



Provincia di Arezzo
COMUNE DI FOIANO DELLA CHIANA

REGOLAMENTO URBANISTICO

RELAZIONE IDROLOGICO-IDRAULICA ALLEGATI – FASCICOLO 2



Gennaio 2013

Sindaco – Ass. all'urbanistica:
Franco Parigi

Resp. Del Procedimento:
Arch. Mario Cherri

Garante della comunicazione:
Ing. Nicola Oliverio

Progetto: Arch. Gian Franco Di Pietro
Collaboratori. Arch. Donatella Donatini
Arch. Teresa Gobbò
Arch. Maria Luisa Sogli

Studi Geologici. Geol. Riccardo Ancillotti
Geol. Fausto Capacci
Geol. Renzo Falaschi

Studi Idraulici: Ing. Marco Benini

Supporto al Sistema Informativo Territoriale: Tommaso Di Pietro – Ar-Tel S.p.A. ➤

PREMESSA

Nelle pagine del presente fascicolo (Allegati alla Relazione Idrologico-Idraulica, Fascicolo 2) vengono riportati i risultati delle simulazioni idrauliche effettuate con il software HEC-RAS 4.1.0 lungo i seguenti corsi d'acqua:

- Rio di Quarata
- Borro della Pace
- Fosso Voltura
- Fosso Acquastrina
- Fosso Arsicci e Castellina
- Rio di Viaggiolo

Le simulazioni sono state condotte per eventi di piena caratterizzati dal periodo di ritorno $Tr=20, 30$ e 200 anni.

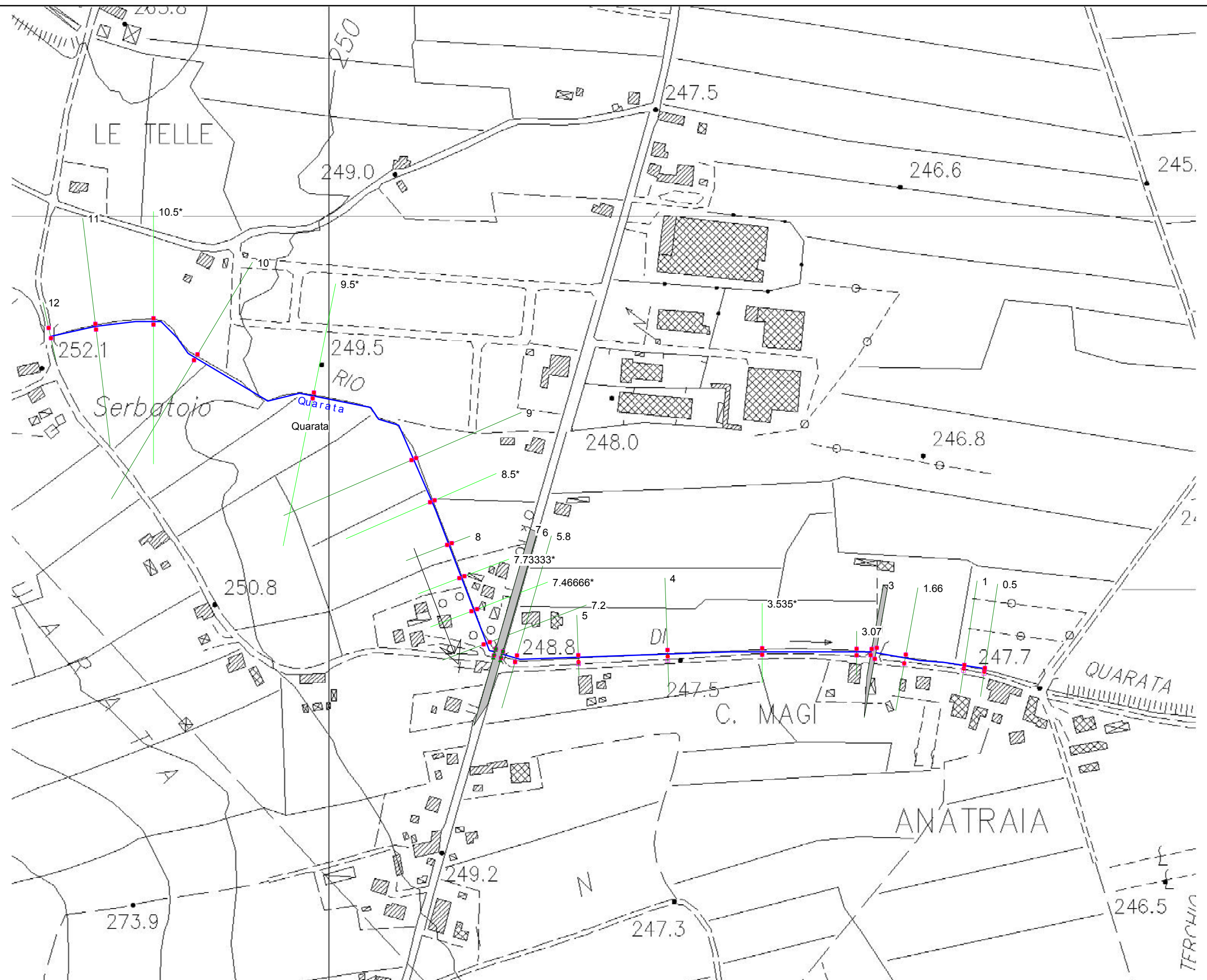
Rio di Quarata

Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

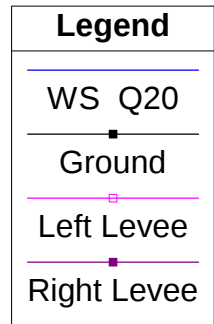
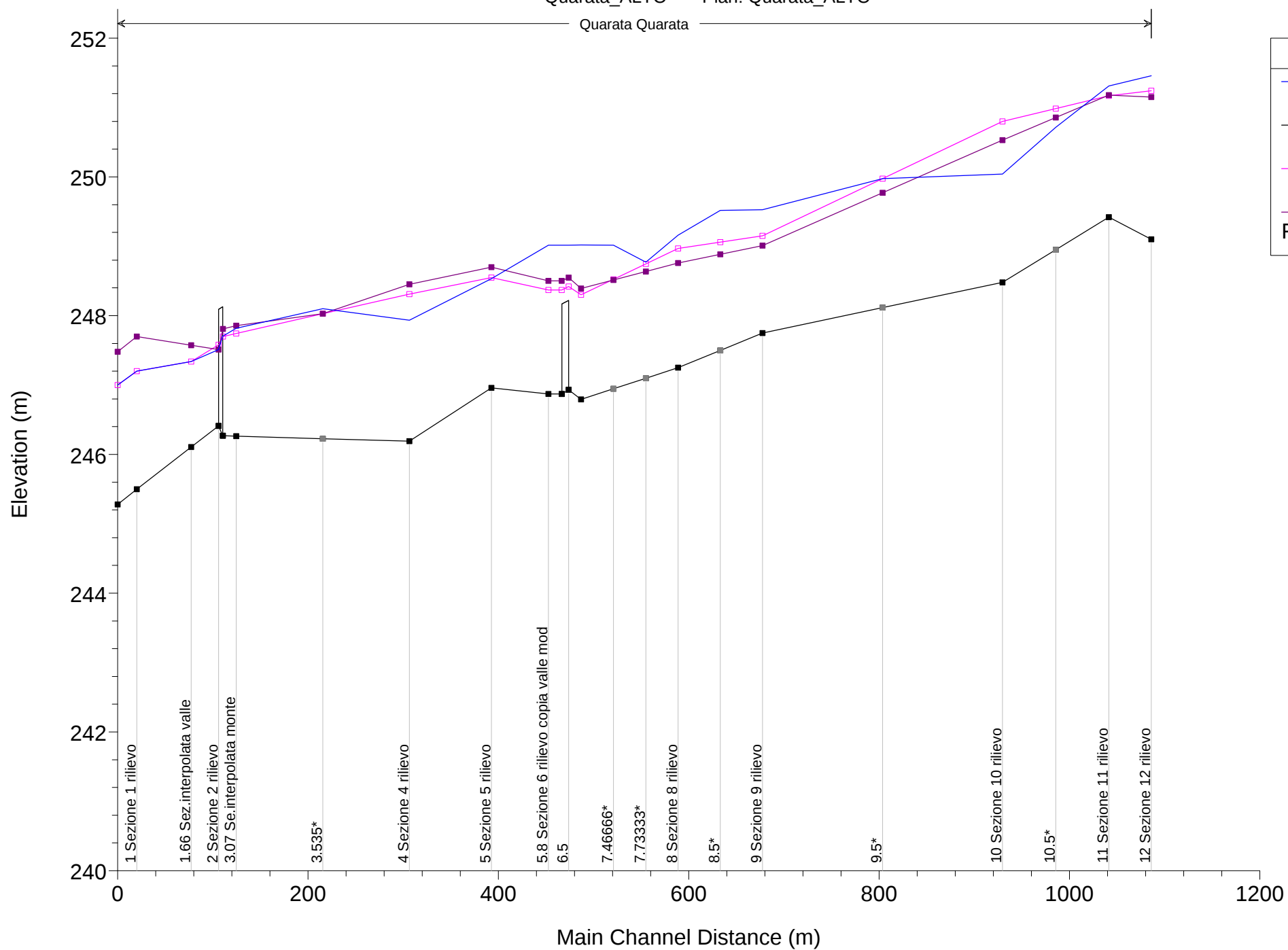
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni



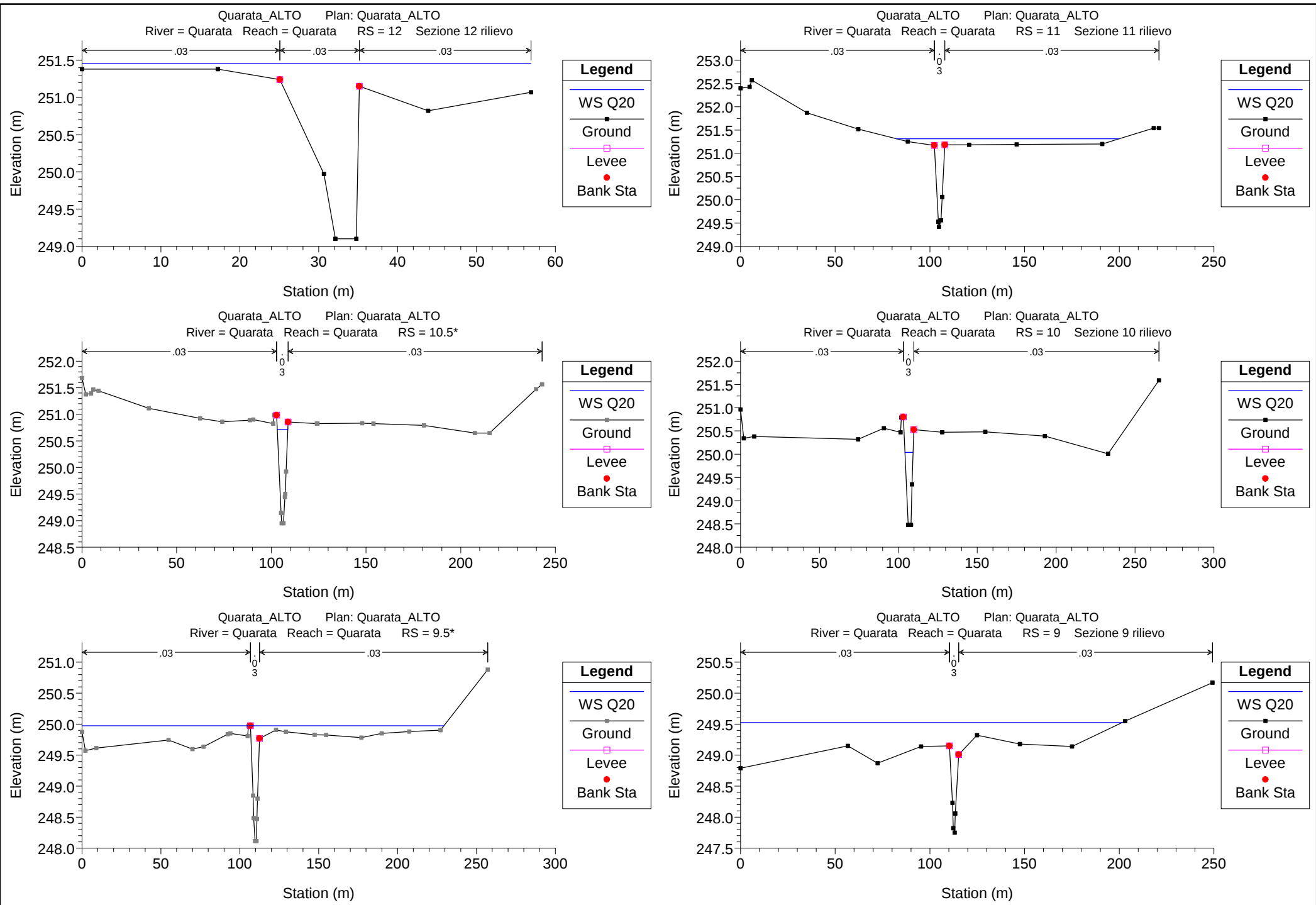
Quarata_ALTO Plan: Quarata_ALTO

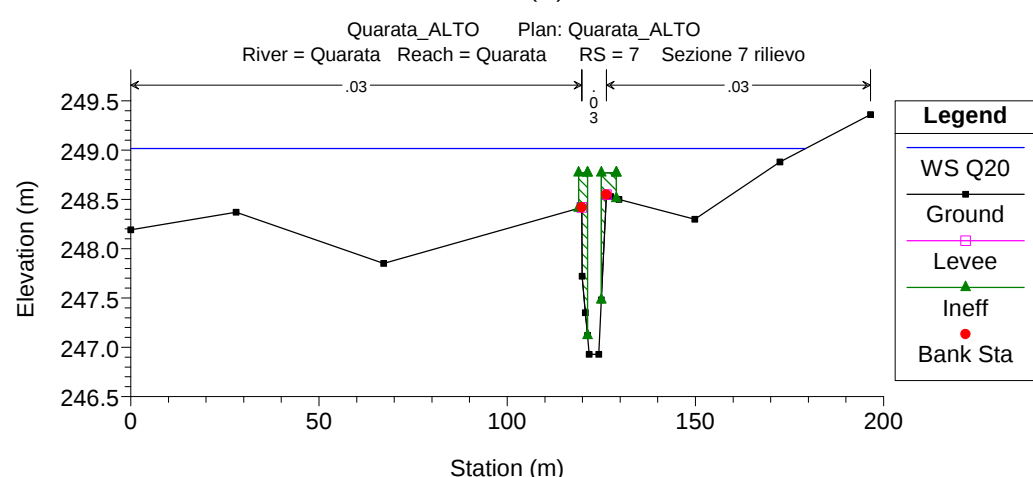
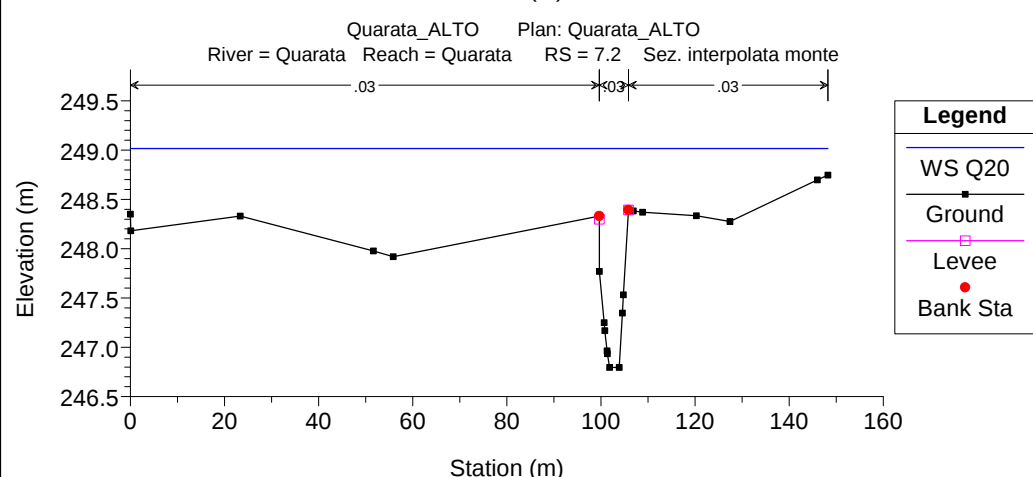
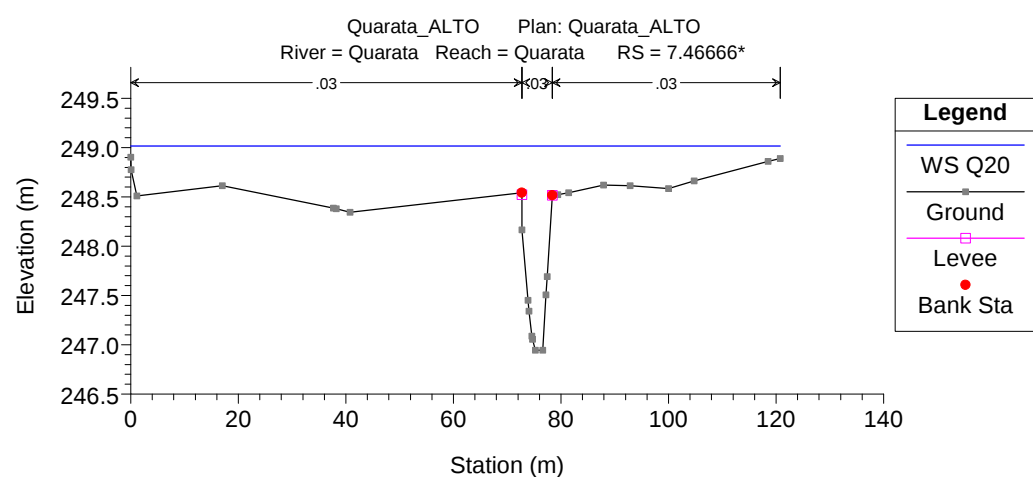
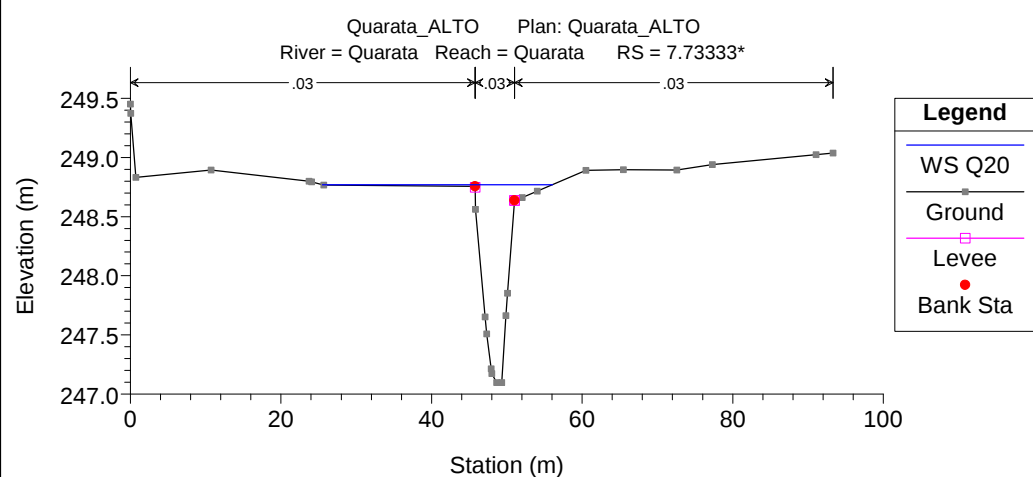
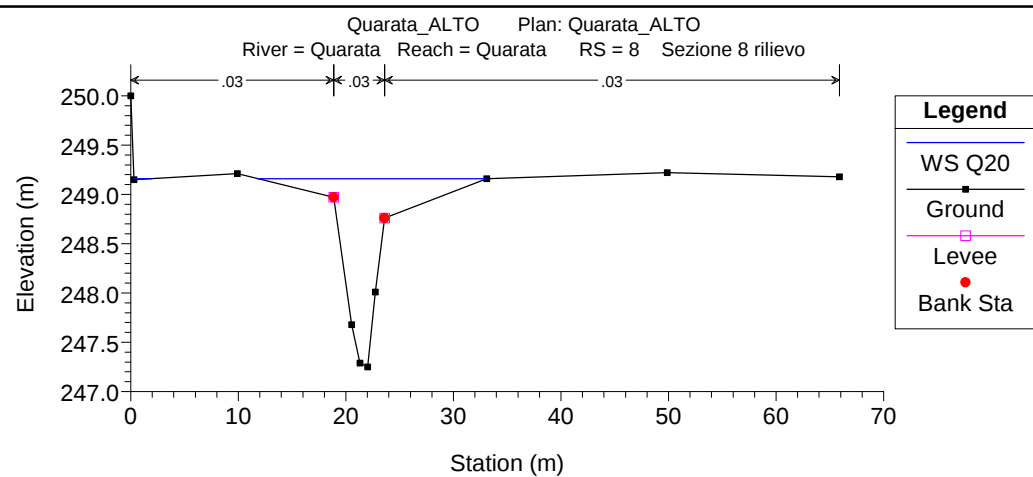
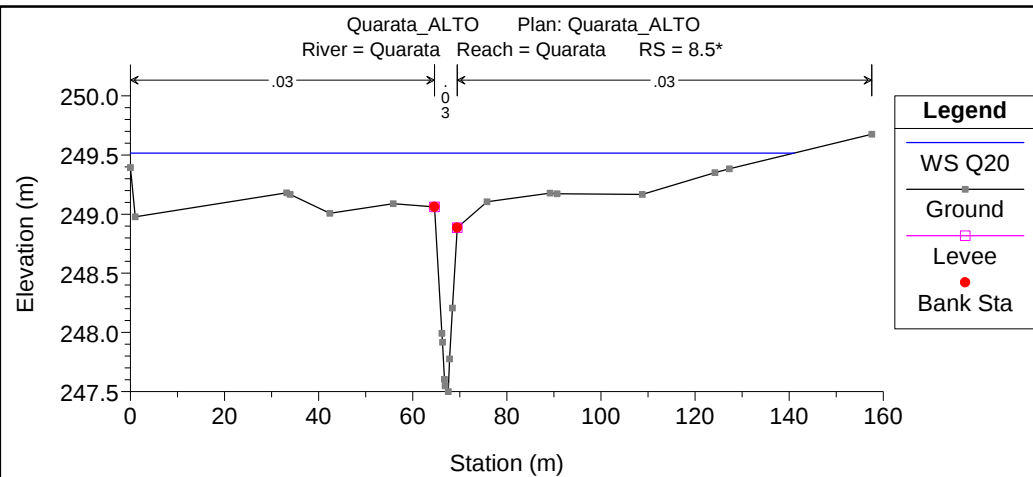
Quarata Quarata

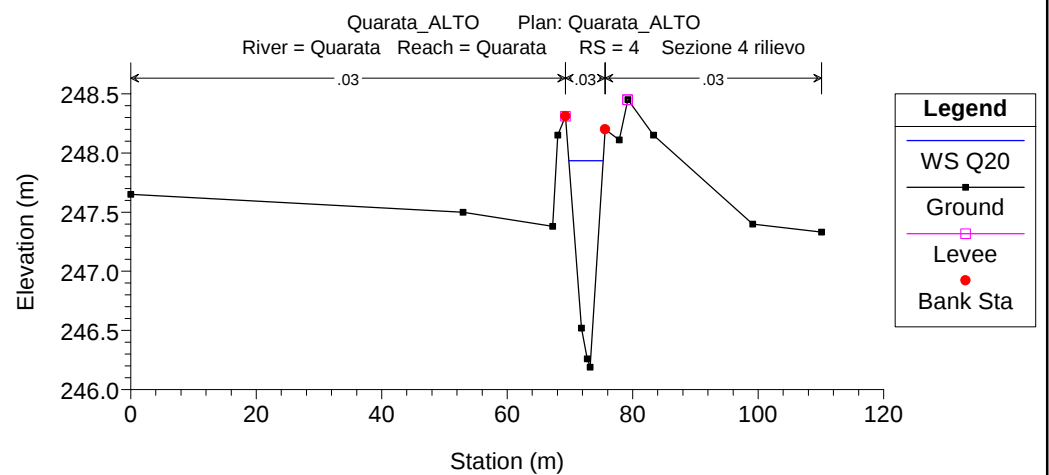
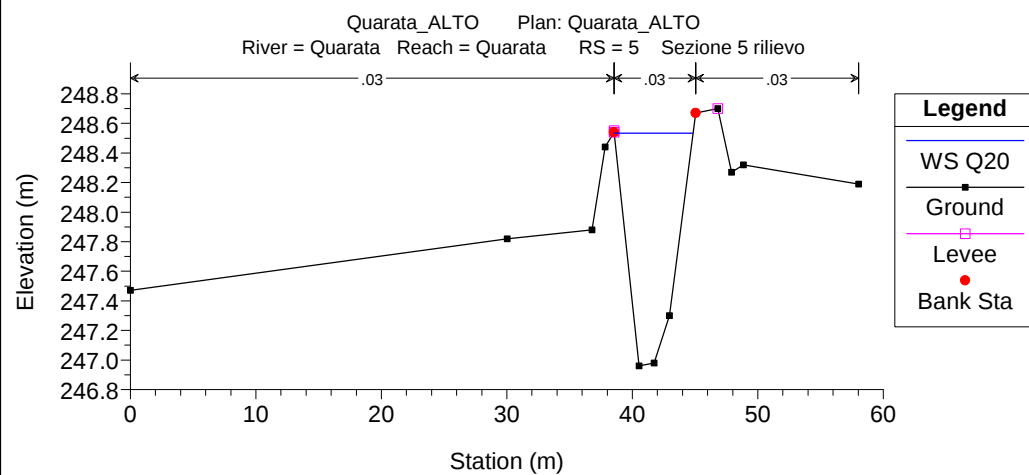
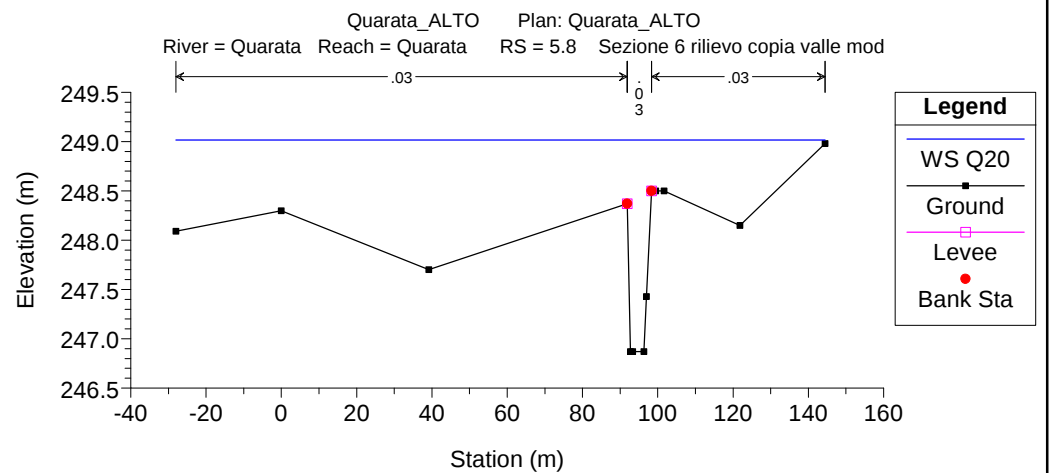
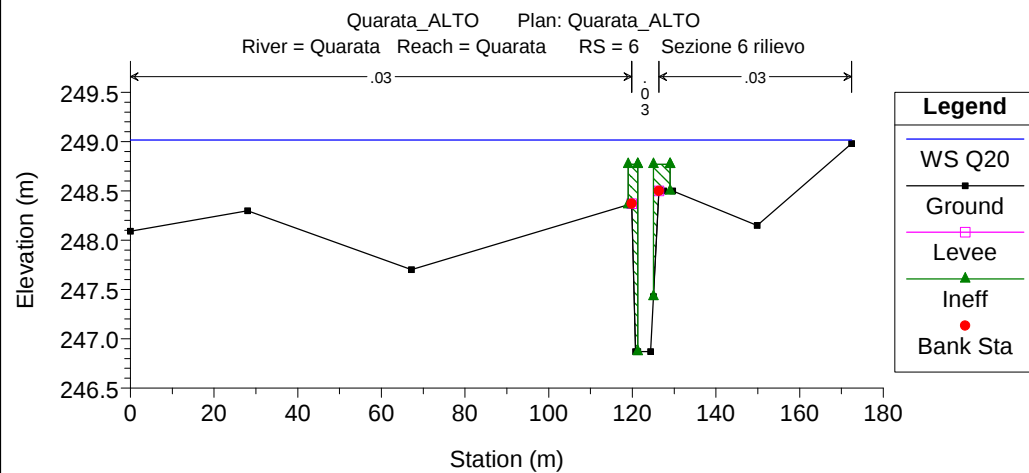
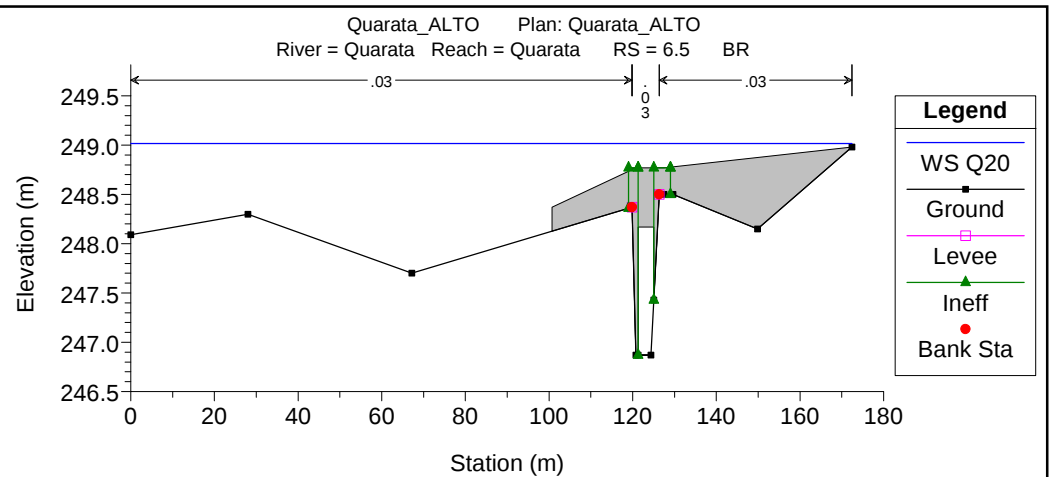
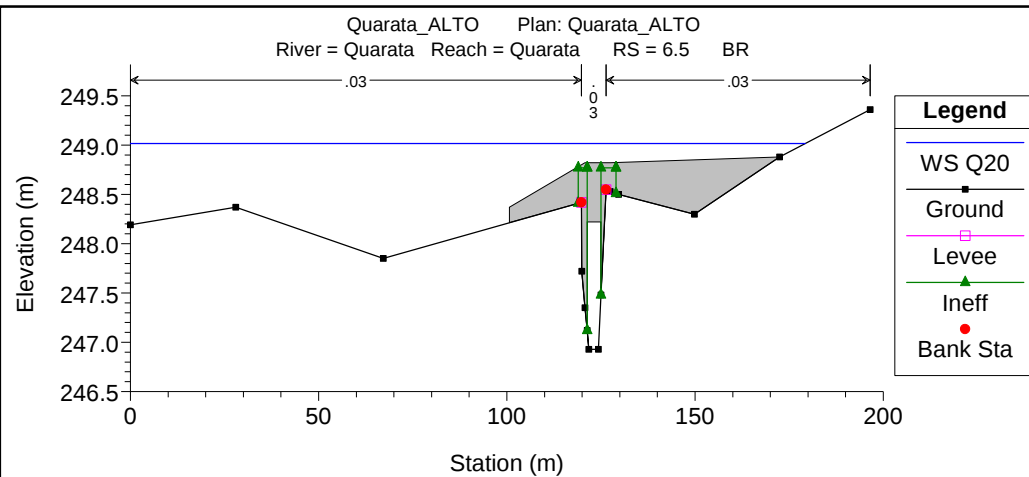


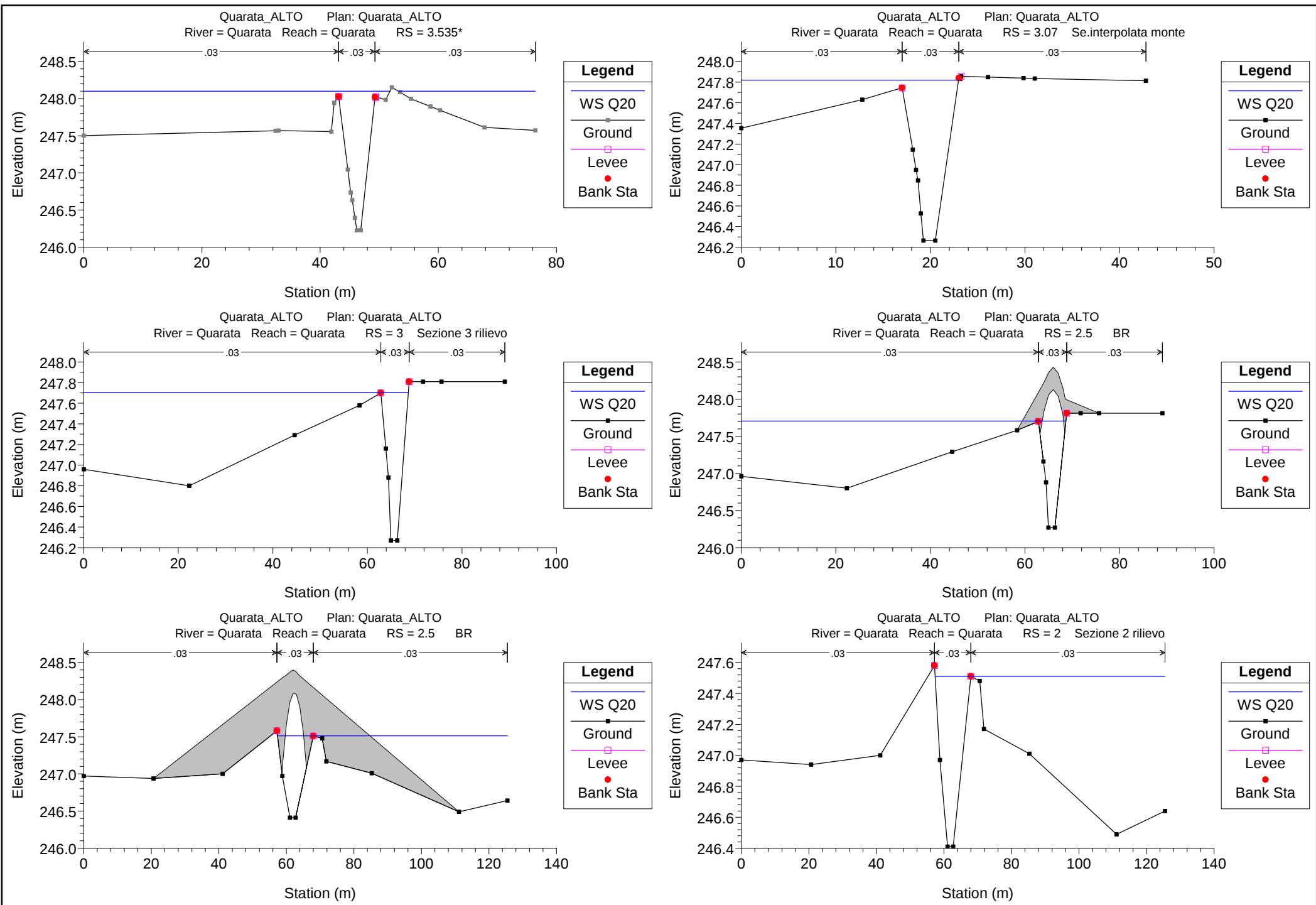
HEC-RAS Plan: Quarata_ALTO River: Quarata Reach: Quarata Profile: Q20

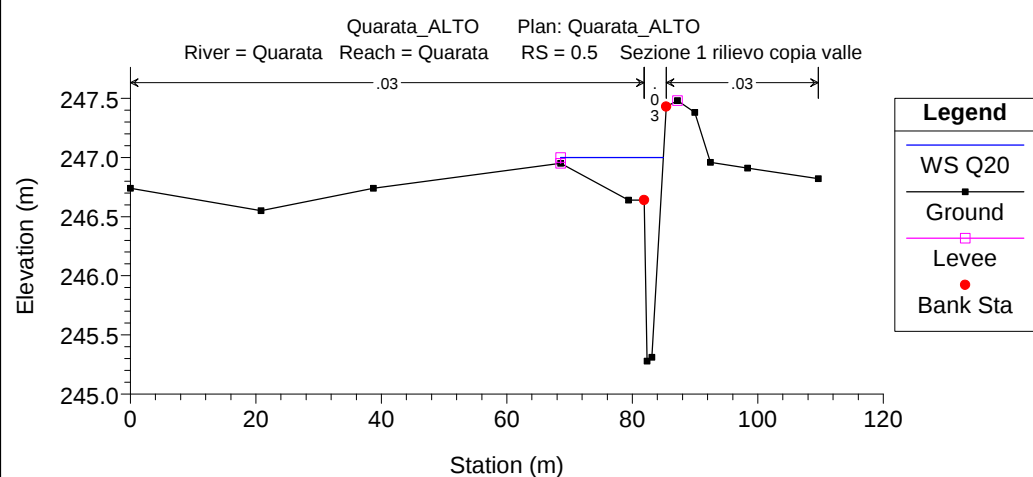
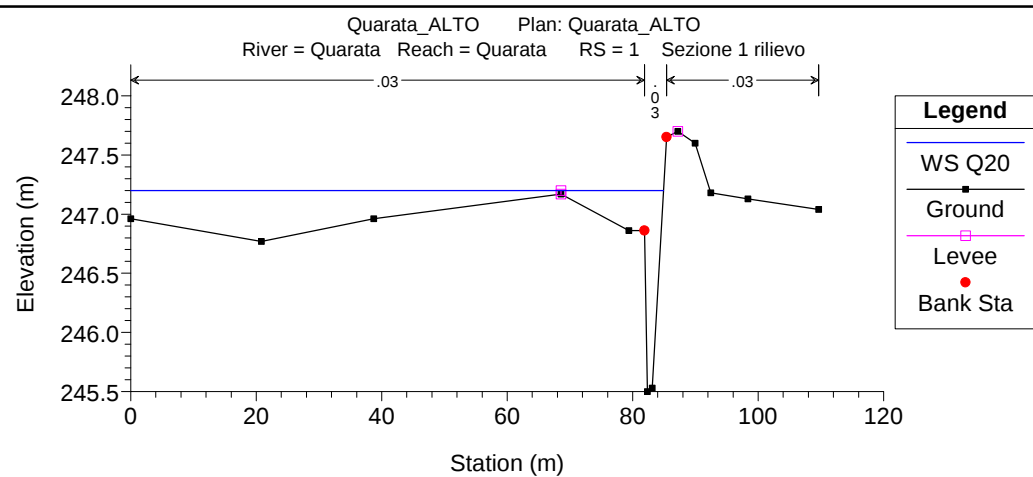
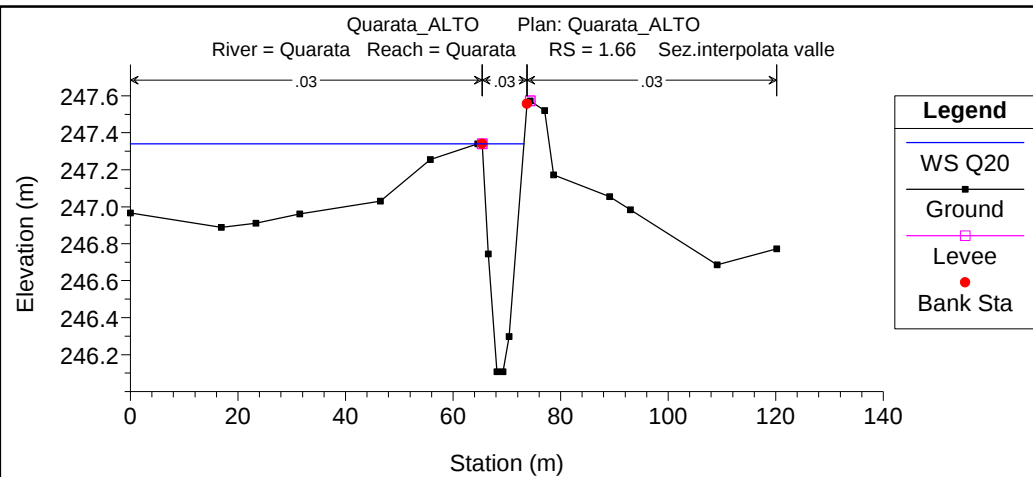
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quarata	12	Q20	17.00	249.10	251.46	250.48	251.48	0.000485	0.82	27.56	56.91	0.22
Quarata	11	Q20	17.00	249.42	251.31	251.11	251.43	0.003034	1.81	18.81	117.65	0.53
Quarata	10.5*	Q20	17.00	248.95	250.71	250.61	251.13	0.008767	2.86	5.94	5.57	0.88
Quarata	10	Q20	17.00	248.48	250.04	250.04	250.56	0.011702	3.19	5.34	5.14	1.00
Quarata	9.5*	Q20	17.00	248.12	249.98	249.98	249.99	0.000530	0.73	50.48	229.41	0.22
Quarata	9	Q20	17.00	247.75	249.53	249.16	249.53	0.000091	0.31	88.05	201.59	0.09
Quarata	8.5*	Q20	17.00	247.50	249.52	249.26	249.52	0.000247	0.57	55.49	141.05	0.16
Quarata	8	Q20	17.00	247.25	249.16	249.16	249.46	0.006098	2.58	8.37	22.99	0.74
Quarata	7.73333*	Q20	17.00	247.10	248.77	248.98	249.20	0.008892	2.92	6.24	30.55	0.89
Quarata	7.46666*	Q20	17.00	246.95	249.02	248.38	249.02	0.000138	0.47	62.59	120.77	0.12
Quarata	7.2	Q20	17.00	246.79	249.02	248.10	249.02	0.000022	0.20	122.18	148.21	0.05
Quarata	7	Q20	17.00	246.93	249.02	248.28	249.02	0.000020	0.15	134.13	179.32	0.04
Quarata	6.5		Bridge									
Quarata	6	Q20	17.00	246.87	249.02	248.21	249.02	0.000014	0.13	147.83	172.42	0.04
Quarata	5.8	Q20	17.00	246.87	249.02	248.06	249.02	0.000013	0.15	152.03	172.42	0.04
Quarata	5	Q20	17.00	246.96	248.53	248.42	248.90	0.007891	2.70	6.31	6.30	0.86
Quarata	4	Q20	17.00	246.19	247.94	247.94	248.43	0.011442	3.13	5.43	5.47	1.00
Quarata	3.535*	Q20	17.00	246.23	248.10	247.91	248.11	0.000378	0.62	38.86	75.07	0.19
Quarata	3.07	Q20	17.00	246.26	247.82	247.82	248.01	0.005815	2.18	10.22	22.97	0.73
Quarata	3	Q20	17.00	246.27	247.71	247.70	247.71	0.000291	0.46	42.02	68.66	0.16
Quarata	2.5		Bridge									
Quarata	2	Q20	17.00	246.41	247.51	247.51	247.52	0.000211	0.36	46.06	68.07	0.14
Quarata	1.66	Q20	17.00	246.11	247.34	247.34	247.37	0.001304	0.96	26.37	73.19	0.35
Quarata	1	Q20	17.00	245.50	247.20	247.20	247.24	0.002465	1.30	23.12	84.92	0.40
Quarata	0.5	Q20	17.00	245.28	247.00	247.00	247.03	0.001997	1.18	24.81	84.94	0.36





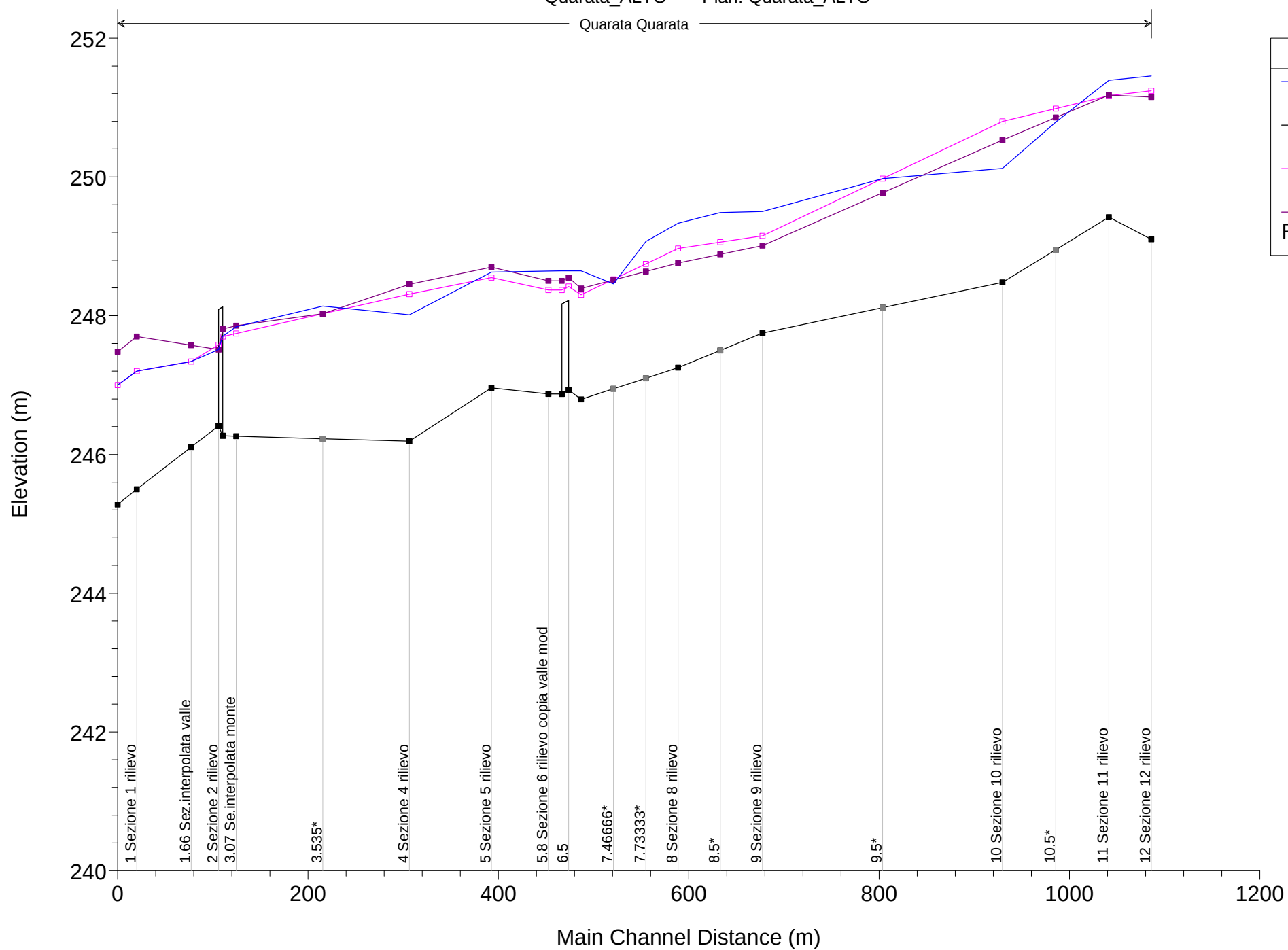






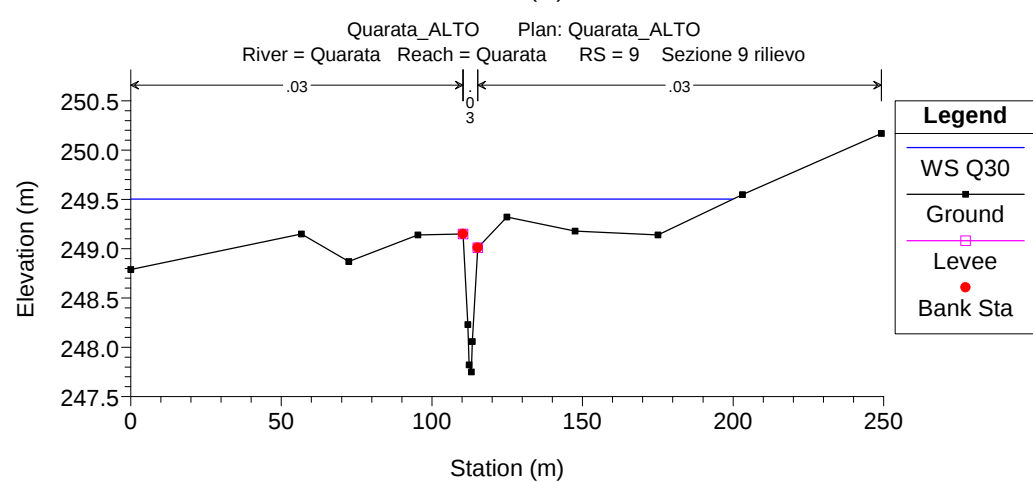
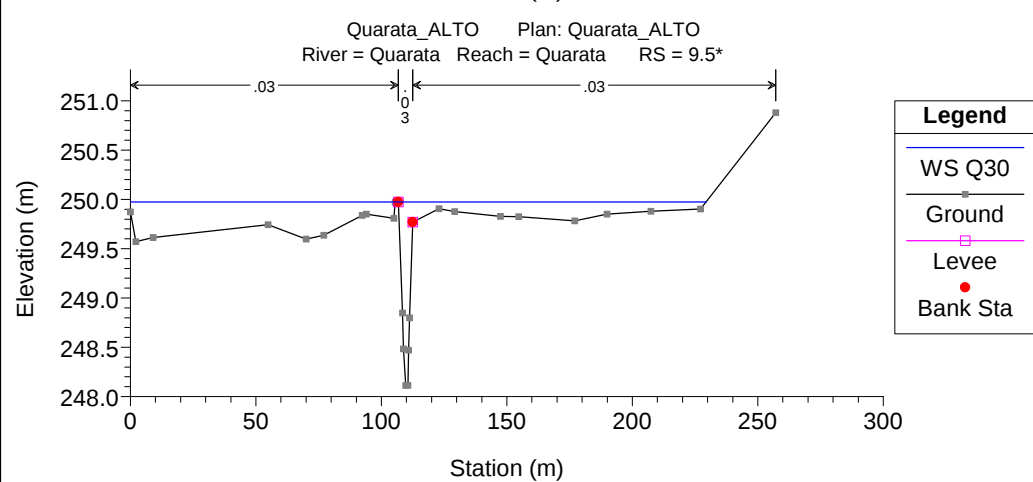
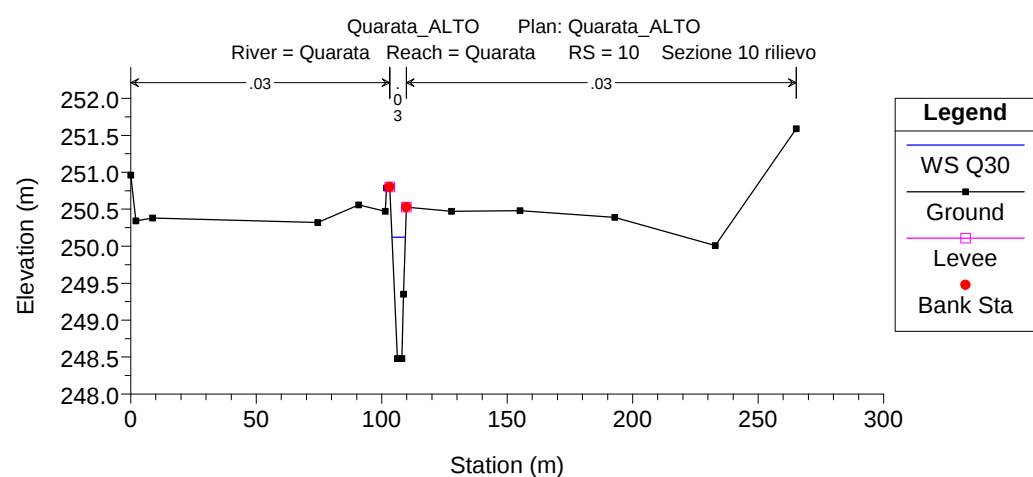
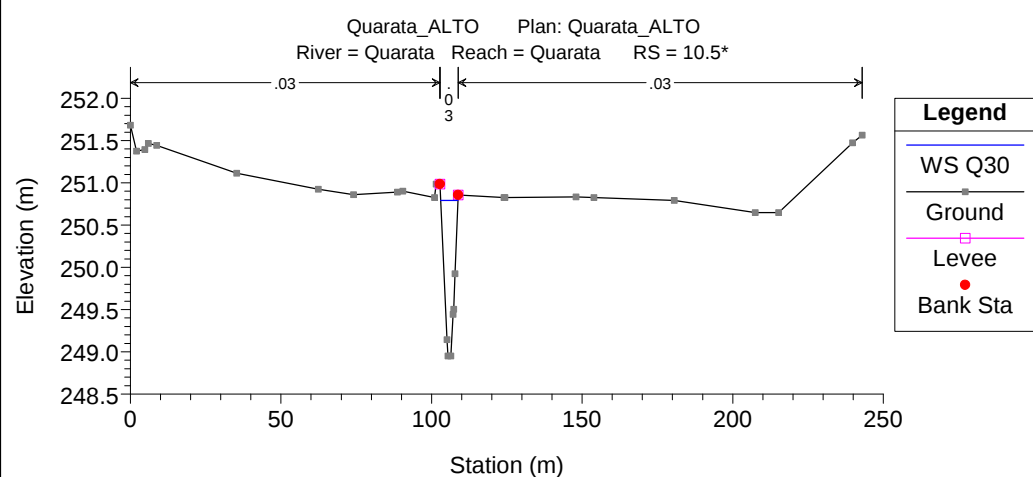
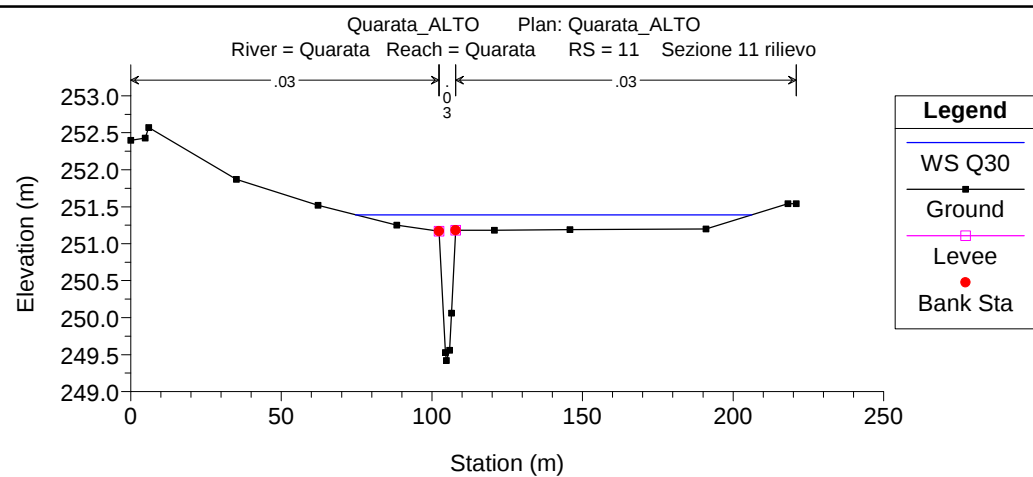
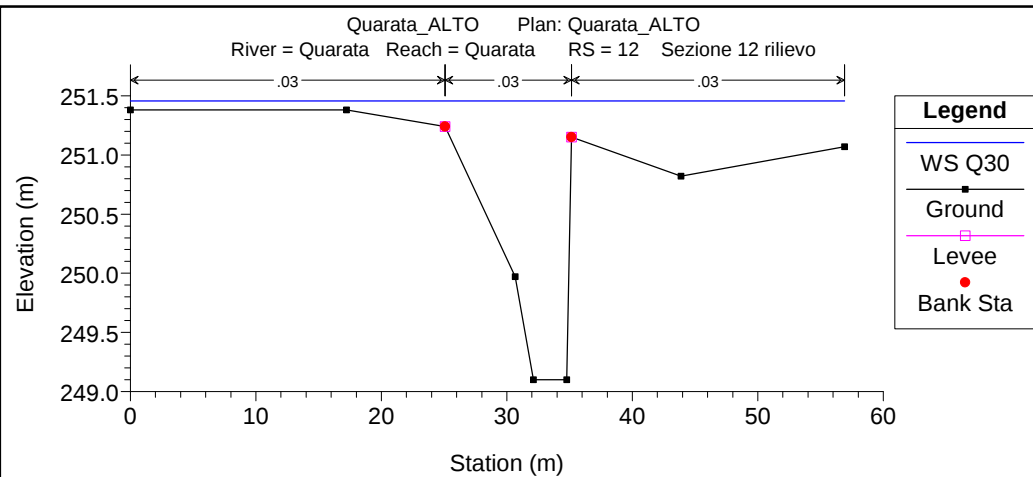
Quarata_ALTO Plan: Quarata_ALTO

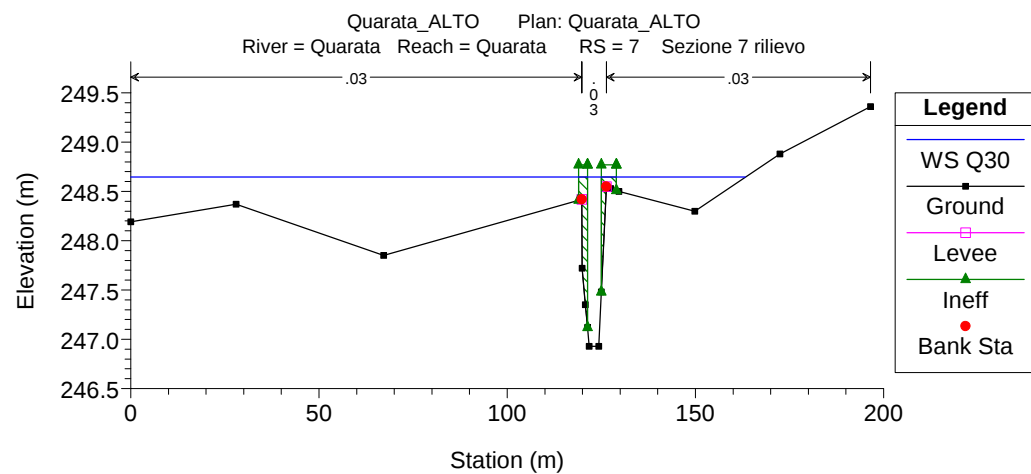
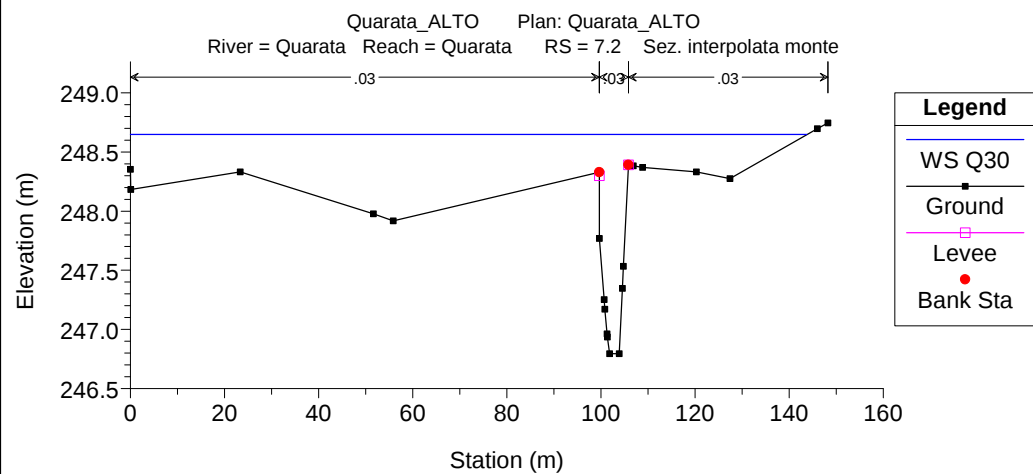
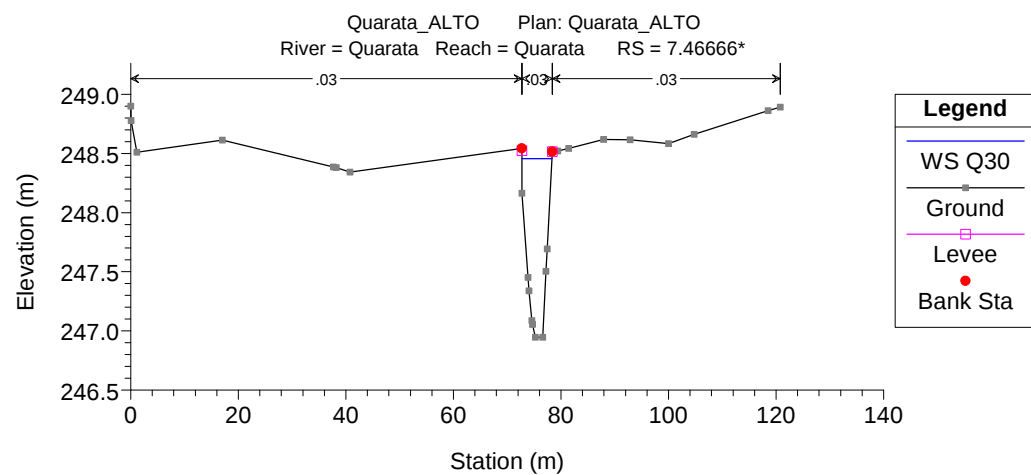
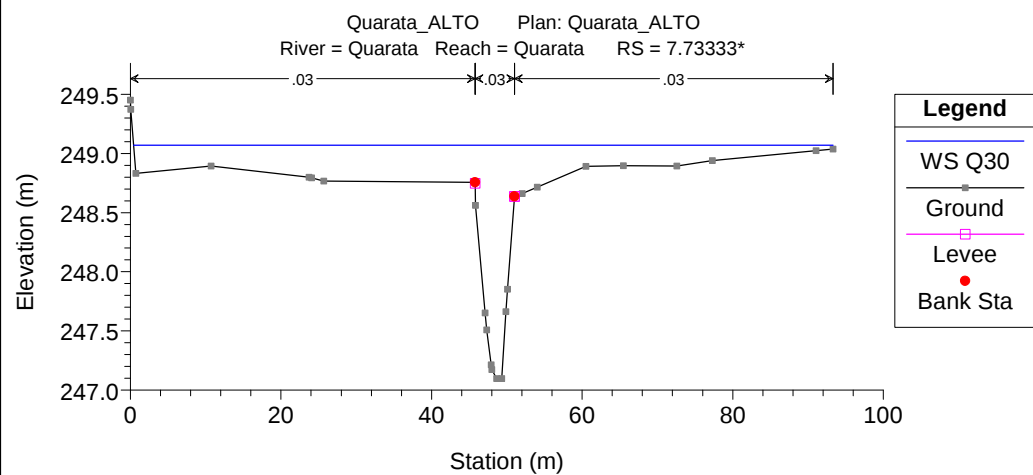
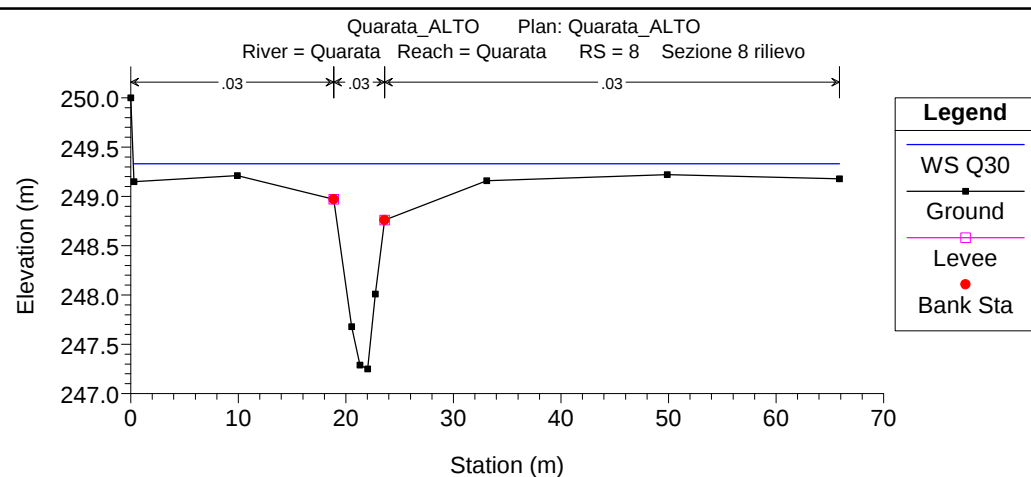
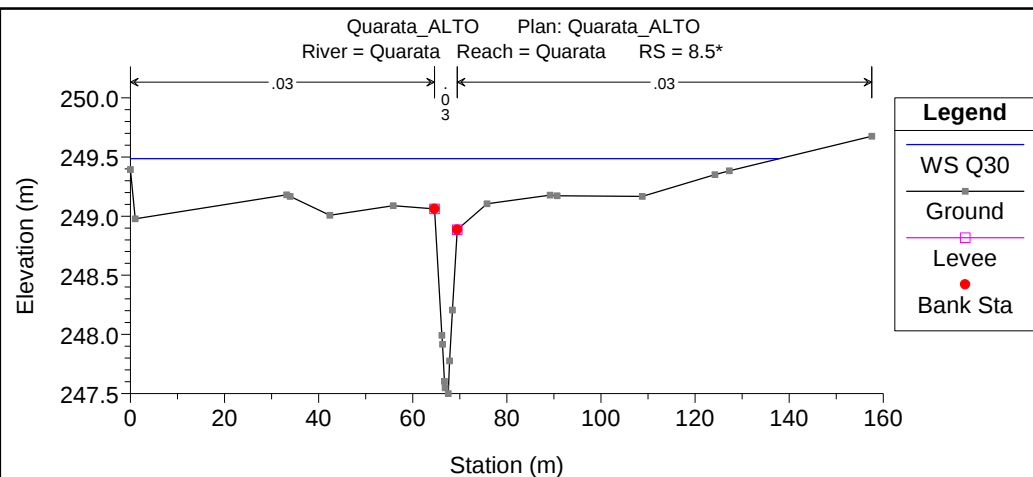
Quarata Quarata

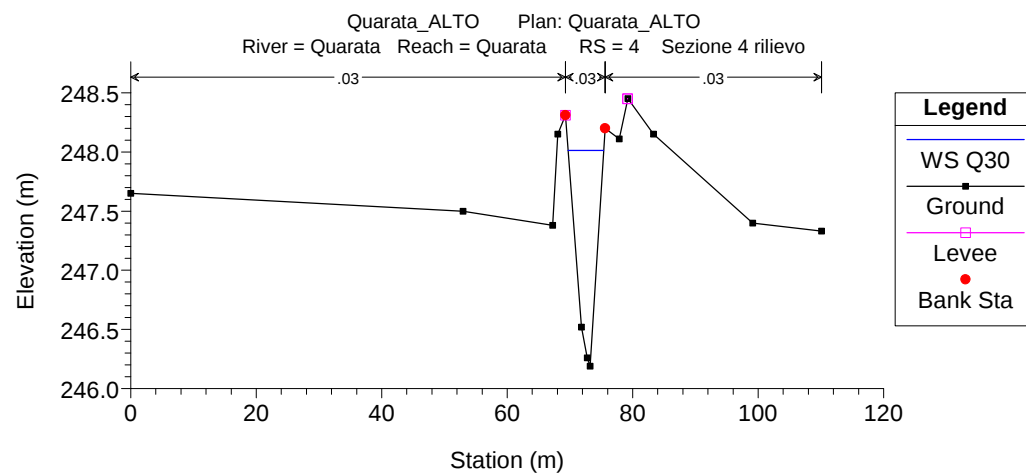
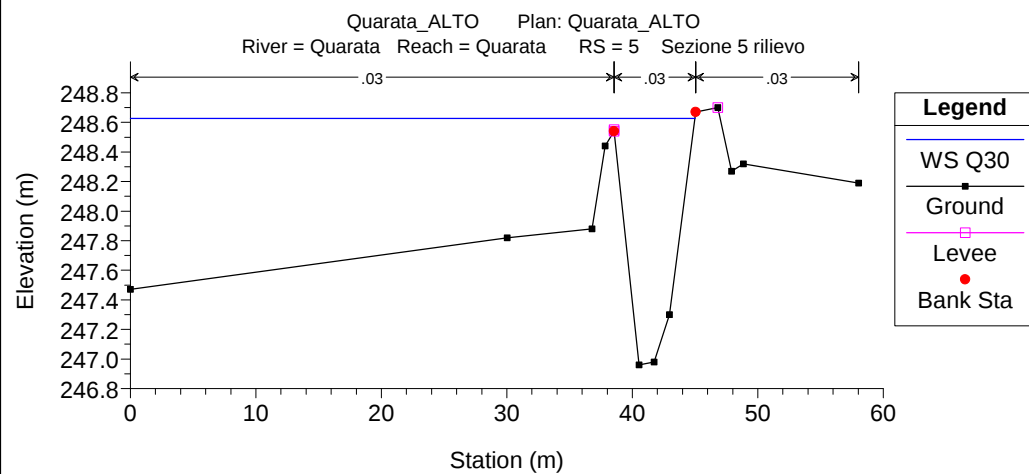
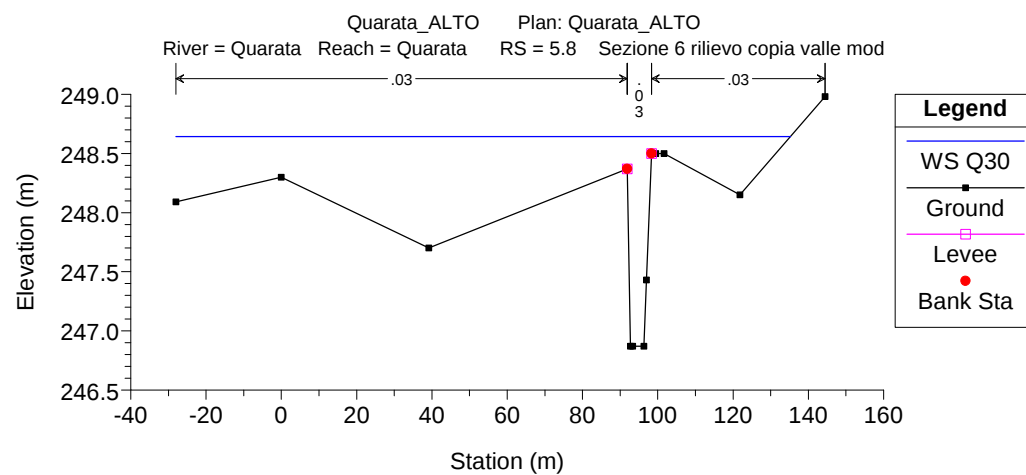
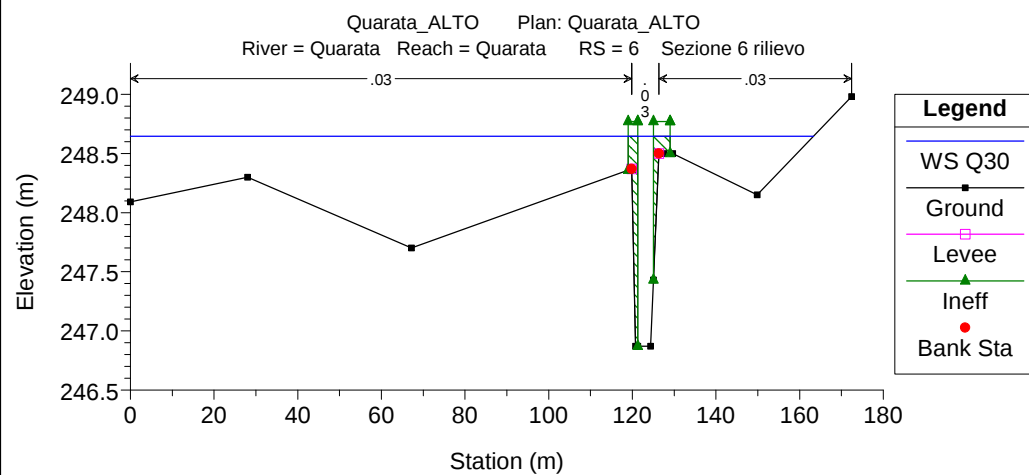
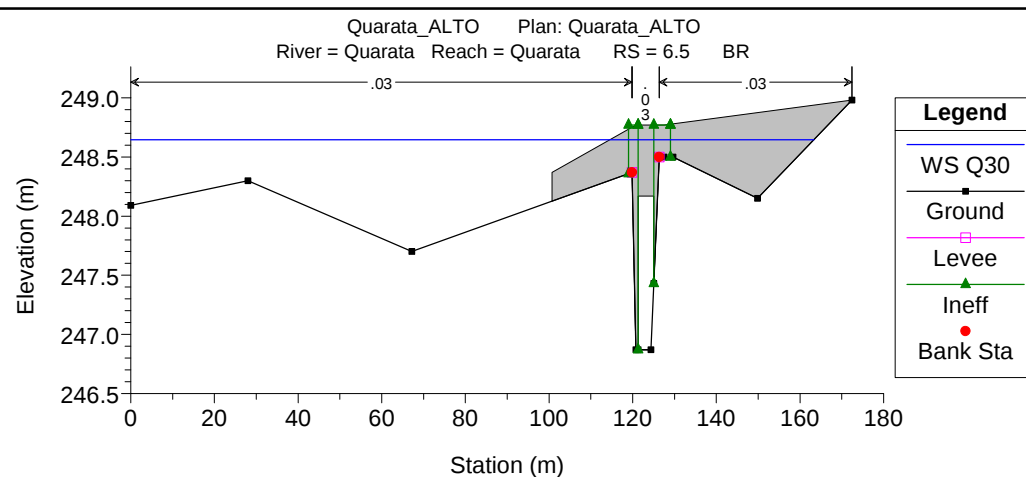
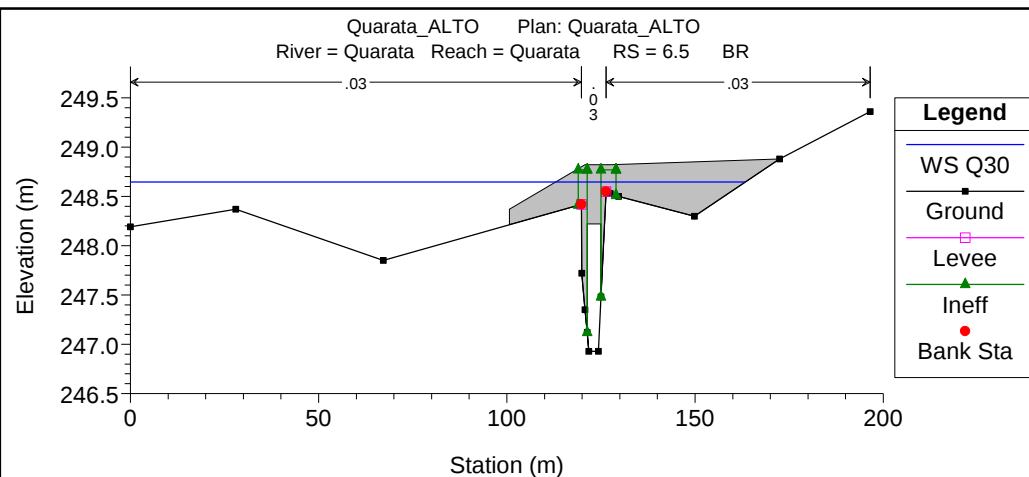


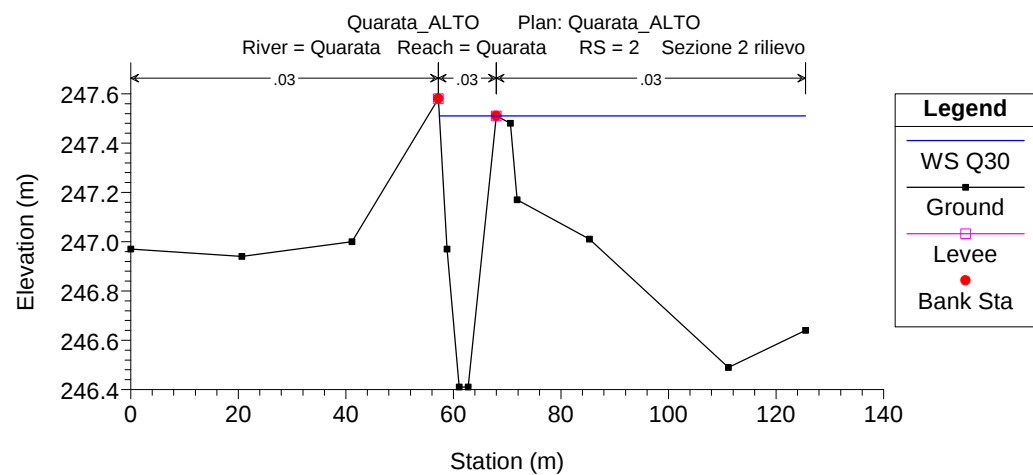
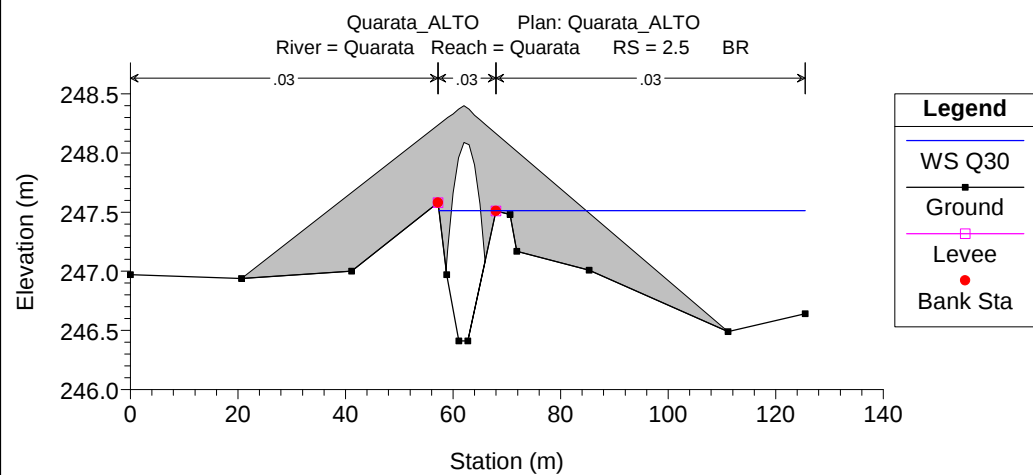
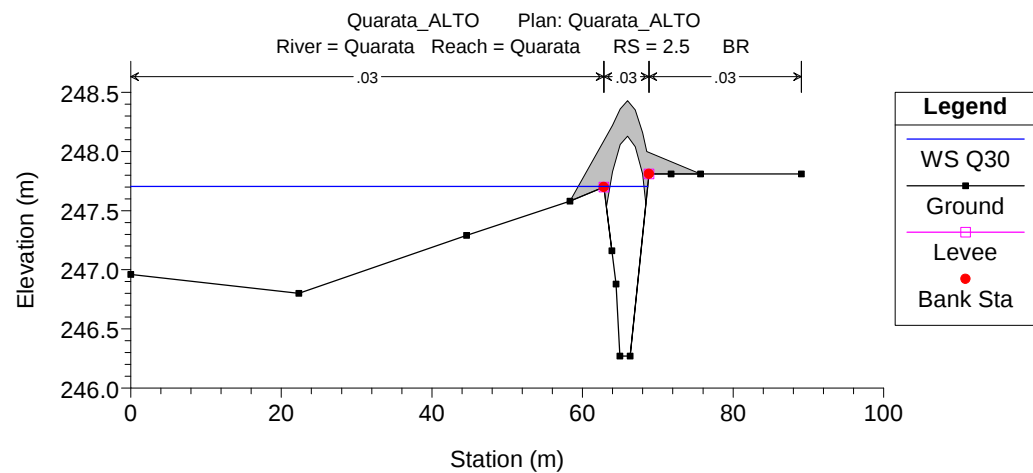
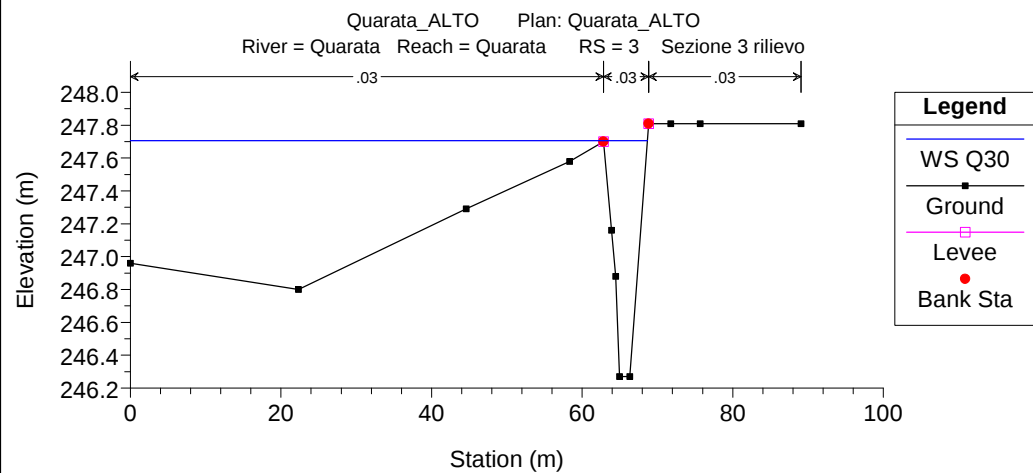
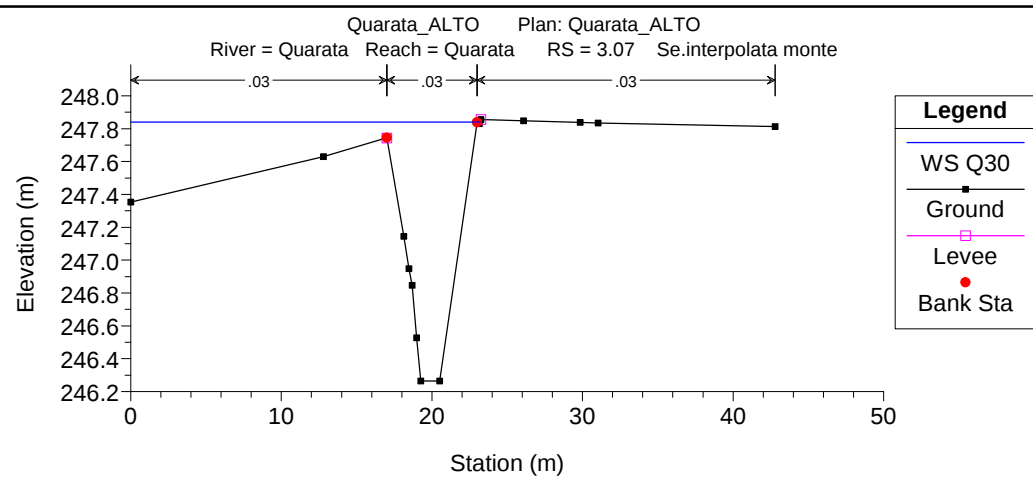
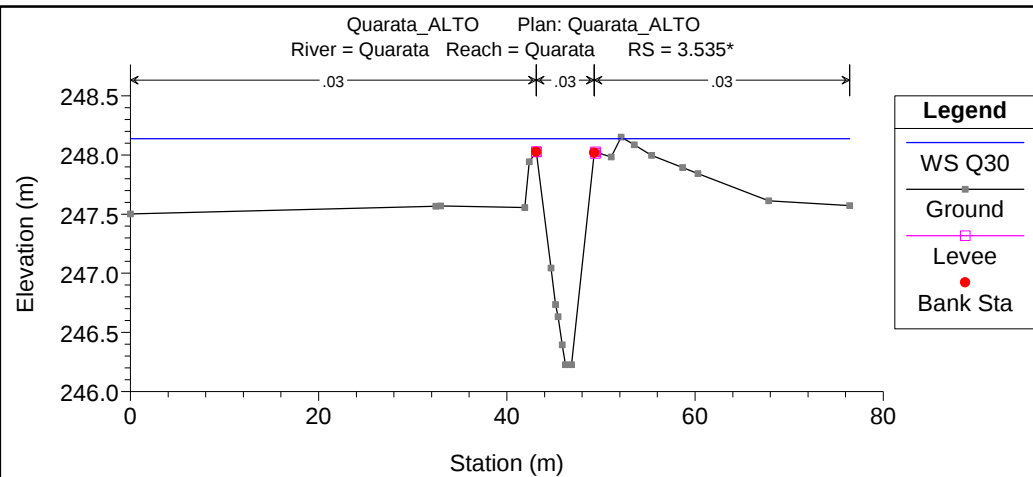
HEC-RAS Plan: Quarata_ALTO River: Quarata Reach: Quarata Profile: Q30

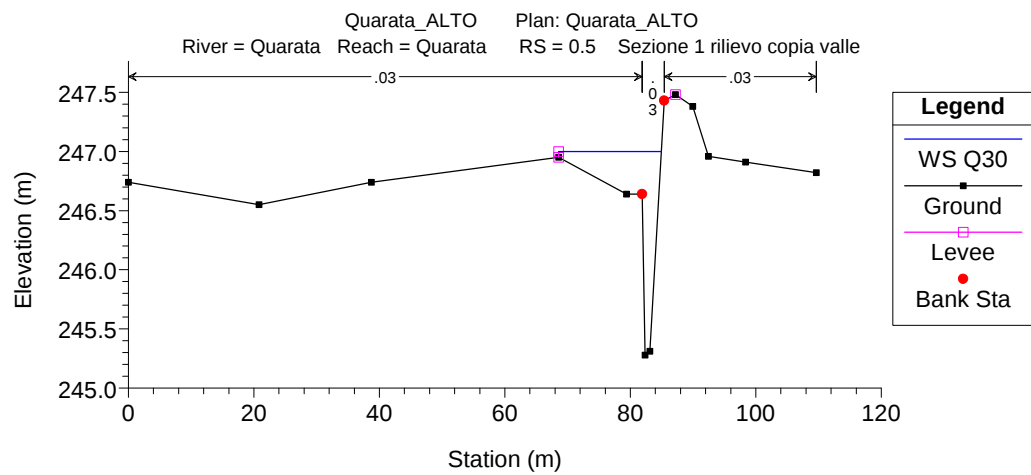
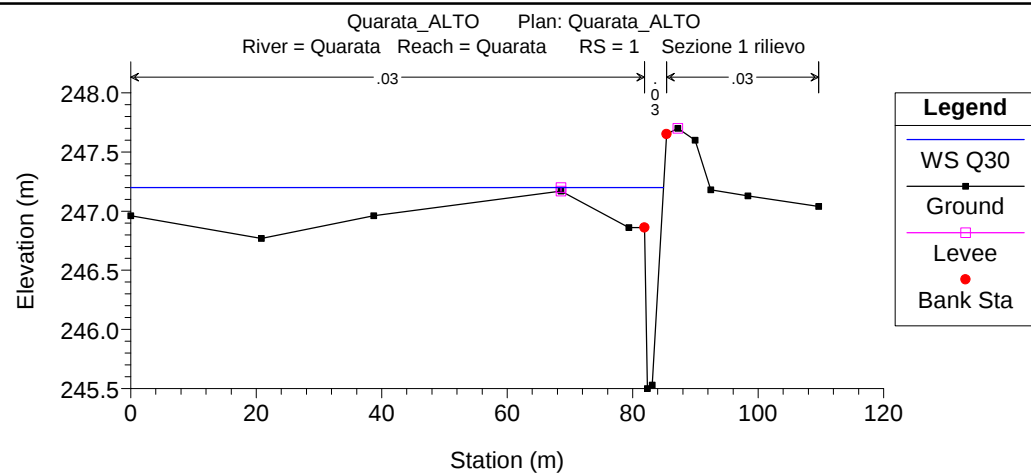
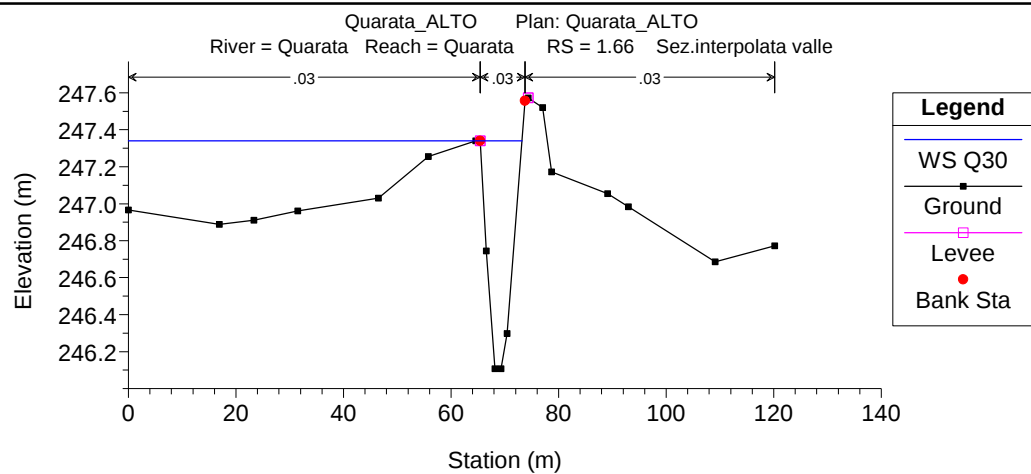
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quarata	12	Q30	18.70	249.10	251.46	250.55	251.49	0.000589	0.90	27.51	56.91	0.24
Quarata	11	Q30	18.70	249.42	251.39	251.36	251.44	0.001624	1.38	28.63	131.58	0.39
Quarata	10.5*	Q30	18.70	248.95	250.79	250.69	251.23	0.008780	2.93	6.38	5.76	0.89
Quarata	10	Q30	18.70	248.48	250.12	250.12	250.66	0.011554	3.25	5.76	5.33	1.00
Quarata	9.5*	Q30	18.70	248.12	249.98	249.98	249.99	0.000642	0.80	50.47	229.41	0.24
Quarata	9	Q30	18.70	247.75	249.50	249.17	249.50	0.000131	0.37	82.95	199.84	0.11
Quarata	8.5*	Q30	18.70	247.50	249.49	249.27	249.49	0.000373	0.69	51.17	137.84	0.19
Quarata	8	Q30	18.70	247.25	249.33	249.33	249.45	0.002586	1.83	18.30	65.65	0.50
Quarata	7.73333*	Q30	18.70	247.10	249.07	249.00	249.13	0.001429	1.38	26.04	92.91	0.37
Quarata	7.46666*	Q30	18.70	246.95	248.46	248.46	248.97	0.011081	3.19	5.86	5.62	1.00
Quarata	7.2	Q30	18.70	246.79	248.65	248.16	248.65	0.000161	0.47	67.56	143.74	0.13
Quarata	7	Q30	18.70	246.93	248.65	248.36	248.65	0.000145	0.54	71.39	163.28	0.13
Quarata	6.5		Bridge									
Quarata	6	Q30	18.70	246.87	248.64	248.29	248.65	0.000082	0.42	86.01	163.29	0.10
Quarata	5.8	Q30	18.70	246.87	248.64	248.12	248.65	0.000079	0.33	89.31	163.27	0.09
Quarata	5	Q30	18.70	246.96	248.63	248.49	248.64	0.000205	0.45	42.23	44.99	0.14
Quarata	4	Q30	18.70	246.19	248.01	248.01	248.53	0.011276	3.19	5.86	5.68	1.00
Quarata	3.535*	Q30	18.70	246.23	248.14	247.98	248.15	0.000371	0.63	41.75	76.13	0.19
Quarata	3.07	Q30	18.70	246.26	247.84	247.84	248.04	0.006269	2.29	10.68	23.19	0.76
Quarata	3	Q30	18.70	246.27	247.71	247.70	247.72	0.000352	0.51	42.04	68.66	0.18
Quarata	2.5		Bridge									
Quarata	2	Q30	18.70	246.41	247.51	247.51	247.52	0.000256	0.40	46.06	68.07	0.16
Quarata	1.66	Q30	18.70	246.11	247.34	247.34	247.37	0.001578	1.06	26.37	73.19	0.39
Quarata	1	Q30	18.70	245.50	247.20	247.20	247.25	0.002982	1.43	23.13	84.92	0.44
Quarata	0.5	Q30	18.70	245.28	247.00	247.00	247.04	0.002416	1.30	24.81	84.94	0.40





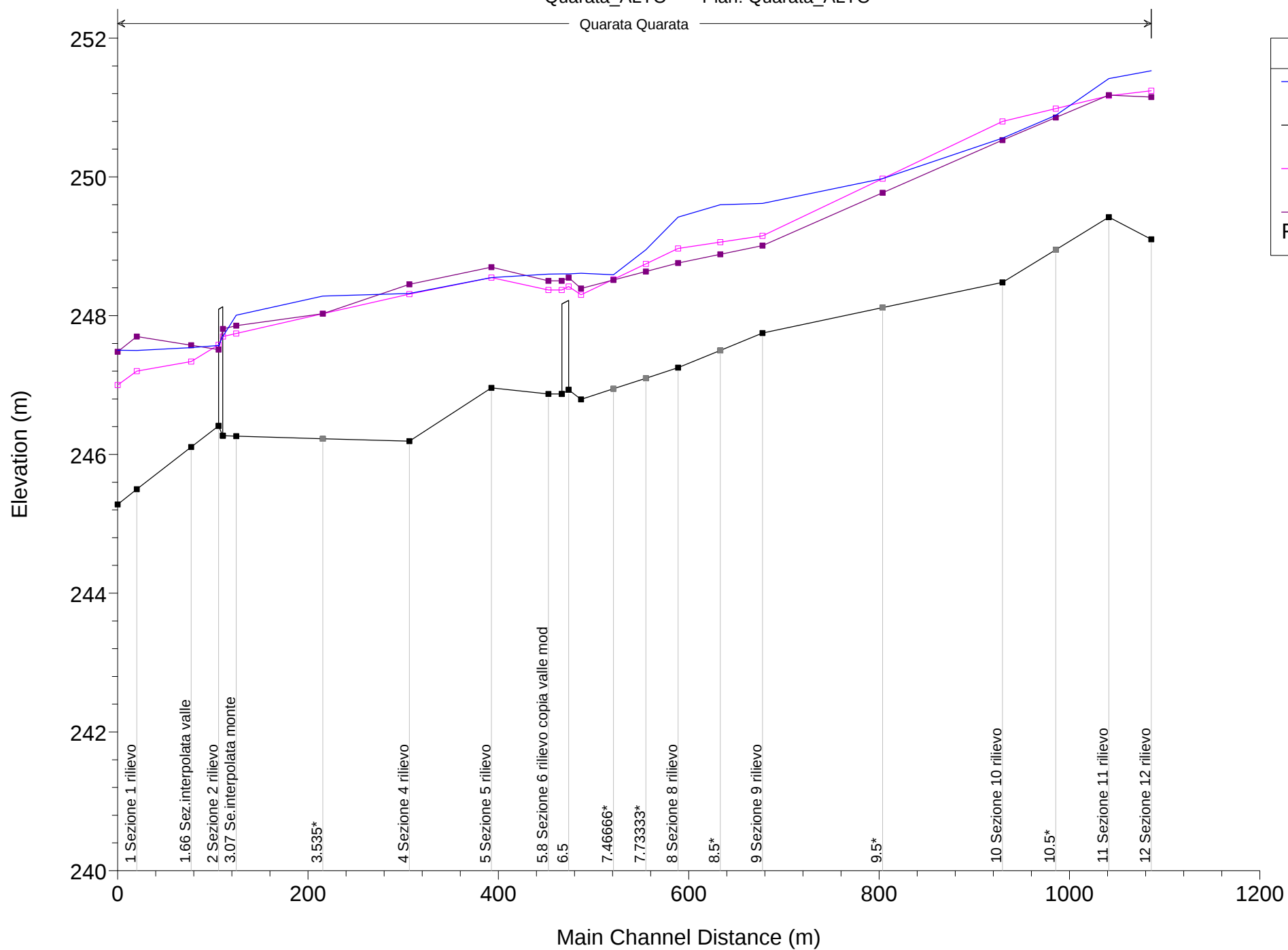






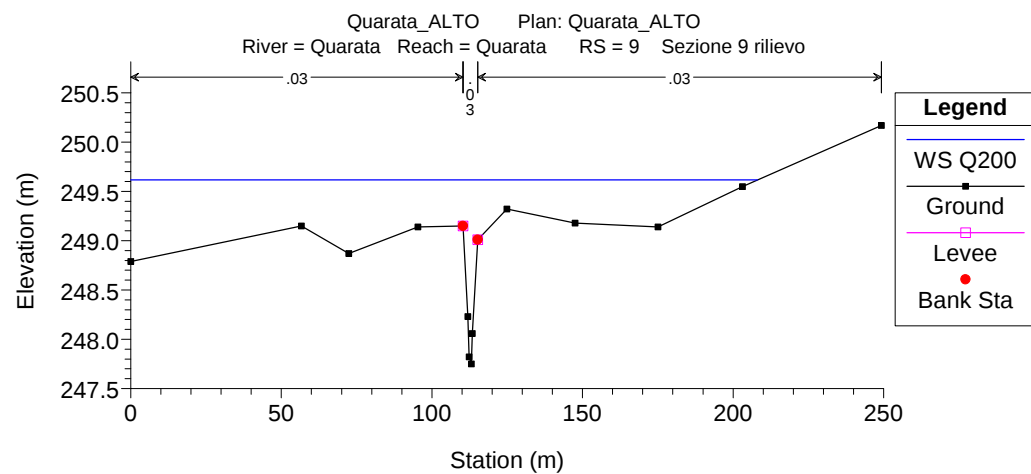
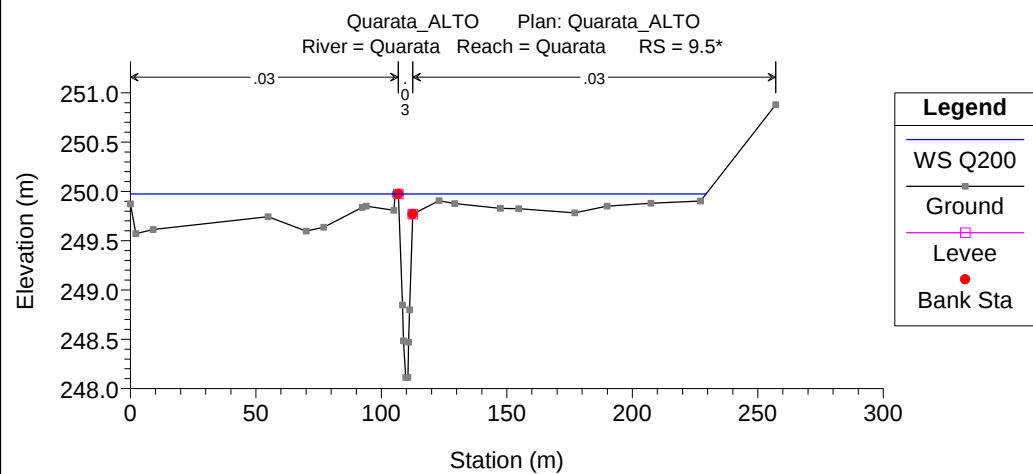
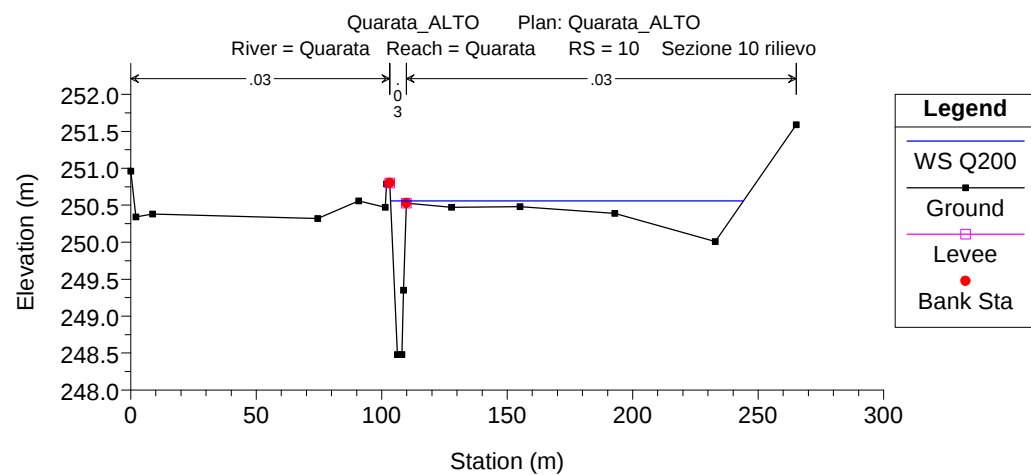
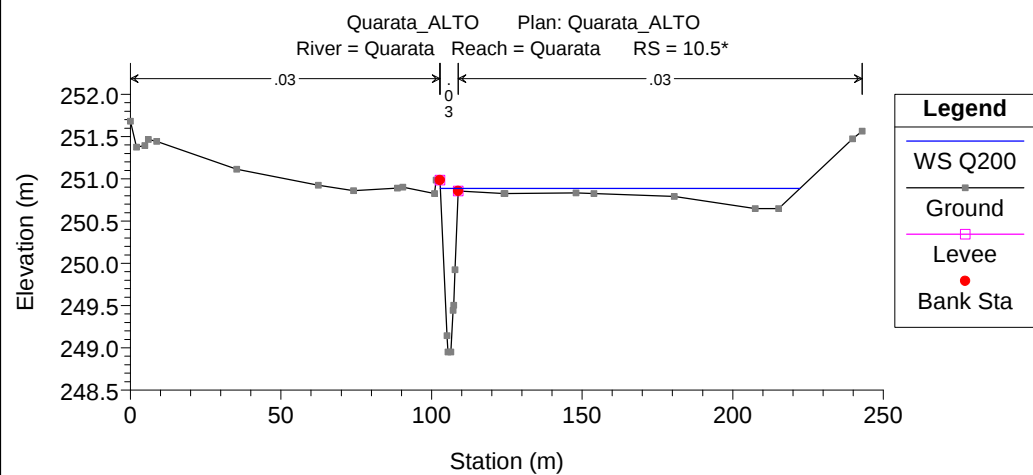
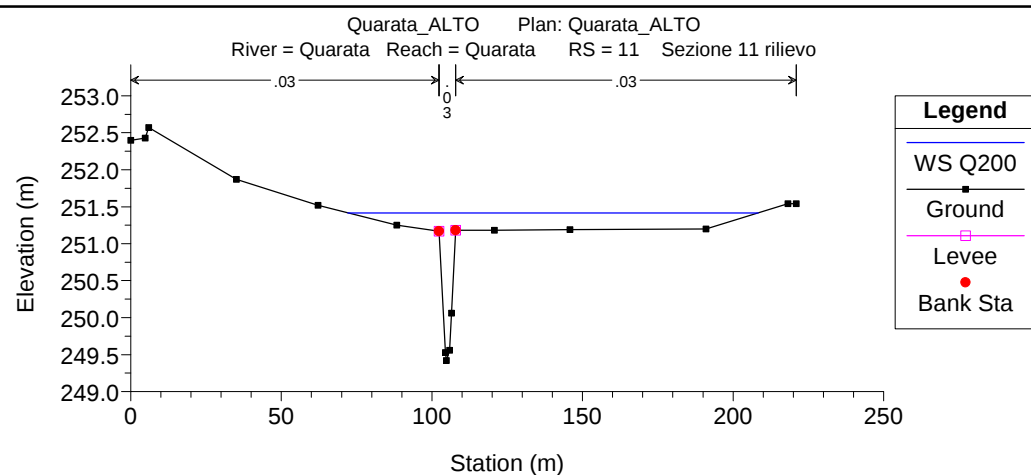
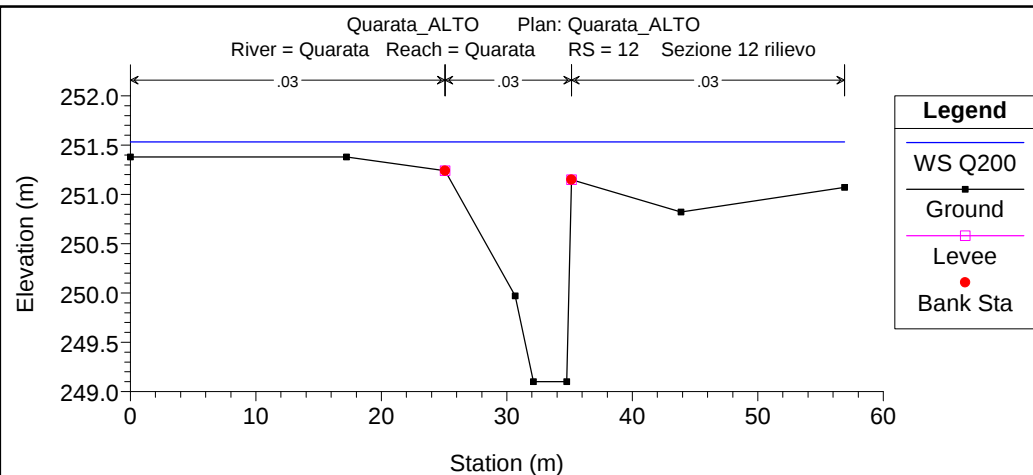
Quarata_ALTO Plan: Quarata_ALTO

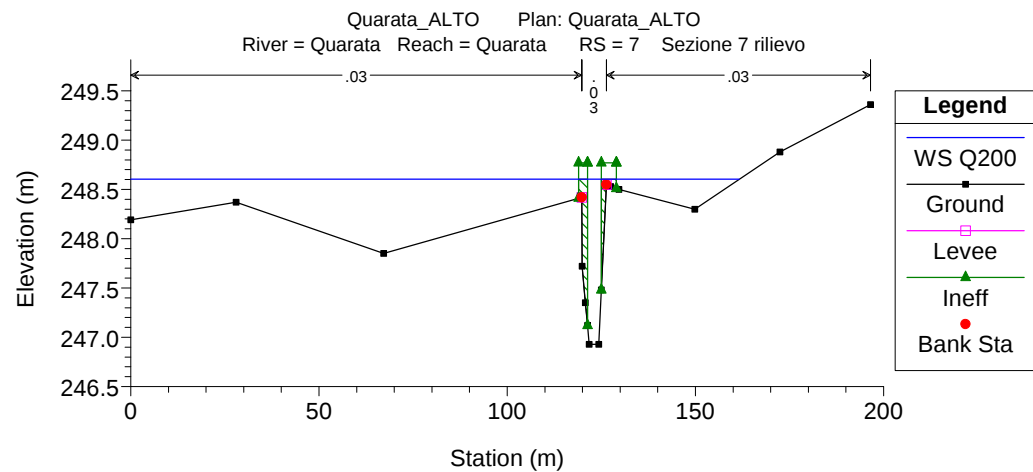
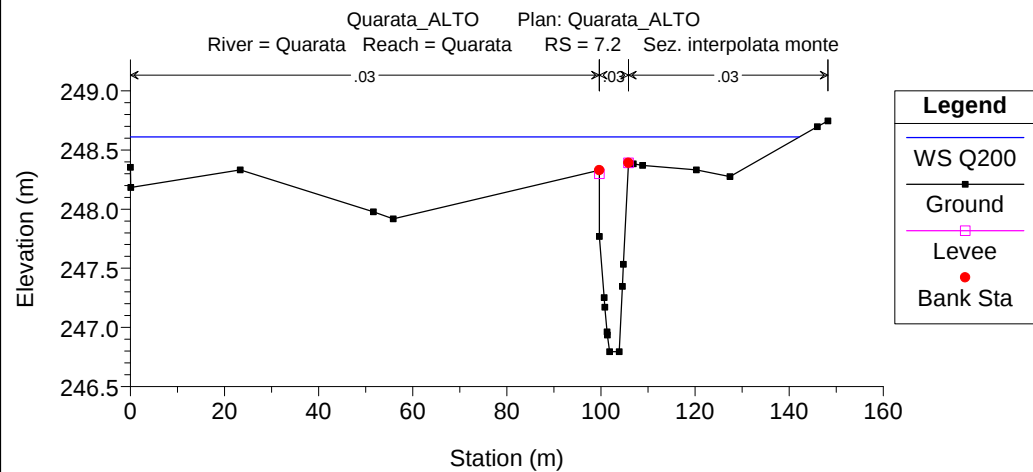
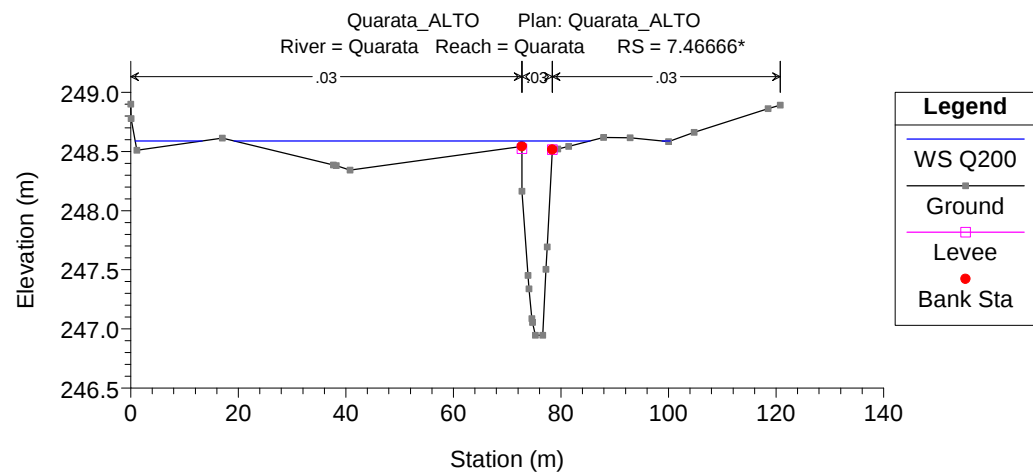
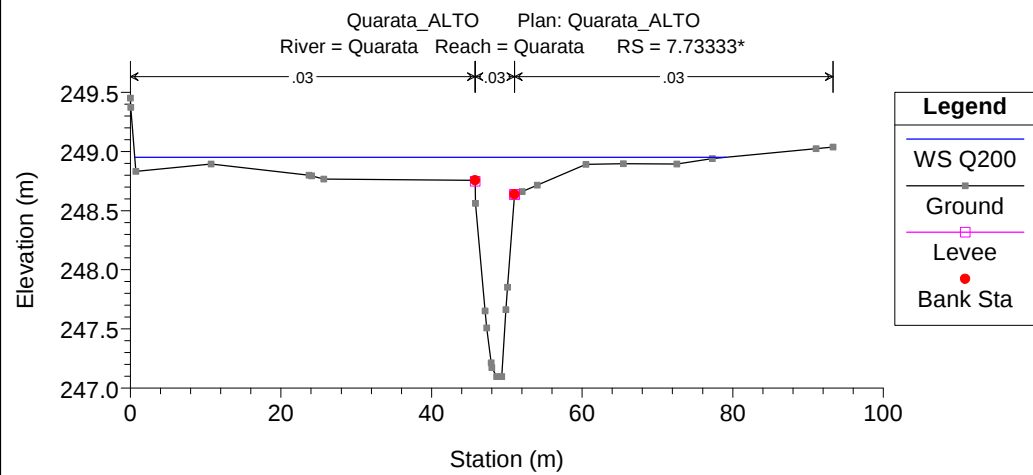
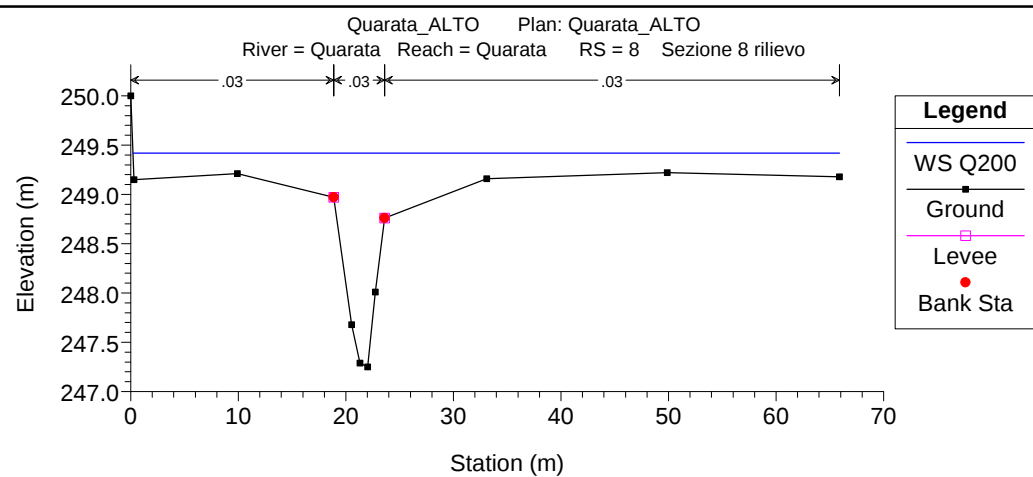
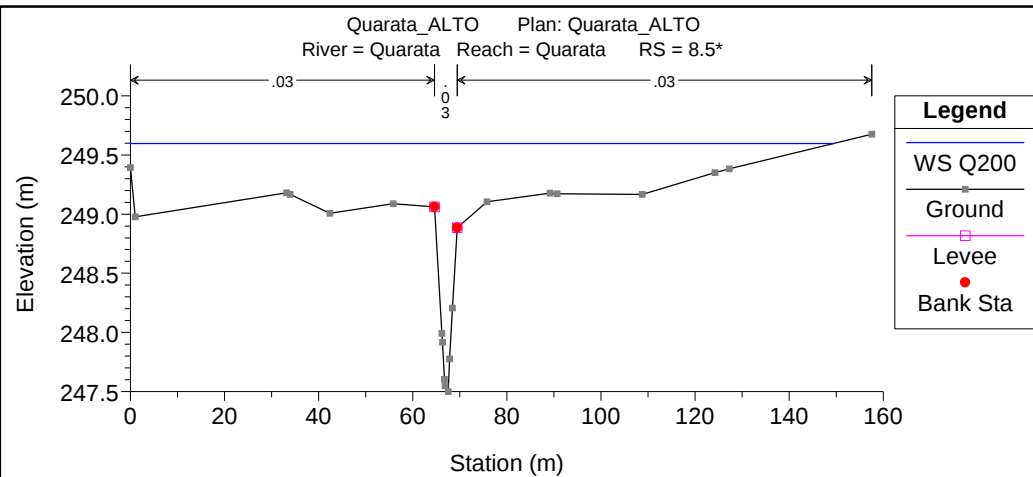
Quarata Quarata

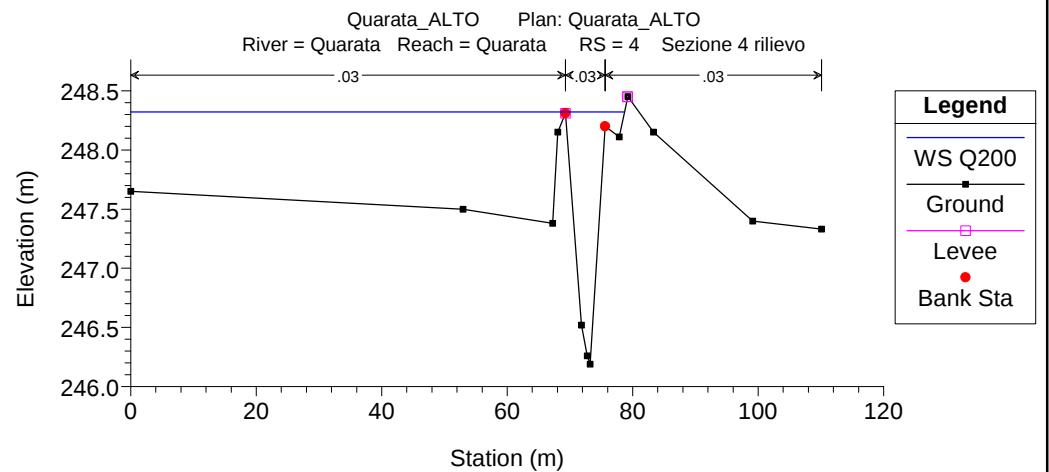
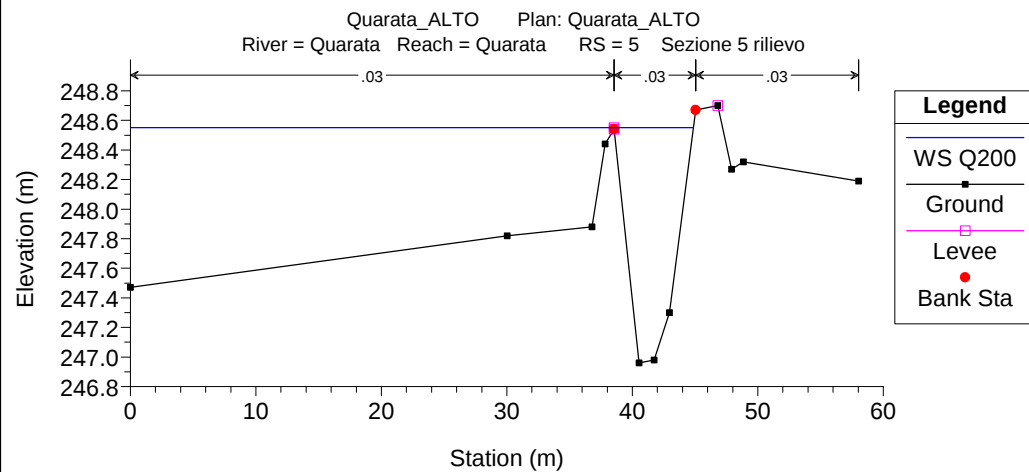
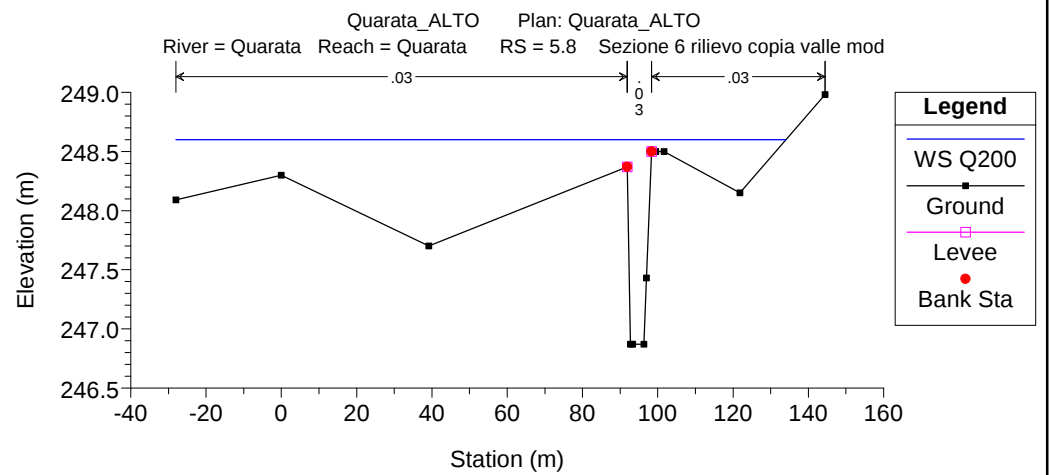
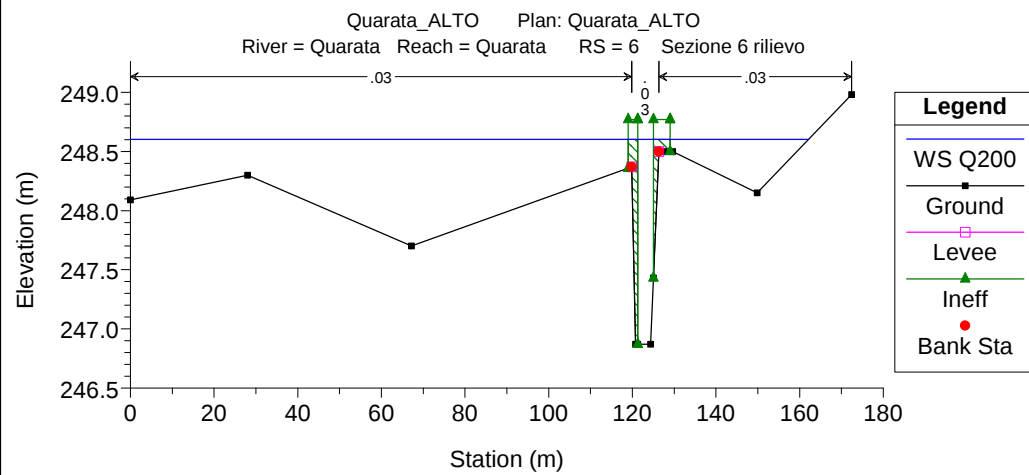
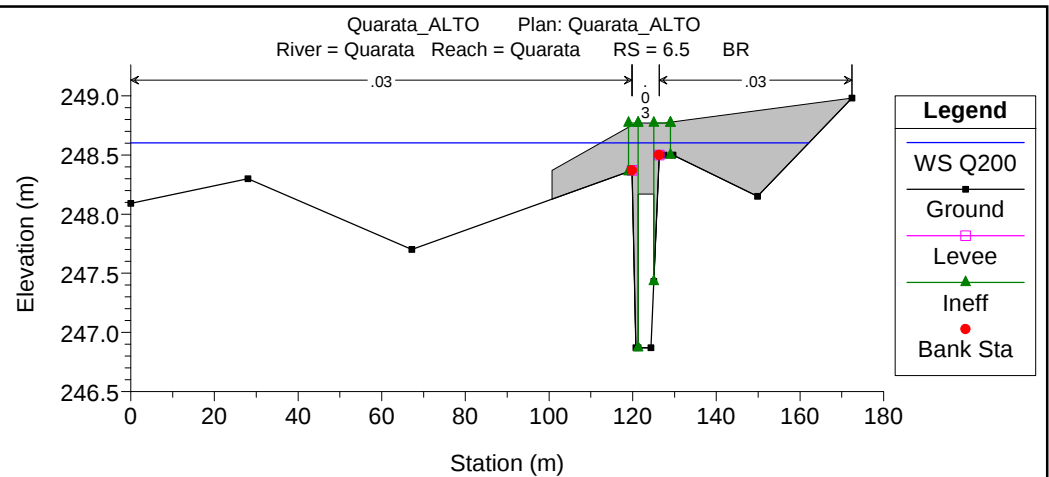
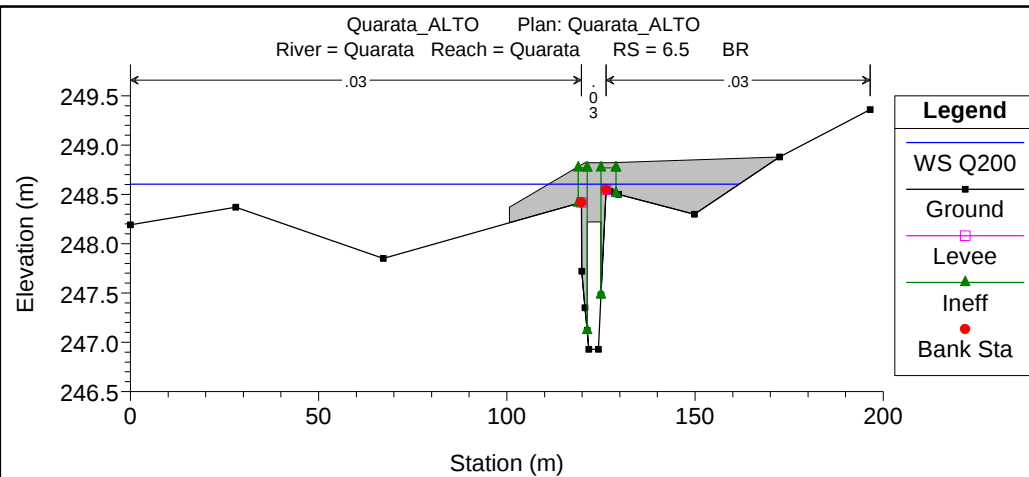


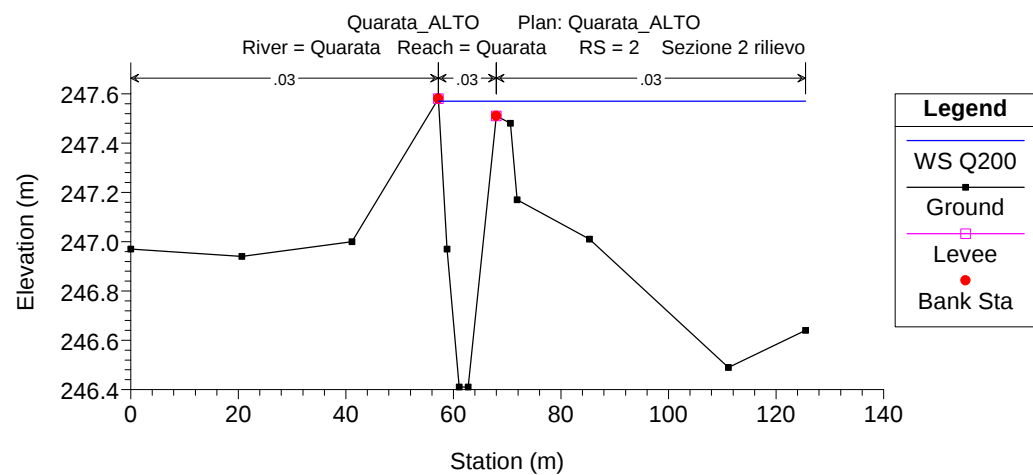
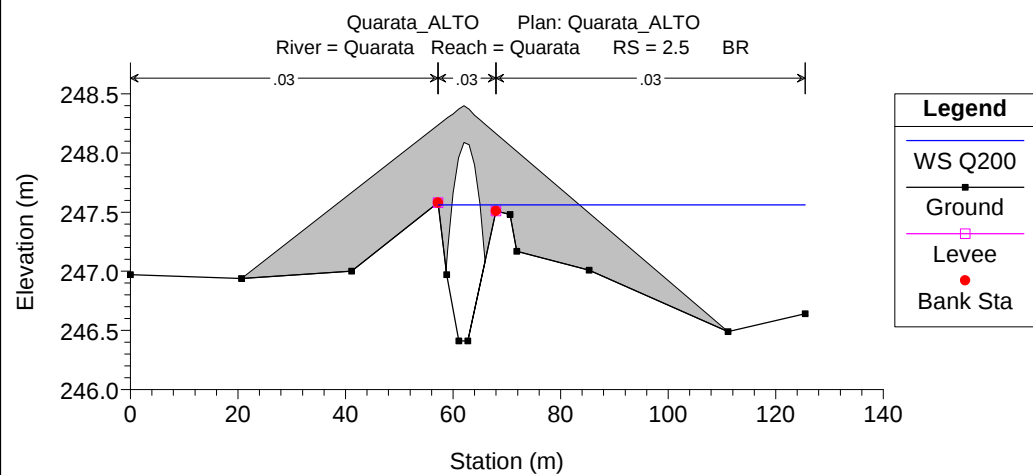
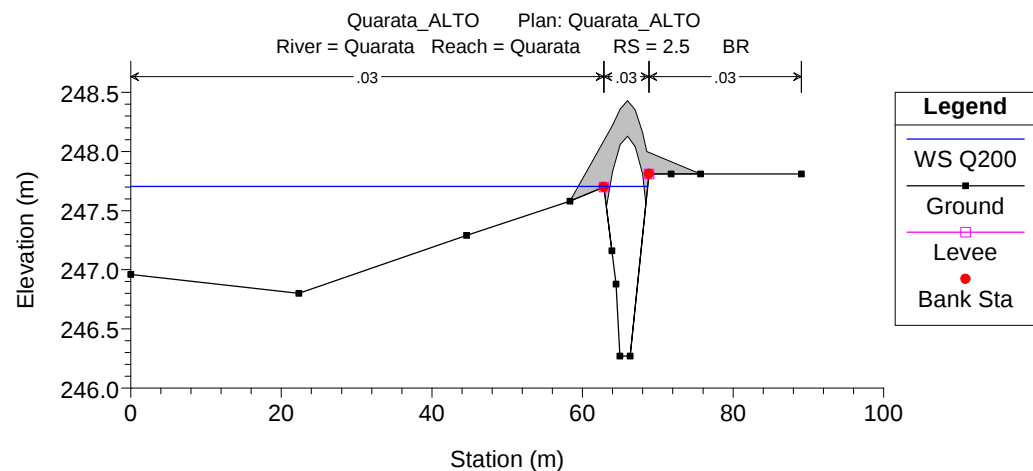
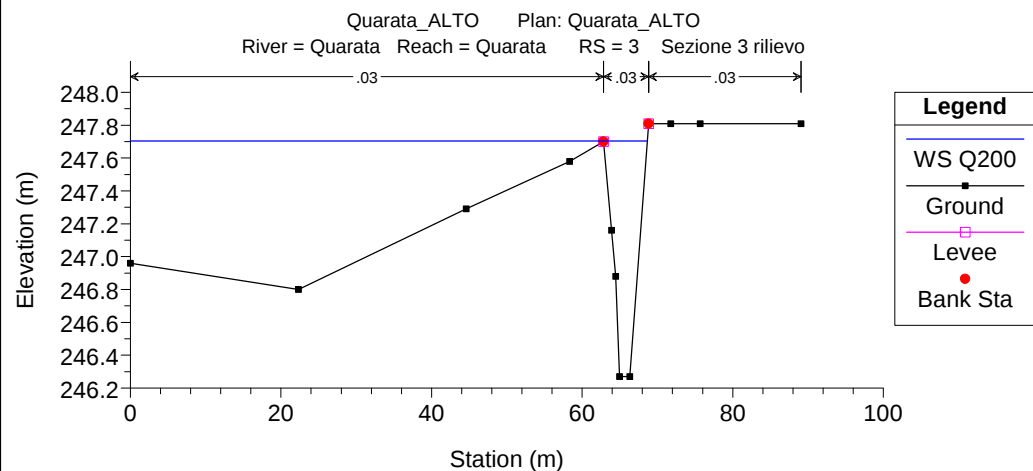
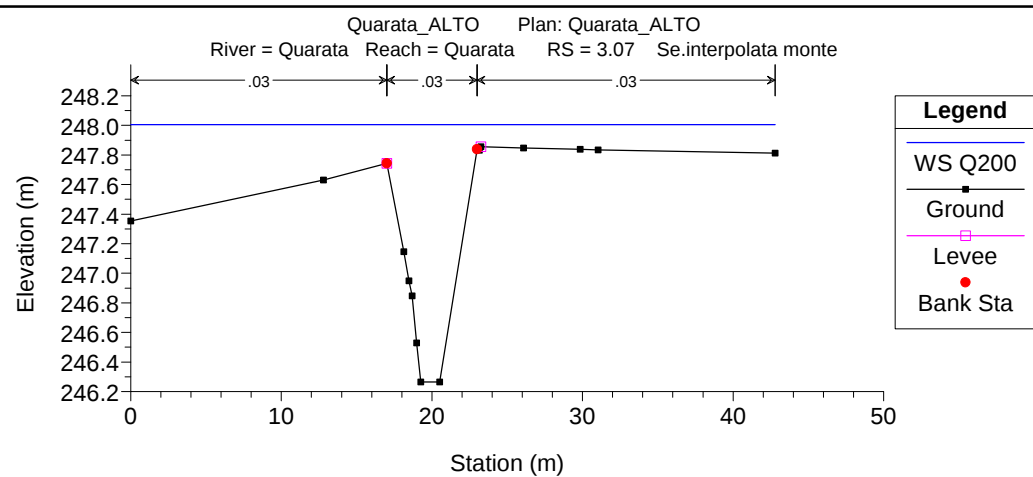
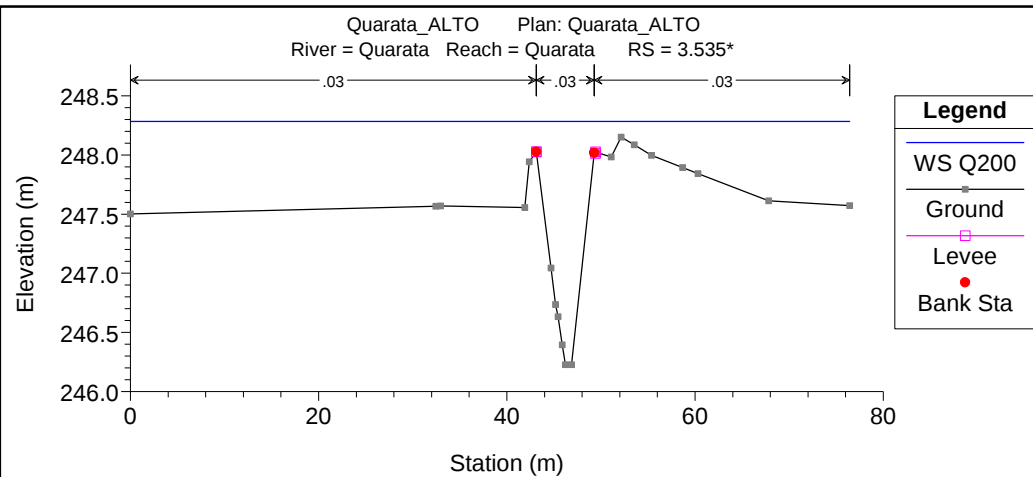
HEC-RAS Plan: Quarata_ALTO River: Quarata Reach: Quarata Profile: Q200

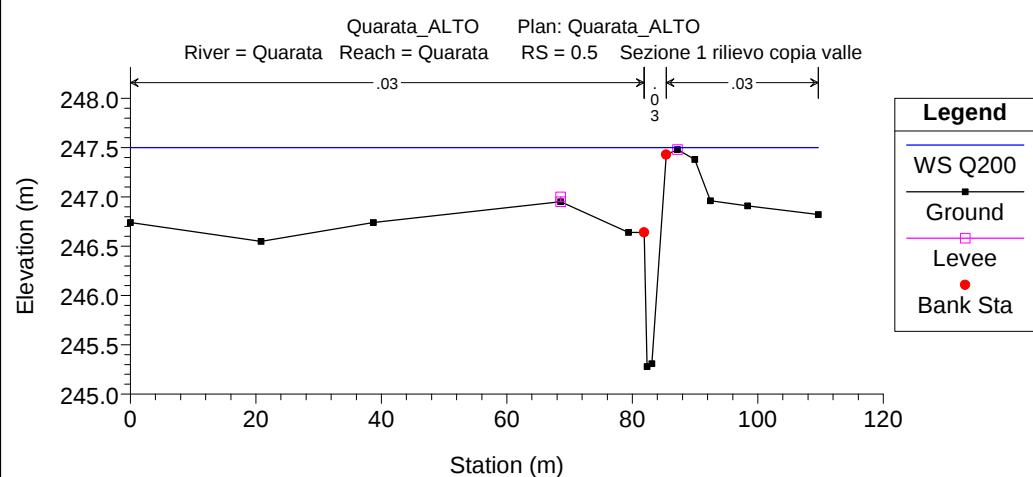
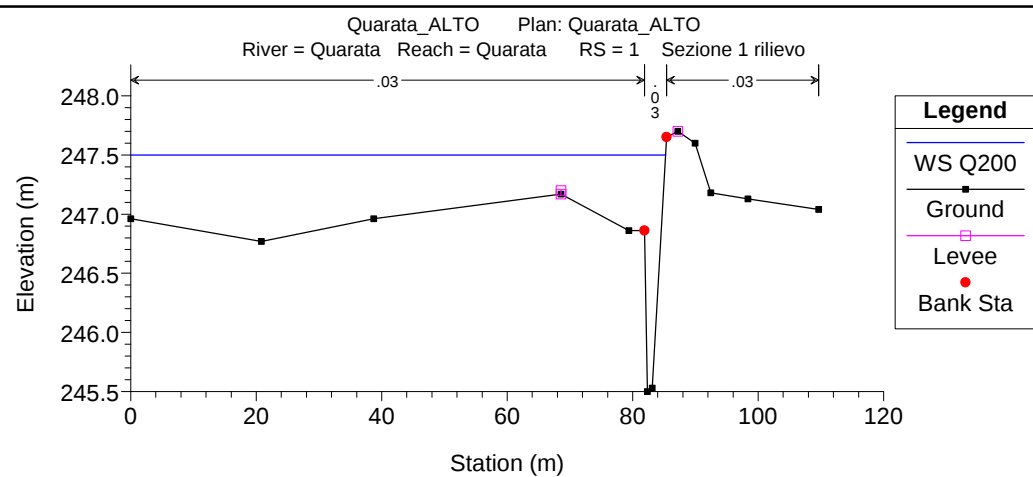
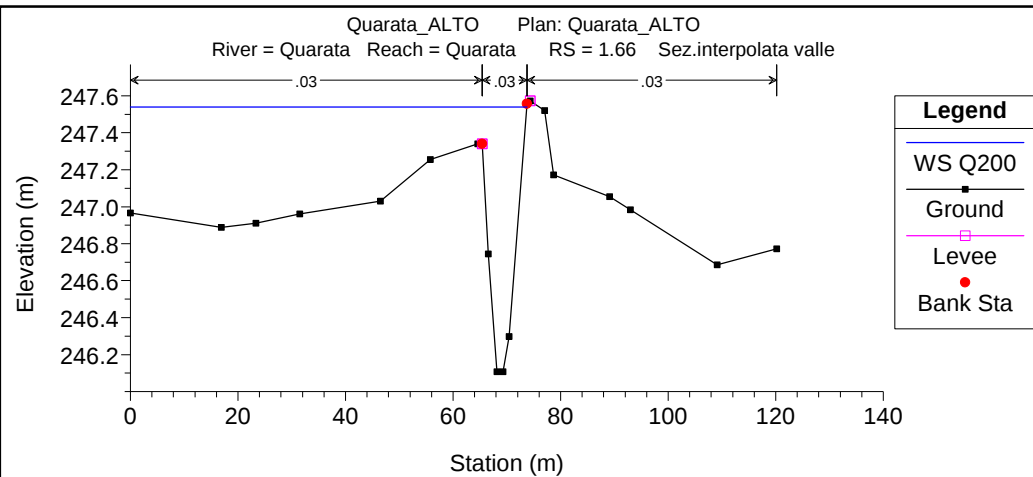
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quarata	12	Q200	28.80	249.10	251.53	250.90	251.59	0.001013	1.22	31.82	56.91	0.32
Quarata	11	Q200	28.80	249.42	251.42	251.42	251.51	0.002982	1.89	32.15	136.24	0.53
Quarata	10.5*	Q200	28.80	248.95	250.89	250.99	251.22	0.008570	2.99	18.71	119.48	0.88
Quarata	10	Q200	28.80	248.48	250.56	250.56	250.65	0.002627	1.76	33.62	140.56	0.49
Quarata	9.5*	Q200	28.80	248.12	249.98	249.98	250.01	0.001523	1.23	50.46	229.41	0.37
Quarata	9	Q200	28.80	247.75	249.62	249.22	249.62	0.000147	0.42	106.48	208.15	0.12
Quarata	8.5*	Q200	28.80	247.50	249.60	249.32	249.61	0.000412	0.77	67.43	149.59	0.20
Quarata	8	Q200	28.80	247.25	249.42	249.42	249.56	0.003251	2.14	24.05	65.69	0.56
Quarata	7.73333*	Q200	28.80	247.10	248.95	249.09	249.36	0.008863	3.23	15.74	78.43	0.91
Quarata	7.46666*	Q200	28.80	246.95	248.59	248.73	249.03	0.010598	3.32	14.61	80.15	0.98
Quarata	7.2	Q200	28.80	246.79	248.61	248.33	248.62	0.000484	0.81	62.20	142.10	0.22
Quarata	7	Q200	28.80	246.93	248.60	248.42	248.62	0.000455	0.94	64.77	161.63	0.24
Quarata	6.5		Bridge									
Quarata	6	Q200	28.80	246.87	248.60	248.37	248.61	0.000248	0.72	79.31	162.13	0.18
Quarata	5.8	Q200	28.80	246.87	248.60	248.37	248.61	0.000242	0.56	82.06	162.06	0.15
Quarata	5	Q200	28.80	246.96	248.55	248.55	248.58	0.000643	0.77	38.77	44.88	0.25
Quarata	4	Q200	28.80	246.19	248.32	248.31	248.33	0.000284	0.56	60.79	78.70	0.16
Quarata	3.535*	Q200	28.80	246.23	248.28	248.03	248.30	0.000427	0.73	52.83	76.44	0.21
Quarata	3.07	Q200	28.80	246.26	248.01	248.01	248.19	0.005106	2.31	17.96	42.80	0.70
Quarata	3	Q200	28.80	246.27	247.70	247.70	247.73	0.000842	0.78	41.92	68.66	0.27
Quarata	2.5		Bridge									
Quarata	2	Q200	28.80	246.41	247.57	247.51	247.59	0.000459	0.56	50.15	68.23	0.21
Quarata	1.66	Q200	28.80	246.11	247.54	247.34	247.57	0.000952	0.92	40.96	73.73	0.31
Quarata	1	Q200	28.80	245.50	247.50	247.20	247.52	0.000687	0.77	48.51	85.24	0.22
Quarata	0.5	Q200	28.80	245.28	247.50	247.00	247.51	0.000185	0.43	79.03	109.64	0.12











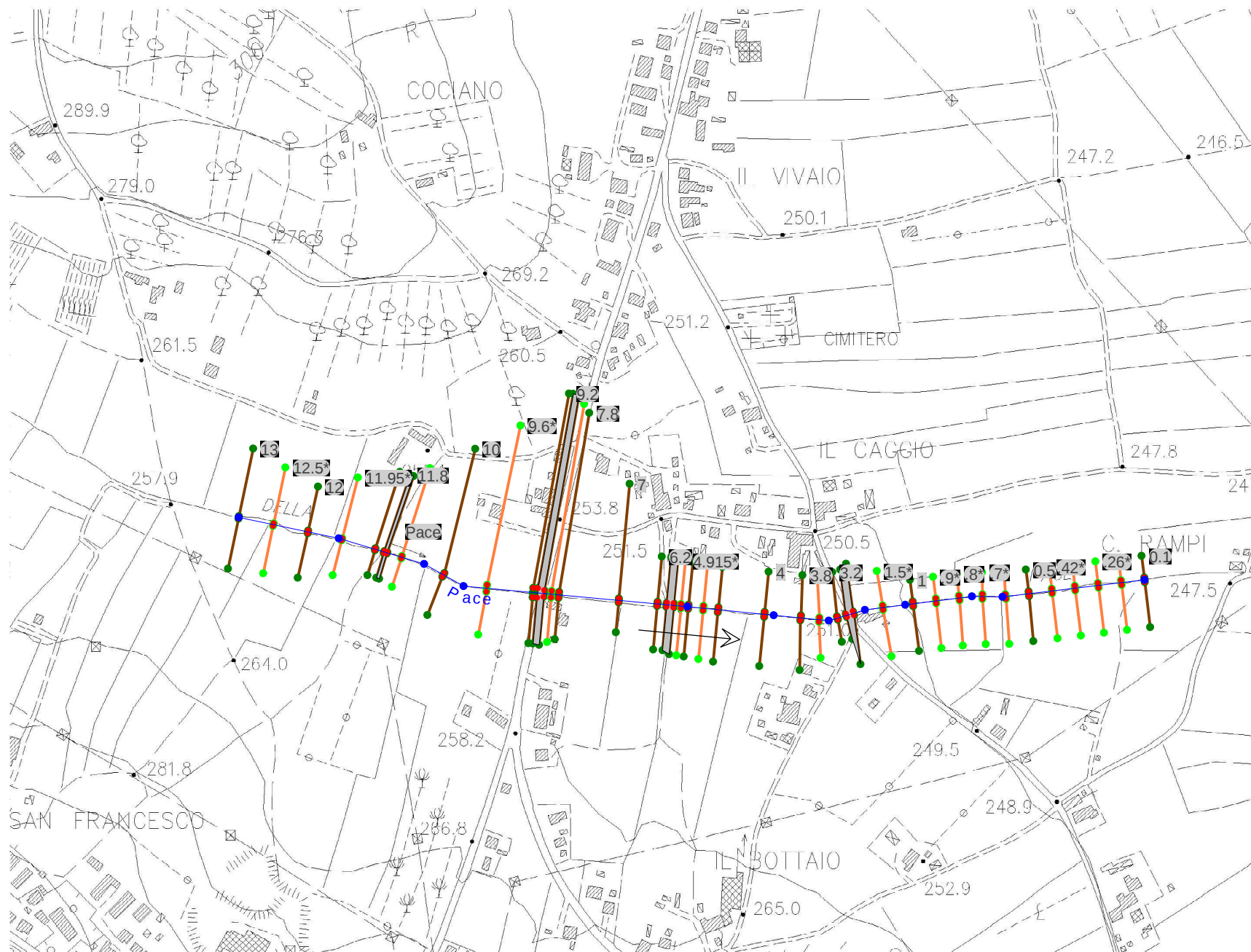
Borro della Pace

Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

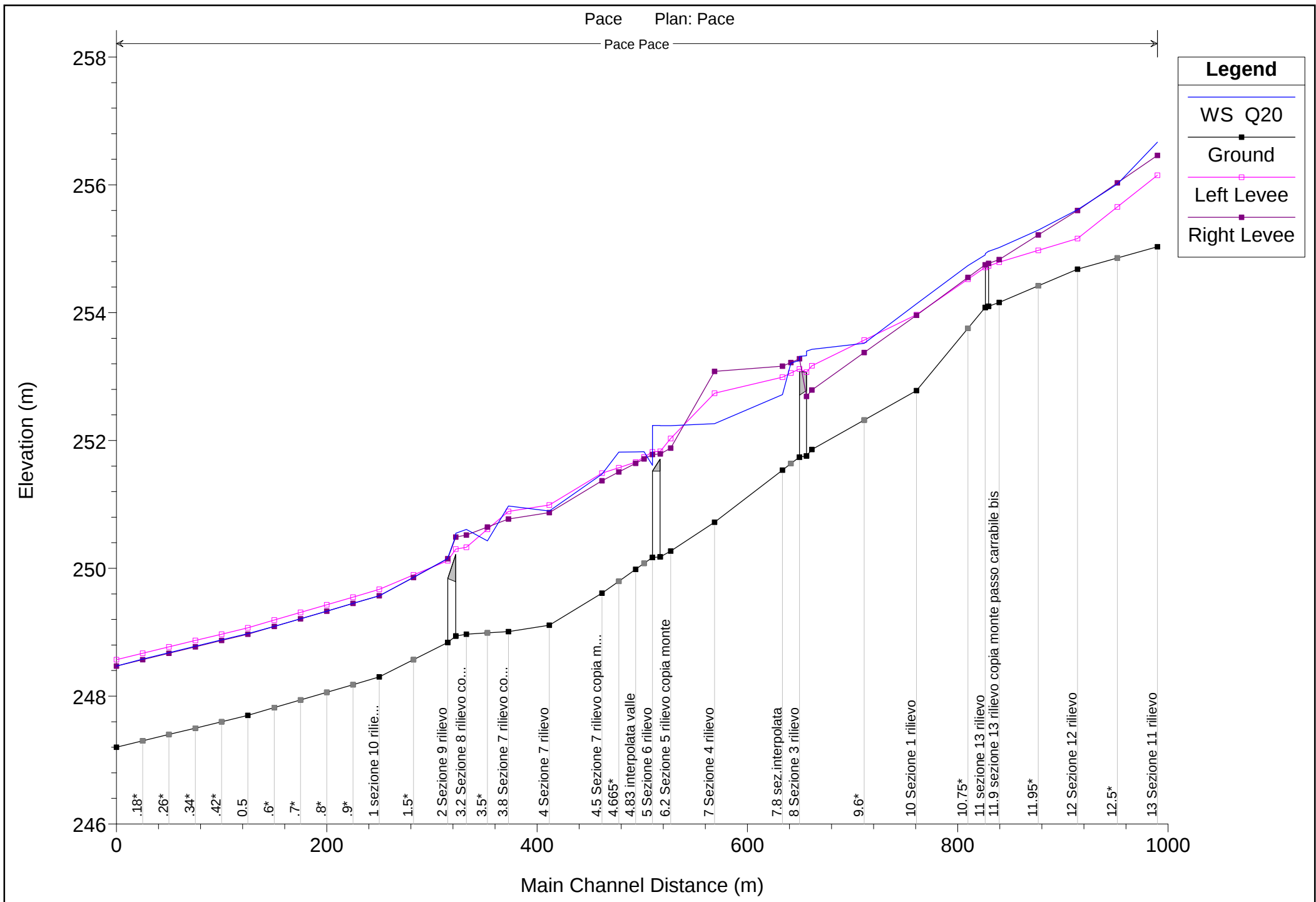
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

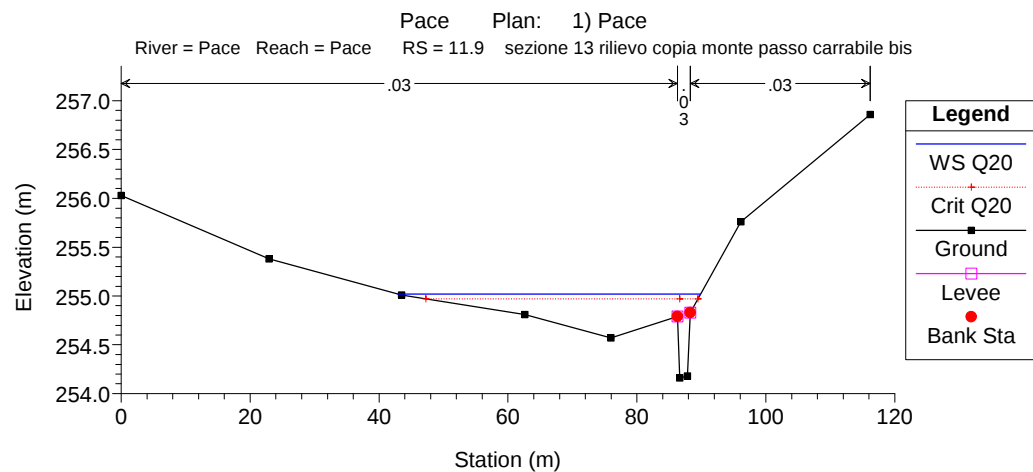
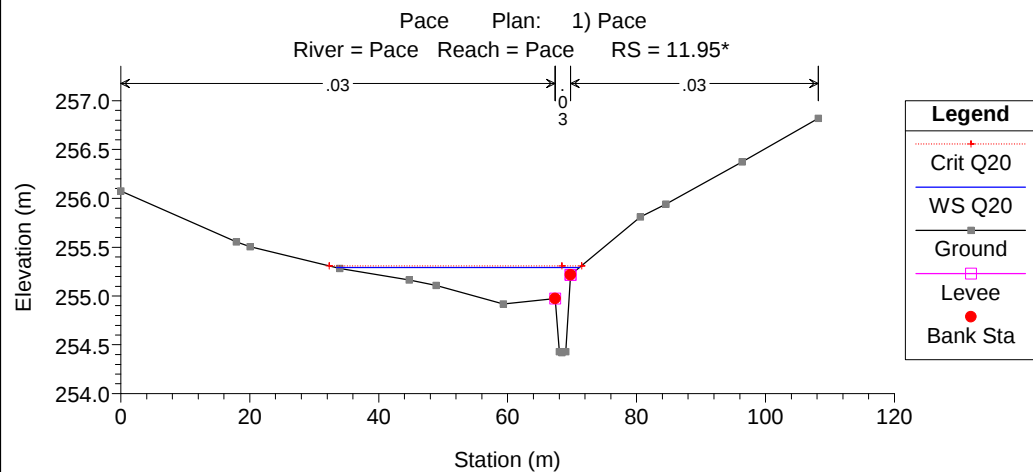
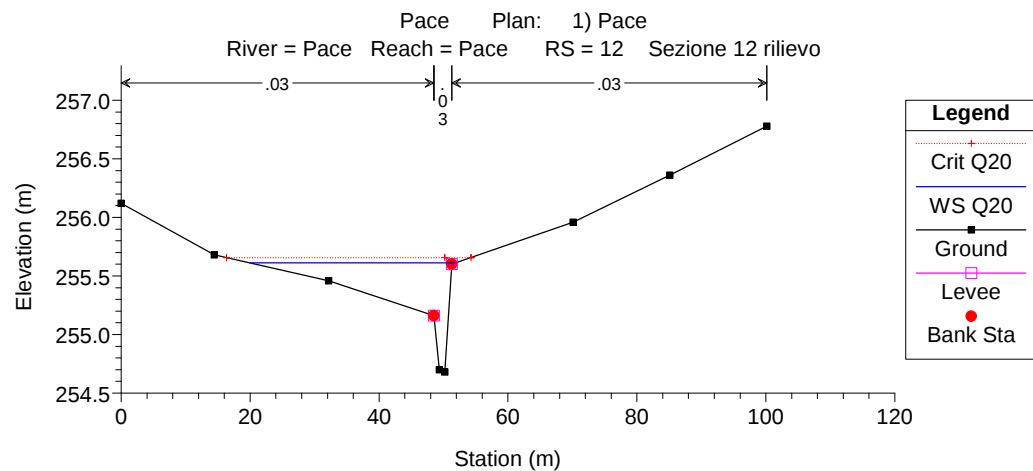
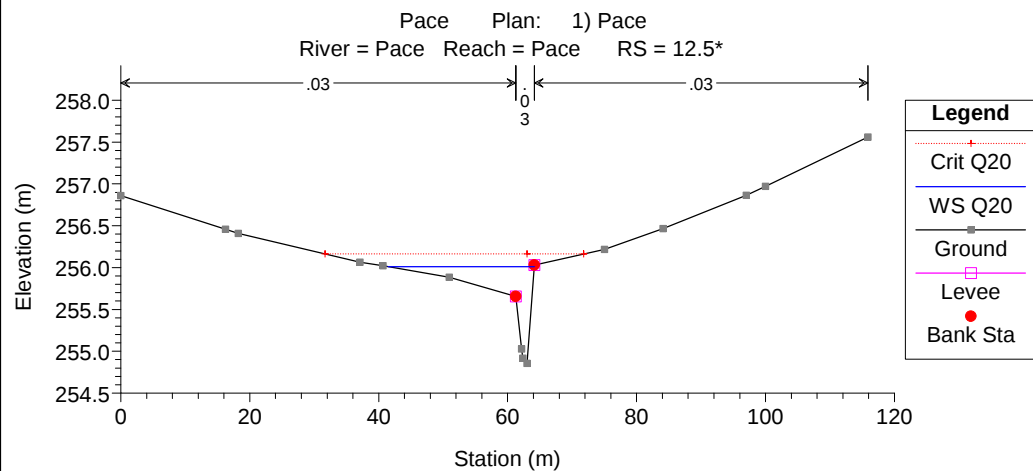
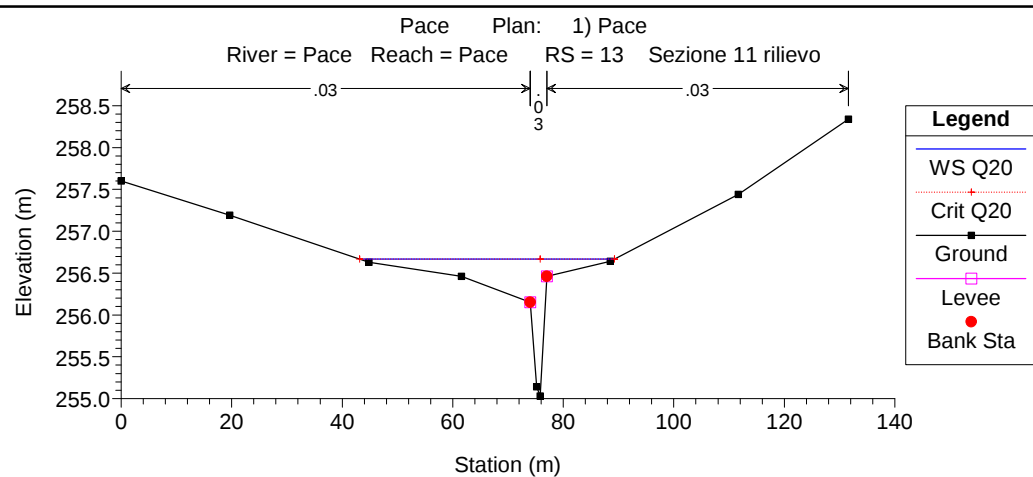
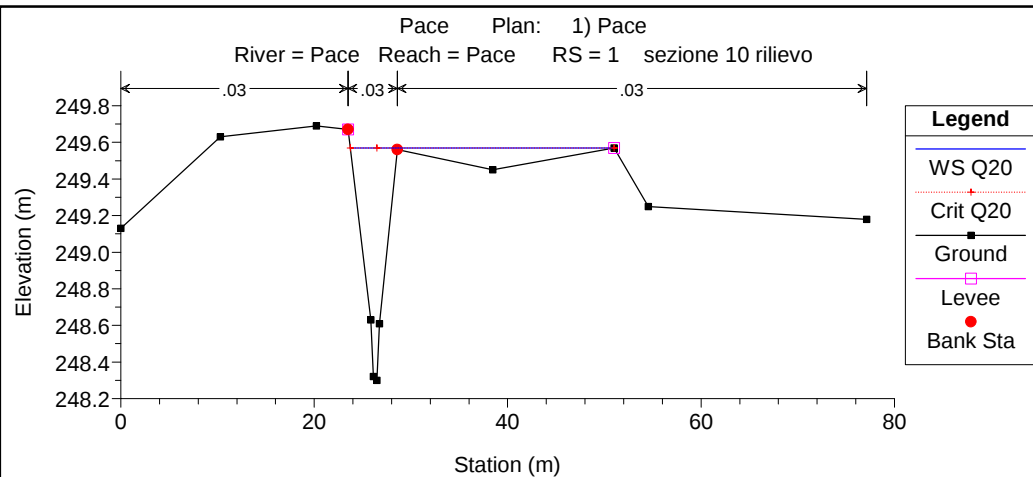


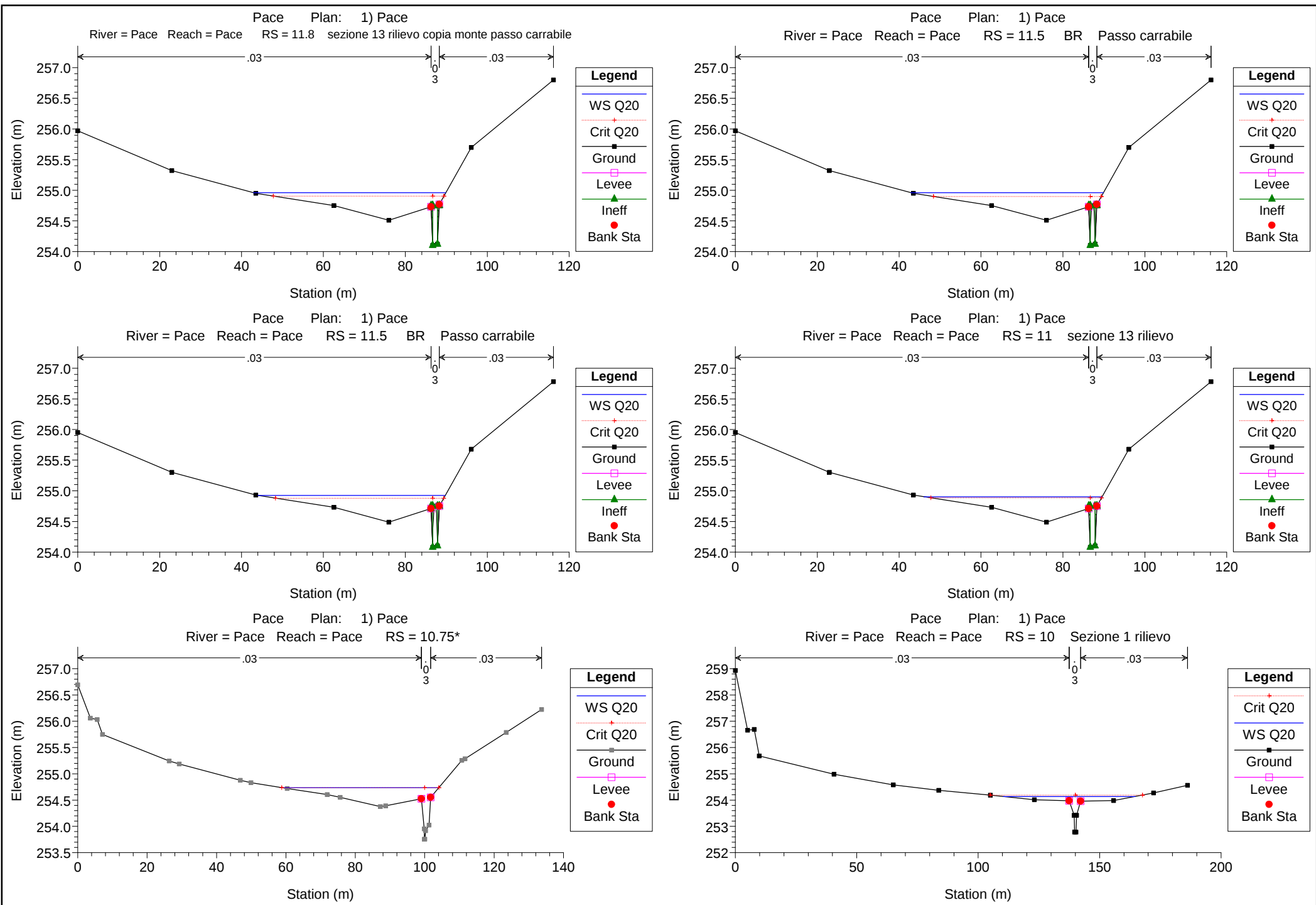
None of the XS's are Geo-Referenced (Geo-Ref user entered XS, Geo-Ref interpolated XS, Non Geo-Ref user entered XS, Non Geo-Ref interpolated XS)

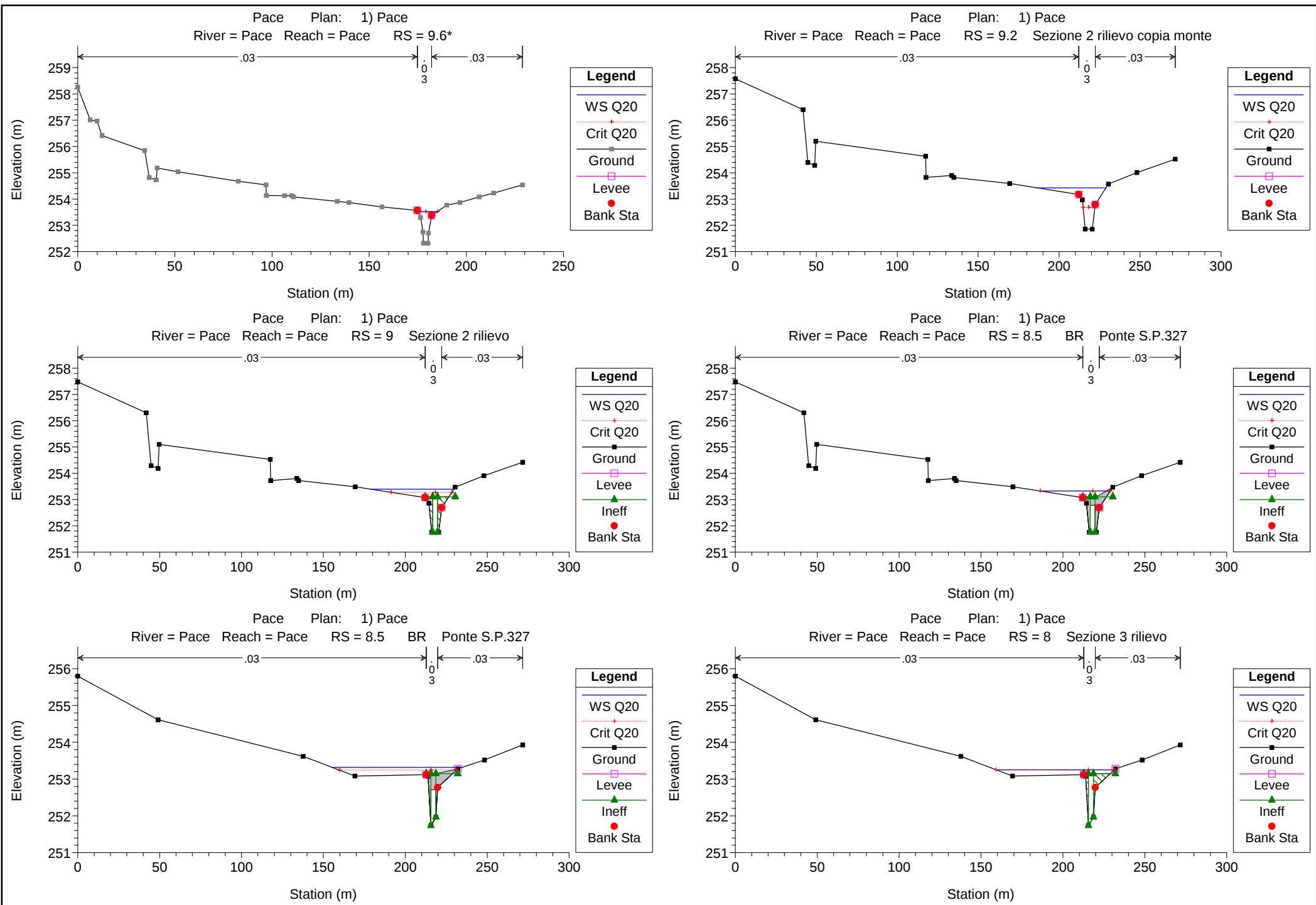


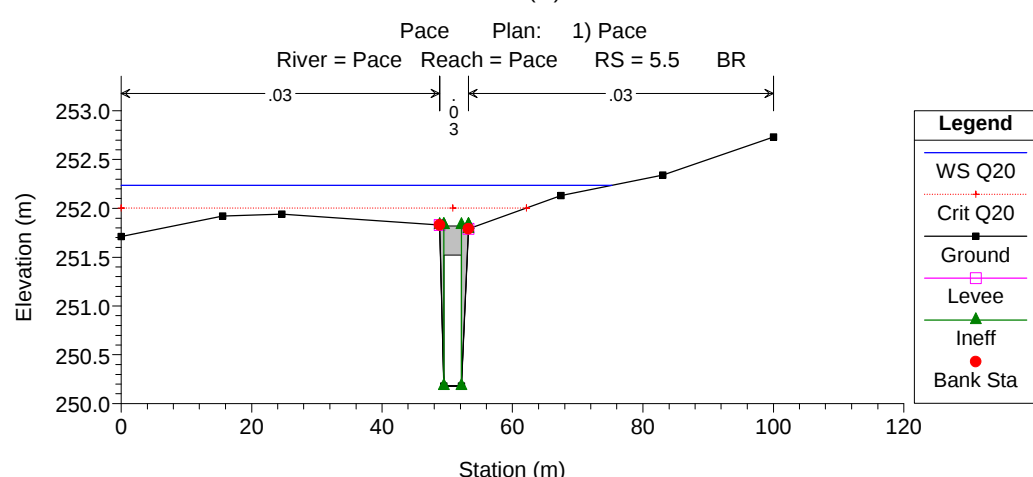
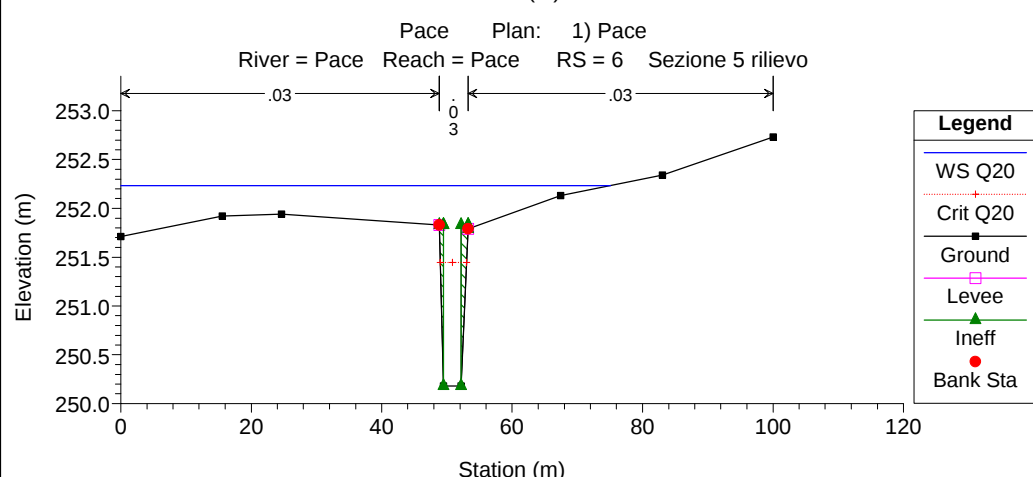
HEC-RAS Plan: Pace River: Pace Reach: Pace Profile: Q20

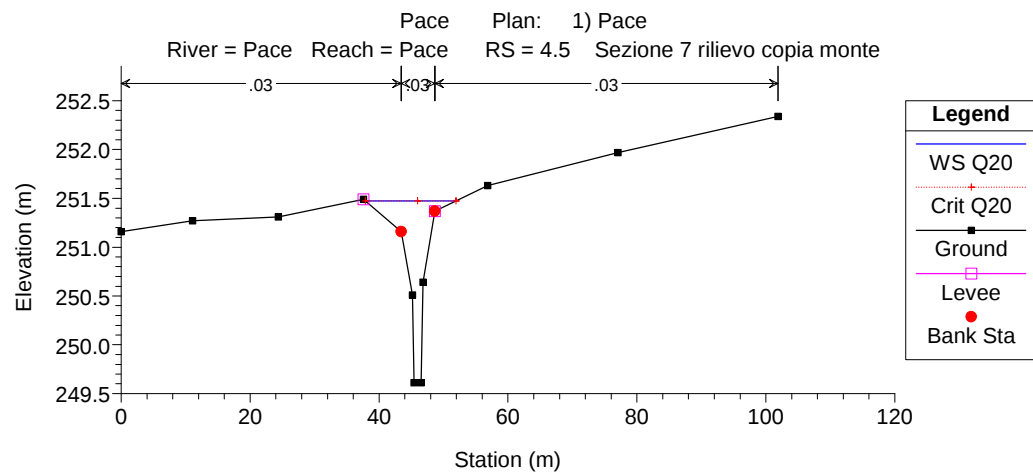
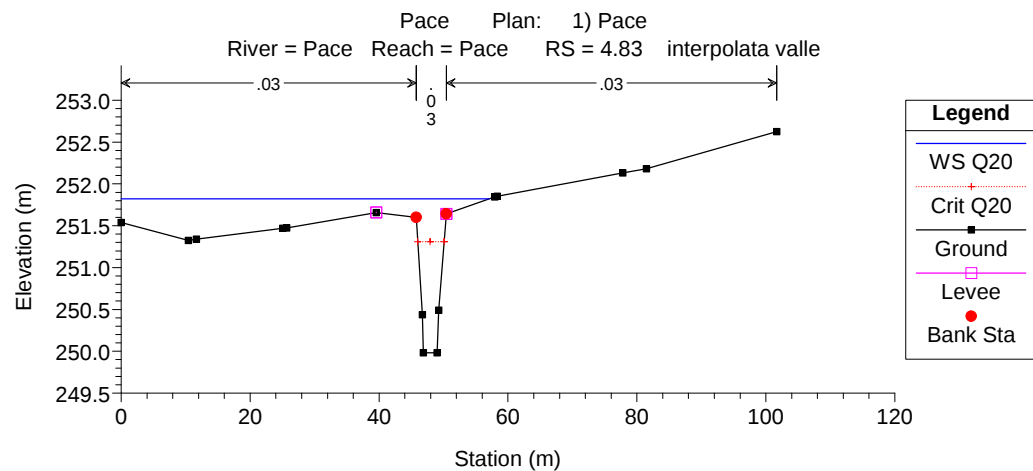
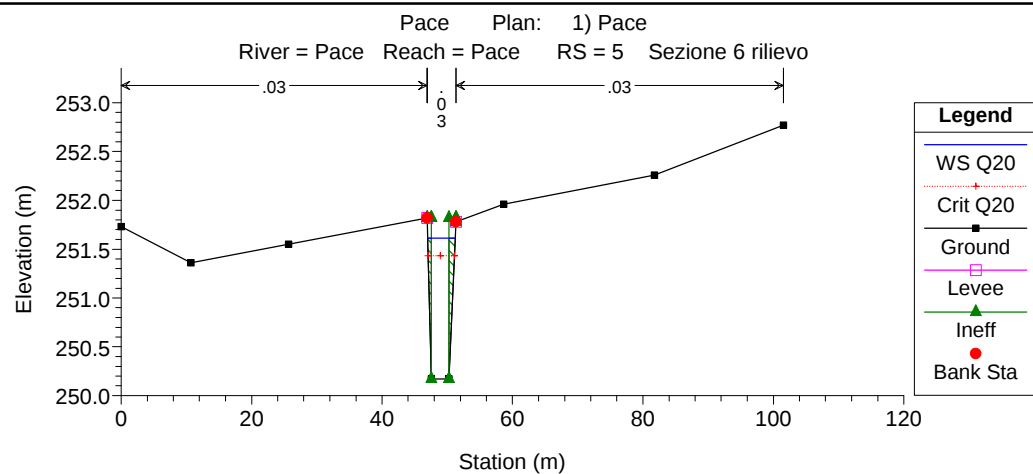
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Pace	13	Q20	12.00	255.03	256.67	256.67	256.77	0.004186	1.89	11.24	46.09	0.57
Pace	12.5*	Q20	12.00	254.85	256.01	256.16	256.44	0.020748	3.47	5.32	22.70	1.27
Pace	12	Q20	12.00	254.68	255.61	255.66	255.78	0.011667	2.50	7.73	31.94	0.97
Pace	11.95*	Q20	12.00	254.42	255.29	255.31	255.42	0.010268	2.25	8.71	37.69	0.88
Pace	11.9	Q20	12.00	254.16	255.02	254.97	255.08	0.005749	1.66	11.61	46.96	0.63
Pace	11.8	Q20	12.00	254.10	254.96	254.91	255.02	0.006414	1.53	11.38	47.01	0.64
Pace	11.5		Bridge									
Pace	11	Q20	12.00	254.08	254.90	254.89	254.99	0.010003	1.81	9.64	43.51	0.79
Pace	10.75*	Q20	12.00	253.76	254.74	254.74	254.83	0.008487	2.01	9.95	45.25	0.79
Pace	10	Q20	12.00	252.78	254.14	254.19	254.31	0.012729	2.33	8.74	54.40	0.96
Pace	9.6*	Q20	12.00	252.32	253.52	253.52	253.82	0.009961	2.43	5.09	9.92	0.93
Pace	9.2	Q20	12.00	251.86	253.42	252.68	253.46	0.000702	0.92	16.73	42.64	0.28
Pace	9	Q20	12.00	251.76	253.40	253.27	253.45	0.002232	1.19	14.21	50.74	0.46
Pace	8.5		Bridge									
Pace	8	Q20	12.00	251.74	253.25	253.25	253.33	0.004231	1.53	13.24	72.27	0.61
Pace	7.9*	Q20	12.00	251.64	253.21	252.78	253.25	0.001119	1.06	19.57	73.73	0.33
Pace	7.8	Q20	12.00	251.54	252.72	252.72	253.12	0.011404	2.80	4.28	5.35	1.00
Pace	7	Q20	12.00	250.72	252.26	252.20	252.30	0.001947	1.16	18.97	80.23	0.37
Pace	6.2	Q20	12.00	250.27	252.23	251.44	252.26	0.000638	0.92	23.12	68.37	0.23
Pace	6	Q20	12.00	250.18	252.23	251.44	252.25	0.000477	0.72	28.19	75.11	0.19
Pace	5.5		Bridge									
Pace	5	Q20	12.00	250.17	251.61	251.43	252.10	0.005244	3.08	3.89	4.24	0.82
Pace	4.915*	Q20	12.00	250.08	251.83	251.31	251.85	0.000922	0.98	19.81	55.29	0.27
Pace	4.83	Q20	12.00	249.98	251.82	251.31	251.84	0.000704	0.87	22.08	57.08	0.24
Pace	4.665*	Q20	12.00	249.80	251.82	251.34	251.83	0.000438	0.69	26.84	62.47	0.19
Pace	4.5	Q20	12.00	249.61	251.47	251.47	251.74	0.008102	2.35	5.81	14.09	0.78
Pace	4	Q20	12.00	249.11	250.90	250.98	251.25	0.011785	2.66	4.85	10.19	0.93
Pace	3.8	Q20	12.00	249.01	250.97	250.88	251.01	0.001511	1.09	17.42	55.06	0.34
Pace	3.5*	Q20	12.00	248.99	250.43	250.43	250.90	0.013479	3.04	3.95	4.18	1.00
Pace	3.2	Q20	12.00	248.97	250.61	250.17	250.66	0.001746	1.32	16.05	67.89	0.35
Pace	3	Q20	12.00	248.94	250.55	250.55	250.63	0.004358	1.65	12.43	62.36	0.52
Pace	2.5		Bridge									
Pace	2	Q20	12.00	248.84	250.15	250.15	250.17	0.000843	1.03	27.68	108.99	0.30
Pace	1.5*	Q20	12.00	248.57	249.86	249.86	249.92	0.003404	1.45	13.87	57.04	0.54
Pace	1	Q20	12.00	248.30	249.57	249.57	249.63	0.004469	1.46	12.93	53.40	0.60
Pace	.9*	Q20	12.00	248.18	249.45	249.45	249.51	0.004462	1.46	12.93	53.40	0.60
Pace	.8*	Q20	12.00	248.06	249.33	249.33	249.39	0.004462	1.46	12.93	53.40	0.60
Pace	.7*	Q20	12.00	247.94	249.21	249.21	249.27	0.004466	1.46	12.93	53.40	0.60
Pace	.6*	Q20	12.00	247.82	249.09	249.09	249.15	0.004475	1.46	12.92	53.40	0.60
Pace	0.5	Q20	12.00	247.70	248.98	248.97	249.03	0.003999	1.39	13.42	53.42	0.57
Pace	.42*	Q20	12.00	247.60	248.88	248.87	248.93	0.003999	1.39	13.42	53.42	0.57
Pace	.34*	Q20	12.00	247.50	248.78	248.77	248.83	0.003998	1.39	13.42	53.42	0.57
Pace	.26*	Q20	12.00	247.40	248.68	248.67	248.73	0.004012	1.39	13.41	53.42	0.57
Pace	.18*	Q20	12.00	247.30	248.58	248.57	248.63	0.003906	1.37	13.53	53.43	0.56
Pace	0.1	Q20	12.00	247.20	248.47	248.47	248.53	0.004471	1.46	12.92	53.40	0.60

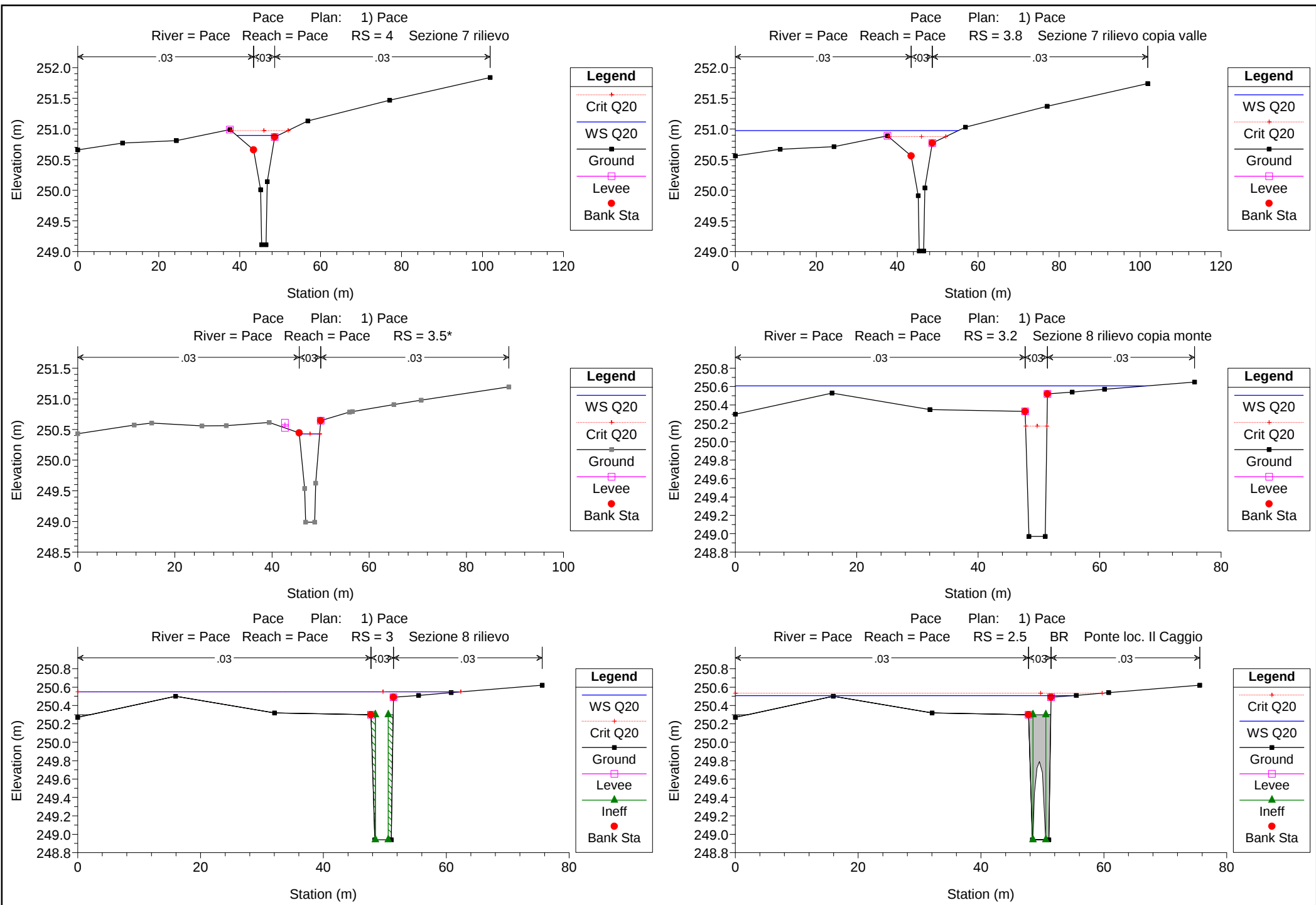


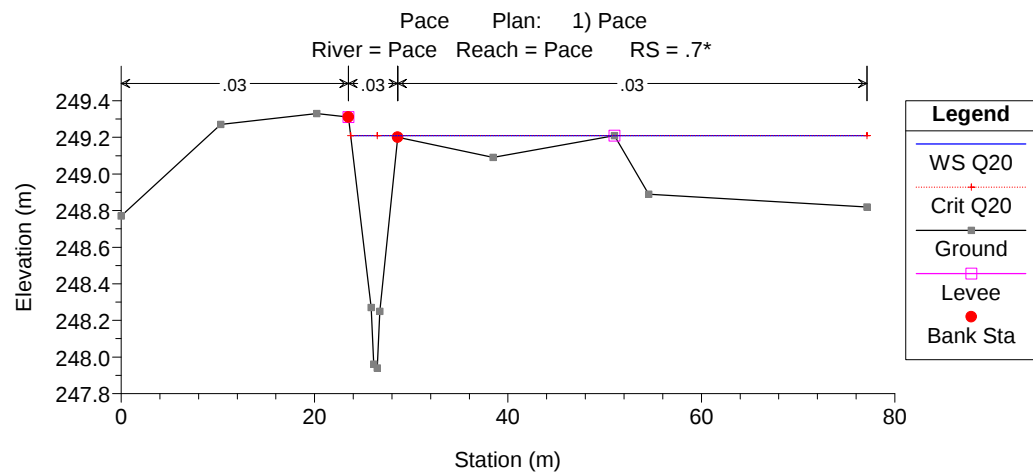
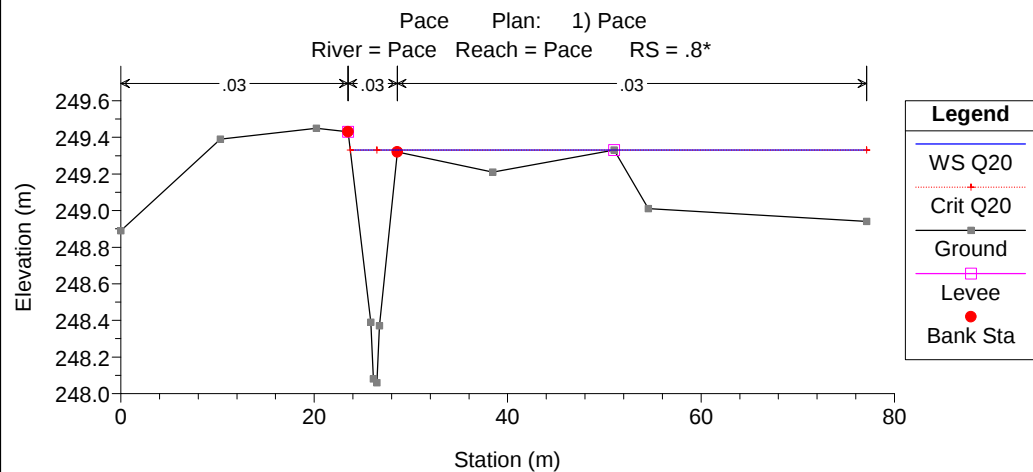
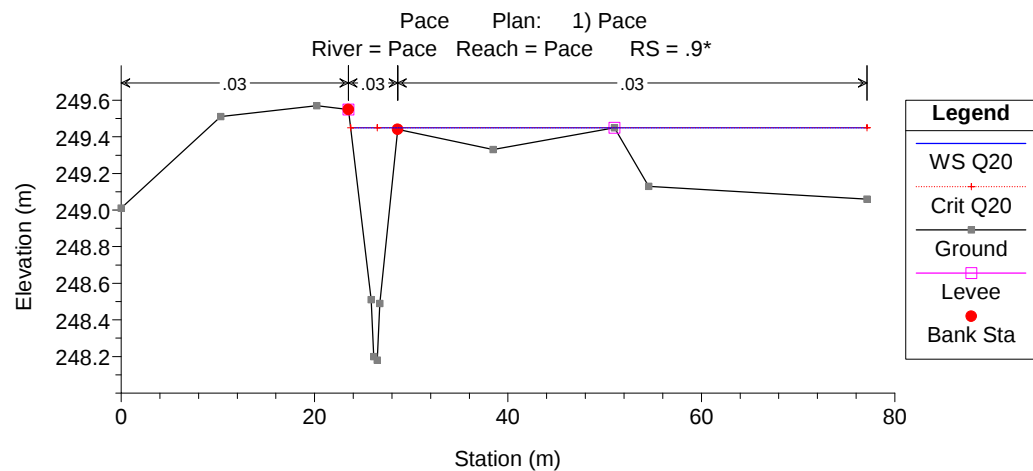
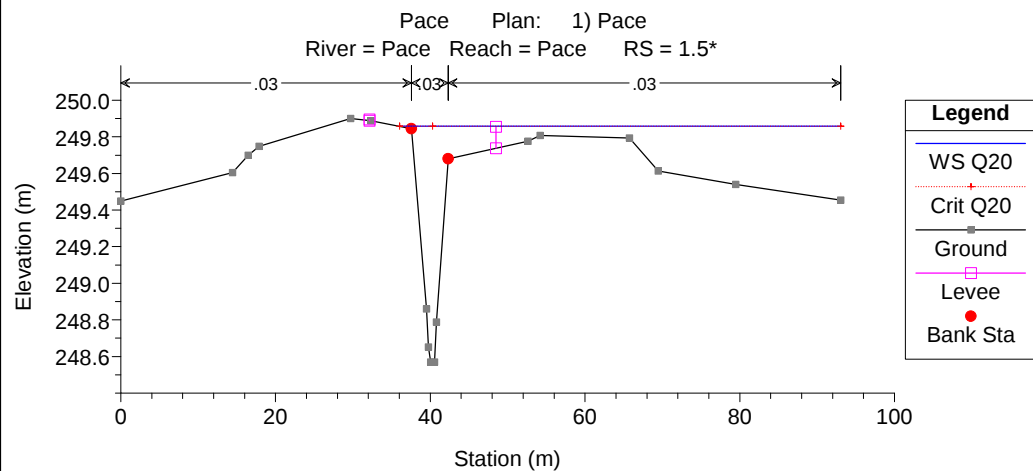
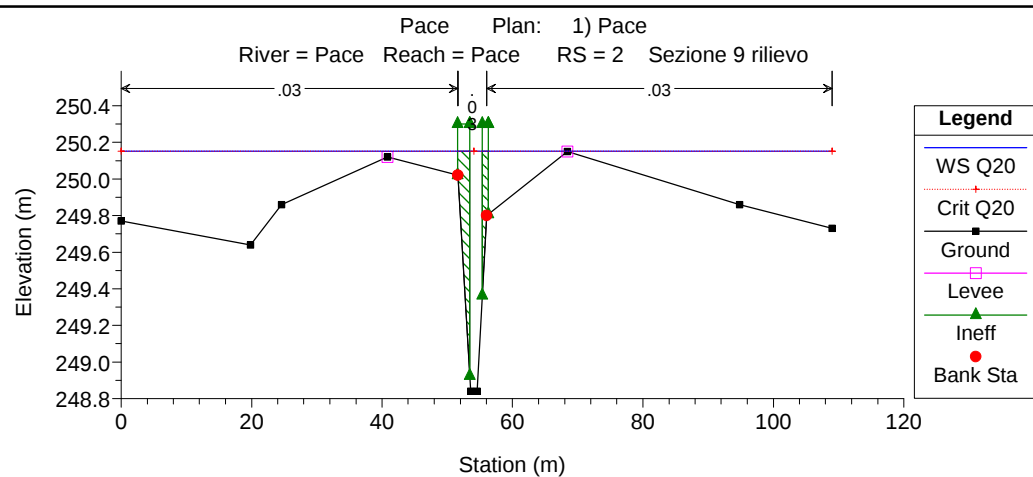
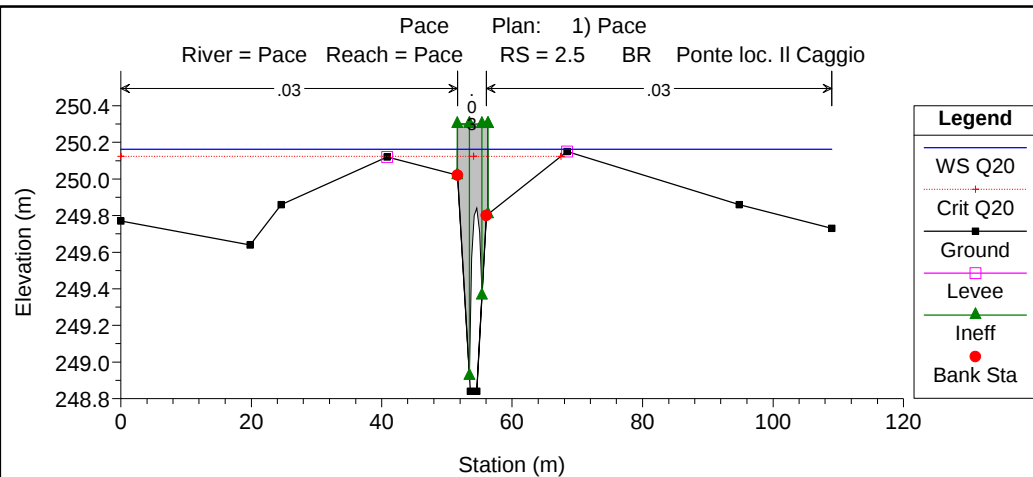


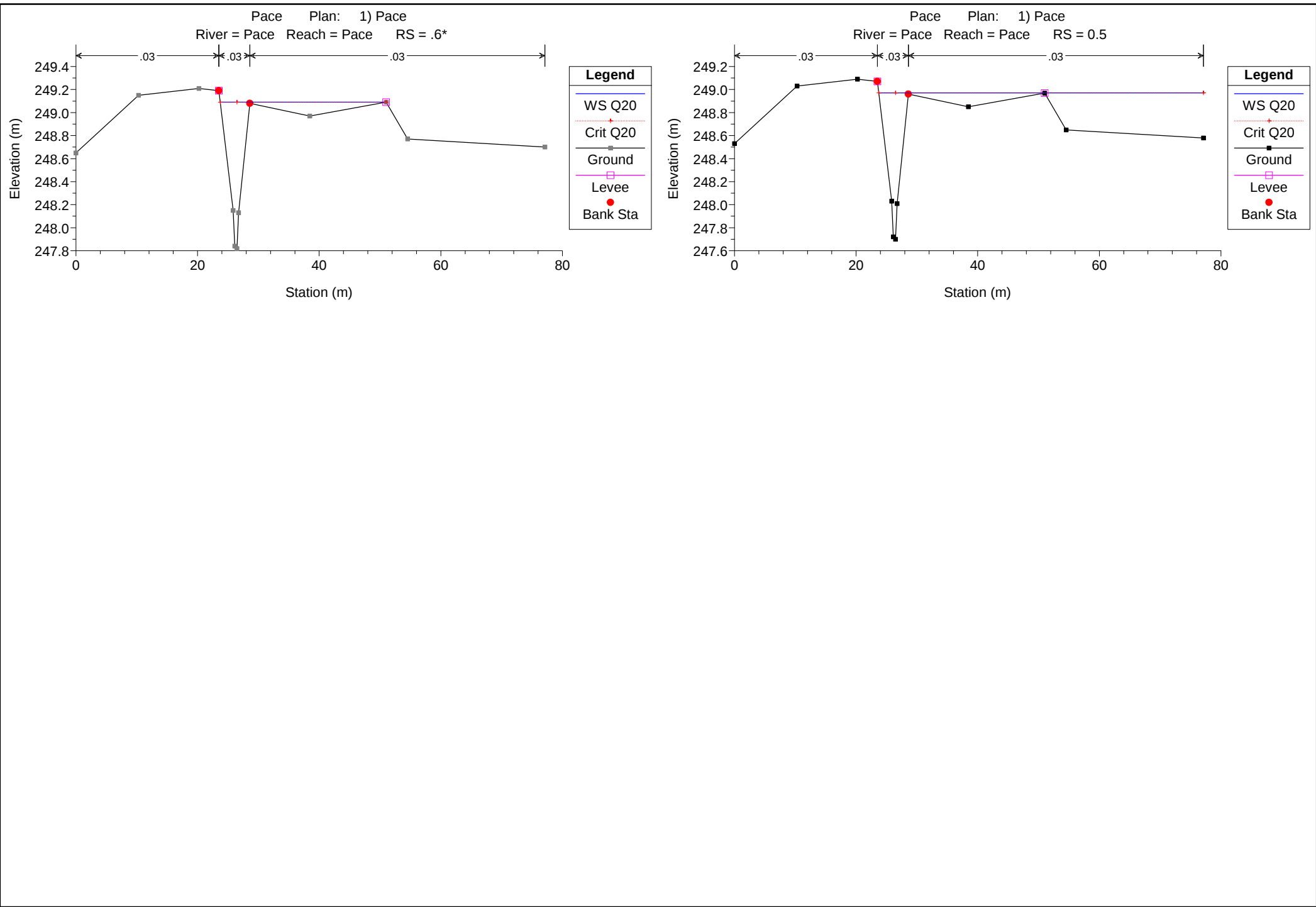


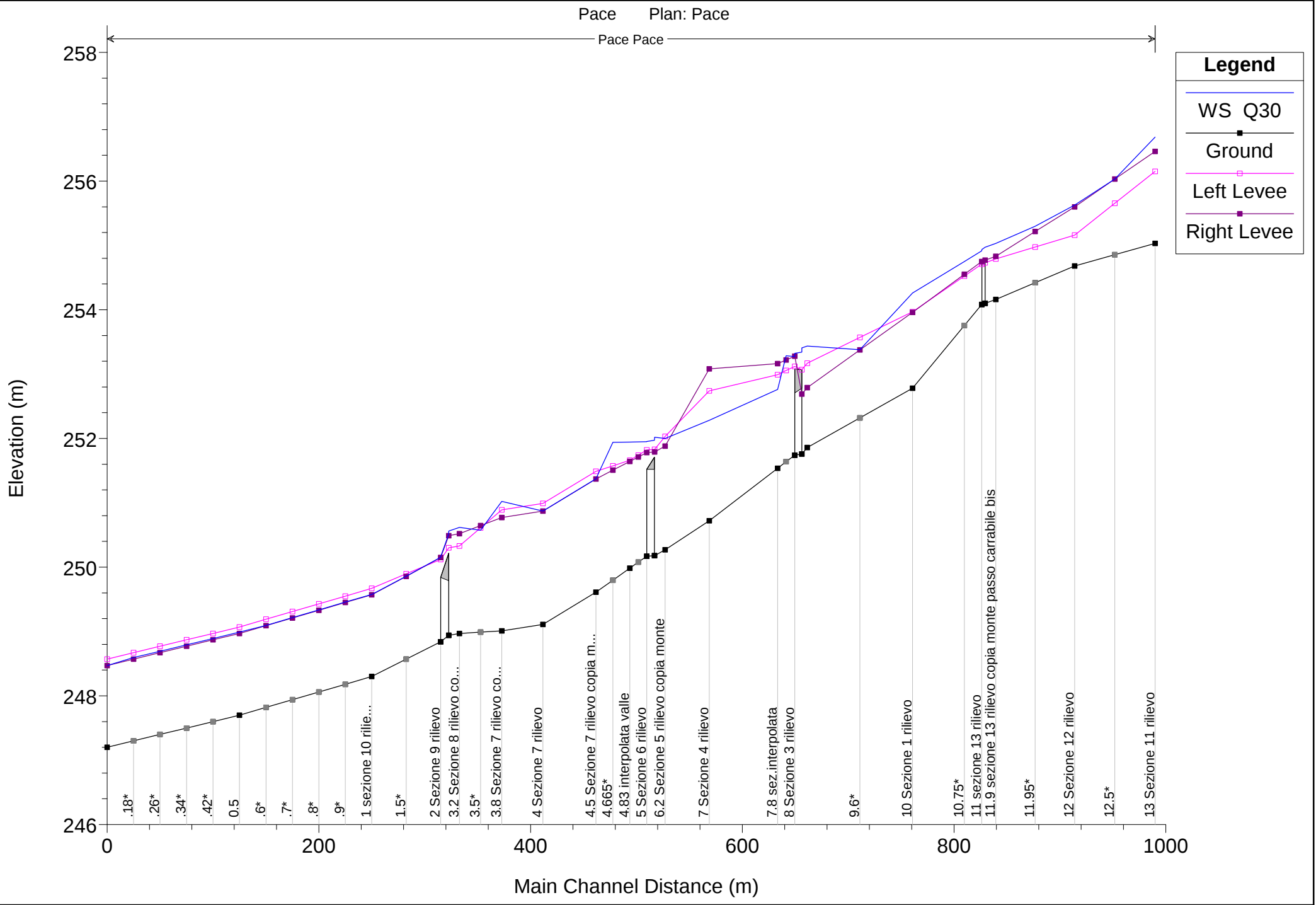






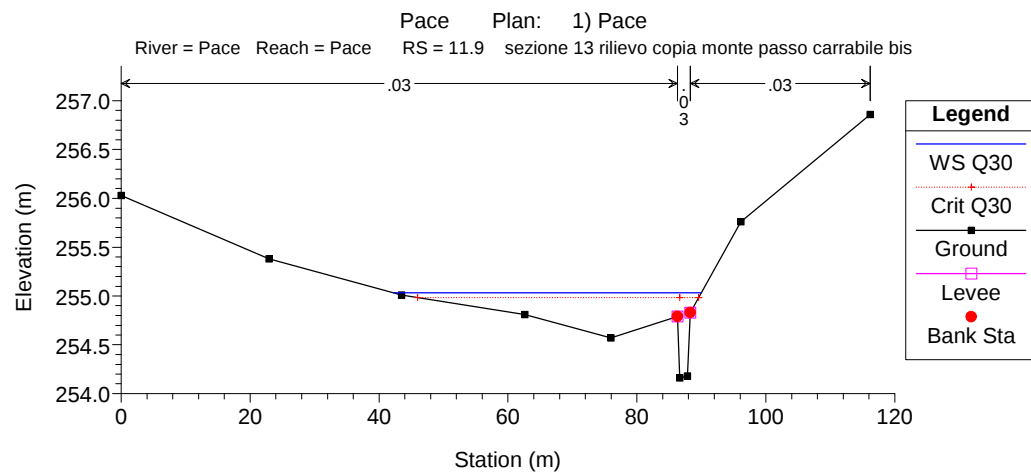
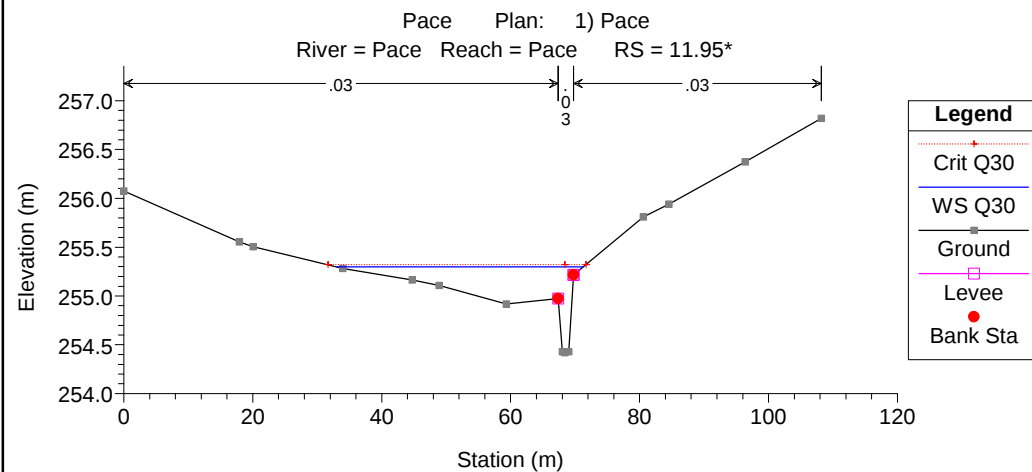
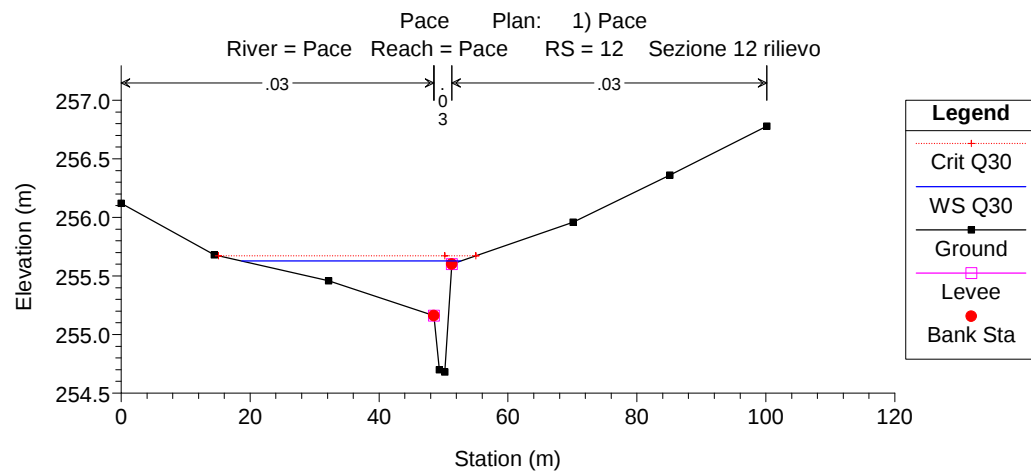
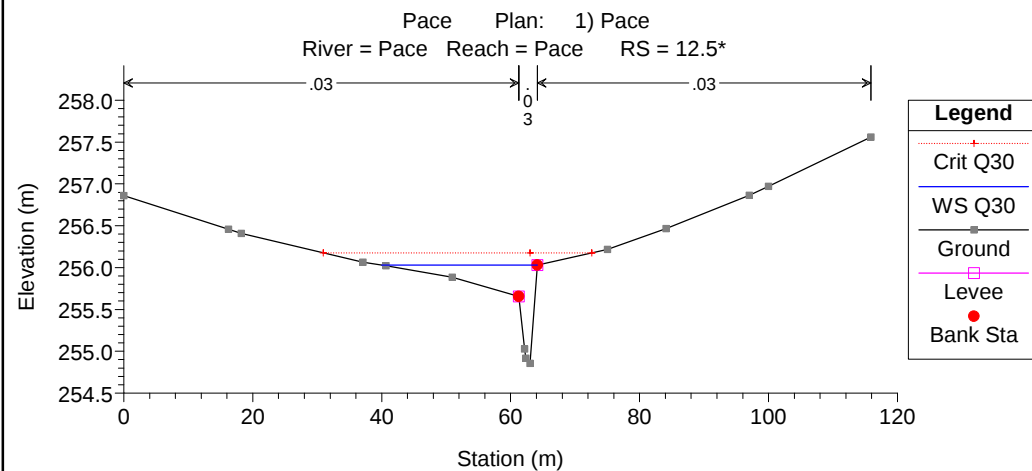
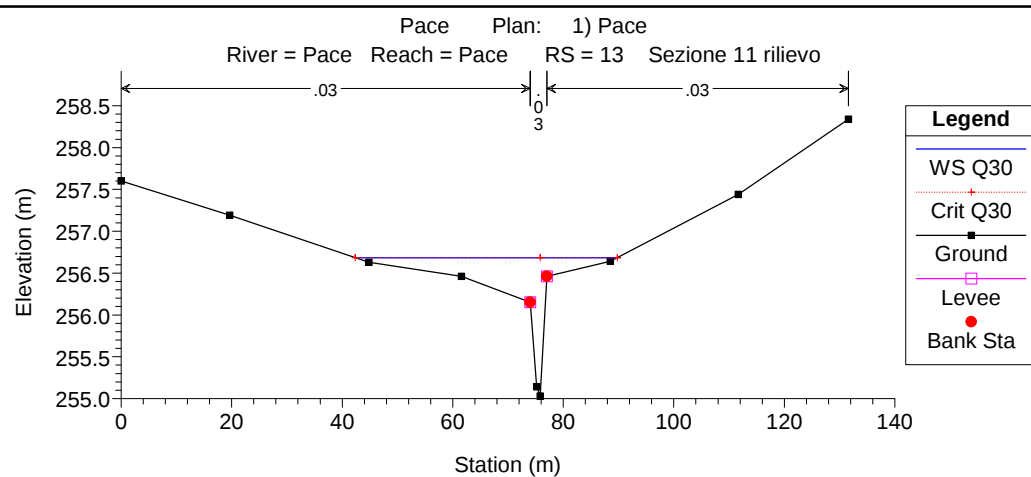
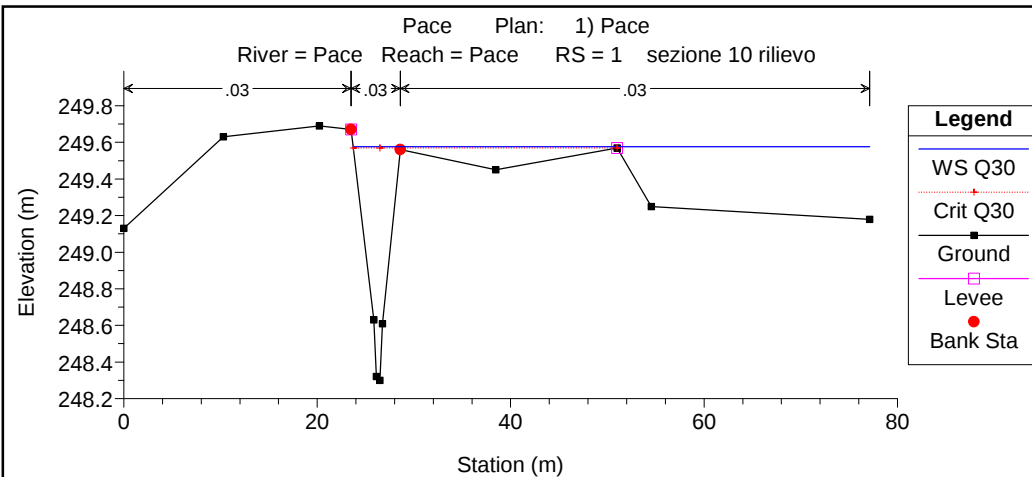


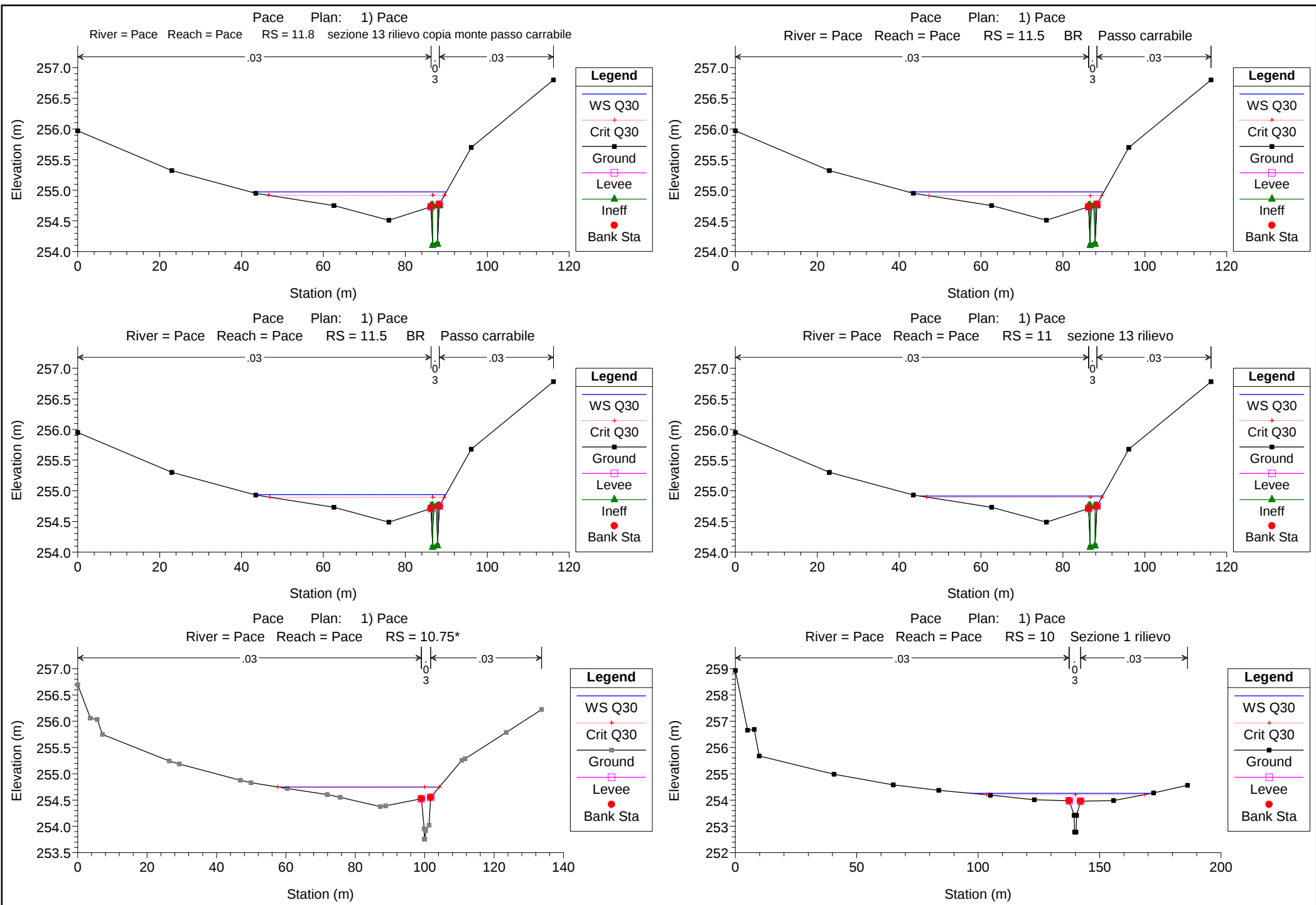


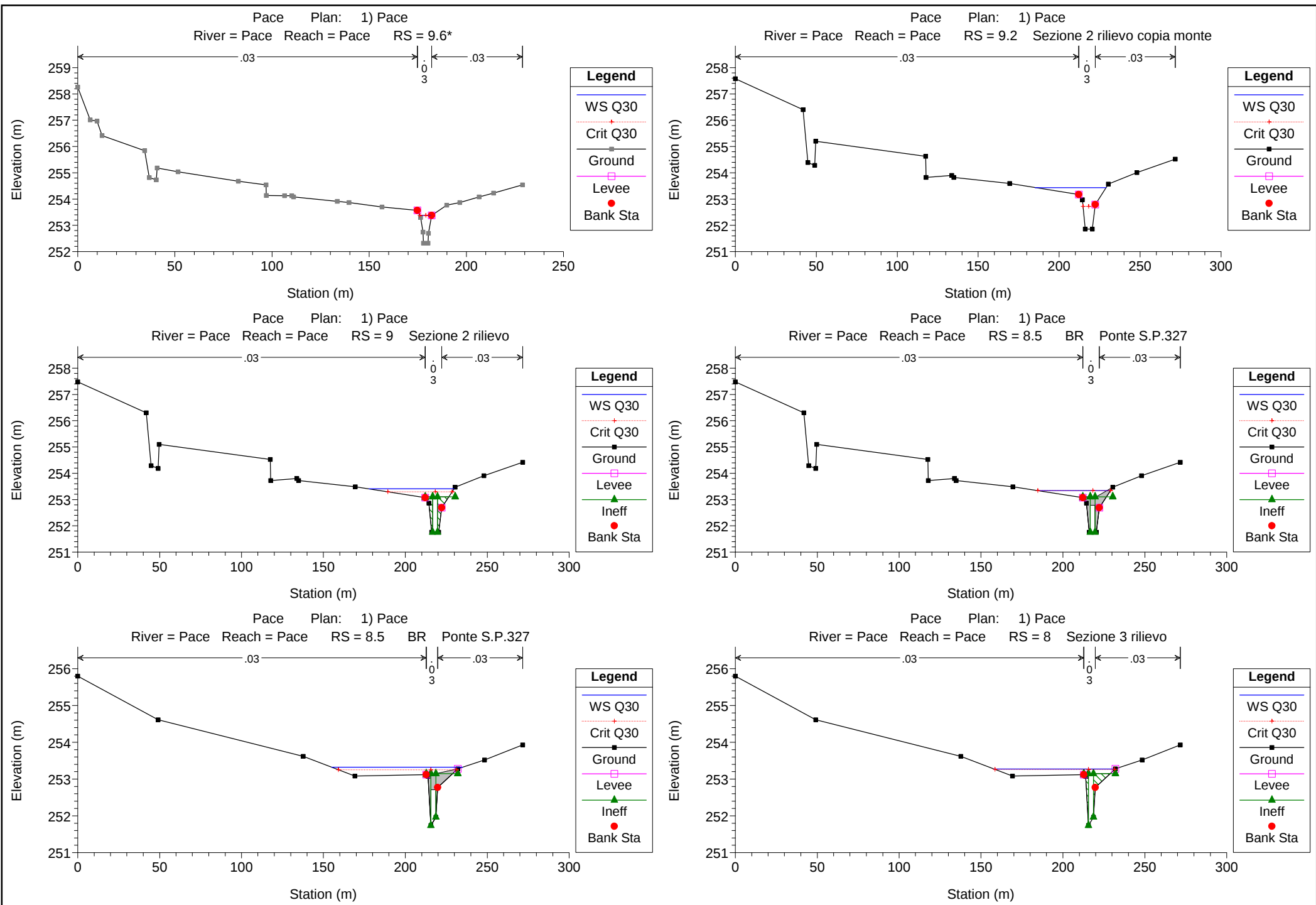


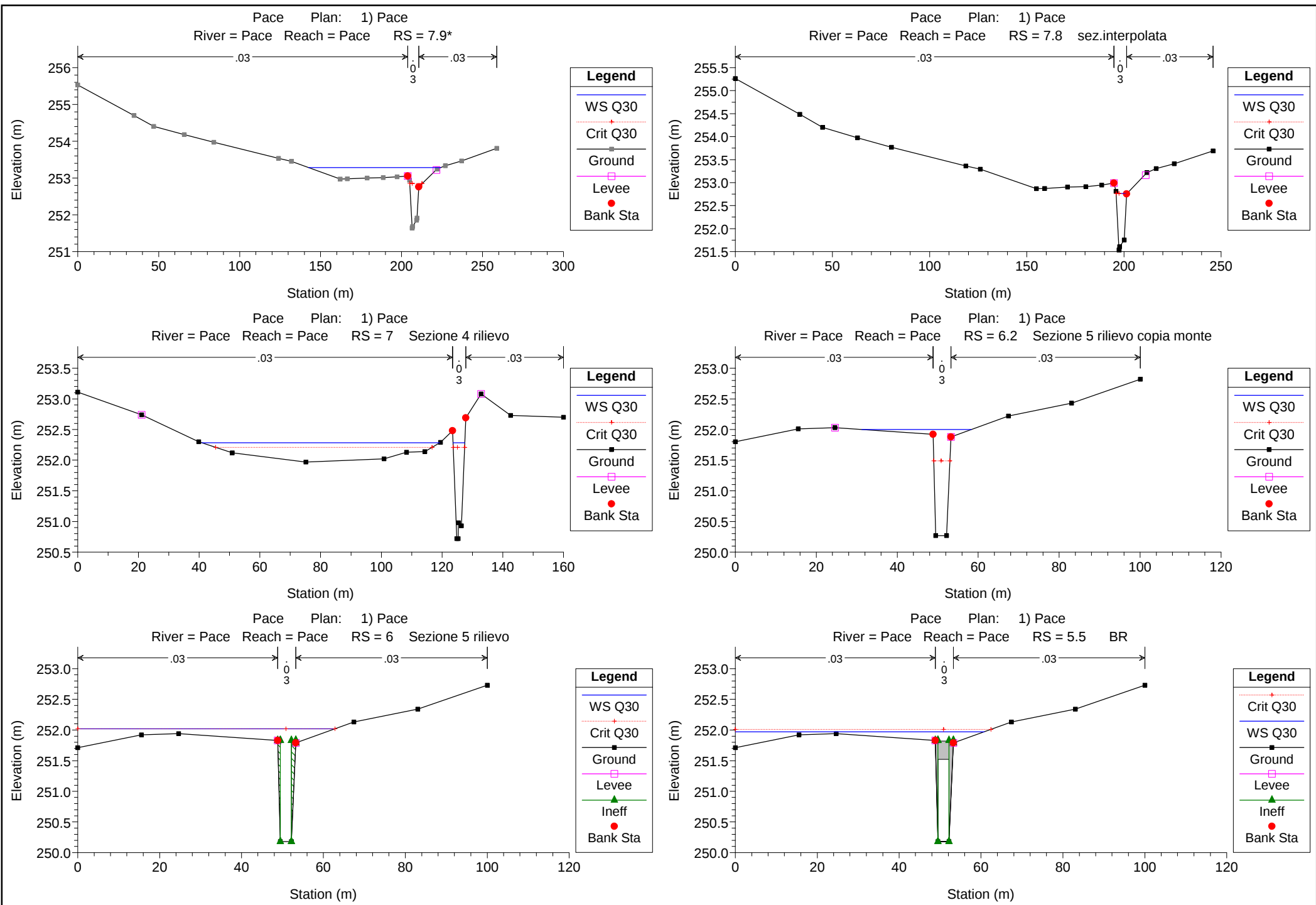
HEC-RAS Plan: Pace River: Pace Reach: Pace Profile: Q30

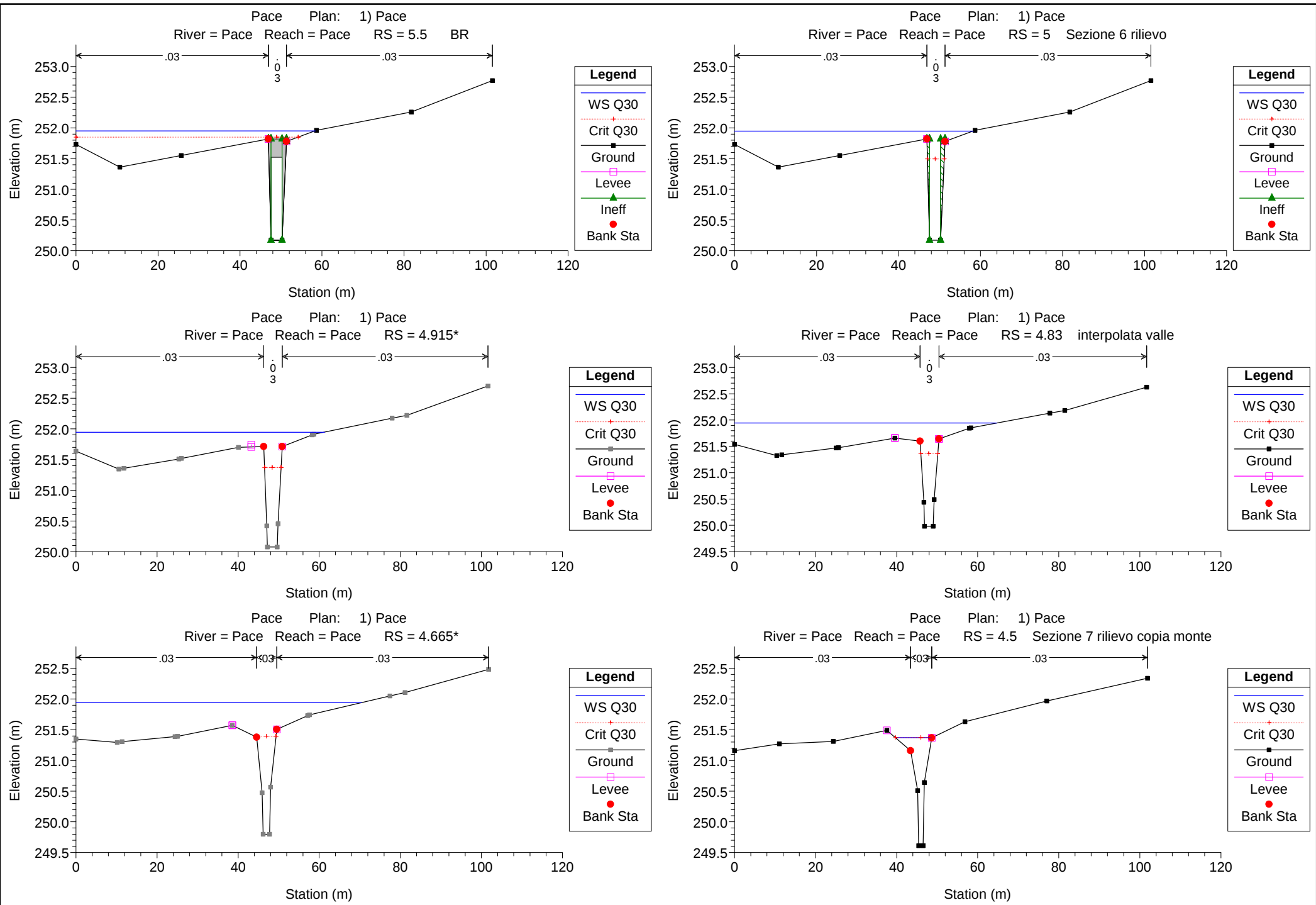
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Pace	13	Q30	12.90	255.03	256.68	256.68	256.79	0.004134	1.90	12.08	47.41	0.57
Pace	12.5*	Q30	12.90	254.85	256.03	256.18	256.46	0.020796	3.51	5.72	24.12	1.27
Pace	12	Q30	12.90	254.68	255.63	255.67	255.80	0.011640	2.53	8.23	34.00	0.98
Pace	11.95*	Q30	12.90	254.42	255.30	255.32	255.44	0.010998	2.35	8.97	38.24	0.91
Pace	11.9	Q30	12.90	254.16	255.03	254.98	255.10	0.005795	1.68	12.20	47.75	0.63
Pace	11.8	Q30	12.90	254.10	254.97	254.92	255.04	0.006499	1.56	11.92	47.73	0.64
Pace	11.5		Bridge									
Pace	11	Q30	12.90	254.08	254.91	254.90	255.00	0.010134	1.85	10.15	44.70	0.79
Pace	10.75*	Q30	12.90	253.76	254.75	254.75	254.85	0.008483	2.04	10.55	46.62	0.80
Pace	10	Q30	12.90	252.78	254.26	254.20	254.31	0.003312	1.34	16.57	74.75	0.50
Pace	9.6*	Q30	12.90	252.32	253.38	253.38	253.92	0.020163	3.27	3.95	6.22	1.30
Pace	9.2	Q30	12.90	251.86	253.44	252.72	253.48	0.000772	0.97	17.21	43.89	0.29
Pace	9	Q30	12.90	251.76	253.41	253.29	253.47	0.002370	1.24	14.77	51.94	0.47
Pace	8.5		Bridge									
Pace	8	Q30	12.90	251.74	253.27	253.26	253.34	0.003802	1.48	14.74	73.96	0.58
Pace	7.9*	Q30	12.90	251.64	253.28	252.85	253.31	0.000731	0.89	25.34	81.51	0.27
Pace	7.8	Q30	12.90	251.54	252.76	252.76	253.18	0.011279	2.85	4.52	5.64	1.00
Pace	7	Q30	12.90	250.72	252.28	252.21	252.31	0.001835	1.13	20.57	82.15	0.36
Pace	6.2	Q30	12.90	250.27	252.00	251.49	252.20	0.003791	2.02	7.26	27.03	0.54
Pace	6	Q30	12.90	250.18	252.02	252.02	252.12	0.003106	1.64	13.64	62.84	0.48
Pace	5.5		Bridge									
Pace	5	Q30	12.90	250.17	251.95	251.49	251.97	0.000850	0.83	22.94	58.22	0.25
Pace	4.915*	Q30	12.90	250.08	251.95	251.37	251.96	0.000485	0.76	26.79	61.32	0.20
Pace	4.83	Q30	12.90	249.98	251.94	251.36	251.96	0.000381	0.68	29.43	64.61	0.18
Pace	4.665*	Q30	12.90	249.80	251.94	251.39	251.95	0.000248	0.55	35.03	70.38	0.15
Pace	4.5	Q30	12.90	249.61	251.37	251.37	251.81	0.015131	2.96	4.63	9.08	1.05
Pace	4	Q30	12.90	249.11	250.87	250.87	251.31	0.015139	2.97	4.63	9.08	1.05
Pace	3.8	Q30	12.90	249.01	251.02	250.77	251.05	0.001174	0.99	20.19	56.63	0.31
Pace	3.5*	Q30	12.90	248.99	250.57	250.57	250.96	0.009903	2.79	4.82	7.28	0.87
Pace	3.2	Q30	12.90	248.97	250.62	250.23	250.68	0.001867	1.37	16.68	69.59	0.36
Pace	3	Q30	12.90	248.94	250.56	250.56	250.64	0.004421	1.68	13.17	64.52	0.52
Pace	2.5		Bridge									
Pace	2	Q30	12.90	248.84	250.15	250.15	250.17	0.000974	1.11	27.68	108.99	0.32
Pace	1.5*	Q30	12.90	248.57	249.86	249.86	249.93	0.003934	1.56	13.87	57.04	0.58
Pace	1	Q30	12.90	248.30	249.58	249.57	249.64	0.004797	1.52	13.25	53.42	0.62
Pace	.9*	Q30	12.90	248.18	249.46	249.45	249.52	0.004799	1.52	13.25	53.42	0.62
Pace	.8*	Q30	12.90	248.06	249.34	249.33	249.40	0.004817	1.52	13.24	53.42	0.62
Pace	.7*	Q30	12.90	247.94	249.22	249.21	249.28	0.004763	1.51	13.29	53.42	0.62
Pace	.6*	Q30	12.90	247.82	249.09	249.09	249.16	0.004870	1.53	13.19	53.42	0.62
Pace	0.5	Q30	12.90	247.70	248.99	248.97	249.05	0.004000	1.40	14.09	53.45	0.57
Pace	.42*	Q30	12.90	247.60	248.89	248.87	248.95	0.003999	1.40	14.09	53.45	0.57
Pace	.34*	Q30	12.90	247.50	248.79	248.77	248.85	0.004004	1.40	14.08	53.45	0.57
Pace	.26*	Q30	12.90	247.40	248.69	248.67	248.75	0.003977	1.40	14.12	53.45	0.57
Pace	.18*	Q30	12.90	247.30	248.60	248.57	248.65	0.003770	1.37	14.37	53.47	0.55
Pace	0.1	Q30	12.90	247.20	248.47	248.47	248.54	0.005167	1.57	12.92	53.40	0.64

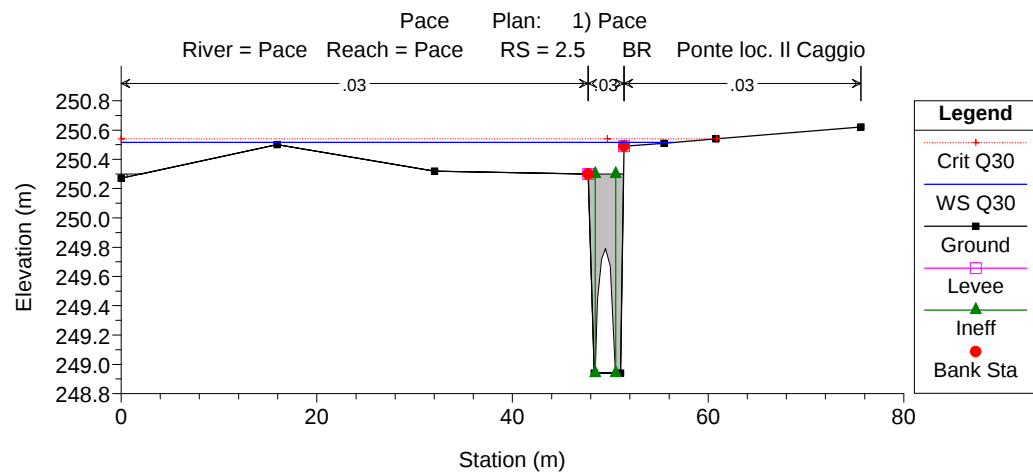
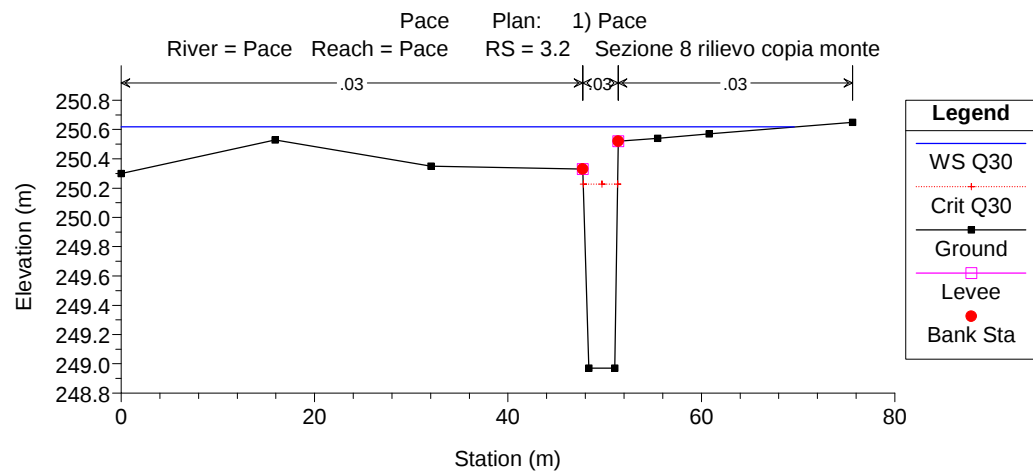
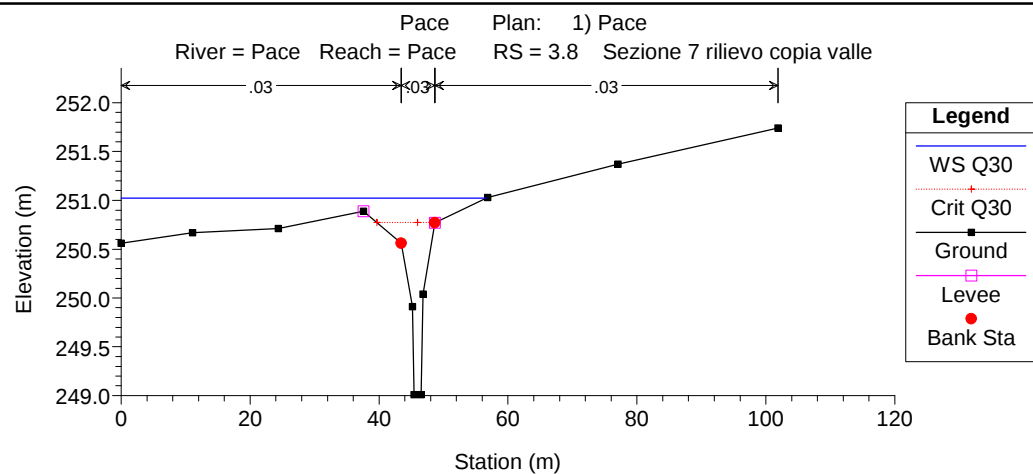


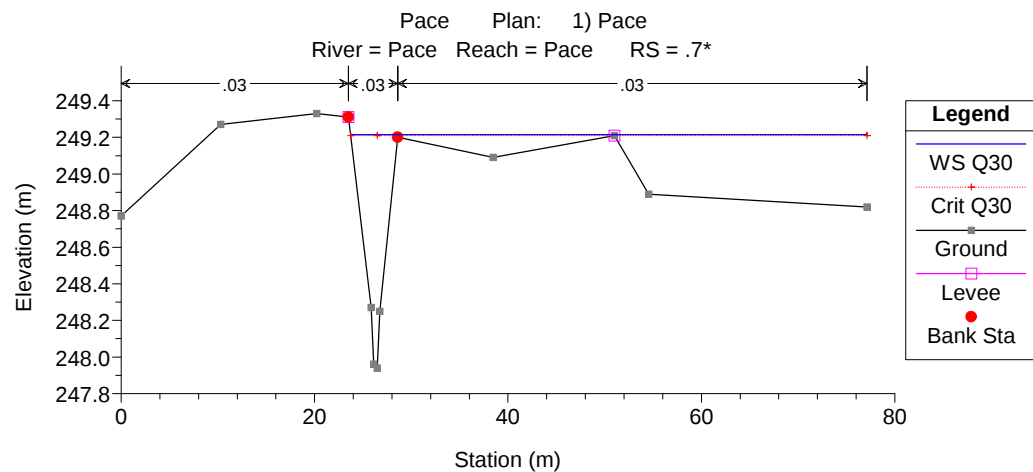
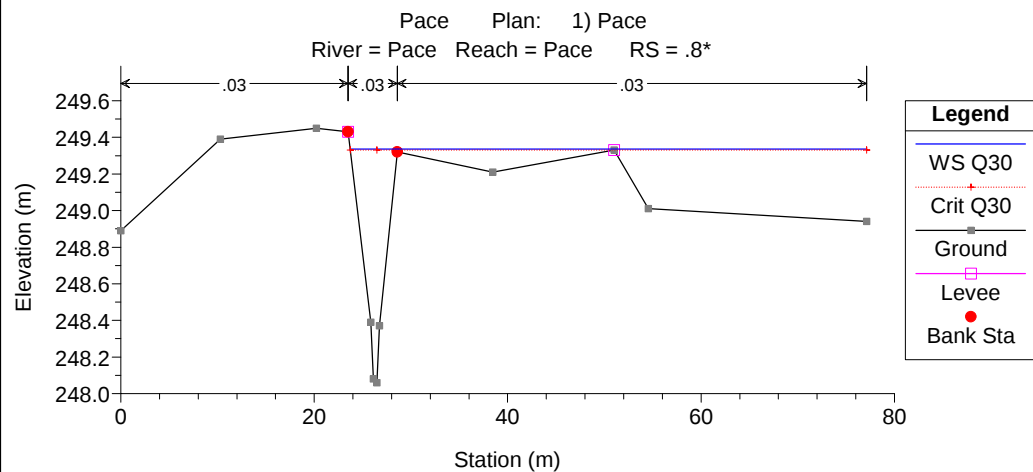
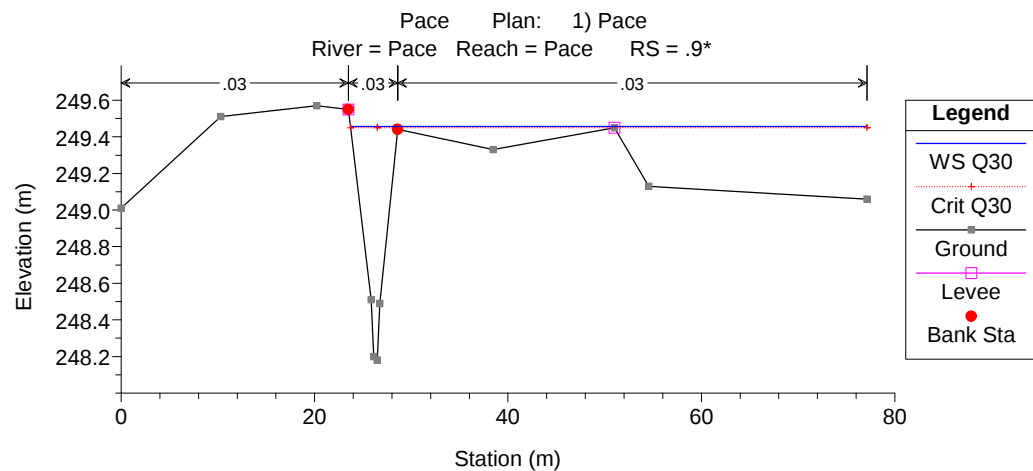
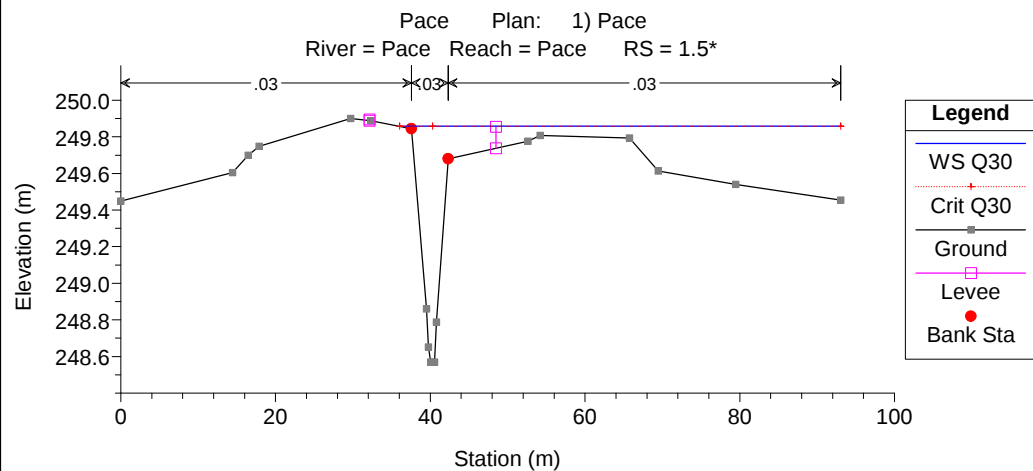
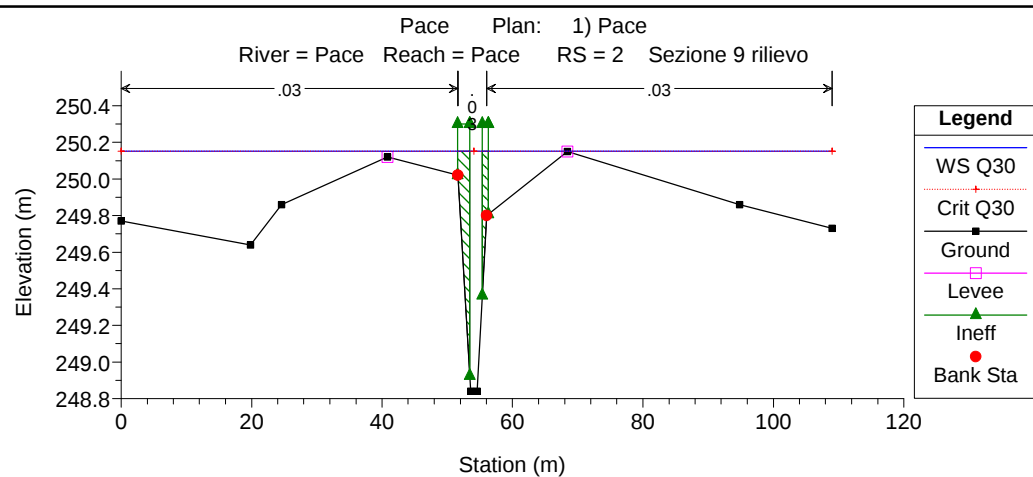
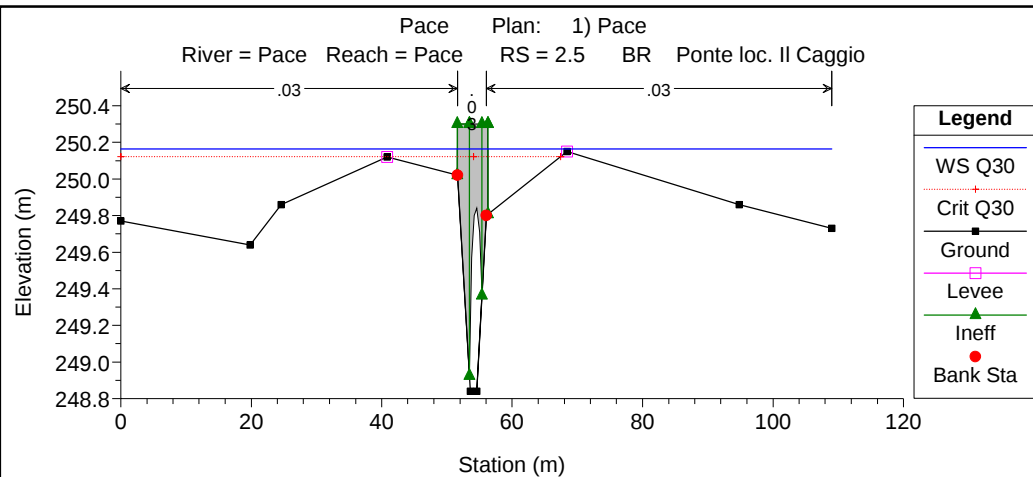


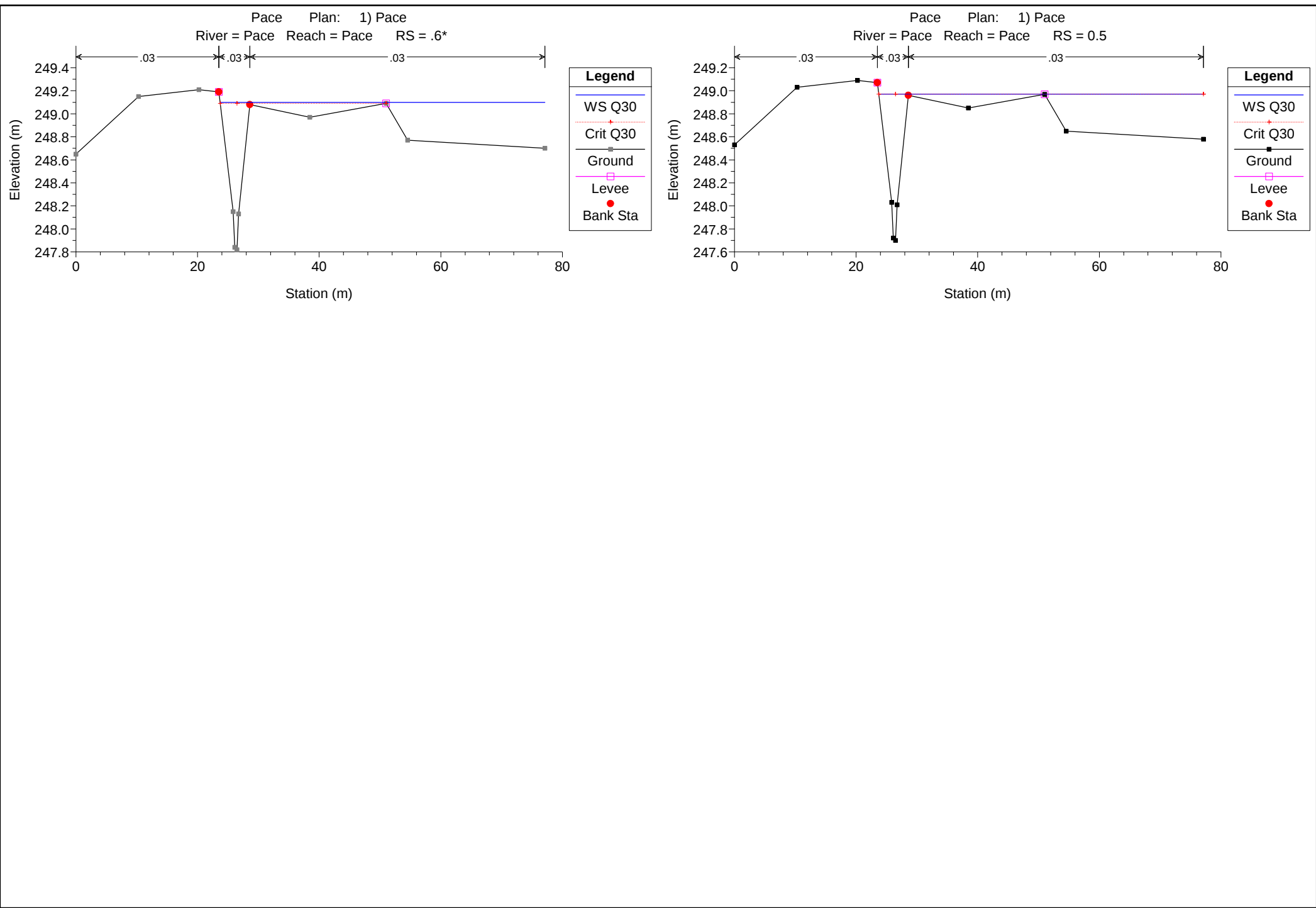


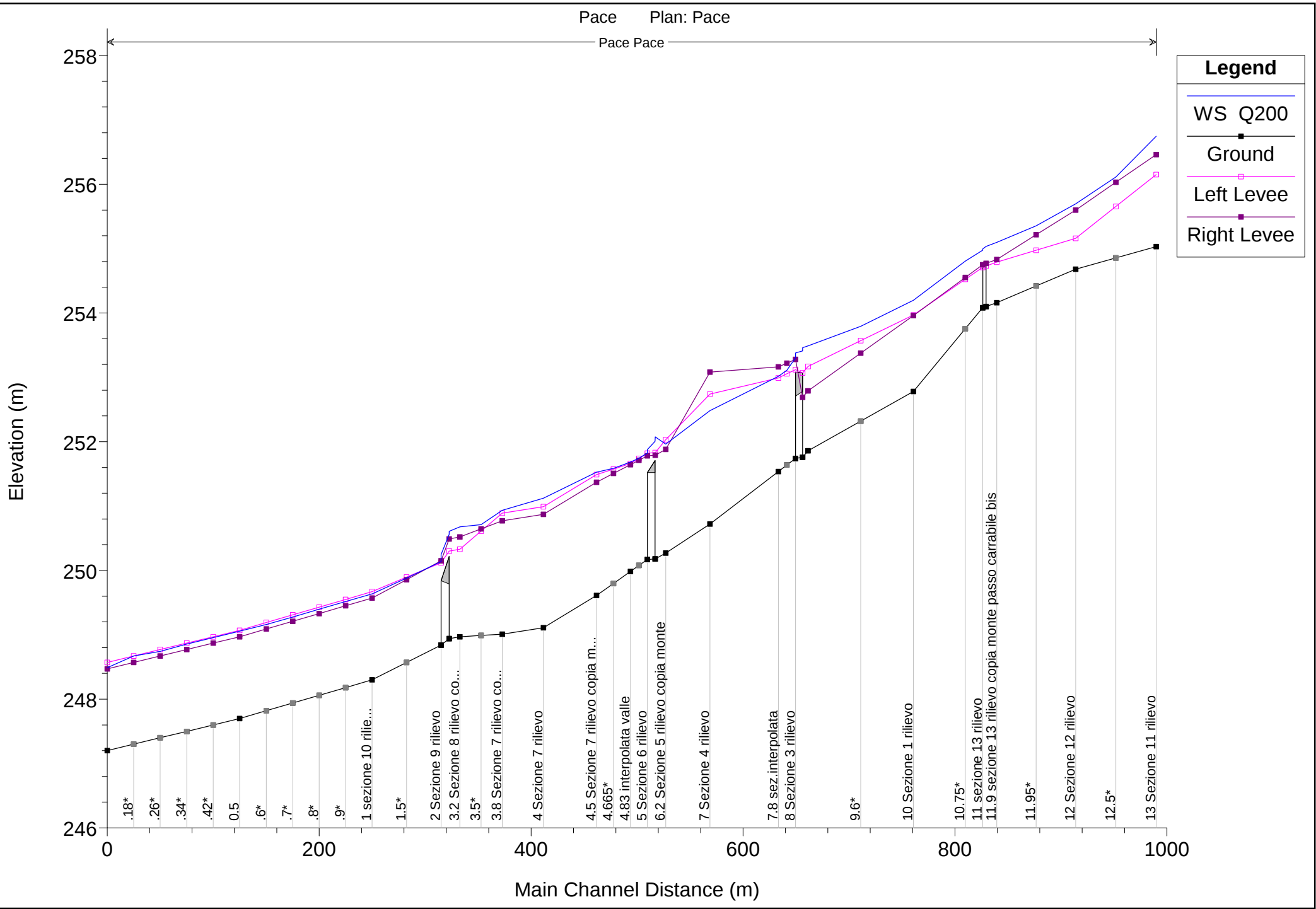






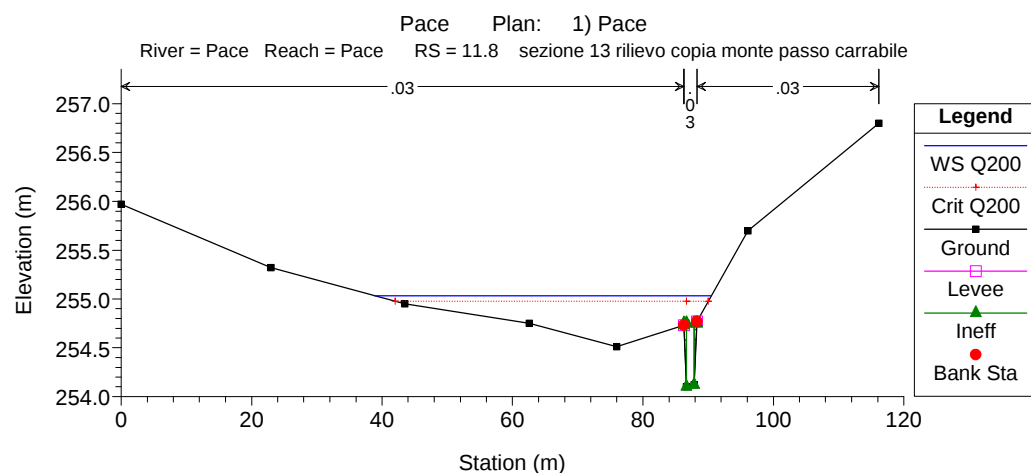
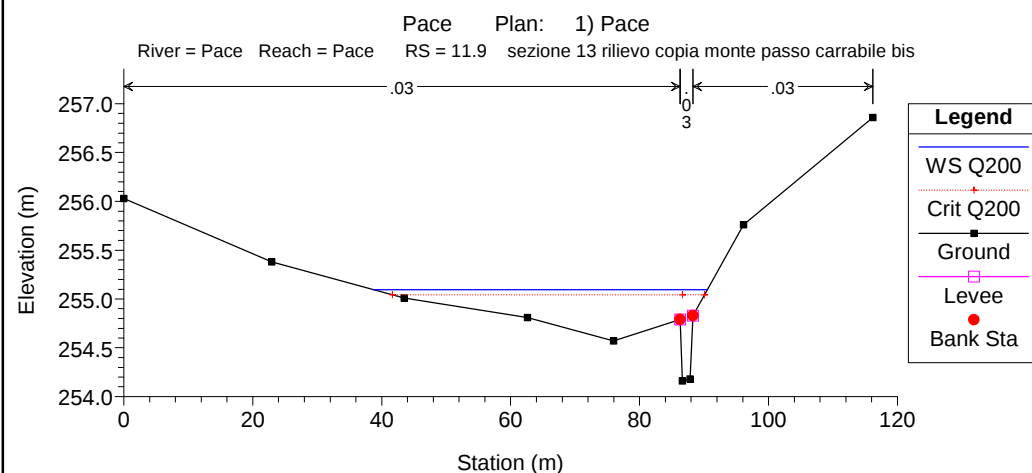
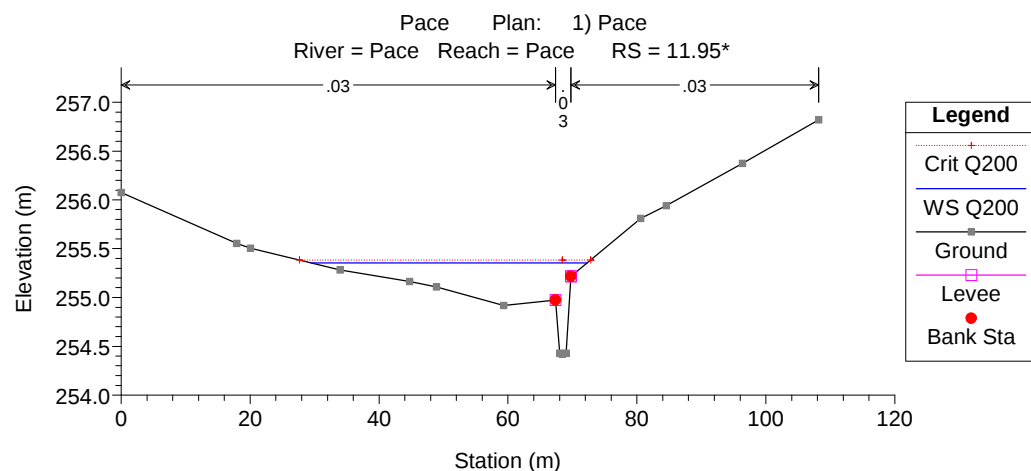
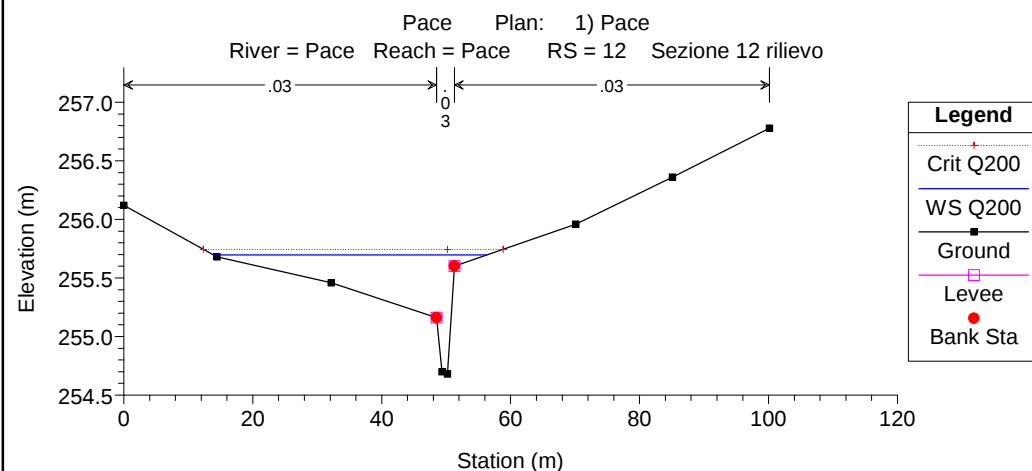
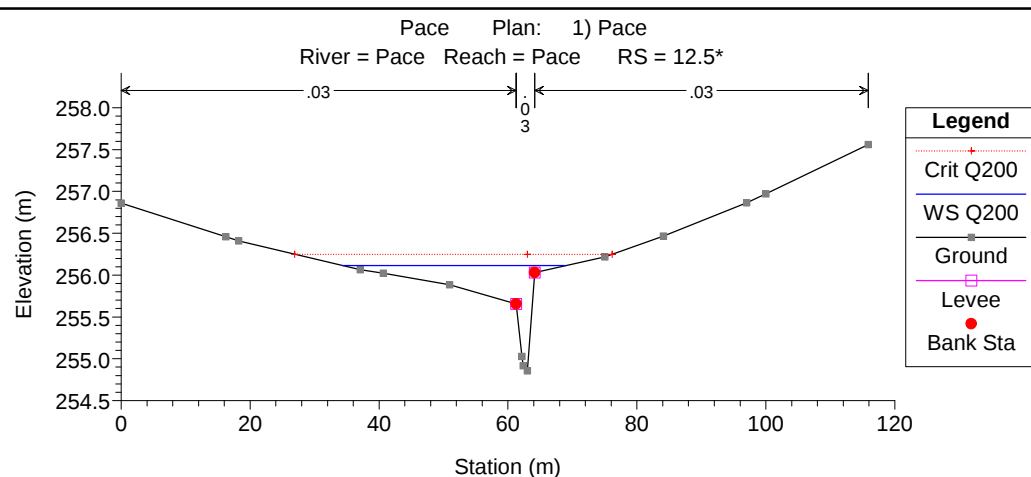
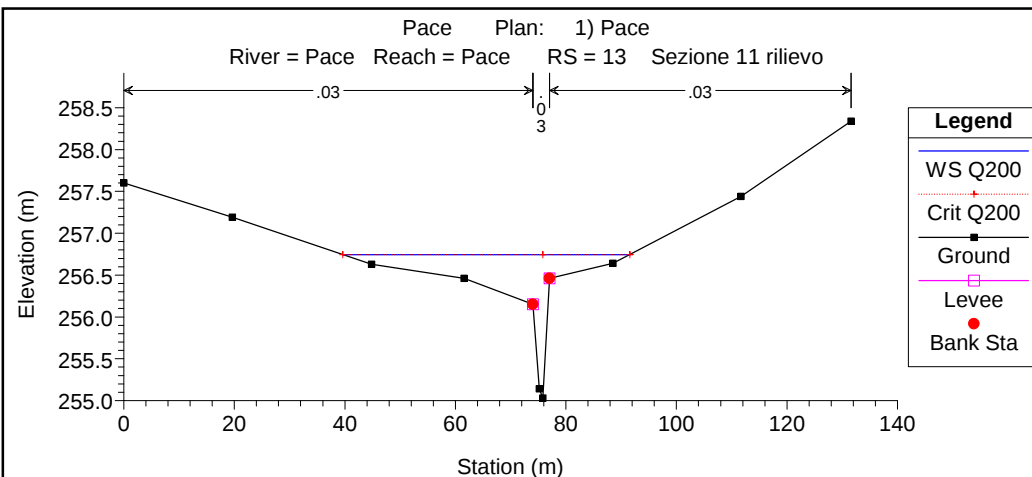


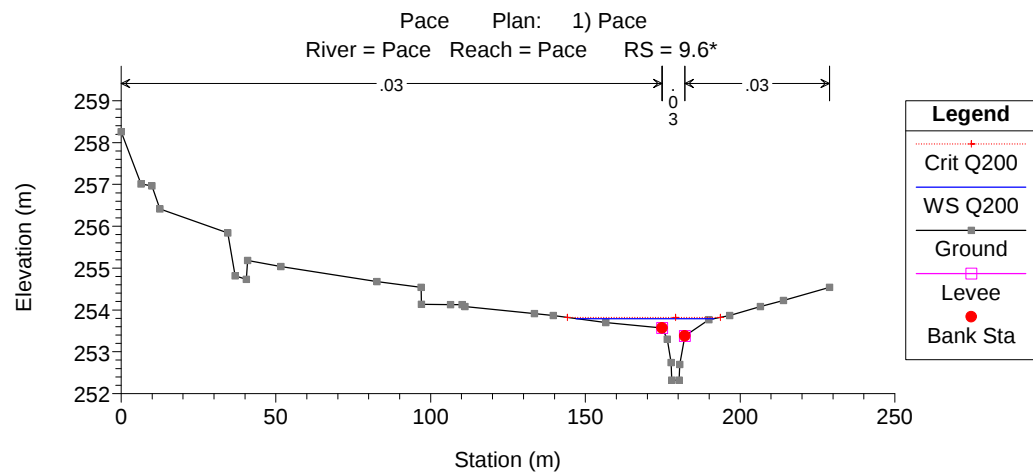
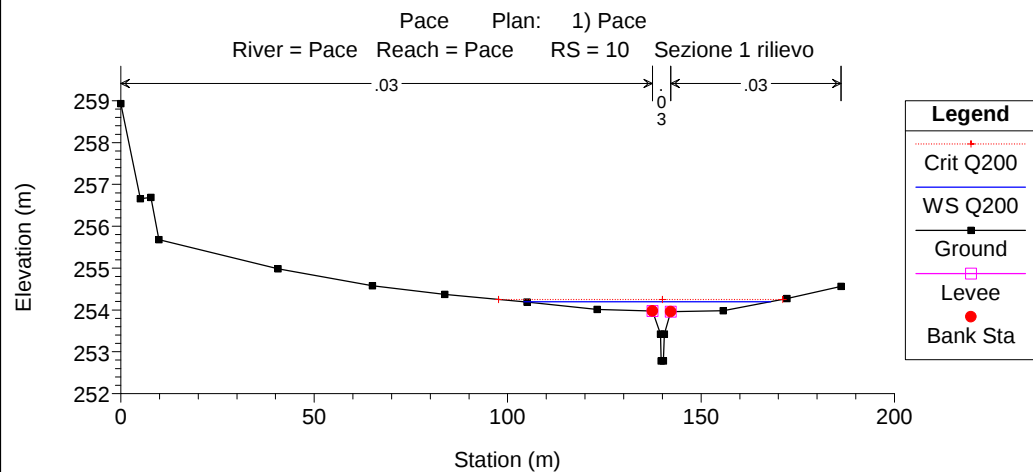
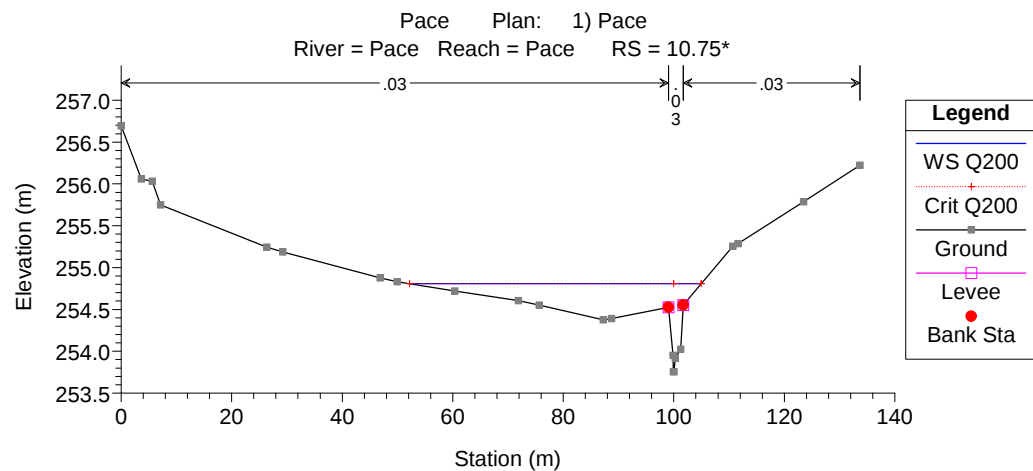
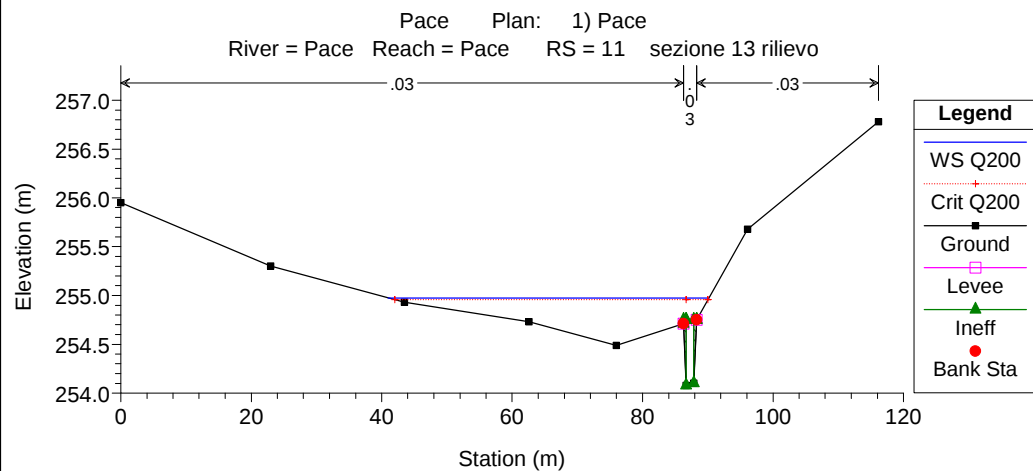
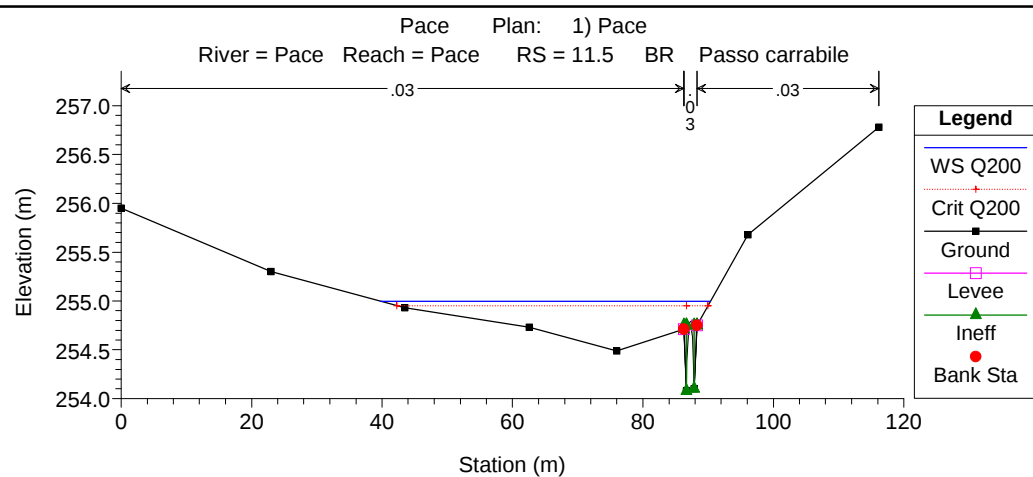
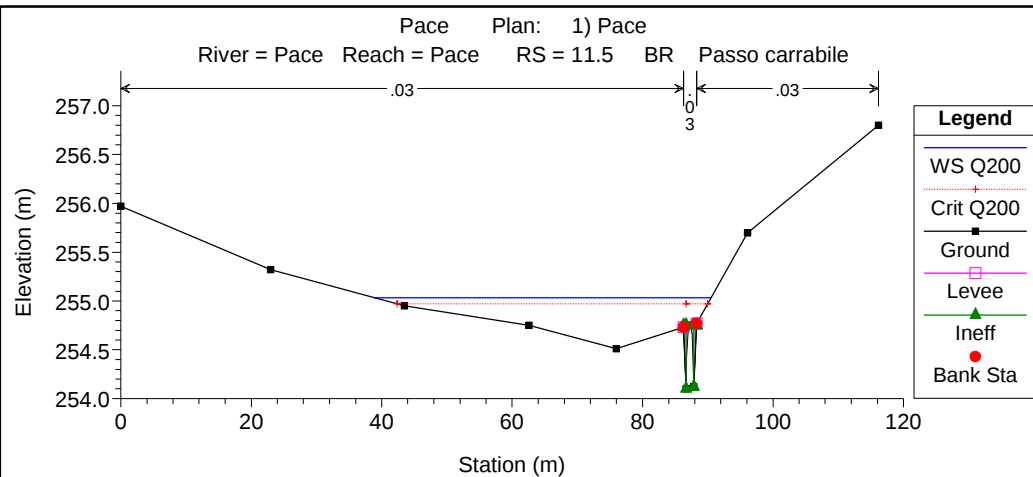


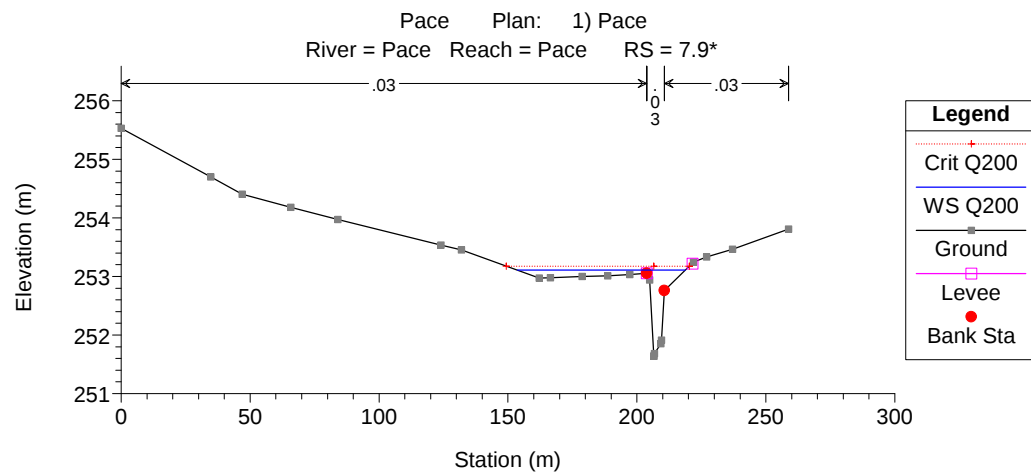
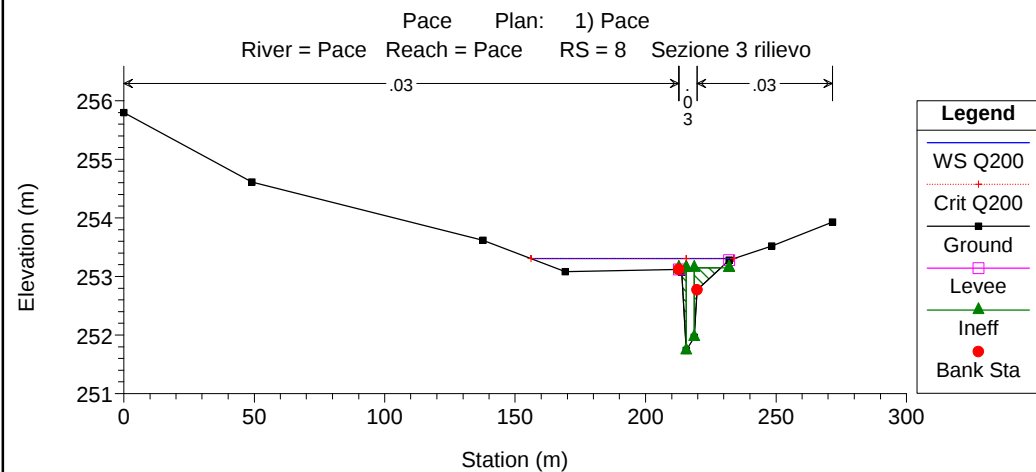
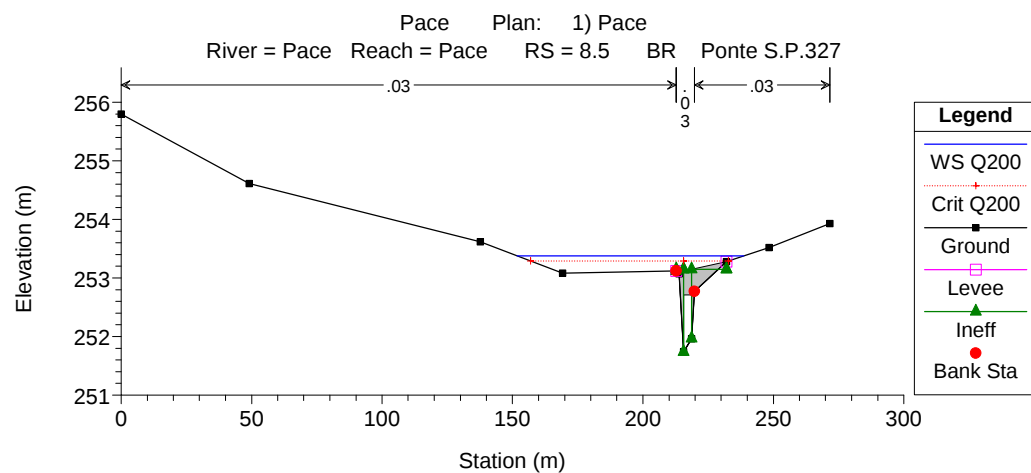
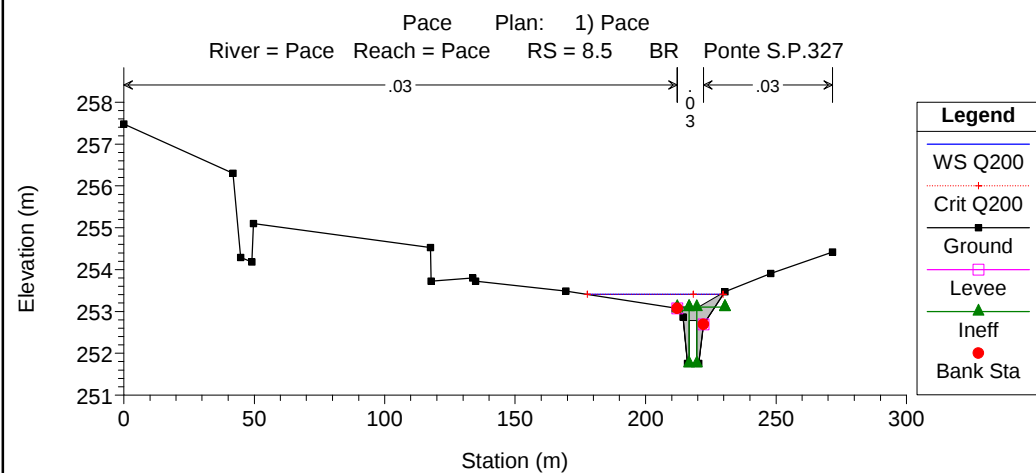
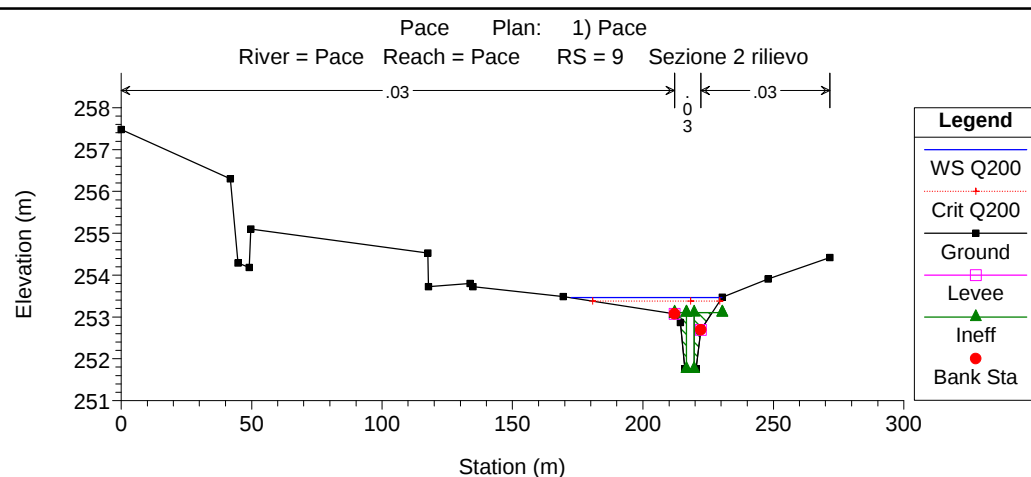
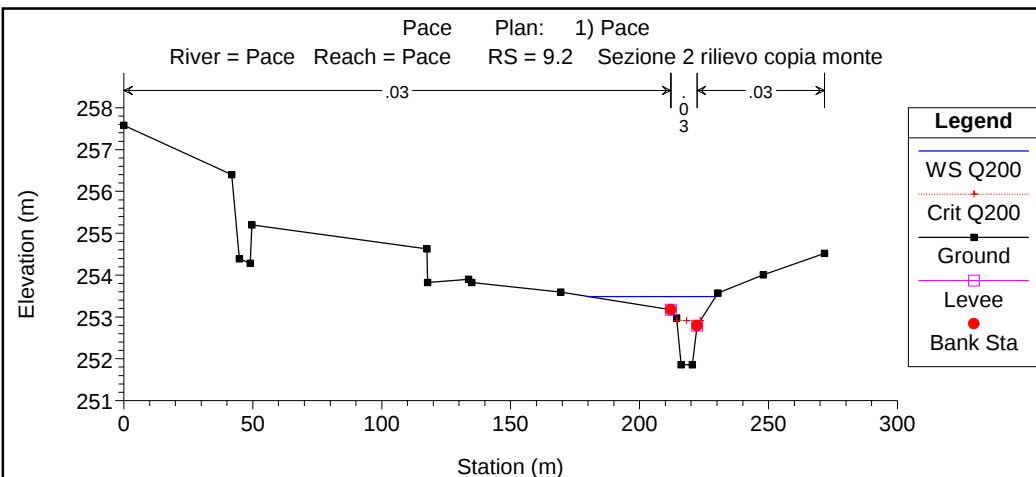


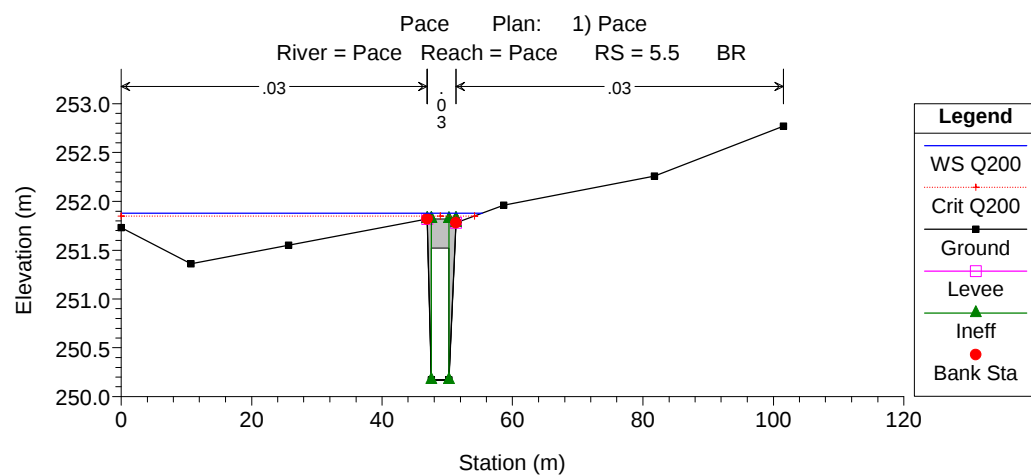
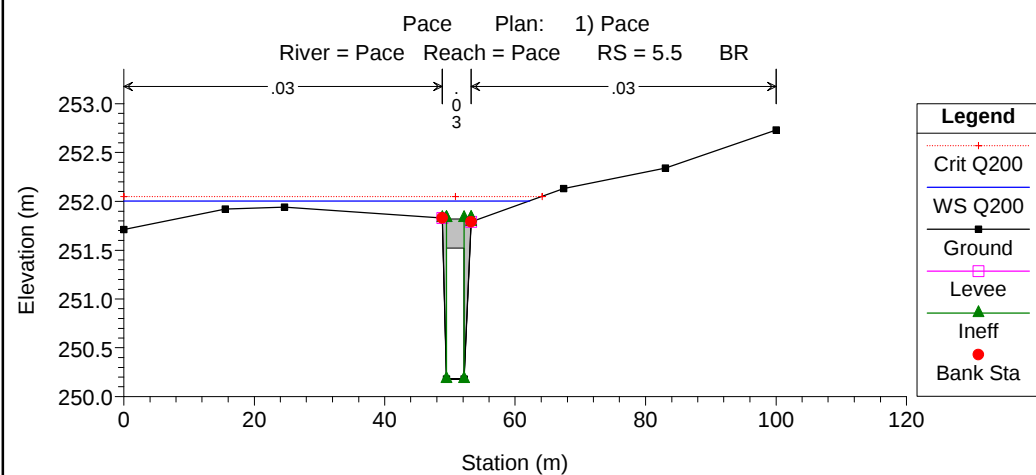
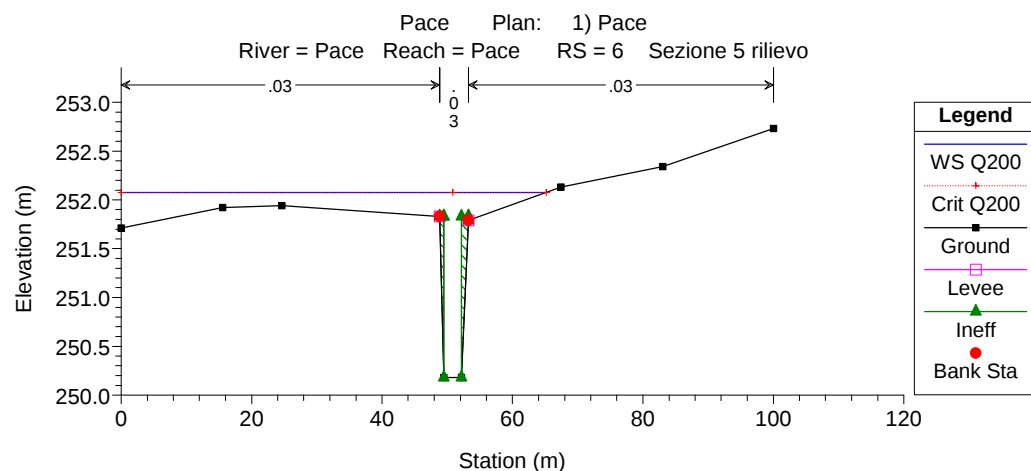
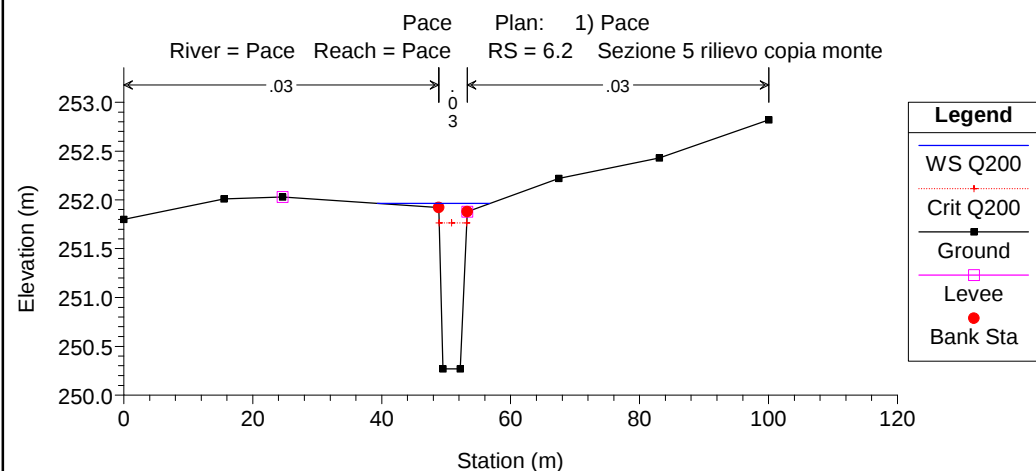
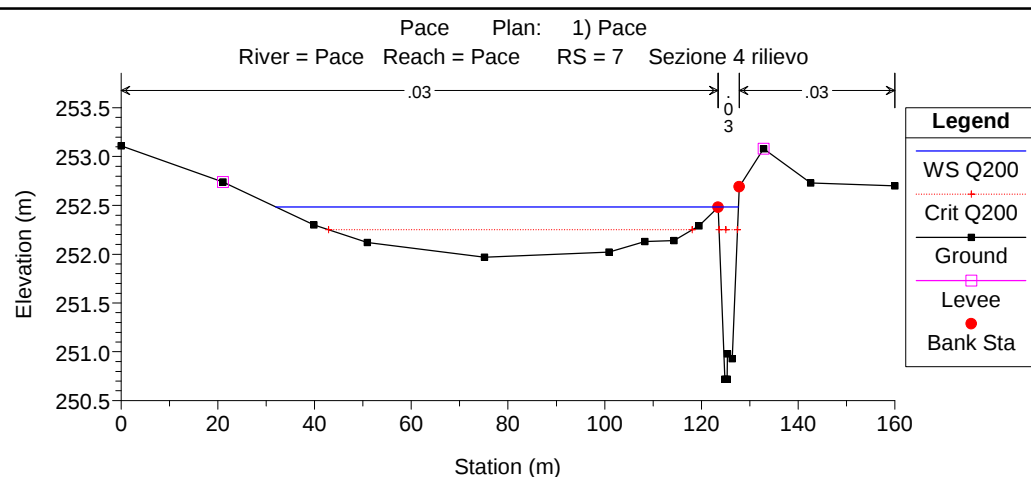
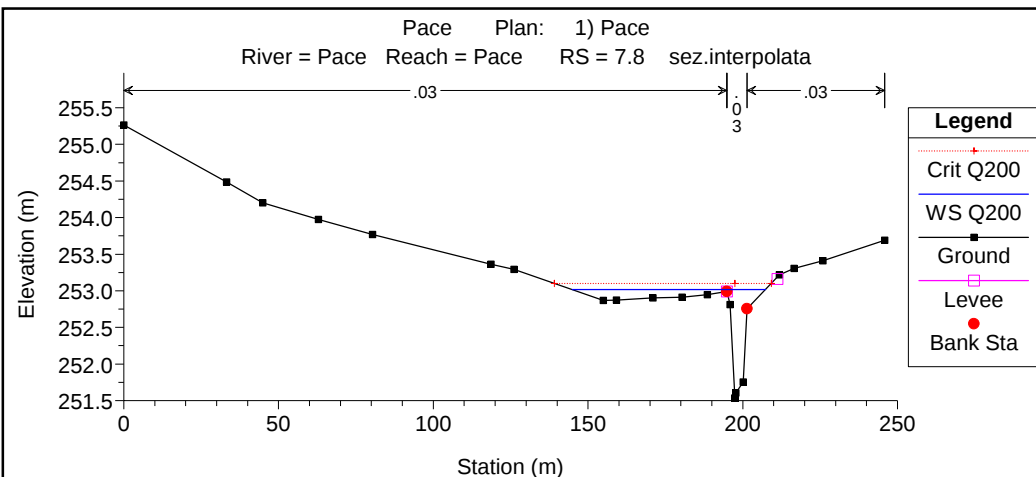
HEC-RAS Plan: Pace River: Pace Reach: Pace Profile: Q200

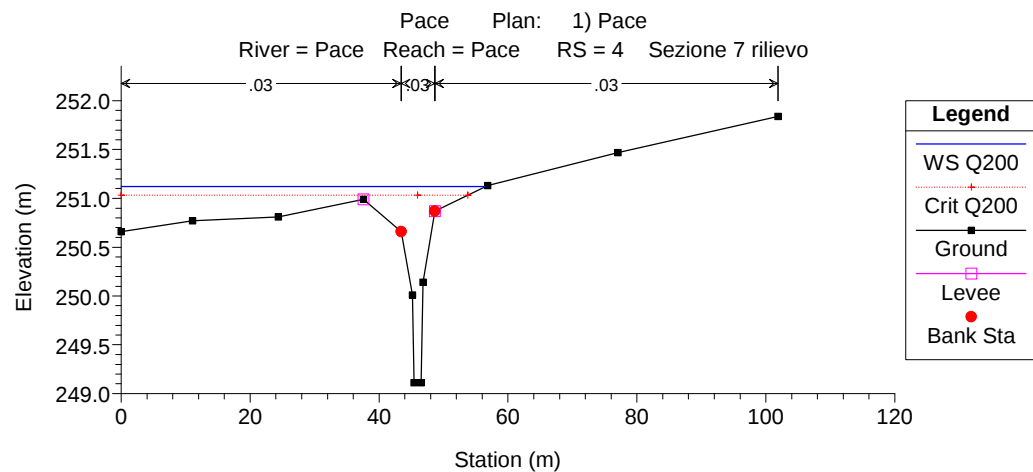
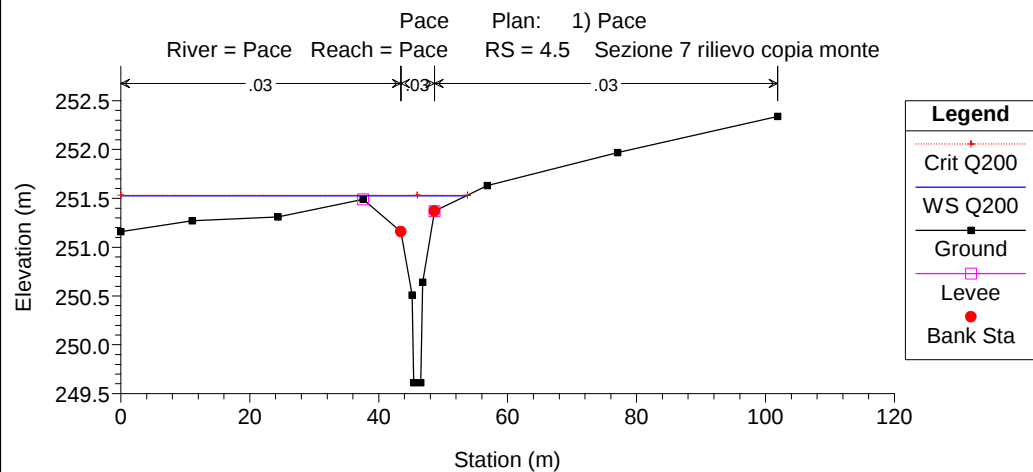
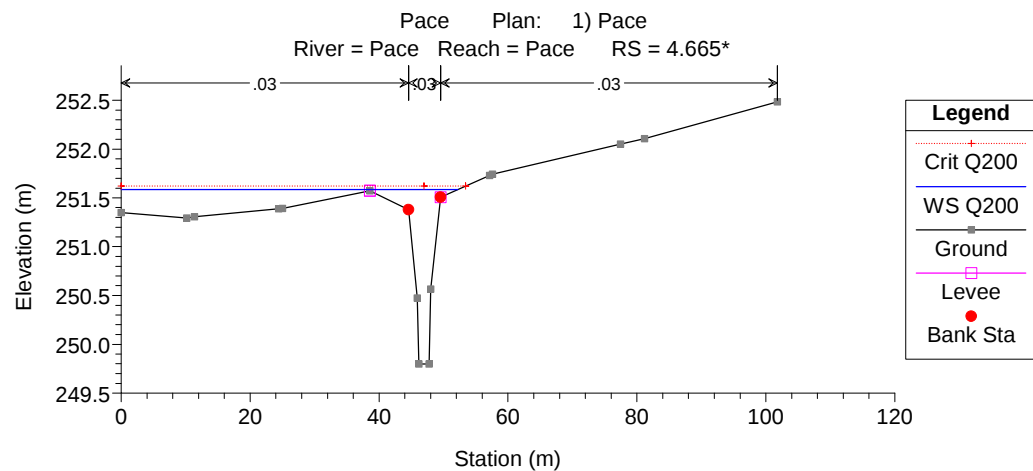
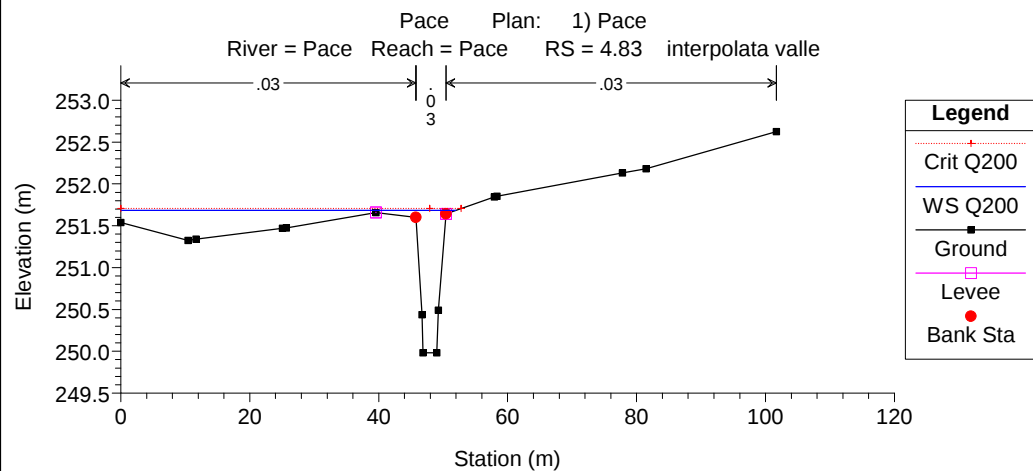
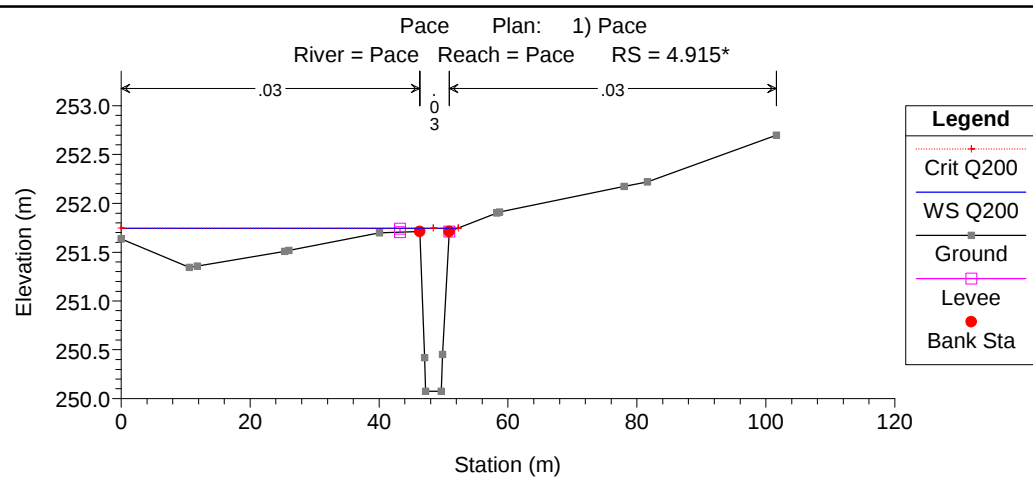
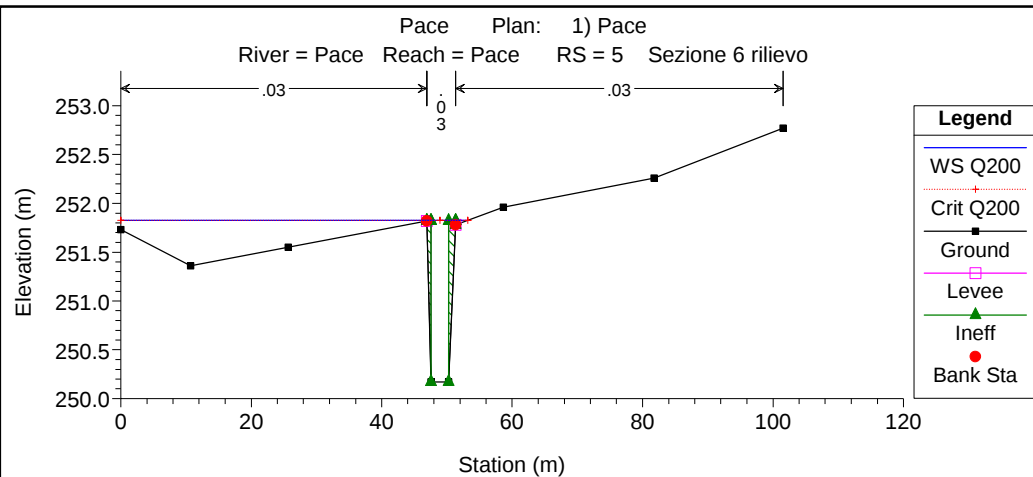
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Pace	13	Q200	18.00	255.03	256.75	256.75	256.87	0.004828	2.12	15.11	51.92	0.62
Pace	12.5*	Q200	18.00	254.85	256.11	256.25	256.51	0.019323	3.62	8.20	34.64	1.24
Pace	12	Q200	18.00	254.68	255.70	255.74	255.89	0.011802	2.72	10.88	42.38	1.00
Pace	11.95*	Q200	18.00	254.42	255.36	255.38	255.52	0.011801	2.57	11.32	42.89	0.96
Pace	11.9	Q200	18.00	254.16	255.10	255.04	255.17	0.005908	1.80	15.40	51.85	0.64
Pace	11.8	Q200	18.00	254.10	255.03	254.98	255.11	0.006625	1.68	14.97	51.66	0.66
Pace	11.5		Bridge									
Pace	11	Q200	18.00	254.08	254.97	254.96	255.08	0.009894	1.96	13.01	49.19	0.80
Pace	10.75*	Q200	18.00	253.76	254.81	254.81	254.92	0.008945	2.21	13.44	52.78	0.83
Pace	10	Q200	18.00	252.78	254.20	254.25	254.38	0.013256	2.53	12.24	63.83	0.99
Pace	9.6*	Q200	18.00	252.32	253.79	253.82	253.99	0.005102	2.13	11.98	44.60	0.71
Pace	9.2	Q200	18.00	251.86	253.49	252.91	253.55	0.001189	1.24	19.63	49.67	0.36
Pace	9	Q200	18.00	251.76	253.46	253.38	253.54	0.003087	1.49	17.66	57.83	0.55
Pace	8.5		Bridge									
Pace	8	Q200	18.00	251.74	253.31	253.31	253.40	0.005168	1.78	17.12	77.65	0.68
Pace	7.9*	Q200	18.00	251.64	253.11	253.18	253.32	0.005916	2.26	12.54	65.03	0.75
Pace	7.8	Q200	18.00	251.54	253.02	253.10	253.26	0.006866	2.41	11.71	62.46	0.80
Pace	7	Q200	18.00	250.72	252.48	252.25	252.50	0.000632	0.71	38.59	95.66	0.22
Pace	6.2	Q200	18.00	250.27	251.96	251.77	252.40	0.008304	2.94	6.45	17.42	0.80
Pace	6	Q200	18.00	250.18	252.08	252.08	252.18	0.003643	1.83	17.24	65.18	0.52
Pace	5.5		Bridge									
Pace	5	Q200	18.00	250.17	251.83	251.83	251.92	0.004480	1.76	16.08	53.22	0.56
Pace	4.915*	Q200	18.00	250.08	251.74	251.75	251.87	0.003815	1.92	15.43	52.11	0.55
Pace	4.83	Q200	18.00	249.98	251.68	251.71	251.83	0.004437	2.04	14.52	51.96	0.60
Pace	4.665*	Q200	18.00	249.80	251.59	251.62	251.74	0.005447	2.14	13.73	52.24	0.66
Pace	4.5	Q200	18.00	249.61	251.53	251.53	251.65	0.005129	1.94	14.85	53.58	0.63
Pace	4	Q200	18.00	249.11	251.12	251.03	251.18	0.002320	1.39	20.08	56.57	0.43
Pace	3.8	Q200	18.00	249.01	250.93	250.93	251.05	0.004824	1.89	15.22	53.79	0.61
Pace	3.5*	Q200	18.00	248.99	250.71	250.77	250.92	0.006352	2.40	12.46	52.87	0.71
Pace	3.2	Q200	18.00	248.97	250.68	250.63	250.74	0.002202	1.52	21.09	75.62	0.39
Pace	3	Q200	18.00	248.94	250.61	250.61	250.70	0.005173	1.87	16.43	73.29	0.57
Pace	2.5		Bridge									
Pace	2	Q200	18.00	248.84	250.14	250.14	250.24	0.004029	2.23	17.74	67.98	0.65
Pace	1.5*	Q200	18.00	248.57	249.88	249.88	249.98	0.005979	1.96	15.18	59.75	0.72
Pace	1	Q200	18.00	248.30	249.64	249.59	249.71	0.004796	1.59	16.53	53.56	0.63
Pace	.9*	Q200	18.00	248.18	249.52	249.47	249.59	0.004804	1.59	16.52	53.56	0.63
Pace	.8*	Q200	18.00	248.06	249.40	249.35	249.47	0.004799	1.59	16.52	53.56	0.63
Pace	.7*	Q200	18.00	247.94	249.28	249.23	249.35	0.004807	1.59	16.52	53.56	0.63
Pace	.6*	Q200	18.00	247.82	249.16	249.11	249.23	0.004737	1.58	16.59	53.56	0.62
Pace	0.5	Q200	18.00	247.70	249.06	248.99	249.12	0.003999	1.47	17.53	53.60	0.58
Pace	.42*	Q200	18.00	247.60	248.96	248.89	249.02	0.003997	1.47	17.53	53.60	0.58
Pace	.34*	Q200	18.00	247.50	248.86	248.79	248.92	0.003989	1.47	17.54	53.60	0.57
Pace	.26*	Q200	18.00	247.40	248.74	248.69	248.81	0.004588	1.56	16.77	53.57	0.61
Pace	.18*	Q200	18.00	247.30	248.67	248.59	248.71	0.002812	1.25	21.53	71.18	0.48
Pace	0.1	Q200	18.00	247.20	248.49	248.49	248.60	0.007952	1.97	13.99	53.45	0.80

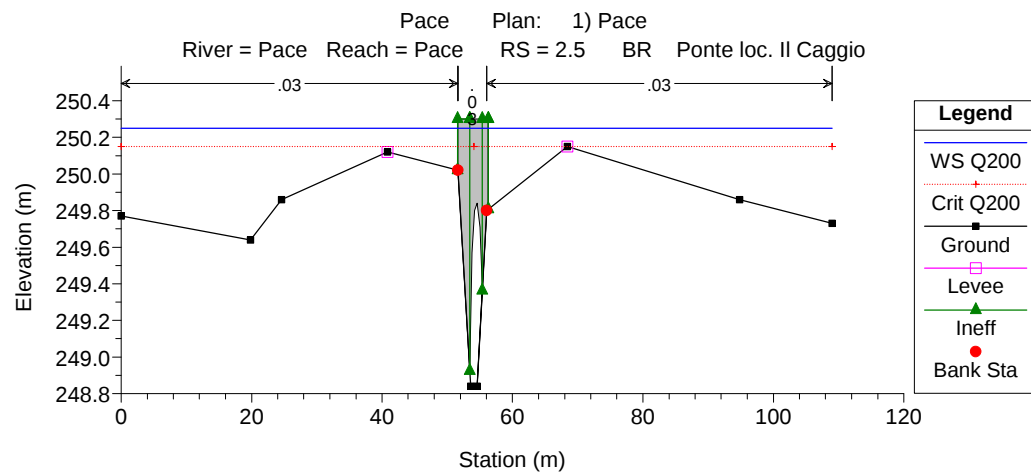
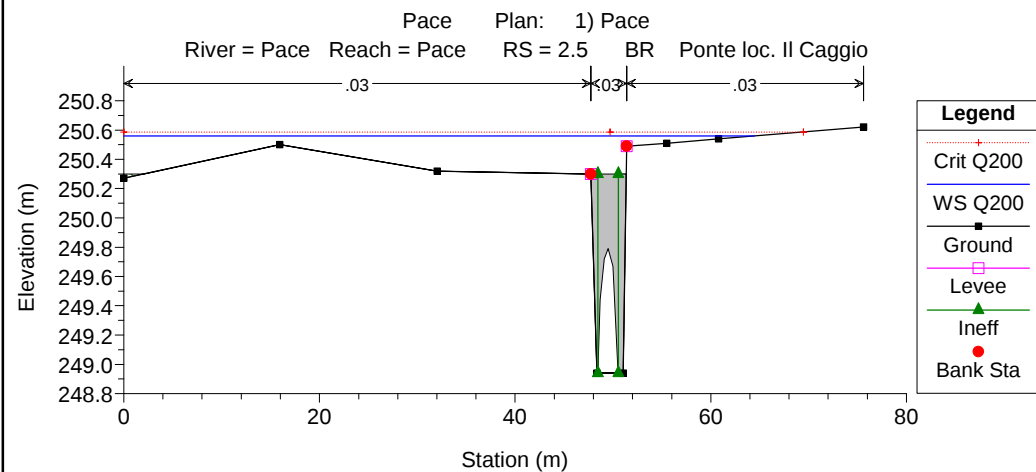
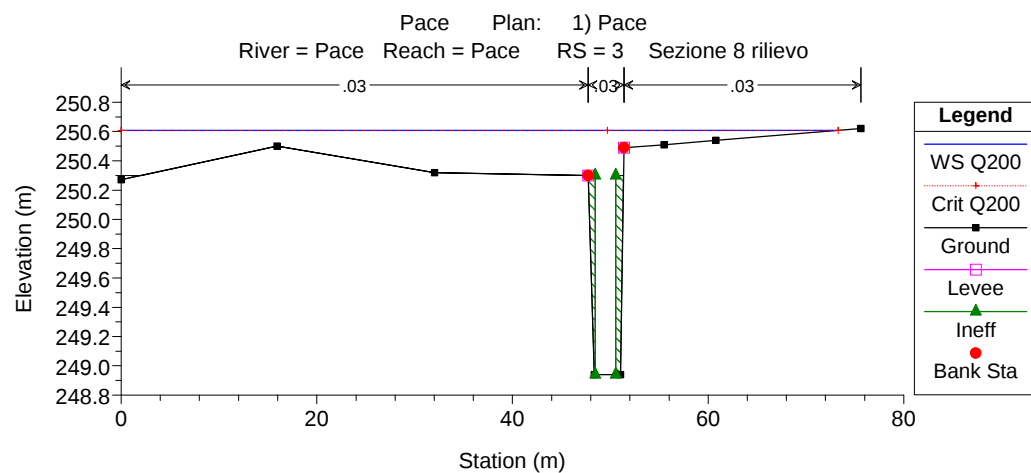
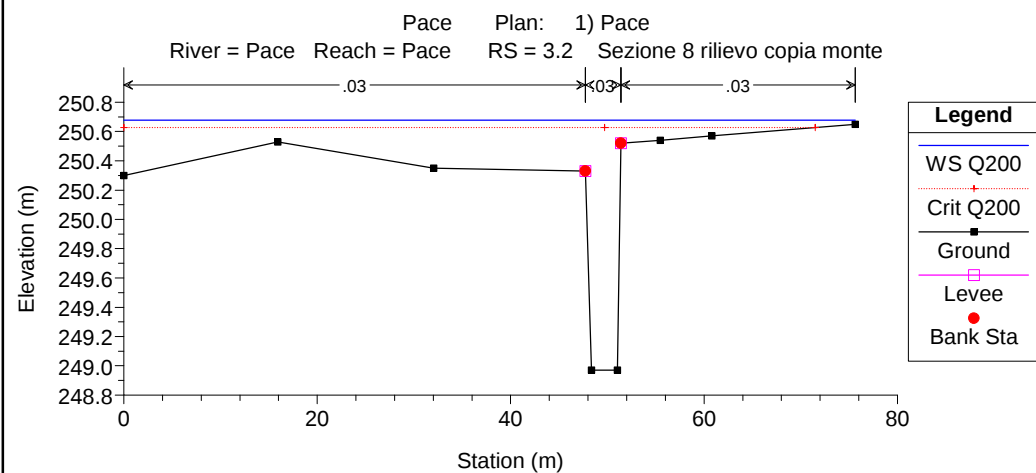
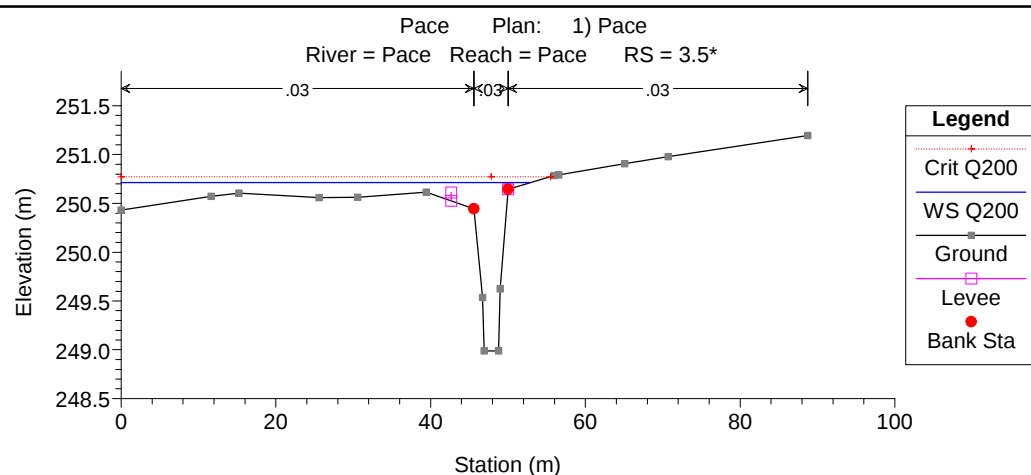
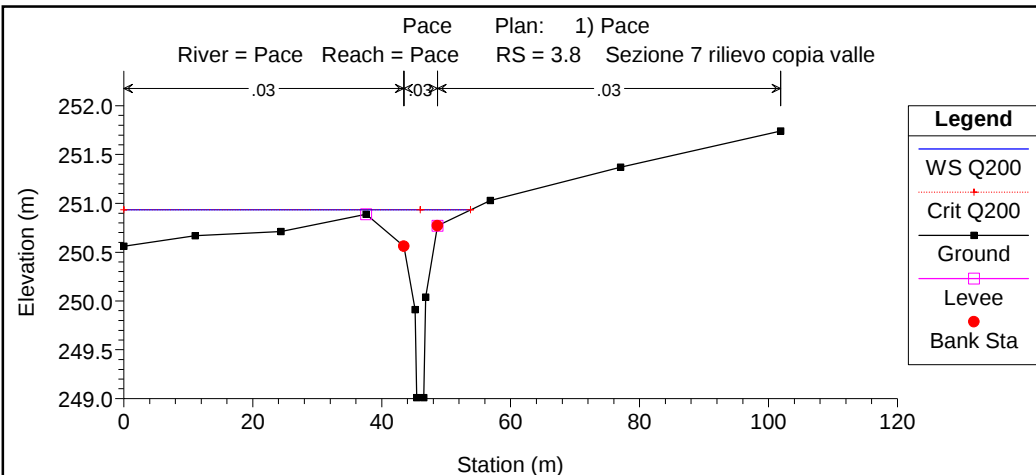


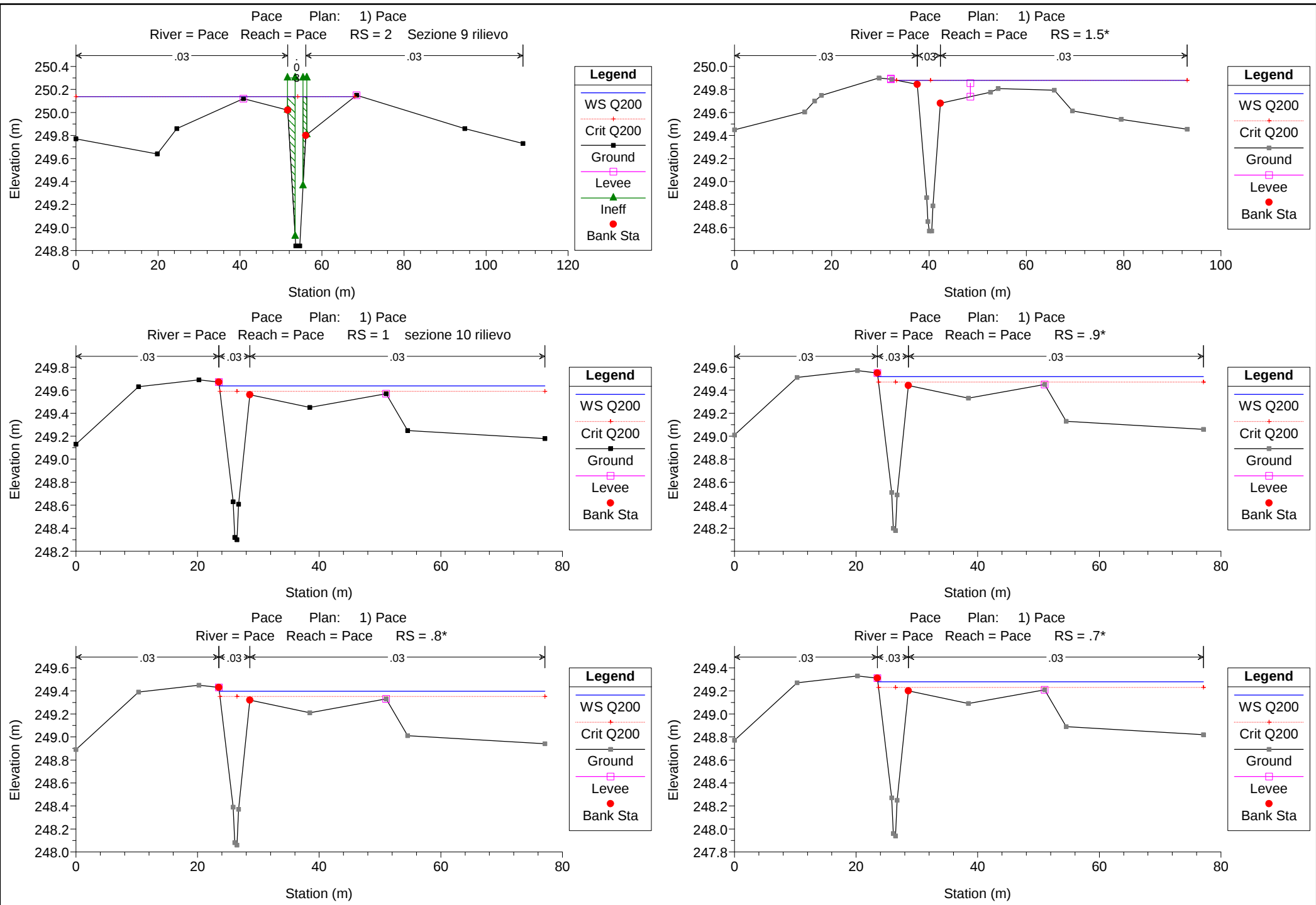


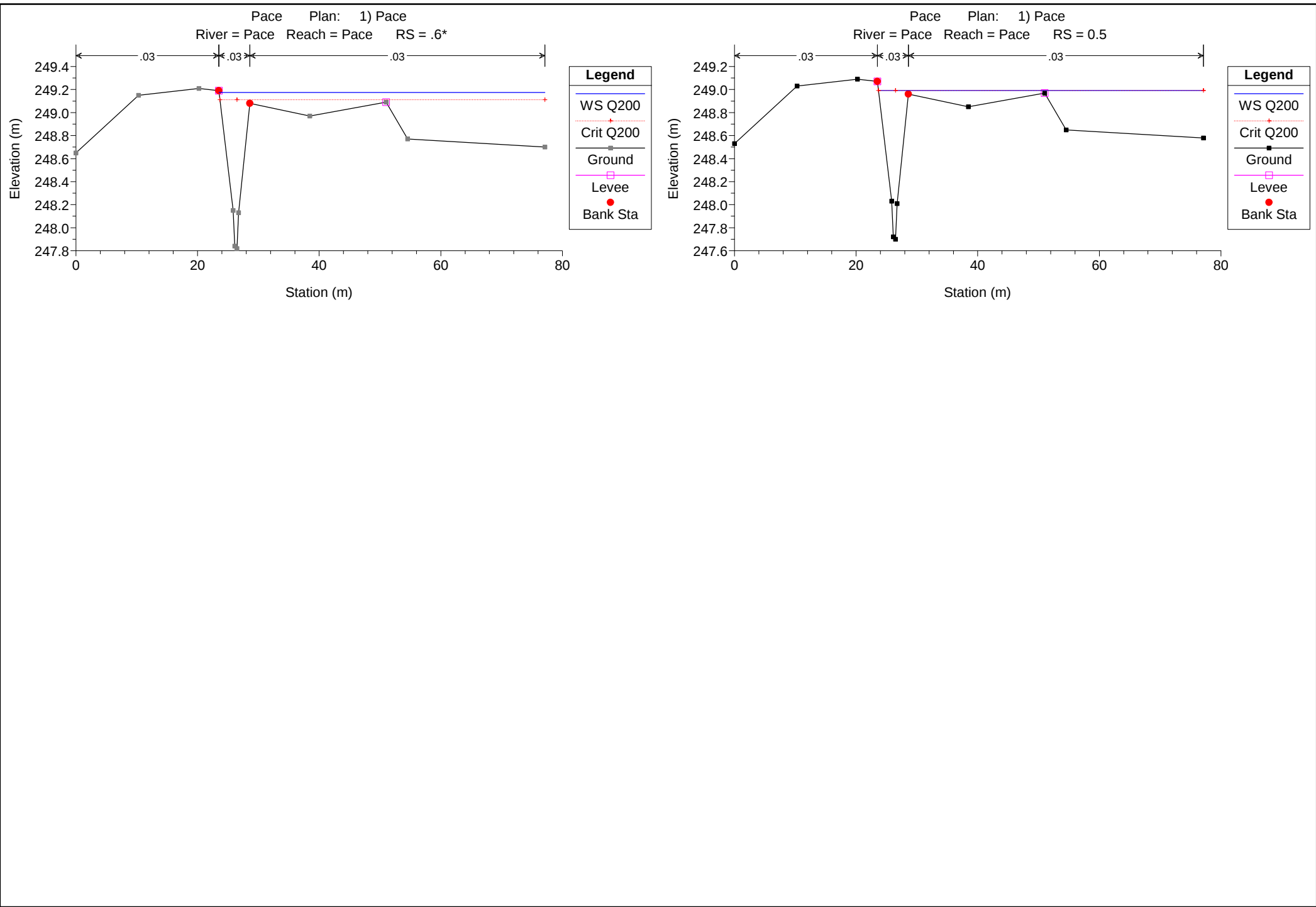












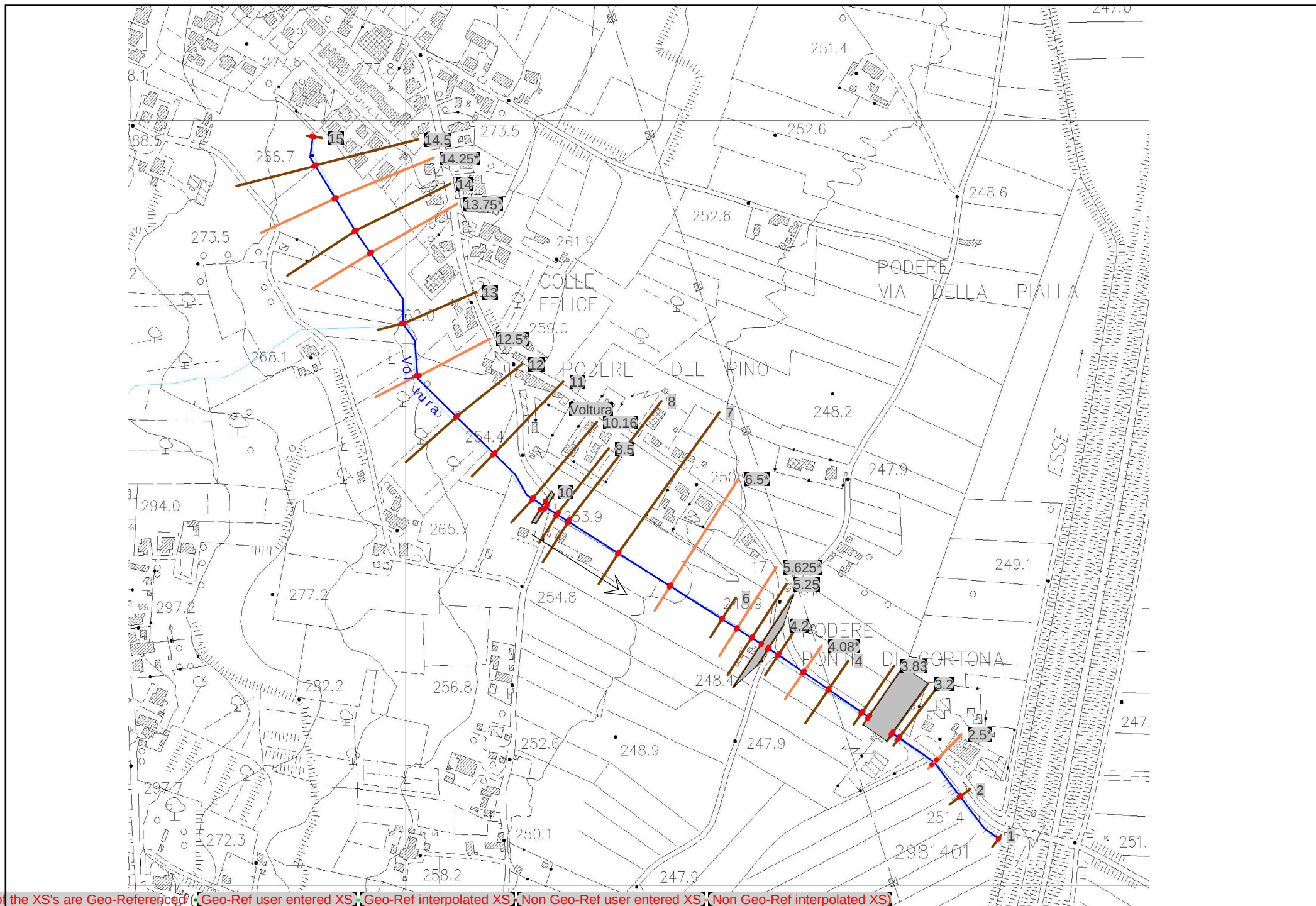
Fosso Voltura

Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

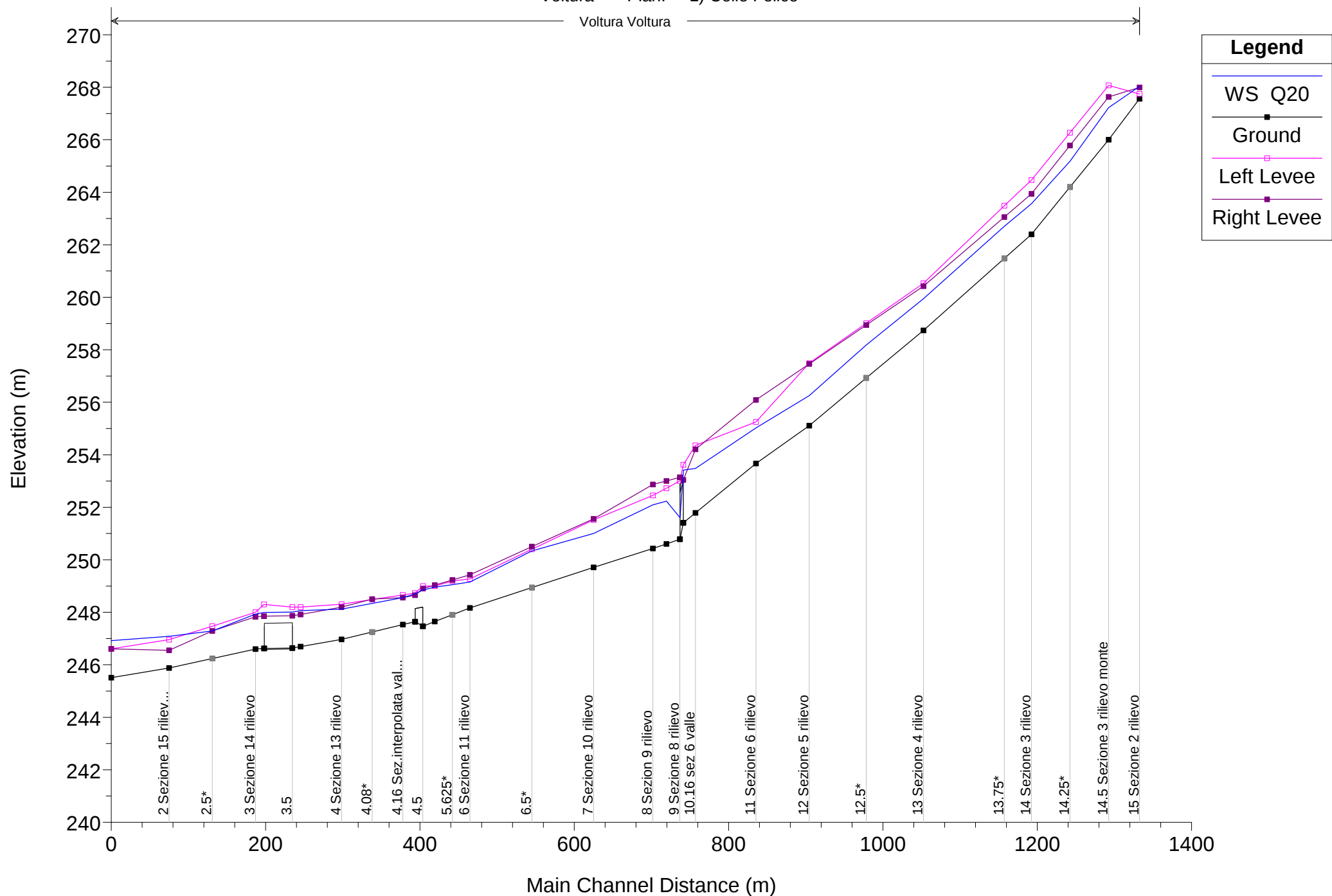
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

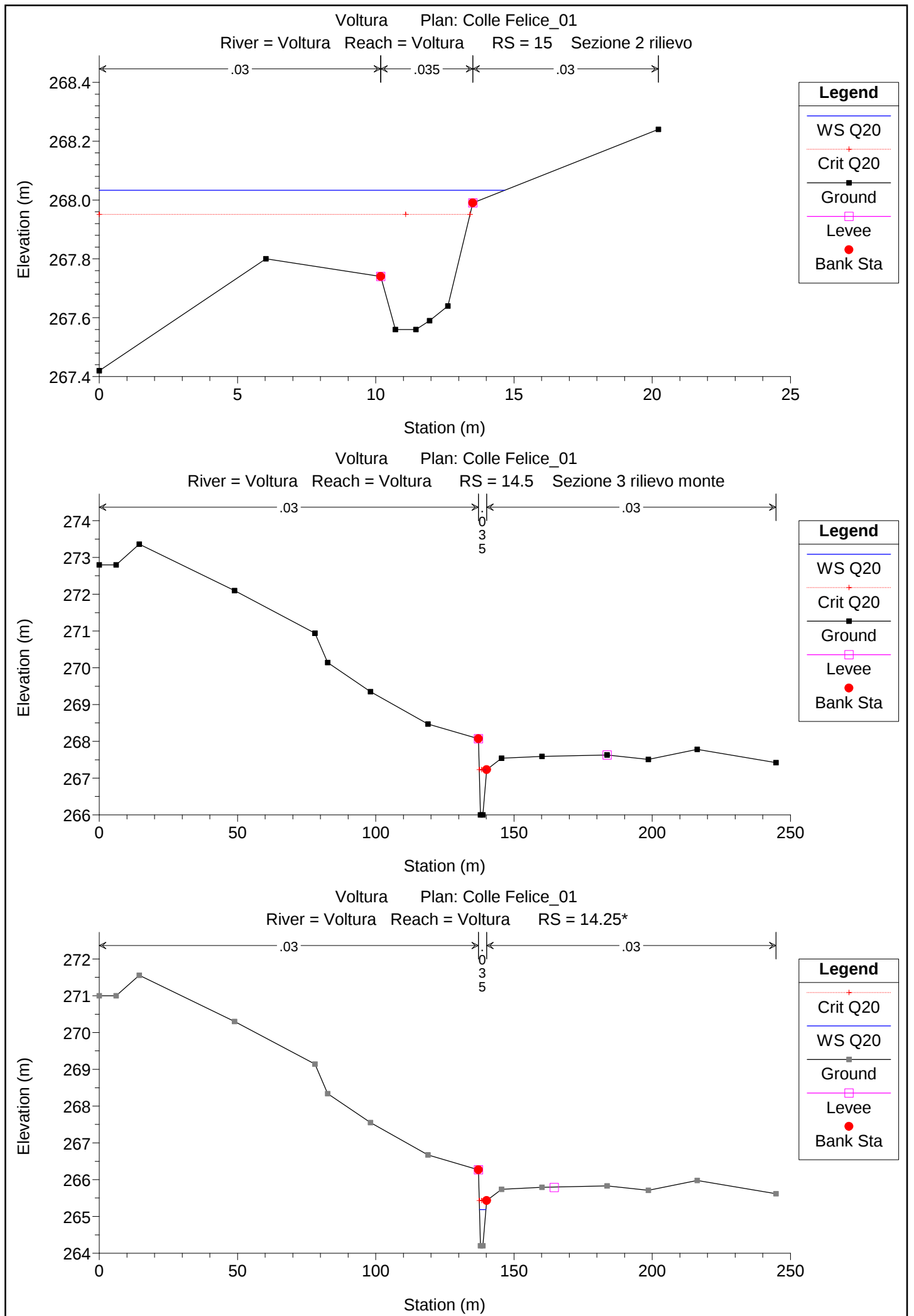


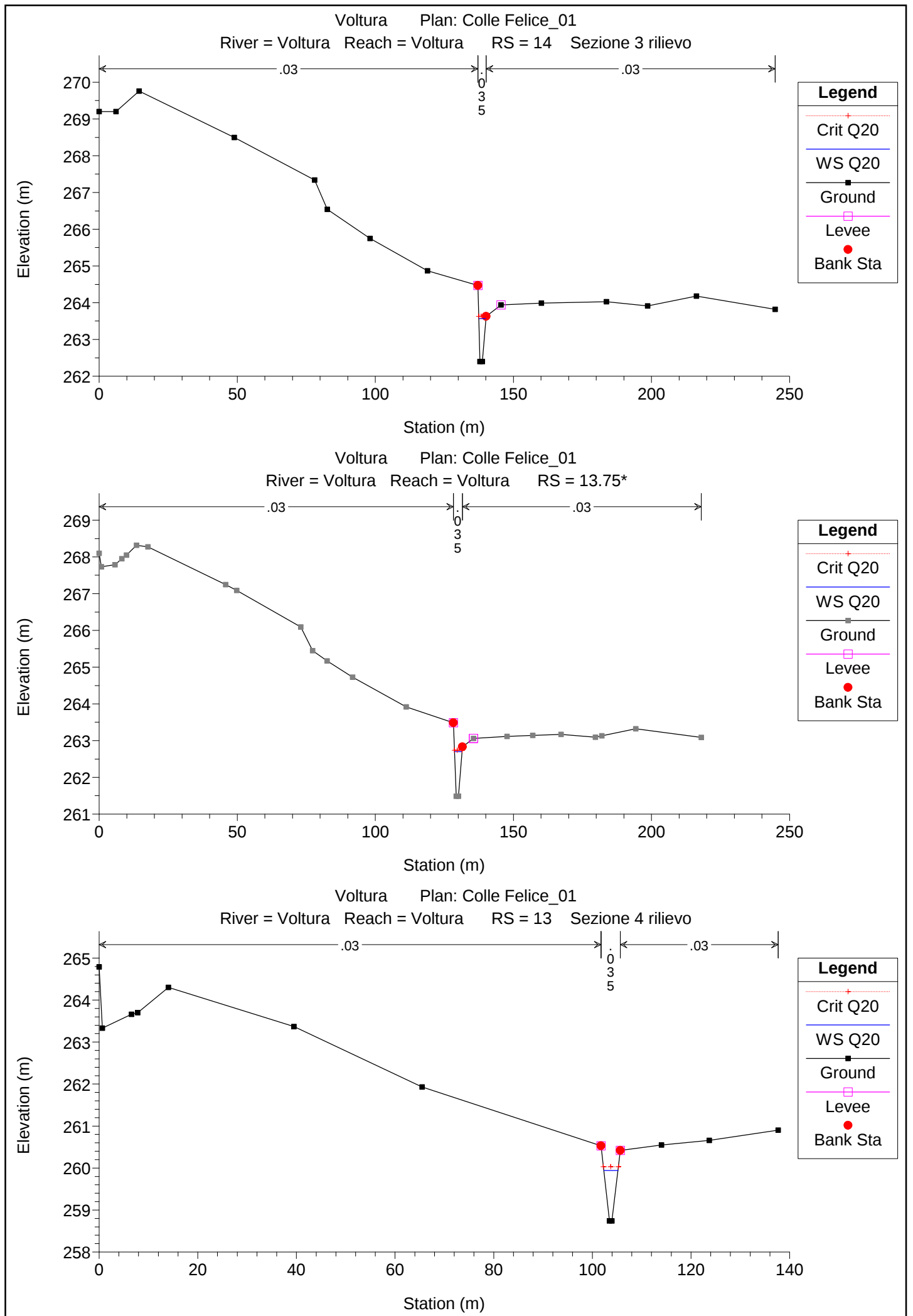
Voltura Plan: 1) Colle Felice

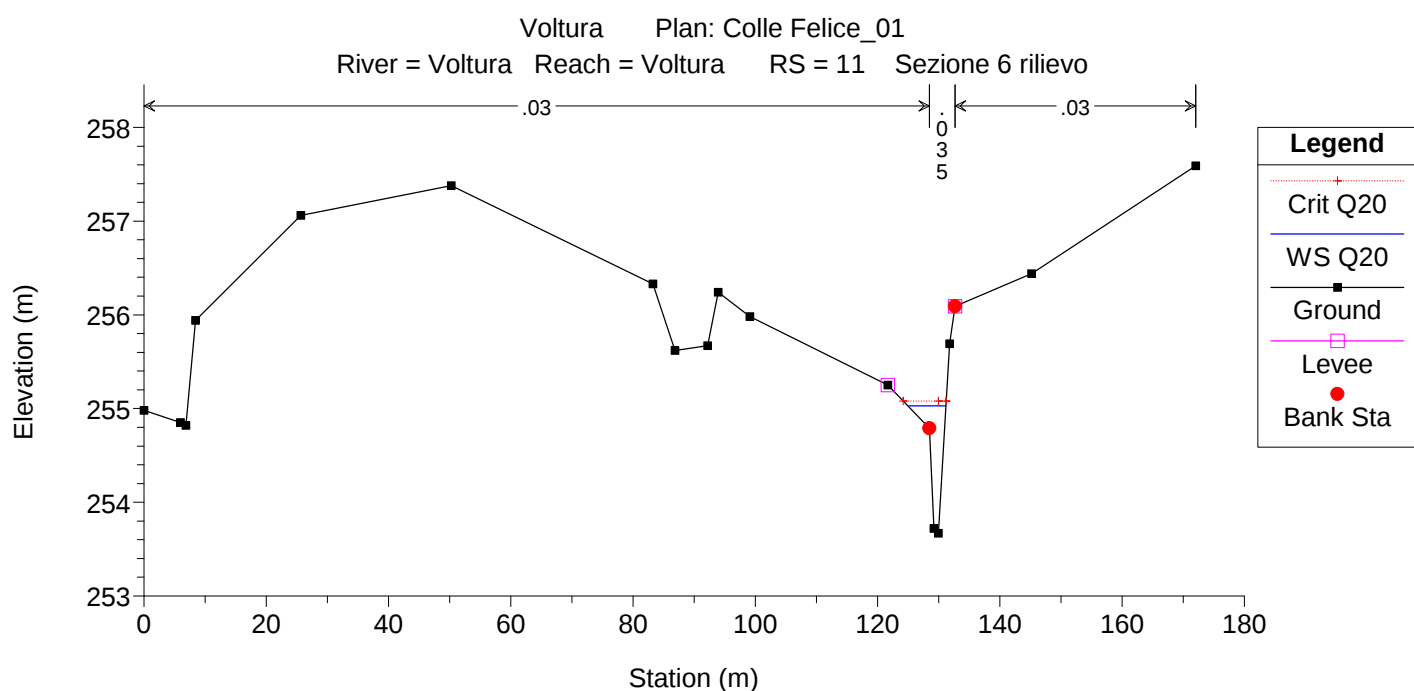
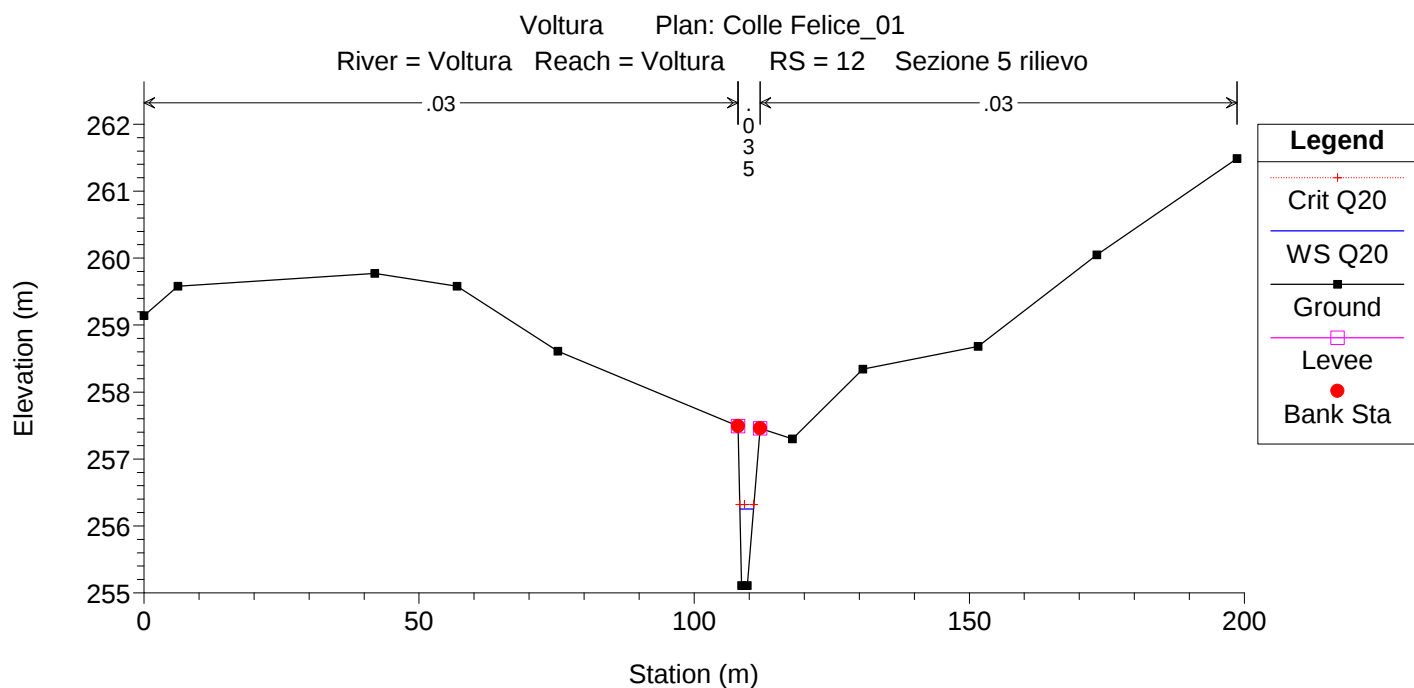
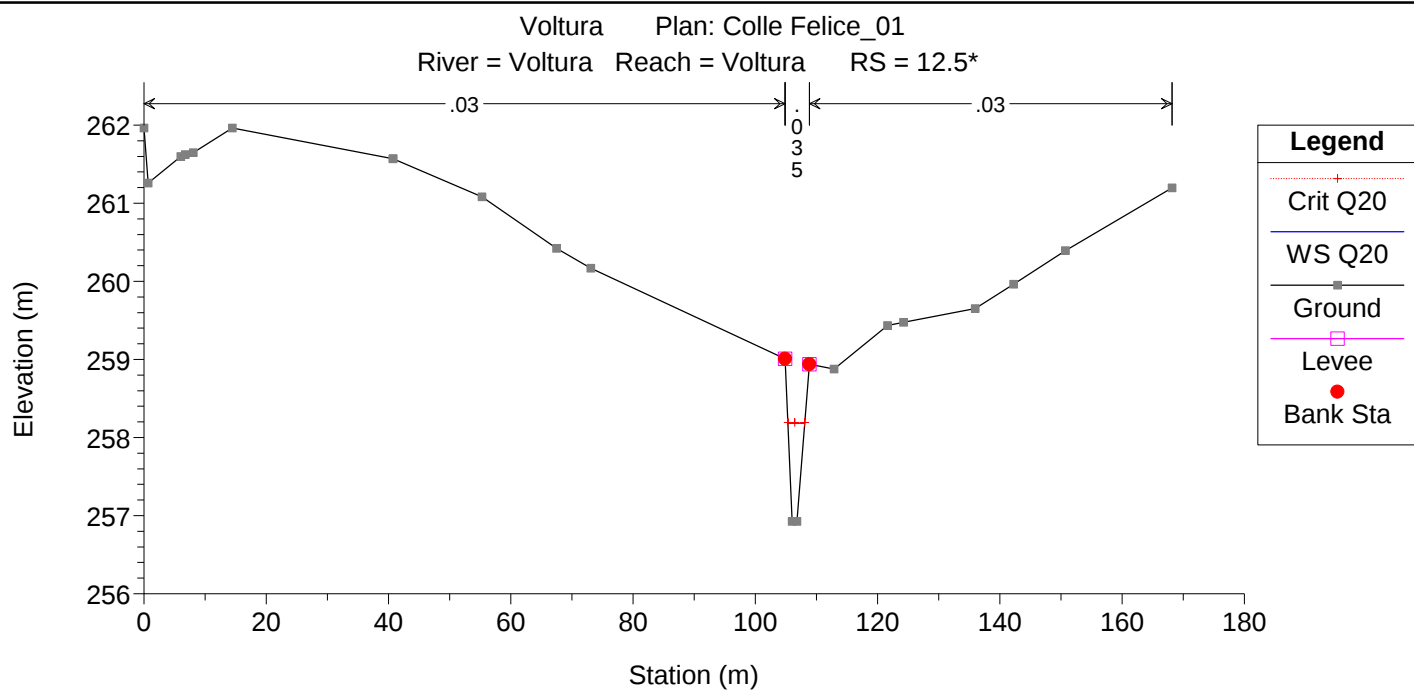
Voltura Voltura

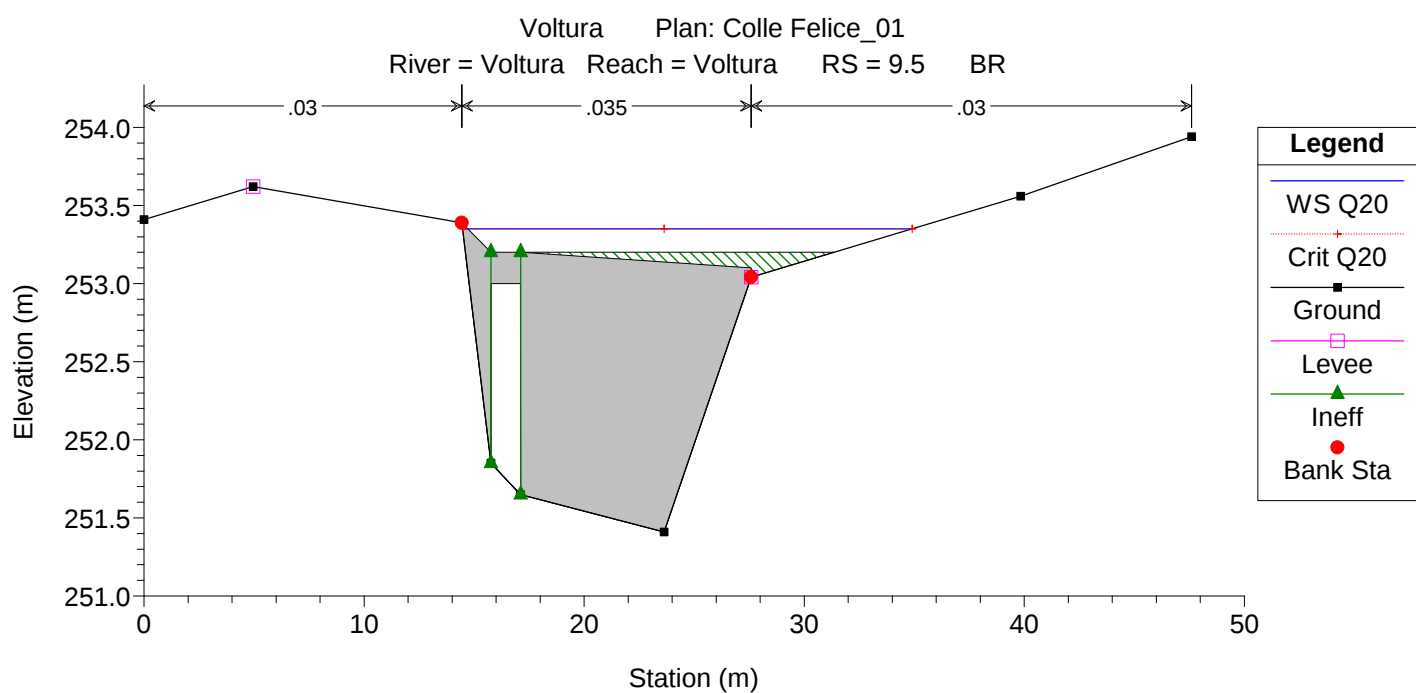
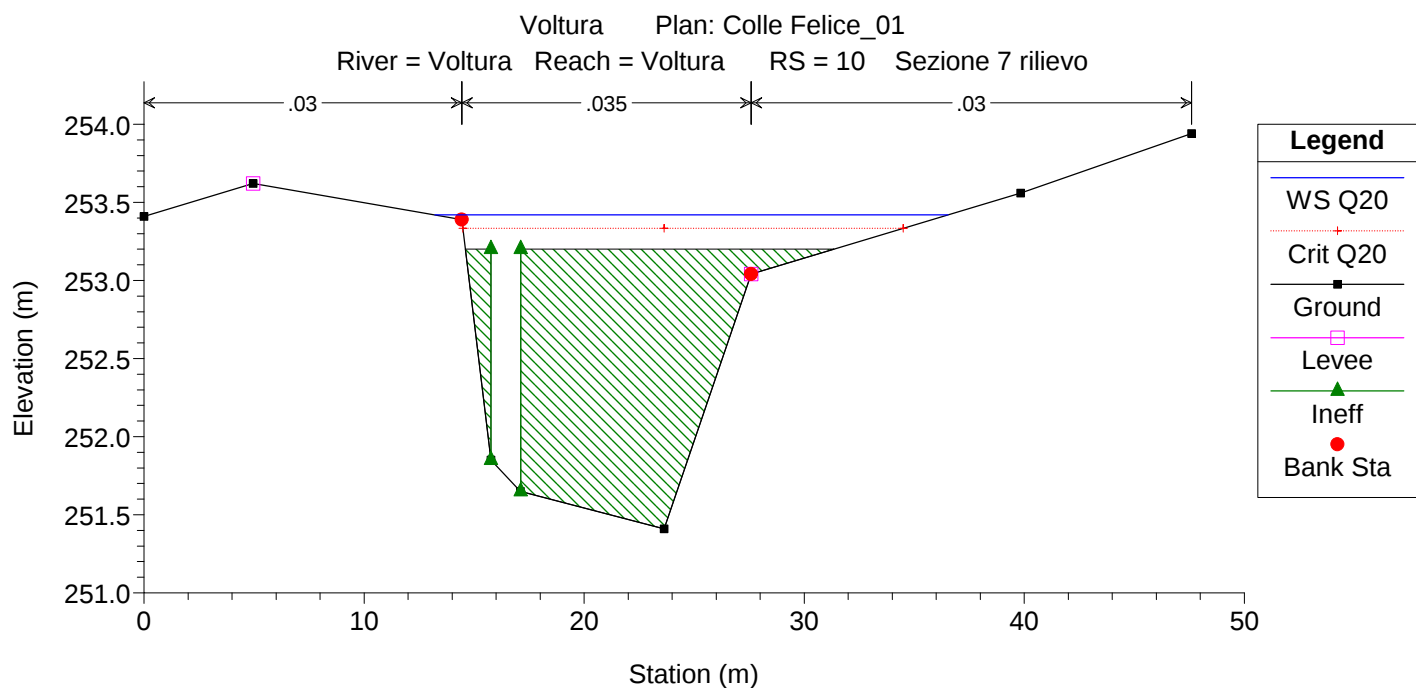
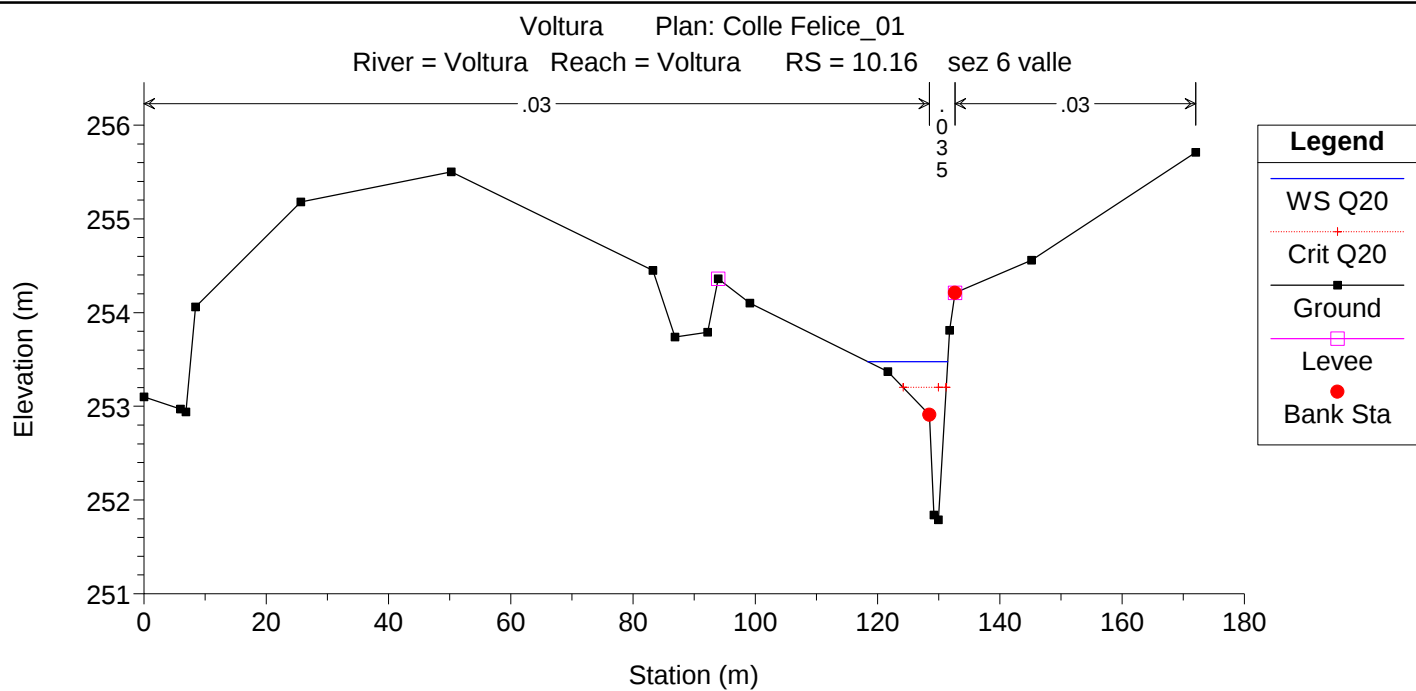


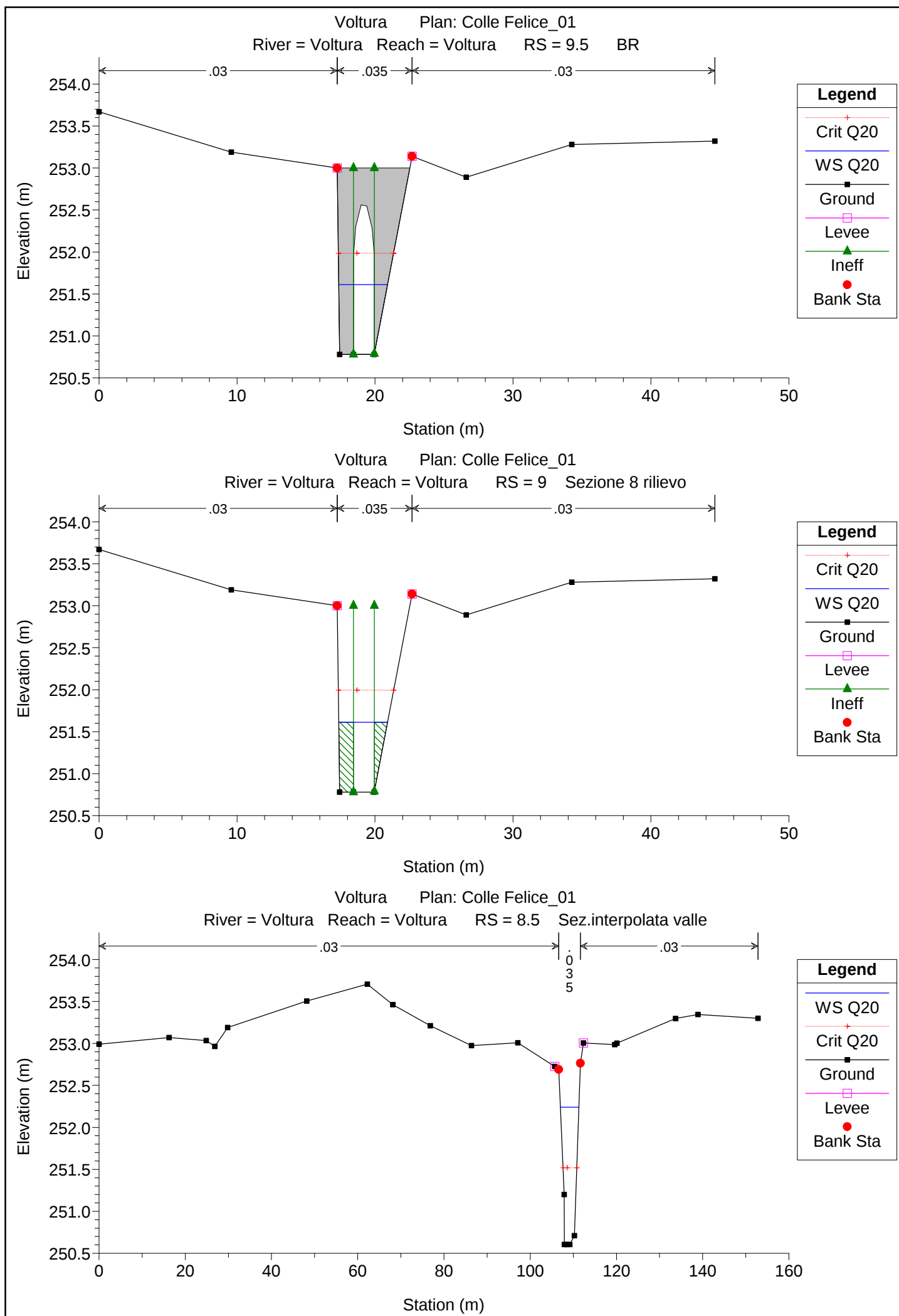
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Voltura	15	Q20	6.30	267.56	268.03	267.95	268.12	0.006665	1.19	4.92	14.67	0.62
Voltura	14.5	Q20	6.30	266.00	267.23	267.23	267.64	0.022048	2.84	2.22	2.70	1.00
Voltura	14.25*	Q20	6.30	264.20	265.18	265.43	265.98	0.052641	3.95	1.60	2.34	1.53
Voltura	14	Q20	6.30	262.40	263.57	263.63	264.05	0.027097	3.07	2.05	2.61	1.11
Voltura	13.75*	Q20	6.30	261.48	262.70	262.74	263.14	0.024070	2.95	2.14	2.72	1.06
Voltura	13	Q20	6.30	258.74	259.94	260.03	260.43	0.027725	3.09	2.04	2.89	1.17
Voltura	12.5*	Q20	6.30	256.93	258.18	258.19	258.60	0.021764	2.84	2.22	2.74	1.01
Voltura	12	Q20	6.30	255.11	256.25	256.32	256.75	0.028540	3.14	2.01	2.47	1.11
Voltura	11	Q20	6.30	253.67	255.03	255.08	255.33	0.014514	2.49	2.79	6.20	0.85
Voltura	10.16	Q20	6.30	251.79	253.48	253.20	253.55	0.003201	1.36	5.77	13.07	0.41
Voltura	10	Q20	6.30	251.41	253.42	253.33	253.47	0.006030	1.08	6.26	23.32	0.57
Voltura	9.5		Bridge									
Voltura	9	Q20	6.30	250.78	251.61	251.99	252.89	0.039526	5.02	1.26	3.53	1.76
Voltura	8.5	Q20	6.30	250.61	252.23	251.52	252.31	0.002537	1.26	5.00	4.28	0.37
Voltura	8	Q20	6.30	250.43	252.10	251.50	252.23	0.006265	1.63	3.87	3.84	0.52
Voltura	7	Q20	6.30	249.71	251.00	250.98	251.38	0.022292	2.74	2.30	2.80	0.96
Voltura	6.5*	Q20	6.30	248.94	250.34	250.34	250.41	0.006497	1.54	6.51	39.42	0.55
Voltura	6	Q20	6.30	248.17	249.15	249.23	249.38	0.035214	2.64	3.46	24.27	1.22
Voltura	5.625*	Q20	6.30	247.91	249.05	249.05	249.11	0.008154	1.50	7.32	60.51	0.58
Voltura	5.25	Q20	6.30	247.65	248.95	248.95	248.97	0.001832	0.87	13.25	74.60	0.28
Voltura	5	Q20	6.30	247.47	248.85	248.85	248.86	0.001784	0.79	13.61	75.08	0.23
Voltura	4.5		Bridge									
Voltura	4.2	Q20	6.30	247.64	248.70	248.70	248.72	0.001332	0.51	10.52	28.77	0.25
Voltura	4.16	Q20	6.30	247.53	248.56	248.56	248.57	0.000850	0.55	12.67	32.88	0.22
Voltura	4.08*	Q20	6.30	247.25	248.34	248.34	248.35	0.000201	0.28	21.80	43.71	0.11
Voltura	4	Q20	6.30	246.97	248.12	248.12	248.12	0.000064	0.15	33.51	54.53	0.06
Voltura	3.83	Q20	6.30	246.70	248.06	248.06	248.06	0.000111	0.22	33.40	93.46	0.09
Voltura	3.8	Q20	6.30	246.64	248.01	248.01	248.01	0.000136	0.24	31.55	88.98	0.10
Voltura	3.5		Culvert									
Voltura	3.2	Q20	6.30	246.62	247.99	247.99	247.99	0.000136	0.24	31.53	88.98	0.10
Voltura	3	Q20	6.30	246.60	247.93	247.93	247.93	0.000175	0.26	28.16	80.52	0.11
Voltura	2.5*	Q20	6.30	246.24	247.29	247.29	247.49	0.012754	2.31	3.71	18.02	0.96
Voltura	2	Q20	6.30	245.88	247.08	246.55	247.09	0.000282	0.47	15.01	21.78	0.15
Voltura	1	Q20	6.30	245.51	246.92	246.92	247.02	0.009682	1.78	4.88	19.33	0.48

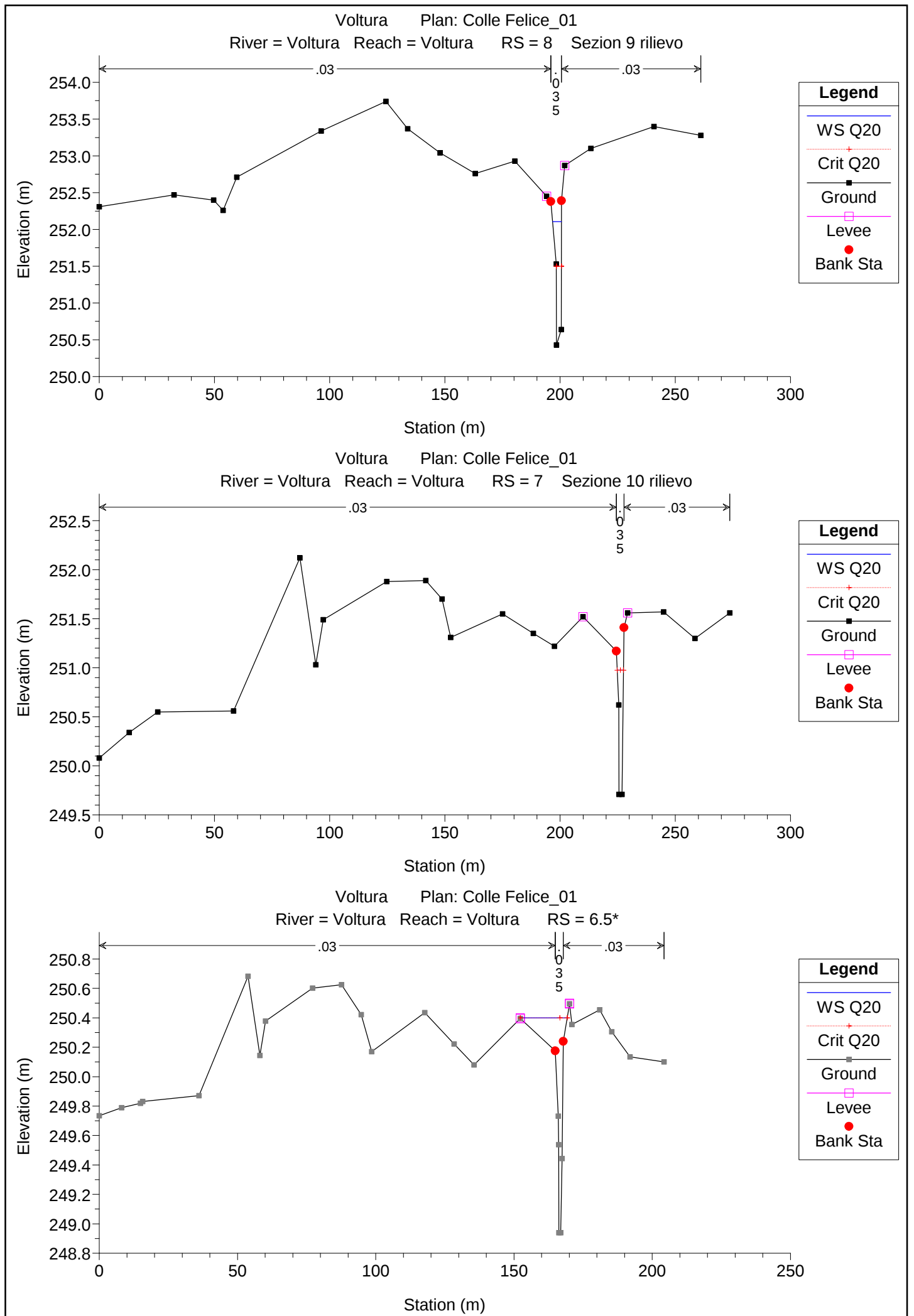


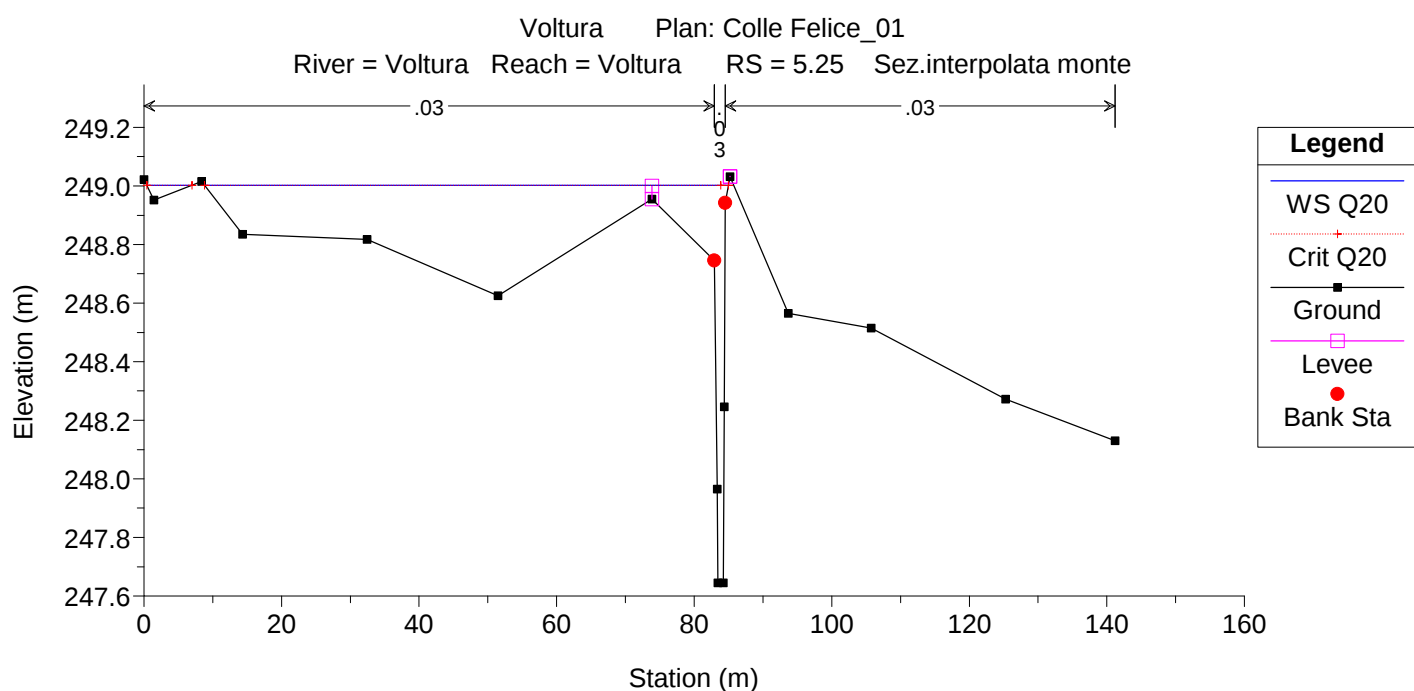
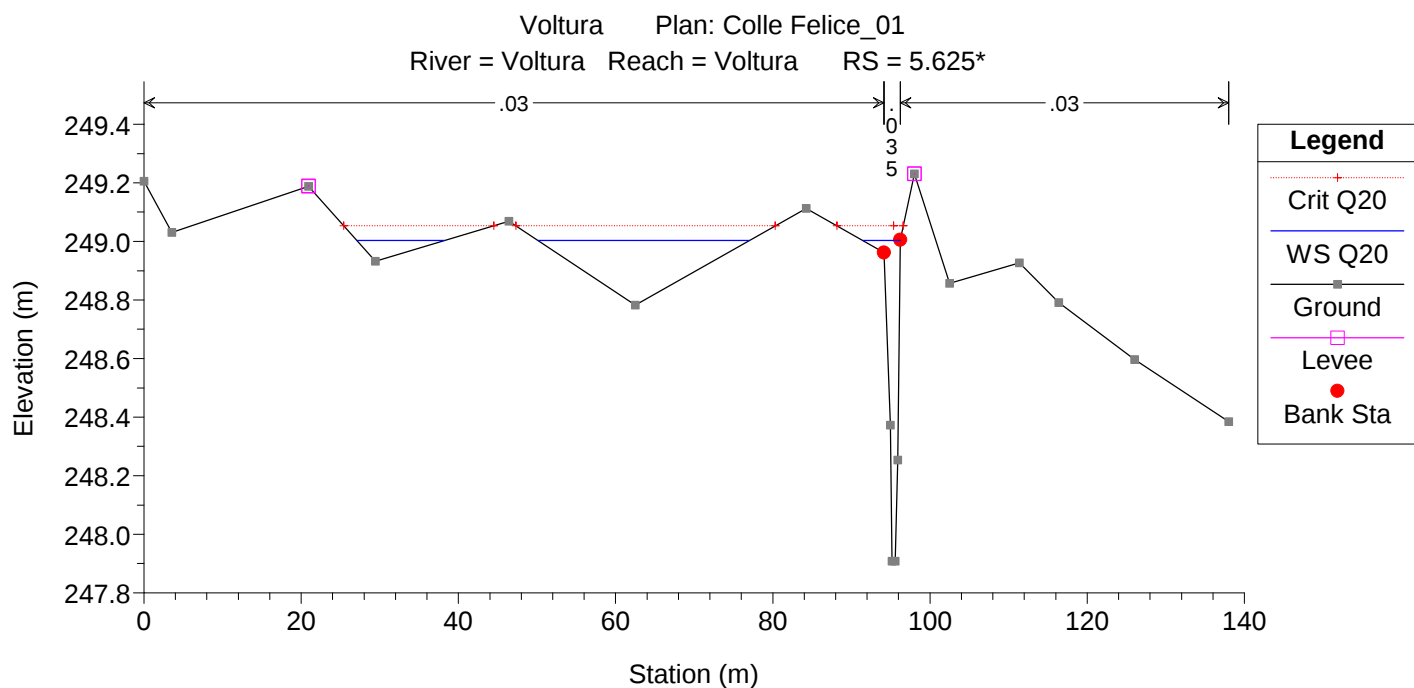
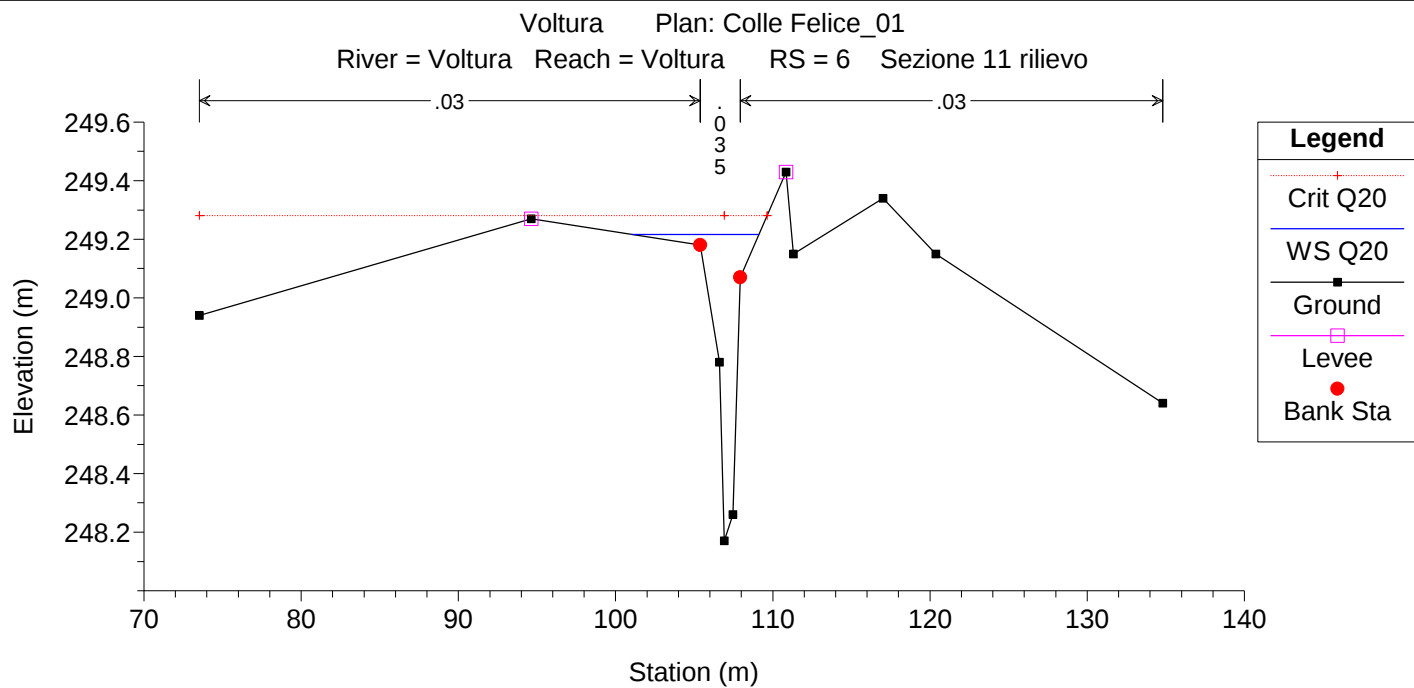


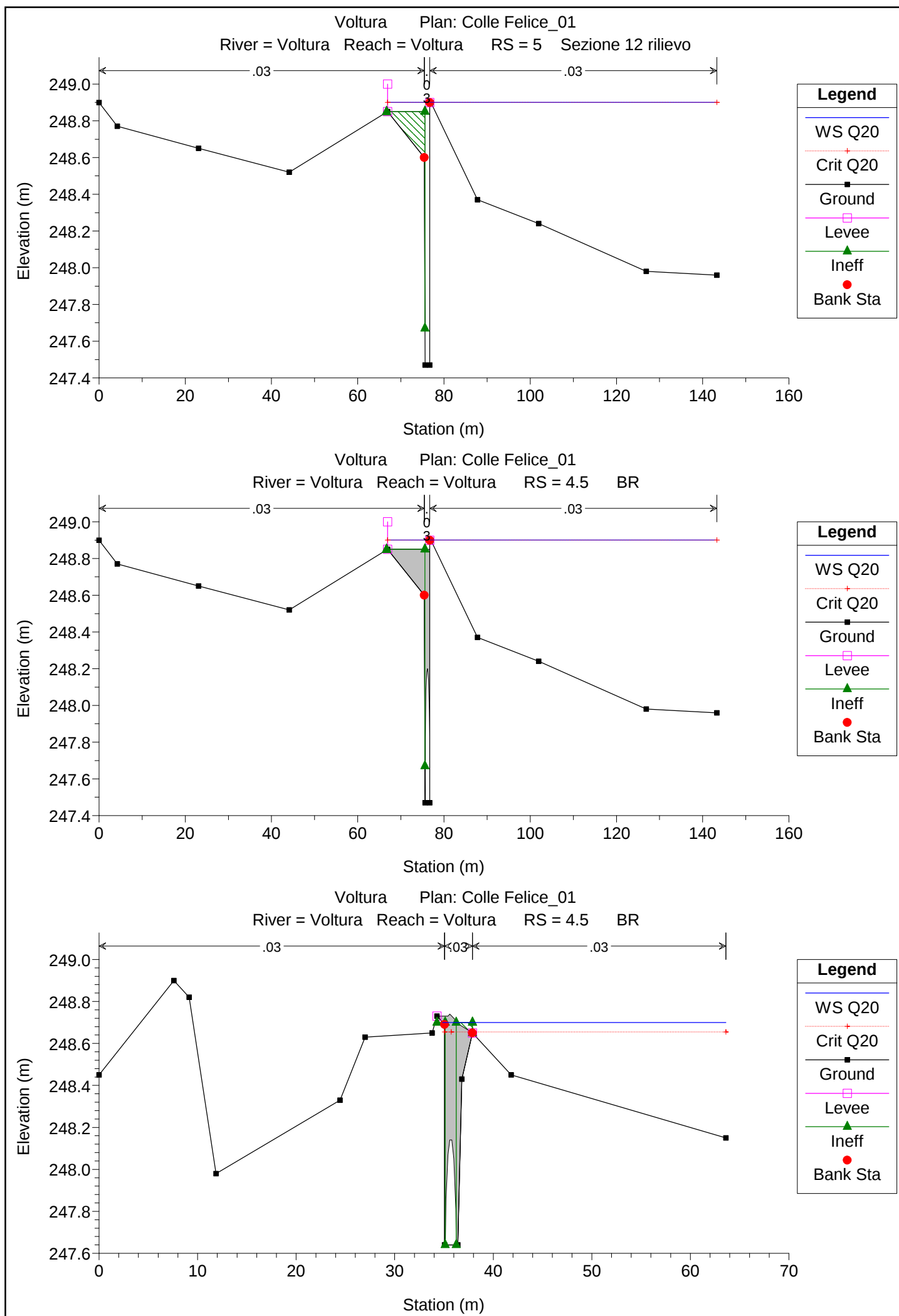


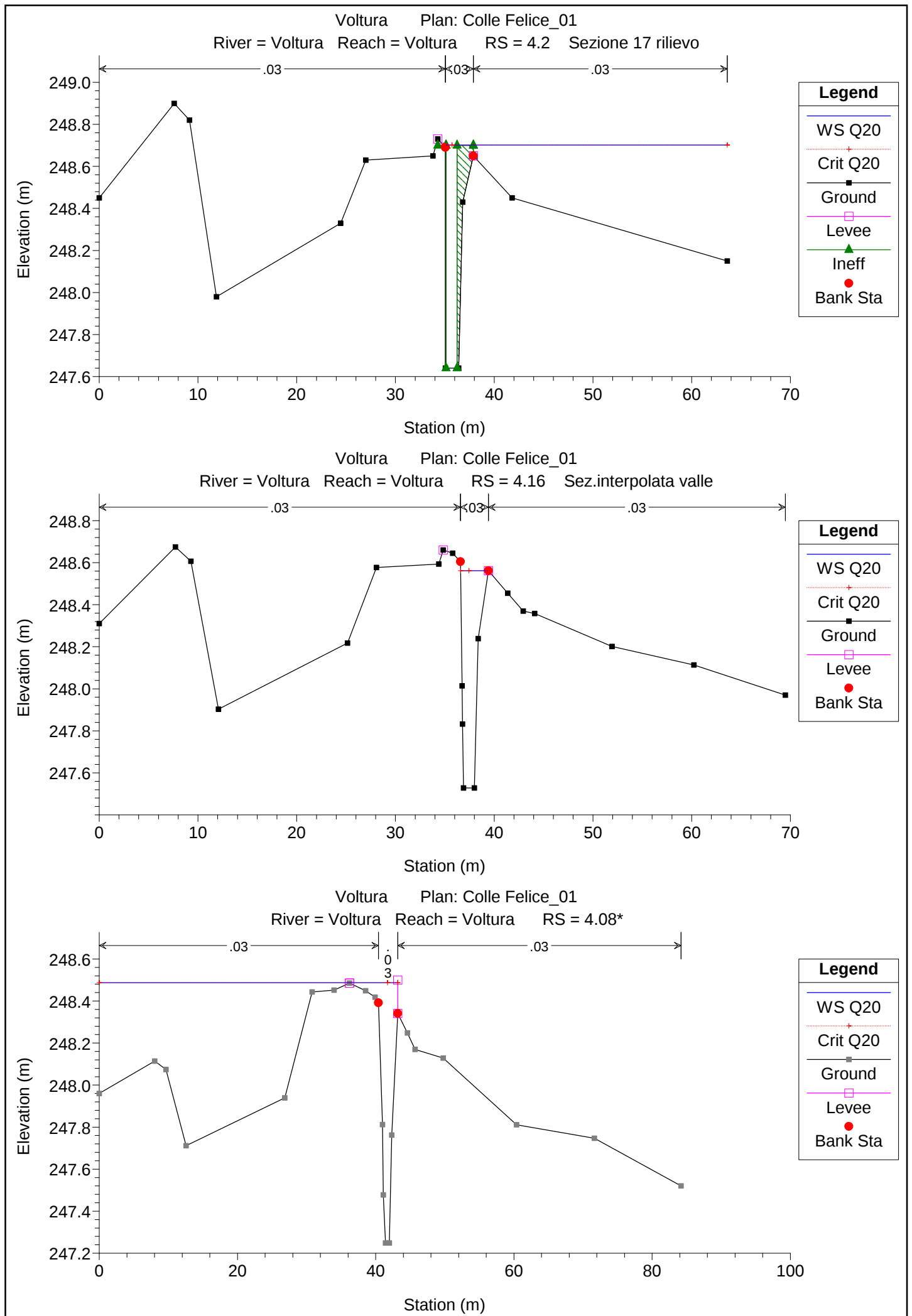


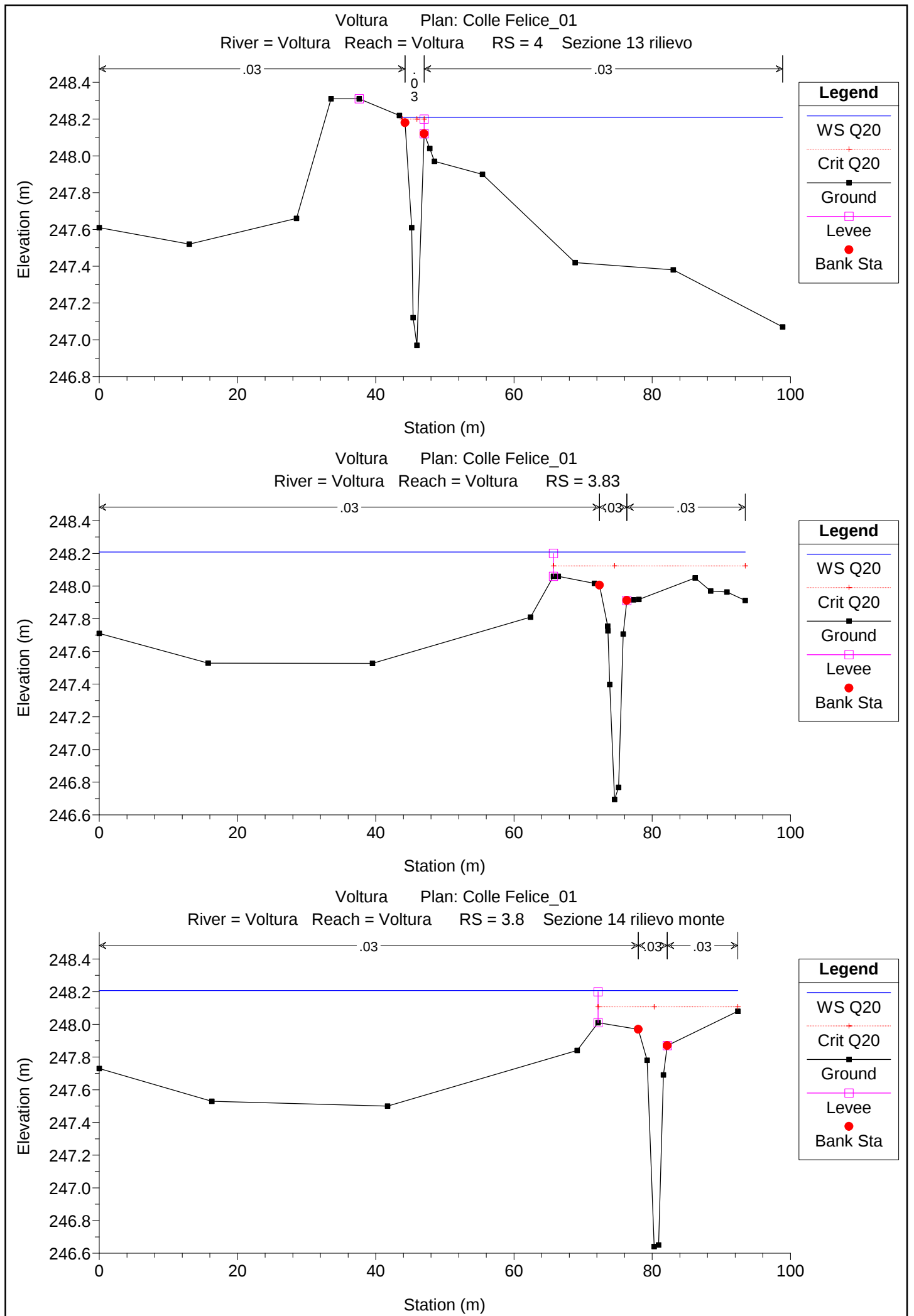


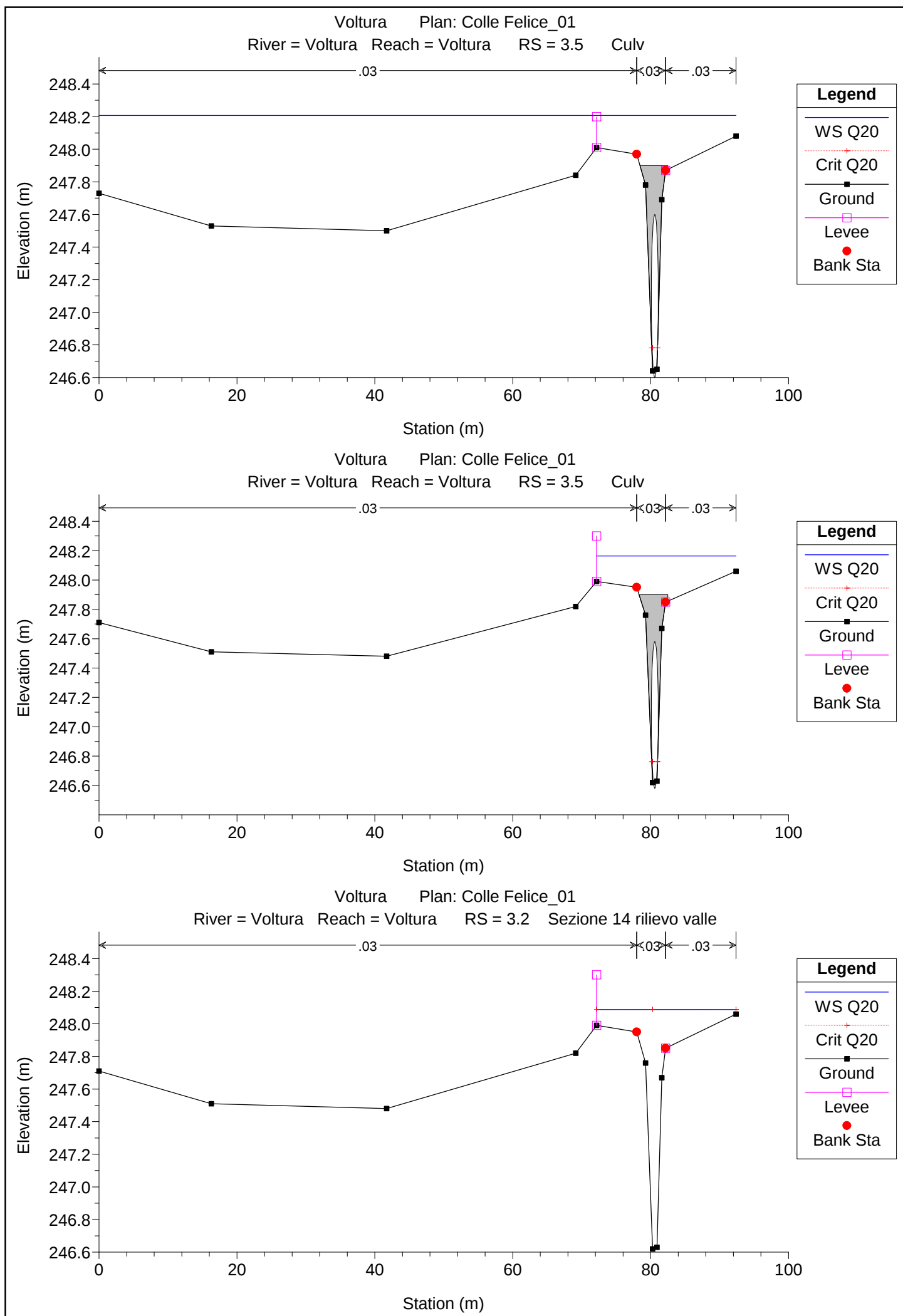


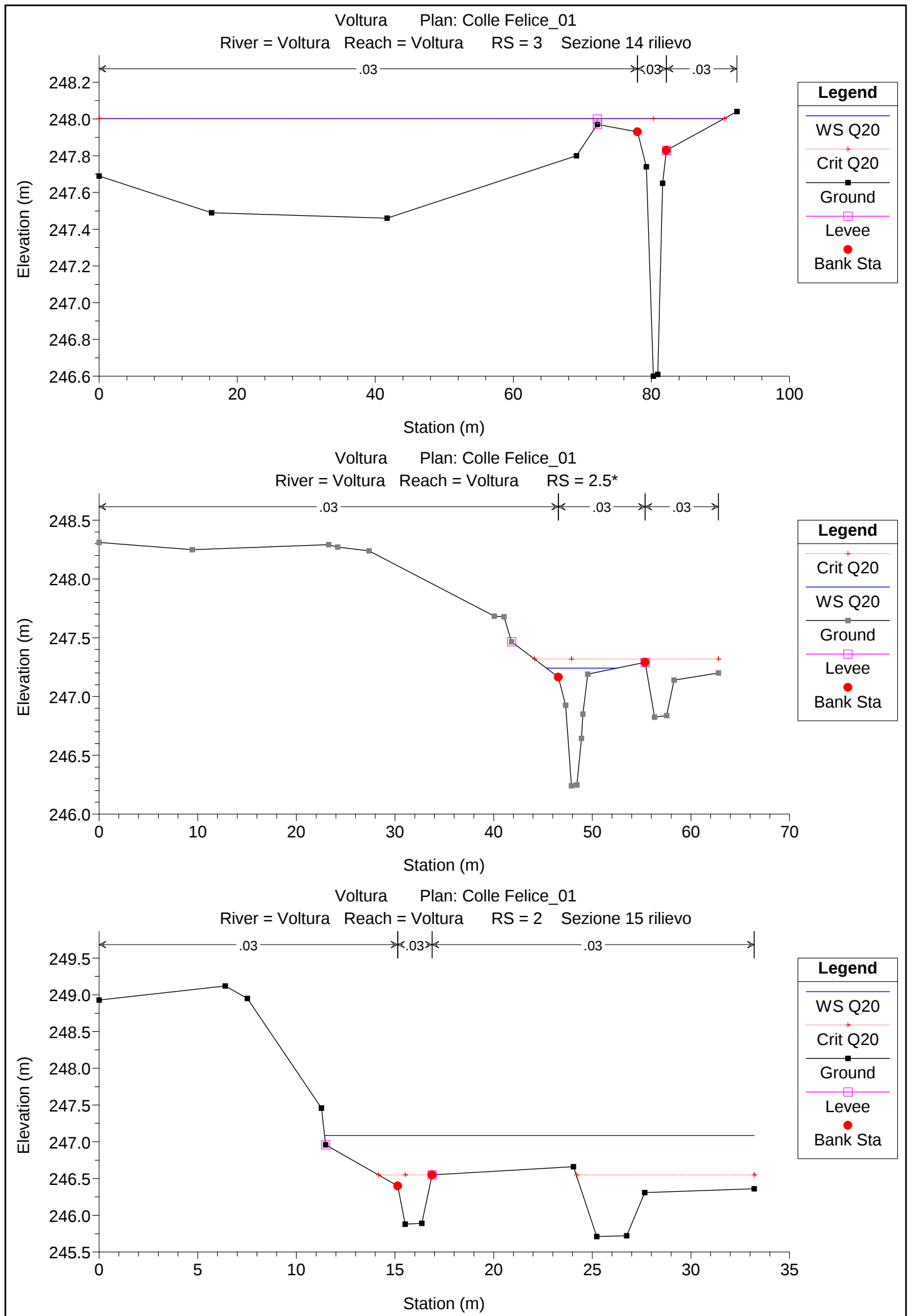


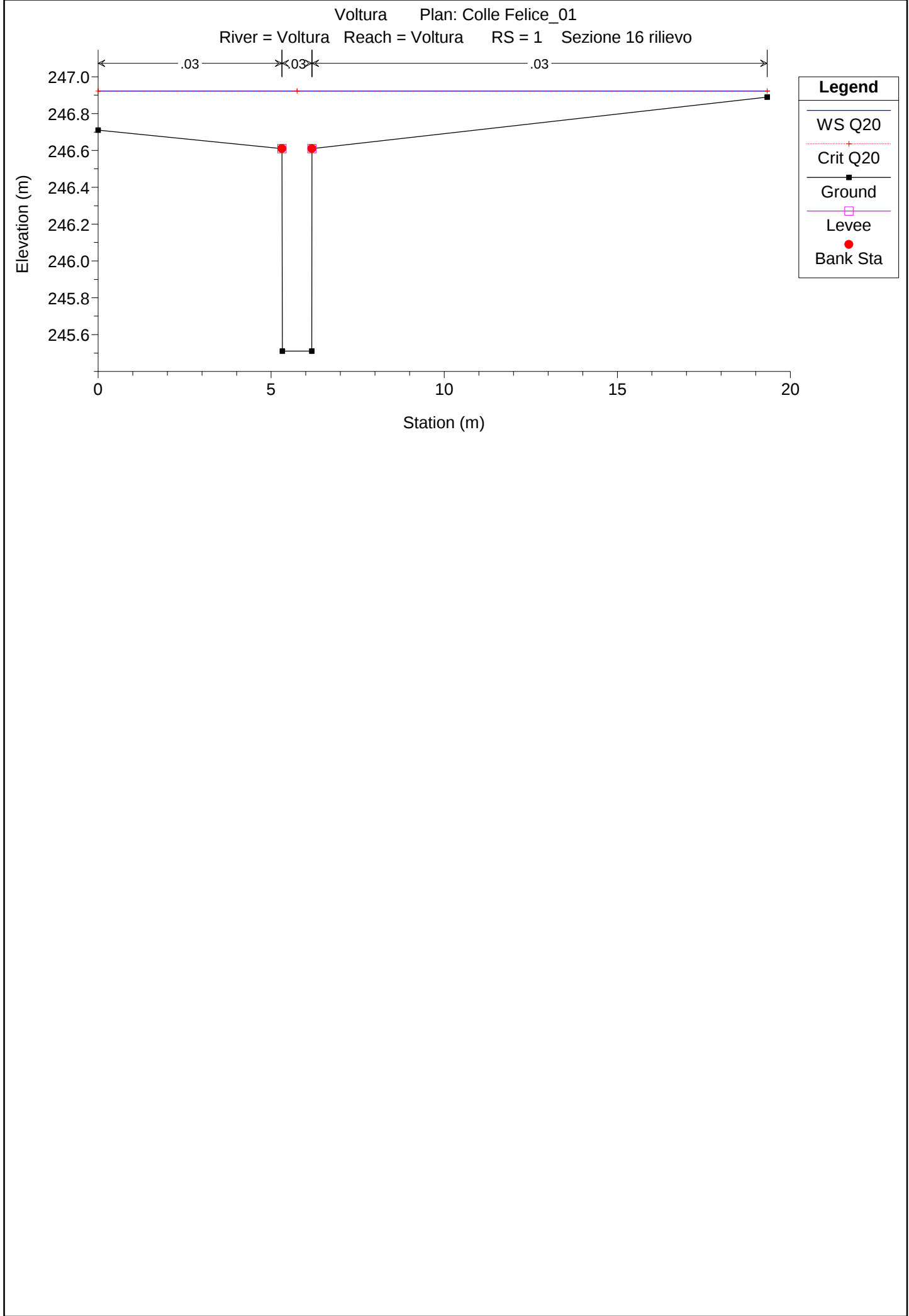






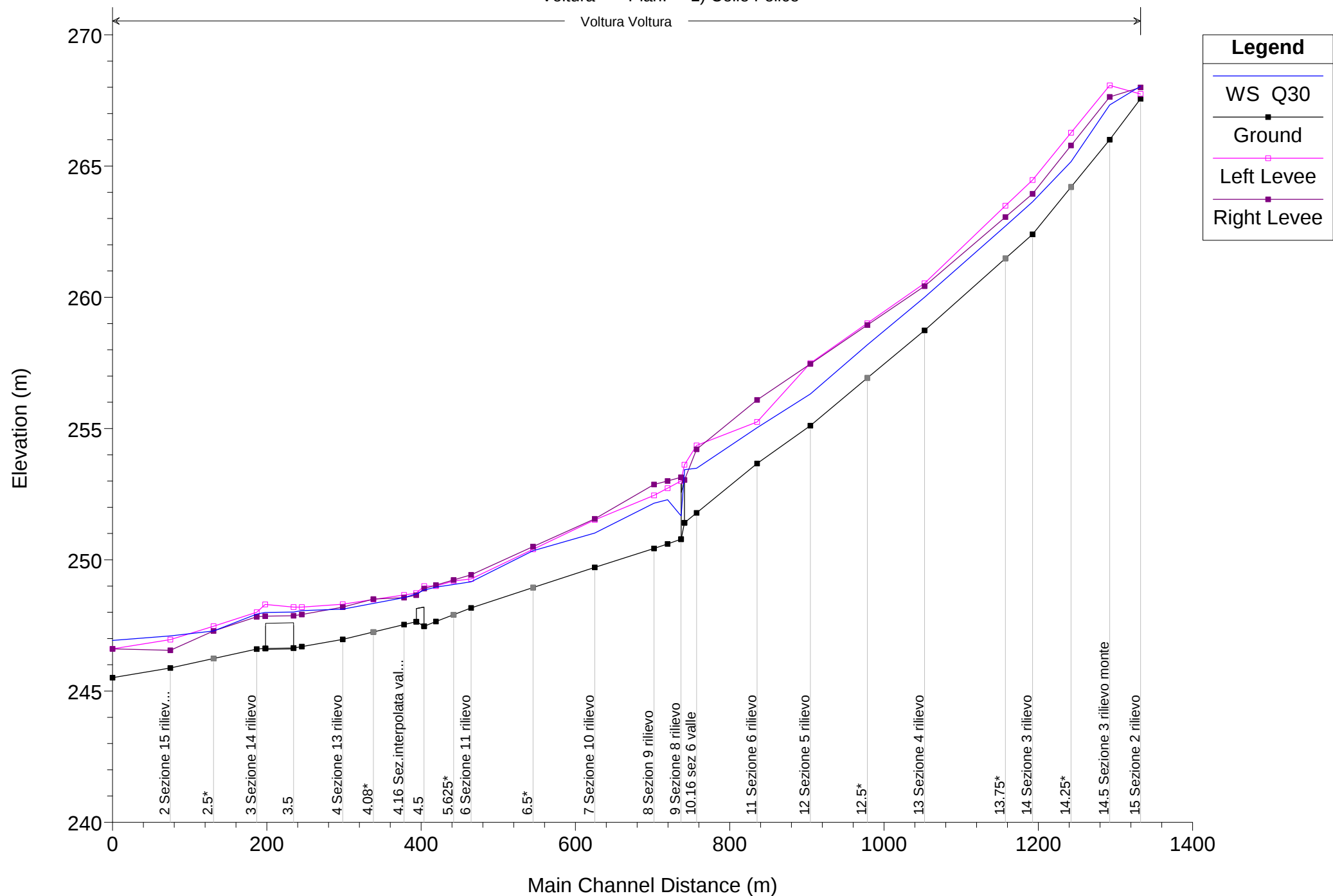




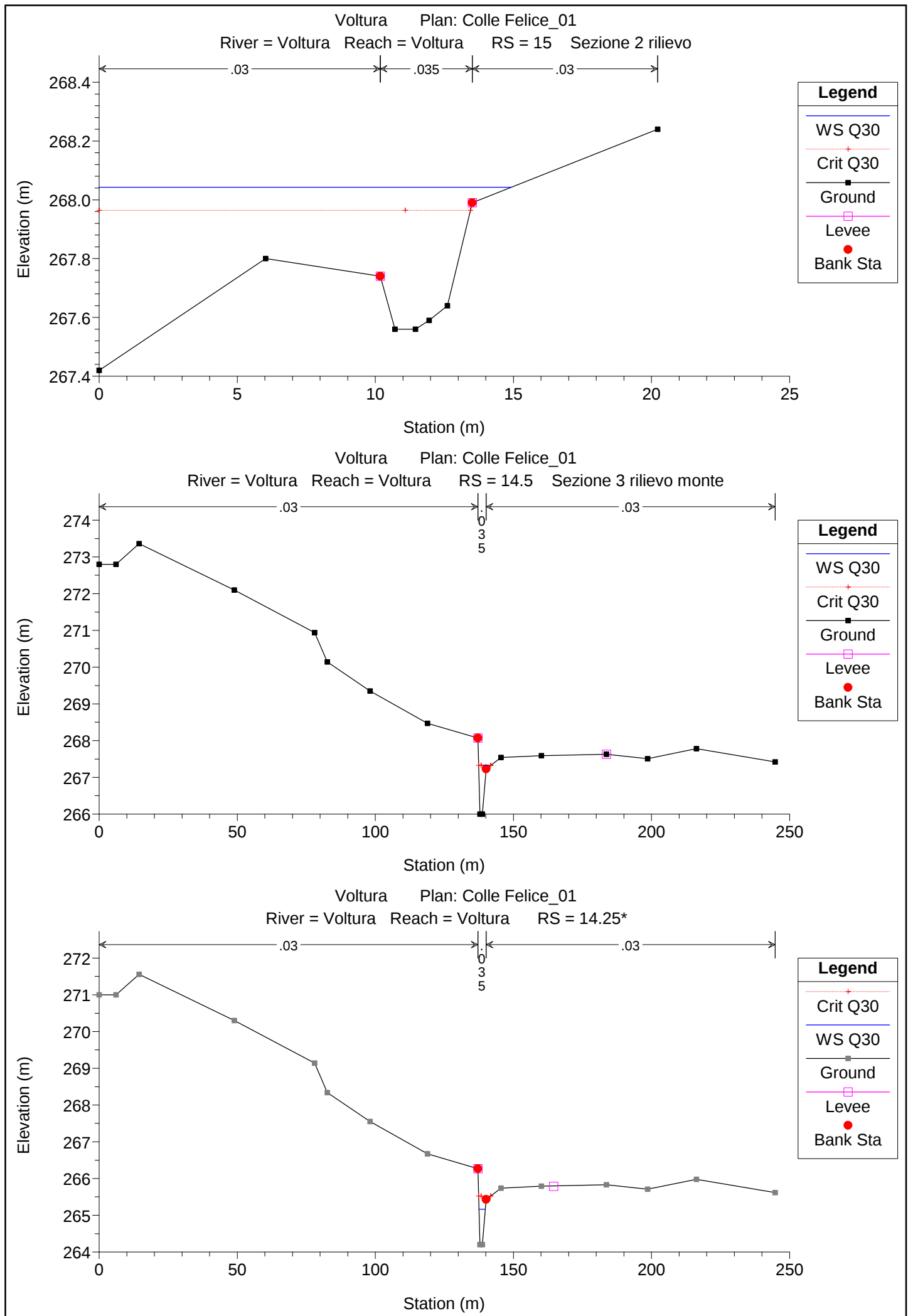


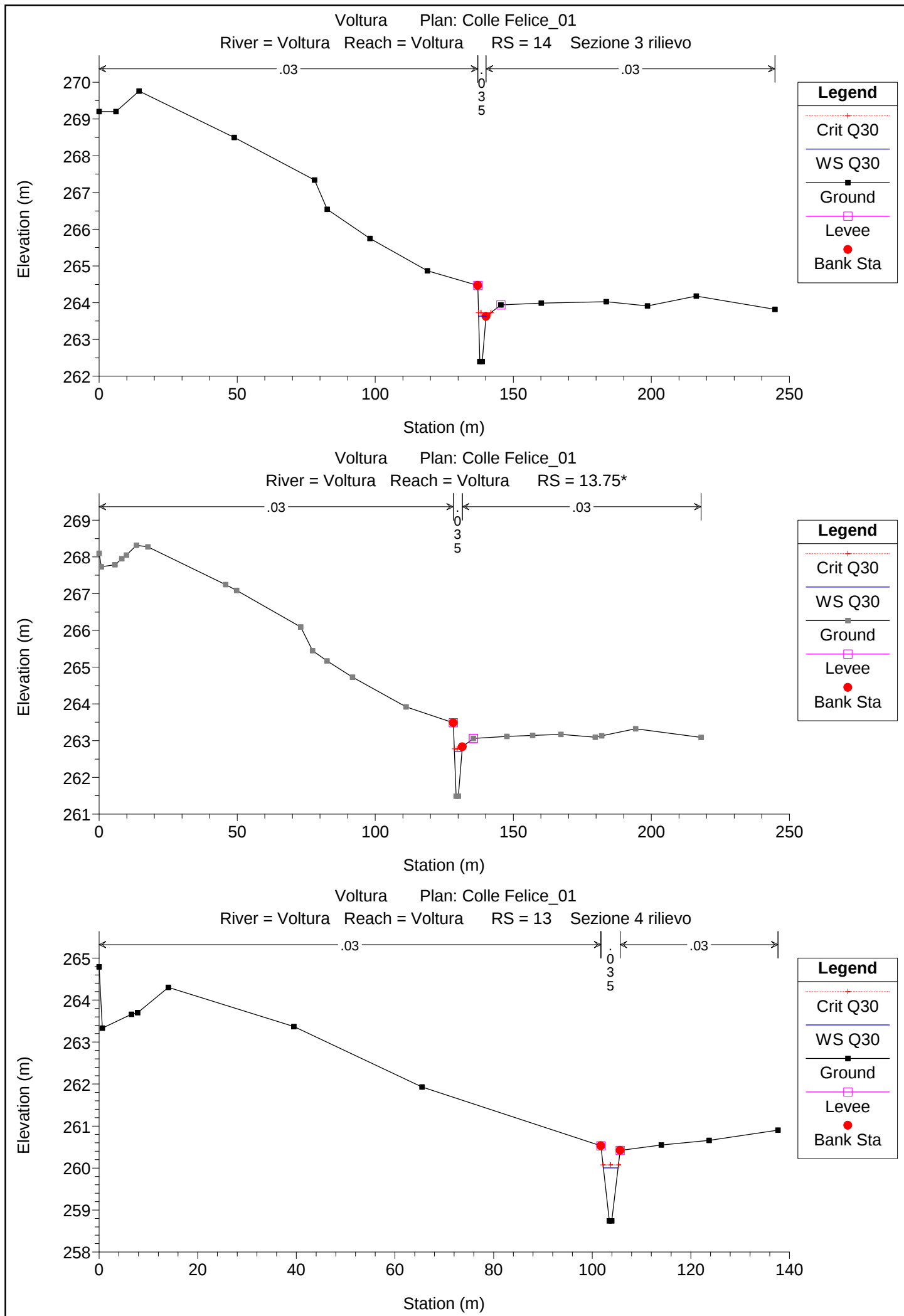
Voltura Plan: 1) Colle Felice

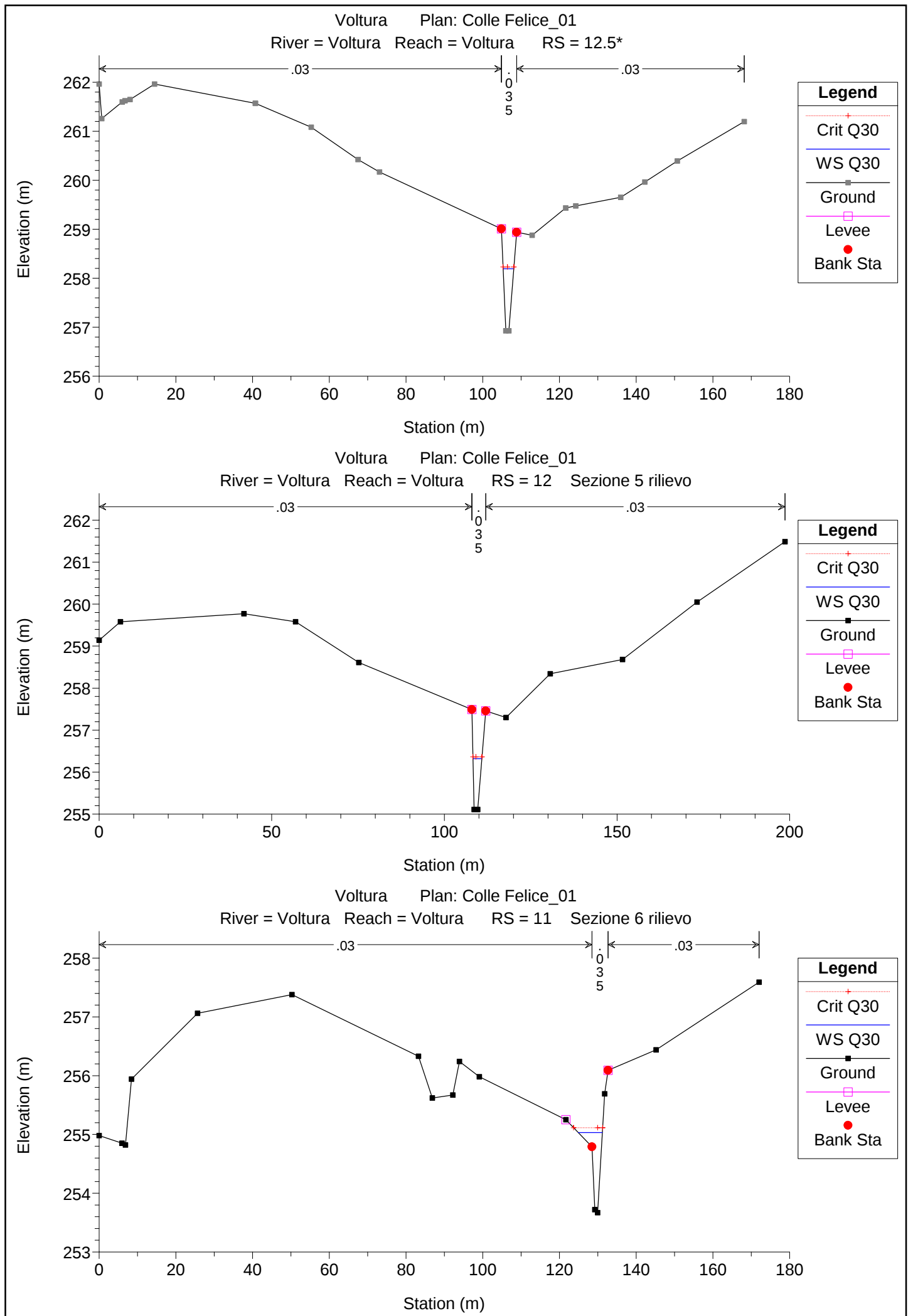
Voltura Voltura

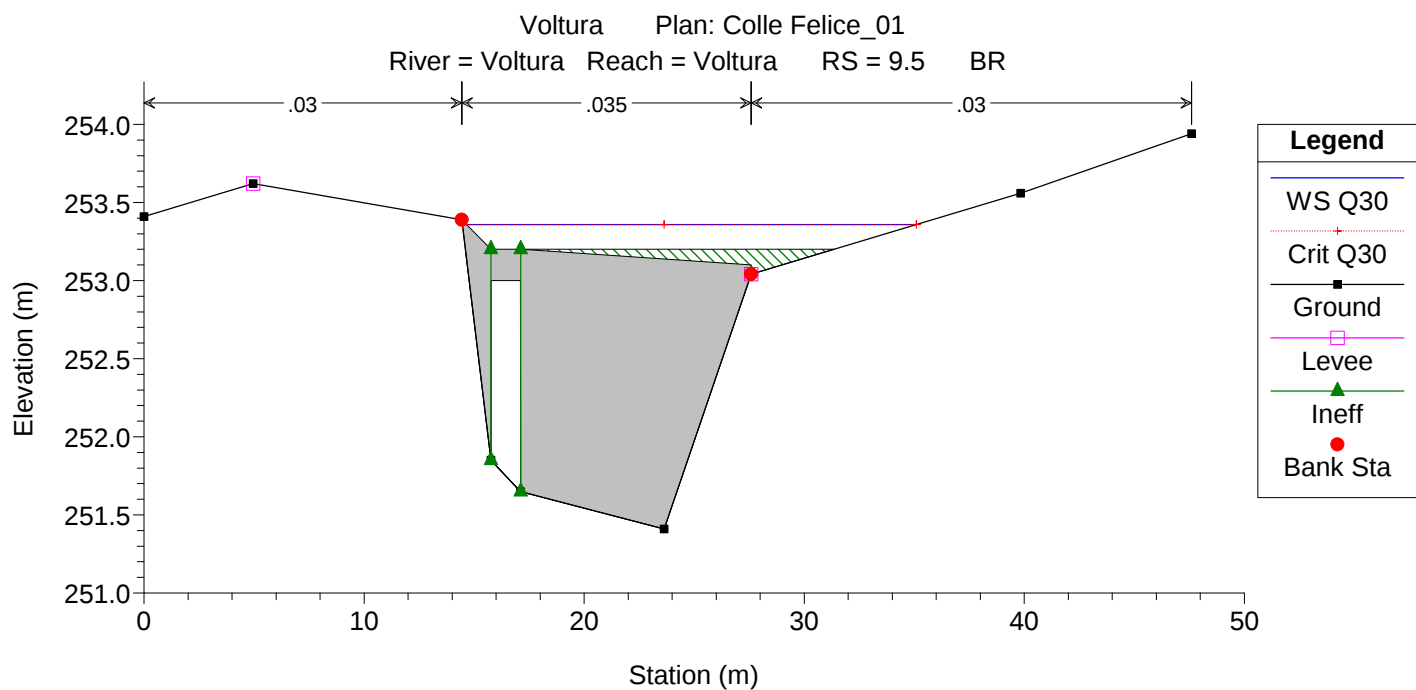
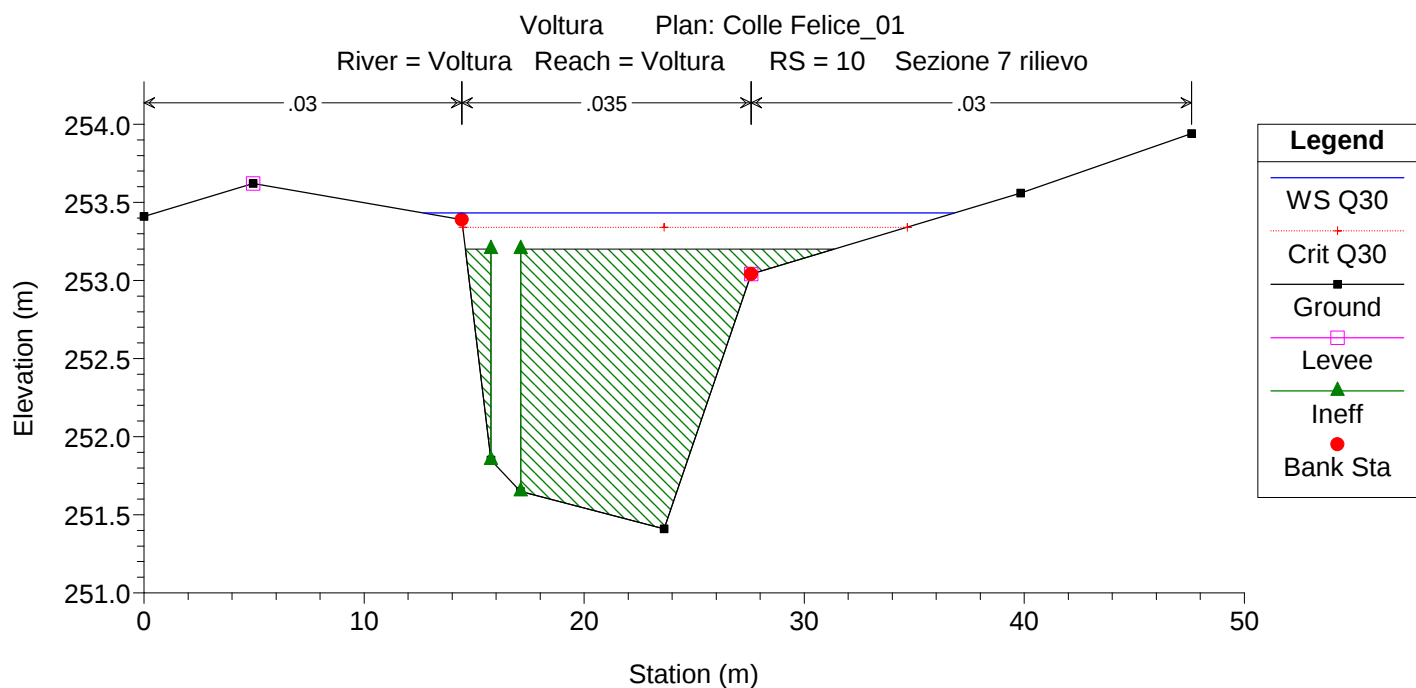
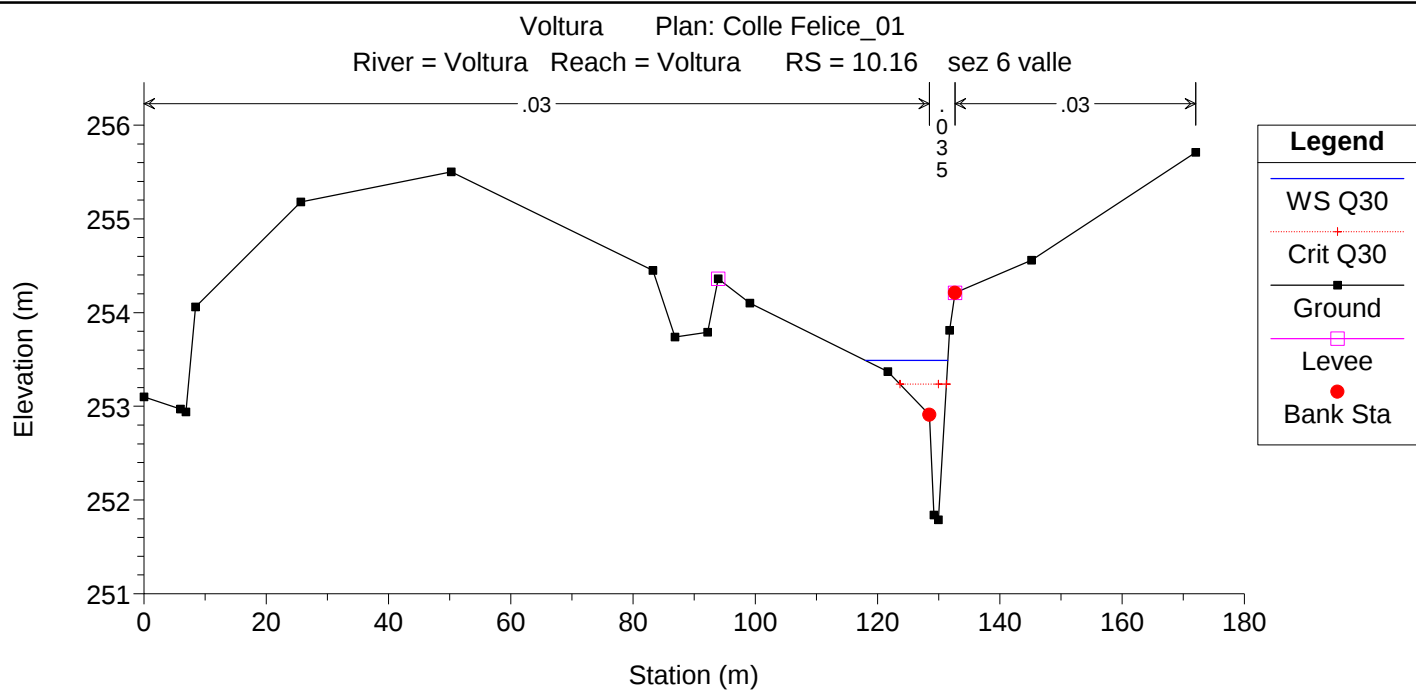


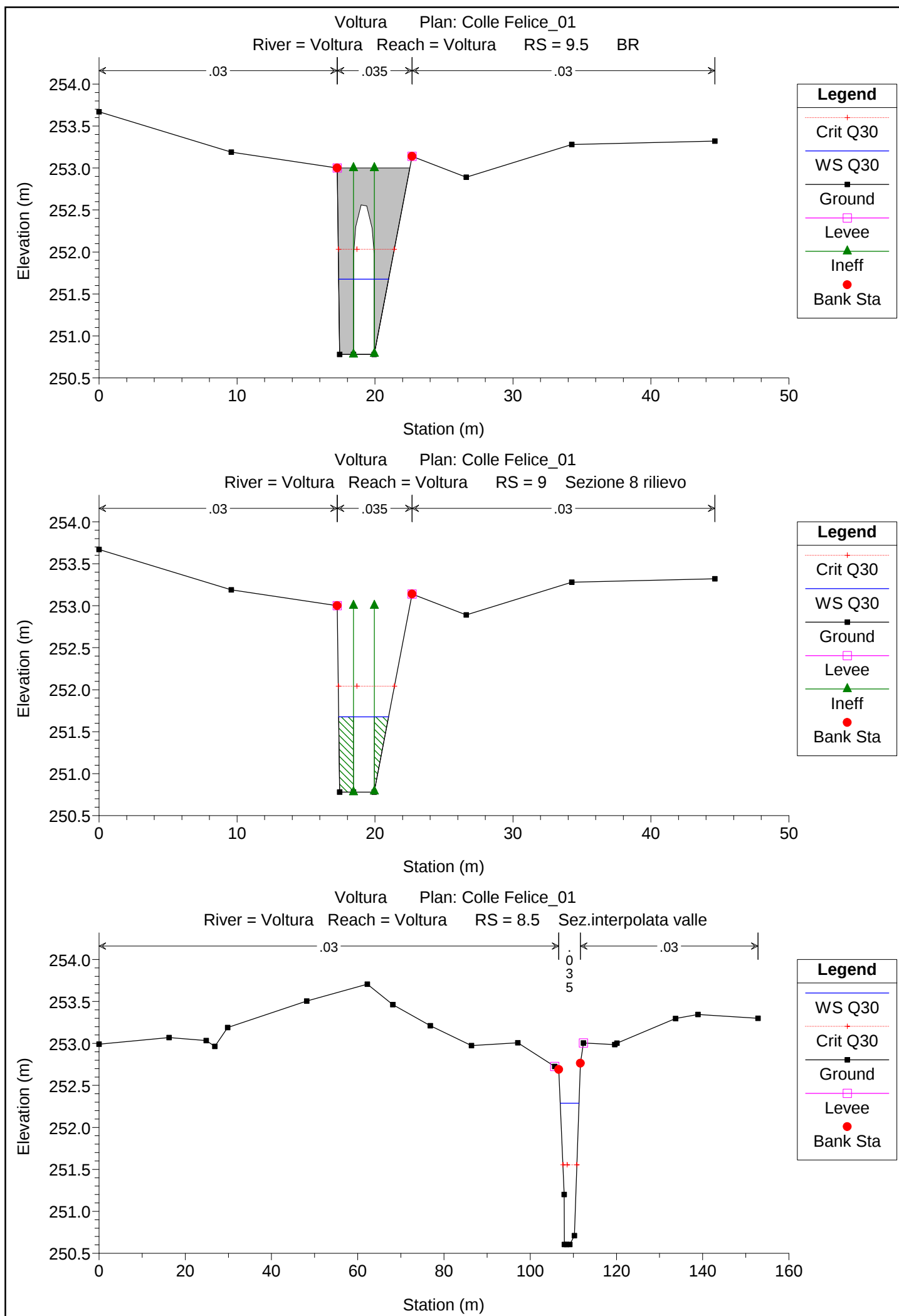
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Voltura	15	Q30	6.70	267.56	268.04	267.96	268.13	0.006890	1.23	5.07	14.93	0.63
Voltura	14.5	Q30	6.70	266.00	267.33	267.33	267.69	0.017480	2.68	2.56	4.41	0.90
Voltura	14.25*	Q30	6.70	264.20	265.16	265.53	266.12	0.064595	4.33	1.55	2.31	1.69
Voltura	14	Q30	6.70	262.40	263.63	263.73	264.09	0.024460	3.00	2.23	2.79	1.06
Voltura	13.75*	Q30	6.70	261.48	262.71	262.78	263.20	0.026607	3.11	2.16	2.73	1.11
Voltura	13	Q30	6.70	258.74	260.00	260.08	260.47	0.025267	3.03	2.21	3.00	1.13
Voltura	12.5*	Q30	6.70	256.93	258.19	258.23	258.65	0.023937	2.99	2.24	2.76	1.06
Voltura	12	Q30	6.70	255.11	256.32	256.36	256.80	0.026047	3.08	2.18	2.56	1.06
Voltura	11	Q30	6.70	253.67	255.03	255.12	255.36	0.016094	2.63	2.81	6.27	0.89
Voltura	10.16	Q30	6.70	251.79	253.49	253.24	253.57	0.003409	1.41	5.94	13.49	0.43
Voltura	10	Q30	6.70	251.41	253.43	253.34	253.49	0.006000	1.10	6.55	24.11	0.57
Voltura	9.5		Bridge									
Voltura	9	Q30	6.70	250.78	251.68	252.04	252.92	0.034707	4.94	1.35	3.61	1.67
Voltura	8.5	Q30	6.70	250.61	252.29	251.55	252.37	0.002530	1.28	5.24	4.36	0.37
Voltura	8	Q30	6.70	250.43	252.15	251.55	252.29	0.006145	1.64	4.09	4.00	0.52
Voltura	7	Q30	6.70	249.71	251.02	251.02	251.43	0.023682	2.84	2.36	2.85	1.00
Voltura	6.5*	Q30	6.70	248.94	250.34	250.34	250.42	0.006614	1.56	6.86	40.89	0.56
Voltura	6	Q30	6.70	248.17	249.16	249.24	249.38	0.034448	2.63	3.69	25.29	1.21
Voltura	5.625*	Q30	6.70	247.91	249.06	249.06	249.12	0.008351	1.52	7.67	62.52	0.58
Voltura	5.25	Q30	6.70	247.65	248.95	248.95	248.97	0.002072	0.93	13.25	74.60	0.29
Voltura	5	Q30	6.70	247.47	248.85	248.85	248.87	0.002018	0.84	13.61	75.07	0.24
Voltura	4.5		Bridge									
Voltura	4.2	Q30	6.70	247.64	248.70	248.70	248.72	0.001510	0.54	10.51	28.77	0.27
Voltura	4.16	Q30	6.70	247.53	248.56	248.56	248.58	0.000962	0.58	12.67	32.88	0.24
Voltura	4.08*	Q30	6.70	247.25	248.34	248.34	248.35	0.000227	0.30	21.80	43.71	0.12
Voltura	4	Q30	6.70	246.97	248.12	248.12	248.12	0.000072	0.16	33.51	54.53	0.07
Voltura	3.83	Q30	6.70	246.70	248.06	248.06	248.06	0.000126	0.24	33.40	93.46	0.10
Voltura	3.8	Q30	6.70	246.64	248.01	248.01	248.01	0.000154	0.26	31.55	88.98	0.10
Voltura	3.5		Culvert									
Voltura	3.2	Q30	6.70	246.62	247.99	247.99	247.99	0.000154	0.26	31.53	88.98	0.10
Voltura	3	Q30	6.70	246.60	247.93	247.93	247.93	0.000198	0.28	28.16	80.51	0.12
Voltura	2.5*	Q30	6.70	246.24	247.29	247.29	247.52	0.014425	2.46	3.71	18.02	1.02
Voltura	2	Q30	6.70	245.88	247.10	246.55	247.11	0.000296	0.49	15.35	21.79	0.15
Voltura	1	Q30	6.70	245.51	246.93	246.93	247.04	0.010136	1.83	5.02	19.33	0.49

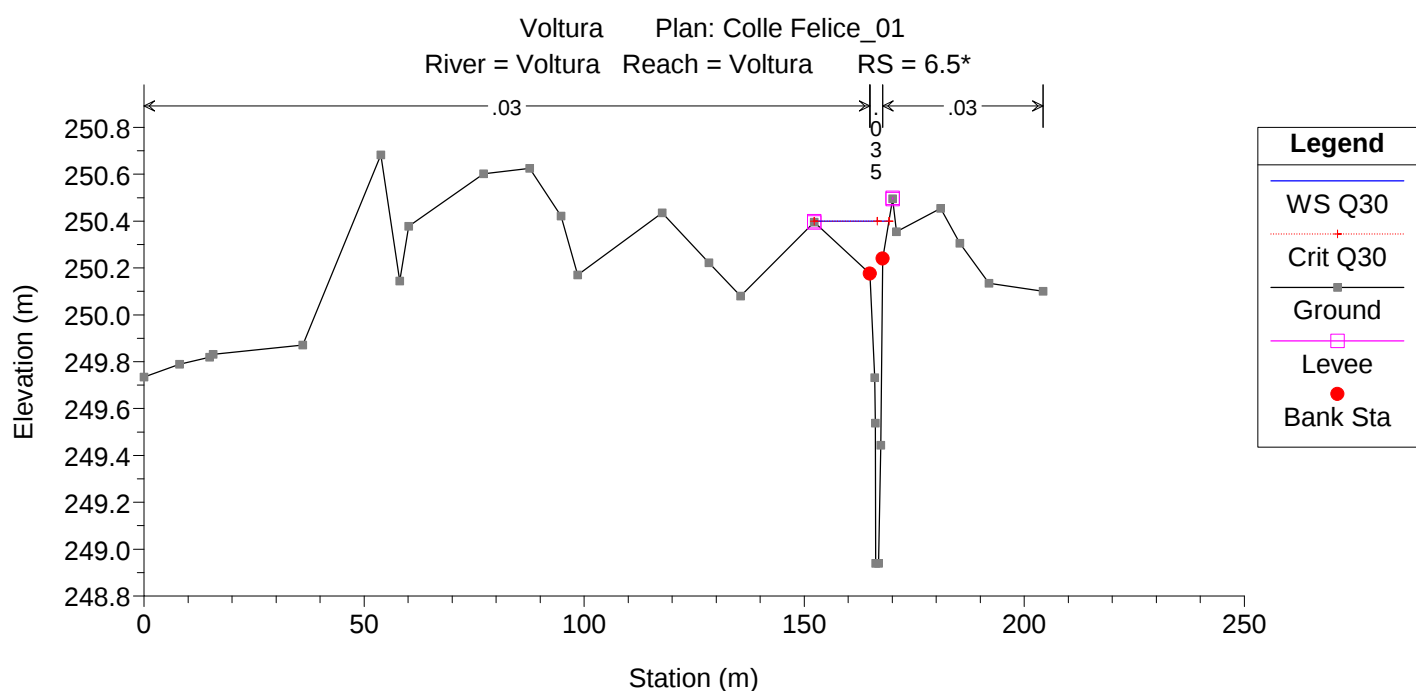
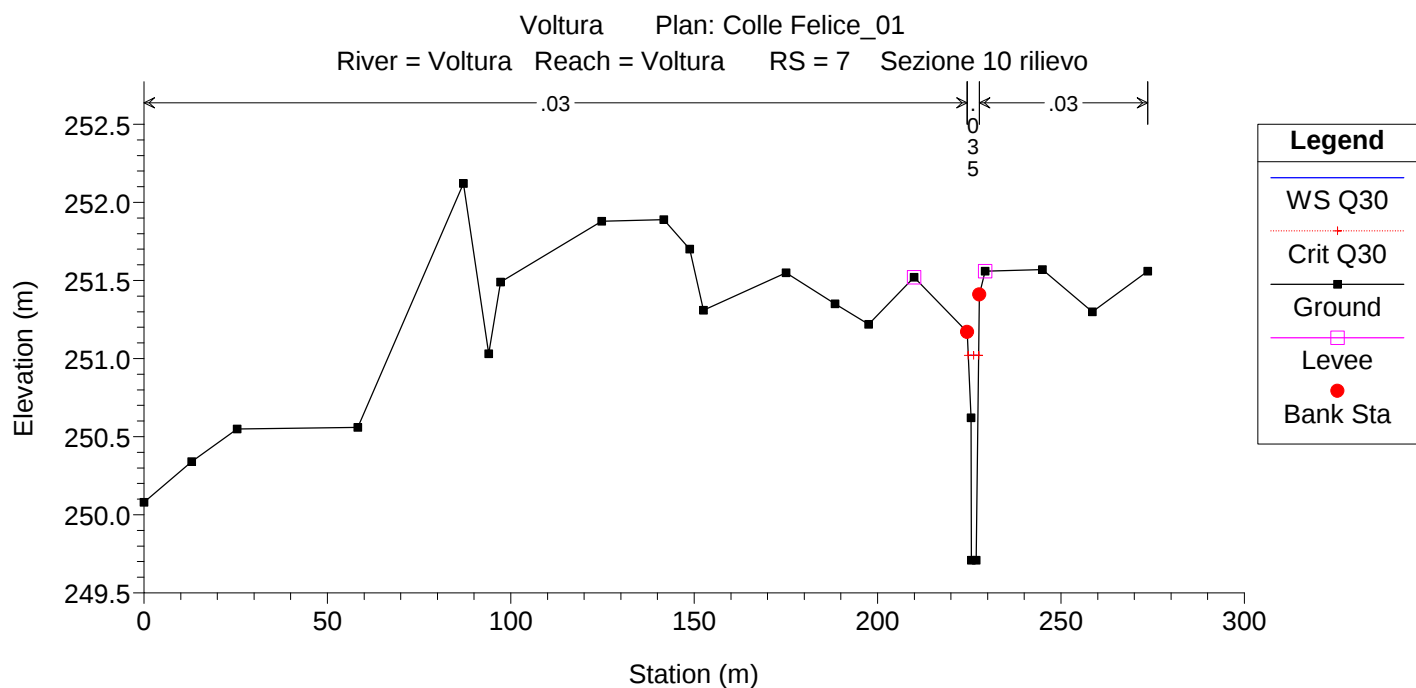
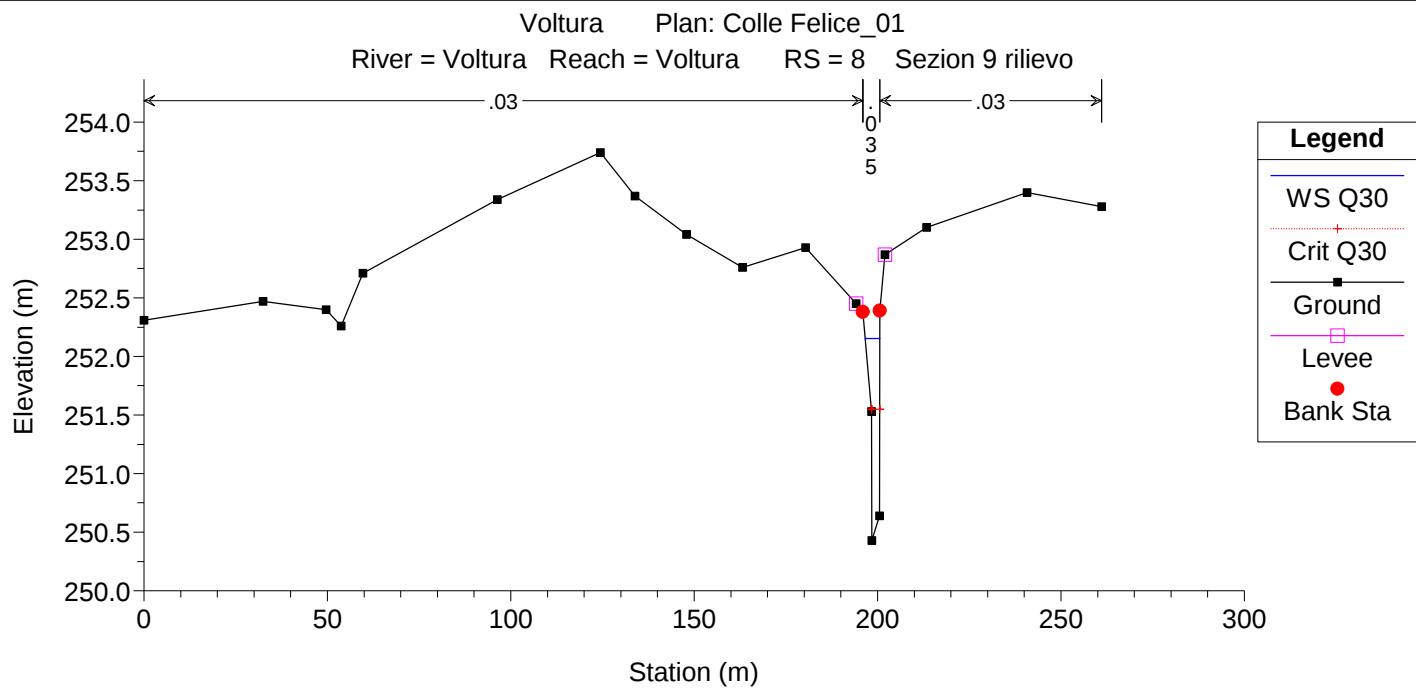


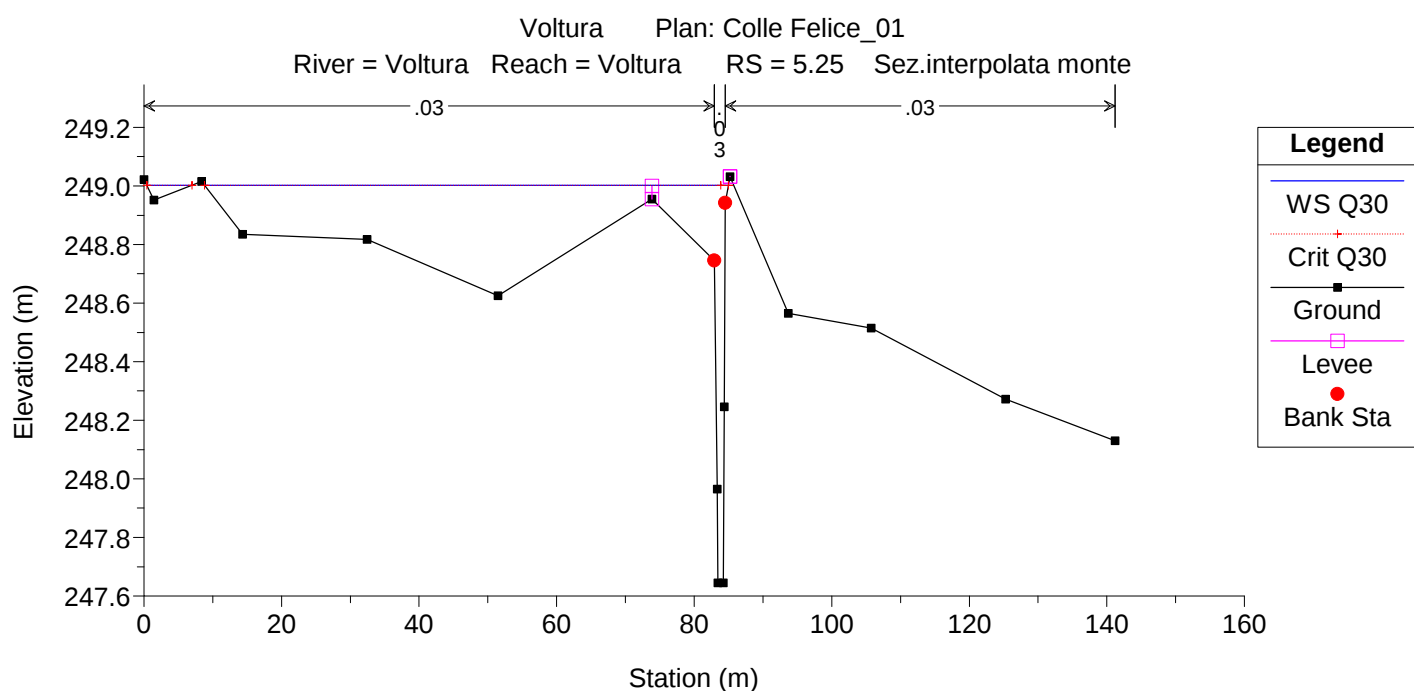
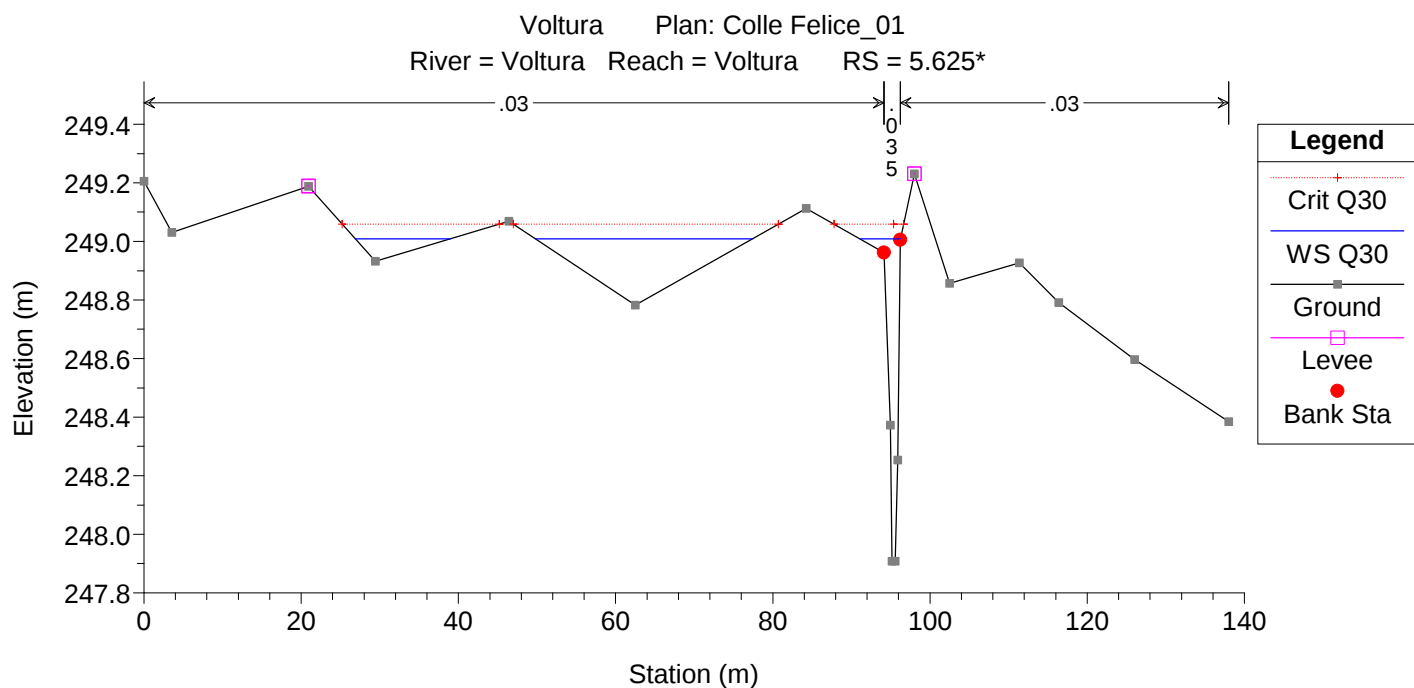
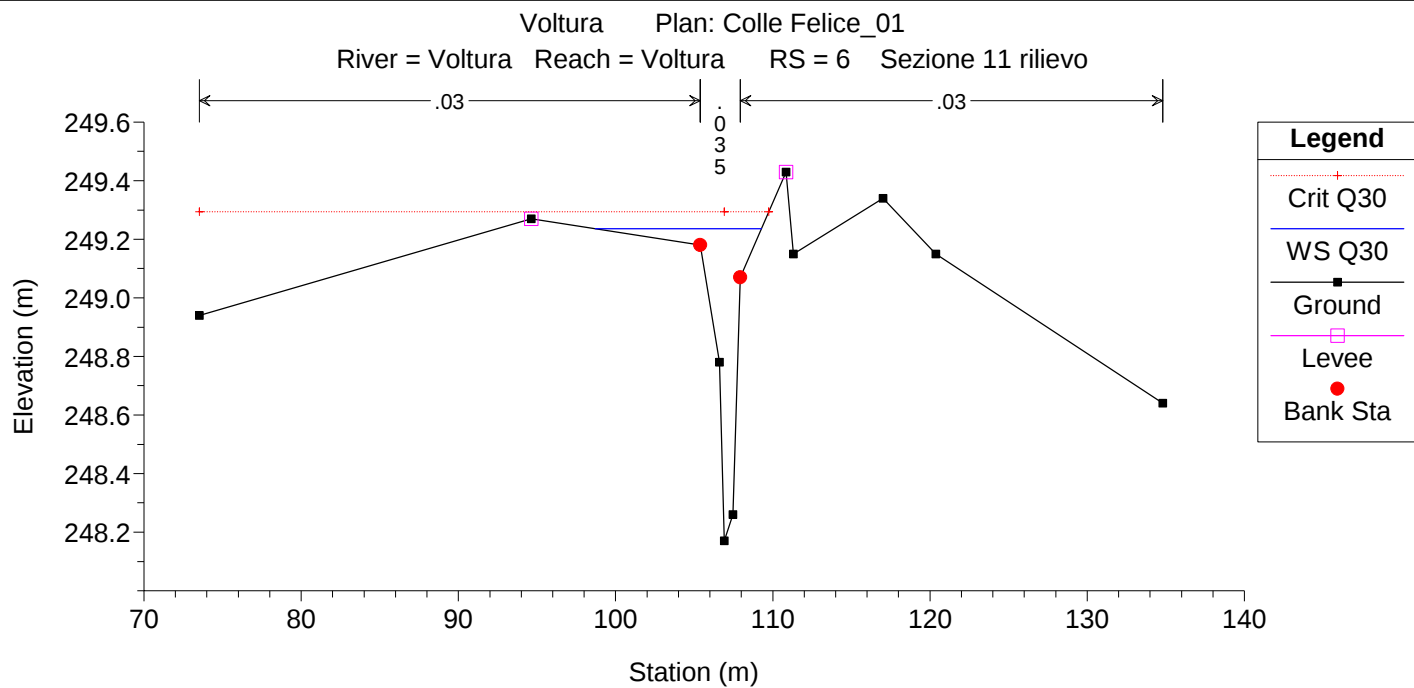


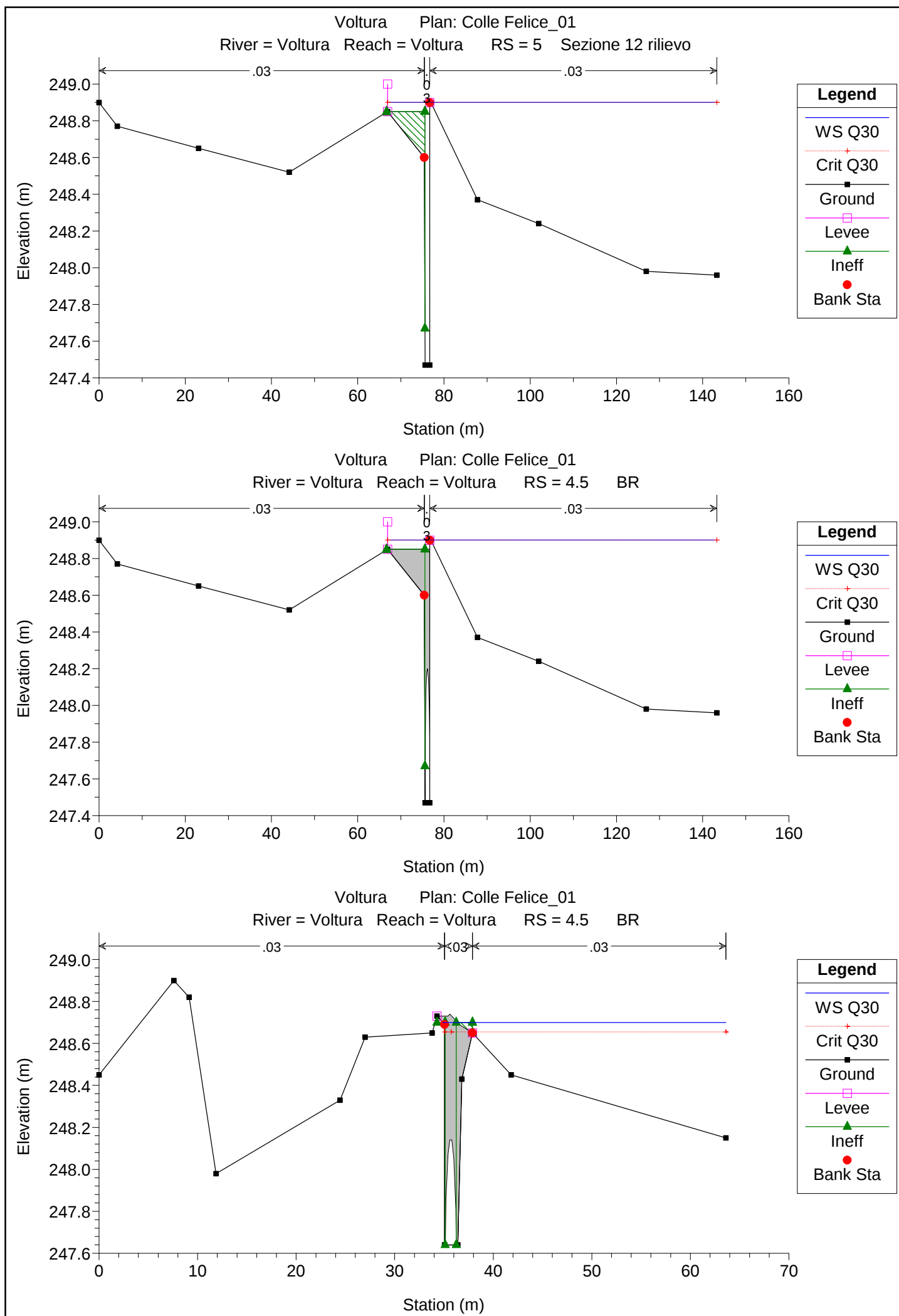


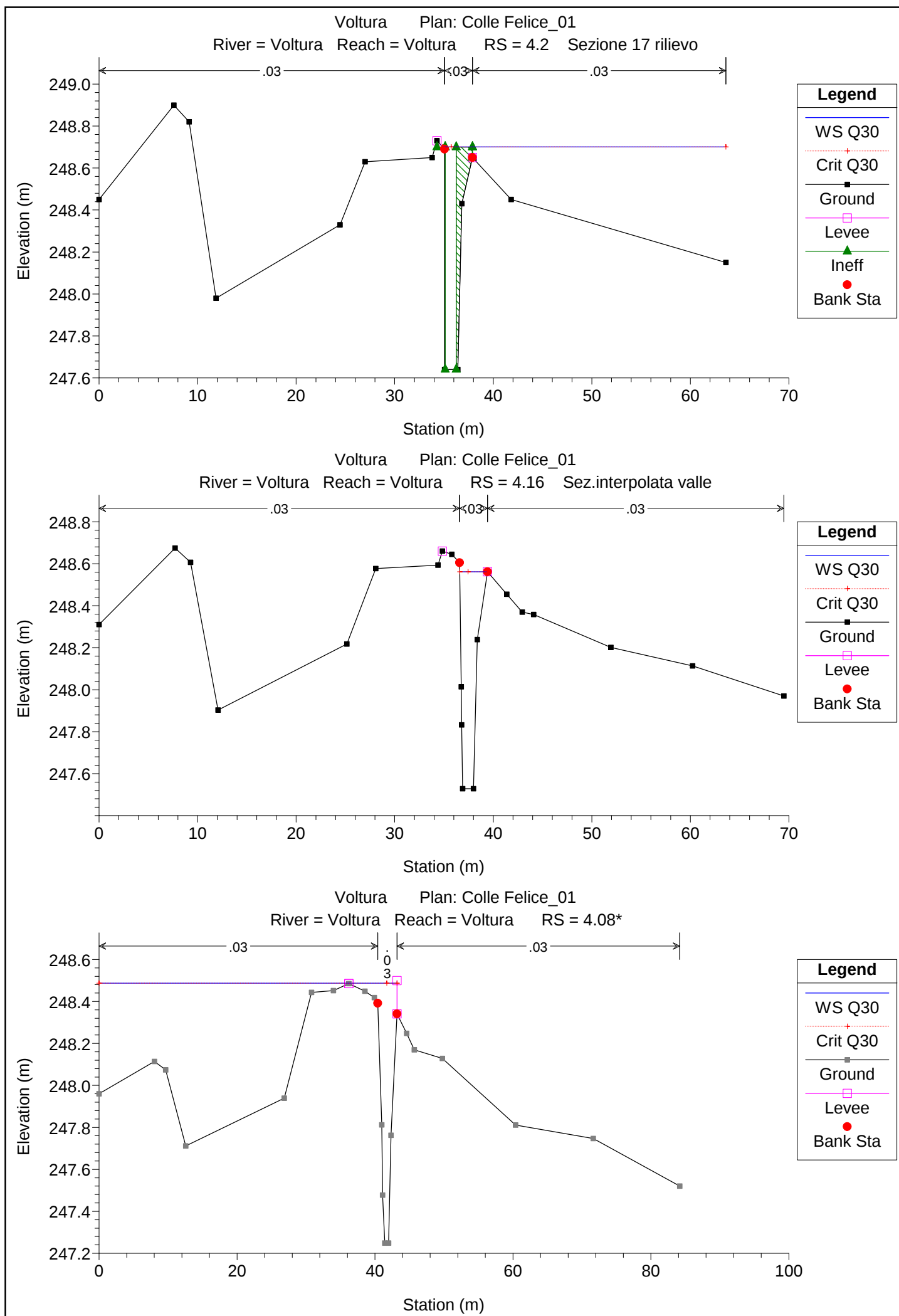


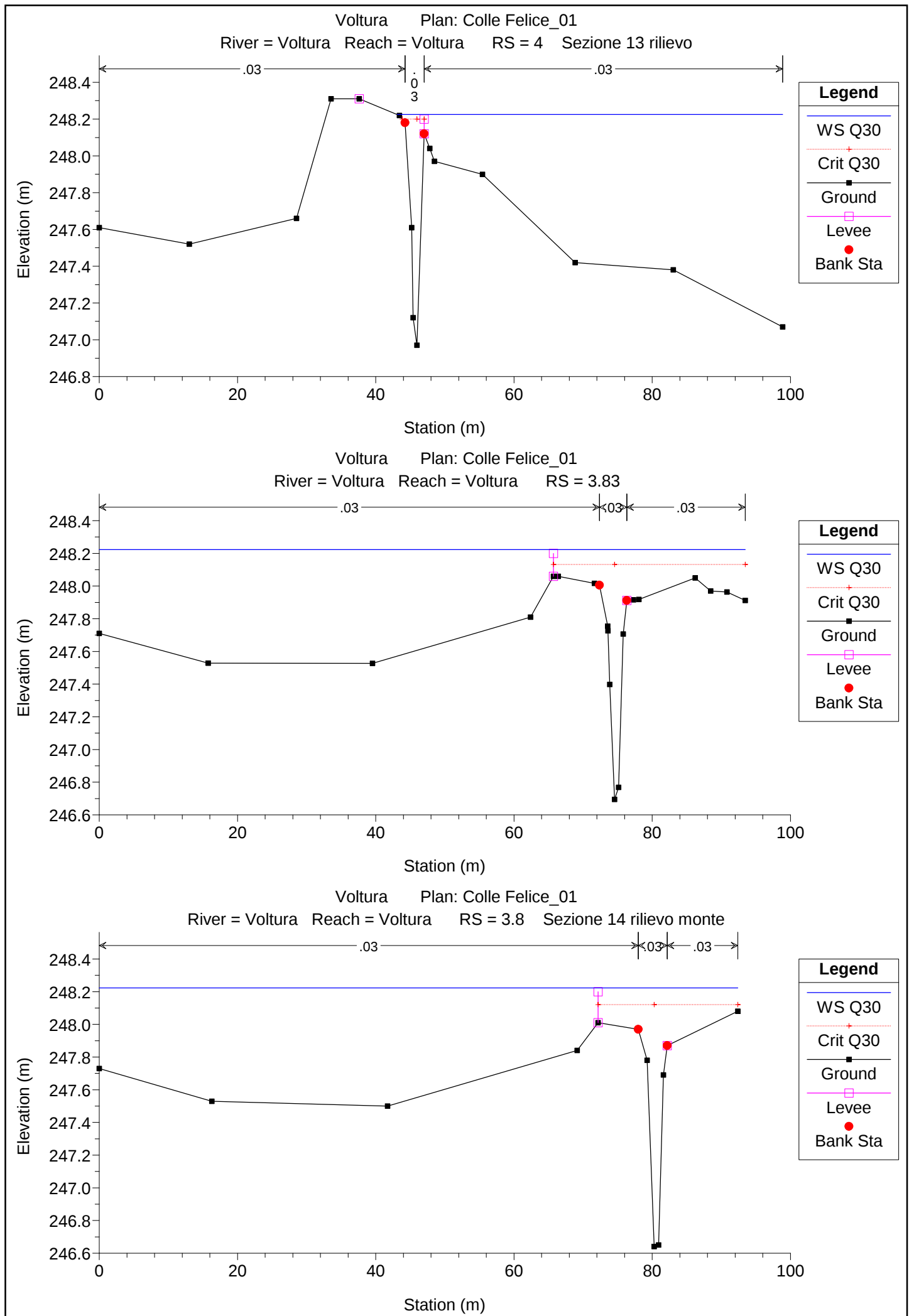


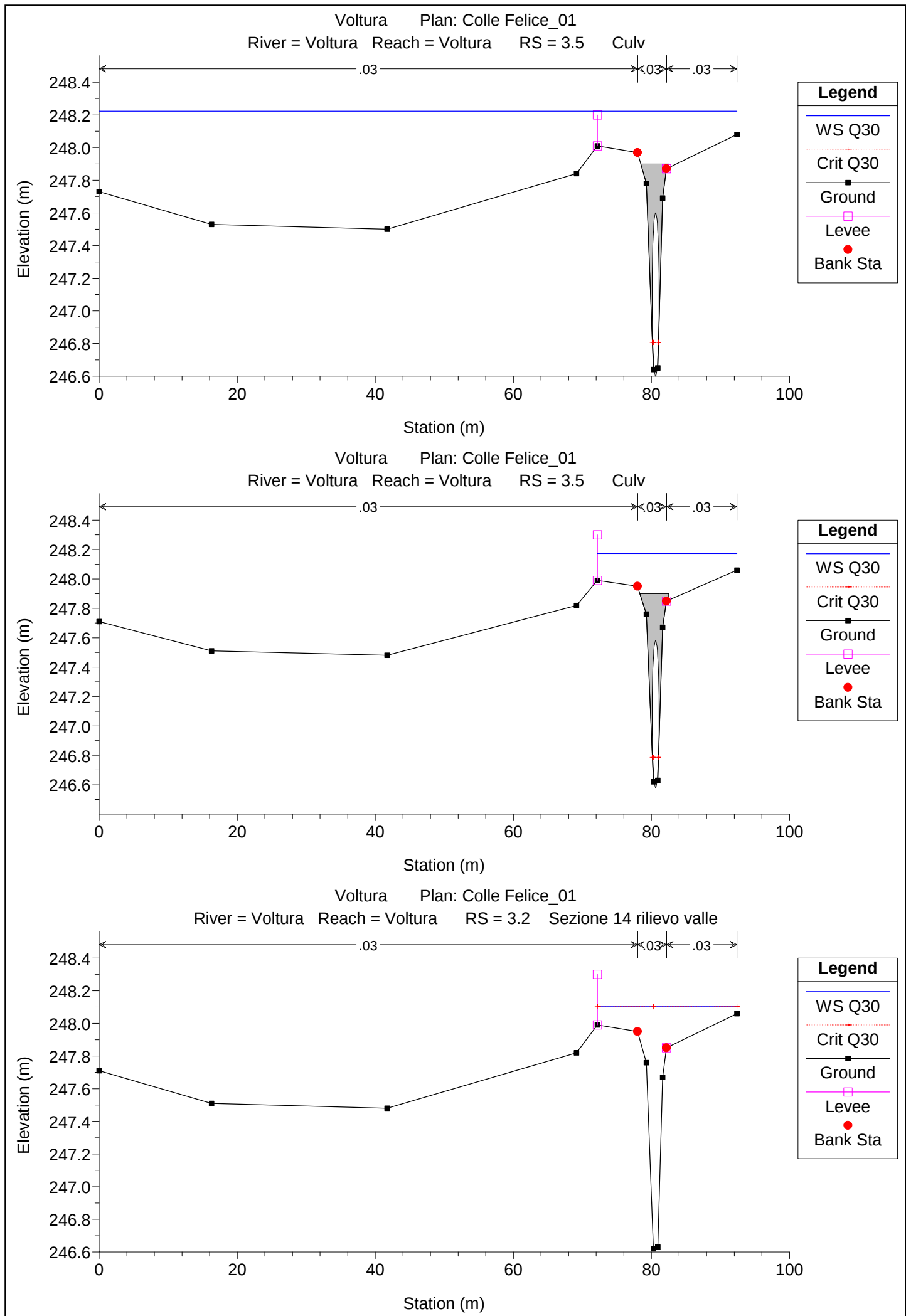


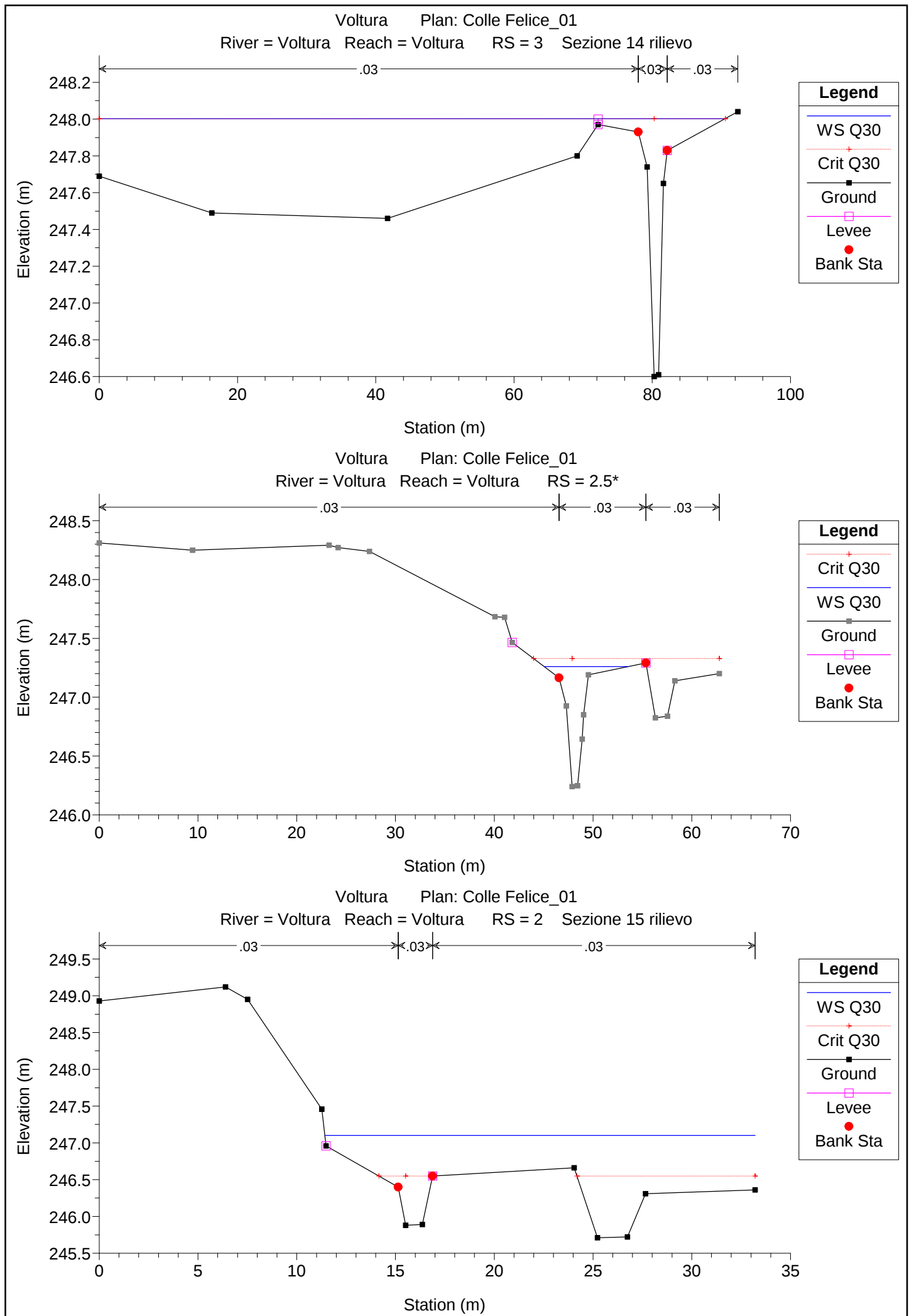


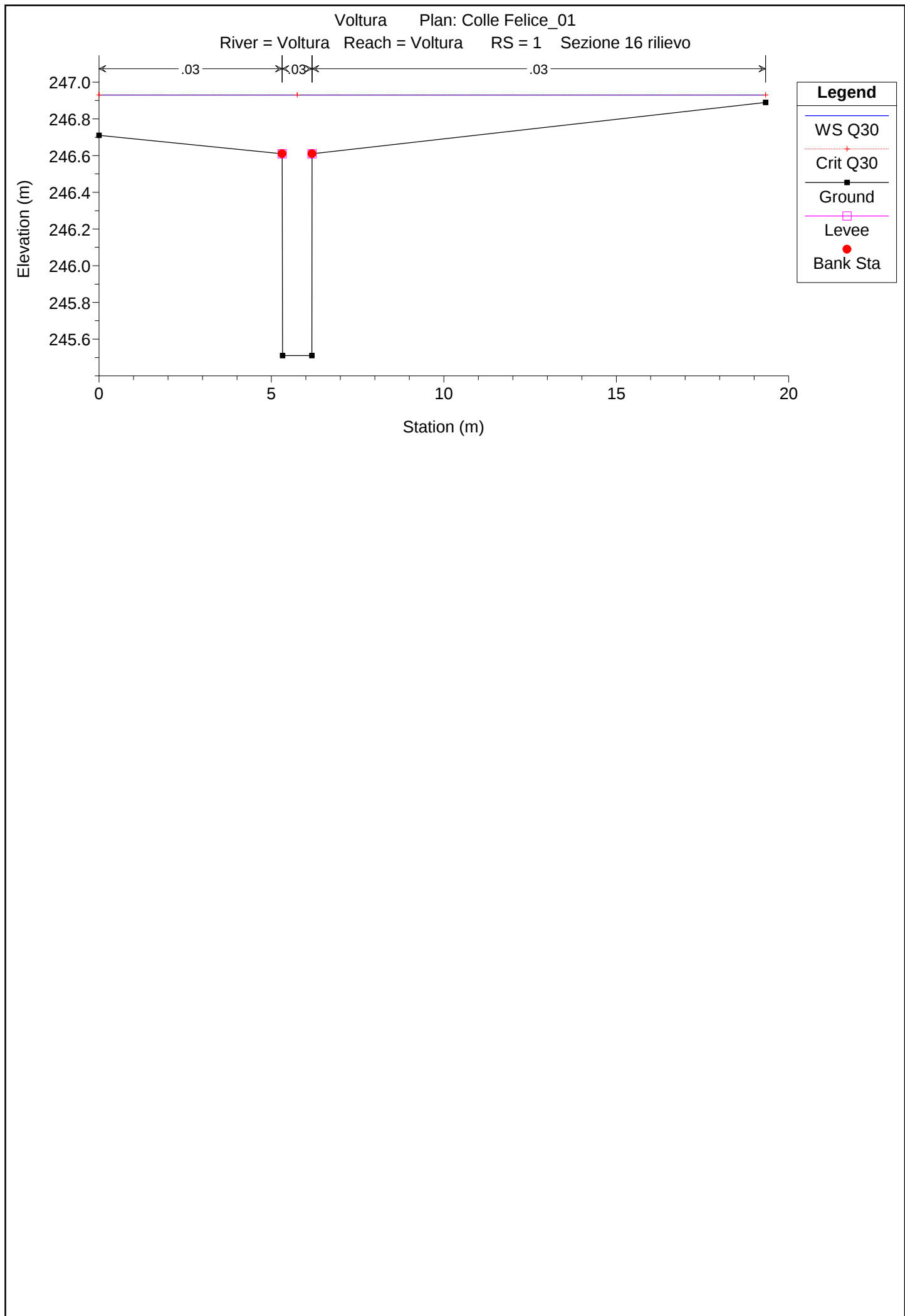






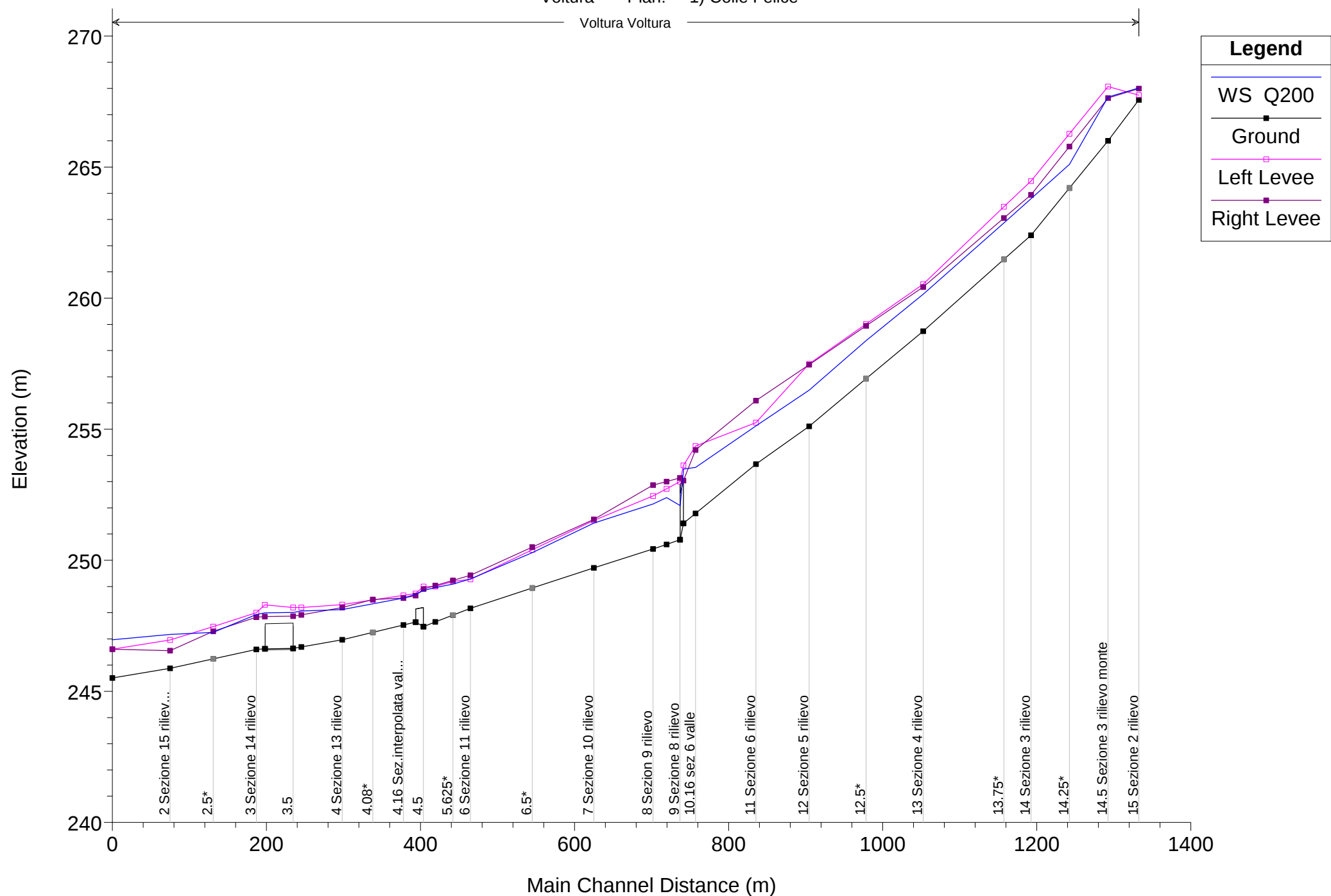




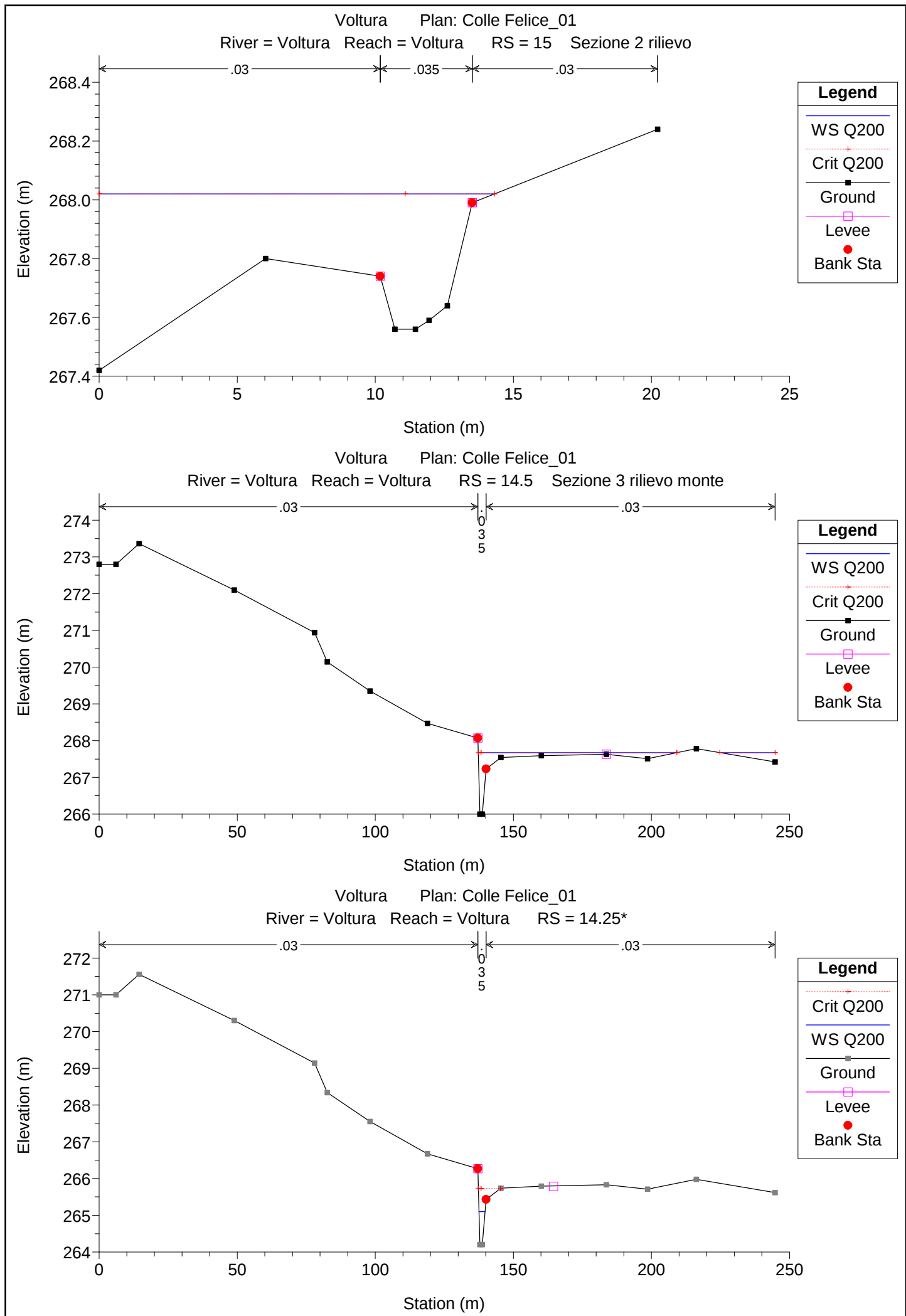


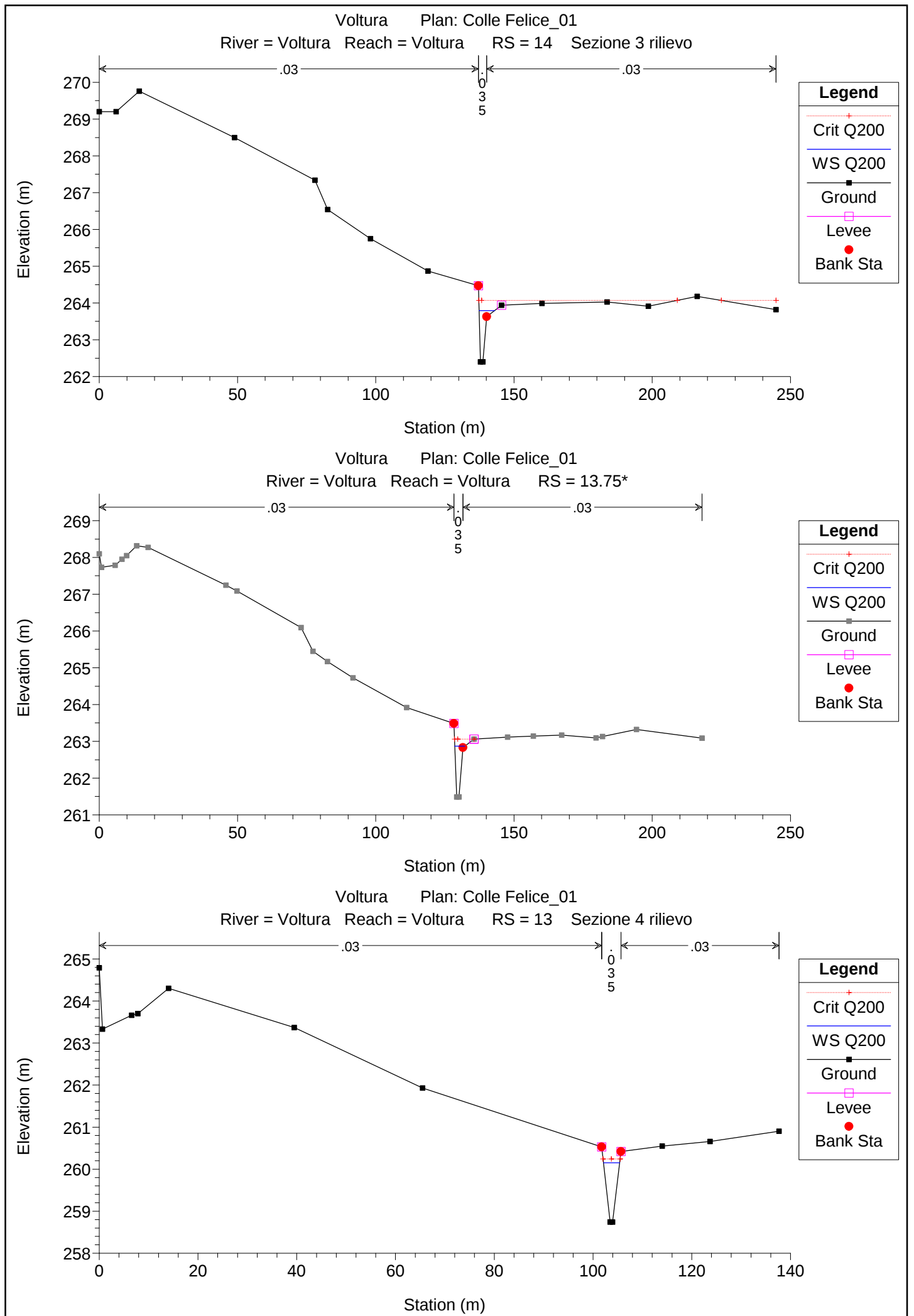
Voltura Plan: 1) Colle Felice

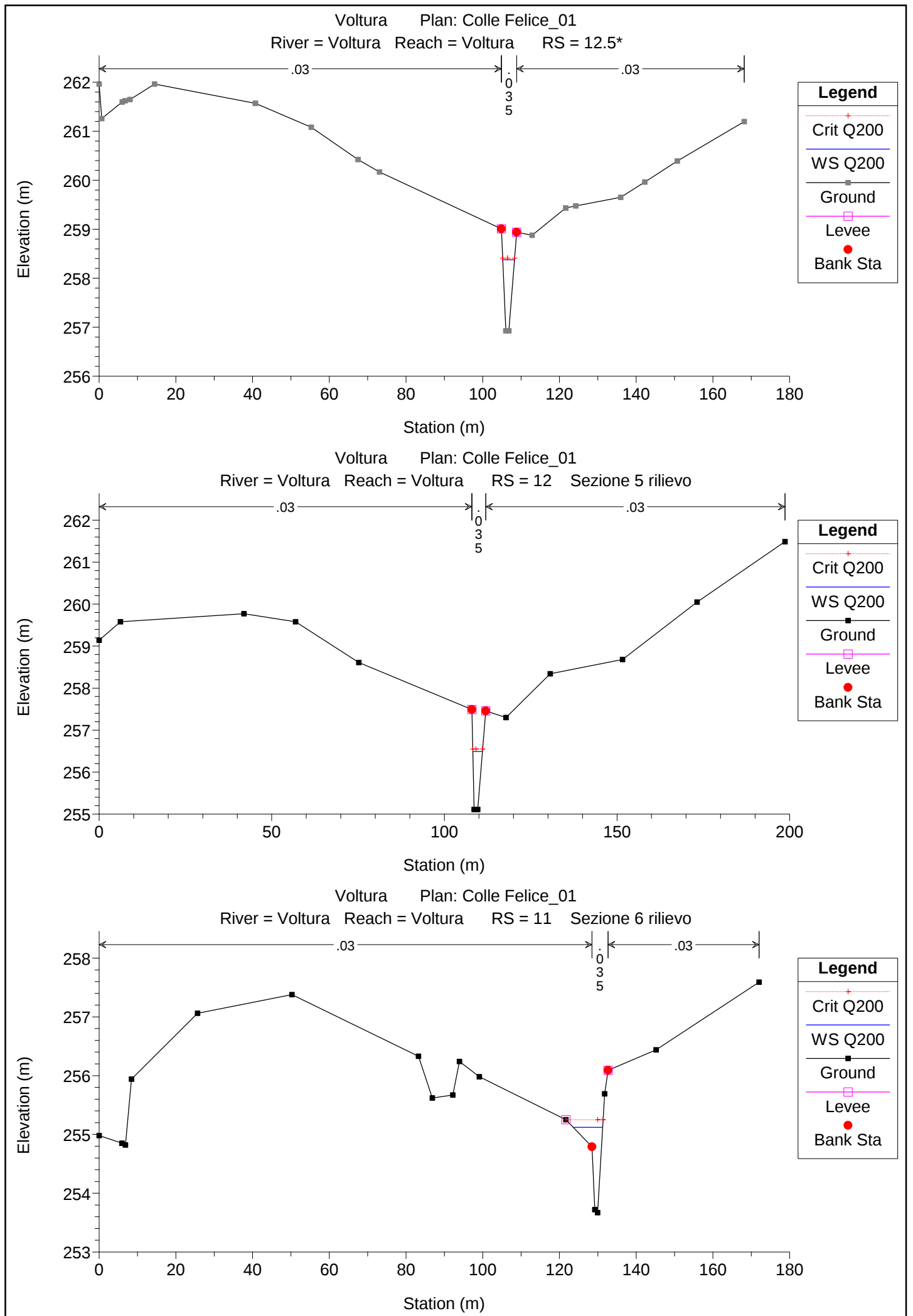
Voltura Voltura

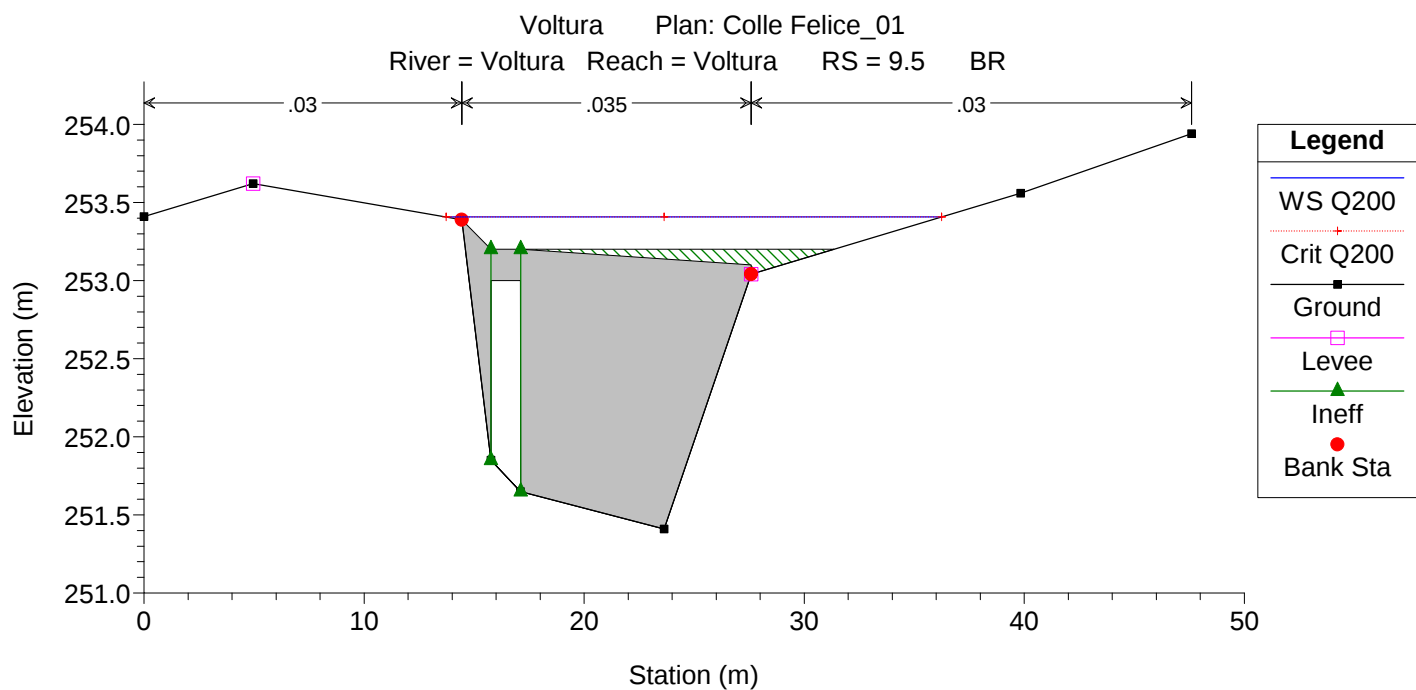
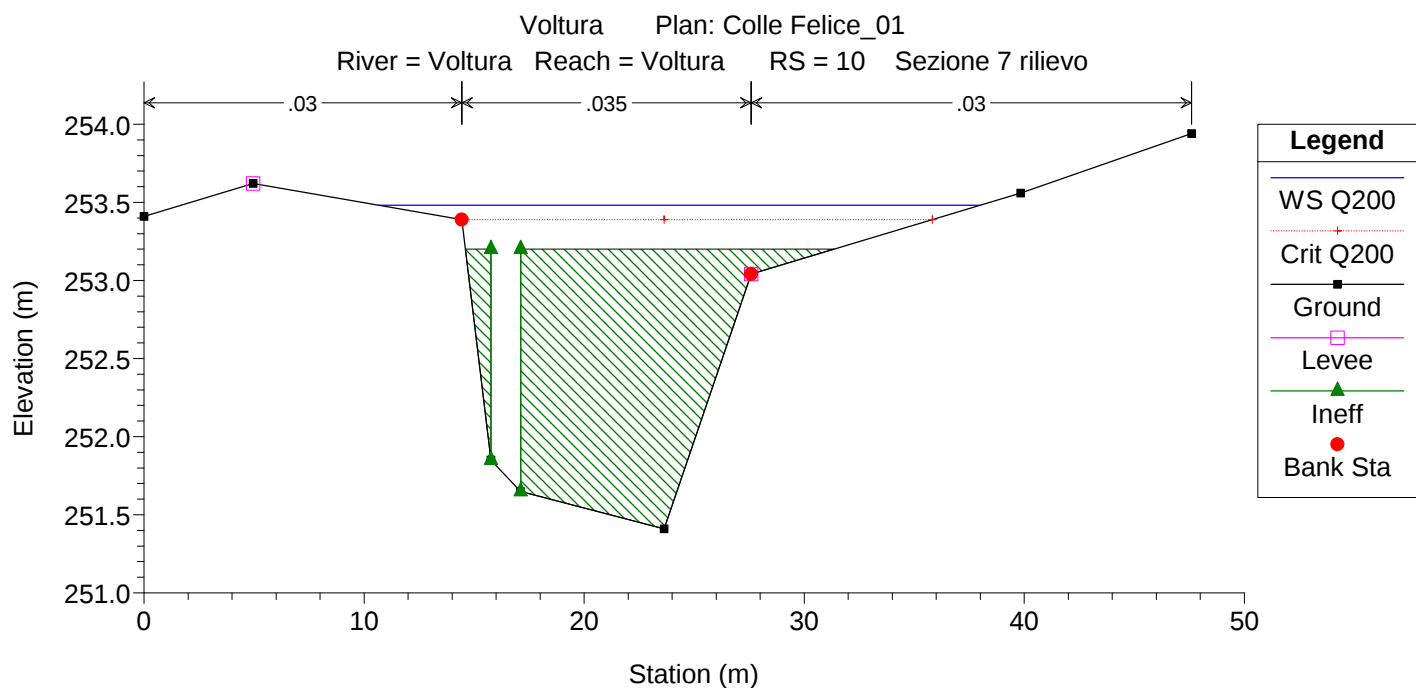
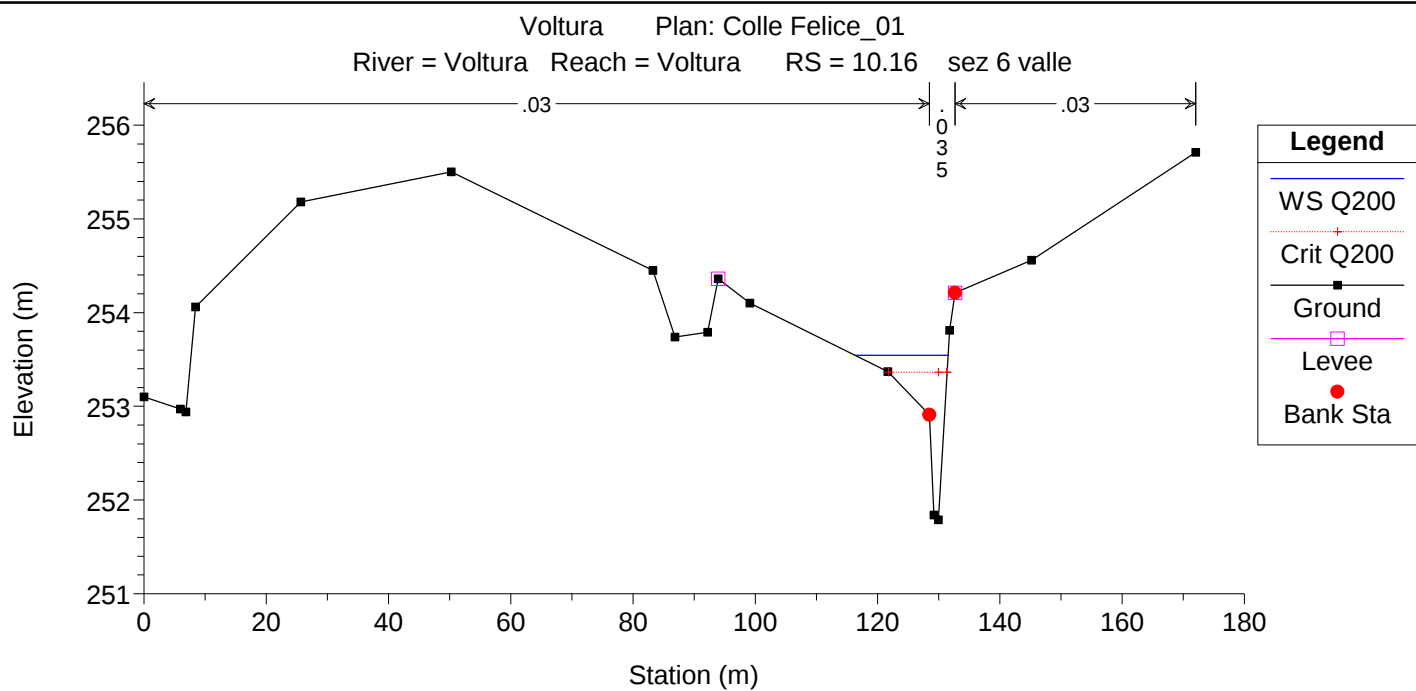


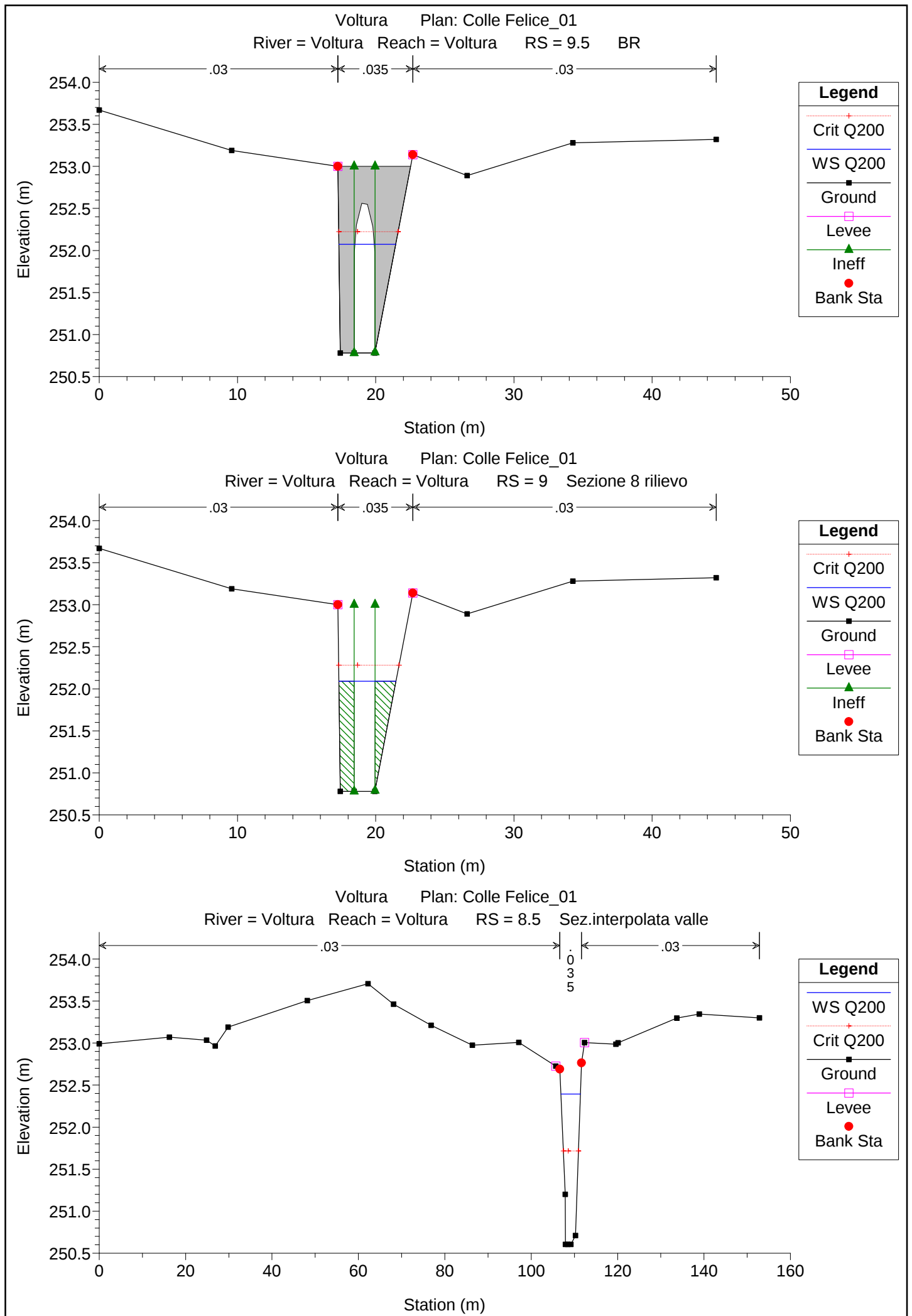
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Voltura	15	Q200	8.70	267.56	268.02	268.02	268.19	0.014287	1.71	4.74	14.33	0.90
Voltura	14.5	Q200	8.70	266.00	267.67	267.67	267.73	0.003190	1.35	12.97	92.02	0.39
Voltura	14.25*	Q200	8.70	264.20	265.10	265.73	267.05	0.140825	6.19	1.40	2.22	2.49
Voltura	14	Q200	8.70	262.40	263.79	264.07	264.30	0.022827	3.18	2.90	5.61	1.03
Voltura	13.75*	Q200	8.70	261.48	262.87	263.06	263.43	0.026498	3.33	2.63	3.64	1.13
Voltura	13	Q200	8.70	258.74	260.15	260.24	260.69	0.025650	3.25	2.68	3.30	1.15
Voltura	12.5*	Q200	8.70	256.93	258.38	258.41	258.88	0.023069	3.14	2.77	3.04	1.05
Voltura	12	Q200	8.70	255.11	256.49	256.55	257.04	0.026558	3.30	2.64	2.77	1.08
Voltura	11	Q200	8.70	253.67	255.12	255.25	255.51	0.017858	2.89	3.44	7.67	0.95
Voltura	10.16	Q200	8.70	251.79	253.54	253.36	253.65	0.004435	1.64	6.73	15.24	0.49
Voltura	10	Q200	8.70	251.41	253.48	253.39	253.55	0.006181	1.22	7.84	27.36	0.59
Voltura	9.5		Bridge									
Voltura	9	Q200	8.70	250.78	252.09	252.28	253.08	0.016618	4.40	1.98	4.13	1.23
Voltura	8.5	Q200	8.70	250.61	252.39	251.72	252.51	0.003386	1.52	5.71	4.53	0.43
Voltura	8	Q200	8.70	250.43	252.15	251.80	252.38	0.010406	2.13	4.09	4.00	0.67
Voltura	7	Q200	8.70	249.71	251.42	251.42	251.62	0.009206	2.12	4.89	13.63	0.65
Voltura	6.5*	Q200	8.70	248.94	250.29	250.38	250.55	0.020959	2.66	4.95	32.04	0.98
Voltura	6	Q200	8.70	248.17	249.29	249.27	249.36	0.009936	1.63	8.23	48.06	0.68
Voltura	5.625*	Q200	8.70	247.91	249.09	249.09	249.15	0.008383	1.57	9.77	69.76	0.59
Voltura	5.25	Q200	8.70	247.65	248.95	248.95	248.98	0.003491	1.20	13.26	74.61	0.38
Voltura	5	Q200	8.70	247.47	248.85	248.85	248.88	0.003411	1.10	13.60	75.07	0.32
Voltura	4.5		Bridge									
Voltura	4.2	Q200	8.70	247.64	248.70	248.70	248.74	0.002567	0.70	10.49	28.75	0.35
Voltura	4.16	Q200	8.70	247.53	248.56	248.56	248.59	0.001621	0.76	12.67	32.88	0.31
Voltura	4.08*	Q200	8.70	247.25	248.34	248.34	248.35	0.000382	0.38	21.80	43.71	0.16
Voltura	4	Q200	8.70	246.97	248.12	248.12	248.12	0.000121	0.21	33.51	54.53	0.09
Voltura	3.83	Q200	8.70	246.70	248.06	248.06	248.07	0.000212	0.31	33.40	93.46	0.12
Voltura	3.8	Q200	8.70	246.64	248.01	248.01	248.01	0.000259	0.33	31.55	88.98	0.14
Voltura	3.5		Culvert									
Voltura	3.2	Q200	8.70	246.62	247.99	247.99	247.99	0.000260	0.33	31.53	88.98	0.14
Voltura	3	Q200	8.70	246.60	247.93	247.93	247.94	0.000335	0.36	28.16	80.51	0.15
Voltura	2.5*	Q200	8.70	246.24	247.25	247.29	247.82	0.037689	3.79	3.02	14.82	1.62
Voltura	2	Q200	8.70	245.88	247.17	246.59	247.19	0.000366	0.57	16.93	21.82	0.17
Voltura	1	Q200	8.70	245.51	246.97	246.97	247.10	0.011131	1.95	5.79	19.33	0.52

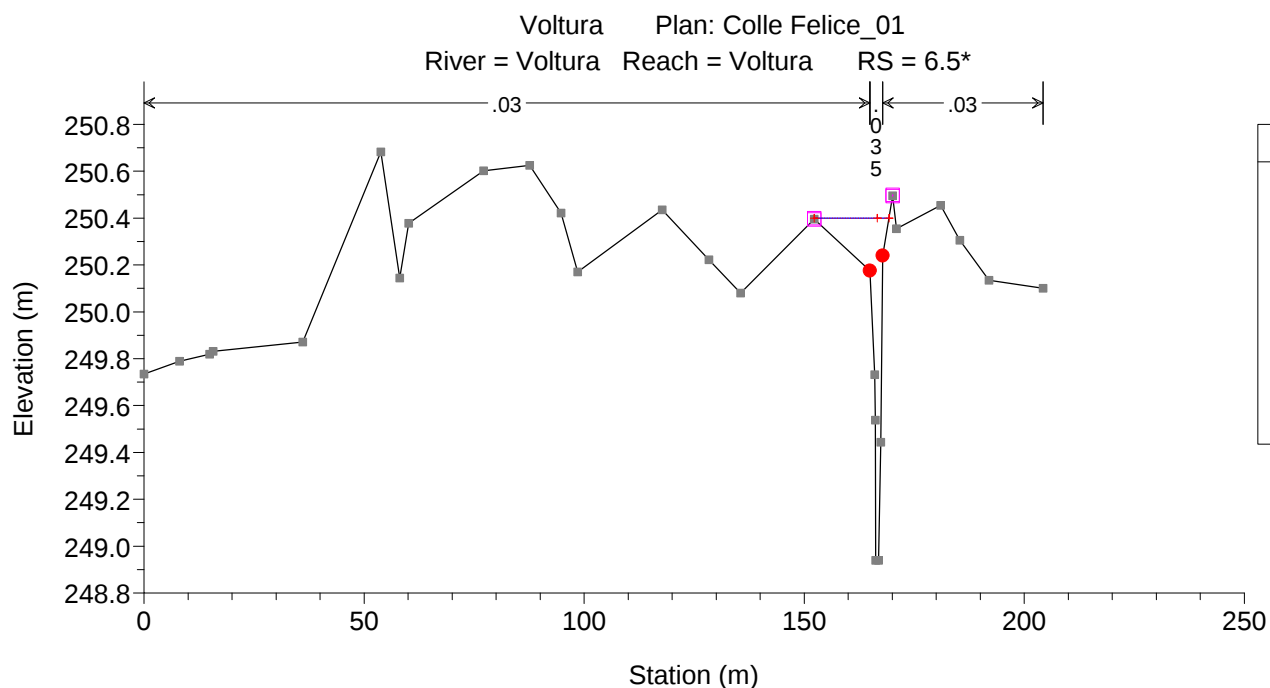
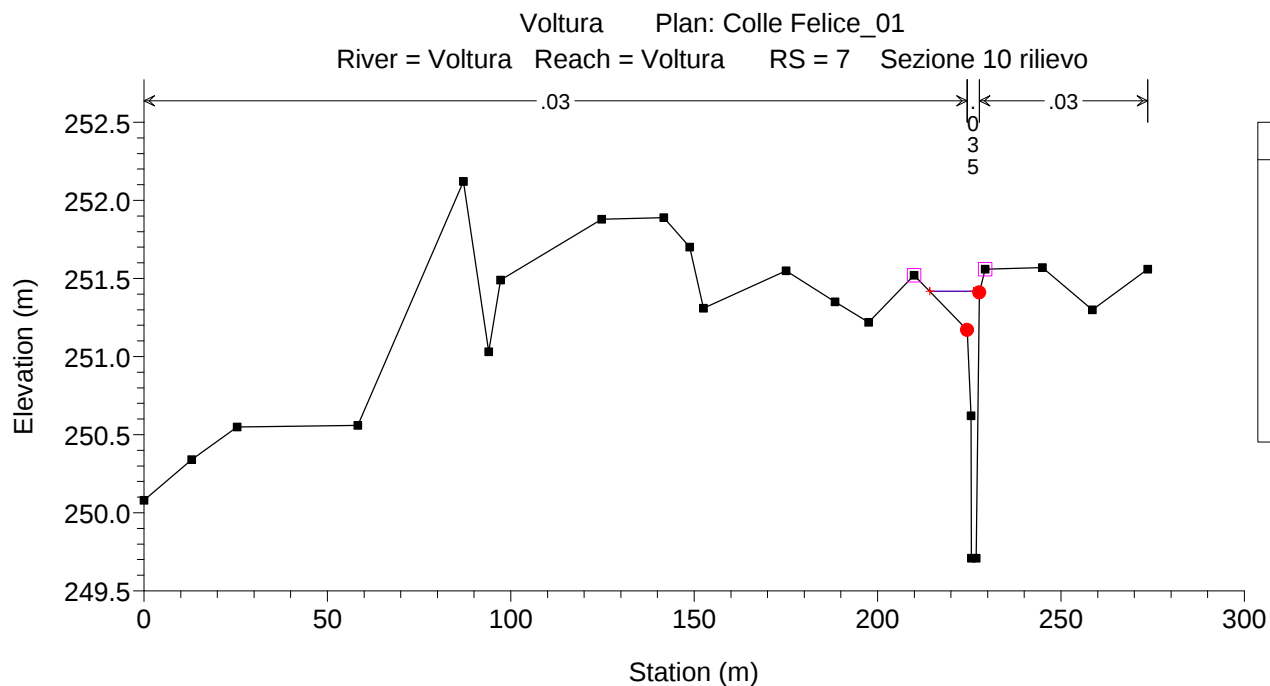
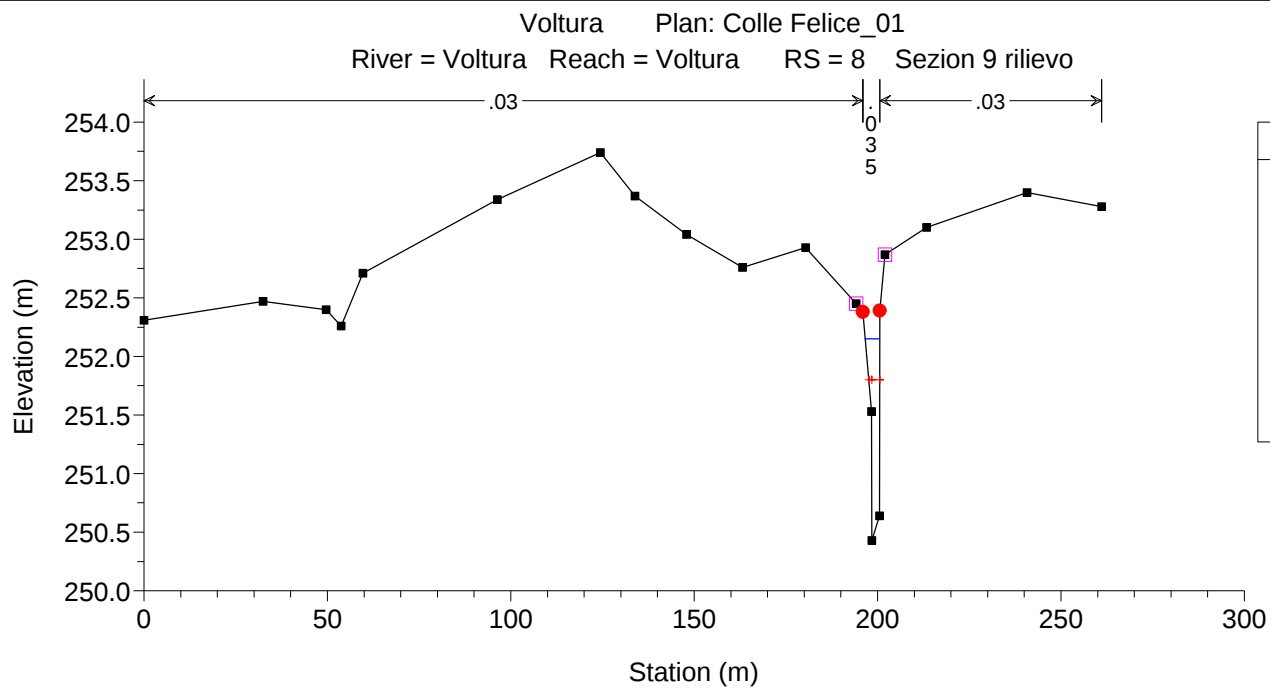


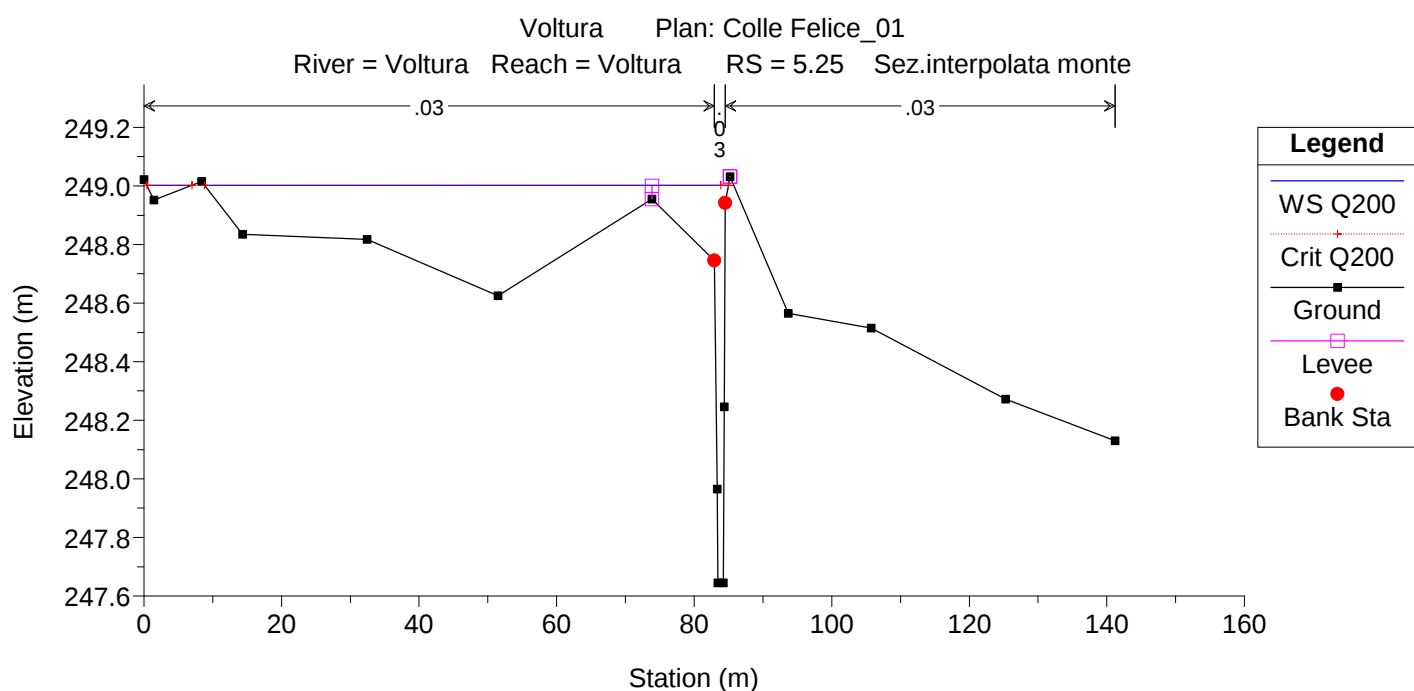
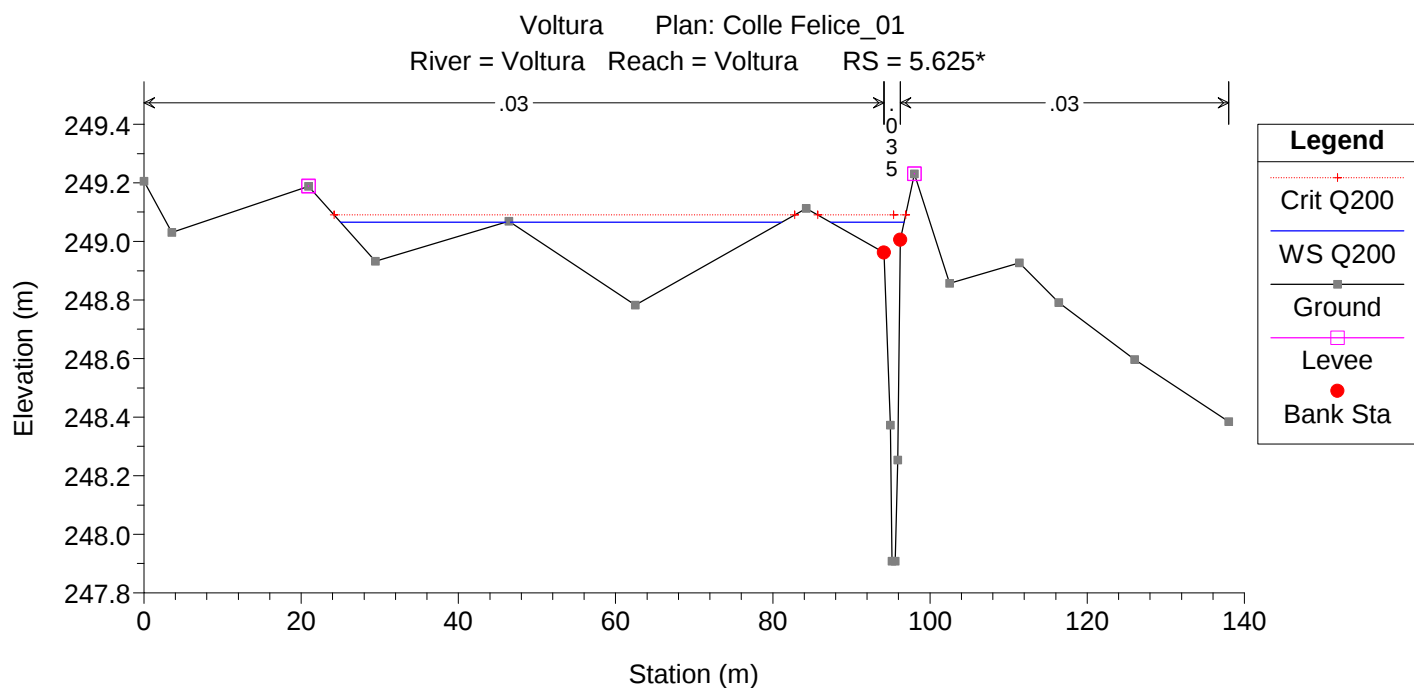
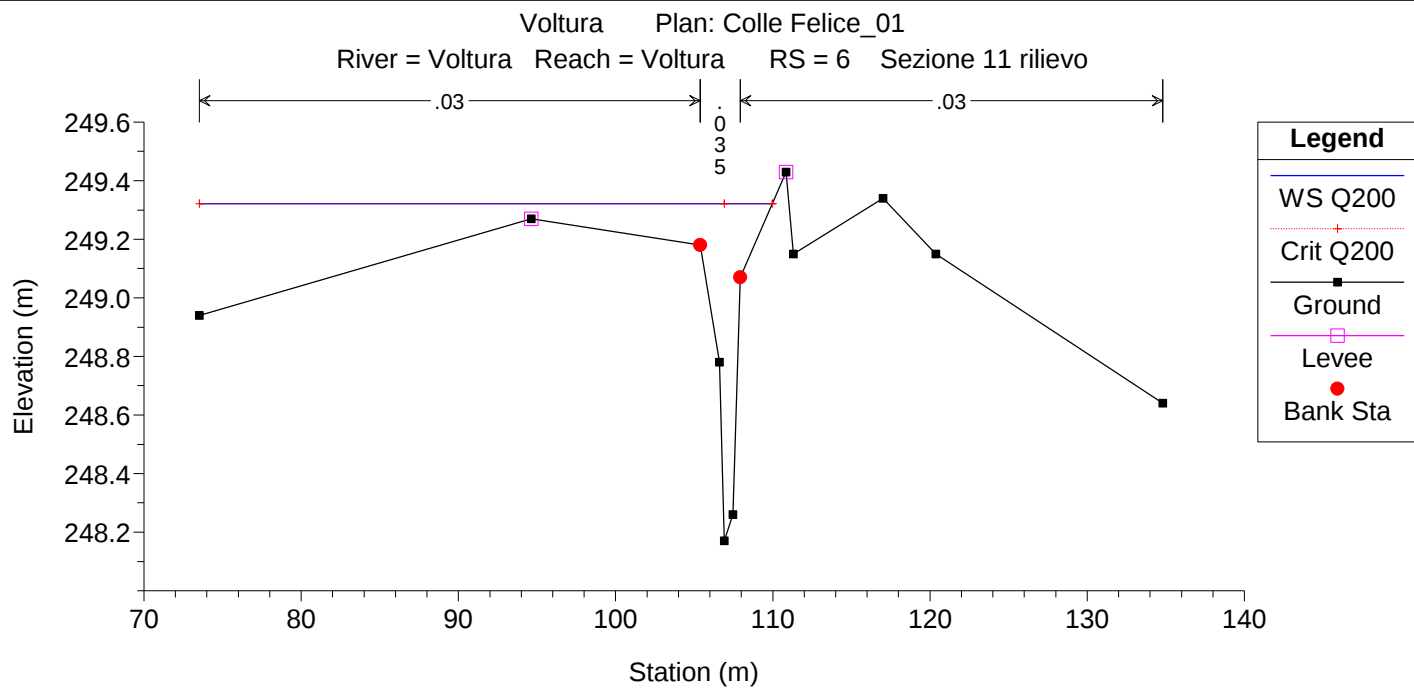


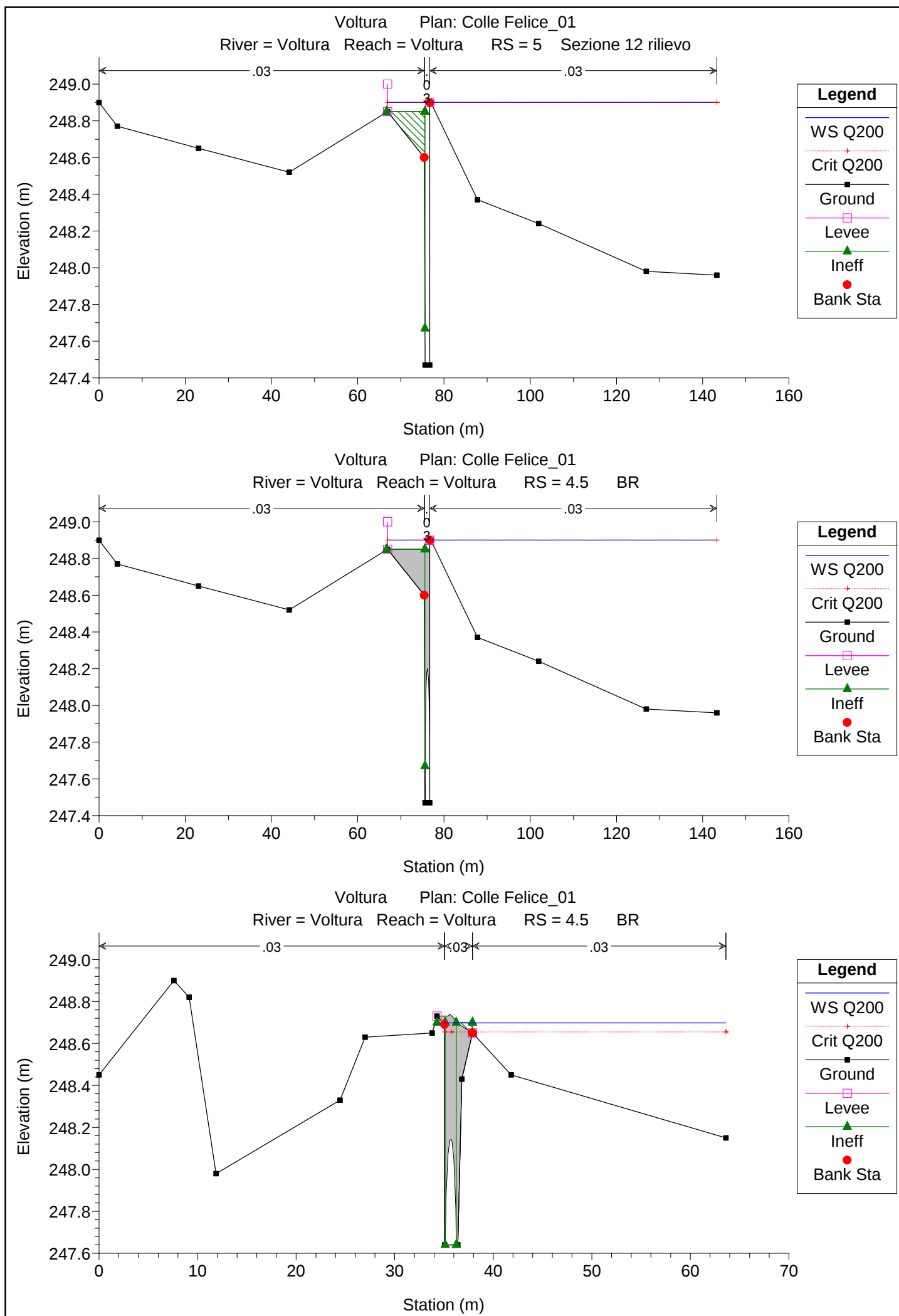


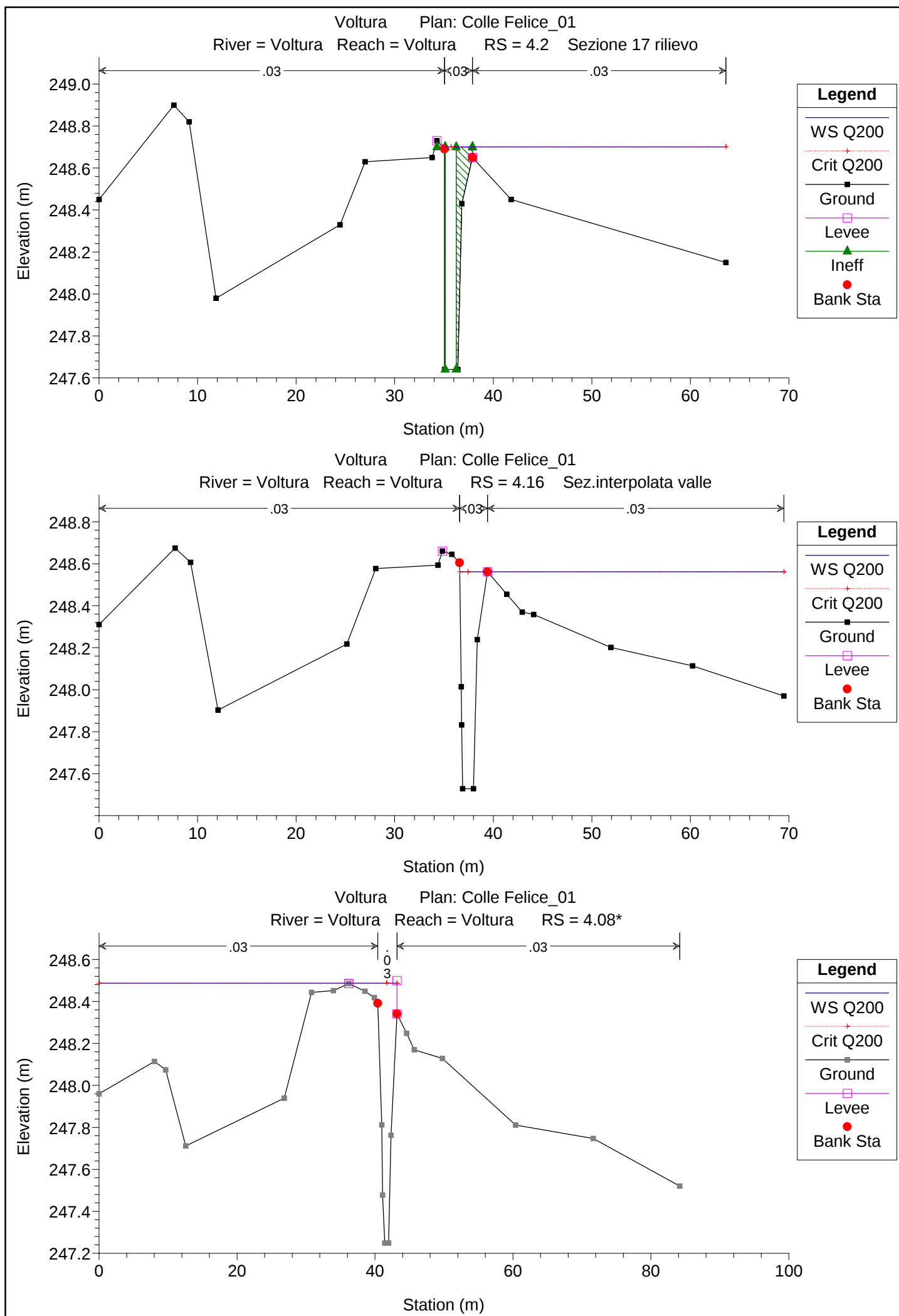


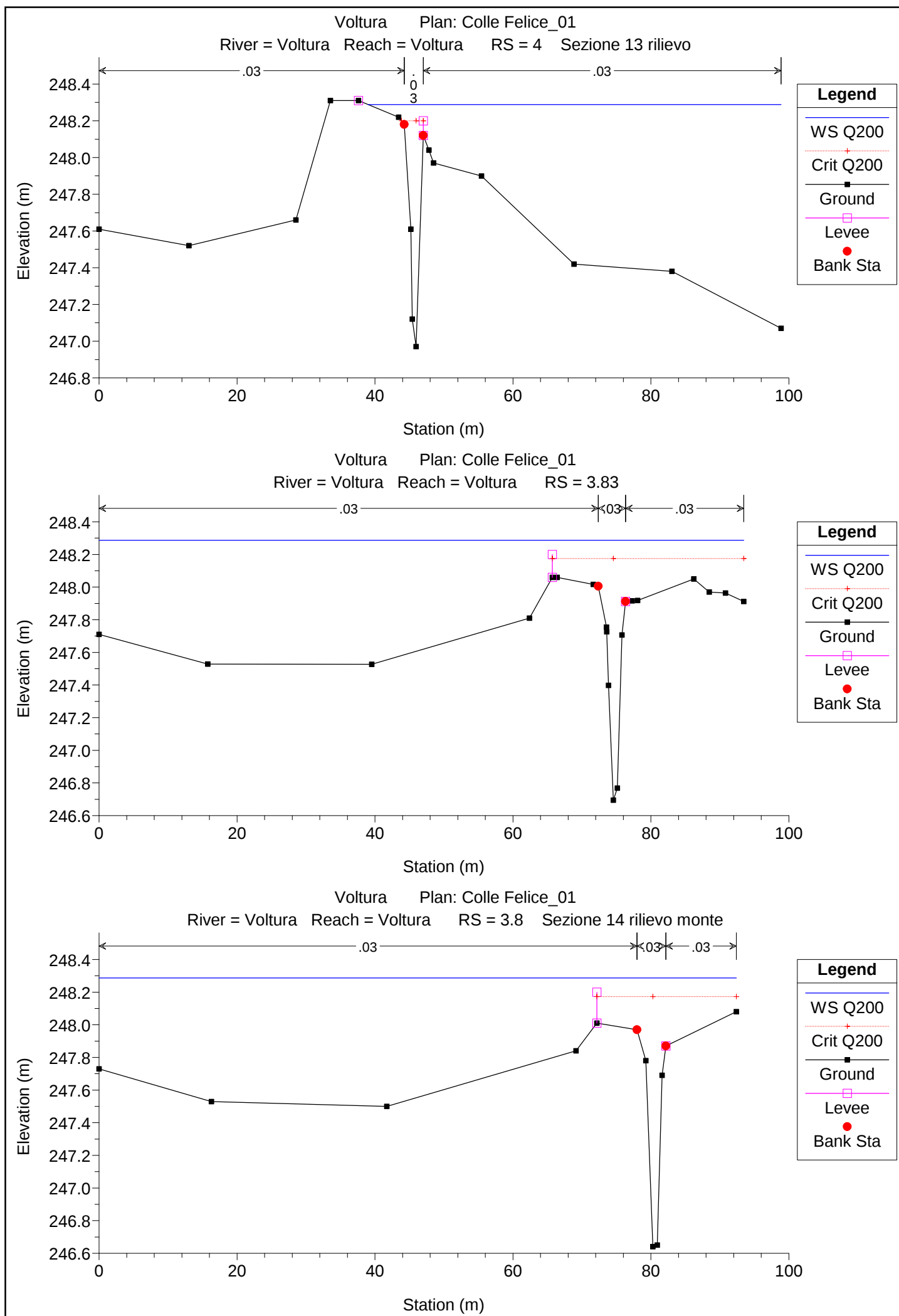


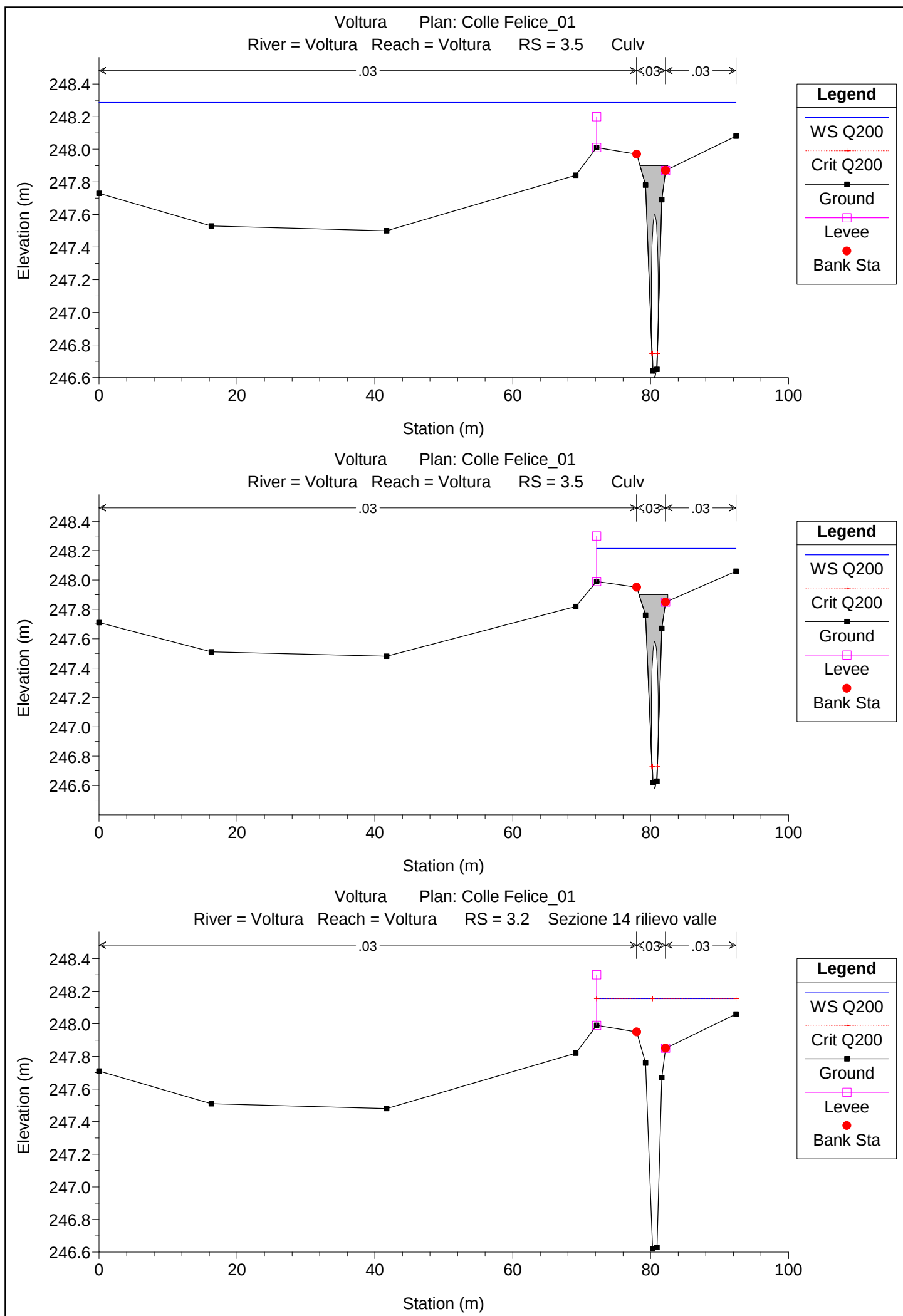


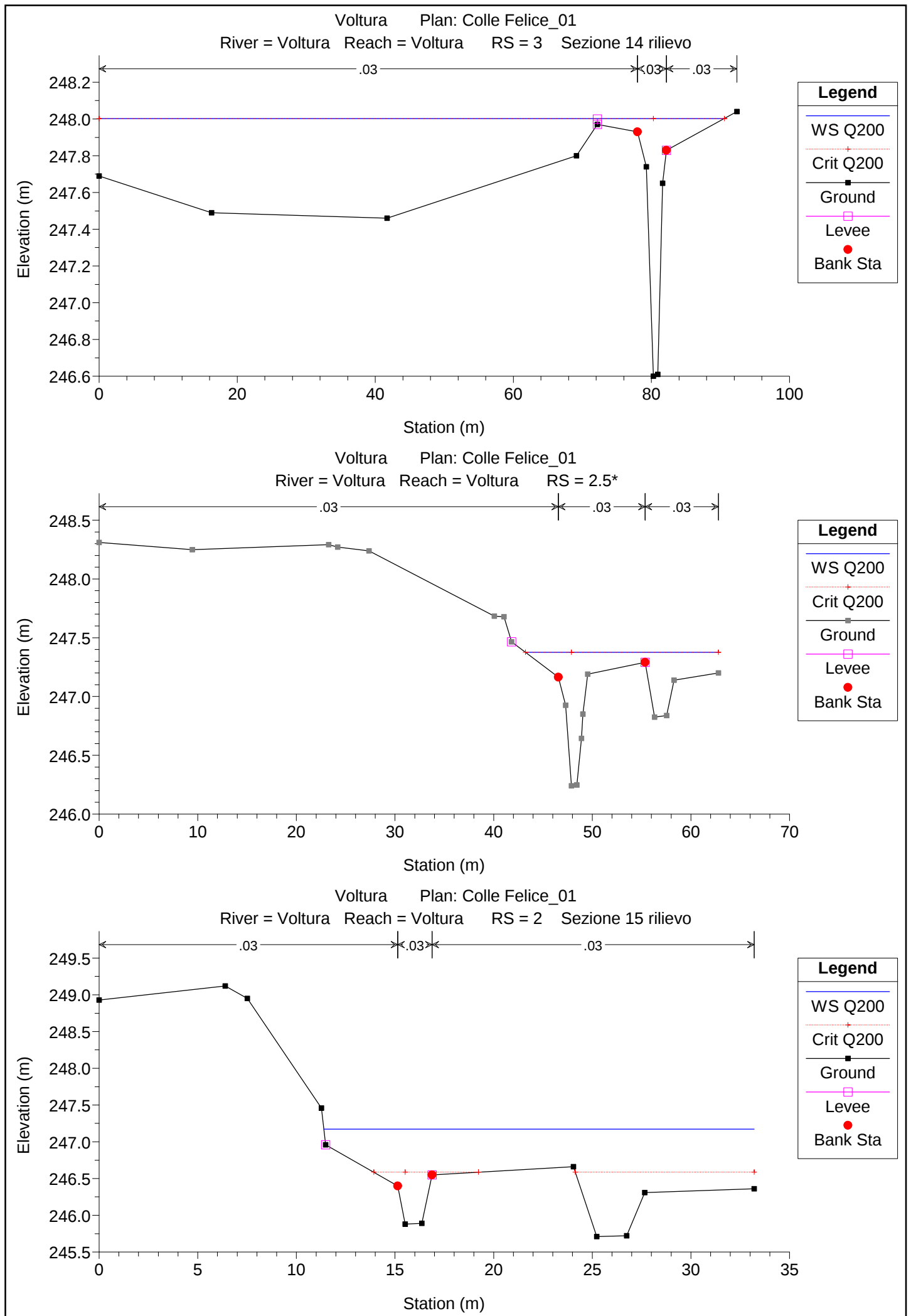


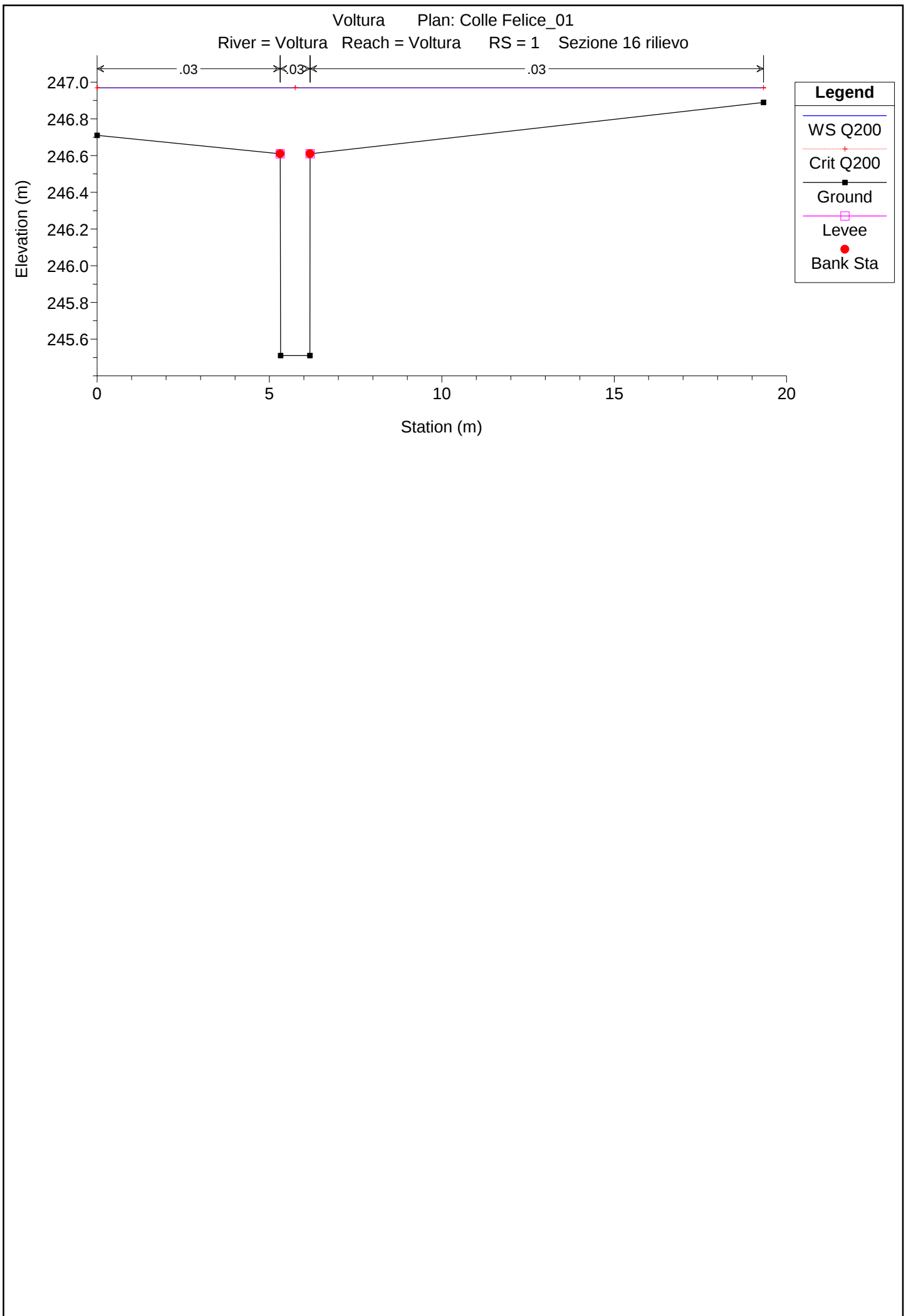












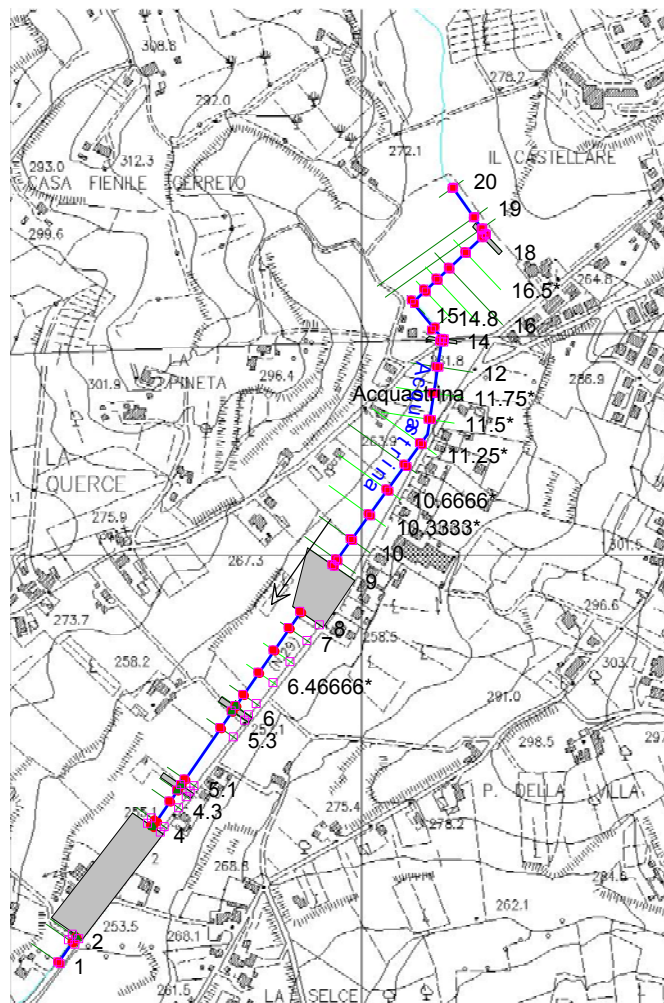
Fosso Acquastrina

Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

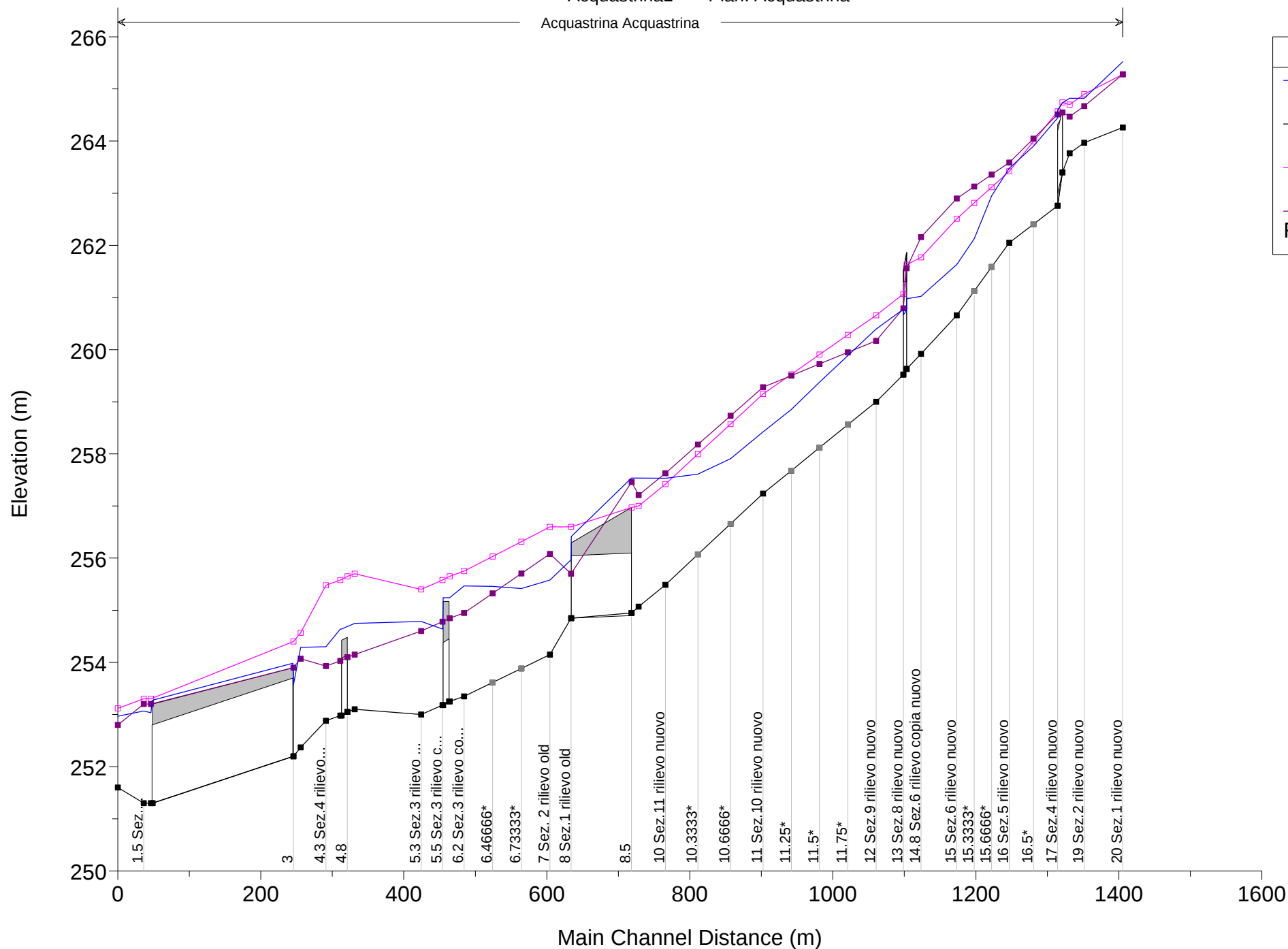
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

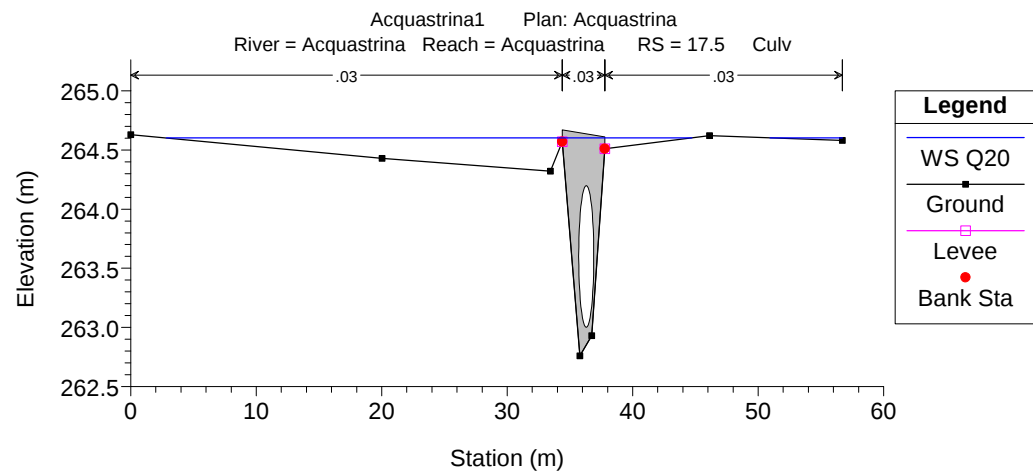
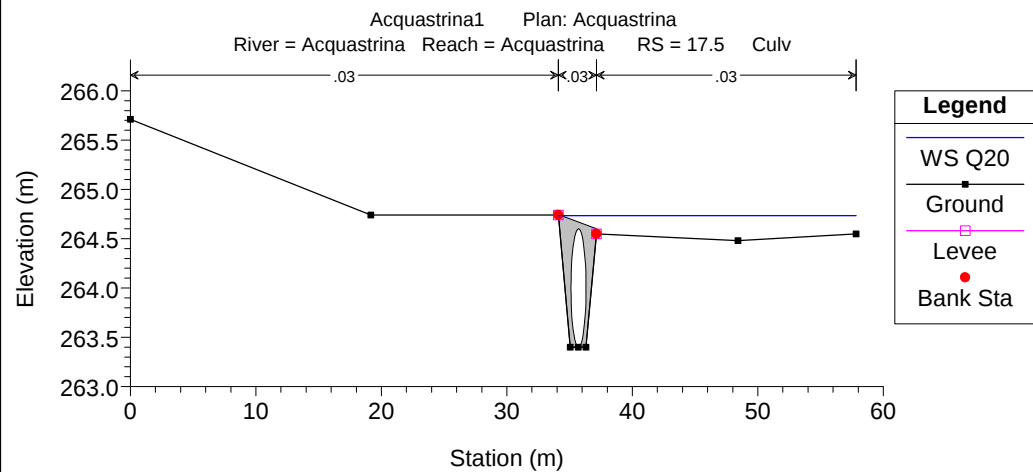
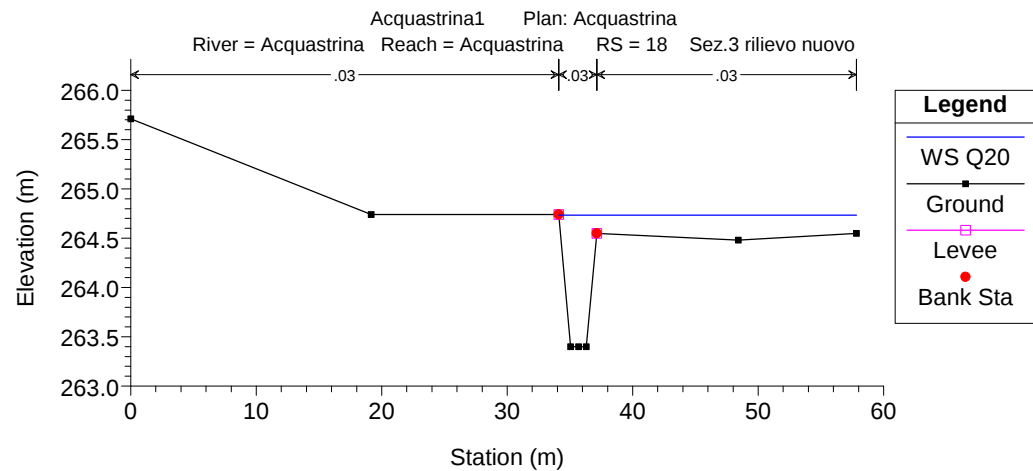
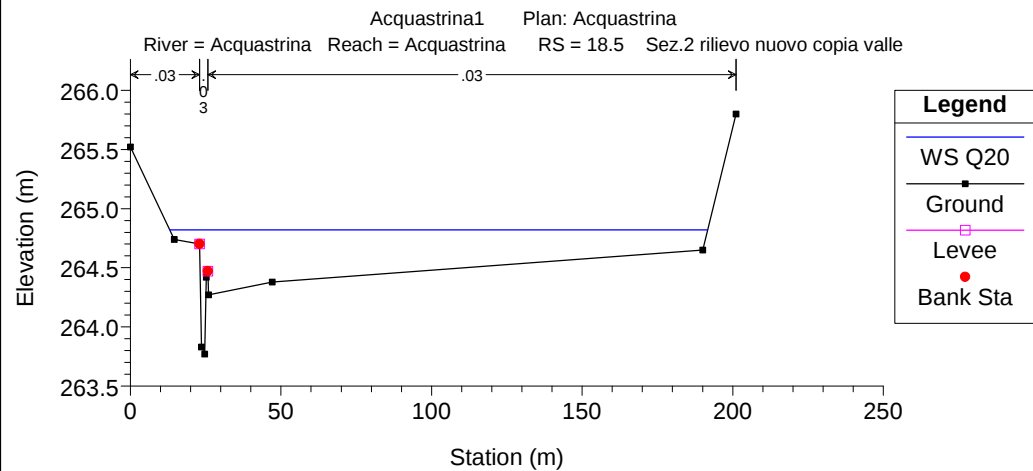
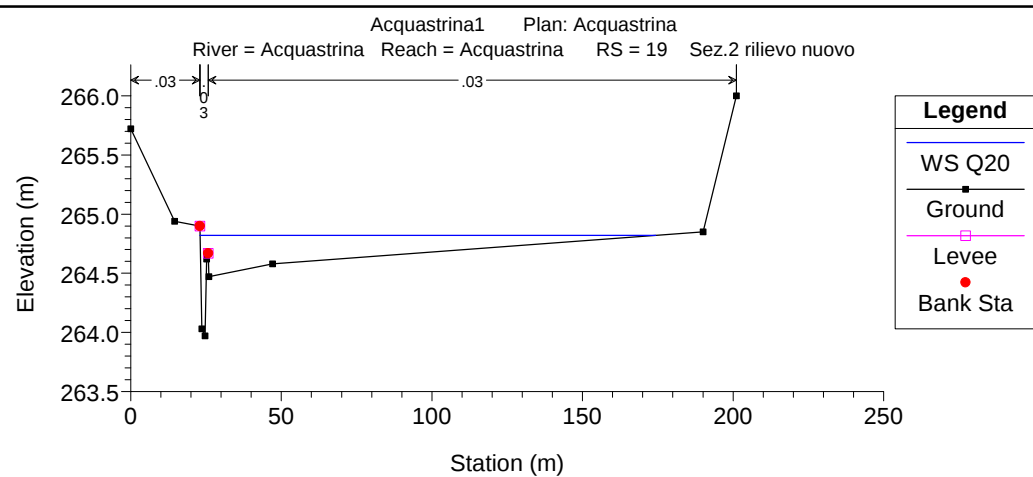
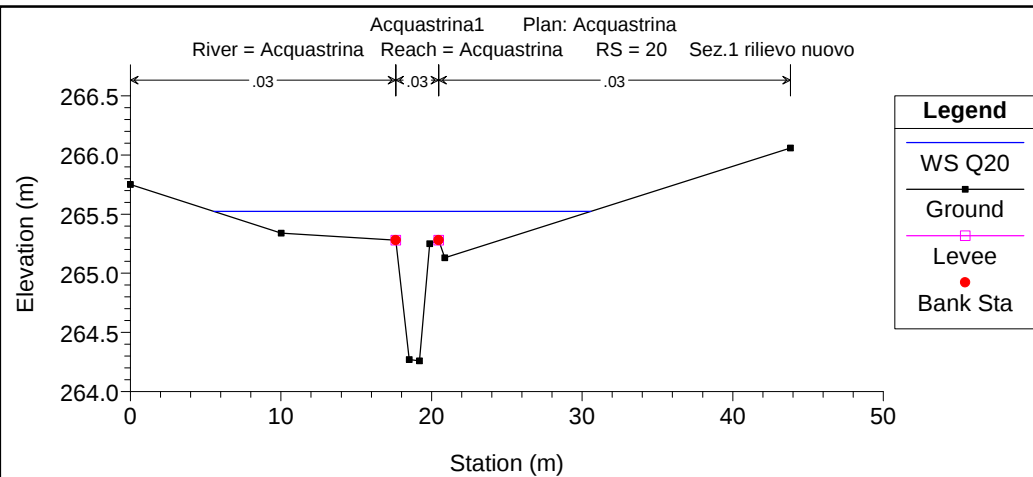


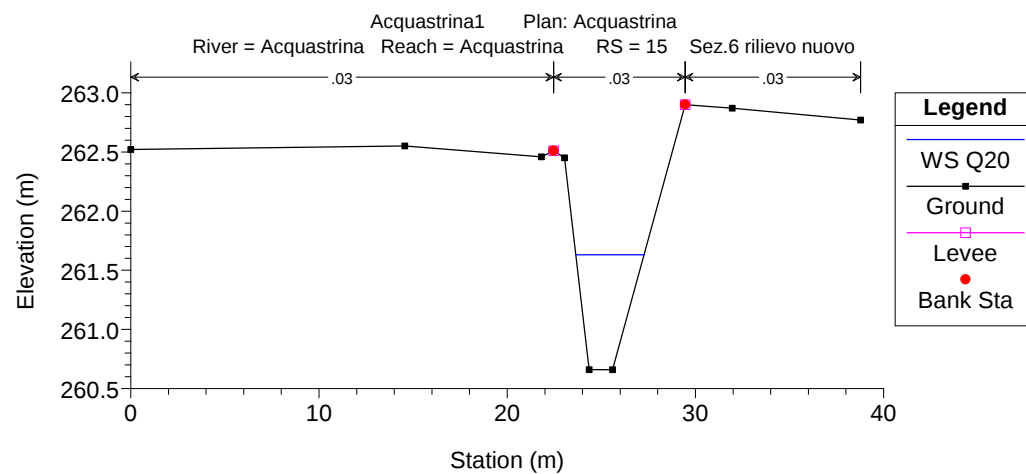
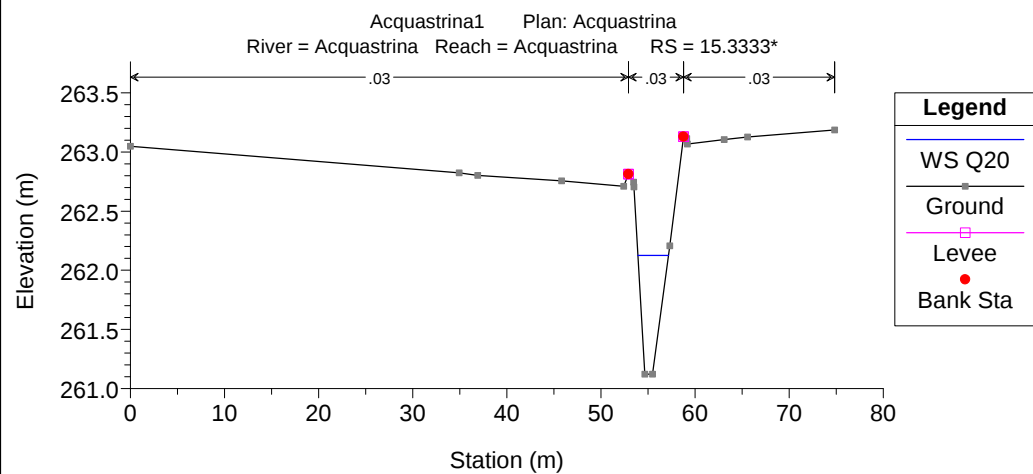
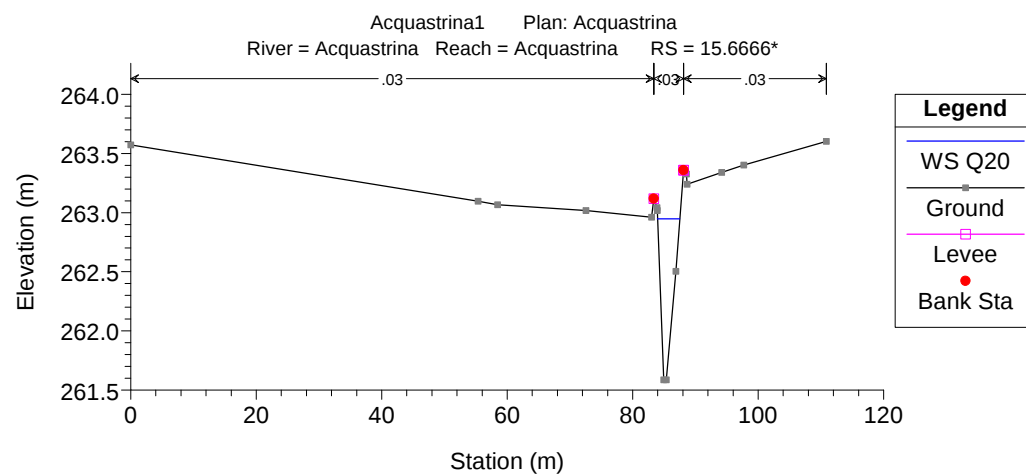
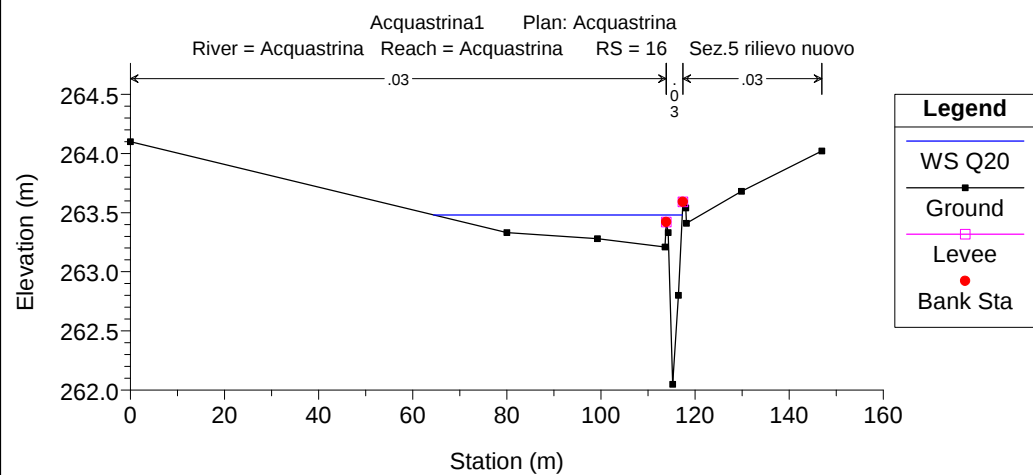
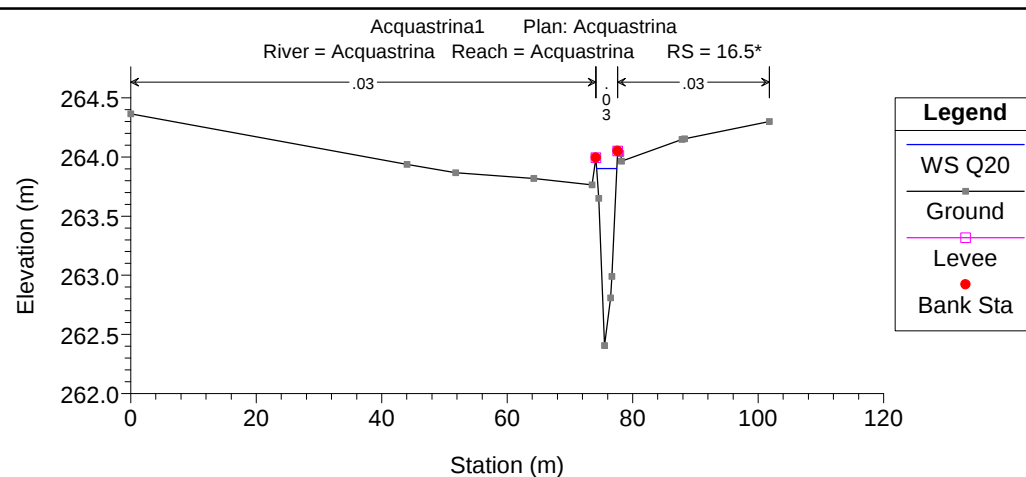
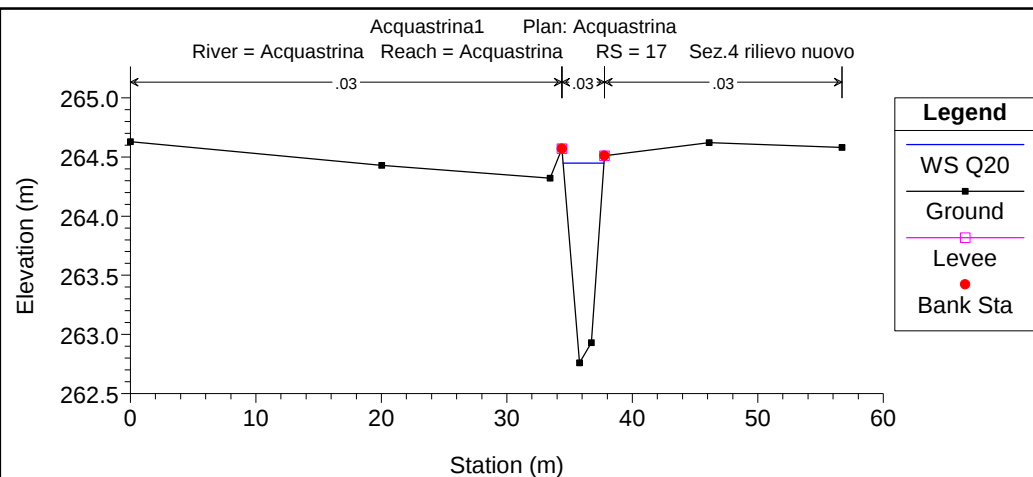
Acquastrina1 Plan: Acquastrina

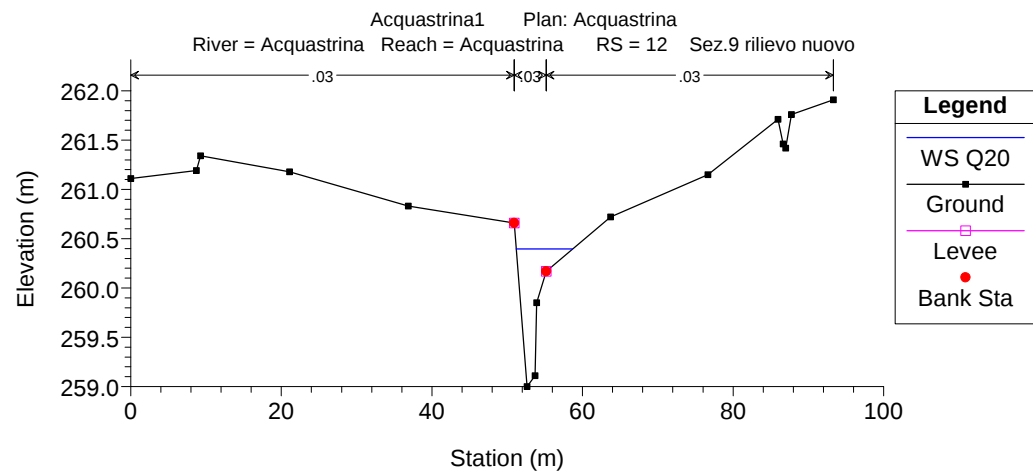
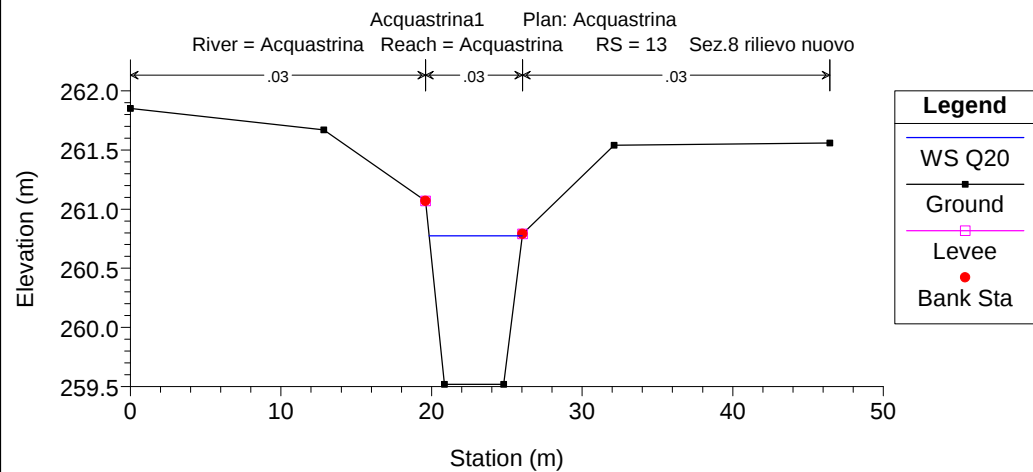
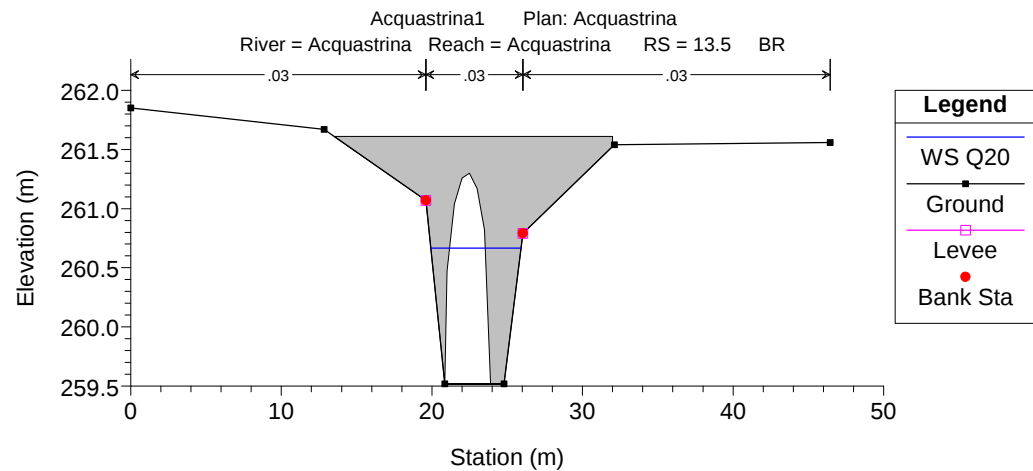
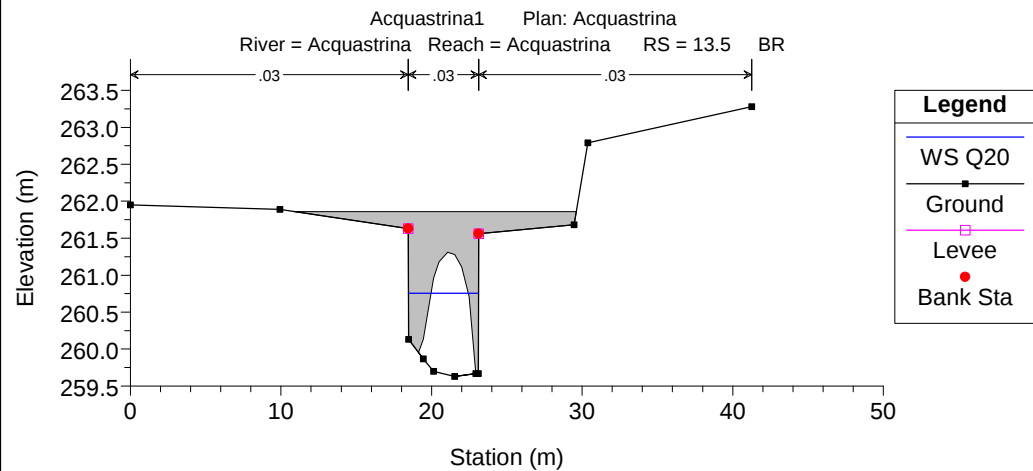
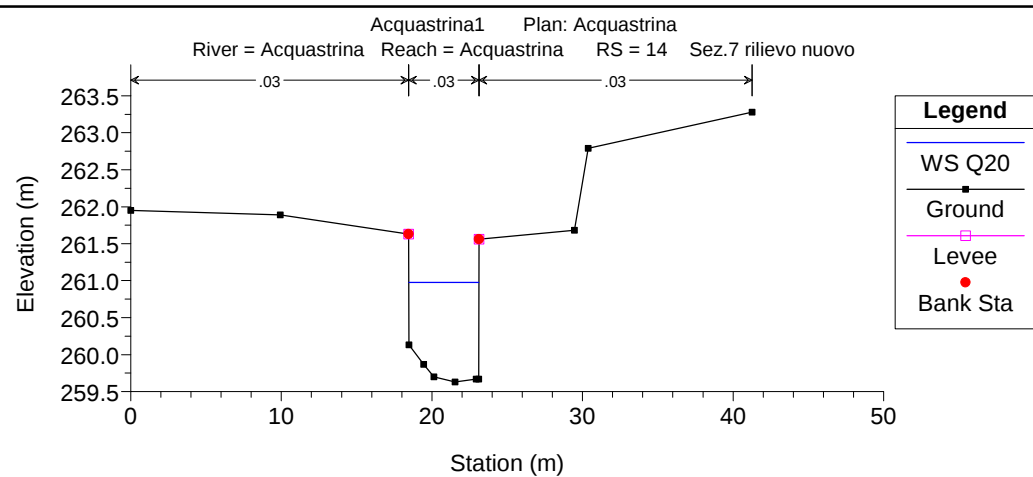
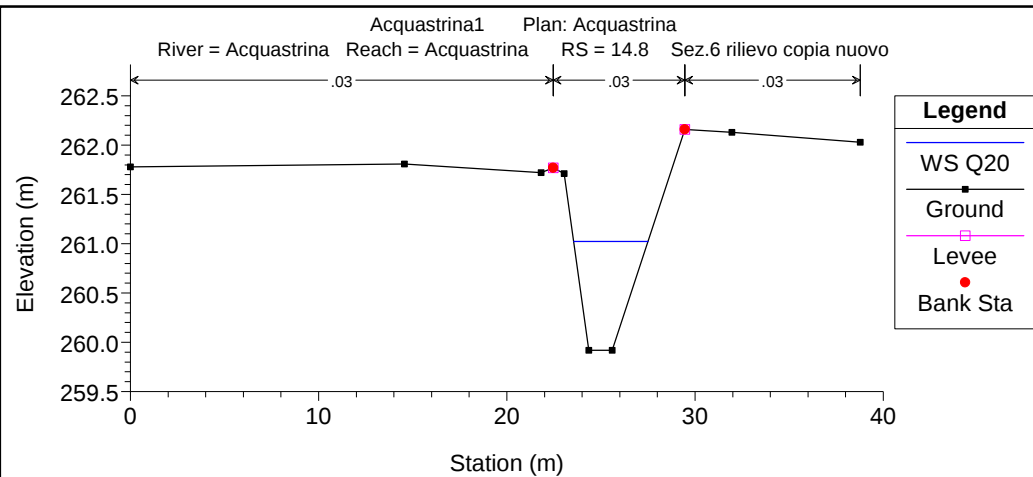
Acquastrina Acquastrina

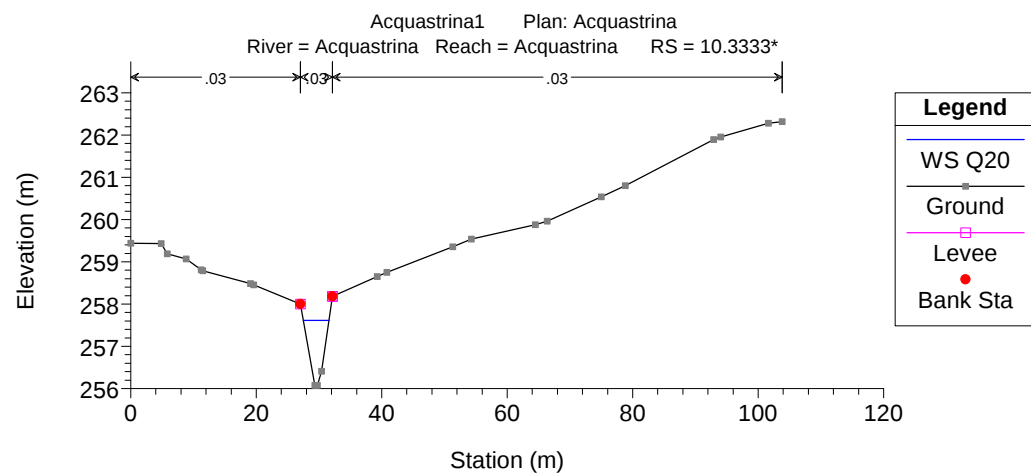
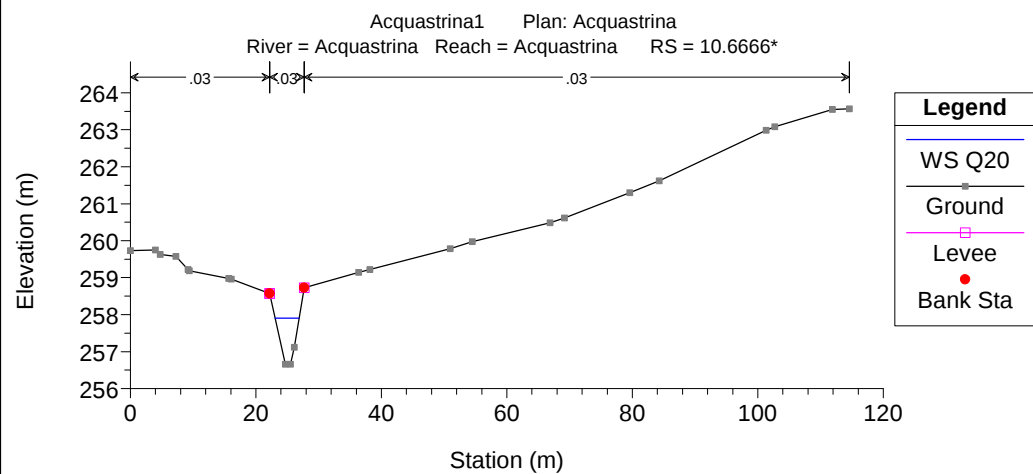
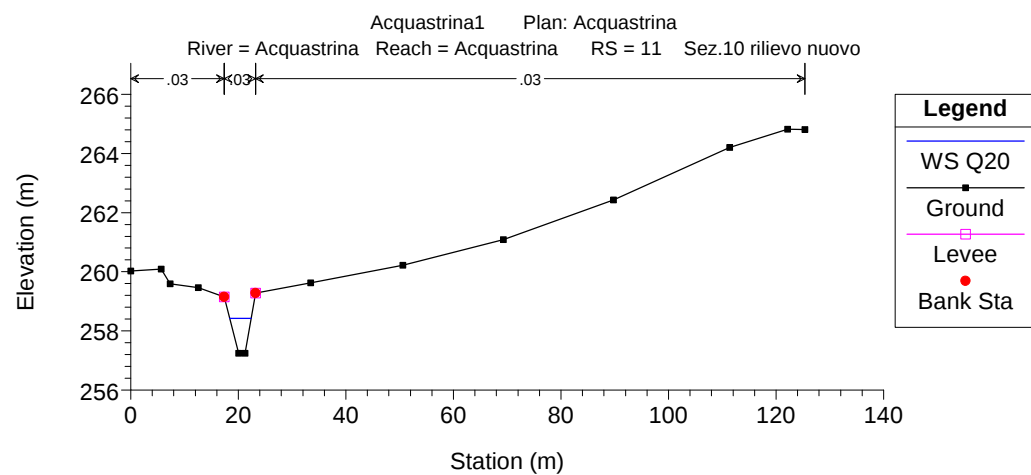
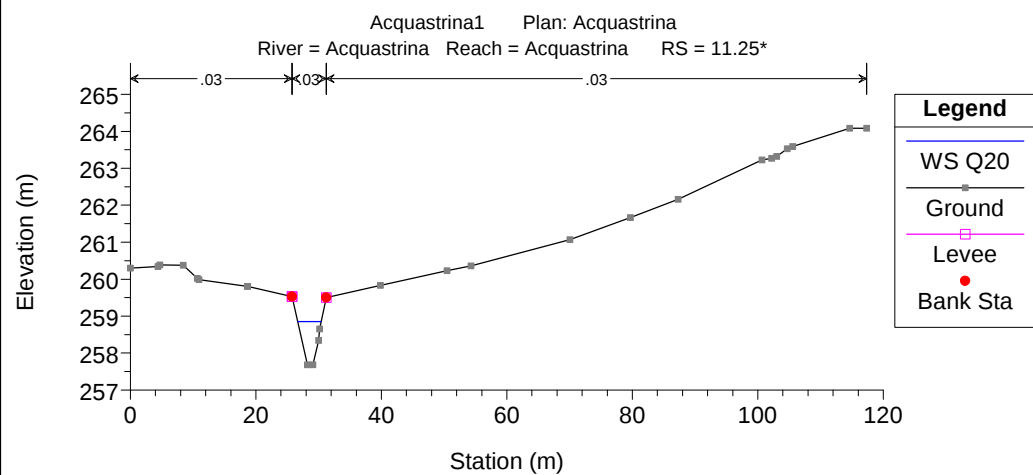
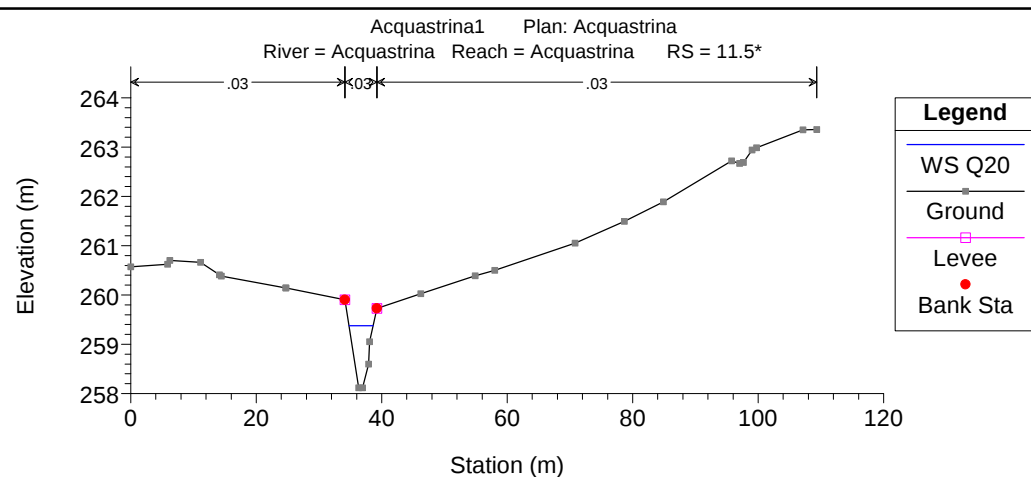
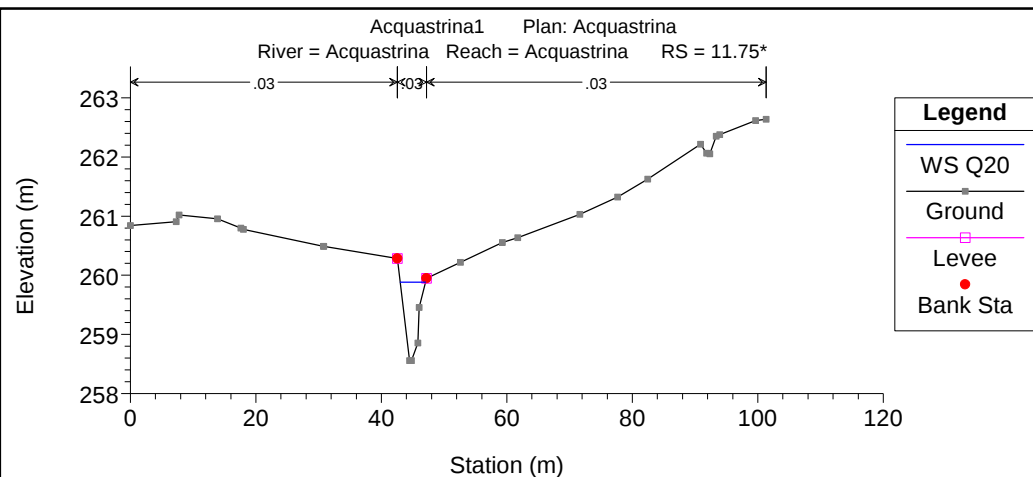


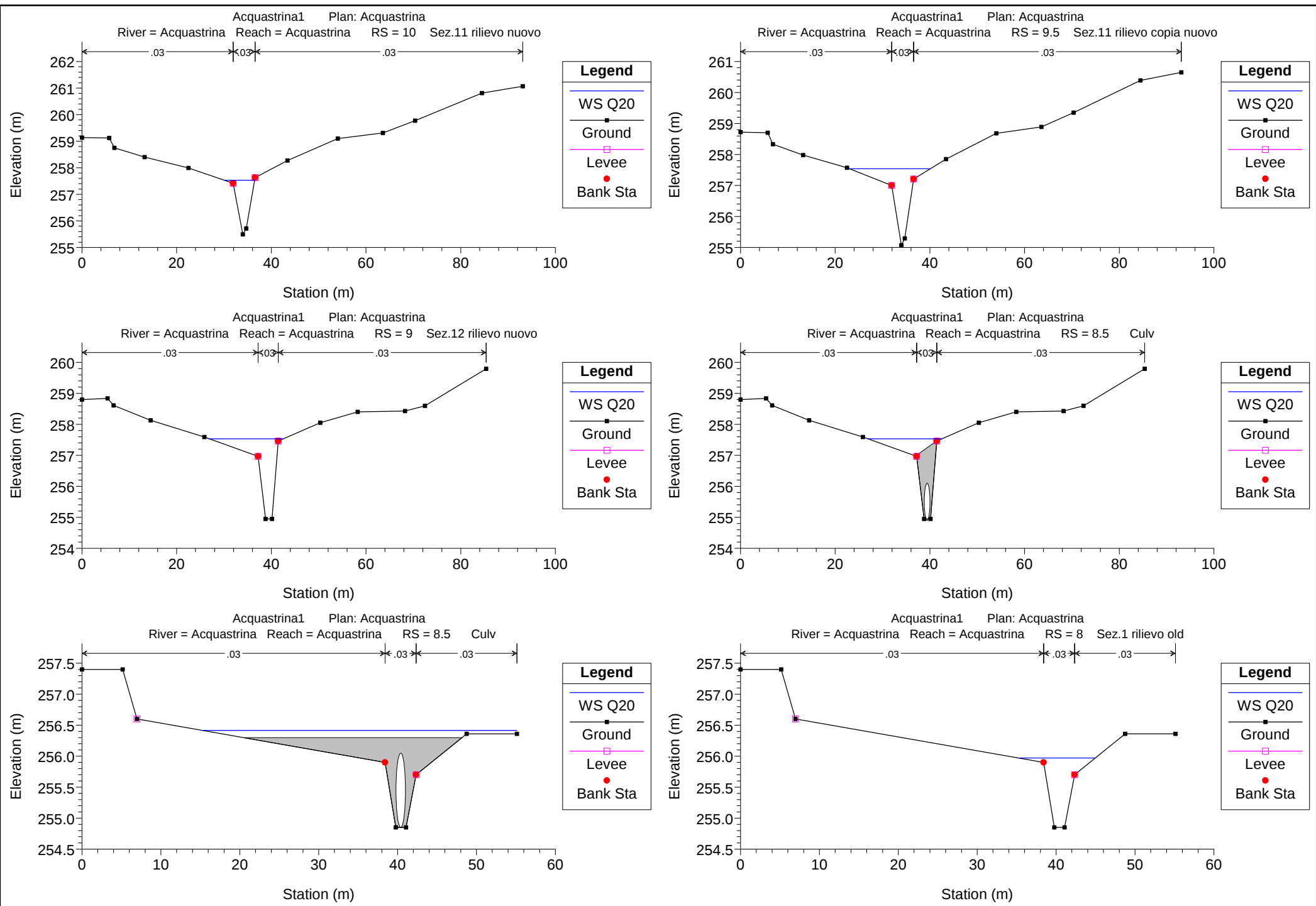
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Acquastrina	20	Q20	7.60	264.26	265.52	265.52	265.63	0.006411	1.85	6.28	25.05	0.67
Acquastrina	19	Q20	7.60	263.97	264.82	264.72	264.83	0.001128	0.64	23.05	151.38	0.27
Acquastrina	18.5	Q20	7.60	263.77	264.82	264.52	264.82	0.000069	0.19	57.35	178.59	0.07
Acquastrina	18	Q20	7.60	263.40	264.73	264.69	264.81	0.003414	1.51	7.46	23.73	0.49
Acquastrina	17.5		Culvert									
Acquastrina	17	Q20	7.60	262.76	264.45	264.19	264.71	0.007547	2.25	3.37	3.25	0.71
Acquastrina	16.5*	Q20	7.60	262.41	263.90	263.90	264.31	0.014586	2.84	2.67	3.22	1.00
Acquastrina	16	Q20	7.60	262.05	263.48	263.44	263.52	0.003527	1.27	10.26	52.81	0.49
Acquastrina	15.6666*	Q20	7.60	261.59	262.95	262.95	263.34	0.013710	2.76	2.76	3.56	1.00
Acquastrina	15.3333*	Q20	7.60	261.12	262.13	262.34	262.82	0.030541	3.70	2.05	3.26	1.49
Acquastrina	15	Q20	7.60	260.66	261.63	261.76	262.16	0.021001	3.21	2.37	3.63	1.27
Acquastrina	14.8	Q20	7.60	259.92	261.02	261.02	261.38	0.012666	2.66	2.86	3.95	1.00
Acquastrina	14	Q20	7.60	259.63	260.97	260.40	261.07	0.002052	1.34	5.69	4.65	0.39
Acquastrina	13.5		Bridge									
Acquastrina	13	Q20	7.60	259.52	260.77	260.21	260.85	0.001555	1.20	6.35	6.19	0.38
Acquastrina	12	Q20	7.60	259.00	260.39	260.39	260.67	0.009755	2.35	3.50	7.47	0.85
Acquastrina	11.75*	Q20	7.60	258.56	259.88	259.87	260.22	0.012528	2.58	2.94	4.05	0.97
Acquastrina	11.5*	Q20	7.60	258.12	259.38	259.36	259.73	0.012326	2.64	2.88	3.83	0.97
Acquastrina	11.25*	Q20	7.60	257.68	258.85	258.85	259.23	0.013042	2.72	2.79	3.76	1.01
Acquastrina	11	Q20	7.60	257.24	258.42	258.36	258.73	0.010089	2.46	3.09	4.02	0.90
Acquastrina	10.6666*	Q20	7.60	256.66	257.91	257.87	258.25	0.011188	2.58	2.95	3.81	0.93
Acquastrina	10.3333*	Q20	7.60	256.07	257.61	257.38	257.83	0.006324	2.09	3.64	4.06	0.70
Acquastrina	10	Q20	7.60	255.49	257.53	256.90	257.64	0.002321	1.45	5.34	6.38	0.43
Acquastrina	9.5	Q20	7.60	255.07	257.54	256.48	257.58	0.000628	0.92	10.18	17.02	0.24
Acquastrina	9	Q20	7.60	254.95	257.53	256.16	257.57	0.000552	0.86	10.69	15.73	0.20
Acquastrina	8.5		Culvert									
Acquastrina	8	Q20	7.60	254.85	255.97	255.97	256.23	0.007876	2.32	3.61	9.69	0.83
Acquastrina	7	Q20	7.60	254.15	255.58	255.42	255.87	0.008906	2.40	3.17	3.42	0.79
Acquastrina	6.73333*	Q20	7.60	253.88	255.42	255.07	255.59	0.004457	1.89	4.44	8.82	0.58
Acquastrina	6.46666*	Q20	7.60	253.62	255.46	254.75	255.49	0.000717	0.92	11.23	24.31	0.25
Acquastrina	6.2	Q20	7.60	253.35	255.47	254.44	255.47	0.000134	0.47	24.84	44.29	0.11
Acquastrina	6	Q20	7.60	253.25	255.24	254.43	255.45	0.001524	2.01	3.78	39.62	0.45
Acquastrina	5.8		Culvert									
Acquastrina	5.5	Q20	7.60	253.18	254.64	254.36	255.02	0.004294	2.74	2.77	12.16	0.72
Acquastrina	5.3	Q20	7.60	253.00	254.78	254.09	254.81	0.000523	0.82	12.69	26.10	0.21
Acquastrina	5.1	Q20	7.60	253.10	254.75	254.41	254.76	0.000442	0.72	17.11	39.25	0.20
Acquastrina	5	Q20	7.60	253.05	254.69	254.66	254.75	0.003505	1.40	9.00	39.20	0.51
Acquastrina	4.8		Culvert									
Acquastrina	4.5	Q20	7.60	252.98	254.64	254.64	254.72	0.005111	1.61	7.91	39.36	0.61
Acquastrina	4.3	Q20	7.60	252.88	254.30	254.19	254.37	0.002070	1.37	8.89	30.68	0.42
Acquastrina	4.2	Q20	7.60	252.37	254.29	253.43	254.32	0.000580	0.86	10.90	23.35	0.24
Acquastrina	4	Q20	7.60	252.20	253.58	253.58	254.25	0.008700	3.63	2.10	5.60	1.00
Acquastrina	3		Culvert									
Acquastrina	2	Q20	7.60	251.30	253.04	252.54	253.35	0.003255	2.50	3.04	5.60	0.61
Acquastrina	1.5	Q20	7.60	251.30	253.07	252.47	253.24	0.004452	1.86	4.32	6.33	0.50
Acquastrina	1	Q20	7.60	251.60	252.97	252.97	253.06	0.004385	1.59	7.99	42.83	0.57

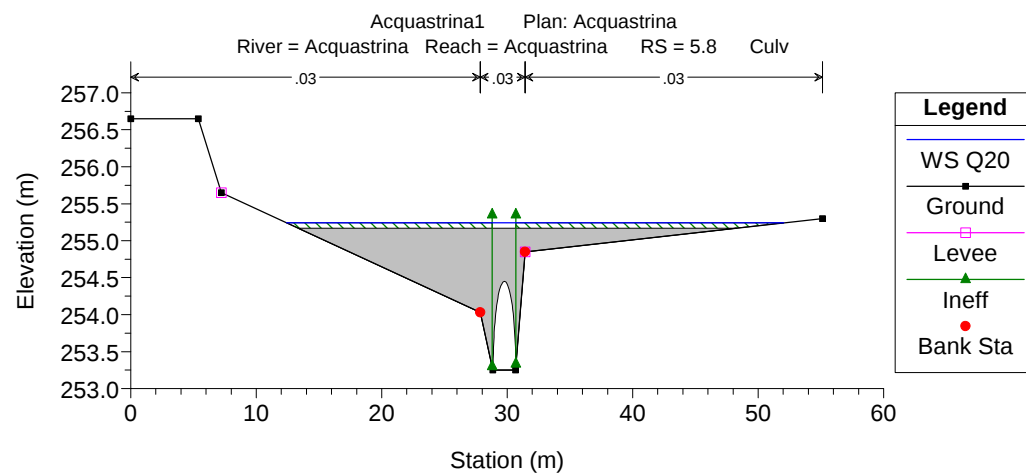
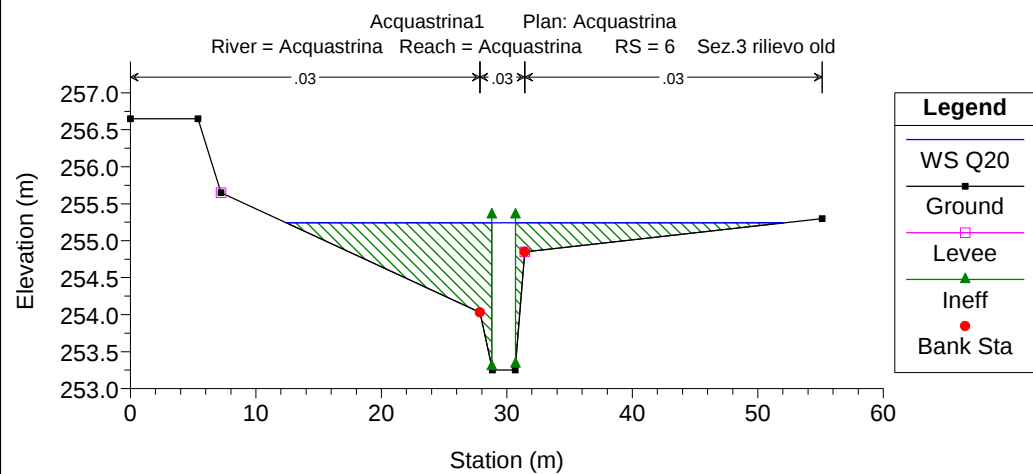
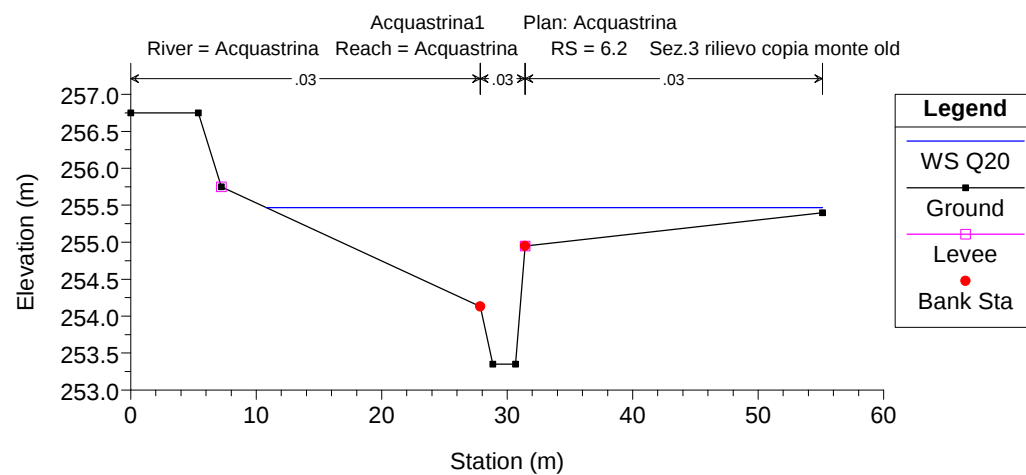
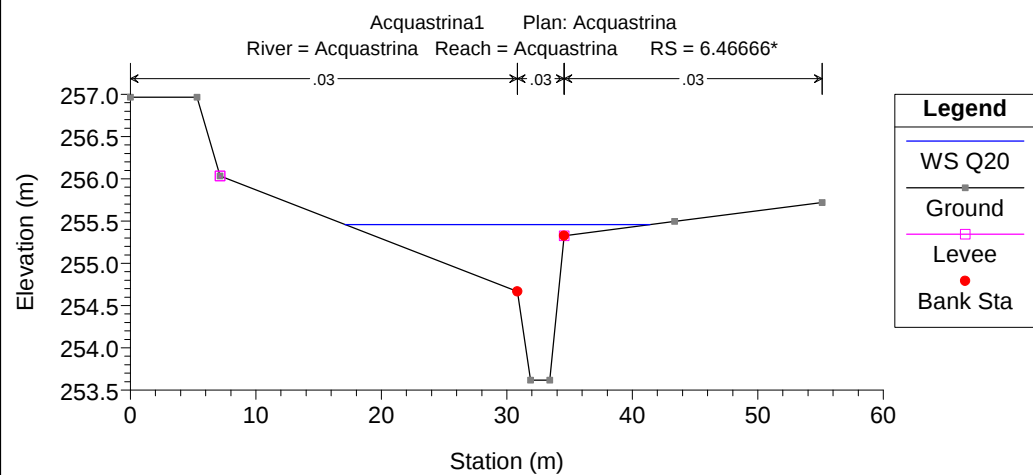
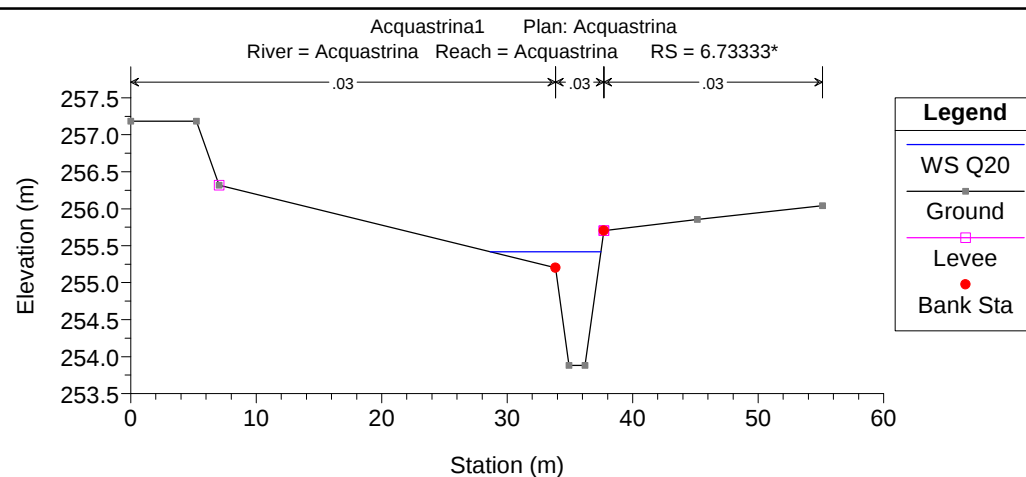
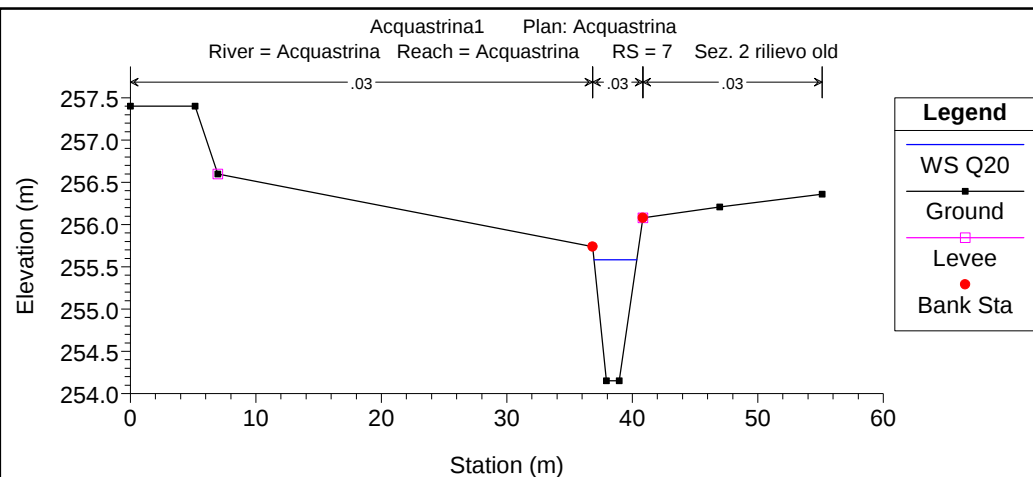


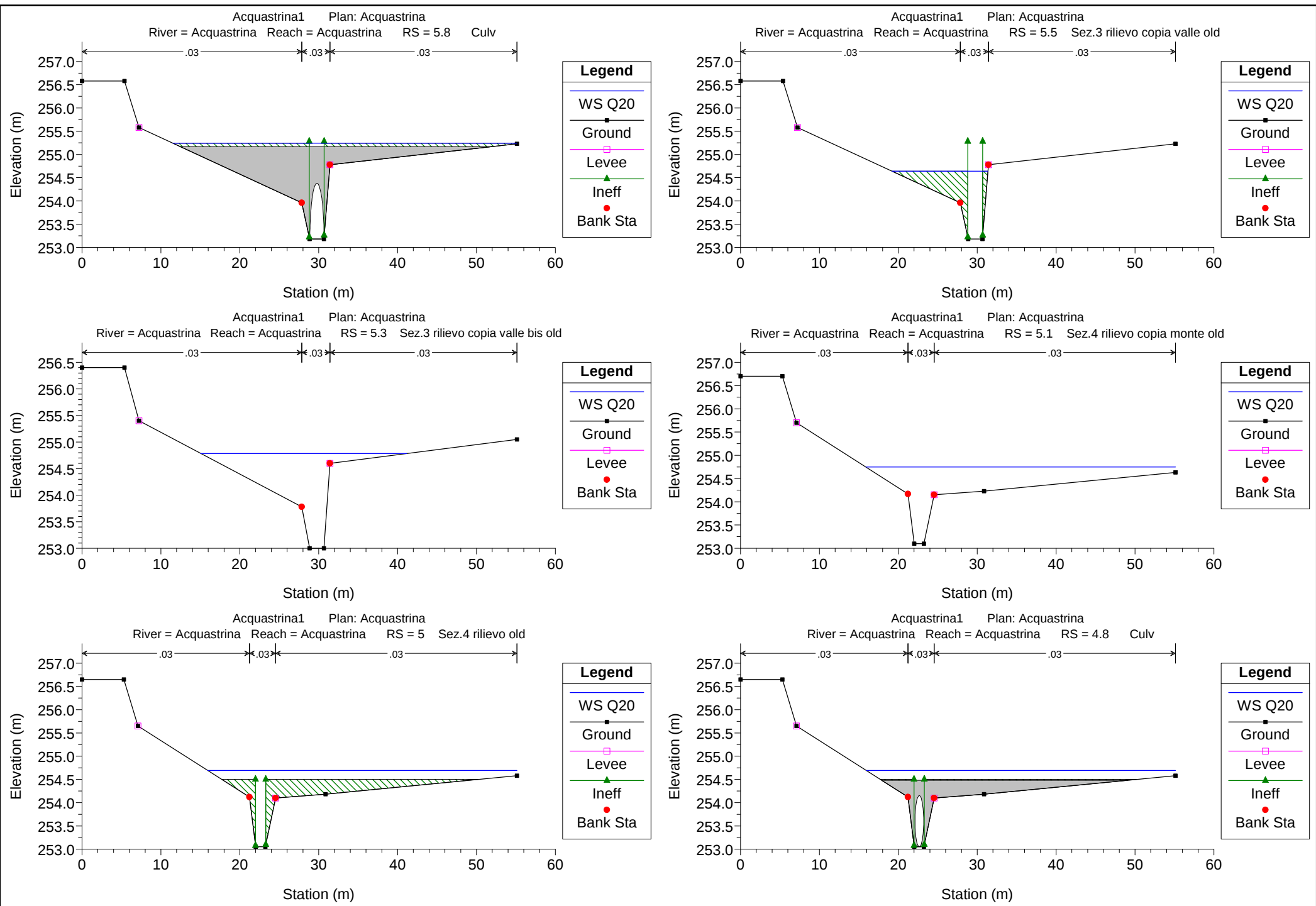


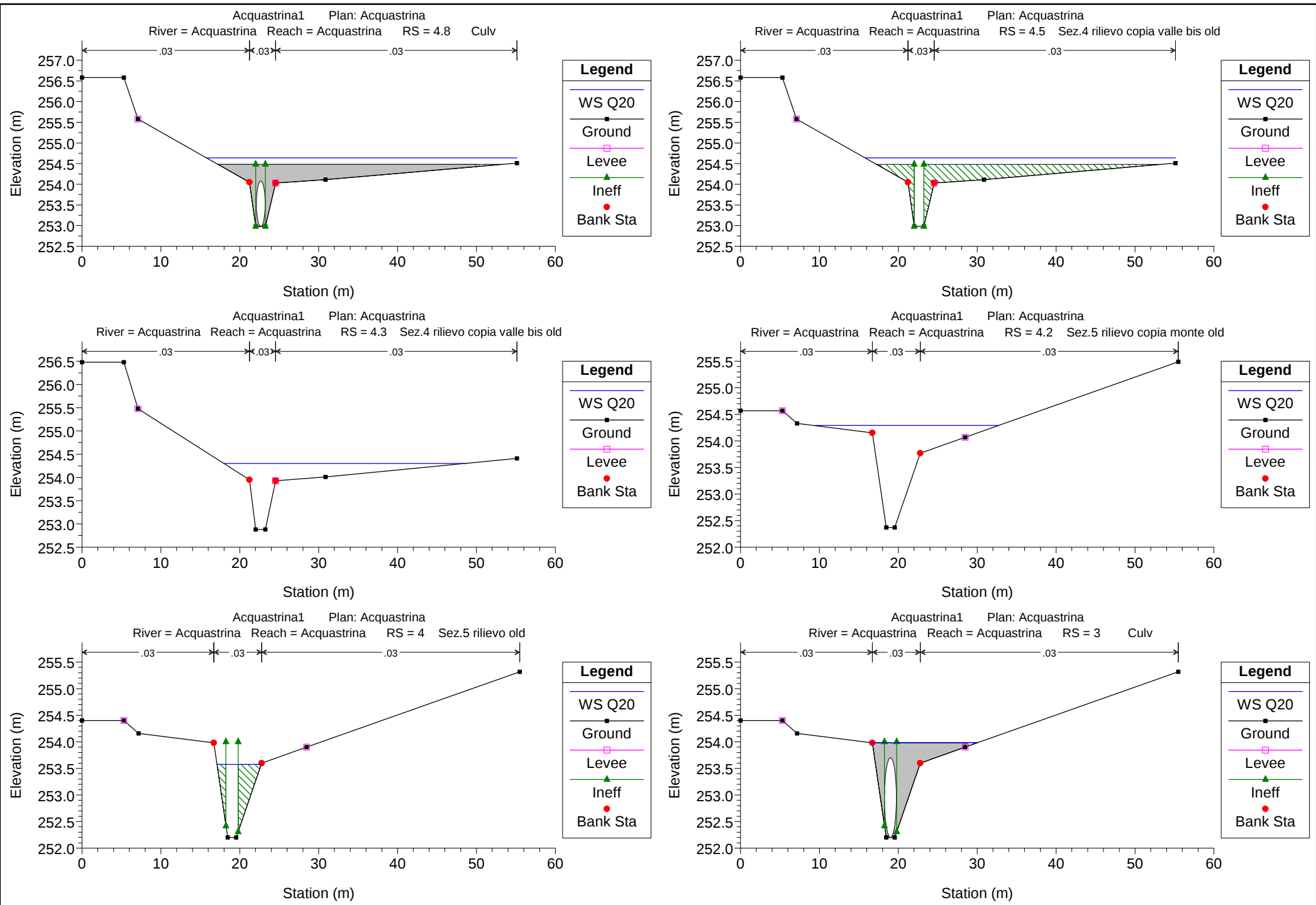


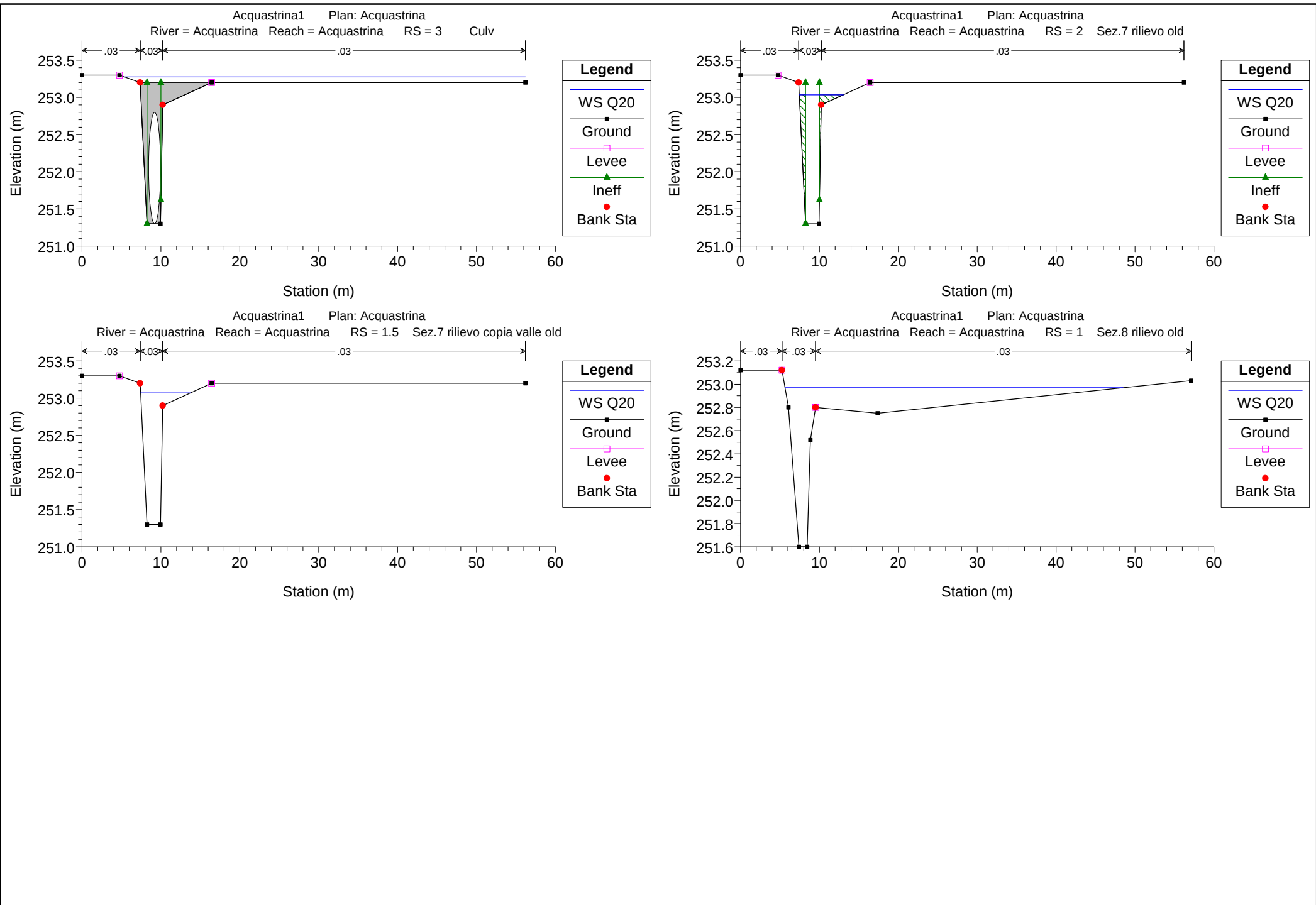






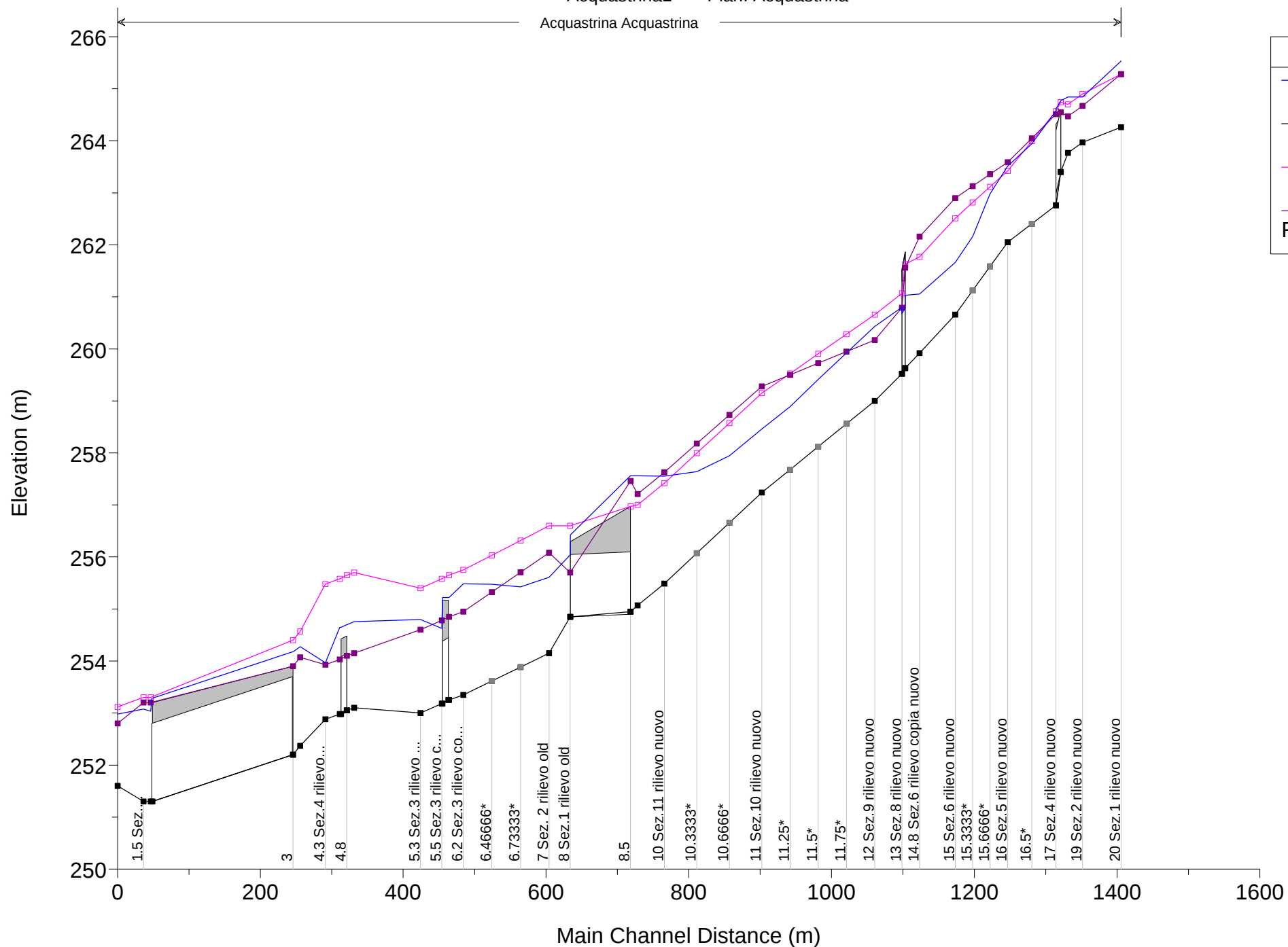




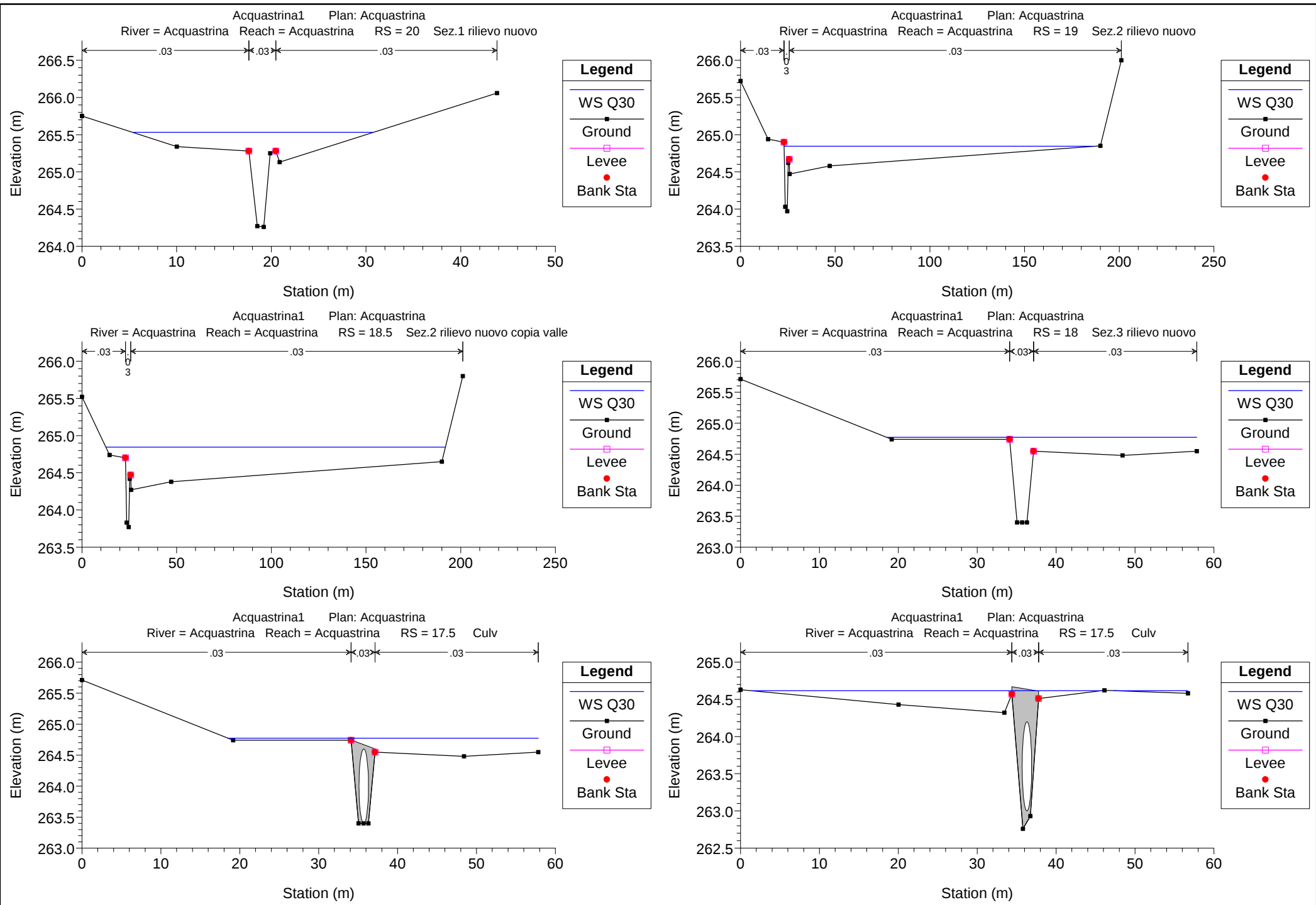


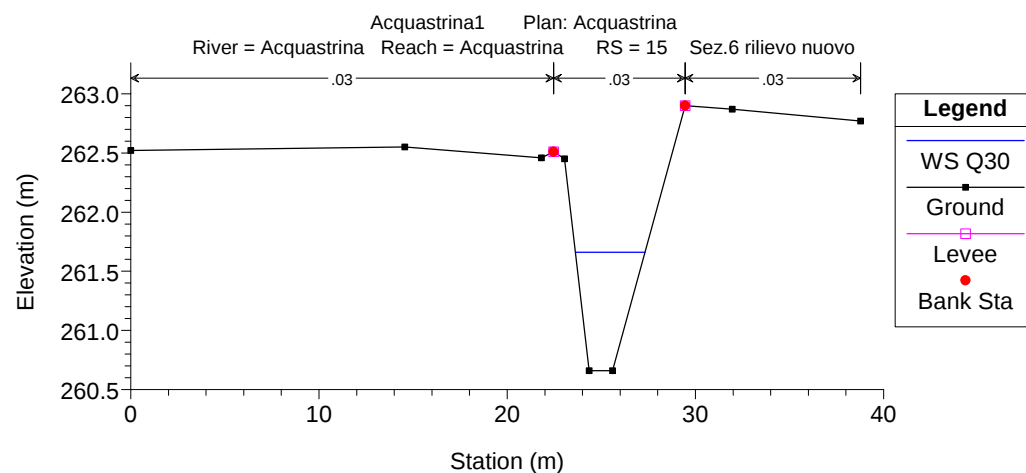
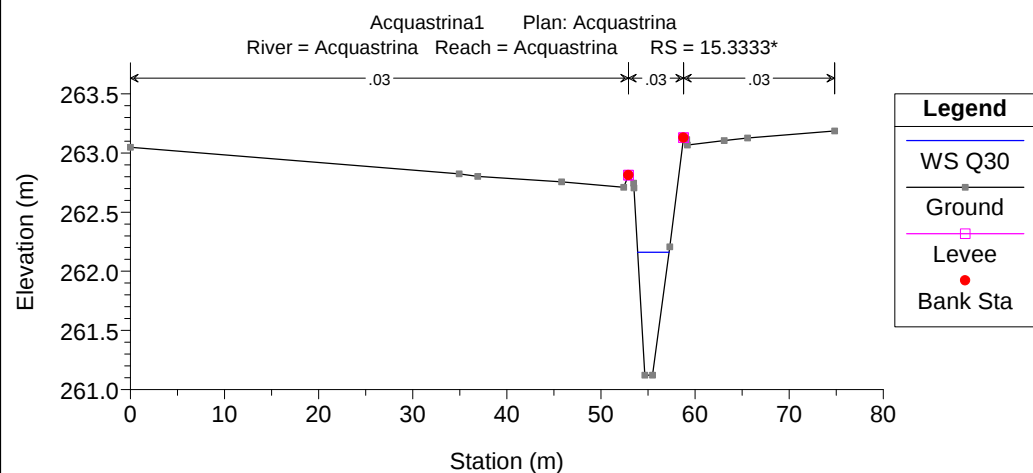
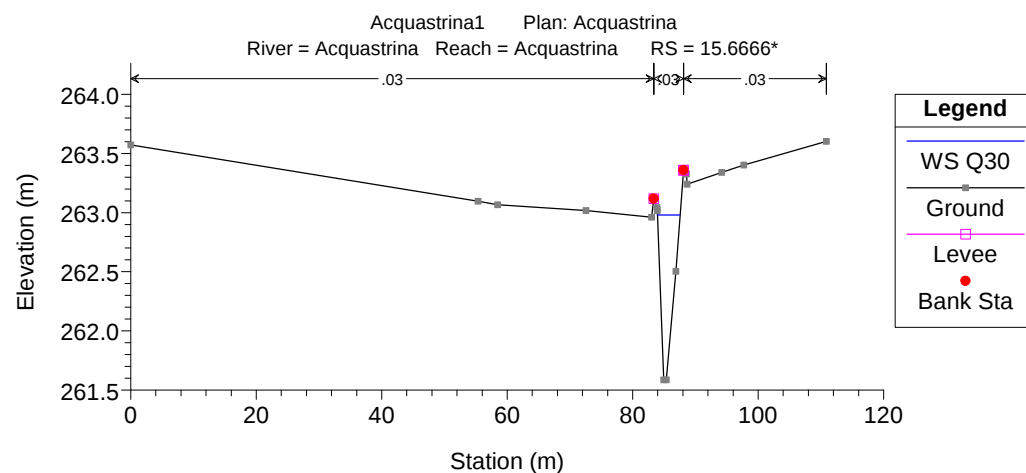
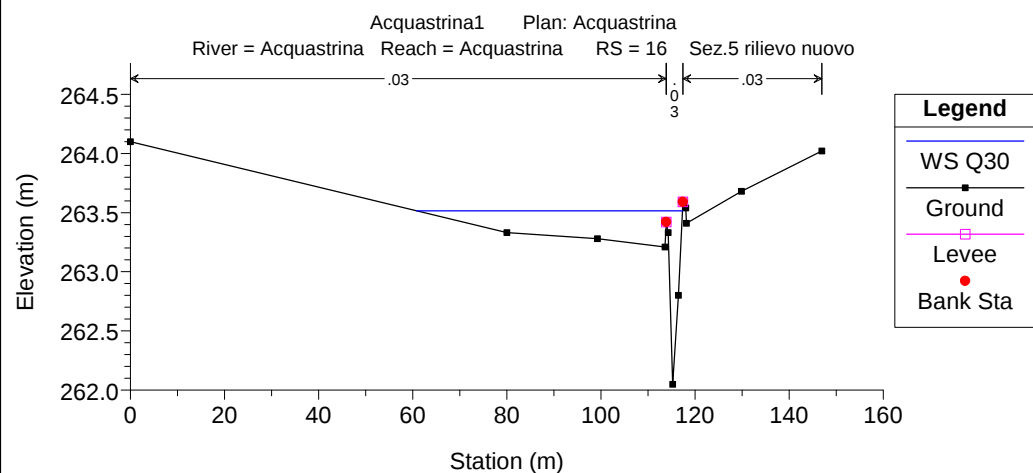
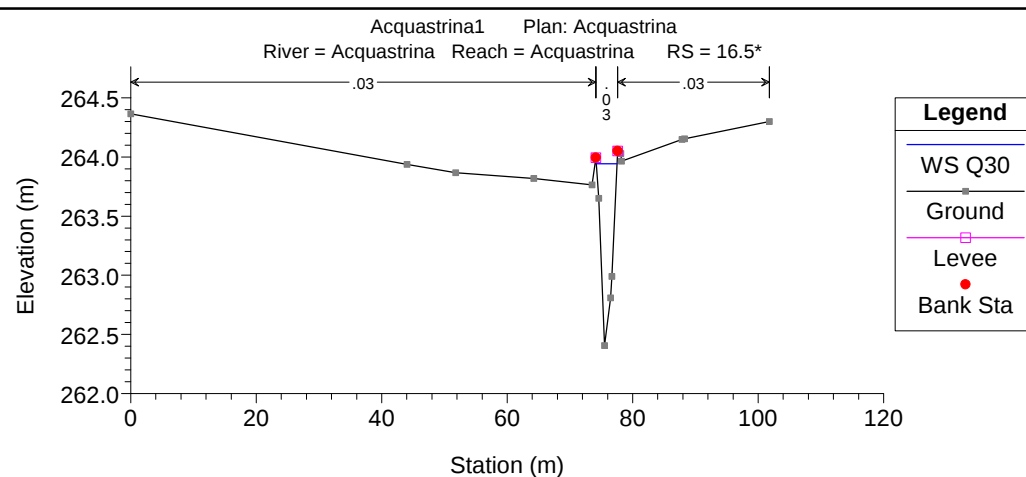
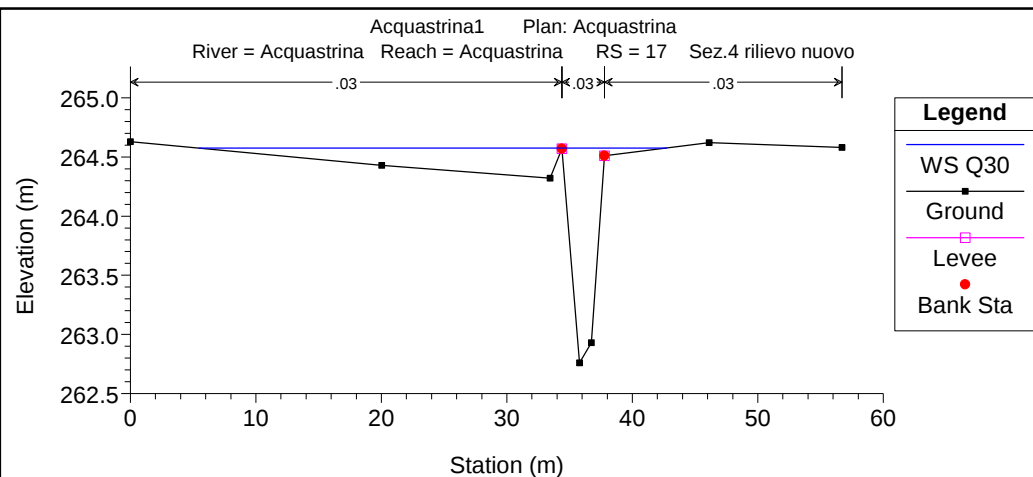
Acquastrina1 Plan: Acquastrina

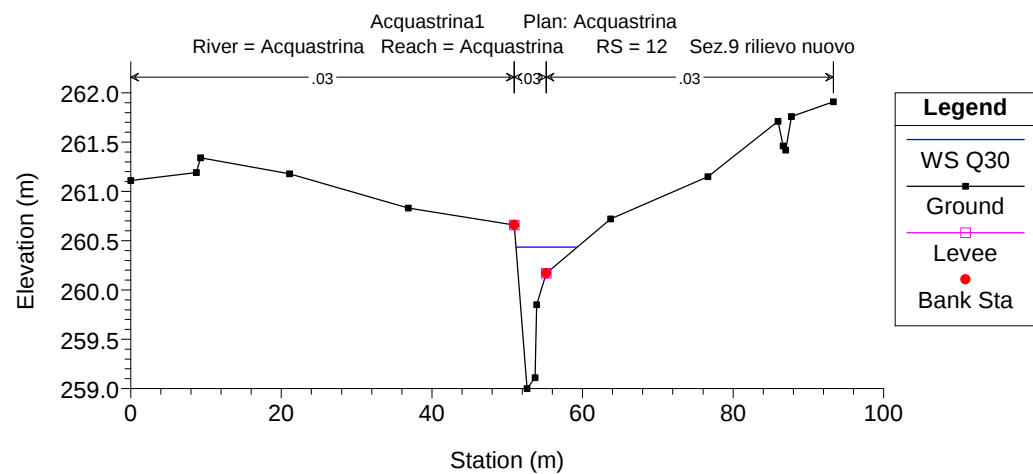
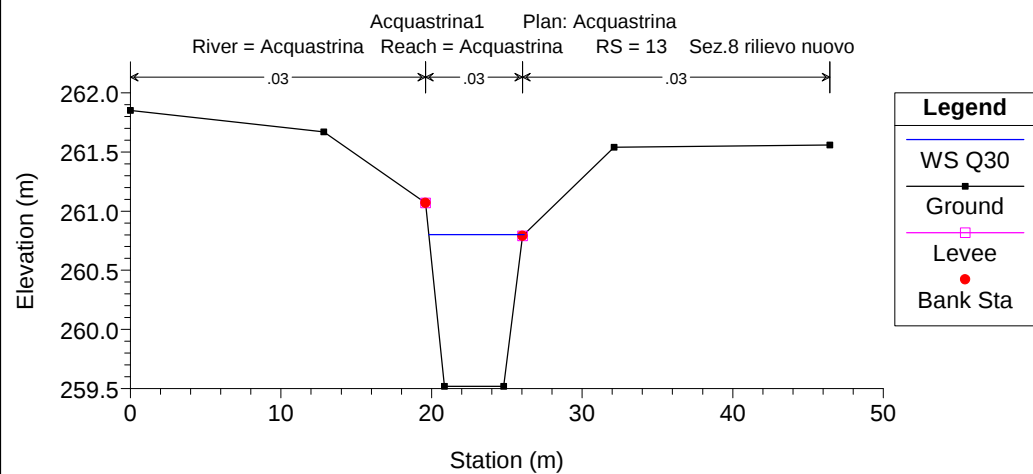
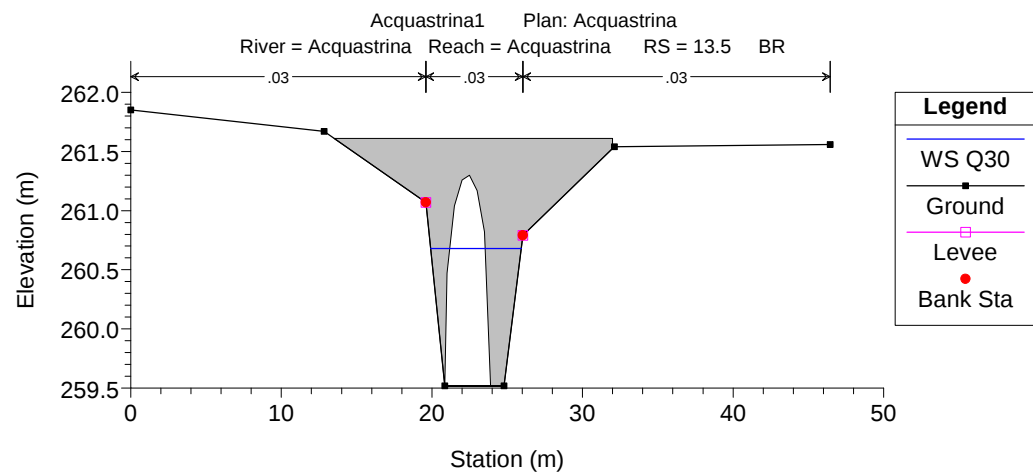
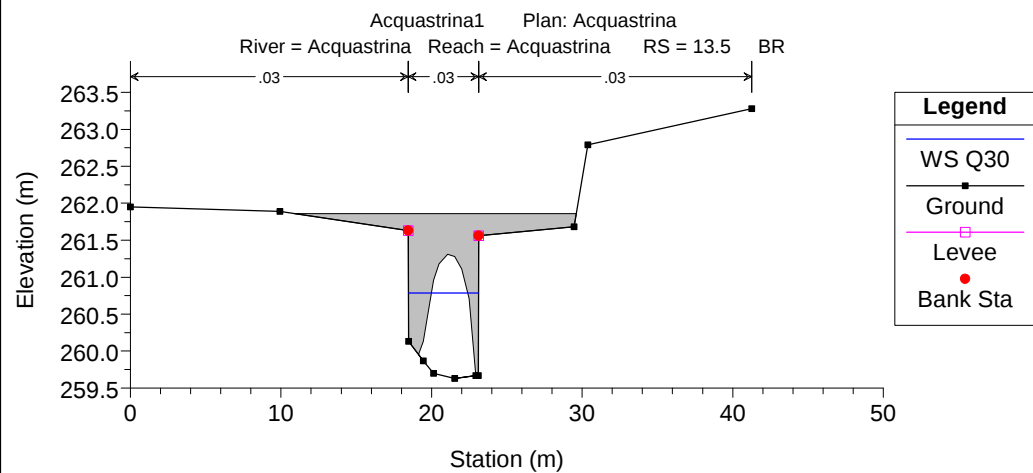
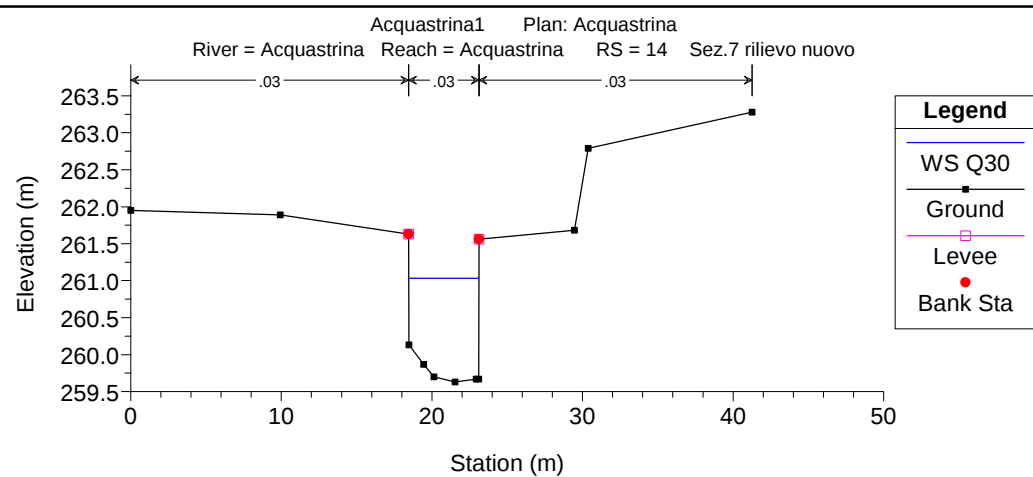
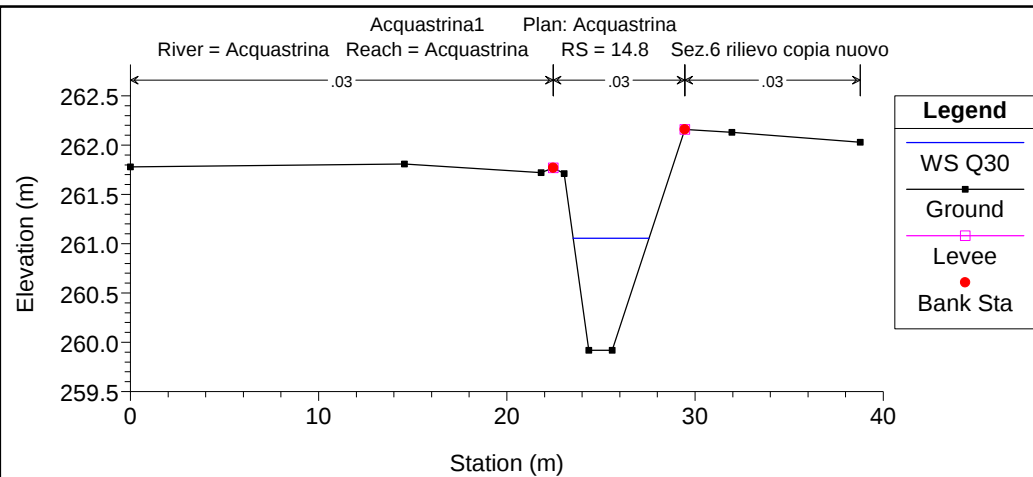
Acquastrina Acquastrina

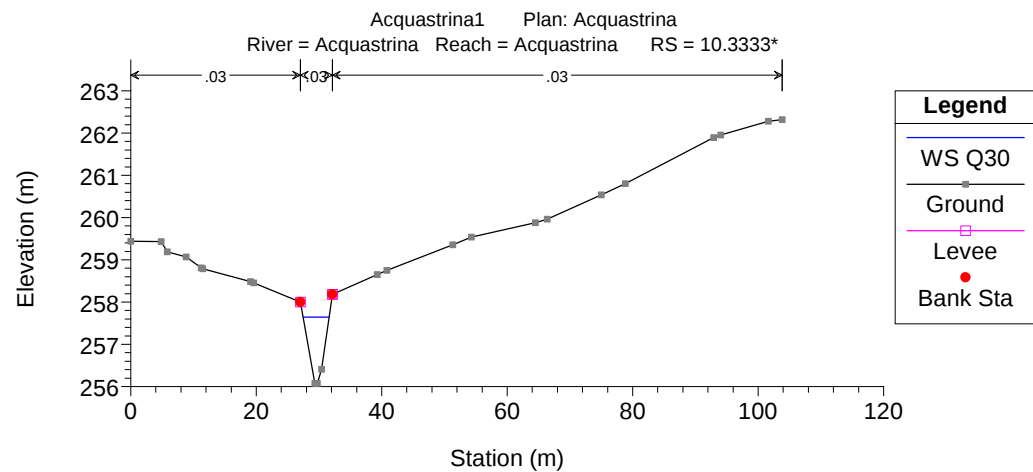
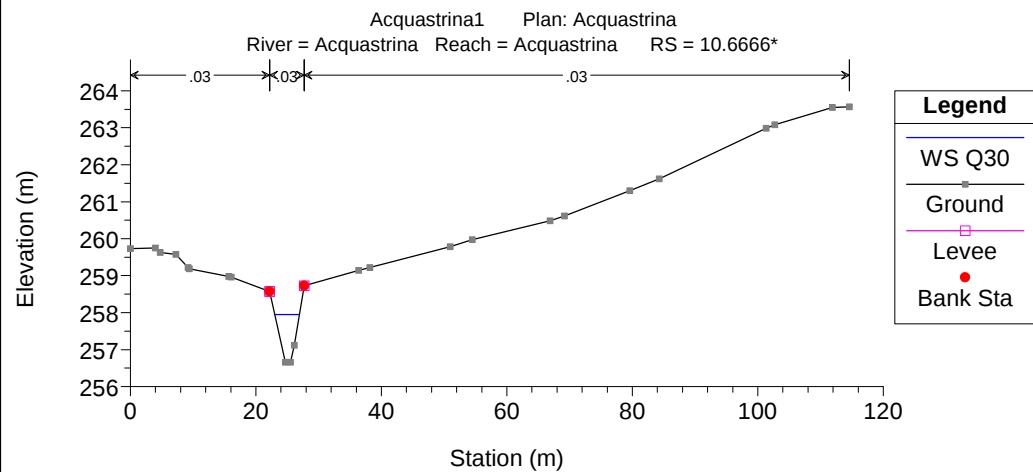
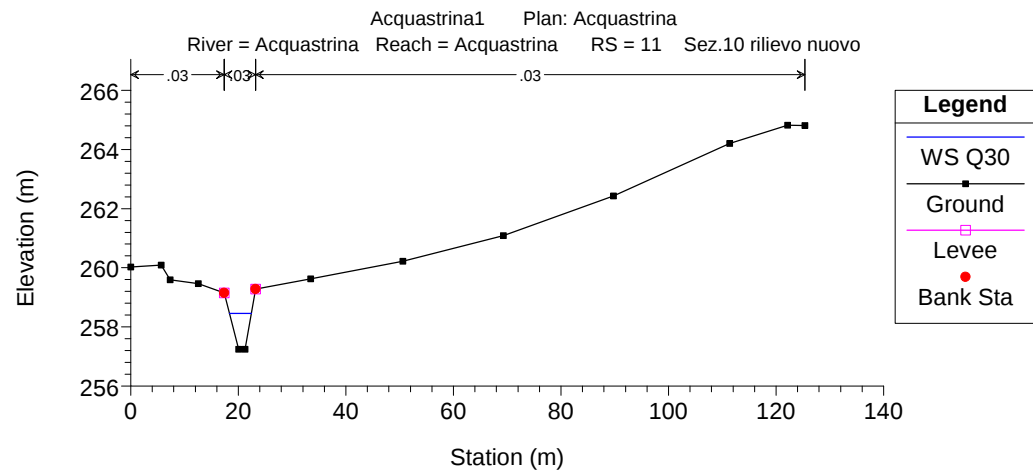
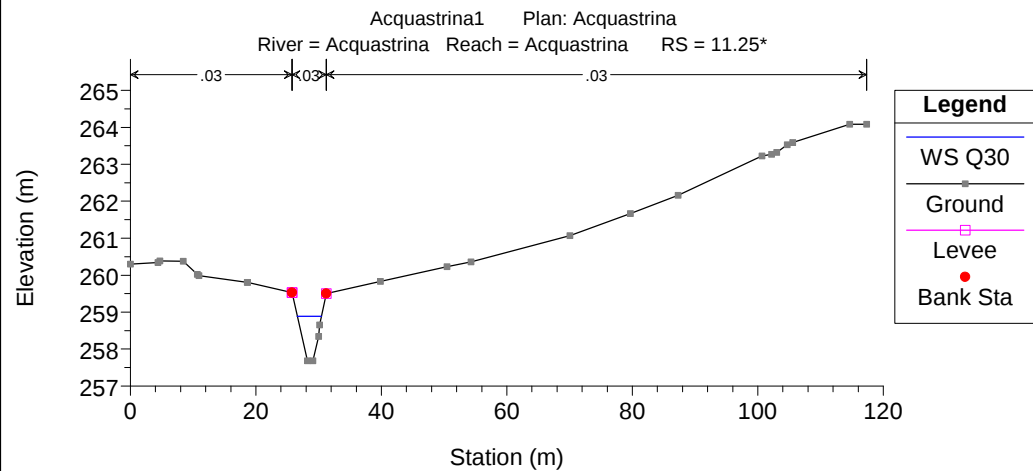
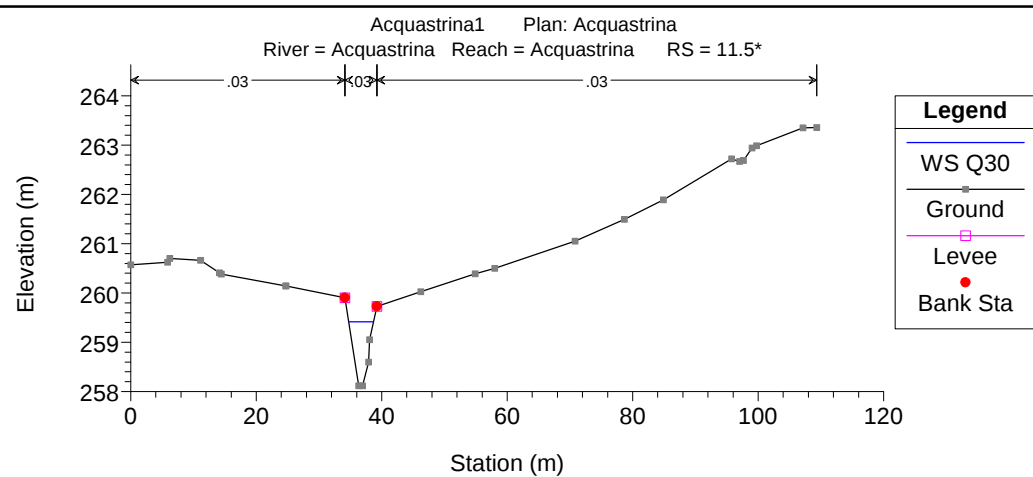
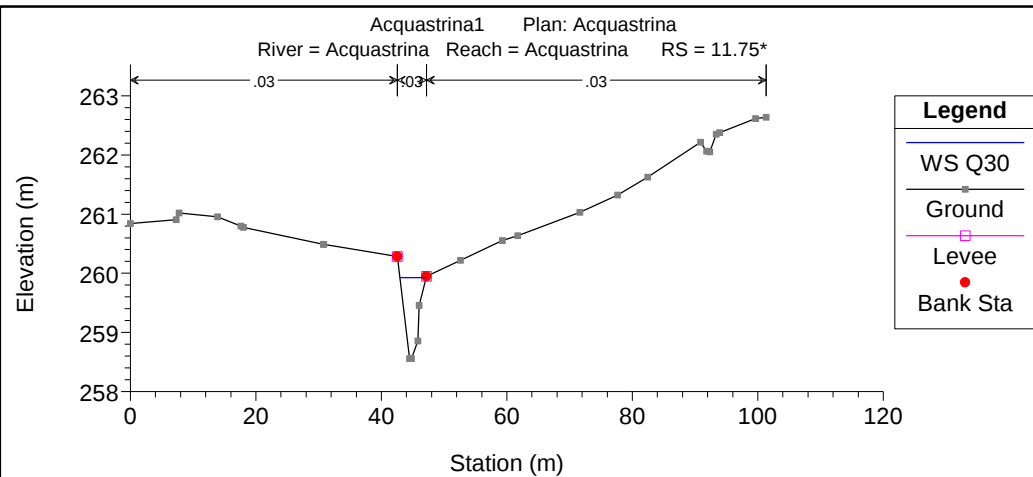


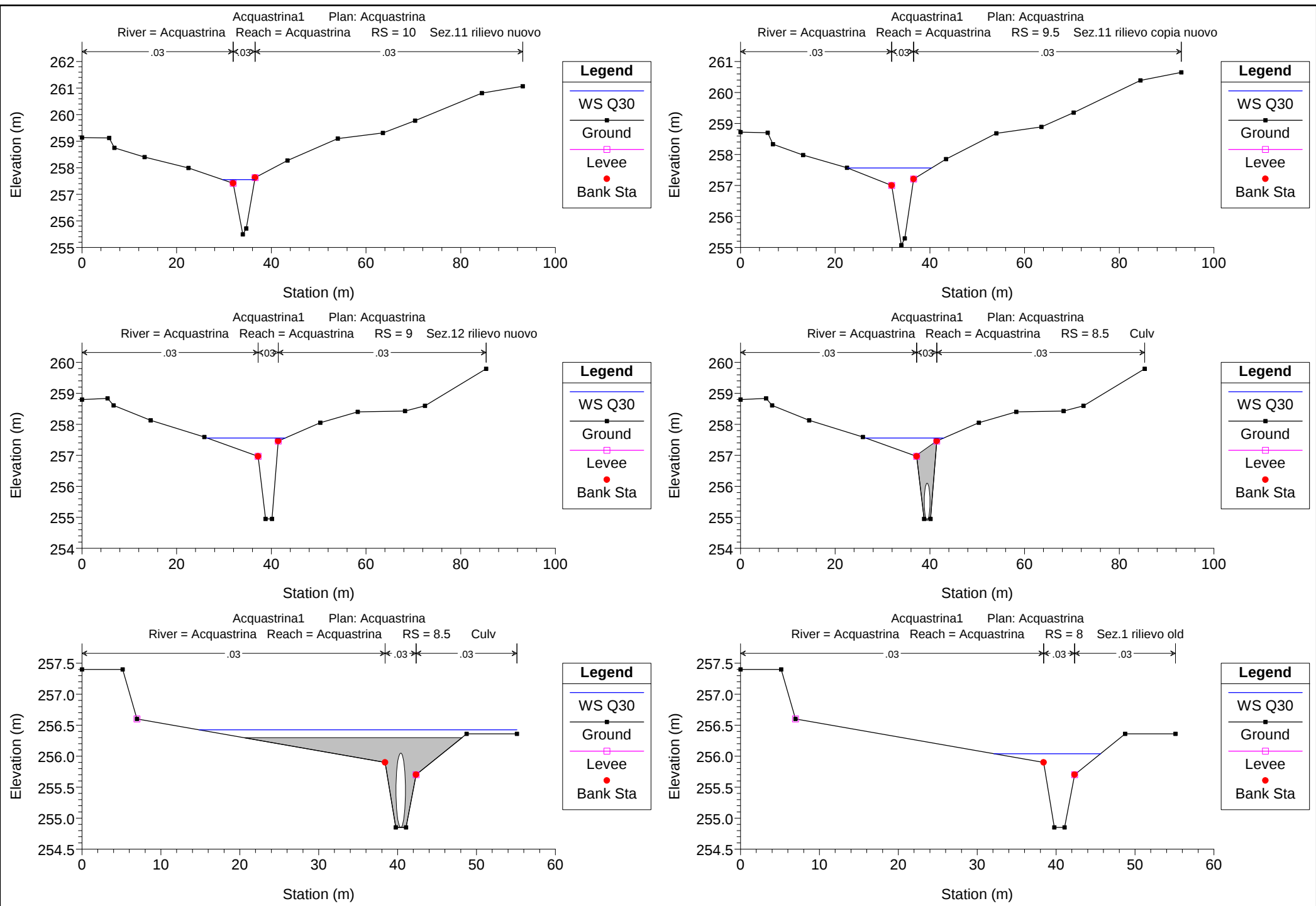
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Acquastrina	20	Q30	8.10	264.26	265.53	265.53	265.65	0.006781	1.91	6.47	25.43	0.69
Acquastrina	19	Q30	8.10	263.97	264.84	264.72	264.85	0.000880	0.57	26.70	163.68	0.24
Acquastrina	18.5	Q30	8.10	263.77	264.84	264.52	264.84	0.000063	0.19	61.43	179.24	0.07
Acquastrina	18	Q30	8.10	263.40	264.77	264.71	264.84	0.002795	1.40	8.85	39.31	0.45
Acquastrina	17.5		Culvert									
Acquastrina	17	Q30	8.10	262.76	264.58	264.23	264.68	0.003455	1.60	7.83	37.24	0.48
Acquastrina	16.5*	Q30	8.10	262.41	263.94	263.94	264.37	0.014619	2.89	2.80	3.31	1.00
Acquastrina	16	Q30	8.10	262.05	263.52	263.45	263.55	0.002605	1.12	12.19	56.52	0.42
Acquastrina	15.6666*	Q30	8.10	261.59	262.98	262.98	263.39	0.013968	2.82	2.87	3.63	1.01
Acquastrina	15.3333*	Q30	8.10	261.12	262.16	262.38	262.87	0.030044	3.74	2.17	3.34	1.48
Acquastrina	15	Q30	8.10	260.66	261.66	261.79	262.21	0.021242	3.27	2.48	3.70	1.28
Acquastrina	14.8	Q30	8.10	259.92	261.05	261.05	261.43	0.012722	2.70	3.00	4.03	1.00
Acquastrina	14	Q30	8.10	259.63	261.03	260.43	261.13	0.002045	1.36	5.96	4.65	0.38
Acquastrina	13.5		Bridge									
Acquastrina	13	Q30	8.10	259.52	260.80	260.24	260.88	0.001632	1.24	6.52	6.32	0.39
Acquastrina	12	Q30	8.10	259.00	260.43	260.43	260.70	0.009223	2.35	3.80	8.12	0.83
Acquastrina	11.75*	Q30	8.10	258.56	259.92	259.90	260.27	0.012389	2.61	3.11	4.20	0.97
Acquastrina	11.5*	Q30	8.10	258.12	259.41	259.40	259.78	0.012340	2.68	3.02	3.94	0.98
Acquastrina	11.25*	Q30	8.10	257.68	258.89	258.89	259.28	0.013011	2.76	2.93	3.86	1.01
Acquastrina	11	Q30	8.10	257.24	258.46	258.40	258.78	0.010125	2.51	3.23	4.11	0.90
Acquastrina	10.6666*	Q30	8.10	256.66	257.95	257.90	258.29	0.011069	2.61	3.11	3.90	0.93
Acquastrina	10.3333*	Q30	8.10	256.07	257.64	257.42	257.88	0.006599	2.15	3.76	4.12	0.72
Acquastrina	10	Q30	8.10	255.49	257.55	256.95	257.67	0.002473	1.51	5.49	6.79	0.45
Acquastrina	9.5	Q30	8.10	255.07	257.56	256.53	257.60	0.000654	0.95	10.63	17.74	0.24
Acquastrina	9	Q30	8.10	254.95	257.56	256.20	257.60	0.000582	0.89	11.11	16.59	0.21
Acquastrina	8.5		Culvert									
Acquastrina	8	Q30	8.10	254.85	256.04	256.04	256.26	0.006219	2.18	4.43	13.53	0.74
Acquastrina	7	Q30	8.10	254.15	255.61	255.47	255.92	0.009386	2.48	3.26	3.46	0.82
Acquastrina	6.73333*	Q30	8.10	253.88	255.43	255.11	255.62	0.004925	1.99	4.51	9.01	0.61
Acquastrina	6.46666*	Q30	8.10	253.62	255.47	254.83	255.51	0.000766	0.96	11.60	25.32	0.25
Acquastrina	6.2	Q30	8.10	253.35	255.48	254.48	255.49	0.000142	0.49	25.52	44.49	0.11
Acquastrina	6	Q30	8.10	253.25	255.22	254.48	255.46	0.001794	2.17	3.74	38.24	0.49
Acquastrina	5.8		Culvert									
Acquastrina	5.5	Q30	8.10	253.18	254.63	254.41	255.07	0.005019	2.95	2.75	11.99	0.78
Acquastrina	5.3	Q30	8.10	253.00	254.80	254.13	254.82	0.000565	0.85	13.02	26.93	0.22
Acquastrina	5.1	Q30	8.10	253.10	254.76	254.43	254.77	0.000471	0.74	17.51	39.35	0.21
Acquastrina	5	Q30	8.10	253.05	254.70	254.67	254.76	0.003579	1.42	9.36	39.28	0.52
Acquastrina	4.8		Culvert									
Acquastrina	4.5	Q30	8.10	252.98	254.65	254.65	254.73	0.005250	1.65	8.22	39.43	0.62
Acquastrina	4.3	Q30	8.10	252.88	253.97	254.21	254.50	0.018985	3.24	2.56	6.49	1.19
Acquastrina	4.2	Q30	8.10	252.37	254.28	253.47	254.32	0.000694	0.93	10.58	22.36	0.26
Acquastrina	4	Q30	8.10	252.20	254.18	254.18	254.29	0.005768	1.67	6.44	26.65	0.67
Acquastrina	3		Culvert									
Acquastrina	2	Q30	8.10	251.30	253.04	252.59	253.40	0.003696	2.66	3.04	5.61	0.65
Acquastrina	1.5	Q30	8.10	251.30	253.08	252.52	253.27	0.004972	1.97	4.37	6.47	0.52
Acquastrina	1	Q30	8.10	251.60	252.98	252.98	253.07	0.004415	1.60	8.52	44.58	0.57

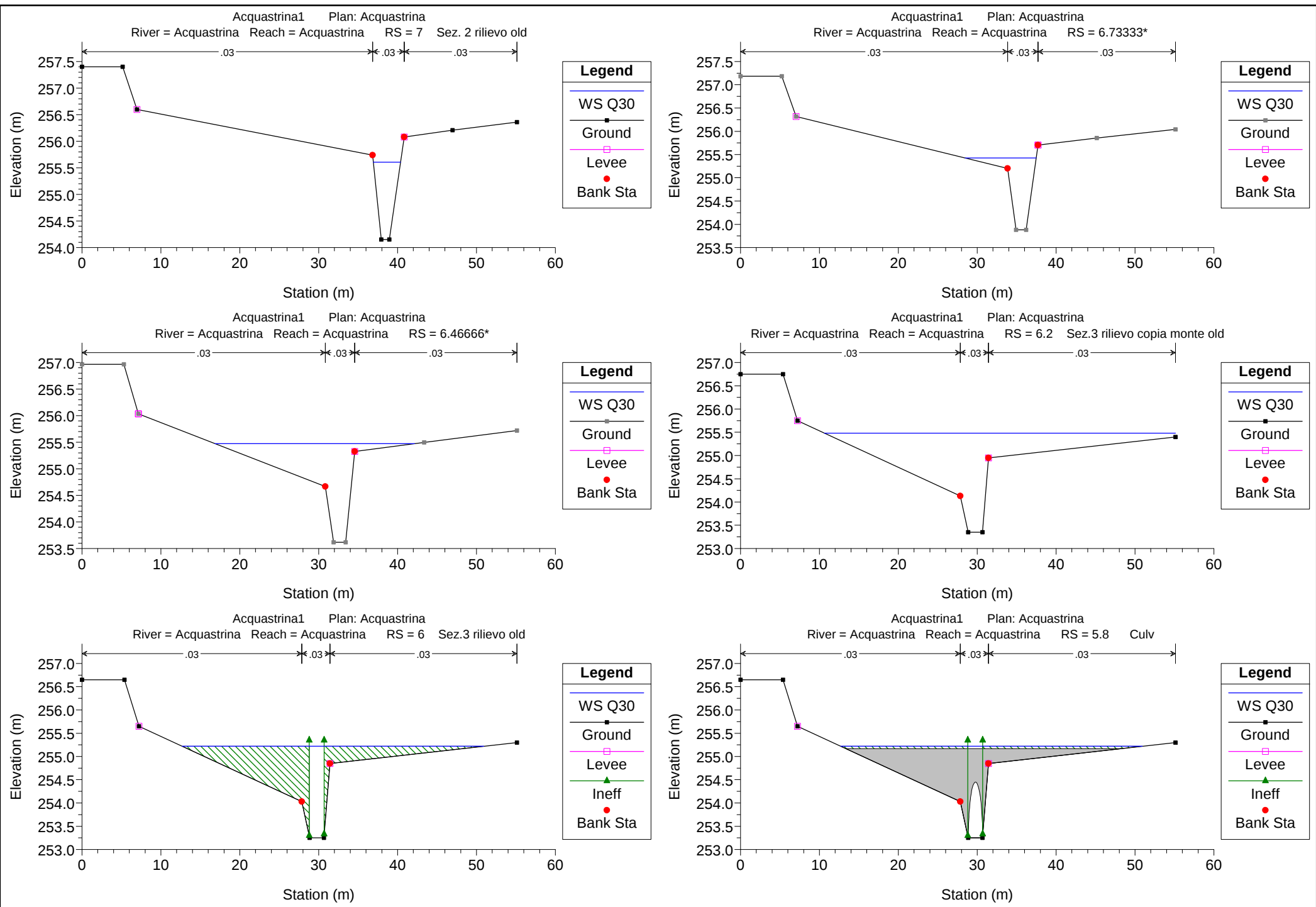


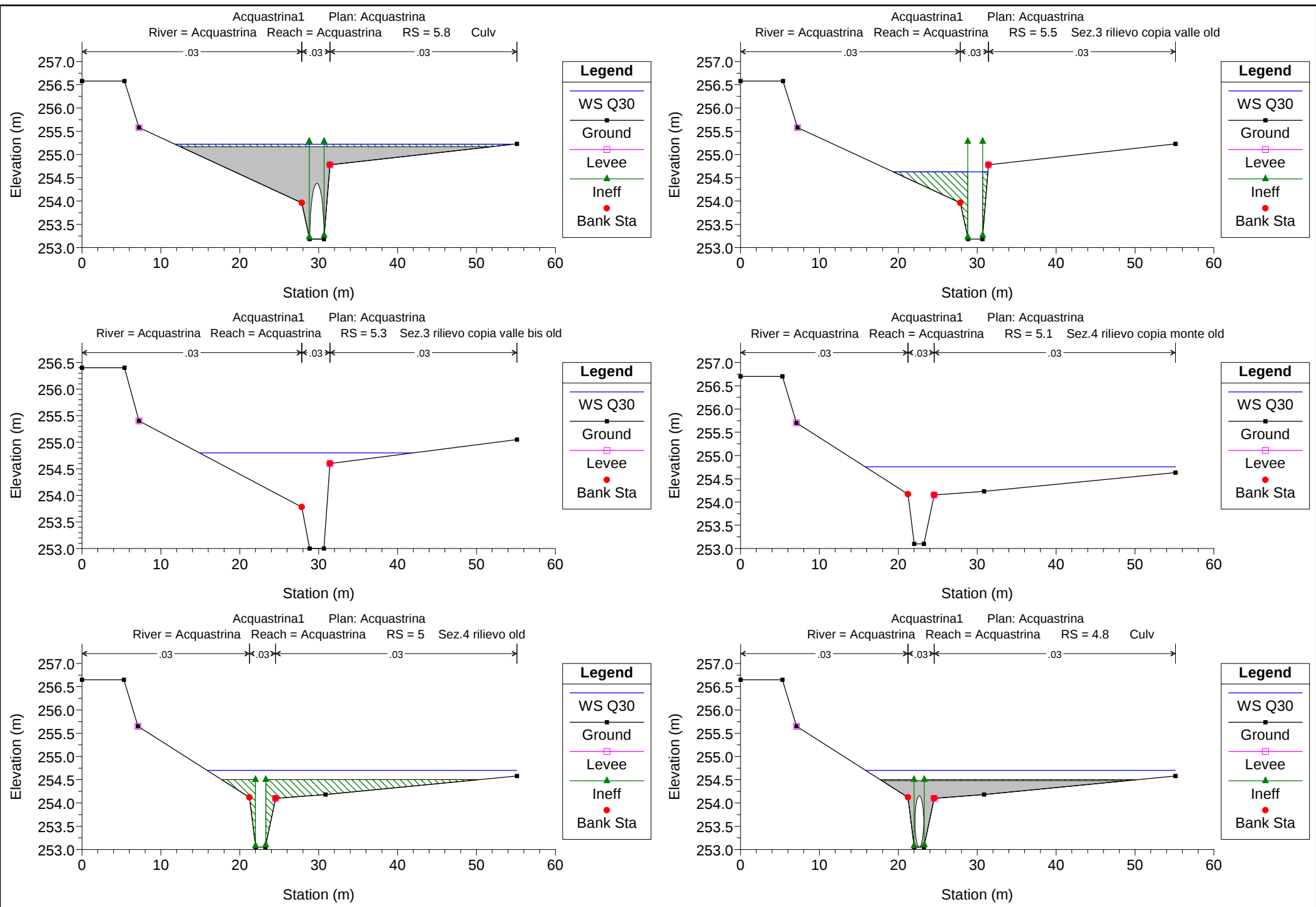


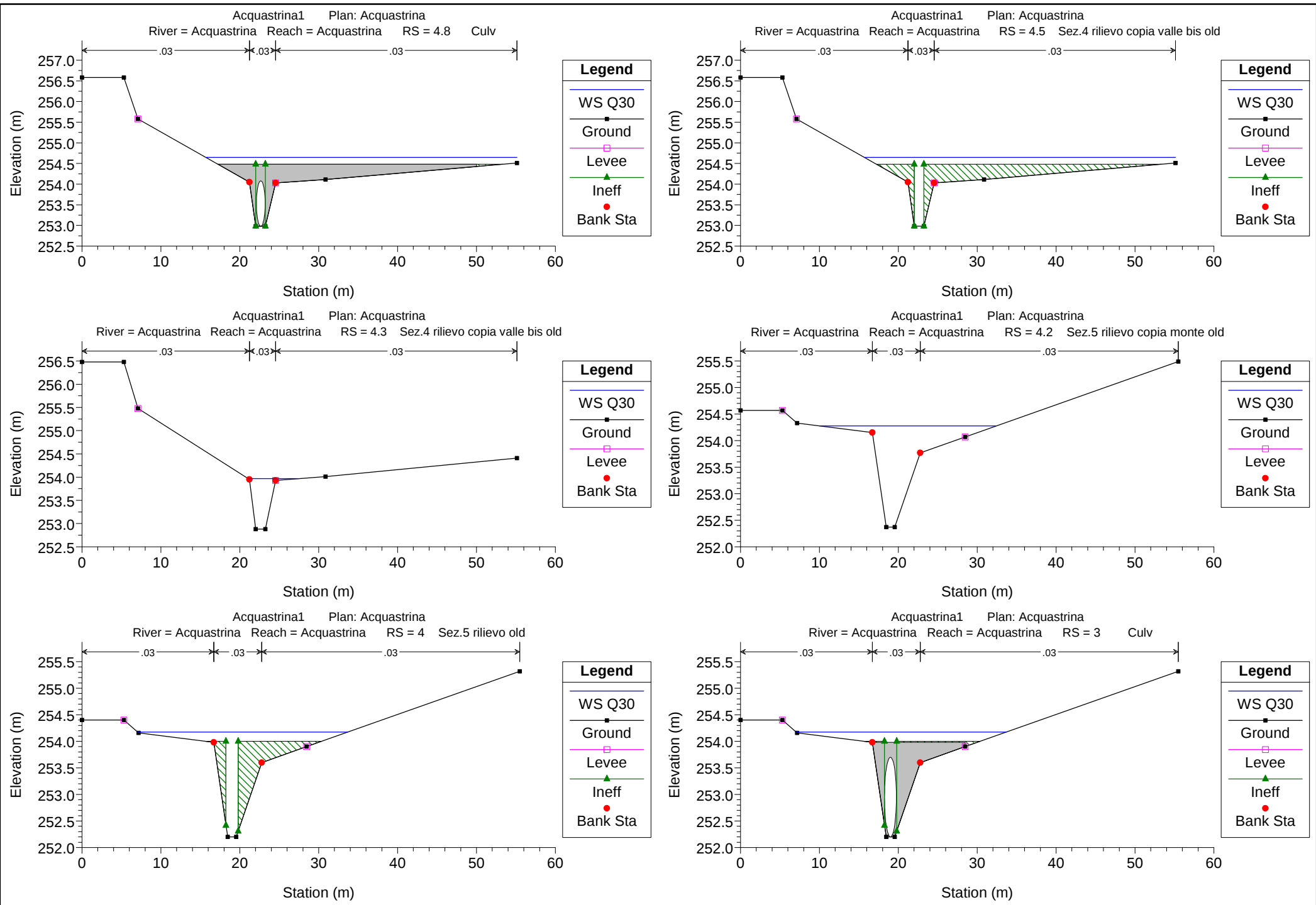


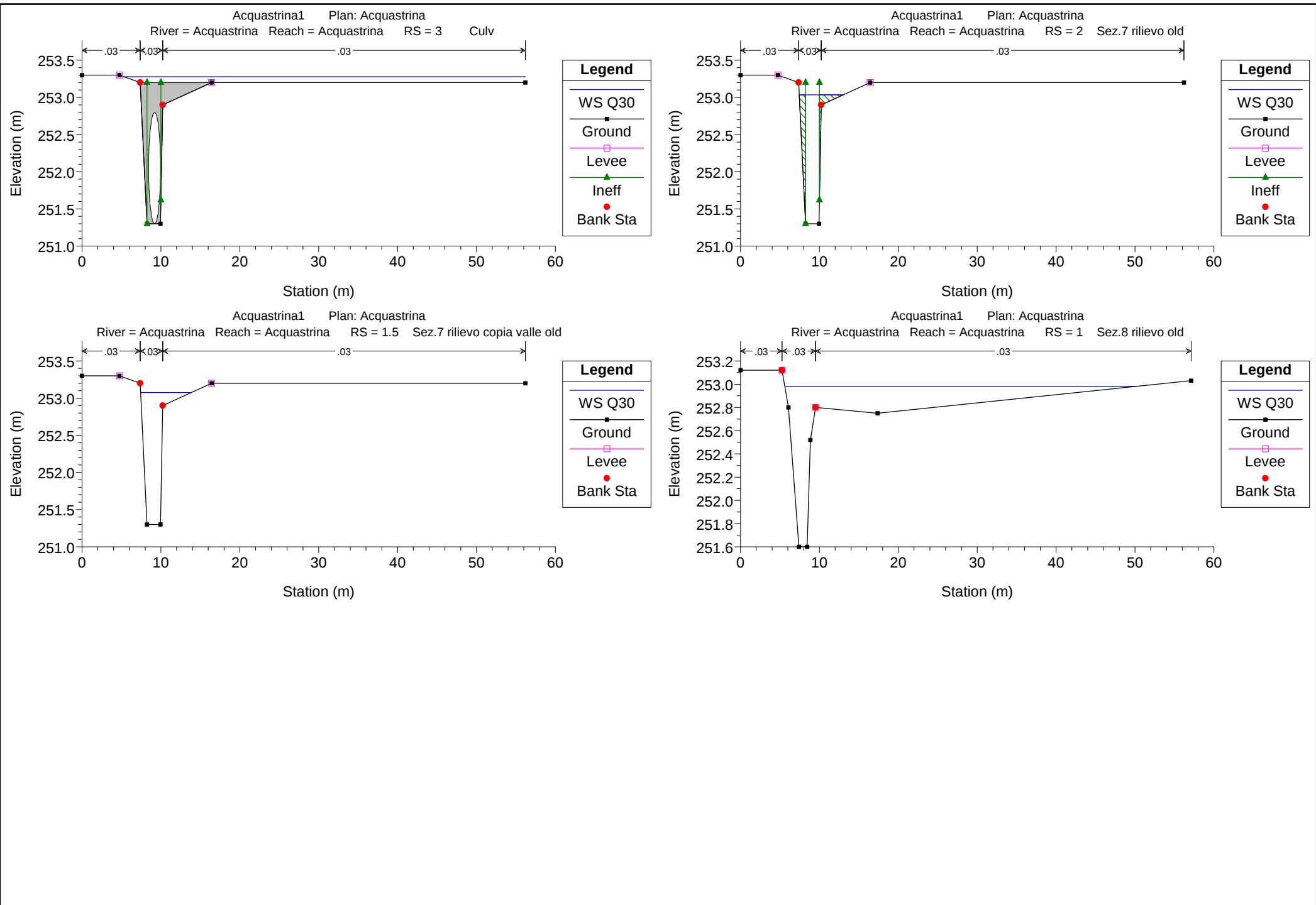












Acquastrina1 Plan: Acquastrina

Acquastrina Acquastrina

Elevation (m)

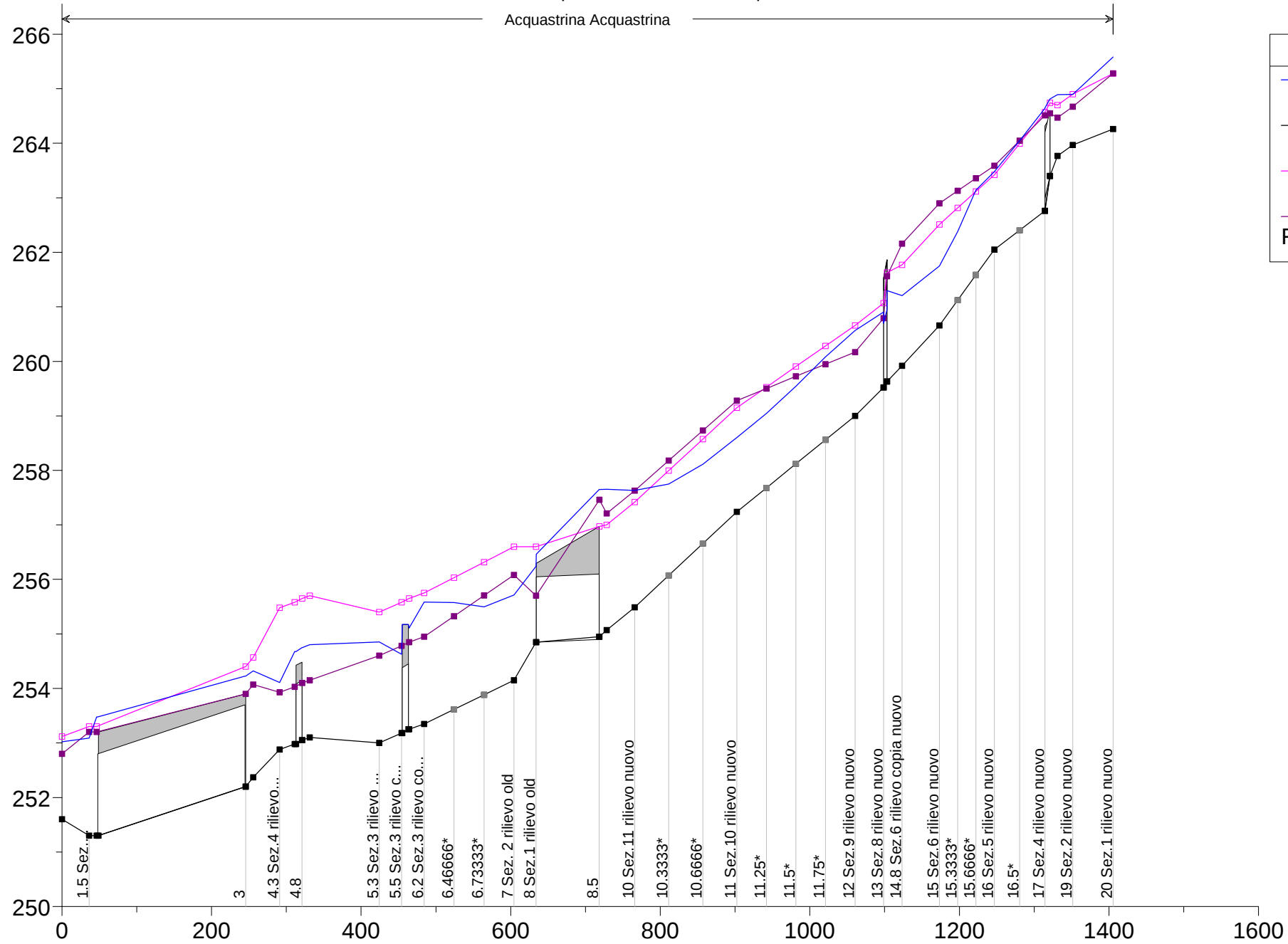
Legend

WS Q200

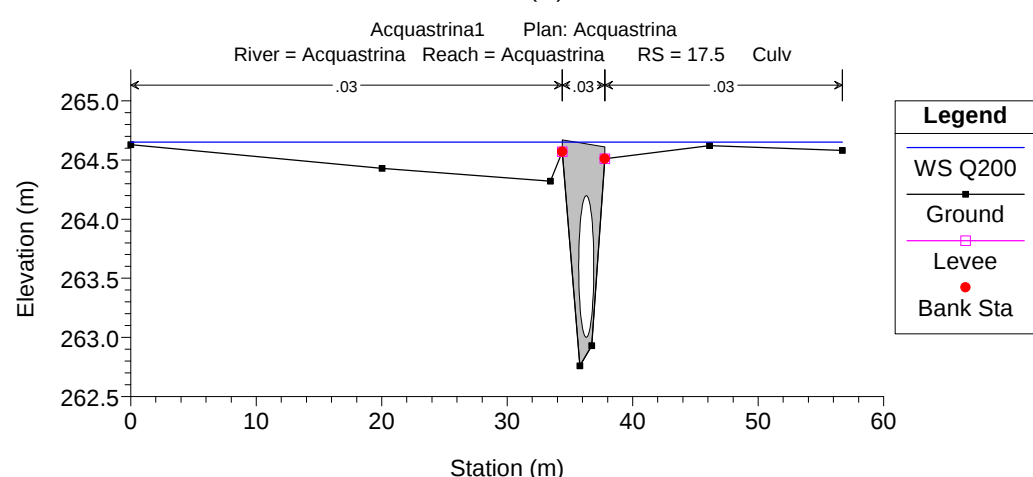
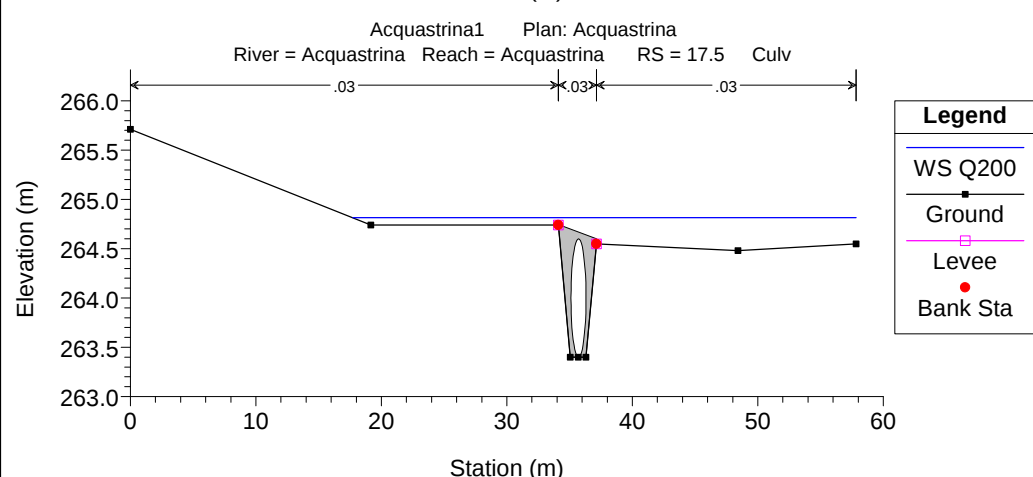
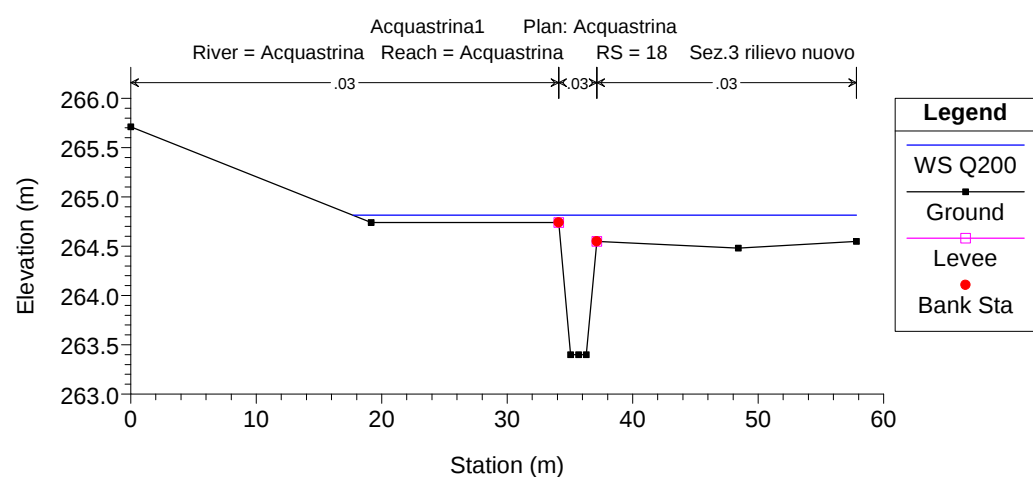
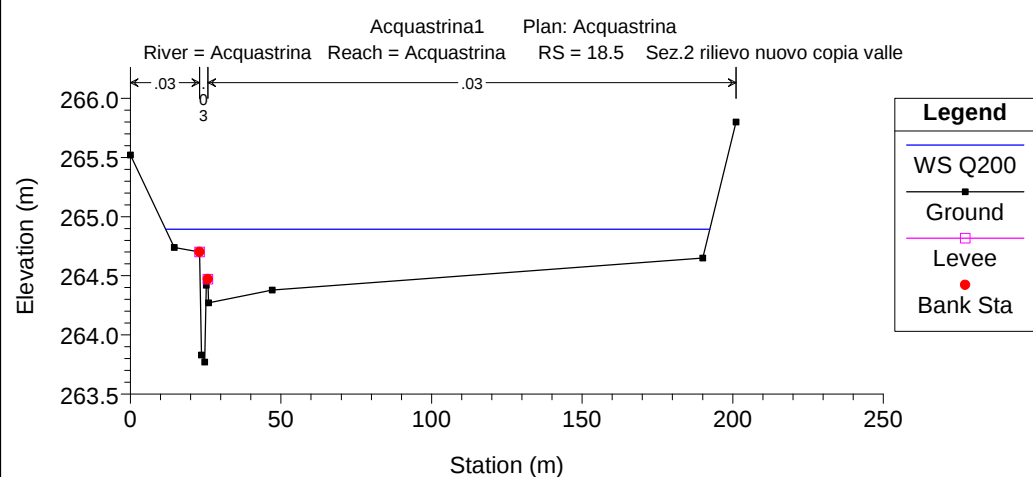
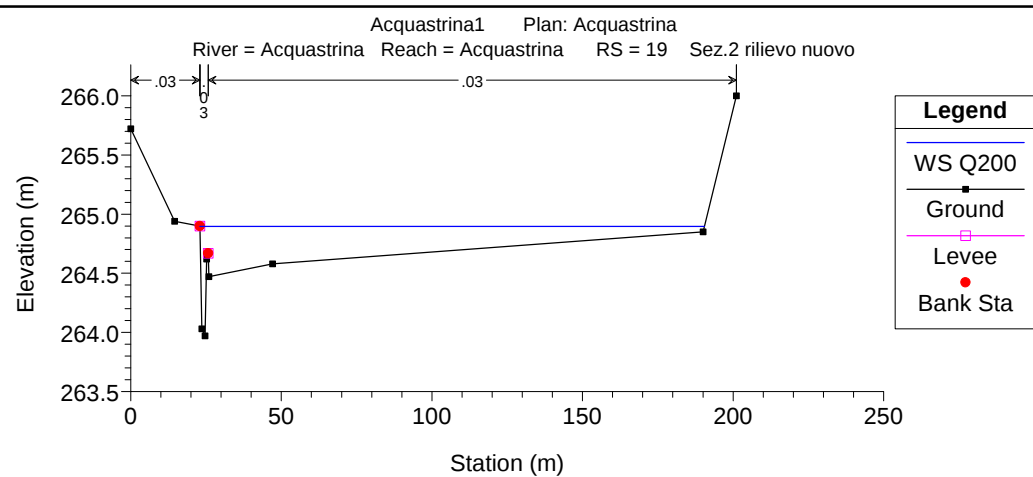
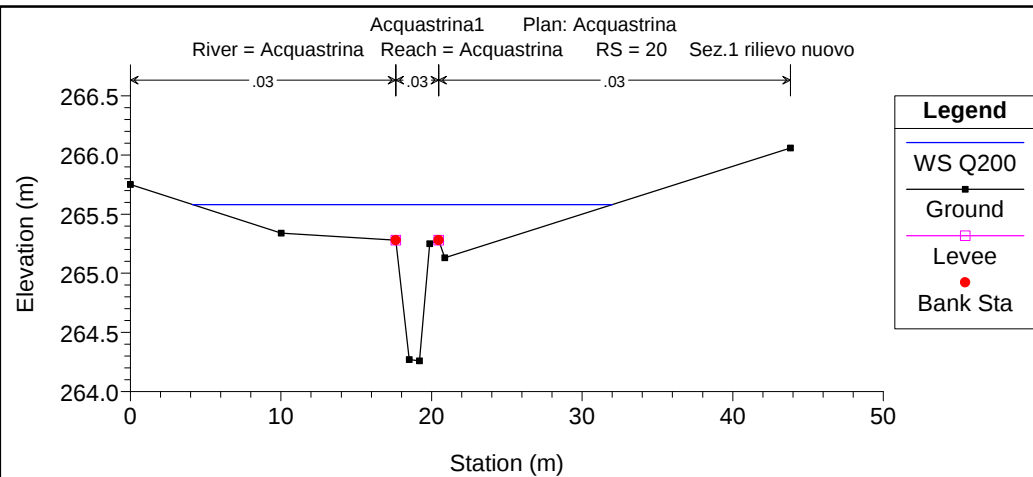
Ground

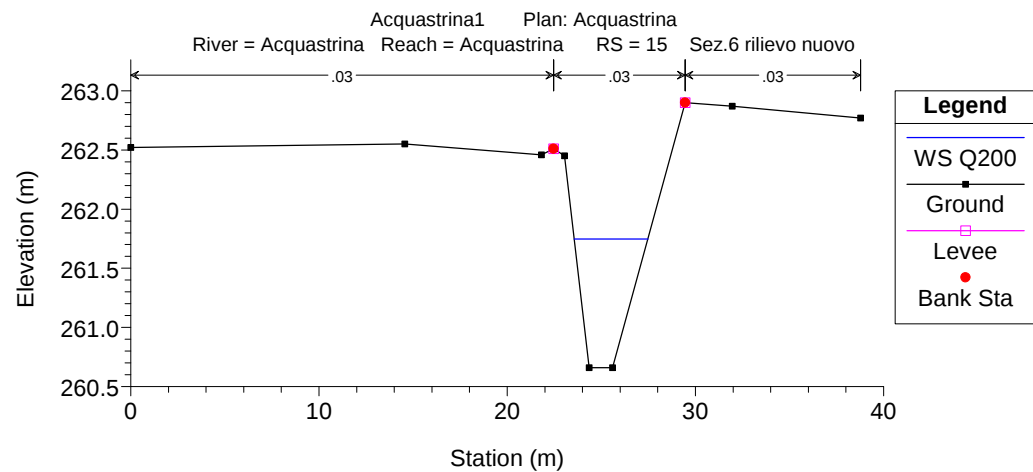
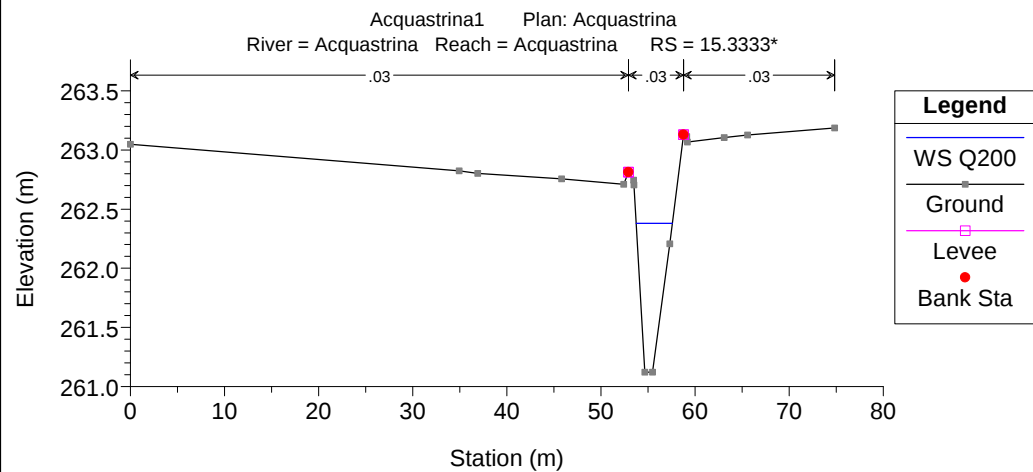
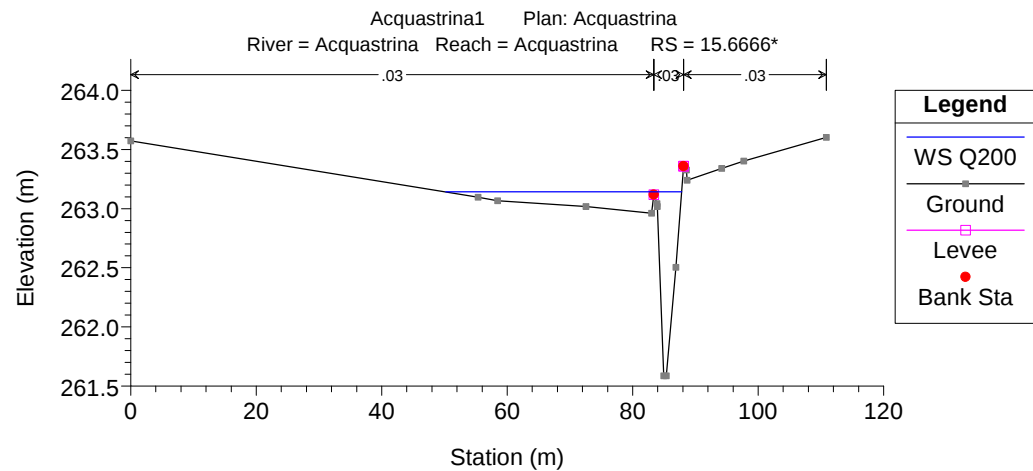
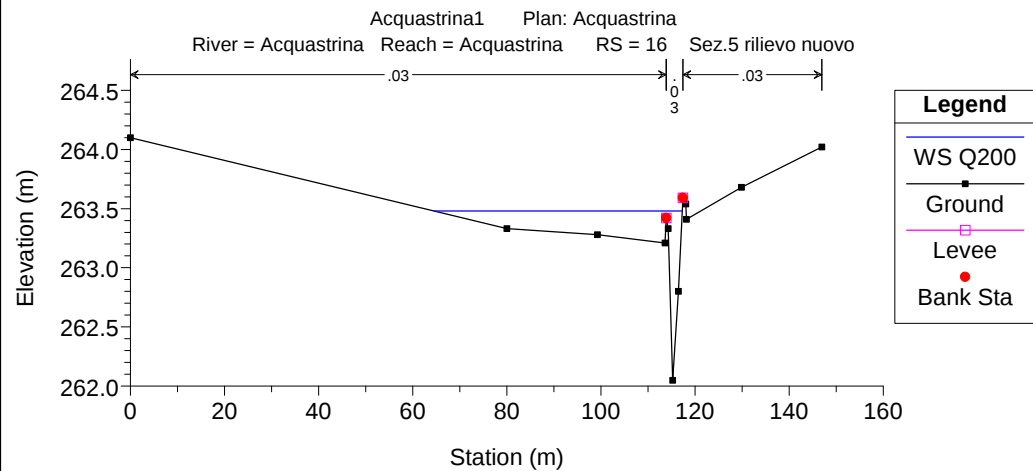
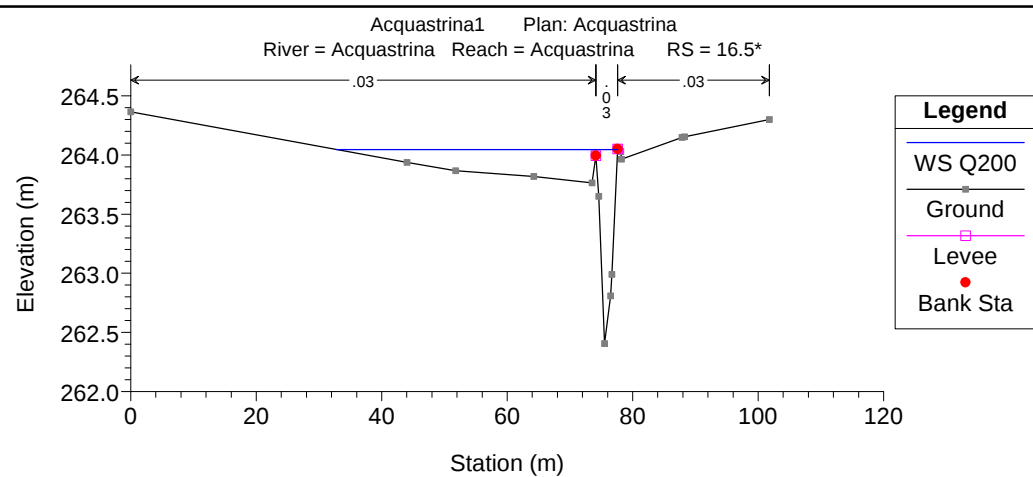
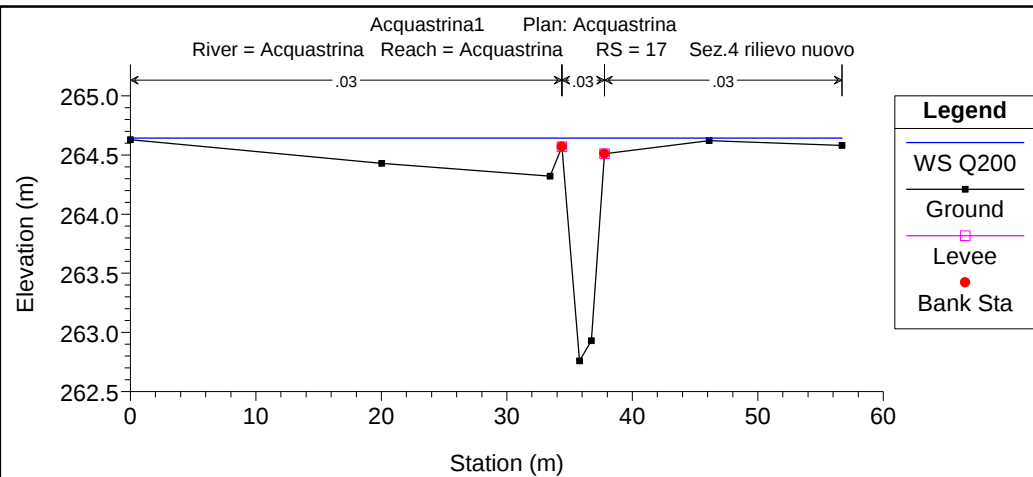
Left Levee

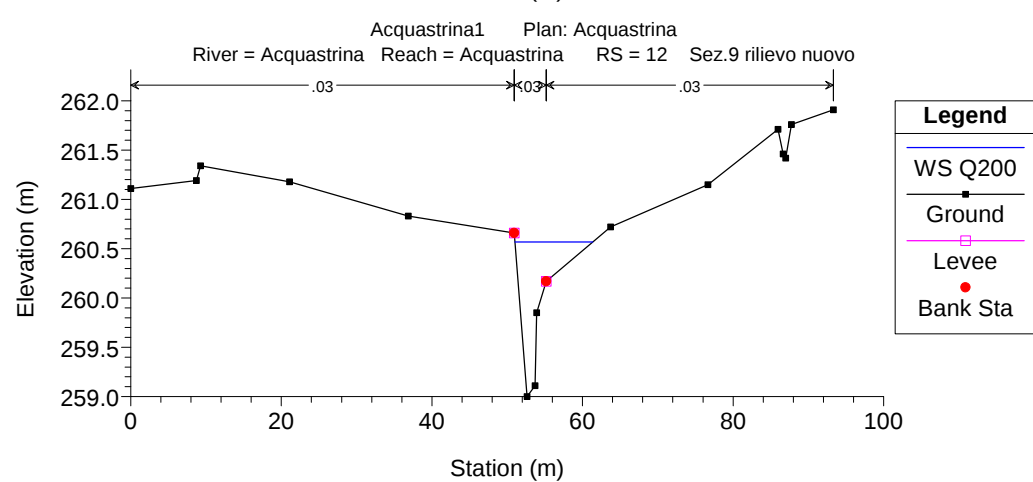
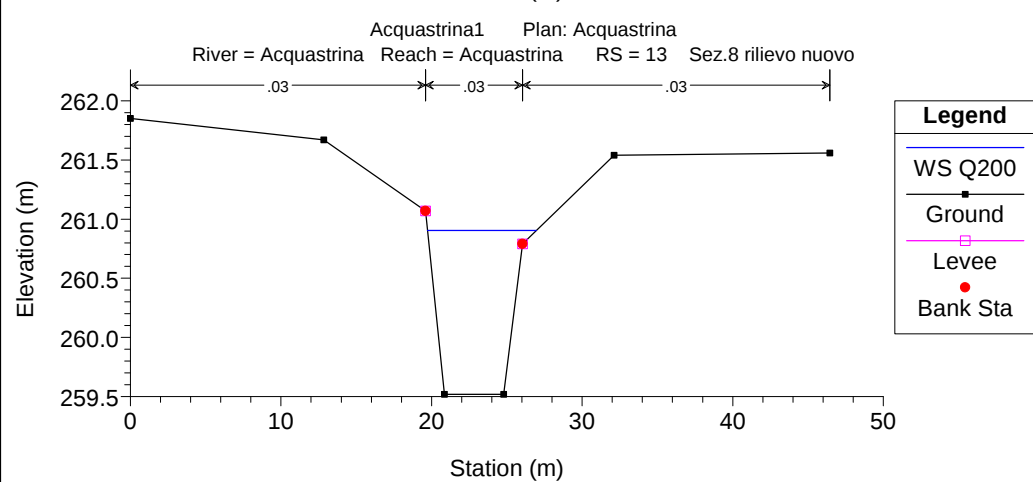
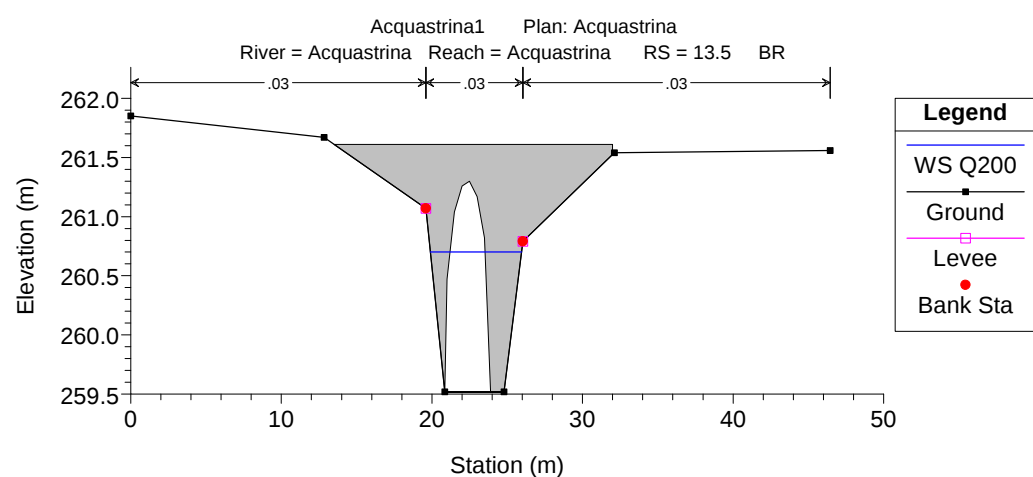
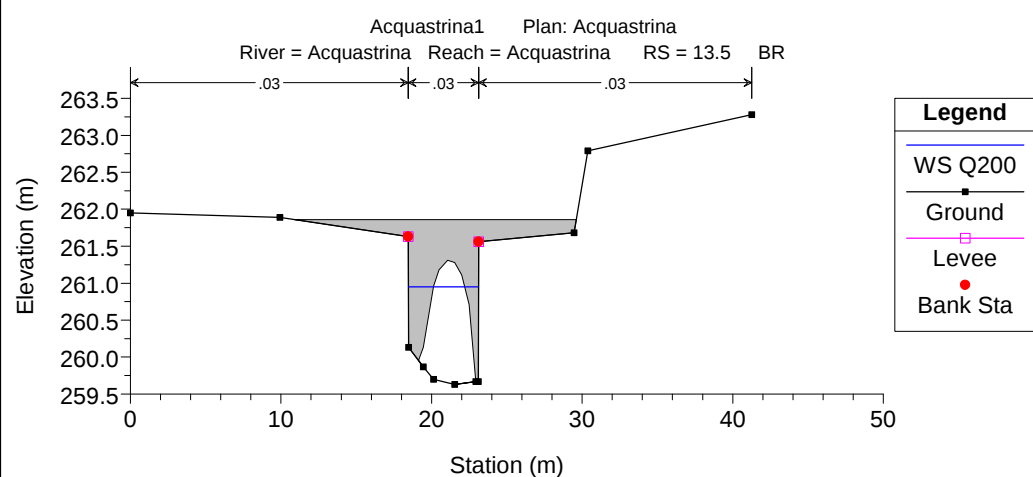
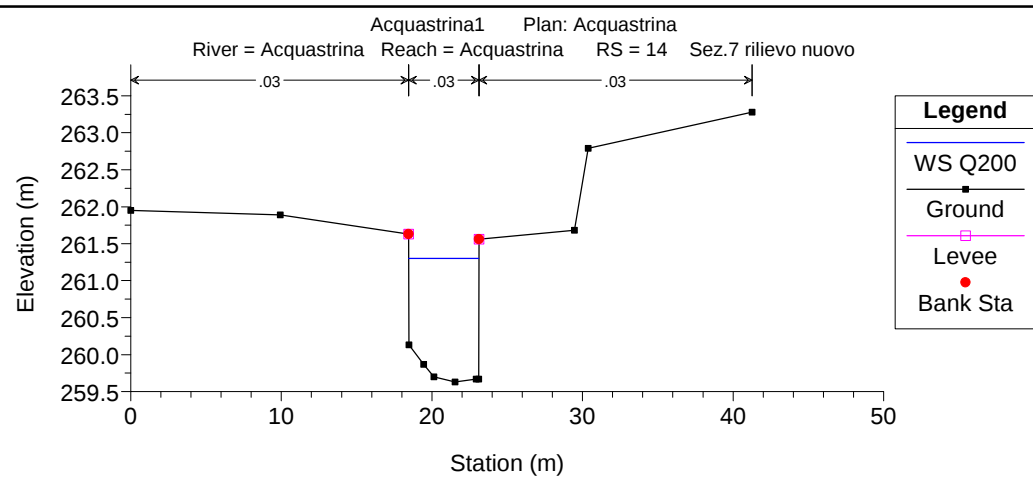
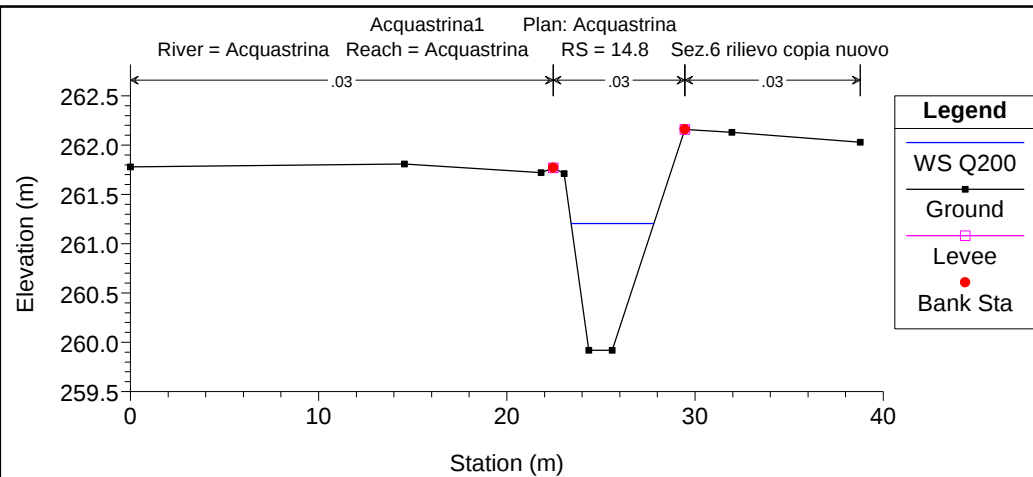
Right Levee

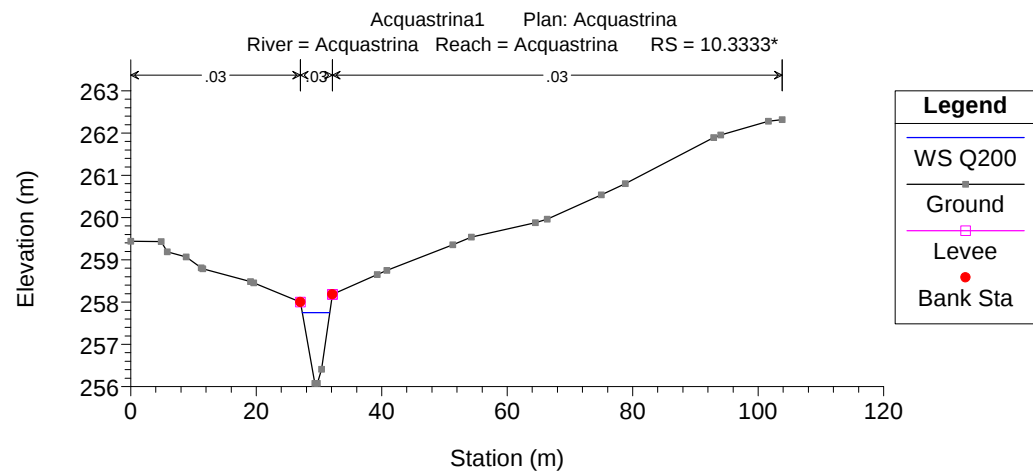
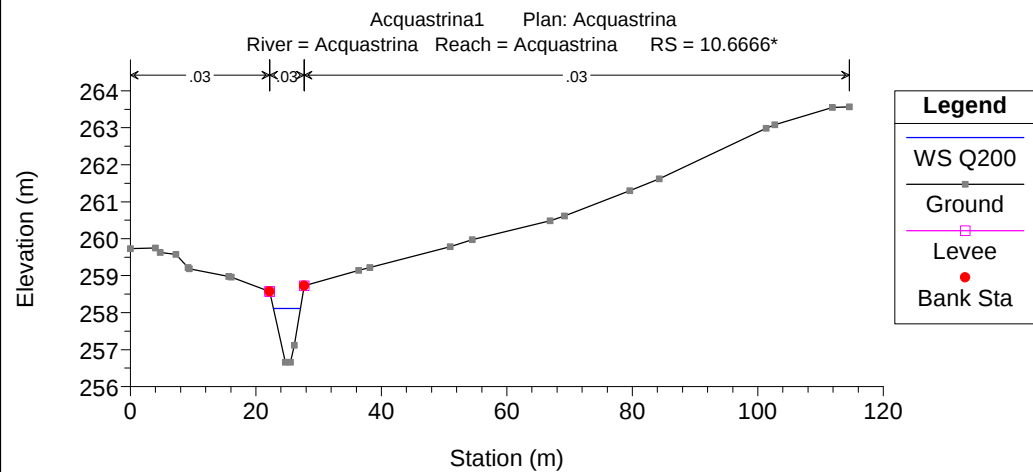
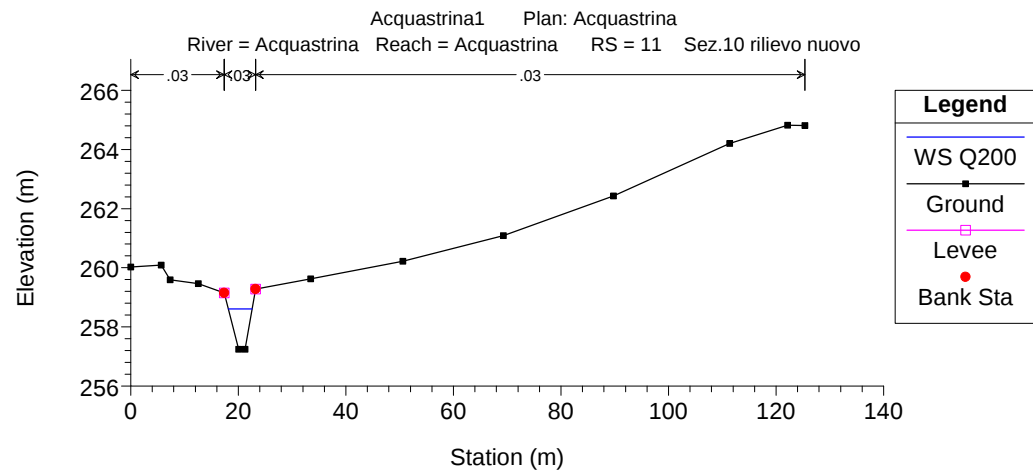
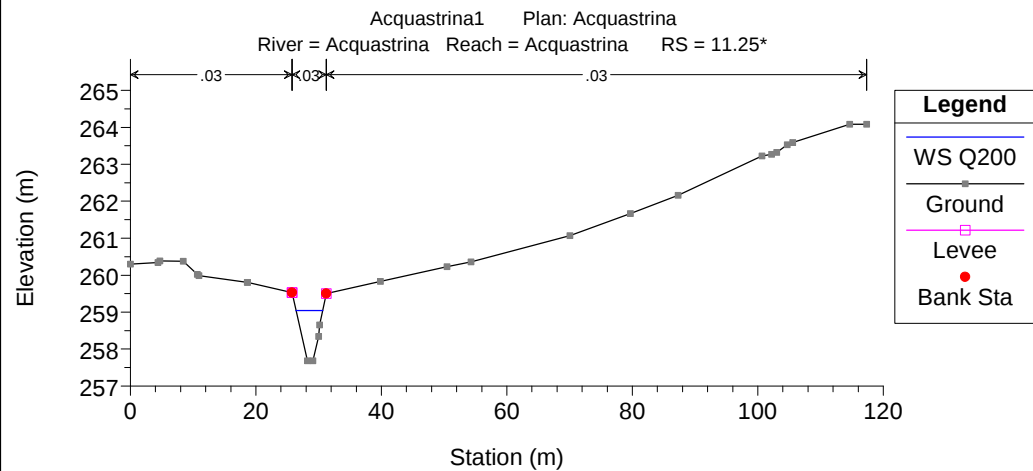
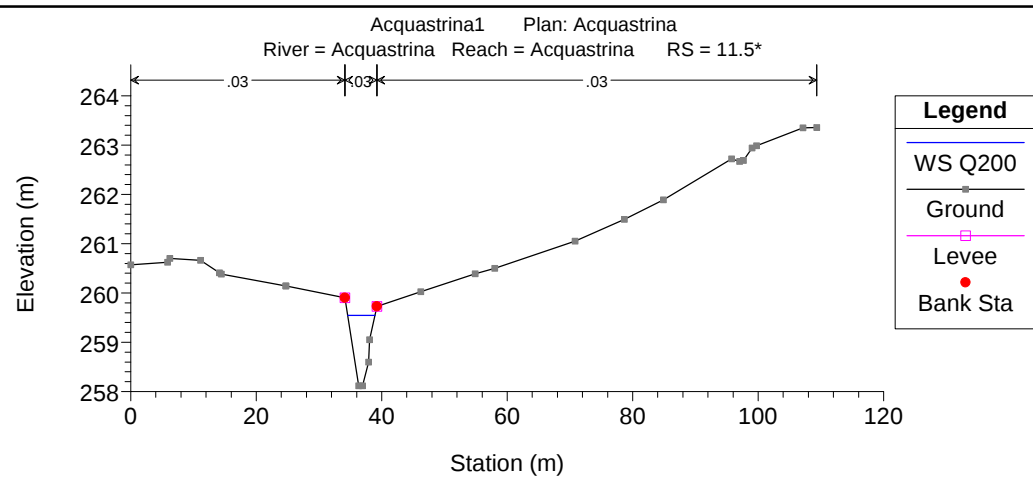
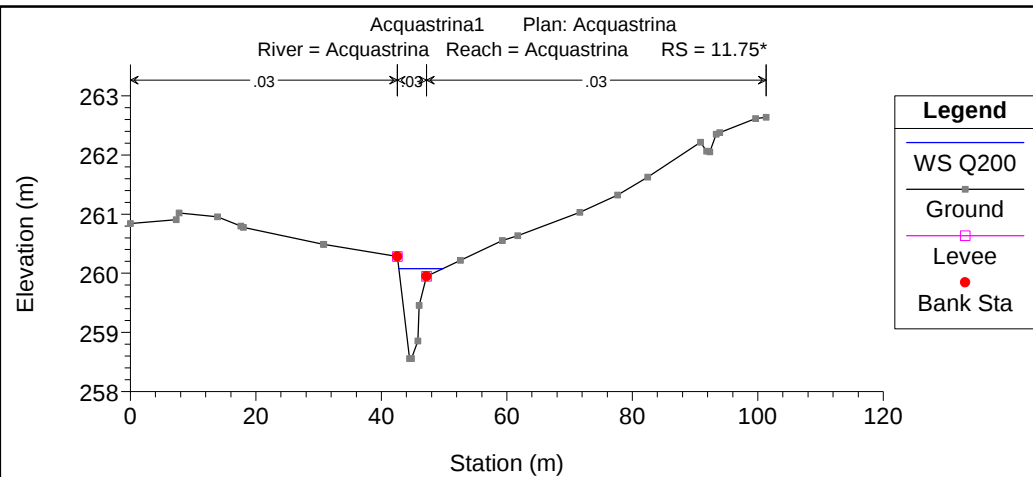


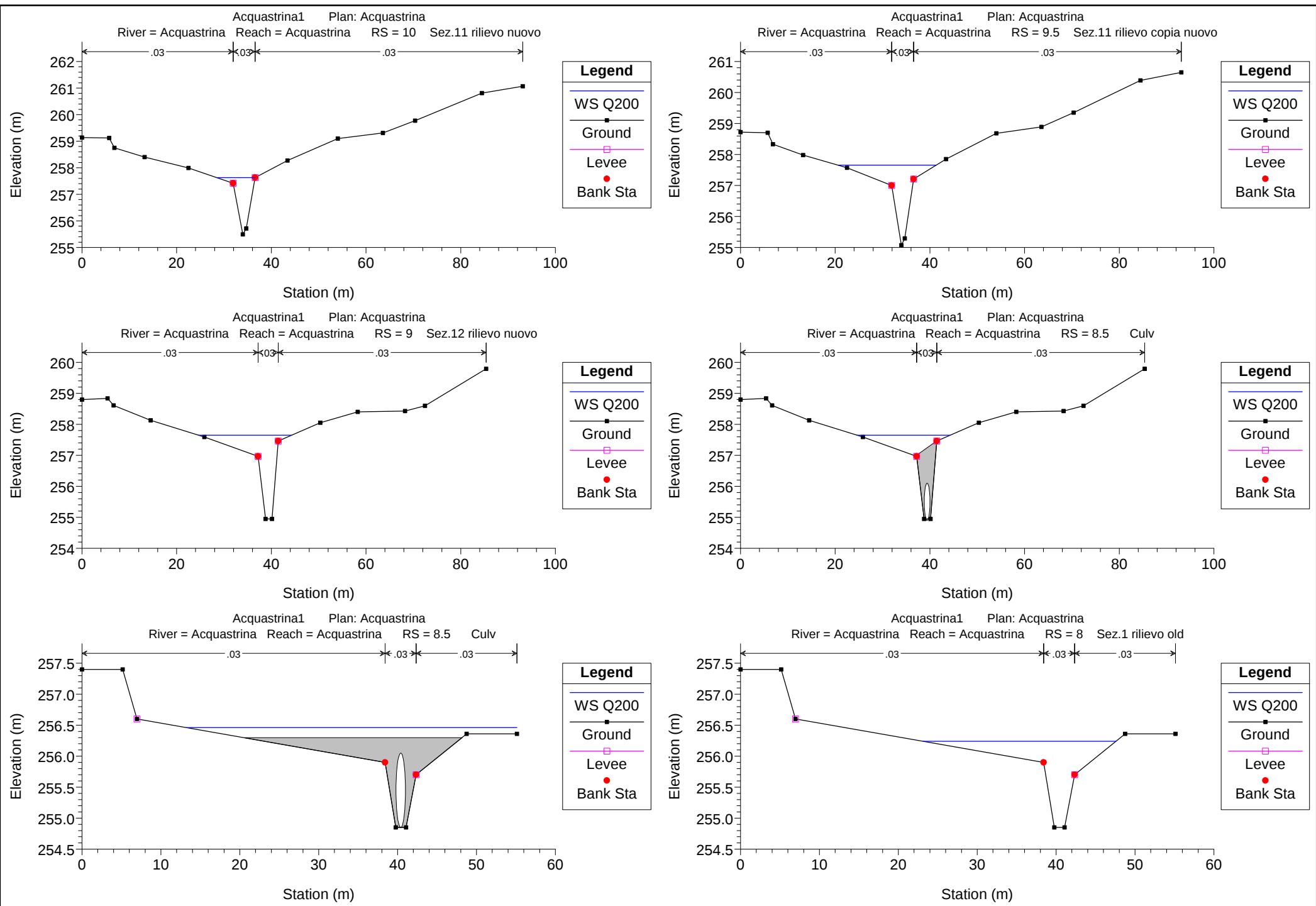
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Acquastrina	20	Q200	10.30	264.26	265.58	265.58	265.71	0.007022	2.03	7.80	27.88	0.71
Acquastrina	19	Q200	10.30	263.97	264.89	264.74	264.90	0.000597	0.49	35.26	167.48	0.20
Acquastrina	18.5	Q200	10.30	263.77	264.89	264.54	264.90	0.000065	0.20	70.56	180.68	0.07
Acquastrina	18	Q200	10.30	263.40	264.81	264.76	264.89	0.003151	1.52	10.48	40.12	0.48
Acquastrina	17.5		Culvert									
Acquastrina	17	Q200	10.30	262.76	264.64	264.64	264.73	0.003163	1.59	11.20	56.71	0.47
Acquastrina	16.5*	Q200	10.30	262.41	264.05	264.05	264.14	0.004949	1.76	9.92	44.78	0.59
Acquastrina	16	Q200	10.30	262.05	263.48	263.48	263.56	0.006546	1.73	10.22	52.72	0.67
Acquastrina	15.6666*	Q200	10.30	261.59	263.14	263.21	263.36	0.008830	2.30	6.83	37.58	0.82
Acquastrina	15.3333*	Q200	10.30	261.12	262.38	262.53	263.00	0.021133	3.49	2.95	3.86	1.27
Acquastrina	15	Q200	10.30	260.66	261.75	261.95	262.43	0.024447	3.67	2.81	3.92	1.38
Acquastrina	14.8	Q200	10.30	259.92	261.21	261.21	261.62	0.012307	2.84	3.63	4.40	1.00
Acquastrina	14	Q200	10.30	259.63	261.30	260.54	261.40	0.001941	1.43	7.20	4.66	0.37
Acquastrina	13.5		Bridge									
Acquastrina	13	Q200	10.30	259.52	260.90	260.35	261.01	0.001980	1.44	7.21	7.22	0.43
Acquastrina	12	Q200	10.30	259.00	260.57	260.57	260.83	0.008084	2.38	5.03	10.33	0.79
Acquastrina	11.75*	Q200	10.30	258.56	260.08	260.11	260.45	0.010964	2.70	3.96	7.06	0.93
Acquastrina	11.5*	Q200	10.30	258.12	259.54	259.56	259.97	0.013090	2.90	3.56	4.31	1.02
Acquastrina	11.25*	Q200	10.30	257.68	259.04	259.05	259.47	0.012635	2.89	3.56	4.26	1.01
Acquastrina	11	Q200	10.30	257.24	258.60	258.55	258.97	0.010248	2.67	3.85	4.45	0.92
Acquastrina	10.6666*	Q200	10.30	256.66	258.11	258.06	258.49	0.010636	2.73	3.78	4.27	0.93
Acquastrina	10.3333*	Q200	10.30	256.07	257.75	257.58	258.05	0.007921	2.45	4.21	4.35	0.79
Acquastrina	10	Q200	10.30	255.49	257.63	257.11	257.79	0.003235	1.78	6.06	8.13	0.51
Acquastrina	9.5	Q200	10.30	255.07	257.65	256.69	257.70	0.000792	1.08	12.36	20.69	0.27
Acquastrina	9	Q200	10.30	254.95	257.65	256.38	257.69	0.000728	1.02	12.71	19.72	0.24
Acquastrina	8.5		Culvert									
Acquastrina	8	Q200	10.30	254.85	256.24	256.17	256.37	0.003289	1.82	8.23	24.46	0.56
Acquastrina	7	Q200	10.30	254.15	255.71	255.64	256.12	0.011404	2.84	3.63	3.64	0.91
Acquastrina	6.73333*	Q200	10.30	253.88	255.50	255.41	255.75	0.006124	2.29	5.22	10.78	0.69
Acquastrina	6.46666*	Q200	10.30	253.62	255.58	255.03	255.61	0.000803	1.03	14.54	32.45	0.26
Acquastrina	6.2	Q200	10.30	253.35	255.59	254.61	255.59	0.000152	0.52	30.16	45.80	0.12
Acquastrina	6	Q200	10.30	253.25	255.11	254.70	255.54	0.003535	2.92	3.53	30.82	0.68
Acquastrina	5.8		Culvert									
Acquastrina	5.5	Q200	10.30	253.18	254.63	254.63	255.34	0.008162	3.76	2.74	11.96	1.00
Acquastrina	5.3	Q200	10.30	253.00	254.85	254.26	254.89	0.000735	1.00	14.58	30.48	0.25
Acquastrina	5.1	Q200	10.30	253.10	254.80	254.50	254.82	0.000579	0.84	19.29	39.76	0.23
Acquastrina	5	Q200	10.30	253.05	254.75	254.70	254.81	0.003489	1.46	11.21	39.71	0.52
Acquastrina	4.8		Culvert									
Acquastrina	4.5	Q200	10.30	252.98	254.68	254.68	254.77	0.005881	1.79	9.41	39.71	0.66
Acquastrina	4.3	Q200	10.30	252.88	254.11	254.28	254.56	0.014064	3.12	4.25	17.10	1.05
Acquastrina	4.2	Q200	10.30	252.37	254.32	253.60	254.38	0.000937	1.11	11.73	25.79	0.31
Acquastrina	4	Q200	10.30	252.20	254.22	254.22	254.35	0.006063	1.80	7.76	27.95	0.70
Acquastrina	3		Culvert									
Acquastrina	2	Q200	10.30	251.30	253.48	253.36	253.50	0.001089	0.92	18.37	56.19	0.24
Acquastrina	1.5	Q200	10.30	251.30	253.09	252.71	253.39	0.007752	2.47	4.46	6.76	0.66
Acquastrina	1	Q200	10.30	251.60	253.02	253.02	253.11	0.004846	1.71	10.36	50.20	0.60

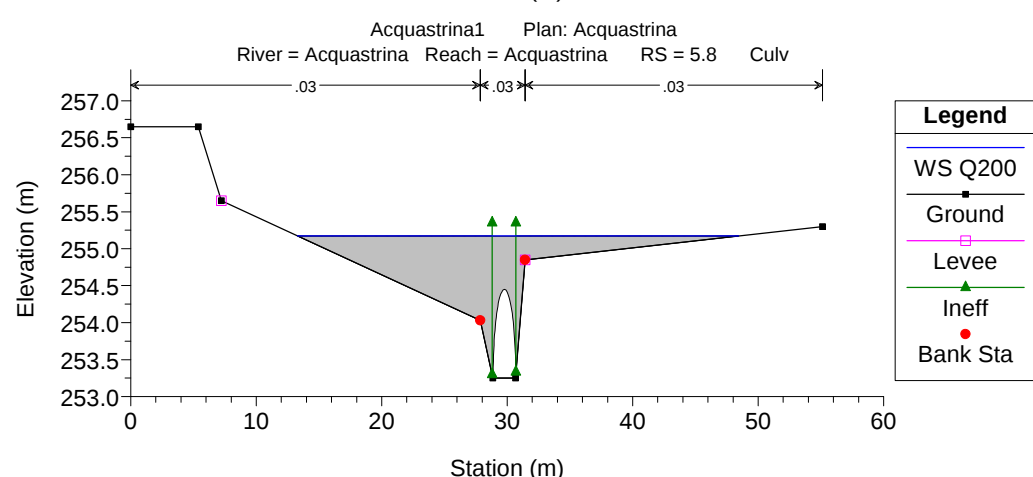
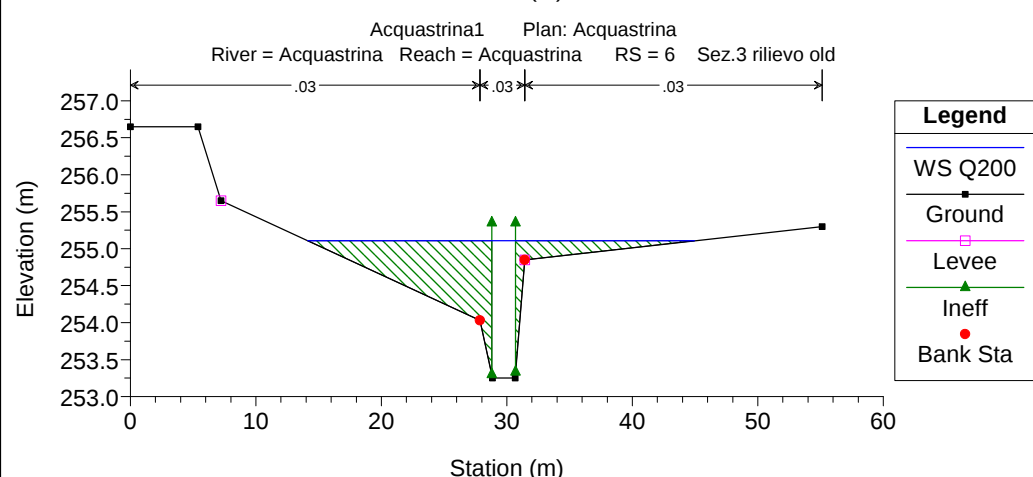
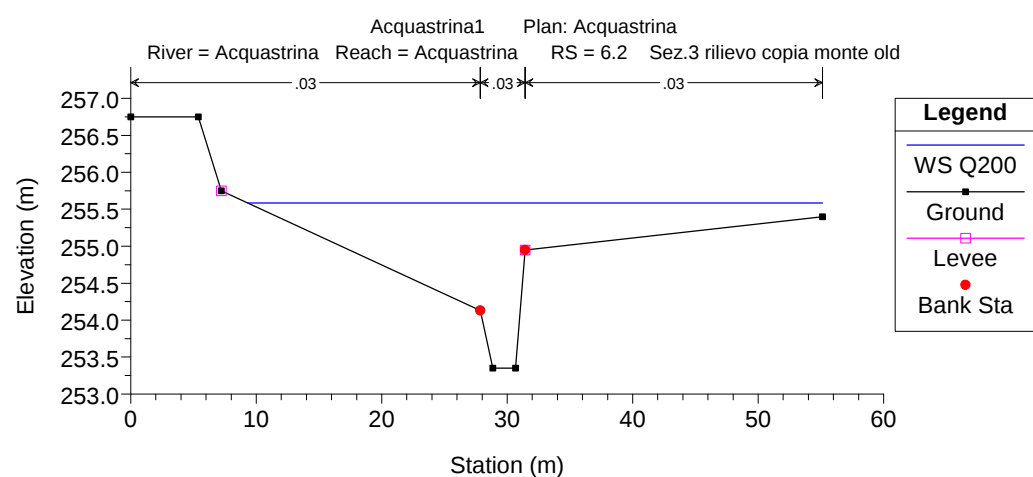
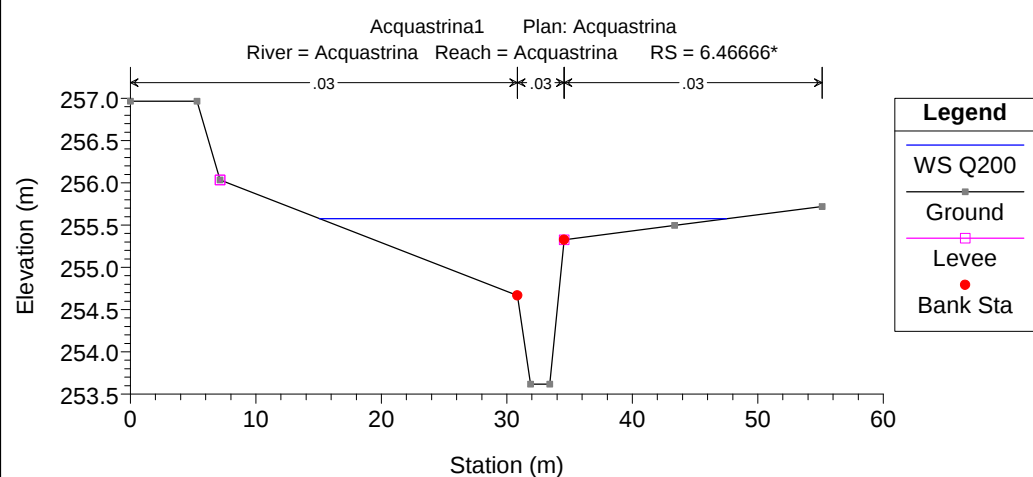
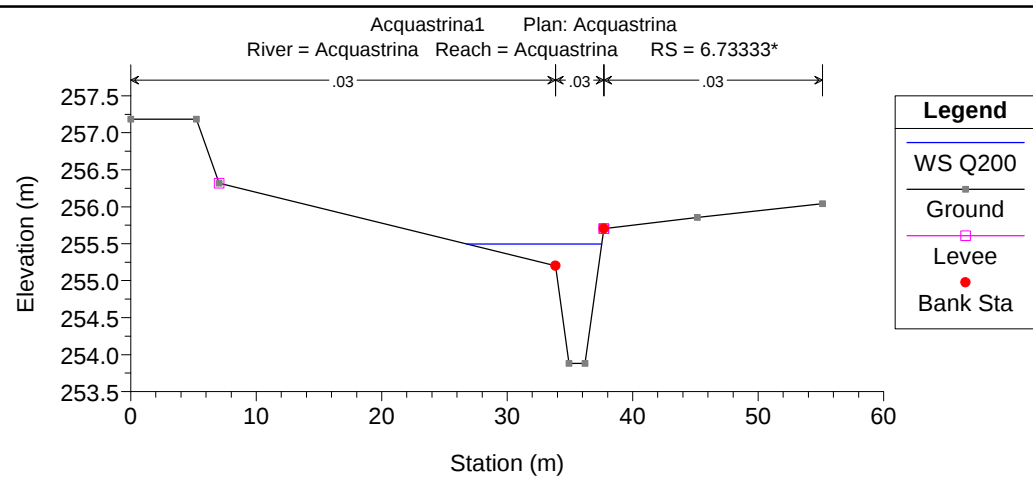
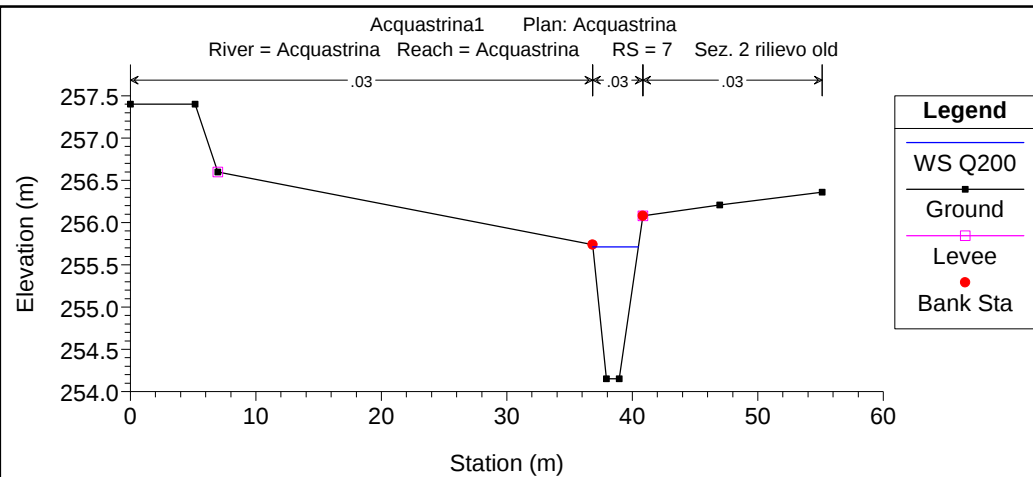


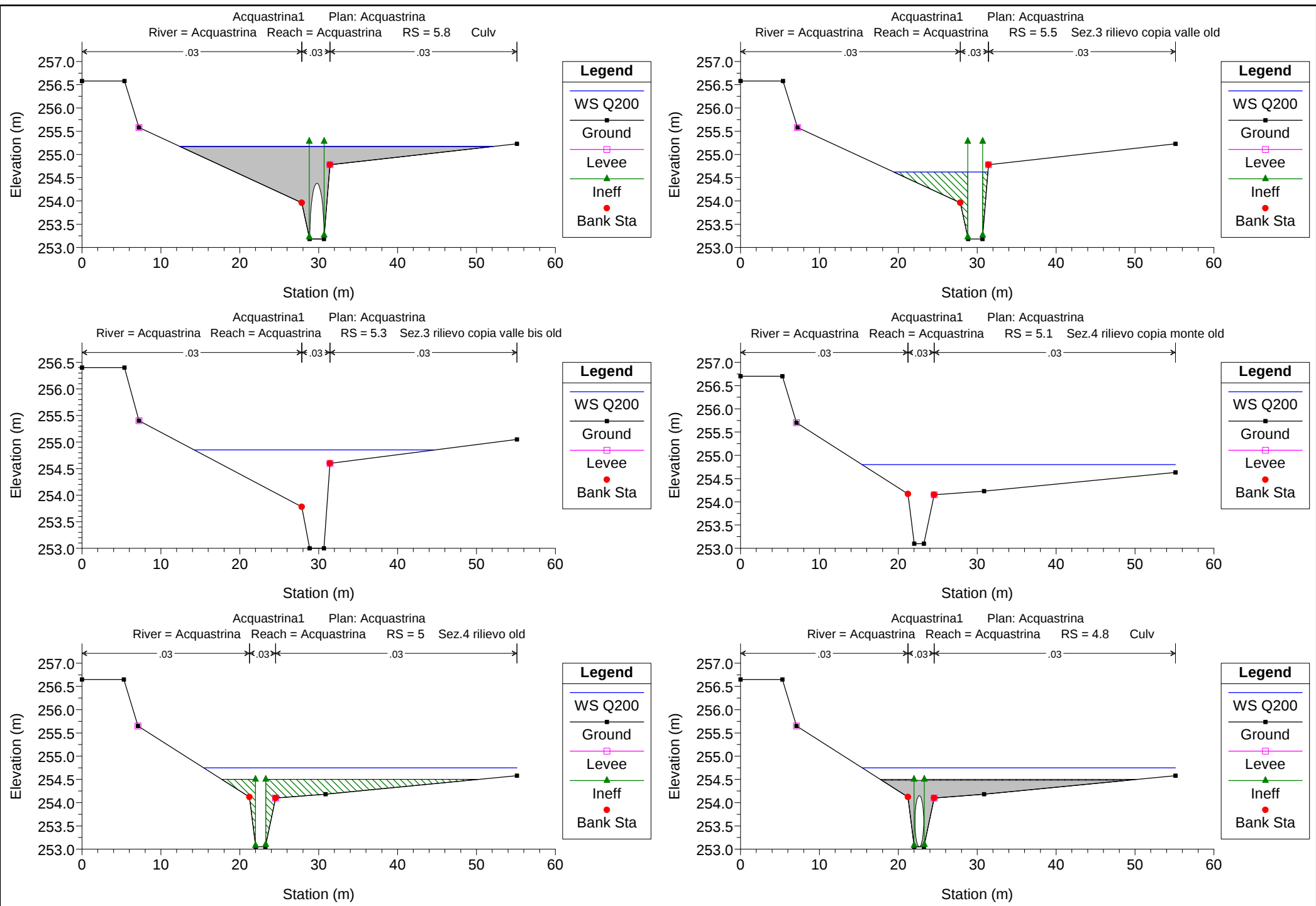


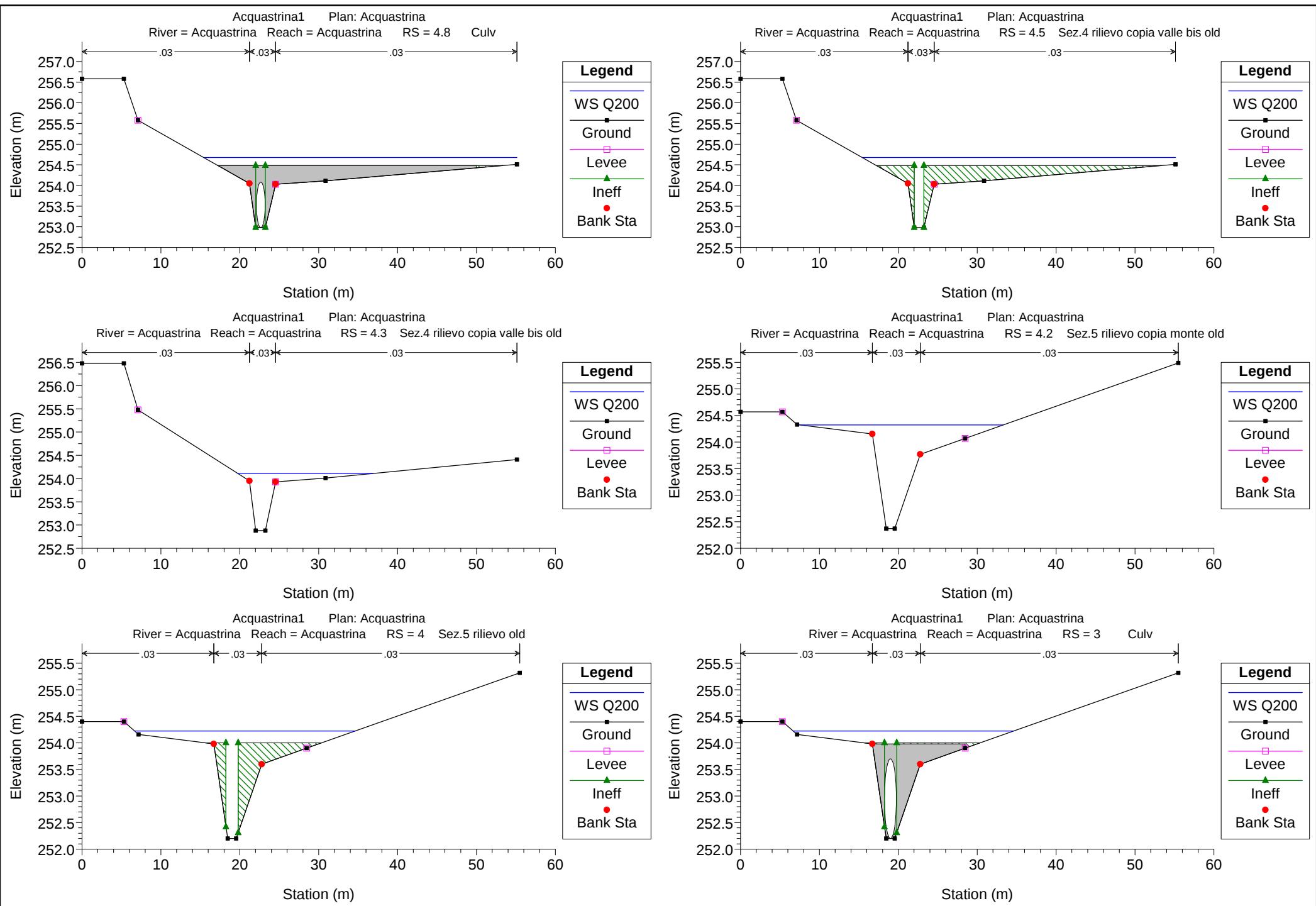


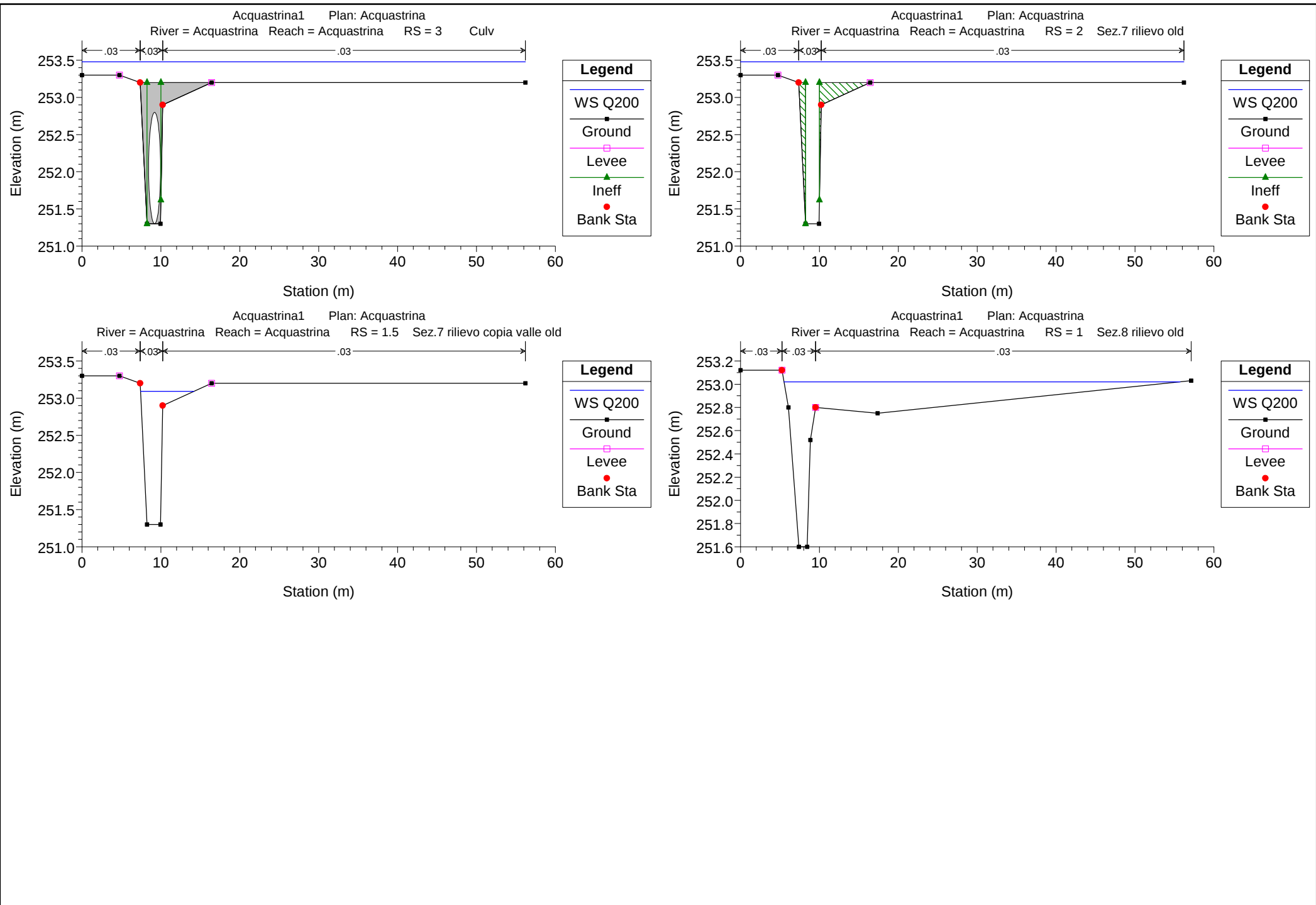












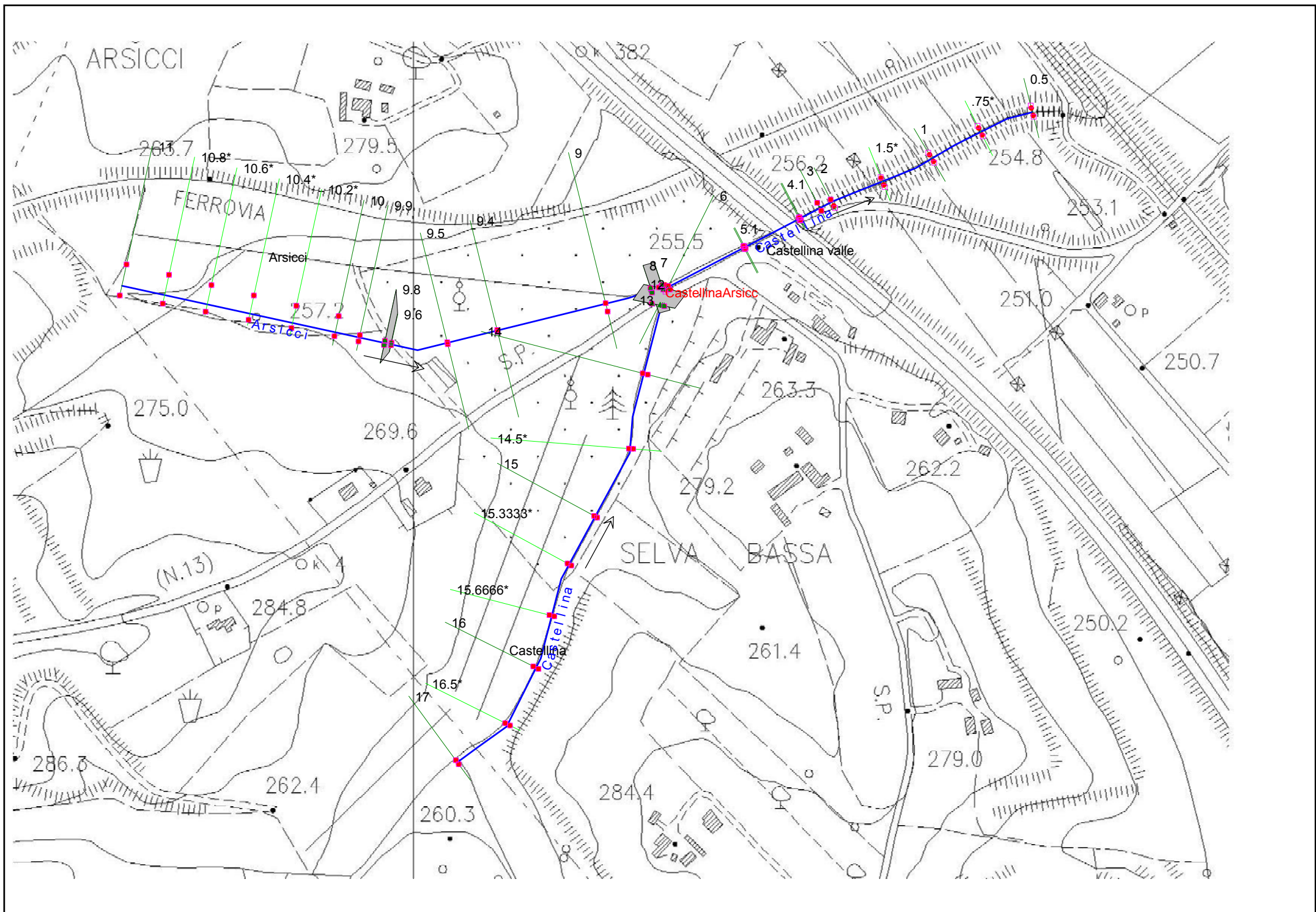
Fosso Arsicci e Castellina

Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

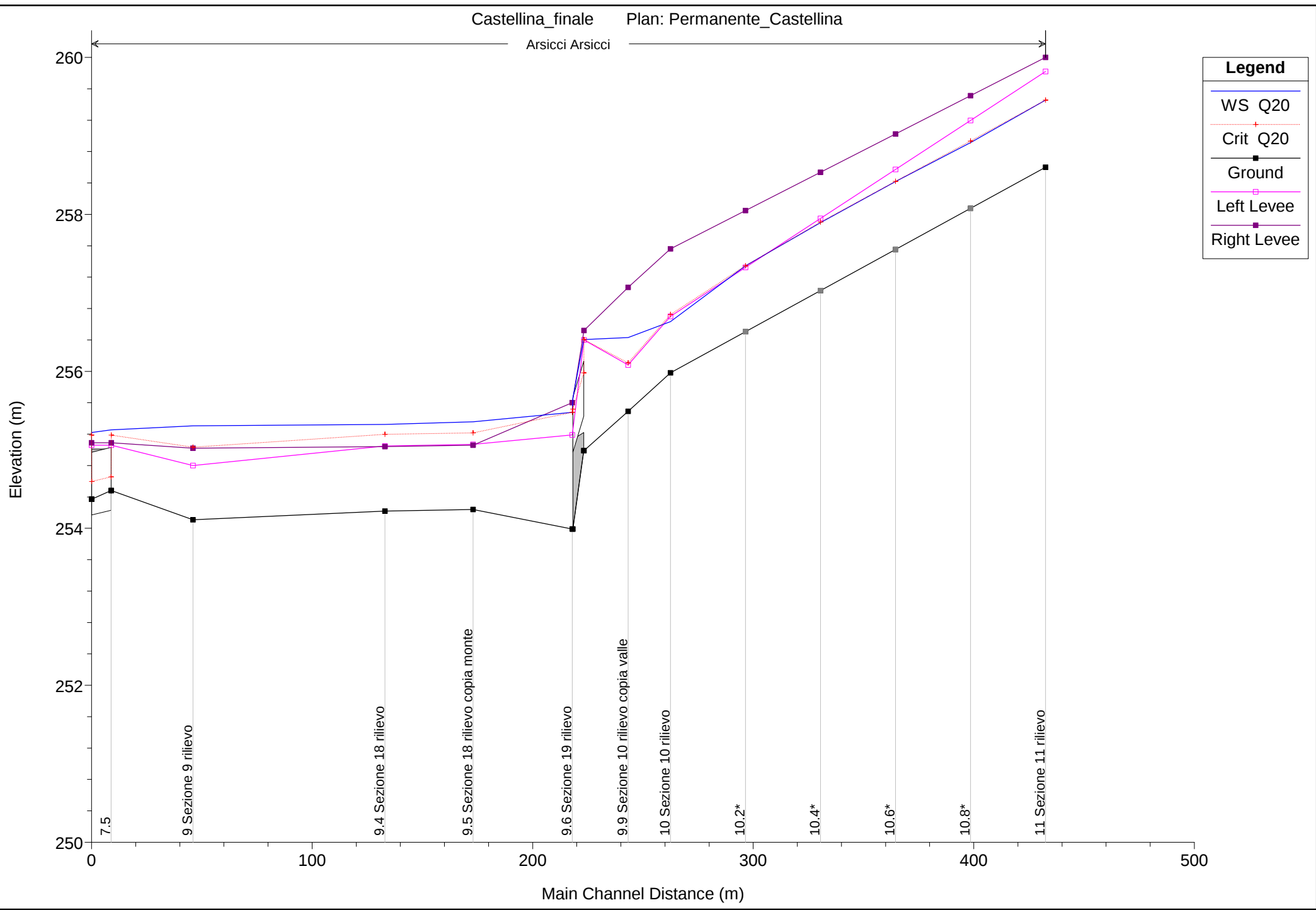
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

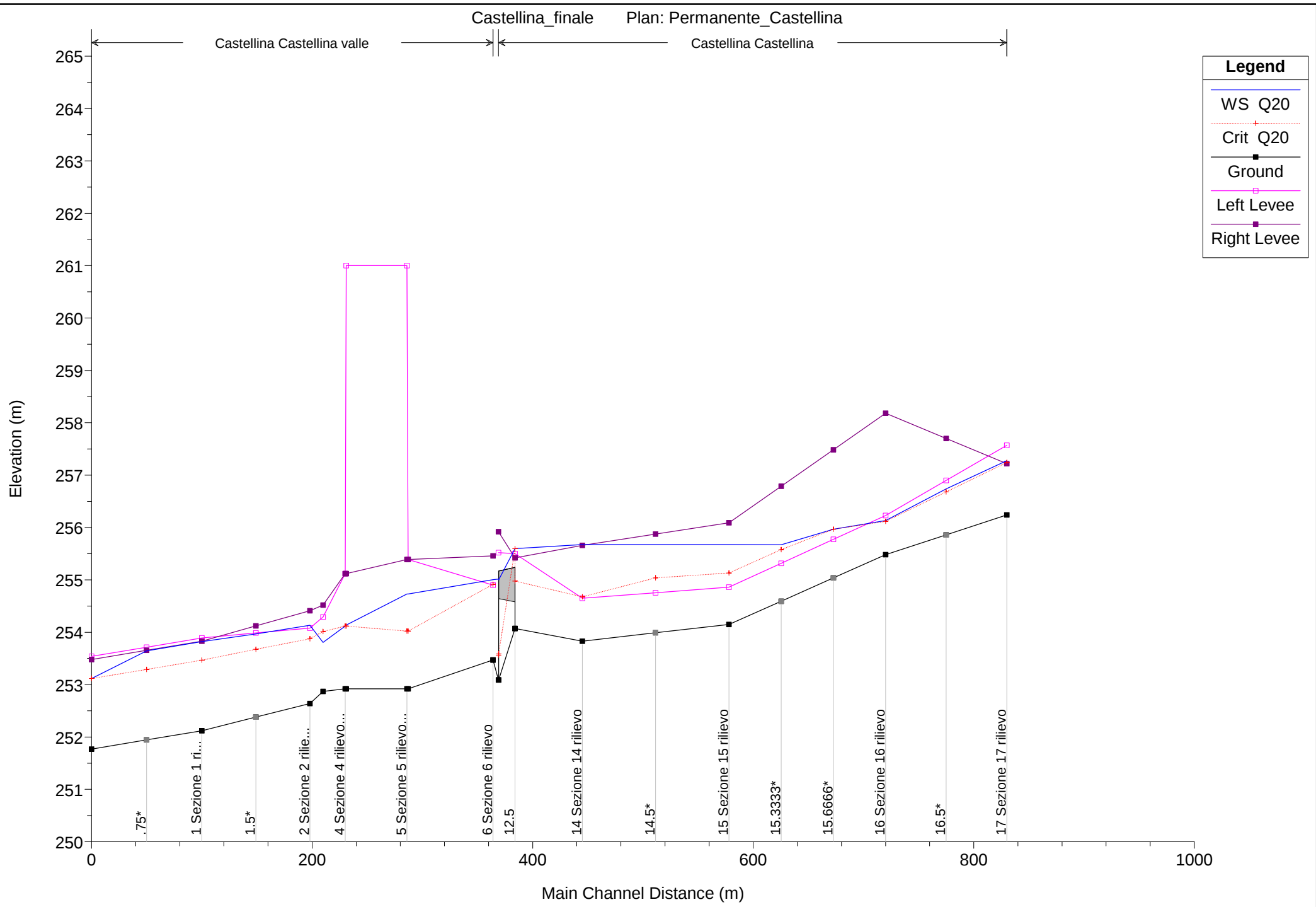
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni



Castellina_finale Plan: Permanente_Castellina

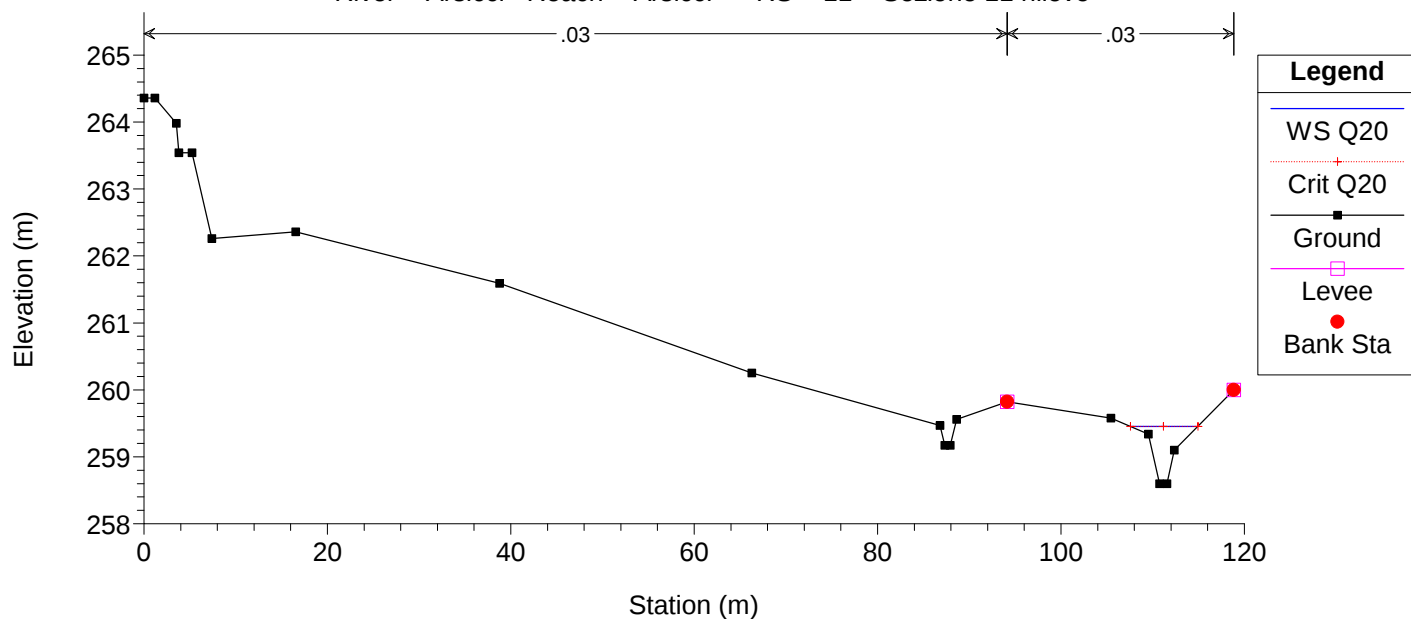


Castellina_finale Plan: Permanente_Castellina

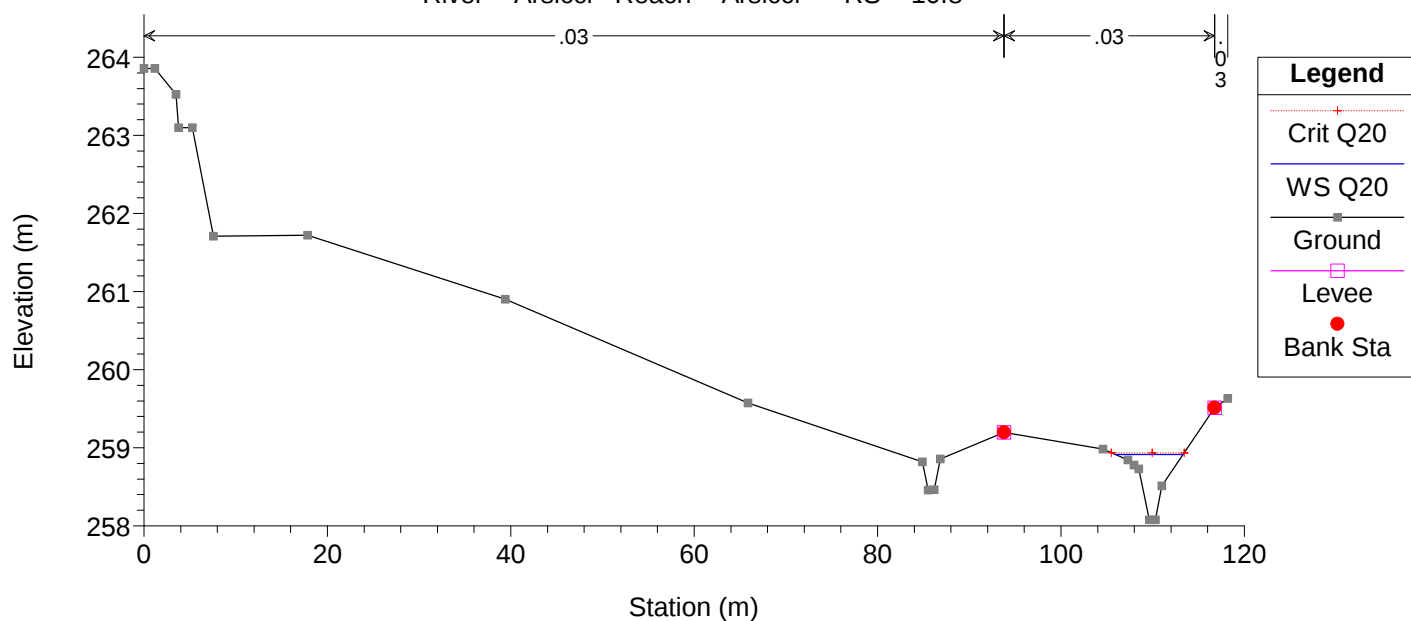


River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Castellina	Castellina	17	Q20	5.50	256.24	257.28	257.24	257.54	0.010265	2.25	2.50	6.11	0.91
Castellina	Castellina	16.5*	Q20	5.50	255.86	256.74	256.68	256.99	0.009715	2.22	2.48	3.73	0.87
Castellina	Castellina	16	Q20	5.50	255.48	256.13	256.12	256.40	0.012055	2.27	2.43	4.27	0.96
Castellina	Castellina	15.6666*	Q20	5.50	255.04	255.97	255.97	256.05	0.003665	1.47	6.04	36.48	0.54
Castellina	Castellina	15.3333*	Q20	5.50	254.59	255.67	255.58	255.69	0.001306	0.89	10.86	47.15	0.32
Castellina	Castellina	15	Q20	5.50	254.15	255.67	255.13	255.68	0.000052	0.20	37.73	79.83	0.06
Castellina	Castellina	14.5*	Q20	5.50	253.99	255.67	255.04	255.67	0.000013	0.12	59.47	87.96	0.03
Castellina	Castellina	14	Q20	5.50	253.83	255.67	254.68	255.67	0.000004	0.07	93.53	116.25	0.02
Castellina	Castellina	13	Q20	5.50	254.07	255.60	254.98	255.67	0.000907	1.33	7.23	37.06	0.34
Castellina	Castellina	12.5		Bridge									
Castellina	Castellina	12	Q20	5.50	253.09	255.02	253.56	255.03	0.000113	0.55	10.02	7.18	0.13
Castellina	Castellina valle	6	Q20	9.80	253.47	255.01	254.92	255.03	0.000542	0.53	14.75	25.73	0.17
Castellina	Castellina valle	5.1	Q20	9.80	252.92	254.73	254.02	254.94	0.002243	2.00	4.90	2.72	0.48
Castellina	Castellina valle	5	Q20	9.80	252.92	254.73	254.02	254.93	0.002253	2.00	4.89	2.72	0.48
Castellina	Castellina valle	4.1	Q20	9.80	252.92	254.14	254.12	254.69	0.008187	3.29	2.98	2.55	0.97
Castellina	Castellina valle	4	Q20	9.80	252.92	254.12	254.12	254.69	0.008493	3.34	2.94	2.55	0.99
Castellina	Castellina valle	3	Q20	9.80	252.87	253.81	254.02	254.50	0.012517	3.70	2.65	3.93	1.44
Castellina	Castellina valle	2	Q20	9.80	252.64	254.13	253.87	254.13	0.000002	0.04	108.85	38.76	0.01
Castellina	Castellina valle	1.5*	Q20	9.80	252.38	253.97	253.67	254.12	0.004530	1.72	5.79	8.33	0.60
Castellina	Castellina valle	1	Q20	9.80	252.12	253.82	253.47	253.94	0.003515	1.57	6.38	9.56	0.53
Castellina	Castellina valle	.75*	Q20	9.80	251.94	253.64	253.29	253.77	0.003541	1.57	6.36	9.52	0.53
Castellina	Castellina valle	0.5	Q20	9.80	251.77	253.12	253.12	253.44	0.013624	2.52	3.89	5.89	0.99
Arsicci	Arsicci	11	Q20	4.30	258.60	259.45	259.45	259.63	0.015134	1.84	2.33	7.36	1.05
Arsicci	Arsicci	10.8*	Q20	4.30	258.08	258.91	258.94	259.10	0.017189	1.92	2.25	7.40	1.11
Arsicci	Arsicci	10.6*	Q20	4.30	257.55	258.42	258.42	258.56	0.016329	1.69	2.54	9.86	1.06
Arsicci	Arsicci	10.4*	Q20	4.30	257.03	257.89	257.90	258.01	0.016918	1.50	2.86	13.77	1.05
Arsicci	Arsicci	10.2*	Q20	4.30	256.50	257.34	257.34	257.35	0.000697	0.29	11.14	39.75	0.21
Arsicci	Arsicci	10	Q20	4.30	255.98	256.63	256.72	257.22	0.136923	3.41	1.26	8.46	2.81
Arsicci	Arsicci	9.9	Q20	4.30	255.49	256.43	256.11	256.43	0.000119	0.23	20.10	43.93	0.10
Arsicci	Arsicci	9.8	Q20	4.30	254.99	256.41	256.41	256.43	0.001238	1.09	9.21	44.24	0.31
Arsicci	Arsicci	9.7		Culvert									
Arsicci	Arsicci	9.6	Q20	4.30	253.99	255.48	255.48	255.58	0.013007	1.68	3.13	12.91	0.66
Arsicci	Arsicci	9.5	Q20	4.30	254.24	255.36	255.22	255.36	0.000681	0.48	12.60	53.02	0.17
Arsicci	Arsicci	9.4	Q20	4.30	254.22	255.32	255.20	255.33	0.000791	0.51	11.98	52.42	0.18
Arsicci	Arsicci	9	Q20	4.30	254.11	255.30	255.03	255.31	0.000133	0.20	23.92	80.32	0.09
Arsicci	Arsicci	8	Q20	4.30	254.48	255.25	255.19	255.29	0.004580	0.77	5.51	27.53	0.48
Arsicci	Arsicci	7.5		Culvert									
Arsicci	Arsicci	7	Q20	4.30	254.37	255.19	255.19	255.25	0.013882	1.16	3.85	25.15	0.78

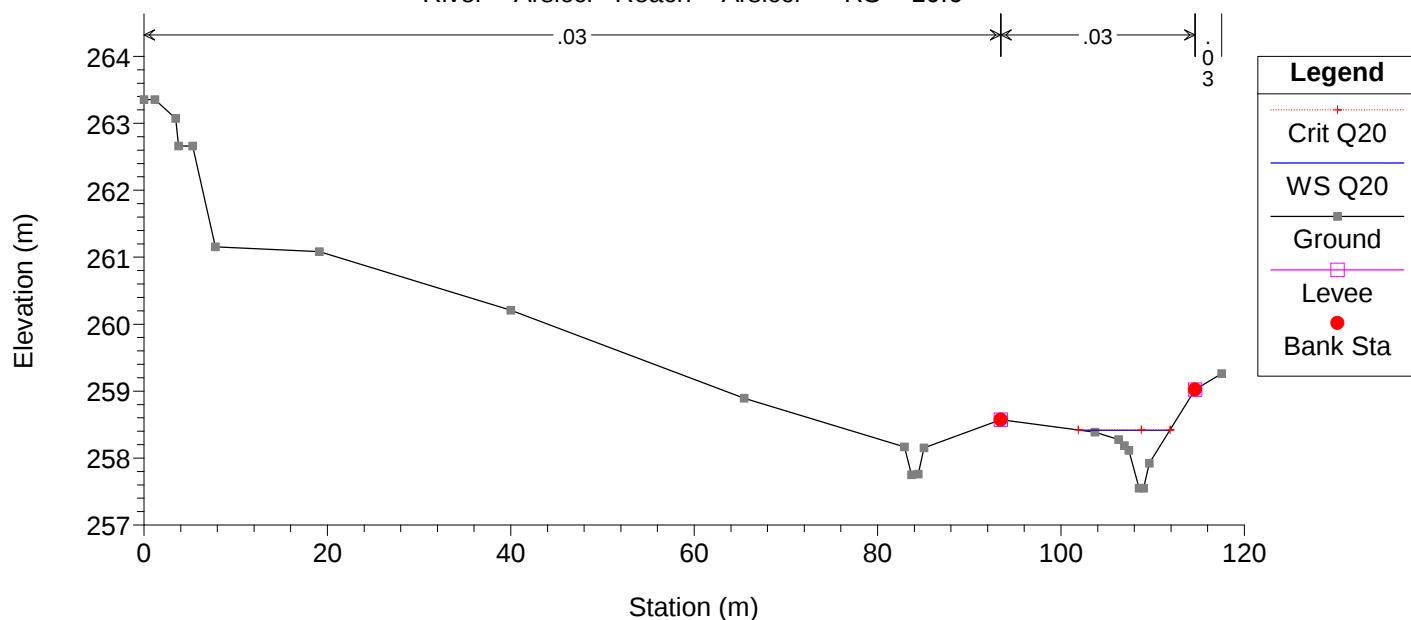
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 11 Sezione 11 rilievo

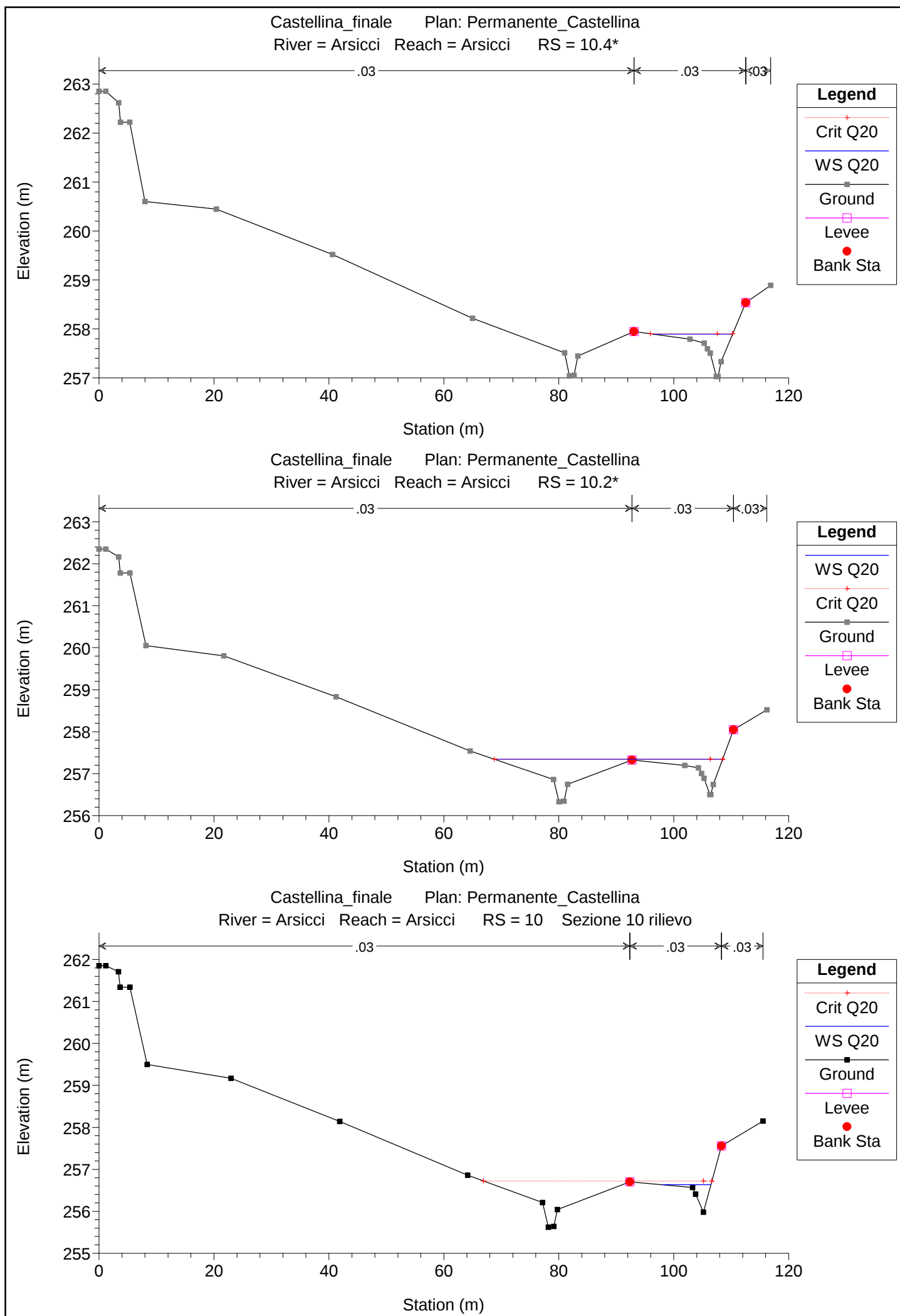


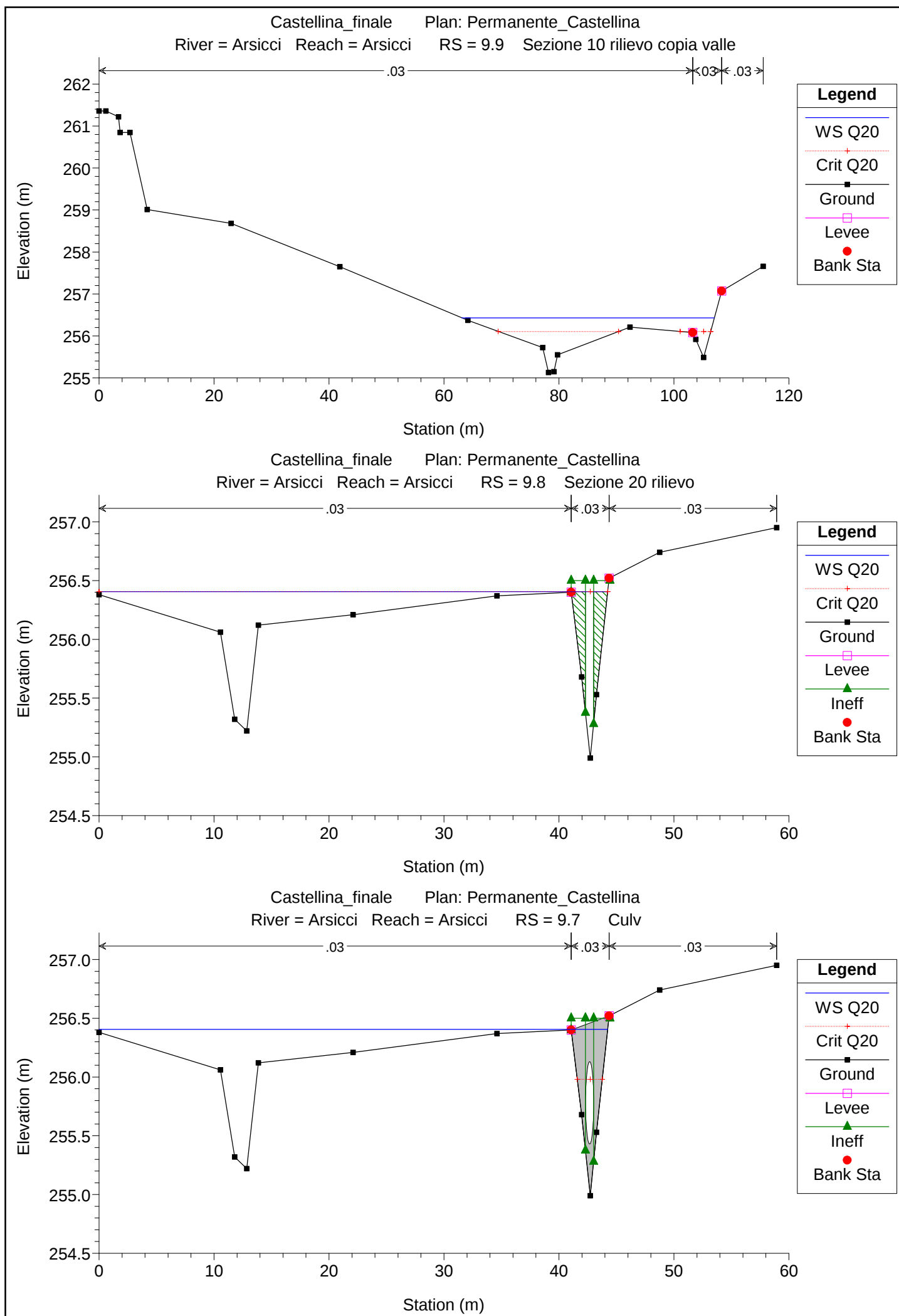
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.8*

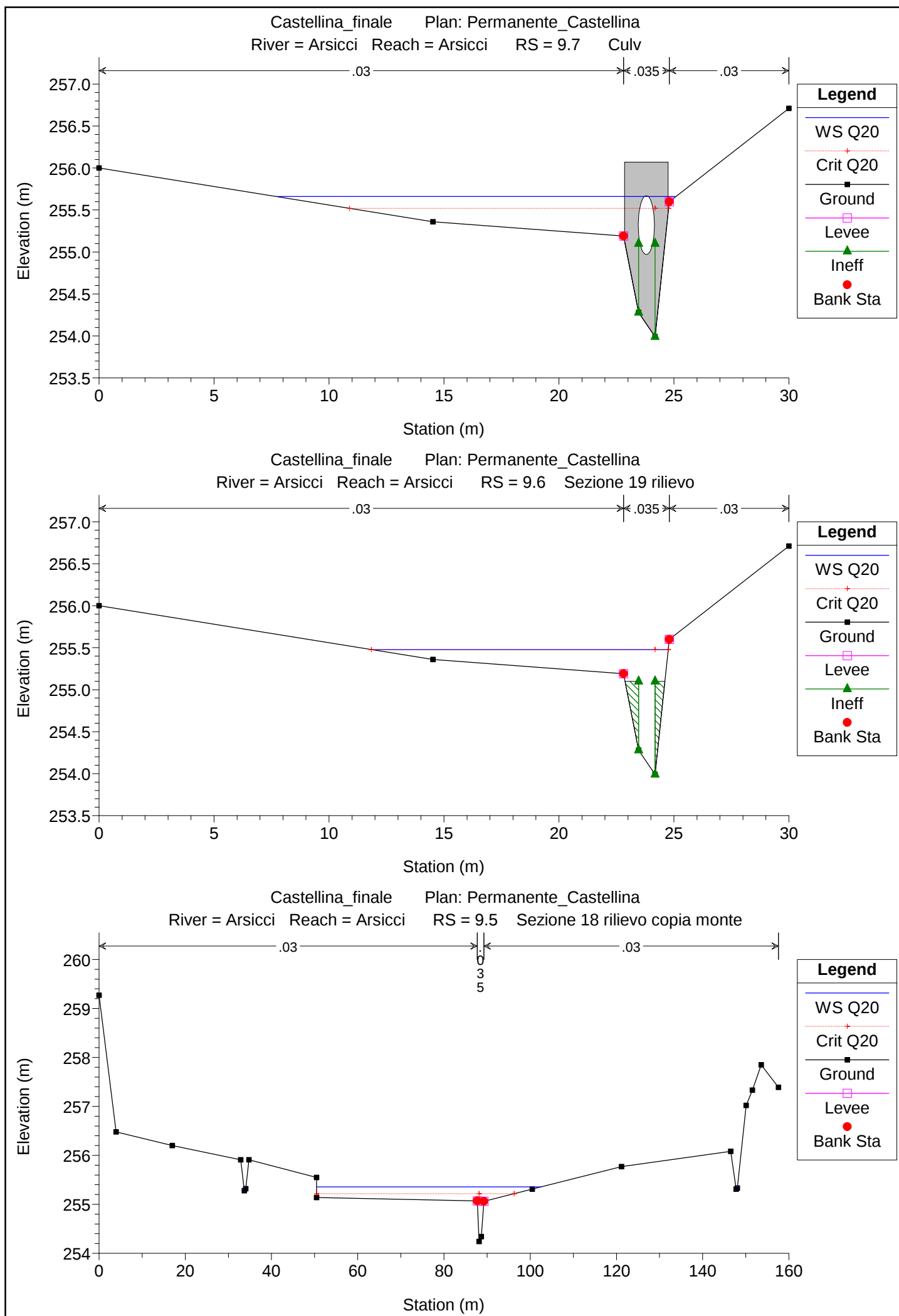


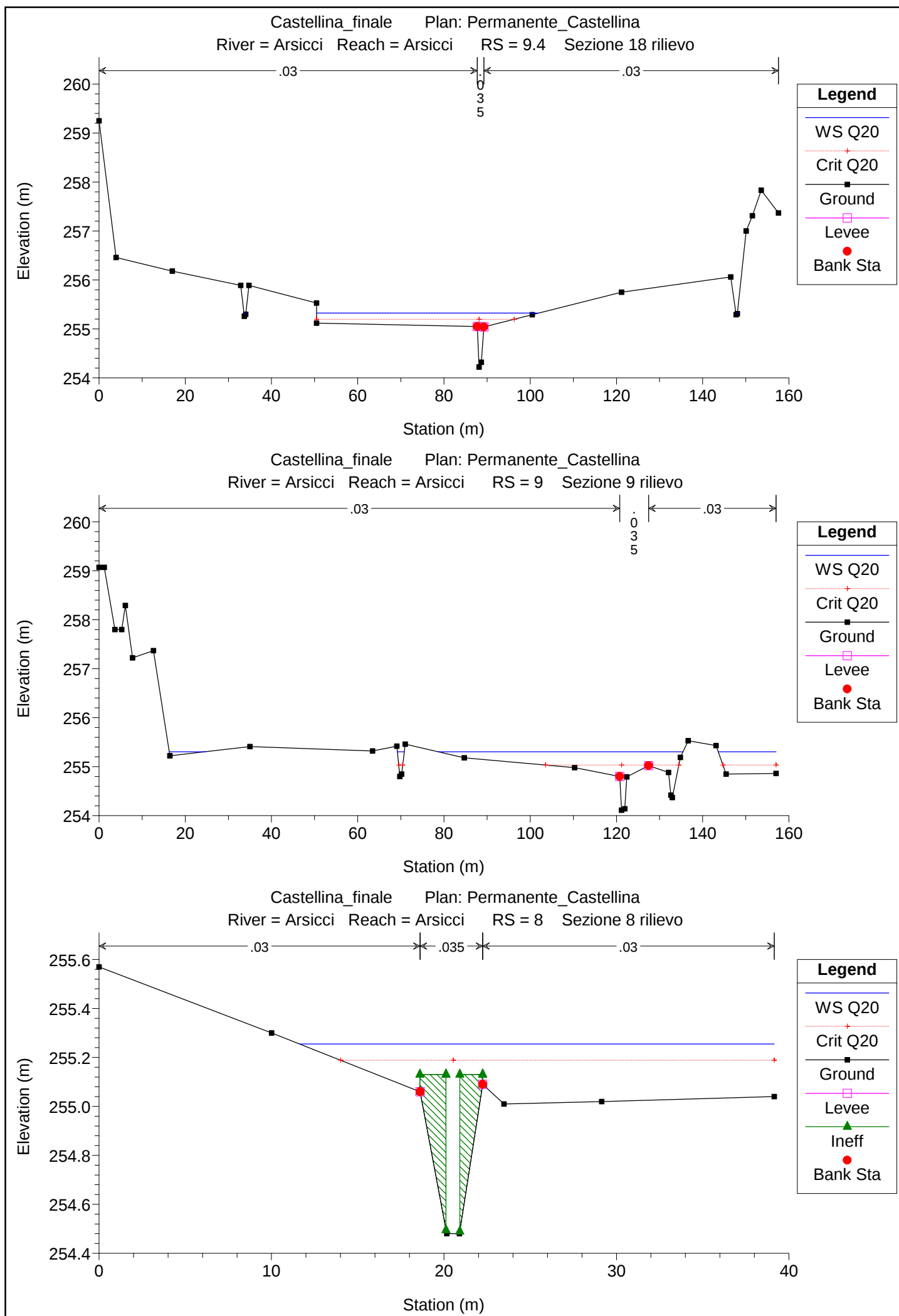
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.6*

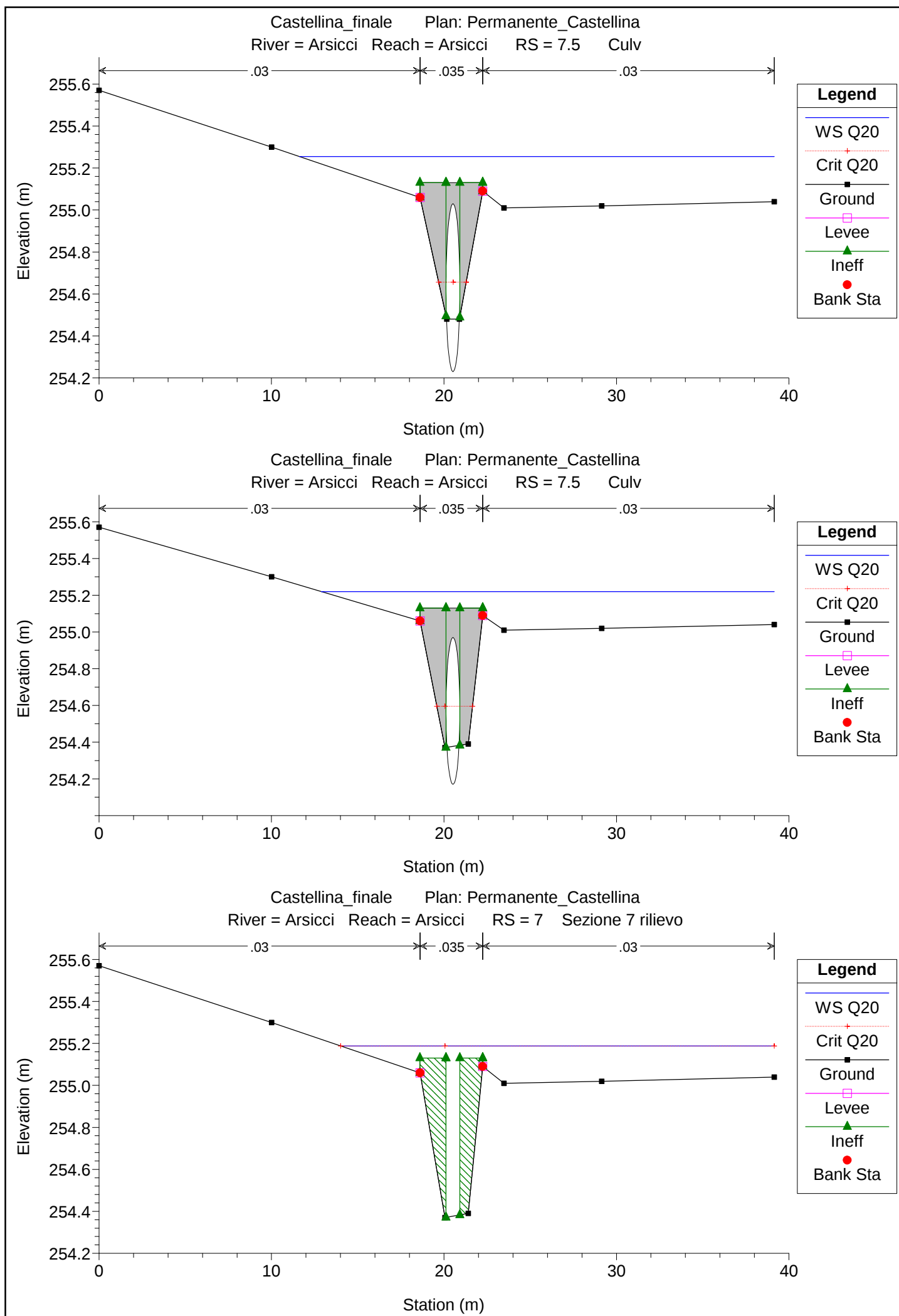


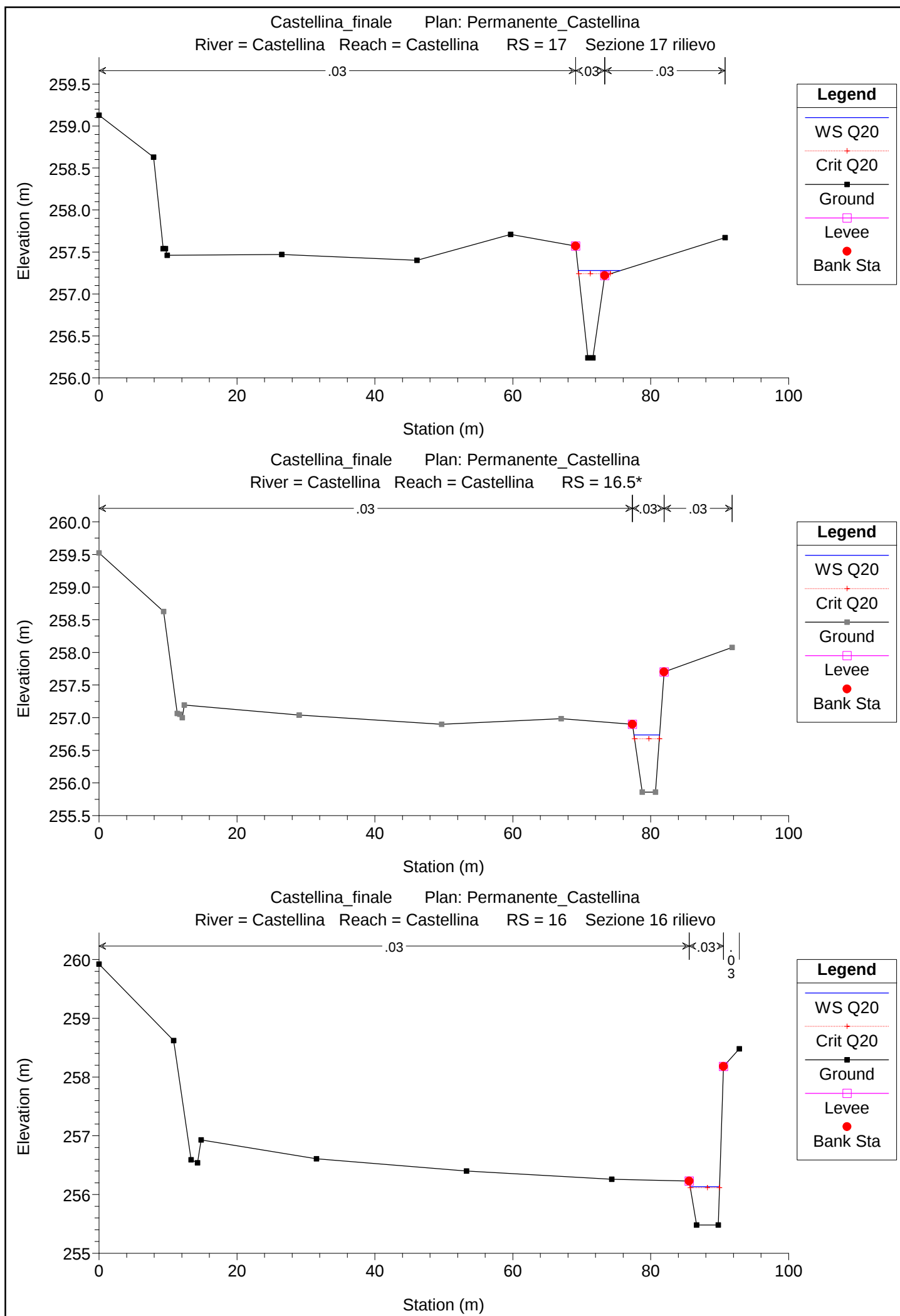


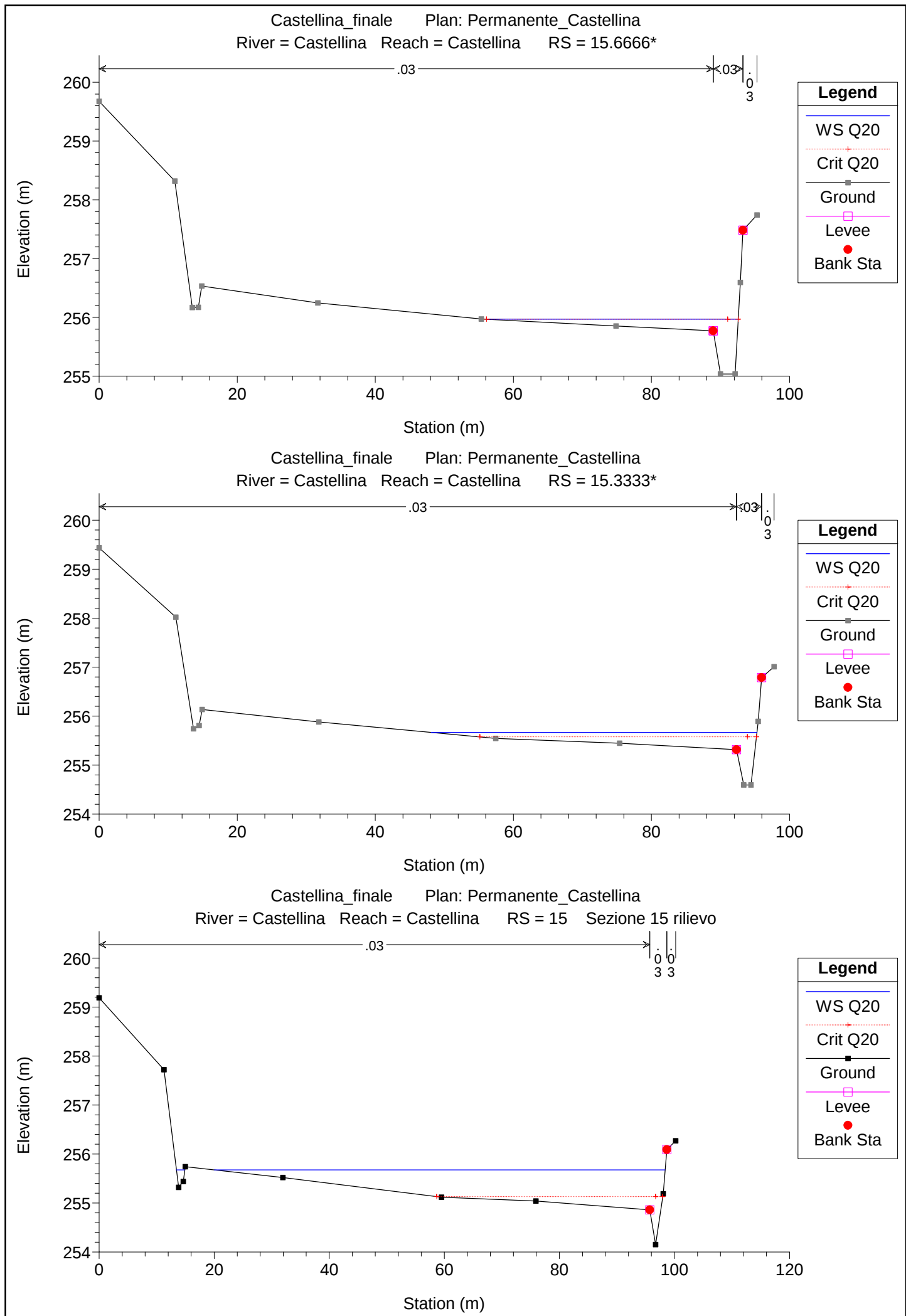


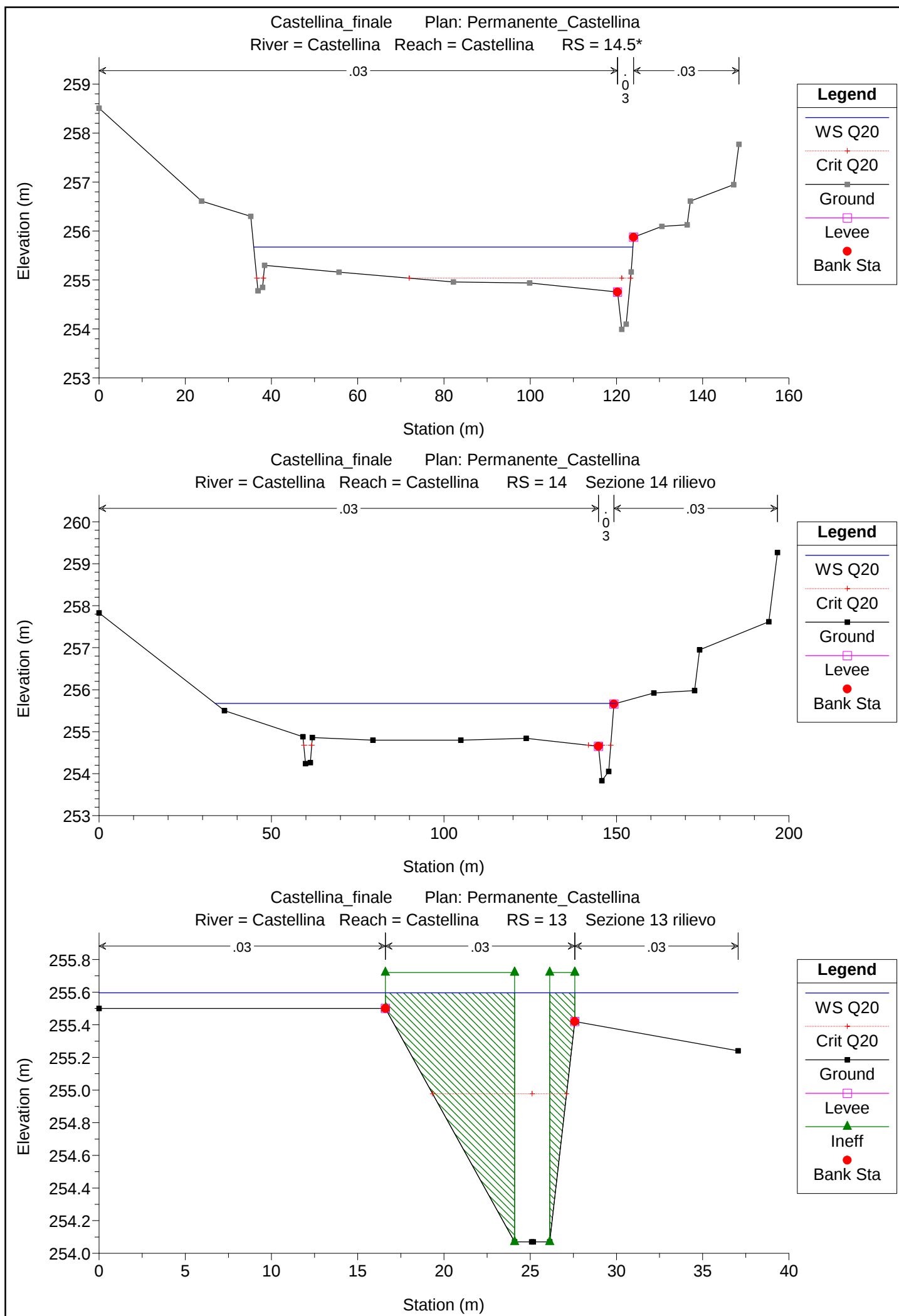


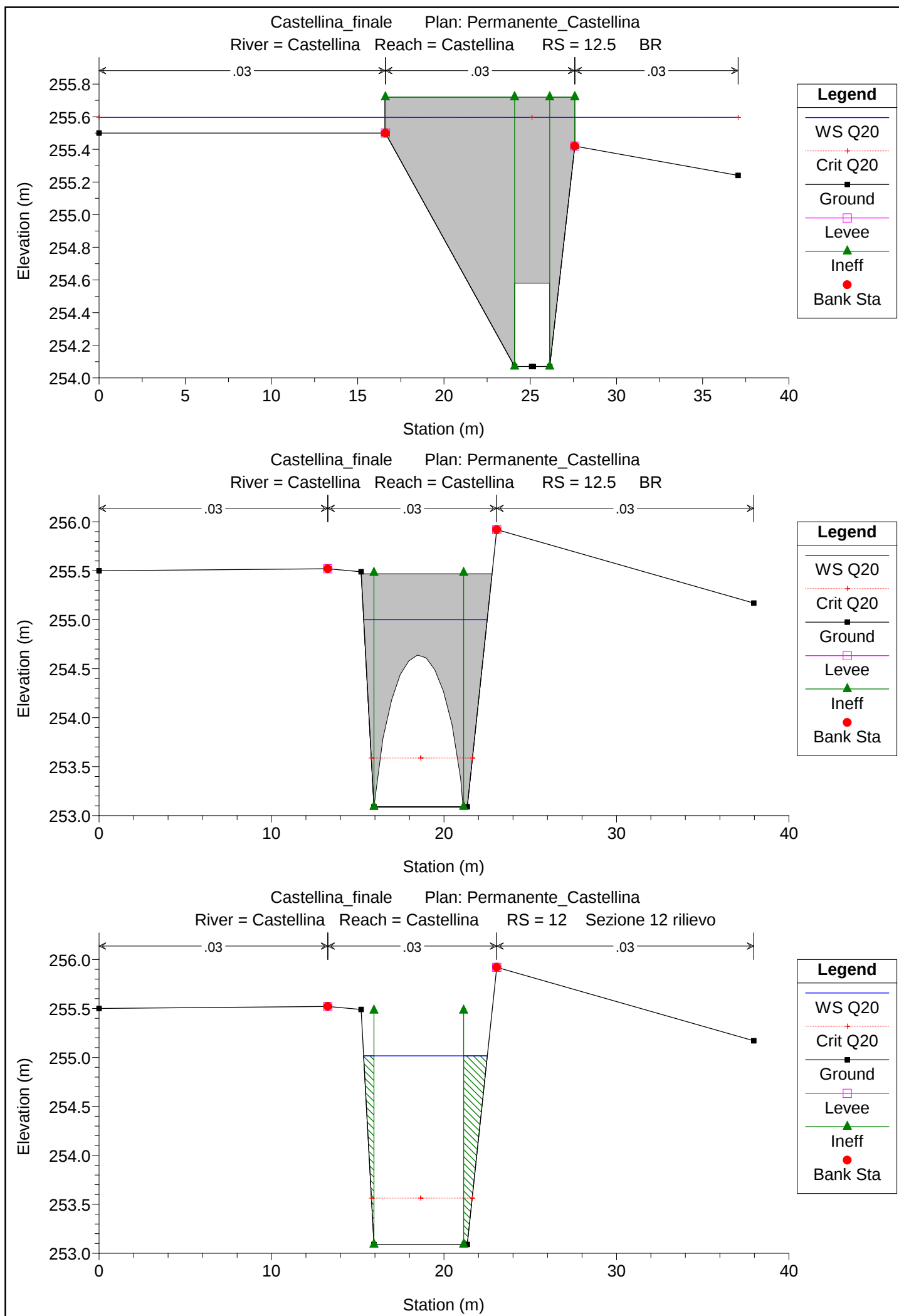


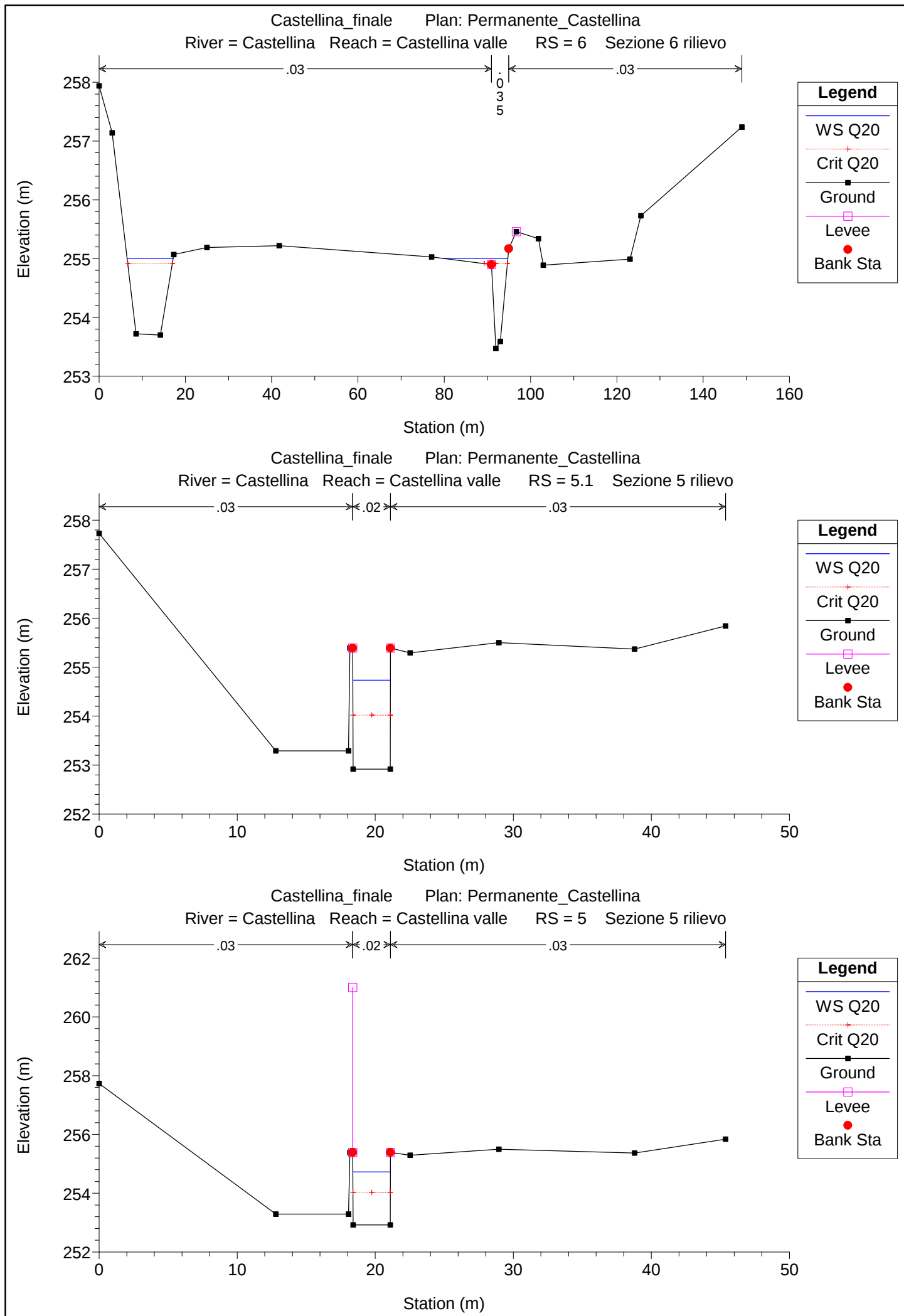


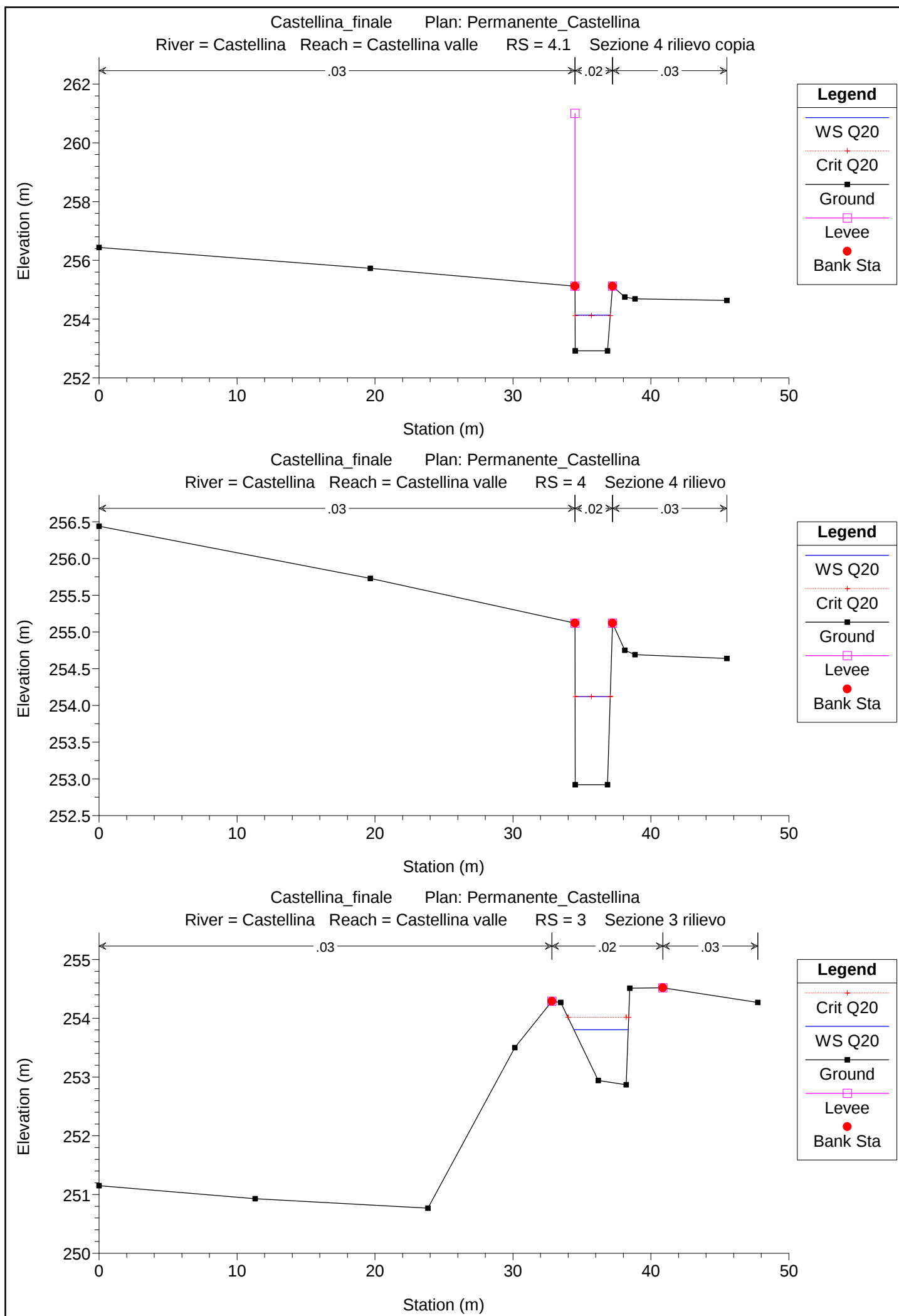


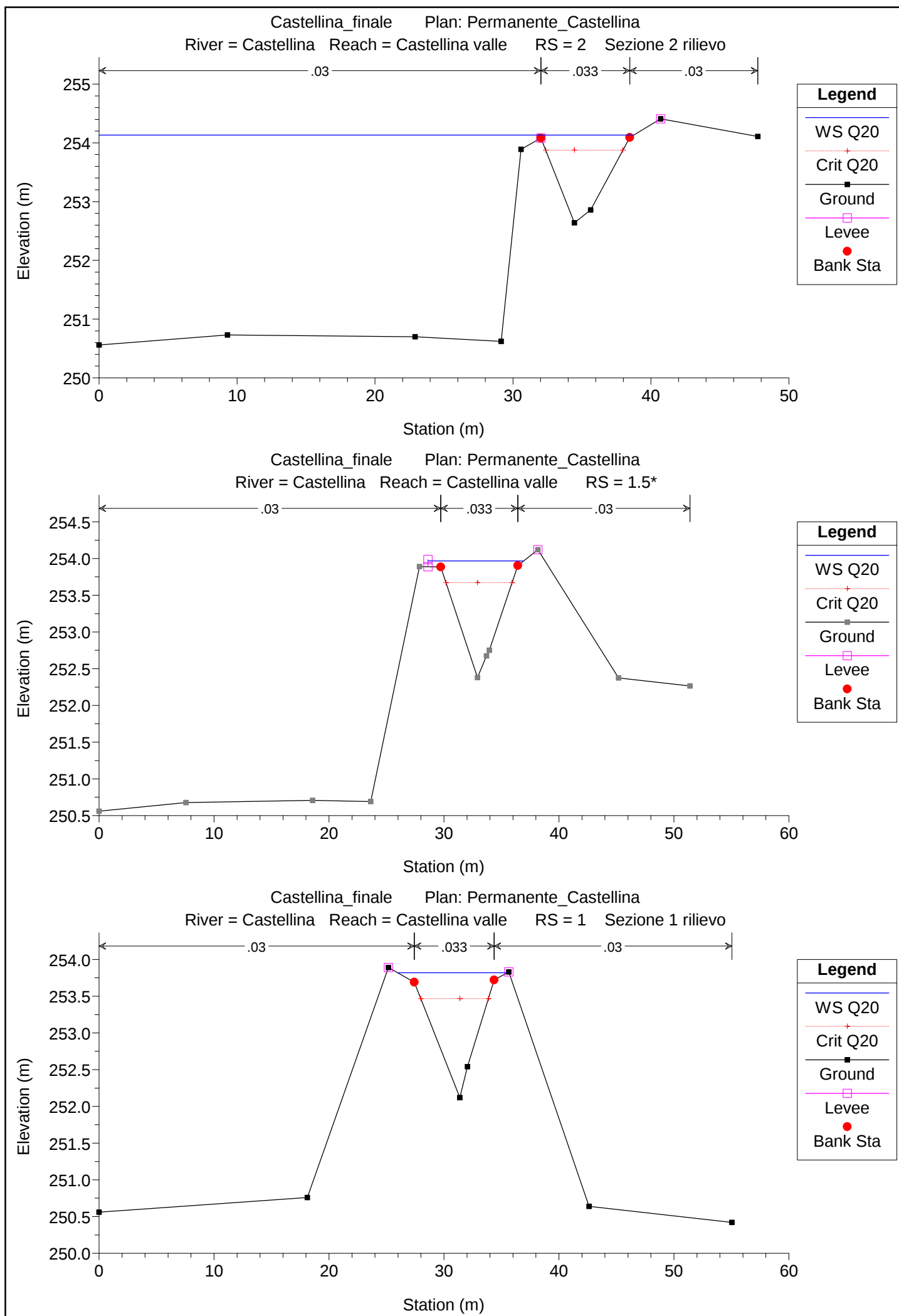


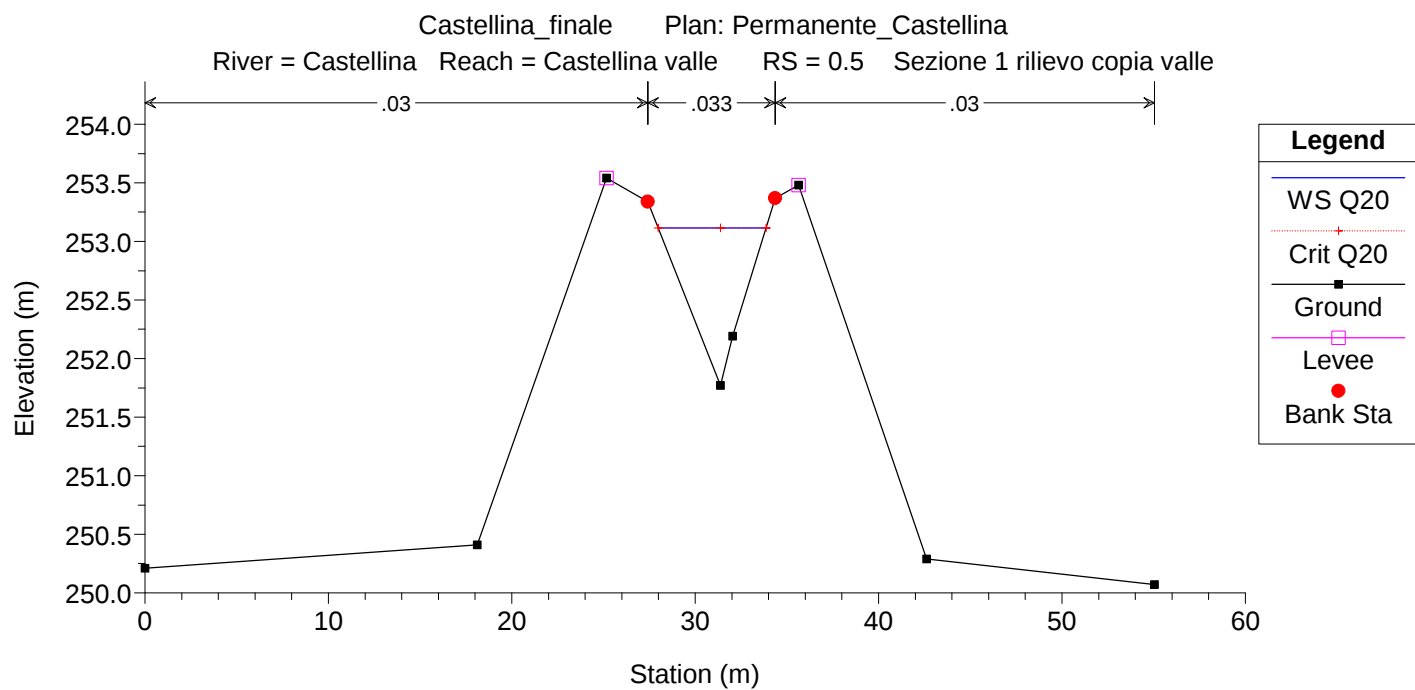
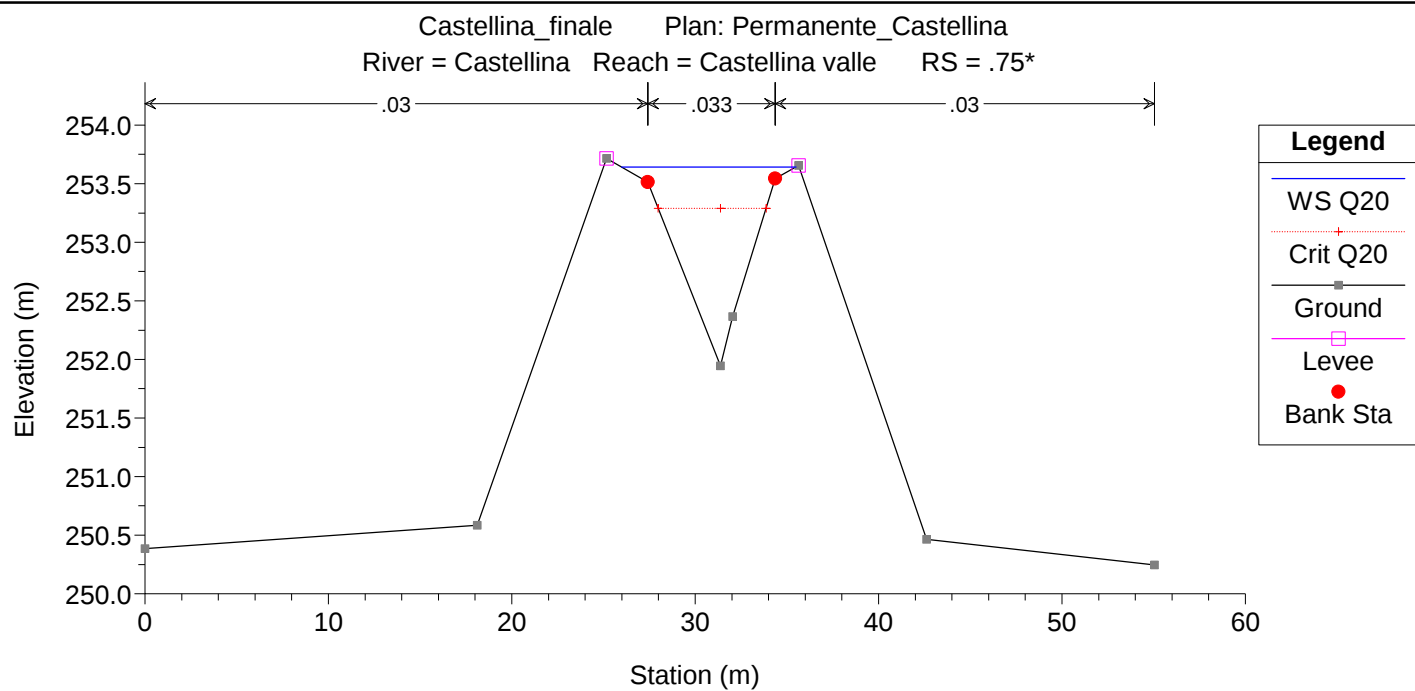




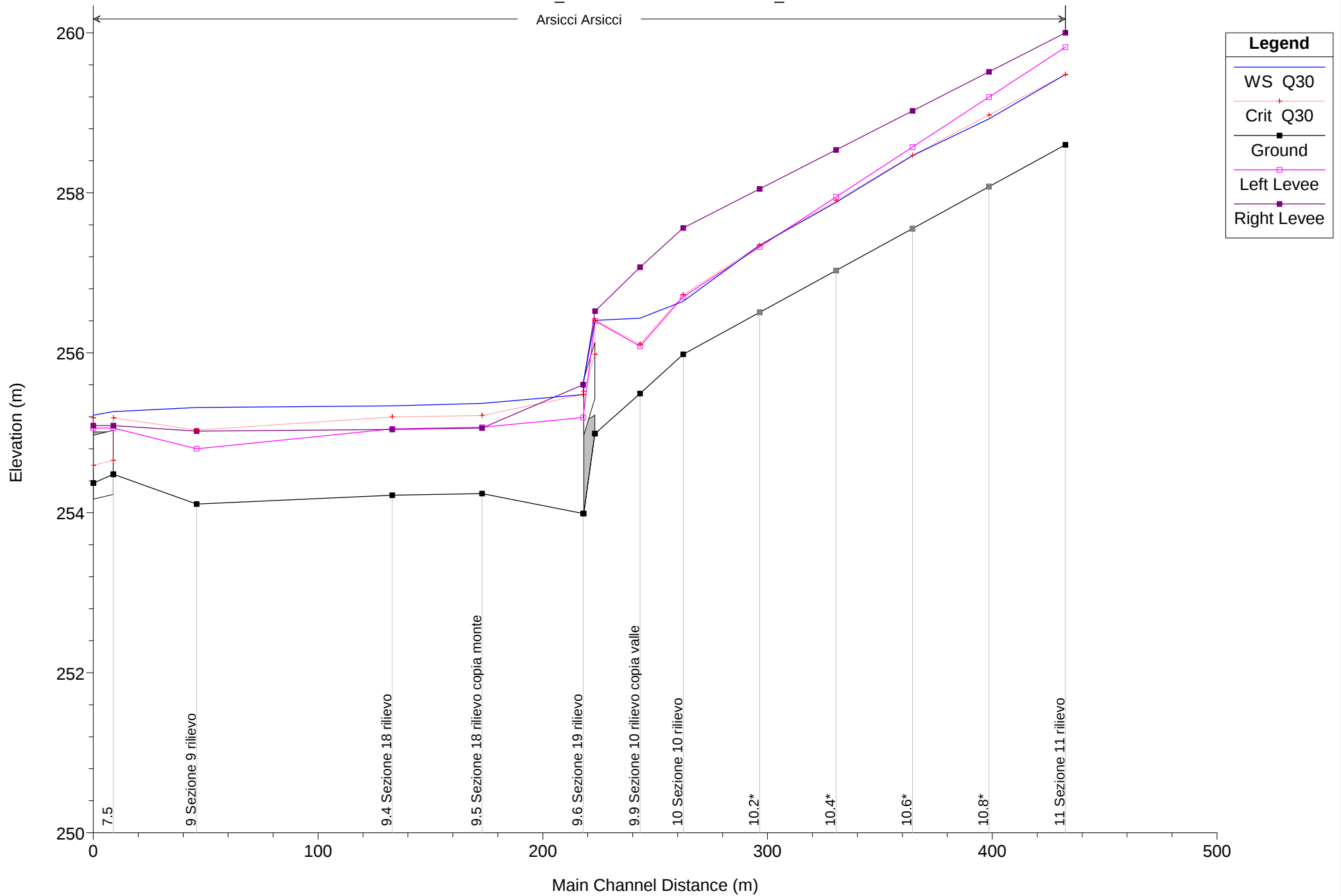




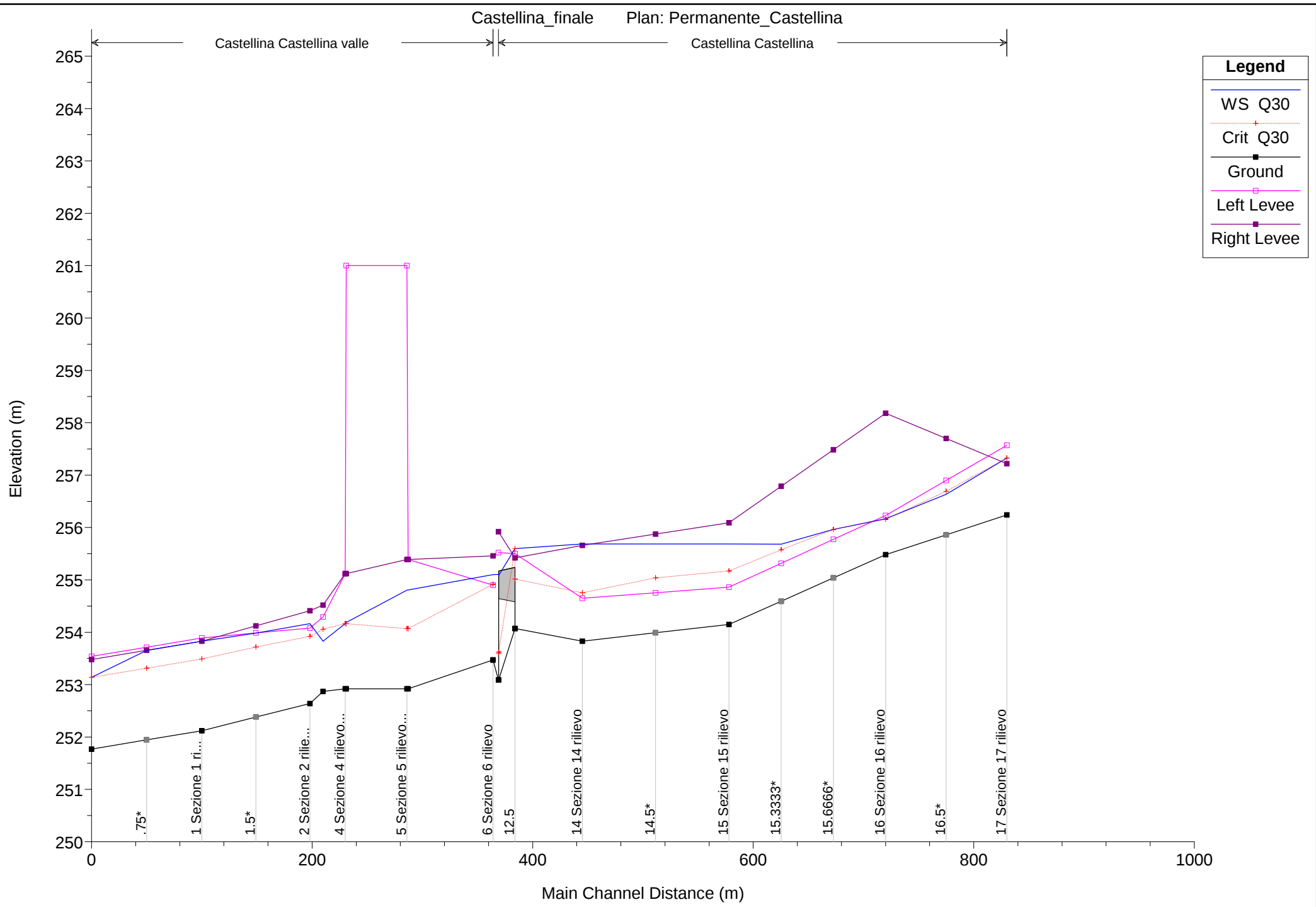




Castellina_finale Plan: Permanente_Castellina

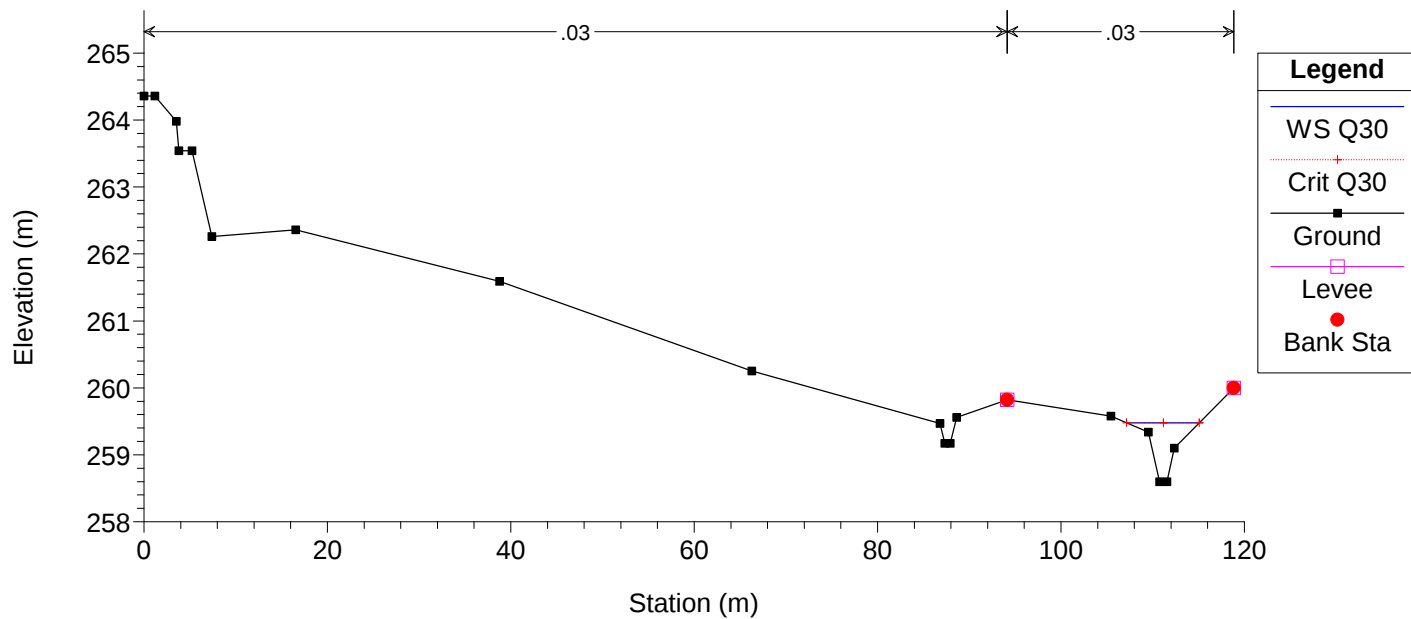


Castellina_finale Plan: Permanente_Castellina

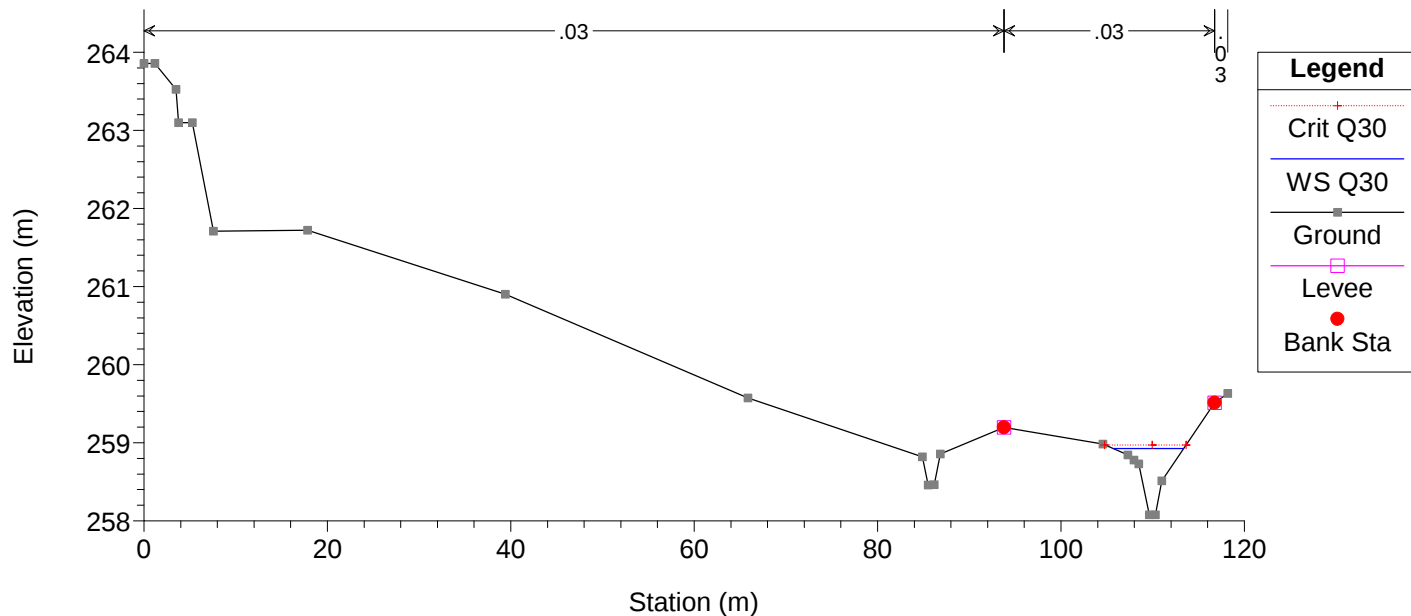


River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Castellina	Castellina	17	Q30	5.90	256.24	257.33	257.33	257.57	0.009174	2.21	2.84	8.07	0.86
Castellina	Castellina	16.5*	Q30	5.90	255.86	256.63	256.69	257.03	0.017585	2.80	2.11	3.52	1.15
Castellina	Castellina	16	Q30	5.90	255.48	256.17	256.16	256.44	0.011691	2.29	2.57	4.33	0.95
Castellina	Castellina	15.6666*	Q30	5.90	255.04	255.96	255.96	256.07	0.004389	1.61	5.89	35.82	0.59
Castellina	Castellina	15.3333*	Q30	5.90	254.59	255.68	255.58	255.70	0.001323	0.90	11.43	48.08	0.32
Castellina	Castellina	15	Q30	5.90	254.15	255.69	255.17	255.69	0.000056	0.20	38.67	80.77	0.07
Castellina	Castellina	14.5*	Q30	5.90	253.99	255.69	255.04	255.69	0.000014	0.12	60.50	87.98	0.04
Castellina	Castellina	14	Q30	5.90	253.83	255.69	254.75	255.69	0.000005	0.08	94.88	116.95	0.02
Castellina	Castellina	13	Q30	5.90	254.07	255.60	255.01	255.68	0.001044	1.43	7.23	37.06	0.37
Castellina	Castellina	12.5		Bridge									
Castellina	Castellina	12	Q30	5.90	253.09	255.10	253.60	255.12	0.000112	0.56	10.47	7.26	0.13
Castellina	Castellina valle	6	Q30	10.50	253.47	255.10	254.92	255.12	0.000524	0.55	17.93	43.84	0.17
Castellina	Castellina valle	5.1	Q30	10.50	252.92	254.81	254.07	255.02	0.002315	2.06	5.11	2.72	0.48
Castellina	Castellina valle	5	Q30	10.50	252.92	254.80	254.07	255.02	0.002325	2.06	5.10	2.72	0.48
Castellina	Castellina valle	4.1	Q30	10.50	252.92	254.19	254.16	254.77	0.008344	3.37	3.11	2.56	0.98
Castellina	Castellina valle	4	Q30	10.50	252.92	254.16	254.16	254.77	0.008791	3.44	3.05	2.55	1.00
Castellina	Castellina valle	3	Q30	10.50	252.87	253.83	254.06	254.58	0.013073	3.83	2.74	3.98	1.47
Castellina	Castellina valle	2	Q30	10.50	252.64	254.16	253.92	254.17	0.000002	0.04	110.11	38.98	0.01
Castellina	Castellina valle	1.5*	Q30	10.50	252.38	253.98	253.72	254.15	0.004886	1.81	5.92	8.45	0.62
Castellina	Castellina valle	1	Q30	10.50	252.12	253.83	253.49	253.97	0.003883	1.66	6.48	9.78	0.56
Castellina	Castellina valle	.75*	Q30	10.50	251.94	253.65	253.31	253.79	0.003915	1.66	6.46	9.74	0.56
Castellina	Castellina valle	0.5	Q30	10.50	251.77	253.14	253.14	253.48	0.014281	2.61	4.03	5.99	1.01
Arsicci	Arsicci	11	Q30	4.60	258.60	259.48	259.48	259.65	0.014891	1.83	2.51	7.93	1.04
Arsicci	Arsicci	10.8*	Q30	4.60	258.08	258.93	258.97	259.12	0.018299	1.98	2.33	7.68	1.15
Arsicci	Arsicci	10.6*	Q30	4.60	257.55	258.46	258.47	258.58	0.013713	1.49	3.08	12.72	0.97
Arsicci	Arsicci	10.4*	Q30	4.60	257.03	257.88	257.90	258.03	0.021700	1.70	2.71	13.00	1.19
Arsicci	Arsicci	10.2*	Q30	4.60	256.50	257.34	257.34	257.35	0.000798	0.32	11.14	39.75	0.23
Arsicci	Arsicci	10	Q30	4.60	255.98	256.64	256.72	257.22	0.138638	3.36	1.37	9.48	2.82
Arsicci	Arsicci	9.9	Q30	4.60	255.49	256.43	256.11	256.44	0.000133	0.25	20.26	44.00	0.11
Arsicci	Arsicci	9.8	Q30	4.60	254.99	256.41	256.41	256.43	0.001416	1.17	9.21	44.24	0.33
Arsicci	Arsicci	9.7		Culvert									
Arsicci	Arsicci	9.6	Q30	4.60	253.99	255.48	255.48	255.60	0.014886	1.80	3.13	12.91	0.70
Arsicci	Arsicci	9.5	Q30	4.60	254.24	255.37	255.22	255.37	0.000675	0.48	13.22	53.61	0.17
Arsicci	Arsicci	9.4	Q30	4.60	254.22	255.34	255.20	255.34	0.000771	0.51	12.64	53.05	0.18
Arsicci	Arsicci	9	Q30	4.60	254.11	255.32	255.03	255.32	0.000136	0.21	24.93	82.29	0.09
Arsicci	Arsicci	8	Q30	4.60	254.48	255.27	255.19	255.30	0.004470	0.78	5.81	27.92	0.47
Arsicci	Arsicci	7.5		Culvert									
Arsicci	Arsicci	7	Q30	4.60	254.37	255.19	255.19	255.26	0.015886	1.24	3.85	25.15	0.83

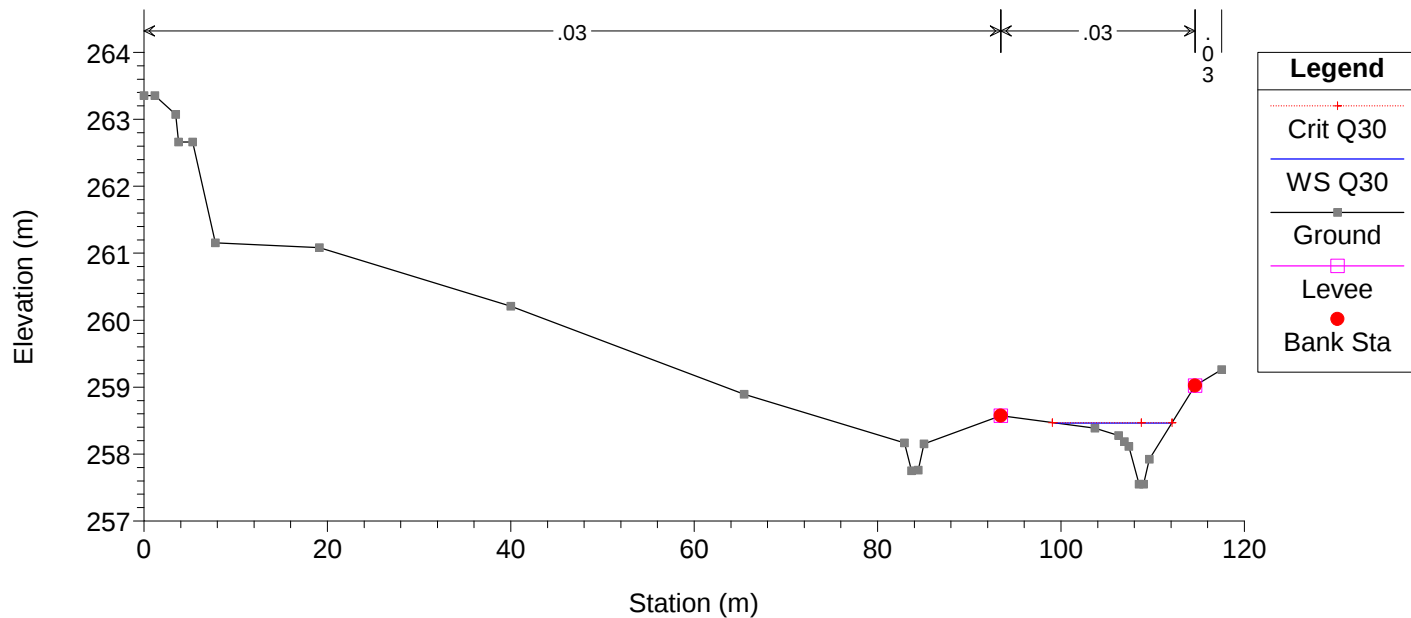
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 11 Sezione 11 rilievo

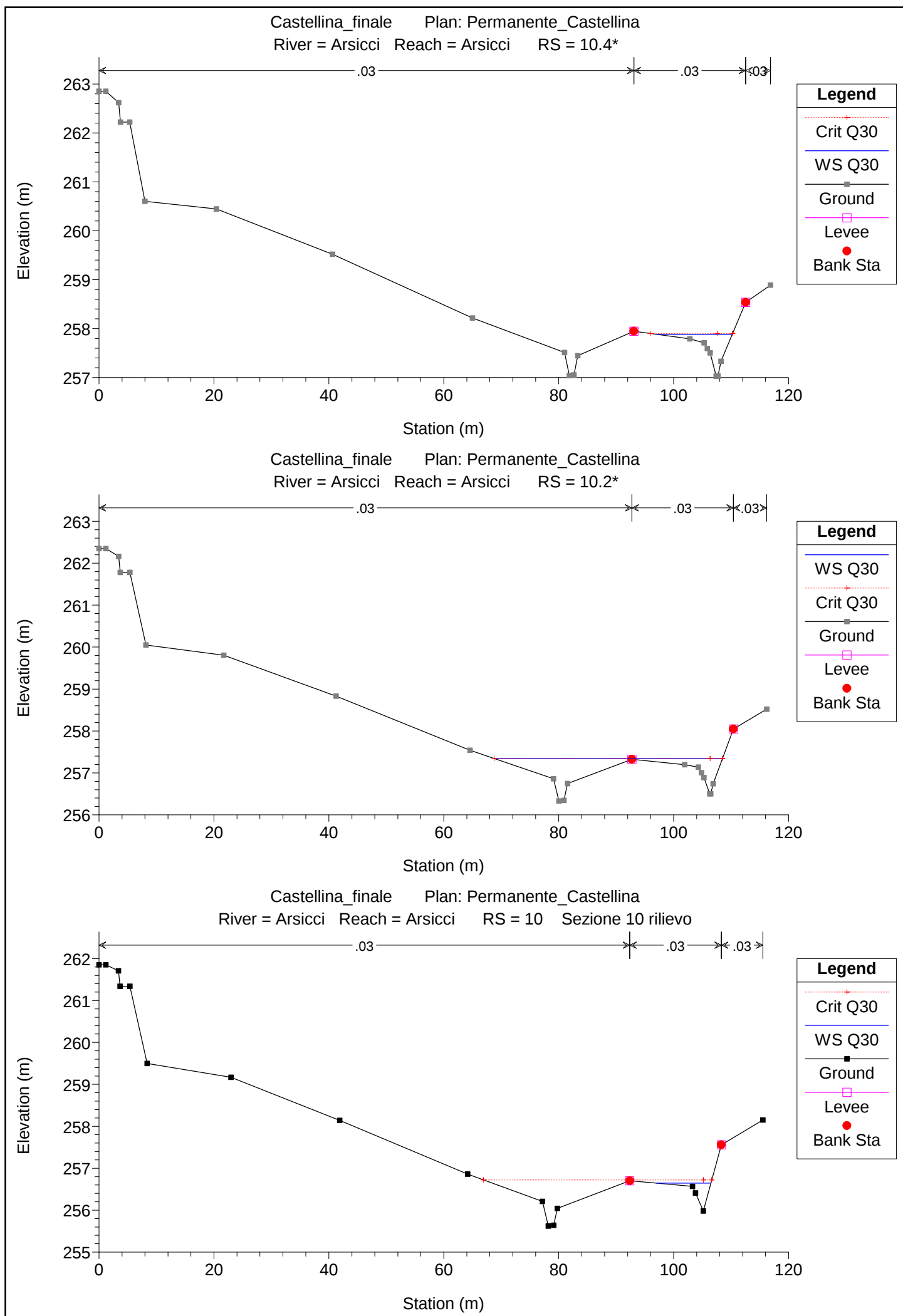


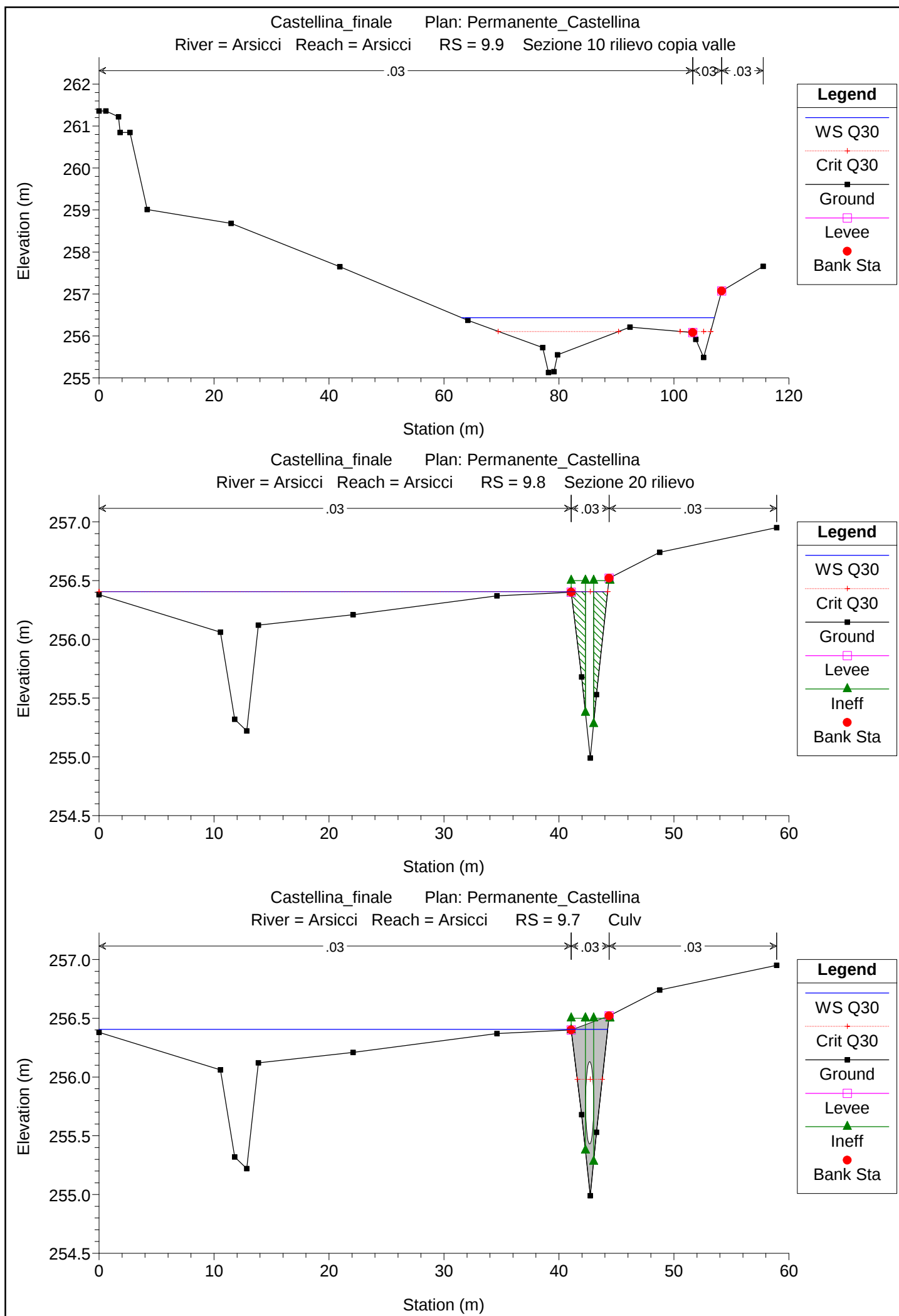
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.8*

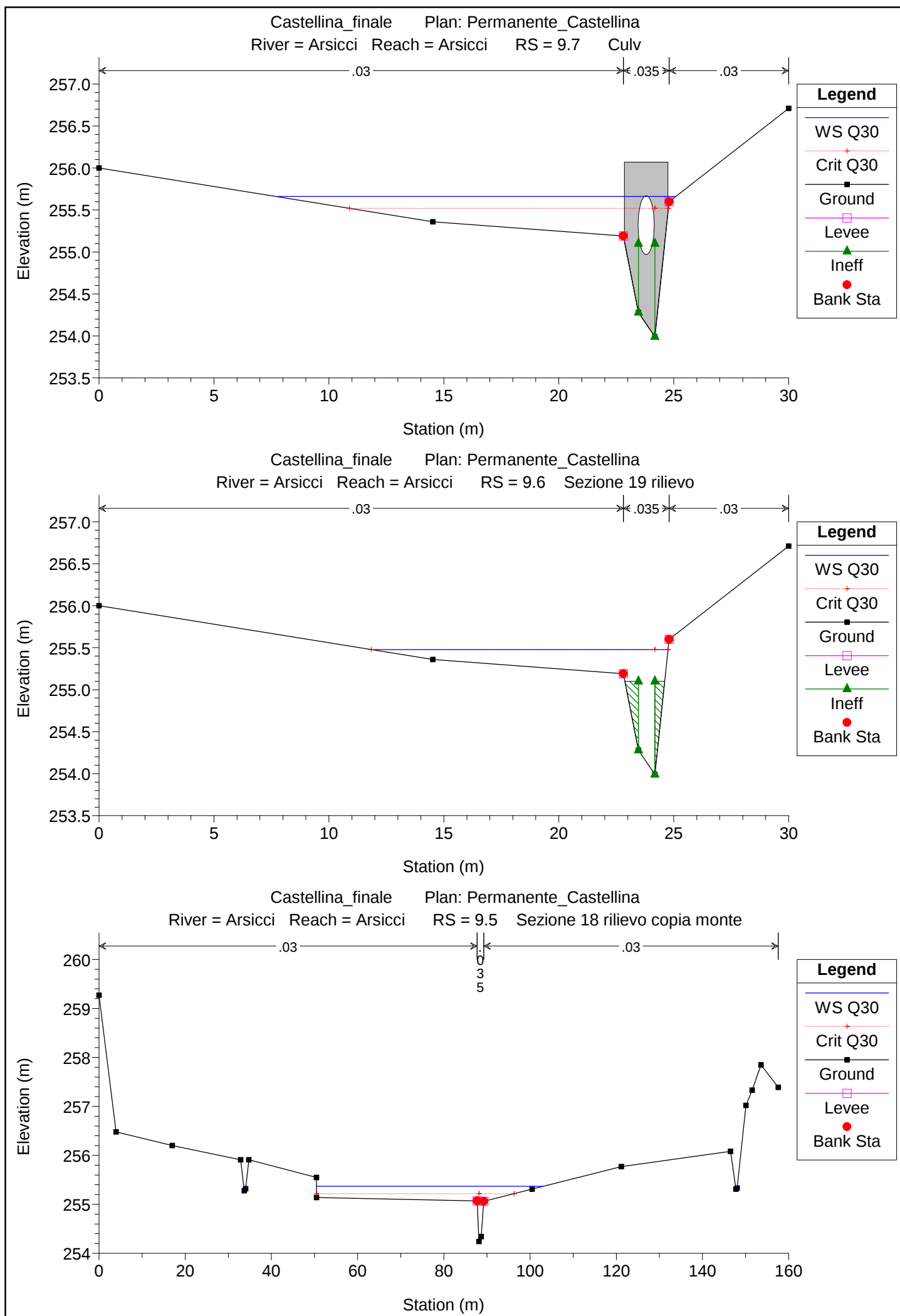


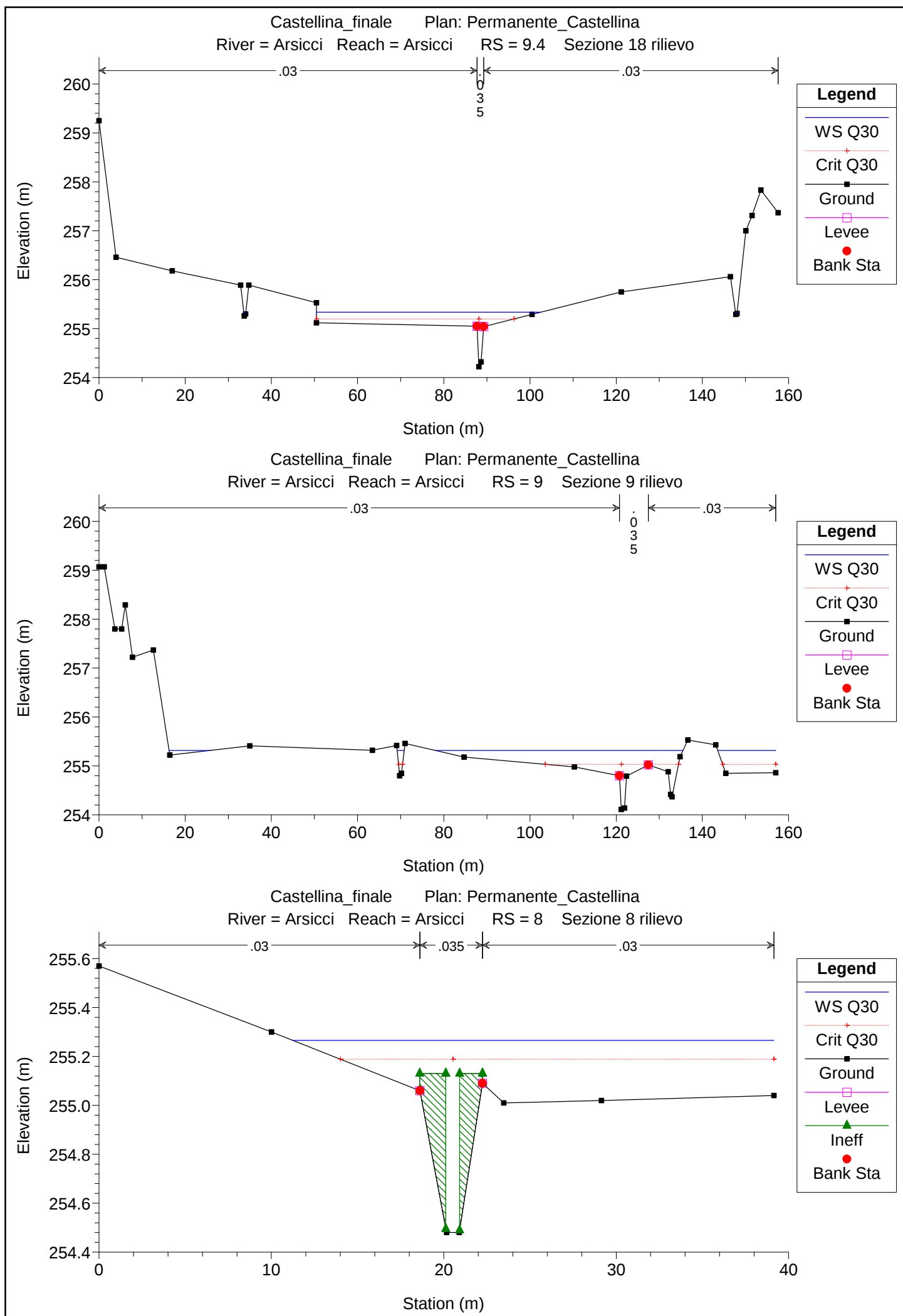
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.6*

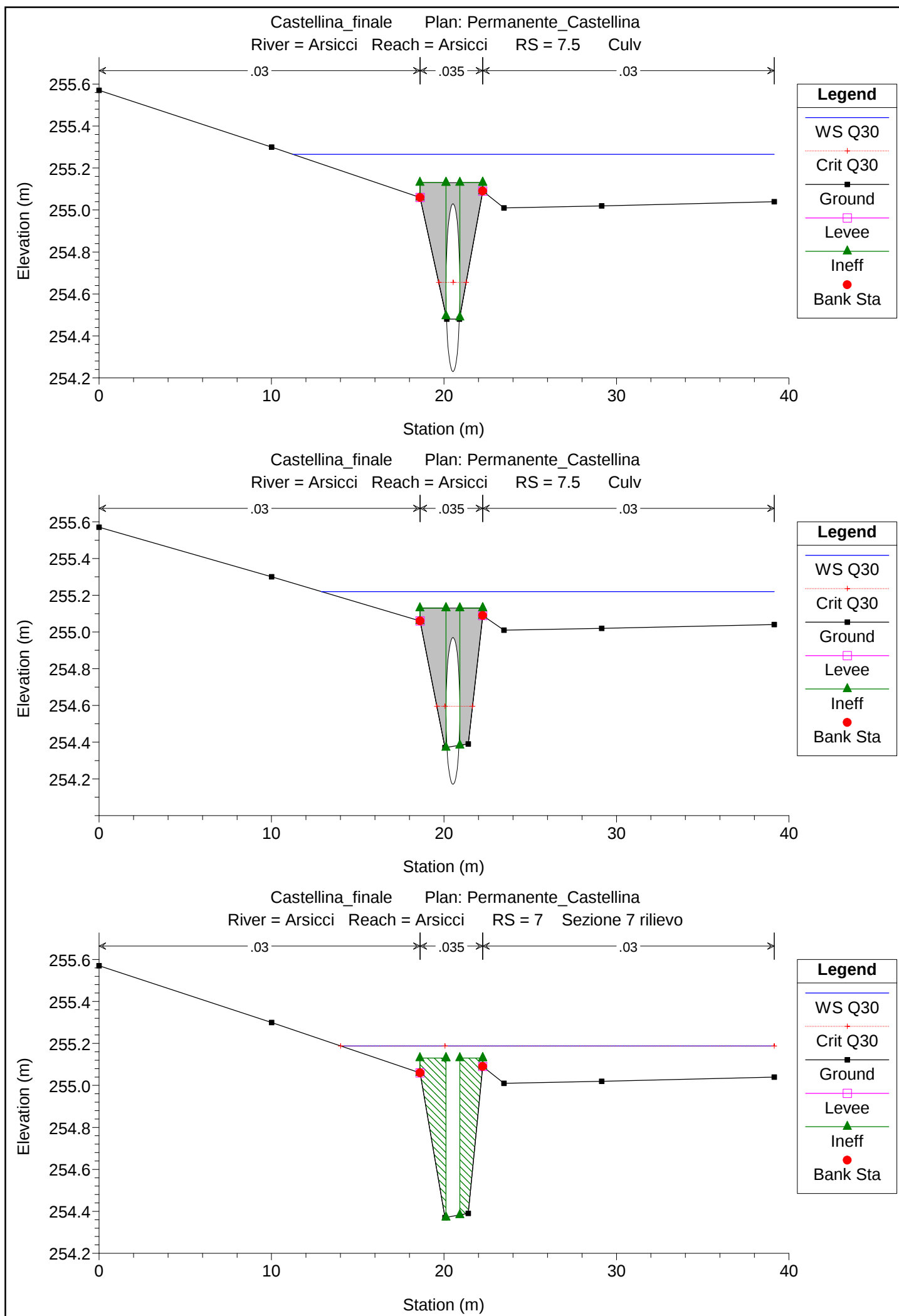


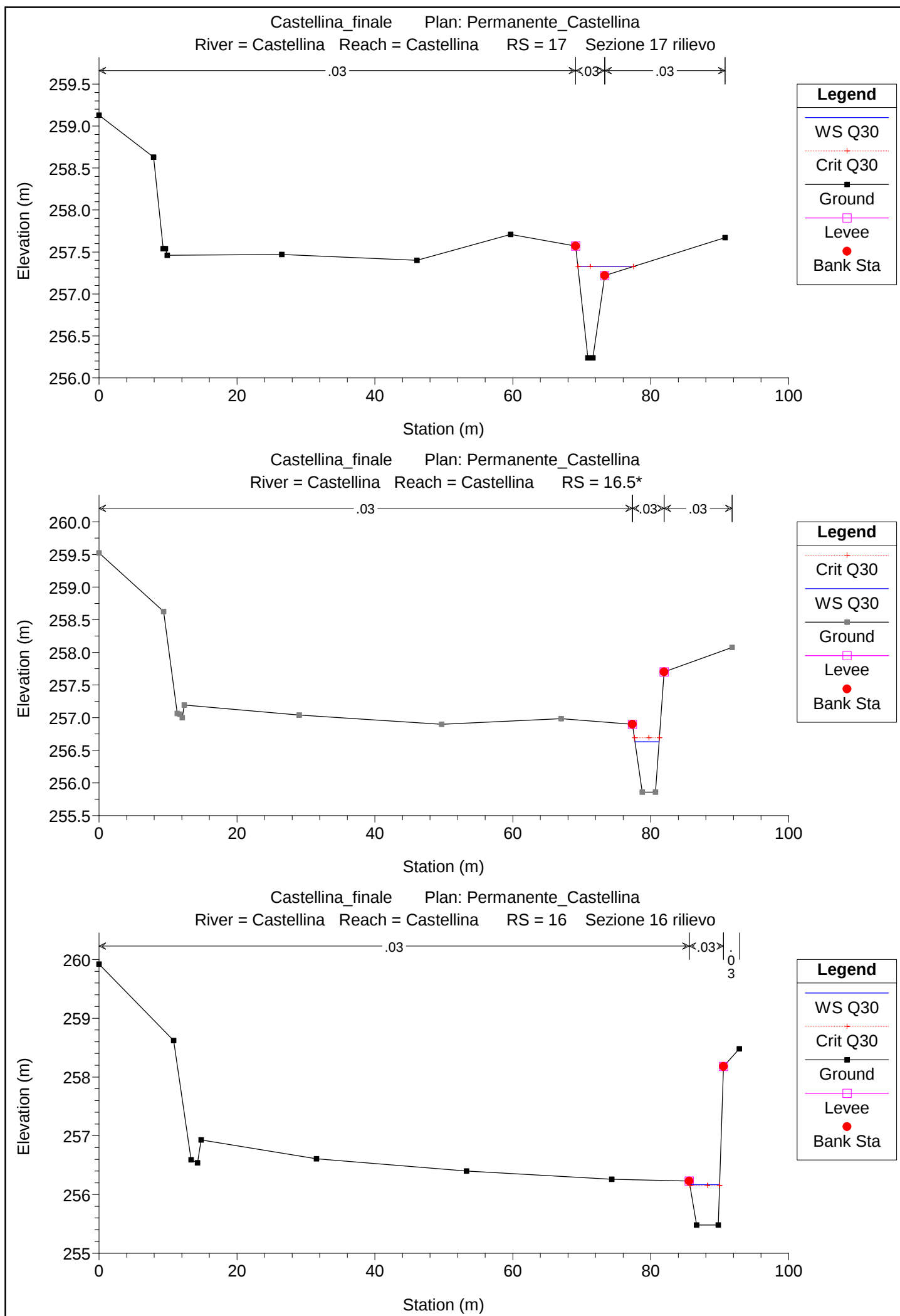


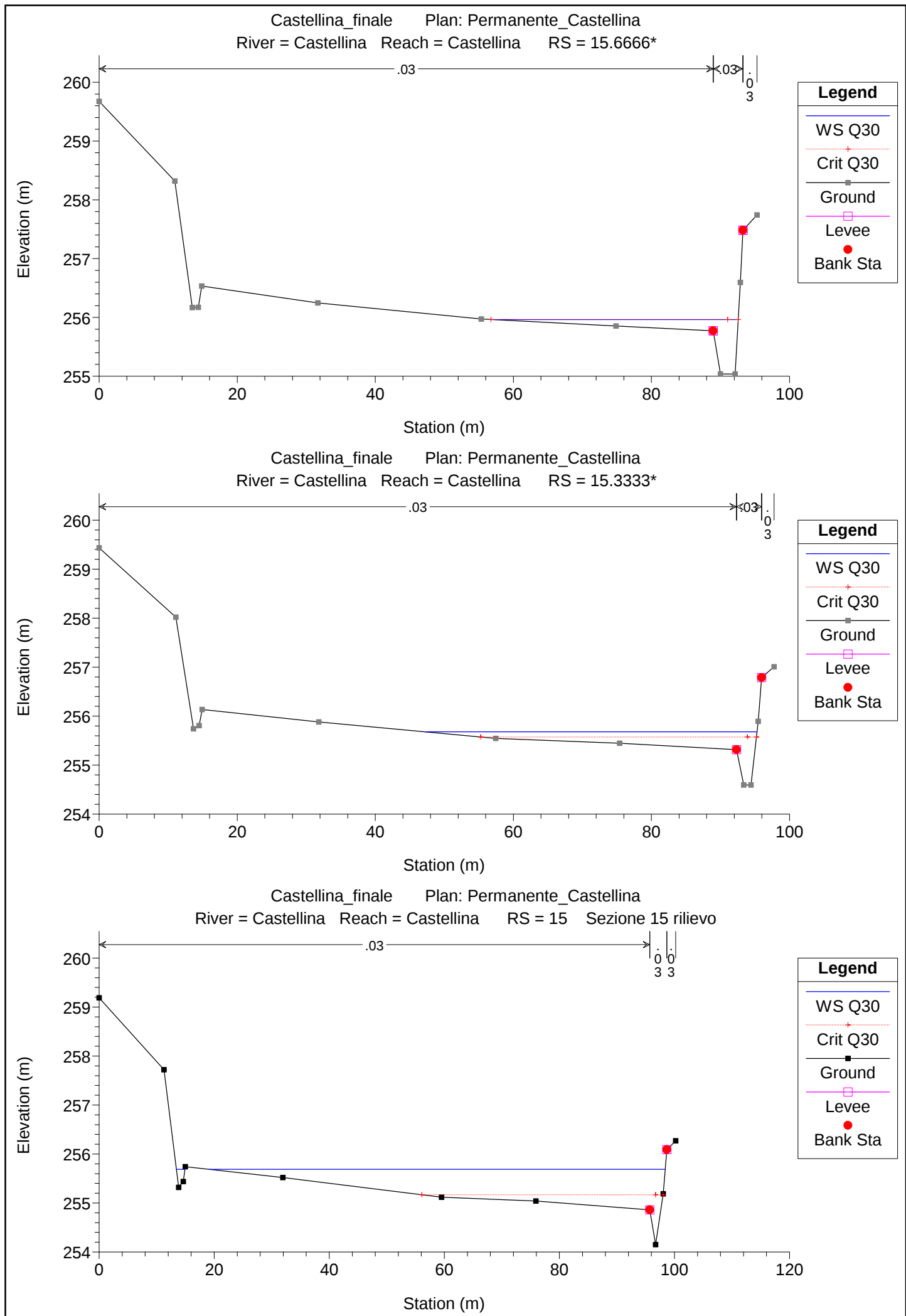


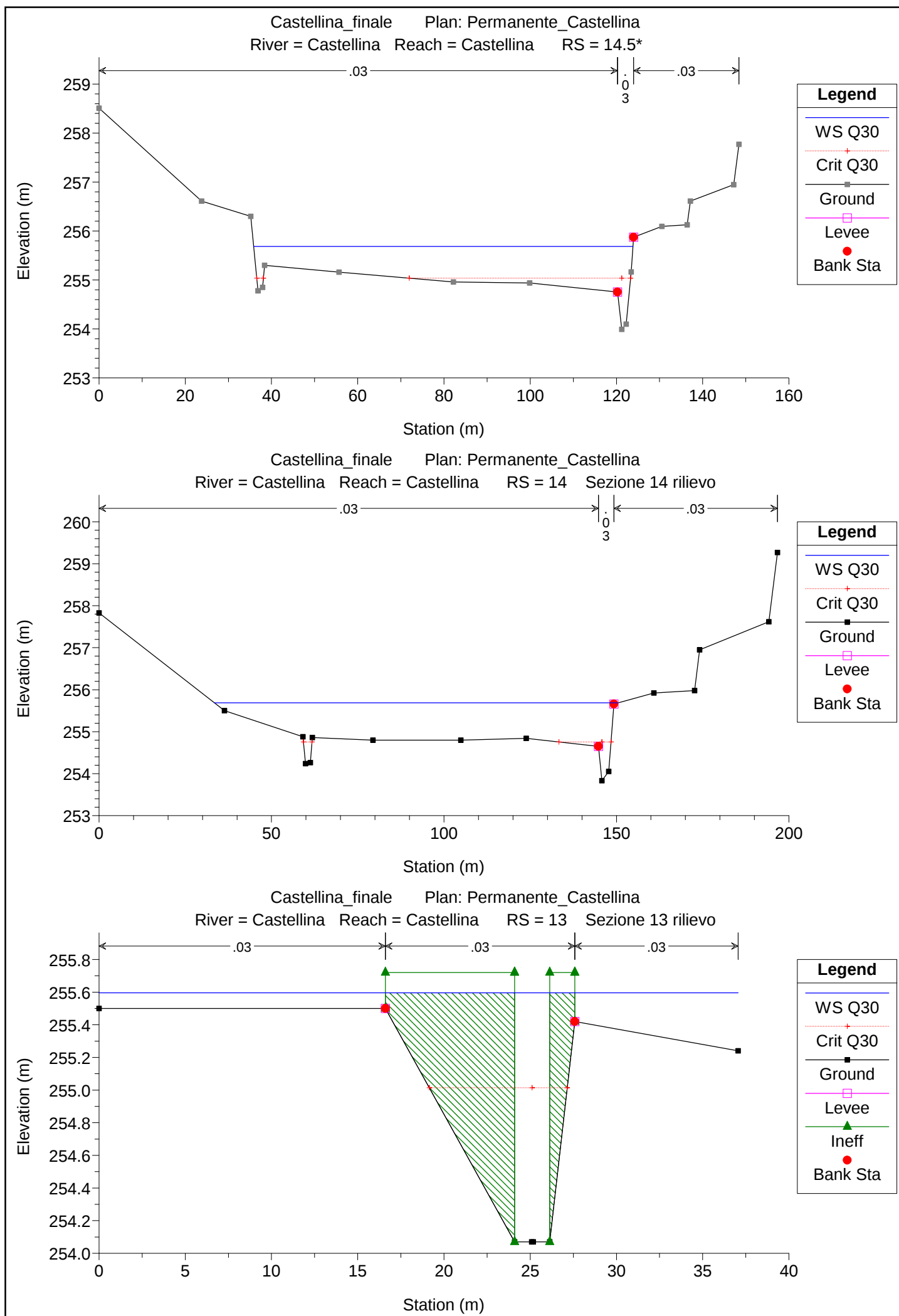


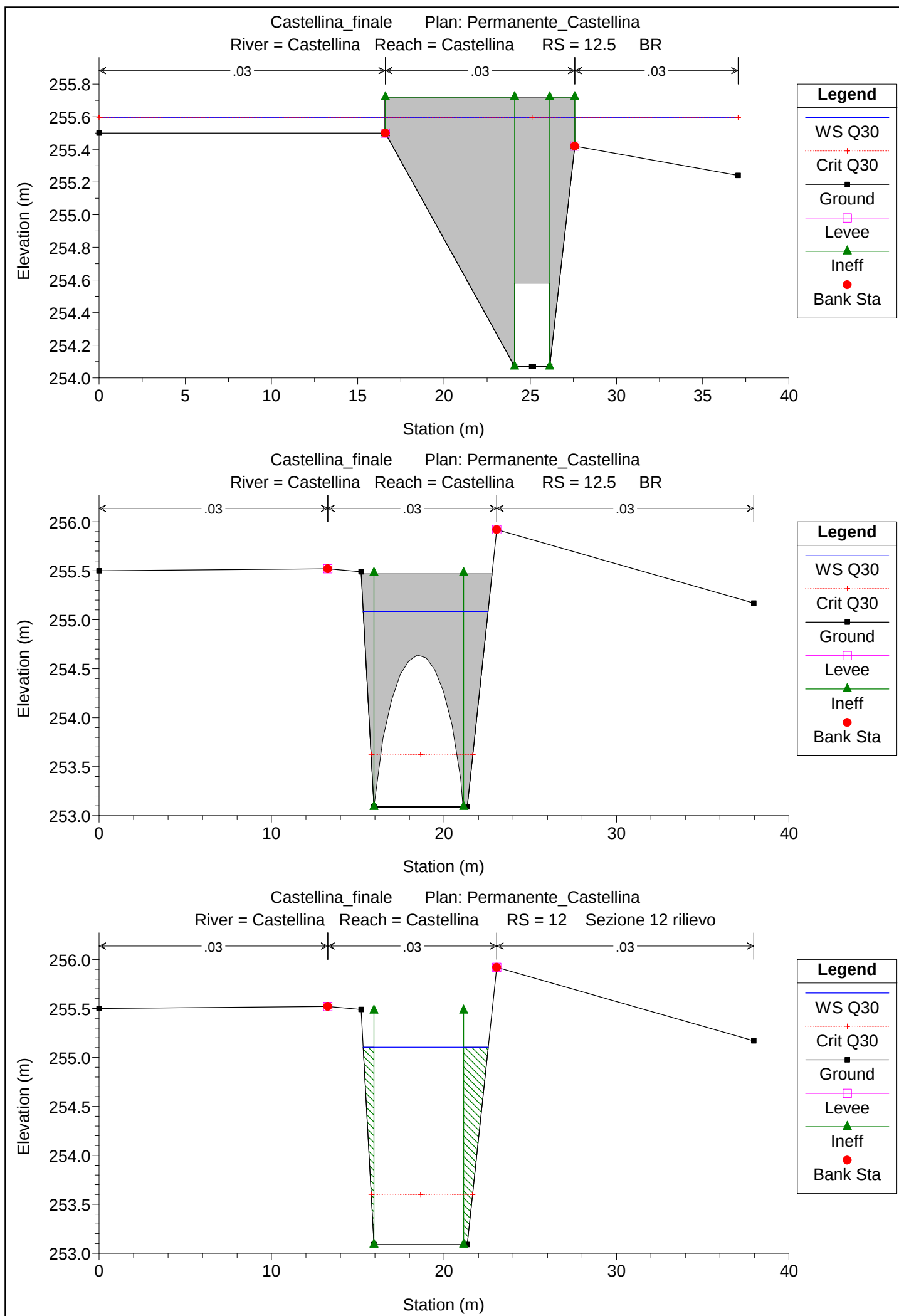


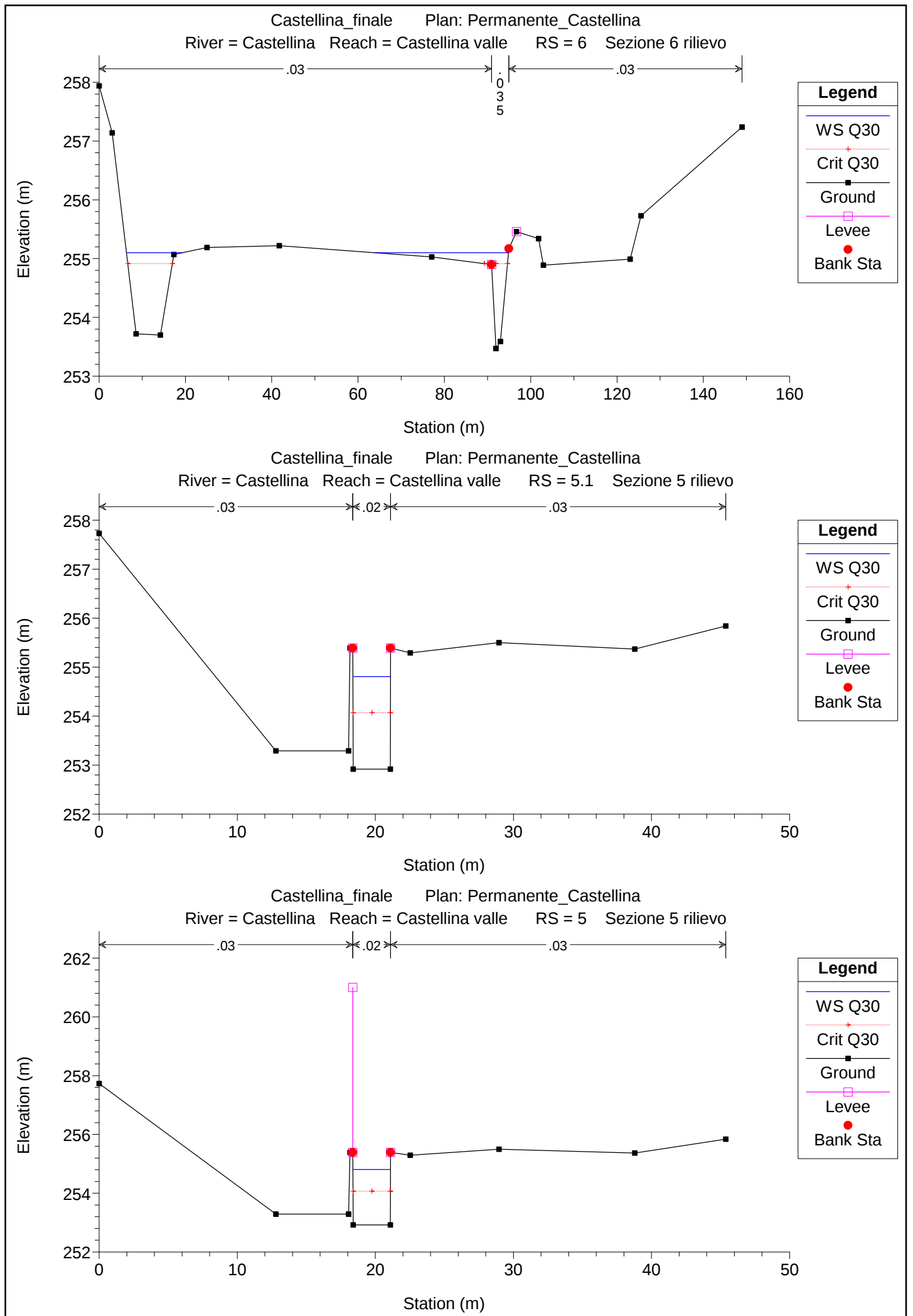


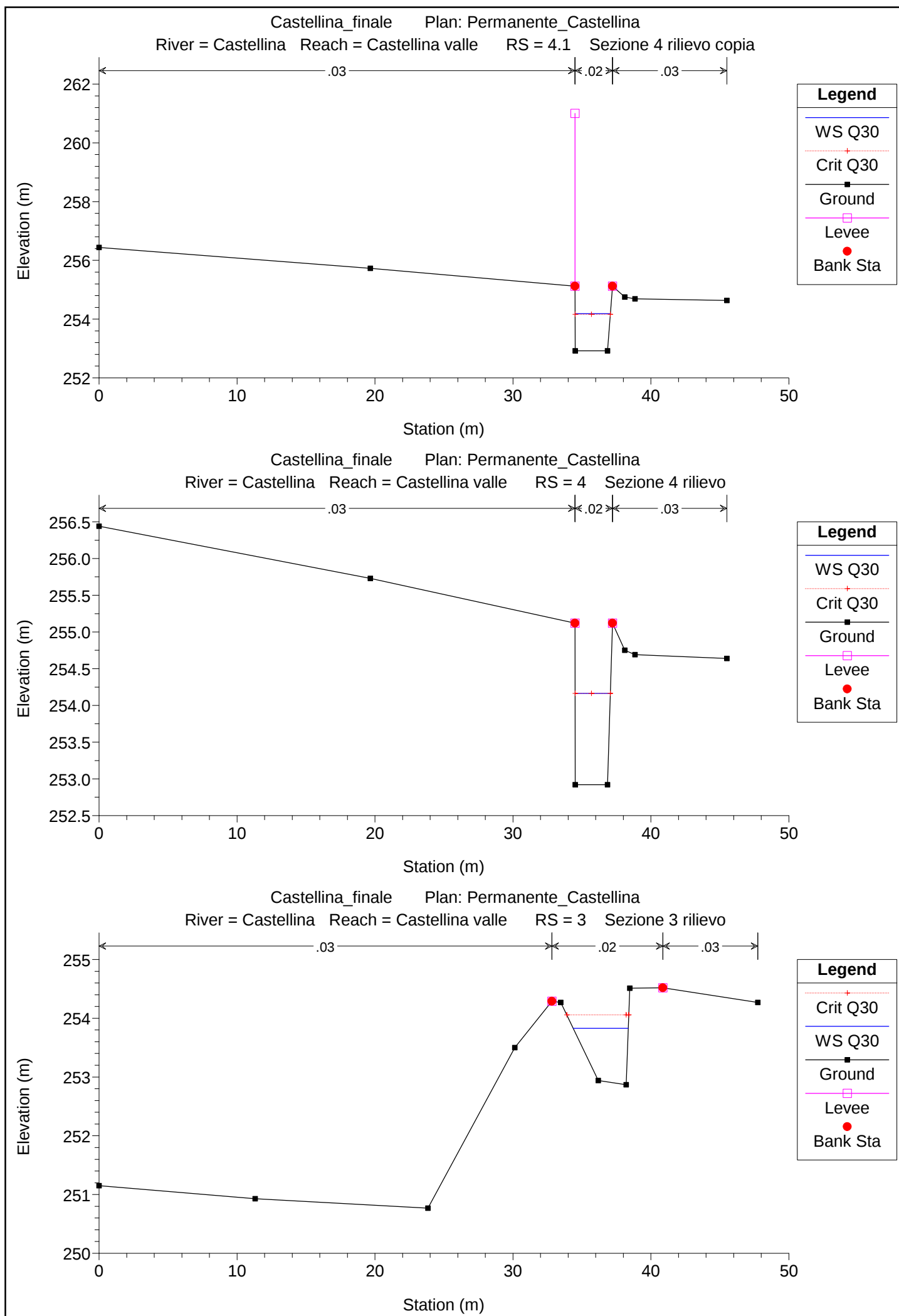


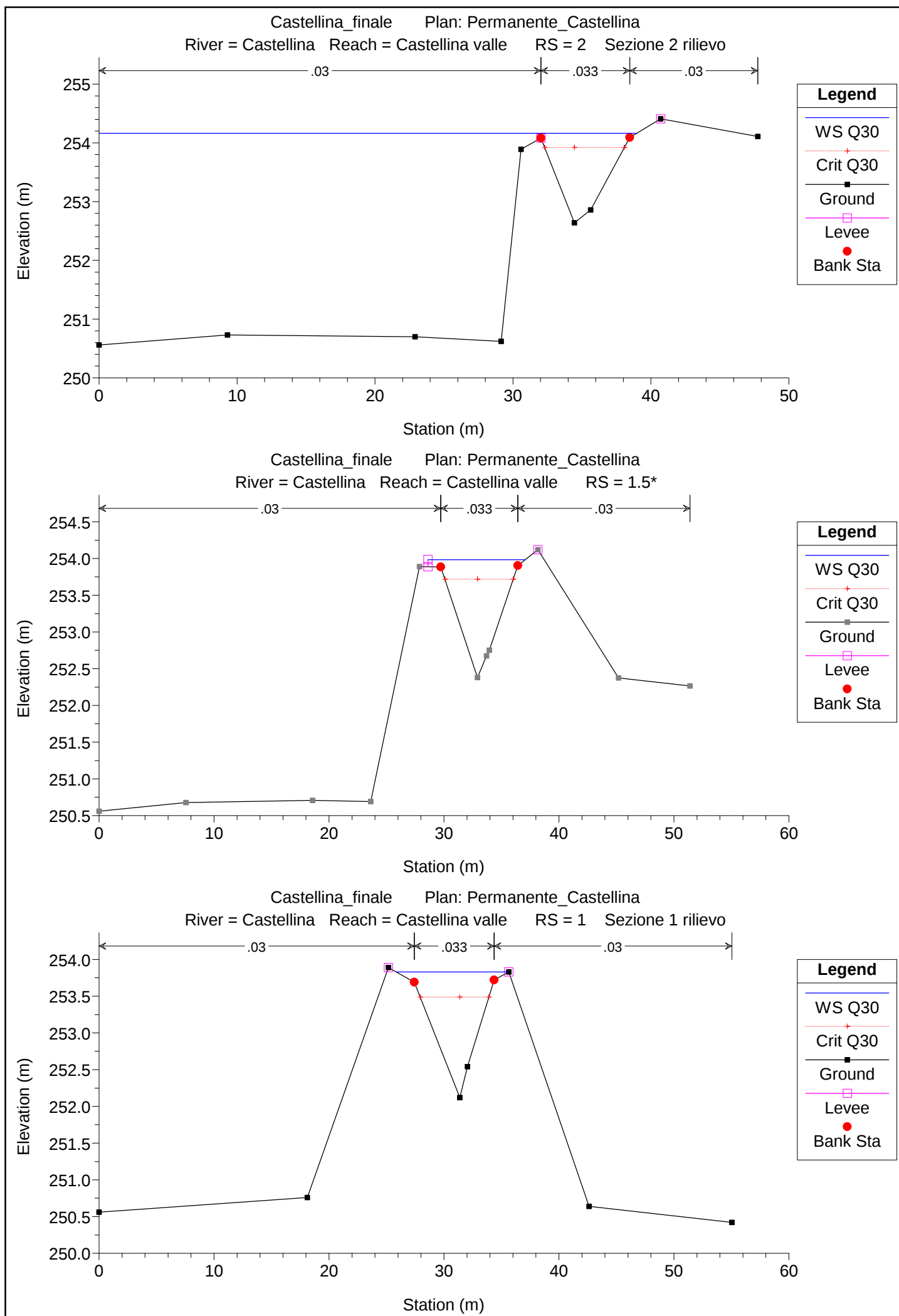


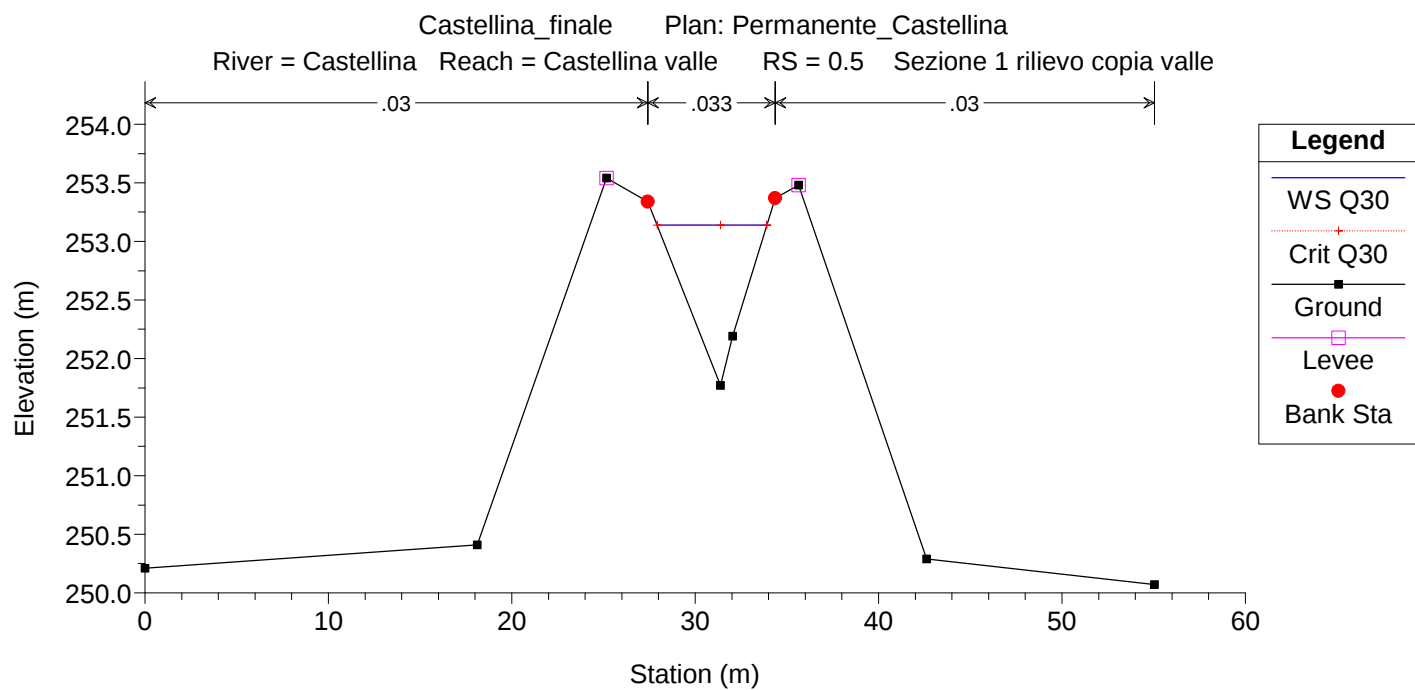
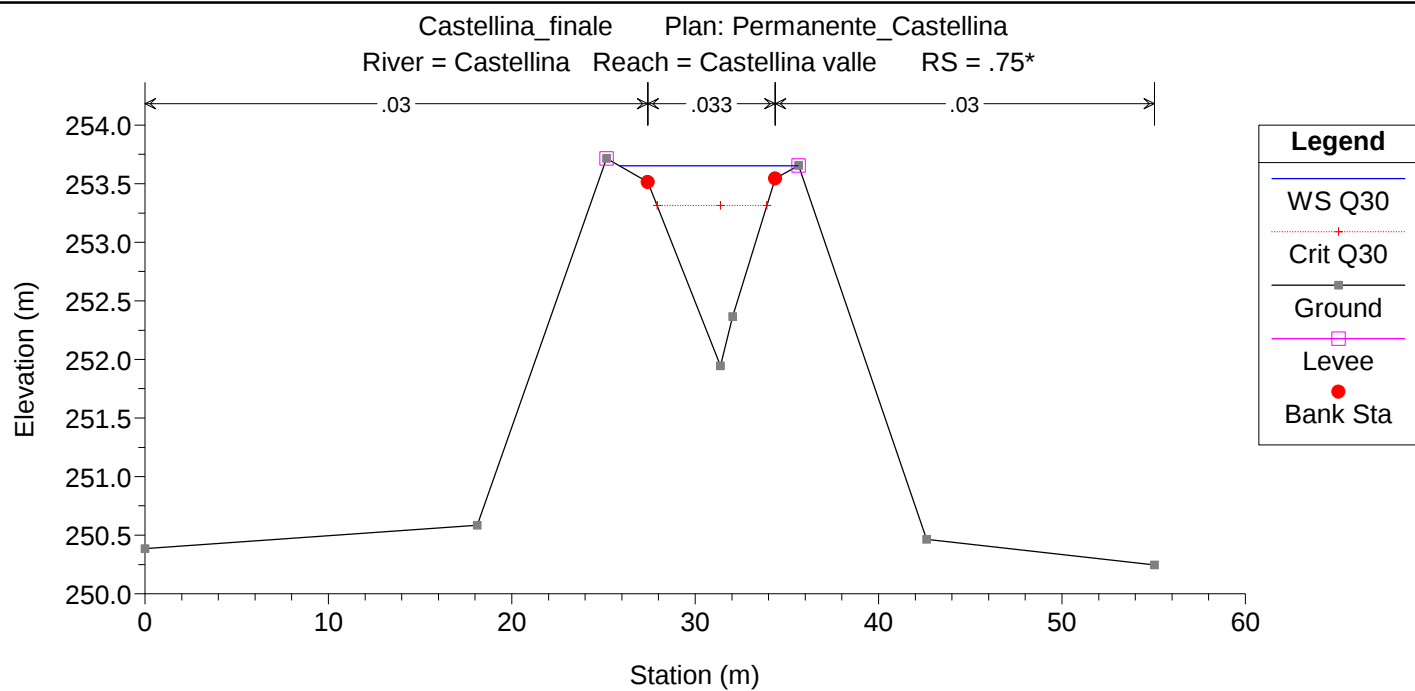




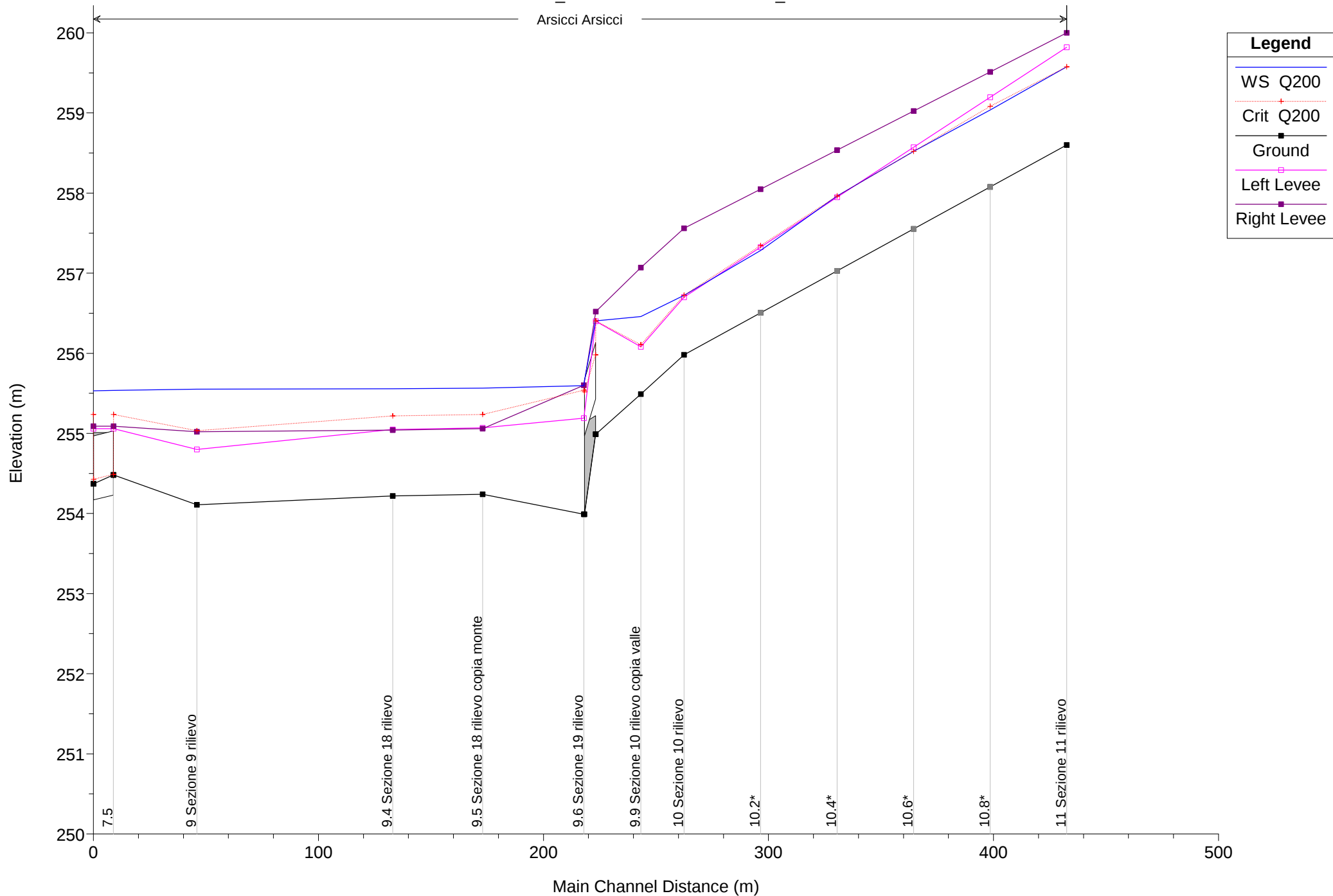




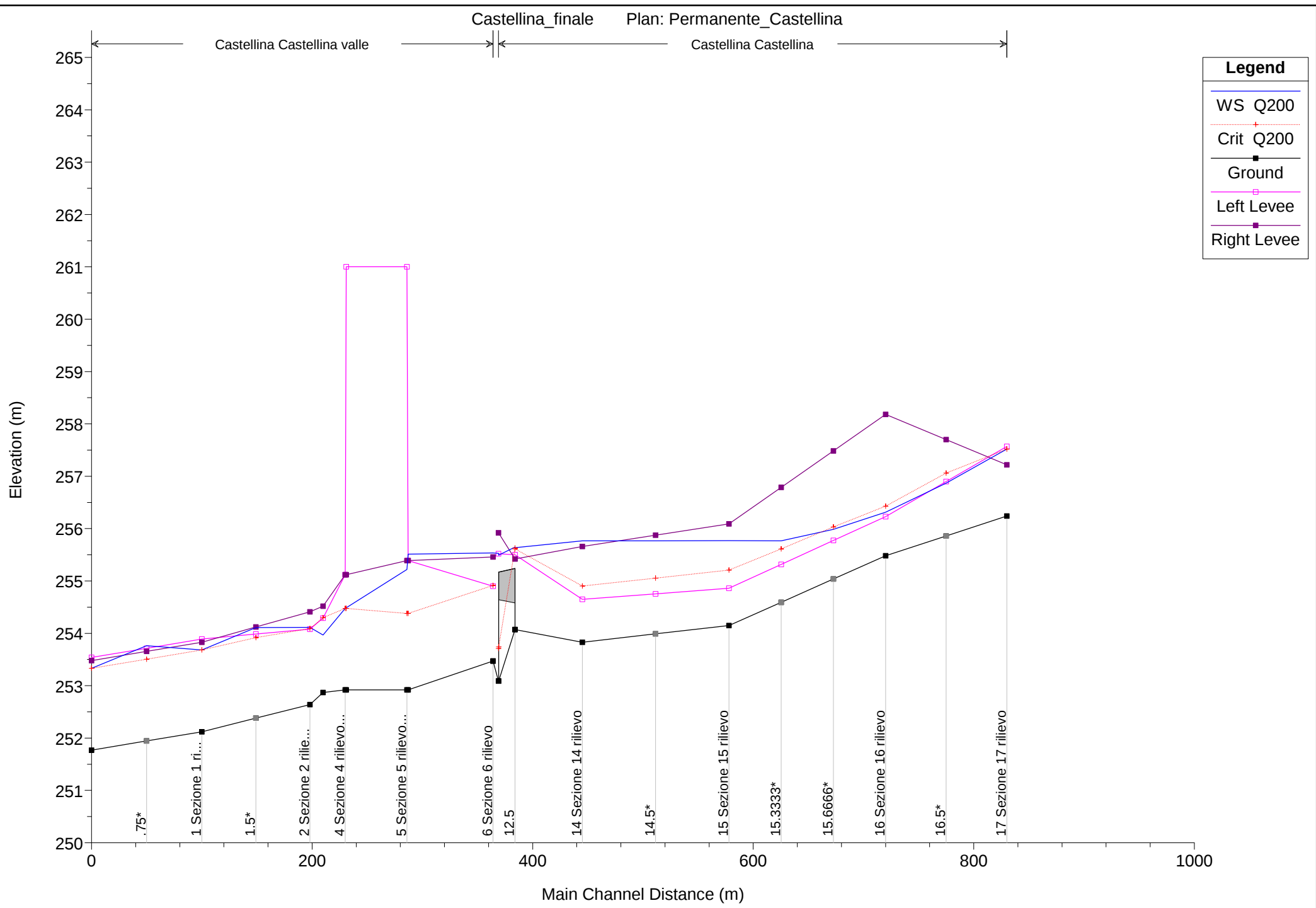




Castellina_finale Plan: Permanente_Castellina

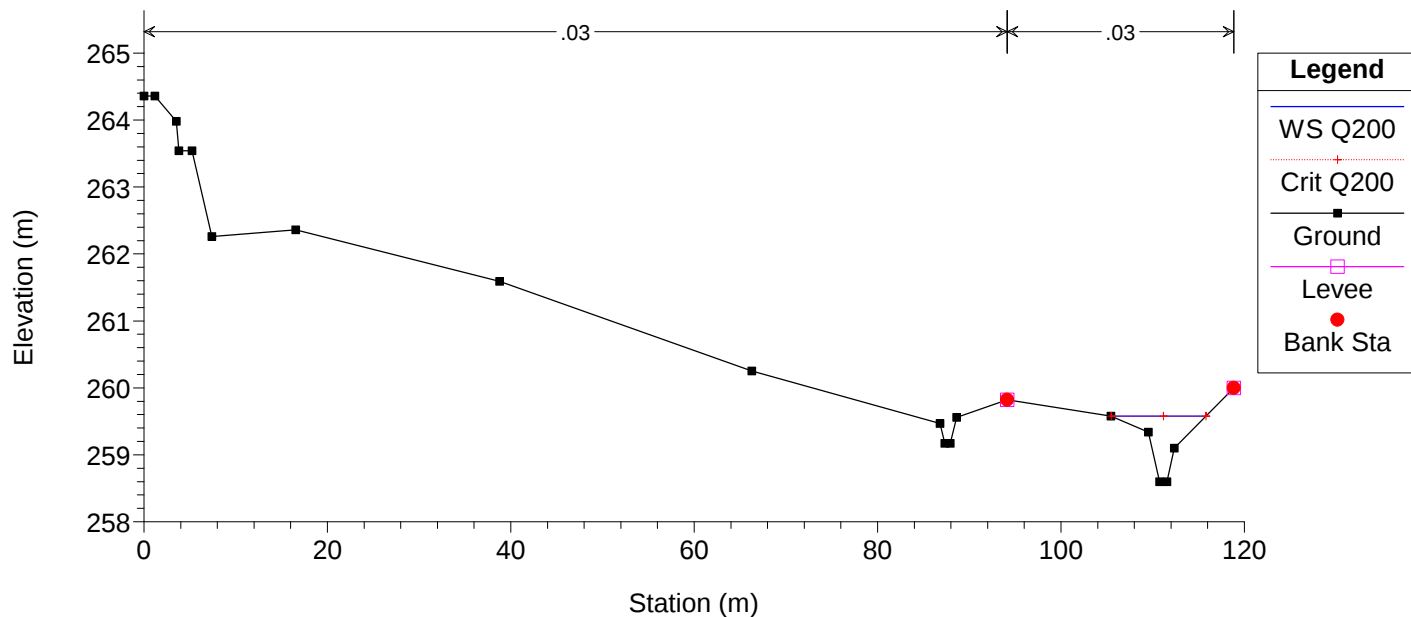


Castellina_finale Plan: Permanente_Castellina

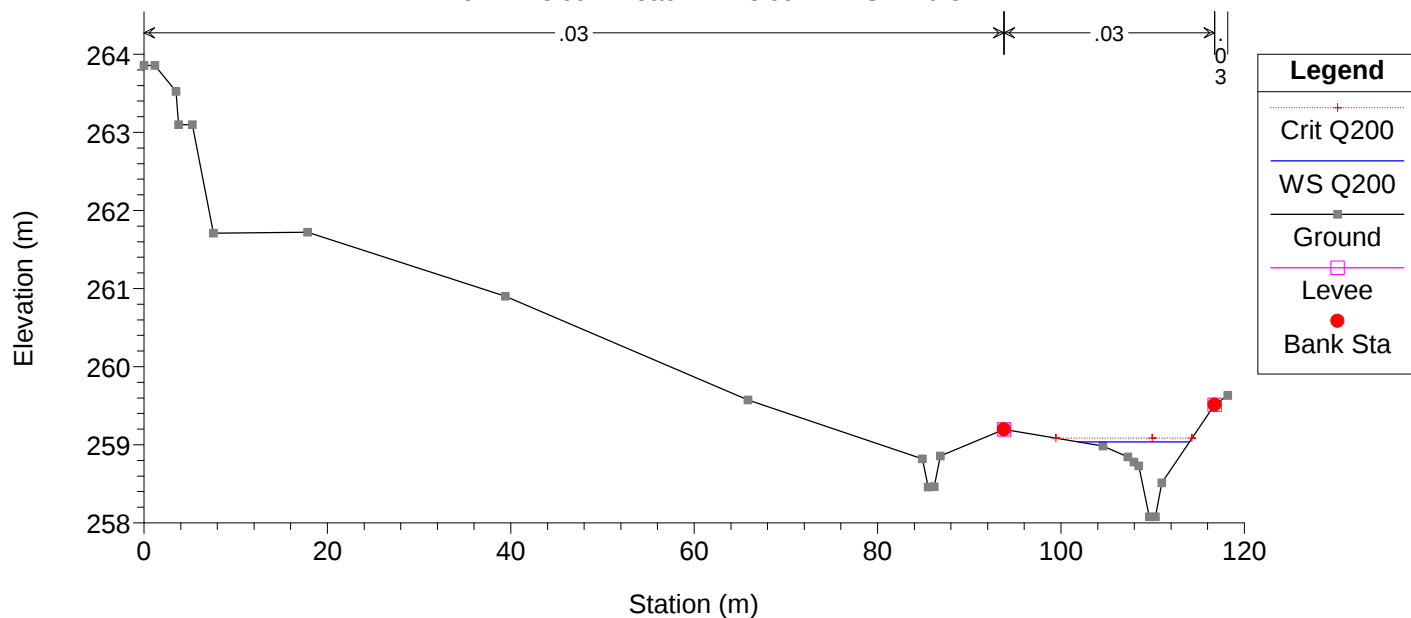


River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Castellina	Castellina	17	Q200	8.20	256.24	257.52	257.52	257.70	0.006088	2.05	5.11	15.71	0.72
Castellina	Castellina	16.5*	Q200	8.20	255.86	256.87	257.06	257.25	0.012791	2.73	3.00	4.01	1.01
Castellina	Castellina	16	Q200	8.20	255.48	256.31	256.43	256.59	0.010292	2.41	4.18	23.60	0.91
Castellina	Castellina	15.6666*	Q200	8.20	255.04	255.99	256.03	256.14	0.006815	2.03	6.67	38.29	0.74
Castellina	Castellina	15.3333*	Q200	8.20	254.59	255.77	255.61	255.78	0.001127	0.87	15.77	54.91	0.30
Castellina	Castellina	15	Q200	8.20	254.15	255.77	255.21	255.77	0.000068	0.23	45.53	85.11	0.07
Castellina	Castellina	14.5*	Q200	8.20	253.99	255.77	255.06	255.77	0.000019	0.15	67.68	88.13	0.04
Castellina	Castellina	14	Q200	8.20	253.83	255.77	254.90	255.77	0.000007	0.10	104.61	121.84	0.03
Castellina	Castellina	13	Q200	8.20	254.07	255.64	255.61	255.75	0.001587	1.79	8.34	37.06	0.46
Castellina	Castellina	12.5		Bridge									
Castellina	Castellina	12	Q200	8.20	253.09	255.53	253.71	255.55	0.000366	0.64	13.01	22.82	0.18
Castellina	Castellina valle	6	Q200	14.60	253.47	255.54	254.92	255.54	0.000092	0.29	67.27	119.27	0.08
Castellina	Castellina valle	5.1	Q200	14.60	252.92	255.51	254.38	255.53	0.000174	0.62	27.85	34.36	0.12
Castellina	Castellina valle	5	Q200	14.60	252.92	255.22	254.38	255.50	0.002708	2.34	6.23	2.73	0.49
Castellina	Castellina valle	4.1	Q200	14.60	252.92	254.49	254.48	255.21	0.009011	3.76	3.88	2.61	0.98
Castellina	Castellina valle	4	Q200	14.60	252.92	254.48	254.48	255.21	0.009158	3.78	3.86	2.60	0.99
Castellina	Castellina valle	3	Q200	14.60	252.87	253.97	254.30	254.96	0.015122	4.41	3.31	4.29	1.60
Castellina	Castellina valle	2	Q200	14.60	252.64	254.11	254.09	254.11	0.000005	0.05	108.07	38.61	0.02
Castellina	Castellina valle	1.5*	Q200	14.60	252.38	254.11	253.92	254.11	0.000006	0.07	96.28	38.10	0.02
Castellina	Castellina valle	1	Q200	14.60	252.12	253.68	253.68	254.07	0.013410	2.76	5.28	6.86	1.01
Castellina	Castellina valle	.75*	Q200	14.60	251.94	253.76	253.51	253.76	0.000004	0.06	132.55	55.04	0.02
Castellina	Castellina valle	0.5	Q200	14.60	251.77	253.33	253.33	253.72	0.013491	2.77	5.27	6.85	1.01
Arsicci	Arsicci	11	Q200	6.40	258.60	259.58	259.58	259.76	0.014608	1.88	3.41	10.32	1.04
Arsicci	Arsicci	10.8*	Q200	6.40	258.08	259.04	259.08	259.22	0.018427	1.89	3.38	12.13	1.15
Arsicci	Arsicci	10.6*	Q200	6.40	257.55	258.52	258.52	258.66	0.016560	1.64	3.89	16.10	1.07
Arsicci	Arsicci	10.4*	Q200	6.40	257.03	257.96	257.96	257.98	0.001860	0.53	10.68	39.75	0.36
Arsicci	Arsicci	10.2*	Q200	6.40	256.50	257.28	257.34	257.70	0.078190	2.87	2.23	12.77	2.19
Arsicci	Arsicci	10	Q200	6.40	255.98	256.72	256.72	256.74	0.001187	0.34	11.84	39.75	0.27
Arsicci	Arsicci	9.9	Q200	6.40	255.49	256.46	256.11	256.46	0.000217	0.32	21.40	44.50	0.14
Arsicci	Arsicci	9.8	Q200	6.40	254.99	256.41	256.41	256.45	0.002742	1.63	9.21	44.24	0.47
Arsicci	Arsicci	9.7		Culvert									
Arsicci	Arsicci	9.6	Q200	6.40	253.99	255.60	255.54	255.69	0.009352	1.54	4.78	15.62	0.56
Arsicci	Arsicci	9.5	Q200	6.40	254.24	255.56	255.24	255.57	0.000205	0.31	24.77	64.17	0.10
Arsicci	Arsicci	9.4	Q200	6.40	254.22	255.56	255.22	255.56	0.000189	0.30	25.57	65.33	0.09
Arsicci	Arsicci	9	Q200	6.40	254.11	255.55	255.03	255.55	0.000044	0.15	54.23	141.21	0.05
Arsicci	Arsicci	8	Q200	6.40	254.48	255.54	255.24	255.55	0.000564	0.44	14.74	37.93	0.19
Arsicci	Arsicci	7.5		Culvert									
Arsicci	Arsicci	7	Q200	6.40	254.37	255.53	255.24	255.54	0.000580	0.44	14.63	37.74	0.19

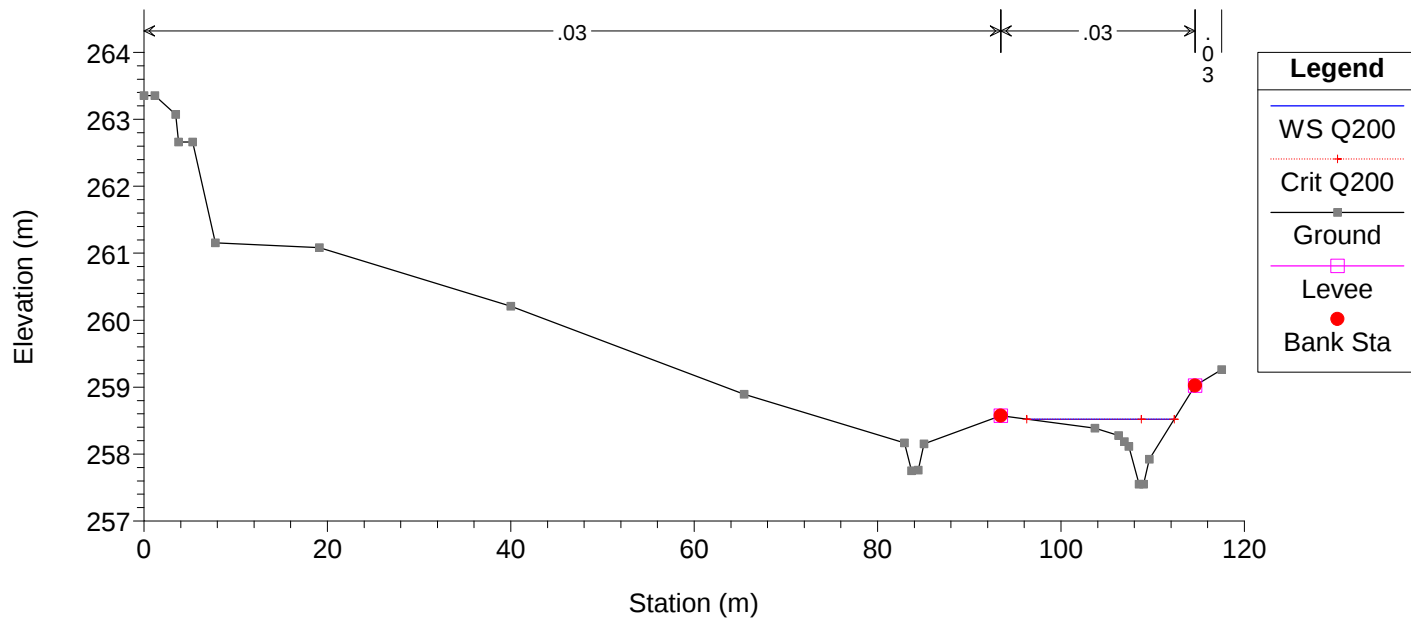
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 11 Sezione 11 rilievo

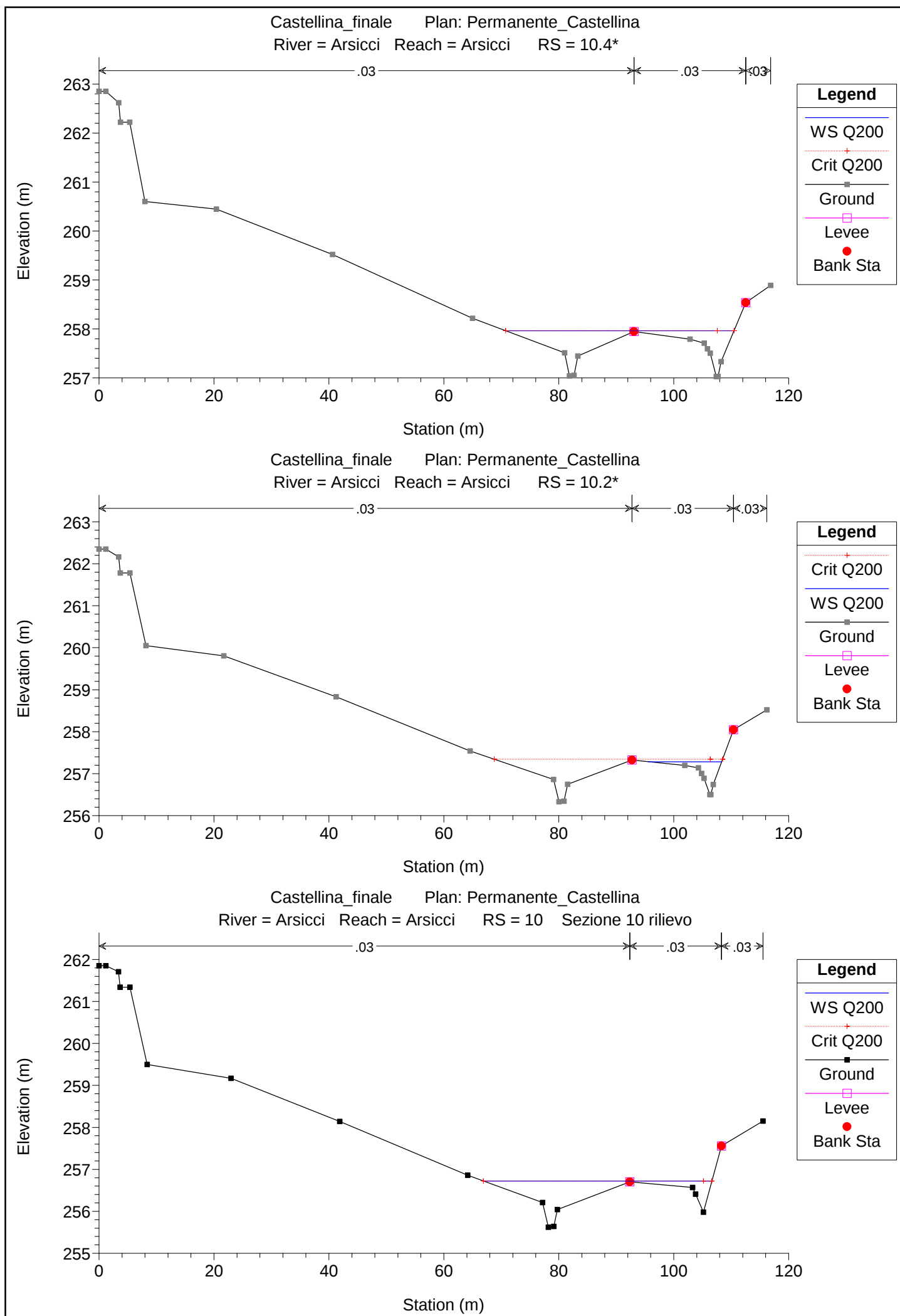


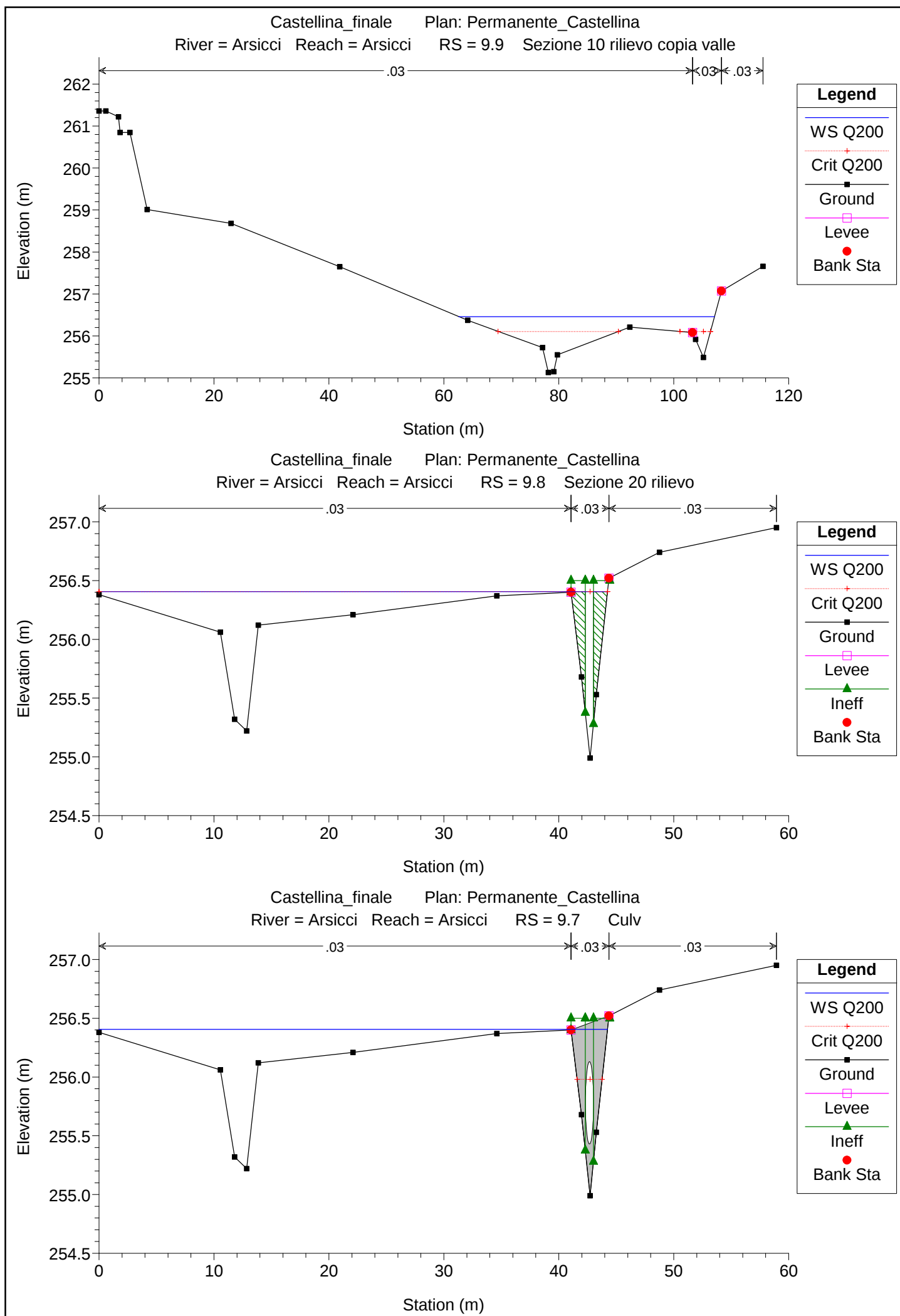
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.8*

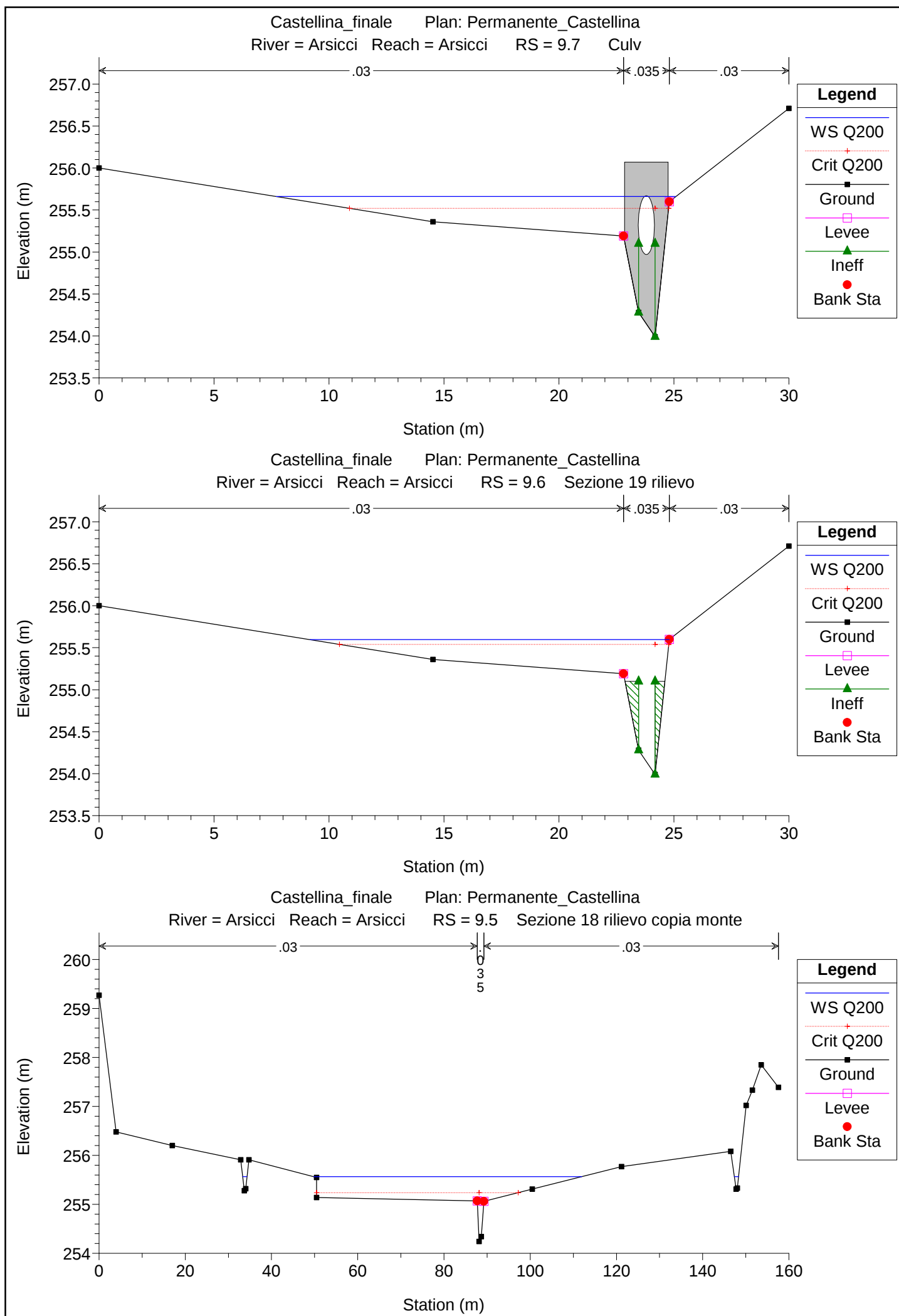


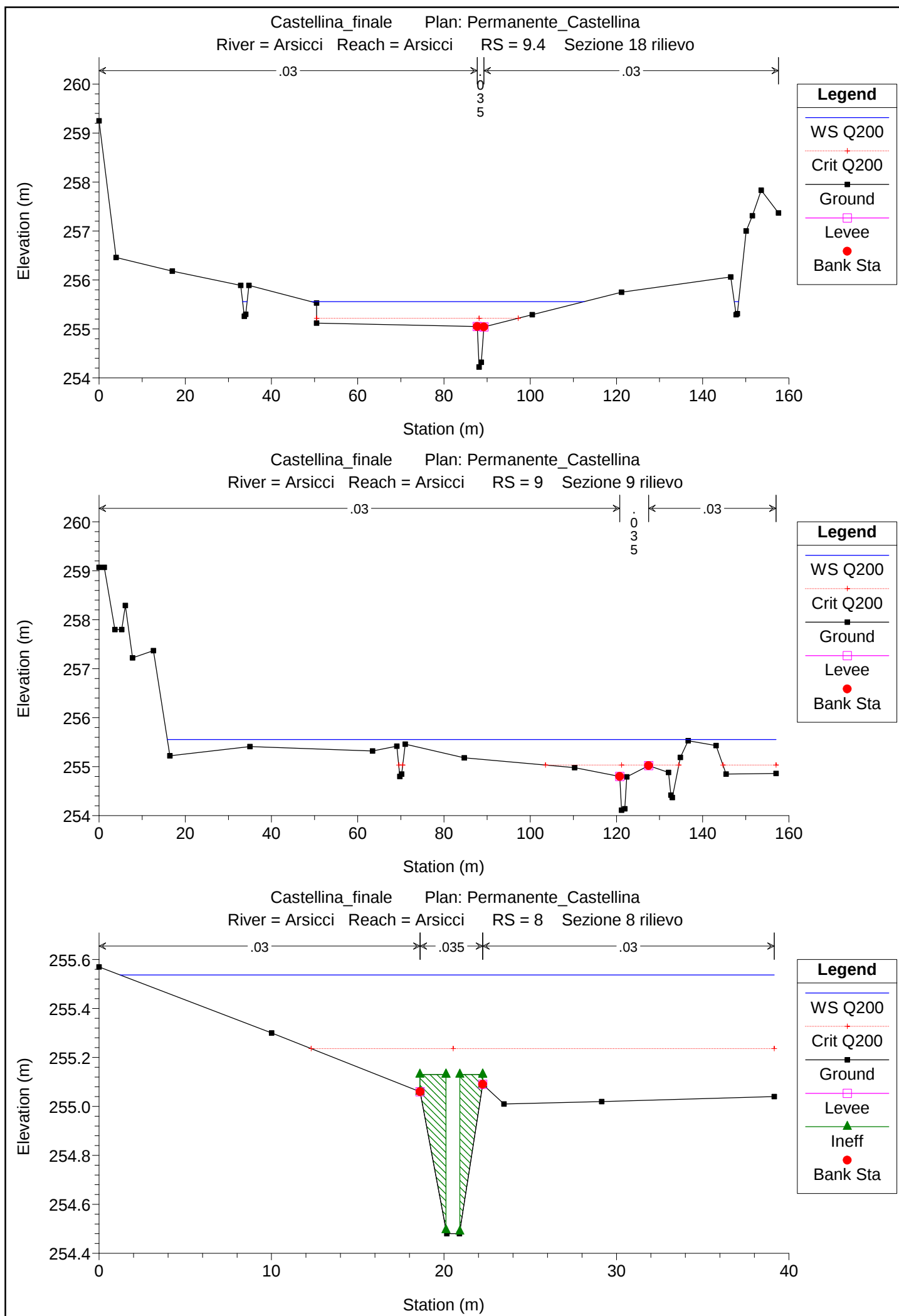
Castellina_finale Plan: Permanente_Castellina
 River = Arsicci Reach = Arsicci RS = 10.6*

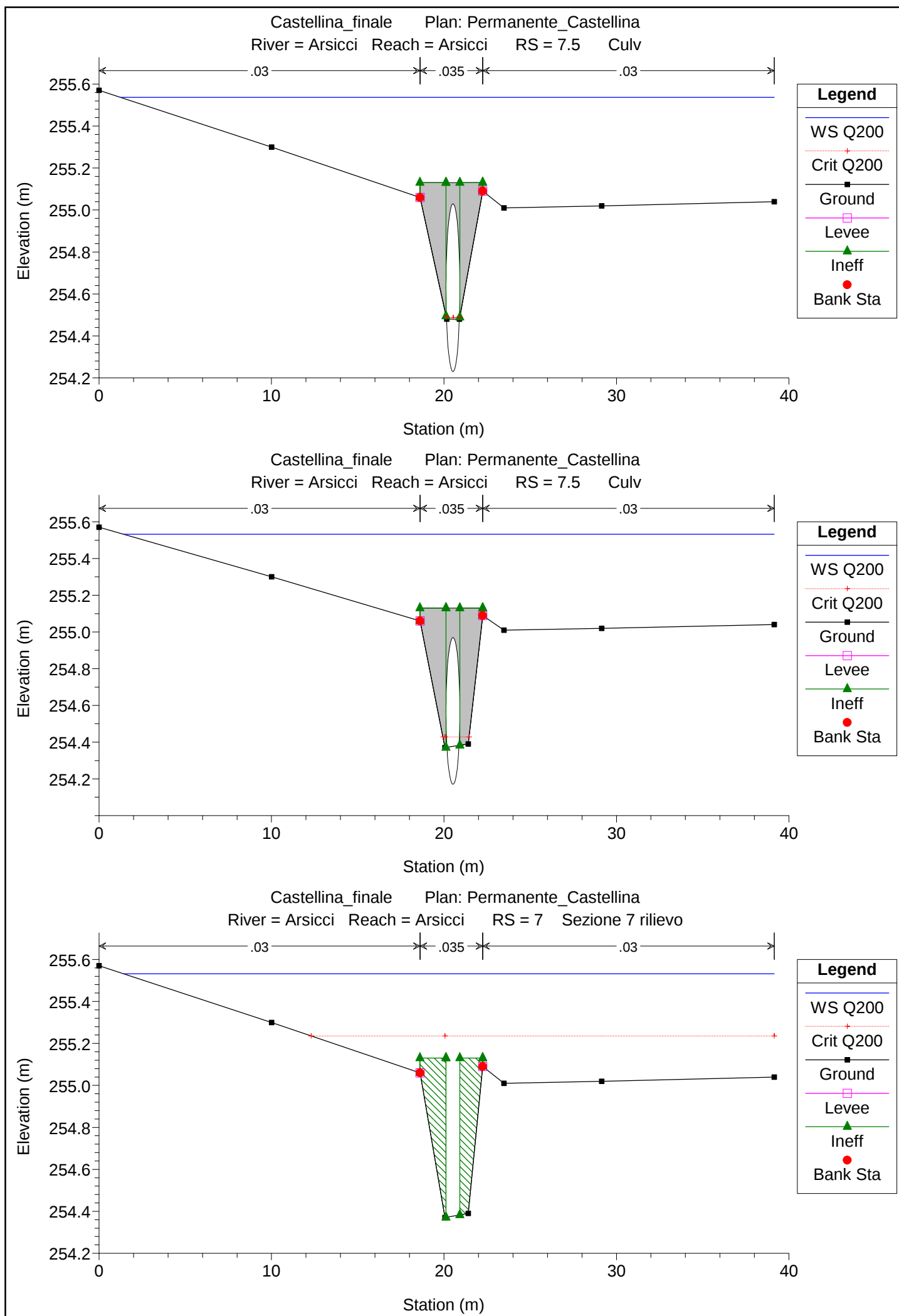


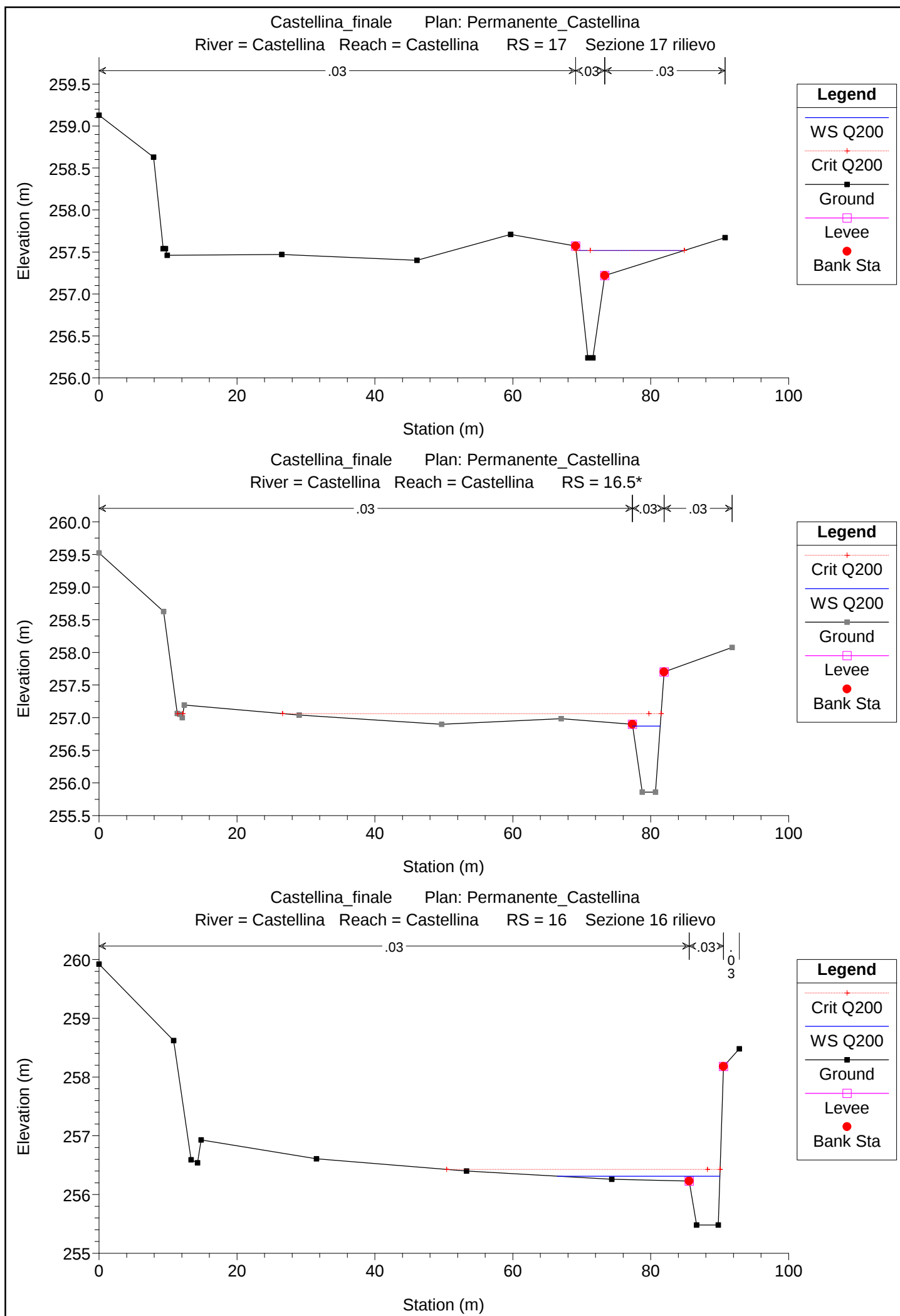


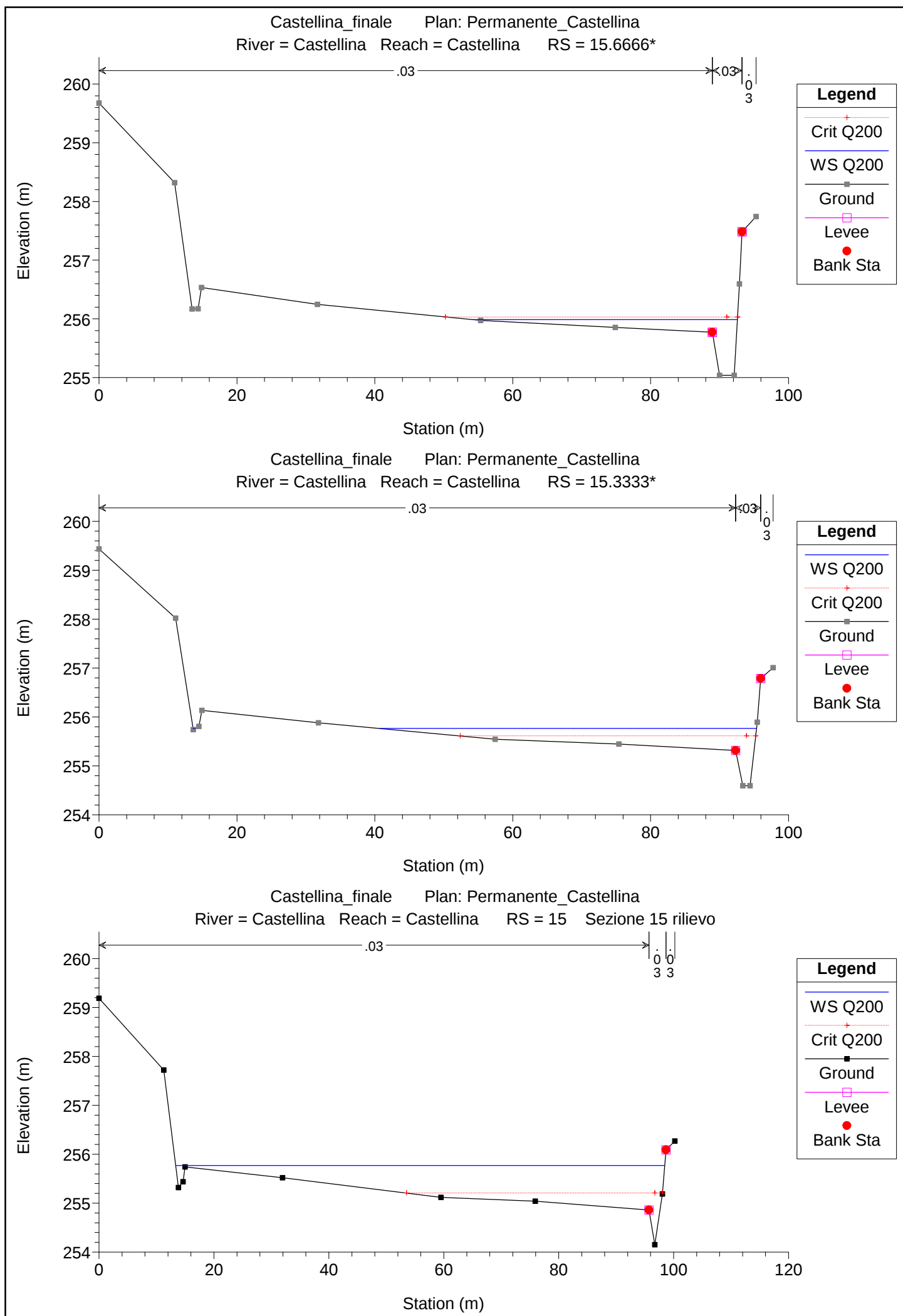


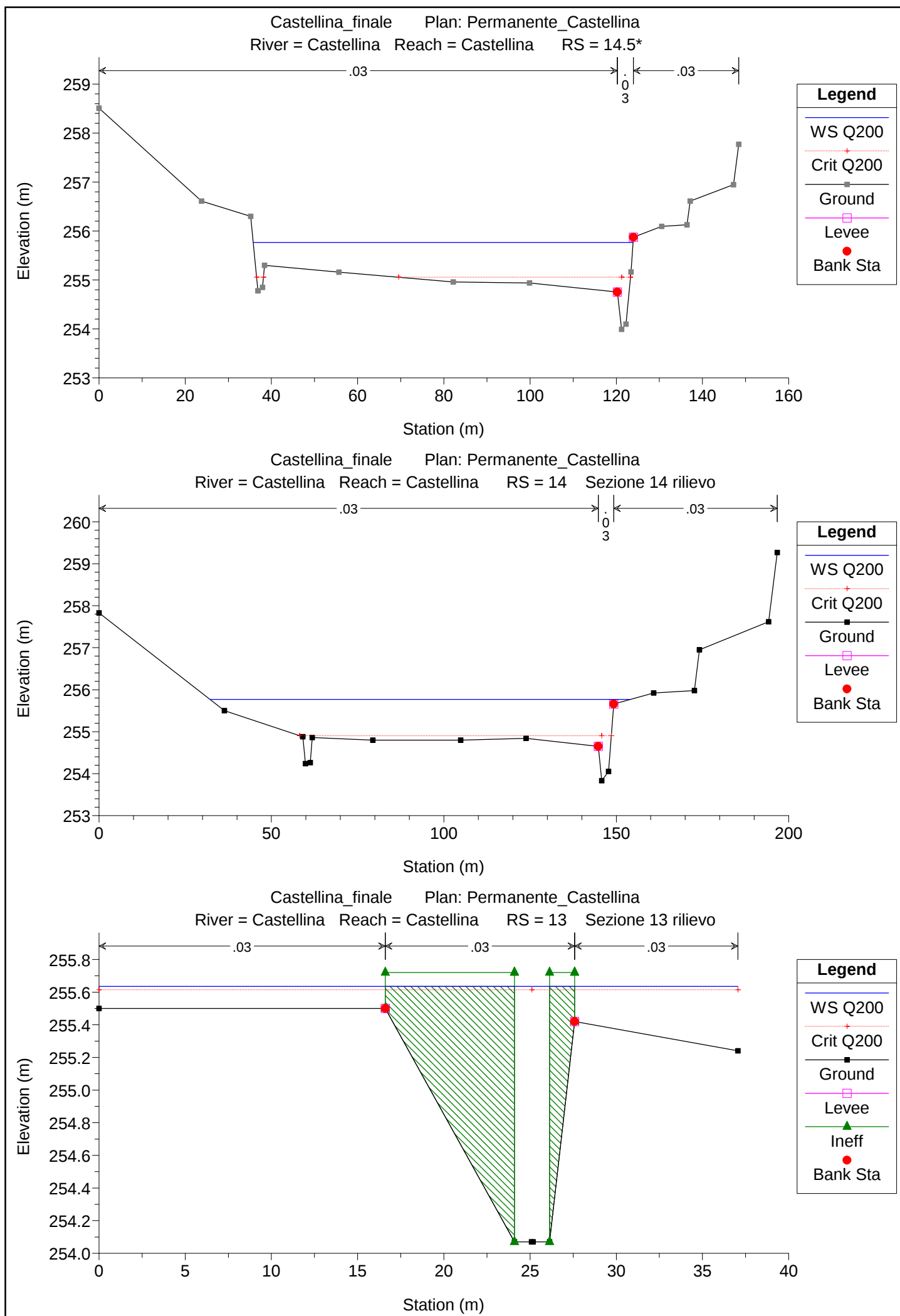


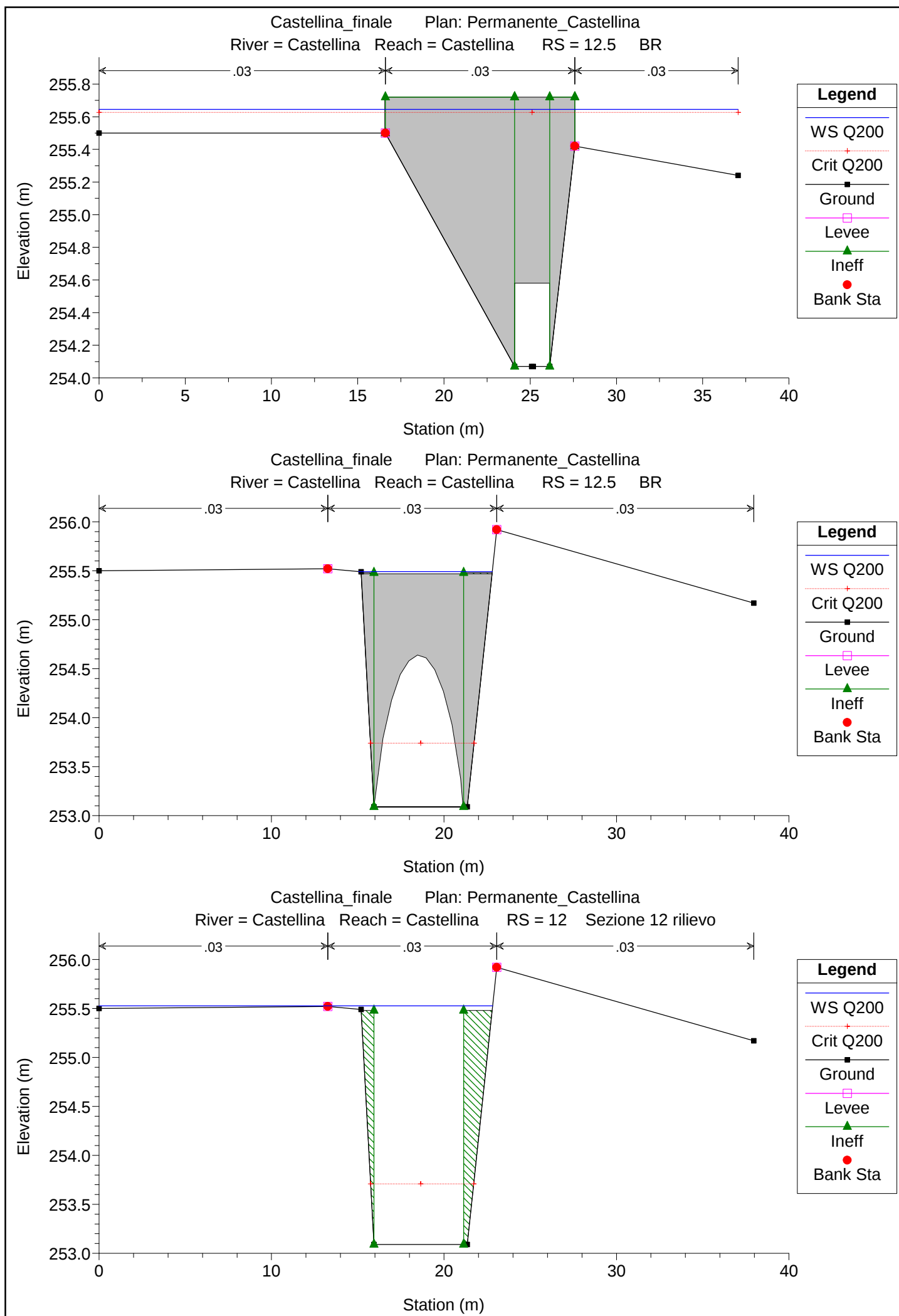


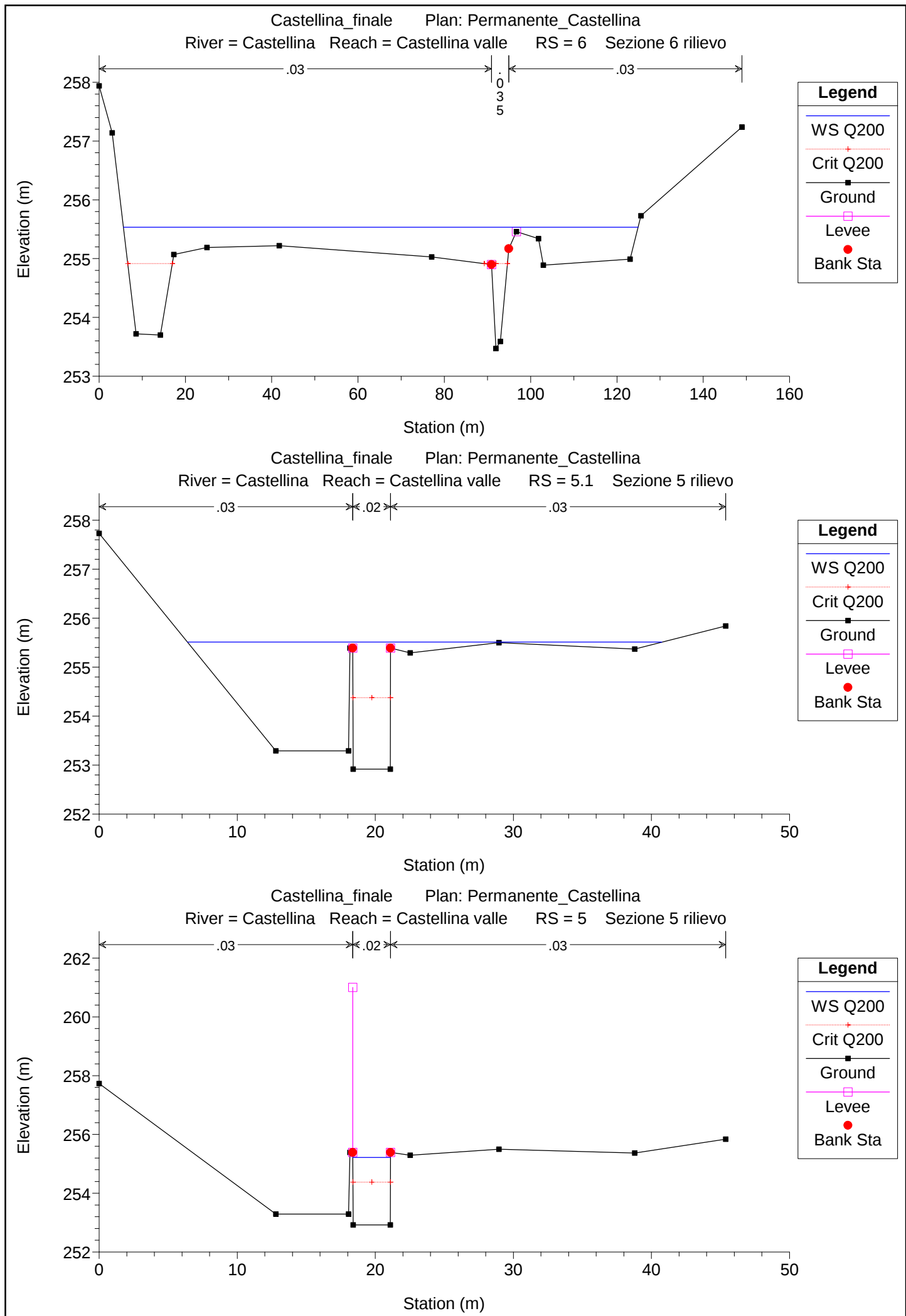


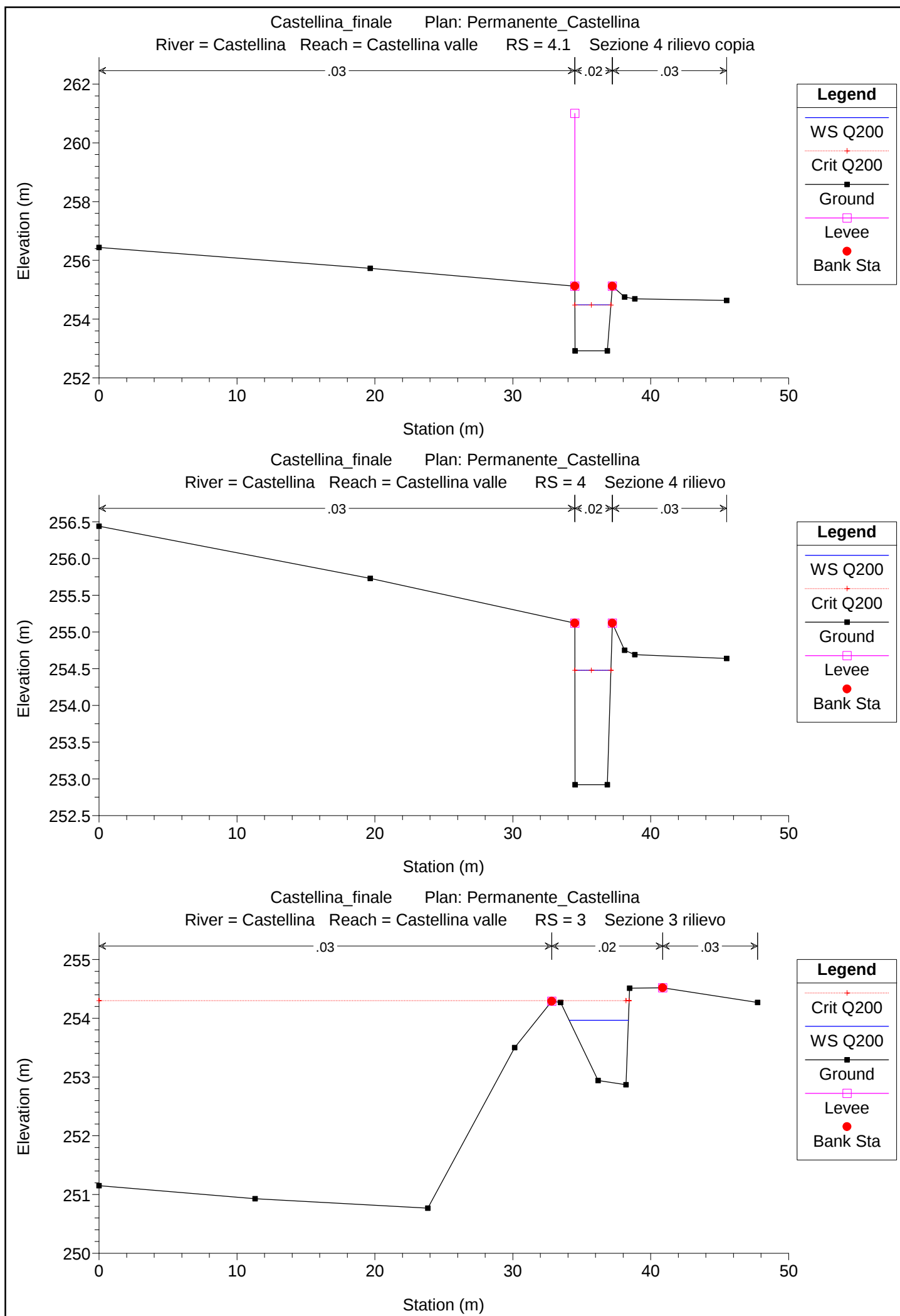


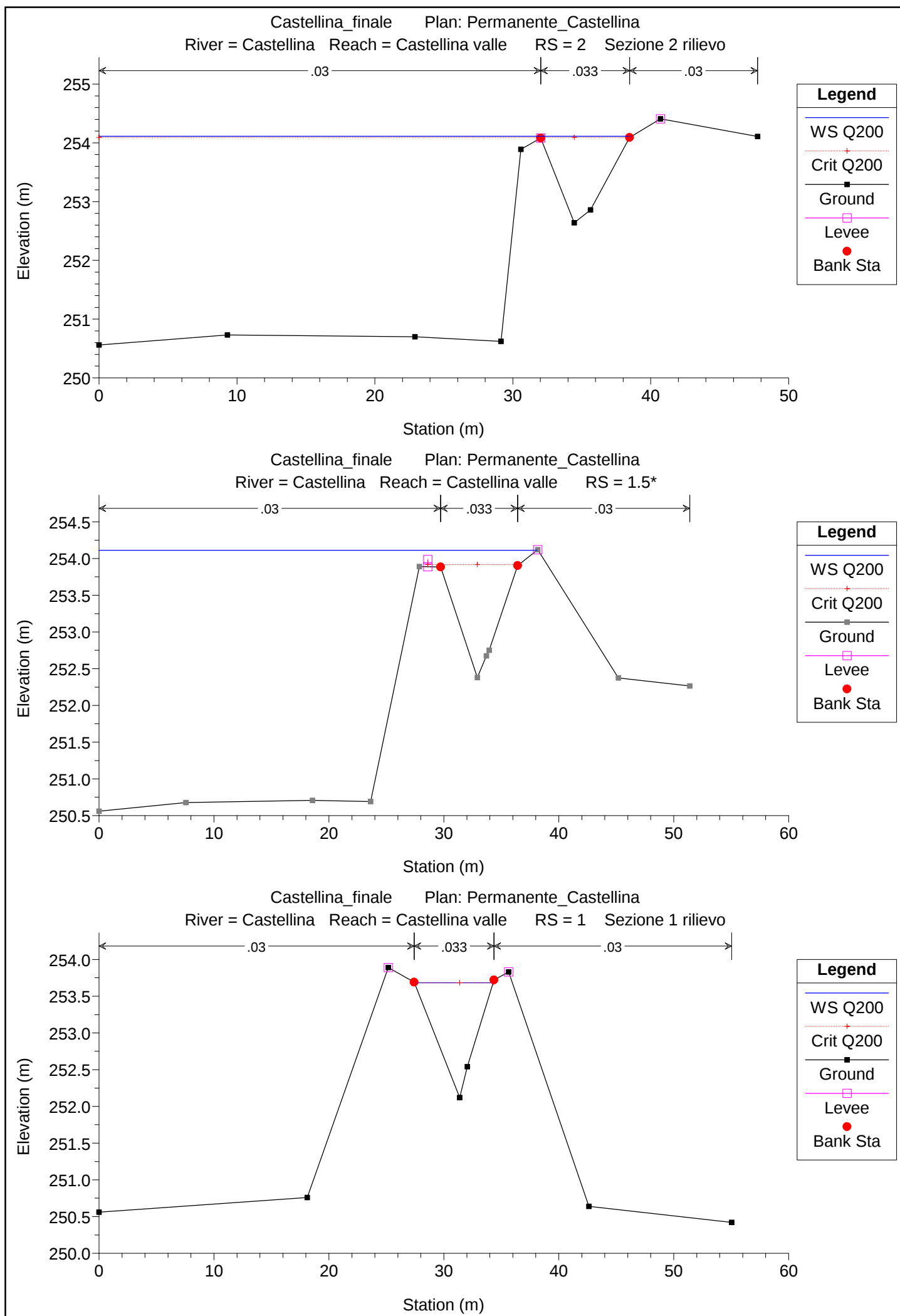


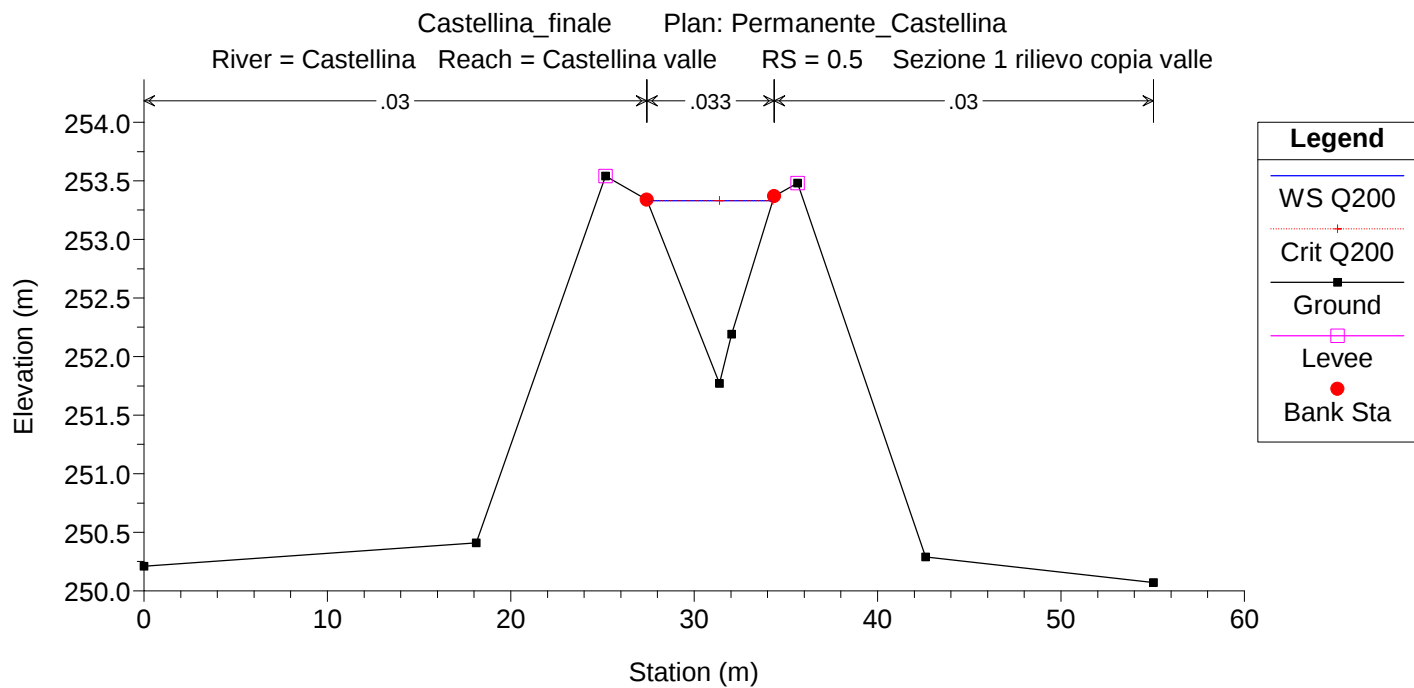
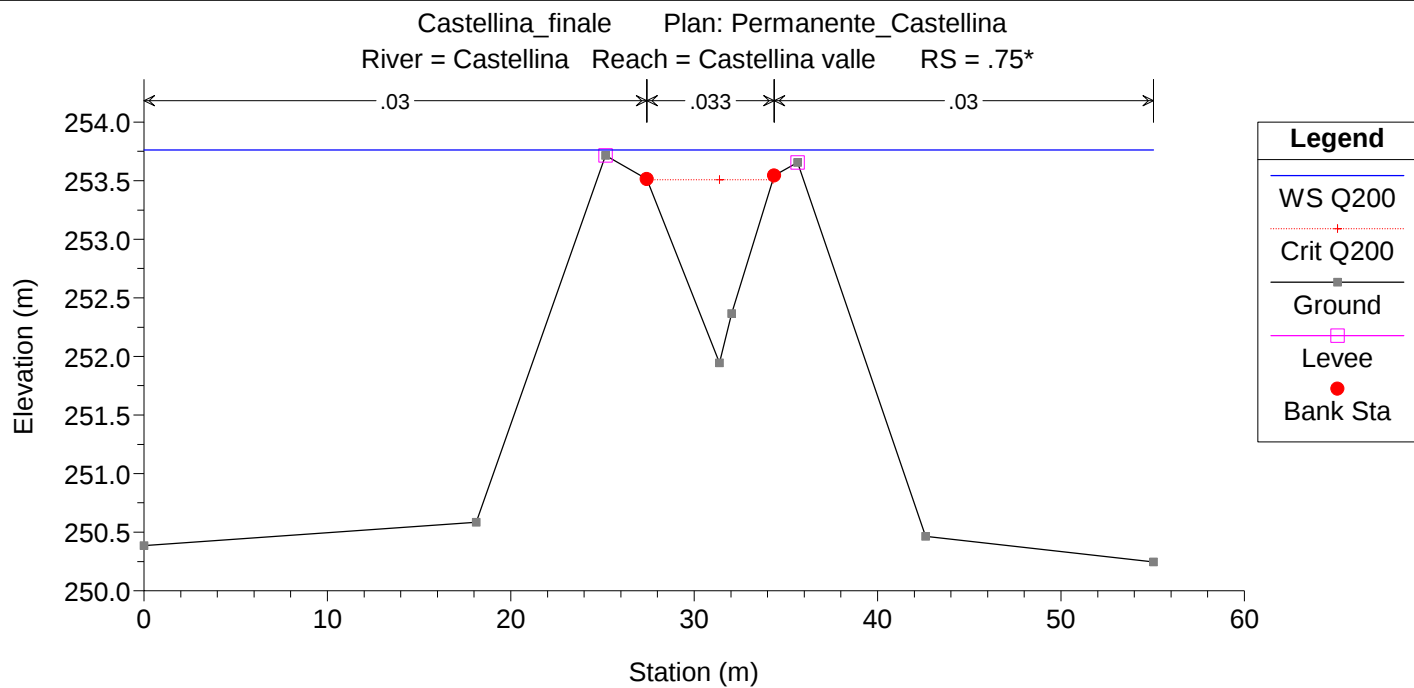








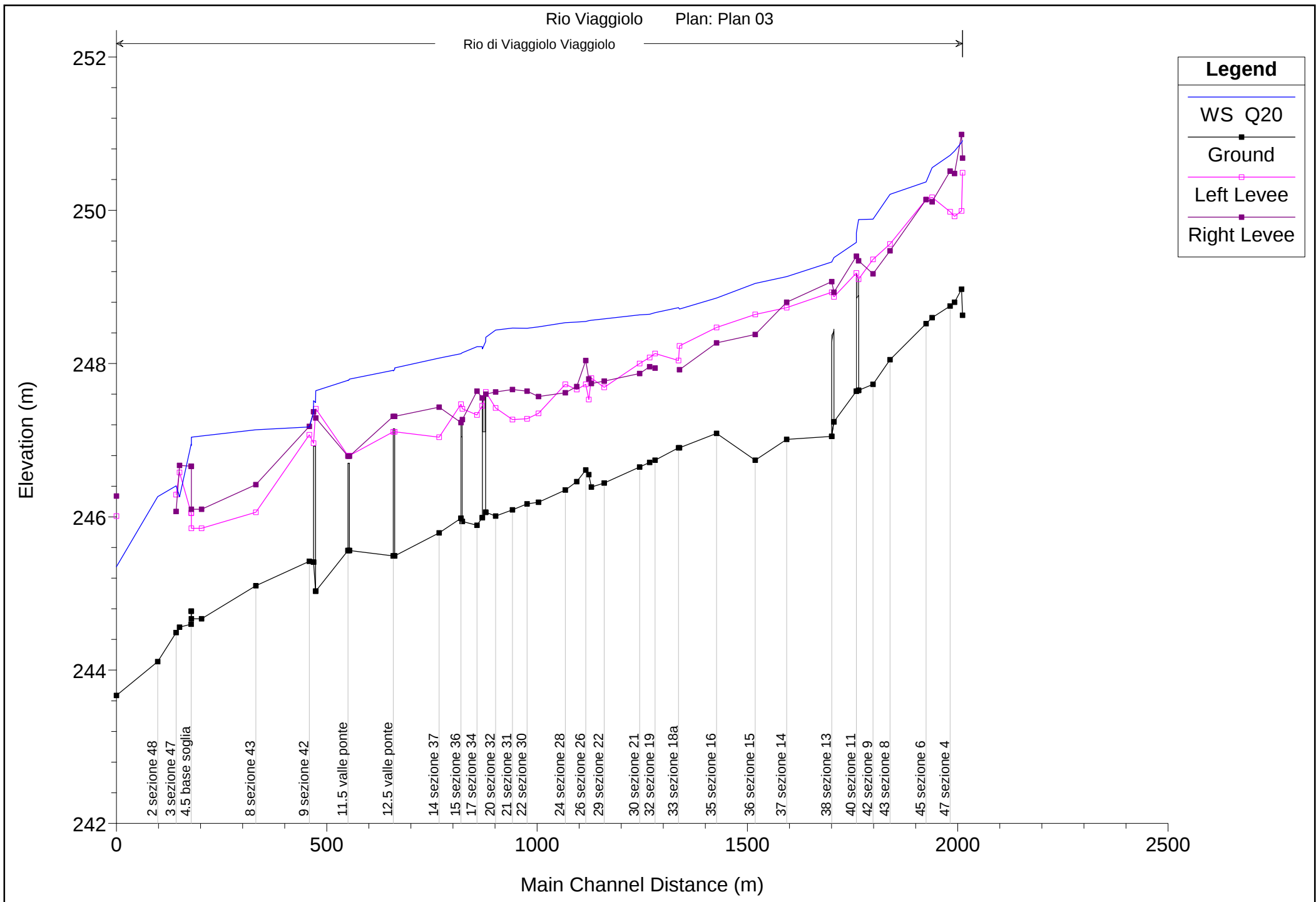




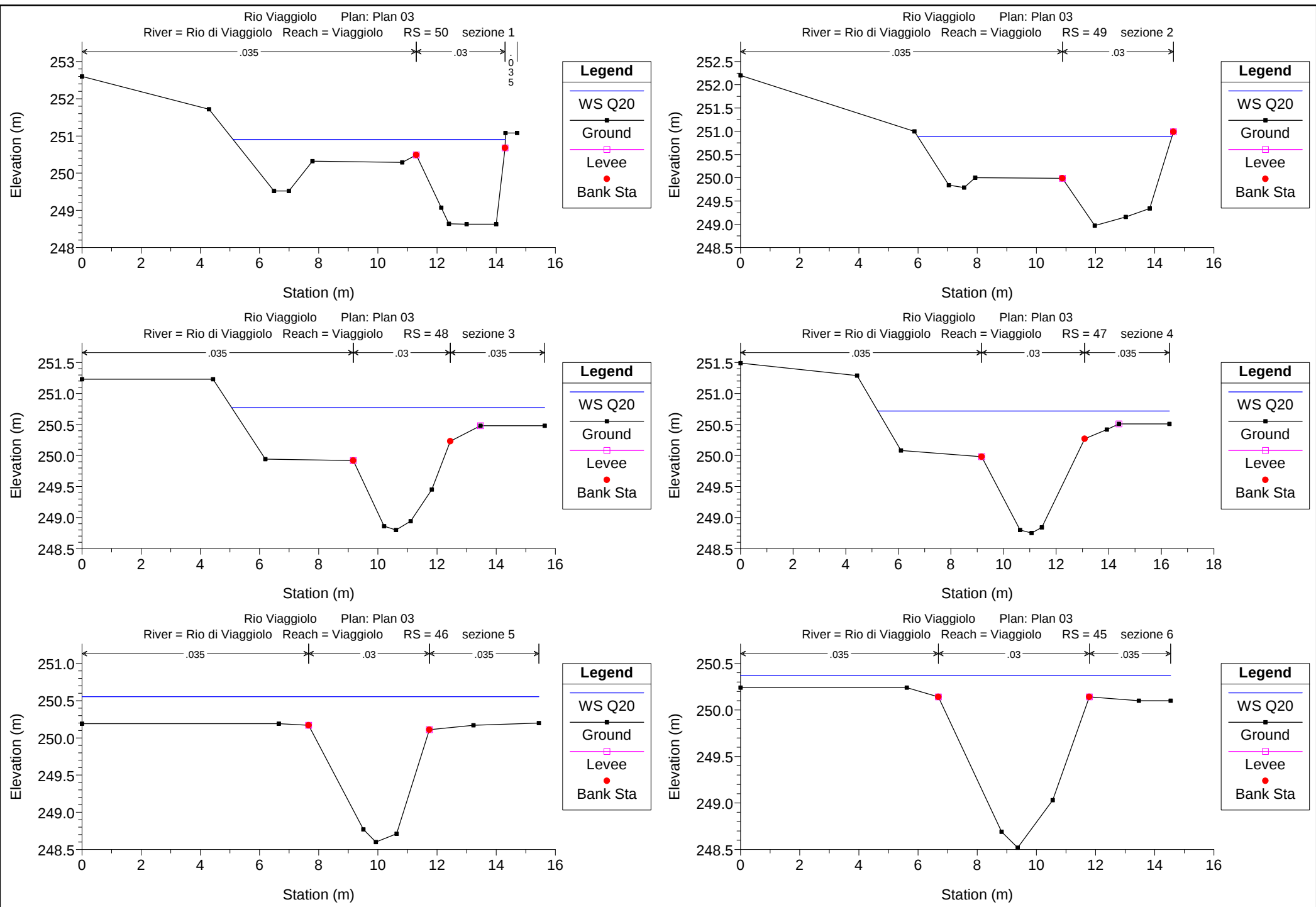
Rio di Viaggiolo

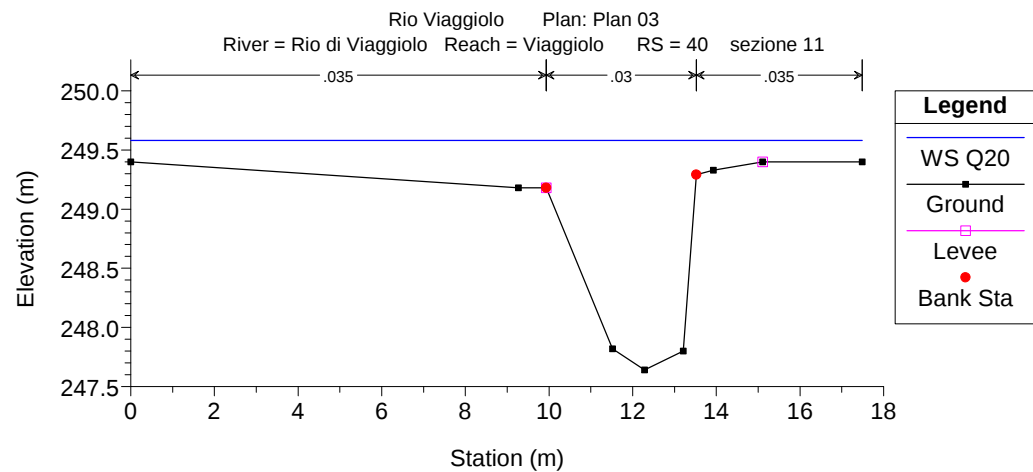
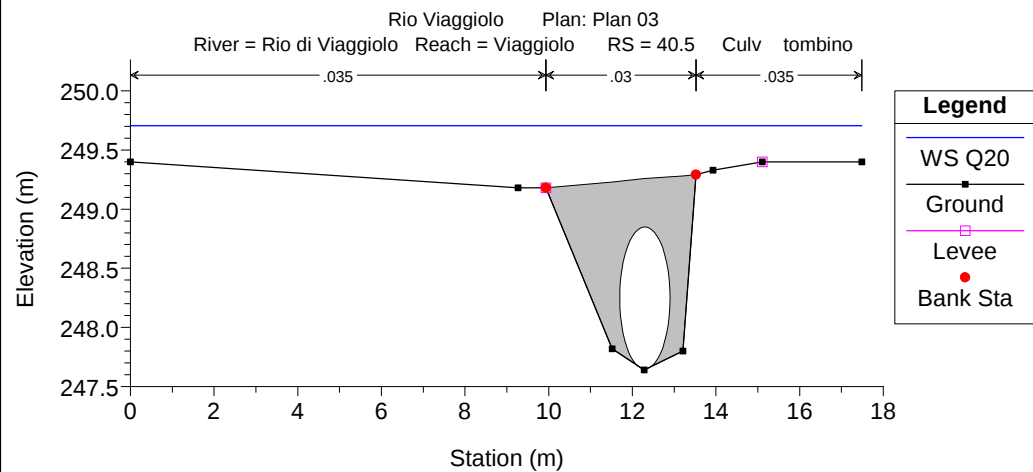
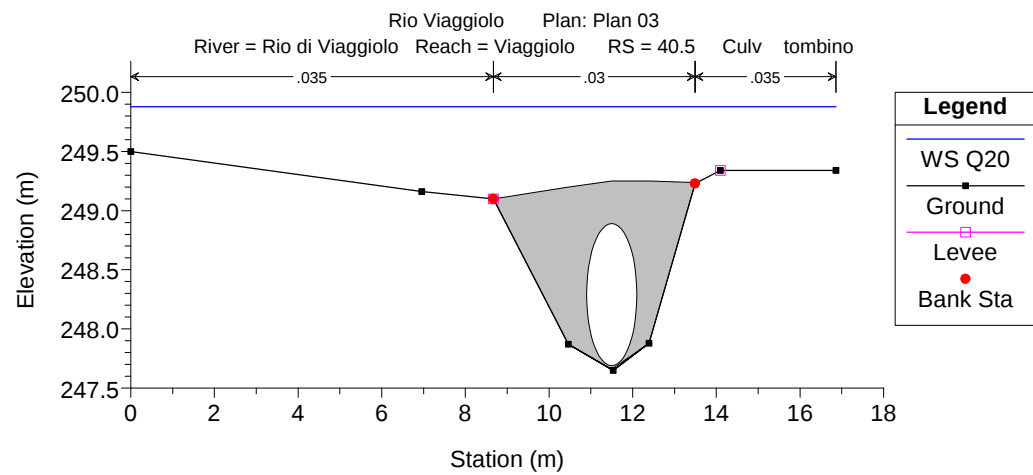
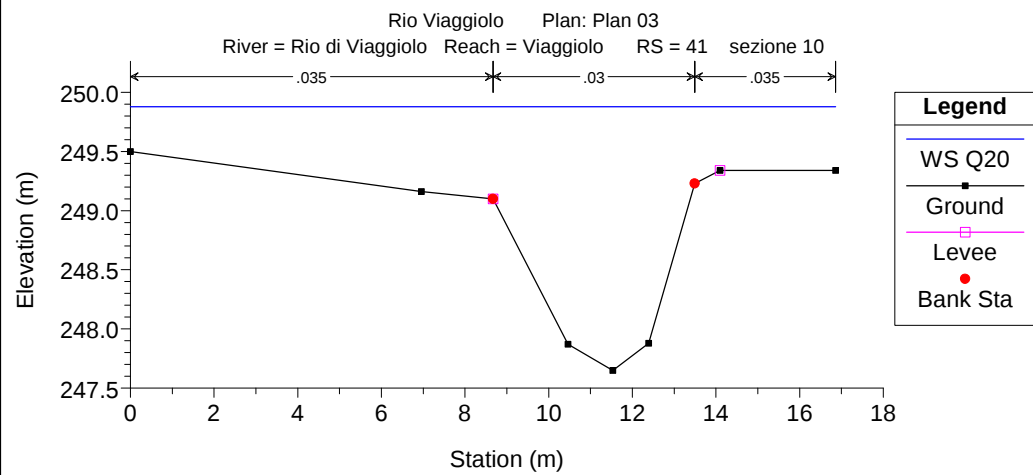
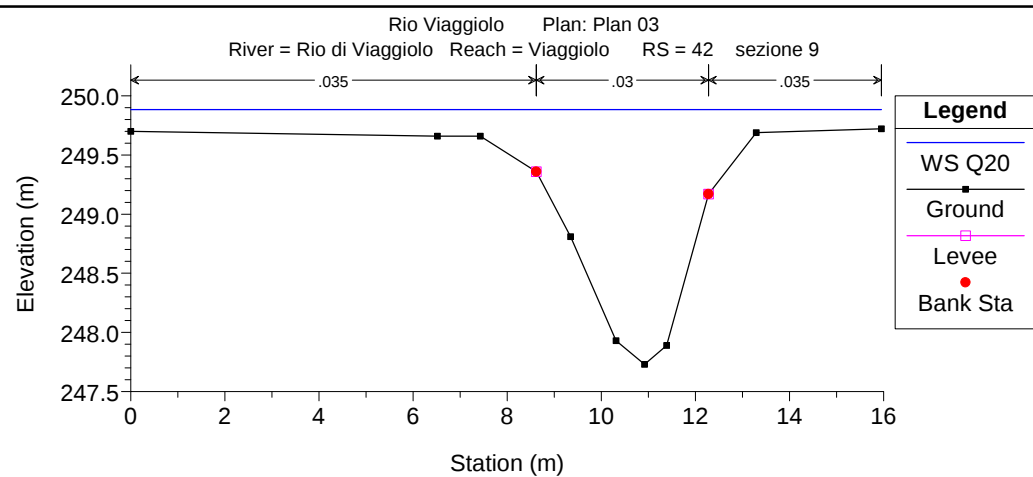
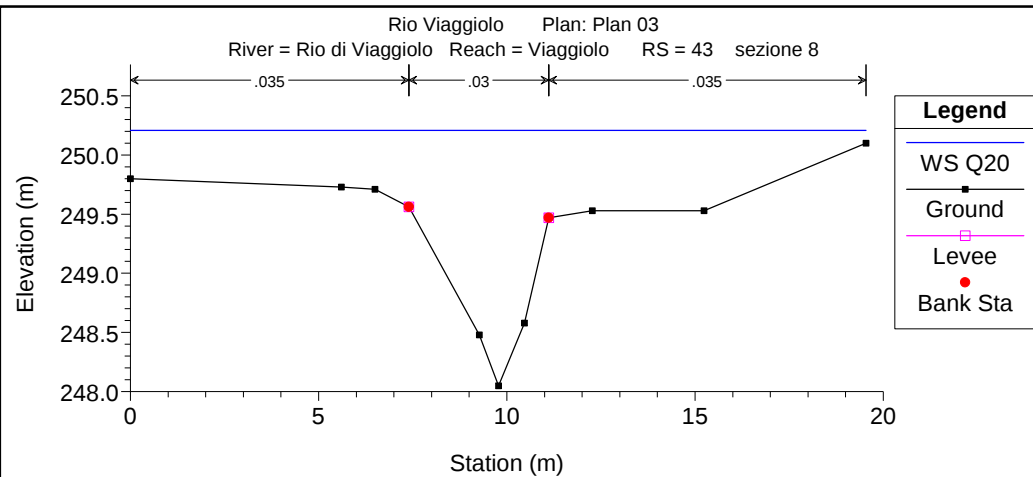
Nelle pagine che seguono vengono riportati gli elaborati qui di seguito indicati:

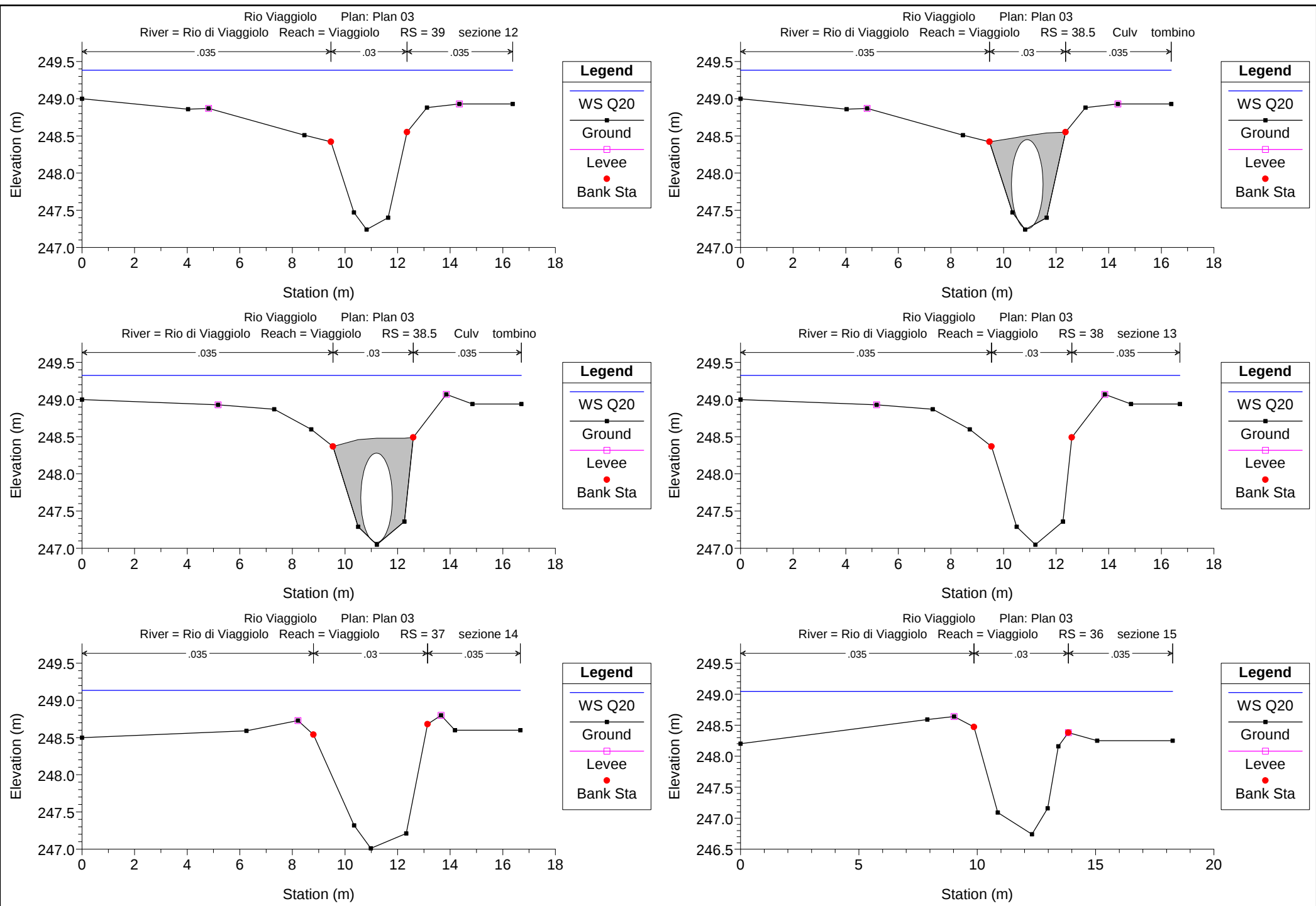
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=20$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=30$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni
- **Risultati della simulazione idraulica effettuata in moto permanente con tempo di ritorno $T_r=200$ anni**
 - Planimetria
 - Profilo
 - Tabella dei risultati
 - Sezioni

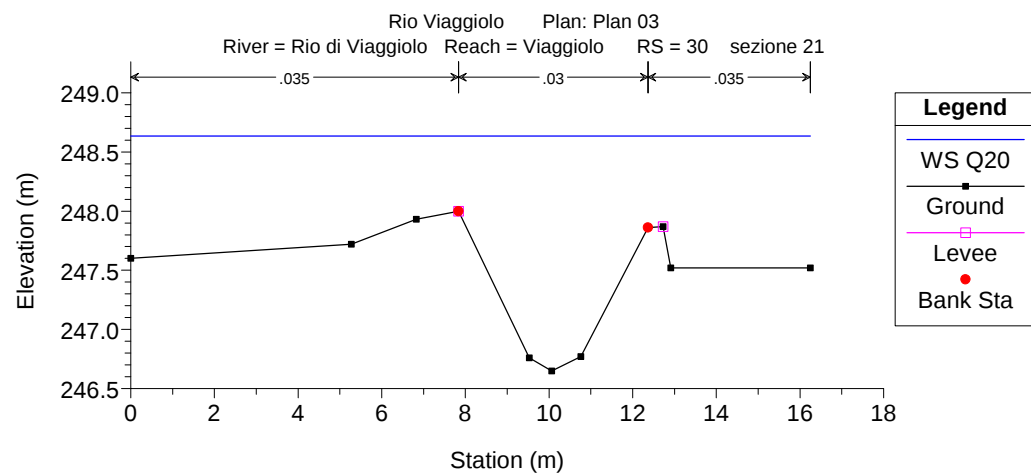
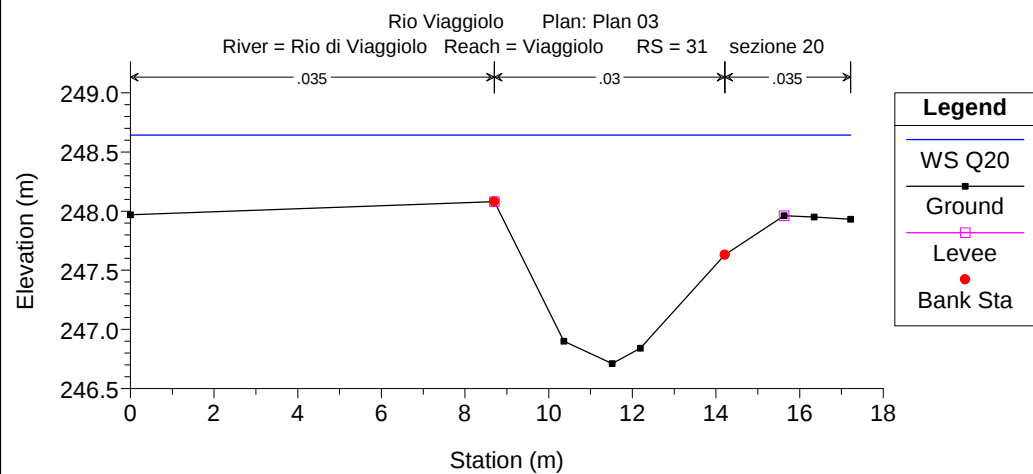
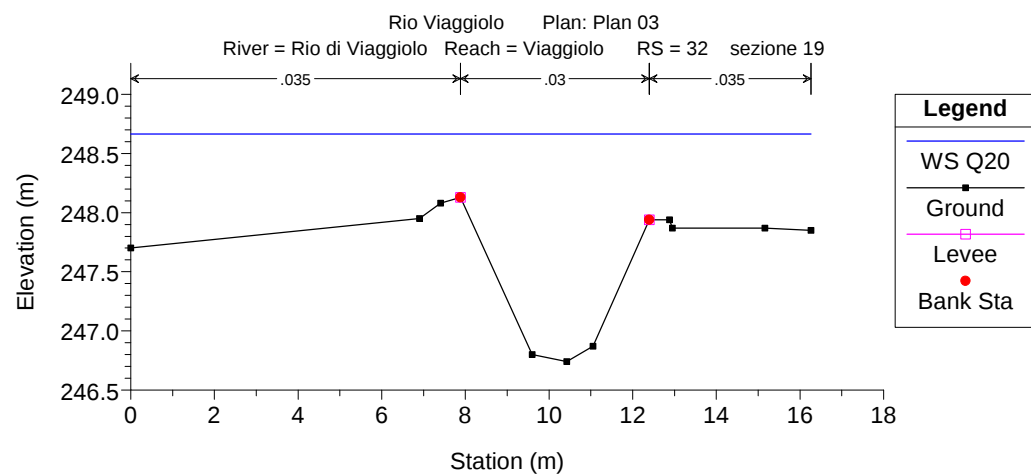
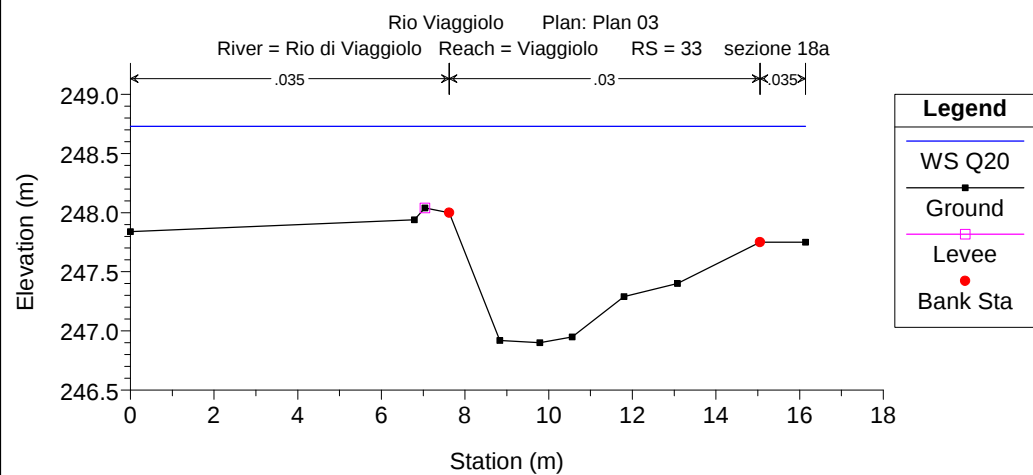
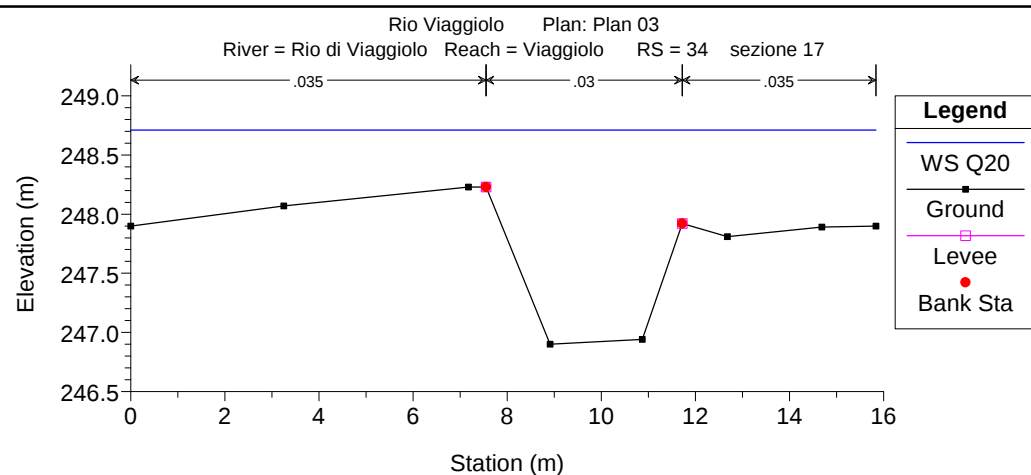
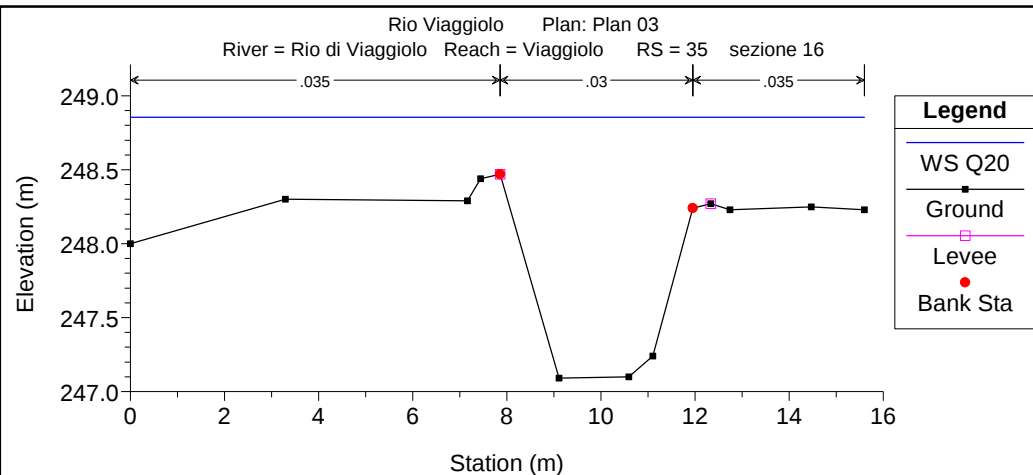


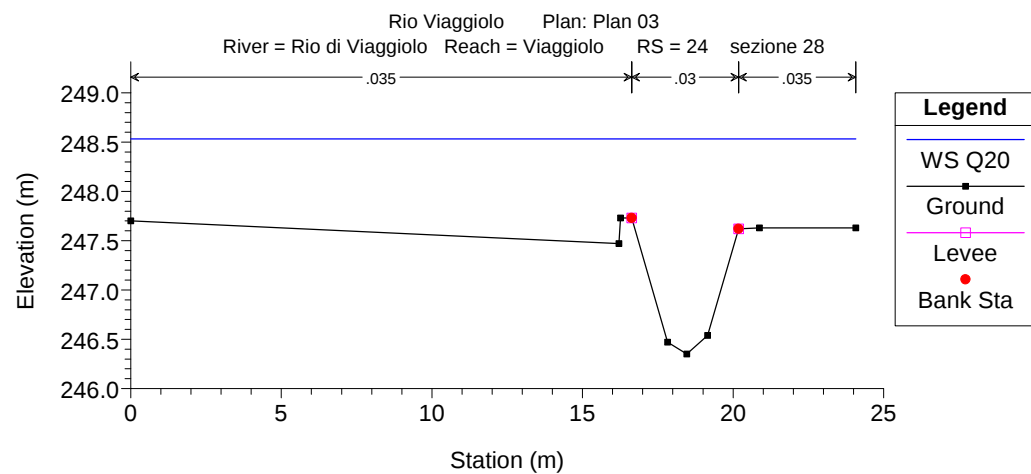
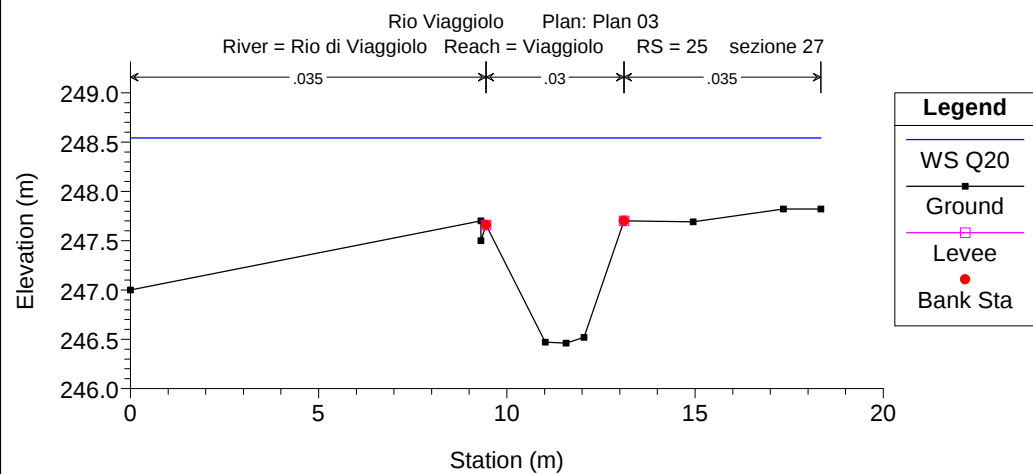
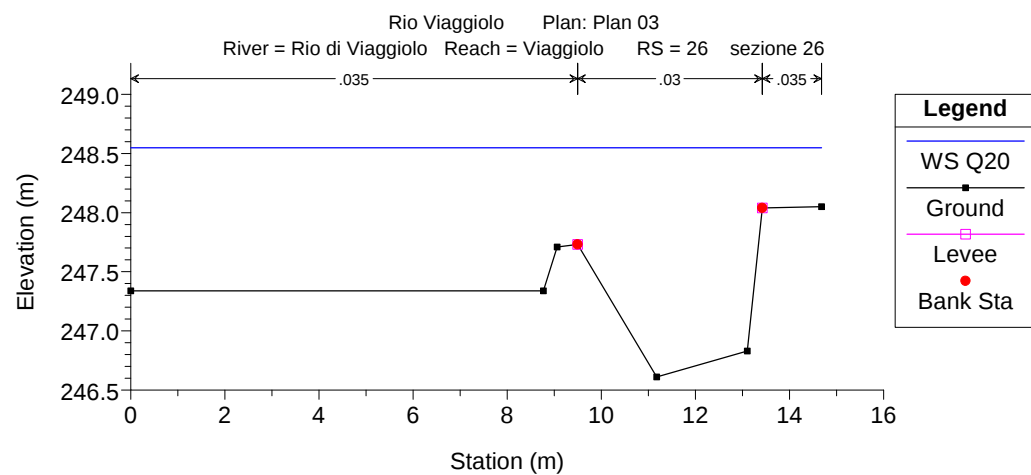
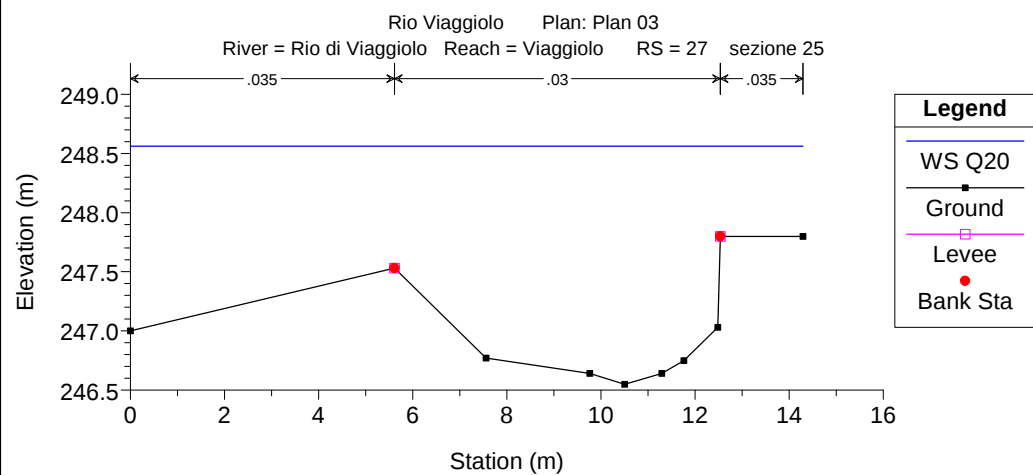
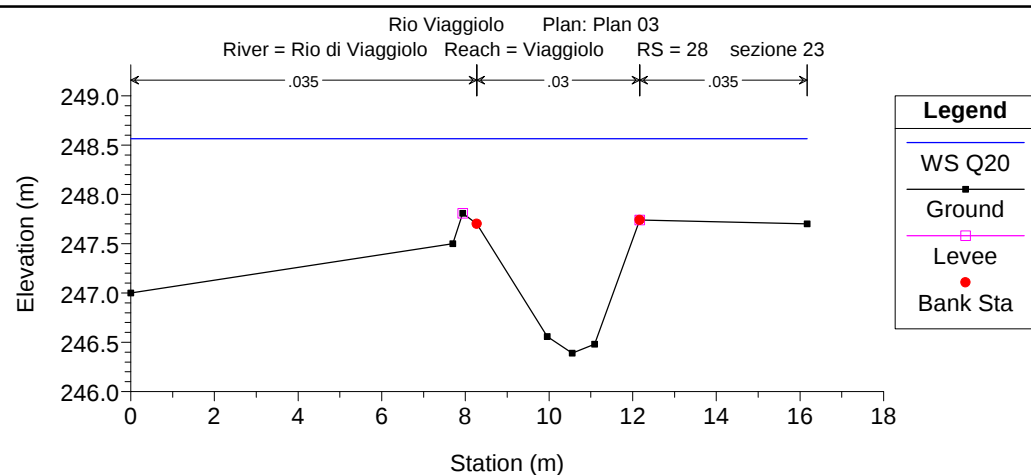
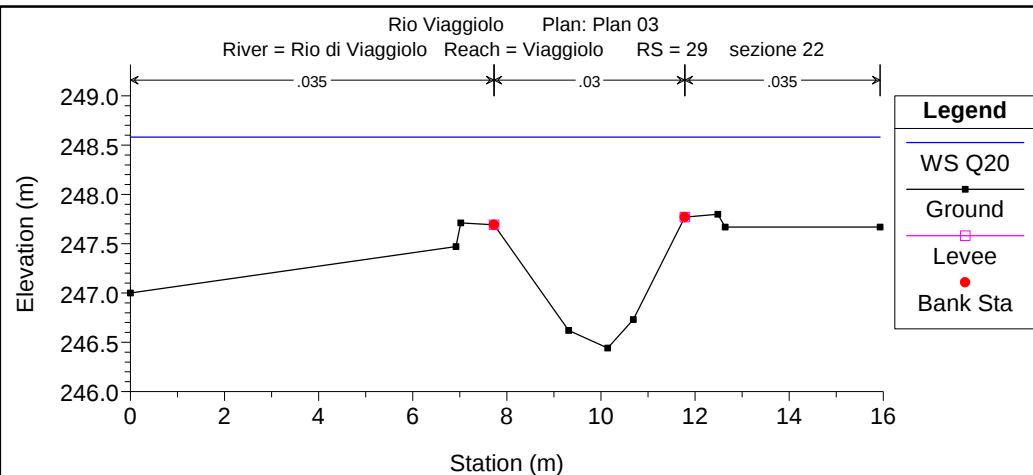
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Viaggiolo	50	Q20	15.80	248.63	250.91	250.55	251.05	0.003384	1.87	10.02	9.20	0.44
Viaggiolo	49	Q20	15.80	248.97	250.88	250.51	251.04	0.003170	1.93	9.42	8.58	0.51
Viaggiolo	48	Q20	15.80	248.80	250.77	250.48	250.97	0.003798	2.24	8.91	10.58	0.59
Viaggiolo	47	Q20	15.80	248.75	250.72	250.51	250.93	0.003965	2.25	8.66	11.09	0.61
Viaggiolo	46	Q20	15.80	248.60	250.55	250.48	250.75	0.004238	2.20	9.63	15.44	0.61
Viaggiolo	45	Q20	15.80	248.52	250.37	250.36	250.67	0.005931	2.50	7.51	14.54	0.74
Viaggiolo	43	Q20	15.80	248.05	250.21	250.00	250.31	0.002308	1.71	13.24	19.54	0.46
Viaggiolo	42	Q20	15.80	247.73	249.88	249.88	250.16	0.004857	2.49	8.38	15.95	0.65
Viaggiolo	41	Q20	15.80	247.65	249.88	249.40	249.96	0.001178	1.41	14.98	16.86	0.35
Viaggiolo	40.5		Culvert									
Viaggiolo	40	Q20	15.80	247.64	249.58	249.58	249.82	0.005434	2.41	8.95	17.49	0.64
Viaggiolo	39	Q20	15.80	247.24	249.38	249.17	249.50	0.002229	1.81	12.64	16.38	0.44
Viaggiolo	38.5		Culvert									
Viaggiolo	38	Q20	15.80	247.05	249.32	249.16	249.47	0.002489	1.95	11.67	16.71	0.46
Viaggiolo	37	Q20	15.80	247.01	249.13	248.68	249.23	0.001788	1.58	13.47	16.67	0.40
Viaggiolo	36	Q20	15.80	246.74	249.05	248.61	249.11	0.001263	1.34	16.16	18.26	0.33
Viaggiolo	35	Q20	15.80	247.09	248.85	248.59	248.96	0.002181	1.67	12.77	15.60	0.45
Viaggiolo	34	Q20	15.80	246.90	248.71	248.34	248.79	0.001545	1.47	14.37	15.84	0.39
Viaggiolo	33	Q20	15.80	246.90	248.73	248.10	248.78	0.000686	1.07	18.08	16.14	0.28
Viaggiolo	32	Q20	15.80	246.74	248.66	248.22	248.73	0.001193	1.31	15.92	16.26	0.35
Viaggiolo	31	Q20	15.80	246.71	248.64	248.21	248.71	0.001066	1.32	15.82	17.22	0.35
Viaggiolo	30	Q20	15.80	246.65	248.63	248.06	248.68	0.000882	1.15	17.86	16.25	0.30
Viaggiolo	29	Q20	15.80	246.44	248.58	247.71	248.62	0.000598	0.99	20.25	15.93	0.25
Viaggiolo	28	Q20	15.80	246.39	248.56	247.81	248.60	0.000600	0.98	20.36	16.17	0.24
Viaggiolo	27	Q20	15.80	246.55	248.56	247.61	248.60	0.000428	0.91	20.59	14.29	0.22
Viaggiolo	26	Q20	15.80	246.61	248.55	247.82	248.59	0.000769	1.04	18.08	14.68	0.26
Viaggiolo	25	Q20	15.80	246.46	248.54	247.84	248.57	0.000591	0.96	21.35	18.34	0.24
Viaggiolo	24	Q20	15.80	246.35	248.53	247.92	248.56	0.000460	0.86	25.24	24.07	0.21
Viaggiolo	23	Q20	15.80	246.19	248.48	247.72	248.52	0.000642	1.07	18.93	14.57	0.26
Viaggiolo	22	Q20	15.80	246.17	248.46	247.70	248.50	0.000707	1.10	18.43	13.84	0.26
Viaggiolo	21	Q20	15.80	246.09	248.46	247.51	248.48	0.000266	0.69	28.59	20.68	0.16
Viaggiolo	20	Q20	15.80	246.01	248.44	247.63	248.47	0.000395	0.88	23.01	17.96	0.21
Viaggiolo	19	Q20	15.80	246.06	248.34	247.55	248.43	0.001118	1.41	13.01	10.30	0.34
Viaggiolo	18.5		Bridge									
Viaggiolo	18	Q20	15.80	245.99	248.22	247.50	248.32	0.001170	1.42	12.52	10.29	0.36
Viaggiolo	17	Q20	15.80	245.89	248.22	247.55	248.29	0.000939	1.27	15.15	13.18	0.32
Viaggiolo	16	Q20	15.80	245.94	248.14	247.84	248.24	0.001885	1.64	13.40	15.69	0.41
Viaggiolo	15.5		Culvert									
Viaggiolo	15	Q20	15.80	245.98	248.13	247.72	248.20	0.001352	1.41	15.17	15.89	0.36
Viaggiolo	14	Q20	15.80	245.79	248.07	247.43	248.14	0.000949	1.33	15.88	14.70	0.32
Viaggiolo	13	Q20	15.80	245.49	247.94	247.37	248.02	0.001174	1.43	14.23	12.19	0.33
Viaggiolo	12.7		Bridge									
Viaggiolo	12.5	Q20	15.80	245.49	247.91	247.37	248.00	0.001271	1.47	13.83	12.19	0.34
Viaggiolo	12	Q20	15.80	245.56	247.80	247.24	247.87	0.001103	1.40	15.51	14.65	0.33
Viaggiolo	11.7		Bridge									
Viaggiolo	11.5	Q20	15.80	245.56	247.78	247.24	247.85	0.001150	1.42	15.28	14.65	0.34
Viaggiolo	11	Q20	15.80	245.03	247.64	246.78	247.74	0.002311	1.61	13.20	16.66	0.34
Viaggiolo	10.5		Bridge									
Viaggiolo	10	Q20	15.80	245.41	247.36	247.09	247.57	0.004051	2.18	8.36	8.54	0.56
Viaggiolo	9	Q20	15.80	245.42	247.17	247.12	247.49	0.006464	2.61	6.97	9.29	0.77
Viaggiolo	8	Q20	15.80	245.10	247.14	246.42	247.19	0.000810	1.16	17.35	14.77	0.29
Viaggiolo	7	Q20	15.80	244.67	247.05	246.33	247.09	0.000585	1.07	19.54	15.92	0.25
Viaggiolo	6.5	Q20	15.80	244.67	247.04	246.33	247.08	0.000608	1.08	19.29	15.92	0.26
Viaggiolo	6	Q20	15.80	244.77	246.93	246.43	247.07	0.001600	1.85	12.10	11.96	0.44
Viaggiolo	5	Q20	15.80	244.77	246.94	246.45	247.06	0.002162	1.73	12.21	11.96	0.41
Viaggiolo	4.5	Q20	15.80	244.60	246.95	246.30	247.06	0.001934	1.66	12.63	11.96	0.38
Viaggiolo	4	Q20	15.80	244.56	246.26	246.18	246.90	0.010341	3.57	4.59	3.21	0.90
Viaggiolo	3	Q20	15.80	244.49	246.41	246.37	246.64	0.005439	2.29	8.67	15.79	0.69
Viaggiolo	2	Q20	15.80	244.11	246.26	246.08	246.44	0.003342	2.04	10.03	15.21	0.55
Viaggiolo	1	Q20	15.80	243.67	245.35	245.35	245.85	0.011718	3.13	5.06	5.05	1.00

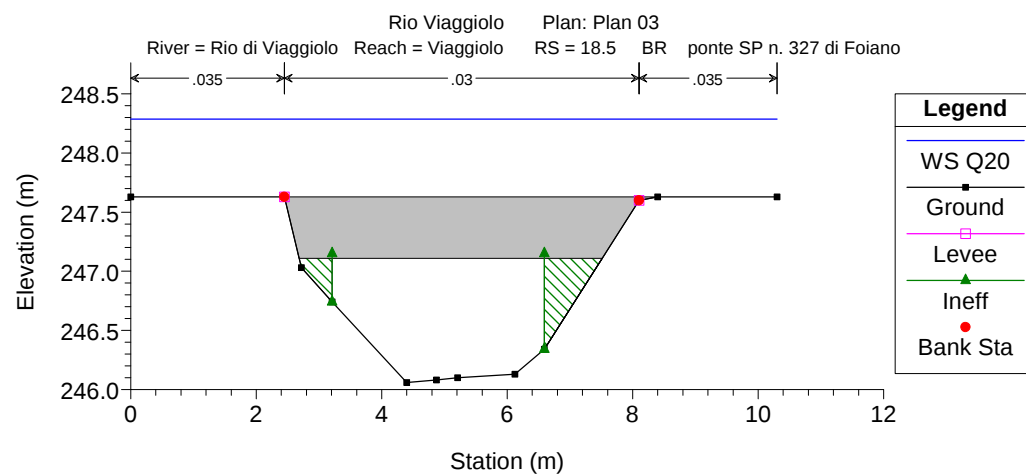
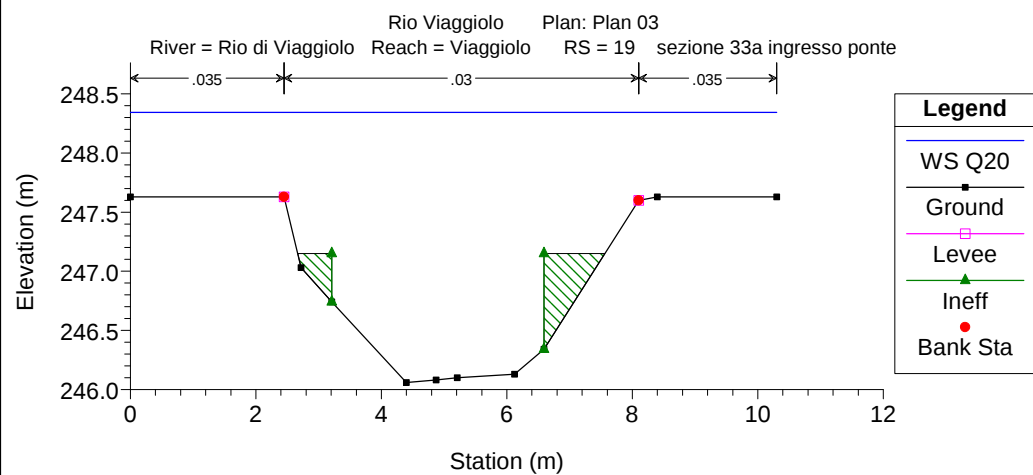
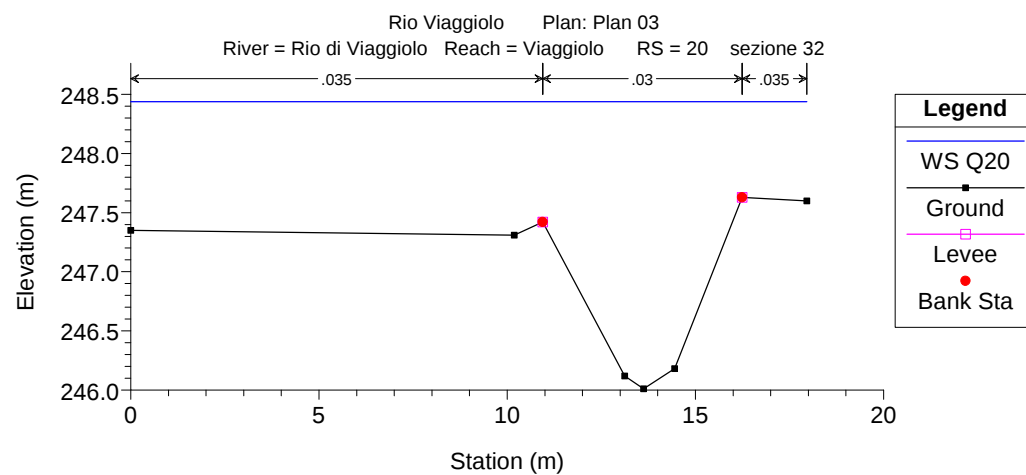
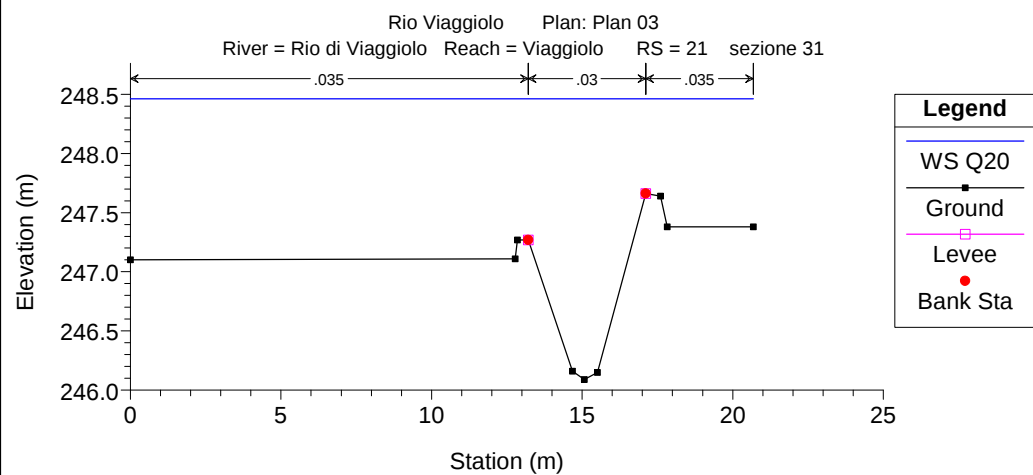
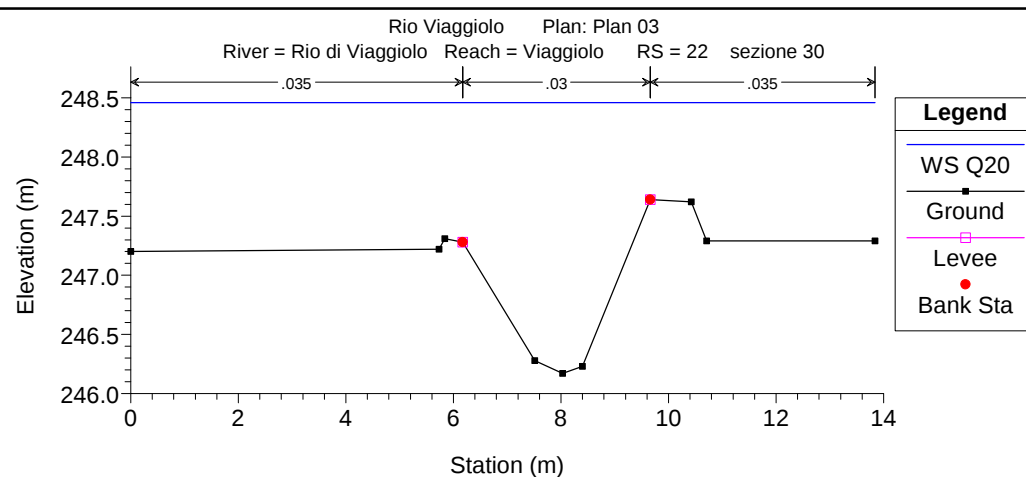
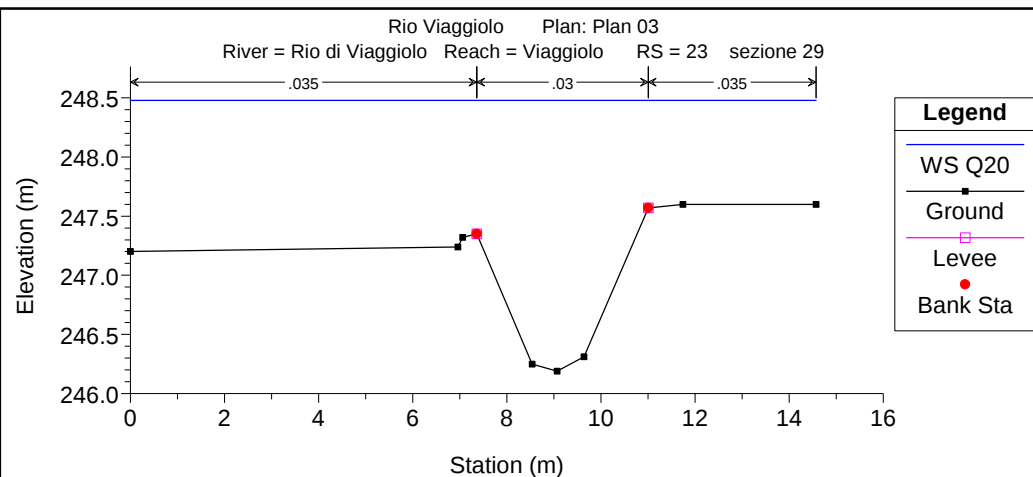


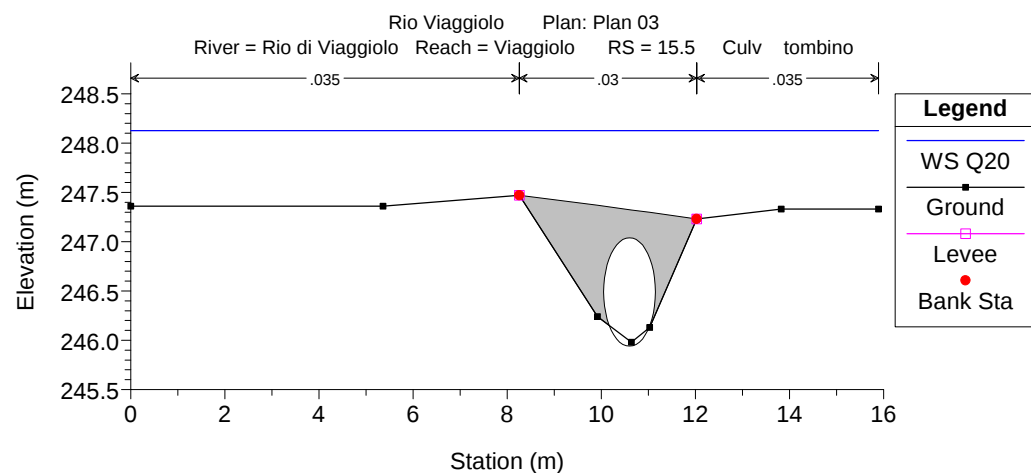
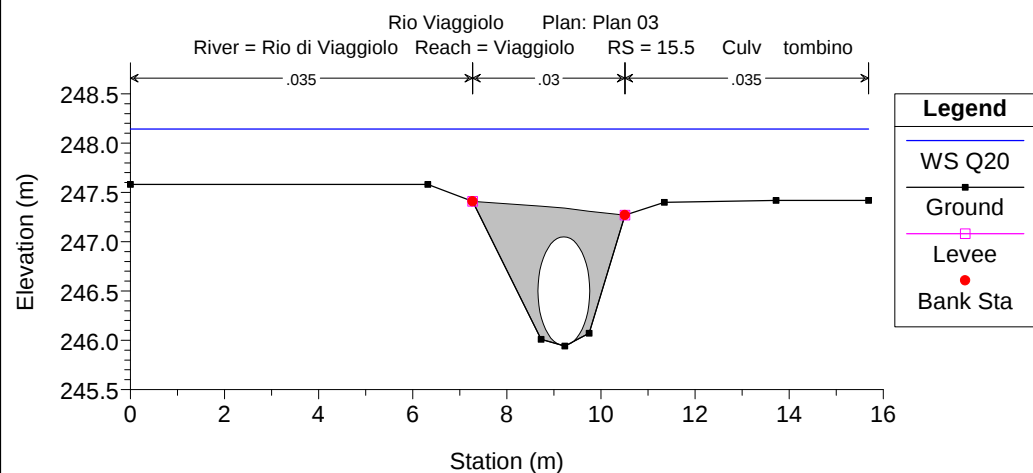
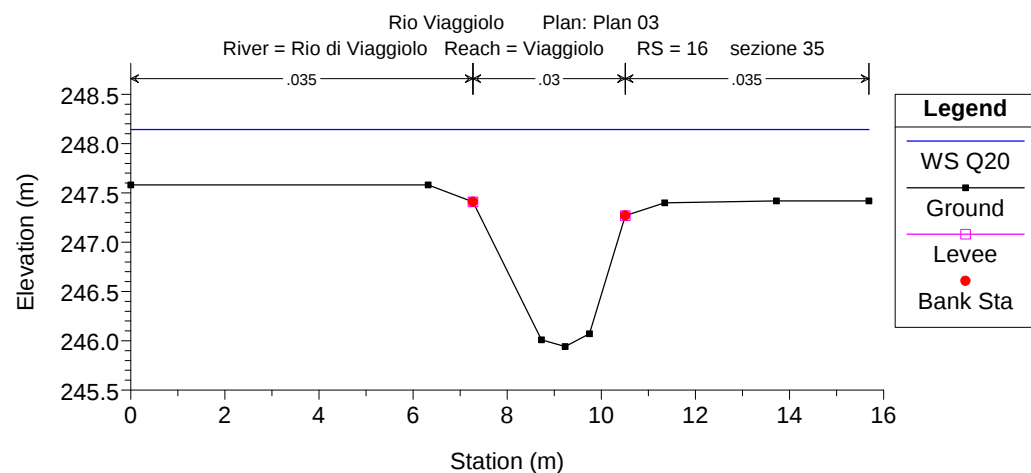
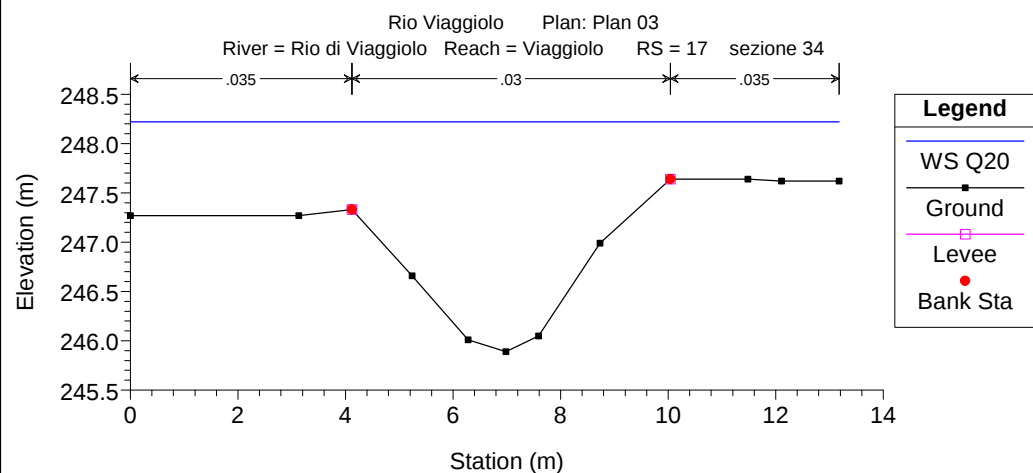
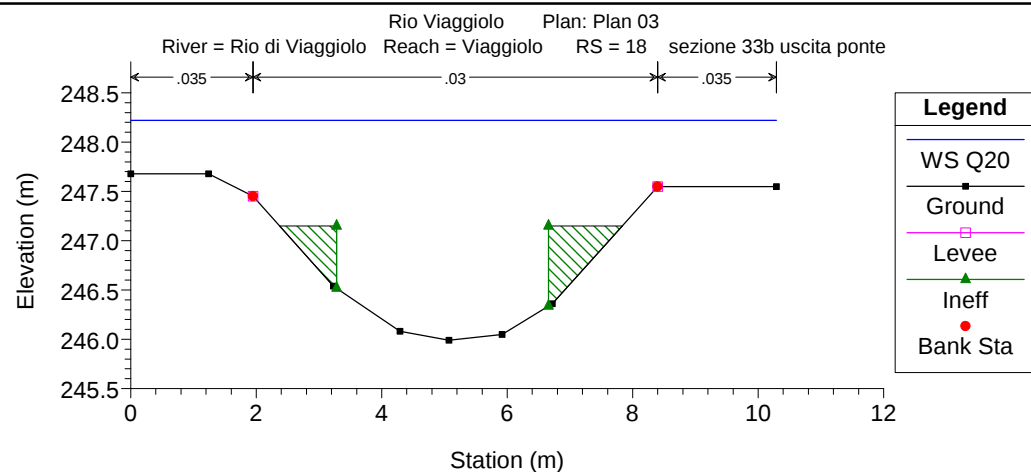
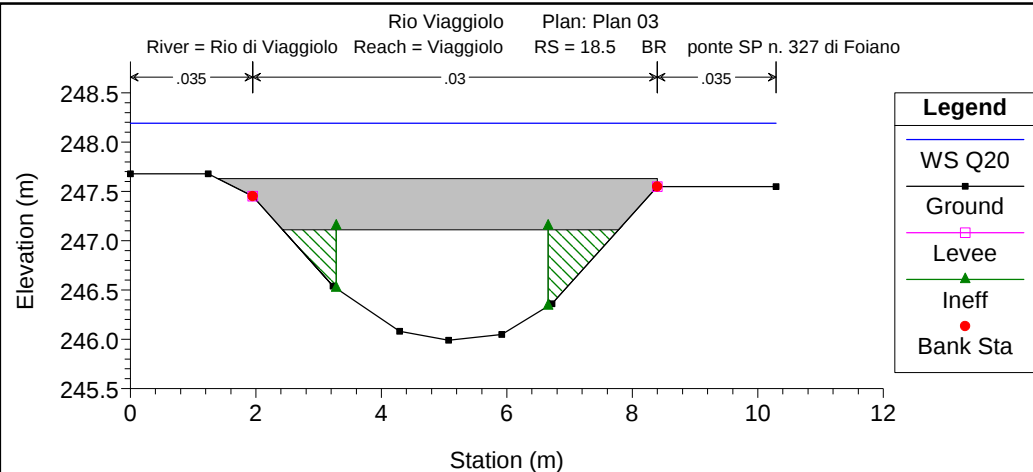


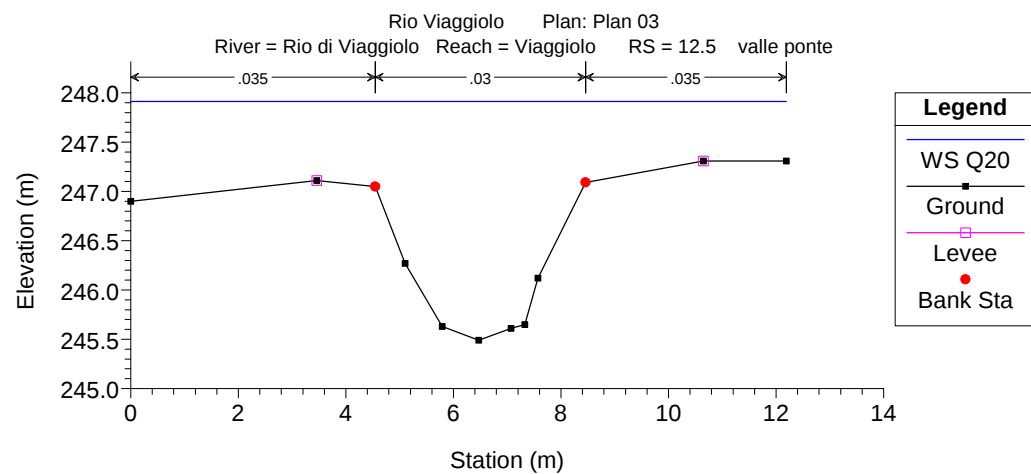
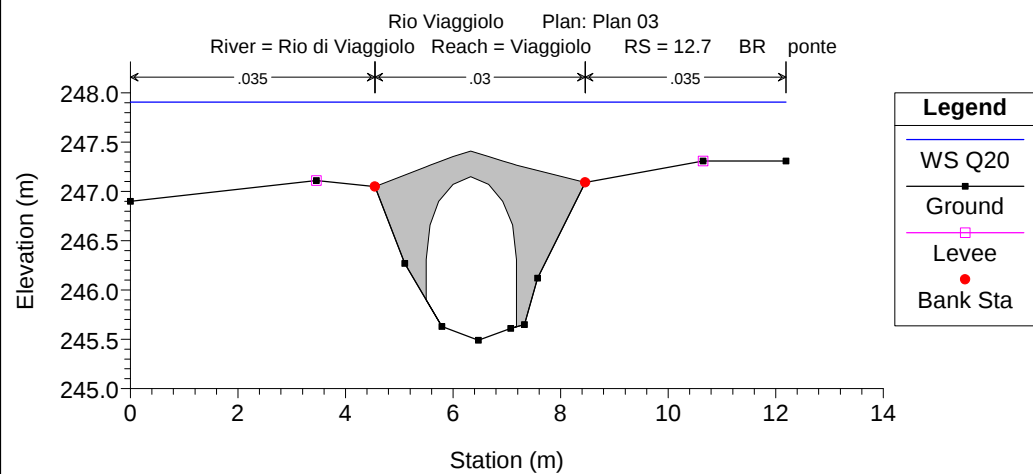
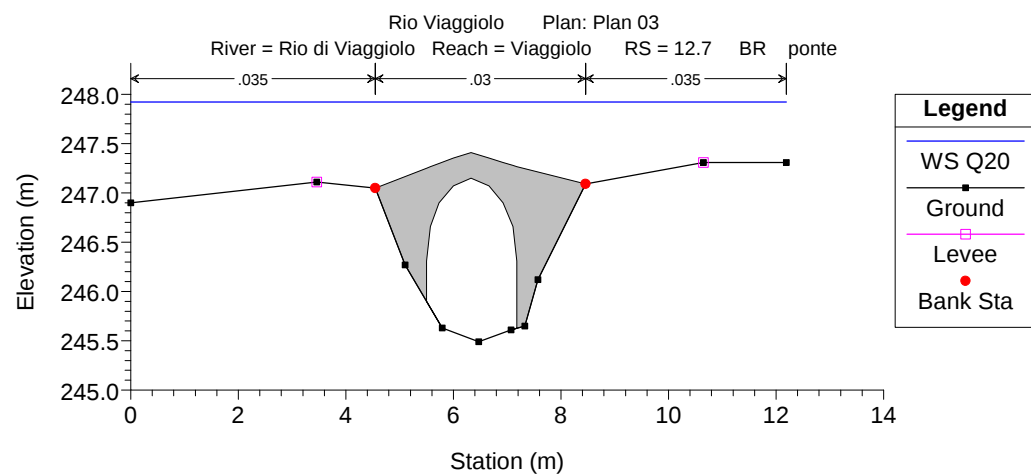
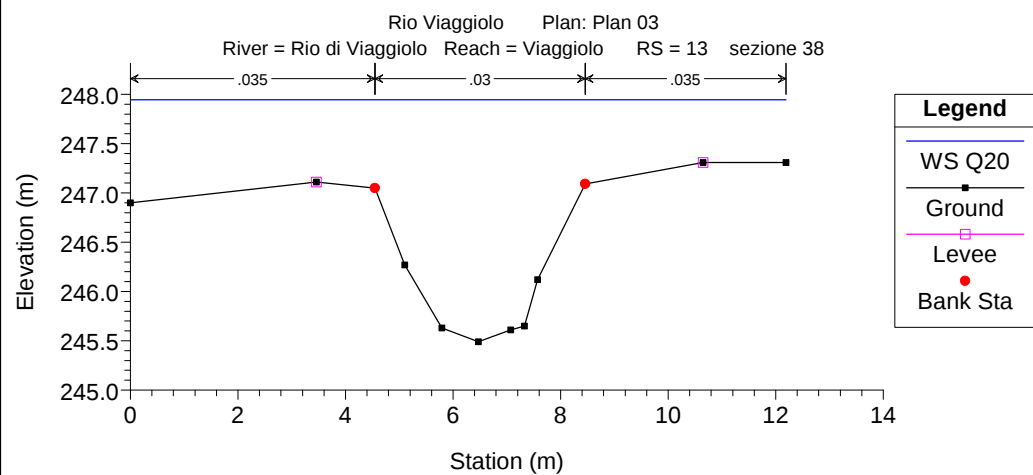
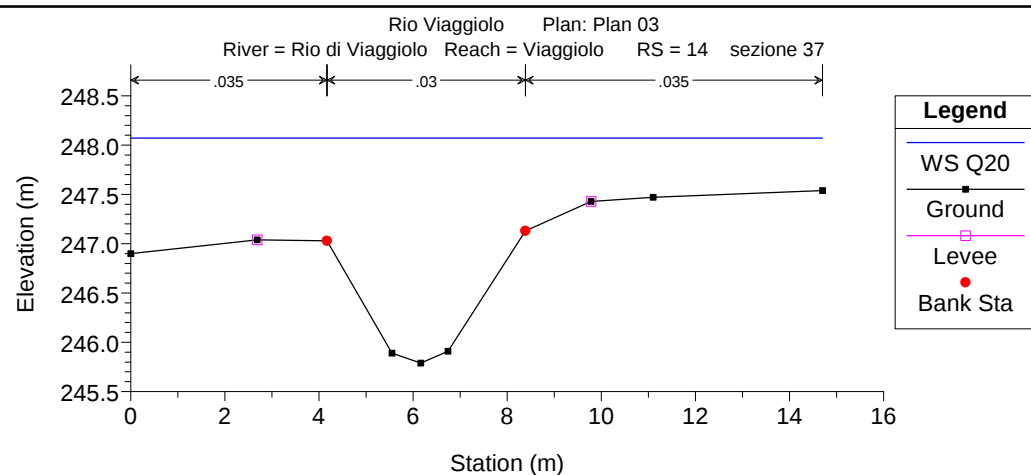
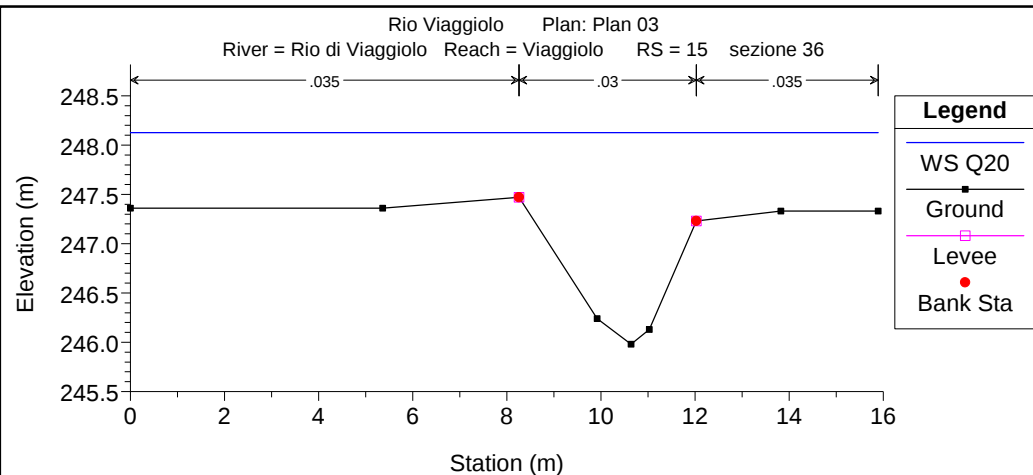


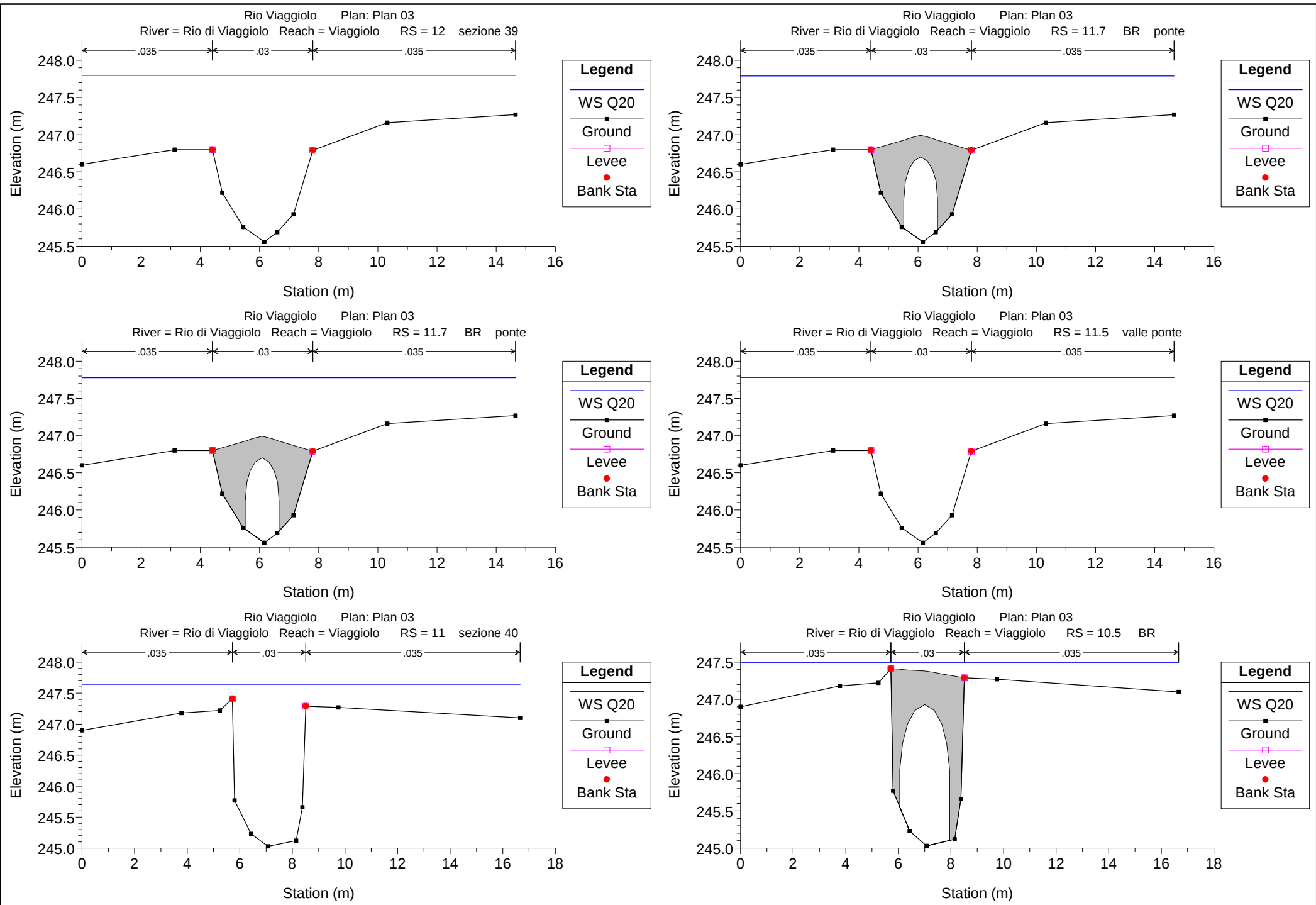


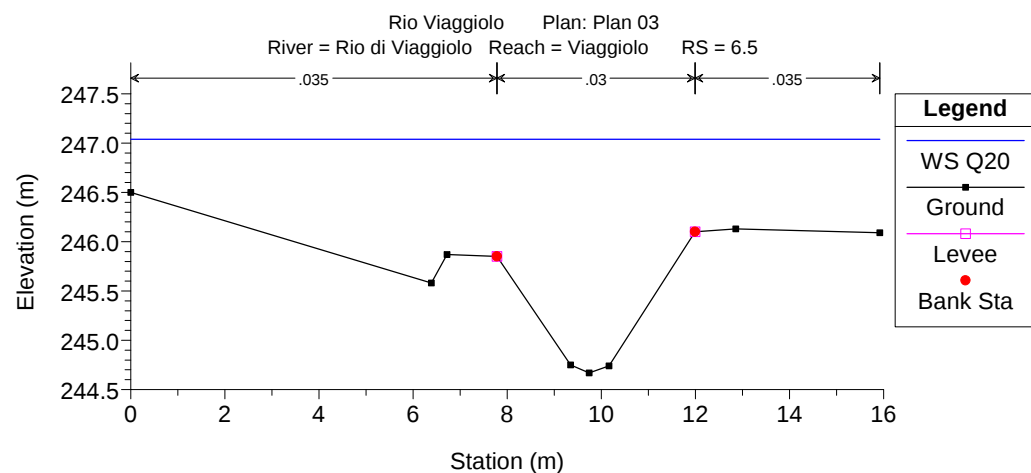
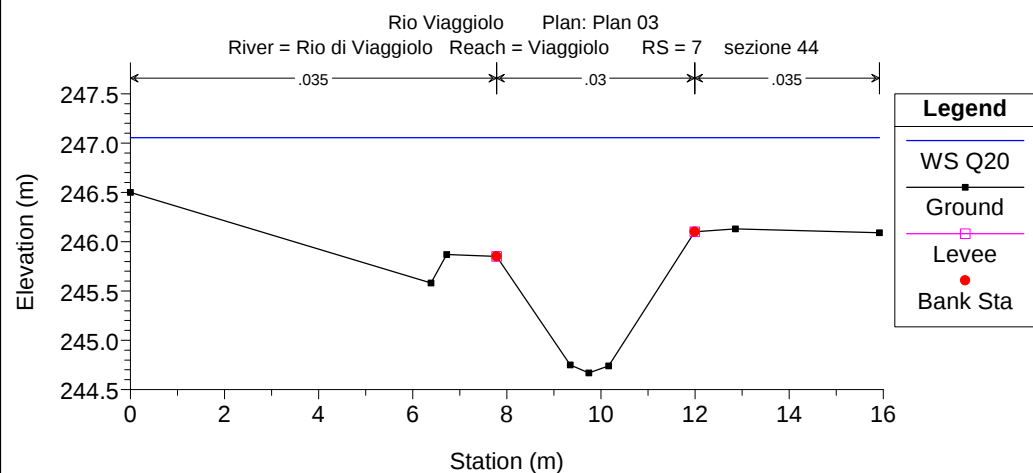
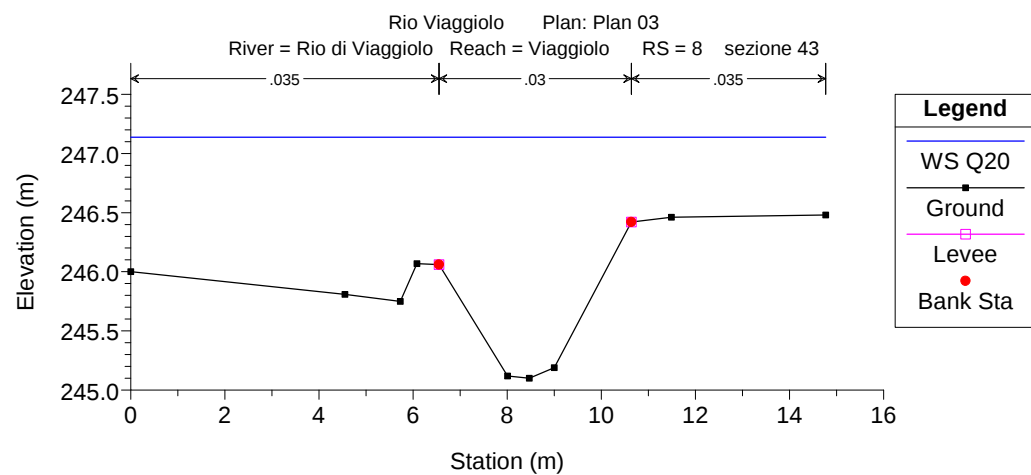
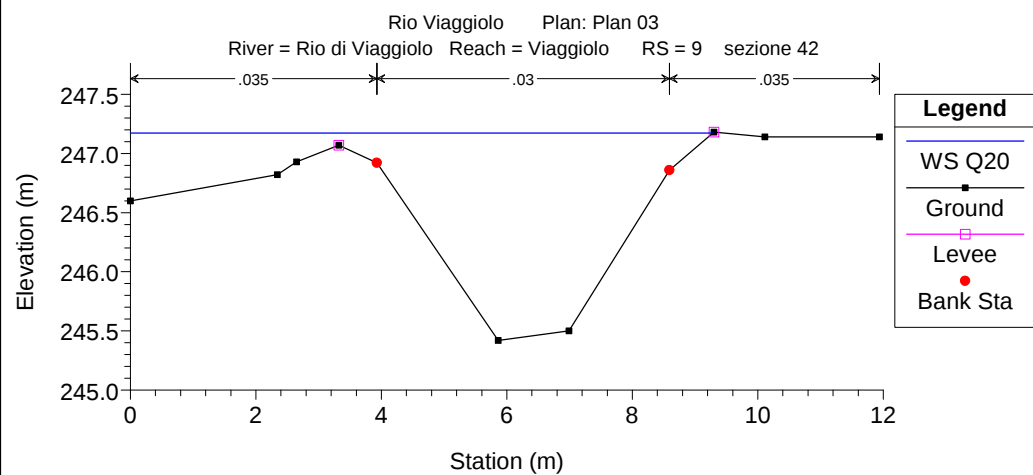
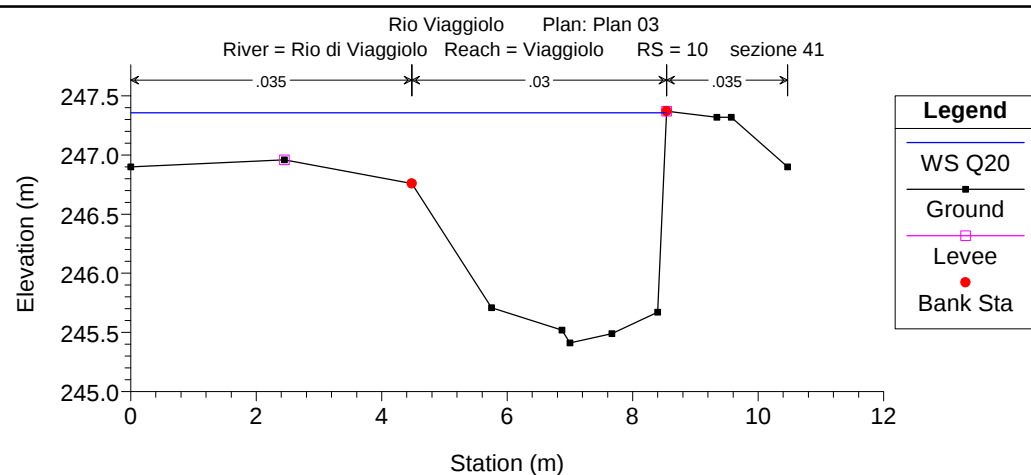
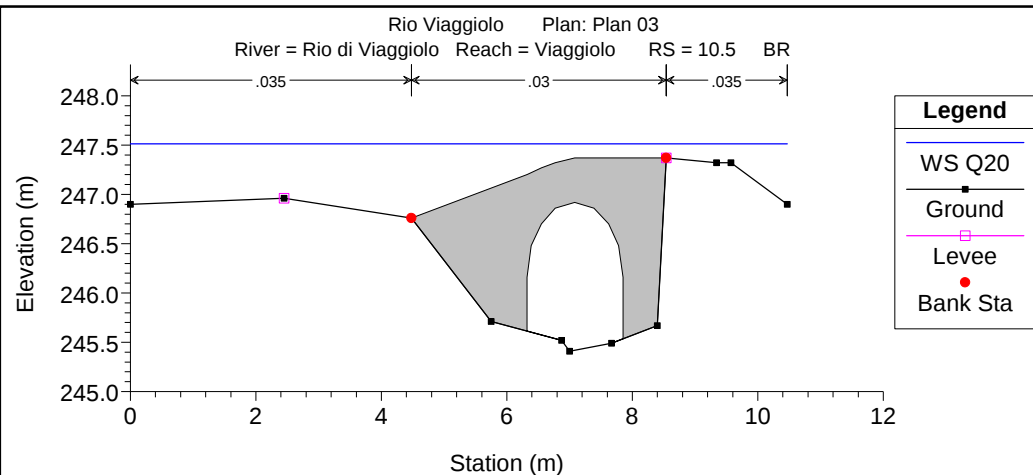


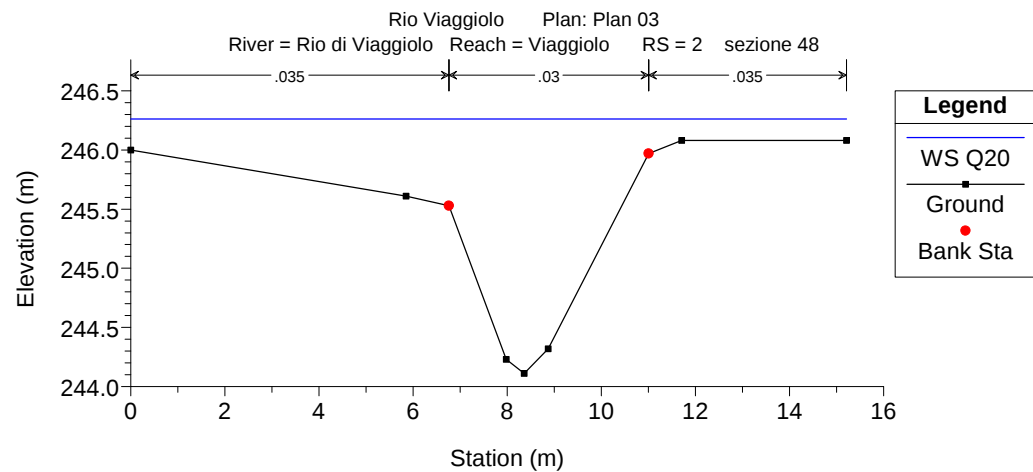
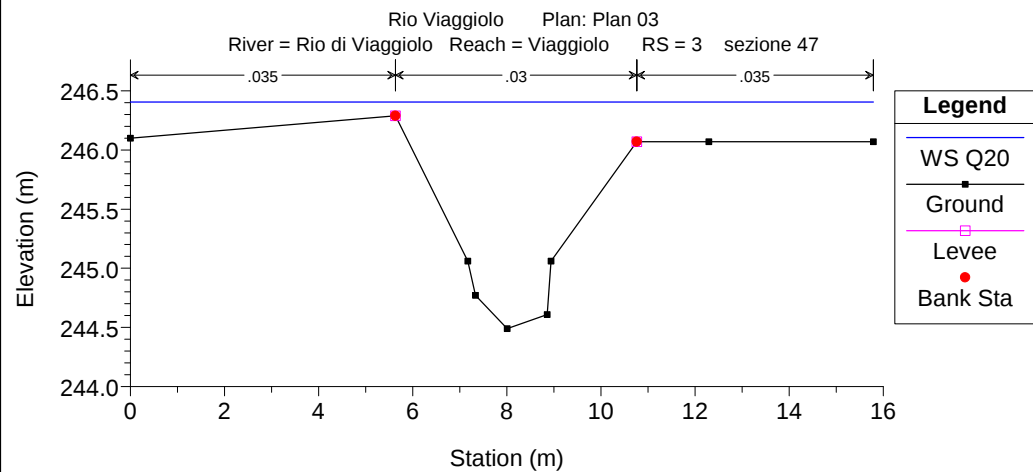
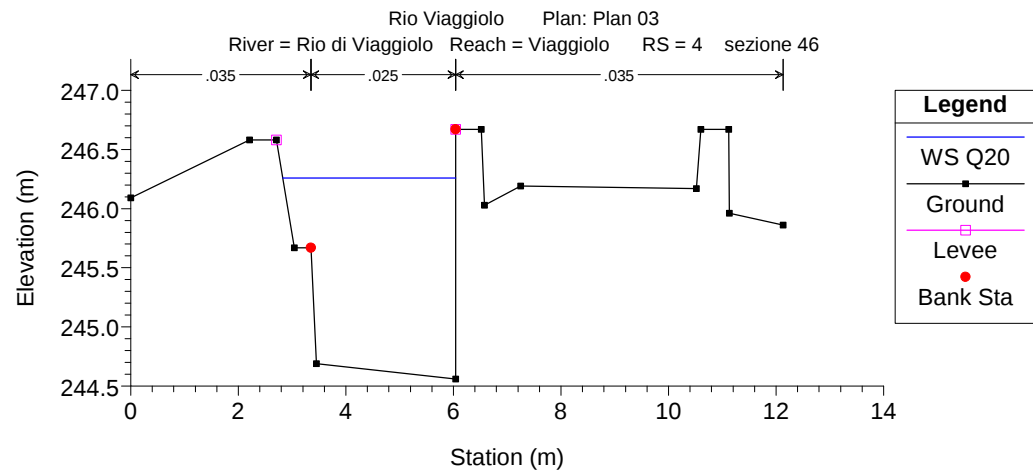
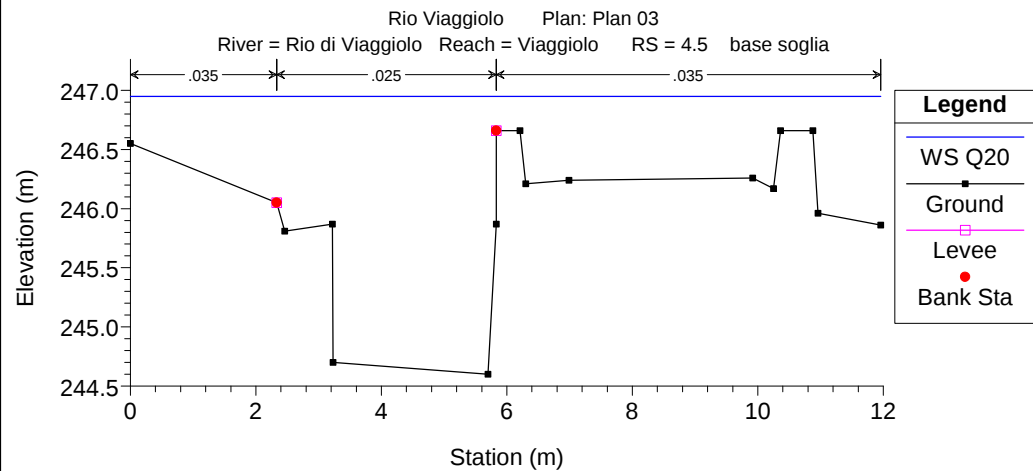
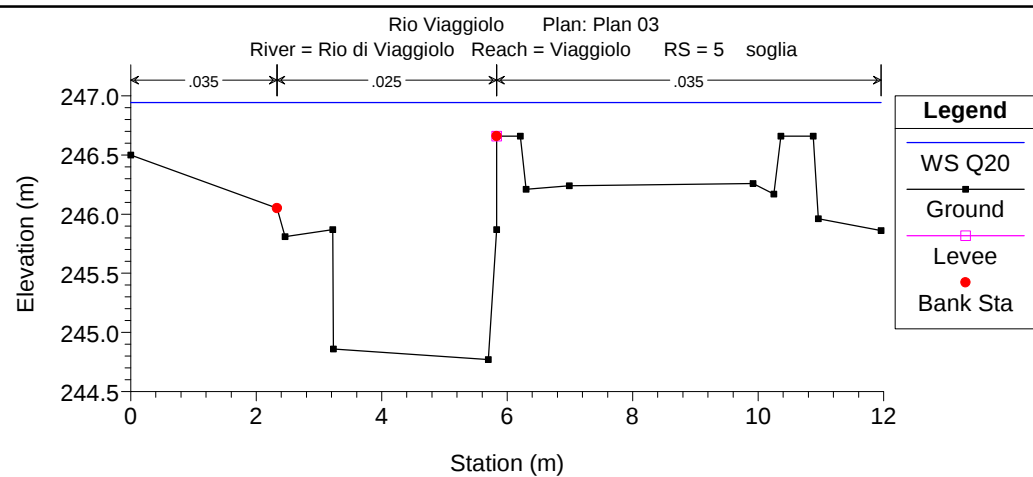
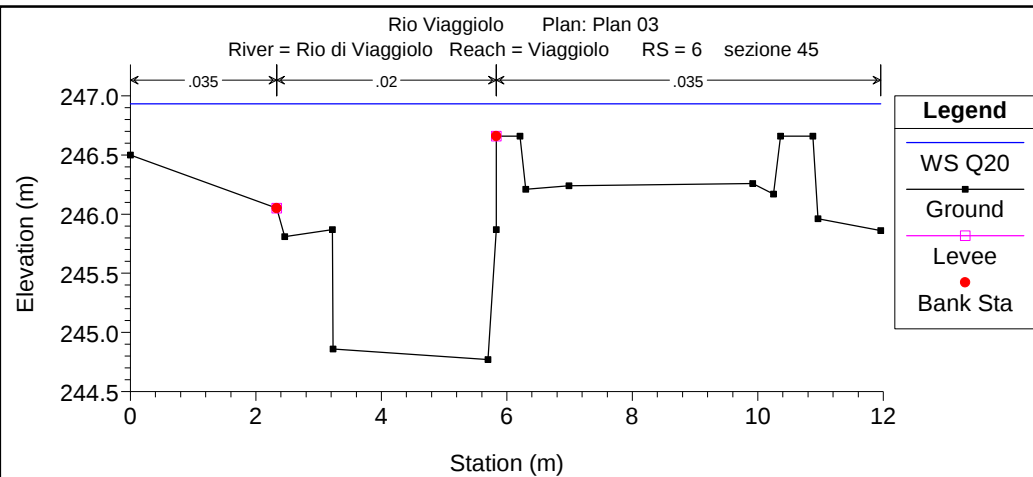


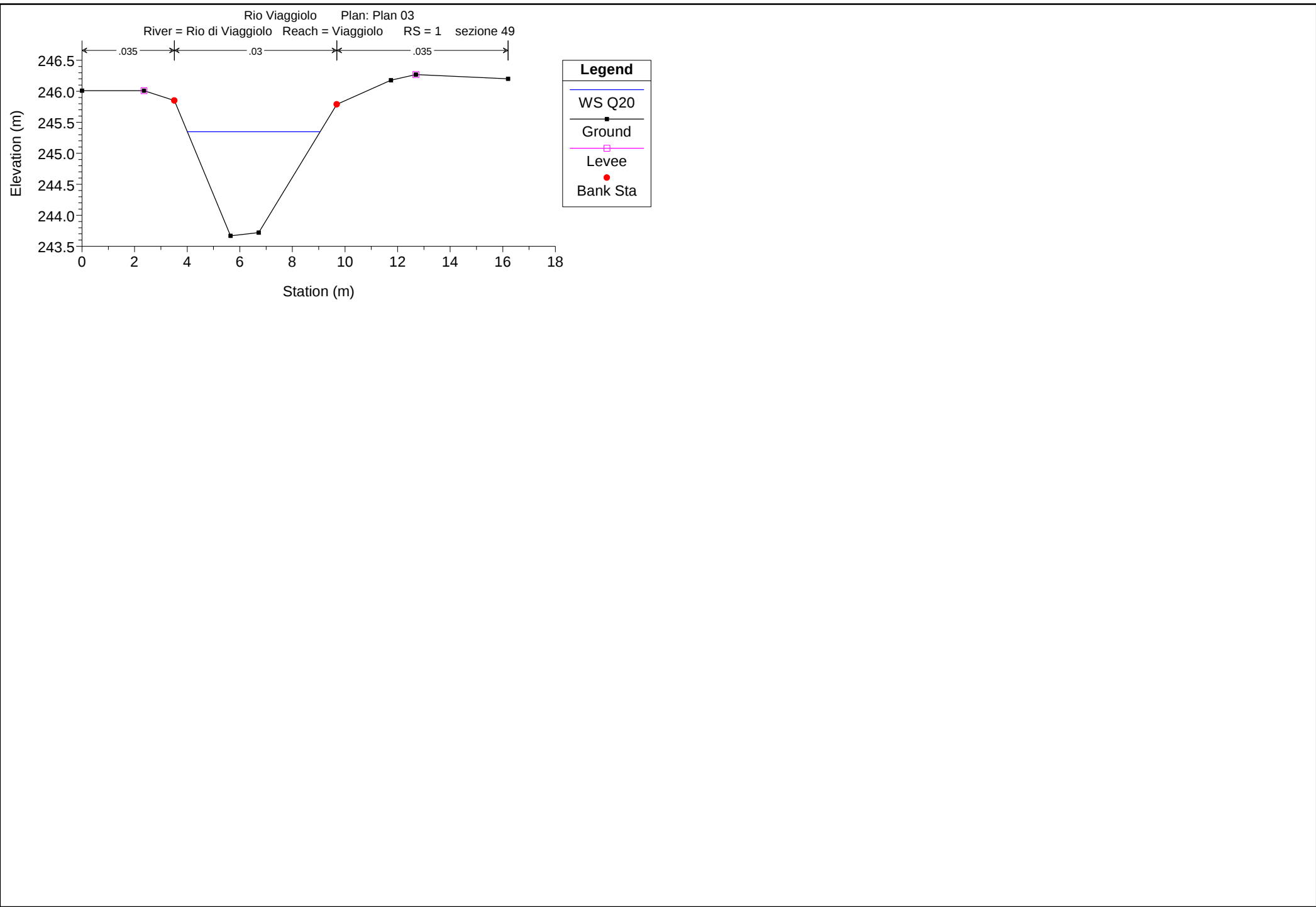


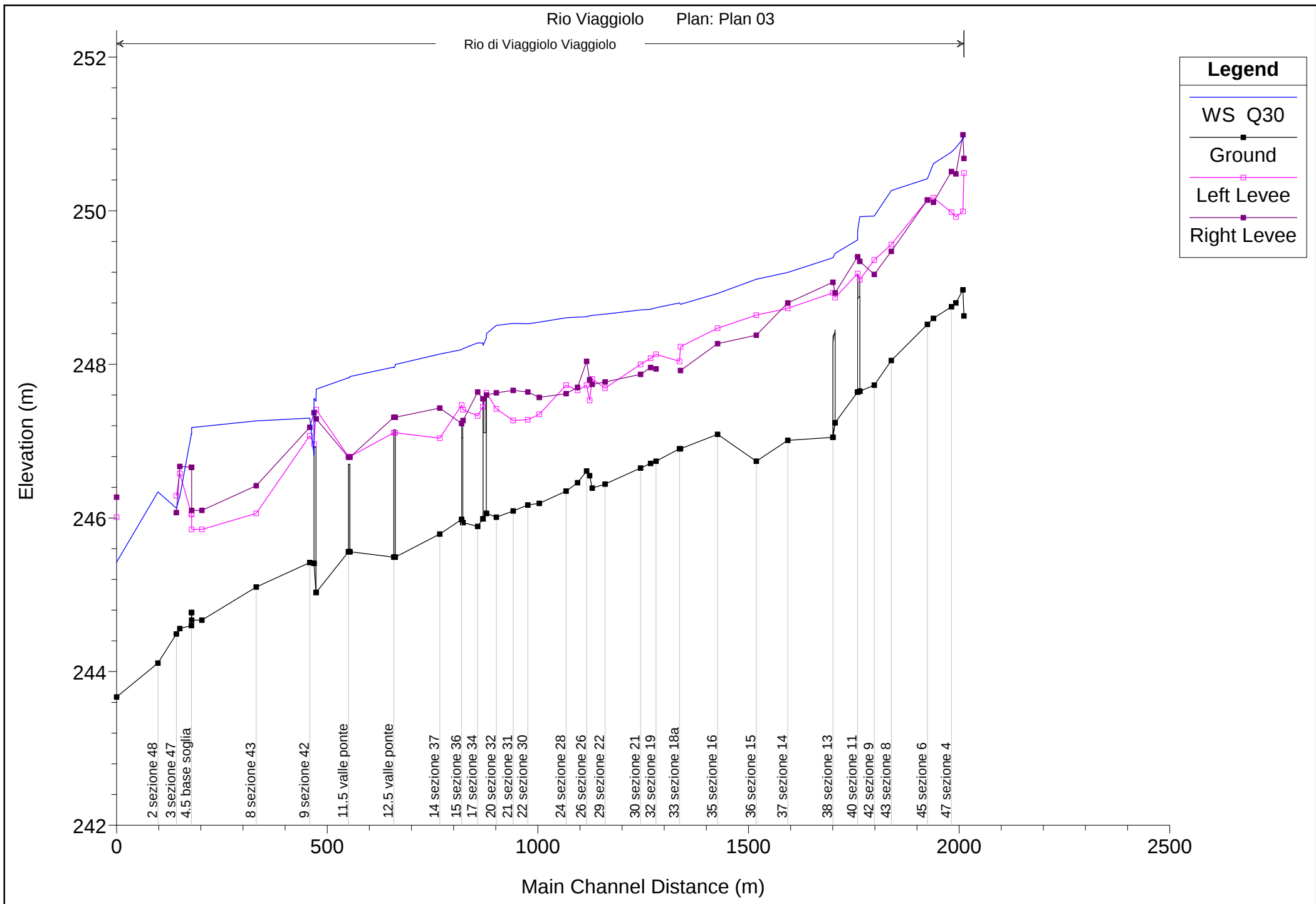




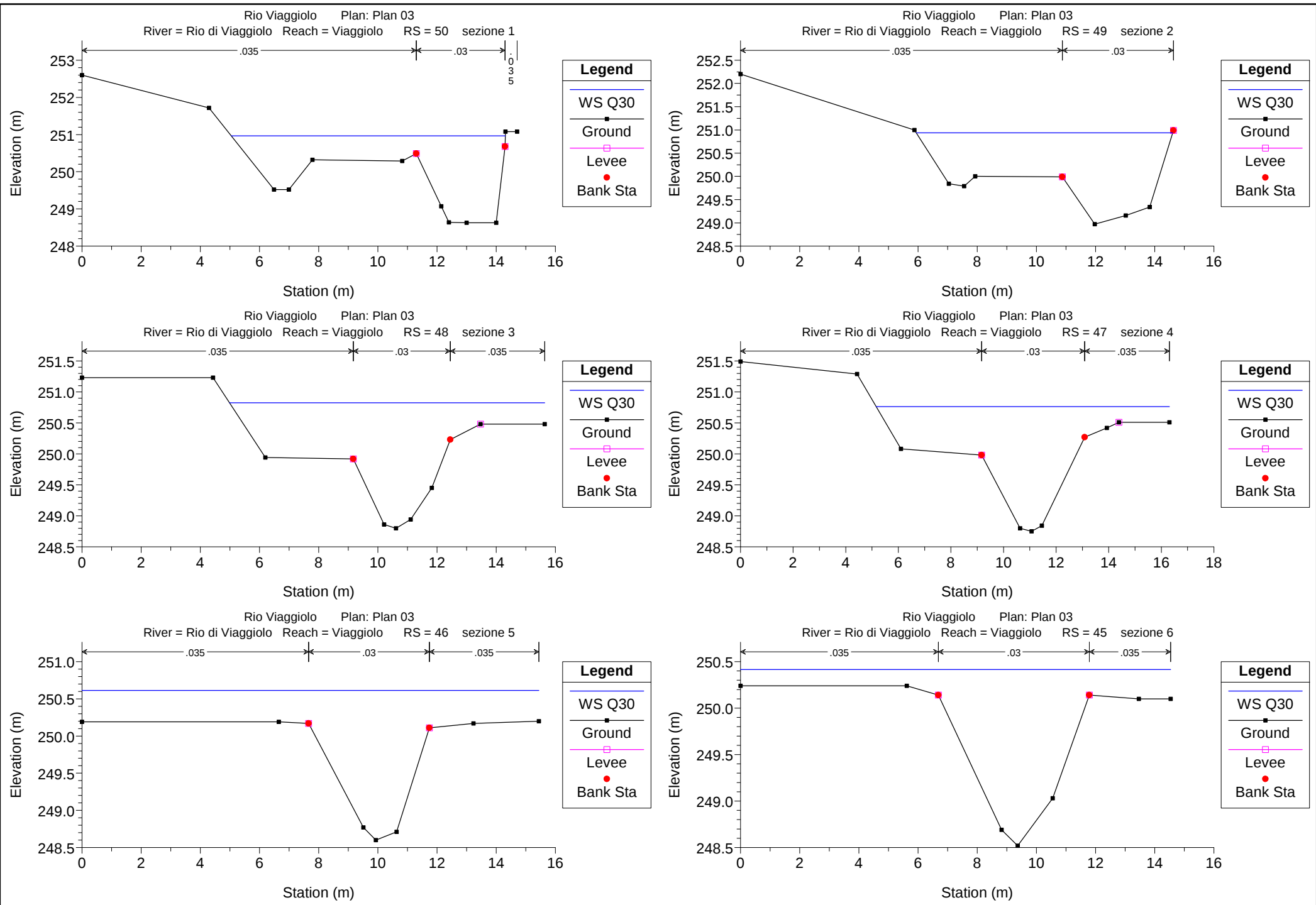


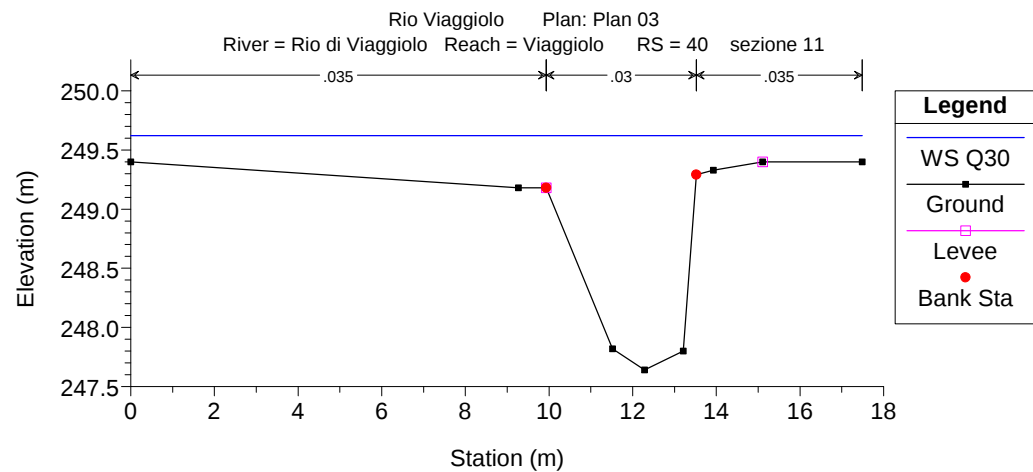
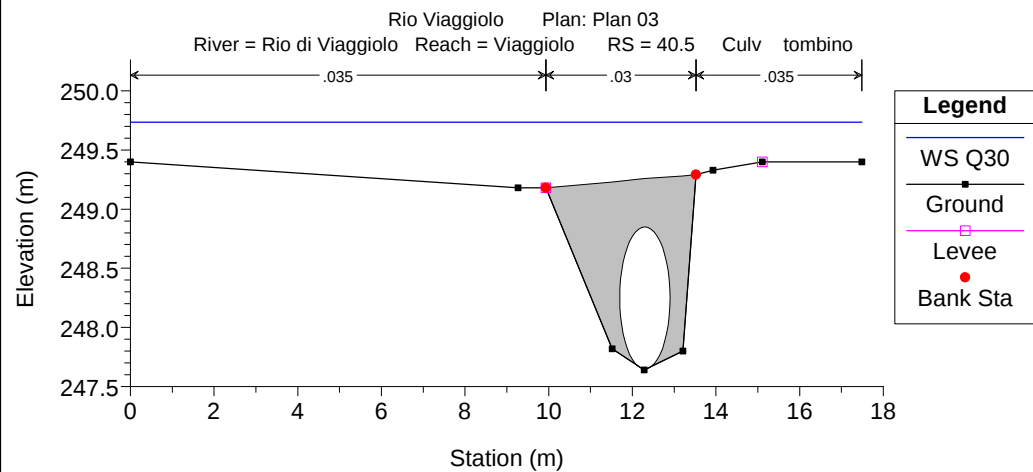
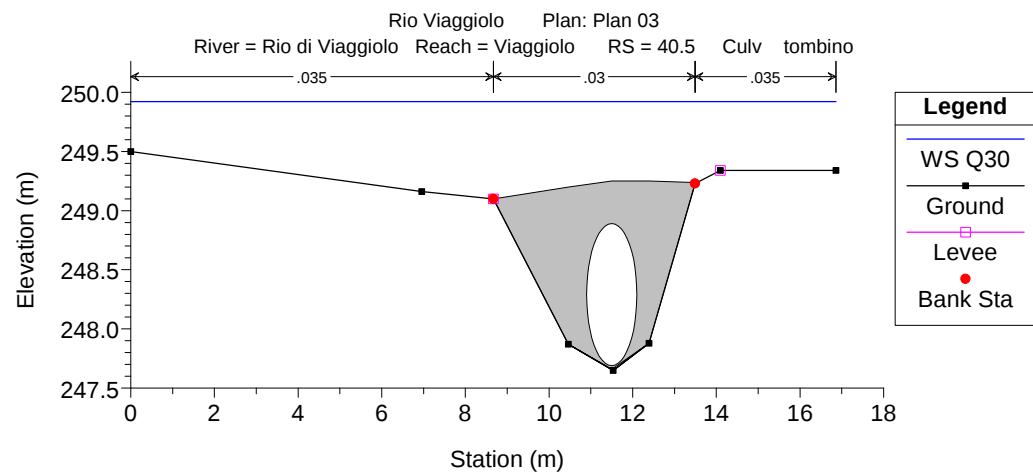
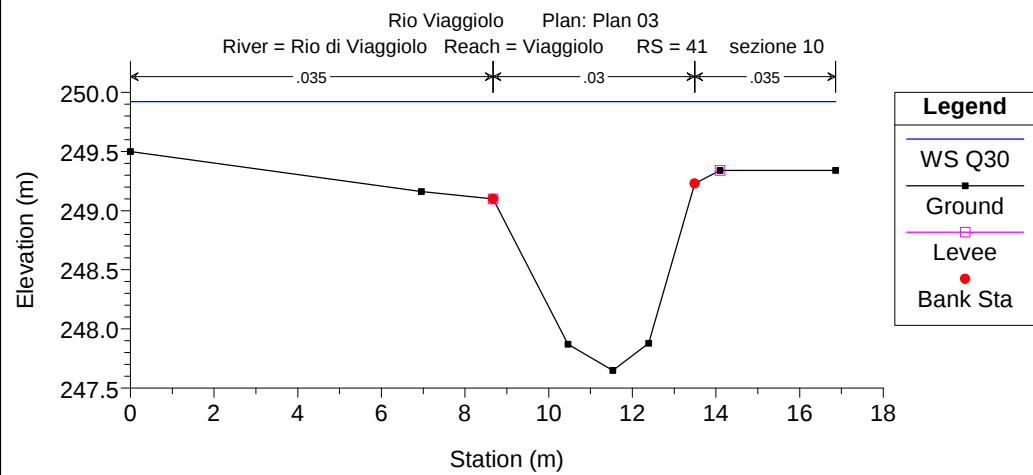
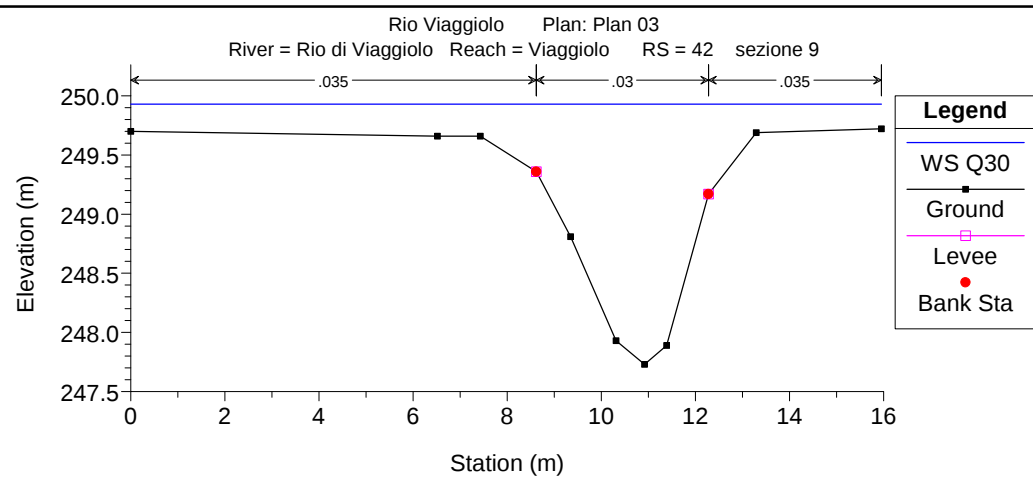
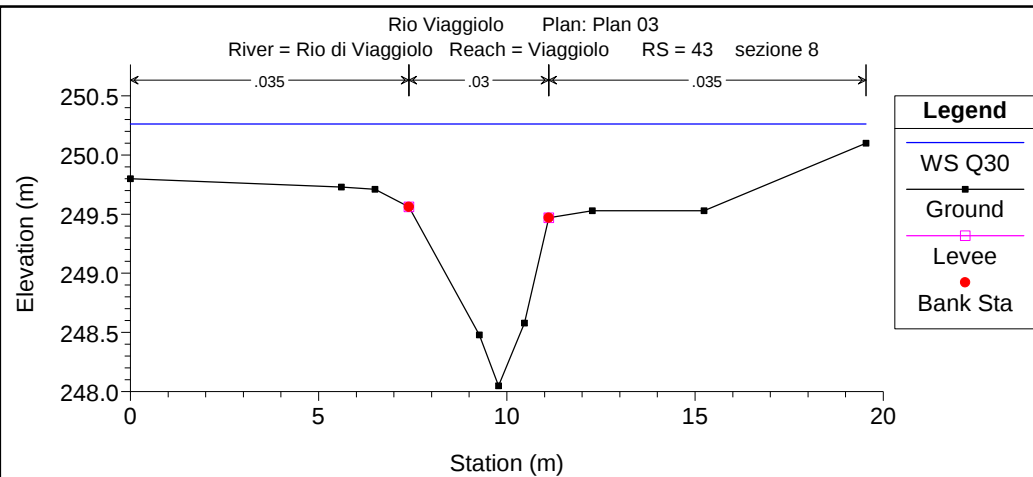


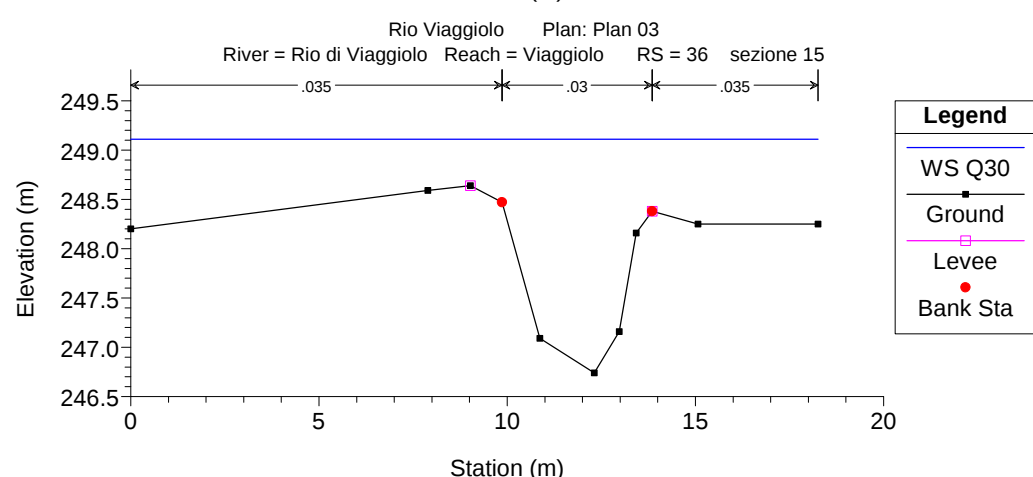
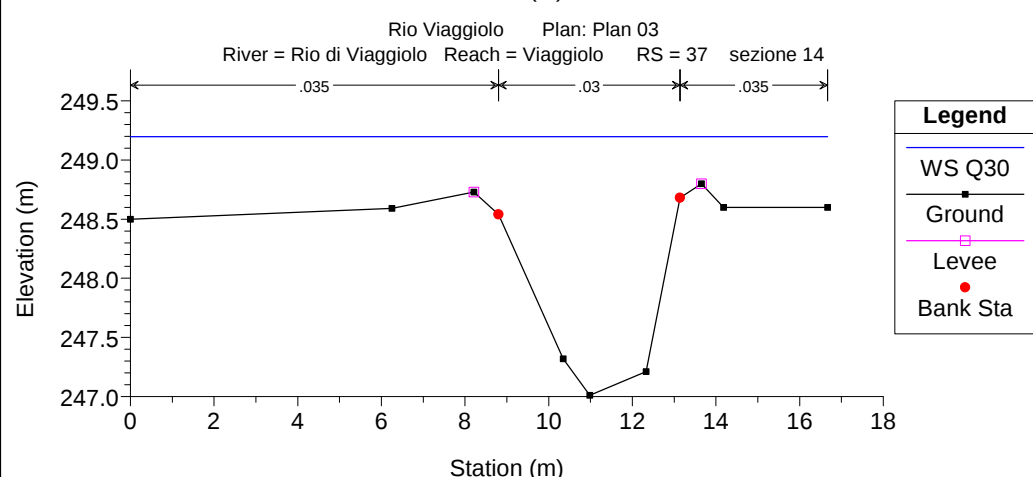
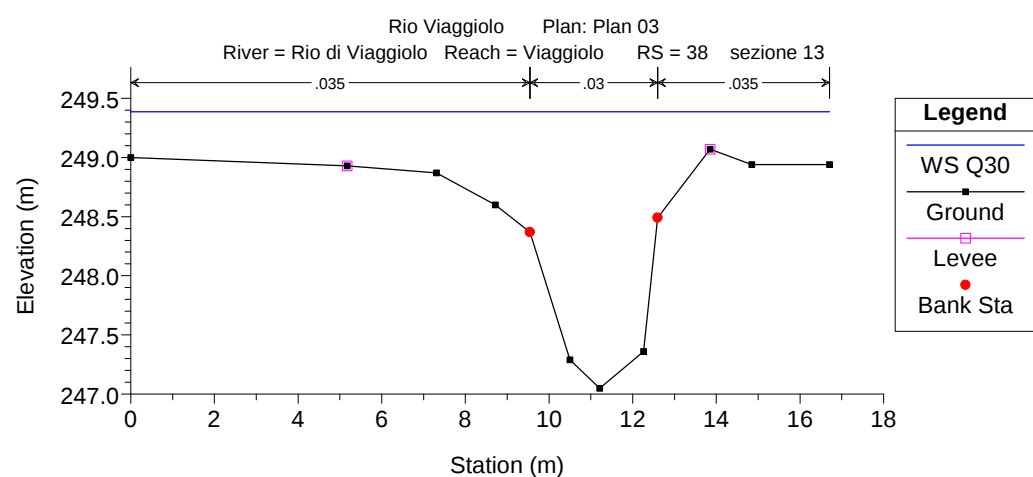
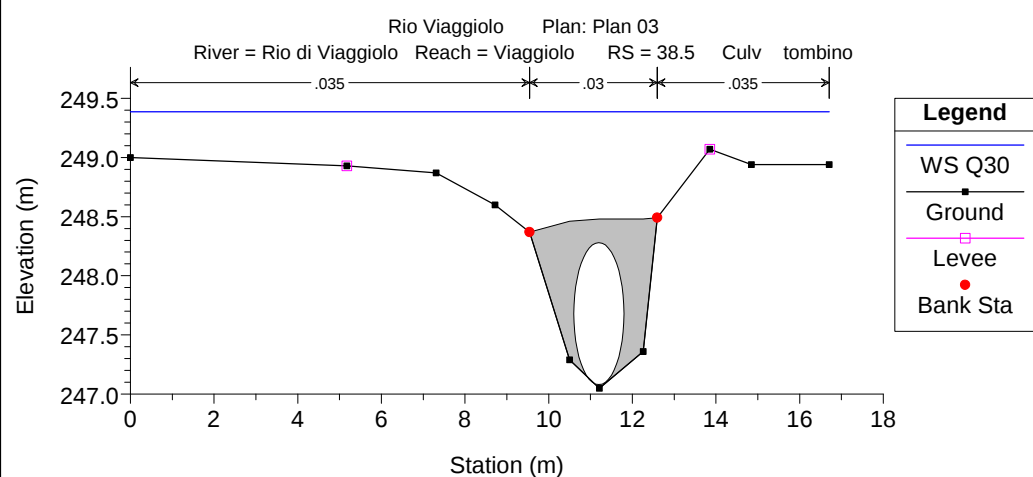
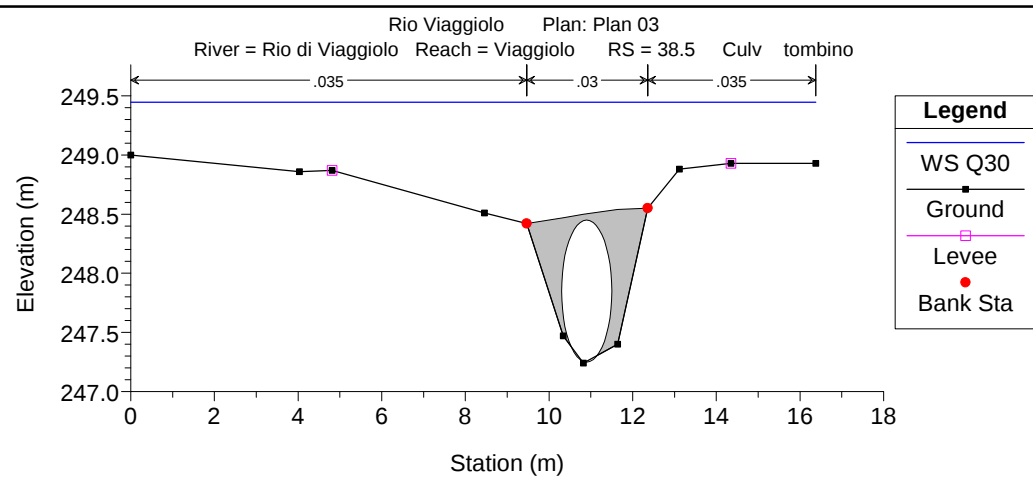
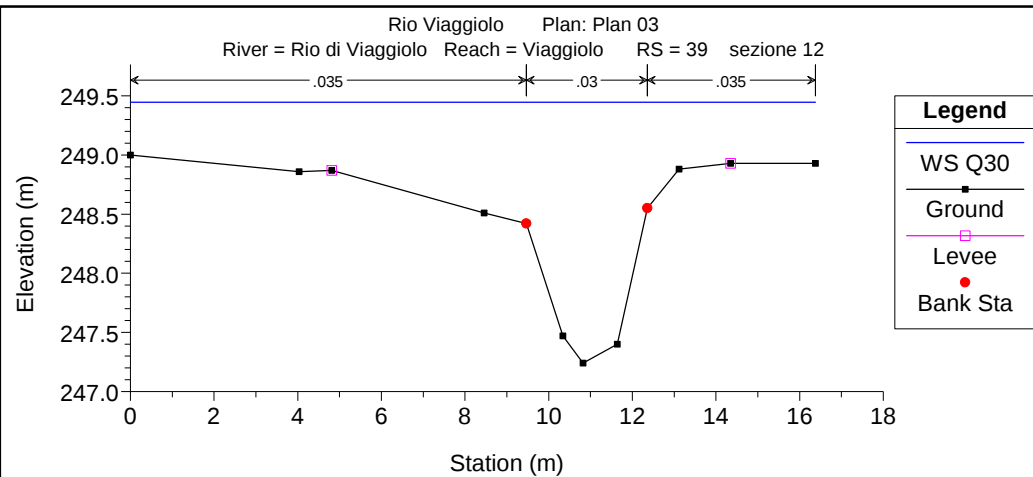


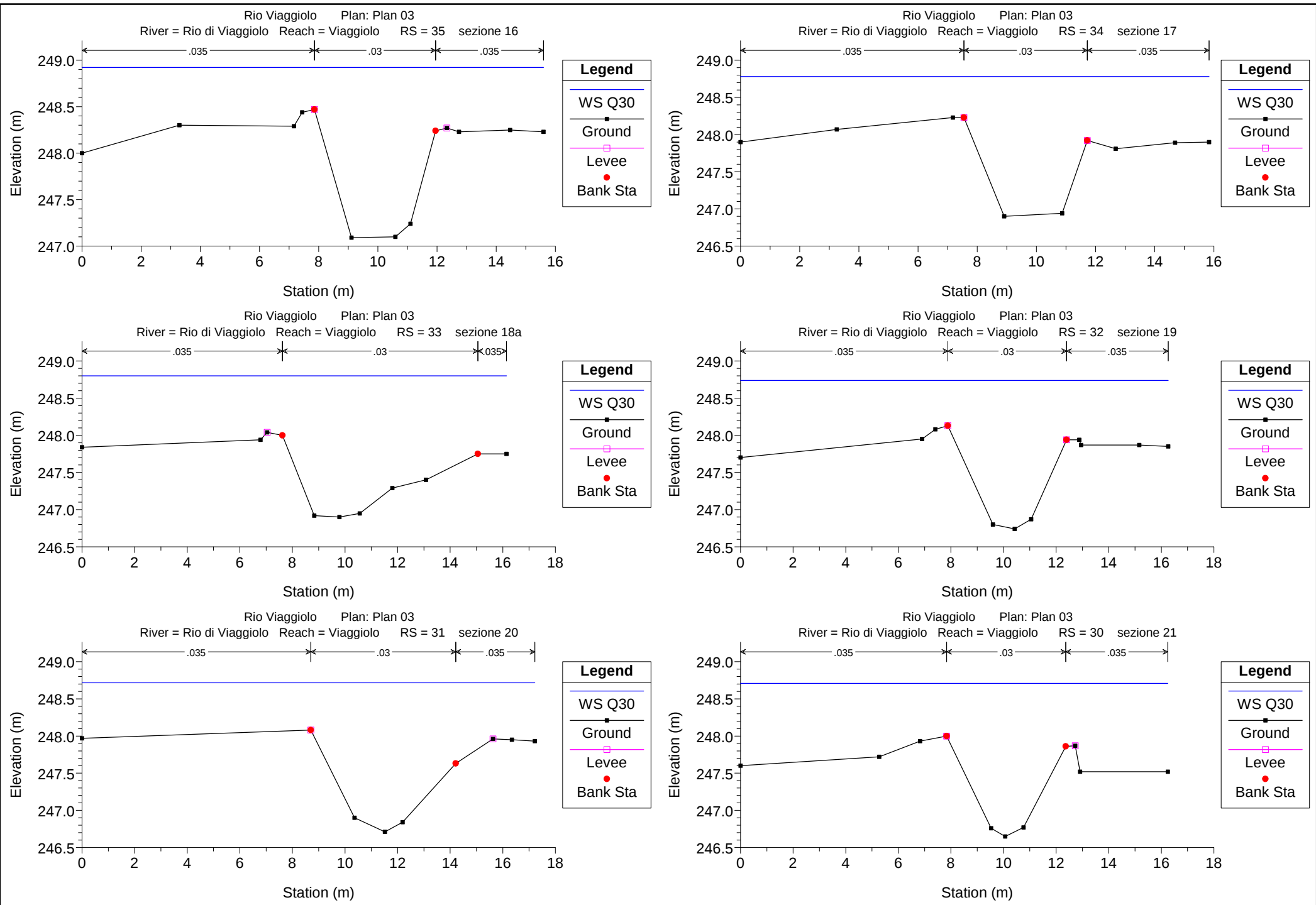


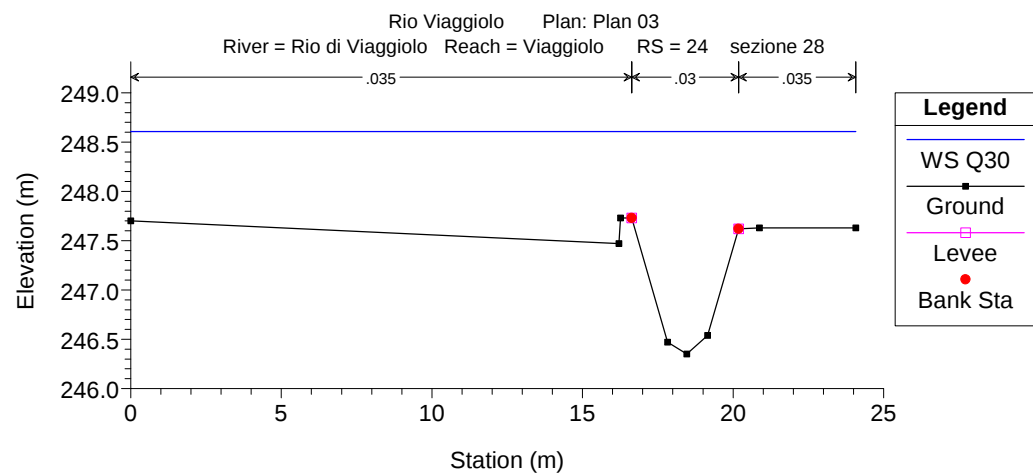
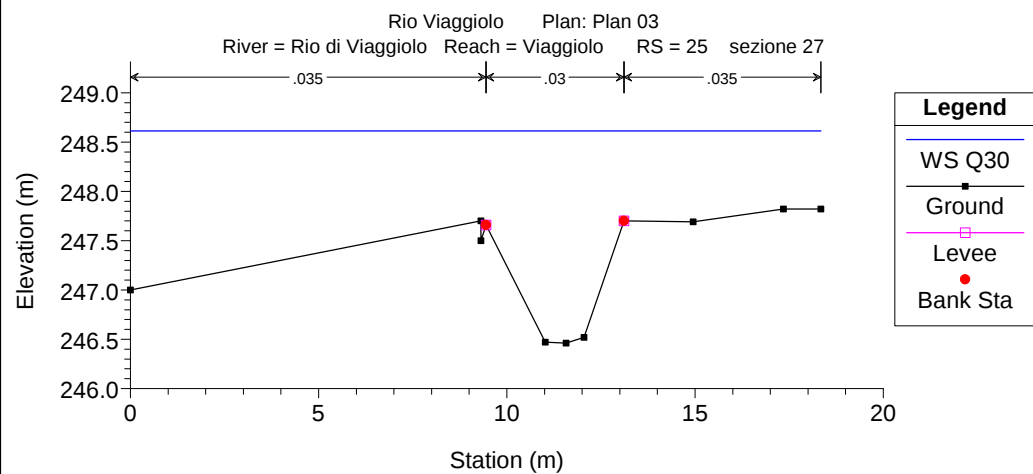
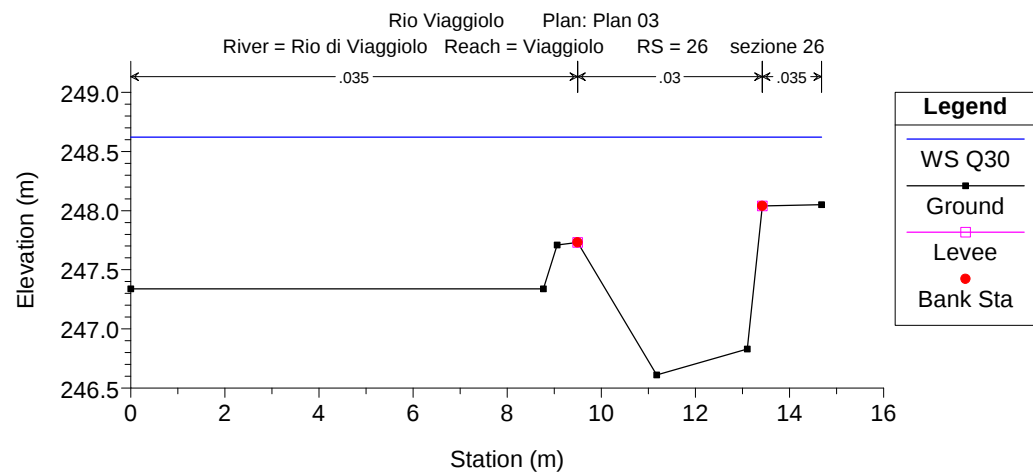
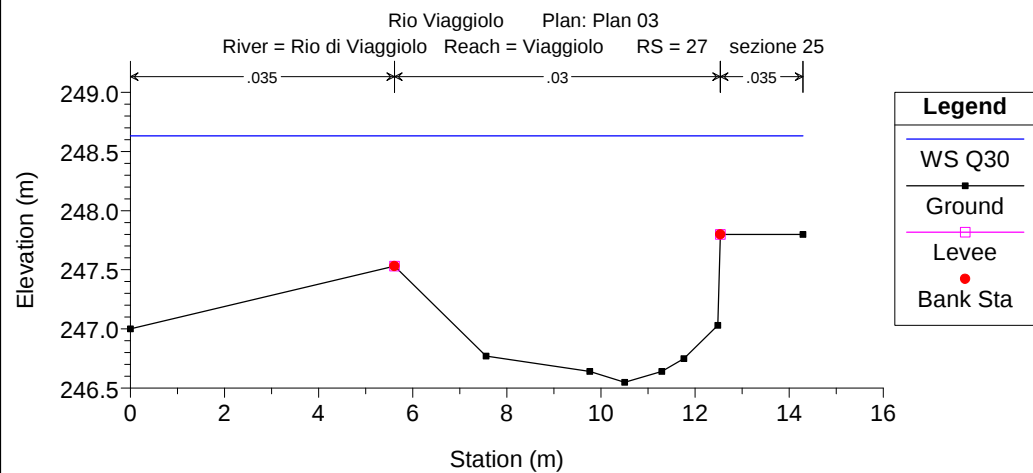
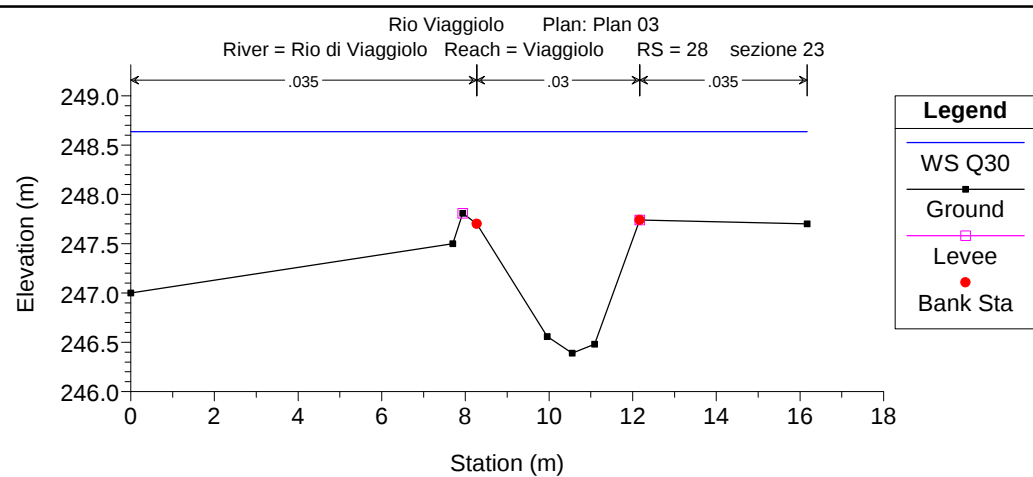
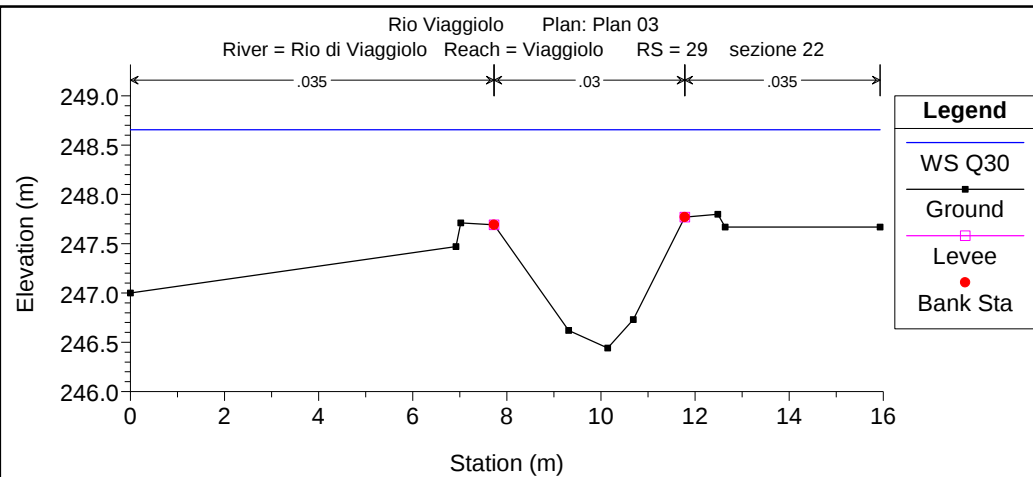
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Viaggiolo	50	Q30	17.40	248.63	250.97	250.59	251.12	0.003524	1.94	10.55	9.26	0.45
Viaggiolo	49	Q30	17.40	248.97	250.94	250.56	251.11	0.003354	2.02	9.89	8.66	0.53
Viaggiolo	48	Q30	17.40	248.80	250.82	250.48	251.04	0.003948	2.33	9.45	10.65	0.60
Viaggiolo	47	Q30	17.40	248.75	250.76	250.51	251.00	0.004141	2.35	9.18	11.15	0.63
Viaggiolo	46	Q30	17.40	248.60	250.61	250.52	250.81	0.004063	2.22	10.55	15.44	0.60
Viaggiolo	45	Q30	17.40	248.52	250.42	250.42	250.73	0.006015	2.58	8.17	14.54	0.75
Viaggiolo	43	Q30	17.40	248.05	250.26	250.04	250.36	0.002264	1.73	14.28	19.54	0.46
Viaggiolo	42	Q30	17.40	247.73	249.93	249.93	250.22	0.004944	2.57	9.12	15.95	0.66
Viaggiolo	41	Q30	17.40	247.65	249.92	249.48	250.01	0.001253	1.48	15.72	16.86	0.36
Viaggiolo	40.5		Culvert									
Viaggiolo	40	Q30	17.40	247.64	249.62	249.62	249.87	0.005596	2.49	9.62	17.49	0.65
Viaggiolo	39	Q30	17.40	247.24	249.44	249.20	249.56	0.002186	1.83	13.65	16.38	0.44
Viaggiolo	38.5		Culvert									
Viaggiolo	38	Q30	17.40	247.05	249.39	249.20	249.53	0.002448	1.97	12.70	16.71	0.46
Viaggiolo	37	Q30	17.40	247.01	249.20	248.88	249.30	0.001768	1.62	14.52	16.67	0.40
Viaggiolo	36	Q30	17.40	246.74	249.11	248.69	249.18	0.001255	1.37	17.33	18.26	0.33
Viaggiolo	35	Q30	17.40	247.09	248.92	248.62	249.03	0.002108	1.69	13.82	15.60	0.44
Viaggiolo	34	Q30	17.40	246.90	248.78	248.38	248.86	0.001499	1.50	15.51	15.84	0.38
Viaggiolo	33	Q30	17.40	246.90	248.80	248.14	248.85	0.000690	1.11	19.23	16.14	0.29
Viaggiolo	32	Q30	17.40	246.74	248.74	248.25	248.80	0.001167	1.34	17.10	16.26	0.35
Viaggiolo	31	Q30	17.40	246.71	248.72	248.25	248.79	0.001038	1.35	17.09	17.22	0.35
Viaggiolo	30	Q30	17.40	246.65	248.71	248.09	248.76	0.000876	1.18	19.05	16.25	0.30
Viaggiolo	29	Q30	17.40	246.44	248.65	247.71	248.69	0.000612	1.03	21.41	15.93	0.25
Viaggiolo	28	Q30	17.40	246.39	248.64	247.83	248.67	0.000613	1.02	21.53	16.17	0.25
Viaggiolo	27	Q30	17.40	246.55	248.63	247.65	248.67	0.000448	0.96	21.61	14.29	0.23
Viaggiolo	26	Q30	17.40	246.61	248.62	247.85	248.67	0.000784	1.08	19.13	14.68	0.27
Viaggiolo	25	Q30	17.40	246.46	248.61	247.87	248.65	0.000596	1.00	22.67	18.34	0.24
Viaggiolo	24	Q30	17.40	246.35	248.61	247.95	248.63	0.000453	0.87	27.00	24.07	0.21
Viaggiolo	23	Q30	17.40	246.19	248.55	247.76	248.59	0.000665	1.12	19.95	14.57	0.26
Viaggiolo	22	Q30	17.40	246.17	248.53	247.74	248.57	0.000735	1.15	19.38	13.84	0.27
Viaggiolo	21	Q30	17.40	246.09	248.53	247.54	248.55	0.000276	0.72	30.03	20.68	0.17
Viaggiolo	20	Q30	17.40	246.01	248.51	247.67	248.54	0.000408	0.92	24.25	17.96	0.21
Viaggiolo	19	Q30	17.40	246.06	248.40	247.69	248.50	0.001193	1.49	13.61	10.30	0.36
Viaggiolo	18.5		Bridge									
Viaggiolo	18	Q30	17.40	245.99	248.28	247.58	248.38	0.001241	1.50	13.12	10.29	0.38
Viaggiolo	17	Q30	17.40	245.89	248.28	247.61	248.35	0.000985	1.33	15.93	13.18	0.33
Viaggiolo	16	Q30	17.40	245.94	248.20	247.88	248.30	0.001874	1.67	14.37	15.69	0.41
Viaggiolo	15.5		Culvert									
Viaggiolo	15	Q30	17.40	245.98	248.19	247.76	248.26	0.001350	1.44	16.19	15.89	0.36
Viaggiolo	14	Q30	17.40	245.79	248.13	247.47	248.20	0.000982	1.38	16.80	14.70	0.33
Viaggiolo	13	Q30	17.40	245.49	248.00	247.42	248.09	0.001255	1.50	14.88	12.19	0.34
Viaggiolo	12.7		Bridge									
Viaggiolo	12.5	Q30	17.40	245.49	247.96	247.42	248.06	0.001357	1.55	14.47	12.19	0.36
Viaggiolo	12	Q30	17.40	245.56	247.84	247.33	247.92	0.001191	1.47	16.15	14.65	0.34
Viaggiolo	11.7		Bridge									
Viaggiolo	11.5	Q30	17.40	245.56	247.82	247.33	247.90	0.001242	1.50	15.91	14.65	0.35
Viaggiolo	11	Q30	17.40	245.03	247.68	246.88	247.79	0.002520	1.70	13.76	16.66	0.35
Viaggiolo	10.5		Bridge									
Viaggiolo	10	Q30	17.40	245.41	246.82	247.16	247.72	0.023286	4.20	4.16	4.62	1.32
Viaggiolo	9	Q30	17.40	245.42	247.30	247.17	247.57	0.005028	2.47	8.55	11.94	0.69
Viaggiolo	8	Q30	17.40	245.10	247.26	246.46	247.31	0.000722	1.15	19.22	14.77	0.28
Viaggiolo	7	Q30	17.40	244.67	247.19	246.36	247.23	0.000516	1.05	21.73	15.92	0.24
Viaggiolo	6.5	Q30	17.40	244.67	247.18	246.36	247.22	0.000532	1.06	21.51	15.92	0.24
Viaggiolo	6	Q30	17.40	244.77	247.09	246.55	247.21	0.001343	1.79	13.92	11.96	0.41
Viaggiolo	5	Q30	17.40	244.77	247.09	246.56	247.20	0.001790	1.66	14.03	11.96	0.37
Viaggiolo	4.5	Q30	17.40	244.60	247.10	246.41	247.20	0.001634	1.60	14.44	11.96	0.35
Viaggiolo	4	Q30	17.40	244.56	246.28	246.28	247.03	0.012090	3.88	4.65	3.22	0.97
Viaggiolo	3	Q30	17.40	244.49	246.13	246.41	246.90	0.021789	3.92	4.68	9.96	1.33
Viaggiolo	2	Q30	17.40	244.11	246.34	246.15	246.51	0.003074	2.03	11.21	15.21	0.53
Viaggiolo	1	Q30	17.40	243.67	245.43	245.43	245.94	0.011613	3.19	5.45	5.24	1.00

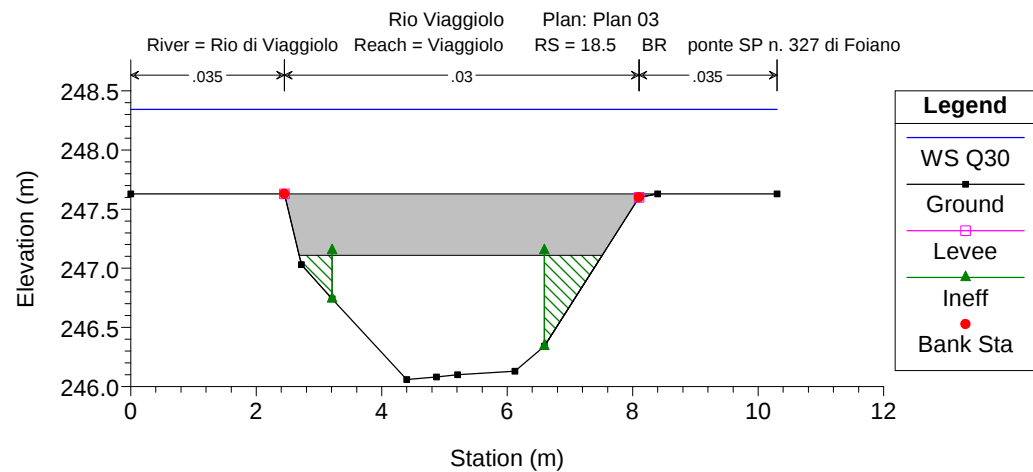
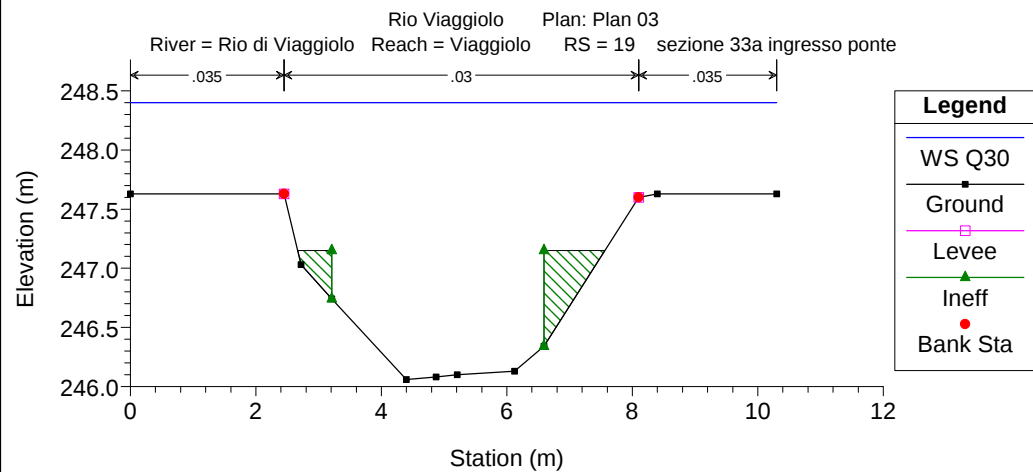
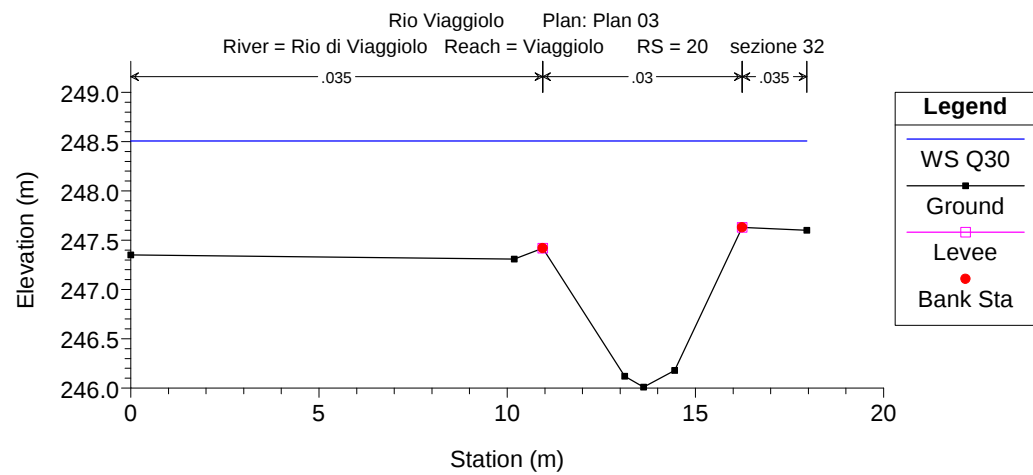
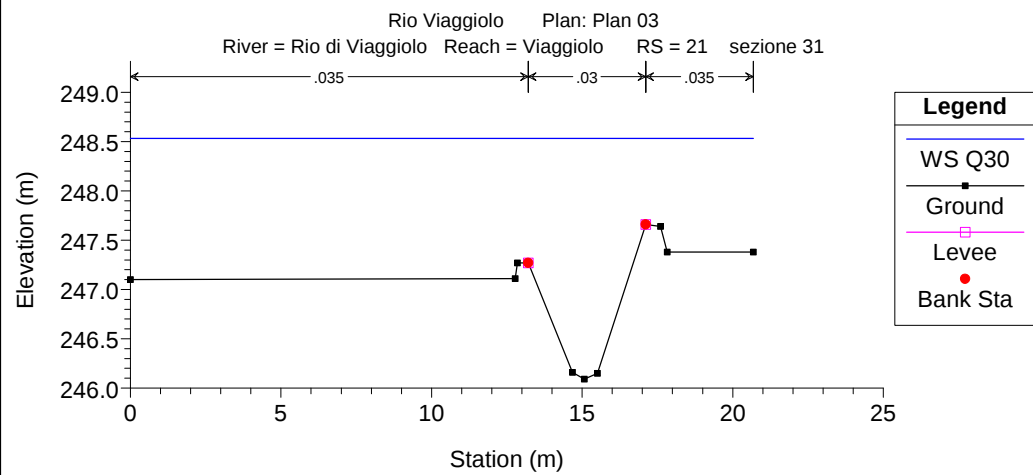
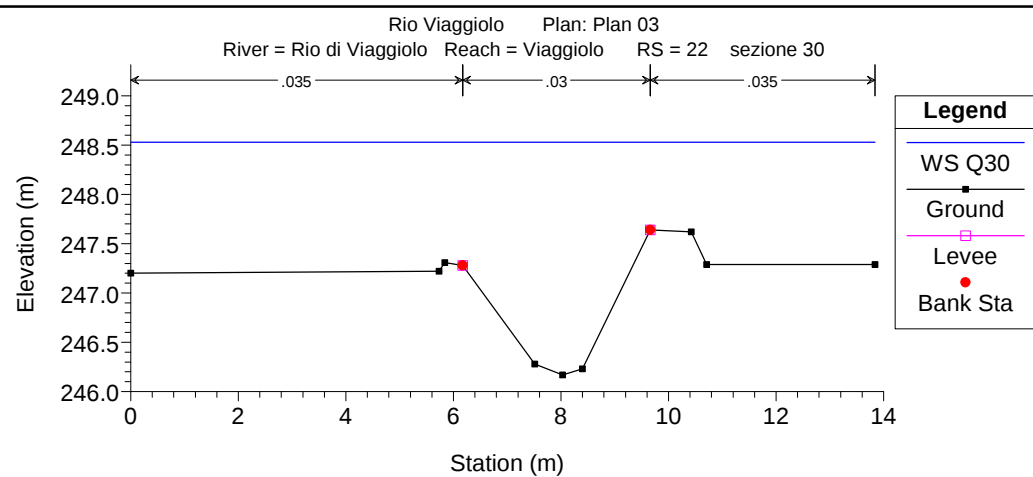
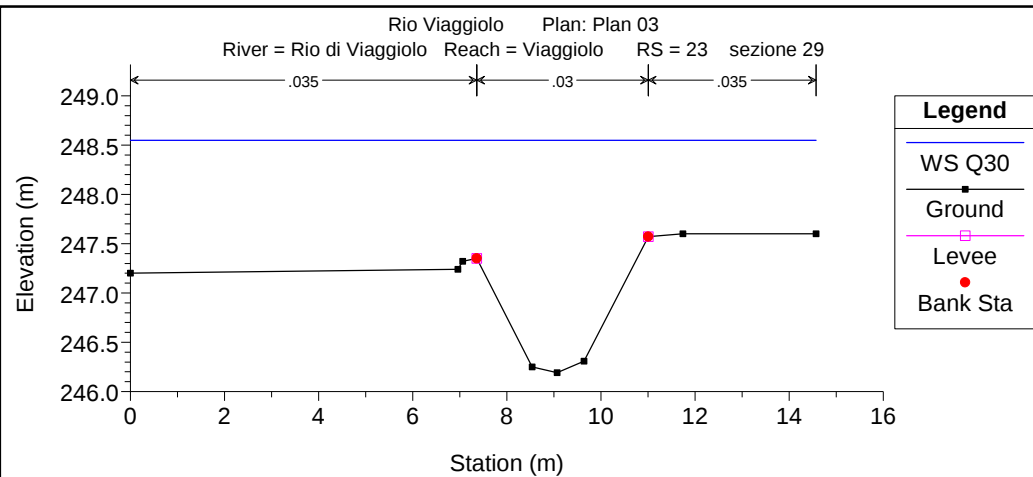


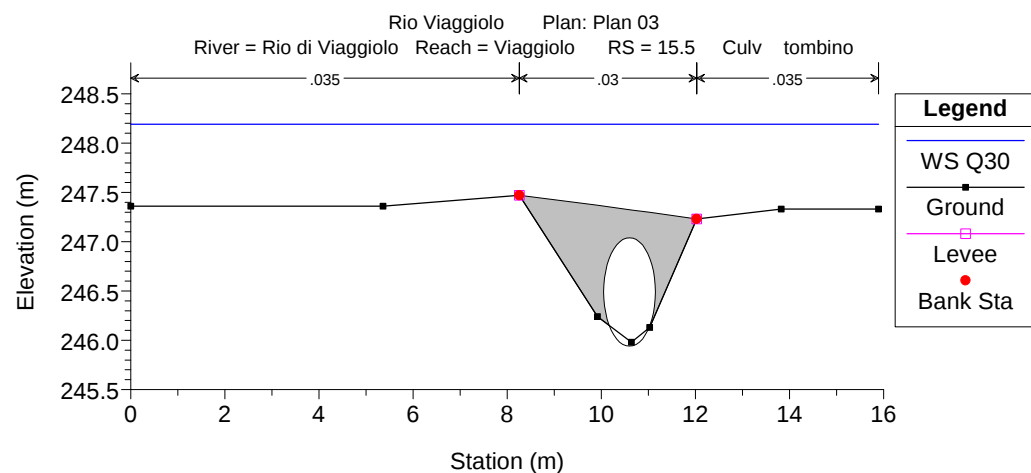
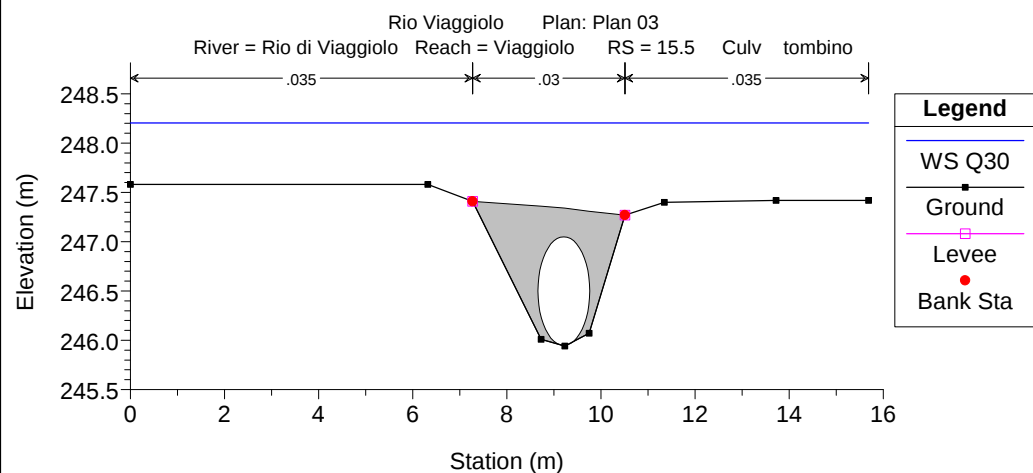
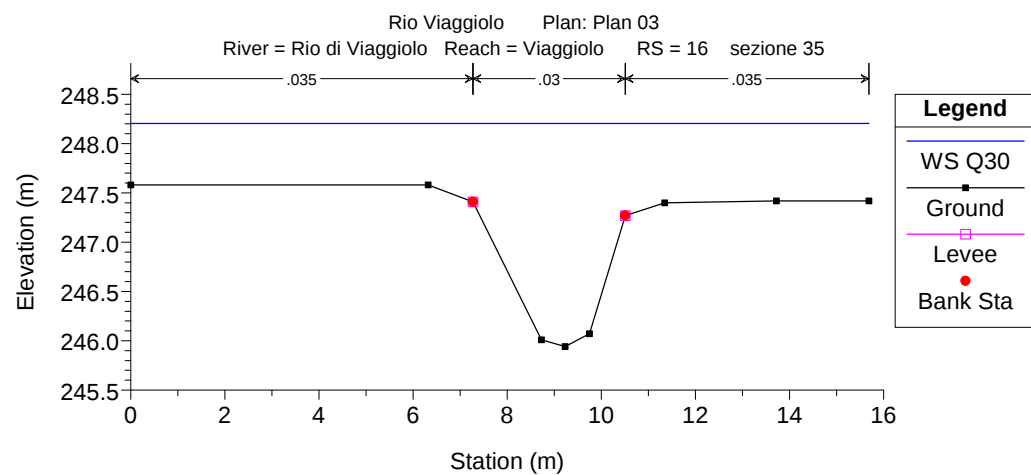
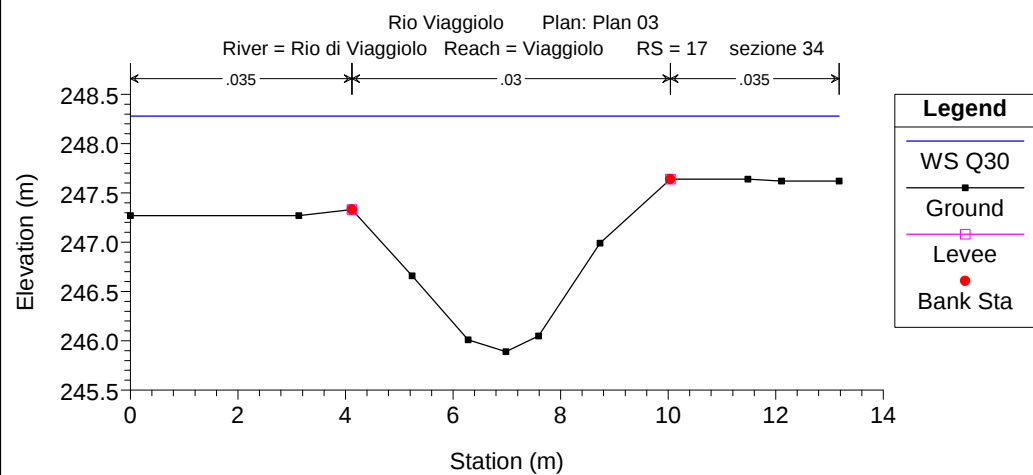
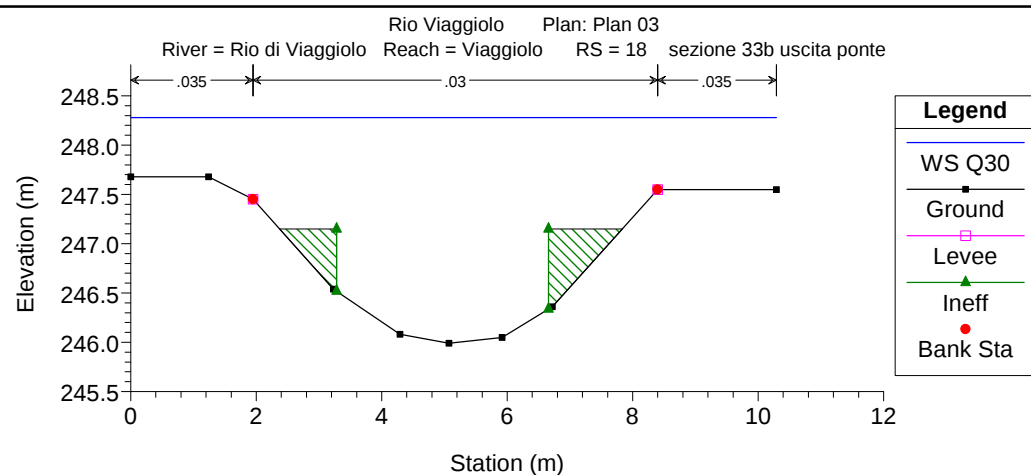
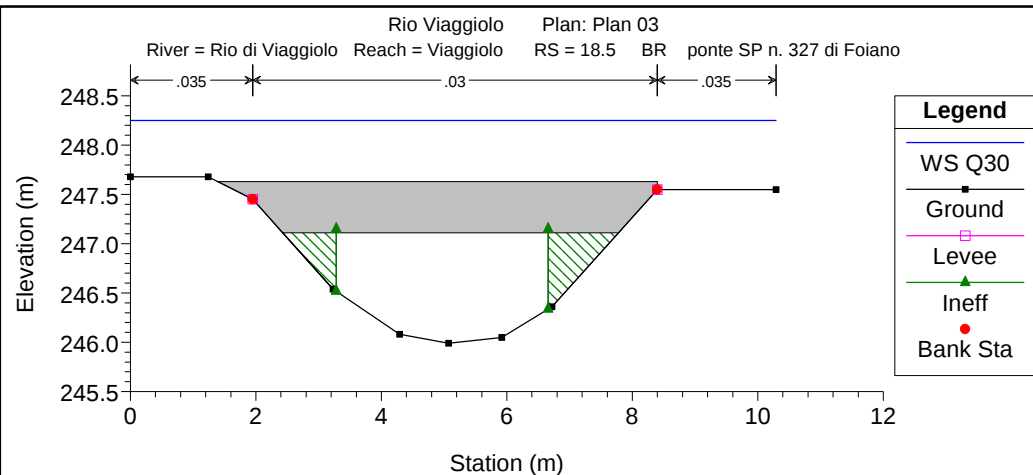


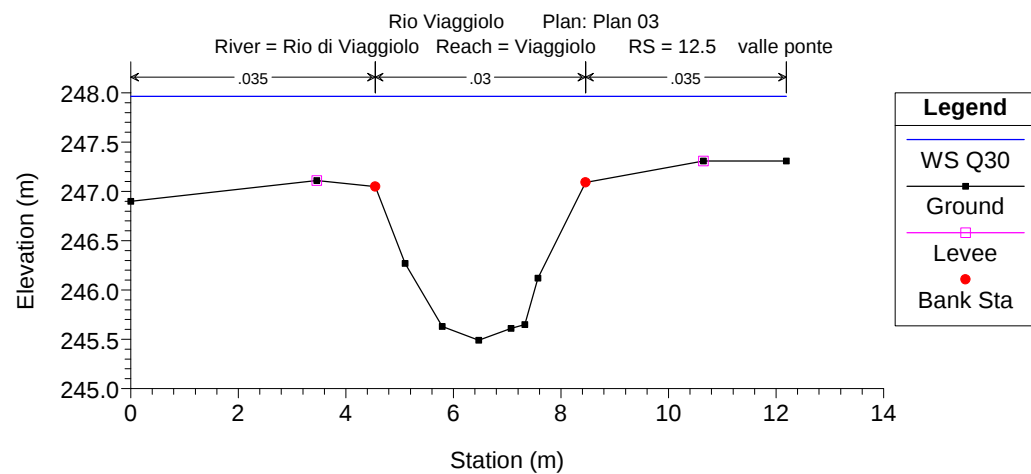
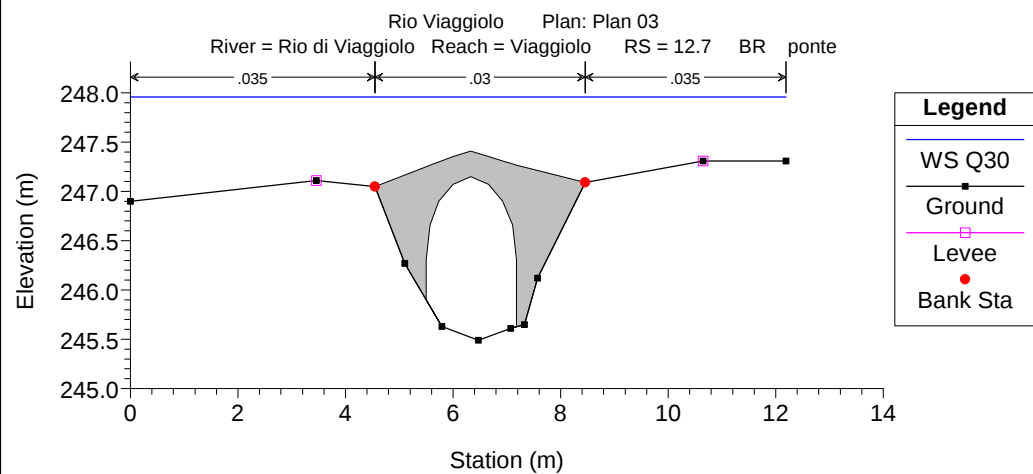
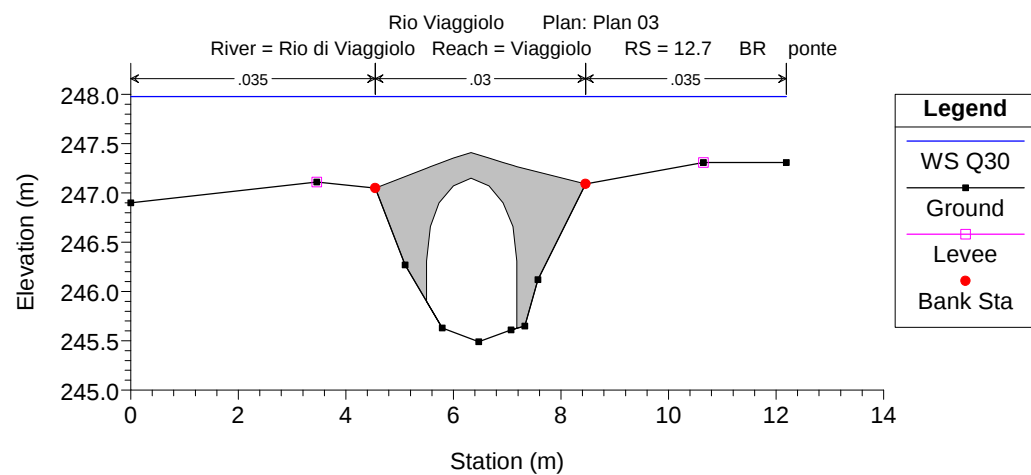
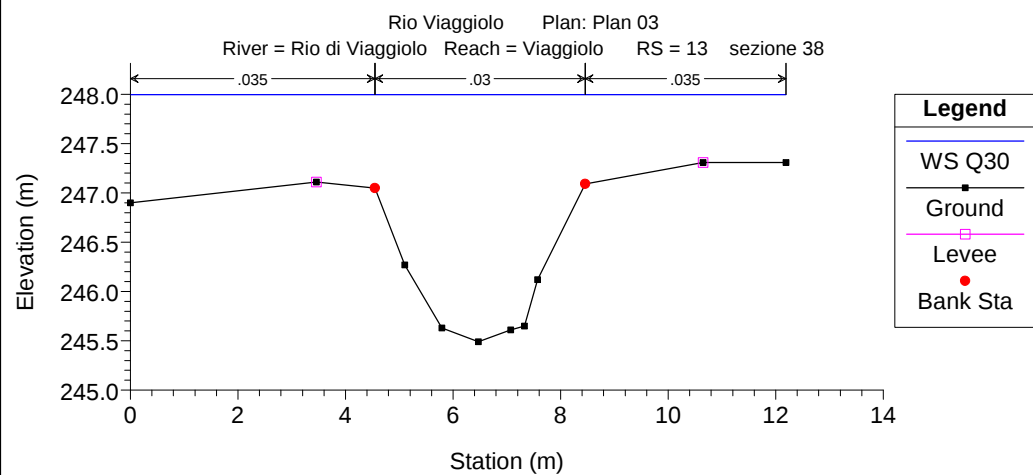
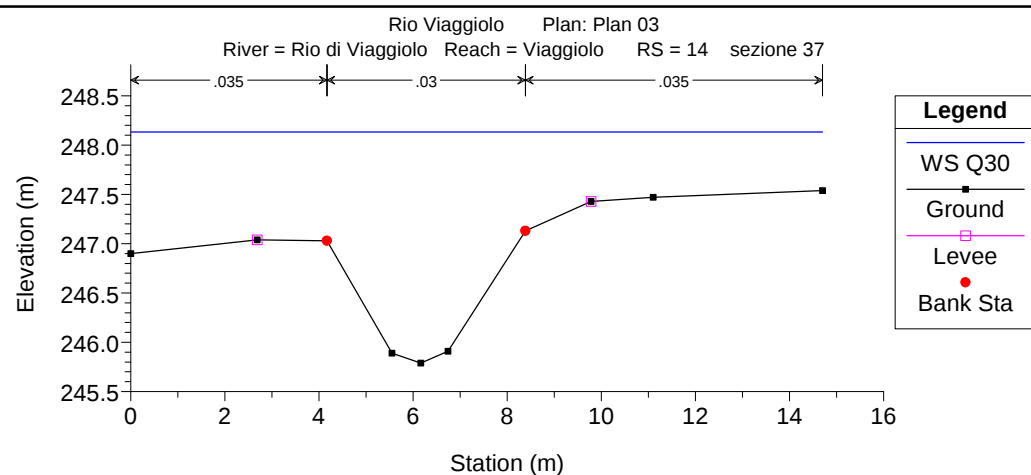
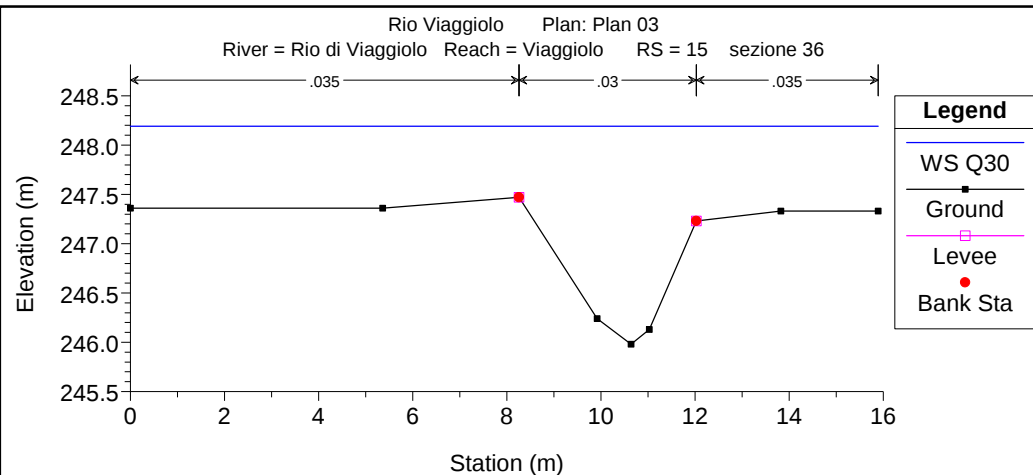


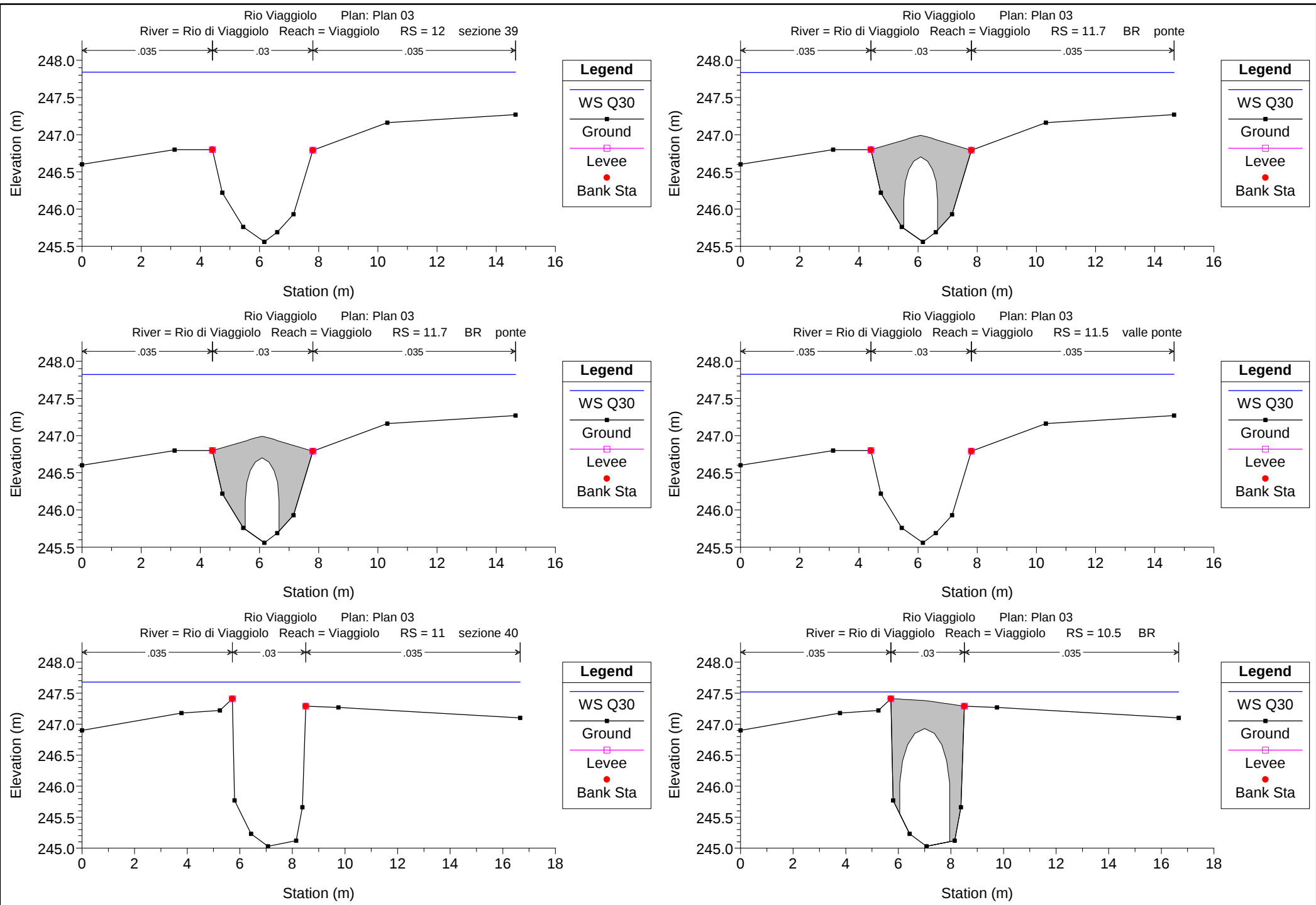


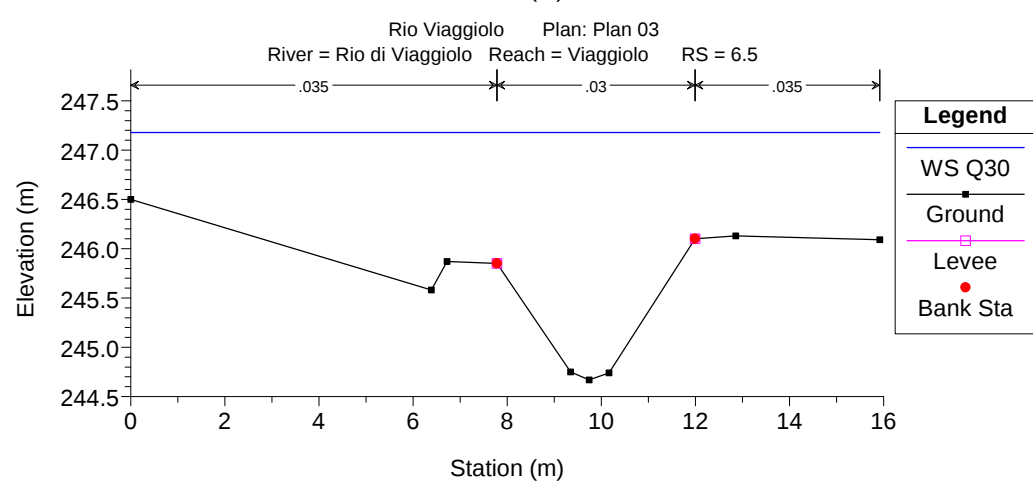
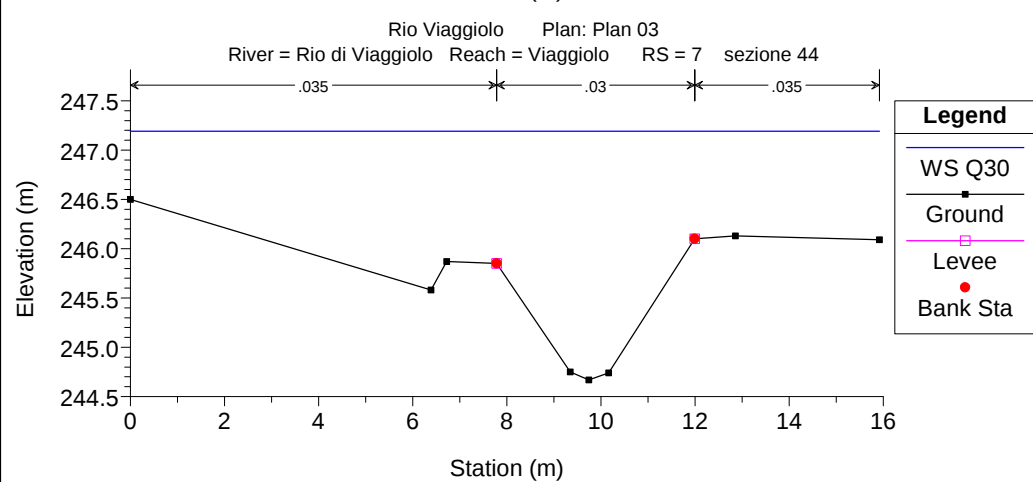
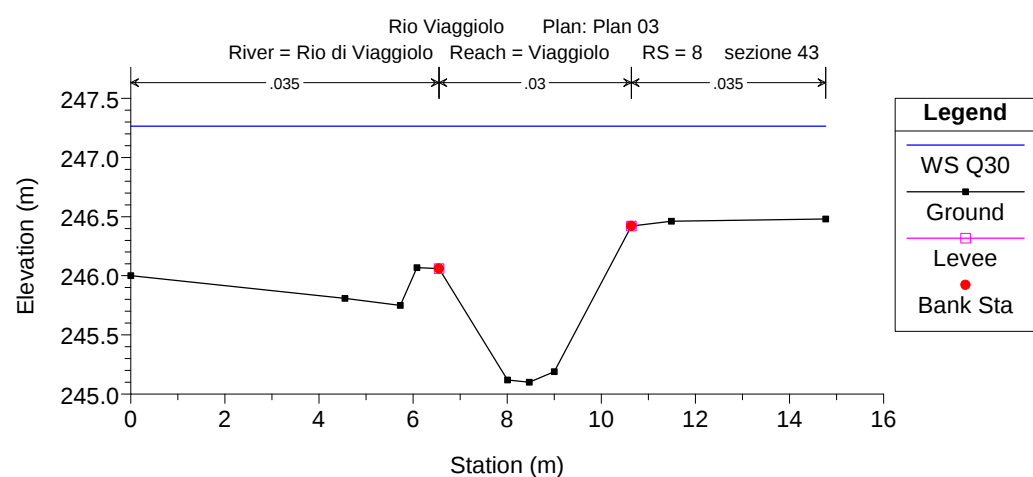
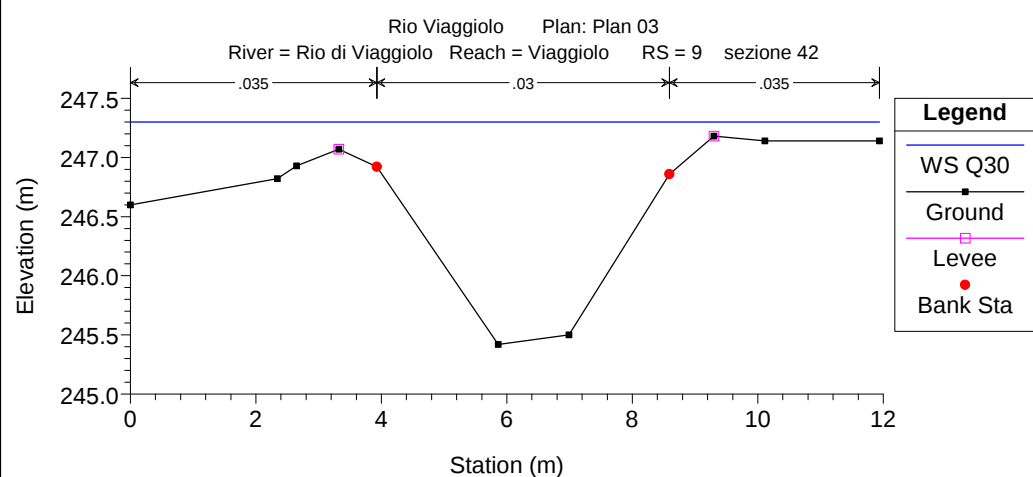
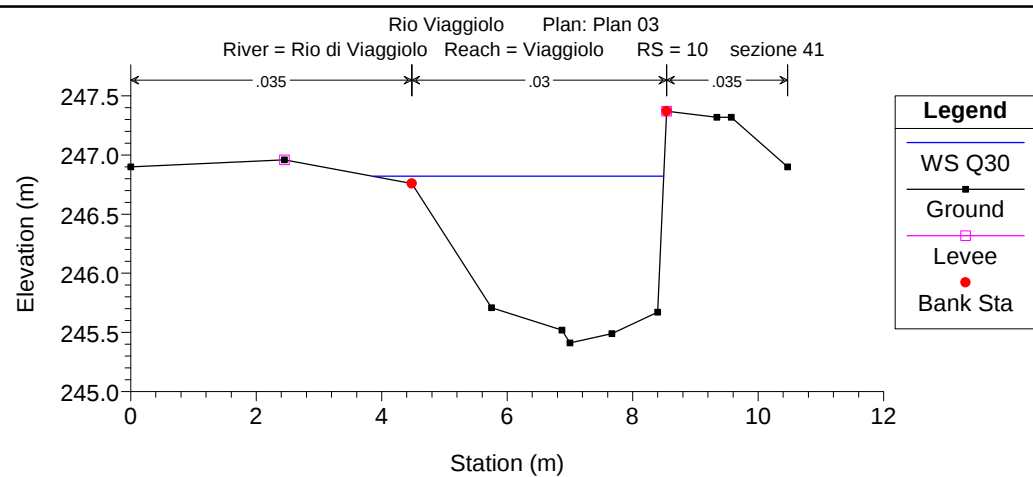
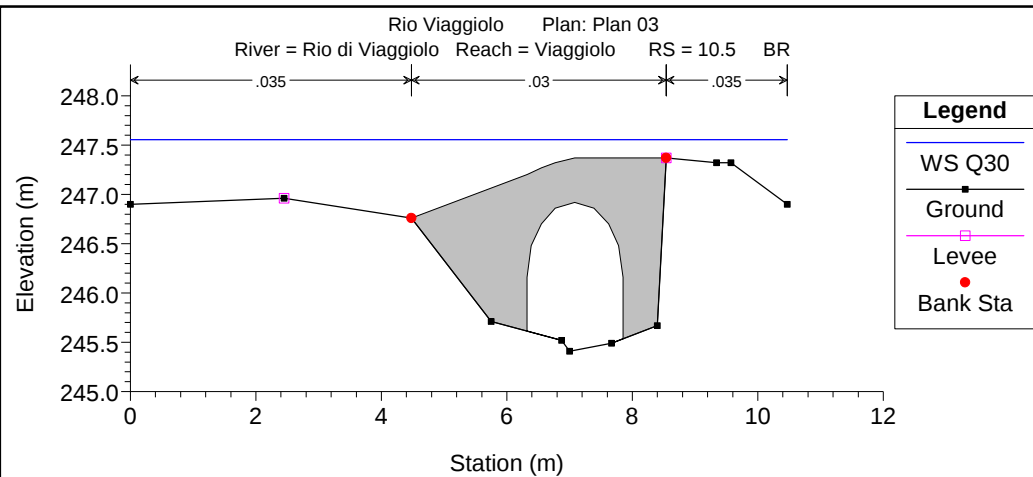


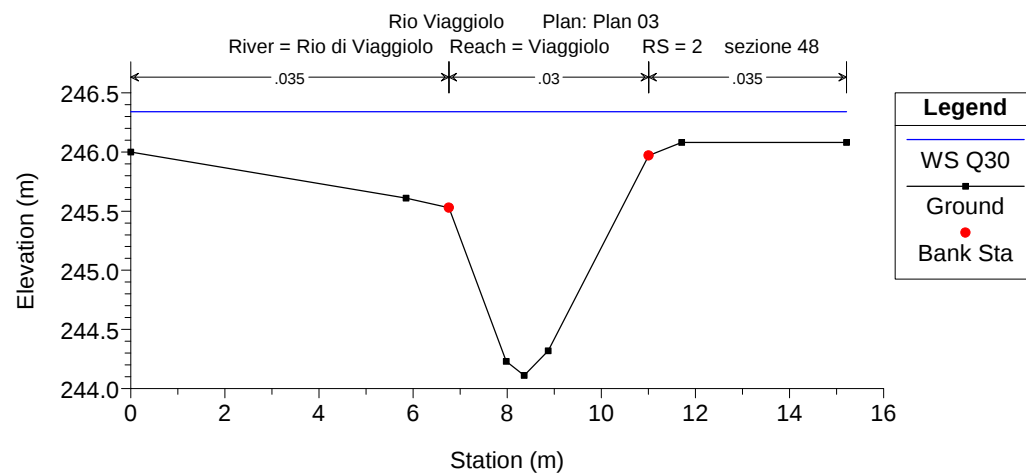
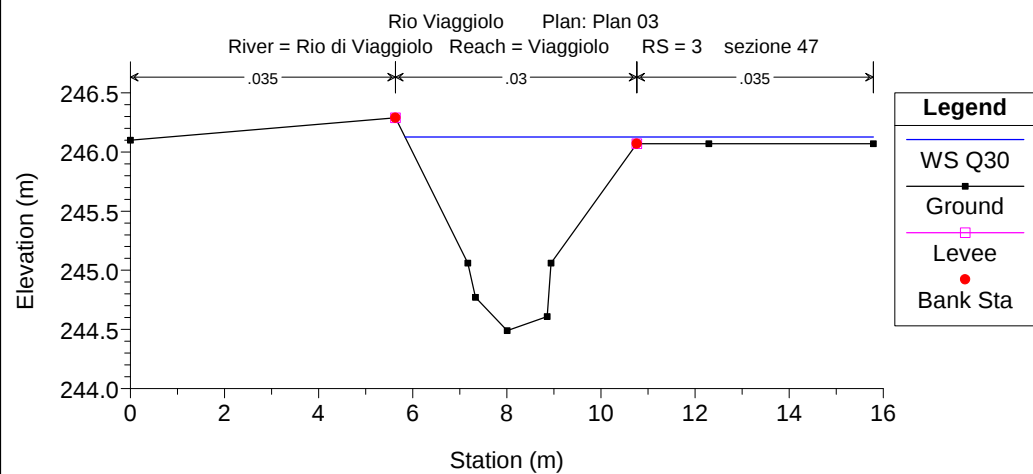
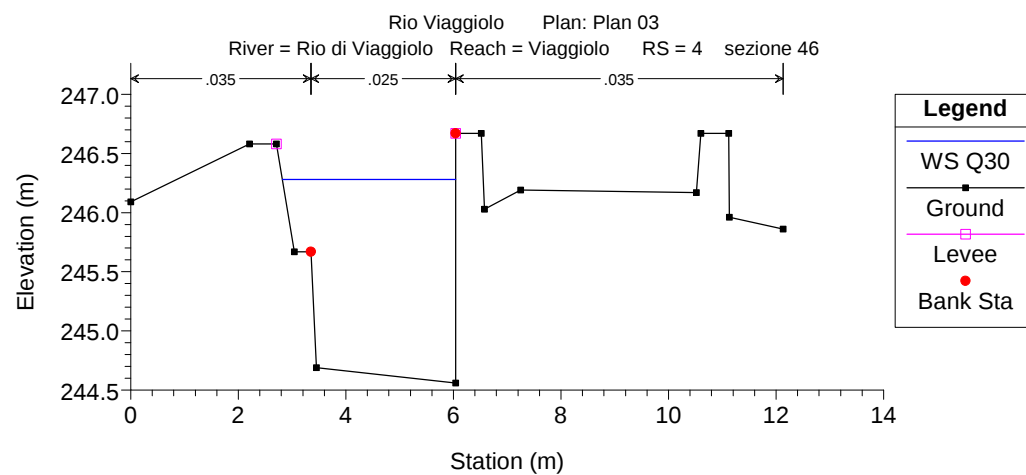
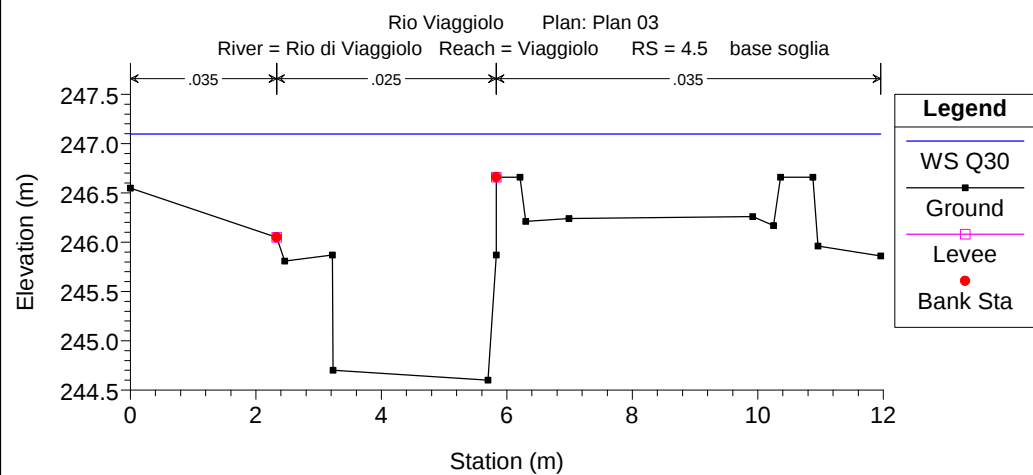
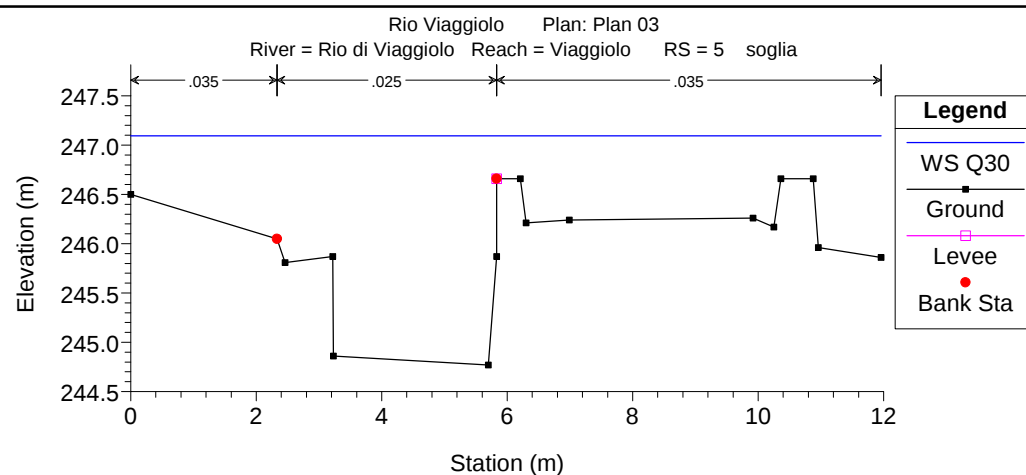
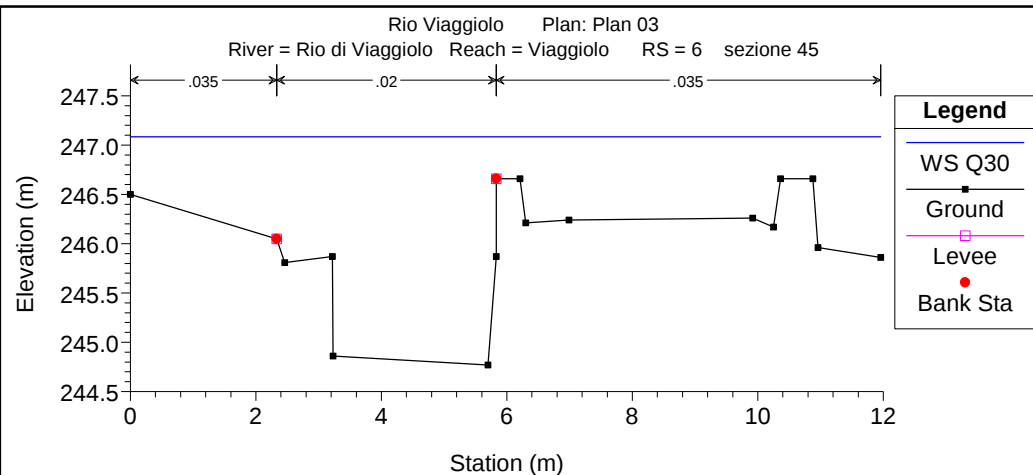


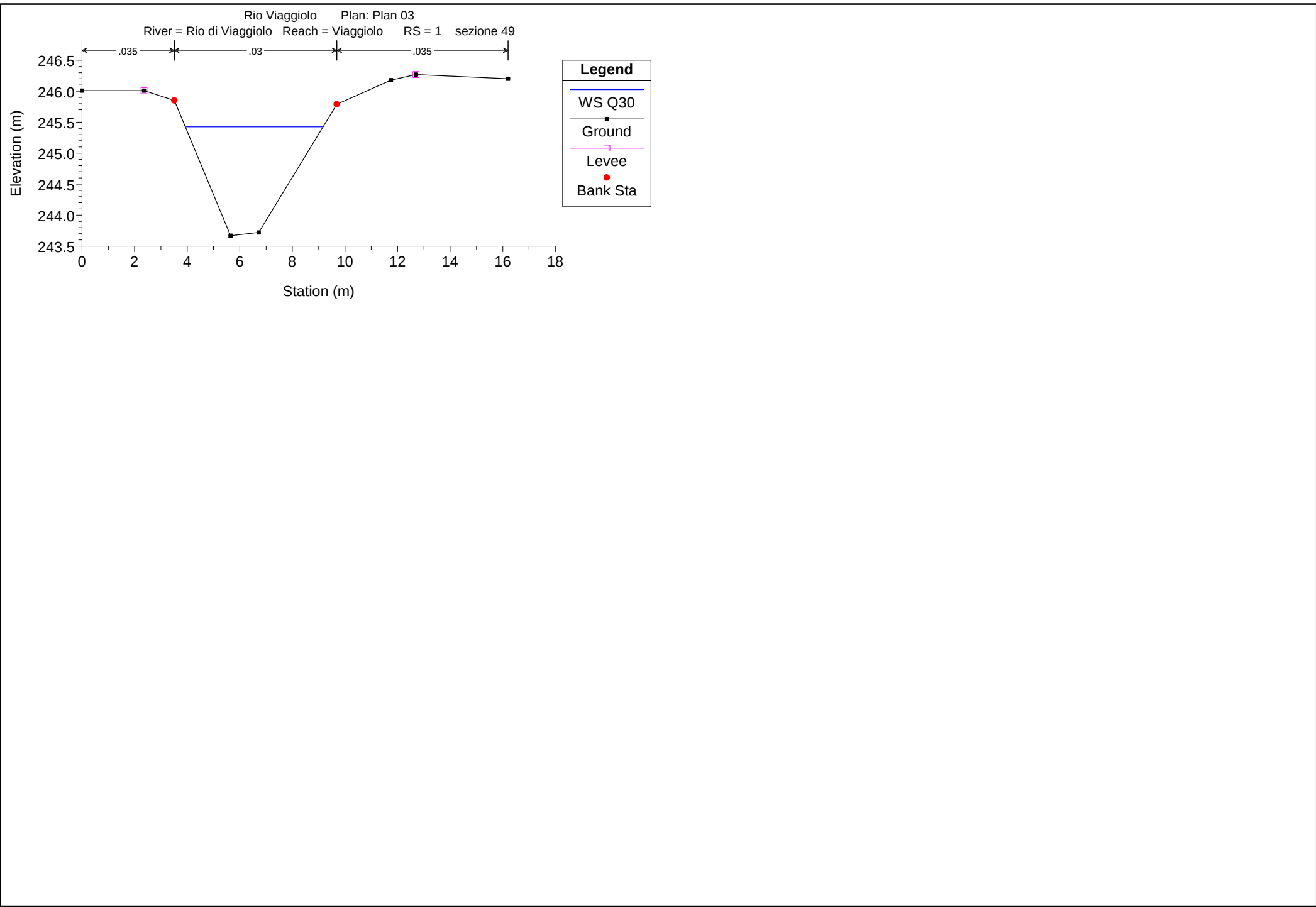






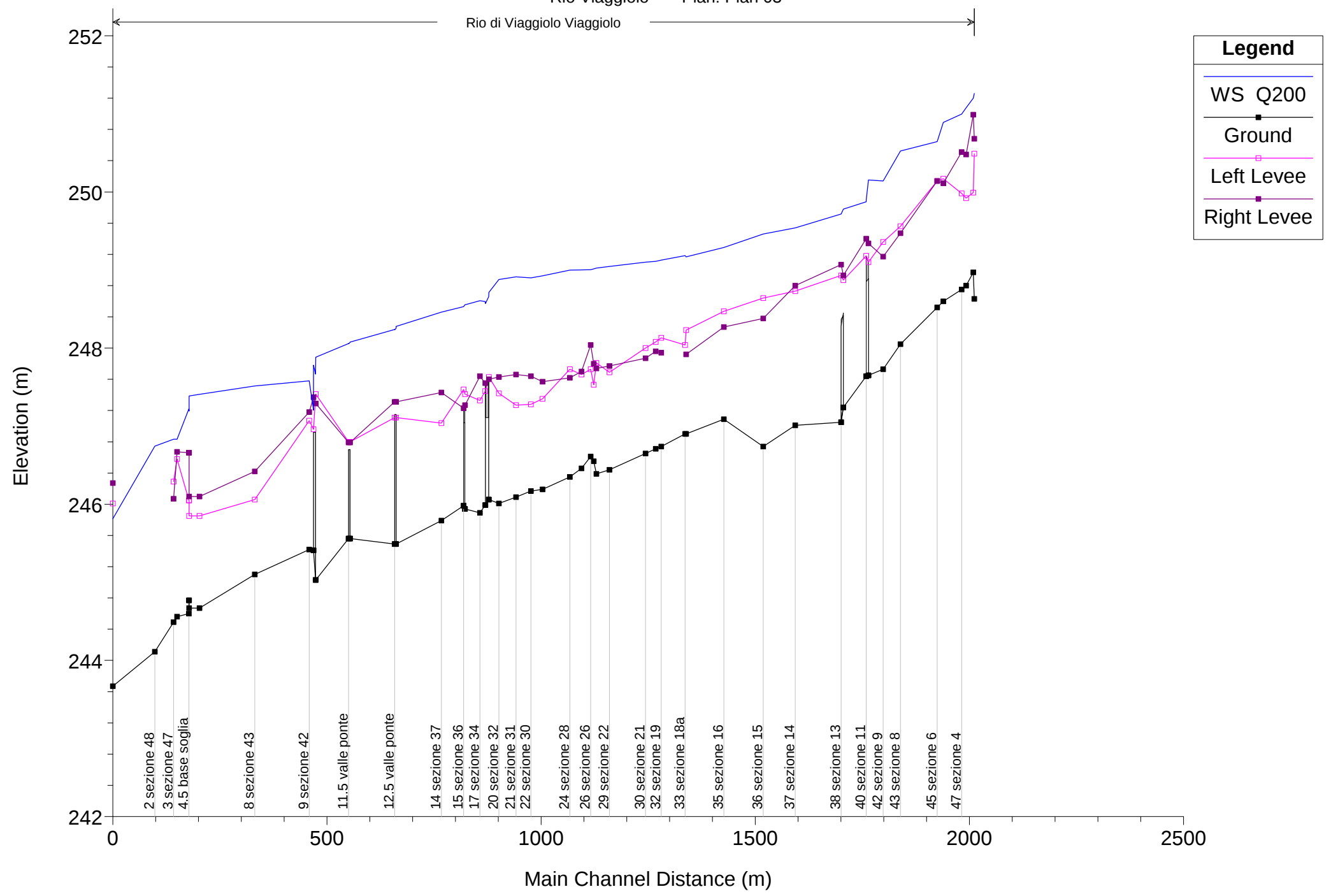






Rio Viaggiolo Plan: Plan 03

Rio di Viaggiolo Viaggiolo



Legend

- WS Q200
- Ground
- Left Levee
- Right Levee

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Viaggiolo	50	Q200	26.80	248.63	251.26	250.84	251.48	0.004159	2.33	13.41	9.96	0.50
Viaggiolo	49	Q200	26.80	248.97	251.20	250.84	251.46	0.004558	2.54	12.29	9.73	0.62
Viaggiolo	48	Q200	26.80	248.80	251.08	250.88	251.38	0.004660	2.81	12.21	11.00	0.67
Viaggiolo	47	Q200	26.80	248.75	251.00	250.86	251.33	0.005004	2.86	11.82	11.48	0.71
Viaggiolo	46	Q200	26.80	248.60	250.89	250.71	251.11	0.003801	2.43	14.79	15.44	0.60
Viaggiolo	45	Q200	26.80	248.52	250.64	250.64	251.02	0.006293	2.97	11.48	14.54	0.79
Viaggiolo	43	Q200	26.80	248.05	250.52	250.21	250.64	0.002199	1.90	19.41	19.54	0.46
Viaggiolo	42	Q200	26.80	247.73	250.14	250.14	250.49	0.005608	2.98	12.48	15.95	0.72
Viaggiolo	41	Q200	26.80	247.65	250.15	249.73	250.28	0.001602	1.82	19.62	16.86	0.42
Viaggiolo	40.5		Culvert									
Viaggiolo	40	Q200	26.80	247.64	249.87	249.80	250.12	0.005056	2.63	14.06	17.49	0.64
Viaggiolo	39	Q200	26.80	247.24	249.78	249.38	249.90	0.001962	1.95	19.11	16.38	0.43
Viaggiolo	38.5		Culvert									
Viaggiolo	38	Q200	26.80	247.05	249.72	249.40	249.86	0.002203	2.08	18.22	16.71	0.44
Viaggiolo	37	Q200	26.80	247.01	249.54	249.07	249.65	0.001625	1.76	20.23	16.67	0.40
Viaggiolo	36	Q200	26.80	246.74	249.46	248.87	249.54	0.001177	1.50	23.75	18.26	0.33
Viaggiolo	35	Q200	26.80	247.09	249.29	248.80	249.40	0.001793	1.81	19.53	15.60	0.43
Viaggiolo	34	Q200	26.80	246.90	249.17	248.56	249.26	0.001320	1.63	21.63	15.84	0.37
Viaggiolo	33	Q200	26.80	246.90	249.18	248.32	249.25	0.000695	1.29	25.42	16.14	0.30
Viaggiolo	32	Q200	26.80	246.74	249.13	248.42	249.20	0.001062	1.49	23.41	16.26	0.34
Viaggiolo	31	Q200	26.80	246.71	249.11	248.44	249.19	0.000924	1.48	23.86	17.22	0.34
Viaggiolo	30	Q200	26.80	246.65	249.10	248.26	249.16	0.000853	1.36	25.41	16.25	0.31
Viaggiolo	29	Q200	26.80	246.44	249.04	248.02	249.10	0.000663	1.23	27.61	15.93	0.27
Viaggiolo	28	Q200	26.80	246.39	249.03	248.01	249.08	0.000661	1.21	27.81	16.17	0.27
Viaggiolo	27	Q200	26.80	246.55	249.02	247.86	249.07	0.000533	1.19	27.08	14.29	0.26
Viaggiolo	26	Q200	26.80	246.61	249.00	248.03	249.07	0.000837	1.28	24.76	14.68	0.29
Viaggiolo	25	Q200	26.80	246.46	249.00	248.04	249.05	0.000609	1.16	29.79	18.34	0.26
Viaggiolo	24	Q200	26.80	246.35	249.00	248.07	249.03	0.000420	0.96	36.44	24.07	0.21
Viaggiolo	23	Q200	26.80	246.19	248.93	247.95	248.99	0.000754	1.35	25.44	14.57	0.29
Viaggiolo	22	Q200	26.80	246.17	248.90	247.92	248.97	0.000850	1.40	24.53	13.84	0.30
Viaggiolo	21	Q200	26.80	246.09	248.91	247.69	248.94	0.000318	0.88	37.86	20.68	0.19
Viaggiolo	20	Q200	26.80	246.01	248.88	247.84	248.92	0.000460	1.10	30.93	17.96	0.24
Viaggiolo	19	Q200	26.80	246.06	248.71	248.00	248.87	0.001529	1.88	16.84	10.30	0.42
Viaggiolo	18.5		Bridge									
Viaggiolo	18	Q200	26.80	245.99	248.60	247.91	248.76	0.001533	1.88	16.39	10.29	0.43
Viaggiolo	17	Q200	26.80	245.89	248.61	247.87	248.71	0.001157	1.63	20.24	13.18	0.37
Viaggiolo	16	Q200	26.80	245.94	248.55	248.06	248.66	0.001729	1.82	19.86	15.69	0.40
Viaggiolo	15.5		Culvert									
Viaggiolo	15	Q200	26.80	245.98	248.53	247.93	248.62	0.001346	1.64	21.59	15.89	0.37
Viaggiolo	14	Q200	26.80	245.79	248.46	247.78	248.56	0.001130	1.65	21.59	14.70	0.36
Viaggiolo	13	Q200	26.80	245.49	248.28	247.66	248.41	0.001650	1.89	18.27	12.19	0.40
Viaggiolo	12.7		Bridge									
Viaggiolo	12.5	Q200	26.80	245.49	248.24	247.66	248.38	0.001773	1.93	17.82	12.19	0.42
Viaggiolo	12	Q200	26.80	245.56	248.08	247.54	248.19	0.001615	1.86	19.59	14.65	0.41
Viaggiolo	11.7		Bridge									
Viaggiolo	11.5	Q200	26.80	245.56	248.06	247.54	248.18	0.001682	1.88	19.32	14.65	0.42
Viaggiolo	11	Q200	26.80	245.03	247.88	247.61	248.03	0.003280	2.05	17.17	16.66	0.41
Viaggiolo	10.5		Bridge									
Viaggiolo	10	Q200	26.80	245.41	247.20	247.48	248.08	0.017644	4.31	7.06	8.53	1.16
Viaggiolo	9	Q200	26.80	245.42	247.58	247.47	247.92	0.005050	2.82	11.91	11.94	0.72
Viaggiolo	8	Q200	26.80	245.10	247.51	246.70	247.59	0.001009	1.49	22.91	14.77	0.34
Viaggiolo	7	Q200	26.80	244.67	247.41	246.58	247.48	0.000787	1.39	25.15	15.92	0.30
Viaggiolo	6.5	Q200	26.80	244.67	247.39	246.58	247.46	0.000821	1.41	24.81	15.92	0.31
Viaggiolo	6	Q200	26.80	244.77	247.19	246.87	247.44	0.002509	2.53	15.22	11.96	0.56
Viaggiolo	5	Q200	26.80	244.77	247.21	246.84	247.42	0.003235	2.32	15.46	11.96	0.51
Viaggiolo	4.5	Q200	26.80	244.60	247.22	246.81	247.41	0.002961	2.24	15.91	11.96	0.48
Viaggiolo	4	Q200	26.80	244.56	246.83	246.83	247.27	0.006616	3.33	11.48	12.13	0.72
Viaggiolo	3	Q200	26.80	244.49	246.83	246.61	247.03	0.003373	2.24	15.43	15.79	0.57
Viaggiolo	2	Q200	26.80	244.11	246.74		246.90	0.002210	2.02	17.36	15.21	0.47
Viaggiolo	1	Q200	26.80	243.67	245.81	245.81	246.44	0.011023	3.49	7.67	6.28	1.00

