



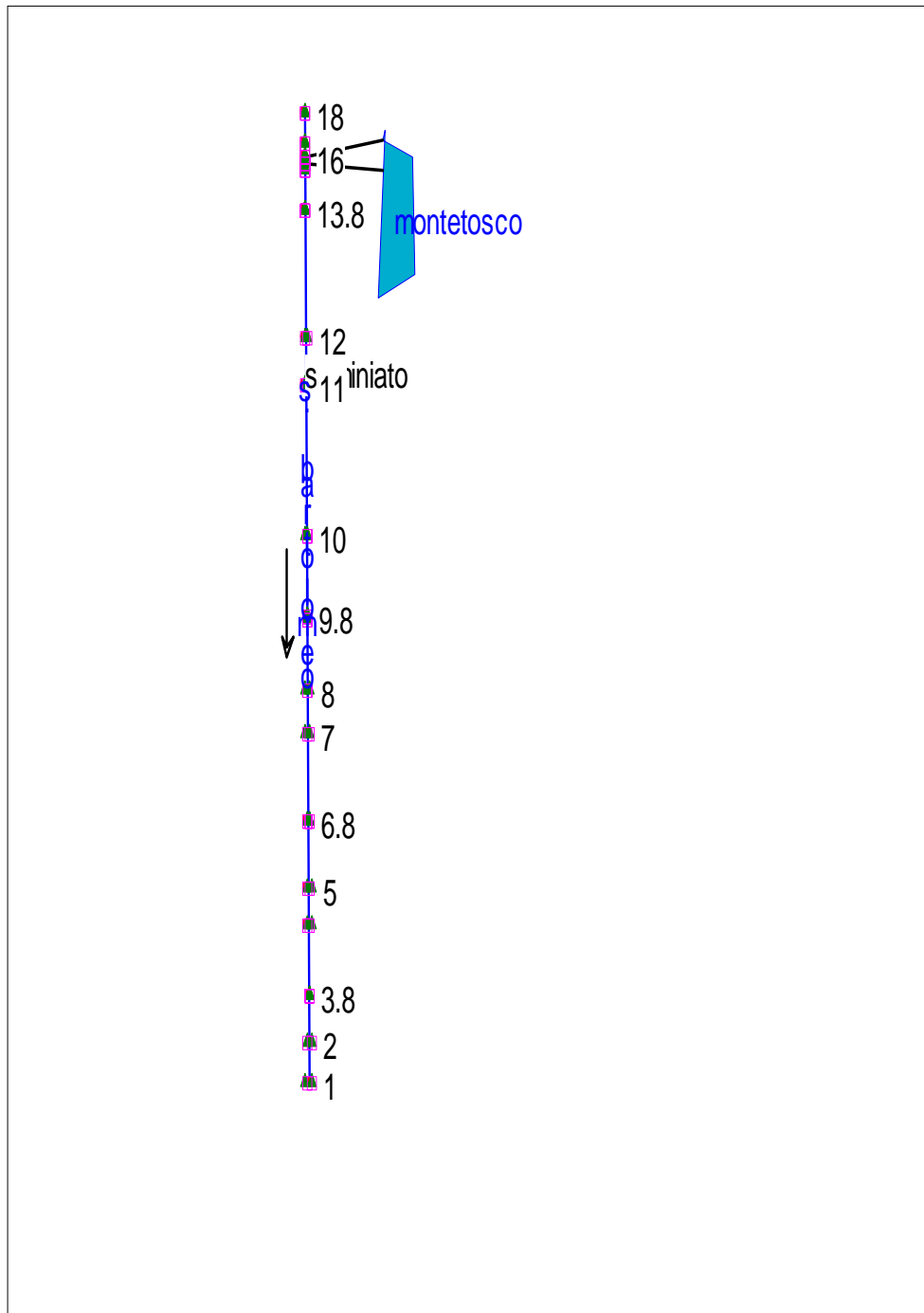
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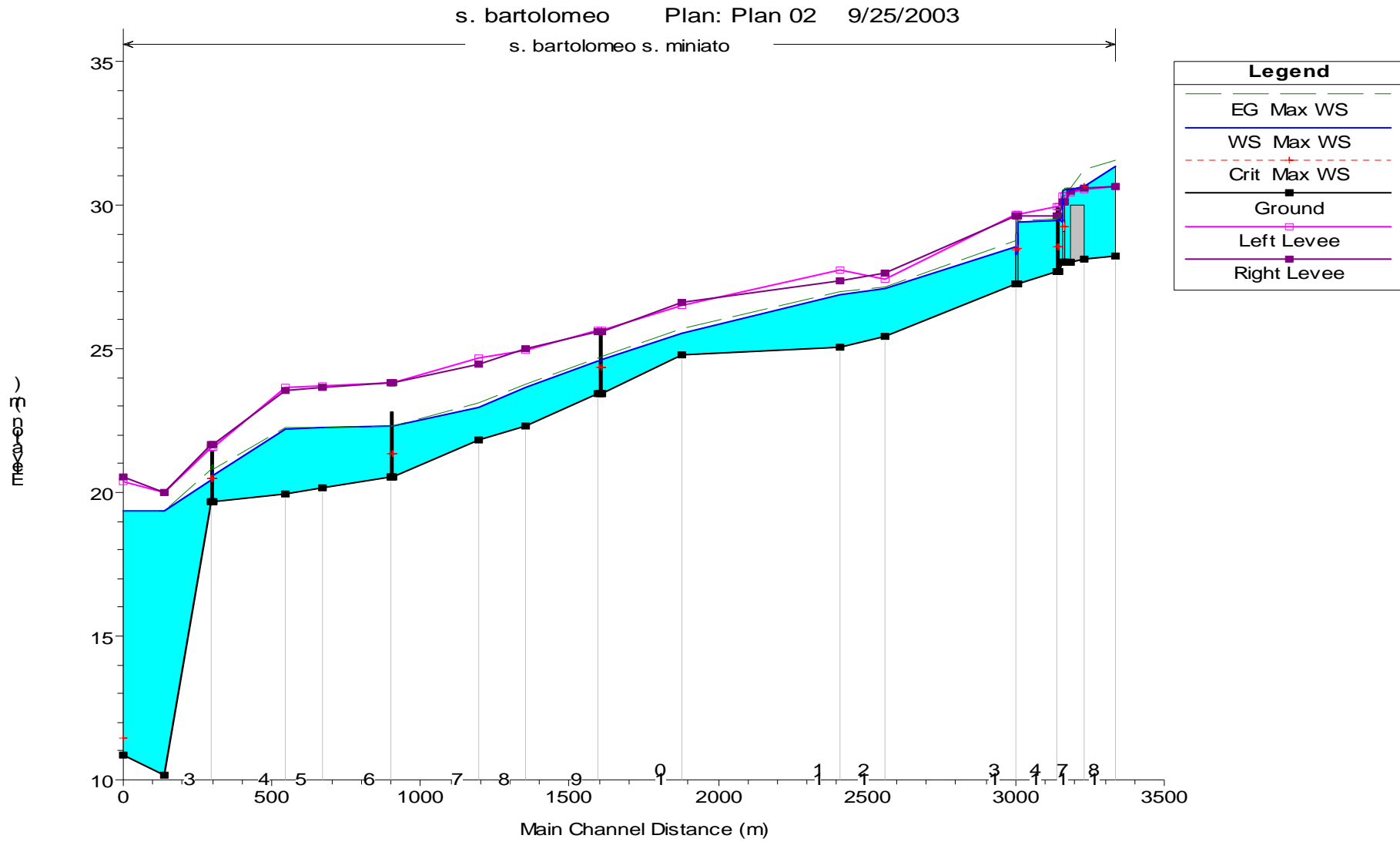
**HEC RAS**

**RIO DI SAN BARTOLOMEO**

**S. MINIATO**

**TR 200**



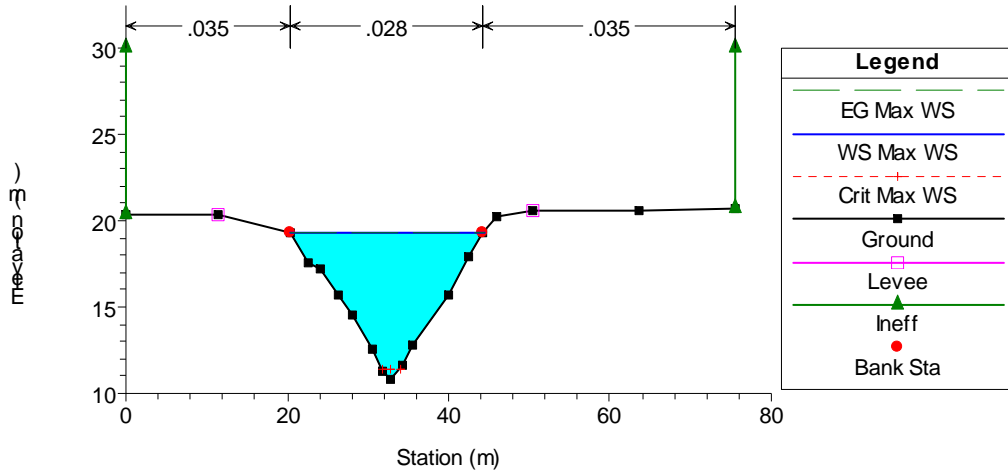




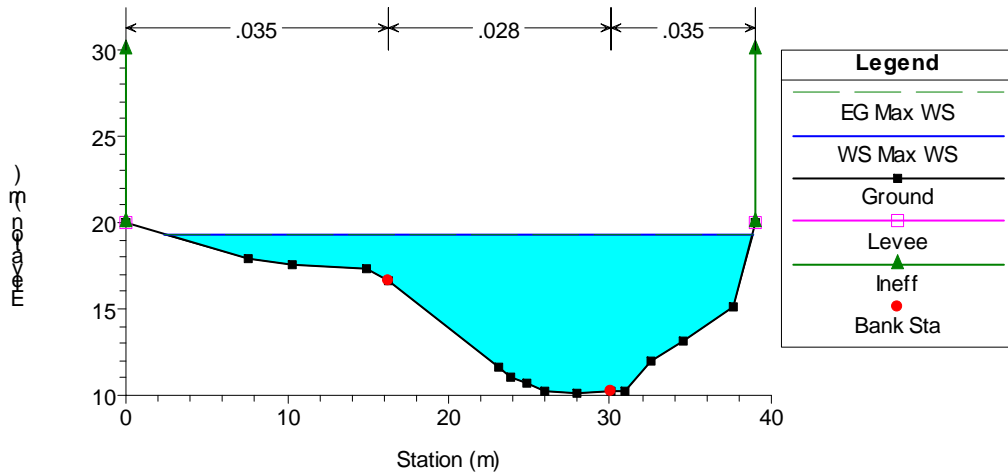
River Sta	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	E.G. Elev (m)	Vel Chnl (m/s)	Flow Area (m2)	Froude # Chl	Length Chnl (m)	L. Levee Frbrd (m)	R. Levee Frbrd (m)
18	24.26	28.21	31.32	31.57	2.32	11.95	0.51	105	-0.69	-0.65
17	24.17	28.11	30.64	31.23	3.47	7.43	0.9	48	-0.11	-0.07
Lat										
16.1 Struct										
16	5.98	28.01	30.55	30.58	0.85	7.51	0.22	17.34	-0.12	-0.08
15.8	5.96	28.01	30.53	30.57	0.93	7.08	0.23	8	-0.2	-0.43
15.5 Culvert										
15	6.12	28.01	29.42	29.75	2.57	2.38	0.87	12.91	0.91	0.68
14.8	6.11	27.68	29.51	29.54	0.81	7.57	0.21	1	0.44	0.1
14.5 Bridge										
14	6.11	27.68	29.48	29.52	0.82	7.42	0.22	130.38	0.47	0.13
13.8	6.05	27.28	29.39	29.44	0.92	6.59	0.26	7	0.27	0.23
13.5 Culvert										
13	6.05	27.28	28.55	28.77	2.05	2.95	0.72	437.32	1.11	1.07
12	5.95	25.44	27.1	27.17	1.14	5.24	0.33	154.85	0.31	0.56
11	5.9	25.05	26.9	26.97	1.15	5.14	0.35	526.43	0.83	0.46
10	5.78	24.76	25.56	25.68	1.53	3.78	0.59	272.3	0.94	1.07
9.8	5.74	23.42	24.61	24.73	1.47	3.9	0.57	1	1.06	0.96
9.5 Bridge										
9	5.74	23.42	24.55	24.69	1.62	3.55	0.65	247.03	1.12	1.02
8	5.7	22.32	23.66	23.78	1.56	3.64	0.51	154.94	1.27	1.32
7	5.56	21.82	22.95	23.14	1.9	2.92	0.64	292.86	1.71	1.53
6.8	5.16	20.55	22.3	22.33	0.71	7.28	0.2	1	1.53	1.52
6.5 Bridge										
6	5.16	20.55	22.3	22.33	0.71	7.26	0.2	227.33	1.53	1.52
5	4.33	20.15	22.24	22.25	0.56	7.8	0.15	124.54	1.45	1.39
4	4.26	19.95	22.22	22.23	0.43	9.82	0.12	246.25	1.45	1.35
3.8	5.63	19.7	20.58	20.83	2.21	2.55	0.81	1	0.98	1.08
3.5 Bridge										
3	5.63	19.7	20.46	20.81	2.64	2.13	1.04	157.31	1.1	1.2
2	2.78	10.17	19.36	19.36	0.02	171.89	0	137.67	0.64	0.64
1	2.78	10.86	19.36	19.36	-0.01	102.6	0		1.03	1.19



s. bartolomeo Plan: Plan 02 9/25/2003  
 sezione 1

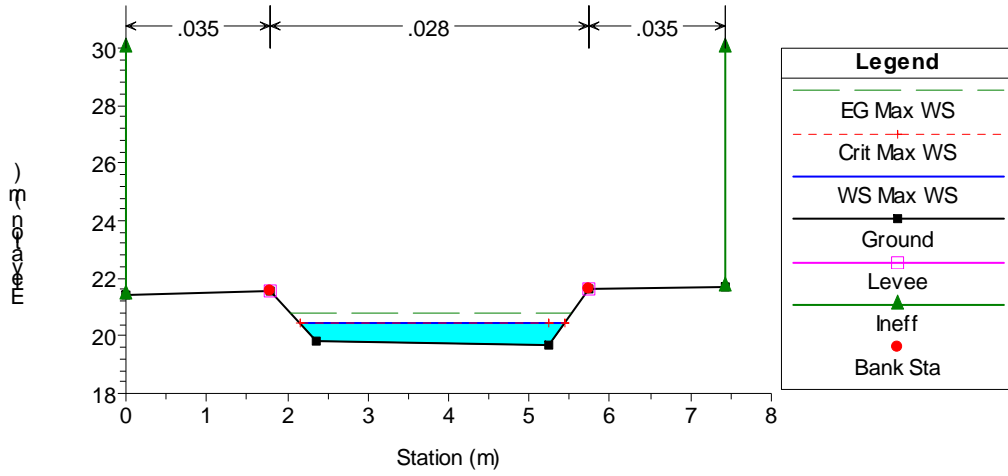


s. bartolomeo Plan: Plan 02 9/25/2003  
 sezione 2

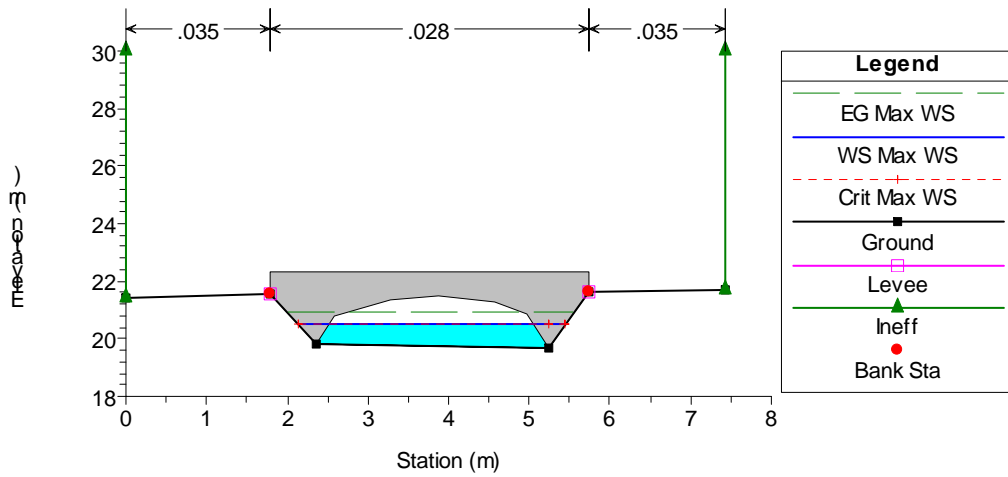




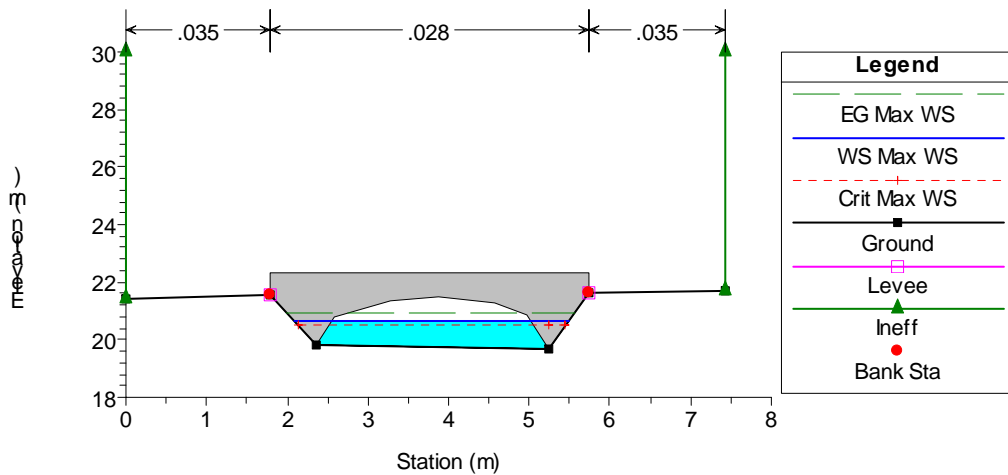
s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 3

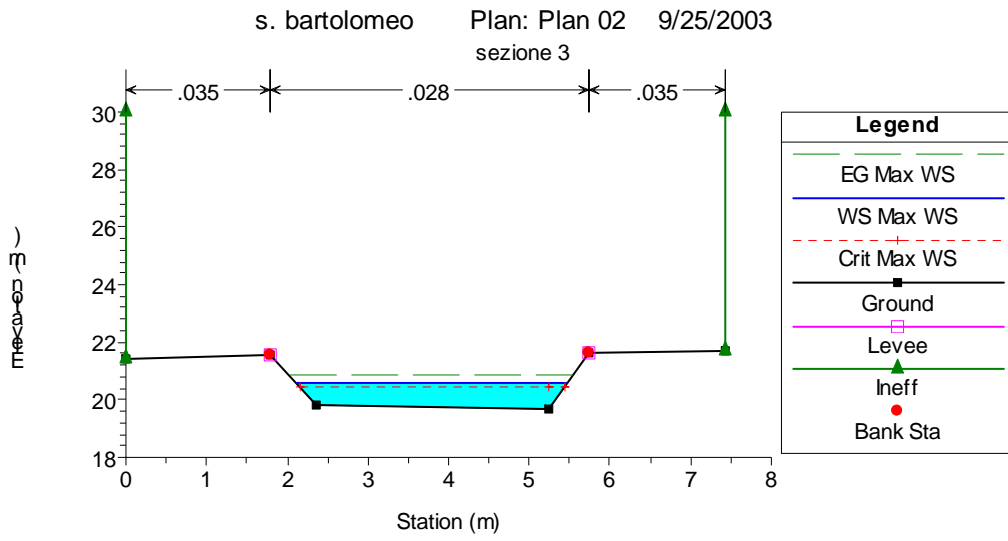


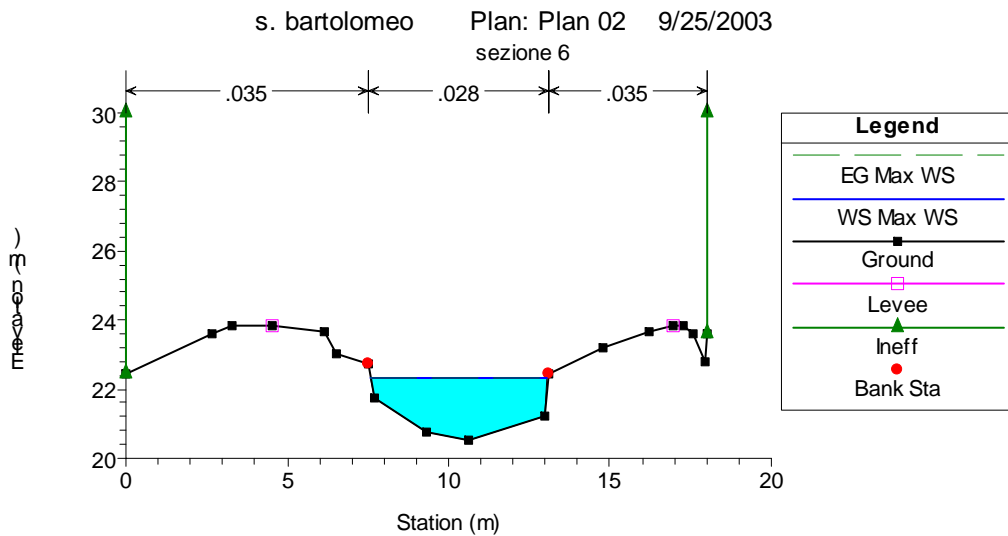
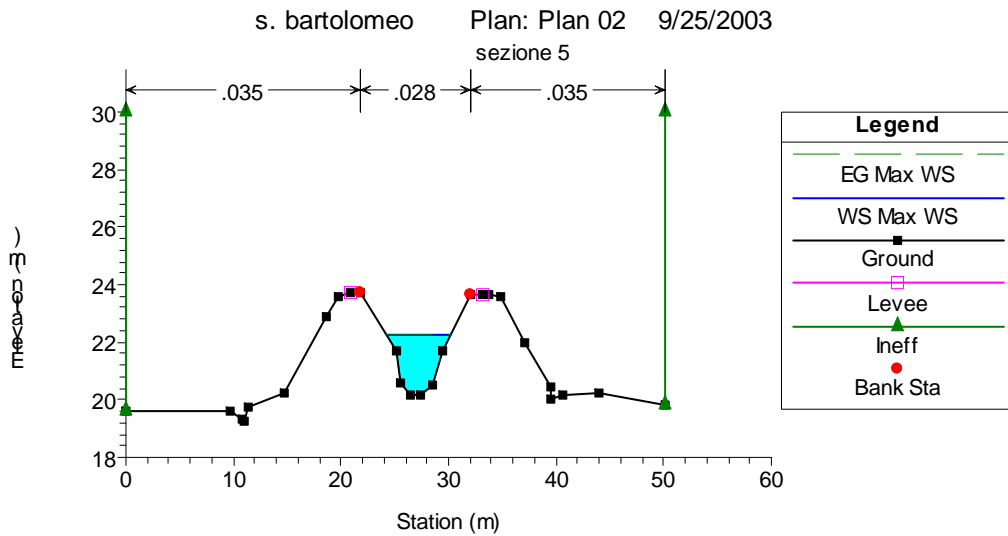
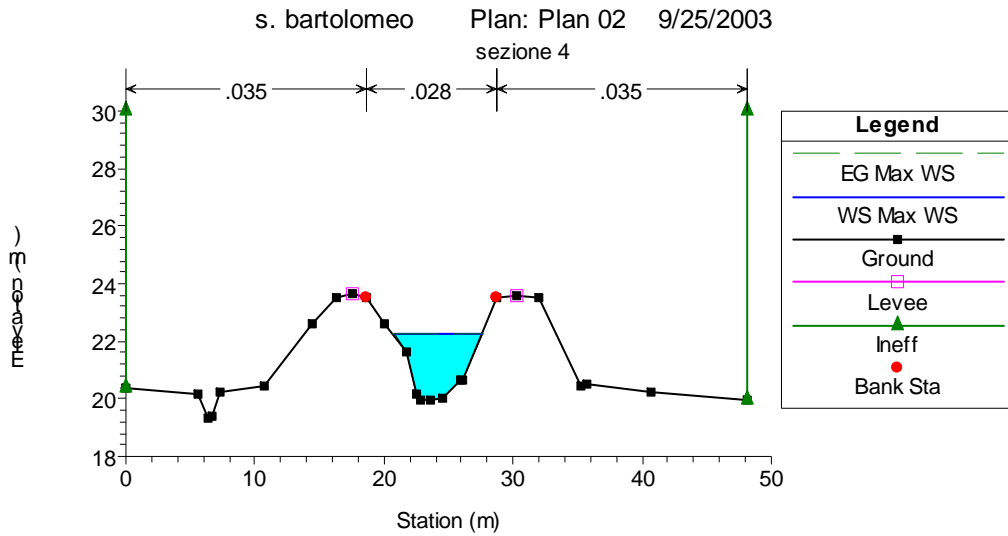
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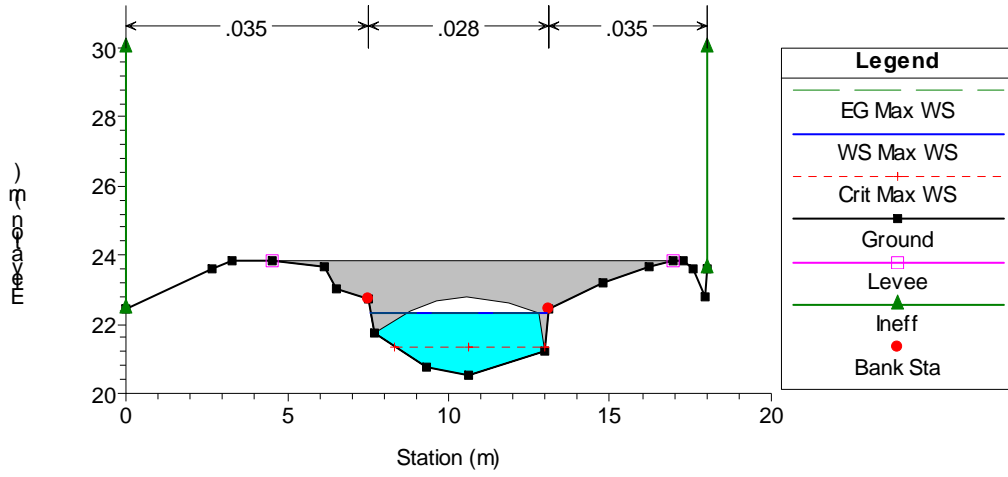




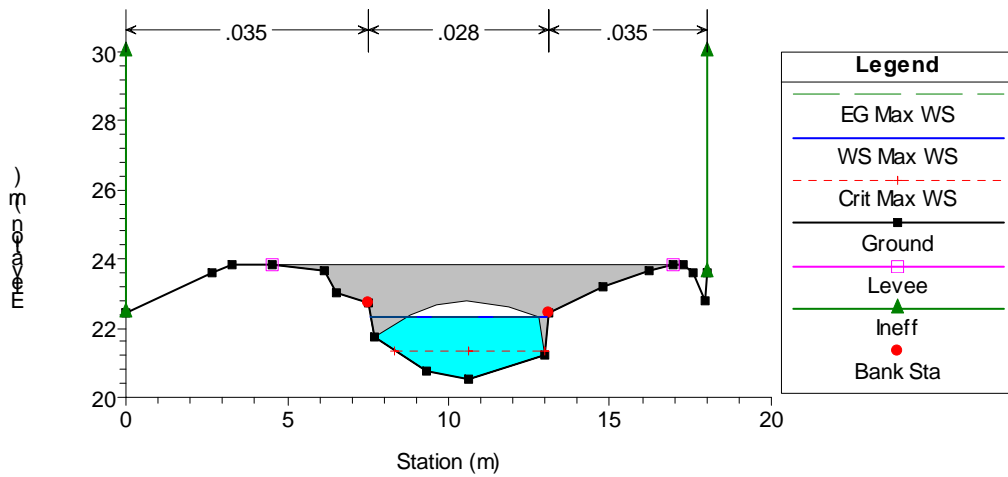


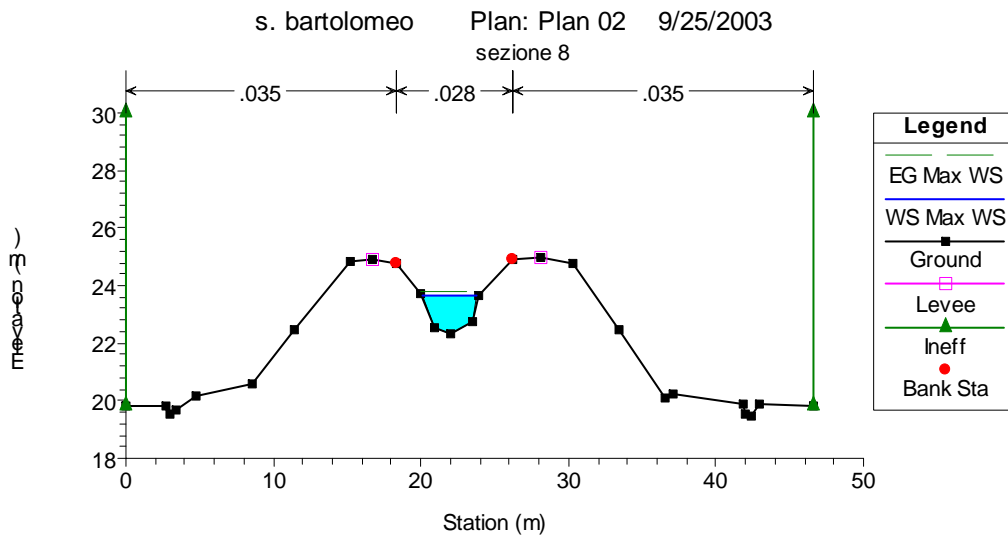
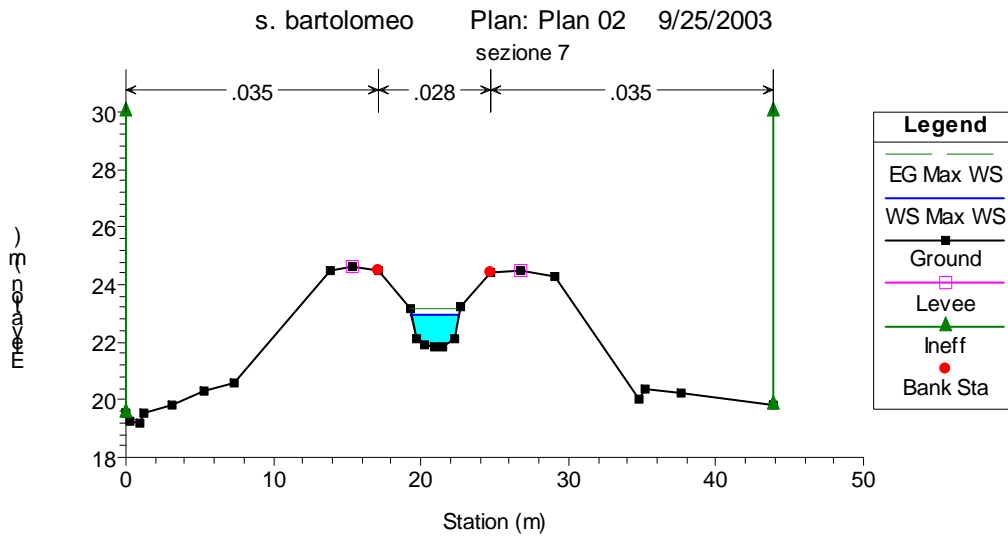
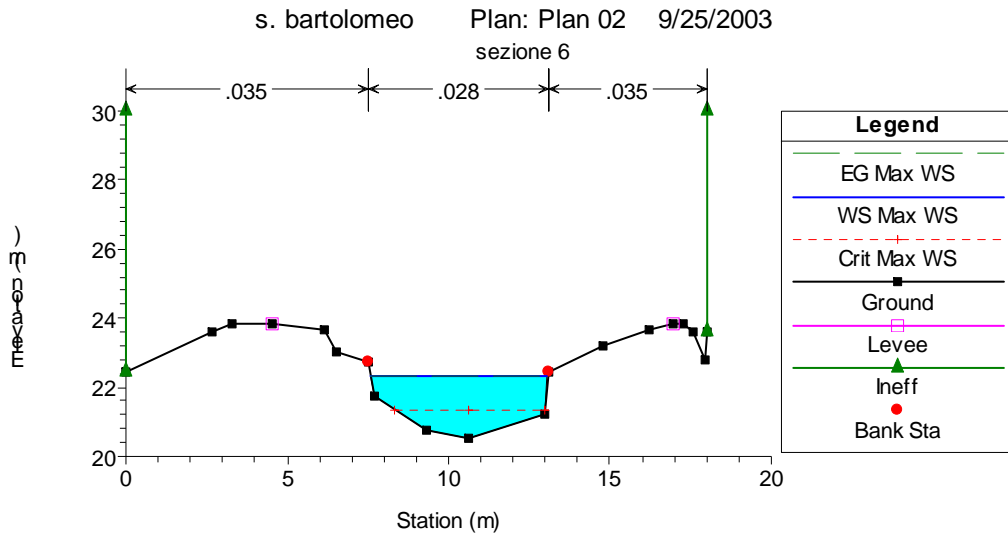


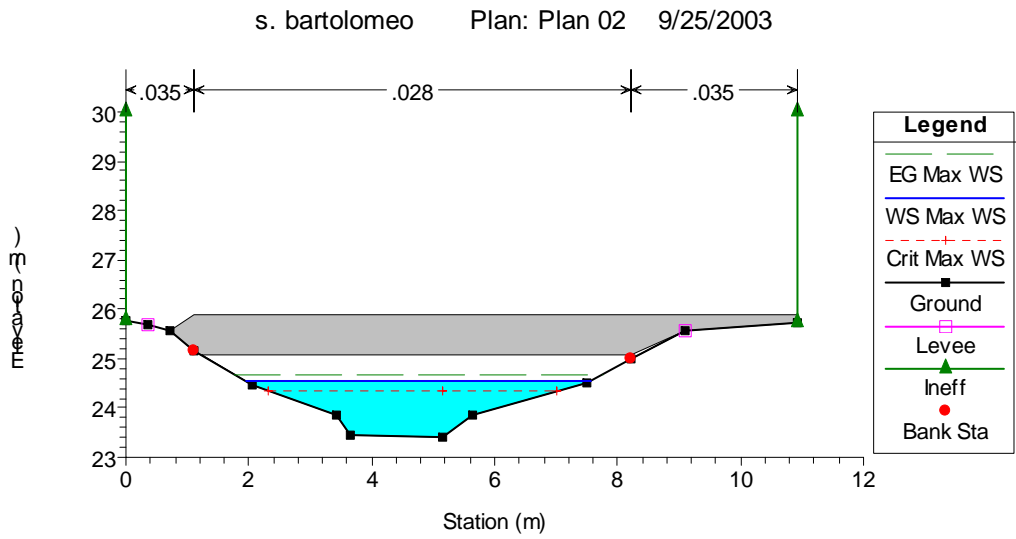
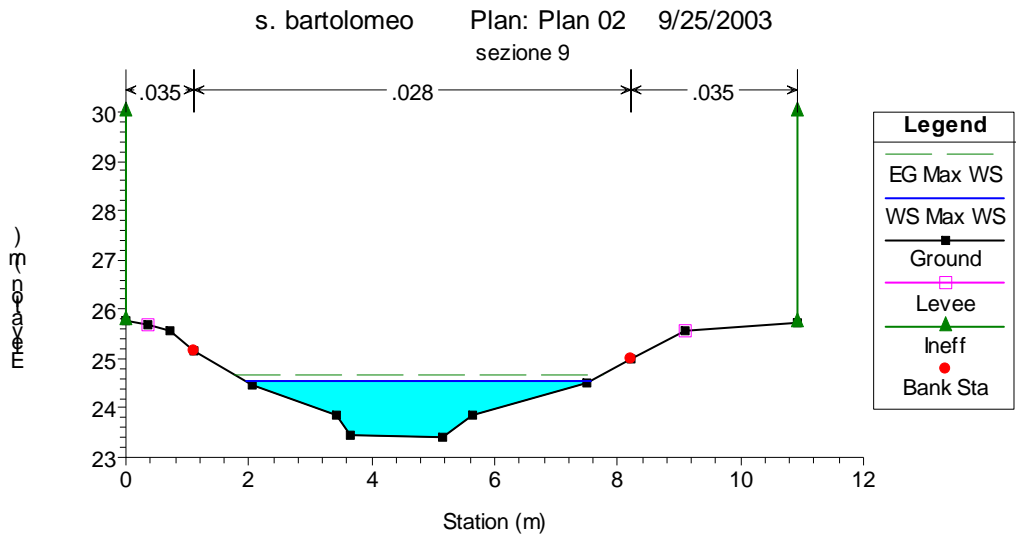
s. bartolomeo Plan: Plan 02 9/25/2003



s. bartolomeo Plan: Plan 02 9/25/2003

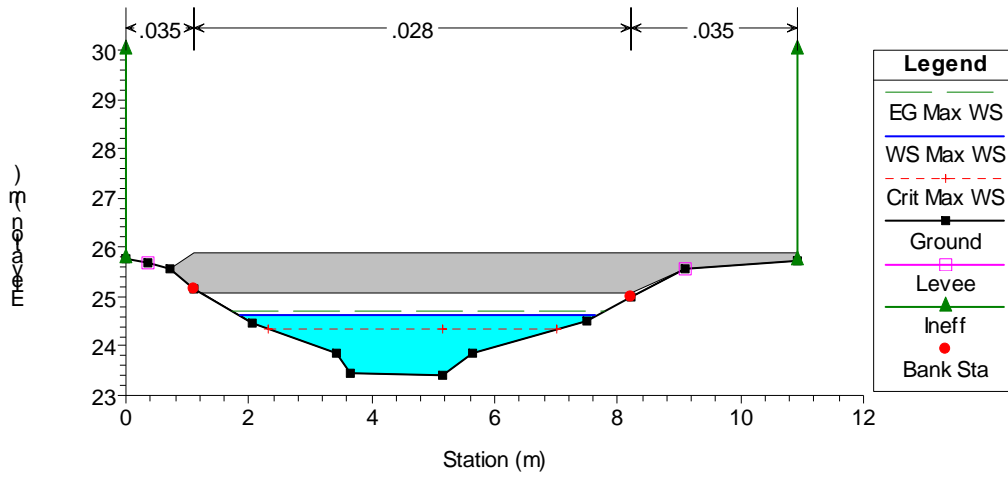




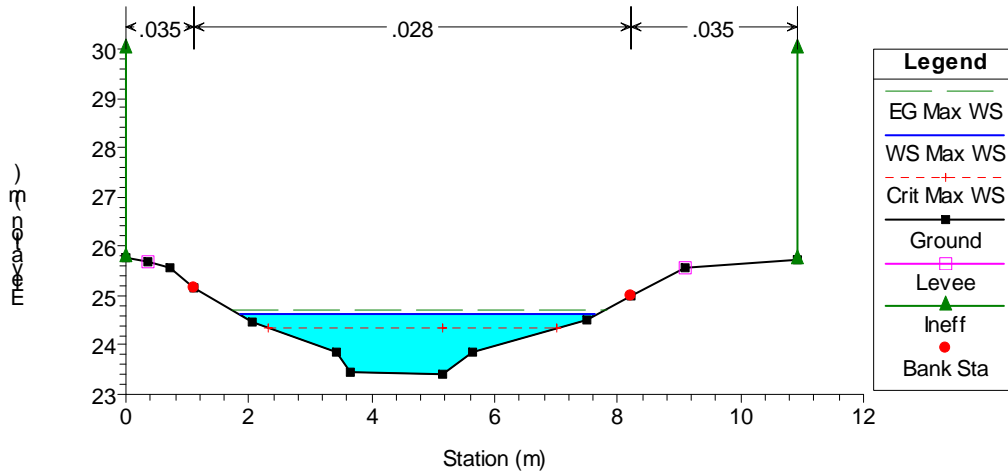




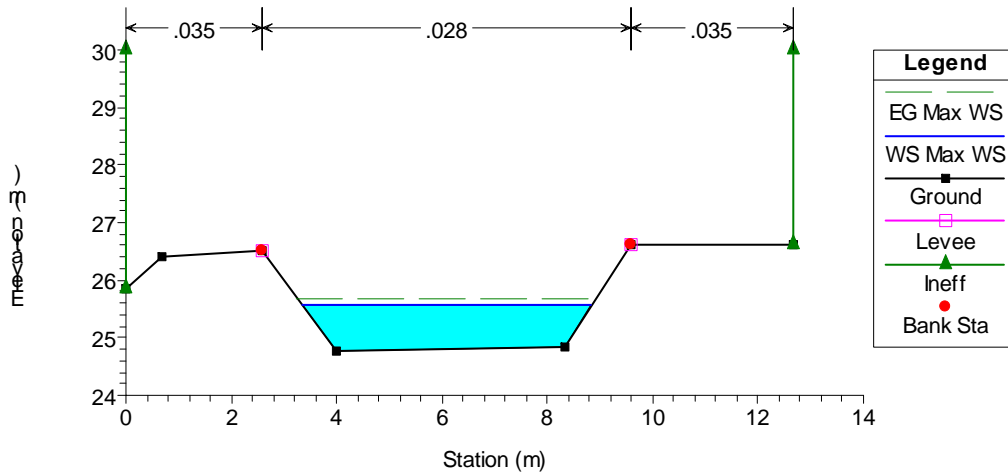
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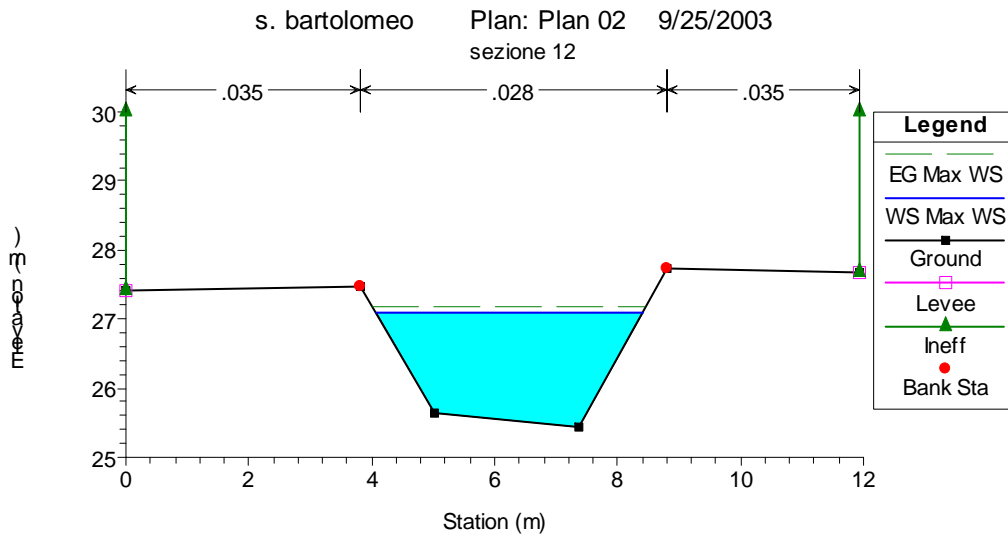
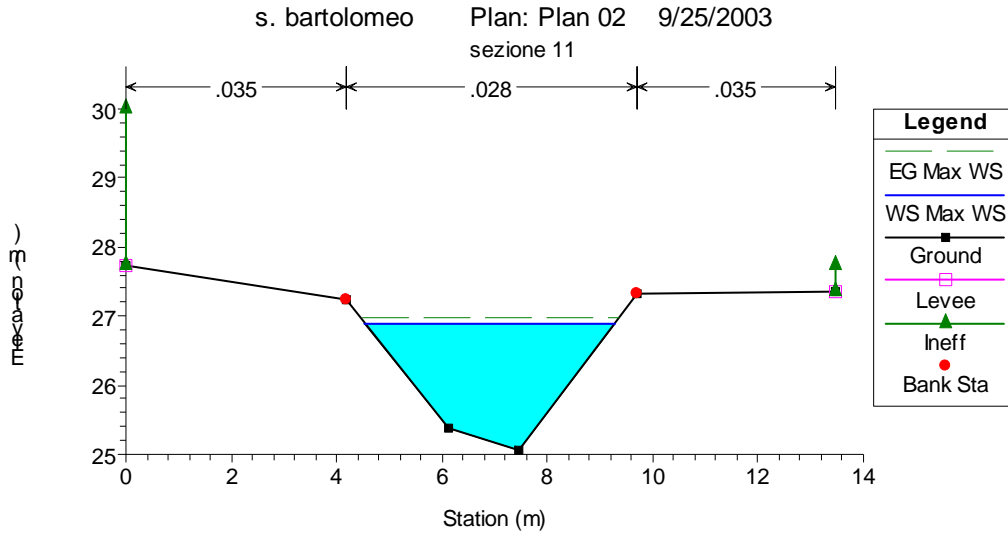


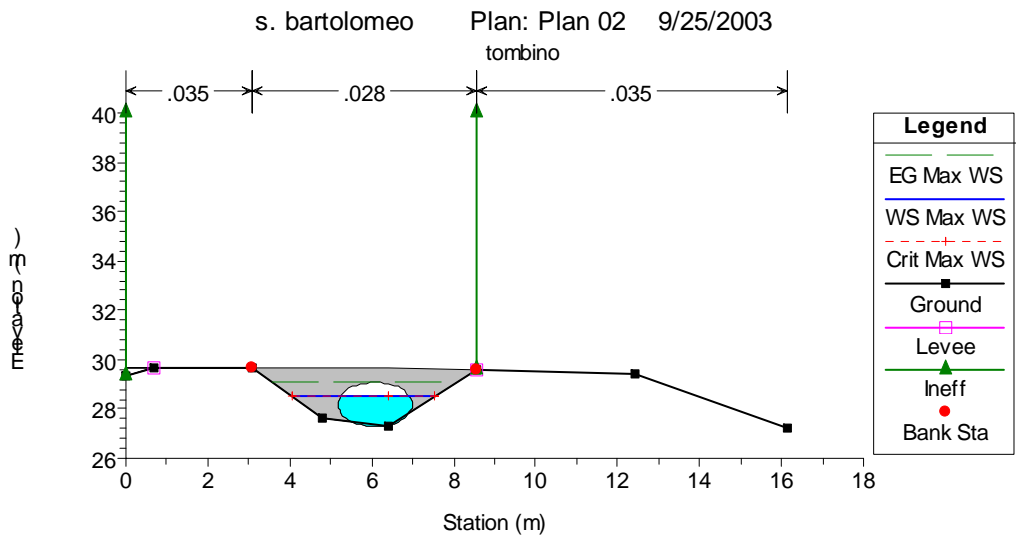
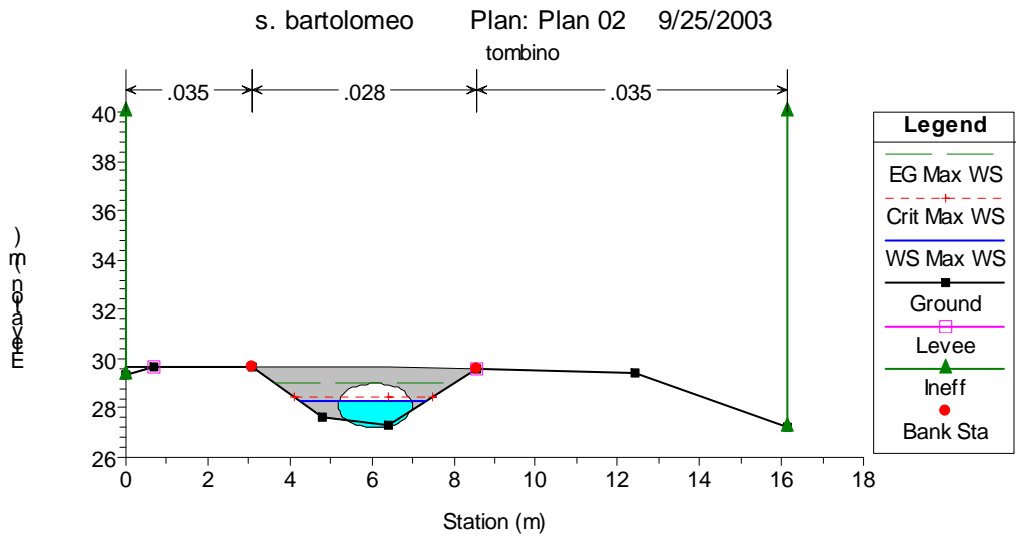
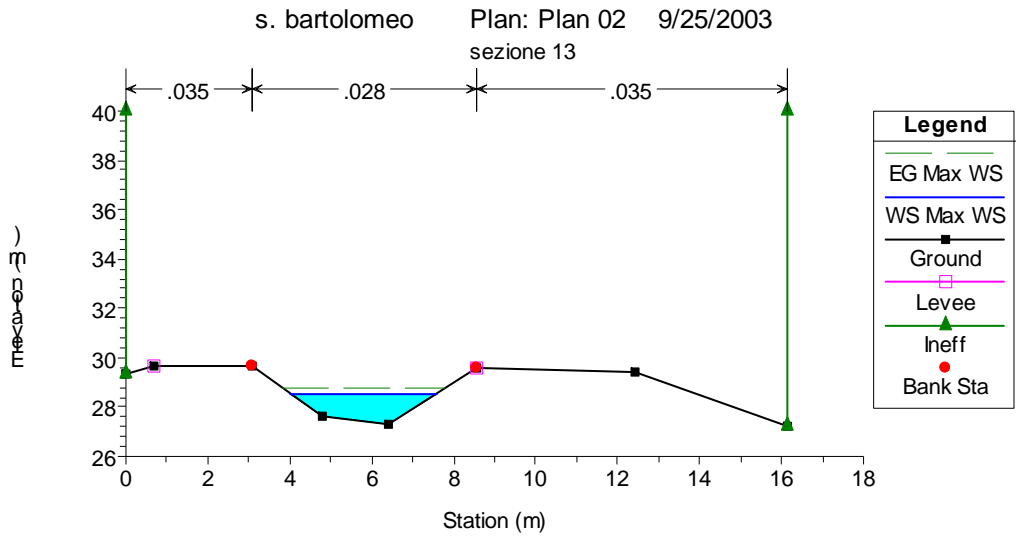
s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 9

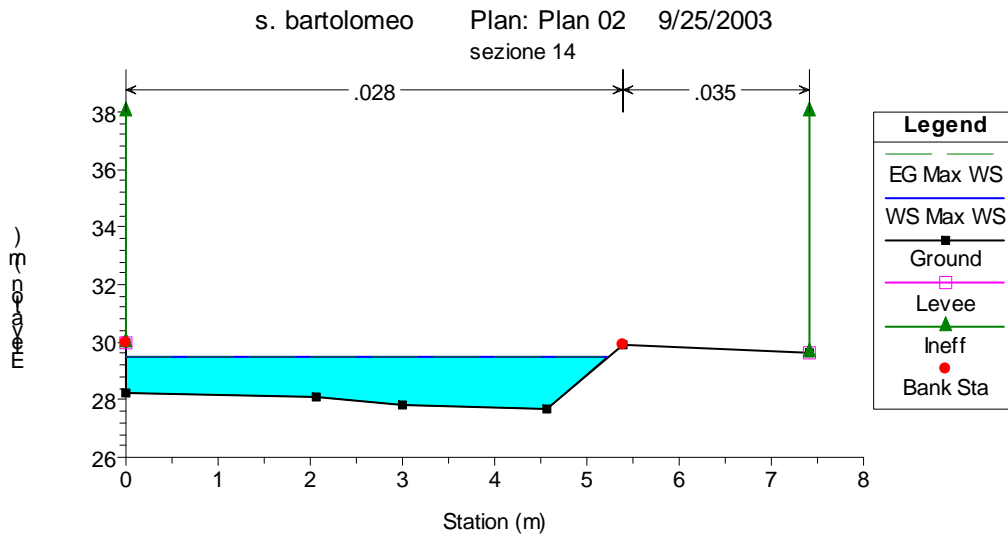
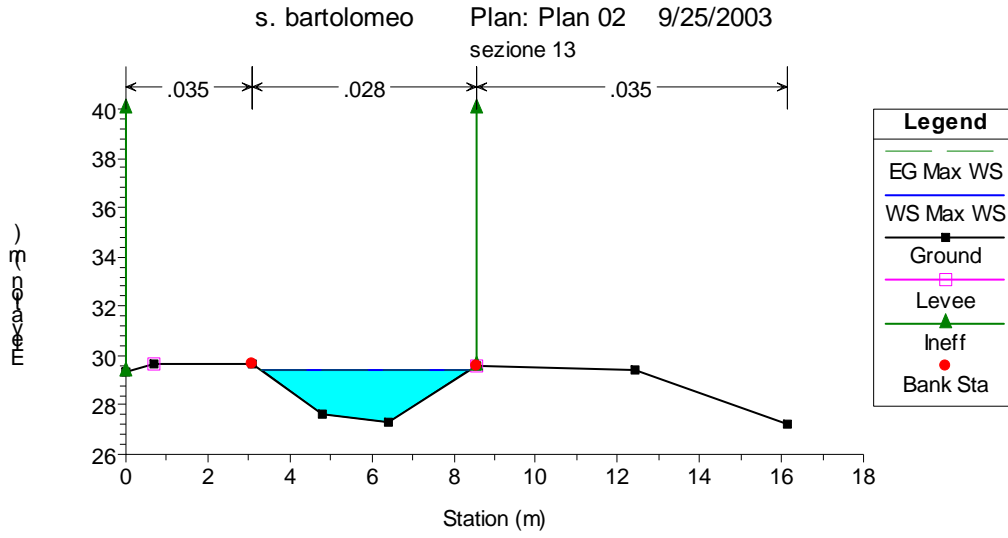


s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 10



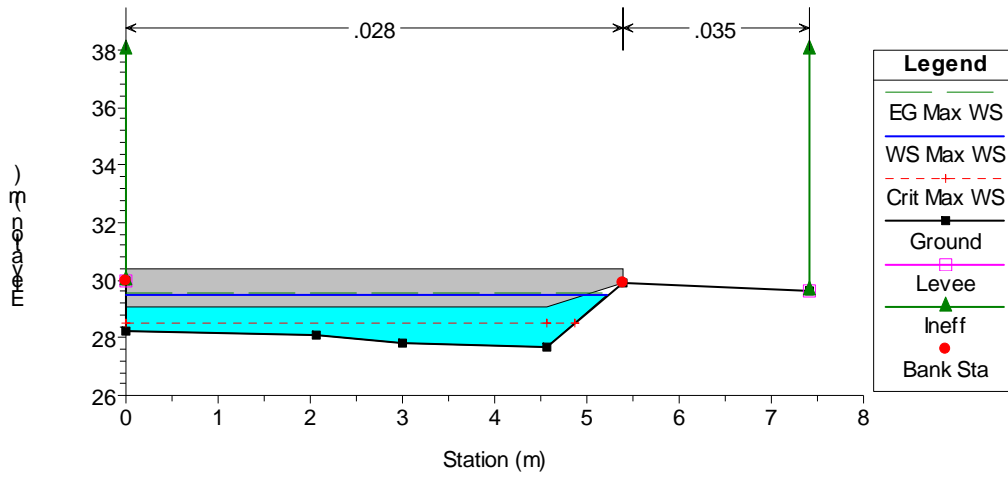




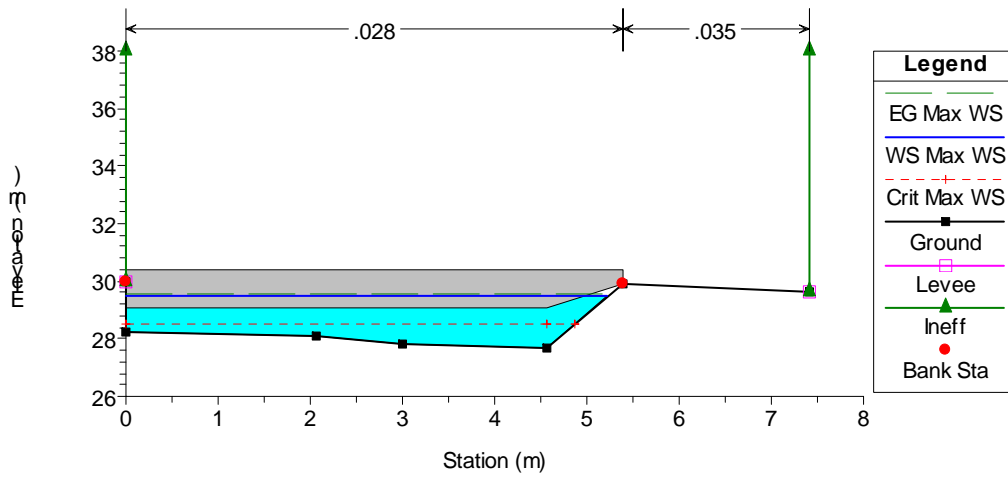




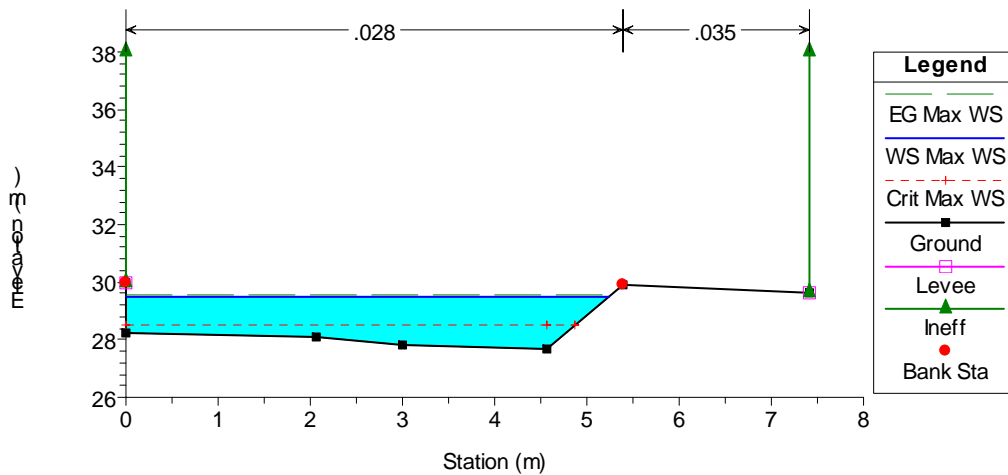
s. bartolomeo Plan: Plan 02 9/25/2003



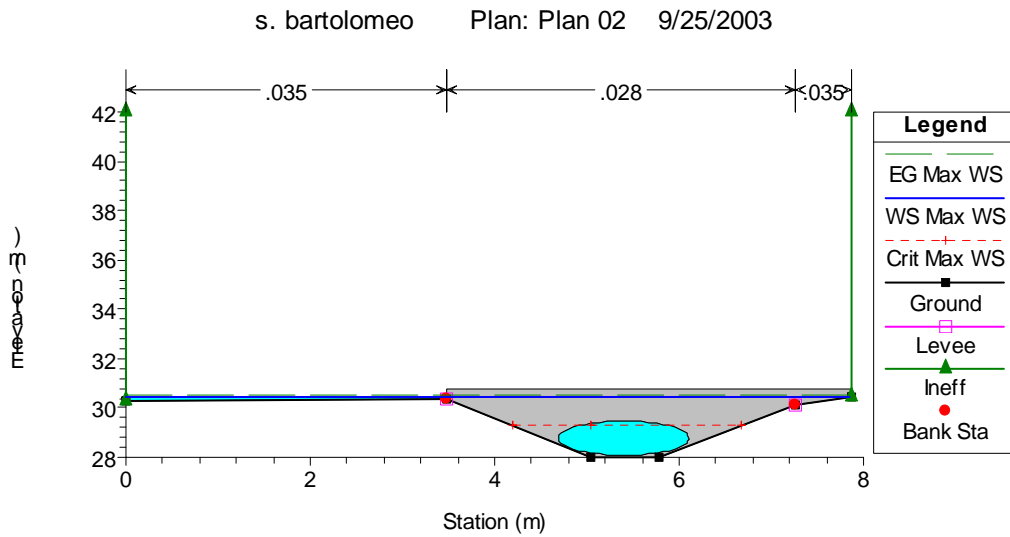
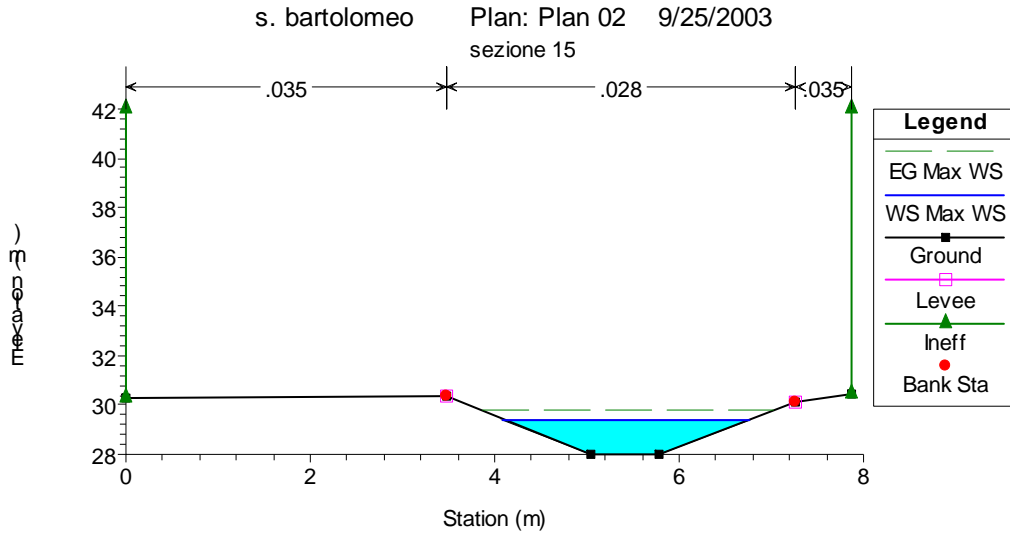
s. bartolomeo Plan: Plan 02 9/25/2003



s. bartolomeo Plan: Plan 02 9/25/2003  
 sezione 14

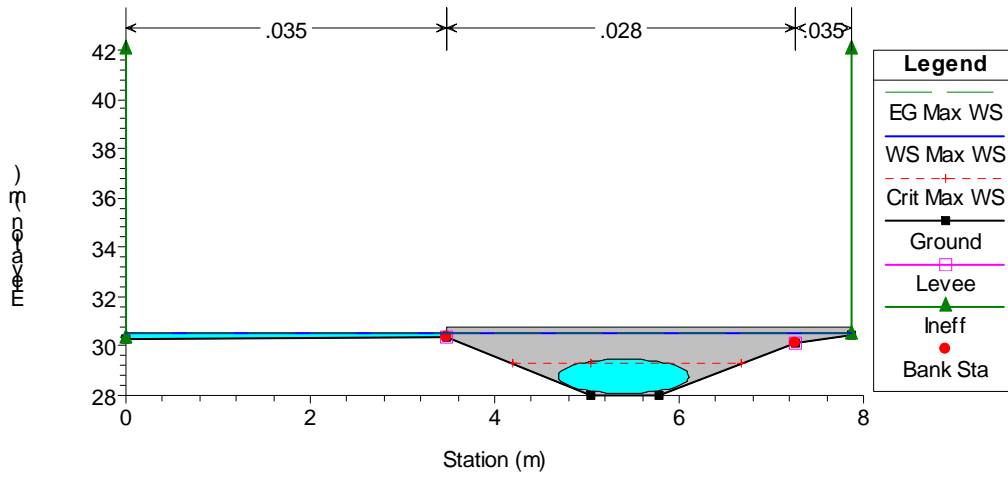




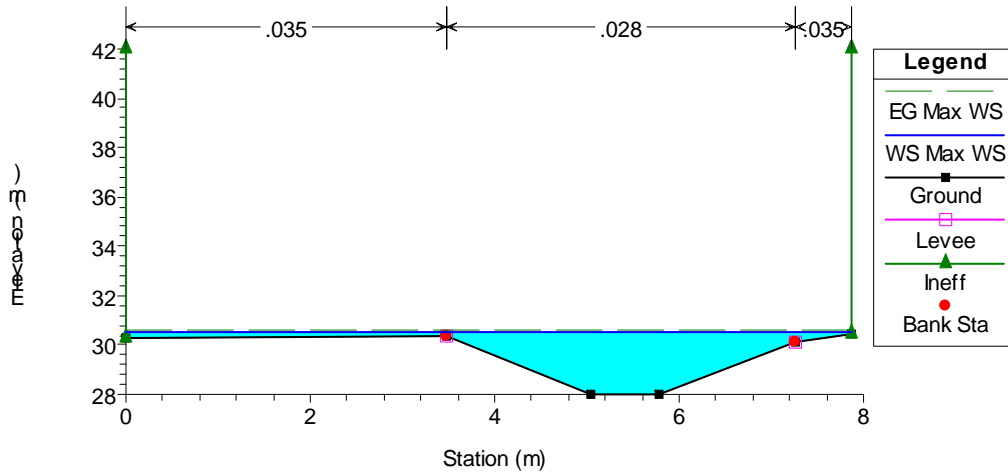




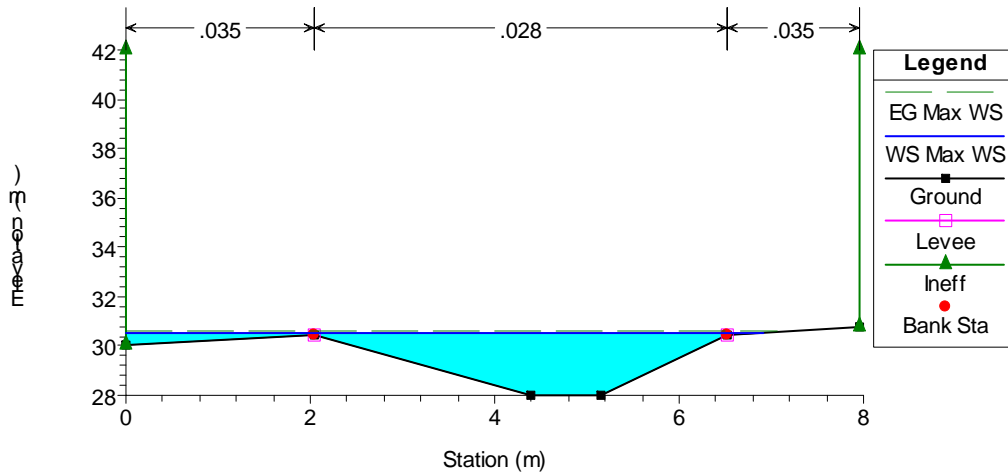
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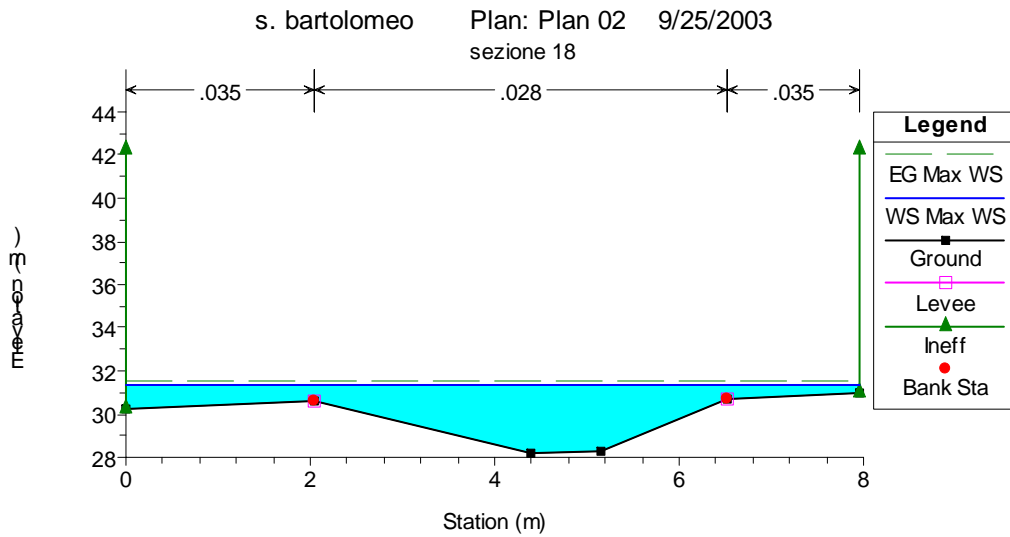
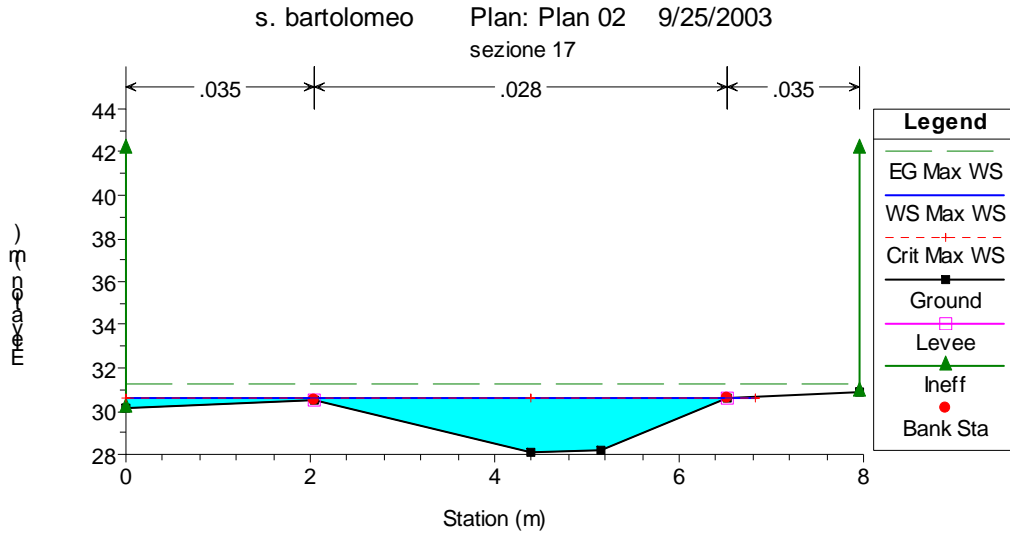


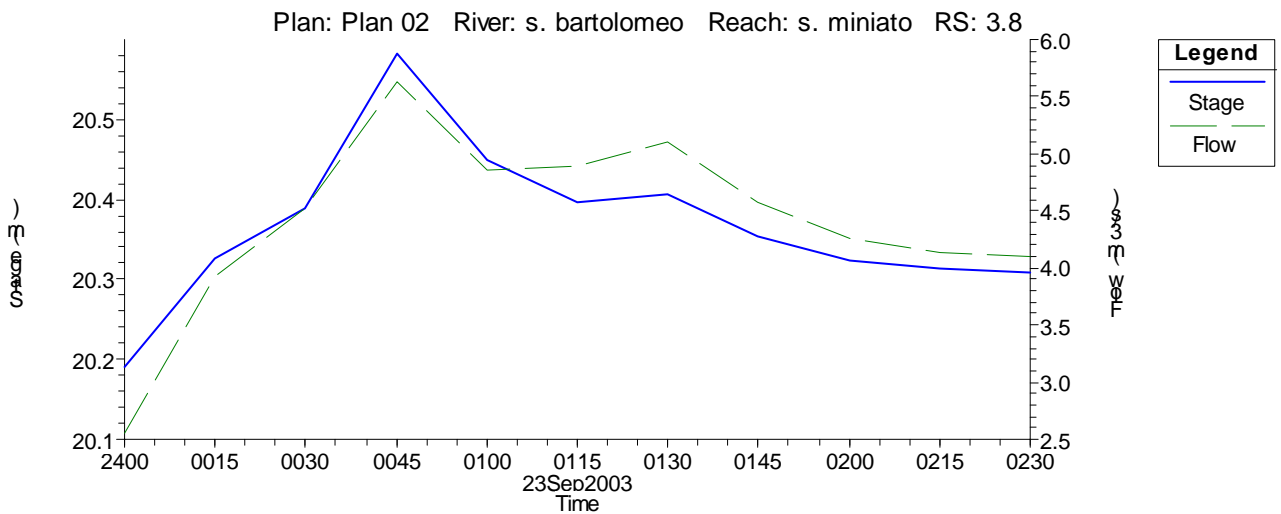
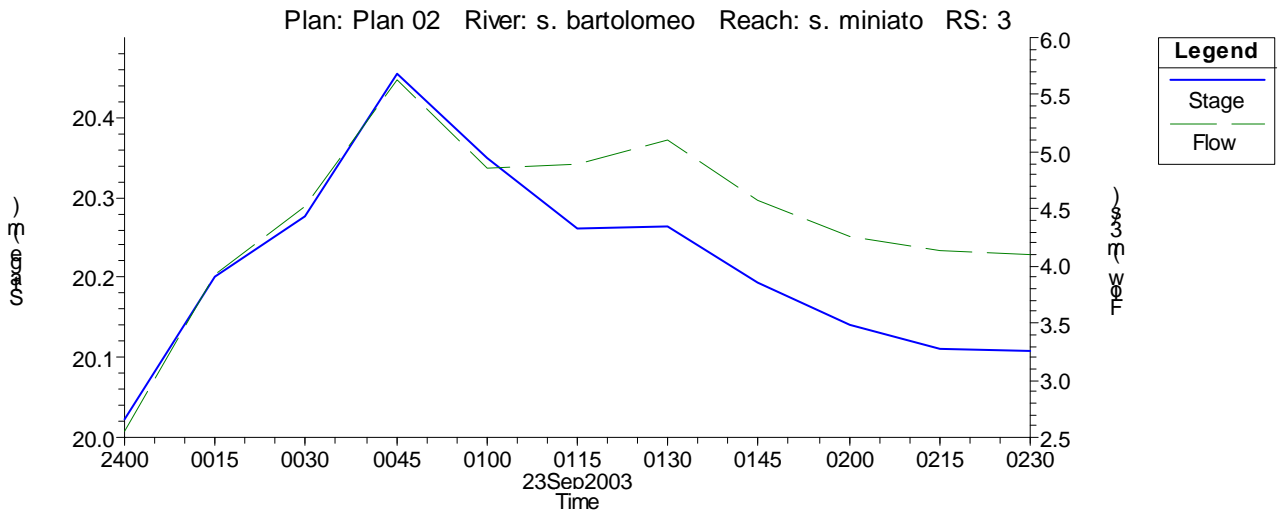
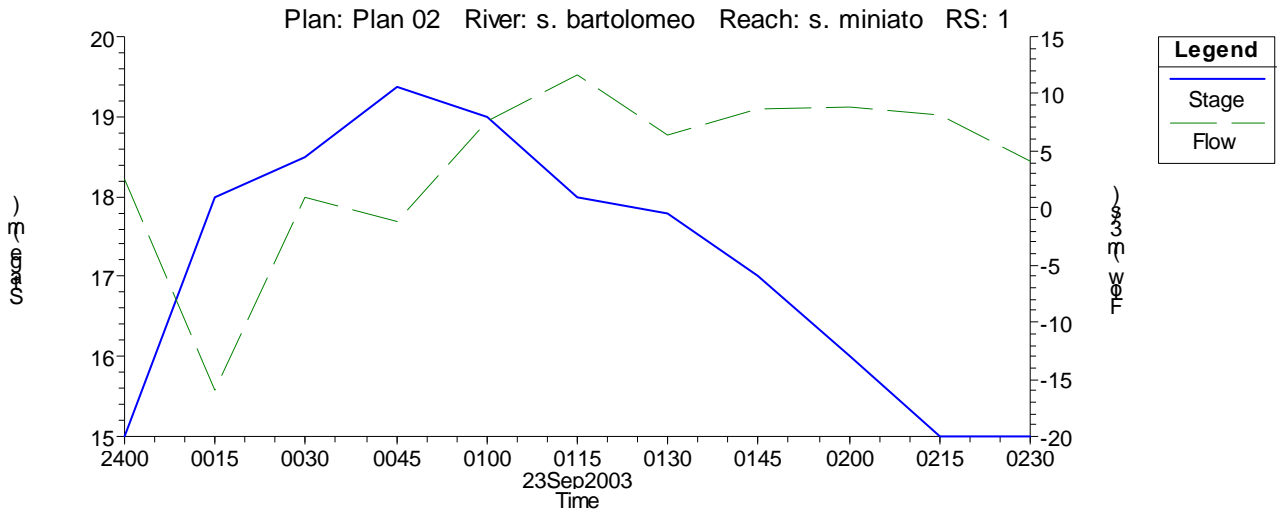
s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 15



s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 16

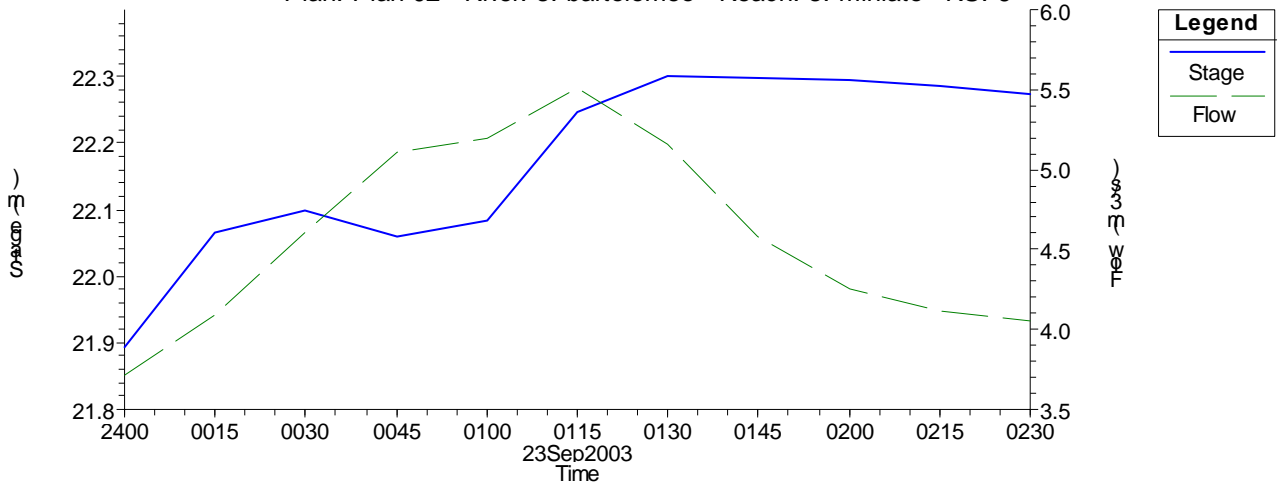




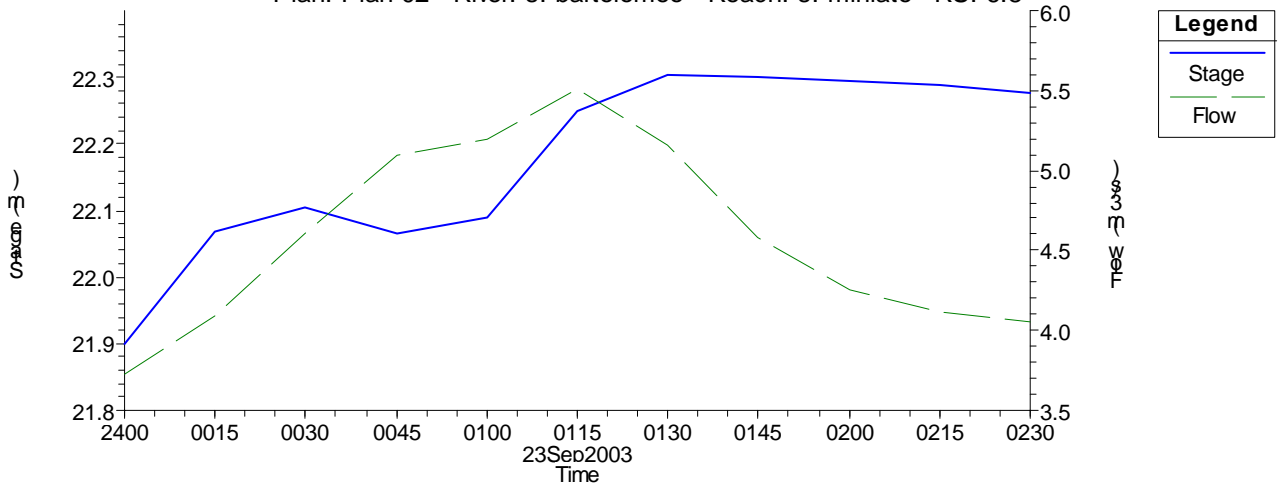




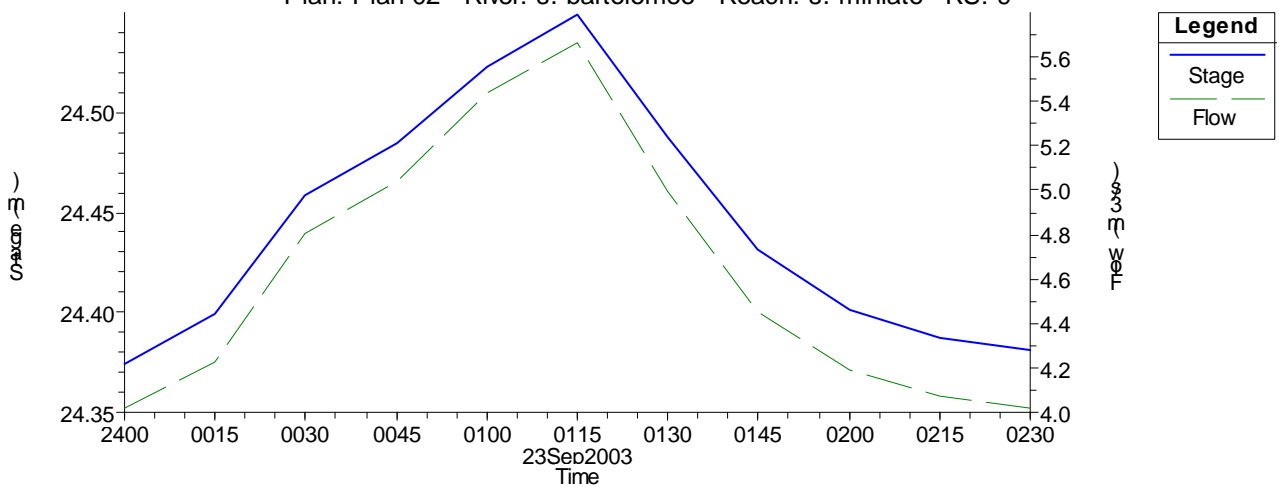
Plan: Plan 02 River: s. bartolomeo Reach: s. miniato RS: 6

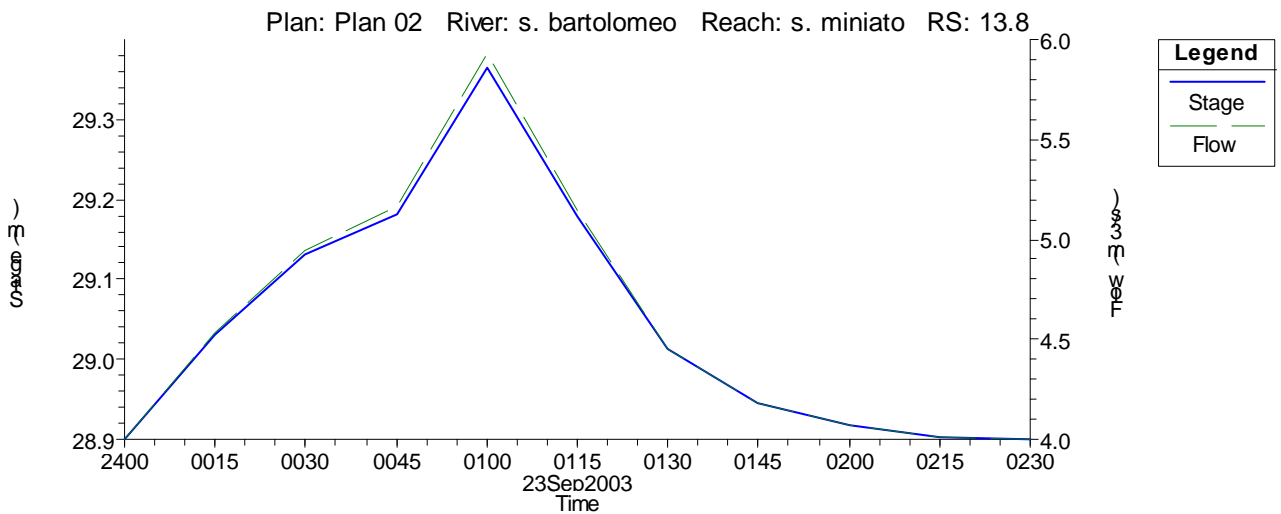
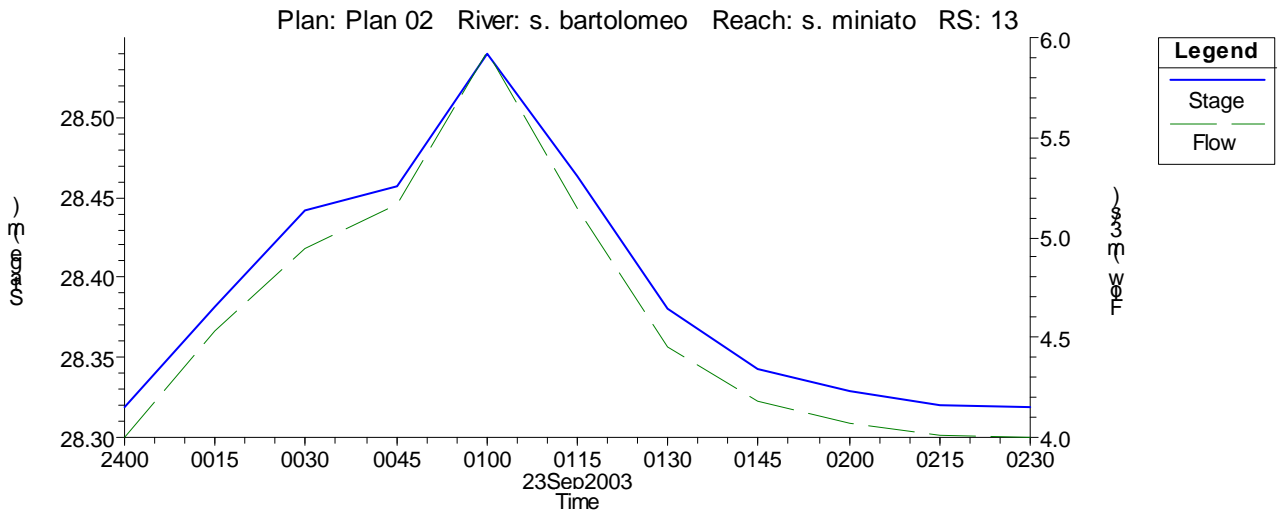
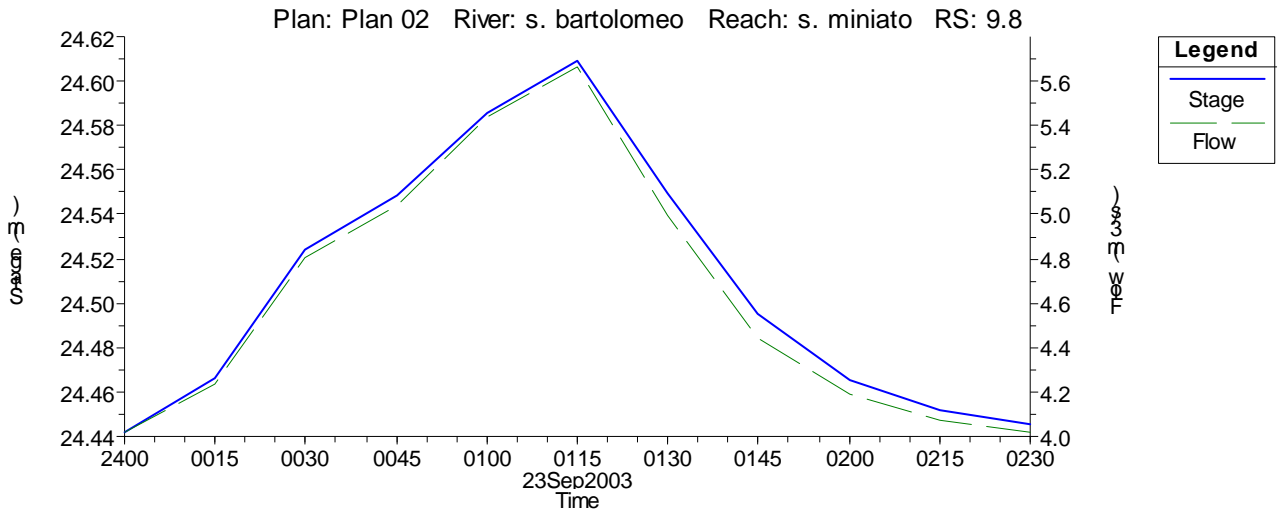


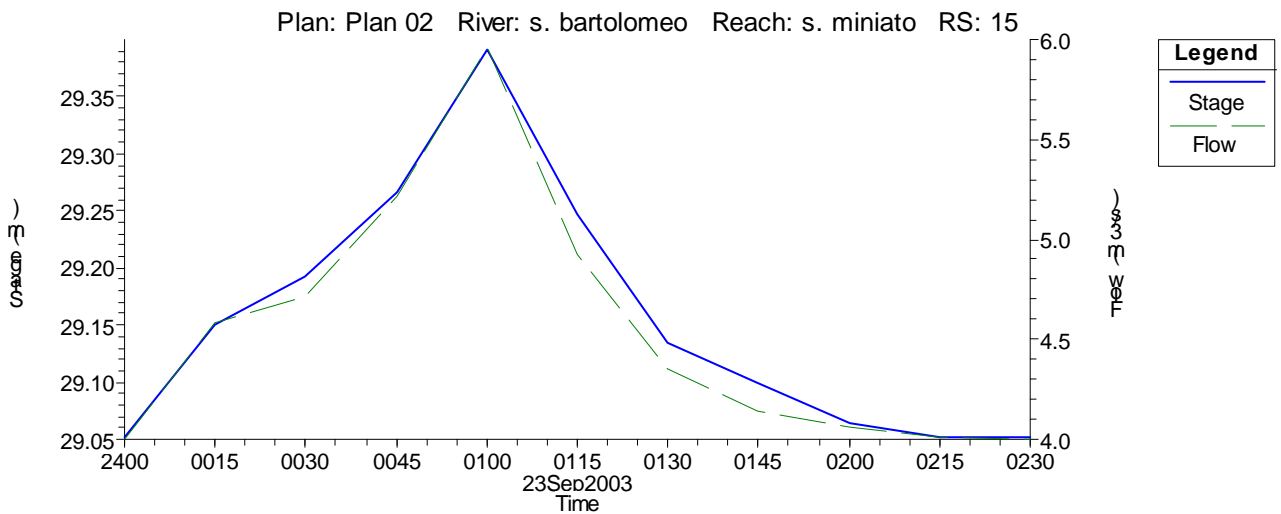
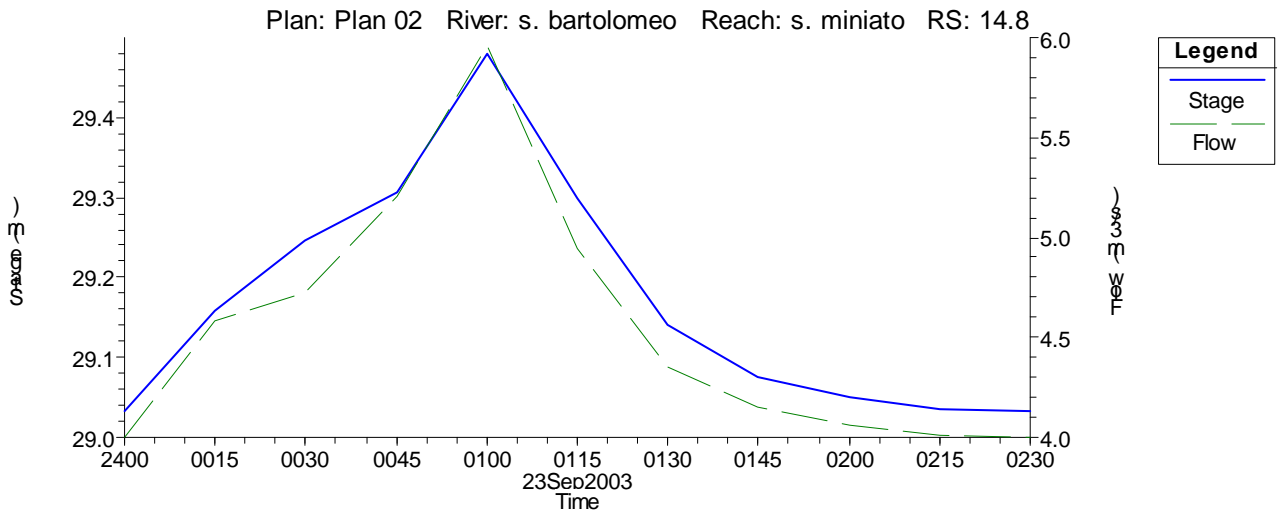
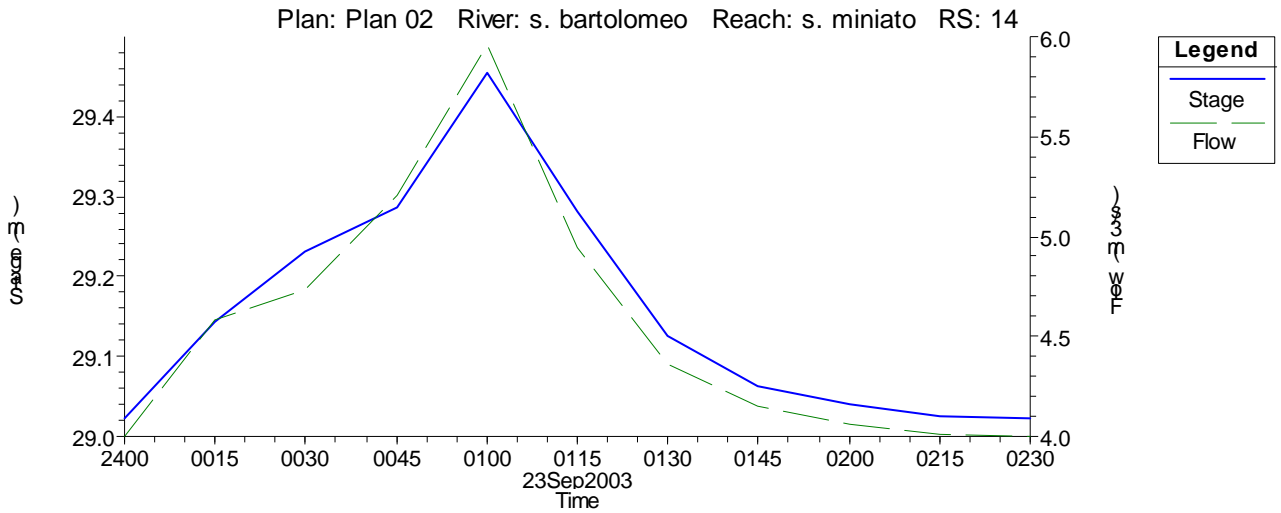
Plan: Plan 02 River: s. bartolomeo Reach: s. miniato RS: 6.8

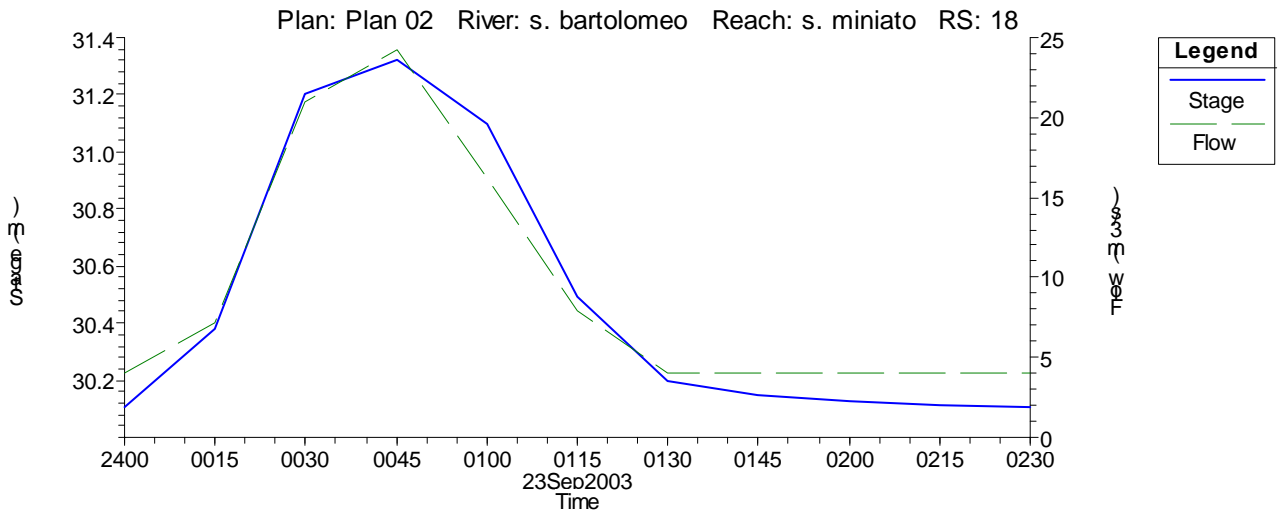
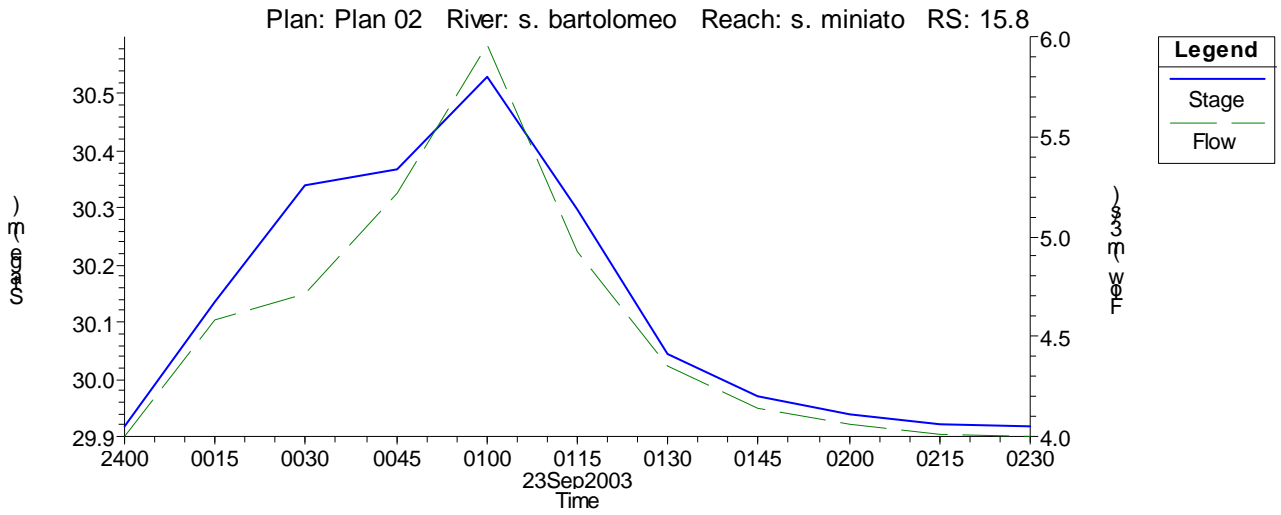


Plan: Plan 02 River: s. bartolomeo Reach: s. miniato RS: 9

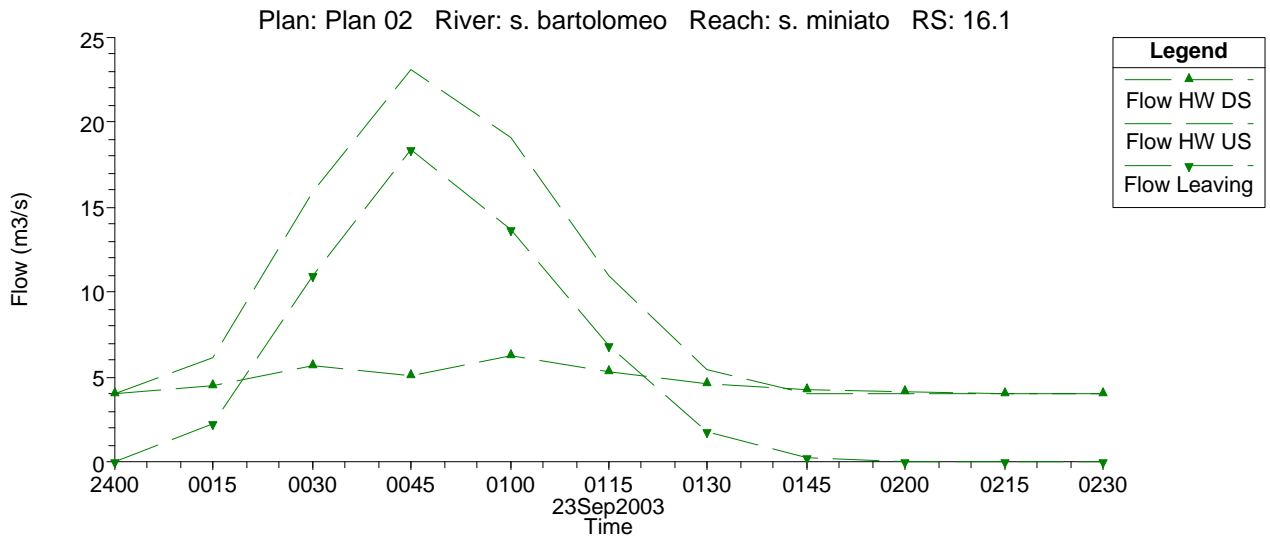
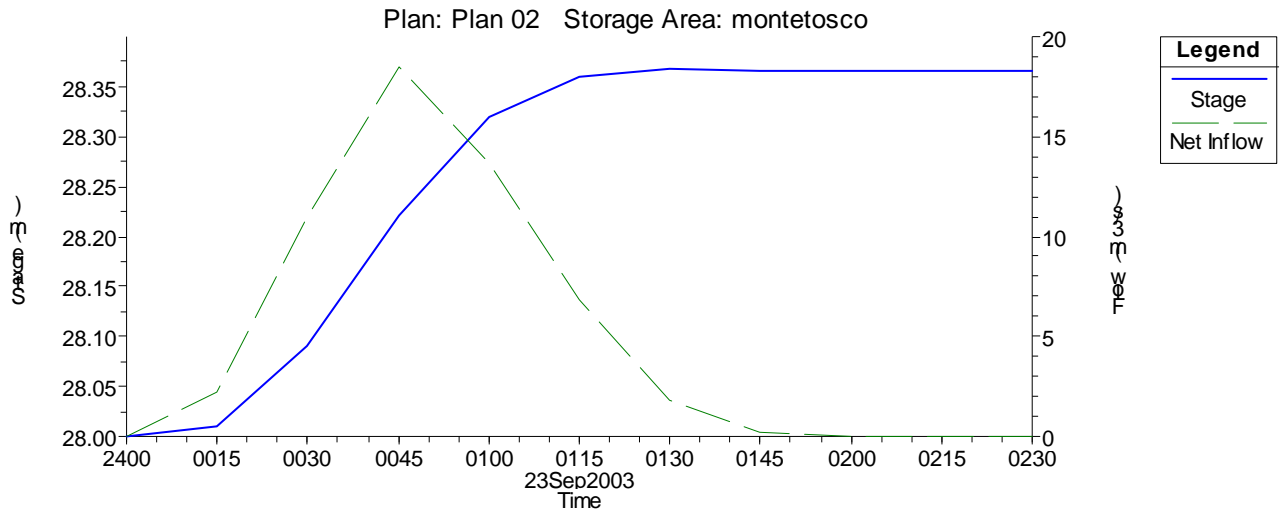














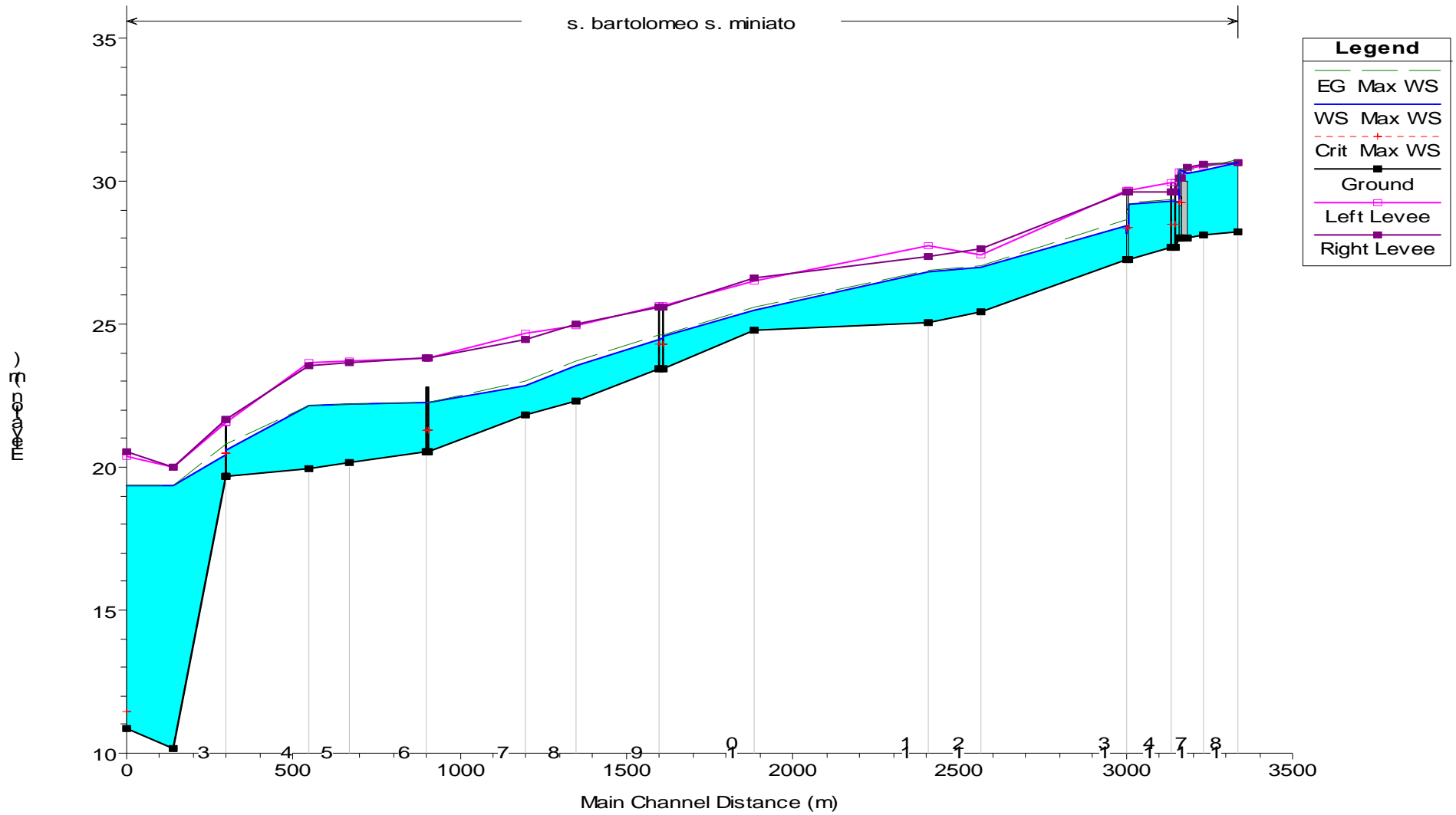
Studio di Ingegneria Dott. Ing. Nicola Croce Prof. Ing. Pietro Croce  
via Carducci, 47 - 56010 Ghezzano (PI) e-mail: croce@interfree.it tel 050 878 716 050 878 507 fax 050 877 994

# TR 20



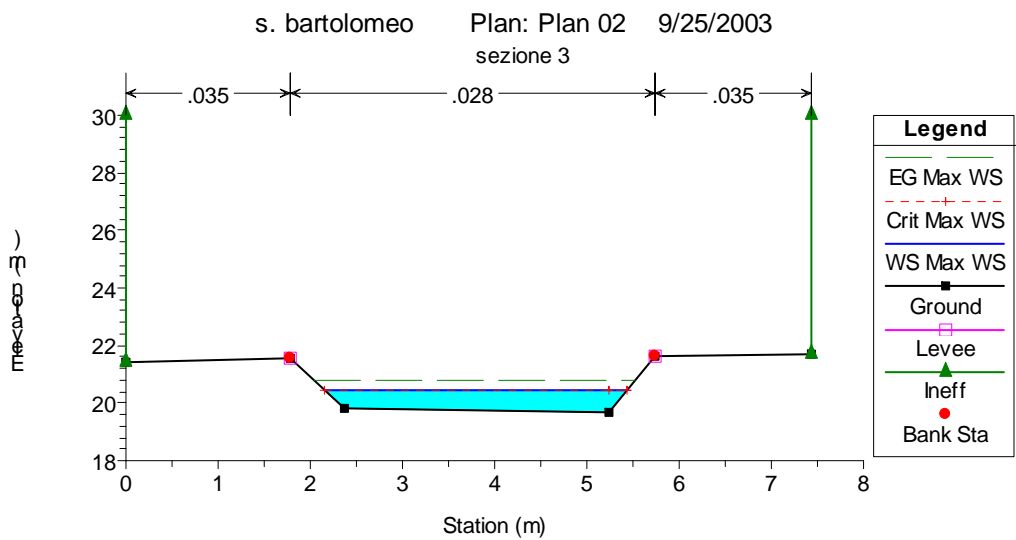
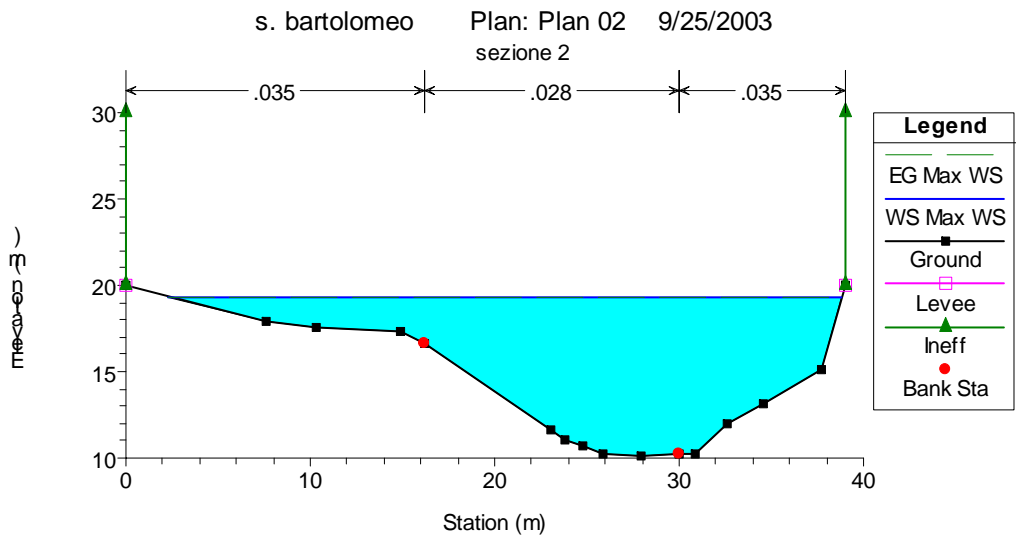
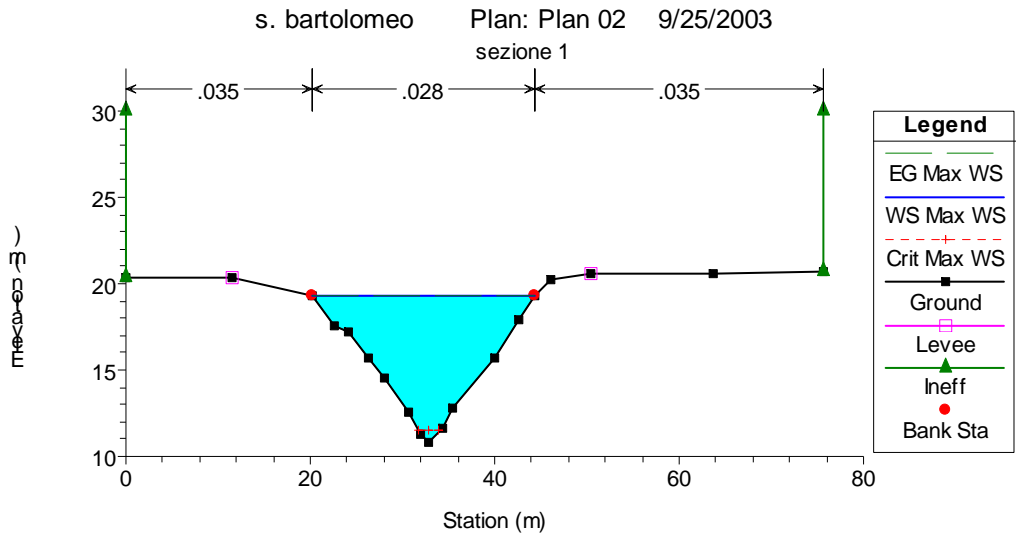
s. bartolomeo Plan: Plan 02 9/25/2003

s. bartolomeo s. miniato



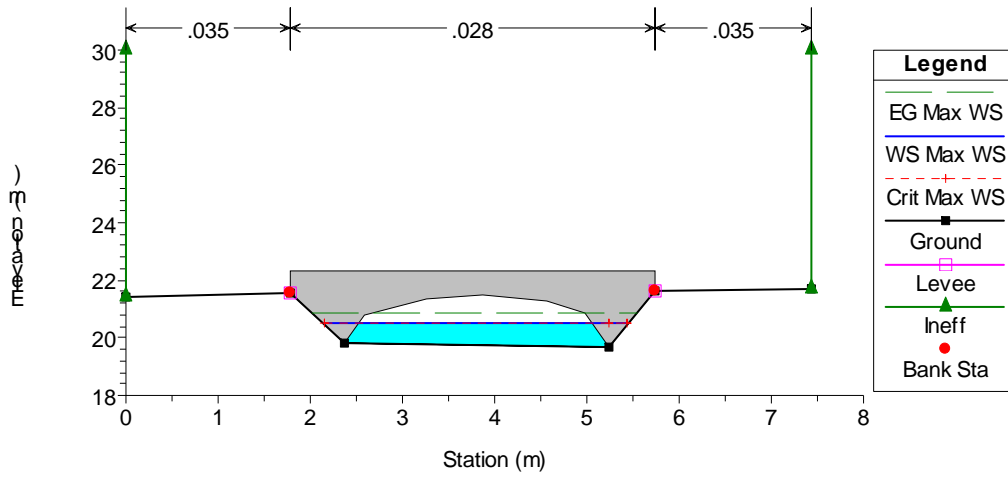


River Sta	Q Total (m3/s)	Min Ch W.S. EI (m)	Elev (m)	E.G. Elev (m)	Vel Chnl (m/s)	Flow Area (m2)	Froude # Chl	Length Chnl (m)	L. Levee Frbrd (m)	R. Levee Frbrd (m)
18	9.25	28.21	30.63	30.74	1.44	6.73	0.39	105	0	0.04
17	8.97	28.11	30.38	30.51	1.59	5.63	0.44	48	0.15	0.19
16	8.37	28.01	30.26	30.38	1.51	5.55	0.42	17.34	0.17	0.21
15.9Lat Struct										
15.8	5.34	28.01	30.4	30.44	0.93	6.03	0.24	8	-0.07	-0.3
15.5Culvert										
15	5.34	28.01	29.27	29.63	2.65	2.02	0.94	12.91	1.06	0.83
14.8	5.26	27.68	29.32	29.35	0.8	6.55	0.23	1	0.63	0.29
14.5Bridge										
14	5.26	27.68	29.3	29.33	0.82	6.45	0.23	130.38	0.65	0.31
13.8	5.21	27.28	29.19	29.24	0.93	5.62	0.27	7	0.47	0.43
13.5Culvert										
13	5.21	27.28	28.46	28.66	1.99	2.62	0.73	437.32	1.2	1.16
12	5.12	25.44	26.99	27.05	1.07	4.78	0.32	154.85	0.42	0.67
11	5.1	25.05	26.8	26.86	1.09	4.69	0.34	526.43	0.93	0.56
10	5.02	24.76	25.5	25.61	1.45	3.46	0.58	272.3	1	1.13
9.8	4.99	23.42	24.54	24.65	1.43	3.49	0.58	1	1.13	1.03
9.5Bridge										
9	4.99	23.42	24.48	24.61	1.59	3.14	0.66	247.03	1.19	1.09
8	4.97	22.32	23.57	23.69	1.49	3.34	0.5	154.94	1.36	1.41
7	4.96	21.82	22.84	23.03	1.94	2.56	0.68	292.86	1.82	1.64
6.8	3.99	20.55	22.24	22.26	0.58	6.93	0.16	1	1.59	1.58
6.5Bridge										
6	3.99	20.55	22.24	22.25	0.58	6.92	0.16	227.33	1.59	1.58
5	3.97	20.15	22.18	22.2	0.53	7.47	0.15	124.54	1.51	1.45
4	3.96	19.95	22.17	22.18	0.42	9.44	0.11	246.25	1.5	1.4
3.8	5.45	19.7	20.57	20.81	2.16	2.52	0.79	1	0.99	1.09
3.5Bridge										
3	5.45	19.7	20.44	20.79	2.6	2.09	1.04	157.31	1.12	1.22
2	2.6	10.17	19.36	19.36	0.02	171.89	0	137.67	0.64	0.64
1	2.6	10.86	19.36	19.36	-0.01	102.6	0		1.03	1.19

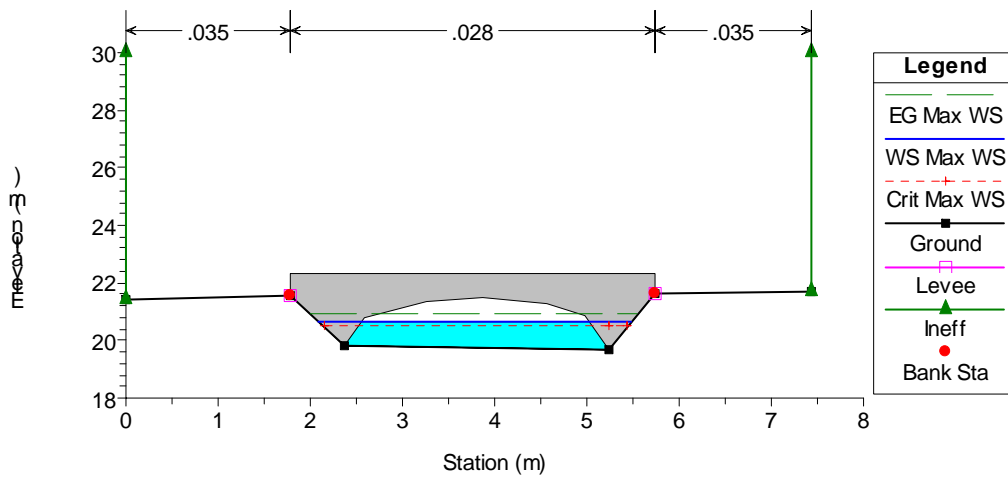




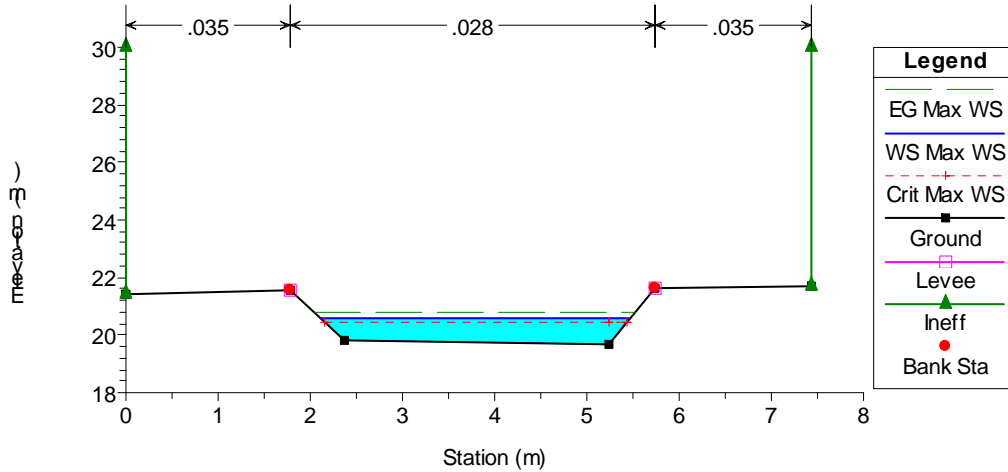
s. bartolomeo Plan: Plan 02 9/25/2003

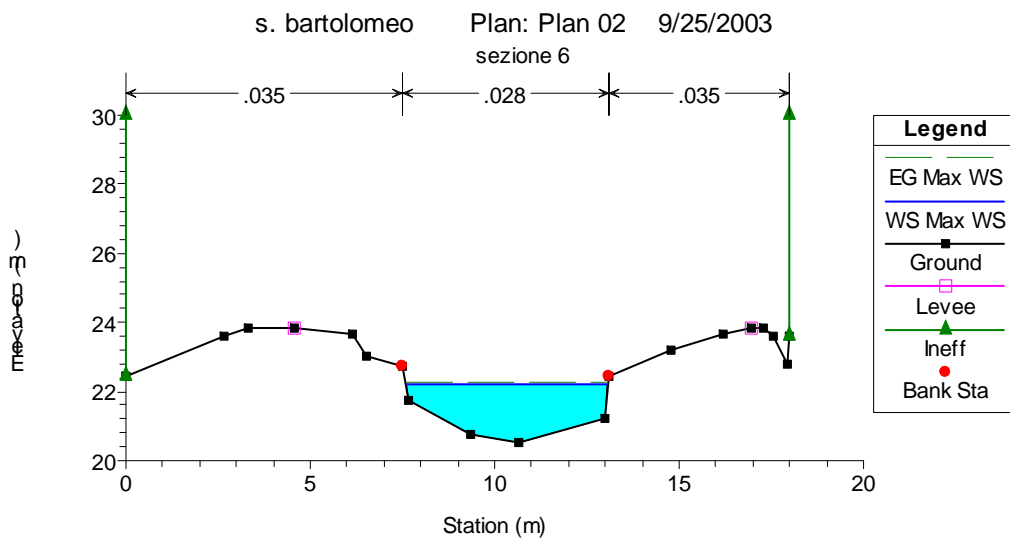
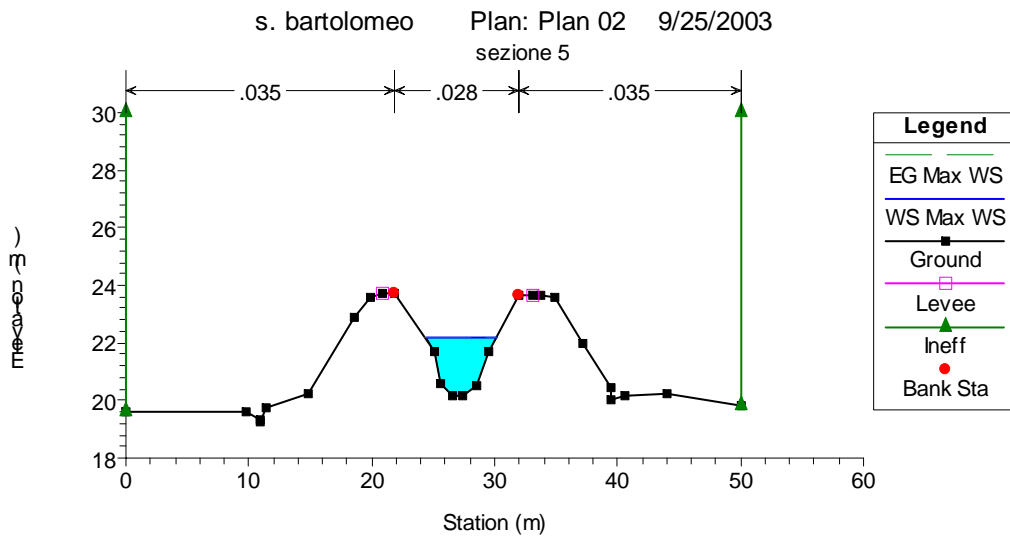
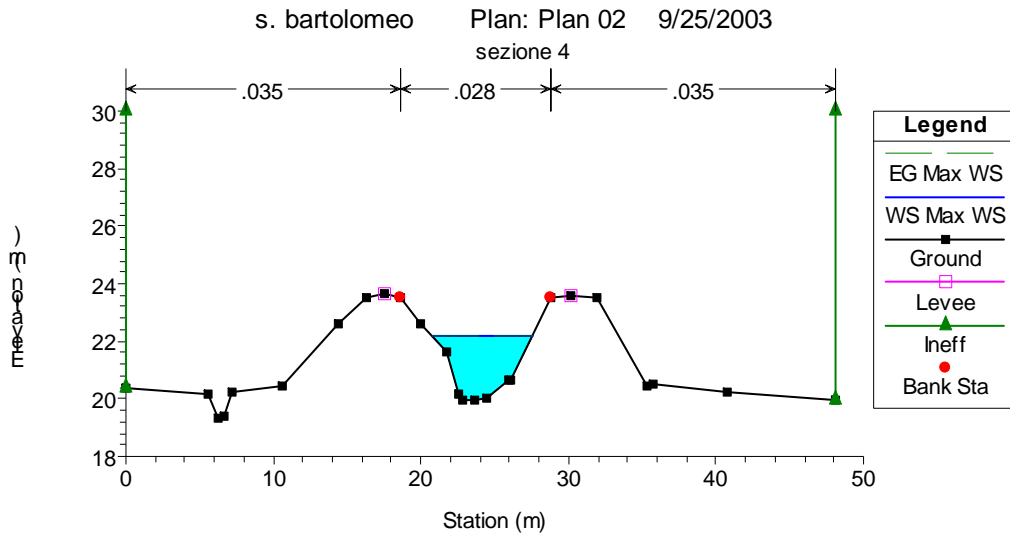


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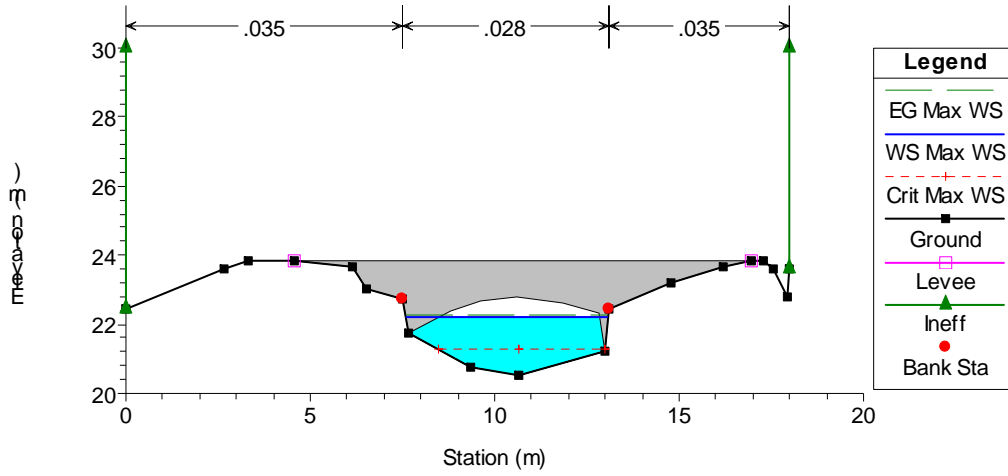
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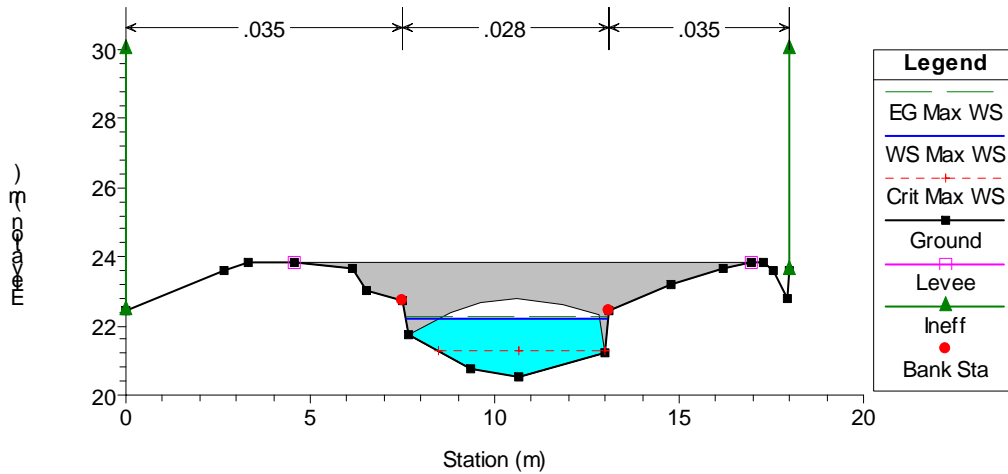




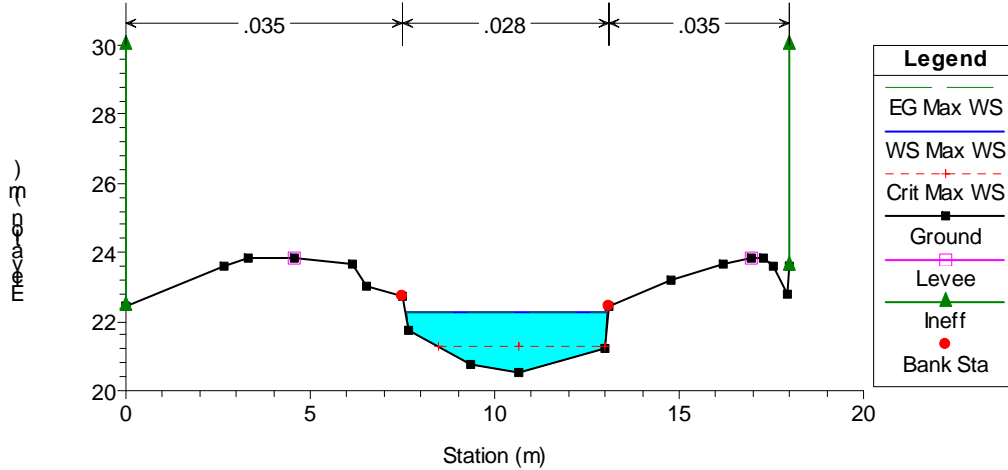
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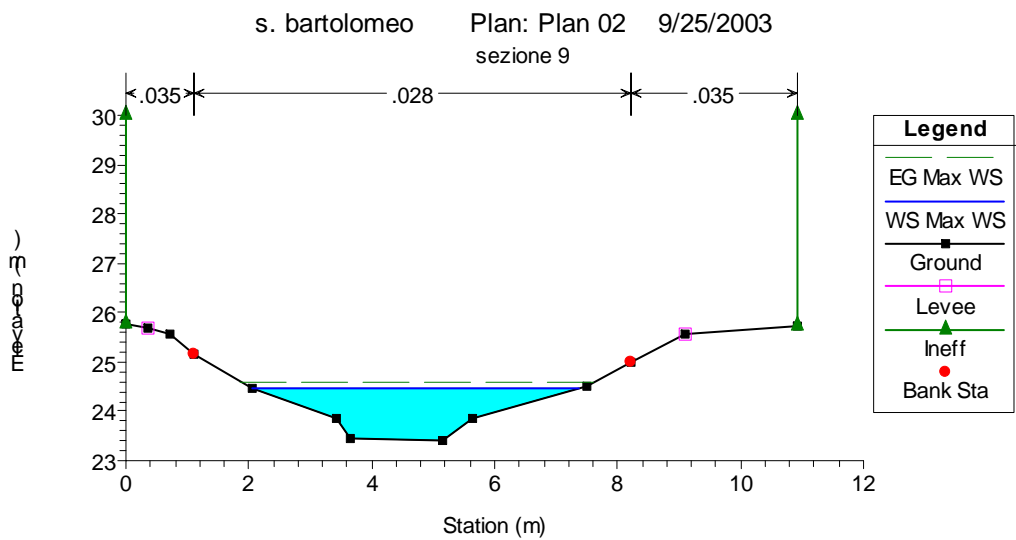
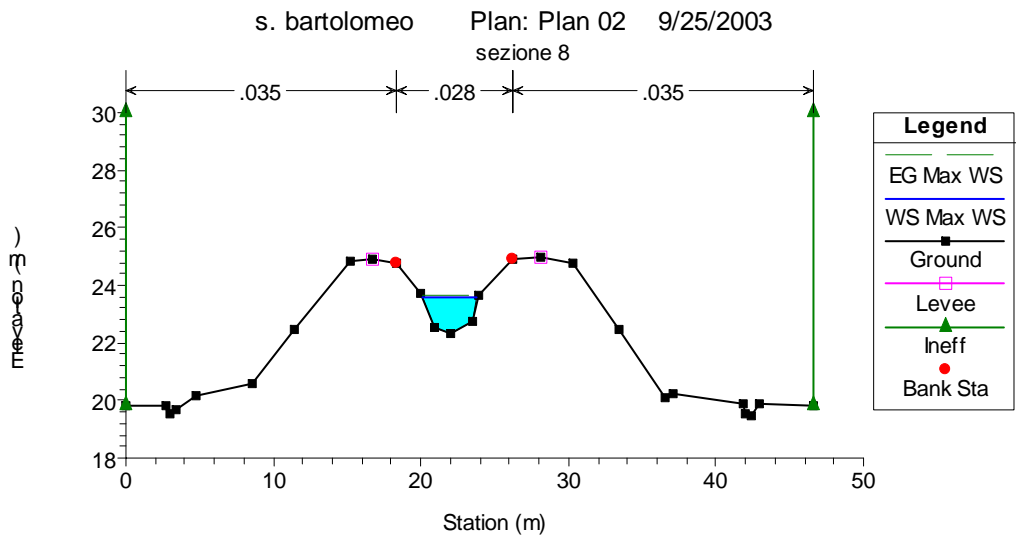
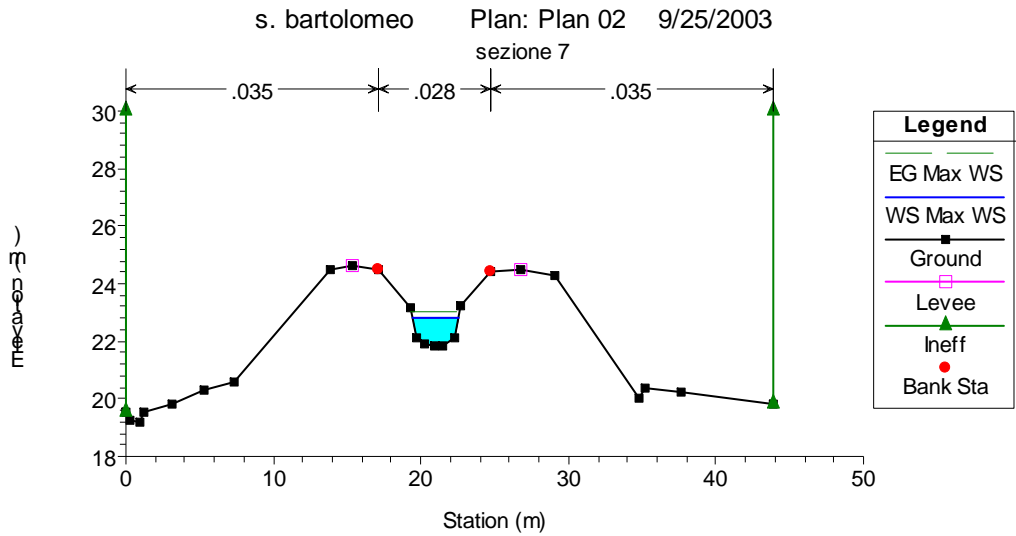
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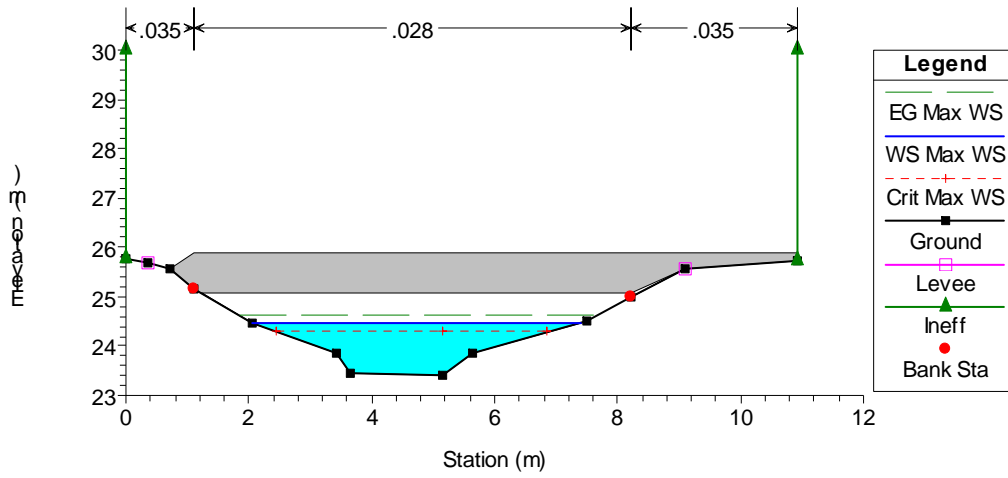




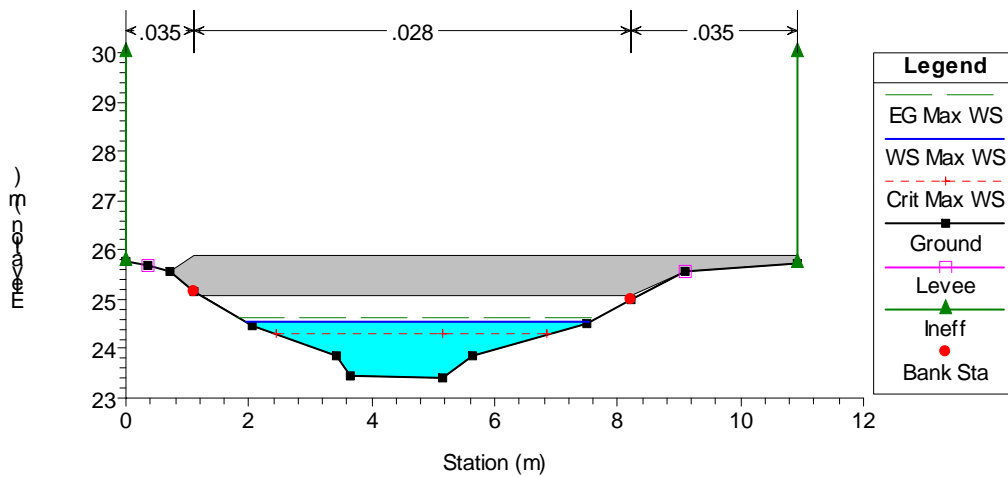




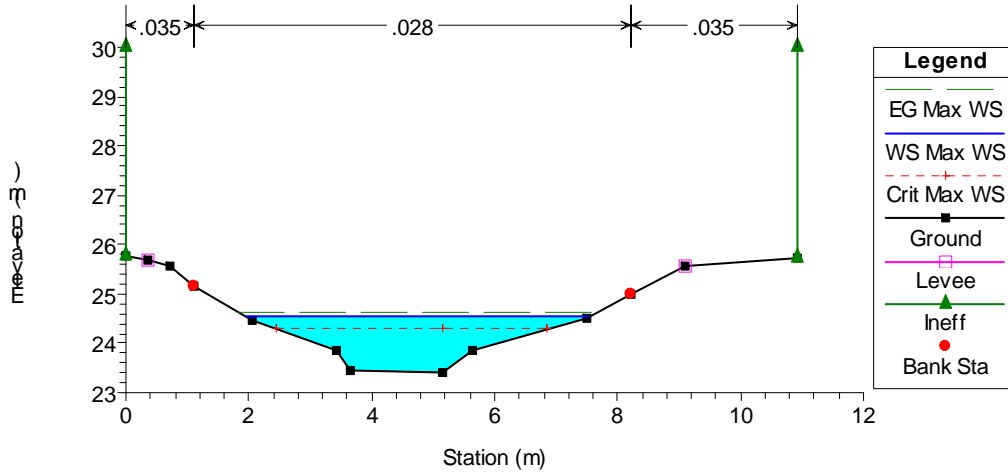
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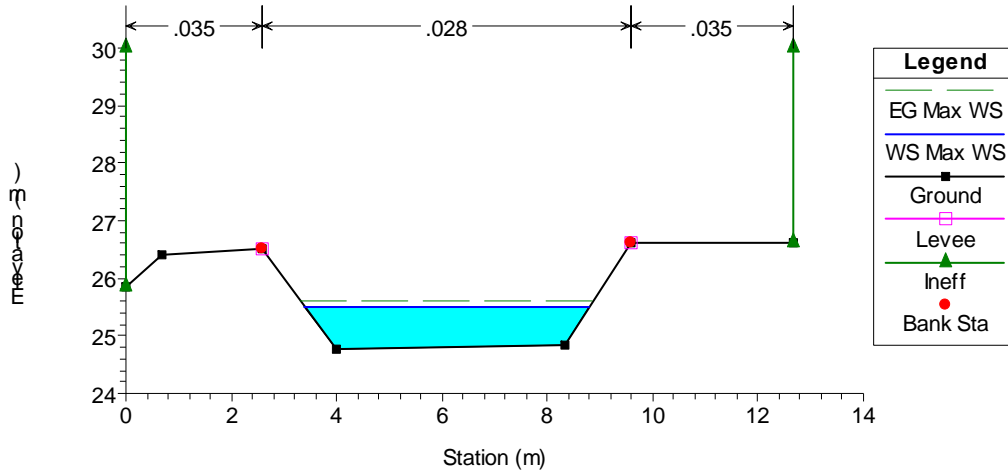


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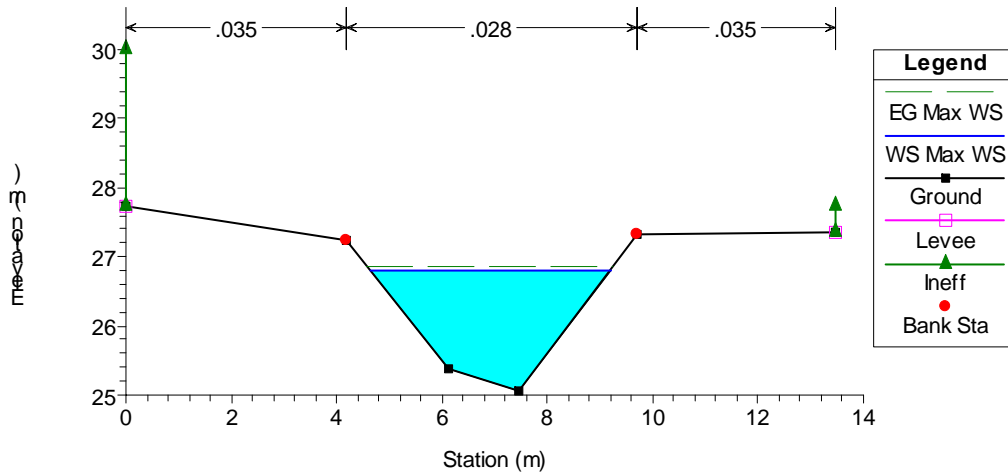




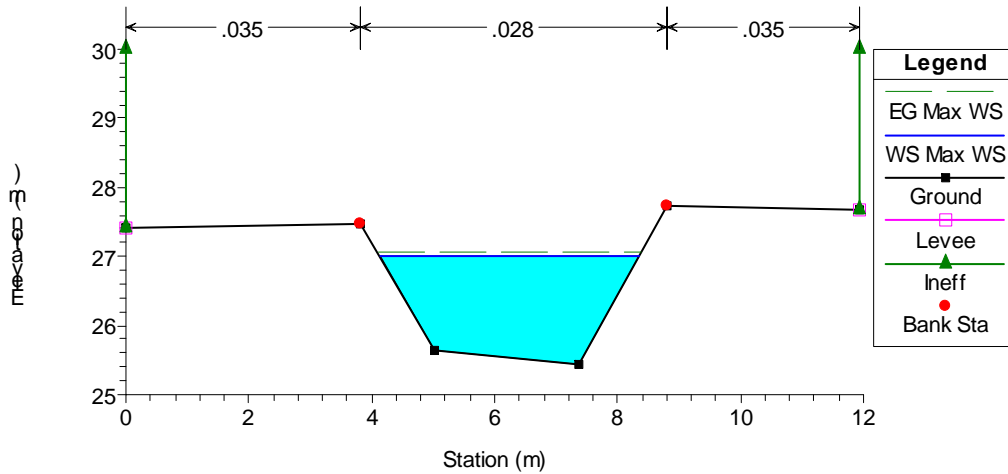
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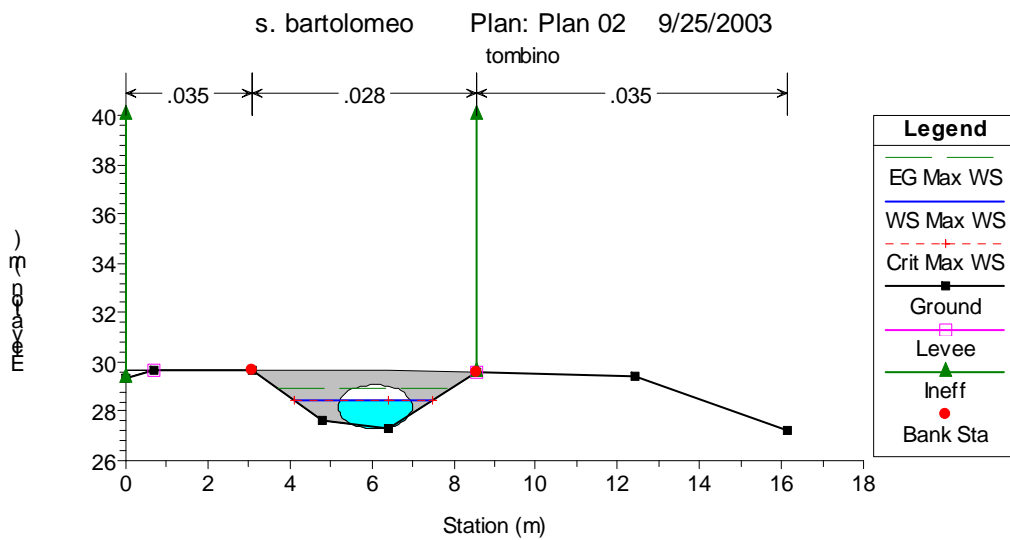
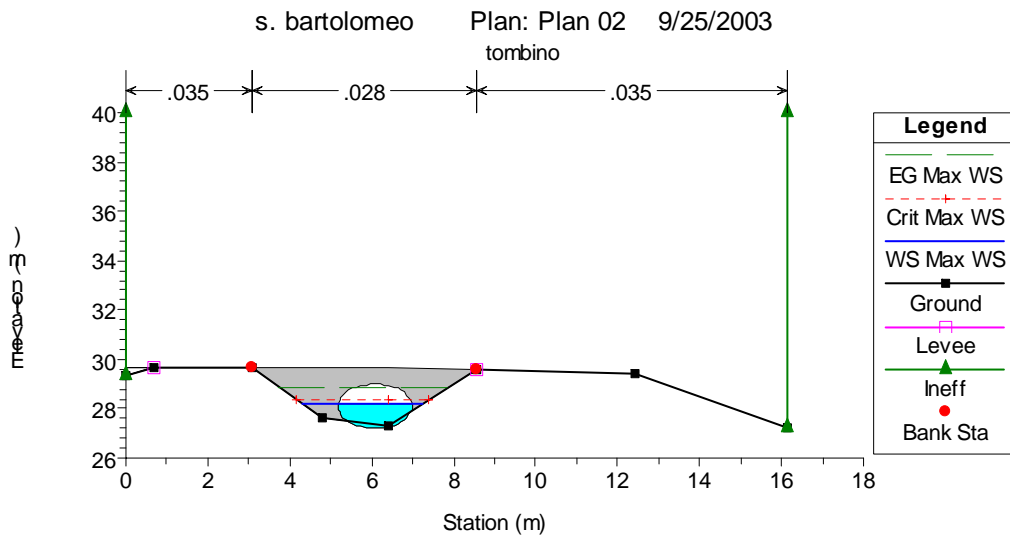
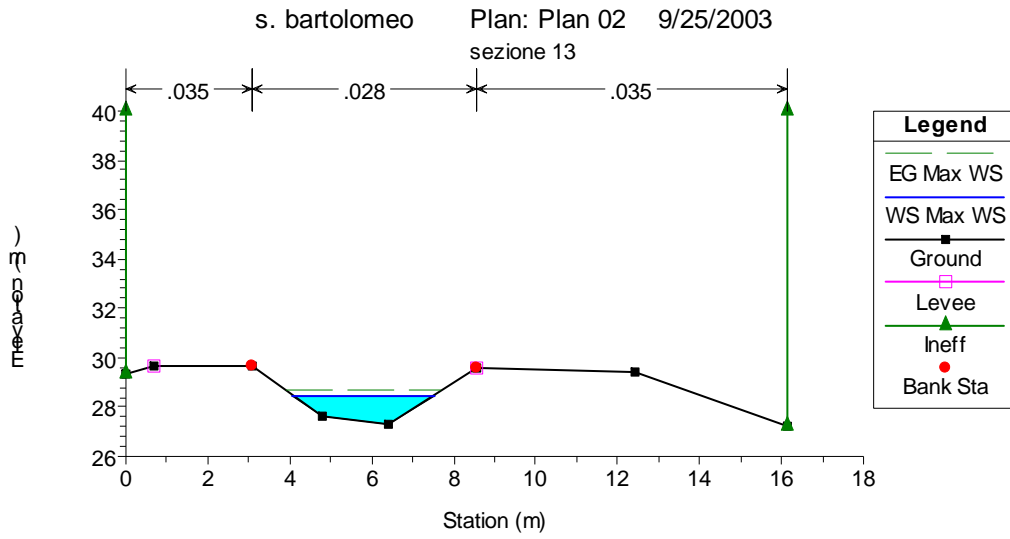


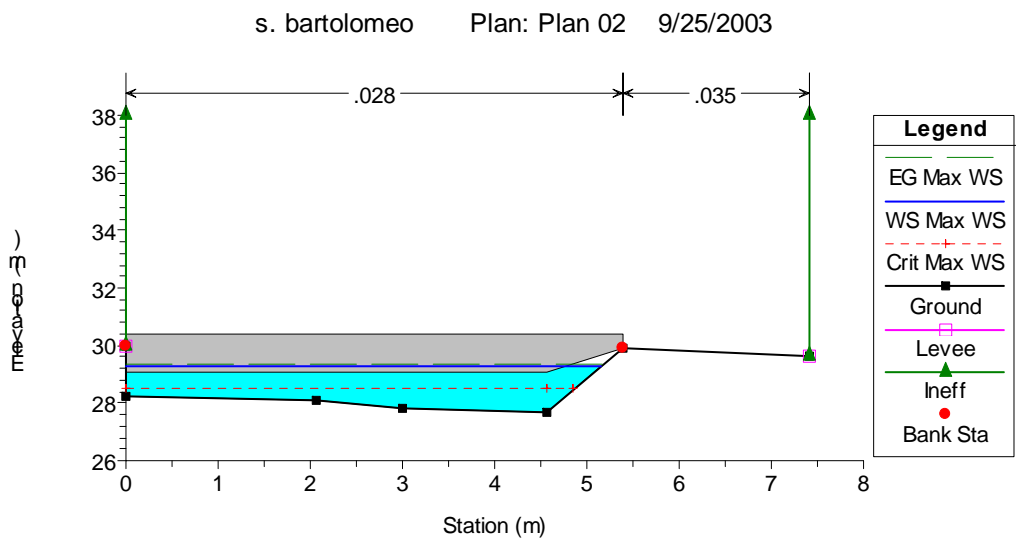
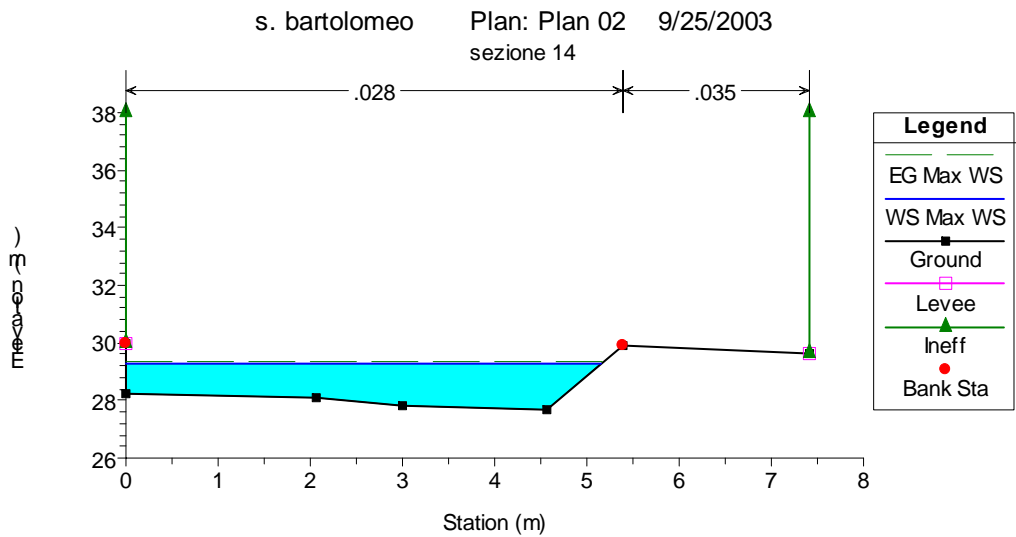
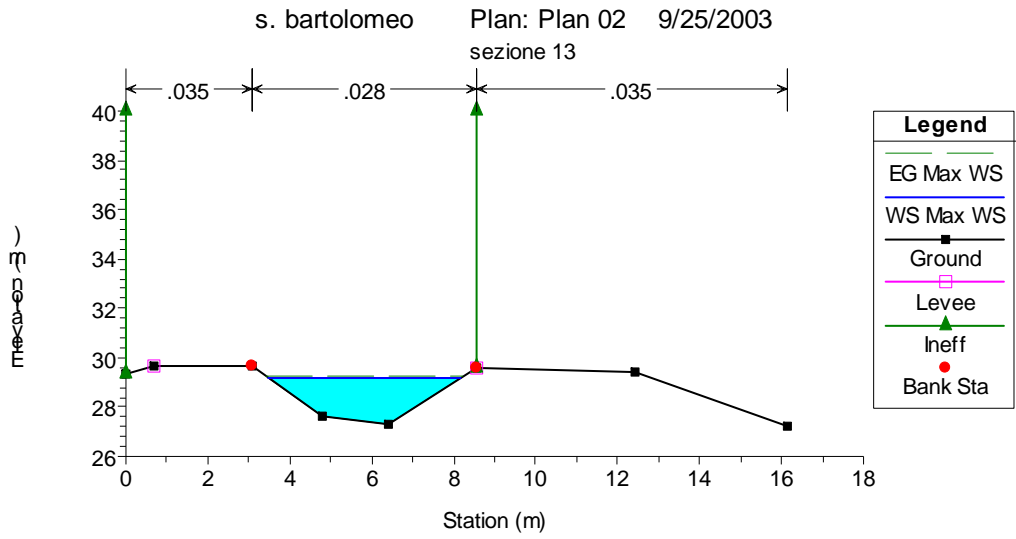
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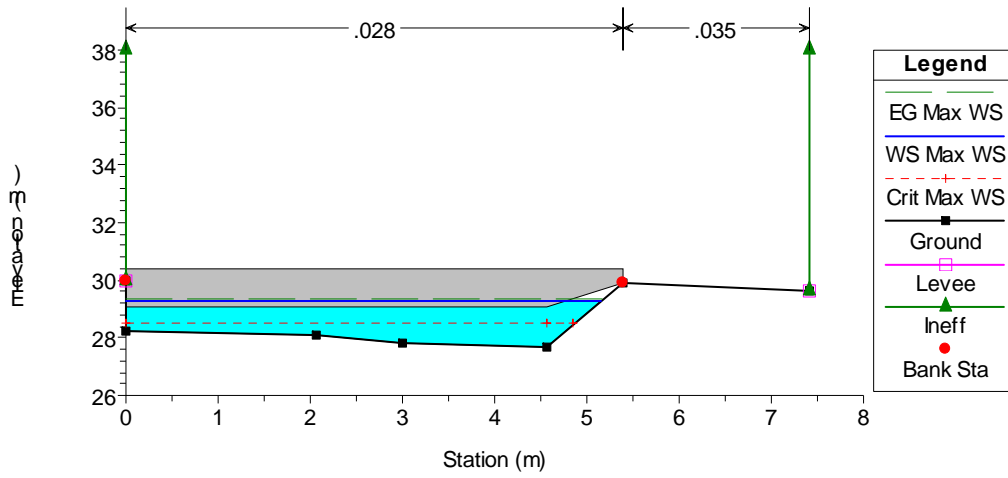




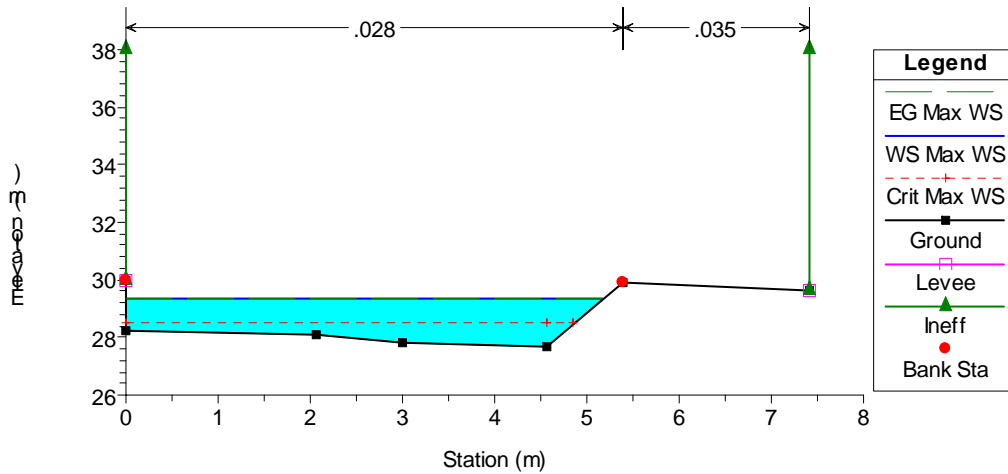




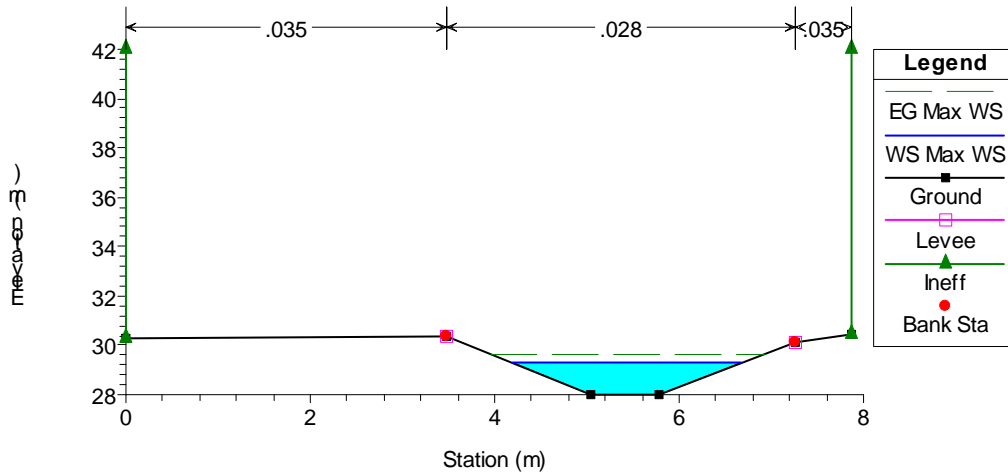
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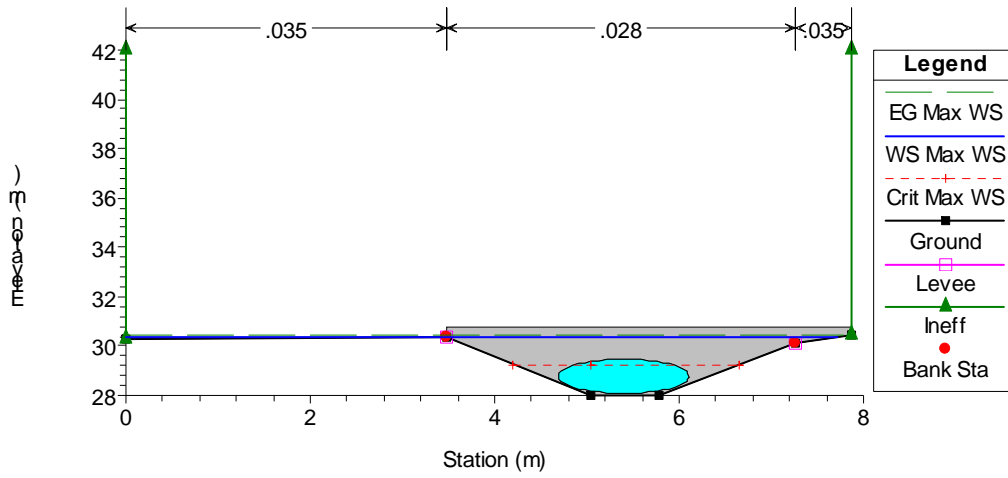


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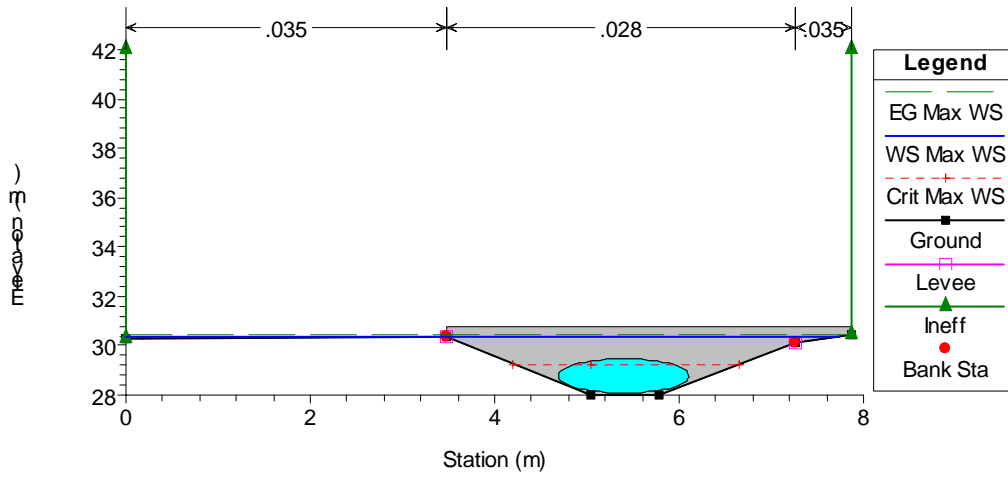




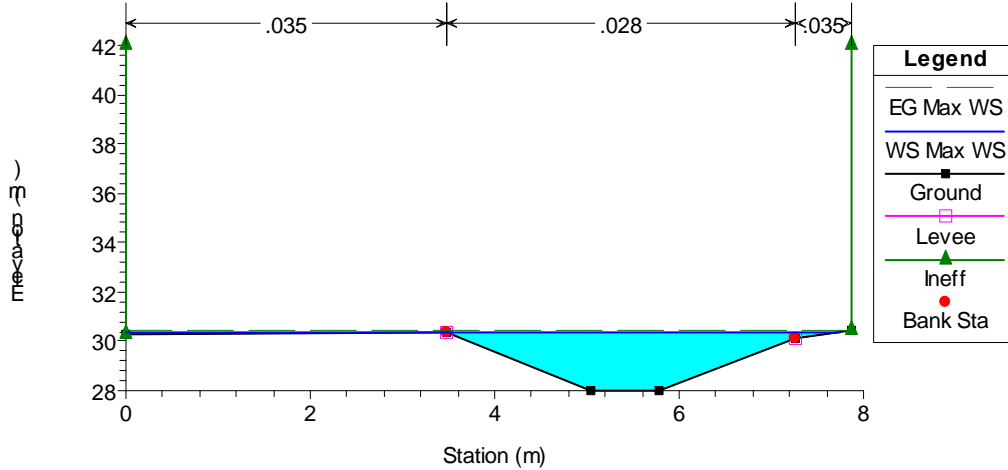
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s. bartolomeo Plan: Plan 02 9/25/2003

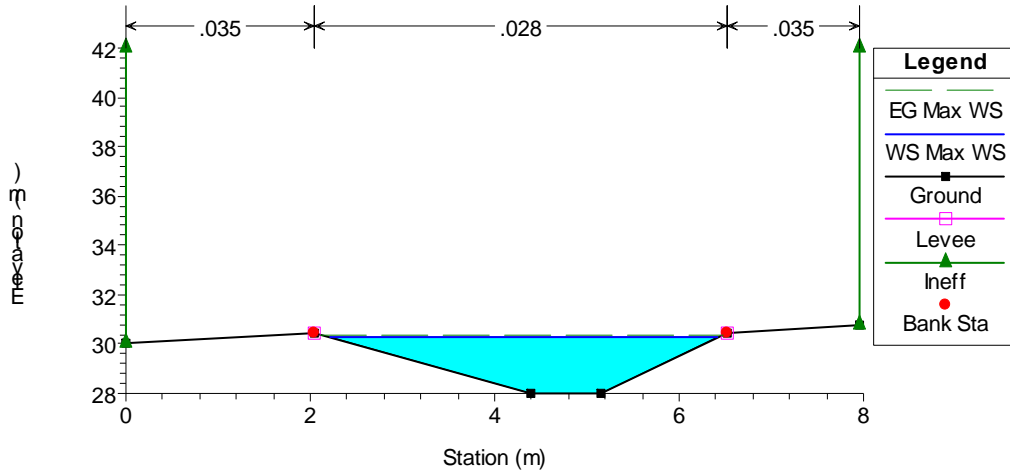


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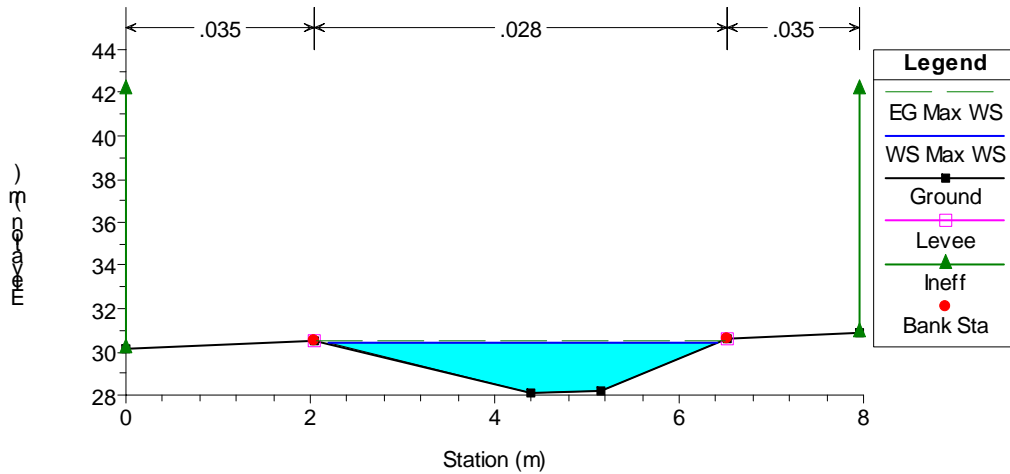




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s. bartolomeo Plan: Plan 02 9/25/2003  
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s. bartolomeo Plan: Plan 02 9/25/2003  
sezione 18

