



Comune di Montecatini Terme
PROVINCIA DI PISTOIA

REGOLAMENTO URBANISTICO
LEGGE REGIONALE 3 GENNAIO 2005 N. 1
e s.m.i.

ATTIVITA' DI PROGETTAZIONE

STUDIO DI ARCHITETTURA *GURRIERI ASSOCIATI*:
Prof. Arch. Francesco Gurrieri

AREA GOVERNO DEL TERRITORIO
SETTORE PIANIFICAZIONE URBANISTICA

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Responsabile Settore: Arch. Fabio Ciliberti
Clara Lazzeretti

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Dott. Giuseppe Bellandi

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Dott. Giuseppe Bellandi

RESPONSABILE DEL PROCEDIMENTO

Arch. Mario Damiani

GARANTE DELLA COMUNICAZIONE

Arch. Fabio Ciliberti

**STUDIO IDROLOGICO-IDRAULICO
RELAZIONE DI CALCOLO**

ELENCO ELABORATI

A) Simulazioni Hec-Ras

1. Fosso della Bolognola
2. Torrente Borra
3. Fosso del Calderaio
4. Forra Grande o Dei Massimi
5. Fosso Maona
6. Torrente Nievole
7. Fosso della Pungolana
8. Fosso Renaggio
9. Rio Rinfresco o Castagna Regolo
10. Rio Salserino
11. Torrente Salsero
12. Rio Sant'Antonio

A) Storage area

1. Torrente Borra
2. Torrente Nievole
3. Torrente Salsero
4. Rio Sant'Antonio

FOSSO DELLA BOLOGNOLA

1- Simulazione Hec-Ras Tr=30 anni

Tabella
Sezioni

2- Simulazione Hec-Ras Tr=100 anni

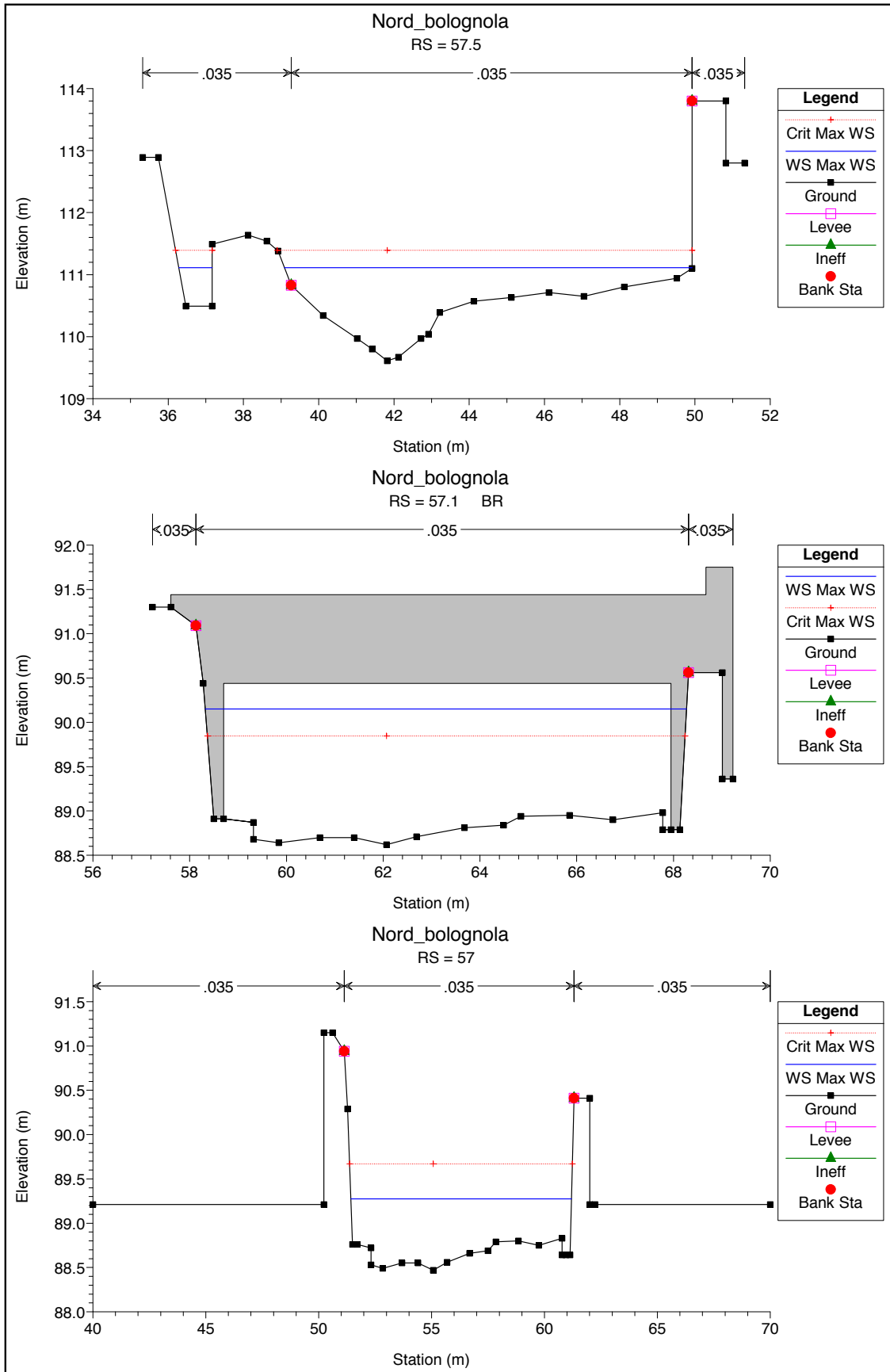
Tabella
Sezioni

3- Simulazione Hec-Ras Tr=200 anni

Tabella
Sezioni

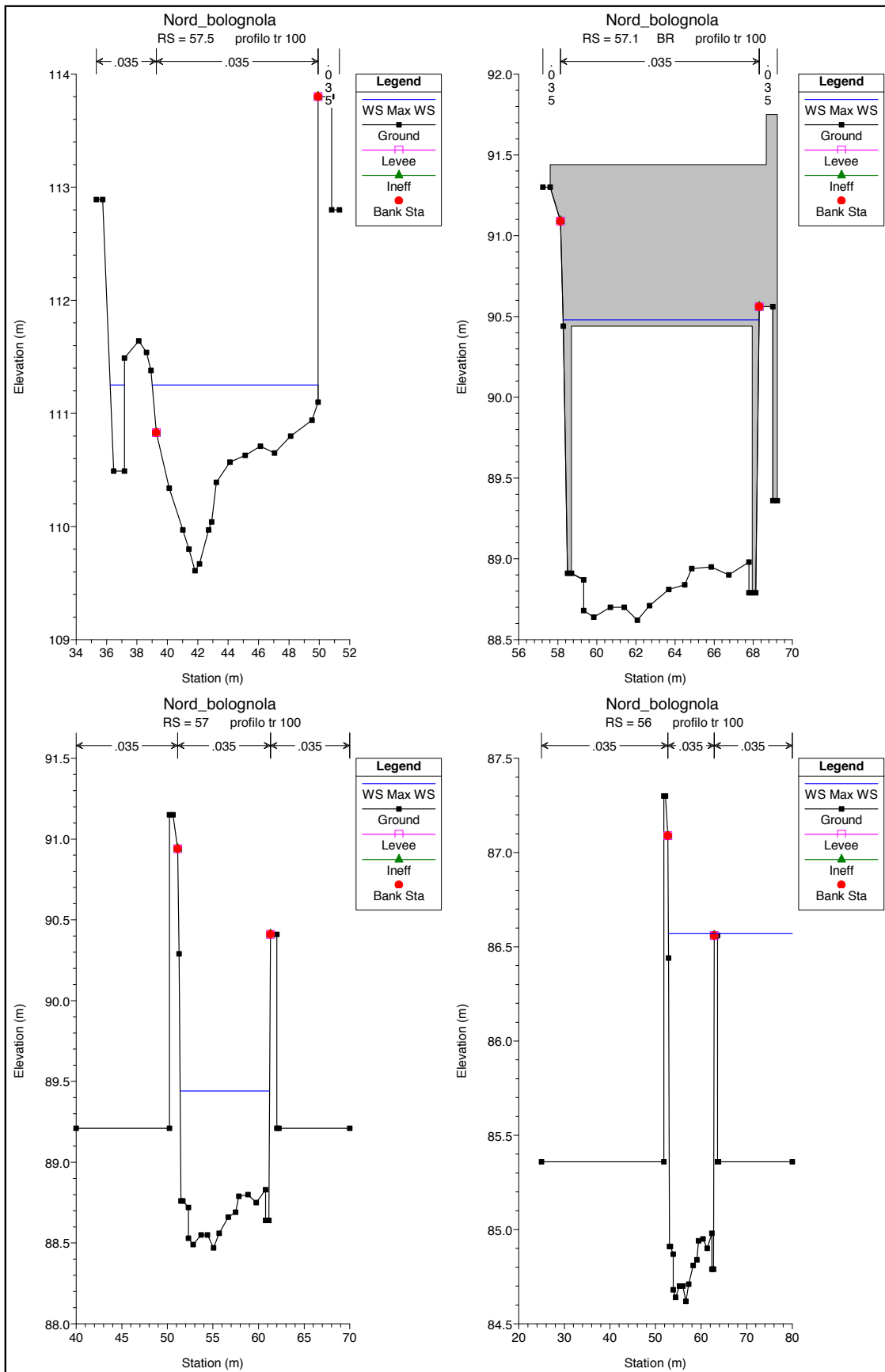
HEC-RAS Plan: Plan 15 River: T. Bolognola Reach: unico Profile: Max WS

Reach	River Sta	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
unico	57.5	30.85	109.61	111.11	111.39	112.05	0.045673	4.36	7.32	11.72	1.74
unico	57.4	30.84	88.62	89.99		90.35	0.009555	2.67	11.55	9.91	0.79
unico	57.3	30.84	88.62	89.91	89.82	90.33	0.011770	2.86	10.79	9.89	0.87
unico	57.1	Bridge									
unico	57.01	30.84	88.62	89.67	89.82	90.35	0.025210	3.65	8.45	9.83	1.26
unico	57.005	30.84	88.52	89.36	89.72	90.58	0.063684	4.89	6.30	9.78	1.95
unico	57	30.84	88.47	89.27	89.67	90.62	0.074526	5.14	6.00	9.77	2.09
unico	56	30.83	84.62	86.08	85.82	86.39	0.007652	2.48	12.41	9.93	0.71



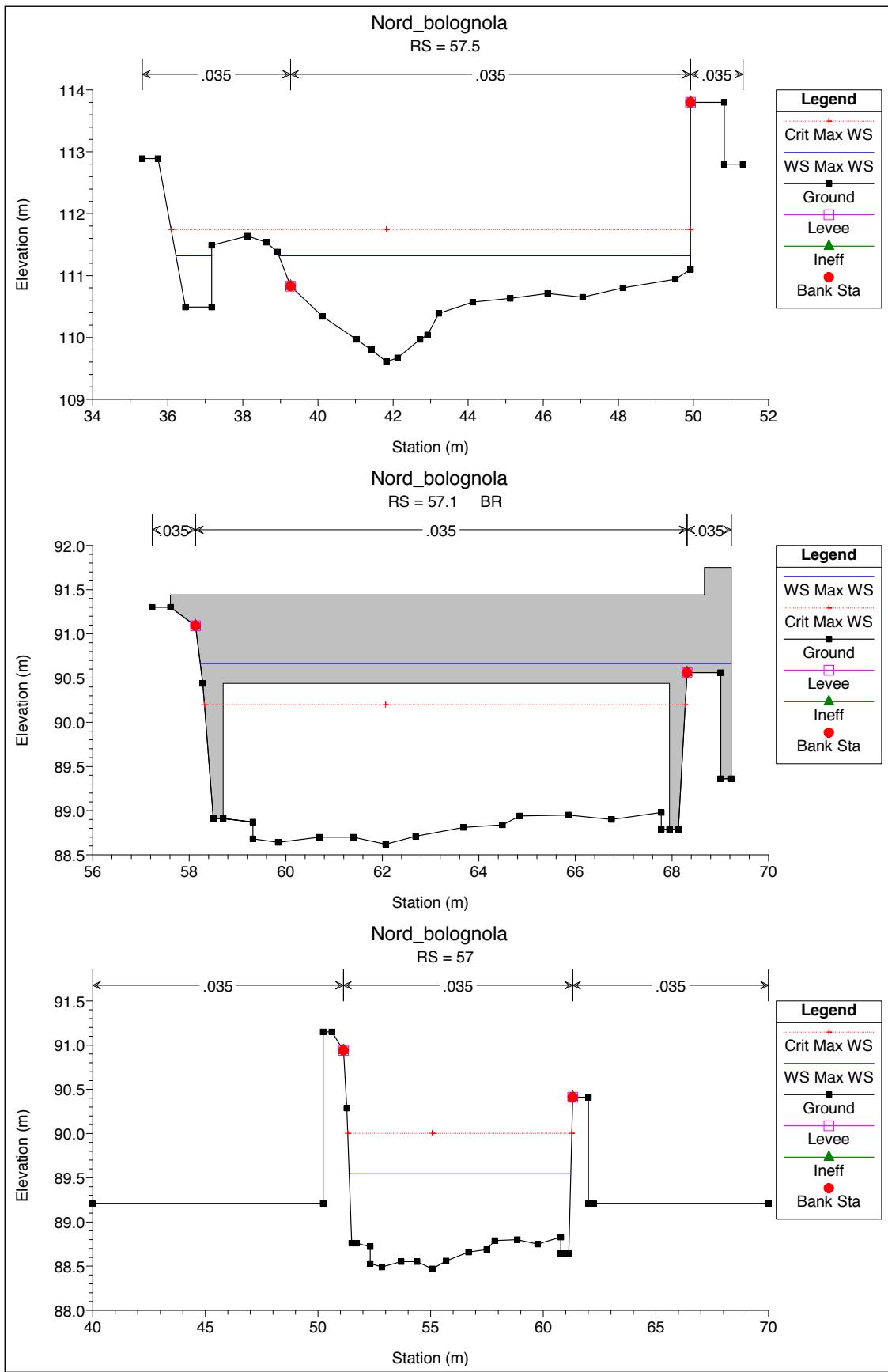
HEC-RAS Plan: Plan 32 River: T. Bolognola Reach: unico Profile: Max WS

Reach	River Sta	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
unico	57.5	41.34	109.61	111.25	111.60	112.39	0.043232	4.80	8.95	11.85	1.74
unico	57.4	41.32	88.62	90.12	90.03	90.65	0.012400	3.22	12.83	9.94	0.90
unico	57.3	41.32	88.62	90.06	90.03	90.64	0.014302	3.37	12.25	9.92	0.97
unico	57.1	Bridge									
unico	57.01	41.32	88.62	89.82	90.03	90.71	0.027819	4.18	9.88	9.87	1.33
unico	57.005	41.32	88.52	89.51	89.93	90.94	0.058420	5.30	7.79	9.81	1.90
unico	57	41.32	88.47	89.44	89.88	90.94	0.062711	5.42	7.62	9.81	1.96
unico	56	41.31	84.62	86.57	86.03	86.63	0.001267	1.20	37.23	27.18	0.29



HEC-RAS Plan: Plan 15 River: T. Bolognola Reach: unico Profile: Max WS

Reach	River Sta	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
unico	57.5	47.66	109.61	111.32	111.74	112.60	0.043788	5.08	9.76	11.91	1.77
unico	57.4	47.66	88.62	90.20	90.15	90.82	0.013591	3.49	13.67	9.96	0.95
unico	57.3	47.66	88.62	90.16	90.15	90.82	0.015132	3.61	13.20	9.95	1.00
unico	57.1	Bridge									
unico	57.01	47.66	88.62	89.90	90.15	90.91	0.028849	4.45	10.70	9.89	1.37
unico	57.005	47.66	88.52	89.61	90.05	91.12	0.054038	5.45	8.75	9.84	1.84
unico	57	47.66	88.47	89.54	90.00	91.09	0.056117	5.51	8.64	9.83	1.88
unico	56	47.65	84.62	86.81	86.15	86.88	0.001001	1.15	43.88	27.24	0.26



TORRENTE BORRA

1- Simulazione Hec-Ras Tr=30 anni
Tabella
Sezioni

2- Simulazione Hec-Ras Tr=100 anni
Tabella
Sezioni

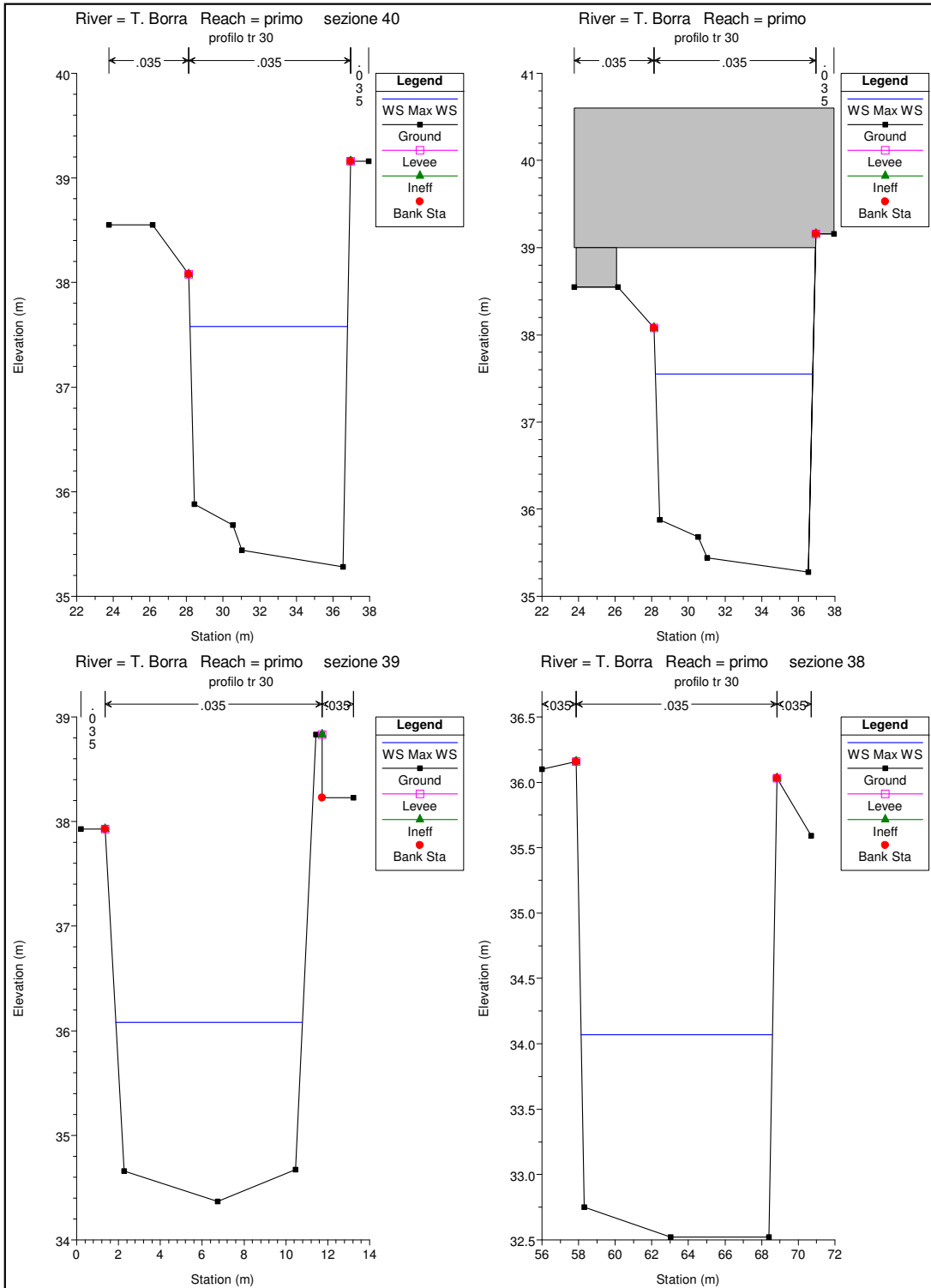
3- Simulazione Hec-Ras Tr=200 anni
Tabella
Sezioni

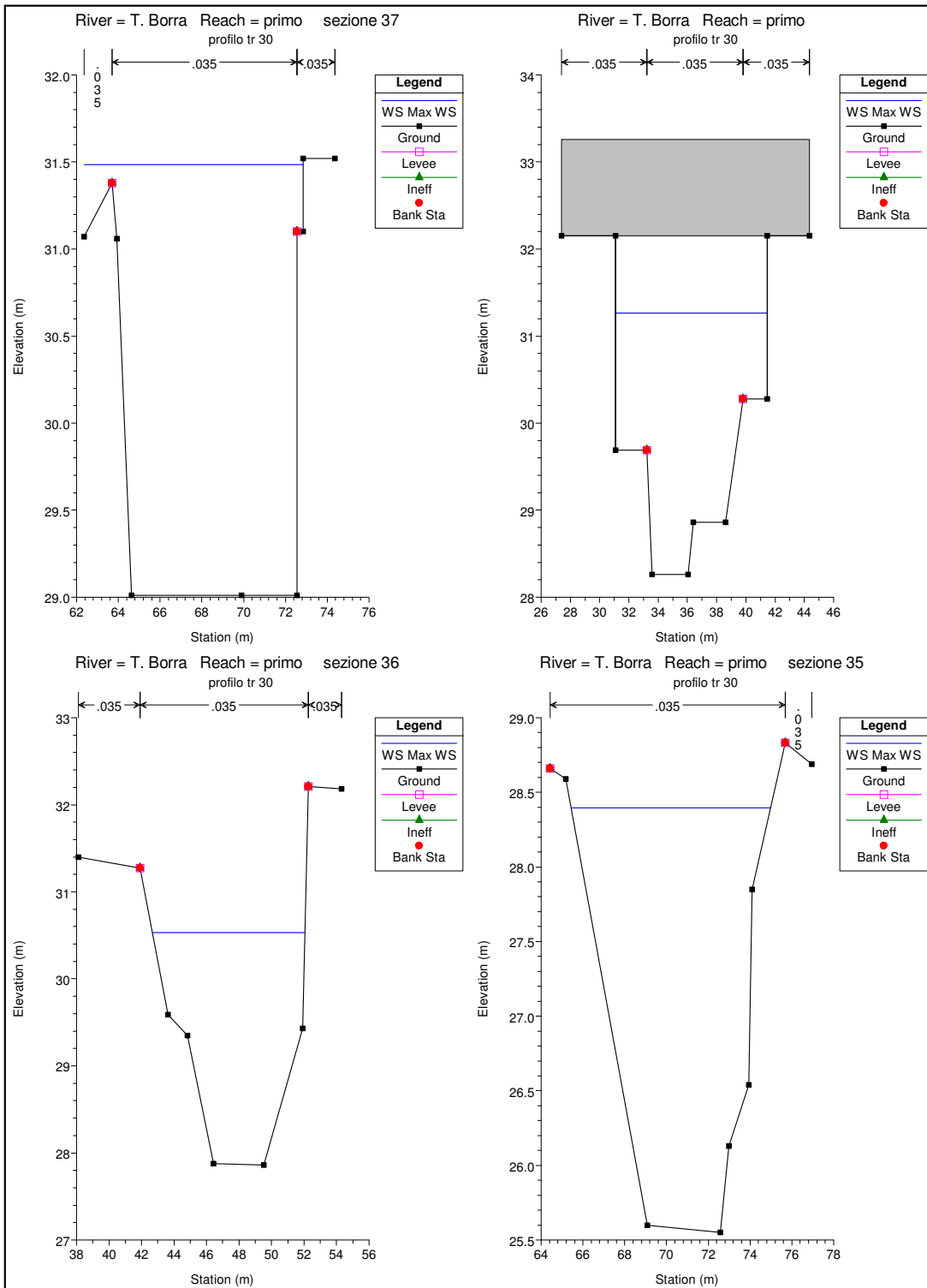
HEC-RAS Plan: Plan 28 River: T. Borra Reach: primo Profile: Max WS

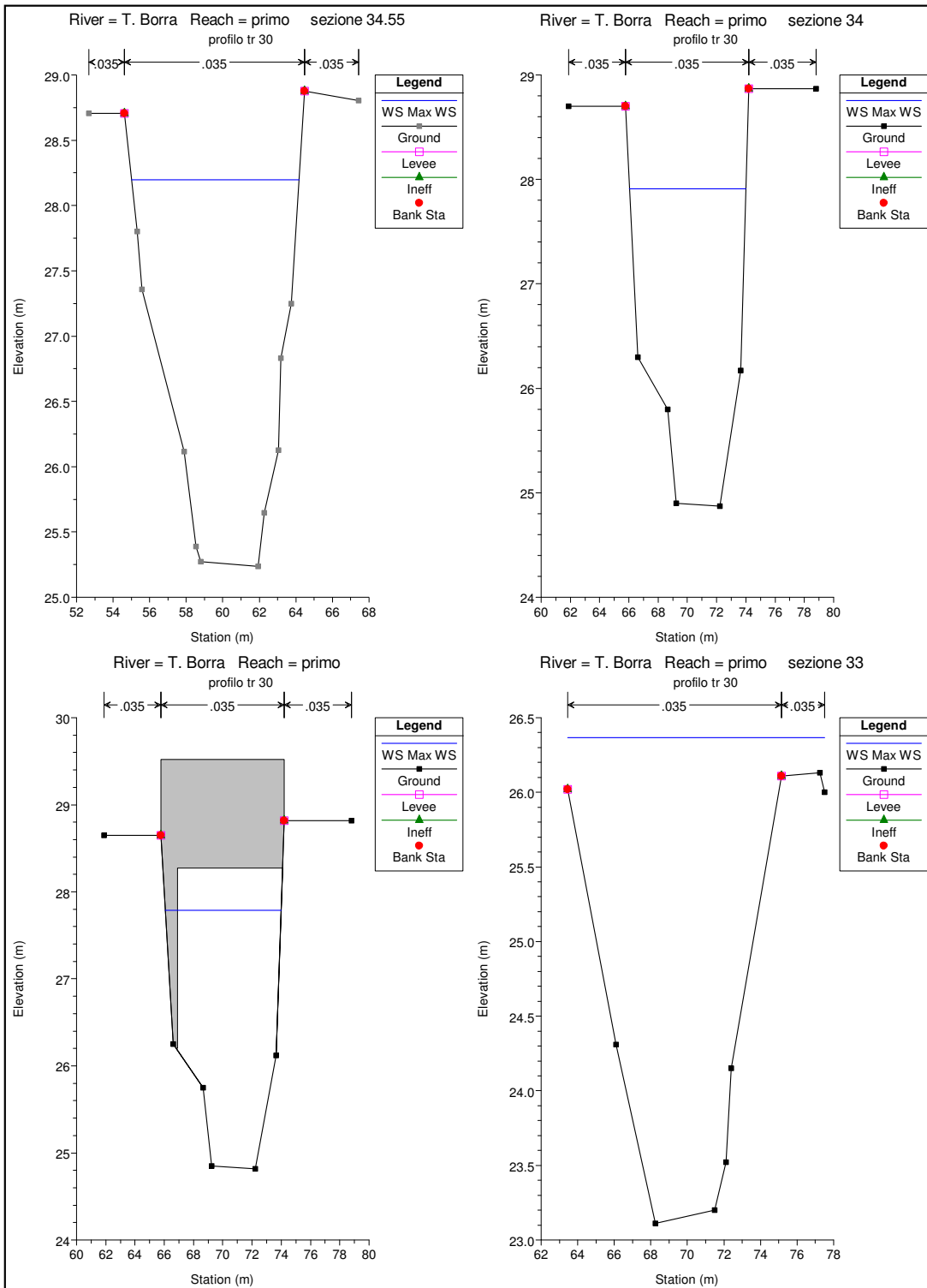
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	40.9	Max WS	48.57	35.95	39.09		39.26	0.001812	1.83	26.53	9.06	0.34
primo	40.8	Max WS	48.57	35.65	38.94		39.09	0.001581	1.74	27.87	9.09	0.32
primo	40.7	Max WS	48.56	35.55	38.71		38.88	0.001776	1.82	26.72	9.06	0.34
primo	40.6	Max WS	48.54	35.35	38.06		38.29	0.002838	2.15	22.61	8.97	0.43
primo	40.55	Max WS	48.54	35.35	38.00		38.24	0.003045	2.20	22.05	8.96	0.45
primo	40.5	Max WS	48.54	35.35	37.97		38.22	0.003144	2.23	21.81	8.95	0.46
primo	40.49	Max WS	48.54	35.35	37.96	36.95	38.22	0.003158	2.23	21.77	8.95	0.46
primo	40.4	Bridge										
primo	40.31	Max WS	48.54	35.35	37.96		38.21	0.003188	2.24	21.70	8.95	0.46
primo	40.3	Max WS	48.54	35.35	37.94		38.20	0.003234	2.25	21.59	8.94	0.46
primo	40.2	Max WS	48.54	35.35	37.80		38.09	0.003847	2.39	20.32	8.91	0.51
primo	40.1	Max WS	48.54	35.28	37.69		38.04	0.005009	2.63	18.46	8.63	0.57
primo	40	Max WS	48.54	35.28	37.58		37.97	0.005818	2.77	17.52	8.60	0.62
primo	39.99	Max WS	48.54	35.28	37.55	37.01	37.95	0.006066	2.81	17.27	8.60	0.63
primo	39.3	Bridge										
primo	39.21	Max WS	48.54	35.28	37.42		37.88	0.007349	3.00	16.16	8.57	0.70
primo	39.2	Max WS	48.54	35.28	37.27		37.81	0.009349	3.26	14.88	8.53	0.79
primo	39.1	Max WS	48.54	34.50	36.36	36.48	37.25	0.017588	4.18	11.61	8.24	1.12
primo	39	Max WS	48.54	34.37	36.08	36.03	36.76	0.012842	3.65	13.31	8.91	0.95
primo	38.1	Max WS	48.52	33.74	35.30	35.39	36.13	0.017296	4.04	12.02	8.67	1.09
primo	38	Max WS	55.12	32.52	34.07	34.02	34.73	0.012613	3.59	15.36	10.45	0.94
primo	37	Max WS	55.10	29.01	31.49		31.84	0.005460	2.65	21.12	10.48	0.55
primo	36.6	Max WS	55.10	28.76	31.49		31.77	0.003776	2.37	24.16	11.99	0.47
primo	36.5	Max WS	55.10	28.36	31.30		31.69	0.004645	2.94	20.83	10.37	0.60
primo	36.4	Max WS	55.10	28.26	31.28		31.65	0.004105	2.82	21.71	10.37	0.57
primo	36.39	Max WS	55.10	28.26	31.26	30.64	31.64	0.004220	2.85	21.51	10.37	0.57
primo	36.3	Bridge										
primo	36.21	Max WS	55.10	28.26	31.14		31.56	0.005051	3.01	20.25	10.37	0.62
primo	36.2	Max WS	55.10	28.26	31.05		31.51	0.005809	3.15	19.31	10.37	0.66
primo	36.1	Max WS	55.10	28.26	31.01		31.49	0.006156	3.21	18.94	10.37	0.68
primo	36	Max WS	55.10	27.86	30.53		31.03	0.007030	3.13	17.63	9.40	0.73
primo	35.875*	Max WS	55.09	27.51	30.21		30.70	0.006964	3.11	17.69	9.54	0.73
primo	35.75*	Max WS	55.09	27.15	29.88		30.37	0.007018	3.11	17.70	9.65	0.73
primo	35.625*	Max WS	55.09	26.80	29.54		30.04	0.007270	3.14	17.56	9.68	0.74
primo	35.5	Max WS	55.09	26.45	29.17		29.69	0.007512	3.20	17.23	9.18	0.75
primo	35.3333*	Max WS	55.08	26.15	28.89		29.40	0.007301	3.16	17.42	9.24	0.74
primo	35.1666*	Max WS	55.08	25.85	28.64		29.12	0.006883	3.09	17.82	9.37	0.72
primo	35	Max WS	55.08	25.55	28.40		28.85	0.006347	3.00	18.39	9.54	0.69
primo	34.55*	Max WS	55.07	25.24	28.20		28.63	0.005565	2.90	18.97	9.17	0.64
primo	34.1	Max WS	55.07	24.92	27.96		28.41	0.005834	2.98	18.48	7.97	0.62
primo	34	Max WS	55.07	24.87	27.91		28.36	0.005799	2.97	18.52	7.97	0.62
primo	33.9	Max WS	55.07	24.82	27.90	27.19	28.33	0.005551	2.93	18.81	7.99	0.61
primo	33.4	Bridge										
primo	33.31	Max WS	55.07	24.77	27.74		28.22	0.006303	3.06	17.97	7.93	0.65
primo	33.3	Max WS	55.07	24.72	27.64		28.14	0.006735	3.14	17.55	7.90	0.67
primo	33.2	Max WS	55.07	24.58	27.37		27.93	0.007934	3.33	16.55	7.83	0.73
primo	33.19	Lat Struct										
primo	33.1	Max WS	50.28	23.21	26.40		26.57	0.001952	1.87	31.63	32.23	0.41
primo	33	Max WS	50.27	23.11	26.37		26.57	0.002162	1.97	25.92	14.04	0.43
primo	32.99	Max WS	50.27	23.11	26.36	25.27	26.56	0.002181	1.98	25.83	14.04	0.43
primo	32.6	Bridge										
primo	32.51	Max WS	50.27	23.11	26.21		26.45	0.002743	2.13	23.77	14.04	0.48
primo	32.5	Max WS	50.27	23.08	26.20		26.43	0.002674	2.12	23.99	14.04	0.47
primo	32.49	Lat Struct										
primo	32.4	Max WS	49.83	22.91	25.78		26.07	0.003879	2.39	20.81	11.46	0.57
primo	32.3	Max WS	49.83	21.61	24.30		24.63	0.004529	2.56	19.49	10.96	0.61
primo	32.2	Max WS	49.83	21.61	24.28	23.68	24.62	0.004637	2.58	19.32	10.92	0.62
primo	32.1	Bridge										
primo	32.011	Max WS	49.83	21.61	24.26		24.60	0.004814	2.62	19.05	10.86	0.63
primo	32.01	Max WS	49.83	21.61	24.20		24.57	0.005240	2.70	18.46	10.71	0.66
primo	32	Max WS	49.83	21.61	24.11		24.52	0.006034	2.84	17.52	10.46	0.70
primo	31.1	Max WS	49.82	21.61	24.03		24.48	0.006950	3.00	16.63	10.23	0.75
primo	31.091	Lat Struct										
primo	31.09	Lat Struct										
primo	31	Max WS	45.99	20.56	23.33		23.35	0.000331	0.72	69.21	43.01	0.17
primo	30.3	Max WS	43.59	19.94	22.90		23.13	0.002772	2.15	20.23	8.97	0.46
primo	30.2	Max WS	43.59	19.94	22.88	21.90	23.12	0.002809	2.17	20.13	8.96	0.46
primo	30.1	Bridge										
primo	30.011	Max WS	43.59	19.94	22.86		23.10	0.002903	2.19	19.90	8.94	0.47
primo	30.01	Max WS	43.59	19.94	22.82		23.08	0.003036	2.23	19.58	8.92	0.48
primo	30	Max WS	43.59	19.94	22.81		23.07	0.003069	2.23	19.51	8.91	0.48
primo	29.4	Lat Struct										
primo	29.3	Max WS	43.59	19.94	22.78		23.05	0.003187	2.27	19.24	8.89	0.49
primo	29.2	Max WS	40.78	19.93	22.89		22.95	0.000495	1.14	39.09	15.86	0.23
primo	29.1	Max WS	40.78	19.93	22.89		22.95	0.000499	1.14	39.00	15.86	0.23
primo	29	Max WS	40.78	19.93	22.87		22.93	0.000511	1.15	38.71	15.86	0.23
primo	28.99	Max WS	40.78	19.93	22.86	21.32	22.93	0.000513	1.15	38.65	15.86	0.23

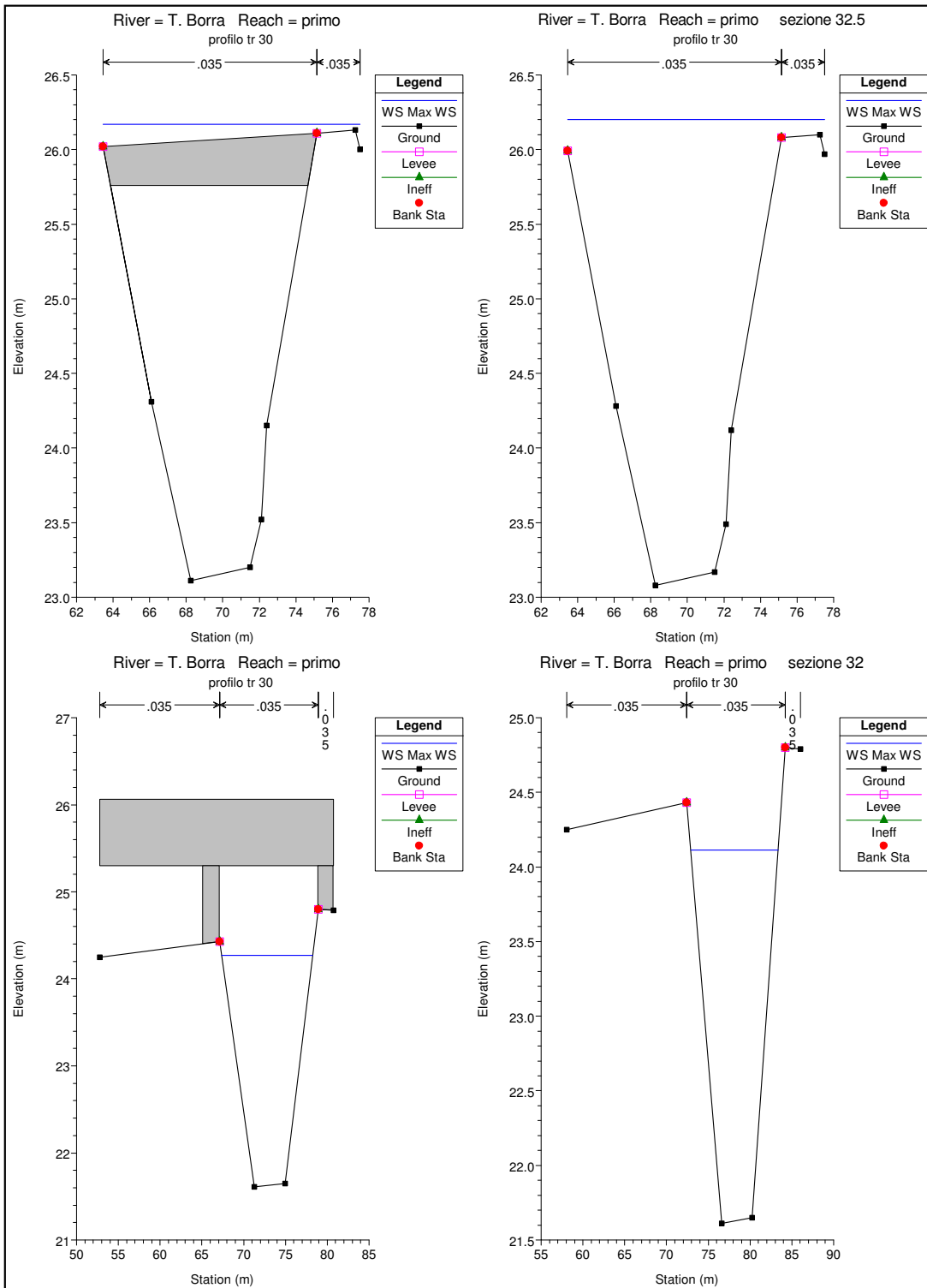
HEC-RAS Plan: Plan 28 River: T. Borra Reach: primo Profile: Max WS (Continued)

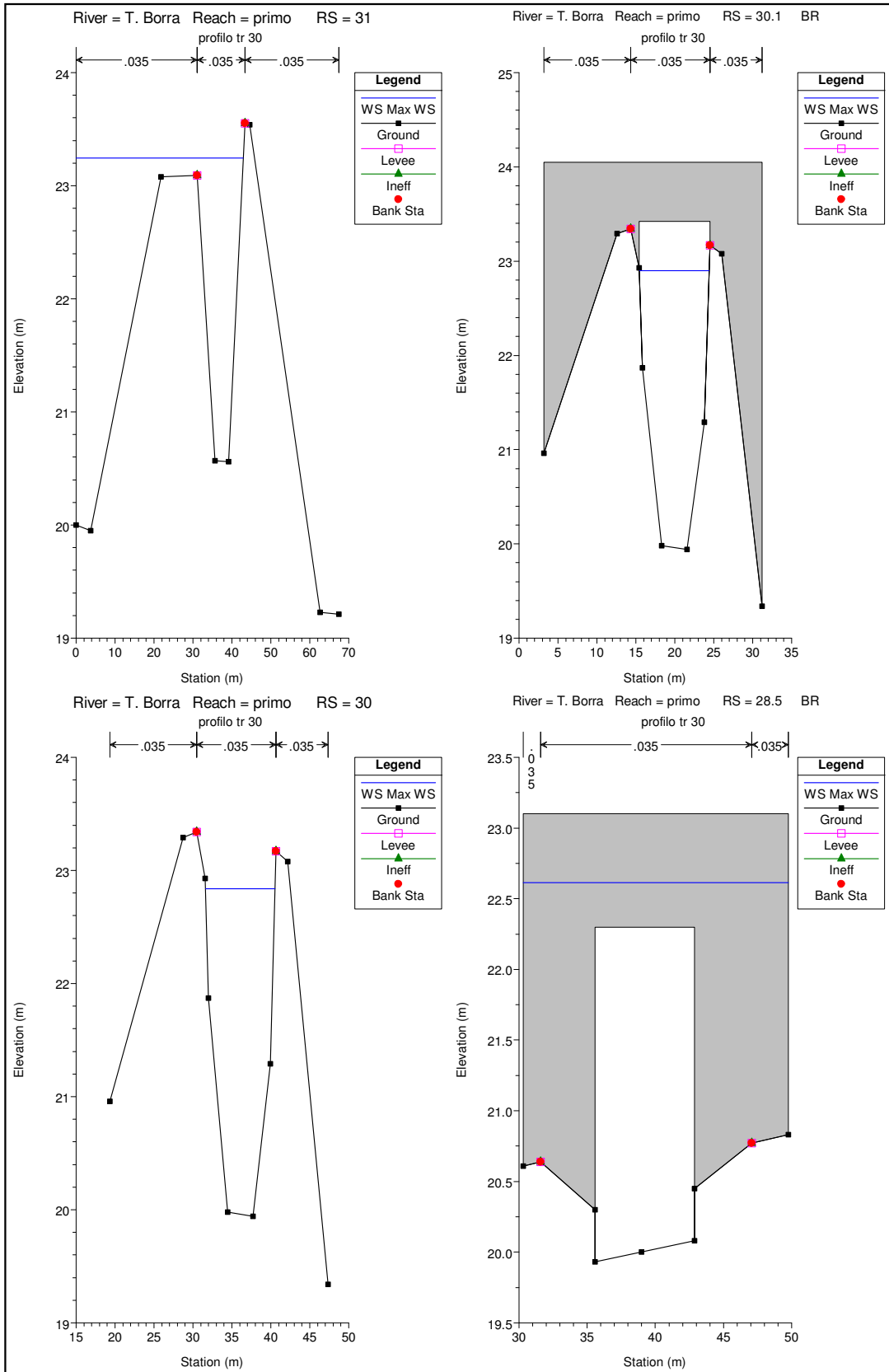
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	28.5											
		Bridge										
primo	28.41	Max WS	40.78	19.93	21.61		21.86	0.005247	2.32	18.70	15.86	0.66
primo	28.4	Max WS	40.78	19.93	21.39		21.77	0.010155	2.84	15.21	15.86	0.89
primo	28.391											
		Lat Struct										
primo	28.39											
		Lat Struct										
primo	28.3	Max WS	12.73	19.07	21.01		21.06	0.000959	0.99	12.86	9.72	0.27
primo	28.2	Max WS	12.73	19.07	21.01	20.03	21.06	0.000965	0.99	12.83	9.71	0.28
primo	28.1											
		Bridge										
primo	28.011	Max WS	12.73	19.07	21.00		21.05	0.000989	1.00	12.72	9.67	0.28
primo	28.01	Max WS	12.73	19.07	20.99		21.04	0.001009	1.01	12.63	9.64	0.28

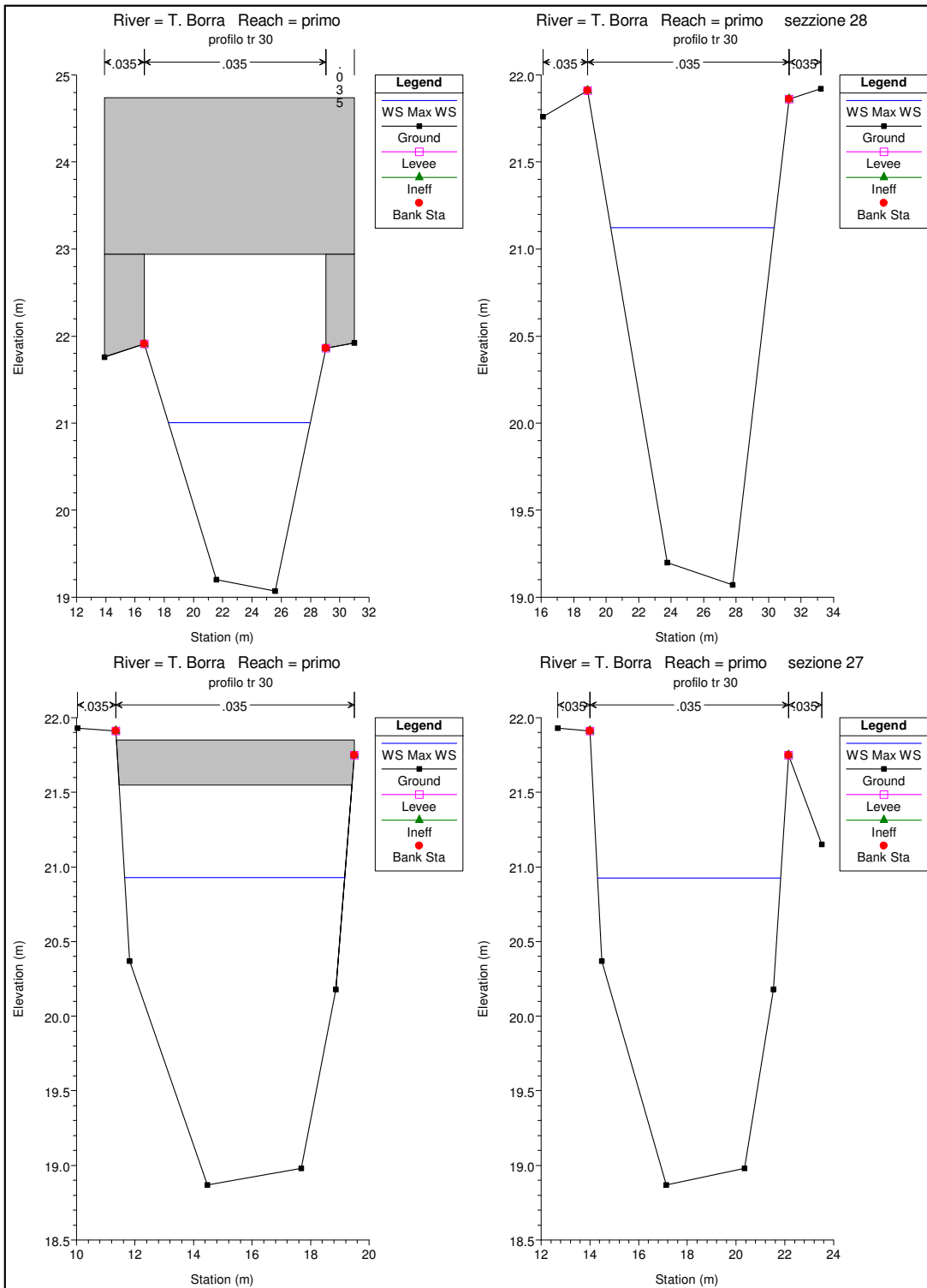


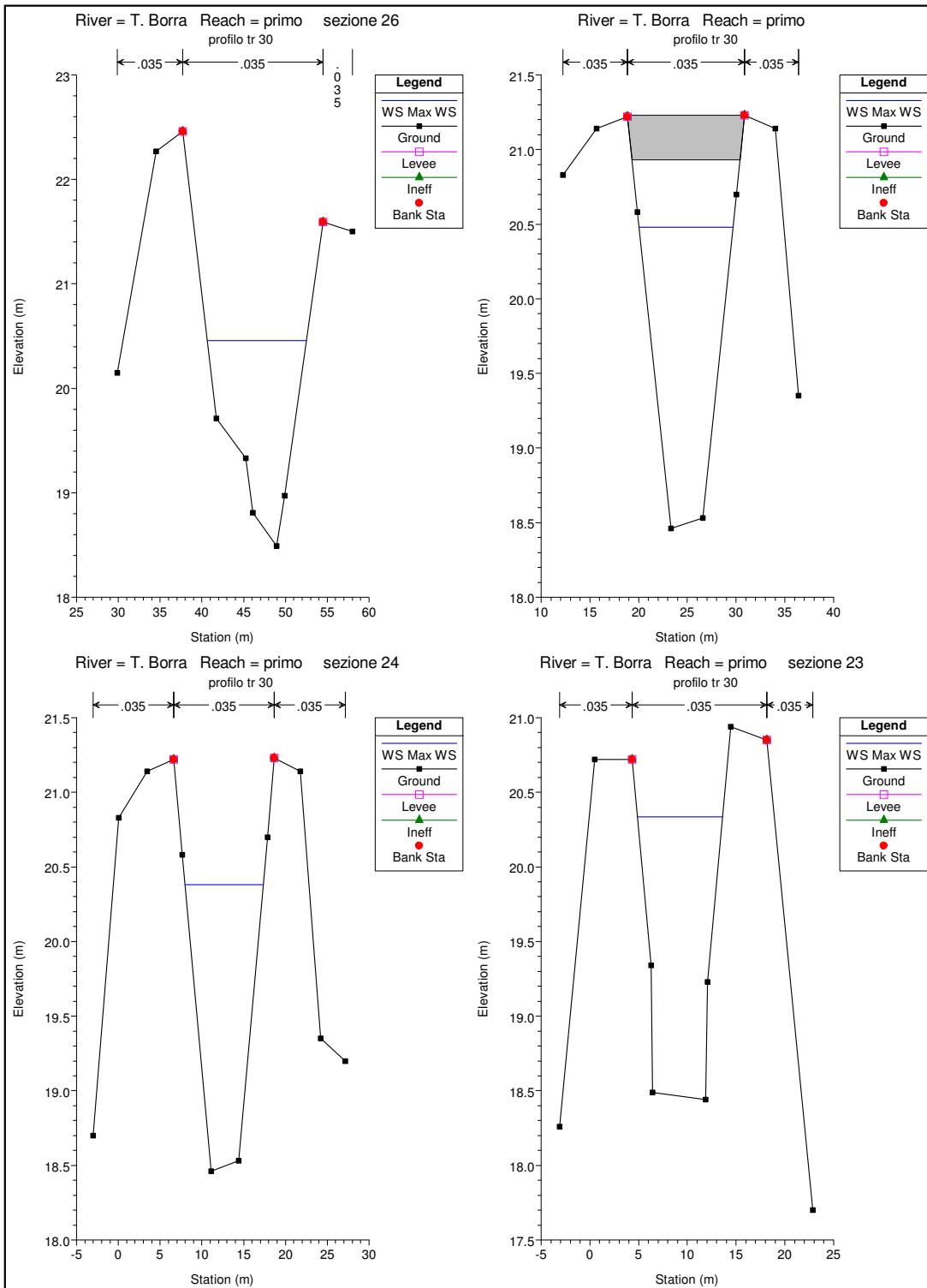


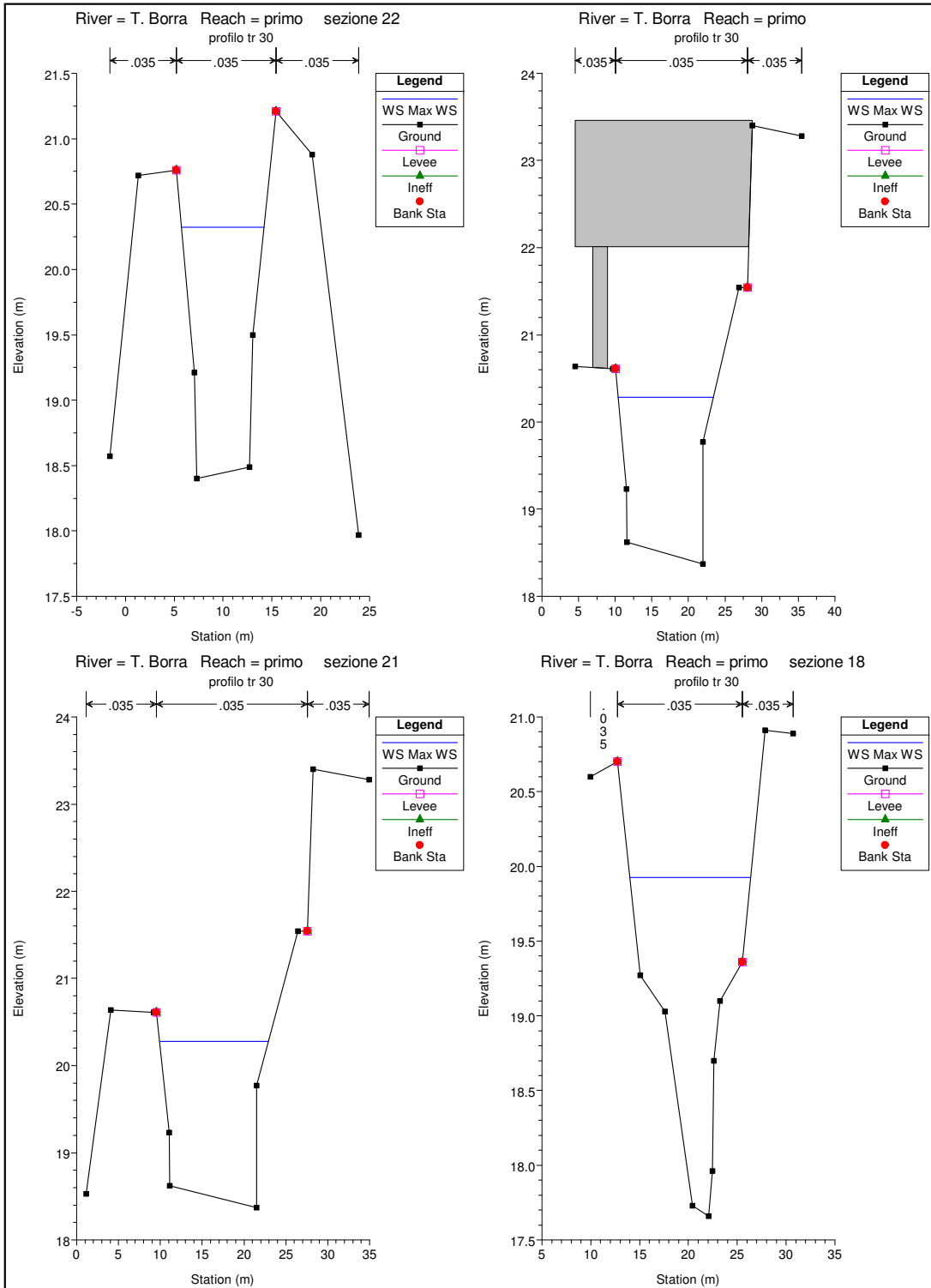


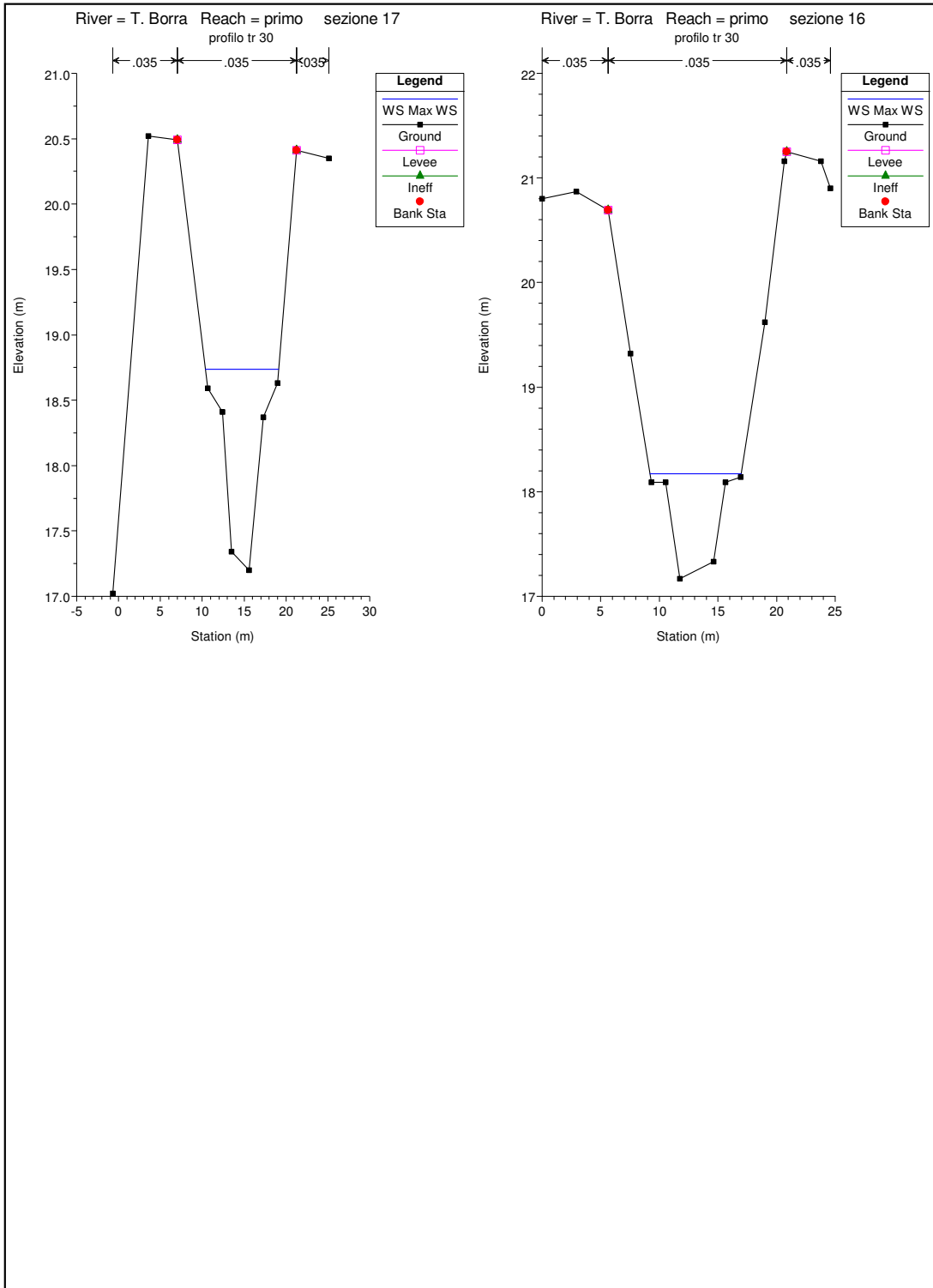










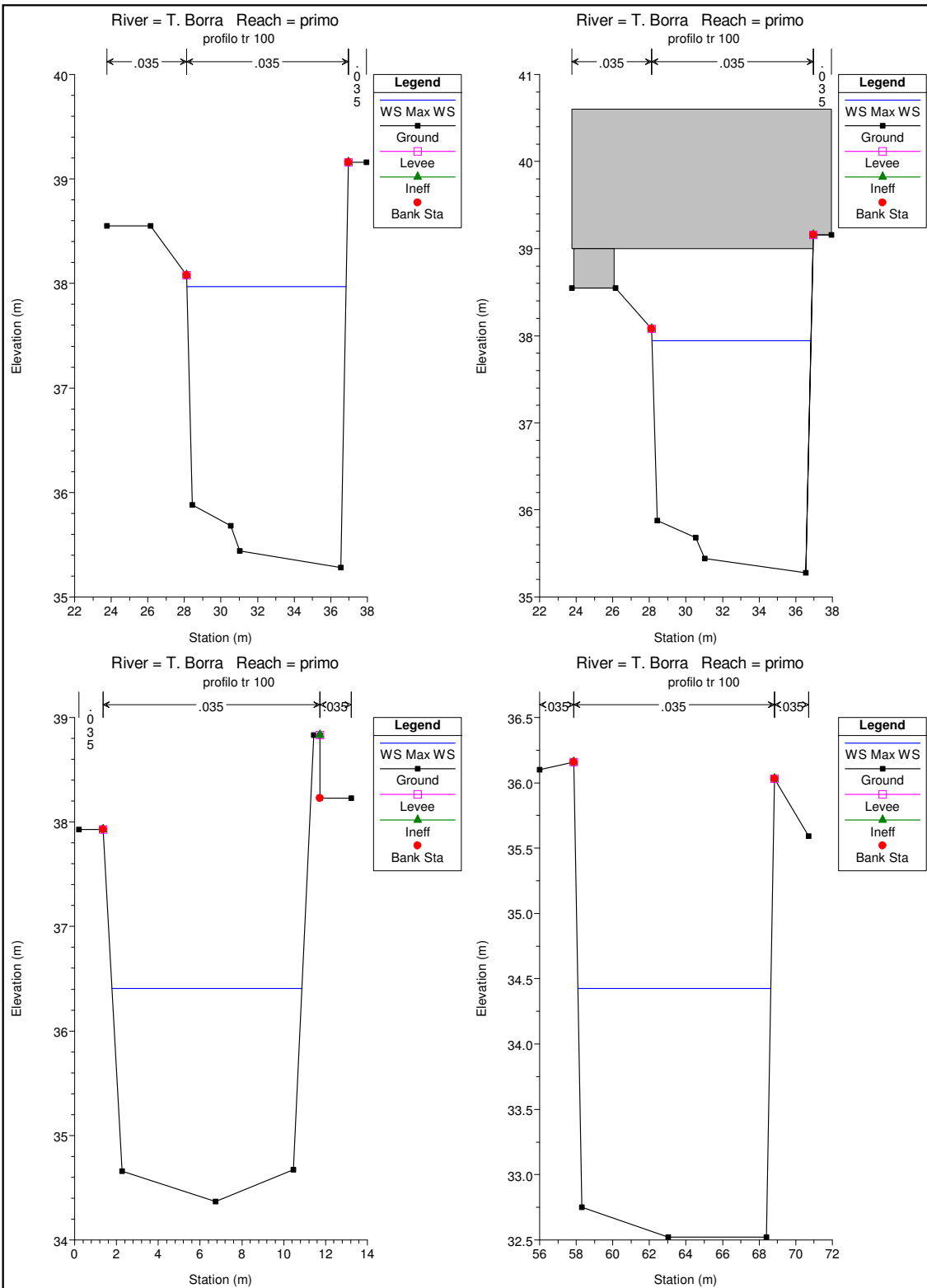


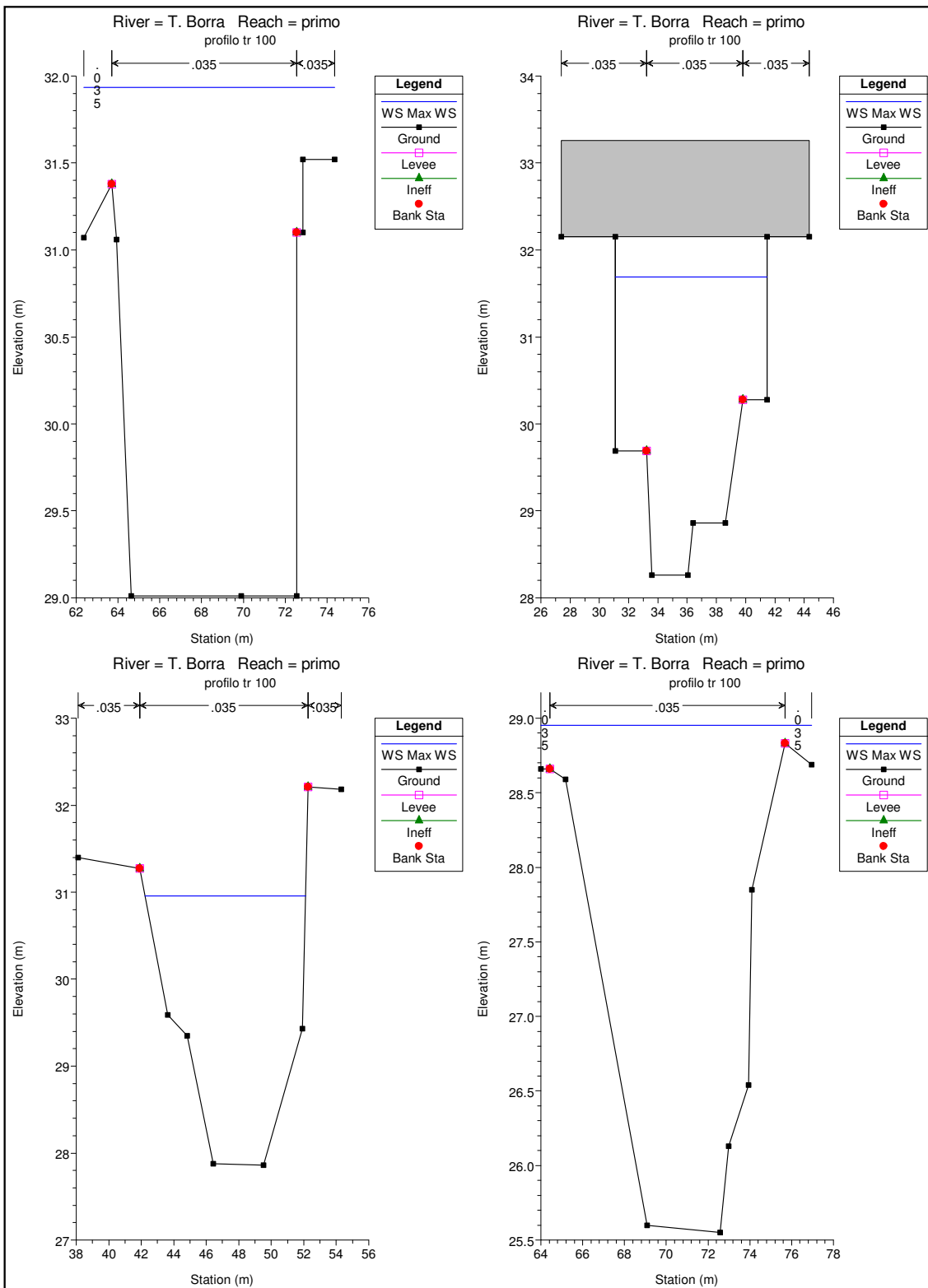
HEC-RAS Plan: Plan 58 River: T. Borra Reach: primo Profile: Max WS

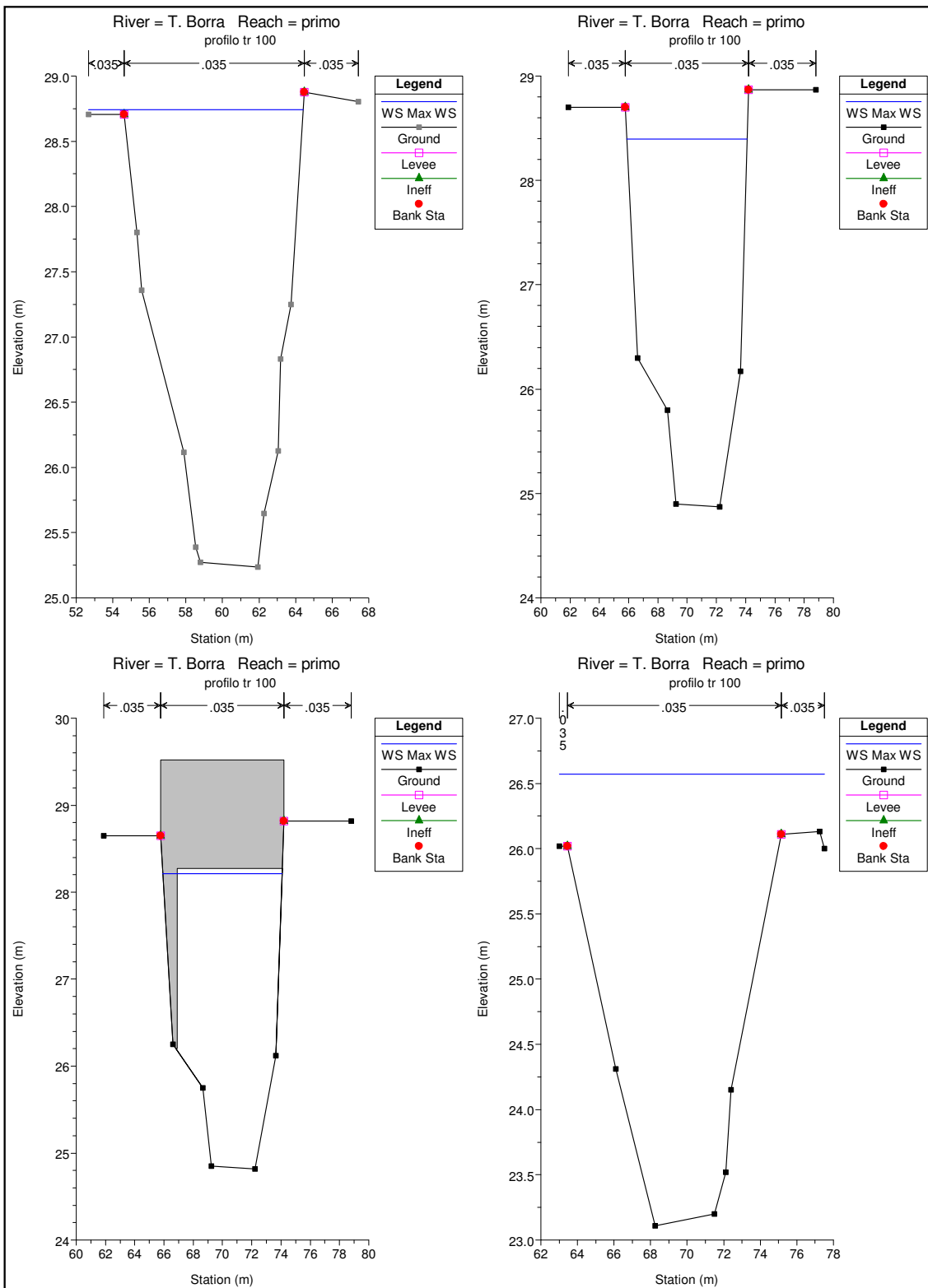
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	40.9	Max WS	65.80	35.95	39.69		39.90	0.001866	2.05	32.78	12.54	0.35
primo	40.8	Max WS	65.79	35.65	39.52		39.72	0.001629	1.96	34.47	12.54	0.33
primo	40.7	Max WS	65.76	35.55	39.28		39.49	0.001892	2.06	32.60	12.54	0.35
primo	40.6	Max WS	65.74	35.35	38.53		38.83	0.003205	2.45	26.87	9.07	0.45
primo	40.55	Max WS	65.74	35.35	38.46		38.78	0.003431	2.51	26.22	9.05	0.47
primo	40.5	Max WS	65.74	35.35	38.43		38.75	0.003538	2.53	25.93	9.04	0.48
primo	40.49	Max WS	65.74	35.35	38.42	37.28	38.75	0.003553	2.54	25.89	9.04	0.48
primo	40.4		Bridge									
primo	40.31	Max WS	65.74	35.35	38.41		38.74	0.003585	2.55	25.81	9.04	0.48
primo	40.3	Max WS	65.74	35.35	38.40		38.73	0.003635	2.56	25.68	9.04	0.48
primo	40.2	Max WS	65.73	35.35	38.23		38.61	0.004298	2.72	24.19	9.00	0.53
primo	40.1	Max WS	65.73	35.28	38.10		38.55	0.005540	2.98	22.03	8.80	0.60
primo	40	Max WS	65.73	35.28	37.97		38.47	0.006411	3.14	20.93	8.70	0.65
primo	39.99	Max WS	65.73	35.28	37.94	37.35	38.46	0.006674	3.18	20.64	8.69	0.66
primo	39.3		Bridge									
primo	39.21	Max WS	65.73	35.28	37.79		38.38	0.008028	3.40	19.34	8.66	0.73
primo	39.2	Max WS	65.73	35.28	37.62		38.31	0.010036	3.67	17.90	8.62	0.81
primo	39.1	Max WS	65.73	34.50	36.69	36.85	37.75	0.017524	4.56	14.41	8.75	1.14
primo	39	Max WS	65.73	34.37	36.40	36.36	37.24	0.013136	4.05	16.23	9.08	0.97
primo	38.1	Max WS	65.68	33.74	35.62	35.72	36.62	0.016880	4.42	14.87	8.82	1.09
primo	38	Max WS	74.06	32.52	34.43		35.19	0.011850	3.88	19.09	10.54	0.92
primo	37	Max WS	74.04	29.01	31.94		32.37	0.005280	2.94	26.47	11.99	0.56
primo	36.6	Max WS	74.04	28.76	31.94		32.29	0.003847	2.66	29.56	11.99	0.49
primo	36.5	Max WS	74.04	28.36	31.72		32.22	0.004726	3.30	25.24	10.37	0.62
primo	36.4	Max WS	74.04	28.26	31.71		32.17	0.004267	3.19	26.11	10.37	0.59
primo	36.39	Max WS	74.04	28.26	31.69	30.97	32.16	0.004371	3.22	25.91	10.37	0.60
primo	36.3		Bridge									
primo	36.21	Max WS	74.03	28.26	31.56		32.08	0.005103	3.37	24.60	10.37	0.64
primo	36.2	Max WS	74.03	28.26	31.47		32.03	0.005720	3.50	23.68	10.37	0.68
primo	36.1	Max WS	74.03	28.26	31.44		32.01	0.005986	3.55	23.32	10.37	0.69
primo	36	Max WS	74.03	27.86	30.96		31.55	0.007054	3.40	21.75	9.89	0.73
primo	35.5	Max WS	74.01	26.45	29.63		30.22	0.007709	3.39	21.89	11.83	0.77
primo	35	Max WS	74.00	25.55	28.95		29.42	0.005455	3.03	24.68	12.96	0.66
primo	34.1	Max WS	74.00	24.92	28.45		29.00	0.006159	3.30	22.45	8.24	0.64
primo	34	Max WS	74.00	24.87	28.40		28.95	0.006153	3.29	22.46	8.24	0.64
primo	33.9	Max WS	74.00	24.82	28.38	27.58	28.92	0.005938	3.25	22.75	8.26	0.63
primo	33.4		Bridge									
primo	33.31	Max WS	74.00	24.77	28.16		28.77	0.007078	3.47	21.34	8.17	0.68
primo	33.3	Max WS	74.00	24.72	28.03		28.68	0.007717	3.58	20.68	8.12	0.72
primo	33.2	Max WS	74.00	24.58	27.64		28.44	0.010149	3.95	18.72	7.98	0.82
primo	33.19		Lat Struct									
primo	33.1	Max WS	57.50	23.21	26.61		26.76	0.001624	1.81	38.28	32.23	0.38
primo	33	Max WS	57.50	23.11	26.57		26.78	0.001987	2.04	29.05	14.50	0.42
primo	32.99	Max WS	57.50	23.11	26.57	25.42	26.78	0.002005	2.05	28.96	14.50	0.43
primo	32.6		Bridge									
primo	32.51	Max WS	57.50	23.11	26.30		26.57	0.003070	2.34	25.03	14.50	0.52
primo	32.5	Max WS	57.50	23.08	26.28		26.55	0.003005	2.32	25.21	14.50	0.51
primo	32.49		Lat Struct									
primo	32.4	Max WS	54.67	22.91	25.89		26.20	0.003902	2.47	22.37	13.39	0.57
primo	32.3	Max WS	54.65	21.61	24.37		24.74	0.004880	2.69	20.30	11.17	0.64
primo	32.2	Max WS	54.65	21.61	24.36	23.79	24.73	0.004985	2.71	20.14	11.13	0.64
primo	32.1		Bridge									
primo	32.011	Max WS	54.65	21.61	24.33		24.72	0.005151	2.75	19.90	11.07	0.65
primo	32.01	Max WS	54.65	21.61	24.29		24.70	0.005462	2.81	19.47	10.96	0.67
primo	32	Max WS	54.65	21.61	24.20		24.65	0.006344	2.97	18.42	10.69	0.72
primo	31.1	Max WS	54.65	21.61	24.10		24.60	0.007385	3.14	17.41	10.43	0.78
primo	31.091		Lat Struct									
primo	31.09		Lat Struct									
primo	31	Max WS	48.45	20.56	23.37		23.39	0.000339	0.73	70.96	43.07	0.17
primo	30.3	Max WS	44.86	19.94	22.93		23.17	0.002810	2.18	20.55	9.00	0.46
primo	30.2	Max WS	44.86	19.94	22.92	21.92	23.16	0.002849	2.19	20.45	8.99	0.46
primo	30.1		Bridge									
primo	30.011	Max WS	44.86	19.94	22.89		23.14	0.002943	2.22	20.21	8.97	0.47
primo	30.01	Max WS	44.86	19.94	22.86		23.12	0.003079	2.26	19.89	8.94	0.48
primo	30	Max WS	44.86	19.94	22.85		23.11	0.003112	2.26	19.81	8.94	0.49
primo	29.4		Lat Struct									
primo	29.3	Max WS	44.86	19.94	22.82		23.09	0.003234	2.30	19.54	8.91	0.49
primo	29.2	Max WS	41.75	19.93	22.93		22.99	0.000494	1.15	39.69	15.86	0.23
primo	29.1	Max WS	41.75	19.93	22.92		22.99	0.000498	1.15	39.60	15.86	0.23
primo	29	Max WS	41.75	19.93	22.91		22.97	0.000510	1.16	39.31	15.86	0.23
primo	28.99	Max WS	41.75	19.93	22.90	21.33	22.96	0.000512	1.16	39.25	15.86	0.23
primo	28.5		Bridge									
primo	28.41	Max WS	41.75	19.93	21.62		21.88	0.005330	2.35	18.88	15.86	0.67
primo	28.4	Max WS	41.75	19.93	21.40		21.79	0.010285	2.87	15.37	15.86	0.90
primo	28.391		Lat Struct									
primo	28.39		Lat Struct									
primo	28.3	Max WS	12.77	19.07	21.01		21.06	0.000963	0.99	12.87	9.72	0.28
primo	28.2	Max WS	12.77	19.07	21.01	20.03	21.06	0.000969	0.99	12.84	9.71	0.28
primo	28.1		Bridge									
primo	28.011	Max WS	12.77	19.07	21.00		21.05	0.000993	1.00	12.73	9.67	0.28
primo	28.01	Max WS	12.77	19.07	20.99		21.04	0.001014	1.01	12.63	9.64	0.28
primo	28	Max WS	12.77	19.07	20.98		21.03	0.001026	1.02	12.58	9.63	0.28
primo	27.411		Lat Struct									
primo	27.41		Lat Struct									
primo	27.4	Max WS	12.77	19.07	20.95		21.00	0.001099	1.04	12.26	9.53	0.29

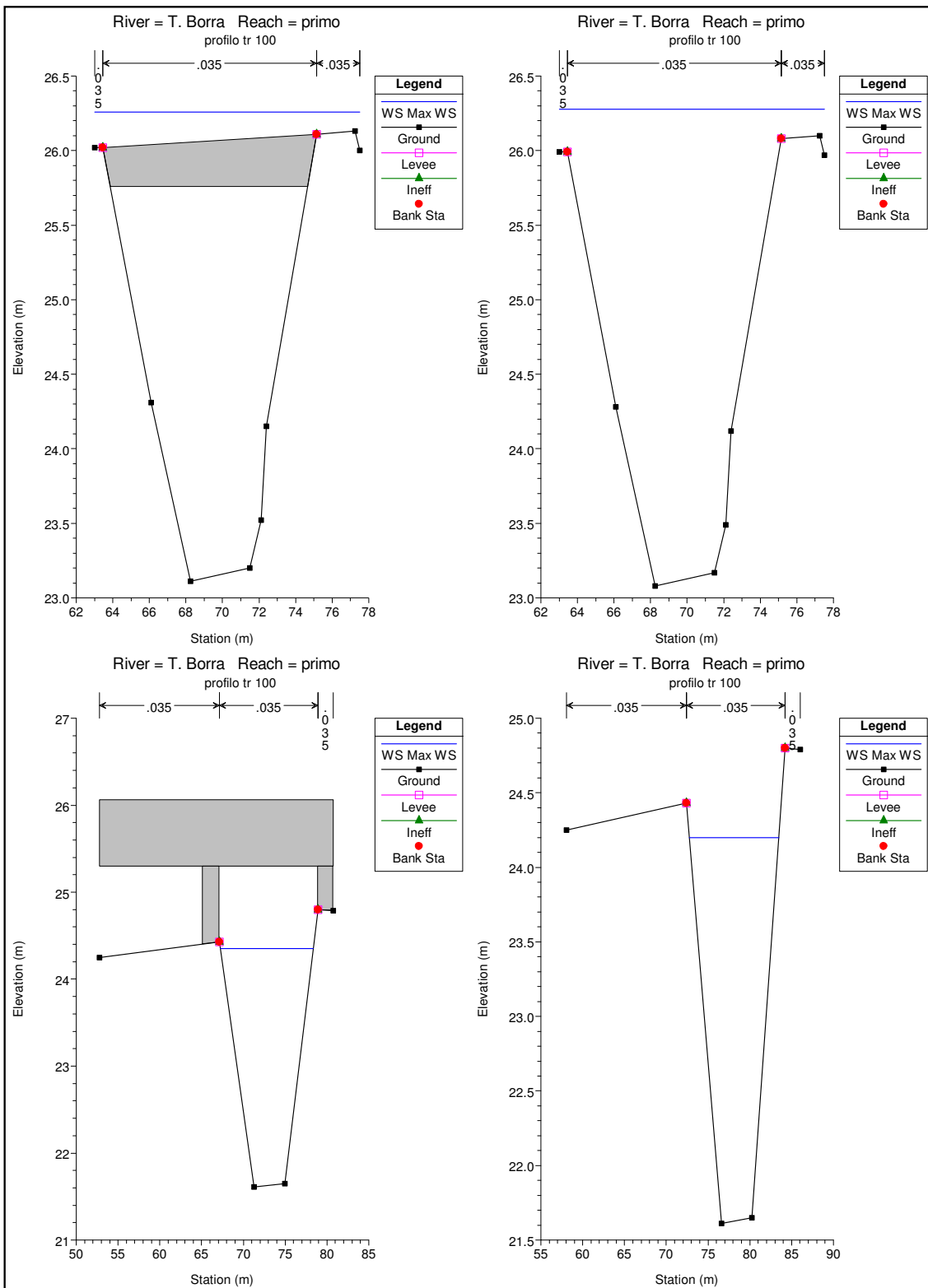
HEC-RAS Plan: Plan 58 River: T. Borra Reach: primo Profile: Max WS (Continued)

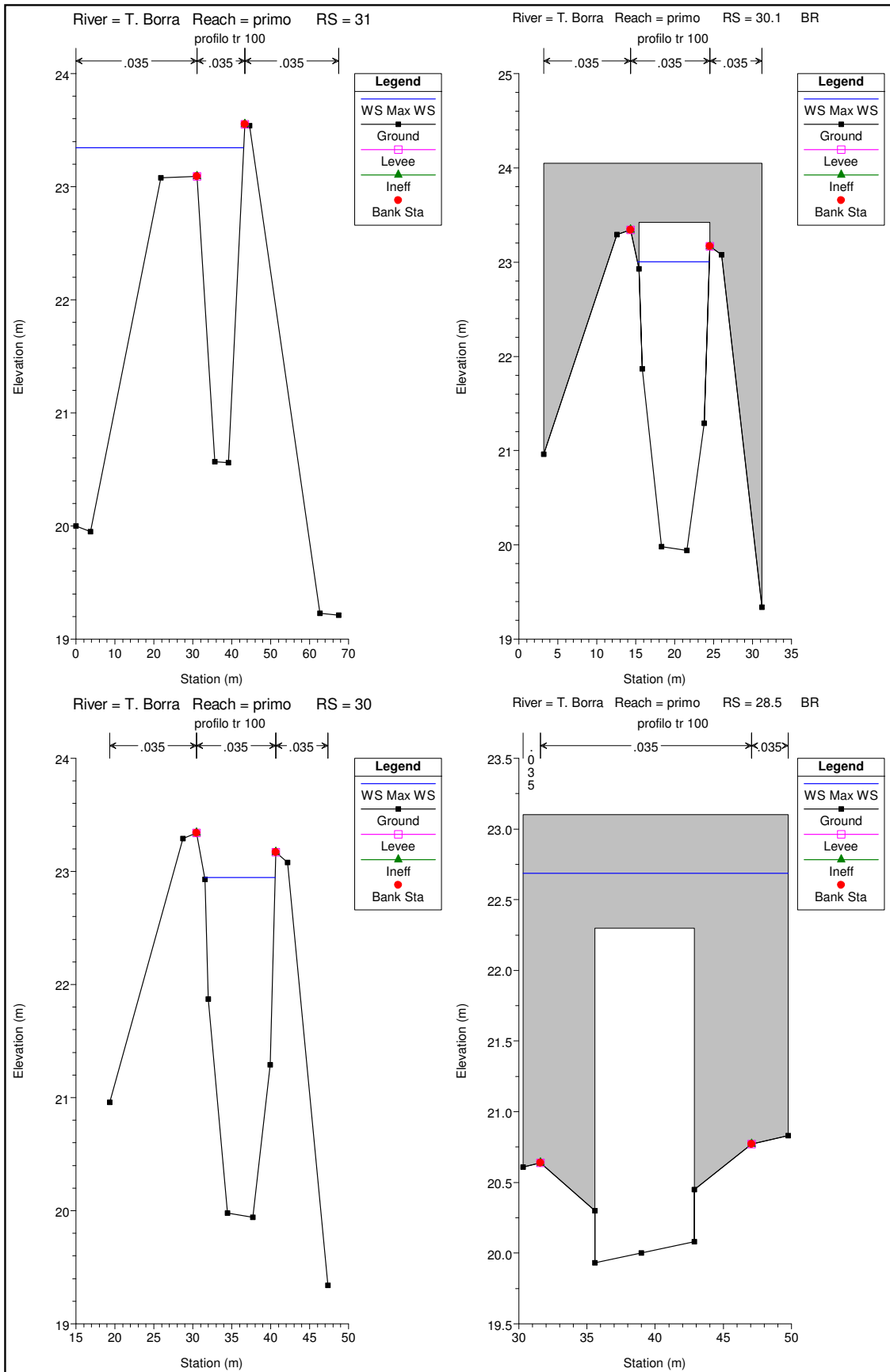
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	27.3	Max WS	12.77	18.87	20.90		20.96	0.001158	1.12	11.42	7.50	0.29
primo	27.2	Max WS	12.77	18.87	20.90	19.93	20.96	0.001161	1.12	11.41	7.50	0.29
primo	27.1	Bridge										
primo	27.011	Max WS	12.77	18.87	20.89		20.96	0.001172	1.12	11.38	7.49	0.29
primo	27.01	Max WS	12.77	18.87	20.89		20.95	0.001181	1.13	11.35	7.49	0.29
primo	27	Max WS	12.77	18.87	20.88		20.94	0.001199	1.13	11.29	7.49	0.29
primo	26.12	Lat Struct										
primo	26.11	Lat Struct										
primo	26.1	Max WS	12.77	18.87	20.80		20.87	0.001400	1.19	10.69	7.43	0.32
primo	26	Max WS	12.77	18.49	20.45		20.49	0.001003	0.94	13.56	11.85	0.28
primo	25.053	Max WS	12.77	18.46	20.43		20.49	0.001056	1.03	12.40	9.51	0.29
primo	25.052	Max WS	12.77	18.46	20.43	19.47	20.49	0.001058	1.03	12.39	9.50	0.29
primo	25.0518	Bridge										
primo	25.0511	Max WS	12.77	18.46	20.43		20.48	0.001063	1.03	12.37	9.50	0.29
primo	25.051	Max WS	12.77	18.46	20.43		20.48	0.001071	1.04	12.33	9.48	0.29
primo	25.05	Max WS	12.77	18.46	20.41		20.47	0.001095	1.04	12.23	9.45	0.29
primo	24.521	Lat Struct										
primo	24.52	Lat Struct										
primo	24.51	Max WS	12.77	18.46	20.37		20.43	0.001211	1.08	11.79	9.30	0.31
primo	24.5	Max WS	12.77	18.46	20.30		20.37	0.001392	1.14	11.20	9.09	0.33
primo	23.51	Lat Struct										
primo	23.5	Max WS	12.77	18.44	20.17		20.24	0.001573	1.18	10.83	8.28	0.33
primo	22.5	Max WS	12.77	18.40	20.10		20.17	0.001737	1.24	10.30	7.86	0.35
primo	21.03	Max WS	12.77	18.37	20.03		20.06	0.000619	0.78	16.42	12.03	0.21
primo	21.02	Max WS	12.77	18.37	20.02		20.05	0.000629	0.78	16.33	12.00	0.21
primo	21.019	Max WS	12.77	18.37	20.02	19.03	20.05	0.000631	0.78	16.31	12.00	0.21
primo	21.01	Bridge										
primo	21.0011	Max WS	12.77	18.37	20.01		20.04	0.000640	0.79	16.22	11.97	0.22
primo	21.001	Max WS	12.77	18.37	20.00		20.04	0.000649	0.79	16.14	11.94	0.22
primo	21	Max WS	12.77	18.37	20.00		20.03	0.000651	0.79	16.12	11.94	0.22
primo	20.512	Lat Struct										
primo	20.511	Lat Struct										
primo	20.51	Max WS	12.77	18.37	19.99		20.02	0.000668	0.80	15.98	11.89	0.22
primo	20.5	Max WS	12.77	18.15	19.91		19.98	0.001722	1.18	10.79	9.56	0.36
primo	18.1	Lat Struct										
primo	18	Max WS	12.77	17.66	19.90		19.94	0.001043	0.95	13.58	12.29	0.28
primo	17	Max WS	12.77	17.20	18.56	18.56	18.89	0.016047	2.55	5.00	7.60	1.00
primo	16	Max WS	12.77	17.17	18.36		18.64	0.012938	2.33	5.49	8.34	0.92
primo	7.01	Max WS	12.77	16.68	18.26	17.46	18.30	0.001008	0.87	14.67	14.40	0.28

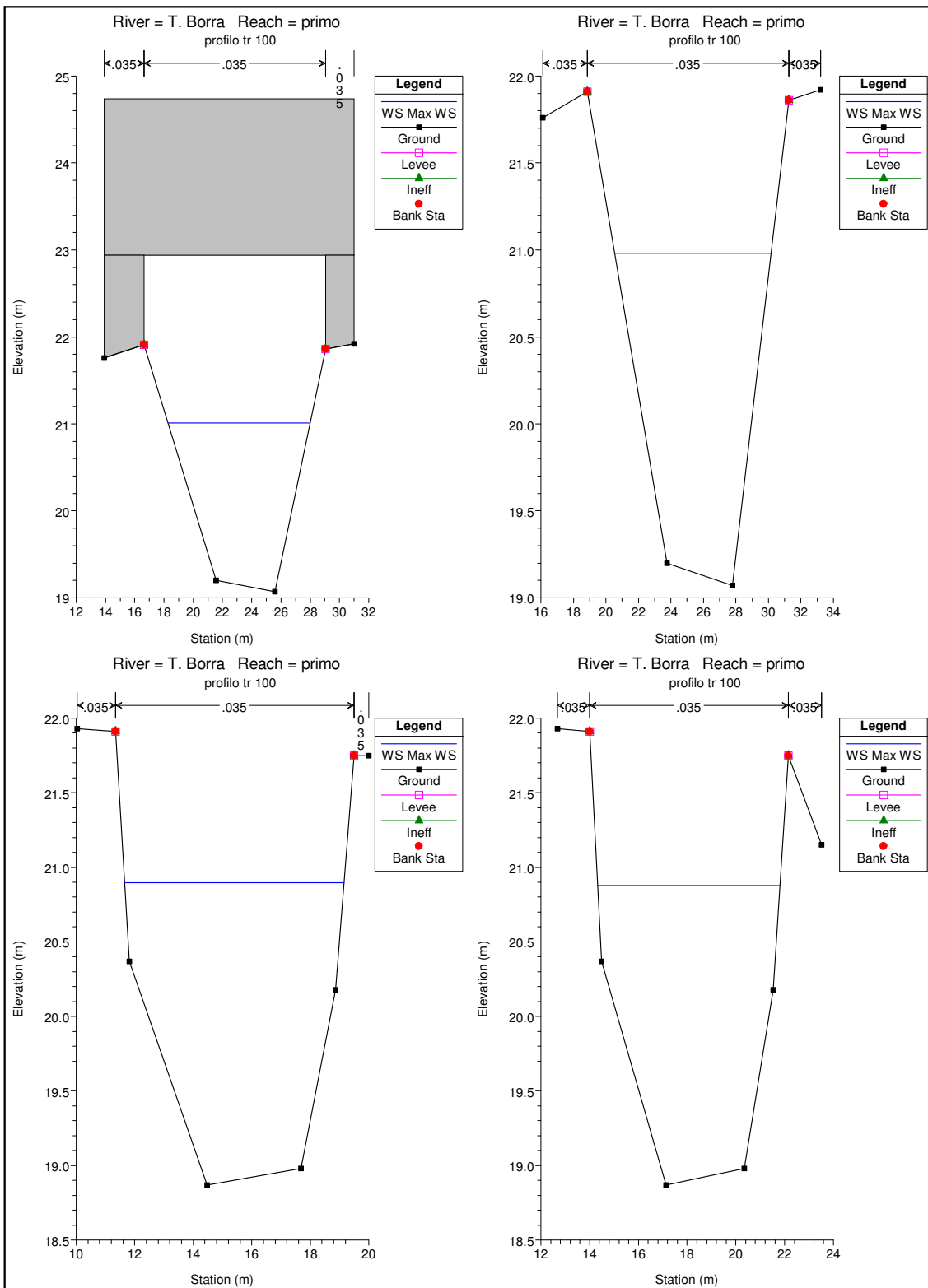


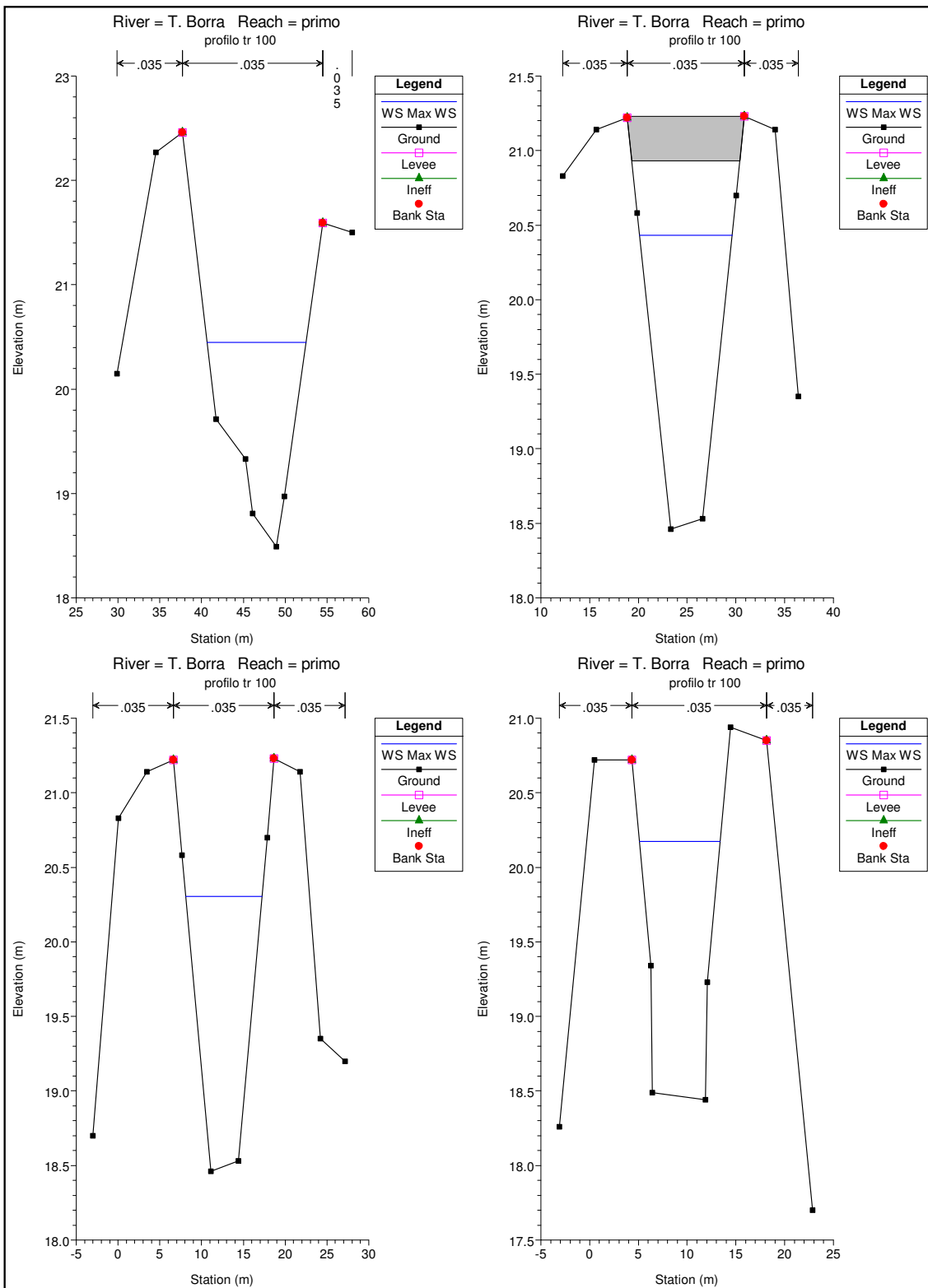


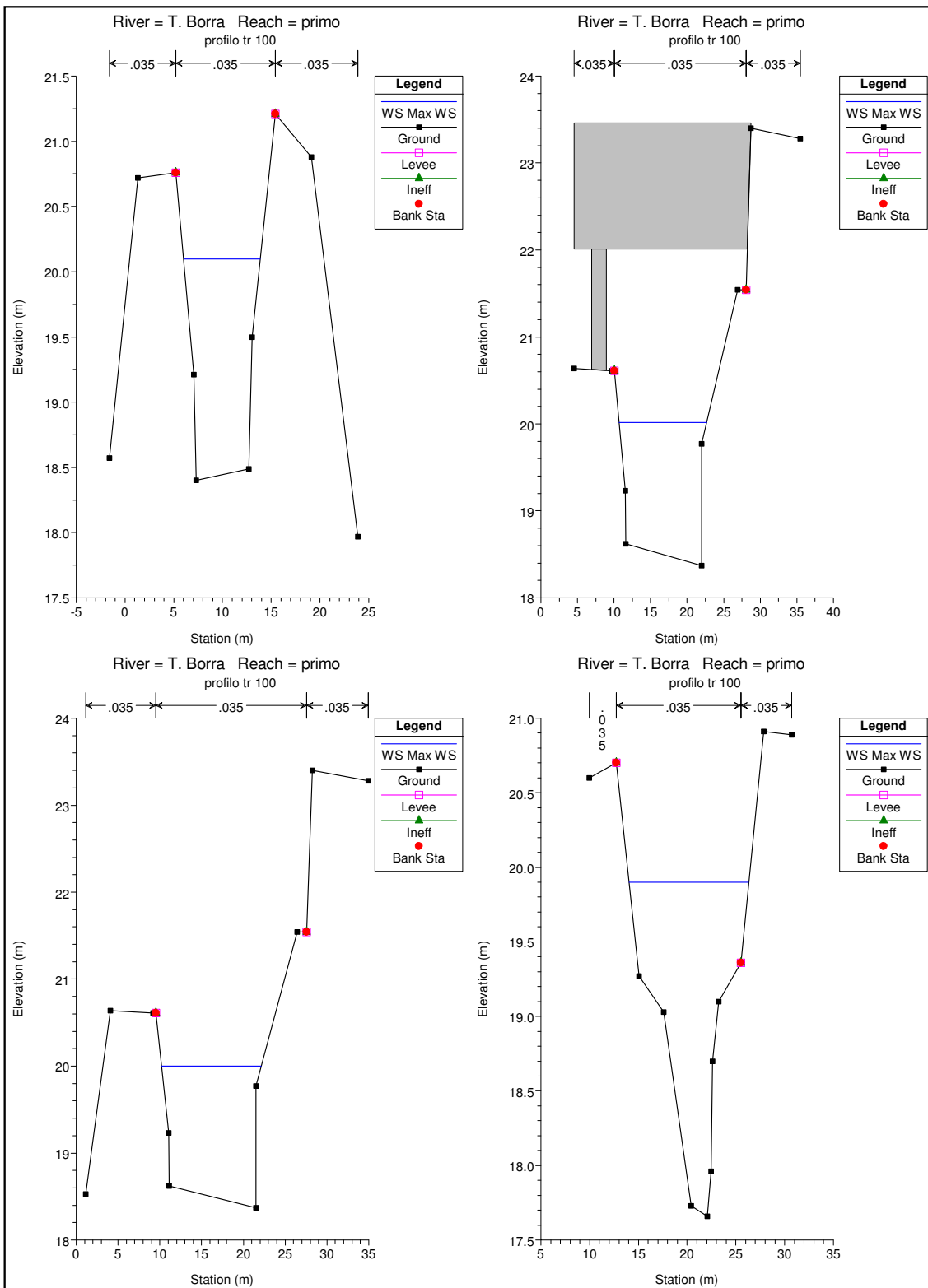


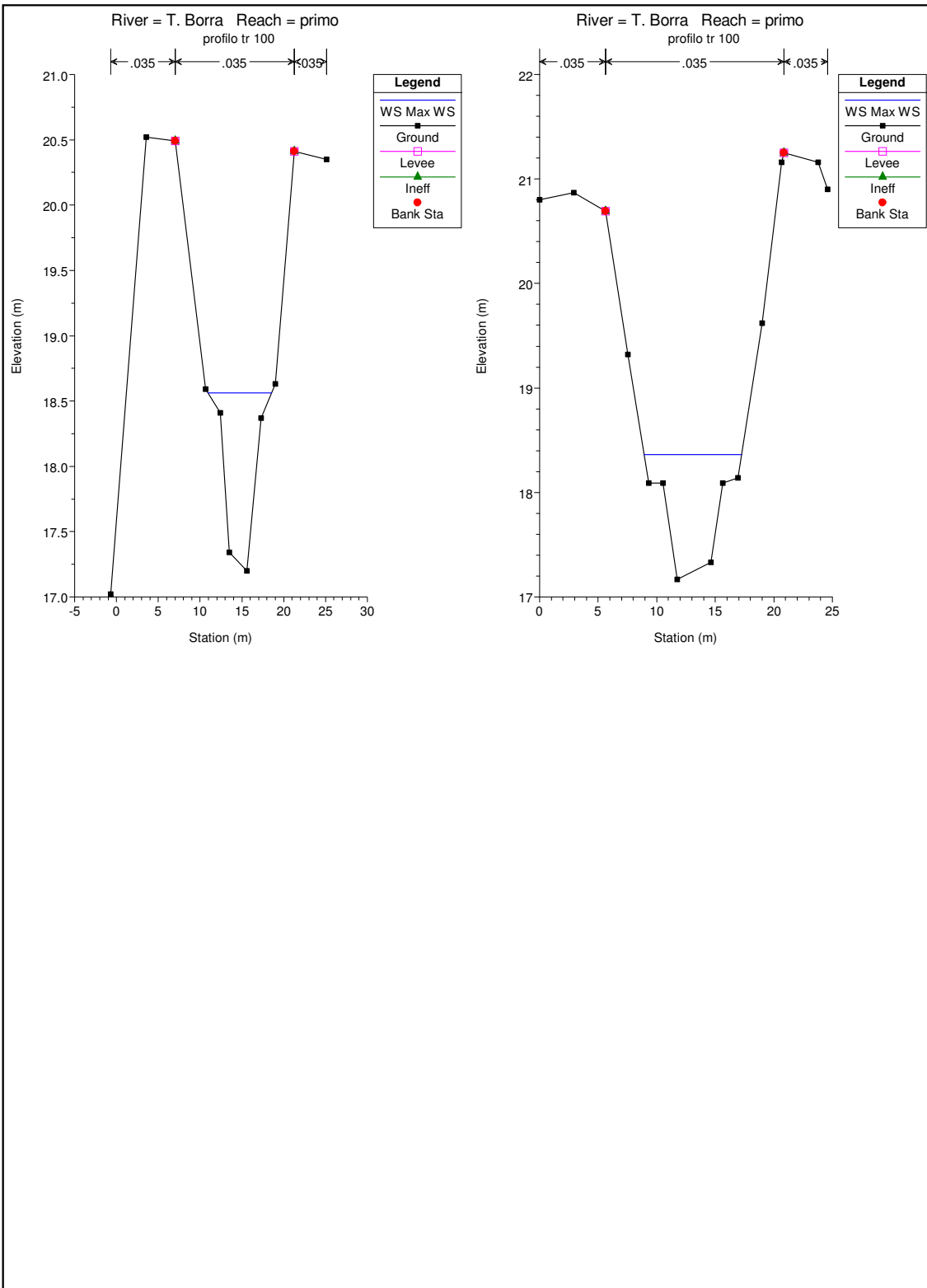






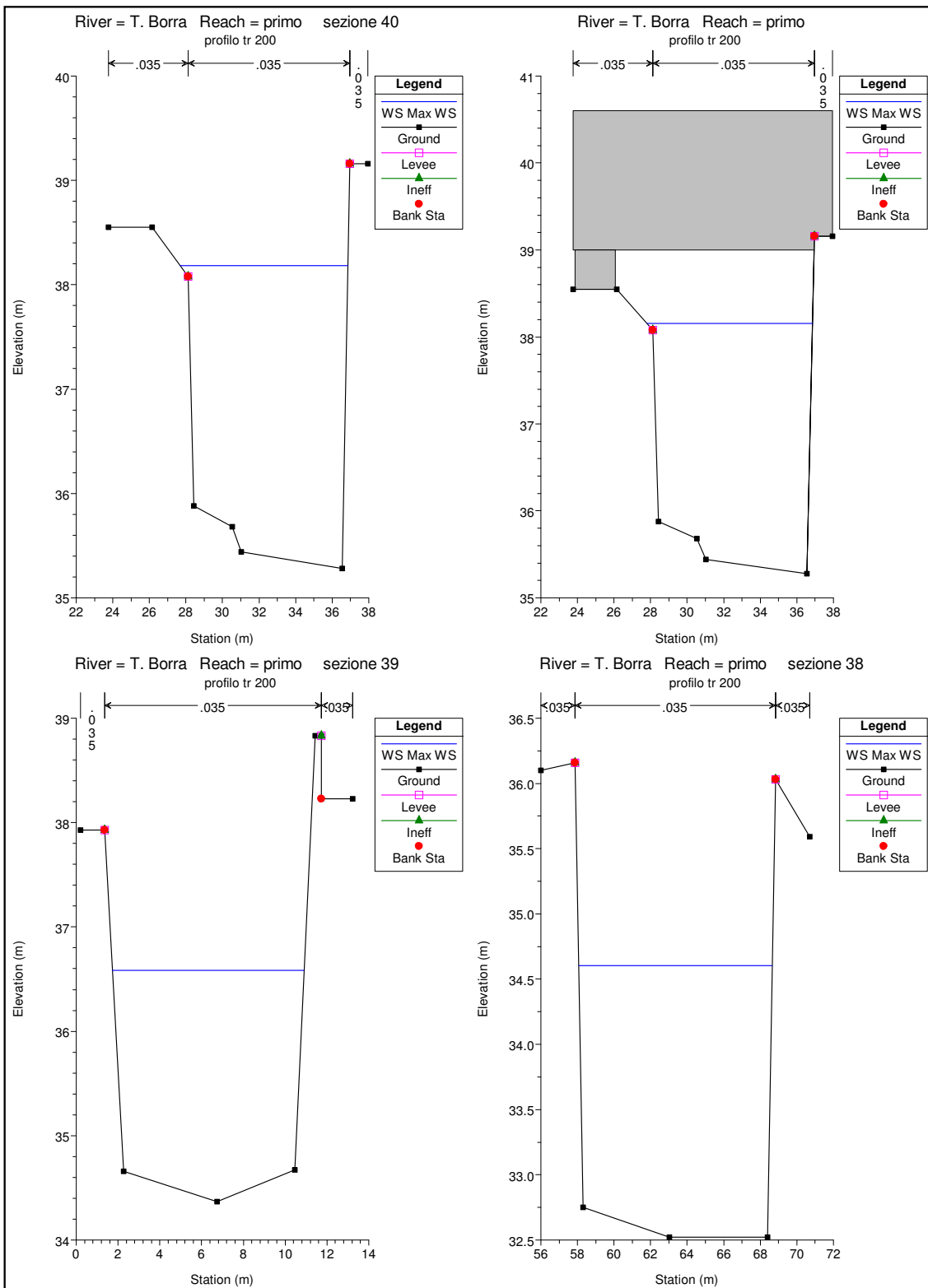


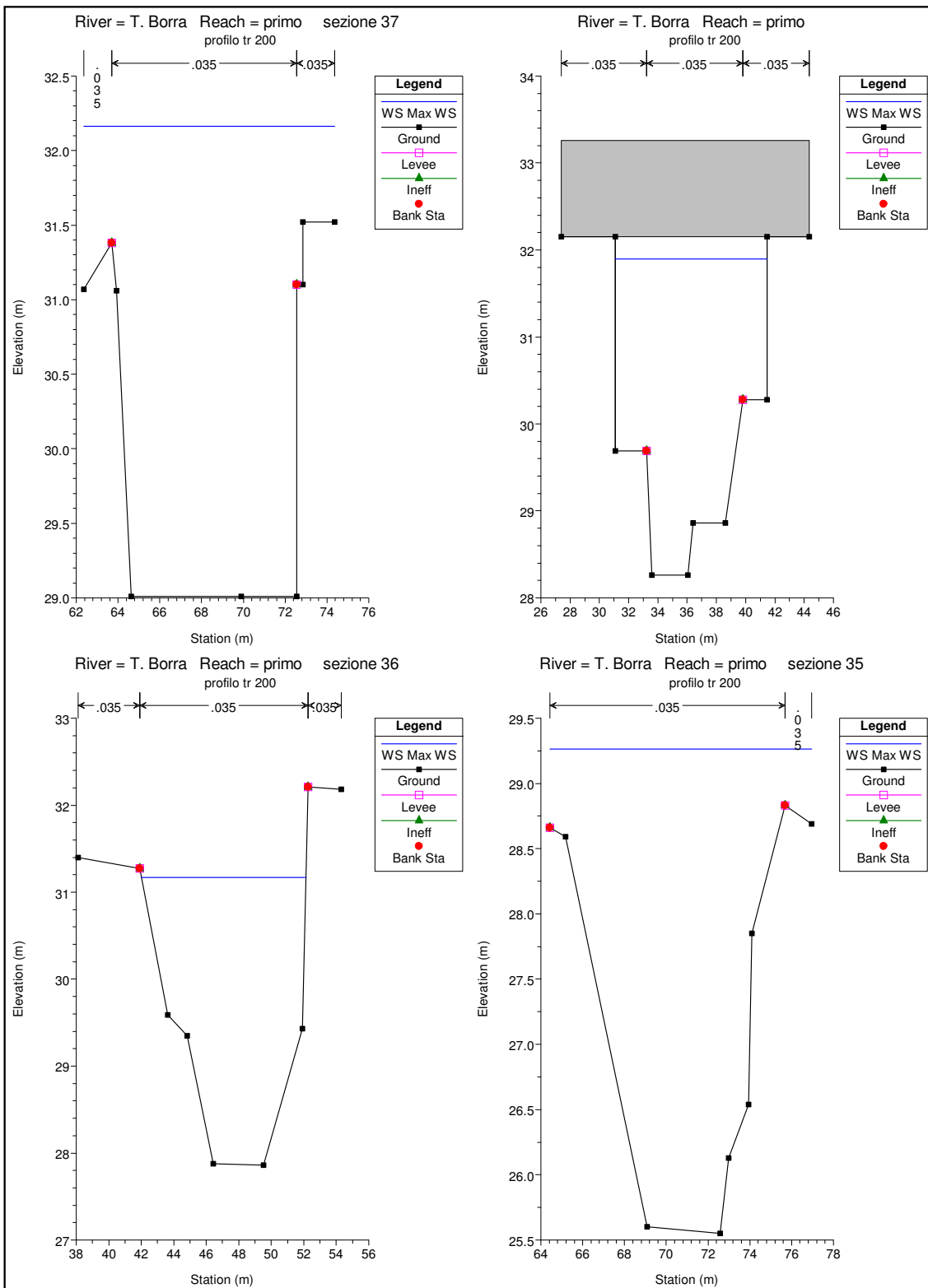


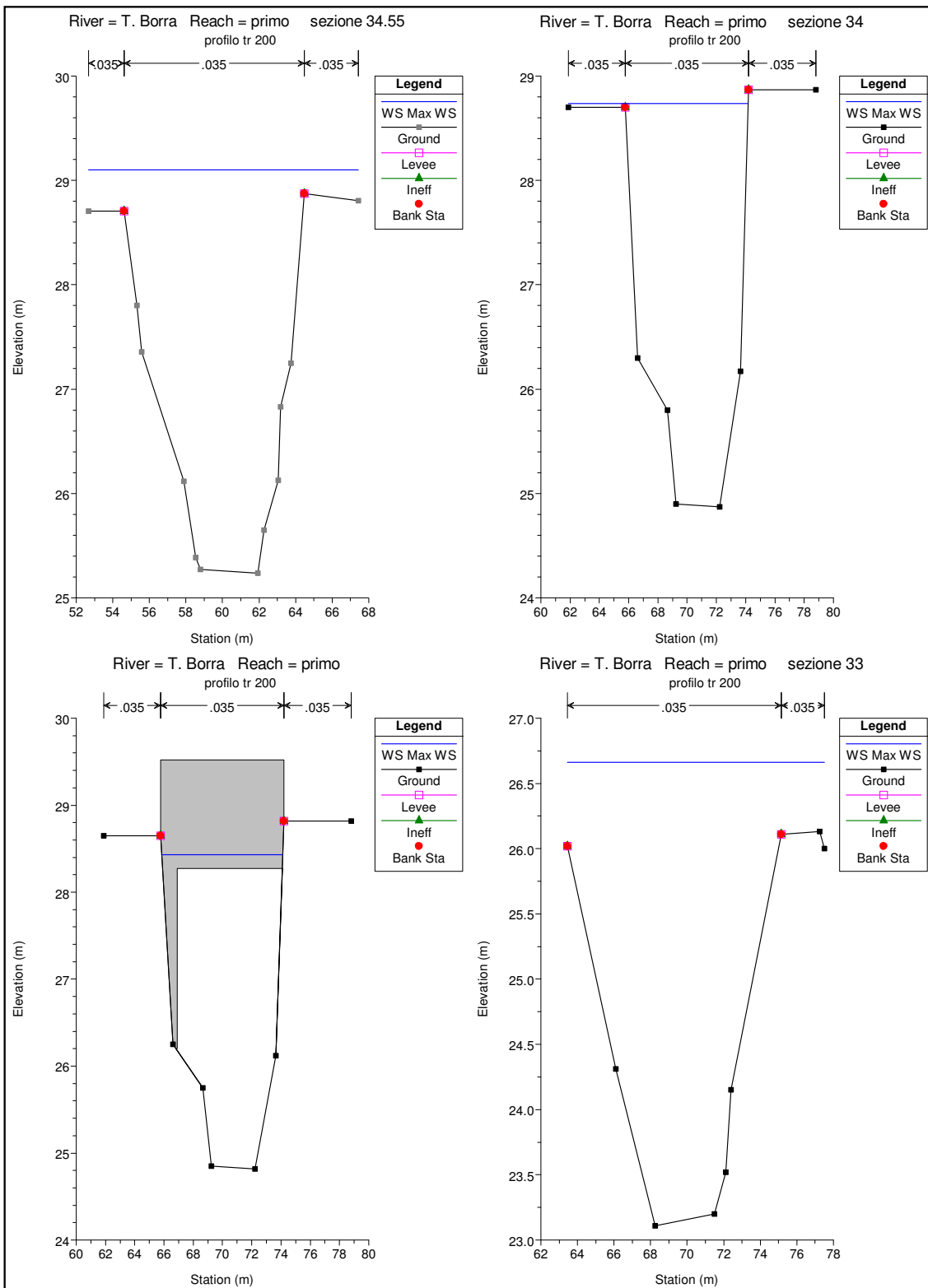


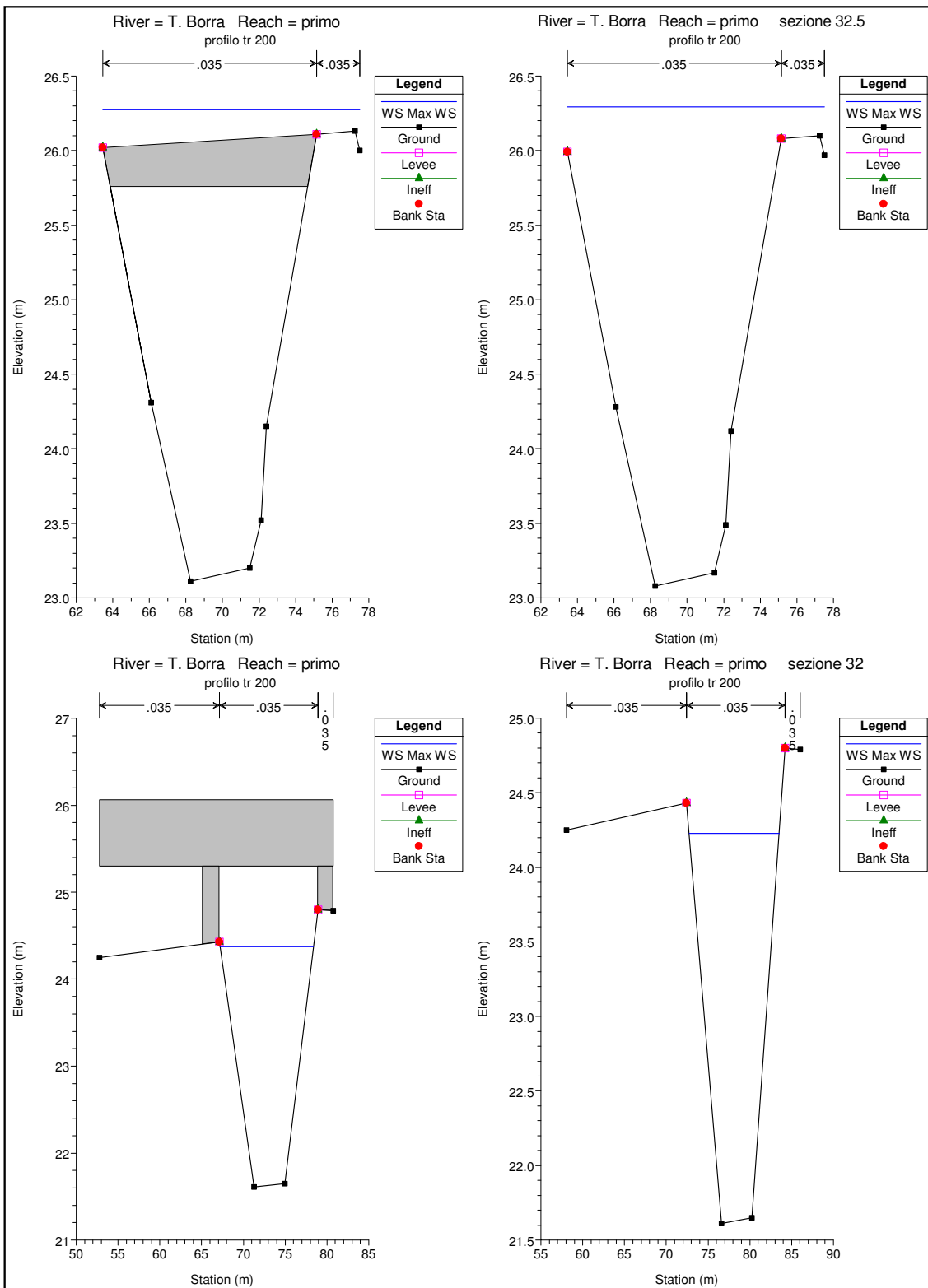
HEC-RAS Plan: Plan 28 River: T. Borra Reach: primo Profile: Max WS

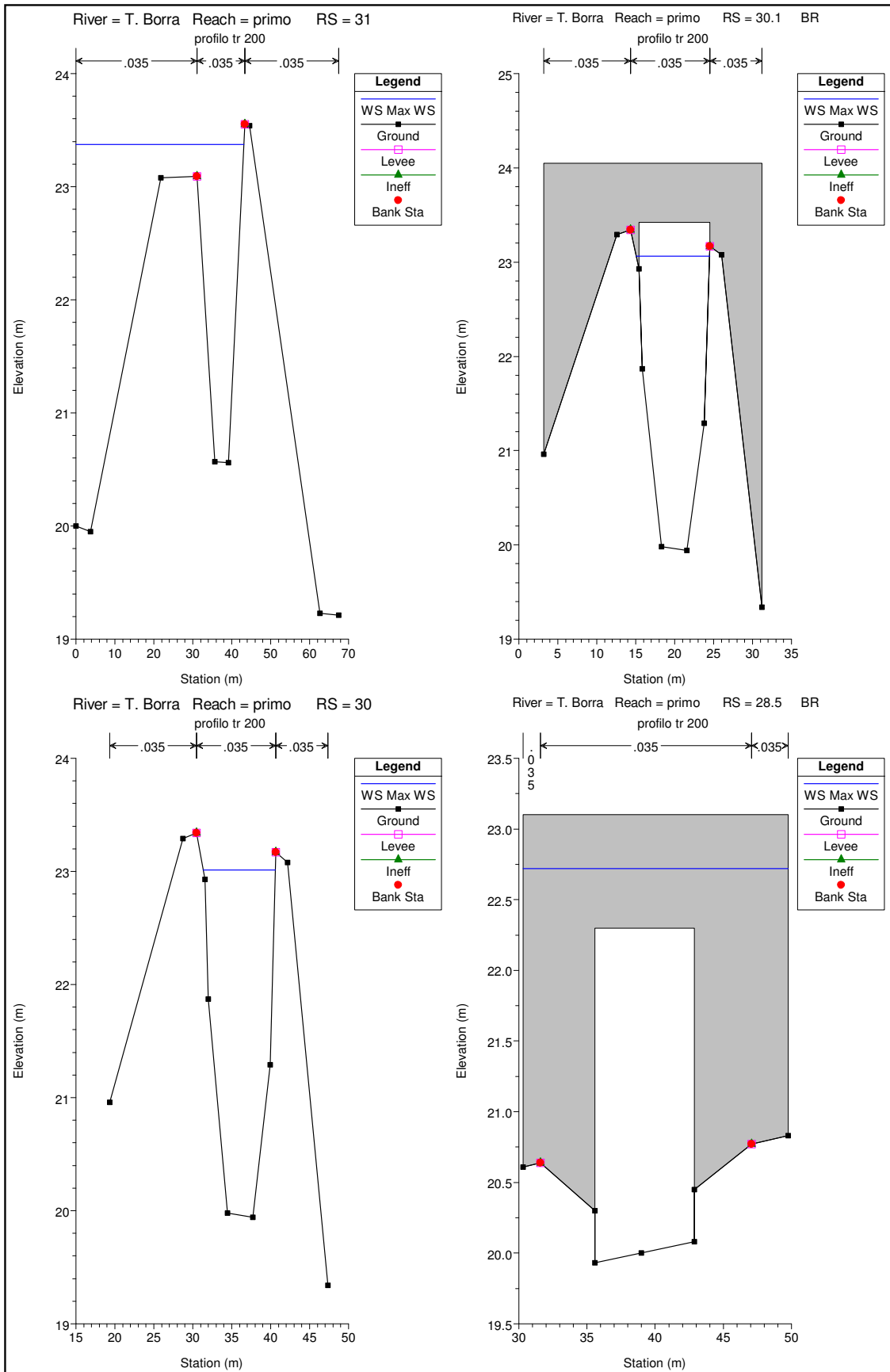
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	40.9	Max WS	76.01	35.95	40.01		40.24	0.001813	2.14	36.82	12.54	0.35
primo	40.8	Max WS	75.98	35.65	39.84		40.05	0.001610	2.06	38.40	12.54	0.33
primo	40.7	Max WS	75.96	35.55	39.57		39.81	0.001877	2.16	36.35	12.54	0.35
primo	40.6	Max WS	75.95	35.35	38.78		39.13	0.003368	2.60	29.22	9.77	0.46
primo	40.55	Max WS	75.95	35.35	38.71		39.07	0.003626	2.67	28.49	9.32	0.48
primo	40.5	Max WS	75.95	35.35	38.67		39.04	0.003747	2.70	28.18	9.12	0.49
primo	40.49	Max WS	75.95	35.35	38.67	37.46	39.04	0.003765	2.70	28.14	9.10	0.49
primo	40.4	Bridge										
primo	40.31	Max WS	75.95	35.35	38.66		39.03	0.003808	2.71	28.02	9.09	0.49
primo	40.3	Max WS	75.95	35.35	38.64		39.02	0.003861	2.72	27.88	9.09	0.50
primo	40.2	Max WS	75.95	35.35	38.46		38.89	0.004557	2.89	26.27	9.05	0.54
primo	40.1	Max WS	75.95	35.28	38.32		38.83	0.005703	3.17	24.08	9.76	0.61
primo	40	Max WS	75.95	35.28	38.18		38.75	0.006666	3.33	22.81	9.18	0.66
primo	39.99	Max WS	75.95	35.28	38.15	37.53	38.73	0.006957	3.38	22.48	9.02	0.67
primo	39.3	Bridge										
primo	39.21	Max WS	75.95	35.28	37.99		38.65	0.008407	3.61	21.07	8.70	0.74
primo	39.2	Max WS	75.95	35.28	37.81		38.58	0.010422	3.89	19.53	8.66	0.83
primo	39.1	Max WS	75.95	34.50	36.87	37.04	38.01	0.017422	4.74	16.01	9.04	1.14
primo	39	Max WS	75.95	34.37	36.58	36.55	37.50	0.013269	4.25	17.87	9.17	0.97
primo	38.1	Max WS	75.92	33.74	35.80	35.90	36.89	0.016825	4.62	16.44	8.91	1.08
primo	38	Max WS	84.46	32.52	34.60		35.43	0.011689	4.03	20.96	10.58	0.91
primo	37	Max WS	84.43	29.01	32.16		32.63	0.005179	3.06	29.21	11.99	0.56
primo	36.6	Max WS	84.43	28.76	32.17		32.56	0.003862	2.80	32.31	11.99	0.49
primo	36.5	Max WS	84.43	28.36	31.93		32.48	0.004798	3.48	27.41	10.37	0.63
primo	36.4	Max WS	84.43	28.26	31.92		32.43	0.004368	3.38	28.29	10.37	0.61
primo	36.39	Max WS	84.43	28.26	31.89	31.13	32.42	0.004472	3.41	28.06	10.37	0.61
primo	36.3	Bridge										
primo	36.21	Max WS	84.43	28.26	31.77		32.34	0.005178	3.56	26.72	10.37	0.66
primo	36.2	Max WS	84.43	28.26	31.68		32.29	0.005764	3.68	25.78	10.37	0.69
primo	36.1	Max WS	84.43	28.26	31.64		32.27	0.006012	3.73	25.42	10.37	0.70
primo	36	Max WS	84.42	27.86	31.17		31.81	0.007087	3.54	23.87	10.13	0.74
primo	35.5	Max WS	84.38	26.45	29.88		30.48	0.007117	3.42	24.66	11.27	0.74
primo	35	Max WS	84.36	25.55	29.26		29.72	0.004749	3.01	28.45	12.54	0.61
primo	34.1	Max WS	84.35	24.92	28.78		29.35	0.005789	3.34	25.37	12.31	0.62
primo	34	Max WS	84.35	24.87	28.74		29.30	0.005759	3.33	25.44	12.31	0.61
primo	33.9	Max WS	84.35	24.82	28.72	27.78	29.27	0.005541	3.29	25.89	12.32	0.60
primo	33.4	Bridge										
primo	33.31	Max WS	84.35	24.77	28.36		29.05	0.007496	3.67	22.99	8.28	0.70
primo	33.3	Max WS	84.34	24.72	28.21		28.95	0.008265	3.80	22.18	8.22	0.74
primo	33.2	Max WS	84.29	24.58	27.78		28.70	0.011192	4.24	19.86	8.06	0.86
primo	33.19	Lat Struct										
primo	33.1	Max WS	59.34	23.21	26.70		26.83	0.001442	1.75	41.11	32.23	0.36
primo	33	Max WS	59.32	23.11	26.66		26.87	0.001982	2.03	30.06	14.04	0.41
primo	32.99	Max WS	59.32	23.11	26.66	25.46	26.87	0.001997	2.03	29.97	14.04	0.41
primo	32.6	Bridge										
primo	32.51	Max WS	59.32	23.11	26.31		26.60	0.003280	2.40	25.13	14.04	0.53
primo	32.5	Max WS	59.32	23.08	26.29		26.58	0.003220	2.38	25.29	14.04	0.52
primo	32.49	Lat Struct										
primo	32.4	Max WS	55.60	22.91	25.93		26.24	0.003775	2.46	22.92	15.50	0.56
primo	32.3	Max WS	55.46	21.61	24.39		24.76	0.004857	2.70	20.56	11.23	0.64
primo	32.2	Max WS	55.46	21.61	24.38	23.81	24.75	0.004965	2.72	20.39	11.19	0.64
primo	32.1	Bridge										
primo	32.011	Max WS	55.46	21.61	24.35		24.74	0.005141	2.76	20.13	11.12	0.65
primo	32.01	Max WS	55.59	21.61	24.31		24.72	0.005517	2.83	19.64	11.00	0.68
primo	32	Max WS	56.43	21.61	24.23		24.69	0.006445	3.01	18.75	10.78	0.73
primo	31.1	Max WS	56.37	21.61	24.13		24.65	0.007519	3.18	17.70	10.51	0.78
primo	31.091	Lat Struct										
primo	31.09	Lat Struct										
primo	31	Max WS	49.26	20.56	23.38		23.40	0.000344	0.74	71.43	43.09	0.17
primo	30.3	Max WS	45.25	19.94	22.94		23.19	0.002830	2.19	20.64	9.03	0.46
primo	30.2	Max WS	45.25	19.94	22.93	21.94	23.18	0.002863	2.20	20.54	9.00	0.47
primo	30.1	Bridge										
primo	30.011	Max WS	45.24	19.94	22.90		23.16	0.002958	2.23	20.30	8.98	0.47
primo	30.01	Max WS	45.24	19.94	22.87		23.13	0.003095	2.27	19.97	8.95	0.48
primo	30	Max WS	45.24	19.94	22.86		23.12	0.003129	2.27	19.89	8.94	0.49
primo	29.4	Lat Struct										
primo	29.3	Max WS	45.24	19.94	22.83		23.10	0.003251	2.31	19.62	8.92	0.50
primo	29.2	Max WS	42.05	19.93	22.94		23.00	0.000495	1.15	39.85	15.86	0.23
primo	29.1	Max WS	42.05	19.93	22.93		23.00	0.000498	1.15	39.77	15.86	0.23
primo	29	Max WS	42.03	19.93	22.92		22.98	0.000510	1.16	39.47	15.86	0.23
primo	28.99	Max WS	42.03	19.93	22.91	21.34	22.98	0.000512	1.16	39.41	15.86	0.23
primo	28.5	Bridge										
primo	28.41	Max WS	40.93	19.93	21.63		21.88	0.005007	2.29	19.02	15.86	0.65
primo	28.4	Max WS	40.80	19.93	21.41		21.78	0.009243	2.76	15.67	15.86	0.85

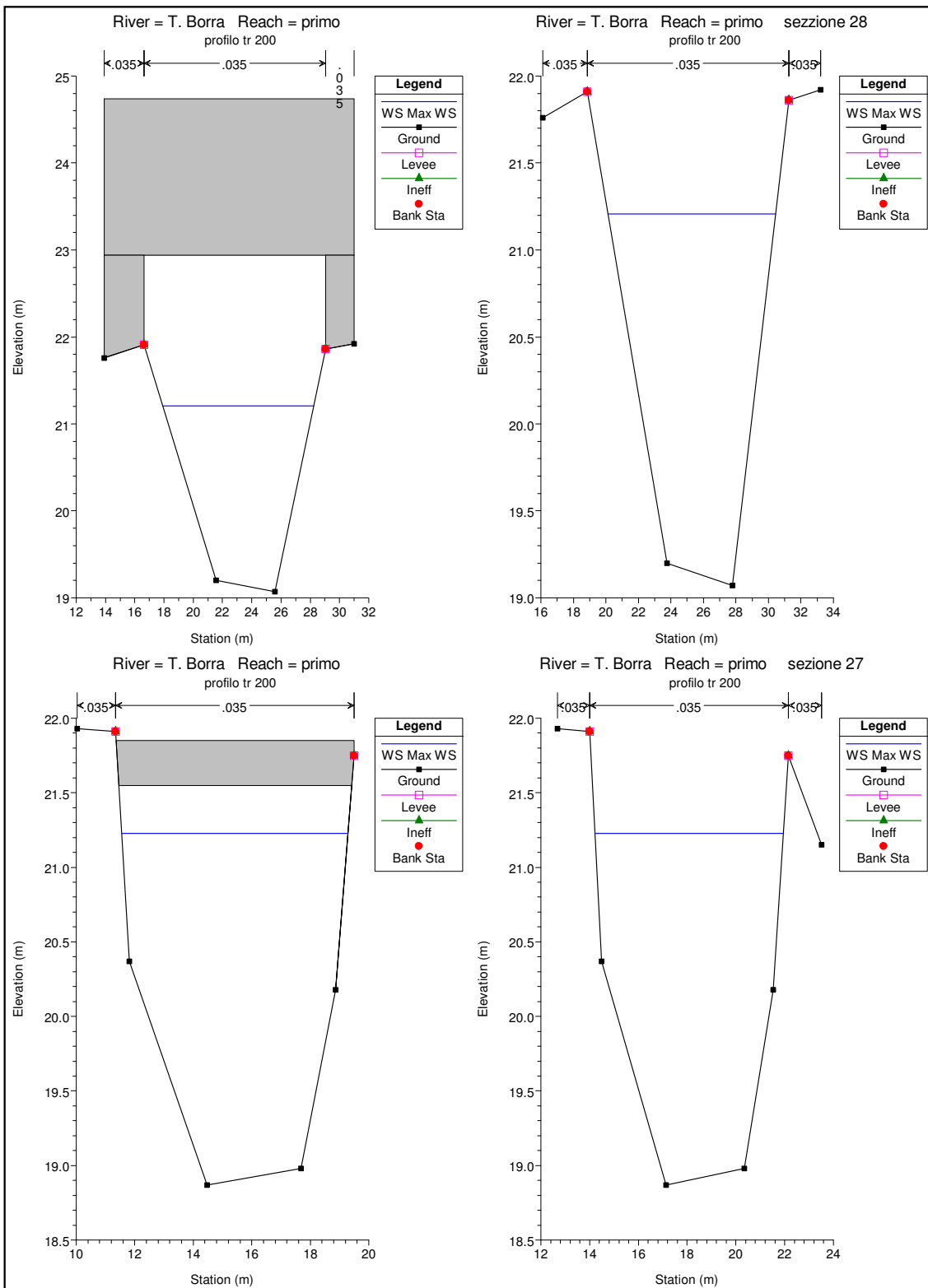


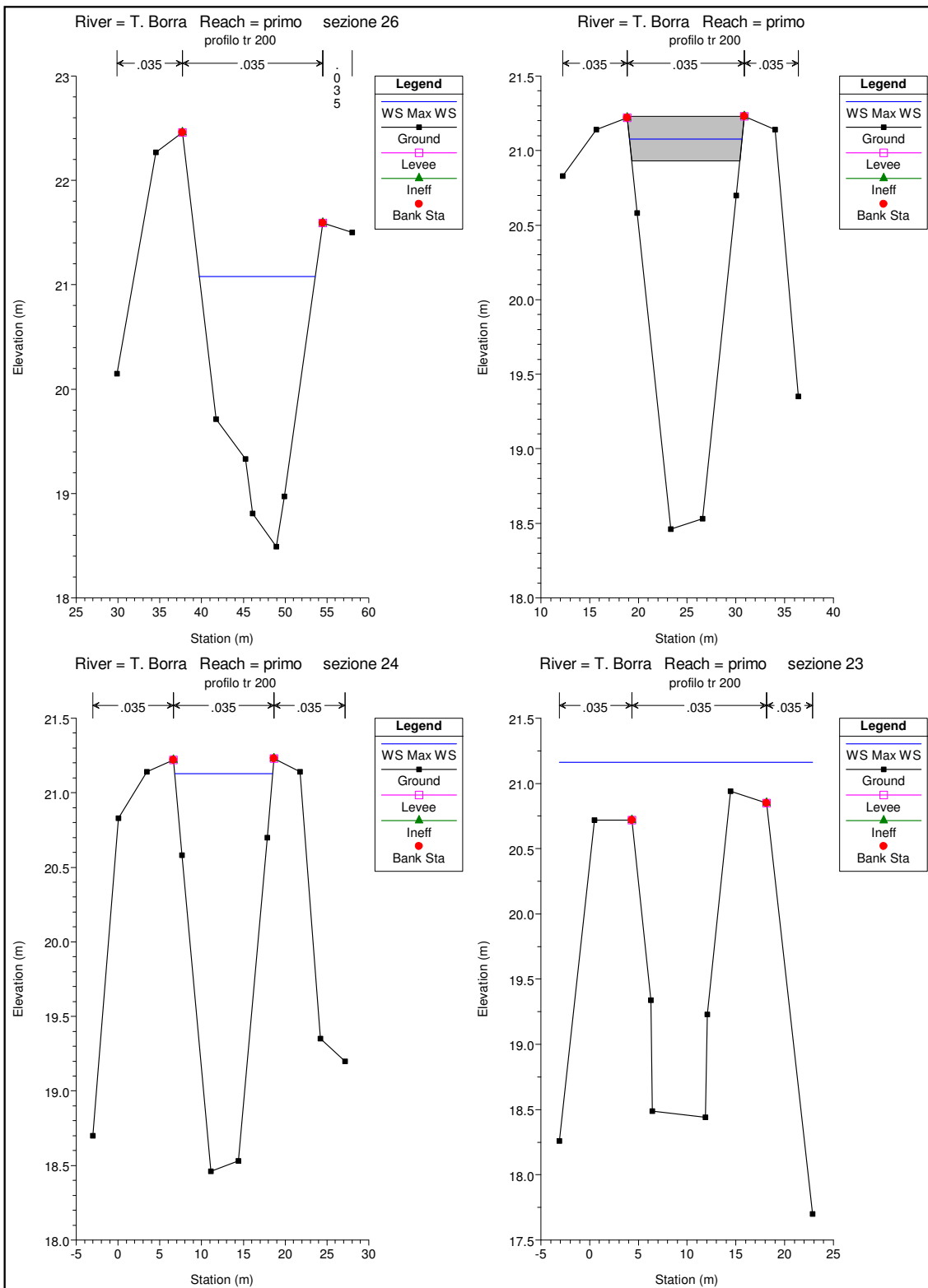


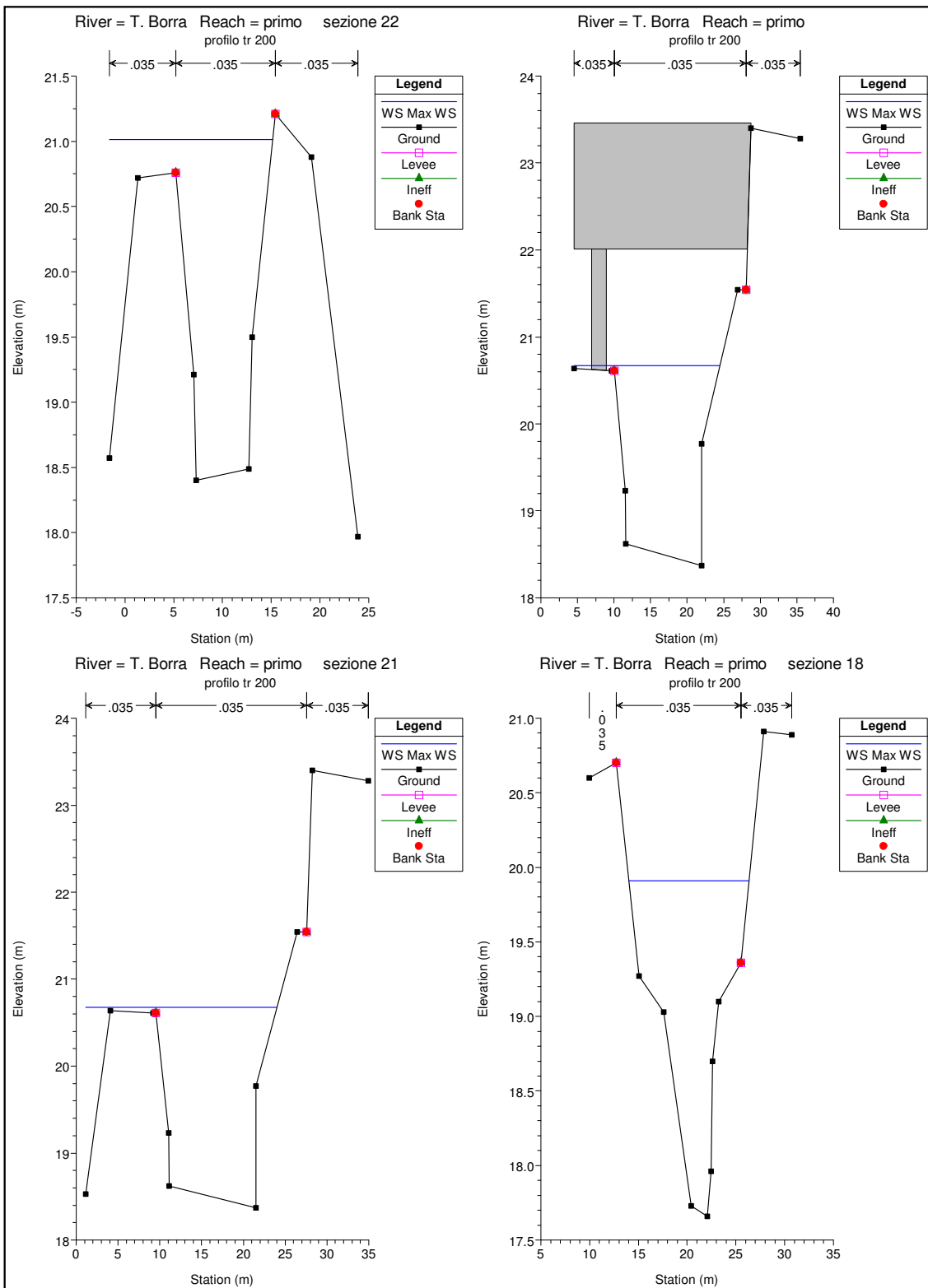


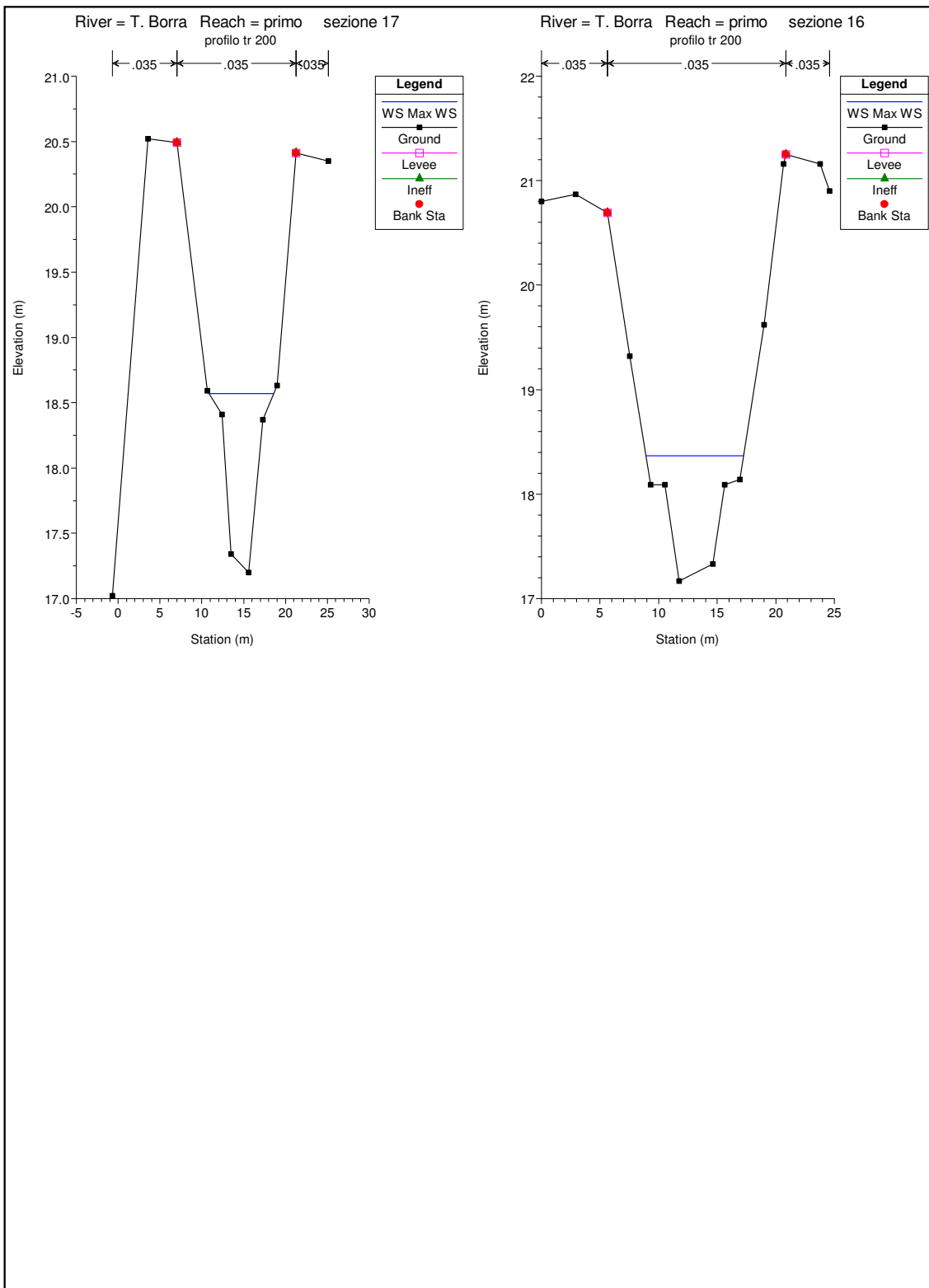












FOSSO DEL CALDERAIO

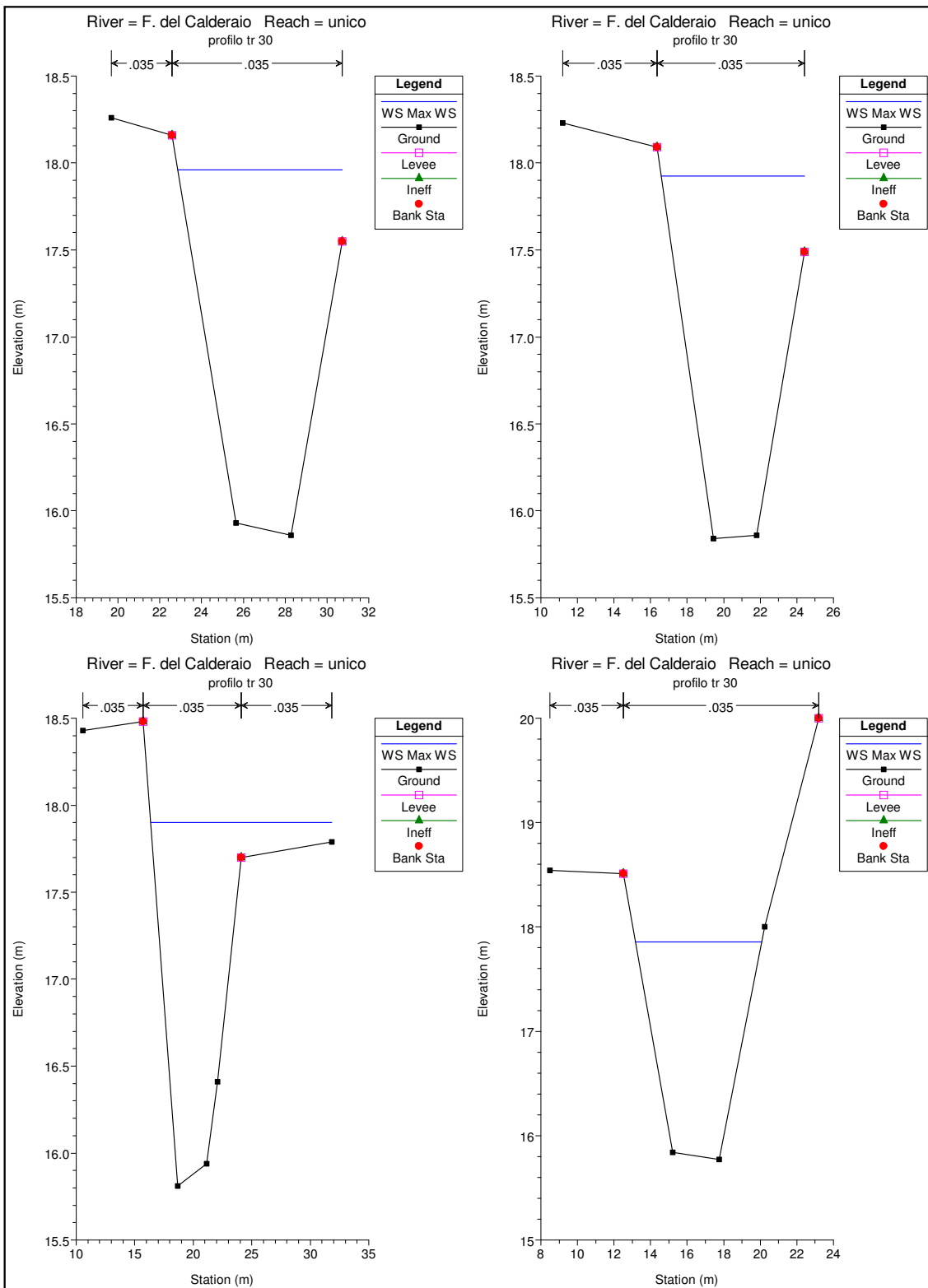
1- Simulazione Hec-Ras Tr=30 anni
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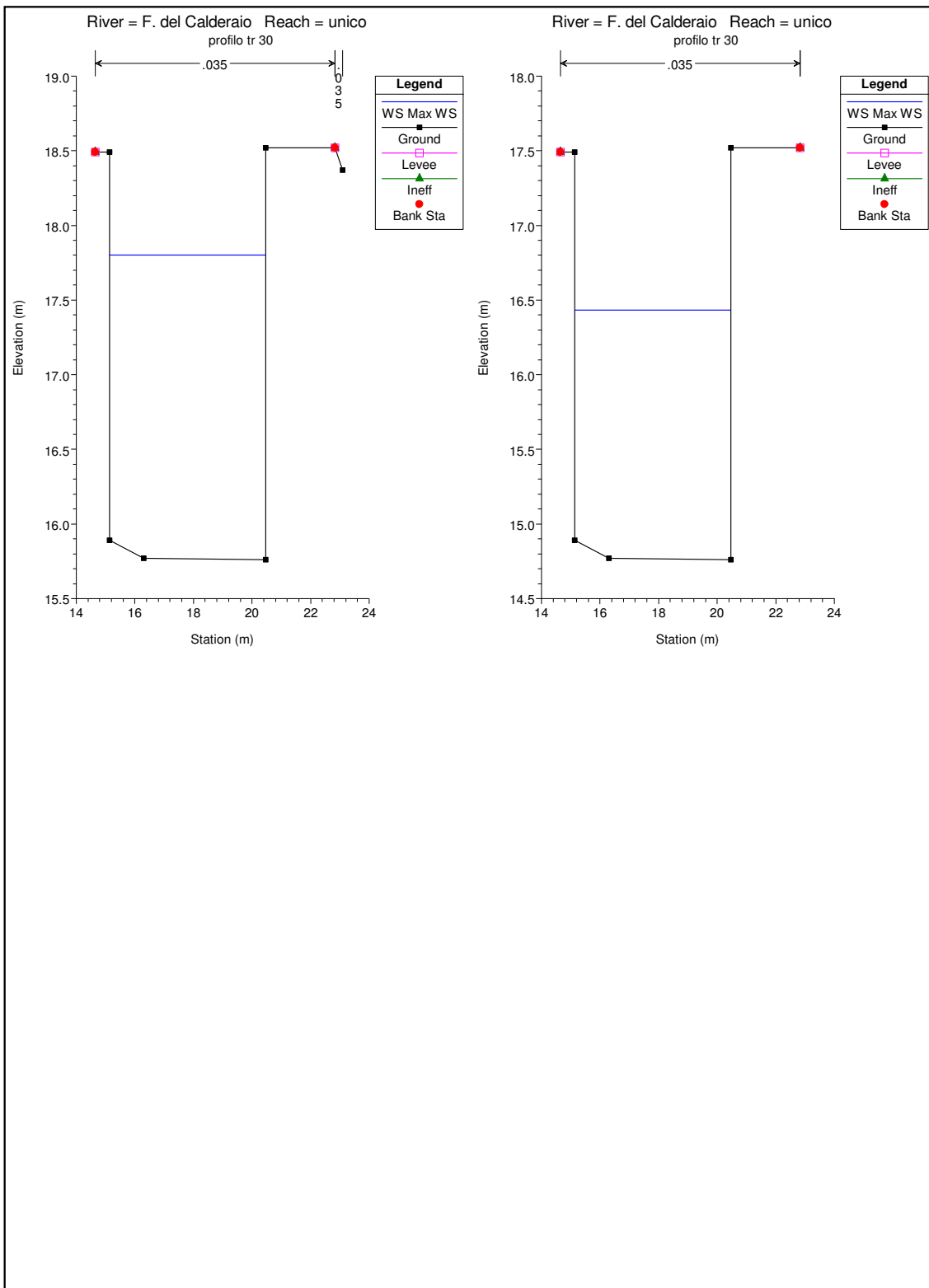
2- Simulazione Hec-Ras Tr=100 anni
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3- Simulazione Hec-Ras Tr=200 anni
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HEC-RAS Plan: Plan 15 River: F. del Calderaio Reach: unico Profile: Max WS

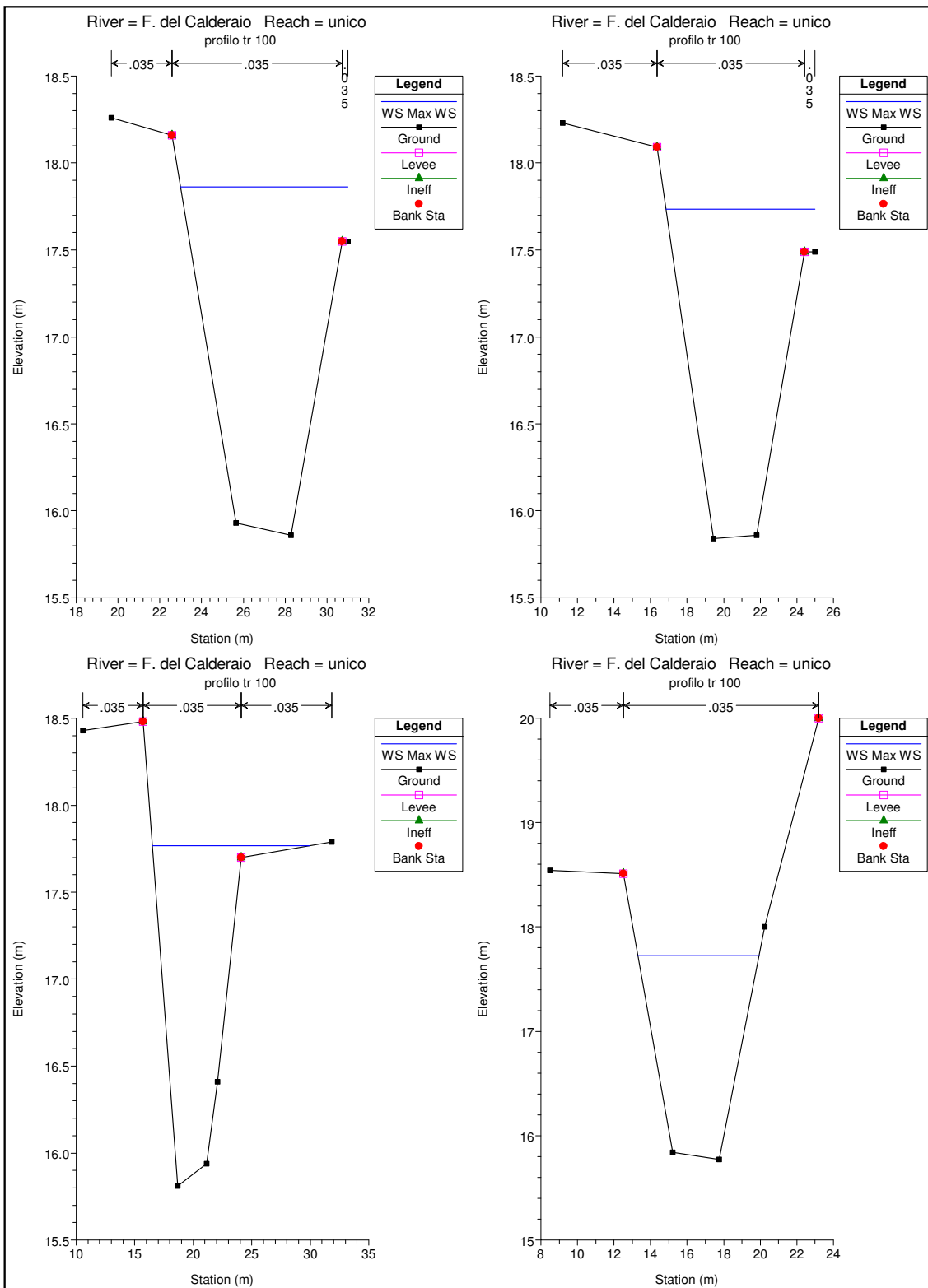
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	65	Max WS	8.93	15.86	17.96		17.99	0.000599	0.79	11.33	7.87	0.21
unico	64	Max WS	8.82	15.84	17.93		17.96	0.000609	0.79	11.17	7.85	0.21
unico	63.92											
unico	63.91	Lat Struct										
unico	63.5*	Max WS	4.10	15.83	17.96		17.97	0.000108	0.35	12.67	11.71	0.09
unico	63	Max WS	8.60	15.81	17.90		17.93	0.000582	0.77	12.00	15.50	0.21
unico	62	Max WS	8.80	15.77	17.85		17.90	0.000852	0.91	9.69	6.92	0.24
unico	61.5*	Max WS	8.76	15.76	17.82		17.87	0.001032	0.95	9.26	6.16	0.25
unico	61	Max WS	8.73	15.76	17.80		17.83	0.000661	0.81	10.77	5.33	0.18
unico	60.95	Max WS	8.73	15.76	17.79		17.83	0.000667	0.81	10.73	5.33	0.18
unico	60.9	Max WS	8.73	15.76	17.79	16.43	17.83	0.000667	0.81	10.73	5.33	0.18
unico	60.5											
unico	60.2	Bridge										
unico	60.2	Max WS	8.70	15.76	17.77		17.80	0.000687	0.82	10.59	5.33	0.19
unico	60.1	Max WS	8.70	15.76	17.76		17.80	0.000689	0.82	10.58	5.33	0.19
unico	60.0944*	Max WS	8.64	15.70	17.70		17.73	0.000689	0.82	10.52	5.33	0.19
unico	60.0888*	Max WS	8.58	15.65	17.63		17.67	0.000691	0.82	10.46	5.33	0.19
unico	60.0833*	Max WS	8.52	15.59	17.56		17.60	0.000692	0.82	10.40	5.33	0.19
unico	60.0777*	Max WS	8.47	15.54	17.50		17.53	0.000696	0.82	10.34	5.33	0.19
unico	60.0722*	Max WS	8.41	15.48	17.43		17.46	0.000696	0.82	10.28	5.33	0.19
unico	60.0666*	Max WS	8.36	15.43	17.36		17.40	0.000701	0.82	10.21	5.33	0.19
unico	60.0611*	Max WS	8.33	15.37	17.29		17.33	0.000708	0.82	10.15	5.33	0.19
unico	60.0555*	Max WS	8.28	15.32	17.23		17.26	0.000715	0.82	10.08	5.33	0.19
unico	60.05*	Max WS	8.24	15.26	17.16		17.19	0.000723	0.82	10.00	5.33	0.19
unico	60.0444*	Max WS	8.22	15.20	17.08		17.12	0.000734	0.83	9.92	5.33	0.19
unico	60.0388*	Max WS	8.19	15.15	17.01		17.05	0.000749	0.83	9.83	5.33	0.20
unico	60.0333*	Max WS	8.17	15.09	16.94		16.97	0.000765	0.84	9.74	5.33	0.20
unico	60.0277*	Max WS	8.16	15.04	16.86		16.90	0.000787	0.85	9.63	5.33	0.20
unico	60.0222*	Max WS	8.14	14.98	16.79		16.82	0.000811	0.86	9.51	5.33	0.20
unico	60.0166*	Max WS	8.13	14.93	16.70		16.74	0.000844	0.87	9.37	5.33	0.21
unico	60.0111*	Max WS	8.13	14.87	16.62		16.66	0.000883	0.88	9.21	5.33	0.21
unico	60.0055*	Max WS	8.12	14.82	16.53		16.57	0.000935	0.90	9.03	5.33	0.22
unico	60	Max WS	8.12	14.76	16.43	15.40	16.48	0.001000	0.92	8.81	5.33	0.23

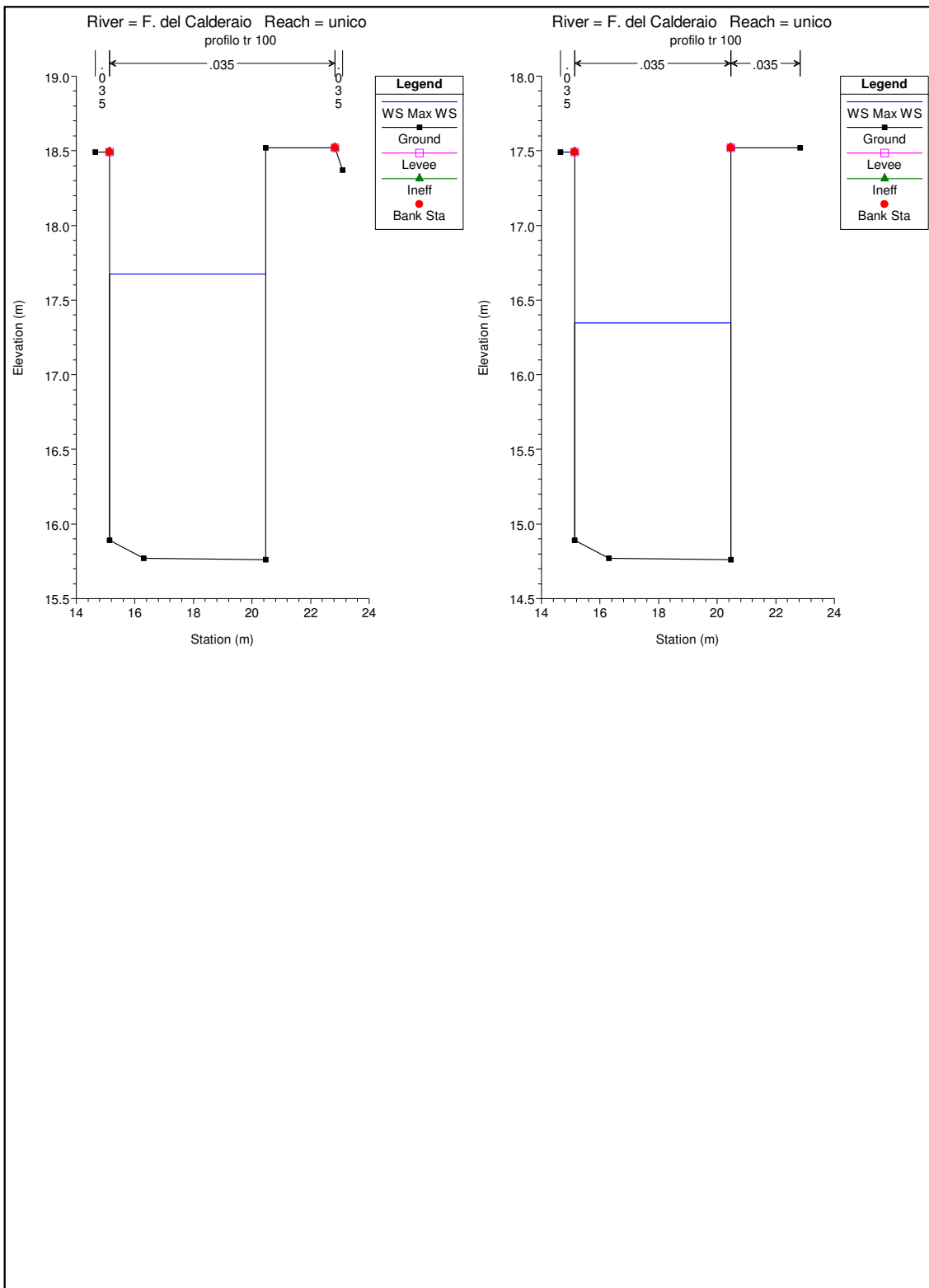




HEC-RAS Plan: Plan 38 River: F. del Calderaio Reach: unico Profile: Max WS

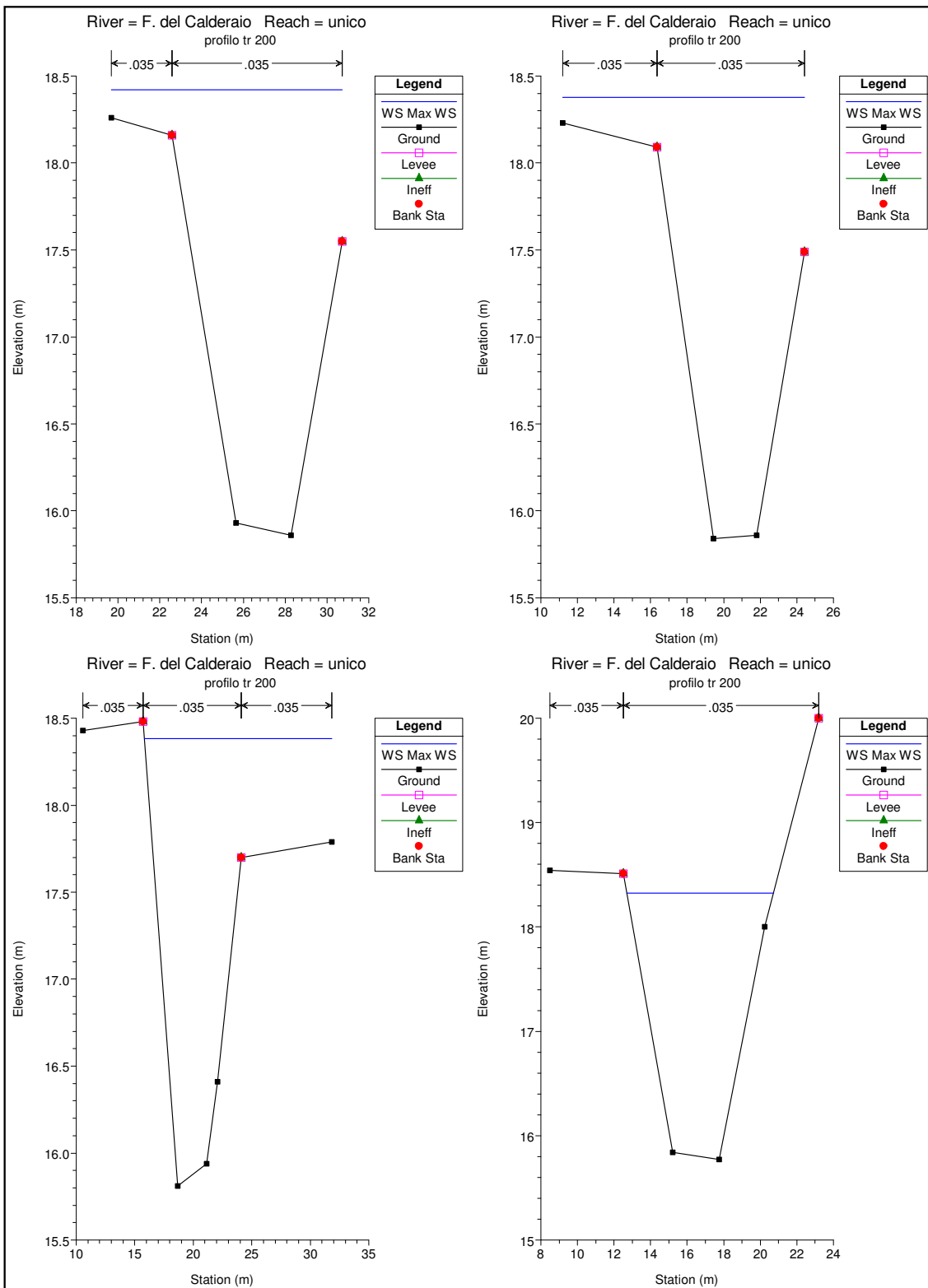
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	65	Max WS	13.92	15.86	17.86		17.95	0.001681	1.31	10.65	8.01	0.36
unico	64	Max WS	13.91	15.84	17.73		17.84	0.002154	1.43	9.84	8.16	0.40
unico	63.92											
		Lat Struct										
unico	63.91											
		Lat Struct										
unico	63	Max WS	7.80	15.81	17.77		17.80	0.000683	0.80	9.96	13.44	0.22
unico	62	Max WS	7.78	15.77	17.73		17.77	0.000858	0.88	8.82	6.65	0.24
unico	61	Max WS	7.76	15.76	17.67		17.70	0.000624	0.77	10.10	5.33	0.18
unico	60.95	Max WS	7.75	15.76	17.67		17.70	0.000629	0.77	10.06	5.33	0.18
unico	60.9	Max WS	7.75	15.76	17.67	16.38	17.70	0.000629	0.77	10.06	5.33	0.18
unico	60.5											
		Bridge										
unico	60.2	Max WS	7.73	15.76	17.65		17.68	0.000644	0.78	9.95	5.33	0.18
unico	60.1	Max WS	7.73	15.76	17.65		17.68	0.000646	0.78	9.95	5.33	0.18
unico	60	Max WS	7.54	14.76	16.35	15.37	16.39	0.001001	0.90	8.36	5.33	0.23

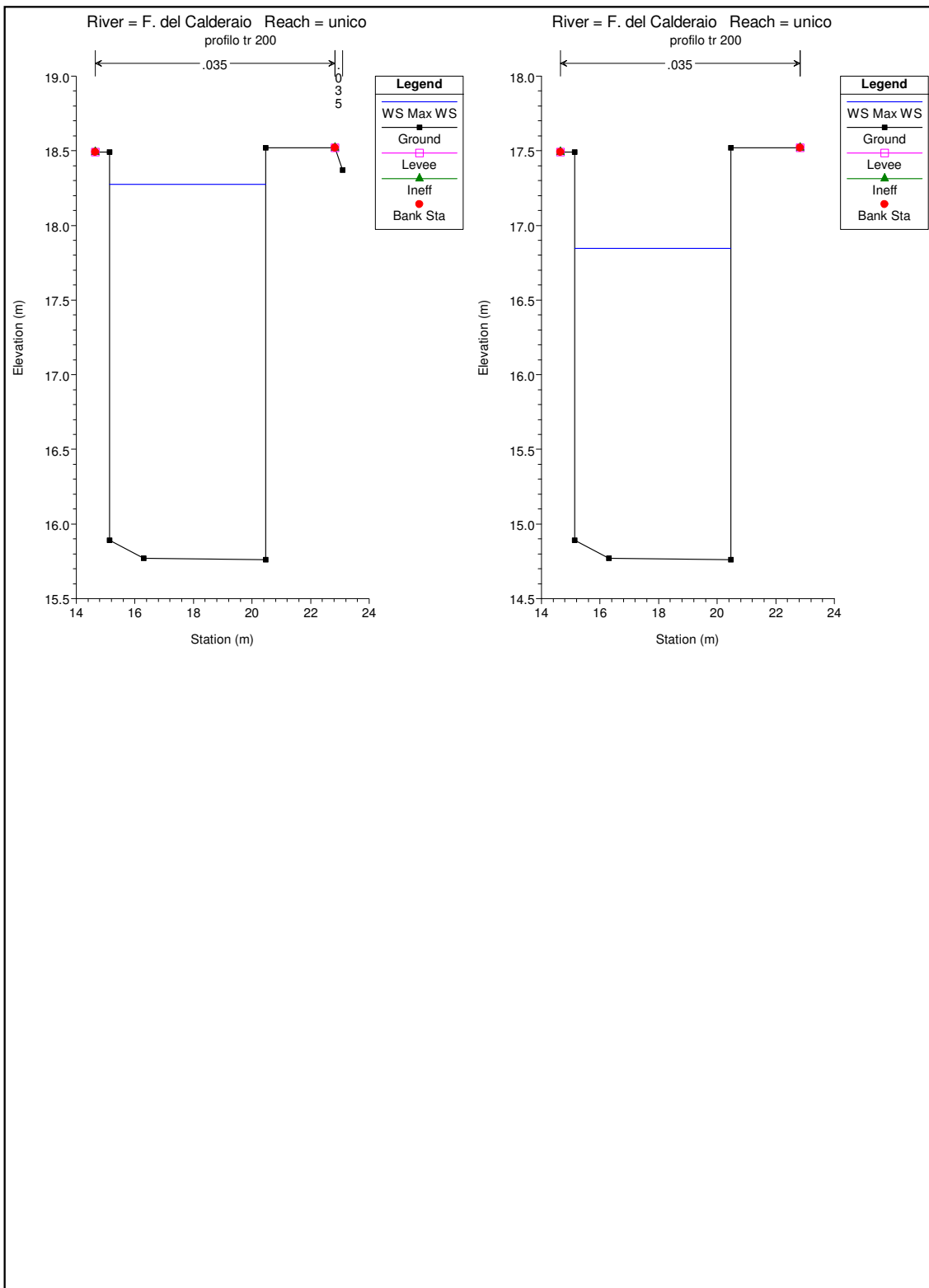




HEC-RAS Plan: Plan 15 River: F. del Calderaio Reach: unico Profile: Max WS

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
unico	65	Max WS	15.38	15.86	18.42		18.47	0.000752	1.01	15.67	11.05	0.24
unico	64	Max WS	15.26	15.84	18.38		18.43	0.000756	1.01	15.93	13.24	0.24
unico	63.92											
unico	63.91	Lat Struct										
unico	63.5*	Max WS	14.92	15.83	18.36		18.40	0.000590	0.92	17.76	17.26	0.22
unico	63	Max WS	9.60	15.81	18.38		18.40	0.000219	0.55	19.61	16.03	0.13
unico	62	Max WS	11.77	15.77	18.33		18.37	0.000672	0.89	13.21	8.04	0.22
unico	61.5*	Max WS	11.69	15.76	18.30		18.34	0.000851	0.94	12.37	6.96	0.23
unico	61	Max WS	11.66	15.76	18.27		18.31	0.000664	0.88	13.30	5.33	0.18
unico	60.95	Max WS	11.65	15.76	18.27		18.31	0.000667	0.88	13.26	5.33	0.18
unico	60.9	Max WS	11.63	15.76	18.27	16.57	18.31	0.000666	0.88	13.26	5.33	0.18
unico	60.5	Bridge										
unico	60.2	Max WS	11.54	15.76	18.21		18.25	0.000695	0.89	12.97	5.33	0.18
unico	60.1	Max WS	11.52	15.76	18.21		18.25	0.000695	0.89	12.96	5.33	0.18
unico	60.0944*	Max WS	11.43	15.70	18.14		18.18	0.000692	0.89	12.90	5.33	0.18
unico	60.0888*	Max WS	11.35	15.65	18.08		18.12	0.000693	0.88	12.84	5.33	0.18
unico	60.0833*	Max WS	11.30	15.59	18.01		18.05	0.000695	0.88	12.78	5.33	0.18
unico	60.0777*	Max WS	11.25	15.54	17.94		17.98	0.000699	0.89	12.71	5.33	0.18
unico	60.0722*	Max WS	11.21	15.48	17.87		17.91	0.000704	0.89	12.64	5.33	0.18
unico	60.0666*	Max WS	11.19	15.43	17.80		17.84	0.000712	0.89	12.57	5.33	0.19
unico	60.0611*	Max WS	11.16	15.37	17.73		17.78	0.000720	0.89	12.49	5.33	0.19
unico	60.0555*	Max WS	11.14	15.32	17.66		17.70	0.000731	0.90	12.41	5.33	0.19
unico	60.05*	Max WS	11.13	15.26	17.59		17.63	0.000743	0.90	12.32	5.33	0.19
unico	60.0444*	Max WS	11.12	15.20	17.52		17.56	0.000756	0.91	12.23	5.33	0.19
unico	60.0388*	Max WS	11.11	15.15	17.44		17.49	0.000773	0.92	12.13	5.33	0.19
unico	60.0333*	Max WS	11.10	15.09	17.37		17.41	0.000792	0.92	12.02	5.33	0.20
unico	60.0277*	Max WS	11.09	15.04	17.29		17.33	0.000814	0.93	11.89	5.33	0.20
unico	60.0222*	Max WS	11.09	14.98	17.21		17.25	0.000839	0.94	11.76	5.33	0.20
unico	60.0166*	Max WS	11.09	14.93	17.12		17.17	0.000869	0.96	11.60	5.33	0.21
unico	60.0111*	Max WS	11.09	14.87	17.04		17.08	0.000904	0.97	11.43	5.33	0.21
unico	60.0055*	Max WS	11.09	14.82	16.94		16.99	0.000948	0.99	11.24	5.33	0.22
unico	60	Max WS	11.09	14.76	16.85	15.54	16.90	0.001000	1.01	11.02	5.33	0.22





FORRA GRANDE o DEI MASSIMI

1- Simulazione Hec-Ras Tr=30 anni

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2- Simulazione Hec-Ras Tr=100 anni

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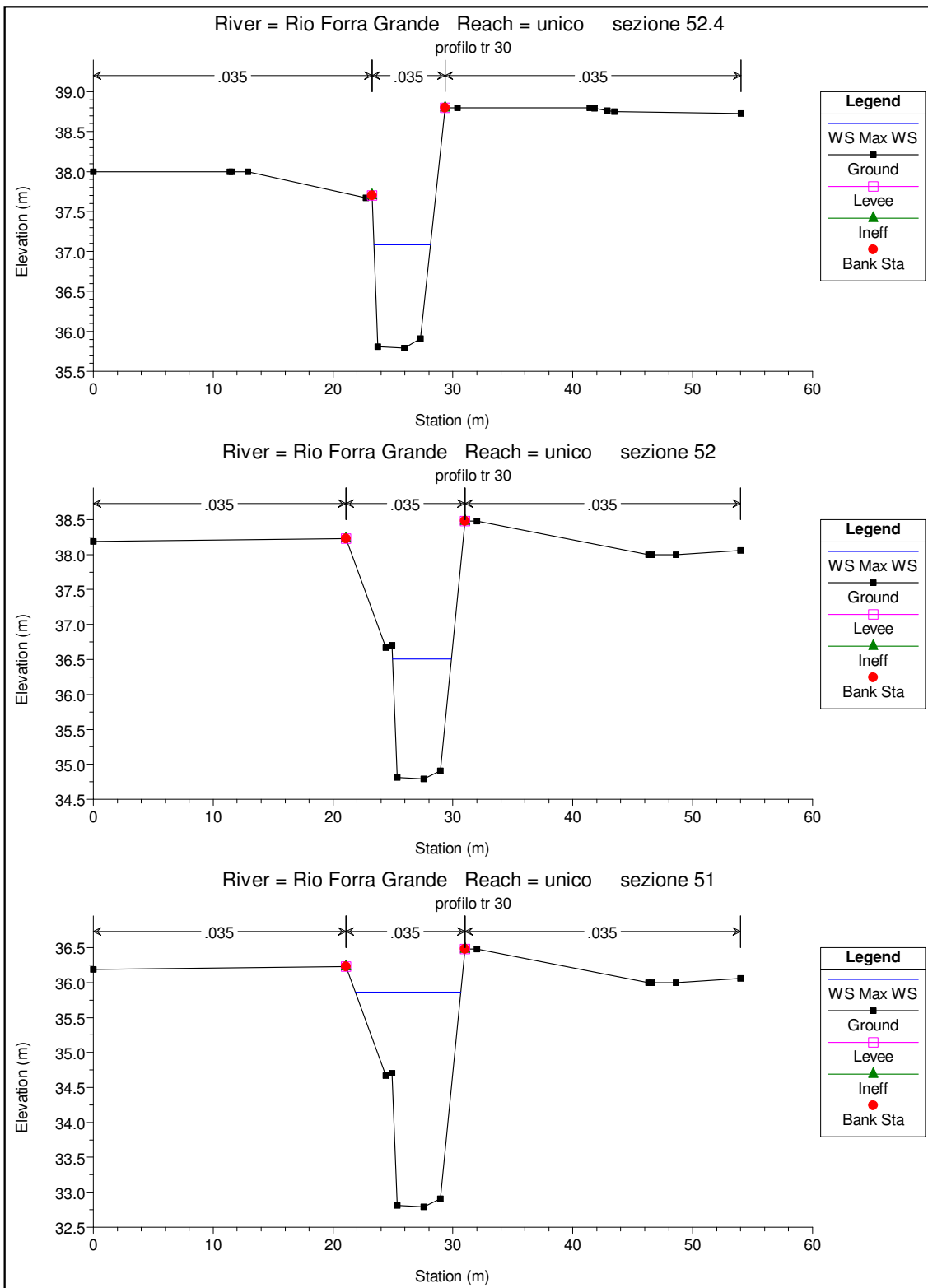
3- Simulazione Hec-Ras Tr=200 anni

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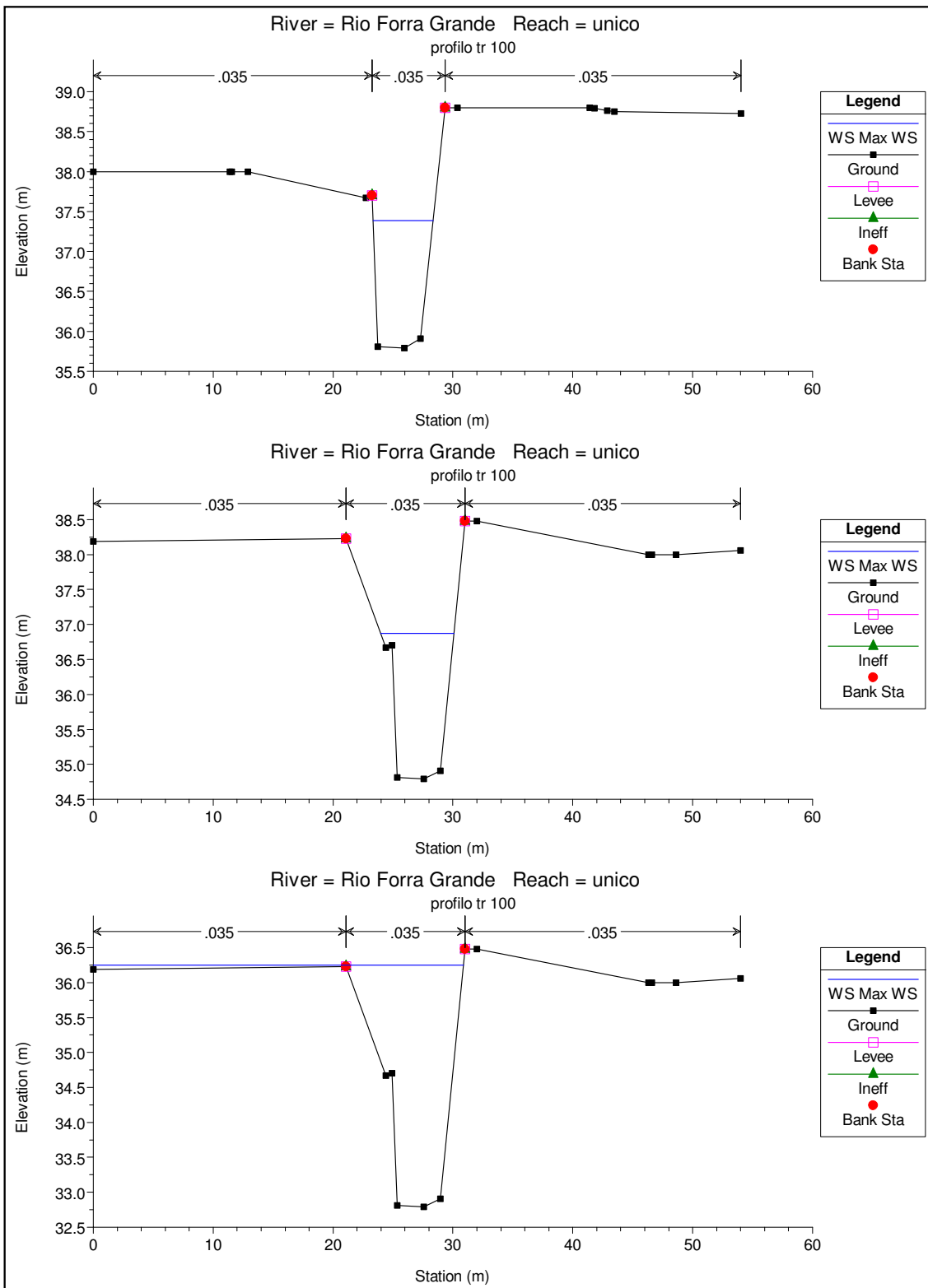
HEC-RAS Plan: Plan 11 River: Rio Forra Grande Reach: unico Profile: Max WS

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
unico	52.4	Max WS	18.33	35.79	37.08	37.13	37.71	0.019617	3.51	5.22	4.73	1.07
unico	52	Max WS	18.30	34.79	36.51		36.84	0.008064	2.56	7.16	4.92	0.68
unico	51	Max WS	18.22	32.79	35.86	34.14	35.93	0.001001	1.10	16.52	8.79	0.26



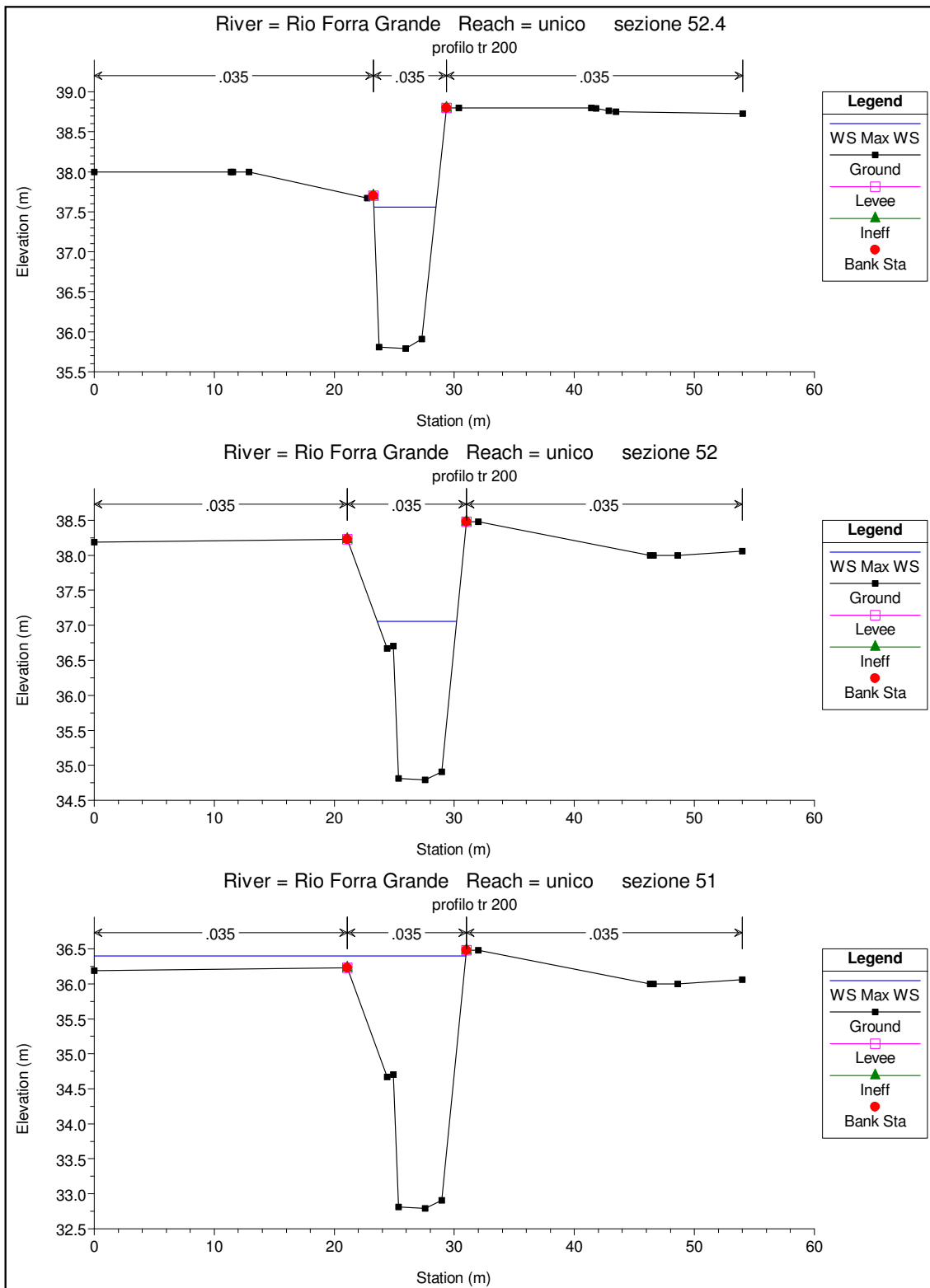
HEC-RAS Plan: Plan 25 River: Rio Forra Grande Reach: unico Profile: Max WS

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
unico	52.4	Max WS	23.99	35.79	37.39	37.38	38.04	0.016700	3.58	6.71	5.02	0.99
unico	52	Max WS	24.06	34.79	36.87		37.23	0.008110	2.64	9.11	6.10	0.69
unico	51	Max WS	23.92	32.79	36.25	34.39	36.32	0.001021	1.19	20.90	30.88	0.26



HEC-RAS Plan: Plan 11 River: Rio Forra Grande Reach: unico Profile: Max WS

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
unico	52.4	Max WS	28.18	35.79	37.56	37.54	38.26	0.016358	3.71	7.59	5.19	0.98
unico	52	Max WS	28.25	34.79	37.05		37.44	0.008213	2.75	10.29	6.60	0.70
unico	51	Max WS	28.13	32.79	36.40	34.55	36.48	0.001040	1.25	25.63	30.96	0.27



FOSSO MAONA

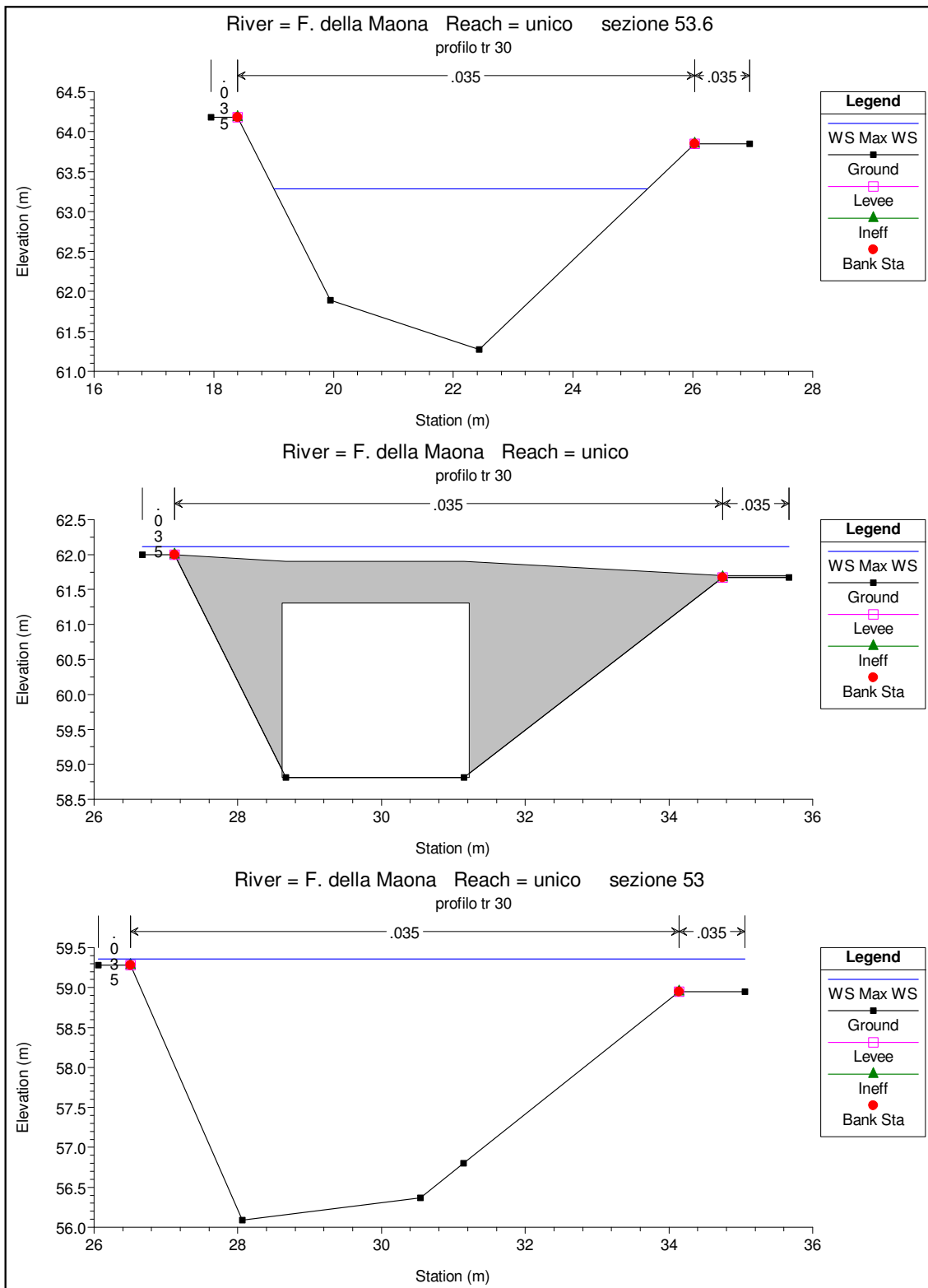
1- Simulazione Hec-Ras Tr=30 anni
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2- Simulazione Hec-Ras Tr=100 anni
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3- Simulazione Hec-Ras Tr=200 anni
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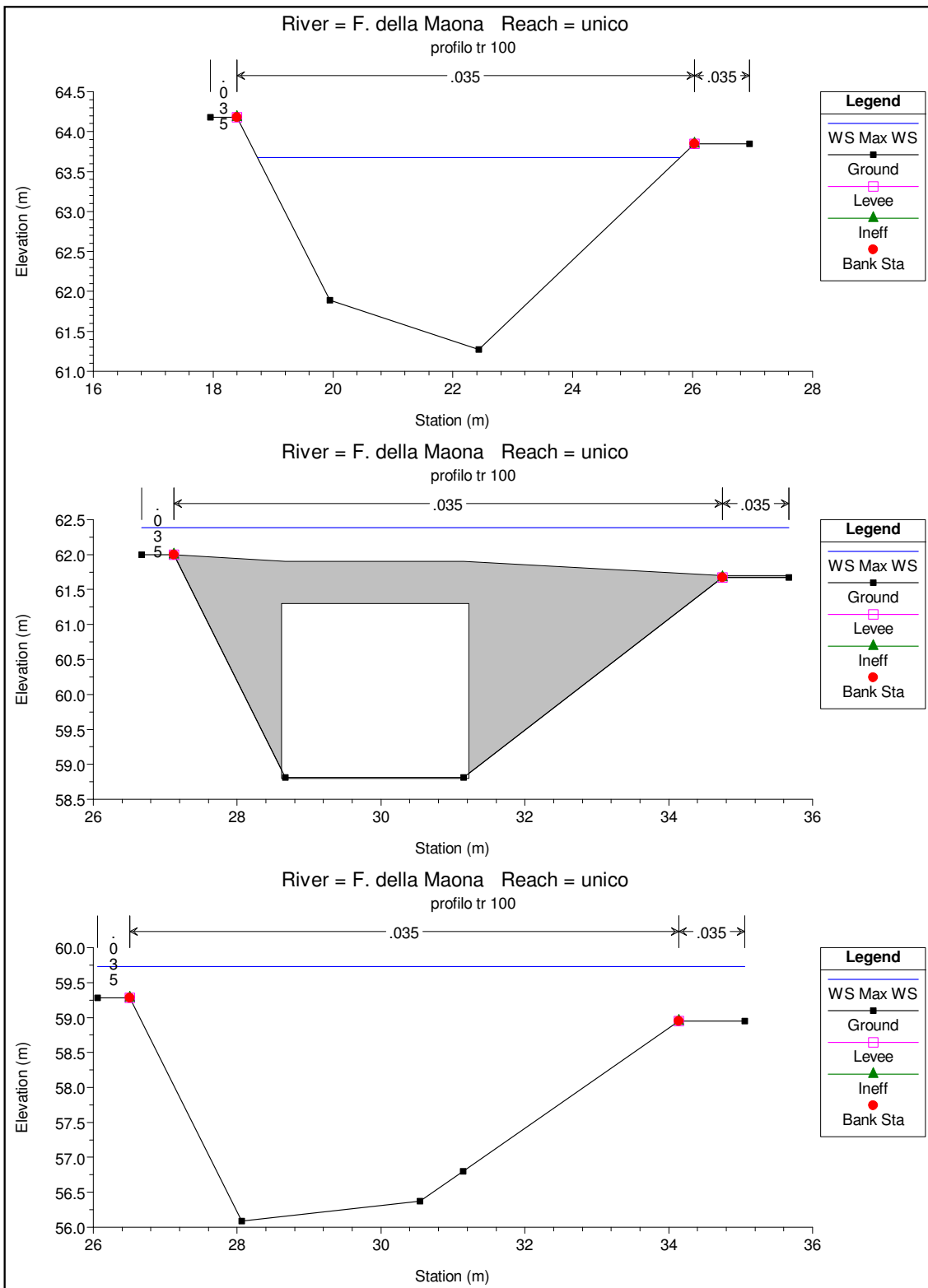
HEC-RAS Plan: Plan 10 River: F. della Maona Reach: unico Profile: Max WS

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
unico	53.6	Max WS	20.27	61.27	63.28		63.64	0.008443	2.63	7.71	6.23	0.75
unico	53.5	Max WS	20.26	59.57	62.09		62.26	0.003126	1.82	11.15	7.29	0.47
unico	53.4	Max WS	20.26	58.96	62.10		62.19	0.001221	1.30	15.76	8.53	0.29
unico	53.291	Max WS	20.26	58.91	62.10		62.19	0.001127	1.27	16.21	9.00	0.28
unico	53.29	Max WS	20.26	58.81	62.11		62.18	0.000820	1.14	18.03	9.00	0.24
unico	53.1		Culvert									
unico	53.015	Max WS	20.26	56.31	59.36		59.45	0.001190	1.29	15.85	8.48	0.29
unico	53.01	Max WS	20.26	56.11	59.36		59.43	0.001034	1.23	16.69	9.00	0.27
unico	53	Max WS	20.26	56.09	59.36	57.80	59.43	0.001001	1.22	16.87	9.00	0.27



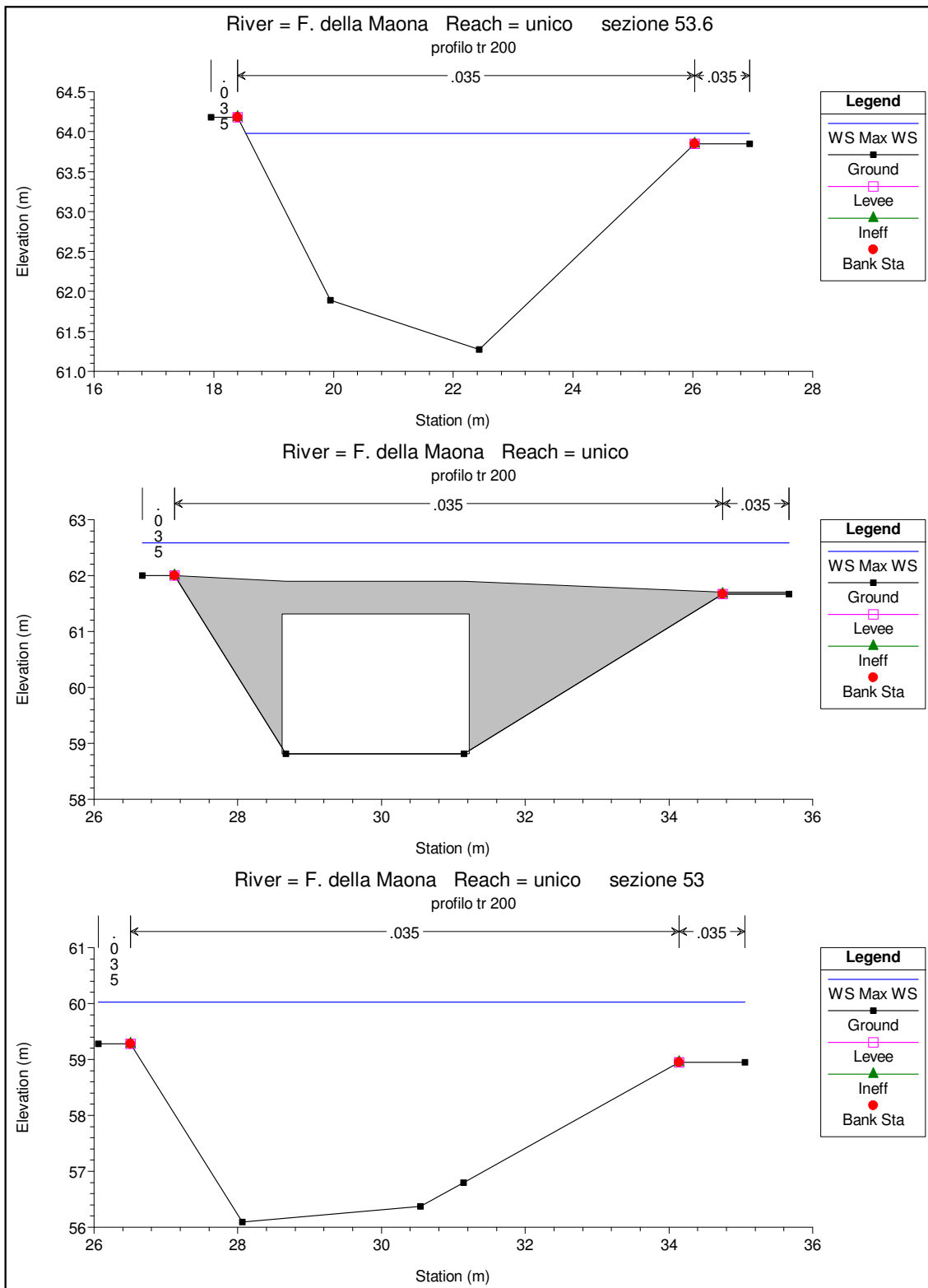
HEC-RAS Plan: Plan 28 River: F. della Maona Reach: unico Profile: Max WS

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
unico	53.6	Max WS	26.63	61.27	63.67		64.01	0.006670	2.58	10.30	7.04	0.68
unico	53.5	Max WS	26.63	59.57	62.36		62.57	0.003278	2.02	13.35	8.47	0.49
unico	53.4	Max WS	26.62	58.96	62.37		62.49	0.001380	1.50	18.18	9.00	0.32
unico	53.291	Max WS	26.62	58.91	62.37		62.48	0.001278	1.46	18.64	9.00	0.30
unico	53.29	Max WS	26.62	58.81	62.38		62.47	0.000963	1.34	20.48	9.00	0.27
unico	53.1		Culvert									
unico	53.015	Max WS	26.62	56.31	59.73		59.83	0.001188	1.42	19.11	9.00	0.29
unico	53.01	Max WS	26.62	56.11	59.73		59.82	0.001029	1.37	20.02	9.00	0.28
unico	53	Max WS	26.62	56.09	59.73	58.06	59.82	0.001001	1.36	20.20	9.00	0.27



HEC-RAS Plan: Plan 10 River: F. della Maona Reach: unico Profile: Max WS

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
unico	53.6	Max WS	32.10	61.27	63.98		64.31	0.005579	2.56	12.62	8.41	0.63
unico	53.5	Max WS	32.10	59.57	62.57		62.80	0.003314	2.16	15.13	9.00	0.50
unico	53.4	Max WS	32.10	58.96	62.58		62.71	0.001496	1.65	20.02	9.00	0.33
unico	53.291	Max WS	32.10	58.91	62.58		62.71	0.001393	1.62	20.50	9.00	0.32
unico	53.29	Max WS	32.10	58.81	62.58		62.70	0.001216	1.55	21.43	9.00	0.30
unico	53.1		Culvert									
unico	53.015	Max WS	32.10	56.31	60.03		60.15	0.001311	1.59	20.91	9.00	0.31
unico	53.01	Max WS	32.10	56.11	60.03		60.14	0.001015	1.47	22.73	9.00	0.28
unico	53	Max WS	32.10	56.09	60.03	58.26	60.13	0.000990	1.46	22.91	9.00	0.28



TORRENTE NIEVOLE

1- Simulazione Hec-Ras Tr=30 anni

Tabella

Sezioni

2- Simulazione Hec-Ras Tr=100 anni

Tabella

Sezioni

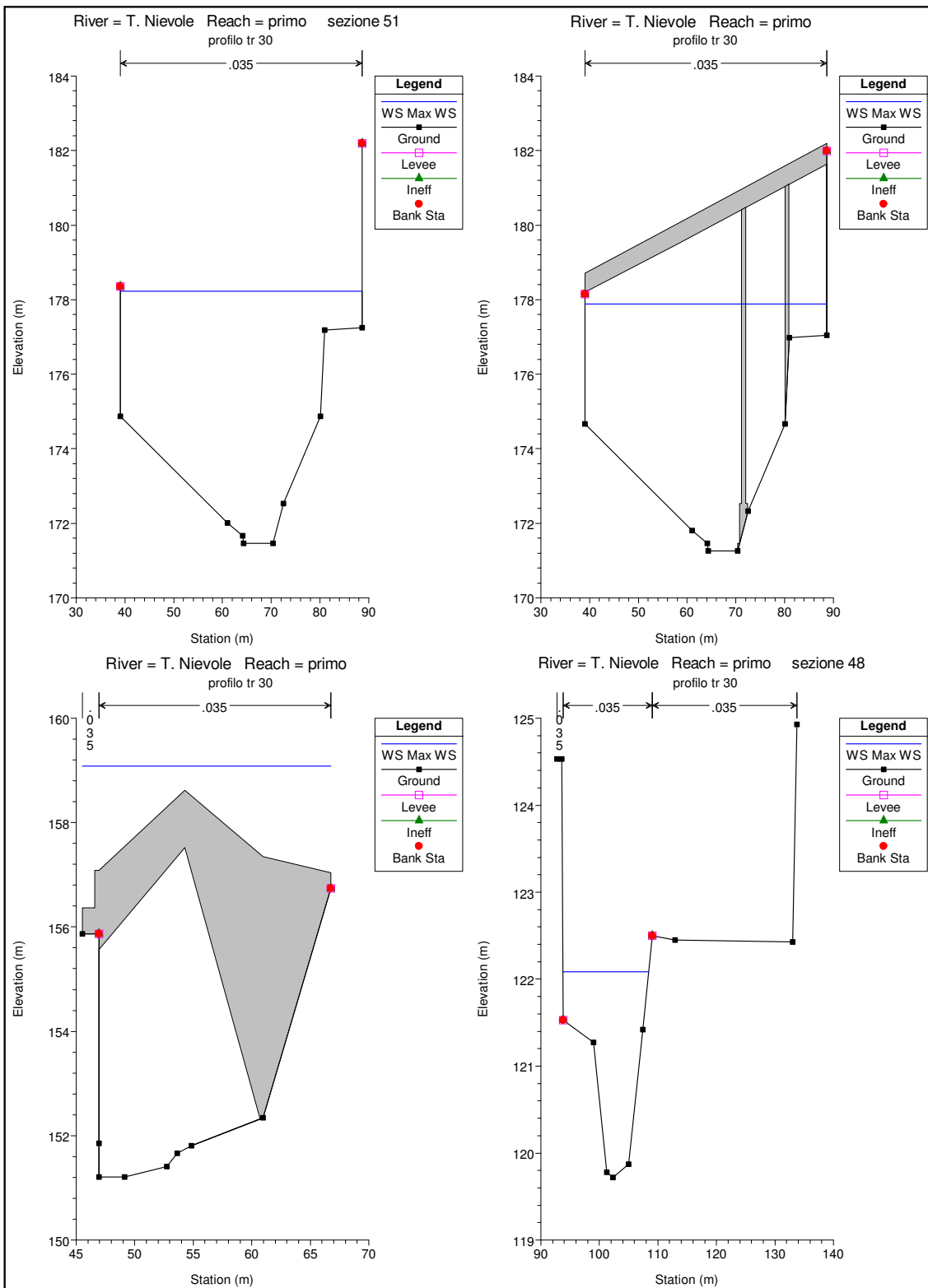
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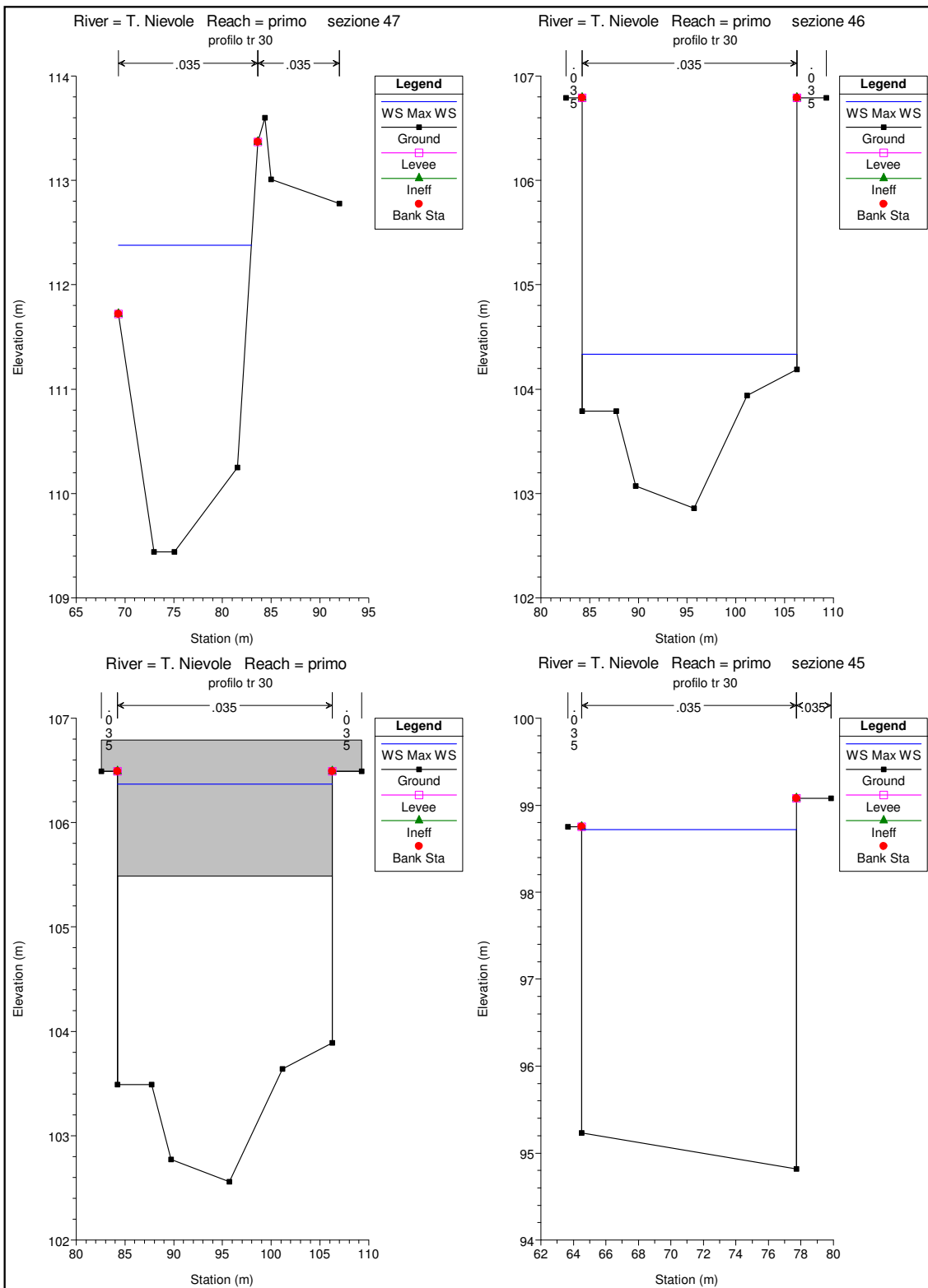
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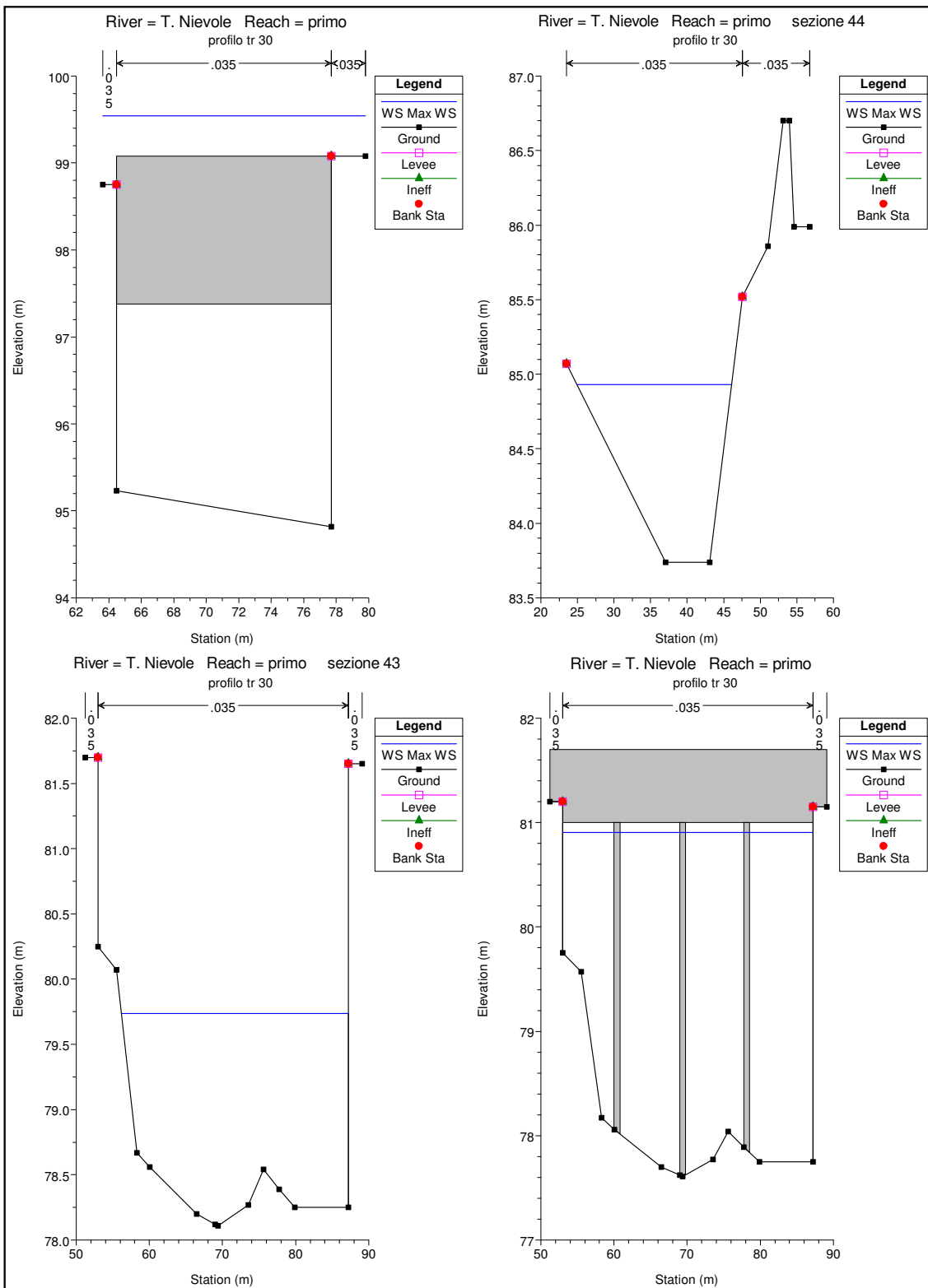
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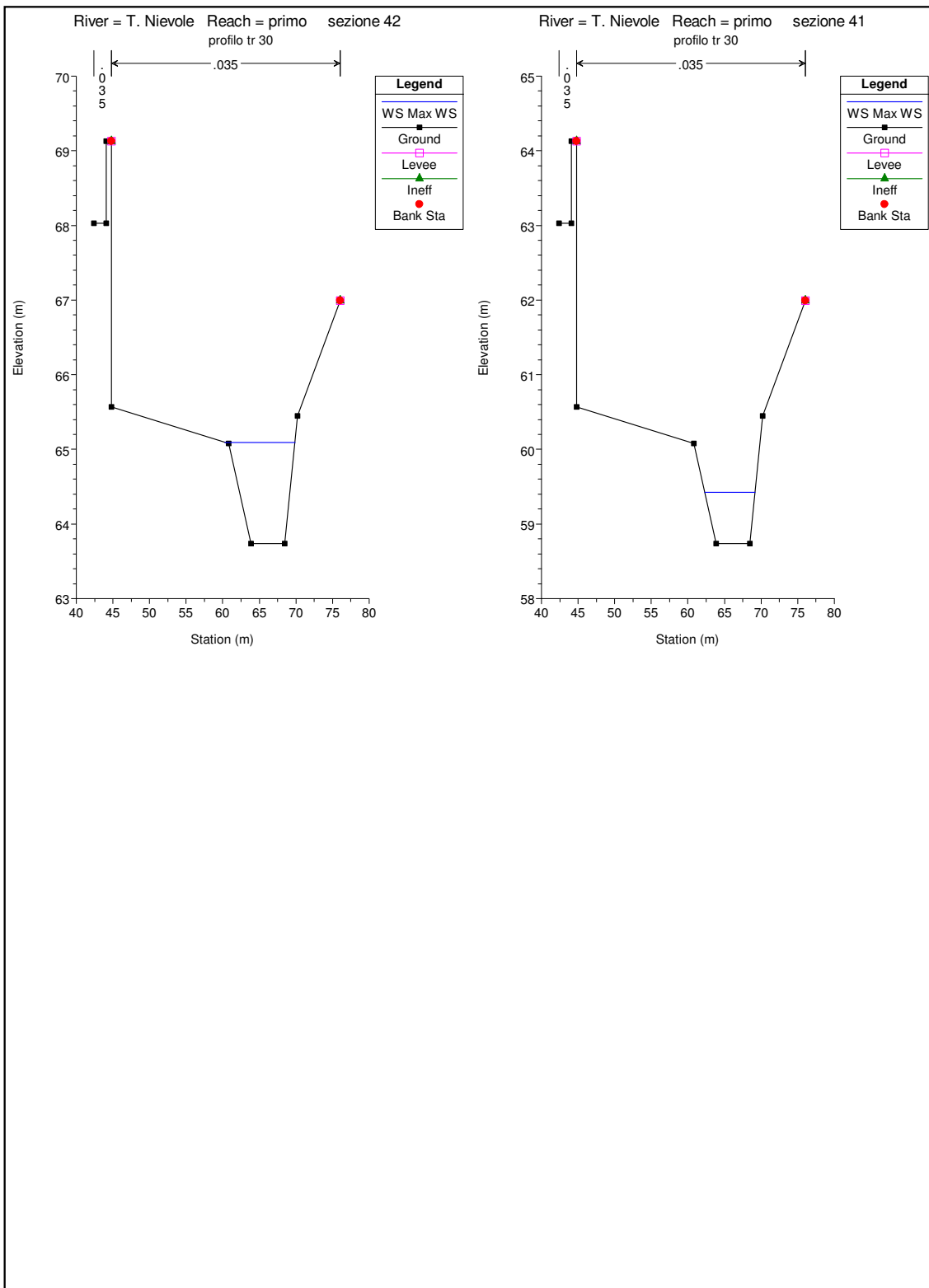
HEC-RAS Plan: Plan 16 River: T. Nievole Reach: primo Profile: Max WS

Reach	River Sta	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
primo	51.2	92.18	176.96	178.24	178.87	180.29	0.066364	6.33	14.56	17.80	2.24
primo	51.1	92.16	171.96	173.69	173.86	174.47	0.018504	3.92	23.50	22.64	1.23
primo	51	92.16	171.46	173.32	173.37	173.93	0.013224	3.46	26.65	24.12	1.05
primo	50.9	92.15	171.36	173.26	173.26	173.83	0.012071	3.34	27.58	24.53	1.01
primo	50.8	92.15	171.26	173.16	173.16	173.73	0.011941	3.33	27.69	24.58	1.00
primo	50.2	Bridge									
primo	50.11	92.15	171.26	172.93	173.16	173.80	0.021147	4.12	22.35	22.08	1.31
primo	50.1	92.15	170.71	172.15	172.61	173.58	0.041224	5.30	17.40	19.47	1.79
primo	50.08*	92.14	166.87	168.35	168.76	169.68	0.038737	5.10	18.05	20.47	1.74
primo	50.06*	92.14	163.03	164.47	164.94	165.98	0.042872	5.45	16.91	18.50	1.82
primo	50.04*	92.13	159.19	160.74	161.14	162.07	0.034309	5.11	18.03	17.98	1.63
primo	50.02*	92.13	155.35	156.86	157.35	158.51	0.045237	5.70	16.17	16.52	1.84
primo	50	92.12	151.51	153.34	153.62	154.49	0.023532	4.76	19.34	14.94	1.34
primo	49.9	92.12	151.41	153.24	153.52	154.39	0.023258	4.75	19.41	14.94	1.33
primo	49.8	0.67	151.21	153.84	151.38	153.84	0.000000	0.02	31.79	16.00	0.00
primo	49.2	Bridge									
primo	49.12	92.12	151.21	152.97	153.33	154.26	0.027939	5.04	18.29	14.84	1.45
primo	49.11	92.12	150.71	152.34	152.82	153.95	0.039202	5.62	16.39	14.67	1.70
primo	49.1	92.12	150.46	151.99	152.24	152.97	0.023861	4.38	21.05	20.12	1.37
primo	49.08*	92.12	147.69	149.63	149.97	150.84	0.032942	4.89	18.85	19.09	1.57
primo	49.06*	92.12	144.92	146.82	147.55	148.73	0.034513	6.14	15.01	10.07	1.60
primo	49.04*	92.11	142.15	144.01	144.51	145.70	0.032944	5.76	15.99	11.65	1.57
primo	49.02*	92.11	139.38	141.18	141.63	142.73	0.035021	5.51	16.71	14.00	1.61
primo	49	92.11	136.61	138.40	138.74	139.64	0.029679	4.95	18.85	17.23	1.48
primo	48.6	1.01	136.59	139.77		139.77	0.000000	0.02	44.34	13.96	0.00
primo	48.51	22.53	136.56	140.94	137.20	140.95	0.000044	0.37	61.13	13.96	0.06
primo	48.5	Bridge									
primo	48.41	14.65	136.56	139.75		139.76	0.000047	0.33	44.55	13.96	0.06
primo	48.4	92.97	136.40	137.86	138.05	138.92	0.019646	4.55	20.44	13.96	1.20
primo	48.2	92.97	136.21	137.75	137.87	138.71	0.017831	4.33	21.46	13.96	1.11
primo	48.15*	92.97	135.43	137.00	137.17	138.07	0.019425	4.58	20.28	12.94	1.17
primo	48.1	92.97	134.65	136.13	136.36	137.19	0.023487	4.55	20.41	15.58	1.27
primo	48	100.17	119.72	121.82	122.45	123.88	0.047119	6.35	15.78	14.23	1.92
primo	47.9	Lat Struct									
primo	47	100.16	109.44	111.52	111.89	112.91	0.022034	5.22	19.19	12.72	1.36
primo	46.9	Lat Struct									
primo	46.75*	100.15	107.80	109.77	110.09	111.02	0.021965	4.96	20.20	14.99	1.36
primo	46.5*	100.15	106.15	108.03	108.32	109.16	0.021668	4.71	21.26	17.07	1.35
primo	46.25*	100.15	104.51	106.30	106.56	107.33	0.022267	4.51	22.22	19.55	1.35
primo	46	100.14	102.86	104.90		105.44	0.009219	3.24	30.91	22.01	0.87
primo	45.85	100.14	102.66	104.50	104.58	105.23	0.015313	3.80	26.36	22.01	1.11
primo	45.8	22.19	102.56	104.82	103.59	104.84	0.000286	0.62	35.71	22.01	0.16
primo	45.3	Bridge									
primo	45.21	100.14	102.56	104.22	104.49	105.23	0.025581	4.46	22.46	22.01	1.41
primo	45.201	100.14	102.36	103.94	104.28	105.14	0.033925	4.87	20.58	22.01	1.61
primo	45.191	Lat Struct									
primo	45.19	Lat Struct									
primo	45.1	99.87	94.92	97.58		97.67	0.000719	1.27	78.71	32.00	0.26
primo	45	99.40	94.82	97.09		97.77	0.008909	3.65	27.26	13.21	0.81
primo	44.9	99.40	94.82	97.06	96.81	97.76	0.009246	3.69	26.93	13.21	0.83
primo	44.5	Bridge									
primo	44.41	-72.39	94.82	97.04		97.42	0.005092	-2.72	26.60	13.21	0.61
primo	44.4	-12.64	94.82	100.14		100.15	0.000011	-0.18	71.06	16.18	0.03
primo	44.32	Lat Struct									
primo	44.31	Lat Struct									
primo	44.3	-22.56	94.82	100.19		100.19	0.000035	-0.33	71.74	16.18	0.05
primo	44.29	-28.28	94.82	100.21		100.22	0.000054	-0.41	72.09	16.18	0.06
primo	44.2	Bridge									
primo	44.11	-0.82	94.82	97.14		97.14	0.000001	-0.03	27.88	13.21	0.01
primo	44.1	99.07	94.82	96.52	96.81	97.80	0.023496	5.00	19.80	13.21	1.30
primo	44.09	Lat Struct									
primo	44	12.67	83.74	85.86		85.86	0.000075	0.33	38.96	28.07	0.08
primo	43.99	Lat Struct									
primo	43	39.54	78.11	79.65		79.70	0.000944	1.00	39.54	30.83	0.28
primo	42.9	12.75	77.61	79.67	78.08	79.68	0.000035	0.23	55.96	33.11	0.06
primo	42.5	Bridge									
primo	42.41	106.74	77.61	79.51		79.74	0.003123	2.10	50.81	31.54	0.53
primo	42.4	104.03	76.21	79.53		79.59	0.000389	1.05	99.06	34.21	0.20
primo	42	287.45	63.74	66.67	67.19	68.47	0.025251	5.95	48.34	30.03	1.50
primo	41	231.91	58.74	63.79	61.90	64.00	0.001046	2.01	116.37	32.22	0.34



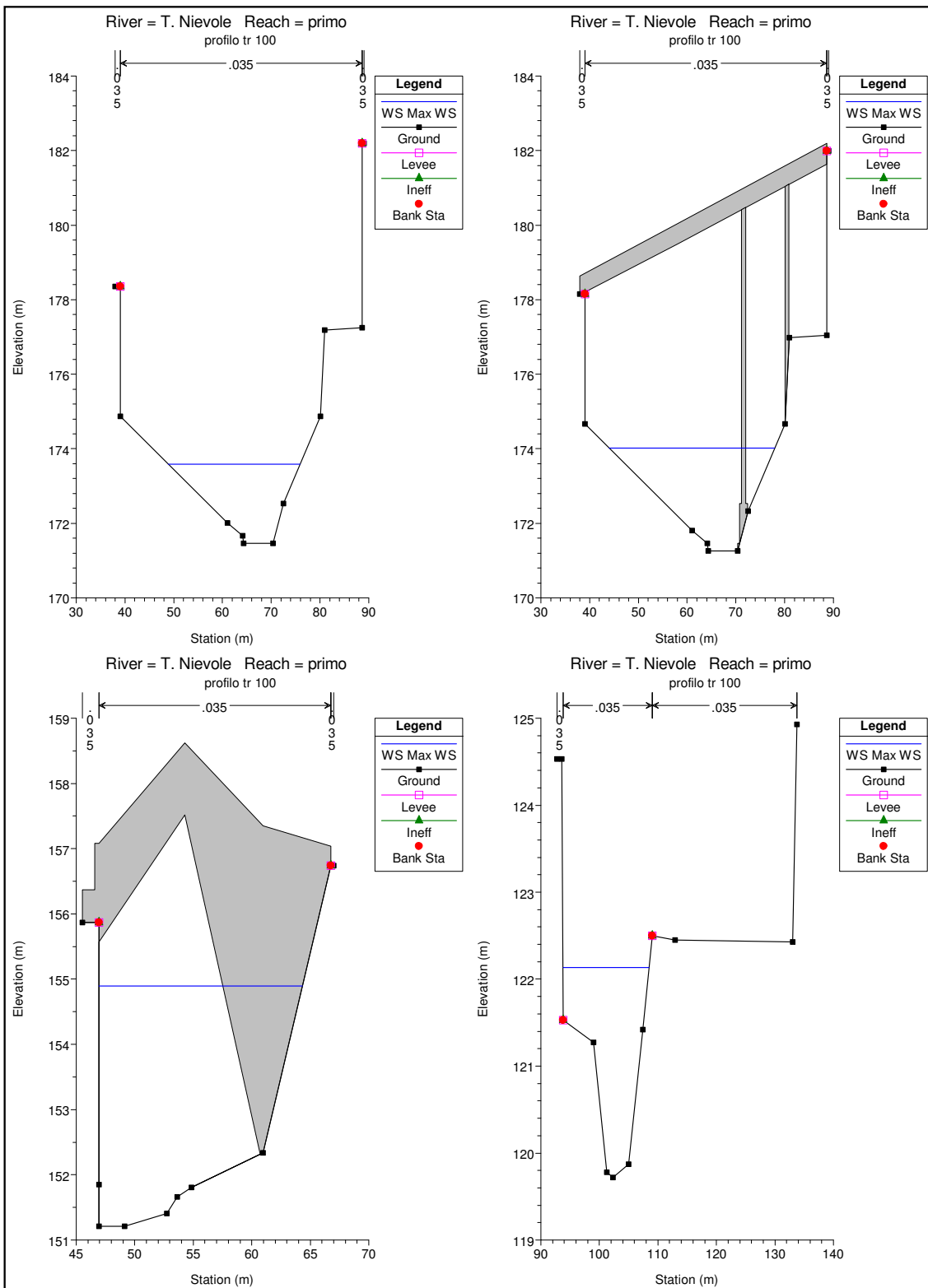


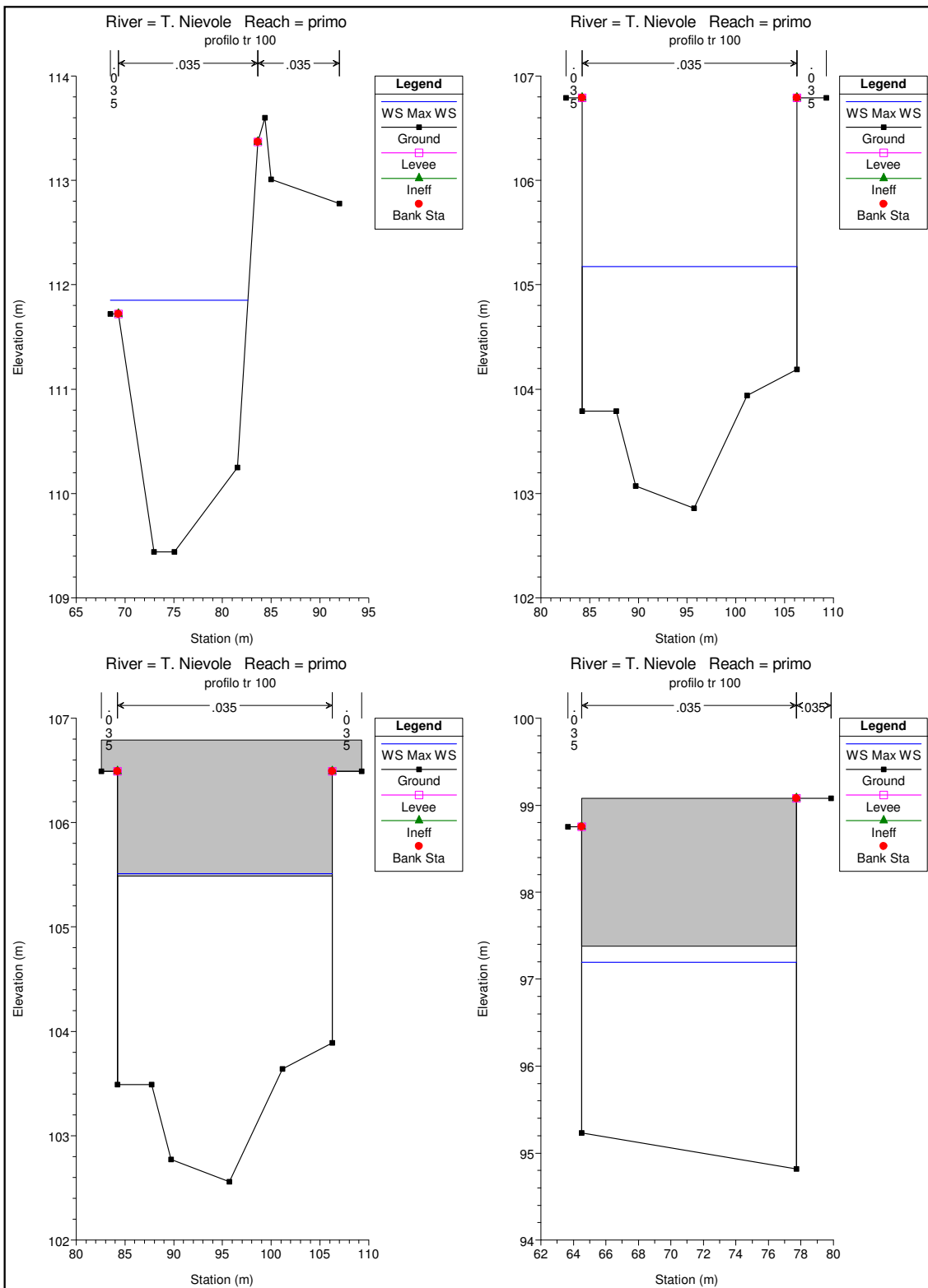


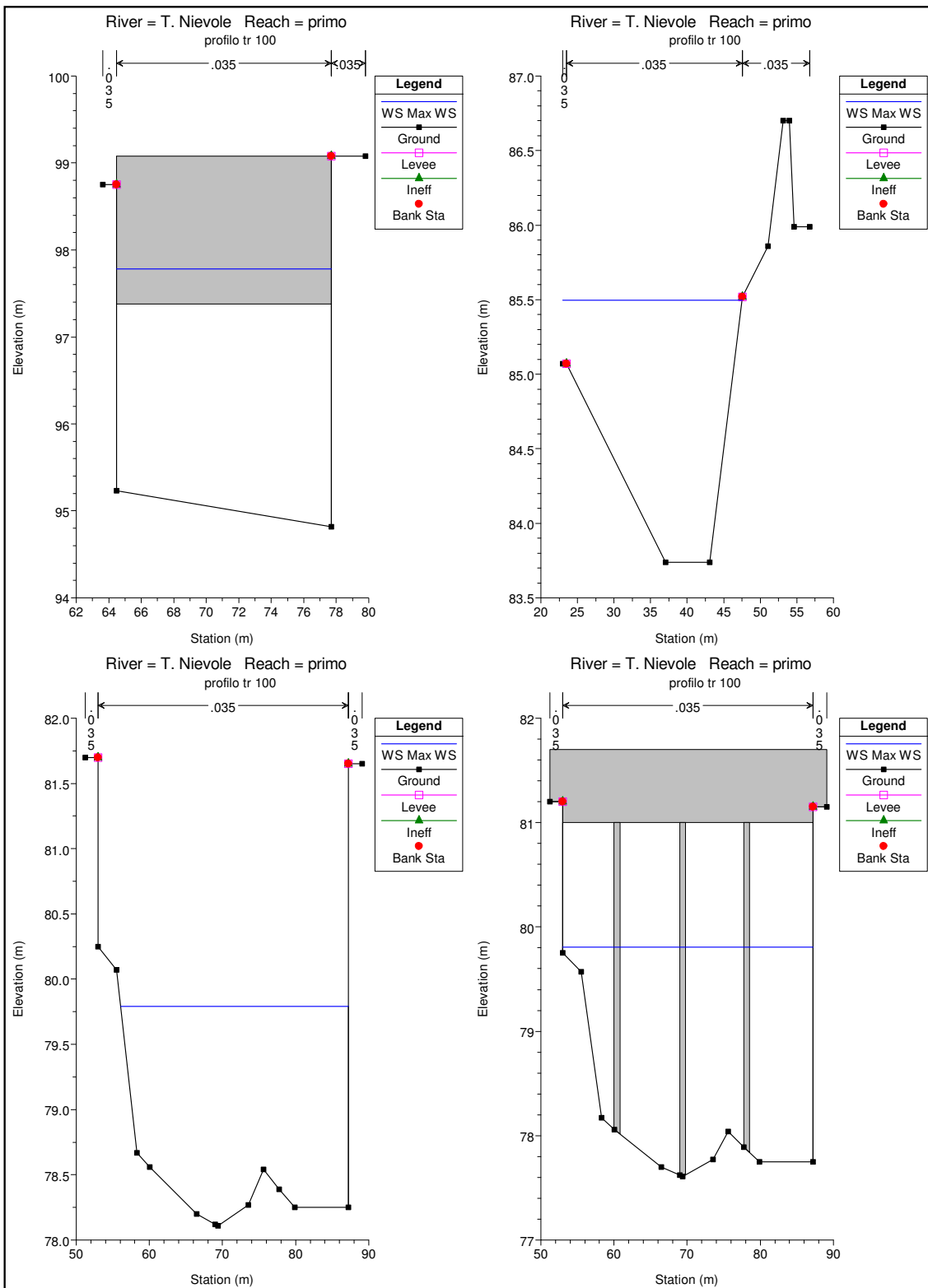


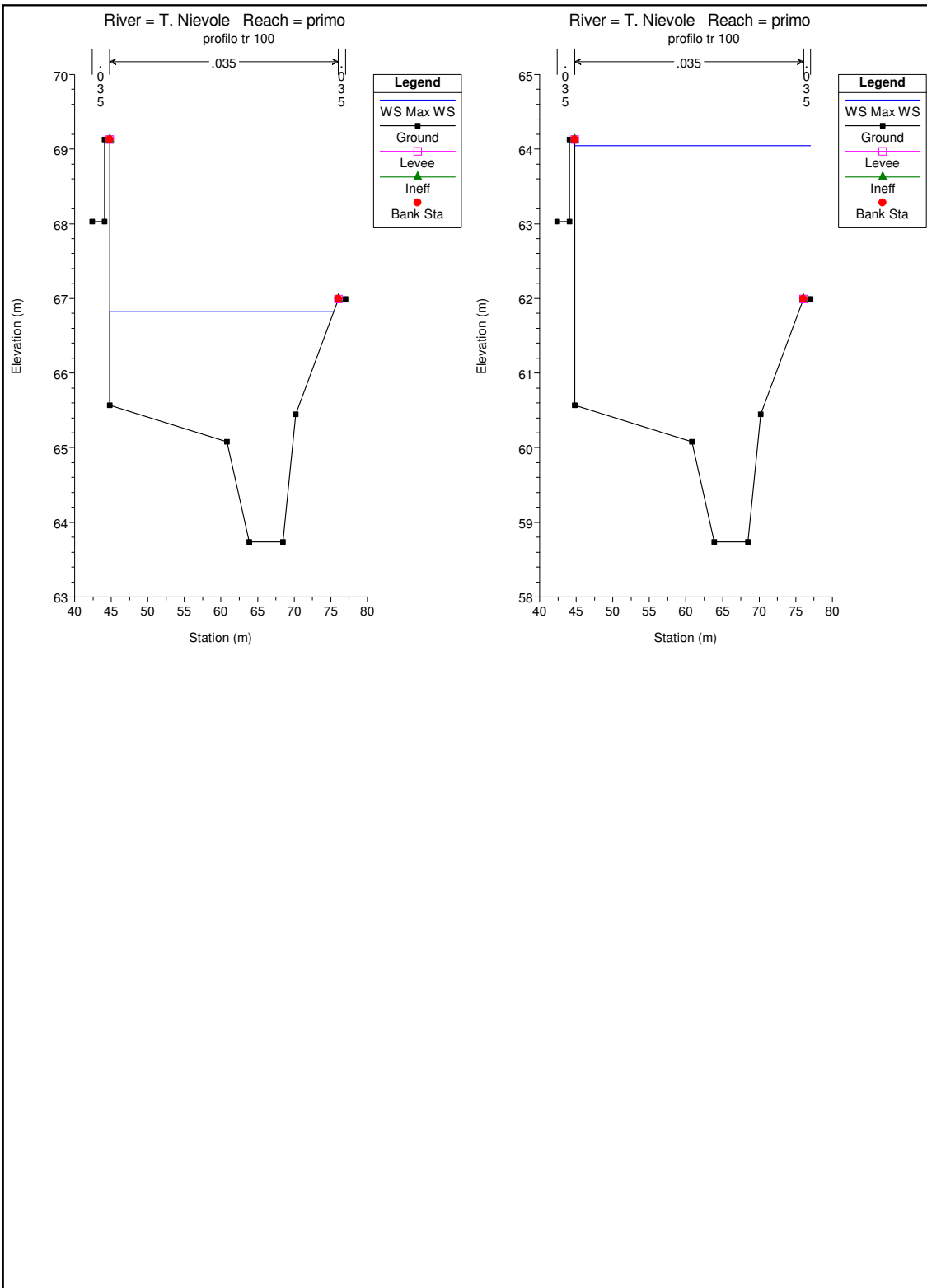
HEC-RAS Plan: Plan 49 Locations: User Defined Profile: Max WS

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
T. Nievole	primo	51.2	Max WS	126.82	176.96	178.46	179.17	180.81	0.064499	6.79	18.69	20.19	2.25
T. Nievole	primo	51.1	Max WS	126.80	171.96	173.95	174.17	174.87	0.018329	4.23	29.95	25.57	1.25
T. Nievole	primo	51	Max WS	126.80	171.46	173.58	173.67	174.32	0.013703	3.80	33.40	27.01	1.09
T. Nievole	primo	50.9	Max WS	126.80	171.36	173.52	173.57	174.21	0.012687	3.69	34.38	27.40	1.05
T. Nievole	primo	50.8	Max WS	126.80	171.26	173.42	173.47	174.11	0.012720	3.69	34.35	27.39	1.05
T. Nievole	primo	50.2		Bridge									
T. Nievole	primo	50.11	Max WS	126.80	171.26	173.18	173.47	174.22	0.021948	4.53	28.00	24.72	1.36
T. Nievole	primo	50.1	Max WS	26.01	170.71	172.63		172.67	0.000916	0.93	28.08	24.76	0.28
T. Nievole	primo	49.2		Bridge									
T. Nievole	primo	48.5		Bridge									
T. Nievole	primo	48.1	Max WS	127.84	134.65	136.41	136.72	137.77	0.024305	5.17	24.74	15.58	1.31
T. Nievole	primo	47.9		Lat Struct									
T. Nievole	primo	47	Max WS	137.54	109.44	111.85	112.32	113.59	0.022563	5.84	23.65	14.11	1.40
T. Nievole	primo	46.9		Lat Struct									
T. Nievole	primo	46	Max WS	137.53	102.86	105.17		105.88	0.010005	3.74	36.81	22.01	0.92
T. Nievole	primo	45.85	Max WS	137.53	102.66	104.73	104.89	105.70	0.016383	4.37	31.49	22.01	1.17
T. Nievole	primo	45.8	Max WS	137.53	102.56	104.67	104.79	105.59	0.015072	4.25	32.33	22.01	1.12
T. Nievole	primo	45.3		Bridge									
T. Nievole	primo	45.21	Max WS	137.53	102.56	104.43	104.79	105.74	0.026461	5.08	27.09	22.01	1.46
T. Nievole	primo	45.201	Max WS	137.53	102.36	104.14	104.59	105.67	0.033556	5.47	25.15	22.01	1.63
T. Nievole	primo	45.191		Lat Struct									
T. Nievole	primo	45.19		Lat Struct									
T. Nievole	primo	45.1	Max WS	137.41	94.92	97.72		97.86	0.001144	1.65	83.16	32.00	0.33
T. Nievole	primo	44.5		Bridge									
T. Nievole	primo	44.41	Max WS	137.43	94.82	97.19	97.25	98.37	0.014724	4.80	28.61	13.21	1.04
T. Nievole	primo	44.4	Max WS	137.43	94.82	97.12	97.25	98.38	0.016248	4.96	27.69	13.21	1.09
T. Nievole	primo	44.32		Lat Struct									
T. Nievole	primo	44.31		Lat Struct									
T. Nievole	primo	44.3	Max WS	137.43	94.82	97.08	97.25	98.38	0.017173	5.05	27.19	13.21	1.12
T. Nievole	primo	44.29	Max WS	137.43	94.82	97.06	97.25	98.39	0.017690	5.10	26.92	13.21	1.14
T. Nievole	primo	44.2		Bridge									
T. Nievole	primo	44.11	Max WS	137.42	94.82	96.84	97.25	98.52	0.025219	5.74	23.95	13.21	1.36
T. Nievole	primo	44.1	Max WS	137.42	94.82	96.69	97.25	98.68	0.032576	6.24	22.03	13.21	1.54
T. Nievole	primo	44.09		Lat Struct									
T. Nievole	primo	44	Max WS	137.02	83.74	85.50	85.79	86.61	0.020947	4.67	29.50	24.52	1.35
T. Nievole	primo	43.99		Lat Struct									
T. Nievole	primo	43	Max WS	114.01	78.11	79.79		80.13	0.005653	2.60	43.86	31.10	0.70
T. Nievole	primo	42.9	Max WS	113.99	77.61	79.86	78.98	80.03	0.002048	1.83	62.17	34.21	0.43
T. Nievole	primo	42.5		Bridge									
T. Nievole	primo	42.41	Max WS	108.67	77.61	79.82		79.98	0.001997	1.79	60.81	34.21	0.43
T. Nievole	primo	42.4	Max WS	108.20	76.21	79.82		79.87	0.000348	0.99	109.13	37.86	0.18
T. Nievole	primo	42	Max WS	318.57	63.74	66.82	67.33	68.66	0.023389	6.00	53.11	30.62	1.45
T. Nievole	primo	41	Max WS	253.20	58.74	64.05	61.99	64.26	0.001007	2.06	124.54	32.22	0.33



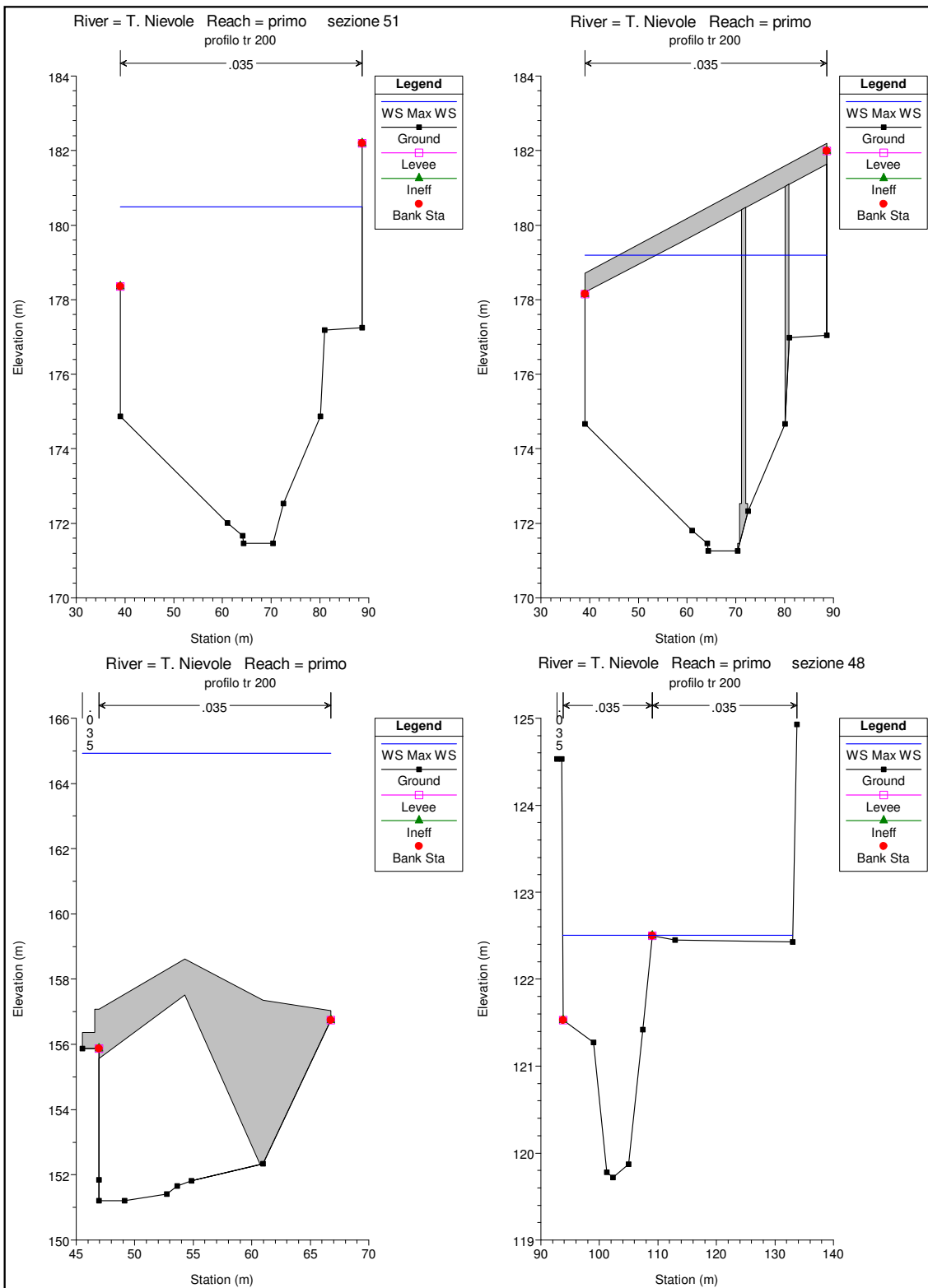


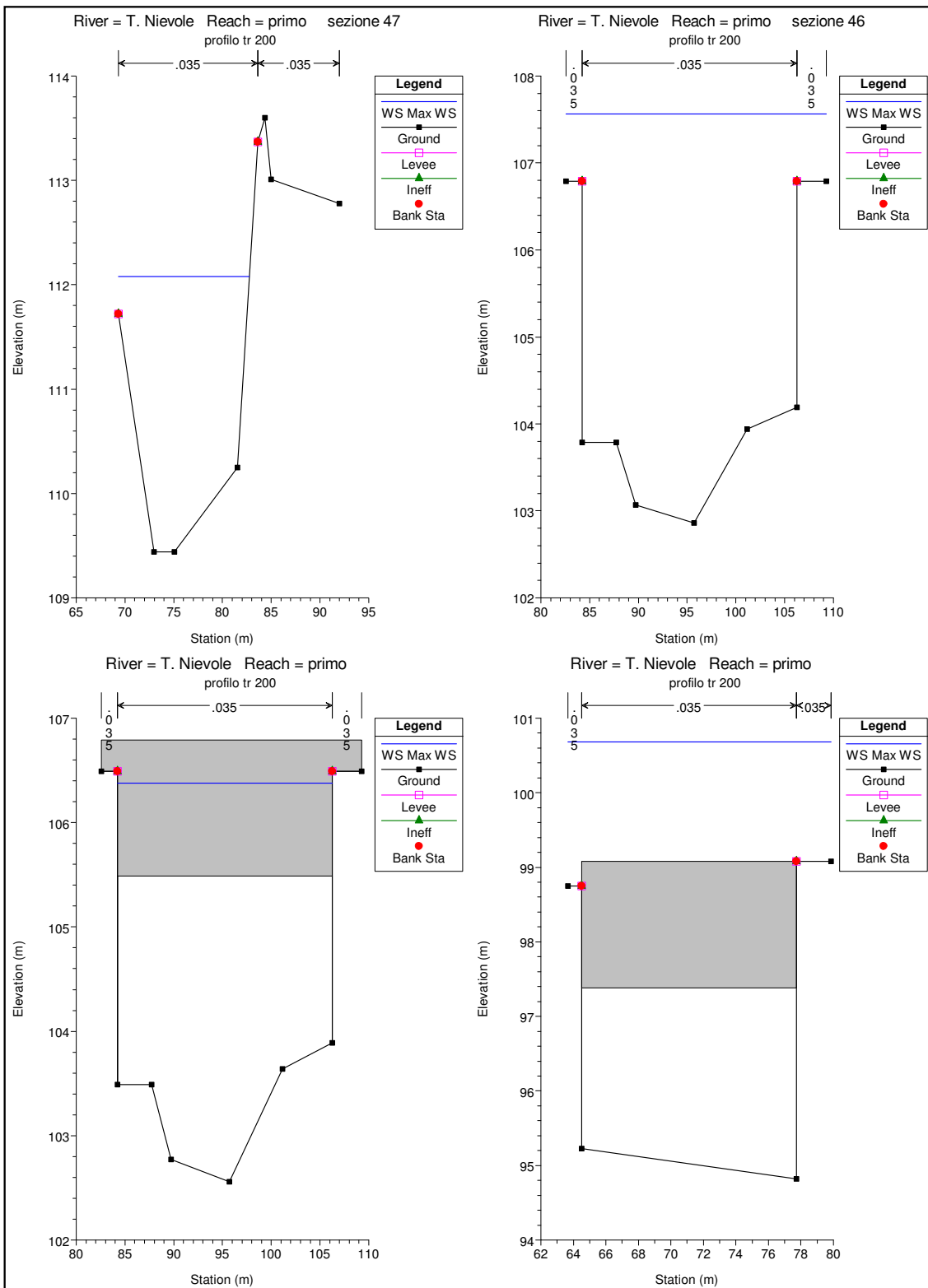


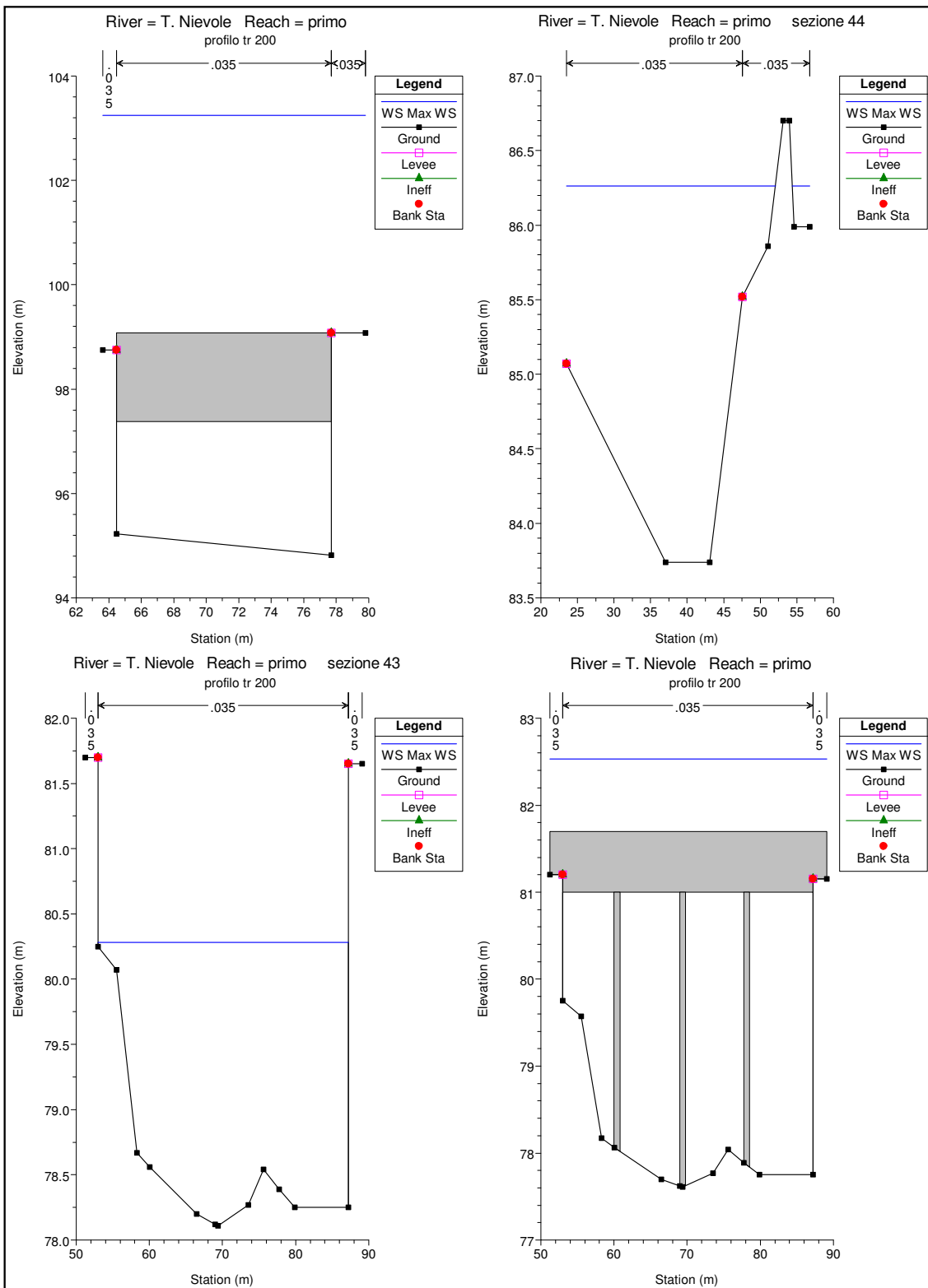


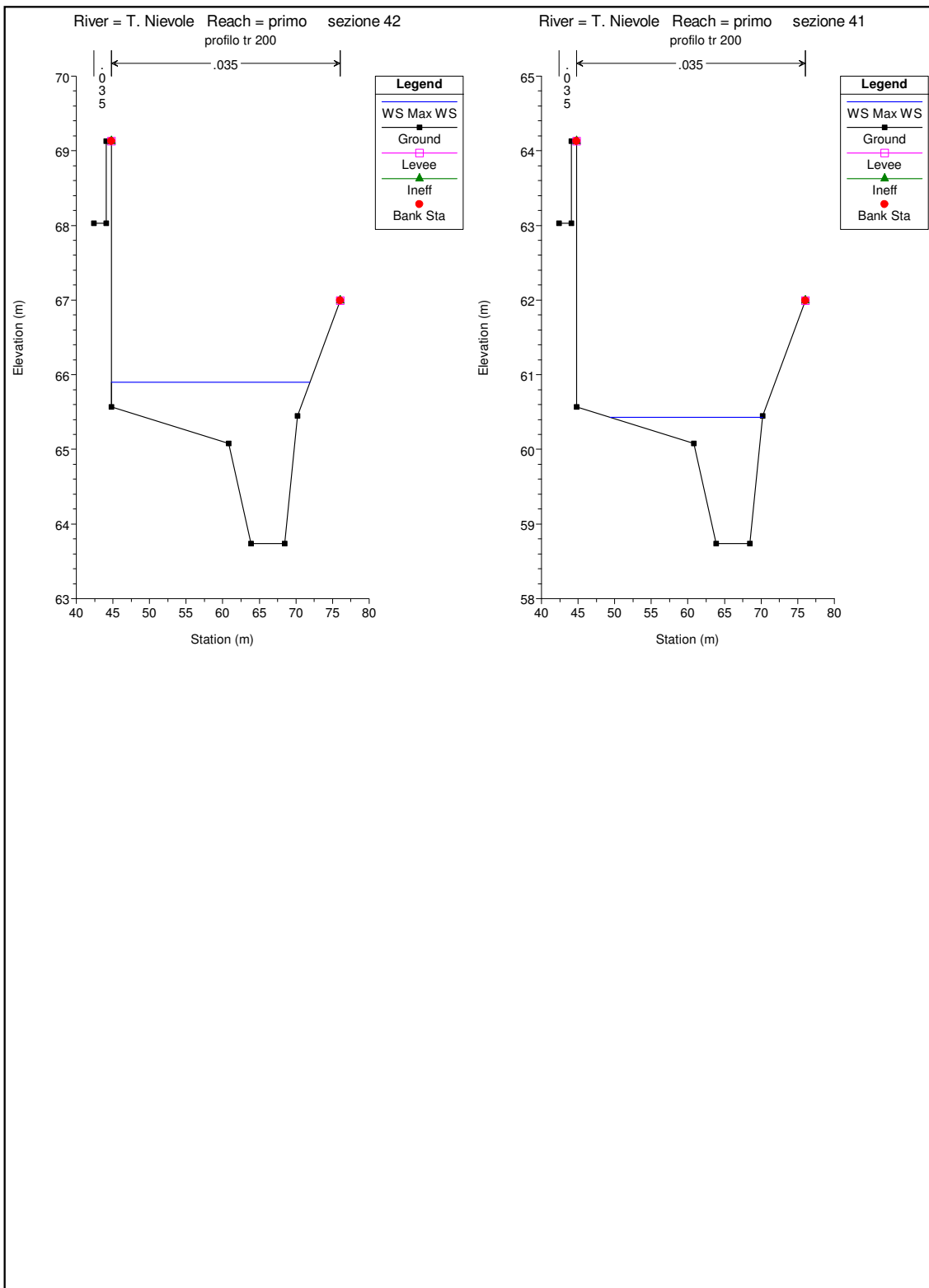
HEC-RAS Plan: Plan 16 River: T. Nievole Reach: primo Profile: Max WS

Reach	River Sta	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
primo	51.2	11.31	176.96	178.68		178.69	0.000285	0.49	23.32	22.55	0.15
primo	51.1	2.73	171.96	174.68		174.68	0.000002	0.05	51.45	33.53	0.01
primo	51	-16.70	171.46	174.49		174.49	0.000045	-0.27	62.36	36.92	0.07
primo	50.9	-27.06	171.36	174.56		174.57	0.000090	-0.39	68.93	38.82	0.09
primo	50.8	-49.11	171.26	174.61		174.63	0.000240	-0.66	74.76	40.43	0.15
primo	50.2	Bridge									
primo	50.11	-71.17	171.26	174.45		174.51	0.000635	-1.04	68.52	38.70	0.25
primo	50.1	12.64	170.71	173.64		173.64	0.000030	0.22	58.65	35.80	0.05
primo	50.08*	1.54	166.87	169.02		169.02	0.000002	0.05	32.72	23.28	0.01
primo	50.06*	148.29	163.03	164.83	165.42	166.78	0.040490	6.19	23.96	20.44	1.82
primo	50.04*	148.28	159.19	161.07	161.65	162.96	0.036117	6.09	24.34	19.05	1.72
primo	50.02*	148.28	155.35	157.23	157.91	159.46	0.042742	6.63	22.38	17.04	1.85
primo	50	148.27	151.51	153.82	154.22	155.39	0.022767	5.54	26.76	15.58	1.35
primo	49.9	148.27	151.41	153.73	154.12	155.28	0.022510	5.52	26.86	15.58	1.34
primo	49.8	148.27	151.21	153.58	153.92	155.05	0.020786	5.38	27.58	15.65	1.29
primo	49.2	Bridge									
primo	49.12	148.27	151.21	153.39	153.92	155.23	0.029066	6.01	24.67	15.40	1.52
primo	49.11	148.27	150.71	152.70	153.42	155.05	0.041856	6.78	21.87	15.16	1.80
primo	49.1	148.27	150.46	152.29	152.72	153.82	0.027782	5.48	27.06	20.22	1.51
primo	49.08*	148.27	147.69	150.09	150.47	151.54	0.024774	5.33	27.84	19.34	1.42
primo	49.06*	148.26	144.92	147.49	148.06	149.39	0.037801	6.11	24.25	18.56	1.71
primo	49.04*	148.26	142.15	144.50	145.39	146.82	0.033709	6.75	21.98	12.46	1.62
primo	49.02*	148.26	139.38	141.59	142.23	143.78	0.035908	6.56	22.64	14.74	1.67
primo	49	148.25	136.61	138.90	139.28	140.42	0.023310	5.49	27.48	17.23	1.37
primo	48.6	7.09	136.59	139.85		139.85	0.000010	0.16	45.55	13.96	0.03
primo	48.51	149.13	136.56	138.70	138.82	139.97	0.015703	4.98	29.94	13.96	1.09
primo	48.5	Bridge									
primo	48.41	6.69	136.56	140.39		140.39	0.000006	0.13	53.41	13.96	0.02
primo	48.4	149.13	136.40	138.41	138.66	139.85	0.019058	5.31	28.09	13.96	1.19
primo	48.2	149.13	136.21	138.30	138.48	139.64	0.017997	5.12	29.11	13.96	1.13
primo	48.15*	149.13	135.43	137.51	137.82	139.08	0.021330	5.56	26.82	12.94	1.23
primo	48.1	149.11	134.65	136.57	136.92	138.10	0.024729	5.49	27.16	15.58	1.33
primo	48	168.68	119.72	122.28	123.18	125.18	0.044819	7.55	22.38	14.94	1.96
primo	47.9	Lat Struct									
primo	47	152.05	109.44	111.96	112.47	113.84	0.022760	6.07	25.21	14.19	1.42
primo	46.9	Lat Struct									
primo	46.75*	151.75	107.80	110.22	110.63	111.83	0.020819	5.61	27.03	15.41	1.35
primo	46.5*	16.64	106.15	108.72		108.73	0.000154	0.50	33.24	18.06	0.12
primo	46.25*	166.13	104.51	106.77	107.10	108.17	0.020544	5.25	31.62	20.08	1.34
primo	46	166.12	102.86	105.36	105.30	106.20	0.010473	4.06	40.90	22.01	0.95
primo	45.85	166.06	102.66	104.90	105.10	106.03	0.016797	4.72	35.20	22.01	1.19
primo	45.8	166.06	102.56	104.84	105.00	105.92	0.015638	4.61	36.00	22.01	1.15
primo	45.3	Bridge									
primo	45.21	165.95	102.56	104.59	105.00	106.08	0.025915	5.41	30.68	22.01	1.46
primo	45.201	165.58	102.36	104.33	104.79	105.96	0.030009	5.66	29.26	22.01	1.57
primo	45.191	Lat Struct									
primo	45.19	Lat Struct									
primo	45.1	159.28	94.92	98.62		98.72	0.000612	1.43	111.69	32.00	0.24
primo	45	159.27	94.82	97.97		98.82	0.007941	4.09	38.93	13.21	0.76
primo	44.9	159.27	94.82	97.95	97.48	98.82	0.008101	4.12	38.66	13.21	0.77
primo	44.5	Bridge									
primo	44.41	159.28	94.82	97.38	97.48	98.72	0.015434	5.12	31.09	13.21	1.07
primo	44.4	159.28	94.82	97.30	97.48	98.73	0.016967	5.29	30.12	13.21	1.12
primo	44.32	Lat Struct									
primo	44.31	Lat Struct									
primo	44.3	159.28	94.82	97.26	97.48	98.74	0.017890	5.38	29.59	13.21	1.15
primo	44.29	159.28	94.82	97.24	97.48	98.75	0.018395	5.43	29.31	13.21	1.16
primo	44.2	Bridge									
primo	44.11	159.28	94.82	97.01	97.48	98.89	0.025699	6.07	26.23	13.21	1.38
primo	44.1	159.28	94.82	96.86	97.48	99.05	0.032481	6.56	24.28	13.21	1.54
primo	44.09	Lat Struct									
primo	44	159.26	83.74	85.61	85.95	86.87	0.021363	4.98	32.19	25.46	1.38
primo	43.99	Lat Struct									
primo	43	127.46	78.11	79.92		80.28	0.005327	2.66	47.98	31.36	0.69
primo	42.9	8.31	77.61	80.14	78.00	80.14	0.000007	0.12	72.04	34.21	0.03
primo	42.5	Bridge									
primo	42.41	127.26	77.61	79.94		80.14	0.002189	1.95	65.22	34.21	0.45
primo	42.4	119.35	76.21	79.95		80.01	0.000370	1.05	114.11	37.86	0.18
primo	42	358.16	63.74	66.95	67.51	68.96	0.023796	6.27	57.12	31.11	1.48
primo	41	273.65	58.74	64.24	62.11	64.46	0.001000	2.11	132.73	34.62	0.33









FOSSO DELLA PUNGOLANA

1- Simulazione Hec-Ras Tr=30 anni

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2- Simulazione Hec-Ras Tr=100 anni

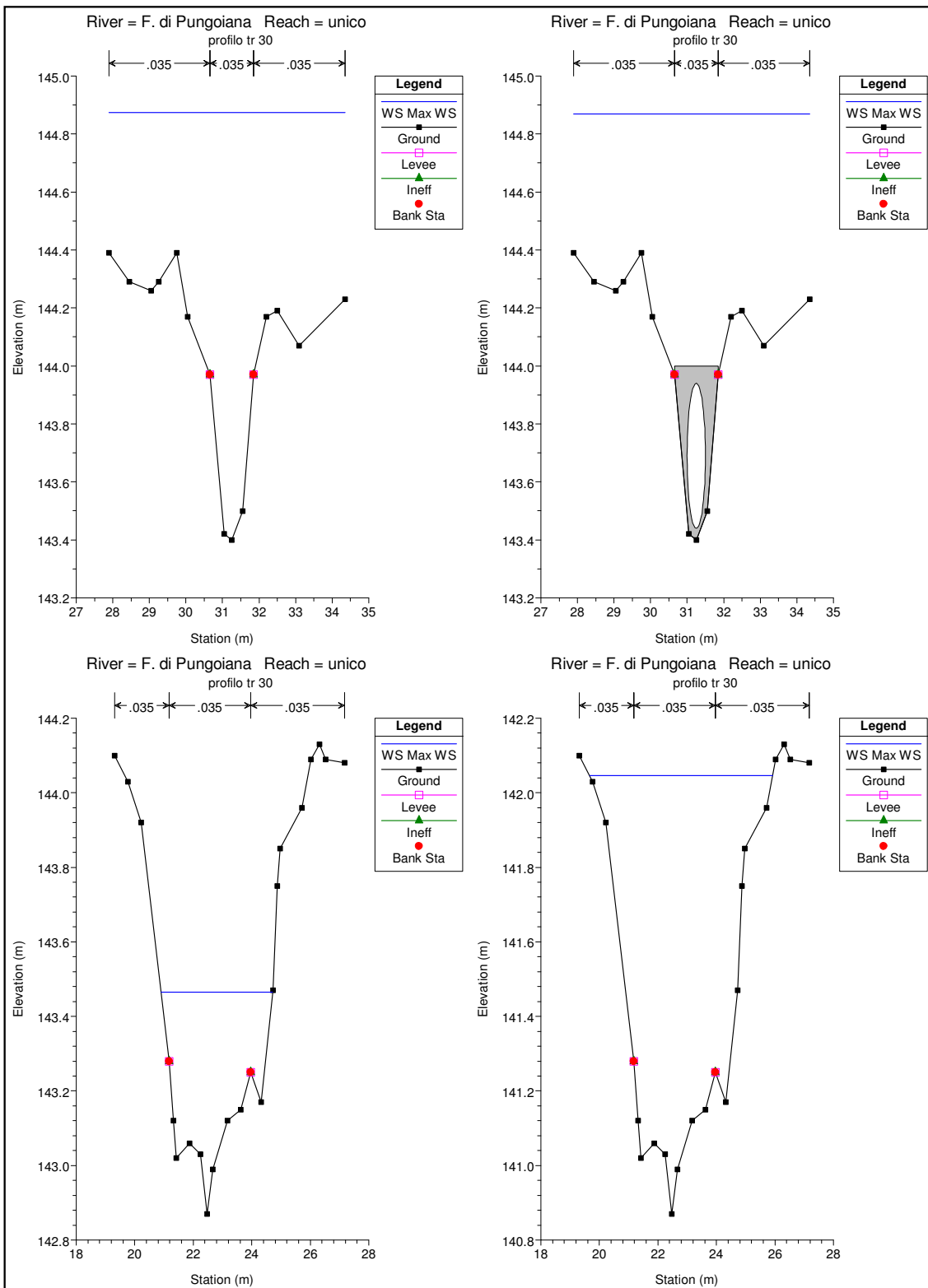
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3- Simulazione Hec-Ras Tr=200 anni

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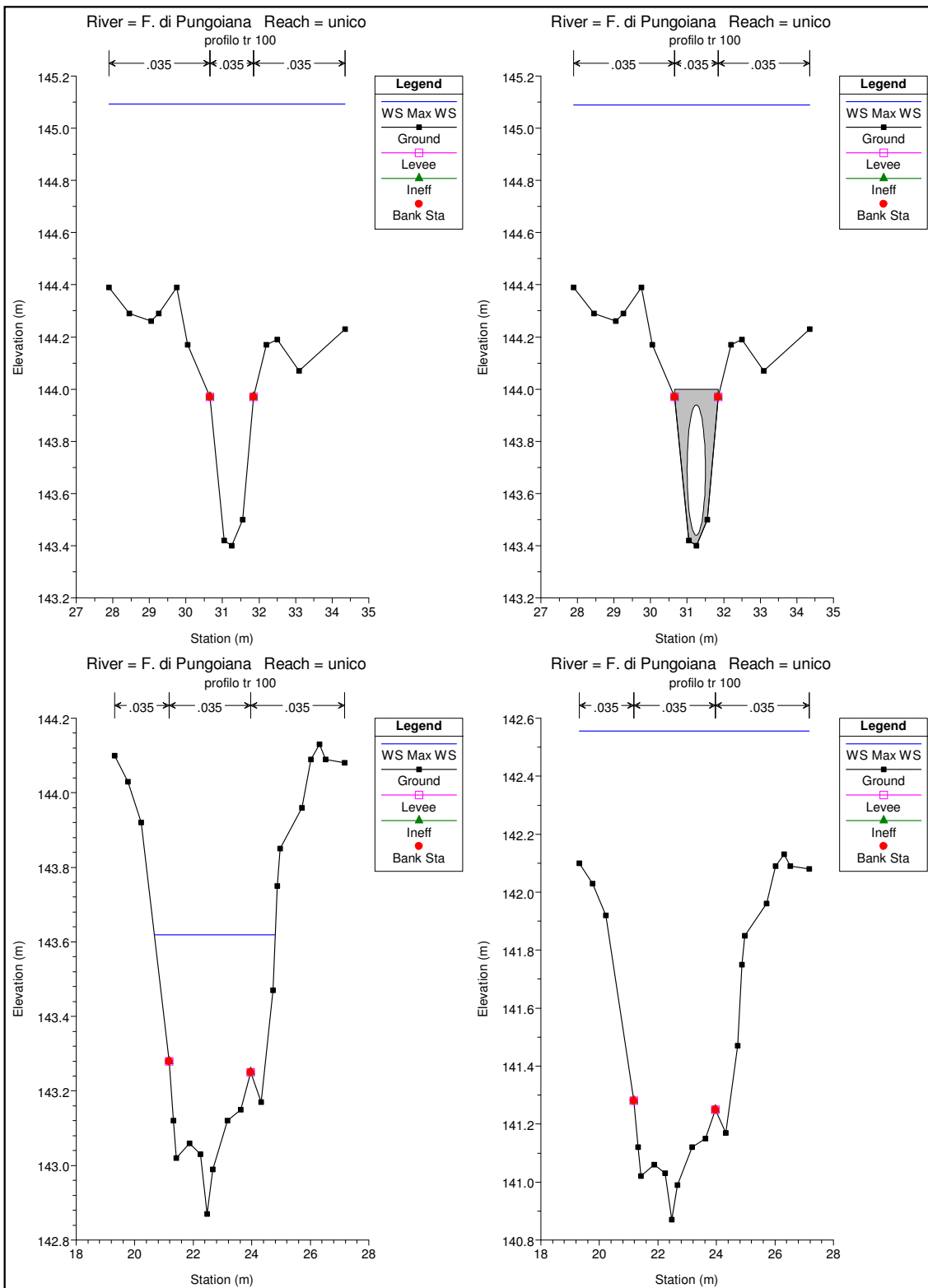
HEC-RAS Plan: Plan 19 River: F. di Pungoiana Reach: unico Profile: Max WS

Reach	River Sta	Profile	Q Total (m ³ /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 (m ²)	Top Width (m)	Froude # Chl
unico	59.4	Max WS	6.61	143.40	144.87		144.97	0.003802	1.61	5.08	6.45	0.45
unico	59.3	Max WS	6.61	143.40	144.87		144.96	0.003877	1.62	5.05	6.45	0.46
unico	59.1											
		Culvert										
unico	59.01	Max WS	6.61	143.40	144.77		144.90	0.005834	1.88	4.40	6.45	0.56
unico	59.005	Max WS	6.61	143.40	144.74	144.61	144.92	0.006722	-2.27	4.20	6.45	0.68
unico	59.001											
		Inl Struct										
unico	59	Max WS	6.61	142.87	143.47	143.83	144.94	0.145246	5.53	1.27	3.82	2.82
unico	58	Max WS	6.61	140.87	142.05	141.83	142.22	0.005542	1.98	3.96	6.25	0.64



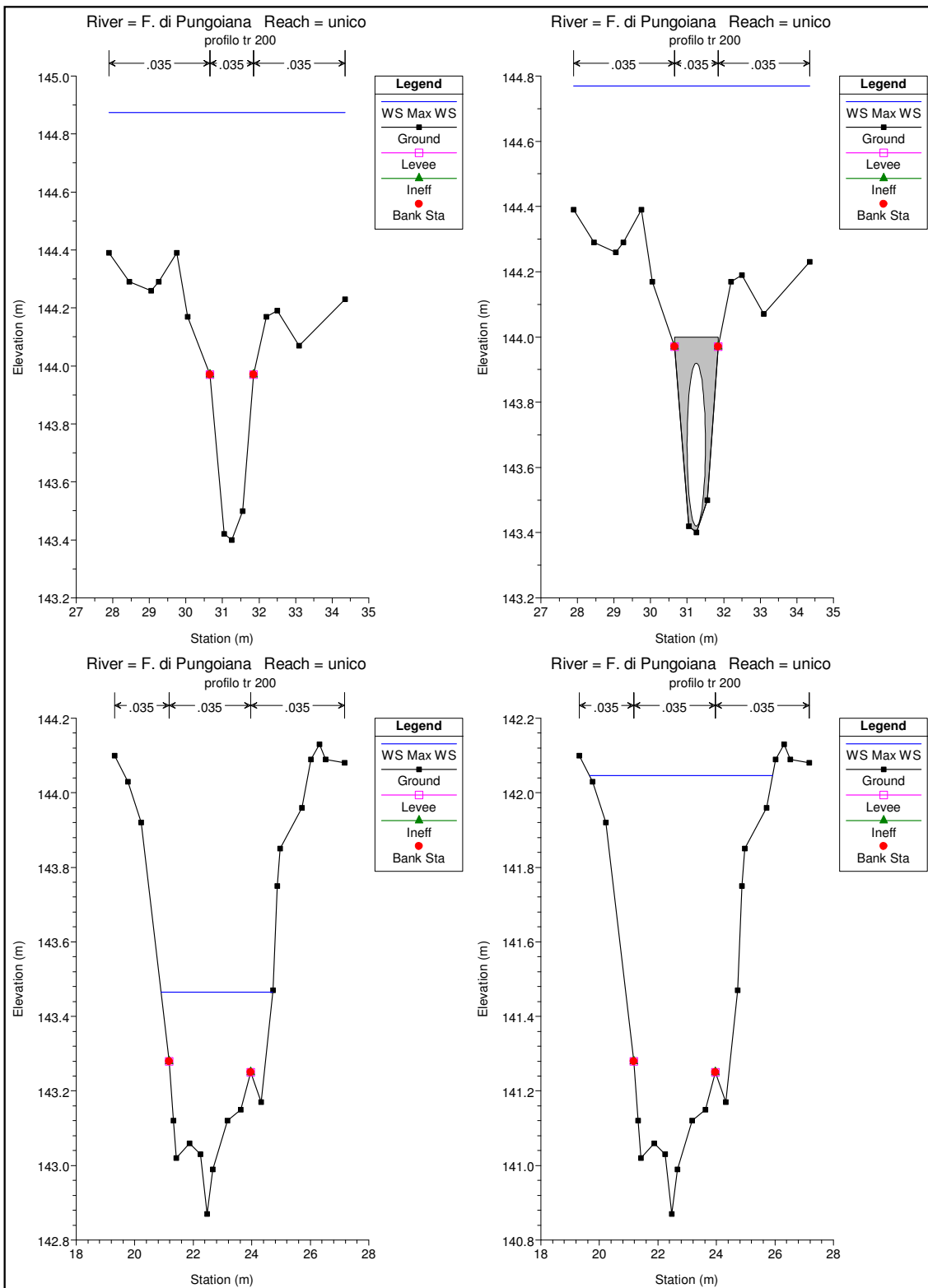
HEC-RAS Plan: Plan 32 River: F. di Pungoiana Reach: unico Profile: Max WS

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
unico	59.4	Max WS	9.49	143.40	145.09		145.21	0.003760	1.78	6.49	6.45	0.46
unico	59.3	Max WS	9.49	143.40	145.09		145.20	0.003815	1.79	6.46	6.45	0.47
unico	59.1											
		Culvert										
unico	59.01	Max WS	9.49	143.40	144.96		145.11	0.005743	2.07	5.63	6.45	0.56
unico	59.005	Max WS	9.49	143.40	144.93	144.73	145.10	0.006373	2.15	5.44	6.45	0.59
unico	59.001											
		Inl Struct										
unico	59	Max WS	9.49	142.87	143.62	144.05	145.03	0.091212	5.46	1.88	4.13	2.36
unico	58	Max WS	9.48	140.87	142.56	142.05	142.65	0.001855	1.52	7.90	7.85	0.40



HEC-RAS Plan: Plan 31 River: F. di Pungoiana Reach: unico Profile: Max WS

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
unico	59.4	Max WS	10.65	143.40	178.42		178.42	0.000000	0.13	221.43	6.45	0.01
unico	59.3	Max WS	0.95	143.40	146.97		146.97	0.000002	0.07	18.56	6.45	0.01
unico	59.1											
		Culvert										
unico	59.01	Max WS	0.95	143.40	146.90		146.90	0.000002	0.07	18.11	6.45	0.01
unico	59.005	Max WS	43.27	143.40	147.37	145.77	147.61	0.002583	2.73	21.21	6.45	0.45
unico	59.001											
		Inl Struct										
unico	59	Max WS	43.27	142.87	144.45	145.10	146.83	0.053361	7.74	7.06	7.85	2.11
unico	58	Max WS	22.89	140.87	143.84	142.59	143.94	0.000984	1.67	17.96	7.85	0.32



FOSSO RENAGGIO

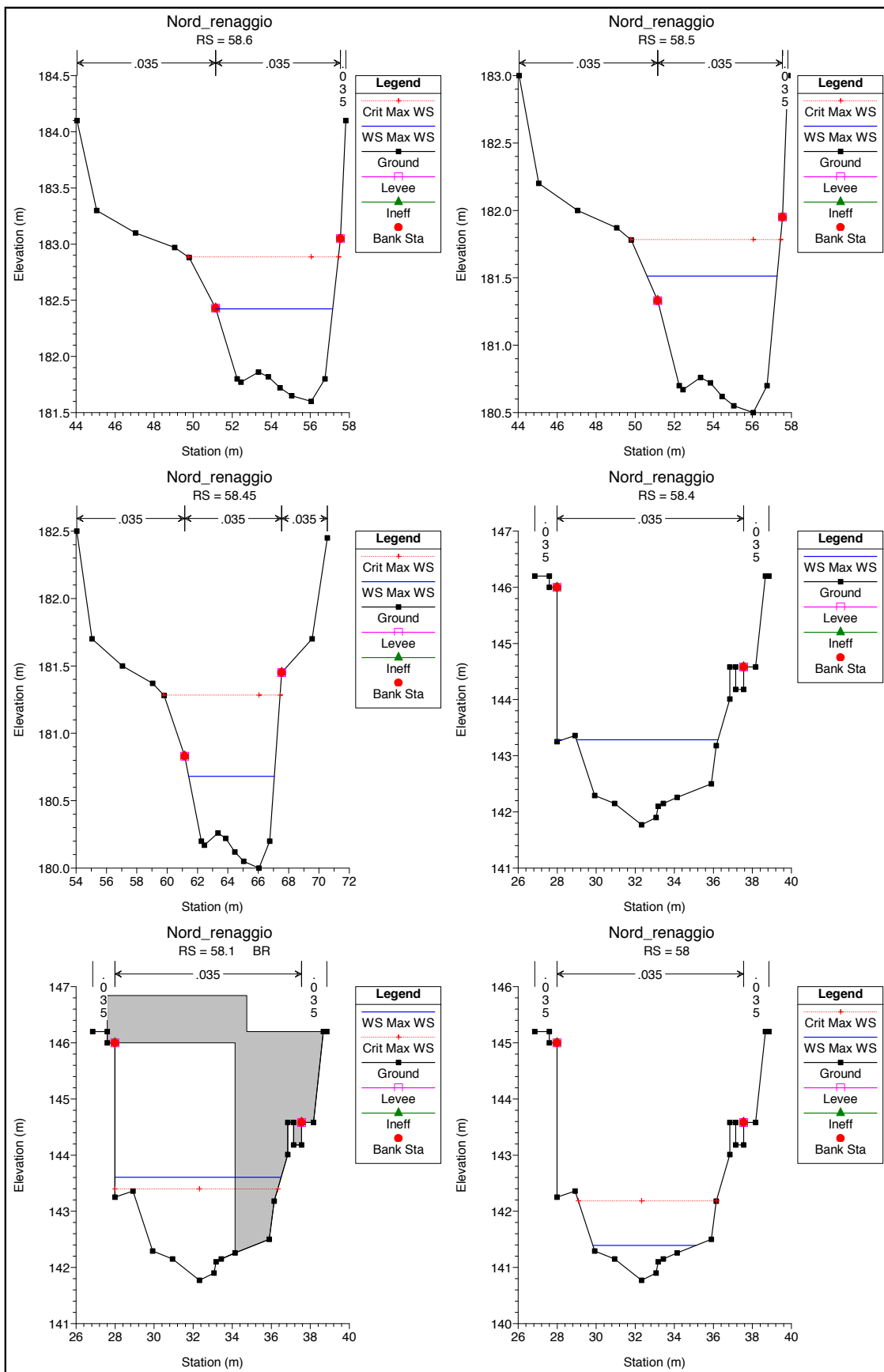
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2- Simulazione Hec-Ras Tr=100 anni
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3- Simulazione Hec-Ras Tr=200 anni
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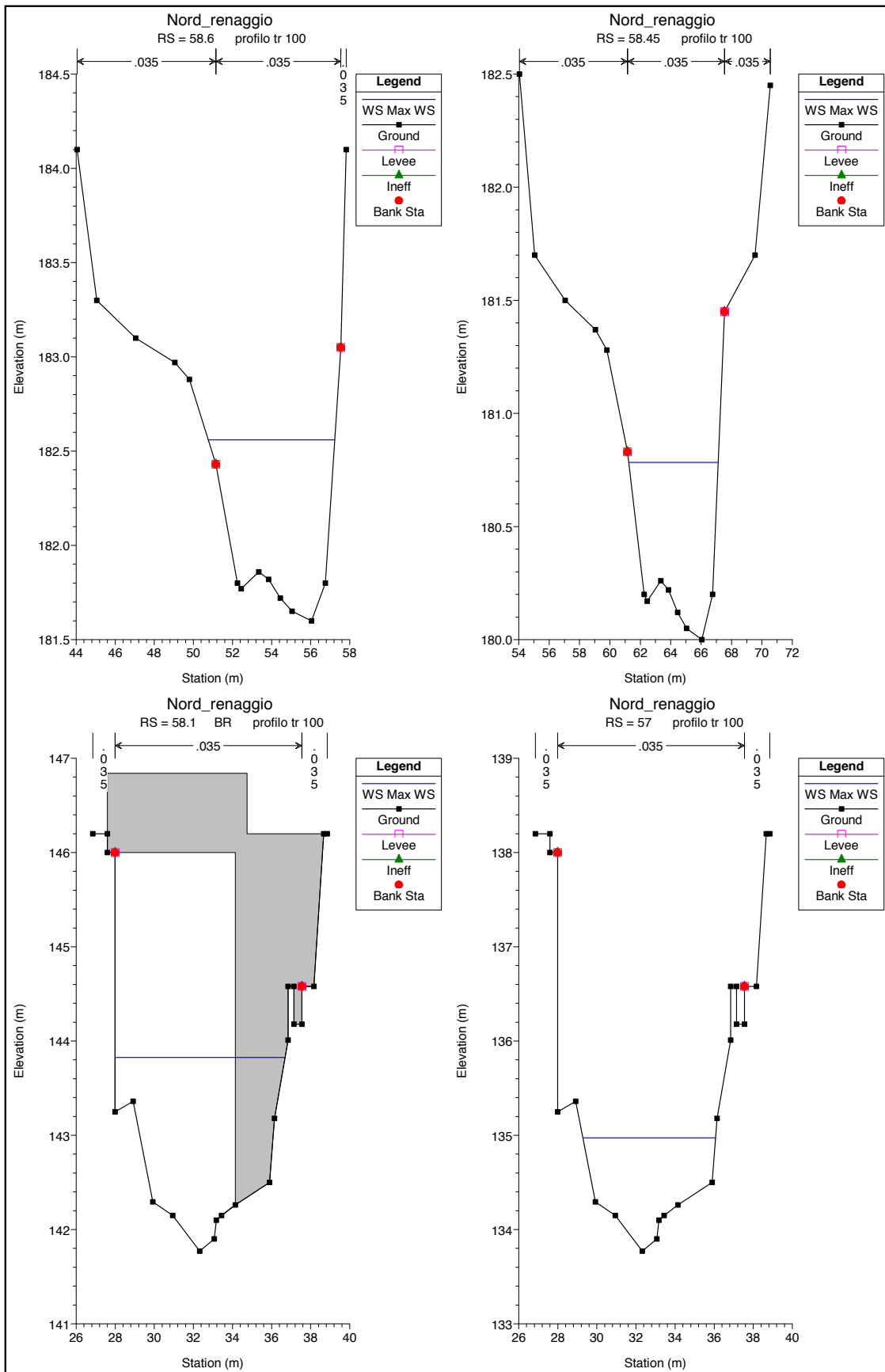
HEC-RAS Plan: Plan 10 River: F. Renaggio Reach: unico Profile: Max WS

Reach	River Sta	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
unico	58.6	20.25	181.60	182.42	182.89	184.06	0.088657	5.68	3.57	5.99	2.35
unico	58.5	20.25	180.50	181.51	181.78	182.44	0.036288	4.28	4.77	6.67	1.55
unico	58.45	20.25	180.00	180.68	181.28	183.46	0.193582	7.38	2.74	5.65	3.38
unico	58.4	20.23	141.77	143.28		143.67	0.011633	2.75	7.36	7.53	0.89
unico	58.3	20.23	141.77	143.20	143.19	143.66	0.014152	2.99	6.77	7.10	0.98
unico	58.1	Bridge									
unico	58.01	20.23	141.77	142.90	143.19	143.84	0.041881	4.30	4.71	6.70	1.64
unico	58	20.23	140.77	141.39	142.19	150.62	1.265503	13.45	1.50	5.29	8.06
unico	57	20.22	133.77	134.69	135.19	136.62	0.125704	6.15	3.29	6.42	2.74



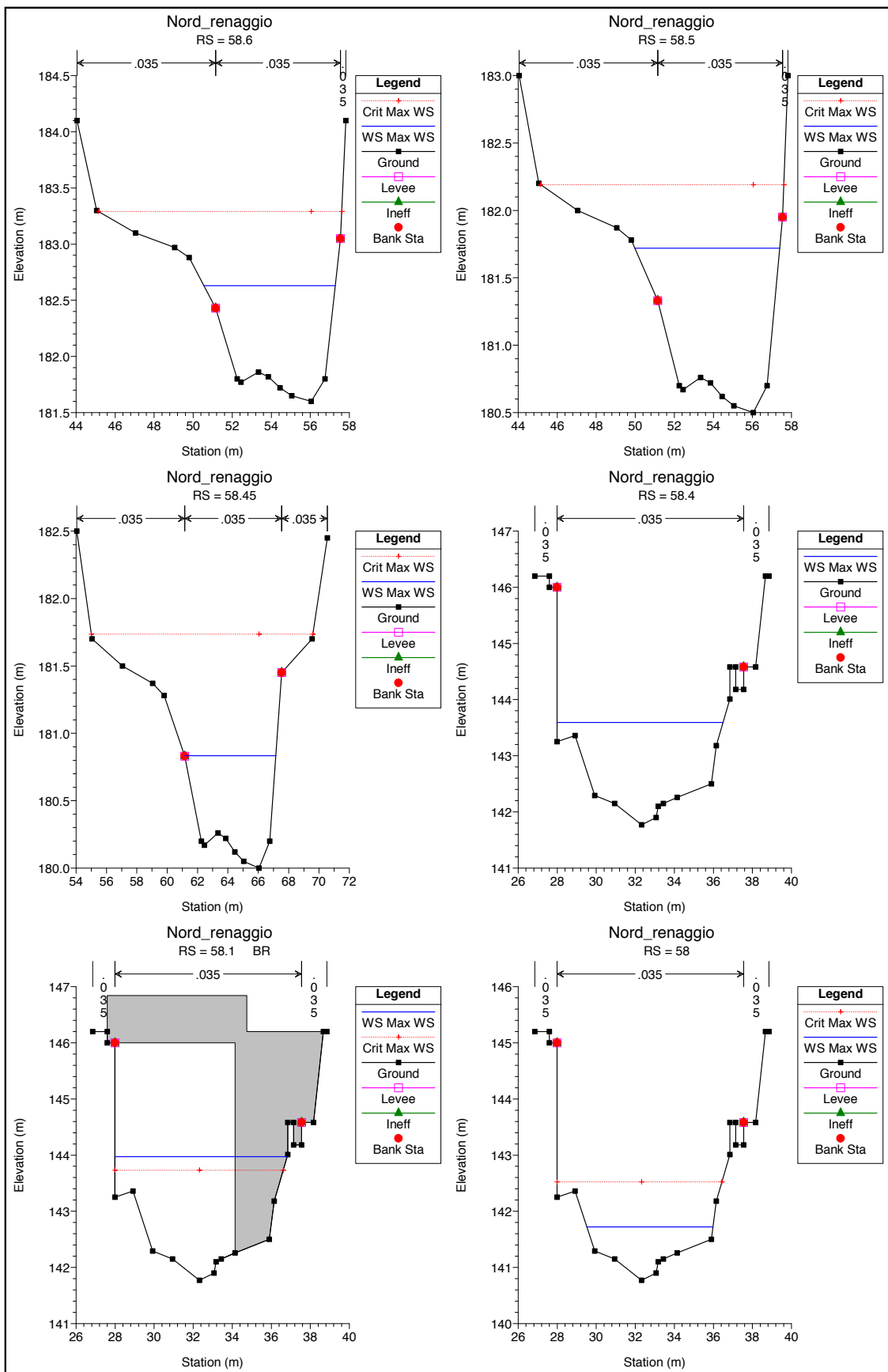
HEC-RAS Plan: Plan 27 River: F. Renaggio Reach: unico Profile: Max WS

Reach	River Sta	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
unico	58.6	26.60	181.60	182.56	183.16	184.42	0.079052	6.05	4.42	6.47	2.27
unico	58.5	26.60	180.50	181.65	182.06	182.79	0.037643	4.77	5.68	7.15	1.61
unico	58.45	26.60	180.00	180.78	181.57	184.03	0.186631	7.98	3.33	5.89	3.39
unico	58.4	26.55	141.77	143.47		143.93	0.012517	2.98	8.92	8.41	0.92
unico	58.3	26.55	141.77	143.40	143.41	143.92	0.015682	3.21	8.28	8.34	1.03
unico	58.1	Bridge									
unico	58.01	26.55	141.77	143.06	143.42	144.14	0.039413	4.61	5.76	6.90	1.61
unico	58	26.55	140.77	141.59	142.42	146.54	0.401232	9.85	2.70	6.29	4.80
unico	57	26.55	133.77	134.97	135.42	136.31	0.054139	5.13	5.18	6.79	1.87



HEC-RAS Plan: Plan 10 River: F. Renaggio Reach: unico Profile: Max WS

Reach	River Sta	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
unico	58.6	30.68	181.60	182.63	183.29	184.67	0.077996	6.34	4.88	6.73	2.28
unico	58.5	30.68	180.50	181.72	182.19	183.00	0.038469	5.04	6.23	7.42	1.64
unico	58.45	30.68	180.00	180.83	181.74	184.47	0.192697	8.45	3.63	6.02	3.47
unico	58.4	30.63	141.77	143.59	143.52	144.08	0.012134	3.09	9.92	8.51	0.91
unico	58.3	30.63	141.77	143.52	143.52	144.07	0.014703	3.29	9.30	8.45	1.00
unico	58.1	Bridge									
unico	58.01	30.63	141.77	143.16	143.52	144.30	0.036843	4.73	6.48	7.04	1.57
unico	58	30.63	140.77	141.72	142.52	145.57	0.231924	8.68	3.53	6.46	3.75
unico	57	30.62	133.77	135.16	135.52	136.30	0.037314	4.75	6.45	7.03	1.58



RIO RINFRESCO o CASTAGNA REGOLO

1- Simulazione Hec-Ras Tr=30 anni

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2- Simulazione Hec-Ras Tr=100 anni

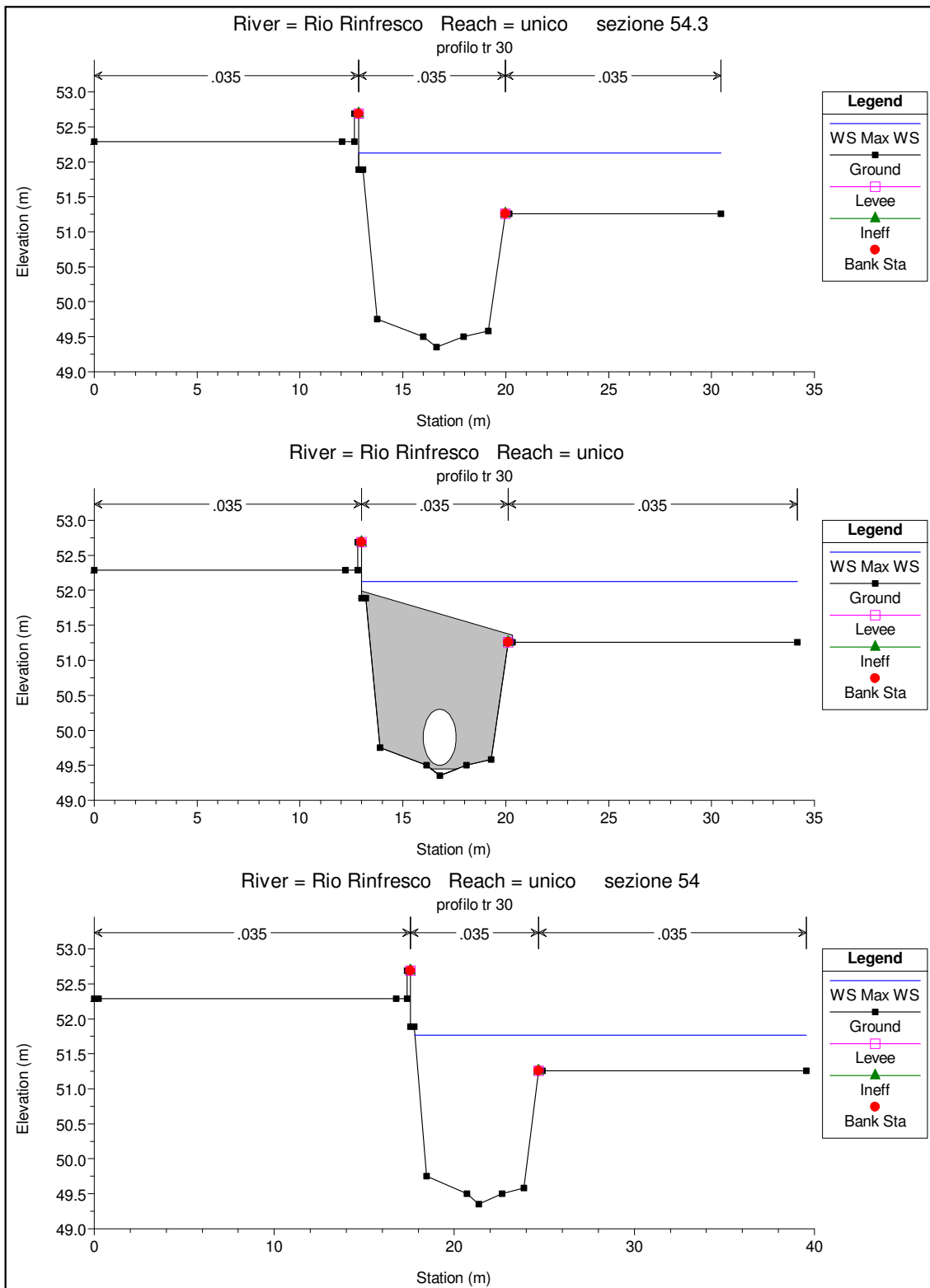
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3- Simulazione Hec-Ras Tr=200 anni

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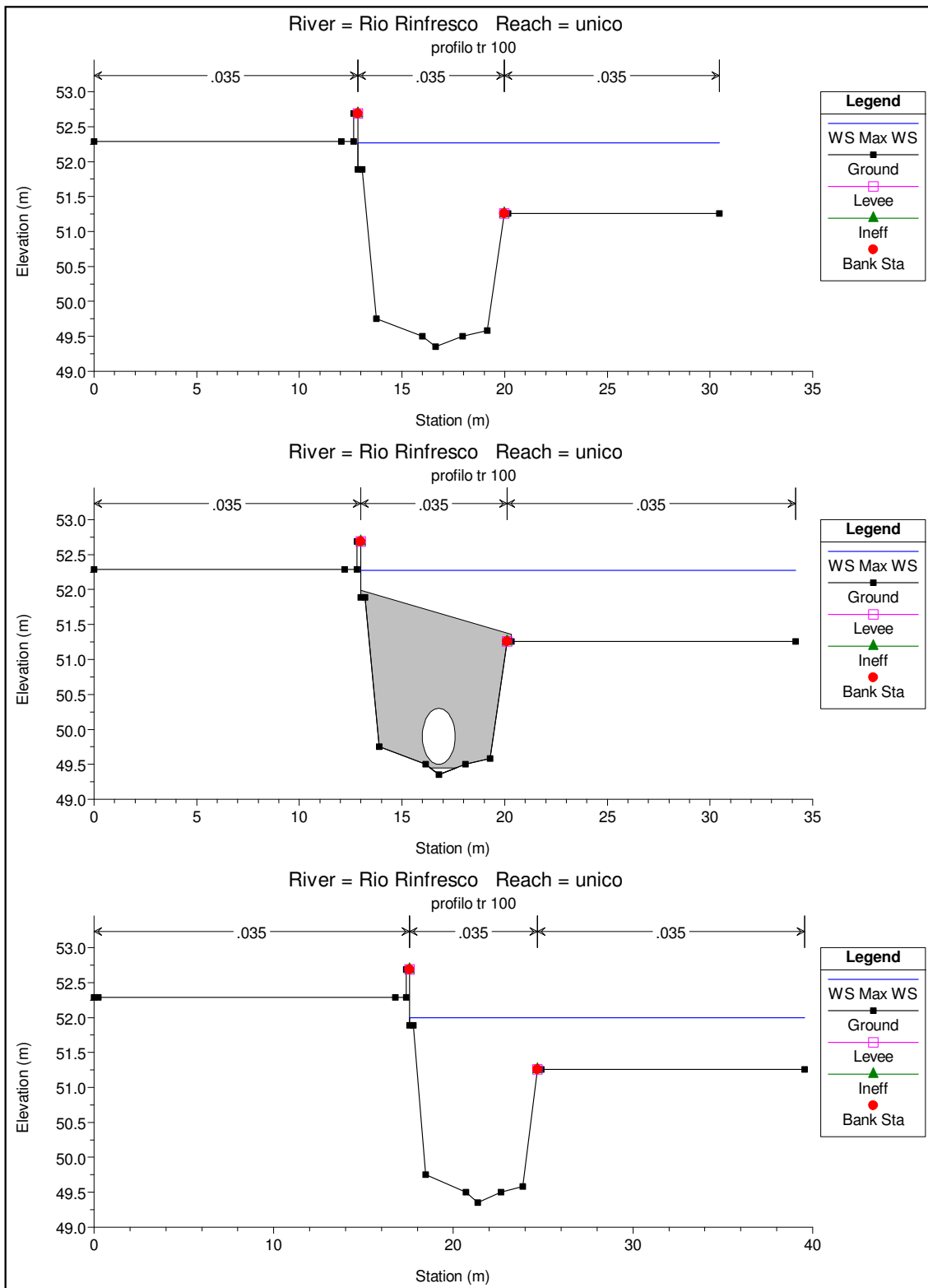
HEC-RAS Plan: Plan 13 River: Rio Rinfresco Reach: unico Profile: Max WS

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
unico	54.7	Max WS	20.27	52.57	54.33	54.30	54.84	0.014048	3.18	6.36	5.78	0.97
unico	54.6	Max WS	20.25	52.47	54.25	54.20	54.75	0.013447	3.13	6.47	5.82	0.95
unico	54.5	Max WS	20.29	52.47	54.24	53.76	54.48	0.004938	2.14	9.47	6.60	0.57
unico	54.45	Inl Struct										
unico	54.4	Max WS	20.27	49.45	52.10		52.19	0.001269	1.31	15.48	7.23	0.29
unico	54.3	Max WS	20.28	49.35	52.12		52.16	0.000543	0.92	25.39	17.60	0.19
unico	54.2	Max WS	20.27	49.35	52.13		52.16	0.000452	0.84	28.54	21.17	0.18
unico	54.19	Max WS	20.27	49.35	52.13		52.16	0.000454	0.84	28.51	21.17	0.18
unico	54.1	Culvert										
unico	54.015	Max WS	20.27	49.35	51.78		51.84	0.000992	1.16	21.15	20.93	0.26
unico	54.01	Max WS	20.27	49.35	51.77		51.83	0.001020	1.18	20.91	20.93	0.27
unico	54	Max WS	20.27	49.35	51.76	50.64	51.82	0.001000	1.16	21.29	21.73	0.26



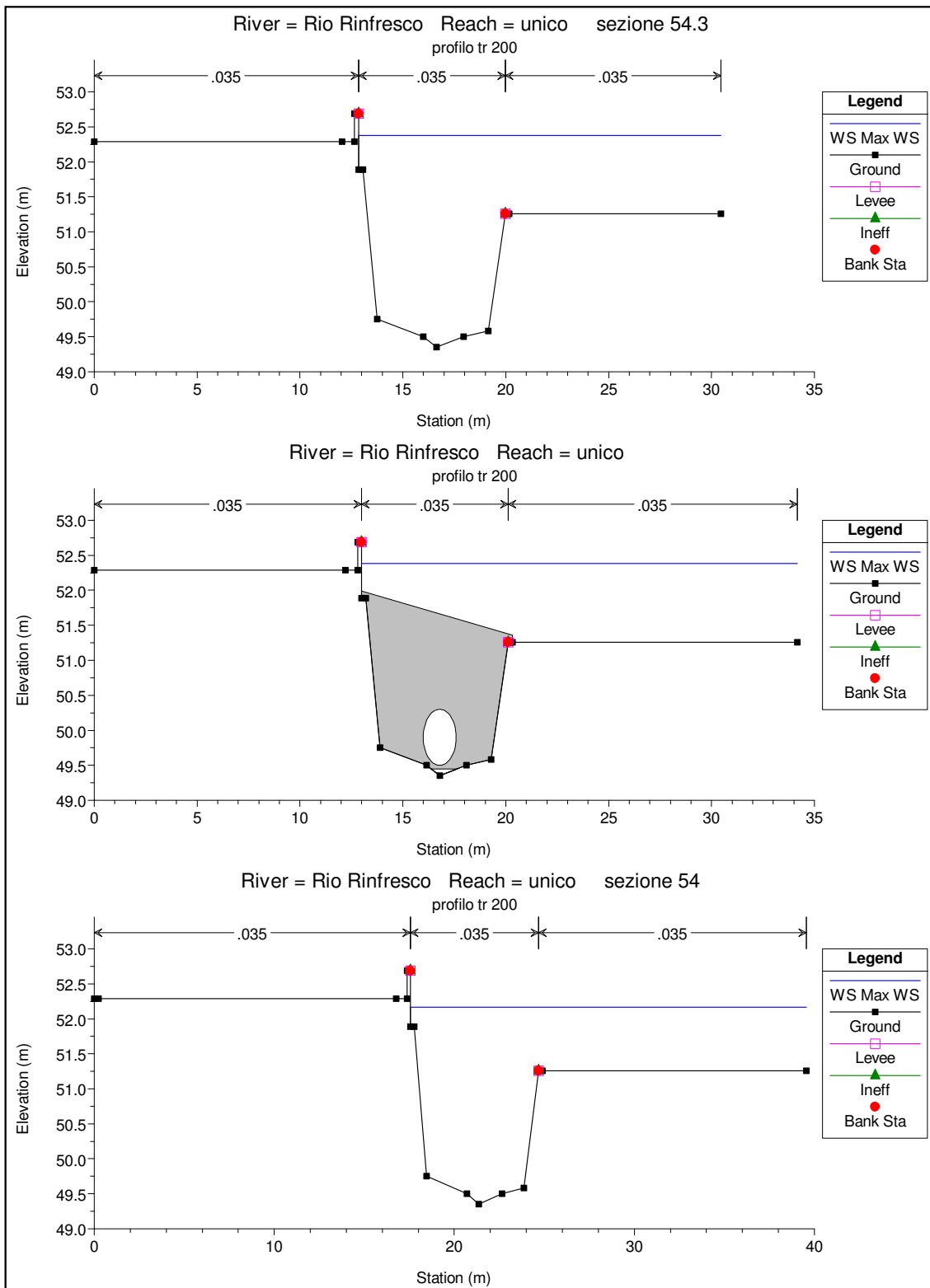
HEC-RAS Plan: Plan 27 River: Rio Rinfresco Reach: unico Profile: Max WS

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
unico	54.7	Max WS	26.60	52.57	54.61	54.55	55.16	0.012443	3.30	8.08	6.50	0.93
unico	54.6	Max WS	26.56	52.47	54.53		55.06	0.011582	3.22	8.32	6.90	0.90
unico	54.5	Max WS	26.66	52.47	54.52	53.98	54.80	0.004973	2.34	11.49	7.76	0.58
unico	54.45		Inl Struct									
unico	54.4	Max WS	26.60	49.45	52.23		52.36	0.001857	1.62	16.42	7.25	0.34
unico	54.3	Max WS	26.65	49.35	52.27		52.32	0.000715	1.09	27.95	17.60	0.22
unico	54.2	Max WS	26.64	49.35	52.27		52.31	0.000581	0.99	31.66	21.17	0.20
unico	54.19	Max WS	26.64	49.35	52.27		52.31	0.000582	0.99	31.63	21.17	0.20
unico	54.1		Culvert									
unico	54.015	Max WS	26.64	49.35	52.01		52.07	0.001011	1.23	26.02	21.17	0.27
unico	54.01	Max WS	26.63	49.35	52.00		52.06	0.001037	1.24	25.78	21.17	0.27
unico	54	Max WS	26.63	49.35	52.00	50.85	52.06	0.001004	1.22	26.36	21.97	0.26



HEC-RAS Plan: Plan 13 River: Rio Rinfresco Reach: unico Profile: Max WS

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
unico	54.7	Max WS	32.10	52.57	54.78	54.72	55.40	0.012237	3.49	9.25	6.72	0.94
unico	54.6	Max WS	32.10	52.47	54.72		55.31	0.012145	3.42	9.40	6.56	0.91
unico	54.5	Max WS	32.10	52.47	54.77	54.14	55.08	0.005006	2.46	13.04	6.84	0.57
unico	54.45		Inl Struct									
unico	54.4	Max WS	32.06	49.45	52.32		52.50	0.002425	1.88	17.06	7.26	0.39
unico	54.3	Max WS	32.06	49.35	52.38		52.44	0.000859	1.23	29.82	17.60	0.25
unico	54.2	Max WS	32.07	49.35	52.38		52.43	0.000687	1.10	33.96	21.17	0.22
unico	54.19	Max WS	32.07	49.35	52.38		52.43	0.000689	1.10	33.92	21.17	0.22
unico	54.1		Culvert									
unico	54.015	Max WS	32.10	49.35	52.18		52.25	0.001018	1.28	29.65	21.17	0.27
unico	54.01	Max WS	32.10	49.35	52.17		52.24	0.001042	1.29	29.41	21.17	0.27
unico	54	Max WS	32.10	49.35	52.17	51.02	52.23	0.001003	1.27	30.13	21.97	0.26



RIO SALSERINO

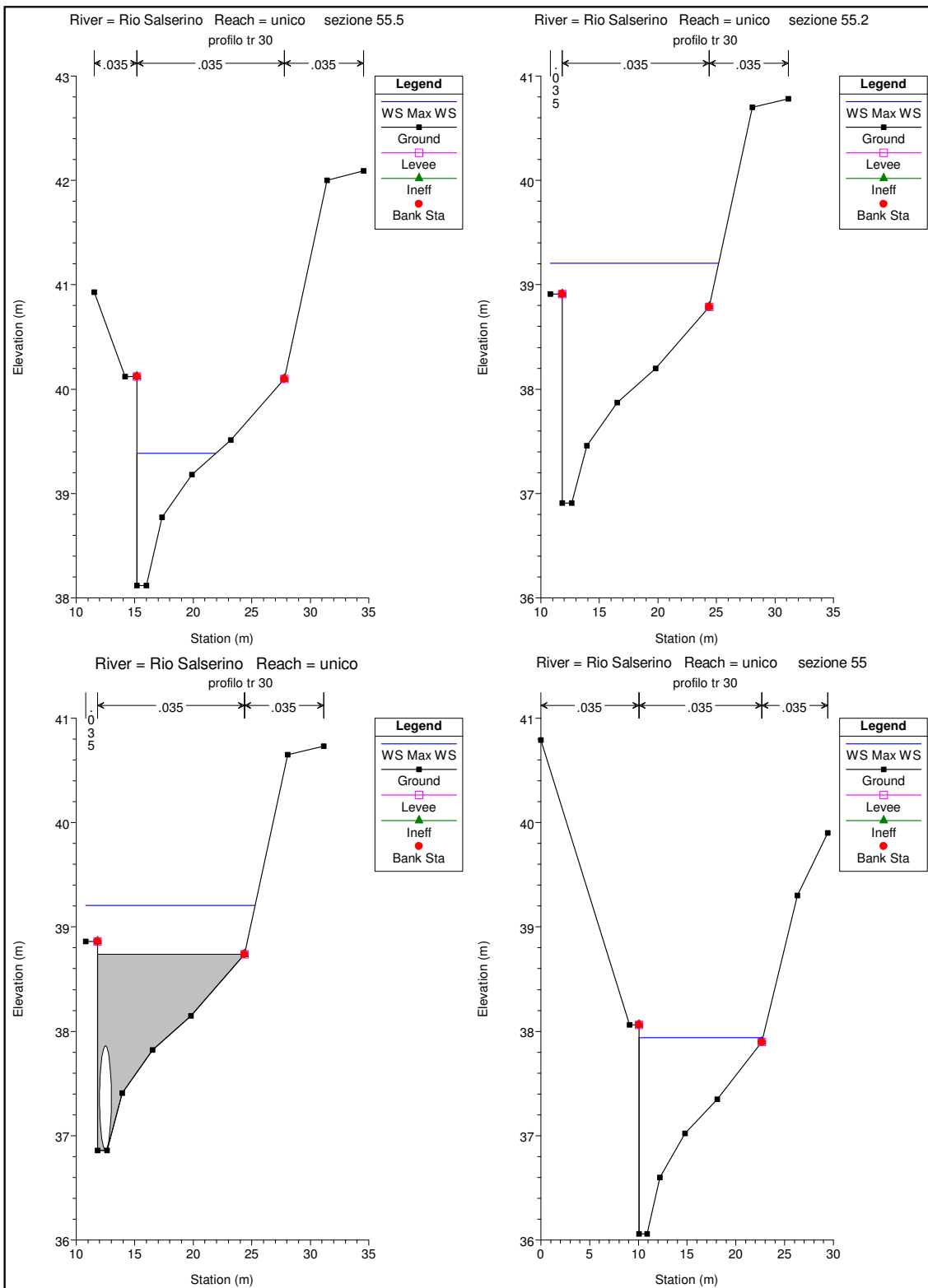
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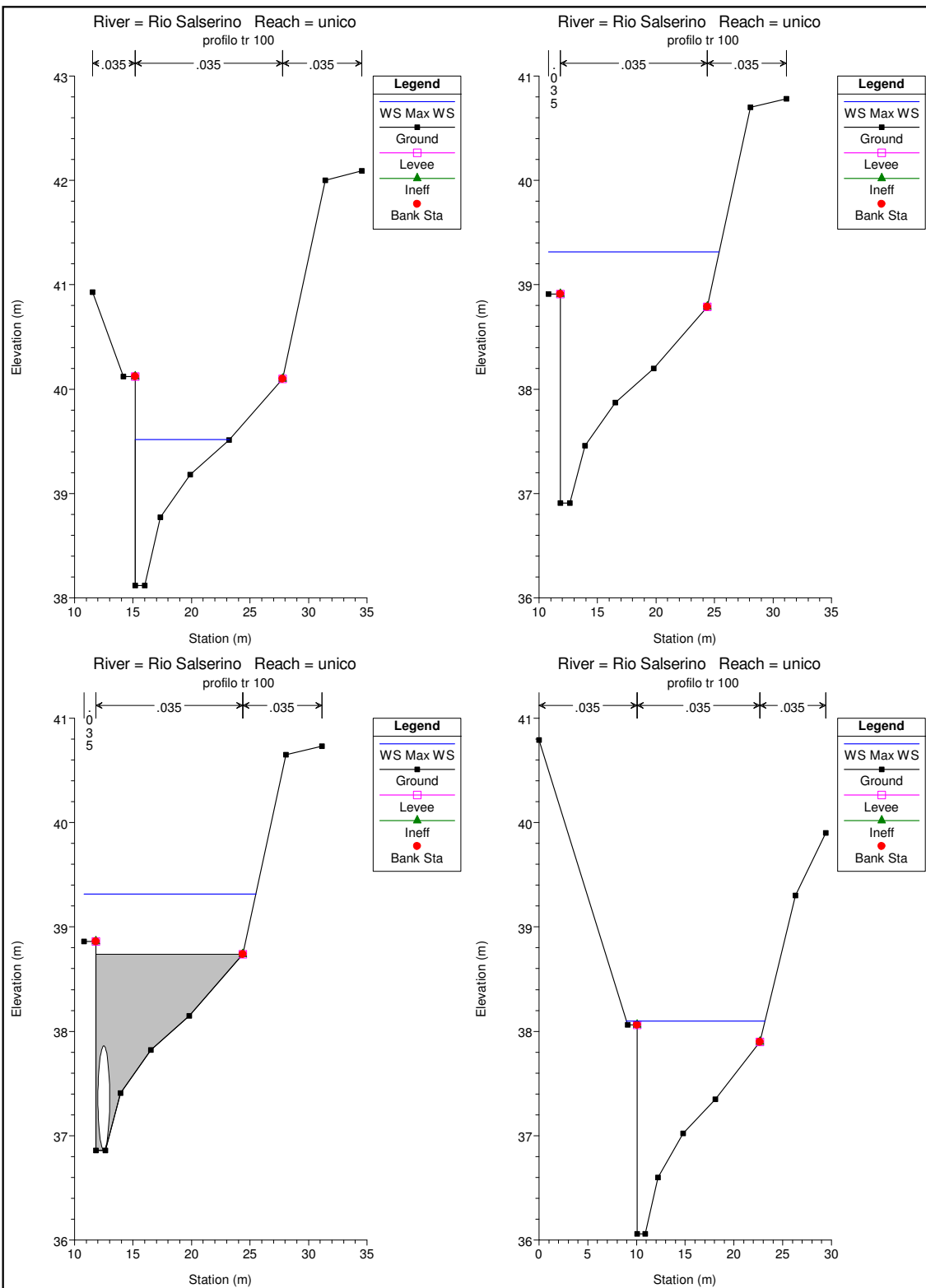
HEC-RAS Plan: Plan 11 River: Rio Salserino Reach: unico Profile: Max WS

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
unico	55.5	Max WS	7.60	38.12	39.38	39.36	39.62	0.017627	2.16	3.52	6.74	0.95
unico	55.2	Max WS	7.60	36.91	39.20		39.22	0.000265	0.48	16.05	14.38	0.14
unico	55.19	Max WS	7.60	36.86	39.20		39.22	0.000231	0.46	16.78	14.47	0.13
unico	55.1	Culvert										
unico	55.015	Max WS	7.60	36.36	37.93		37.99	0.003186	1.11	6.82	10.15	0.43
unico	55.01	Max WS	7.60	36.16	37.94		37.97	0.001454	0.83	9.15	11.80	0.30
unico	55	Max WS	7.60	36.06	37.94	37.23	37.97	0.001007	0.73	10.48	12.68	0.25



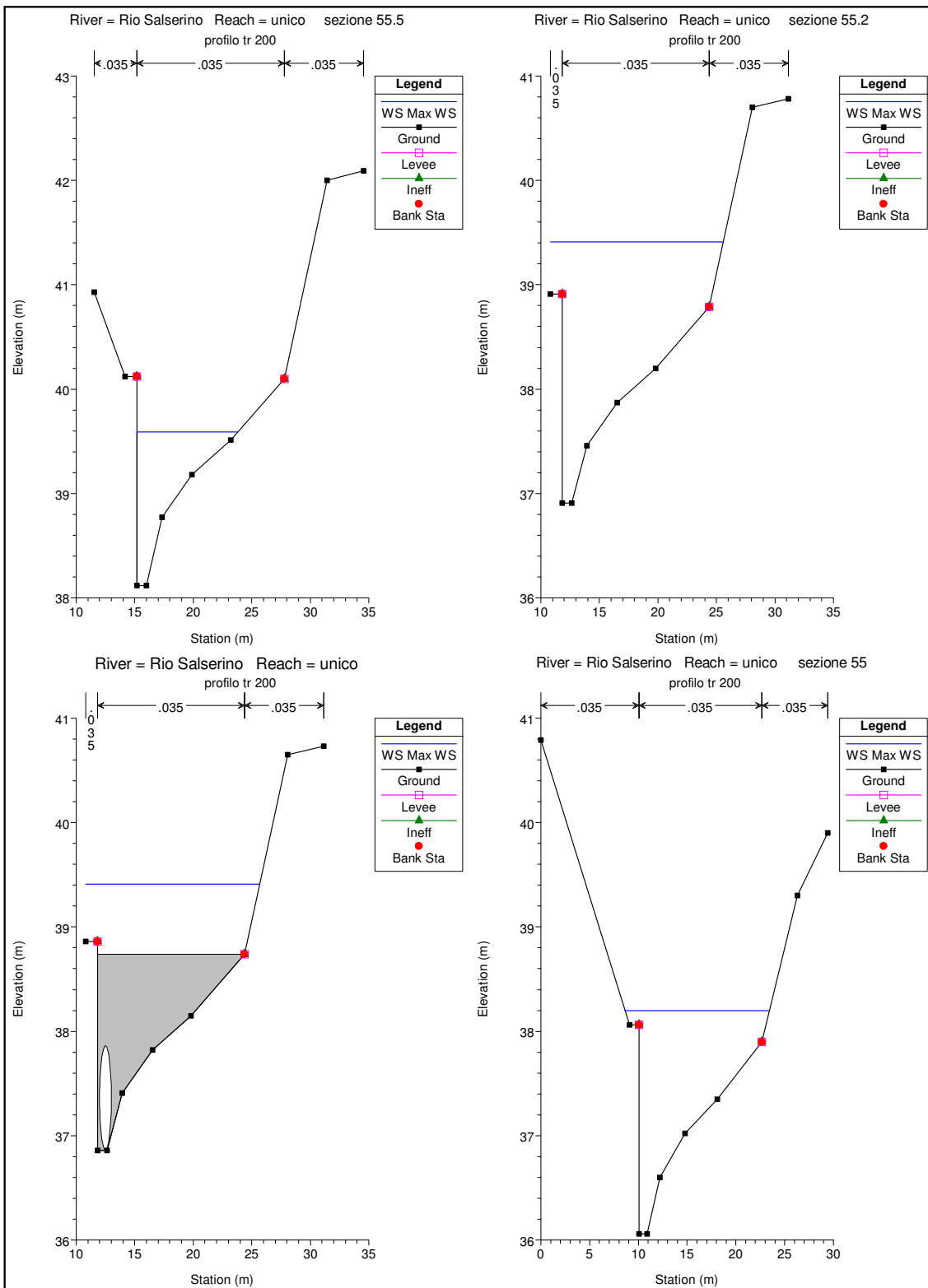
HEC-RAS Plan: Plan 31 River: Rio Salsentino Reach: unico Profile: Max WS

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
unico	55.5	Max WS	10.18	38.12	39.52	39.50	39.78	0.017360	2.26	4.50	8.05	0.97
unico	55.2	Max WS	9.96	36.91	39.32		39.33	0.000338	0.58	17.68	14.59	0.16
unico	55.19	Max WS	9.96	36.86	39.32		39.33	0.000298	0.55	18.42	14.69	0.15
unico	55.1	Culvert										
unico	55.015	Max WS	10.18	36.36	38.09		38.16	0.003155	1.19	8.53	11.38	0.44
unico	55.01	Max WS	10.18	36.16	38.10		38.14	0.001491	0.92	11.13	12.69	0.31
unico	55	Max WS	10.18	36.06	38.10	37.36	38.13	0.001015	0.81	12.58	14.23	0.26



HEC-RAS Plan: Plan 11 River: Rio Salserino Reach: unico Profile: Max WS

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
unico	55.5	Max WS	11.96	38.12	39.59	39.58	39.87	0.016868	2.33	5.13	8.64	0.96
unico	55.2	Max WS	11.96	36.91	39.41		39.43	0.000387	0.65	19.06	14.77	0.17
unico	55.19	Max WS	11.96	36.86	39.41		39.43	0.000343	0.62	19.81	14.87	0.16
unico	55.1	Culvert										
unico	55.015	Max WS	11.97	36.36	38.18		38.26	0.003097	1.23	9.69	12.15	0.44
unico	55.01	Max WS	11.97	36.16	38.20		38.25	0.001451	0.97	12.43	13.88	0.31
unico	55	Max WS	11.96	36.06	38.20	37.43	38.24	0.001011	0.87	14.03	14.82	0.26



TORRENTE SALSERO

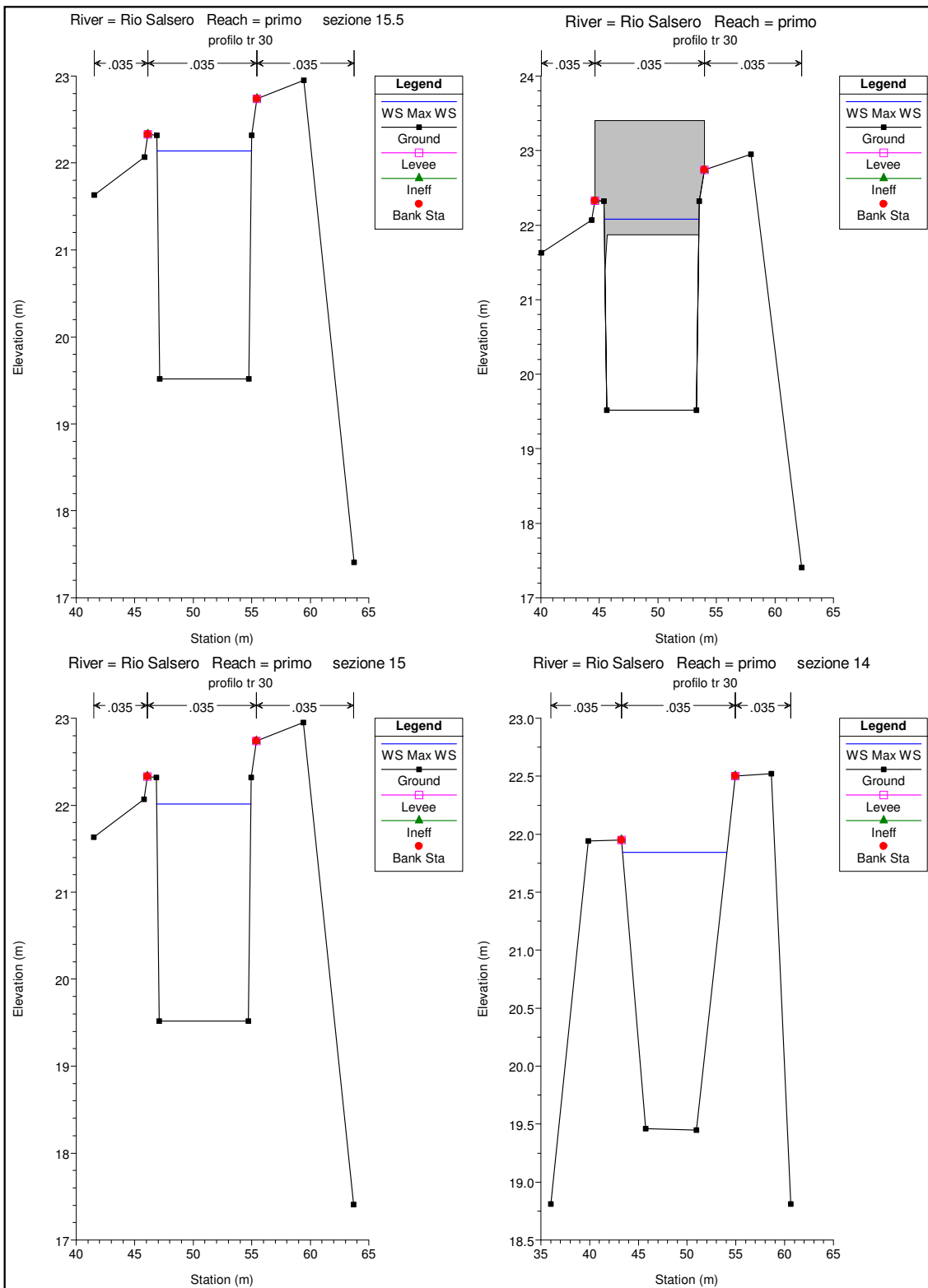
1- Simulazione Hec-Ras Tr=30 anni
Tabella
Sezioni

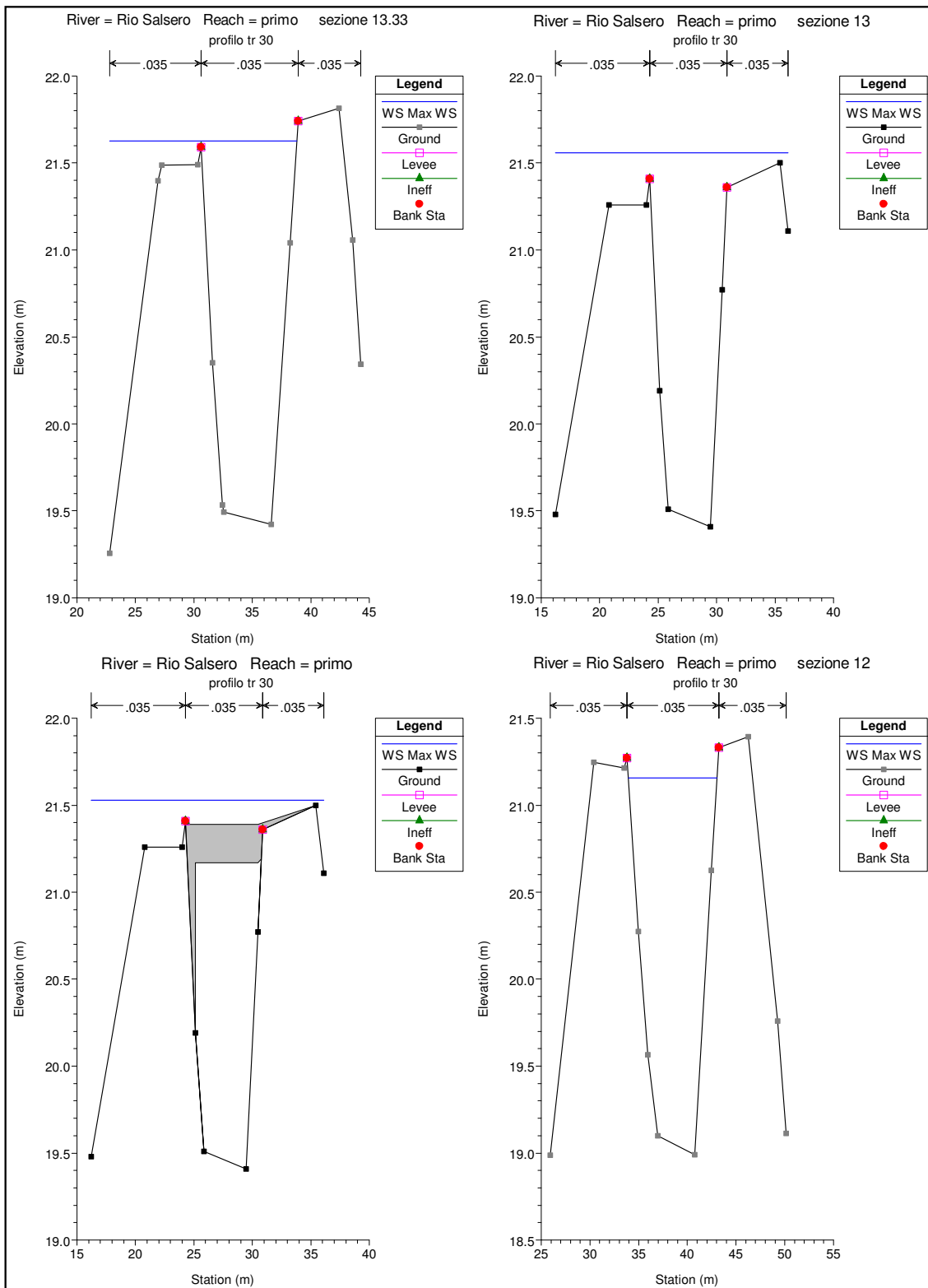
2- Simulazione Hec-Ras Tr=100 anni
Tabella
Sezioni

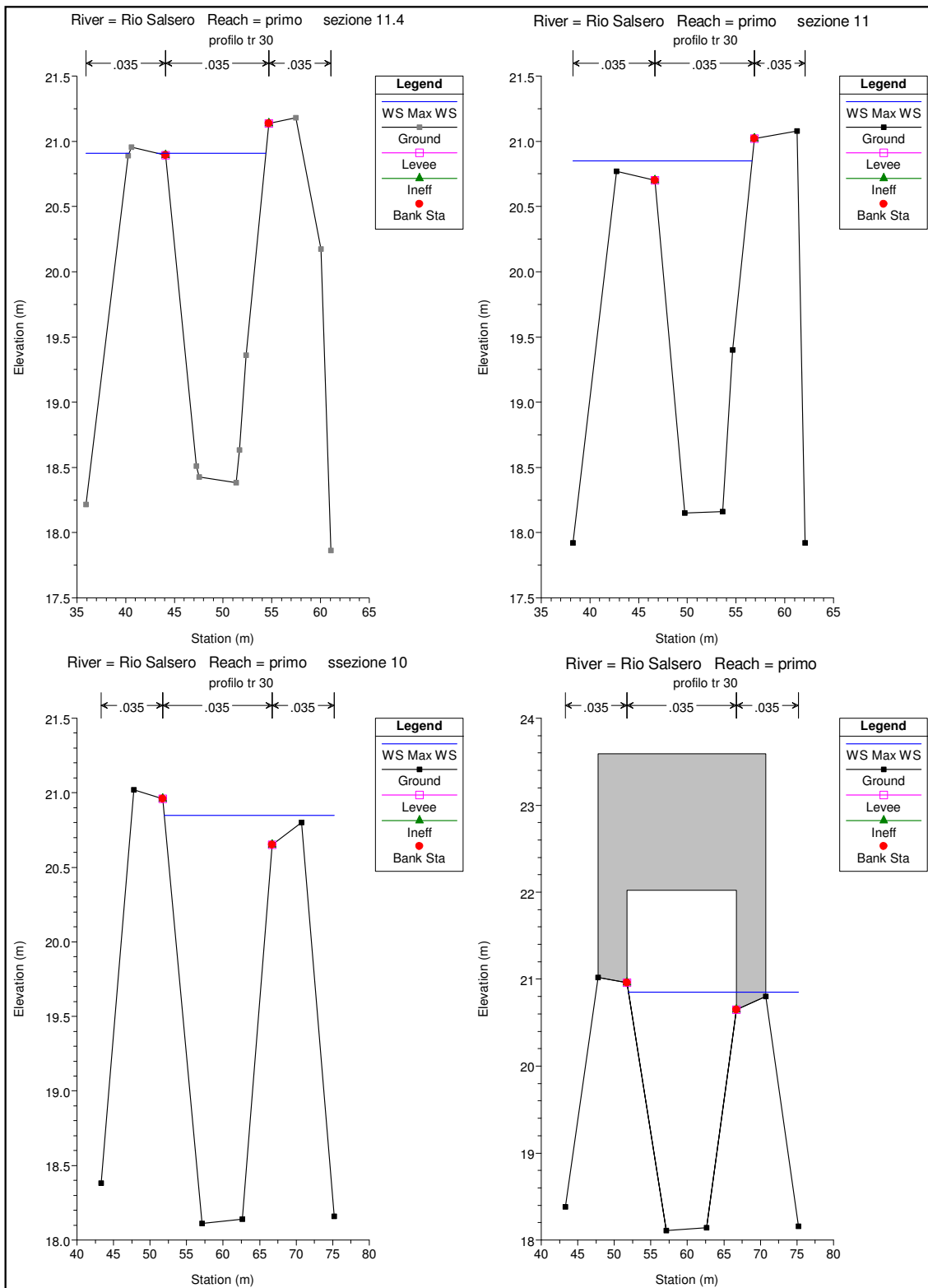
3- Simulazione Hec-Ras Tr=200 anni
Tabella
Sezioni

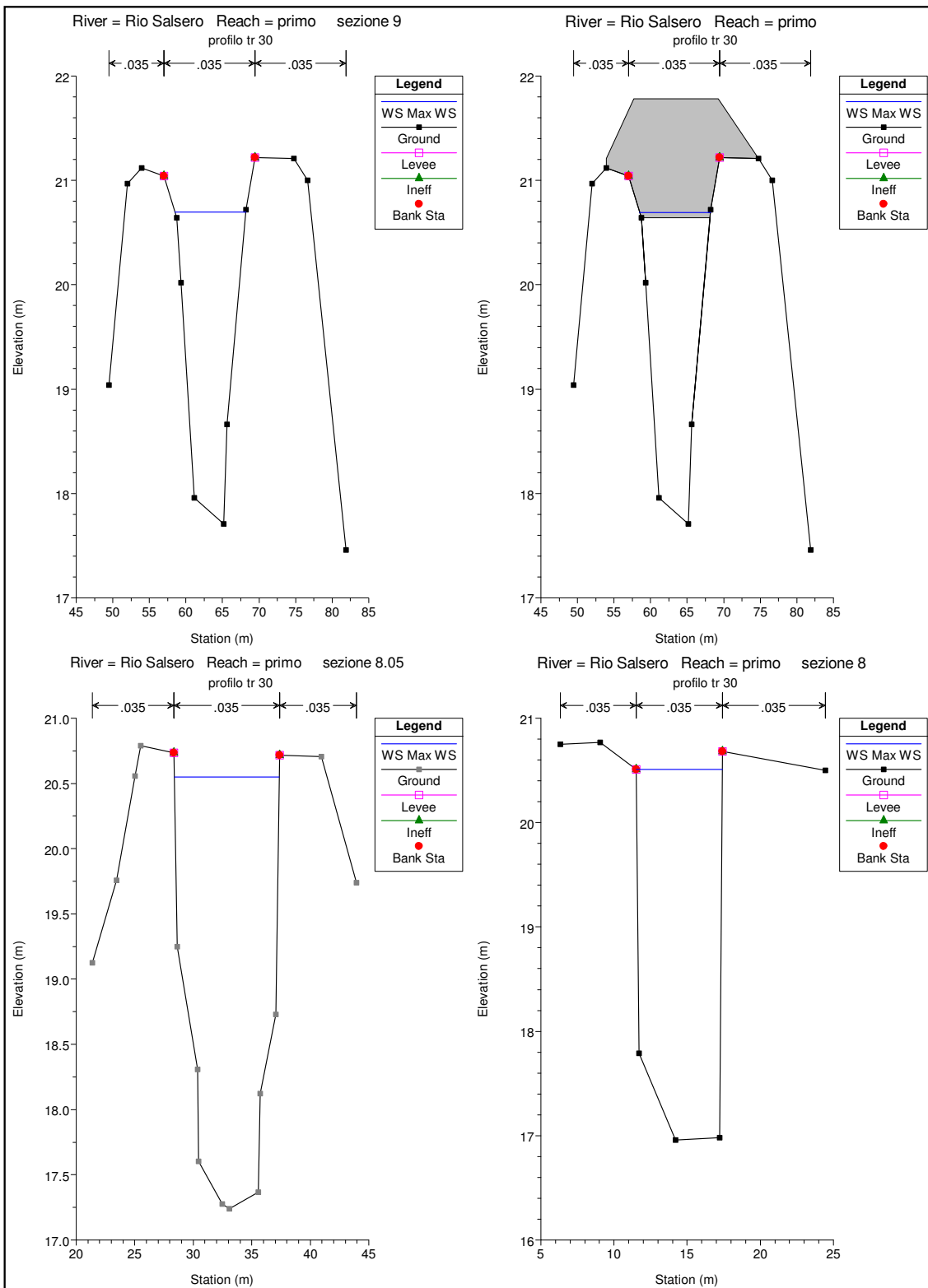
HEC-RAS Plan: Plan 12 River: Rio Salsero Reach: primo Profile: Max WS

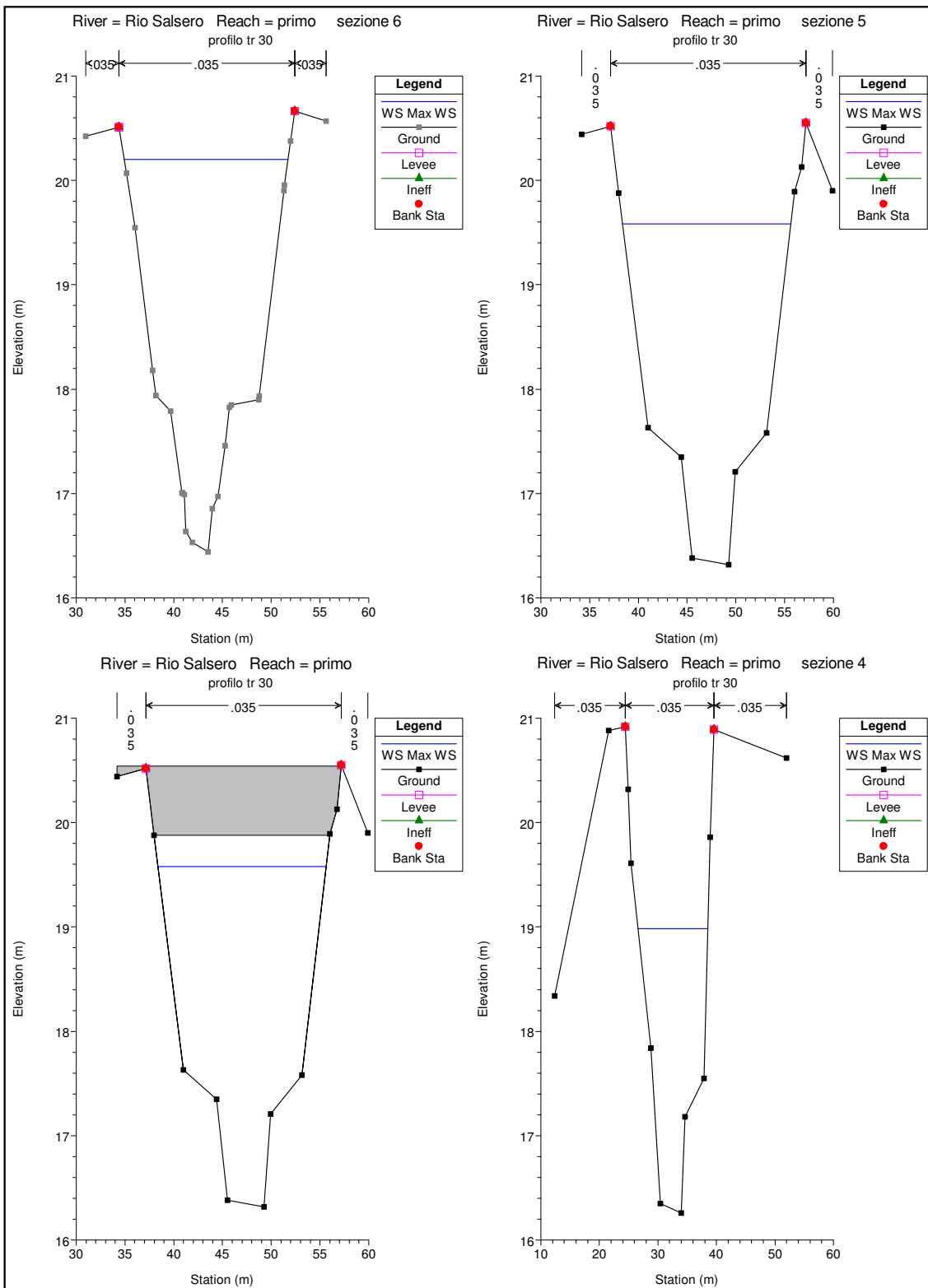
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	15.5	Max WS	27.35	19.52	22.14		22.23	0.001162	1.33	20.56	8.09	0.27
primo	15.45	Max WS	27.35	19.52	22.14		22.23	0.001164	1.33	20.55	8.09	0.27
primo	15.44		Lat Struct									
primo	15.43		Lat Struct									
primo	15.4	Max WS	27.65	19.52	22.10		22.19	0.001239	1.37	20.25	8.08	0.28
primo	15.3	Max WS	27.65	19.52	22.10		22.19	0.001241	1.37	20.24	8.08	0.28
primo	15.29	Max WS	27.65	19.52	22.10	20.62	22.19	0.001242	1.37	20.23	8.08	0.28
primo	15.2		Bridge									
primo	15.11	Max WS	27.65	19.52	22.02		22.12	0.001352	1.41	19.63	8.07	0.29
primo	15.1	Max WS	27.65	19.52	22.02		22.12	0.001359	1.41	19.59	8.07	0.29
primo	15	Max WS	27.65	19.52	22.02		22.12	0.001364	1.41	19.57	8.07	0.29
primo	14.1	Max WS	27.65	19.52	21.98		22.08	0.001423	1.43	19.27	8.06	0.30
primo	14.08		Lat Struct									
primo	14	Max WS	27.64	19.45	21.84		21.95	0.001493	1.46	18.96	10.68	0.35
primo	13.9		Lat Struct									
primo	13	Max WS	23.46	19.41	21.56		21.66	0.002022	1.54	18.40	19.90	0.38
primo	12.99	Max WS	23.46	19.41	21.56	20.90	21.66	0.002033	1.54	18.36	19.90	0.38
primo	12.2		Bridge									
primo	12.11	Max WS	23.45	19.41	21.52		21.63	0.002238	1.59	17.66	19.90	0.40
primo	12.1	Max WS	23.44	19.41	21.51		21.62	0.002298	1.61	17.46	19.90	0.40
primo	12.091		Lat Struct									
primo	12.09		Lat Struct									
primo	12	Max WS	24.64	18.71	21.04		21.15	0.001615	1.44	17.12	10.74	0.36
primo	11	Max WS	22.49	18.15	20.85		20.89	0.000709	1.01	25.57	18.37	0.24
primo	10	Max WS	20.79	18.11	20.85		20.87	0.000261	0.67	34.70	23.28	0.15
primo	9.99	Max WS	20.79	18.11	20.85	19.14	20.87	0.000262	0.67	34.68	23.28	0.15
primo	9.2		Bridge									
primo	9.11	Max WS	20.79	18.11	20.84		20.86	0.000264	0.67	34.57	23.27	0.16
primo	9.1	Max WS	20.77	18.11	20.84		20.86	0.000265	0.67	34.52	23.27	0.16
primo	9.091		Lat Struct									
primo	9.09		Lat Struct									
primo	9	Max WS	18.95	17.71	20.69		20.75	0.000732	1.02	18.54	9.69	0.24
primo	8.99	Max WS	18.95	17.71	20.69	19.07	20.75	0.000732	1.02	18.54	9.69	0.24
primo	8.3		Bridge									
primo	8.21	Max WS	18.95	17.71	20.69		20.74	0.000738	1.03	18.46	9.65	0.24
primo	8.2	Max WS	18.95	17.71	20.68		20.74	0.000740	1.03	18.44	9.63	0.24
primo	8.191		Lat Struct									
primo	8.19		Lat Struct									
primo	8.1	Max WS	18.67	17.52	20.57		20.60	0.000417	0.80	23.45	11.27	0.18
primo	8	Max WS	18.45	16.96	20.51		20.56	0.000610	0.97	19.09	5.89	0.17
primo	7	Max WS	18.53	16.68	20.53		20.54	0.000049	0.36	51.73	18.22	0.07
primo	6	Max WS	18.48	16.45	20.53		20.54	0.000093	0.44	41.82	21.02	0.09
primo	5	Max WS	66.63	16.32	19.58		19.76	0.001800	1.84	36.29	17.26	0.40
primo	4.99	Max WS	66.63	16.32	19.58	18.48	19.75	0.001806	1.84	36.25	17.25	0.40
primo	4.02		Bridge									
primo	4.011	Max WS	66.63	16.32	19.57		19.75	0.001828	1.85	36.10	17.23	0.41
primo	4.01	Max WS	66.63	16.32	19.57		19.74	0.001844	1.85	35.99	17.21	0.41
primo	4	Max WS	66.63	16.26	18.99		19.49	0.007125	3.14	21.20	11.96	0.75
primo	3.99	Max WS	62.91	16.26	18.91	18.57	19.40	0.007211	3.10	20.26	11.78	0.76
primo	3.02		Bridge									
primo	3.011	Max WS	62.80	16.26	18.82		19.36	0.008350	3.27	19.20	11.56	0.81
primo	3.01	Max WS	62.02	16.26	18.68		19.31	0.010275	3.51	17.68	11.25	0.89
primo	3	Max WS	66.63	16.04	18.66		18.88	0.004074	2.11	32.66	23.04	0.58
primo	2.99		Lat Struct									
primo	2	Max WS	39.37	14.68	17.73		17.88	0.002185	1.70	23.11	13.61	0.42
primo	1	Max WS	39.36	14.60	17.59		17.68	0.001064	1.30	30.37	16.66	0.31
primo	0.5	Max WS	39.36	14.40	17.43	16.24	17.51	0.001000	1.27	31.02	16.76	0.30

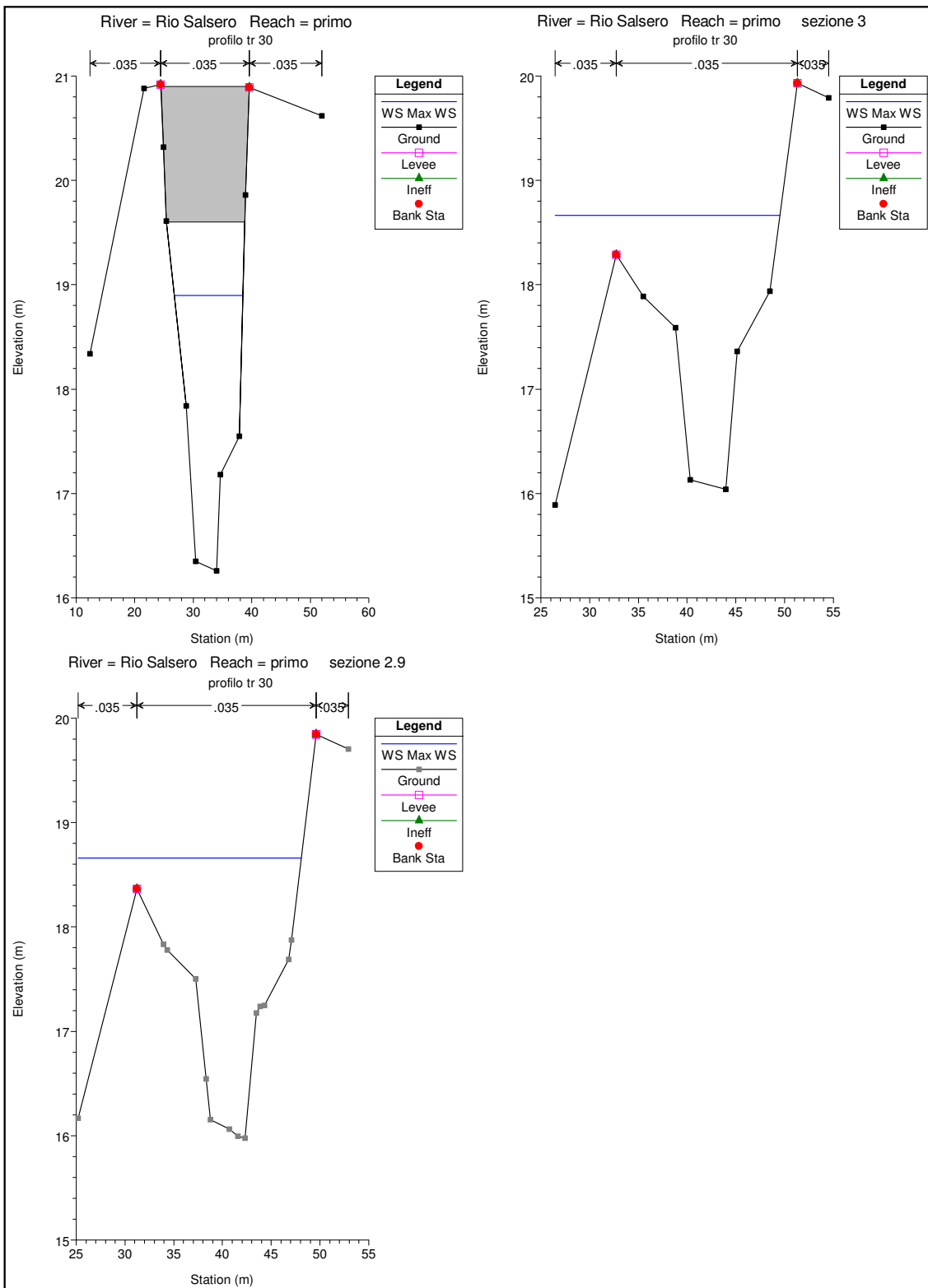






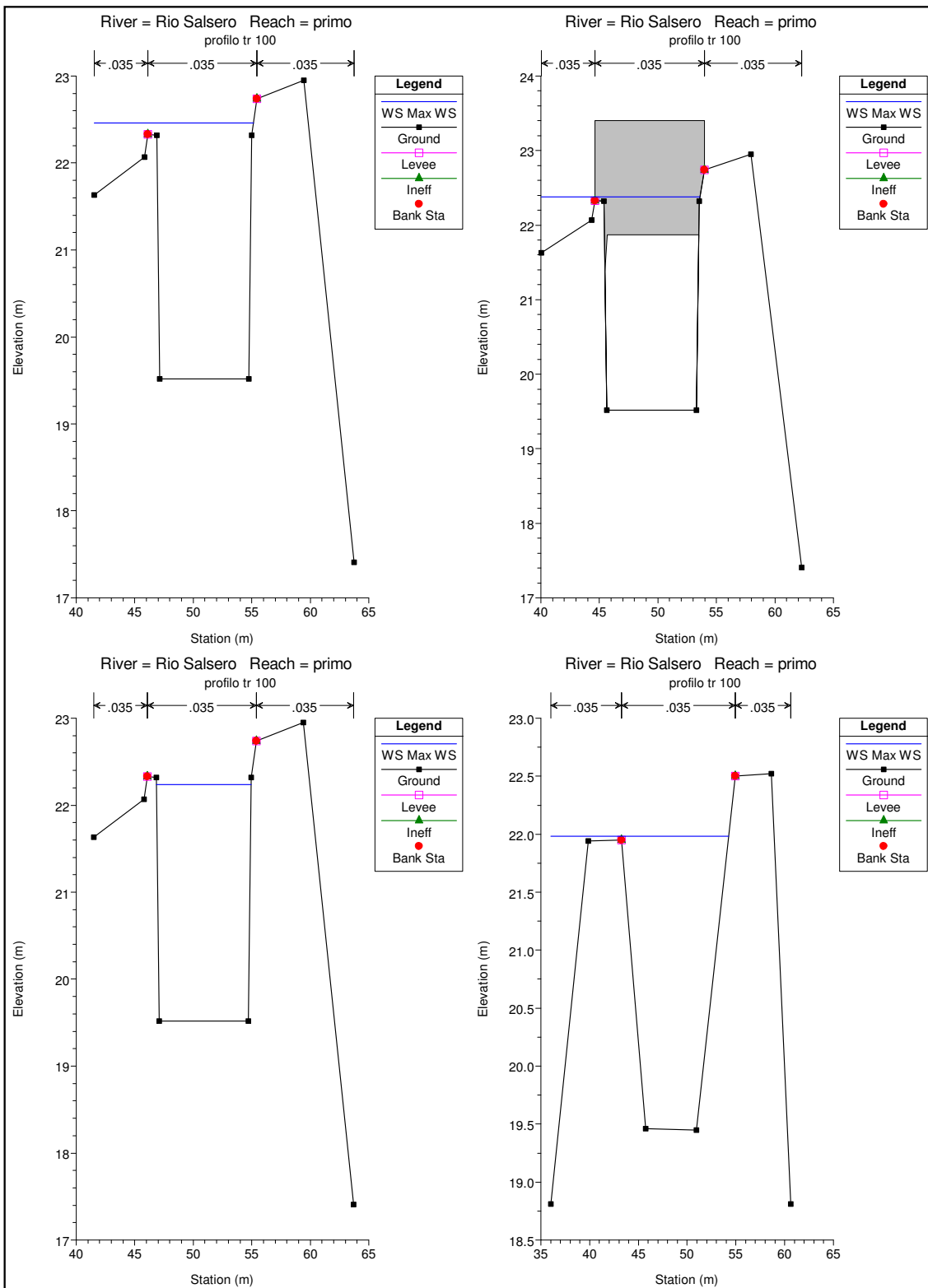


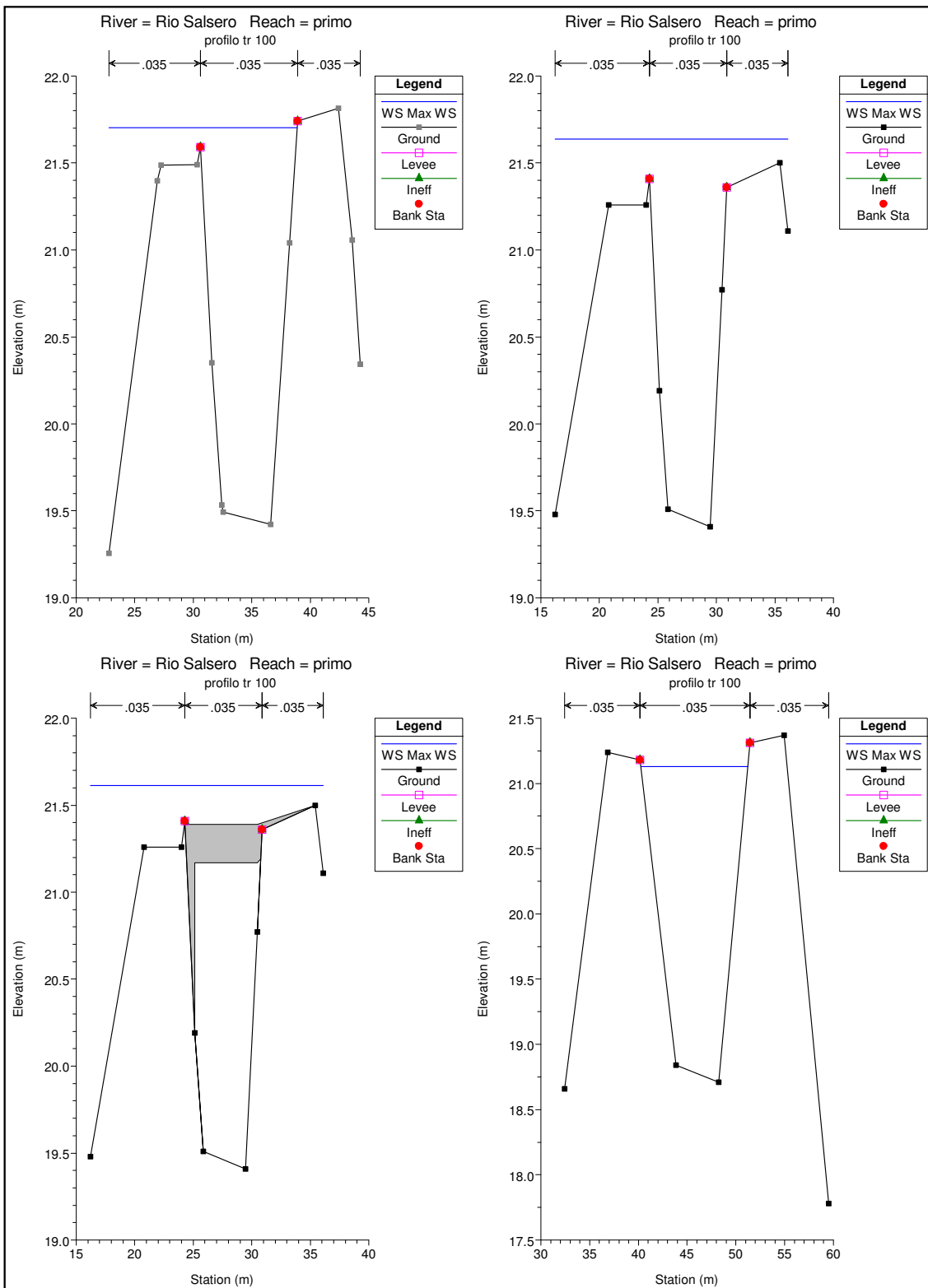


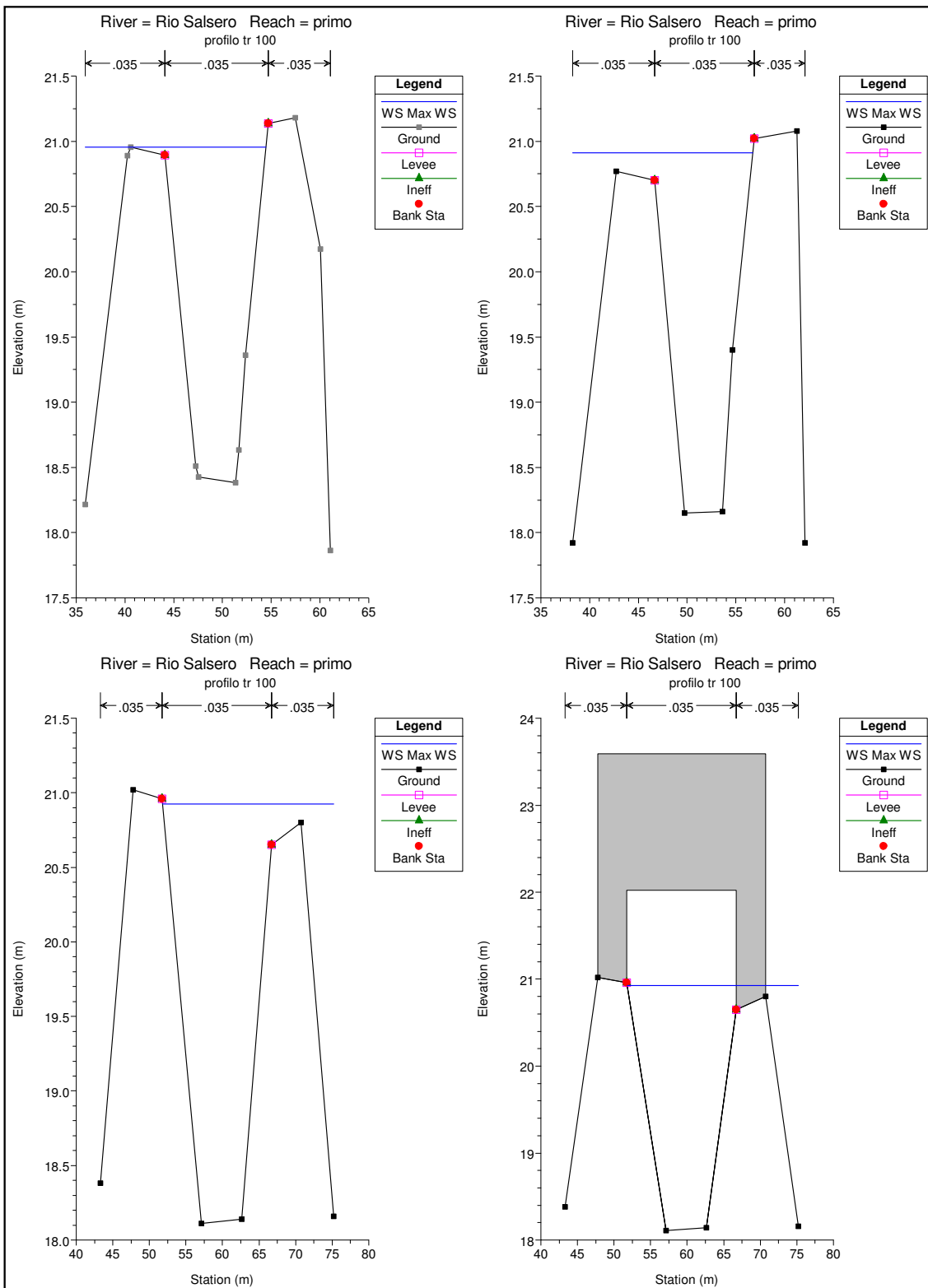


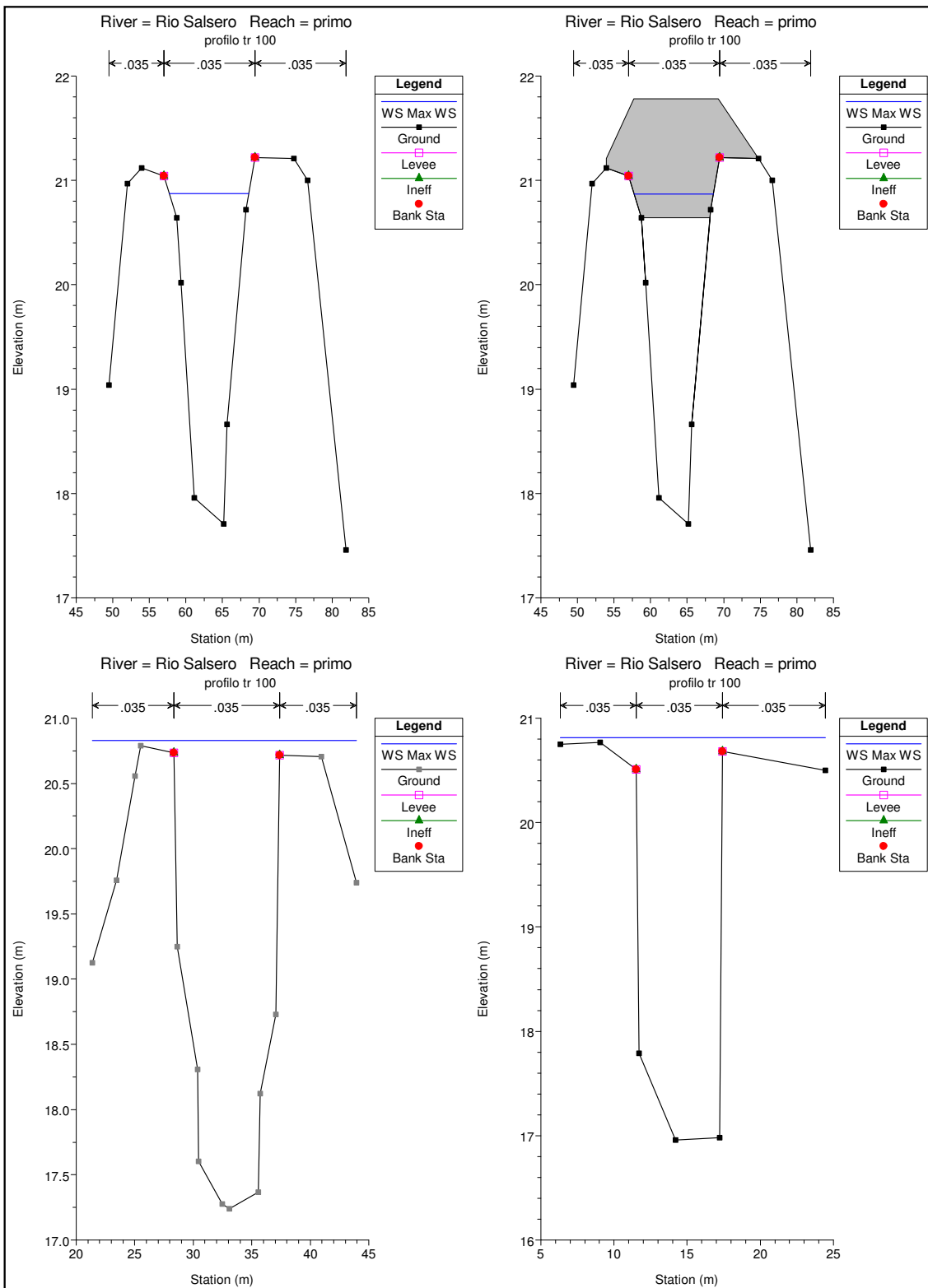
HEC-RAS Plan: Plan 40 River: Rio Salsero Reach: primo Profile: Max WS

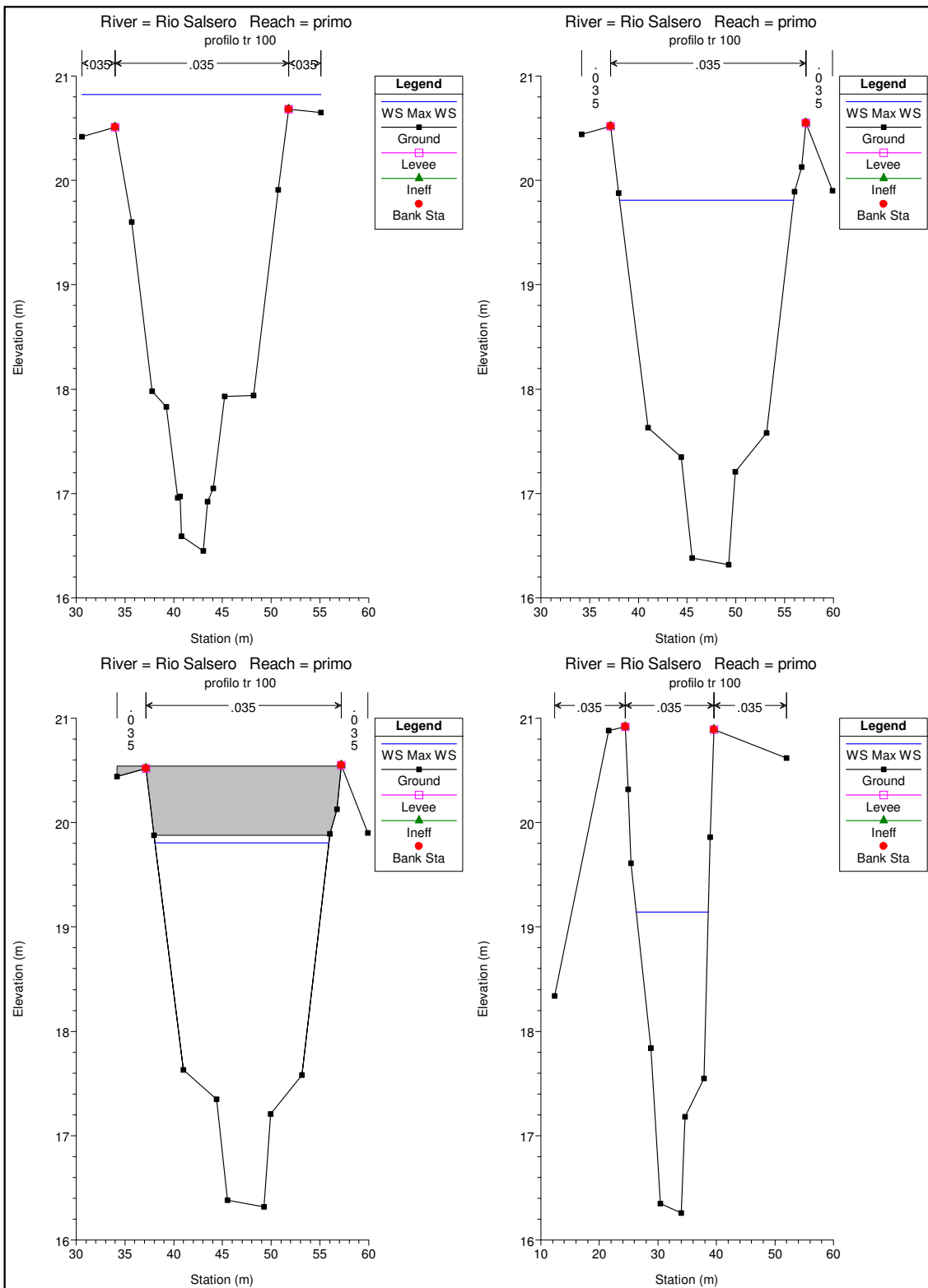
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	15.5	Max WS	40.52	19.52	22.46		22.60	0.001731	1.65	26.02	13.62	0.33
primo	15.45	Max WS	40.52	19.52	22.46		22.59	0.001735	1.65	25.99	13.62	0.33
primo	15.44		Lat Struct									
primo	15.43		Lat Struct									
primo	15.4	Max WS	39.53	19.52	22.42		22.56	0.001735	1.64	25.50	13.58	0.33
primo	15.3	Max WS	39.53	19.52	22.42		22.56	0.001740	1.64	25.47	13.58	0.33
primo	15.29	Max WS	39.53	19.52	22.42	20.91	22.55	0.001746	1.65	25.45	13.58	0.33
primo	15.2		Bridge									
primo	15.11	Max WS	39.54	19.52	22.25		22.43	0.002143	1.84	21.49	8.11	0.36
primo	15.1	Max WS	39.54	19.52	22.24		22.42	0.002163	1.85	21.42	8.11	0.36
primo	15	Max WS	39.53	19.52	22.24		22.41	0.002178	1.85	21.37	8.11	0.36
primo	14.1	Max WS	39.53	19.52	22.17		22.36	0.002333	1.90	20.85	8.09	0.38
primo	14.08		Lat Struct									
primo	14	Max WS	39.46	19.45	21.98		22.11	0.001848	1.67	26.78	18.24	0.39
primo	13.9		Lat Struct									
primo	13	Max WS	35.58	19.41	21.64		21.83	0.003759	2.16	19.98	19.90	0.52
primo	12.99	Max WS	35.58	19.41	21.63	21.29	21.83	0.003802	2.17	19.90	19.90	0.52
primo	12.2		Bridge									
primo	12.11	Max WS	35.57	19.41	21.59		21.81	0.004219	2.25	19.12	19.90	0.55
primo	12.1	Max WS	35.57	19.41	21.57		21.79	0.004490	2.30	18.65	19.90	0.56
primo	12.091		Lat Struct									
primo	12.09		Lat Struct									
primo	12	Max WS	29.84	18.71	21.13		21.27	0.002035	1.65	18.10	10.99	0.41
primo	11	Max WS	23.64	18.15	20.91		20.96	0.000690	1.02	26.77	18.46	0.24
primo	10	Max WS	19.76	18.11	20.92		20.94	0.000206	0.60	36.47	23.42	0.14
primo	9.99	Max WS	19.76	18.11	20.92	19.11	20.94	0.000206	0.60	36.45	23.42	0.14
primo	9.2		Bridge									
primo	9.11	Max WS	19.49	18.11	20.92		20.94	0.000202	0.60	36.37	23.42	0.14
primo	9.1	Max WS	19.31	18.11	20.92		20.94	0.000199	0.59	36.33	23.41	0.14
primo	9.091		Lat Struct									
primo	9.09		Lat Struct									
primo	9	Max WS	13.19	17.71	20.87		20.89	0.000294	0.65	20.37	10.86	0.15
primo	8.99	Max WS	13.19	17.71	20.87	18.82	20.89	0.000295	0.65	20.37	10.85	0.15
primo	8.3		Bridge									
primo	8.21	Max WS	13.19	17.71	20.87		20.89	0.000296	0.65	20.32	10.82	0.15
primo	8.2	Max WS	13.13	17.71	20.87		20.89	0.000293	0.65	20.31	10.82	0.15
primo	8.191		Lat Struct									
primo	8.19		Lat Struct									
primo	8.1	Max WS	12.72	17.52	20.83		20.84	0.000128	0.46	29.28	18.03	0.10
primo	8	Max WS	12.71	16.96	20.81		20.83	0.000209	0.60	23.03	18.14	0.10
primo	7	Max WS	12.71	16.68	20.82		20.83	0.000017	0.22	57.45	20.00	0.04
primo	6	Max WS	12.74	16.45	20.82		20.83	0.000030	0.27	48.58	24.54	0.05
primo	5	Max WS	78.58	16.32	19.81		20.00	0.001865	1.95	40.23	17.83	0.42
primo	4.99	Max WS	78.58	16.32	19.81	18.64	20.00	0.001871	1.96	40.19	17.83	0.42
primo	4.02		Bridge									
primo	4.011	Max WS	78.58	16.32	19.80		19.99	0.001893	1.96	40.02	17.80	0.42
primo	4.01	Max WS	78.58	16.32	19.79		19.99	0.001909	1.97	39.90	17.79	0.42
primo	4	Max WS	78.58	16.26	19.14		19.73	0.007795	3.40	23.11	12.33	0.79
primo	3.99	Max WS	78.58	16.26	19.05	18.83	19.70	0.008941	3.57	22.00	12.12	0.85
primo	3.02		Bridge									
primo	3.011	Max WS	78.58	16.26	18.95		19.68	0.010478	3.78	20.78	11.88	0.91
primo	3.01	Max WS	78.58	16.26	18.77	18.83	19.67	0.014247	4.22	18.63	11.44	1.06
primo	3	Max WS	78.58	16.04	18.71		18.99	0.005159	2.42	33.64	23.10	0.65
primo	2.99		Lat Struct									
primo	2	Max WS	42.79	14.68	17.84		17.99	0.002166	1.74	24.54	13.80	0.42
primo	1	Max WS	42.78	14.60	17.70		17.79	0.001064	1.33	32.17	16.94	0.31
primo	0.5	Max WS	42.78	14.40	17.54	16.30	17.63	0.001001	1.30	32.85	17.04	0.30

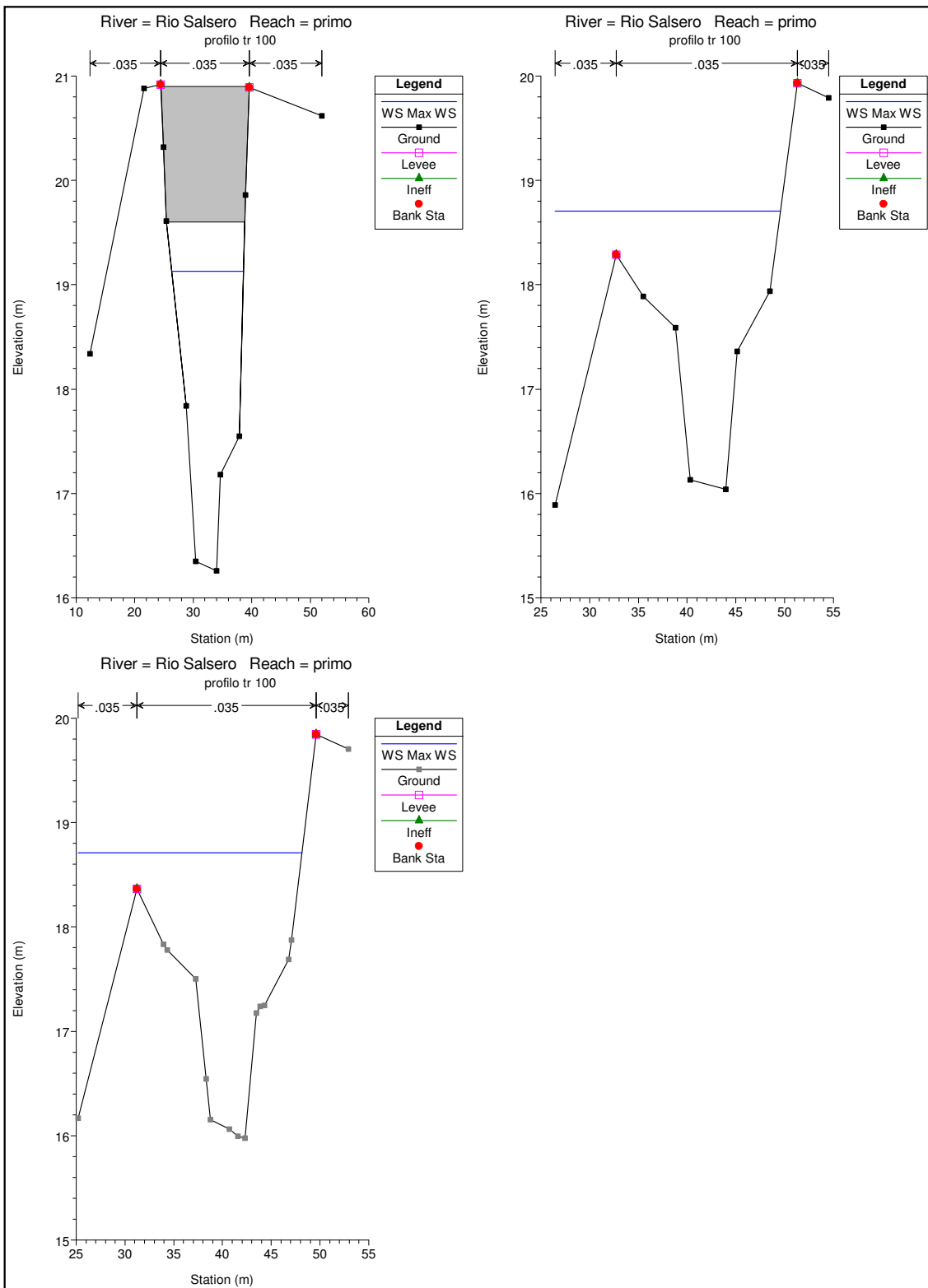






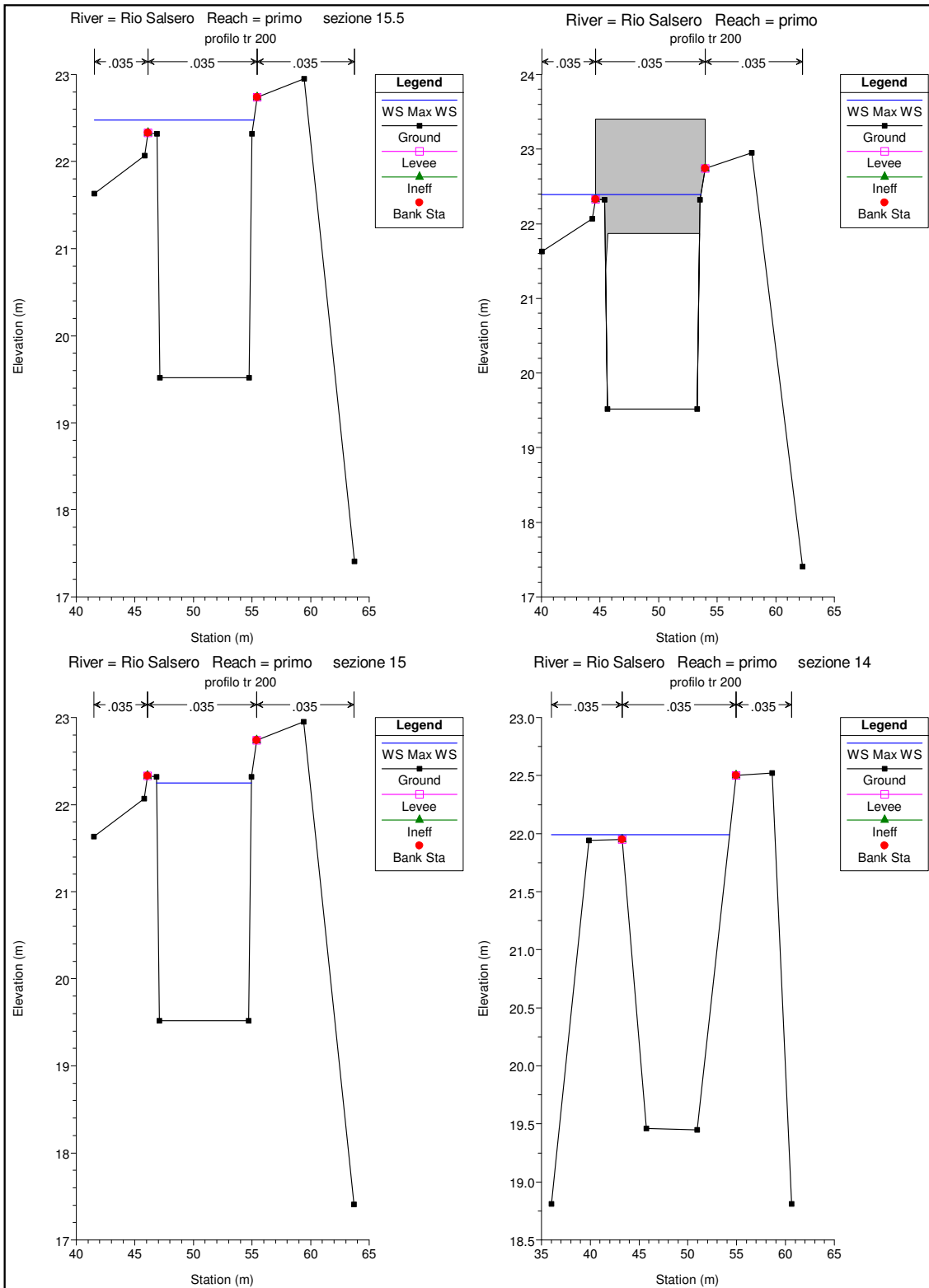


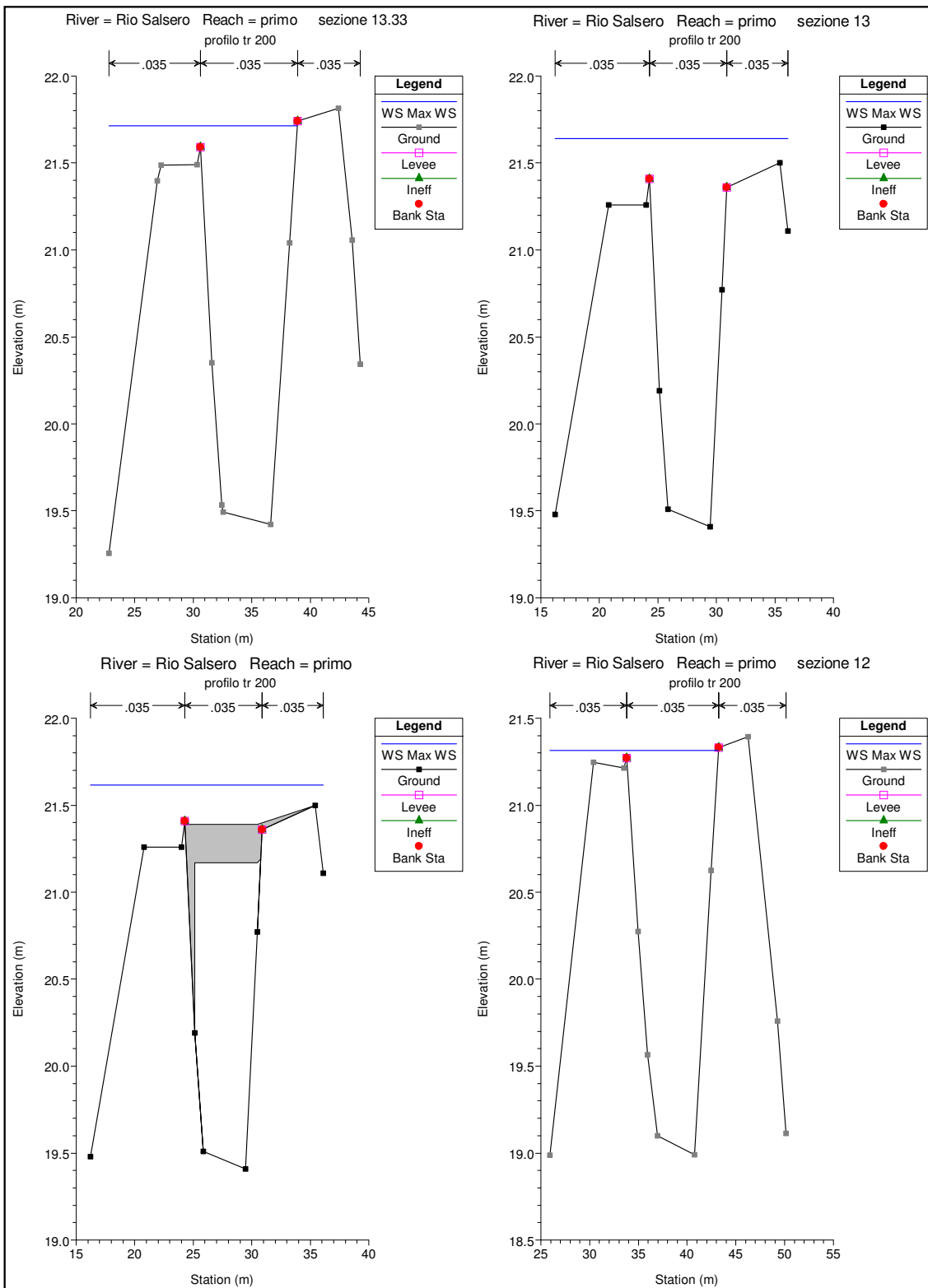


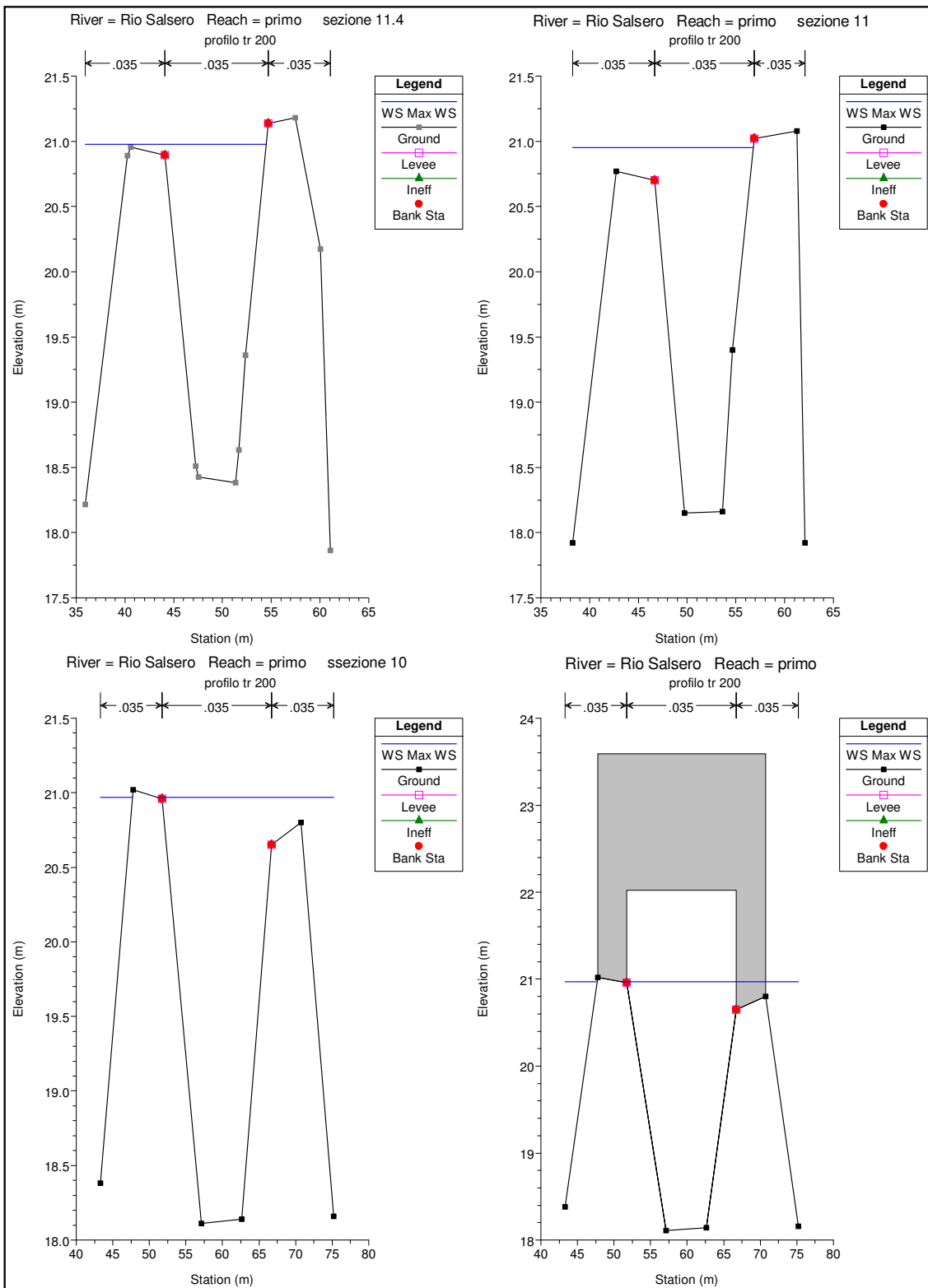


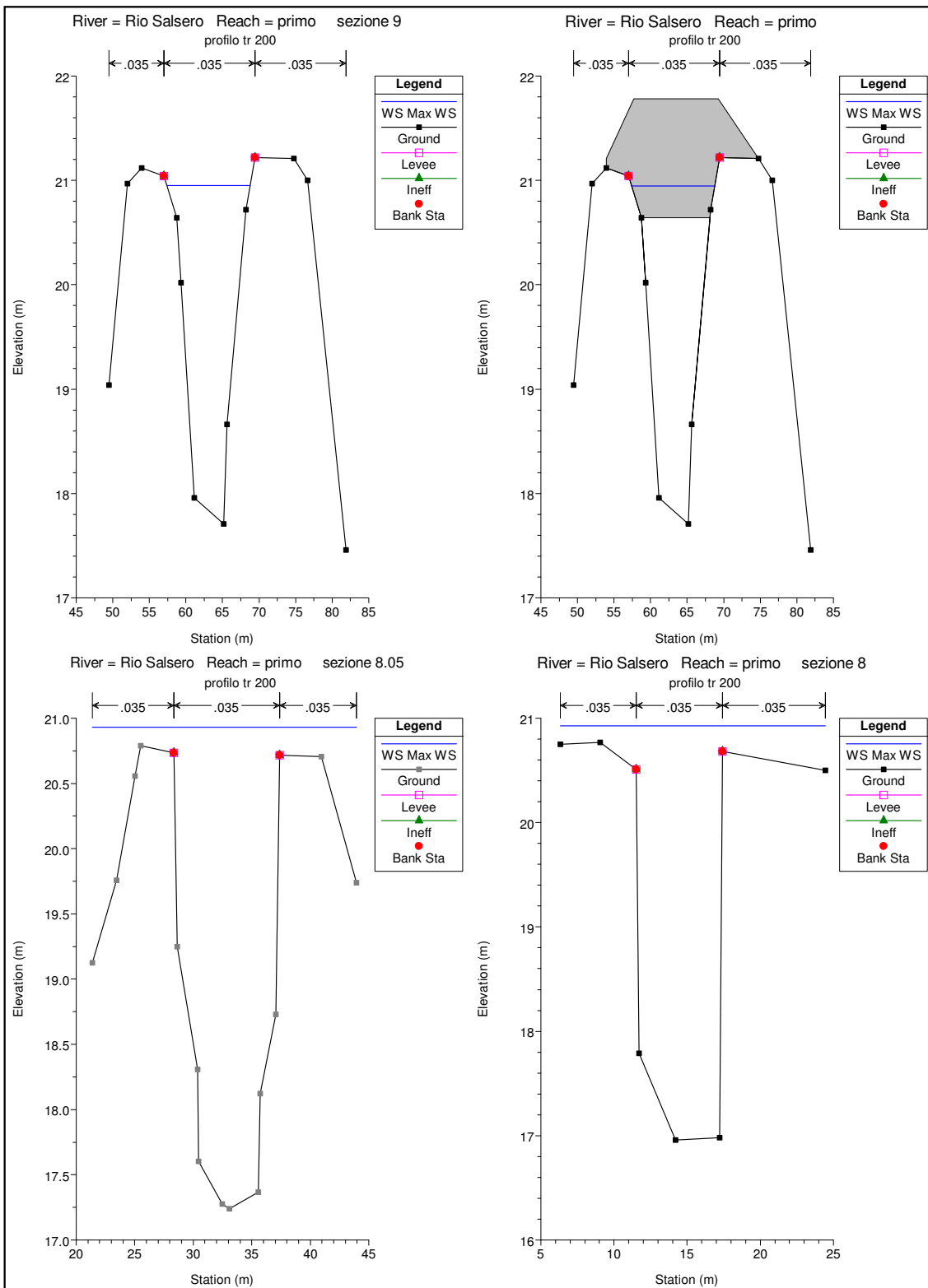
HEC-RAS Plan: Plan 12 River: Rio Salsero Reach: primo Profile: Max WS

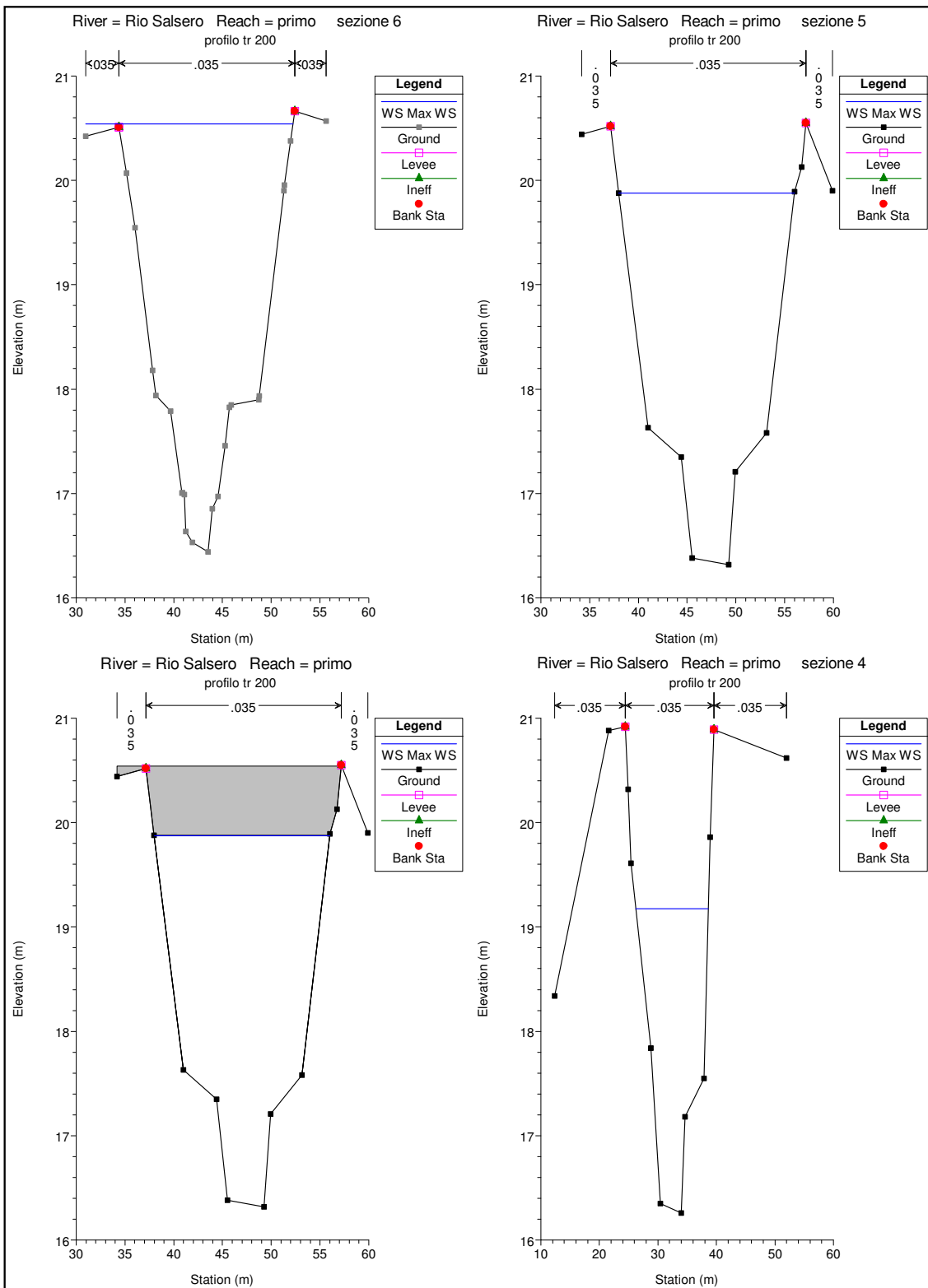
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
primo	15.5	Max WS	40.86	19.52	22.48		22.61	0.001725	1.65	26.22	13.64	0.33
primo	15.45	Max WS	40.86	19.52	22.48		22.61	0.001730	1.66	26.19	13.63	0.33
primo	15.44		Lat Struct									
primo	15.43		Lat Struct									
primo	15.4	Max WS	40.07	19.52	22.44		22.57	0.001754	1.66	25.67	13.59	0.33
primo	15.3	Max WS	40.07	19.52	22.43		22.57	0.001759	1.66	25.64	13.59	0.33
primo	15.29	Max WS	40.07	19.52	22.43	20.92	22.57	0.001764	1.66	25.61	13.59	0.33
primo	15.2		Bridge									
primo	15.11	Max WS	40.07	19.52	22.26		22.44	0.002182	1.86	21.56	8.11	0.36
primo	15.1	Max WS	40.07	19.52	22.25		22.43	0.002203	1.86	21.49	8.11	0.37
primo	15	Max WS	40.07	19.52	22.25		22.42	0.002217	1.87	21.44	8.11	0.37
primo	14.1	Max WS	40.06	19.52	22.18		22.37	0.002382	1.92	20.90	8.09	0.38
primo	14.08		Lat Struct									
primo	14	Max WS	40.04	19.45	21.99		22.12	0.001883	1.69	26.88	18.24	0.39
primo	13.9		Lat Struct									
primo	13	Max WS	35.91	19.41	21.64		21.84	0.003799	2.18	20.04	19.90	0.52
primo	12.99	Max WS	35.91	19.41	21.64	21.31	21.84	0.003842	2.19	19.96	19.90	0.53
primo	12.2		Bridge									
primo	12.11	Max WS	35.91	19.41	21.60		21.81	0.004266	2.27	19.17	19.90	0.55
primo	12.1	Max WS	35.91	19.41	21.57		21.80	0.004541	2.32	18.71	19.90	0.57
primo	12.091		Lat Struct									
primo	12.09		Lat Struct									
primo	12	Max WS	30.05	18.71	21.15		21.29	0.001985	1.64	18.36	11.05	0.41
primo	11	Max WS	23.34	18.15	20.95		20.99	0.000624	0.98	27.50	18.52	0.22
primo	10	Max WS	17.72	18.11	20.97		20.98	0.000128	0.48	43.22	28.53	0.11
primo	9.99	Max WS	17.72	18.11	20.97	19.05	20.98	0.000128	0.48	43.21	28.51	0.11
primo	9.2		Bridge									
primo	9.11	Max WS	17.71	18.11	20.97		20.98	0.000129	0.48	43.14	28.33	0.11
primo	9.1	Max WS	17.71	18.11	20.97		20.98	0.000129	0.48	43.09	28.23	0.11
primo	9.091		Lat Struct									
primo	9.09		Lat Struct									
primo	9	Max WS	9.56	17.71	20.95		20.96	0.000142	0.45	21.23	11.37	0.11
primo	8.99	Max WS	9.56	17.71	20.95	18.64	20.96	0.000142	0.45	21.23	11.37	0.11
primo	8.3		Bridge									
primo	8.21	Max WS	9.56	17.71	20.95		20.96	0.000142	0.45	21.20	11.36	0.11
primo	8.2	Max WS	9.56	17.71	20.95		20.96	0.000142	0.45	21.20	11.35	0.11
primo	8.191		Lat Struct									
primo	8.19		Lat Struct									
primo	8.1	Max WS	7.56	17.52	20.93		20.94	0.000039	0.26	31.10	18.19	0.06
primo	8	Max WS	7.52	16.96	20.93		20.93	0.000063	0.33	25.08	18.14	0.06
primo	7	Max WS	7.56	16.68	20.93		20.93	0.000006	0.13	58.98	18.34	0.02
primo	6	Max WS	7.56	16.45	20.93		20.93	0.000009	0.15	51.21	24.54	0.03
primo	5	Max WS	83.43	16.32	19.88		20.08	0.001929	2.01	41.46	18.01	0.42
primo	4.99	Max WS	83.43	16.32	19.87	18.70	20.08	0.001935	2.01	41.42	18.00	0.42
primo	4.02		Bridge									
primo	4.011	Max WS	83.43	16.32	19.87		20.07	0.001958	2.02	41.25	17.98	0.43
primo	4.01	Max WS	83.43	16.32	19.86		20.07	0.001976	2.03	41.12	17.96	0.43
primo	4	Max WS	83.43	16.26	19.17		19.82	0.008400	3.55	23.49	12.41	0.82
primo	3.99	Max WS	83.43	16.26	19.08	18.91	19.79	0.009656	3.73	22.34	12.19	0.88
primo	3.02		Bridge									
primo	3.011	Max WS	83.43	16.26	18.99	18.91	19.77	0.011166	3.93	21.20	11.96	0.94
primo	3.01	Max WS	83.43	16.26	18.79	18.91	19.78	0.015481	4.42	18.87	11.49	1.10
primo	3	Max WS	83.43	16.04	18.72		19.03	0.005616	2.54	34.02	23.12	0.68
primo	2.99		Lat Struct									
primo	2	Max WS	44.11	14.68	17.87		18.03	0.002157	1.76	25.09	13.88	0.42
primo	1	Max WS	44.10	14.60	17.74		17.83	0.001062	1.34	32.88	17.04	0.31
primo	0.5	Max WS	44.10	14.40	17.58	16.32	17.67	0.001000	1.31	33.56	17.15	0.30

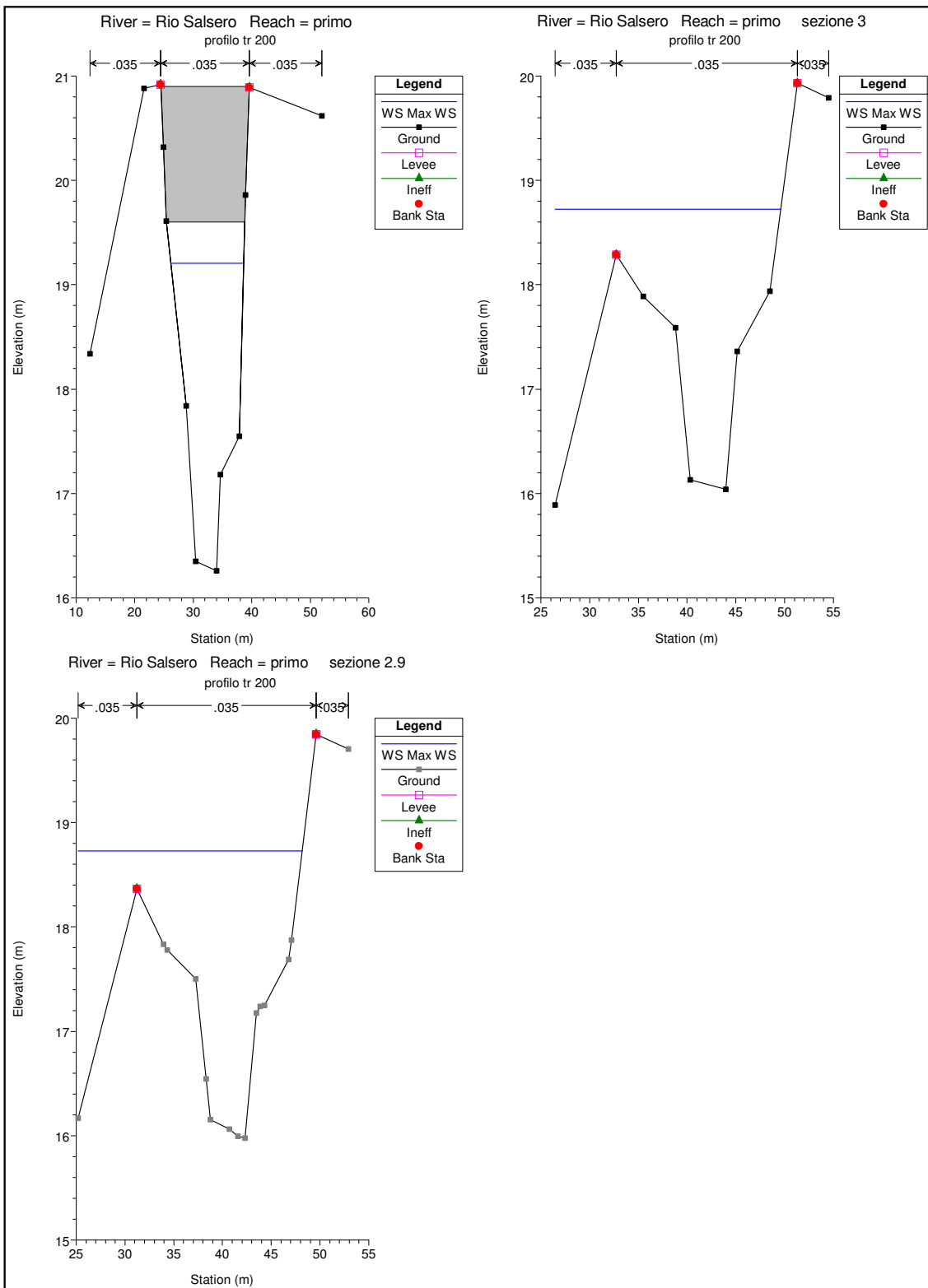












RIO SANT'ANTONIO

1- Simulazione Hec-Ras Tr=30 anni

Tabella
Sezioni

2- Simulazione Hec-Ras Tr=100 anni

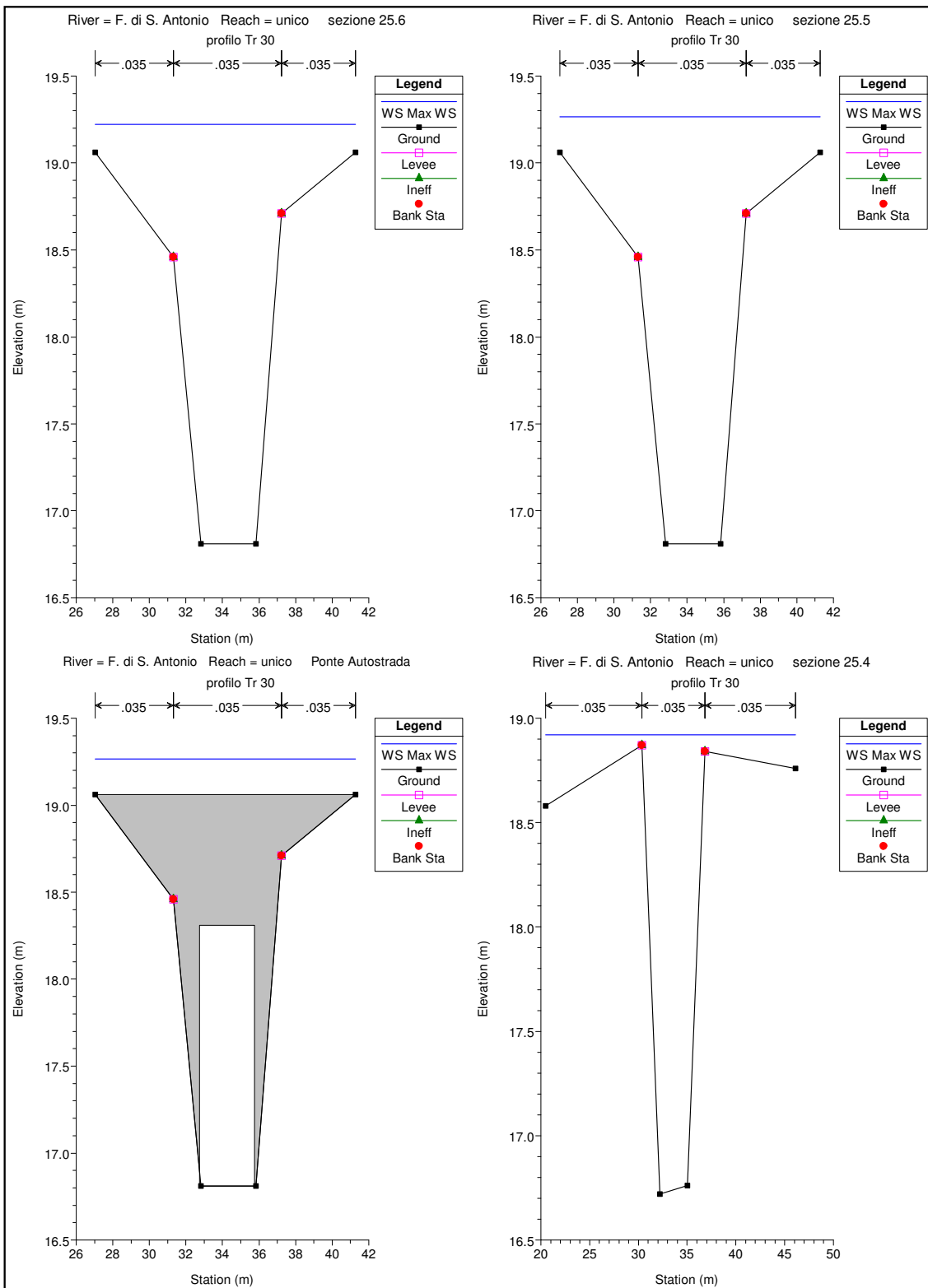
Tabella
Sezioni

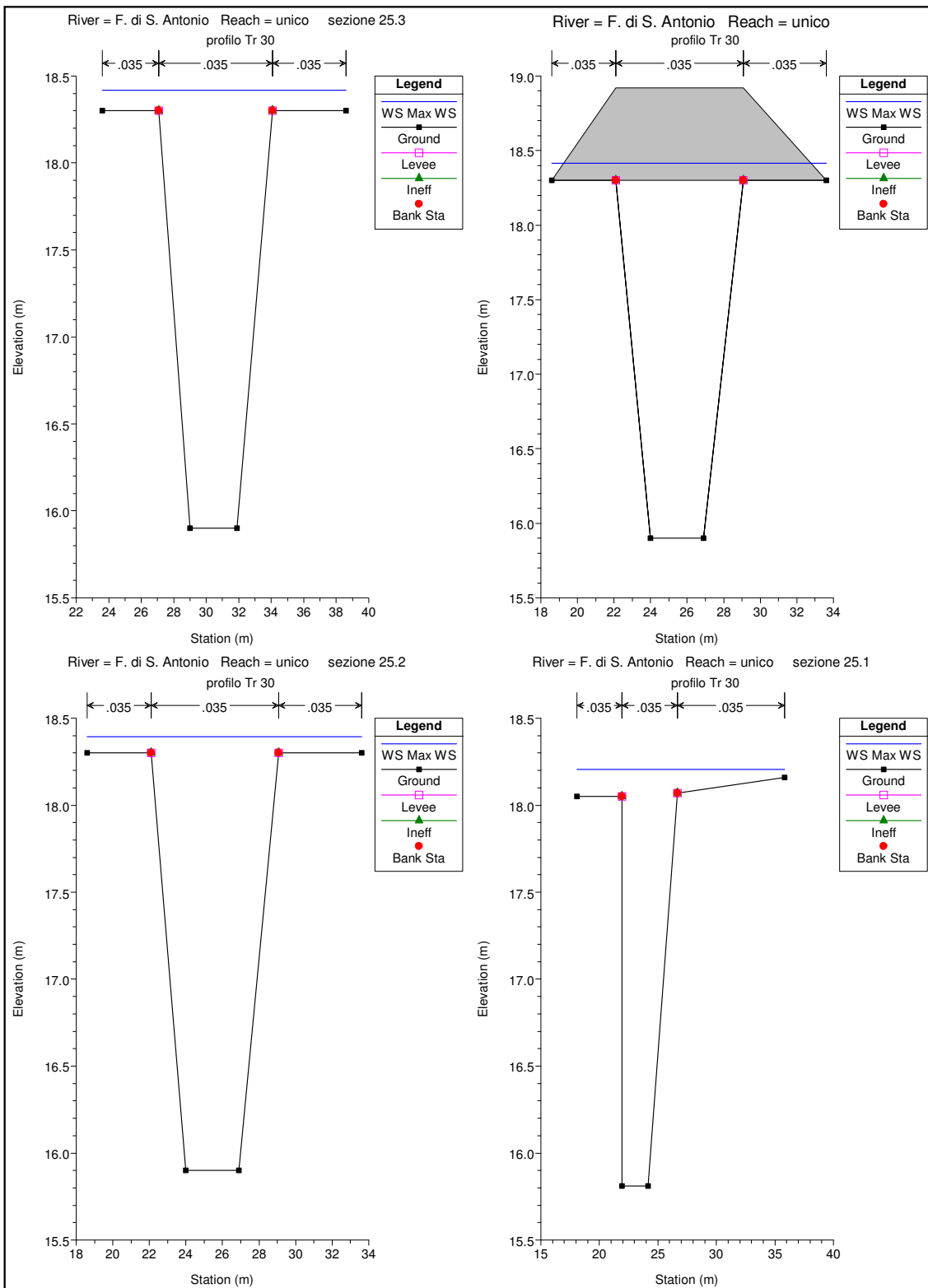
3- Simulazione Hec-Ras Tr=200 anni

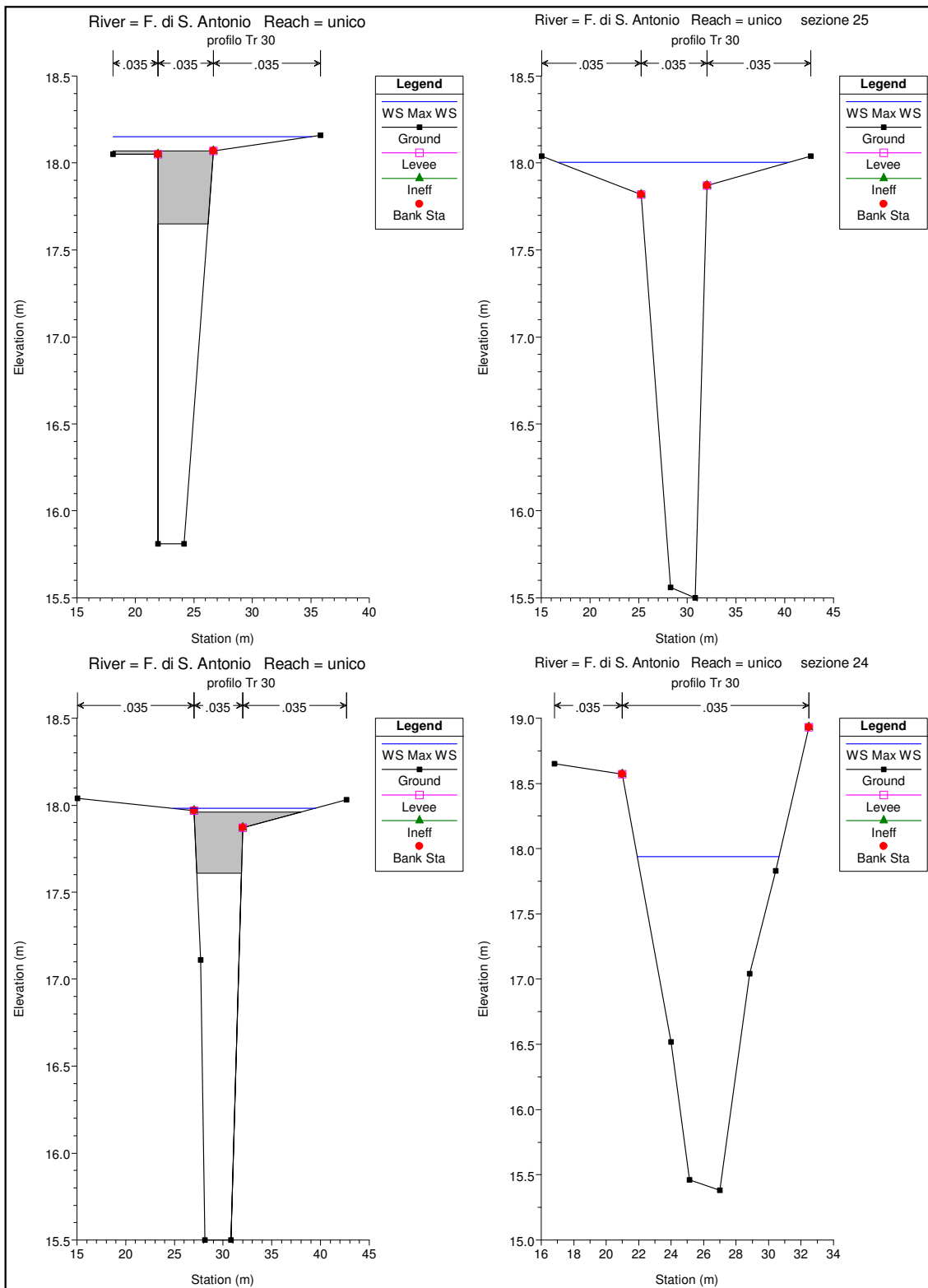
Tabella
Sezioni

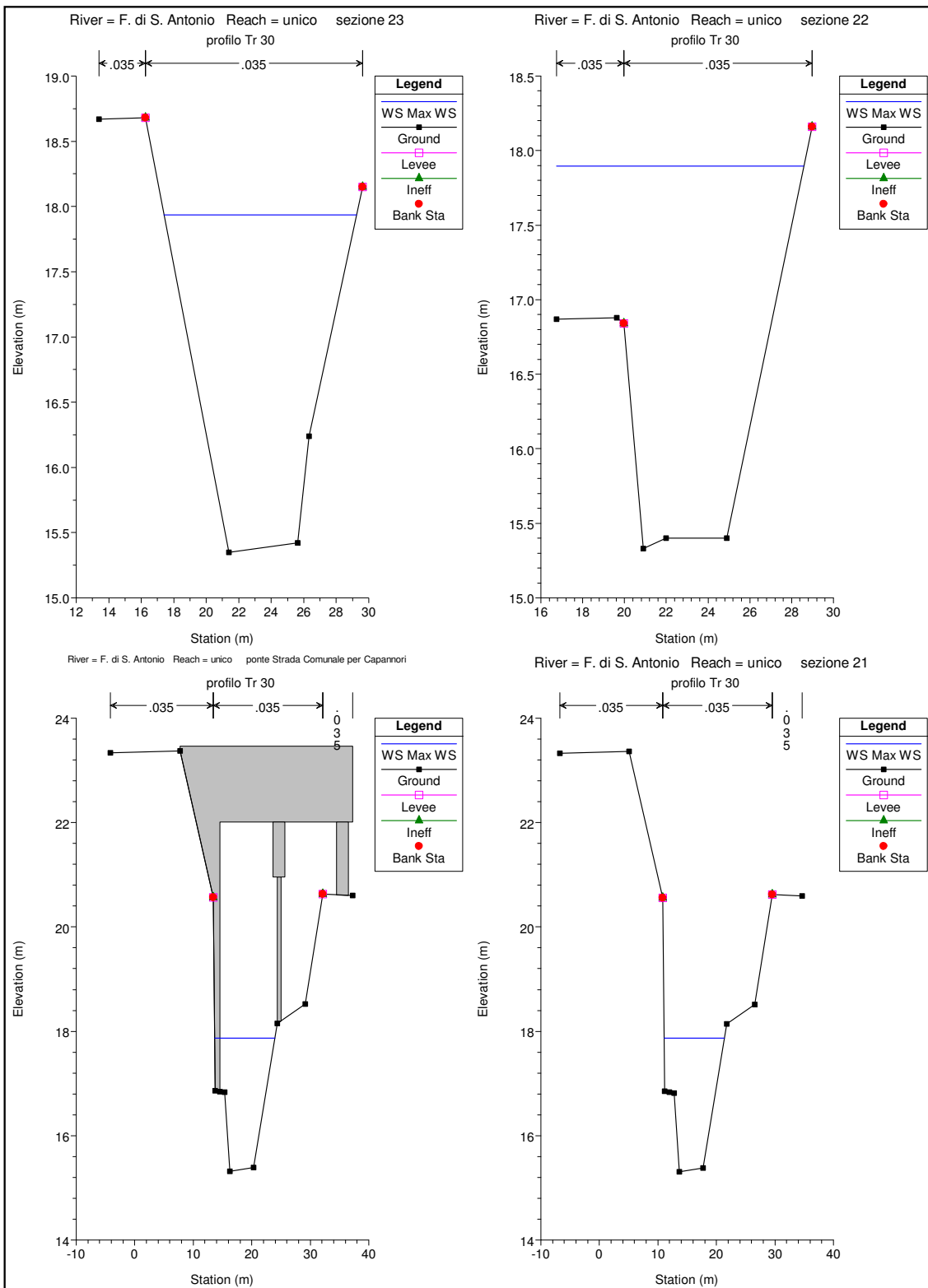
HEC-RAS Plan: Plan 22 River: F. di S. Antonio Reach: unico Profile: Max WS

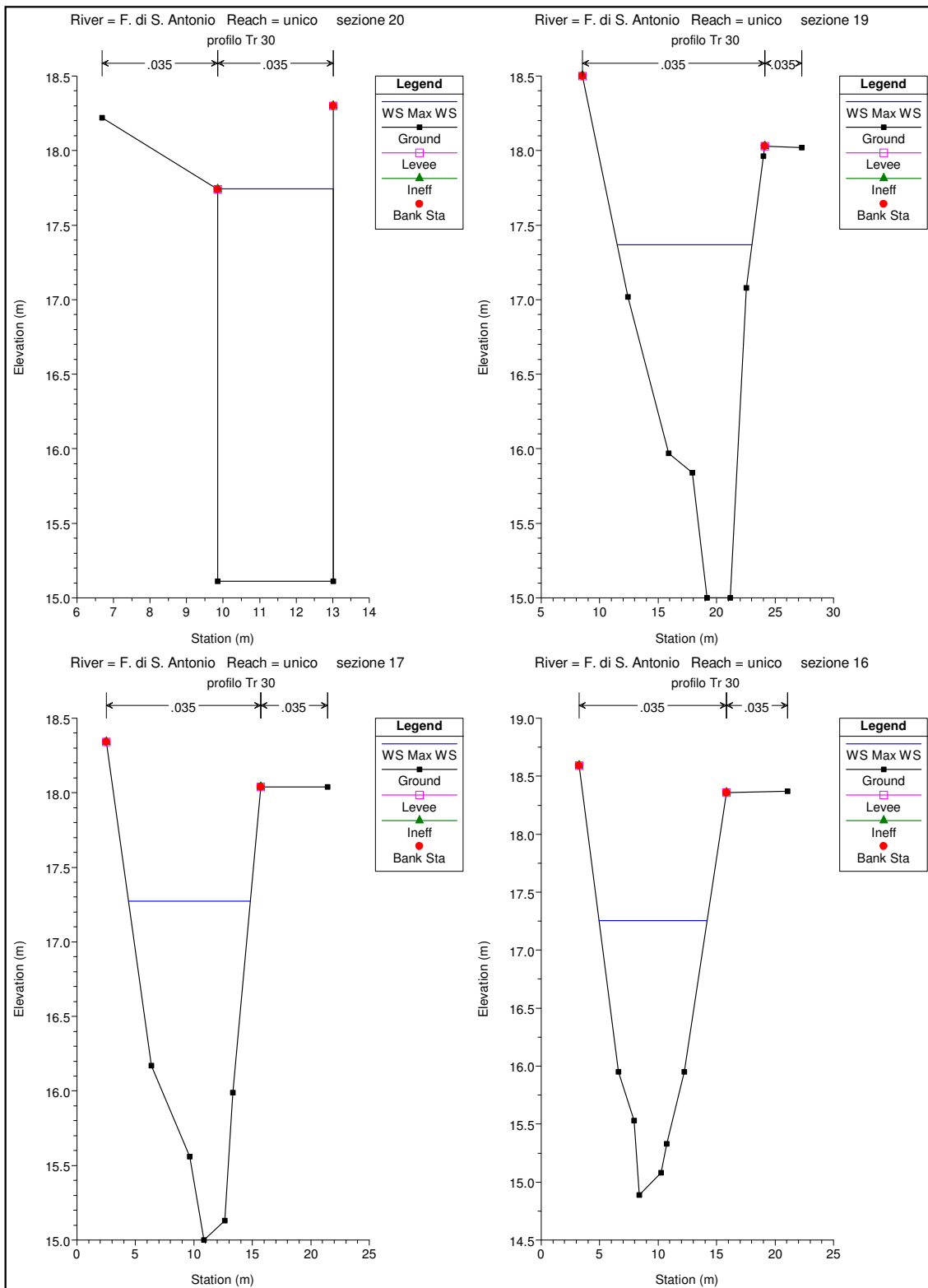
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	25.6	Max WS	15.06	16.81	19.22		19.28	0.000927	1.16	14.99	14.23	0.26
unico	25.59	Max WS	15.05	16.81	19.22		19.28	0.000930	1.16	14.98	14.23	0.26
unico	25.58											
unico	25.57	Lat Struct										
unico	25.52	Max WS	10.45	16.81	19.27		19.29	0.000403	0.78	15.64	14.23	0.17
unico	25.519	Max WS	10.45	16.81	19.26		19.29	0.000404	0.78	15.61	14.23	0.17
unico	25.51											
unico	25.501	Max WS	0.04	16.81	19.01		19.01	0.000000	0.00	12.01	13.29	0.00
unico	25.5	Max WS	0.05	16.81	19.01		19.01	0.000000	0.00	12.01	13.29	0.00
unico	25.42											
unico	25.41	Lat Struct										
unico	25.4	Max WS	0.06	16.72	18.92		18.92	0.000000	0.01	13.31	25.64	0.00
unico	25.3	Max WS	13.67	15.90	18.42		18.48	0.000900	1.06	13.65	15.01	0.25
unico	25.24	Max WS	13.67	15.90	18.42	17.07	18.47	0.000906	1.06	13.60	15.01	0.25
unico	25.23											
unico	25.22	Max WS	13.66	15.90	18.40		18.46	0.000932	1.07	13.40	15.01	0.26
unico	25.21	Max WS	13.66	15.90	18.39		18.45	0.000952	1.08	13.25	15.01	0.26
unico	25.209											
unico	25.208	Lat Struct										
unico	25.2	Max WS	11.73	15.82	18.25		18.31	0.000961	1.03	11.50	11.04	0.26
unico	25.15	Max WS	9.65	15.81	18.21		18.26	0.001293	1.09	10.00	17.76	0.26
unico	25.14	Max WS	9.65	15.81	18.20	16.93	18.26	0.001298	1.09	9.97	17.76	0.26
unico	25.13											
unico	25.12	Max WS	9.56	15.81	18.07		18.14	0.001770	1.21	7.99	8.64	0.30
unico	25.11	Max WS	9.56	15.81	18.06		18.14	0.001791	1.21	7.94	8.60	0.30
unico	25.102											
unico	25.101	Lat Struct										
unico	25.1	Max WS	9.21	15.71	17.99		18.06	0.001581	1.15	8.17	10.53	0.28
unico	25.08	Max WS	8.91	15.61	18.00		18.02	0.000425	0.70	13.39	10.97	0.18
unico	25.07	Max WS	5.99	15.50	18.00		18.02	0.000209	0.50	13.18	23.65	0.12
unico	25.06	Max WS	5.99	15.50	17.99		18.01	0.000417	0.64	9.81	16.67	0.15
unico	25.05	Max WS	5.99	15.50	17.99	16.27	18.01	0.000418	0.64	9.80	16.53	0.15
unico	25.04											
unico	25.03	Max WS	5.99	15.50	17.97		18.00	0.000433	0.65	9.56	12.61	0.15
unico	25.02	Max WS	5.99	15.50	17.96		17.99	0.000441	0.65	9.44	11.23	0.15
unico	25.0191											
unico	25.019	Lat Struct										
unico	25.01	Max WS	5.11	15.47	17.95		17.96	0.000074	0.31	16.27	9.31	0.08
unico	25	Max WS	5.11	15.44	17.95		17.95	0.000109	0.36	14.28	9.21	0.09
unico	24	Max WS	5.10	15.38	17.94		17.95	0.000165	0.41	12.41	8.73	0.11
unico	23	Max WS	5.10	15.35	17.93		17.94	0.000048	0.26	19.87	11.84	0.06
unico	22	Max WS	11.64	15.33	17.90		17.92	0.000266	0.64	19.57	11.82	0.15
unico	21.2	Max WS	11.64	15.32	17.87		17.89	0.000325	0.65	18.03	10.31	0.16
unico	21.19	Max WS	11.64	15.32	17.87	16.24	17.89	0.000325	0.65	18.02	10.31	0.16
unico	21.1											
unico	21.05	Max WS	11.64	15.32	17.87		17.89	0.000328	0.65	17.97	10.30	0.16
unico	21.04	Max WS	11.64	15.32	17.87		17.89	0.000329	0.65	17.96	10.30	0.16
unico	21	Max WS	11.64	15.31	17.87		17.89	0.000323	0.64	18.06	10.32	0.16
unico	20.1											
unico	20	Max WS	11.63	15.11	17.74		17.84	0.002431	1.40	8.32	3.18	0.27
unico	19.39	Max WS	11.63	15.11	17.74		17.84	0.002438	1.40	8.32	3.17	0.28
unico	19.3											
unico	19.211	Max WS	11.63	15.01	17.42		17.53	0.003055	1.53	7.60	3.16	0.31
unico	19.21	Max WS	11.63	15.01	17.40		17.53	0.003089	1.54	7.57	3.16	0.32
unico	19.2	Max WS	11.63	15.01	17.40		17.52	0.003101	1.54	7.56	3.16	0.32
unico	19.1	Max WS	11.63	15.01	17.31		17.44	0.003411	1.60	7.28	3.16	0.34
unico	19	Max WS	11.63	15.00	17.37		17.40	0.000592	0.76	15.21	11.51	0.21
unico	18.9											
unico	17.5	Max WS	11.63	15.00	17.27		17.31	0.000643	0.82	14.17	10.41	0.22
unico	16.5	Max WS	11.63	14.89	17.26		17.30	0.000758	0.90	12.99	9.26	0.24
unico	6.5	Max WS	11.63	14.89	17.21		17.26	0.000710	0.89	13.01	8.67	0.23

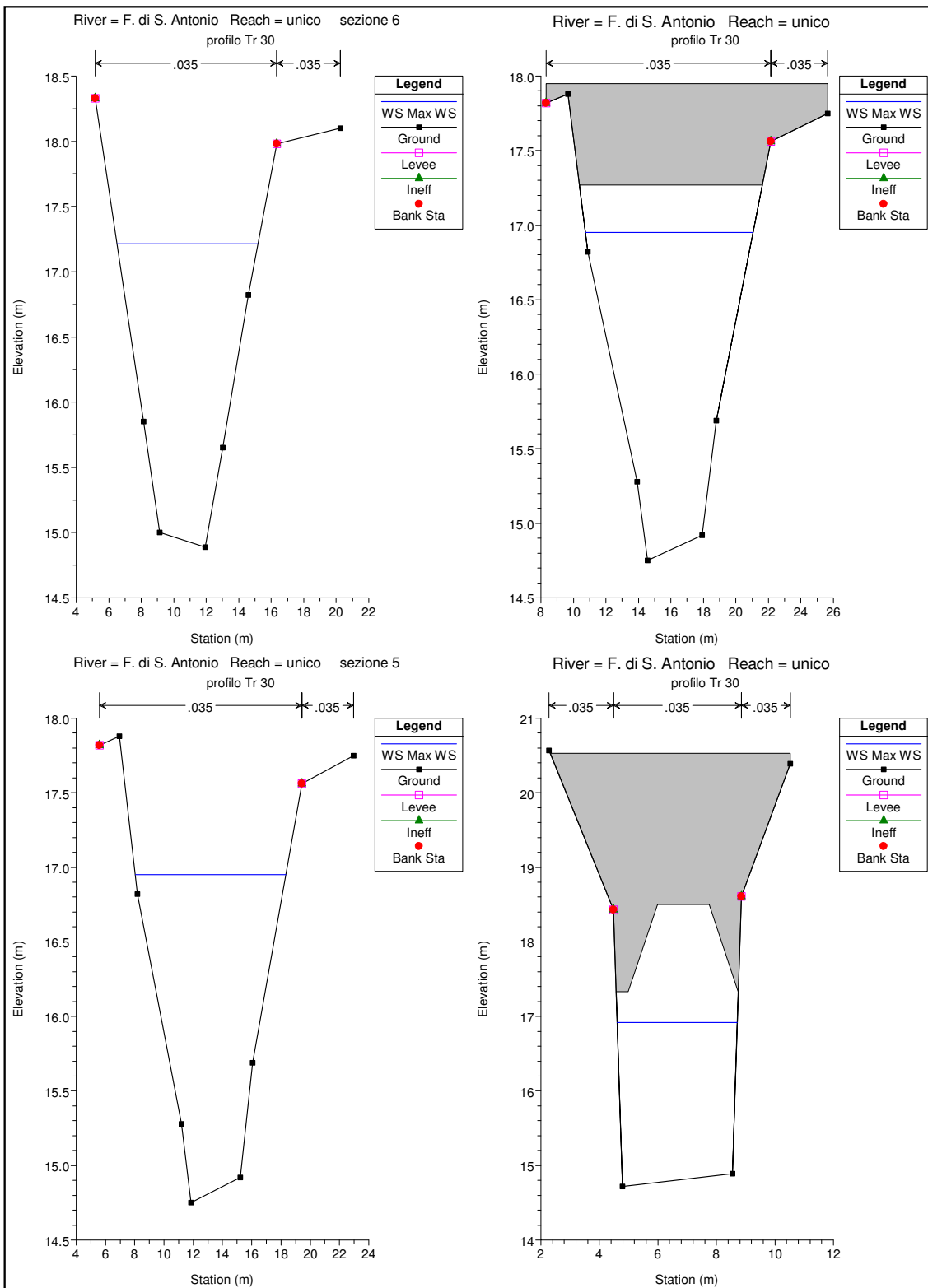


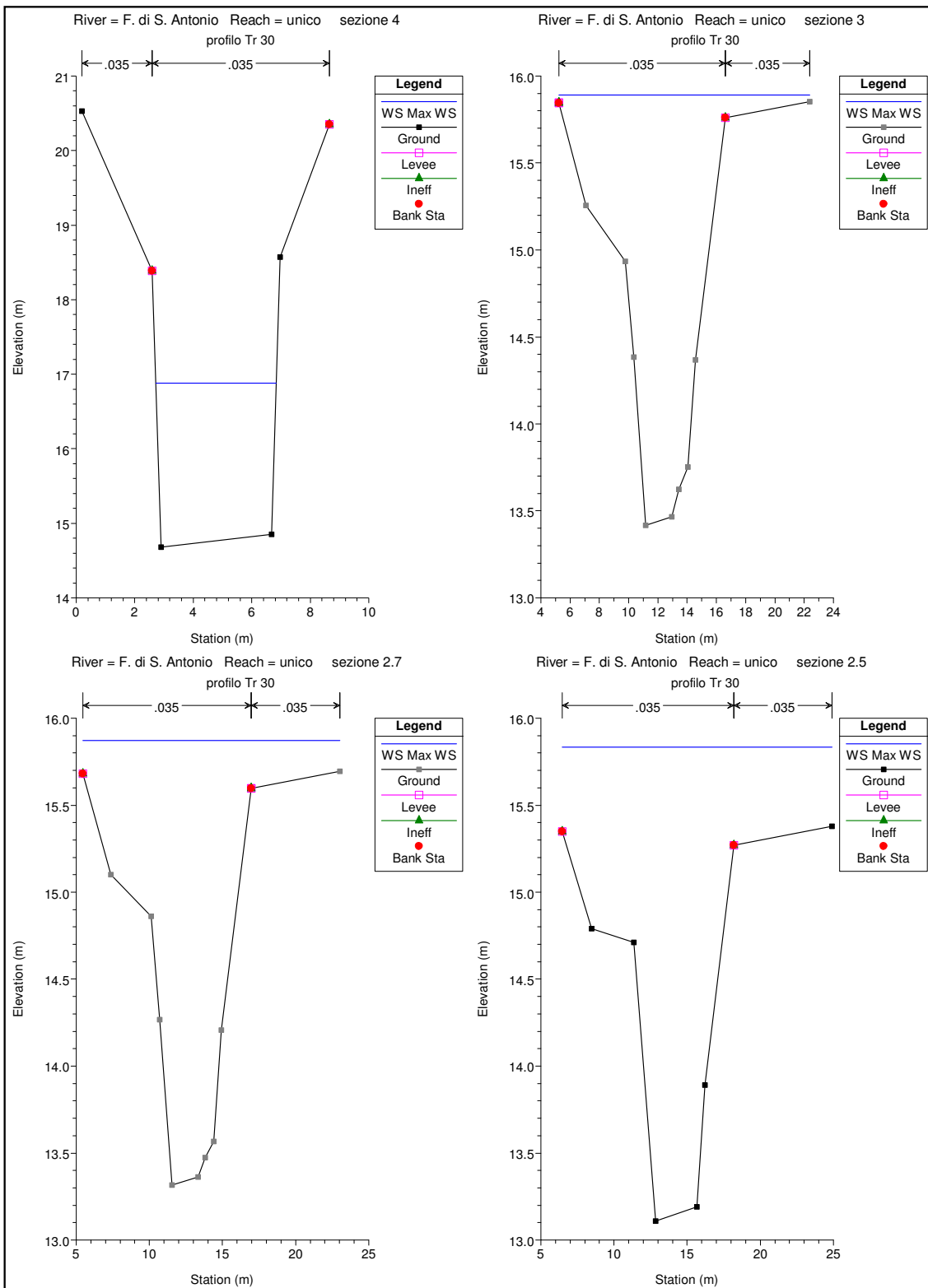






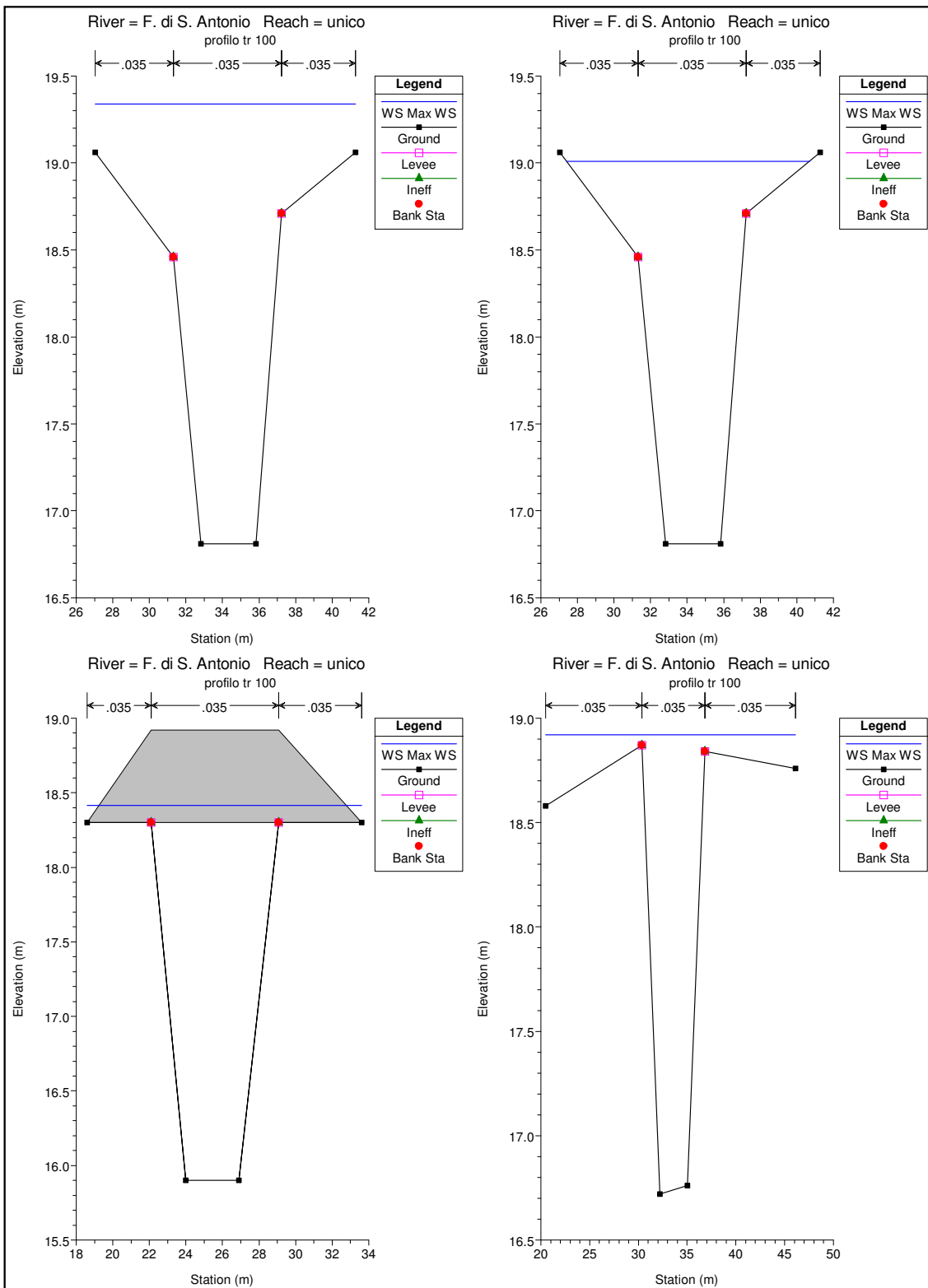


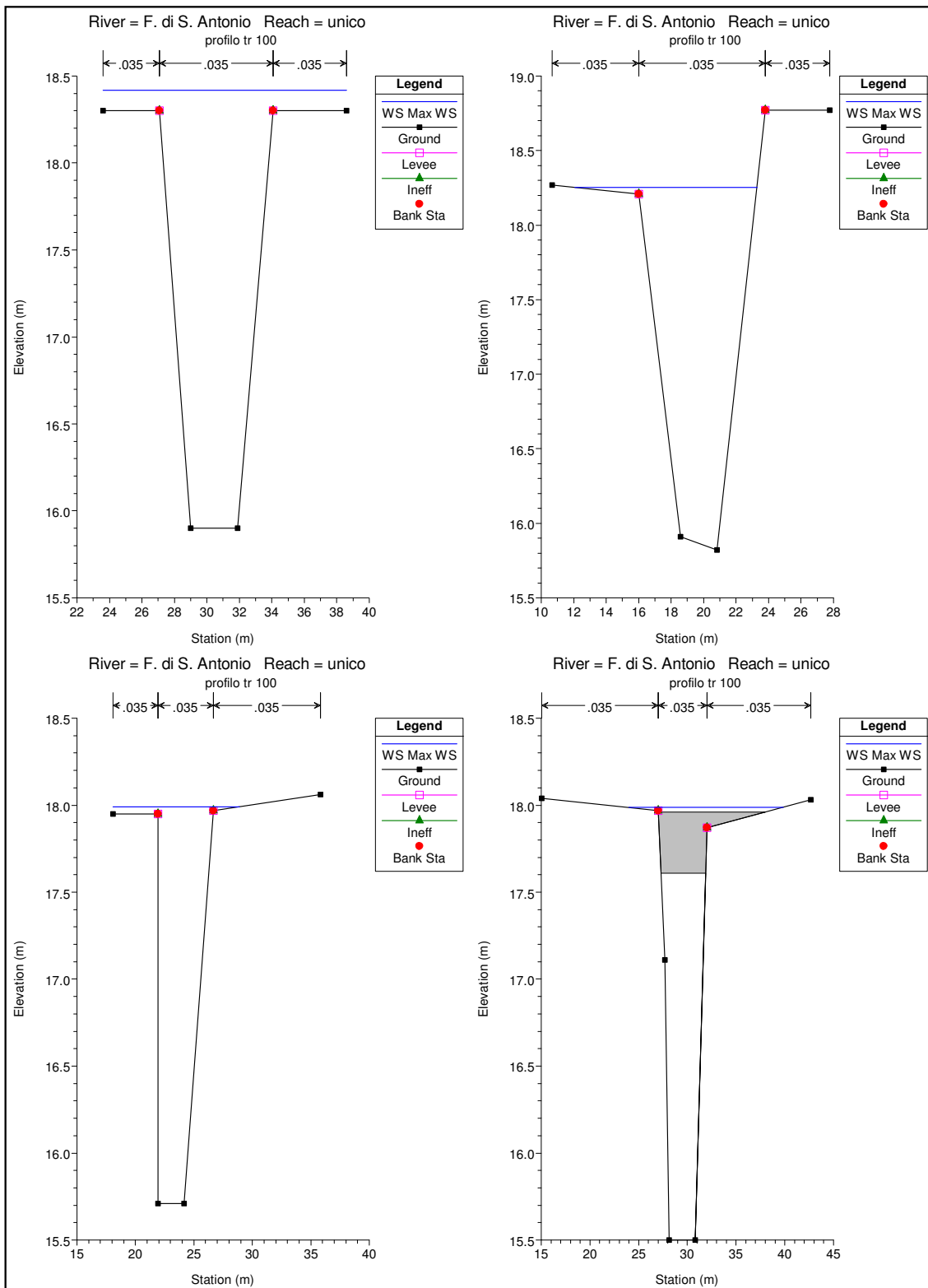


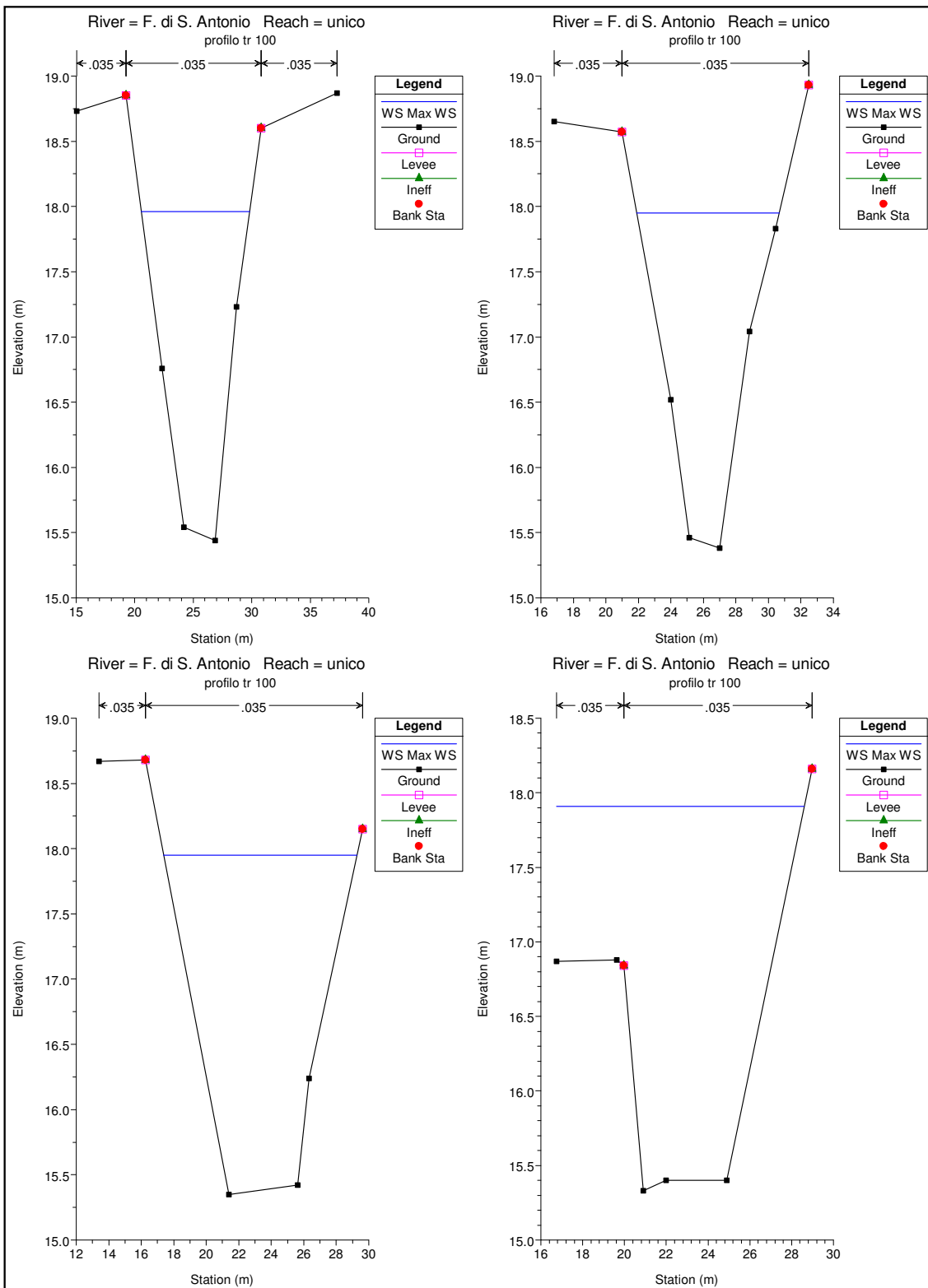


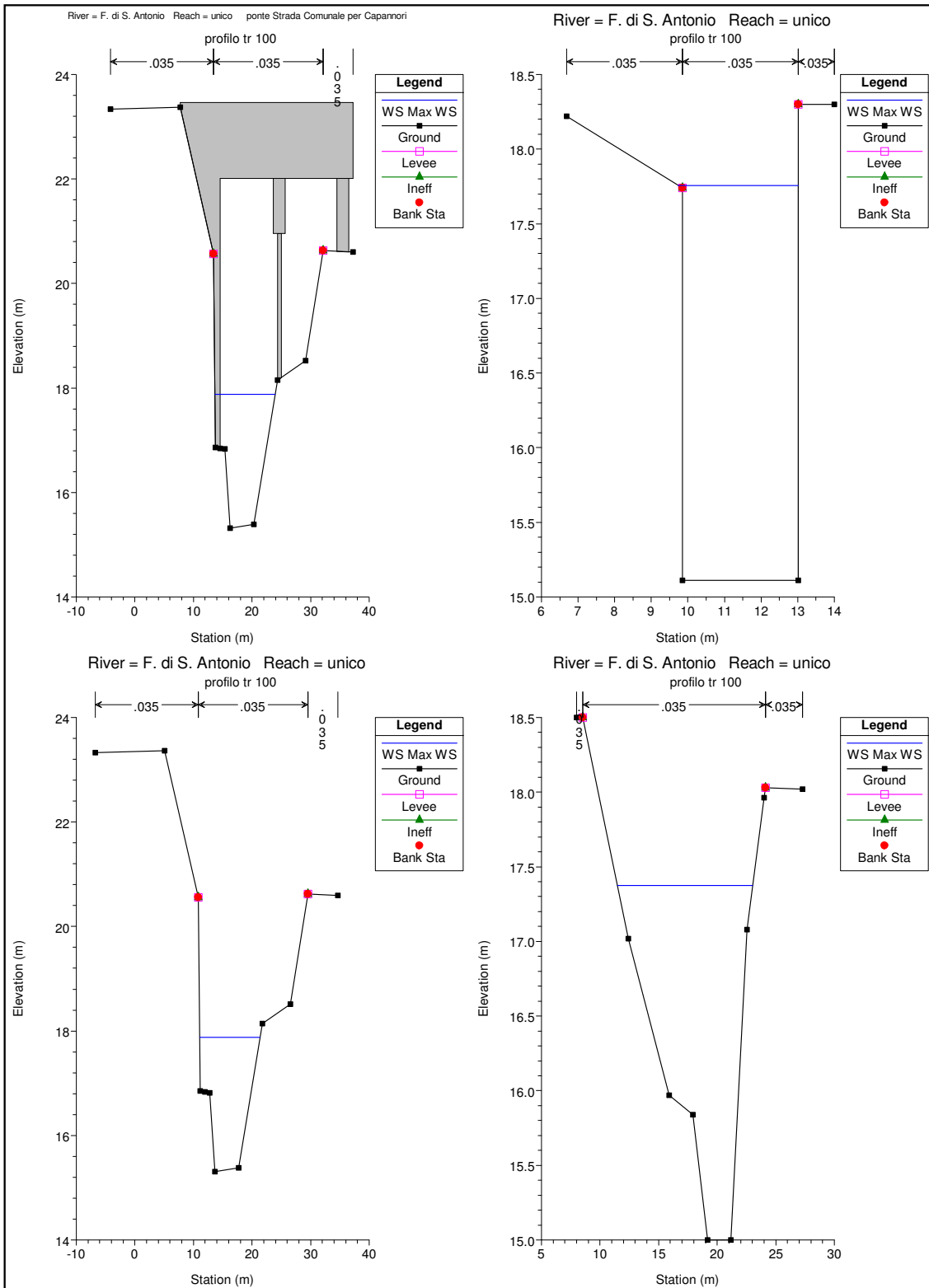
HEC-RAS Plan: Plan 54 Locations: User Defined Profile: Max WS

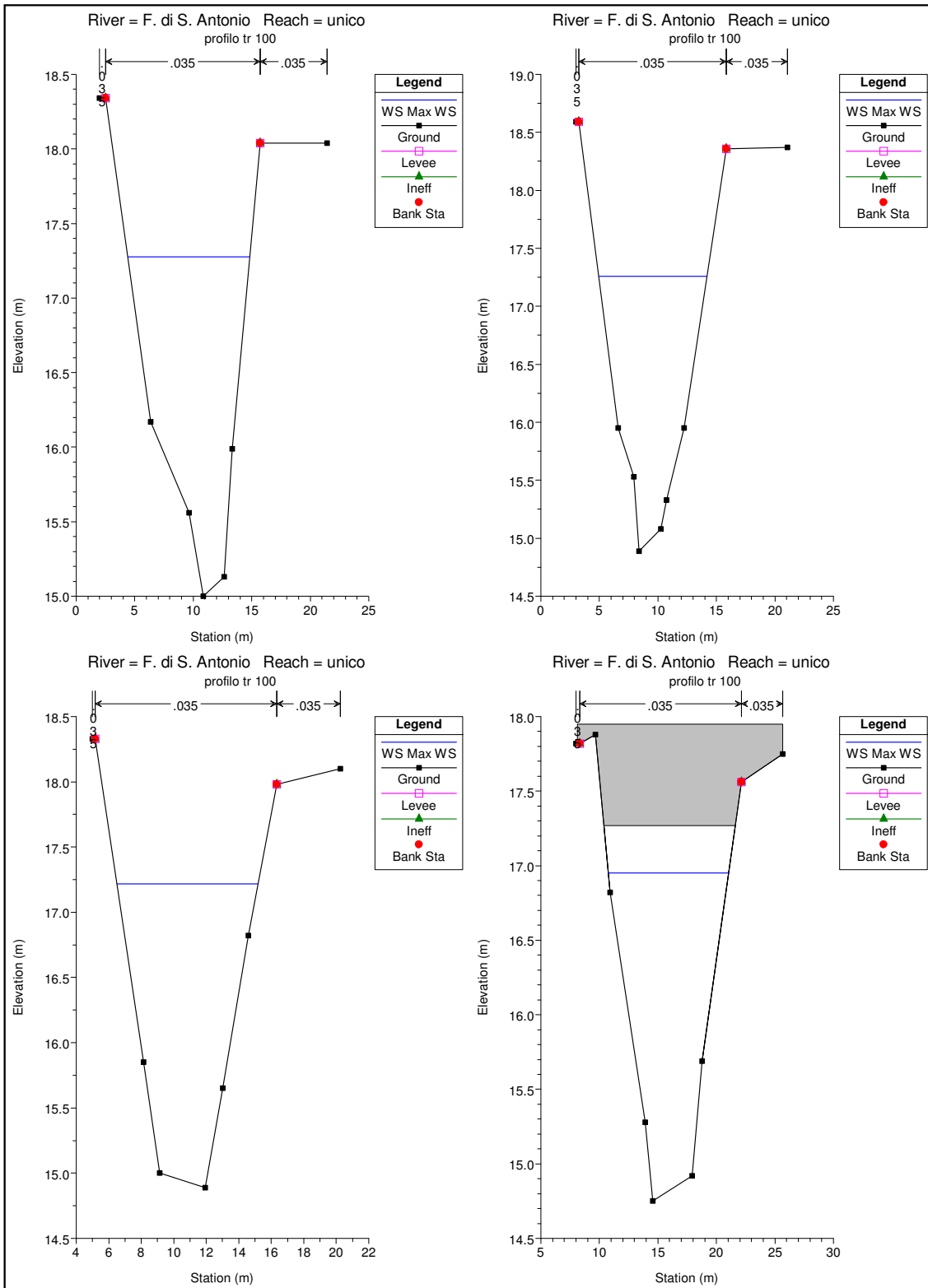
River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
F. di S. Antonio	unico	25.6	Max WS	19.41	16.81	19.34		19.42	0.001177	1.36	16.69	14.23	0.30
F. di S. Antonio	unico	25.59	Max WS	19.41	16.81	19.34		19.42	0.001180	1.36	16.67	14.23	0.30
F. di S. Antonio	unico	25.58		Lat Struct									
F. di S. Antonio	unico	25.57		Lat Struct									
F. di S. Antonio	unico	25.52	Max WS	13.40	16.81	19.40		19.44	0.000490	0.89	17.57	14.23	0.19
F. di S. Antonio	unico	25.519	Max WS	13.40	16.81	19.40		19.44	0.000492	0.89	17.55	14.23	0.19
F. di S. Antonio	unico	25.51		Culvert									
F. di S. Antonio	unico	25.501	Max WS	0.04	16.81	19.01		19.01	0.000000	0.00	12.01	13.29	0.00
F. di S. Antonio	unico	25.5	Max WS	0.05	16.81	19.01		19.01	0.000000	0.00	12.01	13.29	0.00
F. di S. Antonio	unico	25.42		Lat Struct									
F. di S. Antonio	unico	25.41		Lat Struct									
F. di S. Antonio	unico	25.4	Max WS	0.06	16.72	18.92		18.92	0.000000	0.01	13.31	25.64	0.00
F. di S. Antonio	unico	25.3	Max WS	13.67	15.90	18.42		18.48	0.000900	1.06	13.65	15.01	0.25
F. di S. Antonio	unico	25.24	Max WS	13.67	15.90	18.42	17.07	18.47	0.000906	1.06	13.60	15.01	0.25
F. di S. Antonio	unico	25.23		Bridge									
F. di S. Antonio	unico	25.22	Max WS	13.66	15.90	18.40		18.46	0.000932	1.07	13.40	15.01	0.26
F. di S. Antonio	unico	25.21	Max WS	13.66	15.90	18.39		18.45	0.000952	1.08	13.25	15.01	0.26
F. di S. Antonio	unico	25.208		Lat Struct									
F. di S. Antonio	unico	25.209		Lat Struct									
F. di S. Antonio	unico	25.2	Max WS	11.97	15.82	18.25		18.31	0.000996	1.05	11.52	11.21	0.27
F. di S. Antonio	unico	25.15	Max WS	9.54	15.81	18.21		18.26	0.001266	1.08	9.99	17.76	0.26
F. di S. Antonio	unico	25.14	Max WS	9.54	15.81	18.20	16.92	18.26	0.001272	1.08	9.96	17.76	0.26
F. di S. Antonio	unico	25.13		Bridge									
F. di S. Antonio	unico	25.12	Max WS	9.54	15.81	18.07		18.14	0.001763	1.20	8.00	8.70	0.30
F. di S. Antonio	unico	25.11	Max WS	9.54	15.81	18.06		18.14	0.001785	1.21	7.94	8.60	0.30
F. di S. Antonio	unico	25.102		Lat Struct									
F. di S. Antonio	unico	25.101		Lat Struct									
F. di S. Antonio	unico	25.1	Max WS	9.15	15.71	17.99		18.06	0.001551	1.14	8.20	10.81	0.28
F. di S. Antonio	unico	25.08	Max WS	8.83	15.61	18.00		18.03	0.000415	0.69	13.43	11.02	0.18
F. di S. Antonio	unico	25.07	Max WS	5.79	15.50	18.01		18.02	0.000193	0.48	13.28	24.12	0.12
F. di S. Antonio	unico	25.06	Max WS	5.78	15.50	18.00		18.02	0.000385	0.62	9.90	17.91	0.14
F. di S. Antonio	unico	25.05	Max WS	5.78	15.50	18.00	16.25	18.01	0.000386	0.62	9.88	17.69	0.14
F. di S. Antonio	unico	25.04		Bridge									
F. di S. Antonio	unico	25.03	Max WS	5.78	15.50	17.98		18.00	0.000399	0.62	9.64	14.06	0.15
F. di S. Antonio	unico	25.02	Max WS	5.78	15.50	17.97		17.99	0.000406	0.63	9.52	11.81	0.15
F. di S. Antonio	unico	25.0191		Lat Struct									
F. di S. Antonio	unico	25.019		Lat Struct									
F. di S. Antonio	unico	25.01	Max WS	4.71	15.47	17.96		17.97	0.000062	0.29	16.38	9.33	0.07
F. di S. Antonio	unico	25.0	Max WS	4.70	15.44	17.96		17.97	0.000091	0.33	14.39	9.25	0.08
F. di S. Antonio	unico	24	Max WS	4.70	15.38	17.95		17.96	0.000136	0.38	12.52	8.78	0.10
F. di S. Antonio	unico	23	Max WS	4.70	15.35	17.95		17.95	0.000040	0.23	20.04	11.88	0.06
F. di S. Antonio	unico	22	Max WS	11.73	15.33	17.91		17.93	0.000264	0.64	19.73	11.84	0.15
F. di S. Antonio	unico	21.2	Max WS	11.72	15.32	17.89		17.91	0.000323	0.65	18.16	10.33	0.16
F. di S. Antonio	unico	21.19	Max WS	11.72	15.32	17.89	16.24	17.91	0.000323	0.65	18.16	10.33	0.16
F. di S. Antonio	unico	21.1		Bridge									
F. di S. Antonio	unico	21.05	Max WS	11.72	15.32	17.88		17.90	0.000326	0.65	18.10	10.32	0.16
F. di S. Antonio	unico	21.04	Max WS	11.72	15.32	17.88		17.90	0.000326	0.65	18.09	10.32	0.16
F. di S. Antonio	unico	21	Max WS	11.72	15.31	17.88		17.90	0.000321	0.64	18.20	10.34	0.15
F. di S. Antonio	unico	20.1		Lat Struct									
F. di S. Antonio	unico	20	Max WS	11.71	15.11	17.76		17.86	0.002431	1.40	8.37	3.27	0.27
F. di S. Antonio	unico	19.39	Max WS	11.71	15.11	17.75		17.85	0.002437	1.40	8.36	3.25	0.28
F. di S. Antonio	unico	19.3		Culvert									
F. di S. Antonio	unico	19.211	Max WS	11.71	15.01	17.42		17.54	0.003083	1.54	7.62	3.16	0.32
F. di S. Antonio	unico	19.21	Max WS	11.71	15.01	17.41		17.53	0.003116	1.54	7.59	3.16	0.32
F. di S. Antonio	unico	19.2	Max WS	11.71	15.01	17.41		17.53	0.003128	1.55	7.57	3.16	0.32
F. di S. Antonio	unico	19.1	Max WS	11.71	15.01	17.32		17.45	0.003444	1.61	7.29	3.16	0.34
F. di S. Antonio	unico	19	Max WS	11.71	15.00	17.37		17.40	0.000595	0.77	15.27	11.53	0.21
F. di S. Antonio	unico	18.9		Lat Struct									
F. di S. Antonio	unico	17.5	Max WS	11.71	15.00	17.28		17.31	0.000647	0.82	14.22	10.42	0.23
F. di S. Antonio	unico	16.5	Max WS	11.71	14.89	17.26		17.30	0.000764	0.90	13.03	9.27	0.24
F. di S. Antonio	unico	6.5	Max WS	11.71	14.89	17.22		17.26	0.000716	0.90	13.04	8.68	0.23
F. di S. Antonio	unico	5.51		Bridge									
F. di S. Antonio	unico	4.55		Lat Struct									
F. di S. Antonio	unico	4.51		Bridge									
F. di S. Antonio	unico	3.501		Inl Struct									
F. di S. Antonio	unico	3.5	Max WS	10.57	14.24	16.71		16.75	0.000895	0.91	11.62	8.86	0.25
F. di S. Antonio	unico	3.49		Lat Struct									
F. di S. Antonio	unico	2.51	Max WS	15.31	13.11	15.83		15.85	0.000431	0.75	22.55	19.37	0.19
F. di S. Antonio	unico	2.5	Max WS	15.30	13.11	15.83		15.85	0.000436	0.75	22.30	18.91	0.19
F. di S. Antonio	unico	1.51	Max WS	15.30	13.11	15.82		15.85	0.000434	0.75	22.45	19.26	0.19
F. di S. Antonio	unico	1.5	Max WS	15.28	13.09	15.71		15.77	0.000809	1.06	14.72	9.00	0.25
F. di S. Antonio	unico	1	Max WS	15.28	12.99	15.57	14.28	15.63	0.000978	1.09	14.02	8.03	0.26

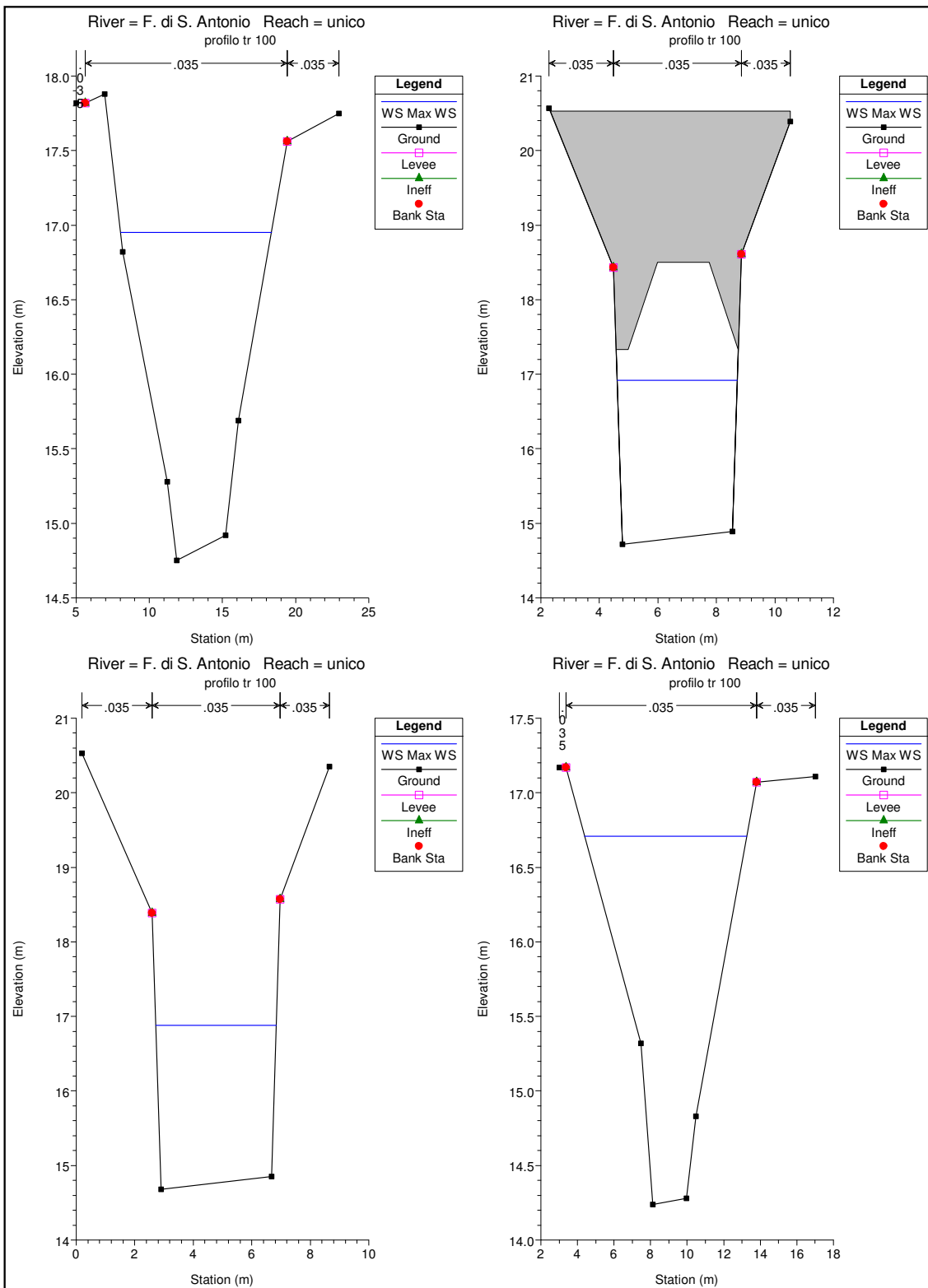


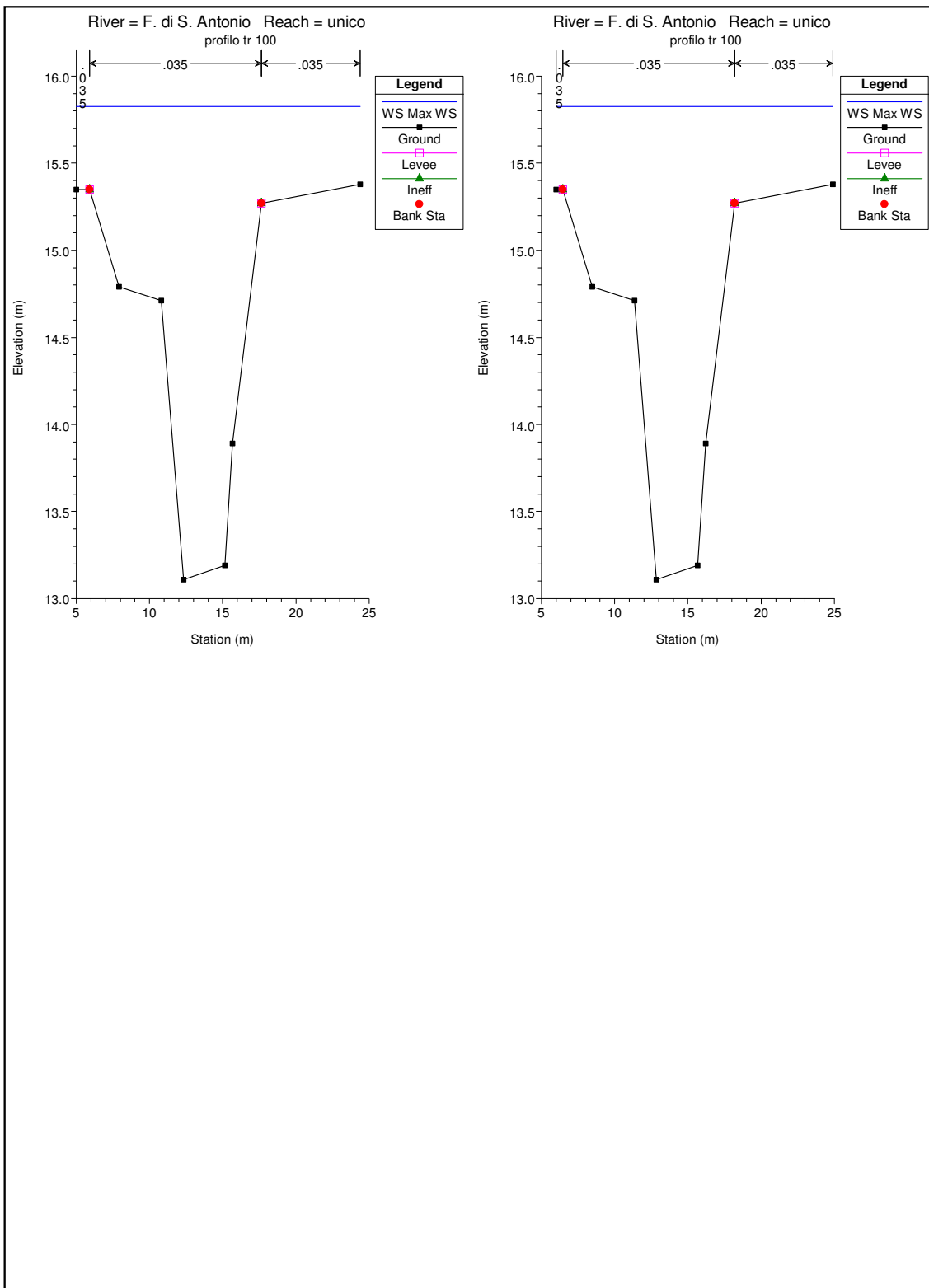






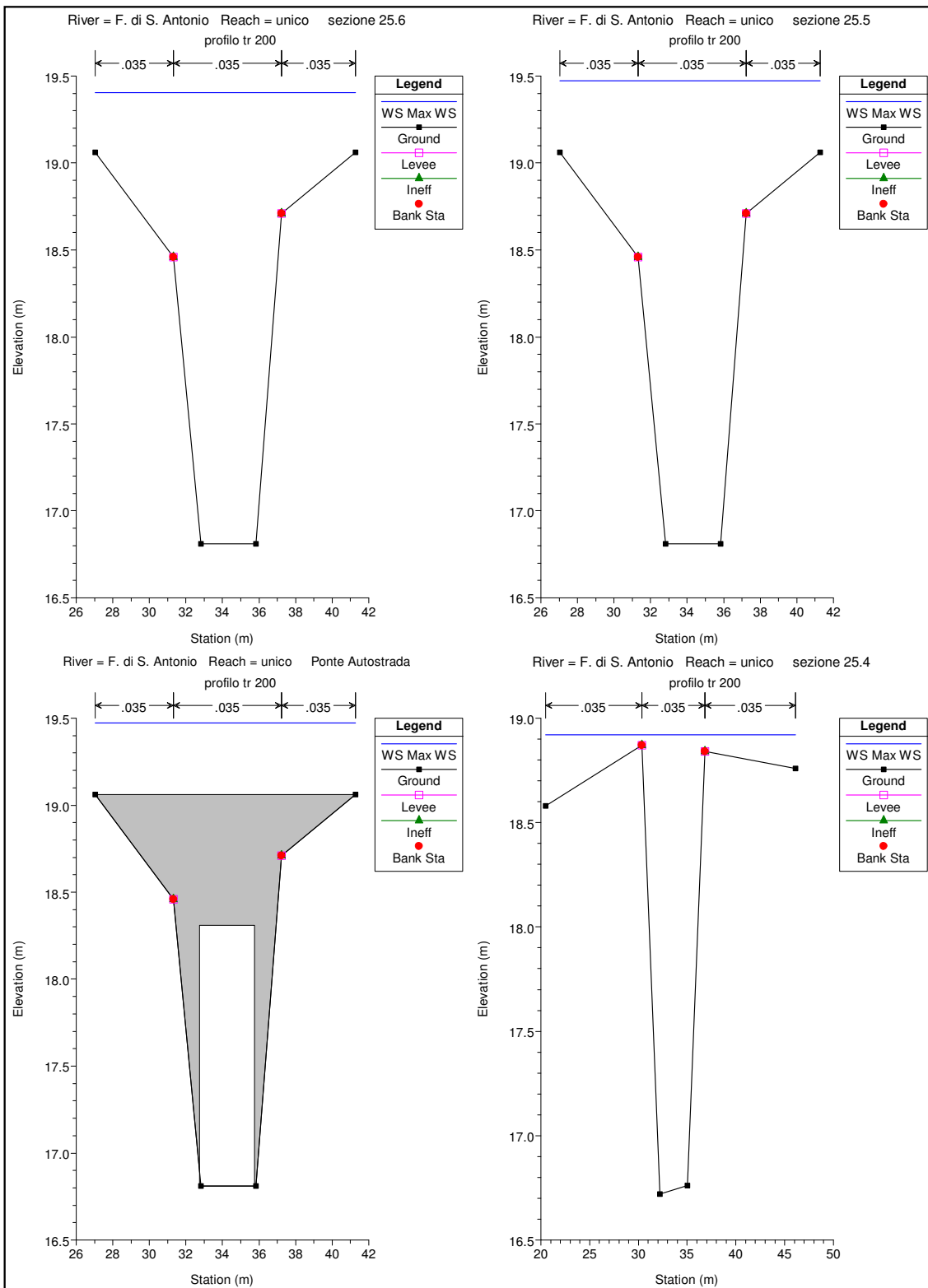


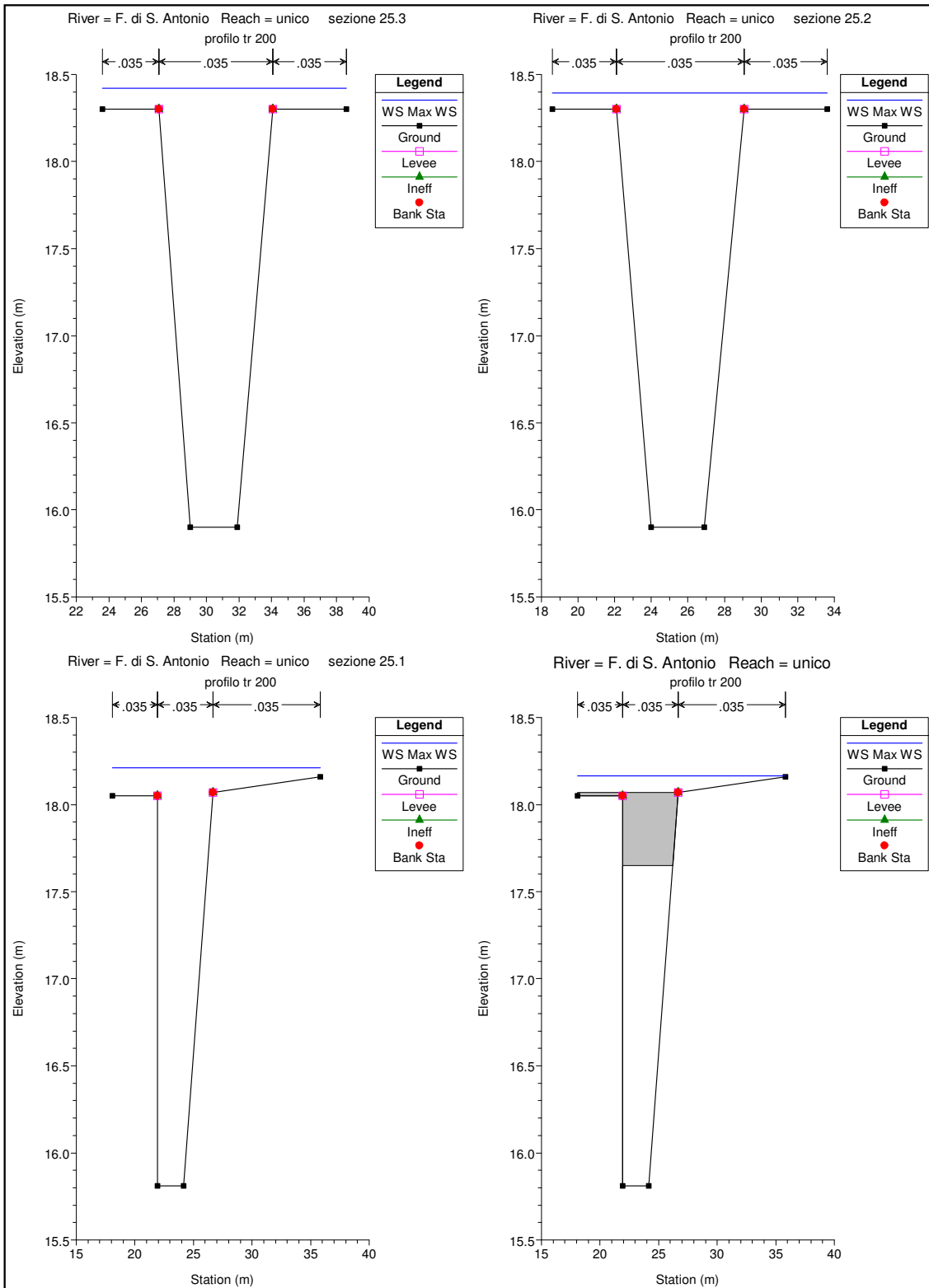


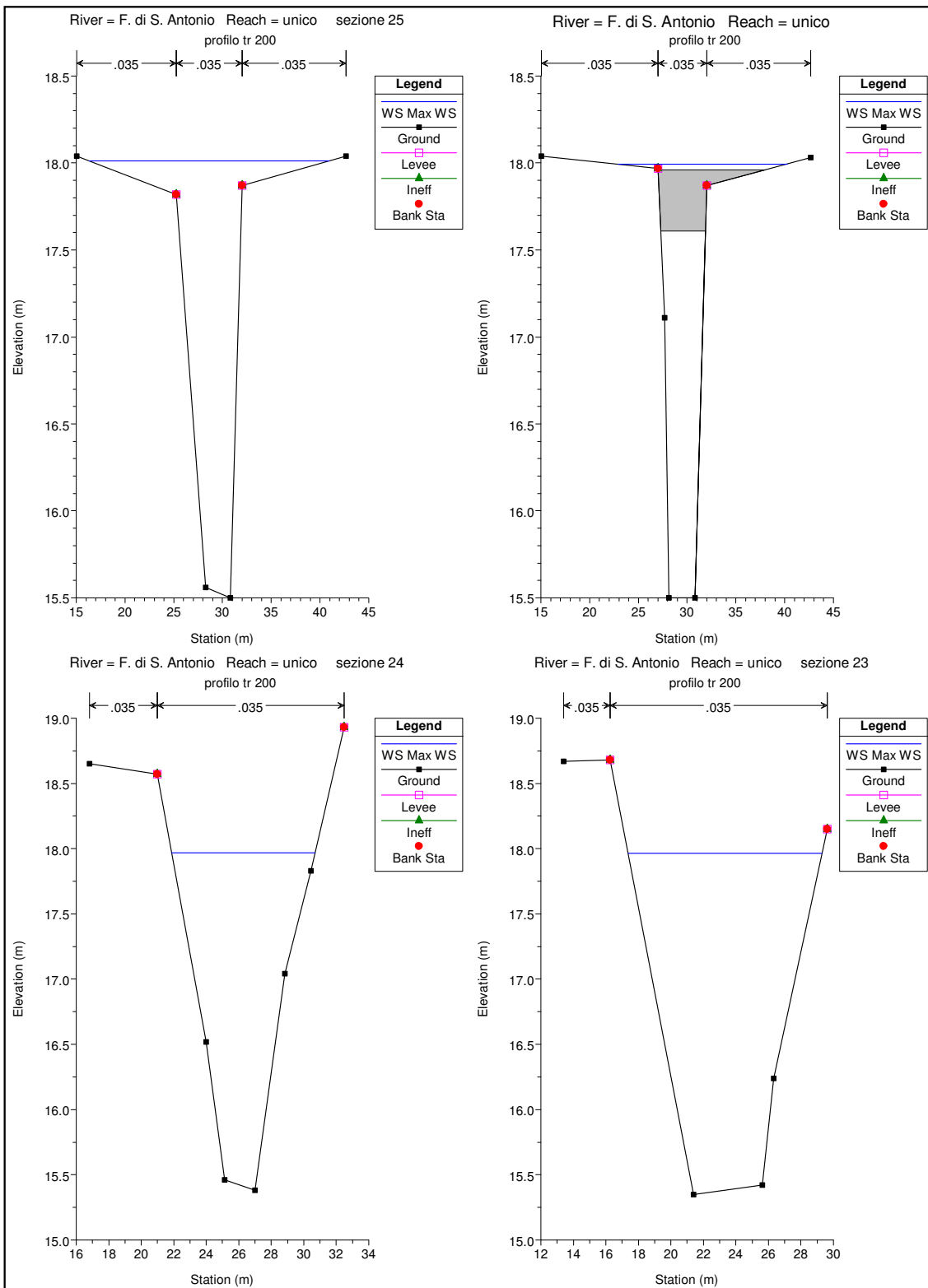


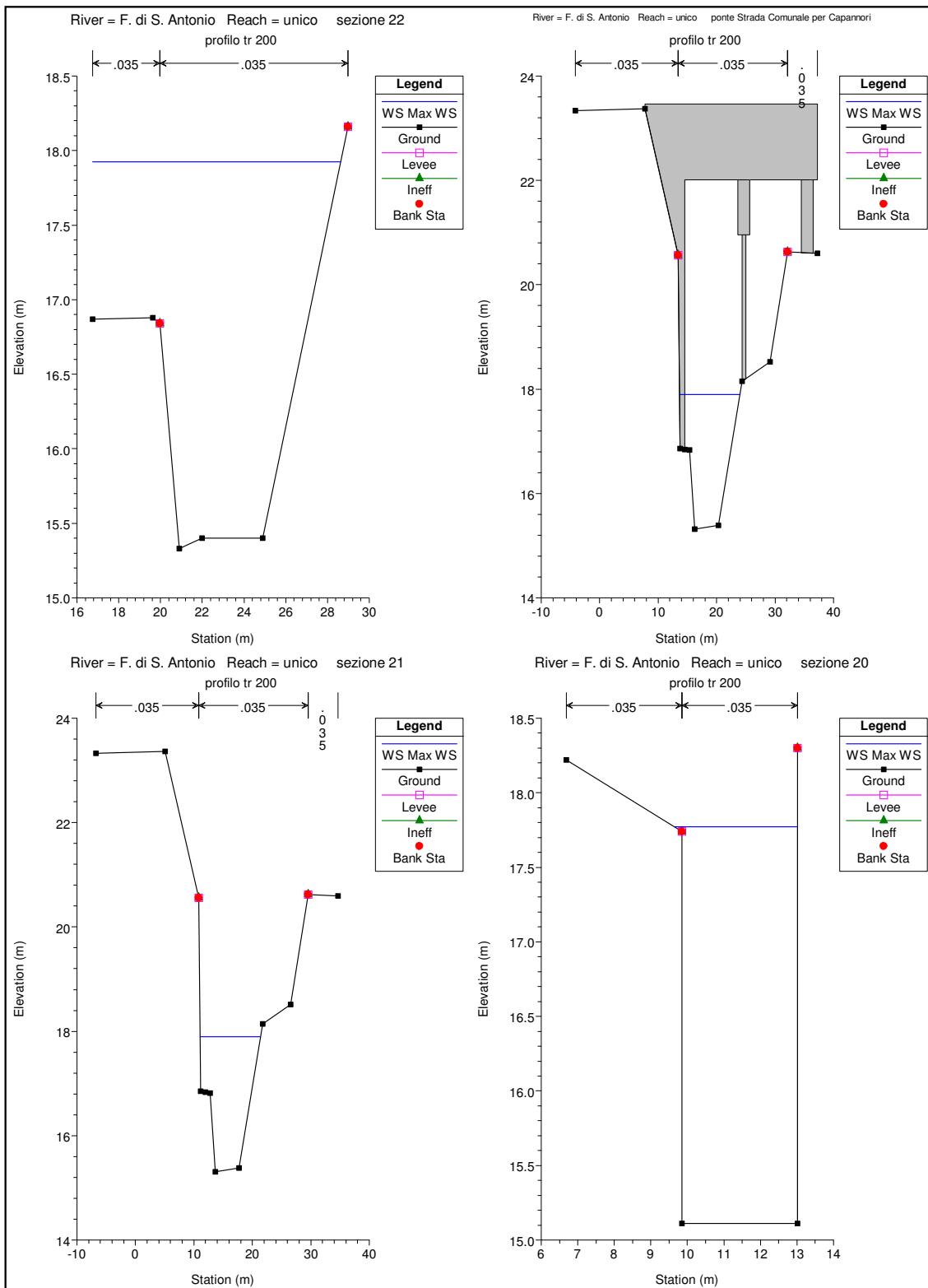
HEC-RAS Plan: Plan 22 River: F. di S. Antonio Reach: unico Profile: Max WS

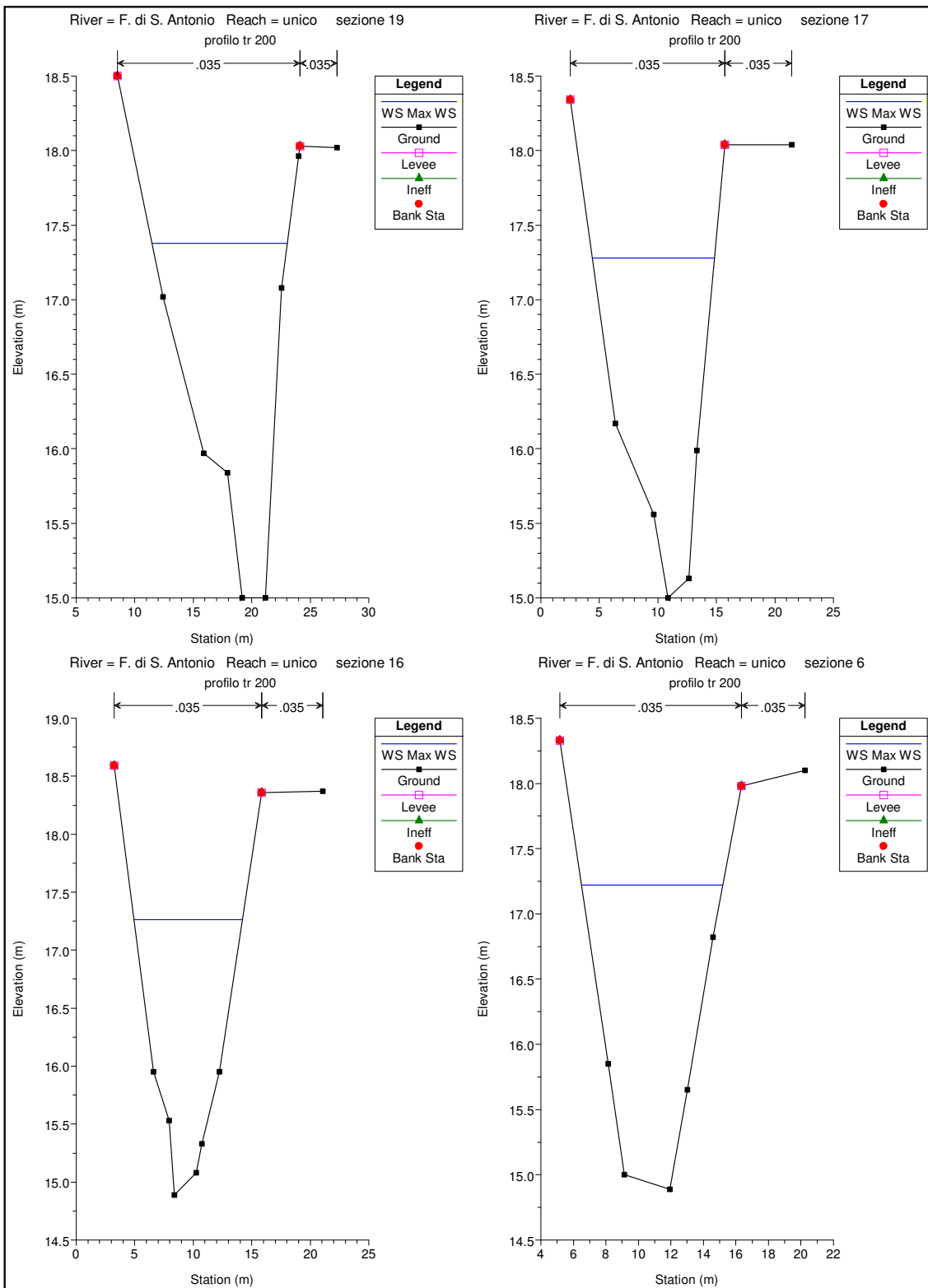
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	25.6	Max WS	21.93	16.81	19.40		19.50	0.001307	1.46	17.60	14.23	0.32
unico	25.59	Max WS	21.93	16.81	19.40		19.50	0.001312	1.46	17.58	14.23	0.32
unico	25.58	Lat Struct										
unico	25.57	Lat Struct										
unico	25.52	Max WS	15.10	16.81	19.48		19.52	0.000534	0.95	18.63	14.23	0.20
unico	25.519	Max WS	15.10	16.81	19.47		19.52	0.000536	0.95	18.60	14.23	0.20
unico	25.51	Culvert										
unico	25.501	Max WS	0.05	16.81	19.01		19.01	0.000000	0.00	12.01	13.29	0.00
unico	25.5	Max WS	0.06	16.81	19.01		19.01	0.000000	0.01	12.01	13.29	0.00
unico	25.42	Lat Struct										
unico	25.41	Lat Struct										
unico	25.4	Max WS	0.07	16.72	18.92		18.92	0.000000	0.01	13.31	25.64	0.00
unico	25.3	Max WS	16.72	15.90	18.42		18.51	0.001339	1.30	13.69	15.01	0.31
unico	25.24	Max WS	16.72	15.90	18.42	17.21	18.50	0.001348	1.30	13.64	15.01	0.31
unico	25.23	Bridge										
unico	25.22	Max WS	16.72	15.90	18.41		18.49	0.001388	1.31	13.44	15.01	0.31
unico	25.21	Max WS	16.72	15.90	18.40		18.48	0.001419	1.32	13.29	15.01	0.31
unico	25.209	Lat Struct										
unico	25.208	Lat Struct										
unico	25.2	Max WS	12.06	15.82	18.26		18.31	0.001004	1.05	11.57	11.59	0.27
unico	25.15	Max WS	10.12	15.81	18.21		18.28	0.001397	1.13	10.10	17.76	0.27
unico	25.14	Max WS	10.12	15.81	18.21	16.97	18.27	0.001403	1.13	10.08	17.76	0.27
unico	25.13	Bridge										
unico	25.12	Max WS	9.60	15.81	18.07		18.15	0.001781	1.21	8.01	8.83	0.30
unico	25.11	Max WS	9.60	15.81	18.07		18.14	0.001803	1.22	7.95	8.61	0.30
unico	25.102	Lat Struct										
unico	25.101	Lat Struct										
unico	25.1	Max WS	9.10	15.71	18.00		18.06	0.001520	1.13	8.24	11.18	0.28
unico	25.08	Max WS	8.74	15.61	18.01		18.03	0.000404	0.68	13.47	11.09	0.17
unico	25.07	Max WS	5.55	15.50	18.01		18.02	0.000175	0.46	13.40	24.65	0.11
unico	25.06	Max WS	5.55	15.50	18.00		18.02	0.000350	0.59	10.01	19.29	0.14
unico	25.05	Max WS	5.55	15.50	18.00	16.23	18.02	0.000350	0.59	10.00	19.14	0.14
unico	25.04	Bridge										
unico	25.03	Max WS	5.55	15.50	17.99		18.01	0.000361	0.59	9.75	15.80	0.14
unico	25.02	Max WS	5.55	15.50	17.98		18.00	0.000368	0.60	9.62	13.70	0.14
unico	25.0191	Lat Struct										
unico	25.019	Lat Struct										
unico	25.01	Max WS	4.21	15.47	17.98		17.98	0.000048	0.25	16.50	9.36	0.06
unico	25	Max WS	4.21	15.44	17.97		17.98	0.000071	0.29	14.51	9.29	0.07
unico	24	Max WS	4.20	15.38	17.97		17.97	0.000106	0.33	12.66	8.83	0.09
unico	23	Max WS	4.20	15.35	17.96		17.97	0.000031	0.21	20.23	11.94	0.05
unico	22	Max WS	11.83	15.33	17.92		17.94	0.000262	0.63	19.90	11.86	0.15
unico	21.2	Max WS	11.83	15.32	17.90		17.92	0.000321	0.65	18.32	10.36	0.15
unico	21.19	Max WS	11.83	15.32	17.90	16.25	17.92	0.000321	0.65	18.32	10.36	0.15
unico	21.1	Bridge										
unico	21.05	Max WS	11.83	15.32	17.90		17.92	0.000323	0.65	18.26	10.35	0.16
unico	21.04	Max WS	11.83	15.32	17.89		17.92	0.000324	0.65	18.25	10.35	0.16
unico	21	Max WS	11.82	15.31	17.89		17.92	0.000319	0.64	18.35	10.36	0.15
unico	20.1	Lat Struct										
unico	20	Max WS	11.81	15.11	17.77		17.87	0.002432	1.40	8.41	3.37	0.27
unico	19.39	Max WS	11.81	15.11	17.77		17.87	0.002438	1.41	8.41	3.35	0.28
unico	19.3	Culvert										
unico	19.211	Max WS	11.81	15.01	17.43		17.55	0.003114	1.55	7.64	3.16	0.32
unico	19.21	Max WS	11.81	15.01	17.42		17.54	0.003149	1.55	7.60	3.16	0.32
unico	19.2	Max WS	11.81	15.01	17.41		17.54	0.003160	1.56	7.59	3.16	0.32
unico	19.1	Max WS	11.81	15.01	17.32		17.46	0.003484	1.62	7.31	3.16	0.34
unico	19	Max WS	11.81	15.00	17.38		17.41	0.000598	0.77	15.33	11.55	0.21
unico	18.9	Lat Struct										
unico	17.5	Max WS	11.81	15.00	17.28		17.32	0.000651	0.83	14.27	10.43	0.23
unico	16.5	Max WS	11.81	14.89	17.27		17.31	0.000769	0.90	13.07	9.28	0.24
unico	6.5	Max WS	11.81	14.89	17.22		17.26	0.000722	0.90	13.08	8.69	0.23

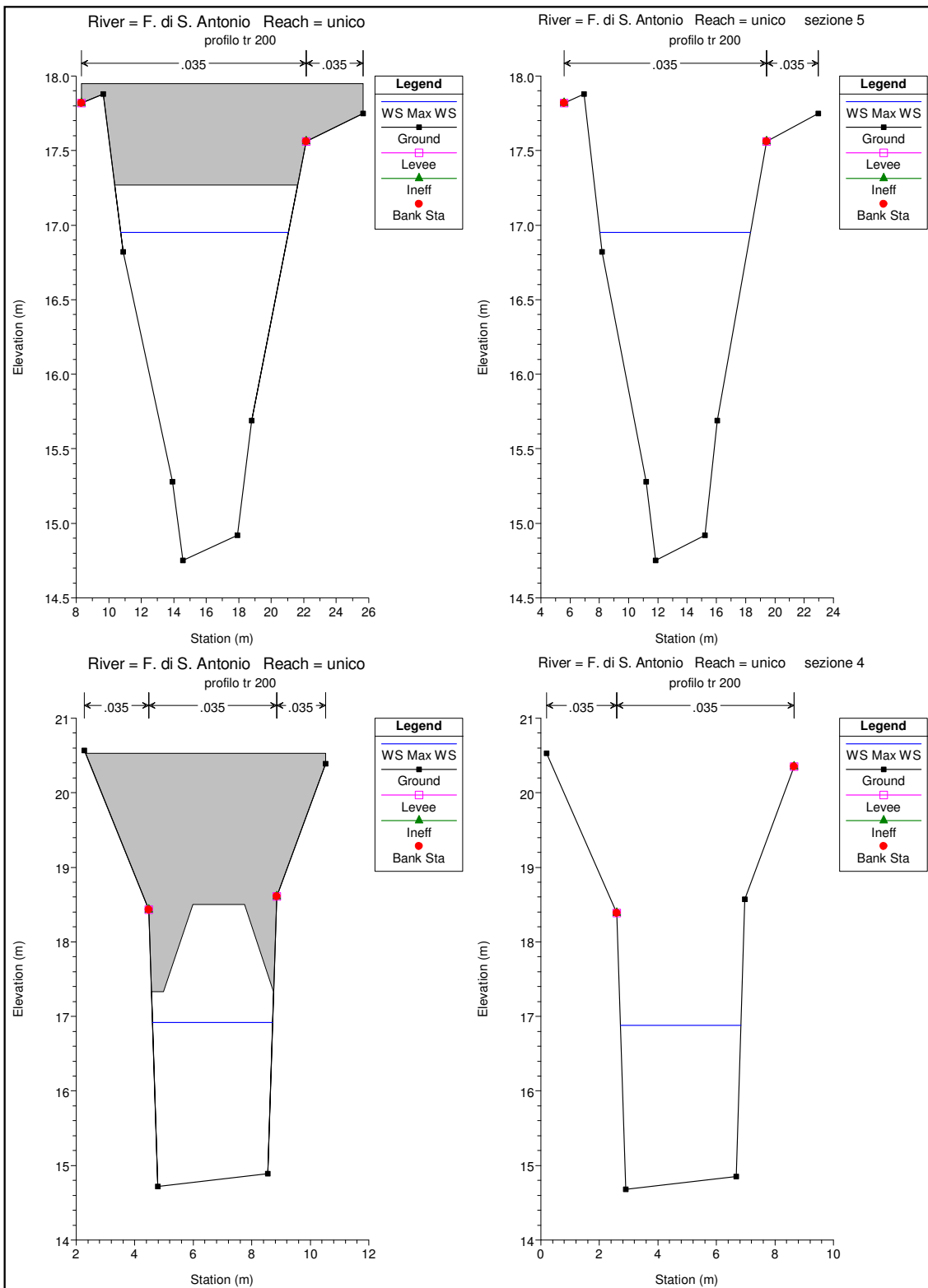


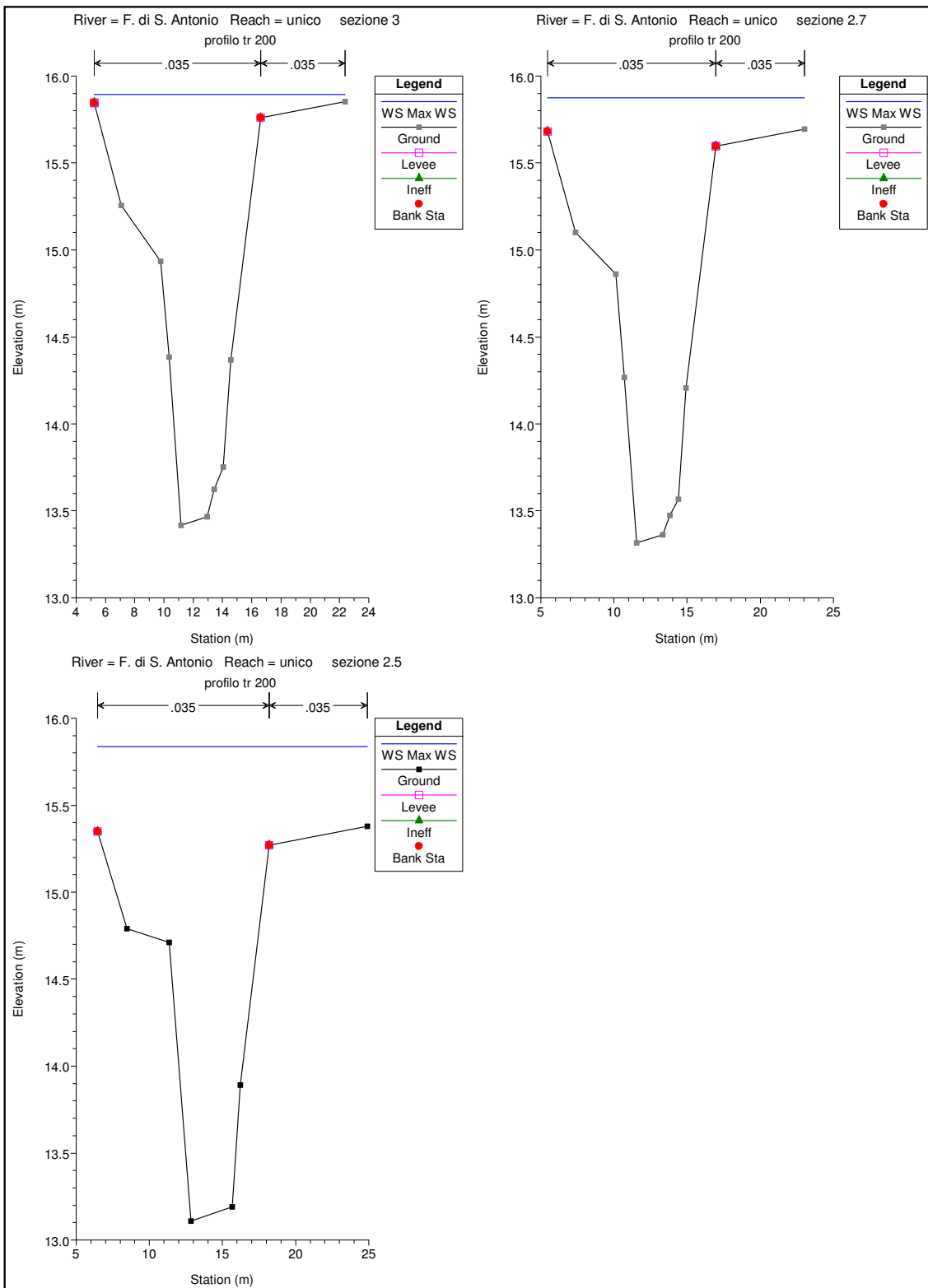








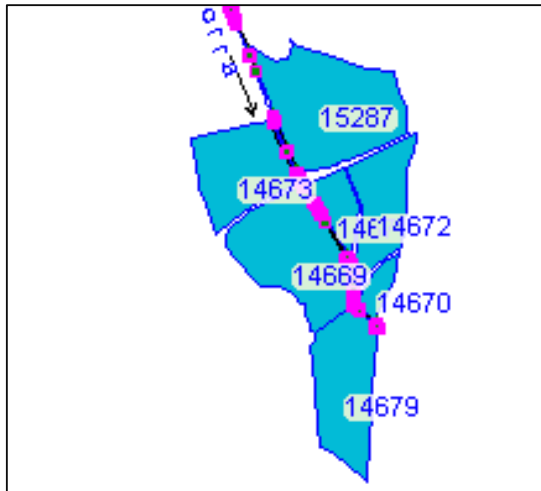






STORAGE AREA

- 1- Torrente Borra
- 2- Torrente Nievole
- 3- Torrente Salsero
- 4- Rio Sant'Antonio

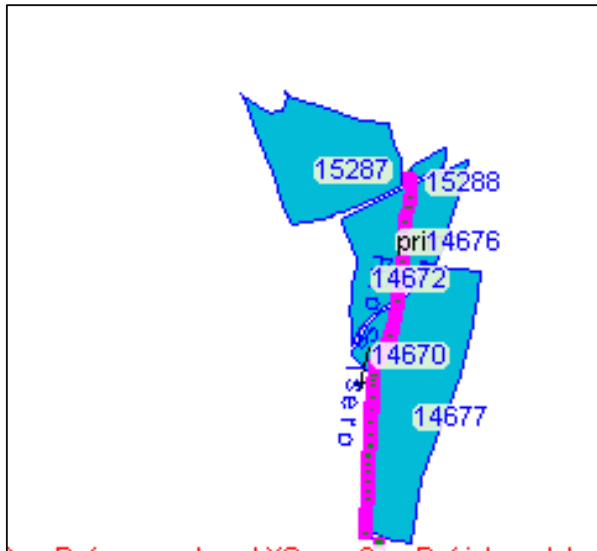


Storage area Torrente Borra

Volumi storage area Tr 200 anni

HEC-RAS Plan: Plan 28 Profile: Max WS

Storage Area	Profile	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
14669	Max WS	16.93	15.64	19.36	229.12	113.53
14670	Max WS	16.50	15.64	0.37	78.21	28.35
14671	Max WS	19.83	16.30	24.40	98.83	169.11
14672	Max WS	16.40	15.92	23.38	0.74	0.20
14673	Max WS	16.95	16.95	0.00	0.25	0.00
14679	Max WS	14.31	14.31	0.00	0.13	0.00
15287	Max WS	19.94	18.00	43.32	250.34	171.57

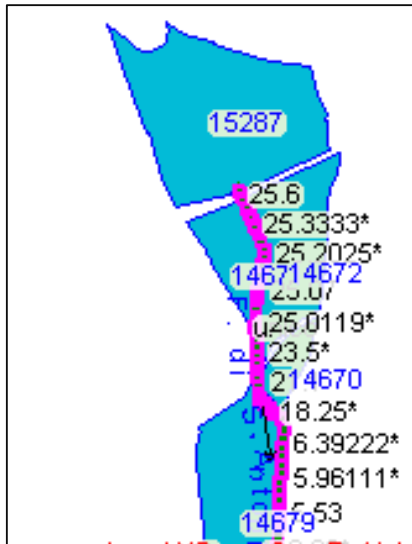


Storage area Torrente Salsero

Volumi storage area Tr 200 anni

HEC-RAS Plan: Plan 12 Profile: Max WS

Storage Area	Profile	W.S. Elev (m)	SA Min EI (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
14670	Max WS	16.68	15.64	9.81	229.12	55.01
14672	Max WS	17.11	15.92	7.31	54.10	25.39
14676	Max WS	18.10	16.60	15.28	119.17	47.50
14677	Max WS	16.43	15.30	39.24	525.17	225.11
15287	Max WS	18.00	18.00	0.00	0.42	0.00
15288	Max WS	18.88	18.40	1.13	10.26	1.83

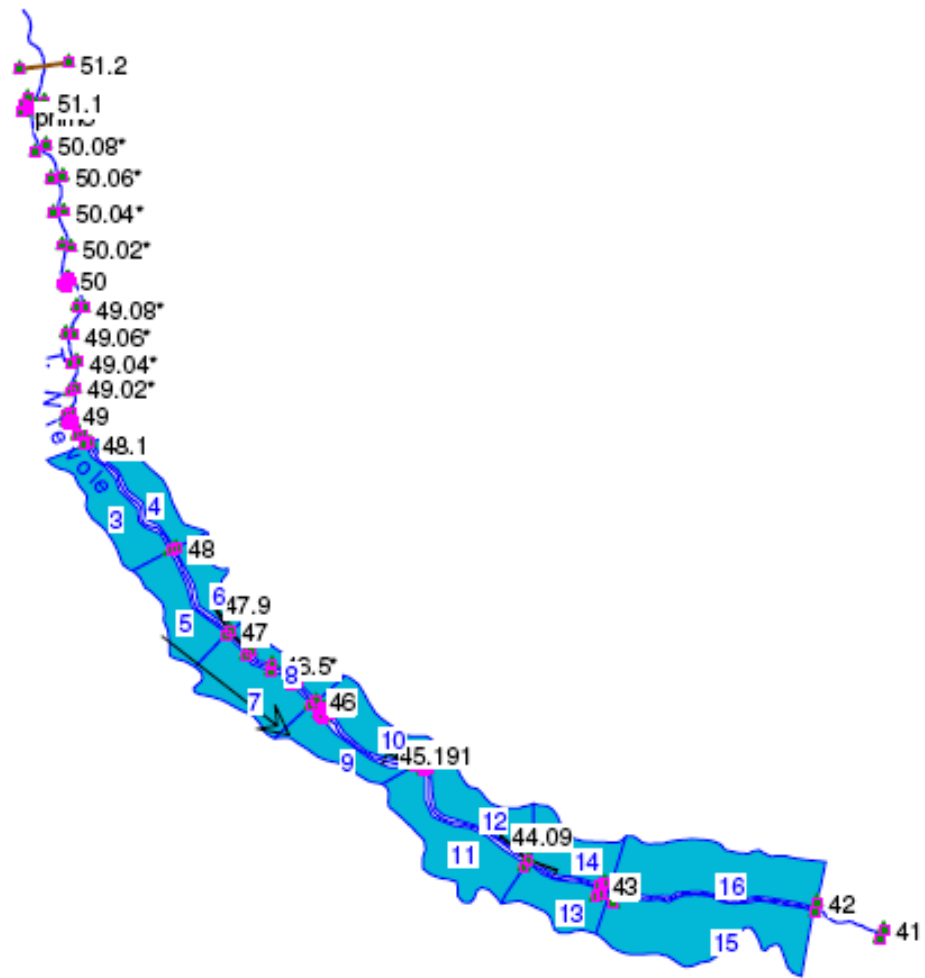


Storage area Rio Sant' Antonio

Volumi storage area Tr 200 anni

HEC-RAS Plan: Plan 22 Profile: Max WS

Storage Area	Profile	W.S. Elev (m)	SA Min EI (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
14670	Max WS	16.50	15.64	0.01	78.21	28.40
14671	Max WS	16.65	16.30	6.73	0.17	0.06
14672	Max WS	17.96	15.92	9.12	176.99	138.72
14679	Max WS	15.88	14.31	3.18	27.86	12.64
15287	Max WS	19.26	18.00	6.78	116.79	40.67



Storage area Torrente Nievole

Volumi storage area Tr 200 anni

HEC-RAS Plan: Plan 16 Profile: Max WS

Storage Area	Profile	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
10	Max WS	98.44	98.00	29.45	1.78	0.78
11	Max WS	85.67	85.45	59.72	1.15	0.25
12	Max WS	86.34	85.54	79.88	0.39	0.31
14	Max WS	81.43	79.23	103.54	5.58	4.99
8	Max WS	108.27	106.09	85.22	3.08	3.79
9	Max WS	98.34	98.00	12.92	0.43	0.15