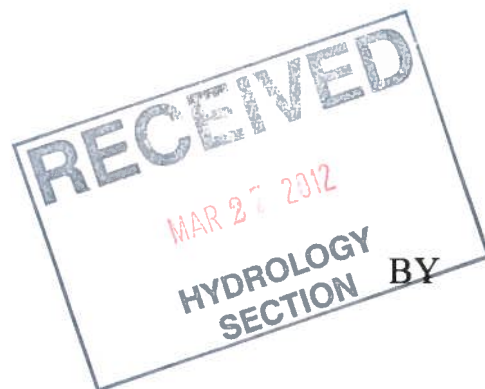


**REVISED/SUPPLEMENTAL
INFORMATION FOR
DRAINAGE REPORT
FOR
STORM CLOUD SUBDIVISION, UNITS 4 & 5
A 241-DWELLING UNIT SINGLE-DETACHED
RESIDENTIAL SUBDIVISION**

ALBUQUERQUE, NEW MEXICO

MARCH 26, 2012



ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates

*Thomas O. Isaacson, PE & LS
Fred C. Arfman, PE
Åsa Nilsson-Weber, PE*

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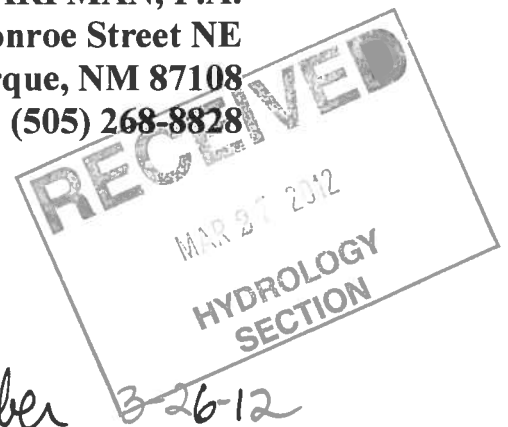
Prepared by:

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Åsa Nilsson-Weber, PE

Date





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TABLE OF CONTENTS

- I. MIREHAVEN ARROYO**
 - HEC-RAS Calculations & Output Files**
 - Plan & Profile Exhibits**
- II. CORRECTION TO APPENDIX E**
 - Corrected Unit 4 Sump Inlet Designations**
- III. CAMINO DEL VENADO SUMP INLETS**
 - Profile Exhibit to Illustrate High Point Elevation**
- IV. TIERRA PINTADA WATER BLOCKS AT ENTRANCES**
 - Tierra Pintada Basin Exhibit**
 - Basin Areas & Land Treatments**
 - AHYMO Calculations**
 - Street Flow Depth at Entrances**

ATTACHMENT

- Unit 4 Grading & Drainage and Retaining Wall Plans (9 Sheets)**
- Unit 5 Grading & Drainage and Retaining Wall Plans (7 sheets)**

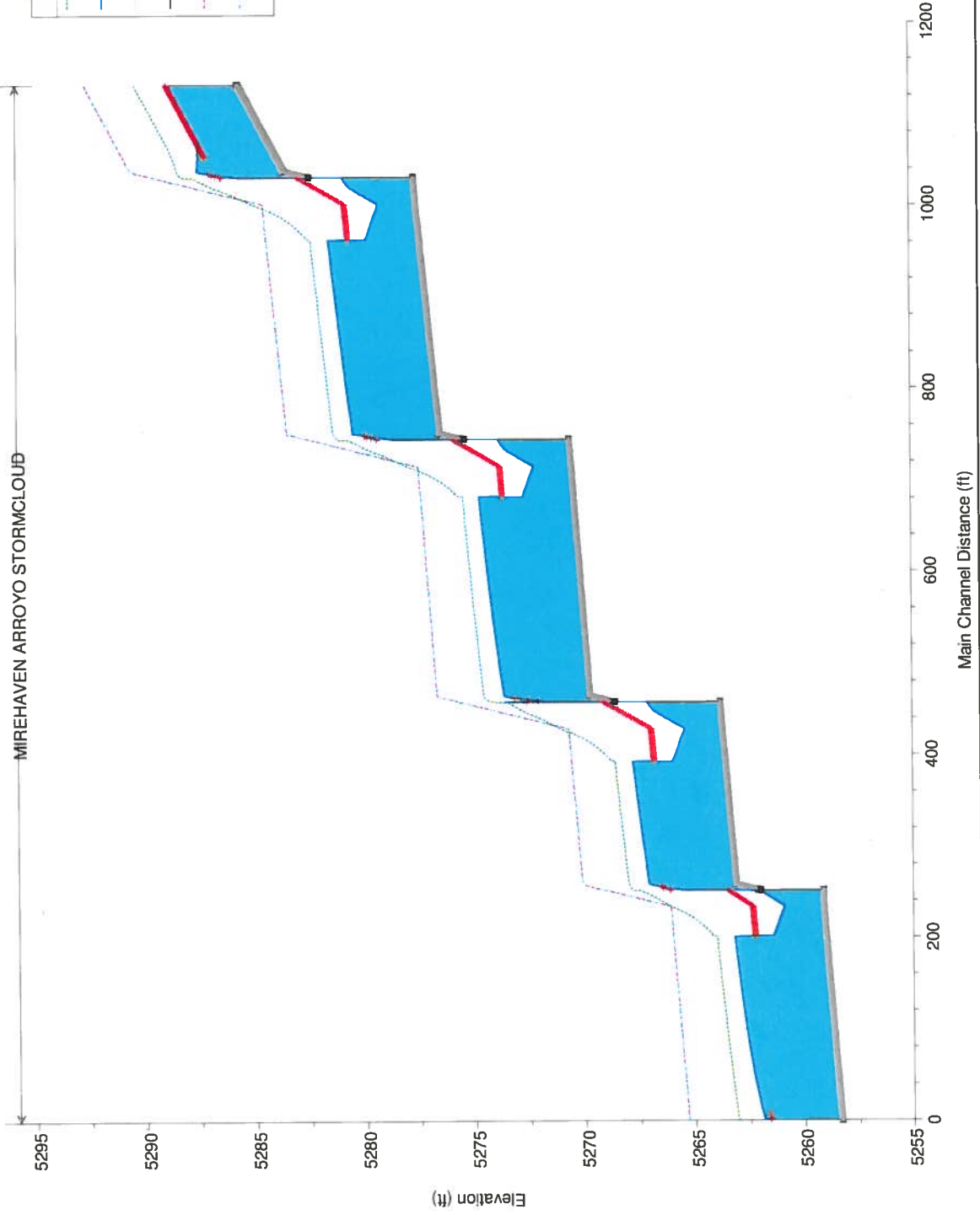
I. MIREHAVEN ARROYO

**HEC-RAS Calculations & Output Files
Plan & Profile Exhibits**

1823 Mirehaven Arroyo REV Plan: Plan 01 3/15/2012

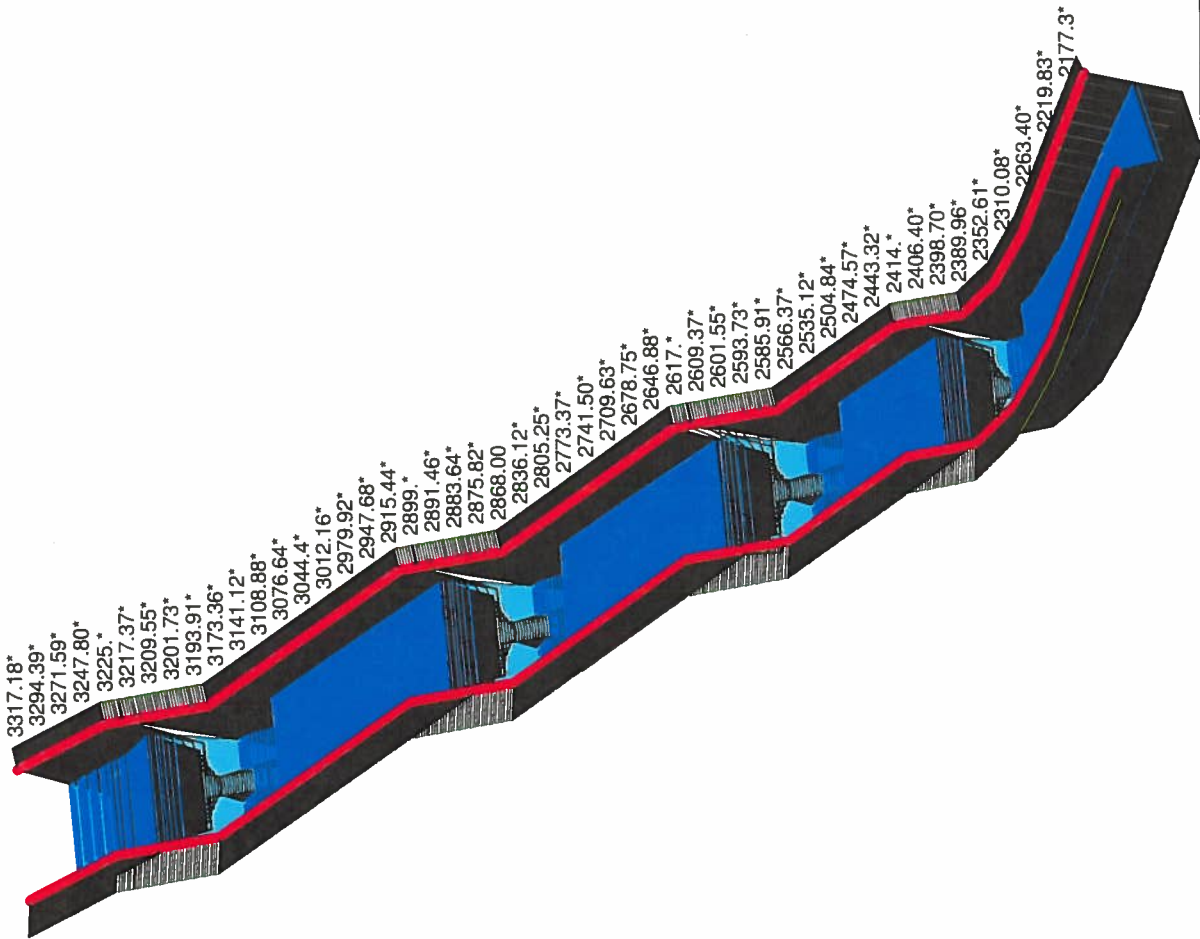
MIREHAVEN ARROYO STORMCLOUD

Legend	
EG PF 1	
WS PF 1	
Crit PF 1	
Ground	
LOB	
ROB	



1823 Mirehaven Arroyo REV Plan: Plan 01 3/19/2012

Legend	
	WS PF 1
	Ground
	Bank Sta
	Ground



HEC-RAS - SUMMARY OUTPUT

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3318.18	PF 1	1495.00	5285.68	5288.94	2.87	5288.94	5290.38	0.009678	9.65	154.97	54.09	1.00
STORMCLOUD	3226.00	PF 1	1495.00	5283.59	5287.58	3.43	5283.59	5288.48	0.004820	7.65	195.40	57.00	0.73
STORMCLOUD	3220.00	PF 1	1495.00	5282.59	5285.78	2.21	5282.59	5286.47	0.023479	12.59	118.72	53.82	1.49
STORMCLOUD	3219.34	PF 1	1495.00	5282.48	5285.75	2.20	5282.48	5286.46	0.023667	12.61	118.58	53.87	1.50
STORMCLOUD	3219.33	PF 1	1495.00	5277.68	5280.97	2.21	5277.68	5282.98	0.072404	20.94	71.38	32.31	2.48
STORMCLOUD	3190.00	PF 1	1495.00	5277.59	5279.33	1.62	5280.85	5280.85	0.081301	19.24	77.70	48.04	2.67
STORMCLOUD	2904.00	PF 1	1495.00	5276.50	5280.48	3.43	5281.39	5281.39	0.004824	7.65	195.35	57.00	0.73
STORMCLOUD	2898	PF 1	1495.00	5275.50	5278.68	2.20	5279.38	5281.16	0.023771	12.64	118.25	53.79	1.50
STORMCLOUD	2897.34	PF 1	1495.00	5275.39	5278.65	2.19	5279.37	5281.14	0.023946	12.65	118.14	53.84	1.51
STORMCLOUD	2897.33	PF 1	1495.00	5270.59	5273.88	2.21	5275.90	5280.71	0.072627	20.97	71.30	32.29	2.49
STORMCLOUD	2888.00	PF 1	1495.00	5270.50	5272.25	1.62	5273.76	5277.99	0.081148	19.23	77.75	48.04	2.66
STORMCLOUD	2618.00	PF 1	1495.00	5269.70	5273.64	3.40	5274.58	5274.58	0.005005	7.75	192.96	56.83	0.74
STORMCLOUD	2612	PF 1	1495.00	5268.70	5273.58	3.96	5272.06	5274.07	0.002277	5.58	268.04	67.65	0.49
STORMCLOUD	2611.34	PF 1	1495.00	5268.59	5272.56	2.78	5272.56	5273.97	0.009962	9.52	156.97	56.51	1.01
STORMCLOUD	2611.33	PF 1	1495.00	5263.80	5267.18	2.26	5269.10	5273.48	0.065211	20.15	74.21	32.89	2.36
STORMCLOUD	2582.00	PF 1	1495.00	5263.70	5265.47	1.64	5266.96	5271.05	0.077713	18.97	78.83	48.13	2.61
STORMCLOUD	2415	PF 1	1495.00	5263.10	5267.09	3.43	5268.00	5268.00	0.004786	7.63	195.88	57.03	0.73
STORMCLOUD	2409	PF 1	1495.00	5262.10	5265.53	2.37	5266.13	5267.80	0.019597	12.07	123.86	52.23	1.38
STORMCLOUD	2408.34	PF 1	1495.00	5261.99	5265.48	2.34	5266.09	5267.78	0.020348	12.19	122.69	52.36	1.40
STORMCLOUD	2408.33	PF 1	1495.00	5259.10	5262.05	1.79	5263.50	5267.47	0.071349	18.68	80.02	44.75	2.46
STORMCLOUD	2391	PF 1	1495.00	5259.10	5260.93	1.69	5262.36	5266.10	0.068906	18.25	81.91	48.39	2.47
STORMCLOUD	2153.44	PF 1	1495.00	5258.32	5261.58	2.87	5261.58	5263.02	0.009663	9.64	155.05	54.10	1.00

REC-642-214454 OUT 101

HEC RAS-DETAILED OUTPUT

HEC-RAS Plant: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3318.18	PF 1	1495.00	5285.68	5288.94	2.87	5288.94	5290.38	0.009678	9.65	154.97	54.09	1.00
STORMCLOUD	3317.18*	PF 1	1495.00	5285.66	5288.84	2.80	5288.91	5290.37	0.010571	9.93	150.52	53.76	1.05
STORMCLOUD	3316.19*	PF 1	1495.00	5285.64	5288.83	2.81	5288.90	5290.35	0.010455	9.90	151.07	53.80	1.04
STORMCLOUD	3315.20*	PF 1	1495.00	5285.61	5288.83	2.84	5288.87	5290.31	0.010020	9.76	153.20	53.96	1.02
STORMCLOUD	3314.21*	PF 1	1495.00	5285.59	5288.82	2.85	5288.84	5290.29	0.009917	9.73	153.73	54.00	1.02
STORMCLOUD	3313.22*	PF 1	1495.00	5285.57	5288.81	2.85	5288.83	5290.27	0.009809	9.69	154.28	54.04	1.01
STORMCLOUD	3312.23*	PF 1	1495.00	5285.55	5288.81	2.86	5288.81	5290.25	0.009703	9.66	154.83	54.08	1.01
STORMCLOUD	3311.24*	PF 1	1495.00	5285.52	5288.63	2.75	5288.77	5290.24	0.011325	10.16	147.14	53.51	1.08
STORMCLOUD	3310.25*	PF 1	1495.00	5285.50	5288.62	2.76	5288.76	5290.21	0.011203	10.12	147.66	53.55	1.07
STORMCLOUD	3309.25*	PF 1	1495.00	5285.48	5288.61	2.76	5288.74	5290.19	0.011096	10.09	148.13	53.58	1.07
STORMCLOUD	3308.26*	PF 1	1495.00	5285.46	5288.60	2.77	5288.71	5290.17	0.010989	10.06	148.60	53.62	1.06
STORMCLOUD	3307.27*	PF 1	1495.00	5285.43	5288.62	2.81	5288.69	5290.14	0.010449	9.89	151.09	53.80	1.04
STORMCLOUD	3306.28*	PF 1	1495.00	5285.41	5288.61	2.82	5288.67	5290.12	0.010345	9.86	151.59	53.84	1.04
STORMCLOUD	3305.29*	PF 1	1495.00	5285.39	5288.60	2.82	5288.64	5290.10	0.010237	9.83	152.12	53.88	1.03
STORMCLOUD	3304.30*	PF 1	1495.00	5285.37	5288.58	2.83	5288.63	5290.07	0.010131	9.79	152.65	53.92	1.03
STORMCLOUD	3303.31*	PF 1	1495.00	5285.34	5288.63	2.89	5288.60	5290.04	0.009332	9.53	156.84	54.23	0.99
STORMCLOUD	3302.32*	PF 1	1495.00	5285.32	5288.59	2.88	5288.57	5290.02	0.009535	9.60	155.73	54.15	1.00
STORMCLOUD	3301.33*	PF 1	1495.00	5285.30	5288.58	2.89	5288.56	5290.00	0.009380	9.55	156.58	54.21	0.99
STORMCLOUD	3300.33*	PF 1	1495.00	5285.28	5288.54	2.87	5288.54	5289.98	0.009628	9.63	155.23	54.11	1.00
STORMCLOUD	3299.34*	PF 1	1495.00	5285.25	5288.37	2.75	5288.51	5289.96	0.011288	10.15	147.29	53.52	1.08
STORMCLOUD	3298.35*	PF 1	1495.00	5285.23	5288.35	2.76	5288.49	5289.94	0.01167	10.11	147.82	53.56	1.07
STORMCLOUD	3297.36*	PF 1	1495.00	5285.21	5288.34	2.77	5288.46	5289.92	0.011060	10.08	148.29	53.59	1.07
STORMCLOUD	3296.37*	PF 1	1495.00	5285.19	5288.33	2.77	5288.45	5289.90	0.010954	10.05	148.76	53.63	1.06
STORMCLOUD	3295.38*	PF 1	1495.00	5285.16	5288.35	2.81	5288.42	5289.87	0.010422	9.89	151.23	53.81	1.04
STORMCLOUD	3294.39*	PF 1	1495.00	5285.14	5288.34	2.82	5288.39	5289.85	0.010318	9.85	151.72	53.85	1.03
STORMCLOUD	3293.4*	PF 1	1495.00	5285.12	5288.33	2.83	5288.38	5289.82	0.010210	9.82	152.25	53.89	1.03
STORMCLOUD	3292.41*	PF 1	1495.00	5285.10	5288.32	2.83	5288.36	5289.80	0.010104	9.79	152.78	53.93	1.02
STORMCLOUD	3291.41*	PF 1	1495.00	5285.07	5288.36	2.89	5288.32	5289.77	0.009332	9.53	156.84	54.23	0.99
STORMCLOUD	3290.42*	PF 1	1495.00	5285.05	5288.32	2.88	5288.30	5289.75	0.009535	9.60	155.73	54.15	1.00
STORMCLOUD	3289.43*	PF 1	1495.00	5285.03	5288.32	2.89	5288.29	5289.73	0.009380	9.55	156.58	54.21	0.99
STORMCLOUD	3288.44*	PF 1	1495.00	5285.01	5288.27	2.87	5288.27	5289.71	0.009628	9.63	155.23	54.11	1.00
STORMCLOUD	3287.45*	PF 1	1495.00	5284.98	5288.10	2.75	5288.24	5289.69	0.011264	10.14	147.40	53.53	1.08
STORMCLOUD	3286.46*	PF 1	1495.00	5284.96	5288.09	2.76	5288.21	5289.67	0.011143	10.11	147.92	53.57	1.07
STORMCLOUD	3285.47*	PF 1	1495.00	5284.94	5288.08	2.77	5288.20	5289.65	0.011036	10.07	148.39	53.60	1.07
STORMCLOUD	3284.48*	PF 1	1495.00	5284.92	5288.06	2.78	5288.18	5289.63	0.010925	10.04	148.89	53.64	1.06
STORMCLOUD	3283.48*	PF 1	1495.00	5284.89	5288.08	2.81	5288.14	5289.60	0.010400	9.88	151.33	53.82	1.04
STORMCLOUD	3282.49*	PF 1	1495.00	5284.87	5288.07	2.82	5288.13	5289.58	0.010296	9.85	151.83	53.86	1.03
STORMCLOUD	3281.50*	PF 1	1495.00	5284.85	5288.06	2.83	5288.11	5289.55	0.010189	9.81	152.36	53.90	1.03
STORMCLOUD	3280.51*	PF 1	1495.00	5284.83	5288.05	2.83	5288.08	5289.53	0.010083	9.78	152.88	53.94	1.02
STORMCLOUD	3279.52*	PF 1	1495.00	5284.80	5288.06	2.87	5288.06	5289.50	0.009673	9.65	154.99	54.09	1.00
STORMCLOUD	3278.53*	PF 1	1495.00	5284.78	5287.96	2.80	5288.04	5289.49	0.010543	9.92	150.65	53.77	1.04
STORMCLOUD	3277.54*	PF 1	1495.00	5284.76	5287.95	2.81	5288.01	5289.47	0.010427	9.89	151.20	53.81	1.04
STORMCLOUD	3276.55*	PF 1	1495.00	5284.74	5287.94	2.82	5288.00	5289.45	0.010323	9.86	151.70	53.85	1.03

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3275.55*	PF 1	1495.00	5284.71	5287.95	2.85	5287.97	5289.41	0.009896	9.72	153.83	54.01	1.01
STORMCLOUD	3274.56*	PF 1	1495.00	5284.69	5287.94	2.86	5287.94	5289.39	0.009789	9.68	154.39	54.05	1.01
STORMCLOUD	3273.57*	PF 1	1495.00	5284.67	5287.93	2.86	5287.93	5289.37	0.009683	9.65	154.94	54.09	1.00
STORMCLOUD	3272.58*	PF 1	1495.00	5284.65	5287.83	2.80	5287.91	5289.36	0.010571	9.93	150.52	53.76	1.05
STORMCLOUD	3271.59*	PF 1	1495.00	5284.62	5287.83	2.83	5287.87	5289.32	0.010146	9.80	152.57	53.91	1.03
STORMCLOUD	3270.60*	PF 1	1495.00	5284.60	5287.82	2.84	5287.86	5289.30	0.010041	9.77	153.09	53.95	1.02
STORMCLOUD	3269.61*	PF 1	1495.00	5284.58	5287.81	2.85	5287.84	5289.28	0.009932	9.73	153.65	53.99	1.02
STORMCLOUD	3268.63*	PF 1	1495.00	5284.56	5287.80	2.85	5287.81	5289.26	0.009824	9.70	154.20	54.03	1.01
STORMCLOUD	3267.63*	PF 1	1495.00	5284.53	5287.64	2.75	5287.79	5289.25	0.011325	10.16	147.14	53.51	1.08
STORMCLOUD	3266.63*	PF 1	1495.00	5284.51	5287.63	2.76	5287.77	5289.22	0.011203	10.12	147.66	53.55	1.07
STORMCLOUD	3265.64*	PF 1	1495.00	5284.49	5287.62	2.76	5287.74	5289.20	0.011102	10.09	148.11	53.58	1.07
STORMCLOUD	3264.65*	PF 1	1495.00	5284.47	5287.61	2.77	5287.73	5289.18	0.010995	10.06	148.58	53.61	1.07
STORMCLOUD	3263.66*	PF 1	1495.00	5284.44	5287.63	2.81	5287.70	5289.15	0.010449	9.89	151.09	53.80	1.04
STORMCLOUD	3262.67*	PF 1	1495.00	5284.42	5287.62	2.82	5287.67	5289.13	0.010345	9.86	151.59	53.84	1.04
STORMCLOUD	3261.68*	PF 1	1495.00	5284.40	5287.60	2.82	5287.66	5289.10	0.010237	9.83	152.12	53.88	1.03
STORMCLOUD	3260.69*	PF 1	1495.00	5284.38	5287.59	2.83	5287.64	5289.08	0.010131	9.79	152.65	53.92	1.03
STORMCLOUD	3259.7*	PF 1	1495.00	5284.35	5287.64	2.89	5287.60	5289.05	0.009628	9.55	156.58	54.21	0.99
STORMCLOUD	3258.70*	PF 1	1495.00	5284.33	5287.59	2.87	5287.59	5289.03	0.009809	9.63	155.23	54.11	1.00
STORMCLOUD	3257.71*	PF 1	1495.00	5284.31	5287.49	2.80	5287.57	5289.02	0.010532	9.92	150.70	53.77	1.04
STORMCLOUD	3256.72*	PF 1	1495.00	5284.29	5287.48	2.81	5287.54	5289.00	0.010416	9.88	151.25	53.81	1.04
STORMCLOUD	3255.73*	PF 1	1495.00	5284.26	5287.50	2.85	5287.52	5288.96	0.009906	9.72	153.78	54.00	1.02
STORMCLOUD	3254.74*	PF 1	1495.00	5284.24	5287.49	2.85	5287.50	5288.94	0.009809	9.69	154.28	54.04	1.01
STORMCLOUD	3253.75*	PF 1	1495.00	5284.22	5287.39	2.80	5287.47	5288.93	0.010605	9.94	150.36	53.75	1.05
STORMCLOUD	3252.76*	PF 1	1495.00	5284.20	5287.38	2.81	5287.46	5288.91	0.010493	9.91	150.88	53.79	1.04
STORMCLOUD	3251.77*	PF 1	1495.00	5284.17	5287.52	2.94	5287.43	5288.88	0.008751	9.33	160.21	54.48	0.96
STORMCLOUD	3250.78*	PF 1	1495.00	5284.15	5287.52	2.95	5287.39	5288.84	0.008455	9.28	161.15	54.54	0.95
STORMCLOUD	3249.78*	PF 1	1495.00	5284.13	5287.52	2.97	5287.36	5288.82	0.008599	9.23	162.05	54.61	0.94
STORMCLOUD	3248.79*	PF 1	1495.00	5284.11	5287.51	2.98	5287.36	5288.80	0.008314	9.17	162.96	54.68	0.94
STORMCLOUD	3247.80*	PF 1	1495.00	5284.08	5287.53	3.01	5287.34	5288.80	0.007970	9.05	165.26	54.85	0.92
STORMCLOUD	3246.81*	PF 1	1495.00	5284.06	5287.52	3.03	5287.32	5288.78	0.007835	9.00	166.20	54.91	0.91
STORMCLOUD	3245.82*	PF 1	1495.00	5284.04	5287.52	3.04	5287.29	5288.76	0.007703	8.94	167.14	54.98	0.90
STORMCLOUD	3244.83*	PF 1	1495.00	5284.02	5287.52	3.05	5287.28	5288.75	0.007570	8.89	168.10	55.05	0.90
STORMCLOUD	3243.84*	PF 1	1495.00	5283.99	5287.52	3.09	5287.25	5288.73	0.007272	8.78	170.36	55.22	0.88
STORMCLOUD	3242.85*	PF 1	1495.00	5283.97	5287.53	3.10	5287.22	5288.71	0.007145	8.72	171.36	55.29	0.87
STORMCLOUD	3241.85*	PF 1	1495.00	5283.95	5287.53	3.11	5287.21	5288.69	0.007021	8.67	172.36	55.36	0.87
STORMCLOUD	3240.86*	PF 1	1495.00	5283.93	5287.52	3.13	5287.19	5288.68	0.006900	8.62	173.36	55.43	0.86
STORMCLOUD	3239.87*	PF 1	1495.00	5283.90	5287.54	3.16		5288.66	0.006631	8.51	175.67	55.60	0.84
STORMCLOUD	3238.88*	PF 1	1495.00	5283.88	5287.53	3.17		5288.65	0.006519	8.46	176.67	55.67	0.84
STORMCLOUD	3237.89*	PF 1	1495.00	5283.86	5287.53	3.19		5288.63	0.006391	8.41	177.84	55.76	0.83
STORMCLOUD	3236.90*	PF 1	1495.00	5283.84	5287.54	3.21		5288.62	0.006263	8.35	179.04	55.84	0.82
STORMCLOUD	3235.91*	PF 1	1495.00	5283.81	5287.54	3.23		5288.60	0.006053	8.26	181.09	55.99	0.81
STORMCLOUD	3234.92*	PF 1	1495.00	5283.79	5287.54	3.25		5288.59	0.005934	8.20	182.29	56.07	0.80
STORMCLOUD	3233.92*	PF 1	1495.00	5283.77	5287.55	3.27		5288.58	0.005818	8.15	183.50	56.16	0.79

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3232.93*	PF 1	1495.00	5283.75	5287.55	3.28		5288.56	0.005707	8.10	184.68	56.24	0.79
STORMCLOUD	3231.94*	PF 1	1495.00	5283.72	5287.56	3.32		5288.55	0.005496	7.99	187.02	56.41	0.77
STORMCLOUD	3230.95*	PF 1	1495.00	5283.70	5287.56	3.33		5288.54	0.005393	7.94	188.20	56.49	0.77
STORMCLOUD	3229.96*	PF 1	1495.00	5283.68	5287.56	3.35		5288.53	0.005290	7.89	189.42	56.58	0.76
STORMCLOUD	3228.97*	PF 1	1495.00	5283.66	5287.56	3.36		5288.52	0.005190	7.84	190.63	56.67	0.75
STORMCLOUD	3227.98*	PF 1	1495.00	5283.63	5287.57	3.40		5288.50	0.005005	7.75	192.96	56.83	0.74
STORMCLOUD	3226.99*	PF 1	1495.00	5283.61	5287.57	3.41		5288.49	0.004914	7.70	194.15	56.91	0.73
STORMCLOUD	3226.00	PF 1	1495.00	5283.59	5287.58	3.43		5288.48	0.004820	7.65	195.40	57.00	0.73
STORMCLOUD	3225.*	PF 1	1495.00	5283.42	5287.40	3.17		5288.47	0.006208	8.28	180.46	56.96	0.82
STORMCLOUD	3224.*	PF 1	1495.00	5283.26	5287.01	2.79	5287.01	5288.42	0.009720	9.55	156.49	56.08	1.01
STORMCLOUD	3223.*	PF 1	1495.00	5283.09	5286.83	2.65	5286.98	5288.40	0.011570	10.07	148.51	56.02	1.09
STORMCLOUD	3222.*	PF 1	1495.00	5282.92	5286.53	2.48	5286.89	5288.36	0.014713	10.85	137.81	55.51	1.21
STORMCLOUD	3221.*	PF 1	1495.00	5282.76	5286.18	2.33	5286.73	5288.31	0.018666	11.70	127.82	54.77	1.35
STORMCLOUD	3220.00	PF 1	1495.00	5282.59	5285.78	2.21	5286.47	5288.24	0.023479	12.59	118.72	53.82	1.49
STORMCLOUD	3219.34	PF 1	1495.00	5282.48	5285.75	2.20	5286.46	5288.22	0.023667	12.61	118.58	53.87	1.50
STORMCLOUD	3219.33	PF 1	1495.00	5277.68	5280.97	2.21	5282.98	5287.78	0.072404	20.94	71.38	32.31	2.48
STORMCLOUD	3218.35*	PF 1	1495.00	5277.68	5280.95	2.19	5282.92	5287.69	0.072127	20.83	71.76	32.78	2.48
STORMCLOUD	3217.37*	PF 1	1495.00	5277.67	5280.93	2.17	5282.84	5287.61	0.072085	20.75	72.05	33.21	2.48
STORMCLOUD	3216.39*	PF 1	1495.00	5277.67	5280.90	2.15	5282.77	5287.53	0.071973	20.65	72.40	33.72	2.48
STORMCLOUD	3215.41*	PF 1	1495.00	5277.67	5280.88	2.12	5282.70	5287.44	0.071987	20.56	72.73	34.25	2.49
STORMCLOUD	3214.44*	PF 1	1495.00	5277.67	5280.86	2.10	5282.64	5287.36	0.071985	20.46	73.07	34.79	2.49
STORMCLOUD	3213.46*	PF 1	1495.00	5277.66	5280.82	2.07	5282.55	5287.28	0.072367	20.40	73.29	35.34	2.50
STORMCLOUD	3212.48*	PF 1	1495.00	5277.66	5280.79	2.05	5282.49	5287.20	0.072580	20.31	73.60	35.93	2.50
STORMCLOUD	3211.50*	PF 1	1495.00	5277.66	5280.76	2.02	5282.41	5287.12	0.073089	20.24	73.85	36.58	2.51
STORMCLOUD	3210.53*	PF 1	1495.00	5277.65	5280.72	1.99	5282.34	5287.05	0.073907	20.20	74.00	37.22	2.53
STORMCLOUD	3209.55*	PF 1	1495.00	5277.65	5280.68	1.96	5282.27	5286.98	0.074569	20.14	74.24	37.92	2.54
STORMCLOUD	3208.57*	PF 1	1495.00	5277.65	5280.65	1.93	5282.20	5286.88	0.075106	20.04	74.59	38.74	2.55
STORMCLOUD	3207.59*	PF 1	1495.00	5277.64	5280.59	1.52	5282.13	5286.78	0.100190	19.96	74.90	49.42	2.86
STORMCLOUD	3206.62*	PF 1	1495.00	5277.64	5280.53	1.52	5282.06	5286.67	0.098409	19.88	75.19	49.37	2.84
STORMCLOUD	3205.64*	PF 1	1495.00	5277.64	5280.46	1.53	5281.99	5286.56	0.098833	19.82	75.43	49.32	2.82
STORMCLOUD	3204.66*	PF 1	1495.00	5277.64	5280.39	1.54	5281.92	5286.45	0.095276	19.76	75.68	49.26	2.81
STORMCLOUD	3203.68*	PF 1	1495.00	5277.63	5280.32	1.54	5281.84	5286.35	0.094076	19.71	75.86	49.21	2.80
STORMCLOUD	3202.71*	PF 1	1495.00	5277.63	5280.25	1.55	5281.77	5286.25	0.092763	19.66	76.06	49.15	2.78
STORMCLOUD	3201.73*	PF 1	1495.00	5277.63	5280.19	1.55	5281.70	5286.15	0.091427	19.60	76.28	49.09	2.77
STORMCLOUD	3200.75*	PF 1	1495.00	5277.62	5280.11	1.56	5281.63	5286.06	0.090565	19.57	76.39	49.02	2.76
STORMCLOUD	3199.77*	PF 1	1495.00	5277.62	5280.04	1.56	5281.56	5285.96	0.089411	19.53	76.57	48.95	2.75
STORMCLOUD	3198.79*	PF 1	1495.00	5277.62	5279.98	1.57	5281.49	5285.87	0.088222	19.47	76.77	48.88	2.74
STORMCLOUD	3197.82*	PF 1	1495.00	5277.61	5279.90	1.57	5281.42	5285.78	0.087519	19.46	76.84	48.80	2.73
STORMCLOUD	3196.84*	PF 1	1495.00	5277.61	5279.83	1.58	5281.34	5285.69	0.086567	19.42	76.98	48.72	2.72
STORMCLOUD	3195.86*	PF 1	1495.00	5277.61	5279.77	1.59	5281.27	5285.59	0.085503	19.37	77.17	48.64	2.71
STORMCLOUD	3194.88*	PF 1	1495.00	5277.60	5279.69	1.59	5281.20	5285.51	0.084946	19.36	77.21	48.55	2.70
STORMCLOUD	3193.91*	PF 1	1495.00	5277.60	5279.62	1.60	5281.13	5285.42	0.083991	19.32	77.37	48.47	2.70
STORMCLOUD	3192.93*	PF 1	1495.00	5277.60	5279.55	1.60	5281.07	5285.33	0.083229	19.30	77.47	48.36	2.69

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Chn El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3191.95*	PF 1	1495.00	5277.60	5279.48	1.61	5280.99	5285.25	0.082466	19.27	77.57	48.25	2.68
STORMCLOUD	3190.97*	PF 1	1495.00	5277.59	5279.41	1.61	5280.92	5285.17	0.081991	19.26	77.61	48.16	2.67
STORMCLOUD	3190.00	PF 1	1495.00	5277.59	5279.33	1.62	5280.85	5285.08	0.081301	19.24	77.70	48.04	2.67
STORMCLOUD	3188.96*	PF 1	1495.00	5277.59	5279.35	1.64	5280.85	5284.96	0.078150	19.00	78.68	48.12	2.62
STORMCLOUD	3187.92*	PF 1	1495.00	5277.58	5279.36	1.65	5280.84	5284.84	0.075433	18.79	79.58	48.19	2.58
STORMCLOUD	3186.88*	PF 1	1495.00	5277.58	5279.38	1.67	5280.84	5284.73	0.072571	18.56	80.57	48.27	2.53
STORMCLOUD	3185.84*	PF 1	1495.00	5277.57	5279.39	1.68	5280.83	5284.62	0.070164	18.36	81.44	48.35	2.49
STORMCLOUD	3184.8*	PF 1	1495.00	5277.57	5279.41	1.70	5280.83	5284.52	0.067495	18.13	82.46	48.43	2.45
STORMCLOUD	3183.76*	PF 1	1495.00	5277.57	5279.43	1.72	5280.83	5284.42	0.064955	17.91	83.47	48.52	2.41
STORMCLOUD	3182.72*	PF 1	1495.00	5277.56	5279.44	1.74	5280.82	5284.32	0.062868	17.72	84.35	48.59	2.37
STORMCLOUD	3181.68*	PF 1	1495.00	5277.56	5279.46	1.75	5280.82	5284.22	0.060497	17.51	85.40	48.67	2.33
STORMCLOUD	3180.64*	PF 1	1495.00	5277.55	5279.47	1.77	5280.81	5284.13	0.058591	17.33	86.28	48.75	2.30
STORMCLOUD	3179.6*	PF 1	1495.00	5277.55	5279.49	1.79	5280.81	5284.04	0.056377	17.12	87.35	48.83	2.26
STORMCLOUD	3178.56*	PF 1	1495.00	5277.55	5279.51	1.80	5280.81	5283.97	0.054636	16.94	88.23	48.91	2.22
STORMCLOUD	3176.48*	PF 1	1495.00	5277.54	5279.52	1.82	5280.80	5283.90	0.053231	16.80	88.97	48.97	2.20
STORMCLOUD	3175.44*	PF 1	1495.00	5277.54	5279.54	1.84	5280.80	5283.82	0.051230	16.60	90.07	49.06	2.16
STORMCLOUD	3174.4*	PF 1	1495.00	5277.53	5279.55	1.85	5280.79	5283.74	0.049732	16.44	90.94	49.13	2.13
STORMCLOUD	3173.36*	PF 1	1495.00	5277.53	5279.57	1.87	5280.79	5283.68	0.048210	16.28	91.85	49.20	2.10
STORMCLOUD	3172.32*	PF 1	1495.00	5277.52	5279.58	1.88	5280.79	5283.62	0.046749	16.12	92.76	49.27	2.07
STORMCLOUD	3171.28*	PF 1	1495.00	5277.52	5279.59	1.89	5280.78	5283.56	0.045835	15.99	93.48	49.33	2.05
STORMCLOUD	3170.24*	PF 1	1495.00	5277.52	5279.61	1.91	5280.78	5283.50	0.044237	15.83	94.42	49.41	2.02
STORMCLOUD	3169.2*	PF 1	1495.00	5277.51	5279.61	1.92	5280.77	5283.45	0.043200	15.71	95.15	49.47	2.00
STORMCLOUD	3168.16*	PF 1	1495.00	5277.51	5279.63	1.94	5280.77	5283.39	0.041897	15.56	96.09	49.54	1.97
STORMCLOUD	3167.12*	PF 1	1495.00	5277.51	5279.65	1.96	5280.77	5283.33	0.040613	15.40	97.06	49.62	1.94
STORMCLOUD	3166.08*	PF 1	1495.00	5277.50	5279.66	1.97	5280.76	5283.28	0.039653	15.28	97.81	49.68	1.92
STORMCLOUD	3165.04*	PF 1	1495.00	5277.49	5279.68	1.99	5280.76	5283.23	0.038427	15.13	98.81	49.76	1.89
STORMCLOUD	3164.*	PF 1	1495.00	5277.49	5279.68	2.00	5280.75	5283.18	0.037533	15.02	99.56	49.82	1.87
STORMCLOUD	3162.96*	PF 1	1495.00	5277.49	5279.70	2.02	5280.75	5283.13	0.036390	14.87	100.56	49.90	1.85
STORMCLOUD	3161.92*	PF 1	1495.00	5277.49	5279.72	2.03	5280.75	5283.08	0.035240	14.71	101.61	49.99	1.82
STORMCLOUD	3160.88*	PF 1	1495.00	5277.48	5279.73	2.04	5280.74	5283.04	0.034465	14.61	102.34	50.05	1.80
STORMCLOUD	3159.84*	PF 1	1495.00	5277.48	5279.75	2.06	5280.74	5282.99	0.033367	14.46	103.42	50.13	1.77
STORMCLOUD	3158.8*	PF 1	1495.00	5277.47	5279.77	2.08	5280.74	5282.95	0.032291	14.30	104.52	50.22	1.75
STORMCLOUD	3157.76*	PF 1	1495.00	5277.47	5279.78	2.09	5280.73	5282.91	0.031575	14.20	105.28	50.28	1.73
STORMCLOUD	3156.72*	PF 1	1495.00	5277.47	5279.80	2.11	5280.73	5282.86	0.030572	14.05	106.38	50.37	1.70
STORMCLOUD	3155.68*	PF 1	1495.00	5277.46	5279.80	2.12	5280.72	5282.83	0.029905	13.95	107.15	50.43	1.69
STORMCLOUD	3154.64*	PF 1	1495.00	5277.46	5279.85	2.14	5280.72	5282.78	0.028928	13.80	108.31	50.52	1.66
STORMCLOUD	3153.6*	PF 1	1495.00	5277.45	5279.86	2.16	5280.72	5282.74	0.027954	13.65	109.52	50.62	1.64
STORMCLOUD	3152.56*	PF 1	1495.00	5277.45	5279.88	2.18	5280.71	5282.71	0.027321	13.55	110.33	50.68	1.62
STORMCLOUD	3151.52*	PF 1	1495.00	5277.45	5279.88	2.20	5280.71	5282.67	0.026379	13.40	111.59	50.78	1.59
STORMCLOUD	3150.48*	PF 1	1495.00	5277.44	5279.88	2.20	5280.70	5282.64	0.026057	13.34	112.04	50.82	1.58
STORMCLOUD	3149.44*	PF 1	1495.00	5277.44	5281.68	3.62	5280.70	5282.46	0.003998	7.12	209.84	58.01	0.66
STORMCLOUD	3148.4*	PF 1	1495.00	5277.44	5281.67	3.61		5282.46	0.003915	7.14	209.53	57.98	0.66
STORMCLOUD			1495.00	5277.43	5281.67	3.62		5282.46	0.003892	7.12	209.95	58.01	0.66

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3147.36*	PF 1	1495.00	5277.43	5281.66	3.61		5282.45	0.003909	7.13	209.64	57.99	0.66
STORMCLOUD	3146.32*	PF 1	1495.00	5277.42	5281.66	3.62		5282.45	0.003884	7.12	210.09	58.02	0.66
STORMCLOUD	3145.28*	PF 1	1495.00	5277.42	5281.66	3.62		5282.44	0.003903	7.13	209.75	58.00	0.66
STORMCLOUD	3144.24*	PF 1	1495.00	5277.42	5281.65	3.61		5282.44	0.003922	7.14	209.41	57.98	0.66
STORMCLOUD	3143.2*	PF 1	1495.00	5277.41	5281.65	3.62		5282.44	0.003900	7.13	209.81	58.00	0.66
STORMCLOUD	3142.16*	PF 1	1495.00	5277.41	5281.64	3.61		5282.43	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	3141.12*	PF 1	1495.00	5277.40	5281.64	3.62		5282.43	0.003892	7.12	209.95	58.01	0.66
STORMCLOUD	3140.08*	PF 1	1495.00	5277.40	5281.63	3.61		5282.42	0.003911	7.13	209.61	57.99	0.66
STORMCLOUD	3139.04*	PF 1	1495.00	5277.40	5281.63	3.61		5282.42	0.003930	7.14	209.27	57.97	0.66
STORMCLOUD	3138.*	PF 1	1495.00	5277.39	5281.62	3.62		5282.41	0.003906	7.13	209.70	58.00	0.66
STORMCLOUD	3136.98*	PF 1	1495.00	5277.39	5281.62	3.61		5282.41	0.003925	7.14	209.36	57.97	0.66
STORMCLOUD	3135.92*	PF 1	1495.00	5277.38	5281.62	3.62		5282.40	0.003900	7.13	209.81	58.00	0.66
STORMCLOUD	3134.88*	PF 1	1495.00	5277.38	5281.61	3.61		5282.40	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	3133.84*	PF 1	1495.00	5277.37	5281.60	3.61		5282.40	0.003936	7.15	209.16	57.96	0.66
STORMCLOUD	3132.8*	PF 1	1495.00	5277.37	5281.60	3.61		5282.39	0.003914	7.13	209.55	57.99	0.66
STORMCLOUD	3131.76*	PF 1	1495.00	5277.37	5281.60	3.61		5282.39	0.003931	7.14	209.24	57.96	0.66
STORMCLOUD	3130.72*	PF 1	1495.00	5277.36	5281.59	3.62		5282.38	0.003906	7.13	209.70	58.00	0.66
STORMCLOUD	3129.68*	PF 1	1495.00	5277.36	5281.59	3.61		5282.38	0.003923	7.14	209.38	57.97	0.66
STORMCLOUD	3128.64*	PF 1	1495.00	5277.36	5281.58	3.61		5282.38	0.003941	7.15	209.07	57.95	0.66
STORMCLOUD	3127.6*	PF 1	1495.00	5277.35	5281.58	3.61		5282.37	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	3126.56*	PF 1	1495.00	5277.35	5281.58	3.61		5282.37	0.003934	7.15	209.19	57.96	0.66
STORMCLOUD	3125.52*	PF 1	1495.00	5277.34	5281.57	3.61		5282.36	0.003909	7.13	209.64	57.99	0.66
STORMCLOUD	3124.48*	PF 1	1495.00	5277.34	5281.57	3.61		5282.36	0.003928	7.14	209.30	57.97	0.66
STORMCLOUD	3123.44*	PF 1	1495.00	5277.34	5281.56	3.61		5282.36	0.003947	7.15	208.96	57.94	0.66
STORMCLOUD	3122.4*	PF 1	1495.00	5277.33	5281.56	3.61		5282.35	0.003925	7.14	209.36	57.97	0.66
STORMCLOUD	3121.36*	PF 1	1495.00	5277.33	5281.55	3.61		5282.35	0.003942	7.15	209.04	57.95	0.66
STORMCLOUD	3120.32*	PF 1	1495.00	5277.32	5281.55	3.61		5282.34	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	3119.28*	PF 1	1495.00	5277.32	5281.54	3.61		5282.34	0.003936	7.15	209.16	57.96	0.66
STORMCLOUD	3118.24*	PF 1	1495.00	5277.32	5281.54	3.60		5282.33	0.003955	7.16	208.82	57.94	0.66
STORMCLOUD	3117.2*	PF 1	1495.00	5277.31	5281.54	3.61		5282.33	0.003931	7.14	209.24	57.96	0.66
STORMCLOUD	3116.16*	PF 1	1495.00	5277.31	5281.53	3.61		5282.33	0.003950	7.16	208.90	57.94	0.66
STORMCLOUD	3115.12*	PF 1	1495.00	5277.30	5281.53	3.61		5282.32	0.003925	7.14	209.36	57.97	0.66
STORMCLOUD	3114.08*	PF 1	1495.00	5277.30	5281.52	3.61		5282.32	0.003942	7.15	209.04	57.95	0.66
STORMCLOUD	3113.04*	PF 1	1495.00	5277.30	5281.52	3.60		5282.31	0.003961	7.16	208.70	57.93	0.67
STORMCLOUD	3112.*	PF 1	1495.00	5277.29	5281.51	3.61		5282.31	0.003939	7.15	209.10	57.95	0.66
STORMCLOUD	3110.96*	PF 1	1495.00	5277.29	5281.51	3.60		5282.30	0.003957	7.16	208.79	57.93	0.66
STORMCLOUD	3109.92*	PF 1	1495.00	5277.28	5281.51	3.61		5282.30	0.003931	7.14	209.24	57.96	0.66
STORMCLOUD	3108.88*	PF 1	1495.00	5277.28	5281.51	3.61		5282.30	0.003949	7.16	208.93	57.94	0.66
STORMCLOUD	3107.84*	PF 1	1495.00	5277.28	5281.50	3.61		5282.29	0.003966	7.17	208.62	57.92	0.67
STORMCLOUD	3106.8*	PF 1	1495.00	5277.27	5281.49	3.61		5282.29	0.003942	7.15	209.04	57.95	0.66
STORMCLOUD	3105.76*	PF 1	1495.00	5277.27	5281.49	3.60		5282.28	0.003960	7.16	208.73	57.93	0.66
STORMCLOUD	3104.72*	PF 1	1495.00	5277.26	5281.49	3.61		5282.28	0.003934	7.15	209.19	57.96	0.66
STORMCLOUD	3103.68*	PF 1	1495.00	5277.26	5281.48	3.60		5282.28	0.003953	7.16	208.85	57.94	0.66

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3102.64*	PF 1	1495.00	5277.26	5281.47	3.60		5282.27	0.003973	7.17	208.51	57.91	0.67
STORMCLOUD	3101.6*	PF 1	1495.00	5277.25	5281.47	3.61		5282.27	0.003950	7.16	208.90	57.94	0.66
STORMCLOUD	3100.56*	PF 1	1495.00	5277.25	5281.46	3.60		5282.26	0.003969	7.17	208.56	57.92	0.67
STORMCLOUD	3099.52*	PF 1	1495.00	5277.25	5281.46	3.60		5282.26	0.003990	7.18	208.20	57.89	0.67
STORMCLOUD	3098.48*	PF 1	1495.00	5277.24	5281.46	3.60		5282.25	0.003966	7.17	208.62	57.92	0.67
STORMCLOUD	3097.44*	PF 1	1495.00	5277.24	5281.45	3.60		5282.25	0.003985	7.18	208.28	57.90	0.67
STORMCLOUD	3096.4*	PF 1	1495.00	5277.23	5281.45	3.60		5282.24	0.003960	7.16	208.73	57.93	0.66
STORMCLOUD	3095.36*	PF 1	1495.00	5277.23	5281.44	3.60		5282.24	0.003977	7.17	208.42	57.91	0.67
STORMCLOUD	3094.32*	PF 1	1495.00	5277.23	5281.44	3.59		5282.24	0.003998	7.19	208.05	57.88	0.67
STORMCLOUD	3093.28*	PF 1	1495.00	5277.22	5281.43	3.60		5282.23	0.003976	7.17	208.45	57.91	0.67
STORMCLOUD	3092.24*	PF 1	1495.00	5277.22	5281.43	3.60		5282.23	0.003995	7.18	208.11	57.89	0.67
STORMCLOUD	3091.2*	PF 1	1495.00	5277.21	5281.42	3.60		5282.22	0.003969	7.17	208.56	57.92	0.67
STORMCLOUD	3090.16*	PF 1	1495.00	5277.21	5281.42	3.60		5282.22	0.003990	7.18	208.20	57.89	0.67
STORMCLOUD	3089.12*	PF 1	1495.00	5277.21	5281.41	3.59		5282.22	0.004010	7.19	207.86	57.87	0.67
STORMCLOUD	3088.08*	PF 1	1495.00	5277.20	5281.41	3.60		5282.21	0.003987	7.18	208.25	57.90	0.67
STORMCLOUD	3087.04*	PF 1	1495.00	5277.20	5281.40	3.59		5282.21	0.004006	7.19	207.91	57.87	0.67
STORMCLOUD	3086.*	PF 1	1495.00	5277.19	5281.40	3.60		5282.20	0.003981	7.17	208.37	57.90	0.67
STORMCLOUD	3084.96*	PF 1	1495.00	5277.19	5281.40	3.59		5282.20	0.004002	7.19	208.00	57.88	0.67
STORMCLOUD	3083.92*	PF 1	1495.00	5277.19	5281.39	3.59		5282.19	0.004023	7.20	207.63	57.85	0.67
STORMCLOUD	3082.88*	PF 1	1495.00	5277.18	5281.39	3.59		5282.19	0.003998	7.19	208.05	57.88	0.67
STORMCLOUD	3081.84*	PF 1	1495.00	5277.18	5281.38	3.59		5282.18	0.004018	7.20	207.72	57.86	0.67
STORMCLOUD	3080.8*	PF 1	1495.00	5277.17	5281.38	3.60		5282.18	0.003992	7.18	208.17	57.89	0.67
STORMCLOUD	3079.76*	PF 1	1495.00	5277.17	5281.37	3.59		5282.18	0.004013	7.19	207.80	57.86	0.67
STORMCLOUD	3078.72*	PF 1	1495.00	5277.17	5281.37	3.59		5282.17	0.004034	7.21	207.43	57.84	0.67
STORMCLOUD	3077.68*	PF 1	1495.00	5277.16	5281.36	3.59		5282.17	0.004010	7.19	207.86	57.87	0.67
STORMCLOUD	3076.64*	PF 1	1495.00	5277.15	5281.36	3.59		5282.16	0.004031	7.21	207.49	57.84	0.67
STORMCLOUD	3075.6*	PF 1	1495.00	5277.15	5281.35	3.59		5282.16	0.004005	7.19	207.94	57.87	0.67
STORMCLOUD	3074.56*	PF 1	1495.00	5277.15	5281.35	3.59		5282.15	0.004024	7.20	207.60	57.85	0.67
STORMCLOUD	3073.52*	PF 1	1495.00	5277.15	5281.34	3.58		5282.15	0.004045	7.21	207.23	57.83	0.67
STORMCLOUD	3072.48*	PF 1	1495.00	5277.14	5281.34	3.59		5282.14	0.004023	7.20	207.63	57.85	0.67
STORMCLOUD	3071.44*	PF 1	1495.00	5277.14	5281.33	3.58		5282.14	0.004042	7.21	207.29	57.83	0.67
STORMCLOUD	3070.4*	PF 1	1495.00	5277.13	5281.33	3.59		5282.13	0.004016	7.20	207.74	57.86	0.67
STORMCLOUD	3069.36*	PF 1	1495.00	5277.13	5281.32	3.59		5282.13	0.004037	7.21	207.38	57.83	0.67
STORMCLOUD	3068.32*	PF 1	1495.00	5277.13	5281.32	3.58		5282.13	0.004057	7.22	207.04	57.81	0.67
STORMCLOUD	3067.28*	PF 1	1495.00	5277.12	5281.32	3.59		5282.12	0.004034	7.21	207.43	57.84	0.67
STORMCLOUD	3066.24*	PF 1	1495.00	5277.12	5281.31	3.58		5282.12	0.004054	7.22	207.09	57.82	0.67
STORMCLOUD	3065.2*	PF 1	1495.00	5277.11	5281.31	3.59		5282.11	0.004027	7.20	207.55	57.85	0.67
STORMCLOUD	3064.16*	PF 1	1495.00	5277.11	5281.30	3.58		5282.11	0.004049	7.22	207.18	57.82	0.67
STORMCLOUD	3063.12*	PF 1	1495.00	5277.11	5281.29	3.58		5282.11	0.004070	7.23	206.81	57.80	0.67
STORMCLOUD	3062.08*	PF 1	1495.00	5277.10	5281.29	3.58		5282.10	0.004045	7.21	207.23	57.83	0.67
STORMCLOUD	3061.04*	PF 1	1495.00	5277.10	5281.29	3.58		5282.10	0.004067	7.23	206.87	57.80	0.67
STORMCLOUD	3060.*	PF 1	1495.00	5277.09	5281.28	3.58		5282.09	0.004042	7.21	207.29	57.83	0.67
STORMCLOUD	3058.96*	PF 1	1495.00	5277.09	5281.28	3.58		5282.09	0.004064	7.22	206.92	57.80	0.67

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3057.92*	PF 1	1495.00	5277.09	5281.27	3.57		5282.08	0.004085	7.24	206.56	57.78	0.67
STORMCLOUD	3056.88*	PF 1	1495.00	5277.08	5281.27	3.58		5282.08	0.004060	7.22	206.98	57.81	0.67
STORMCLOUD	3055.84*	PF 1	1495.00	5277.08	5281.26	3.58		5282.07	0.004082	7.24	206.61	57.78	0.67
STORMCLOUD	3054.8*	PF 1	1495.00	5277.07	5281.26	3.58		5282.07	0.004057	7.22	207.04	57.81	0.67
STORMCLOUD	3053.76*	PF 1	1495.00	5277.07	5281.25	3.58		5282.06	0.004078	7.23	206.67	57.79	0.67
STORMCLOUD	3052.72*	PF 1	1495.00	5277.07	5281.25	3.57		5282.06	0.004100	7.25	206.30	57.76	0.68
STORMCLOUD	3051.68*	PF 1	1495.00	5277.06	5281.24	3.58		5282.06	0.004077	7.23	206.70	57.79	0.67
STORMCLOUD	3050.64*	PF 1	1495.00	5277.06	5281.24	3.57		5282.05	0.004098	7.25	206.33	57.76	0.68
STORMCLOUD	3049.6*	PF 1	1495.00	5277.05	5281.23	3.58		5282.05	0.004073	7.23	206.76	57.79	0.67
STORMCLOUD	3048.56*	PF 1	1495.00	5277.05	5281.23	3.57		5282.04	0.004093	7.24	206.42	57.77	0.68
STORMCLOUD	3047.52*	PF 1	1495.00	5277.05	5281.22	3.57		5282.04	0.004115	7.26	206.05	57.74	0.68
STORMCLOUD	3046.48*	PF 1	1495.00	5277.04	5281.22	3.57		5282.03	0.004092	7.24	206.44	57.77	0.68
STORMCLOUD	3045.44*	PF 1	1495.00	5277.04	5281.21	3.57		5282.03	0.004113	7.25	206.08	57.75	0.68
STORMCLOUD	3044.4*	PF 1	1495.00	5277.04	5281.21	3.56		5282.03	0.004135	7.27	205.71	57.72	0.68
STORMCLOUD	3043.36*	PF 1	1495.00	5277.03	5281.20	3.57		5282.02	0.004110	7.25	206.13	57.75	0.68
STORMCLOUD	3042.32*	PF 1	1495.00	5277.03	5281.19	3.56		5282.01	0.004132	7.27	205.77	57.72	0.68
STORMCLOUD	3041.28*	PF 1	1495.00	5277.02	5281.19	3.57		5282.01	0.004110	7.25	206.13	57.75	0.68
STORMCLOUD	3040.24*	PF 1	1495.00	5277.02	5281.18	3.56		5282.00	0.004154	7.28	205.40	57.70	0.68
STORMCLOUD	3039.2*	PF 1	1495.00	5277.02	5281.18	3.57		5282.00	0.004129	7.26	205.82	57.73	0.68
STORMCLOUD	3038.16*	PF 1	1495.00	5277.01	5281.17	3.56		5281.99	0.004151	7.28	205.46	57.70	0.68
STORMCLOUD	3037.12*	PF 1	1495.00	5277.01	5281.17	3.56		5281.99	0.004129	7.26	205.82	57.73	0.68
STORMCLOUD	3036.08*	PF 1	1495.00	5277.00	5281.16	3.56		5281.98	0.004151	7.28	205.46	57.70	0.68
STORMCLOUD	3035.04*	PF 1	1495.00	5277.00	5281.15	3.56		5281.97	0.004151	7.28	205.46	57.70	0.68
STORMCLOUD	3034.*	PF 1	1495.00	5277.00	5281.15	3.56		5281.97	0.004173	7.29	205.09	57.68	0.68
STORMCLOUD	3032.96*	PF 1	1495.00	5276.99	5281.15	3.56		5281.97	0.004173	7.29	205.09	57.68	0.68
STORMCLOUD	3031.92*	PF 1	1495.00	5276.99	5281.15	3.56		5281.96	0.004145	7.27	205.54	57.71	0.68
STORMCLOUD	3030.88*	PF 1	1495.00	5276.98	5281.14	3.56		5281.96	0.004168	7.29	205.18	57.68	0.68
STORMCLOUD	3029.84*	PF 1	1495.00	5276.98	5281.13	3.55		5281.96	0.004190	7.30	204.81	57.66	0.68
STORMCLOUD	3028.8*	PF 1	1495.00	5276.98	5281.13	3.56		5281.95	0.004166	7.29	205.20	57.69	0.68
STORMCLOUD	3027.76*	PF 1	1495.00	5276.97	5281.13	3.55		5281.95	0.004188	7.30	204.84	57.66	0.68
STORMCLOUD	3026.72*	PF 1	1495.00	5276.97	5281.12	3.56		5281.94	0.004162	7.28	205.26	57.69	0.68
STORMCLOUD	3025.68*	PF 1	1495.00	5276.96	5281.11	3.55		5281.94	0.004185	7.30	204.89	57.66	0.68
STORMCLOUD	3024.64*	PF 1	1495.00	5276.96	5281.10	3.55		5281.93	0.004209	7.31	204.50	57.64	0.68
STORMCLOUD	3023.6*	PF 1	1495.00	5276.96	5281.10	3.55		5281.93	0.004185	7.30	204.89	57.66	0.68
STORMCLOUD	3022.56*	PF 1	1495.00	5276.95	5281.10	3.55		5281.92	0.004207	7.31	204.53	57.64	0.68
STORMCLOUD	3021.52*	PF 1	1495.00	5276.95	5281.10	3.55		5281.92	0.004181	7.29	204.95	57.67	0.68
STORMCLOUD	3020.48*	PF 1	1495.00	5276.94	5281.09	3.55		5281.92	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	3019.44*	PF 1	1495.00	5276.94	5281.08	3.54		5281.91	0.004228	7.32	204.19	57.61	0.69
STORMCLOUD	3018.4*	PF 1	1495.00	5276.94	5281.08	3.55		5281.91	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	3017.36*	PF 1	1495.00	5276.93	5281.08	3.55		5281.90	0.004226	7.32	204.22	57.62	0.69
STORMCLOUD	3016.32*	PF 1	1495.00	5276.93	5281.07	3.54		5281.90	0.004200	7.31	204.64	57.65	0.68
STORMCLOUD	3015.28*	PF 1	1495.00	5276.92	5281.07	3.55		5281.89	0.004222	7.32	204.28	57.62	0.68
STORMCLOUD	3014.24*	PF 1	1495.00	5276.92	5281.06	3.55		5281.89	0.004222	7.32	204.28	57.62	0.68

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	3013.2*	PF 1	1495.00	5276.92	5281.05	3.54		5281.89	0.004245	7.33	203.91	57.60	0.69
STORMCLOUD	3012.16*	PF 1	1495.00	5276.91	5281.05	3.55		5281.88	0.004221	7.32	204.30	57.62	0.68
STORMCLOUD	3011.12*	PF 1	1495.00	5276.91	5281.04	3.54		5281.88	0.004243	7.33	203.94	57.60	0.69
STORMCLOUD	3010.08*	PF 1	1495.00	5276.90	5281.04	3.55		5281.87	0.004217	7.32	204.36	57.63	0.68
STORMCLOUD	3009.04*	PF 1	1495.00	5276.90	5281.04	3.54		5281.87	0.004240	7.33	203.99	57.60	0.69
STORMCLOUD	3008.*	PF 1	1495.00	5276.90	5281.03	3.54		5281.87	0.004264	7.34	203.60	57.57	0.69
STORMCLOUD	3006.96*	PF 1	1495.00	5276.89	5281.03	3.54		5281.86	0.004240	7.33	203.99	57.60	0.69
STORMCLOUD	3005.92*	PF 1	1495.00	5276.89	5281.02	3.54		5281.86	0.004263	7.34	203.63	57.58	0.69
STORMCLOUD	3004.88*	PF 1	1495.00	5276.88	5281.02	3.54		5281.85	0.004236	7.33	204.05	57.60	0.69
STORMCLOUD	3003.84*	PF 1	1495.00	5276.88	5281.01	3.54		5281.85	0.004261	7.34	203.66	57.58	0.69
STORMCLOUD	3002.8*	PF 1	1495.00	5276.88	5281.00	3.53		5281.84	0.004284	7.35	203.29	57.55	0.69
STORMCLOUD	3001.76*	PF 1	1495.00	5276.87	5281.00	3.54		5281.84	0.004261	7.34	203.66	57.58	0.69
STORMCLOUD	3000.72*	PF 1	1495.00	5276.87	5280.99	3.53		5281.83	0.004284	7.35	203.29	57.55	0.69
STORMCLOUD	2999.68*	PF 1	1495.00	5276.86	5280.99	3.54		5281.83	0.004257	7.34	203.71	57.58	0.69
STORMCLOUD	2998.64*	PF 1	1495.00	5276.86	5280.98	3.53		5281.82	0.004280	7.35	203.35	57.56	0.69
STORMCLOUD	2997.6*	PF 1	1495.00	5276.86	5280.98	3.53		5281.82	0.004305	7.37	202.95	57.53	0.69
STORMCLOUD	2996.56*	PF 1	1495.00	5276.85	5280.97	3.53		5281.81	0.004277	7.35	203.35	57.56	0.69
STORMCLOUD	2995.52*	PF 1	1495.00	5276.85	5280.97	3.53		5281.81	0.004303	7.37	202.98	57.53	0.69
STORMCLOUD	2994.48*	PF 1	1495.00	5276.84	5280.96	3.53		5281.80	0.004301	7.36	203.01	57.53	0.69
STORMCLOUD	2993.44*	PF 1	1495.00	5276.84	5280.96	3.53		5281.80	0.004324	7.38	202.65	57.51	0.69
STORMCLOUD	2992.4*	PF 1	1495.00	5276.83	5280.95	3.52		5281.80	0.004324	7.36	203.01	57.51	0.69
STORMCLOUD	2991.36*	PF 1	1495.00	5276.83	5280.94	3.52		5281.79	0.004348	7.39	202.28	57.48	0.69
STORMCLOUD	2990.32*	PF 1	1495.00	5276.83	5280.94	3.52		5281.78	0.004321	7.38	202.70	57.51	0.69
STORMCLOUD	2989.28*	PF 1	1495.00	5276.82	5280.93	3.52		5281.77	0.004346	7.39	202.31	57.48	0.69
STORMCLOUD	2988.24*	PF 1	1495.00	5276.82	5280.92	3.52		5281.76	0.004344	7.39	202.34	57.49	0.69
STORMCLOUD	2987.2*	PF 1	1495.00	5276.81	5280.91	3.51		5281.75	0.004342	7.39	202.36	57.49	0.69
STORMCLOUD	2986.16*	PF 1	1495.00	5276.81	5280.91	3.51		5281.75	0.004366	7.40	202.00	57.46	0.70
STORMCLOUD	2985.12*	PF 1	1495.00	5276.80	5280.90	3.52		5281.75	0.004342	7.39	202.36	57.49	0.69
STORMCLOUD	2984.08*	PF 1	1495.00	5276.80	5280.90	3.52		5281.74	0.004366	7.40	202.00	57.46	0.70
STORMCLOUD	2983.04*	PF 1	1495.00	5276.79	5280.89	3.52		5281.74	0.004366	7.39	202.36	57.49	0.69
STORMCLOUD	2982.*	PF 1	1495.00	5276.79	5280.89	3.52		5281.73	0.004389	7.41	201.64	57.44	0.70
STORMCLOUD	2979.92*	PF 1	1495.00	5276.79	5280.88	3.51		5281.73	0.004362	7.40	202.06	57.47	0.70
STORMCLOUD	2978.88*	PF 1	1495.00	5276.78	5280.88	3.52		5281.73	0.004388	7.41	201.66	57.44	0.70
STORMCLOUD	2977.84*	PF 1	1495.00	5276.78	5280.88	3.51		5281.72	0.004362	7.40	202.06	57.47	0.70
STORMCLOUD	2976.8*	PF 1	1495.00	5276.77	5280.87	3.52		5281.72	0.004388	7.41	201.66	57.44	0.70
STORMCLOUD	2975.76*	PF 1	1495.00	5276.77	5280.87	3.51		5281.72	0.004388	7.40	202.06	57.47	0.70
STORMCLOUD	2974.72*	PF 1	1495.00	5276.77	5280.86	3.51		5281.72	0.004411	7.43	201.30	57.41	0.70
STORMCLOUD	2973.68*	PF 1	1495.00	5276.77	5280.86	3.51		5281.71	0.004384	7.41	201.72	57.44	0.70
STORMCLOUD	2972.64*	PF 1	1495.00	5276.76	5280.86	3.51		5281.71	0.004409	7.43	201.33	57.42	0.70
STORMCLOUD	2971.6*	PF 1	1495.00	5276.76	5280.85	3.51		5281.70	0.004384	7.41	201.72	57.44	0.70
STORMCLOUD	2970.56*	PF 1	1495.00	5276.75	5280.85	3.51		5281.70	0.004408	7.42	201.35	57.42	0.70
STORMCLOUD	2969.52*	PF 1	1495.00	5276.75	5280.84	3.51		5281.70	0.004408	7.42	201.35	57.42	0.70

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Val Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2968.48*	PF 1	1495.00	5276.75	5280.83	3.50		5281.69	0.004433	7.44	200.96	57.39	0.70
STORMCLOUD	2967.44*	PF 1	1495.00	5276.74	5280.83	3.51		5281.69	0.004409	7.43	201.33	57.42	0.70
STORMCLOUD	2966.4*	PF 1	1495.00	5276.74	5280.82	3.50		5281.68	0.004435	7.44	200.93	57.39	0.70
STORMCLOUD	2965.36*	PF 1	1495.00	5276.73	5280.82	3.51		5281.68	0.004408	7.42	201.35	57.42	0.70
STORMCLOUD	2964.32*	PF 1	1495.00	5276.73	5280.81	3.50		5281.67	0.004431	7.44	200.99	57.39	0.70
STORMCLOUD	2963.28*	PF 1	1495.00	5276.73	5280.81	3.50		5281.67	0.004457	7.45	200.60	57.36	0.70
STORMCLOUD	2962.24*	PF 1	1495.00	5276.72	5280.80	3.50		5281.66	0.004431	7.44	200.99	57.39	0.70
STORMCLOUD	2961.2*	PF 1	1495.00	5276.72	5280.80	3.50		5281.66	0.004459	7.45	200.57	57.36	0.70
STORMCLOUD	2960.16*	PF 1	1495.00	5276.71	5280.79	3.50		5281.65	0.004431	7.44	200.99	57.39	0.70
STORMCLOUD	2959.12*	PF 1	1495.00	5276.71	5280.79	3.50		5281.65	0.004457	7.45	200.60	57.36	0.70
STORMCLOUD	2958.08*	PF 1	1495.00	5276.71	5280.78	3.49		5281.64	0.004457	7.45	200.60	57.36	0.70
STORMCLOUD	2957.04*	PF 1	1495.00	5276.70	5280.77	3.50		5281.64	0.004485	7.47	200.18	57.34	0.70
STORMCLOUD	2956.*	PF 1	1495.00	5276.70	5280.77	3.49		5281.63	0.004457	7.45	200.60	57.36	0.70
STORMCLOUD	2954.96*	PF 1	1495.00	5276.69	5280.77	3.50		5281.63	0.004483	7.47	200.21	57.34	0.70
STORMCLOUD	2953.92*	PF 1	1495.00	5276.69	5280.76	3.49		5281.62	0.004510	7.48	199.81	57.31	0.71
STORMCLOUD	2952.88*	PF 1	1495.00	5276.69	5280.75	3.49		5281.62	0.004483	7.47	200.21	57.34	0.70
STORMCLOUD	2951.84*	PF 1	1495.00	5276.68	5280.75	3.48		5281.61	0.004510	7.48	199.79	57.31	0.71
STORMCLOUD	2950.8*	PF 1	1495.00	5276.68	5280.74	3.49		5281.61	0.004512	7.48	199.79	57.31	0.71
STORMCLOUD	2949.76*	PF 1	1495.00	5276.67	5280.74	3.49		5281.61	0.004483	7.47	200.21	57.34	0.70
STORMCLOUD	2948.72*	PF 1	1495.00	5276.67	5280.73	3.49		5281.60	0.004510	7.48	199.81	57.31	0.71
STORMCLOUD	2947.68*	PF 1	1495.00	5276.67	5280.73	3.48		5281.60	0.004536	7.50	199.42	57.28	0.71
STORMCLOUD	2946.64*	PF 1	1495.00	5276.66	5280.72	3.49		5281.59	0.004510	7.48	199.81	57.31	0.71
STORMCLOUD	2945.6*	PF 1	1495.00	5276.66	5280.72	3.48		5281.59	0.004538	7.50	199.39	57.28	0.71
STORMCLOUD	2944.56*	PF 1	1495.00	5276.65	5280.71	3.49		5281.58	0.004510	7.48	199.81	57.31	0.71
STORMCLOUD	2943.52*	PF 1	1495.00	5276.65	5280.71	3.48		5281.58	0.004536	7.50	199.42	57.28	0.71
STORMCLOUD	2942.48*	PF 1	1495.00	5276.65	5280.70	3.48		5281.57	0.004565	7.51	199.00	57.25	0.71
STORMCLOUD	2941.44*	PF 1	1495.00	5276.64	5280.70	3.48		5281.57	0.004567	7.51	199.37	57.28	0.71
STORMCLOUD	2940.4*	PF 1	1495.00	5276.64	5280.69	3.48		5281.56	0.004567	7.51	198.98	57.25	0.71
STORMCLOUD	2939.36*	PF 1	1495.00	5276.63	5280.69	3.48		5281.56	0.004540	7.50	199.37	57.28	0.71
STORMCLOUD	2938.32*	PF 1	1495.00	5276.63	5280.68	3.48		5281.55	0.004567	7.51	198.98	57.25	0.71
STORMCLOUD	2937.28*	PF 1	1495.00	5276.63	5280.67	3.47		5281.55	0.004596	7.53	198.56	57.22	0.71
STORMCLOUD	2936.24*	PF 1	1495.00	5276.62	5280.67	3.47		5281.54	0.004571	7.52	198.92	57.25	0.71
STORMCLOUD	2935.2*	PF 1	1495.00	5276.62	5280.66	3.47		5281.54	0.004597	7.53	198.53	57.22	0.71
STORMCLOUD	2934.16*	PF 1	1495.00	5276.61	5280.66	3.47		5281.53	0.004571	7.52	198.92	57.25	0.71
STORMCLOUD	2933.12*	PF 1	1495.00	5276.61	5280.65	3.47		5281.53	0.004597	7.53	198.53	57.22	0.71
STORMCLOUD	2932.08*	PF 1	1495.00	5276.61	5280.64	3.46		5281.53	0.004627	7.55	198.11	57.19	0.71
STORMCLOUD	2931.04*	PF 1	1495.00	5276.60	5280.64	3.47		5281.52	0.004601	7.53	198.47	57.22	0.71
STORMCLOUD	2930.*	PF 1	1495.00	5276.60	5280.63	3.46		5281.52	0.004632	7.55	198.03	57.19	0.71
STORMCLOUD	2928.96*	PF 1	1495.00	5276.60	5280.62	3.46		5281.51	0.004662	7.57	197.61	57.16	0.72
STORMCLOUD	2927.92*	PF 1	1495.00	5276.59	5280.62	3.46		5281.51	0.004634	7.55	198.00	57.18	0.72
STORMCLOUD	2926.88*	PF 1	1495.00	5276.59	5280.61	3.46		5281.50	0.004664	7.57	197.58	57.15	0.72
STORMCLOUD	2925.84*	PF 1	1495.00	5276.58	5280.61	3.46		5281.50	0.004640	7.55	197.91	57.18	0.72
STORMCLOUD	2924.8*	PF 1	1495.00	5276.58	5280.60	3.46		5281.49	0.004670	7.57	197.49	57.15	0.72

HEG-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2923.76*	PF 1	1495.00	5276.58	5280.59	3.45		5281.49	0.004701	7.59	197.05	57.12	0.72
STORMCLOUD	2922.72*	PF 1	1495.00	5276.57	5280.59	3.46		5281.48	0.004874	7.57	197.44	57.14	0.72
STORMCLOUD	2921.68*	PF 1	1495.00	5276.57	5280.58	3.45		5281.48	0.004703	7.59	197.02	57.11	0.72
STORMCLOUD	2920.64*	PF 1	1495.00	5276.56	5280.58	3.45		5281.47	0.004877	7.57	197.38	57.14	0.72
STORMCLOUD	2919.6*	PF 1	1495.00	5276.56	5280.57	3.45		5281.47	0.004709	7.59	196.94	57.11	0.72
STORMCLOUD	2918.56*	PF 1	1495.00	5276.56	5280.57	3.44		5281.46	0.004739	7.61	196.52	57.08	0.72
STORMCLOUD	2917.52*	PF 1	1495.00	5276.55	5280.56	3.45		5281.46	0.004711	7.59	196.91	57.11	0.72
STORMCLOUD	2916.48*	PF 1	1495.00	5276.55	5280.55	3.44		5281.45	0.004741	7.61	196.49	57.08	0.72
STORMCLOUD	2915.44*	PF 1	1495.00	5276.54	5280.55	3.45		5281.45	0.004715	7.59	196.85	57.10	0.72
STORMCLOUD	2914.4*	PF 1	1495.00	5276.54	5280.54	3.44		5281.44	0.004747	7.61	196.41	57.07	0.72
STORMCLOUD	2913.36*	PF 1	1495.00	5276.54	5280.54	3.44		5281.44	0.004777	7.63	195.99	57.04	0.73
STORMCLOUD	2912.32*	PF 1	1495.00	5276.53	5280.53	3.44		5281.43	0.004749	7.61	196.38	57.07	0.72
STORMCLOUD	2911.28*	PF 1	1495.00	5276.52	5280.52	3.44		5281.42	0.004755	7.62	196.30	57.06	0.73
STORMCLOUD	2909.2*	PF 1	1495.00	5276.52	5280.51	3.43		5281.42	0.004786	7.63	195.88	57.03	0.73
STORMCLOUD	2908.16*	PF 1	1495.00	5276.52	5280.51	3.43		5281.42	0.004816	7.65	195.46	57.01	0.73
STORMCLOUD	2907.12*	PF 1	1495.00	5276.51	5280.50	3.43		5281.41	0.004788	7.63	195.85	57.03	0.73
STORMCLOUD	2906.08*	PF 1	1495.00	5276.51	5280.50	3.43		5281.41	0.004818	7.65	195.43	57.00	0.73
STORMCLOUD	2905.04*	PF 1	1495.00	5276.50	5280.49	3.43		5281.40	0.004792	7.64	195.79	57.03	0.73
STORMCLOUD	2904.00*	PF 1	1495.00	5276.50	5280.48	3.43		5281.39	0.004824	7.65	195.35	57.00	0.73
STORMCLOUD	2903.*	PF 1	1495.00	5276.33	5280.31	3.17		5281.38	0.006213	8.29	180.41	56.95	0.82
STORMCLOUD	2902.*	PF 1	1495.00	5276.17	5279.92	2.79	5279.92	5281.33	0.009694	9.54	156.63	56.09	1.01
STORMCLOUD	2901.*	PF 1	1495.00	5276.00	5279.72	2.63	5279.90	5281.31	0.011851	10.15	147.35	55.94	1.10
STORMCLOUD	2900.*	PF 1	1495.00	5275.83	5279.43	2.47	5279.80	5281.28	0.014920	10.90	137.19	55.46	1.22
STORMCLOUD	2899.*	PF 1	1495.00	5275.67	5279.09	2.33	5279.62	5281.22	0.018795	11.72	127.53	54.75	1.35
STORMCLOUD	2898	PF 1	1495.00	5275.50	5278.68	2.20	5279.38	5281.16	0.023771	12.64	118.25	53.79	1.50
STORMCLOUD	2897.34	PF 1	1495.00	5275.39	5278.65	2.19	5279.37	5281.14	0.023946	12.65	118.14	53.84	1.51
STORMCLOUD	2897.33	PF 1	1495.00	5270.59	5273.88	2.21	5275.90	5280.71	0.072627	20.97	71.30	32.29	2.49
STORMCLOUD	2896.35*	PF 1	1495.00	5270.59	5273.86	2.19	5275.82	5280.62	0.072346	20.86	71.68	32.76	2.48
STORMCLOUD	2895.37*	PF 1	1495.00	5270.58	5273.83	2.17	5275.78	5280.53	0.072241	20.77	71.99	33.20	2.49
STORMCLOUD	2894.39*	PF 1	1495.00	5270.58	5273.81	2.15	5275.69	5280.44	0.072105	20.66	72.35	33.71	2.49
STORMCLOUD	2893.41*	PF 1	1495.00	5270.58	5273.79	2.12	5275.61	5280.36	0.072116	20.57	72.68	34.25	2.49
STORMCLOUD	2892.44*	PF 1	1495.00	5270.57	5273.76	2.10	5275.54	5280.28	0.072261	20.51	72.94	34.74	2.49
STORMCLOUD	2891.46*	PF 1	1495.00	5270.57	5273.73	2.07	5275.46	5280.20	0.072512	20.41	73.24	35.33	2.50
STORMCLOUD	2890.48*	PF 1	1495.00	5270.57	5273.70	2.05	5275.40	5280.12	0.072728	20.33	73.54	35.92	2.50
STORMCLOUD	2889.50*	PF 1	1495.00	5270.57	5273.67	2.02	5275.33	5280.04	0.073250	20.26	73.79	36.57	2.51
STORMCLOUD	2888.53*	PF 1	1495.00	5270.56	5273.63	1.99	5275.25	5279.96	0.073760	20.19	74.05	37.23	2.52
STORMCLOUD	2887.55*	PF 1	1495.00	5270.56	5273.60	1.96	5275.18	5279.87	0.074117	20.09	74.40	37.96	2.53
STORMCLOUD	2886.57*	PF 1	1495.00	5270.56	5273.56	1.93	5275.11	5279.77	0.074644	20.00	74.76	38.78	2.54
STORMCLOUD	2885.59*	PF 1	1495.00	5270.55	5273.50	1.52	5275.04	5279.68	0.099926	19.94	74.96	49.42	2.85
STORMCLOUD	2884.62*	PF 1	1495.00	5270.55	5273.44	1.52	5274.97	5279.57	0.098152	19.87	75.25	49.38	2.84
STORMCLOUD	2883.64*	PF 1	1495.00	5270.55	5273.37	1.53	5274.89	5279.46	0.096569	19.80	75.49	49.32	2.82
STORMCLOUD	2882.66*	PF 1	1495.00	5270.54	5273.30	1.54	5274.83	5279.36	0.095263	19.75	75.70	49.27	2.81

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2881.68*	PF 1	1495.00	5270.54	5273.23	1.54	5274.75	5279.25	0.093875	19.69	75.91	49.21	2.79
STORMCLOUD	2880.71*	PF 1	1495.00	5270.54	5273.16	1.55	5274.68	5279.15	0.092484	19.64	76.13	49.15	2.78
STORMCLOUD	2879.73*	PF 1	1495.00	5270.54	5273.10	1.56	5274.61	5279.05	0.091153	19.58	76.36	49.09	2.77
STORMCLOUD	2878.75*	PF 1	1495.00	5270.53	5273.02	1.56	5274.54	5278.96	0.090335	19.56	76.45	49.03	2.76
STORMCLOUD	2877.77*	PF 1	1495.00	5270.53	5272.95	1.57	5274.46	5278.86	0.089175	19.51	76.63	48.95	2.75
STORMCLOUD	2876.79*	PF 1	1495.00	5270.53	5272.89	1.57	5274.40	5278.77	0.088000	19.46	76.83	48.89	2.74
STORMCLOUD	2875.82*	PF 1	1495.00	5270.52	5272.81	1.58	5274.32	5278.68	0.087251	19.44	76.92	48.81	2.73
STORMCLOUD	2874.84*	PF 1	1495.00	5270.52	5272.74	1.58	5274.26	5278.59	0.086313	19.40	77.05	48.72	2.72
STORMCLOUD	2873.86*	PF 1	1495.00	5270.52	5272.68	1.59	5274.19	5278.50	0.085337	19.36	77.21	48.64	2.71
STORMCLOUD	2872.88*	PF 1	1495.00	5270.52	5272.61	1.59	5274.12	5278.41	0.084540	19.34	77.32	48.55	2.70
STORMCLOUD	2871.91*	PF 1	1495.00	5270.51	5272.53	1.60	5274.04	5278.32	0.083856	19.31	77.41	48.47	2.69
STORMCLOUD	2870.93*	PF 1	1495.00	5270.51	5272.46	1.60	5273.97	5278.24	0.083105	19.29	77.51	48.37	2.69
STORMCLOUD	2869.95*	PF 1	1495.00	5270.51	5272.39	1.61	5273.90	5278.15	0.082344	19.26	77.61	48.26	2.68
STORMCLOUD	2868.97*	PF 1	1495.00	5270.50	5272.32	1.61	5273.83	5278.07	0.081635	19.25	77.66	48.16	2.67
STORMCLOUD	2868.00	PF 1	1495.00	5270.50	5272.25	1.62	5273.76	5277.99	0.081148	19.23	77.75	48.04	2.66
STORMCLOUD	2867.00*	PF 1	1495.00	5270.50	5272.27	1.64	5273.76	5277.86	0.078004	18.99	78.73	48.12	2.62
STORMCLOUD	2866.00*	PF 1	1495.00	5270.49	5272.27	1.65	5273.75	5277.75	0.075294	18.78	79.63	48.20	2.57
STORMCLOUD	2865.01*	PF 1	1495.00	5270.49	5272.30	1.67	5273.75	5277.64	0.072438	18.55	80.61	48.28	2.53
STORMCLOUD	2864.01*	PF 1	1495.00	5270.49	5272.32	1.69	5273.75	5277.53	0.069720	18.32	81.61	48.36	2.49
STORMCLOUD	2863.02*	PF 1	1495.00	5270.48	5272.32	1.70	5273.74	5277.43	0.067434	18.13	82.48	48.43	2.45
STORMCLOUD	2862.02*	PF 1	1495.00	5270.48	5272.34	1.72	5273.74	5277.32	0.064898	17.90	83.50	48.52	2.41
STORMCLOUD	2861.02*	PF 1	1495.00	5270.48	5272.37	1.74	5273.74	5277.22	0.062428	17.68	84.54	48.60	2.36
STORMCLOUD	2860.03*	PF 1	1495.00	5270.47	5272.37	1.75	5273.73	5277.13	0.060444	17.50	85.42	48.68	2.33
STORMCLOUD	2859.03*	PF 1	1495.00	5270.47	5272.40	1.77	5273.73	5277.04	0.058139	17.29	86.49	48.76	2.29
STORMCLOUD	2858.04*	PF 1	1495.00	5270.47	5272.42	1.79	5273.73	5276.94	0.055947	17.07	87.56	48.85	2.25
STORMCLOUD	2857.04*	PF 1	1495.00	5270.46	5272.42	1.80	5273.72	5276.88	0.054544	16.94	88.28	48.91	2.22
STORMCLOUD	2856.04*	PF 1	1495.00	5270.46	5272.44	1.82	5273.72	5276.81	0.052876	16.77	89.16	48.98	2.19
STORMCLOUD	2855.05*	PF 1	1495.00	5270.46	5272.46	1.84	5273.72	5276.72	0.050850	16.56	90.29	49.07	2.15
STORMCLOUD	2854.05*	PF 1	1495.00	5270.46	5272.49	1.86	5273.72	5276.64	0.048963	16.36	91.39	49.16	2.11
STORMCLOUD	2853.06*	PF 1	1495.00	5270.45	5272.49	1.87	5273.71	5276.58	0.047781	16.23	92.11	49.22	2.09
STORMCLOUD	2852.06*	PF 1	1495.00	5270.45	5272.51	1.89	5273.71	5276.52	0.046336	16.07	93.03	49.30	2.06
STORMCLOUD	2851.06*	PF 1	1495.00	5270.45	5272.53	1.90	5273.71	5276.46	0.044911	15.91	93.97	49.37	2.03
STORMCLOUD	2850.07*	PF 1	1495.00	5270.44	5272.53	1.92	5273.70	5276.40	0.043853	15.79	94.69	49.43	2.01
STORMCLOUD	2849.07*	PF 1	1495.00	5270.44	5272.55	1.93	5273.70	5276.35	0.042525	15.63	95.63	49.51	1.98
STORMCLOUD	2848.08*	PF 1	1495.00	5270.44	5272.57	1.95	5273.70	5276.29	0.041217	15.48	96.60	49.59	1.95
STORMCLOUD	2847.08*	PF 1	1495.00	5270.43	5272.58	1.96	5273.69	5276.24	0.040269	15.36	97.33	49.64	1.93
STORMCLOUD	2846.08*	PF 1	1495.00	5270.43	5272.60	1.98	5273.69	5276.19	0.039049	15.21	98.30	49.72	1.91
STORMCLOUD	2845.09*	PF 1	1495.00	5270.43	5272.62	1.99	5273.69	5276.14	0.037847	15.06	99.29	49.80	1.88
STORMCLOUD	2844.09*	PF 1	1495.00	5270.42	5272.62	2.01	5273.68	5276.09	0.036970	14.94	100.05	49.86	1.86
STORMCLOUD	2843.1*	PF 1	1495.00	5270.42	5272.64	2.02	5273.68	5276.04	0.035822	14.79	101.07	49.94	1.83
STORMCLOUD	2842.10*	PF 1	1495.00	5270.42	5272.66	2.04	5273.68	5275.99	0.034695	14.64	102.12	50.03	1.81
STORMCLOUD	2841.10*	PF 1	1495.00	5270.41	5272.67	2.05	5273.67	5275.95	0.033910	14.53	102.88	50.09	1.79
STORMCLOUD	2840.11*	PF 1	1495.00	5270.41	5272.69	2.07	5273.67	5275.90	0.032835	14.38	103.95	50.18	1.76

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2839.11*	PF 1	1495.00	5270.41	5272.71	2.09	5273.67	5275.86	0.031804	14.23	105.03	50.26	1.74
STORMCLOUD	2838.12*	PF 1	1495.00	5270.40	5272.72	2.10	5273.66	5275.82	0.031102	14.13	105.79	50.32	1.72
STORMCLOUD	2837.12*	PF 1	1495.00	5270.40	5272.74	2.12	5273.66	5275.77	0.030075	13.98	106.95	50.41	1.69
STORMCLOUD	2836.12*	PF 1	1495.00	5270.40	5272.76	2.14	5273.66	5275.73	0.029071	13.83	108.13	50.51	1.67
STORMCLOUD	2835.13*	PF 1	1495.00	5270.40	5274.75	3.70	5273.66	5275.49	0.003550	6.90	216.55	58.47	0.63
STORMCLOUD	2834.13*	PF 1	1495.00	5270.39	5274.75	3.71		5275.49	0.003528	6.89	217.00	58.50	0.63
STORMCLOUD	2833.13*	PF 1	1495.00	5270.39	5274.74	3.70		5275.48	0.003543	6.90	216.69	58.48	0.63
STORMCLOUD	2832.14*	PF 1	1495.00	5270.38	5274.74	3.71		5275.48	0.003558	6.91	216.38	58.45	0.63
STORMCLOUD	2831.14*	PF 1	1495.00	5270.38	5274.73	3.70		5275.47	0.003535	6.89	216.86	58.49	0.63
STORMCLOUD	2830.15*	PF 1	1495.00	5270.38	5274.73	3.70		5275.47	0.003549	6.90	216.58	58.47	0.63
STORMCLOUD	2829.15*	PF 1	1495.00	5270.38	5274.73	3.70		5275.47	0.003564	6.91	216.26	58.45	0.63
STORMCLOUD	2828.15*	PF 1	1495.00	5270.37	5274.73	3.71		5275.46	0.003542	6.90	216.72	58.48	0.63
STORMCLOUD	2827.16*	PF 1	1495.00	5270.37	5274.72	3.70		5275.46	0.003557	6.91	216.40	58.46	0.63
STORMCLOUD	2826.16*	PF 1	1495.00	5270.37	5274.71	3.70		5275.46	0.003572	6.92	216.09	58.44	0.63
STORMCLOUD	2825.17*	PF 1	1495.00	5270.36	5274.71	3.70		5275.45	0.003549	6.90	216.58	58.47	0.63
STORMCLOUD	2824.17*	PF 1	1495.00	5270.36	5274.71	3.70		5275.45	0.003563	6.91	216.29	58.45	0.63
STORMCLOUD	2823.17*	PF 1	1495.00	5270.36	5274.70	3.70		5275.45	0.003578	6.92	215.98	58.43	0.63
STORMCLOUD	2822.18*	PF 1	1495.00	5270.35	5274.70	3.70		5275.44	0.003556	6.91	216.43	58.46	0.63
STORMCLOUD	2821.18*	PF 1	1495.00	5270.35	5274.70	3.70		5275.44	0.003570	6.92	216.15	58.44	0.63
STORMCLOUD	2820.19*	PF 1	1495.00	5270.35	5274.69	3.69		5275.44	0.003585	6.93	215.83	58.42	0.64
STORMCLOUD	2819.19*	PF 1	1495.00	5270.34	5274.69	3.70		5275.43	0.003563	6.91	216.29	58.45	0.63
STORMCLOUD	2818.19*	PF 1	1495.00	5270.34	5274.68	3.70		5275.43	0.003577	6.92	216.01	58.43	0.63
STORMCLOUD	2817.20*	PF 1	1495.00	5270.34	5274.68	3.69		5275.42	0.003592	6.93	215.69	58.41	0.64
STORMCLOUD	2816.20*	PF 1	1495.00	5270.33	5274.68	3.70		5275.42	0.003570	6.92	216.15	58.44	0.63
STORMCLOUD	2815.21*	PF 1	1495.00	5270.33	5274.67	3.70		5275.42	0.003584	6.93	215.86	58.42	0.63
STORMCLOUD	2814.21*	PF 1	1495.00	5270.33	5274.67	3.69		5275.41	0.003599	6.94	215.55	58.40	0.64
STORMCLOUD	2813.21*	PF 1	1495.00	5270.32	5274.66	3.70		5275.41	0.003591	6.93	216.01	58.43	0.63
STORMCLOUD	2812.22*	PF 1	1495.00	5270.32	5274.66	3.69		5275.40	0.003577	6.92	215.72	58.41	0.64
STORMCLOUD	2811.22*	PF 1	1495.00	5270.32	5274.65	3.69		5275.40	0.003606	6.94	215.41	58.39	0.64
STORMCLOUD	2810.23*	PF 1	1495.00	5270.31	5274.65	3.70		5275.40	0.003584	6.93	215.86	58.42	0.63
STORMCLOUD	2809.23*	PF 1	1495.00	5270.31	5274.65	3.69		5275.39	0.003599	6.94	215.55	58.40	0.64
STORMCLOUD	2808.23*	PF 1	1495.00	5270.31	5274.64	3.69		5275.39	0.003615	6.95	215.24	58.38	0.64
STORMCLOUD	2807.24*	PF 1	1495.00	5270.31	5274.63	3.68		5275.39	0.003630	6.96	214.92	58.35	0.64
STORMCLOUD	2806.24*	PF 1	1495.00	5270.30	5274.63	3.69		5275.38	0.003608	6.94	215.38	58.39	0.64
STORMCLOUD	2805.25*	PF 1	1495.00	5270.30	5274.63	3.68		5275.38	0.003623	6.95	215.06	58.36	0.64
STORMCLOUD	2804.25*	PF 1	1495.00	5270.29	5274.62	3.68		5275.37	0.003639	6.96	214.75	58.34	0.64
STORMCLOUD	2803.25*	PF 1	1495.00	5270.29	5274.62	3.69		5275.37	0.003618	6.95	215.18	58.37	0.64
STORMCLOUD	2802.26*	PF 1	1495.00	5270.29	5274.61	3.68		5275.37	0.003633	6.96	214.86	58.35	0.64
STORMCLOUD	2801.26*	PF 1	1495.00	5270.29	5274.61	3.68		5275.36	0.003649	6.97	214.55	58.33	0.64
STORMCLOUD	2800.27*	PF 1	1495.00	5270.28	5274.61	3.68		5275.36	0.003626	6.95	215.01	58.36	0.64
STORMCLOUD	2799.27*	PF 1	1495.00	5270.28	5274.60	3.68		5275.35	0.003642	6.96	214.69	58.34	0.64
STORMCLOUD	2798.27*	PF 1	1495.00	5270.28	5274.59	3.68		5275.35	0.003658	6.97	214.38	58.32	0.64
STORMCLOUD	2797.28*	PF 1	1495.00	5270.27	5274.59	3.68		5275.34	0.003638	6.96	214.78	58.35	0.64

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2796.28*	PF 1	1495.00	5270.27	5274.59	3.68		5275.34	0.003655	6.97	214.44	58.32	0.64
STORMCLOUD	2795.29*	PF 1	1495.00	5270.27	5274.58	3.67		5275.34	0.003671	6.98	214.12	58.30	0.64
STORMCLOUD	2794.29*	PF 1	1495.00	5270.26	5274.58	3.68		5275.33	0.003648	6.97	214.58	58.33	0.64
STORMCLOUD	2793.29*	PF 1	1495.00	5270.26	5274.57	3.67		5275.33	0.003665	6.98	214.24	58.31	0.64
STORMCLOUD	2792.30*	PF 1	1495.00	5270.26	5274.57	3.67		5275.33	0.003682	6.99	213.90	58.28	0.64
STORMCLOUD	2791.30*	PF 1	1495.00	5270.25	5274.56	3.67		5275.32	0.003662	6.98	214.30	58.31	0.64
STORMCLOUD	2790.31*	PF 1	1495.00	5270.25	5274.56	3.67		5275.32	0.003678	6.99	213.98	58.29	0.64
STORMCLOUD	2789.31*	PF 1	1495.00	5270.25	5274.55	3.67		5275.31	0.003694	7.00	213.67	58.27	0.64
STORMCLOUD	2788.31*	PF 1	1495.00	5270.25	5274.55	3.66		5275.31	0.003710	7.01	213.36	58.25	0.65
STORMCLOUD	2787.32*	PF 1	1495.00	5270.24	5274.54	3.67		5275.30	0.003690	6.99	213.75	58.27	0.64
STORMCLOUD	2786.32*	PF 1	1495.00	5270.24	5274.54	3.66		5275.30	0.003707	7.01	213.41	58.25	0.64
STORMCLOUD	2785.33*	PF 1	1495.00	5270.24	5274.53	3.66		5275.30	0.003725	7.02	213.07	58.23	0.65
STORMCLOUD	2784.33*	PF 1	1495.00	5270.23	5274.53	3.67		5275.29	0.003701	7.00	213.53	58.26	0.64
STORMCLOUD	2783.33*	PF 1	1495.00	5270.23	5274.52	3.66		5275.29	0.003717	7.01	213.21	58.24	0.65
STORMCLOUD	2782.34*	PF 1	1495.00	5270.23	5274.52	3.66		5275.29	0.003735	7.02	212.87	58.21	0.65
STORMCLOUD	2781.34*	PF 1	1495.00	5270.22	5274.52	3.66		5275.28	0.003714	7.01	213.27	58.24	0.65
STORMCLOUD	2780.35*	PF 1	1495.00	5270.22	5274.51	3.66		5275.28	0.003731	7.02	212.96	58.22	0.65
STORMCLOUD	2779.35*	PF 1	1495.00	5270.22	5274.51	3.65		5275.27	0.003747	7.03	212.65	58.20	0.65
STORMCLOUD	2778.35*	PF 1	1495.00	5270.21	5274.50	3.66		5275.27	0.003725	7.02	213.07	58.23	0.65
STORMCLOUD	2777.36*	PF 1	1495.00	5270.21	5274.50	3.65		5275.26	0.003743	7.03	212.73	58.20	0.65
STORMCLOUD	2776.36*	PF 1	1495.00	5270.21	5274.49	3.65		5275.26	0.003760	7.04	212.39	58.18	0.65
STORMCLOUD	2775.37*	PF 1	1495.00	5270.20	5274.49	3.66		5275.25	0.003740	7.03	212.79	58.21	0.65
STORMCLOUD	2774.37*	PF 1	1495.00	5270.20	5274.48	3.65		5275.25	0.003756	7.04	212.47	58.19	0.65
STORMCLOUD	2773.37*	PF 1	1495.00	5270.20	5274.48	3.65		5275.25	0.003772	7.05	212.16	58.17	0.65
STORMCLOUD	2772.38*	PF 1	1495.00	5270.19	5274.47	3.65		5275.24	0.003750	7.03	212.59	58.19	0.65
STORMCLOUD	2771.38*	PF 1	1495.00	5270.19	5274.47	3.65		5275.24	0.003768	7.04	212.25	58.17	0.65
STORMCLOUD	2770.39*	PF 1	1495.00	5270.19	5274.46	3.64		5275.24	0.003786	7.05	211.91	58.15	0.65
STORMCLOUD	2769.39*	PF 1	1495.00	5270.18	5274.46	3.65		5275.23	0.003763	7.04	212.33	58.18	0.65
STORMCLOUD	2768.39*	PF 1	1495.00	5270.18	5274.45	3.65		5275.23	0.003781	7.05	211.99	58.15	0.65
STORMCLOUD	2767.40*	PF 1	1495.00	5270.17	5274.45	3.64		5275.22	0.003798	7.06	211.68	58.13	0.65
STORMCLOUD	2766.40*	PF 1	1495.00	5270.17	5274.45	3.65		5275.22	0.003774	7.05	212.13	58.16	0.65
STORMCLOUD	2765.41*	PF 1	1495.00	5270.17	5274.44	3.64		5275.21	0.003792	7.06	211.79	58.14	0.65
STORMCLOUD	2764.41*	PF 1	1495.00	5270.17	5274.43	3.63		5275.21	0.003810	7.07	211.45	58.12	0.65
STORMCLOUD	2763.41*	PF 1	1495.00	5270.17	5274.43	3.63		5275.21	0.003828	7.08	211.11	58.09	0.65
STORMCLOUD	2762.42*	PF 1	1495.00	5270.16	5274.43	3.64		5275.20	0.003807	7.07	211.51	58.12	0.65
STORMCLOUD	2761.42*	PF 1	1495.00	5270.16	5274.42	3.64		5275.20	0.003824	7.08	211.20	58.10	0.65
STORMCLOUD	2760.43*	PF 1	1495.00	5270.16	5274.41	3.63		5275.20	0.003842	7.09	210.86	58.08	0.66
STORMCLOUD	2759.43*	PF 1	1495.00	5270.15	5274.41	3.64		5275.19	0.003818	7.07	211.31	58.11	0.65
STORMCLOUD	2758.43*	PF 1	1495.00	5270.15	5274.41	3.63		5275.19	0.003835	7.09	211.00	58.09	0.66
STORMCLOUD	2757.44*	PF 1	1495.00	5270.15	5274.40	3.63		5275.18	0.003853	7.10	210.66	58.06	0.66
STORMCLOUD	2756.44*	PF 1	1495.00	5270.14	5274.40	3.63		5275.18	0.003832	7.08	211.06	58.09	0.65
STORMCLOUD	2755.45*	PF 1	1495.00	5270.14	5274.39	3.63		5275.17	0.003848	7.09	210.74	58.07	0.66
STORMCLOUD	2754.45*	PF 1	1495.00	5270.14	5274.39	3.62		5275.17	0.003867	7.11	210.40	58.04	0.66

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2753.45*	PF 1	1495.00	5270.13	5274.38	3.63		5275.17	0.003842	7.09	210.86	58.08	0.66
STORMCLOUD	2752.46*	PF 1	1495.00	5270.13	5274.38	3.63		5275.16	0.003859	7.10	210.55	58.05	0.66
STORMCLOUD	2751.46*	PF 1	1495.00	5270.13	5274.37	3.62		5275.16	0.003878	7.11	210.20	58.03	0.66
STORMCLOUD	2750.47*	PF 1	1495.00	5270.12	5274.37	3.63		5275.15	0.003856	7.10	210.60	58.06	0.66
STORMCLOUD	2749.47*	PF 1	1495.00	5270.12	5274.36	3.62		5275.15	0.003873	7.11	210.29	58.04	0.66
STORMCLOUD	2748.47*	PF 1	1495.00	5270.11	5274.36	3.62		5275.15	0.003890	7.12	209.98	58.02	0.66
STORMCLOUD	2747.48*	PF 1	1495.00	5270.11	5274.36	3.62		5275.14	0.003867	7.11	210.40	58.04	0.66
STORMCLOUD	2746.48*	PF 1	1495.00	5270.11	5274.35	3.62		5275.14	0.003886	7.12	210.06	58.02	0.66
STORMCLOUD	2745.49*	PF 1	1495.00	5270.11	5274.34	3.62		5275.13	0.003904	7.13	209.72	58.00	0.66
STORMCLOUD	2744.49*	PF 1	1495.00	5270.10	5274.34	3.62		5275.13	0.003881	7.11	210.15	58.03	0.66
STORMCLOUD	2743.49*	PF 1	1495.00	5270.10	5274.34	3.62		5275.13	0.003900	7.13	209.81	58.00	0.66
STORMCLOUD	2742.50*	PF 1	1495.00	5270.10	5274.33	3.61		5275.12	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	2741.50*	PF 1	1495.00	5270.09	5274.32	3.61		5275.11	0.003909	7.15	209.19	57.96	0.66
STORMCLOUD	2740.51*	PF 1	1495.00	5270.09	5274.32	3.61		5275.11	0.003947	7.15	209.64	57.99	0.66
STORMCLOUD	2739.51*	PF 1	1495.00	5270.08	5274.31	3.61		5275.11	0.003928	7.14	209.30	57.97	0.66
STORMCLOUD	2738.51*	PF 1	1495.00	5270.08	5274.31	3.61		5275.11	0.003947	7.15	208.96	57.94	0.66
STORMCLOUD	2737.52*	PF 1	1495.00	5270.08	5274.31	3.61		5275.10	0.003925	7.14	209.36	57.97	0.66
STORMCLOUD	2736.52*	PF 1	1495.00	5270.08	5274.30	3.61		5275.10	0.003942	7.15	209.04	57.95	0.66
STORMCLOUD	2735.53*	PF 1	1495.00	5270.08	5274.30	3.60		5275.09	0.003960	7.16	208.73	57.93	0.66
STORMCLOUD	2734.53*	PF 1	1495.00	5270.07	5274.30	3.61		5275.09	0.003934	7.15	209.19	57.96	0.66
STORMCLOUD	2733.53*	PF 1	1495.00	5270.07	5274.29	3.60		5275.09	0.003953	7.16	208.85	57.94	0.66
STORMCLOUD	2732.54*	PF 1	1495.00	5270.07	5274.28	3.60		5275.08	0.003973	7.17	208.51	57.91	0.67
STORMCLOUD	2731.54*	PF 1	1495.00	5270.06	5274.28	3.61		5275.08	0.003950	7.16	208.90	57.94	0.66
STORMCLOUD	2730.55*	PF 1	1495.00	5270.06	5274.27	3.60		5275.07	0.003969	7.17	208.56	57.92	0.67
STORMCLOUD	2729.55*	PF 1	1495.00	5270.06	5274.27	3.60		5275.07	0.003989	7.18	208.22	57.89	0.67
STORMCLOUD	2728.55*	PF 1	1495.00	5270.05	5274.27	3.60		5275.06	0.003963	7.16	208.68	57.93	0.67
STORMCLOUD	2727.56*	PF 1	1495.00	5270.05	5274.26	3.60		5275.06	0.003981	7.17	208.37	57.90	0.67
STORMCLOUD	2726.56*	PF 1	1495.00	5270.05	5274.25	3.59		5275.06	0.004002	7.19	208.00	57.88	0.67
STORMCLOUD	2725.57*	PF 1	1495.00	5270.04	5274.25	3.60		5275.05	0.003977	7.17	208.42	57.91	0.67
STORMCLOUD	2724.57*	PF 1	1495.00	5270.04	5274.25	3.59		5275.05	0.003998	7.19	208.05	57.88	0.67
STORMCLOUD	2723.57*	PF 1	1495.00	5270.04	5274.24	3.59		5275.04	0.004018	7.20	207.72	57.86	0.67
STORMCLOUD	2722.58*	PF 1	1495.00	5270.03	5274.24	3.60		5275.04	0.003992	7.18	208.17	57.89	0.67
STORMCLOUD	2721.58*	PF 1	1495.00	5270.03	5274.23	3.59		5275.04	0.004013	7.19	207.80	57.86	0.67
STORMCLOUD	2720.59*	PF 1	1495.00	5270.03	5274.23	3.59		5275.03	0.004034	7.21	207.43	57.84	0.67
STORMCLOUD	2719.59*	PF 1	1495.00	5270.03	5274.22	3.58		5275.03	0.004055	7.22	207.07	57.81	0.67
STORMCLOUD	2718.59*	PF 1	1495.00	5270.02	5274.22	3.58		5275.02	0.004031	7.21	207.49	57.84	0.67
STORMCLOUD	2717.60*	PF 1	1495.00	5270.02	5274.21	3.58		5275.02	0.004052	7.22	207.12	57.82	0.67
STORMCLOUD	2716.60*	PF 1	1495.00	5270.02	5274.20	3.58		5275.02	0.004073	7.23	206.76	57.79	0.67
STORMCLOUD	2715.61*	PF 1	1495.00	5270.01	5274.20	3.58		5275.01	0.004049	7.22	206.18	57.82	0.67
STORMCLOUD	2714.61*	PF 1	1495.00	5270.01	5274.19	3.58		5275.01	0.004070	7.23	206.81	57.80	0.67
STORMCLOUD	2713.61*	PF 1	1495.00	5270.01	5274.19	3.57		5275.00	0.004092	7.24	206.44	57.77	0.68
STORMCLOUD	2712.62*	PF 1	1495.00	5270.00	5274.19	3.58		5275.00	0.004067	7.23	206.87	57.80	0.67
STORMCLOUD	2711.62*	PF 1	1495.00	5270.00	5274.18	3.57		5274.99	0.004088	7.24	206.50	57.77	0.67

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profiler: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chi
STORMCLOUD	2710.62*	PF 1	1495.00	5270.00	5274.17	3.57		5274.99	0.004110	7.25	206.13	57.75	0.68
STORMCLOUD	2709.63*	PF 1	1495.00	5269.99	5274.17	3.57		5274.98	0.004085	7.24	206.56	57.78	0.67
STORMCLOUD	2708.63*	PF 1	1495.00	5269.99	5274.16	3.57		5274.98	0.004107	7.25	206.19	57.75	0.68
STORMCLOUD	2707.64*	PF 1	1495.00	5269.99	5274.16	3.57		5274.98	0.004129	7.26	205.82	57.73	0.68
STORMCLOUD	2706.64*	PF 1	1495.00	5269.98	5274.15	3.57		5274.97	0.004103	7.25	206.25	57.76	0.68
STORMCLOUD	2705.64*	PF 1	1495.00	5269.98	5274.15	3.57		5274.97	0.004125	7.26	205.88	57.73	0.68
STORMCLOUD	2704.65*	PF 1	1495.00	5269.98	5274.14	3.56		5274.96	0.004145	7.27	205.54	57.71	0.68
STORMCLOUD	2703.65*	PF 1	1495.00	5269.97	5274.14	3.57		5274.96	0.004122	7.26	205.94	57.74	0.68
STORMCLOUD	2702.66*	PF 1	1495.00	5269.97	5274.13	3.56		5274.95	0.004144	7.27	205.57	57.71	0.68
STORMCLOUD	2701.66*	PF 1	1495.00	5269.97	5274.13	3.56		5274.95	0.004166	7.29	205.20	57.69	0.68
STORMCLOUD	2700.66*	PF 1	1495.00	5269.96	5274.12	3.56		5274.94	0.004140	7.27	205.63	57.71	0.68
STORMCLOUD	2699.67*	PF 1	1495.00	5269.96	5274.12	3.56		5274.94	0.004162	7.28	205.26	57.69	0.68
STORMCLOUD	2698.67*	PF 1	1495.00	5269.96	5274.11	3.55		5274.94	0.004185	7.30	204.89	57.66	0.68
STORMCLOUD	2697.68*	PF 1	1495.00	5269.96	5274.10	3.55		5274.93	0.004209	7.31	204.50	57.64	0.68
STORMCLOUD	2696.68*	PF 1	1495.00	5269.95	5274.10	3.55		5274.93	0.004185	7.30	204.89	57.66	0.68
STORMCLOUD	2695.68*	PF 1	1495.00	5269.95	5274.09	3.55		5274.92	0.004229	7.32	204.16	57.61	0.69
STORMCLOUD	2694.69*	PF 1	1495.00	5269.95	5274.09	3.55		5274.92	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	2693.69*	PF 1	1495.00	5269.94	5274.08	3.54		5274.91	0.004226	7.32	204.22	57.62	0.69
STORMCLOUD	2692.70*	PF 1	1495.00	5269.94	5274.08	3.54		5274.91	0.004249	7.33	203.85	57.59	0.69
STORMCLOUD	2691.70*	PF 1	1495.00	5269.94	5274.07	3.54		5274.90	0.004224	7.32	204.25	57.62	0.69
STORMCLOUD	2690.70*	PF 1	1495.00	5269.93	5274.07	3.54		5274.90	0.004247	7.33	203.88	57.59	0.69
STORMCLOUD	2689.71*	PF 1	1495.00	5269.93	5274.06	3.54		5274.90	0.004270	7.35	203.52	57.57	0.69
STORMCLOUD	2688.71*	PF 1	1495.00	5269.93	5274.06	3.54		5274.90	0.004243	7.33	203.94	57.60	0.69
STORMCLOUD	2687.72*	PF 1	1495.00	5269.92	5274.05	3.54		5274.89	0.004266	7.34	203.57	57.57	0.69
STORMCLOUD	2686.72*	PF 1	1495.00	5269.92	5274.05	3.54		5274.89	0.004266	7.34	203.57	57.57	0.69
STORMCLOUD	2685.72*	PF 1	1495.00	5269.92	5274.04	3.53		5274.88	0.004291	7.36	203.18	57.54	0.69
STORMCLOUD	2684.73*	PF 1	1495.00	5269.91	5274.04	3.54		5274.88	0.004266	7.34	203.57	57.57	0.69
STORMCLOUD	2683.73*	PF 1	1495.00	5269.91	5274.03	3.53		5274.87	0.004291	7.36	203.18	57.54	0.69
STORMCLOUD	2682.74*	PF 1	1495.00	5269.91	5274.03	3.53		5274.87	0.004314	7.37	202.81	57.52	0.69
STORMCLOUD	2681.74*	PF 1	1495.00	5269.90	5274.02	3.53		5274.86	0.004287	7.36	203.24	57.55	0.69
STORMCLOUD	2680.74*	PF 1	1495.00	5269.90	5274.02	3.53		5274.86	0.004310	7.37	202.87	57.52	0.69
STORMCLOUD	2679.75*	PF 1	1495.00	5269.90	5274.01	3.52		5274.86	0.004335	7.38	202.48	57.50	0.69
STORMCLOUD	2678.75*	PF 1	1495.00	5269.89	5274.01	3.53		5274.85	0.004310	7.37	202.87	57.52	0.69
STORMCLOUD	2677.76*	PF 1	1495.00	5269.89	5274.00	3.52		5274.85	0.004335	7.38	202.48	57.50	0.69
STORMCLOUD	2676.76*	PF 1	1495.00	5269.89	5273.99	3.52		5274.84	0.004359	7.40	202.11	57.47	0.70
STORMCLOUD	2675.76*	PF 1	1495.00	5269.89	5273.99	3.51		5274.84	0.004382	7.41	201.75	57.44	0.70
STORMCLOUD	2674.77*	PF 1	1495.00	5269.88	5273.98	3.52		5274.83	0.004355	7.39	202.17	57.47	0.69
STORMCLOUD	2673.77*	PF 1	1495.00	5269.88	5273.98	3.51		5274.83	0.004380	7.41	201.78	57.45	0.70
STORMCLOUD	2672.78*	PF 1	1495.00	5269.88	5273.97	3.51		5274.83	0.004406	7.42	201.38	57.42	0.70
STORMCLOUD	2671.78*	PF 1	1495.00	5269.87	5273.97	3.51		5274.82	0.004380	7.41	201.78	57.45	0.70
STORMCLOUD	2670.78*	PF 1	1495.00	5269.87	5273.96	3.51		5274.82	0.004404	7.42	201.41	57.42	0.70
STORMCLOUD	2669.79*	PF 1	1495.00	5269.87	5273.95	3.50		5274.81	0.004428	7.44	201.05	57.40	0.70
STORMCLOUD	2668.79*	PF 1	1495.00	5269.86	5273.95	3.51		5274.81	0.004400	7.42	201.47	57.43	0.70

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crt W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chi
STORMCLOUD	2667.80*	PF 1	1495.00	5269.86	5273.95	3.50		5274.80	0.004424	7.43	201.10	57.40	0.70
STORMCLOUD	2666.80*	PF 1	1495.00	5269.86	5273.94	3.50		5274.80	0.004450	7.45	200.71	57.37	0.70
STORMCLOUD	2665.80*	PF 1	1495.00	5269.85	5273.94	3.50		5274.79	0.004424	7.43	201.10	57.40	0.70
STORMCLOUD	2664.81*	PF 1	1495.00	5269.85	5273.93	3.50		5274.79	0.004450	7.45	200.71	57.37	0.70
STORMCLOUD	2663.81*	PF 1	1495.00	5269.85	5273.92	3.49		5274.79	0.004478	7.46	200.29	57.34	0.70
STORMCLOUD	2662.82*	PF 1	1495.00	5269.84	5273.92	3.50		5274.78	0.004450	7.45	200.71	57.37	0.70
STORMCLOUD	2661.82*	PF 1	1495.00	5269.84	5273.91	3.49		5274.77	0.004502	7.48	199.93	57.35	0.70
STORMCLOUD	2660.82*	PF 1	1495.00	5269.84	5273.90	3.49		5274.77	0.004476	7.46	200.32	57.32	0.71
STORMCLOUD	2659.83*	PF 1	1495.00	5269.83	5273.90	3.49		5274.77	0.004476	7.46	200.32	57.32	0.71
STORMCLOUD	2658.83*	PF 1	1495.00	5269.83	5273.89	3.49		5274.76	0.004502	7.48	199.93	57.32	0.71
STORMCLOUD	2657.84*	PF 1	1495.00	5269.83	5273.88	3.48		5274.75	0.004531	7.49	199.51	57.29	0.71
STORMCLOUD	2656.84*	PF 1	1495.00	5269.82	5273.88	3.48		5274.75	0.004529	7.49	199.53	57.29	0.71
STORMCLOUD	2655.85*	PF 1	1495.00	5269.82	5273.87	3.48		5274.75	0.004555	7.51	199.14	57.26	0.71
STORMCLOUD	2654.85*	PF 1	1495.00	5269.81	5273.87	3.48		5274.74	0.004529	7.49	199.53	57.29	0.71
STORMCLOUD	2653.86*	PF 1	1495.00	5269.81	5273.86	3.48		5274.74	0.004555	7.51	199.14	57.26	0.71
STORMCLOUD	2652.86*	PF 1	1495.00	5269.81	5273.85	3.47		5274.73	0.004582	7.52	198.75	57.24	0.71
STORMCLOUD	2651.86*	PF 1	1495.00	5269.81	5273.85	3.47		5274.73	0.004609	7.54	198.36	57.21	0.71
STORMCLOUD	2650.86*	PF 1	1495.00	5269.80	5273.84	3.47		5274.72	0.004582	7.52	198.75	57.24	0.71
STORMCLOUD	2649.87*	PF 1	1495.00	5269.80	5273.84	3.47		5274.72	0.004611	7.54	198.33	57.21	0.71
STORMCLOUD	2648.87*	PF 1	1495.00	5269.80	5273.83	3.46		5274.72	0.004640	7.55	197.91	57.18	0.72
STORMCLOUD	2647.88*	PF 1	1495.00	5269.79	5273.83	3.47		5274.71	0.004613	7.54	198.30	57.20	0.71
STORMCLOUD	2646.88*	PF 1	1495.00	5269.79	5273.82	3.46		5274.71	0.004642	7.55	197.89	57.18	0.72
STORMCLOUD	2645.88*	PF 1	1495.00	5269.79	5273.81	3.46		5274.70	0.004672	7.57	197.47	57.15	0.72
STORMCLOUD	2644.89*	PF 1	1495.00	5269.78	5273.81	3.46		5274.70	0.004644	7.56	197.86	57.17	0.72
STORMCLOUD	2643.89*	PF 1	1495.00	5269.78	5273.80	3.46		5274.69	0.004674	7.57	197.44	57.14	0.72
STORMCLOUD	2642.9*	PF 1	1495.00	5269.78	5273.79	3.45		5274.69	0.004703	7.59	197.02	57.11	0.72
STORMCLOUD	2641.90*	PF 1	1495.00	5269.77	5273.79	3.45		5274.68	0.004677	7.57	197.38	57.14	0.72
STORMCLOUD	2640.90*	PF 1	1495.00	5269.77	5273.78	3.45		5274.68	0.004707	7.59	196.96	57.11	0.72
STORMCLOUD	2639.91*	PF 1	1495.00	5269.77	5273.78	3.44		5274.67	0.004737	7.61	196.55	57.08	0.72
STORMCLOUD	2638.91*	PF 1	1495.00	5269.76	5273.77	3.45		5274.67	0.004709	7.59	196.94	57.11	0.72
STORMCLOUD	2637.92*	PF 1	1495.00	5269.76	5273.77	3.44		5274.66	0.004739	7.61	196.52	57.08	0.72
STORMCLOUD	2636.92*	PF 1	1495.00	5269.76	5273.76	3.44		5274.66	0.004769	7.62	196.10	57.05	0.72
STORMCLOUD	2635.92*	PF 1	1495.00	5269.75	5273.75	3.44		5274.65	0.004743	7.61	196.46	57.08	0.72
STORMCLOUD	2634.93*	PF 1	1495.00	5269.75	5273.75	3.44		5274.65	0.004773	7.63	196.05	57.05	0.72
STORMCLOUD	2633.93*	PF 1	1495.00	5269.75	5273.74	3.43		5274.65	0.004804	7.64	195.63	57.02	0.73
STORMCLOUD	2632.94*	PF 1	1495.00	5269.74	5273.74	3.43		5274.64	0.004777	7.63	195.99	57.04	0.73
STORMCLOUD	2631.94*	PF 1	1495.00	5269.74	5273.73	3.43		5274.64	0.004808	7.64	195.57	57.01	0.73
STORMCLOUD	2630.94*	PF 1	1495.00	5269.74	5273.73	3.42		5274.63	0.004839	7.66	195.15	56.98	0.73
STORMCLOUD	2629.95*	PF 1	1495.00	5269.74	5273.72	3.42		5274.63	0.004870	7.68	194.74	56.95	0.73
STORMCLOUD	2628.95*	PF 1	1495.00	5269.74	5273.71	3.42		5274.63	0.004839	7.66	195.15	56.98	0.73
STORMCLOUD	2627.96*	PF 1	1495.00	5269.73	5273.71	3.42		5274.62	0.004872	7.68	194.71	56.95	0.73
STORMCLOUD	2626.96*	PF 1	1495.00	5269.73	5273.70	3.41		5274.62	0.004905	7.70	194.26	56.92	0.73
STORMCLOUD	2625.96*	PF 1	1495.00	5269.73	5273.70			5274.62					

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Val Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2624.97*	PF 1	1495.00	5269.72	5273.69	3.42		5274.61	0.004878	7.68	194.63	56.95	0.73
STORMCLOUD	2623.97*	PF 1	1495.00	5269.72	5273.68	3.41		5274.60	0.004914	7.70	194.15	56.91	0.73
STORMCLOUD	2622.98*	PF 1	1495.00	5269.72	5273.68	3.41		5274.60	0.004947	7.72	193.71	56.88	0.74
STORMCLOUD	2621.98*	PF 1	1495.00	5269.71	5273.67	3.41		5274.59	0.004918	7.70	194.10	56.91	0.73
STORMCLOUD	2620.98*	PF 1	1495.00	5269.71	5273.67	3.40		5274.59	0.004952	7.72	193.85	56.88	0.74
STORMCLOUD	2619.99*	PF 1	1495.00	5269.71	5273.66	3.40		5274.59	0.004988	7.74	193.18	56.85	0.74
STORMCLOUD	2618.99*	PF 1	1495.00	5269.70	5273.65	3.40		5274.58	0.004967	7.73	193.46	56.86	0.74
STORMCLOUD	2618.00	PF 1	1495.00	5269.70	5273.64	3.40		5274.58	0.005005	7.75	192.96	56.83	0.74
STORMCLOUD	2617.*	PF 1	1495.00	5269.53	5273.45	3.12	5273.15	5274.53	0.009770	9.44	158.36	58.12	1.01
STORMCLOUD	2616.*	PF 1	1495.00	5269.37	5273.15	2.72	5273.14	5274.48	0.015311	10.47	142.86	63.20	1.23
STORMCLOUD	2615.*	PF 1	1495.00	5269.20	5272.78	2.26	5272.86	5274.42	0.024039	11.74	127.33	66.16	1.49
STORMCLOUD	2614.*	PF 1	1495.00	5269.03	5272.28	1.92	5272.50	5274.35	0.033788	12.95	115.47	66.13	1.73
STORMCLOUD	2613.*	PF 1	1495.00	5268.87	5271.75	1.75	5272.06	5274.07	0.002277	5.58	268.04	67.65	0.49
STORMCLOUD	2612	PF 1	1495.00	5268.70	5273.58	3.96	5272.56	5273.97	0.009962	9.52	156.97	56.51	1.01
STORMCLOUD	2611.34	PF 1	1495.00	5268.59	5272.56	2.78	5272.56	5273.48	0.065211	20.15	74.21	32.89	2.36
STORMCLOUD	2611.33	PF 1	1495.00	5263.80	5267.18	2.26	5269.03	5273.40	0.065052	20.05	74.57	33.37	2.36
STORMCLOUD	2610.35*	PF 1	1495.00	5263.80	5267.16	2.23	5268.95	5273.33	0.065121	19.98	74.81	33.80	2.37
STORMCLOUD	2609.37*	PF 1	1495.00	5263.79	5267.13	2.21	5268.91	5273.25	0.065124	19.90	75.14	34.31	2.37
STORMCLOUD	2608.39*	PF 1	1495.00	5263.79	5267.08	2.16	5268.82	5273.18	0.065260	19.82	75.43	34.85	2.37
STORMCLOUD	2607.41*	PF 1	1495.00	5263.78	5267.04	2.14	5268.74	5273.11	0.065575	19.77	75.63	35.34	2.38
STORMCLOUD	2606.44*	PF 1	1495.00	5263.78	5267.01	2.11	5268.67	5273.04	0.065906	19.70	75.89	35.93	2.39
STORMCLOUD	2605.46*	PF 1	1495.00	5263.78	5266.98	2.08	5268.60	5272.96	0.066230	19.63	76.16	36.53	2.40
STORMCLOUD	2604.50*	PF 1	1495.00	5263.77	5266.94	2.05	5268.52	5272.90	0.067012	19.60	76.26	37.12	2.41
STORMCLOUD	2603.50*	PF 1	1495.00	5263.77	5266.90	2.02	5268.45	5272.82	0.067460	19.53	76.57	37.84	2.42
STORMCLOUD	2602.53*	PF 1	1495.00	5263.77	5266.86	1.99	5268.39	5272.76	0.068233	19.48	76.75	38.55	2.43
STORMCLOUD	2601.55*	PF 1	1495.00	5263.76	5266.82	1.84	5268.31	5272.68	0.074753	19.43	76.95	41.90	2.53
STORMCLOUD	2600.57*	PF 1	1495.00	5263.76	5266.75	1.56	5268.24	5272.59	0.091344	19.39	77.09	49.54	2.74
STORMCLOUD	2599.59*	PF 1	1495.00	5263.76	5266.69	1.56	5268.18	5272.49	0.089957	19.33	77.32	49.49	2.73
STORMCLOUD	2598.62*	PF 1	1495.00	5263.75	5266.61	1.57	5268.10	5272.40	0.089069	19.31	77.43	49.43	2.72
STORMCLOUD	2597.64*	PF 1	1495.00	5263.75	5266.55	1.57	5268.03	5272.30	0.087832	19.26	77.64	49.39	2.71
STORMCLOUD	2596.66*	PF 1	1495.00	5263.75	5266.48	1.58	5267.95	5272.21	0.086826	19.22	77.79	49.33	2.70
STORMCLOUD	2595.68*	PF 1	1495.00	5263.74	5266.40	1.58	5267.88	5272.12	0.086062	19.20	77.87	49.26	2.69
STORMCLOUD	2594.71*	PF 1	1495.00	5263.74	5266.33	1.59	5267.82	5272.03	0.084974	19.15	78.06	49.20	2.68
STORMCLOUD	2593.73*	PF 1	1495.00	5263.74	5266.26	1.59	5267.74	5271.94	0.084175	19.13	78.16	49.13	2.67
STORMCLOUD	2592.75*	PF 1	1495.00	5263.73	5266.19	1.59	5267.67	5271.86	0.083557	19.11	78.22	49.06	2.67
STORMCLOUD	2591.77*	PF 1	1495.00	5263.73	5266.12	1.60	5267.59	5271.77	0.082659	19.08	78.36	48.99	2.66
STORMCLOUD	2590.79*	PF 1	1495.00	5263.73	5266.05	1.60	5267.53	5271.69	0.081963	19.06	78.44	48.91	2.65
STORMCLOUD	2589.82*	PF 1	1495.00	5263.73	5265.97	1.61	5267.45	5271.61	0.081481	19.05	78.47	48.82	2.65
STORMCLOUD	2588.84*	PF 1	1495.00	5263.72	5265.91	1.61	5267.39	5271.52	0.080694	19.02	78.59	48.74	2.64
STORMCLOUD	2587.86*	PF 1	1495.00	5263.72	5265.83	1.62	5267.32	5271.44	0.080040	19.00	78.67	48.65	2.63
STORMCLOUD	2586.88*	PF 1	1495.00	5263.72	5265.76	1.62	5267.24	5271.36	0.079633	19.00	78.69	48.57	2.63
STORMCLOUD	2585.91*	PF 1	1495.00	5263.71	5265.69	1.62	5267.17	5271.29	0.079079	18.99	78.74	48.46	2.62
STORMCLOUD	2584.93*	PF 1	1495.00	5263.71	5265.69	1.62	5267.17	5271.29	0.079079	18.99	78.74	48.46	2.62

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chi
STORMCLOUD	2583.95*	PF 1	1495.00	5263.71	5265.62	1.63	5267.10	5271.21	0.078572	18.98	78.78	48.35	2.62
STORMCLOUD	2582.97*	PF 1	1495.00	5263.70	5265.54	1.63	5267.03	5271.13	0.078271	18.98	78.77	48.25	2.62
STORMCLOUD	2582.00	PF 1	1495.00	5263.70	5265.47	1.64	5266.96	5271.05	0.077713	18.97	78.83	48.13	2.61
STORMCLOUD	2581.02*	PF 1	1495.00	5263.70	5265.49	1.66	5266.96	5270.94	0.074739	18.73	79.81	48.21	2.57
STORMCLOUD	2580.04*	PF 1	1495.00	5263.69	5265.50	1.67	5266.95	5270.83	0.072240	18.53	80.68	48.28	2.53
STORMCLOUD	2579.07*	PF 1	1495.00	5263.69	5265.52	1.69	5266.95	5270.72	0.069469	18.30	81.70	48.37	2.48
STORMCLOUD	2578.09*	PF 1	1495.00	5263.69	5265.54	1.71	5266.95	5270.61	0.068833	18.07	82.72	48.45	2.44
STORMCLOUD	2577.11*	PF 1	1495.00	5263.68	5265.55	1.72	5266.94	5270.51	0.064611	17.88	83.62	48.53	2.40
STORMCLOUD	2576.14*	PF 1	1495.00	5263.68	5265.57	1.74	5266.94	5270.41	0.062155	17.66	84.66	48.61	2.36
STORMCLOUD	2575.16*	PF 1	1495.00	5263.68	5265.59	1.76	5266.94	5270.31	0.059818	17.44	85.70	48.70	2.32
STORMCLOUD	2574.18*	PF 1	1495.00	5263.67	5265.60	1.78	5266.93	5270.23	0.057940	17.27	86.59	48.77	2.28
STORMCLOUD	2573.21*	PF 1	1495.00	5263.67	5265.62	1.79	5266.93	5270.14	0.055757	17.05	87.66	48.86	2.24
STORMCLOUD	2572.23*	PF 1	1495.00	5263.67	5265.64	1.81	5266.93	5270.05	0.053679	16.85	88.73	48.95	2.21
STORMCLOUD	2571.25*	PF 1	1495.00	5263.66	5265.65	1.83	5266.92	5269.97	0.052045	16.68	89.82	49.02	2.17
STORMCLOUD	2570.28*	PF 1	1495.00	5263.66	5265.67	1.85	5266.92	5269.89	0.050060	16.48	90.74	49.11	2.14
STORMCLOUD	2569.30*	PF 1	1495.00	5263.65	5265.68	1.86	5266.91	5269.83	0.048844	16.35	91.46	49.17	2.11
STORMCLOUD	2568.32*	PF 1	1495.00	5263.65	5265.70	1.88	5266.91	5269.76	0.047357	16.18	92.38	49.24	2.08
STORMCLOUD	2567.35*	PF 1	1495.00	5263.65	5265.71	1.89	5266.91	5269.70	0.045929	16.03	93.29	49.32	2.05
STORMCLOUD	2566.37*	PF 1	1495.00	5263.64	5265.72	1.90	5266.90	5269.65	0.044840	15.90	94.01	49.38	2.03
STORMCLOUD	2565.39*	PF 1	1495.00	5263.64	5265.74	1.92	5266.90	5269.59	0.043473	15.74	94.95	49.45	2.00
STORMCLOUD	2564.42*	PF 1	1495.00	5263.64	5265.76	1.94	5266.90	5269.53	0.042160	15.59	95.90	49.53	1.97
STORMCLOUD	2563.44*	PF 1	1495.00	5263.63	5265.76	1.95	5266.89	5269.48	0.041185	15.47	96.62	49.59	1.95
STORMCLOUD	2562.46*	PF 1	1495.00	5263.63	5265.78	1.96	5266.89	5269.43	0.039929	15.32	97.59	49.67	1.93
STORMCLOUD	2561.49*	PF 1	1495.00	5263.63	5265.80	1.98	5266.89	5269.37	0.038692	15.16	98.59	49.75	1.90
STORMCLOUD	2560.51*	PF 1	1495.00	5263.62	5265.81	1.99	5266.88	5269.32	0.037789	15.05	99.34	49.81	1.88
STORMCLOUD	2559.53*	PF 1	1495.00	5263.62	5265.83	2.01	5266.88	5269.27	0.036610	14.90	100.36	49.89	1.85
STORMCLOUD	2558.56*	PF 1	1495.00	5263.62	5265.85	2.03	5266.88	5269.22	0.035477	14.75	101.39	49.97	1.82
STORMCLOUD	2557.58*	PF 1	1495.00	5263.61	5265.85	2.04	5266.87	5269.18	0.034669	14.64	102.14	50.03	1.81
STORMCLOUD	2556.60*	PF 1	1495.00	5263.61	5265.87	2.06	5266.87	5269.13	0.033588	14.49	103.19	50.11	1.78
STORMCLOUD	2555.63*	PF 1	1495.00	5263.61	5265.90	2.08	5266.87	5269.09	0.032502	14.33	104.30	50.20	1.75
STORMCLOUD	2554.65*	PF 1	1495.00	5263.60	5265.90	2.09	5266.86	5269.04	0.031758	14.23	105.08	50.27	1.73
STORMCLOUD	2553.67*	PF 1	1495.00	5263.60	5265.92	2.11	5266.86	5269.00	0.030747	14.08	106.19	50.35	1.71
STORMCLOUD	2552.70*	PF 1	1495.00	5263.59	5265.93	2.12	5266.85	5268.96	0.030075	13.98	106.95	50.41	1.69
STORMCLOUD	2551.72*	PF 1	1495.00	5263.59	5265.95	2.14	5266.85	5268.92	0.029071	13.83	108.13	50.51	1.67
STORMCLOUD	2550.74*	PF 1	1495.00	5263.59	5265.98	2.16	5266.85	5268.88	0.028091	13.67	109.34	50.60	1.64
STORMCLOUD	2549.77*	PF 1	1495.00	5263.58	5265.98	2.17	5266.84	5268.85	0.027722	13.61	109.81	50.64	1.63
STORMCLOUD	2548.79*	PF 1	1495.00	5263.58	5266.00	2.19	5266.84	5268.81	0.026780	13.46	111.05	50.74	1.60
STORMCLOUD	2547.81*	PF 1	1495.00	5263.58	5266.02	2.21	5266.84	5268.78	0.025862	13.31	112.31	50.84	1.58
STORMCLOUD	2546.84*	PF 1	1495.00	5263.57	5267.81	3.62	5266.83	5268.59	0.003900	7.13	209.81	58.00	0.66
STORMCLOUD	2545.86*	PF 1	1495.00	5263.57	5267.80	3.61		5268.59	0.003917	7.14	209.50	57.98	0.66
STORMCLOUD	2544.88*	PF 1	1495.00	5263.57	5267.79	3.61		5268.59	0.003936	7.15	209.16	57.96	0.66
STORMCLOUD	2543.91*	PF 1	1495.00	5263.56	5267.79	3.61		5268.58	0.003914	7.13	209.55	57.99	0.66
STORMCLOUD	2542.93*	PF 1	1495.00	5263.56	5267.79	3.61		5268.58	0.003931	7.14	209.24	57.96	0.66

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Val Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2541.95*	PF 1	1495.00	5263.56	5267.78	3.61		5268.58	0.003950	7.16	208.90	57.94	0.66
STORMCLOUD	2540.98*	PF 1	1495.00	5263.55	5267.78	3.61		5268.57	0.003925	7.14	209.36	57.97	0.66
STORMCLOUD	2540.00*	PF 1	1495.00	5263.55	5267.77	3.61		5268.57	0.003942	7.15	209.04	57.95	0.66
STORMCLOUD	2539.02*	PF 1	1495.00	5263.55	5267.77	3.60		5268.56	0.003961	7.16	208.70	57.93	0.67
STORMCLOUD	2538.05*	PF 1	1495.00	5263.54	5267.76	3.61		5268.56	0.003939	7.15	209.10	57.95	0.66
STORMCLOUD	2537.07*	PF 1	1495.00	5263.54	5267.76	3.60		5268.55	0.003957	7.16	208.79	57.93	0.66
STORMCLOUD	2536.09*	PF 1	1495.00	5263.54	5267.75	3.60		5268.55	0.003976	7.17	208.45	57.91	0.67
STORMCLOUD	2535.12*	PF 1	1495.00	5263.53	5267.75	3.61		5268.55	0.003950	7.16	208.90	57.94	0.66
STORMCLOUD	2534.14*	PF 1	1495.00	5263.53	5267.74	3.60		5268.54	0.003969	7.17	208.56	57.92	0.67
STORMCLOUD	2533.17*	PF 1	1495.00	5263.52	5267.74	3.61		5268.54	0.003945	7.15	208.99	57.95	0.66
STORMCLOUD	2532.19*	PF 1	1495.00	5263.52	5267.74	3.60		5268.53	0.003963	7.16	208.68	57.93	0.67
STORMCLOUD	2531.21*	PF 1	1495.00	5263.52	5267.73	3.60		5268.53	0.003982	7.18	208.34	57.90	0.67
STORMCLOUD	2530.24*	PF 1	1495.00	5263.51	5267.73	3.60		5268.52	0.003957	7.16	208.79	57.93	0.66
STORMCLOUD	2529.26*	PF 1	1495.00	5263.51	5267.72	3.60		5268.52	0.003976	7.17	208.45	57.91	0.67
STORMCLOUD	2528.28*	PF 1	1495.00	5263.51	5267.72	3.60		5268.52	0.003995	7.18	208.11	57.89	0.67
STORMCLOUD	2527.31*	PF 1	1495.00	5263.50	5267.71	3.60		5268.51	0.003973	7.17	208.51	57.91	0.67
STORMCLOUD	2526.33*	PF 1	1495.00	5263.50	5267.71	3.60		5268.51	0.003992	7.18	208.17	57.89	0.67
STORMCLOUD	2525.35*	PF 1	1495.00	5263.50	5267.70	3.59		5268.51	0.004013	7.19	207.80	57.86	0.67
STORMCLOUD	2524.38*	PF 1	1495.00	5263.49	5267.70	3.60		5268.50	0.003990	7.18	208.20	57.89	0.67
STORMCLOUD	2523.40*	PF 1	1495.00	5263.49	5267.69	3.59		5268.50	0.004010	7.19	207.86	57.87	0.67
STORMCLOUD	2522.42*	PF 1	1495.00	5263.49	5267.69	3.59		5268.49	0.004031	7.21	207.49	57.84	0.67
STORMCLOUD	2521.45*	PF 1	1495.00	5263.48	5267.68	3.59		5268.49	0.004005	7.19	207.94	57.87	0.67
STORMCLOUD	2520.47*	PF 1	1495.00	5263.48	5267.68	3.59		5268.48	0.004024	7.20	207.60	57.85	0.67
STORMCLOUD	2519.49*	PF 1	1495.00	5263.48	5267.67	3.58		5268.48	0.004045	7.21	207.23	57.83	0.67
STORMCLOUD	2518.52*	PF 1	1495.00	5263.47	5267.67	3.59		5268.47	0.004023	7.20	207.63	57.85	0.67
STORMCLOUD	2517.54*	PF 1	1495.00	5263.47	5267.66	3.58		5268.47	0.004042	7.21	207.29	57.83	0.67
STORMCLOUD	2516.56*	PF 1	1495.00	5263.46	5267.66	3.59		5268.46	0.004016	7.20	207.74	57.86	0.67
STORMCLOUD	2515.59*	PF 1	1495.00	5263.46	5267.65	3.59		5268.46	0.004037	7.21	207.38	57.84	0.67
STORMCLOUD	2514.61*	PF 1	1495.00	5263.46	5267.65	3.58		5268.46	0.004057	7.22	207.04	57.81	0.67
STORMCLOUD	2513.63*	PF 1	1495.00	5263.45	5267.65	3.59		5268.45	0.004034	7.21	207.43	57.84	0.67
STORMCLOUD	2512.66*	PF 1	1495.00	5263.45	5267.64	3.58		5268.45	0.004055	7.22	207.07	57.81	0.67
STORMCLOUD	2511.68*	PF 1	1495.00	5263.45	5267.63	3.58		5268.45	0.004077	7.23	206.70	57.79	0.67
STORMCLOUD	2510.70*	PF 1	1495.00	5263.44	5267.63	3.58		5268.44	0.004052	7.22	207.12	57.82	0.67
STORMCLOUD	2509.73*	PF 1	1495.00	5263.44	5267.62	3.58		5268.44	0.004073	7.23	206.76	57.79	0.67
STORMCLOUD	2508.75*	PF 1	1495.00	5263.44	5267.62	3.57		5268.43	0.004093	7.24	206.42	57.77	0.68
STORMCLOUD	2507.77*	PF 1	1495.00	5263.43	5267.61	3.58		5268.43	0.004070	7.23	206.81	57.80	0.67
STORMCLOUD	2506.80*	PF 1	1495.00	5263.43	5267.61	3.57		5268.42	0.004092	7.24	206.44	57.77	0.68
STORMCLOUD	2505.82*	PF 1	1495.00	5263.43	5267.60	3.57		5268.42	0.004113	7.25	206.08	57.75	0.68
STORMCLOUD	2504.84*	PF 1	1495.00	5263.42	5267.60	3.57		5268.41	0.004088	7.24	206.50	57.77	0.67
STORMCLOUD	2503.87*	PF 1	1495.00	5263.42	5267.59	3.57		5268.41	0.004110	7.25	206.13	57.75	0.68
STORMCLOUD	2502.89*	PF 1	1495.00	5263.42	5267.59	3.56		5268.41	0.004132	7.27	205.77	57.72	0.68
STORMCLOUD	2501.91*	PF 1	1495.00	5263.41	5267.58	3.57		5268.40	0.004110	7.25	206.13	57.75	0.68
STORMCLOUD	2500.94*	PF 1	1495.00	5263.41	5267.58	3.56		5268.40	0.004132	7.27	205.77	57.72	0.68

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Ctl
STORMCLOUD	2499.96*	PF 1	1495.00	5263.41	5267.57	3.56		5268.39	0.004152	7.28	205.43	57.70	0.68
STORMCLOUD	2498.98*	PF 1	1495.00	5263.40	5267.57	3.57		5268.39	0.004127	7.26	205.85	57.73	0.68
STORMCLOUD	2498.01*	PF 1	1495.00	5263.40	5267.56	3.56		5268.38	0.004149	7.28	205.49	57.70	0.68
STORMCLOUD	2497.03*	PF 1	1495.00	5263.40	5267.56	3.56		5268.38	0.004171	7.29	205.12	57.68	0.68
STORMCLOUD	2496.05*	PF 1	1495.00	5263.39	5267.55	3.56		5268.37	0.004147	7.27	205.51	57.71	0.68
STORMCLOUD	2495.08*	PF 1	1495.00	5263.39	5267.55	3.56		5268.37	0.004169	7.29	205.15	57.68	0.68
STORMCLOUD	2494.10*	PF 1	1495.00	5263.38	5267.54	3.56		5268.36	0.004142	7.27	205.60	57.71	0.68
STORMCLOUD	2493.12*	PF 1	1495.00	5263.38	5267.53	3.55		5268.36	0.004164	7.28	205.23	57.69	0.68
STORMCLOUD	2492.15*	PF 1	1495.00	5263.37	5267.53	3.55		5268.36	0.004186	7.30	204.87	57.66	0.68
STORMCLOUD	2491.17*	PF 1	1495.00	5263.37	5267.53	3.55		5268.35	0.004162	7.28	205.26	57.69	0.68
STORMCLOUD	2489.22*	PF 1	1495.00	5263.37	5267.52	3.55		5268.35	0.004185	7.30	204.89	57.66	0.68
STORMCLOUD	2488.24*	PF 1	1495.00	5263.36	5267.51	3.55		5268.34	0.004207	7.31	204.53	57.64	0.68
STORMCLOUD	2487.26*	PF 1	1495.00	5263.36	5267.51	3.55		5268.34	0.004181	7.29	204.95	57.67	0.68
STORMCLOUD	2486.29*	PF 1	1495.00	5263.36	5267.50	3.55		5268.33	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	2485.31*	PF 1	1495.00	5263.35	5267.50	3.54		5268.33	0.004228	7.32	204.19	57.61	0.69
STORMCLOUD	2484.33*	PF 1	1495.00	5263.35	5267.49	3.54		5268.33	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	2483.36*	PF 1	1495.00	5263.35	5267.48	3.54		5268.32	0.004228	7.32	204.19	57.61	0.69
STORMCLOUD	2482.38*	PF 1	1495.00	5263.34	5267.48	3.54		5268.32	0.004250	7.33	203.83	57.59	0.69
STORMCLOUD	2481.40*	PF 1	1495.00	5263.34	5267.47	3.54		5268.31	0.004224	7.32	204.25	57.62	0.69
STORMCLOUD	2480.43*	PF 1	1495.00	5263.34	5267.47	3.53		5268.31	0.004247	7.33	203.88	57.59	0.69
STORMCLOUD	2479.45*	PF 1	1495.00	5263.33	5267.46	3.54		5268.31	0.004271	7.35	203.49	57.57	0.69
STORMCLOUD	2478.47*	PF 1	1495.00	5263.33	5267.46	3.54		5268.30	0.004247	7.33	203.88	57.59	0.69
STORMCLOUD	2477.50*	PF 1	1495.00	5263.32	5267.45	3.54		5268.30	0.004270	7.35	203.52	57.57	0.69
STORMCLOUD	2476.52*	PF 1	1495.00	5263.32	5267.45	3.54		5268.29	0.004243	7.33	203.94	57.60	0.69
STORMCLOUD	2475.55*	PF 1	1495.00	5263.32	5267.44	3.53		5268.29	0.004266	7.34	203.57	57.57	0.69
STORMCLOUD	2474.57*	PF 1	1495.00	5263.31	5267.44	3.54		5268.28	0.004291	7.36	203.18	57.54	0.69
STORMCLOUD	2473.59*	PF 1	1495.00	5263.31	5267.43	3.53		5268.28	0.004266	7.34	203.57	57.57	0.69
STORMCLOUD	2472.62*	PF 1	1495.00	5263.31	5267.43	3.53		5268.27	0.004314	7.37	202.81	57.52	0.69
STORMCLOUD	2471.64*	PF 1	1495.00	5263.30	5267.42	3.53		5268.26	0.004287	7.36	203.24	57.55	0.69
STORMCLOUD	2469.69*	PF 1	1495.00	5263.30	5267.41	3.53		5268.26	0.004310	7.37	202.87	57.52	0.69
STORMCLOUD	2468.71*	PF 1	1495.00	5263.29	5267.41	3.52		5268.26	0.004335	7.38	202.48	57.50	0.69
STORMCLOUD	2467.73*	PF 1	1495.00	5263.29	5267.40	3.52		5268.25	0.004310	7.37	202.87	57.52	0.69
STORMCLOUD	2466.76*	PF 1	1495.00	5263.29	5267.39	3.52		5268.25	0.004335	7.38	202.48	57.50	0.69
STORMCLOUD	2465.78*	PF 1	1495.00	5263.28	5267.38	3.52		5268.24	0.004359	7.40	202.11	57.47	0.70
STORMCLOUD	2464.80*	PF 1	1495.00	5263.28	5267.38	3.52		5268.24	0.004332	7.38	202.53	57.50	0.69
STORMCLOUD	2463.83*	PF 1	1495.00	5263.28	5267.37	3.51		5268.23	0.004355	7.39	202.17	57.47	0.69
STORMCLOUD	2462.85*	PF 1	1495.00	5263.27	5267.37	3.52		5268.23	0.004380	7.41	201.78	57.45	0.70
STORMCLOUD	2461.87*	PF 1	1495.00	5263.27	5267.37	3.51		5268.22	0.004355	7.39	202.17	57.47	0.69
STORMCLOUD	2460.90*	PF 1	1495.00	5263.27	5267.36	3.51		5268.22	0.004380	7.41	201.78	57.45	0.70
STORMCLOUD	2459.92*	PF 1	1495.00	5263.26	5267.36	3.51		5268.22	0.004404	7.42	201.41	57.42	0.70
STORMCLOUD	2458.94*	PF 1	1495.00	5263.26	5267.35	3.51		5268.21	0.004377	7.41	201.83	57.45	0.70
STORMCLOUD			1495.00	5263.26	5267.35	3.51		5268.21	0.004402	7.42	201.44	57.42	0.70

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2457.97*	PF 1	1495.00	5263.25	5267.35	3.51		5268.20	0.004377	7.41	201.83	57.45	0.70
STORMCLOUD	2458.99*	PF 1	1495.00	5263.25	5267.34	3.51		5268.20	0.004402	7.42	201.44	57.42	0.70
STORMCLOUD	2458.01*	PF 1	1495.00	5263.25	5267.33	3.50		5268.19	0.004426	7.44	201.07	57.40	0.70
STORMCLOUD	2455.04*	PF 1	1495.00	5263.24	5267.33	3.51		5268.19	0.004400	7.42	201.47	57.43	0.70
STORMCLOUD	2454.06*	PF 1	1495.00	5263.24	5267.33	3.50		5268.18	0.004424	7.43	201.10	57.40	0.70
STORMCLOUD	2453.08*	PF 1	1495.00	5263.24	5267.32	3.50		5268.18	0.004452	7.45	200.68	57.37	0.70
STORMCLOUD	2452.11*	PF 1	1495.00	5263.23	5267.32	3.50		5268.17	0.004424	7.43	201.10	57.40	0.70
STORMCLOUD	2451.13*	PF 1	1495.00	5263.23	5267.31	3.50		5268.17	0.004450	7.45	200.71	57.37	0.70
STORMCLOUD	2450.15*	PF 1	1495.00	5263.23	5267.30	3.49		5268.17	0.004476	7.46	200.32	57.35	0.70
STORMCLOUD	2449.18*	PF 1	1495.00	5263.22	5267.30	3.50		5268.16	0.004450	7.45	200.71	57.37	0.70
STORMCLOUD	2448.20*	PF 1	1495.00	5263.22	5267.29	3.49		5268.16	0.004476	7.46	200.32	57.35	0.70
STORMCLOUD	2447.22*	PF 1	1495.00	5263.22	5267.28	3.49		5268.15	0.004504	7.48	199.90	57.32	0.71
STORMCLOUD	2446.25*	PF 1	1495.00	5263.21	5267.28	3.49		5268.15	0.004476	7.46	200.32	57.35	0.70
STORMCLOUD	2445.27*	PF 1	1495.00	5263.21	5267.27	3.49		5268.14	0.004502	7.48	199.93	57.32	0.71
STORMCLOUD	2444.29*	PF 1	1495.00	5263.21	5267.27	3.48		5268.14	0.004529	7.49	199.53	57.29	0.71
STORMCLOUD	2443.32*	PF 1	1495.00	5263.20	5267.27	3.49		5268.13	0.004502	7.48	199.93	57.32	0.71
STORMCLOUD	2442.34*	PF 1	1495.00	5263.20	5267.26	3.48		5268.13	0.004531	7.49	199.51	57.29	0.71
STORMCLOUD	2441.36*	PF 1	1495.00	5263.19	5267.25	3.49		5268.12	0.004502	7.48	199.93	57.32	0.71
STORMCLOUD	2440.39*	PF 1	1495.00	5263.19	5267.25	3.48		5268.12	0.004529	7.49	199.53	57.29	0.71
STORMCLOUD	2439.41*	PF 1	1495.00	5263.19	5267.24	3.48		5268.12	0.004557	7.51	199.11	57.26	0.71
STORMCLOUD	2438.43*	PF 1	1495.00	5263.18	5267.24	3.48		5268.11	0.004532	7.49	199.48	57.29	0.71
STORMCLOUD	2437.46*	PF 1	1495.00	5263.18	5267.23	3.48		5268.11	0.004559	7.51	199.09	57.26	0.71
STORMCLOUD	2436.48*	PF 1	1495.00	5263.18	5267.22	3.47		5268.10	0.004586	7.52	198.70	57.23	0.71
STORMCLOUD	2435.50*	PF 1	1495.00	5263.17	5267.22	3.48		5268.10	0.004559	7.51	199.09	57.26	0.71
STORMCLOUD	2434.53*	PF 1	1495.00	5263.17	5267.21	3.47		5268.09	0.004586	7.52	198.70	57.23	0.71
STORMCLOUD	2433.55*	PF 1	1495.00	5263.17	5267.21	3.47		5268.09	0.004615	7.54	198.28	57.20	0.71
STORMCLOUD	2432.57*	PF 1	1495.00	5263.16	5267.20	3.47		5268.08	0.004590	7.53	198.64	57.23	0.71
STORMCLOUD	2431.60*	PF 1	1495.00	5263.16	5267.20	3.47		5268.08	0.004619	7.54	198.22	57.20	0.71
STORMCLOUD	2430.62*	PF 1	1495.00	5263.16	5267.19	3.46		5268.08	0.004646	7.56	197.83	57.17	0.72
STORMCLOUD	2429.64*	PF 1	1495.00	5263.15	5267.19	3.47		5268.07	0.004617	7.54	198.25	57.20	0.71
STORMCLOUD	2428.67*	PF 1	1495.00	5263.15	5267.18	3.46		5268.06	0.004646	7.56	197.83	57.17	0.72
STORMCLOUD	2427.69*	PF 1	1495.00	5263.15	5267.17	3.45		5268.06	0.004675	7.57	197.41	57.14	0.72
STORMCLOUD	2426.71*	PF 1	1495.00	5263.14	5267.17	3.46		5268.05	0.004652	7.56	197.75	57.17	0.72
STORMCLOUD	2425.74*	PF 1	1495.00	5263.14	5267.16	3.45		5268.05	0.004681	7.58	197.33	57.14	0.72
STORMCLOUD	2424.76*	PF 1	1495.00	5263.14	5267.15	3.45		5268.05	0.004711	7.59	196.91	57.11	0.72
STORMCLOUD	2423.79*	PF 1	1495.00	5263.13	5267.15	3.45		5268.04	0.004681	7.58	197.33	57.14	0.72
STORMCLOUD	2422.81*	PF 1	1495.00	5263.13	5267.14	3.45		5268.04	0.004711	7.59	196.91	57.11	0.72
STORMCLOUD	2421.83*	PF 1	1495.00	5263.12	5267.14	3.45		5268.03	0.004685	7.58	197.27	57.13	0.72
STORMCLOUD	2420.86*	PF 1	1495.00	5263.12	5267.13	3.45		5268.03	0.004715	7.59	196.85	57.10	0.72
STORMCLOUD	2419.88*	PF 1	1495.00	5263.12	5267.12	3.44		5268.02	0.004747	7.61	196.41	57.07	0.72
STORMCLOUD	2418.90*	PF 1	1495.00	5263.11	5267.12	3.45		5268.02	0.004719	7.60	196.80	57.10	0.72
STORMCLOUD	2417.93*	PF 1	1495.00	5263.11	5267.11	3.44		5268.01	0.004749	7.61	196.38	57.07	0.72
STORMCLOUD	2416.95*	PF 1	1495.00	5263.11	5267.11	3.44		5268.01	0.004779	7.63	195.96	57.04	0.73

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2415.97*	PF 1	1495.00	5263.10	5267.10	3.44		5268.00	0.004755	7.62	196.30	57.06	0.72
STORMCLOUD	2415	PF 1	1495.00	5263.10	5267.09	3.43		5268.00	0.004786	7.63	195.88	57.03	0.73
STORMCLOUD	2414.*	PF 1	1495.00	5262.93	5266.92	3.21		5267.98	0.006089	8.27	180.86	56.40	0.81
STORMCLOUD	2413.*	PF 1	1495.00	5262.77	5266.67	2.96	5266.52	5267.96	0.008166	9.09	164.44	55.58	0.93
STORMCLOUD	2412.*	PF 1	1495.00	5262.60	5266.50	2.82	5266.50	5267.93	0.009694	9.59	155.81	55.21	1.01
STORMCLOUD	2411.*	PF 1	1495.00	5262.43	5266.20	2.63	5266.44	5267.90	0.012675	10.46	142.91	54.27	1.14
STORMCLOUD	2410.*	PF 1	1495.00	5262.27	5265.89	2.49	5266.31	5267.85	0.015814	11.24	133.00	53.36	1.25
STORMCLOUD	2409	PF 1	1495.00	5262.10	5265.53	2.37	5266.13	5267.80	0.019597	12.07	123.86	52.23	1.38
STORMCLOUD	2408.34	PF 1	1495.00	5261.99	5265.48	2.34	5266.09	5267.78	0.020348	12.19	122.69	52.36	1.40
STORMCLOUD	2408.33	PF 1	1495.00	5259.10	5262.05	1.79	5263.50	5267.47	0.071349	18.68	80.02	44.75	2.46
STORMCLOUD	2407.36*	PF 1	1495.00	5259.10	5261.99	1.62	5263.42	5267.39	0.079893	18.65	80.16	49.36	2.58
STORMCLOUD	2406.40*	PF 1	1495.00	5259.10	5261.87	1.63	5263.36	5267.30	0.078873	18.61	80.35	49.33	2.57
STORMCLOUD	2405.44*	PF 1	1495.00	5259.10	5261.93	1.63	5263.30	5267.22	0.077973	18.57	80.50	49.29	2.56
STORMCLOUD	2404.47*	PF 1	1495.00	5259.10	5261.81	1.64	5263.23	5267.13	0.076661	18.50	80.80	49.26	2.55
STORMCLOUD	2403.51*	PF 1	1495.00	5259.10	5261.75	1.64	5263.17	5267.05	0.075855	18.47	80.93	49.21	2.54
STORMCLOUD	2402.55*	PF 1	1495.00	5259.10	5261.62	1.65	5263.11	5266.97	0.074408	18.45	81.03	49.16	2.53
STORMCLOUD	2401.59*	PF 1	1495.00	5259.10	5261.56	1.66	5263.05	5266.89	0.073786	18.40	81.24	49.06	2.52
STORMCLOUD	2400.62*	PF 1	1495.00	5259.10	5261.50	1.66	5262.92	5266.75	0.073237	18.39	81.31	49.01	2.52
STORMCLOUD	2399.66*	PF 1	1495.00	5259.10	5261.44	1.66	5262.86	5266.67	0.072589	18.36	81.43	48.96	2.51
STORMCLOUD	2398.70*	PF 1	1495.00	5259.10	5261.37	1.67	5262.80	5266.60	0.072077	18.35	81.49	48.89	2.50
STORMCLOUD	2397.74*	PF 1	1495.00	5259.10	5261.31	1.67	5262.73	5266.53	0.071519	18.33	81.58	48.84	2.50
STORMCLOUD	2396.77*	PF 1	1495.00	5259.10	5261.25	1.67	5262.67	5266.45	0.071037	18.31	81.64	48.77	2.49
STORMCLOUD	2395.81*	PF 1	1495.00	5259.10	5261.18	1.68	5262.61	5266.39	0.070617	18.30	81.68	48.69	2.49
STORMCLOUD	2394.85*	PF 1	1495.00	5259.10	5261.12	1.68	5262.55	5266.31	0.070087	18.28	81.77	48.63	2.48
STORMCLOUD	2393.88*	PF 1	1495.00	5259.10	5261.06	1.69	5262.48	5266.24	0.069691	18.27	81.81	48.55	2.48
STORMCLOUD	2392.92*	PF 1	1495.00	5259.10	5261.00	1.69	5262.42	5266.17	0.069284	18.26	81.87	48.47	2.48
STORMCLOUD	2391.96*	PF 1	1495.00	5259.10	5260.93	1.69	5262.36	5266.10	0.068906	18.25	81.91	48.39	2.47
STORMCLOUD	2389.96*	PF 1	1495.00	5259.10	5260.95	1.71	5262.35	5266.00	0.068298	18.03	82.93	48.47	2.43
STORMCLOUD	2388.92*	PF 1	1495.00	5259.09	5260.96	1.73	5262.35	5265.90	0.064155	17.84	83.81	48.54	2.39
STORMCLOUD	2387.88*	PF 1	1495.00	5259.09	5260.98	1.74	5262.35	5265.80	0.061721	17.62	84.85	48.63	2.35
STORMCLOUD	2386.85*	PF 1	1495.00	5259.08	5261.01	1.76	5262.35	5265.71	0.059405	17.40	85.89	48.71	2.31
STORMCLOUD	2385.81*	PF 1	1495.00	5259.08	5261.03	1.78	5262.34	5265.62	0.057544	17.23	86.78	48.79	2.28
STORMCLOUD	2384.77*	PF 1	1495.00	5259.08	5261.05	1.80	5262.34	5265.53	0.055380	17.02	87.85	48.87	2.24
STORMCLOUD	2383.73*	PF 1	1495.00	5259.08	5261.08	1.81	5262.34	5265.46	0.053679	16.85	88.73	48.95	2.21
STORMCLOUD	2382.70*	PF 1	1495.00	5259.07	5261.06	1.83	5262.33	5265.39	0.052305	16.71	89.47	49.01	2.18
STORMCLOUD	2381.66*	PF 1	1495.00	5259.07	5261.08	1.84	5262.33	5265.31	0.050349	16.51	90.58	49.10	2.14
STORMCLOUD	2380.62*	PF 1	1495.00	5259.07	5261.10	1.86	5262.33	5265.23	0.048486	16.31	91.68	49.19	2.10
STORMCLOUD	2379.58*	PF 1	1495.00	5259.06	5261.11	1.88	5262.32	5265.17	0.047281	16.18	92.42	49.25	2.08
STORMCLOUD	2378.55*	PF 1	1495.00	5259.06	5261.13	1.89	5262.32	5265.11	0.045855	16.02	93.34	49.32	2.05
STORMCLOUD	2377.51*	PF 1	1495.00	5259.06	5261.15	1.91	5262.32	5265.05	0.044449	15.86	94.28	49.40	2.02
STORMCLOUD	2376.47*	PF 1	1495.00	5259.05	5261.15	1.92	5262.31	5264.99	0.043405	15.74	95.00	49.46	2.00
STORMCLOUD	2375.43*	PF 1	1495.00	5259.05	5261.17	1.94	5262.31	5264.94	0.042094	15.58	95.95	49.53	1.97

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2374.40*	PF 1	1495.00	5259.05	5261.19	1.95	5262.31	5264.88	0.040803	15.43	96.91	49.61	1.95
STORMCLOUD	2373.36*	PF 1	1495.00	5259.04	5261.19	1.97	5262.30	5264.83	0.039836	15.31	97.66	49.67	1.92
STORMCLOUD	2372.32*	PF 1	1495.00	5259.04	5261.21	1.98	5262.30	5264.78	0.038633	15.16	98.64	49.75	1.90
STORMCLOUD	2371.29*	PF 1	1495.00	5259.04	5261.23	2.00	5262.30	5264.73	0.037447	15.01	99.63	49.83	1.87
STORMCLOUD	2370.25*	PF 1	1495.00	5259.03	5261.24	2.01	5262.29	5264.68	0.036610	14.90	100.36	49.89	1.85
STORMCLOUD	2369.21*	PF 1	1495.00	5259.03	5261.26	2.03	5262.29	5264.63	0.035477	14.75	101.39	49.97	1.82
STORMCLOUD	2368.17*	PF 1	1495.00	5259.02	5261.26	2.04	5262.28	5264.59	0.034669	14.64	102.14	50.03	1.81
STORMCLOUD	2367.14*	PF 1	1495.00	5259.02	5261.28	2.06	5262.28	5264.54	0.033588	14.49	103.19	50.11	1.78
STORMCLOUD	2366.10*	PF 1	1495.00	5259.02	5261.31	2.08	5262.28	5264.50	0.032502	14.33	104.30	50.20	1.75
STORMCLOUD	2365.06*	PF 1	1495.00	5259.02	5261.33	2.10	5262.28	5264.45	0.031461	14.18	105.40	50.29	1.73
STORMCLOUD	2364.02*	PF 1	1495.00	5259.01	5261.33	2.11	5262.27	5264.41	0.030769	14.08	106.16	50.35	1.71
STORMCLOUD	2362.99*	PF 1	1495.00	5259.01	5261.36	2.13	5262.27	5264.37	0.029778	13.93	107.29	50.44	1.68
STORMCLOUD	2361.95*	PF 1	1495.00	5259.00	5261.36	2.14	5262.26	5264.33	0.029092	13.83	108.11	50.51	1.67
STORMCLOUD	2360.91*	PF 1	1495.00	5259.00	5261.39	2.16	5262.26	5264.29	0.028110	13.68	109.32	50.60	1.64
STORMCLOUD	2359.87*	PF 1	1495.00	5259.00	5261.41	2.18	5262.26	5264.25	0.027171	13.53	110.53	50.70	1.61
STORMCLOUD	2358.84*	PF 1	1495.00	5258.99	5261.41	2.19	5262.25	5264.23	0.026817	13.47	111.00	50.73	1.60
STORMCLOUD	2357.80*	PF 1	1495.00	5258.99	5261.43	2.21	5262.25	5264.19	0.025880	13.31	112.29	50.84	1.58
STORMCLOUD	2356.76*	PF 1	1495.00	5258.99	5261.46	2.23	5262.25	5264.15	0.024950	13.16	113.63	50.94	1.55
STORMCLOUD	2355.72*	PF 1	1495.00	5258.98	5263.19	3.60	5262.24	5263.99	0.003995	7.18	208.11	57.89	0.67
STORMCLOUD	2354.69*	PF 1	1495.00	5258.98	5263.18	3.59		5263.98	0.004016	7.20	207.74	57.86	0.67
STORMCLOUD	2353.65*	PF 1	1495.00	5258.98	5263.17	3.59		5263.98	0.004037	7.21	207.38	57.84	0.67
STORMCLOUD	2352.61*	PF 1	1495.00	5258.97	5263.17	3.59		5263.98	0.004013	7.19	207.80	57.86	0.67
STORMCLOUD	2351.58*	PF 1	1495.00	5258.97	5263.17	3.59		5263.97	0.004034	7.21	207.43	57.84	0.67
STORMCLOUD	2350.54*	PF 1	1495.00	5258.97	5263.16	3.58		5263.97	0.004054	7.22	207.09	57.82	0.67
STORMCLOUD	2349.50*	PF 1	1495.00	5258.96	5263.16	3.59		5263.96	0.004027	7.20	207.55	57.85	0.67
STORMCLOUD	2348.46*	PF 1	1495.00	5258.96	5263.15	3.58		5263.96	0.004049	7.22	207.18	57.82	0.67
STORMCLOUD	2347.43*	PF 1	1495.00	5258.96	5263.14	3.58		5263.96	0.004070	7.23	206.81	57.80	0.67
STORMCLOUD	2346.39*	PF 1	1495.00	5258.95	5263.14	3.58		5263.95	0.004045	7.21	207.23	57.83	0.67
STORMCLOUD	2345.35*	PF 1	1495.00	5258.95	5263.14	3.58		5263.95	0.004067	7.23	206.87	57.80	0.67
STORMCLOUD	2344.31*	PF 1	1495.00	5258.95	5263.13	3.57		5263.94	0.004088	7.24	206.50	57.77	0.67
STORMCLOUD	2343.28*	PF 1	1495.00	5258.94	5263.13	3.58		5263.94	0.004064	7.22	206.92	57.80	0.67
STORMCLOUD	2342.24*	PF 1	1495.00	5258.94	5263.12	3.57		5263.93	0.004085	7.24	206.56	57.78	0.67
STORMCLOUD	2341.20*	PF 1	1495.00	5258.94	5263.11	3.57		5263.93	0.004107	7.25	206.19	57.75	0.68
STORMCLOUD	2340.16*	PF 1	1495.00	5258.93	5263.11	3.58		5263.92	0.004082	7.24	206.61	57.78	0.67
STORMCLOUD	2339.13*	PF 1	1495.00	5258.93	5263.10	3.57		5263.92	0.004103	7.25	206.25	57.76	0.68
STORMCLOUD	2338.09*	PF 1	1495.00	5258.93	5263.10	3.57		5263.92	0.004125	7.26	205.88	57.73	0.68
STORMCLOUD	2337.05*	PF 1	1495.00	5258.92	5263.10	3.57		5263.91	0.004100	7.25	206.30	57.76	0.68
STORMCLOUD	2336.01*	PF 1	1495.00	5258.92	5263.09	3.57		5263.91	0.004122	7.26	205.94	57.74	0.68
STORMCLOUD	2334.98*	PF 1	1495.00	5258.92	5263.08	3.56		5263.90	0.004142	7.27	205.60	57.71	0.68
STORMCLOUD	2333.94*	PF 1	1495.00	5258.91	5263.08	3.57		5263.90	0.004118	7.26	205.99	57.74	0.68
STORMCLOUD	2332.90*	PF 1	1495.00	5258.91	5263.07	3.56		5263.90	0.004140	7.27	205.63	57.71	0.68
STORMCLOUD	2331.86*	PF 1	1495.00	5258.91	5263.07	3.56		5263.89	0.004162	7.28	205.26	57.69	0.68
STORMCLOUD	2330.83*	PF 1	1495.00	5258.90	5263.06	3.56		5263.89	0.004137	7.27	205.68	57.72	0.68

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Cnl
STORMCLOUD	2329.79*	PF 1	1495.00	5258.90	5263.06	3.56		5263.88	0.004159	7.28	205.32	57.69	0.68
STORMCLOUD	2328.75*	PF 1	1495.00	5258.90	5263.05	3.55		5263.88	0.004183	7.30	204.92	57.67	0.68
STORMCLOUD	2327.72*	PF 1	1495.00	5258.89	5263.05	3.56		5263.87	0.004159	7.28	205.32	57.69	0.68
STORMCLOUD	2326.68*	PF 1	1495.00	5258.89	5263.04	3.55		5263.87	0.004181	7.29	204.95	57.67	0.68
STORMCLOUD	2325.64*	PF 1	1495.00	5258.89	5263.04	3.55		5263.87	0.004203	7.31	204.59	57.64	0.68
STORMCLOUD	2324.60*	PF 1	1495.00	5258.88	5263.03	3.55		5263.86	0.004178	7.29	205.01	57.67	0.68
STORMCLOUD	2323.57*	PF 1	1495.00	5258.88	5263.03	3.55		5263.86	0.004202	7.31	204.61	57.64	0.68
STORMCLOUD	2322.53*	PF 1	1495.00	5258.88	5263.02	3.54		5263.85	0.004224	7.32	204.25	57.62	0.68
STORMCLOUD	2321.49*	PF 1	1495.00	5258.87	5263.02	3.55		5263.85	0.004200	7.31	204.64	57.65	0.68
STORMCLOUD	2320.45*	PF 1	1495.00	5258.87	5263.01	3.55		5263.84	0.004222	7.32	204.28	57.62	0.68
STORMCLOUD	2319.42*	PF 1	1495.00	5258.86	5263.00	3.54		5263.84	0.004245	7.33	203.91	57.60	0.69
STORMCLOUD	2318.38*	PF 1	1495.00	5258.86	5263.00	3.55		5263.83	0.004219	7.32	204.33	57.62	0.68
STORMCLOUD	2317.34*	PF 1	1495.00	5258.85	5262.99	3.54		5263.82	0.004242	7.33	203.97	57.60	0.69
STORMCLOUD	2316.30*	PF 1	1495.00	5258.85	5262.99	3.55		5263.82	0.004217	7.32	204.36	57.63	0.68
STORMCLOUD	2315.27*	PF 1	1495.00	5258.85	5262.98	3.54		5263.82	0.004240	7.33	203.99	57.60	0.69
STORMCLOUD	2314.23*	PF 1	1495.00	5258.85	5262.98	3.54		5263.82	0.004263	7.34	203.63	57.58	0.69
STORMCLOUD	2313.19*	PF 1	1495.00	5258.84	5262.98	3.54		5263.81	0.004236	7.33	204.05	57.60	0.69
STORMCLOUD	2312.15*	PF 1	1495.00	5258.84	5262.97	3.54		5263.81	0.004261	7.34	203.66	57.58	0.69
STORMCLOUD	2311.12*	PF 1	1495.00	5258.84	5262.96	3.53		5263.80	0.004284	7.35	203.29	57.55	0.69
STORMCLOUD	2310.08*	PF 1	1495.00	5258.83	5262.96	3.54		5263.80	0.004261	7.34	203.66	57.58	0.69
STORMCLOUD	2309.04*	PF 1	1495.00	5258.83	5262.95	3.53		5263.79	0.004284	7.35	203.29	57.55	0.69
STORMCLOUD	2308.01*	PF 1	1495.00	5258.83	5262.95	3.53		5263.79	0.004307	7.37	202.93	57.53	0.69
STORMCLOUD	2306.97*	PF 1	1495.00	5258.82	5262.94	3.53		5263.78	0.004280	7.35	203.35	57.56	0.69
STORMCLOUD	2305.93*	PF 1	1495.00	5258.82	5262.94	3.53		5263.78	0.004303	7.37	202.98	57.53	0.69
STORMCLOUD	2304.89*	PF 1	1495.00	5258.82	5262.93	3.52		5263.78	0.004328	7.38	202.59	57.50	0.69
STORMCLOUD	2303.86*	PF 1	1495.00	5258.81	5262.93	3.53		5263.77	0.004303	7.37	202.98	57.53	0.69
STORMCLOUD	2302.82*	PF 1	1495.00	5258.81	5262.92	3.52		5263.77	0.004328	7.38	202.22	57.48	0.69
STORMCLOUD	2301.78*	PF 1	1495.00	5258.81	5262.92	3.52		5263.76	0.004351	7.39	202.65	57.51	0.69
STORMCLOUD	2300.74*	PF 1	1495.00	5258.80	5262.91	3.52		5263.76	0.004324	7.38	202.65	57.48	0.69
STORMCLOUD	2299.71*	PF 1	1495.00	5258.80	5262.91	3.52		5263.75	0.004348	7.39	202.28	57.48	0.69
STORMCLOUD	2298.67*	PF 1	1495.00	5258.80	5262.90	3.51		5263.75	0.004373	7.41	201.89	57.45	0.70
STORMCLOUD	2297.63*	PF 1	1495.00	5258.79	5262.90	3.52		5263.74	0.004348	7.39	202.28	57.48	0.69
STORMCLOUD	2296.59*	PF 1	1495.00	5258.79	5262.89	3.51		5263.74	0.004373	7.41	201.89	57.45	0.70
STORMCLOUD	2295.56*	PF 1	1495.00	5258.79	5262.88	3.51		5263.74	0.004397	7.42	201.52	57.43	0.70
STORMCLOUD	2294.52*	PF 1	1495.00	5258.78	5262.88	3.51		5263.73	0.004369	7.40	201.94	57.46	0.70
STORMCLOUD	2293.48*	PF 1	1495.00	5258.78	5262.87	3.51		5263.73	0.004395	7.42	201.55	57.43	0.70
STORMCLOUD	2292.44*	PF 1	1495.00	5258.77	5262.86	3.50		5263.72	0.004420	7.43	201.16	57.40	0.70
STORMCLOUD	2291.41*	PF 1	1495.00	5258.77	5262.86	3.51		5263.72	0.004395	7.42	201.55	57.43	0.70
STORMCLOUD	2290.37*	PF 1	1495.00	5258.77	5262.86	3.50		5263.71	0.004420	7.43	201.16	57.40	0.70
STORMCLOUD	2289.33*	PF 1	1495.00	5258.77	5262.85	3.50		5263.71	0.004446	7.45	200.77	57.38	0.70
STORMCLOUD	2288.29*	PF 1	1495.00	5258.76	5262.85	3.50		5263.70	0.004420	7.43	201.16	57.40	0.70
STORMCLOUD	2287.26*	PF 1	1495.00	5258.76	5262.84	3.50		5263.70	0.004446	7.45	200.77	57.38	0.70
STORMCLOUD	2286.22*	PF 1	1495.00	5258.76	5262.83	3.49		5263.70	0.004472	7.46	200.37	57.35	0.70

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

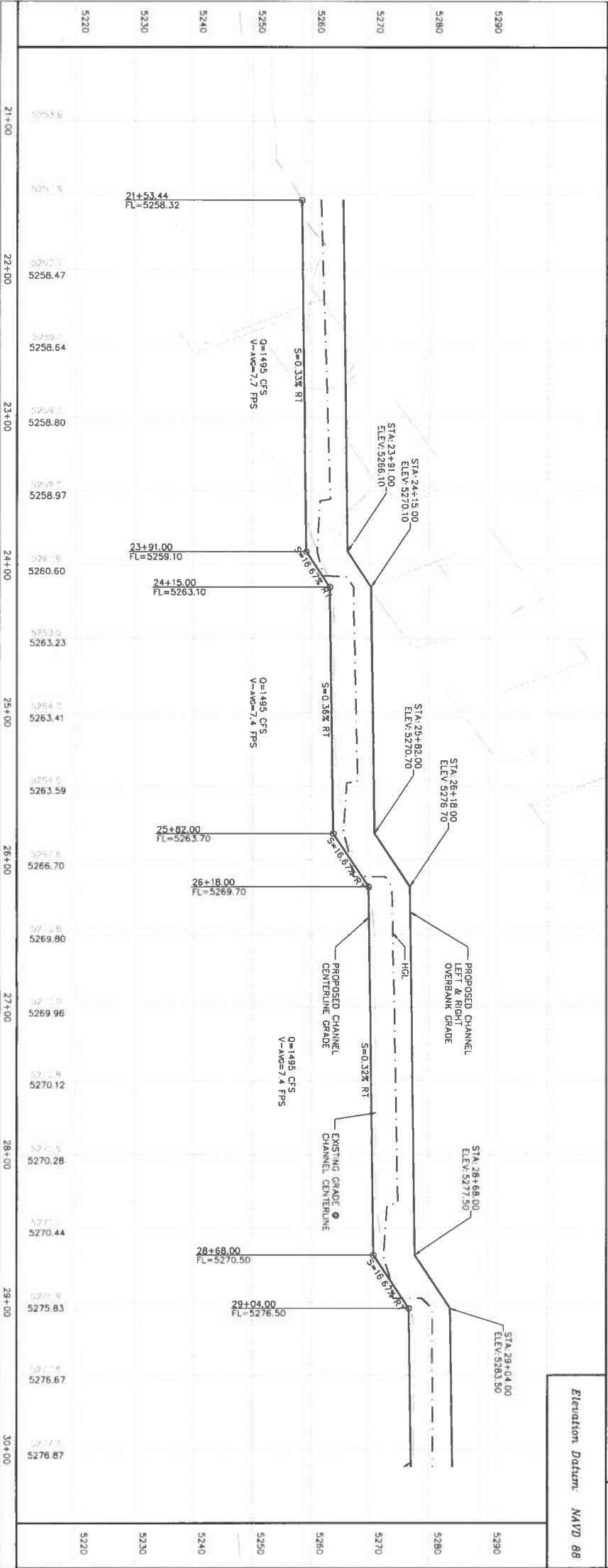
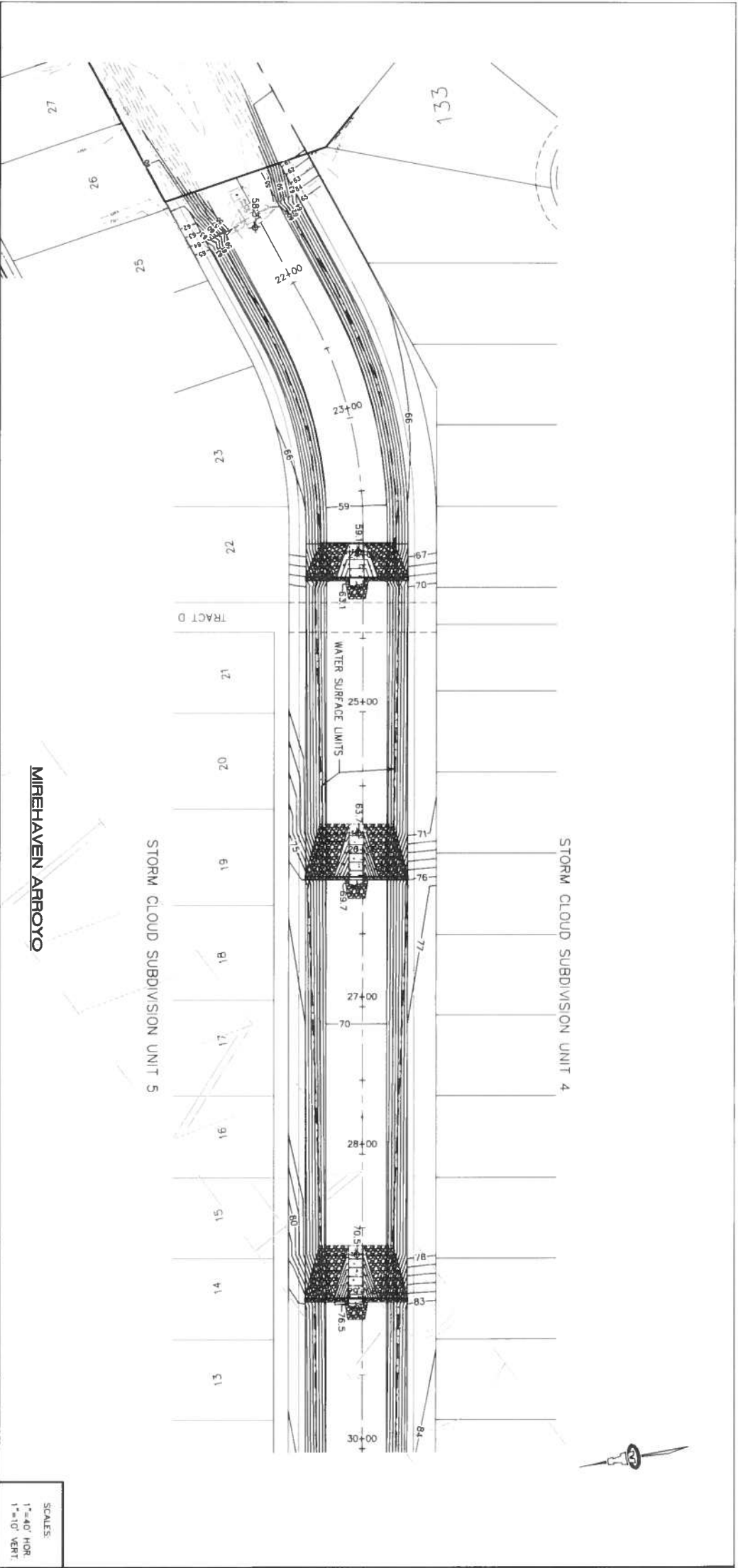
Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2285.18*	PF 1	1495.00	5258.75	5262.83	3.50		5263.69	0.004446	7.45	200.77	57.38	0.70
STORMCLOUD	2284.15*	PF 1	1495.00	5258.75	5262.82	3.49		5263.69	0.004472	7.46	200.37	57.35	0.70
STORMCLOUD	2283.11*	PF 1	1495.00	5258.75	5262.82	3.49		5263.68	0.004498	7.48	199.98	57.32	0.71
STORMCLOUD	2282.07*	PF 1	1495.00	5258.74	5262.81	3.49		5263.68	0.004472	7.46	200.37	57.35	0.70
STORMCLOUD	2281.03*	PF 1	1495.00	5258.74	5262.81	3.49		5263.67	0.004498	7.48	199.98	57.32	0.71
STORMCLOUD	2280.*	PF 1	1495.00	5258.74	5262.80	3.49		5263.67	0.004527	7.49	199.56	57.29	0.71
STORMCLOUD	2278.96*	PF 1	1495.00	5258.73	5262.80	3.48		5263.66	0.004498	7.48	199.98	57.32	0.71
STORMCLOUD	2277.92*	PF 1	1495.00	5258.73	5262.79	3.48		5263.66	0.004525	7.49	199.59	57.29	0.71
STORMCLOUD	2276.88*	PF 1	1495.00	5258.73	5262.78	3.48		5263.66	0.004551	7.51	199.20	57.27	0.71
STORMCLOUD	2275.85*	PF 1	1495.00	5258.72	5262.78	3.48		5263.65	0.004525	7.49	199.59	57.29	0.71
STORMCLOUD	2274.81*	PF 1	1495.00	5258.72	5262.77	3.48		5263.65	0.004553	7.51	199.17	57.27	0.71
STORMCLOUD	2273.77*	PF 1	1495.00	5258.71	5262.77	3.48		5263.64	0.004525	7.49	199.59	57.29	0.71
STORMCLOUD	2272.73*	PF 1	1495.00	5258.71	5262.76	3.48		5263.64	0.004551	7.51	199.20	57.27	0.71
STORMCLOUD	2271.70*	PF 1	1495.00	5258.71	5262.76	3.47		5263.63	0.004578	7.52	198.81	57.24	0.71
STORMCLOUD	2270.66*	PF 1	1495.00	5258.71	5262.75	3.47		5263.63	0.004607	7.54	198.39	57.21	0.71
STORMCLOUD	2269.62*	PF 1	1495.00	5258.70	5262.74	3.47		5263.62	0.004582	7.52	198.75	57.24	0.71
STORMCLOUD	2268.58*	PF 1	1495.00	5258.70	5262.74	3.47		5263.61	0.004609	7.54	198.36	57.21	0.71
STORMCLOUD	2267.55*	PF 1	1495.00	5258.69	5262.73	3.47		5263.61	0.004582	7.52	198.75	57.24	0.71
STORMCLOUD	2266.51*	PF 1	1495.00	5258.69	5262.73	3.47		5263.61	0.004611	7.54	198.33	57.21	0.71
STORMCLOUD	2265.47*	PF 1	1495.00	5258.69	5262.72	3.46		5263.61	0.004640	7.55	197.91	57.20	0.72
STORMCLOUD	2264.44*	PF 1	1495.00	5258.68	5262.72	3.47		5263.60	0.004613	7.54	198.30	57.20	0.71
STORMCLOUD	2263.40*	PF 1	1495.00	5258.68	5262.71	3.46		5263.59	0.004642	7.55	197.89	57.18	0.72
STORMCLOUD	2262.36*	PF 1	1495.00	5258.68	5262.70	3.46		5263.59	0.004672	7.57	197.47	57.15	0.72
STORMCLOUD	2261.32*	PF 1	1495.00	5258.67	5262.70	3.46		5263.58	0.004644	7.56	197.86	57.17	0.72
STORMCLOUD	2260.29*	PF 1	1495.00	5258.67	5262.69	3.46		5263.58	0.004674	7.57	197.44	57.14	0.72
STORMCLOUD	2259.25*	PF 1	1495.00	5258.66	5262.68	3.45		5263.57	0.004703	7.59	197.02	57.11	0.72
STORMCLOUD	2258.21*	PF 1	1495.00	5258.66	5262.67	3.45		5263.57	0.004677	7.57	197.38	57.14	0.72
STORMCLOUD	2257.17*	PF 1	1495.00	5258.66	5262.67	3.45		5263.56	0.004709	7.59	196.94	57.11	0.72
STORMCLOUD	2256.14*	PF 1	1495.00	5258.65	5262.66	3.45		5263.56	0.004739	7.61	196.52	57.08	0.72
STORMCLOUD	2255.10*	PF 1	1495.00	5258.65	5262.65	3.44		5263.55	0.004711	7.59	196.91	57.11	0.72
STORMCLOUD	2254.06*	PF 1	1495.00	5258.65	5262.65	3.44		5263.55	0.004741	7.61	196.49	57.08	0.72
STORMCLOUD	2253.02*	PF 1	1495.00	5258.64	5262.64	3.44		5263.54	0.004771	7.62	196.07	57.05	0.72
STORMCLOUD	2251.99*	PF 1	1495.00	5258.64	5262.64	3.44		5263.54	0.004747	7.61	196.41	57.07	0.72
STORMCLOUD	2250.95*	PF 1	1495.00	5258.64	5262.64	3.44		5263.54	0.004777	7.63	195.99	57.04	0.73
STORMCLOUD	2249.91*	PF 1	1495.00	5258.63	5262.63	3.43		5263.54	0.004808	7.64	195.57	57.01	0.73
STORMCLOUD	2248.87*	PF 1	1495.00	5258.63	5262.63	3.44		5263.53	0.004777	7.63	195.99	57.04	0.73
STORMCLOUD	2247.84*	PF 1	1495.00	5258.63	5262.62	3.43		5263.53	0.004808	7.64	195.57	57.01	0.73
STORMCLOUD	2246.80*	PF 1	1495.00	5258.63	5262.61	3.42		5263.52	0.004839	7.66	195.15	56.98	0.73
STORMCLOUD	2245.76*	PF 1	1495.00	5258.62	5262.61	3.43		5263.52	0.004812	7.65	195.52	57.01	0.73
STORMCLOUD	2244.72*	PF 1	1495.00	5258.62	5262.60	3.42		5263.51	0.004843	7.66	195.10	56.98	0.73
STORMCLOUD	2243.69*	PF 1	1495.00	5258.62	5262.59	3.42		5263.51	0.004874	7.68	194.68	56.95	0.73
STORMCLOUD	2242.65*	PF 1	1495.00	5258.61	5262.59	3.42		5263.50	0.004843	7.66	195.10	56.98	0.73
STORMCLOUD	2241.61*	PF 1	1495.00	5258.61	5262.58	3.42		5263.50	0.004874	7.68	194.68	56.95	0.73

HEG-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chi
STORMCLOUD	2240.58*	PF 1	1495.00	5258.61	5262.58	3.41		5263.50	0.004907	7.70	194.24	56.92	0.73
STORMCLOUD	2239.54*	PF 1	1495.00	5258.60	5262.57	3.42		5263.49	0.004886	7.69	194.51	56.94	0.73
STORMCLOUD	2238.50*	PF 1	1495.00	5258.60	5262.56	3.41		5263.48	0.004922	7.70	194.04	56.91	0.74
STORMCLOUD	2237.46*	PF 1	1495.00	5258.59	5262.55	3.40		5263.48	0.004956	7.72	193.60	56.87	0.74
STORMCLOUD	2236.43*	PF 1	1495.00	5258.59	5262.55	3.41		5263.47	0.004926	7.71	193.99	56.90	0.74
STORMCLOUD	2235.39*	PF 1	1495.00	5258.59	5262.54	3.40		5263.47	0.004960	7.72	193.54	56.87	0.74
STORMCLOUD	2234.35*	PF 1	1495.00	5258.59	5262.53	3.40		5263.47	0.004996	7.74	193.07	56.84	0.74
STORMCLOUD	2233.31*	PF 1	1495.00	5258.58	5262.53	3.40		5263.46	0.004975	7.73	193.35	56.86	0.74
STORMCLOUD	2232.28*	PF 1	1495.00	5258.58	5262.52	3.39		5263.45	0.005012	7.75	192.88	56.82	0.74
STORMCLOUD	2231.24*	PF 1	1495.00	5258.58	5262.51	3.39		5263.45	0.005048	7.77	192.40	56.79	0.74
STORMCLOUD	2230.20*	PF 1	1495.00	5258.57	5262.51	3.39		5263.44	0.005018	7.75	192.79	56.82	0.74
STORMCLOUD	2229.16*	PF 1	1495.00	5258.57	5262.50	3.39		5263.44	0.005055	7.77	192.32	56.78	0.74
STORMCLOUD	2228.13*	PF 1	1495.00	5258.56	5262.49	3.38		5263.43	0.005033	7.76	192.60	56.80	0.74
STORMCLOUD	2227.09*	PF 1	1495.00	5258.56	5262.48	3.38		5263.43	0.005070	7.78	192.13	56.77	0.75
STORMCLOUD	2226.05*	PF 1	1495.00	5258.56	5262.48	3.38		5263.42	0.005107	7.80	191.66	56.74	0.75
STORMCLOUD	2225.01*	PF 1	1495.00	5258.55	5262.47	3.38		5263.42	0.005079	7.79	192.02	56.76	0.75
STORMCLOUD	2223.98*	PF 1	1495.00	5258.55	5262.46	3.37		5263.41	0.005154	7.82	191.07	56.71	0.75
STORMCLOUD	2222.94*	PF 1	1495.00	5258.54	5262.45	3.37		5263.40	0.005134	7.81	191.32	56.71	0.75
STORMCLOUD	2221.90*	PF 1	1495.00	5258.54	5262.45	3.37		5263.40	0.005172	7.83	190.85	56.68	0.75
STORMCLOUD	2220.87*	PF 1	1495.00	5258.54	5262.44	3.36		5263.40	0.005210	7.85	190.38	56.65	0.75
STORMCLOUD	2219.83*	PF 1	1495.00	5258.53	5262.43	3.36		5263.39	0.005188	7.84	190.66	56.67	0.75
STORMCLOUD	2218.79*	PF 1	1495.00	5258.53	5262.42	3.36		5263.38	0.005228	7.86	190.16	56.63	0.76
STORMCLOUD	2217.75*	PF 1	1495.00	5258.53	5262.42	3.35		5263.38	0.005267	7.88	189.69	56.60	0.76
STORMCLOUD	2216.72*	PF 1	1495.00	5258.52	5262.41	3.35		5263.37	0.005247	7.87	189.94	56.62	0.76
STORMCLOUD	2215.68*	PF 1	1495.00	5258.52	5262.40	3.35		5263.37	0.005286	7.89	189.47	56.58	0.76
STORMCLOUD	2214.64*	PF 1	1495.00	5258.52	5262.39	3.34		5263.36	0.005304	7.91	188.97	56.55	0.76
STORMCLOUD	2213.60*	PF 1	1495.00	5258.52	5262.38	3.34		5263.35	0.005348	7.92	188.25	56.57	0.76
STORMCLOUD	2212.57*	PF 1	1495.00	5258.51	5262.37	3.33		5263.35	0.005393	7.94	188.72	56.53	0.76
STORMCLOUD	2211.53*	PF 1	1495.00	5258.51	5262.36	3.33		5263.34	0.005372	7.93	188.20	56.49	0.77
STORMCLOUD	2210.49*	PF 1	1495.00	5258.50	5262.35	3.33		5263.34	0.005417	7.96	187.92	56.47	0.77
STORMCLOUD	2209.45*	PF 1	1495.00	5258.50	5262.34	3.32		5263.33	0.005462	7.98	187.40	56.44	0.77
STORMCLOUD	2208.42*	PF 1	1495.00	5258.49	5262.33	3.32		5263.32	0.005441	7.97	187.65	56.45	0.77
STORMCLOUD	2207.38*	PF 1	1495.00	5258.49	5262.32	3.31		5263.32	0.005484	8.01	187.15	56.42	0.77
STORMCLOUD	2206.34*	PF 1	1495.00	5258.48	5262.31	3.31		5263.31	0.005530	8.00	186.63	56.38	0.78
STORMCLOUD	2205.30*	PF 1	1495.00	5258.48	5262.30	3.30		5263.31	0.005506	8.02	186.41	56.37	0.78
STORMCLOUD	2204.27*	PF 1	1495.00	5258.48	5262.29	3.30		5263.30	0.005550	8.04	185.91	56.33	0.78
STORMCLOUD	2203.23*	PF 1	1495.00	5258.47	5262.28	3.30		5263.29	0.005594	8.03	186.16	56.35	0.78
STORMCLOUD	2202.19*	PF 1	1495.00	5258.47	5262.27	3.29		5263.29	0.005572	8.05	185.64	56.31	0.78
STORMCLOUD	2201.15*	PF 1	1495.00	5258.47	5262.27	3.29		5263.29	0.005619	8.08	185.12	56.27	0.78
STORMCLOUD	2200.12*	PF 1	1495.00	5258.46	5262.27	3.29		5263.29	0.005667	8.07	185.36	56.29	0.78
STORMCLOUD	2199.08*	PF 1	1495.00	5258.46	5262.27	3.29		5263.28	0.005644	8.07	185.36	56.29	0.78
STORMCLOUD	2198.04*	PF 1	1495.00	5258.46	5262.27	3.29		5263.28	0.005644	8.07	185.36	56.29	0.78
STORMCLOUD	2197.01*	PF 1	1495.00	5258.46	5262.27	3.29		5263.28	0.005644	8.07	185.36	56.29	0.78

HEC-RAS Plan: wilson 1 River: MIREHAVEN ARROYO Reach: STORMCLOUD Profile: PF 1 (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Hydr Depth C (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
STORMCLOUD	2195.97*	PF1	1495.00	5258.46	5282.26	3.29		5263.27	0.005692	8.09	184.84	56.26	0.79
STORMCLOUD	2194.93*	PF1	1495.00	5258.46	5282.25	3.28		5263.27	0.005743	8.11	184.29	56.22	0.79
STORMCLOUD	2193.89*	PF1	1495.00	5258.45	5282.24	3.28		5263.26	0.005722	8.10	184.51	56.23	0.79
STORMCLOUD	2192.86*	PF1	1495.00	5258.45	5282.23	3.27		5263.26	0.005776	8.13	183.94	56.19	0.79
STORMCLOUD	2191.82*	PF1	1495.00	5258.45	5282.22	3.27		5263.26	0.005828	8.15	183.39	56.15	0.79
STORMCLOUD	2190.78*	PF1	1495.00	5258.44	5282.22	3.27		5263.25	0.005805	8.14	183.63	56.17	0.79
STORMCLOUD	2189.74*	PF1	1495.00	5258.44	5282.21	3.26		5263.24	0.005857	8.17	183.09	56.13	0.80
STORMCLOUD	2188.71*	PF1	1495.00	5258.44	5282.20	3.25		5263.24	0.005913	8.19	182.51	56.09	0.80
STORMCLOUD	2187.67*	PF1	1495.00	5258.43	5282.19	3.26		5263.23	0.005891	8.18	182.73	56.10	0.80
STORMCLOUD	2186.63*	PF1	1495.00	5258.43	5282.18	3.25		5263.23	0.005945	8.21	182.18	56.07	0.80
STORMCLOUD	2185.59*	PF1	1495.00	5258.43	5282.17	3.24		5263.22	0.006001	8.23	181.61	56.02	0.81
STORMCLOUD	2184.56*	PF1	1495.00	5258.42	5282.17	3.24		5263.22	0.005977	8.22	181.85	56.04	0.80
STORMCLOUD	2183.52*	PF1	1495.00	5258.42	5282.16	3.24		5263.21	0.006034	8.25	181.28	56.00	0.81
STORMCLOUD	2182.48*	PF1	1495.00	5258.42	5282.15	3.23		5263.21	0.006092	8.27	180.71	55.96	0.81
STORMCLOUD	2181.44*	PF1	1495.00	5258.41	5282.14	3.23		5263.20	0.006069	8.26	180.92	55.98	0.81
STORMCLOUD	2180.41*	PF1	1495.00	5258.41	5282.13	3.22		5263.20	0.006128	8.29	180.35	55.94	0.81
STORMCLOUD	2179.37*	PF1	1495.00	5258.40	5282.12	3.23		5263.19	0.006105	8.28	180.57	55.95	0.81
STORMCLOUD	2178.33*	PF1	1495.00	5258.40	5282.11	3.22		5263.18	0.006167	8.31	179.97	55.91	0.82
STORMCLOUD	2177.3*	PF1	1495.00	5258.40	5282.10	3.21		5263.18	0.006229	8.33	179.37	55.86	0.82
STORMCLOUD	2176.26*	PF1	1495.00	5258.40	5282.09	3.20		5263.18	0.006295	8.36	178.74	55.82	0.82
STORMCLOUD	2175.22*	PF1	1495.00	5258.39	5282.08	3.20		5263.17	0.006275	8.36	178.93	55.83	0.82
STORMCLOUD	2174.18*	PF1	1495.00	5258.39	5282.07	3.20		5263.16	0.006341	8.38	178.30	55.79	0.83
STORMCLOUD	2173.15*	PF1	1495.00	5258.38	5282.07	3.20		5263.16	0.006318	8.37	178.52	55.80	0.83
STORMCLOUD	2172.11*	PF1	1495.00	5258.38	5282.06	3.19		5263.15	0.006385	8.40	177.90	55.76	0.83
STORMCLOUD	2171.07*	PF1	1495.00	5258.38	5282.04	3.18		5263.15	0.006453	8.43	177.27	55.71	0.83
STORMCLOUD	2170.03*	PF1	1495.00	5258.37	5282.04	3.18		5263.14	0.006432	8.42	177.46	55.73	0.83
STORMCLOUD	2169.00*	PF1	1495.00	5258.37	5282.03	3.18		5263.14	0.006501	8.45	176.83	55.68	0.84
STORMCLOUD	2167.96*	PF1	1495.00	5258.37	5282.02	3.17		5263.13	0.006570	8.48	176.21	55.64	0.84
STORMCLOUD	2166.92*	PF1	1495.00	5258.36	5282.01	3.17		5263.12	0.006546	8.47	176.43	55.65	0.84
STORMCLOUD	2165.88*	PF1	1495.00	5258.36	5282.00	3.16		5263.12	0.006622	8.51	175.75	55.60	0.84
STORMCLOUD	2164.85*	PF1	1495.00	5258.36	5281.98	3.15		5263.12	0.006699	8.54	175.07	55.56	0.85
STORMCLOUD	2163.81*	PF1	1495.00	5258.35	5281.98	3.15		5263.11	0.006681	8.53	175.23	55.57	0.85
STORMCLOUD	2162.77*	PF1	1495.00	5258.35	5281.97	3.14		5263.10	0.006759	8.56	174.55	55.52	0.85
STORMCLOUD	2161.73*	PF1	1495.00	5258.35	5281.95	3.13	5261.61	5263.10	0.006842	8.60	173.85	55.47	0.86
STORMCLOUD	2160.70*	PF1	1495.00	5258.34	5281.95	3.14		5263.09	0.006819	8.59	174.04	55.48	0.85
STORMCLOUD	2159.66*	PF1	1495.00	5258.34	5281.93	3.13		5263.09	0.006903	8.62	173.34	55.43	0.86
STORMCLOUD	2158.62*	PF1	1495.00	5258.34	5281.92	3.12	5261.60	5263.08	0.006985	8.66	172.66	55.38	0.86
STORMCLOUD	2157.58*	PF1	1495.00	5258.33	5281.91	3.12		5263.08	0.006965	8.65	172.82	55.39	0.86
STORMCLOUD	2156.55*	PF1	1495.00	5258.33	5281.90	3.11		5263.07	0.007054	8.69	172.09	55.34	0.87
STORMCLOUD	2155.51*	PF1	1495.00	5258.33	5281.89	3.10	5261.58	5263.07	0.007145	8.72	171.36	55.29	0.87
STORMCLOUD	2154.47*	PF1	1495.00	5258.32	5281.88	3.10	5261.58	5263.06	0.007125	8.72	171.52	55.30	0.87
STORMCLOUD	2153.44	PF1	1495.00	5258.32	5281.58	2.87	5261.58	5263.02	0.009663	9.64	155.05	54.10	1.00



ISAACSON & AREMAN, P.A. Consulting Engineering Associates 128 Monroe Street NE Albuquerque, New Mexico 87108 PH: 505-268-8828 www.isaacson.com 1803 C.E. - 30th day May 14, 2012		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: MIREHAVEN ARROYO IMPROVEMENTS		ENGINEER'S SEAL	
MIREHAVEN ARROYO STA 22+00 TO STA 30+00		PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION USE.	
Design Review Committee		SURVEY INFORMATION	
City Project No.		FIELD NOTES	
Zone Map No.		1 SURVTEK 04/11	
Sheet 5 OF		BENCH MARKS	
Last Design Update		Albuquerque Control Survey Monument	
AS-BUILT INFORMATION		"4-H9", having a published elevation of 5209.315 feet (NAVD 88)	
CONTRACTOR		WORK STAKED BY	
INSPECTOR'S ACCEPTANCE BY		DATE	
FIELD VERIFICATION BY		DATE	
DRAWING CORRECTED BY		DATE	
MICRO-FILM INFORMATION		RECORDED BY	
NO.		DATE	

II. CORRECTION TO APPENDIX E

Corrected Unit 4 Sump Inlet Designations

STORM CLOUD, UNIT 4

SUMP INLET CAPACITY

GRATE OPEN AREA:

(per COA std dwg #2220, single grate)

$$\begin{aligned}\text{GROSS AREA FOR ONE GRATE} &= (25 \text{ in}/12)(40 \text{ in}/12) = & 6.94 \text{ SF} \\ \text{LESS BEARING BARS} &= (0.5 \text{ in}/12)(3.33 \text{ ft})(13) = & 1.80 \text{ SF} \\ \text{LESS CROSS BARS} &= (0.5 \text{ in}/12)(7)[(25 \text{ in}/12)-(13)(0.5 \text{ in}/12)] = & 0.45 \text{ SF}\end{aligned}$$

$$\text{NET GRATE OPEN AREA} = 4.69 \text{ SF}$$

$$\text{GRATE OPEN AREA (assuming 50\% clogging factor)} = 2.35 \text{ SF}$$

ORIFICE EQUATION:

$$Q = CA(2gh)^{1/2}$$

Where:

$$C = 0.67$$

$$A = 2.35 \text{ ft}^2$$

$$g = 32.2 \text{ ft/sec}^2$$

h = height of the water surface above the grate

CAPACITY CALCULATIONS:

INLET # 3 & 4	
LOCATION: SUMMER BREEZE	
$h = 0.67 \text{ ft}$	
$Q_{\text{(capacity)}} = 10.32273 \text{ cfs}$	REQUIRED $Q = 21.6 \text{ cfs}$
NUMBER OF GRATES REQUIRED = <u>3</u>	

INLET # 5 & 6 ← CORRECTION	
LOCATION: MONSOON	
$h = 0.67 \text{ ft}$	
$Q_{\text{(capacity)}} = 10.32273 \text{ cfs}$	REQUIRED $Q = 21.2 \text{ cfs}$
NUMBER OF GRATES REQUIRED = <u>3</u>	

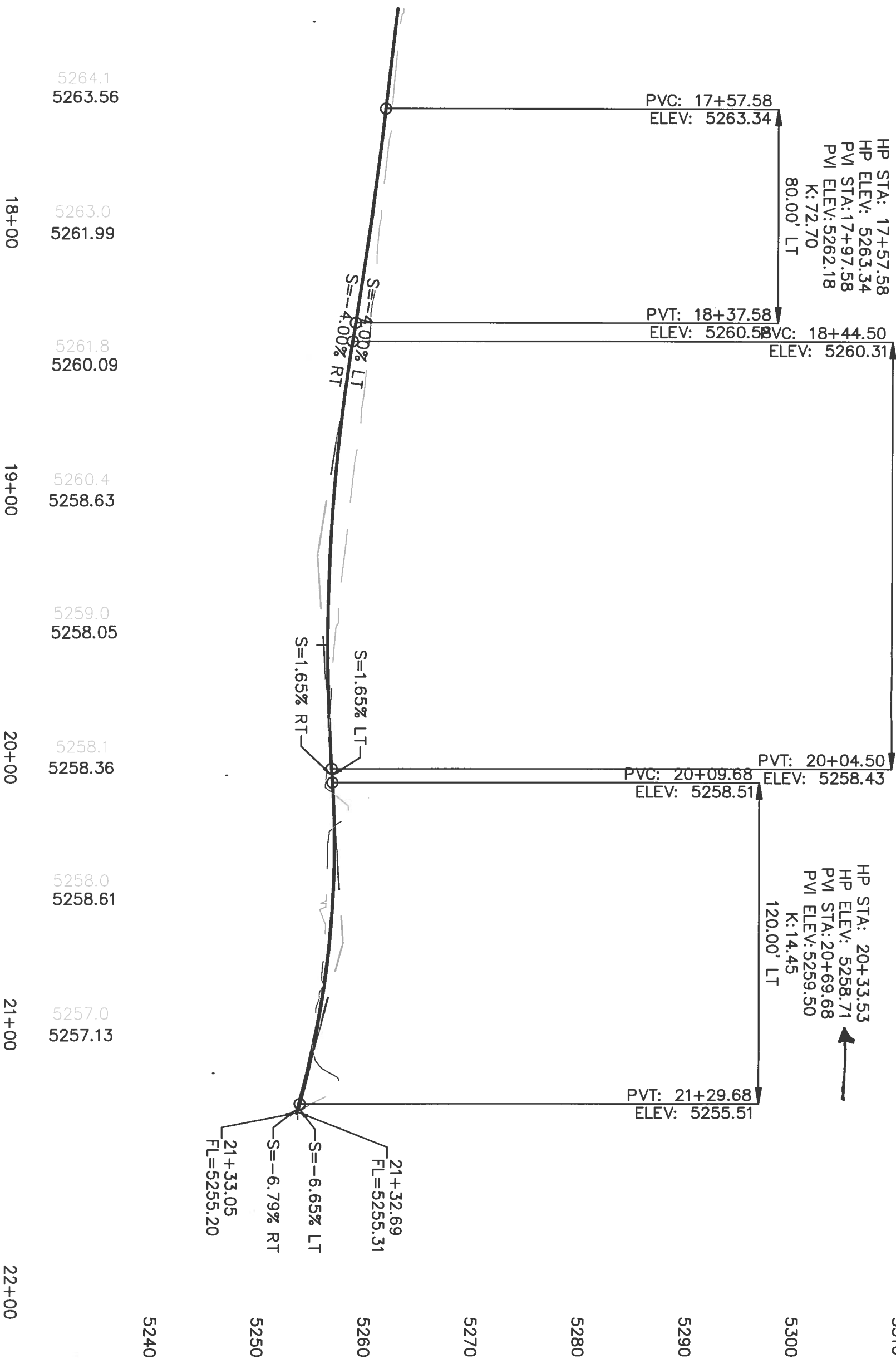
INLET # 9 & 10	
LOCATION: SUMMER BREEZE	
$h = 0.67 \text{ ft}$	
$Q_{\text{(capacity)}} = 10.32273 \text{ cfs}$	REQUIRED $Q = 13.9 \text{ cfs}$
NUMBER OF GRATES REQUIRED = <u>2</u>	

III. CAMINO DEL VENADO SUMP INLETS

Profile Exhibit to Illustrate High Point Elevation

CAMINO DEL VENADO
PROFILE

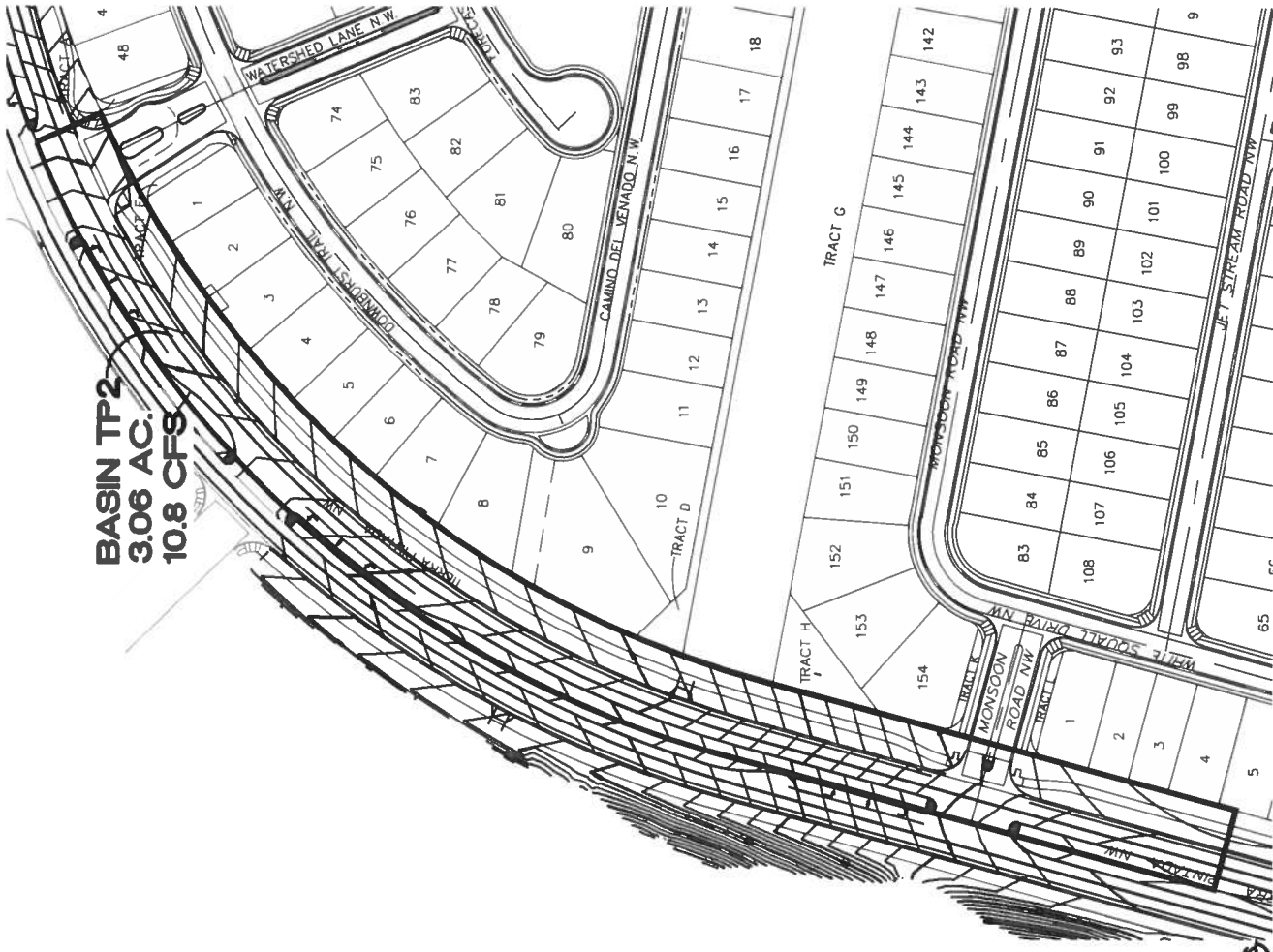
1"=40' HOR.
1"=10' VERT.



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IV. TIERRA PINTADA WATER BLOCKS AT ENTRANCES

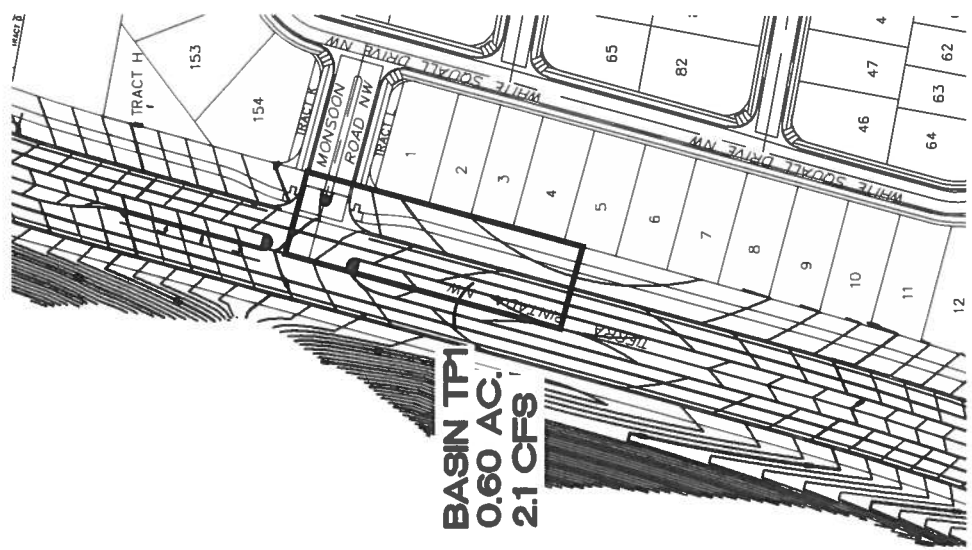
**Tierra Pintada Basin Exhibit
Basin Areas & Land Treatments
AHYMO Calculations
Street Flow Depth at Entrances**



BASIN TP2
3.06 AC.
10.8 CFS

STORM CLOUD UNIT 5
TERRA PINTADA BASIN
EXHIBIT

1"=200'



BASIN TP1
0.60 AC.
2.1 CFS

STORM CLOUD UNIT 4
TERRA PINTADA BASIN
EXHIBIT

STORM CLOUD, UNITS 4 & 5
TIERRA PINTADA BASINS

**BASIN AREA AND LAND TREATMENT TABLE--
PROPOSED CONDITIONS**

BASIN	AREA			LAND TREATMENT (%)				Q100, cfs
	SF	AC.	SQ. MI.	A	B	C	D	
TP1	26160	0.6006	0.00094	0	0	53	47	2.1
TP2	133353	3.0614	0.00478	0	0	53	47	10.8

TP1 Basin contributing flows to Monsoon Rd. entrance in Unit 4
TP2 Basin contributing flows to Watershed Ln. entrance in Unit 5

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE =
S	STORM CLOUD, UNIT 5									1
S	TIERRA PINTADA BASIN									
S	DEVELOPED CONDITIONS									
S	100-YR, 6-HR STORM									
S	1822P2.DAT									
S	MARCH 2012									
S	BY ASA NILSSON-WEBER									
S	ISACSON & ARFMAN, P.A.									

TIME=	RAIN6=
0.00	2.210

START
 RAINFALL TYPE= 1 NOAA 14
 *S BASIN TP1-TIERRA PINTADA BASIN CONTRIBUTING FLOW TO
 *S MONSOON RD ENTRANCE UNIT 4
 COMPUTE NM HYD 101.00 - 1 0.00094 2.15 0.072 1.44368 1.530 3.568 PER IMP= 47.00
 *S BASIN TP2-TIERRA PINTADA BASIN CONTRIBUTING FLOW TO
 *S WATERSHED LN ENTRANCE UNIT 5
 COMPUTE NM HYD 102.00 - 2 0.00478 10.84 0.368 1.44368 1.530 3.544 PER IMP= 47.00
 FINISH

Channel Report

Hydraflow Express Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc.

Monday, Mar 12 2012

TIERRA PINTADA SECTION AT WATERSHED LN (LOOKING NORTH)

User-defined

Invert Elev (ft) = 100.00
Slope (%) = 2.60
N-Value = 0.017

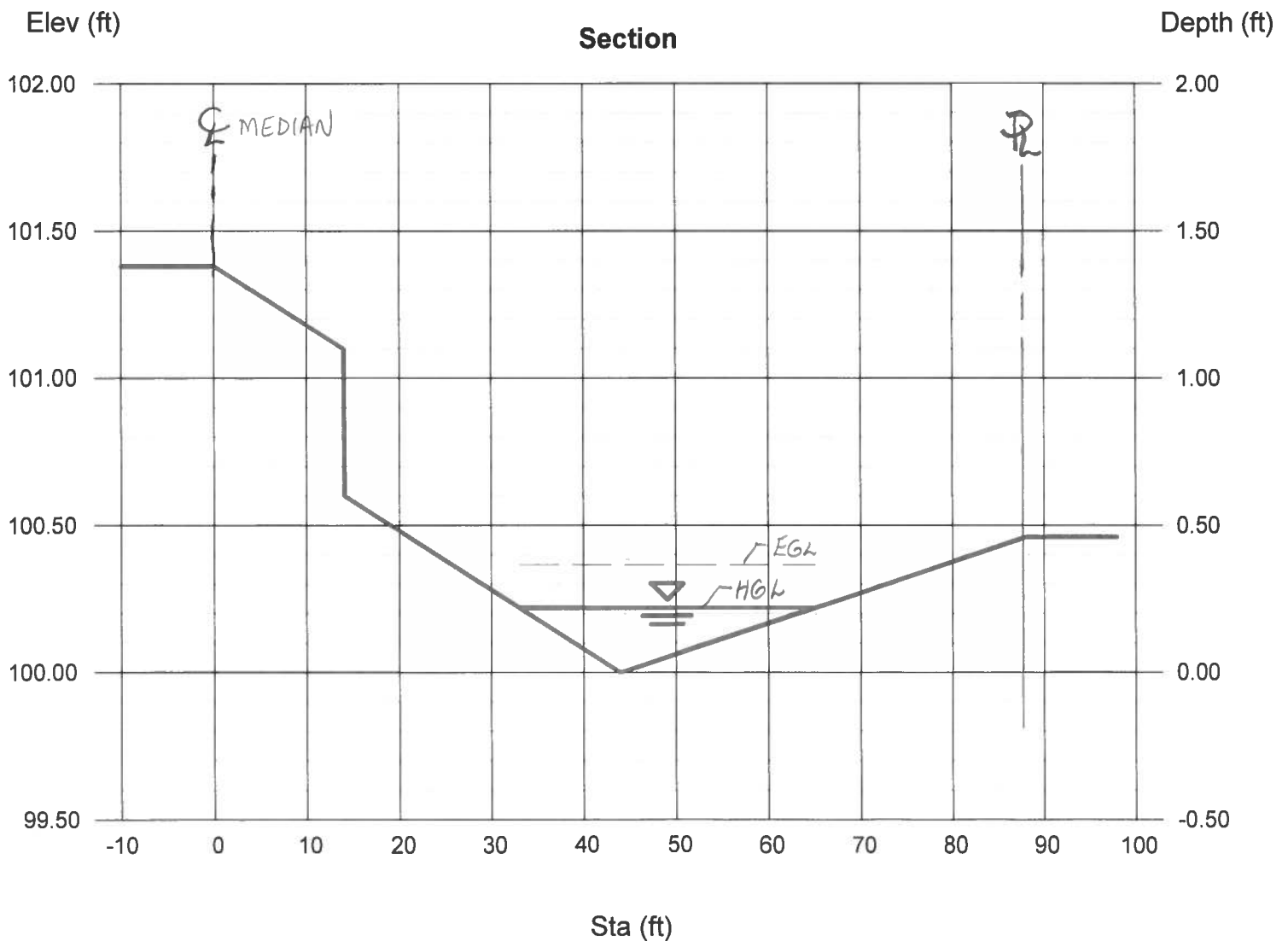
Calculations

Compute by: Known Q
Known Q (cfs) = 10.80

Highlighted

Depth (ft) = 0.22
Q (cfs) = 10.80
Area (sqft) = 3.52
Velocity (ft/s) = 3.07
Wetted Perim (ft) = 32.01
Crit Depth, Yc (ft) = 0.27
Top Width (ft) = 32.01
EGL (ft) = 0.37

(Sta, El, n) (Sta, El, n) ... (14.10, 100.60, 0.017)-(44.00, 100.00, 0.017)-(88.00, 100.46, 0.017)



Monday, Mar 12 2012

