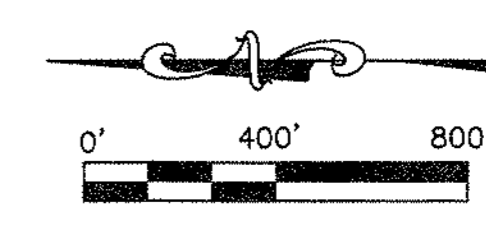
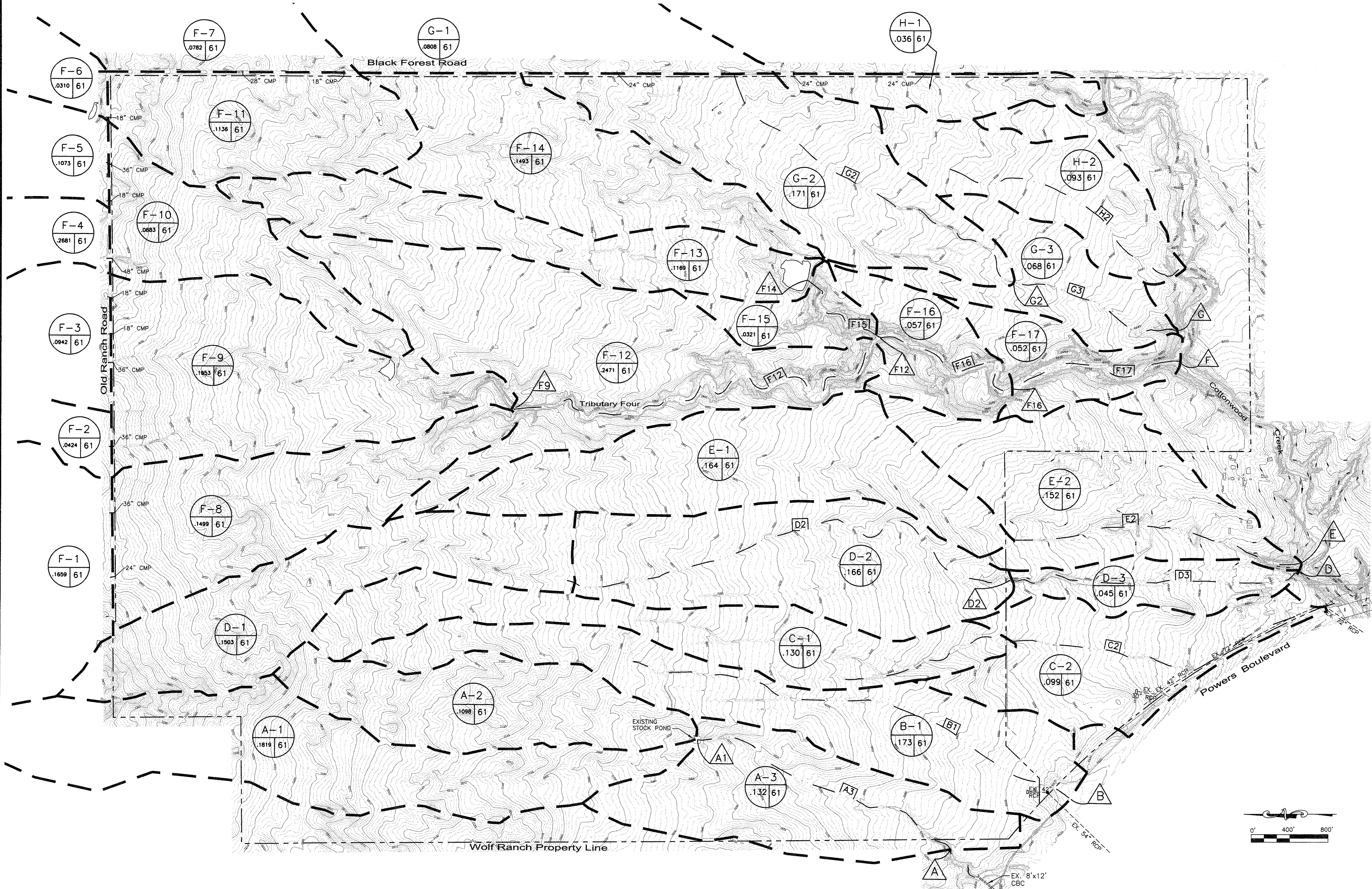
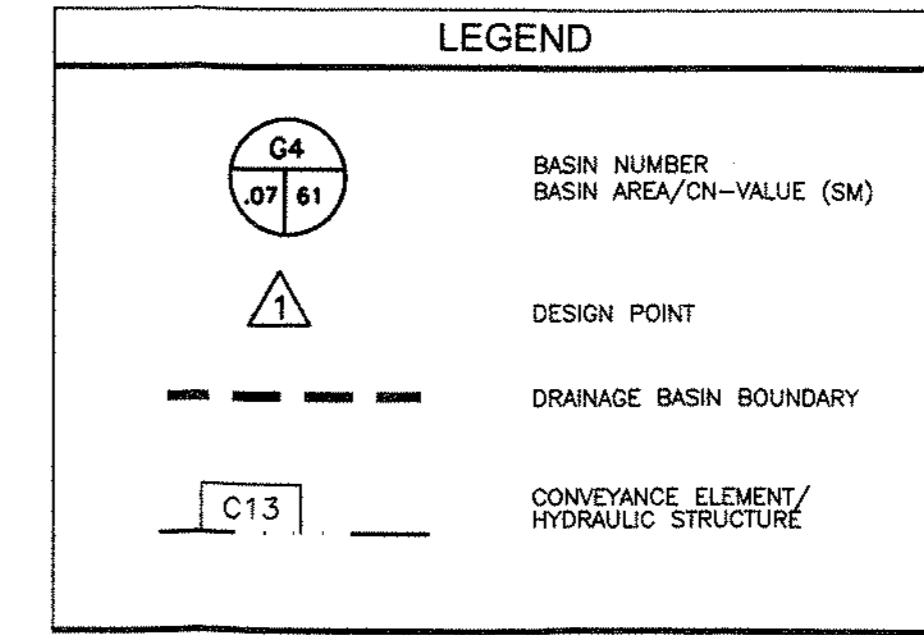
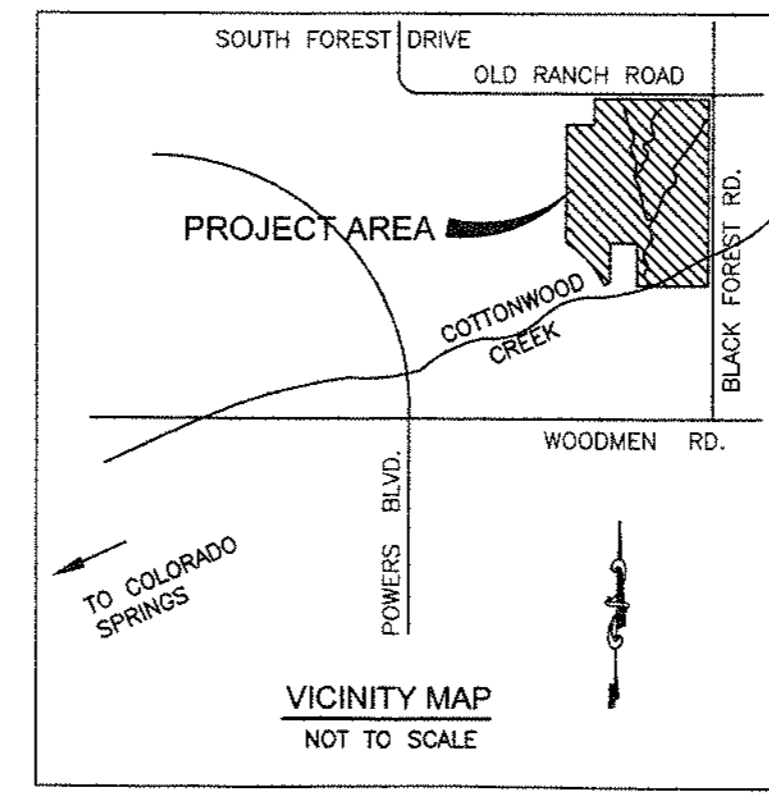


SUB-BASIN DISCHARGES SUMMARY			
SUB-BASIN	AREA	Q ₅ (cfs)	Q ₁₀₀ (cfs)
A-1	0.1819	7	85
A-2	0.1098	5	59
A-3	0.1318	12	142
B-1	0.1505	5	55
C-1	0.1300	5	58
C-2	0.0990	4	41
D-1	0.1503	5	60
D-2	0.1660	7	75
D-3	0.0450	4	36
E-1	0.1640	6	66
E-2	0.1520	6	61
F-1	0.1659	10	110
F-2	0.0424	3	29
F-3	0.0942	5	59
F-4	0.2681	13	147
F-5	0.1073	5	52
F-6	0.0310	2	21
F-7	0.0782	5	54

SUB-BASIN DISCHARGES SUMMARY (Con't)			
SUB-BASIN	AREA	Q ₅ (cfs)	Q ₁₀₀ (cfs)
F-8	0.1499	9	93
F-9	0.1953	10	111
F-10	0.0893	4	49
F-11	0.1136	8	86
F-12	0.2471	11	123
F-13	0.1169	4	47
F-14	0.1493	7	77
F-15	0.0321	3	27
F-16	0.0570	5	53
F-17	0.0520	4	24
G-1	0.0808	5	50
G-2	0.1710	8	87
G-3	0.0680	2	27
H-1	0.0370	5	41
H-2	0.0930	3	36

DESIGN POINT DISCHARGES SUMMARY			
BASIN	AREA	Q ₅ (cfs)	Q ₁₀₀ (cfs)
A	0.4235	11	157
A1	0.4235	12	42
B	0.1505	5	55
C	0.2510	8	94
D	0.3610	10	107
D2	0.3216	10	103
E	0.3200	11	124
F	1.9900	49	661
F9	1.1100	49	570
F12	1.8800	55	664
F14	0.4900	20	244
F15	0.5200	3	31
F16	1.9400	49	650
G	0.3200	13	155
G2	0.2500	11	130
H	0.0356	28	39



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WOLF RANCH
 MASTER DEVELOPMENT DRAINAGE PLAN
 EXISTING CONDITION HYDROLOGIC SUB-BASIN MAP
 COLORADO SPRINGS, COLORADO

Project No.: 03094
 Date: 05/20/04
 Design: RNW
 Drawn: MHH
 Check: RNW
 Revisions:

Fig. 4

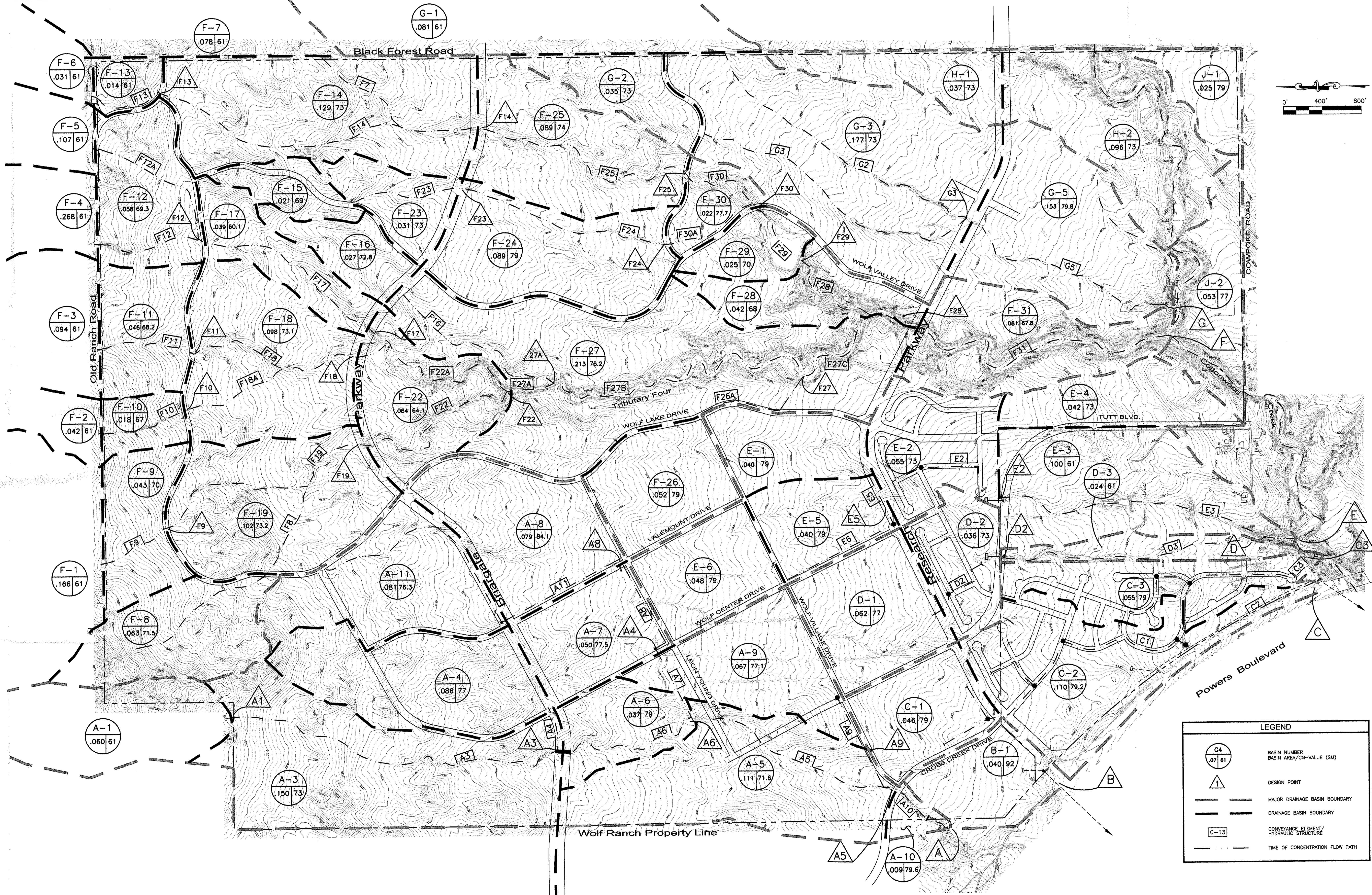
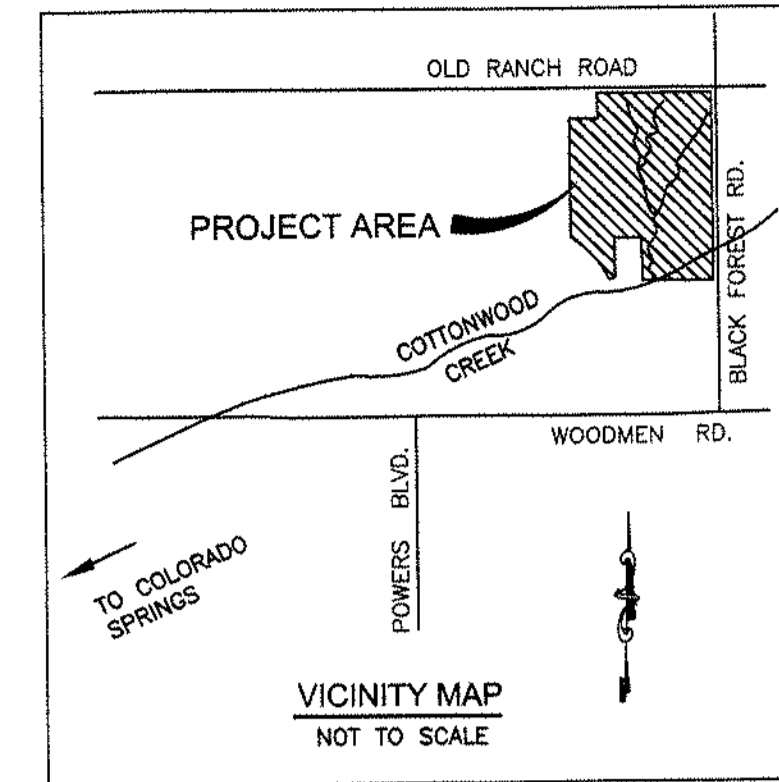
SUB-BASIN DISCHARGES SUMMARY			
SUB-BASIN	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
A-1	0.060	3	32
A-3	0.150	49	194
A-4	0.086	42	137
A-5	0.111	33	139
A-6	0.037	21	64
A-7	0.050	28	87
A-8	0.080	58	154
A-9	0.067	29	96
A-10	0.009	5	15
A-11	0.081	40	131
C-1	0.040	60	122
C-2	0.110	84	240
C-3	0.055	33	100
D-1	0.062	35	108
D-2	0.036	15	57
D-3	0.024	1	11
E-1	0.040	26	77
E-2	0.052	22	79
E-3	0.100	0	4

SUB-BASIN DISCHARGES SUMMARY			
SUB-BASIN	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
E-4	0.042	18	63
E-5	0.040	28	82
E-6	0.048	29	87
F-1	0.166	10	110
F-2	0.042	3	29
F-3	0.094	5	59
F-4	0.268	13	147
F-5	0.107	5	52
F-6	0.031	2	21
F-7	0.078	5	54
F-8	0.063	18	76
F-9	0.043	13	55
F-10	0.018	4	20
F-11	0.046	11	53
F-12	0.058	14	67
F-13	0.014	1	11
F-14	0.129	42	162
F-15	0.021	6	26

SUB-BASIN DISCHARGES SUMMARY			
SUB-BASIN	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
F-16	0.027	9	36
F-17	0.039	2	23
F-18	0.098	24	110
F-19	0.166	38	144
F-22	0.064	7	51
F-23	0.031	12	44
F-24	0.089	45	137
F-25	0.089	29	108
F-26	0.052	31	94
F-27	0.201	75	284
F-28	0.038	8	40
F-29	0.025	7	30
F-30	0.022	12	38
F-31	0.094	15	75
G-1	0.081	5	50
G-2	0.035	12	45

SUB-BASIN DISCHARGES SUMMARY			
SUB-BASIN	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G-3	0.177	50	200
G-5	0.153	83	243
H-1	0.037	17	63
H-2	0.096	25	96
J-1	0.025	19	53
J-2	0.053	30	92

DESIGN POINT DISCHARGES SUMMARY			
BASIN	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
A	0.730	270	933
A3	0.380	89	330
A5	0.720	273	935
A6	0.540	225	723
B	0.040	60	122
C	0.160	104	314
D	0.120	47	162
E	0.190	94	304
F22	1.210	126	850
F28	2.070	304	1659
F	2.150	307	1654
G	0.4500	129	502



LEGEND	
	BASIN NUMBER BASIN AREA/CN-VALUE (SM)
	DESIGN POINT
	MAJOR DRAINAGE BASIN BOUNDARY
	DRAINAGE BASIN BOUNDARY
	CONVEYANCE ELEMENT/ HYDRAULIC STRUCTURE
	TIME OF CONCENTRATION FLOW PATH

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**WOLF RANCH
 MASTER DEVELOPMENT DRAINAGE PLAN
 PROPOSED CONDITION HYDROLOGIC SUB-BASIN MAP**
 COLORADO SPRINGS, COLORADO

Project No.: 03094
 Date: 03/08/04
 Design: RNW
 Drawn: JLN
 Check: RNW
 Revisions:

Fig. 5

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
A1	0.06	3	32
A3	0.38	127	458
A4	0.17	80	267
A5 (IN)	0.72	274	938
A5 (OUT)	0.72	36	137
A6	0.54	226	724
A7	0.13	83	238
A	0.73	39	145
A9	0.07	29	96
B	0.04	60	122
C3	0.05	33	100
C	0.16	104	314
D2 (IN)	0.10	49	160
D2 (OUT)	0.10	5	54
E5	0.13	85	241
E2 (IN)	0.18	116	336
E2 (OUT)	0.18	8	97

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
F9	0.21	20	157
F10	0.06	6	48
F11	0.14	13	102
F12	0.43	24	236
F13	0.05	2	30
F14	0.25	45	210
F18 (IN)	0.80	79	572
F18 (OUT)	0.80	29	147
F19 (IN)	0.37	61	349
F19 (OUT)	0.37	21	91
F23	0.05	16	69
F24	0.14	55	203
F25	0.34	67	306
F27	1.29	55	254
F30	0.50	124	515
F28 (IN)	2.07	210	903
F28 (OUT)	2.07	101	554
F	2.14	102	565

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G3	0.29	57	278
G (IN)	0.45	57	278
G (OUT)	0.45	34	111

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	165	13	496
G _s OUT	13	13	151
VOL _s	5.9 AC-FT		
VOL ₁₀₀	14.8 AC-FT		
WS _s	55.2		
WS ₁₀₀	57.8		

(1) TOTAL OUTFLOW. OUTFLOW TO BE CONTROLLED TO EXISTING LEVELS AT DP E2 & DP D2

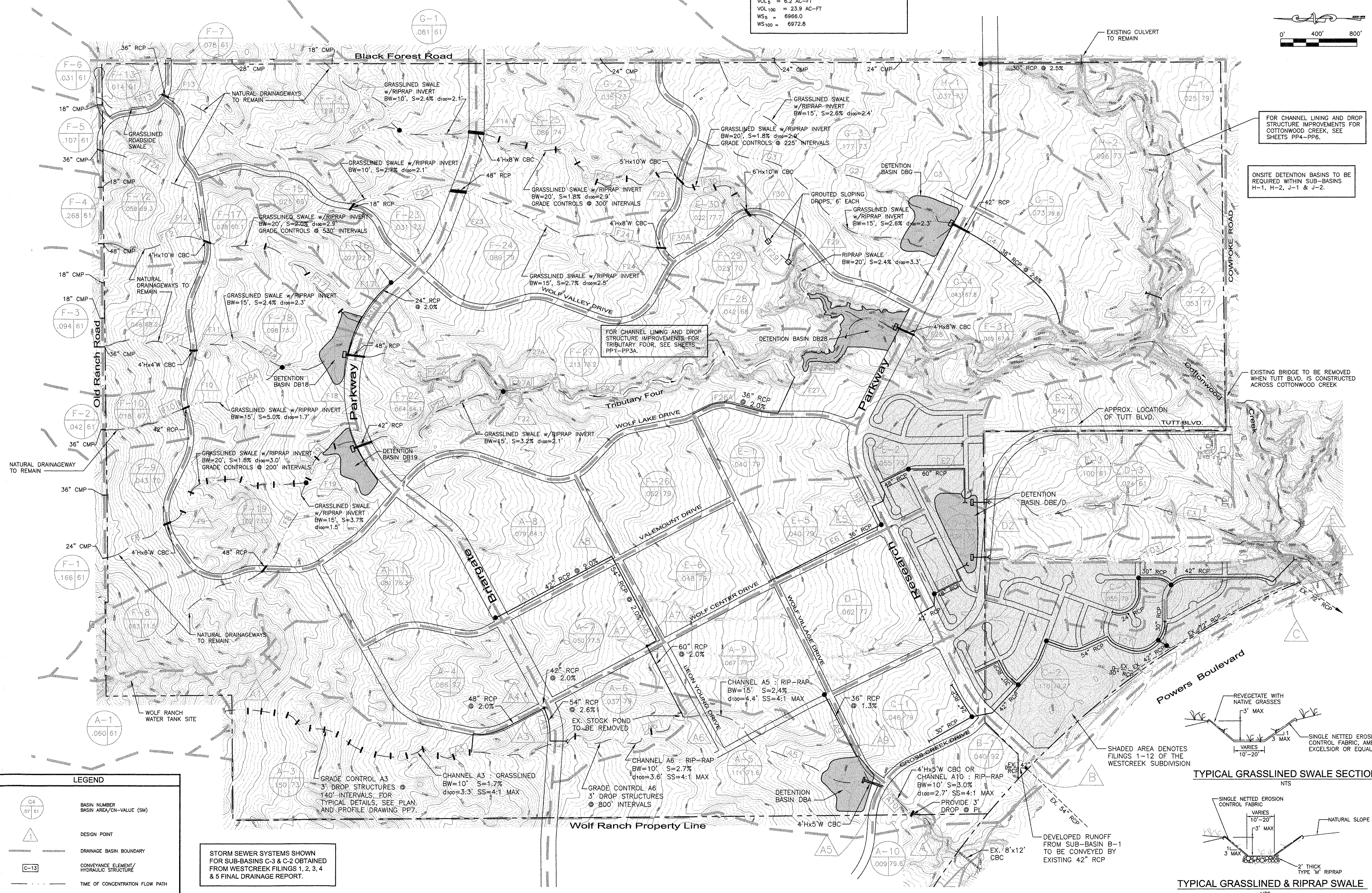
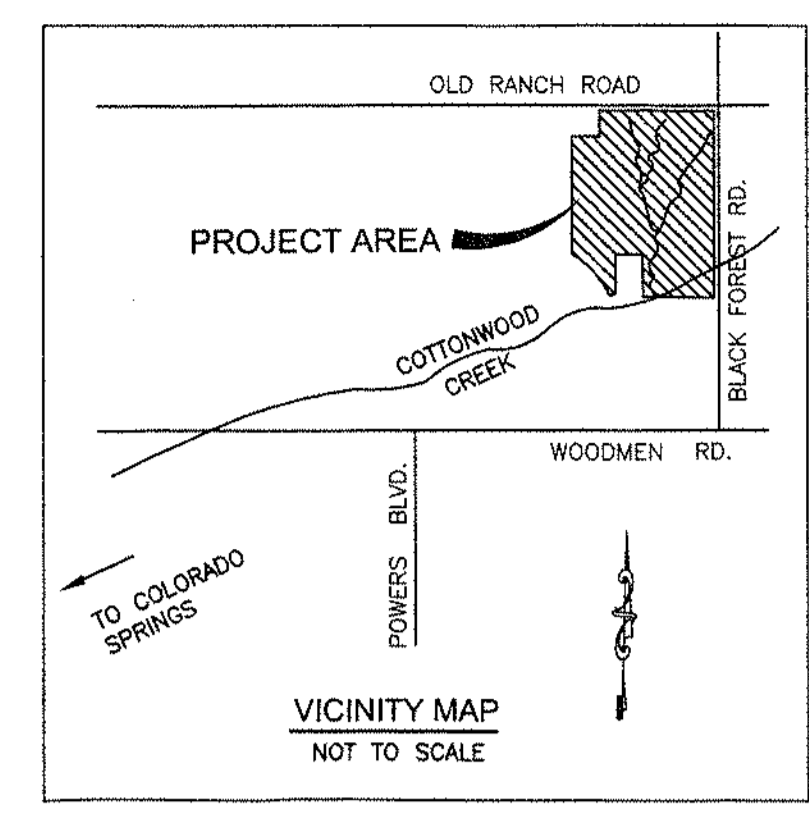
DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	72	29	100
G _s OUT	29	29	147
VOL _s	2.5 AC-FT		
VOL ₁₀₀	13.0 AC-FT		
WS _s	7142.8		
WS ₁₀₀	7146.9		

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	61	21	91
G _s OUT	21	21	91
VOL _s	1.7 AC-FT		
VOL ₁₀₀	9.5 AC-FT		
WS _s	7142.5		
WS ₁₀₀	7145.6		

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	210	101	903
G _s OUT	101	101	554
VOL _s	6.2 AC-FT		
VOL ₁₀₀	23.9 AC-FT		
WS _s	6966.0		
WS ₁₀₀	6972.8		

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	273	36	137
G _s OUT	36	36	137
VOL _s	10.8 AC-FT		
VOL ₁₀₀	36.0 AC-FT		
WS _s	4.1		
WS ₁₀₀	7.1		

DESIGN POINT	AREA(sm)	Q _s (cfs)	Q ₁₀₀ (cfs)
G _s IN	57	34	111
G _s OUT	34	34	111
VOL _s	4.2 AC-FT		
VOL ₁₀₀	7.0 AC-FT		
WS _s	4.1		
WS ₁₀₀	7.0		

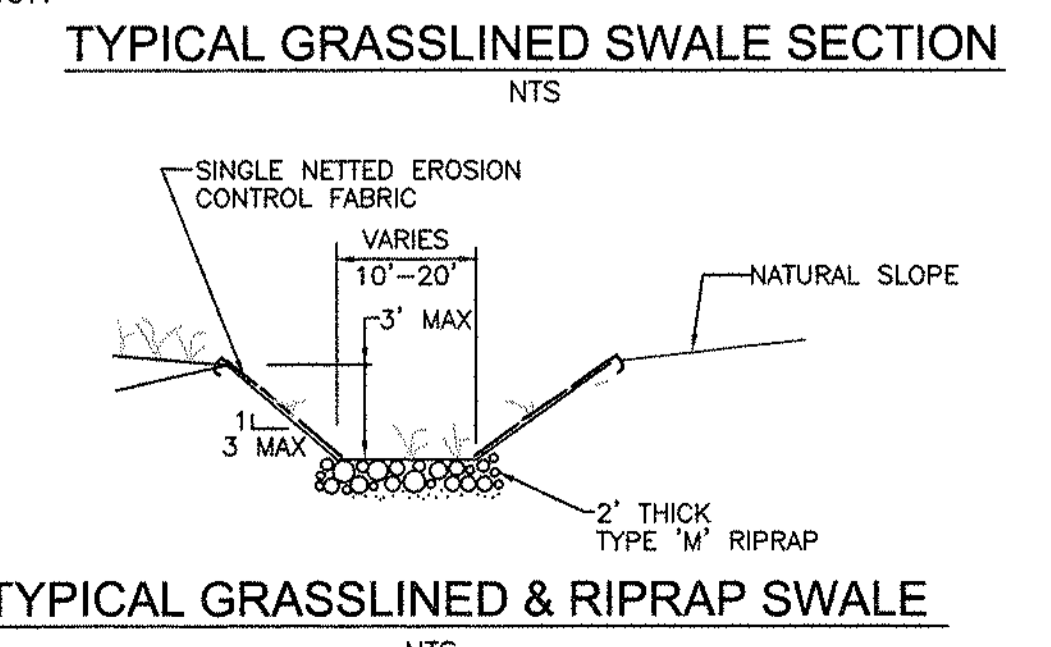
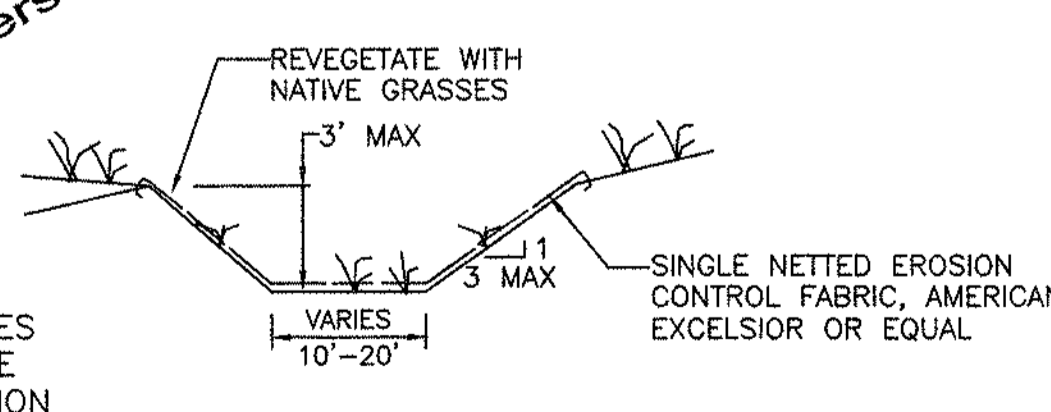


FOR CHANNEL LINING AND DROP STRUCTURE IMPROVEMENTS FOR COTTONWOOD CREEK, SEE SHEETS PP4-PP6.

ONSITE DETENTION BASINS TO BE REQUIRED WITHIN SUB-BASINS H-1, H-2, J-1 & J-2.

FOR CHANNEL LINING AND DROP STRUCTURE IMPROVEMENTS FOR TRIBUTARY FOUR, SEE SHEETS PP1-PP3A.

EXISTING BRIDGE TO BE REMOVED WHEN TUTT BLVD. IS CONSTRUCTED ACROSS COTTONWOOD CREEK



Symbol	Description
G4	BASIN NUMBER
071 61	BASIN AREA/CN-VALUE (SM)
△	DESIGN POINT
---	DRAINAGE BASIN BOUNDARY
---	CONVEYANCE ELEMENT/HYDRAULIC STRUCTURE
---	TIME OF CONCENTRATION FLOW PATH

STORM SEWER SYSTEMS SHOWN FOR SUB-BASINS C-3 & C-2 OBTAINED FROM WESTCREEK FILINGS 1, 2, 3, 4 & 5 FINAL DRAINAGE REPORT.

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WOLF RANCH
MASTER DEVELOPMENT DRAINAGE PLAN
PROPOSED FACILITIES
COLORADO SPRINGS, COLORADO

Project No.:	03094
Date:	03/09/2004
Design:	RNW
Drawn:	JLN
Check:	RNW
Revisions:	

Fig. 6