HEC-RAS Plan: 2008 River: Leminetta Reach: Rio

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)	
Rio	970	Tr=100 anni	17.00	401.31	403.21	403.28	403.88	0.016004	3.91	4.95	4.39	0.96
Rio	970	Tr=200 anni	18.00	401.31	403.26	403.33	403.95	0.016004	3.98	5.15	4.39	0.96
Rio	970	Tr=500 anni	21.00	401.31	403.39	403.46	404.15	0.016003	4.19	5.74	4.39	0.97
Rio	960	Tr=100 anni	17.00	399.67	402.46		402.53	0.001003	1.33	14.52	7.17	0.25
Rio	960	Tr=200 anni	18.00	399.67	402.56		402.64	0.000974	1.34	15.26	7.17	0.25
Rio	960	Tr=500 anni	21.00	399.67	402.72		402.80	0.001083	1.46	16.36	7.17	0.27
Rio	950	Tr=100 anni	17.00	399.64	402.37	401.42	402.52	0.003062	1.87	10.24	7.17	0.36
Rio	950	Tr=200 anni	18.00	399.64	402.48	401.87	402.63	0.002768	1.83	11.05	7.17	0.35
Rio	950	Tr=500 anni	21.00	399.64	402.63	401.97	402.79	0.002884	1.93	12.12	7.17	0.36
Rio	945		Culvert									
Rio	940	Tr=100 anni	17.00	399.57	401.51	401.34	402.25	0.019989	3.81	4.61	7.17	0.87
Rio	940	Tr=200 anni	18.00	399.57	401.80	401.80	402.23	0.010940	3.09	6.63	7.17	0.66
Rio	940	Tr=500 anni	21.00	399.57	401.90	401.90	402.37	0.011319	3.24	7.41	7.17	0.68
Rio	930	Tr=100 anni	17.00	398.16	400.36	400.47	401.02	0.018797	3.83	4.97	4.90	0.93
Rio	930	Tr=200 anni	18.00	398.16	400.40	400.51	401.08	0.018645	3.88	5.19	4.90	0.93
Rio	930	Tr=500 anni	21.00	398.16	400.55	400.62	401.25	0.017546	3.97	5.93	4.90	0.92
Rio	920	Tr=100 anni	17.00	397.89	400.16		400.28	0.001543	1.66	11.72	7.99	0.35
Rio	920	Tr=200 anni	18.00	397.89	400.22		400.34	0.001545	1.69	12.18	7.99	0.35
Rio	920	Tr=500 anni	21.00	397.89	400.38		400.51	0.001574	1.79	13.46	7.99	0.36
Rio	910	Tr=100 anni	17.00	397.87	400.16	399.51	400.28	0.001488	1.64	11.86	7.99	0.35
Rio	910	Tr=200 anni	18.00	397.87	400.22	399.55	400.34	0.001491	1.67	12.33	7.99	0.35
Rio	910	Tr=500 anni	21.00	397.87	400.38	399.64	400.51	0.001524	1.77	13.60	7.99	0.36
Rio	905		Bridge									
Rio	900	Tr=100 anni	17.00	397.81	400.13		400.24	0.001400	1.61	12.12	7.99	0.34
Rio	900	Tr=200 anni	18.00	397.81	400.19		400.30	0.001404	1.64	12.59	7.99	0.34
Rio	900	Tr=500 anni	21.00	397.81	400.35		400.48	0.001439	1.73	13.88	7.99	0.35

HEC-RAS Plan: 2008 River: Leminetta Reach: Rio (Continued)

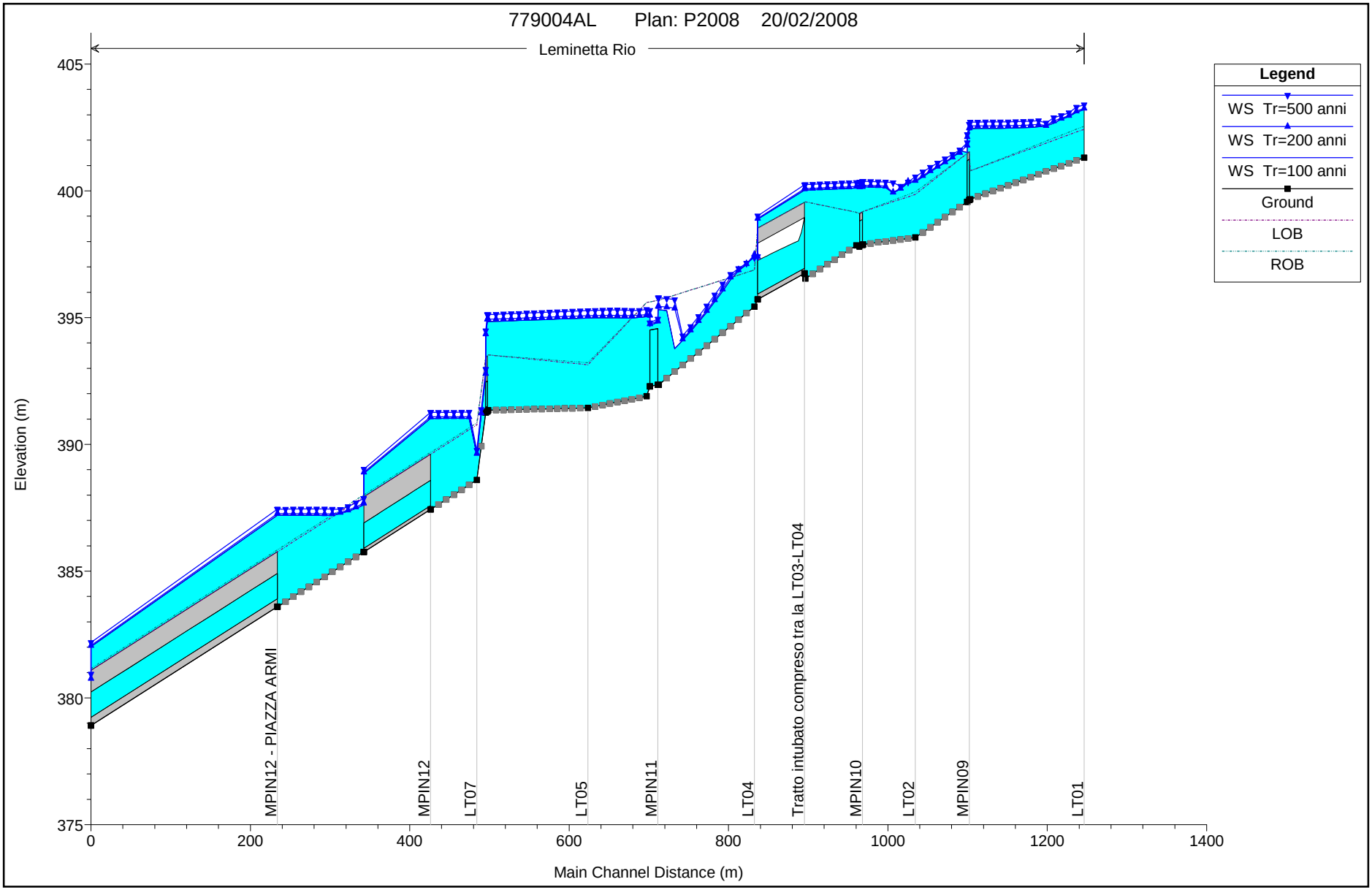
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Rio	890	Tr=100 anni	17.00	397.85	400.11		400.23	0.001584	1.68	11.61	7.99	0.36
Rio	890	Tr=200 anni	18.00	397.85	400.17		400.30	0.001581	1.71	12.09	7.99	0.36
Rio	890	Tr=500 anni	21.00	397.85	400.33		400.47	0.001603	1.80	13.37	7.99	0.36
Rio	880	Tr=100 anni	17.00	396.54	400.04		400.14	0.001249	1.45	12.91	7.99	0.25
Rio	880	Tr=200 anni	18.00	396.54	400.09		400.20	0.001284	1.49	13.37	7.99	0.25
Rio	880	Tr=500 anni	21.00	396.54	400.25		400.37	0.001392	1.59	14.63	7.99	0.26
Rio	870	Tr=100 anni	17.00	396.74	400.02	398.21	400.13	0.001412	1.53	12.30	7.99	0.27
Rio	870	Tr=200 anni	18.00	396.74	400.08	398.26	400.20	0.001443	1.56	12.77	7.99	0.27
Rio	870	Tr=500 anni	21.00	396.74	400.24	398.43	400.37	0.001546	1.67	14.02	7.99	0.28
Rio	865		Culvert									
Rio	860	Tr=100 anni	17.00	395.72	397.41		397.97	0.010805	3.32	5.13	3.04	0.82
Rio	860	Tr=200 anni	18.00	395.72	397.41		398.03	0.012032	3.50	5.14	3.04	0.86
Rio	860	Tr=500 anni	21.00	395.72	397.41	397.41	398.26	0.016410	4.09	5.14	3.04	1.00
Rio	850	Tr=100 anni	17.00	395.43	397.45	397.45	397.91	0.003687	3.23	6.04	6.17	0.81
Rio	850	Tr=200 anni	18.00	395.43	397.49	397.49	397.97	0.003730	3.30	6.26	6.17	0.81
Rio	850	Tr=500 anni	21.00	395.43	397.37	397.59	398.22	0.007277	4.38	5.50	6.17	1.12
Rio	840	Tr=100 anni	17.00	392.36	395.31		395.47	0.000913	1.74	9.75	3.30	0.32
Rio	840	Tr=200 anni	18.00	392.36	395.44		395.60	0.000919	1.77	10.18	3.30	0.32
Rio	840	Tr=500 anni	21.00	392.36	395.79		395.96	0.000929	1.84	11.69	7.38	0.32
Rio	830	Tr=100 anni	17.00	392.35	395.31	393.74	395.46	0.001122	1.74	9.77	3.30	0.32
Rio	830	Tr=200 anni	18.00	392.35	395.44	393.79	395.60	0.001130	1.76	10.20	3.30	0.32
Rio	830	Tr=500 anni	21.00	392.35	395.79	393.95	395.96	0.001140	1.84	11.73	7.47	0.32
Rio	825		Bridge									
Rio	820	Tr=100 anni	17.00	392.29	395.01		395.19	0.001387	1.90	8.97	3.30	0.37
Rio	820	Tr=200 anni	18.00	392.29	395.09		395.29	0.001437	1.94	9.26	3.30	0.37

HEC-RAS Plan: 2008 River: Leminetta Reach: Rio (Continued)

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)	
Rio	820	Tr=500 anni	21.00	392.29	395.29		395.52	0.001658	2.12	9.90	3.30	0.39
Rio	810	Tr=100 anni	17.00	391.90	395.03		395.17	0.000971	1.64	10.36	3.30	0.30
Rio	810	Tr=200 anni	18.00	391.90	395.12		395.27	0.001017	1.69	10.65	3.30	0.30
Rio	810	Tr=500 anni	21.00	391.90	395.32		395.50	0.001198	1.86	11.30	3.30	0.32
Rio	800	Tr=100 anni	17.00	391.44	394.98		395.06	0.000664	1.31	14.71	5.33	0.23
Rio	800	Tr=200 anni	18.00	391.44	395.07		395.16	0.000676	1.34	15.21	5.33	0.24
Rio	800	Tr=500 anni	21.00	391.44	395.28		395.38	0.000749	1.47	16.30	5.33	0.25
Rio	790	Tr=100 anni	17.00	391.34	394.84		394.94	0.001144	1.43	13.12	5.00	0.24
Rio	790	Tr=200 anni	18.00	391.34	394.93		395.03	0.001166	1.47	13.57	5.00	0.25
Rio	790	Tr=500 anni	21.00	391.34	395.12		395.24	0.001314	1.61	14.50	5.00	0.26
Rio	780	Tr=100 anni	17.00	391.30	394.84	392.78	394.94	0.001089	1.40	13.35	5.00	0.24
Rio	780	Tr=200 anni	18.00	391.30	394.93	392.84	395.03	0.001112	1.44	13.80	5.00	0.24
Rio	780	Tr=500 anni	21.00	391.30	395.12	393.00	395.24	0.001257	1.59	14.73	5.00	0.26
Rio	775		Culvert									
Rio	770	Tr=100 anni	17.00	391.26	392.74	392.74	393.48	0.019525	3.83	4.44	3.00	1.00
Rio	770	Tr=200 anni	18.00	391.26	392.80	392.80	393.57	0.019632	3.89	4.63	3.00	1.00
Rio	770	Tr=500 anni	21.00	391.26	392.96	392.96	393.82	0.020502	4.11	5.11	3.00	1.00
Rio	760	Tr=100 anni	17.00	388.60	389.60	390.39	392.55	0.118175	7.61	2.23	2.53	2.59
Rio	760	Tr=200 anni	18.00	388.60	389.64	390.45	392.64	0.115878	7.68	2.34	2.54	2.55
Rio	760	Tr=500 anni	21.00	388.60	389.77	390.63	392.91	0.110138	7.85	2.67	2.56	2.45
Rio	750	Tr=100 anni	17.00	387.44	391.03	389.22	391.12	0.001218	1.46	13.06	5.50	0.26
Rio	750	Tr=200 anni	18.00	387.44	391.09	389.29	391.19	0.001270	1.51	13.40	5.50	0.26
Rio	750	Tr=500 anni	21.00	387.44	391.26	389.47	391.38	0.001424	1.66	14.36	5.50	0.28
Rio	745		Culvert									
Rio	740	Tr=100 anni	17.00	385.76	387.61	387.54	388.35	0.018459	3.79	4.48	2.73	0.94

HEC-RAS Plan: 2008 River: Leminetta Reach: Rio (Continued)

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)	
Rio	740	Tr=200 anni	18.00	385.76	387.68	387.61	388.44	0.018642	3.85	4.67	2.73	0.94
Rio	740	Tr=500 anni	21.00	385.76	387.87	387.79	388.71	0.019352	4.04	5.19	2.76	0.94
Rio	730	Tr=100 anni	17.00	385.76	387.61	387.54	388.35	0.018463	3.79	4.48	2.73	0.94
Rio	730	Tr=200 anni	18.00	385.76	387.68	387.61	388.44	0.018646	3.85	4.67	2.73	0.94
Rio	730	Tr=500 anni	21.00	385.76	387.87	387.79	388.70	0.019357	4.05	5.19	2.76	0.94
Rio	720	Tr=100 anni	17.00	383.60	387.21		387.30	0.001187	1.45	13.18	5.50	0.25
Rio	720	Tr=200 anni	18.00	383.60	387.27		387.37	0.001240	1.50	13.52	5.50	0.26
Rio	720	Tr=500 anni	21.00	383.60	387.45		387.57	0.001384	1.64	14.51	5.50	0.28
Rio	710	Tr=100 anni	17.00	383.59	387.21	385.38	387.30	0.001182	1.45	13.20	5.50	0.25
Rio	710	Tr=200 anni	18.00	383.59	387.27	385.45	387.37	0.001235	1.50	13.54	5.50	0.26
Rio	710	Tr=500 anni	21.00	383.59	387.45	385.62	387.57	0.001378	1.64	14.53	5.50	0.28
Rio	705		Culvert									
Rio	700	Tr=100 anni	17.00	378.91	380.70	380.70	381.50	0.020487	3.95	4.31	2.72	1.00
Rio	700	Tr=200 anni	18.00	378.91	380.77	380.77	381.59	0.020781	4.02	4.48	2.72	1.00
Rio	700	Tr=500 anni	21.00	378.91	380.94	380.94	381.86	0.021696	4.23	4.96	2.75	1.00


779004AL Plan: P2008 20/02/2008
Leminetta Rio
Legend
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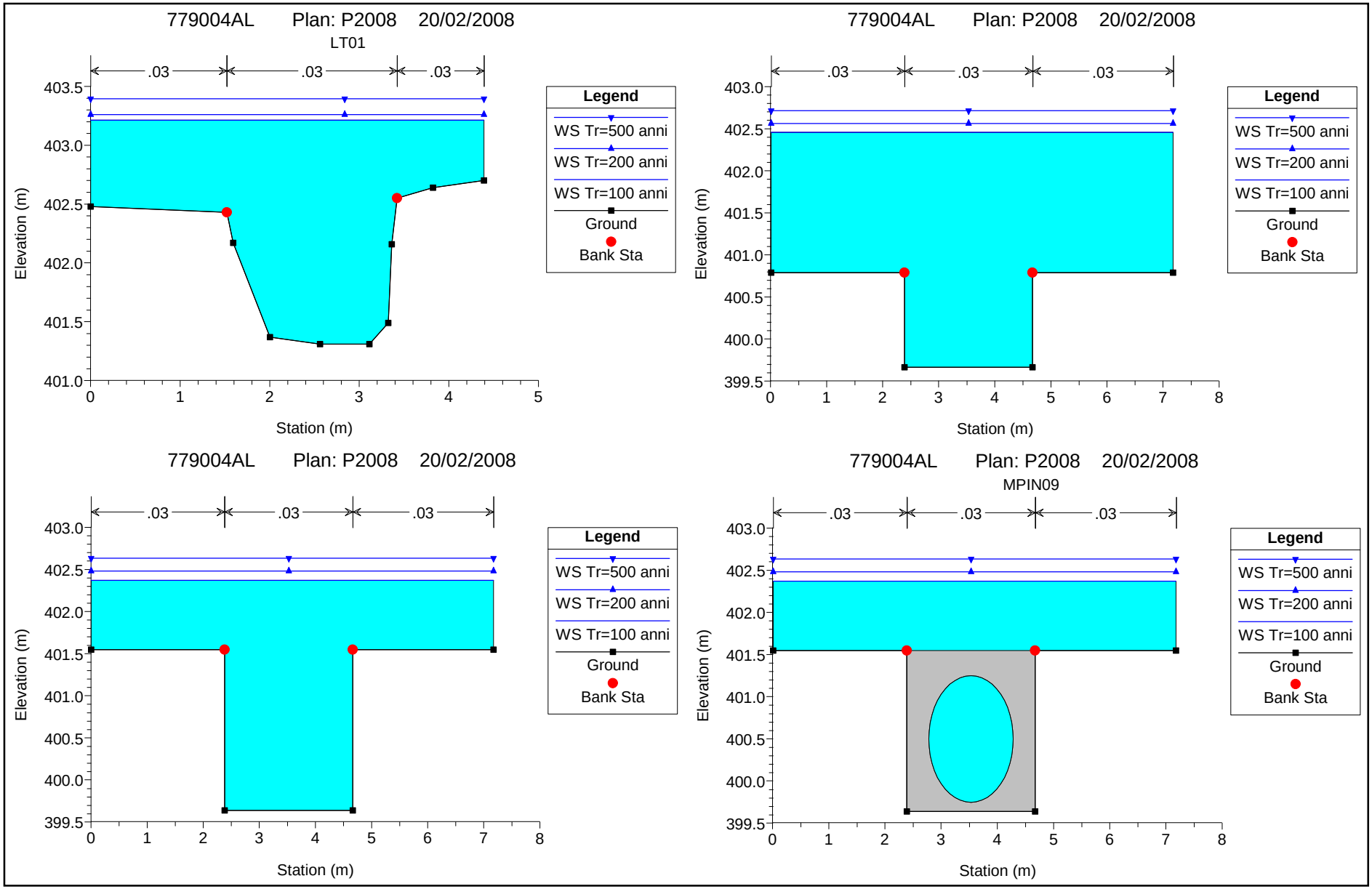
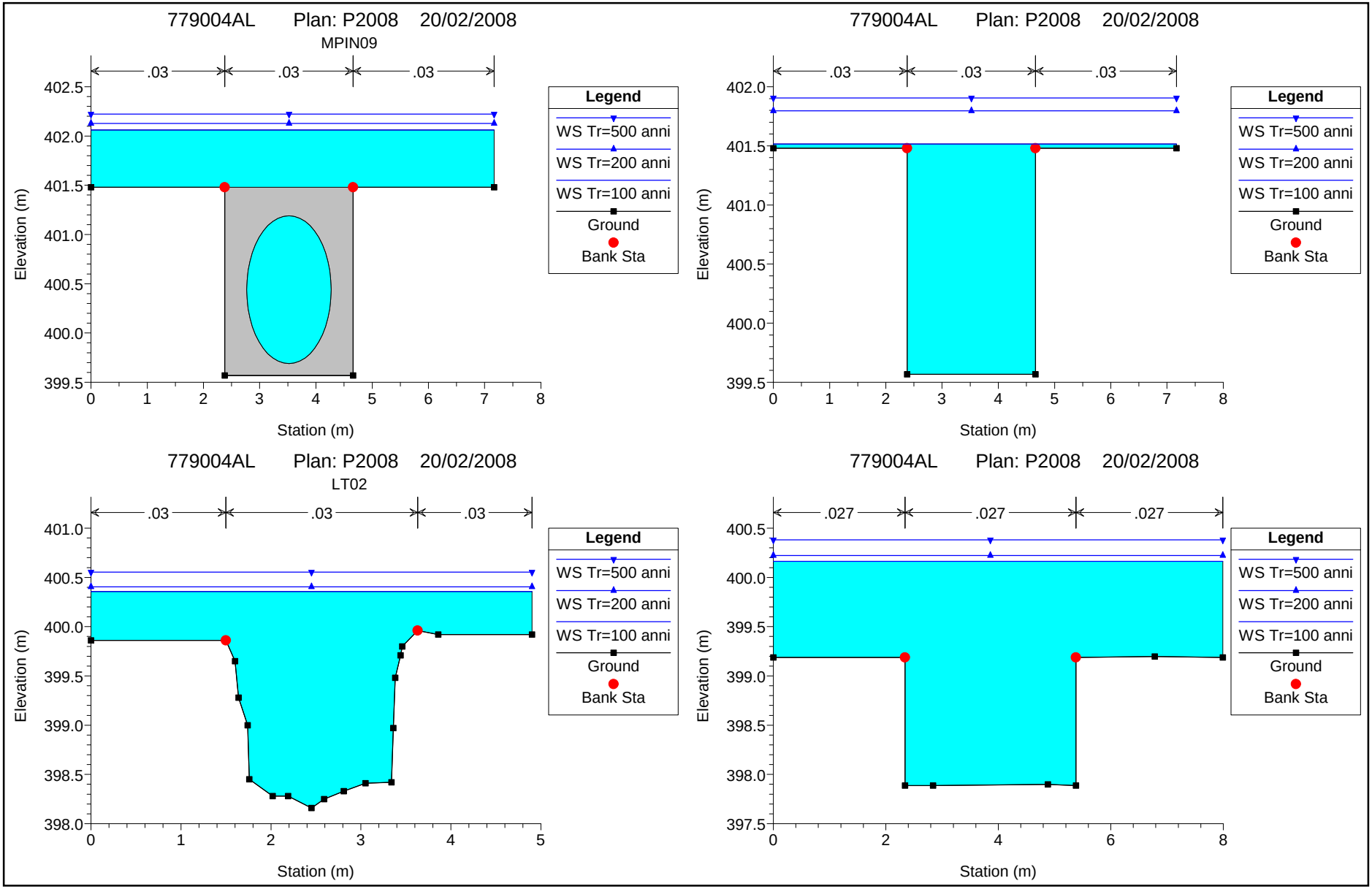
WS Tr=200 anni
WS Tr=100 anni
Ground
LOB
ROB
Elevation (m)
Main Channel Distance (m)
MPIN12 - PIAZZA ARMI
MPIN12
LT07
LT05
MPIN11
LT04
Tratto intubato compreso tra la LT03-LT04
MPIN10
LT02
MPIN09
LT01


779004AL Plan: P2008 20/02/2008
LT01
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
MPIN09
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta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MPIN09
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Elevation (m)
Station (m)
Legend
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WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
LT02
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
.027
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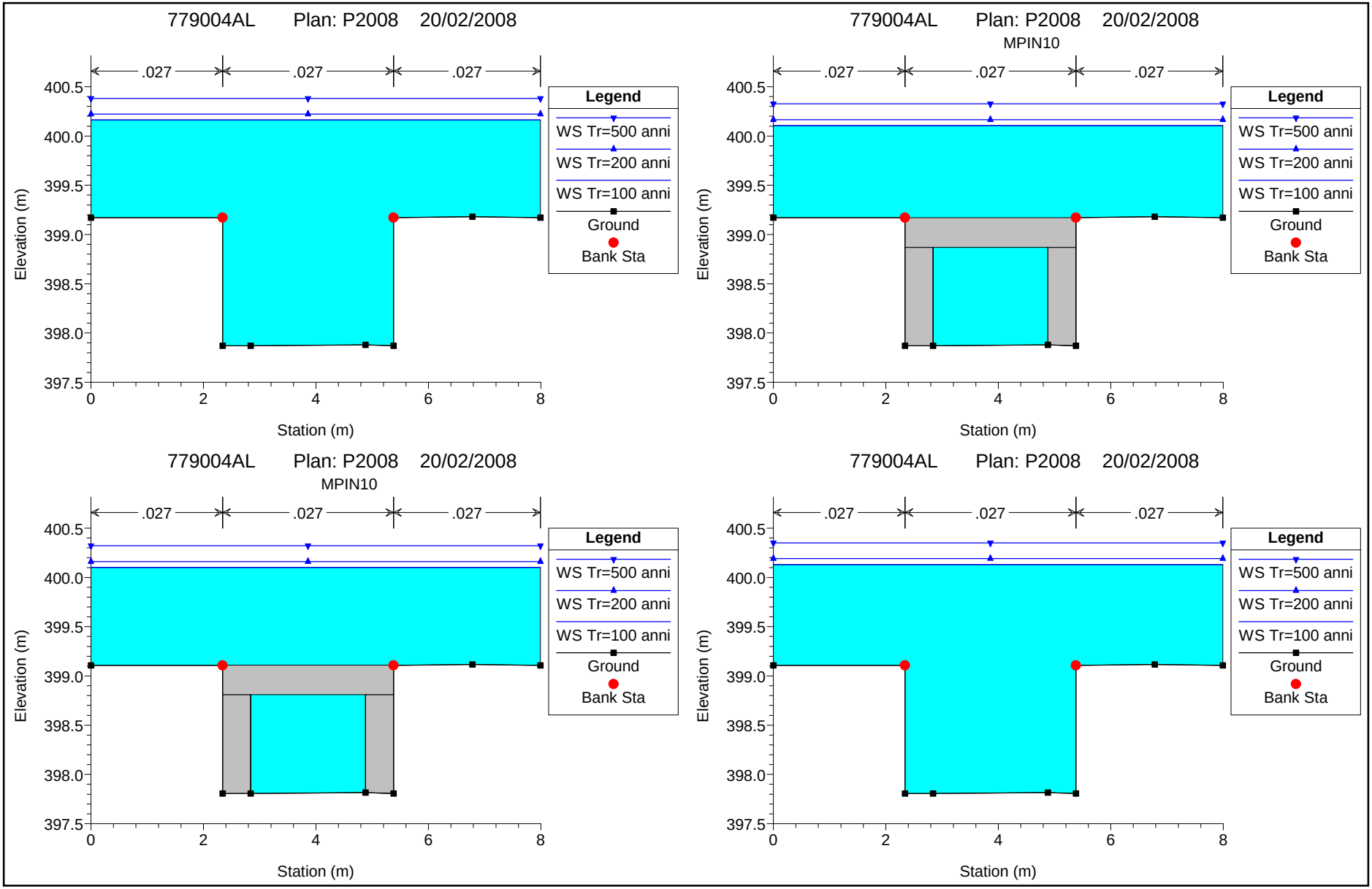
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta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MPIN10
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Legend
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WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)
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400.0
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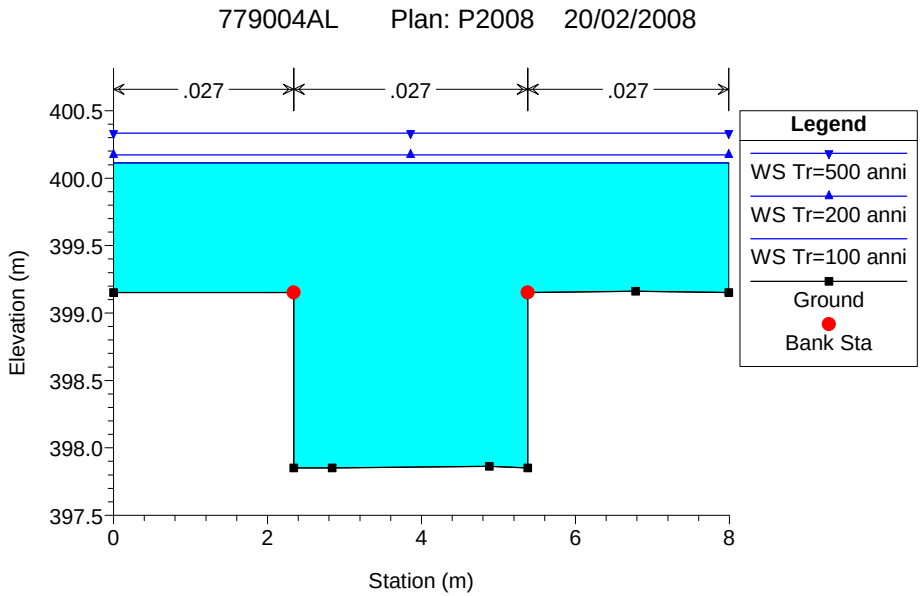
399.0
398.5
398.0
397.5
0
2
4
6
8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Legend
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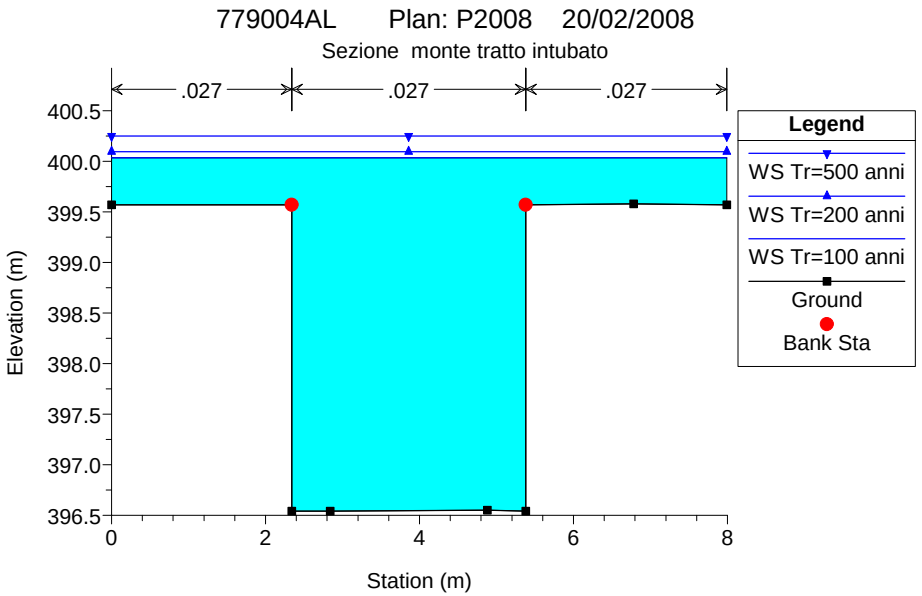
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)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Sezione monte tratto intubato
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Legend
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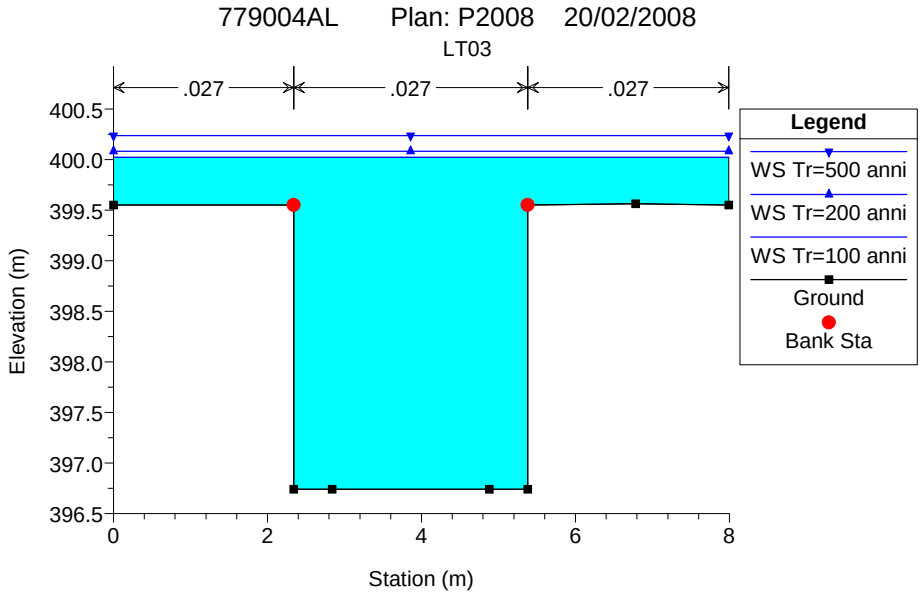
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)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LT03
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.027
.027
Legend
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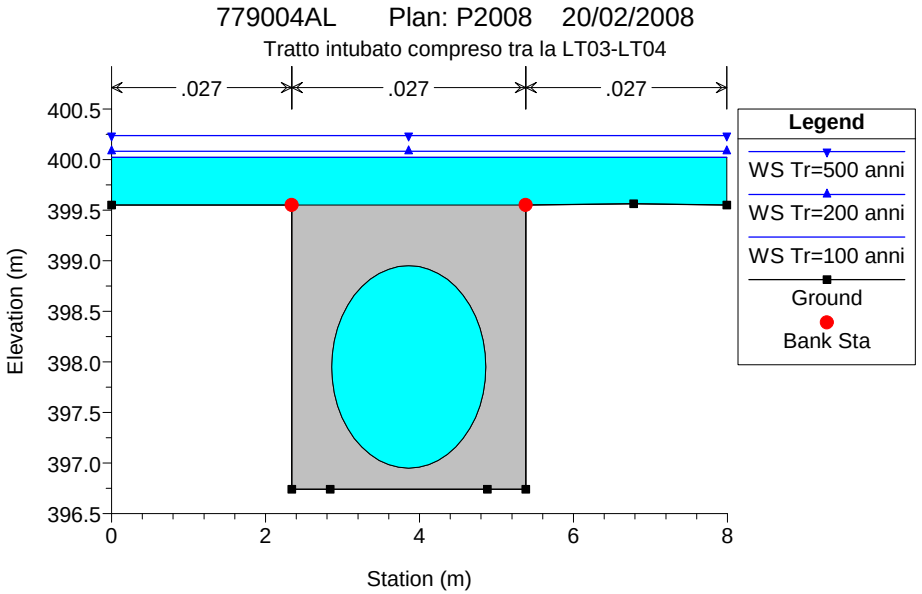
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)


779004AL Plan: P2008 20/02/2008
Tratto intubato compreso tra la LT03-LT04
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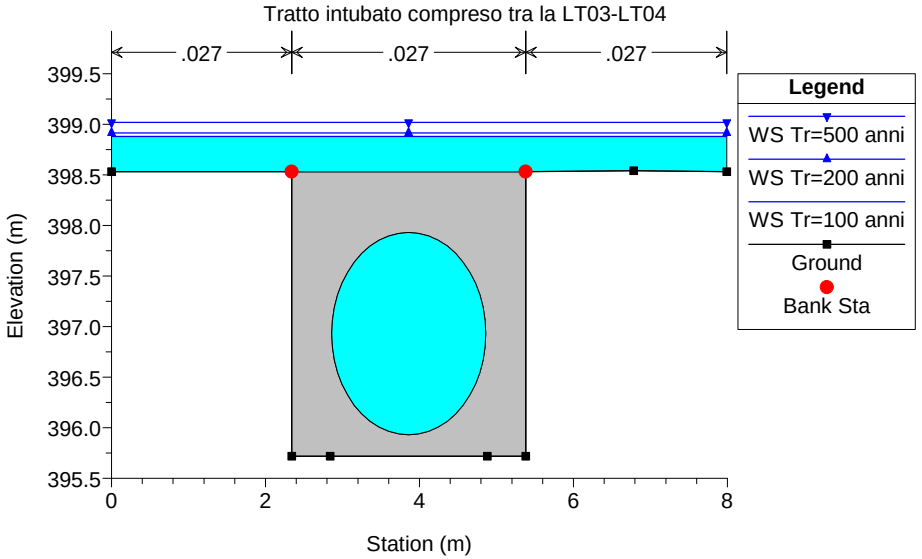
.027
.027
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)


779004AL Plan: P2008 20/02/2008
Tratto intubato compreso tra la LT03-LT04
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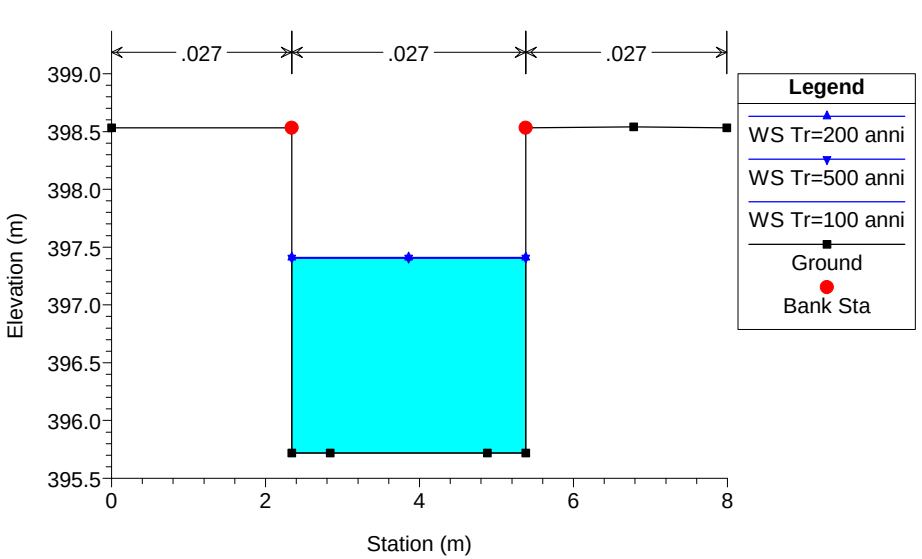
.027
.027
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta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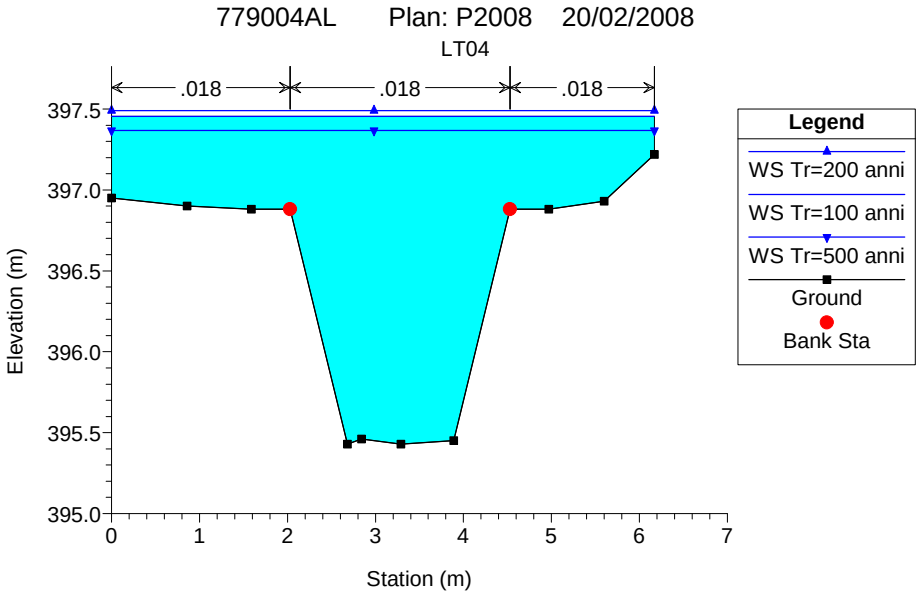
Elevation (m)
Station (m)
Legend
WS Tr=200 anni
WS Tr=500 anni
WS Tr=100 anni
Ground
Bank Sta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LT04
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Elevation (m)
Station (m)
Legend
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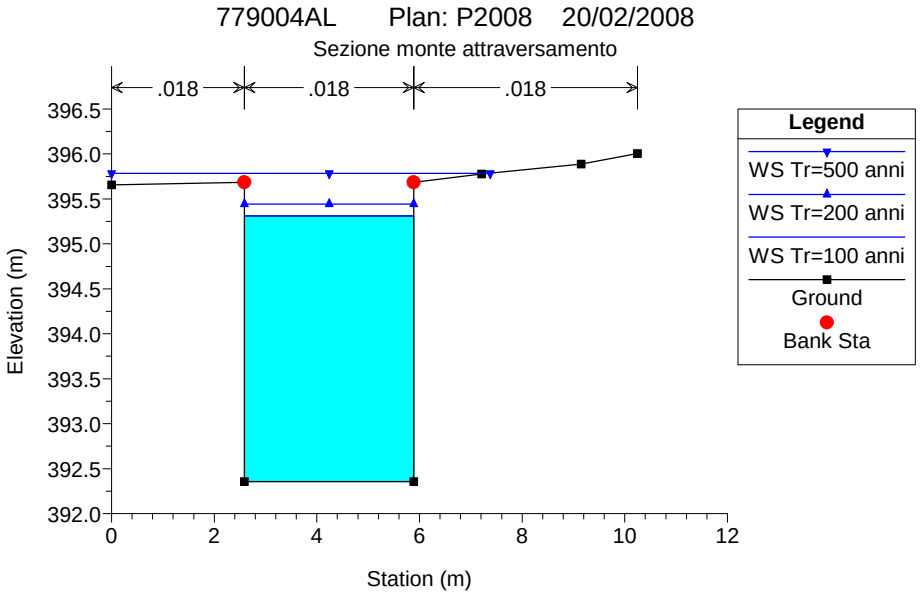
WS Tr=100 anni
WS Tr=500 anni
Ground
Bank Sta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Sezione monte attraversamento
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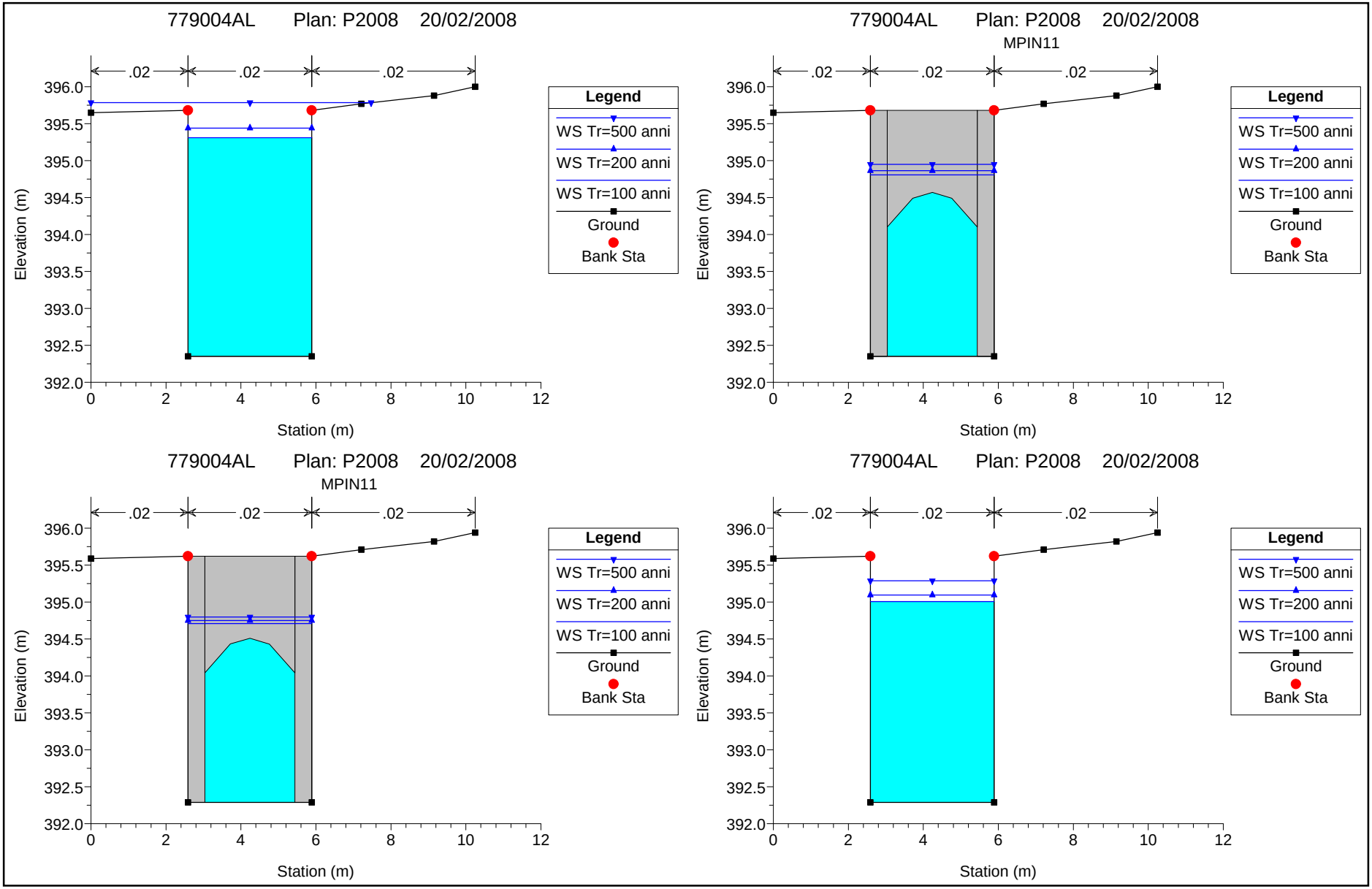
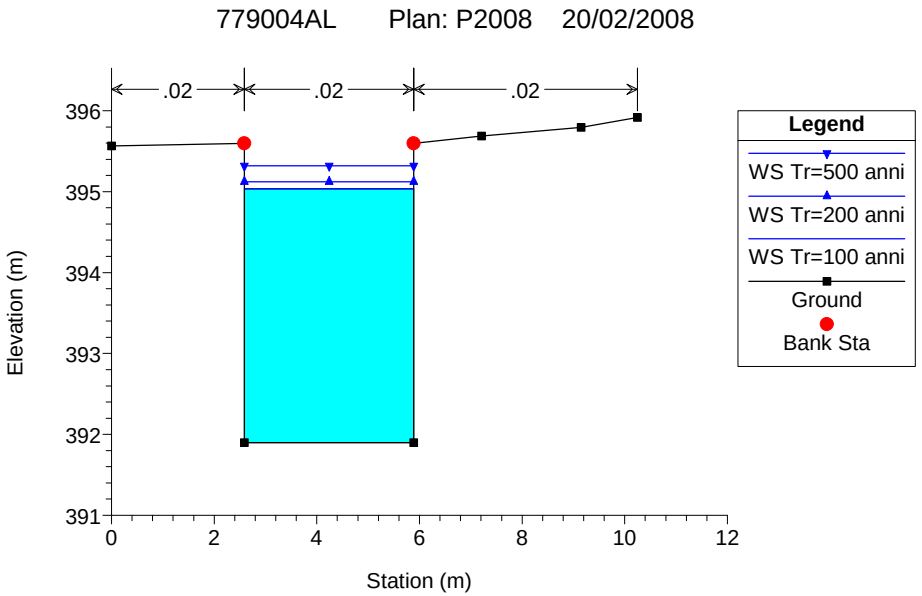
.018
.018
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta


779004AL Plan: P2008 20/02/2008
MPIN11
.02
.02
.02
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta


779004AL Plan: P2008 20/02/2008
.02
.02
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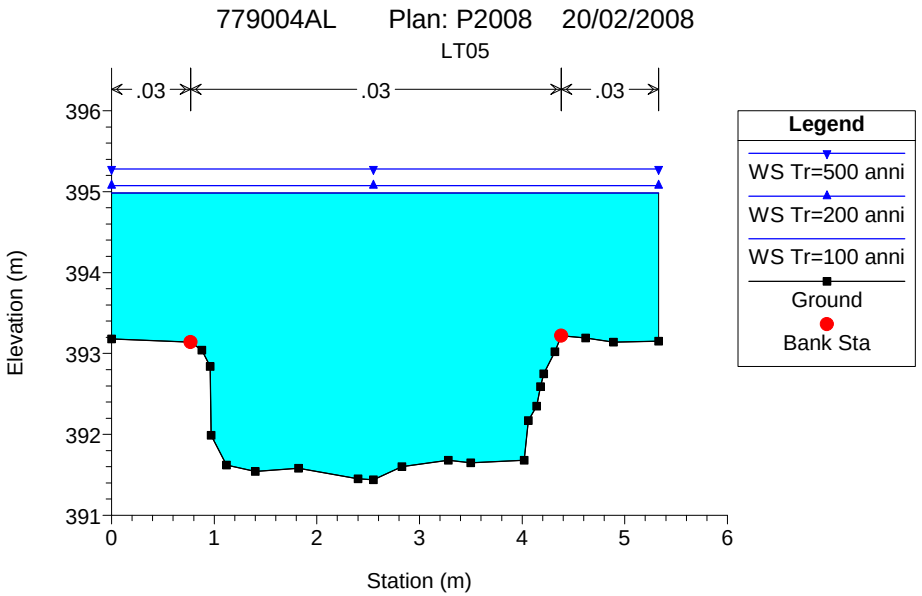
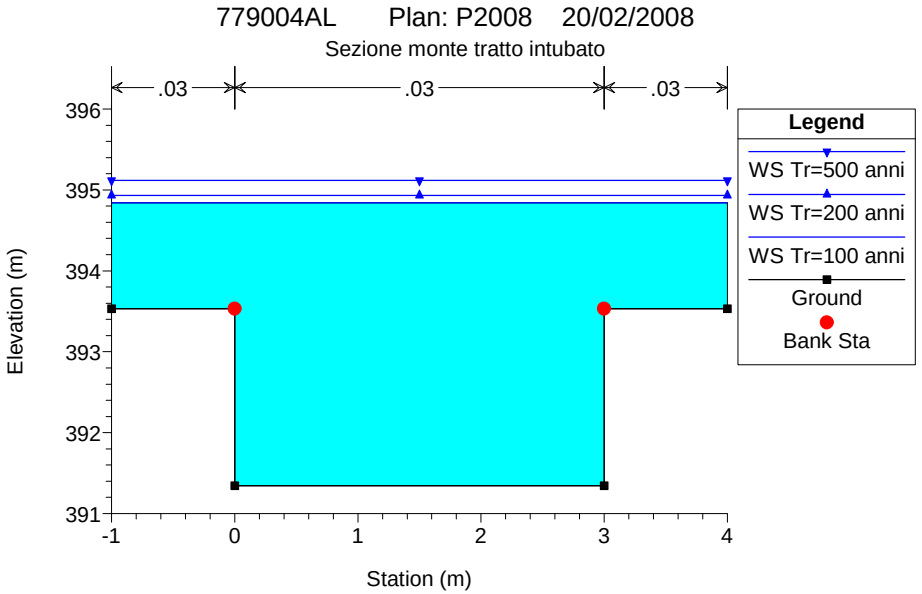
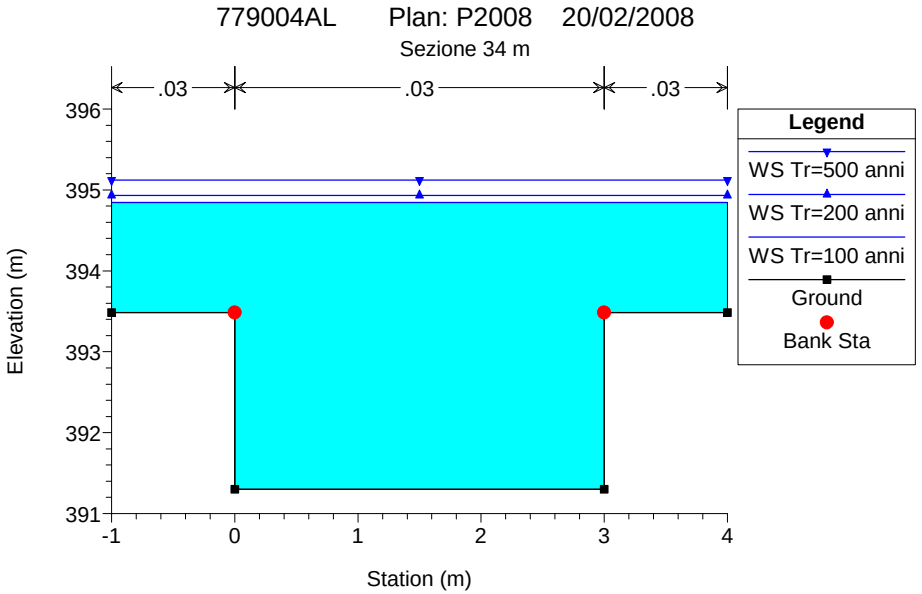
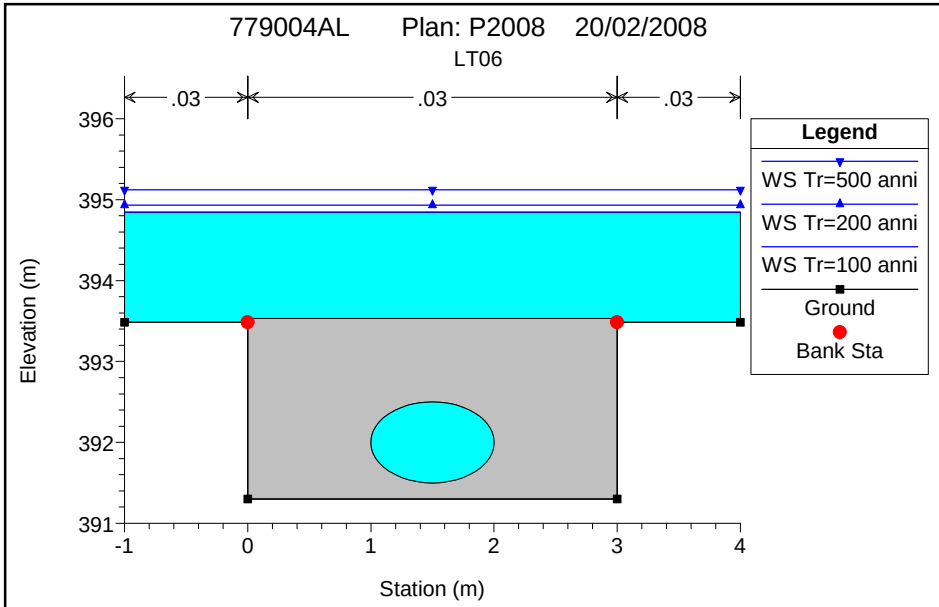
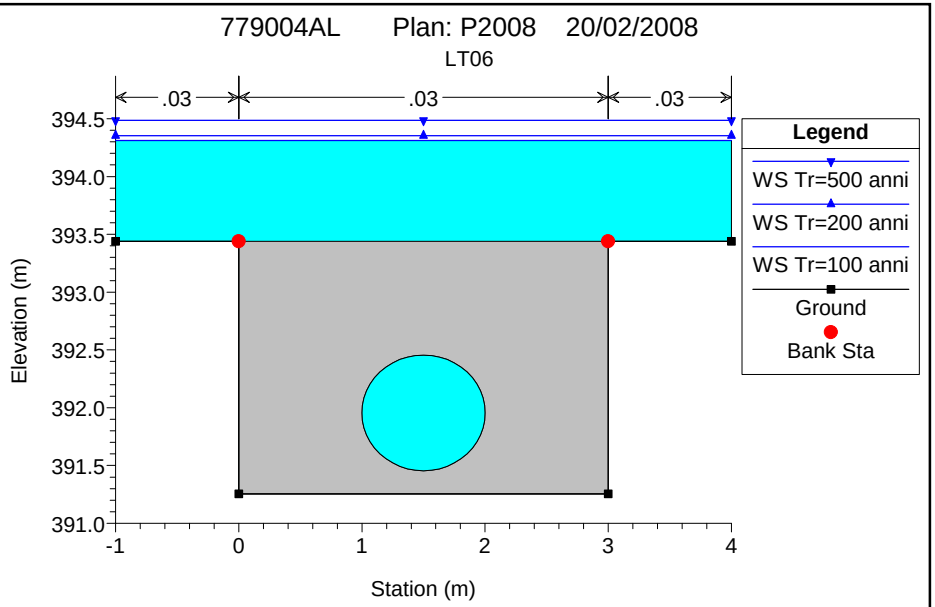
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta

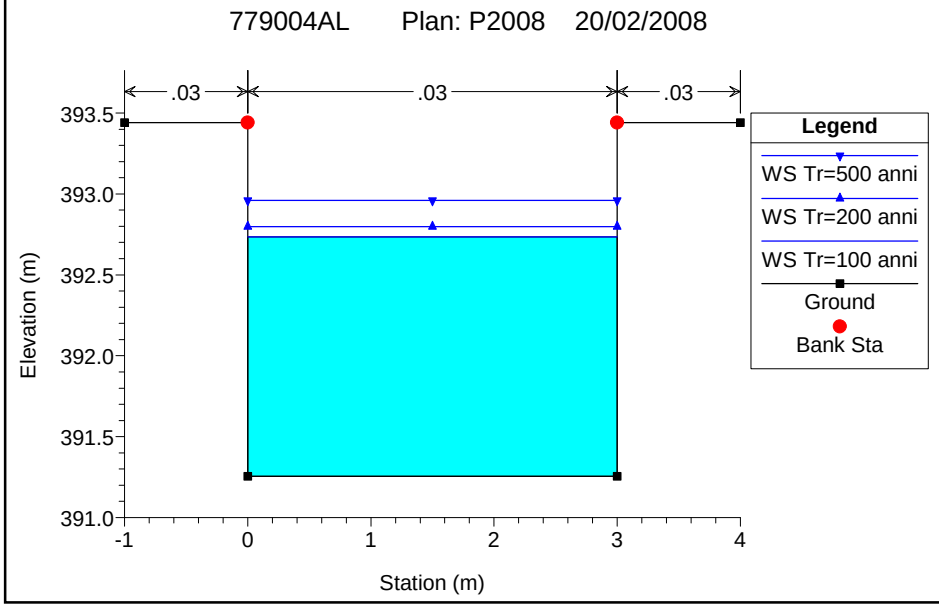

779004AL Plan: P2008 20/02/2008
LT05
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta

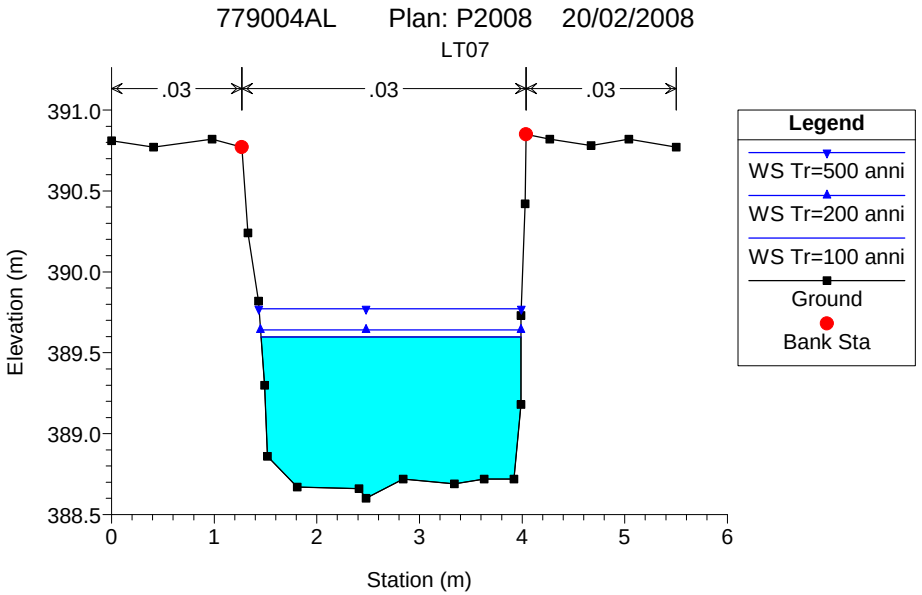

779004AL Plan: P2008 20/02/2008
Sezione monte tratto intubato
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta

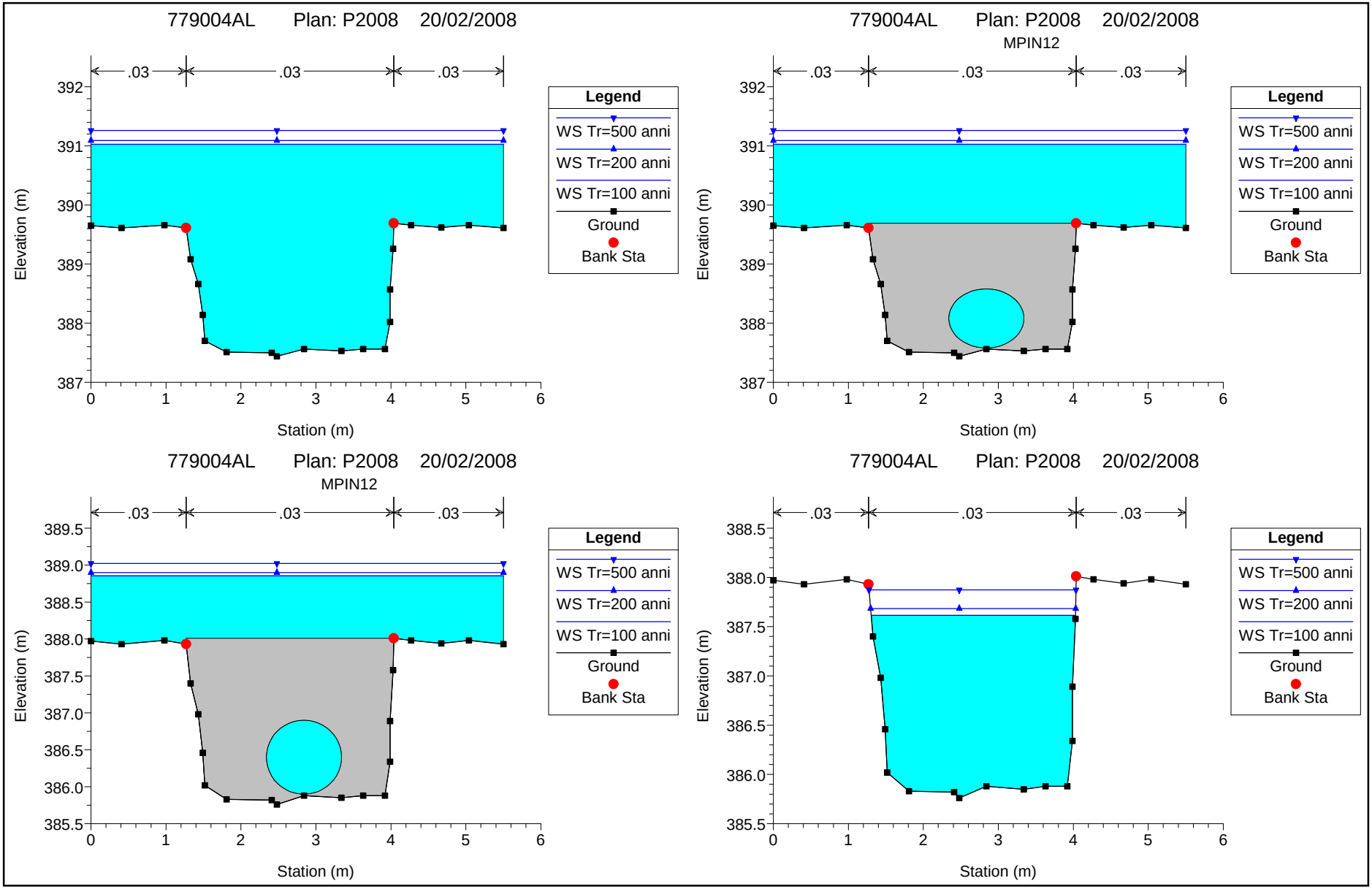

779004AL Plan: P2008 20/02/2008
Sezione 34 m
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta

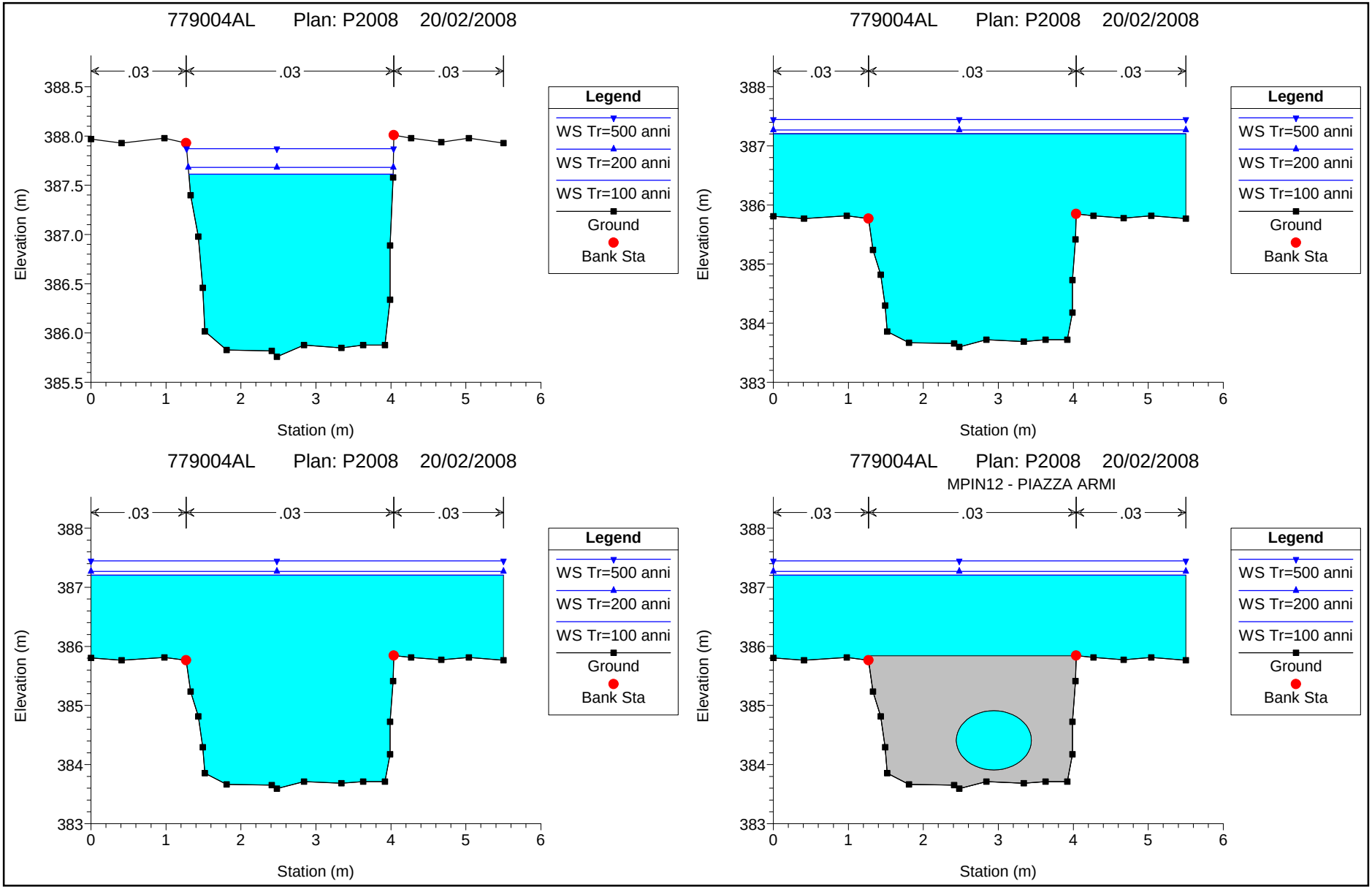

779004AL Plan: P2008 20/02/2008
LT06
.03
.03
.03
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)

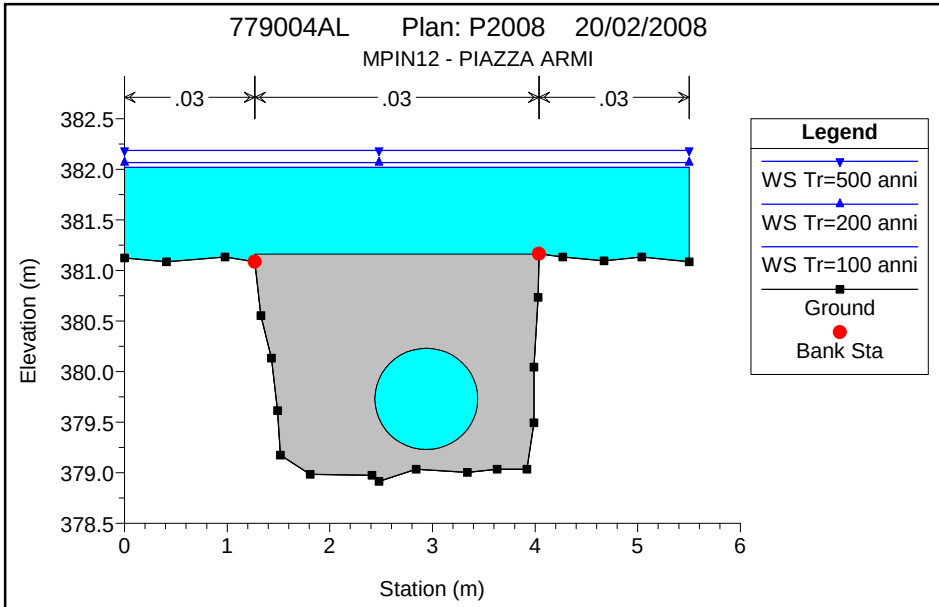

779004AL Plan: P2008 20/02/2008
LT06
.03
.03
.03
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)

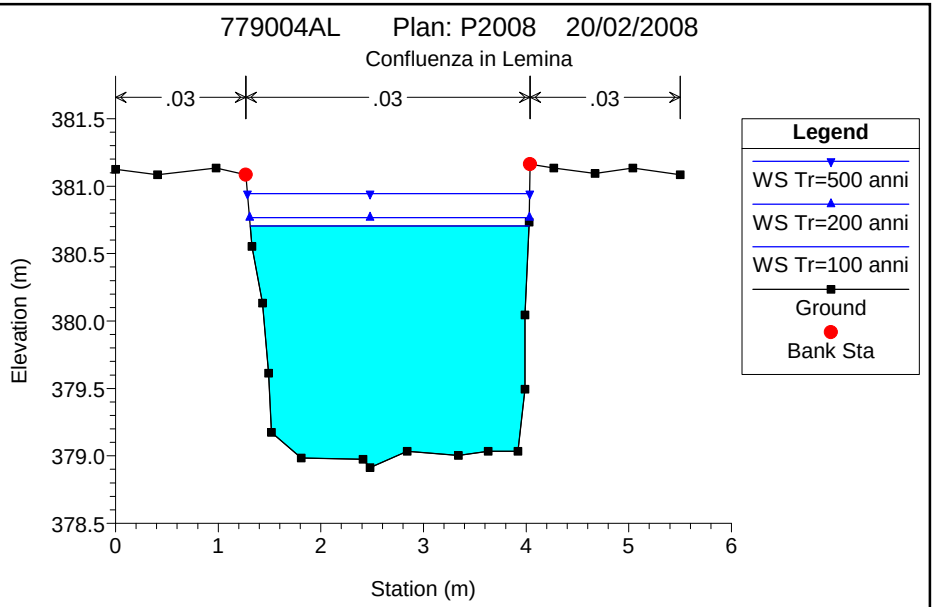

779004AL Plan: P2008 20/02/2008
.03
.03
.03
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)


779004AL Plan: P2008 20/02/2008
LT07
.03
.03
.03
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
Elevation (m)
Station (m)


779004AL Plan: P2008 20/02/2008
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
MPIN12
779004AL Plan: P2008 20/02/2008
MPIN12
779004AL Plan: P2008 20/02/2008


779004AL Plan: P2008 20/02/2008
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta
779004AL Plan: P2008 20/02/2008
779004AL Plan: P2008 20/02/2008
779004AL Plan: P2008 20/02/2008
MPIN12 - PIAZZA ARMI


779004AL Plan: P2008 20/02/2008
MPIN12 - PIAZZA ARMI
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta


779004AL Plan: P2008 20/02/2008
Confluenza in Lemina
.03
.03
.03
Elevation (m)
Station (m)
Legend
WS Tr=500 anni
WS Tr=200 anni
WS Tr=100 anni
Ground
Bank Sta