



**STUDIO MACRI'
TECNICI ASSOCIATI**

Progetti integrati
d' Ingegneria
ed Architettura

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COMUNE DI CARDINALE

(PROVINCIA DI CATANZARO)

PERIZIA DI VARIANTE E SUPPLETIVA

DATA:		
FEBBRAIO 2026	PROGETTISTA :	DIRETTORE DEI LAVORI:
	ING. DOMENICO MACRI'	ING. DOMENICO MACRI'

	TITOLO DEL PROGETTO:
	INTERVENTI DI SISTEMAZIONE DELLE PENDICI SOVRASTANTI IL CENTRO STORICO DEL COMUNE DI CARDINALE – CODICE CZ042A/10.

Prot. Dis.	Modifiche:	1
	Sostituisce il N.	2
	Sostituito dal N.	3
ALL. N.	Oggetto del Disegno:	
A1.3.	ALLEGATO "a" RELAZIONE IDRAULICA - TABULATI VERIFICHE ESEGUITE IN HEC RAS	
a.V		

SCALA:	ENTE APPALTANTE:
	COMMISSARIO DEL GOVERNO per il contrasto dissesto R. Calabria- info@pec.dissestocalabria.it
	RESPONSABILE U.P. – Geom. A. FALVO- e-mail: a.falvo@dissestocalabria.it

A TERMINI DI LEGGE – ART. 2578 DEL C.C. CI RISERVIAMO L'ESCLUSIVA PROPRIETA' DI QUESTO ELABORATO TECNICO, CON DIVIETO DI COPIARLO O RIPRODURLO SENZA IL NOSTRO CONSENSO SCRITTO

ALLEGATO 1: SIMULAZIONE HEC RAS
OPERE IN PROGETTO CON EFFLUSSO LIBERO NELLA FIUMARA ANCINALE

ALLEGATO 2: SIMULAZIONE HEC RAS
OPERE IN PROGETTO CON EFFLUSSO RIGURGITATO NELLA FIUMARA ANCINALE

ALLEGATO 1: SIMULAZIONE HEC RAS
OPERE IN PROGETTO CON EFFLUSSO LIBERO NELLA FIUMARA ANCINALE

HEC-RAS Plan: 01 Profile: PF 1

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Marchese	2	39	PF 1	2.34	682.00	682.20	682.41	683.16	0.324634	4.33	0.54	3.13	3.33
Marchese	2	38	PF 1	2.34	679.50	679.64	679.81	680.41	0.373896	3.89	0.60	4.64	3.45
Marchese	2	37	PF 1	2.34	677.00	677.13	677.23	677.48	0.187929	2.63	0.89	7.37	2.42
Marchese	2	36	PF 1	2.34	675.00	675.23	675.39	675.85	0.217837	3.47	0.67	4.10	2.74
Marchese	2	35.5	PF 1	2.34	672.49	674.67	673.28	674.68	0.000061	0.23	11.38	11.83	0.06
Marchese	2	35.1		Inl Struct									
Marchese	2	35	PF 1	2.34	672.00	672.79	672.79	672.98	0.026419	1.94	1.20	3.20	1.01
Marchese	2	34	PF 1	2.34	667.00	667.10	667.41	671.02	2.922094	8.77	0.27	2.82	9.10
Marchese	2	33	PF 1	2.34	660.50	660.69	660.84	661.26	0.191134	3.34	0.70	4.00	2.55
Marchese	2	32.5	PF 1	2.34	657.60	659.68	658.06	659.68	0.000043	0.21	11.69	8.76	0.05
Marchese	2	32.1		Inl Struct									
Marchese	2	32	PF 1	2.34	657.00	657.46	657.46	657.62	0.024563	1.80	1.30	3.99	1.01
Marchese	2	31	PF 1	2.34	653.00	653.33	653.69	656.68	1.214698	8.11	0.29	1.68	6.24
Marchese	2	30.5	PF 1	2.34	650.50	652.67	651.08	652.68	0.000059	0.24	10.19	7.90	0.06
Marchese	2	30.1		Inl Struct									
Marchese	2	30	PF 1	2.34	650.00	650.58	650.58	650.77	0.024684	1.90	1.23	3.40	1.01
Marchese	2	29	PF 1	2.34	646.00	646.23	646.61	649.82	1.347345	8.39	0.28	1.68	6.58
Marchese	2	28.5	PF 1	2.34	642.64	644.68	643.02	644.68	0.000026	0.17	14.30	9.96	0.04
Marchese	2	28.1		Inl Struct									
Marchese	2	28	PF 1	2.34	642.00	642.38	642.38	642.52	0.024660	1.67	1.41	4.97	1.00
Marchese	2	27	PF 1	2.34	640.50	640.65	640.84	641.74	0.606713	4.64	0.50	4.31	4.33
Marchese	2	26	PF 1	2.34	638.00	638.36	638.51	638.90	0.164139	3.24	0.72	3.92	2.41
Marchese	2	25	PF 1	2.34	636.50	636.66	636.86	637.54	0.356995	4.15	0.56	3.78	3.43
Marchese	2	24	PF 1	2.34	633.50	633.63	633.80	634.44	0.422825	3.97	0.59	4.82	3.63
Marchese	2	23	PF 1	2.34	630.50	630.64	630.78	631.19	0.256158	3.27	0.72	5.41	2.87
Marchese	2	22.5	PF 1	2.34	627.40	629.67	627.81	629.68	0.000021	0.16	15.24	9.86	0.04
Marchese	2	22.1		Inl Struct									
Marchese	2	22	PF 1	2.34	627.00	627.41	627.41	627.56	0.024986	1.73	1.35	4.53	1.01
Marchese	2	21	PF 1	2.34	625.00	625.13	625.38	627.06	1.072091	6.15	0.38	3.23	5.72
Marchese	1	33	PF 1	2.55	687.00	687.19	687.51	689.72	1.000164	7.04	0.36	2.34	5.71
Marchese	1	32	PF 1	2.55	683.00	683.20	683.52	685.70	1.003083	6.99	0.36	2.39	5.72
Marchese	1	31.5	PF 1	2.55	681.73	683.70	682.43	683.71	0.000173	0.36	7.16	5.98	0.10
Marchese	1	31.1		Inl Struct									
Marchese	1	31	PF 1	2.55	681.00	681.70	681.70	681.90	0.024936	2.02	1.26	3.11	1.01
Marchese	1	30	PF 1	2.55	676.00	676.15	676.54	680.50	2.114403	9.24	0.28	2.04	8.03
Marchese	1	29.5	PF 1	2.55	675.13	676.70	675.86	676.72	0.000830	0.61	4.15	4.14	0.19
Marchese	1	29.1		Inl Struct									
Marchese	1	29	PF 1	2.55	674.00	674.73	674.73	674.95	0.025616	2.08	1.22	2.83	1.01

HEC-RAS Plan: 01 Profile: PF 1 (Continued)

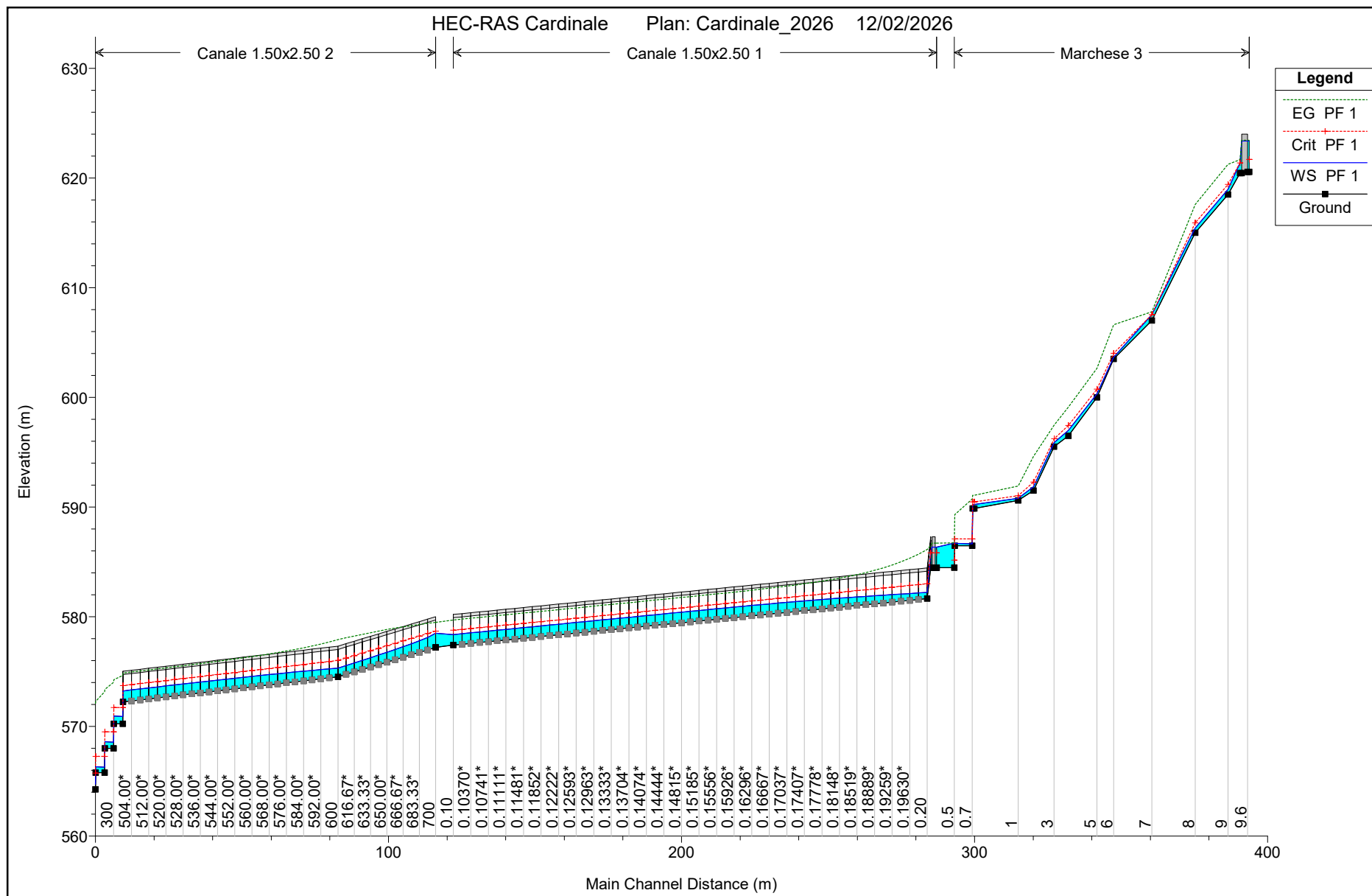
River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Marchese	1	28	PF 1	2.55	670.00	670.22	670.52	673.71	1.790620	8.27	0.31	2.46	7.46
Marchese	1	27.5	PF 1	2.55	667.55	669.71	668.23	669.71	0.000109	0.31	8.63	6.97	0.08
Marchese	1	27.1		Inl Struct									
Marchese	1	27	PF 1	2.55	667.00	667.68	667.68	667.90	0.024906	2.06	1.24	2.91	1.01
Marchese	1	26	PF 1	2.55	663.50	663.73	664.12	666.93	1.063622	7.92	0.32	1.74	5.89
Marchese	1	25.5	PF 1	2.55	660.61	662.70	661.37	662.71	0.000257	0.50	5.08	5.41	0.12
Marchese	1	25.1		Inl Struct									
Marchese	1	25	PF 1	2.55	660.00	660.76	660.76	660.99	0.025985	2.12	1.20	2.67	1.01
Marchese	1	24	PF 1	2.55	658.00	658.25	658.59	660.35	0.633995	6.41	0.40	2.03	4.63
Marchese	1	23.5	PF 1	2.55	655.95	658.21	656.32	658.21	0.000041	0.21	12.59	7.36	0.05
Marchese	1	23.1		Inl Struct									
Marchese	1	23	PF 1	2.55	655.50	655.87	655.87	656.03	0.024854	1.81	1.41	4.29	1.00
Marchese	1	22	PF 1	2.55	654.00	654.17	654.44	655.79	0.648090	5.64	0.45	2.92	4.58
Marchese	1	21.5	PF 1	2.55	651.78	653.71	652.35	653.71	0.000145	0.34	7.62	5.78	0.09
Marchese	1	21.1		Inl Struct									
Marchese	1	21	PF 1	2.55	651.00	651.57	651.57	651.76	0.024503	1.94	1.31	3.48	1.01
Marchese	1	20	PF 1	2.55	648.50	648.87	649.28	651.28	0.588842	6.87	0.37	1.46	4.35
Marchese	1	19.5	PF 1	2.55	646.75	648.70	647.59	648.71	0.000477	0.54	4.90	4.53	0.15
Marchese	1	19.1		Inl Struct									
Marchese	1	19	PF 1	2.55	646.00	646.84	646.84	647.10	0.028211	2.24	1.14	2.24	1.01
Marchese	1	18	PF 1	2.55	645.00	645.13	645.36	646.67	0.820337	5.49	0.46	3.77	5.00
Marchese	1	17.5	PF 1	2.55	642.54	644.71	643.14	644.71	0.000044	0.21	12.55	9.81	0.05
Marchese	1	17.1		Inl Struct									
Marchese	1	17	PF 1	2.55	642.00	642.60	642.60	642.77	0.024822	1.81	1.41	4.37	1.01
Marchese	1	16	PF 1	2.55	640.00	640.23	640.55	642.31	0.691547	6.38	0.40	2.25	4.84
Marchese	1	15.5	PF 1	2.55	638.67	640.71	639.27	640.71	0.000083	0.27	9.64	7.68	0.07
Marchese	1	15.1		Inl Struct									
Marchese	1	15	PF 1	2.55	638.00	638.60	638.60	638.78	0.024170	1.89	1.35	3.74	1.01
Marchese	1	14	PF 1	2.55	636.50	636.66	636.94	638.41	0.705479	5.86	0.44	2.83	4.77
Marchese	1	13.5	PF 1	2.55	633.53	635.70	634.31	635.71	0.000173	0.38	7.00	5.53	0.10
Marchese	1	13.1		Inl Struct									
Marchese	1	13	PF 1	2.55	633.00	633.78	633.78	634.01	0.025795	2.11	1.21	2.73	1.01
Marchese	1	12	PF 1	2.55	631.00	631.15	631.44	633.26	0.980312	6.43	0.40	2.89	5.55
Marchese	1	11	PF 1	2.55	627.00	627.40	627.72	628.86	0.326639	5.35	0.48	1.86	3.37
Marchese	3	10	PF 1	6.84	620.56	623.37	621.70	623.45	0.001129	1.25	5.47	5.25	0.24
Marchese	3	9.6		Inl Struct									
Marchese	3	9.5	PF 1	6.84	620.45	621.38	621.38	621.68	0.021480	2.43	2.81	4.75	1.01
Marchese	3	9	PF 1	6.84	618.50	618.97	619.43	621.26	0.347833	6.69	1.02	3.11	3.73

HEC-RAS Plan: 01 Profile: PF 1 (Continued)

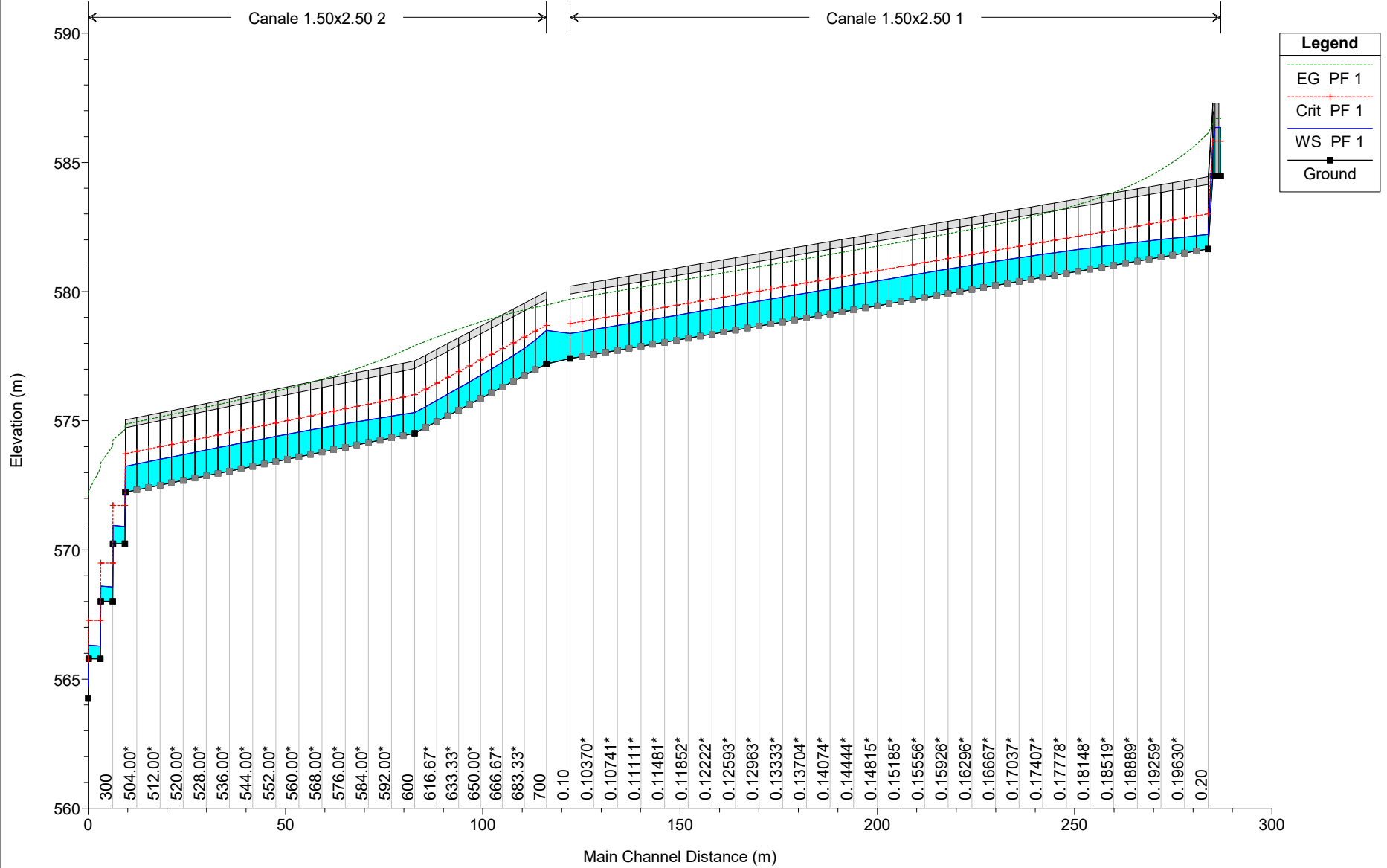
River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Marchese	3	8	PF 1	6.84	615.00	615.43	615.91	617.60	0.299423	6.52	1.05	2.75	3.37
Marchese	3	7	PF 1	6.84	607.00	607.55	607.55	607.80	0.022052	2.18	3.14	6.57	1.01
Marchese	3	6	PF 1	6.84	603.50	603.66	604.02	606.63	1.158634	7.63	0.90	5.87	6.24
Marchese	3	5	PF 1	6.84	600.00	600.32	600.75	602.64	0.433671	6.74	1.01	3.69	4.10
Marchese	3	4	PF 1	6.84	596.50	596.99	597.44	599.11	0.299986	6.45	1.06	3.01	3.47
Marchese	3	3	PF 1	6.84	595.50	595.90	596.23	597.49	0.297514	5.59	1.22	4.53	3.44
Marchese	3	2	PF 1	6.84	591.50	591.84	592.28	594.61	0.547178	7.38	0.93	3.50	4.57
Marchese	3	1	PF 1	6.84	590.60	590.80	591.04	591.92	0.330840	4.70	1.46	7.66	3.44
Marchese	3	0.9	PF 1	6.84	589.87	590.24	590.48	591.08	0.019420	4.07	1.68	4.63	2.16
Marchese	3	0.8	PF 1	6.84	589.87	590.24	590.48	591.07	0.018740	4.03	1.70	4.64	2.12
Marchese	3	0.7	PF 1	6.84	586.48	586.65	587.09	590.73	0.241182	8.95	0.76	4.57	6.99
Marchese	3	0.6	PF 1	6.84	586.48	586.69	587.09	589.31	0.118968	7.18	0.95	4.62	5.04
Marchese	3	0.5	PF 1	6.84	584.48	586.71	585.16	586.73	0.000117	0.73	9.36	4.62	0.16
Giacco	1	16	PF 1	9.64	592.00	592.71	593.22	594.70	0.190330	6.25	1.54	2.93	2.75
Giacco	1	15	PF 1	9.64	590.00	590.55	591.04	592.56	0.217352	6.28	1.53	3.43	3.00
Giacco	1	14	PF 1	9.64	588.00	588.41	588.82	590.27	0.271506	6.05	1.59	4.88	3.38
Giacco	1	13	PF 1	9.64	587.50	587.76	587.92	588.29	0.109706	3.24	2.97	11.98	2.08
Giacco	1	12	PF 1	9.64	585.00	585.37	585.62	586.31	0.162302	4.28	2.25	8.05	2.58
Giacco	1	11	PF 1	9.64	582.00	582.90	583.33	584.21	0.075636	5.21	2.04	3.70	1.86
Giacco	1	10	PF 1	9.64	577.50	577.86	578.41	581.10	0.504749	7.97	1.21	3.74	4.47
Giacco	1	9	PF 1	9.64	575.50	576.05	576.38	577.24	0.138381	4.83	1.99	5.09	2.47
Giacco	1	8	PF 1	9.64	574.50	574.92	575.20	575.88	0.119627	4.33	2.23	6.08	2.28
Giacco	1	7	PF 1	9.64	572.50	573.09	573.48	574.45	0.136592	5.16	1.90	5.07	2.50
Giacco	1	6	PF 1	9.64	570.49	571.02	571.52	573.13	0.236893	6.43	1.50	3.56	3.17
Giacco	1	5.96	PF 1	9.64	567.65	568.05	568.74	572.83	0.706630	9.68	1.00	2.82	5.20
Giacco	1	5.95	PF 1	9.64	567.65	568.12	568.74	571.52	0.430874	8.17	1.18	2.92	4.11
Giacco	1	5.91	PF 1	9.64	566.30	569.56	567.39	569.58	0.000236	0.65	17.20	9.24	0.12
Giacco	1	5.9	PF 1	9.64	566.30	569.56	567.39	569.58	0.000236	0.65	17.19	9.24	0.12
Giacco	1	5.1		Culvert									
Giacco	1	5	PF 1	9.64	565.50	566.30	566.59	567.24	0.068802	4.30	2.24	3.47	1.71
Giacco	2	3	PF 1	18.09	564.00	564.44	565.13	570.93	1.149808	11.28	1.60	5.60	6.73
Giacco	2	2	PF 1	18.09	564.00	564.47	564.84	566.20	0.281110	5.83	3.10	10.55	3.43
Giacco	2	1	PF 1	18.09	563.00	564.09	564.46	565.32	0.083731	5.59	4.16	9.31	1.88
Giacco	3	5070	PF 1	18.56	560.15	560.69	561.51	565.01	0.426520	9.20	2.02	3.77	4.02
Giacco	3	5067		Bridge									
Giacco	3	5065	PF 1	18.56	559.45	560.21	560.89	562.84	0.121927	7.19	2.58	3.59	2.71
Giacco	3	5060	PF 1	18.56	558.46	559.04	559.81	562.72	0.219065	8.50	2.18	3.77	3.57
Giacco	3	5050	PF 1	18.56	557.94	558.44	559.19	562.31	0.258198	8.71	2.13	4.25	3.93

HEC-RAS Plan: 01 Profile: PF 1 (Continued)

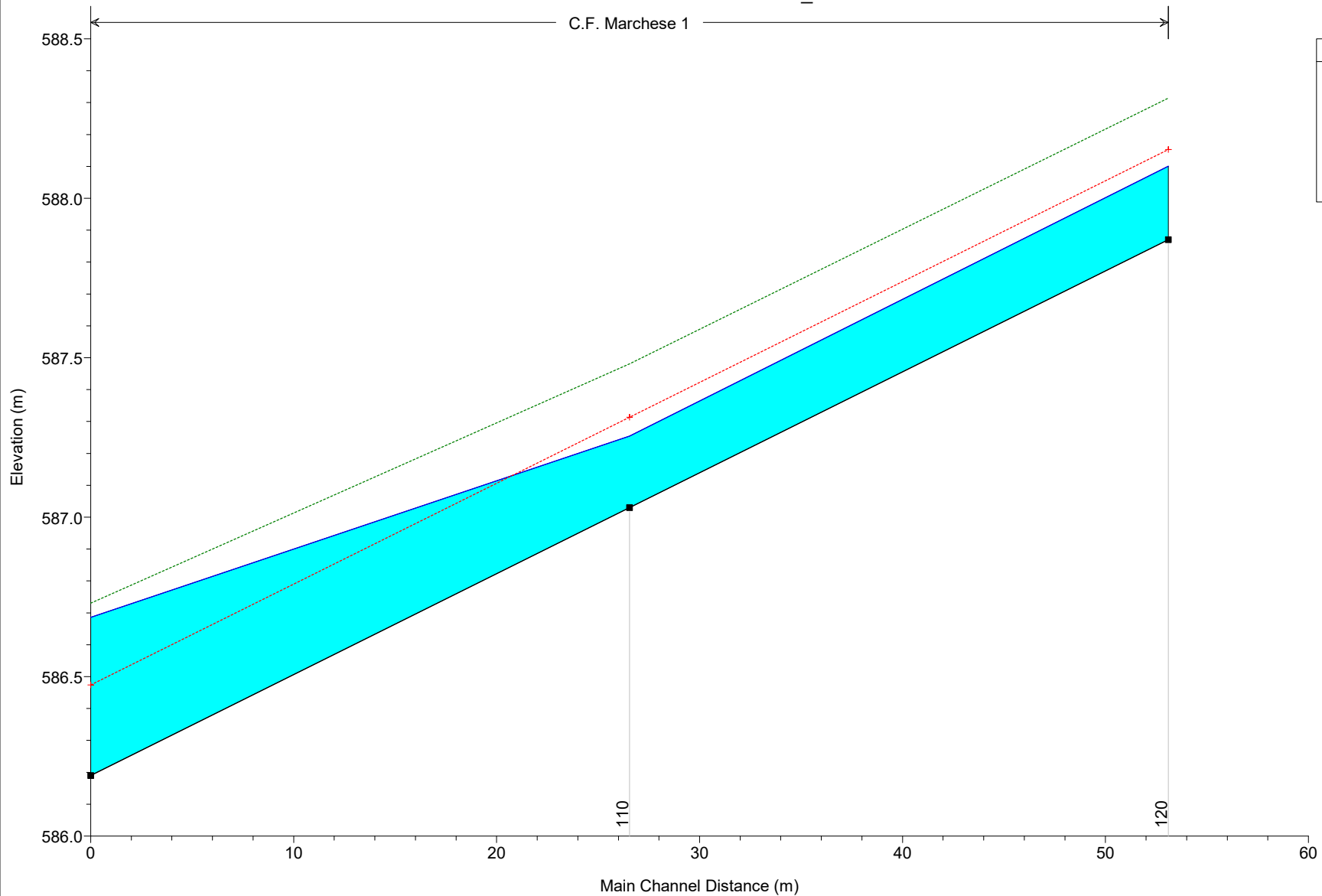
River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giacco	3	5040	PF 1	18.56	557.08	557.61	558.40	561.78	0.261093	9.04	2.05	3.98	4.02
Giacco	3	5035		Bridge									
Giacco	3	5030	PF 1	18.56	556.83	557.60	558.12	559.47	0.077910	6.05	3.07	4.52	2.35
Giacco	3	5020	PF 1	18.56	556.36	557.16	557.73	559.29	0.090166	6.45	2.88	4.38	2.54
Giacco	3	5010	PF 1	18.56	555.54	556.33	556.99	559.03	0.121787	7.28	2.55	4.03	2.92
Giacco	3	5005	PF 1	18.56	555.24	556.04	556.73	558.81	0.124369	7.36	2.52	3.95	2.94
Giacco	3	5002		Bridge									
Giacco	3	5000	PF 1	18.56	554.87	555.35	555.83	557.28	0.121512	6.15	3.02	6.46	2.88
Canale G.C.	2	620	PF 1	1.13	588.03	588.26	588.39	588.71	0.052042	2.96	0.38	1.68	1.98
Canale G.C.	2	610	PF 1	1.13	587.40	587.69	587.82	588.13	0.044509	2.94	0.38	1.62	1.93
Canale G.C.	2	600	PF 1	1.13	587.21	587.48	587.64	588.01	0.056123	3.21	0.35	1.54	2.15
Canale G.C.	2	590	PF 1	1.13	586.90	587.15	587.34	587.83	0.080527	3.67	0.31	1.43	2.53
Canale G.C.	2	580	PF 1	1.13	582.60	582.88	583.02	583.34	0.046084	2.98	0.38	1.62	1.97
Canale G.C.	2	570	PF 1	1.13	582.39	582.81	582.81	582.98	0.011320	1.81	0.62	1.90	1.01
Canale G.C.	2	560	PF 1	1.13	579.23	579.36	579.65	582.26	0.708724	7.55	0.15	1.30	7.12
Canale G.C.	2	550	PF 1	1.13	577.44	577.63	577.86	578.76	0.173615	4.71	0.24	1.44	3.68
Canale G.C.	1	520	PF 1	0.47	573.65	573.87	573.90	574.02	0.020025	1.71	0.28	1.48	1.26
Canale G.C.	1	510	PF 1	0.47	570.67	570.75	570.92	572.30	0.697000	5.53	0.09	1.20	6.63
Canale G.C.	1	505	PF 1	0.47	568.00	568.12	568.25	568.69	0.149293	3.35	0.14	1.29	3.25
Canale G.C.	1	500	PF 1	0.47	563.12	563.21	563.37	564.26	0.375494	4.53	0.10	1.23	4.98
Canale 1.50x2.50	1	0.4	PF 1	7.32	584.48	586.35	585.83	586.70	0.000752	2.60	2.81	4.61	0.61
Canale 1.50x2.50	1	0.35		Inl Struct									
Canale 1.50x2.50	1	0.3	PF 1	7.32	584.48	585.82	585.82	586.50	0.011359	3.64	2.01	1.50	1.00
Canale 1.50x2.50	1	0.20	PF 1	7.32	581.65	582.21	583.01	586.14	0.113930	8.78	0.83	1.48	3.74
Canale 1.50x2.50	1	0.10	PF 1	7.32	577.41	578.38	578.77	579.71	0.026853	5.11	1.43	1.49	1.66
Canale 1.50x2.50	2	700	PF 1	8.45	577.20	578.50	578.69	579.48	0.016873	4.38	1.93	1.49	1.23
Canale 1.50x2.50	2	600	PF 1	8.45	574.52	575.32	576.01	577.91	0.058735	7.13	1.19	1.49	2.55
Canale 1.50x2.50	2	500	PF 1	8.45	572.23	573.24	573.72	574.87	0.032190	5.66	1.49	1.49	1.80
Canale 1.50x2.50	2	400	PF 1	8.45	570.24	570.90	571.73	574.65	0.096231	8.57	0.99	1.49	3.36
Canale 1.50x2.50	2	350	PF 1	8.45	570.24	570.95	571.73	574.26	0.081361	8.05	1.05	1.49	3.06
Canale 1.50x2.50	2	300	PF 1	8.45	568.01	568.56	569.50	574.03	0.161312	10.36	0.82	1.48	4.46
Canale 1.50x2.50	2	250	PF 1	8.45	568.01	568.60	569.50	573.38	0.134236	9.69	0.87	1.48	4.04
Canale 1.50x2.50	2	200	PF 1	8.45	565.79	566.28	567.28	573.16	0.221934	11.61	0.73	1.48	5.30
Canale 1.50x2.50	2	150	PF 1	8.45	565.79	566.32	567.28	572.28	0.182022	10.82	0.78	1.48	4.76
Canale 1.50x2.50	2	100	PF 1	8.45	564.25	564.72	565.74	572.12	0.245807	12.04	0.70	1.48	5.59
C.F. Marchese	1	120	PF 1	0.48	587.87	588.10	588.15	588.31	0.030019	2.05	0.23	1.04	1.37
C.F. Marchese	1	110	PF 1	0.48	587.03	587.25	587.31	587.48	0.032769	2.11	0.23	1.03	1.44
C.F. Marchese	1	100	PF 1	0.48	586.19	586.69	586.47	586.73	0.003312	0.93	0.51	1.08	0.43



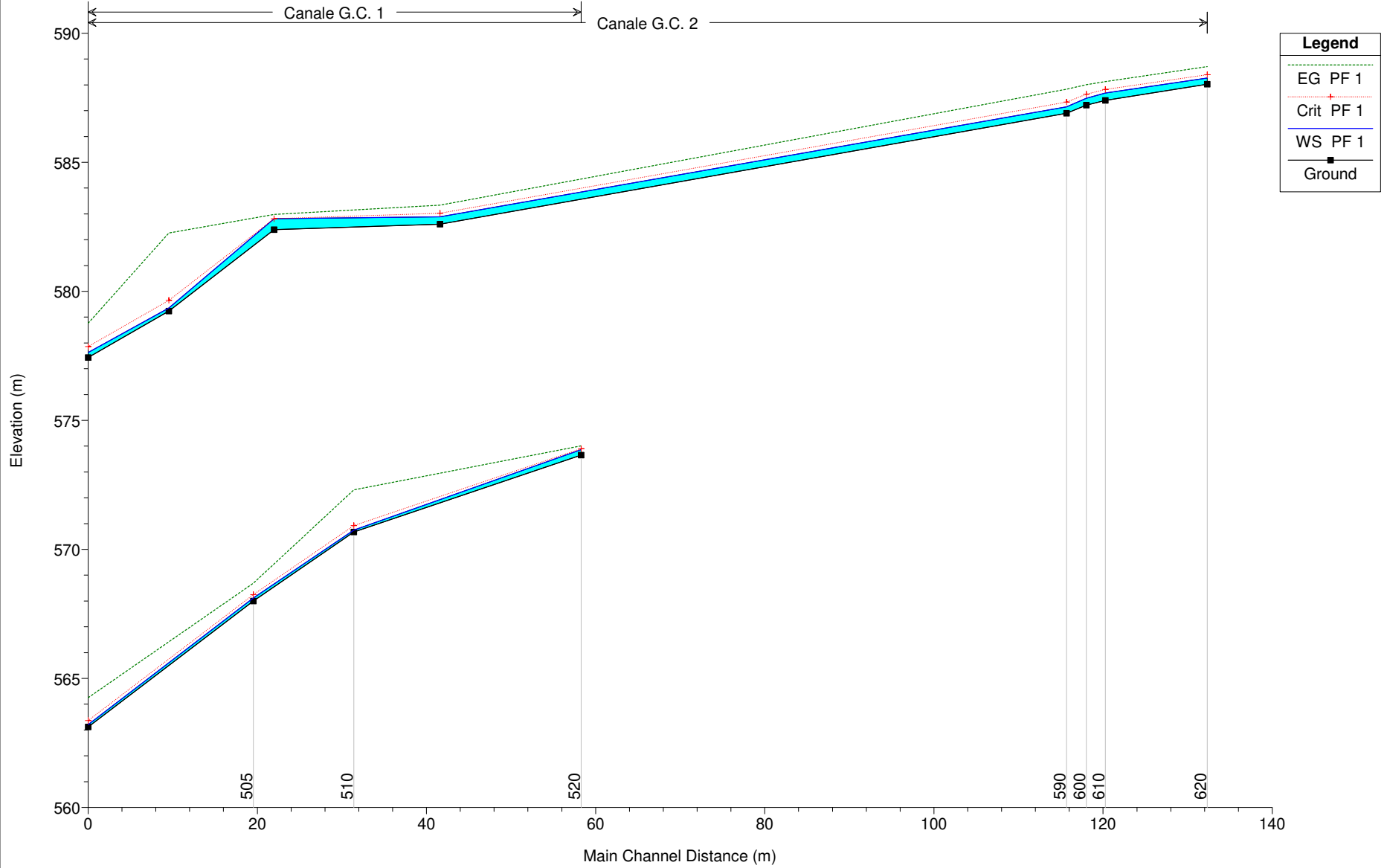
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026

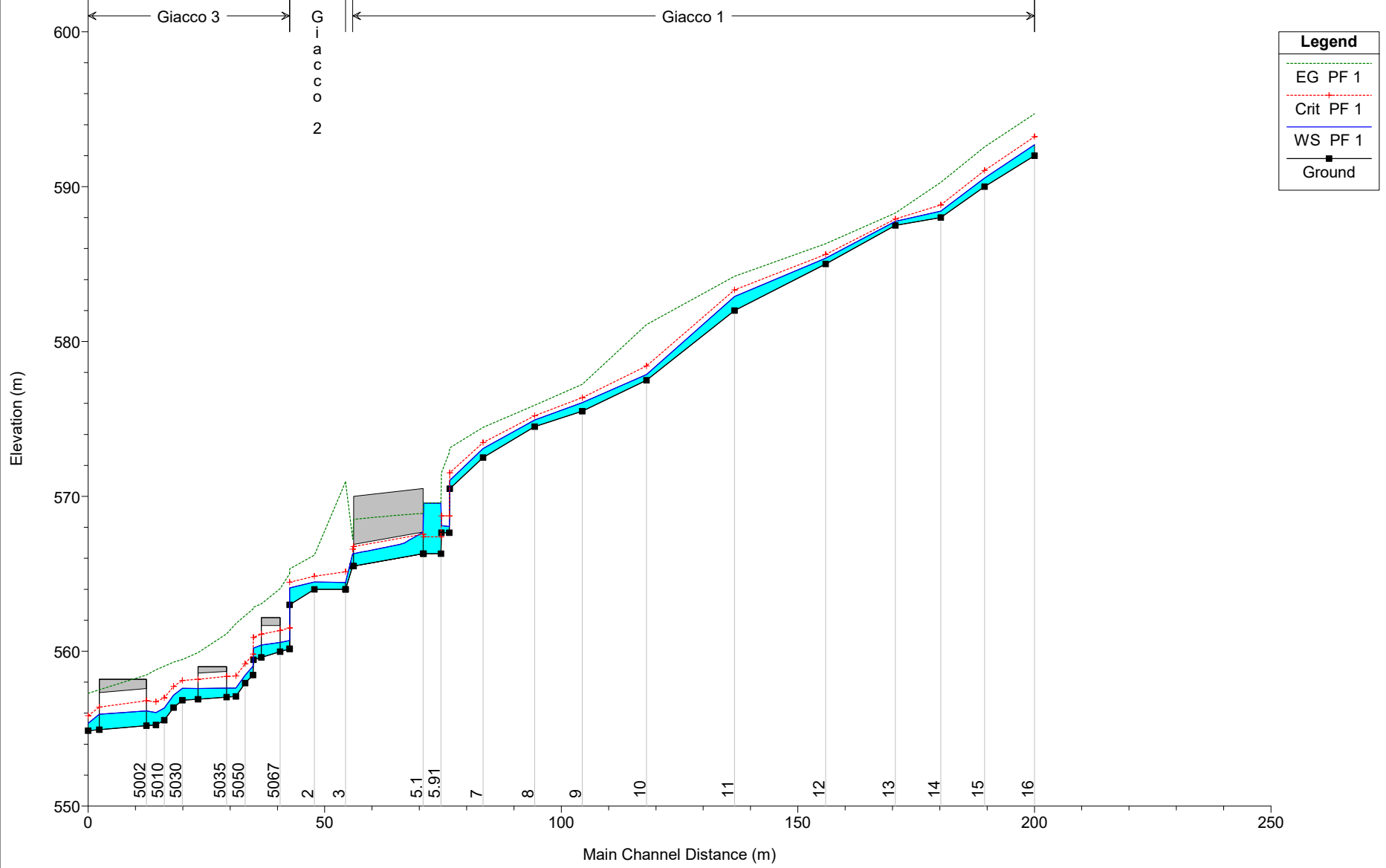


C.F. Marchese 1



Legend	
EG PF 1	
WS PF 1	
Crit PF 1	
Ground	





Plan: 01 C.F. Marchese 1 RS: 120 Profile: PF 1

E.G. Elev (m)	588.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.025	
W.S. Elev (m)	588.10	Reach Len. (m)	26.55	26.55	26.55
Crit W.S. (m)	588.15	Flow Area (m2)		0.23	
E.G. Slope (m/m)	0.030019	Area (m2)		0.23	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.04	Top Width (m)		1.04	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)		2.05	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	26.55	Wetted Per. (m)		1.46	
Min Ch EI (m)	587.87	Shear (N/m2)		47.22	
Alpha	1.00	Stream Power (N/m s)		96.62	
Frctn Loss (m)	0.83	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.06	

Plan: 01 C.F. Marchese 1 RS: 110 Profile: PF 1

E.G. Elev (m)	587.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.025	
W.S. Elev (m)	587.25	Reach Len. (m)	26.55	26.55	26.55
Crit W.S. (m)	587.31	Flow Area (m2)		0.23	
E.G. Slope (m/m)	0.032769	Area (m2)		0.23	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)		2.11	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	26.55	Wetted Per. (m)		1.45	
Min Ch EI (m)	587.03	Shear (N/m2)		50.49	
Alpha	1.00	Stream Power (N/m s)		106.45	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.03	

Plan: 01 C.F. Marchese 1 RS: 100 Profile: PF 1

E.G. Elev (m)	586.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.025	
W.S. Elev (m)	586.69	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	586.47	Flow Area (m2)		0.51	
E.G. Slope (m/m)	0.003312	Area (m2)		0.51	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.08	Top Width (m)		1.08	
Vel Total (m/s)	0.93	Avg. Vel. (m/s)		0.93	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	8.3	Conv. (m3/s)		8.3	
Length Wtd. (m)	0.00	Wetted Per. (m)		1.99	
Min Ch EI (m)	586.19	Shear (N/m2)		8.38	
Alpha	1.00	Stream Power (N/m s)		7.82	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: 01 Canale 1.50x2.50 1 RS: 0.4 Profile: PF 1

E.G. Elev (m)	586.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.016	
W.S. Elev (m)	586.35	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	585.83	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.000752	Area (m2)		7.90	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	

Plan: 01 Canale 1.50x2.50 1 RS: 0.4 Profile: PF 1 (Continued)

Top Width (m)	4.61	Top Width (m)		4.61	
Vel Total (m/s)	2.60	Avg. Vel. (m/s)		2.60	
Max Chl Dpth (m)	1.87	Hydr. Depth (m)		1.87	
Conv. Total (m3/s)	267.0	Conv. (m3/s)		267.0	
Length Wtd. (m)	2.00	Wetted Per. (m)		1.50	
Min Ch EI (m)	584.48	Shear (N/m2)		13.81	
Alpha	1.00	Stream Power (N/m s)		35.97	
Frctn Loss (m)		Cum Volume (1000 m3)		0.23	
C & E Loss (m)		Cum SA (1000 m2)		0.25	

Plan: 01 Canale 1.50x2.50 1 RS: 0.3 Profile: PF 1

E.G. Elev (m)	586.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.018	
W.S. Elev (m)	585.82	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	585.82	Flow Area (m2)		2.01	
E.G. Slope (m/m)	0.011359	Area (m2)		2.01	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.50	Top Width (m)		1.50	
Vel Total (m/s)	3.64	Avg. Vel. (m/s)		3.64	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.34	
Conv. Total (m3/s)	68.7	Conv. (m3/s)		68.7	
Length Wtd. (m)	1.20	Wetted Per. (m)		4.18	
Min Ch EI (m)	584.48	Shear (N/m2)		53.60	
Alpha	1.00	Stream Power (N/m s)		194.86	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.33	Cum SA (1000 m2)		0.24	

Plan: 01 Canale 1.50x2.50 1 RS: 0.20 Profile: PF 1

E.G. Elev (m)	586.14	Element	Left OB	Channel	Right OB
Vel Head (m)	3.93	Wt. n-Val.		0.018	
W.S. Elev (m)	582.21	Reach Len. (m)	2.99	2.99	2.99
Crit W.S. (m)	583.01	Flow Area (m2)		0.83	
E.G. Slope (m/m)	0.113930	Area (m2)		0.83	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	8.78	Avg. Vel. (m/s)		8.78	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	21.7	Conv. (m3/s)		21.7	
Length Wtd. (m)	2.99	Wetted Per. (m)		2.61	
Min Ch EI (m)	581.65	Shear (N/m2)		357.67	
Alpha	1.00	Stream Power (N/m s)		3138.78	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.24	

Plan: 01 Canale 1.50x2.50 1 RS: 0.10 Profile: PF 1

E.G. Elev (m)	579.71	Element	Left OB	Channel	Right OB
Vel Head (m)	1.33	Wt. n-Val.		0.018	
W.S. Elev (m)	578.38	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	578.77	Flow Area (m2)		1.43	
E.G. Slope (m/m)	0.026853	Area (m2)		1.43	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	5.11	Avg. Vel. (m/s)		5.11	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)	44.7	Conv. (m3/s)		44.7	
Length Wtd. (m)	6.00	Wetted Per. (m)		3.41	
Min Ch EI (m)	577.41	Shear (N/m2)		110.63	

Plan: 01 Canale 1.50x2.50 1 RS: 0.10 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		564.94	
Frctn Loss (m)		Cum Volume (1000 m3)		0.01	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 01 Canale 1.50x2.50 2 RS: 700 Profile: PF 1

E.G. Elev (m)	579.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.018	
W.S. Elev (m)	578.50	Reach Len. (m)	2.78	2.78	2.78
Crit W.S. (m)	578.69	Flow Area (m2)		1.93	
E.G. Slope (m/m)	0.016873	Area (m2)		1.93	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	4.38	Avg. Vel. (m/s)		4.38	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)	65.1	Conv. (m3/s)		65.1	
Length Wtd. (m)	2.78	Wetted Per. (m)		4.08	
Min Ch EI (m)	577.20	Shear (N/m2)		78.27	
Alpha	1.00	Stream Power (N/m s)		342.93	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		0.16	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.17	

Plan: 01 Canale 1.50x2.50 2 RS: 600 Profile: PF 1

E.G. Elev (m)	577.91	Element	Left OB	Channel	Right OB
Vel Head (m)	2.59	Wt. n-Val.		0.018	
W.S. Elev (m)	575.32	Reach Len. (m)	2.93	2.93	2.93
Crit W.S. (m)	576.01	Flow Area (m2)		1.19	
E.G. Slope (m/m)	0.058735	Area (m2)		1.19	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	7.13	Avg. Vel. (m/s)		7.13	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	34.9	Conv. (m3/s)		34.9	
Length Wtd. (m)	2.93	Wetted Per. (m)		3.08	
Min Ch EI (m)	574.52	Shear (N/m2)		221.81	
Alpha	1.00	Stream Power (N/m s)		1580.82	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		0.11	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.12	

Plan: 01 Canale 1.50x2.50 2 RS: 500 Profile: PF 1

E.G. Elev (m)	574.87	Element	Left OB	Channel	Right OB
Vel Head (m)	1.63	Wt. n-Val.		0.018	
W.S. Elev (m)	573.24	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	573.72	Flow Area (m2)		1.49	
E.G. Slope (m/m)	0.032190	Area (m2)		1.49	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	5.66	Avg. Vel. (m/s)		5.66	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.49	
Min Ch EI (m)	572.23	Shear (N/m2)		134.98	
Alpha	1.00	Stream Power (N/m s)		763.65	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.21	Cum SA (1000 m2)		0.01	

Plan: 01 Canale 1.50x2.50 2 RS: 400 Profile: PF 1

E.G. Elev (m)	574.65	Element	Left OB	Channel	Right OB
Vel Head (m)	3.75	Wt. n-Val.		0.018	
W.S. Elev (m)	570.90	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	571.73	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.096231	Area (m2)		0.99	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	8.57	Avg. Vel. (m/s)		8.57	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	27.2	Conv. (m3/s)		27.2	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.81	
Min Ch EI (m)	570.24	Shear (N/m2)		331.07	
Alpha	1.00	Stream Power (N/m s)		2838.15	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.01	

Plan: 01 Canale 1.50x2.50 2 RS: 350 Profile: PF 1

E.G. Elev (m)	574.26	Element	Left OB	Channel	Right OB
Vel Head (m)	3.31	Wt. n-Val.		0.018	
W.S. Elev (m)	570.95	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	571.73	Flow Area (m2)		1.05	
E.G. Slope (m/m)	0.081361	Area (m2)		1.05	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	8.05	Avg. Vel. (m/s)		8.05	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	29.6	Conv. (m3/s)		29.6	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.90	
Min Ch EI (m)	570.24	Shear (N/m2)		289.13	
Alpha	1.00	Stream Power (N/m s)		2328.80	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.22	Cum SA (1000 m2)		0.01	

Plan: 01 Canale 1.50x2.50 2 RS: 300 Profile: PF 1

E.G. Elev (m)	574.03	Element	Left OB	Channel	Right OB
Vel Head (m)	5.47	Wt. n-Val.		0.018	
W.S. Elev (m)	568.56	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	569.50	Flow Area (m2)		0.82	
E.G. Slope (m/m)	0.161312	Area (m2)		0.82	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	10.36	Avg. Vel. (m/s)		10.36	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	21.0	Conv. (m3/s)		21.0	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.58	
Min Ch EI (m)	568.01	Shear (N/m2)		500.11	
Alpha	1.00	Stream Power (N/m s)		5178.73	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.01	

Plan: 01 Canale 1.50x2.50 2 RS: 250 Profile: PF 1

E.G. Elev (m)	573.38	Element	Left OB	Channel	Right OB
Vel Head (m)	4.78	Wt. n-Val.		0.018	
W.S. Elev (m)	568.60	Reach Len. (m)	1.00	0.10	0.10
Crit W.S. (m)	569.50	Flow Area (m2)		0.87	
E.G. Slope (m/m)	0.134236	Area (m2)		0.87	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	

Plan: 01 Canale 1.50x2.50 2 RS: 250 Profile: PF 1 (Continued)

Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	9.69	Avg. Vel. (m/s)		9.69	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	23.1	Conv. (m3/s)		23.1	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.66	
Min Ch EI (m)	568.01	Shear (N/m2)		432.18	
Alpha	1.00	Stream Power (N/m s)		4186.51	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.21	Cum SA (1000 m2)		0.00	

Plan: 01 Canale 1.50x2.50 2 RS: 200 Profile: PF 1

E.G. Elev (m)	573.16	Element	Left OB	Channel	Right OB
Vel Head (m)	6.88	Wt. n-Val.		0.018	
W.S. Elev (m)	566.28	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	567.28	Flow Area (m2)		0.73	
E.G. Slope (m/m)	0.221934	Area (m2)		0.73	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	11.61	Avg. Vel. (m/s)		11.61	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	17.9	Conv. (m3/s)		17.9	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.46	
Min Ch EI (m)	565.79	Shear (N/m2)		643.23	
Alpha	1.00	Stream Power (N/m s)		7469.48	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.00	

Plan: 01 Canale 1.50x2.50 2 RS: 150 Profile: PF 1

E.G. Elev (m)	572.28	Element	Left OB	Channel	Right OB
Vel Head (m)	5.96	Wt. n-Val.		0.018	
W.S. Elev (m)	566.32	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	567.28	Flow Area (m2)		0.78	
E.G. Slope (m/m)	0.182022	Area (m2)		0.78	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	10.82	Avg. Vel. (m/s)		10.82	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.53	
Min Ch EI (m)	565.79	Shear (N/m2)		550.26	
Alpha	1.00	Stream Power (N/m s)		5951.80	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.00	

Plan: 01 Canale 1.50x2.50 2 RS: 100 Profile: PF 1

E.G. Elev (m)	572.12	Element	Left OB	Channel	Right OB
Vel Head (m)	7.39	Wt. n-Val.		0.018	
W.S. Elev (m)	564.72	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	565.74	Flow Area (m2)		0.70	
E.G. Slope (m/m)	0.245807	Area (m2)		0.70	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	12.04	Avg. Vel. (m/s)		12.04	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.43	
Min Ch EI (m)	564.25	Shear (N/m2)		696.89	

Plan: 01 Canale 1.50x2.50 2 RS: 100 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		8392.58	
Frctn Loss (m)	0.92	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.27	Cum SA (1000 m2)			

Plan: 01 Canale G.C. 2 RS: 620 Profile: PF 1

E.G. Elev (m)	588.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.025	
W.S. Elev (m)	588.26	Reach Len. (m)	12.04	12.04	12.04
Crit W.S. (m)	588.39	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.052042	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	2.96	Avg. Vel. (m/s)		2.96	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	5.0	Conv. (m3/s)		5.0	
Length Wtd. (m)	12.04	Wetted Per. (m)		2.07	
Min Ch El (m)	588.03	Shear (N/m2)		94.10	
Alpha	1.00	Stream Power (N/m s)		278.19	
Frctn Loss (m)	0.58	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.21	

Plan: 01 Canale G.C. 2 RS: 610 Profile: PF 1

E.G. Elev (m)	588.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.025	
W.S. Elev (m)	587.69	Reach Len. (m)	2.24	2.24	2.24
Crit W.S. (m)	587.82	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.044509	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	2.94	Avg. Vel. (m/s)		2.94	
Max Chl Dpth (m)	0.29	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	2.24	Wetted Per. (m)		1.86	
Min Ch El (m)	587.40	Shear (N/m2)		89.97	
Alpha	1.00	Stream Power (N/m s)		264.91	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.19	

Plan: 01 Canale G.C. 2 RS: 600 Profile: PF 1

E.G. Elev (m)	588.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.025	
W.S. Elev (m)	587.48	Reach Len. (m)	2.34	2.34	2.34
Crit W.S. (m)	587.64	Flow Area (m2)		0.35	
E.G. Slope (m/m)	0.056123	Area (m2)		0.35	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.54	Top Width (m)		1.54	
Vel Total (m/s)	3.21	Avg. Vel. (m/s)		3.21	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	4.8	Conv. (m3/s)		4.8	
Length Wtd. (m)	2.34	Wetted Per. (m)		1.78	
Min Ch El (m)	587.21	Shear (N/m2)		108.58	
Alpha	1.00	Stream Power (N/m s)		348.71	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.18	

Plan: 01 Canale G.C. 2 RS: 590 Profile: PF 1

E.G. Elev (m)	587.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.025	
W.S. Elev (m)	587.15	Reach Len. (m)	74.10	74.10	74.10
Crit W.S. (m)	587.34	Flow Area (m2)		0.31	
E.G. Slope (m/m)	0.080527	Area (m2)		0.31	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.43	Top Width (m)		1.43	
Vel Total (m/s)	3.67	Avg. Vel. (m/s)		3.67	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	4.0	Conv. (m3/s)		4.0	
Length Wtd. (m)	74.10	Wetted Per. (m)		1.68	
Min Ch EI (m)	586.90	Shear (N/m2)		145.10	
Alpha	1.00	Stream Power (N/m s)		532.32	
Frctn Loss (m)	4.43	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.07	Cum SA (1000 m2)		0.18	

Plan: 01 Canale G.C. 2 RS: 580 Profile: PF 1

E.G. Elev (m)	583.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.025	
W.S. Elev (m)	582.88	Reach Len. (m)	19.62	19.62	19.62
Crit W.S. (m)	583.02	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.046084	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	2.98	Avg. Vel. (m/s)		2.98	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	5.3	Conv. (m3/s)		5.3	
Length Wtd. (m)	19.62	Wetted Per. (m)		1.85	
Min Ch EI (m)	582.60	Shear (N/m2)		92.42	
Alpha	1.00	Stream Power (N/m s)		275.48	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: 01 Canale G.C. 2 RS: 570 Profile: PF 1

E.G. Elev (m)	582.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.025	
W.S. Elev (m)	582.81	Reach Len. (m)	12.43	12.43	12.43
Crit W.S. (m)	582.81	Flow Area (m2)		0.62	
E.G. Slope (m/m)	0.011320	Area (m2)		0.62	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.90	Top Width (m)		1.90	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	10.6	Conv. (m3/s)		10.6	
Length Wtd. (m)	12.43	Wetted Per. (m)		2.25	
Min Ch EI (m)	582.39	Shear (N/m2)		30.82	
Alpha	1.00	Stream Power (N/m s)		55.81	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.03	

Plan: 01 Canale G.C. 2 RS: 560 Profile: PF 1

E.G. Elev (m)	582.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.91	Wt. n-Val.		0.025	
W.S. Elev (m)	579.36	Reach Len. (m)	9.54	9.54	9.54
Crit W.S. (m)	579.65	Flow Area (m2)		0.15	
E.G. Slope (m/m)	0.708724	Area (m2)		0.15	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	

Plan: 01 Canale G.C. 2 RS: 560 Profile: PF 1 (Continued)

Top Width (m)	1.30	Top Width (m)		1.30	
Vel Total (m/s)	7.55	Avg. Vel. (m/s)		7.55	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	1.3	Conv. (m3/s)		1.3	
Length Wtd. (m)	9.54	Wetted Per. (m)		1.41	
Min Ch EI (m)	579.23	Shear (N/m2)		737.90	
Alpha	1.00	Stream Power (N/m s)		5571.38	
Frctn Loss (m)	2.96	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.53	Cum SA (1000 m2)		0.01	

Plan: 01 Canale G.C. 2 RS: 550 Profile: PF 1

E.G. Elev (m)	578.76	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.025	
W.S. Elev (m)	577.63	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	577.86	Flow Area (m2)		0.24	
E.G. Slope (m/m)	0.173615	Area (m2)		0.24	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.44	Top Width (m)		1.44	
Vel Total (m/s)	4.71	Avg. Vel. (m/s)		4.71	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	6.00	Wetted Per. (m)		1.60	
Min Ch EI (m)	577.44	Shear (N/m2)		255.89	
Alpha	1.00	Stream Power (N/m s)		1205.60	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.11	Cum SA (1000 m2)			

Plan: 01 Canale G.C. 1 RS: 520 Profile: PF 1

E.G. Elev (m)	574.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.025	
W.S. Elev (m)	573.87	Reach Len. (m)	26.87	26.87	26.87
Crit W.S. (m)	573.90	Flow Area (m2)		0.28	
E.G. Slope (m/m)	0.020025	Area (m2)		0.28	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	1.71	Avg. Vel. (m/s)		1.71	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)	26.87	Wetted Per. (m)		1.66	
Min Ch EI (m)	573.65	Shear (N/m2)		32.49	
Alpha	1.00	Stream Power (N/m s)		55.44	
Frctn Loss (m)	1.57	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.08	

Plan: 01 Canale G.C. 1 RS: 510 Profile: PF 1

E.G. Elev (m)	572.30	Element	Left OB	Channel	Right OB
Vel Head (m)	1.56	Wt. n-Val.		0.025	
W.S. Elev (m)	570.75	Reach Len. (m)	11.86	11.87	11.86
Crit W.S. (m)	570.92	Flow Area (m2)		0.09	
E.G. Slope (m/m)	0.697000	Area (m2)		0.09	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.20	Top Width (m)		1.20	
Vel Total (m/s)	5.53	Avg. Vel. (m/s)		5.53	
Max Chl Dpth (m)	0.08	Hydr. Depth (m)		0.07	
Conv. Total (m3/s)	0.6	Conv. (m3/s)		0.6	
Length Wtd. (m)	11.87	Wetted Per. (m)		1.26	
Min Ch EI (m)	570.67	Shear (N/m2)		460.04	

Plan: 01 Canale G.C. 1 RS: 510 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		2541.99	
Frctn Loss (m)	3.31	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.30	Cum SA (1000 m2)		0.04	

Plan: 01 Canale G.C. 1 RS: 505 Profile: PF 1

E.G. Elev (m)	568.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.025	
W.S. Elev (m)	568.12	Reach Len. (m)	19.54	19.54	19.54
Crit W.S. (m)	568.25	Flow Area (m2)		0.14	
E.G. Slope (m/m)	0.149293	Area (m2)		0.14	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.29	Top Width (m)		1.29	
Vel Total (m/s)	3.35	Avg. Vel. (m/s)		3.35	
Max Chl Dpth (m)	0.12	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	1.2	Conv. (m3/s)		1.2	
Length Wtd. (m)	19.54	Wetted Per. (m)		1.39	
Min Ch EI (m)	568.00	Shear (N/m2)		147.82	
Alpha	1.00	Stream Power (N/m s)		495.35	
Frctn Loss (m)	4.39	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.05	Cum SA (1000 m2)		0.02	

Plan: 01 Canale G.C. 1 RS: 500 Profile: PF 1

E.G. Elev (m)	564.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.05	Wt. n-Val.		0.025	
W.S. Elev (m)	563.21	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	563.37	Flow Area (m2)		0.10	
E.G. Slope (m/m)	0.375494	Area (m2)		0.10	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.23	Top Width (m)		1.23	
Vel Total (m/s)	4.53	Avg. Vel. (m/s)		4.53	
Max Chl Dpth (m)	0.09	Hydr. Depth (m)		0.08	
Conv. Total (m3/s)	0.8	Conv. (m3/s)		0.8	
Length Wtd. (m)	0.00	Wetted Per. (m)		1.31	
Min Ch EI (m)	563.12	Shear (N/m2)		292.36	
Alpha	1.00	Stream Power (N/m s)		1323.77	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.31	Cum SA (1000 m2)			

Plan: 01 Giacco 1 RS: 16 Profile: PF 1

E.G. Elev (m)	594.70	Element	Left OB	Channel	Right OB
Vel Head (m)	1.99	Wt. n-Val.		0.040	
W.S. Elev (m)	592.71	Reach Len. (m)	10.53	10.53	10.53
Crit W.S. (m)	593.22	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.190330	Area (m2)		1.54	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.93	Top Width (m)		2.93	
Vel Total (m/s)	6.25	Avg. Vel. (m/s)		6.25	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	22.1	Conv. (m3/s)		22.1	
Length Wtd. (m)	10.53	Wetted Per. (m)		3.56	
Min Ch EI (m)	592.00	Shear (N/m2)		808.89	
Alpha	1.00	Stream Power (N/m s)		5052.40	
Frctn Loss (m)	2.14	Cum Volume (1000 m3)	0.01	0.31	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	0.74	0.07

Plan: 01 Giacco 1 RS: 15 Profile: PF 1

E.G. Elev (m)	592.56	Element	Left OB	Channel	Right OB
Vel Head (m)	2.01	Wt. n-Val.		0.040	
W.S. Elev (m)	590.55	Reach Len. (m)	9.25	9.25	9.25
Crit W.S. (m)	591.04	Flow Area (m2)		1.53	
E.G. Slope (m/m)	0.217352	Area (m2)		1.53	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.43	Top Width (m)		3.43	
Vel Total (m/s)	6.28	Avg. Vel. (m/s)		6.28	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	20.7	Conv. (m3/s)		20.7	
Length Wtd. (m)	9.25	Wetted Per. (m)		3.88	
Min Ch EI (m)	590.00	Shear (N/m2)		843.36	
Alpha	1.00	Stream Power (N/m s)		5297.81	
Frctn Loss (m)	2.24	Cum Volume (1000 m3)	0.01	0.30	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.70	0.07

Plan: 01 Giacco 1 RS: 14 Profile: PF 1

E.G. Elev (m)	590.27	Element	Left OB	Channel	Right OB
Vel Head (m)	1.86	Wt. n-Val.		0.040	
W.S. Elev (m)	588.41	Reach Len. (m)	9.63	9.63	9.63
Crit W.S. (m)	588.82	Flow Area (m2)		1.59	
E.G. Slope (m/m)	0.271506	Area (m2)		1.59	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	4.88	Top Width (m)		4.88	
Vel Total (m/s)	6.05	Avg. Vel. (m/s)		6.05	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	18.5	Conv. (m3/s)		18.5	
Length Wtd. (m)	9.63	Wetted Per. (m)		5.04	
Min Ch EI (m)	588.00	Shear (N/m2)		841.68	
Alpha	1.00	Stream Power (N/m s)		5088.00	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	0.01	0.28	0.02
C & E Loss (m)	0.40	Cum SA (1000 m2)	0.02	0.67	0.07

Plan: 01 Giacco 1 RS: 13 Profile: PF 1

E.G. Elev (m)	588.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	587.76	Reach Len. (m)	14.74	14.74	14.74
Crit W.S. (m)	587.92	Flow Area (m2)		2.97	
E.G. Slope (m/m)	0.109706	Area (m2)		2.97	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	11.98	Top Width (m)		11.98	
Vel Total (m/s)	3.24	Avg. Vel. (m/s)		3.24	
Max Chl Dpth (m)	0.26	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	29.1	Conv. (m3/s)		29.1	
Length Wtd. (m)	14.74	Wetted Per. (m)		12.14	
Min Ch EI (m)	587.50	Shear (N/m2)		263.59	
Alpha	1.00	Stream Power (N/m s)		854.61	
Frctn Loss (m)	1.95	Cum Volume (1000 m3)	0.01	0.26	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.58	0.07

Plan: 01 Giacco 1 RS: 12 Profile: PF 1

E.G. Elev (m)	586.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.93	Wt. n-Val.		0.040	
W.S. Elev (m)	585.37	Reach Len. (m)	19.23	19.23	19.23
Crit W.S. (m)	585.62	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.162302	Area (m2)		2.25	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	

Plan: 01 Giacco 1 RS: 12 Profile: PF 1 (Continued)

Top Width (m)	8.05	Top Width (m)		8.05	
Vel Total (m/s)	4.28	Avg. Vel. (m/s)		4.28	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	23.9	Conv. (m3/s)		23.9	
Length Wtd. (m)	19.23	Wetted Per. (m)		8.14	
Min Ch EI (m)	585.00	Shear (N/m2)		440.46	
Alpha	1.00	Stream Power (N/m s)		1883.91	
Frctn Loss (m)	2.05	Cum Volume (1000 m3)	0.01	0.22	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.44	0.07

Plan: 01 Giacco 1 RS: 11 Profile: PF 1

E.G. Elev (m)	584.21	Element	Left OB	Channel	Right OB
Vel Head (m)	1.31	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	582.90	Reach Len. (m)	18.62	18.62	18.62
Crit W.S. (m)	583.33	Flow Area (m2)	0.06	1.74	0.25
E.G. Slope (m/m)	0.075636	Area (m2)	0.06	1.74	0.25
Q Total (m3/s)	9.64	Flow (m3/s)	0.08	9.05	0.51
Top Width (m)	3.70	Top Width (m)	0.28	2.17	1.25
Vel Total (m/s)	4.72	Avg. Vel. (m/s)	1.45	5.21	2.03
Max Chl Dpth (m)	0.90	Hydr. Depth (m)	0.20	0.80	0.20
Conv. Total (m3/s)	35.1	Conv. (m3/s)	0.3	32.9	1.9
Length Wtd. (m)	18.62	Wetted Per. (m)	0.49	2.63	1.31
Min Ch EI (m)	582.00	Shear (N/m2)	85.58	489.62	142.09
Alpha	1.16	Stream Power (N/m s)	123.97	2552.20	288.57
Frctn Loss (m)	2.93	Cum Volume (1000 m3)	0.01	0.19	0.01
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.02	0.34	0.05

Plan: 01 Giacco 1 RS: 10 Profile: PF 1

E.G. Elev (m)	581.10	Element	Left OB	Channel	Right OB
Vel Head (m)	3.24	Wt. n-Val.		0.040	
W.S. Elev (m)	577.86	Reach Len. (m)	13.58	13.59	13.58
Crit W.S. (m)	578.41	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.504749	Area (m2)		1.21	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	7.97	Avg. Vel. (m/s)		7.97	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	13.6	Conv. (m3/s)		13.6	
Length Wtd. (m)	13.59	Wetted Per. (m)		4.03	
Min Ch EI (m)	577.50	Shear (N/m2)		1486.75	
Alpha	1.00	Stream Power (N/m s)		11843.62	
Frctn Loss (m)	3.24	Cum Volume (1000 m3)	0.00	0.16	0.01
C & E Loss (m)	0.61	Cum SA (1000 m2)	0.02	0.28	0.04

Plan: 01 Giacco 1 RS: 9 Profile: PF 1

E.G. Elev (m)	577.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.19	Wt. n-Val.		0.040	
W.S. Elev (m)	576.05	Reach Len. (m)	10.04	10.04	10.04
Crit W.S. (m)	576.38	Flow Area (m2)		1.99	
E.G. Slope (m/m)	0.138381	Area (m2)		1.99	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	5.09	Top Width (m)		5.09	
Vel Total (m/s)	4.83	Avg. Vel. (m/s)		4.83	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	25.9	Conv. (m3/s)		25.9	
Length Wtd. (m)	10.04	Wetted Per. (m)		5.32	
Min Ch EI (m)	575.50	Shear (N/m2)		508.61	

Plan: 01 Giacco 1 RS: 9 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		2458.78	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	0.00	0.14	0.01
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.02	0.22	0.04

Plan: 01 Giacco 1 RS: 8 Profile: PF 1

E.G. Elev (m)	575.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.040	
W.S. Elev (m)	574.92	Reach Len. (m)	10.90	10.90	10.90
Crit W.S. (m)	575.20	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.119627	Area (m2)		2.23	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	6.08	Top Width (m)		6.08	
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		4.33	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	27.9	Conv. (m3/s)		27.9	
Length Wtd. (m)	10.90	Wetted Per. (m)		6.29	
Min Ch EI (m)	574.50	Shear (N/m2)		415.49	
Alpha	1.00	Stream Power (N/m s)		1798.44	
Frctn Loss (m)	1.39	Cum Volume (1000 m3)	0.00	0.11	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.17	0.04

Plan: 01 Giacco 1 RS: 7 Profile: PF 1

E.G. Elev (m)	574.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	573.09	Reach Len. (m)	7.04	7.04	7.04
Crit W.S. (m)	573.48	Flow Area (m2)	0.01	1.86	0.03
E.G. Slope (m/m)	0.136592	Area (m2)	0.01	1.86	0.03
Q Total (m3/s)	9.64	Flow (m3/s)	0.00	9.60	0.03
Top Width (m)	5.07	Top Width (m)	0.11	4.27	0.69
Vel Total (m/s)	5.08	Avg. Vel. (m/s)	0.89	5.16	1.06
Max Chl Dpth (m)	0.59	Hydr. Depth (m)	0.05	0.44	0.05
Conv. Total (m3/s)	26.1	Conv. (m3/s)	0.0	26.0	0.1
Length Wtd. (m)	7.04	Wetted Per. (m)	0.15	4.45	0.69
Min Ch EI (m)	572.50	Shear (N/m2)	48.15	559.52	62.53
Alpha	1.03	Stream Power (N/m s)	43.07	2888.85	66.59
Frctn Loss (m)	1.24	Cum Volume (1000 m3)	0.00	0.09	0.01
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.02	0.11	0.04

Plan: 01 Giacco 1 RS: 6 Profile: PF 1

E.G. Elev (m)	573.13	Element	Left OB	Channel	Right OB
Vel Head (m)	2.11	Wt. n-Val.		0.040	
W.S. Elev (m)	571.02	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	571.52	Flow Area (m2)		1.50	
E.G. Slope (m/m)	0.236893	Area (m2)		1.50	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.56	Top Width (m)		3.56	
Vel Total (m/s)	6.43	Avg. Vel. (m/s)		6.43	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.90	
Min Ch EI (m)	570.49	Shear (N/m2)		892.50	
Alpha	1.00	Stream Power (N/m s)		5739.28	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.27	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 01 Giacco 1 RS: 5.96 Profile: PF 1

E.G. Elev (m)	572.83	Element	Left OB	Channel	Right OB
Vel Head (m)	4.78	Wt. n-Val.		0.040	
W.S. Elev (m)	568.05	Reach Len. (m)	1.65	1.65	1.65
Crit W.S. (m)	568.74	Flow Area (m2)		1.00	
E.G. Slope (m/m)	0.706630	Area (m2)		1.00	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	9.68	Avg. Vel. (m/s)		9.68	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	11.5	Conv. (m3/s)		11.5	
Length Wtd. (m)	1.65	Wetted Per. (m)		3.19	
Min Ch EI (m)	567.65	Shear (N/m2)		2165.46	
Alpha	1.00	Stream Power (N/m s)		20956.36	
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.41	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 01 Giacco 1 RS: 5.95 Profile: PF 1

E.G. Elev (m)	571.52	Element	Left OB	Channel	Right OB
Vel Head (m)	3.41	Wt. n-Val.		0.040	
W.S. Elev (m)	568.12	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	568.74	Flow Area (m2)		1.18	
E.G. Slope (m/m)	0.430874	Area (m2)		1.18	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	8.17	Avg. Vel. (m/s)		8.17	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	14.7	Conv. (m3/s)		14.7	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.36	
Min Ch EI (m)	567.65	Shear (N/m2)		1485.25	
Alpha	1.00	Stream Power (N/m s)		12139.59	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 01 Giacco 1 RS: 5.91 Profile: PF 1

E.G. Elev (m)	569.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	569.56	Reach Len. (m)	3.70	3.70	3.70
Crit W.S. (m)	567.39	Flow Area (m2)	1.24	13.30	2.66
E.G. Slope (m/m)	0.000236	Area (m2)	1.24	13.30	2.66
Q Total (m3/s)	9.64	Flow (m3/s)	0.29	8.63	0.73
Top Width (m)	9.24	Top Width (m)	1.37	4.67	3.20
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.23	0.65	0.27
Max Chl Dpth (m)	3.26	Hydr. Depth (m)	0.90	2.85	0.83
Conv. Total (m3/s)	627.5	Conv. (m3/s)	18.6	561.5	47.5
Length Wtd. (m)	3.70	Wetted Per. (m)	2.23	6.06	3.70
Min Ch EI (m)	566.30	Shear (N/m2)	1.28	5.08	1.66
Alpha	1.22	Stream Power (N/m s)	0.30	3.29	0.46
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 01 Giacco 1 RS: 5.9 Profile: PF 1

E.G. Elev (m)	569.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	569.56	Reach Len. (m)	15.00	15.00	15.00
Crit W.S. (m)	567.39	Flow Area (m2)	1.24	13.30	2.66
E.G. Slope (m/m)	0.000236	Area (m2)	1.24	13.30	2.66
Q Total (m3/s)	9.64	Flow (m3/s)	0.29	8.63	0.73

Plan: 01 Giacco 1 RS: 5.9 Profile: PF 1 (Continued)

Top Width (m)	9.24	Top Width (m)	1.37	4.67	3.20
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.23	0.65	0.27
Max Chl Dpth (m)	3.26	Hydr. Depth (m)	0.90	2.85	0.83
Conv. Total (m3/s)	627.2	Conv. (m3/s)	18.6	561.2	47.4
Length Wtd. (m)	15.00	Wetted Per. (m)	2.23	6.06	3.70
Min Ch EI (m)	566.30	Shear (N/m2)	1.29	5.08	1.67
Alpha	1.22	Stream Power (N/m s)	0.30	3.30	0.46
Frctn Loss (m)		Cum Volume (1000 m3)		0.03	
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.06	0.02

Plan: 01 Giacco 1 RS: 5 Profile: PF 1

E.G. Elev (m)	567.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.		0.040	
W.S. Elev (m)	566.30	Reach Len. (m)	7.81	7.81	7.81
Crit W.S. (m)	566.59	Flow Area (m2)		2.24	
E.G. Slope (m/m)	0.068802	Area (m2)		2.24	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.47	Top Width (m)		3.47	
Vel Total (m/s)	4.30	Avg. Vel. (m/s)		4.30	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	36.8	Conv. (m3/s)		36.8	
Length Wtd. (m)	7.81	Wetted Per. (m)		4.21	
Min Ch EI (m)	565.50	Shear (N/m2)		358.64	
Alpha	1.00	Stream Power (N/m s)		1543.22	
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 01 Giacco 2 RS: 3 Profile: PF 1

E.G. Elev (m)	570.93	Element	Left OB	Channel	Right OB
Vel Head (m)	6.49	Wt. n-Val.		0.040	
W.S. Elev (m)	564.44	Reach Len. (m)	6.55	6.55	6.55
Crit W.S. (m)	565.13	Flow Area (m2)		1.60	
E.G. Slope (m/m)	1.149808	Area (m2)		1.60	
Q Total (m3/s)	18.09	Flow (m3/s)		18.09	
Top Width (m)	5.60	Top Width (m)		5.60	
Vel Total (m/s)	11.28	Avg. Vel. (m/s)		11.28	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	16.9	Conv. (m3/s)		16.9	
Length Wtd. (m)	6.55	Wetted Per. (m)		5.87	
Min Ch EI (m)	564.00	Shear (N/m2)		3079.47	
Alpha	1.00	Stream Power (N/m s)		34749.94	
Frctn Loss (m)	3.30	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	1.43	Cum SA (1000 m2)	0.02	0.09	0.00

Plan: 01 Giacco 2 RS: 2 Profile: PF 1

E.G. Elev (m)	566.20	Element	Left OB	Channel	Right OB
Vel Head (m)	1.73	Wt. n-Val.		0.040	
W.S. Elev (m)	564.47	Reach Len. (m)	5.24	5.24	5.24
Crit W.S. (m)	564.84	Flow Area (m2)		3.10	
E.G. Slope (m/m)	0.281110	Area (m2)		3.10	
Q Total (m3/s)	18.09	Flow (m3/s)		18.09	
Top Width (m)	10.55	Top Width (m)		10.55	
Vel Total (m/s)	5.83	Avg. Vel. (m/s)		5.83	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	34.1	Conv. (m3/s)		34.1	
Length Wtd. (m)	5.24	Wetted Per. (m)		10.63	
Min Ch EI (m)	564.00	Shear (N/m2)		804.24	

Plan: 01 Giacco 2 RS: 2 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		4689.16	
Frctn Loss (m)	0.73	Cum Volume (1000 m3)	0.01	0.01	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	0.02	0.03	0.00

Plan: 01 Giacco 2 RS: 1 Profile: PF 1

E.G. Elev (m)	565.32	Element	Left OB	Channel	Right OB
Vel Head (m)	1.22	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	564.09	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	564.46	Flow Area (m2)	1.93	2.19	0.04
E.G. Slope (m/m)	0.083731	Area (m2)	1.93	2.19	0.04
Q Total (m3/s)	18.09	Flow (m3/s)	5.84	12.21	0.04
Top Width (m)	9.31	Top Width (m)	5.97	2.42	0.92
Vel Total (m/s)	4.35	Avg. Vel. (m/s)	3.02	5.59	0.83
Max Chl Dpth (m)	1.09	Hydr. Depth (m)	0.32	0.90	0.05
Conv. Total (m3/s)	62.5	Conv. (m3/s)	20.2	42.2	0.1
Length Wtd. (m)	0.00	Wetted Per. (m)	6.01	3.22	0.92
Min Ch EI (m)	563.00	Shear (N/m2)	264.41	557.14	38.10
Alpha	1.27	Stream Power (N/m s)	798.77	3112.15	31.63
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: 01 Giacco 3 RS: 5070 Profile: PF 1

E.G. Elev (m)	565.01	Element	Left OB	Channel	Right OB
Vel Head (m)	4.31	Wt. n-Val.		0.040	
W.S. Elev (m)	560.69	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	561.51	Flow Area (m2)		2.02	
E.G. Slope (m/m)	0.426520	Area (m2)		2.02	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	9.20	Avg. Vel. (m/s)		9.20	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	28.4	Conv. (m3/s)		28.4	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.77	
Min Ch EI (m)	560.15	Shear (N/m2)		1768.96	
Alpha	1.00	Stream Power (N/m s)		16273.12	
Frctn Loss (m)	0.72	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.26	Cum SA (1000 m2)		0.06	

Plan: 01 Giacco 3 RS: 5067 BR U Profile: PF 1

E.G. Elev (m)	564.03	Element	Left OB	Channel	Right OB
Vel Head (m)	3.46	Wt. n-Val.		0.040	
W.S. Elev (m)	560.57	Reach Len. (m)			
Crit W.S. (m)	561.33	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.305513	Area (m2)		2.25	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.78	Top Width (m)		3.78	
Vel Total (m/s)	8.24	Avg. Vel. (m/s)		8.24	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	33.6	Conv. (m3/s)		33.6	
Length Wtd. (m)		Wetted Per. (m)		4.90	
Min Ch EI (m)	559.97	Shear (N/m2)		1378.80	
Alpha	1.00	Stream Power (N/m s)		11356.98	
Frctn Loss (m)	0.74	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.24	Cum SA (1000 m2)		0.05	

Plan: 01 Giacco 3 RS: 5067 BR D Profile: PF 1

E.G. Elev (m)	563.06	Element	Left OB	Channel	Right OB
Vel Head (m)	2.66	Wt. n-Val.		0.032	
W.S. Elev (m)	560.40	Reach Len. (m)			
Crit W.S. (m)	561.10	Flow Area (m2)		2.57	
E.G. Slope (m/m)	0.123645	Area (m2)		2.57	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	7.22	Avg. Vel. (m/s)		7.22	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	52.8	Conv. (m3/s)		52.8	
Length Wtd. (m)		Wetted Per. (m)		4.82	
Min Ch EI (m)	559.60	Shear (N/m2)		646.33	
Alpha	1.00	Stream Power (N/m s)		4669.15	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.05	

Plan: 01 Giacco 3 RS: 5065 Profile: PF 1

E.G. Elev (m)	562.84	Element	Left OB	Channel	Right OB
Vel Head (m)	2.64	Wt. n-Val.		0.032	
W.S. Elev (m)	560.21	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	560.89	Flow Area (m2)		2.58	
E.G. Slope (m/m)	0.121927	Area (m2)		2.58	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.59	Top Width (m)		3.59	
Vel Total (m/s)	7.19	Avg. Vel. (m/s)		7.19	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	53.2	Conv. (m3/s)		53.2	
Length Wtd. (m)	0.10	Wetted Per. (m)		4.82	
Min Ch EI (m)	559.45	Shear (N/m2)		639.78	
Alpha	1.00	Stream Power (N/m s)		4601.25	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.10	Cum SA (1000 m2)		0.05	

Plan: 01 Giacco 3 RS: 5060 Profile: PF 1

E.G. Elev (m)	562.72	Element	Left OB	Channel	Right OB
Vel Head (m)	3.68	Wt. n-Val.		0.032	
W.S. Elev (m)	559.04	Reach Len. (m)	1.66	1.66	1.66
Crit W.S. (m)	559.81	Flow Area (m2)		2.18	
E.G. Slope (m/m)	0.219065	Area (m2)		2.18	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	8.50	Avg. Vel. (m/s)		8.50	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	39.7	Conv. (m3/s)		39.7	
Length Wtd. (m)	1.66	Wetted Per. (m)		4.93	
Min Ch EI (m)	558.46	Shear (N/m2)		951.84	
Alpha	1.00	Stream Power (N/m s)		8091.31	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.05	

Plan: 01 Giacco 3 RS: 5050 Profile: PF 1

E.G. Elev (m)	562.31	Element	Left OB	Channel	Right OB
Vel Head (m)	3.87	Wt. n-Val.		0.032	
W.S. Elev (m)	558.44	Reach Len. (m)	1.93	1.93	1.93
Crit W.S. (m)	559.19	Flow Area (m2)		2.13	
E.G. Slope (m/m)	0.258198	Area (m2)		2.13	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	

Plan: 01 Giacco 3 RS: 5050 Profile: PF 1 (Continued)

Top Width (m)	4.25	Top Width (m)		4.25	
Vel Total (m/s)	8.71	Avg. Vel. (m/s)		8.71	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	1.93	Wetted Per. (m)		5.24	
Min Ch El (m)	557.94	Shear (N/m2)		1028.73	
Alpha	1.00	Stream Power (N/m s)		8960.84	
Frctn Loss (m)	0.50	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.05	

Plan: 01 Giacco 3 RS: 5040 Profile: PF 1

E.G. Elev (m)	561.78	Element	Left OB	Channel	Right OB
Vel Head (m)	4.17	Wt. n-Val.		0.032	
W.S. Elev (m)	557.61	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	558.40	Flow Area (m2)		2.05	
E.G. Slope (m/m)	0.261093	Area (m2)		2.05	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.98	Top Width (m)		3.98	
Vel Total (m/s)	9.04	Avg. Vel. (m/s)		9.04	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	36.3	Conv. (m3/s)		36.3	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.82	
Min Ch El (m)	557.08	Shear (N/m2)		1090.47	
Alpha	1.00	Stream Power (N/m s)		9856.74	
Frctn Loss (m)	0.46	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.04	

Plan: 01 Giacco 3 RS: 5035 BR U Profile: PF 1

E.G. Elev (m)	561.13	Element	Left OB	Channel	Right OB
Vel Head (m)	3.50	Wt. n-Val.		0.032	
W.S. Elev (m)	557.62	Reach Len. (m)			
Crit W.S. (m)	558.36	Flow Area (m2)		2.24	
E.G. Slope (m/m)	0.200262	Area (m2)		2.24	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.98	Top Width (m)		3.98	
Vel Total (m/s)	8.29	Avg. Vel. (m/s)		8.29	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	41.5	Conv. (m3/s)		41.5	
Length Wtd. (m)		Wetted Per. (m)		4.91	
Min Ch El (m)	557.04	Shear (N/m2)		896.10	
Alpha	1.00	Stream Power (N/m s)		7427.38	
Frctn Loss (m)	0.86	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.36	Cum SA (1000 m2)		0.03	

Plan: 01 Giacco 3 RS: 5035 BR D Profile: PF 1

E.G. Elev (m)	559.91	Element	Left OB	Channel	Right OB
Vel Head (m)	2.32	Wt. n-Val.		0.032	
W.S. Elev (m)	557.59	Reach Len. (m)			
Crit W.S. (m)	558.18	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.108287	Area (m2)		2.75	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.52	Top Width (m)		4.52	
Vel Total (m/s)	6.74	Avg. Vel. (m/s)		6.74	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	56.4	Conv. (m3/s)		56.4	
Length Wtd. (m)		Wetted Per. (m)		5.19	
Min Ch El (m)	556.90	Shear (N/m2)		563.37	

Plan: 01 Giacco 3 RS: 5035 BR D Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		3796.72	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.03	

Plan: 01 Giacco 3 RS: 5030 Profile: PF 1

E.G. Elev (m)	559.47	Element	Left OB	Channel	Right OB
Vel Head (m)	1.87	Wt. n-Val.		0.032	
W.S. Elev (m)	557.60	Reach Len. (m)	1.86	1.86	1.86
Crit W.S. (m)	558.12	Flow Area (m2)		3.07	
E.G. Slope (m/m)	0.077910	Area (m2)		3.07	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.52	Top Width (m)		4.52	
Vel Total (m/s)	6.05	Avg. Vel. (m/s)		6.05	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	66.5	Conv. (m3/s)		66.5	
Length Wtd. (m)	1.86	Wetted Per. (m)		5.31	
Min Ch EI (m)	556.83	Shear (N/m2)		441.60	
Alpha	1.00	Stream Power (N/m s)		2672.78	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.03	

Plan: 01 Giacco 3 RS: 5020 Profile: PF 1

E.G. Elev (m)	559.29	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.032	
W.S. Elev (m)	557.16	Reach Len. (m)	1.93	1.93	1.93
Crit W.S. (m)	557.73	Flow Area (m2)		2.88	
E.G. Slope (m/m)	0.090166	Area (m2)		2.88	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.38	Top Width (m)		4.38	
Vel Total (m/s)	6.45	Avg. Vel. (m/s)		6.45	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	61.8	Conv. (m3/s)		61.8	
Length Wtd. (m)	1.93	Wetted Per. (m)		5.05	
Min Ch EI (m)	556.36	Shear (N/m2)		504.08	
Alpha	1.00	Stream Power (N/m s)		3252.13	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.06	Cum SA (1000 m2)		0.02	

Plan: 01 Giacco 3 RS: 5010 Profile: PF 1

E.G. Elev (m)	559.03	Element	Left OB	Channel	Right OB
Vel Head (m)	2.70	Wt. n-Val.		0.032	
W.S. Elev (m)	556.33	Reach Len. (m)	1.76	1.76	1.76
Crit W.S. (m)	556.99	Flow Area (m2)		2.55	
E.G. Slope (m/m)	0.121787	Area (m2)		2.55	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.03	Top Width (m)		4.03	
Vel Total (m/s)	7.28	Avg. Vel. (m/s)		7.28	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	53.2	Conv. (m3/s)		53.2	
Length Wtd. (m)	1.76	Wetted Per. (m)		4.68	
Min Ch EI (m)	555.54	Shear (N/m2)		651.09	
Alpha	1.00	Stream Power (N/m s)		4738.56	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.01	

Plan: 01 Giacco 3 RS: 5005 Profile: PF 1

E.G. Elev (m)	558.81	Element	Left OB	Channel	Right OB
Vel Head (m)	2.77	Wt. n-Val.		0.032	
W.S. Elev (m)	556.04	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	556.73	Flow Area (m2)		2.52	
E.G. Slope (m/m)	0.124369	Area (m2)		2.52	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.95	Top Width (m)		3.95	
Vel Total (m/s)	7.36	Avg. Vel. (m/s)		7.36	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	52.6	Conv. (m3/s)		52.6	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.61	
Min Ch El (m)	555.24	Shear (N/m2)		666.29	
Alpha	1.00	Stream Power (N/m s)		4907.14	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.01	

Plan: 01 Giacco 3 RS: 5002 BR U Profile: PF 1

E.G. Elev (m)	558.46	Element	Left OB	Channel	Right OB
Vel Head (m)	2.31	Wt. n-Val.		0.032	
W.S. Elev (m)	556.15	Reach Len. (m)			
Crit W.S. (m)	556.80	Flow Area (m2)		2.76	
E.G. Slope (m/m)	0.091512	Area (m2)		2.76	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.15	Top Width (m)		3.15	
Vel Total (m/s)	6.73	Avg. Vel. (m/s)		6.73	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	61.4	Conv. (m3/s)		61.4	
Length Wtd. (m)		Wetted Per. (m)		4.59	
Min Ch El (m)	555.19	Shear (N/m2)		539.22	
Alpha	1.00	Stream Power (N/m s)		3629.67	
Frctn Loss (m)	0.73	Cum Volume (1000 m3)			
C & E Loss (m)	0.22	Cum SA (1000 m2)			

Plan: 01 Giacco 3 RS: 5002 BR D Profile: PF 1

E.G. Elev (m)	557.51	Element	Left OB	Channel	Right OB
Vel Head (m)	1.59	Wt. n-Val.		0.032	
W.S. Elev (m)	555.92	Reach Len. (m)			
Crit W.S. (m)	556.40	Flow Area (m2)		3.32	
E.G. Slope (m/m)	0.059951	Area (m2)		3.32	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.35	Top Width (m)		3.35	
Vel Total (m/s)	5.58	Avg. Vel. (m/s)		5.58	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	75.8	Conv. (m3/s)		75.8	
Length Wtd. (m)		Wetted Per. (m)		5.33	
Min Ch El (m)	554.93	Shear (N/m2)		366.38	
Alpha	1.00	Stream Power (N/m s)		2045.31	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: 01 Giacco 3 RS: 5000 Profile: PF 1

E.G. Elev (m)	557.28	Element	Left OB	Channel	Right OB
Vel Head (m)	1.93	Wt. n-Val.		0.032	
W.S. Elev (m)	555.35	Reach Len. (m)			
Crit W.S. (m)	555.83	Flow Area (m2)		3.02	
E.G. Slope (m/m)	0.121512	Area (m2)		3.02	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	

Plan: 01 Giacco 3 RS: 5000 Profile: PF 1 (Continued)

Top Width (m)	6.46	Top Width (m)		6.46	
Vel Total (m/s)	6.15	Avg. Vel. (m/s)		6.15	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	53.2	Conv. (m3/s)		53.2	
Length Wtd. (m)		Wetted Per. (m)		7.10	
Min Ch EI (m)	554.87	Shear (N/m2)		506.02	
Alpha	1.00	Stream Power (N/m s)		3114.24	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 01 Marchese 2 RS: 39 Profile: PF 1

E.G. Elev (m)	683.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.040	
W.S. Elev (m)	682.20	Reach Len. (m)	7.73	7.72	7.73
Crit W.S. (m)	682.41	Flow Area (m2)		0.54	
E.G. Slope (m/m)	0.324634	Area (m2)		0.54	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.13	Top Width (m)		3.13	
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		4.33	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	4.1	Conv. (m3/s)		4.1	
Length Wtd. (m)	7.72	Wetted Per. (m)		3.23	
Min Ch EI (m)	682.00	Shear (N/m2)		533.48	
Alpha	1.00	Stream Power (N/m s)		2309.76	
Frctn Loss (m)	2.69	Cum Volume (1000 m3)	0.01	0.37	0.01
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.02	0.73	0.03

Plan: 01 Marchese 2 RS: 38 Profile: PF 1

E.G. Elev (m)	680.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.040	
W.S. Elev (m)	679.64	Reach Len. (m)	10.89	10.89	10.89
Crit W.S. (m)	679.81	Flow Area (m2)		0.60	
E.G. Slope (m/m)	0.373896	Area (m2)		0.60	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.64	Top Width (m)		4.64	
Vel Total (m/s)	3.89	Avg. Vel. (m/s)		3.89	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	3.8	Conv. (m3/s)		3.8	
Length Wtd. (m)	10.89	Wetted Per. (m)		4.69	
Min Ch EI (m)	679.50	Shear (N/m2)		470.39	
Alpha	1.00	Stream Power (N/m s)		1829.10	
Frctn Loss (m)	2.80	Cum Volume (1000 m3)	0.01	0.36	0.01
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.02	0.70	0.03

Plan: 01 Marchese 2 RS: 37 Profile: PF 1

E.G. Elev (m)	677.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.040	
W.S. Elev (m)	677.13	Reach Len. (m)	7.98	7.97	7.98
Crit W.S. (m)	677.23	Flow Area (m2)		0.89	
E.G. Slope (m/m)	0.187929	Area (m2)		0.89	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	7.37	Top Width (m)		7.37	
Vel Total (m/s)	2.63	Avg. Vel. (m/s)		2.63	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	7.97	Wetted Per. (m)		7.41	
Min Ch EI (m)	677.00	Shear (N/m2)		220.89	

Plan: 01 Marchese 2 RS: 37 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		581.96	
Frctn Loss (m)	1.61	Cum Volume (1000 m3)	0.01	0.35	0.01
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.02	0.63	0.03

Plan: 01 Marchese 2 RS: 36 Profile: PF 1

E.G. Elev (m)	675.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.040	
W.S. Elev (m)	675.23	Reach Len. (m)	6.16	6.16	6.16
Crit W.S. (m)	675.39	Flow Area (m2)		0.67	
E.G. Slope (m/m)	0.217837	Area (m2)		0.67	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.10	Top Width (m)		4.10	
Vel Total (m/s)	3.47	Avg. Vel. (m/s)		3.47	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	5.0	Conv. (m3/s)		5.0	
Length Wtd. (m)	6.16	Wetted Per. (m)		4.15	
Min Ch EI (m)	675.00	Shear (N/m2)		346.94	
Alpha	1.00	Stream Power (N/m s)		1205.04	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.01	0.35	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.59	0.03

Plan: 01 Marchese 2 RS: 35.5 Profile: PF 1

E.G. Elev (m)	674.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	674.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	673.28	Flow Area (m2)	0.44	9.74	1.20
E.G. Slope (m/m)	0.000061	Area (m2)	0.44	9.74	1.20
Q Total (m3/s)	2.34	Flow (m3/s)	0.03	2.20	0.10
Top Width (m)	11.83	Top Width (m)	1.26	7.15	3.42
Vel Total (m/s)	0.21	Avg. Vel. (m/s)	0.08	0.23	0.09
Max Chl Dpth (m)	2.18	Hydr. Depth (m)	0.35	1.36	0.35
Conv. Total (m3/s)	298.7	Conv. (m3/s)	4.4	281.3	13.0
Length Wtd. (m)	1.20	Wetted Per. (m)	1.43	7.85	3.49
Min Ch EI (m)	672.49	Shear (N/m2)	0.18	0.75	0.21
Alpha	1.15	Stream Power (N/m s)	0.01	0.17	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.55	0.02

Plan: 01 Marchese 2 RS: 35 Profile: PF 1

E.G. Elev (m)	672.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.040	
W.S. Elev (m)	672.79	Reach Len. (m)	18.07	18.07	18.07
Crit W.S. (m)	672.79	Flow Area (m2)		1.20	
E.G. Slope (m/m)	0.026419	Area (m2)		1.20	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.20	Top Width (m)		3.20	
Vel Total (m/s)	1.94	Avg. Vel. (m/s)		1.94	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	14.4	Conv. (m3/s)		14.4	
Length Wtd. (m)	18.07	Wetted Per. (m)		3.63	
Min Ch EI (m)	672.00	Shear (N/m2)		85.78	
Alpha	1.00	Stream Power (N/m s)		166.81	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)	0.37	Cum SA (1000 m2)	0.01	0.54	0.01

Plan: 01 Marchese 2 RS: 34 Profile: PF 1

E.G. Elev (m)	671.02	Element	Left OB	Channel	Right OB
Vel Head (m)	3.92	Wt. n-Val.		0.040	
W.S. Elev (m)	667.10	Reach Len. (m)	18.07	18.07	18.07
Crit W.S. (m)	667.41	Flow Area (m2)		0.27	
E.G. Slope (m/m)	2.922094	Area (m2)		0.27	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	8.77	Avg. Vel. (m/s)		8.77	
Max Chl Dpth (m)	0.10	Hydr. Depth (m)		0.09	
Conv. Total (m3/s)	1.4	Conv. (m3/s)		1.4	
Length Wtd. (m)	18.07	Wetted Per. (m)		2.87	
Min Ch EI (m)	667.00	Shear (N/m2)		2663.72	
Alpha	1.00	Stream Power (N/m s)		23359.48	
Frctn Loss (m)	8.76	Cum Volume (1000 m3)	0.00	0.30	0.00
C & E Loss (m)	1.01	Cum SA (1000 m2)	0.01	0.49	0.01

Plan: 01 Marchese 2 RS: 33 Profile: PF 1

E.G. Elev (m)	661.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.040	
W.S. Elev (m)	660.69	Reach Len. (m)	5.80	5.80	5.80
Crit W.S. (m)	660.84	Flow Area (m2)		0.70	
E.G. Slope (m/m)	0.191134	Area (m2)		0.70	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.00	Top Width (m)		4.00	
Vel Total (m/s)	3.34	Avg. Vel. (m/s)		3.34	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	5.80	Wetted Per. (m)		4.14	
Min Ch EI (m)	660.50	Shear (N/m2)		317.13	
Alpha	1.00	Stream Power (N/m s)		1060.30	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.43	0.01

Plan: 01 Marchese 2 RS: 32.5 Profile: PF 1

E.G. Elev (m)	659.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	659.68	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	658.06	Flow Area (m2)	0.20	11.22	0.27
E.G. Slope (m/m)	0.000043	Area (m2)	0.20	11.22	0.27
Q Total (m3/s)	2.34	Flow (m3/s)	0.01	2.31	0.02
Top Width (m)	8.76	Top Width (m)	0.69	7.11	0.96
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.05	0.21	0.06
Max Chl Dpth (m)	2.08	Hydr. Depth (m)	0.29	1.58	0.28
Conv. Total (m3/s)	357.1	Conv. (m3/s)	1.6	353.2	2.3
Length Wtd. (m)	1.20	Wetted Per. (m)	0.90	7.94	1.12
Min Ch EI (m)	657.60	Shear (N/m2)	0.09	0.60	0.10
Alpha	1.05	Stream Power (N/m s)	0.01	0.12	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.40	0.01

Plan: 01 Marchese 2 RS: 32 Profile: PF 1

E.G. Elev (m)	657.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	657.46	Reach Len. (m)	8.28	8.28	8.28
Crit W.S. (m)	657.46	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.024563	Area (m2)		1.30	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	

Plan: 01 Marchese 2 RS: 32 Profile: PF 1 (Continued)

Top Width (m)	3.99	Top Width (m)		3.99	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	8.28	Wetted Per. (m)		4.16	
Min Ch EI (m)	657.00	Shear (N/m2)		75.11	
Alpha	1.00	Stream Power (N/m s)		135.34	
Frctn Loss (m)	0.62	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.32	Cum SA (1000 m2)	0.01	0.39	0.01

Plan: 01 Marchese 2 RS: 31 Profile: PF 1

E.G. Elev (m)	656.68	Element	Left OB	Channel	Right OB
Vel Head (m)	3.35	Wt. n-Val.		0.040	
W.S. Elev (m)	653.33	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	653.69	Flow Area (m2)		0.29	
E.G. Slope (m/m)	1.214698	Area (m2)		0.29	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	8.11	Avg. Vel. (m/s)		8.11	
Max Chl Dpth (m)	0.33	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.1	Conv. (m3/s)		2.1	
Length Wtd. (m)	6.00	Wetted Per. (m)		1.81	
Min Ch EI (m)	653.00	Shear (N/m2)		1901.99	
Alpha	1.00	Stream Power (N/m s)		15424.13	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.37	0.01

Plan: 01 Marchese 2 RS: 30.5 Profile: PF 1

E.G. Elev (m)	652.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	652.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	651.08	Flow Area (m2)	0.31	9.55	0.34
E.G. Slope (m/m)	0.000059	Area (m2)	0.31	9.55	0.34
Q Total (m3/s)	2.34	Flow (m3/s)	0.02	2.29	0.02
Top Width (m)	7.90	Top Width (m)	0.93	5.96	1.01
Vel Total (m/s)	0.23	Avg. Vel. (m/s)	0.07	0.24	0.07
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.33	1.60	0.34
Conv. Total (m3/s)	305.2	Conv. (m3/s)	2.9	299.1	3.2
Length Wtd. (m)	1.20	Wetted Per. (m)	1.14	6.80	1.22
Min Ch EI (m)	650.50	Shear (N/m2)	0.16	0.81	0.16
Alpha	1.08	Stream Power (N/m s)	0.01	0.19	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.22	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.34	0.01

Plan: 01 Marchese 2 RS: 30 Profile: PF 1

E.G. Elev (m)	650.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.040	
W.S. Elev (m)	650.58	Reach Len. (m)	7.92	7.92	7.92
Crit W.S. (m)	650.58	Flow Area (m2)		1.23	
E.G. Slope (m/m)	0.024684	Area (m2)		1.23	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.40	Top Width (m)		3.40	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	7.92	Wetted Per. (m)		3.65	
Min Ch EI (m)	650.00	Shear (N/m2)		81.63	

Plan: 01 Marchese 2 RS: 30 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		155.35	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	0.00	0.21	0.00
C & E Loss (m)	0.34	Cum SA (1000 m2)	0.01	0.34	0.01

Plan: 01 Marchese 2 RS: 29 Profile: PF 1

E.G. Elev (m)	649.82	Element	Left OB	Channel	Right OB
Vel Head (m)	3.59	Wt. n-Val.		0.040	
W.S. Elev (m)	646.23	Reach Len. (m)	6.30	6.30	6.30
Crit W.S. (m)	646.61	Flow Area (m2)		0.28	
E.G. Slope (m/m)	1.347345	Area (m2)		0.28	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	8.39	Avg. Vel. (m/s)		8.39	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.0	Conv. (m3/s)		2.0	
Length Wtd. (m)	6.30	Wetted Per. (m)		1.79	
Min Ch EI (m)	646.00	Shear (N/m2)		2053.67	
Alpha	1.00	Stream Power (N/m s)		17228.03	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.21	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.32	0.01

Plan: 01 Marchese 2 RS: 28.5 Profile: PF 1

E.G. Elev (m)	644.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	644.68	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	643.02	Flow Area (m2)	0.24	13.93	0.13
E.G. Slope (m/m)	0.000026	Area (m2)	0.24	13.93	0.13
Q Total (m3/s)	2.34	Flow (m3/s)	0.01	2.32	0.00
Top Width (m)	9.96	Top Width (m)	0.90	8.54	0.51
Vel Total (m/s)	0.16	Avg. Vel. (m/s)	0.04	0.17	0.04
Max Chl Dpth (m)	2.04	Hydr. Depth (m)	0.27	1.63	0.26
Conv. Total (m3/s)	456.9	Conv. (m3/s)	2.0	454.0	0.9
Length Wtd. (m)	1.20	Wetted Per. (m)	1.05	9.36	0.74
Min Ch EI (m)	642.64	Shear (N/m2)	0.06	0.38	0.05
Alpha	1.03	Stream Power (N/m s)	0.00	0.06	0.00
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 01 Marchese 2 RS: 28 Profile: PF 1

E.G. Elev (m)	642.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.040	
W.S. Elev (m)	642.38	Reach Len. (m)	9.82	9.82	9.82
Crit W.S. (m)	642.38	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024660	Area (m2)		1.41	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.97	Top Width (m)		4.97	
Vel Total (m/s)	1.67	Avg. Vel. (m/s)		1.67	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	9.82	Wetted Per. (m)		5.09	
Min Ch EI (m)	642.00	Shear (N/m2)		66.81	
Alpha	1.00	Stream Power (N/m s)		111.25	
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)	0.10	Cum SA (1000 m2)	0.00	0.28	0.01

Plan: 01 Marchese 2 RS: 27 Profile: PF 1

E.G. Elev (m)	641.74	Element	Left OB	Channel	Right OB
Vel Head (m)	1.10	Wt. n-Val.		0.040	
W.S. Elev (m)	640.65	Reach Len. (m)	9.43	9.43	9.43
Crit W.S. (m)	640.84	Flow Area (m2)		0.50	
E.G. Slope (m/m)	0.606713	Area (m2)		0.50	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.31	Top Width (m)		4.31	
Vel Total (m/s)	4.64	Avg. Vel. (m/s)		4.64	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	9.43	Wetted Per. (m)		4.34	
Min Ch EI (m)	640.50	Shear (N/m2)		691.81	
Alpha	1.00	Stream Power (N/m s)		3209.35	
Frctn Loss (m)	2.68	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.17	Cum SA (1000 m2)	0.00	0.23	0.01

Plan: 01 Marchese 2 RS: 26 Profile: PF 1

E.G. Elev (m)	638.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	638.36	Reach Len. (m)	5.68	5.67	5.68
Crit W.S. (m)	638.51	Flow Area (m2)		0.72	
E.G. Slope (m/m)	0.164139	Area (m2)		0.72	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.92	Top Width (m)		3.92	
Vel Total (m/s)	3.24	Avg. Vel. (m/s)		3.24	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	5.8	Conv. (m3/s)		5.8	
Length Wtd. (m)	5.67	Wetted Per. (m)		3.99	
Min Ch EI (m)	638.00	Shear (N/m2)		291.49	
Alpha	1.00	Stream Power (N/m s)		945.03	
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.00	0.14	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.00	0.19	0.01

Plan: 01 Marchese 2 RS: 25 Profile: PF 1

E.G. Elev (m)	637.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.040	
W.S. Elev (m)	636.66	Reach Len. (m)	7.95	7.95	7.95
Crit W.S. (m)	636.86	Flow Area (m2)		0.56	
E.G. Slope (m/m)	0.356995	Area (m2)		0.56	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.78	Top Width (m)		3.78	
Vel Total (m/s)	4.15	Avg. Vel. (m/s)		4.15	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.9	Conv. (m3/s)		3.9	
Length Wtd. (m)	7.95	Wetted Per. (m)		3.86	
Min Ch EI (m)	636.50	Shear (N/m2)		512.29	
Alpha	1.00	Stream Power (N/m s)		2124.97	
Frctn Loss (m)	3.08	Cum Volume (1000 m3)	0.00	0.14	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.00	0.17	0.01

Plan: 01 Marchese 2 RS: 24 Profile: PF 1

E.G. Elev (m)	634.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.040	
W.S. Elev (m)	633.63	Reach Len. (m)	9.78	9.78	9.78
Crit W.S. (m)	633.80	Flow Area (m2)		0.59	
E.G. Slope (m/m)	0.422825	Area (m2)		0.59	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	

Plan: 01 Marchese 2 RS: 24 Profile: PF 1 (Continued)

Top Width (m)	4.82	Top Width (m)		4.82	
Vel Total (m/s)	3.97	Avg. Vel. (m/s)		3.97	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	3.6	Conv. (m3/s)		3.6	
Length Wtd. (m)	9.78	Wetted Per. (m)		4.87	
Min Ch EI (m)	633.50	Shear (N/m2)		501.16	
Alpha	1.00	Stream Power (N/m s)		1991.57	
Frctn Loss (m)	3.17	Cum Volume (1000 m3)	0.00	0.13	0.00
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.00	0.14	0.01

Plan: 01 Marchese 2 RS: 23 Profile: PF 1

E.G. Elev (m)	631.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	630.64	Reach Len. (m)	9.40	9.40	9.40
Crit W.S. (m)	630.78	Flow Area (m2)		0.72	
E.G. Slope (m/m)	0.256158	Area (m2)		0.72	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	5.41	Top Width (m)		5.41	
Vel Total (m/s)	3.27	Avg. Vel. (m/s)		3.27	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	4.6	Conv. (m3/s)		4.6	
Length Wtd. (m)	9.40	Wetted Per. (m)		5.45	
Min Ch EI (m)	630.50	Shear (N/m2)		329.77	
Alpha	1.00	Stream Power (N/m s)		1077.80	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.13	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.00	0.09	0.01

Plan: 01 Marchese 2 RS: 22.5 Profile: PF 1

E.G. Elev (m)	629.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	629.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	627.81	Flow Area (m2)	0.35	14.47	0.42
E.G. Slope (m/m)	0.000021	Area (m2)	0.35	14.47	0.42
Q Total (m3/s)	2.34	Flow (m3/s)	0.02	2.30	0.02
Top Width (m)	9.86	Top Width (m)	0.90	7.94	1.02
Vel Total (m/s)	0.15	Avg. Vel. (m/s)	0.04	0.16	0.05
Max Chl Dpth (m)	2.27	Hydr. Depth (m)	0.39	1.82	0.41
Conv. Total (m3/s)	513.7	Conv. (m3/s)	3.4	505.8	4.4
Length Wtd. (m)	1.20	Wetted Per. (m)	1.19	8.75	1.28
Min Ch EI (m)	627.40	Shear (N/m2)	0.06	0.34	0.07
Alpha	1.06	Stream Power (N/m s)	0.00	0.05	0.00
Frctn Loss (m)		Cum Volume (1000 m3)		0.06	
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.02	0.00

Plan: 01 Marchese 2 RS: 22 Profile: PF 1

E.G. Elev (m)	627.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.040	
W.S. Elev (m)	627.41	Reach Len. (m)	4.31	4.32	4.31
Crit W.S. (m)	627.41	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.024986	Area (m2)		1.35	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.53	Top Width (m)		4.53	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	14.8	Conv. (m3/s)		14.8	
Length Wtd. (m)	4.32	Wetted Per. (m)		4.68	
Min Ch EI (m)	627.00	Shear (N/m2)		70.89	

Plan: 01 Marchese 2 RS: 22 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		122.56	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.18	Cum SA (1000 m2)		0.02	

Plan: 01 Marchese 2 RS: 21 Profile: PF 1

E.G. Elev (m)	627.06	Element	Left OB	Channel	Right OB
Vel Head (m)	1.93	Wt. n-Val.		0.040	
W.S. Elev (m)	625.13	Reach Len. (m)	9.41	9.41	9.41
Crit W.S. (m)	625.38	Flow Area (m2)		0.38	
E.G. Slope (m/m)	1.072091	Area (m2)		0.38	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	6.15	Avg. Vel. (m/s)		6.15	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	2.3	Conv. (m3/s)		2.3	
Length Wtd. (m)	9.41	Wetted Per. (m)		3.28	
Min Ch El (m)	625.00	Shear (N/m2)		1217.76	
Alpha	1.00	Stream Power (N/m s)		7490.25	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 01 Marchese 1 RS: 33 Profile: PF 1

E.G. Elev (m)	689.72	Element	Left OB	Channel	Right OB
Vel Head (m)	2.53	Wt. n-Val.		0.040	
W.S. Elev (m)	687.19	Reach Len. (m)	4.00	4.00	4.00
Crit W.S. (m)	687.51	Flow Area (m2)		0.36	
E.G. Slope (m/m)	1.000164	Area (m2)		0.36	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.34	Top Width (m)		2.34	
Vel Total (m/s)	7.04	Avg. Vel. (m/s)		7.04	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	4.00	Wetted Per. (m)		2.42	
Min Ch El (m)	687.00	Shear (N/m2)		1466.53	
Alpha	1.00	Stream Power (N/m s)		10329.26	
Frctn Loss (m)	4.01	Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	0.40	0.02

Plan: 01 Marchese 1 RS: 32 Profile: PF 1

E.G. Elev (m)	685.70	Element	Left OB	Channel	Right OB
Vel Head (m)	2.49	Wt. n-Val.		0.040	
W.S. Elev (m)	683.20	Reach Len. (m)	2.39	2.39	2.39
Crit W.S. (m)	683.52	Flow Area (m2)		0.36	
E.G. Slope (m/m)	1.003083	Area (m2)		0.36	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.39	Top Width (m)		2.39	
Vel Total (m/s)	6.99	Avg. Vel. (m/s)		6.99	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	2.39	Wetted Per. (m)		2.47	
Min Ch El (m)	683.00	Shear (N/m2)		1451.45	
Alpha	1.00	Stream Power (N/m s)		10147.91	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.02	0.40	0.02

Plan: 01 Marchese 1 RS: 31.5 Profile: PF 1

E.G. Elev (m)	683.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	683.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	682.43	Flow Area (m2)	0.13	6.93	0.10
E.G. Slope (m/m)	0.000173	Area (m2)	0.13	6.93	0.10
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.53	0.01
Top Width (m)	5.98	Top Width (m)	0.56	5.00	0.42
Vel Total (m/s)	0.36	Avg. Vel. (m/s)	0.09	0.36	0.09
Max Chl Dpth (m)	1.97	Hydr. Depth (m)	0.24	1.39	0.24
Conv. Total (m3/s)	193.7	Conv. (m3/s)	0.9	192.1	0.6
Length Wtd. (m)	1.20	Wetted Per. (m)	0.73	5.94	0.63
Min Ch EI (m)	681.73	Shear (N/m2)	0.31	1.99	0.27
Alpha	1.04	Stream Power (N/m s)	0.03	0.72	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.02	0.39	0.02

Plan: 01 Marchese 1 RS: 31 Profile: PF 1

E.G. Elev (m)	681.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.040	
W.S. Elev (m)	681.70	Reach Len. (m)	12.16	12.16	12.16
Crit W.S. (m)	681.70	Flow Area (m2)		1.26	
E.G. Slope (m/m)	0.024936	Area (m2)		1.26	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	2.02	Avg. Vel. (m/s)		2.02	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	16.1	Conv. (m3/s)		16.1	
Length Wtd. (m)	12.16	Wetted Per. (m)		3.45	
Min Ch EI (m)	681.00	Shear (N/m2)		89.56	
Alpha	1.00	Stream Power (N/m s)		180.98	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)	0.41	Cum SA (1000 m2)	0.02	0.38	0.02

Plan: 01 Marchese 1 RS: 30 Profile: PF 1

E.G. Elev (m)	680.50	Element	Left OB	Channel	Right OB
Vel Head (m)	4.36	Wt. n-Val.		0.040	
W.S. Elev (m)	676.15	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	676.54	Flow Area (m2)		0.28	
E.G. Slope (m/m)	2.114403	Area (m2)		0.28	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	9.24	Avg. Vel. (m/s)		9.24	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	1.8	Conv. (m3/s)		1.8	
Length Wtd. (m)	1.20	Wetted Per. (m)		2.15	
Min Ch EI (m)	676.00	Shear (N/m2)		2658.16	
Alpha	1.00	Stream Power (N/m s)		24567.95	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.30	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.35	0.02

Plan: 01 Marchese 1 RS: 29.5 Profile: PF 1

E.G. Elev (m)	676.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	676.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	675.86	Flow Area (m2)	0.00	4.15	0.00
E.G. Slope (m/m)	0.000830	Area (m2)	0.00	4.15	0.00
Q Total (m3/s)	2.55	Flow (m3/s)	0.00	2.55	0.00

Plan: 01 Marchese 1 RS: 29.5 Profile: PF 1 (Continued)

Top Width (m)	4.14	Top Width (m)	0.03	4.05	0.06
Vel Total (m/s)	0.61	Avg. Vel. (m/s)	0.04	0.61	0.05
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.03	1.02	0.03
Conv. Total (m3/s)	88.5	Conv. (m3/s)	0.0	88.5	0.0
Length Wtd. (m)	1.20	Wetted Per. (m)	0.07	5.26	0.09
Min Ch EI (m)	675.13	Shear (N/m2)	0.12	6.42	0.18
Alpha	1.00	Stream Power (N/m s)	0.00	3.95	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.02	0.35	0.02

Plan: 01 Marchese 1 RS: 29 Profile: PF 1

E.G. Elev (m)	674.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.040	
W.S. Elev (m)	674.73	Reach Len. (m)	11.26	11.26	11.26
Crit W.S. (m)	674.73	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.025616	Area (m2)		1.22	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.83	Top Width (m)		2.83	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	15.9	Conv. (m3/s)		15.9	
Length Wtd. (m)	11.26	Wetted Per. (m)		3.26	
Min Ch EI (m)	674.00	Shear (N/m2)		94.31	
Alpha	1.00	Stream Power (N/m s)		196.40	
Frctn Loss (m)	0.92	Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)	0.33	Cum SA (1000 m2)	0.02	0.34	0.02

Plan: 01 Marchese 1 RS: 28 Profile: PF 1

E.G. Elev (m)	673.71	Element	Left OB	Channel	Right OB
Vel Head (m)	3.49	Wt. n-Val.		0.040	
W.S. Elev (m)	670.22	Reach Len. (m)	5.38	5.38	5.38
Crit W.S. (m)	670.52	Flow Area (m2)		0.31	
E.G. Slope (m/m)	1.790620	Area (m2)		0.31	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.46	Top Width (m)		2.46	
Vel Total (m/s)	8.27	Avg. Vel. (m/s)		8.27	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	1.9	Conv. (m3/s)		1.9	
Length Wtd. (m)	5.38	Wetted Per. (m)		2.51	
Min Ch EI (m)	670.00	Shear (N/m2)		2160.10	
Alpha	1.00	Stream Power (N/m s)		17874.02	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.28	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.31	0.02

Plan: 01 Marchese 1 RS: 27.5 Profile: PF 1

E.G. Elev (m)	669.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	669.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	668.23	Flow Area (m2)	0.36	8.05	0.21
E.G. Slope (m/m)	0.000109	Area (m2)	0.36	8.05	0.21
Q Total (m3/s)	2.55	Flow (m3/s)	0.04	2.49	0.02
Top Width (m)	6.97	Top Width (m)	1.00	5.31	0.65
Vel Total (m/s)	0.30	Avg. Vel. (m/s)	0.10	0.31	0.09
Max Chl Dpth (m)	2.16	Hydr. Depth (m)	0.36	1.52	0.32
Conv. Total (m3/s)	244.7	Conv. (m3/s)	3.6	239.3	1.8
Length Wtd. (m)	1.20	Wetted Per. (m)	1.21	6.21	0.93
Min Ch EI (m)	667.55	Shear (N/m2)	0.32	1.38	0.24

Plan: 01 Marchese 1 RS: 27.5 Profile: PF 1 (Continued)

Alpha	1.08	Stream Power (N/m s)	0.03	0.43	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 01 Marchese 1 RS: 27 Profile: PF 1

E.G. Elev (m)	667.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.040	
W.S. Elev (m)	667.68	Reach Len. (m)	8.97	8.96	8.97
Crit W.S. (m)	667.68	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.024906	Area (m2)		1.24	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.91	Top Width (m)		2.91	
Vel Total (m/s)	2.06	Avg. Vel. (m/s)		2.06	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	8.96	Wetted Per. (m)		3.28	
Min Ch EI (m)	667.00	Shear (N/m2)		92.10	
Alpha	1.00	Stream Power (N/m s)		189.65	
Frctn Loss (m)	0.67	Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)	0.30	Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 01 Marchese 1 RS: 26 Profile: PF 1

E.G. Elev (m)	666.93	Element	Left OB	Channel	Right OB
Vel Head (m)	3.20	Wt. n-Val.		0.040	
W.S. Elev (m)	663.73	Reach Len. (m)	5.64	5.64	5.64
Crit W.S. (m)	664.12	Flow Area (m2)		0.32	
E.G. Slope (m/m)	1.063622	Area (m2)		0.32	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.74	Top Width (m)		1.74	
Vel Total (m/s)	7.92	Avg. Vel. (m/s)		7.92	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	5.64	Wetted Per. (m)		1.89	
Min Ch EI (m)	663.50	Shear (N/m2)		1776.60	
Alpha	1.00	Stream Power (N/m s)		14075.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.27	0.01

Plan: 01 Marchese 1 RS: 25.5 Profile: PF 1

E.G. Elev (m)	662.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.040	
W.S. Elev (m)	662.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	661.37	Flow Area (m2)		5.08	
E.G. Slope (m/m)	0.000257	Area (m2)	0.19	6.29	0.15
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	5.41	Top Width (m)	0.64	4.26	0.51
Vel Total (m/s)	0.50	Avg. Vel. (m/s)		0.50	
Max Chl Dpth (m)	2.09	Hydr. Depth (m)		1.69	
Conv. Total (m3/s)	159.0	Conv. (m3/s)		159.0	
Length Wtd. (m)	1.20	Wetted Per. (m)		3.63	
Min Ch EI (m)	660.61	Shear (N/m2)		3.53	
Alpha	1.00	Stream Power (N/m s)		1.77	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.23	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.25	0.01

Plan: 01 Marchese 1 RS: 25 Profile: PF 1

E.G. Elev (m)	660.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.040	
W.S. Elev (m)	660.76	Reach Len. (m)	6.29	6.29	6.29
Crit W.S. (m)	660.76	Flow Area (m2)		1.20	
E.G. Slope (m/m)	0.025985	Area (m2)		1.20	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	2.12	Avg. Vel. (m/s)		2.12	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	15.8	Conv. (m3/s)		15.8	
Length Wtd. (m)	6.29	Wetted Per. (m)		3.15	
Min Ch El (m)	660.00	Shear (N/m2)		97.26	
Alpha	1.00	Stream Power (N/m s)		206.24	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	0.00	0.23	0.00
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.01	0.25	0.01

Plan: 01 Marchese 1 RS: 24 Profile: PF 1

E.G. Elev (m)	660.35	Element	Left OB	Channel	Right OB
Vel Head (m)	2.10	Wt. n-Val.		0.040	
W.S. Elev (m)	658.25	Reach Len. (m)	5.60	5.60	5.60
Crit W.S. (m)	658.59	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.633995	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	6.41	Avg. Vel. (m/s)		6.41	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	5.60	Wetted Per. (m)		2.18	
Min Ch El (m)	658.00	Shear (N/m2)		1136.34	
Alpha	1.00	Stream Power (N/m s)		7285.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.22	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.23	0.01

Plan: 01 Marchese 1 RS: 23.5 Profile: PF 1

E.G. Elev (m)	658.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	
W.S. Elev (m)	658.21	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	656.32	Flow Area (m2)	0.25	12.34	
E.G. Slope (m/m)	0.000041	Area (m2)	0.25	12.34	
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.54	
Top Width (m)	7.36	Top Width (m)	0.65	6.71	
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.06	0.21	
Max Chl Dpth (m)	2.26	Hydr. Depth (m)	0.38	1.84	
Conv. Total (m3/s)	399.3	Conv. (m3/s)	2.2	397.2	
Length Wtd. (m)	1.20	Wetted Per. (m)	1.00	8.45	
Min Ch El (m)	655.95	Shear (N/m2)	0.10	0.58	
Alpha	1.02	Stream Power (N/m s)	0.01	0.12	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.19	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.21	0.01

Plan: 01 Marchese 1 RS: 23 Profile: PF 1

E.G. Elev (m)	656.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	655.87	Reach Len. (m)	1.49	1.50	1.49
Crit W.S. (m)	655.87	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024854	Area (m2)		1.41	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	

Plan: 01 Marchese 1 RS: 23 Profile: PF 1 (Continued)

Top Width (m)	4.29	Top Width (m)		4.29	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	1.50	Wetted Per. (m)		4.55	
Min Ch EI (m)	655.50	Shear (N/m2)		75.59	
Alpha	1.00	Stream Power (N/m s)		136.49	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.00	0.18	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	0.01	0.20	0.01

Plan: 01 Marchese 1 RS: 22 Profile: PF 1

E.G. Elev (m)	655.79	Element	Left OB	Channel	Right OB
Vel Head (m)	1.62	Wt. n-Val.		0.040	
W.S. Elev (m)	654.17	Reach Len. (m)	3.40	3.40	3.40
Crit W.S. (m)	654.44	Flow Area (m2)		0.45	
E.G. Slope (m/m)	0.648090	Area (m2)		0.45	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	5.64	Avg. Vel. (m/s)		5.64	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	3.40	Wetted Per. (m)		3.05	
Min Ch EI (m)	654.00	Shear (N/m2)		942.00	
Alpha	1.00	Stream Power (N/m s)		5309.77	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.18	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.19	0.01

Plan: 01 Marchese 1 RS: 21.5 Profile: PF 1

E.G. Elev (m)	653.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	653.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	652.35	Flow Area (m2)	0.09	7.48	0.06
E.G. Slope (m/m)	0.000145	Area (m2)	0.09	7.48	0.06
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.54	0.00
Top Width (m)	5.78	Top Width (m)	0.41	5.08	0.29
Vel Total (m/s)	0.33	Avg. Vel. (m/s)	0.07	0.34	0.06
Max Chl Dpth (m)	1.93	Hydr. Depth (m)	0.21	1.47	0.21
Conv. Total (m3/s)	212.1	Conv. (m3/s)	0.5	211.2	0.3
Length Wtd. (m)	1.20	Wetted Per. (m)	0.59	6.22	0.51
Min Ch EI (m)	651.78	Shear (N/m2)	0.21	1.70	0.17
Alpha	1.03	Stream Power (N/m s)	0.02	0.58	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.17	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.18	0.01

Plan: 01 Marchese 1 RS: 21 Profile: PF 1

E.G. Elev (m)	651.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.040	
W.S. Elev (m)	651.57	Reach Len. (m)	3.90	3.89	3.90
Crit W.S. (m)	651.57	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.024503	Area (m2)		1.31	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.48	Top Width (m)		3.48	
Vel Total (m/s)	1.94	Avg. Vel. (m/s)		1.94	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	16.3	Conv. (m3/s)		16.3	
Length Wtd. (m)	3.89	Wetted Per. (m)		3.76	
Min Ch EI (m)	651.00	Shear (N/m2)		83.99	

Plan: 01 Marchese 1 RS: 21 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		163.08	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)	0.00	0.17	0.00
C & E Loss (m)	0.22	Cum SA (1000 m2)	0.01	0.18	0.01

Plan: 01 Marchese 1 RS: 20 Profile: PF 1

E.G. Elev (m)	651.28	Element	Left OB	Channel	Right OB
Vel Head (m)	2.41	Wt. n-Val.		0.040	
W.S. Elev (m)	648.87	Reach Len. (m)	2.80	2.80	2.80
Crit W.S. (m)	649.28	Flow Area (m2)		0.37	
E.G. Slope (m/m)	0.588842	Area (m2)		0.37	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.46	Top Width (m)		1.46	
Vel Total (m/s)	6.87	Avg. Vel. (m/s)		6.87	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)	2.80	Wetted Per. (m)		1.73	
Min Ch EI (m)	648.50	Shear (N/m2)		1238.62	
Alpha	1.00	Stream Power (N/m s)		8514.50	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.01	0.17	0.01

Plan: 01 Marchese 1 RS: 19.5 Profile: PF 1

E.G. Elev (m)	648.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	648.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	647.59	Flow Area (m2)	0.09	4.70	0.11
E.G. Slope (m/m)	0.000477	Area (m2)	0.09	4.70	0.11
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.52	0.02
Top Width (m)	4.53	Top Width (m)	0.42	3.62	0.49
Vel Total (m/s)	0.52	Avg. Vel. (m/s)	0.14	0.54	0.15
Max Chl Dpth (m)	1.95	Hydr. Depth (m)	0.22	1.30	0.22
Conv. Total (m3/s)	116.7	Conv. (m3/s)	0.6	115.4	0.7
Length Wtd. (m)	1.20	Wetted Per. (m)	0.61	4.82	0.66
Min Ch EI (m)	646.75	Shear (N/m2)	0.72	4.56	0.77
Alpha	1.05	Stream Power (N/m s)	0.10	2.45	0.11
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.16	0.01

Plan: 01 Marchese 1 RS: 19 Profile: PF 1

E.G. Elev (m)	647.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.040	
W.S. Elev (m)	646.84	Reach Len. (m)	3.69	3.69	3.69
Crit W.S. (m)	646.84	Flow Area (m2)		1.14	
E.G. Slope (m/m)	0.028211	Area (m2)		1.14	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.24	Top Width (m)		2.24	
Vel Total (m/s)	2.24	Avg. Vel. (m/s)		2.24	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	15.2	Conv. (m3/s)		15.2	
Length Wtd. (m)	3.69	Wetted Per. (m)		2.91	
Min Ch EI (m)	646.00	Shear (N/m2)		108.13	
Alpha	1.00	Stream Power (N/m s)		242.72	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.01	0.15	0.01

Plan: 01 Marchese 1 RS: 18 Profile: PF 1

E.G. Elev (m)	646.67	Element	Left OB	Channel	Right OB
Vel Head (m)	1.54	Wt. n-Val.		0.040	
W.S. Elev (m)	645.13	Reach Len. (m)	5.41	5.41	5.41
Crit W.S. (m)	645.36	Flow Area (m2)		0.46	
E.G. Slope (m/m)	0.820337	Area (m2)		0.46	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	5.49	Avg. Vel. (m/s)		5.49	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	5.41	Wetted Per. (m)		3.88	
Min Ch EI (m)	645.00	Shear (N/m2)		961.67	
Alpha	1.00	Stream Power (N/m s)		5284.13	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.14	0.01

Plan: 01 Marchese 1 RS: 17.5 Profile: PF 1

E.G. Elev (m)	644.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	644.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	643.14	Flow Area (m2)	0.25	11.76	0.55
E.G. Slope (m/m)	0.000044	Area (m2)	0.25	11.76	0.55
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.50	0.04
Top Width (m)	9.81	Top Width (m)	0.73	7.39	1.69
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.06	0.21	0.07
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.34	1.59	0.32
Conv. Total (m3/s)	384.9	Conv. (m3/s)	2.2	377.3	5.5
Length Wtd. (m)	1.20	Wetted Per. (m)	0.99	8.09	1.82
Min Ch EI (m)	642.54	Shear (N/m2)	0.11	0.63	0.13
Alpha	1.08	Stream Power (N/m s)	0.01	0.13	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.12	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.11	0.01

Plan: 01 Marchese 1 RS: 17 Profile: PF 1

E.G. Elev (m)	642.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	642.60	Reach Len. (m)	3.76	3.76	3.76
Crit W.S. (m)	642.60	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024822	Area (m2)		1.41	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	4.37	Top Width (m)		4.37	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	3.76	Wetted Per. (m)		4.55	
Min Ch EI (m)	642.00	Shear (N/m2)		75.56	
Alpha	1.00	Stream Power (N/m s)		136.44	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	0.00	0.11	0.00
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.00	0.11	0.00

Plan: 01 Marchese 1 RS: 16 Profile: PF 1

E.G. Elev (m)	642.31	Element	Left OB	Channel	Right OB
Vel Head (m)	2.08	Wt. n-Val.		0.040	
W.S. Elev (m)	640.23	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	640.55	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.691547	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	

Plan: 01 Marchese 1 RS: 16 Profile: PF 1 (Continued)

Top Width (m)	2.25	Top Width (m)		2.25	
Vel Total (m/s)	6.38	Avg. Vel. (m/s)		6.38	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	3.1	Conv. (m3/s)		3.1	
Length Wtd. (m)	2.40	Wetted Per. (m)		2.35	
Min Ch EI (m)	640.00	Shear (N/m2)		1153.24	
Alpha	1.00	Stream Power (N/m s)		7359.18	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.11	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.00	0.09	0.00

Plan: 01 Marchese 1 RS: 15.5 Profile: PF 1

E.G. Elev (m)	640.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	640.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	639.27	Flow Area (m2)	0.20	9.27	0.18
E.G. Slope (m/m)	0.000083	Area (m2)	0.20	9.27	0.18
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.52	0.01
Top Width (m)	7.68	Top Width (m)	0.75	6.26	0.67
Vel Total (m/s)	0.26	Avg. Vel. (m/s)	0.07	0.27	0.07
Max Chl Dpth (m)	2.04	Hydr. Depth (m)	0.27	1.48	0.27
Conv. Total (m3/s)	280.2	Conv. (m3/s)	1.6	277.2	1.4
Length Wtd. (m)	1.20	Wetted Per. (m)	0.93	7.08	0.86
Min Ch EI (m)	638.67	Shear (N/m2)	0.18	1.06	0.17
Alpha	1.05	Stream Power (N/m s)	0.01	0.29	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.10	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.08	0.00

Plan: 01 Marchese 1 RS: 15 Profile: PF 1

E.G. Elev (m)	638.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.040	
W.S. Elev (m)	638.60	Reach Len. (m)	3.02	3.02	3.02
Crit W.S. (m)	638.60	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.024170	Area (m2)		1.35	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	16.4	Conv. (m3/s)		16.4	
Length Wtd. (m)	3.02	Wetted Per. (m)		3.97	
Min Ch EI (m)	638.00	Shear (N/m2)		80.44	
Alpha	1.00	Stream Power (N/m s)		152.11	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	0.00	0.10	0.00
C & E Loss (m)	0.16	Cum SA (1000 m2)	0.00	0.08	0.00

Plan: 01 Marchese 1 RS: 14 Profile: PF 1

E.G. Elev (m)	638.41	Element	Left OB	Channel	Right OB
Vel Head (m)	1.75	Wt. n-Val.		0.040	
W.S. Elev (m)	636.66	Reach Len. (m)	6.80	6.80	6.80
Crit W.S. (m)	636.94	Flow Area (m2)		0.44	
E.G. Slope (m/m)	0.705479	Area (m2)		0.44	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.83	Top Width (m)		2.83	
Vel Total (m/s)	5.86	Avg. Vel. (m/s)		5.86	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	6.80	Wetted Per. (m)		2.95	
Min Ch EI (m)	636.50	Shear (N/m2)		1019.25	

Plan: 01 Marchese 1 RS: 14 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		5970.19	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.09	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.00	0.07	0.00

Plan: 01 Marchese 1 RS: 13.5 Profile: PF 1

E.G. Elev (m)	635.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	635.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	634.31	Flow Area (m2)	0.19	6.57	0.24
E.G. Slope (m/m)	0.000173	Area (m2)	0.19	6.57	0.24
Q Total (m3/s)	2.55	Flow (m3/s)	0.02	2.50	0.03
Top Width (m)	5.53	Top Width (m)	0.57	4.23	0.73
Vel Total (m/s)	0.36	Avg. Vel. (m/s)	0.11	0.38	0.11
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.33	1.55	0.33
Conv. Total (m3/s)	194.0	Conv. (m3/s)	1.5	190.4	2.1
Length Wtd. (m)	1.20	Wetted Per. (m)	0.88	5.26	0.99
Min Ch El (m)	633.53	Shear (N/m2)	0.37	2.12	0.41
Alpha	1.08	Stream Power (N/m s)	0.04	0.81	0.05
Frctn Loss (m)		Cum Volume (1000 m3)		0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.04	0.00

Plan: 01 Marchese 1 RS: 13 Profile: PF 1

E.G. Elev (m)	634.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.040	
W.S. Elev (m)	633.78	Reach Len. (m)	7.37	7.37	7.37
Crit W.S. (m)	633.78	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.025795	Area (m2)		1.21	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)		2.11	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	15.9	Conv. (m3/s)		15.9	
Length Wtd. (m)	7.37	Wetted Per. (m)		3.18	
Min Ch El (m)	633.00	Shear (N/m2)		96.24	
Alpha	1.00	Stream Power (N/m s)		202.88	
Frctn Loss (m)	0.56	Cum Volume (1000 m3)		0.07	
C & E Loss (m)	0.19	Cum SA (1000 m2)		0.04	

Plan: 01 Marchese 1 RS: 12 Profile: PF 1

E.G. Elev (m)	633.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.11	Wt. n-Val.		0.040	
W.S. Elev (m)	631.15	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)	631.44	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.980312	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	6.43	Avg. Vel. (m/s)		6.43	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	2.6	Conv. (m3/s)		2.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		2.99	
Min Ch El (m)	631.00	Shear (N/m2)		1273.63	
Alpha	1.00	Stream Power (N/m s)		8192.98	
Frctn Loss (m)	4.20	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.02	

Plan: 01 Marchese 1 RS: 11 Profile: PF 1

E.G. Elev (m)	628.86	Element	Left OB	Channel	Right OB
Vel Head (m)	1.46	Wt. n-Val.		0.040	
W.S. Elev (m)	627.40	Reach Len. (m)	10.62	10.62	10.62
Crit W.S. (m)	627.72	Flow Area (m2)		0.48	
E.G. Slope (m/m)	0.326639	Area (m2)		0.48	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.86	Top Width (m)		1.86	
Vel Total (m/s)	5.35	Avg. Vel. (m/s)		5.35	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	4.5	Conv. (m3/s)		4.5	
Length Wtd. (m)	10.62	Wetted Per. (m)		2.08	
Min Ch EI (m)	627.00	Shear (N/m2)		733.74	
Alpha	1.00	Stream Power (N/m s)		3924.82	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: 01 Marchese 3 RS: 10 Profile: PF 1

E.G. Elev (m)	623.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.040	
W.S. Elev (m)	623.37	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	621.70	Flow Area (m2)		5.47	
E.G. Slope (m/m)	0.001129	Area (m2)		10.15	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	5.25	Top Width (m)		5.25	
Vel Total (m/s)	1.25	Avg. Vel. (m/s)		1.25	
Max Chl Dpth (m)	2.81	Hydr. Depth (m)		2.73	
Conv. Total (m3/s)	203.5	Conv. (m3/s)		203.5	
Length Wtd. (m)	3.20	Wetted Per. (m)		3.01	
Min Ch EI (m)	620.56	Shear (N/m2)		20.12	
Alpha	1.00	Stream Power (N/m s)		25.16	
Frctn Loss (m)		Cum Volume (1000 m3)		0.20	
C & E Loss (m)		Cum SA (1000 m2)		0.47	

Plan: 01 Marchese 3 RS: 9.5 Profile: PF 1

E.G. Elev (m)	621.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.040	
W.S. Elev (m)	621.38	Reach Len. (m)	4.03	4.03	4.03
Crit W.S. (m)	621.38	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.021480	Area (m2)		2.81	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.75	Top Width (m)		4.75	
Vel Total (m/s)	2.43	Avg. Vel. (m/s)		2.43	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	46.7	Conv. (m3/s)		46.7	
Length Wtd. (m)	4.03	Wetted Per. (m)		5.21	
Min Ch EI (m)	620.45	Shear (N/m2)		113.78	
Alpha	1.00	Stream Power (N/m s)		276.52	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.46	

Plan: 01 Marchese 3 RS: 9 Profile: PF 1

E.G. Elev (m)	621.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.29	Wt. n-Val.		0.040	
W.S. Elev (m)	618.97	Reach Len. (m)	11.24	11.24	11.24
Crit W.S. (m)	619.43	Flow Area (m2)		1.02	
E.G. Slope (m/m)	0.347833	Area (m2)		1.02	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	

Plan: 01 Marchese 3 RS: 9 Profile: PF 1 (Continued)

Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	6.69	Avg. Vel. (m/s)		6.69	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	11.6	Conv. (m3/s)		11.6	
Length Wtd. (m)	11.24	Wetted Per. (m)		3.34	
Min Ch EI (m)	618.50	Shear (N/m2)		1043.67	
Alpha	1.00	Stream Power (N/m s)		6987.25	
Frctn Loss (m)	3.62	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.44	

Plan: 01 Marchese 3 RS: 8 Profile: PF 1

E.G. Elev (m)	617.60	Element	Left OB	Channel	Right OB
Vel Head (m)	2.17	Wt. n-Val.		0.040	
W.S. Elev (m)	615.43	Reach Len. (m)	14.77	14.77	14.77
Crit W.S. (m)	615.91	Flow Area (m2)		1.05	
E.G. Slope (m/m)	0.299423	Area (m2)		1.05	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	2.75	Top Width (m)		2.75	
Vel Total (m/s)	6.52	Avg. Vel. (m/s)		6.52	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	14.77	Wetted Per. (m)		3.19	
Min Ch EI (m)	615.00	Shear (N/m2)		966.38	
Alpha	1.00	Stream Power (N/m s)		6301.76	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		0.17	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.41	

Plan: 01 Marchese 3 RS: 7 Profile: PF 1

E.G. Elev (m)	607.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.040	
W.S. Elev (m)	607.55	Reach Len. (m)	13.08	13.08	13.08
Crit W.S. (m)	607.55	Flow Area (m2)		3.14	
E.G. Slope (m/m)	0.022052	Area (m2)		3.14	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	6.57	Top Width (m)		6.57	
Vel Total (m/s)	2.18	Avg. Vel. (m/s)		2.18	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	46.1	Conv. (m3/s)		46.1	
Length Wtd. (m)	13.08	Wetted Per. (m)		6.99	
Min Ch EI (m)	607.00	Shear (N/m2)		97.18	
Alpha	1.00	Stream Power (N/m s)		211.65	
Frctn Loss (m)	0.89	Cum Volume (1000 m3)		0.14	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.34	

Plan: 01 Marchese 3 RS: 6 Profile: PF 1

E.G. Elev (m)	606.63	Element	Left OB	Channel	Right OB
Vel Head (m)	2.97	Wt. n-Val.		0.040	
W.S. Elev (m)	603.66	Reach Len. (m)	5.69	5.69	5.69
Crit W.S. (m)	604.02	Flow Area (m2)		0.90	
E.G. Slope (m/m)	1.158634	Area (m2)		0.90	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	5.87	Top Width (m)		5.87	
Vel Total (m/s)	7.63	Avg. Vel. (m/s)		7.63	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	6.4	Conv. (m3/s)		6.4	
Length Wtd. (m)	5.69	Wetted Per. (m)		5.93	
Min Ch EI (m)	603.50	Shear (N/m2)		1716.39	

Plan: 01 Marchese 3 RS: 6 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		13100.86	
Frctn Loss (m)	3.80	Cum Volume (1000 m3)		0.12	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.26	

Plan: 01 Marchese 3 RS: 5 Profile: PF 1

E.G. Elev (m)	602.64	Element	Left OB	Channel	Right OB
Vel Head (m)	2.32	Wt. n-Val.		0.040	
W.S. Elev (m)	600.32	Reach Len. (m)	9.71	9.71	9.71
Crit W.S. (m)	600.75	Flow Area (m2)		1.01	
E.G. Slope (m/m)	0.433671	Area (m2)		1.01	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.69	Top Width (m)		3.69	
Vel Total (m/s)	6.74	Avg. Vel. (m/s)		6.74	
Max Chl Dpth (m)	0.32	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	10.4	Conv. (m3/s)		10.4	
Length Wtd. (m)	9.71	Wetted Per. (m)		3.87	
Min Ch EI (m)	600.00	Shear (N/m2)		1114.71	
Alpha	1.00	Stream Power (N/m s)		7516.39	
Frctn Loss (m)	3.47	Cum Volume (1000 m3)		0.11	
C & E Loss (m)	0.06	Cum SA (1000 m2)		0.23	

Plan: 01 Marchese 3 RS: 4 Profile: PF 1

E.G. Elev (m)	599.11	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.040	
W.S. Elev (m)	596.99	Reach Len. (m)	4.87	4.88	4.87
Crit W.S. (m)	597.44	Flow Area (m2)		1.06	
E.G. Slope (m/m)	0.299986	Area (m2)		1.06	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	6.45	Avg. Vel. (m/s)		6.45	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	4.88	Wetted Per. (m)		3.28	
Min Ch EI (m)	596.50	Shear (N/m2)		951.68	
Alpha	1.00	Stream Power (N/m s)		6140.95	
Frctn Loss (m)	1.46	Cum Volume (1000 m3)		0.10	
C & E Loss (m)	0.16	Cum SA (1000 m2)		0.20	

Plan: 01 Marchese 3 RS: 3 Profile: PF 1

E.G. Elev (m)	597.49	Element	Left OB	Channel	Right OB
Vel Head (m)	1.60	Wt. n-Val.		0.040	
W.S. Elev (m)	595.90	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	596.23	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.297514	Area (m2)		1.22	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.53	Top Width (m)		4.53	
Vel Total (m/s)	5.59	Avg. Vel. (m/s)		5.59	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.65	
Min Ch EI (m)	595.50	Shear (N/m2)		766.50	
Alpha	1.00	Stream Power (N/m s)		4287.43	
Frctn Loss (m)	2.76	Cum Volume (1000 m3)		0.10	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.18	

Plan: 01 Marchese 3 RS: 2 Profile: PF 1

E.G. Elev (m)	594.61	Element	Left OB	Channel	Right OB
Vel Head (m)	2.77	Wt. n-Val.		0.040	
W.S. Elev (m)	591.84	Reach Len. (m)	5.25	5.25	5.25
Crit W.S. (m)	592.28	Flow Area (m2)		0.93	
E.G. Slope (m/m)	0.547178	Area (m2)		0.93	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.50	Top Width (m)		3.50	
Vel Total (m/s)	7.38	Avg. Vel. (m/s)		7.38	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	9.2	Conv. (m3/s)		9.2	
Length Wtd. (m)	5.25	Wetted Per. (m)		3.68	
Min Ch EI (m)	591.50	Shear (N/m2)		1351.64	
Alpha	1.00	Stream Power (N/m s)		9969.67	
Frctn Loss (m)	2.20	Cum Volume (1000 m3)		0.09	
C & E Loss (m)	0.49	Cum SA (1000 m2)		0.15	

Plan: 01 Marchese 3 RS: 1 Profile: PF 1

E.G. Elev (m)	591.92	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.040	
W.S. Elev (m)	590.80	Reach Len. (m)	14.95	14.95	14.95
Crit W.S. (m)	591.04	Flow Area (m2)		1.46	
E.G. Slope (m/m)	0.330840	Area (m2)		1.46	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	7.66	Top Width (m)		7.66	
Vel Total (m/s)	4.70	Avg. Vel. (m/s)		4.70	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	11.9	Conv. (m3/s)		11.9	
Length Wtd. (m)	14.95	Wetted Per. (m)		7.80	
Min Ch EI (m)	590.60	Shear (N/m2)		605.85	
Alpha	1.00	Stream Power (N/m s)		2846.24	
Frctn Loss (m)	0.75	Cum Volume (1000 m3)		0.08	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.12	

Plan: 01 Marchese 3 RS: 0.9 Profile: PF 1

E.G. Elev (m)	591.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.85	Wt. n-Val.		0.016	
W.S. Elev (m)	590.24	Reach Len. (m)	0.60	0.60	0.60
Crit W.S. (m)	590.48	Flow Area (m2)		1.68	
E.G. Slope (m/m)	0.019420	Area (m2)		1.68	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.63	Top Width (m)		4.63	
Vel Total (m/s)	4.07	Avg. Vel. (m/s)		4.07	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	49.1	Conv. (m3/s)		49.1	
Length Wtd. (m)	0.60	Wetted Per. (m)		5.26	
Min Ch EI (m)	589.87	Shear (N/m2)		60.87	
Alpha	1.00	Stream Power (N/m s)		247.86	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.03	

Plan: 01 Marchese 3 RS: 0.8 Profile: PF 1

E.G. Elev (m)	591.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.016	
W.S. Elev (m)	590.24	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	590.48	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.018740	Area (m2)		1.70	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	

Plan: 01 Marchese 3 RS: 0.8 Profile: PF 1 (Continued)

Top Width (m)	4.64	Top Width (m)		4.64	
Vel Total (m/s)	4.03	Avg. Vel. (m/s)		4.03	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	50.0	Conv. (m3/s)		50.0	
Length Wtd. (m)	0.15	Wetted Per. (m)		5.26	
Min Ch EI (m)	589.87	Shear (N/m2)		59.32	
Alpha	1.00	Stream Power (N/m s)		238.80	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.33	Cum SA (1000 m2)		0.03	

Plan: 01 Marchese 3 RS: 0.7 Profile: PF 1

E.G. Elev (m)	590.73	Element	Left OB	Channel	Right OB
Vel Head (m)	4.09	Wt. n-Val.		0.016	
W.S. Elev (m)	586.65	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	587.09	Flow Area (m2)		0.76	
E.G. Slope (m/m)	0.241182	Area (m2)		0.76	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.57	Top Width (m)		4.57	
Vel Total (m/s)	8.95	Avg. Vel. (m/s)		8.95	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	13.9	Conv. (m3/s)		13.9	
Length Wtd. (m)	6.00	Wetted Per. (m)		4.85	
Min Ch EI (m)	586.48	Shear (N/m2)		372.50	
Alpha	1.00	Stream Power (N/m s)		3334.49	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.44	Cum SA (1000 m2)		0.03	

Plan: 01 Marchese 3 RS: 0.6 Profile: PF 1

E.G. Elev (m)	589.31	Element	Left OB	Channel	Right OB
Vel Head (m)	2.63	Wt. n-Val.		0.016	
W.S. Elev (m)	586.69	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	587.09	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.118968	Area (m2)		0.95	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.62	Top Width (m)		4.62	
Vel Total (m/s)	7.18	Avg. Vel. (m/s)		7.18	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.15	Wetted Per. (m)		4.96	
Min Ch EI (m)	586.48	Shear (N/m2)		224.05	
Alpha	1.00	Stream Power (N/m s)		1607.70	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.00	

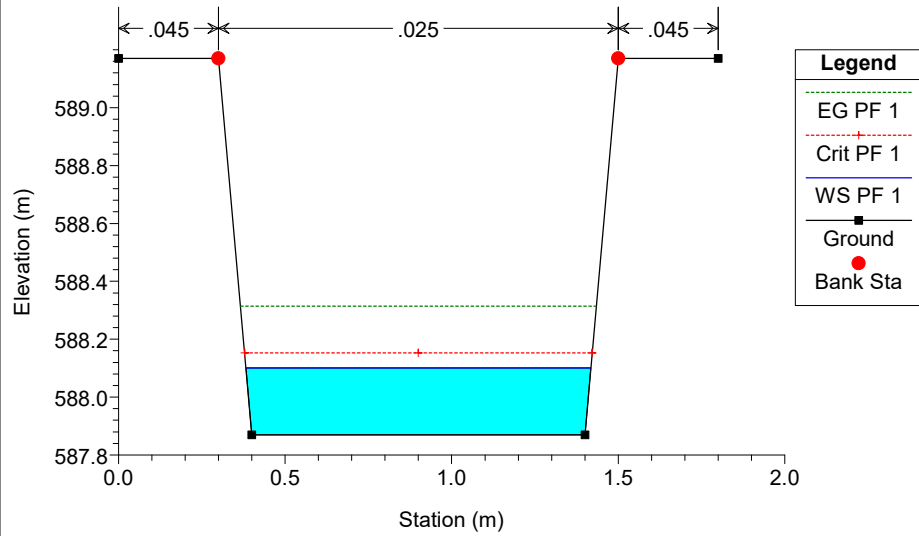
Plan: 01 Marchese 3 RS: 0.5 Profile: PF 1

E.G. Elev (m)	586.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.016	
W.S. Elev (m)	586.71	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	585.16	Flow Area (m2)		9.36	
E.G. Slope (m/m)	0.000117	Area (m2)		9.36	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.62	Top Width (m)		4.62	
Vel Total (m/s)	0.73	Avg. Vel. (m/s)		0.73	
Max Chl Dpth (m)	2.23	Hydr. Depth (m)		2.03	
Conv. Total (m3/s)	633.3	Conv. (m3/s)		633.3	
Length Wtd. (m)	6.00	Wetted Per. (m)		8.32	
Min Ch EI (m)	584.48	Shear (N/m2)		1.29	

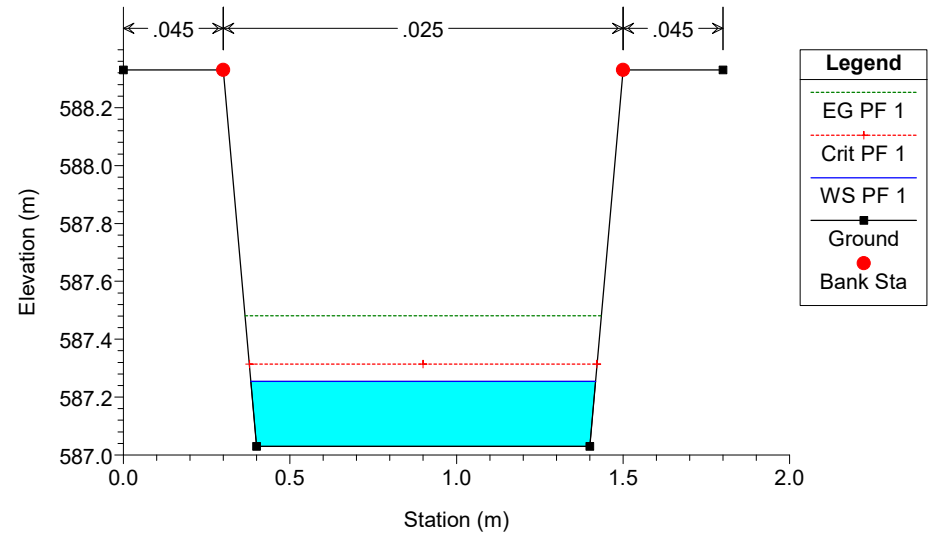
Plan: 01 Marchese 3 RS: 0.5 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		0.94	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)			

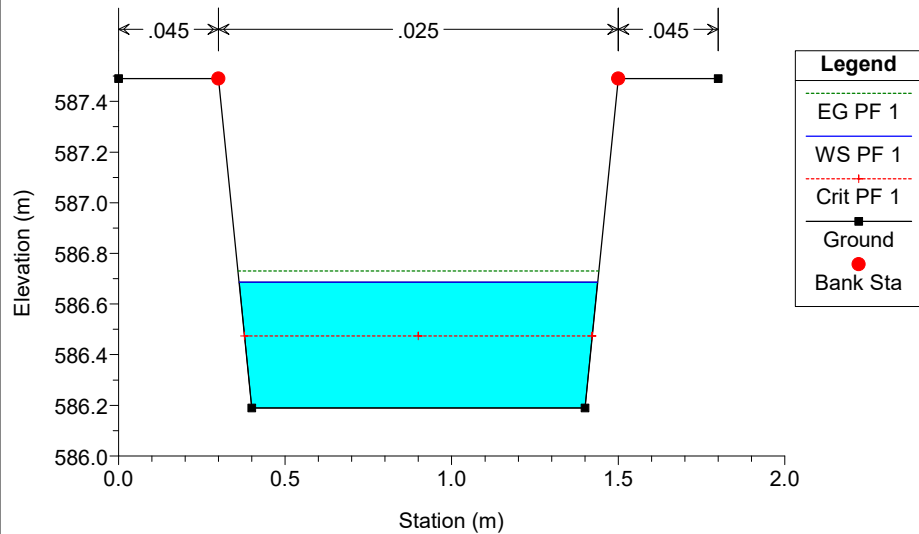
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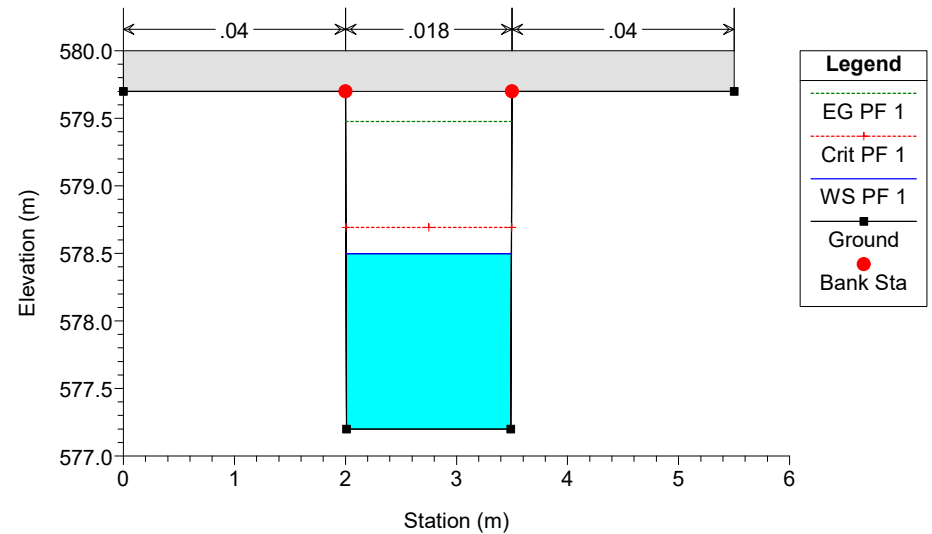
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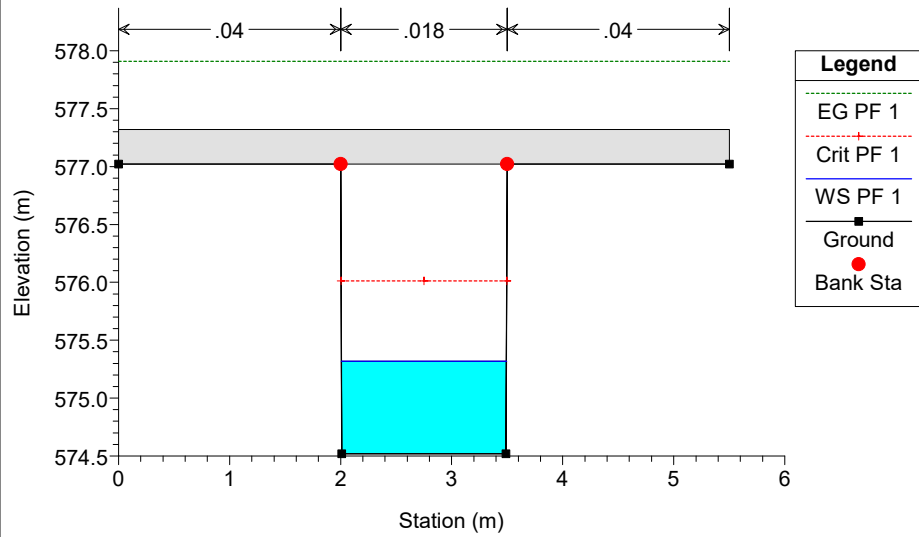
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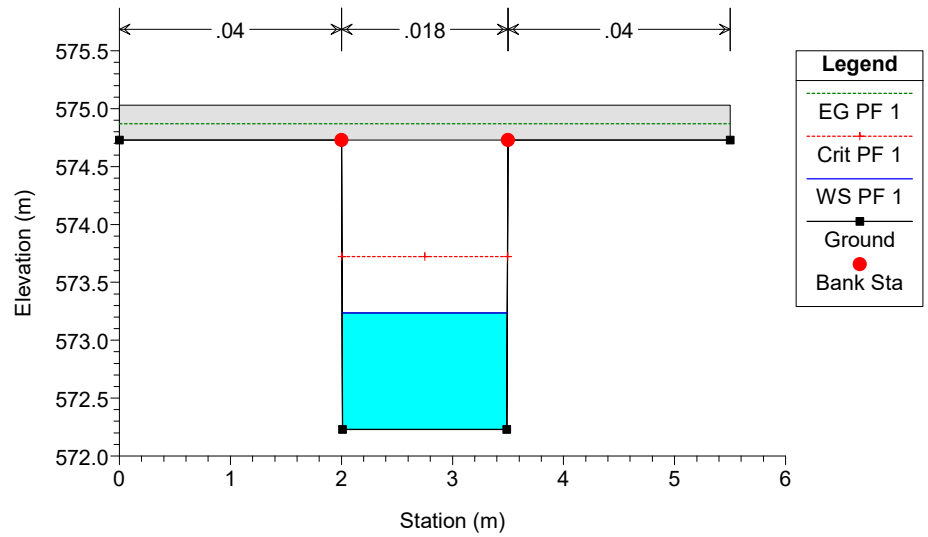
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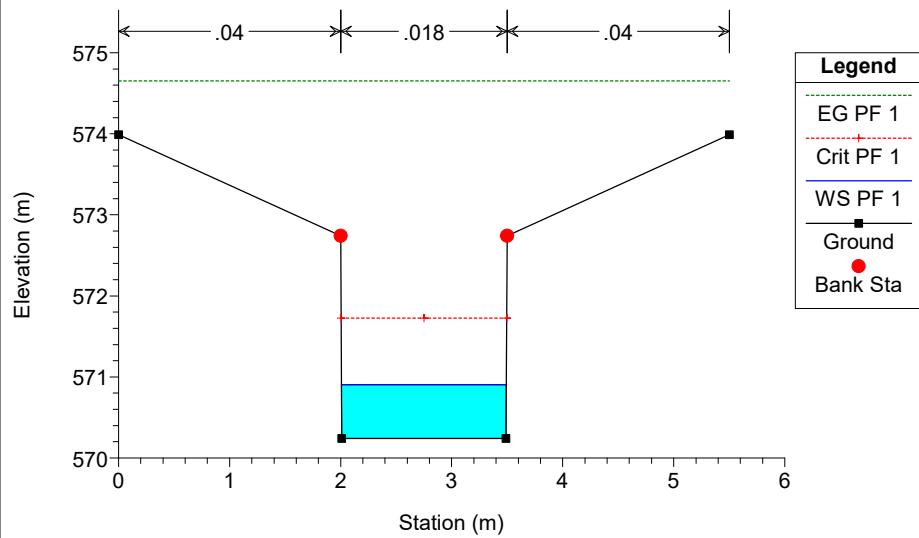
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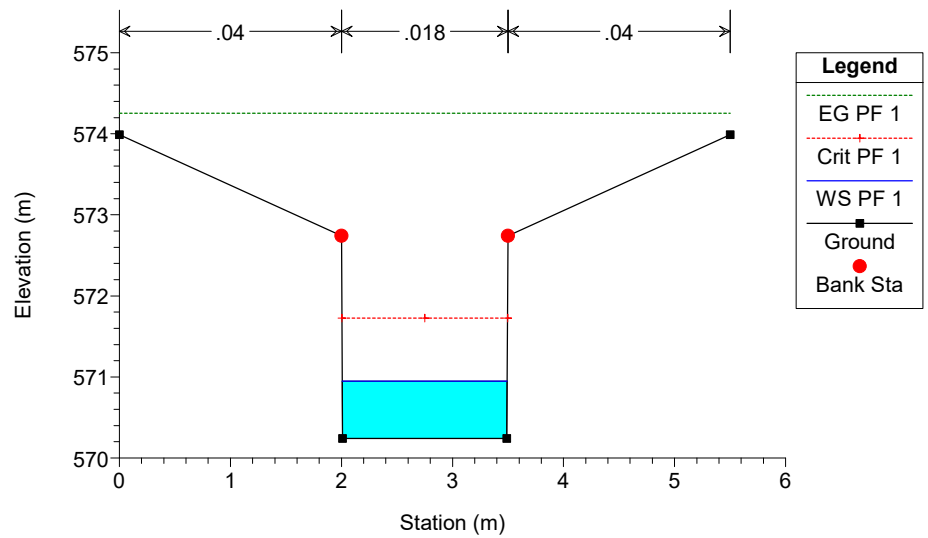
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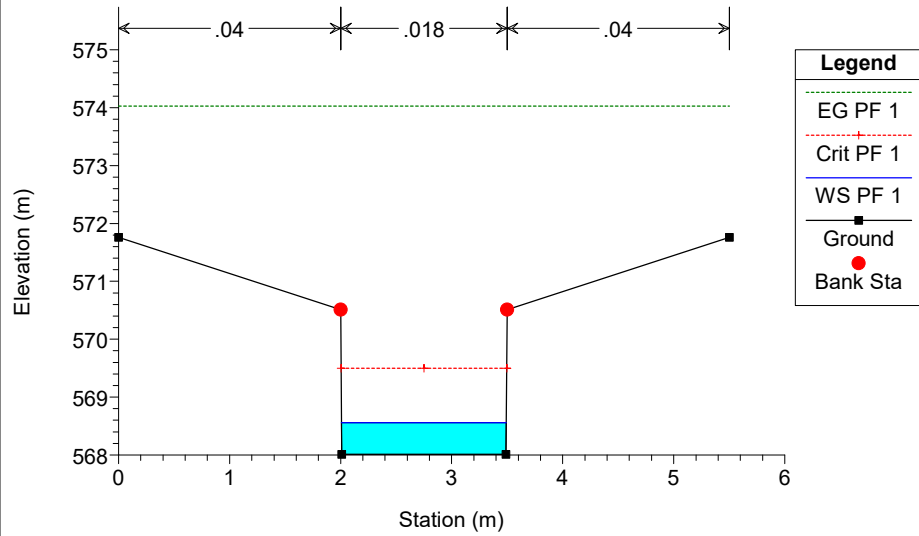
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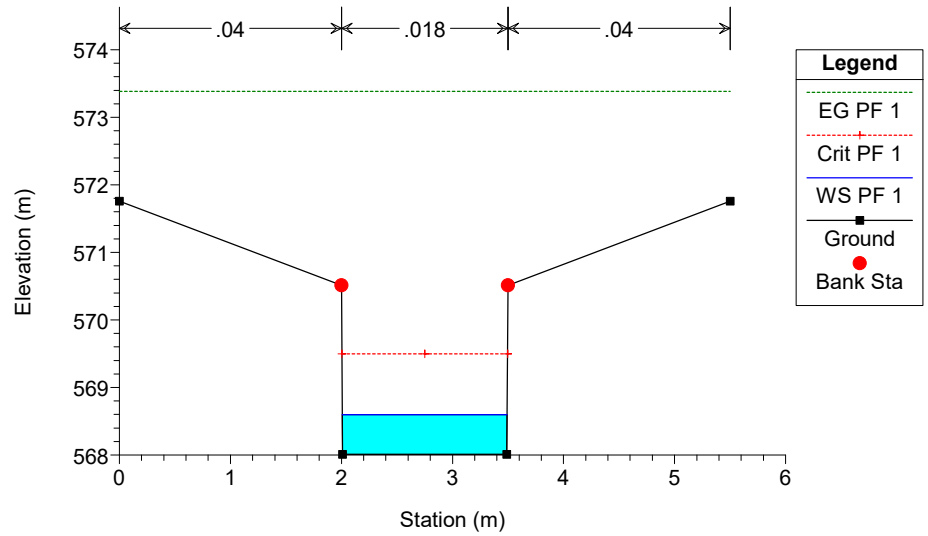
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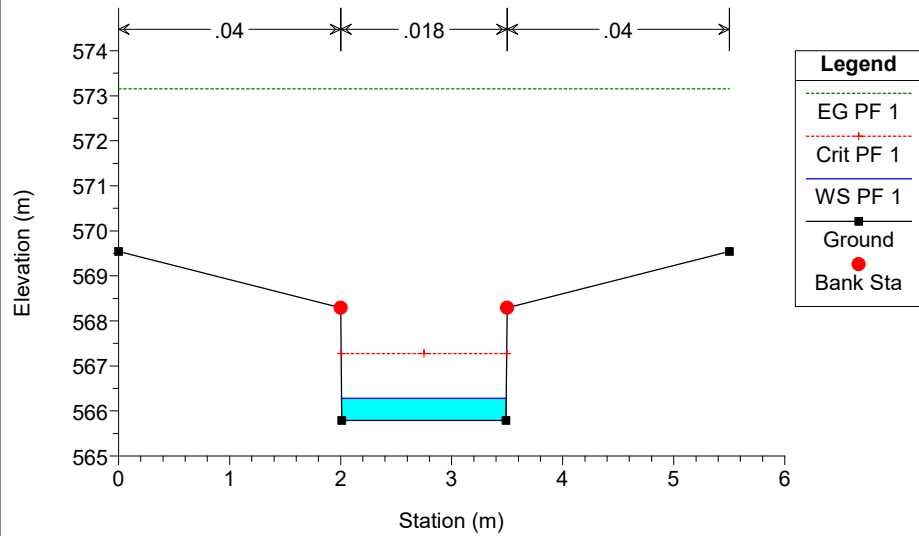
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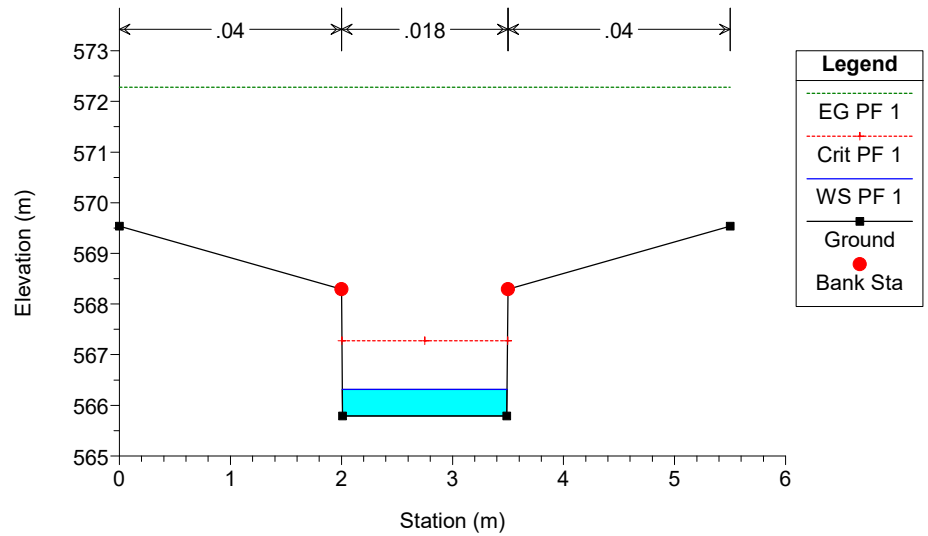
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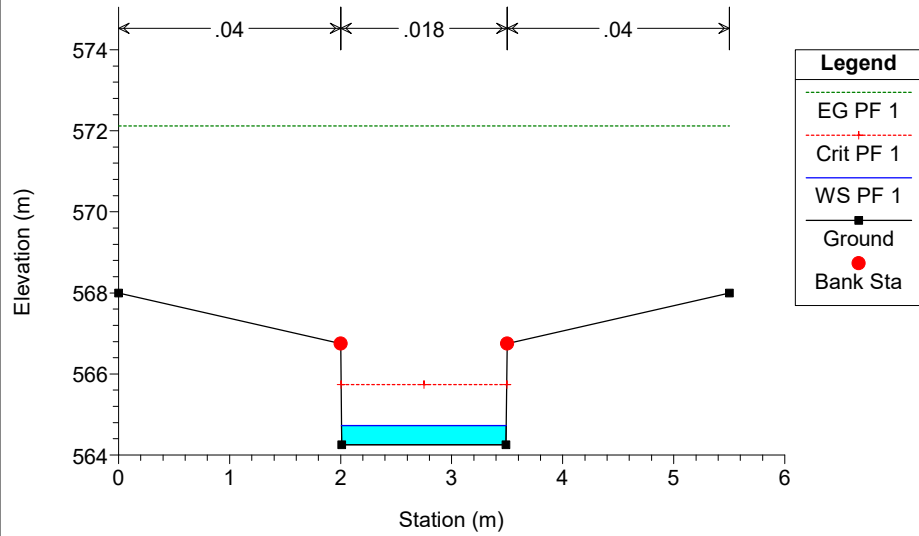
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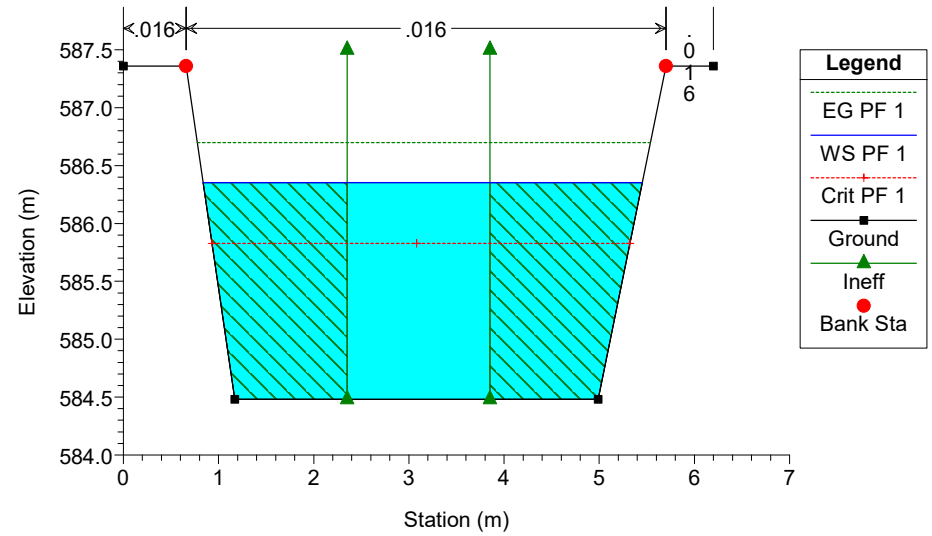
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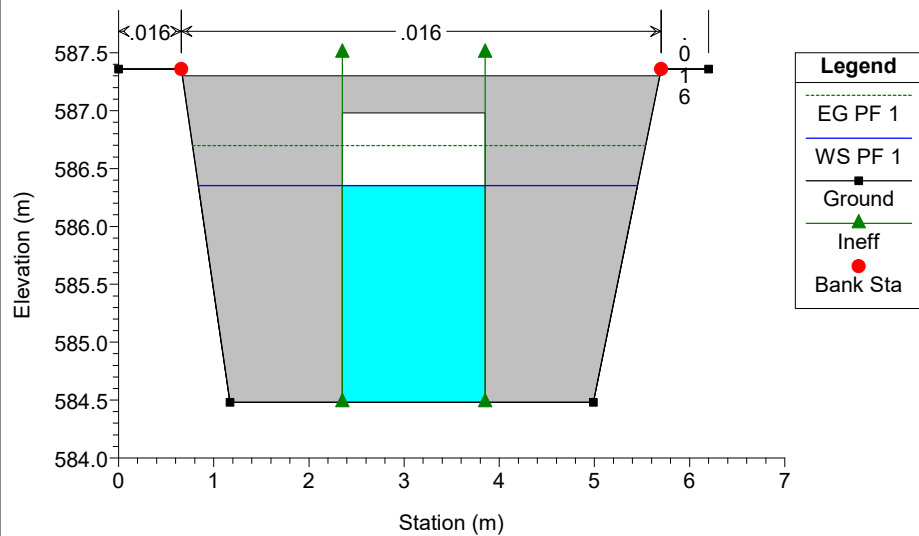
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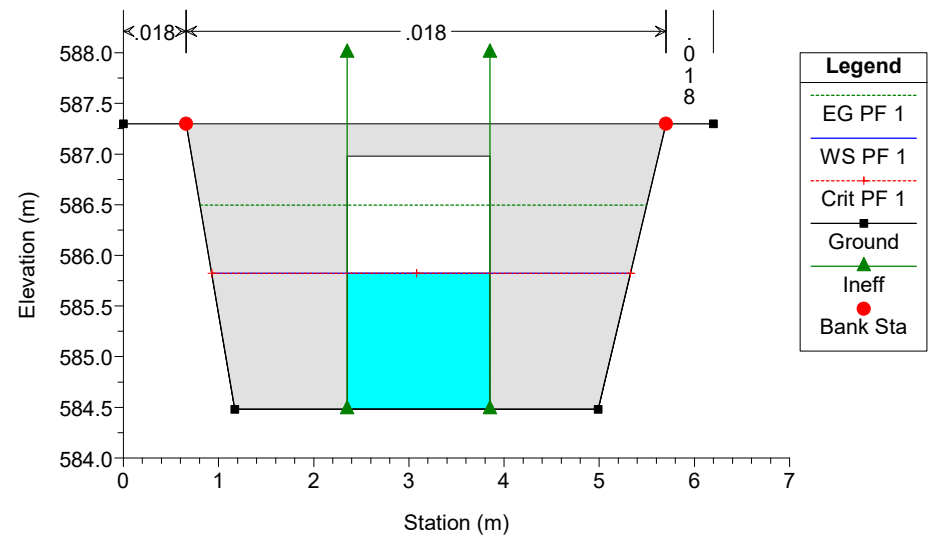
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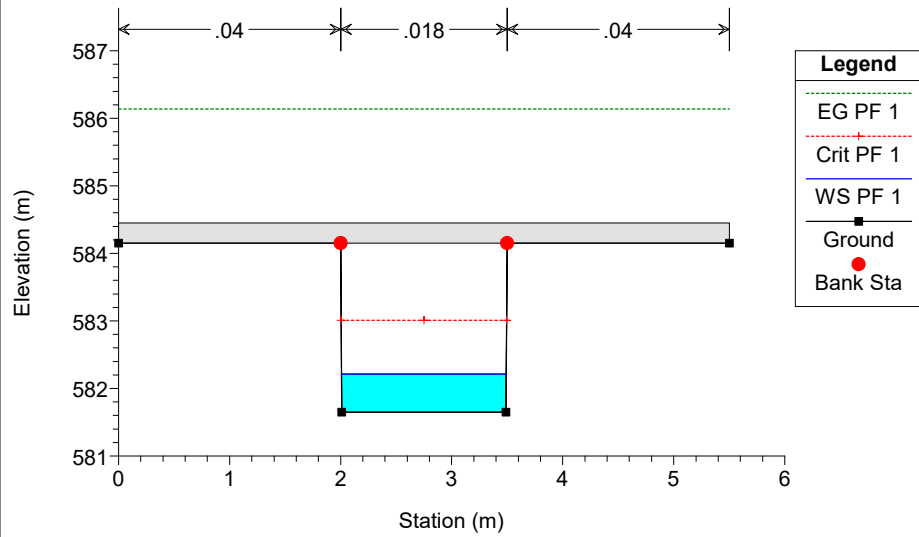
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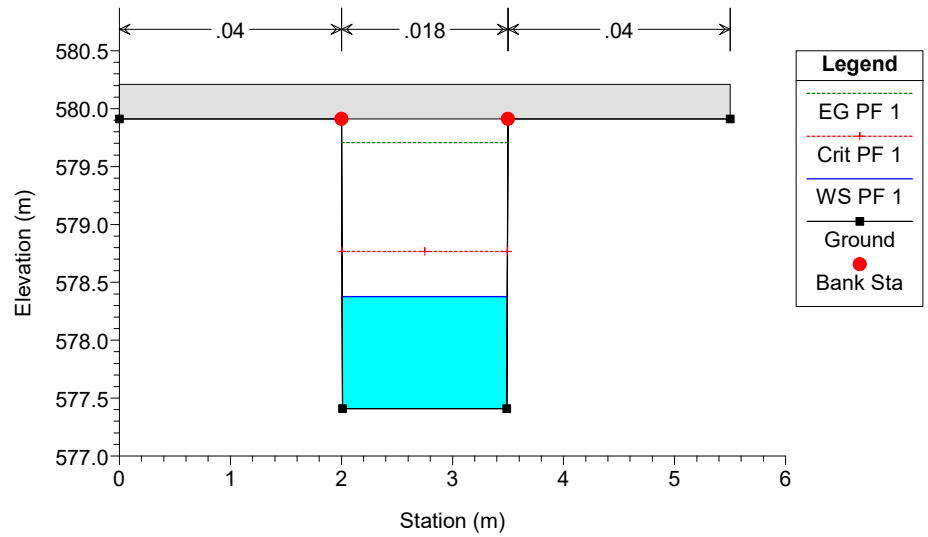
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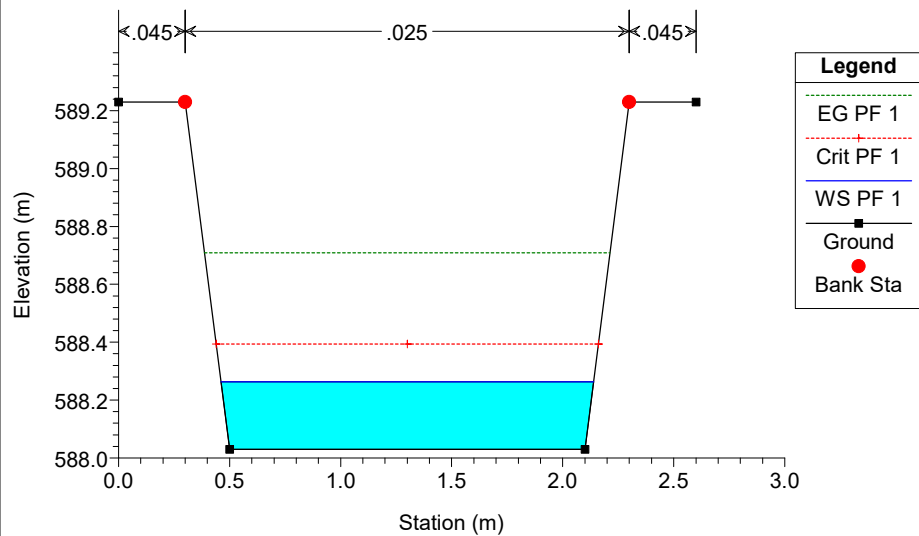
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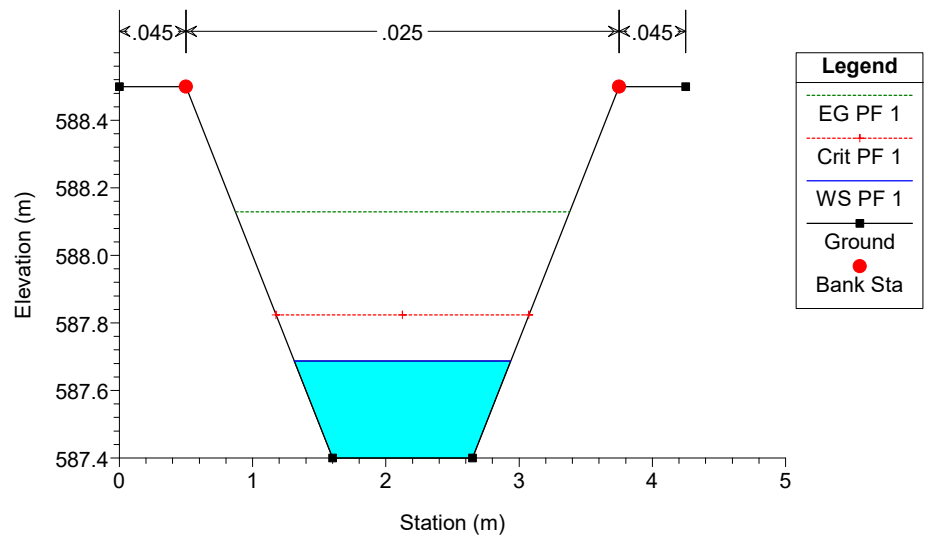
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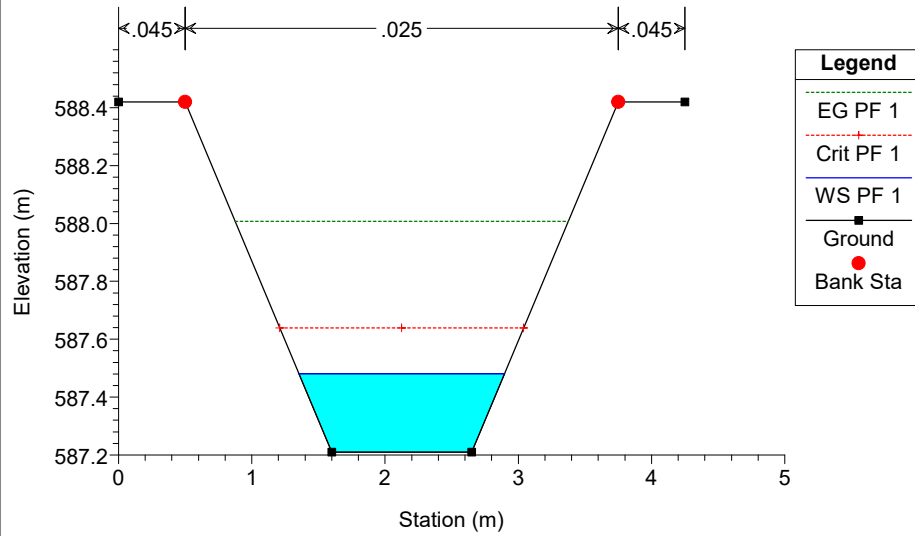
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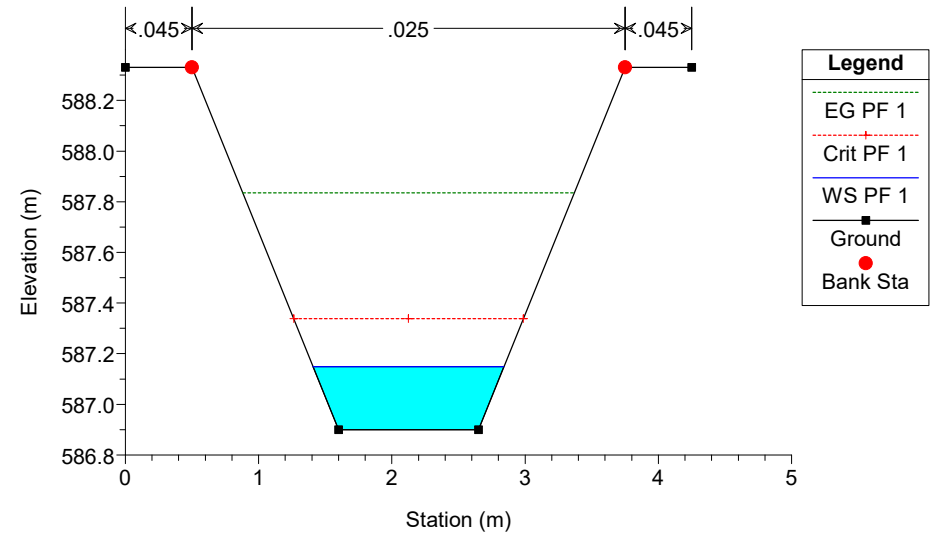
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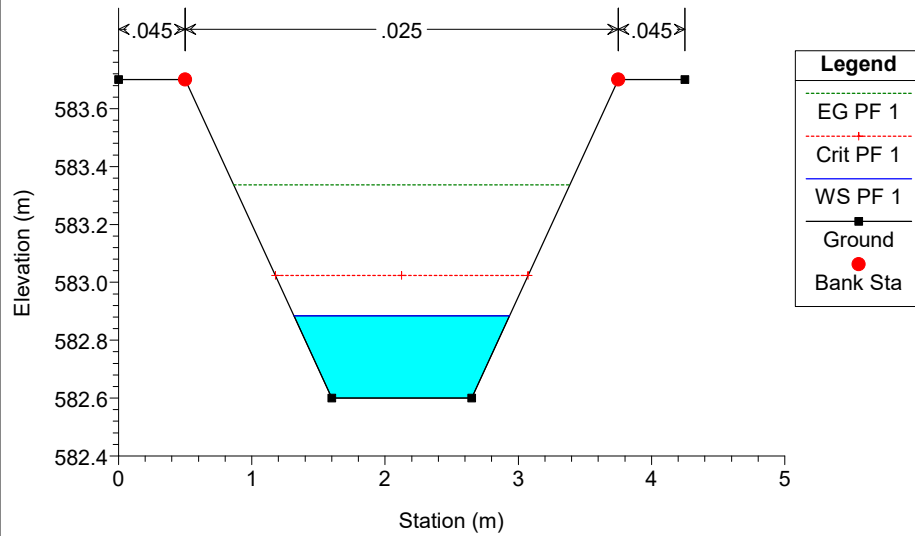
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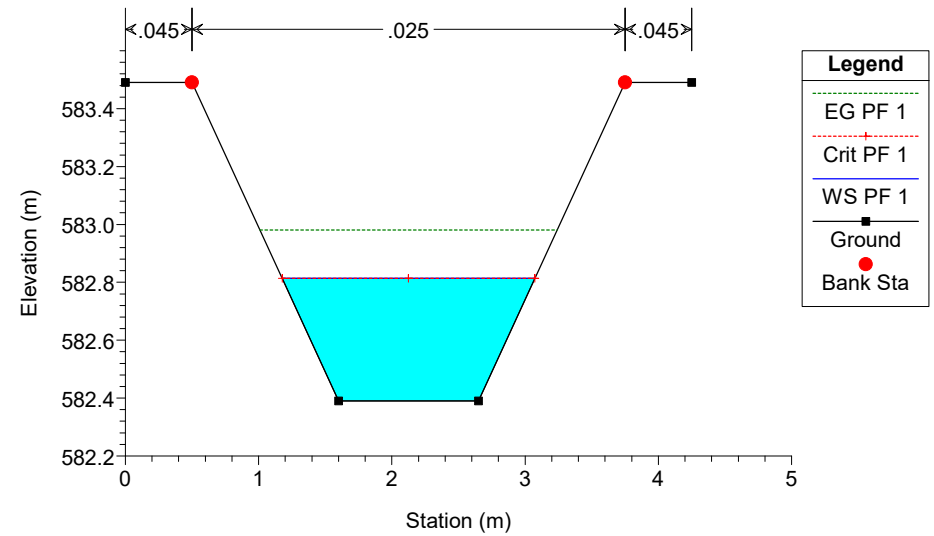
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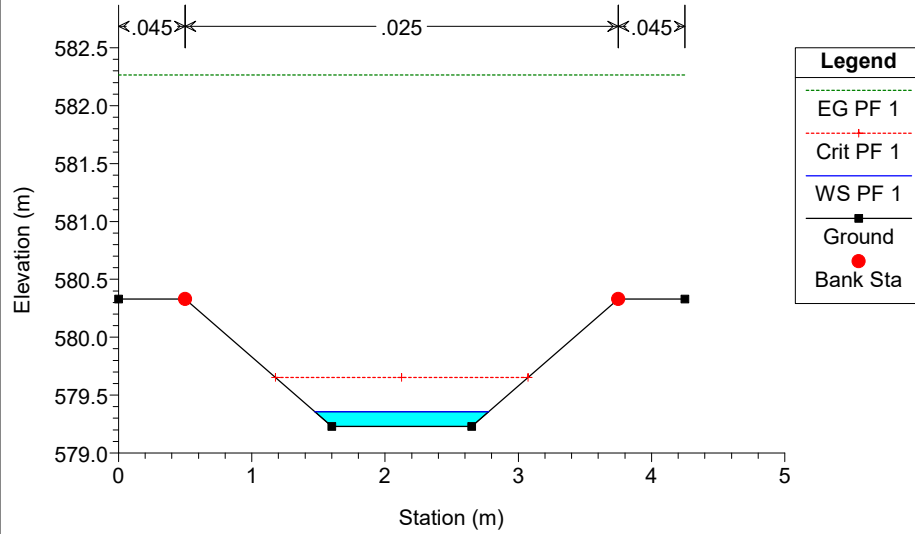
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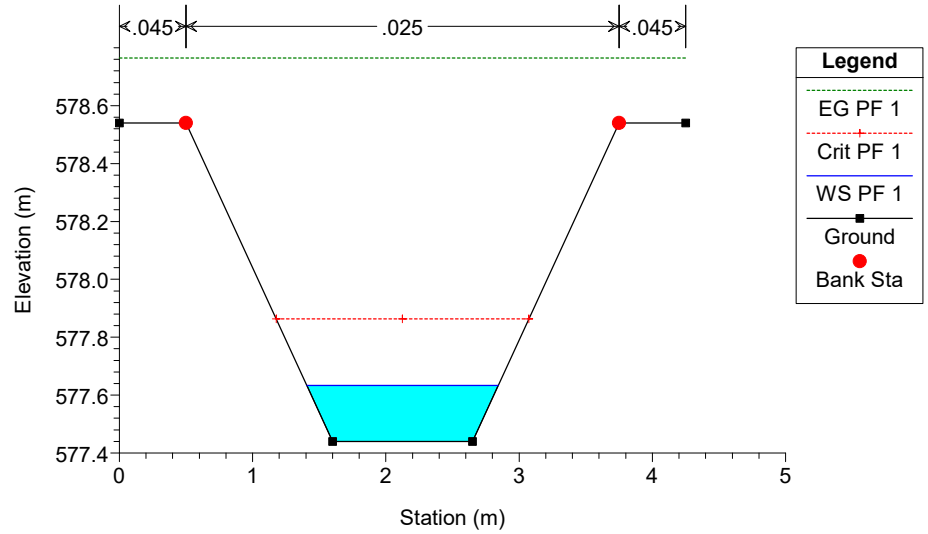
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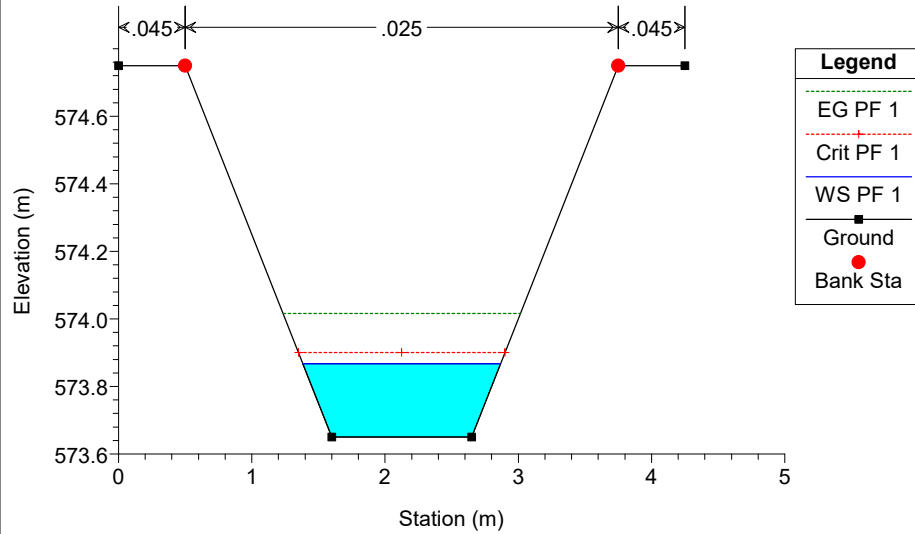
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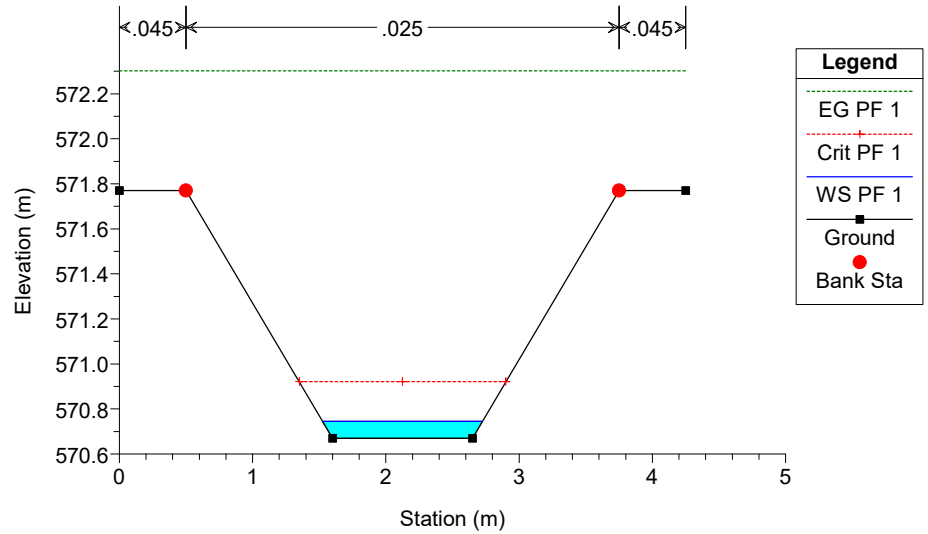
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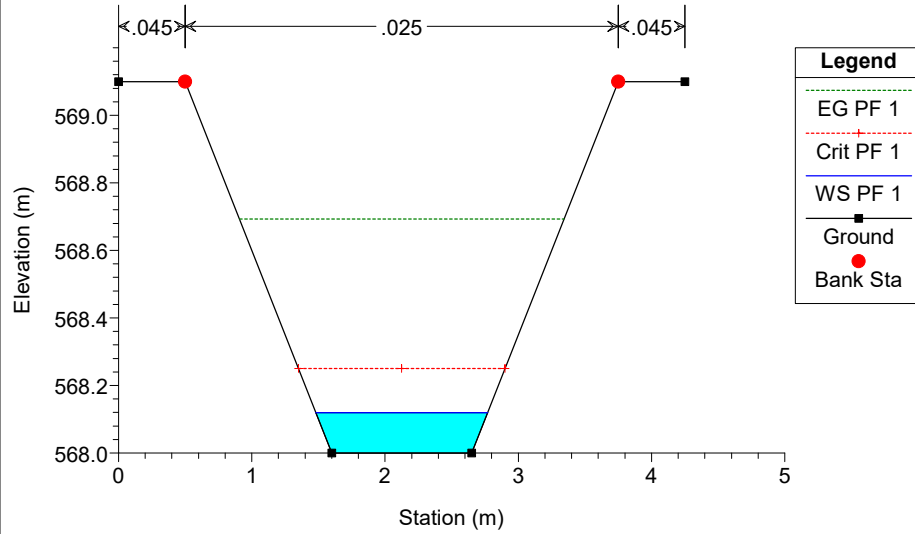
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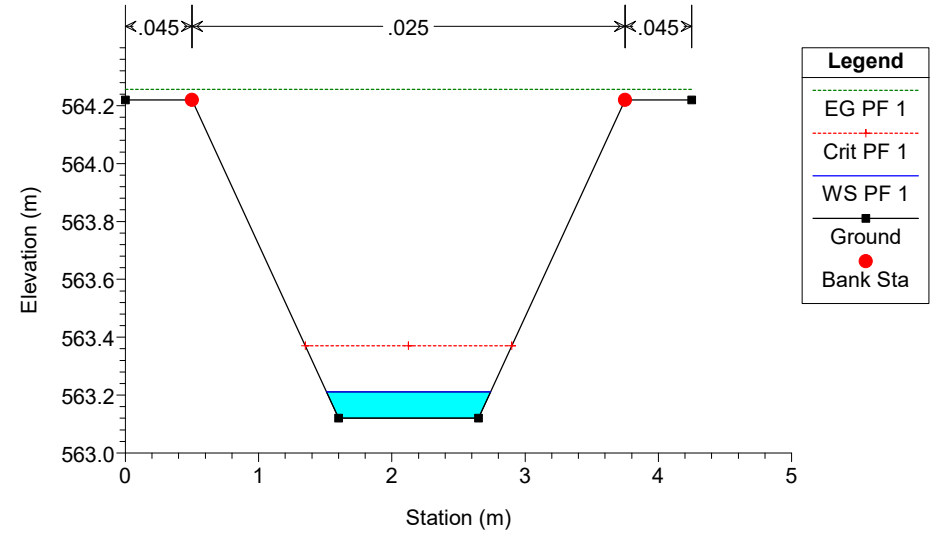
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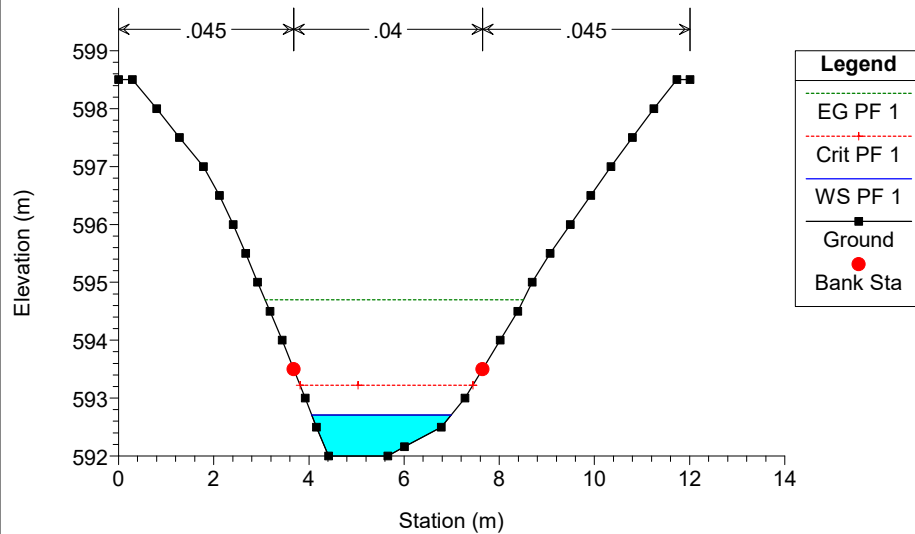
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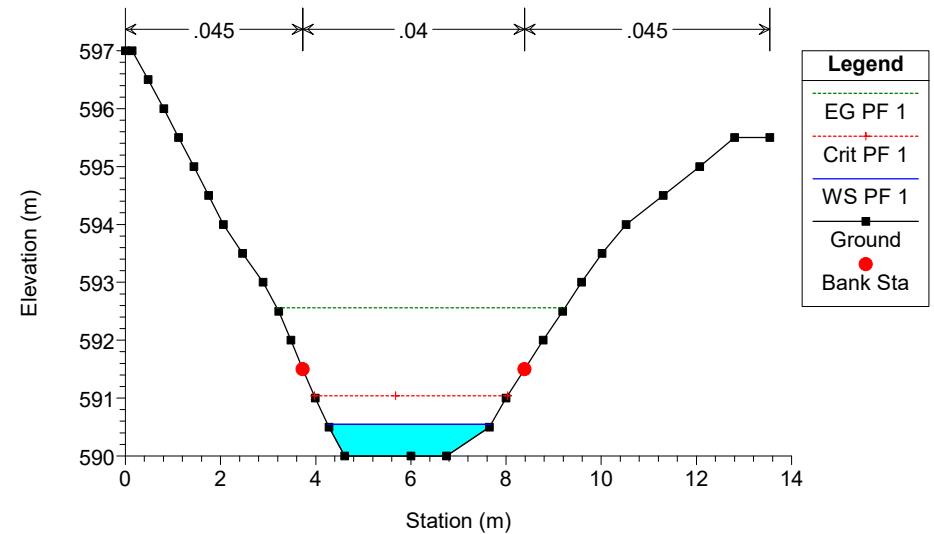
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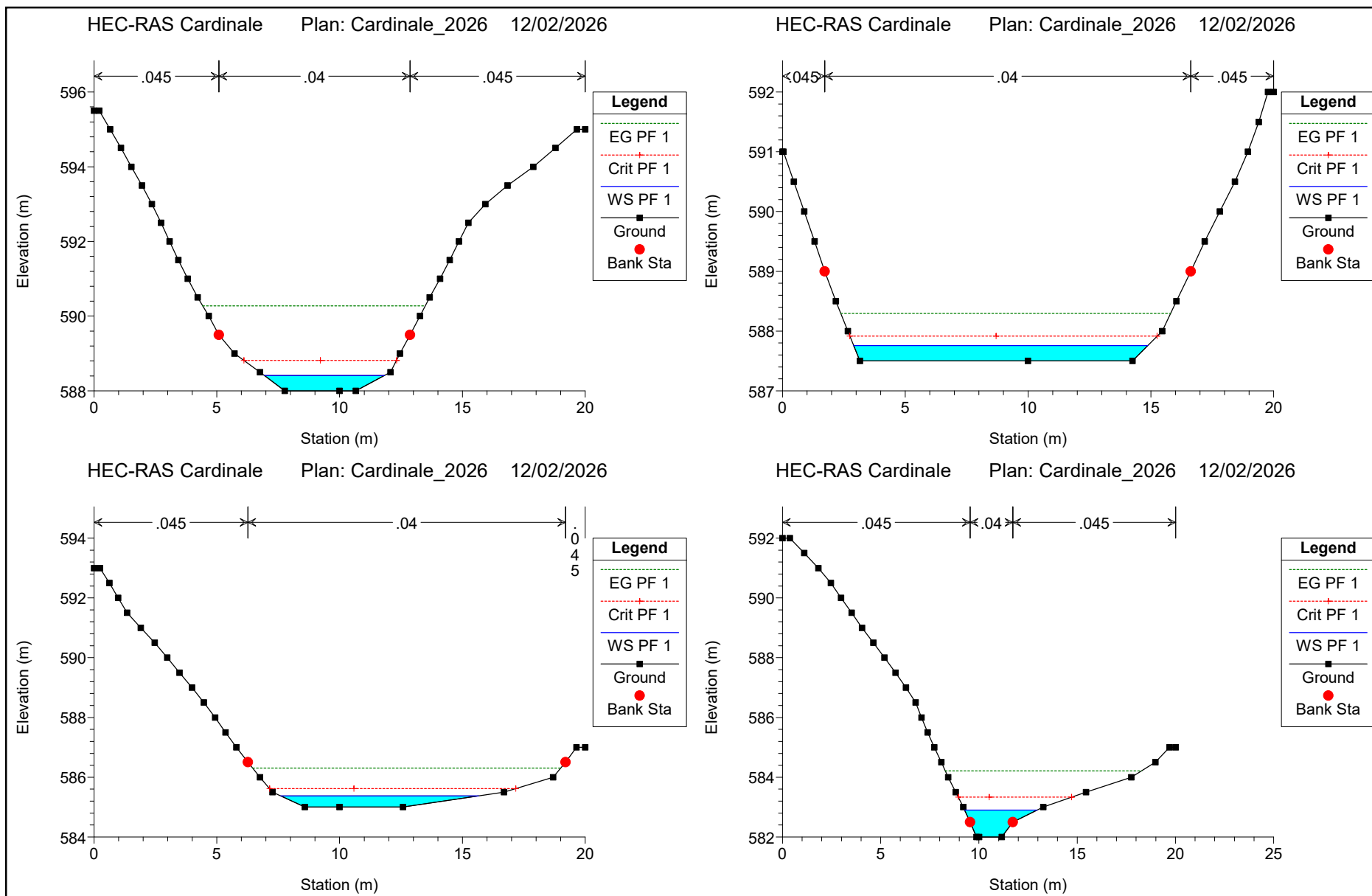


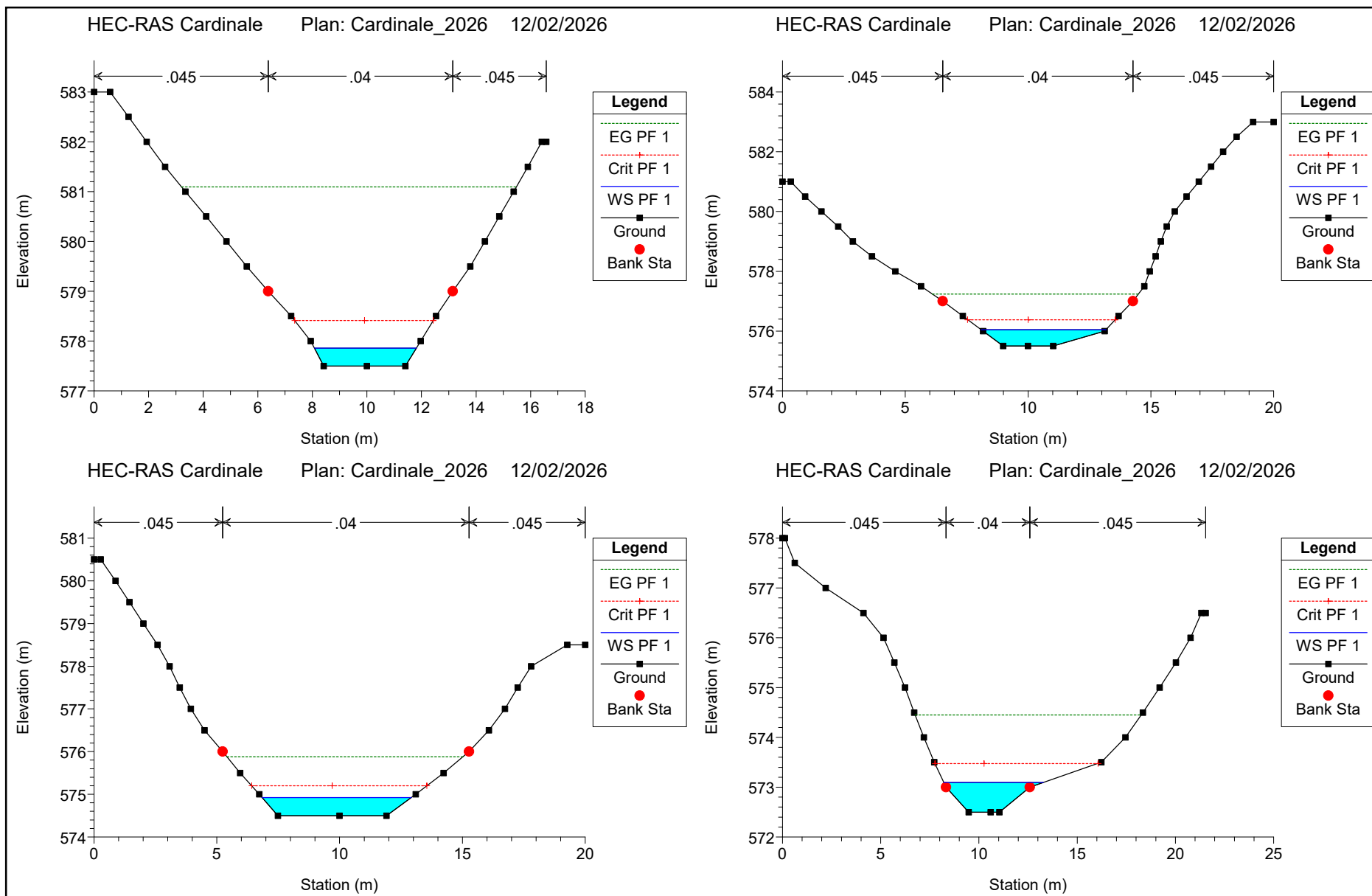
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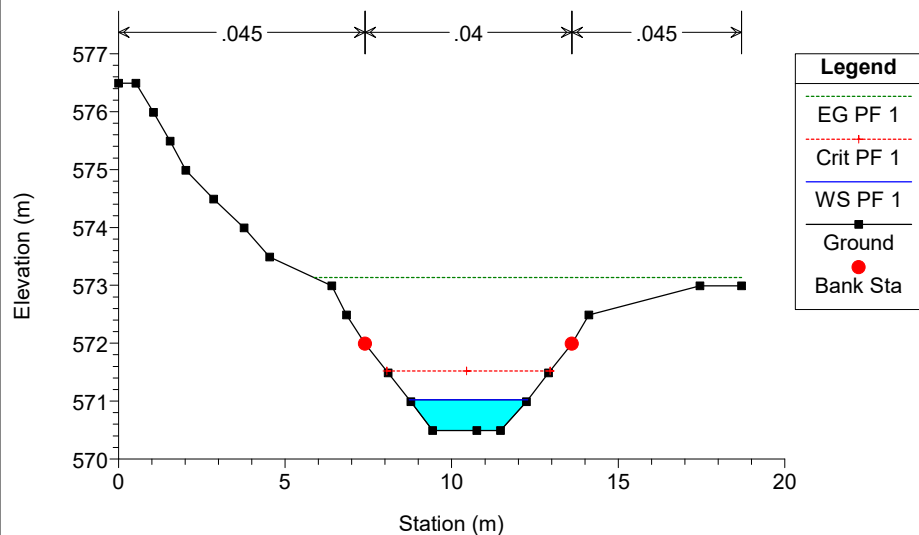
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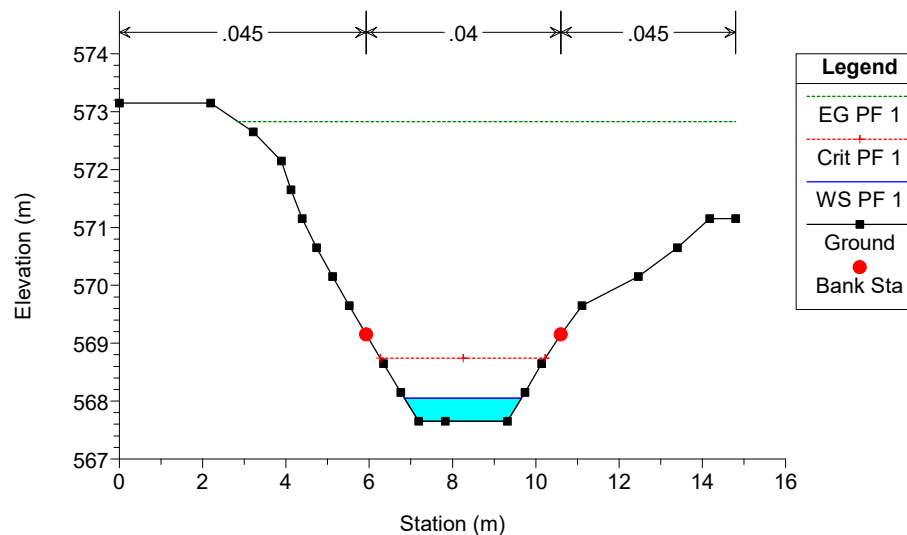




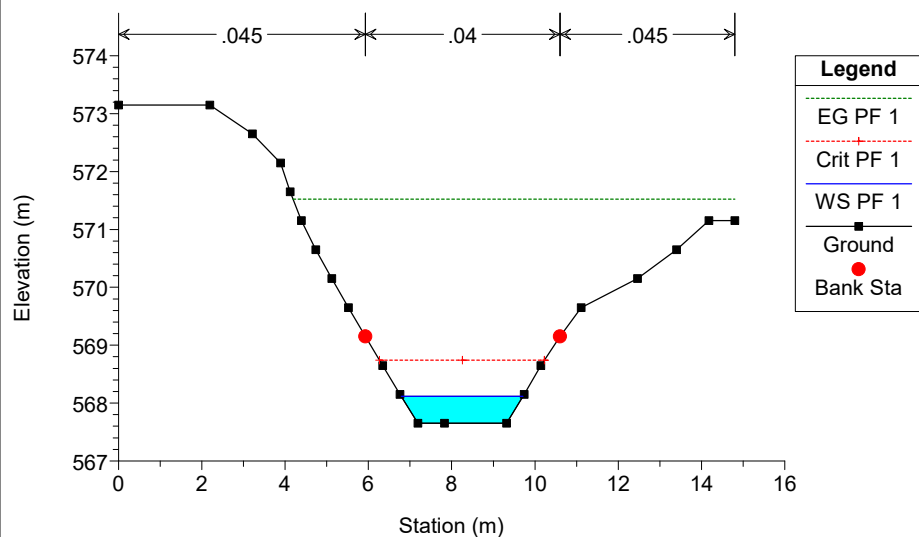
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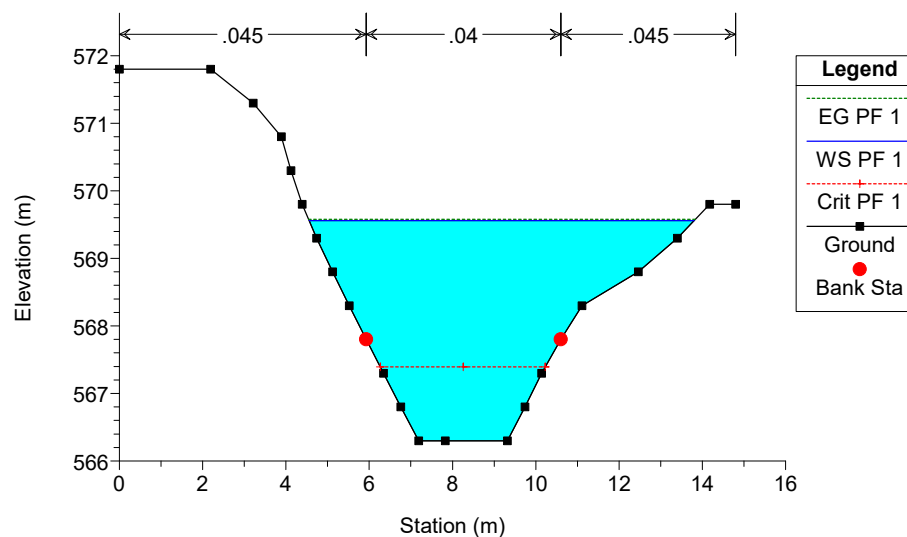
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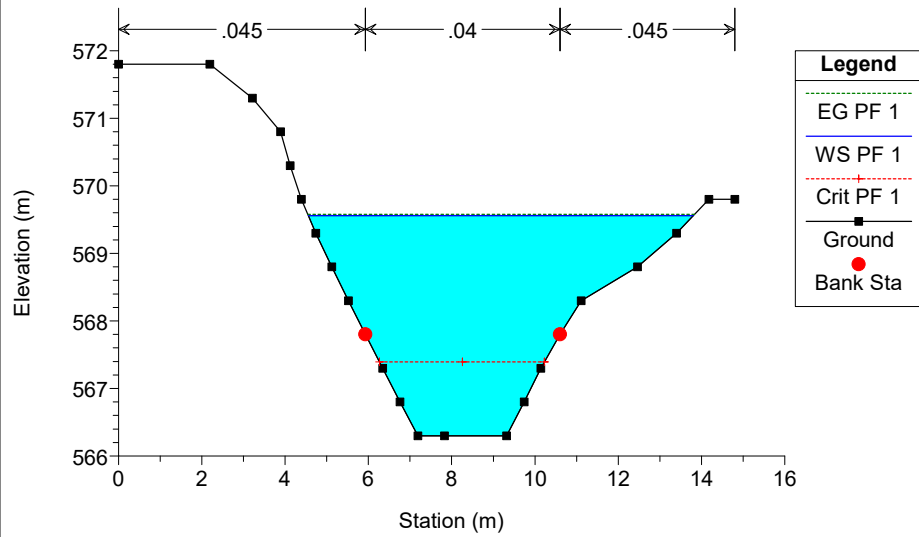
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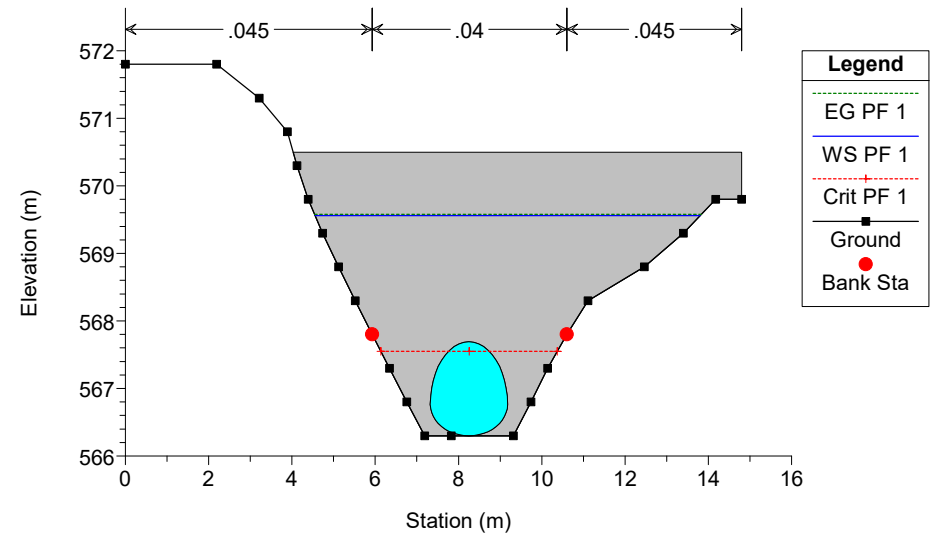
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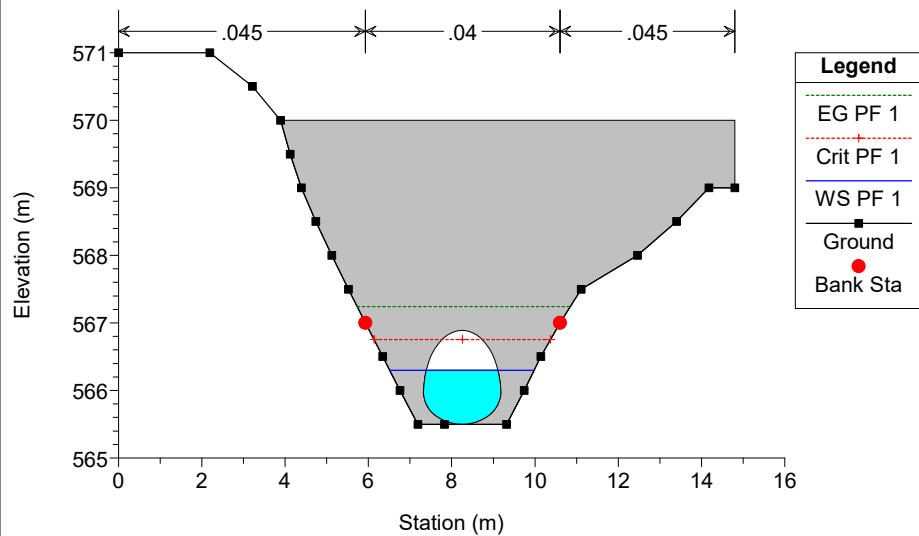
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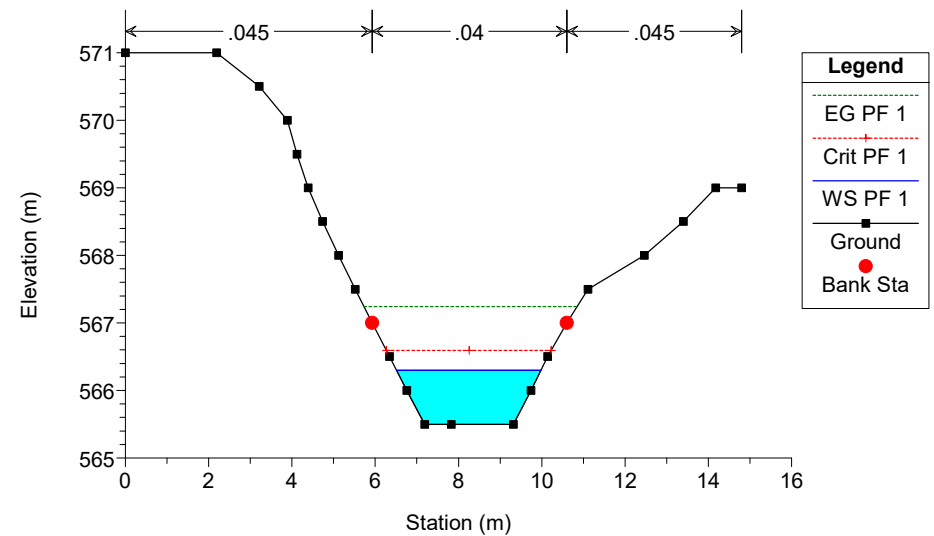
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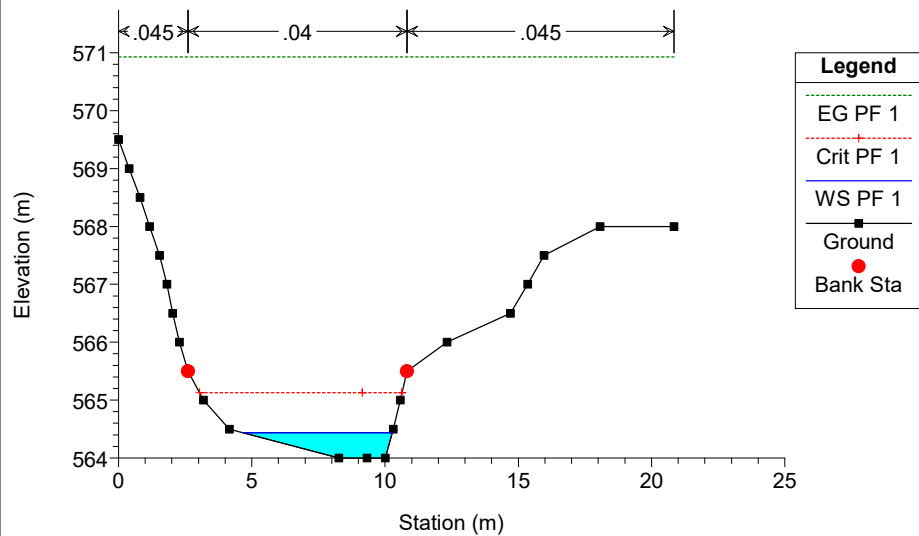
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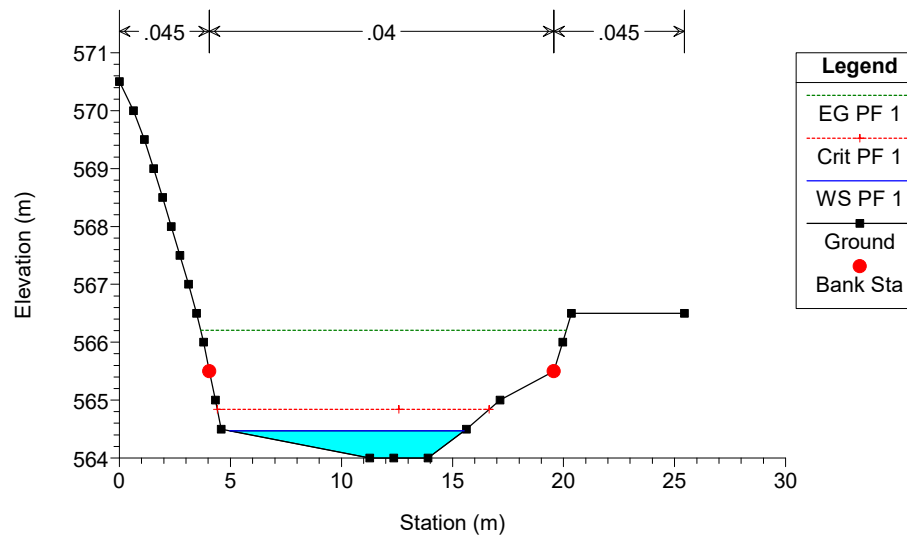
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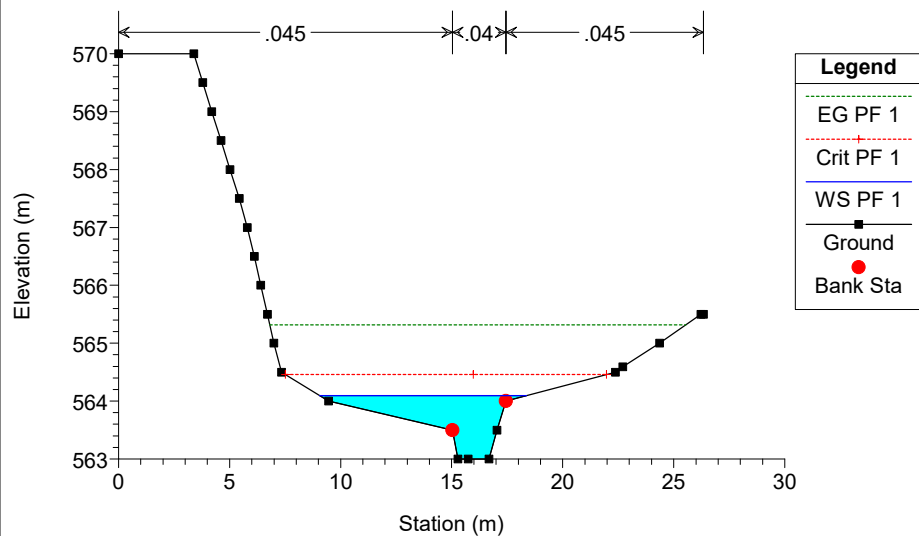
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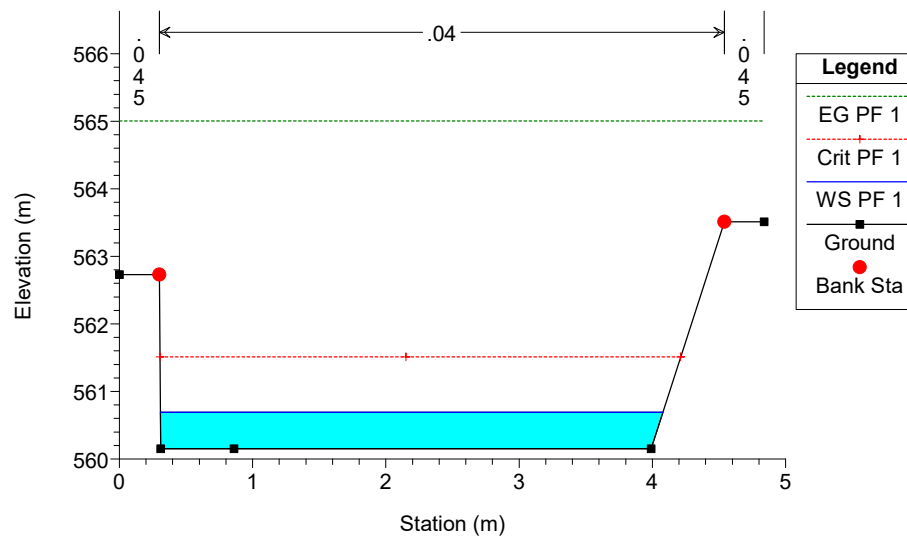
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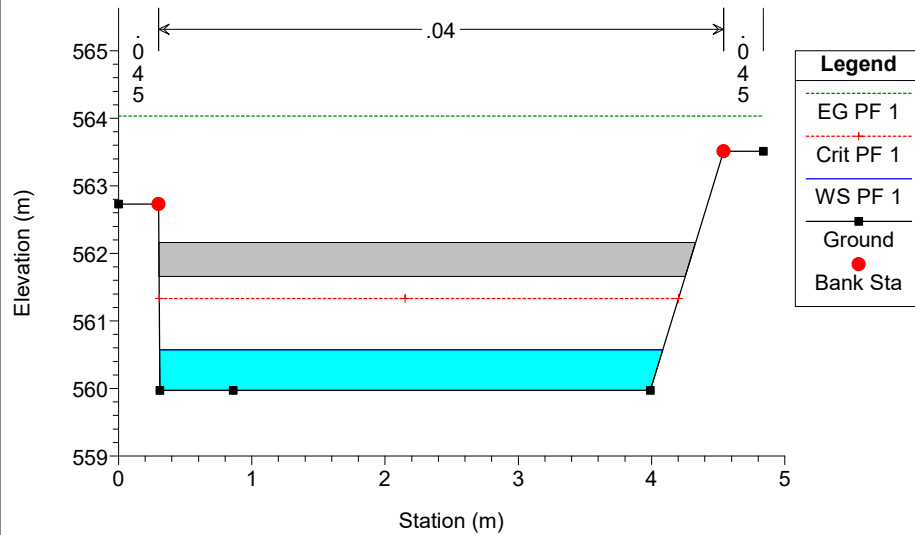
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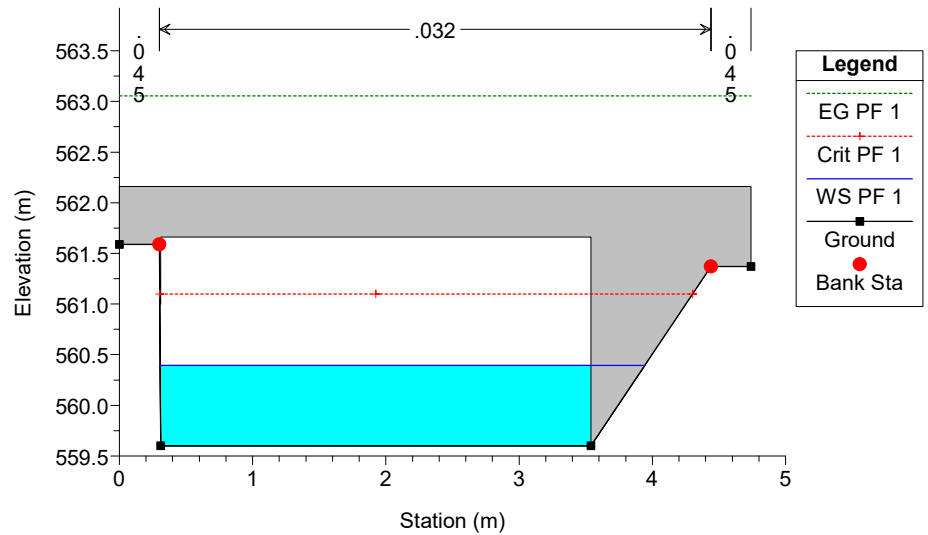
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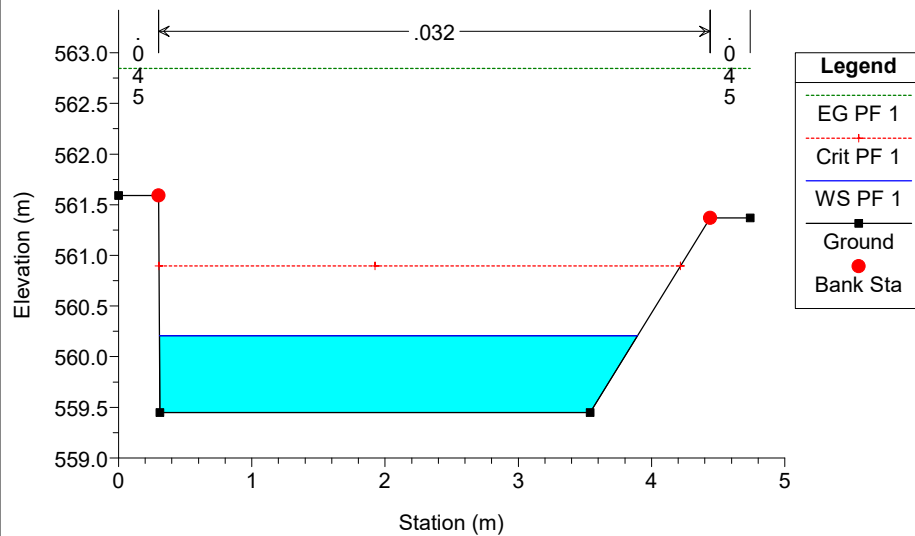
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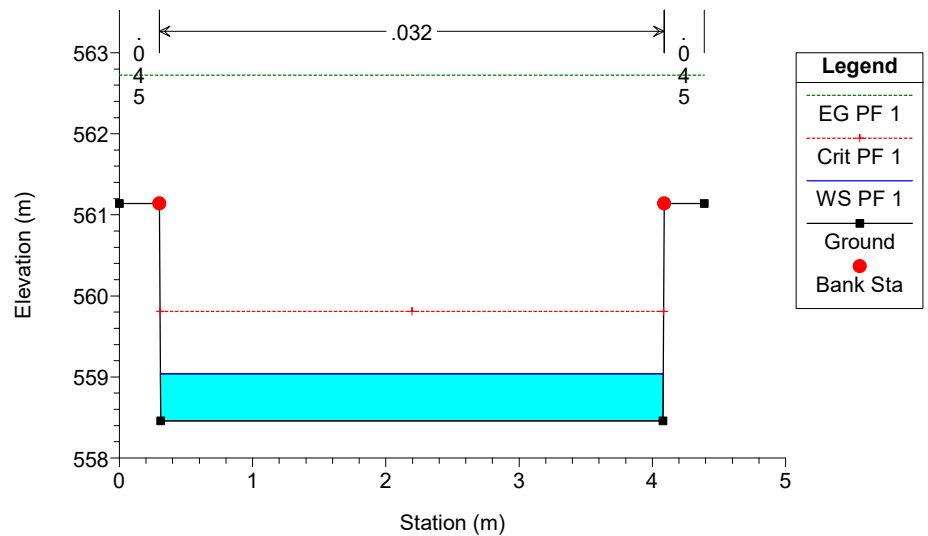
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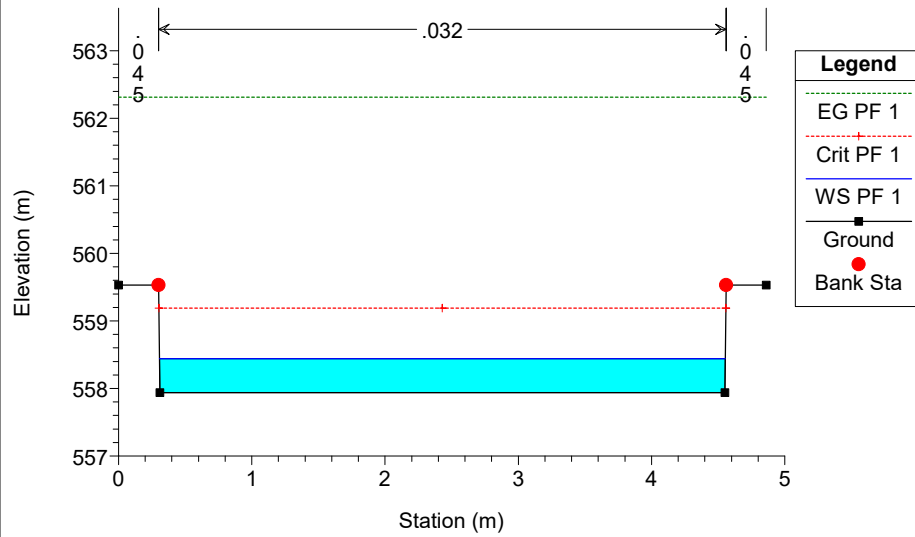
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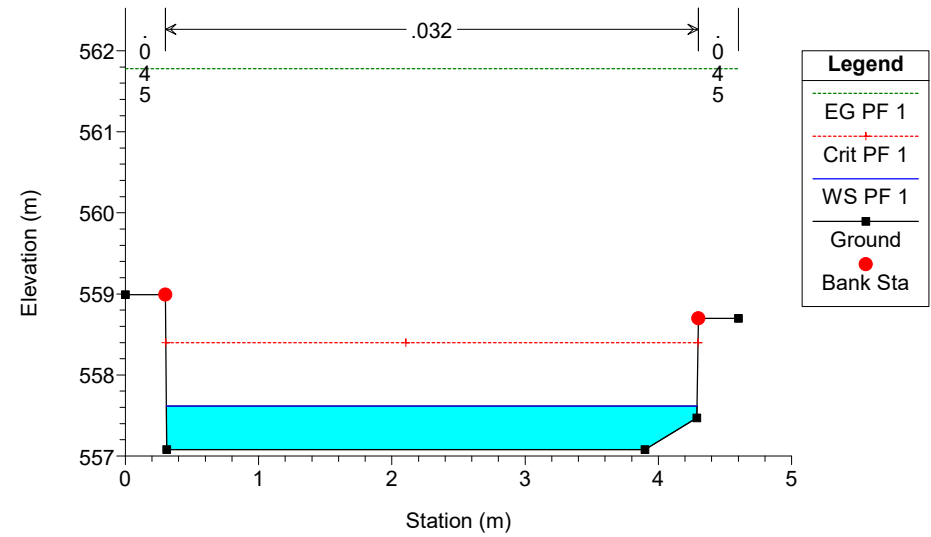
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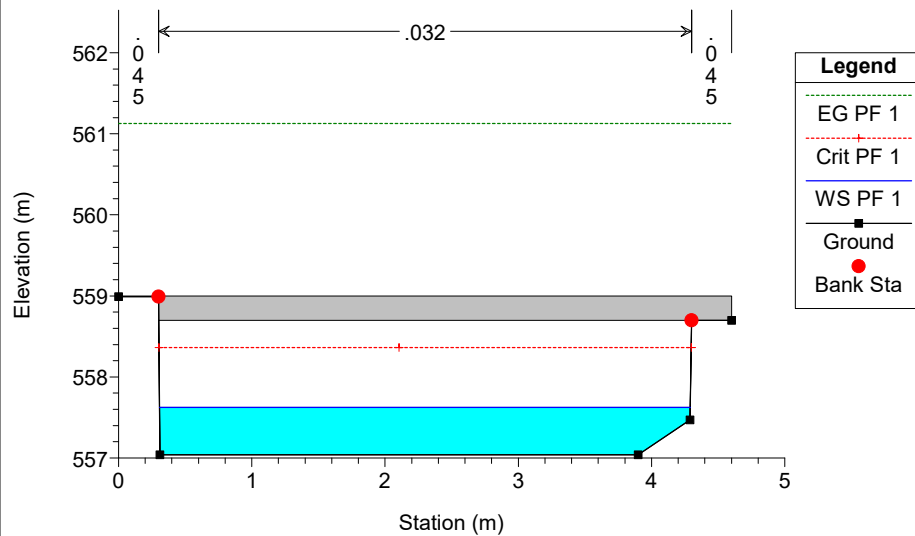
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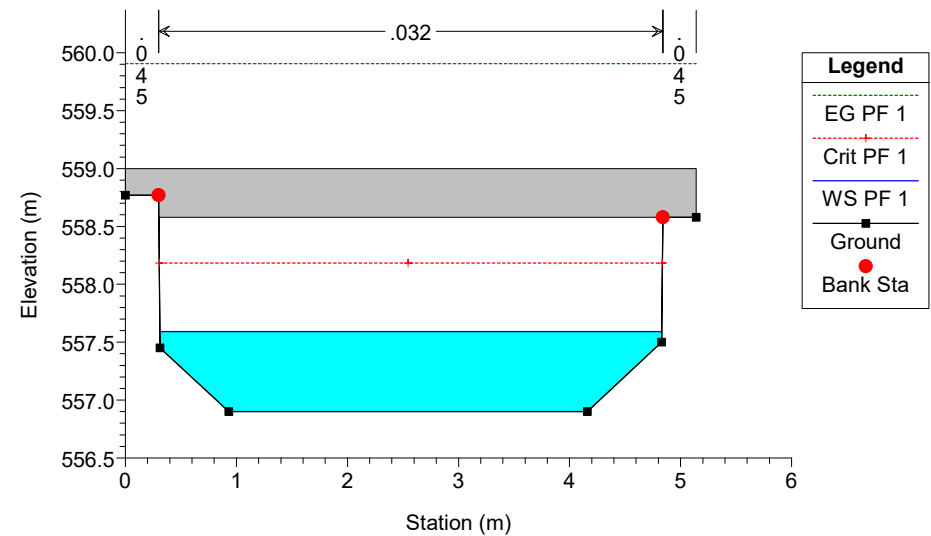
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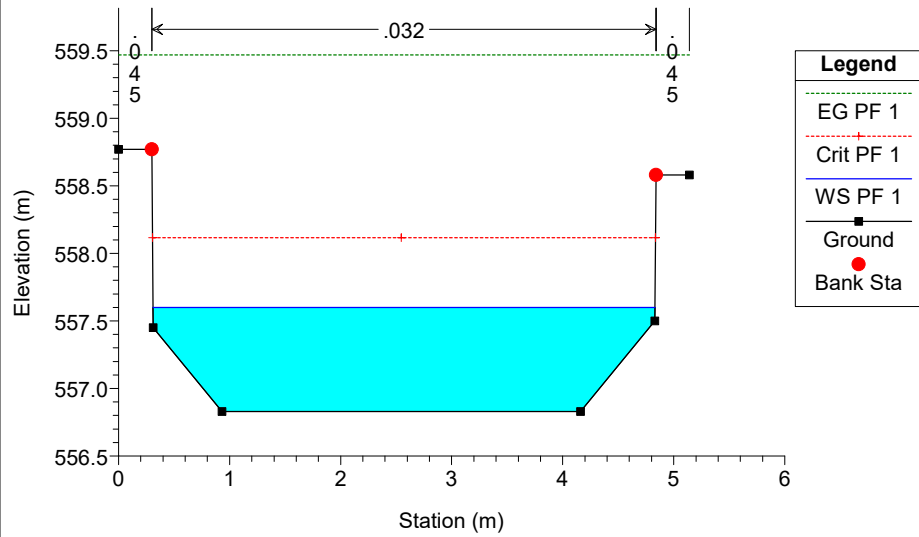
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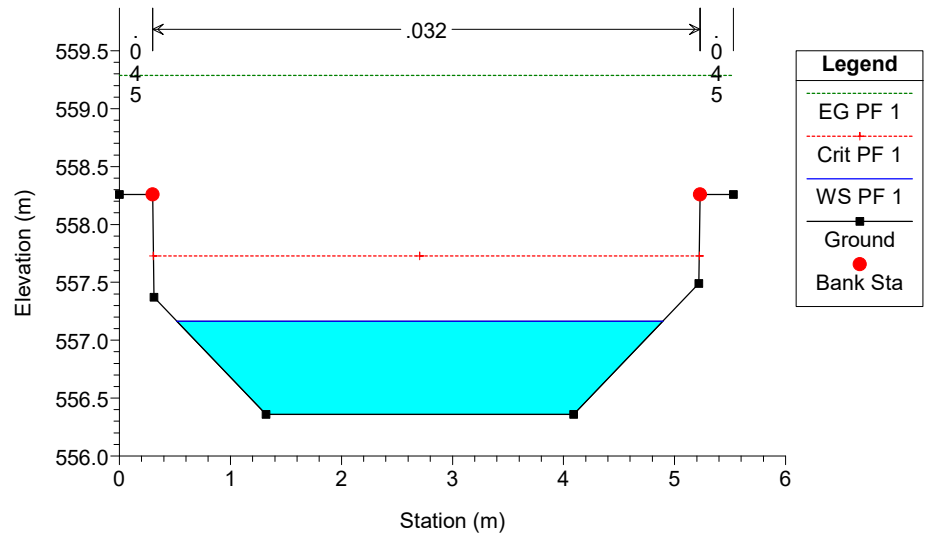
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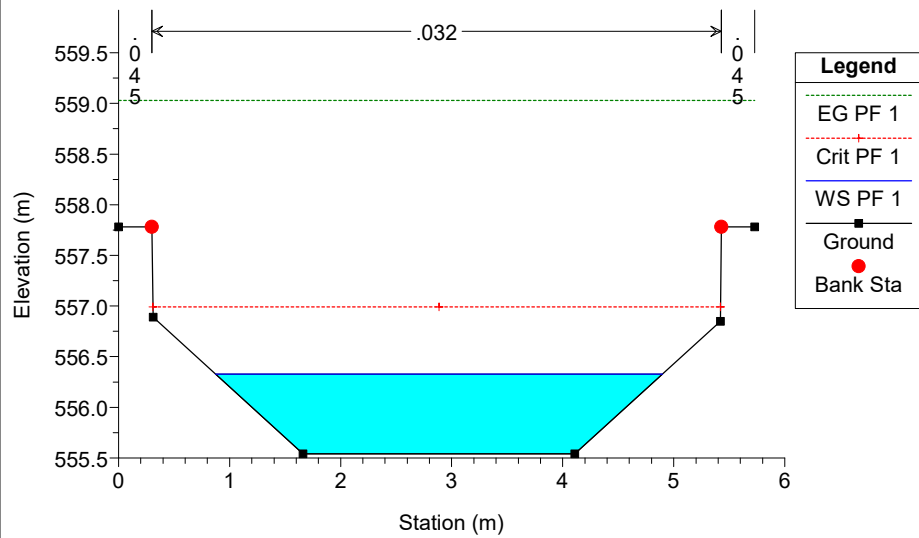
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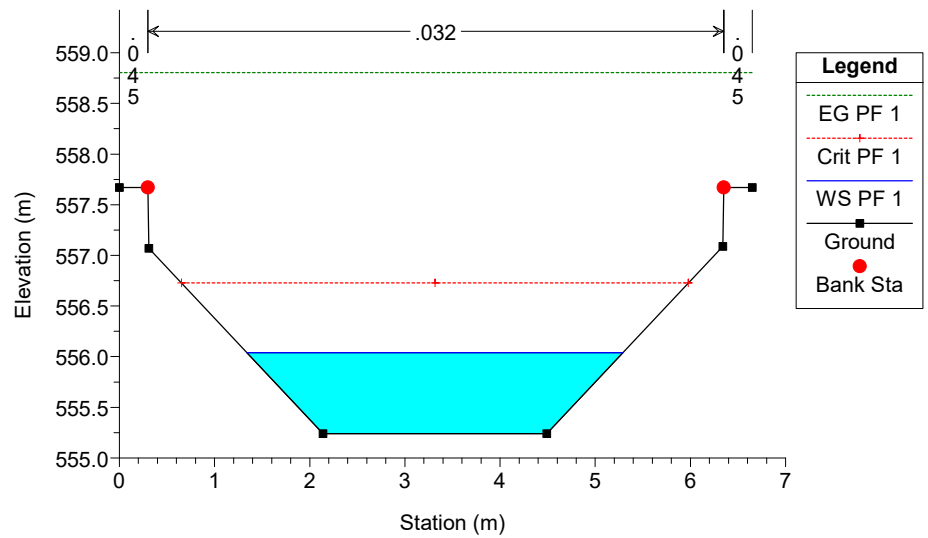
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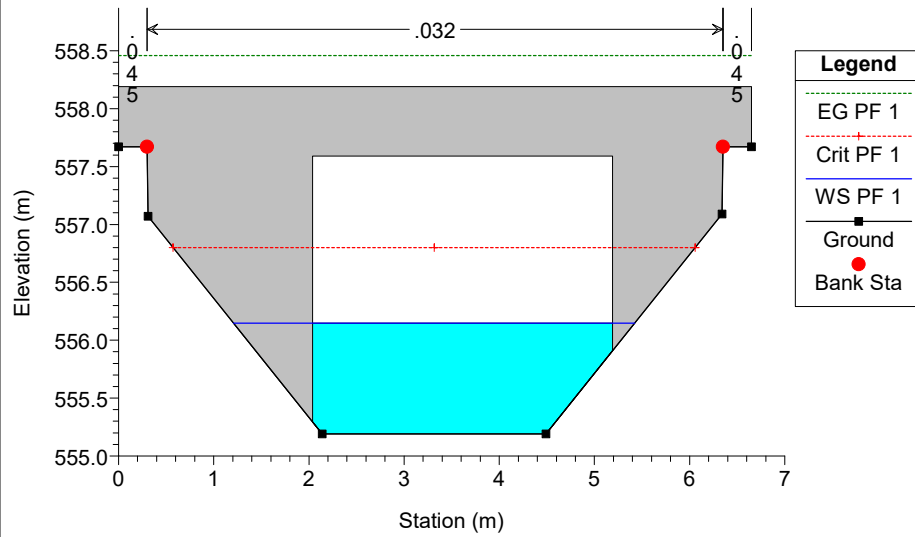
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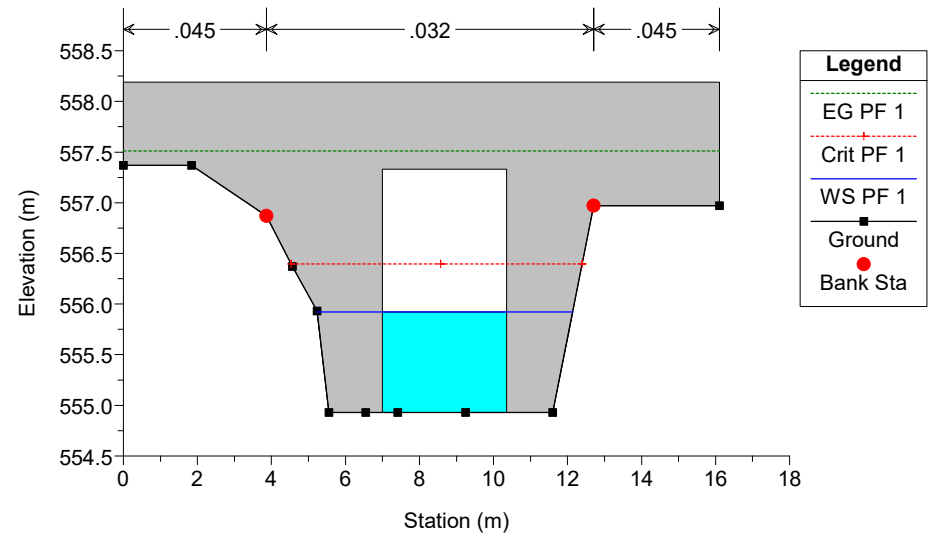
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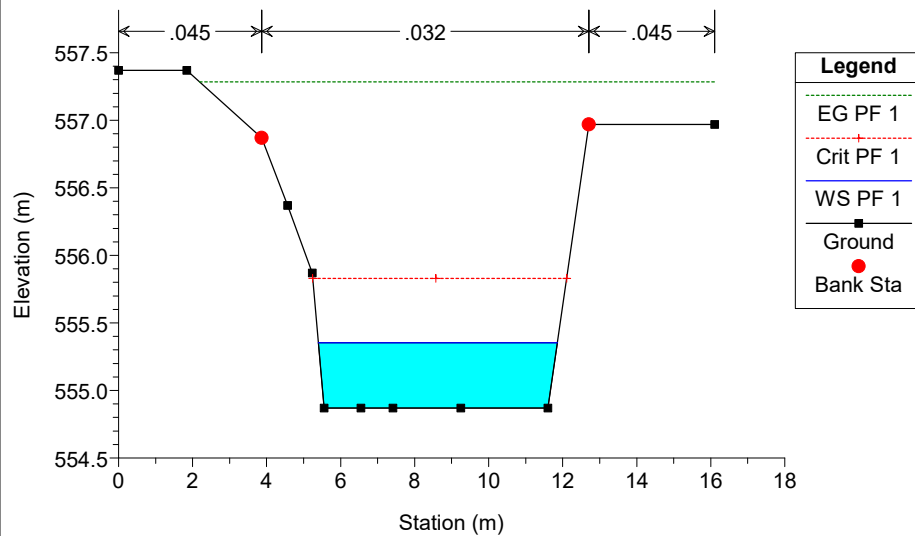
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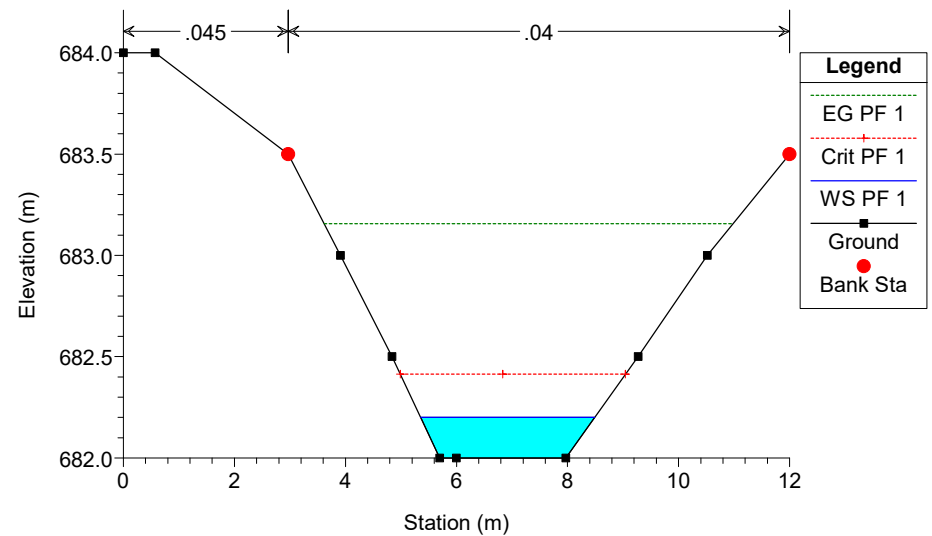
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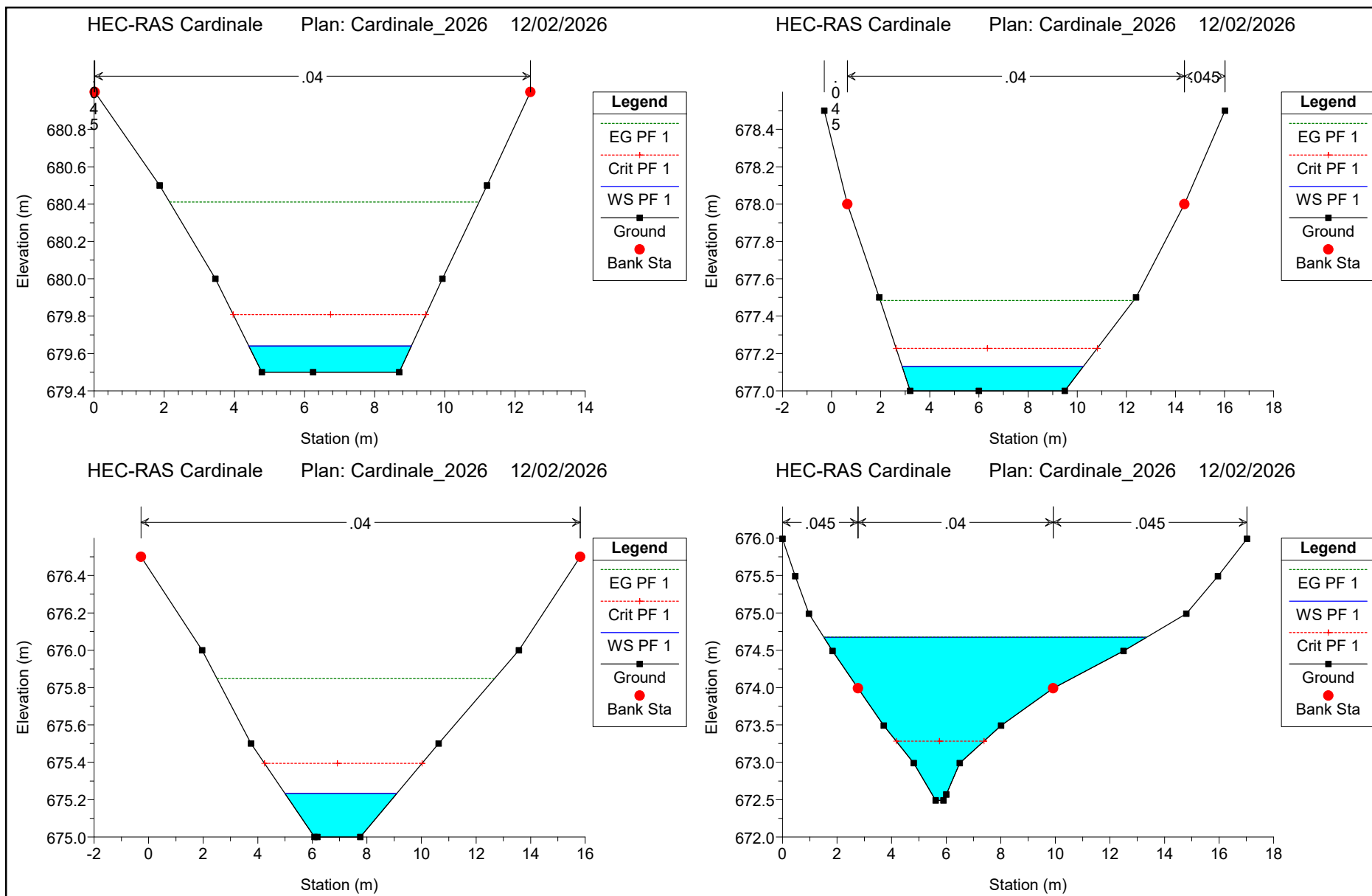


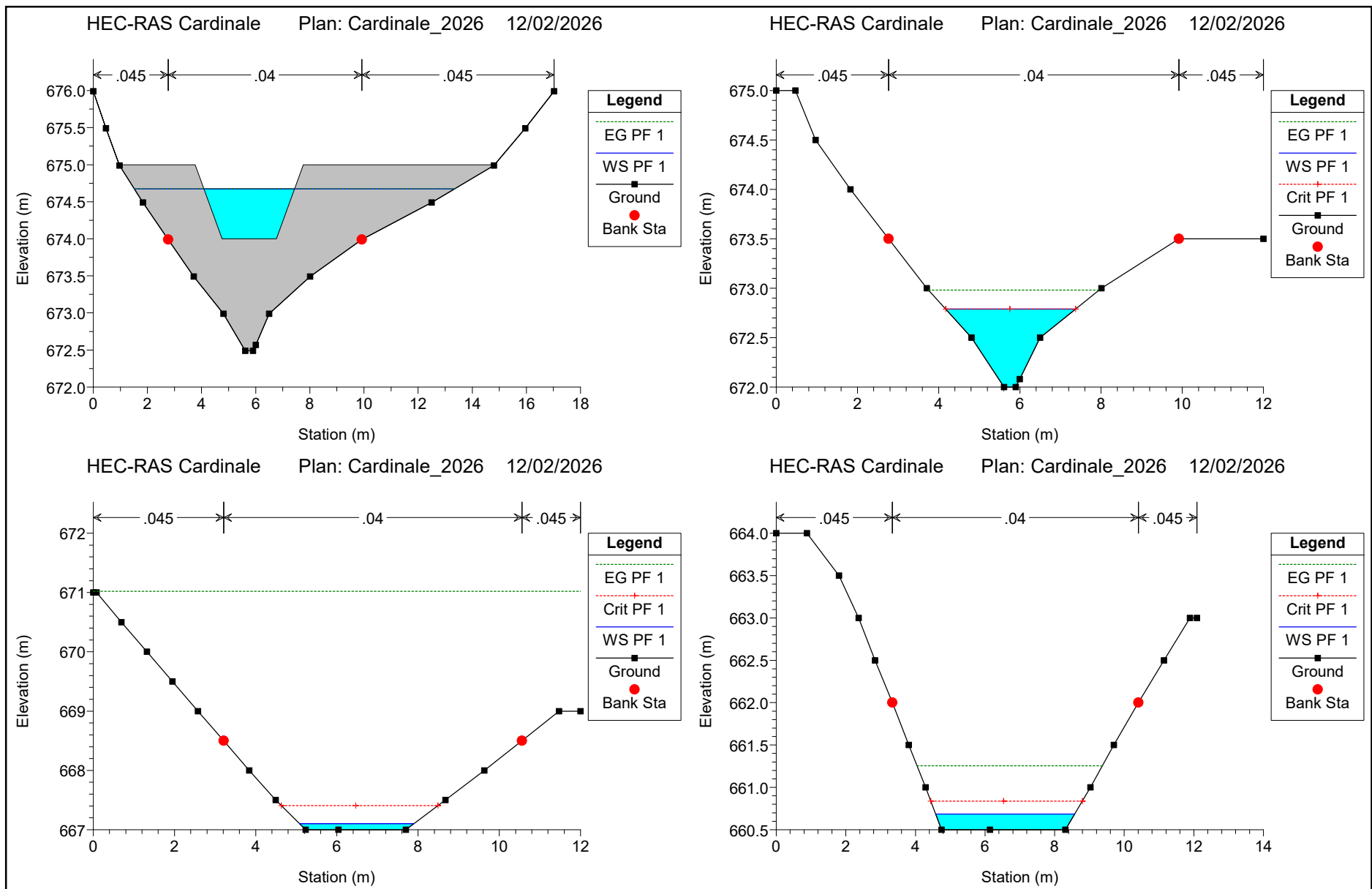
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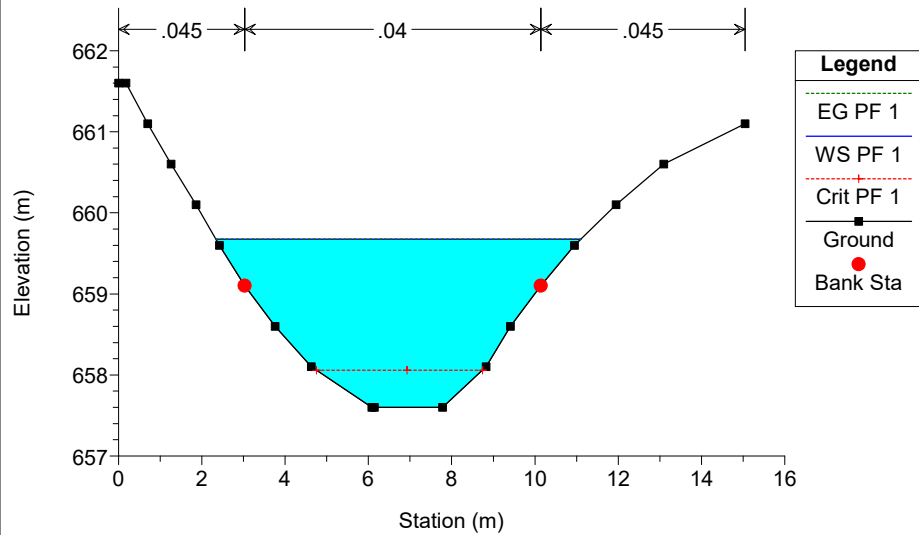
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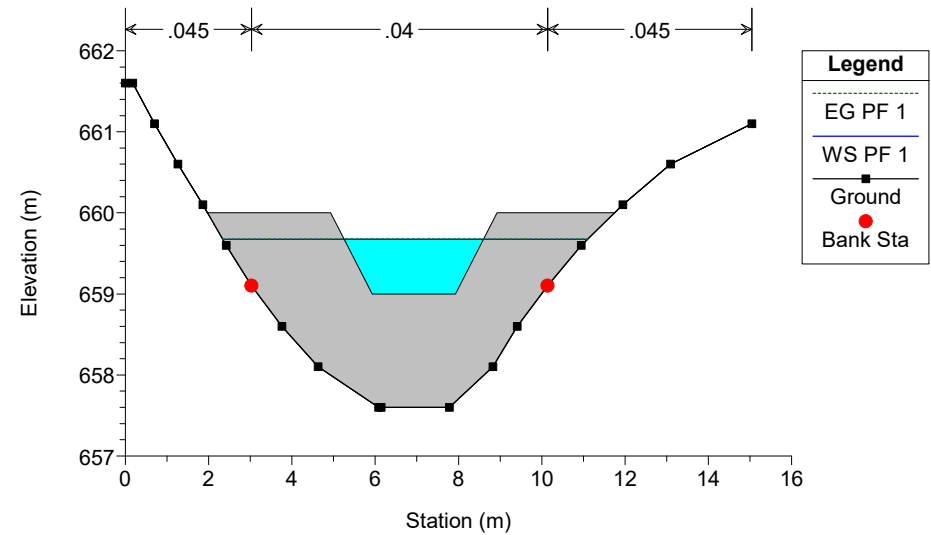




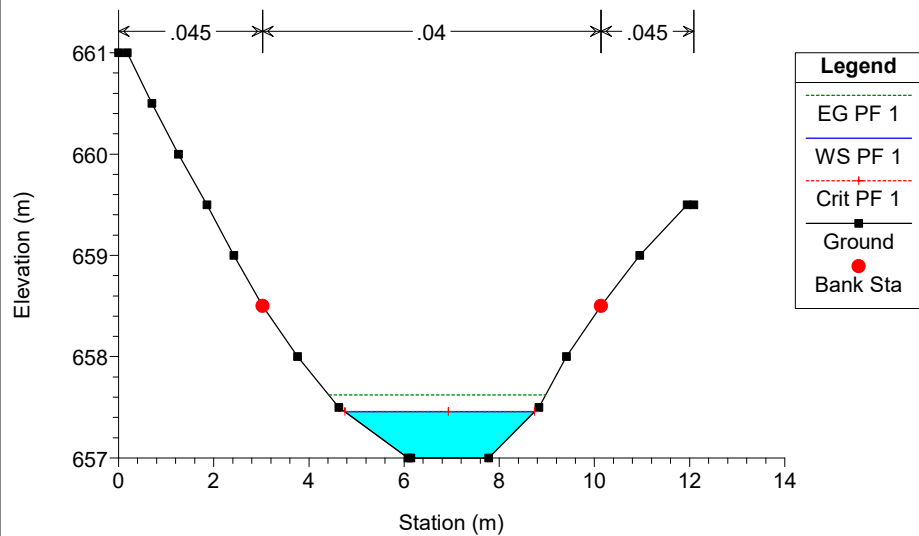
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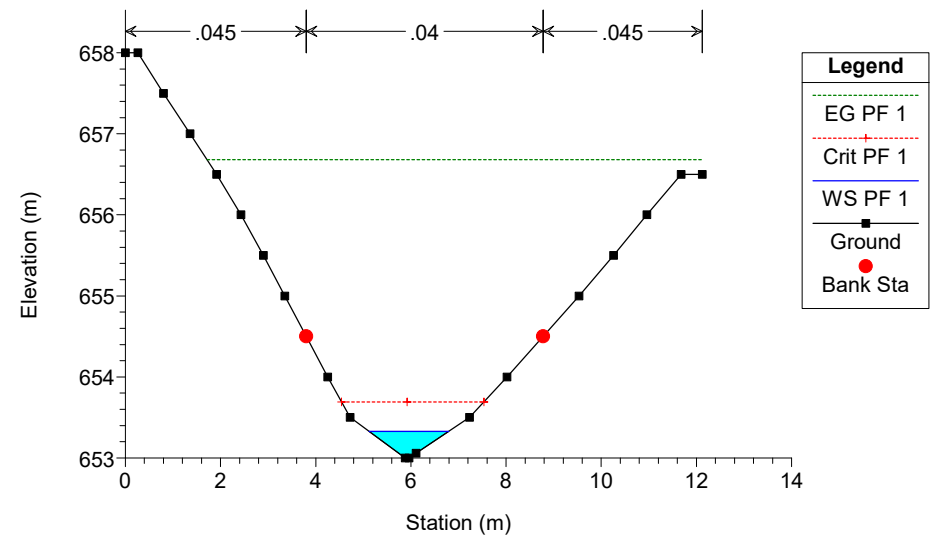
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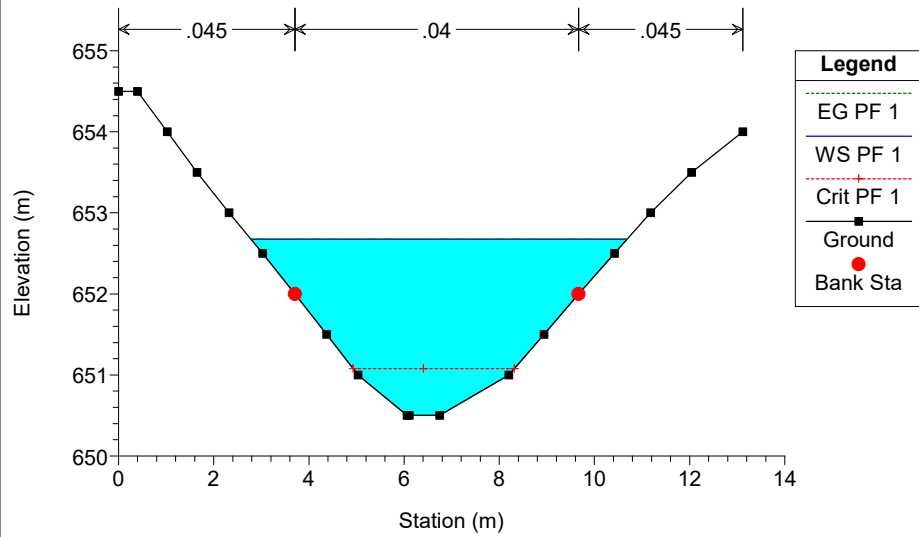
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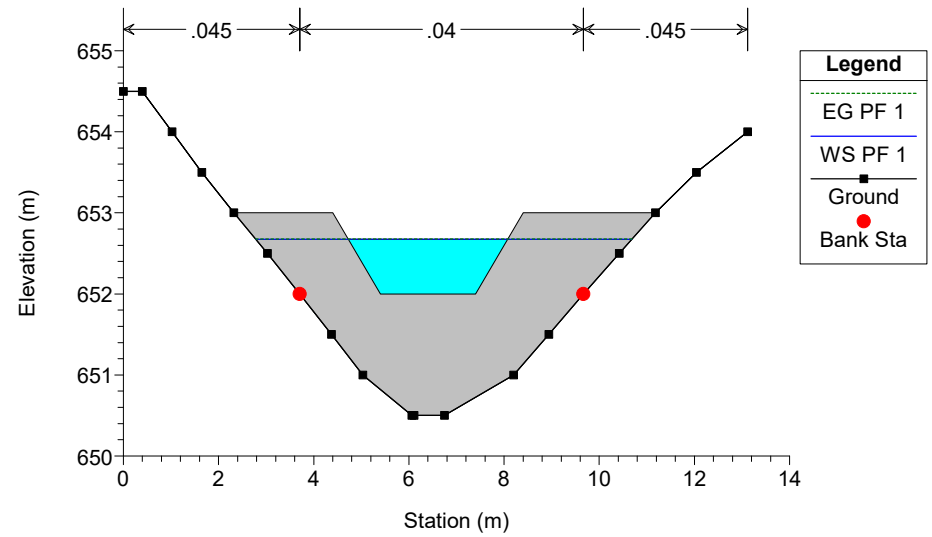
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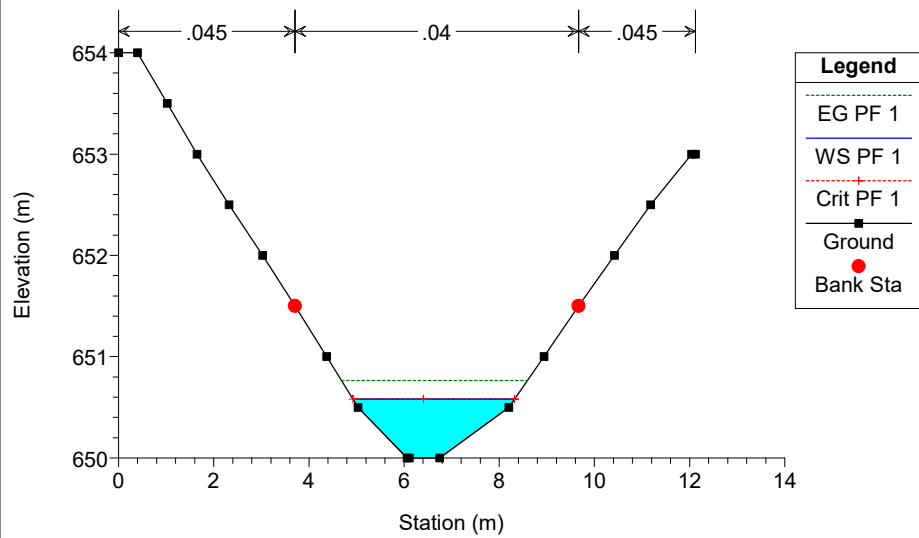
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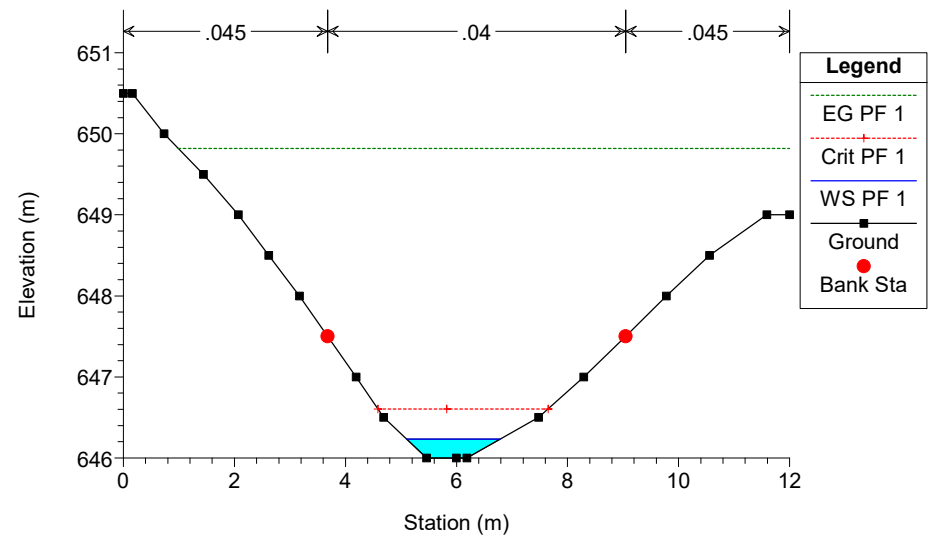
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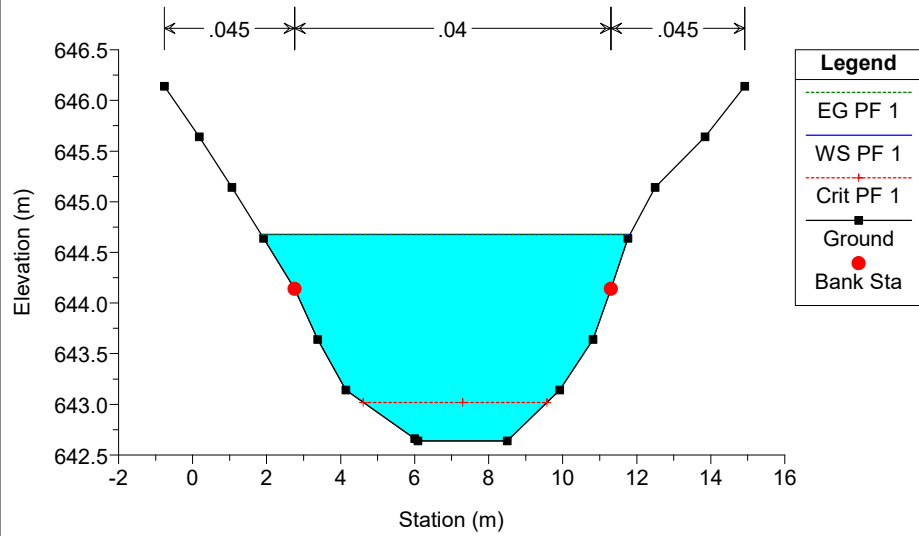
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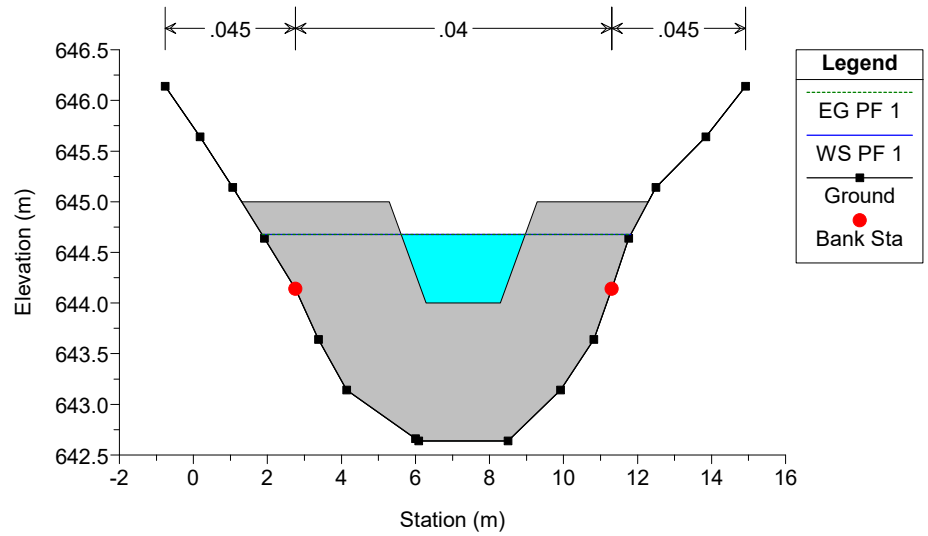
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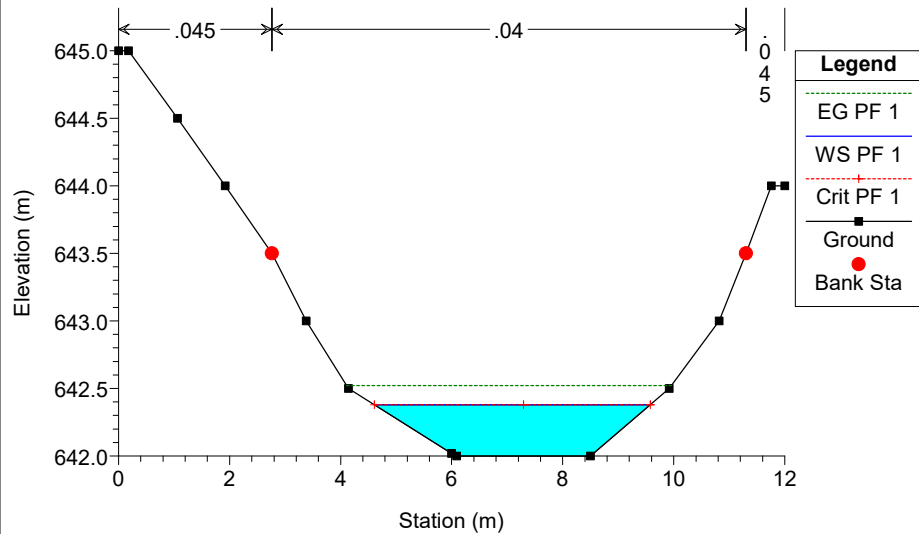
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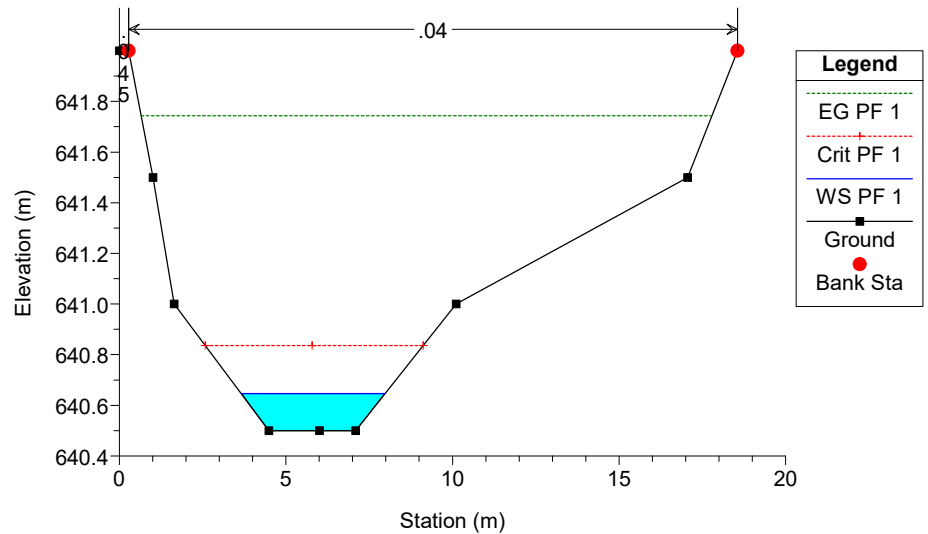
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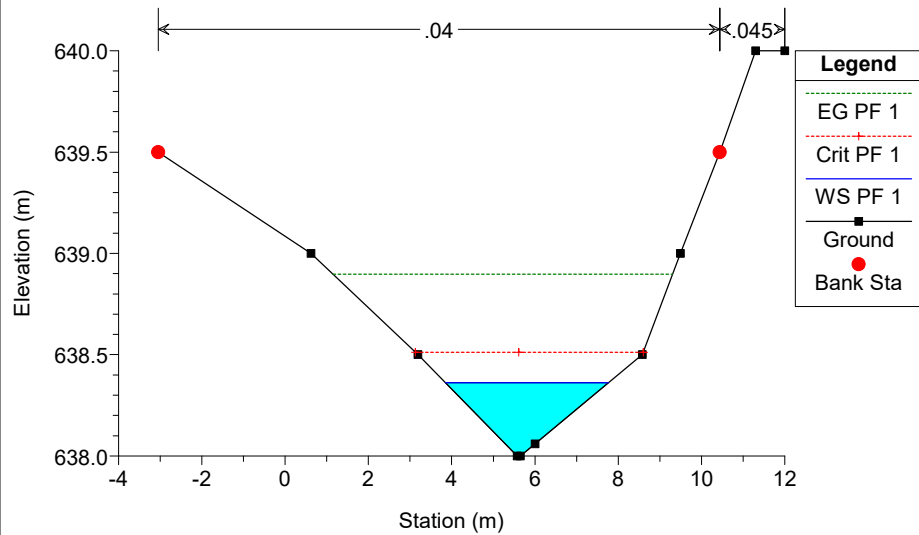
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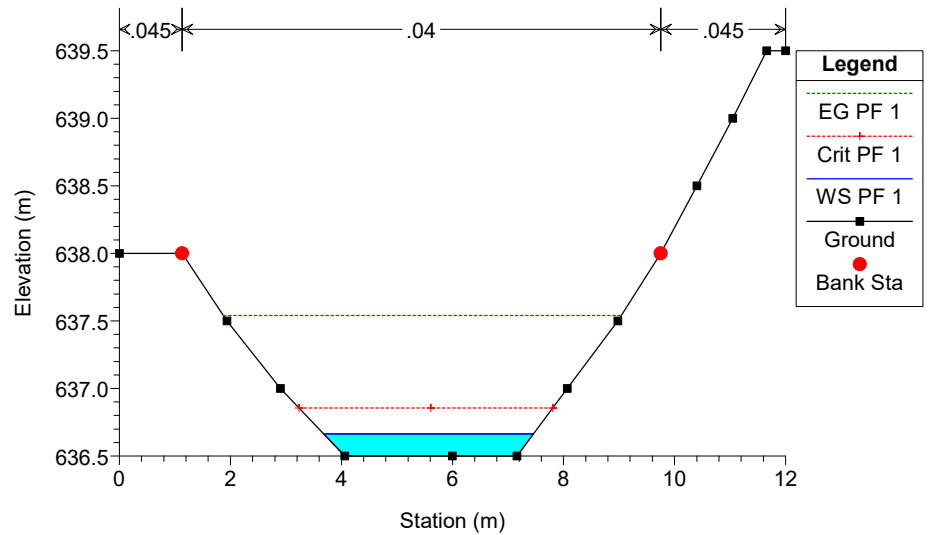
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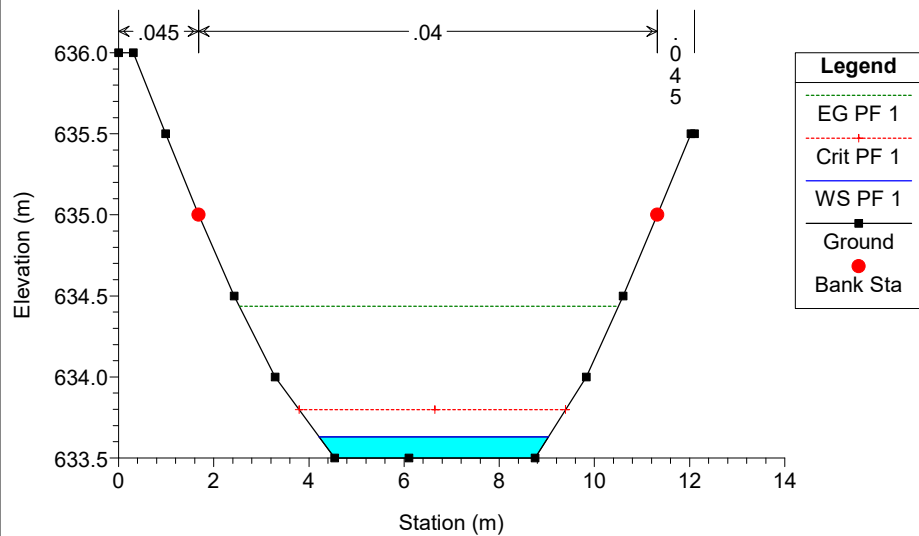
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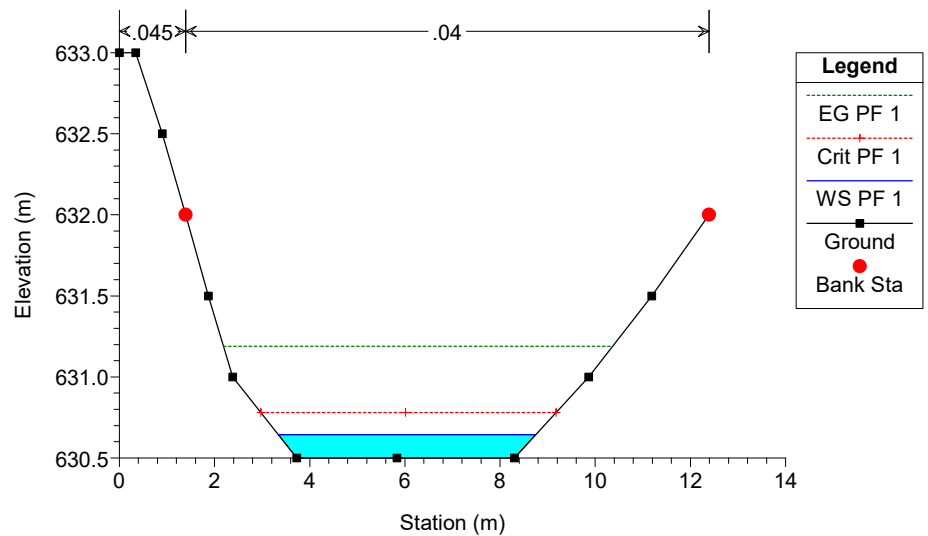
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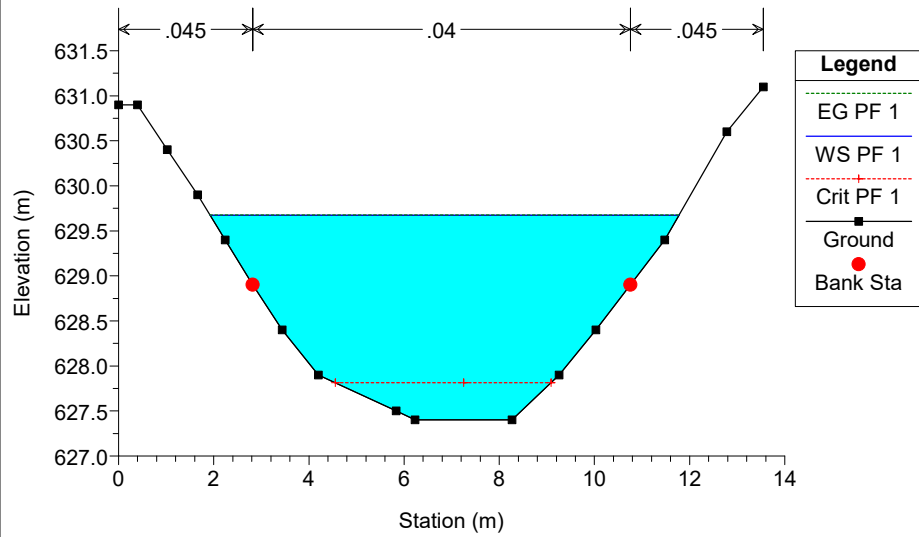
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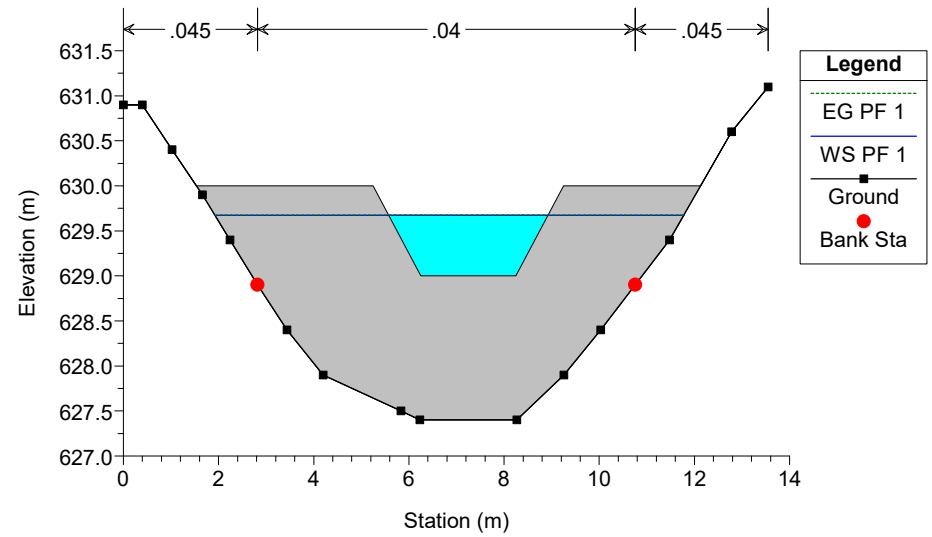
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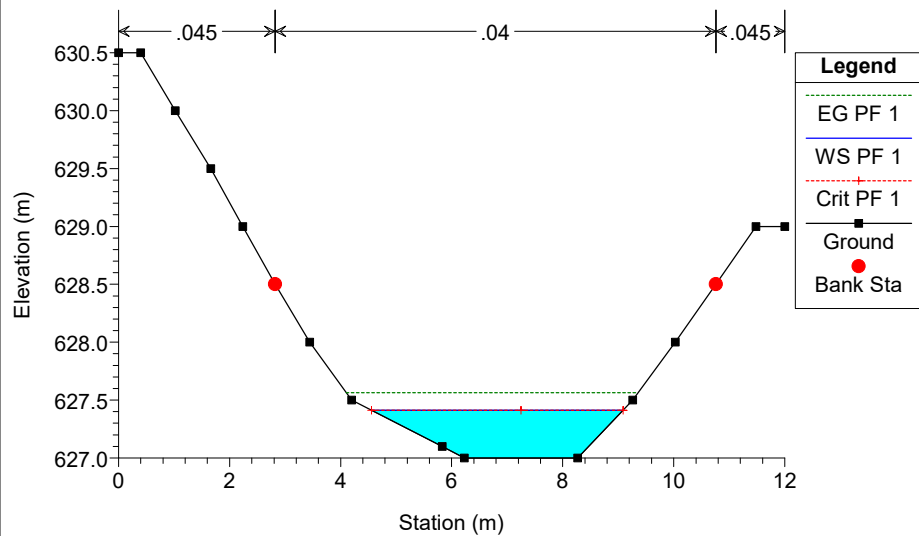
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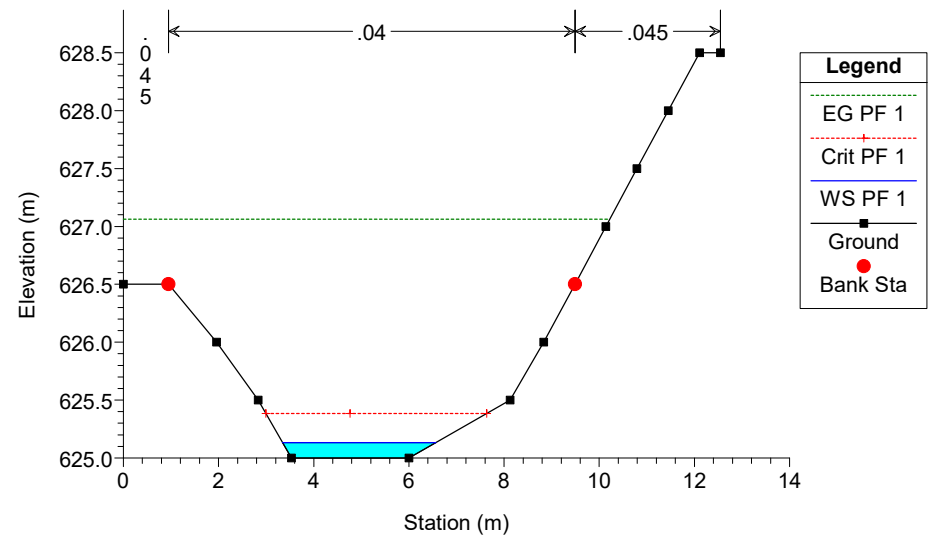
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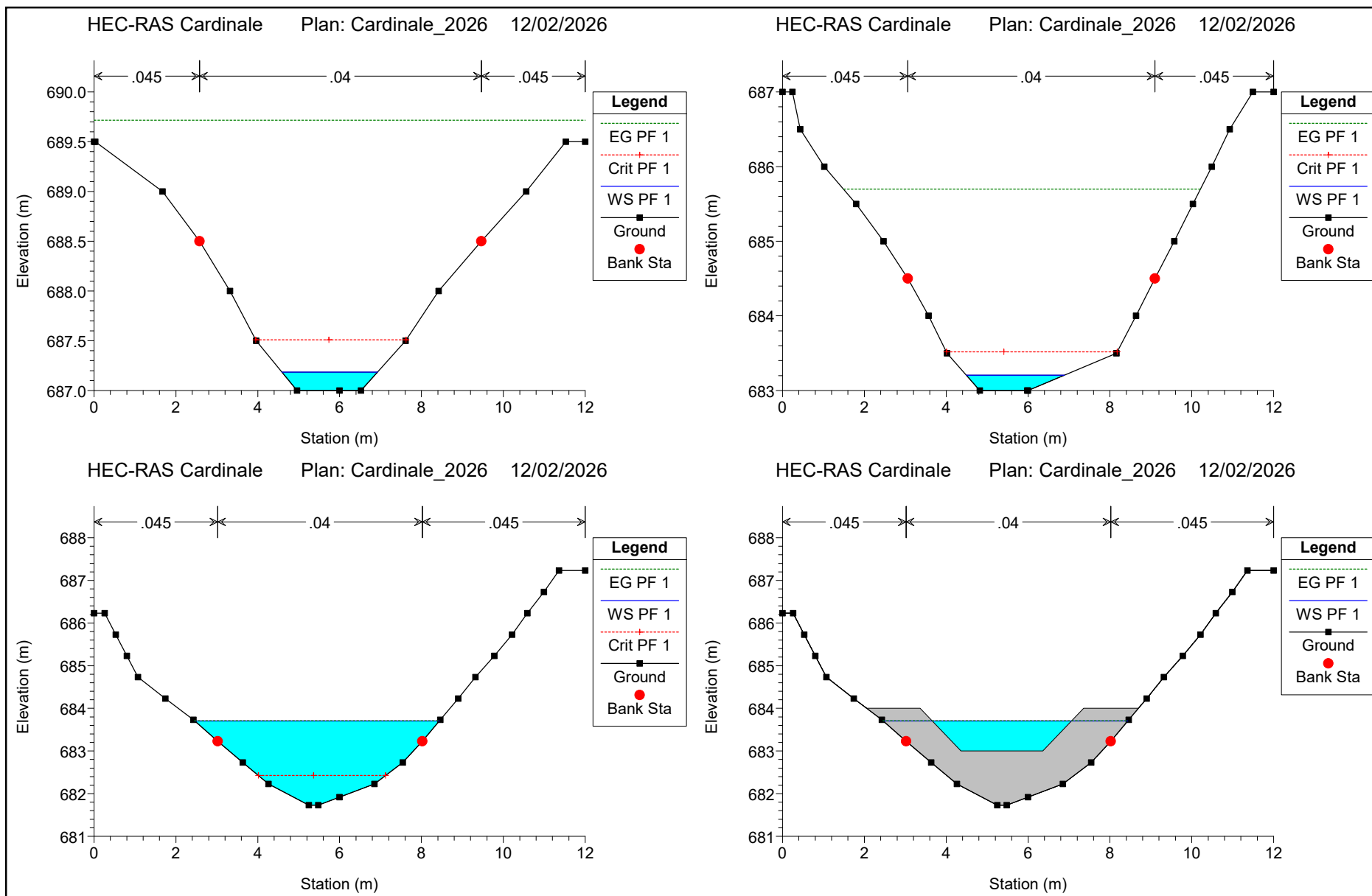


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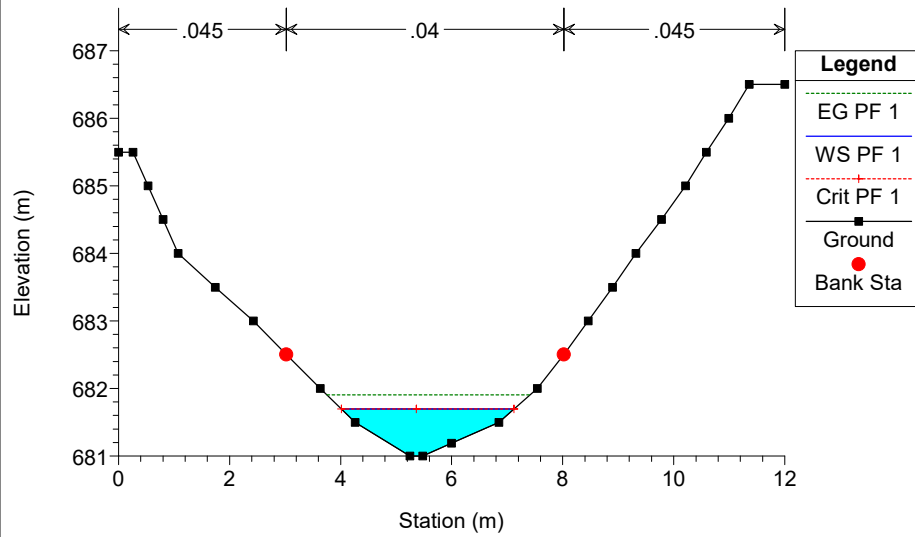


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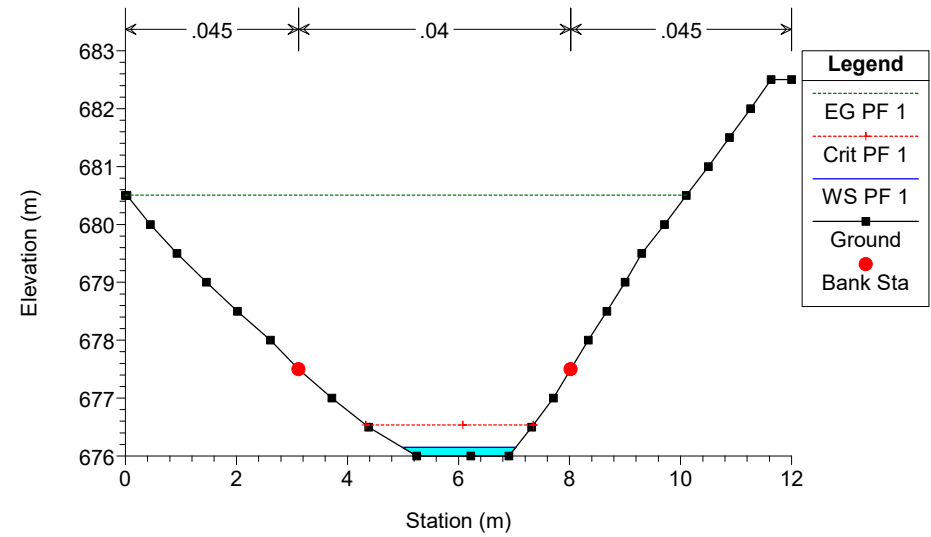




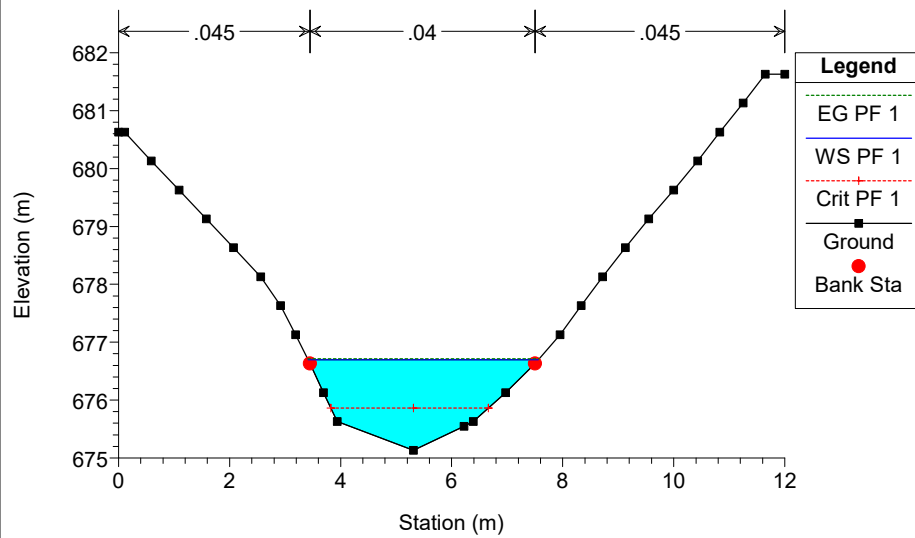
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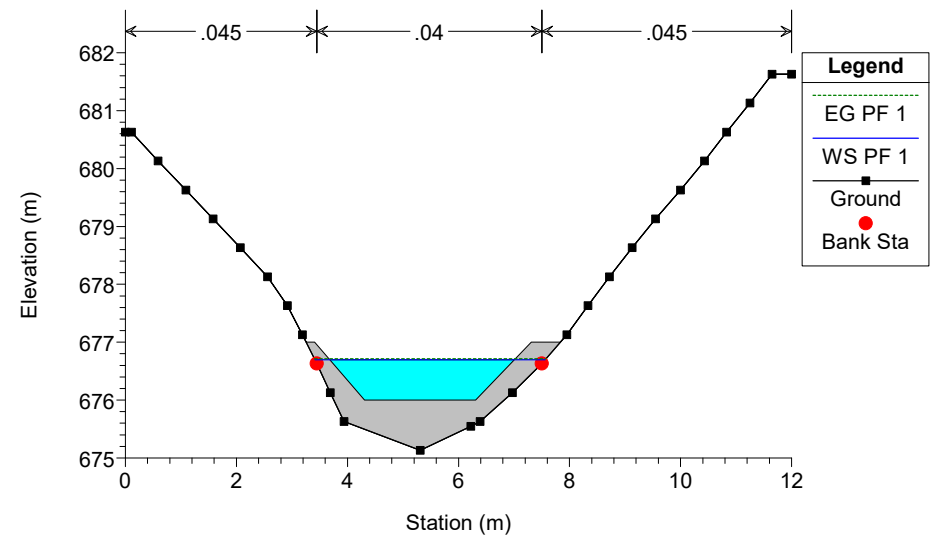
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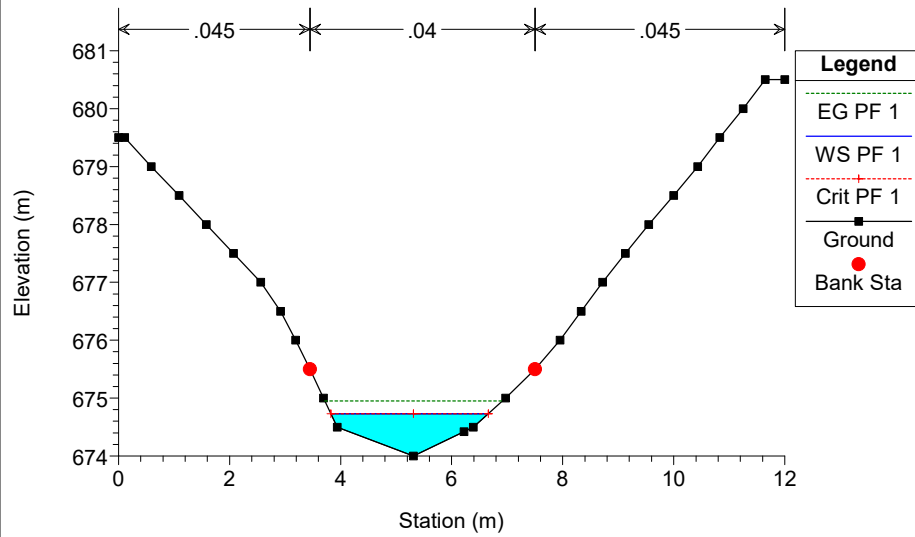
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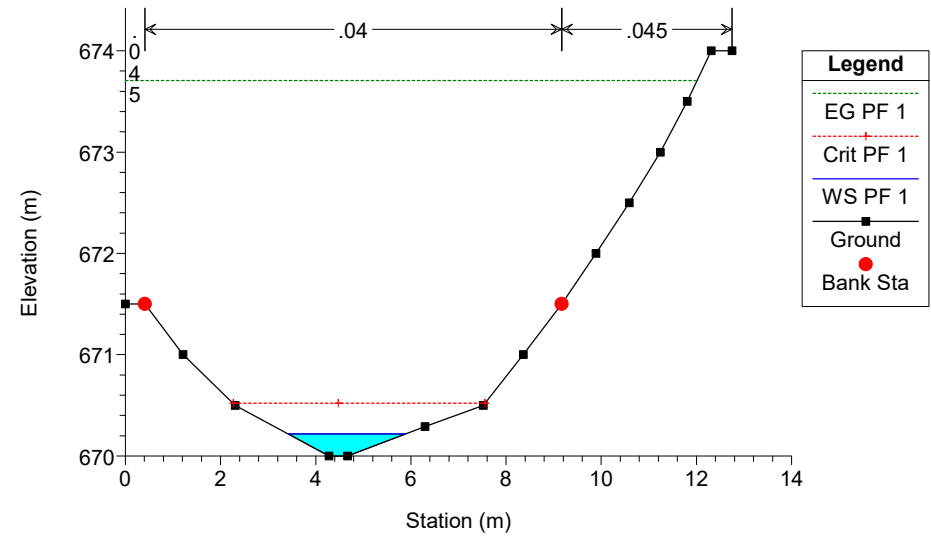
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



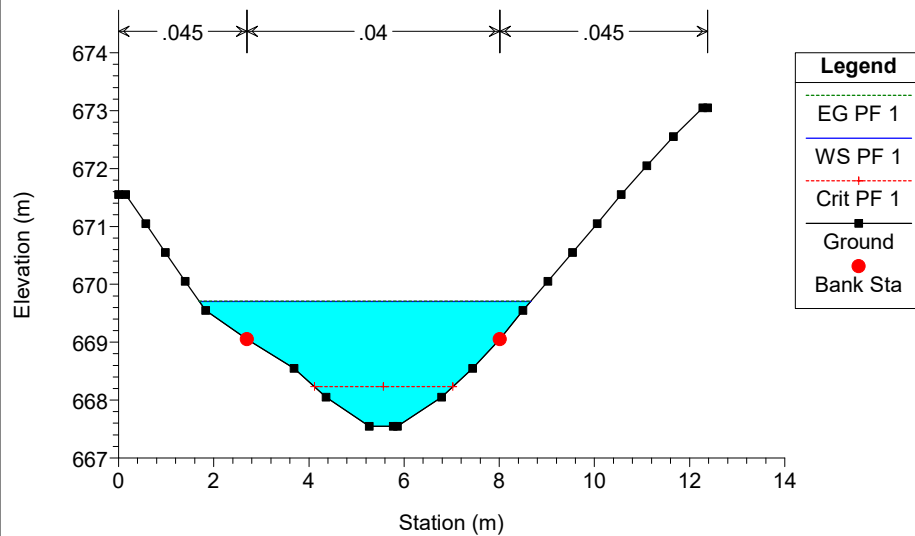
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



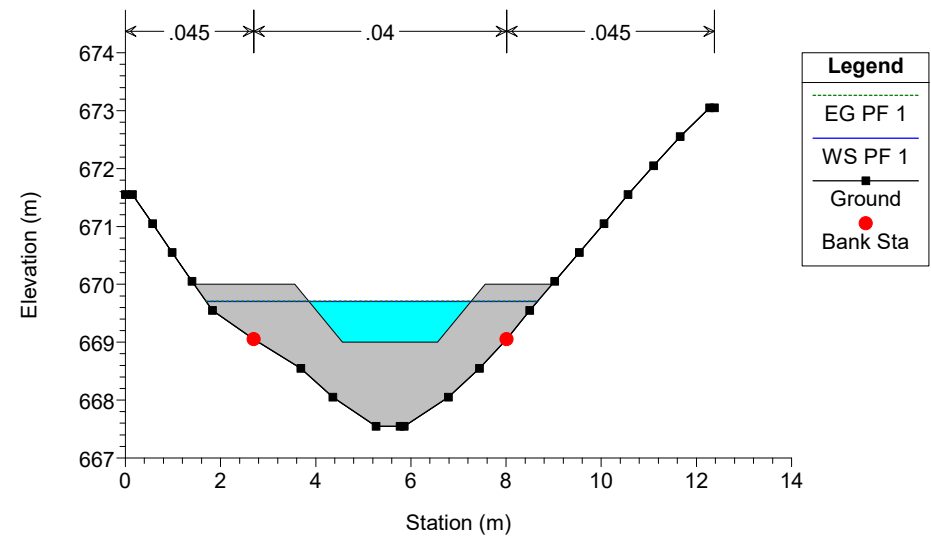
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026

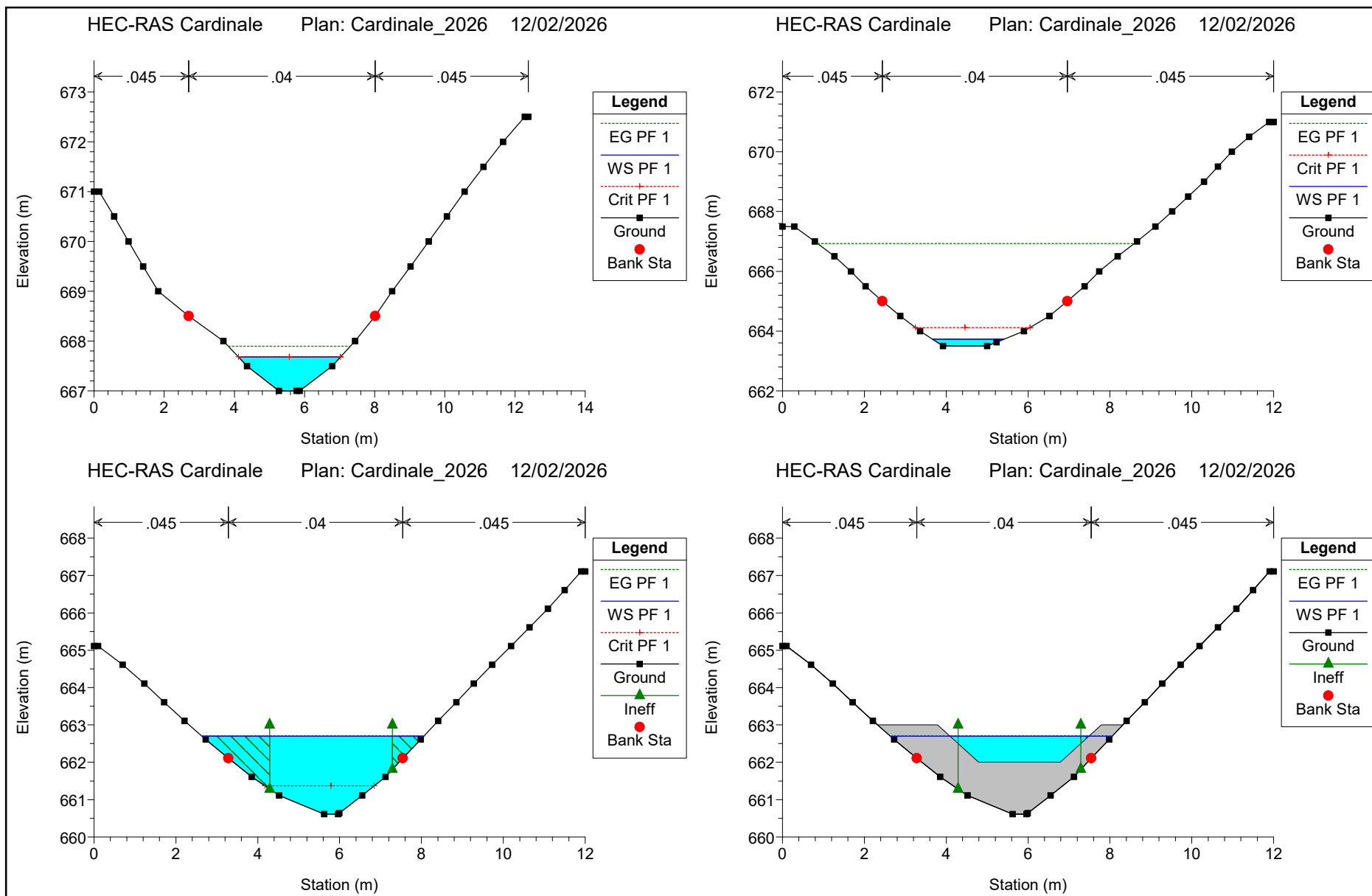


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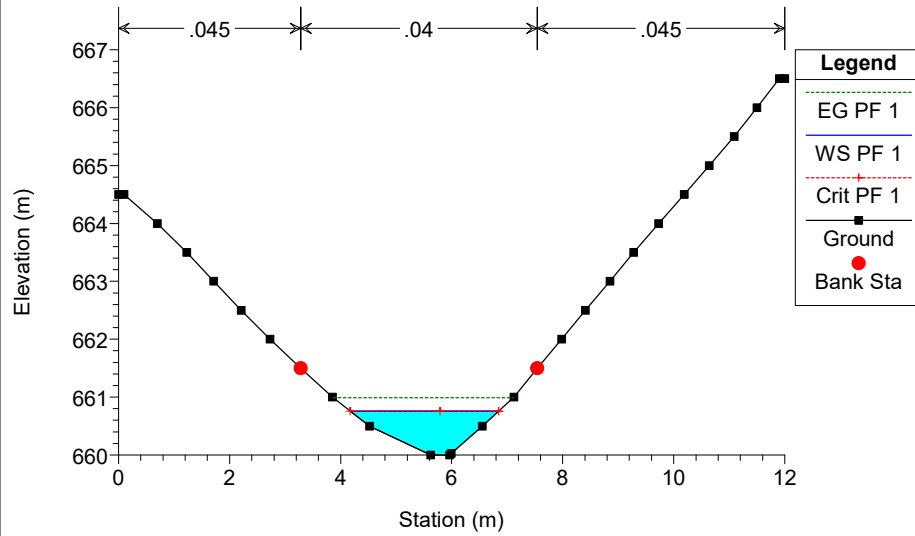


HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026

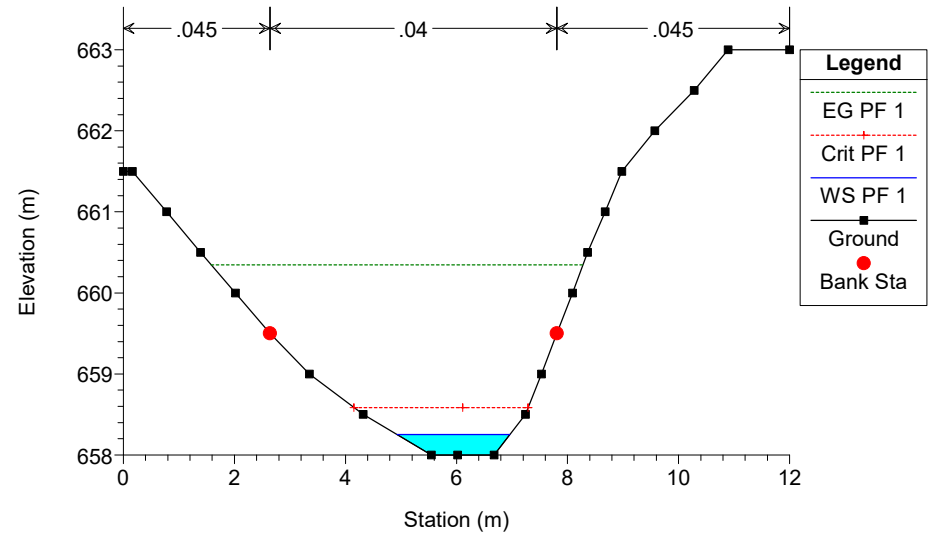




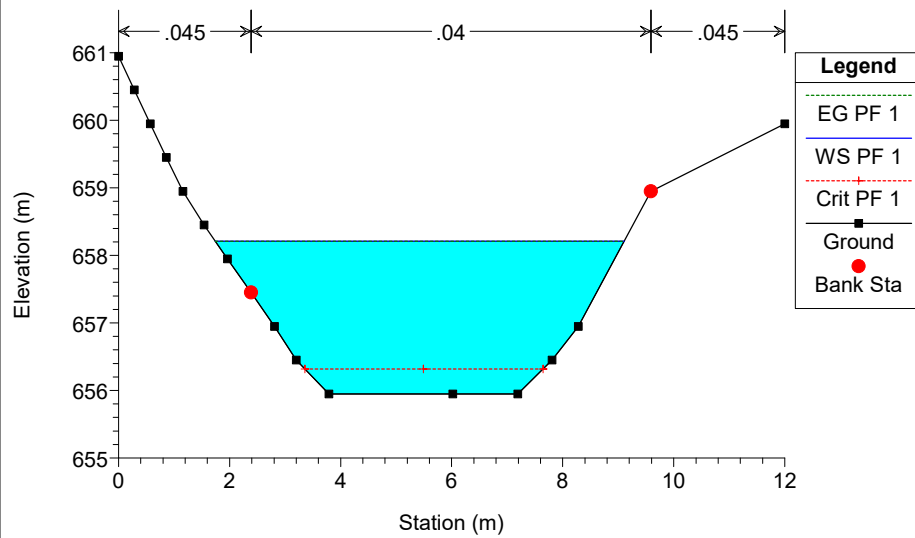
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



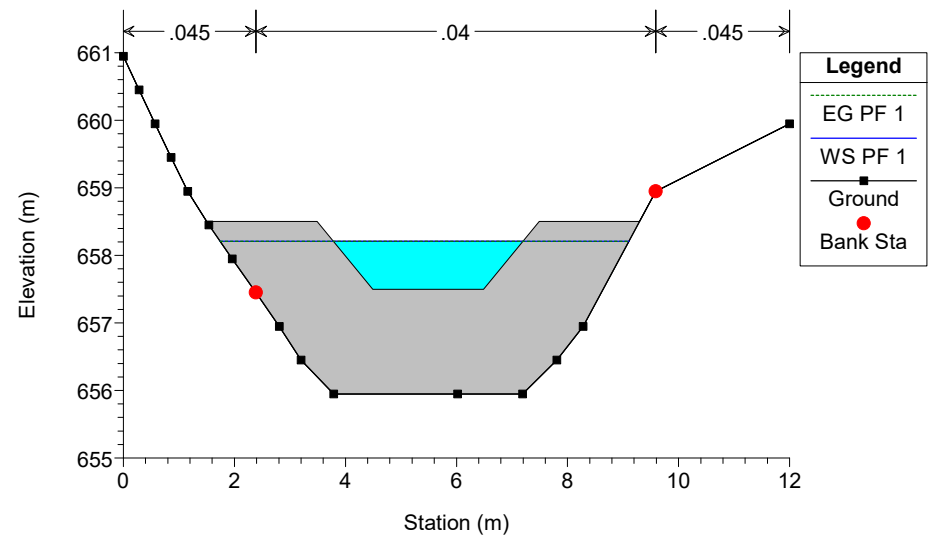
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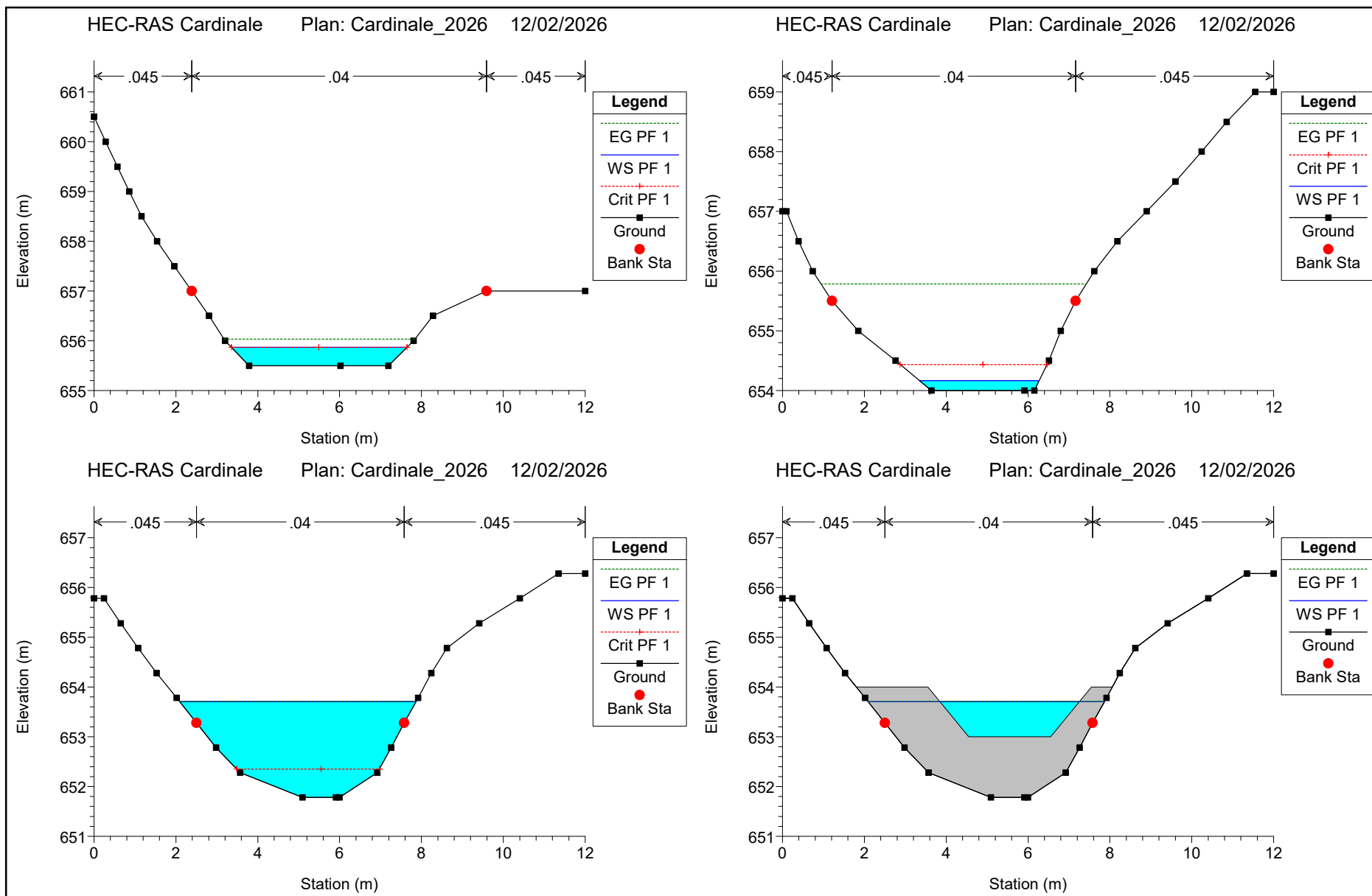


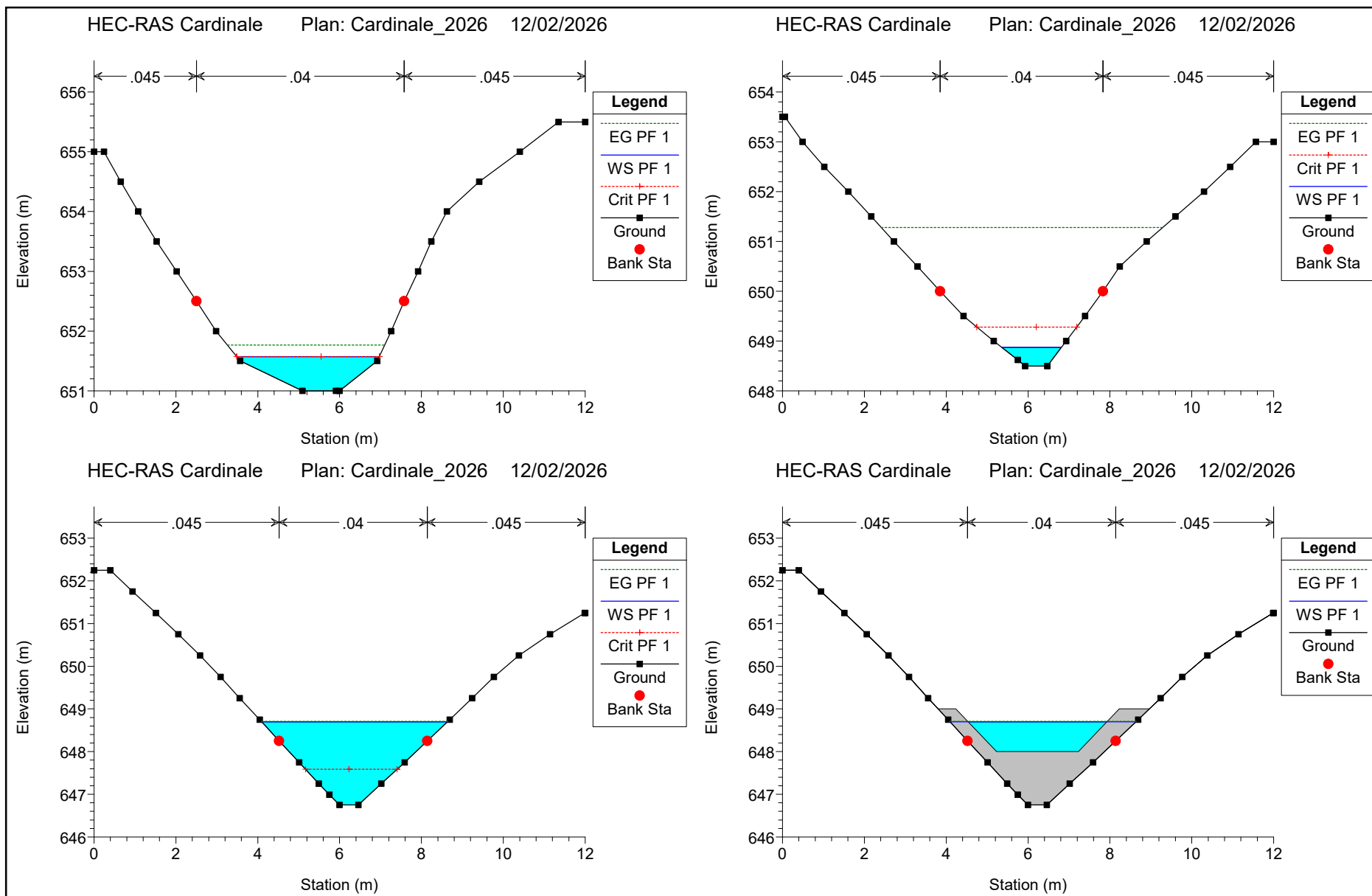
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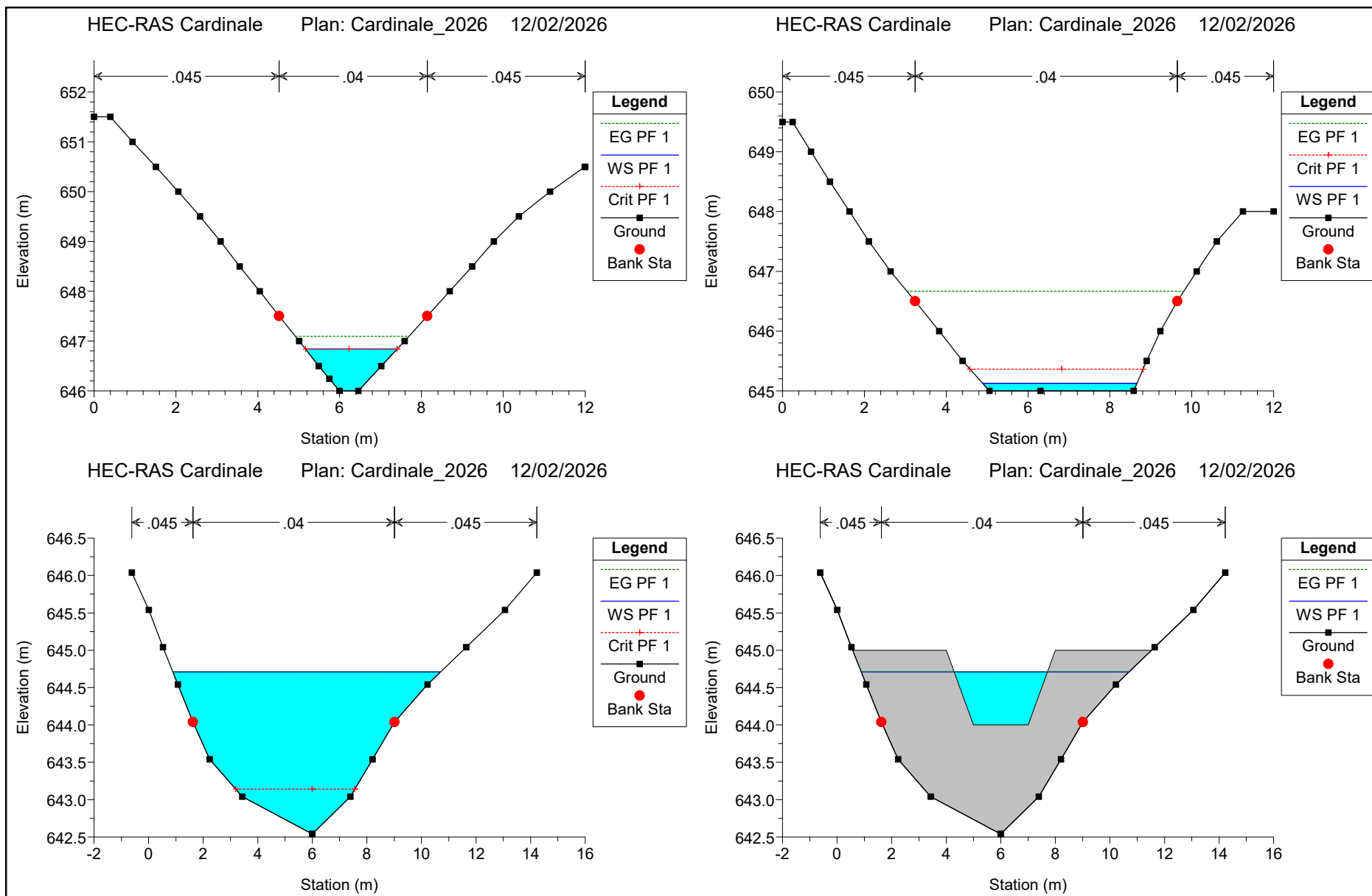


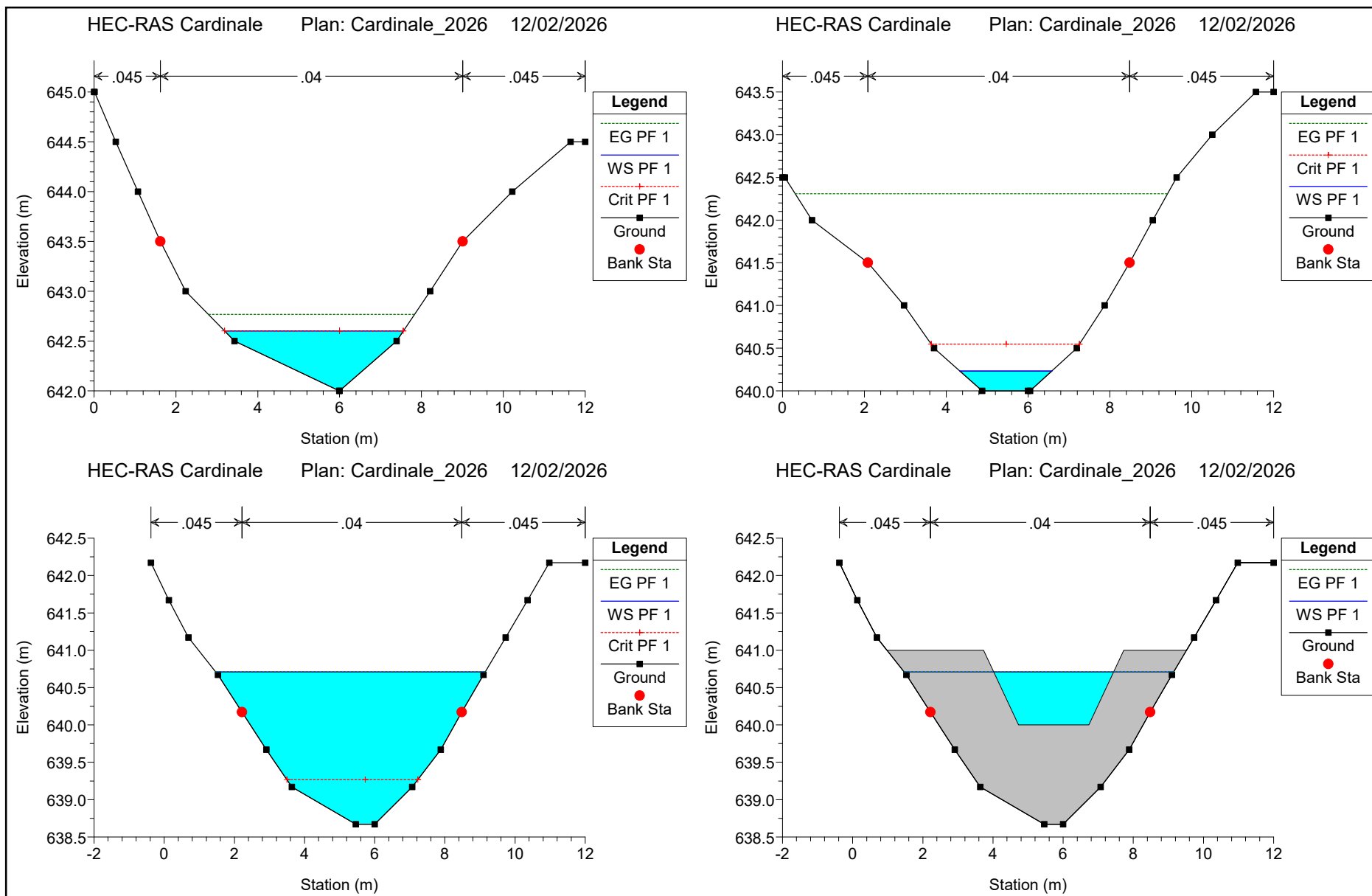
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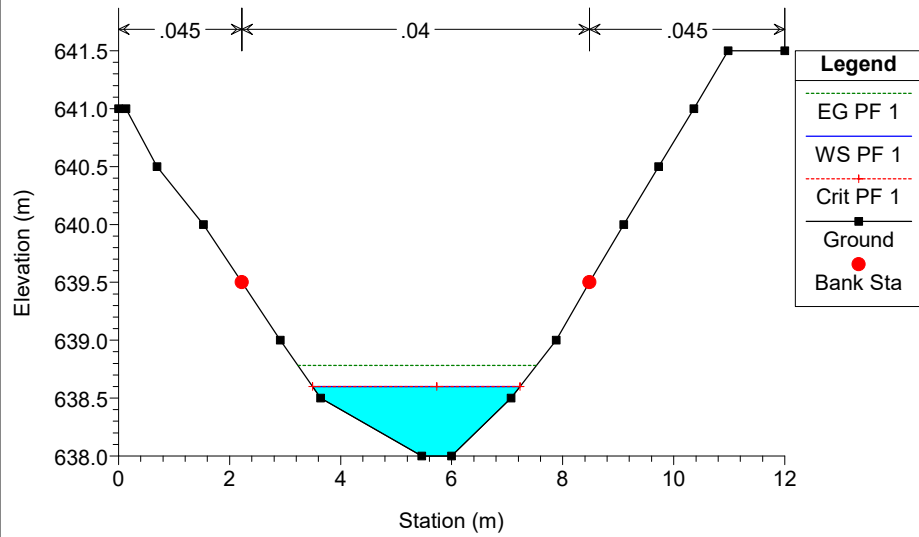




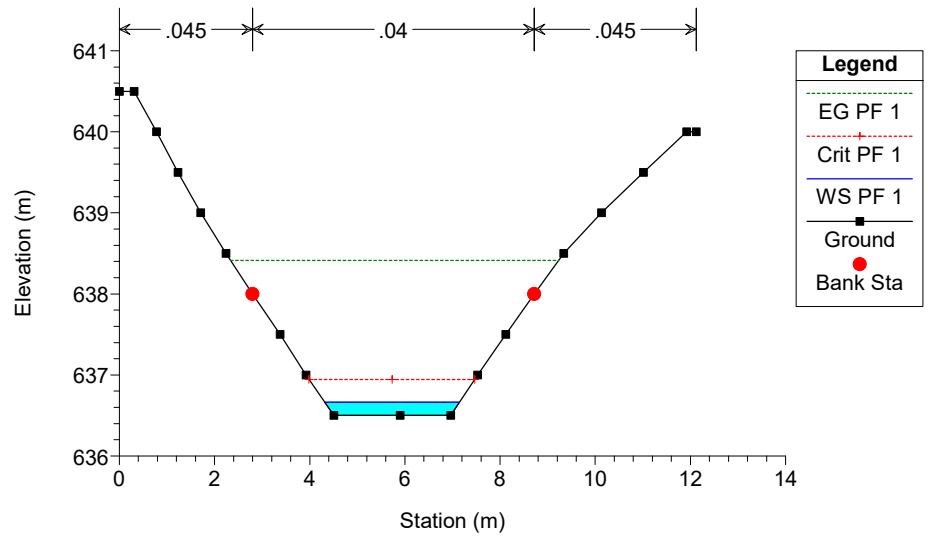




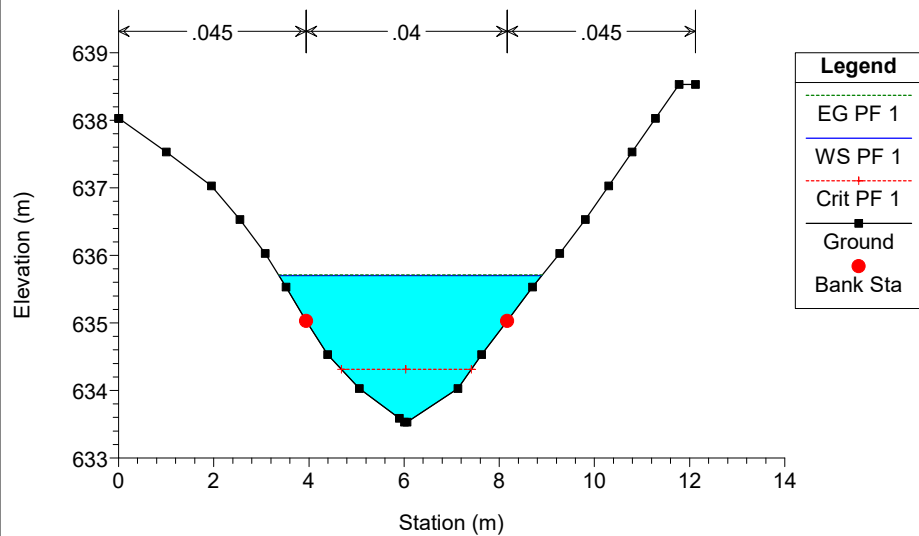
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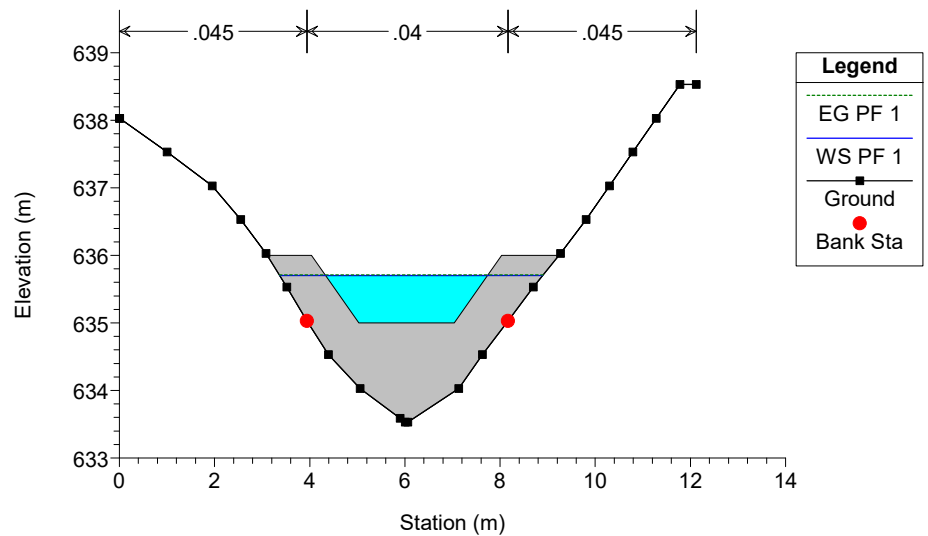
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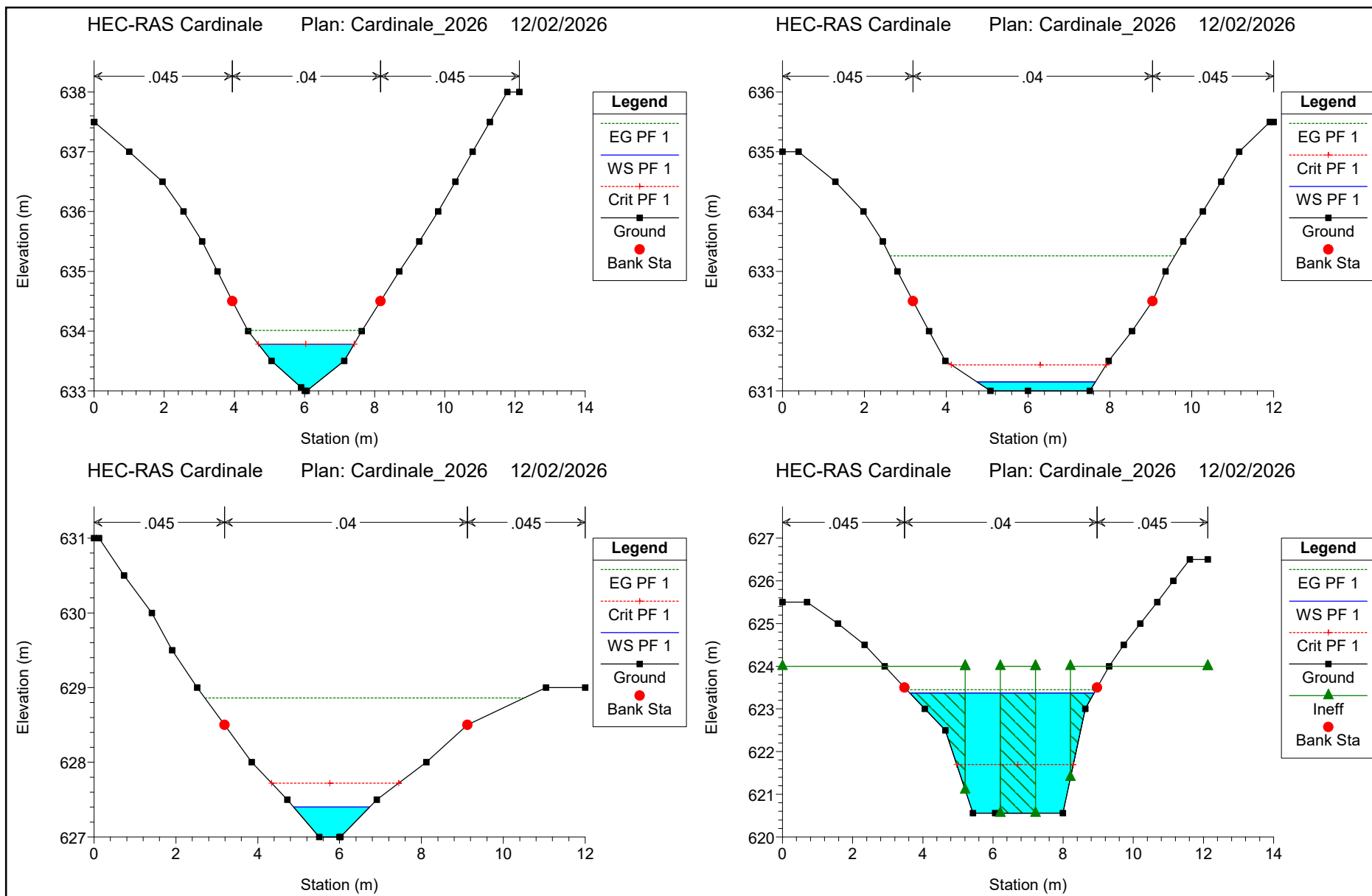


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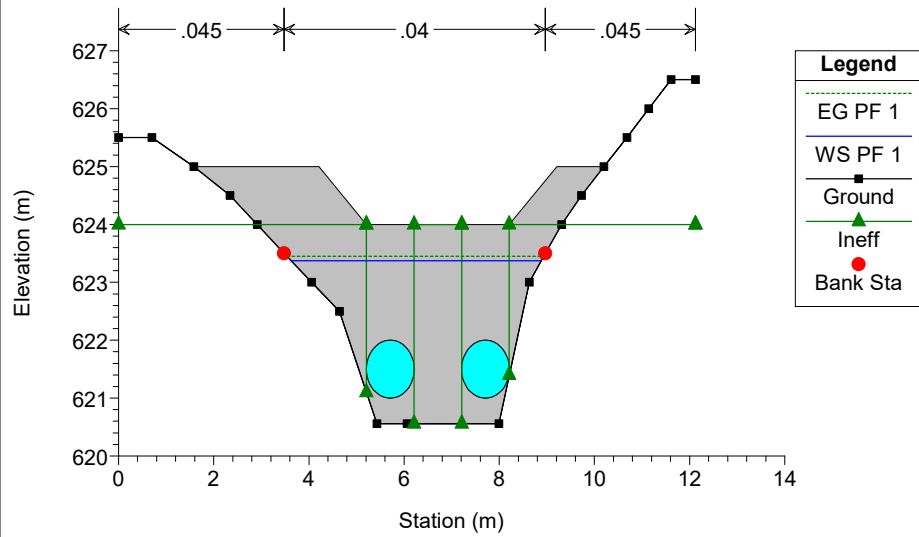


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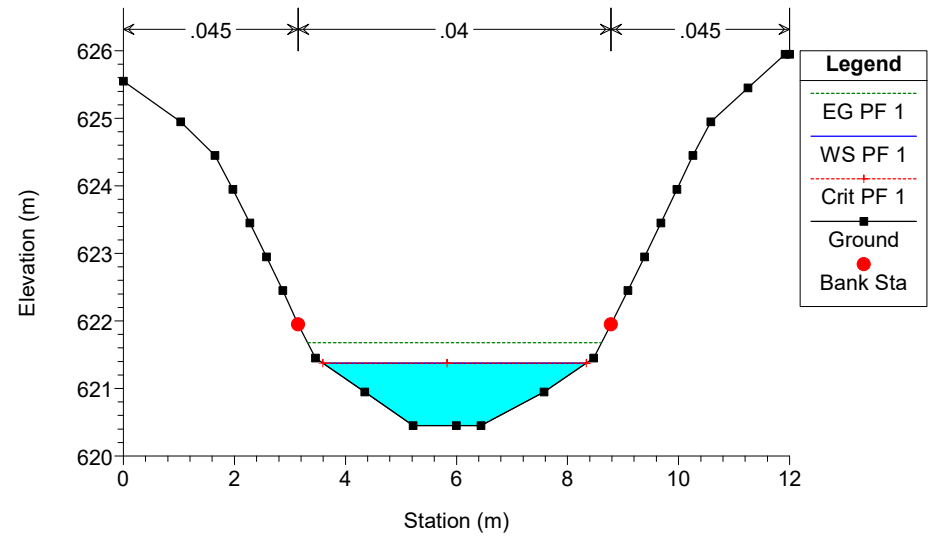




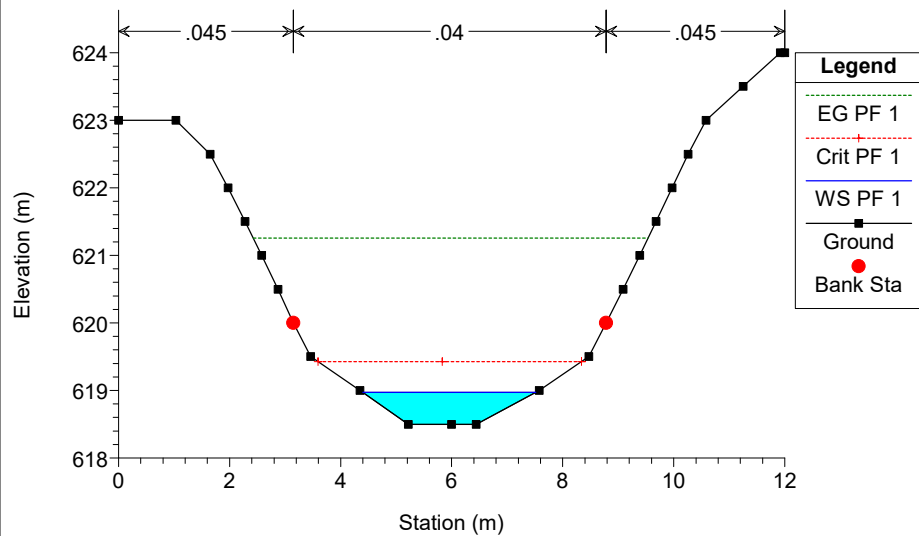
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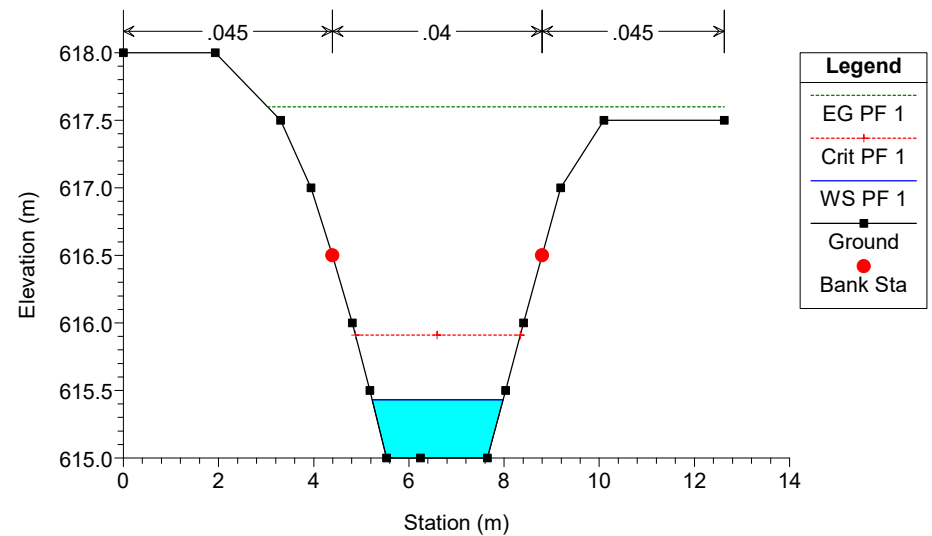
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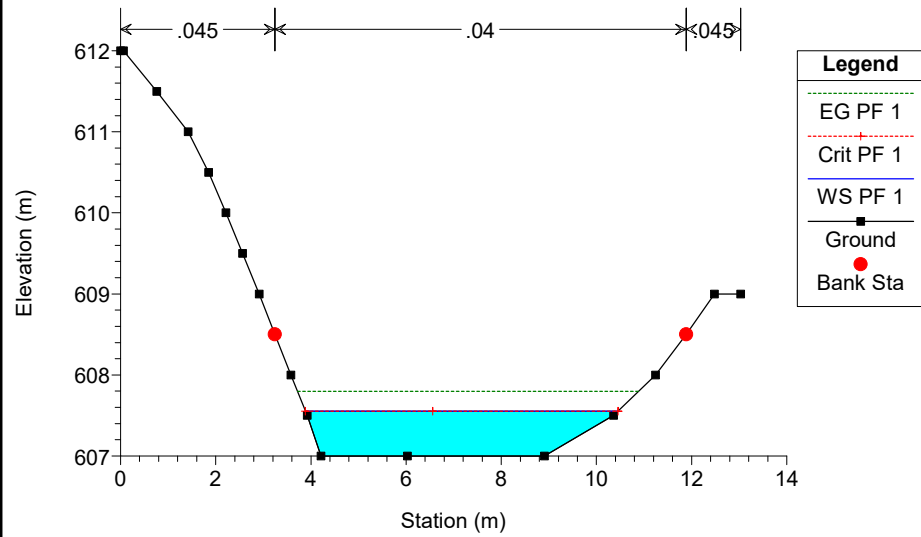
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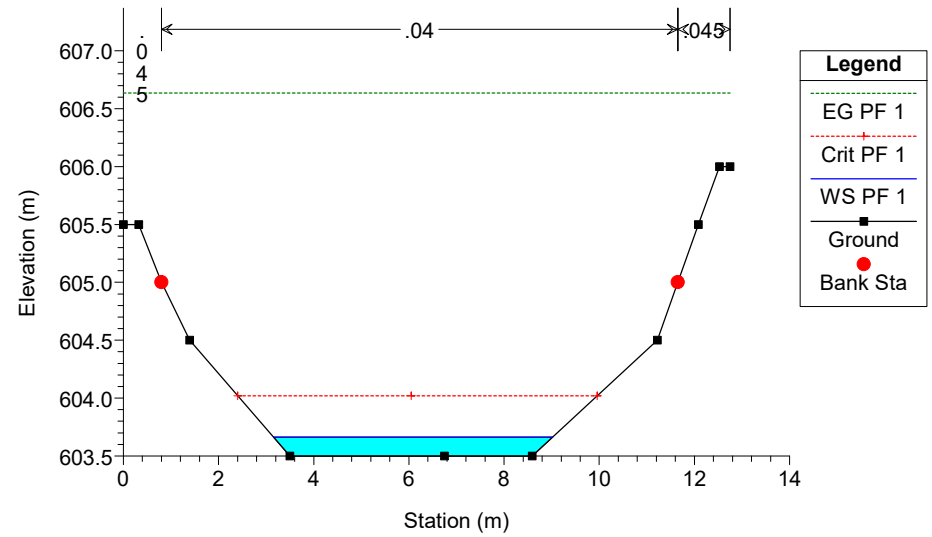
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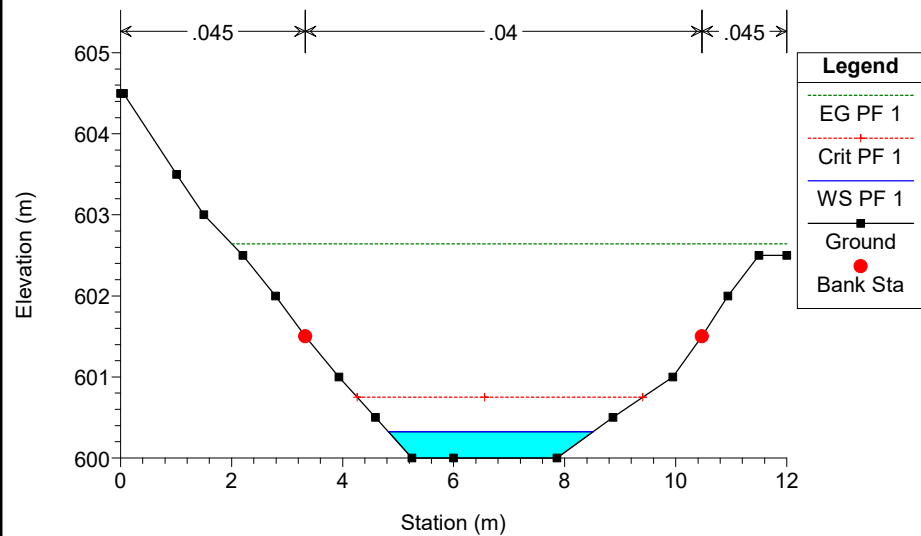
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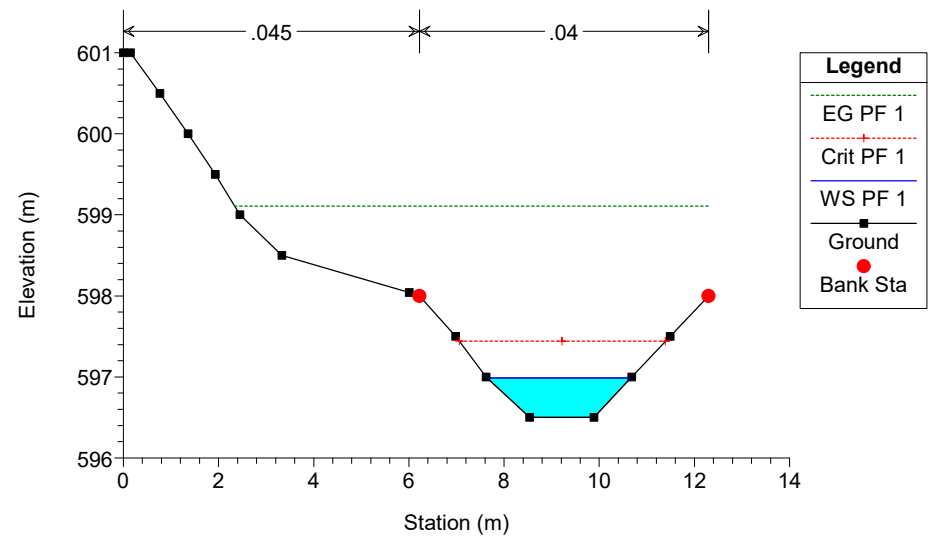
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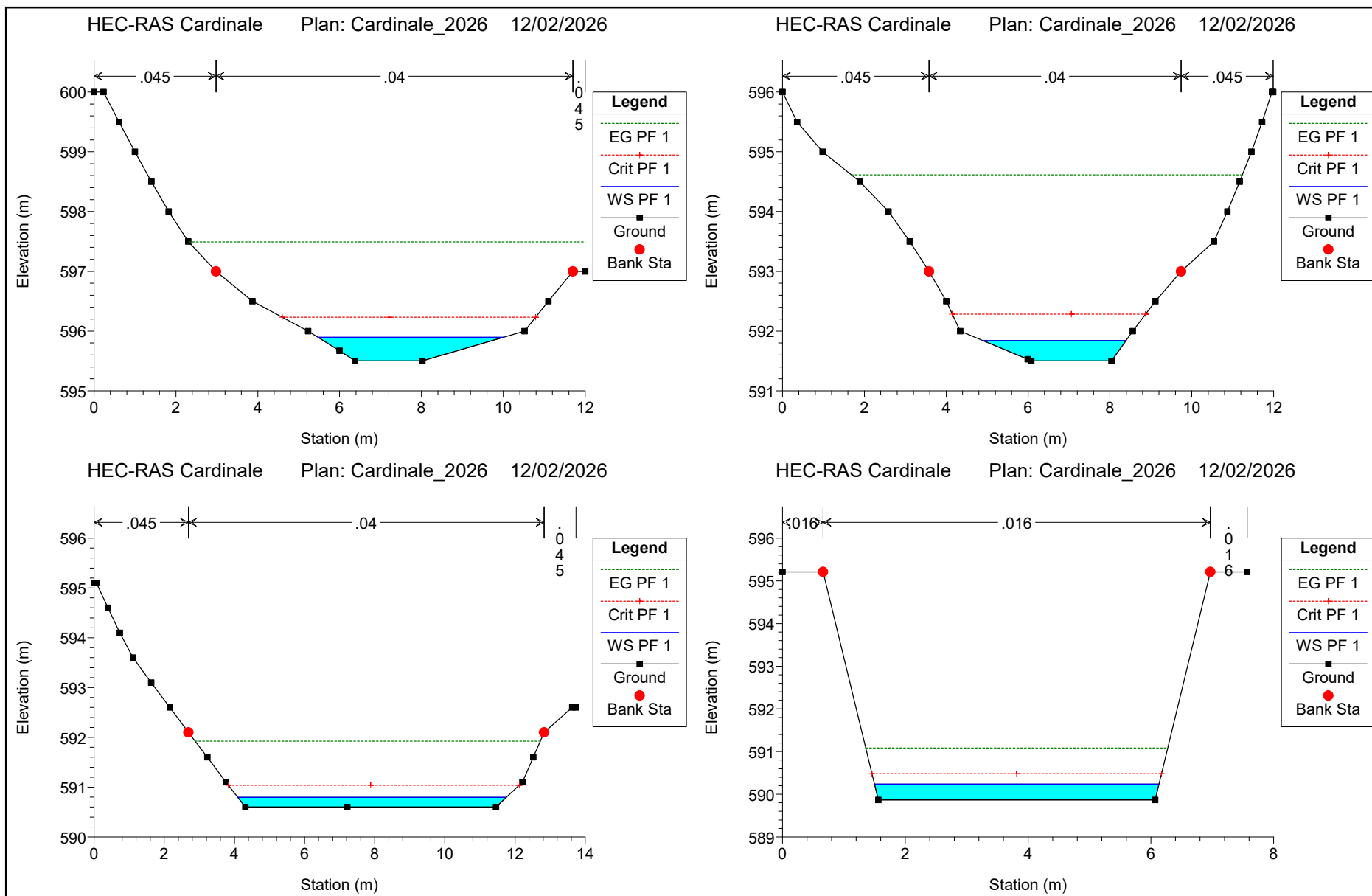


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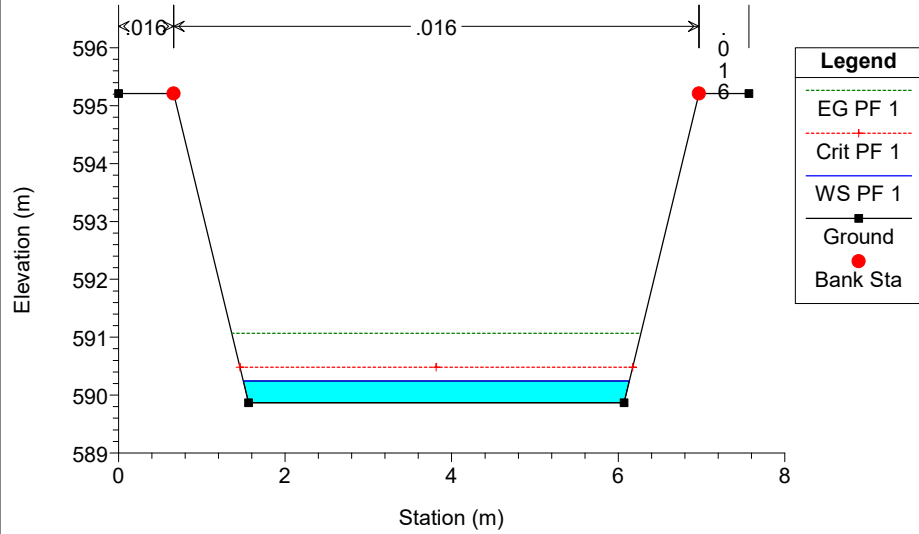


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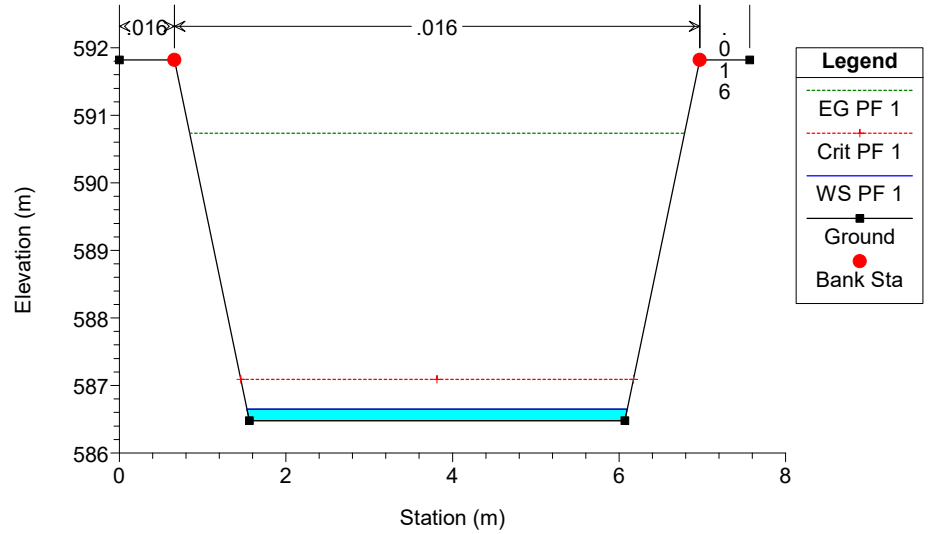




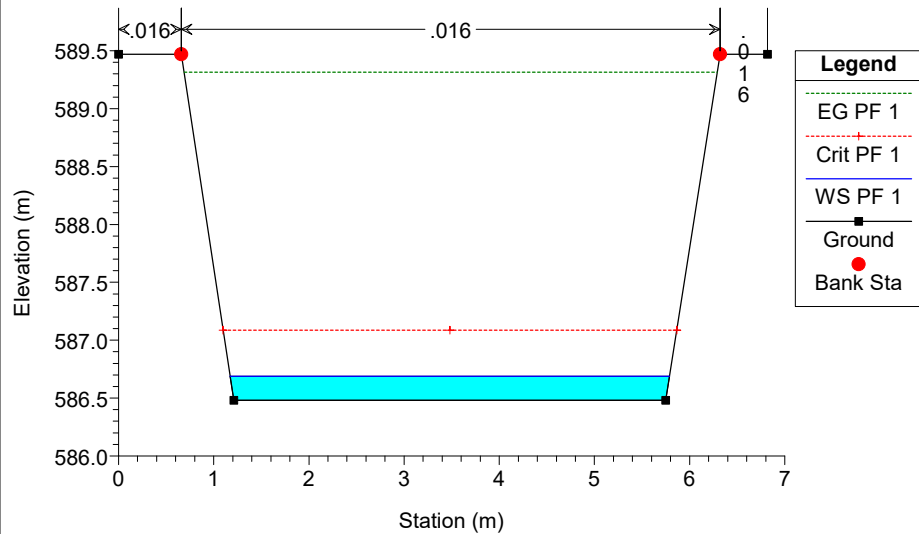
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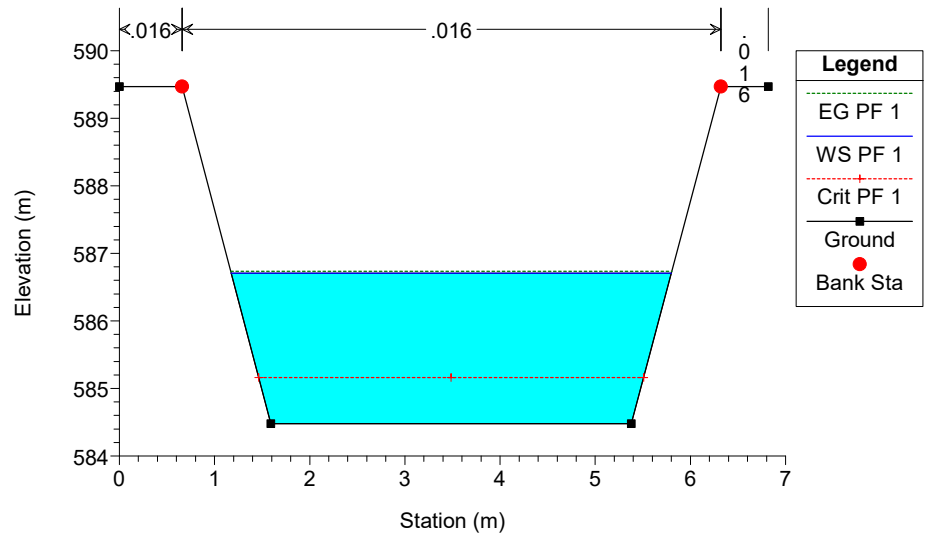
HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



HEC-RAS Cardinale Plan: Cardinale_2026 12/02/2026



ALLEGATO 2: SIMULAZIONE HEC RAS
OPERE IN PROGETTO CON EFFLUSSO RIGURGITATO NELLA FIUMARA ANCINALE

HEC-RAS Plan: 02 Profile: PF 1

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Marchese	2	39	PF 1	2.34	682.00	682.20	682.41	683.16	0.324634	4.33	0.54	3.13	3.33
Marchese	2	38	PF 1	2.34	679.50	679.64	679.81	680.41	0.373896	3.89	0.60	4.64	3.45
Marchese	2	37	PF 1	2.34	677.00	677.13	677.23	677.48	0.187929	2.63	0.89	7.37	2.42
Marchese	2	36	PF 1	2.34	675.00	675.23	675.39	675.85	0.217837	3.47	0.67	4.10	2.74
Marchese	2	35.5	PF 1	2.34	672.49	674.67	673.28	674.68	0.000061	0.23	11.38	11.83	0.06
Marchese	2	35.1		Inl Struct									
Marchese	2	35	PF 1	2.34	672.00	672.79	672.79	672.98	0.026419	1.94	1.20	3.20	1.01
Marchese	2	34	PF 1	2.34	667.00	667.10	667.41	671.02	2.922094	8.77	0.27	2.82	9.10
Marchese	2	33	PF 1	2.34	660.50	660.69	660.84	661.26	0.191134	3.34	0.70	4.00	2.55
Marchese	2	32.5	PF 1	2.34	657.60	659.68	658.06	659.68	0.000043	0.21	11.69	8.76	0.05
Marchese	2	32.1		Inl Struct									
Marchese	2	32	PF 1	2.34	657.00	657.46	657.46	657.62	0.024563	1.80	1.30	3.99	1.01
Marchese	2	31	PF 1	2.34	653.00	653.33	653.69	656.68	1.214698	8.11	0.29	1.68	6.24
Marchese	2	30.5	PF 1	2.34	650.50	652.67	651.08	652.68	0.000059	0.24	10.19	7.90	0.06
Marchese	2	30.1		Inl Struct									
Marchese	2	30	PF 1	2.34	650.00	650.58	650.58	650.77	0.024684	1.90	1.23	3.40	1.01
Marchese	2	29	PF 1	2.34	646.00	646.23	646.61	649.82	1.347345	8.39	0.28	1.68	6.58
Marchese	2	28.5	PF 1	2.34	642.64	644.68	643.02	644.68	0.000026	0.17	14.30	9.96	0.04
Marchese	2	28.1		Inl Struct									
Marchese	2	28	PF 1	2.34	642.00	642.38	642.38	642.52	0.024660	1.67	1.41	4.97	1.00
Marchese	2	27	PF 1	2.34	640.50	640.65	640.84	641.74	0.606713	4.64	0.50	4.31	4.33
Marchese	2	26	PF 1	2.34	638.00	638.36	638.51	638.90	0.164139	3.24	0.72	3.92	2.41
Marchese	2	25	PF 1	2.34	636.50	636.66	636.86	637.54	0.356995	4.15	0.56	3.78	3.43
Marchese	2	24	PF 1	2.34	633.50	633.63	633.80	634.44	0.422825	3.97	0.59	4.82	3.63
Marchese	2	23	PF 1	2.34	630.50	630.64	630.78	631.19	0.256158	3.27	0.72	5.41	2.87
Marchese	2	22.5	PF 1	2.34	627.40	629.67	627.81	629.68	0.000021	0.16	15.24	9.86	0.04
Marchese	2	22.1		Inl Struct									
Marchese	2	22	PF 1	2.34	627.00	627.41	627.41	627.56	0.024986	1.73	1.35	4.53	1.01
Marchese	2	21	PF 1	2.34	625.00	625.13	625.38	627.06	1.072091	6.15	0.38	3.23	5.72
Marchese	1	33	PF 1	2.55	687.00	687.19	687.51	689.72	1.000164	7.04	0.36	2.34	5.71
Marchese	1	32	PF 1	2.55	683.00	683.20	683.52	685.70	1.003083	6.99	0.36	2.39	5.72
Marchese	1	31.5	PF 1	2.55	681.73	683.70	682.43	683.71	0.000173	0.36	7.16	5.98	0.10
Marchese	1	31.1		Inl Struct									
Marchese	1	31	PF 1	2.55	681.00	681.70	681.70	681.90	0.024936	2.02	1.26	3.11	1.01
Marchese	1	30	PF 1	2.55	676.00	676.15	676.54	680.50	2.114403	9.24	0.28	2.04	8.03
Marchese	1	29.5	PF 1	2.55	675.13	676.70	675.86	676.72	0.000830	0.61	4.15	4.14	0.19
Marchese	1	29.1		Inl Struct									
Marchese	1	29	PF 1	2.55	674.00	674.73	674.73	674.95	0.025616	2.08	1.22	2.83	1.01

HEC-RAS Plan: 02 Profile: PF 1 (Continued)

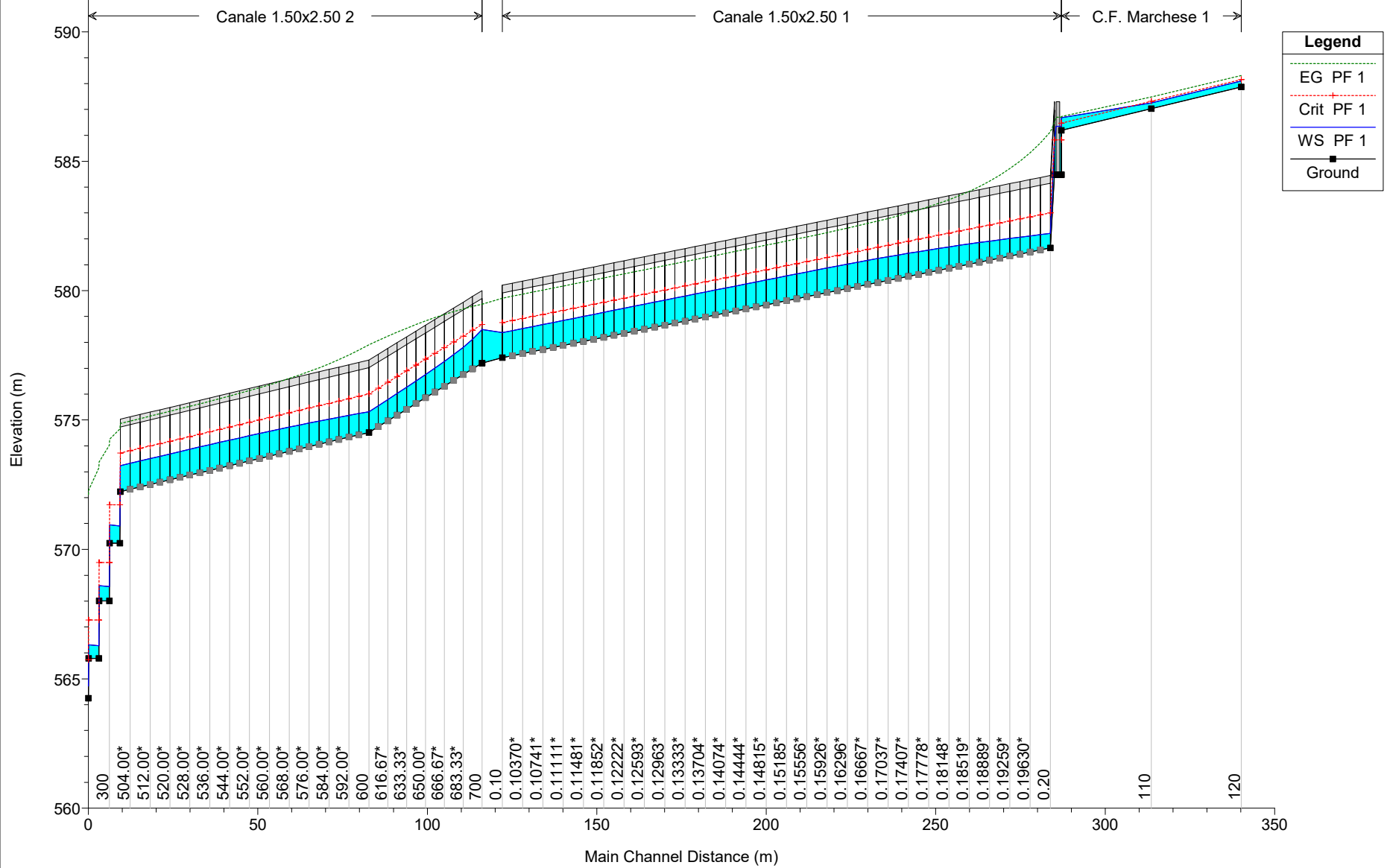
River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Marchese	1	28	PF 1	2.55	670.00	670.22	670.52	673.71	1.790620	8.27	0.31	2.46	7.46
Marchese	1	27.5	PF 1	2.55	667.55	669.71	668.23	669.71	0.000109	0.31	8.63	6.97	0.08
Marchese	1	27.1		Inl Struct									
Marchese	1	27	PF 1	2.55	667.00	667.68	667.68	667.90	0.024906	2.06	1.24	2.91	1.01
Marchese	1	26	PF 1	2.55	663.50	663.73	664.12	666.93	1.063622	7.92	0.32	1.74	5.89
Marchese	1	25.5	PF 1	2.55	660.61	662.70	661.37	662.71	0.000257	0.50	5.08	5.41	0.12
Marchese	1	25.1		Inl Struct									
Marchese	1	25	PF 1	2.55	660.00	660.76	660.76	660.99	0.025985	2.12	1.20	2.67	1.01
Marchese	1	24	PF 1	2.55	658.00	658.25	658.59	660.35	0.633995	6.41	0.40	2.03	4.63
Marchese	1	23.5	PF 1	2.55	655.95	658.21	656.32	658.21	0.000041	0.21	12.59	7.36	0.05
Marchese	1	23.1		Inl Struct									
Marchese	1	23	PF 1	2.55	655.50	655.87	655.87	656.03	0.024854	1.81	1.41	4.29	1.00
Marchese	1	22	PF 1	2.55	654.00	654.17	654.44	655.79	0.648090	5.64	0.45	2.92	4.58
Marchese	1	21.5	PF 1	2.55	651.78	653.71	652.35	653.71	0.000145	0.34	7.62	5.78	0.09
Marchese	1	21.1		Inl Struct									
Marchese	1	21	PF 1	2.55	651.00	651.57	651.57	651.76	0.024503	1.94	1.31	3.48	1.01
Marchese	1	20	PF 1	2.55	648.50	648.87	649.28	651.28	0.588842	6.87	0.37	1.46	4.35
Marchese	1	19.5	PF 1	2.55	646.75	648.70	647.59	648.71	0.000477	0.54	4.90	4.53	0.15
Marchese	1	19.1		Inl Struct									
Marchese	1	19	PF 1	2.55	646.00	646.84	646.84	647.10	0.028211	2.24	1.14	2.24	1.01
Marchese	1	18	PF 1	2.55	645.00	645.13	645.36	646.67	0.820337	5.49	0.46	3.77	5.00
Marchese	1	17.5	PF 1	2.55	642.54	644.71	643.14	644.71	0.000044	0.21	12.55	9.81	0.05
Marchese	1	17.1		Inl Struct									
Marchese	1	17	PF 1	2.55	642.00	642.60	642.60	642.77	0.024822	1.81	1.41	4.37	1.01
Marchese	1	16	PF 1	2.55	640.00	640.23	640.55	642.31	0.691547	6.38	0.40	2.25	4.84
Marchese	1	15.5	PF 1	2.55	638.67	640.71	639.27	640.71	0.000083	0.27	9.64	7.68	0.07
Marchese	1	15.1		Inl Struct									
Marchese	1	15	PF 1	2.55	638.00	638.60	638.60	638.78	0.024170	1.89	1.35	3.74	1.01
Marchese	1	14	PF 1	2.55	636.50	636.66	636.94	638.41	0.705479	5.86	0.44	2.83	4.77
Marchese	1	13.5	PF 1	2.55	633.53	635.70	634.31	635.71	0.000173	0.38	7.00	5.53	0.10
Marchese	1	13.1		Inl Struct									
Marchese	1	13	PF 1	2.55	633.00	633.78	633.78	634.01	0.025795	2.11	1.21	2.73	1.01
Marchese	1	12	PF 1	2.55	631.00	631.15	631.44	633.26	0.980312	6.43	0.40	2.89	5.55
Marchese	1	11	PF 1	2.55	627.00	627.40	627.72	628.86	0.326639	5.35	0.48	1.86	3.37
Marchese	3	10	PF 1	6.84	620.56	623.37	621.70	623.45	0.001129	1.25	5.47	5.25	0.24
Marchese	3	9.6		Inl Struct									
Marchese	3	9.5	PF 1	6.84	620.45	621.38	621.38	621.68	0.021480	2.43	2.81	4.75	1.01
Marchese	3	9	PF 1	6.84	618.50	618.97	619.43	621.26	0.347833	6.69	1.02	3.11	3.73

HEC-RAS Plan: 02 Profile: PF 1 (Continued)

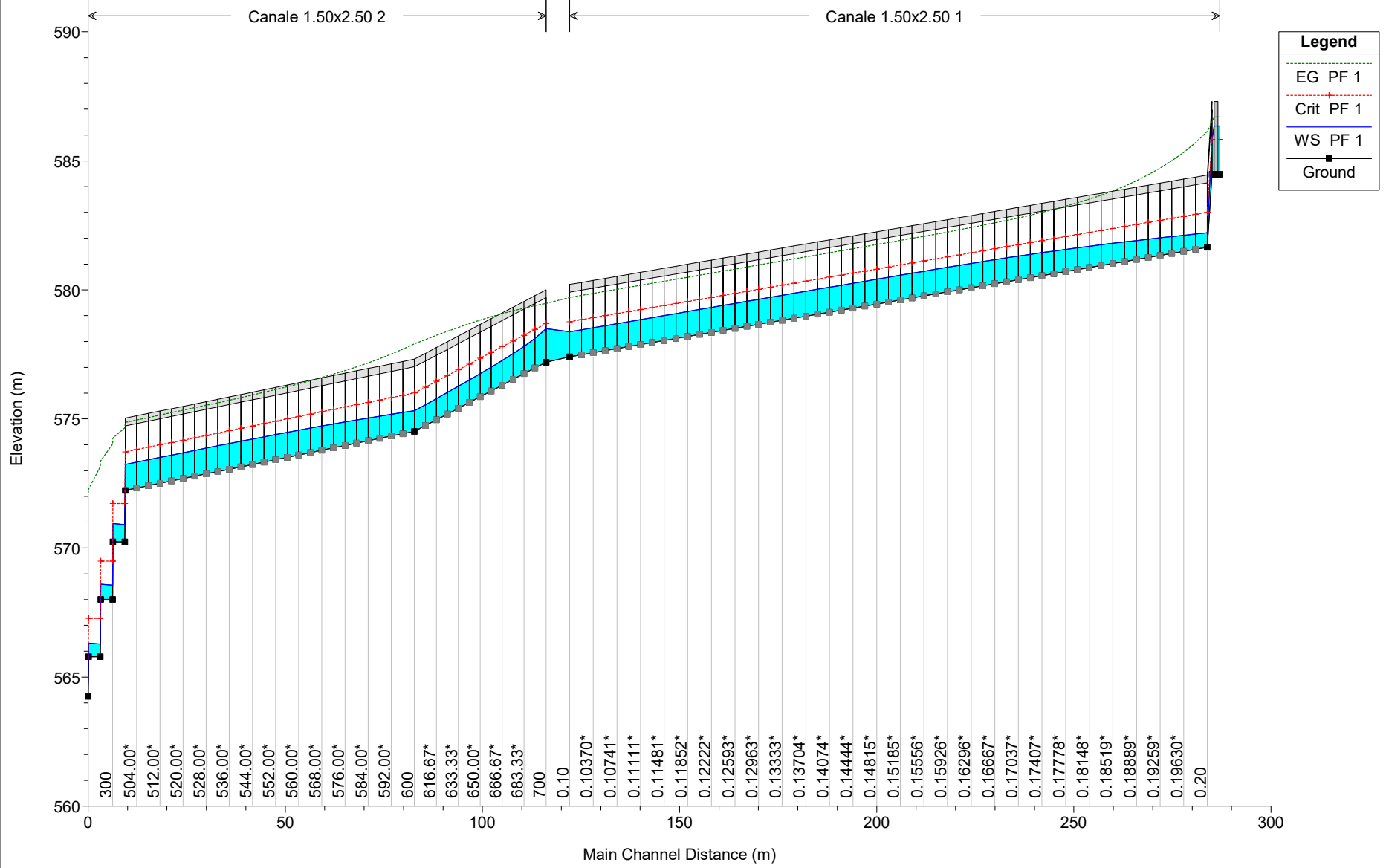
River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Marchese	3	8	PF 1	6.84	615.00	615.43	615.91	617.60	0.299423	6.52	1.05	2.75	3.37
Marchese	3	7	PF 1	6.84	607.00	607.55	607.55	607.80	0.022052	2.18	3.14	6.57	1.01
Marchese	3	6	PF 1	6.84	603.50	603.66	604.02	606.63	1.158634	7.63	0.90	5.87	6.24
Marchese	3	5	PF 1	6.84	600.00	600.32	600.75	602.64	0.433671	6.74	1.01	3.69	4.10
Marchese	3	4	PF 1	6.84	596.50	596.99	597.44	599.11	0.299986	6.45	1.06	3.01	3.47
Marchese	3	3	PF 1	6.84	595.50	595.90	596.23	597.49	0.297514	5.59	1.22	4.53	3.44
Marchese	3	2	PF 1	6.84	591.50	591.84	592.28	594.61	0.547178	7.38	0.93	3.50	4.57
Marchese	3	1	PF 1	6.84	590.60	590.80	591.04	591.92	0.330840	4.70	1.46	7.66	3.44
Marchese	3	0.9	PF 1	6.84	589.87	590.24	590.48	591.08	0.019420	4.07	1.68	4.63	2.16
Marchese	3	0.8	PF 1	6.84	589.87	590.24	590.48	591.07	0.018740	4.03	1.70	4.64	2.12
Marchese	3	0.7	PF 1	6.84	586.48	586.65	587.09	590.73	0.241182	8.95	0.76	4.57	6.99
Marchese	3	0.6	PF 1	6.84	586.48	586.69	587.09	589.31	0.118968	7.18	0.95	4.62	5.04
Marchese	3	0.5	PF 1	6.84	584.48	586.71	585.16	586.73	0.000117	0.73	9.36	4.62	0.16
Giacco	1	16	PF 1	9.64	592.00	592.71	593.22	594.70	0.190330	6.25	1.54	2.93	2.75
Giacco	1	15	PF 1	9.64	590.00	590.55	591.04	592.56	0.217352	6.28	1.53	3.43	3.00
Giacco	1	14	PF 1	9.64	588.00	588.41	588.82	590.27	0.271506	6.05	1.59	4.88	3.38
Giacco	1	13	PF 1	9.64	587.50	587.76	587.92	588.29	0.109706	3.24	2.97	11.98	2.08
Giacco	1	12	PF 1	9.64	585.00	585.37	585.62	586.31	0.162302	4.28	2.25	8.05	2.58
Giacco	1	11	PF 1	9.64	582.00	582.90	583.33	584.21	0.075636	5.21	2.04	3.70	1.86
Giacco	1	10	PF 1	9.64	577.50	577.86	578.41	581.10	0.504749	7.97	1.21	3.74	4.47
Giacco	1	9	PF 1	9.64	575.50	576.05	576.38	577.24	0.138381	4.83	1.99	5.09	2.47
Giacco	1	8	PF 1	9.64	574.50	574.92	575.20	575.88	0.119627	4.33	2.23	6.08	2.28
Giacco	1	7	PF 1	9.64	572.50	573.09	573.48	574.45	0.136592	5.16	1.90	5.07	2.50
Giacco	1	6	PF 1	9.64	570.49	571.02	571.52	573.13	0.236893	6.43	1.50	3.56	3.17
Giacco	1	5.96	PF 1	9.64	567.65	568.05	568.74	572.83	0.706630	9.68	1.00	2.82	5.20
Giacco	1	5.95	PF 1	9.64	567.65	568.12	568.74	571.52	0.430874	8.17	1.18	2.92	4.11
Giacco	1	5.91	PF 1	9.64	566.30	569.56	567.39	569.58	0.000236	0.65	17.20	9.24	0.12
Giacco	1	5.9	PF 1	9.64	566.30	569.56	567.39	569.58	0.000236	0.65	17.19	9.24	0.12
Giacco	1	5.1		Culvert									
Giacco	1	5	PF 1	9.64	565.50	566.30	566.59	567.24	0.068802	4.30	2.24	3.47	1.71
Giacco	2	3	PF 1	18.09	564.00	564.44	565.13	570.93	1.149808	11.28	1.60	5.60	6.73
Giacco	2	2	PF 1	18.09	564.00	564.47	564.84	566.20	0.281110	5.83	3.10	10.55	3.43
Giacco	2	1	PF 1	18.09	563.00	564.09	564.46	565.32	0.083731	5.59	4.16	9.31	1.88
Giacco	3	5070	PF 1	18.56	560.15	560.69	561.51	565.01	0.426520	9.20	2.02	3.77	4.02
Giacco	3	5067		Bridge									
Giacco	3	5065	PF 1	18.56	559.45	560.21	560.89	562.84	0.121927	7.19	2.58	3.59	2.71
Giacco	3	5060	PF 1	18.56	558.46	559.04	559.81	562.72	0.219065	8.50	2.18	3.77	3.57
Giacco	3	5050	PF 1	18.56	557.94	558.44	559.19	562.31	0.258198	8.71	2.13	4.25	3.93

HEC-RAS Plan: 02 Profile: PF 1 (Continued)

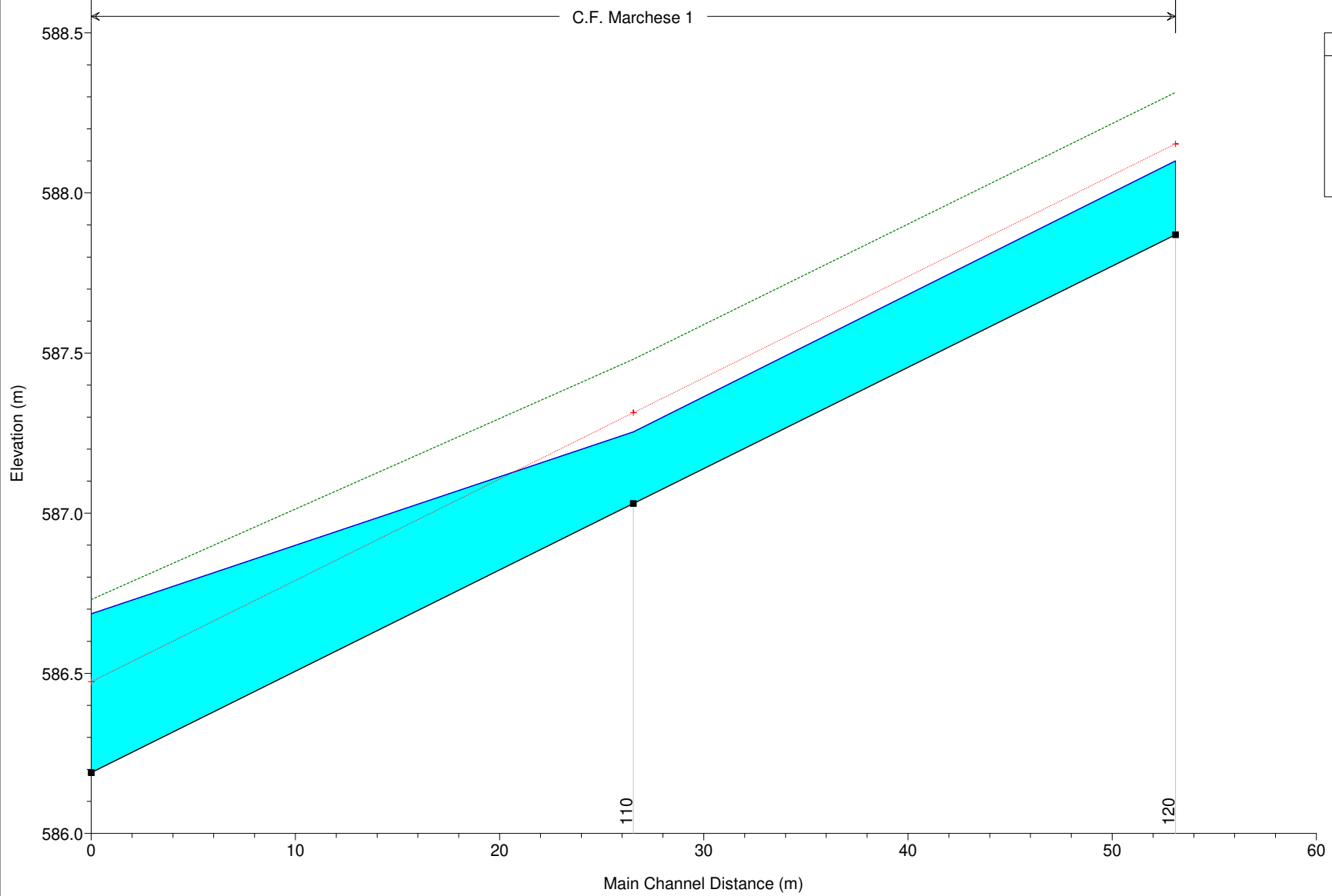
River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giacco	3	5040	PF 1	18.56	557.08	557.61	558.40	561.78	0.261093	9.04	2.05	3.98	4.02
Giacco	3	5035		Bridge									
Giacco	3	5030	PF 1	18.56	556.83	557.60	558.12	559.47	0.077910	6.05	3.07	4.52	2.35
Giacco	3	5020	PF 1	18.56	556.36	557.16	557.73	559.29	0.090166	6.45	2.88	4.38	2.54
Giacco	3	5010	PF 1	18.56	555.54	556.33	556.99	559.03	0.121787	7.28	2.55	4.03	2.92
Giacco	3	5005	PF 1	18.56	555.24	556.04	556.73	558.81	0.124369	7.36	2.52	3.95	2.94
Giacco	3	5002		Bridge									
Giacco	3	5000	PF 1	18.56	554.87	557.17	555.83	557.23	0.000691	1.09	17.82	13.46	0.25
Canale G.C.	2	620	PF 1	1.13	588.03	588.26	588.39	588.71	0.052042	2.96	0.38	1.68	1.98
Canale G.C.	2	610	PF 1	1.13	587.40	587.69	587.82	588.13	0.044509	2.94	0.38	1.62	1.93
Canale G.C.	2	600	PF 1	1.13	587.21	587.48	587.64	588.01	0.056123	3.21	0.35	1.54	2.15
Canale G.C.	2	590	PF 1	1.13	586.90	587.15	587.34	587.83	0.080527	3.67	0.31	1.43	2.53
Canale G.C.	2	580	PF 1	1.13	582.60	582.88	583.02	583.34	0.046084	2.98	0.38	1.62	1.97
Canale G.C.	2	570	PF 1	1.13	582.39	582.81	582.81	582.98	0.011320	1.81	0.62	1.90	1.01
Canale G.C.	2	560	PF 1	1.13	579.23	579.36	579.65	582.26	0.708724	7.55	0.15	1.30	7.12
Canale G.C.	2	550	PF 1	1.13	577.44	577.63	577.86	578.76	0.173615	4.71	0.24	1.44	3.68
Canale G.C.	1	520	PF 1	0.47	573.65	573.87	573.90	574.02	0.020025	1.71	0.28	1.48	1.26
Canale G.C.	1	510	PF 1	0.47	570.67	570.75	570.92	572.30	0.697000	5.53	0.09	1.20	6.63
Canale G.C.	1	505	PF 1	0.47	568.00	568.12	568.25	568.69	0.149293	3.35	0.14	1.29	3.25
Canale G.C.	1	500	PF 1	0.47	563.12	563.21	563.37	564.26	0.375494	4.53	0.10	1.23	4.98
Canale 1.50x2.50	1	0.4	PF 1	7.32	584.48	586.35	585.83	586.70	0.000752	2.60	2.81	4.61	0.61
Canale 1.50x2.50	1	0.35		Inl Struct									
Canale 1.50x2.50	1	0.3	PF 1	7.32	584.48	585.82	585.82	586.50	0.011359	3.64	2.01	1.50	1.00
Canale 1.50x2.50	1	0.20	PF 1	7.32	581.65	582.21	583.01	586.14	0.113930	8.78	0.83	1.48	3.74
Canale 1.50x2.50	1	0.10	PF 1	7.32	577.41	578.38	578.77	579.71	0.026853	5.11	1.43	1.49	1.66
Canale 1.50x2.50	2	700	PF 1	8.45	577.20	578.50	578.69	579.48	0.016873	4.38	1.93	1.49	1.23
Canale 1.50x2.50	2	600	PF 1	8.45	574.52	575.32	576.01	577.91	0.058735	7.13	1.19	1.49	2.55
Canale 1.50x2.50	2	500	PF 1	8.45	572.23	573.24	573.72	574.87	0.032190	5.66	1.49	1.49	1.80
Canale 1.50x2.50	2	400	PF 1	8.45	570.24	570.90	571.73	574.65	0.096231	8.57	0.99	1.49	3.36
Canale 1.50x2.50	2	350	PF 1	8.45	570.24	570.95	571.73	574.26	0.081361	8.05	1.05	1.49	3.06
Canale 1.50x2.50	2	300	PF 1	8.45	568.01	568.56	569.50	574.03	0.161312	10.36	0.82	1.48	4.46
Canale 1.50x2.50	2	250	PF 1	8.45	568.01	568.60	569.50	573.38	0.134236	9.69	0.87	1.48	4.04
Canale 1.50x2.50	2	200	PF 1	8.45	565.79	566.28	567.28	573.16	0.221934	11.61	0.73	1.48	5.30
Canale 1.50x2.50	2	150	PF 1	8.45	565.79	566.32	567.28	572.28	0.182022	10.82	0.78	1.48	4.76
Canale 1.50x2.50	2	100	PF 1	8.45	564.25	564.72	565.74	572.12	0.245807	12.04	0.70	1.48	5.59
C.F. Marchese	1	120	PF 1	0.48	587.87	588.10	588.15	588.31	0.030019	2.05	0.23	1.04	1.37
C.F. Marchese	1	110	PF 1	0.48	587.03	587.25	587.31	587.48	0.032769	2.11	0.23	1.03	1.44
C.F. Marchese	1	100	PF 1	0.48	586.19	586.69	586.47	586.73	0.003312	0.93	0.51	1.08	0.43



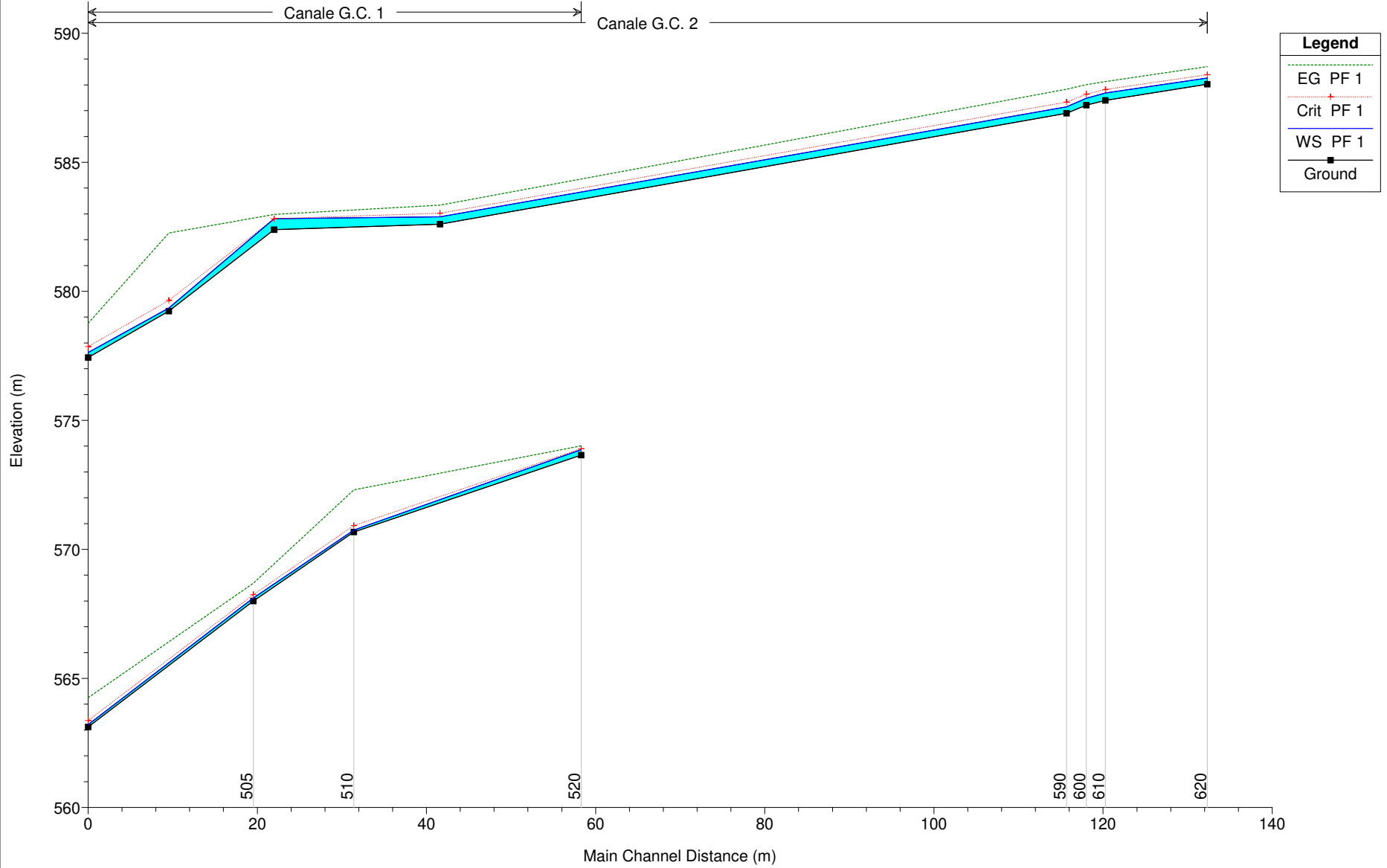
HEC-RAS Cardinale Plan: Cardinale_2026_ER 12/02/2026

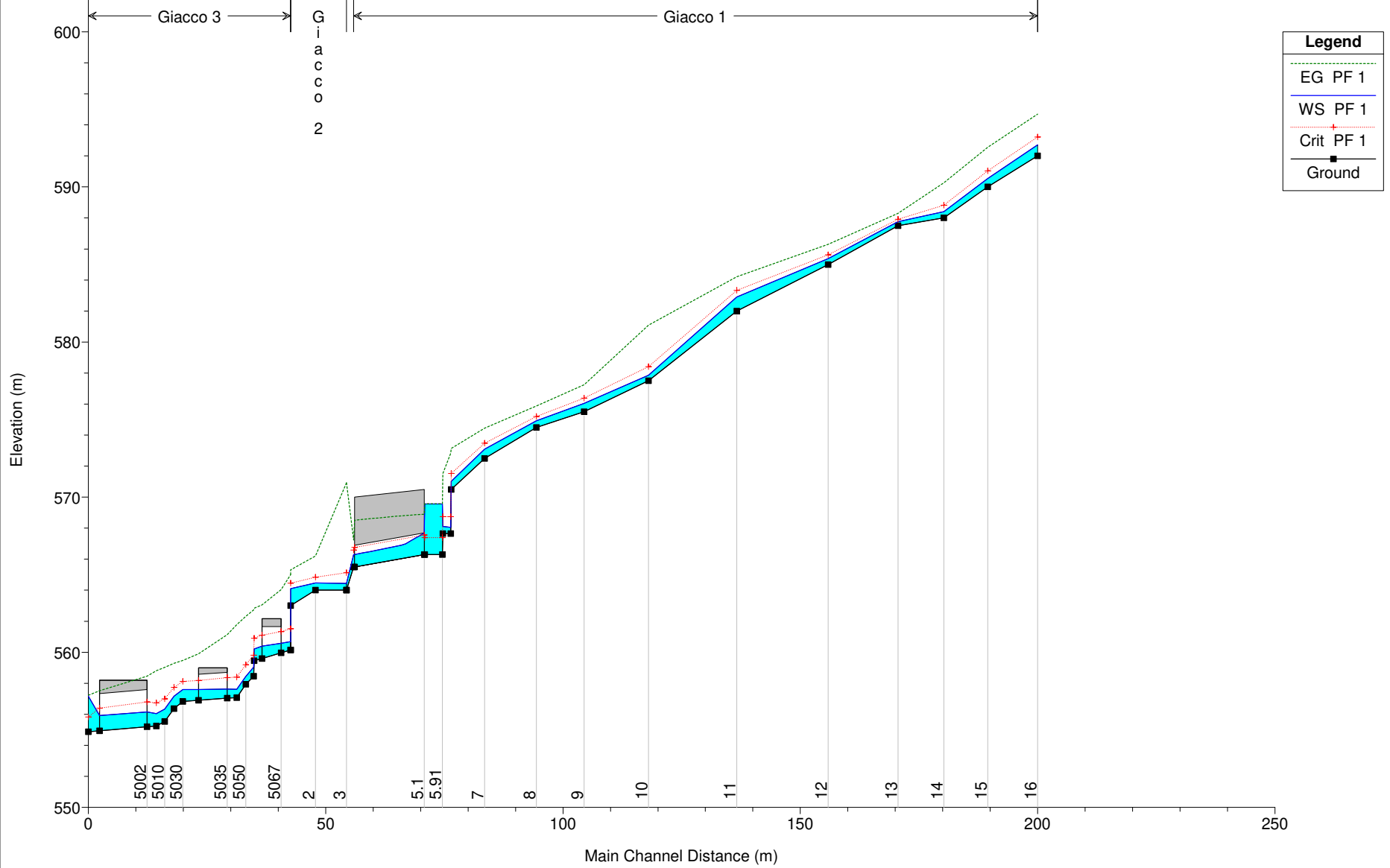


C.F. Marchese 1



Legend	
EG PF 1	
WS PF 1	
Crit PF 1	
Ground	





Plan: 02 C.F. Marchese 1 RS: 120 Profile: PF 1

E.G. Elev (m)	588.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.025	
W.S. Elev (m)	588.10	Reach Len. (m)	26.55	26.55	26.55
Crit W.S. (m)	588.15	Flow Area (m2)		0.23	
E.G. Slope (m/m)	0.030019	Area (m2)		0.23	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.04	Top Width (m)		1.04	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)		2.05	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	26.55	Wetted Per. (m)		1.46	
Min Ch EI (m)	587.87	Shear (N/m2)		47.22	
Alpha	1.00	Stream Power (N/m s)		96.62	
Frctn Loss (m)	0.83	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.06	

Plan: 02 C.F. Marchese 1 RS: 110 Profile: PF 1

E.G. Elev (m)	587.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.025	
W.S. Elev (m)	587.25	Reach Len. (m)	26.55	26.55	26.55
Crit W.S. (m)	587.31	Flow Area (m2)		0.23	
E.G. Slope (m/m)	0.032769	Area (m2)		0.23	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)		2.11	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	26.55	Wetted Per. (m)		1.45	
Min Ch EI (m)	587.03	Shear (N/m2)		50.49	
Alpha	1.00	Stream Power (N/m s)		106.45	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.03	

Plan: 02 C.F. Marchese 1 RS: 100 Profile: PF 1

E.G. Elev (m)	586.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.025	
W.S. Elev (m)	586.69	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	586.47	Flow Area (m2)		0.51	
E.G. Slope (m/m)	0.003312	Area (m2)		0.51	
Q Total (m3/s)	0.48	Flow (m3/s)		0.48	
Top Width (m)	1.08	Top Width (m)		1.08	
Vel Total (m/s)	0.93	Avg. Vel. (m/s)		0.93	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	8.3	Conv. (m3/s)		8.3	
Length Wtd. (m)	0.00	Wetted Per. (m)		1.99	
Min Ch EI (m)	586.19	Shear (N/m2)		8.38	
Alpha	1.00	Stream Power (N/m s)		7.82	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: 02 Canale 1.50x2.50 1 RS: 0.4 Profile: PF 1

E.G. Elev (m)	586.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.016	
W.S. Elev (m)	586.35	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	585.83	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.000752	Area (m2)		7.90	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	

Plan: 02 Canale 1.50x2.50 1 RS: 0.4 Profile: PF 1 (Continued)

Top Width (m)	4.61	Top Width (m)		4.61	
Vel Total (m/s)	2.60	Avg. Vel. (m/s)		2.60	
Max Chl Dpth (m)	1.87	Hydr. Depth (m)		1.87	
Conv. Total (m3/s)	267.0	Conv. (m3/s)		267.0	
Length Wtd. (m)	2.00	Wetted Per. (m)		1.50	
Min Ch EI (m)	584.48	Shear (N/m2)		13.81	
Alpha	1.00	Stream Power (N/m s)		35.97	
Frctn Loss (m)		Cum Volume (1000 m3)		0.23	
C & E Loss (m)		Cum SA (1000 m2)		0.25	

Plan: 02 Canale 1.50x2.50 1 RS: 0.3 Profile: PF 1

E.G. Elev (m)	586.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.018	
W.S. Elev (m)	585.82	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	585.82	Flow Area (m2)		2.01	
E.G. Slope (m/m)	0.011359	Area (m2)		2.01	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.50	Top Width (m)		1.50	
Vel Total (m/s)	3.64	Avg. Vel. (m/s)		3.64	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.34	
Conv. Total (m3/s)	68.7	Conv. (m3/s)		68.7	
Length Wtd. (m)	1.20	Wetted Per. (m)		4.18	
Min Ch EI (m)	584.48	Shear (N/m2)		53.60	
Alpha	1.00	Stream Power (N/m s)		194.86	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.33	Cum SA (1000 m2)		0.24	

Plan: 02 Canale 1.50x2.50 1 RS: 0.20 Profile: PF 1

E.G. Elev (m)	586.14	Element	Left OB	Channel	Right OB
Vel Head (m)	3.93	Wt. n-Val.		0.018	
W.S. Elev (m)	582.21	Reach Len. (m)	2.99	2.99	2.99
Crit W.S. (m)	583.01	Flow Area (m2)		0.83	
E.G. Slope (m/m)	0.113930	Area (m2)		0.83	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	8.78	Avg. Vel. (m/s)		8.78	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	21.7	Conv. (m3/s)		21.7	
Length Wtd. (m)	2.99	Wetted Per. (m)		2.61	
Min Ch EI (m)	581.65	Shear (N/m2)		357.67	
Alpha	1.00	Stream Power (N/m s)		3138.78	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.23	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.24	

Plan: 02 Canale 1.50x2.50 1 RS: 0.10 Profile: PF 1

E.G. Elev (m)	579.71	Element	Left OB	Channel	Right OB
Vel Head (m)	1.33	Wt. n-Val.		0.018	
W.S. Elev (m)	578.38	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	578.77	Flow Area (m2)		1.43	
E.G. Slope (m/m)	0.026853	Area (m2)		1.43	
Q Total (m3/s)	7.32	Flow (m3/s)		7.32	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	5.11	Avg. Vel. (m/s)		5.11	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)	44.7	Conv. (m3/s)		44.7	
Length Wtd. (m)	6.00	Wetted Per. (m)		3.41	
Min Ch EI (m)	577.41	Shear (N/m2)		110.63	

Plan: 02 Canale 1.50x2.50 1 RS: 0.10 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		564.94	
Frctn Loss (m)		Cum Volume (1000 m3)		0.01	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 02 Canale 1.50x2.50 2 RS: 700 Profile: PF 1

E.G. Elev (m)	579.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.018	
W.S. Elev (m)	578.50	Reach Len. (m)	2.78	2.78	2.78
Crit W.S. (m)	578.69	Flow Area (m2)		1.93	
E.G. Slope (m/m)	0.016873	Area (m2)		1.93	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	4.38	Avg. Vel. (m/s)		4.38	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)	65.1	Conv. (m3/s)		65.1	
Length Wtd. (m)	2.78	Wetted Per. (m)		4.08	
Min Ch EI (m)	577.20	Shear (N/m2)		78.27	
Alpha	1.00	Stream Power (N/m s)		342.93	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		0.16	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.17	

Plan: 02 Canale 1.50x2.50 2 RS: 600 Profile: PF 1

E.G. Elev (m)	577.91	Element	Left OB	Channel	Right OB
Vel Head (m)	2.59	Wt. n-Val.		0.018	
W.S. Elev (m)	575.32	Reach Len. (m)	2.93	2.93	2.93
Crit W.S. (m)	576.01	Flow Area (m2)		1.19	
E.G. Slope (m/m)	0.058735	Area (m2)		1.19	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	7.13	Avg. Vel. (m/s)		7.13	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	34.9	Conv. (m3/s)		34.9	
Length Wtd. (m)	2.93	Wetted Per. (m)		3.08	
Min Ch EI (m)	574.52	Shear (N/m2)		221.81	
Alpha	1.00	Stream Power (N/m s)		1580.82	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		0.11	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.12	

Plan: 02 Canale 1.50x2.50 2 RS: 500 Profile: PF 1

E.G. Elev (m)	574.87	Element	Left OB	Channel	Right OB
Vel Head (m)	1.63	Wt. n-Val.		0.018	
W.S. Elev (m)	573.24	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	573.72	Flow Area (m2)		1.49	
E.G. Slope (m/m)	0.032190	Area (m2)		1.49	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	5.66	Avg. Vel. (m/s)		5.66	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.49	
Min Ch EI (m)	572.23	Shear (N/m2)		134.98	
Alpha	1.00	Stream Power (N/m s)		763.65	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.21	Cum SA (1000 m2)		0.01	

Plan: 02 Canale 1.50x2.50 2 RS: 400 Profile: PF 1

E.G. Elev (m)	574.65	Element	Left OB	Channel	Right OB
Vel Head (m)	3.75	Wt. n-Val.		0.018	
W.S. Elev (m)	570.90	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	571.73	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.096231	Area (m2)		0.99	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	8.57	Avg. Vel. (m/s)		8.57	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	27.2	Conv. (m3/s)		27.2	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.81	
Min Ch EI (m)	570.24	Shear (N/m2)		331.07	
Alpha	1.00	Stream Power (N/m s)		2838.15	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.01	

Plan: 02 Canale 1.50x2.50 2 RS: 350 Profile: PF 1

E.G. Elev (m)	574.26	Element	Left OB	Channel	Right OB
Vel Head (m)	3.31	Wt. n-Val.		0.018	
W.S. Elev (m)	570.95	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	571.73	Flow Area (m2)		1.05	
E.G. Slope (m/m)	0.081361	Area (m2)		1.05	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.49	Top Width (m)		1.49	
Vel Total (m/s)	8.05	Avg. Vel. (m/s)		8.05	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	29.6	Conv. (m3/s)		29.6	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.90	
Min Ch EI (m)	570.24	Shear (N/m2)		289.13	
Alpha	1.00	Stream Power (N/m s)		2328.80	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.22	Cum SA (1000 m2)		0.01	

Plan: 02 Canale 1.50x2.50 2 RS: 300 Profile: PF 1

E.G. Elev (m)	574.03	Element	Left OB	Channel	Right OB
Vel Head (m)	5.47	Wt. n-Val.		0.018	
W.S. Elev (m)	568.56	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	569.50	Flow Area (m2)		0.82	
E.G. Slope (m/m)	0.161312	Area (m2)		0.82	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	10.36	Avg. Vel. (m/s)		10.36	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	21.0	Conv. (m3/s)		21.0	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.58	
Min Ch EI (m)	568.01	Shear (N/m2)		500.11	
Alpha	1.00	Stream Power (N/m s)		5178.73	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.01	

Plan: 02 Canale 1.50x2.50 2 RS: 250 Profile: PF 1

E.G. Elev (m)	573.38	Element	Left OB	Channel	Right OB
Vel Head (m)	4.78	Wt. n-Val.		0.018	
W.S. Elev (m)	568.60	Reach Len. (m)	1.00	0.10	0.10
Crit W.S. (m)	569.50	Flow Area (m2)		0.87	
E.G. Slope (m/m)	0.134236	Area (m2)		0.87	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	

Plan: 02 Canale 1.50x2.50 2 RS: 250 Profile: PF 1 (Continued)

Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	9.69	Avg. Vel. (m/s)		9.69	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	23.1	Conv. (m3/s)		23.1	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.66	
Min Ch EI (m)	568.01	Shear (N/m2)		432.18	
Alpha	1.00	Stream Power (N/m s)		4186.51	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.21	Cum SA (1000 m2)		0.00	

Plan: 02 Canale 1.50x2.50 2 RS: 200 Profile: PF 1

E.G. Elev (m)	573.16	Element	Left OB	Channel	Right OB
Vel Head (m)	6.88	Wt. n-Val.		0.018	
W.S. Elev (m)	566.28	Reach Len. (m)	3.00	3.00	3.00
Crit W.S. (m)	567.28	Flow Area (m2)		0.73	
E.G. Slope (m/m)	0.221934	Area (m2)		0.73	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	11.61	Avg. Vel. (m/s)		11.61	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	17.9	Conv. (m3/s)		17.9	
Length Wtd. (m)	3.00	Wetted Per. (m)		2.46	
Min Ch EI (m)	565.79	Shear (N/m2)		643.23	
Alpha	1.00	Stream Power (N/m s)		7469.48	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.00	

Plan: 02 Canale 1.50x2.50 2 RS: 150 Profile: PF 1

E.G. Elev (m)	572.28	Element	Left OB	Channel	Right OB
Vel Head (m)	5.96	Wt. n-Val.		0.018	
W.S. Elev (m)	566.32	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	567.28	Flow Area (m2)		0.78	
E.G. Slope (m/m)	0.182022	Area (m2)		0.78	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	10.82	Avg. Vel. (m/s)		10.82	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.10	Wetted Per. (m)		2.53	
Min Ch EI (m)	565.79	Shear (N/m2)		550.26	
Alpha	1.00	Stream Power (N/m s)		5951.80	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.00	

Plan: 02 Canale 1.50x2.50 2 RS: 100 Profile: PF 1

E.G. Elev (m)	572.12	Element	Left OB	Channel	Right OB
Vel Head (m)	7.39	Wt. n-Val.		0.018	
W.S. Elev (m)	564.72	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	565.74	Flow Area (m2)		0.70	
E.G. Slope (m/m)	0.245807	Area (m2)		0.70	
Q Total (m3/s)	8.45	Flow (m3/s)		8.45	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	12.04	Avg. Vel. (m/s)		12.04	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.43	
Min Ch EI (m)	564.25	Shear (N/m2)		696.89	

Plan: 02 Canale 1.50x2.50 2 RS: 100 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		8392.58	
Frctn Loss (m)	0.92	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.27	Cum SA (1000 m2)			

Plan: 02 Canale G.C. 2 RS: 620 Profile: PF 1

E.G. Elev (m)	588.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.025	
W.S. Elev (m)	588.26	Reach Len. (m)	12.04	12.04	12.04
Crit W.S. (m)	588.39	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.052042	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	2.96	Avg. Vel. (m/s)		2.96	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	5.0	Conv. (m3/s)		5.0	
Length Wtd. (m)	12.04	Wetted Per. (m)		2.07	
Min Ch EI (m)	588.03	Shear (N/m2)		94.10	
Alpha	1.00	Stream Power (N/m s)		278.19	
Frctn Loss (m)	0.58	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.21	

Plan: 02 Canale G.C. 2 RS: 610 Profile: PF 1

E.G. Elev (m)	588.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.025	
W.S. Elev (m)	587.69	Reach Len. (m)	2.24	2.24	2.24
Crit W.S. (m)	587.82	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.044509	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	2.94	Avg. Vel. (m/s)		2.94	
Max Chl Dpth (m)	0.29	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	2.24	Wetted Per. (m)		1.86	
Min Ch EI (m)	587.40	Shear (N/m2)		89.97	
Alpha	1.00	Stream Power (N/m s)		264.91	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.19	

Plan: 02 Canale G.C. 2 RS: 600 Profile: PF 1

E.G. Elev (m)	588.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.025	
W.S. Elev (m)	587.48	Reach Len. (m)	2.34	2.34	2.34
Crit W.S. (m)	587.64	Flow Area (m2)		0.35	
E.G. Slope (m/m)	0.056123	Area (m2)		0.35	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.54	Top Width (m)		1.54	
Vel Total (m/s)	3.21	Avg. Vel. (m/s)		3.21	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	4.8	Conv. (m3/s)		4.8	
Length Wtd. (m)	2.34	Wetted Per. (m)		1.78	
Min Ch EI (m)	587.21	Shear (N/m2)		108.58	
Alpha	1.00	Stream Power (N/m s)		348.71	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.18	

Plan: 02 Canale G.C. 2 RS: 590 Profile: PF 1

E.G. Elev (m)	587.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.025	
W.S. Elev (m)	587.15	Reach Len. (m)	74.10	74.10	74.10
Crit W.S. (m)	587.34	Flow Area (m2)		0.31	
E.G. Slope (m/m)	0.080527	Area (m2)		0.31	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.43	Top Width (m)		1.43	
Vel Total (m/s)	3.67	Avg. Vel. (m/s)		3.67	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	4.0	Conv. (m3/s)		4.0	
Length Wtd. (m)	74.10	Wetted Per. (m)		1.68	
Min Ch EI (m)	586.90	Shear (N/m2)		145.10	
Alpha	1.00	Stream Power (N/m s)		532.32	
Frctn Loss (m)	4.43	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.07	Cum SA (1000 m2)		0.18	

Plan: 02 Canale G.C. 2 RS: 580 Profile: PF 1

E.G. Elev (m)	583.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.025	
W.S. Elev (m)	582.88	Reach Len. (m)	19.62	19.62	19.62
Crit W.S. (m)	583.02	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.046084	Area (m2)		0.38	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	2.98	Avg. Vel. (m/s)		2.98	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	5.3	Conv. (m3/s)		5.3	
Length Wtd. (m)	19.62	Wetted Per. (m)		1.85	
Min Ch EI (m)	582.60	Shear (N/m2)		92.42	
Alpha	1.00	Stream Power (N/m s)		275.48	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: 02 Canale G.C. 2 RS: 570 Profile: PF 1

E.G. Elev (m)	582.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.025	
W.S. Elev (m)	582.81	Reach Len. (m)	12.43	12.43	12.43
Crit W.S. (m)	582.81	Flow Area (m2)		0.62	
E.G. Slope (m/m)	0.011320	Area (m2)		0.62	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.90	Top Width (m)		1.90	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	10.6	Conv. (m3/s)		10.6	
Length Wtd. (m)	12.43	Wetted Per. (m)		2.25	
Min Ch EI (m)	582.39	Shear (N/m2)		30.82	
Alpha	1.00	Stream Power (N/m s)		55.81	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.03	

Plan: 02 Canale G.C. 2 RS: 560 Profile: PF 1

E.G. Elev (m)	582.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.91	Wt. n-Val.		0.025	
W.S. Elev (m)	579.36	Reach Len. (m)	9.54	9.54	9.54
Crit W.S. (m)	579.65	Flow Area (m2)		0.15	
E.G. Slope (m/m)	0.708724	Area (m2)		0.15	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	

Plan: 02 Canale G.C. 2 RS: 560 Profile: PF 1 (Continued)

Top Width (m)	1.30	Top Width (m)		1.30	
Vel Total (m/s)	7.55	Avg. Vel. (m/s)		7.55	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	1.3	Conv. (m3/s)		1.3	
Length Wtd. (m)	9.54	Wetted Per. (m)		1.41	
Min Ch EI (m)	579.23	Shear (N/m2)		737.90	
Alpha	1.00	Stream Power (N/m s)		5571.38	
Frctn Loss (m)	2.96	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.53	Cum SA (1000 m2)		0.01	

Plan: 02 Canale G.C. 2 RS: 550 Profile: PF 1

E.G. Elev (m)	578.76	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.025	
W.S. Elev (m)	577.63	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	577.86	Flow Area (m2)		0.24	
E.G. Slope (m/m)	0.173615	Area (m2)		0.24	
Q Total (m3/s)	1.13	Flow (m3/s)		1.13	
Top Width (m)	1.44	Top Width (m)		1.44	
Vel Total (m/s)	4.71	Avg. Vel. (m/s)		4.71	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	6.00	Wetted Per. (m)		1.60	
Min Ch EI (m)	577.44	Shear (N/m2)		255.89	
Alpha	1.00	Stream Power (N/m s)		1205.60	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.11	Cum SA (1000 m2)			

Plan: 02 Canale G.C. 1 RS: 520 Profile: PF 1

E.G. Elev (m)	574.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.025	
W.S. Elev (m)	573.87	Reach Len. (m)	26.87	26.87	26.87
Crit W.S. (m)	573.90	Flow Area (m2)		0.28	
E.G. Slope (m/m)	0.020025	Area (m2)		0.28	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	1.71	Avg. Vel. (m/s)		1.71	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)	26.87	Wetted Per. (m)		1.66	
Min Ch EI (m)	573.65	Shear (N/m2)		32.49	
Alpha	1.00	Stream Power (N/m s)		55.44	
Frctn Loss (m)	1.57	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.08	

Plan: 02 Canale G.C. 1 RS: 510 Profile: PF 1

E.G. Elev (m)	572.30	Element	Left OB	Channel	Right OB
Vel Head (m)	1.56	Wt. n-Val.		0.025	
W.S. Elev (m)	570.75	Reach Len. (m)	11.86	11.87	11.86
Crit W.S. (m)	570.92	Flow Area (m2)		0.09	
E.G. Slope (m/m)	0.697000	Area (m2)		0.09	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.20	Top Width (m)		1.20	
Vel Total (m/s)	5.53	Avg. Vel. (m/s)		5.53	
Max Chl Dpth (m)	0.08	Hydr. Depth (m)		0.07	
Conv. Total (m3/s)	0.6	Conv. (m3/s)		0.6	
Length Wtd. (m)	11.87	Wetted Per. (m)		1.26	
Min Ch EI (m)	570.67	Shear (N/m2)		460.04	

Plan: 02 Canale G.C. 1 RS: 510 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		2541.99	
Frctn Loss (m)	3.31	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.30	Cum SA (1000 m2)		0.04	

Plan: 02 Canale G.C. 1 RS: 505 Profile: PF 1

E.G. Elev (m)	568.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.025	
W.S. Elev (m)	568.12	Reach Len. (m)	19.54	19.54	19.54
Crit W.S. (m)	568.25	Flow Area (m2)		0.14	
E.G. Slope (m/m)	0.149293	Area (m2)		0.14	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.29	Top Width (m)		1.29	
Vel Total (m/s)	3.35	Avg. Vel. (m/s)		3.35	
Max Chl Dpth (m)	0.12	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	1.2	Conv. (m3/s)		1.2	
Length Wtd. (m)	19.54	Wetted Per. (m)		1.39	
Min Ch EI (m)	568.00	Shear (N/m2)		147.82	
Alpha	1.00	Stream Power (N/m s)		495.35	
Frctn Loss (m)	4.39	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.05	Cum SA (1000 m2)		0.02	

Plan: 02 Canale G.C. 1 RS: 500 Profile: PF 1

E.G. Elev (m)	564.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.05	Wt. n-Val.		0.025	
W.S. Elev (m)	563.21	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	563.37	Flow Area (m2)		0.10	
E.G. Slope (m/m)	0.375494	Area (m2)		0.10	
Q Total (m3/s)	0.47	Flow (m3/s)		0.47	
Top Width (m)	1.23	Top Width (m)		1.23	
Vel Total (m/s)	4.53	Avg. Vel. (m/s)		4.53	
Max Chl Dpth (m)	0.09	Hydr. Depth (m)		0.08	
Conv. Total (m3/s)	0.8	Conv. (m3/s)		0.8	
Length Wtd. (m)	0.00	Wetted Per. (m)		1.31	
Min Ch EI (m)	563.12	Shear (N/m2)		292.36	
Alpha	1.00	Stream Power (N/m s)		1323.77	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.31	Cum SA (1000 m2)			

Plan: 02 Giacco 1 RS: 16 Profile: PF 1

E.G. Elev (m)	594.70	Element	Left OB	Channel	Right OB
Vel Head (m)	1.99	Wt. n-Val.		0.040	
W.S. Elev (m)	592.71	Reach Len. (m)	10.53	10.53	10.53
Crit W.S. (m)	593.22	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.190330	Area (m2)		1.54	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.93	Top Width (m)		2.93	
Vel Total (m/s)	6.25	Avg. Vel. (m/s)		6.25	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	22.1	Conv. (m3/s)		22.1	
Length Wtd. (m)	10.53	Wetted Per. (m)		3.56	
Min Ch EI (m)	592.00	Shear (N/m2)		808.89	
Alpha	1.00	Stream Power (N/m s)		5052.40	
Frctn Loss (m)	2.14	Cum Volume (1000 m3)	0.01	0.31	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	0.74	0.07

Plan: 02 Giacco 1 RS: 15 Profile: PF 1

E.G. Elev (m)	592.56	Element	Left OB	Channel	Right OB
Vel Head (m)	2.01	Wt. n-Val.		0.040	
W.S. Elev (m)	590.55	Reach Len. (m)	9.25	9.25	9.25
Crit W.S. (m)	591.04	Flow Area (m2)		1.53	
E.G. Slope (m/m)	0.217352	Area (m2)		1.53	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.43	Top Width (m)		3.43	
Vel Total (m/s)	6.28	Avg. Vel. (m/s)		6.28	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	20.7	Conv. (m3/s)		20.7	
Length Wtd. (m)	9.25	Wetted Per. (m)		3.88	
Min Ch EI (m)	590.00	Shear (N/m2)		843.36	
Alpha	1.00	Stream Power (N/m s)		5297.81	
Frctn Loss (m)	2.24	Cum Volume (1000 m3)	0.01	0.30	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.70	0.07

Plan: 02 Giacco 1 RS: 14 Profile: PF 1

E.G. Elev (m)	590.27	Element	Left OB	Channel	Right OB
Vel Head (m)	1.86	Wt. n-Val.		0.040	
W.S. Elev (m)	588.41	Reach Len. (m)	9.63	9.63	9.63
Crit W.S. (m)	588.82	Flow Area (m2)		1.59	
E.G. Slope (m/m)	0.271506	Area (m2)		1.59	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	4.88	Top Width (m)		4.88	
Vel Total (m/s)	6.05	Avg. Vel. (m/s)		6.05	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	18.5	Conv. (m3/s)		18.5	
Length Wtd. (m)	9.63	Wetted Per. (m)		5.04	
Min Ch EI (m)	588.00	Shear (N/m2)		841.68	
Alpha	1.00	Stream Power (N/m s)		5088.00	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	0.01	0.28	0.02
C & E Loss (m)	0.40	Cum SA (1000 m2)	0.02	0.67	0.07

Plan: 02 Giacco 1 RS: 13 Profile: PF 1

E.G. Elev (m)	588.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	587.76	Reach Len. (m)	14.74	14.74	14.74
Crit W.S. (m)	587.92	Flow Area (m2)		2.97	
E.G. Slope (m/m)	0.109706	Area (m2)		2.97	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	11.98	Top Width (m)		11.98	
Vel Total (m/s)	3.24	Avg. Vel. (m/s)		3.24	
Max Chl Dpth (m)	0.26	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	29.1	Conv. (m3/s)		29.1	
Length Wtd. (m)	14.74	Wetted Per. (m)		12.14	
Min Ch EI (m)	587.50	Shear (N/m2)		263.59	
Alpha	1.00	Stream Power (N/m s)		854.61	
Frctn Loss (m)	1.95	Cum Volume (1000 m3)	0.01	0.26	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.58	0.07

Plan: 02 Giacco 1 RS: 12 Profile: PF 1

E.G. Elev (m)	586.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.93	Wt. n-Val.		0.040	
W.S. Elev (m)	585.37	Reach Len. (m)	19.23	19.23	19.23
Crit W.S. (m)	585.62	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.162302	Area (m2)		2.25	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	

Plan: 02 Giacco 1 RS: 12 Profile: PF 1 (Continued)

Top Width (m)	8.05	Top Width (m)		8.05	
Vel Total (m/s)	4.28	Avg. Vel. (m/s)		4.28	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	23.9	Conv. (m3/s)		23.9	
Length Wtd. (m)	19.23	Wetted Per. (m)		8.14	
Min Ch EI (m)	585.00	Shear (N/m2)		440.46	
Alpha	1.00	Stream Power (N/m s)		1883.91	
Frctn Loss (m)	2.05	Cum Volume (1000 m3)	0.01	0.22	0.02
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.44	0.07

Plan: 02 Giacco 1 RS: 11 Profile: PF 1

E.G. Elev (m)	584.21	Element	Left OB	Channel	Right OB
Vel Head (m)	1.31	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	582.90	Reach Len. (m)	18.62	18.62	18.62
Crit W.S. (m)	583.33	Flow Area (m2)	0.06	1.74	0.25
E.G. Slope (m/m)	0.075636	Area (m2)	0.06	1.74	0.25
Q Total (m3/s)	9.64	Flow (m3/s)	0.08	9.05	0.51
Top Width (m)	3.70	Top Width (m)	0.28	2.17	1.25
Vel Total (m/s)	4.72	Avg. Vel. (m/s)	1.45	5.21	2.03
Max Chl Dpth (m)	0.90	Hydr. Depth (m)	0.20	0.80	0.20
Conv. Total (m3/s)	35.1	Conv. (m3/s)	0.3	32.9	1.9
Length Wtd. (m)	18.62	Wetted Per. (m)	0.49	2.63	1.31
Min Ch EI (m)	582.00	Shear (N/m2)	85.58	489.62	142.09
Alpha	1.16	Stream Power (N/m s)	123.97	2552.20	288.57
Frctn Loss (m)	2.93	Cum Volume (1000 m3)	0.01	0.19	0.01
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.02	0.34	0.05

Plan: 02 Giacco 1 RS: 10 Profile: PF 1

E.G. Elev (m)	581.10	Element	Left OB	Channel	Right OB
Vel Head (m)	3.24	Wt. n-Val.		0.040	
W.S. Elev (m)	577.86	Reach Len. (m)	13.58	13.59	13.58
Crit W.S. (m)	578.41	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.504749	Area (m2)		1.21	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	7.97	Avg. Vel. (m/s)		7.97	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	13.6	Conv. (m3/s)		13.6	
Length Wtd. (m)	13.59	Wetted Per. (m)		4.03	
Min Ch EI (m)	577.50	Shear (N/m2)		1486.75	
Alpha	1.00	Stream Power (N/m s)		11843.62	
Frctn Loss (m)	3.24	Cum Volume (1000 m3)	0.00	0.16	0.01
C & E Loss (m)	0.61	Cum SA (1000 m2)	0.02	0.28	0.04

Plan: 02 Giacco 1 RS: 9 Profile: PF 1

E.G. Elev (m)	577.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.19	Wt. n-Val.		0.040	
W.S. Elev (m)	576.05	Reach Len. (m)	10.04	10.04	10.04
Crit W.S. (m)	576.38	Flow Area (m2)		1.99	
E.G. Slope (m/m)	0.138381	Area (m2)		1.99	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	5.09	Top Width (m)		5.09	
Vel Total (m/s)	4.83	Avg. Vel. (m/s)		4.83	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	25.9	Conv. (m3/s)		25.9	
Length Wtd. (m)	10.04	Wetted Per. (m)		5.32	
Min Ch EI (m)	575.50	Shear (N/m2)		508.61	

Plan: 02 Giacco 1 RS: 9 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		2458.78	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	0.00	0.14	0.01
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.02	0.22	0.04

Plan: 02 Giacco 1 RS: 8 Profile: PF 1

E.G. Elev (m)	575.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.040	
W.S. Elev (m)	574.92	Reach Len. (m)	10.90	10.90	10.90
Crit W.S. (m)	575.20	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.119627	Area (m2)		2.23	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	6.08	Top Width (m)		6.08	
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		4.33	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	27.9	Conv. (m3/s)		27.9	
Length Wtd. (m)	10.90	Wetted Per. (m)		6.29	
Min Ch EI (m)	574.50	Shear (N/m2)		415.49	
Alpha	1.00	Stream Power (N/m s)		1798.44	
Frctn Loss (m)	1.39	Cum Volume (1000 m3)	0.00	0.11	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.17	0.04

Plan: 02 Giacco 1 RS: 7 Profile: PF 1

E.G. Elev (m)	574.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	573.09	Reach Len. (m)	7.04	7.04	7.04
Crit W.S. (m)	573.48	Flow Area (m2)	0.01	1.86	0.03
E.G. Slope (m/m)	0.136592	Area (m2)	0.01	1.86	0.03
Q Total (m3/s)	9.64	Flow (m3/s)	0.00	9.60	0.03
Top Width (m)	5.07	Top Width (m)	0.11	4.27	0.69
Vel Total (m/s)	5.08	Avg. Vel. (m/s)	0.89	5.16	1.06
Max Chl Dpth (m)	0.59	Hydr. Depth (m)	0.05	0.44	0.05
Conv. Total (m3/s)	26.1	Conv. (m3/s)	0.0	26.0	0.1
Length Wtd. (m)	7.04	Wetted Per. (m)	0.15	4.45	0.69
Min Ch EI (m)	572.50	Shear (N/m2)	48.15	559.52	62.53
Alpha	1.03	Stream Power (N/m s)	43.07	2888.85	66.59
Frctn Loss (m)	1.24	Cum Volume (1000 m3)	0.00	0.09	0.01
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.02	0.11	0.04

Plan: 02 Giacco 1 RS: 6 Profile: PF 1

E.G. Elev (m)	573.13	Element	Left OB	Channel	Right OB
Vel Head (m)	2.11	Wt. n-Val.		0.040	
W.S. Elev (m)	571.02	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	571.52	Flow Area (m2)		1.50	
E.G. Slope (m/m)	0.236893	Area (m2)		1.50	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.56	Top Width (m)		3.56	
Vel Total (m/s)	6.43	Avg. Vel. (m/s)		6.43	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.90	
Min Ch EI (m)	570.49	Shear (N/m2)		892.50	
Alpha	1.00	Stream Power (N/m s)		5739.28	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.27	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 02 Giacco 1 RS: 5.96 Profile: PF 1

E.G. Elev (m)	572.83	Element	Left OB	Channel	Right OB
Vel Head (m)	4.78	Wt. n-Val.		0.040	
W.S. Elev (m)	568.05	Reach Len. (m)	1.65	1.65	1.65
Crit W.S. (m)	568.74	Flow Area (m2)		1.00	
E.G. Slope (m/m)	0.706630	Area (m2)		1.00	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	9.68	Avg. Vel. (m/s)		9.68	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	11.5	Conv. (m3/s)		11.5	
Length Wtd. (m)	1.65	Wetted Per. (m)		3.19	
Min Ch EI (m)	567.65	Shear (N/m2)		2165.46	
Alpha	1.00	Stream Power (N/m s)		20956.36	
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.41	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 02 Giacco 1 RS: 5.95 Profile: PF 1

E.G. Elev (m)	571.52	Element	Left OB	Channel	Right OB
Vel Head (m)	3.41	Wt. n-Val.		0.040	
W.S. Elev (m)	568.12	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	568.74	Flow Area (m2)		1.18	
E.G. Slope (m/m)	0.430874	Area (m2)		1.18	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	8.17	Avg. Vel. (m/s)		8.17	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	14.7	Conv. (m3/s)		14.7	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.36	
Min Ch EI (m)	567.65	Shear (N/m2)		1485.25	
Alpha	1.00	Stream Power (N/m s)		12139.59	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 02 Giacco 1 RS: 5.91 Profile: PF 1

E.G. Elev (m)	569.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	569.56	Reach Len. (m)	3.70	3.70	3.70
Crit W.S. (m)	567.39	Flow Area (m2)	1.24	13.30	2.66
E.G. Slope (m/m)	0.000236	Area (m2)	1.24	13.30	2.66
Q Total (m3/s)	9.64	Flow (m3/s)	0.29	8.63	0.73
Top Width (m)	9.24	Top Width (m)	1.37	4.67	3.20
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.23	0.65	0.27
Max Chl Dpth (m)	3.26	Hydr. Depth (m)	0.90	2.85	0.83
Conv. Total (m3/s)	627.5	Conv. (m3/s)	18.6	561.5	47.5
Length Wtd. (m)	3.70	Wetted Per. (m)	2.23	6.06	3.70
Min Ch EI (m)	566.30	Shear (N/m2)	1.28	5.08	1.66
Alpha	1.22	Stream Power (N/m s)	0.30	3.29	0.46
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.08	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	0.08	0.04

Plan: 02 Giacco 1 RS: 5.9 Profile: PF 1

E.G. Elev (m)	569.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	569.56	Reach Len. (m)	15.00	15.00	15.00
Crit W.S. (m)	567.39	Flow Area (m2)	1.24	13.30	2.66
E.G. Slope (m/m)	0.000236	Area (m2)	1.24	13.30	2.66
Q Total (m3/s)	9.64	Flow (m3/s)	0.29	8.63	0.73

Plan: 02 Giacco 1 RS: 5.9 Profile: PF 1 (Continued)

Top Width (m)	9.24	Top Width (m)	1.37	4.67	3.20
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.23	0.65	0.27
Max Chl Dpth (m)	3.26	Hydr. Depth (m)	0.90	2.85	0.83
Conv. Total (m3/s)	627.2	Conv. (m3/s)	18.6	561.2	47.4
Length Wtd. (m)	15.00	Wetted Per. (m)	2.23	6.06	3.70
Min Ch EI (m)	566.30	Shear (N/m2)	1.29	5.08	1.67
Alpha	1.22	Stream Power (N/m s)	0.30	3.30	0.46
Frctn Loss (m)		Cum Volume (1000 m3)		0.03	
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.06	0.02

Plan: 02 Giacco 1 RS: 5 Profile: PF 1

E.G. Elev (m)	567.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.		0.040	
W.S. Elev (m)	566.30	Reach Len. (m)	7.81	7.81	7.81
Crit W.S. (m)	566.59	Flow Area (m2)		2.24	
E.G. Slope (m/m)	0.068802	Area (m2)		2.24	
Q Total (m3/s)	9.64	Flow (m3/s)		9.64	
Top Width (m)	3.47	Top Width (m)		3.47	
Vel Total (m/s)	4.30	Avg. Vel. (m/s)		4.30	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	36.8	Conv. (m3/s)		36.8	
Length Wtd. (m)	7.81	Wetted Per. (m)		4.21	
Min Ch EI (m)	565.50	Shear (N/m2)		358.64	
Alpha	1.00	Stream Power (N/m s)		1543.22	
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 02 Giacco 2 RS: 3 Profile: PF 1

E.G. Elev (m)	570.93	Element	Left OB	Channel	Right OB
Vel Head (m)	6.49	Wt. n-Val.		0.040	
W.S. Elev (m)	564.44	Reach Len. (m)	6.55	6.55	6.55
Crit W.S. (m)	565.13	Flow Area (m2)		1.60	
E.G. Slope (m/m)	1.149808	Area (m2)		1.60	
Q Total (m3/s)	18.09	Flow (m3/s)		18.09	
Top Width (m)	5.60	Top Width (m)		5.60	
Vel Total (m/s)	11.28	Avg. Vel. (m/s)		11.28	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	16.9	Conv. (m3/s)		16.9	
Length Wtd. (m)	6.55	Wetted Per. (m)		5.87	
Min Ch EI (m)	564.00	Shear (N/m2)		3079.47	
Alpha	1.00	Stream Power (N/m s)		34749.94	
Frctn Loss (m)	3.30	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	1.43	Cum SA (1000 m2)	0.02	0.09	0.00

Plan: 02 Giacco 2 RS: 2 Profile: PF 1

E.G. Elev (m)	566.20	Element	Left OB	Channel	Right OB
Vel Head (m)	1.73	Wt. n-Val.		0.040	
W.S. Elev (m)	564.47	Reach Len. (m)	5.24	5.24	5.24
Crit W.S. (m)	564.84	Flow Area (m2)		3.10	
E.G. Slope (m/m)	0.281110	Area (m2)		3.10	
Q Total (m3/s)	18.09	Flow (m3/s)		18.09	
Top Width (m)	10.55	Top Width (m)		10.55	
Vel Total (m/s)	5.83	Avg. Vel. (m/s)		5.83	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	34.1	Conv. (m3/s)		34.1	
Length Wtd. (m)	5.24	Wetted Per. (m)		10.63	
Min Ch EI (m)	564.00	Shear (N/m2)		804.24	

Plan: 02 Giacco 2 RS: 2 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		4689.16	
Frctn Loss (m)	0.73	Cum Volume (1000 m3)	0.01	0.01	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	0.02	0.03	0.00

Plan: 02 Giacco 2 RS: 1 Profile: PF 1

E.G. Elev (m)	565.32	Element	Left OB	Channel	Right OB
Vel Head (m)	1.22	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	564.09	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	564.46	Flow Area (m2)	1.93	2.19	0.04
E.G. Slope (m/m)	0.083731	Area (m2)	1.93	2.19	0.04
Q Total (m3/s)	18.09	Flow (m3/s)	5.84	12.21	0.04
Top Width (m)	9.31	Top Width (m)	5.97	2.42	0.92
Vel Total (m/s)	4.35	Avg. Vel. (m/s)	3.02	5.59	0.83
Max Chl Dpth (m)	1.09	Hydr. Depth (m)	0.32	0.90	0.05
Conv. Total (m3/s)	62.5	Conv. (m3/s)	20.2	42.2	0.1
Length Wtd. (m)	0.00	Wetted Per. (m)	6.01	3.22	0.92
Min Ch EI (m)	563.00	Shear (N/m2)	264.41	557.14	38.10
Alpha	1.27	Stream Power (N/m s)	798.77	3112.15	31.63
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: 02 Giacco 3 RS: 5070 Profile: PF 1

E.G. Elev (m)	565.01	Element	Left OB	Channel	Right OB
Vel Head (m)	4.31	Wt. n-Val.		0.040	
W.S. Elev (m)	560.69	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	561.51	Flow Area (m2)		2.02	
E.G. Slope (m/m)	0.426520	Area (m2)		2.02	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	9.20	Avg. Vel. (m/s)		9.20	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	28.4	Conv. (m3/s)		28.4	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.77	
Min Ch EI (m)	560.15	Shear (N/m2)		1768.96	
Alpha	1.00	Stream Power (N/m s)		16273.12	
Frctn Loss (m)	0.72	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.26	Cum SA (1000 m2)		0.06	

Plan: 02 Giacco 3 RS: 5067 BR U Profile: PF 1

E.G. Elev (m)	564.03	Element	Left OB	Channel	Right OB
Vel Head (m)	3.46	Wt. n-Val.		0.040	
W.S. Elev (m)	560.57	Reach Len. (m)			
Crit W.S. (m)	561.33	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.305513	Area (m2)		2.25	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.78	Top Width (m)		3.78	
Vel Total (m/s)	8.24	Avg. Vel. (m/s)		8.24	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	33.6	Conv. (m3/s)		33.6	
Length Wtd. (m)		Wetted Per. (m)		4.90	
Min Ch EI (m)	559.97	Shear (N/m2)		1378.80	
Alpha	1.00	Stream Power (N/m s)		11356.98	
Frctn Loss (m)	0.74	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.24	Cum SA (1000 m2)		0.05	

Plan: 02 Giacco 3 RS: 5067 BR D Profile: PF 1

E.G. Elev (m)	563.06	Element	Left OB	Channel	Right OB
Vel Head (m)	2.66	Wt. n-Val.		0.032	
W.S. Elev (m)	560.40	Reach Len. (m)			
Crit W.S. (m)	561.10	Flow Area (m2)		2.57	
E.G. Slope (m/m)	0.123645	Area (m2)		2.57	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	7.22	Avg. Vel. (m/s)		7.22	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	52.8	Conv. (m3/s)		52.8	
Length Wtd. (m)		Wetted Per. (m)		4.82	
Min Ch EI (m)	559.60	Shear (N/m2)		646.33	
Alpha	1.00	Stream Power (N/m s)		4669.15	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.05	

Plan: 02 Giacco 3 RS: 5065 Profile: PF 1

E.G. Elev (m)	562.84	Element	Left OB	Channel	Right OB
Vel Head (m)	2.64	Wt. n-Val.		0.032	
W.S. Elev (m)	560.21	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	560.89	Flow Area (m2)		2.58	
E.G. Slope (m/m)	0.121927	Area (m2)		2.58	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.59	Top Width (m)		3.59	
Vel Total (m/s)	7.19	Avg. Vel. (m/s)		7.19	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	53.2	Conv. (m3/s)		53.2	
Length Wtd. (m)	0.10	Wetted Per. (m)		4.82	
Min Ch EI (m)	559.45	Shear (N/m2)		639.78	
Alpha	1.00	Stream Power (N/m s)		4601.25	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.10	Cum SA (1000 m2)		0.05	

Plan: 02 Giacco 3 RS: 5060 Profile: PF 1

E.G. Elev (m)	562.72	Element	Left OB	Channel	Right OB
Vel Head (m)	3.68	Wt. n-Val.		0.032	
W.S. Elev (m)	559.04	Reach Len. (m)	1.66	1.66	1.66
Crit W.S. (m)	559.81	Flow Area (m2)		2.18	
E.G. Slope (m/m)	0.219065	Area (m2)		2.18	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	8.50	Avg. Vel. (m/s)		8.50	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	39.7	Conv. (m3/s)		39.7	
Length Wtd. (m)	1.66	Wetted Per. (m)		4.93	
Min Ch EI (m)	558.46	Shear (N/m2)		951.84	
Alpha	1.00	Stream Power (N/m s)		8091.31	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.05	

Plan: 02 Giacco 3 RS: 5050 Profile: PF 1

E.G. Elev (m)	562.31	Element	Left OB	Channel	Right OB
Vel Head (m)	3.87	Wt. n-Val.		0.032	
W.S. Elev (m)	558.44	Reach Len. (m)	1.93	1.93	1.93
Crit W.S. (m)	559.19	Flow Area (m2)		2.13	
E.G. Slope (m/m)	0.258198	Area (m2)		2.13	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	

Plan: 02 Giacco 3 RS: 5050 Profile: PF 1 (Continued)

Top Width (m)	4.25	Top Width (m)		4.25	
Vel Total (m/s)	8.71	Avg. Vel. (m/s)		8.71	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	1.93	Wetted Per. (m)		5.24	
Min Ch EI (m)	557.94	Shear (N/m2)		1028.73	
Alpha	1.00	Stream Power (N/m s)		8960.84	
Frctn Loss (m)	0.50	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.05	

Plan: 02 Giacco 3 RS: 5040 Profile: PF 1

E.G. Elev (m)	561.78	Element	Left OB	Channel	Right OB
Vel Head (m)	4.17	Wt. n-Val.		0.032	
W.S. Elev (m)	557.61	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	558.40	Flow Area (m2)		2.05	
E.G. Slope (m/m)	0.261093	Area (m2)		2.05	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.98	Top Width (m)		3.98	
Vel Total (m/s)	9.04	Avg. Vel. (m/s)		9.04	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	36.3	Conv. (m3/s)		36.3	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.82	
Min Ch EI (m)	557.08	Shear (N/m2)		1090.47	
Alpha	1.00	Stream Power (N/m s)		9856.74	
Frctn Loss (m)	0.46	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.04	

Plan: 02 Giacco 3 RS: 5035 BR U Profile: PF 1

E.G. Elev (m)	561.13	Element	Left OB	Channel	Right OB
Vel Head (m)	3.50	Wt. n-Val.		0.032	
W.S. Elev (m)	557.62	Reach Len. (m)			
Crit W.S. (m)	558.36	Flow Area (m2)		2.24	
E.G. Slope (m/m)	0.200262	Area (m2)		2.24	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.98	Top Width (m)		3.98	
Vel Total (m/s)	8.29	Avg. Vel. (m/s)		8.29	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	41.5	Conv. (m3/s)		41.5	
Length Wtd. (m)		Wetted Per. (m)		4.91	
Min Ch EI (m)	557.04	Shear (N/m2)		896.10	
Alpha	1.00	Stream Power (N/m s)		7427.38	
Frctn Loss (m)	0.86	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.36	Cum SA (1000 m2)		0.03	

Plan: 02 Giacco 3 RS: 5035 BR D Profile: PF 1

E.G. Elev (m)	559.91	Element	Left OB	Channel	Right OB
Vel Head (m)	2.32	Wt. n-Val.		0.032	
W.S. Elev (m)	557.59	Reach Len. (m)			
Crit W.S. (m)	558.18	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.108287	Area (m2)		2.75	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.52	Top Width (m)		4.52	
Vel Total (m/s)	6.74	Avg. Vel. (m/s)		6.74	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	56.4	Conv. (m3/s)		56.4	
Length Wtd. (m)		Wetted Per. (m)		5.19	
Min Ch EI (m)	556.90	Shear (N/m2)		563.37	

Plan: 02 Giacco 3 RS: 5035 BR D Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		3796.72	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.03	

Plan: 02 Giacco 3 RS: 5030 Profile: PF 1

E.G. Elev (m)	559.47	Element	Left OB	Channel	Right OB
Vel Head (m)	1.87	Wt. n-Val.		0.032	
W.S. Elev (m)	557.60	Reach Len. (m)	1.86	1.86	1.86
Crit W.S. (m)	558.12	Flow Area (m2)		3.07	
E.G. Slope (m/m)	0.077910	Area (m2)		3.07	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.52	Top Width (m)		4.52	
Vel Total (m/s)	6.05	Avg. Vel. (m/s)		6.05	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	66.5	Conv. (m3/s)		66.5	
Length Wtd. (m)	1.86	Wetted Per. (m)		5.31	
Min Ch EI (m)	556.83	Shear (N/m2)		441.60	
Alpha	1.00	Stream Power (N/m s)		2672.78	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.03	

Plan: 02 Giacco 3 RS: 5020 Profile: PF 1

E.G. Elev (m)	559.29	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.032	
W.S. Elev (m)	557.16	Reach Len. (m)	1.93	1.93	1.93
Crit W.S. (m)	557.73	Flow Area (m2)		2.88	
E.G. Slope (m/m)	0.090166	Area (m2)		2.88	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.38	Top Width (m)		4.38	
Vel Total (m/s)	6.45	Avg. Vel. (m/s)		6.45	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	61.8	Conv. (m3/s)		61.8	
Length Wtd. (m)	1.93	Wetted Per. (m)		5.05	
Min Ch EI (m)	556.36	Shear (N/m2)		504.08	
Alpha	1.00	Stream Power (N/m s)		3252.13	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.06	Cum SA (1000 m2)		0.02	

Plan: 02 Giacco 3 RS: 5010 Profile: PF 1

E.G. Elev (m)	559.03	Element	Left OB	Channel	Right OB
Vel Head (m)	2.70	Wt. n-Val.		0.032	
W.S. Elev (m)	556.33	Reach Len. (m)	1.76	1.76	1.76
Crit W.S. (m)	556.99	Flow Area (m2)		2.55	
E.G. Slope (m/m)	0.121787	Area (m2)		2.55	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	4.03	Top Width (m)		4.03	
Vel Total (m/s)	7.28	Avg. Vel. (m/s)		7.28	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	53.2	Conv. (m3/s)		53.2	
Length Wtd. (m)	1.76	Wetted Per. (m)		4.68	
Min Ch EI (m)	555.54	Shear (N/m2)		651.09	
Alpha	1.00	Stream Power (N/m s)		4738.56	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.01	

Plan: 02 Giacco 3 RS: 5005 Profile: PF 1

E.G. Elev (m)	558.81	Element	Left OB	Channel	Right OB
Vel Head (m)	2.77	Wt. n-Val.		0.032	
W.S. Elev (m)	556.04	Reach Len. (m)	2.00	2.00	2.00
Crit W.S. (m)	556.73	Flow Area (m2)		2.52	
E.G. Slope (m/m)	0.124369	Area (m2)		2.52	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.95	Top Width (m)		3.95	
Vel Total (m/s)	7.36	Avg. Vel. (m/s)		7.36	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	52.6	Conv. (m3/s)		52.6	
Length Wtd. (m)	2.00	Wetted Per. (m)		4.61	
Min Ch El (m)	555.24	Shear (N/m2)		666.29	
Alpha	1.00	Stream Power (N/m s)		4907.14	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.01	

Plan: 02 Giacco 3 RS: 5002 BR U Profile: PF 1

E.G. Elev (m)	558.46	Element	Left OB	Channel	Right OB
Vel Head (m)	2.31	Wt. n-Val.		0.032	
W.S. Elev (m)	556.15	Reach Len. (m)			
Crit W.S. (m)	556.80	Flow Area (m2)		2.76	
E.G. Slope (m/m)	0.091512	Area (m2)		2.76	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.15	Top Width (m)		3.15	
Vel Total (m/s)	6.73	Avg. Vel. (m/s)		6.73	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	61.4	Conv. (m3/s)		61.4	
Length Wtd. (m)		Wetted Per. (m)		4.59	
Min Ch El (m)	555.19	Shear (N/m2)		539.22	
Alpha	1.00	Stream Power (N/m s)		3629.67	
Frctn Loss (m)	0.73	Cum Volume (1000 m3)			
C & E Loss (m)	0.22	Cum SA (1000 m2)			

Plan: 02 Giacco 3 RS: 5002 BR D Profile: PF 1

E.G. Elev (m)	557.51	Element	Left OB	Channel	Right OB
Vel Head (m)	1.59	Wt. n-Val.		0.032	
W.S. Elev (m)	555.92	Reach Len. (m)			
Crit W.S. (m)	556.40	Flow Area (m2)		3.32	
E.G. Slope (m/m)	0.059951	Area (m2)		3.32	
Q Total (m3/s)	18.56	Flow (m3/s)		18.56	
Top Width (m)	3.35	Top Width (m)		3.35	
Vel Total (m/s)	5.58	Avg. Vel. (m/s)		5.58	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	75.8	Conv. (m3/s)		75.8	
Length Wtd. (m)		Wetted Per. (m)		5.33	
Min Ch El (m)	554.93	Shear (N/m2)		366.38	
Alpha	1.00	Stream Power (N/m s)		2045.31	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: 02 Giacco 3 RS: 5000 Profile: PF 1

E.G. Elev (m)	557.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.045	0.032	0.045
W.S. Elev (m)	557.17	Reach Len. (m)			
Crit W.S. (m)	555.83	Flow Area (m2)	0.18	16.95	0.68
E.G. Slope (m/m)	0.000691	Area (m2)	0.18	16.95	0.68
Q Total (m3/s)	18.56	Flow (m3/s)	0.03	18.40	0.13

Plan: 02 Giacco 3 RS: 5000 Profile: PF 1 (Continued)

Top Width (m)	13.46	Top Width (m)	1.22	8.84	3.40
Vel Total (m/s)	1.04	Avg. Vel. (m/s)	0.16	1.09	0.19
Max Chl Dpth (m)	2.30	Hydr. Depth (m)	0.15	1.92	0.20
Conv. Total (m3/s)	706.1	Conv. (m3/s)	1.1	700.1	5.0
Length Wtd. (m)		Wetted Per. (m)	1.25	11.16	3.60
Min Ch EI (m)	554.87	Shear (N/m2)	0.99	10.29	1.28
Alpha	1.08	Stream Power (N/m s)	0.16	11.17	0.25
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 02 Marchese 2 RS: 39 Profile: PF 1

E.G. Elev (m)	683.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.040	
W.S. Elev (m)	682.20	Reach Len. (m)	7.73	7.72	7.73
Crit W.S. (m)	682.41	Flow Area (m2)		0.54	
E.G. Slope (m/m)	0.324634	Area (m2)		0.54	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.13	Top Width (m)		3.13	
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		4.33	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	4.1	Conv. (m3/s)		4.1	
Length Wtd. (m)	7.72	Wetted Per. (m)		3.23	
Min Ch EI (m)	682.00	Shear (N/m2)		533.48	
Alpha	1.00	Stream Power (N/m s)		2309.76	
Frctn Loss (m)	2.69	Cum Volume (1000 m3)	0.01	0.37	0.01
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.02	0.73	0.03

Plan: 02 Marchese 2 RS: 38 Profile: PF 1

E.G. Elev (m)	680.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.040	
W.S. Elev (m)	679.64	Reach Len. (m)	10.89	10.89	10.89
Crit W.S. (m)	679.81	Flow Area (m2)		0.60	
E.G. Slope (m/m)	0.373896	Area (m2)		0.60	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.64	Top Width (m)		4.64	
Vel Total (m/s)	3.89	Avg. Vel. (m/s)		3.89	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	3.8	Conv. (m3/s)		3.8	
Length Wtd. (m)	10.89	Wetted Per. (m)		4.69	
Min Ch EI (m)	679.50	Shear (N/m2)		470.39	
Alpha	1.00	Stream Power (N/m s)		1829.10	
Frctn Loss (m)	2.80	Cum Volume (1000 m3)	0.01	0.36	0.01
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.02	0.70	0.03

Plan: 02 Marchese 2 RS: 37 Profile: PF 1

E.G. Elev (m)	677.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.040	
W.S. Elev (m)	677.13	Reach Len. (m)	7.98	7.97	7.98
Crit W.S. (m)	677.23	Flow Area (m2)		0.89	
E.G. Slope (m/m)	0.187929	Area (m2)		0.89	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	7.37	Top Width (m)		7.37	
Vel Total (m/s)	2.63	Avg. Vel. (m/s)		2.63	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	7.97	Wetted Per. (m)		7.41	
Min Ch EI (m)	677.00	Shear (N/m2)		220.89	

Plan: 02 Marchese 2 RS: 37 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		581.96	
Frctn Loss (m)	1.61	Cum Volume (1000 m3)	0.01	0.35	0.01
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.02	0.63	0.03

Plan: 02 Marchese 2 RS: 36 Profile: PF 1

E.G. Elev (m)	675.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.040	
W.S. Elev (m)	675.23	Reach Len. (m)	6.16	6.16	6.16
Crit W.S. (m)	675.39	Flow Area (m2)		0.67	
E.G. Slope (m/m)	0.217837	Area (m2)		0.67	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.10	Top Width (m)		4.10	
Vel Total (m/s)	3.47	Avg. Vel. (m/s)		3.47	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	5.0	Conv. (m3/s)		5.0	
Length Wtd. (m)	6.16	Wetted Per. (m)		4.15	
Min Ch EI (m)	675.00	Shear (N/m2)		346.94	
Alpha	1.00	Stream Power (N/m s)		1205.04	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.01	0.35	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.59	0.03

Plan: 02 Marchese 2 RS: 35.5 Profile: PF 1

E.G. Elev (m)	674.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	674.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	673.28	Flow Area (m2)	0.44	9.74	1.20
E.G. Slope (m/m)	0.000061	Area (m2)	0.44	9.74	1.20
Q Total (m3/s)	2.34	Flow (m3/s)	0.03	2.20	0.10
Top Width (m)	11.83	Top Width (m)	1.26	7.15	3.42
Vel Total (m/s)	0.21	Avg. Vel. (m/s)	0.08	0.23	0.09
Max Chl Dpth (m)	2.18	Hydr. Depth (m)	0.35	1.36	0.35
Conv. Total (m3/s)	298.7	Conv. (m3/s)	4.4	281.3	13.0
Length Wtd. (m)	1.20	Wetted Per. (m)	1.43	7.85	3.49
Min Ch EI (m)	672.49	Shear (N/m2)	0.18	0.75	0.21
Alpha	1.15	Stream Power (N/m s)	0.01	0.17	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.55	0.02

Plan: 02 Marchese 2 RS: 35 Profile: PF 1

E.G. Elev (m)	672.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.040	
W.S. Elev (m)	672.79	Reach Len. (m)	18.07	18.07	18.07
Crit W.S. (m)	672.79	Flow Area (m2)		1.20	
E.G. Slope (m/m)	0.026419	Area (m2)		1.20	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.20	Top Width (m)		3.20	
Vel Total (m/s)	1.94	Avg. Vel. (m/s)		1.94	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	14.4	Conv. (m3/s)		14.4	
Length Wtd. (m)	18.07	Wetted Per. (m)		3.63	
Min Ch EI (m)	672.00	Shear (N/m2)		85.78	
Alpha	1.00	Stream Power (N/m s)		166.81	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)	0.37	Cum SA (1000 m2)	0.01	0.54	0.01

Plan: 02 Marchese 2 RS: 34 Profile: PF 1

E.G. Elev (m)	671.02	Element	Left OB	Channel	Right OB
Vel Head (m)	3.92	Wt. n-Val.		0.040	
W.S. Elev (m)	667.10	Reach Len. (m)	18.07	18.07	18.07
Crit W.S. (m)	667.41	Flow Area (m2)		0.27	
E.G. Slope (m/m)	2.922094	Area (m2)		0.27	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	8.77	Avg. Vel. (m/s)		8.77	
Max Chl Dpth (m)	0.10	Hydr. Depth (m)		0.09	
Conv. Total (m3/s)	1.4	Conv. (m3/s)		1.4	
Length Wtd. (m)	18.07	Wetted Per. (m)		2.87	
Min Ch EI (m)	667.00	Shear (N/m2)		2663.72	
Alpha	1.00	Stream Power (N/m s)		23359.48	
Frctn Loss (m)	8.76	Cum Volume (1000 m3)	0.00	0.30	0.00
C & E Loss (m)	1.01	Cum SA (1000 m2)	0.01	0.49	0.01

Plan: 02 Marchese 2 RS: 33 Profile: PF 1

E.G. Elev (m)	661.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.040	
W.S. Elev (m)	660.69	Reach Len. (m)	5.80	5.80	5.80
Crit W.S. (m)	660.84	Flow Area (m2)		0.70	
E.G. Slope (m/m)	0.191134	Area (m2)		0.70	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.00	Top Width (m)		4.00	
Vel Total (m/s)	3.34	Avg. Vel. (m/s)		3.34	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	5.4	Conv. (m3/s)		5.4	
Length Wtd. (m)	5.80	Wetted Per. (m)		4.14	
Min Ch EI (m)	660.50	Shear (N/m2)		317.13	
Alpha	1.00	Stream Power (N/m s)		1060.30	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.43	0.01

Plan: 02 Marchese 2 RS: 32.5 Profile: PF 1

E.G. Elev (m)	659.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	659.68	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	658.06	Flow Area (m2)	0.20	11.22	0.27
E.G. Slope (m/m)	0.000043	Area (m2)	0.20	11.22	0.27
Q Total (m3/s)	2.34	Flow (m3/s)	0.01	2.31	0.02
Top Width (m)	8.76	Top Width (m)	0.69	7.11	0.96
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.05	0.21	0.06
Max Chl Dpth (m)	2.08	Hydr. Depth (m)	0.29	1.58	0.28
Conv. Total (m3/s)	357.1	Conv. (m3/s)	1.6	353.2	2.3
Length Wtd. (m)	1.20	Wetted Per. (m)	0.90	7.94	1.12
Min Ch EI (m)	657.60	Shear (N/m2)	0.09	0.60	0.10
Alpha	1.05	Stream Power (N/m s)	0.01	0.12	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.40	0.01

Plan: 02 Marchese 2 RS: 32 Profile: PF 1

E.G. Elev (m)	657.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	657.46	Reach Len. (m)	8.28	8.28	8.28
Crit W.S. (m)	657.46	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.024563	Area (m2)		1.30	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	

Plan: 02 Marchese 2 RS: 32 Profile: PF 1 (Continued)

Top Width (m)	3.99	Top Width (m)		3.99	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	8.28	Wetted Per. (m)		4.16	
Min Ch El (m)	657.00	Shear (N/m2)		75.11	
Alpha	1.00	Stream Power (N/m s)		135.34	
Frctn Loss (m)	0.62	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.32	Cum SA (1000 m2)	0.01	0.39	0.01

Plan: 02 Marchese 2 RS: 31 Profile: PF 1

E.G. Elev (m)	656.68	Element	Left OB	Channel	Right OB
Vel Head (m)	3.35	Wt. n-Val.		0.040	
W.S. Elev (m)	653.33	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	653.69	Flow Area (m2)		0.29	
E.G. Slope (m/m)	1.214698	Area (m2)		0.29	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	8.11	Avg. Vel. (m/s)		8.11	
Max Chl Dpth (m)	0.33	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.1	Conv. (m3/s)		2.1	
Length Wtd. (m)	6.00	Wetted Per. (m)		1.81	
Min Ch El (m)	653.00	Shear (N/m2)		1901.99	
Alpha	1.00	Stream Power (N/m s)		15424.13	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.37	0.01

Plan: 02 Marchese 2 RS: 30.5 Profile: PF 1

E.G. Elev (m)	652.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	652.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	651.08	Flow Area (m2)	0.31	9.55	0.34
E.G. Slope (m/m)	0.000059	Area (m2)	0.31	9.55	0.34
Q Total (m3/s)	2.34	Flow (m3/s)	0.02	2.29	0.02
Top Width (m)	7.90	Top Width (m)	0.93	5.96	1.01
Vel Total (m/s)	0.23	Avg. Vel. (m/s)	0.07	0.24	0.07
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.33	1.60	0.34
Conv. Total (m3/s)	305.2	Conv. (m3/s)	2.9	299.1	3.2
Length Wtd. (m)	1.20	Wetted Per. (m)	1.14	6.80	1.22
Min Ch El (m)	650.50	Shear (N/m2)	0.16	0.81	0.16
Alpha	1.08	Stream Power (N/m s)	0.01	0.19	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.22	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.34	0.01

Plan: 02 Marchese 2 RS: 30 Profile: PF 1

E.G. Elev (m)	650.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.040	
W.S. Elev (m)	650.58	Reach Len. (m)	7.92	7.92	7.92
Crit W.S. (m)	650.58	Flow Area (m2)		1.23	
E.G. Slope (m/m)	0.024684	Area (m2)		1.23	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.40	Top Width (m)		3.40	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	7.92	Wetted Per. (m)		3.65	
Min Ch El (m)	650.00	Shear (N/m2)		81.63	

Plan: 02 Marchese 2 RS: 30 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		155.35	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	0.00	0.21	0.00
C & E Loss (m)	0.34	Cum SA (1000 m2)	0.01	0.34	0.01

Plan: 02 Marchese 2 RS: 29 Profile: PF 1

E.G. Elev (m)	649.82	Element	Left OB	Channel	Right OB
Vel Head (m)	3.59	Wt. n-Val.		0.040	
W.S. Elev (m)	646.23	Reach Len. (m)	6.30	6.30	6.30
Crit W.S. (m)	646.61	Flow Area (m2)		0.28	
E.G. Slope (m/m)	1.347345	Area (m2)		0.28	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	1.68	Top Width (m)		1.68	
Vel Total (m/s)	8.39	Avg. Vel. (m/s)		8.39	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	2.0	Conv. (m3/s)		2.0	
Length Wtd. (m)	6.30	Wetted Per. (m)		1.79	
Min Ch EI (m)	646.00	Shear (N/m2)		2053.67	
Alpha	1.00	Stream Power (N/m s)		17228.03	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.21	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.32	0.01

Plan: 02 Marchese 2 RS: 28.5 Profile: PF 1

E.G. Elev (m)	644.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	644.68	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	643.02	Flow Area (m2)	0.24	13.93	0.13
E.G. Slope (m/m)	0.000026	Area (m2)	0.24	13.93	0.13
Q Total (m3/s)	2.34	Flow (m3/s)	0.01	2.32	0.00
Top Width (m)	9.96	Top Width (m)	0.90	8.54	0.51
Vel Total (m/s)	0.16	Avg. Vel. (m/s)	0.04	0.17	0.04
Max Chl Dpth (m)	2.04	Hydr. Depth (m)	0.27	1.63	0.26
Conv. Total (m3/s)	456.9	Conv. (m3/s)	2.0	454.0	0.9
Length Wtd. (m)	1.20	Wetted Per. (m)	1.05	9.36	0.74
Min Ch EI (m)	642.64	Shear (N/m2)	0.06	0.38	0.05
Alpha	1.03	Stream Power (N/m s)	0.00	0.06	0.00
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 02 Marchese 2 RS: 28 Profile: PF 1

E.G. Elev (m)	642.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.040	
W.S. Elev (m)	642.38	Reach Len. (m)	9.82	9.82	9.82
Crit W.S. (m)	642.38	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024660	Area (m2)		1.41	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.97	Top Width (m)		4.97	
Vel Total (m/s)	1.67	Avg. Vel. (m/s)		1.67	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	14.9	Conv. (m3/s)		14.9	
Length Wtd. (m)	9.82	Wetted Per. (m)		5.09	
Min Ch EI (m)	642.00	Shear (N/m2)		66.81	
Alpha	1.00	Stream Power (N/m s)		111.25	
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)	0.10	Cum SA (1000 m2)	0.00	0.28	0.01

Plan: 02 Marchese 2 RS: 27 Profile: PF 1

E.G. Elev (m)	641.74	Element	Left OB	Channel	Right OB
Vel Head (m)	1.10	Wt. n-Val.		0.040	
W.S. Elev (m)	640.65	Reach Len. (m)	9.43	9.43	9.43
Crit W.S. (m)	640.84	Flow Area (m2)		0.50	
E.G. Slope (m/m)	0.606713	Area (m2)		0.50	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.31	Top Width (m)		4.31	
Vel Total (m/s)	4.64	Avg. Vel. (m/s)		4.64	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	9.43	Wetted Per. (m)		4.34	
Min Ch EI (m)	640.50	Shear (N/m2)		691.81	
Alpha	1.00	Stream Power (N/m s)		3209.35	
Frctn Loss (m)	2.68	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.17	Cum SA (1000 m2)	0.00	0.23	0.01

Plan: 02 Marchese 2 RS: 26 Profile: PF 1

E.G. Elev (m)	638.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	638.36	Reach Len. (m)	5.68	5.67	5.68
Crit W.S. (m)	638.51	Flow Area (m2)		0.72	
E.G. Slope (m/m)	0.164139	Area (m2)		0.72	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.92	Top Width (m)		3.92	
Vel Total (m/s)	3.24	Avg. Vel. (m/s)		3.24	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	5.8	Conv. (m3/s)		5.8	
Length Wtd. (m)	5.67	Wetted Per. (m)		3.99	
Min Ch EI (m)	638.00	Shear (N/m2)		291.49	
Alpha	1.00	Stream Power (N/m s)		945.03	
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.00	0.14	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.00	0.19	0.01

Plan: 02 Marchese 2 RS: 25 Profile: PF 1

E.G. Elev (m)	637.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.040	
W.S. Elev (m)	636.66	Reach Len. (m)	7.95	7.95	7.95
Crit W.S. (m)	636.86	Flow Area (m2)		0.56	
E.G. Slope (m/m)	0.356995	Area (m2)		0.56	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.78	Top Width (m)		3.78	
Vel Total (m/s)	4.15	Avg. Vel. (m/s)		4.15	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.9	Conv. (m3/s)		3.9	
Length Wtd. (m)	7.95	Wetted Per. (m)		3.86	
Min Ch EI (m)	636.50	Shear (N/m2)		512.29	
Alpha	1.00	Stream Power (N/m s)		2124.97	
Frctn Loss (m)	3.08	Cum Volume (1000 m3)	0.00	0.14	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.00	0.17	0.01

Plan: 02 Marchese 2 RS: 24 Profile: PF 1

E.G. Elev (m)	634.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.040	
W.S. Elev (m)	633.63	Reach Len. (m)	9.78	9.78	9.78
Crit W.S. (m)	633.80	Flow Area (m2)		0.59	
E.G. Slope (m/m)	0.422825	Area (m2)		0.59	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	

Plan: 02 Marchese 2 RS: 24 Profile: PF 1 (Continued)

Top Width (m)	4.82	Top Width (m)		4.82	
Vel Total (m/s)	3.97	Avg. Vel. (m/s)		3.97	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	3.6	Conv. (m3/s)		3.6	
Length Wtd. (m)	9.78	Wetted Per. (m)		4.87	
Min Ch EI (m)	633.50	Shear (N/m2)		501.16	
Alpha	1.00	Stream Power (N/m s)		1991.57	
Frctn Loss (m)	3.17	Cum Volume (1000 m3)	0.00	0.13	0.00
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.00	0.14	0.01

Plan: 02 Marchese 2 RS: 23 Profile: PF 1

E.G. Elev (m)	631.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.040	
W.S. Elev (m)	630.64	Reach Len. (m)	9.40	9.40	9.40
Crit W.S. (m)	630.78	Flow Area (m2)		0.72	
E.G. Slope (m/m)	0.256158	Area (m2)		0.72	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	5.41	Top Width (m)		5.41	
Vel Total (m/s)	3.27	Avg. Vel. (m/s)		3.27	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	4.6	Conv. (m3/s)		4.6	
Length Wtd. (m)	9.40	Wetted Per. (m)		5.45	
Min Ch EI (m)	630.50	Shear (N/m2)		329.77	
Alpha	1.00	Stream Power (N/m s)		1077.80	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.13	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.00	0.09	0.01

Plan: 02 Marchese 2 RS: 22.5 Profile: PF 1

E.G. Elev (m)	629.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	629.67	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	627.81	Flow Area (m2)	0.35	14.47	0.42
E.G. Slope (m/m)	0.000021	Area (m2)	0.35	14.47	0.42
Q Total (m3/s)	2.34	Flow (m3/s)	0.02	2.30	0.02
Top Width (m)	9.86	Top Width (m)	0.90	7.94	1.02
Vel Total (m/s)	0.15	Avg. Vel. (m/s)	0.04	0.16	0.05
Max Chl Dpth (m)	2.27	Hydr. Depth (m)	0.39	1.82	0.41
Conv. Total (m3/s)	513.7	Conv. (m3/s)	3.4	505.8	4.4
Length Wtd. (m)	1.20	Wetted Per. (m)	1.19	8.75	1.28
Min Ch EI (m)	627.40	Shear (N/m2)	0.06	0.34	0.07
Alpha	1.06	Stream Power (N/m s)	0.00	0.05	0.00
Frctn Loss (m)		Cum Volume (1000 m3)		0.06	
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.02	0.00

Plan: 02 Marchese 2 RS: 22 Profile: PF 1

E.G. Elev (m)	627.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.040	
W.S. Elev (m)	627.41	Reach Len. (m)	4.31	4.32	4.31
Crit W.S. (m)	627.41	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.024986	Area (m2)		1.35	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	4.53	Top Width (m)		4.53	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	14.8	Conv. (m3/s)		14.8	
Length Wtd. (m)	4.32	Wetted Per. (m)		4.68	
Min Ch EI (m)	627.00	Shear (N/m2)		70.89	

Plan: 02 Marchese 2 RS: 22 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		122.56	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.18	Cum SA (1000 m2)		0.02	

Plan: 02 Marchese 2 RS: 21 Profile: PF 1

E.G. Elev (m)	627.06	Element	Left OB	Channel	Right OB
Vel Head (m)	1.93	Wt. n-Val.		0.040	
W.S. Elev (m)	625.13	Reach Len. (m)	9.41	9.41	9.41
Crit W.S. (m)	625.38	Flow Area (m2)		0.38	
E.G. Slope (m/m)	1.072091	Area (m2)		0.38	
Q Total (m3/s)	2.34	Flow (m3/s)		2.34	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	6.15	Avg. Vel. (m/s)		6.15	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	2.3	Conv. (m3/s)		2.3	
Length Wtd. (m)	9.41	Wetted Per. (m)		3.28	
Min Ch El (m)	625.00	Shear (N/m2)		1217.76	
Alpha	1.00	Stream Power (N/m s)		7490.25	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)			

Plan: 02 Marchese 1 RS: 33 Profile: PF 1

E.G. Elev (m)	689.72	Element	Left OB	Channel	Right OB
Vel Head (m)	2.53	Wt. n-Val.		0.040	
W.S. Elev (m)	687.19	Reach Len. (m)	4.00	4.00	4.00
Crit W.S. (m)	687.51	Flow Area (m2)		0.36	
E.G. Slope (m/m)	1.000164	Area (m2)		0.36	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.34	Top Width (m)		2.34	
Vel Total (m/s)	7.04	Avg. Vel. (m/s)		7.04	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	4.00	Wetted Per. (m)		2.42	
Min Ch El (m)	687.00	Shear (N/m2)		1466.53	
Alpha	1.00	Stream Power (N/m s)		10329.26	
Frctn Loss (m)	4.01	Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	0.40	0.02

Plan: 02 Marchese 1 RS: 32 Profile: PF 1

E.G. Elev (m)	685.70	Element	Left OB	Channel	Right OB
Vel Head (m)	2.49	Wt. n-Val.		0.040	
W.S. Elev (m)	683.20	Reach Len. (m)	2.39	2.39	2.39
Crit W.S. (m)	683.52	Flow Area (m2)		0.36	
E.G. Slope (m/m)	1.003083	Area (m2)		0.36	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.39	Top Width (m)		2.39	
Vel Total (m/s)	6.99	Avg. Vel. (m/s)		6.99	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	2.39	Wetted Per. (m)		2.47	
Min Ch El (m)	683.00	Shear (N/m2)		1451.45	
Alpha	1.00	Stream Power (N/m s)		10147.91	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.32	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.02	0.40	0.02

Plan: 02 Marchese 1 RS: 31.5 Profile: PF 1

E.G. Elev (m)	683.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	683.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	682.43	Flow Area (m2)	0.13	6.93	0.10
E.G. Slope (m/m)	0.000173	Area (m2)	0.13	6.93	0.10
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.53	0.01
Top Width (m)	5.98	Top Width (m)	0.56	5.00	0.42
Vel Total (m/s)	0.36	Avg. Vel. (m/s)	0.09	0.36	0.09
Max Chl Dpth (m)	1.97	Hydr. Depth (m)	0.24	1.39	0.24
Conv. Total (m3/s)	193.7	Conv. (m3/s)	0.9	192.1	0.6
Length Wtd. (m)	1.20	Wetted Per. (m)	0.73	5.94	0.63
Min Ch EI (m)	681.73	Shear (N/m2)	0.31	1.99	0.27
Alpha	1.04	Stream Power (N/m s)	0.03	0.72	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.02	0.39	0.02

Plan: 02 Marchese 1 RS: 31 Profile: PF 1

E.G. Elev (m)	681.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.040	
W.S. Elev (m)	681.70	Reach Len. (m)	12.16	12.16	12.16
Crit W.S. (m)	681.70	Flow Area (m2)		1.26	
E.G. Slope (m/m)	0.024936	Area (m2)		1.26	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	2.02	Avg. Vel. (m/s)		2.02	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	16.1	Conv. (m3/s)		16.1	
Length Wtd. (m)	12.16	Wetted Per. (m)		3.45	
Min Ch EI (m)	681.00	Shear (N/m2)		89.56	
Alpha	1.00	Stream Power (N/m s)		180.98	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)	0.00	0.31	0.00
C & E Loss (m)	0.41	Cum SA (1000 m2)	0.02	0.38	0.02

Plan: 02 Marchese 1 RS: 30 Profile: PF 1

E.G. Elev (m)	680.50	Element	Left OB	Channel	Right OB
Vel Head (m)	4.36	Wt. n-Val.		0.040	
W.S. Elev (m)	676.15	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	676.54	Flow Area (m2)		0.28	
E.G. Slope (m/m)	2.114403	Area (m2)		0.28	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	9.24	Avg. Vel. (m/s)		9.24	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	1.8	Conv. (m3/s)		1.8	
Length Wtd. (m)	1.20	Wetted Per. (m)		2.15	
Min Ch EI (m)	676.00	Shear (N/m2)		2658.16	
Alpha	1.00	Stream Power (N/m s)		24567.95	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.30	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.35	0.02

Plan: 02 Marchese 1 RS: 29.5 Profile: PF 1

E.G. Elev (m)	676.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	676.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	675.86	Flow Area (m2)	0.00	4.15	0.00
E.G. Slope (m/m)	0.000830	Area (m2)	0.00	4.15	0.00
Q Total (m3/s)	2.55	Flow (m3/s)	0.00	2.55	0.00

Plan: 02 Marchese 1 RS: 29.5 Profile: PF 1 (Continued)

Top Width (m)	4.14	Top Width (m)	0.03	4.05	0.06
Vel Total (m/s)	0.61	Avg. Vel. (m/s)	0.04	0.61	0.05
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.03	1.02	0.03
Conv. Total (m3/s)	88.5	Conv. (m3/s)	0.0	88.5	0.0
Length Wtd. (m)	1.20	Wetted Per. (m)	0.07	5.26	0.09
Min Ch EI (m)	675.13	Shear (N/m2)	0.12	6.42	0.18
Alpha	1.00	Stream Power (N/m s)	0.00	3.95	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.02	0.35	0.02

Plan: 02 Marchese 1 RS: 29 Profile: PF 1

E.G. Elev (m)	674.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.040	
W.S. Elev (m)	674.73	Reach Len. (m)	11.26	11.26	11.26
Crit W.S. (m)	674.73	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.025616	Area (m2)		1.22	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.83	Top Width (m)		2.83	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	15.9	Conv. (m3/s)		15.9	
Length Wtd. (m)	11.26	Wetted Per. (m)		3.26	
Min Ch EI (m)	674.00	Shear (N/m2)		94.31	
Alpha	1.00	Stream Power (N/m s)		196.40	
Frctn Loss (m)	0.92	Cum Volume (1000 m3)	0.00	0.29	0.00
C & E Loss (m)	0.33	Cum SA (1000 m2)	0.02	0.34	0.02

Plan: 02 Marchese 1 RS: 28 Profile: PF 1

E.G. Elev (m)	673.71	Element	Left OB	Channel	Right OB
Vel Head (m)	3.49	Wt. n-Val.		0.040	
W.S. Elev (m)	670.22	Reach Len. (m)	5.38	5.38	5.38
Crit W.S. (m)	670.52	Flow Area (m2)		0.31	
E.G. Slope (m/m)	1.790620	Area (m2)		0.31	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.46	Top Width (m)		2.46	
Vel Total (m/s)	8.27	Avg. Vel. (m/s)		8.27	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	1.9	Conv. (m3/s)		1.9	
Length Wtd. (m)	5.38	Wetted Per. (m)		2.51	
Min Ch EI (m)	670.00	Shear (N/m2)		2160.10	
Alpha	1.00	Stream Power (N/m s)		17874.02	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.28	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.02	0.31	0.02

Plan: 02 Marchese 1 RS: 27.5 Profile: PF 1

E.G. Elev (m)	669.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	669.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	668.23	Flow Area (m2)	0.36	8.05	0.21
E.G. Slope (m/m)	0.000109	Area (m2)	0.36	8.05	0.21
Q Total (m3/s)	2.55	Flow (m3/s)	0.04	2.49	0.02
Top Width (m)	6.97	Top Width (m)	1.00	5.31	0.65
Vel Total (m/s)	0.30	Avg. Vel. (m/s)	0.10	0.31	0.09
Max Chl Dpth (m)	2.16	Hydr. Depth (m)	0.36	1.52	0.32
Conv. Total (m3/s)	244.7	Conv. (m3/s)	3.6	239.3	1.8
Length Wtd. (m)	1.20	Wetted Per. (m)	1.21	6.21	0.93
Min Ch EI (m)	667.55	Shear (N/m2)	0.32	1.38	0.24

Plan: 02 Marchese 1 RS: 27.5 Profile: PF 1 (Continued)

Alpha	1.08	Stream Power (N/m s)	0.03	0.43	0.02
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 02 Marchese 1 RS: 27 Profile: PF 1

E.G. Elev (m)	667.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.040	
W.S. Elev (m)	667.68	Reach Len. (m)	8.97	8.96	8.97
Crit W.S. (m)	667.68	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.024906	Area (m2)		1.24	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.91	Top Width (m)		2.91	
Vel Total (m/s)	2.06	Avg. Vel. (m/s)		2.06	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	8.96	Wetted Per. (m)		3.28	
Min Ch EI (m)	667.00	Shear (N/m2)		92.10	
Alpha	1.00	Stream Power (N/m s)		189.65	
Frctn Loss (m)	0.67	Cum Volume (1000 m3)	0.00	0.26	0.00
C & E Loss (m)	0.30	Cum SA (1000 m2)	0.01	0.29	0.01

Plan: 02 Marchese 1 RS: 26 Profile: PF 1

E.G. Elev (m)	666.93	Element	Left OB	Channel	Right OB
Vel Head (m)	3.20	Wt. n-Val.		0.040	
W.S. Elev (m)	663.73	Reach Len. (m)	5.64	5.64	5.64
Crit W.S. (m)	664.12	Flow Area (m2)		0.32	
E.G. Slope (m/m)	1.063622	Area (m2)		0.32	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.74	Top Width (m)		1.74	
Vel Total (m/s)	7.92	Avg. Vel. (m/s)		7.92	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	5.64	Wetted Per. (m)		1.89	
Min Ch EI (m)	663.50	Shear (N/m2)		1776.60	
Alpha	1.00	Stream Power (N/m s)		14075.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.25	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.27	0.01

Plan: 02 Marchese 1 RS: 25.5 Profile: PF 1

E.G. Elev (m)	662.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.040	
W.S. Elev (m)	662.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	661.37	Flow Area (m2)		5.08	
E.G. Slope (m/m)	0.000257	Area (m2)	0.19	6.29	0.15
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	5.41	Top Width (m)	0.64	4.26	0.51
Vel Total (m/s)	0.50	Avg. Vel. (m/s)		0.50	
Max Chl Dpth (m)	2.09	Hydr. Depth (m)		1.69	
Conv. Total (m3/s)	159.0	Conv. (m3/s)		159.0	
Length Wtd. (m)	1.20	Wetted Per. (m)		3.63	
Min Ch EI (m)	660.61	Shear (N/m2)		3.53	
Alpha	1.00	Stream Power (N/m s)		1.77	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.23	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.25	0.01

Plan: 02 Marchese 1 RS: 25 Profile: PF 1

E.G. Elev (m)	660.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.040	
W.S. Elev (m)	660.76	Reach Len. (m)	6.29	6.29	6.29
Crit W.S. (m)	660.76	Flow Area (m2)		1.20	
E.G. Slope (m/m)	0.025985	Area (m2)		1.20	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	2.12	Avg. Vel. (m/s)		2.12	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	15.8	Conv. (m3/s)		15.8	
Length Wtd. (m)	6.29	Wetted Per. (m)		3.15	
Min Ch El (m)	660.00	Shear (N/m2)		97.26	
Alpha	1.00	Stream Power (N/m s)		206.24	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	0.00	0.23	0.00
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.01	0.25	0.01

Plan: 02 Marchese 1 RS: 24 Profile: PF 1

E.G. Elev (m)	660.35	Element	Left OB	Channel	Right OB
Vel Head (m)	2.10	Wt. n-Val.		0.040	
W.S. Elev (m)	658.25	Reach Len. (m)	5.60	5.60	5.60
Crit W.S. (m)	658.59	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.633995	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	6.41	Avg. Vel. (m/s)		6.41	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	5.60	Wetted Per. (m)		2.18	
Min Ch El (m)	658.00	Shear (N/m2)		1136.34	
Alpha	1.00	Stream Power (N/m s)		7285.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.22	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.01	0.23	0.01

Plan: 02 Marchese 1 RS: 23.5 Profile: PF 1

E.G. Elev (m)	658.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	
W.S. Elev (m)	658.21	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	656.32	Flow Area (m2)	0.25	12.34	
E.G. Slope (m/m)	0.000041	Area (m2)	0.25	12.34	
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.54	
Top Width (m)	7.36	Top Width (m)	0.65	6.71	
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.06	0.21	
Max Chl Dpth (m)	2.26	Hydr. Depth (m)	0.38	1.84	
Conv. Total (m3/s)	399.3	Conv. (m3/s)	2.2	397.2	
Length Wtd. (m)	1.20	Wetted Per. (m)	1.00	8.45	
Min Ch El (m)	655.95	Shear (N/m2)	0.10	0.58	
Alpha	1.02	Stream Power (N/m s)	0.01	0.12	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.19	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.21	0.01

Plan: 02 Marchese 1 RS: 23 Profile: PF 1

E.G. Elev (m)	656.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	655.87	Reach Len. (m)	1.49	1.50	1.49
Crit W.S. (m)	655.87	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024854	Area (m2)		1.41	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	

Plan: 02 Marchese 1 RS: 23 Profile: PF 1 (Continued)

Top Width (m)	4.29	Top Width (m)		4.29	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	1.50	Wetted Per. (m)		4.55	
Min Ch EI (m)	655.50	Shear (N/m2)		75.59	
Alpha	1.00	Stream Power (N/m s)		136.49	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.00	0.18	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	0.01	0.20	0.01

Plan: 02 Marchese 1 RS: 22 Profile: PF 1

E.G. Elev (m)	655.79	Element	Left OB	Channel	Right OB
Vel Head (m)	1.62	Wt. n-Val.		0.040	
W.S. Elev (m)	654.17	Reach Len. (m)	3.40	3.40	3.40
Crit W.S. (m)	654.44	Flow Area (m2)		0.45	
E.G. Slope (m/m)	0.648090	Area (m2)		0.45	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	5.64	Avg. Vel. (m/s)		5.64	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	3.40	Wetted Per. (m)		3.05	
Min Ch EI (m)	654.00	Shear (N/m2)		942.00	
Alpha	1.00	Stream Power (N/m s)		5309.77	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.18	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.19	0.01

Plan: 02 Marchese 1 RS: 21.5 Profile: PF 1

E.G. Elev (m)	653.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	653.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	652.35	Flow Area (m2)	0.09	7.48	0.06
E.G. Slope (m/m)	0.000145	Area (m2)	0.09	7.48	0.06
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.54	0.00
Top Width (m)	5.78	Top Width (m)	0.41	5.08	0.29
Vel Total (m/s)	0.33	Avg. Vel. (m/s)	0.07	0.34	0.06
Max Chl Dpth (m)	1.93	Hydr. Depth (m)	0.21	1.47	0.21
Conv. Total (m3/s)	212.1	Conv. (m3/s)	0.5	211.2	0.3
Length Wtd. (m)	1.20	Wetted Per. (m)	0.59	6.22	0.51
Min Ch EI (m)	651.78	Shear (N/m2)	0.21	1.70	0.17
Alpha	1.03	Stream Power (N/m s)	0.02	0.58	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.17	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.18	0.01

Plan: 02 Marchese 1 RS: 21 Profile: PF 1

E.G. Elev (m)	651.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.040	
W.S. Elev (m)	651.57	Reach Len. (m)	3.90	3.89	3.90
Crit W.S. (m)	651.57	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.024503	Area (m2)		1.31	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.48	Top Width (m)		3.48	
Vel Total (m/s)	1.94	Avg. Vel. (m/s)		1.94	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	16.3	Conv. (m3/s)		16.3	
Length Wtd. (m)	3.89	Wetted Per. (m)		3.76	
Min Ch EI (m)	651.00	Shear (N/m2)		83.99	

Plan: 02 Marchese 1 RS: 21 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		163.08	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)	0.00	0.17	0.00
C & E Loss (m)	0.22	Cum SA (1000 m2)	0.01	0.18	0.01

Plan: 02 Marchese 1 RS: 20 Profile: PF 1

E.G. Elev (m)	651.28	Element	Left OB	Channel	Right OB
Vel Head (m)	2.41	Wt. n-Val.		0.040	
W.S. Elev (m)	648.87	Reach Len. (m)	2.80	2.80	2.80
Crit W.S. (m)	649.28	Flow Area (m2)		0.37	
E.G. Slope (m/m)	0.588842	Area (m2)		0.37	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.46	Top Width (m)		1.46	
Vel Total (m/s)	6.87	Avg. Vel. (m/s)		6.87	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)	2.80	Wetted Per. (m)		1.73	
Min Ch EI (m)	648.50	Shear (N/m2)		1238.62	
Alpha	1.00	Stream Power (N/m s)		8514.50	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.01	0.17	0.01

Plan: 02 Marchese 1 RS: 19.5 Profile: PF 1

E.G. Elev (m)	648.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	648.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	647.59	Flow Area (m2)	0.09	4.70	0.11
E.G. Slope (m/m)	0.000477	Area (m2)	0.09	4.70	0.11
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.52	0.02
Top Width (m)	4.53	Top Width (m)	0.42	3.62	0.49
Vel Total (m/s)	0.52	Avg. Vel. (m/s)	0.14	0.54	0.15
Max Chl Dpth (m)	1.95	Hydr. Depth (m)	0.22	1.30	0.22
Conv. Total (m3/s)	116.7	Conv. (m3/s)	0.6	115.4	0.7
Length Wtd. (m)	1.20	Wetted Per. (m)	0.61	4.82	0.66
Min Ch EI (m)	646.75	Shear (N/m2)	0.72	4.56	0.77
Alpha	1.05	Stream Power (N/m s)	0.10	2.45	0.11
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.16	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.16	0.01

Plan: 02 Marchese 1 RS: 19 Profile: PF 1

E.G. Elev (m)	647.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.040	
W.S. Elev (m)	646.84	Reach Len. (m)	3.69	3.69	3.69
Crit W.S. (m)	646.84	Flow Area (m2)		1.14	
E.G. Slope (m/m)	0.028211	Area (m2)		1.14	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.24	Top Width (m)		2.24	
Vel Total (m/s)	2.24	Avg. Vel. (m/s)		2.24	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	15.2	Conv. (m3/s)		15.2	
Length Wtd. (m)	3.69	Wetted Per. (m)		2.91	
Min Ch EI (m)	646.00	Shear (N/m2)		108.13	
Alpha	1.00	Stream Power (N/m s)		242.72	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.01	0.15	0.01

Plan: 02 Marchese 1 RS: 18 Profile: PF 1

E.G. Elev (m)	646.67	Element	Left OB	Channel	Right OB
Vel Head (m)	1.54	Wt. n-Val.		0.040	
W.S. Elev (m)	645.13	Reach Len. (m)	5.41	5.41	5.41
Crit W.S. (m)	645.36	Flow Area (m2)		0.46	
E.G. Slope (m/m)	0.820337	Area (m2)		0.46	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	5.49	Avg. Vel. (m/s)		5.49	
Max Chl Dpth (m)	0.13	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	5.41	Wetted Per. (m)		3.88	
Min Ch EI (m)	645.00	Shear (N/m2)		961.67	
Alpha	1.00	Stream Power (N/m s)		5284.13	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.01	0.14	0.01

Plan: 02 Marchese 1 RS: 17.5 Profile: PF 1

E.G. Elev (m)	644.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	644.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	643.14	Flow Area (m2)	0.25	11.76	0.55
E.G. Slope (m/m)	0.000044	Area (m2)	0.25	11.76	0.55
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.50	0.04
Top Width (m)	9.81	Top Width (m)	0.73	7.39	1.69
Vel Total (m/s)	0.20	Avg. Vel. (m/s)	0.06	0.21	0.07
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.34	1.59	0.32
Conv. Total (m3/s)	384.9	Conv. (m3/s)	2.2	377.3	5.5
Length Wtd. (m)	1.20	Wetted Per. (m)	0.99	8.09	1.82
Min Ch EI (m)	642.54	Shear (N/m2)	0.11	0.63	0.13
Alpha	1.08	Stream Power (N/m s)	0.01	0.13	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.12	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.11	0.01

Plan: 02 Marchese 1 RS: 17 Profile: PF 1

E.G. Elev (m)	642.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.040	
W.S. Elev (m)	642.60	Reach Len. (m)	3.76	3.76	3.76
Crit W.S. (m)	642.60	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.024822	Area (m2)		1.41	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	4.37	Top Width (m)		4.37	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	16.2	Conv. (m3/s)		16.2	
Length Wtd. (m)	3.76	Wetted Per. (m)		4.55	
Min Ch EI (m)	642.00	Shear (N/m2)		75.56	
Alpha	1.00	Stream Power (N/m s)		136.44	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	0.00	0.11	0.00
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.00	0.11	0.00

Plan: 02 Marchese 1 RS: 16 Profile: PF 1

E.G. Elev (m)	642.31	Element	Left OB	Channel	Right OB
Vel Head (m)	2.08	Wt. n-Val.		0.040	
W.S. Elev (m)	640.23	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	640.55	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.691547	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	

Plan: 02 Marchese 1 RS: 16 Profile: PF 1 (Continued)

Top Width (m)	2.25	Top Width (m)		2.25	
Vel Total (m/s)	6.38	Avg. Vel. (m/s)		6.38	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	3.1	Conv. (m3/s)		3.1	
Length Wtd. (m)	2.40	Wetted Per. (m)		2.35	
Min Ch EI (m)	640.00	Shear (N/m2)		1153.24	
Alpha	1.00	Stream Power (N/m s)		7359.18	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.11	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.00	0.09	0.00

Plan: 02 Marchese 1 RS: 15.5 Profile: PF 1

E.G. Elev (m)	640.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	640.71	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	639.27	Flow Area (m2)	0.20	9.27	0.18
E.G. Slope (m/m)	0.000083	Area (m2)	0.20	9.27	0.18
Q Total (m3/s)	2.55	Flow (m3/s)	0.01	2.52	0.01
Top Width (m)	7.68	Top Width (m)	0.75	6.26	0.67
Vel Total (m/s)	0.26	Avg. Vel. (m/s)	0.07	0.27	0.07
Max Chl Dpth (m)	2.04	Hydr. Depth (m)	0.27	1.48	0.27
Conv. Total (m3/s)	280.2	Conv. (m3/s)	1.6	277.2	1.4
Length Wtd. (m)	1.20	Wetted Per. (m)	0.93	7.08	0.86
Min Ch EI (m)	638.67	Shear (N/m2)	0.18	1.06	0.17
Alpha	1.05	Stream Power (N/m s)	0.01	0.29	0.01
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.10	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.08	0.00

Plan: 02 Marchese 1 RS: 15 Profile: PF 1

E.G. Elev (m)	638.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.040	
W.S. Elev (m)	638.60	Reach Len. (m)	3.02	3.02	3.02
Crit W.S. (m)	638.60	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.024170	Area (m2)		1.35	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	16.4	Conv. (m3/s)		16.4	
Length Wtd. (m)	3.02	Wetted Per. (m)		3.97	
Min Ch EI (m)	638.00	Shear (N/m2)		80.44	
Alpha	1.00	Stream Power (N/m s)		152.11	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	0.00	0.10	0.00
C & E Loss (m)	0.16	Cum SA (1000 m2)	0.00	0.08	0.00

Plan: 02 Marchese 1 RS: 14 Profile: PF 1

E.G. Elev (m)	638.41	Element	Left OB	Channel	Right OB
Vel Head (m)	1.75	Wt. n-Val.		0.040	
W.S. Elev (m)	636.66	Reach Len. (m)	6.80	6.80	6.80
Crit W.S. (m)	636.94	Flow Area (m2)		0.44	
E.G. Slope (m/m)	0.705479	Area (m2)		0.44	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.83	Top Width (m)		2.83	
Vel Total (m/s)	5.86	Avg. Vel. (m/s)		5.86	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	6.80	Wetted Per. (m)		2.95	
Min Ch EI (m)	636.50	Shear (N/m2)		1019.25	

Plan: 02 Marchese 1 RS: 14 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		5970.19	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.09	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.00	0.07	0.00

Plan: 02 Marchese 1 RS: 13.5 Profile: PF 1

E.G. Elev (m)	635.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.045	0.040	0.045
W.S. Elev (m)	635.70	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	634.31	Flow Area (m2)	0.19	6.57	0.24
E.G. Slope (m/m)	0.000173	Area (m2)	0.19	6.57	0.24
Q Total (m3/s)	2.55	Flow (m3/s)	0.02	2.50	0.03
Top Width (m)	5.53	Top Width (m)	0.57	4.23	0.73
Vel Total (m/s)	0.36	Avg. Vel. (m/s)	0.11	0.38	0.11
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.33	1.55	0.33
Conv. Total (m3/s)	194.0	Conv. (m3/s)	1.5	190.4	2.1
Length Wtd. (m)	1.20	Wetted Per. (m)	0.88	5.26	0.99
Min Ch El (m)	633.53	Shear (N/m2)	0.37	2.12	0.41
Alpha	1.08	Stream Power (N/m s)	0.04	0.81	0.05
Frctn Loss (m)		Cum Volume (1000 m3)		0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.04	0.00

Plan: 02 Marchese 1 RS: 13 Profile: PF 1

E.G. Elev (m)	634.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.040	
W.S. Elev (m)	633.78	Reach Len. (m)	7.37	7.37	7.37
Crit W.S. (m)	633.78	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.025795	Area (m2)		1.21	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)		2.11	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	15.9	Conv. (m3/s)		15.9	
Length Wtd. (m)	7.37	Wetted Per. (m)		3.18	
Min Ch El (m)	633.00	Shear (N/m2)		96.24	
Alpha	1.00	Stream Power (N/m s)		202.88	
Frctn Loss (m)	0.56	Cum Volume (1000 m3)		0.07	
C & E Loss (m)	0.19	Cum SA (1000 m2)		0.04	

Plan: 02 Marchese 1 RS: 12 Profile: PF 1

E.G. Elev (m)	633.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.11	Wt. n-Val.		0.040	
W.S. Elev (m)	631.15	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)	631.44	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.980312	Area (m2)		0.40	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	6.43	Avg. Vel. (m/s)		6.43	
Max Chl Dpth (m)	0.15	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	2.6	Conv. (m3/s)		2.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		2.99	
Min Ch El (m)	631.00	Shear (N/m2)		1273.63	
Alpha	1.00	Stream Power (N/m s)		8192.98	
Frctn Loss (m)	4.20	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.02	

Plan: 02 Marchese 1 RS: 11 Profile: PF 1

E.G. Elev (m)	628.86	Element	Left OB	Channel	Right OB
Vel Head (m)	1.46	Wt. n-Val.		0.040	
W.S. Elev (m)	627.40	Reach Len. (m)	10.62	10.62	10.62
Crit W.S. (m)	627.72	Flow Area (m2)		0.48	
E.G. Slope (m/m)	0.326639	Area (m2)		0.48	
Q Total (m3/s)	2.55	Flow (m3/s)		2.55	
Top Width (m)	1.86	Top Width (m)		1.86	
Vel Total (m/s)	5.35	Avg. Vel. (m/s)		5.35	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	4.5	Conv. (m3/s)		4.5	
Length Wtd. (m)	10.62	Wetted Per. (m)		2.08	
Min Ch EI (m)	627.00	Shear (N/m2)		733.74	
Alpha	1.00	Stream Power (N/m s)		3924.82	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: 02 Marchese 3 RS: 10 Profile: PF 1

E.G. Elev (m)	623.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.040	
W.S. Elev (m)	623.37	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	621.70	Flow Area (m2)		5.47	
E.G. Slope (m/m)	0.001129	Area (m2)		10.15	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	5.25	Top Width (m)		5.25	
Vel Total (m/s)	1.25	Avg. Vel. (m/s)		1.25	
Max Chl Dpth (m)	2.81	Hydr. Depth (m)		2.73	
Conv. Total (m3/s)	203.5	Conv. (m3/s)		203.5	
Length Wtd. (m)	3.20	Wetted Per. (m)		3.01	
Min Ch EI (m)	620.56	Shear (N/m2)		20.12	
Alpha	1.00	Stream Power (N/m s)		25.16	
Frctn Loss (m)		Cum Volume (1000 m3)		0.20	
C & E Loss (m)		Cum SA (1000 m2)		0.47	

Plan: 02 Marchese 3 RS: 9.5 Profile: PF 1

E.G. Elev (m)	621.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.040	
W.S. Elev (m)	621.38	Reach Len. (m)	4.03	4.03	4.03
Crit W.S. (m)	621.38	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.021480	Area (m2)		2.81	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.75	Top Width (m)		4.75	
Vel Total (m/s)	2.43	Avg. Vel. (m/s)		2.43	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	46.7	Conv. (m3/s)		46.7	
Length Wtd. (m)	4.03	Wetted Per. (m)		5.21	
Min Ch EI (m)	620.45	Shear (N/m2)		113.78	
Alpha	1.00	Stream Power (N/m s)		276.52	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.46	

Plan: 02 Marchese 3 RS: 9 Profile: PF 1

E.G. Elev (m)	621.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.29	Wt. n-Val.		0.040	
W.S. Elev (m)	618.97	Reach Len. (m)	11.24	11.24	11.24
Crit W.S. (m)	619.43	Flow Area (m2)		1.02	
E.G. Slope (m/m)	0.347833	Area (m2)		1.02	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	

Plan: 02 Marchese 3 RS: 9 Profile: PF 1 (Continued)

Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	6.69	Avg. Vel. (m/s)		6.69	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	11.6	Conv. (m3/s)		11.6	
Length Wtd. (m)	11.24	Wetted Per. (m)		3.34	
Min Ch EI (m)	618.50	Shear (N/m2)		1043.67	
Alpha	1.00	Stream Power (N/m s)		6987.25	
Frctn Loss (m)	3.62	Cum Volume (1000 m3)		0.19	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.44	

Plan: 02 Marchese 3 RS: 8 Profile: PF 1

E.G. Elev (m)	617.60	Element	Left OB	Channel	Right OB
Vel Head (m)	2.17	Wt. n-Val.		0.040	
W.S. Elev (m)	615.43	Reach Len. (m)	14.77	14.77	14.77
Crit W.S. (m)	615.91	Flow Area (m2)		1.05	
E.G. Slope (m/m)	0.299423	Area (m2)		1.05	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	2.75	Top Width (m)		2.75	
Vel Total (m/s)	6.52	Avg. Vel. (m/s)		6.52	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	14.77	Wetted Per. (m)		3.19	
Min Ch EI (m)	615.00	Shear (N/m2)		966.38	
Alpha	1.00	Stream Power (N/m s)		6301.76	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		0.17	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.41	

Plan: 02 Marchese 3 RS: 7 Profile: PF 1

E.G. Elev (m)	607.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.040	
W.S. Elev (m)	607.55	Reach Len. (m)	13.08	13.08	13.08
Crit W.S. (m)	607.55	Flow Area (m2)		3.14	
E.G. Slope (m/m)	0.022052	Area (m2)		3.14	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	6.57	Top Width (m)		6.57	
Vel Total (m/s)	2.18	Avg. Vel. (m/s)		2.18	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	46.1	Conv. (m3/s)		46.1	
Length Wtd. (m)	13.08	Wetted Per. (m)		6.99	
Min Ch EI (m)	607.00	Shear (N/m2)		97.18	
Alpha	1.00	Stream Power (N/m s)		211.65	
Frctn Loss (m)	0.89	Cum Volume (1000 m3)		0.14	
C & E Loss (m)	0.27	Cum SA (1000 m2)		0.34	

Plan: 02 Marchese 3 RS: 6 Profile: PF 1

E.G. Elev (m)	606.63	Element	Left OB	Channel	Right OB
Vel Head (m)	2.97	Wt. n-Val.		0.040	
W.S. Elev (m)	603.66	Reach Len. (m)	5.69	5.69	5.69
Crit W.S. (m)	604.02	Flow Area (m2)		0.90	
E.G. Slope (m/m)	1.158634	Area (m2)		0.90	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	5.87	Top Width (m)		5.87	
Vel Total (m/s)	7.63	Avg. Vel. (m/s)		7.63	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	6.4	Conv. (m3/s)		6.4	
Length Wtd. (m)	5.69	Wetted Per. (m)		5.93	
Min Ch EI (m)	603.50	Shear (N/m2)		1716.39	

Plan: 02 Marchese 3 RS: 6 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		13100.86	
Frctn Loss (m)	3.80	Cum Volume (1000 m3)		0.12	
C & E Loss (m)	0.20	Cum SA (1000 m2)		0.26	

Plan: 02 Marchese 3 RS: 5 Profile: PF 1

E.G. Elev (m)	602.64	Element	Left OB	Channel	Right OB
Vel Head (m)	2.32	Wt. n-Val.		0.040	
W.S. Elev (m)	600.32	Reach Len. (m)	9.71	9.71	9.71
Crit W.S. (m)	600.75	Flow Area (m2)		1.01	
E.G. Slope (m/m)	0.433671	Area (m2)		1.01	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.69	Top Width (m)		3.69	
Vel Total (m/s)	6.74	Avg. Vel. (m/s)		6.74	
Max Chl Dpth (m)	0.32	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	10.4	Conv. (m3/s)		10.4	
Length Wtd. (m)	9.71	Wetted Per. (m)		3.87	
Min Ch EI (m)	600.00	Shear (N/m2)		1114.71	
Alpha	1.00	Stream Power (N/m s)		7516.39	
Frctn Loss (m)	3.47	Cum Volume (1000 m3)		0.11	
C & E Loss (m)	0.06	Cum SA (1000 m2)		0.23	

Plan: 02 Marchese 3 RS: 4 Profile: PF 1

E.G. Elev (m)	599.11	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.040	
W.S. Elev (m)	596.99	Reach Len. (m)	4.87	4.88	4.87
Crit W.S. (m)	597.44	Flow Area (m2)		1.06	
E.G. Slope (m/m)	0.299986	Area (m2)		1.06	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	6.45	Avg. Vel. (m/s)		6.45	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	4.88	Wetted Per. (m)		3.28	
Min Ch EI (m)	596.50	Shear (N/m2)		951.68	
Alpha	1.00	Stream Power (N/m s)		6140.95	
Frctn Loss (m)	1.46	Cum Volume (1000 m3)		0.10	
C & E Loss (m)	0.16	Cum SA (1000 m2)		0.20	

Plan: 02 Marchese 3 RS: 3 Profile: PF 1

E.G. Elev (m)	597.49	Element	Left OB	Channel	Right OB
Vel Head (m)	1.60	Wt. n-Val.		0.040	
W.S. Elev (m)	595.90	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	596.23	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.297514	Area (m2)		1.22	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.53	Top Width (m)		4.53	
Vel Total (m/s)	5.59	Avg. Vel. (m/s)		5.59	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.65	
Min Ch EI (m)	595.50	Shear (N/m2)		766.50	
Alpha	1.00	Stream Power (N/m s)		4287.43	
Frctn Loss (m)	2.76	Cum Volume (1000 m3)		0.10	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.18	

Plan: 02 Marchese 3 RS: 2 Profile: PF 1

E.G. Elev (m)	594.61	Element	Left OB	Channel	Right OB
Vel Head (m)	2.77	Wt. n-Val.		0.040	
W.S. Elev (m)	591.84	Reach Len. (m)	5.25	5.25	5.25
Crit W.S. (m)	592.28	Flow Area (m2)		0.93	
E.G. Slope (m/m)	0.547178	Area (m2)		0.93	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	3.50	Top Width (m)		3.50	
Vel Total (m/s)	7.38	Avg. Vel. (m/s)		7.38	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	9.2	Conv. (m3/s)		9.2	
Length Wtd. (m)	5.25	Wetted Per. (m)		3.68	
Min Ch EI (m)	591.50	Shear (N/m2)		1351.64	
Alpha	1.00	Stream Power (N/m s)		9969.67	
Frctn Loss (m)	2.20	Cum Volume (1000 m3)		0.09	
C & E Loss (m)	0.49	Cum SA (1000 m2)		0.15	

Plan: 02 Marchese 3 RS: 1 Profile: PF 1

E.G. Elev (m)	591.92	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.040	
W.S. Elev (m)	590.80	Reach Len. (m)	14.95	14.95	14.95
Crit W.S. (m)	591.04	Flow Area (m2)		1.46	
E.G. Slope (m/m)	0.330840	Area (m2)		1.46	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	7.66	Top Width (m)		7.66	
Vel Total (m/s)	4.70	Avg. Vel. (m/s)		4.70	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	11.9	Conv. (m3/s)		11.9	
Length Wtd. (m)	14.95	Wetted Per. (m)		7.80	
Min Ch EI (m)	590.60	Shear (N/m2)		605.85	
Alpha	1.00	Stream Power (N/m s)		2846.24	
Frctn Loss (m)	0.75	Cum Volume (1000 m3)		0.08	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.12	

Plan: 02 Marchese 3 RS: 0.9 Profile: PF 1

E.G. Elev (m)	591.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.85	Wt. n-Val.		0.016	
W.S. Elev (m)	590.24	Reach Len. (m)	0.60	0.60	0.60
Crit W.S. (m)	590.48	Flow Area (m2)		1.68	
E.G. Slope (m/m)	0.019420	Area (m2)		1.68	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.63	Top Width (m)		4.63	
Vel Total (m/s)	4.07	Avg. Vel. (m/s)		4.07	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	49.1	Conv. (m3/s)		49.1	
Length Wtd. (m)	0.60	Wetted Per. (m)		5.26	
Min Ch EI (m)	589.87	Shear (N/m2)		60.87	
Alpha	1.00	Stream Power (N/m s)		247.86	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.03	

Plan: 02 Marchese 3 RS: 0.8 Profile: PF 1

E.G. Elev (m)	591.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.016	
W.S. Elev (m)	590.24	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	590.48	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.018740	Area (m2)		1.70	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	

Plan: 02 Marchese 3 RS: 0.8 Profile: PF 1 (Continued)

Top Width (m)	4.64	Top Width (m)		4.64	
Vel Total (m/s)	4.03	Avg. Vel. (m/s)		4.03	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	50.0	Conv. (m3/s)		50.0	
Length Wtd. (m)	0.15	Wetted Per. (m)		5.26	
Min Ch EI (m)	589.87	Shear (N/m2)		59.32	
Alpha	1.00	Stream Power (N/m s)		238.80	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.33	Cum SA (1000 m2)		0.03	

Plan: 02 Marchese 3 RS: 0.7 Profile: PF 1

E.G. Elev (m)	590.73	Element	Left OB	Channel	Right OB
Vel Head (m)	4.09	Wt. n-Val.		0.016	
W.S. Elev (m)	586.65	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	587.09	Flow Area (m2)		0.76	
E.G. Slope (m/m)	0.241182	Area (m2)		0.76	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.57	Top Width (m)		4.57	
Vel Total (m/s)	8.95	Avg. Vel. (m/s)		8.95	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	13.9	Conv. (m3/s)		13.9	
Length Wtd. (m)	6.00	Wetted Per. (m)		4.85	
Min Ch EI (m)	586.48	Shear (N/m2)		372.50	
Alpha	1.00	Stream Power (N/m s)		3334.49	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.44	Cum SA (1000 m2)		0.03	

Plan: 02 Marchese 3 RS: 0.6 Profile: PF 1

E.G. Elev (m)	589.31	Element	Left OB	Channel	Right OB
Vel Head (m)	2.63	Wt. n-Val.		0.016	
W.S. Elev (m)	586.69	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	587.09	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.118968	Area (m2)		0.95	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.62	Top Width (m)		4.62	
Vel Total (m/s)	7.18	Avg. Vel. (m/s)		7.18	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.15	Wetted Per. (m)		4.96	
Min Ch EI (m)	586.48	Shear (N/m2)		224.05	
Alpha	1.00	Stream Power (N/m s)		1607.70	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.00	

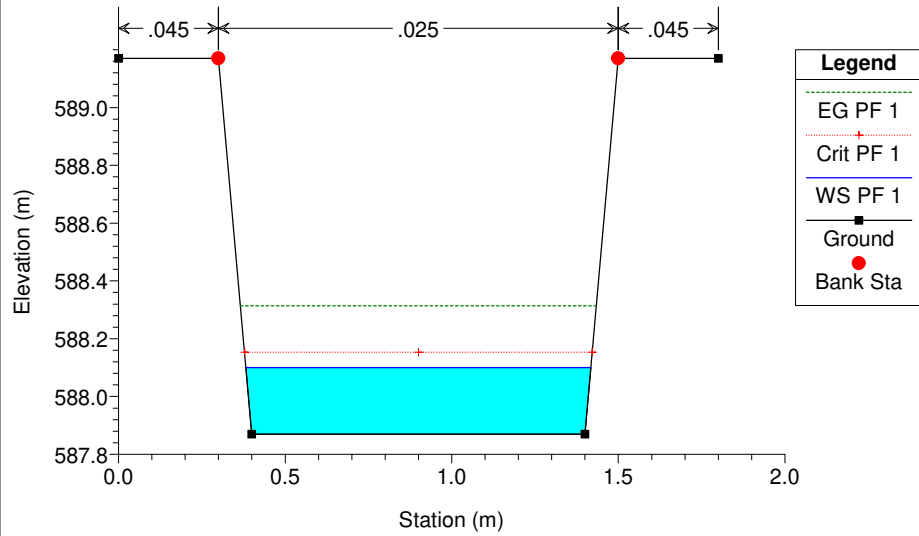
Plan: 02 Marchese 3 RS: 0.5 Profile: PF 1

E.G. Elev (m)	586.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.016	
W.S. Elev (m)	586.71	Reach Len. (m)	6.00	6.00	6.00
Crit W.S. (m)	585.16	Flow Area (m2)		9.36	
E.G. Slope (m/m)	0.000117	Area (m2)		9.36	
Q Total (m3/s)	6.84	Flow (m3/s)		6.84	
Top Width (m)	4.62	Top Width (m)		4.62	
Vel Total (m/s)	0.73	Avg. Vel. (m/s)		0.73	
Max Chl Dpth (m)	2.23	Hydr. Depth (m)		2.03	
Conv. Total (m3/s)	633.3	Conv. (m3/s)		633.3	
Length Wtd. (m)	6.00	Wetted Per. (m)		8.32	
Min Ch EI (m)	584.48	Shear (N/m2)		1.29	

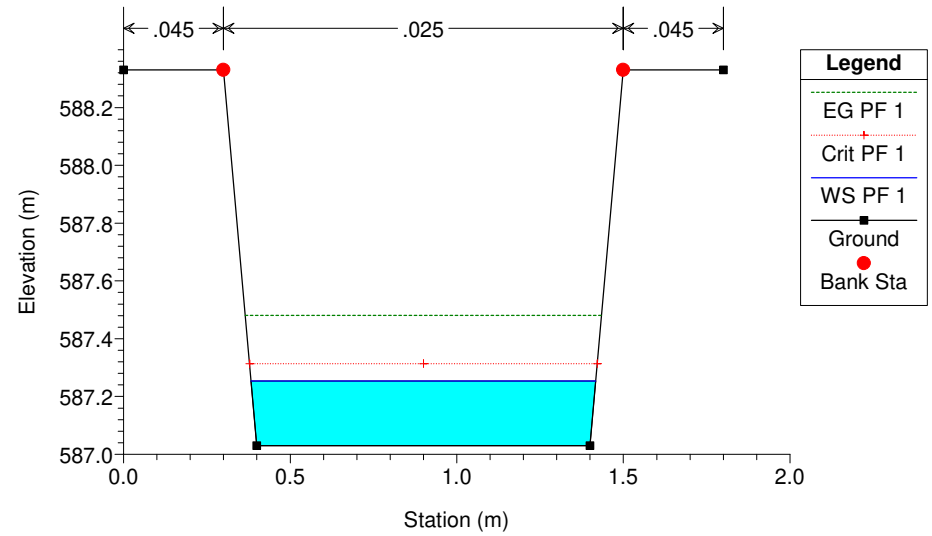
Plan: 02 Marchese 3 RS: 0.5 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		0.94	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)			

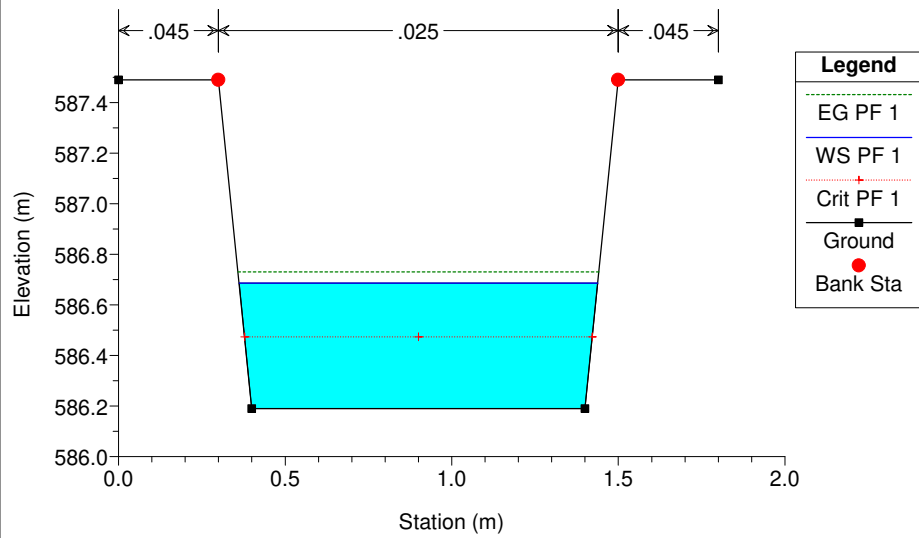
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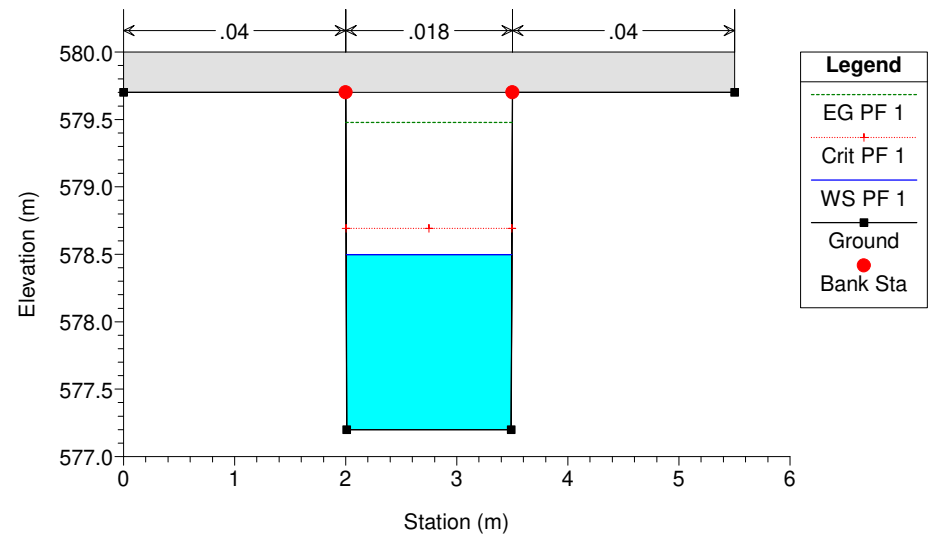
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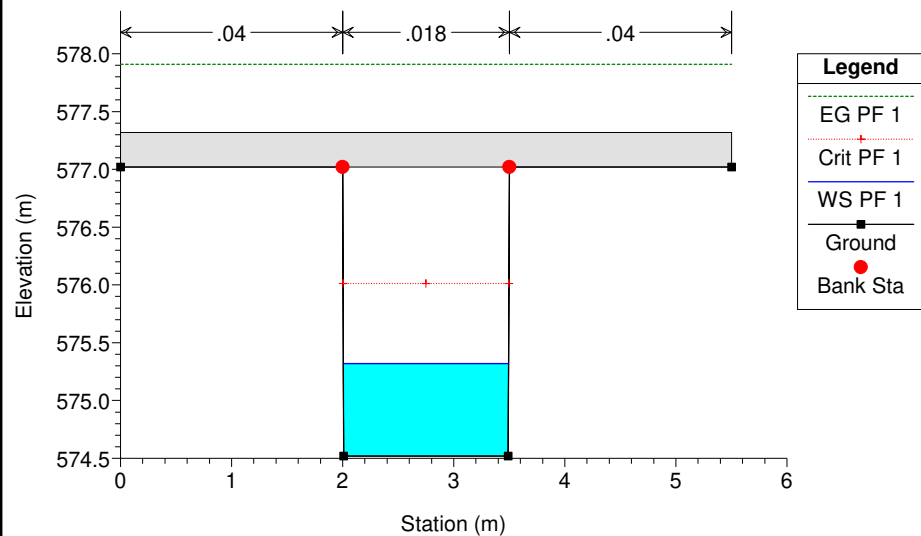
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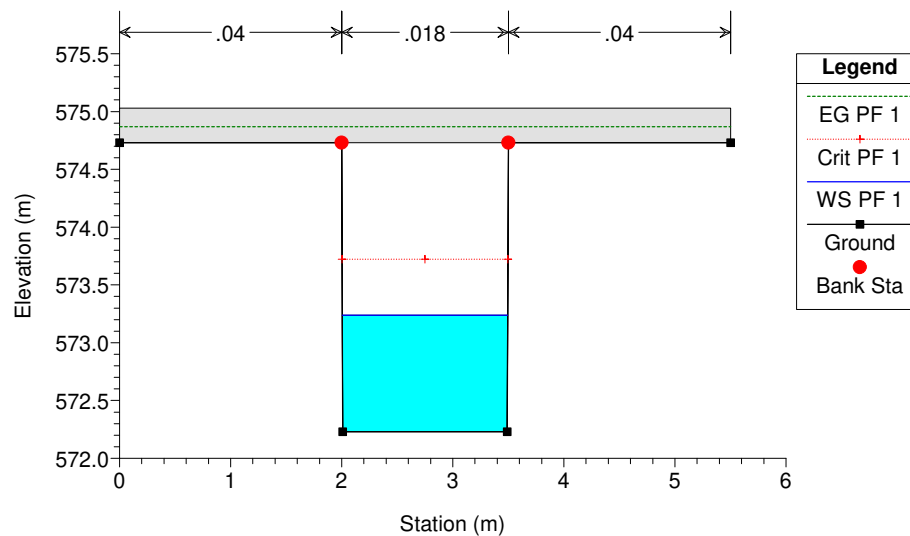
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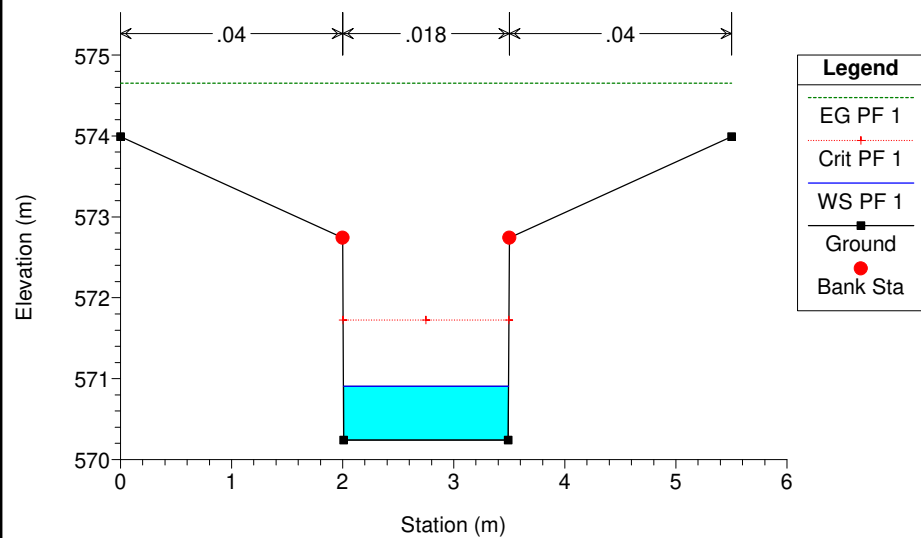
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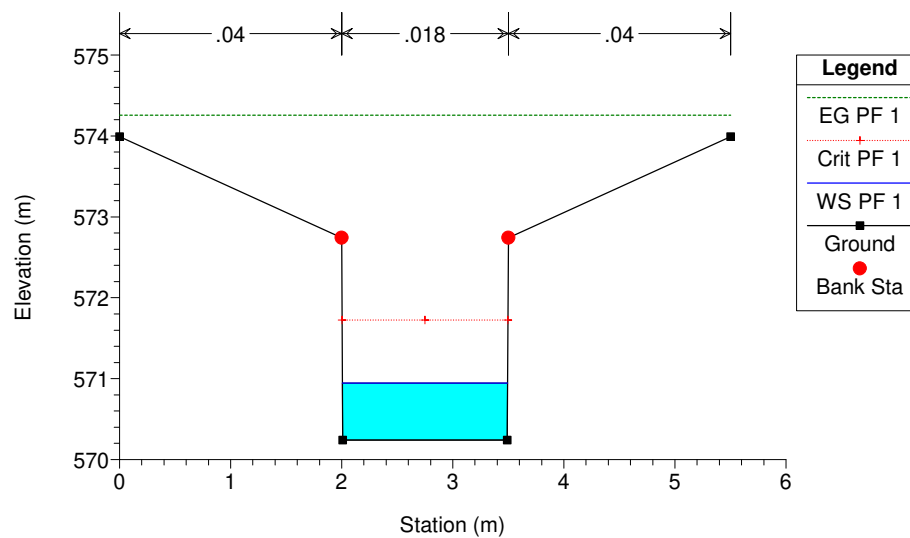
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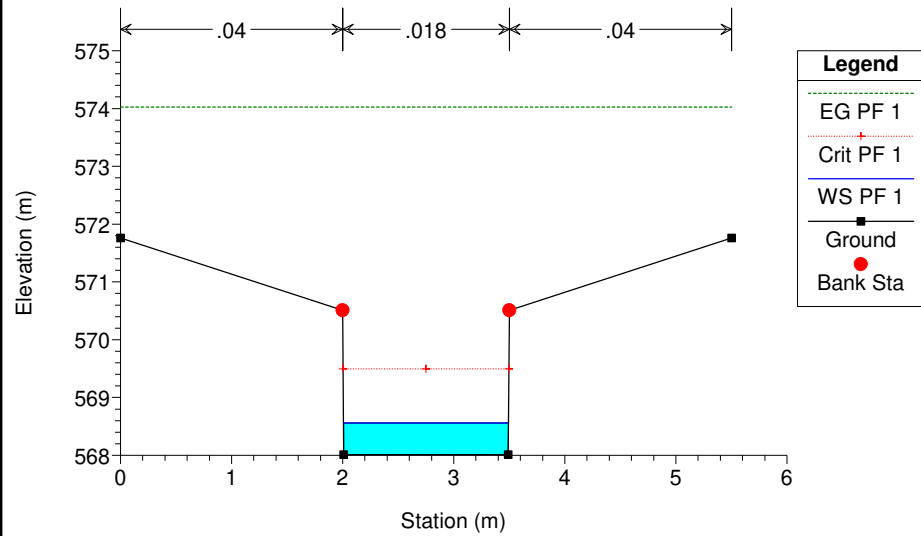
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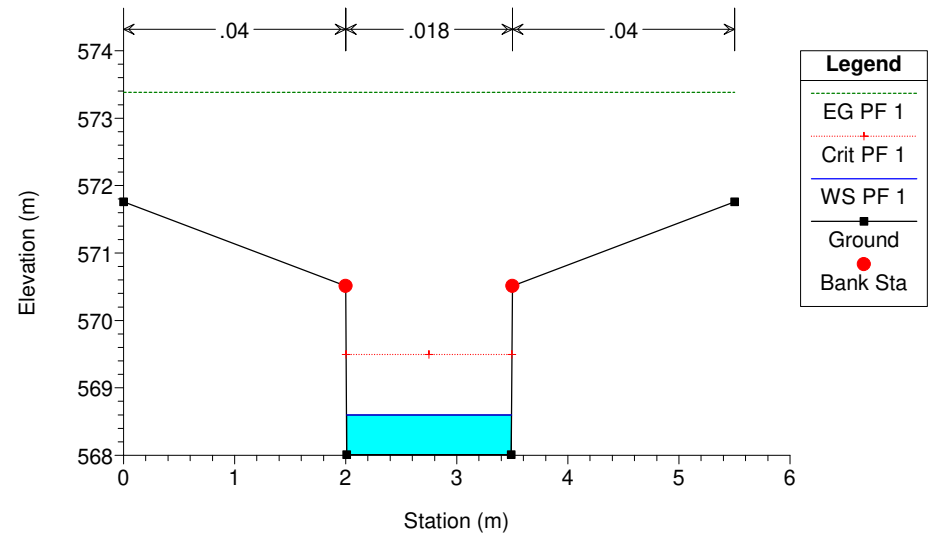
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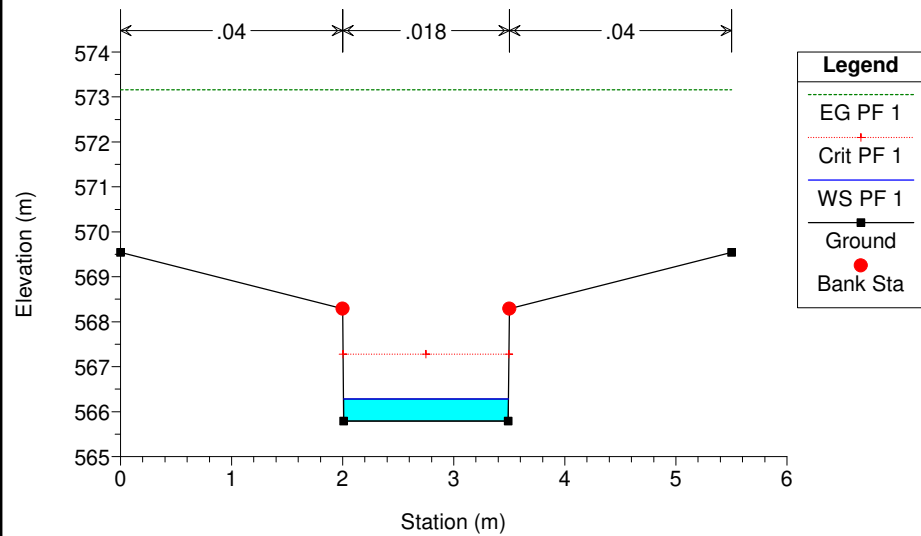
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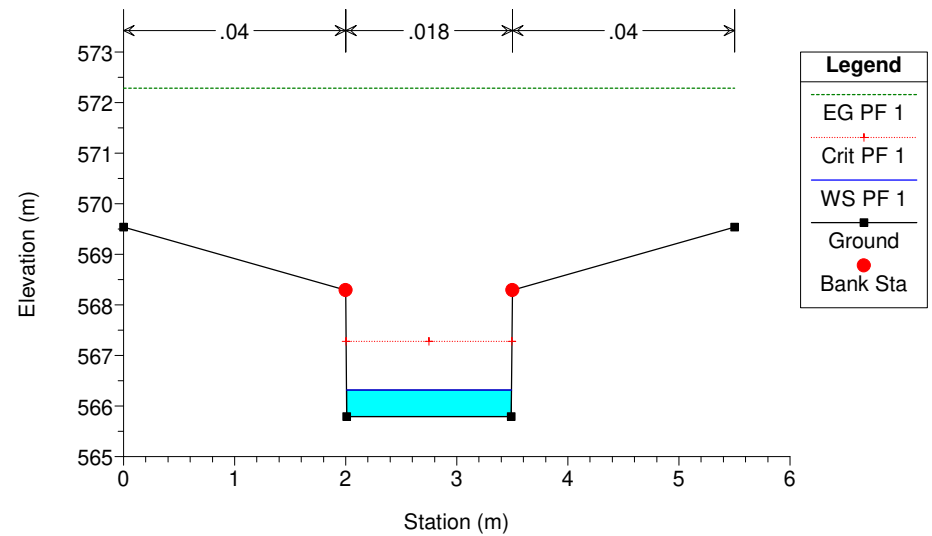
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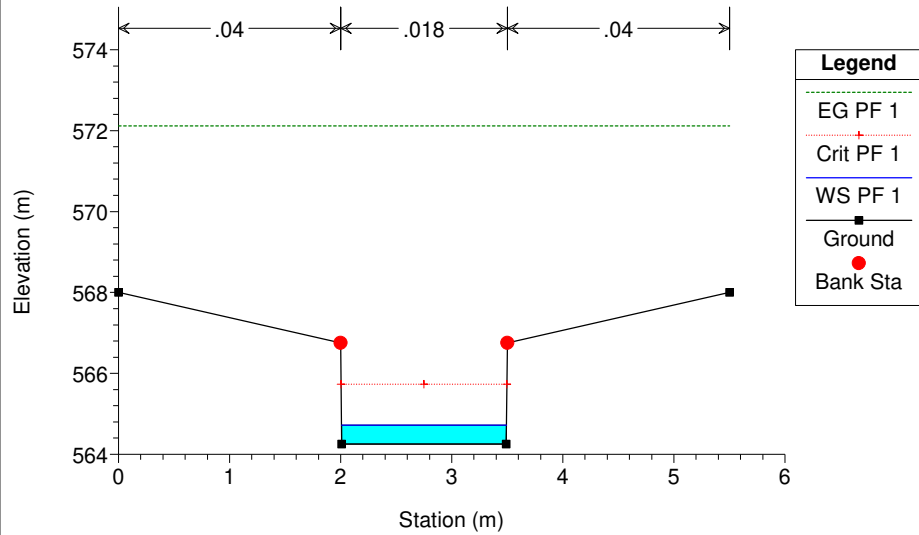
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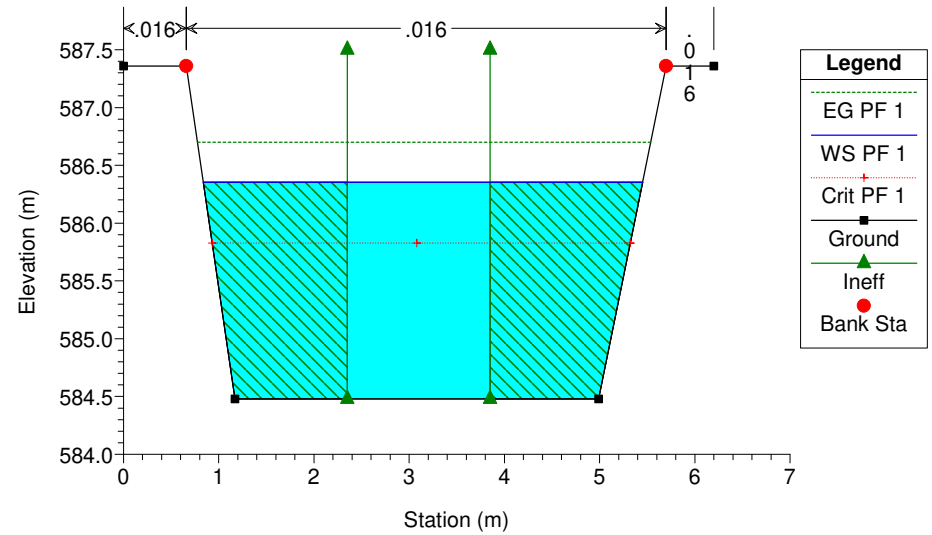
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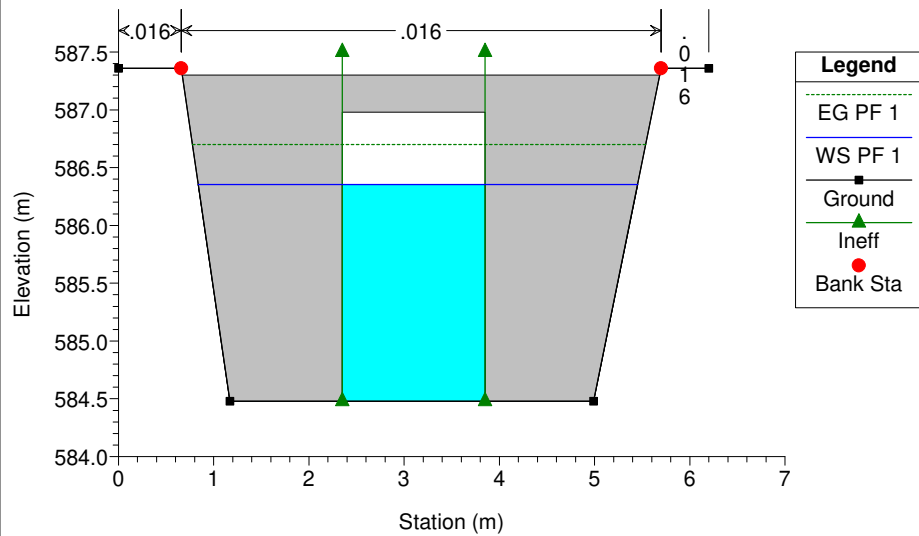
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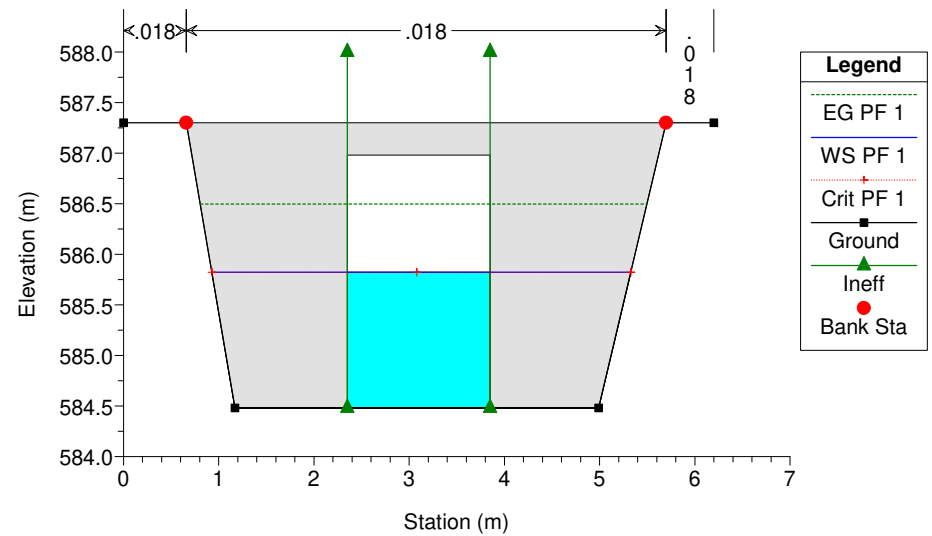
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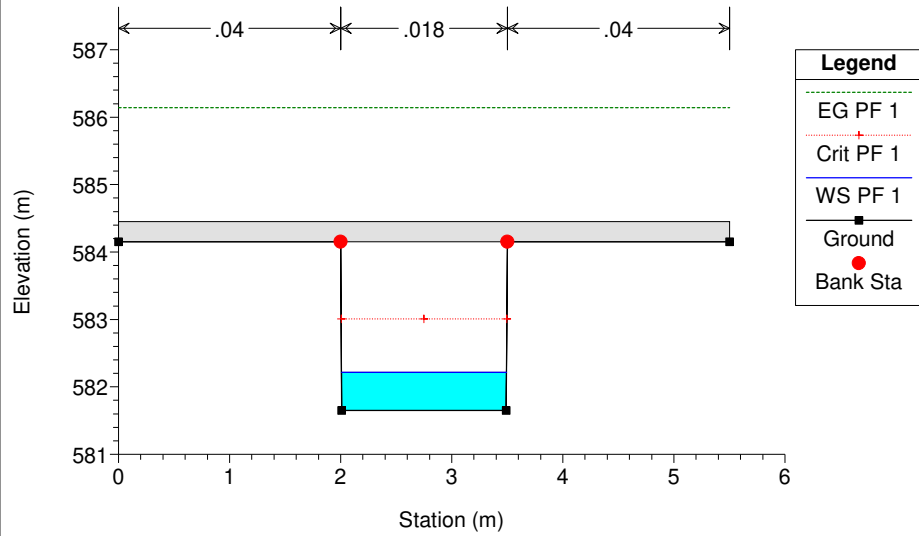
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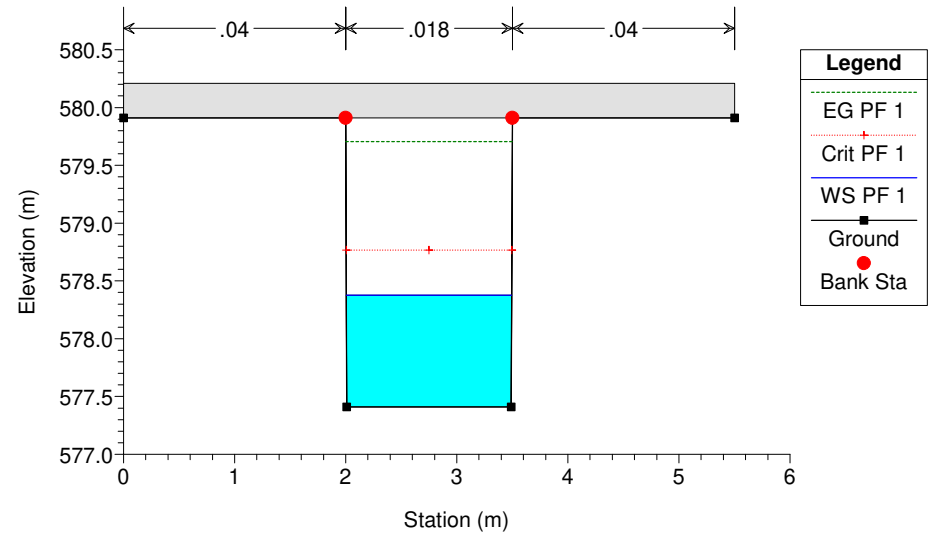
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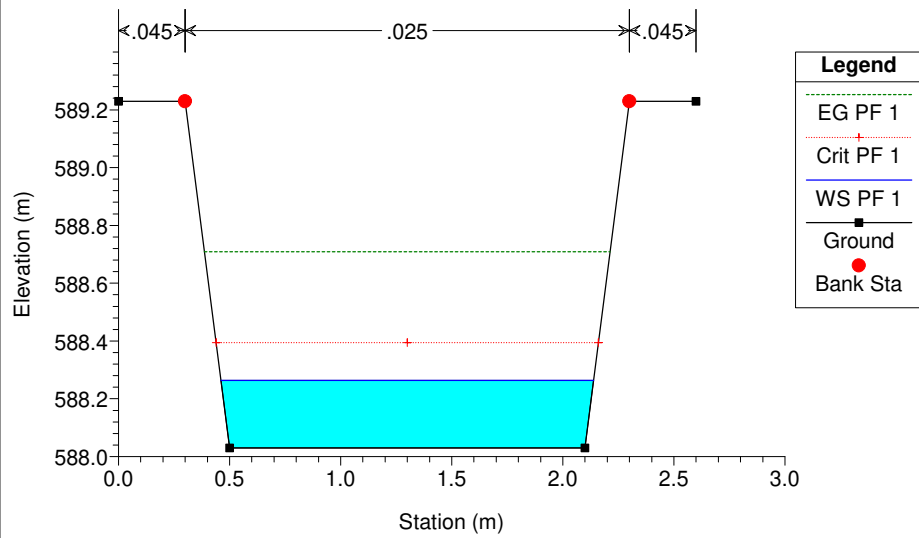
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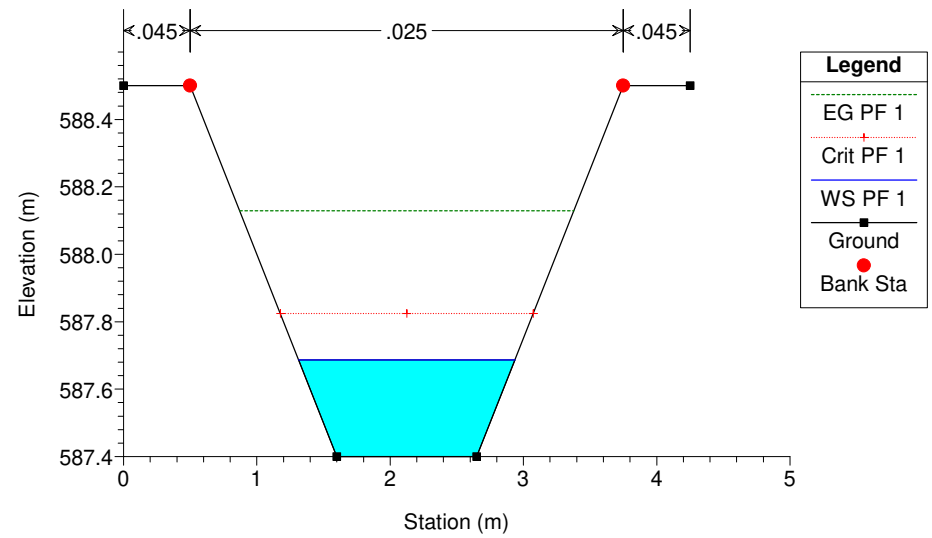
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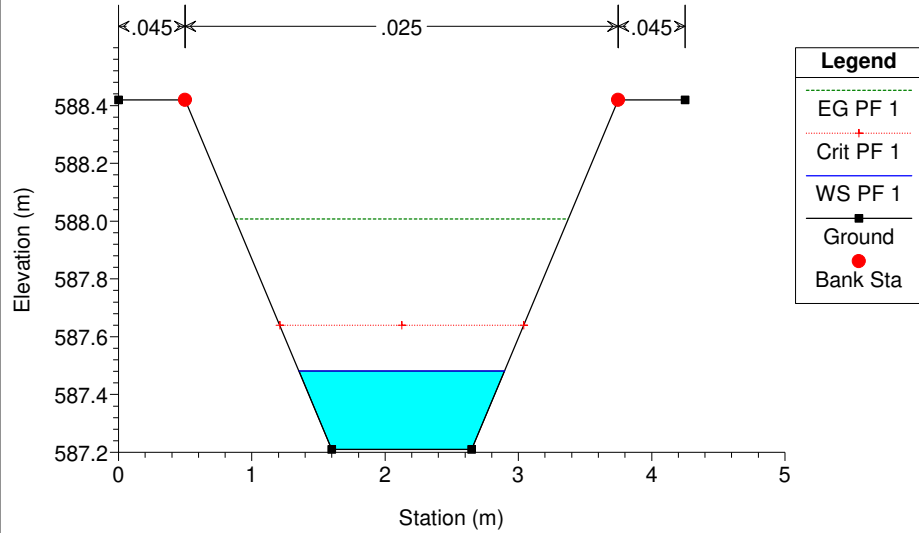
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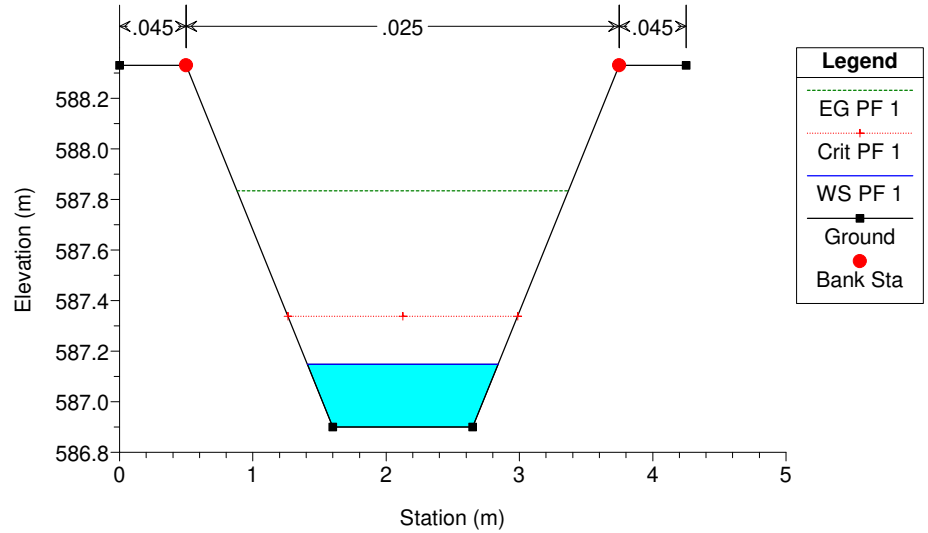
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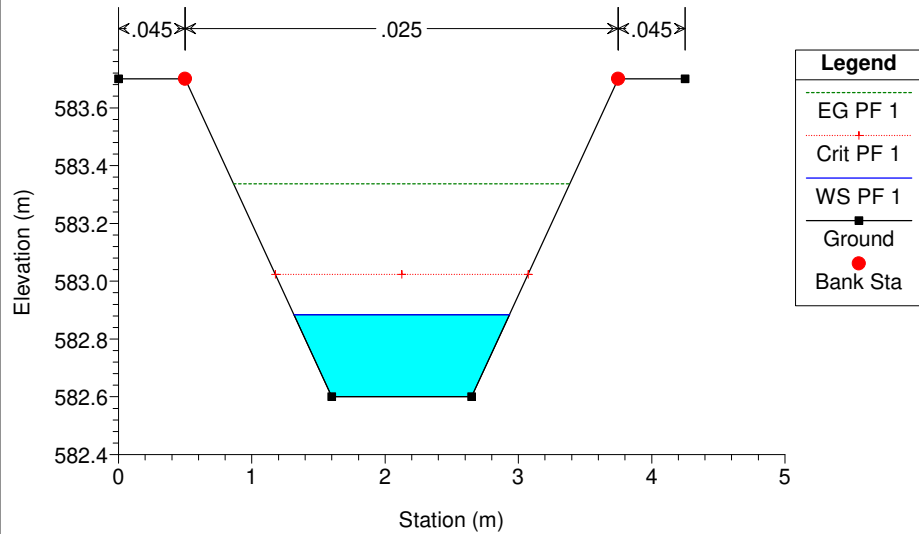
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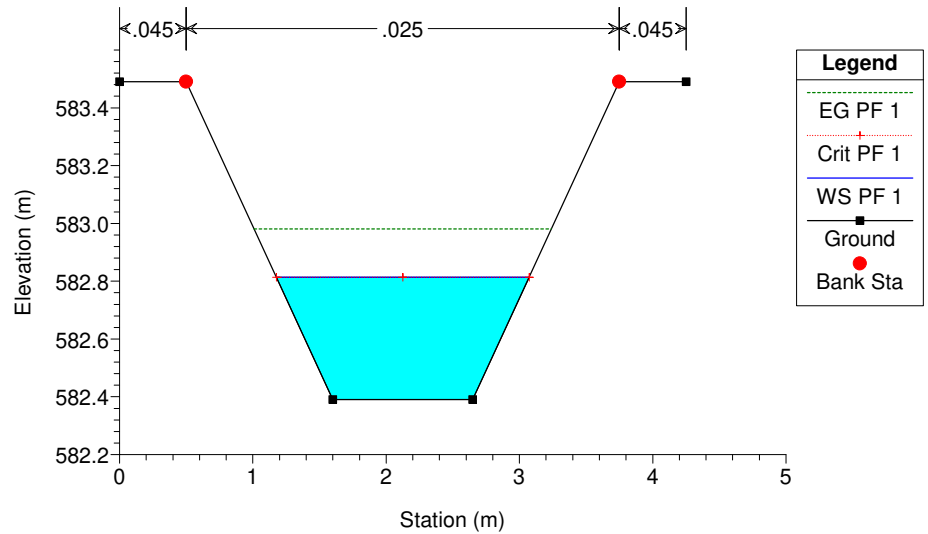
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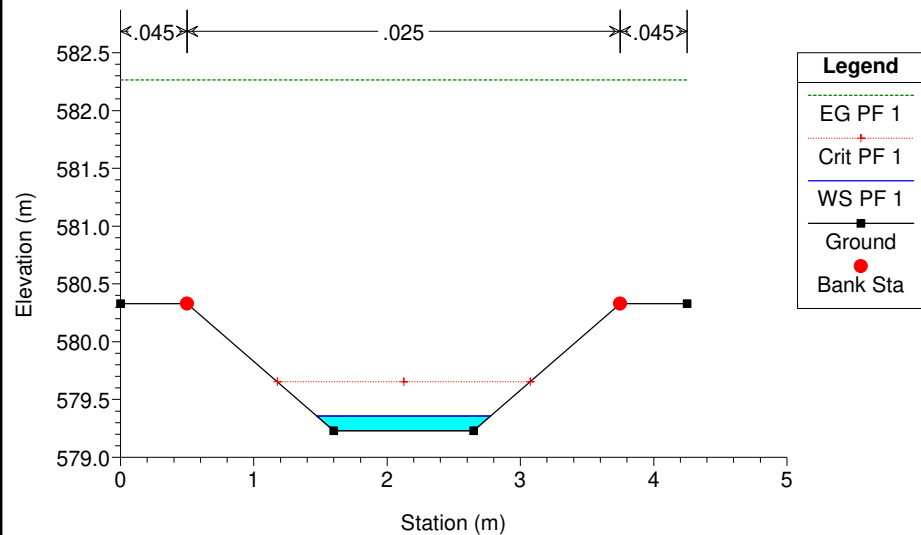
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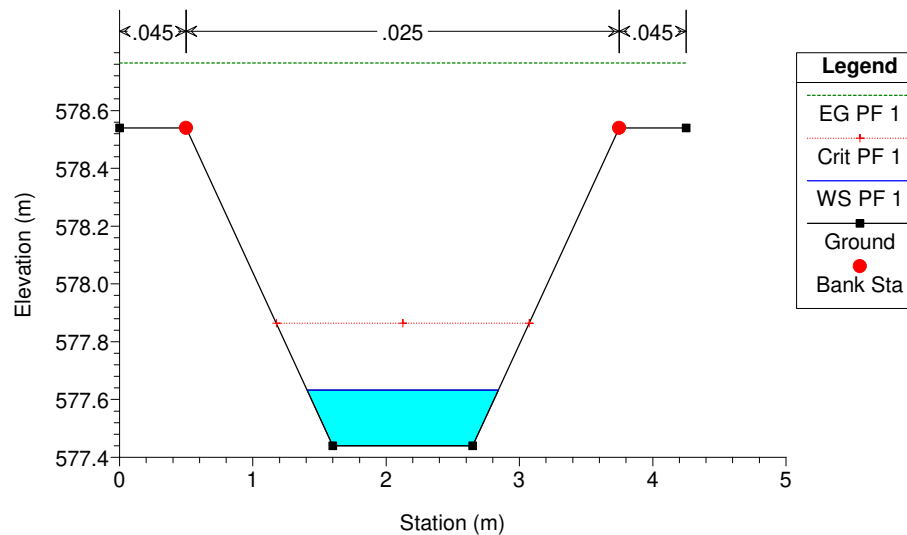
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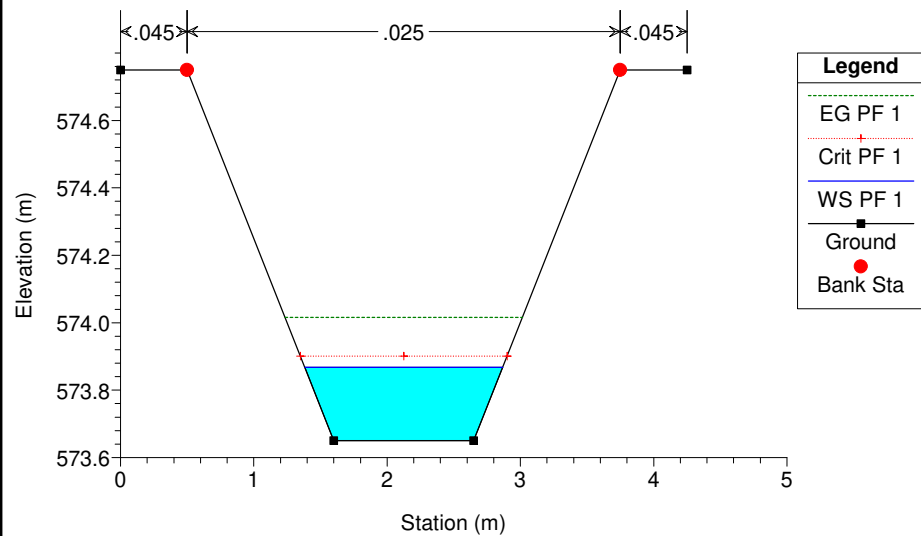
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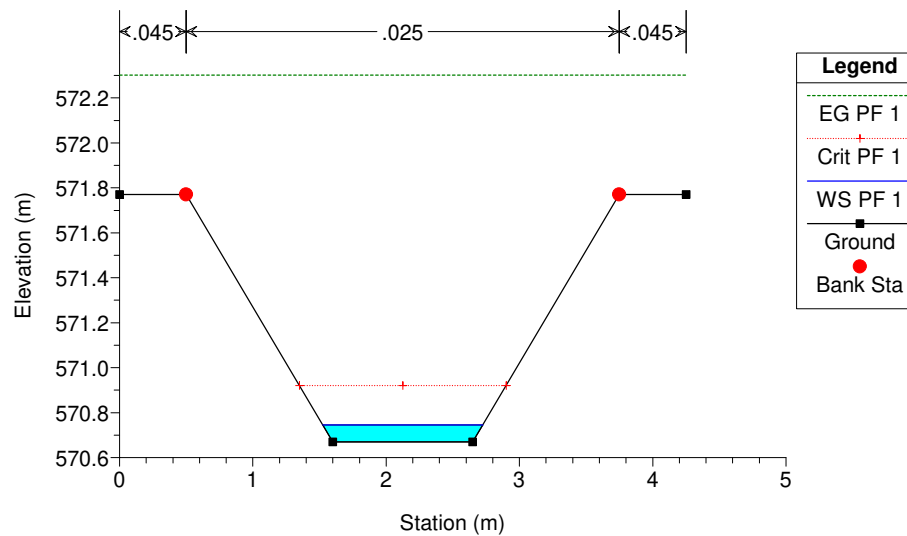
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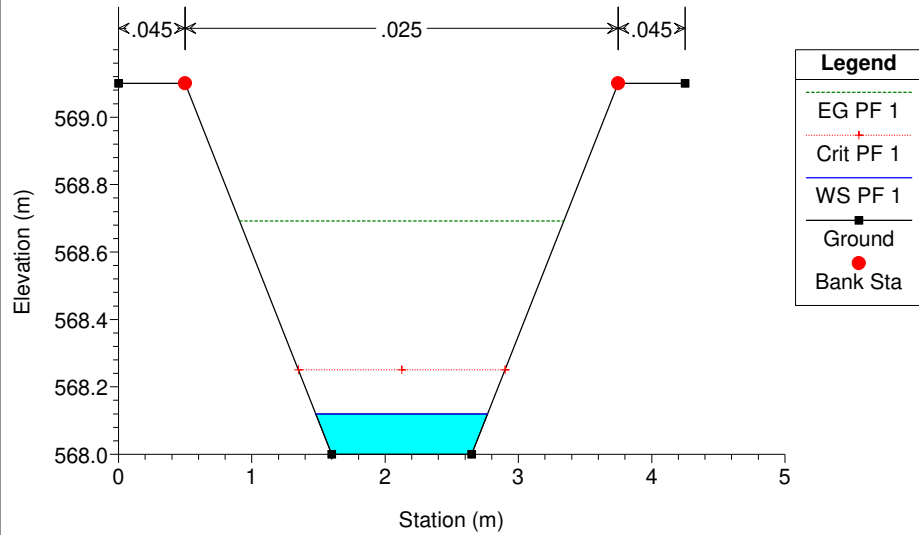
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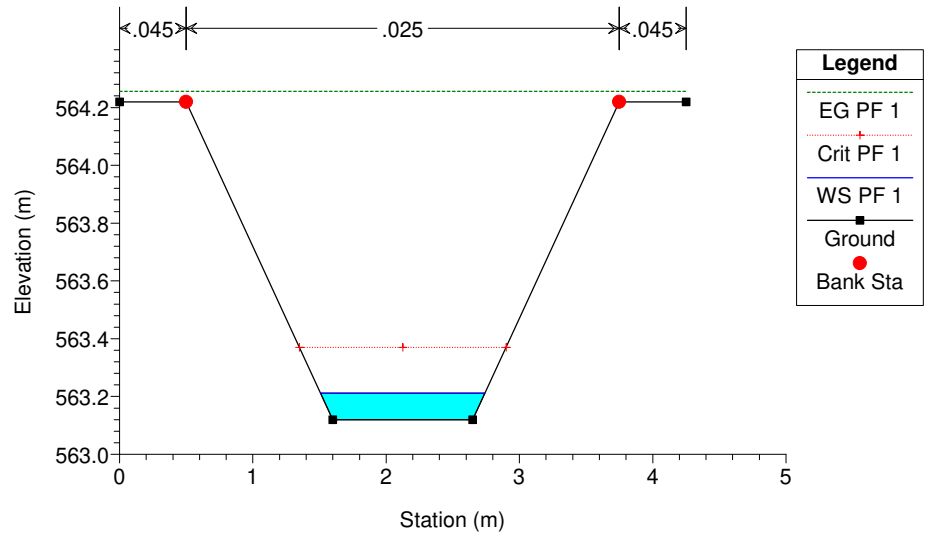
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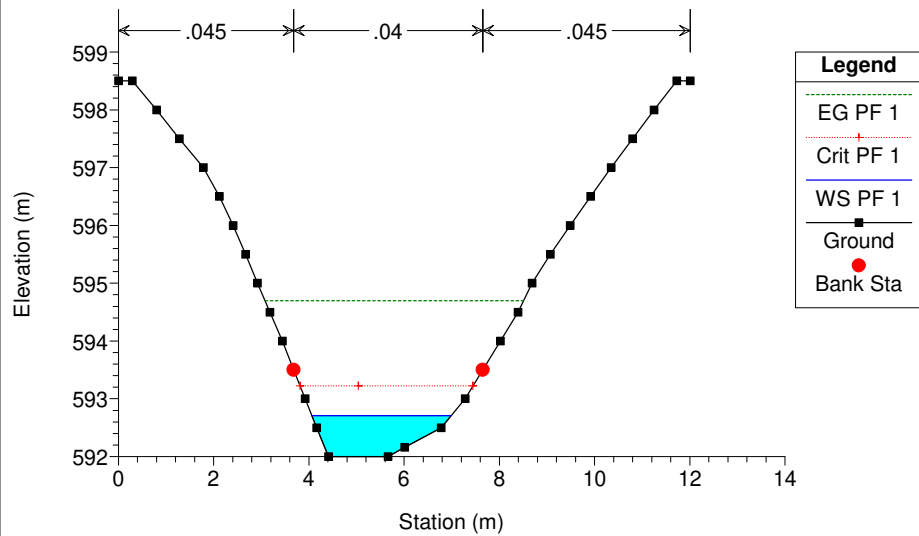
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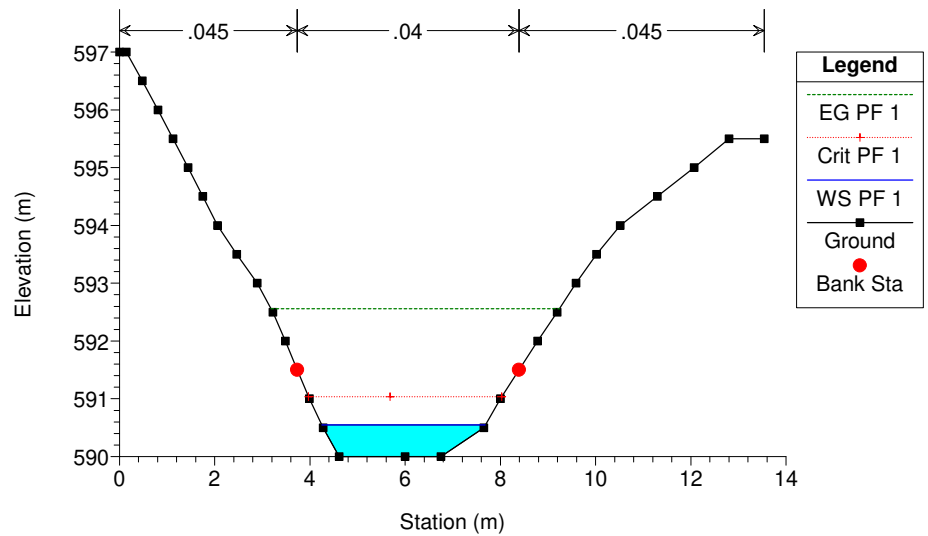
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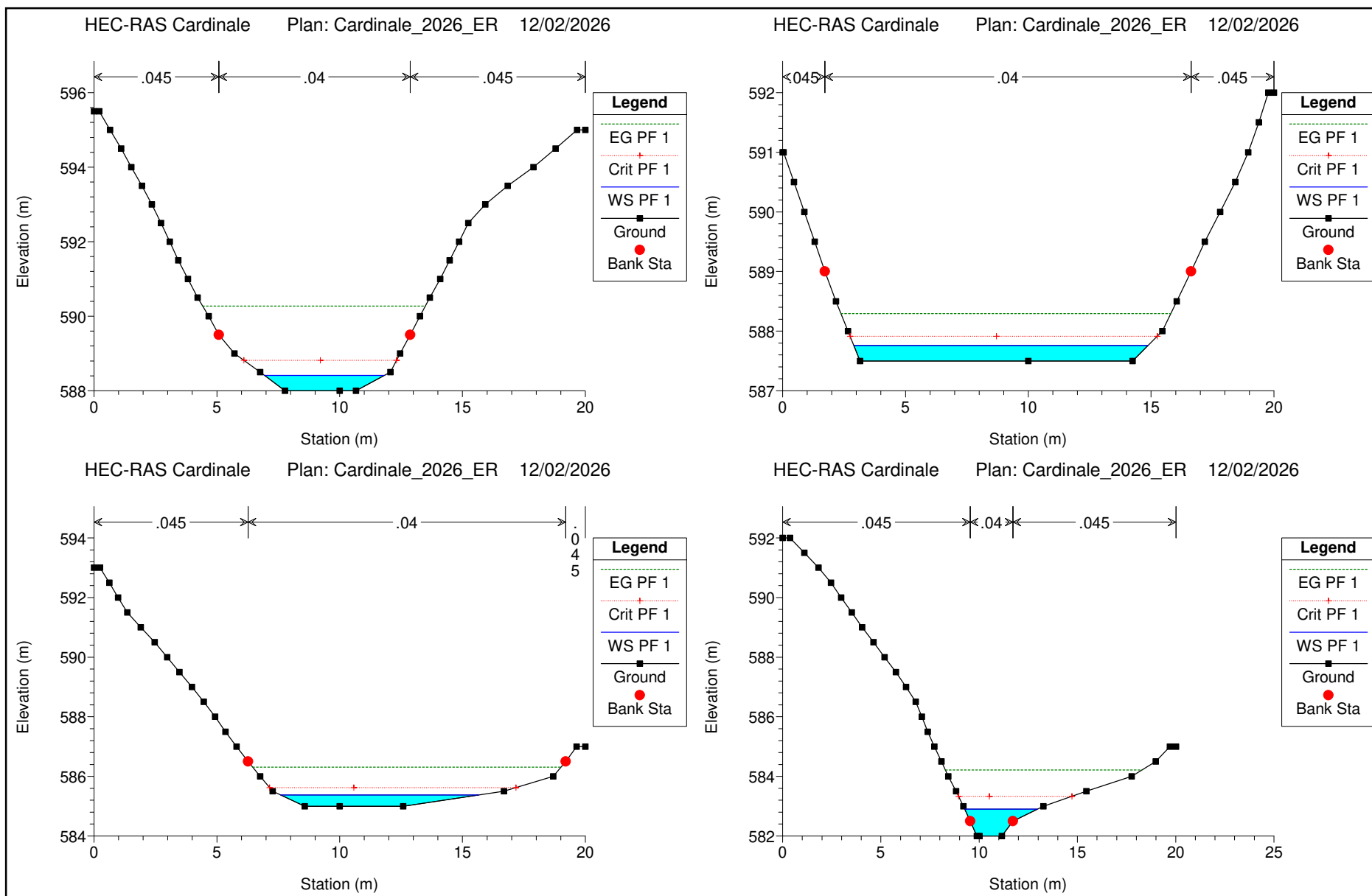


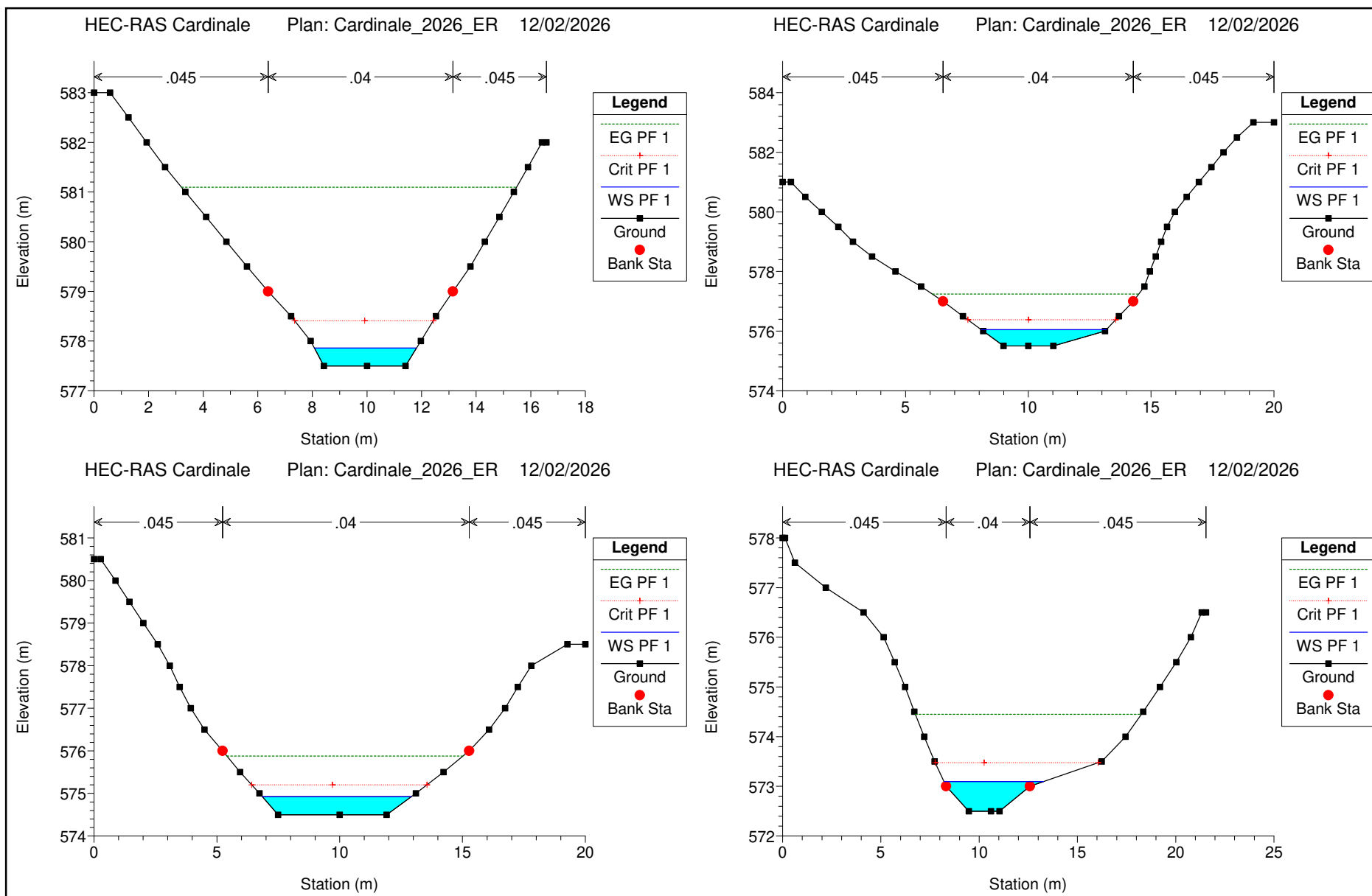
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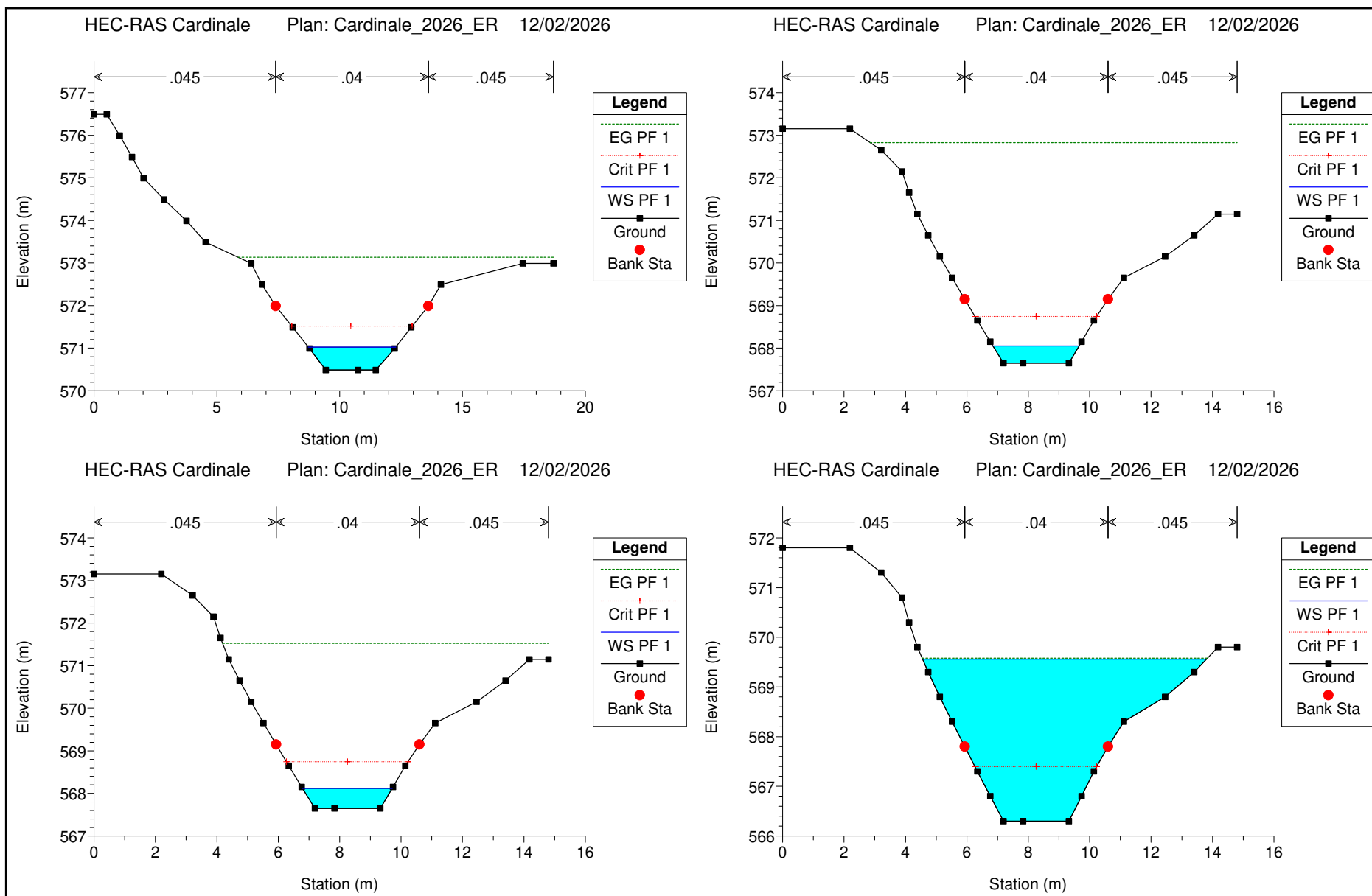


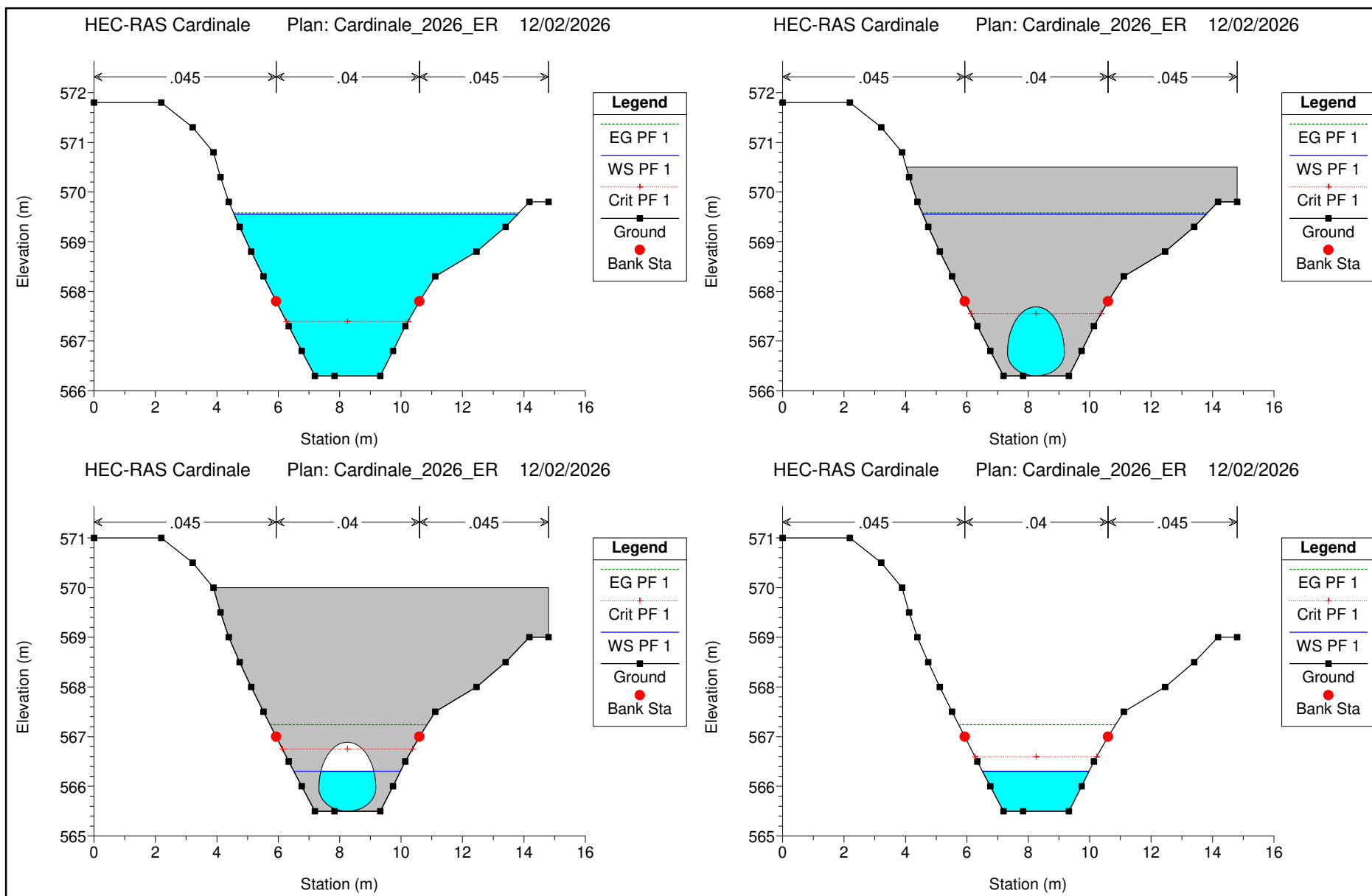
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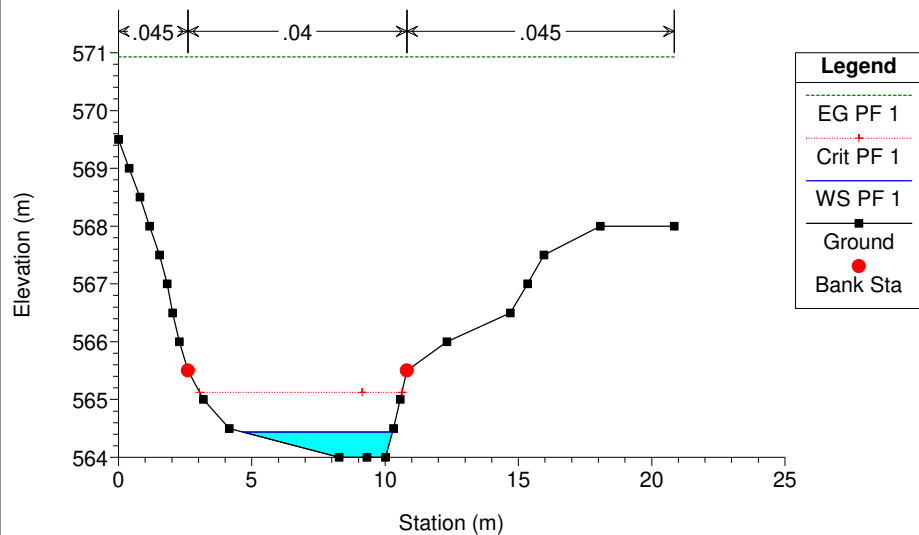




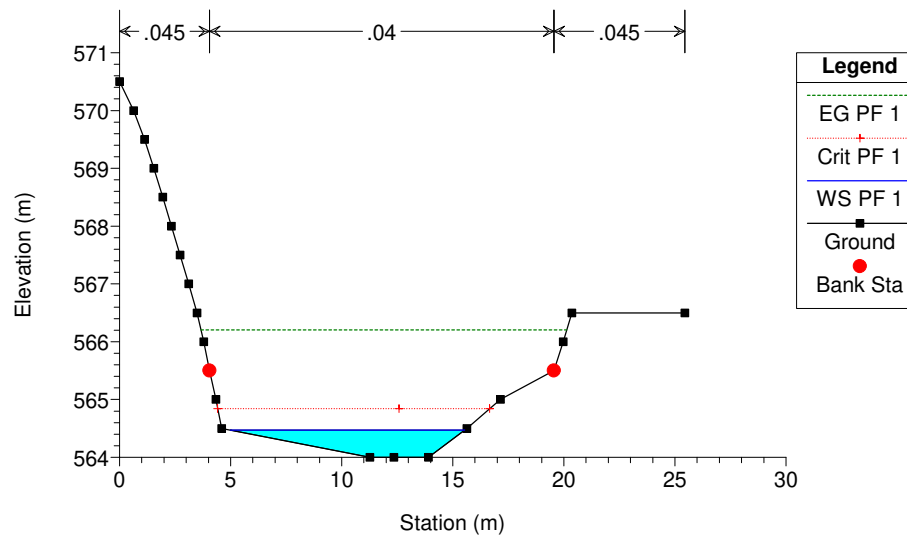




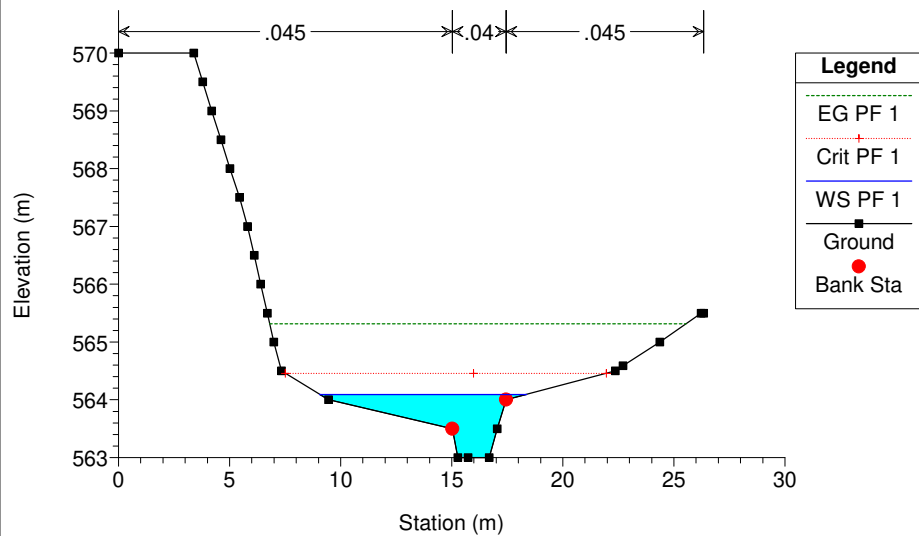
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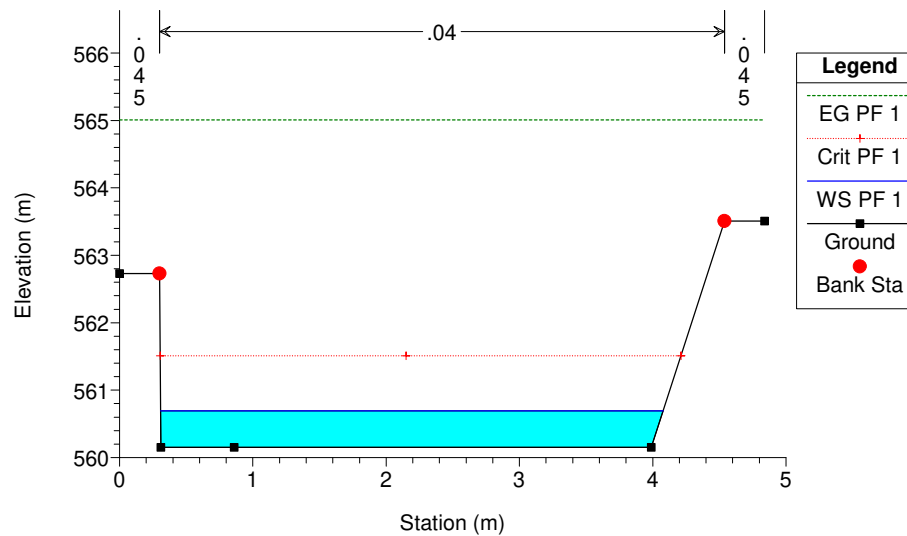
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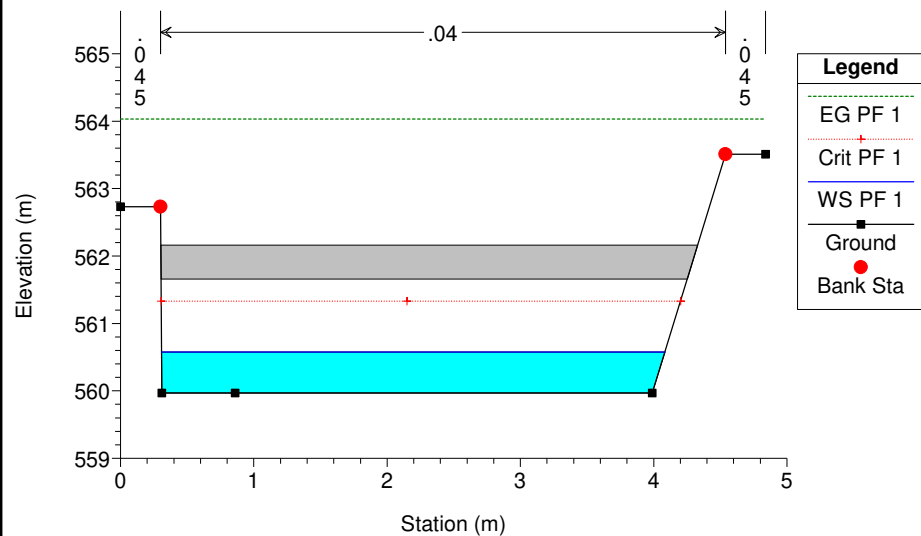
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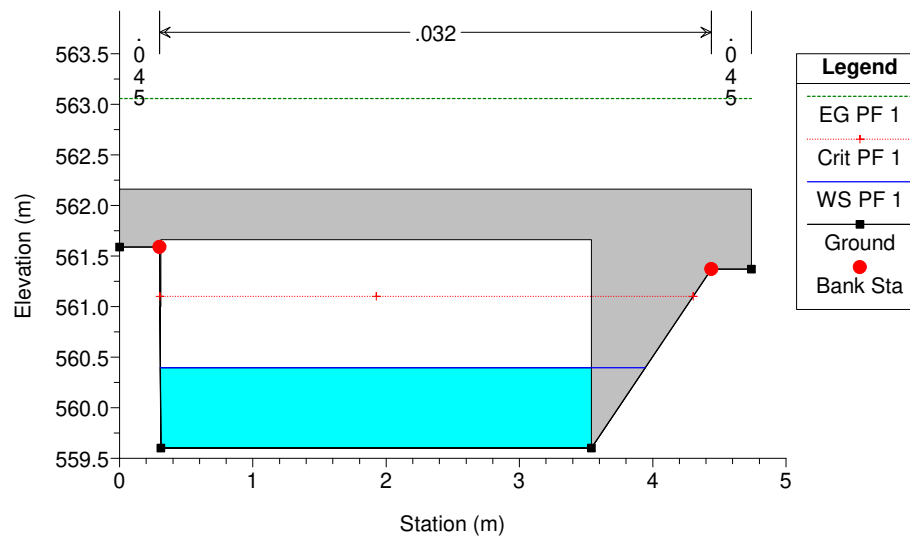
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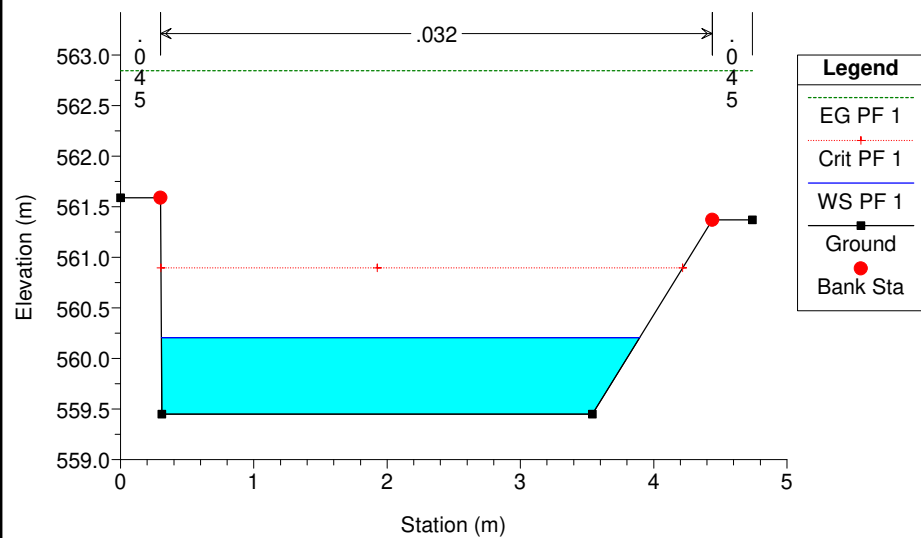
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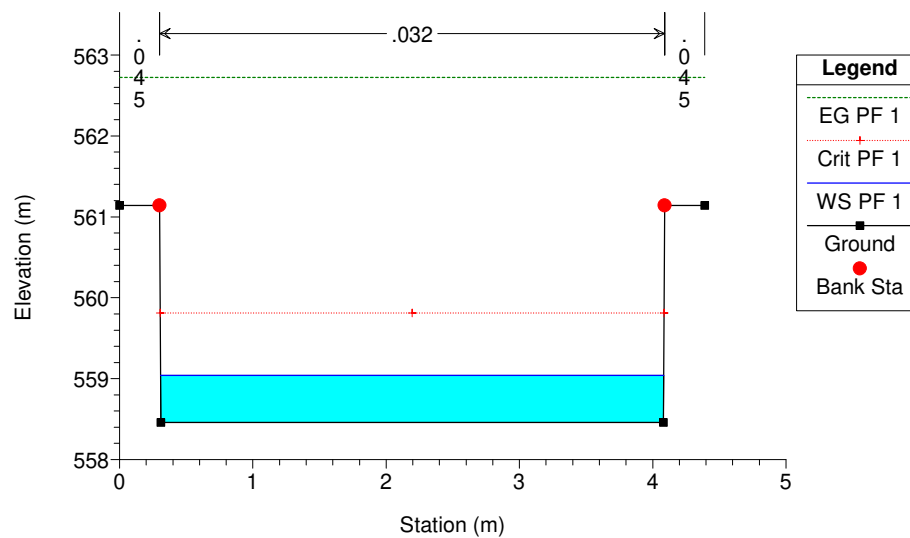
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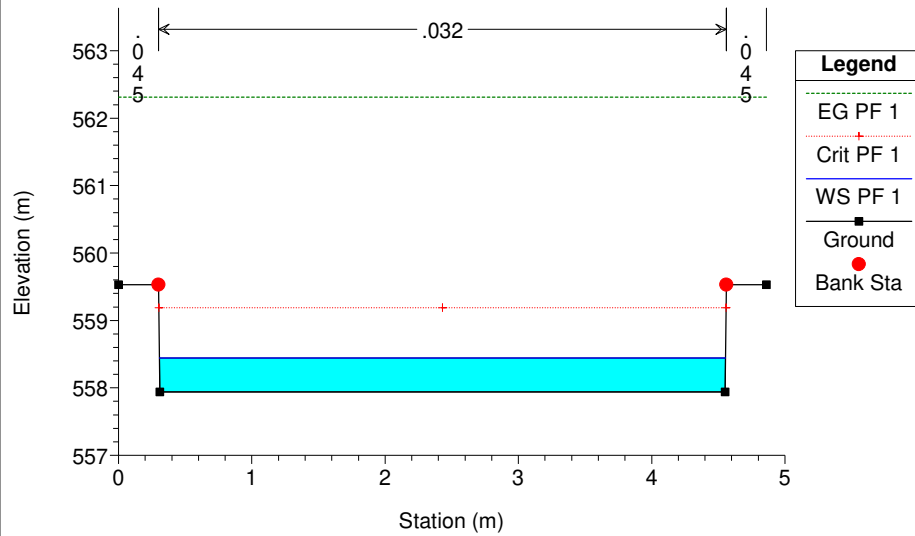
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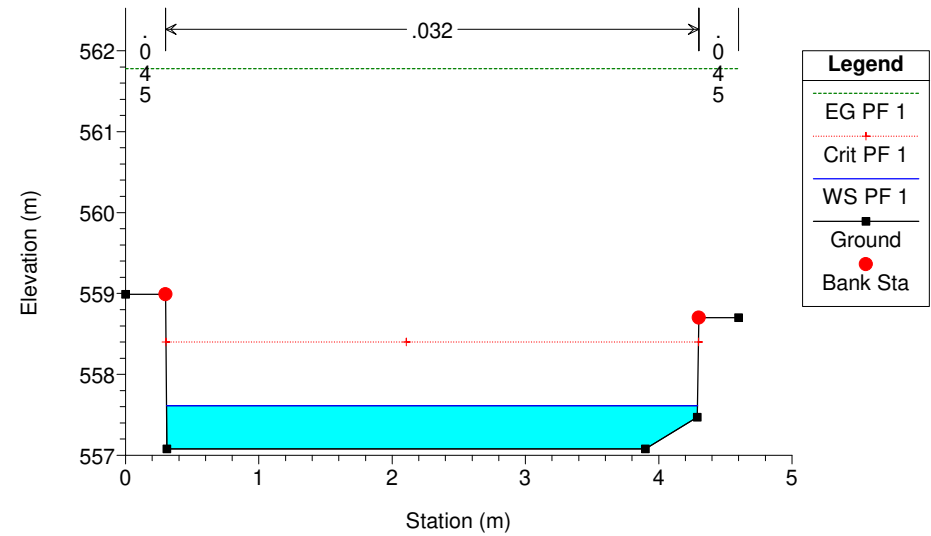
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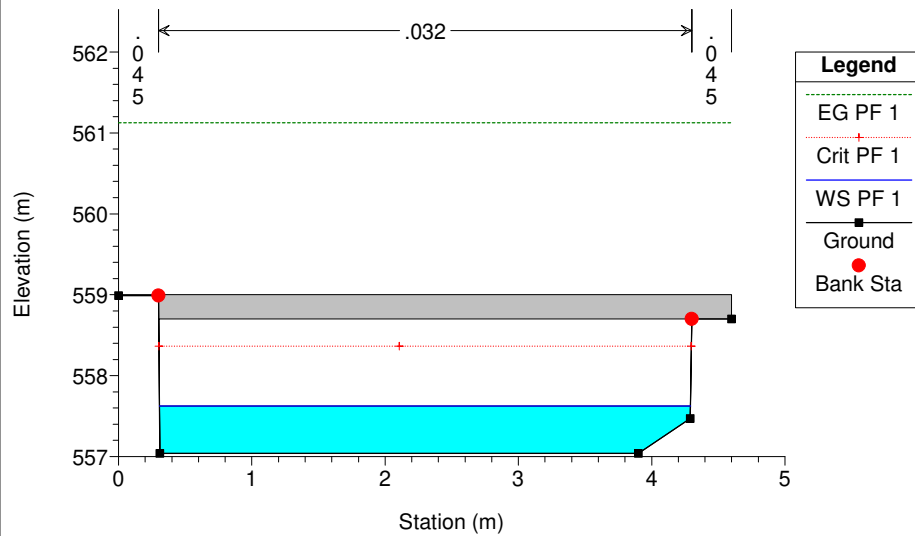
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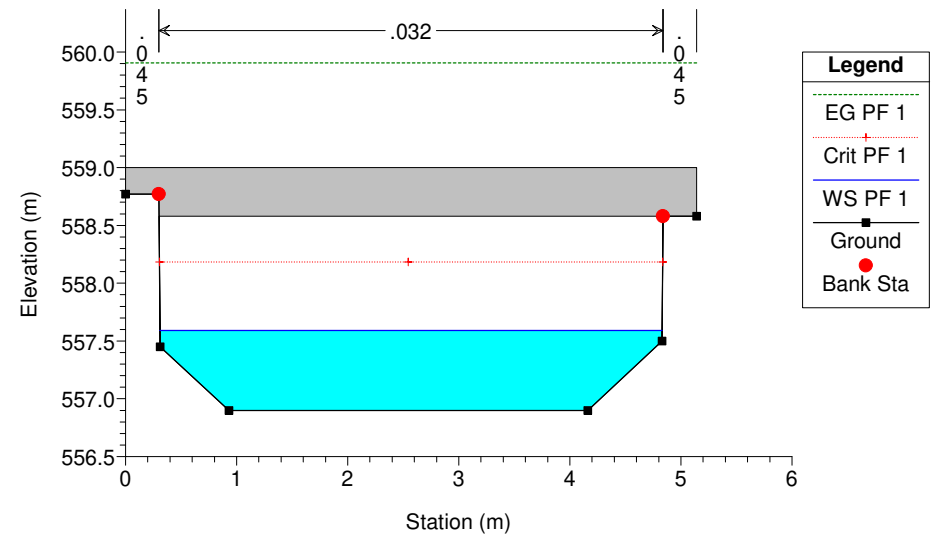
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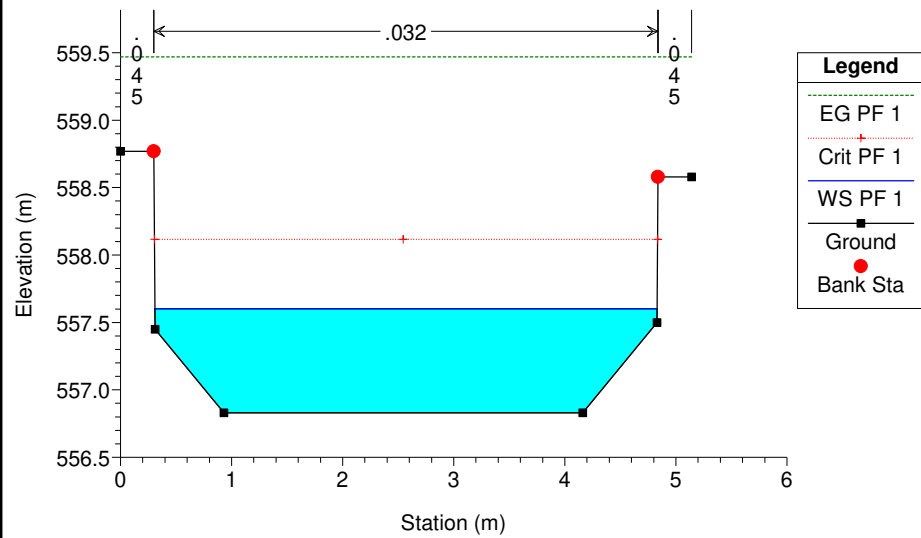
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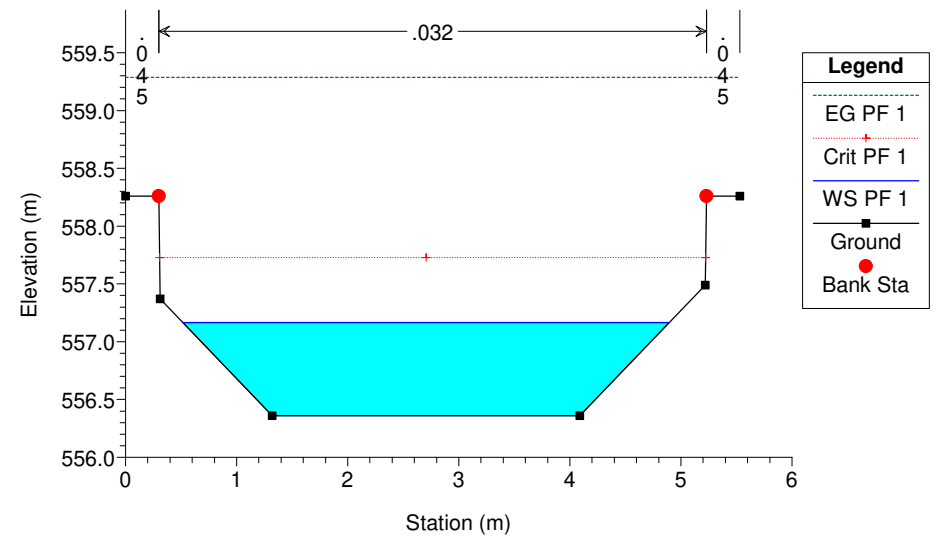
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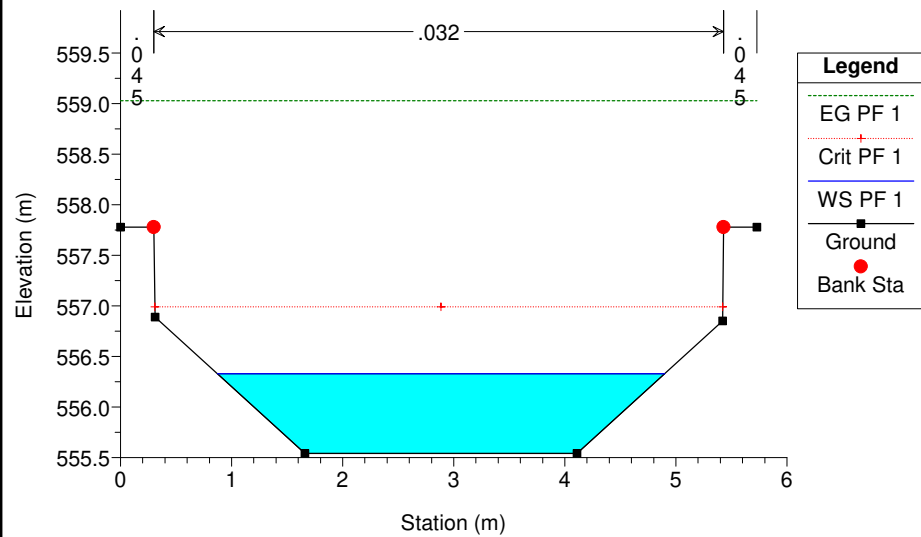
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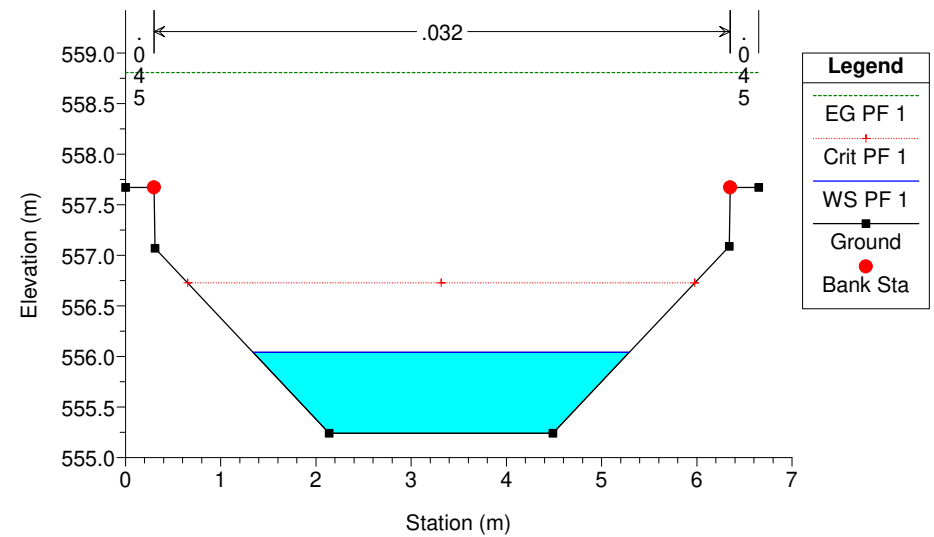
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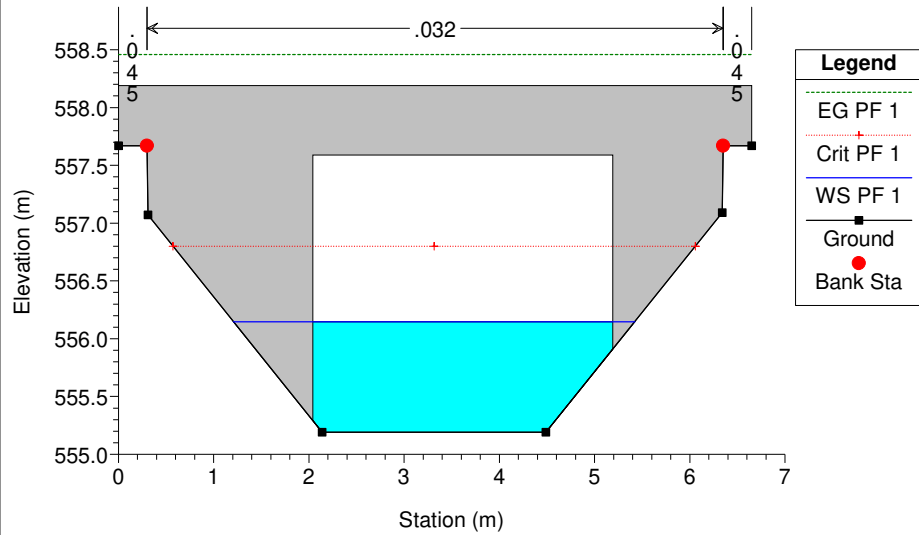
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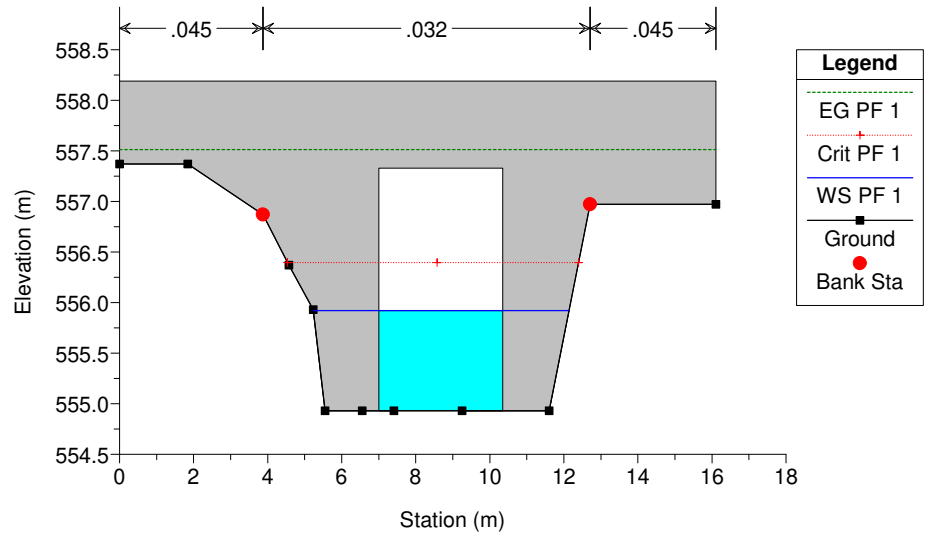
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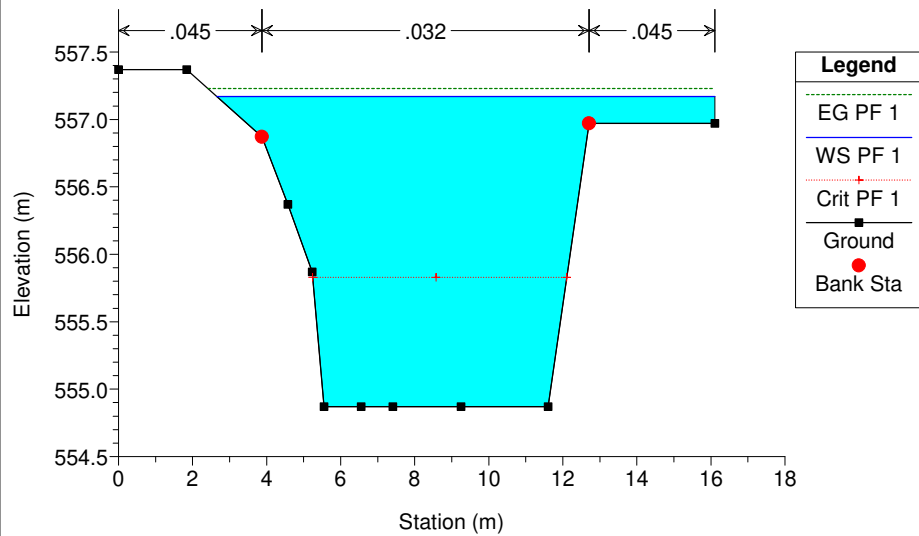
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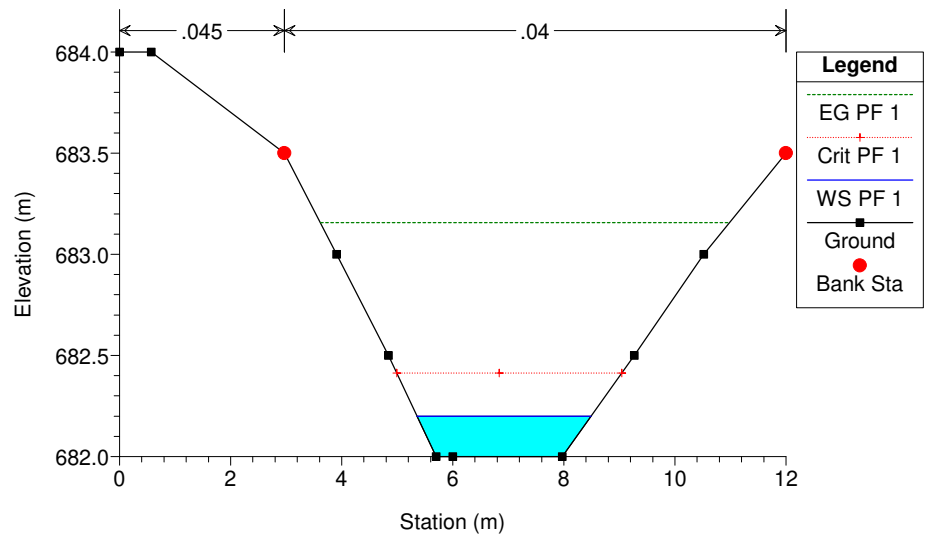
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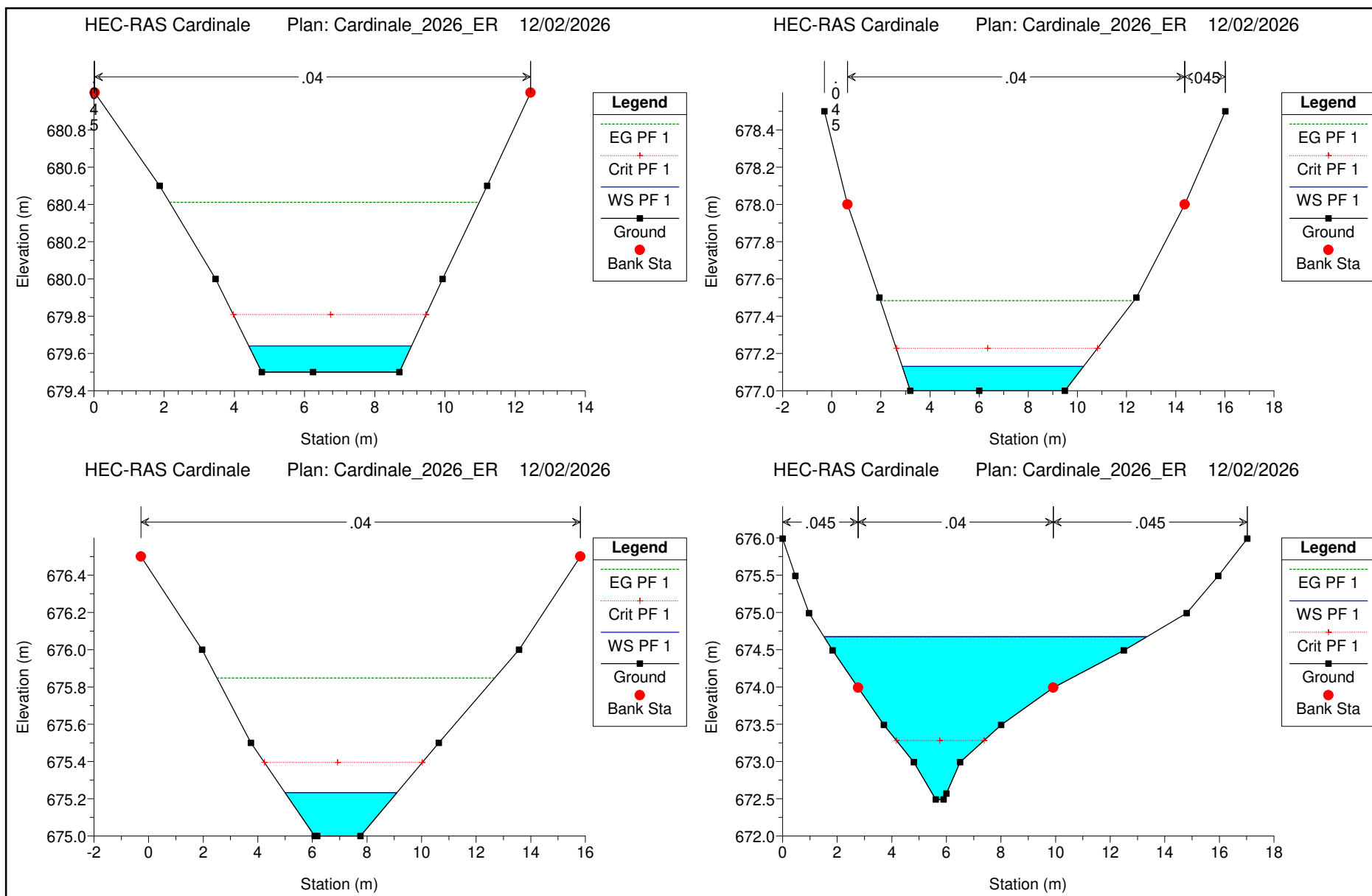


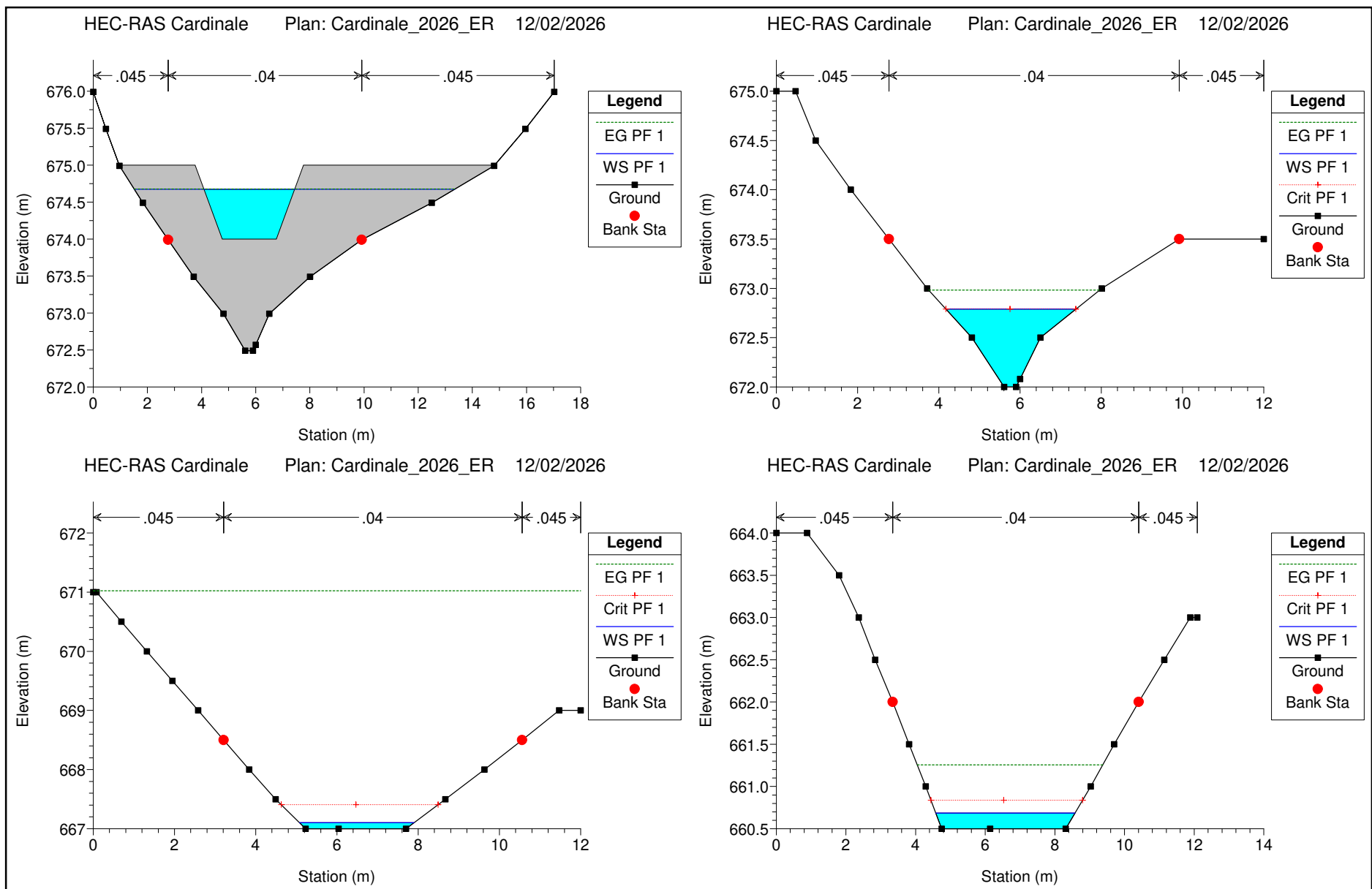
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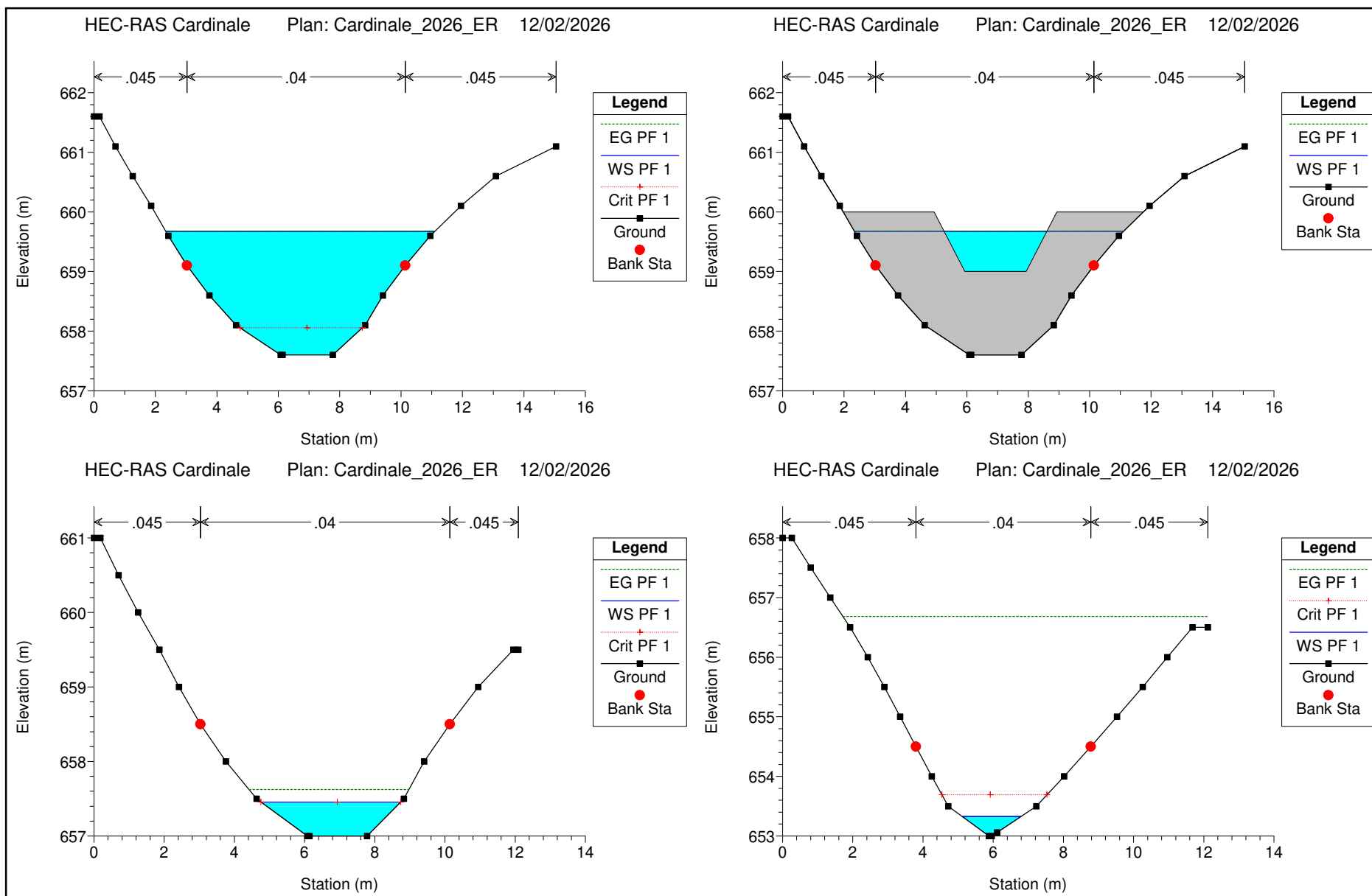


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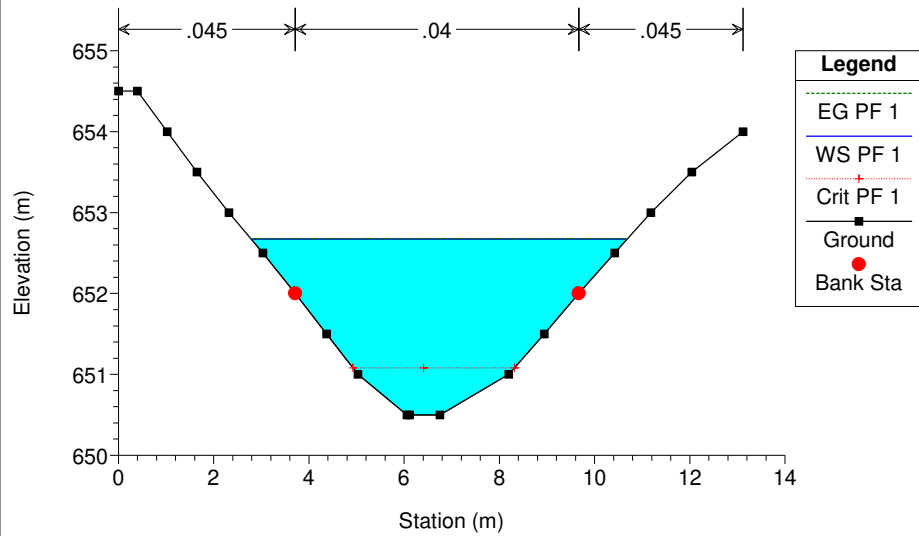




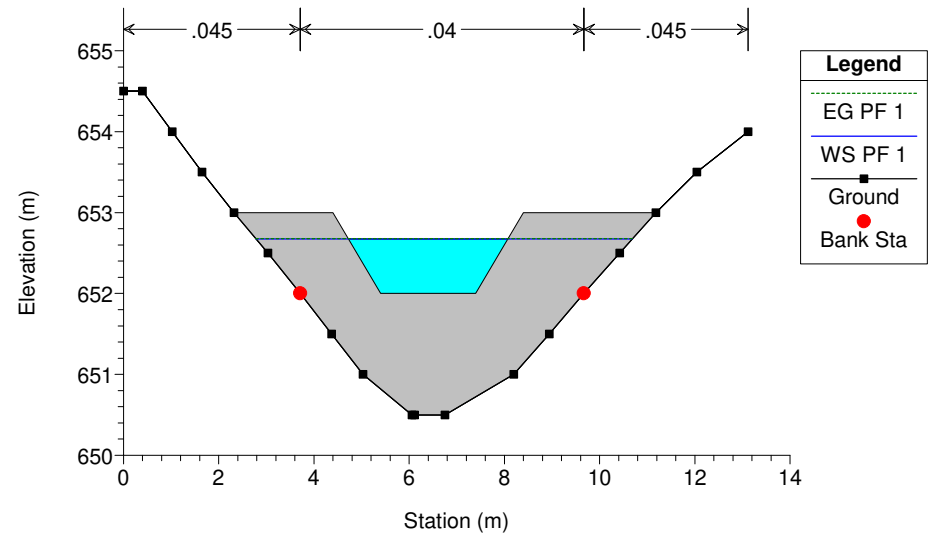




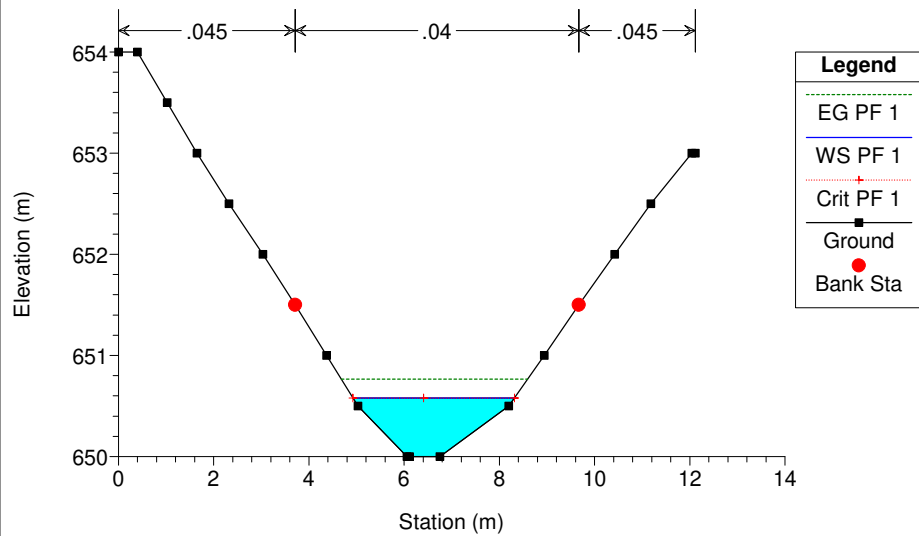
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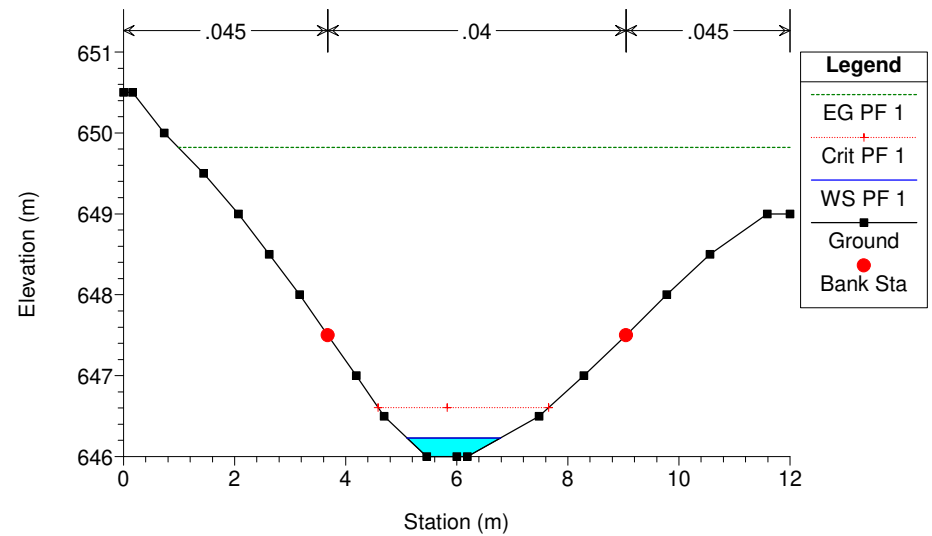
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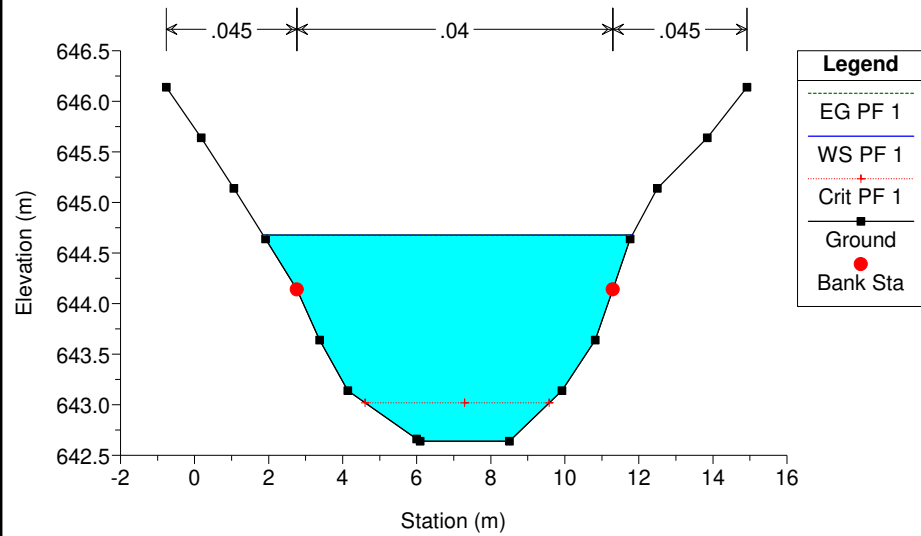
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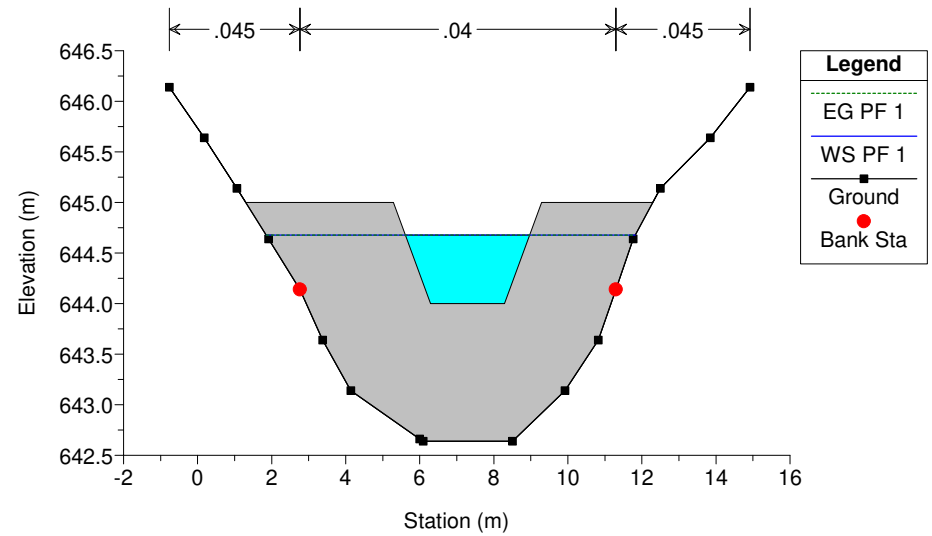
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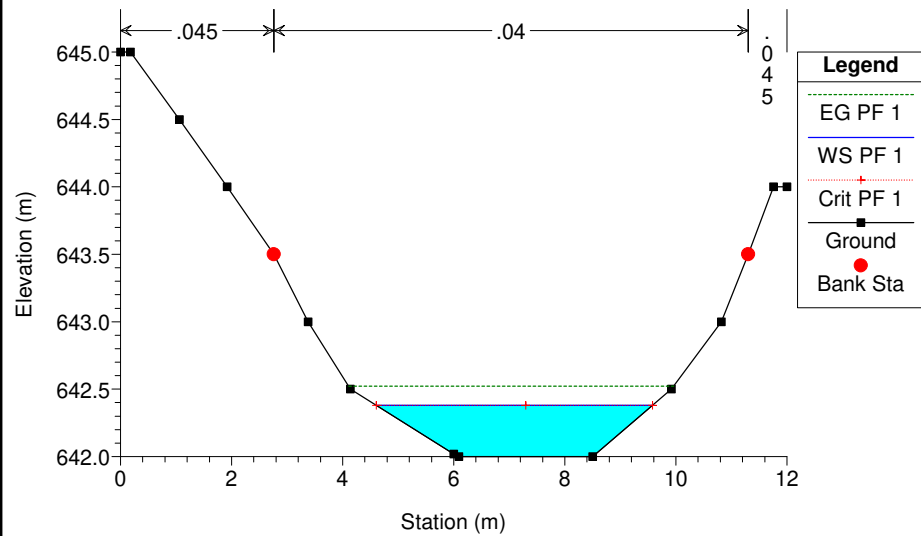
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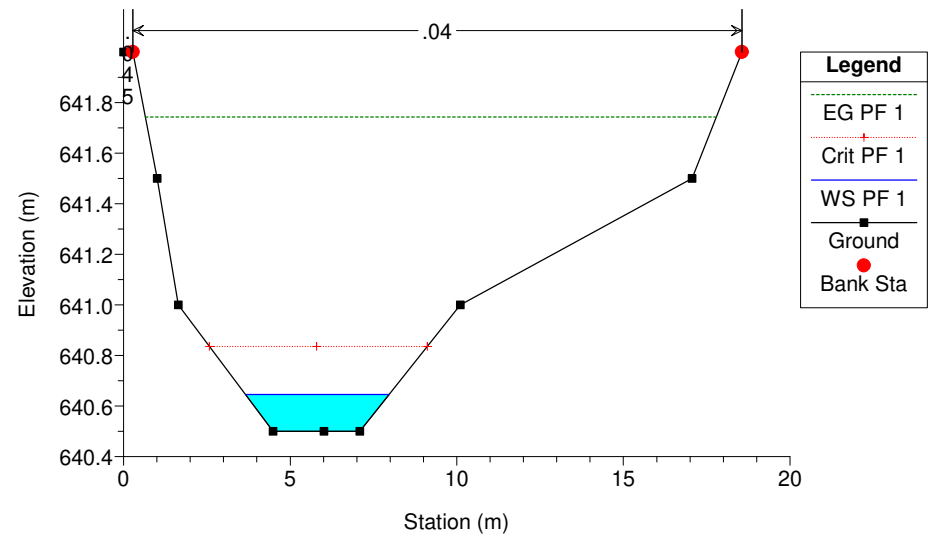
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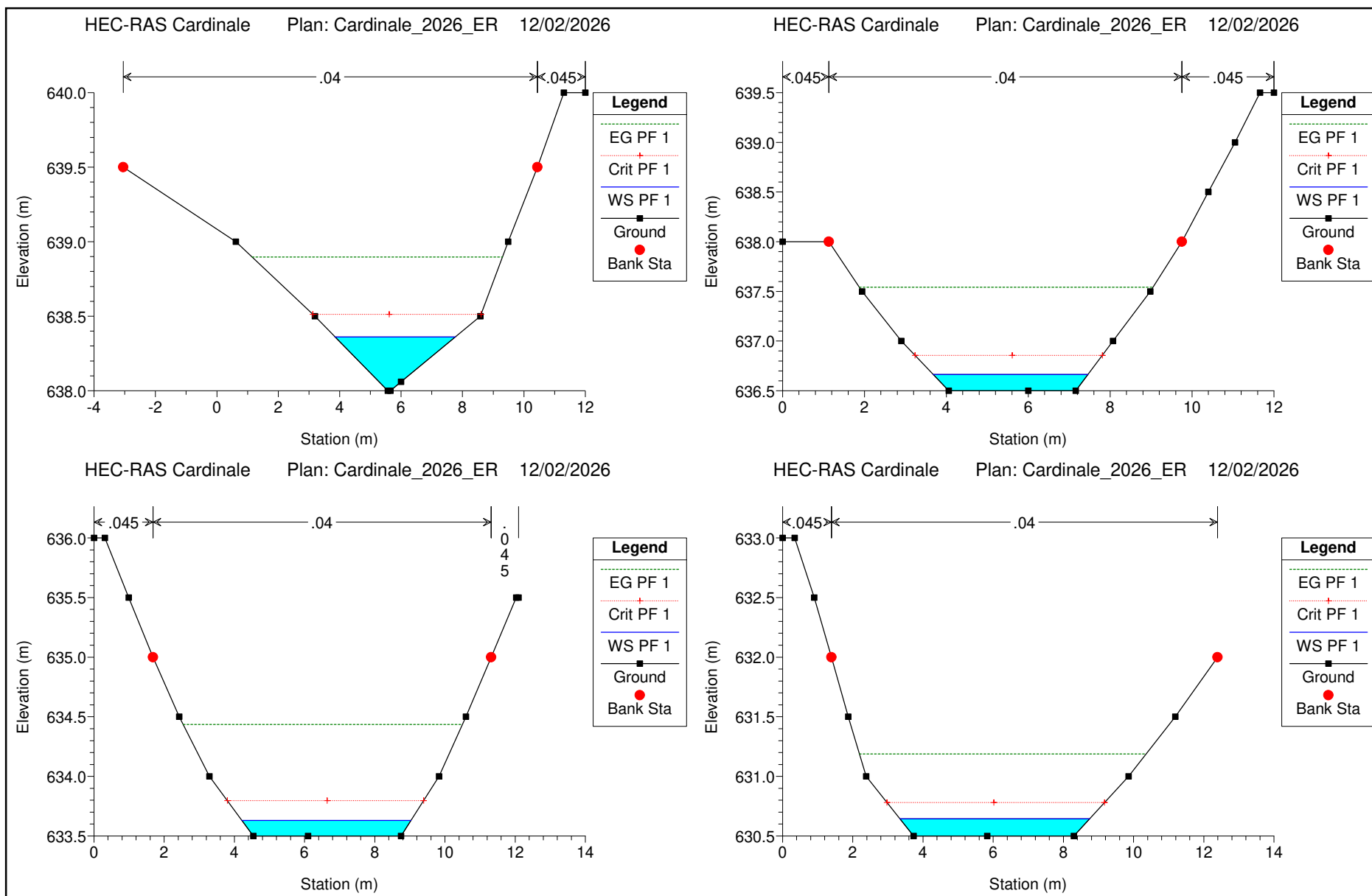


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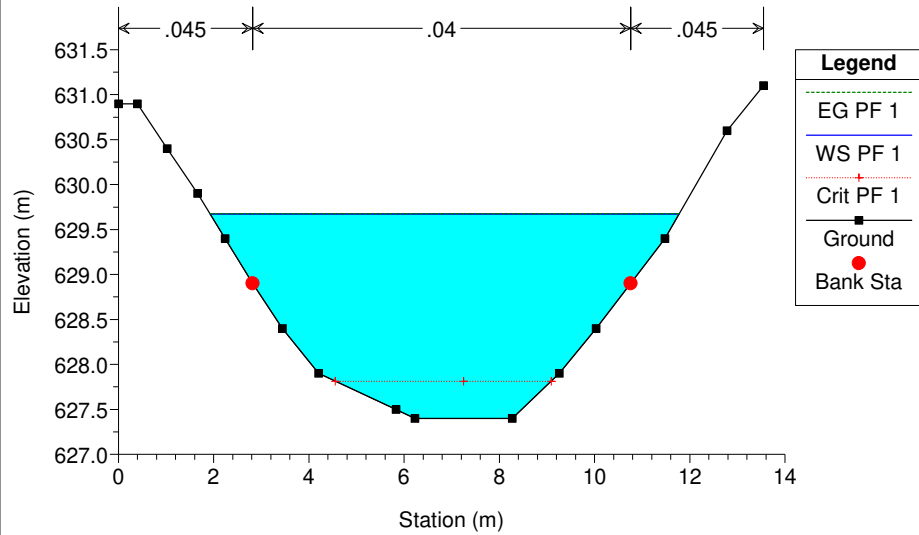


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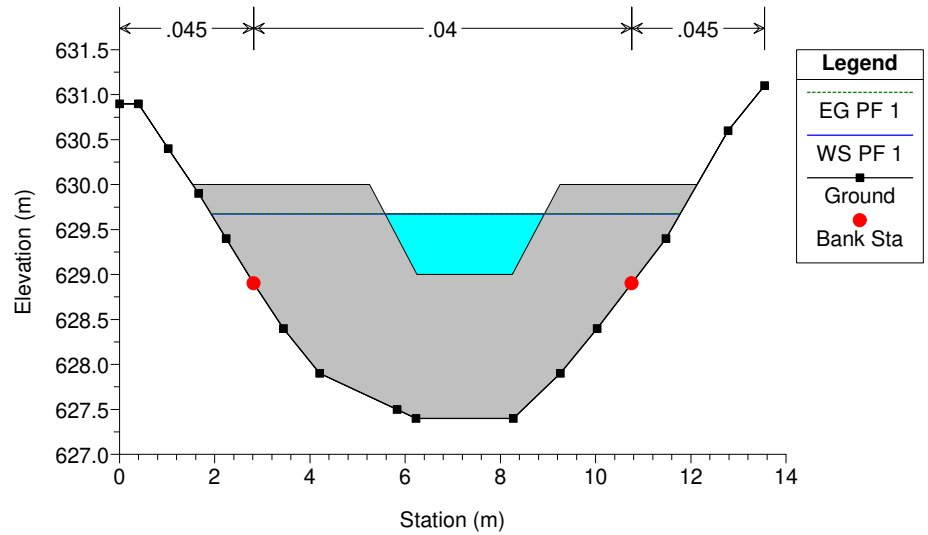




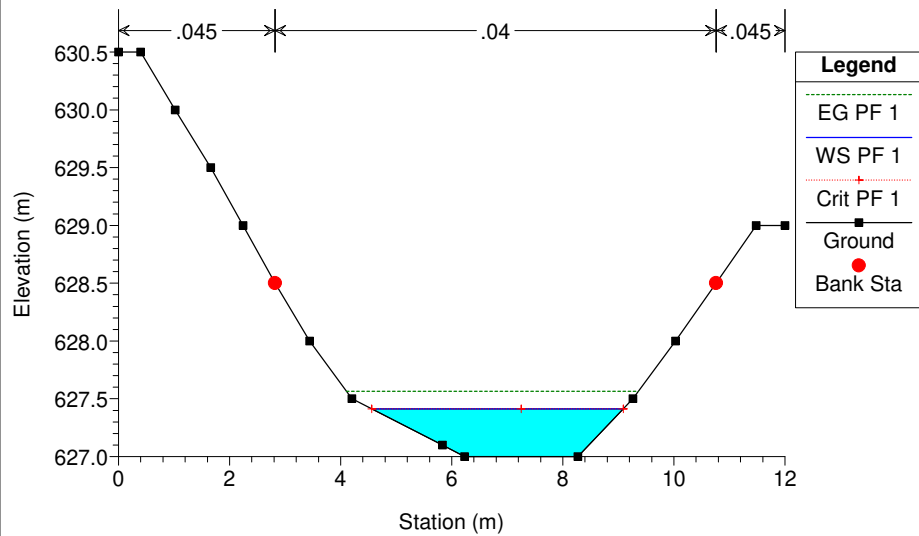
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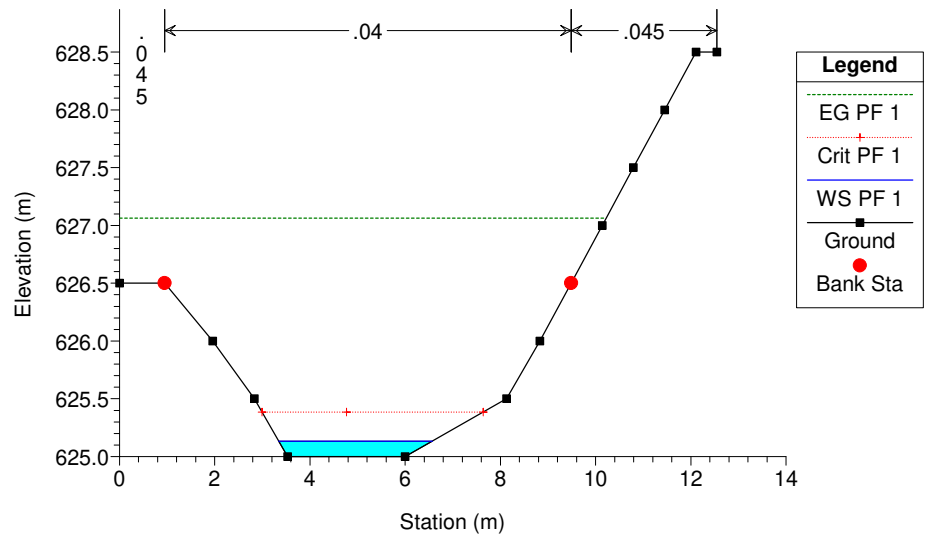
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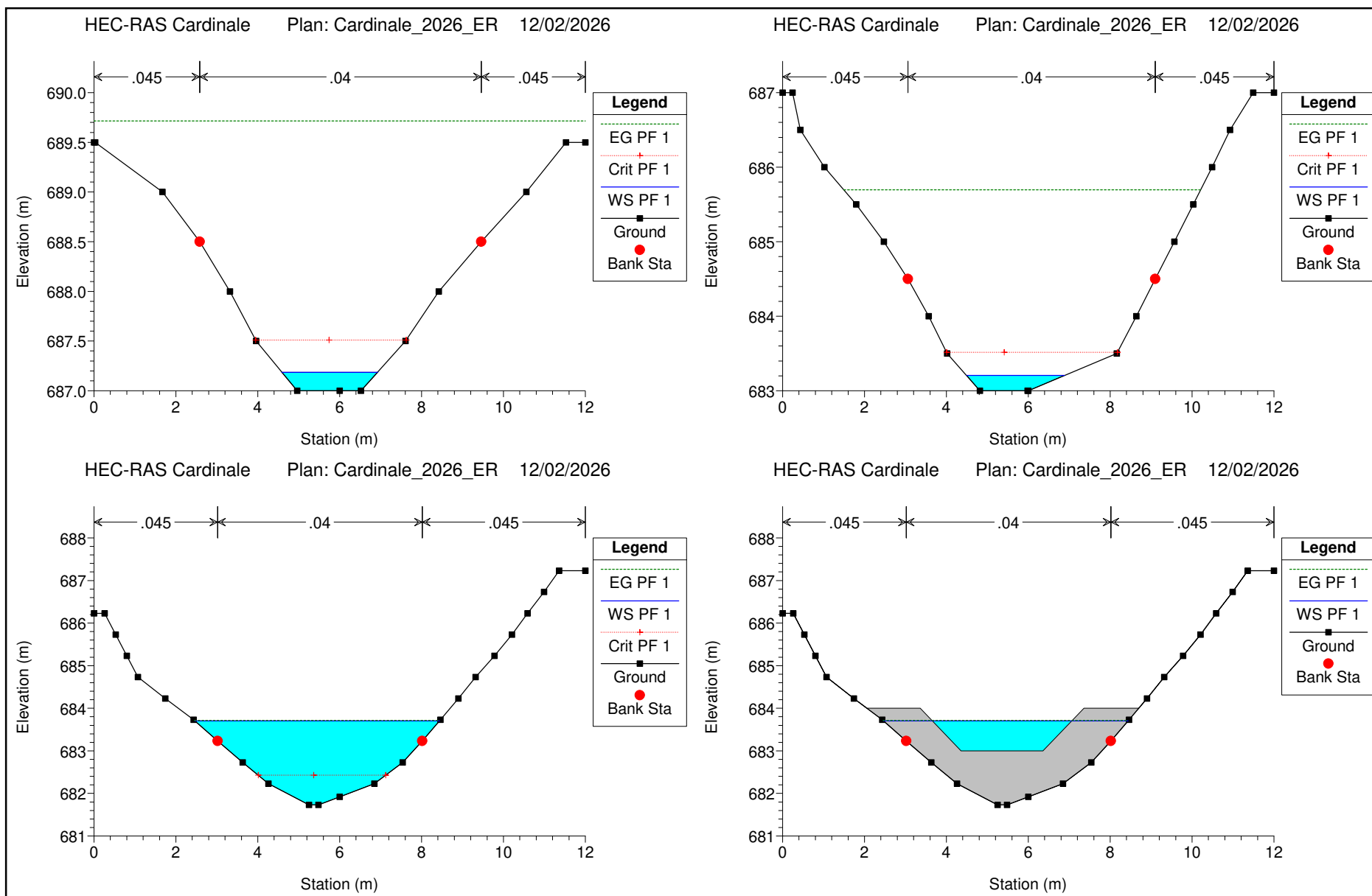


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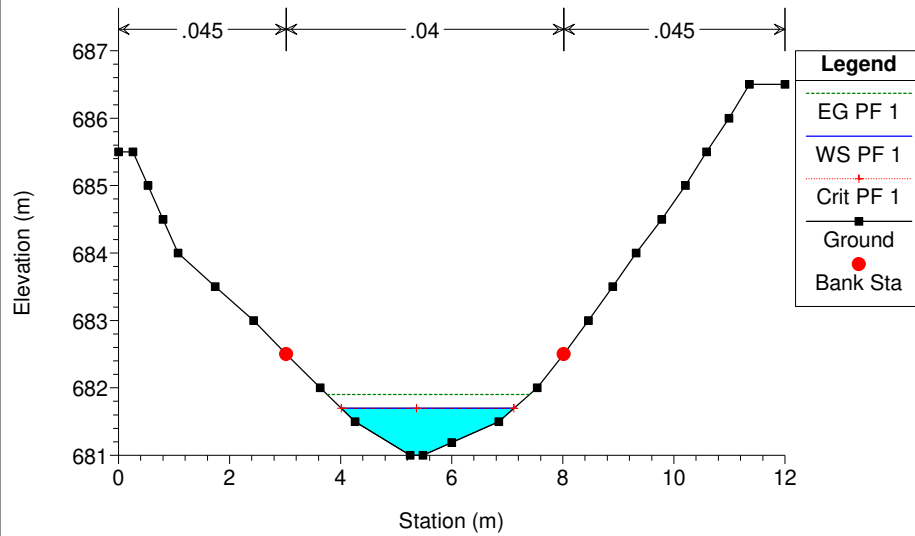


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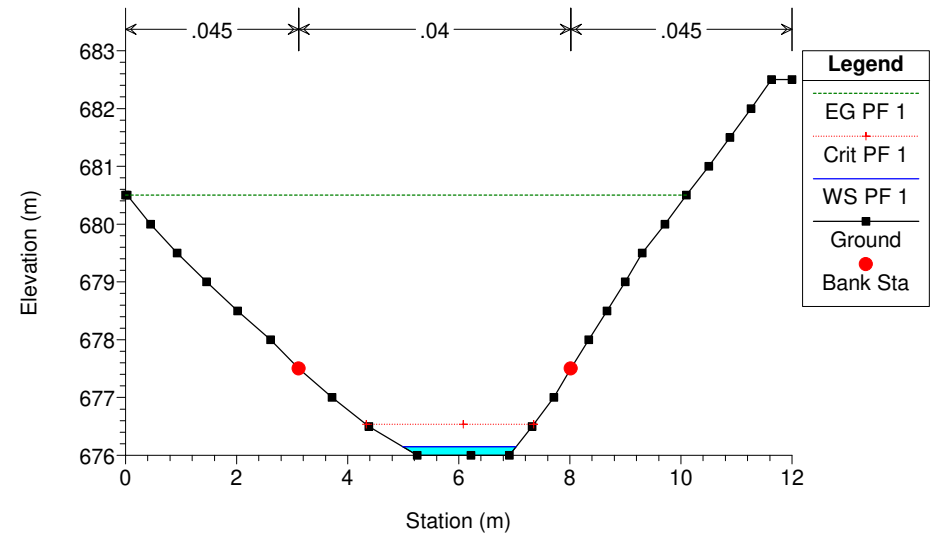




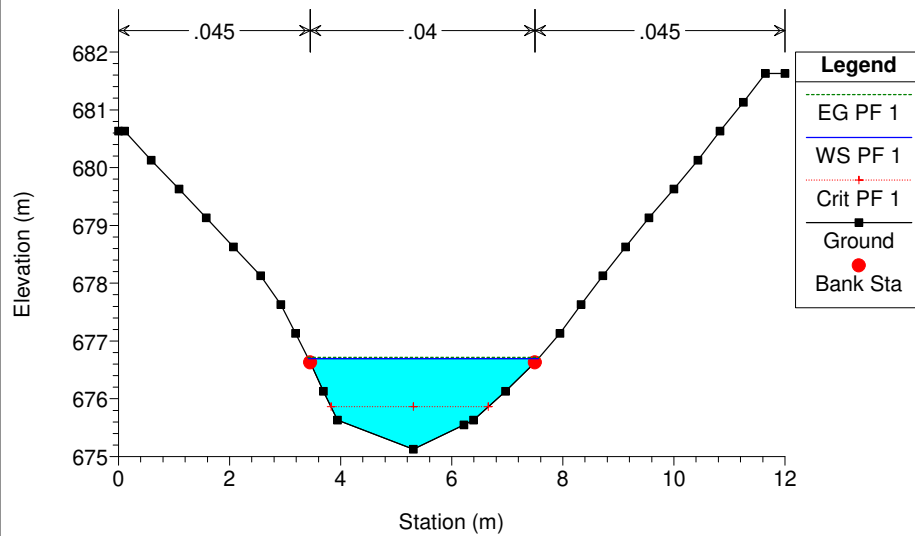
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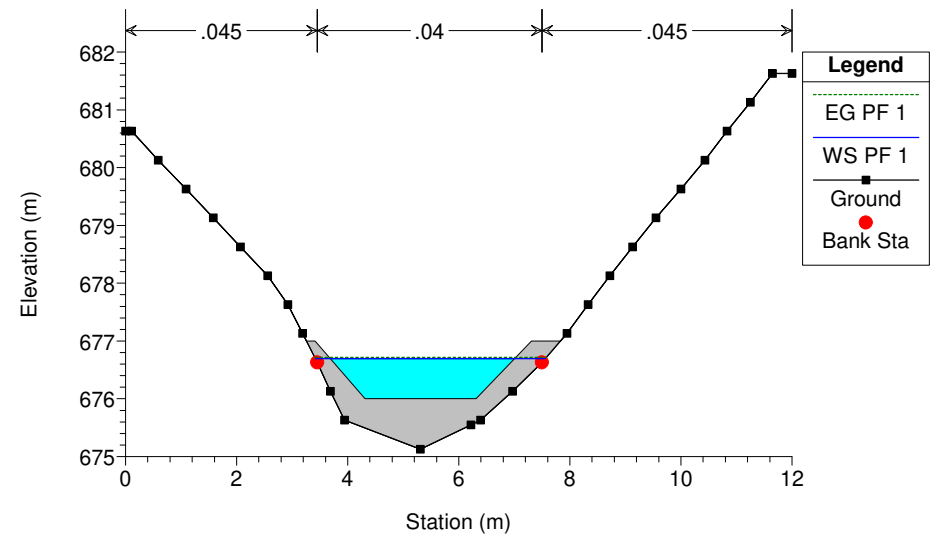
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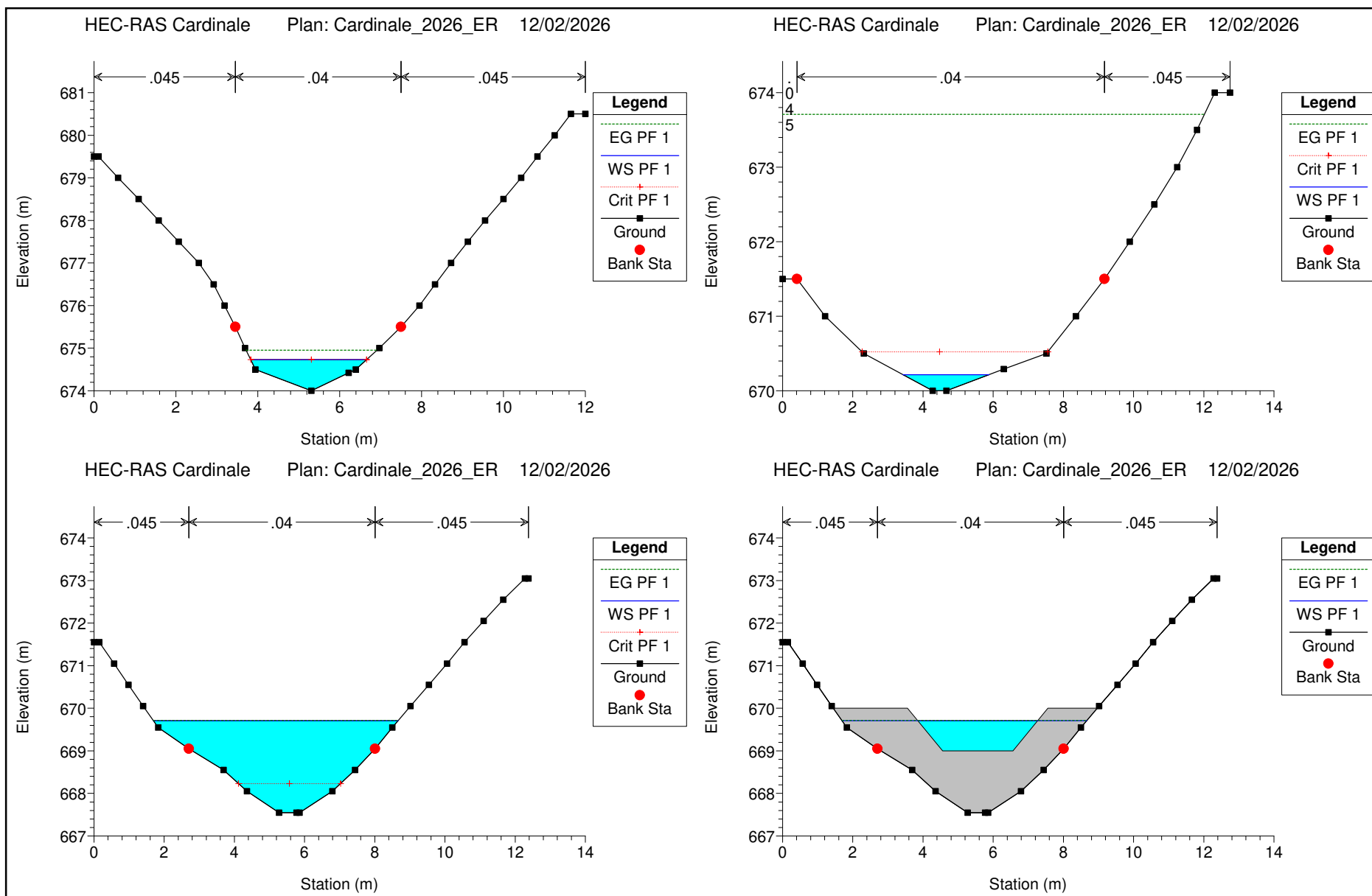


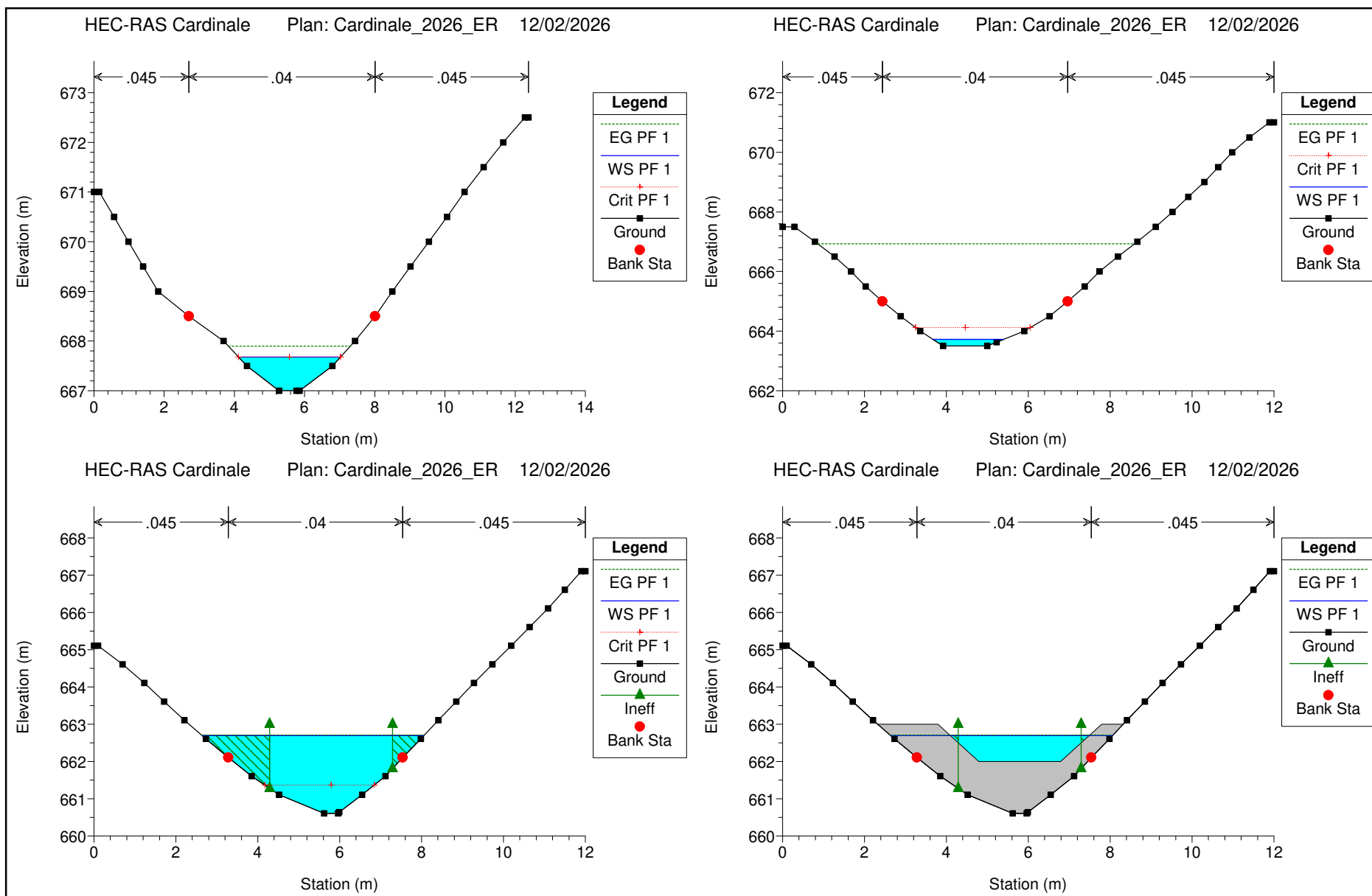
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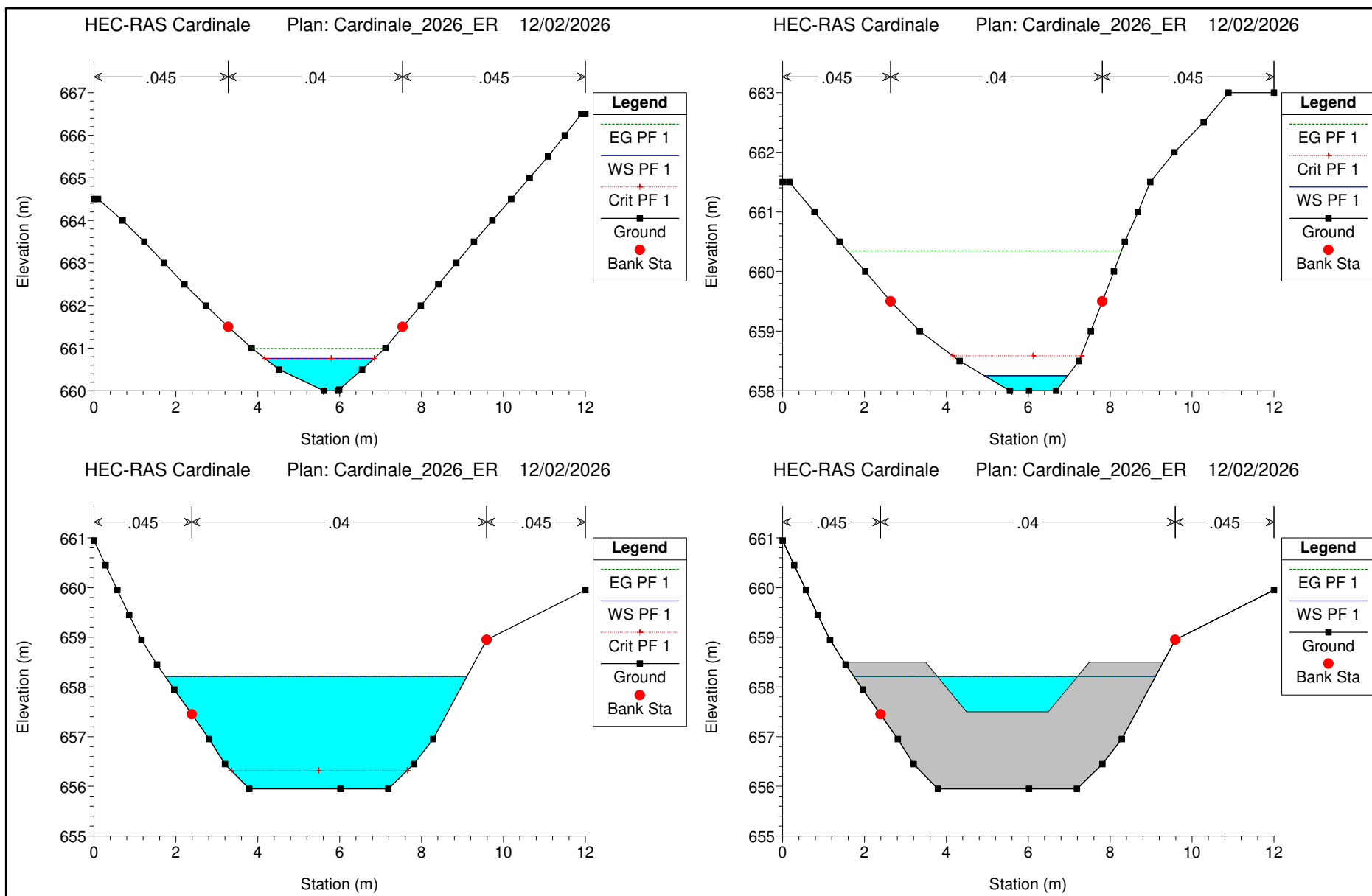


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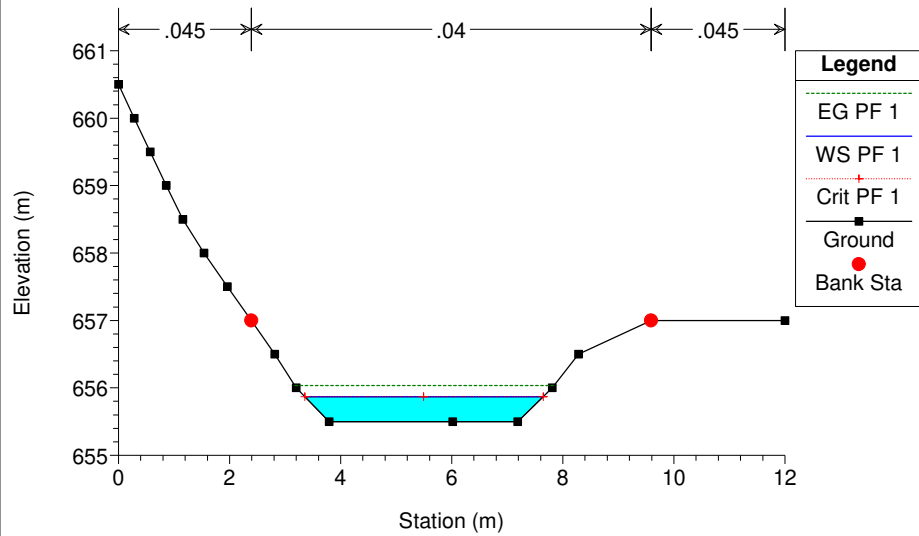




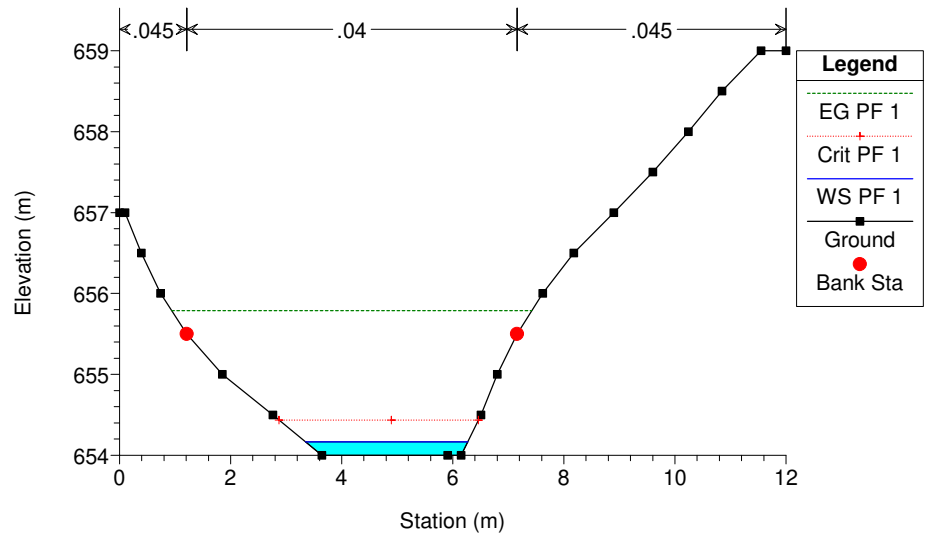




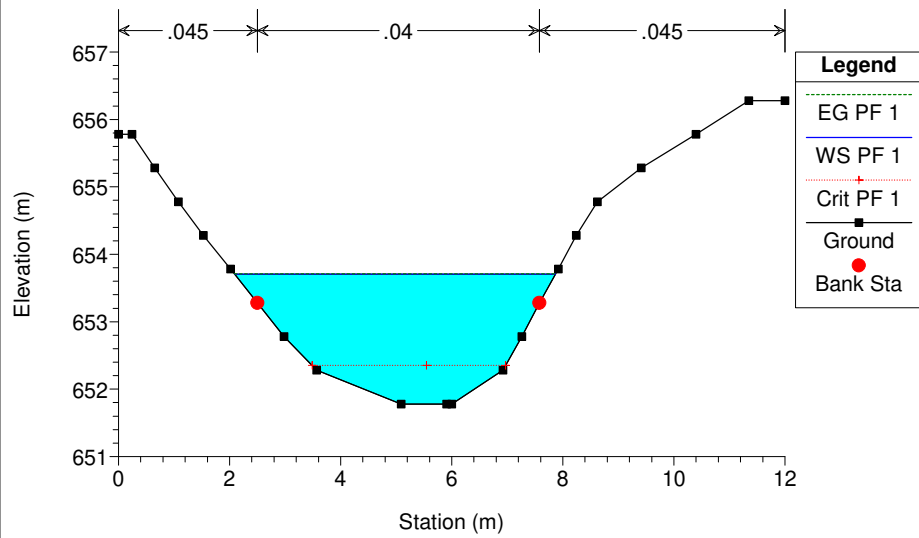
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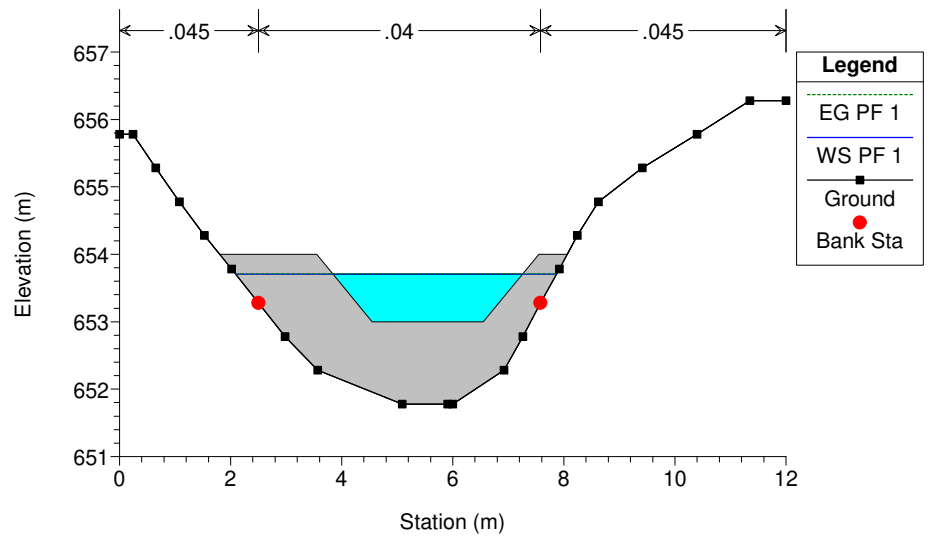
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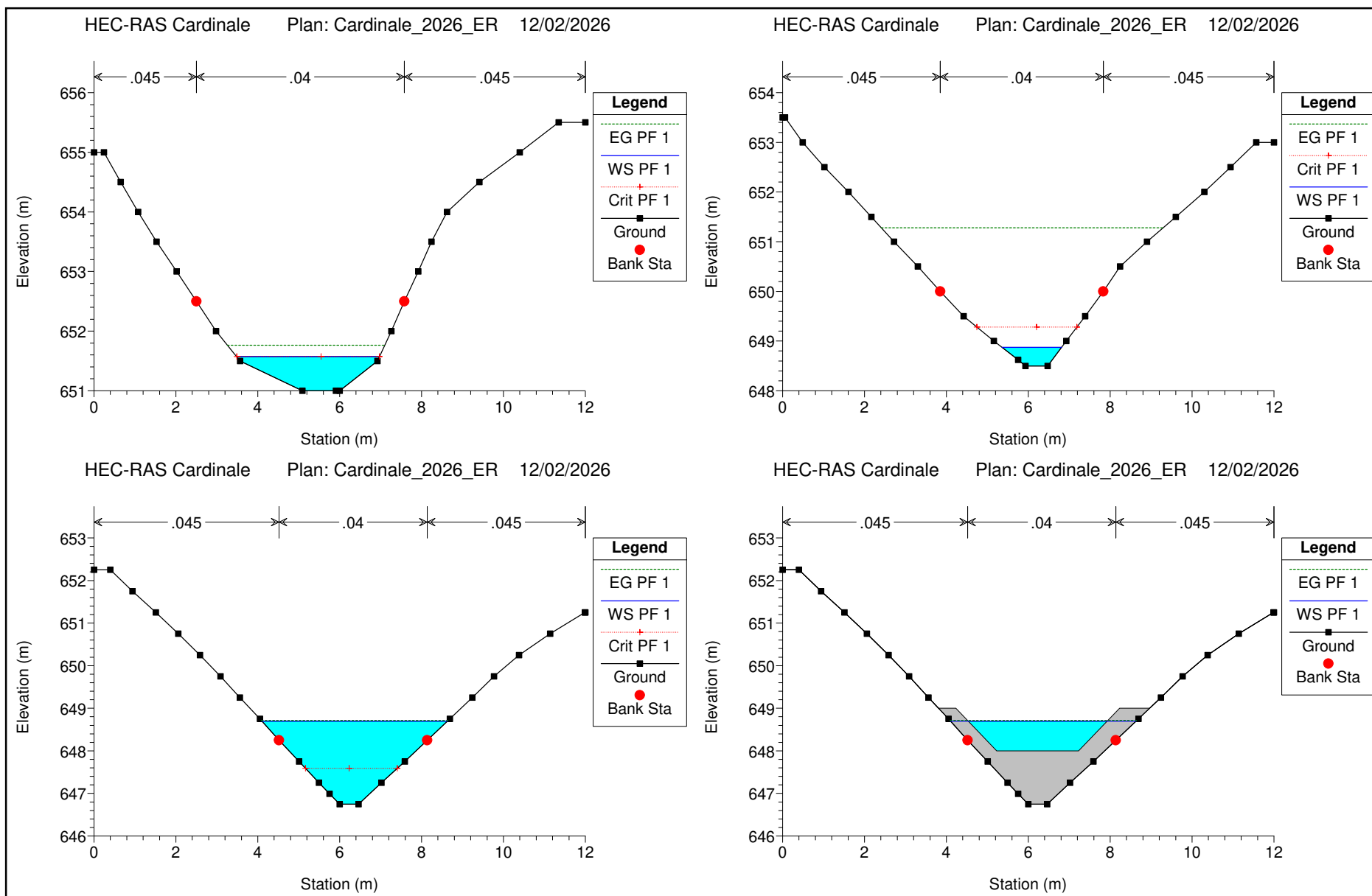


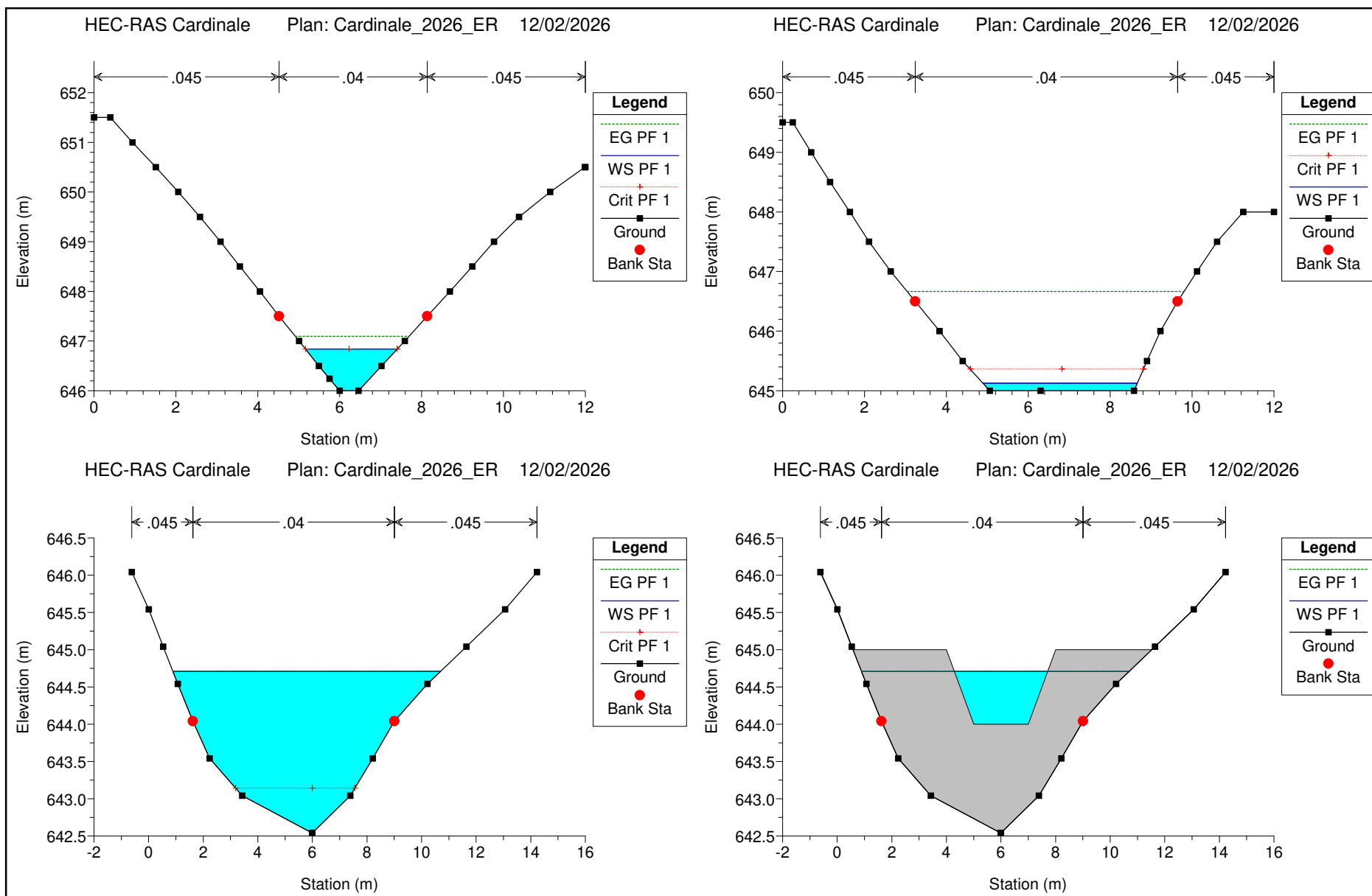
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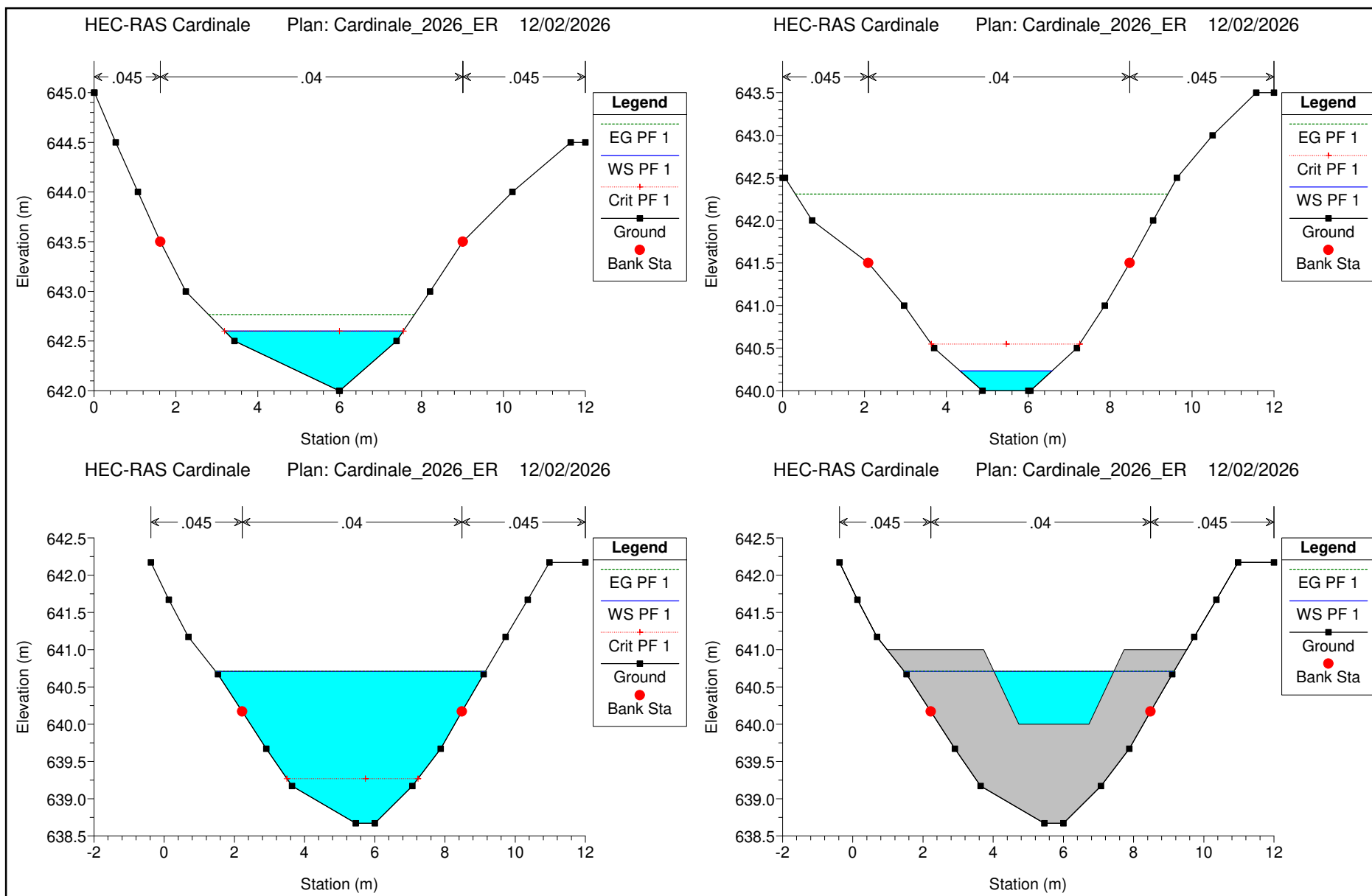


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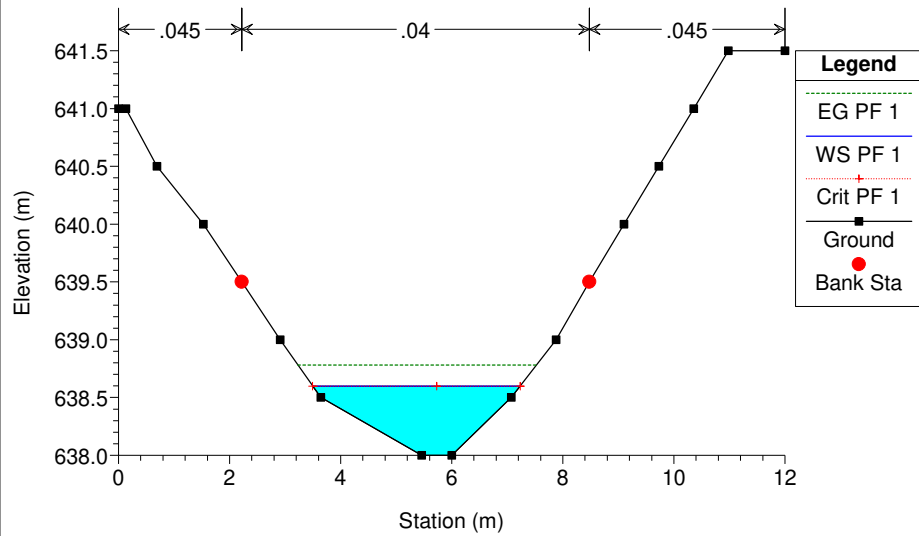




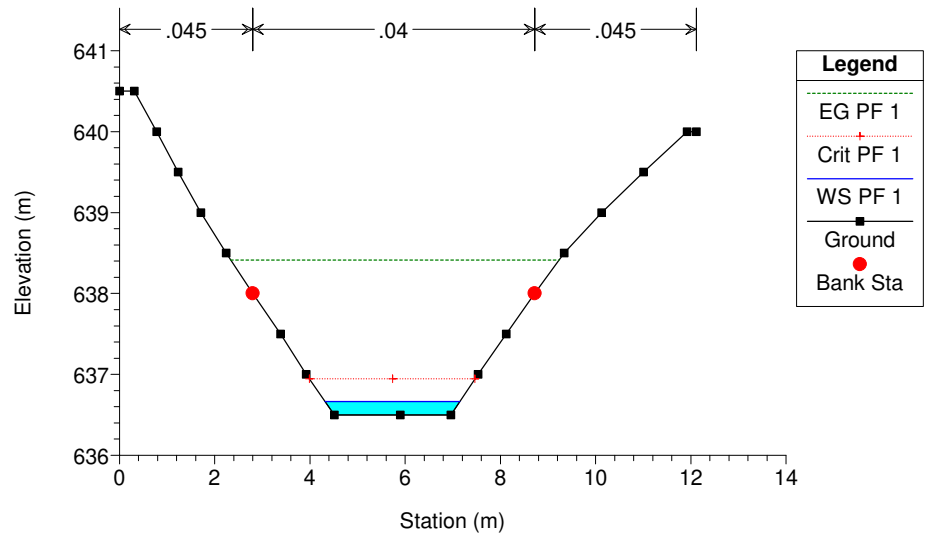




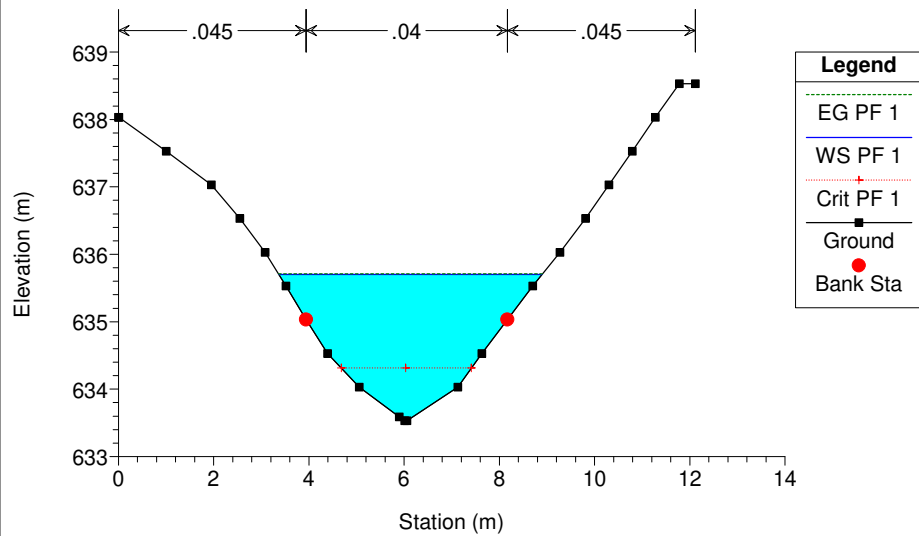
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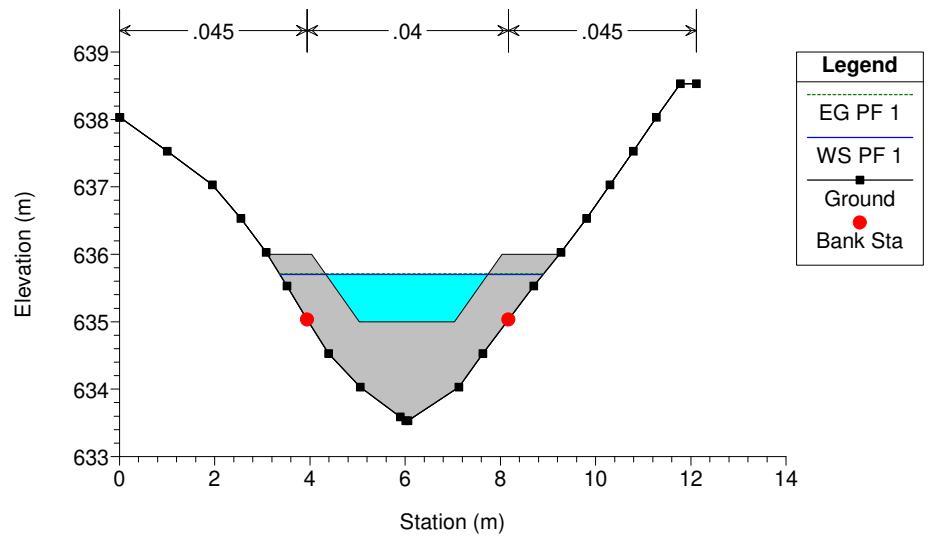
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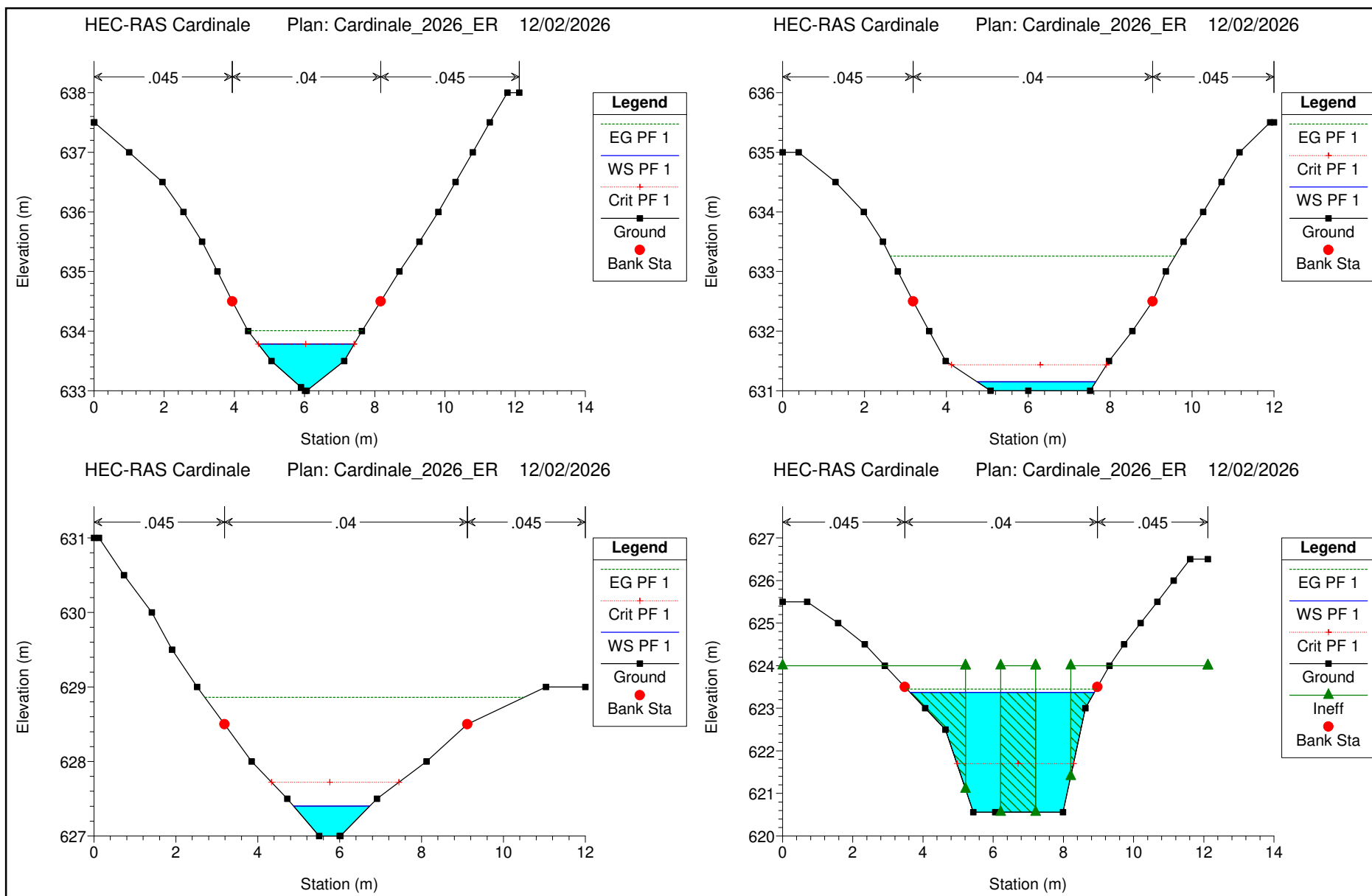


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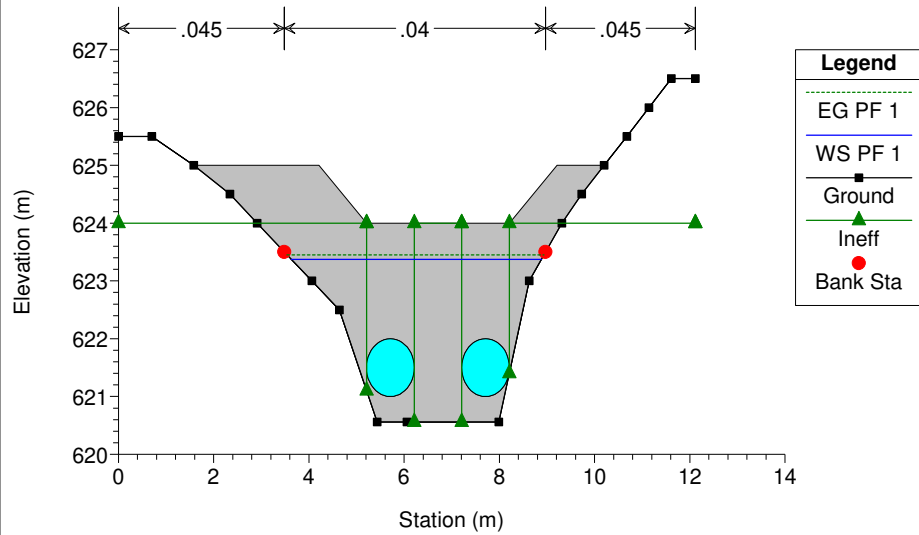


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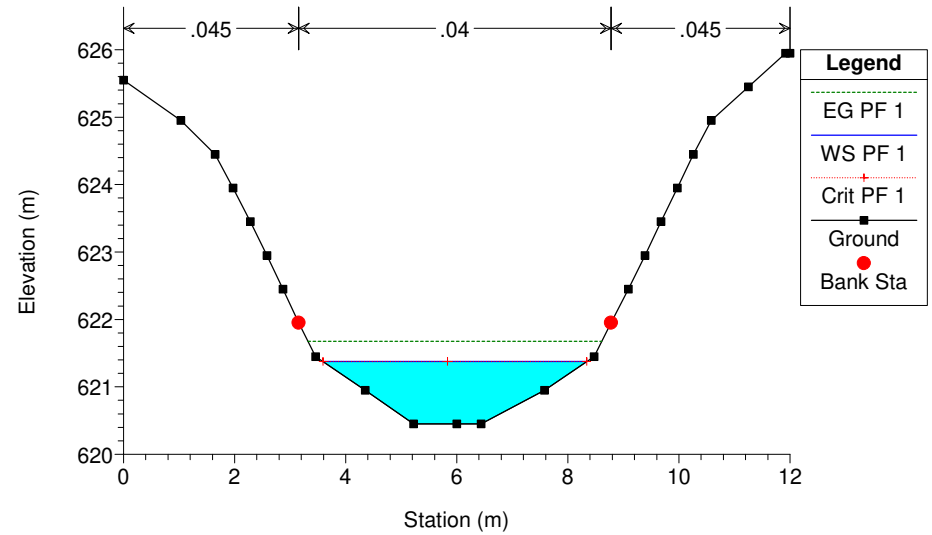




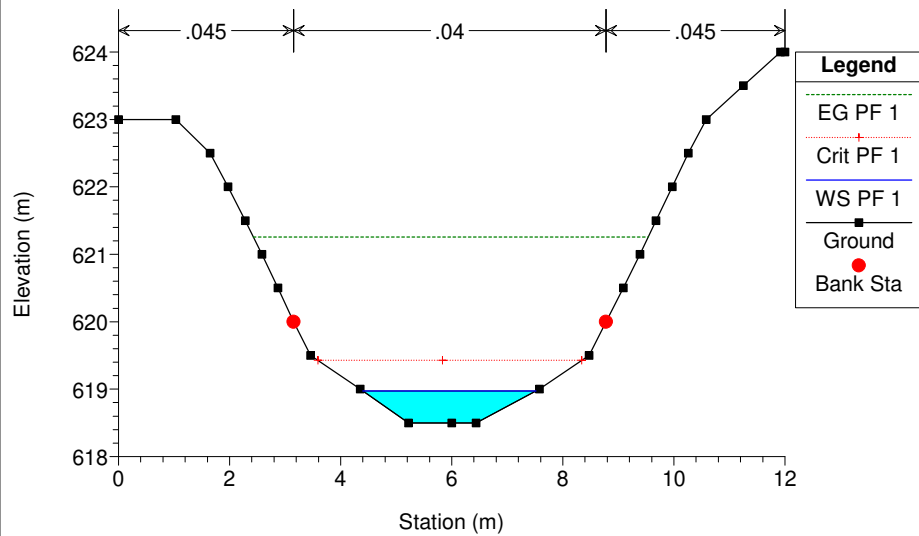
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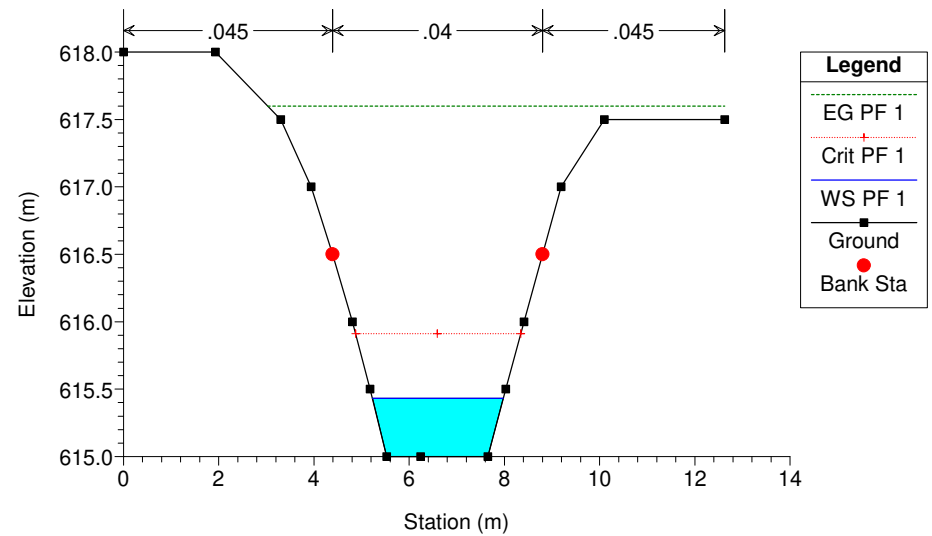
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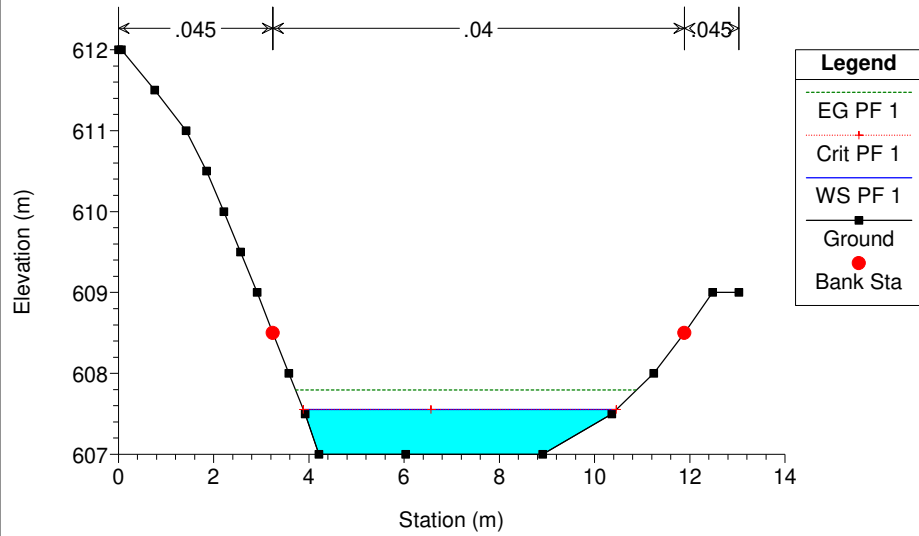
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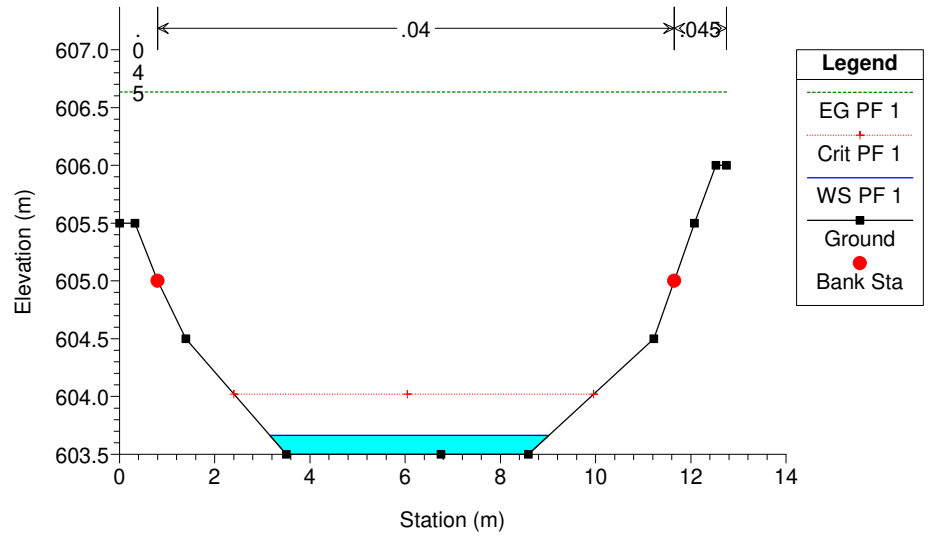
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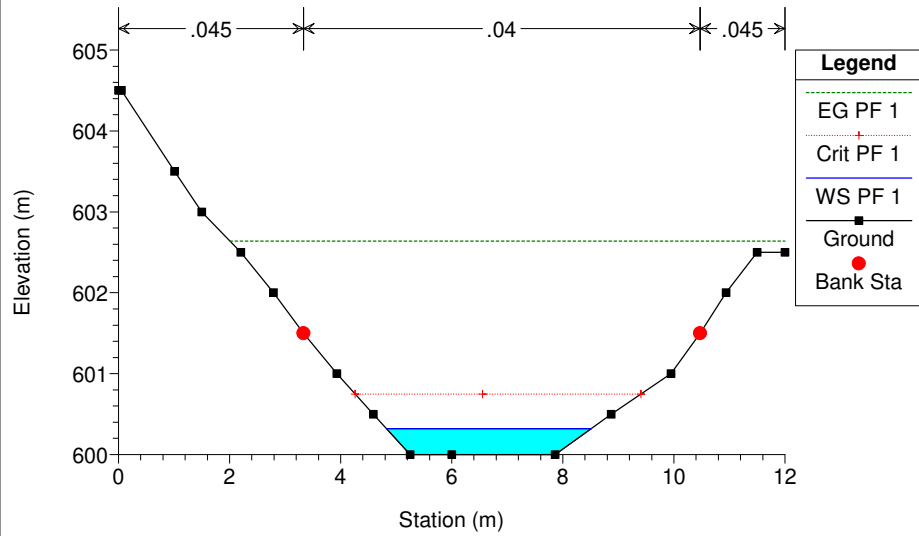
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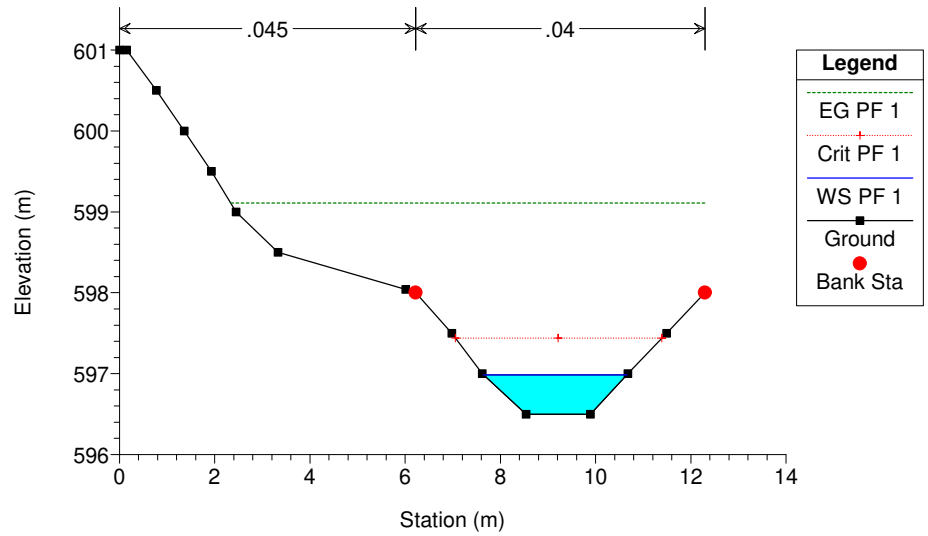
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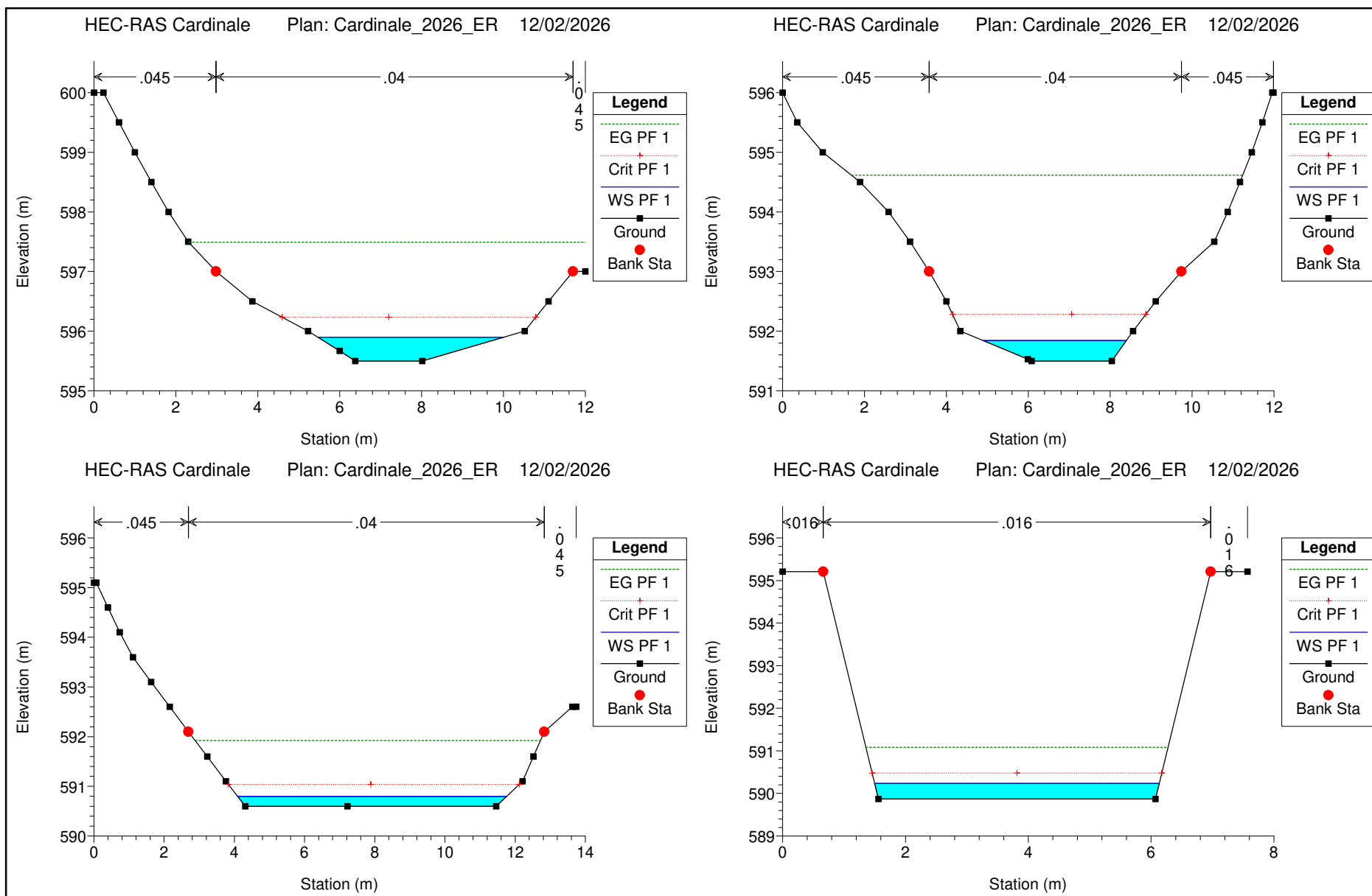


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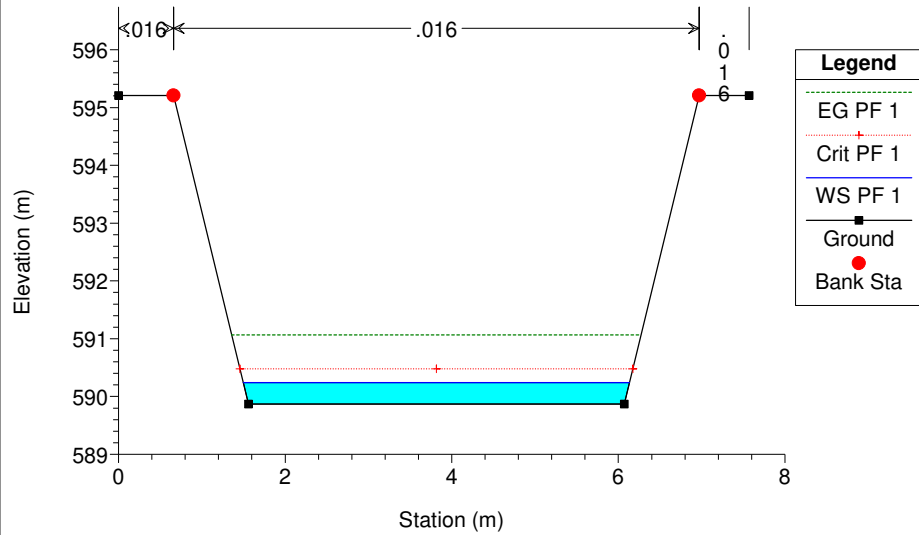


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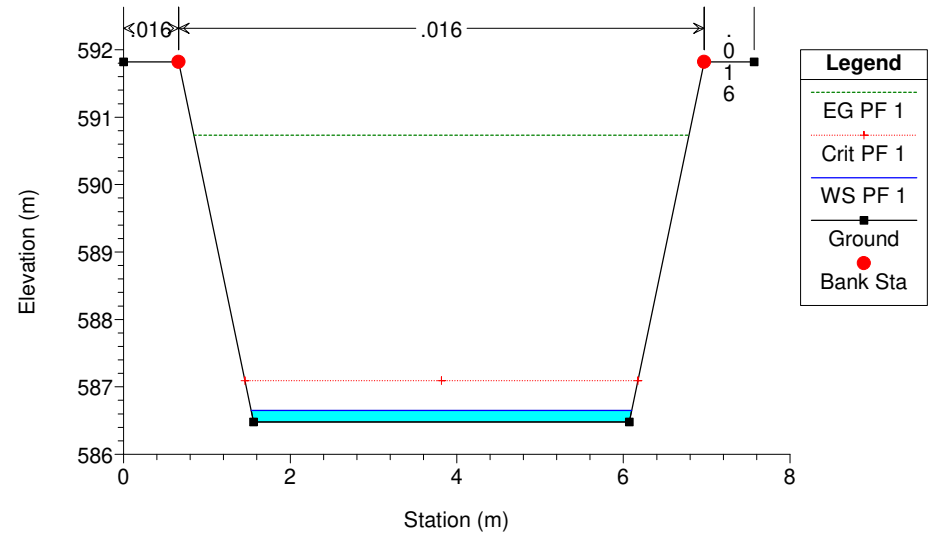




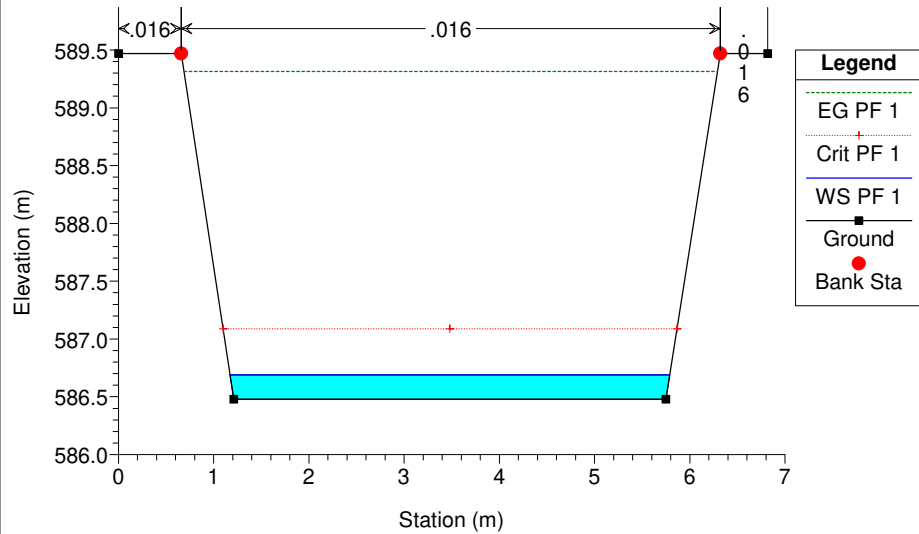
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