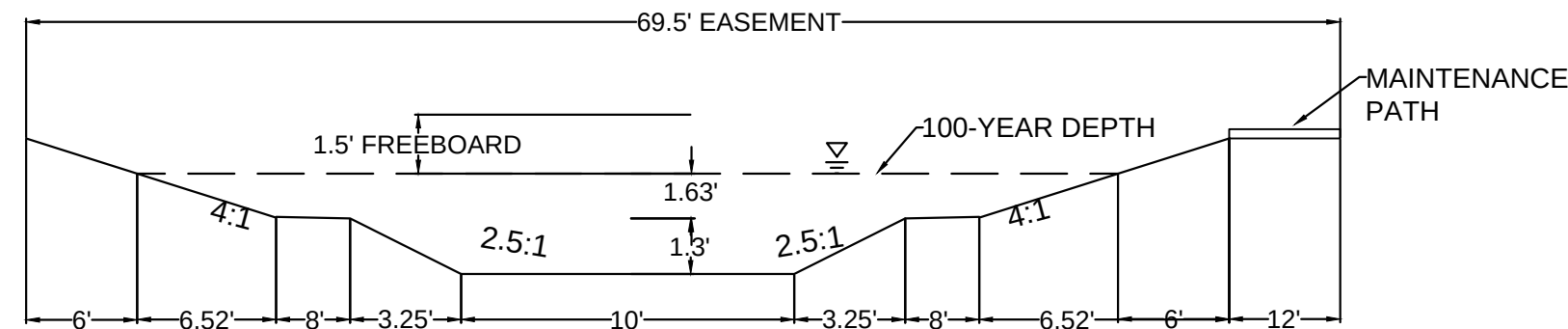


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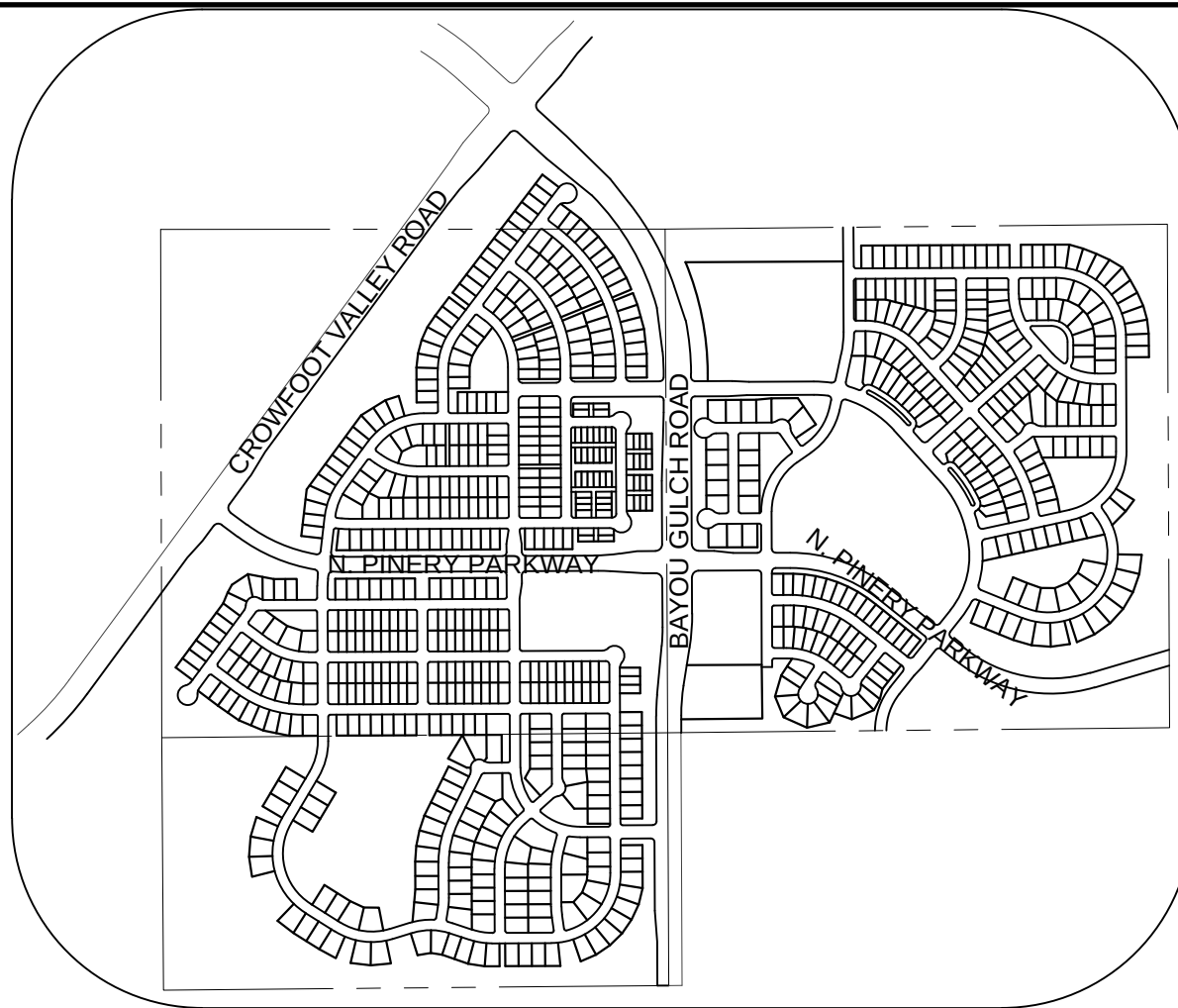
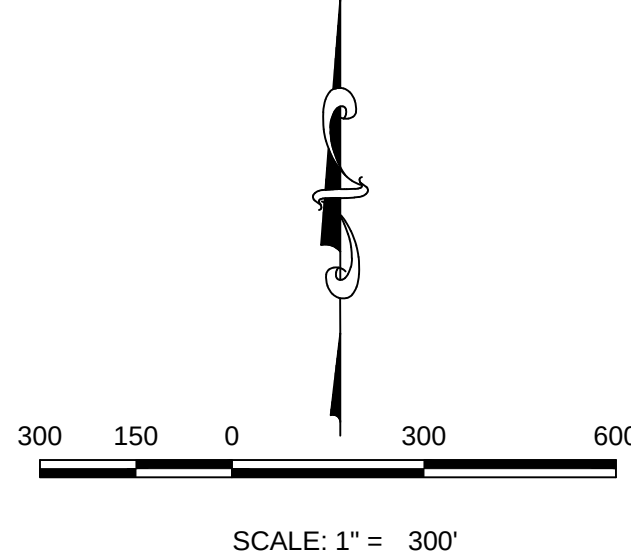
CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO



CHANNEL SECTION
NO TO SCALE

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.



KEYMAP
N.T.S.

DESIGN POINT

POND A

CHANNEL DROP STRUCTURE

BASIN LINE

MAJOR BASIN LINE

PROPOSED MAJOR CONTOURS

PROPOSED MINOR CONTOURS

EXISTING MAJOR CONTOURS

EXISTING MINOR CONTOURS

PROPOSED FLOW ARROW

XX = BASIN ID
R2 = 2 YR RUNOFF CO-EFF
R100 = 100 YR RUNOFF CO-EFF

A = AREA
R2 = 2 YR RUNOFF CO-EFF
R100 = 100 YR RUNOFF CO-EFF

NOTE:

- THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.
- POND A & C ARE MAINTAINED BY METRO DISTRICT AND UDFCD.
- OUTLET STRUCTURE AND OVERFLOW WEIR DETAILS WILL BE PROVIDED WITH FINAL DRAINAGE REPORT.
- DROP STRUCTURE DETAILS ARE PROVIDED IN CHANNEL PLAN AND PROFILE SHEET.

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TOWN OF PARKER, PUBLIC WORKS DIRECTOR

DATE

TOWN OF PARKER, PUBLIC WORKS MANAGER - STORMWATER

DATE

TOWN OF PARKER, PUBLIC WORKS MANAGER - TRANSPORTATION

DATE

PREPARED UNDER THE SUPERVISION OF

MARK SCHEURER
COLORADO P.E. 48988

SHEET NUMBER	DRAWN BY: AYK	CHECKED BY: JJJ	DATE: FEBRUARY 2017	SCALE: AS SHOWN	FILE NO: 8130283701	TRAILS AT CROWFOOT PRELIMINARY CONSTRUCTION DRAWINGS OVERALL DRAINAGE MAP	ESX MANAGEMENT 7253 South Alton Way CENTENNIAL, CO 80112		10333 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546	Revisions			Date	
										No.	Init.	Appr.	Date	

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CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987

Note:

1) 0% slope indicates sump inlet.

DIRECT FLOW					
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type
	(AC)	%	(CFS)	(CFS)	Slope
A1	4.11	43.77	3.84	17.73	Local
A2	1.84	52.16	2.22	9.10	Local
A3	3.23	48.80	3.16	13.54	Local
A4	4.07	34.03	2.78	15.39	Local
A5	2.04	49.08	2.27	9.70	Local
A6	4.96	35.28	3.58	19.32	Local
A7	4.33	51.70	5.01	20.65	Local
A8	2.86	52.68	3.45	14.07	Local
A9	3.44	50.33	3.75	15.73	Arterial
A10	0.72	61.44	1.12	4.14	Arterial
A11	2.39	53.79	2.92	11.75	Local
A12	2.96	48.02	3.22	13.95	Local
A13	7.08	46.42	6.77	29.97	Local
A14	1.43	54.86	1.94	7.68	Local
A15	7.15	26.55	3.58	23.96	Arterial
A16	0.75	76.70	1.39	4.52	Local
A17	3.76	52.91	4.19	17.02	Local
A18	2.54	52.87	2.95	11.99	Local
A19	2.09	51.95	2.51	10.32	Local
A20	2.04	49.09	2.28	9.72	Local
A21	3.02	52.59	3.69	15.04	Local

Note:

1) 0% slope indicates sump inlet.

DIRECT FLOW					
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type
	(AC)	%	(CFS)	(CFS)	Slope
B1	21.00	23.33	8.48	62.92	Local
B2	3.13	51.76	3.82	15.75	Local
B3	4.92	50.31	5.58	23.45	Local
B4	1.50	91.11	4.10	12.16	Local
B5	3.19	53.20	3.88	15.72	Local
B6	3.19	53.20	3.88	15.72	Local
B7	5.76	49.66	5.79	24.54	Local
B8	4.93	46.94	4.95	21.81	Res. Blvd
B9	2.81	49.17	2.94	12.55	Local
B10	0.65	76.70	1.28	4.14	Res. Blvd
B11	0.84	76.70	1.59	5.15	Res. Blvd
B12	2.53	88.00	5.86	17.68	Local
B13	3.19	53.20	3.88	15.72	Local
B14	3.19	53.20	3.88	15.72	Local
B15	2.01	53.11	2.50	10.13	Local

Note:

1) 0% slope indicates sump inlet.

DIRECT FLOW					
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type
	(AC)	%	(CFS)	(CFS)	Slope
C1	7.47	43.49	6.21	28.78	Local
D1	5.94	42.41	5.34	25.23	Local
D2	5.33	46.14	5.58	24.83	Local
D3	3.66	43.82	3.28	15.11	Local
D4	2.91	42.33	2.45	11.57	Local
D5	9.10	61.93	11.25	41.49	Arterial
D6	2.57	42.99	2.30	10.74	Arterial
D7	2.58	42.09	2.48	11.76	Local
D8	0.85	51.73	1.06	4.38	Local
D9	4.62	45.07	4.34	19.61	Arterial
D10	4.80	50.52	5.60	23.45	Local
D11	3.29	84.30	6.19	19.00	Arterial
D12	1.13	84.30	2.13	6.53	Arterial

Note:

1) 0% slope indicates sump inlet.

DIRECT FLOW					
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type
	(AC)	%	(CFS)	(CFS)	Slope
E1	4.04	52.65	4.95	20.19	Local
E2	5.27	52.02	4.71	19.36	Local
E3	4.77	52.31	5.64	23.07	Local
E4	3.20	52.07	3.78	14.69	Local
E5	2.76	53.77	3.09	12.43	Local
E6	2.63	53.59	3.06	12.34	Local
E7	2.77	51.99	3.21	13.17	Local
E8	2.68	53.33	3.13	12.64	Local
E9	4.84	39.52	3.92	19.46	Local
E10	0.70	56.03	0.85	3.31	Local
E11	3.99	30.00	2.48	14.96	Local
E12	3.28	30.00	2.04	12.33	Local
E13	4.45	30.00	2.76	16.67	Local
E14	5.58	56.35	7.00	27.28	Local
E15	1.89	51.97	2.08	8.55	Local
E16	1.57	73.60	2.68	8.89	Local
E17	1.55	73.60	2.64	8.76	Local
E18	2.72	52.96	3.45	14.00	Local
E19	2.91	53.40	3.58	14.46	Local
E20	2.75	53.49	3.12	12.57	Local
E21	2.05	54.72	2.56	10.18	Local
E22	4.41	53.09	5.39	21.86	Local
E23	4.11	51.69	4.81	19.86	Local
E24	4.23	30.00	2.63	15.87	Local
E25	3.62	52.58	4.65	18.92	Local
E26	2.88	59.79	4.24	15.89	Local

Note:

1) 0% slope indicates sump inlet.

DIRECT FLOW					
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type
	(AC)	%	(CFS)	(CFS)	Slope
F1	1.71	90.64	4.59	13.55	Local
F2	1.77	93.50	4.96	14.53	Local
F3	3.60	19.77	1.47	12.47	Local
F4	3.79	53.06	4.56	18.47	Local
F5	4.58	46.86	4.46	19.66	Res. Blvd
F6	4.93	38.37	3.70	18.75	Local
F7	4.51	18.05	1.68	15.41	Res. Blvd
F8	7.23	31.60	4.53	26.49	Local
F9	1.28	66.27	1.75	6.18	Res. Blvd
F10	1.93	92.20	5.30	15.64	Local
F11	1.50	91.79	4.07	12.03	Local
F12	1.22	93.17	3.39	9.95	Local
F13	3.58	52.91	4.36	17.70	Local

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
1A	3.84	17.73
1B	5.04	60.61
1C	18.94	72.95
1D	19.26	82.87
1E	4.69	68.74
1F	9.74	45.15
1G	5.01	55.58
1H	22.10	94.13
1I	3.75	15.73
1J	7.60	40.45
1K	2.92	11.75
1L	3.22	13.95
1M	6.77	29.97
1N	11.20	49.77
1O	3.58	23.96
1P	5.05	21.53
1Q	6.90	27.93
1R	2.95	11.99
1S	2.51	10.32
1T	7.21	37.59
1U	6.71	27.72
1	11.54	45.92
2	15.83	42.02
3	13.13	(Not Relevant for 100 year)
4	16.64	41.99

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
2A	13.11	74.41
2B	6.15	15.75
2C	5.58	33.21
2D	13.15	54.26
2E	3.88	76.36
2F	3.88	99.40
2G	5.79	24.54
2H	4.95	21.81
2I	2.94	35.69
2J	44.74	188.80
2K	45.73	192.07
2L	10.38	46.95
2M	3.88	15.72
2N	3.88	15.72
2O	2.50	10.13
5	18.73	76.25
6	7.44	(Not Relevant for 100 year)
7	7.40	(Not Relevant for 100 year)
9	34.94	147.05
10	44.99	146.86

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
3A	6.21	28.78

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
4A	18.01	80.94
4B	5.58	24.83
4C	3.28	15.11
4D	5.63	26.26
4E	13.59	54.51
4F	5.19	24.34
4G	2.48	11.76
4H	1.06	4.38
4I	4.34	19.61
4J	10.66	45.70
4K	6.19	19.00
4L	2.94	10.02
1I	12.69	56.80
12	16.90	69.53
13	21.12	82.67

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
14	35.26	87.93
15	67.15	187.87
5A	14.28	56.31
5B	68.09	202.35
5C	18.85	70.87
5D	21.89	79.97
5E	26.21	83.44
5F	3.06	12.34
5G	7.82	107.47
5H	32.81	81.28
5I	3.92	19.46
5J	0.85	3.31
5K	2.48	14.96
5L	4.60	27.74
5M	2.76	16.67
5N	15.09	58.98
5O	2.08	8.55
5P	22.99	49.94
5Q	5.06	23.96
5R	3.45	14.00
5S	28.34	67.90
5T	3.12	12.57
5U	2.56	10.18
5V	9.85	39.52
5W	4.81	19.86
5X	2.63	15.87
5Y	8.69	33.62
5Z	4.24	15.89

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
6A	21.41	56.86
6B	8.28	23.93
6C	9.45	44.87
6D	4.56	18.47
6E	34.31	58.80
6F	12.74	66.01
6G	41.20	102.75
6H	9.14	47.95
6I	40.46	91.47
6J	17.19	46.79
6K	12.18	34.01
6L	3.39	9.95
6M	8.80	35.37
16	32.42	55.27
17	41.02	97.22

POND A (Ultimate)	
Description	
Drainage Area	277.98
EURV Volume (including WQVC)	9.66
EURV Water Surface*	-
100-YR Volume (including EURV)	23.06
100-yr water surface elevation*	-
Emergency Spillway Crest Elevation*	-
100-year Peak Inflow (cfs)	653.12
100-year Peak Outflow (cfs)	325.74
*To be finalized in Final Report	

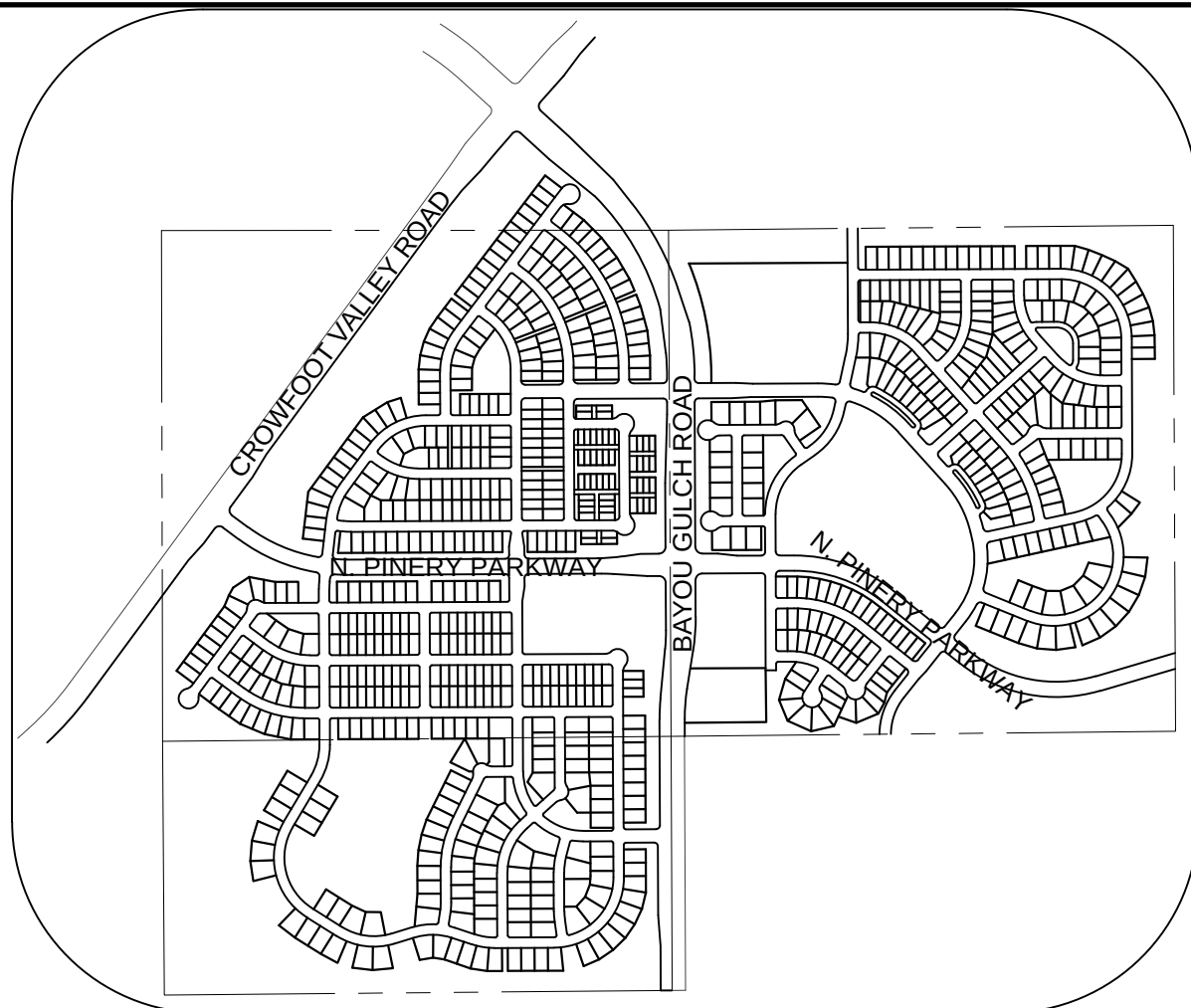
POND A (Interim)	
Description	
Drainage Area	160.84
EURV Volume (including WQVC)	6.17
EURV Water Surface*	-
100-YR Volume (including EURV)	14.00
100-yr water surface elevation*	-
Emergency Spillway Crest Elevation*	-
100-year Peak Inflow (cfs)	446.9
100-year Peak Outflow (cfs)	186.06
*To be finalized in Final Report	

POND B	
Description	
Drainage Area	23.2
EURV Volume (including WQVC)	1.102
EURV Water Surface*	-
100-YR Volume (including EURV)	2.25
100-yr water surface elevation*	-
Emergency Spillway Crest Elevation*	-
100-year Peak Inflow (cfs)	105.28
100-year Peak Outflow (cfs)	31.53
*To be finalized in Final Report	

POND C	
Description	
Drainage Area	160.84
EURV Volume (including WQVC)	7.59
EURV Water Surface*	-
100-YR Volume (including EURV)	15.19
100-yr water surface elevation*	-
Emergency Spillway Crest Elevation*	-
100-year Peak Inflow (cfs)	371.12
100-year Peak Outflow (cfs)	168.60
*To be finalized in Final Report	

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.



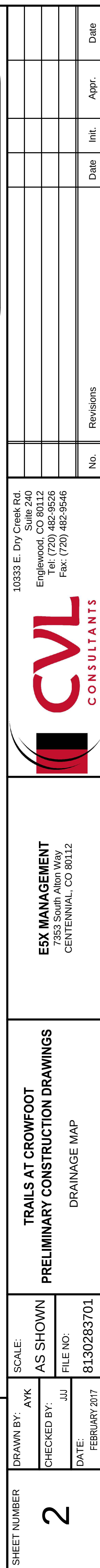
KEYMAP
N.T.S.

NOTE:

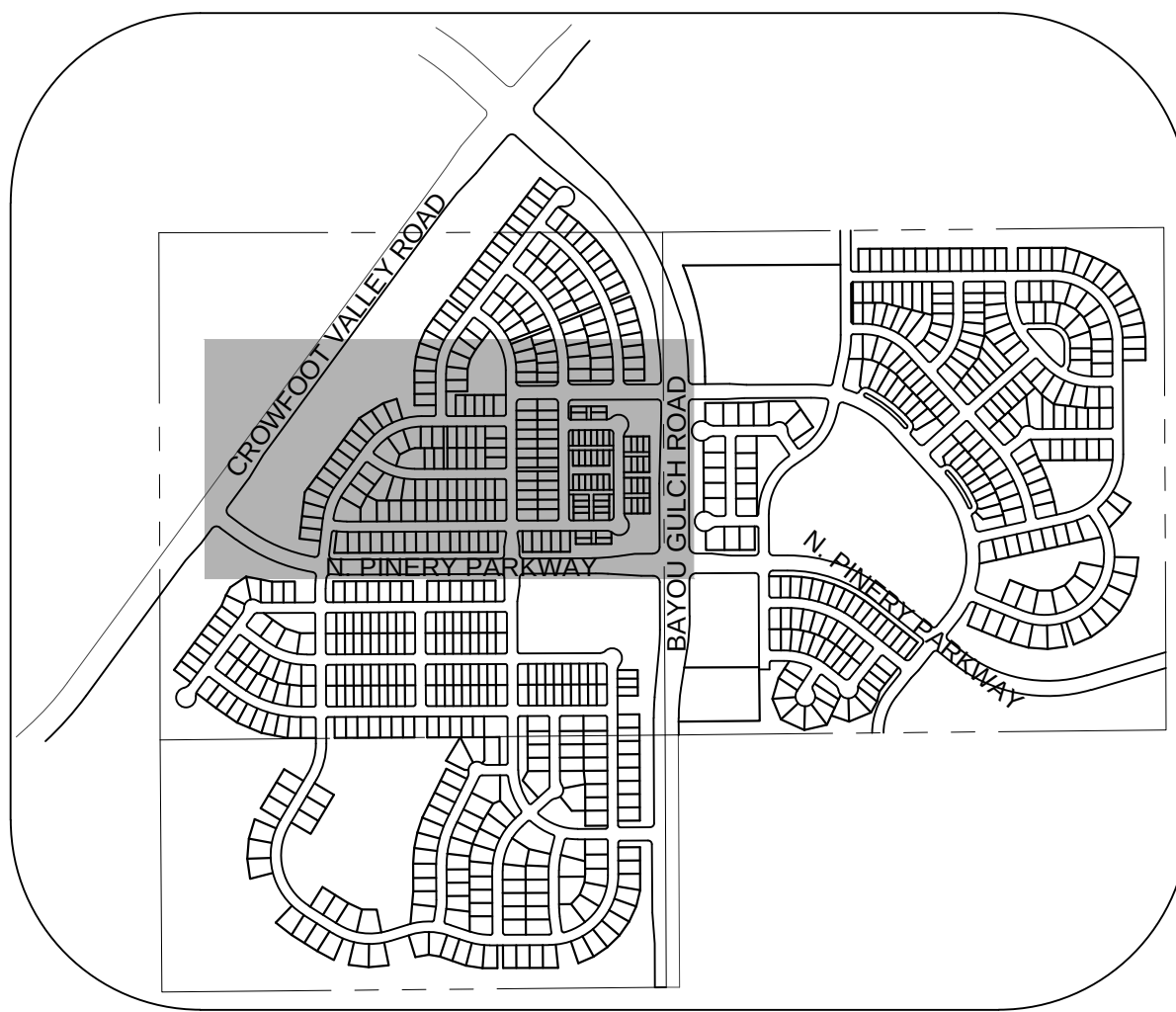
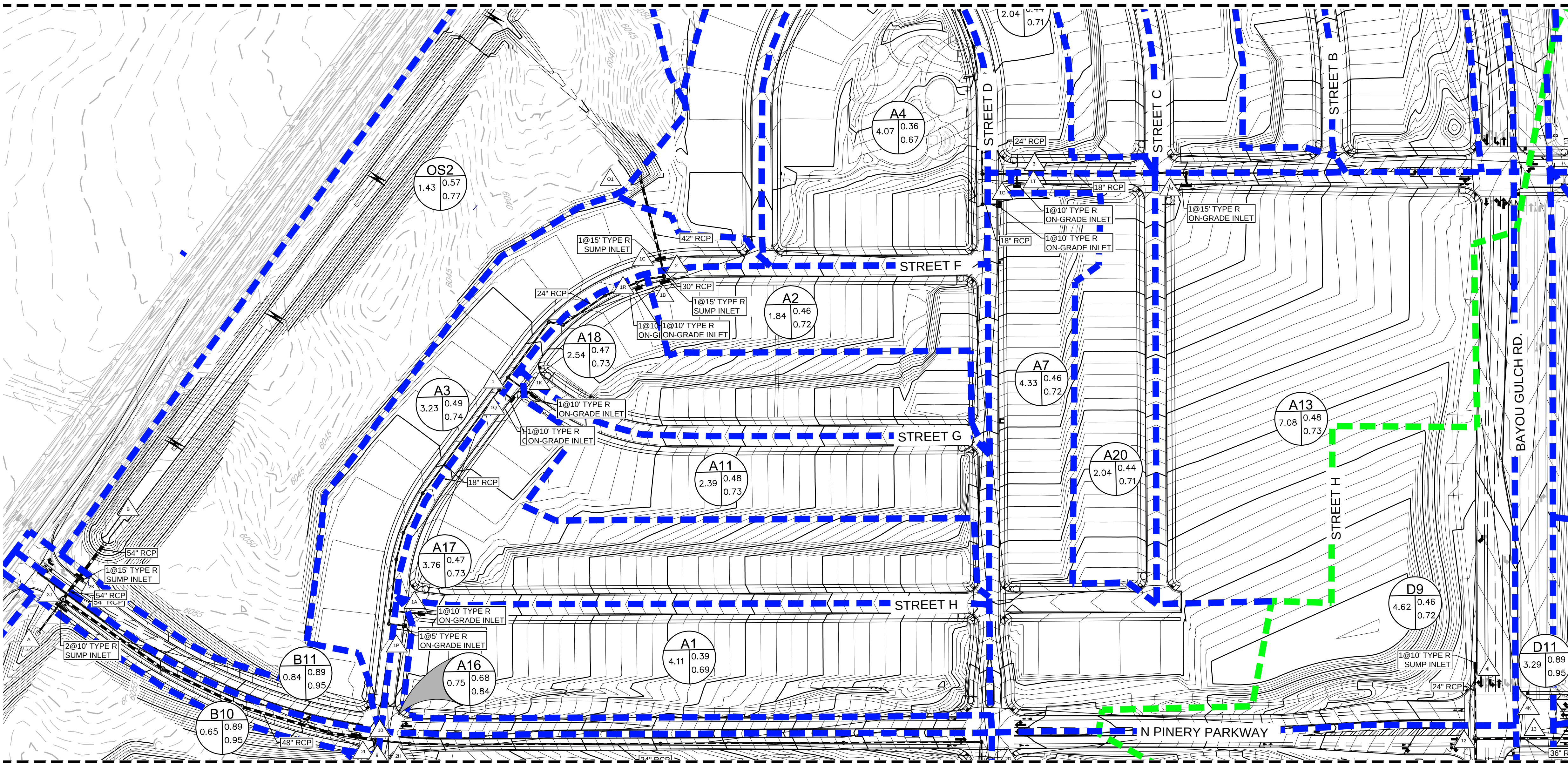
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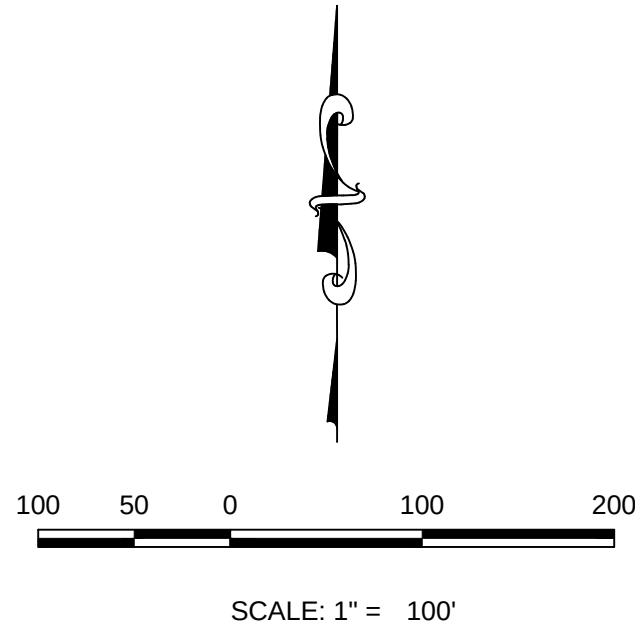
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MATCHLINE - SHEET 2



KEYMAP
N.T.S.



LEGEND

	DESIGN POINT
	XX = BASIN ID A= AREA R2= 2 YR RUNOFF CO-EFF R100= 100 YR RUNOFF CO-EFF
	DETENTION POND
	CHANNEL DROP STRUCTURE
	BASIN LINE
	MAJOR BASIN LINE
	PROPOSED MAJOR CONTOURS
	PROPOSED MINOR CONTOURS
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	PROPOSED FLOW ARROW

Note:
1) 0% slope indicates sump inlet.

DIRECT FLOW						
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type	Slope
(AC)		%	(CFS)	(CFS)		%
A1	4.11	43.77	3.84	17.73	Local	2.00
A2	1.84	52.16	2.22	9.10	Local	0.00
A3	3.23	48.80	3.16	13.54	Local	0.00
A4	4.07	34.03	2.78	15.39	Local	0.00
A5	2.04	49.08	2.27	9.70	Local	0.00
A6	4.96	35.28	3.58	19.32	Local	1.50
A7	4.33	51.70	5.01	20.65	Local	4.00
A8	2.86	52.68	3.45	14.07	Local	0.00
A9	3.44	50.33	3.75	15.73	Arterial	2.00
A10	0.72	61.44	1.12	4.14	Arterial	0.00
A11	2.39	53.79	2.92	11.75	Local	2.00
A12	2.96	48.02	3.22	13.95	Local	1.50
A13	7.08	46.42	6.77	29.97	Local	5.00
A14	1.43	54.86	1.94	7.68	Local	0.00
A15	7.15	26.55	3.58	23.96	Arterial	0.00
A16	0.75	76.70	1.39	4.52	Local	2.00
A17	3.76	52.91	4.19	17.02	Local	2.00
A18	2.54	52.87	2.95	11.99	Local	2.00
A19	2.09	51.95	2.51	10.32	Local	4.00
A20	2.04	49.09	2.28	9.72	Local	2.00
A21	3.02	52.59	3.69	15.04	Local	1.50

CUMULATIVE FLOW

Design Point	Q2	Q100
ID	(CFS)	(CFS)
1A	3.84	17.73
1B	5.04	60.61
1C	18.94	72.95
1D	19.26	82.87
1E	4.69	68.74
1F	9.74	45.15
1G	5.01	55.58
1H	22.10	94.13
1I	3.75	15.73
1J	7.60	40.45
1K	2.92	11.75
1L	3.22	13.95
1M	6.77	29.97
1N	11.20	49.77
1O	3.58	23.96
1P	5.05	21.53
1Q	6.90	27.93
1R	2.95	11.99
1S	2.51	10.32
1T	7.21	37.59
1U	6.71	27.72
1	11.54	45.92
2	15.83	42.02
3	13.13	(Not Relavant for 100 year)
4	16.64	41.99

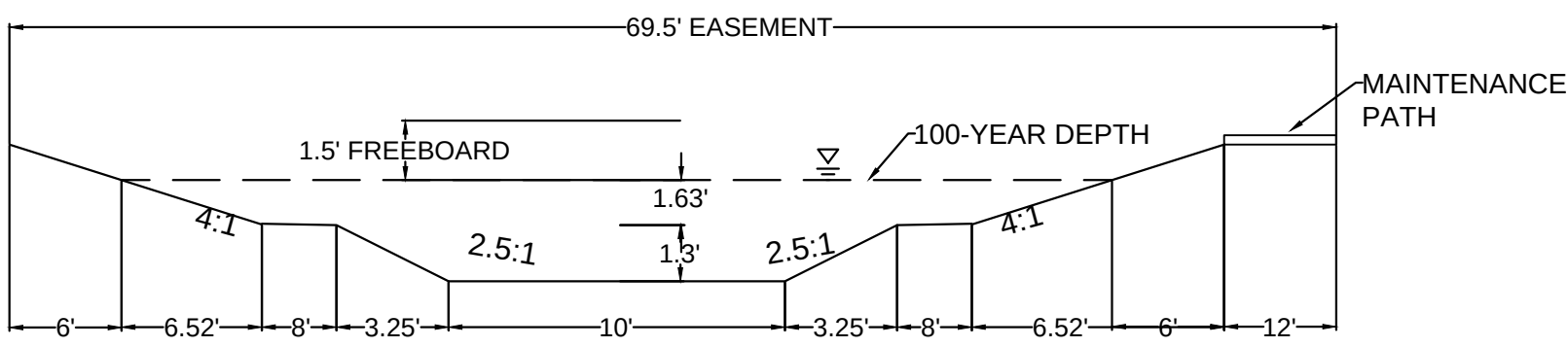
Note:
1) 0% slope indicates sump inlet.

DIRECT FLOW						
BASIN ID	AREA	Imperviousness	Q2	Q100	Street Type	Slope
(AC)		%	(CFS)	(CFS)		%
C1	7.47	43.49	6.21	28.78	Local	0.00
D1	5.94	42.41	5.34	25.23	Local	0.00
D2	5.33	46.14	5.58	24.83	Local	5.00
D3	3.66	43.82	3.28	15.11	Local	5.00
D4	2.91	42.33	2.45	11.57	Local	3.00
D5	9.10	61.93	11.25	41.49	Arterial	0.00
D6	2.57	42.99	2.30	10.74	Arterial	6.00
D7	2.58	42.09	2.48	11.76	Local	4.00
D8	0.85	51.73	1.06	4.38	Local	5.00
D9	4.62	45.07	4.34	19.61	Arterial	0.00
D10	4.80	50.52	5.60	23.45	Local	0.00
D11	3.29	84.30	6.19	19.00	Arterial	0.00
D12	1.13	84.30	2.13	6.53	Arterial	1.50

CUMULATIVE FLOW

Design Point	Q2	Q100
ID	(CFS)	(CFS)
4A	18.01	80.94
4B	5.58	24.83
4C	3.28	15.11
4D	5.63	26.26
4E	13.59	54.51
4F	5.19	24.34
4G	2.48	11.76
4H	1.06	4.38
4I	4.34	19.61
4J	10.66	45.70
4K	6.19	19.00
4L	2.94	10.02
1I	12.69	56.80
12	16.90	69.53
13	21.12	82.67

- NOTE:
- THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.
 - POND A & C ARE MAINTAINED BY METRO DISTRICT AND UDFCD.
 - OUTLET STRUCTURE AND OVERFLOW WEIR DETAILS WILL BE PROVIDED WITH FINAL DRAINAGE REPORT.
 - DROP STRUCTURE DETAILS ARE PROVIDED IN CHANNEL PLAN AND PROFILE SHEET.



CHANNEL SECTION
NO TO SCALE

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE
SUPERVISION OF

MARK SCHEURER
COLORADO P.E. 48988

10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80152 Tel: (720) 482-9526 Fax: (720) 482-9546	Revisions	No.	Date	Appr.	Date
	ESX MANAGEMENT 7253 South Alton Way CENTENNIAL, CO 80112				
	TRAILS AT CROWFOOT PRELIMINARY CONSTRUCTION DRAWINGS DRAINAGE MAP				
SCALE: AS SHOWN	DRAWN BY: AYK	CHECKED BY: JLU	FILE NO: 8130283701	DATE: FEBRUARY 2017	
SHEET NUMBER 3					

N:\PROJECTS\SWISS RANCH\DCS\ENGINEERING\DRAINAGE\PRELIMINARY\DRAINAGE STUDIES\DRAINAGE MAPS\DRAINAGE MAP DWG. ASUPURK - 2/2/2017 12:03 PM



CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987

Note:
1) 0% slope indicates sump inlet.

DIRECT FLOW						
BASIN ID	AREA (AC)	Imperviousness %	Q2 (CFS)	Q100 (CFS)	Street Type	Slope %
B1	21.00	23.33	8.48	62.92	Local	7.00
B2	3.13	51.76	3.82	15.75	Local	3.00
B3	4.92	50.31	5.58	23.45	Local	3.00
B4	1.50	91.11	4.10	12.16	Local	5.00
B5	3.19	53.20	3.88	15.72	Local	6.00
B6	3.19	53.20	3.88	15.72	Local	6.00
B7	5.76	49.66	5.79	24.54	Local	6.00
B8	4.93	46.94	4.95	21.81	Res. Blvd	0.00
B9	2.81	49.17	2.94	12.55	Local	0.00
B10	0.65	76.70	1.28	4.14	Res. Blvd	0.00
B11	0.84	76.70	1.59	5.15	Res. Blvd	0.00
B12	2.53	88.00	5.86	17.68	Local	3.00
B13	3.19	53.20	3.88	15.72	Local	2.00
B14	3.19	53.20	3.88	15.72	Local	2.00
B15	2.01	53.11	2.50	10.73	Local	1.00

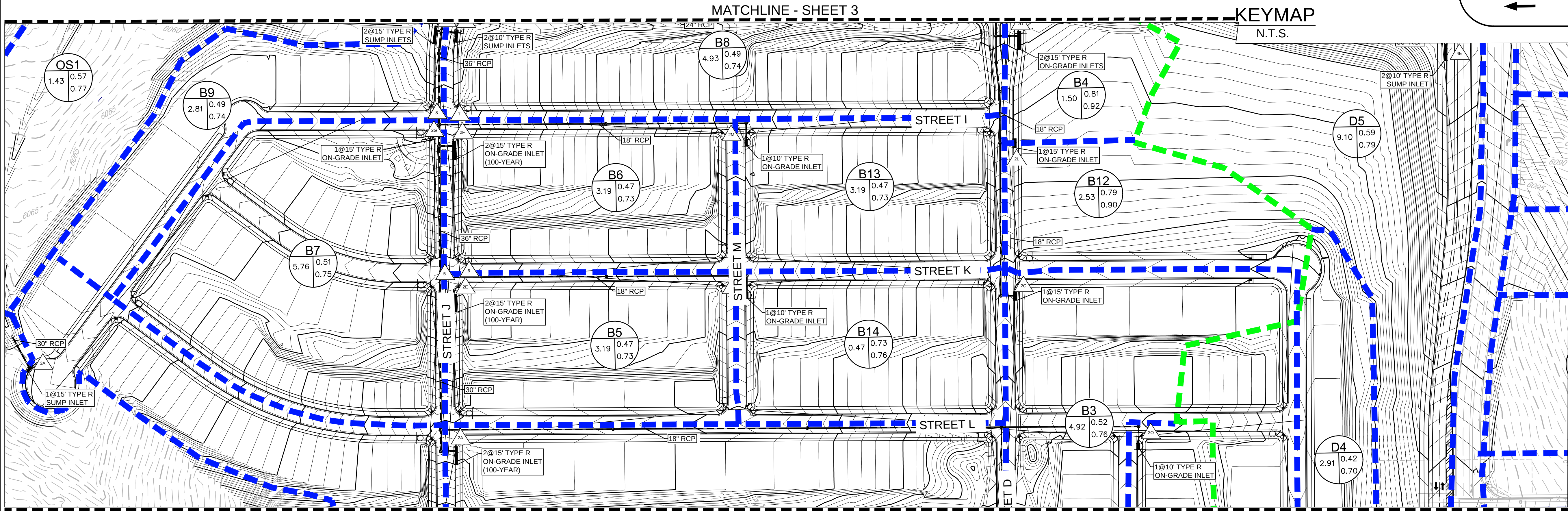
Note:
1) 0% slope indicates sump inlet.

DIRECT FLOW						
BASIN ID	AREA (AC)	Imperviousness %	Q2 (CFS)	Q100 (CFS)	Street Type	Slope %
C1	7.47	43.49	6.21	28.78	Local	0.00
D1	5.94	42.41	5.34	25.23	Local	0.00
D2	5.33	46.14	5.58	24.83	Local	5.00
D3	3.66	43.82	3.28	15.11	Local	5.00
D4	2.91	42.33	2.45	11.57	Local	3.00
D5	9.10	61.93	11.25	41.49	Arterial	0.00
D6	2.57	42.99	2.30	10.74	Arterial	6.00
D7	2.58	42.09	2.48	11.76	Local	4.00
D8	0.85	51.73	1.06	4.38	Local	5.00
D9	4.62	45.07	4.34	19.61	Arterial	0.00
D10	4.80	50.52	5.60	23.45	Local	0.00
D11	3.29	84.30	6.19	19.00	Arterial	0.00
D12	1.13	84.30	2.13	6.53	Arterial	1.50

CUMULATIVE FLOW			
Design Point ID	Q2 (CFS)	Q100 (CFS)	
2A	13.11	74.41	
2B	6.15	15.75	
2C	5.58	33.21	
2D	13.15	54.26	
2E	3.88	76.36	
2F	3.88	99.40	
2G	5.79	24.54	
2H	4.95	21.81	
2I	2.94	35.69	
2J	44.74	188.80	
2K	45.73	192.07	
2L	10.38	46.95	
2M	3.88	15.72	
2N	3.88	15.72	
2O	2.50	10.13	
5	18.73	76.25	
6	7.44	(Not Relavent for 100 year)	
7	7.40	(Not Relavent for 100 year)	
9	34.94	147.05	
10	44.99	146.86	

CUMULATIVE FLOW			
Design Point ID	Q2 (CFS)	Q100 (CFS)	
3A	6.21	28.78	

CUMULATIVE FLOW			
Design Point ID	Q2 (CFS)	Q100 (CFS)	
4A	18.01	80.94	
4B	5.58	24.83	
4C	3.28	15.11	
4D	5.63	26.26	
4E	13.59	54.51	
4F	5.19	24.34	
4G	2.48	11.76	
4H	1.06	4.38	
4I	4.34	19.61	
4J	10.66	45.70	
4K	6.19	19.00	
4L	2.94	10.02	
11	12.69	56.80	
12	16.90	69.53	
13	21.12	82.67	



BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
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PREPARED UNDER THE
SUPERVISION OF

MARK SCHEURER
COLORADO P.E. 48988

- NOTE:
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 2. POND A & C ARE MAINTAINED BY METRO DISTRICT AND UDFCD.
 3. OUTLET STRUCTURE AND OVERFLOW WEIR DETAILS WILL BE PROVIDED WITH FINAL DRAINAGE REPORT.
 4. DROP STRUCTURE DETAILS ARE PROVIDED IN CHANNEL PLAN AND PROFILE SHEET .

LEGEND

711F

XX

A

R2

R100

POND

CHANNEL DROP STRUCTURE

BASIN LINE

MAJOR BASIN LINE

PROPOSED MAJOR CONTOURS

PROPOSED MINOR CONTOURS

EXISTING MAJOR CONTOURS

EXISTING MINOR CONTOURS

PROPOSED FLOW ARROW

DESIGN POINT

XX = BASIN ID A= AREA
R2= 2 YR RUNOFF CO-EFF
R100= 100 YR RUNOFF CO-EFF

DETENTION POND

CHANNEL DROP STRUCTURE

BASIN LINE

MAJOR BASIN LINE

PROPOSED MAJOR CONTOURS

PROPOSED MINOR CONTOURS

EXISTING MAJOR CONTOURS

EXISTING MINOR CONTOURS

PROPOSED FLOW ARROW

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80150
Tel: (720) 482-9526
Fax: (720) 482-9546

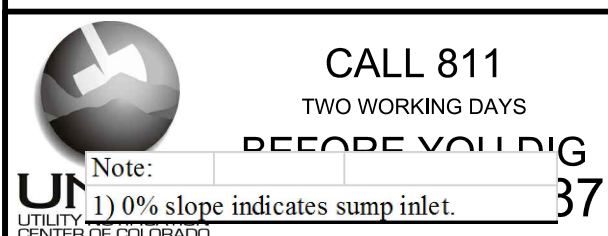
ESX MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
DRAINAGE MAP

SCALE:
AS SHOWN
FILE NO:
8130283701

DRAWN BY: AYK
CHECKED BY: JJ
DATE: FEBRUARY 2017

SHEET NUMBER
4



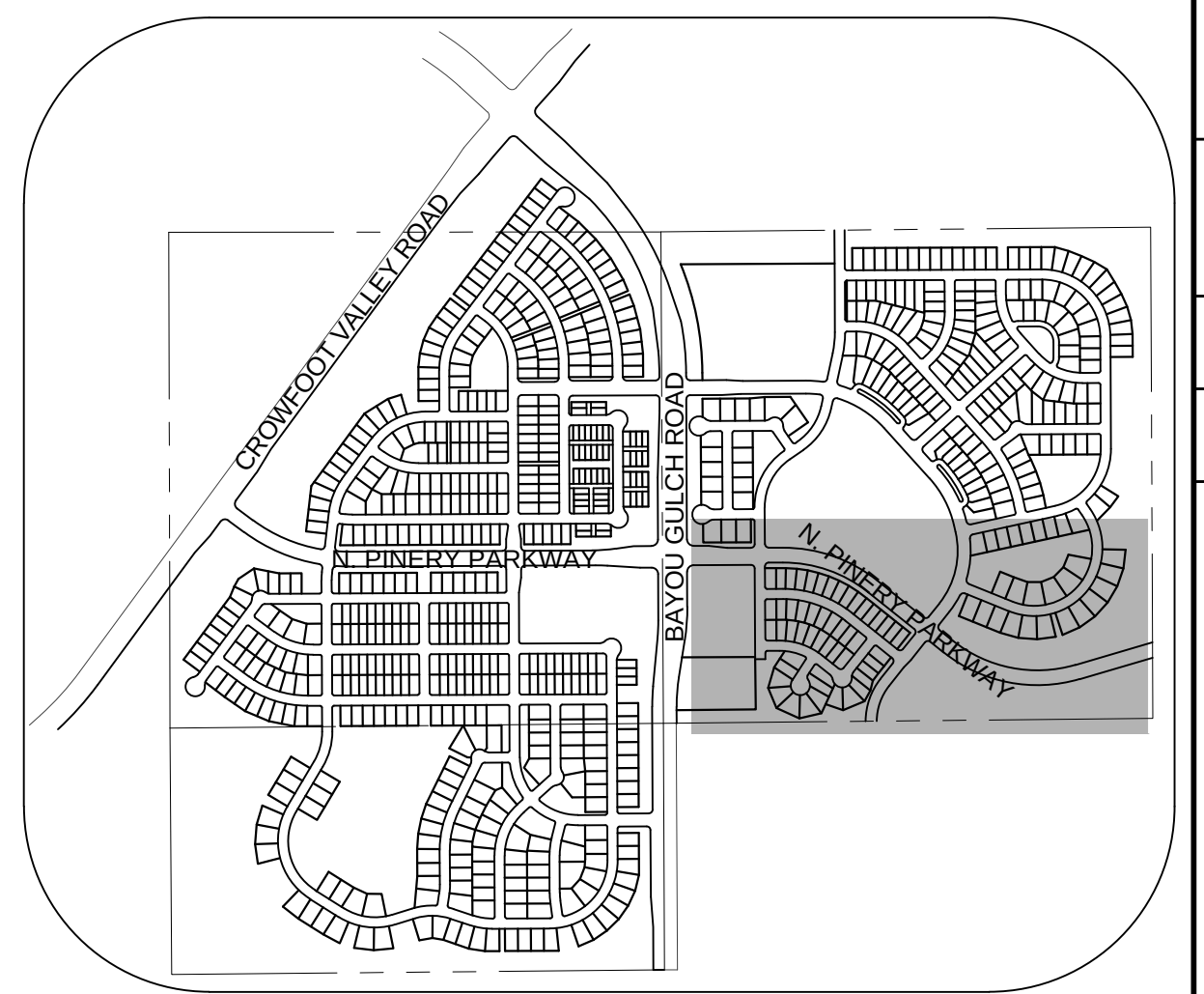
DIRECT FLOW						
BASIN ID	AREA (AC)	Imperviousness %	Q2 (CFS)	Q100 (CFS)	Street Type	Slope
E1	4.04	52.65	4.95	20.19	Local	2.70
E2	5.27	52.02	4.71	19.36	Local	0.00
E3	4.77	52.31	5.64	23.07	Local	3.00
E4	3.20	52.07	3.78	14.69	Local	4.00
E5	2.76	53.77	3.09	12.43	Local	0.00
E6	2.63	53.59	3.06	12.34	Local	1.00
E7	2.77	51.99	3.21	13.17	Local	0.00
E8	2.68	53.33	3.13	12.64	Local	2.00
E9	4.84	39.52	3.92	19.46	Local	2.00
E10	0.70	56.03	0.85	3.31	Local	1.00
E11	3.99	30.00	2.48	14.96	Local	1.00
E12	3.28	30.00	2.04	12.33	Local	6.00
E13	4.45	30.00	2.76	16.67	Local	1.00
E14	5.58	56.35	7.00	27.28	Local	0.00
E15	1.89	51.97	2.08	8.55	Local	2.00
E16	1.57	73.60	2.88	8.89	Local	6.00
E17	1.55	73.60	2.64	8.76	Local	1.00
E18	2.72	52.95	3.45	14.00	Local	1.50
E19	2.91	53.40	3.58	14.46	Local	1.20
E20	2.75	53.49	3.12	12.57	Local	2.00
E21	2.05	54.72	2.56	10.18	Local	2.00
E22	4.41	53.09	5.39	21.86	Local	2.70
E23	4.11	51.69	4.81	19.86	Local	2.70
E24	4.23	30.00	2.63	15.87	Local	2.00
E25	3.62	52.58	4.65	18.92	Local	2.00
E26	2.88	59.79	4.24	15.89	Local	2.00

DIRECT FLOW						
BASIN ID	AREA (AC)	Imperviousness	Q2 (CFS)	Q100 (CFS)	Street Type	Slope %
F1	1.71	90.64	4.59	13.55	Local	2.50
F2	1.77	93.50	4.96	14.53	Local	2.50
F3	3.60	19.77	1.47	12.47	Local	1.00
F4	3.79	53.06	4.56	18.47	Local	4.00
F5	4.58	46.86	4.46	19.66	Res. Blvd	4.00
F6	4.93	38.37	3.70	18.75	Local	0.00
F7	4.51	18.05	1.68	15.41	Res. Blvd	0.00
F8	7.23	31.60	4.53	26.49	Local	0.00
F9	1.28	66.27	1.75	6.18	Res. Blvd	0.00
F10	1.93	92.20	5.30	15.64	Local	2.50
F11	1.50	91.79	4.07	12.03	Local	2.50
F12	1.22	93.17	3.39	9.95	Local	2.50
F13	3.58	52.91	4.36	17.70	Local	4.00

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
14	35.26	87.93
15	67.15	187.87
5A	14.28	56.31
5B	68.09	202.35
5C	18.85	70.87
5D	21.89	79.97
5E	26.21	83.44
5F	3.06	12.34
5G	7.82	107.47
5H	32.81	81.28
5I	3.92	19.46
5J	0.85	3.31
5K	2.48	14.96
5L	4.60	27.74
5M	2.76	16.67
5N	15.09	58.98
5O	2.08	8.55
5P	22.99	49.94
5Q	5.06	23.96
5R	3.45	14.00
5S	28.34	67.90
5T	3.12	12.57
5U	2.56	10.18
5V	9.85	39.52
5W	4.81	19.86
5X	2.63	15.87
5Y	8.69	33.62
5Z	4.24	15.89

CUMULATIVE FLOW		
Design Point	Q2	Q100
ID	(CFS)	(CFS)
6A	21.41	56.86
6B	8.28	23.93
6C	9.45	44.87
6D	4.56	18.47
6E	34.31	58.80
6F	12.74	66.01
6G	41.20	102.75
6H	9.14	47.95
6I	40.46	91.47
6J	17.19	46.79
6K	12.18	34.01
6L	3.39	9.95
6M	8.80	35.37
16	32.42	55.27
17	41.02	97.22

THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.



N.T.S.

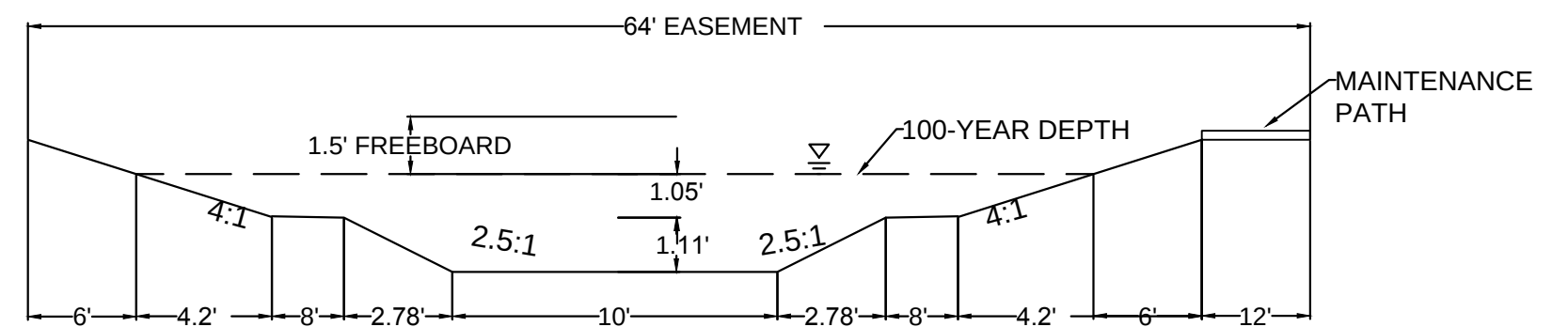


100 50 0 100 200

SCALE: 1" = 100'

Diagram illustrating the layout of a pond, showing various features and their corresponding symbols:

- DESIGN POINT**: A triangle with the number 711F inside.
- POND**: A circle divided into four quadrants. The top-left quadrant is labeled XX, the top-right is labeled R2, the bottom-left is labeled A, and the bottom-right is labeled R100.
- CHANNEL DROP STRUCTURE**: A symbol consisting of two horizontal lines with a central gap, resembling a bowtie.
- BASIN LINE**: A dashed blue line.
- MAJOR BASIN LINE**: A dashed green line.
- PROPOSED MAJOR CONTOURS**: Solid horizontal lines.
- PROPOSED MINOR CONTOURS**: Dashed horizontal lines.
- EXISTING MAJOR CONTOURS**: Solid horizontal lines.
- EXISTING MINOR CONTOURS**: Dashed horizontal lines.
- PROPOSED FLOW ARROW**: A solid black arrow pointing left.



NO TO SCALE

MARK SCHEURER
COLORADO P.E. 48988

333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546



E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

PRELIMINARY CONSTRUCTION DRAWINGS
DRAINAGE MAP

DRAWN BY: AYK	SCALE: AS SH
CHECKED BY: JJJ	FILE NO: 813028
DATE: FEBRUARY 2017	

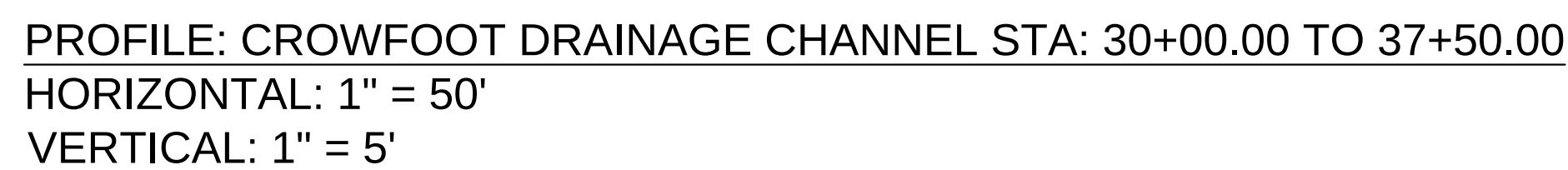
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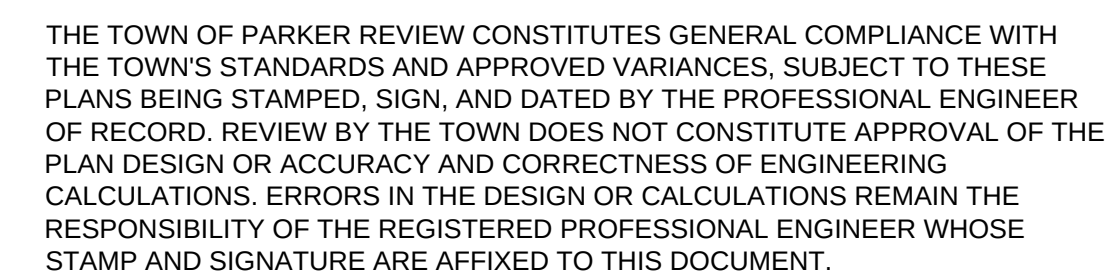
CALL 811
TWO WORKING DAYS

Note:		
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1) 0% slope indicates sump inlet.



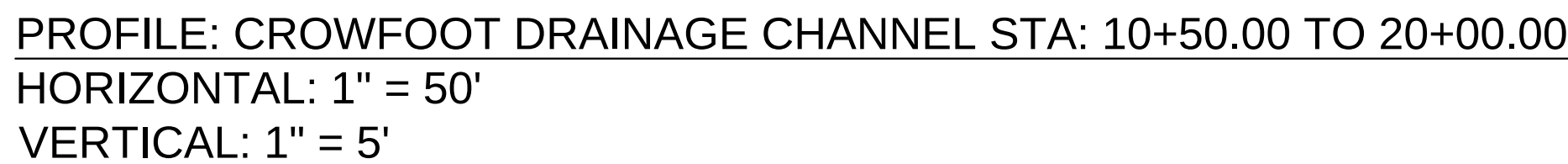
BASIS OF BEARINGS:
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TOWN OF PARKER, DIRECTOR OF ENGINEERING _____ DATE _____

SHEET NUMBER 10	DRAWN BY:	TPC	SCALE: AS SHOWN	TRAILS AT CROWFOOT PRELIMINARY CONSTRUCTION DRAWINGS CROW-FOOT DRAINAGE CHANNEL P&P	 ESX MANAGEMENT 7353 South Alton Way CENTENNIAL, CO 80112	 CVL CONSULTANTS	10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 462-9526 Fax: (720) 462-9546	No.	Revisions	Date	Appr.
	CHECKED BY:	JW									
	DATE:	FEBRUARY 2017									
	FILE NO.:	8130283701									

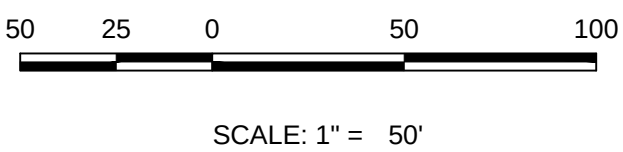


ABBREVIATIONS

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGN, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

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TOWN OF PARKER, DIRECTOR OF ENGINEERING _____ DATE _____



SCALE: 1" = 50'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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8 SHEET NUMBER	DRAWN BY:	TPC	SCALE: AS SHOWN	TRAILS AT CROWFOOT PRELIMINARY CONSTRUCTION DRAWINGS CROWFOOT DRAINAGE CHANNEL P&P	ESX MANAGEMENT 7353 South Alton Way CENTENNIAL, CO 80112		10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 482-9526 Fax: (720) 482-9546					
	CHECKED BY:	JU						FILE NO:				
	DATE:	FEBRUARY 2017	8130283701									
								No.	Revisions	Date	Init.	Appr.