12-01-94 11:20

CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

1 PASS 3

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	269.63	5270.94
10.49	6.85	5270.04
11.66	6.44	5270.04
12.66	6.48	5270.04
14.17	6.49	5270.04
18.90	3.51	5270.02
	*	
23.60	2.64	5270.02

* FIRST POINT OF FLAT PEAK

OPERATION RUNOFF CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.09	318.88	(RUNOFF)
10.45	7.96	(RUNOFF)
11.53	7.57	(RUNOFF)
12.53	7.61	(RUNOFF)
14.03	7.64	(RUNOFF)
18.87	4.08	(RUNOFF)
20.55	3.88	(RUNOFF)
23.48	3.13	(RUNOFF)

OPERATION ADDHYD CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	565.58	5271.48
10.45	7.96	5270.04

RECORD

ID

COMPUTATIONS COMPLETED FOR PASS 3

EXECUTIVE CONTROL OPERATION ENDJOB

RECORD

ID

1

TR20 XEB 12-01-74 11:20

CANYON CITY ORCHARD PARK BASIN 7820 BUN 24 HS. 100 YR. STORM

JOB

1 SUMMARY

REV PC 09/83(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED

(A STAR(*)) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH

A QUESTION MARK (?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

[illegible]

ALTERNATE 1 STORM 1

[illegible][illegible]

XSECTION 38	RUNOFF	.10	7	2	.10	.0	3.40	24.00	2.31	---	6.09	174.39
		1743.9										

XSECTION 3B	ADDHYD	.29	7	2	.10	.0	3.40	24.00	2.11	5354.35	6.15	461.73	
		1603.2											

STRUCTURE 66	RESVOR	.29	7	2	.10	.0	3.40	24.00	2.11	5357.09	6.53	117.06
406.4												

XSECTION 42	RUNOFF	.08	7	2	.10	.0	3.40	24.00	1.74	---	6.08	104.80
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SECTION 36	REACH	.08	7	2	.10	.0	3.40	24.00	1.73	5352.71	6.19	102.33
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SECTION 36	RUNOFF	.06	7	2	.10	.0	3.40	24.00	2.13	---	6.06	109.13
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SECTION 36	ADDHYD	.14	7	2	.10	.0	3.40	24.00	1.92	5353.28	6.12	197.48
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SECTION 38	ADDHYD	.42	7	2	.10	.0	3.40	24.00	2.05	5353.56	6.16	265.89
625.6												

1520.6	XSECTION 34	REACH	.15	7	2	.10	.0	3.40	24.00	1.91	5562.50	6.18	227.95
1499.7	XSECTION 32	RUNOFF	.16	7	2	.10	.0	3.40	24.00	2.31	---	6.05	299.39
1906.9	XSECTION 32	ADDHYD	.31	7	2	.10	.0	3.40	24.00	2.11	5563.49	6.09	496.58
1607.1	STRUCTURE 67	RESVOR	.31	7	2	.10	.0	3.40	24.00	2.11	5366.40	6.46	141.30
457.3	XSECTION 26	REACH	.31	7	2	.10	.0	3.40	24.00	2.11	5354.09	6.46	141.30
457.3	XSECTION 30	RUNOFF	.11	7	2	.10	.0	3.40	24.00	1.75	---	6.10	142.11
1303.8	XSECTION 28	REACH	.11	7	2	.10	.0	3.40	24.00	1.75	5362.00	6.21	140.57
1289.7	XSECTION 28	RUNOFF	.09	7	2	.10	.0	3.40	24.00	2.26	---	6.05	175.60
1888.2	XSECTION 28	ADDHYD	.20	7	2	.10	.0	3.40	24.00	1.99	5362.74	6.11	288.22
1426.8	XSECTION 26	REACH	.20	7	2	.10	.0	3.40	24.00	1.99	5354.74	6.11	288.22
1426.8	XSECTION 26	RUNOFF	.06	7	2	.10	.0	3.40	24.00	2.13	---	6.07	109.46
1737.5	XSECTION 26	ADDHYD	.51	7	2	.10	.0	3.40	24.00	2.06	5354.96	6.14	371.04
726.1	XSECTION 26	ADDHYD	.57	7	2	.10	.0	3.40	24.00	2.07	5355.23	6.12	474.43
826.5	XSECTION 24	RUNOFF	.22	7	2	.10	.0	3.40	24.00	1.78	---	6.13	274.90
1238.3	STRUCTURE 7	RESVOR	.22	7	2	.10	.0	3.40	24.00	1.78	5453.66	6.16	271.90
1224.8	XSECTION 16	REACH	.22	7	2	.10	.0	3.40	24.00	1.78	5408.44	6.30	254.93
1148.3	XSECTION 22	RUNOFF	.12	7	2	.10	.0	3.40	24.00	1.65	---	6.08	158.56
1310.4	STRUCTURE 9	RESVOR	.12	7	2	.10	.0	3.40	24.00	1.66	5491.91	6.09	161.89
1337.9	XSECTION 20	REACH	.12	7	2	.10	.0	3.40	24.00	1.64	5436.07	6.21	153.29
1266.9	XSECTION 20	RUNOFF	.13	7	2	.10	.0	3.40	24.00	1.58	---	6.18	124.96
983.9	XSECTION 20	ADDHYD	.25	7	2	.10	.0	3.40	24.00	1.61	5436.71	6.20	277.66
1119.6													

1

TR20 XEQ 12-01-94 11:20

CANNON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

JOB

SUMMARY

REV PC 09/83(2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
 (A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
 A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE	STANDARD CONTROL	DRAINAGE	RAIN TABLE	ANTEC MOIST	MAIN TIME	PRECIPITATION	RUNOFF	PEAK DISCHARGE
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RATE		(SQ MI)				(HR)	(HR)	(IN)	(HR)	(IN)	(FT)	(HR)	(CFS)
(CSM)													
ALTERNATE	1 STORM	1											
STRUCTURE 6	RESVOR	.25	7	2	.10	.0	3.40	24.00	1.61	5438.26	6.21	269.82	
1088.0													
XSECTION 18	RUNOFF	.43	7	2	.10	.0	3.40						
								24.00	1.59	---	6.23	380.72	
891.6													
STRUCTURE 5	RESVOR	.43	7	2	.10	.0	3.40	24.00	1.60	5437.94	6.28	374.08	
876.1													
XSECTION 16	REACH	.43	7	2	.10	.0	3.40	24.00	1.59	5408.89	6.42	356.42	
839.4													
XSECTION 16	ADDHYD	.65	7	2	.10	.0	3.40	24.00	1.65	5409.76	6.36	591.19	
910.9													
XSECTION 16	RUNOFF	.19	7	2	.10	.0	3.40	24.00	1.77	---	6.19	205.97	
1095.6													
XSECTION 16	ADDHYD	.44	7	2	.10	.0	3.40	24.00	1.68	5409.39	6.20	475.33	
1090.2													
XSECTION 16	ADDHYD	1.09	7	2	.10	.0	3.40	24.00	1.66	5410.92	6.29	1011.37	
932.1													
STRUCTURE 54	RESVOR	1.09	7	2	.10	.0	3.40	24.00	1.67	5413.12	6.87	269.84	
248.7													
XSECTION 14	REACH	1.09	7	2	.10	.0	3.40	24.00	1.67	5368.91	7.00	268.52	
247.5													
XSECTION 14	RUNOFF	.09	7	2	.10	.0	3.40	24.00	2.13	---	6.07	160.16	
1740.8													
XSECTION 14	ADDHYD	1.18	7	2	.10	.0	3.40	24.00	1.70	5368.97	6.99	277.67	
235.9													
XSECTION 12	REACH	1.18	7	2	.10	.0	3.40	24.00	1.70	5356.34	6.99	277.67	
235.9													
XSECTION 12	RUNOFF	.07	7	2	.10	.0	3.40	24.00	2.10	---	6.07	114.53	
1684.3													
XSECTION 12	ADDHYD	1.25	7	2	.10	.0	3.40	24.00	1.72	5356.52	6.09	302.42	
242.9													
XSECTION 11	REACH	1.25	7	2	.10	.0	3.40	24.00	1.72	5357.09	6.09	302.42	
242.9													
XSECTION 26	ADDHYD	1.82	7	2	.10	.0	3.40	24.00	1.83	5355.77	6.11	775.51	
426.3													
XSECTION 6	REACH	1.82	7	2	.10	.0	3.40	24.00	1.83	5320.94	6.11	775.51	
426.3													
XSECTION 10	RUNOFF	.13	7	2	.10	.0	3.40	24.00	2.24	---	6.08	222.56	
1766.3													
XSECTION 10	ADDHYD	1.95	7	2	.10	.0	3.40	24.00	1.86	5322.19	6.10	996.48	
512.3													
XSECTION 6	RUNOFF	.11	7	2	.10	.0	3.40	24.00	2.22	---	6.09	184.53	
1677.5													
XSECTION 6	ADDHYD	2.06	7	2	.10	.0	3.40	24.00	1.88	5321.52	6.10	1180.82	
574.6													
XSECTION 8	REACH	2.06	7	2	.10	.0	3.40	24.00	1.88	5282.29	6.10	1180.82	
574.6													
XSECTION 8	RUNOFF	.17	7	2	.10	.0	3.40	24.00	2.15	---	6.07	286.07	
1733.8													
XSECTION 8	ADDHYD	2.22	7	2	.10	.0	3.40	24.00	1.90	5282.59	6.09	1464.40	
659.6													
XSECTION 4	RUNOFF	.23	7	2	.10	.0	3.40	24.00	2.22	---	6.10	375.29	
1660.6													
XSECTION 6	ADDHYD	.23	7	2	.10	.0	3.40	24.00	2.22	5282.19	6.09	375.29	

1650.1	XSECTION 2	RUNOFF	.27	7	2	.10	.0	3.40	24.00	2.09	---	6.08	441.98
1630.9													
1559.5	XSECTION 2	ADDHYD	.50	7	2	.10	.0	3.40	24.00	2.15	5271.79	6.13	775.09
	ALTERNATE	1	STORM	2									
1374.0	XSECTION 40	RUNOFF	.19	7	2	.10	.0	3.05	24.00	1.70	---	6.07	258.31
1352.0	XSECTION 38	REACH	.19	7	2	.10	.0	3.05	24.00	1.69	5353.52	6.18	254.17
1496.5	XSECTION 38	RUNOFF	.10	7	2	.10	.0	3.05	24.00	1.99	---	6.10	149.65
1364.5	XSECTION 38	ADDHYD	.29	7	2	.10	.0	3.05	24.00	1.80	5354.07	6.15	392.98
333.0	STRUCTURE 66	RESVOR	.27	7	2	.10	.0	3.05	24.00	1.80	5356.30	6.54	95.91
1160.9	XSECTION 42	RUNOFF	.08	7	2	.10	.0	3.05	24.00	1.45	---	6.08	87.07

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SUMMARY

REV PC 09/83(.2)

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CANON CITY ORCHARD PARK BASIN

TR20 RUN 24 HR. 100 YR. STORM

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:DP1D2

JOB

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED

(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH

A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE	STANDARD CONTROL	DRAINAGE	RAIN TABLE	ANTEC MOIST	MAIN TIME	PRECIPITATION			RUNOFF	PEAK DISCHARGE		
ID	OPERATION	AREA	#	COND	INCREM	BEGIN	AMOUNT	DURATION	AMOUNT	ELEVATION	TIME	RATE
RATE		(SQ MI)			(HR)	(HR)	(IN)	(HR)	(IN)	(FT)	(HR)	(CFS)
(CSM)												

ALTERNATE	1	STORM	2									
XSECTION 36	REACH	.08	7	2	.10	.0	3.05	24.00	1.45	5352.58	6.19	84.44
1125.9												
XSECTION 36	RUNOFF	.06	7	2	.10	.0	3.05	24.00	1.82	---	6.07	93.04
1500.7												
XSECTION 36	ADDHYD	.14	7	2	.10	.0	3.05	24.00	1.62	5353.09	6.12	164.85
1203.3												
XSECTION 38	ADDHYD	.42	7	2	.10	.0	3.05	24.00	1.74	5353.39	6.17	223.57
526.0												
XSECTION 34	RUNOFF	.15	7	2	.10	.0	3.05	24.00	1.61	---	6.08	194.21
1277.7												
XSECTION 32	REACH	.15	7	2	.10	.0	3.05	24.00	1.61	5562.34	6.19	190.63
1254.1												
XSECTION 32	RUNOFF	.16	7	2	.10	.0	3.05	24.00	1.99	---	6.05	261.60
1666.3												
XSECTION 32	ADDHYD	.31	7	2	.10	.0	3.05	24.00	1.80	5563.21	6.10	420.31
1360.2												
STRUCTURE 67	RESVOR	.31	7	2	.10	.0	3.05	24.00	1.80	5365.62	6.50	102.46

XSECTION 26	REACH	.31	7	2	.10	.0	3.05	24.00	1.80	5333.82	6.30	102.48
331.6												
XSECTION 30	RUNOFF	.11	7	2	.10	.0	3.05	24.00	1.46	---	6.11	117.83
1081.0												
XSECTION 28	REACH	.11	7	2	.10	.0	3.05	24.00	1.46	5361.88	6.22	115.99
1064.1												
XSECTION 28	RUNOFF	.09	7	2	.10	.0	3.05	24.00	1.94	---	6.06	150.89
1622.4												
XSECTION 28	ADDHYD	.20	7	2	.10	.0	3.05	24.00	1.69	5362.51	6.11	241.76
1196.8												
XSECTION 26	REACH	.20	7	2	.10	.0	3.05	24.00	1.69	5334.61	6.11	241.76
1196.8												
XSECTION 26	RUNOFF	.06	7	2	.10	.0	3.05	24.00	1.82	---	6.07	93.27
1480.5												
XSECTION 26	ADDHYD	.51	7	2	.10	.0	3.05	24.00	1.76	5354.80	6.14	312.54
611.6												
XSECTION 26	ADDHYD	.57	7	2	.10	.0	3.05	24.00	1.76	5355.03	6.12	400.48
697.7												
XSECTION 24	RUNOFF	.22	7	2	.10	.0	3.05	24.00	1.49	---	6.14	227.65
1026.4												
STRUCTURE 7	RESVOR	.22	7	2	.10	.0	3.05	24.00	1.49	5453.44	6.16	225.39
1015.3												
XSECTION 16	REACH	.22	7	2	.10	.0	3.05	24.00	1.49	5408.24	6.30	209.12
942.0												
XSECTION 22	RUNOFF	.12	7	2	.10	.0	3.05	24.00	1.37	---	6.09	130.84
1081.3												
STRUCTURE 9	RESVOR	.12	7	2	.10	.0	3.05	24.00	1.39	5491.76	6.10	136.31
1128.2												
XSECTION 20	REACH	.12	7	2	.10	.0	3.05	24.00	1.36	5435.89	6.21	126.93
1049.0												
XSECTION 20	RUNOFF	.13	7	2	.10	.0	3.05	24.00	1.31	---	6.19	101.82
801.8												
XSECTION 20	ADDHYD	.25	7	2	.10	.0	3.05	24.00	1.33	5436.51	6.20	228.29
920.5												
STRUCTURE 6	RESVOR	.25	7	2	.10	.0	3.05	24.00	1.34	5438.16	6.22	225.41
908.9												
XSECTION 18	RUNOFF	.43	7	2	.10	.0	3.05	24.00	1.32	---	6.24	309.60
725.1												
STRUCTURE 5	RESVOR	.43	7	2	.10	.0	3.05	24.00	1.32	5437.72	6.28	304.36
712.8												
XSECTION 16	REACH	.43	7	2	.10	.0	3.05	24.00	1.32	5408.58	6.43	288.43
675.5												
XSECTION 16	ADDHYD	.65	7	2	.10	.0	3.05	24.00	1.38	5409.41	6.37	478.46
737.2												
XSECTION 16	RUNOFF	.19	7	2	.10	.0	3.05	24.00	1.48	---	6.20	170.38
906.3												
XSECTION 16	ADDHYD	.44	7	2	.10	.0	3.05	24.00	1.40	5409.05	6.21	395.22
906.5												
XSECTION 16	ADDHYD	1.09	7	2	.10	.0	3.05	24.00	1.39	5410.39	6.30	816.62
752.6												
STRUCTURE 54	RESVOR	1.09	7	2	.10	.0	3.05	24.00	1.39	5412.22	6.97	180.64
166.5												
XSECTION 14	REACH	1.09	7	2	.10	.0	3.05	24.00	1.39	5368.36	7.10	150.17
166.1												

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
 (A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
 A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE	STANDARD CONTROL	DRAINAGE	RAIN TABLE	ANTEC MOIST	MAIN TIME	PRECIPITATION			RUNOFF	PEAK DISCHARGE		
						BEGIN	AMOUNT	DURATION		ELEVATION	TIME	RATE
ID	OPERATION	AREA	#	COND	INCREM	(HR)	(IN)	(HR)	(IN)	(FT)	(HR)	(CFS)
(CSM)		(SQ MI)			(HR)							
ALTERNATE 1 STORM 2												
+												
XSECTION 14 1483.5	RUNOFF	.09	7	2	.10	.0	3.05	24.00	1.82	---	6.07	136.48
XSECTION 14 159.6	ADDHYD	1.18	7	2	.10	.0	3.05	24.00	1.42	5368.42	7.09	187.86
XSECTION 12 159.6	REACH	1.18	7	2	.10	.0	3.05	24.00	1.42	5355.67	7.09	187.86
XSECTION 12 1431.1	RUNOFF	.07	7	2	.10	.0	3.05	24.00	1.78	---	6.08	97.32
XSECTION 12 204.5	ADDHYD	1.25	7	2	.10	.0	3.05	24.00	1.44	5356.18	6.10	254.54
XSECTION 11 204.5	REACH	1.25	7	2	.10	.0	3.05	24.00	1.44	5356.25	6.10	254.54
XSECTION 26 359.5	ADDHYD	1.82	7	2	.10	.0	3.05	24.00	1.54	5355.56	6.11	653.90
XSECTION 6 359.5	REACH	1.82	7	2	.10	.0	3.05	24.00	1.54	5320.75	6.11	653.90
XSECTION 10 1512.1	RUNOFF	.13	7	2	.10	.0	3.05	24.00	1.92	---	6.08	190.53
XSECTION 10 433.4	ADDHYD	1.95	7	2	.10	.0	3.05	24.00	1.57	5321.95	6.10	843.00
XSECTION 6 1432.7	RUNOFF	.11	7	2	.10	.0	3.05	24.00	1.90	---	6.09	157.60
XSECTION 6 486.8	ADDHYD	2.06	7	2	.10	.0	3.05	24.00	1.58	5321.30	6.10	1000.45
XSECTION 8 486.8	REACH	2.06	7	2	.10	.0	3.05	24.00	1.58	5282.10	6.10	1000.45
XSECTION 8 1478.2	RUNOFF	.17	7	2	.10	.0	3.05	24.00	1.84	---	6.07	243.90
XSECTION 8 559.5	ADDHYD	2.22	7	2	.10	.0	3.05	24.00	1.60	5282.35	6.10	1242.17
XSECTION 4 1417.6	RUNOFF	.23	7	2	.10	.0	3.05	24.00	1.90	---	6.10	320.38
XSECTION 2 1402.2	REACH	.23	7	2	.10	.0	3.05	24.00	1.90	5271.03	6.21	316.89
XSECTION 2 1384.1	RUNOFF	.27	7	2	.10	.0	3.05	24.00	1.78	---	6.09	375.09
XSECTION 2 1319.5	ADDHYD	.50	7	2	.10	.0	3.05	24.00	1.84	5271.62	6.13	655.78
ALTERNATE 1 STORM 3												
+												
XSECTION 40	RUNOFF	.19	7	2	.10	.0	2.75	24.00	1.44	---	6.08	218.71

1005.3	XSECTION 26	REACH	.20	7	2	.10	.0	2.75	24.00	1.43	5354.51	6.11	203.07
1005.3													
1263.9	XSECTION 26	RUNOFF	.06	7	2	.10	.0	2.75	24.00	1.56	---	6.07	79.62
514.8	XSECTION 26	ADDHYD	.51	7	2	.10	.0	2.75	24.00	1.50	5354.67	6.15	263.05
588.5	XSECTION 26	ADDHYD	.57	7	2	.10	.0	2.75	24.00	1.51	5354.87	6.12	337.78
851.2	XSECTION 24	RUNOFF	.22	7	2	.10	.0	2.75	24.00	1.25	---	6.14	188.96
842.0	STRUCTURE 7	RESVOR	.22	7	2	.10	.0	2.75	24.00	1.26	5453.26	6.16	186.93
772.3	XSECTION 16	REACH	.22	7	2	.10	.0	2.75	24.00	1.25	5408.03	6.31	171.46
892.3	XSECTION 22	RUNOFF	.12	7	2	.10	.0	2.75	24.00	1.14	---	6.09	107.96
928.7	STRUCTURE 9	RESVOR	.12	7	2	.10	.0	2.75	24.00	1.16	5491.61	6.10	112.37
852.7	XSECTION 20	REACH	.12	7	2	.10	.0	2.75	24.00	1.13	5438.72	6.22	103.18
653.0	XSECTION 20	RUNOFF	.13	7	2	.10	.0	2.75	24.00	1.08	---	6.19	82.93
748.9	XSECTION 20	ADDHYD	.25	7	2	.10	.0	2.75	24.00	1.11	5436.30	6.21	185.72
743.3	STRUCTURE 6	RESVOR	.25	7	2	.10	.0	2.75	24.00	1.11	5438.08	6.23	184.33
589.3	XSECTION 18	RUNOFF	.43	7	2	.10	.0	2.75	24.00	1.09	---	6.24	251.64
579.6	STRUCTURE 5	RESVOR	.43	7	2	.10	.0	2.75	24.00	1.09	5437.55	6.27	247.49
541.4	XSECTION 16	REACH	.43	7	2	.10	.0	2.75	24.00	1.10	5408.33	6.44	231.16
594.7	XSECTION 16	ADDHYD	.65	7	2	.10	.0	2.75	24.00	1.15	5409.01	6.39	385.99
750.0	XSECTION 16	RUNOFF	.19	7	2	.10	.0	2.75	24.00	1.25	---	6.20	141.00
744.7	XSECTION 16	ADDHYD	.44	7	2	.10	.0	2.75	24.00	1.17	5408.74	6.22	324.69
608.8	XSECTION 16	ADDHYD	1.09	7	2	.10	.0	2.75	24.00	1.16	5409.95	6.32	660.50
126.3	STRUCTURE 54	RESVOR	1.09	7	2	.10	.0	2.75	24.00	1.16	5411.34	7.07	137.03
126.2	XSECTION 14	REACH	1.09	7	2	.10	.0	2.75	24.00	1.16	5368.06	7.20	136.91
1266.6	XSECTION 14	RUNOFF	.09	7	2	.10	.0	2.75	24.00	1.56	---	6.07	116.53
122.0	XSECTION 14	ADDHYD	1.18	7	2	.10	.0	2.75	24.00	1.19	5368.10	7.20	143.57
122.0	XSECTION 12	REACH	1.18	7	2	.10	.0	2.75	24.00	1.19	5355.18	7.20	143.57
1218.1	XSECTION 12	RUNOFF	.07	7	2	.10	.0	2.75	24.00	1.52	---	6.08	82.83
172.0	XSECTION 12	ADDHYD	1.25	7	2	.10	.0	2.75	24.00	1.21	5355.90	6.10	214.10
172.0	XSECTION 11	REACH	1.25	7	2	.10	.0	2.75	24.00	1.21	5355.55	6.10	214.10
302.9	XSECTION 26	ADDHYD	1.82	7	2	.10	.0	2.75	24.00	1.30	5355.39	6.11	550.90

302.9
XSECTION 10 RUNOFF .13 7 2 .10 .0 2.75 24.00 1.65 --- 6.09 163.44
1297.2

XSECTION 10 ADDHYD 1.95 7 2 .10 .0 2.75 24.00 1.32 5321.74 6.11 713.04
366.6

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TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
1 SUMMARY
REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OPID2
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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE	STANDARD CONTROL	DRAINAGE	RAIN TABLE	ANTEC MOIST	MAIN TIME	PRECIPITATION			RUNOFF	PEAK DISCHARGE		
ID	OPERATION	AREA	#	COND	INCREM	BEGIN	AMOUNT	DURATION	AMOUNT	ELEVATION	TIME	RATE
RATE		(SQ MI)			(HR)	(HR)	(IN)	(HR)	(IN)	(FT)	(HR)	(CFS)
(CSM)												
ALTERNATE	1	STORM	3									
XSECTION 6 RUNOFF		.11	7	2	.10	.0	2.75	24.00	1.63	---	6.10	134.87
1226.1												
XSECTION 6 ADDHYD		2.06	7	2	.10	.0	2.75	24.00	1.34	5321.06	6.11	847.78
412.5												
XSECTION 8 REACH		2.06	7	2	.10	.0	2.75	24.00	1.34	5281.89	6.11	847.78
412.5												
XSECTION 8 RUNOFF		.17	7	2	.10	.0	2.75	24.00	1.58	---	6.08	208.34
1262.6												
XSECTION 8 ADDHYD		2.22	7	2	.10	.0	2.75	24.00	1.36	5282.16	6.10	1054.21
474.9												
XSECTION 4 RUNOFF		.23	7	2	.10	.0	2.75	24.00	1.64	---	6.10	274.05
1212.6												
XSECTION 2 REACH		.23	7	2	.10	.0	2.75	24.00	1.63	5270.94	6.21	269.63
1193.1												
XSECTION 2 RUNOFF		.27	7	2	.10	.0	2.75	24.00	1.52	---	6.09	318.88
1176.7												
XSECTION 2 ADDHYD		.50	7	2	.10	.0	2.75	24.00	1.57	5271.48	6.14	555.58
1117.9												

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TR20 XEQ 12-01-94 11:20 CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM JOB
1 SUMMARY
REV PC 09/83(.2) DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OPID2
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SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 1

% OF PEAK

QUESTION MARK(?) AFTER CODE FOR EXCEEDED PARAMETERS, EXCEEDS ACCEPTABLE LIMITS, SEE PREVIOUS PAGE

ROUTING PARAMETERS

PEAK

†

TRAVEL TIME

+

XSEC REACH
STOR- KINE-

+

ID	LENGTH
AGE	MATIC
	(FT)
(HR)	(HR)

ALTERNATE 1 STORM 1

+

[illegible]

+

[illegible]

+

[illegible] $\frac{F}{2}$ [illegible]

3

[illegible]

2

26	900	788	4.1	788	4.1	0	1.98	.10	0	5.68	1.15	.017	1.000	81	1.003
----	-----	-----	-----	-----	-----	---	------	-----	---	------	------	------	-------	----	-------

+ 16	2900		266	6.2		255	6.3		0	1.78	.10	1	1.27	1.40	.067	.957	357	.67?
------	------	--	-----	-----	--	-----	-----	--	---	------	-----	---	------	------	------	------	-----	------

+	20	2700	162	6.1	153	6.2	0	1.66	.10	1	2.38	1.35	.065	.947	282	.767
---	----	------	-----	-----	-----	-----	---	------	-----	---	------	------	------	------	-----	------

[illegible]

14	2300	270	6.9	269	7.0	0	1.67	.10	1	2.65	1.27	.007	.996	252	.832
----	------	-----	-----	-----	-----	---	------	-----	---	------	------	------	------	-----	------

276 7.0

2.10

4

[illegible]

+ 11	800	254	6.1	254	6.1	0	1.44	.10	0	1.28	.001	1.000	43	1.00?
	.00	.00												
+										1.06				
+ 6	3000	653	6.1	653	6.1	0	1.54	.10	0	1.62	.002	1.000	149	1.00?
	.00	.00												
+										1.26				
+ 8	3000	1000	6.1	1000	6.1	0	1.58	.10	0	1.62	.003	1.000	116	1.00?
	.00	.00												
+						1242	6.1			1.17				
+ 2	3600	320	6.1	317	6.2	0	1.90	.10	1	1.64	.027	.988	211	.92?
	.10	.06												
+						648	6.1							

ALTERNATE 1 STORM 3

1

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1 SUMMARY

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SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS

(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 1

OX OF PEAK

A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARN

INGS)

HYDROGRAPH INFORMATION										ROUTING PARAMETERS															
PEAK																									
+																									
-																									
TRAVEL TIME		OUTFLOW+						VOLUME		MAIN		ITER-		Q AND A		PEAK		S/Q		ATT-					
+																									
XSEC REACH		INFLOW		OUTFLOW		INTERV.AREA		BASE-		ABOVE		TIME		ATION		EQUATION		LENGTH		RATIO		@PEAK		KIN	
STOR- KINE-																									
+																									
ID	LENGTH	PEAK	TIME	PEAK	TIME	PEAK	TIME	FLOW	BASE	INCR	#	COEFF	POWER	FACTOR	Q/I	(K)	COEFF								
AGE	MATIC	(CFS)	(HR)	(CFS)	(HR)	(CFS)	(HR)	(CFS)	(IN)	(HR)		(X)	(M)	(K*)	(Q*)	(SEC)	(C)								
(HR)	(HR)																								
ALTERNATE		1	STORM	3																					
+																									
+ 38	2700	217	6.1	213	6.2			0	1.44	.10	1	2.85		1.35	.049	.985	231	.88?							
	.10 .06																								
+						326	6.2																		
+ 36	2300	72	6.1	70	6.2			0	1.22	.10	1	2.82		1.35	.057	.966	260	.82?							
	.10 .07																								
+						137	6.1																		
+ 32	2500	163	6.1	159	6.2			0	1.36	.10	1	2.75		1.35	.050	.979	236	.87?							

+						356	6.1					4.49					
+	26	900	88	6.5	88	6.5		0	1.54	.10	0	1.34	.001	1.000	70	1.00?	
		.00															
+						---	---										
+	28	2300	98	6.1	95	6.2		0	1.23	.10	1	2.80	1.37	.041	.974	228	.88?
		.10															
+						203	6.1										
+	26	900	203	6.1	203	6.1		0	1.43	.10	0	4.52	1.34	.007	1.000	57	1.00?
		.00															
+						257	6.1										
+	16	2900	184	6.2	171	6.3		0	1.26	.10	1	1.26	1.40	.074	.930	394	.63
		.10															
+						---	---										
+	20	2700	112	6.1	103	6.2		0	1.16	.10	1	2.33	1.35	.073	.913	310	.74?
		.10															
+						185	6.2										
+	16	2900	246	6.3	228	6.4		0	1.09	.10	1	1.27	1.40	.049	.924	364	.66
		.10															
+						---	---										
+	14	2300	137	7.1	137	7.2		0	1.16	.10	1	2.23	1.35	.004	.999	264	.81?
		.10															
+						144	7.2										
+	12	1300	144	7.2	144	7.2		0	1.19	.10	0	2.08	1.35	.002	1.000	155	1.00?
		.00															
+						214	6.1										
+	11	800	214	6.1	214	6.1		0	1.21	.10	0	6.10	1.33	.001	1.000	41	1.00?
		.00															
+						---	---										
+	6	3000	550	6.1	550	6.1		0	1.30	.10	0	1.04	1.63	.003	1.000	158	1.00?
		.00															
+						---	---										
+	8	3000	847	6.1	847	6.1		0	1.34	.10	0	1.24	1.62	.003	1.000	123	1.00?
		.00															
+						1054	6.1										
+	2	3600	274	6.1	269	6.2		0	1.64	.10	1	1.16	1.64	.030	.982	224	.89?
		.10															
+						547	6.1										
1																	

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CANYON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

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1 SUMMARY

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/
STRUCTURE

DRAINAGE

STORM NUMBER

STRUCTURE 67	.31			
ALTERNATE 1		141.30	102.46	88.05
STRUCTURE 66	.29			
ALTERNATE 1		117.06	95.91	82.52
STRUCTURE 54	1.09			
ALTERNATE 1		269.84	180.64	137.03
STRUCTURE 9	.12			
ALTERNATE 1		161.89	136.51	112.37
STRUCTURE 7	.22			
ALTERNATE 1		271.90	225.39	186.93
STRUCTURE 6	.25			
ALTERNATE 1		269.82	225.41	184.33
STRUCTURE 5	.43			
ALTERNATE 1		374.08	304.36	247.49
XSECTION 2	.50			
ALTERNATE 1		775.09	655.78	555.58
XSECTION 4	.23			
ALTERNATE 1		375.29	320.38	274.05
XSECTION 6	2.06			
ALTERNATE 1		1180.82	1000.45	847.78
XSECTION 8	2.22			
ALTERNATE 1		1464.40	1242.17	1054.21
XSECTION 10	1.95			
ALTERNATE 1		996.48	843.00	713.04
XSECTION 11	1.25			
ALTERNATE 1		302.42	254.54	214.10
XSECTION 12	1.25			
ALTERNATE 1		302.42	254.54	214.10

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CANON CITY ORCHARD PARK BASIN TR20 RUN 24 HR. 100 YR. STORM

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1 SUMMARY

REV PC 09/93(.2)

DEVELOPED CONDITIONS W/ DETENTION & TYPE II STORM INPUT:OP1D2

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....		
		1	2	3
XSECTION 14	1.18			
ALTERNATE 1		277.67	187.86	143.57
XSECTION 16	1.09			

ALTERNATE	1		1011.37	816.82	660.30
0 XSECTION	18	.43			
+					
ALTERNATE	1		380.72	309.60	251.64
0 XSECTION	20	.25			
+					
ALTERNATE	1		277.66	228.29	185.72
0 XSECTION	22	.12			
+					
ALTERNATE	1		158.56	130.84	107.96
0 XSECTION	24	.22			
+					
ALTERNATE	1		274.90	227.85	188.96
0 XSECTION	26	1.82			
+					
ALTERNATE	1		775.51	653.90	550.90
0 XSECTION	28	.20			
+					
ALTERNATE	1		288.22	241.76	203.07
0 XSECTION	30	.11			
+					
ALTERNATE	1		142.11	117.83	97.74
0 XSECTION	32	.31			
+					
ALTERNATE	1		496.58	420.31	356.33
0 XSECTION	34	.15			
+					
ALTERNATE	1		231.14	194.21	163.36
0 XSECTION	36	.14			
+					
ALTERNATE	1		197.48	164.85	137.72
0 XSECTION	38	.42			
+					
ALTERNATE	1		265.89	223.57	186.86
0 XSECTION	40	.19			
+					
ALTERNATE	1		305.53	258.31	218.71

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	1	2	3
0 XSECTION 42	.08				
+					
ALTERNATE 1			104.80	87.07	72.37