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716 050 878 507 fax 050 877 994

# ALLEGATI

## HEC RAS

## FIUME EGOLA

## S. MINIATO

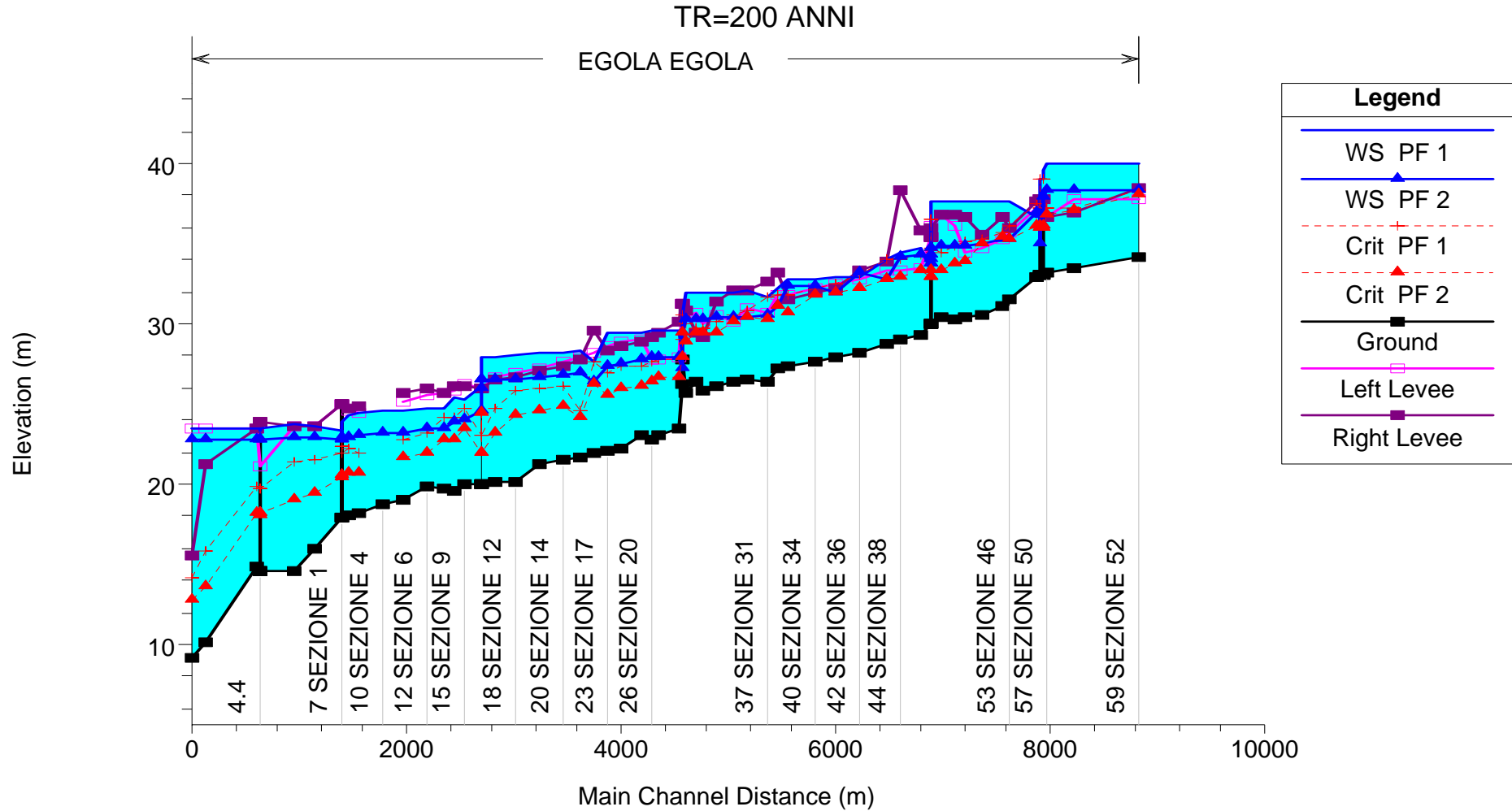


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# TR 20 e 200

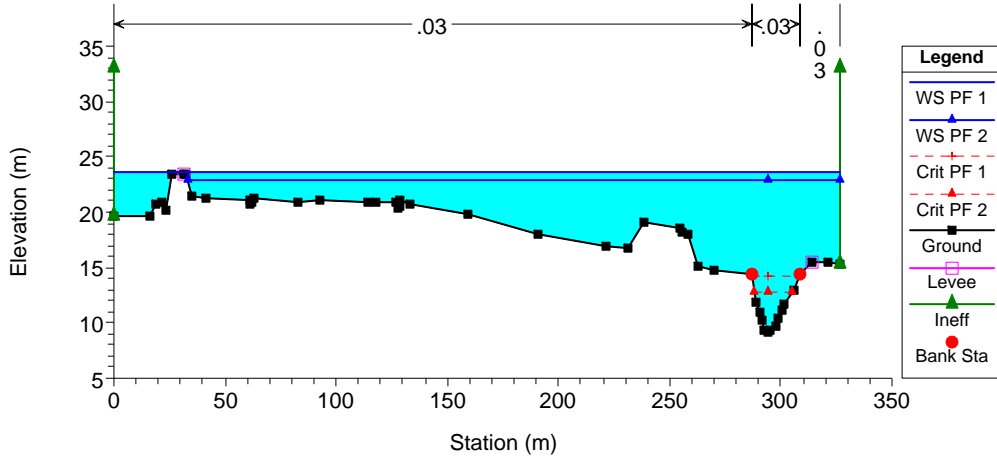


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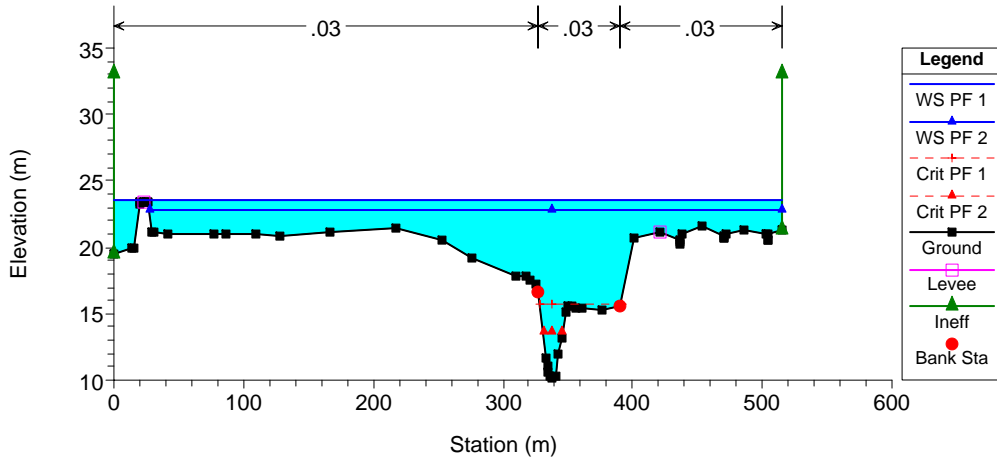




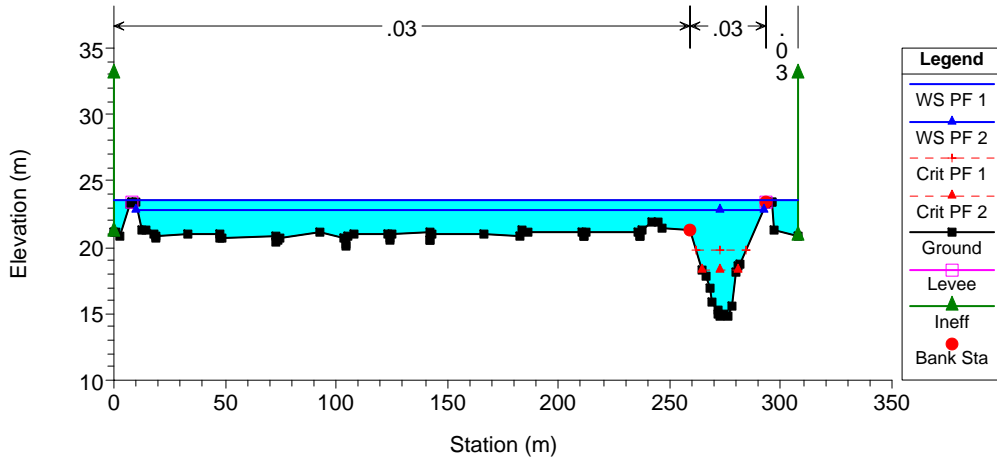
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RS = 02 SEZIONE 02  
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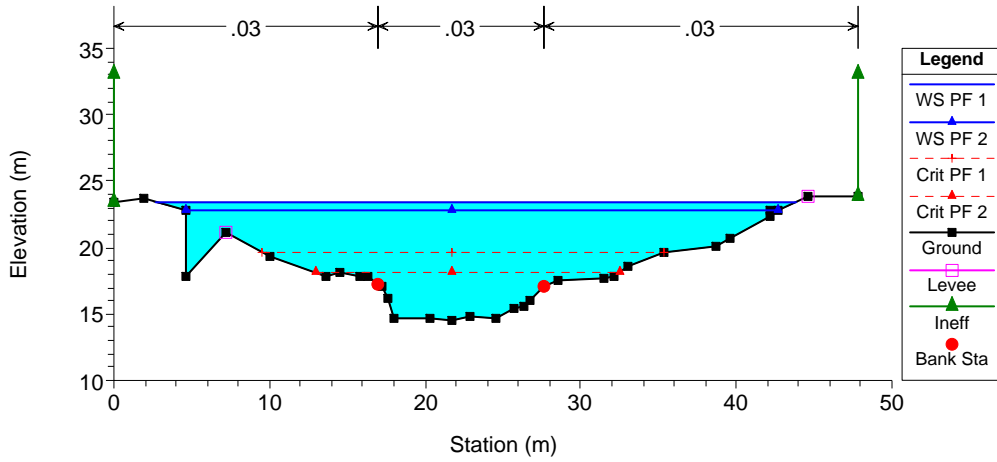


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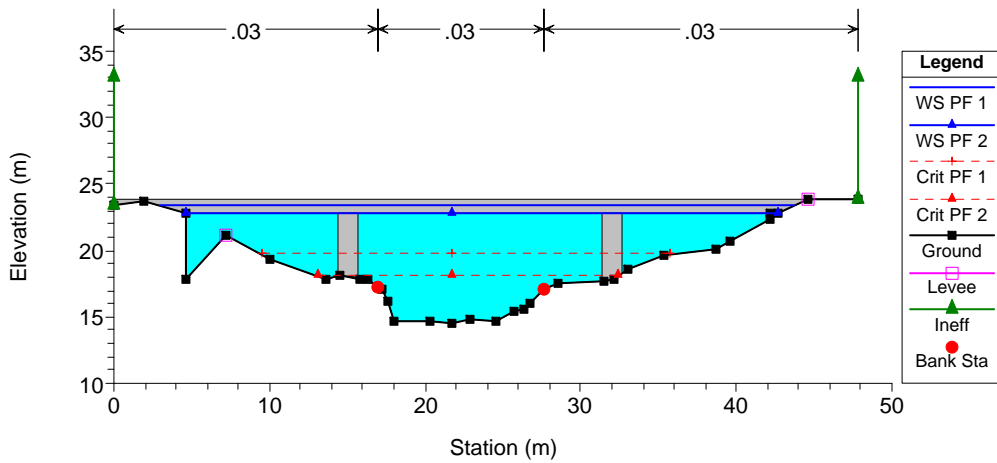




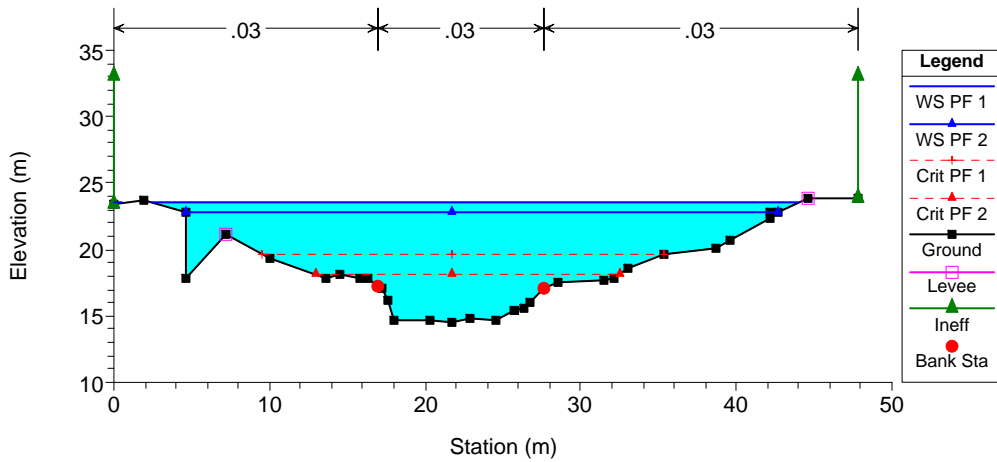
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RS = 4.4 BR  
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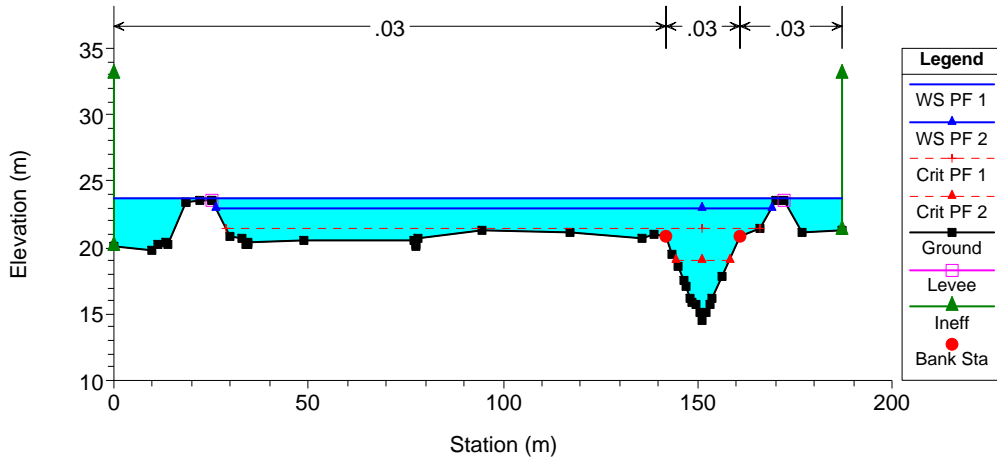


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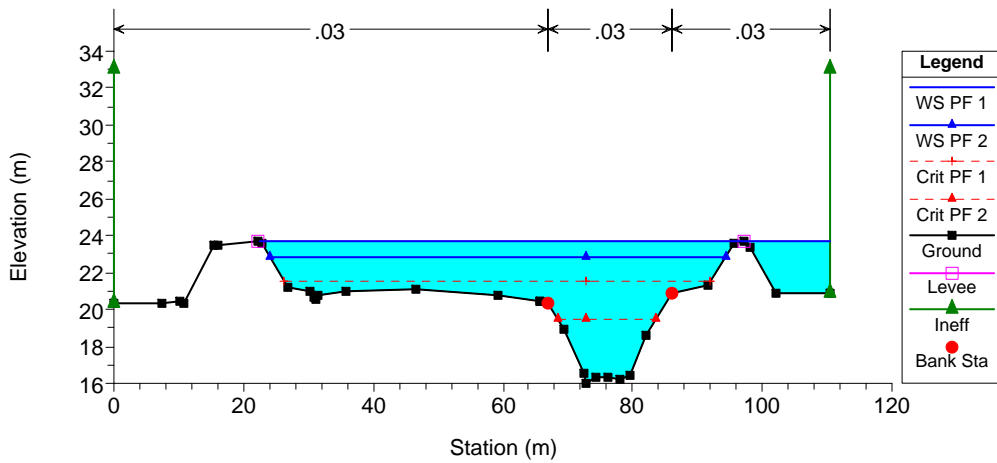




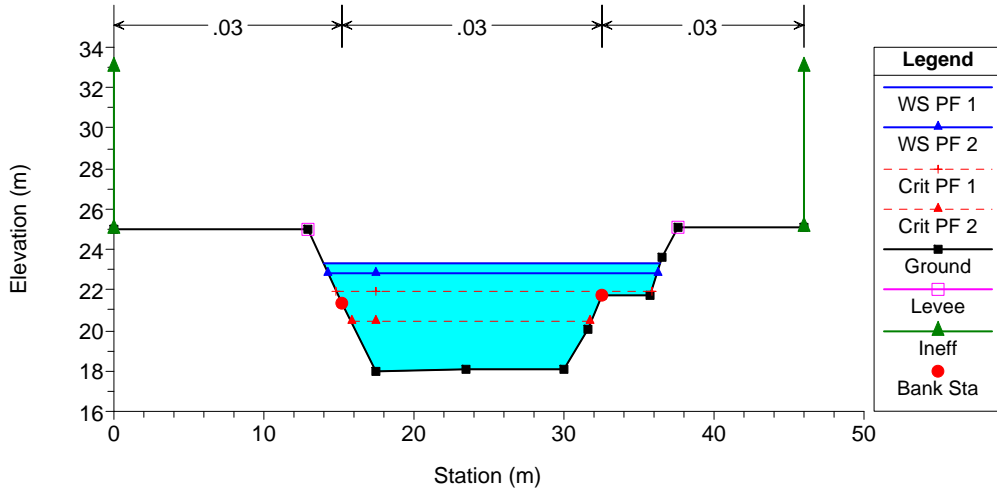
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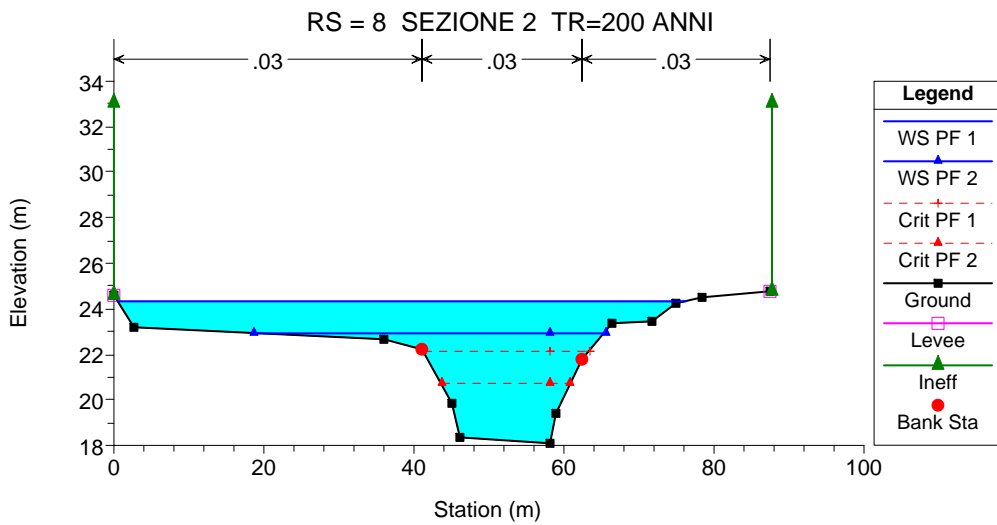
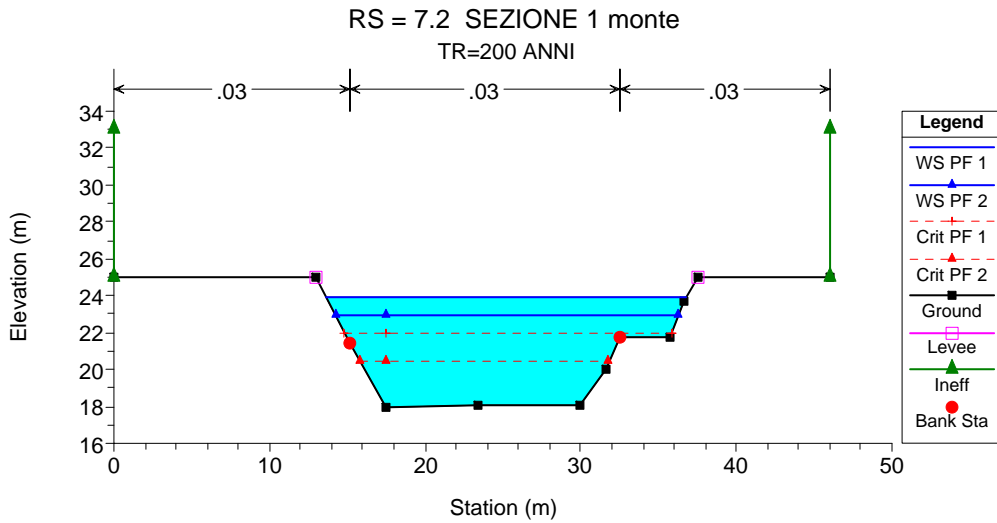
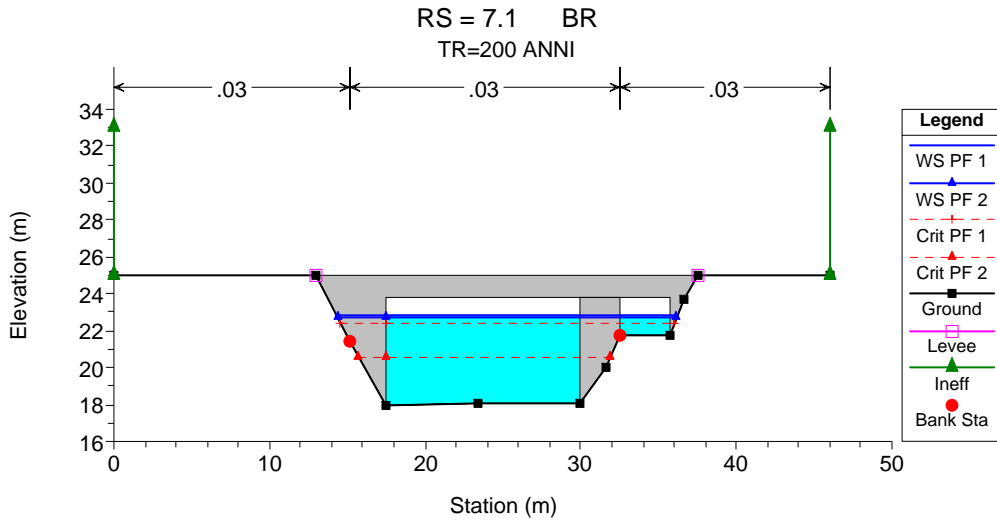


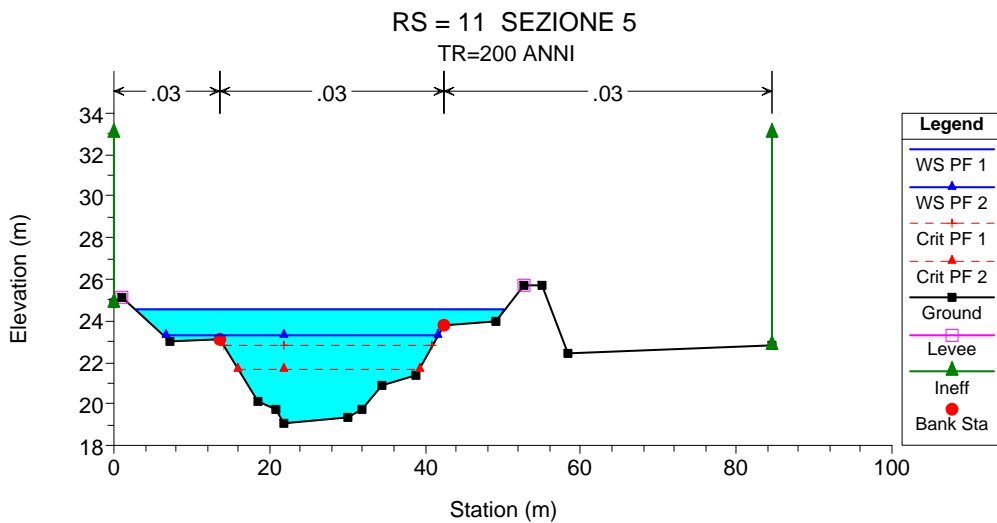
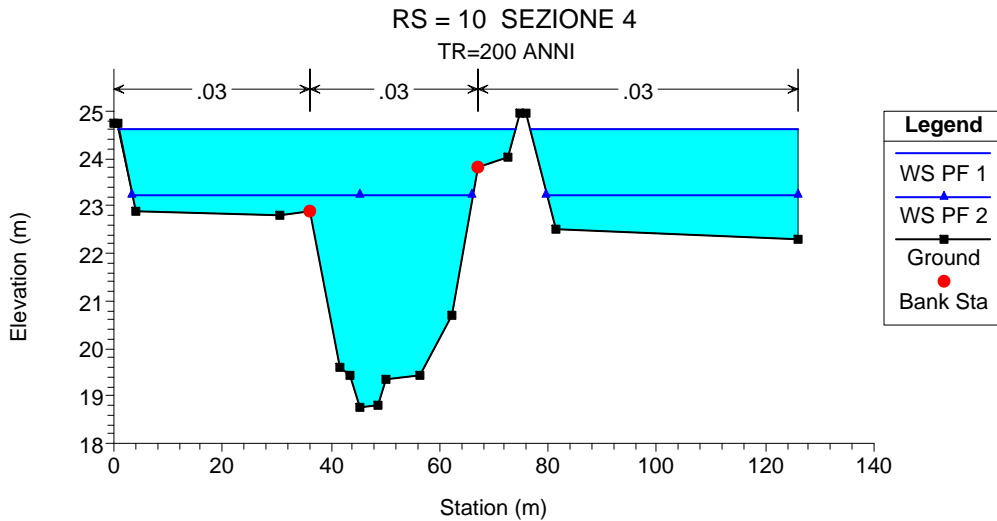
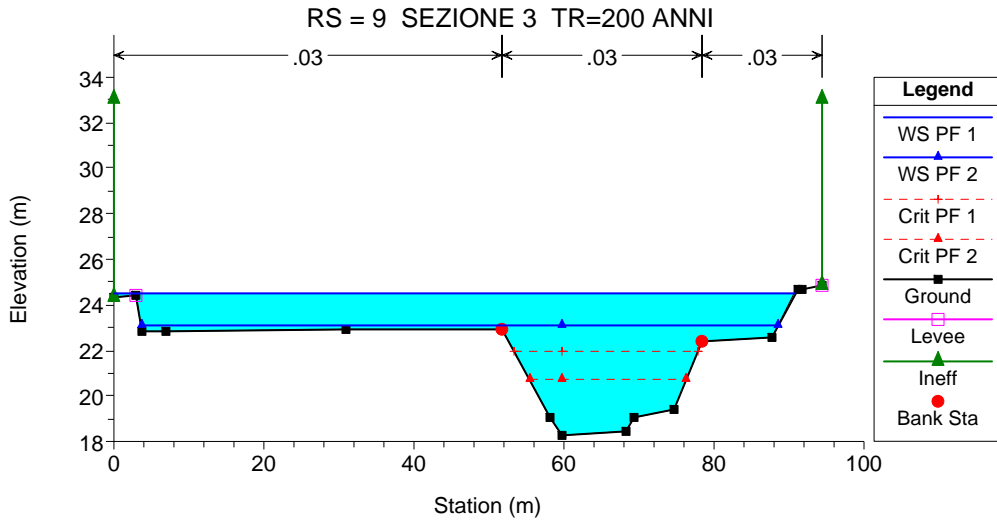
RS = 06 SEZIONE 06  
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RS = 7 SEZIONE 1 TR=200 ANNI



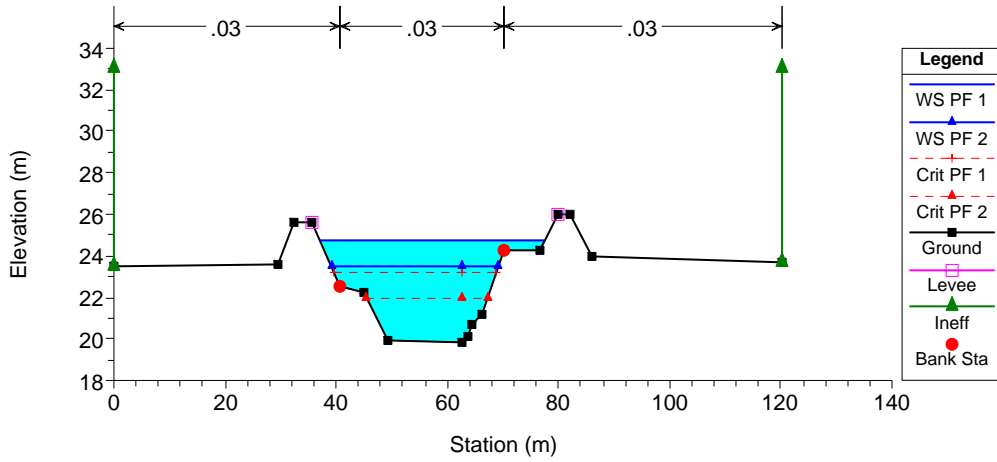




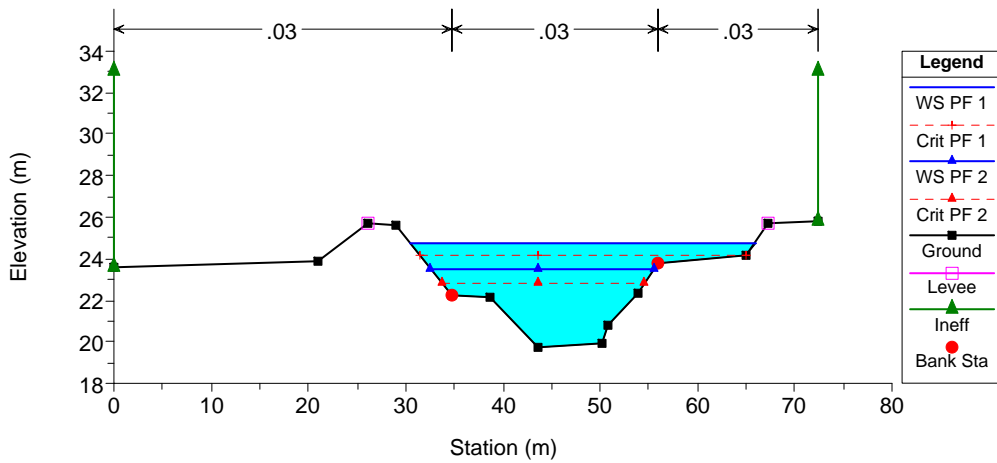




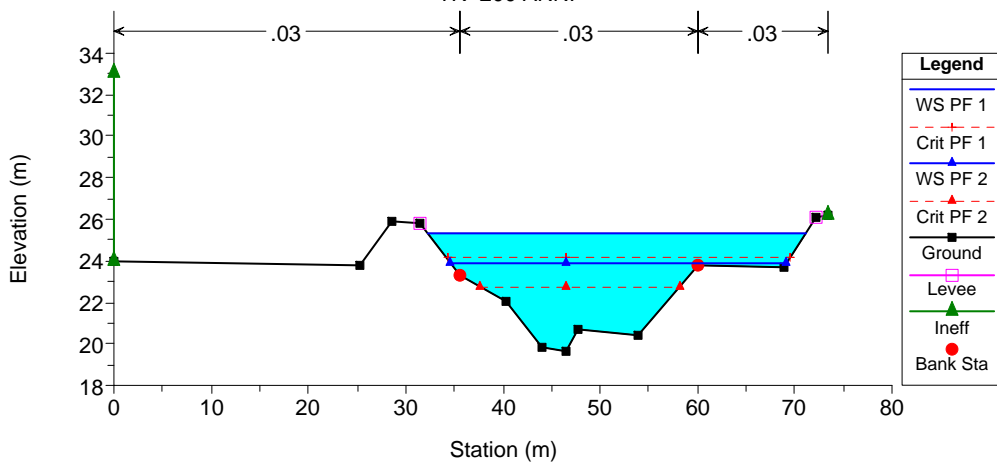
RS = 12 SEZIONE 6  
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RS = 13 SEZIONE 7  
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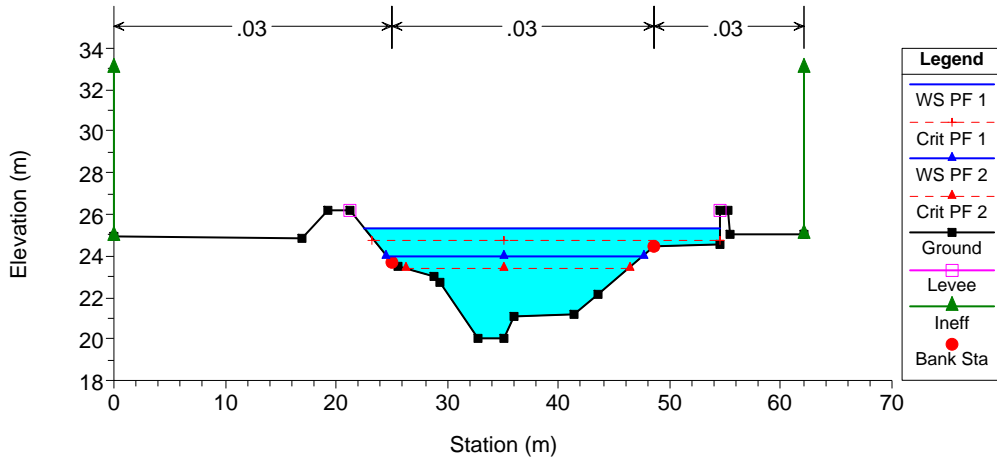


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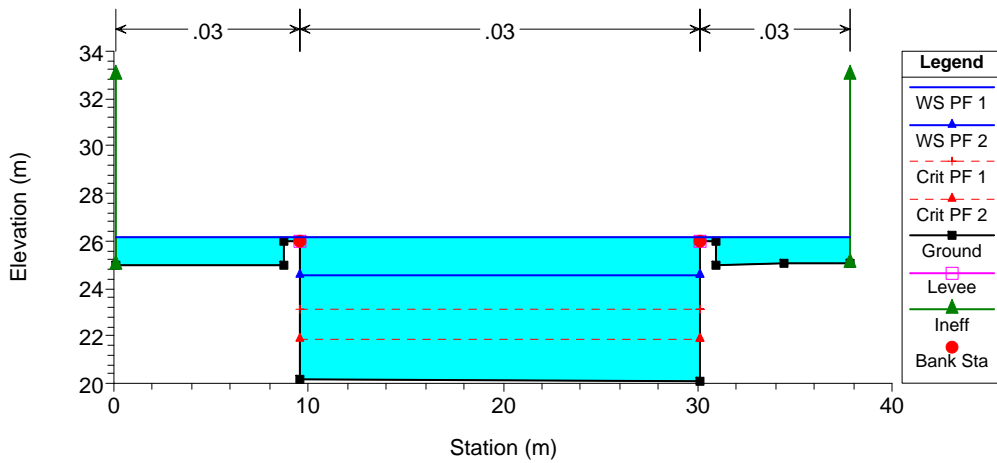




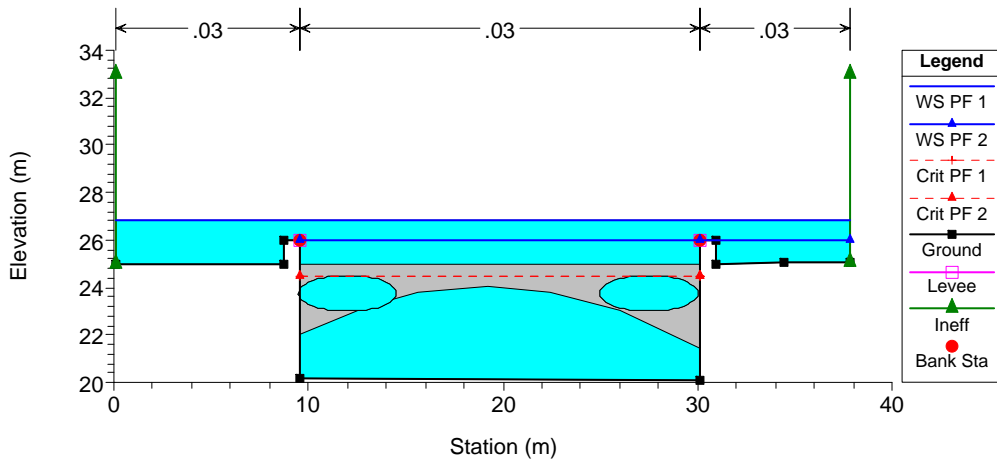
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RS = 16 SEZIONE 10  
 TR=200 ANNI

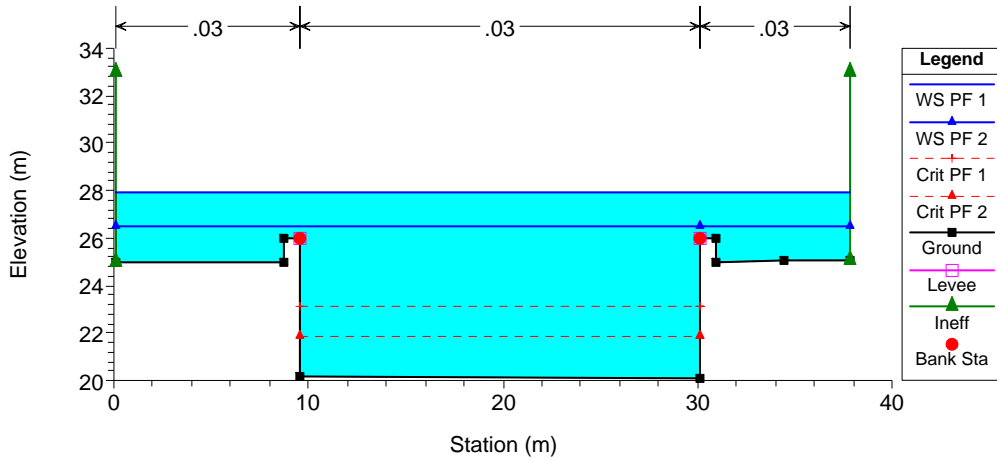


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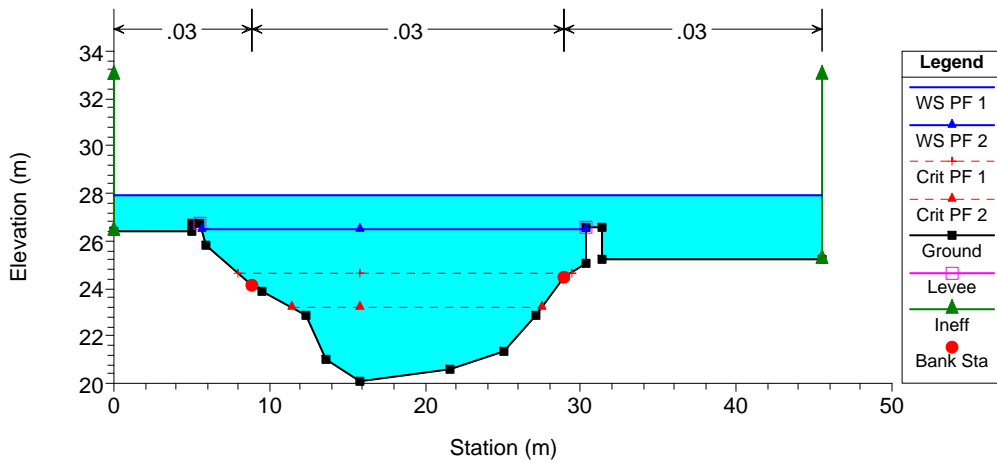




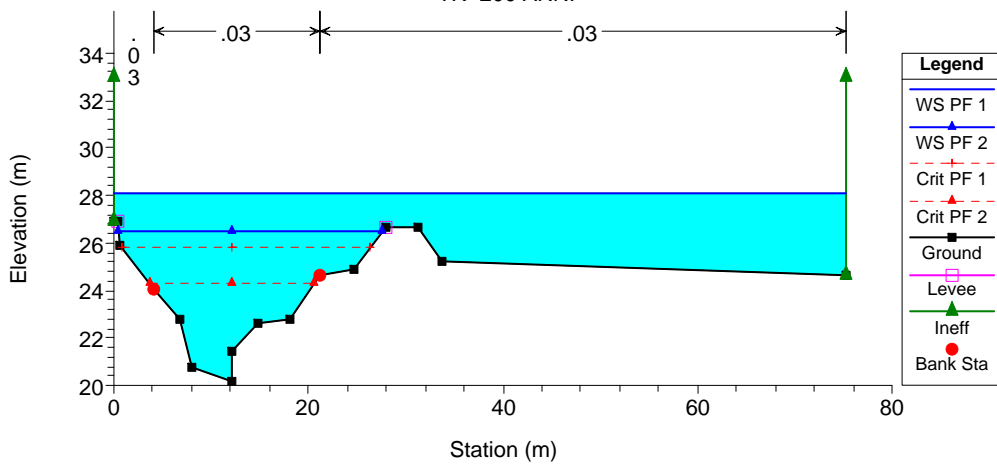
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RS = 17 SEZIONE 11  
 TR=200 ANNI

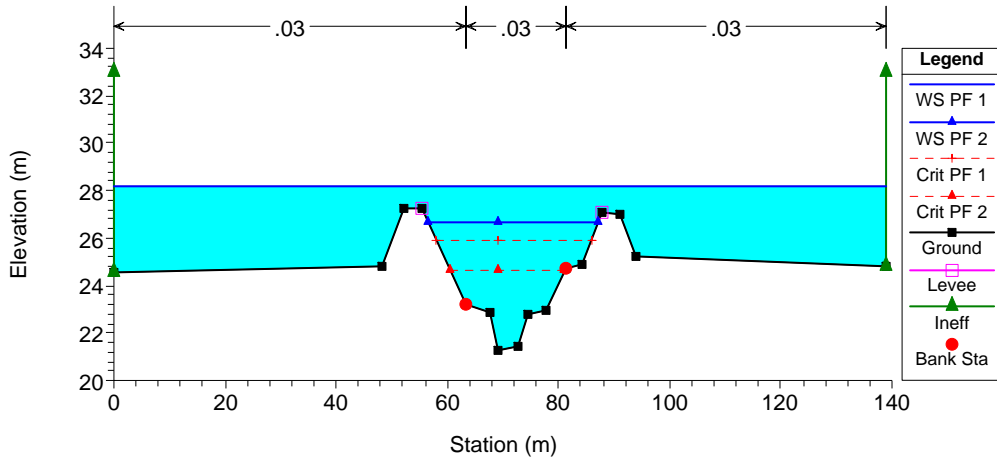


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 TR=200 ANNI

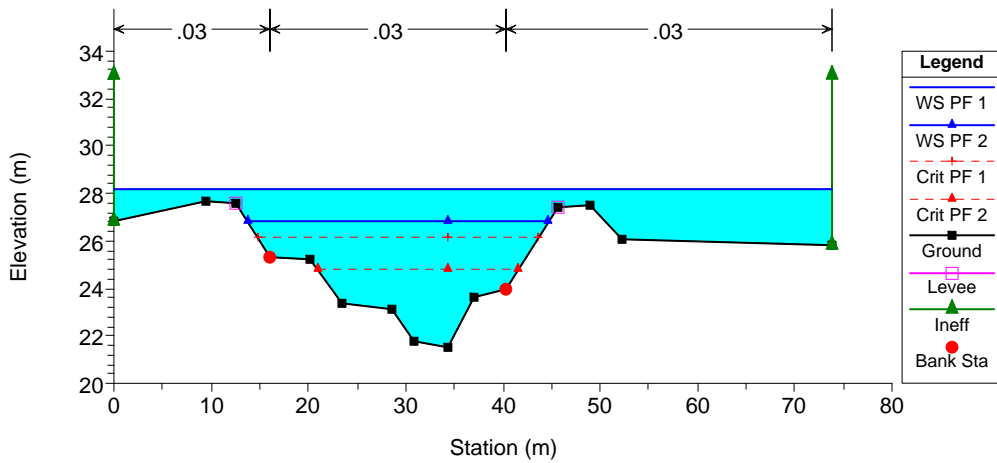




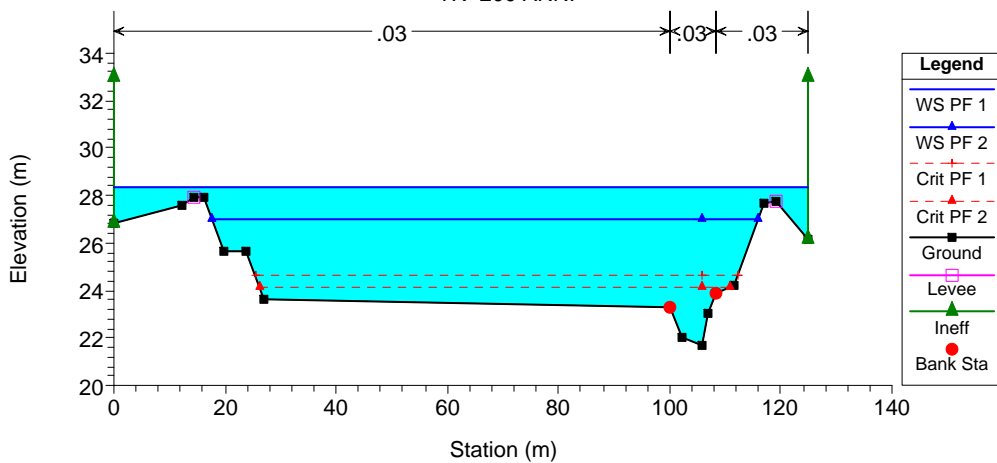
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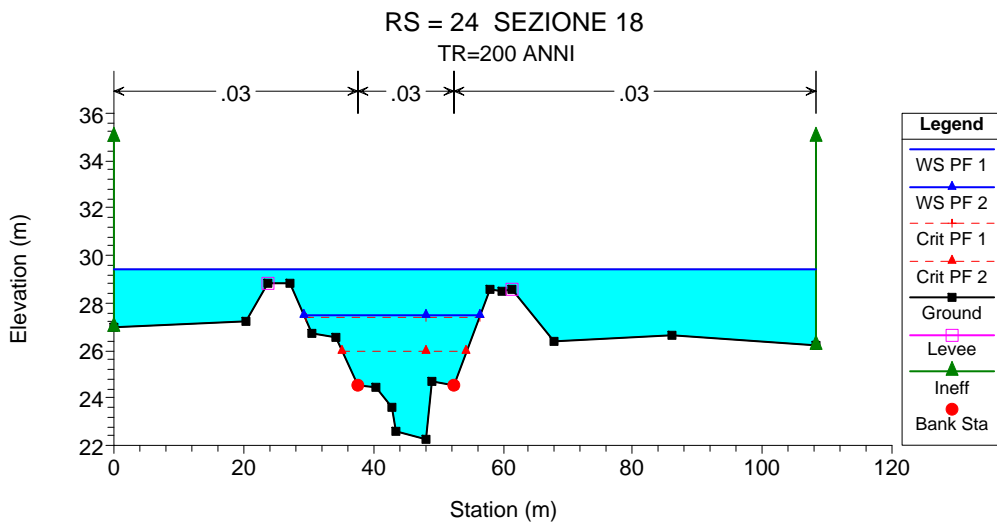
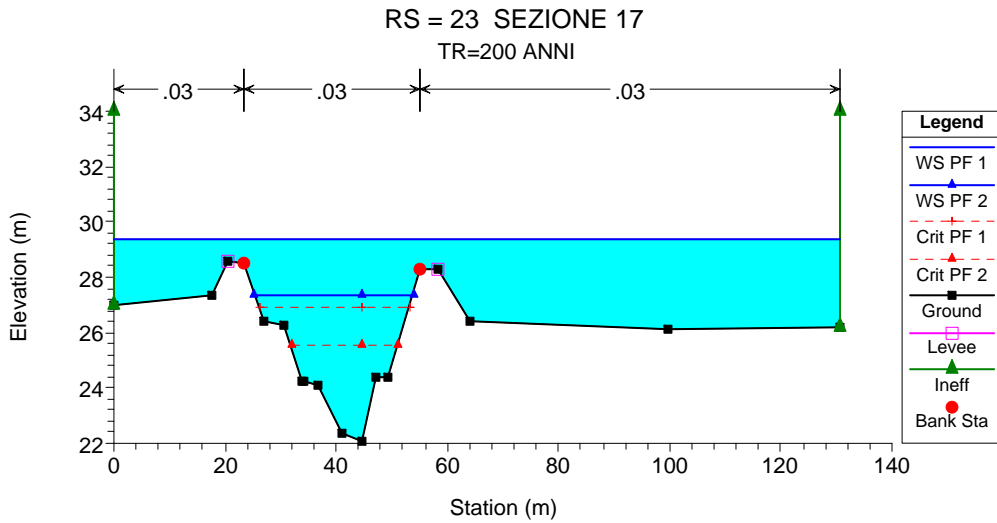
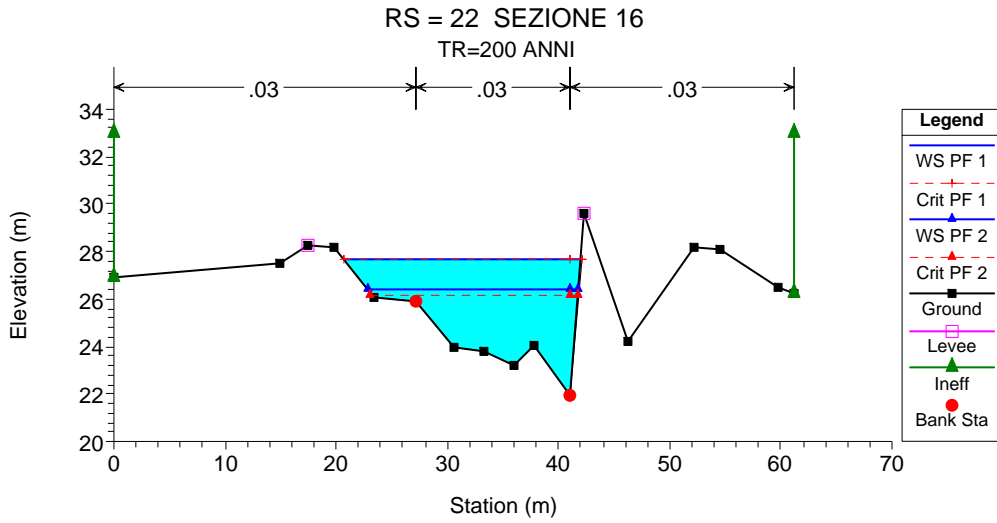


RS = 20 SEZIONE 14  
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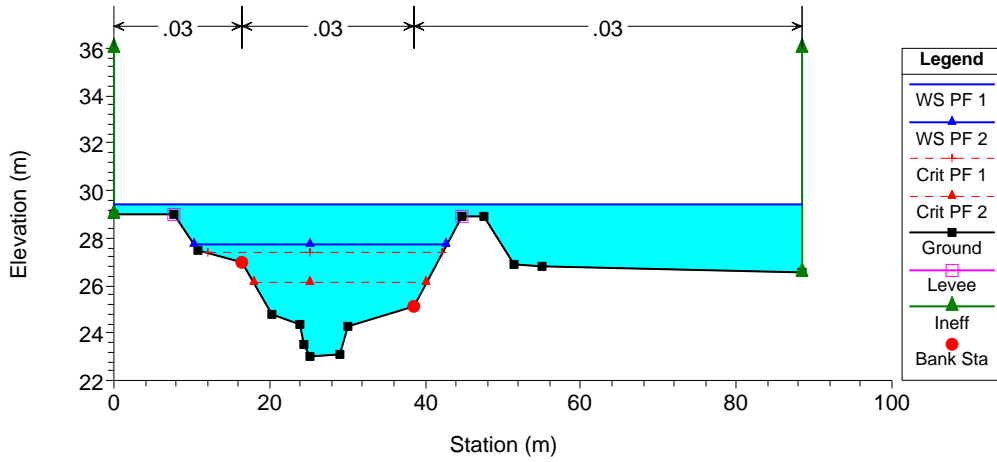
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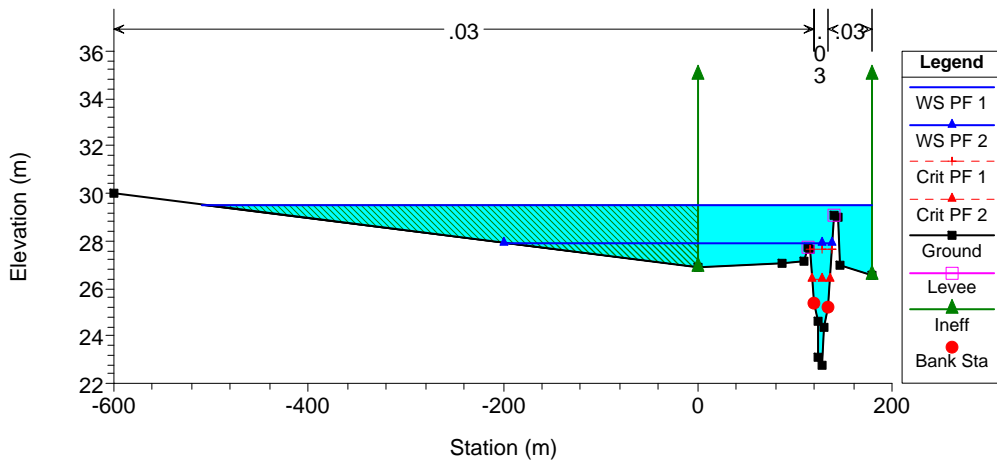




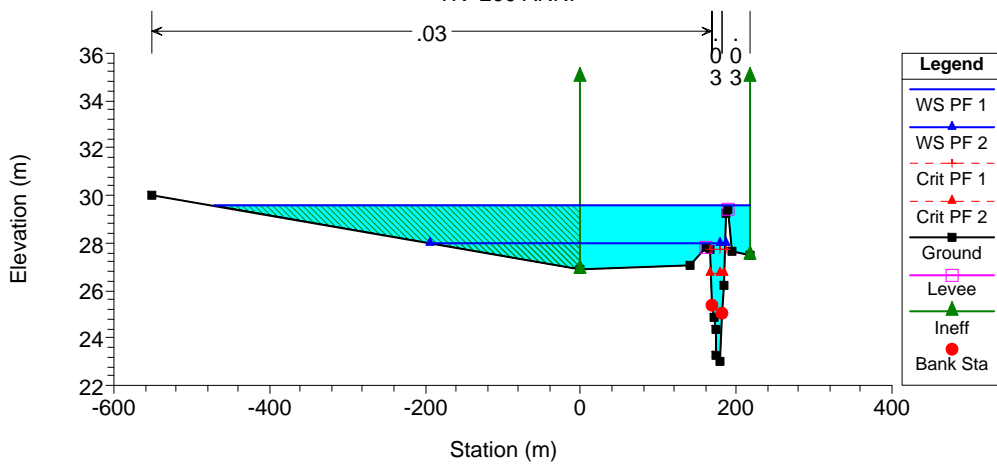
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RS = 26 SEZIONE 20  
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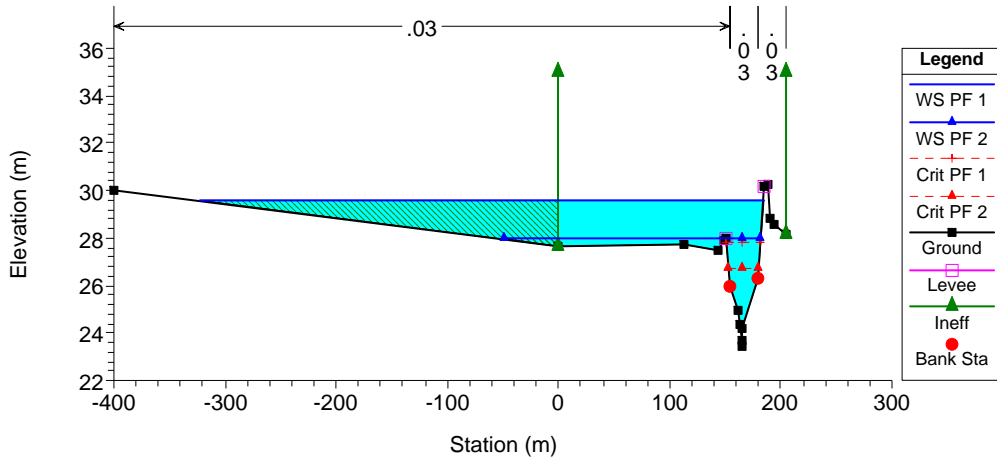


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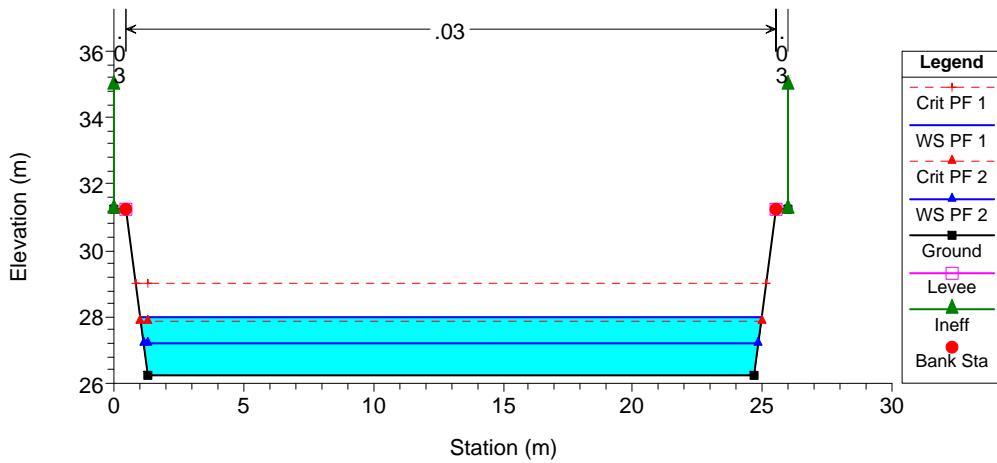




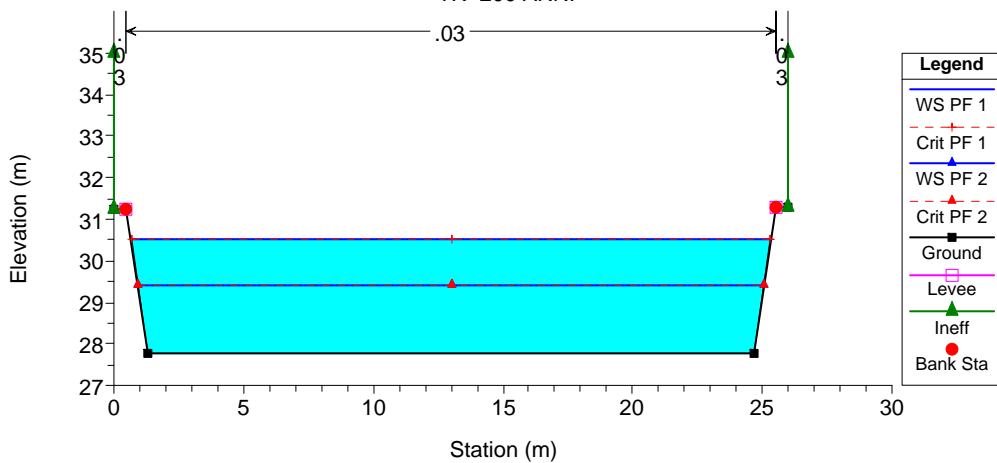
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RS = 29 SEZIONE 23  
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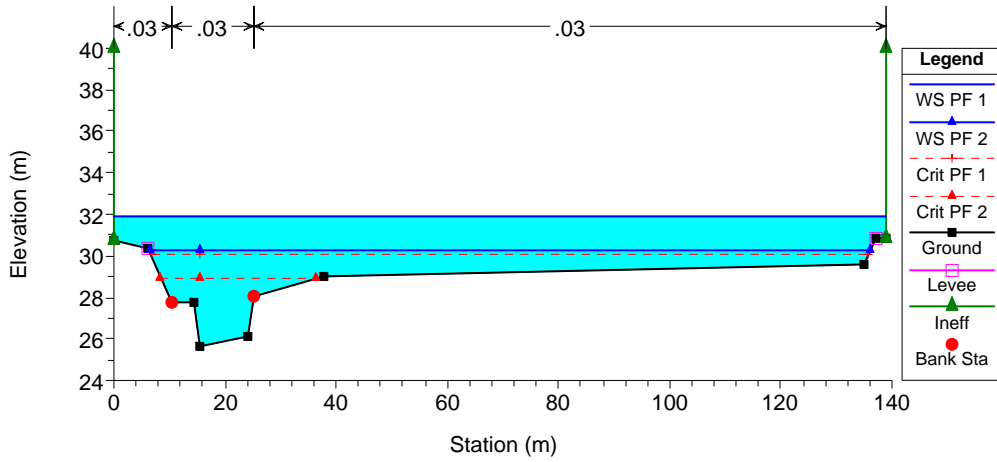


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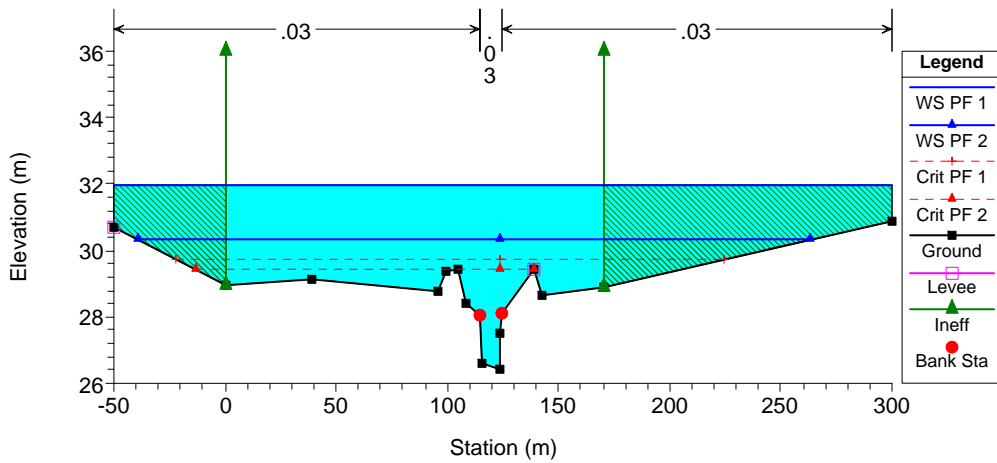




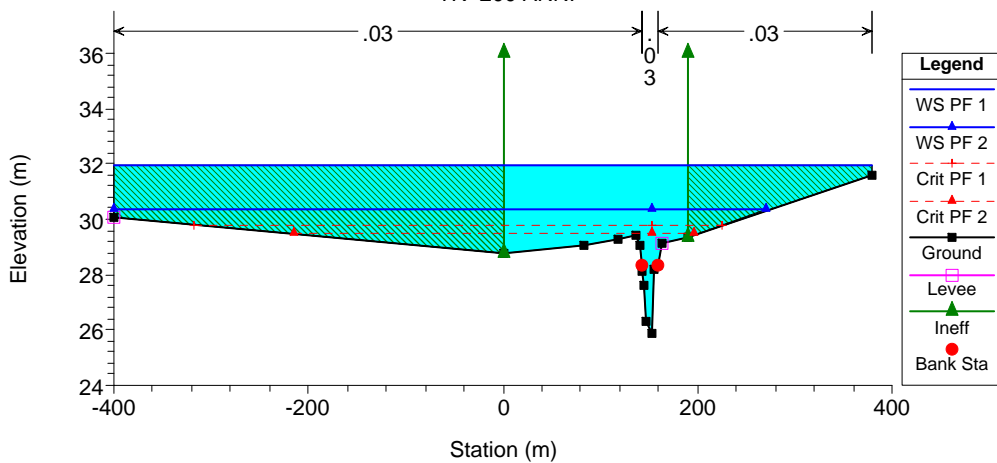
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RS = 32 SEZIONE 26 cassa molino d'egola  
 TR=200 ANNI



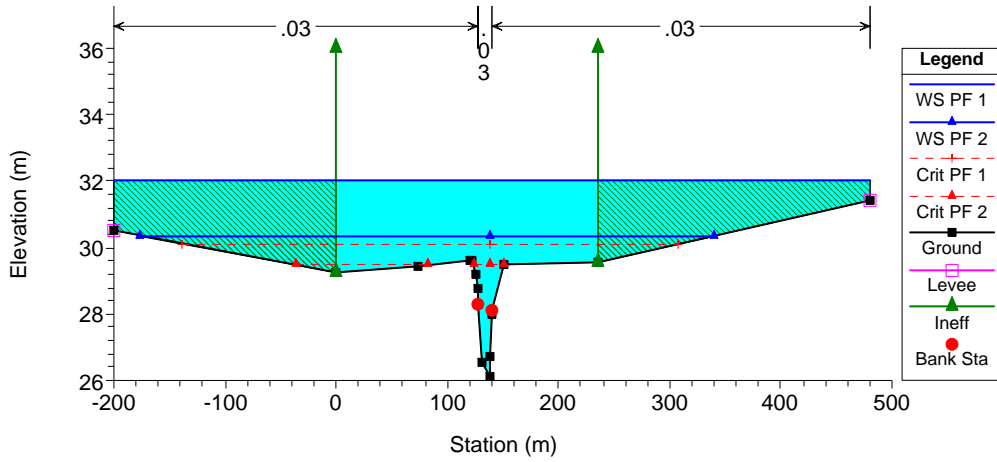
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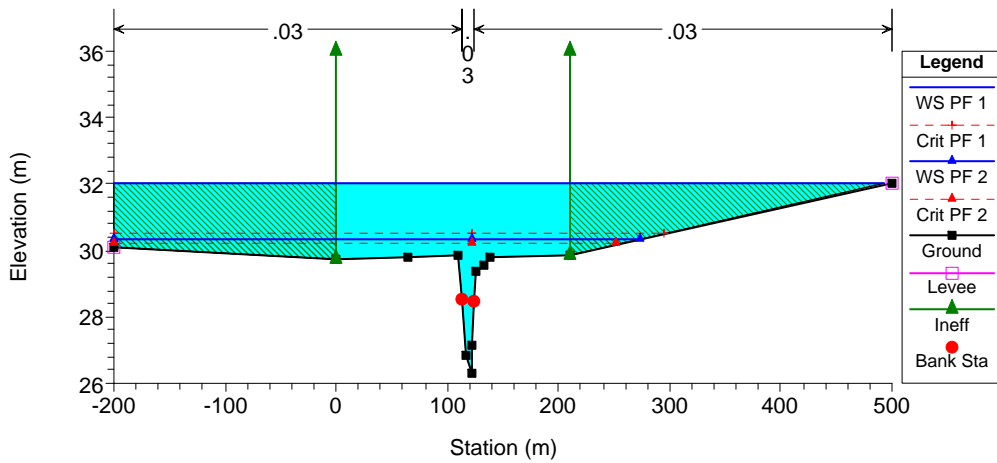




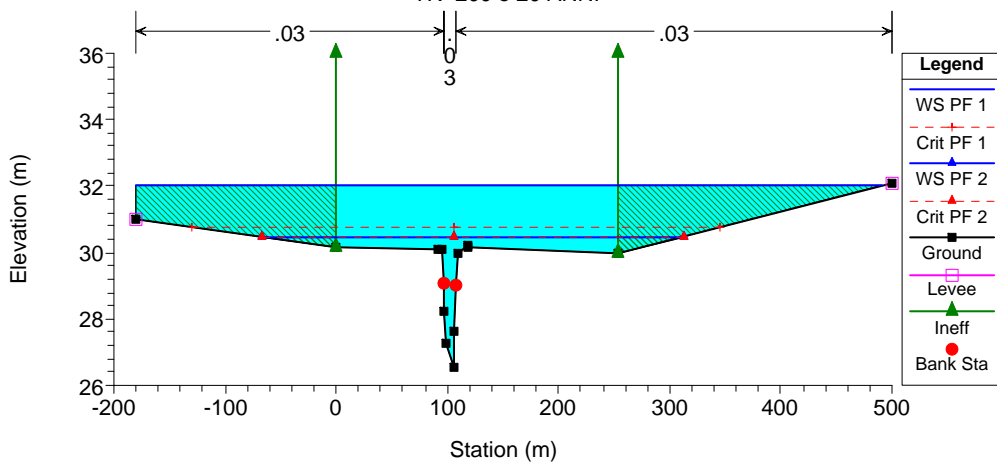
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 TR=200 ANNI



RS = 35 SEZIONE 29 cassa molino d'egola  
 TR=200 e 20 ANNI

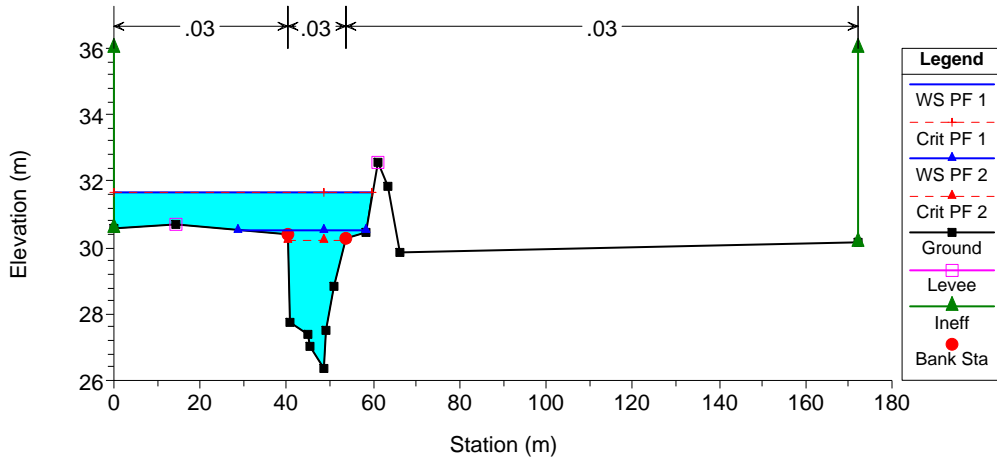


RS = 36 SEZIONE 30 cassa molino d'egola  
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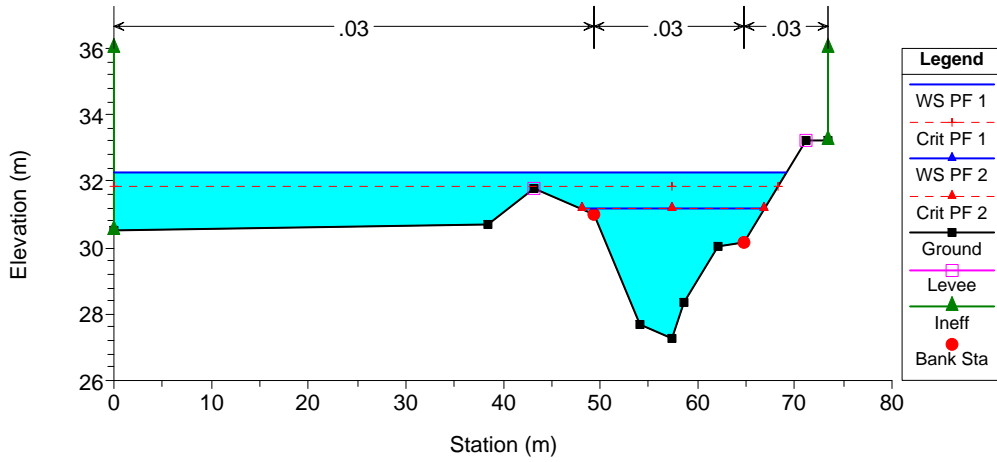




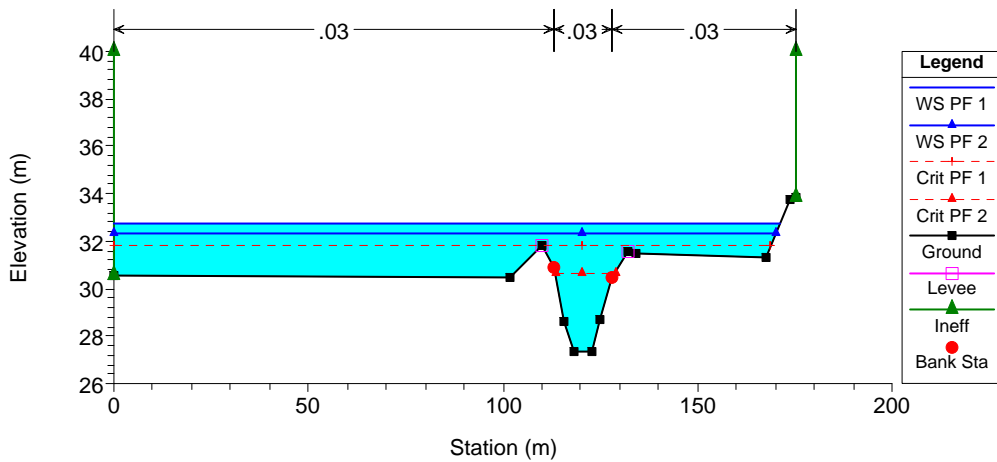
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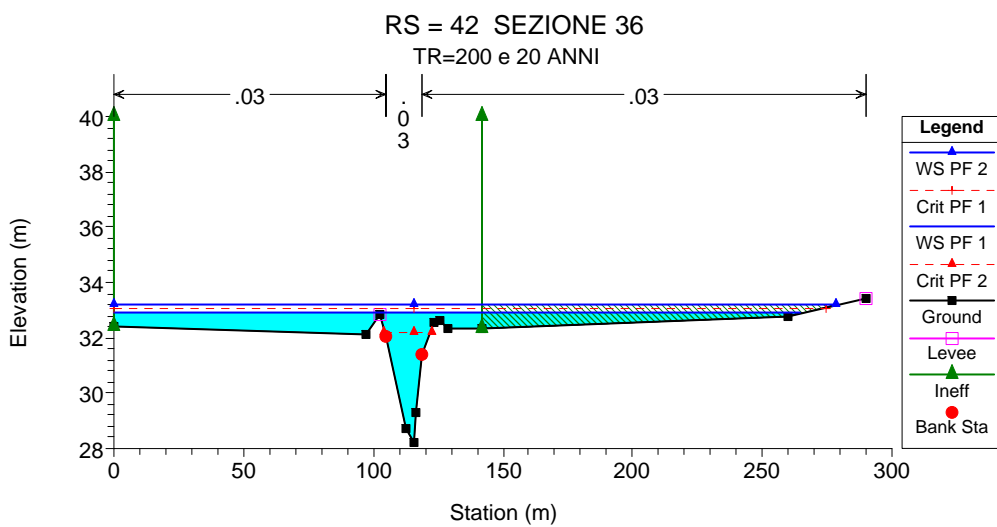
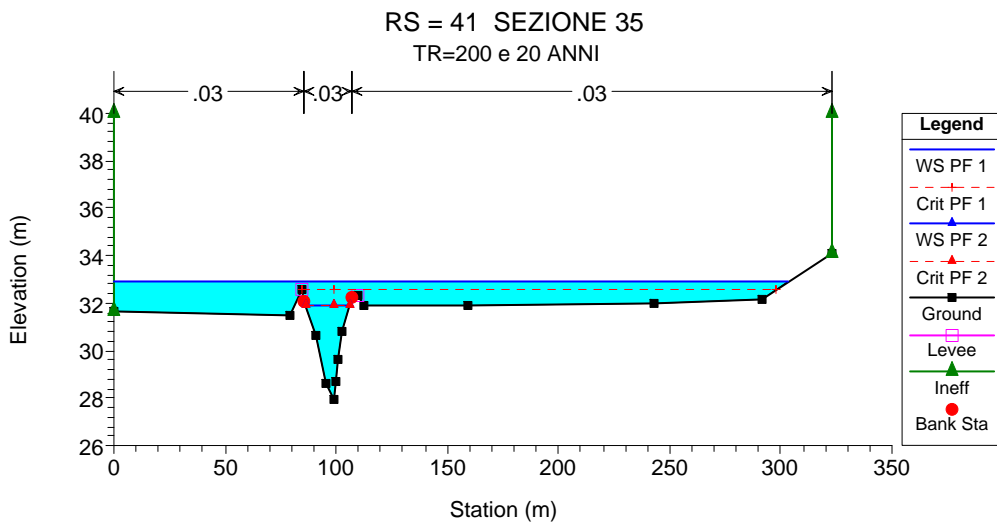
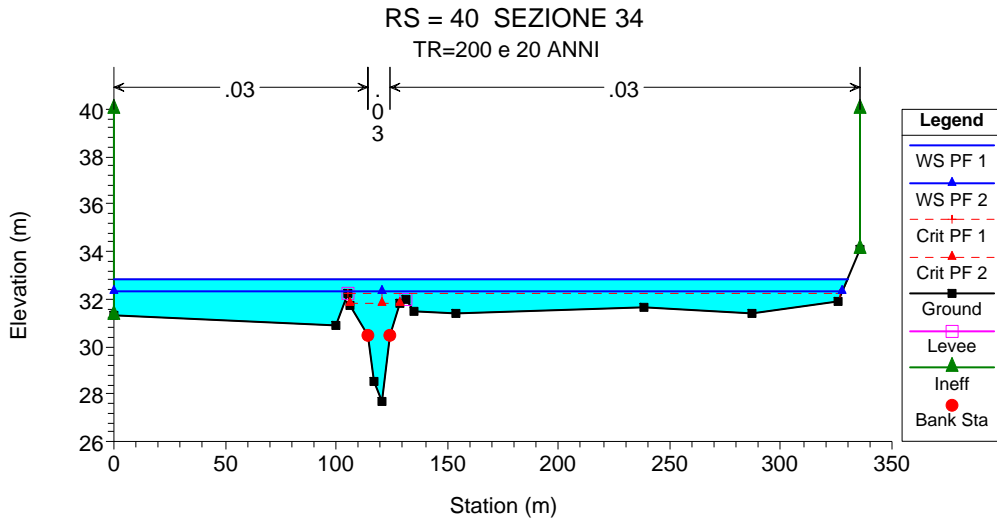


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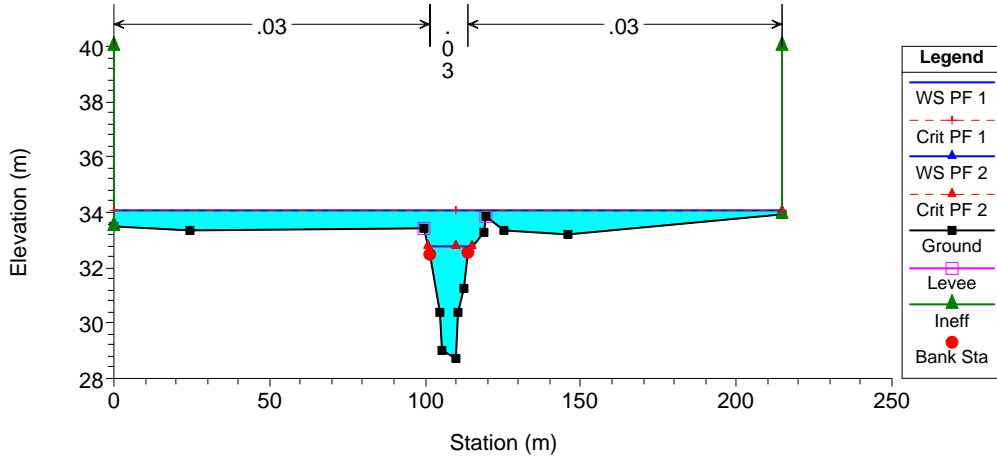
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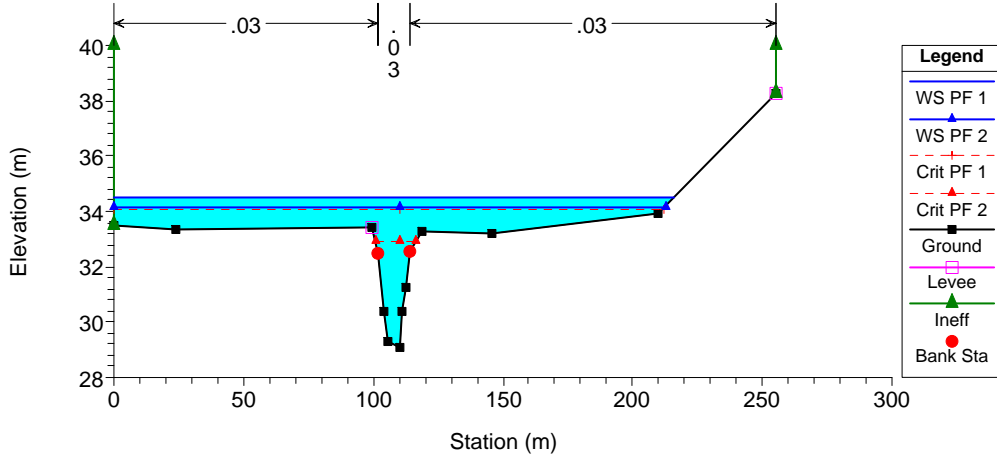




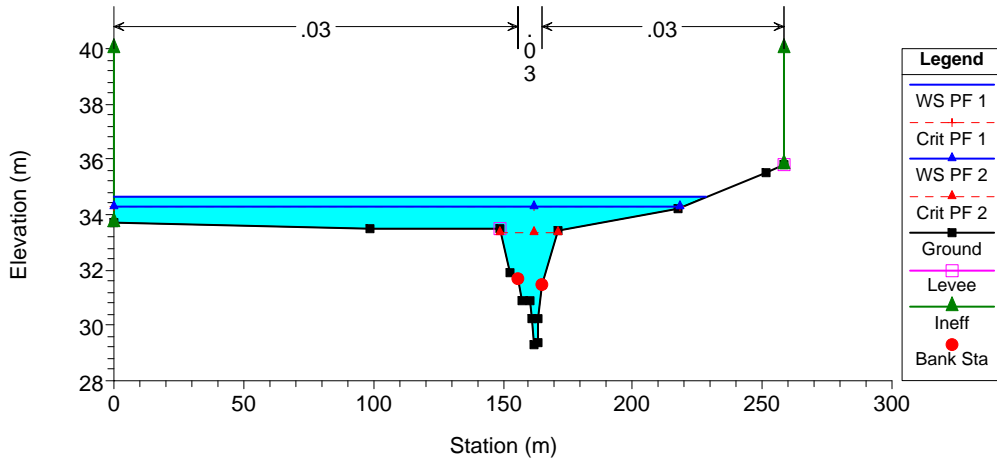
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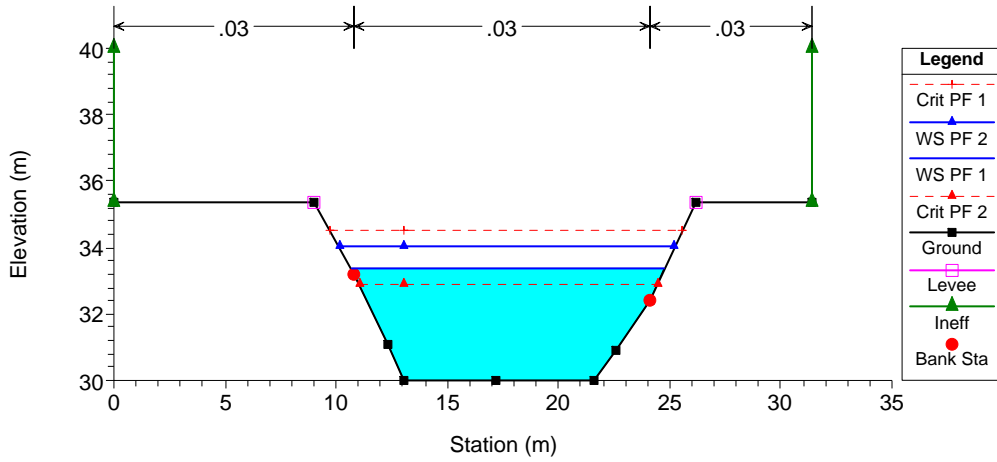


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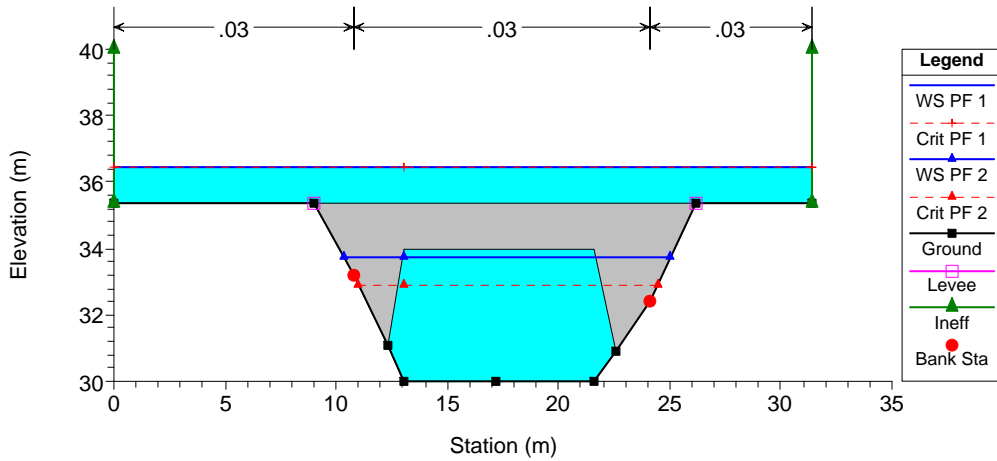




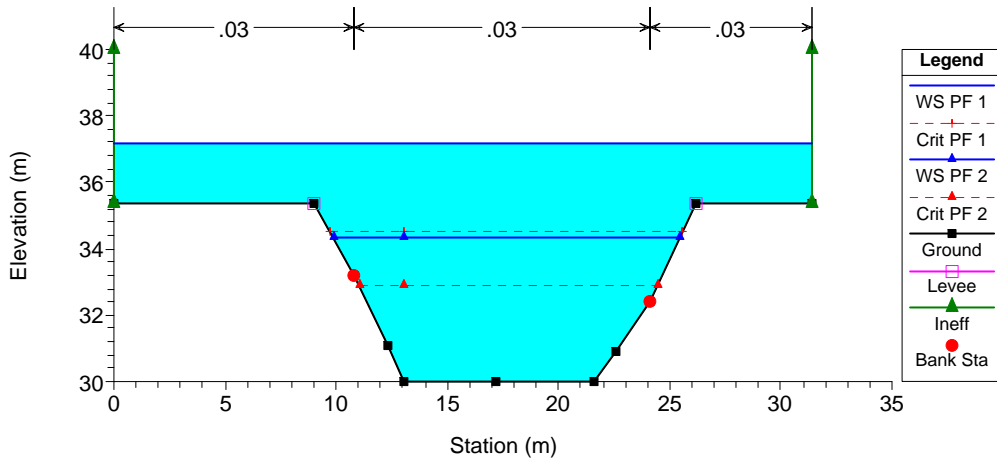
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 TR=200 e 20 ANNI



RS = 46.4 BR  
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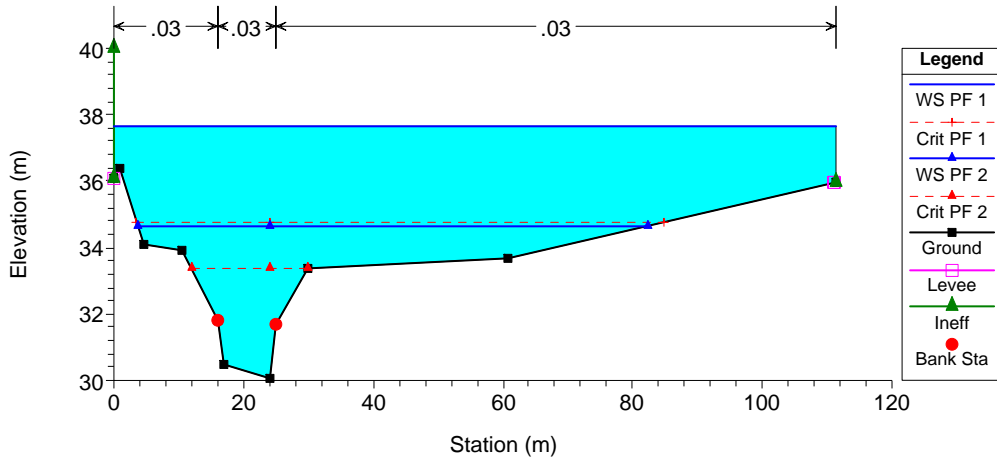


RS = 46.5 SEZIONE 40 BIS  
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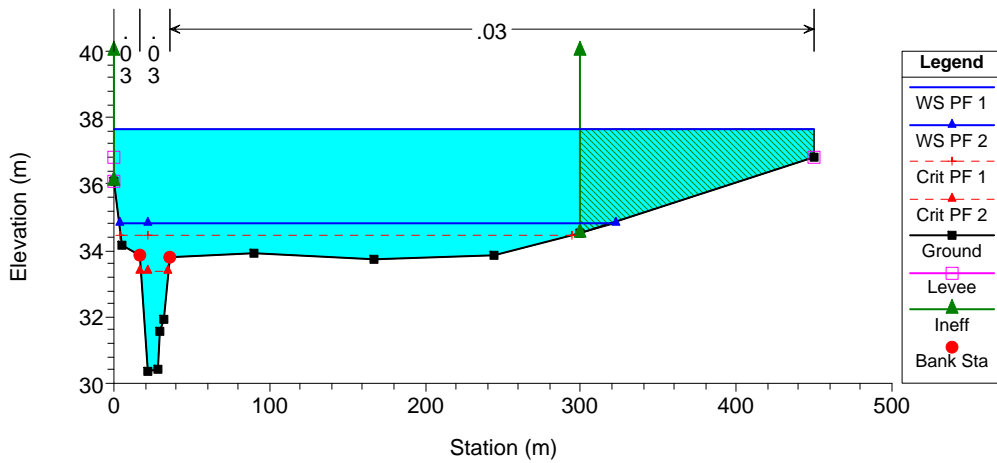




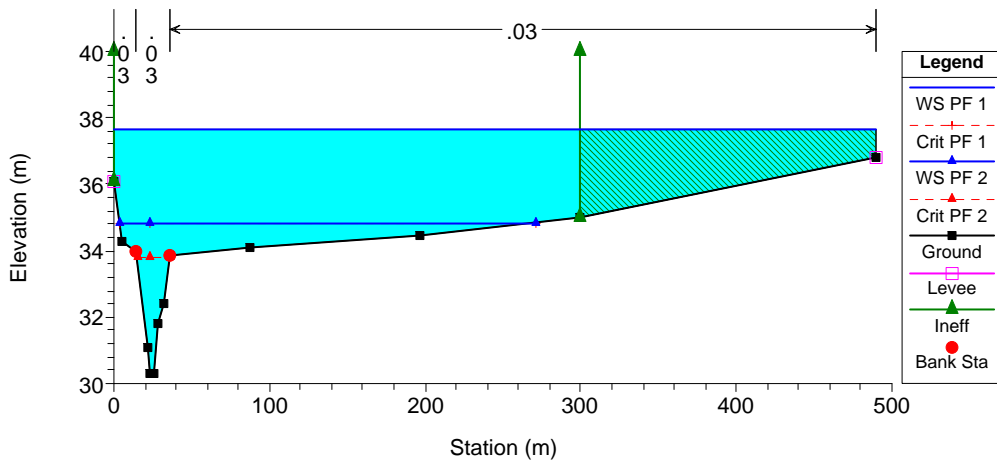
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 TR=200 e 20 ANNI



RS = 48 SEZIONE 41 cassa il palagio  
 TR=200 e 20 ANNI

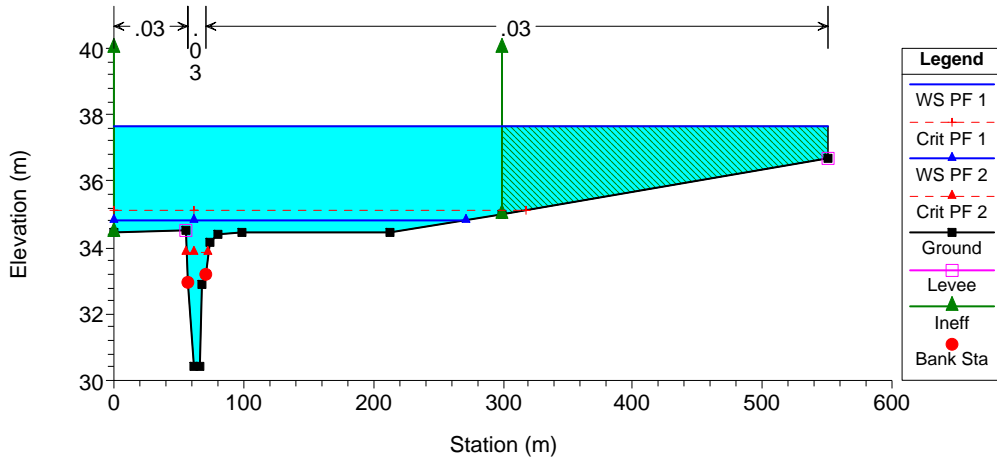


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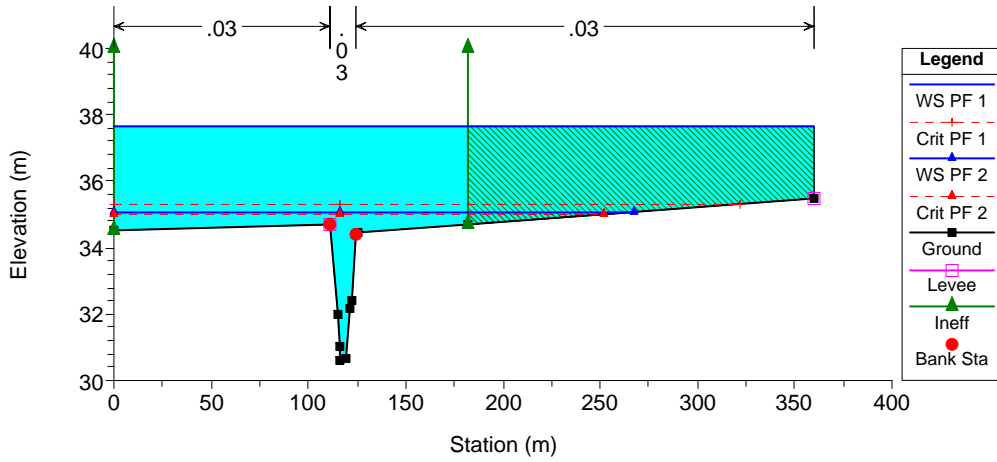




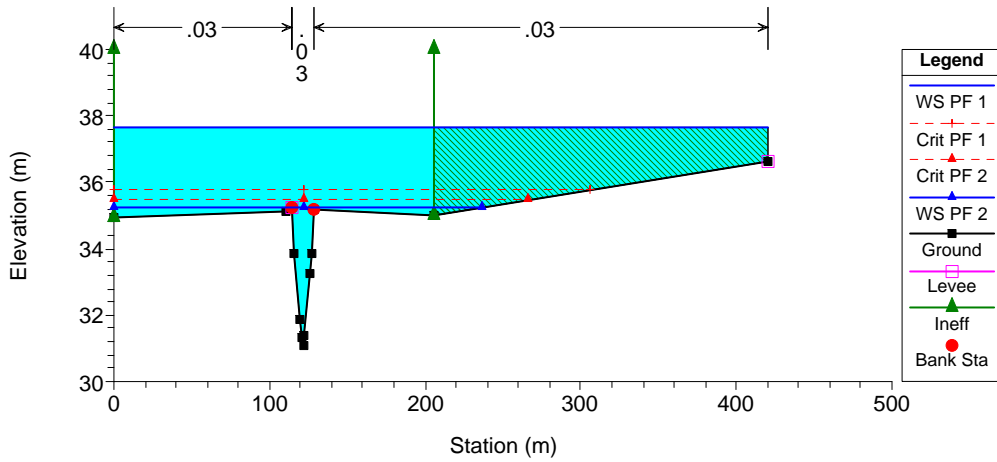
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 TR=200 e 20 ANNI

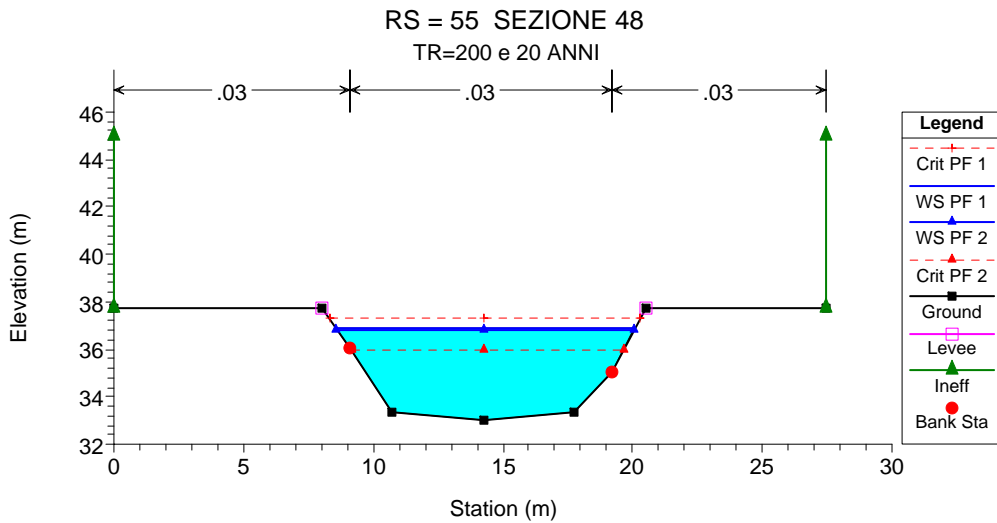
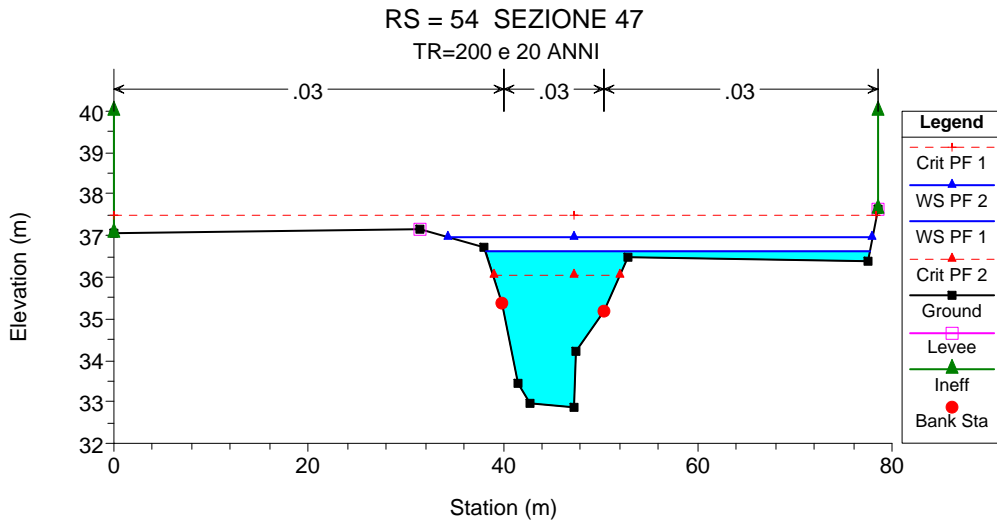
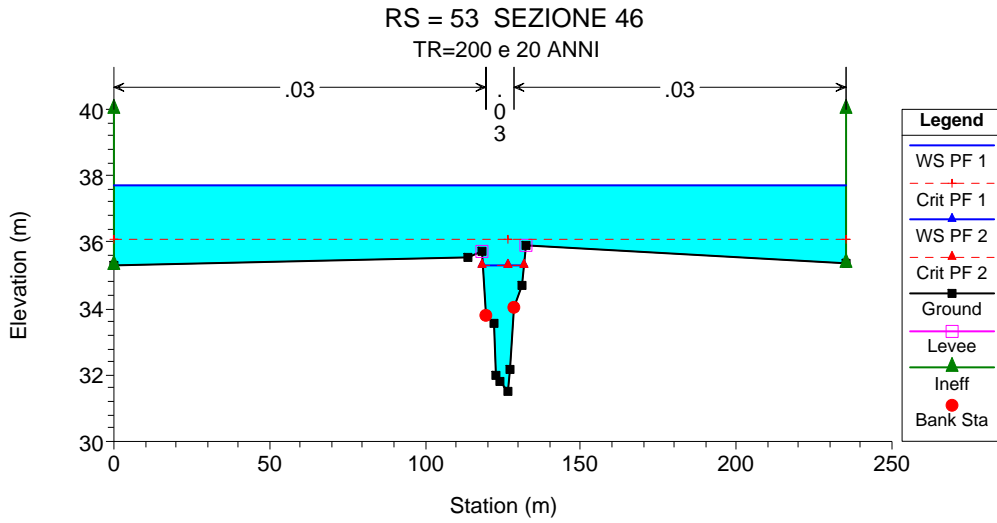


RS = 51 SEZIONE 44 cassa il palagio  
 TR=200 e 20 ANNI



RS = 52 SEZIONE 45 cassa il palagio  
 TR=200 e 20 ANNI

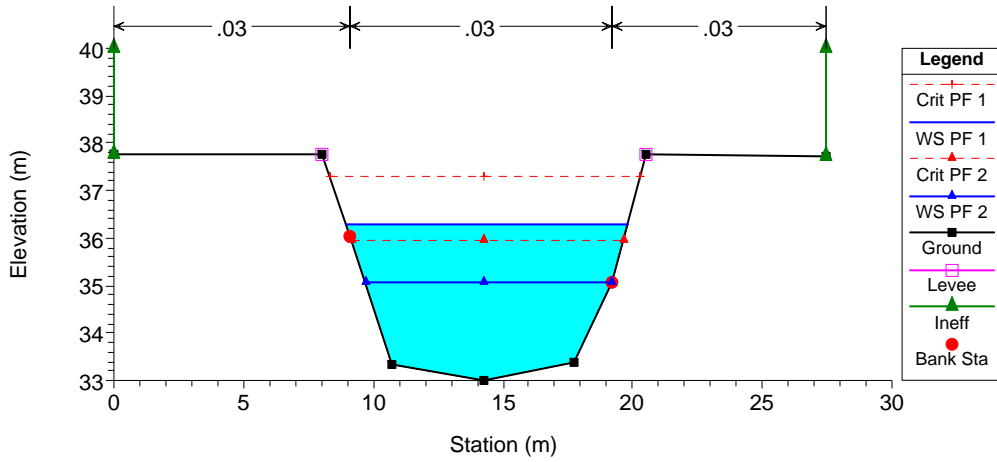




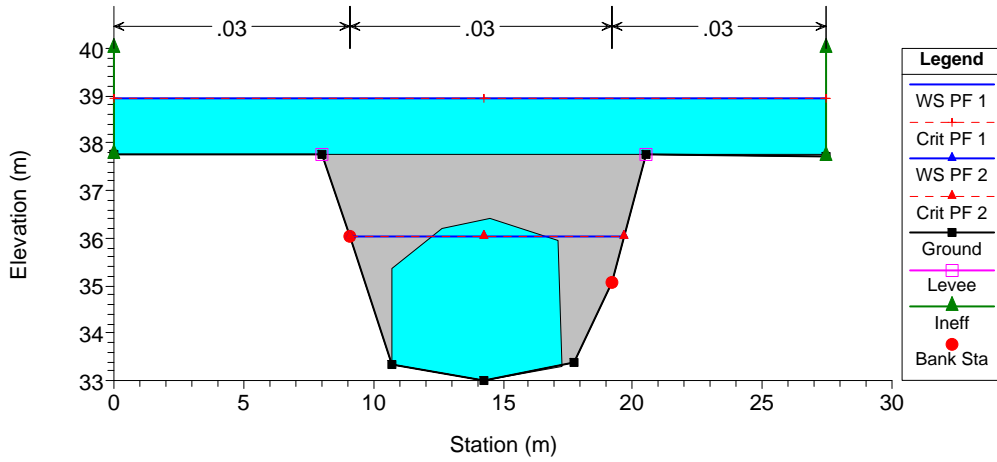




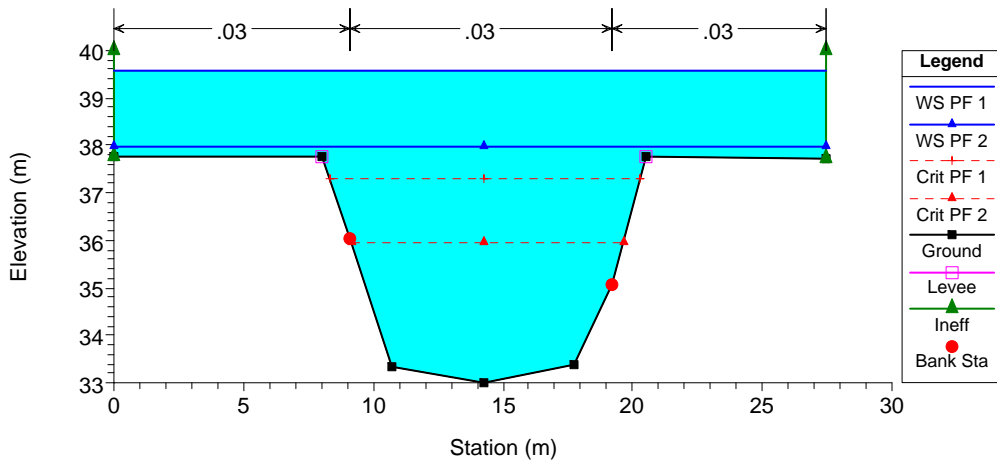
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RS = 56.4 BR  
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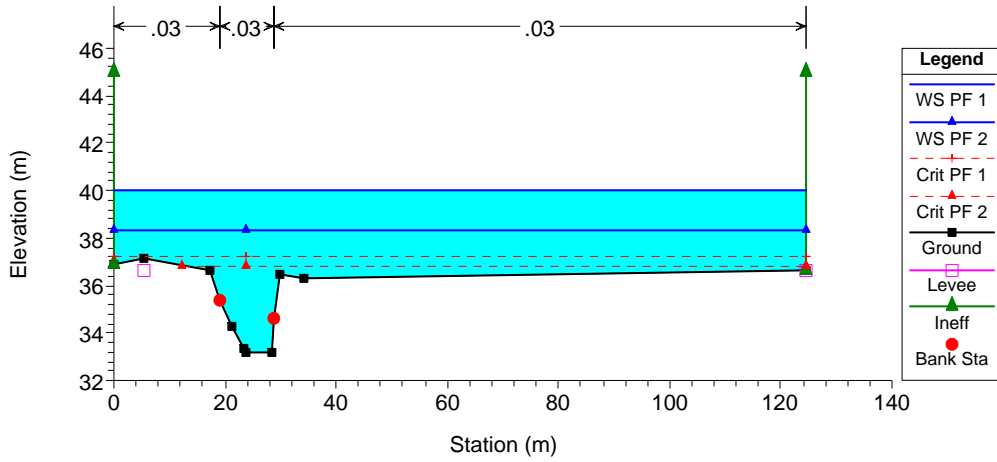


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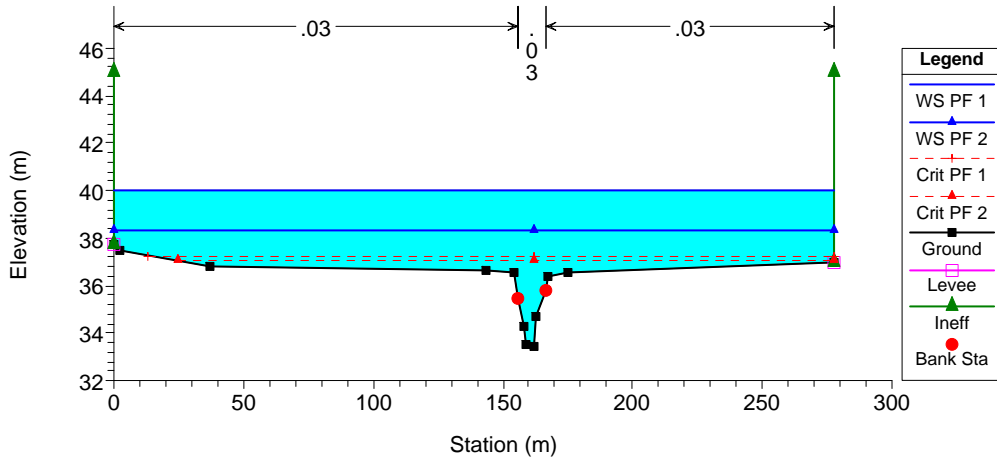




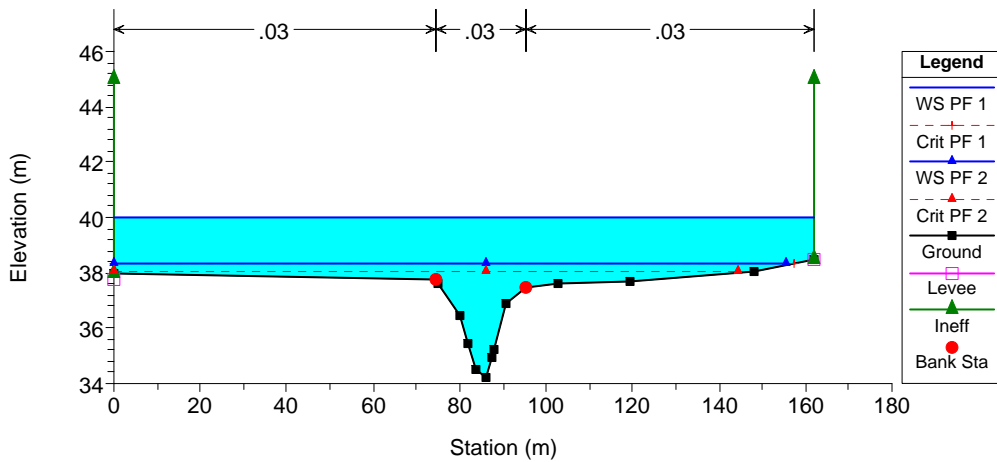
RS = 57 SEZIONE 50  
 TR=200 e 20 ANNI



RS = 58 SEZIONE 51  
 TR=200 e 20 ANNI



RS = 59 SEZIONE 52  
 TR=200 e 20 ANNI





	River Sta	Profile	Q Total (m <sup>3</sup> /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	Vel Chnl (m/s)	Flow Area (m <sup>2</sup> )	Froude # Chl	Length Chnl (m)	L. Levee Frbrd (m)	R. Levee Frbrd (m)
52	59	PF 1	224	34.2	40.01	38.36	40.03	0.77	382.67	0.13	600	-2.27	-1.51
52	59	PF 2	115	34.2	38.31	38.04	38.41	1.66	109.31	0.36	600	-0.57	0.19
51	58	PF 1	224	33.43	40	37.26	40.01	0.32	918.56	0.04	240	-2.23	-3.04
51	58	PF 2	115	33.43	38.33	37.06	38.33	0.4	453.19	0.07	240	-0.56	-1.37
50	57	PF 1	224	33.19	39.99	37.22	40	0.64	460.12	0.08	56	-3.34	-3.33
50	57	PF 2	115	33.19	38.31	36.85	38.32	0.7	250.73	0.1	56	-1.66	-1.65
49	56.5	PF 1	224	33	39.59	37.29	39.96	2.93	95.47	0.38	1	-1.83	-1.84
49	56.5	PF 2	115	33	37.97	35.94	38.28	2.51	50.93	0.38	1	-0.21	-0.22
	56.4		Bridge										
49	56	PF 1	224	33	36.3	37.29	39.63	8.1	27.97	1.57	13	1.46	1.45
49	56	PF 2	115	33	35.05	35.94	37.96	7.56	15.21	1.91	13	2.71	2.7
48	55	PF 1	224	33	36.86	37.29	39.12	6.68	34.28	1.18	16	0.9	0.89
48	55	PF 2	115	33	36.82	35.94	37.43	3.47	33.83	0.61	16	0.94	0.93
47	54	PF 1	224	32.88	36.62	37.49	38.92	6.92	38.56	1.28	280	0.55	1.04
47	54	PF 2	115	32.88	36.96	36.06	37.32	2.84	52.69	0.5	280	0.21	0.7
46	53	PF 1	224	31.53	37.69	36.08	37.7	0.62	534.92	0.09	55	-1.95	-1.76
46	53	PF 2	115	31.53	35.28	35.28	36.32	4.65	26.7	0.91	55	0.46	0.65
45	52	PF 1	334	31.07	37.68	35.75	37.7	0.77	569.75	0.11	176	-2.45	-1.08
45	52	PF 2	159	31.07	35.25	35.46	35.88	3.85	69.3	0.79	176	-0.02	1.35
44	51	PF 1	334	30.61	37.67	35.32	37.68	0.72	593.17	0.1	172	-2.95	-2.17
44	51	PF 2	159	30.61	35.07	35	35.25	2.37	119.56	0.45	172	-0.35	0.43
43	50	PF 1	334	30.43	37.67	35.12	37.67	0.48	986.63	0.06	84	-3.16	-0.97
43	50	PF 2	159	30.43	34.82	33.88	35.02	2.34	135.51	0.41	84	-0.31	1.88
42	49	PF 1	334	30.32	37.67	34.84	37.67	0.42	1032.48	0.06	132	-1.57	-0.87
42	49	PF 2	159	30.32	34.84	33.81	34.92	1.52	189.87	0.29	132	1.26	1.96
41	48	PF 1	334	30.35	37.67	34.44	37.67	0.36	1169.5	0.05	88	-0.87	-0.87
41	48	PF 2	159	30.35	34.85	33.37	34.86	0.86	325.75	0.15	88	1.95	1.95
40	47	PF 1	331	30.05	37.63	34.77	37.66	1.11	416.76	0.13	16	-1.54	-1.64
40	47	PF 2	153	30.05	34.66	33.35	34.82	2.24	108.93	0.35	16	1.43	1.33



40	b	46.5	PF 1	331	30	37.18	34.53	37.62	3.15	126.64	0.39	1	-1.82	-1.8
40	b	46.5	PF 2	153	30	34.33	32.87	34.78	2.98	52.7	0.49	1	1.03	1.05
		46.4	Bridge											
40	b	46	PF 1	331	30	33.35	34.53	37.22	8.73	38.19	1.65	92	2.01	2.03
40	b	46	PF 2	153	30	34.02	32.87	34.56	3.25	47.98	0.55	92	1.34	1.36
39	45	PF 1	331	29.3	34.66	34.26	34.77	2.21	274.14	0.35	188	-1.17	1.17	
39	45	PF 2	153	29.3	34.26	33.37	34.32	1.67	183.18	0.28	188	-0.77	1.57	
38	44	PF 1	331	29.07	34.49	34.09	34.61	2.18	270.07	0.34	132	-1.1	3.8	
38	44	PF 2	153	29.07	34.18	32.93	34.23	1.42	202.52	0.23	132	-0.79	4.11	
37	43	PF 1	331	28.72	34.1	34.1	34.42	3.36	186.22	0.55	236	-0.71	-0.22	
37	43	PF 2	153	28.72	32.76	32.76	33.97	4.89	31.46	0.98	236	0.63	1.12	
36	42	PF 1	331	28.2	32.89	33.09	33.6	4.62	119.93	0.85	232	-0.06	0.51	
36	42	PF 2	153	28.2	33.17	32.2	33.25	1.55	160.76	0.27	232	-0.34	0.23	
35	41	PF 1	331	27.93	32.87	32.55	32.94	1.59	331.01	0.31	188	-0.32	-0.58	
35	41	PF 2	153	27.93	31.94	31.94	32.85	4.24	36.11	1	188	0.61	0.35	
34	40	PF 1	331	27.67	32.83	32.25	32.86	1.12	495.56	0.18	240	-0.56	-0.87	
34	40	PF 2	153	27.67	32.36	31.82	32.37	0.85	339.72	0.15	240	-0.09	-0.4	
33	39	PF 1	342	27.33	32.75	31.8	32.8	1.33	365.68	0.2	120	-0.95	-1.17	
33	39	PF 2	158	27.33	32.32	30.67	32.34	0.8	293.37	0.13	120	-0.52	-0.74	
32	38	PF 1	342	27.29	32.27	31.87	32.69	3.44	130.28	0.6	76	-0.47	0.93	
32	38	PF 2	158	27.29	31.17	31.17	32.2	4.52	35.69	0.96	76	0.63	2.03	
31	37	PF 1	342	26.38	31.68	31.68	32.42	4.39	103.03	0.71	200	-0.98	0.89	
31	37	PF 2	158	26.38	30.53	30.22	31.47	4.31	38	0.83	200	0.17	2.04	
30	36	PF 1	342	26.55	32.02	30.77	32.05	1	520.72	0.15	132	-1.02	0.08	
30	36	PF 2	158	26.55	30.48	30.48	30.68	2.54	130.08	0.47	132	0.52	1.62	
29	35	PF 1	342	26.32	32	30.51	32.03	1.01	498.49	0.15	144	-1.9	0.05	
29	35	PF 2	158	26.32	30.36	30.2	30.47	2.05	153.61	0.36	144	-0.26	1.69	
28	34	PF 1	342	26.1	32	30.12	32.01	0.75	637.72	0.11	120	-1.5	-0.6	
28	34	PF 2	158	26.1	30.35	29.48	30.38	1.16	250.5	0.2	120	0.15	1.05	



27	33	PF 1	342	25.87	31.98	29.79	32	0.74	584.36	0.11	76	-1.93	-2.85
27	33	PF 2	158	25.87	30.33	29.46	30.36	0.89	271.61	0.16	76	-0.28	-1.2
26	32	PF 1	342	26.42	31.98	29.73	32	0.79	542.92	0.11	92	-1.28	-2.55
26	32	PF 2	158	26.42	30.32	29.43	30.34	0.93	261.04	0.16	92	0.38	-0.89
25	31	PF 1	342	25.65	31.95	30.05	31.99	1.14	404.97	0.16	24	-1.55	-1.1
25	31	PF 2	158	25.65	30.25	28.94	30.31	1.43	172.97	0.24	24	0.15	0.6
24	30	PF 1	337	27.77	30.51	30.51	31.84	5.12	65.86	1	20	0.74	0.76
24	30	PF 2	155	27.77	29.41	29.41	30.22	3.98	38.95	1	20	1.84	1.86
23	29	PF 1	337	26.25	28.01	29	31.36	8.11	41.57	1.96	36	3.24	3.25
23	29	PF 2	155	26.25	27.19	27.9	29.69	7.01	22.12	2.31	36	4.06	4.07
22	28	PF 1	337	23.44	29.56	27.8	29.6	1.2	405.59	0.18	168	-1.6	0.64
22	28	PF 2	155	23.44	27.97	26.73	28.13	1.92	114.8	0.37	168	-0.01	2.23
21	27	PF 1	337	23.03	29.55	27.74	29.57	0.89	559.4	0.12	80	-1.76	-0.16
21	27	PF 2	155	23.03	27.97	26.69	28.01	1.3	214.73	0.21	80	-0.18	1.42
20	26	PF 1	337	22.73	29.54	27.65	29.56	0.96	495.22	0.13	76	-1.82	-0.43
20	26	PF 2	155	22.73	27.92	26.36	27.98	1.43	173.3	0.24	76	-0.2	1.19
19	25	PF 1	337	23.01	29.43	27.38	29.54	1.74	251.63	0.25	200	-0.46	-0.51
19	25	PF 2	155	23.01	27.72	26.13	27.93	2.06	79.89	0.37	200	1.25	1.2
18	24	PF 1	337	22.26	29.4	27.42	29.47	1.51	315.6	0.2	136	-0.53	-0.85
18	24	PF 2	155	22.26	27.45	25.93	27.72	2.44	71.26	0.4	136	1.42	1.1
17	23	PF 1	337	22.07	29.4	26.92	29.44	0.96	415.53	0.14	116	-0.84	-1.12
17	23	PF 2	155	22.07	27.37	25.54	27.56	1.93	80.44	0.37	116	1.19	0.91
16	22	PF 1	337	21.93	27.68	27.68	29.24	5.73	65.08	0.93	148	0.57	1.9
16	22	PF 2	155	21.93	26.39	26.2	27.27	4.21	39.12	0.84	148	1.86	3.19
15	21	PF 1	337	21.68	28.35	24.61	28.37	0.84	487.13	0.11	152	-0.41	-0.6
15	21	PF 2	155	21.68	26.98	24.15	26.99	0.55	325	0.08	152	0.96	0.77
14	20	PF 1	337	21.49	28.15	26.12	28.33	2.15	197.93	0.31	208	-0.57	-0.72
14	20	PF 2	155	21.49	26.8	24.84	26.96	1.81	89.56	0.31	208	0.78	0.63
13	19	PF 1	337	21.26	28.22	25.91	28.25	0.93	479.6	0.13	220	-0.99	-1.15
13	19	PF 2	155	21.26	26.67	24.6	26.83	1.86	92.31	0.3	220	0.56	0.4
12	18	PF 1	337	20.16	28.12	25.82	28.21	1.56	272.03	0.21	184	-1.22	-1.43



12	18	PF 2	155	20.16	26.52	24.3	26.7	1.97	85.92	0.31	184	0.38	0.17
11	17	PF 1	337	20.1	27.93	24.68	28.14	2.19	188.04	0.28	136	-1.21	-1.34
11	17	PF 2	155	20.1	26.48	23.18	26.6	1.54	104.89	0.22	136	0.24	0.11
10	16.5	PF 1	337	20.05	27.91	23.11	28.06	1.81	209.18	0.21	21	-1.88	-1.91
10	16.5	PF 2	155	20.05	26.49	21.89	26.55	1.1	155.6	0.14	21	-0.46	-0.49
	16.4		Culvert										
10 b	16	PF 1	337	20.05	26.13	23.11	26.45	2.58	141.8	0.34	132	-0.1	-0.13
10 b	16	PF 2	155	20.05	24.55	21.89	24.7	1.69	91.76	0.26	132	1.48	1.45
9	15	PF 1	337	19.99	25.34	24.77	26.15	4.05	87.46	0.7	100	0.85	0.82
9	15	PF 2	155	19.99	24.02	23.42	24.51	3.12	49.7	0.67	100	2.17	2.14
8	14	PF 1	337	19.62	25.37	24.15	25.83	3.11	118.4	0.49	108	0.47	0.74
8	14	PF 2	155	19.62	23.92	22.76	24.22	2.43	65.16	0.48	108	1.92	2.19
7	13	PF 1	337	19.77	24.78	24.21	25.58	4.06	90.64	0.68	148	0.94	0.95
7	13	PF 2	155	19.77	23.53	22.8	23.98	2.99	52.61	0.61	148	2.19	2.2
6	12	PF 1	337	19.8	24.77	23.2	25.18	2.87	122.29	0.46	220	0.85	1.23
6	12	PF 2	155	19.8	23.46	21.99	23.67	2.01	77.44	0.39	220	2.16	2.54
5	11	PF 1	337	19.08	24.53	22.84	24.89	2.75	132.71	0.44	188	0.6	1.2
5	11	PF 2	155	19.08	23.25	21.67	23.45	1.95	80.57	0.37	188	1.88	2.48
4	10	PF 1	337	18.78	24.64		24.71	1.43	305.85	0.22	228		
4	10	PF 2	155	18.78	23.22		23.3	1.39	141.8	0.25	228		
3	9	PF 1	337	18.22	24.48	21.99	24.63	1.9	228.37	0.27	100	-0.09	0.34
3	9	PF 2	155	18.22	23.06	20.73	23.19	1.61	105.86	0.27	100	1.33	1.76
2	8	PF 1	337	18.12	24.32	22.17	24.56	2.42	179.14	0.34	54	0.27	0.45
2	8	PF 2	155	18.12	22.94	20.72	23.13	1.92	85.7	0.32	54	1.65	1.83
1	7.2	PF 1	337	17.98	23.89	21.96	24.47	3.45	103.34	0.47	1	1.14	1.16
1	7.2	PF 2	155	17.98	22.9	20.41	23.09	1.99	80.96	0.3	1	2.13	2.15
	7.1		Bridge										
1 b	7	PF 1	337	17.98	23.36	21.96	24.1	3.87	91.21	0.56	253	1.67	1.69
1 b	7	PF 2	155	17.98	22.82	20.41	23.03	2.02	79.4	0.31	253	2.21	2.23
*	6	PF 1	337	16.02	23.66	21.56	23.76	1.62	275.8	0.21	179	0.02	-0.01



06													
*06	6 PF 2	155	16.02	22.87	19.47	22.91	1.05	189.83	0.15	179	0.81	0.78	
*													
05	5 PF 1	337	14.56	23.69	21.43	23.71	0.86	555.17	0.11	320	-0.13	-0.11	
*													
05	5 PF 2	155	14.56	22.88	19.07	22.89	0.63	347.18	0.09	320	0.68	0.7	
*													
04	4.5 PF 1	337	14.58	23.49	19.69	23.65	2.13	207.64	0.24	1	-2.31	0.38	
*													
04	4.5 PF 2	155	14.58	22.82	18.17	22.87	1.11	181.18	0.13	1	-1.64	1.05	
	4.4	Bridge											
*													
04	4 PF 1	337	14.58	23.43	19.69	23.6	2.15	205.33	0.24	21	-2.25	0.44	
*													
04	4 PF 2	155	14.58	22.81	18.17	22.86	1.11	180.83	0.13	21	-1.63	1.06	
*													
03	3 PF 1	337	14.8	23.54	19.8	23.55	0.56	838.56	0.08	502	-0.08	-0.08	
*													
03	3 PF 2	155	14.8	22.84	18.26	22.84	0.38	599.57	0.06	502	0.62	0.62	
*													
02	2 PF 1	337	10.17	23.54	15.79	23.54	0.28	1902.64	0.03	114	-0.12	-2.33	
*													
02	2 PF 2	155	10.17	22.84	13.55	22.84	0.16	1493.1	0.02	114	0.58	-1.63	
*													
01	1 PF 1	337	9.16	23.54	14.2	23.54	0.34	1613.37	0.03		-0.1	-8	
*													
01	1 PF 2	155	9.16	22.84	12.72	22.84	0.19	1317.98	0.02		0.6	-7.3	

Principali grandezze idrauliche PF1 TR 200; PF2 TR 20