



COMUNE DI AREZZO

Assessorato Urbanistica

Servizio Pianificazione Urbanistica e Governo del Territorio

Piano Strutturale
2019



PS
PS

B Quadro conoscitivo

B1 Relazione illustrativa - Indagini geologiche e idrauliche

Sindaco
Alessandro Ghinelli

Assessore all'Urbanistica
Marco Sacchetti

Responsabile del Procedimento
Ing. Paolo Frescucci

RTI Raggruppamento Temporaneo di Professionisti

Studio D:RH Architetti associati

Arch. Sergio Dinale

Criteria srl

Arch. Paolo Falqui

Arch. Luca Di Figlia

Dott. Pian.t. Matteo Scamporrino

Avv. Agostino Zanelli Quarantini

B1.2.1a

Castro - Fascicolo delle sezioni e profili idraulici

Garante dell'informazione e della partecipazione

Dott.ssa Daniela Farsetti

Dirigente Servizio Pianificazione Urbanistica

Ing. Paolo Frescucci

Dirigente Servizio Ambiente

Ing. Giovanni Baldini

Dirigente Servizio Progettazione Opere Pubbliche

Ing. Antonella Fabbianelli

Dirigente Progetto per lo sviluppo delle attività economiche negli ambiti Edilizia e SUAP e promozione del territorio

Ing. Paolo Frescucci

Direttore Ufficio Mobilità

Ing. Roberto Bernardini

Direttore Ufficio Programmazione e Sviluppo Economico del Territorio

Dott.ssa Stefania Guidelli

Direttore Ufficio Edilizia

Geom. Gianna Pezuoli

Ufficio del Piano

Arch. Omero Angeli

Dott.ssa Antonella Benocci

Sig. Matteo Borri

Dott.ssa Francesca Calabri

Arch. Fulvia Comanducci

Arch. Elisabetta Dreassi

Geol. Alessandro Forzoni

Geom. Valentina Mazzoni

Dott. Vincenzo Oliva

Arch. Laura Pagliai

Ing. Deborah Romei

Arch. Laura Rogialli

Geol. Annalisa Romizi

Pianificatore Territoriale Lorenzo Spadaccini

Sig.ra Fiorenza Verdelli

Gruppo di progettazione

Studio D:RH Architetti associati

Arch. Sergio Dinale

Arch. Paola Rigonat Hugues

Arch. Enrico Robazza

Arch. Kristiana D'Agnolo

Dott. Pian.t. Giulio Brocco

Criteria srl

Arch. Paolo Falqui

Ing. Paolo Bagliani

Ing. Roberto Ledda

Biol. Patrizia Carla Sechi

Geol. Andrea Soriga

Arch. Laura Zanini

Dott.ssa Giulia Cubadda

Dott. Riccardo Frau

Arch. Veronica Saddi

Ing. Gianfilippo Serra

Dott. Vittorio Serra

Dott.ssa Cinzia Marcella Orrù

Arch. Salvatore Manca

Indagini geologiche e idrauliche

Geol. Maurizio Costa

Geol. Antonio Pitzalis

Ing. Nicola Buchignani (Prima STP)

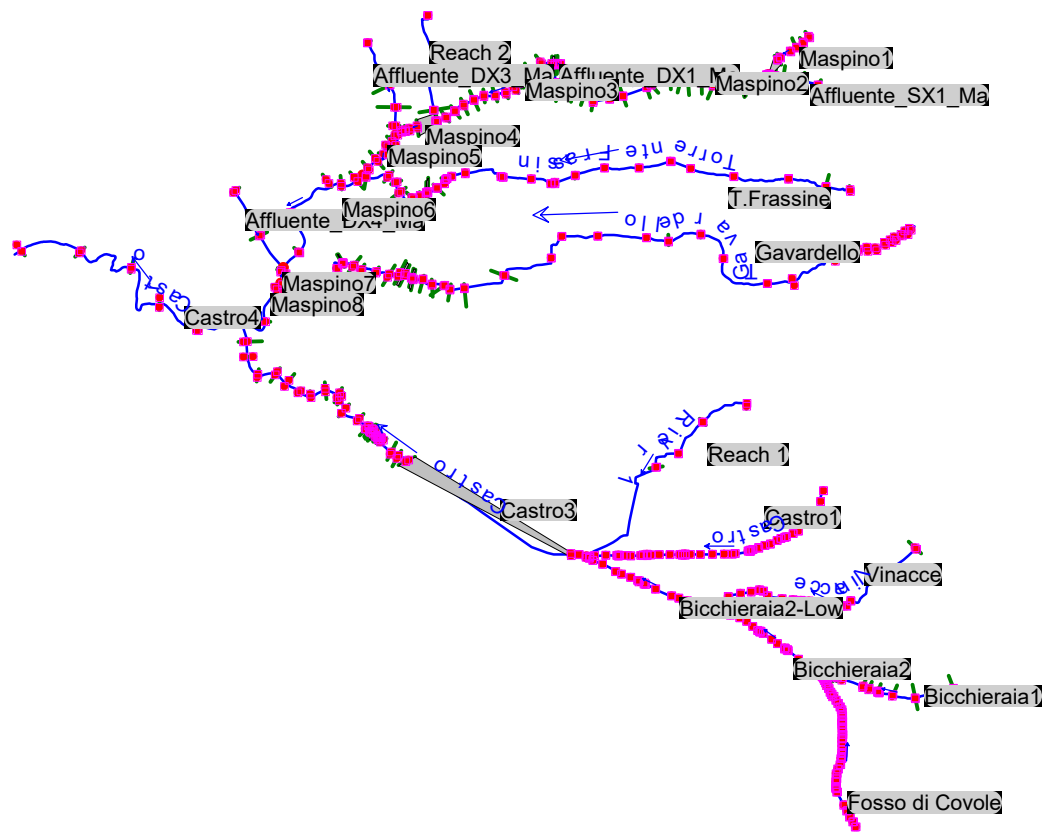
Ing. Pietro Chiavaccini

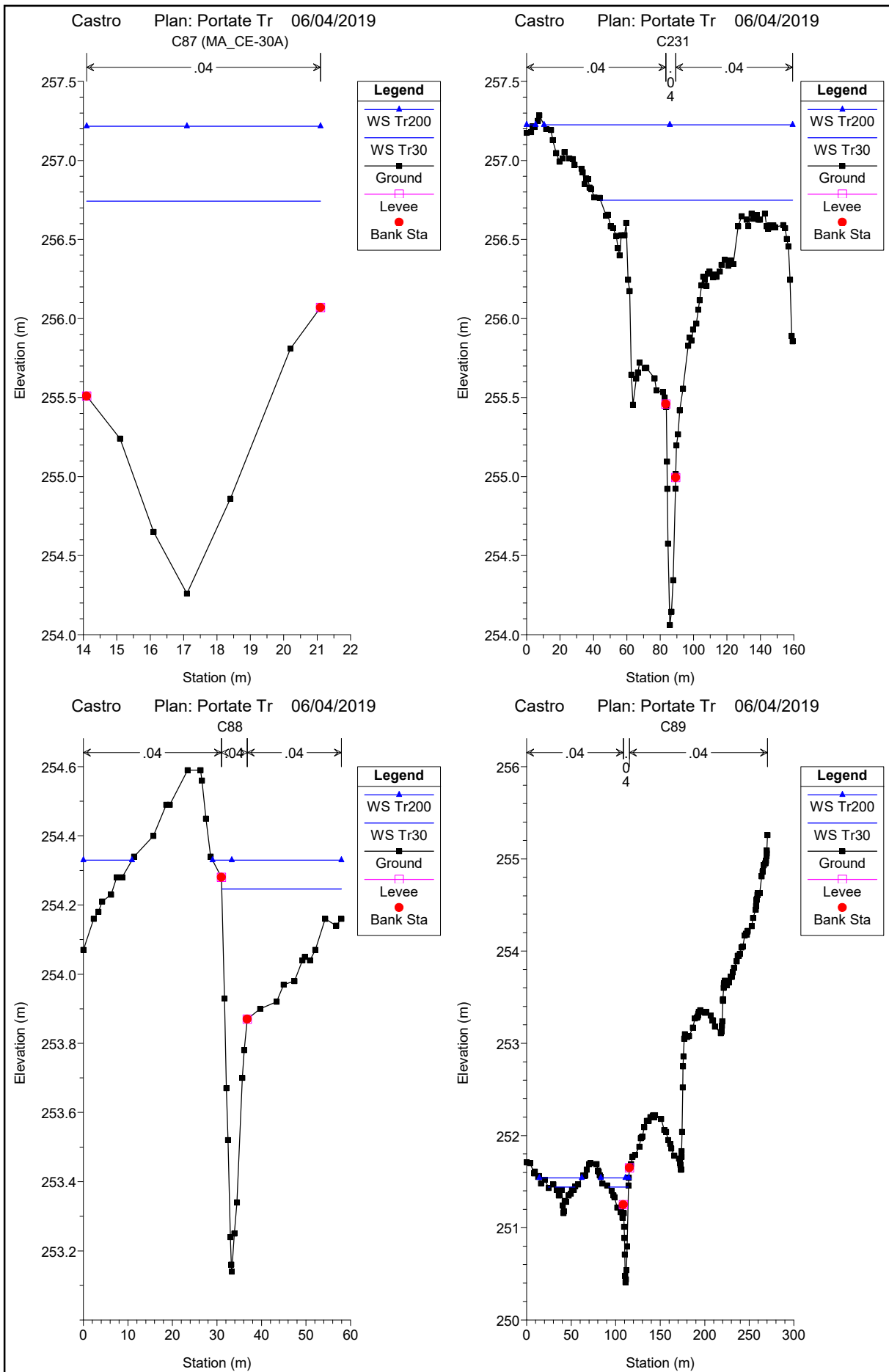
Ing. Elisa Formica

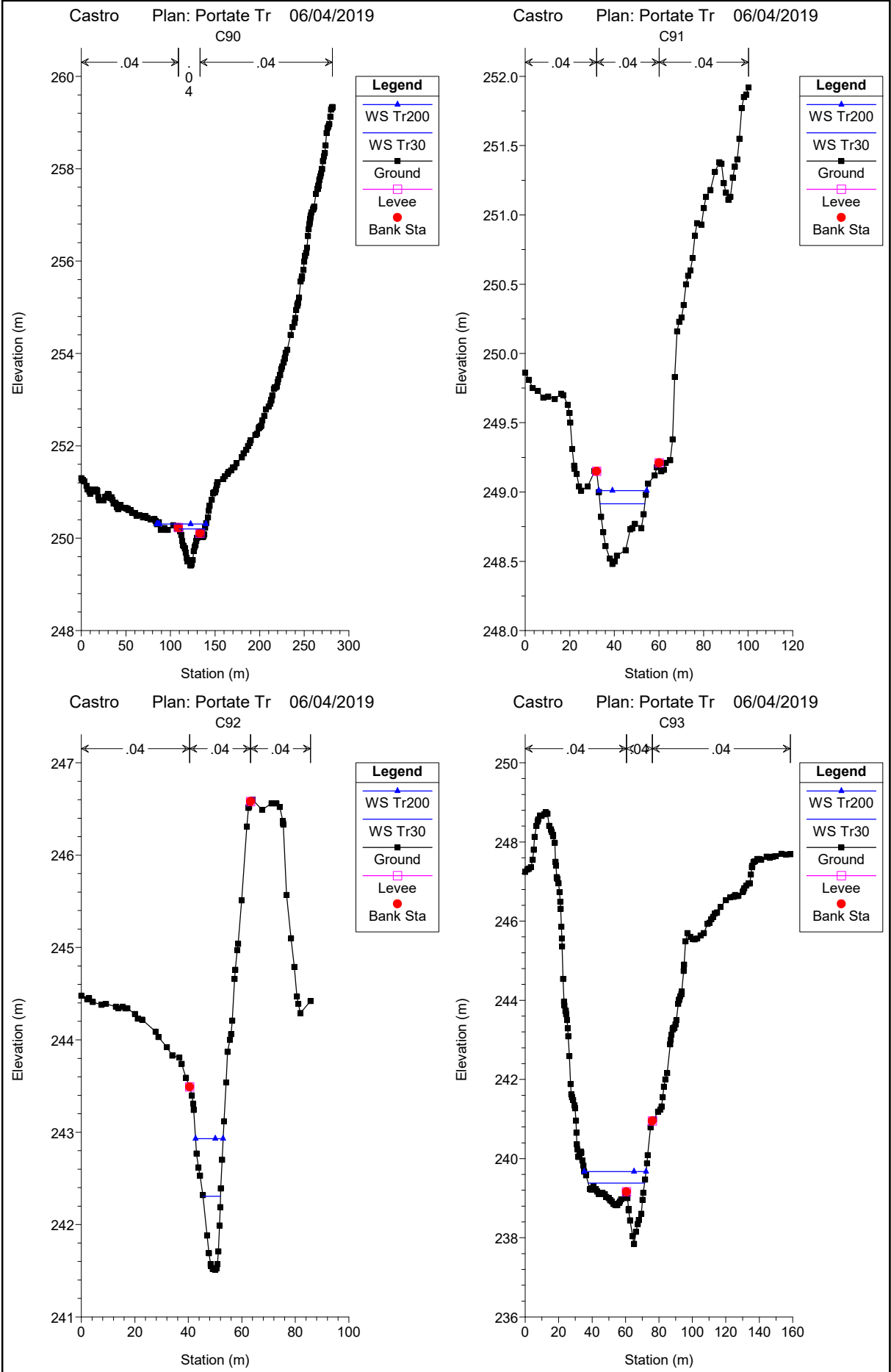
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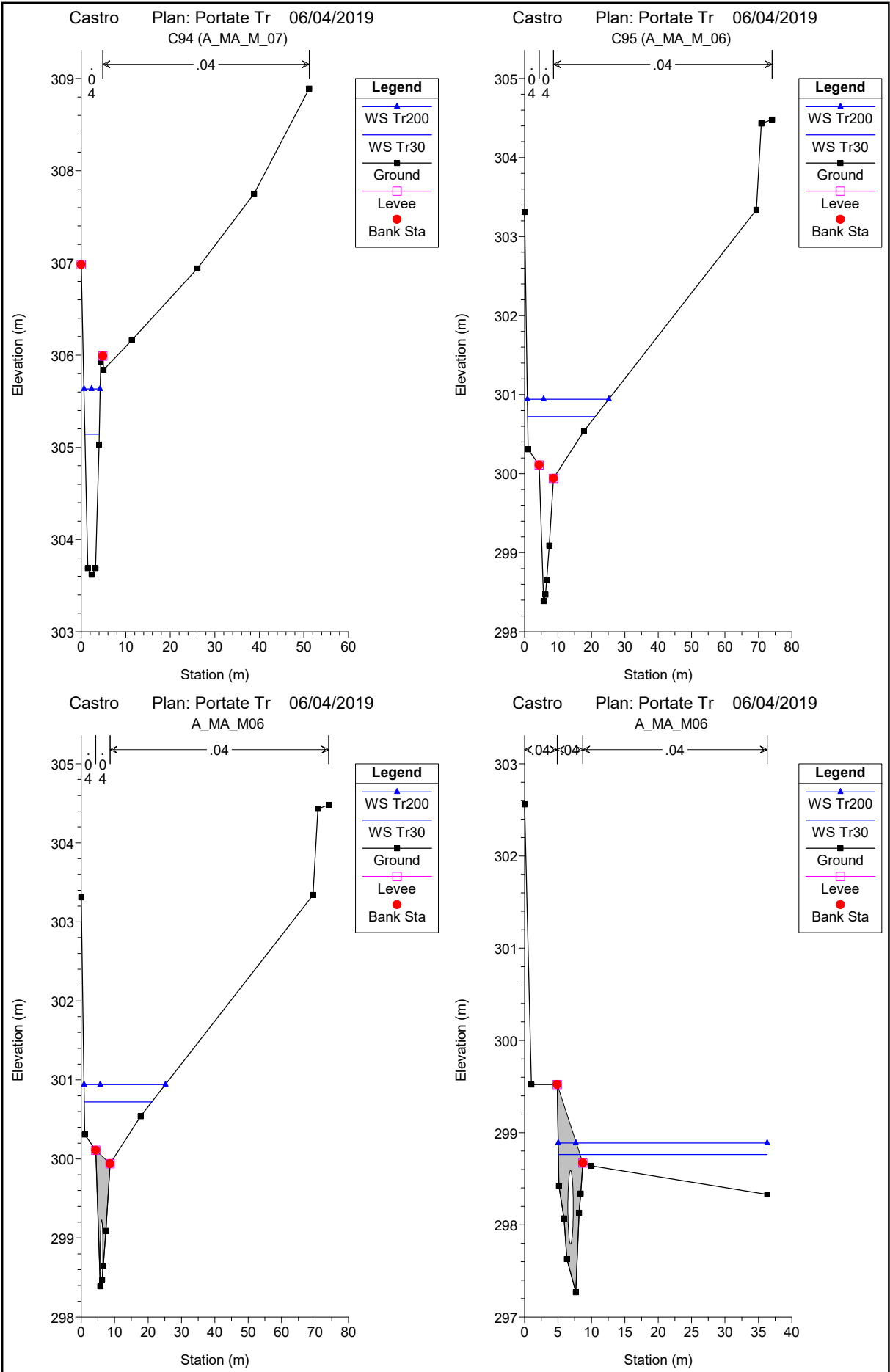
Arch Luca Di Figlia

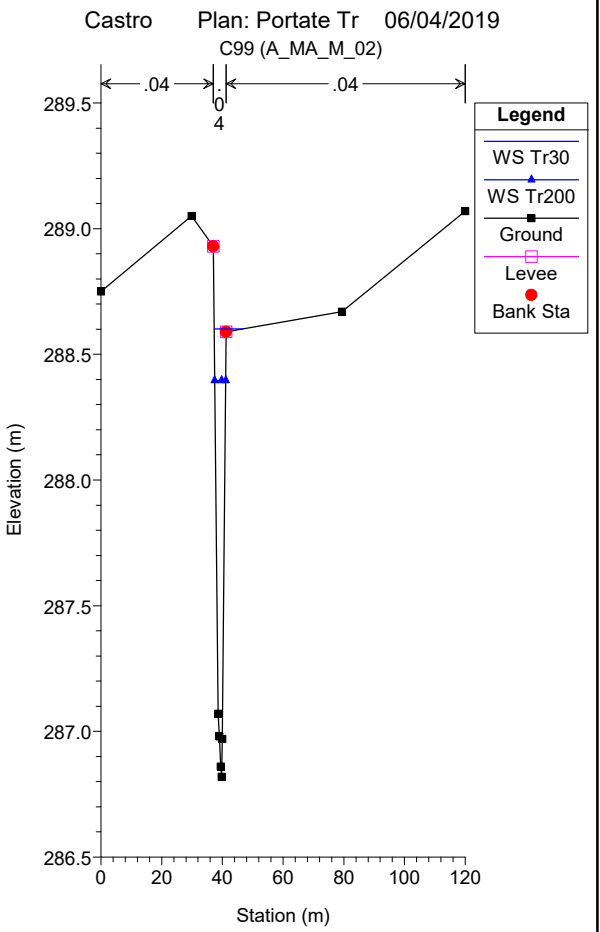
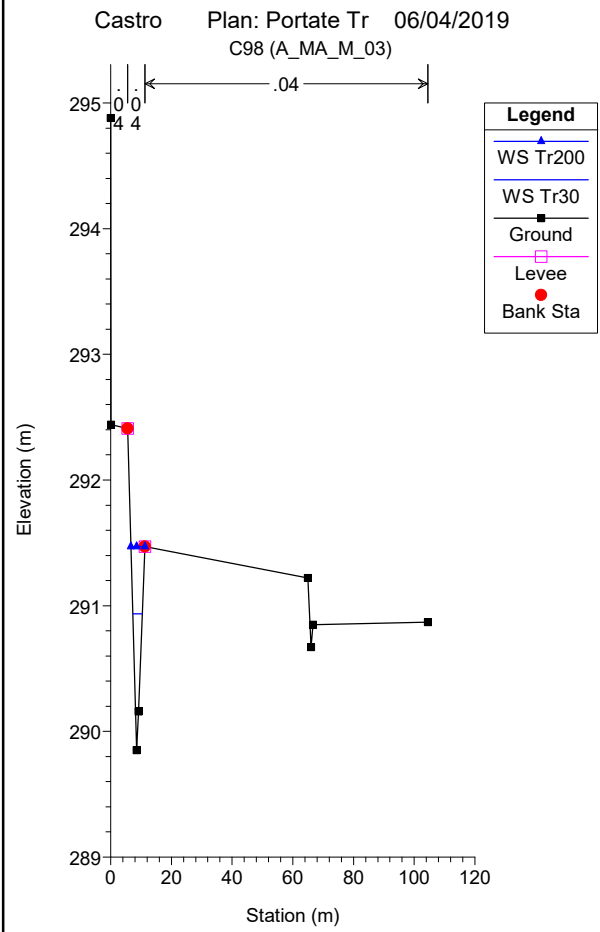
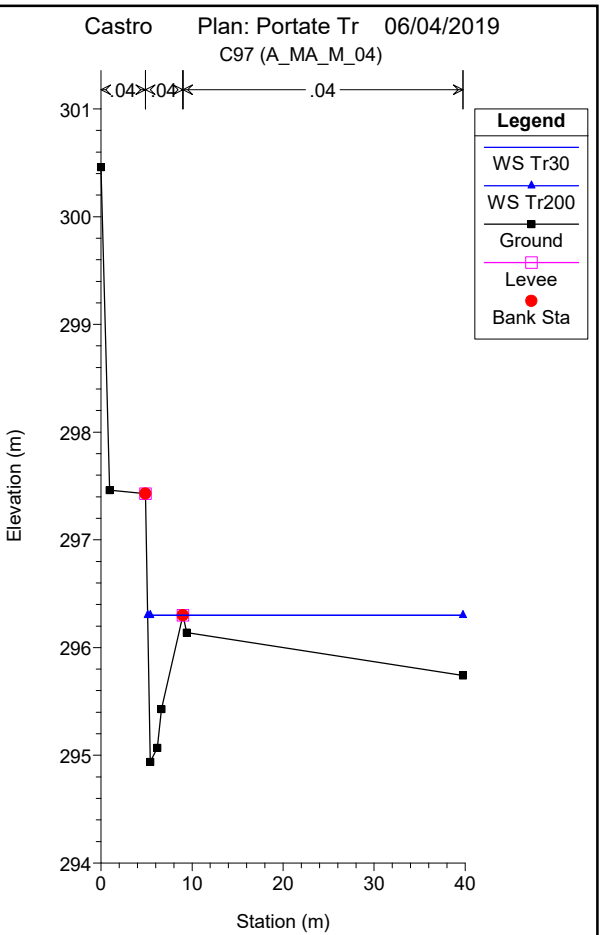
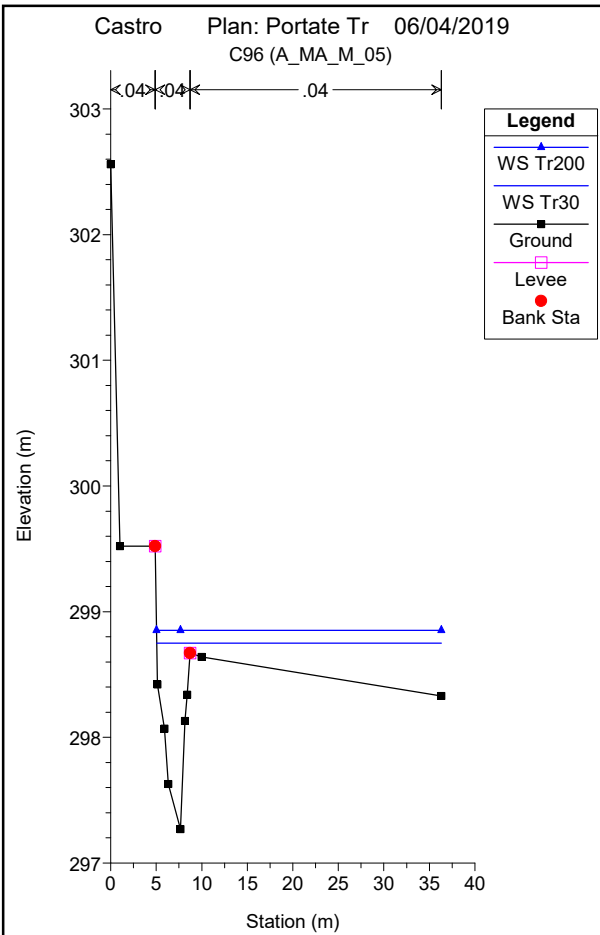
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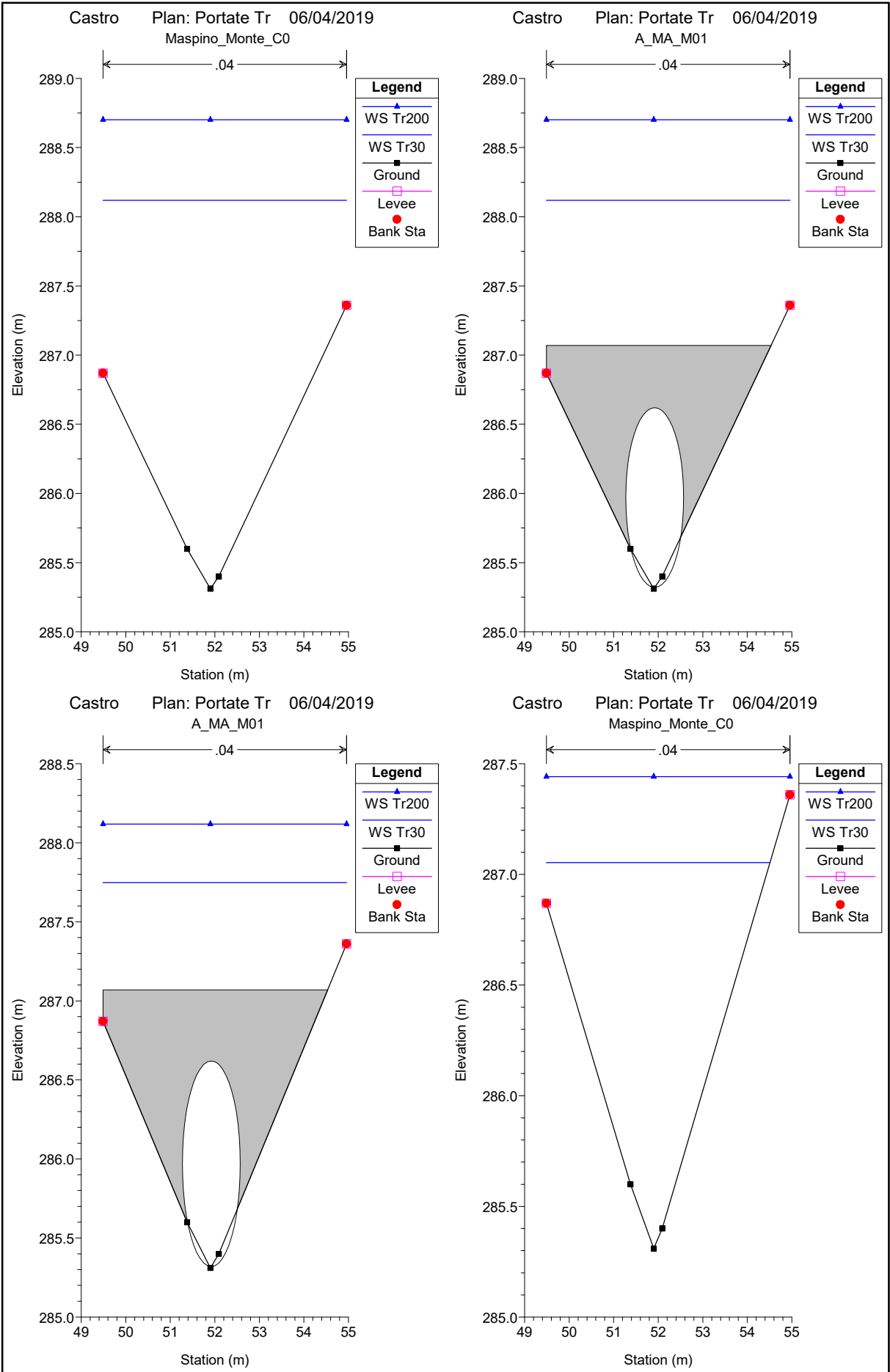


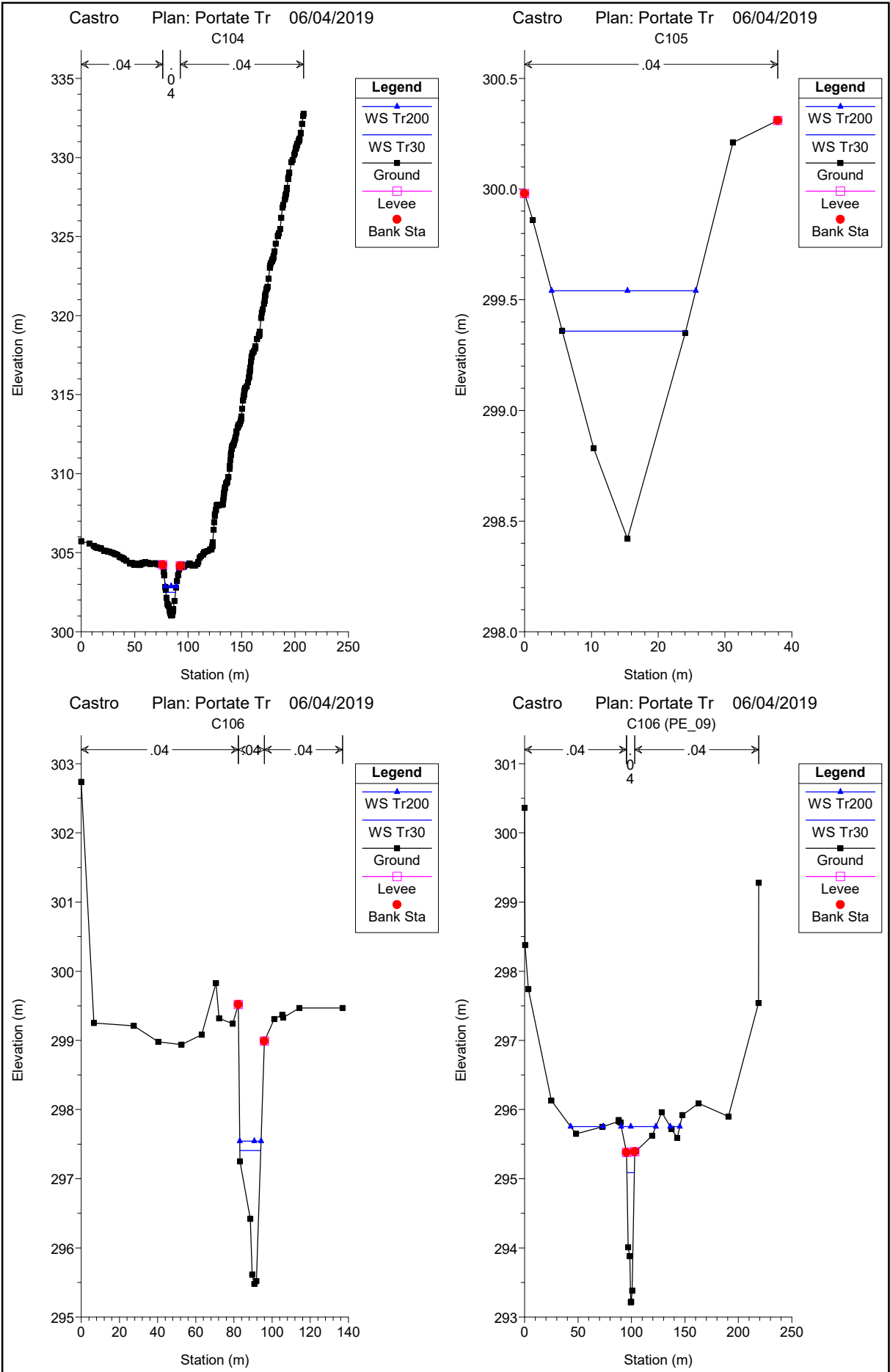


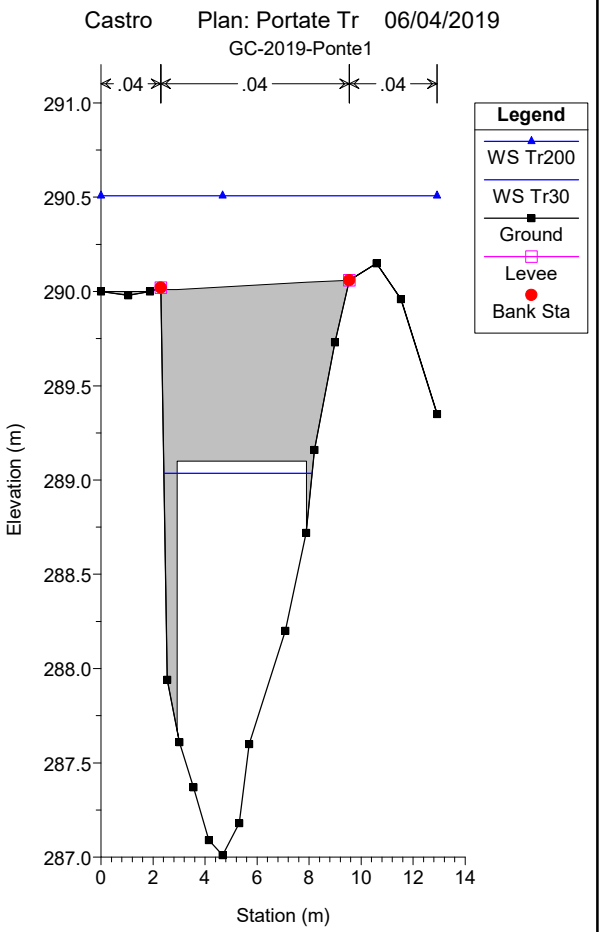
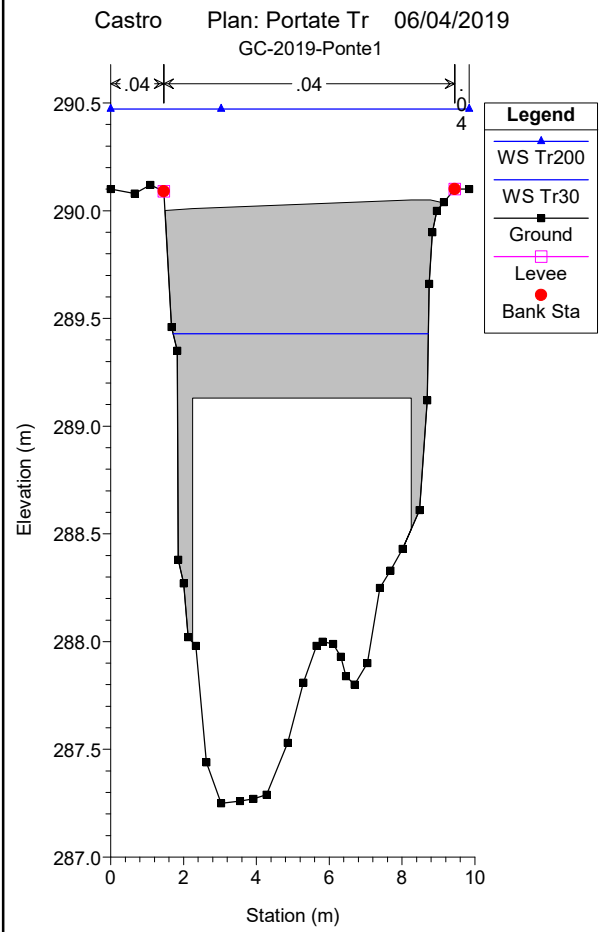
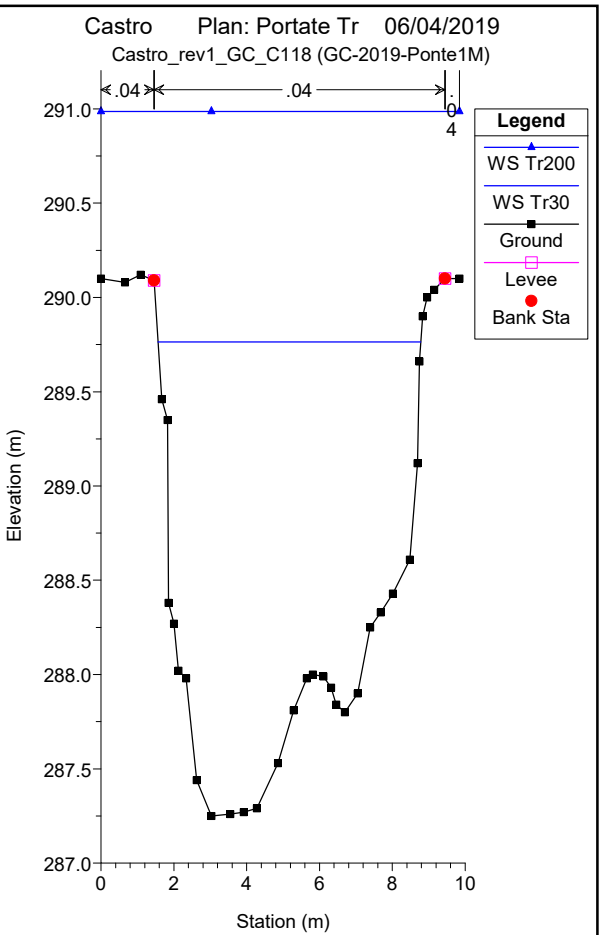
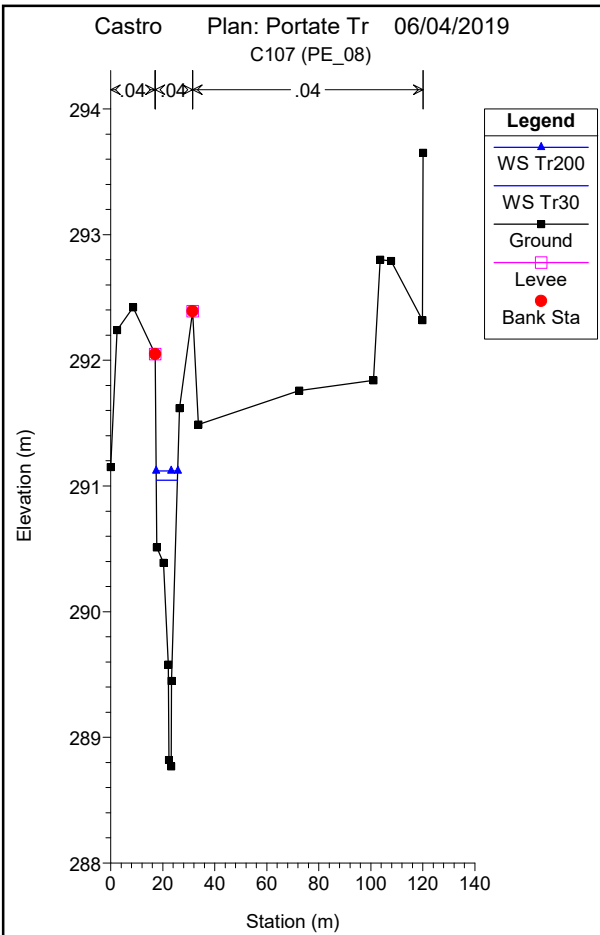


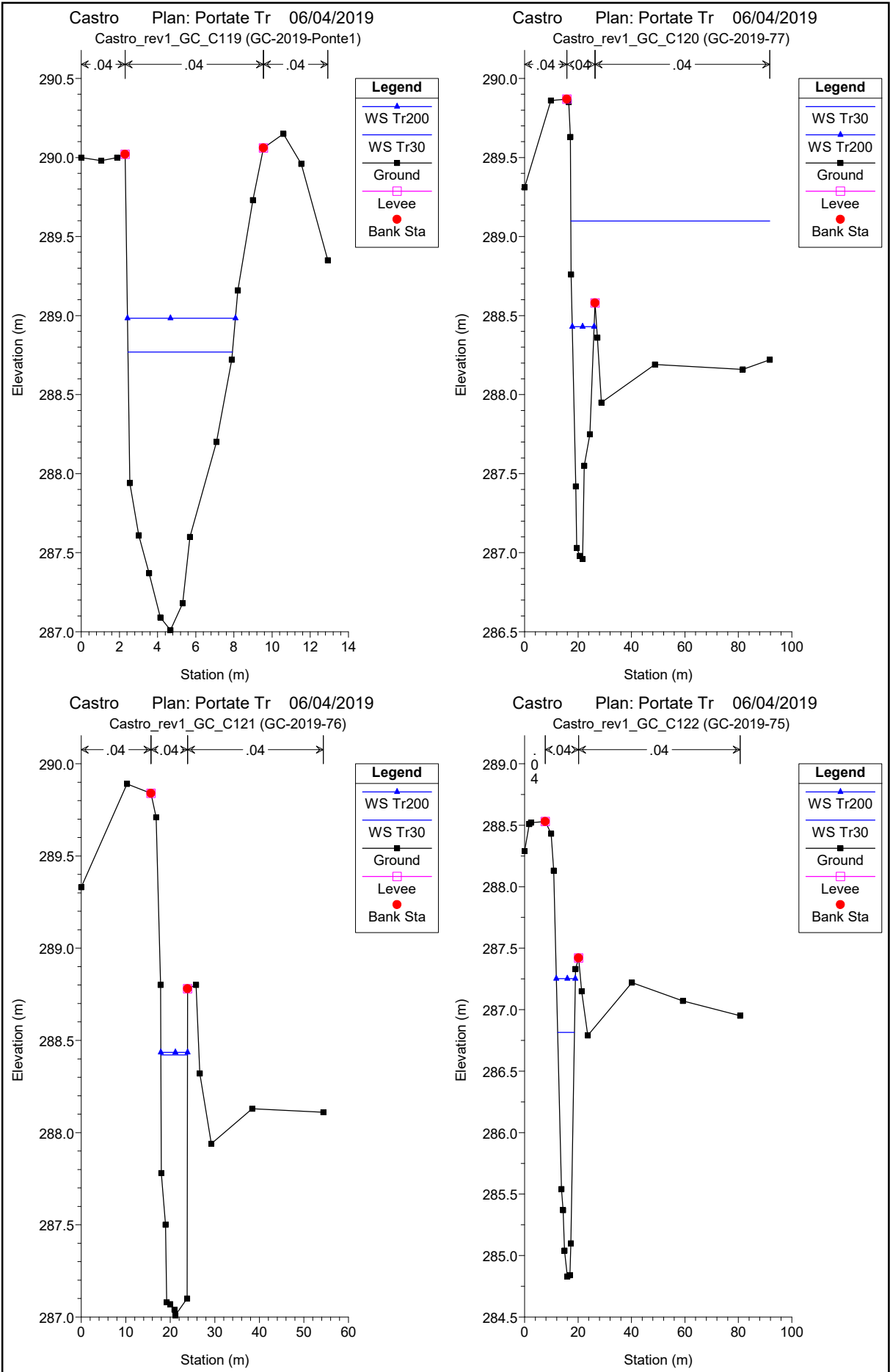


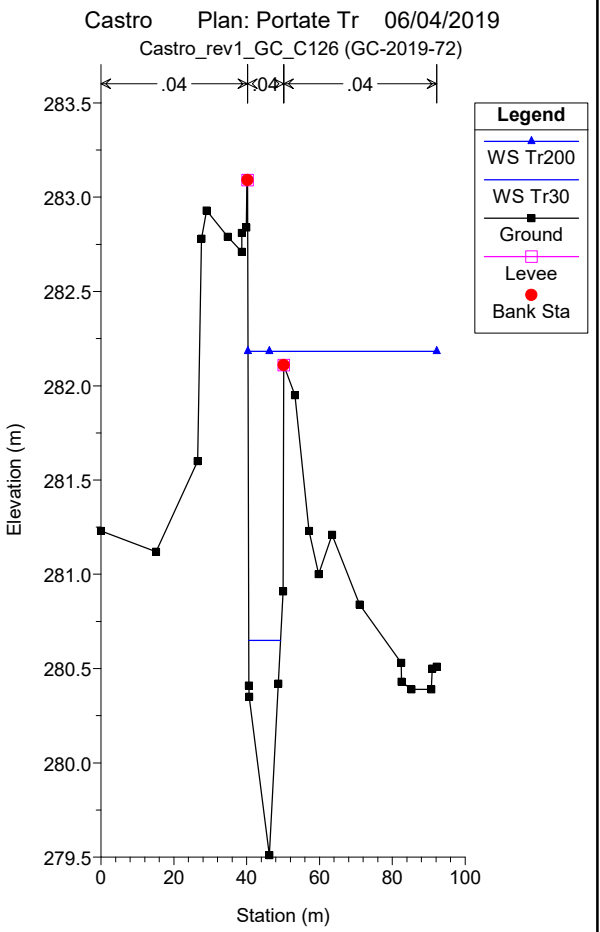
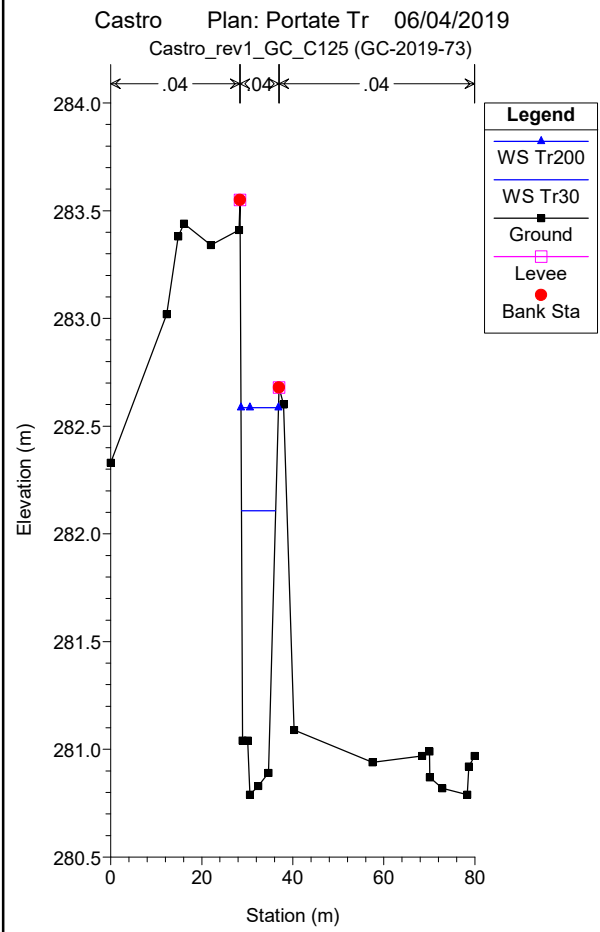
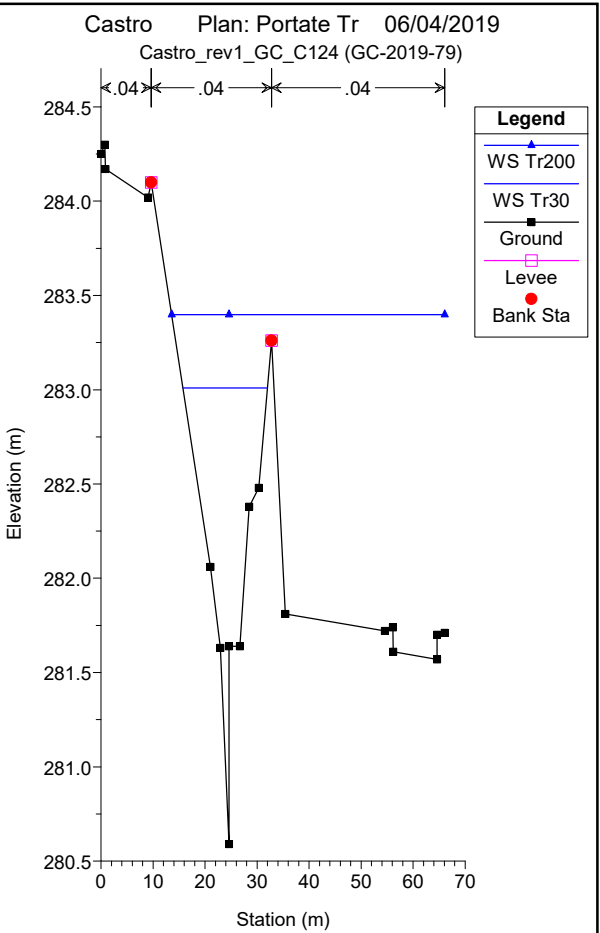
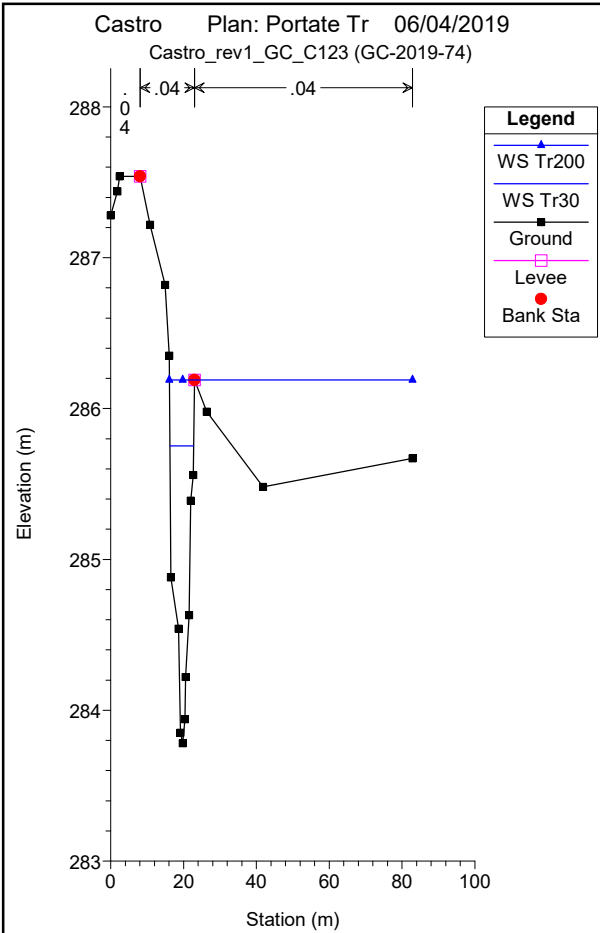


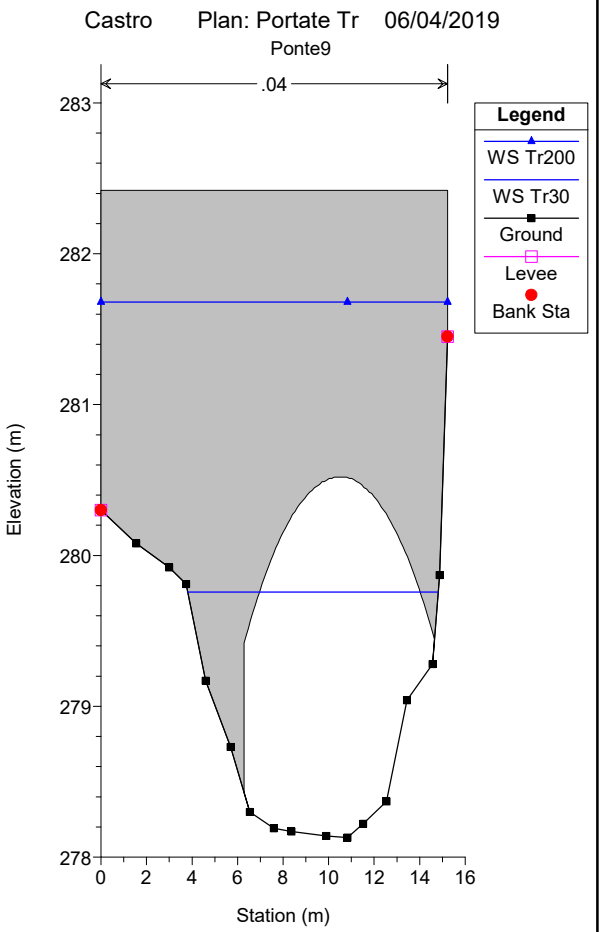
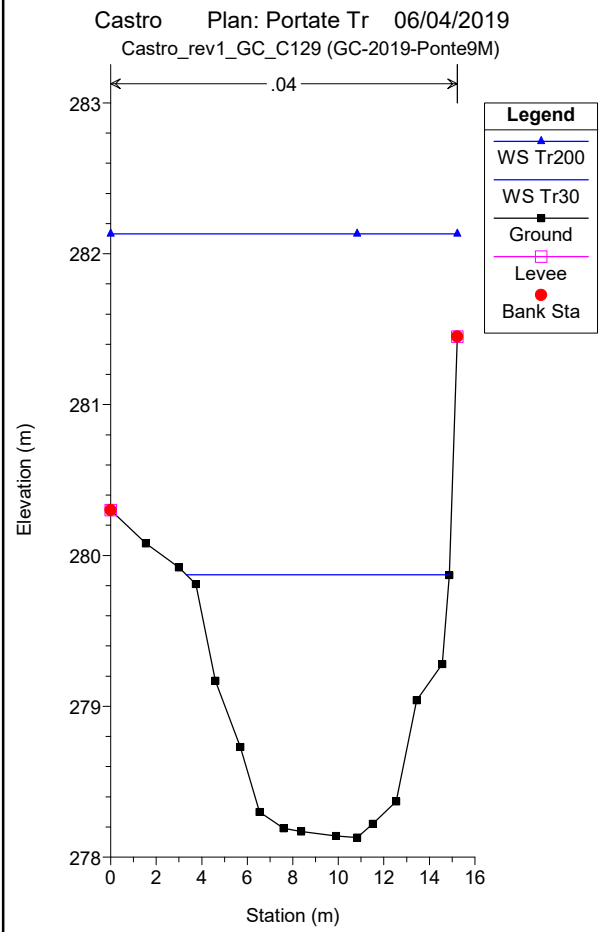
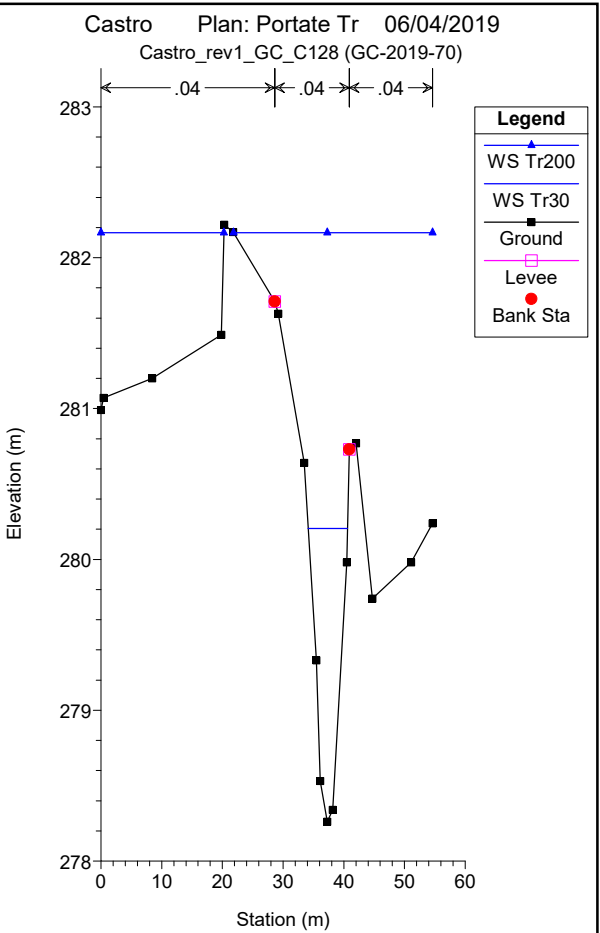
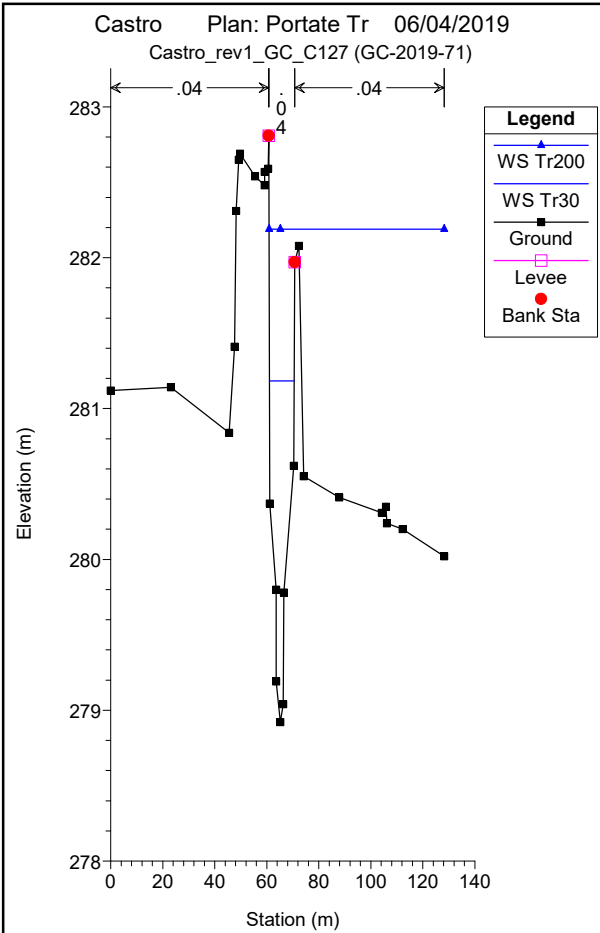


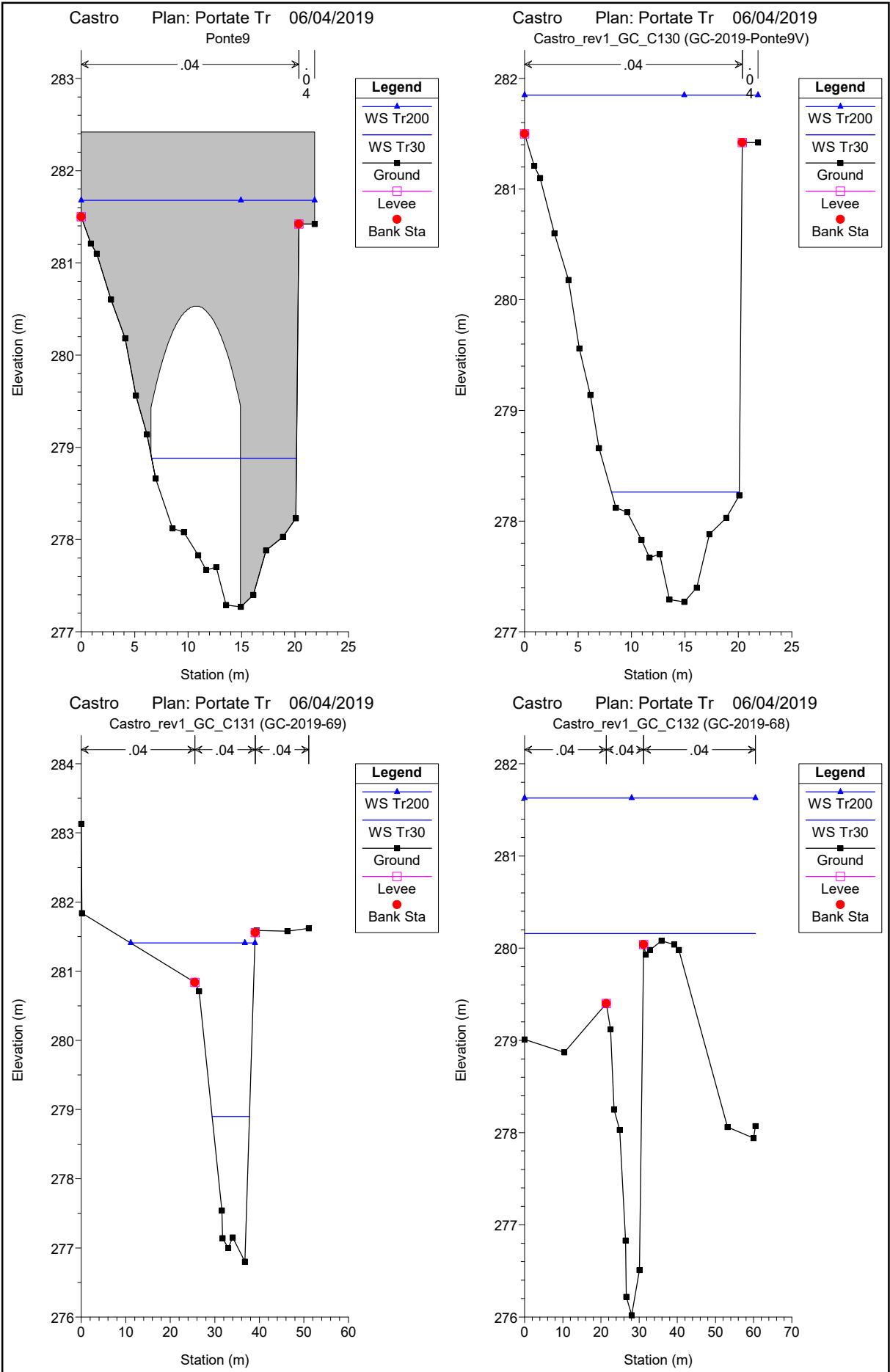


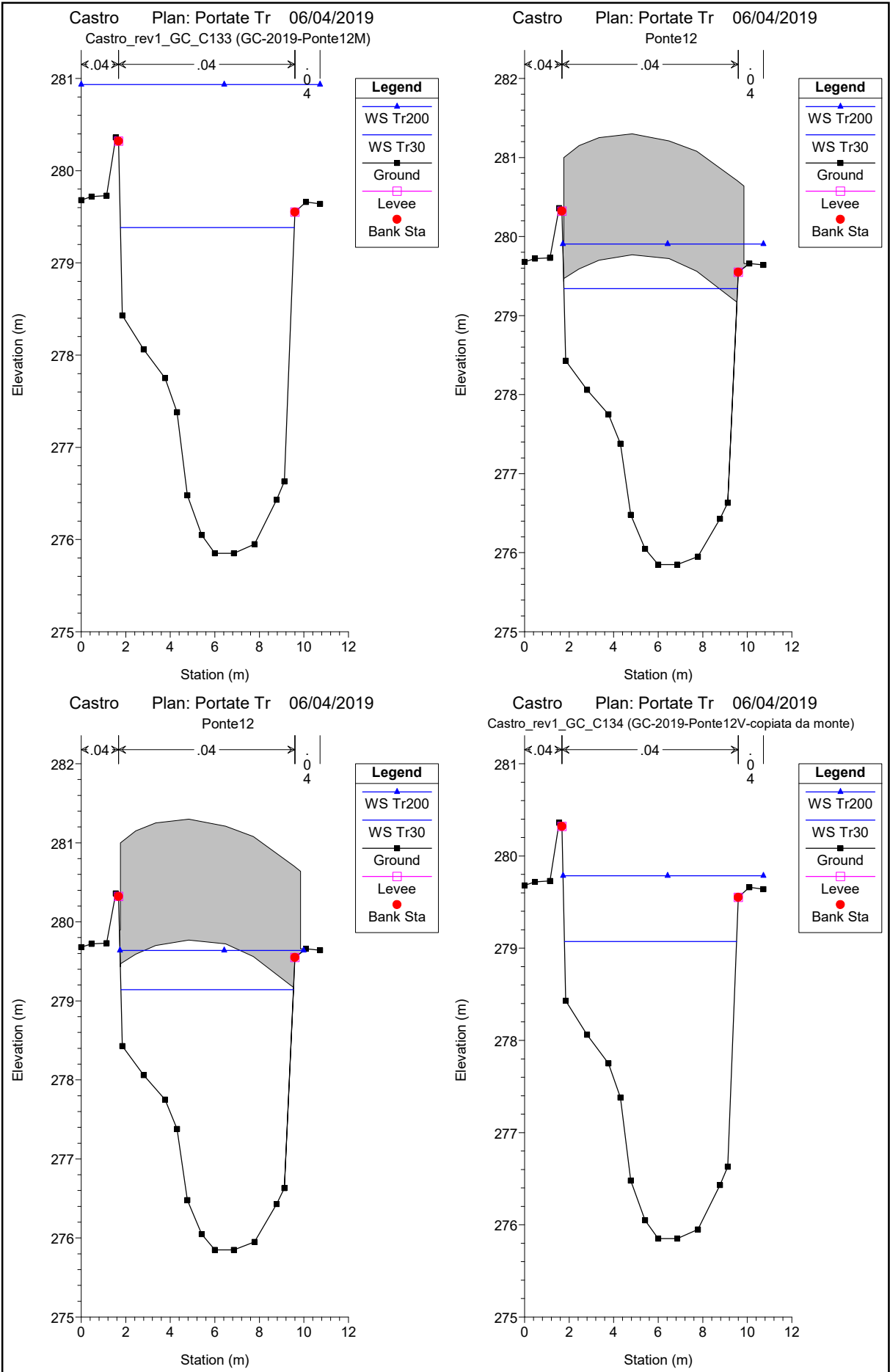


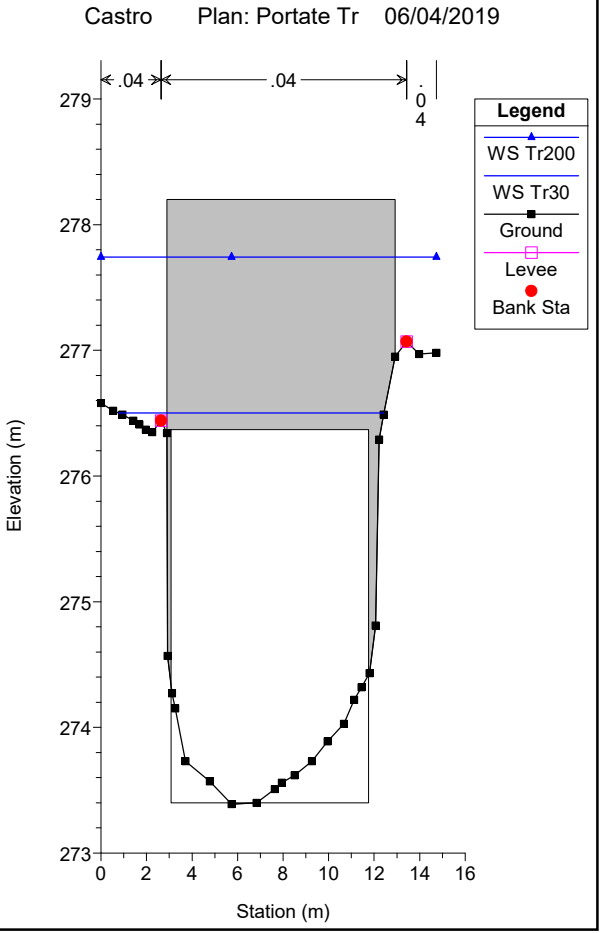
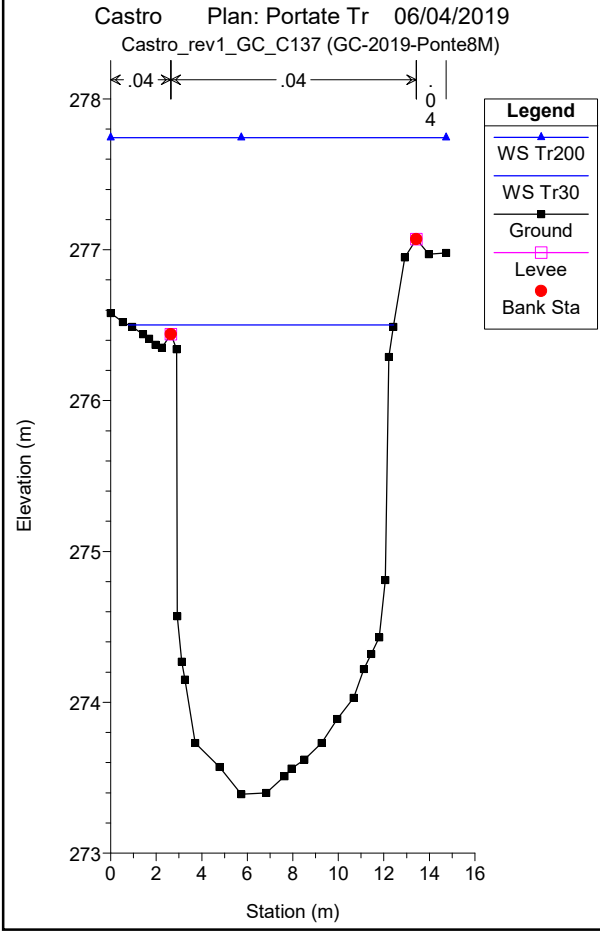
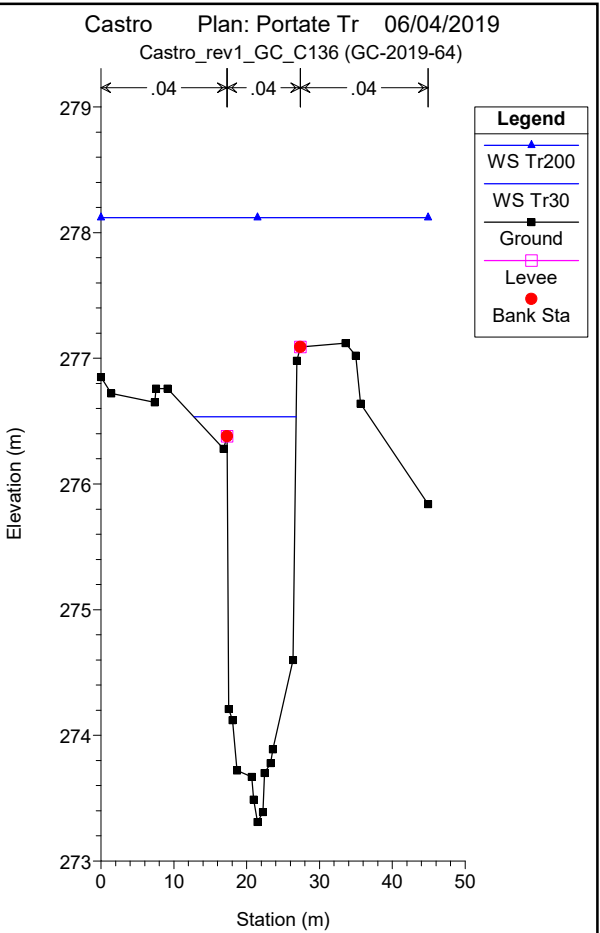
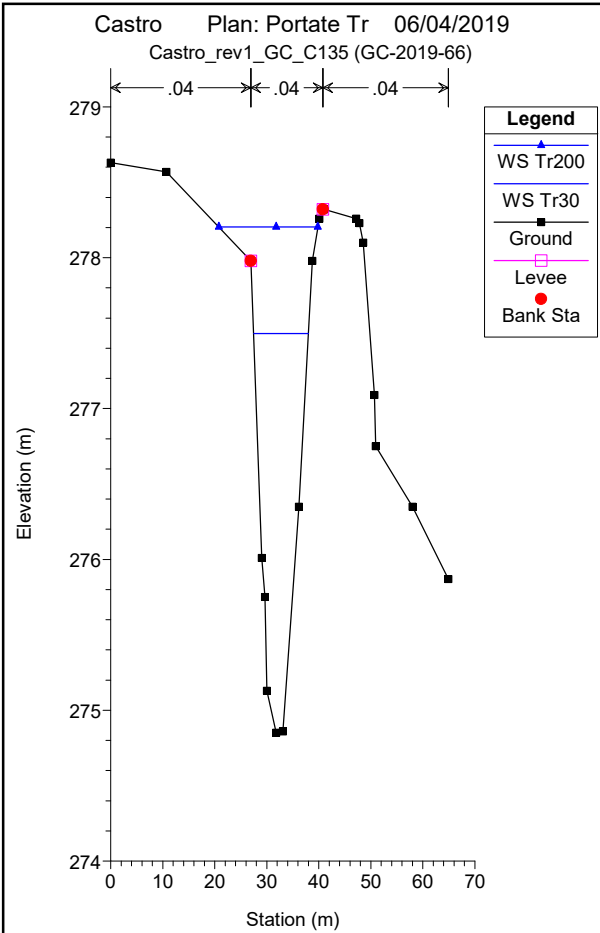


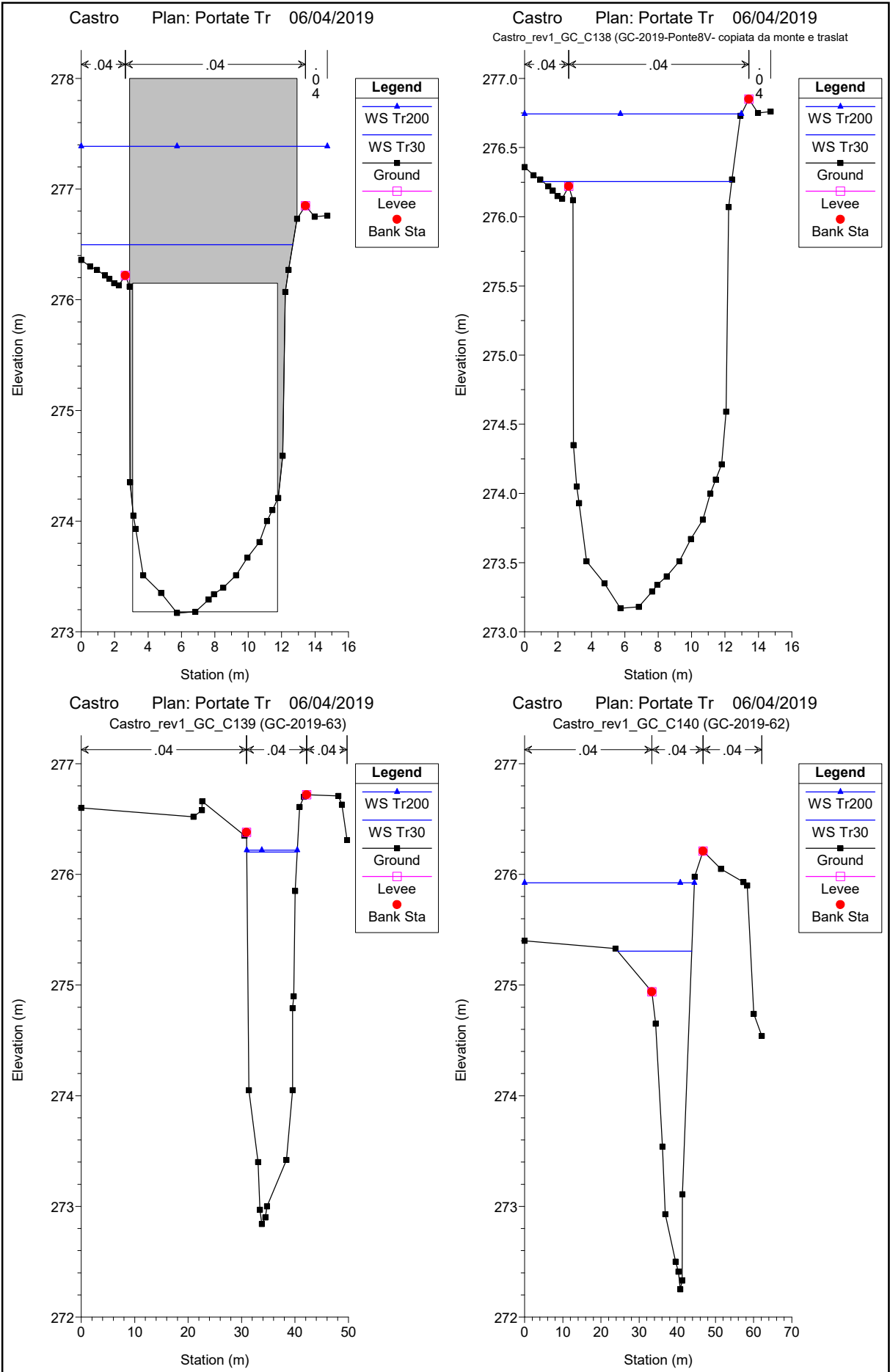


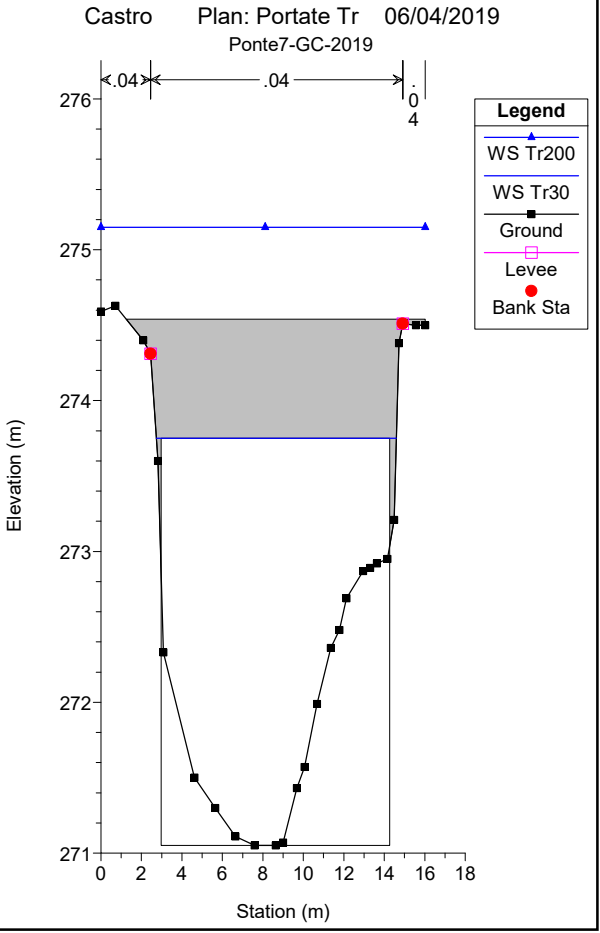
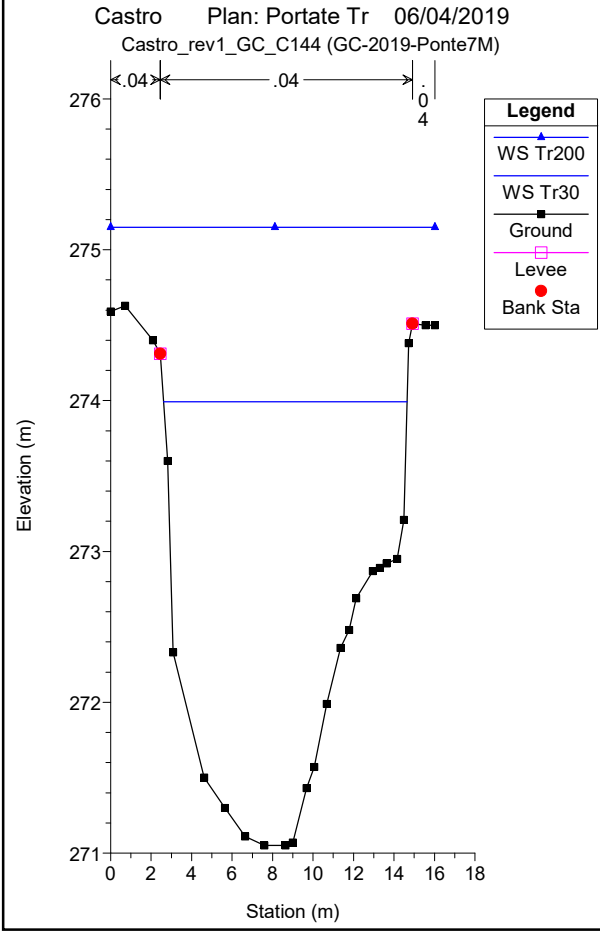
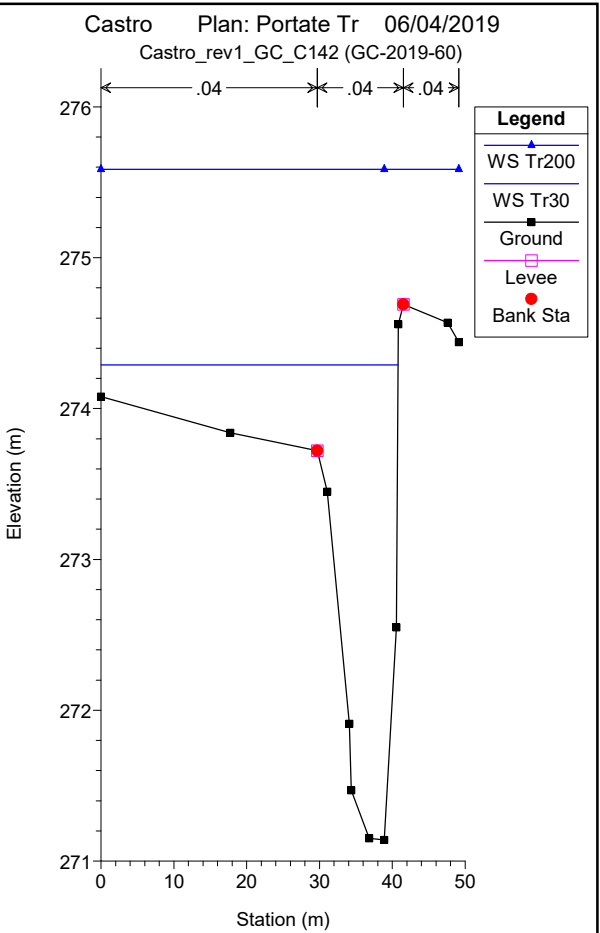
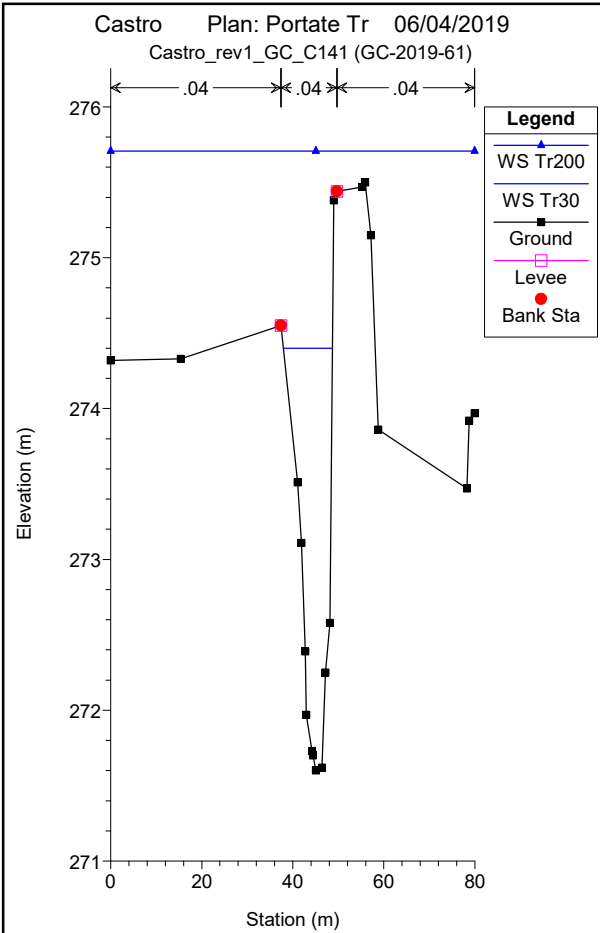


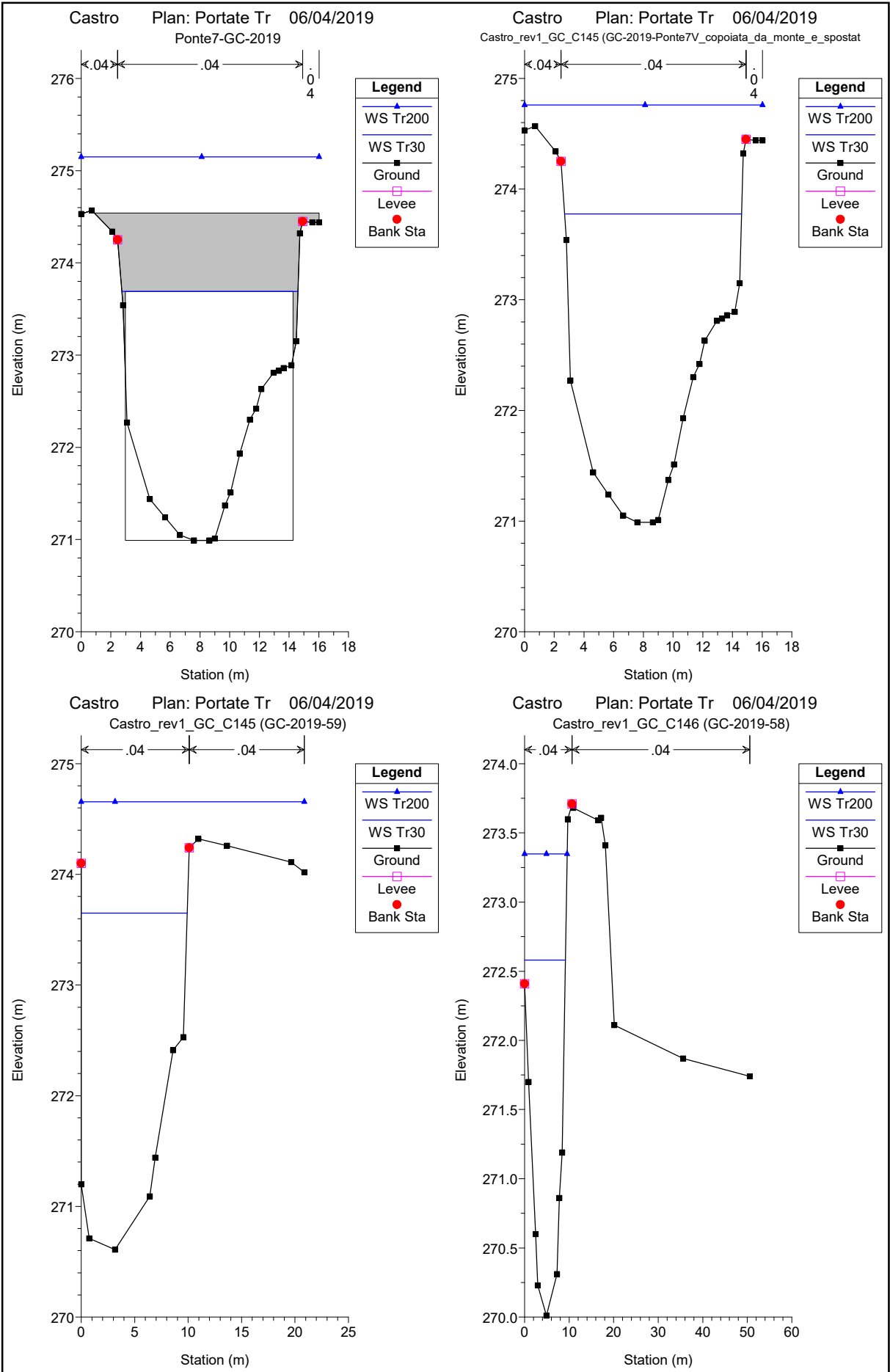


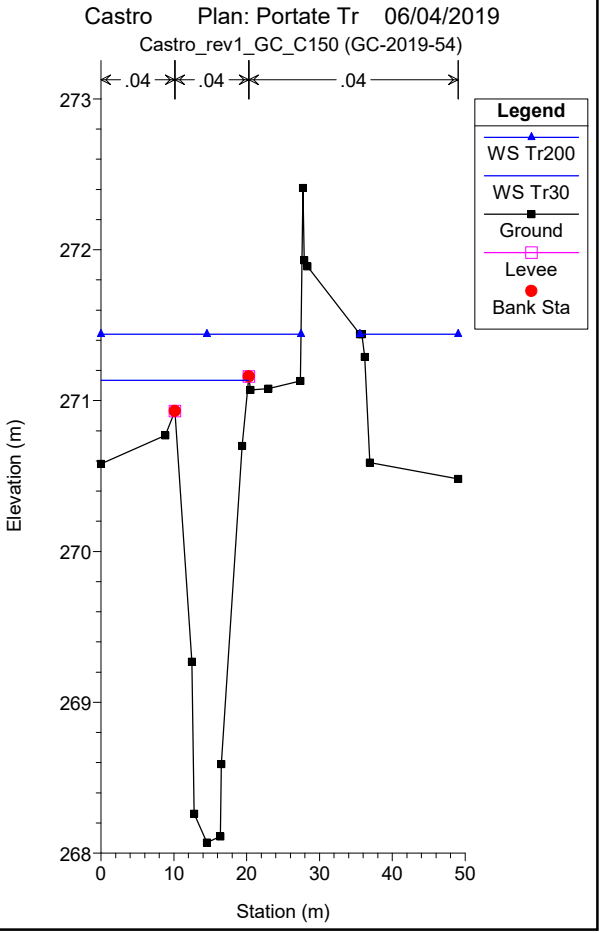
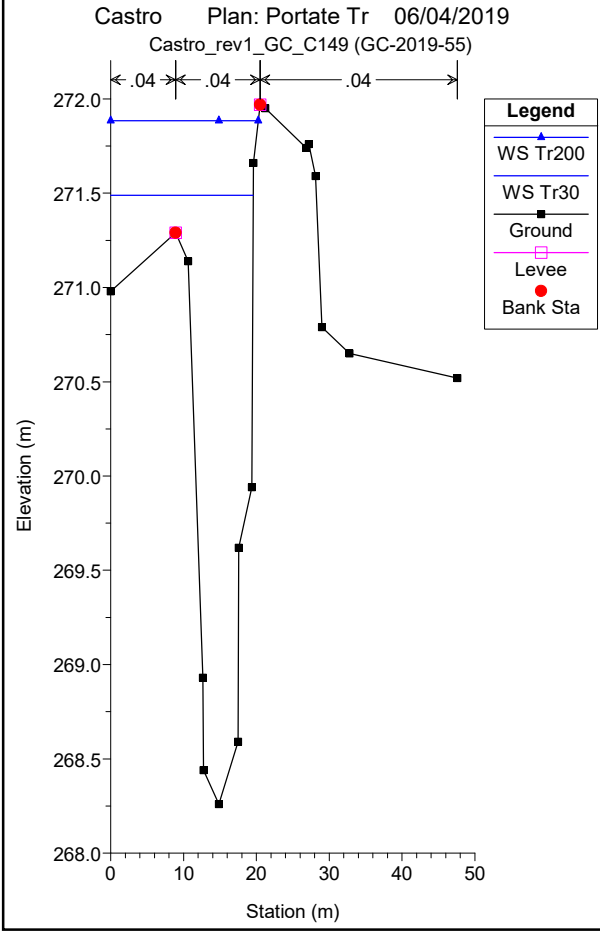
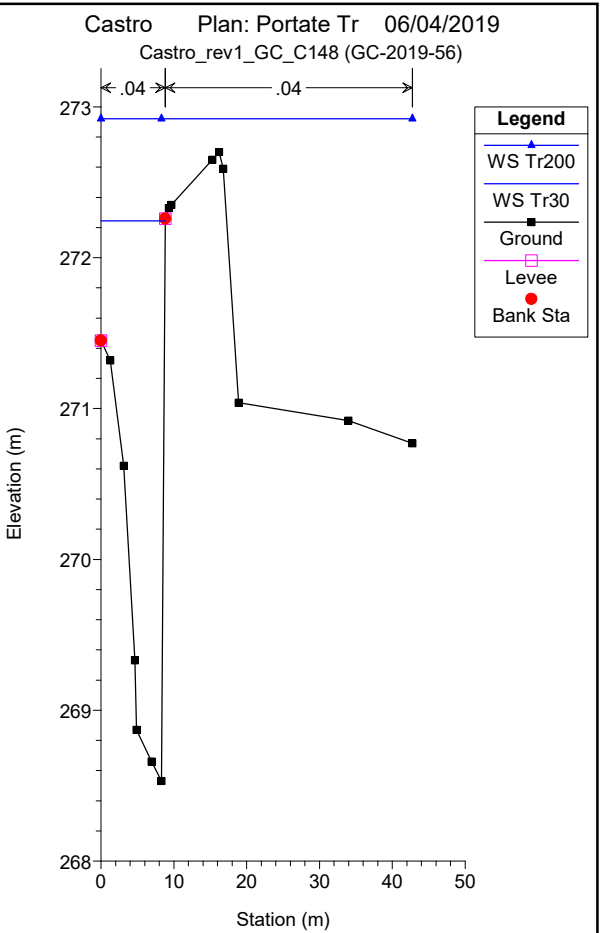
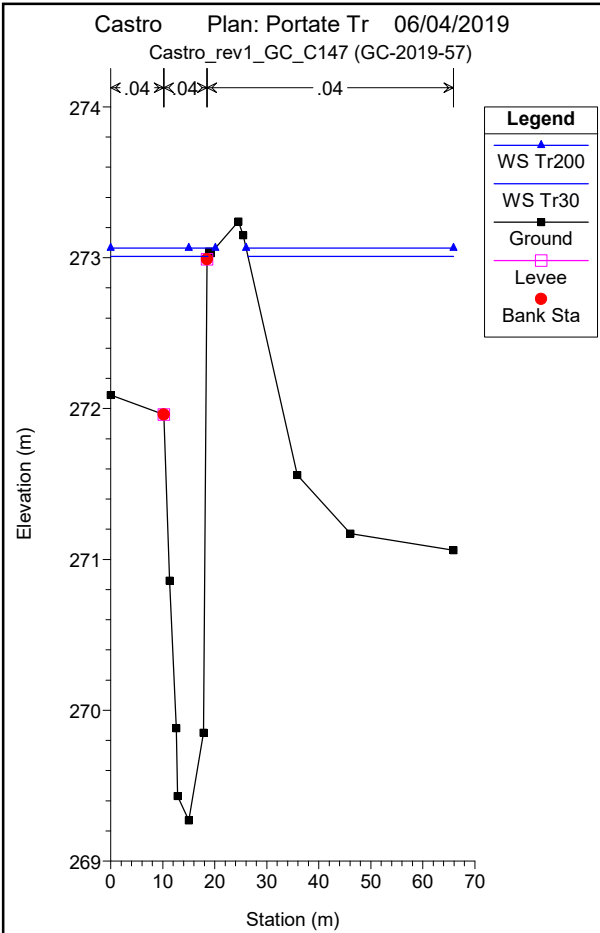


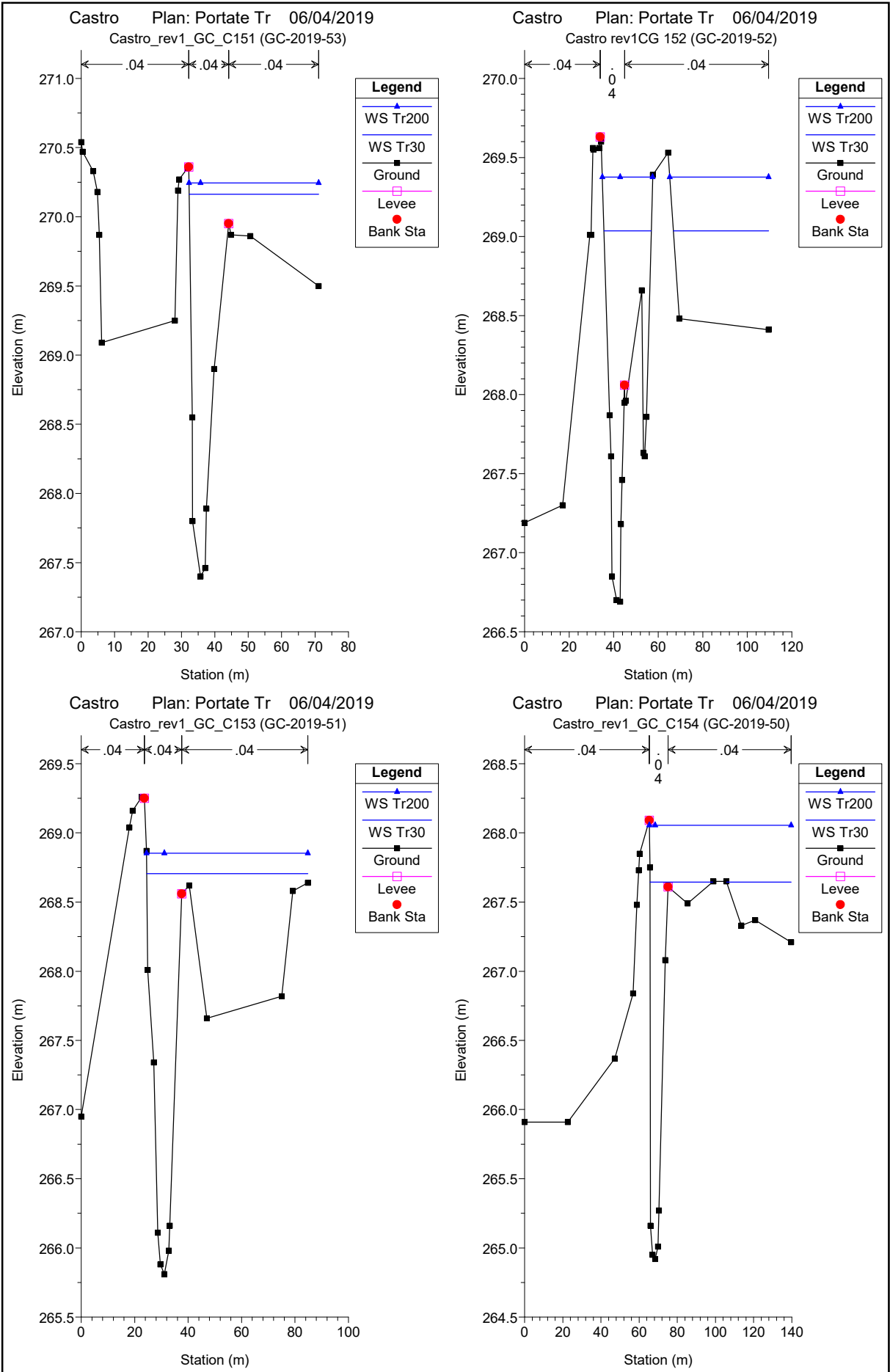


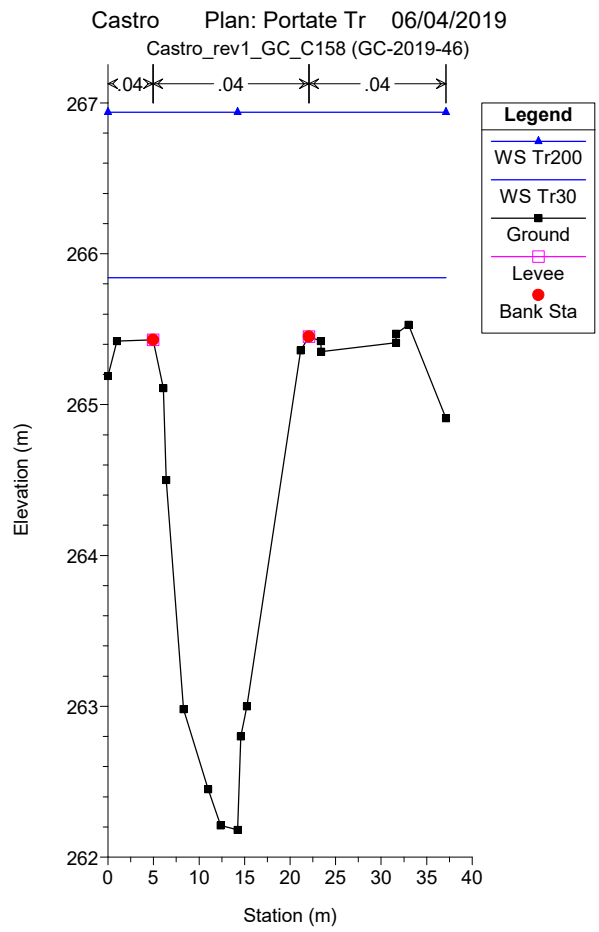
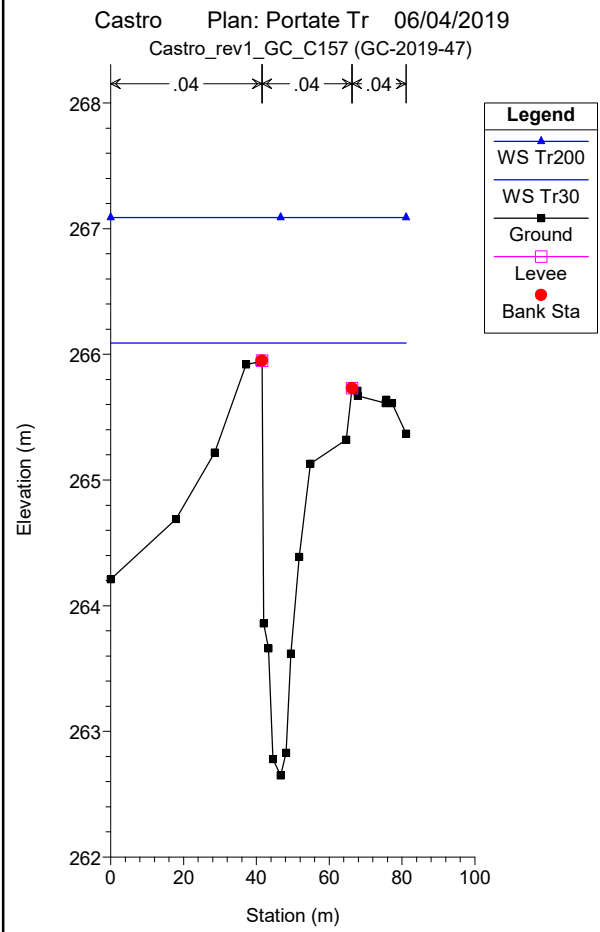
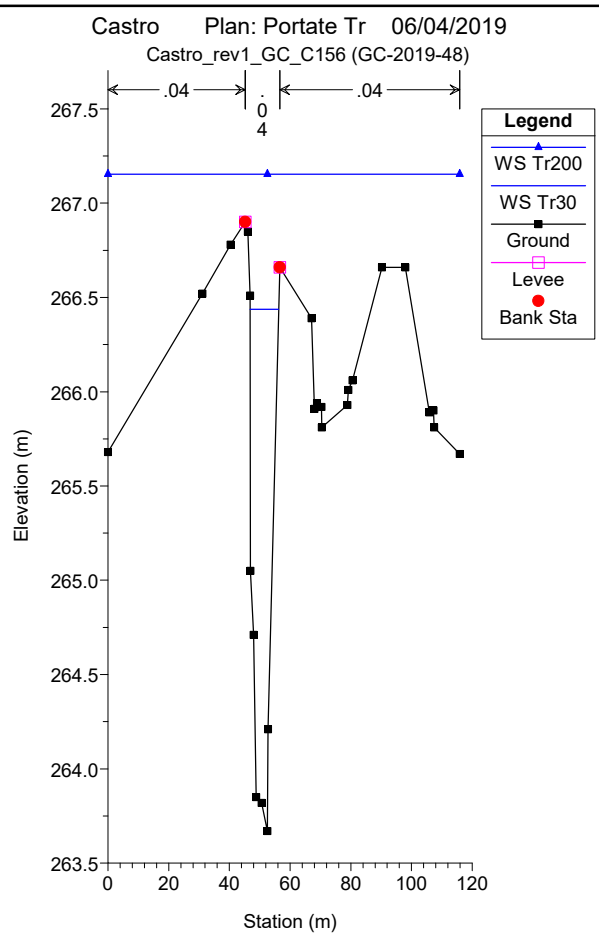
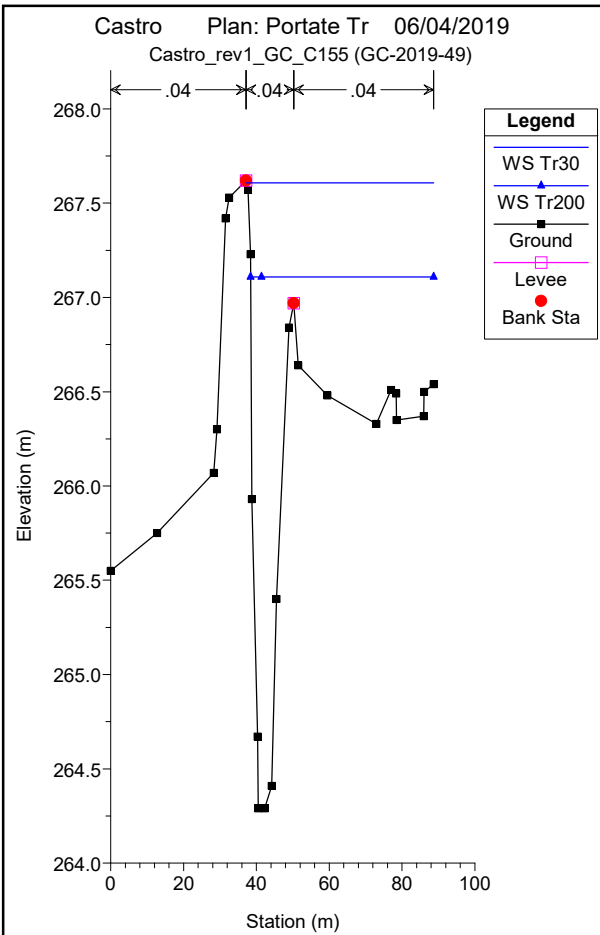


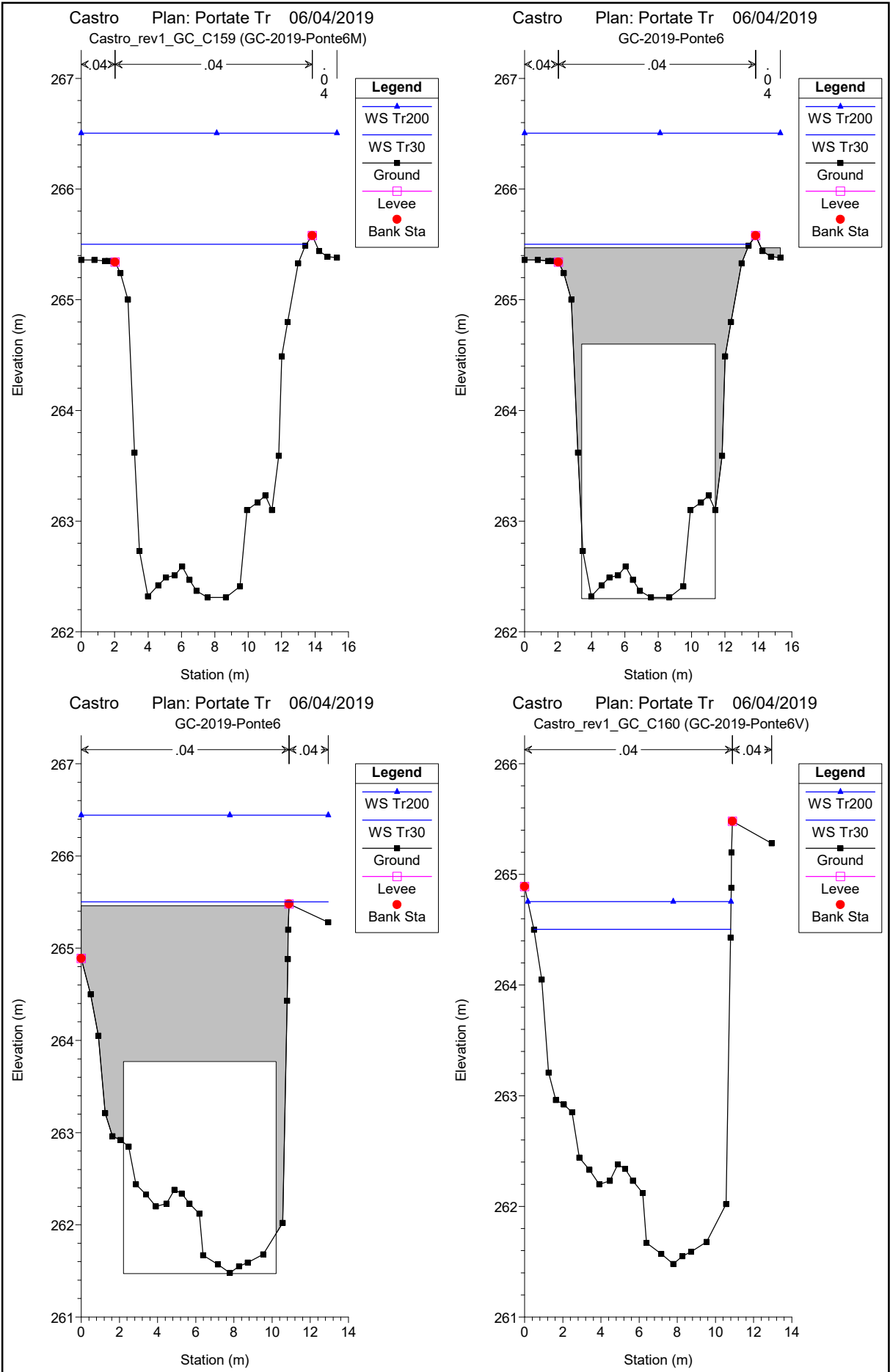


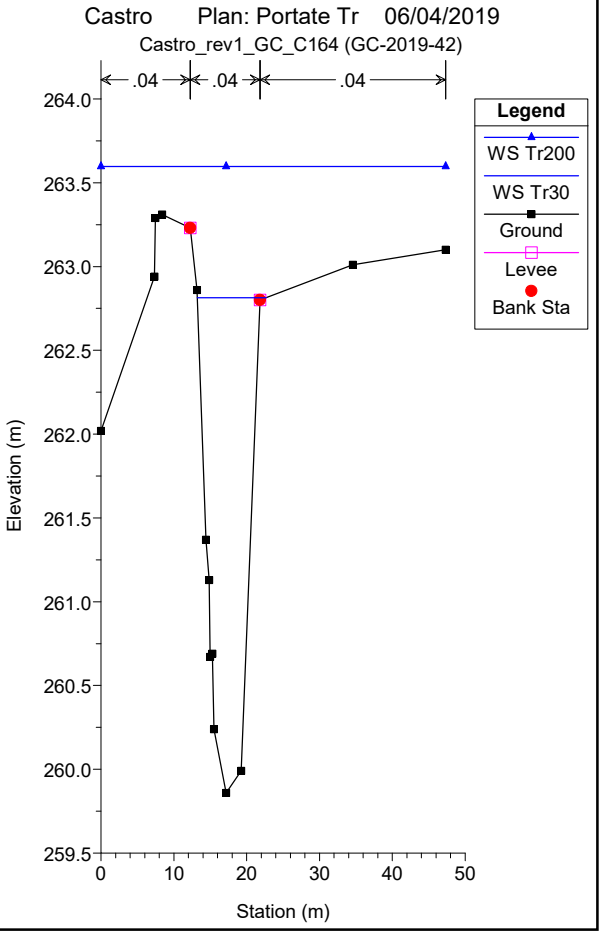
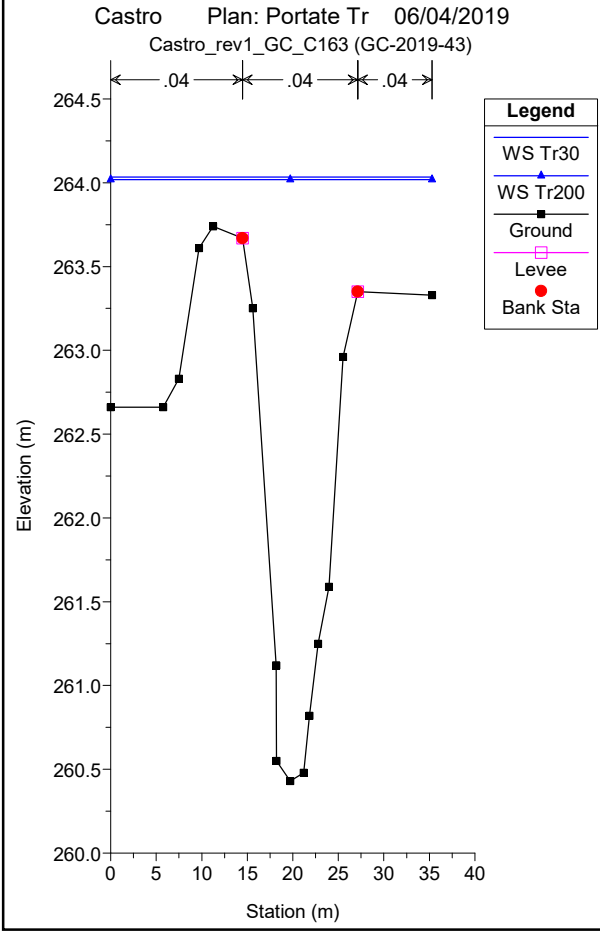
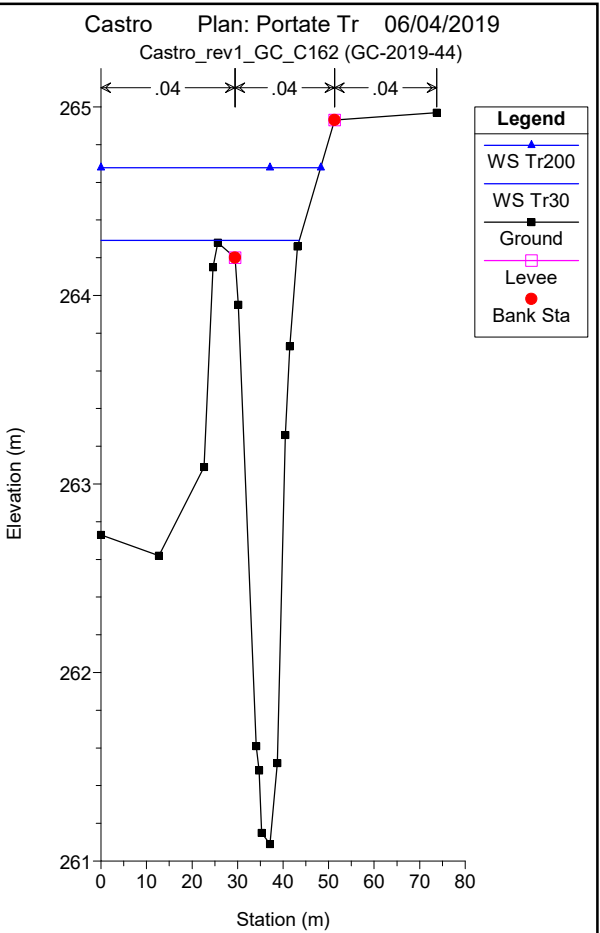
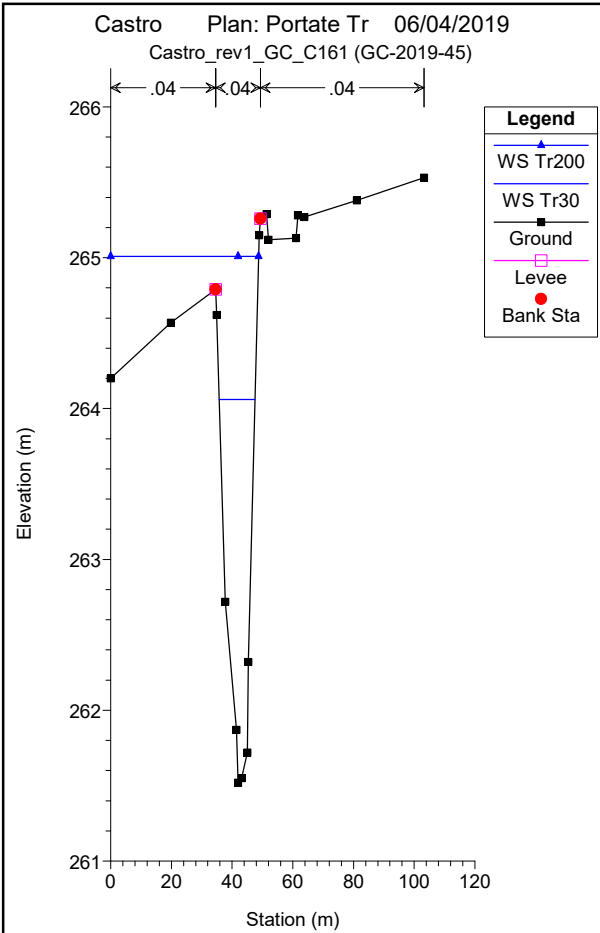


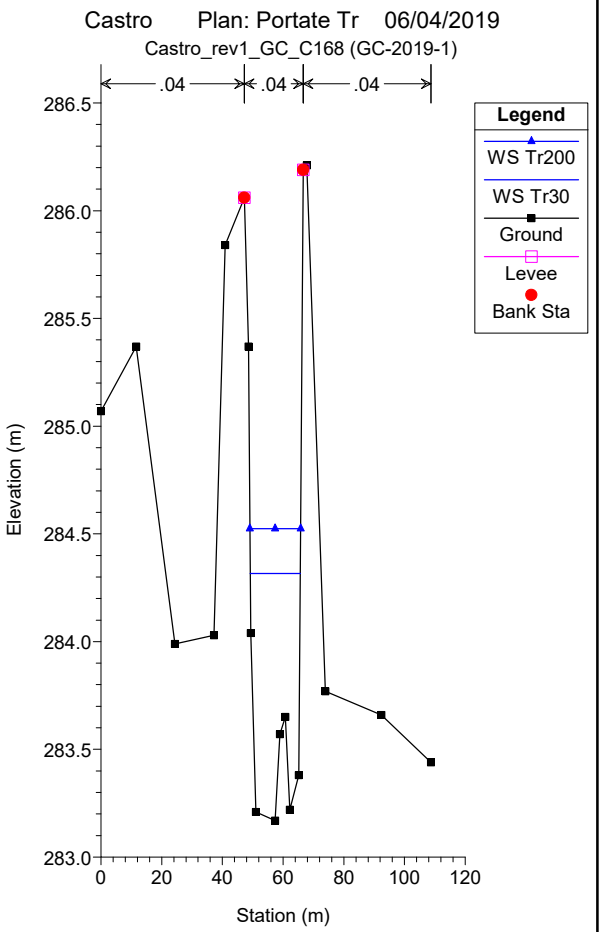
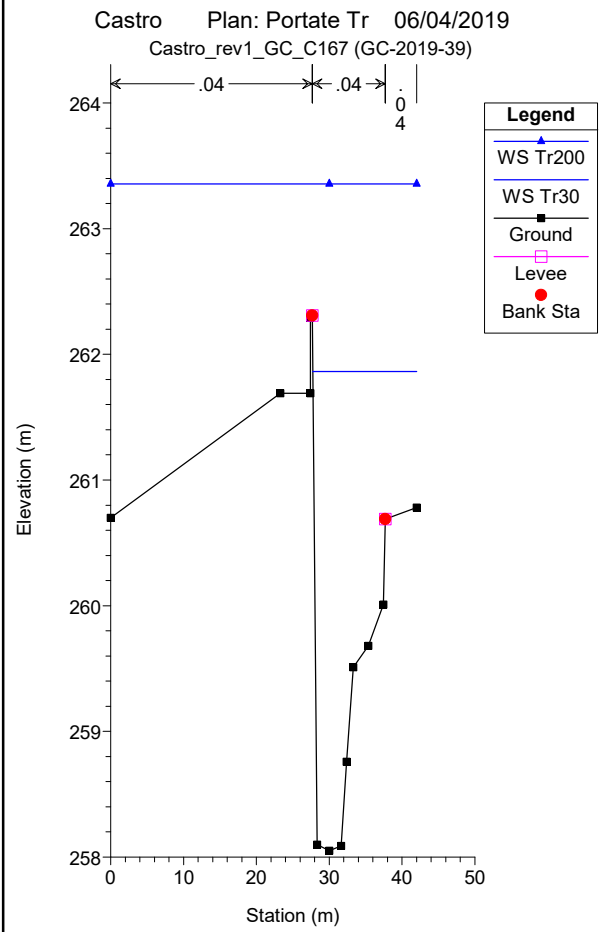
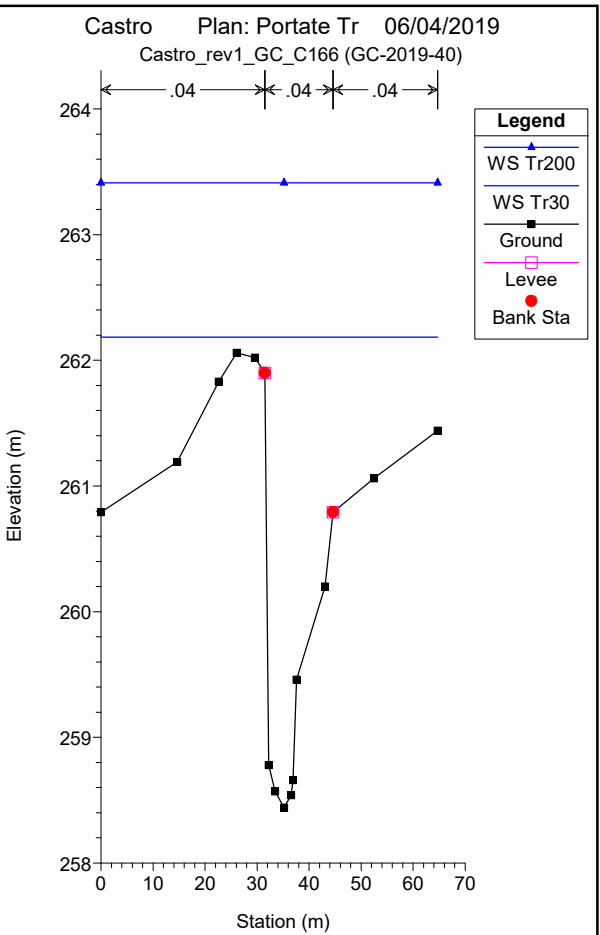
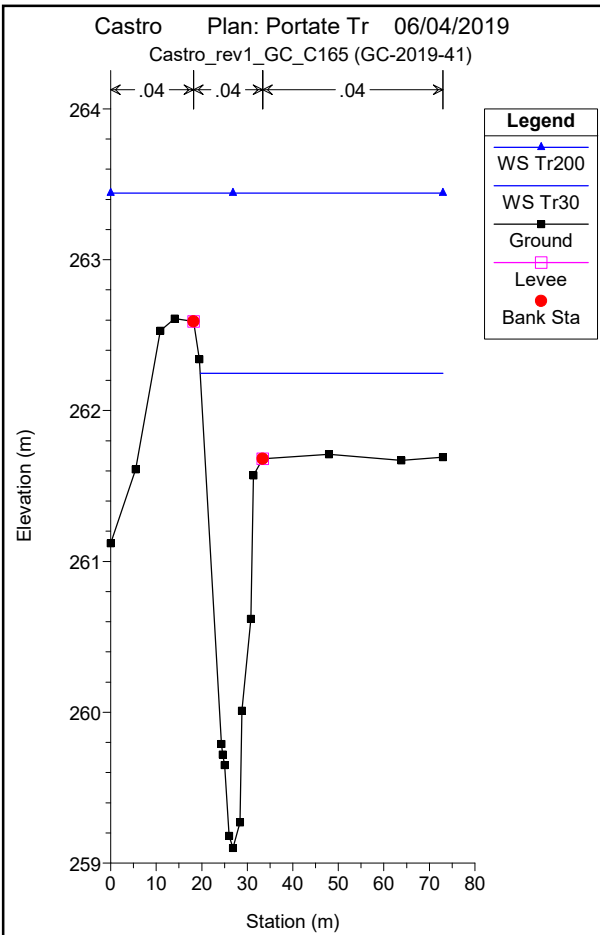


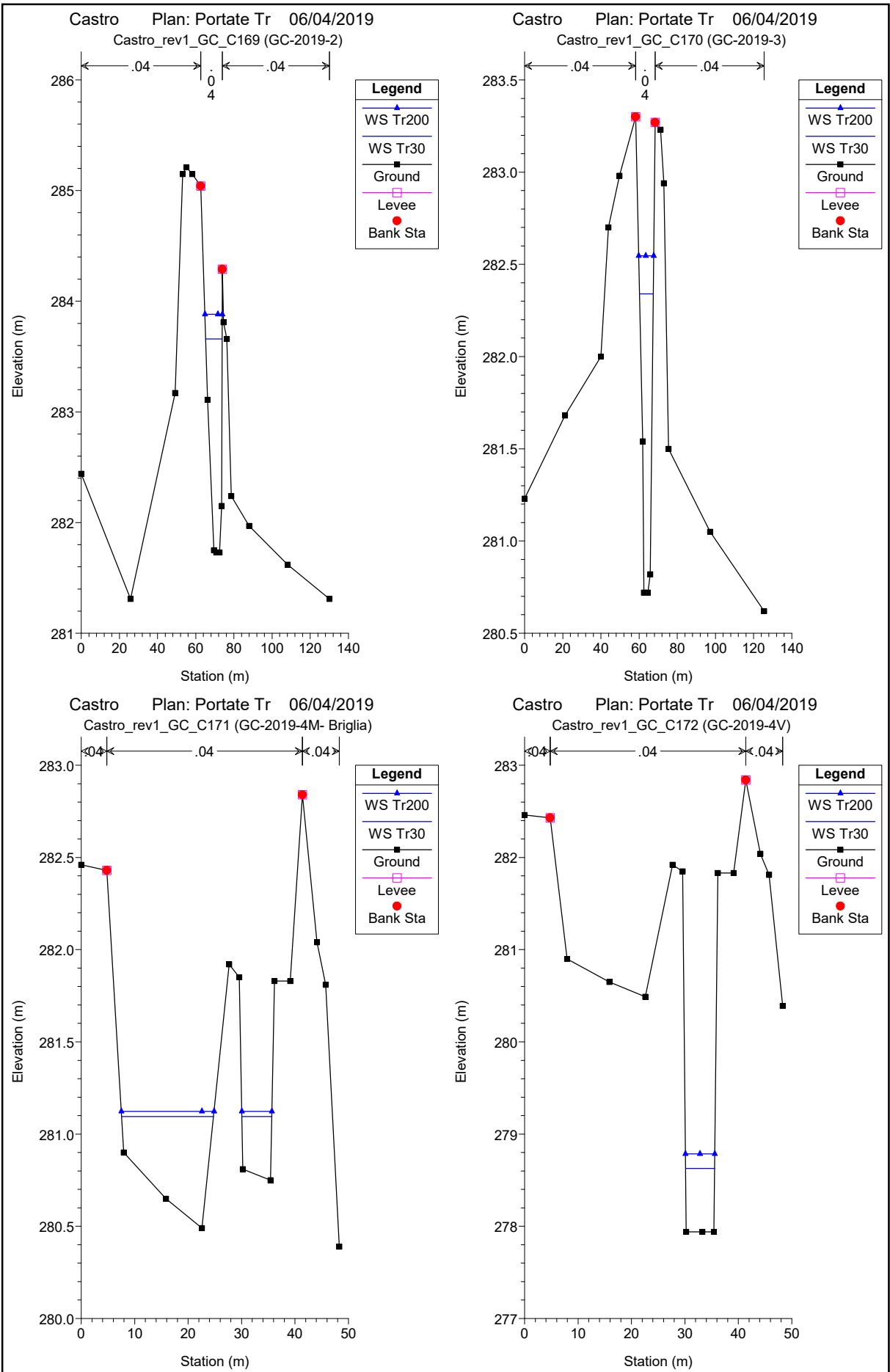


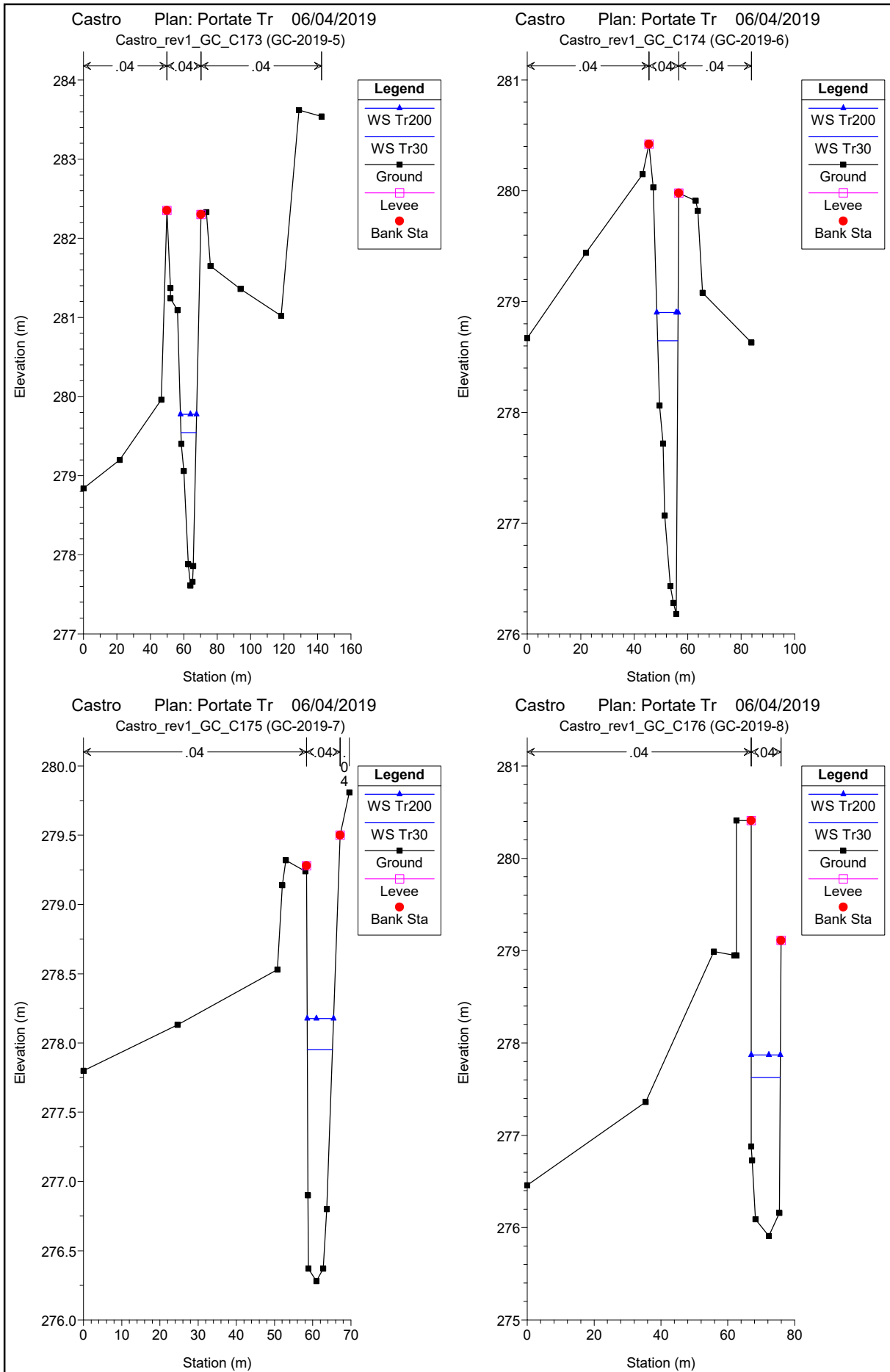


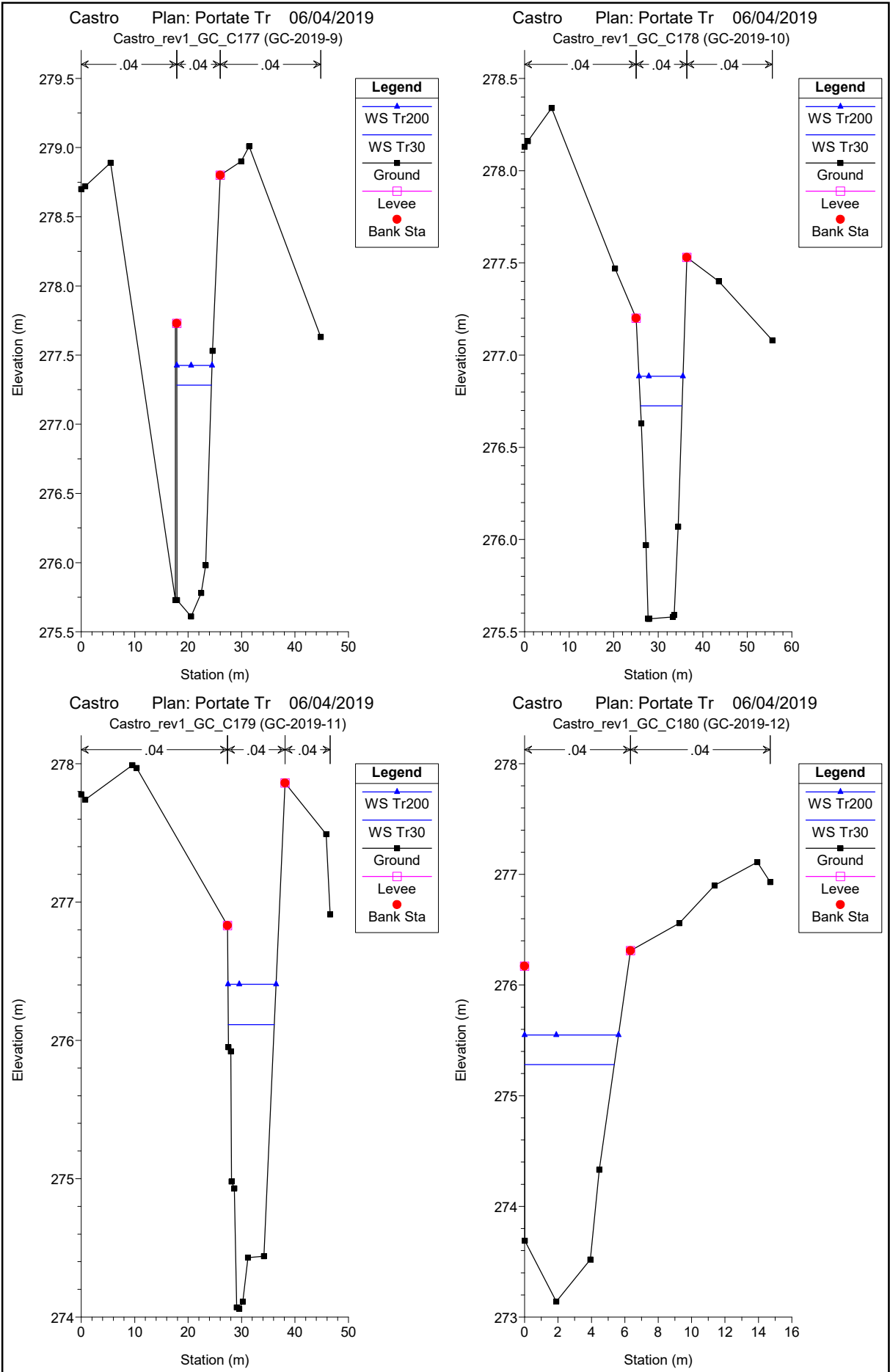


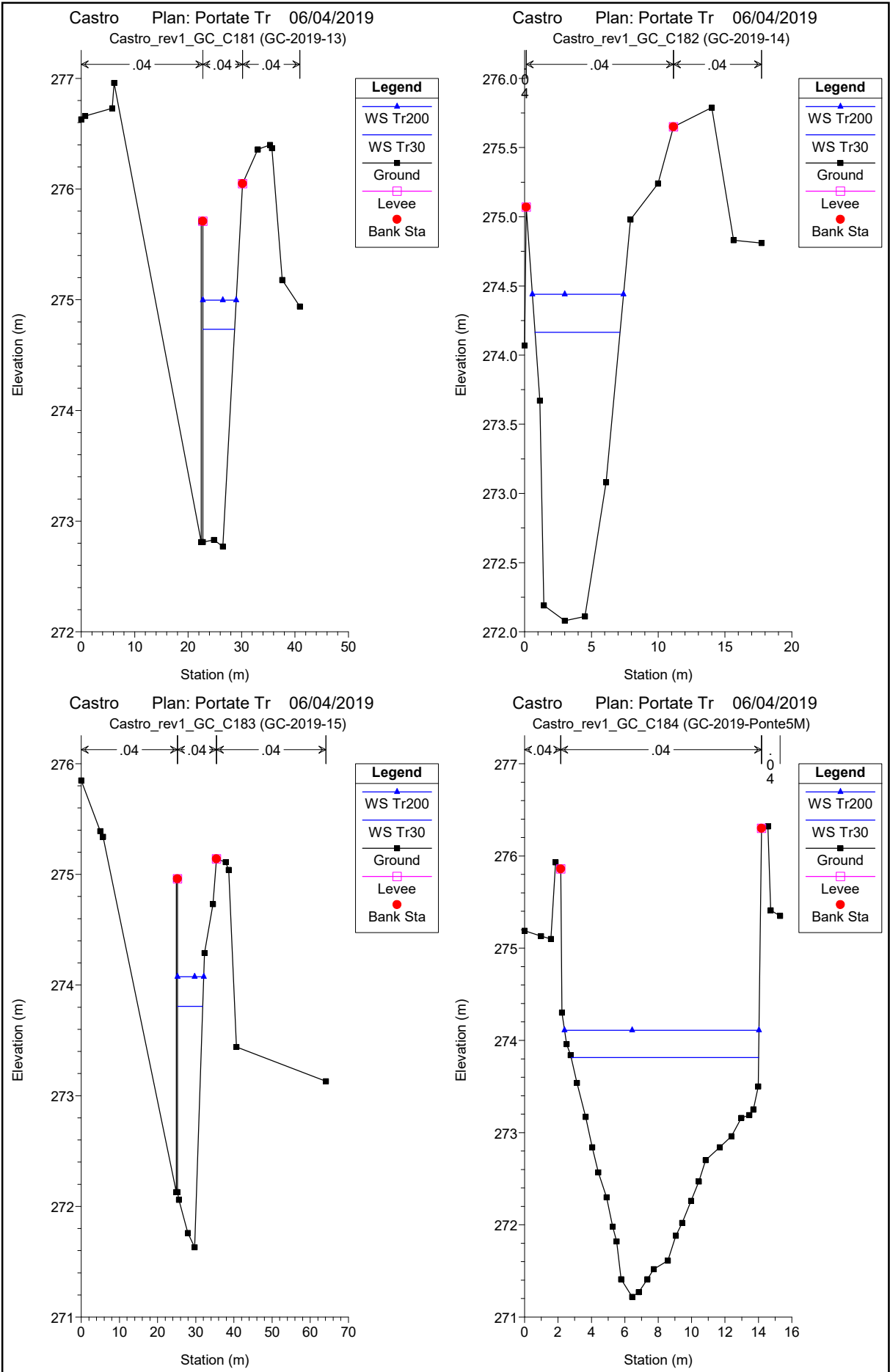


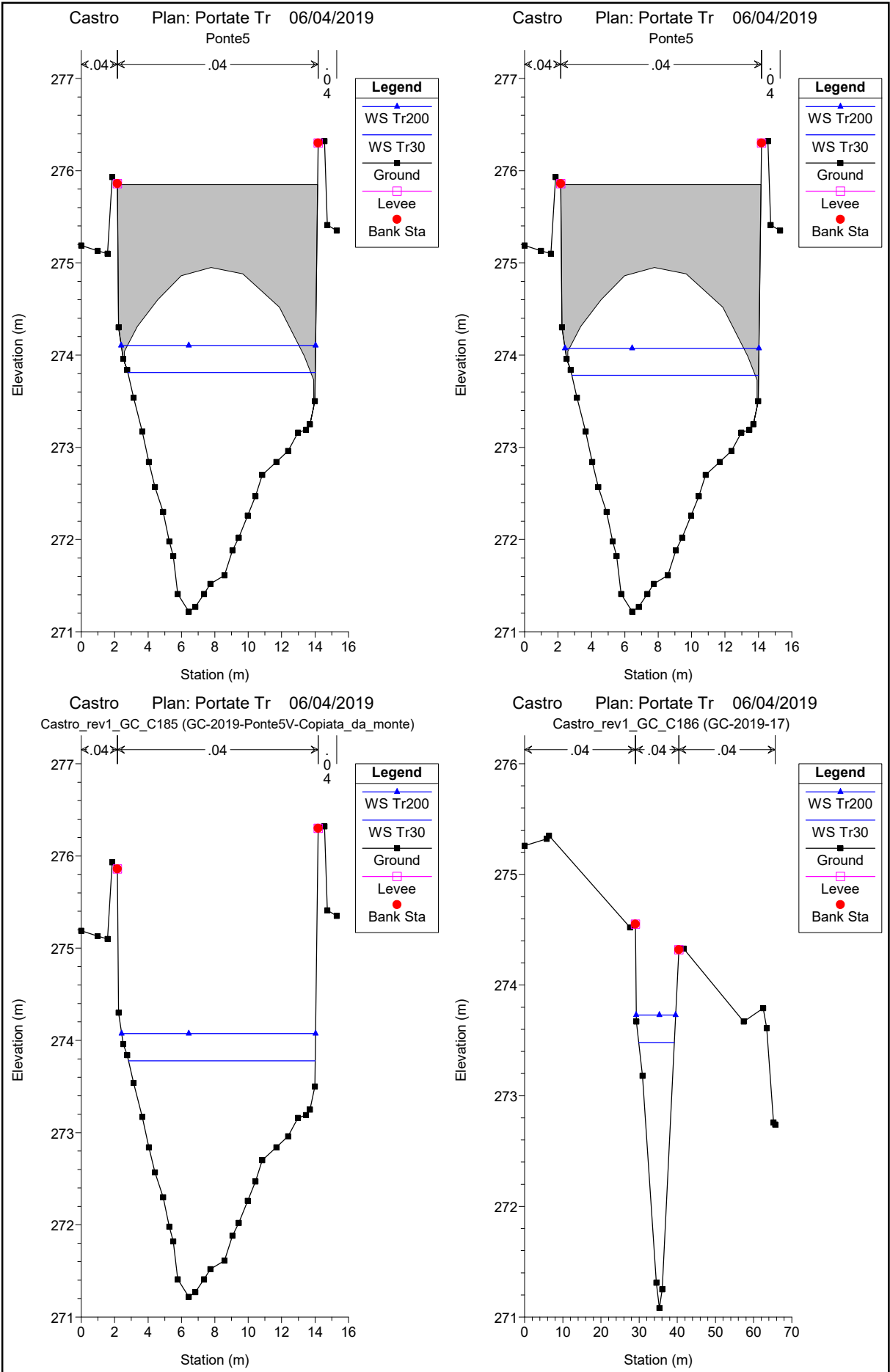


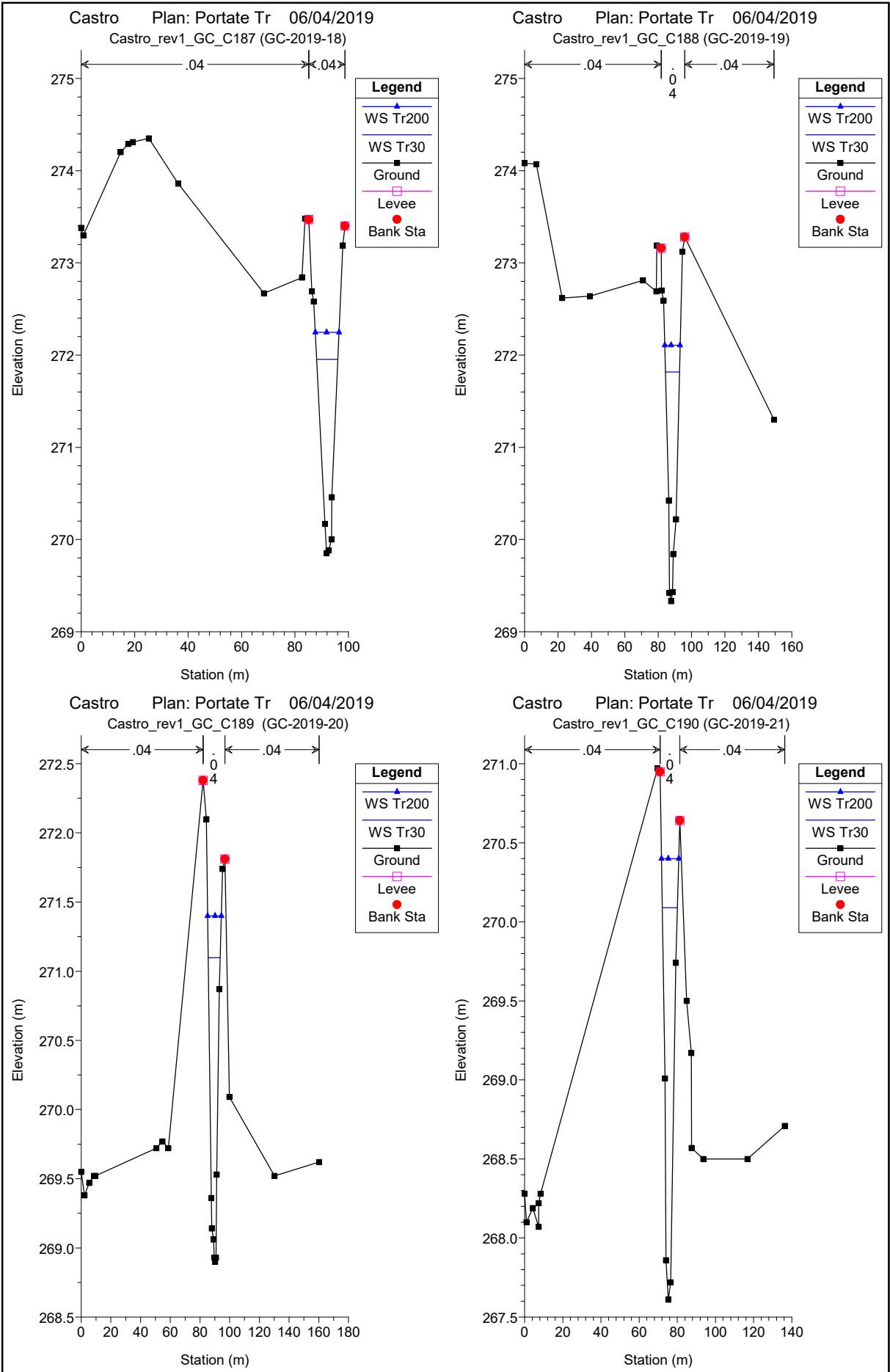


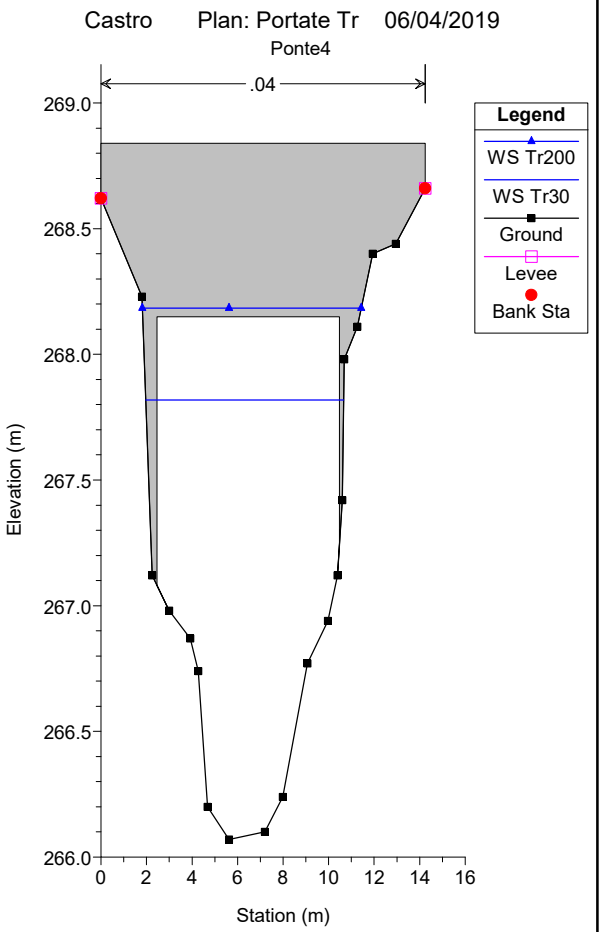
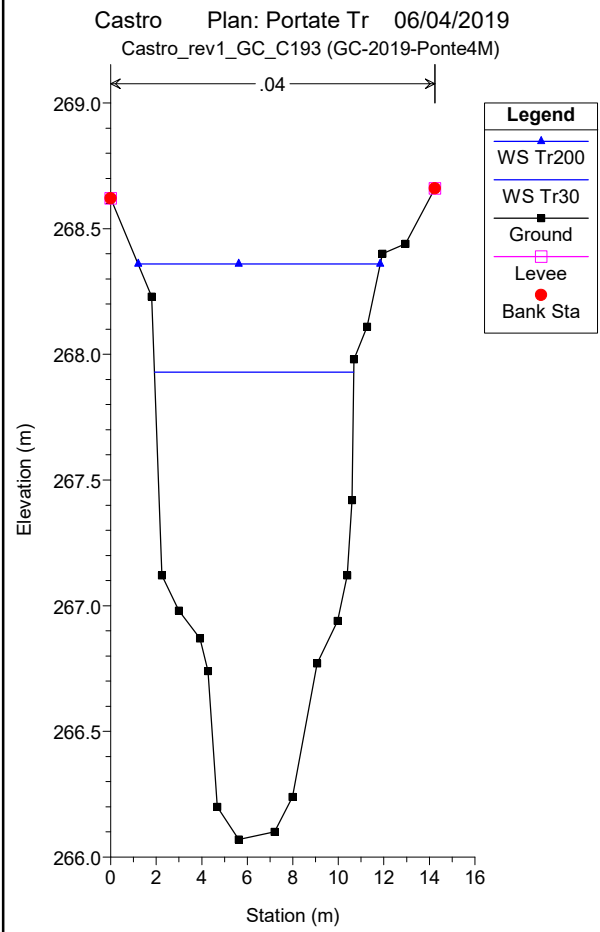
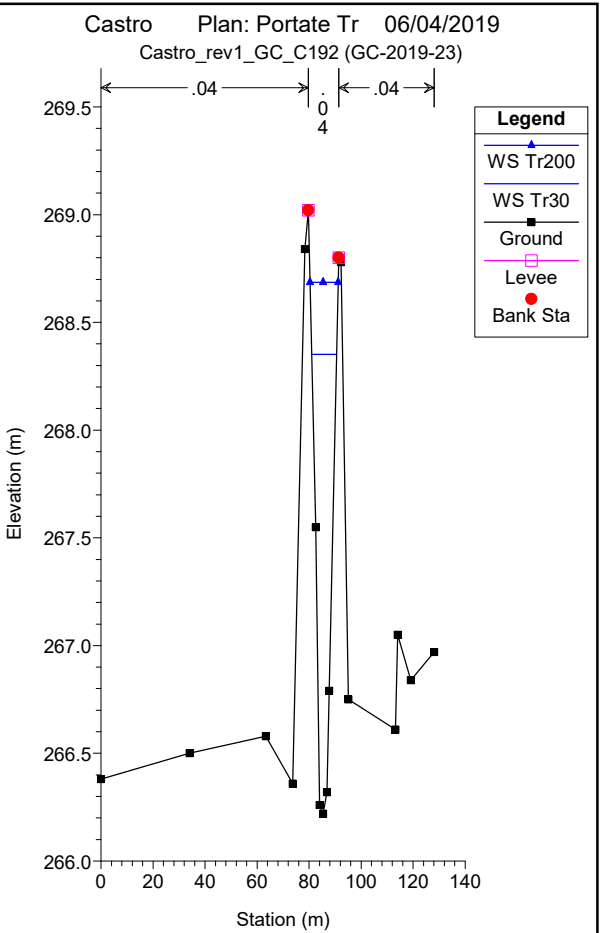
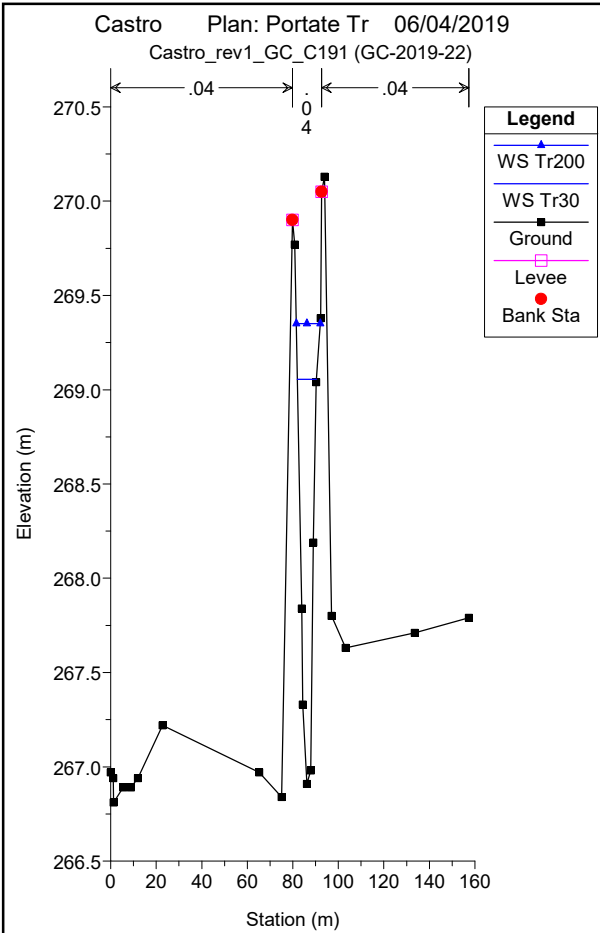


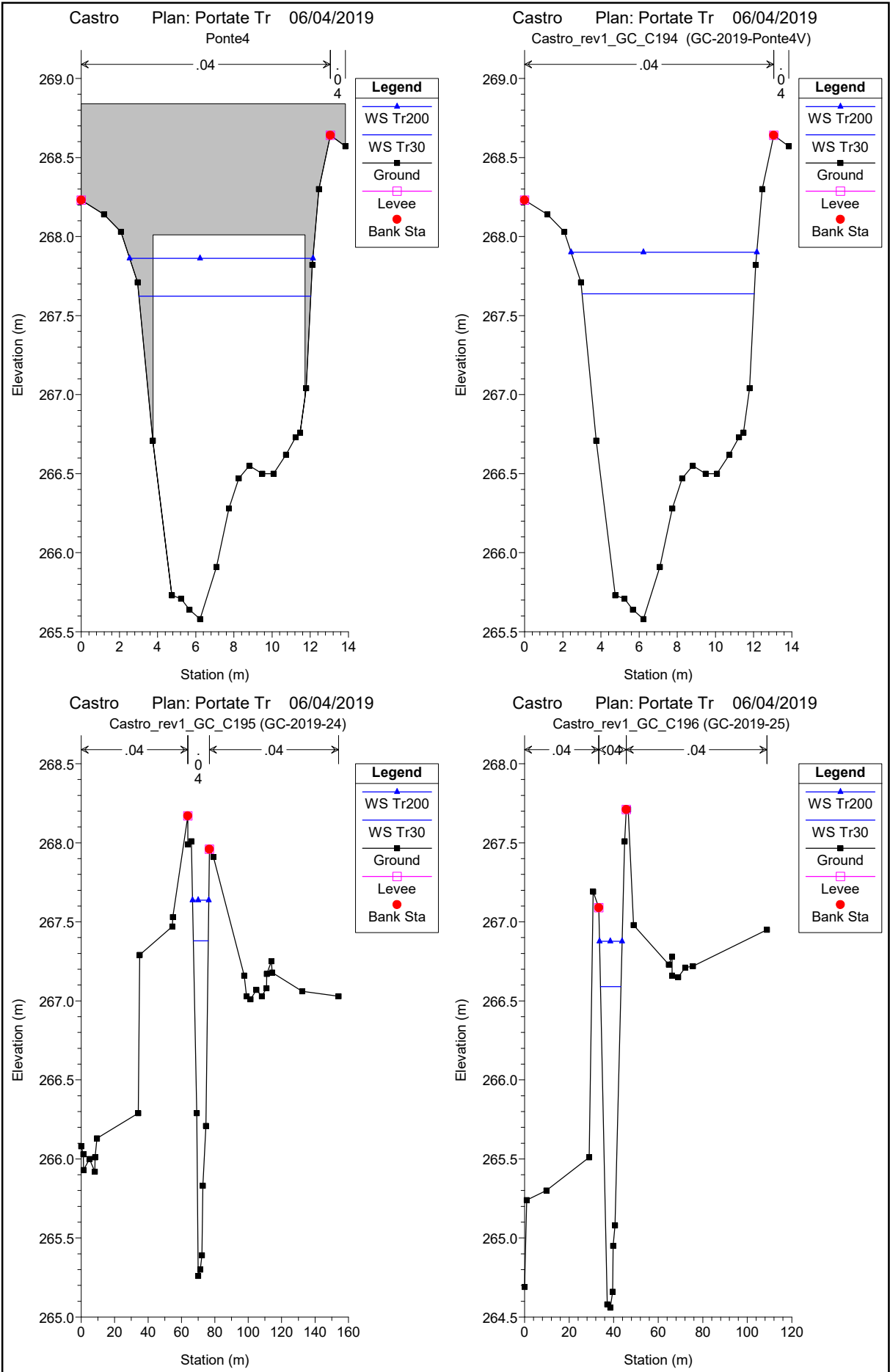


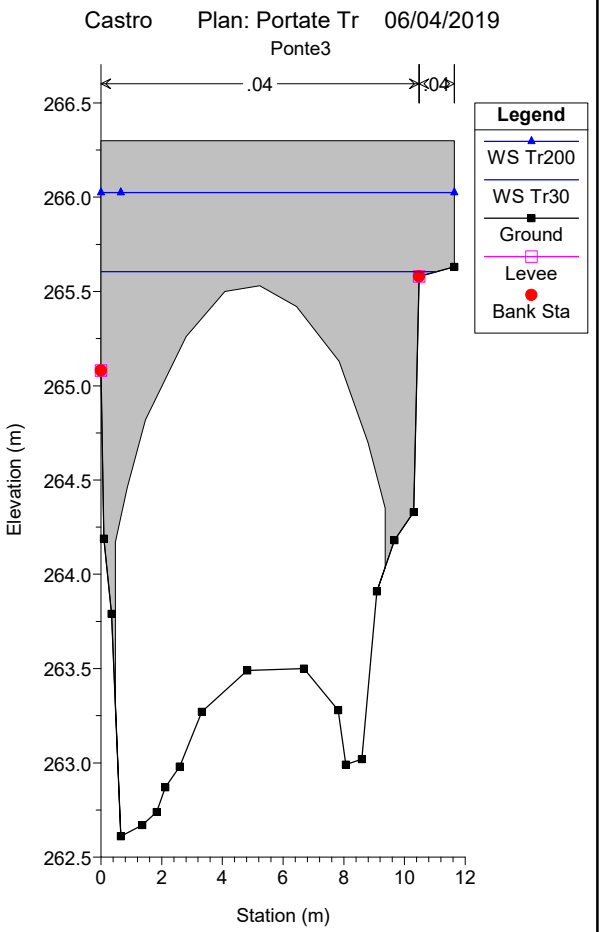
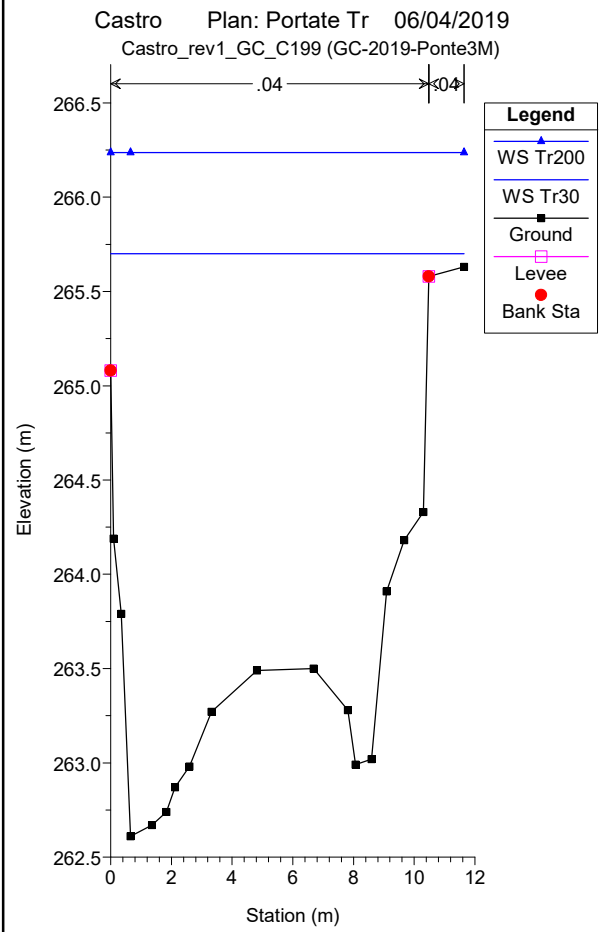
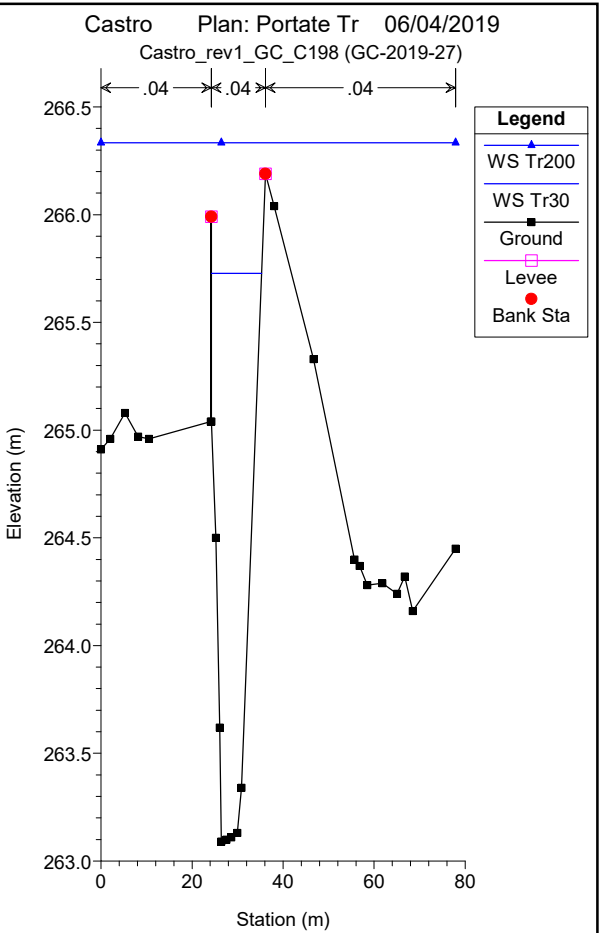
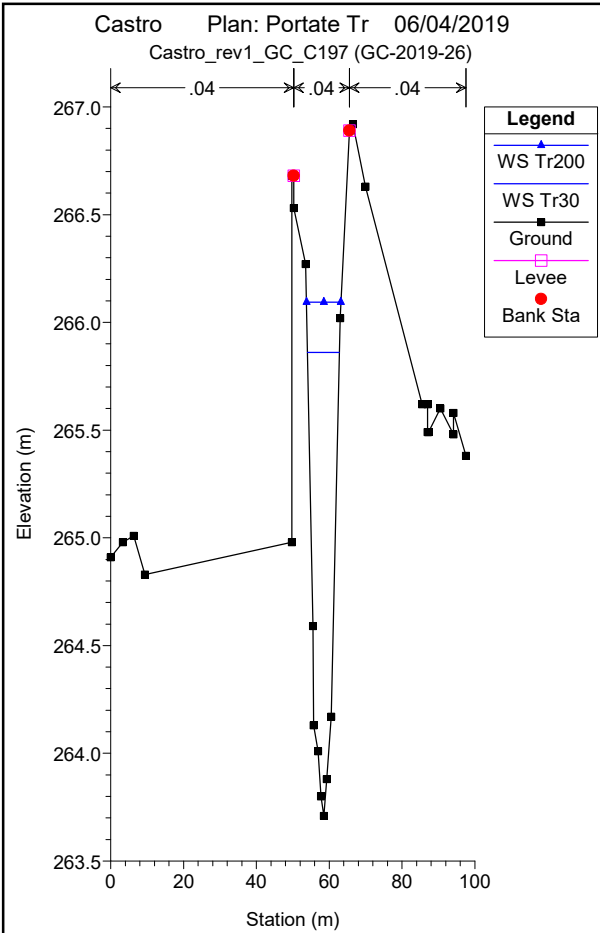


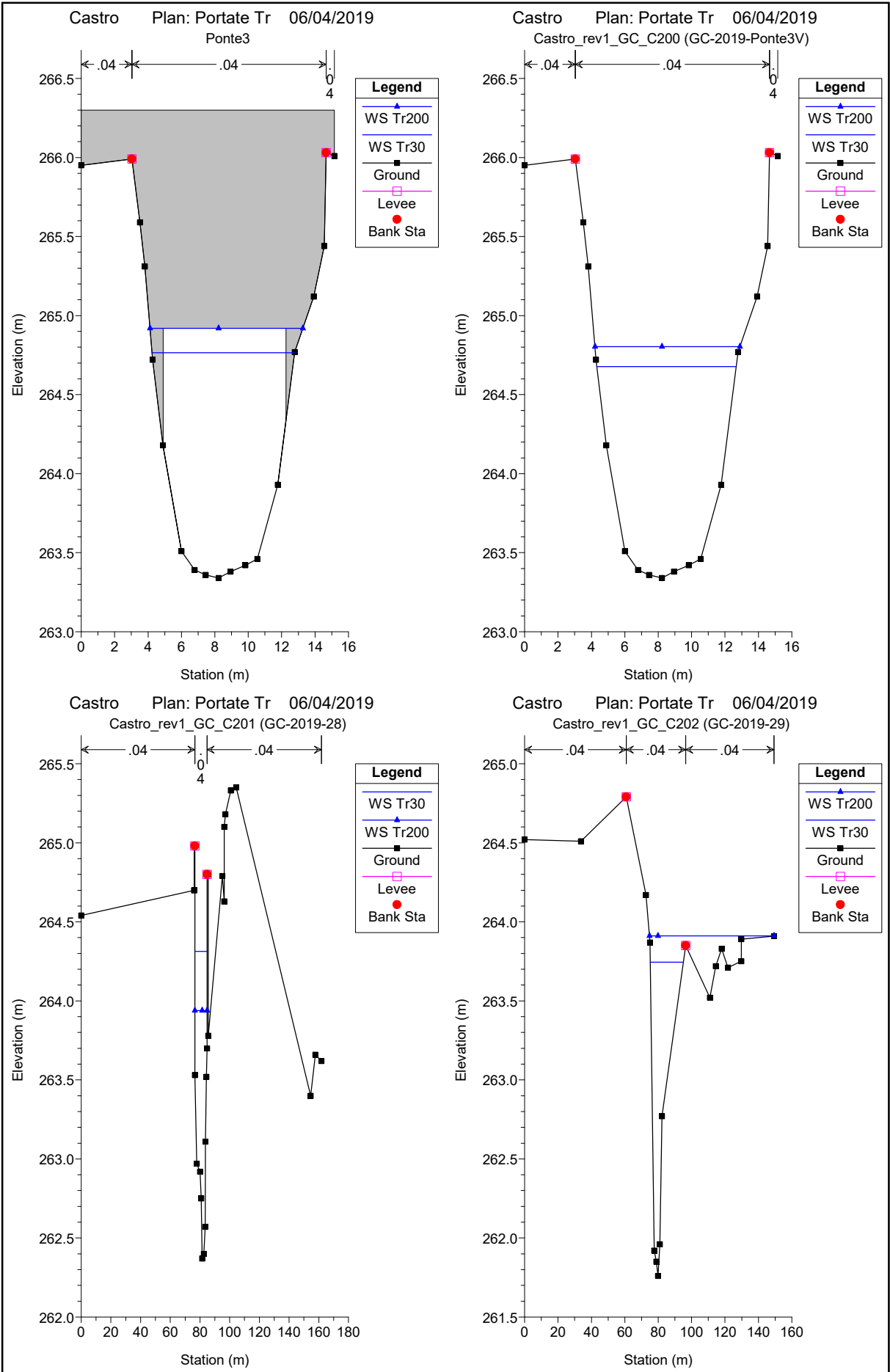


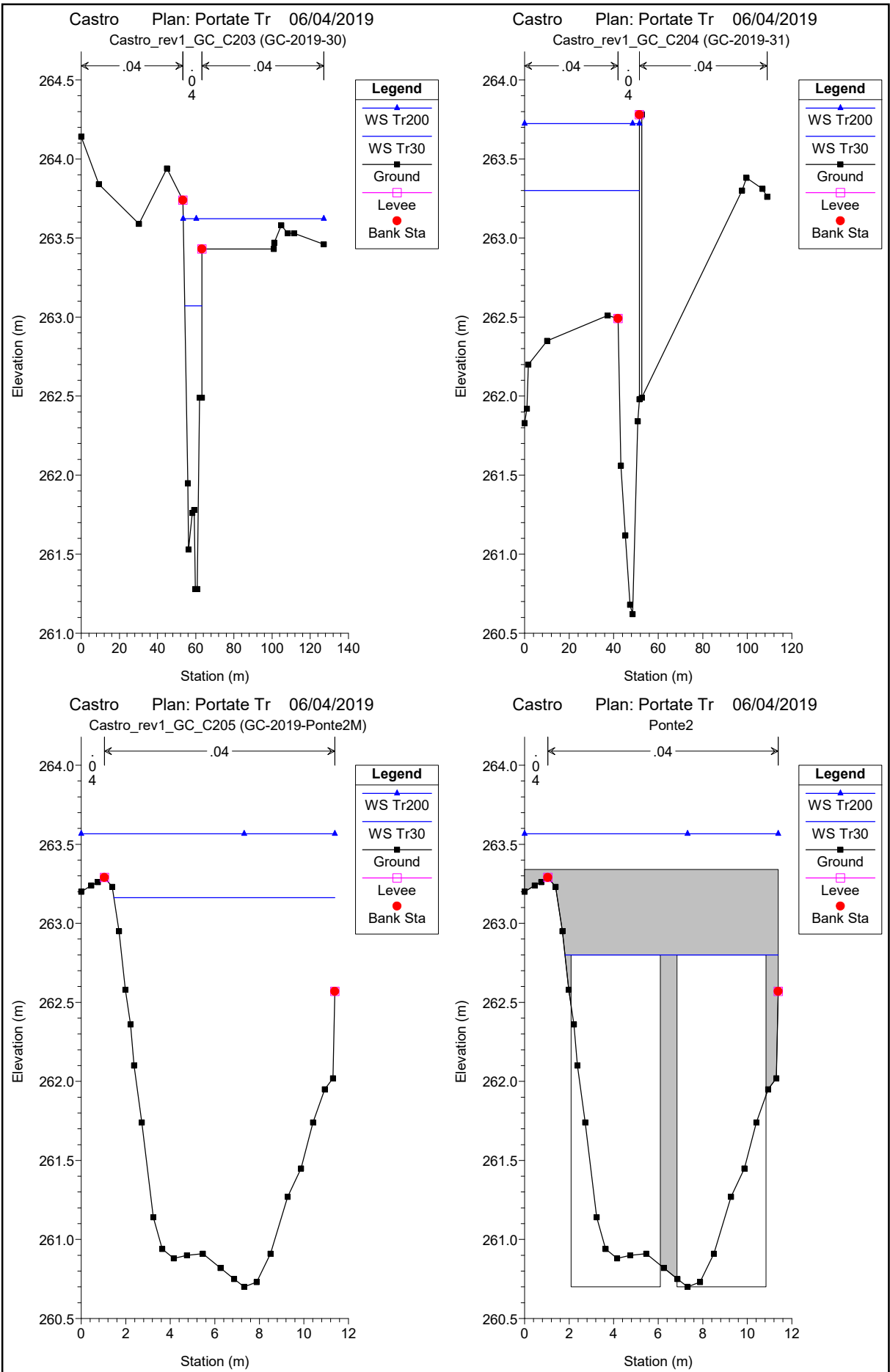


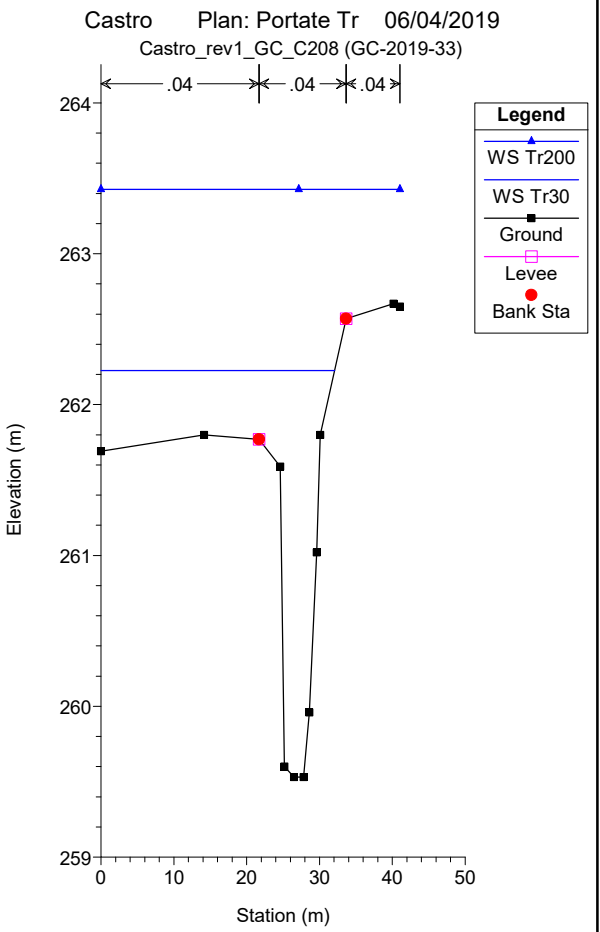
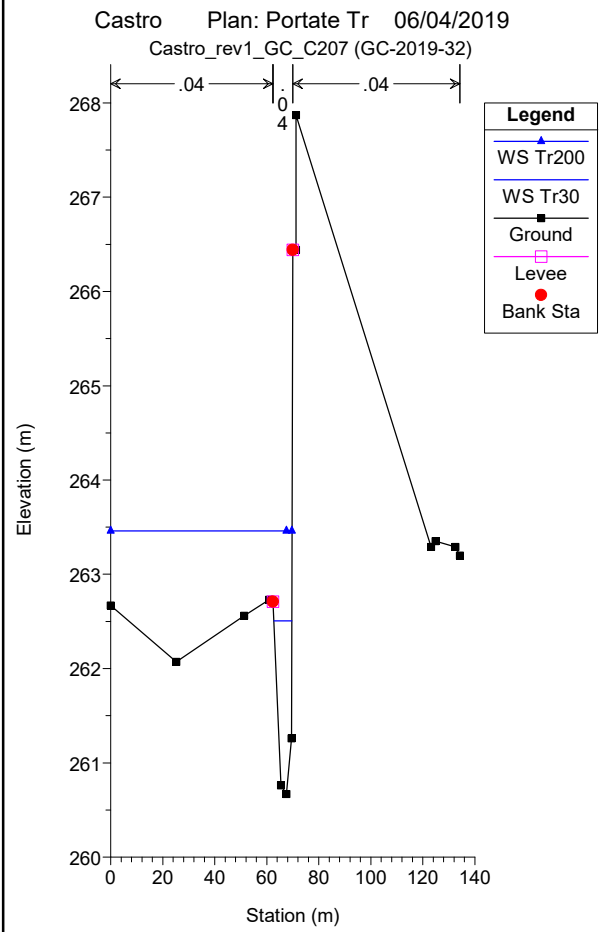
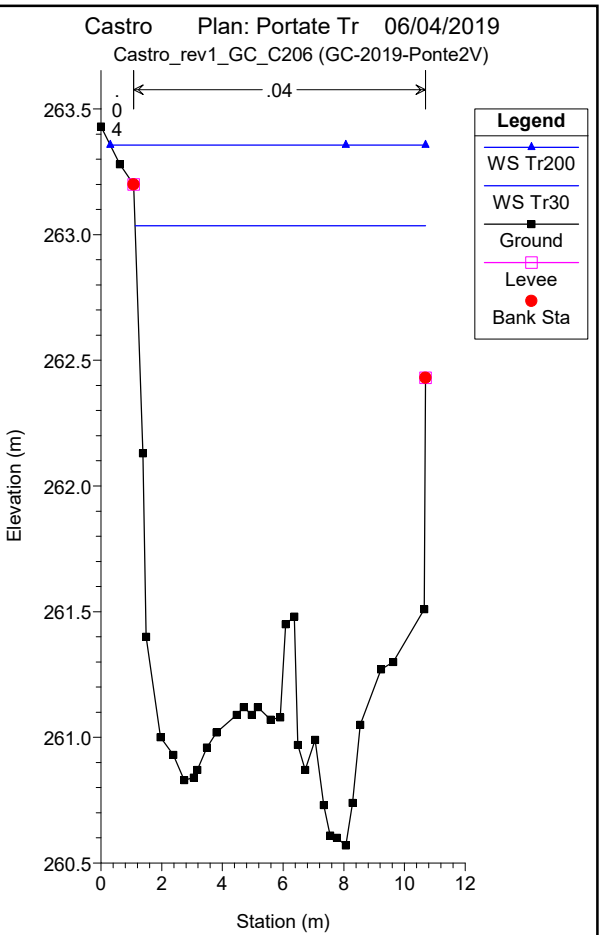
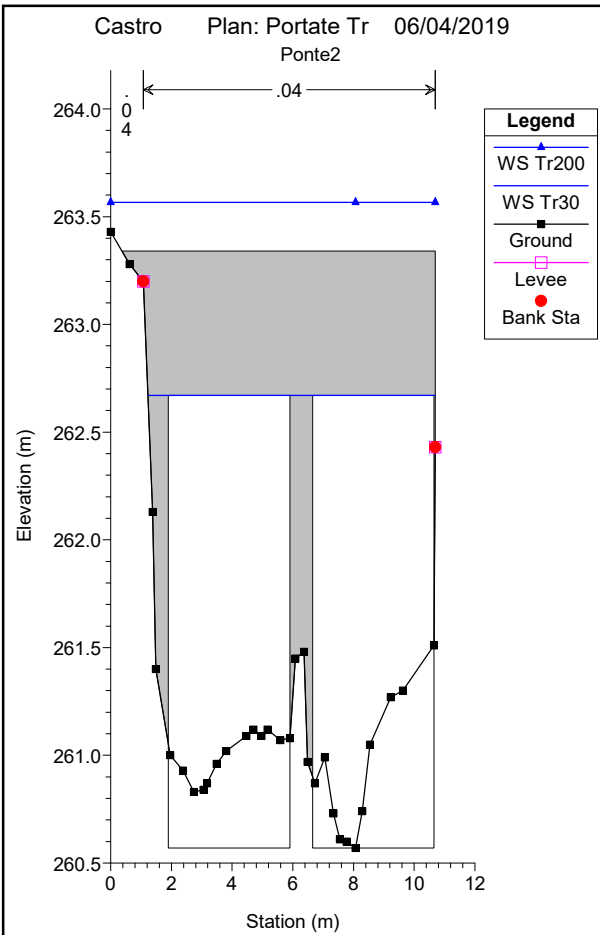


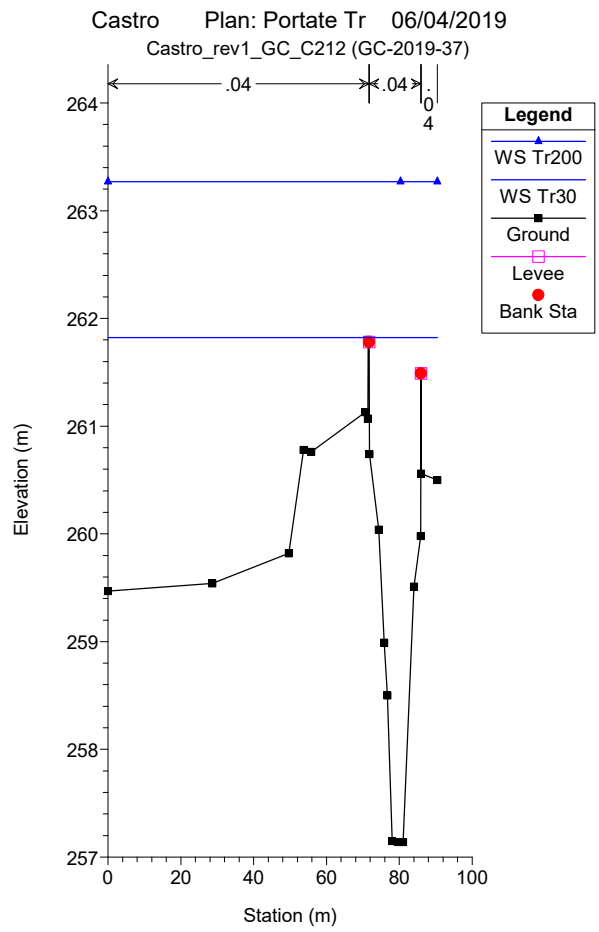
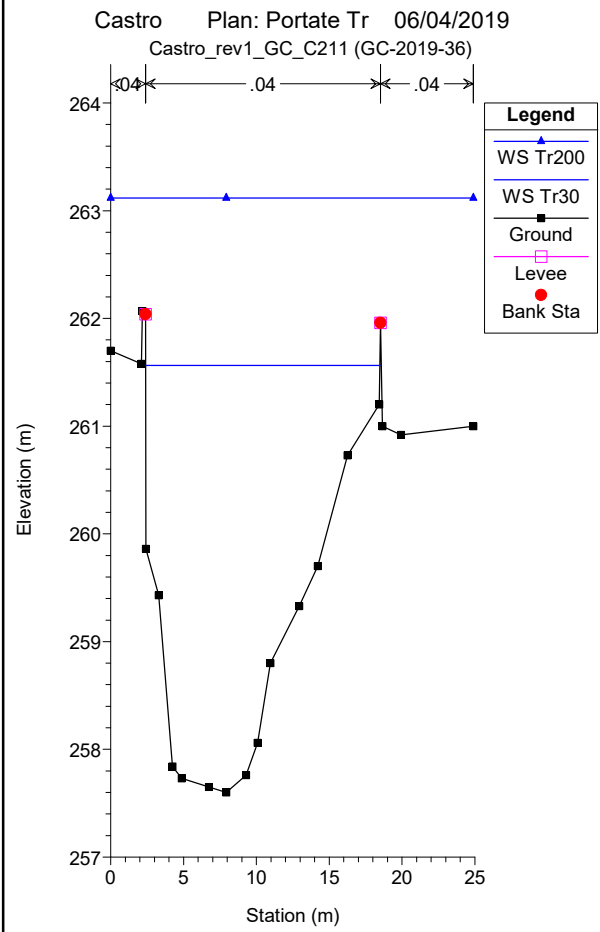
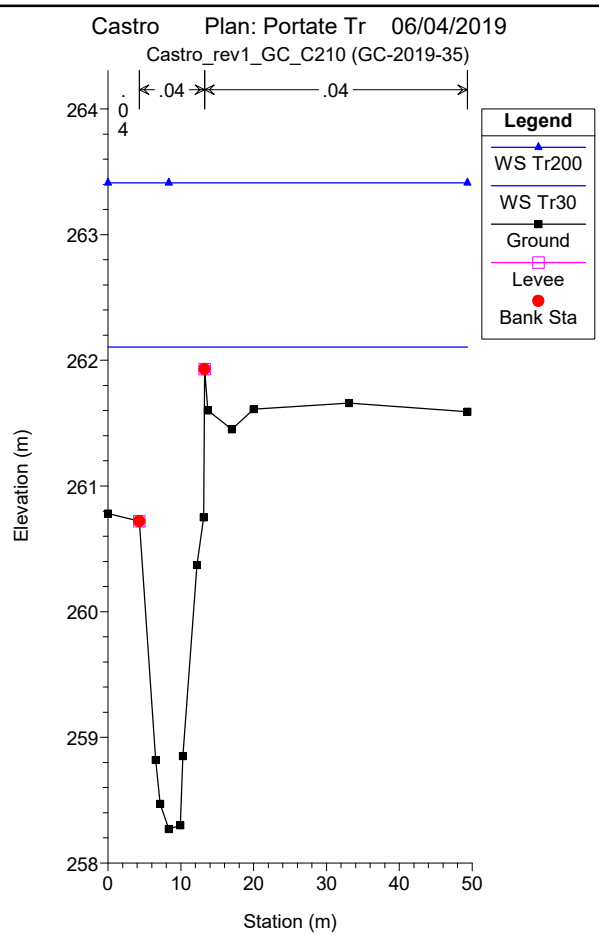
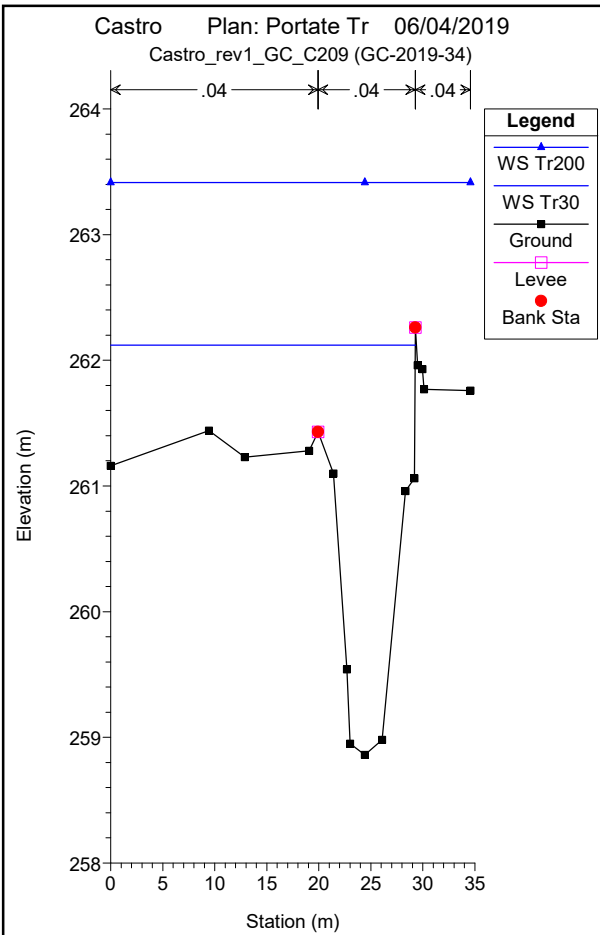


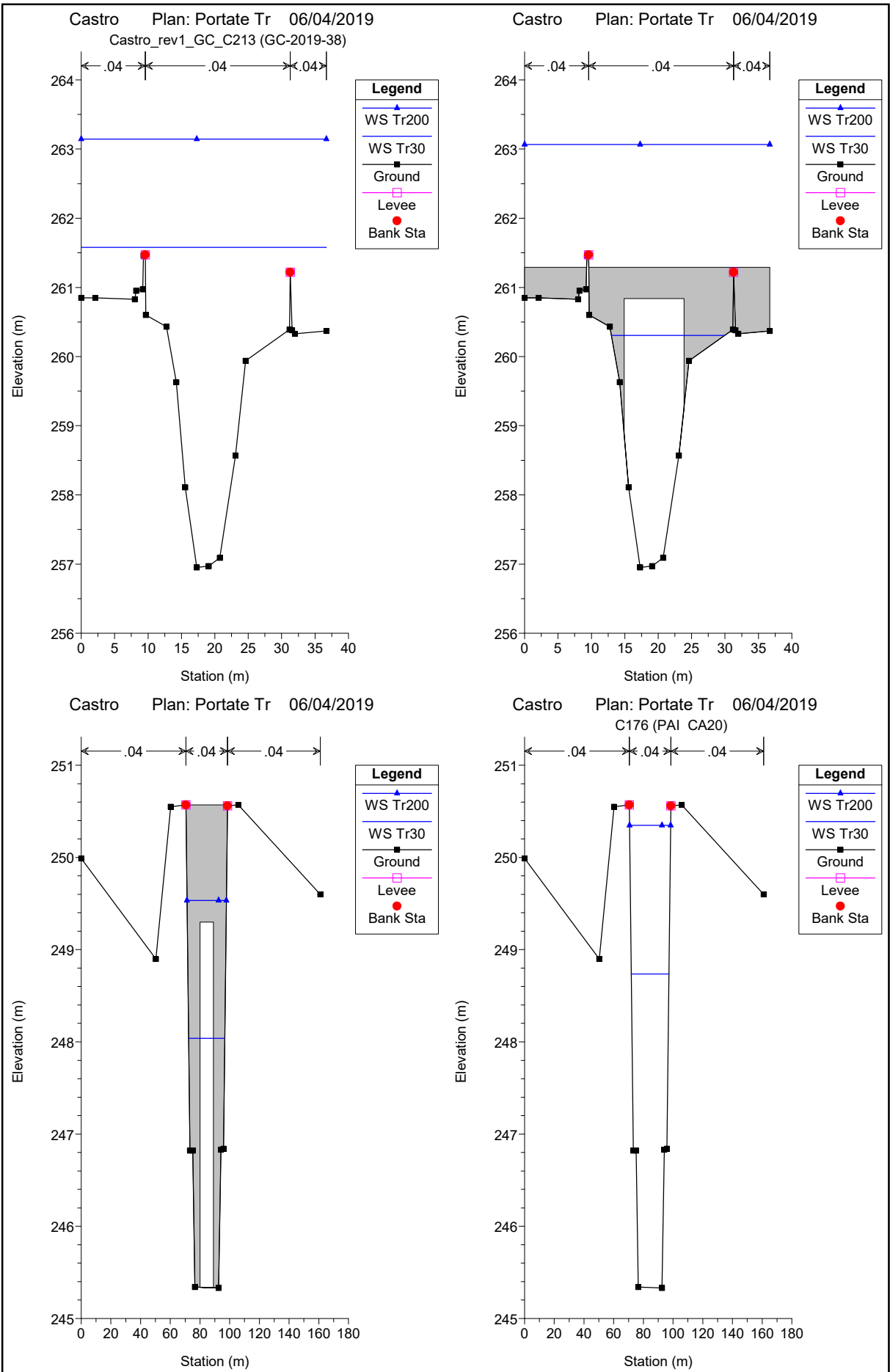


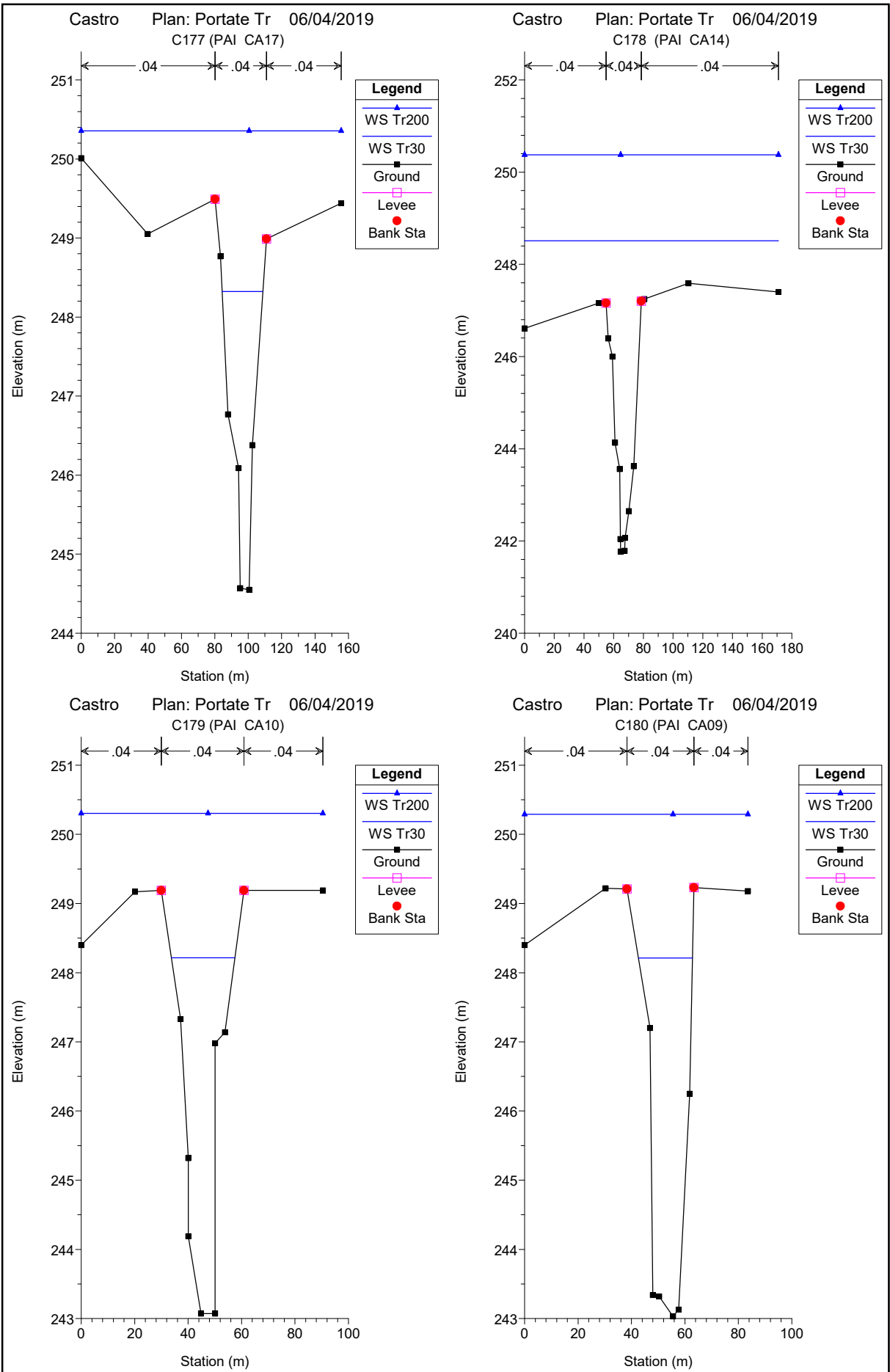




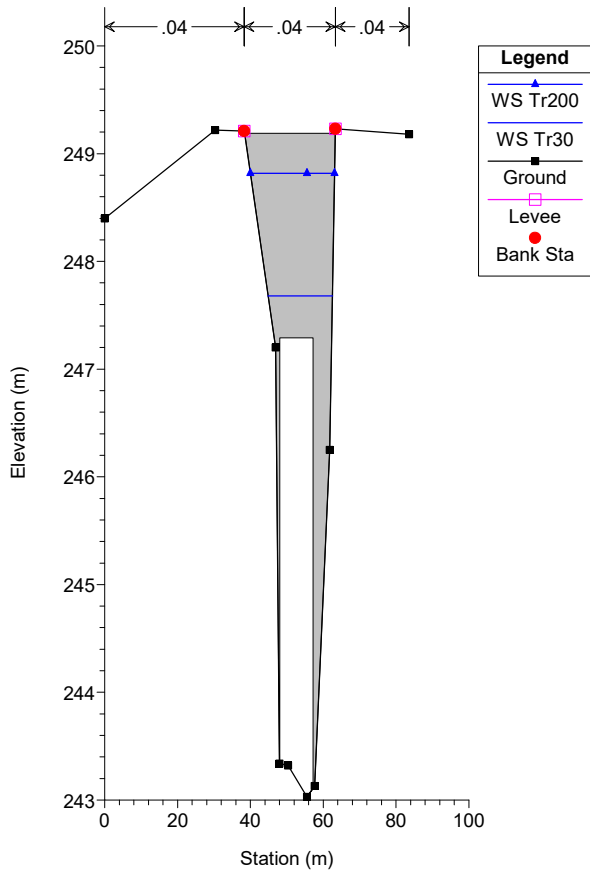




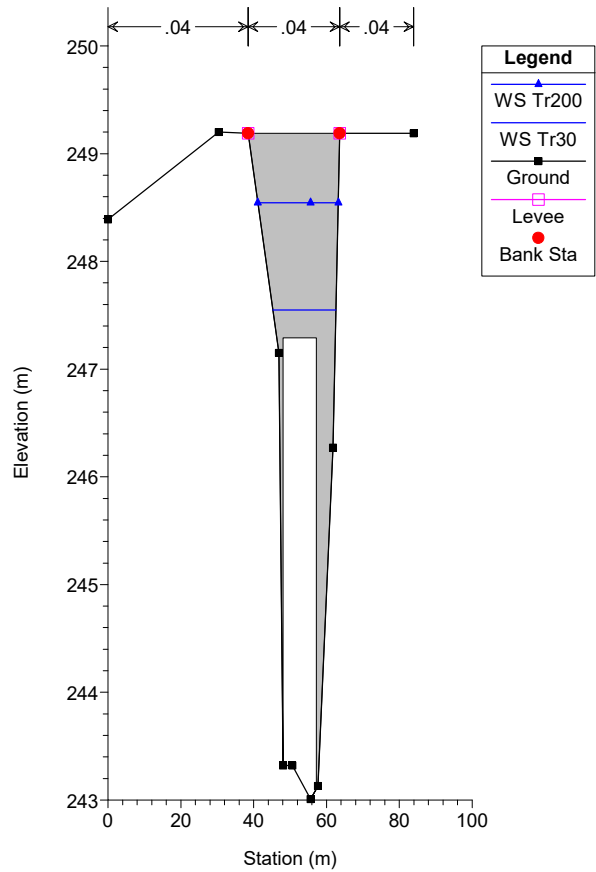




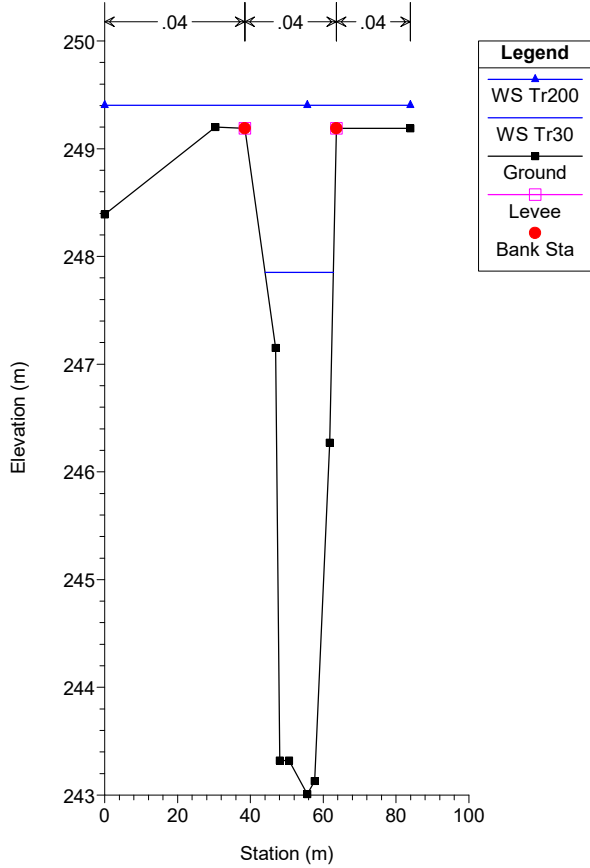
Castro Plan: Portate Tr 06/04/2019



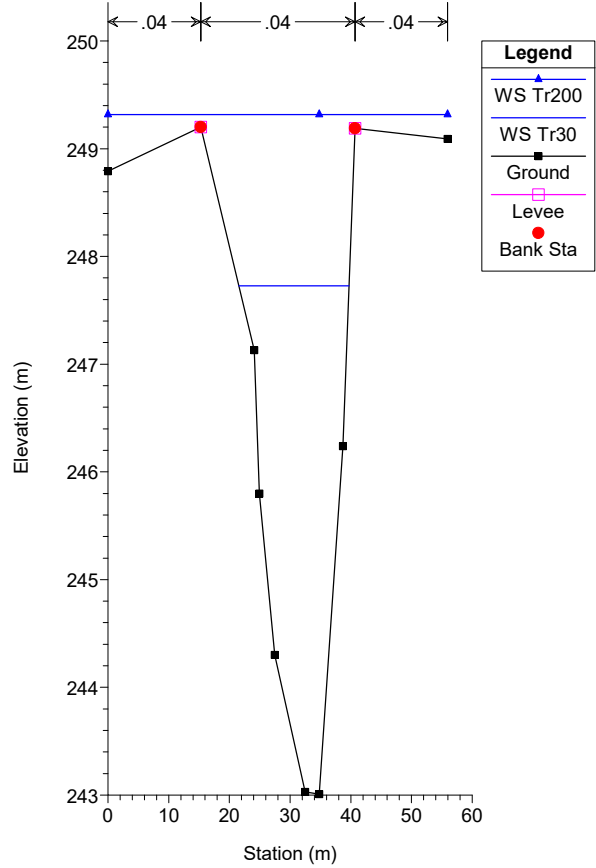
Castro Plan: Portate Tr 06/04/2019

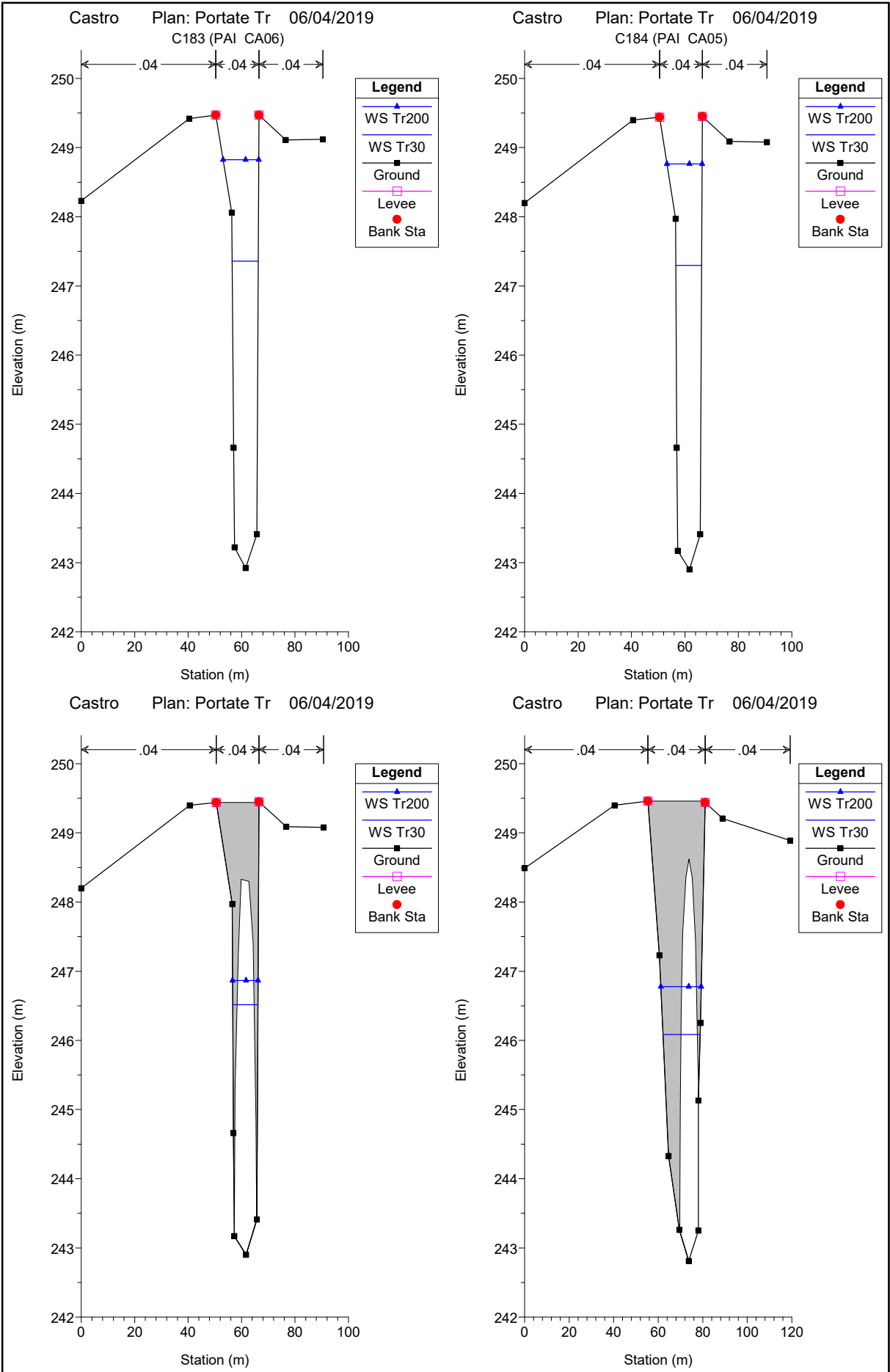


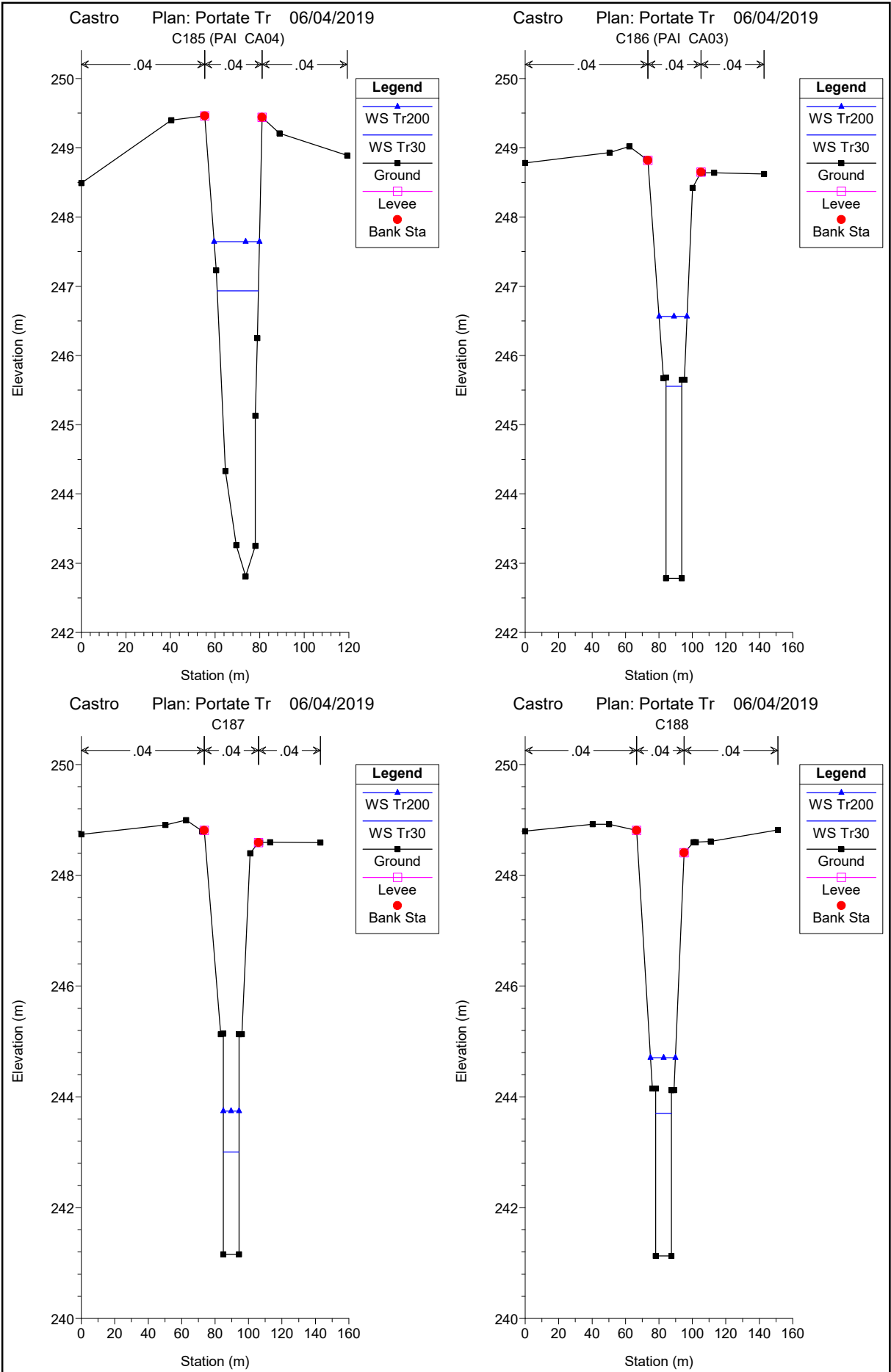
Castro Plan: Portate Tr 06/04/2019
C181 (PAI CA08)

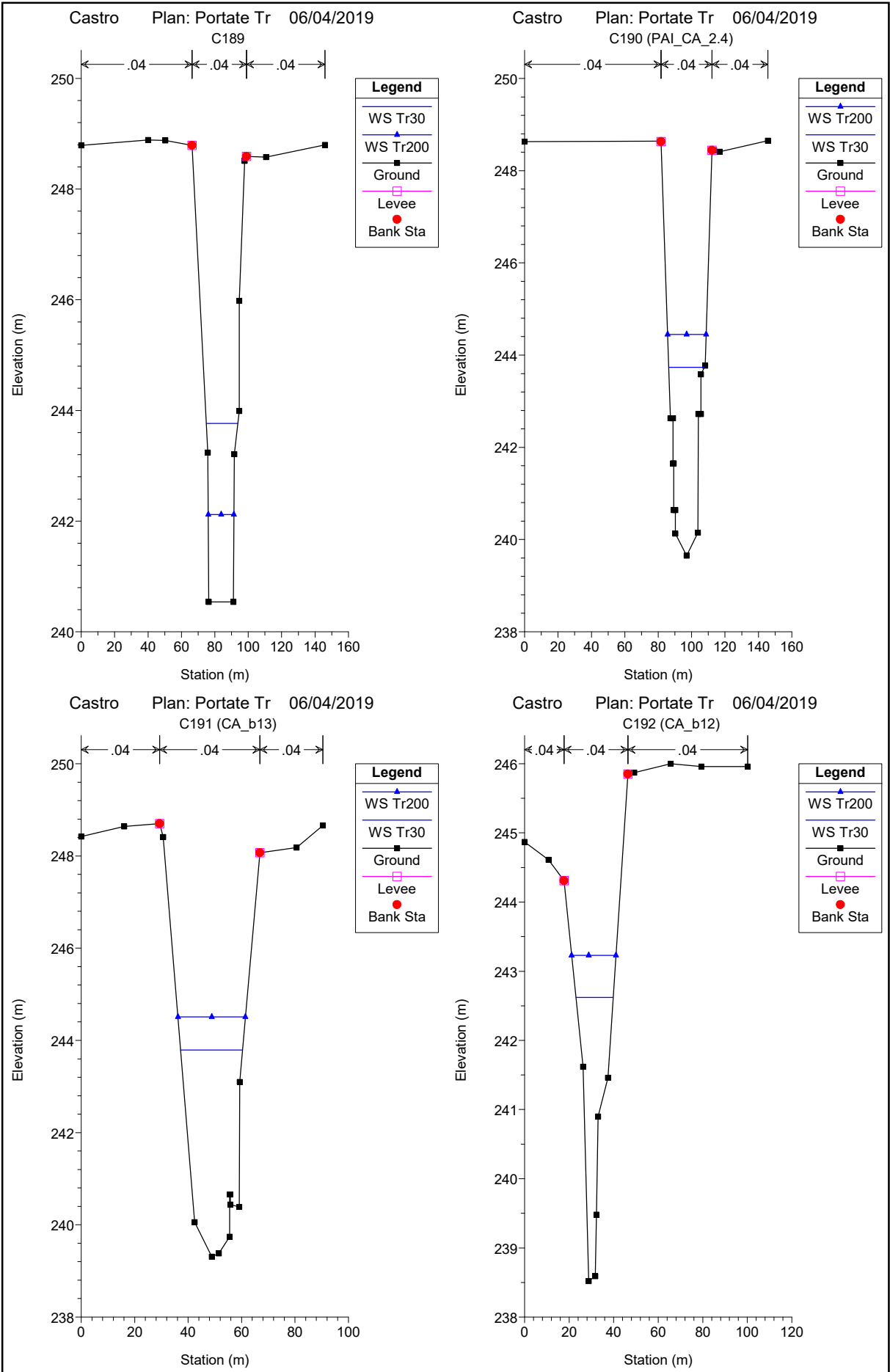


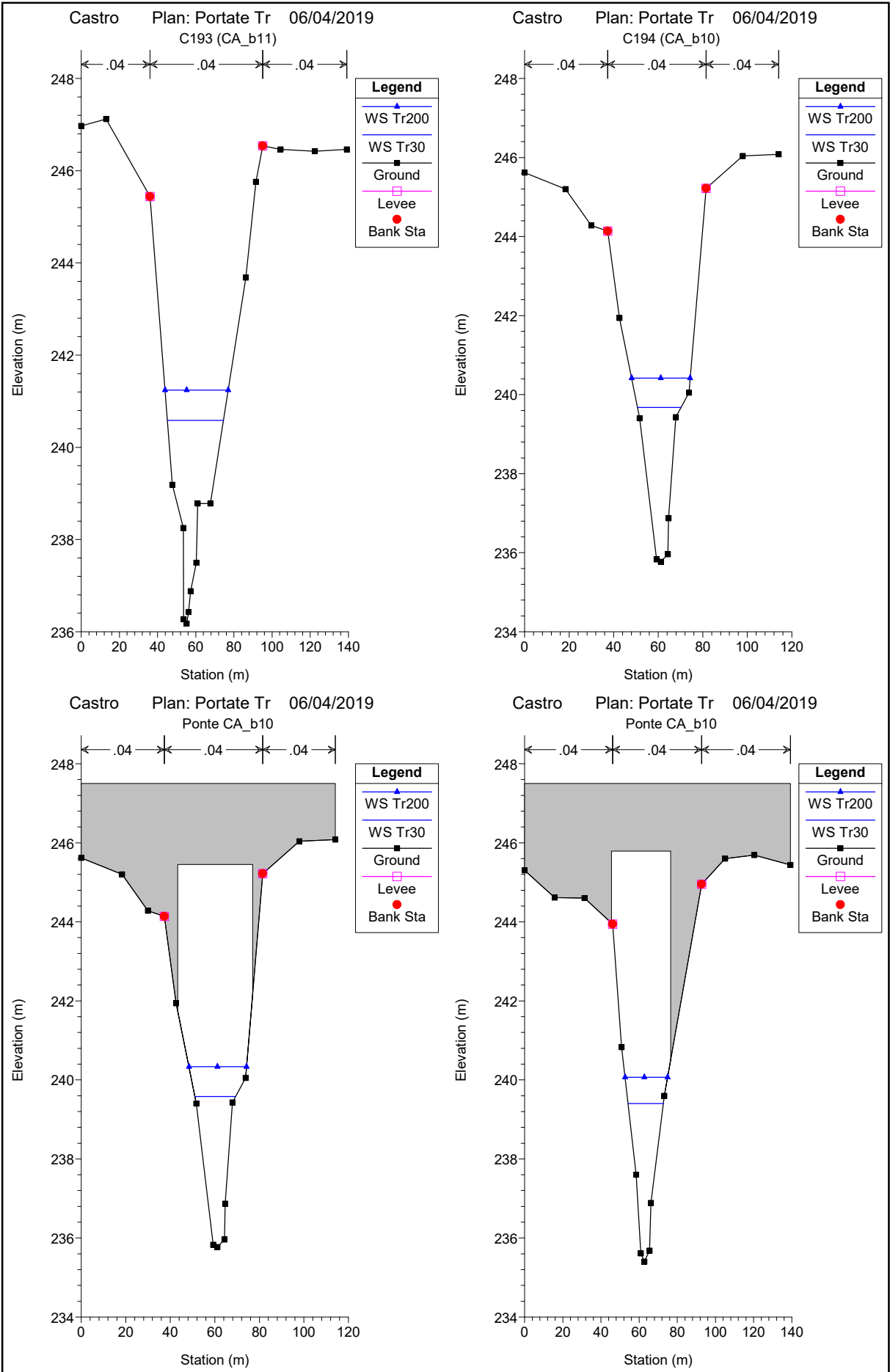
Castro Plan: Portate Tr 06/04/2019
C182 (PAI CA07)

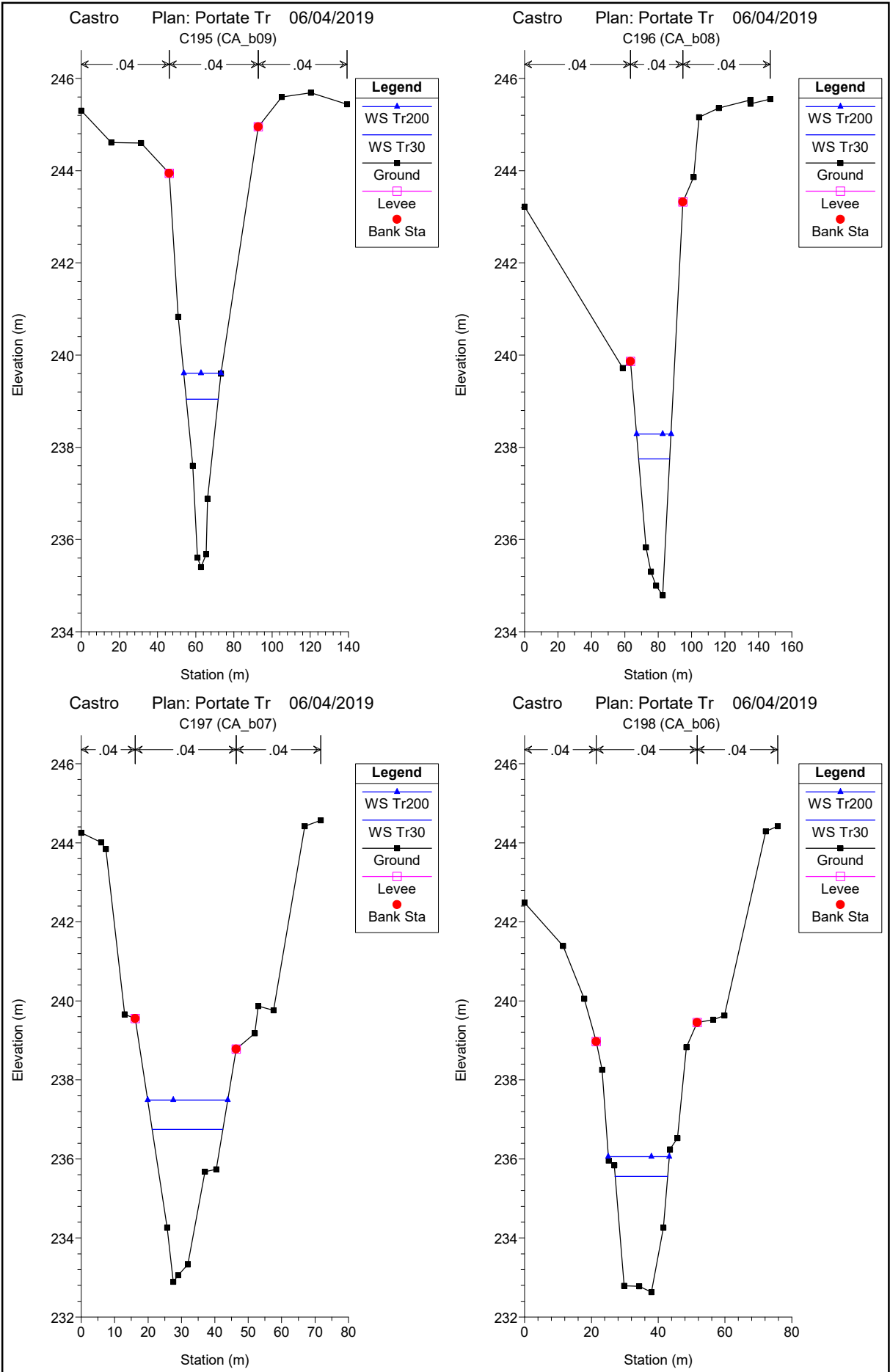


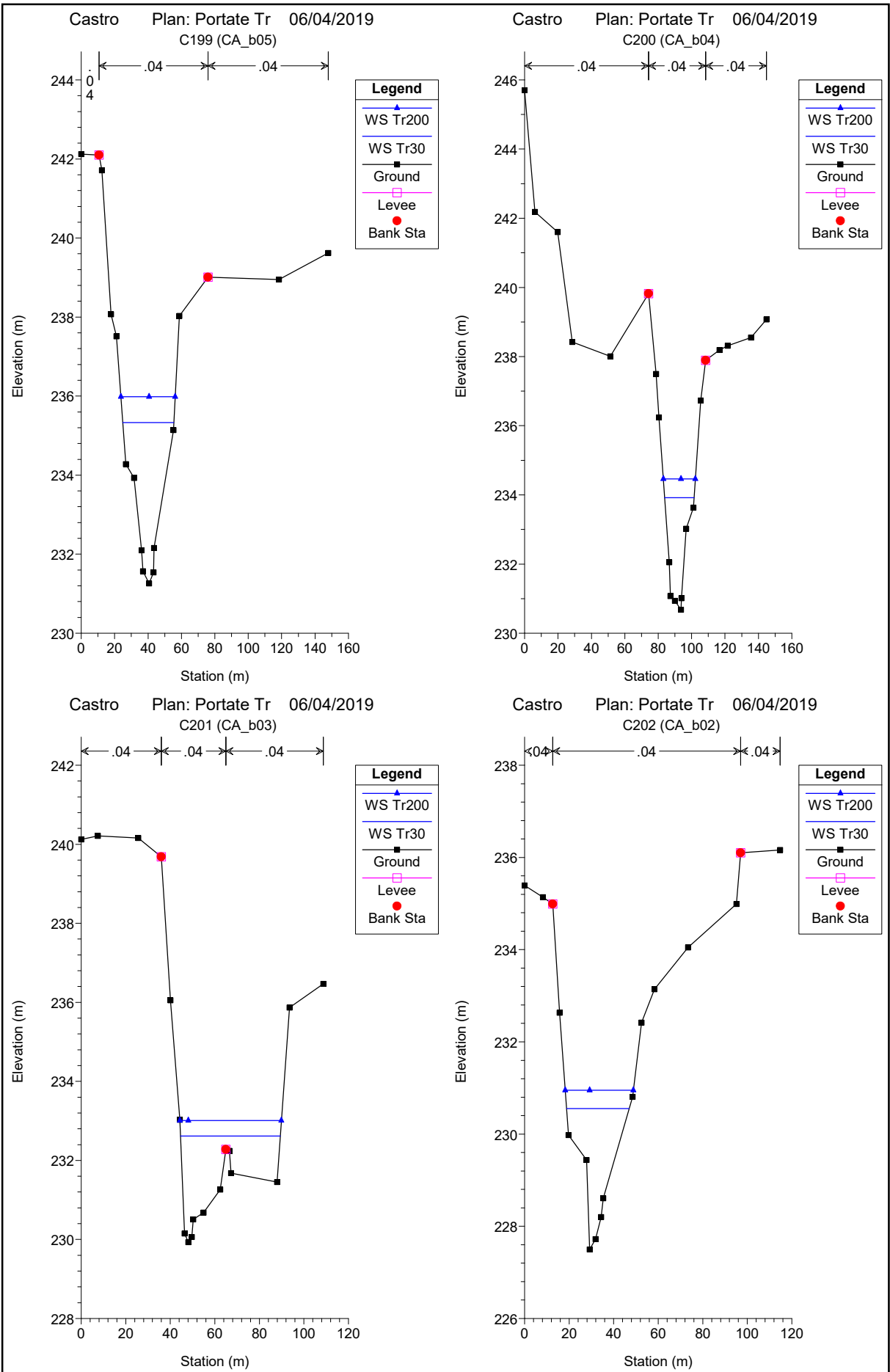


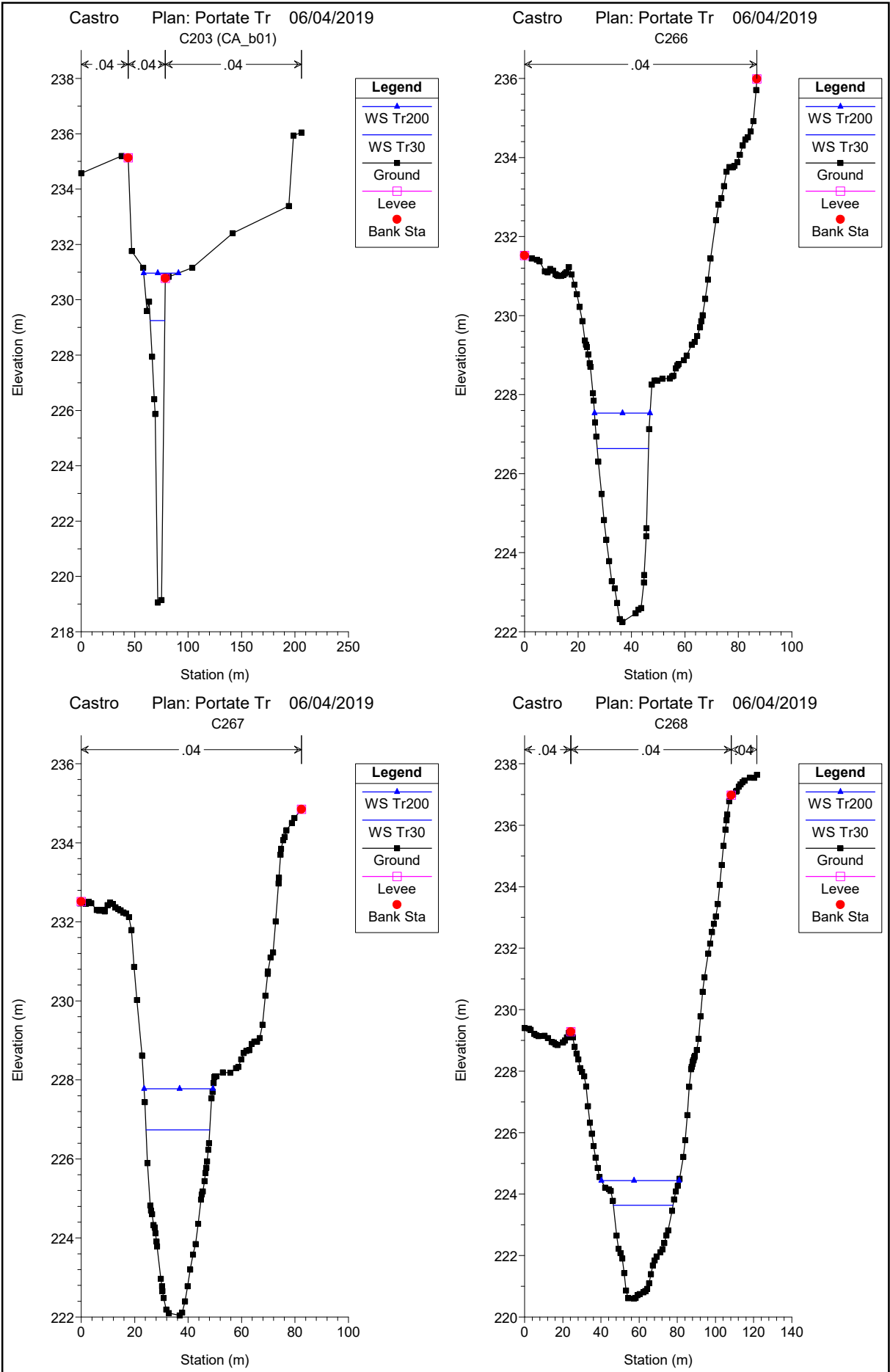


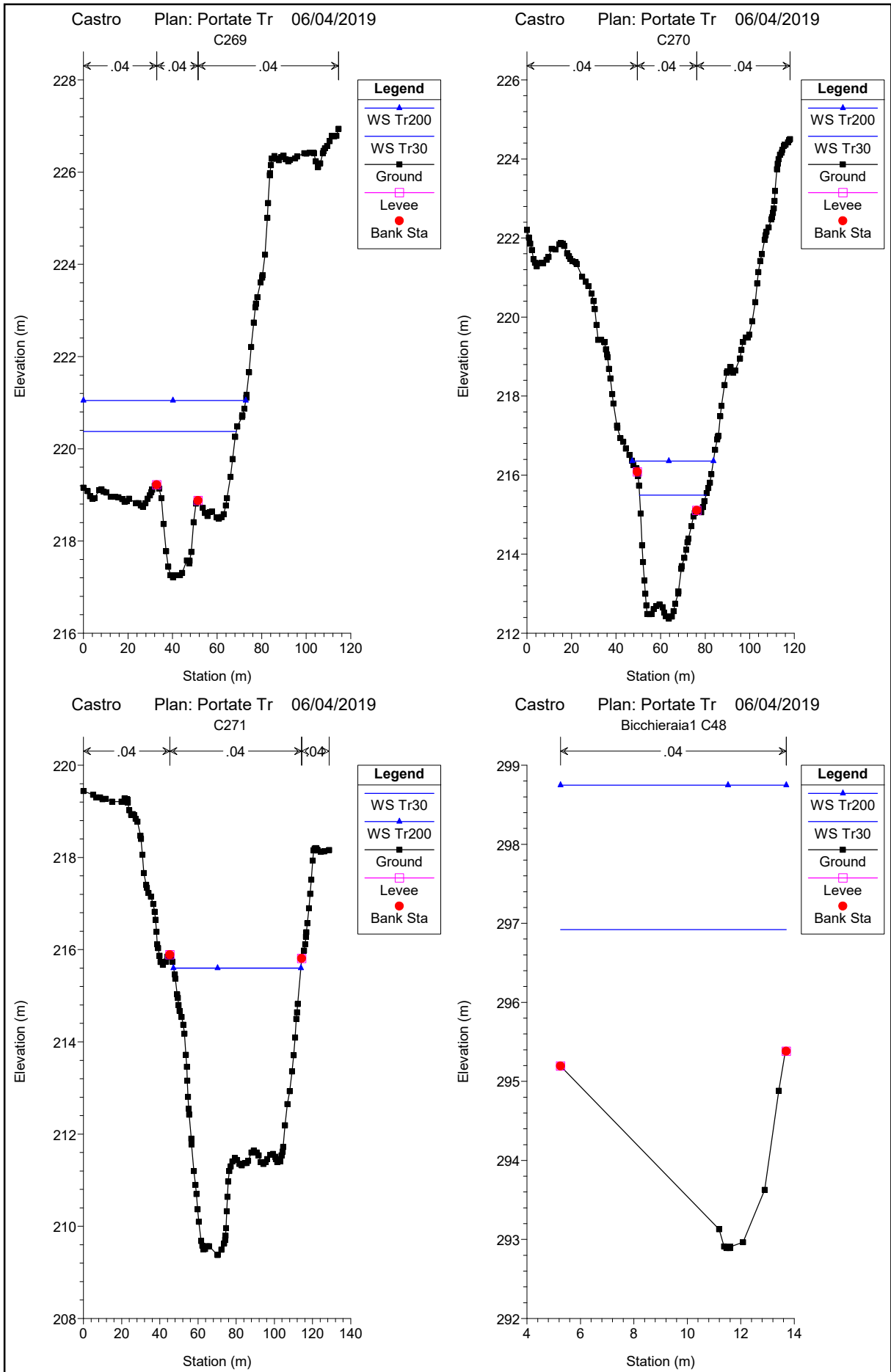


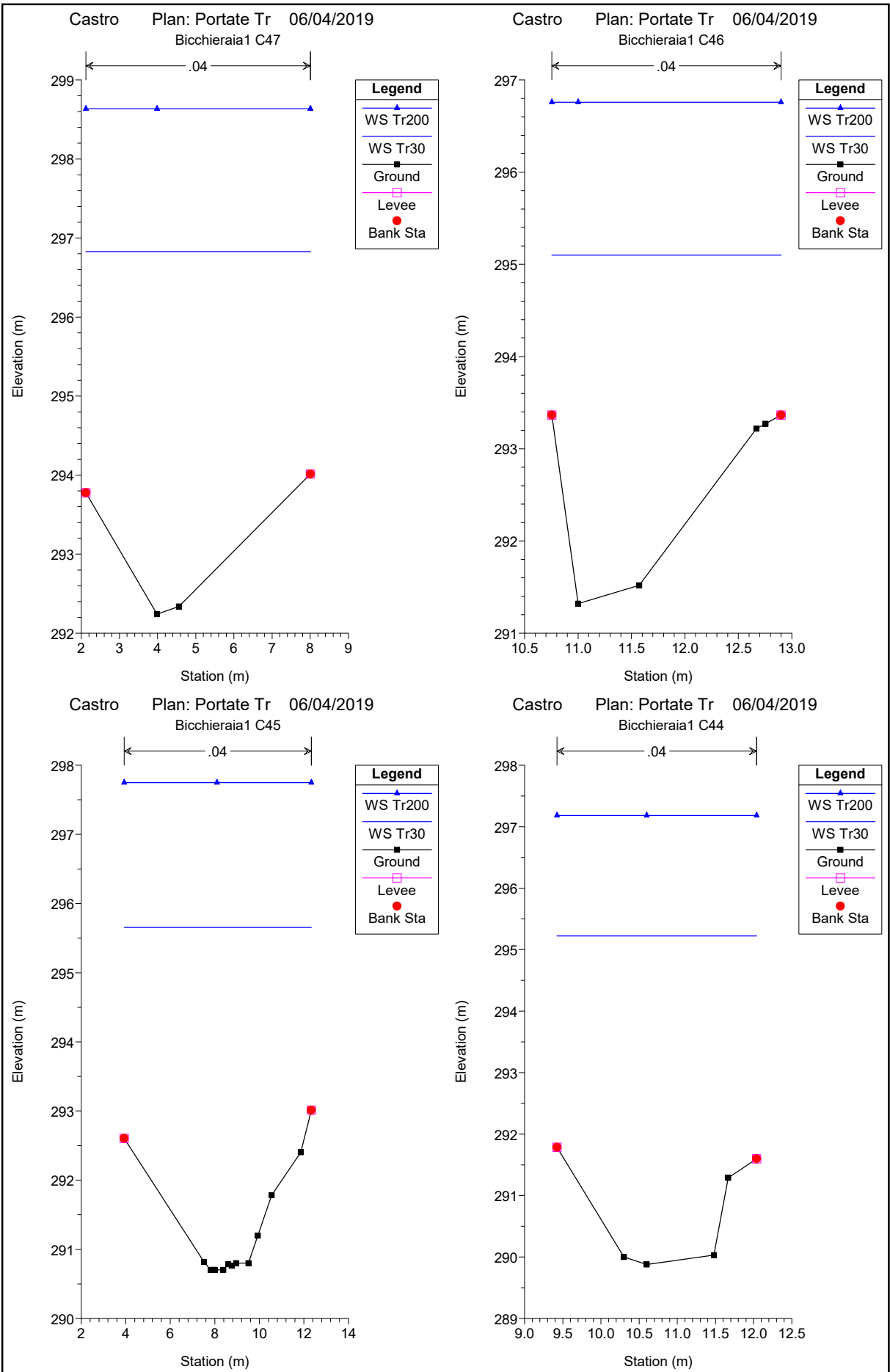


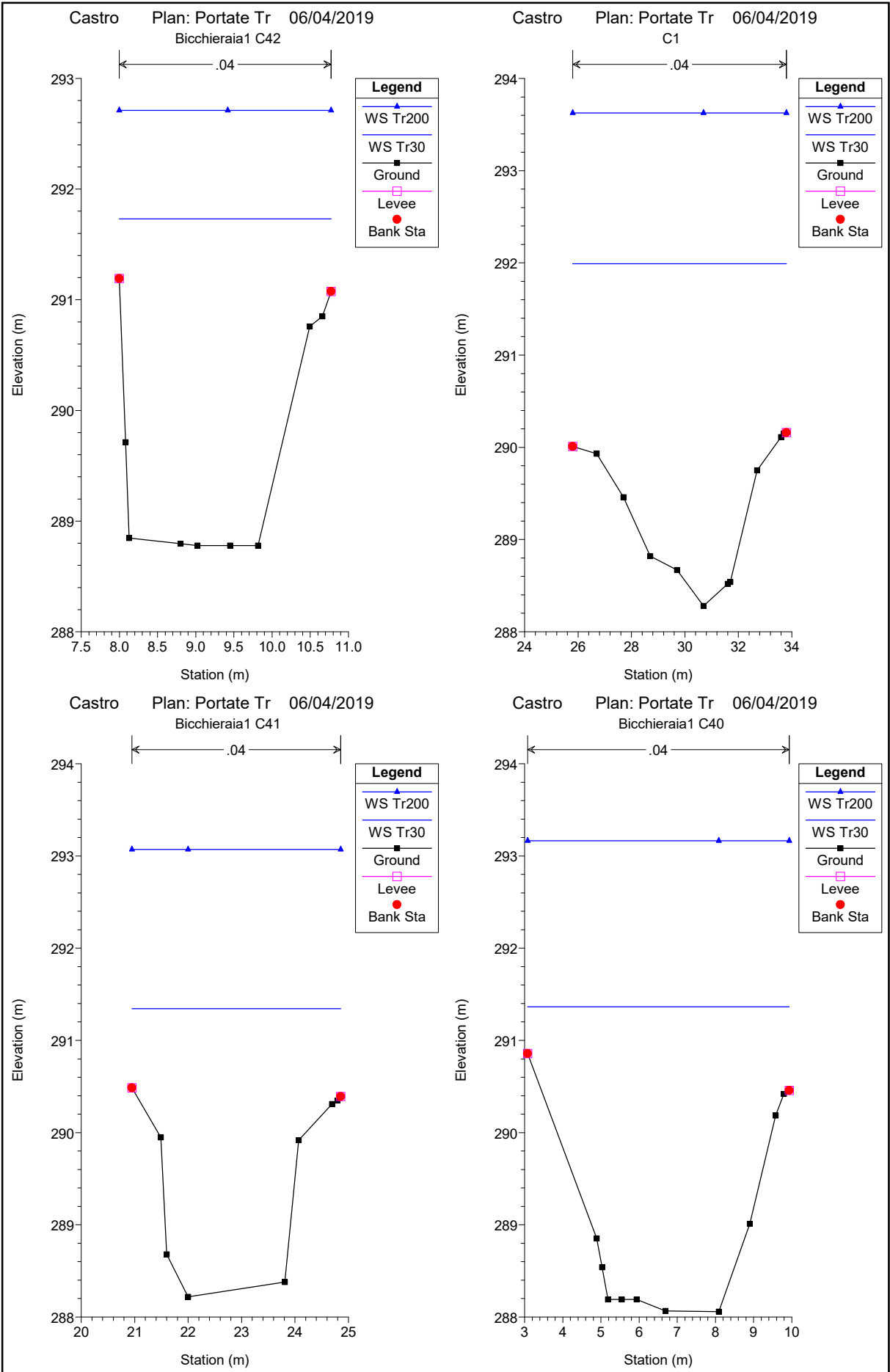


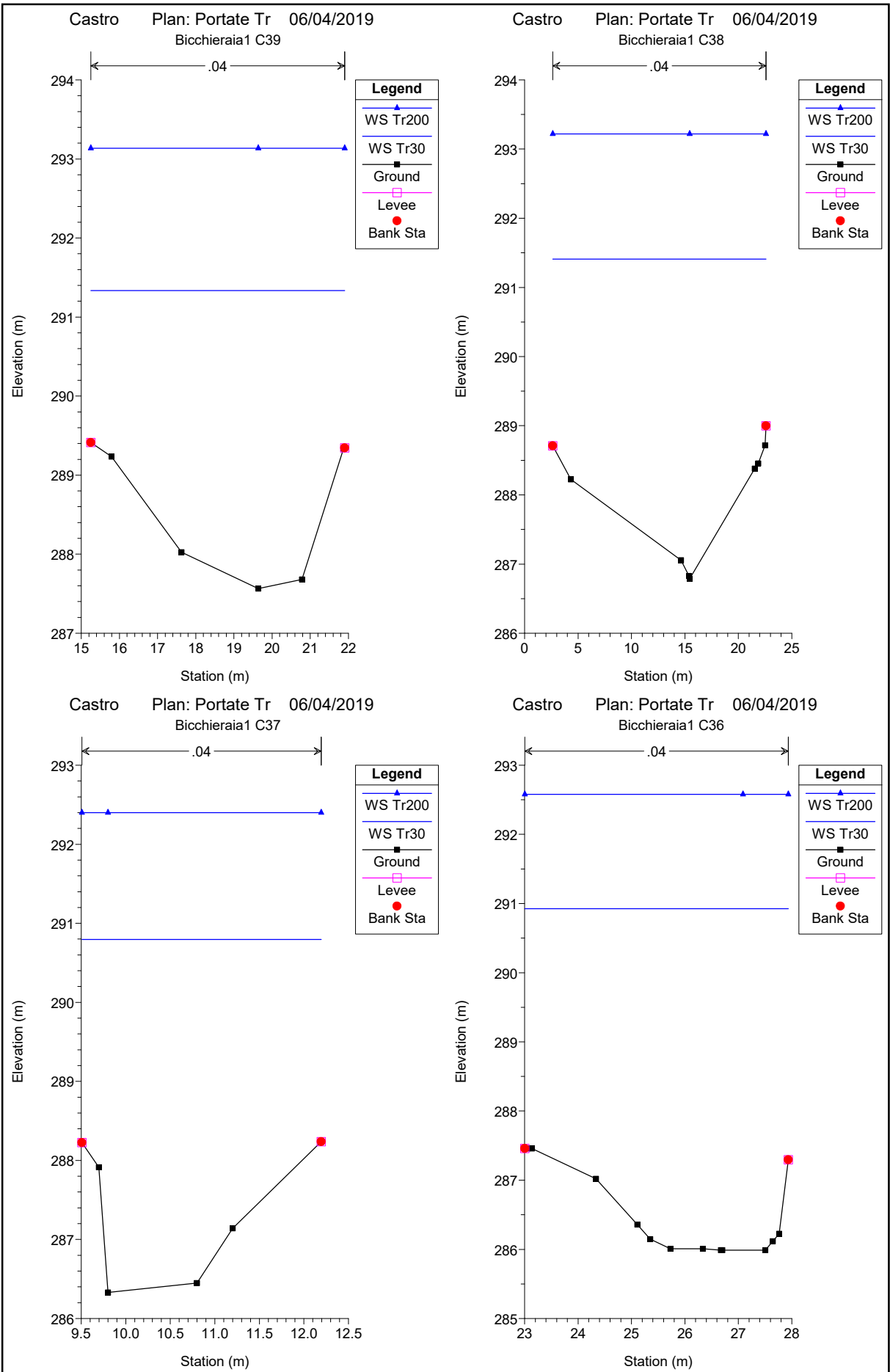


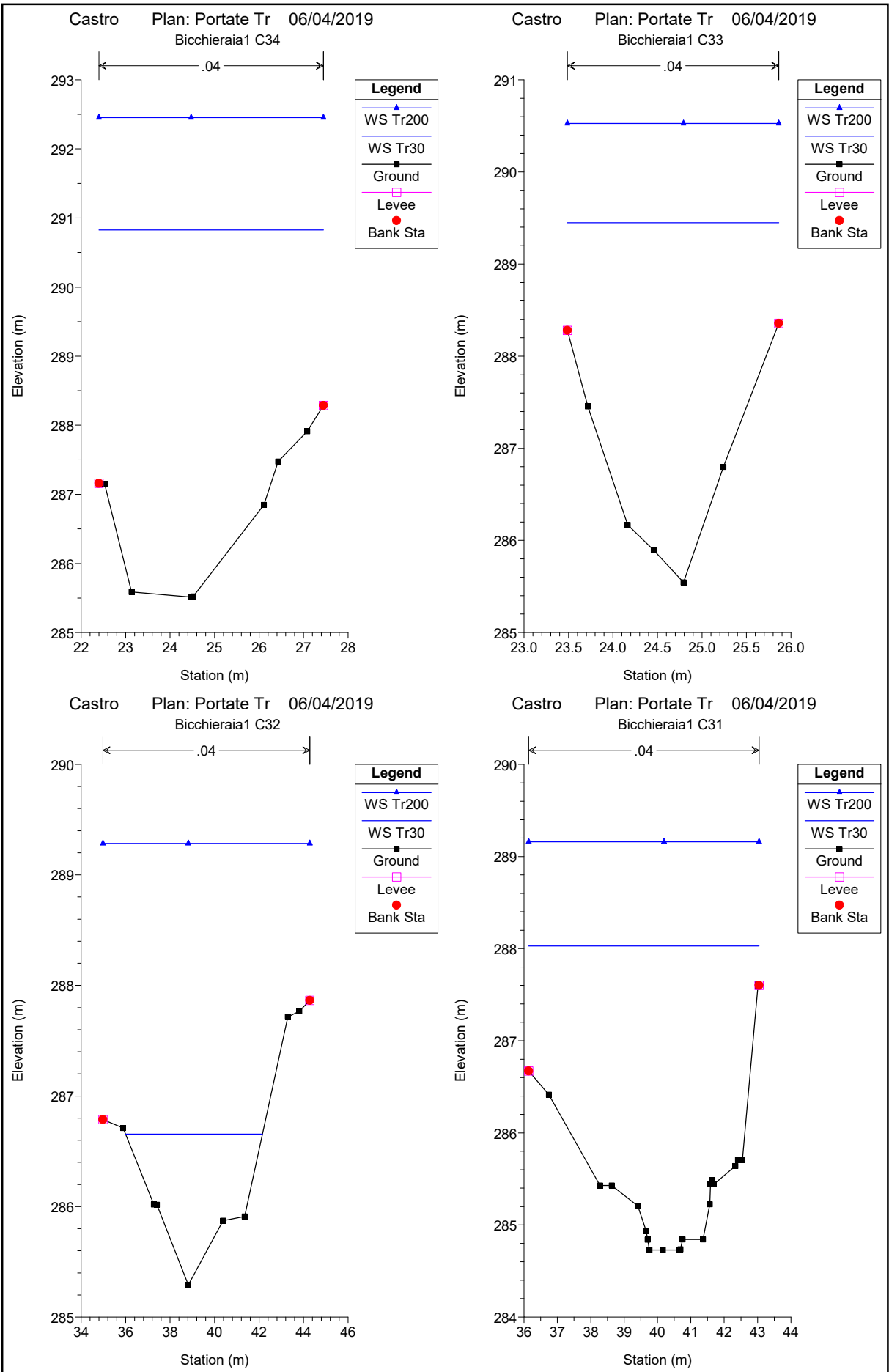


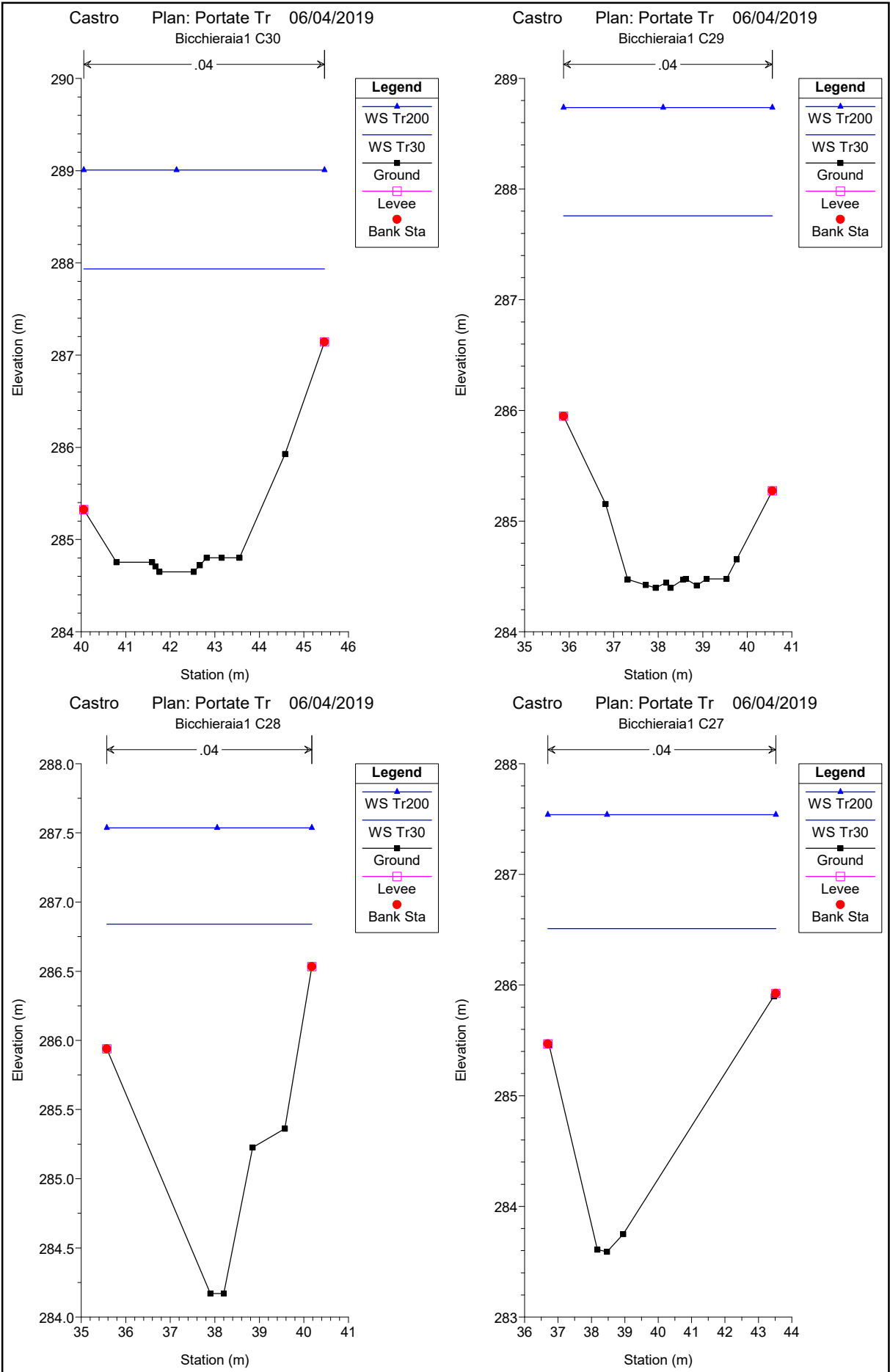


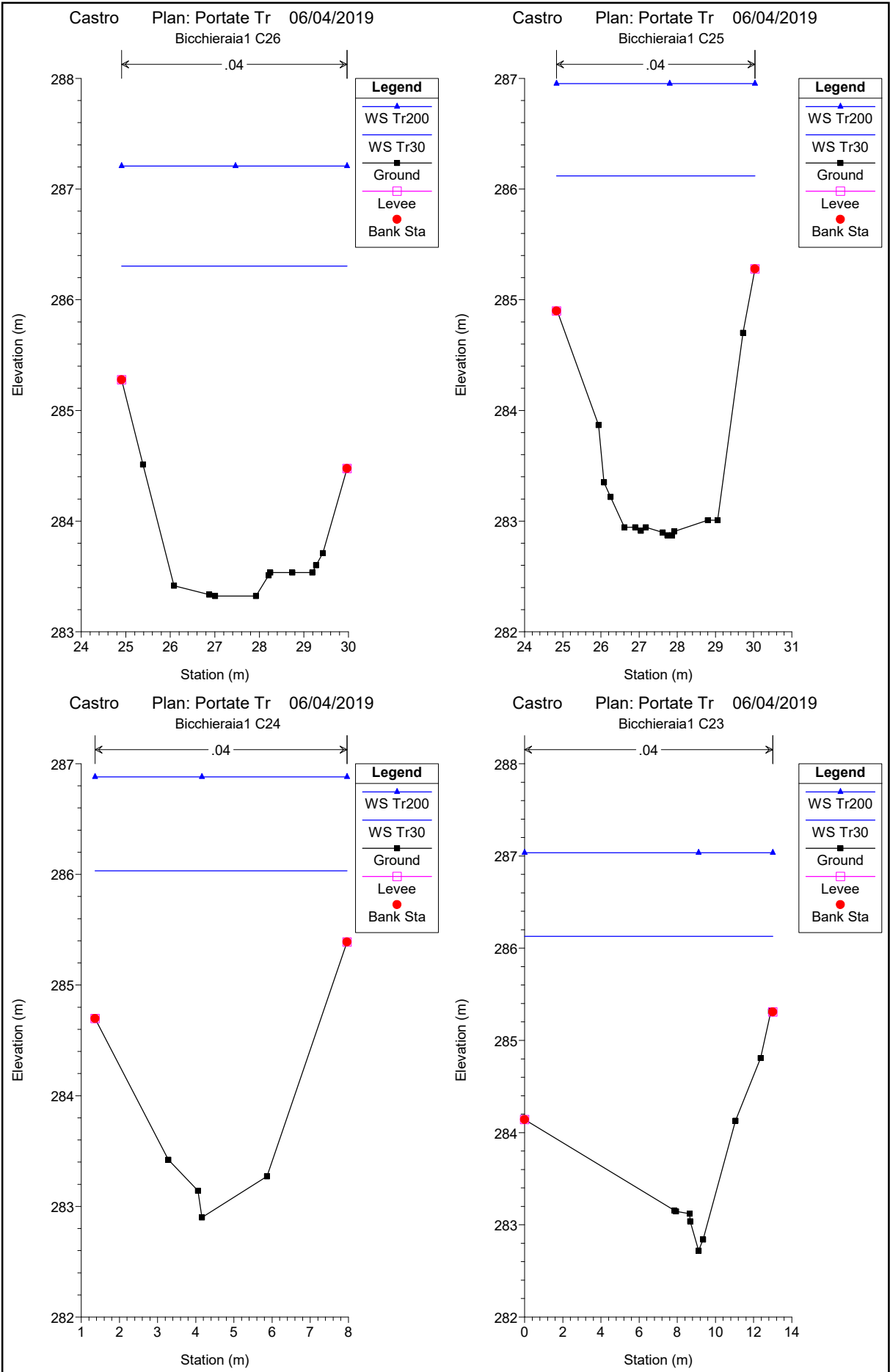


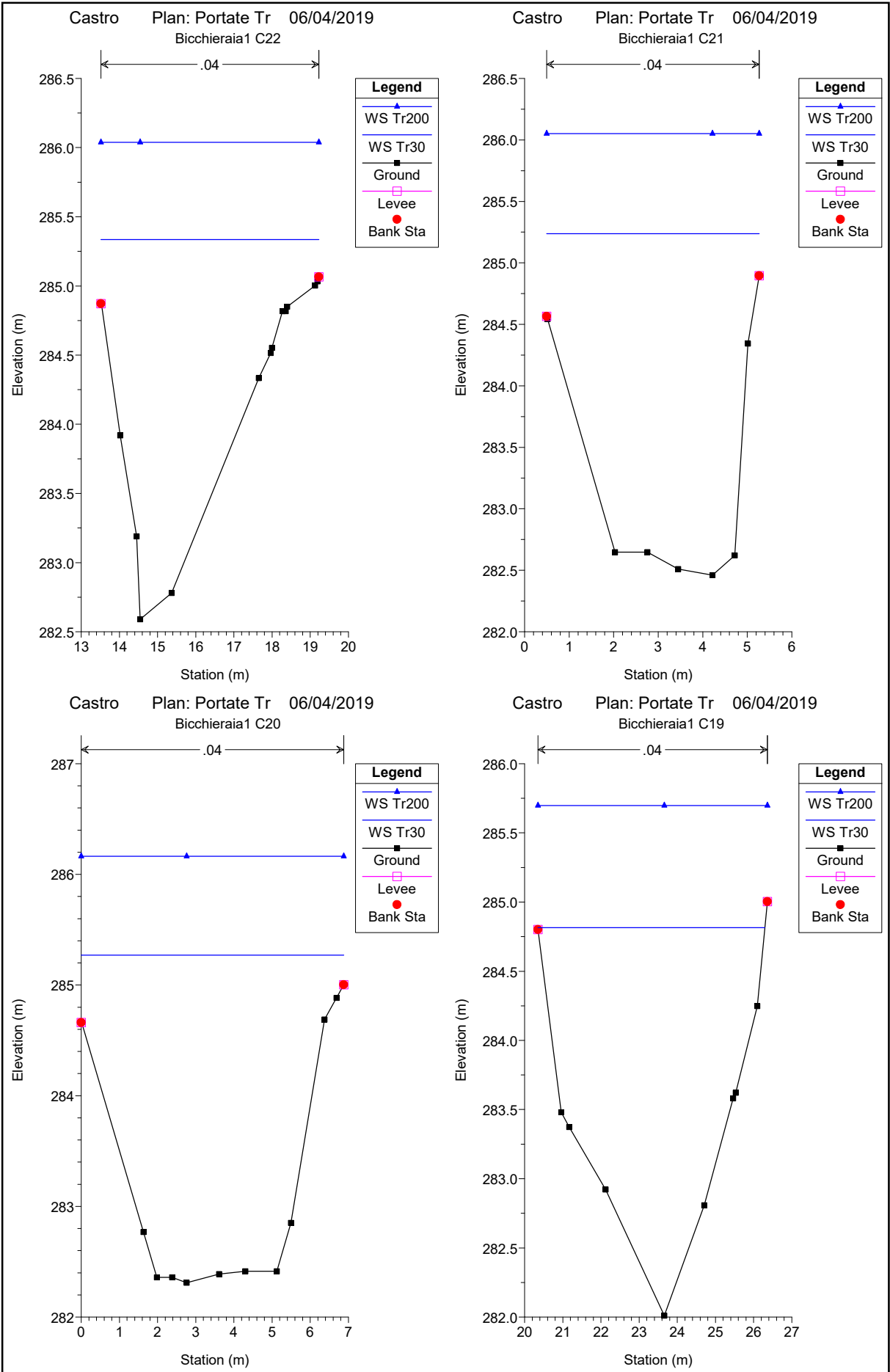


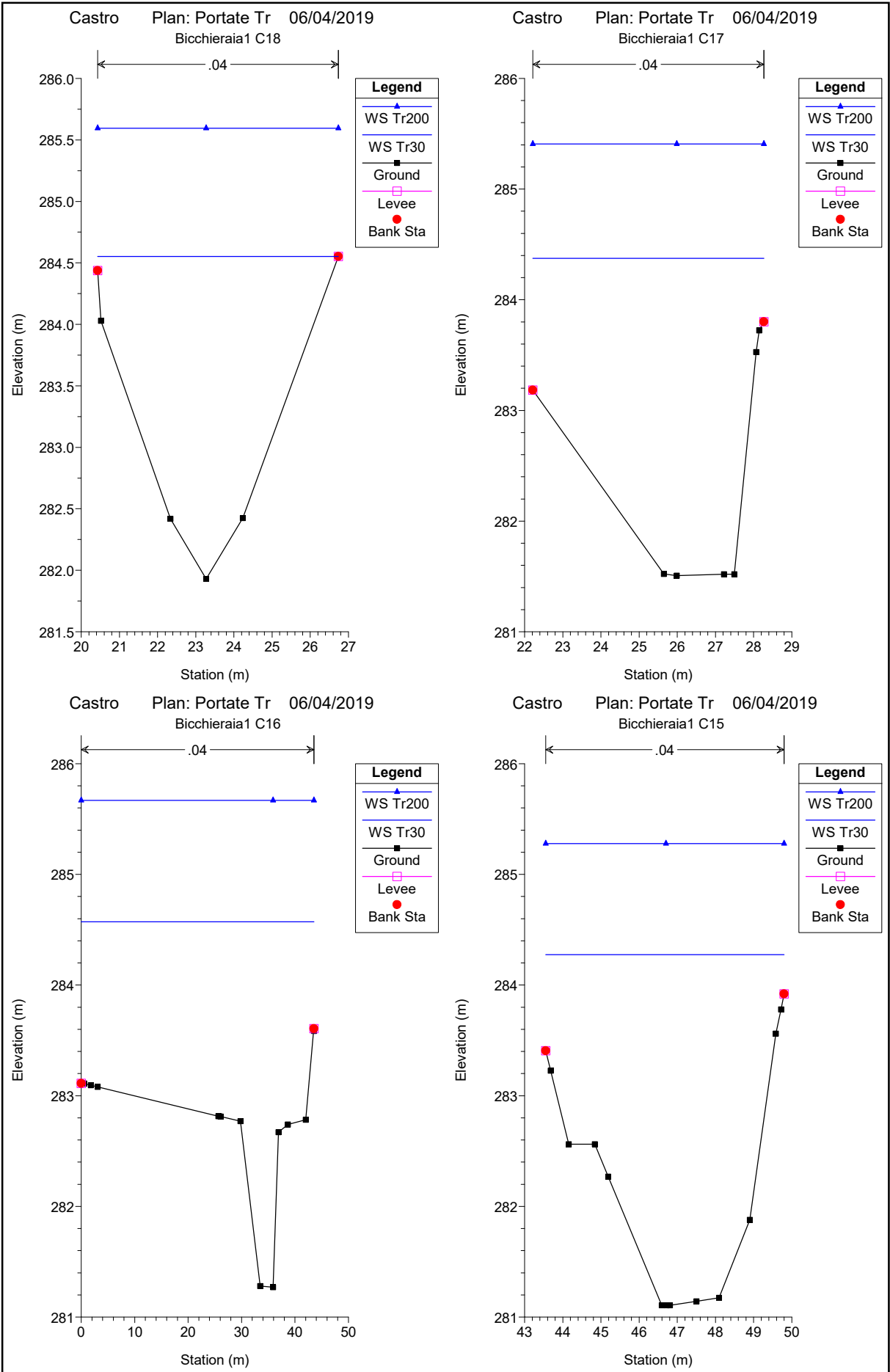


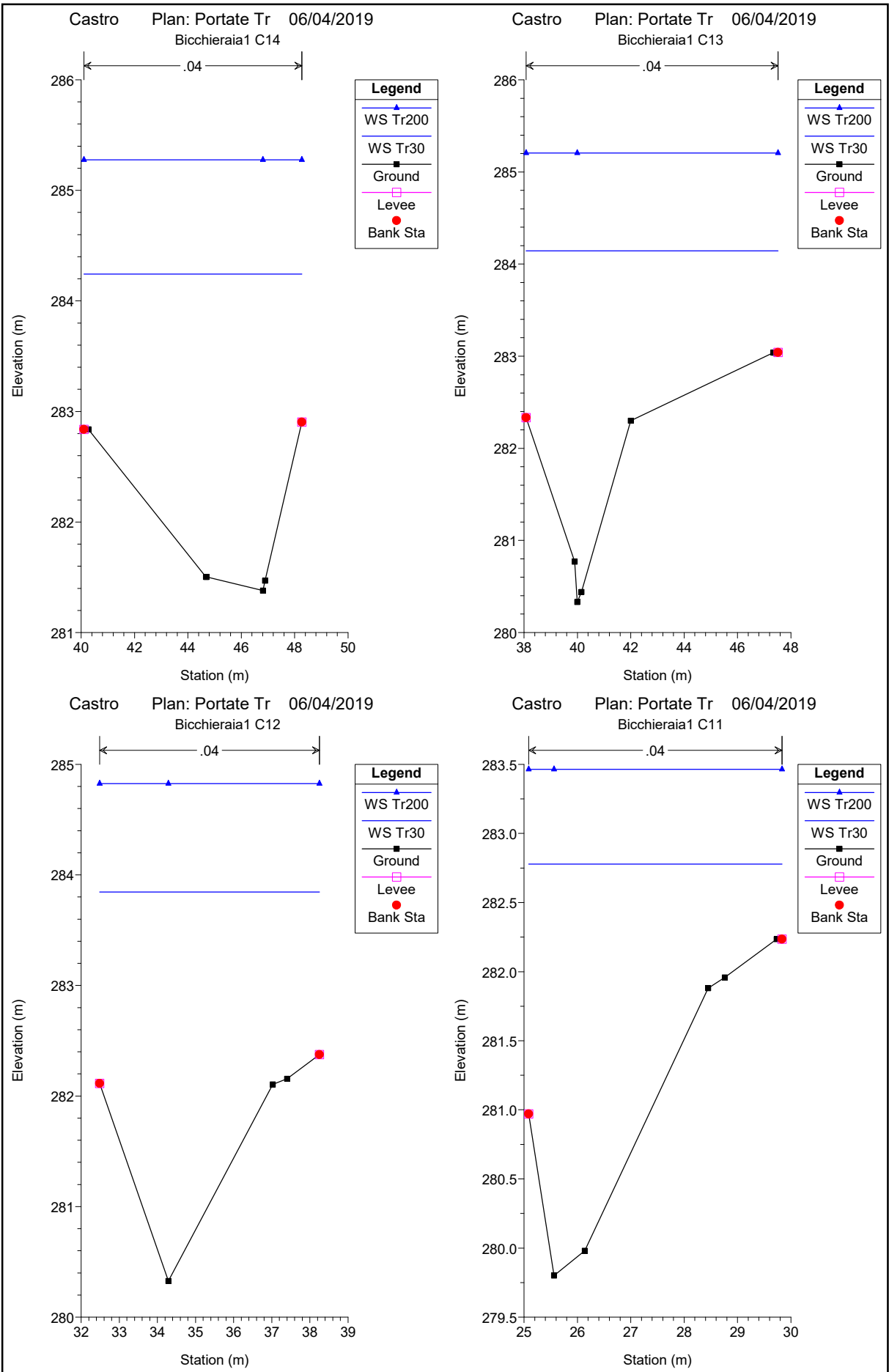


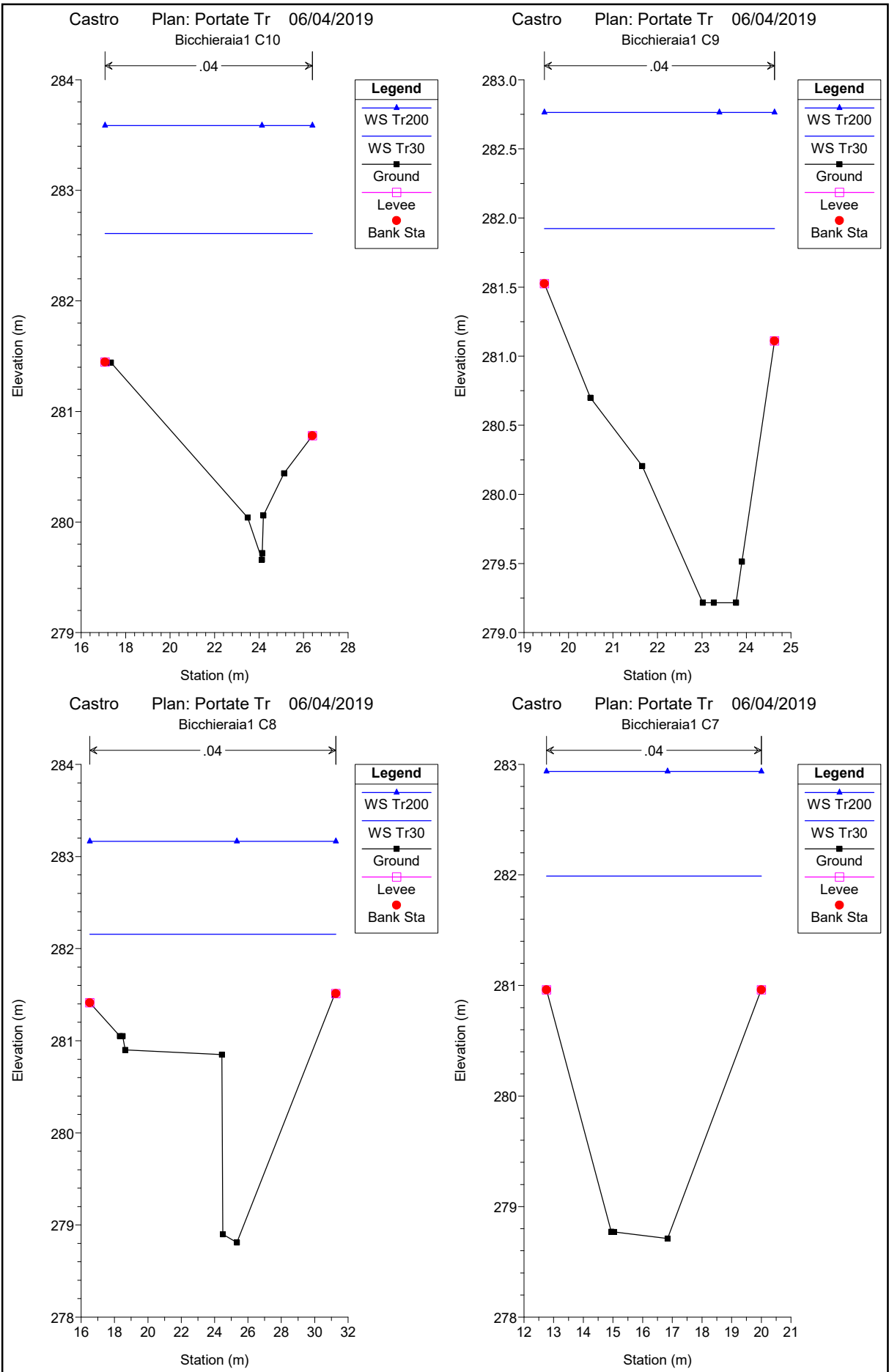


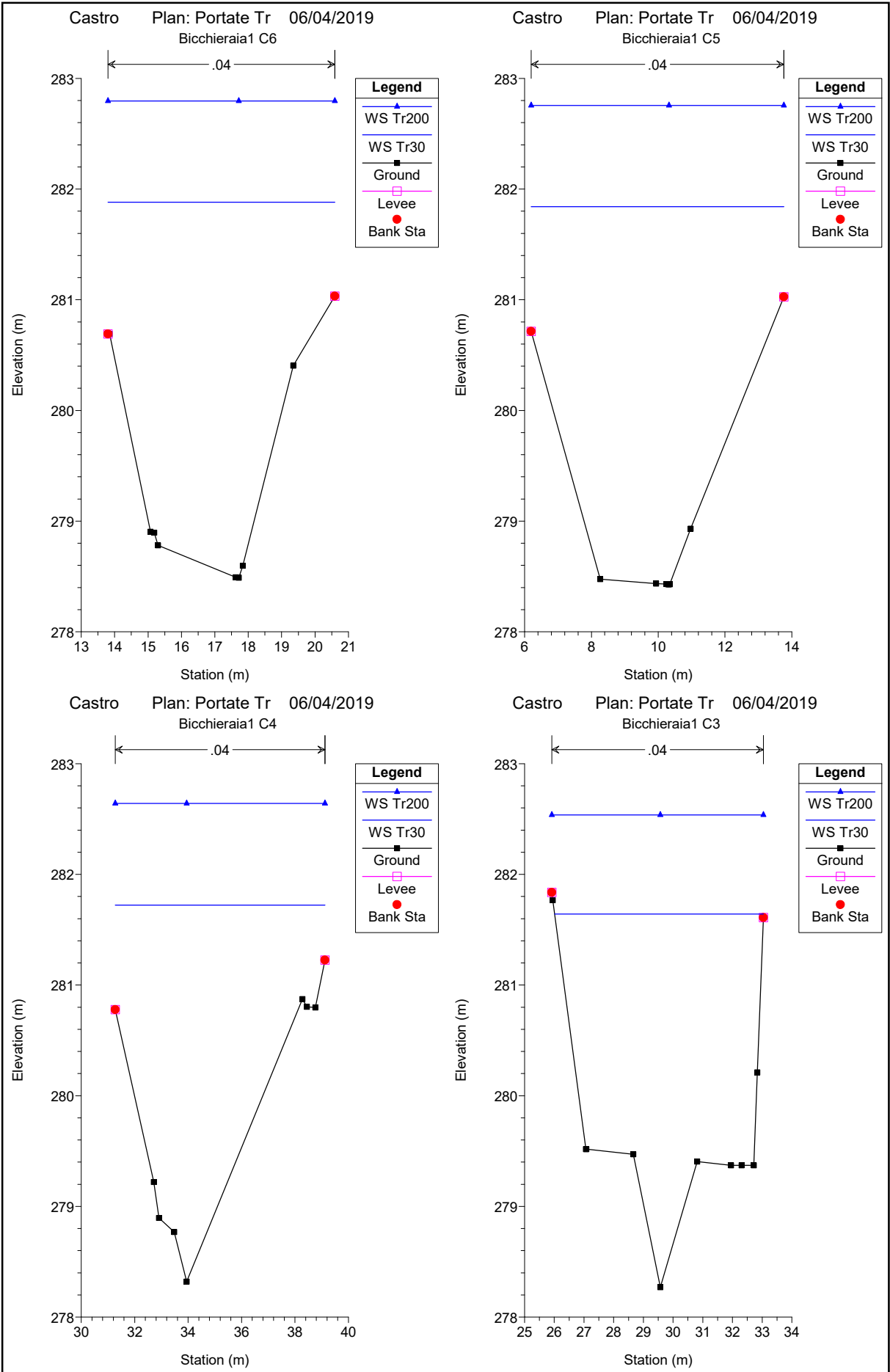


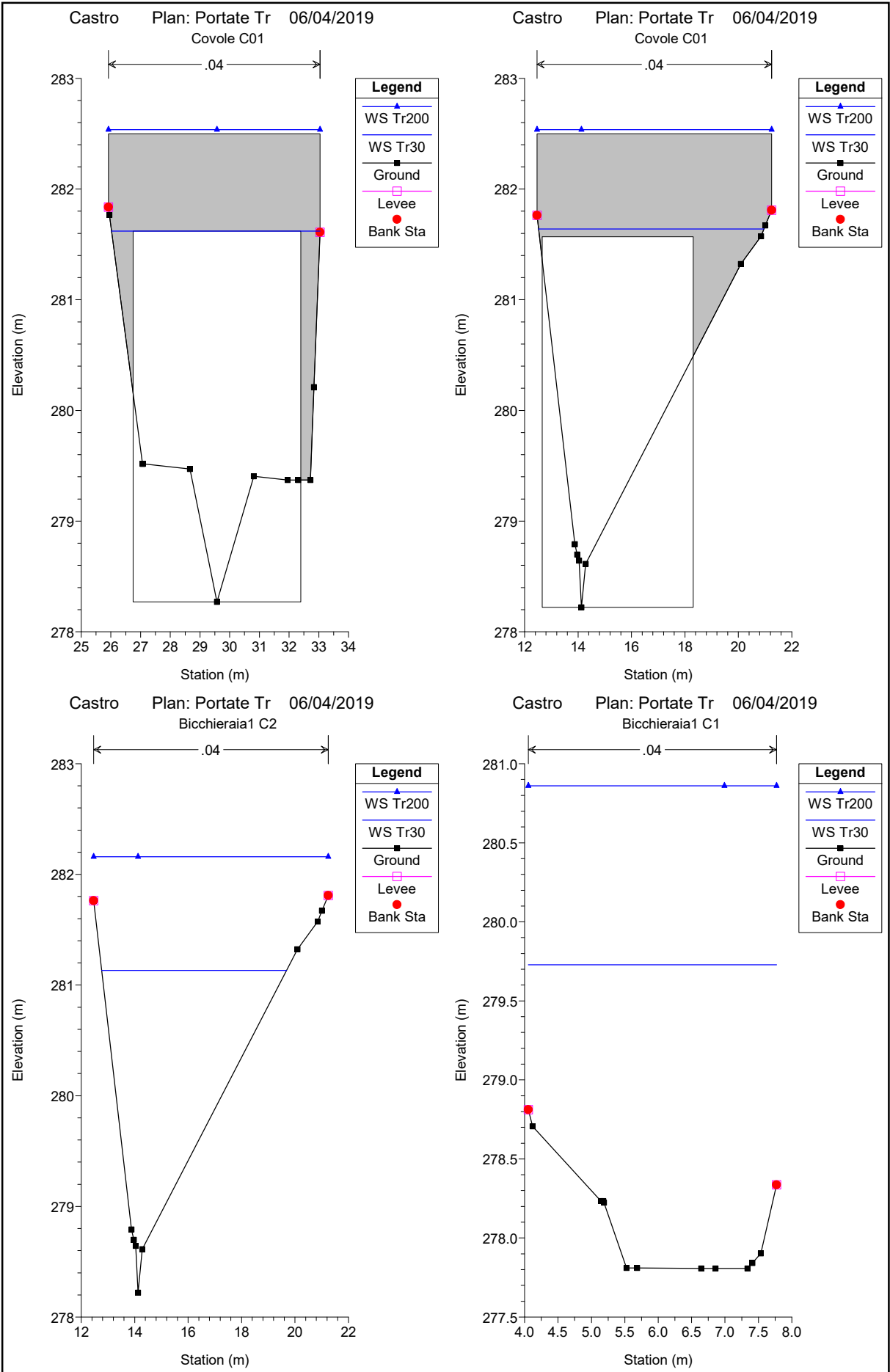


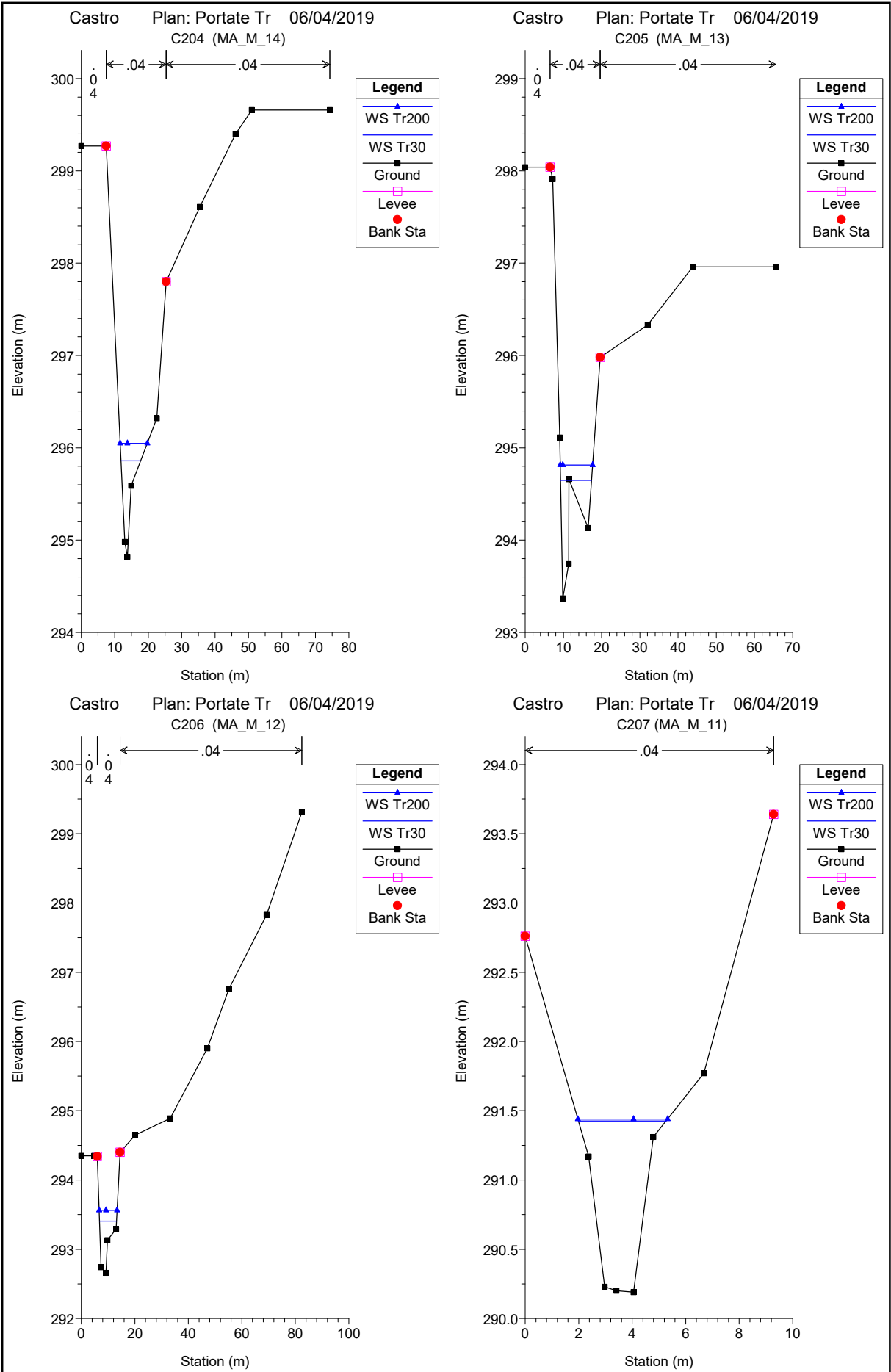


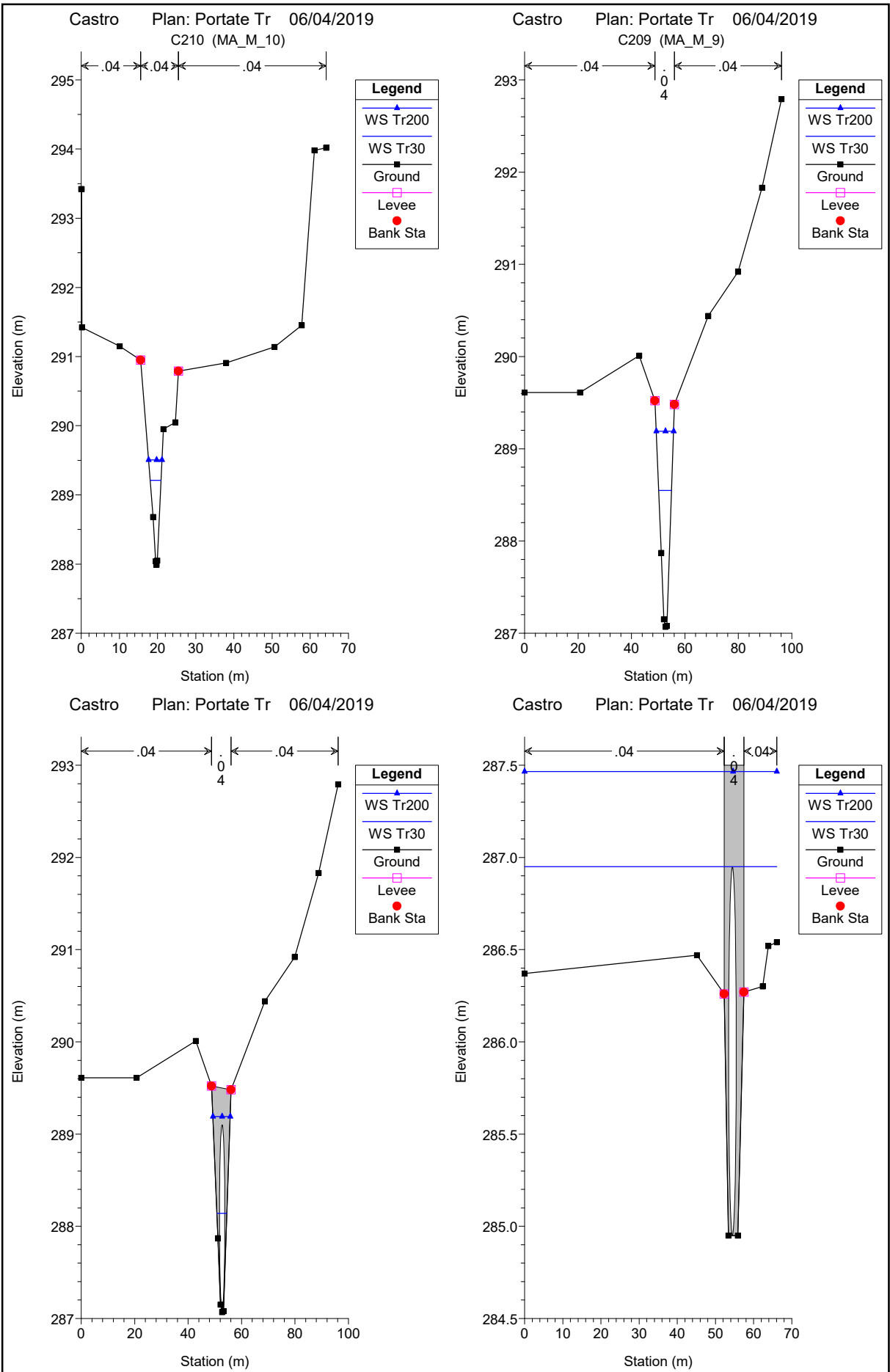


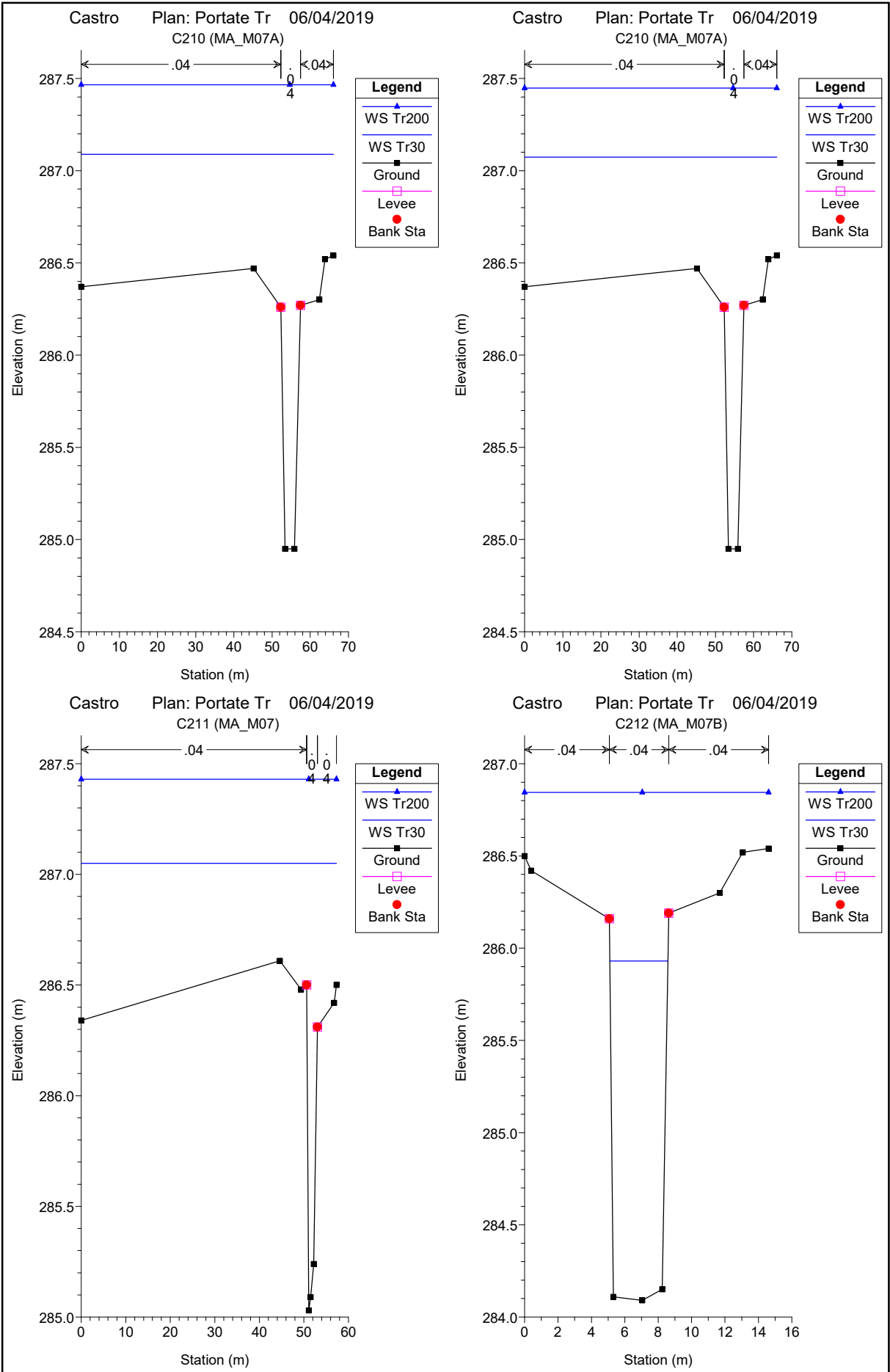


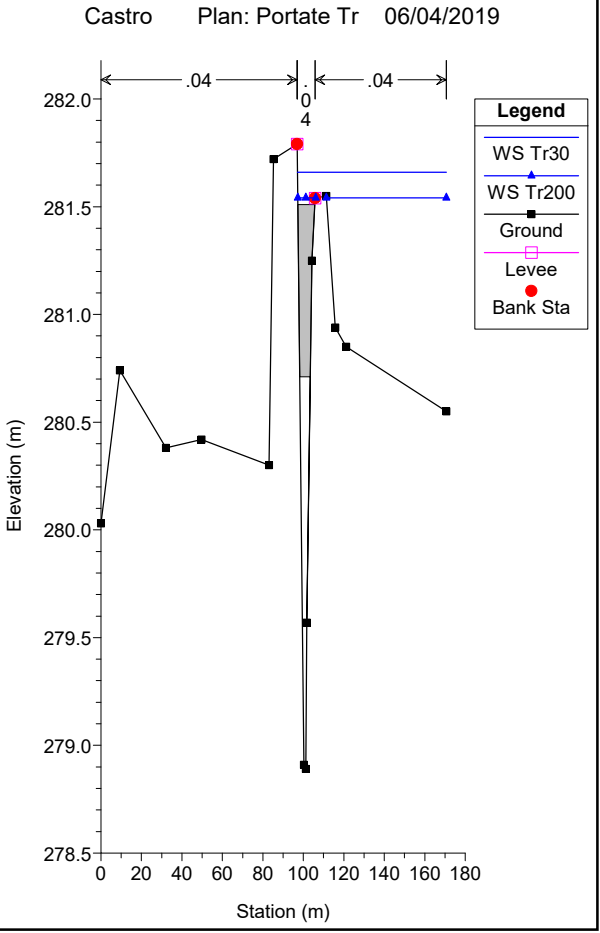
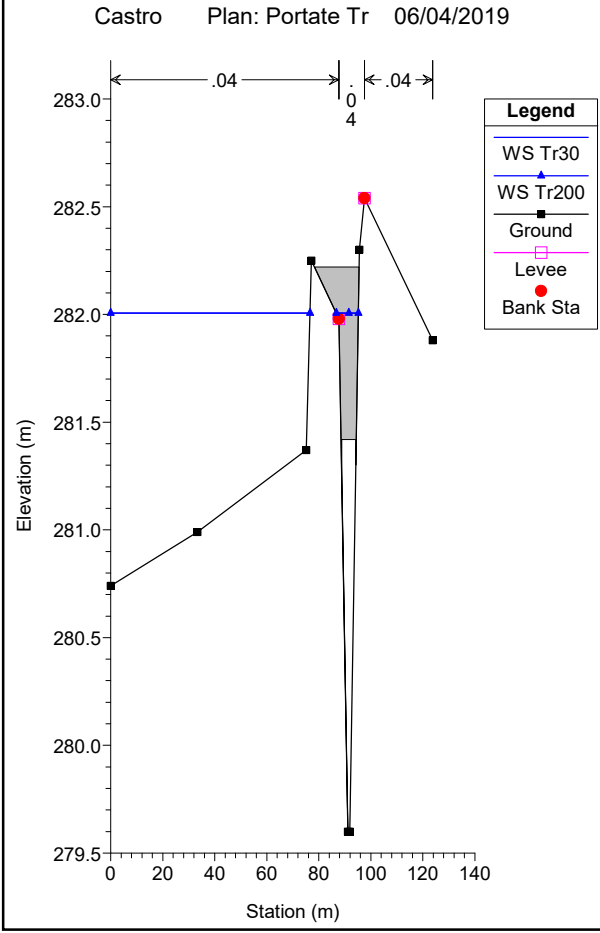
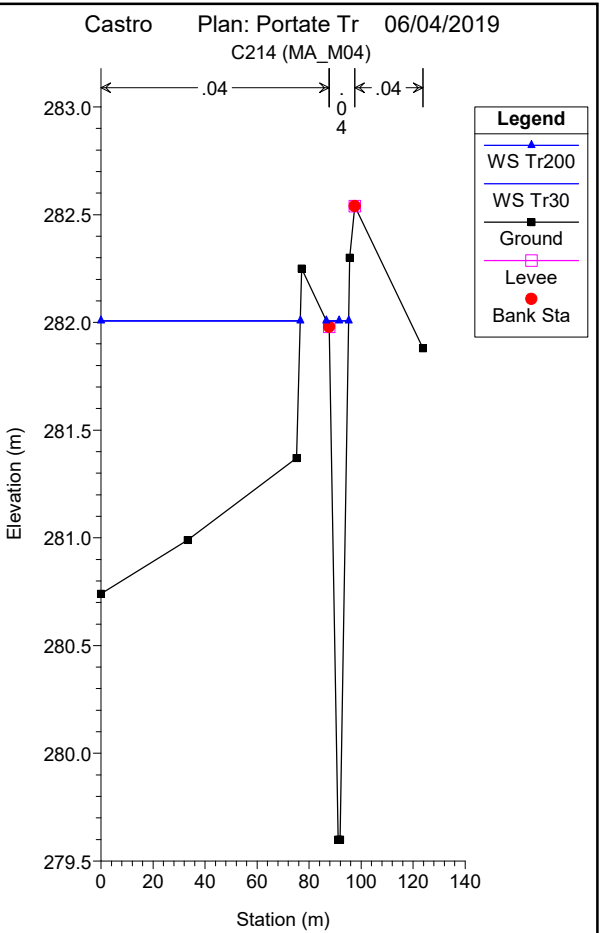
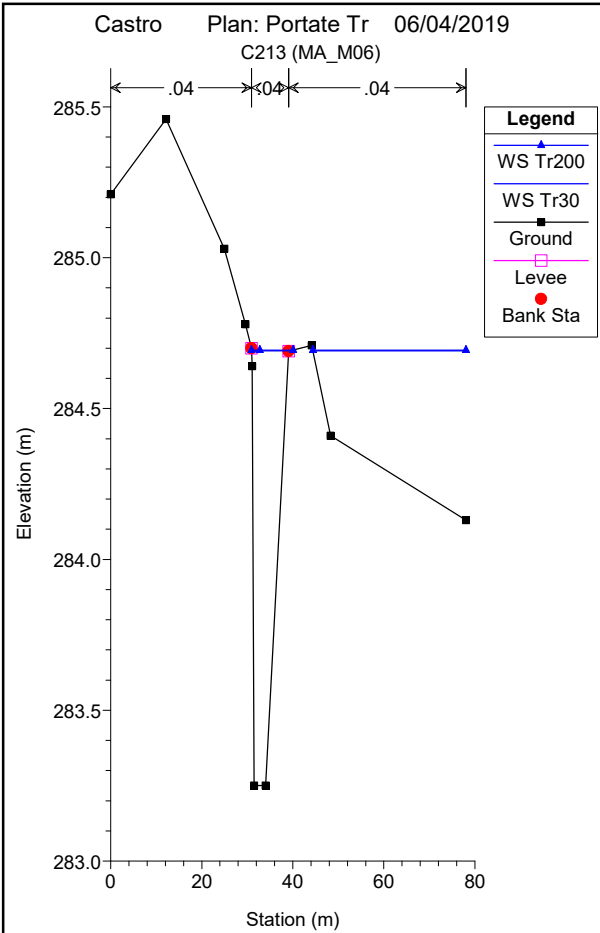


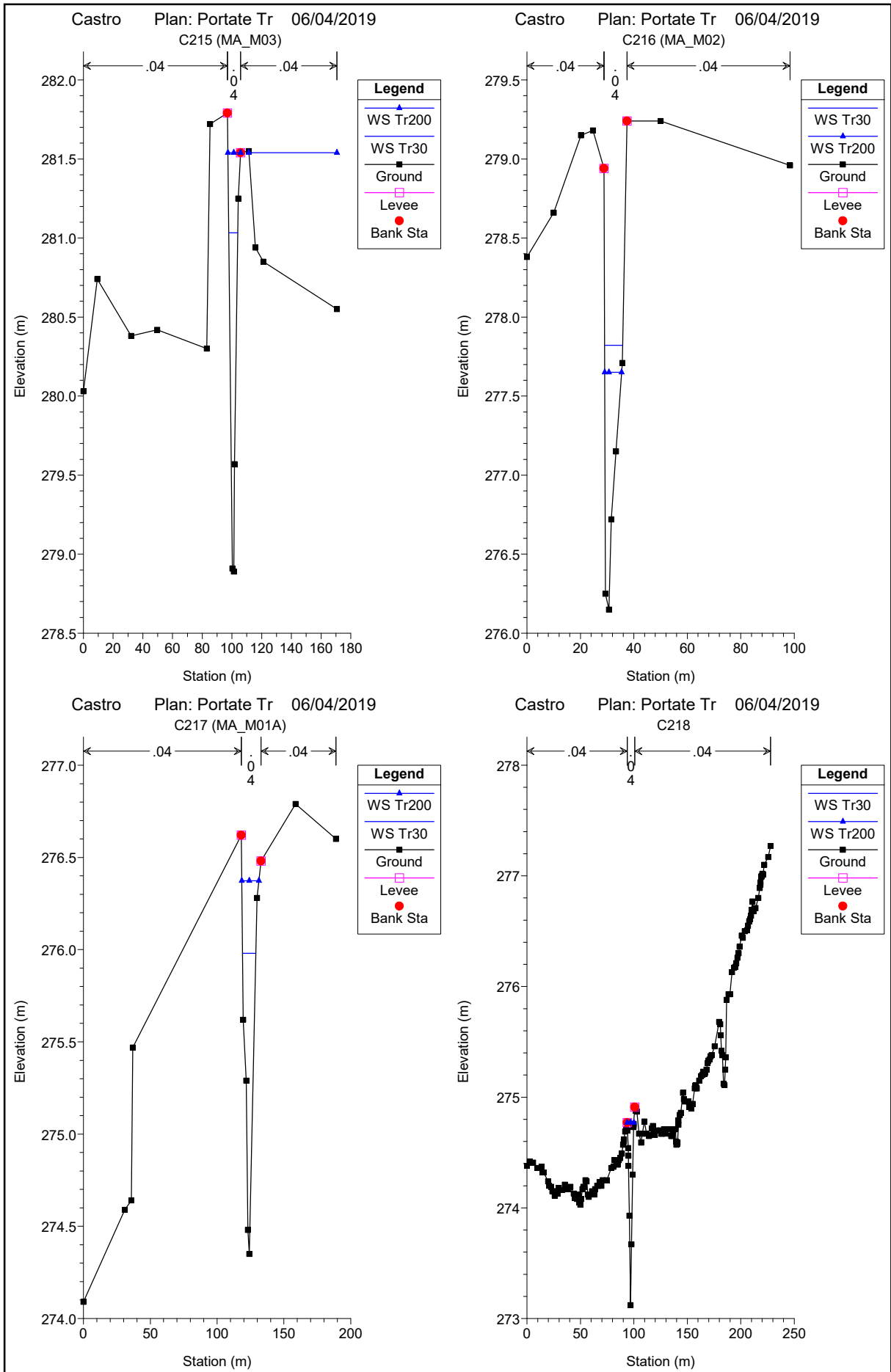


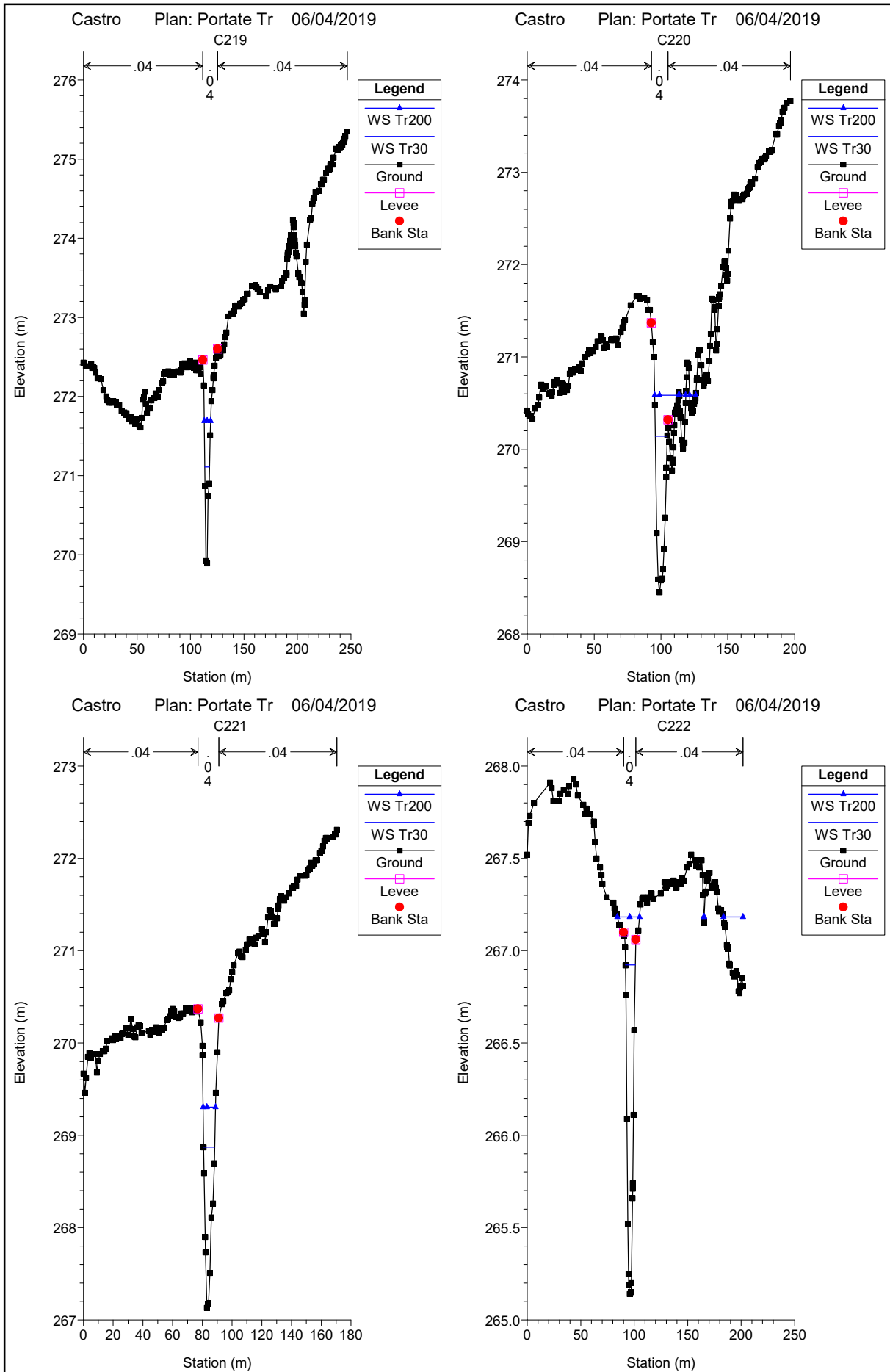


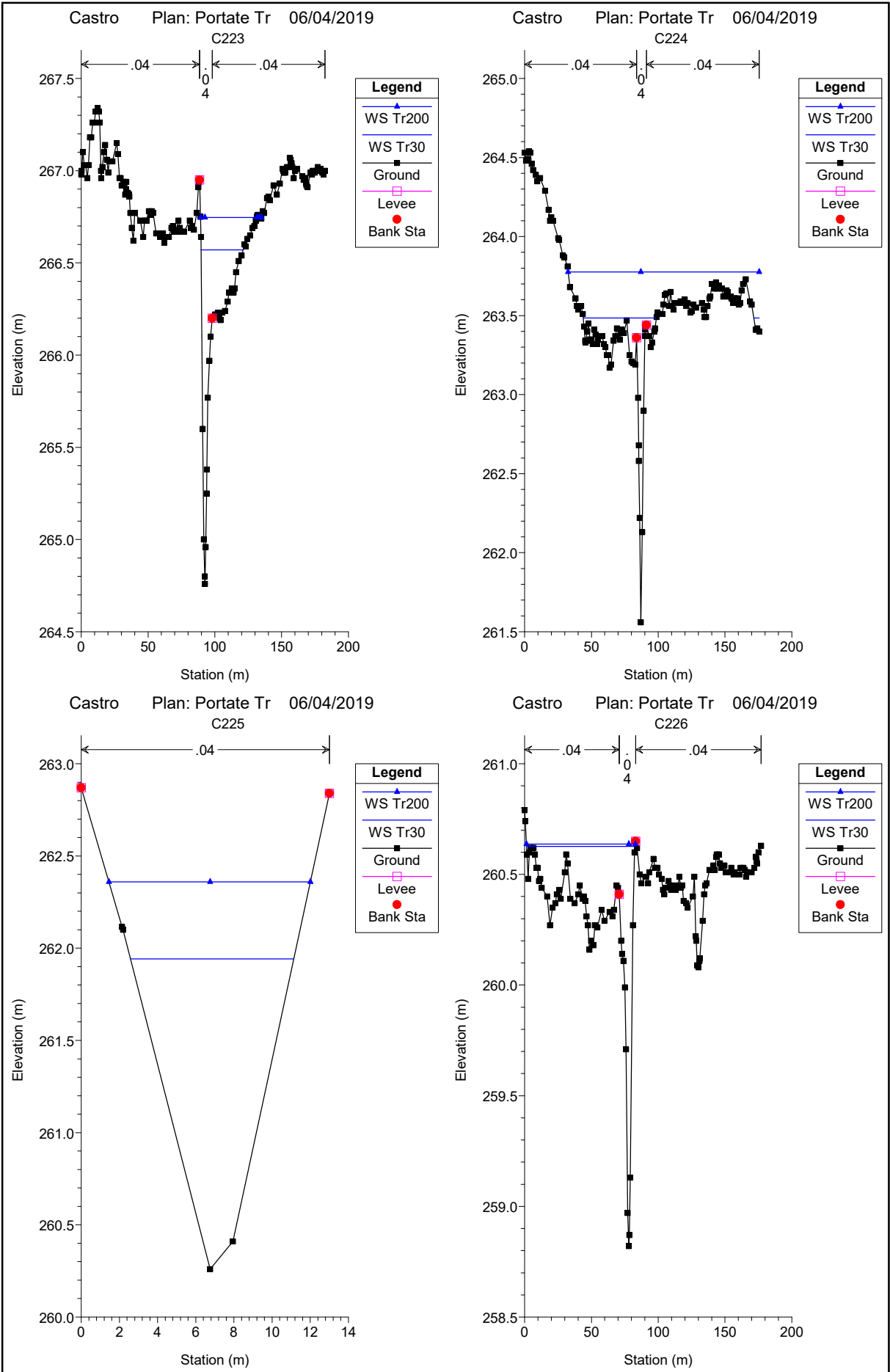


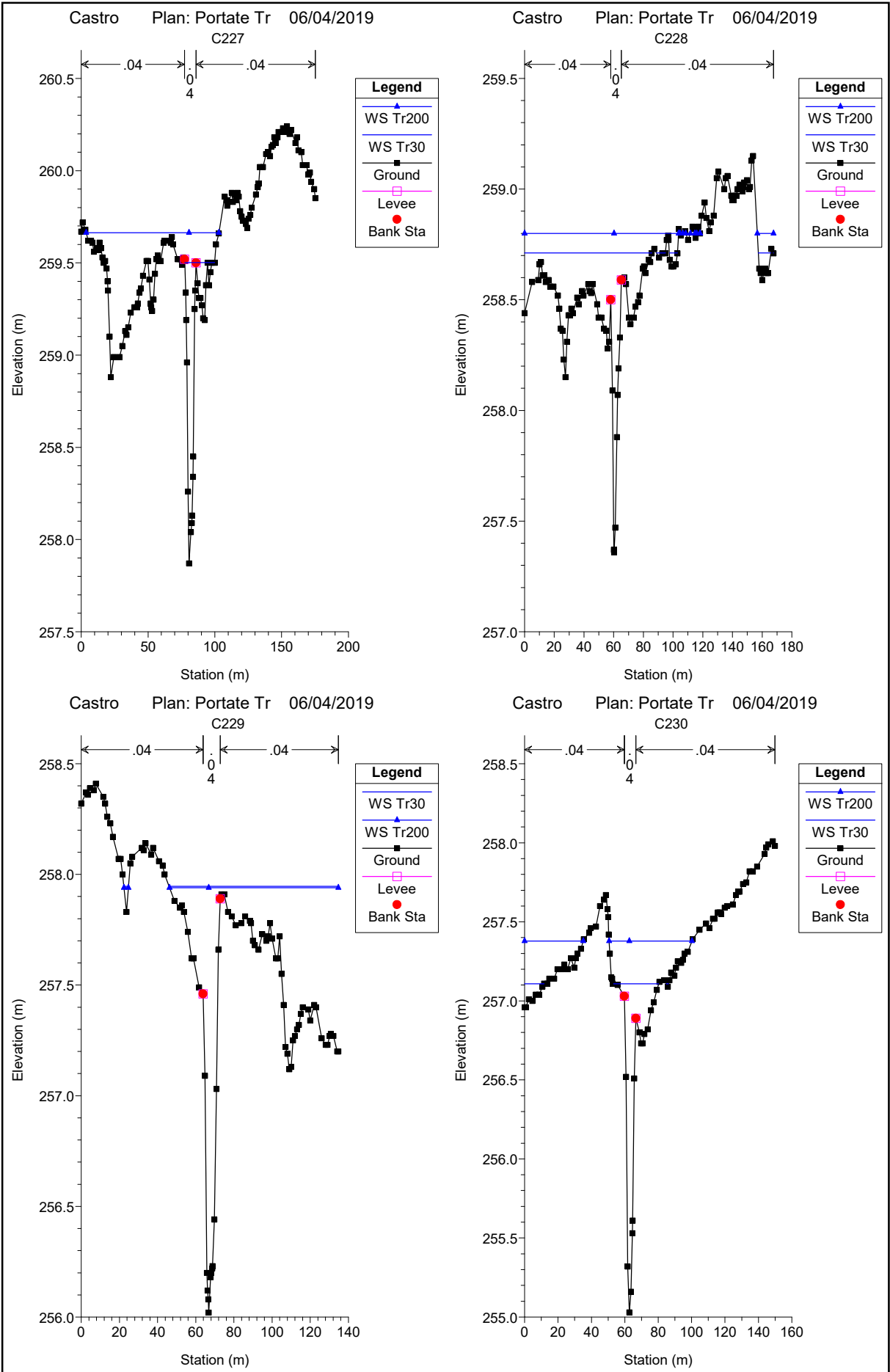


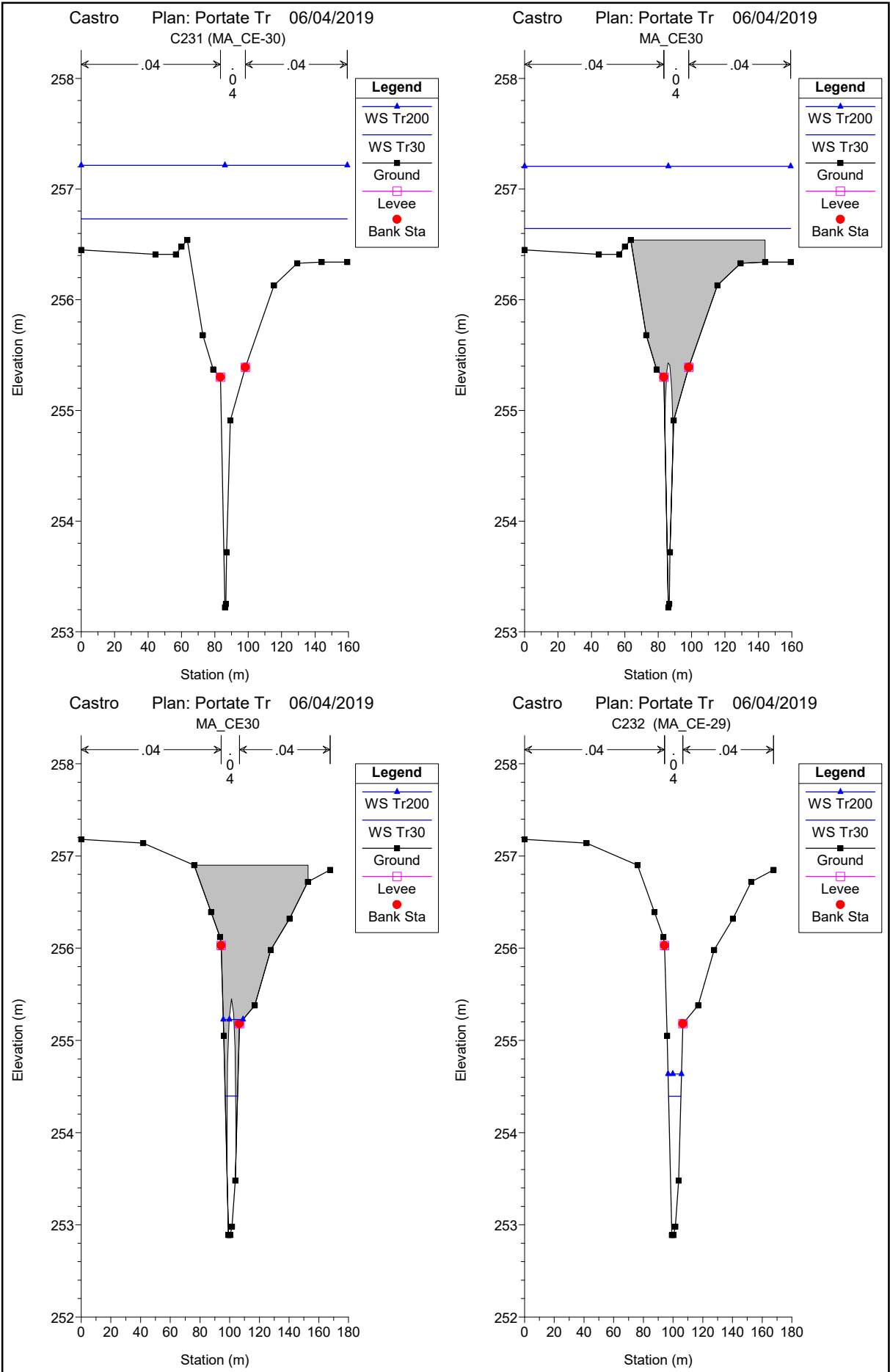


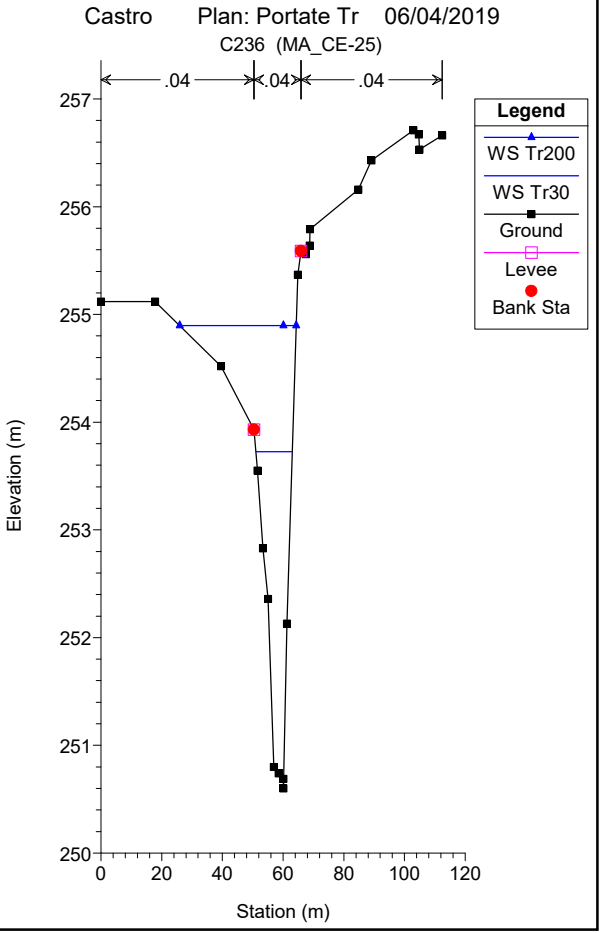
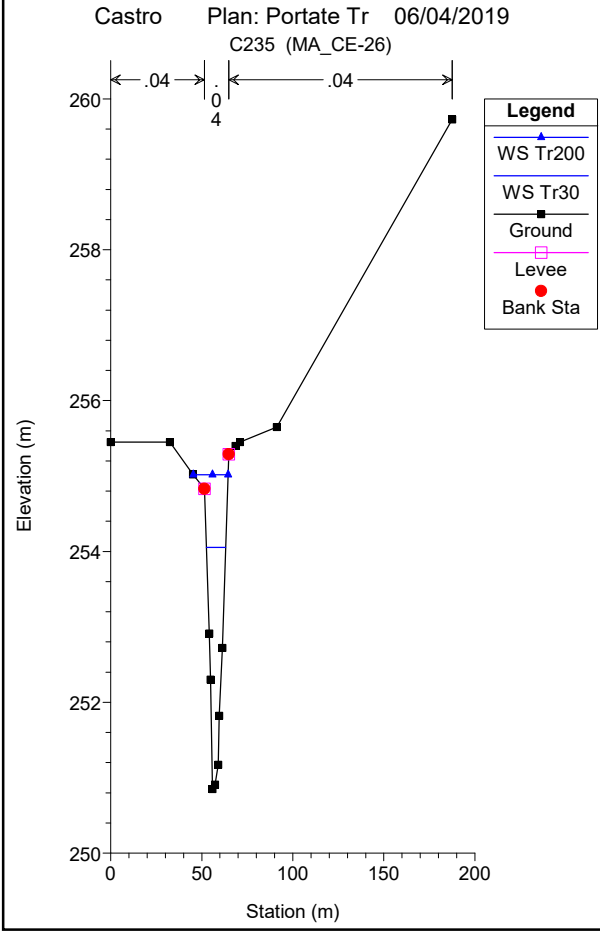
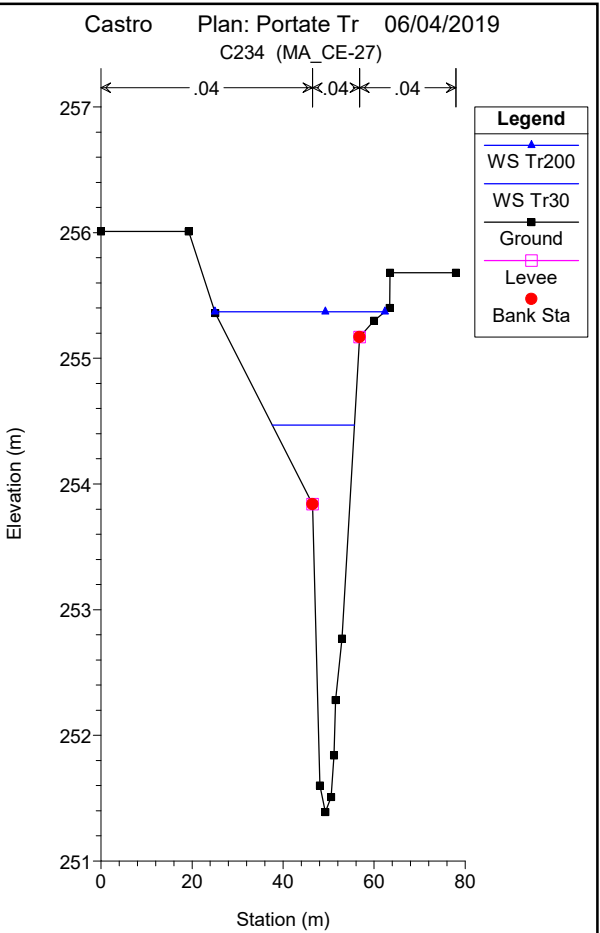
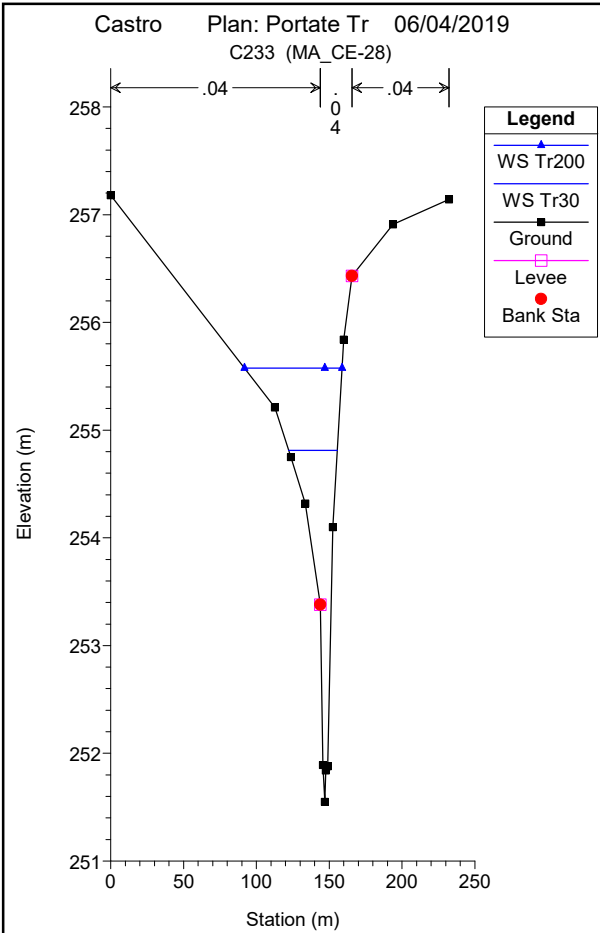


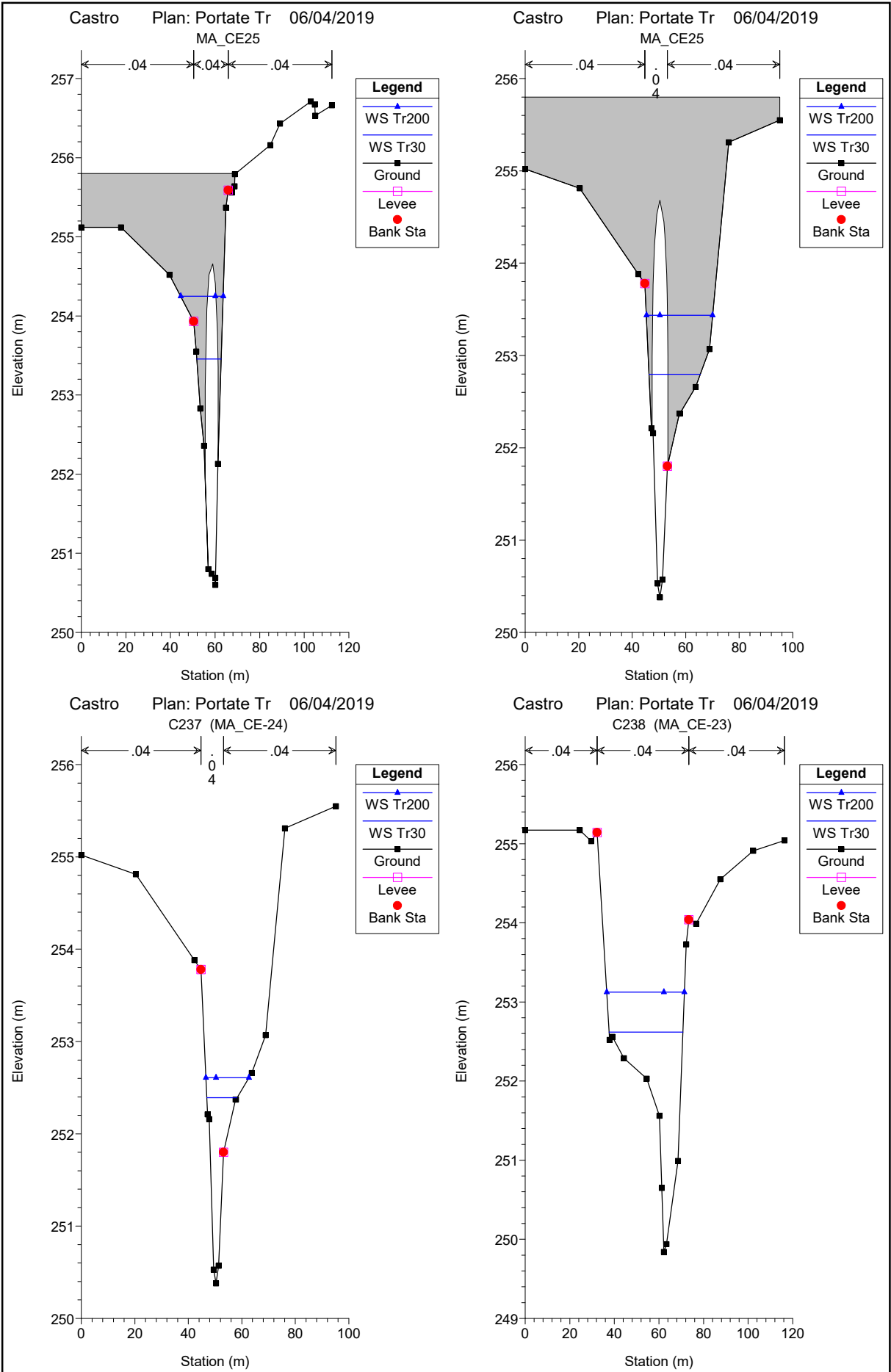


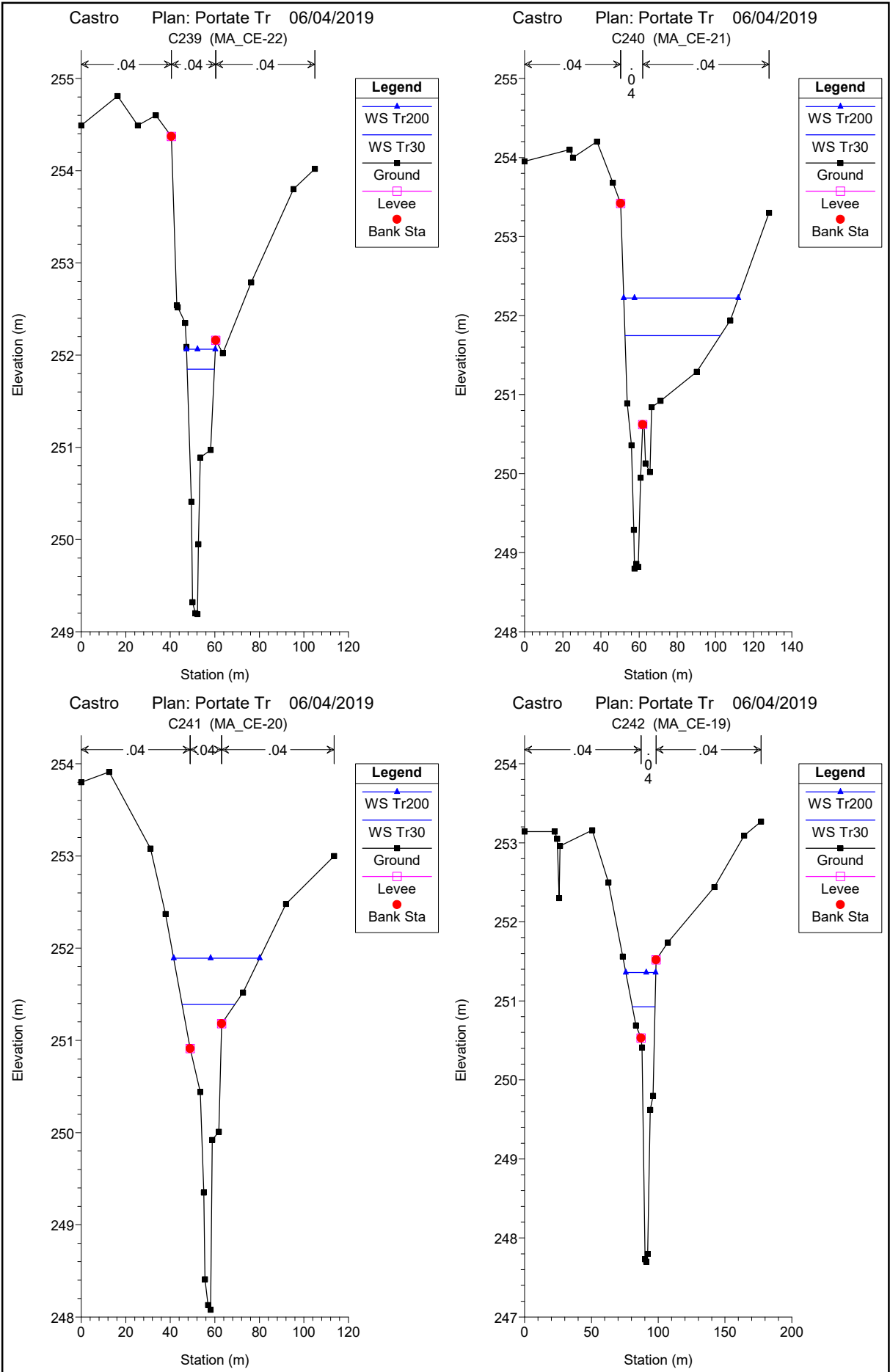


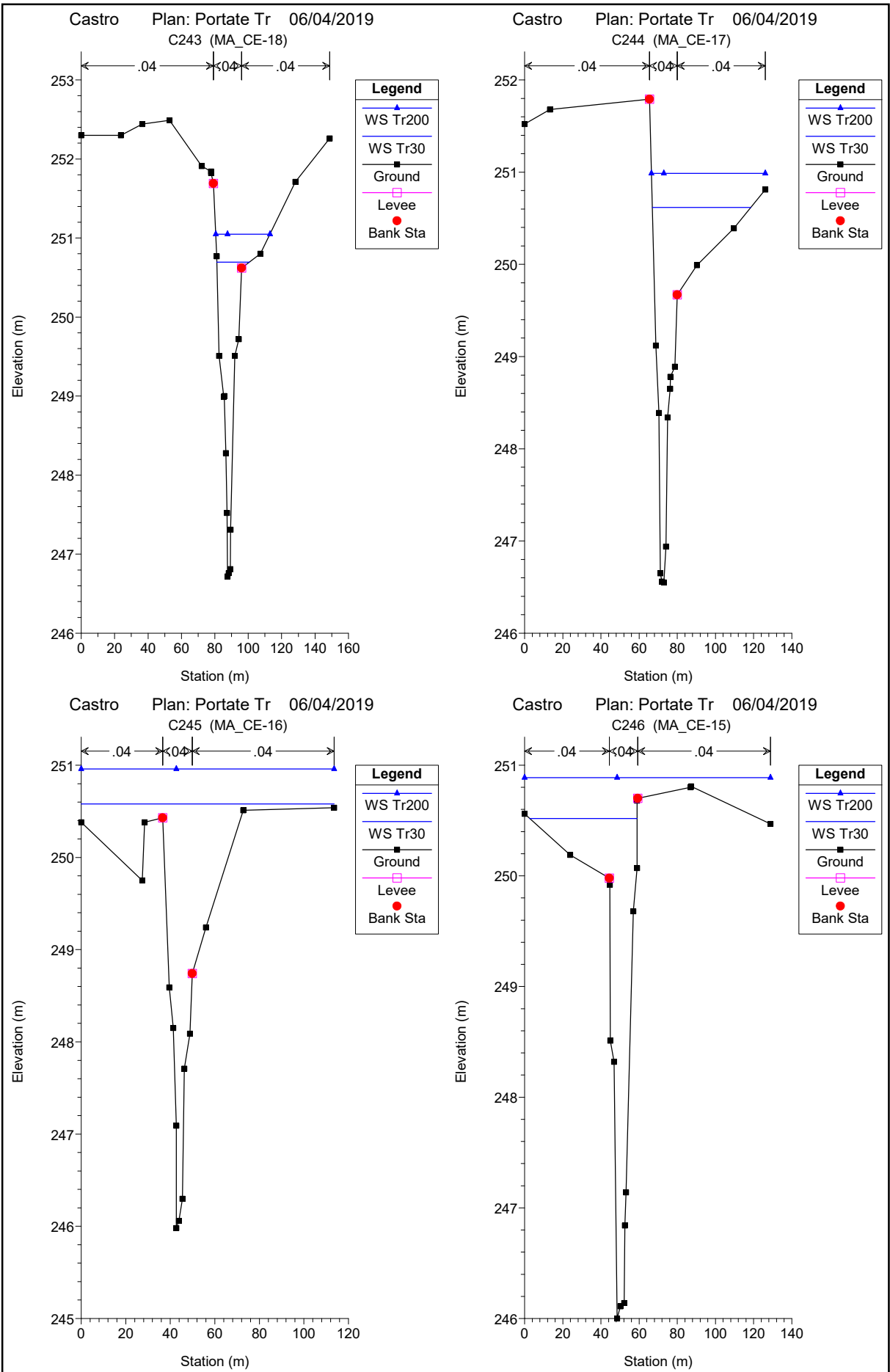


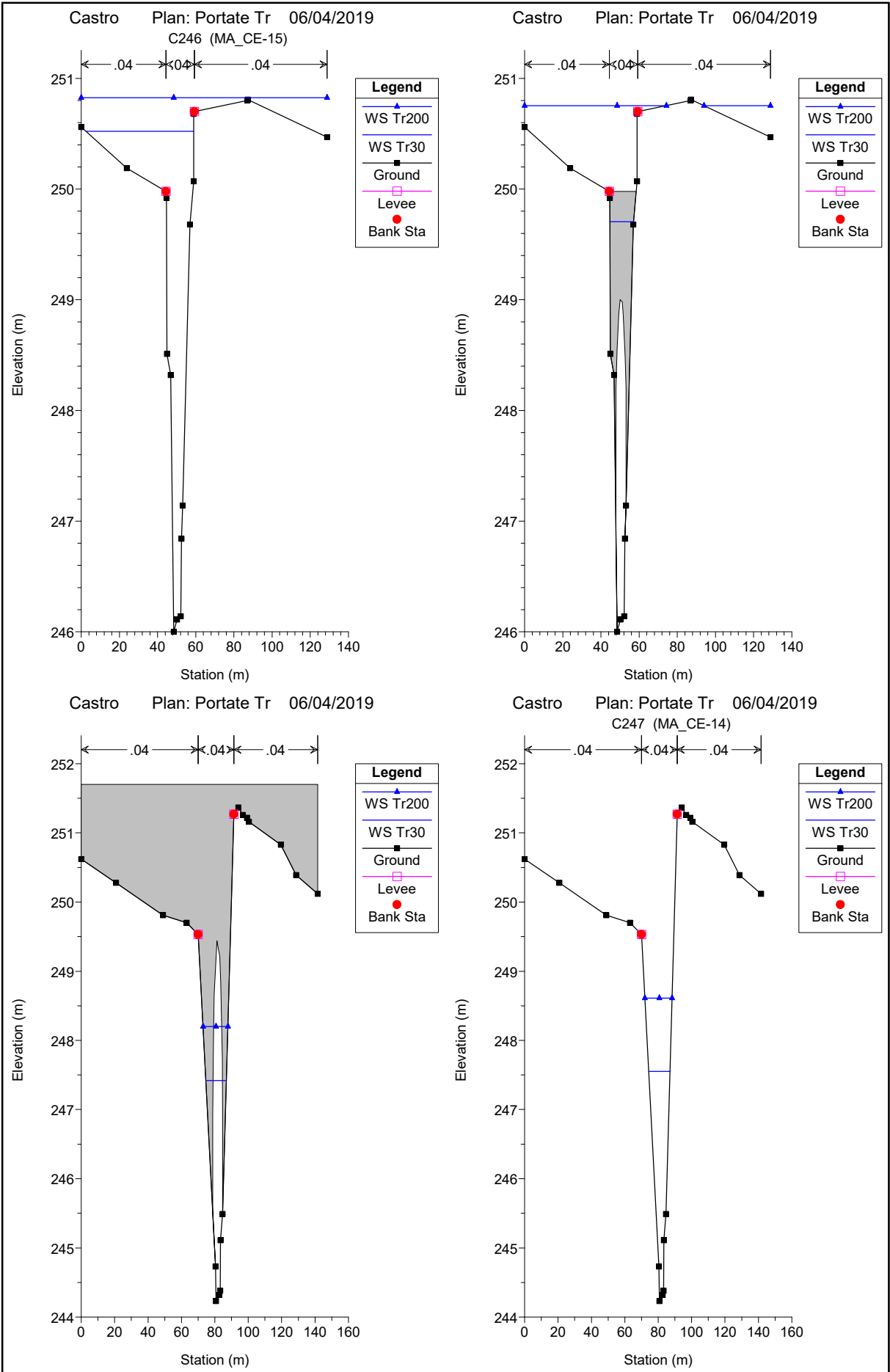


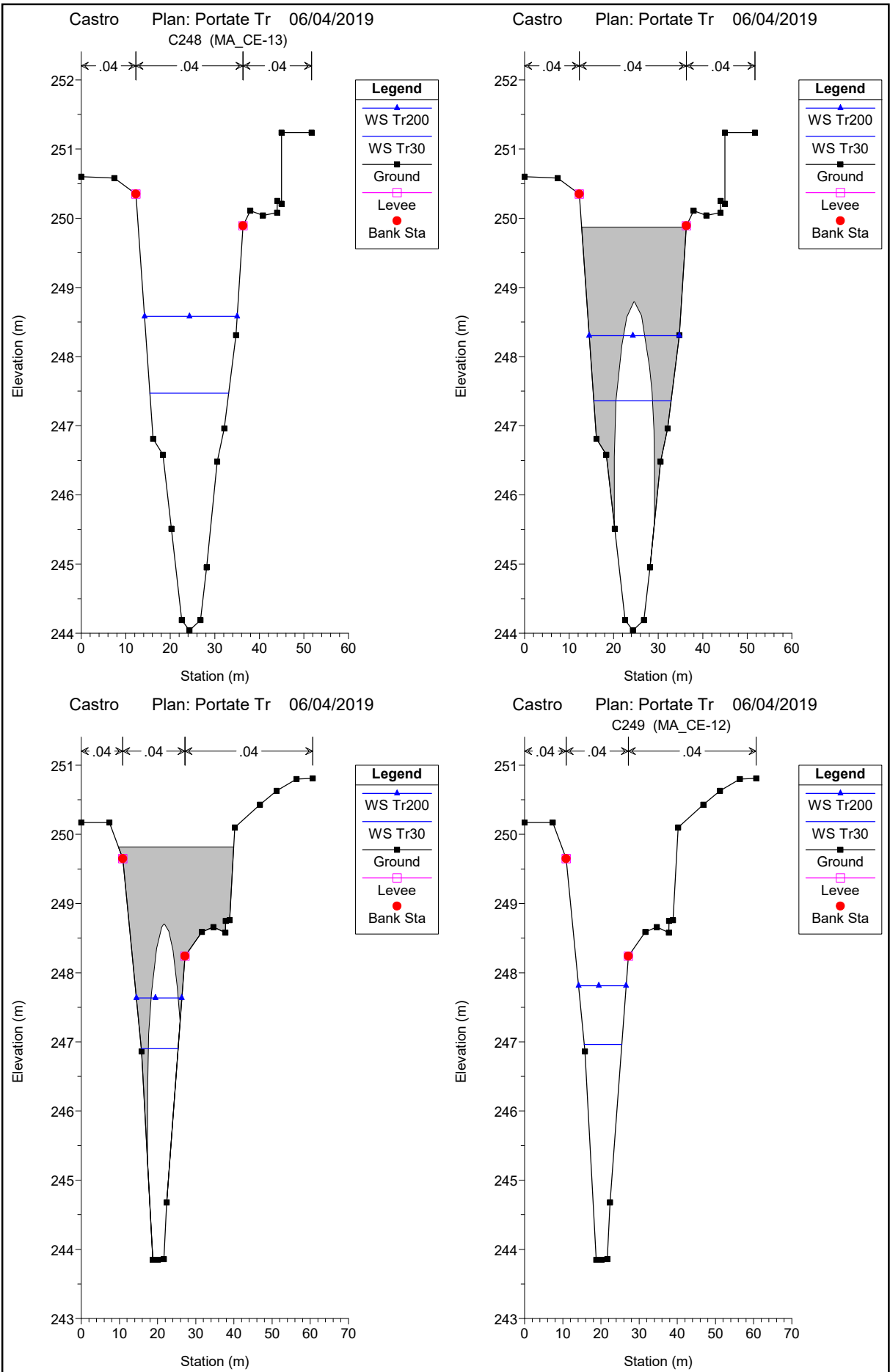


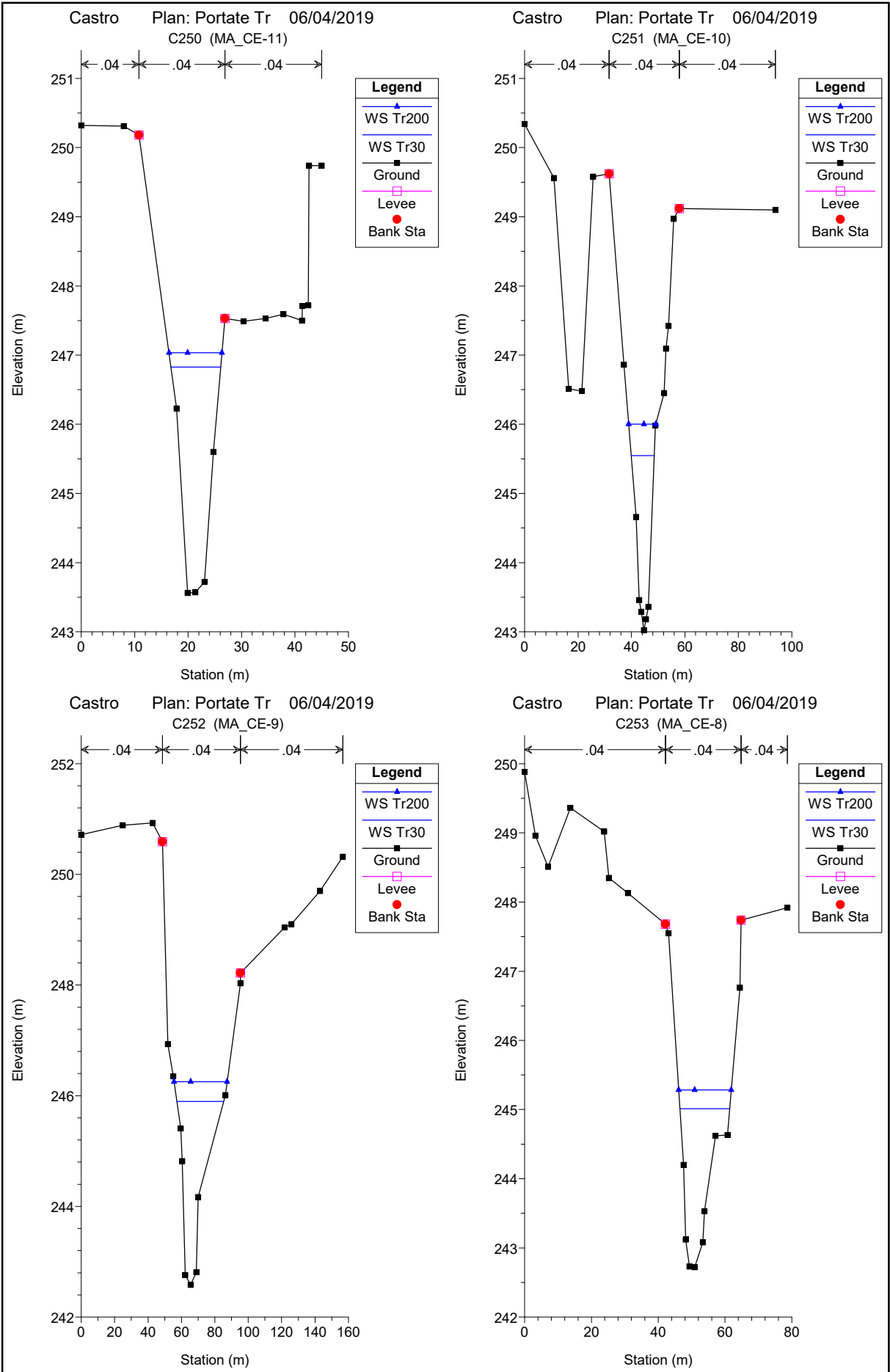


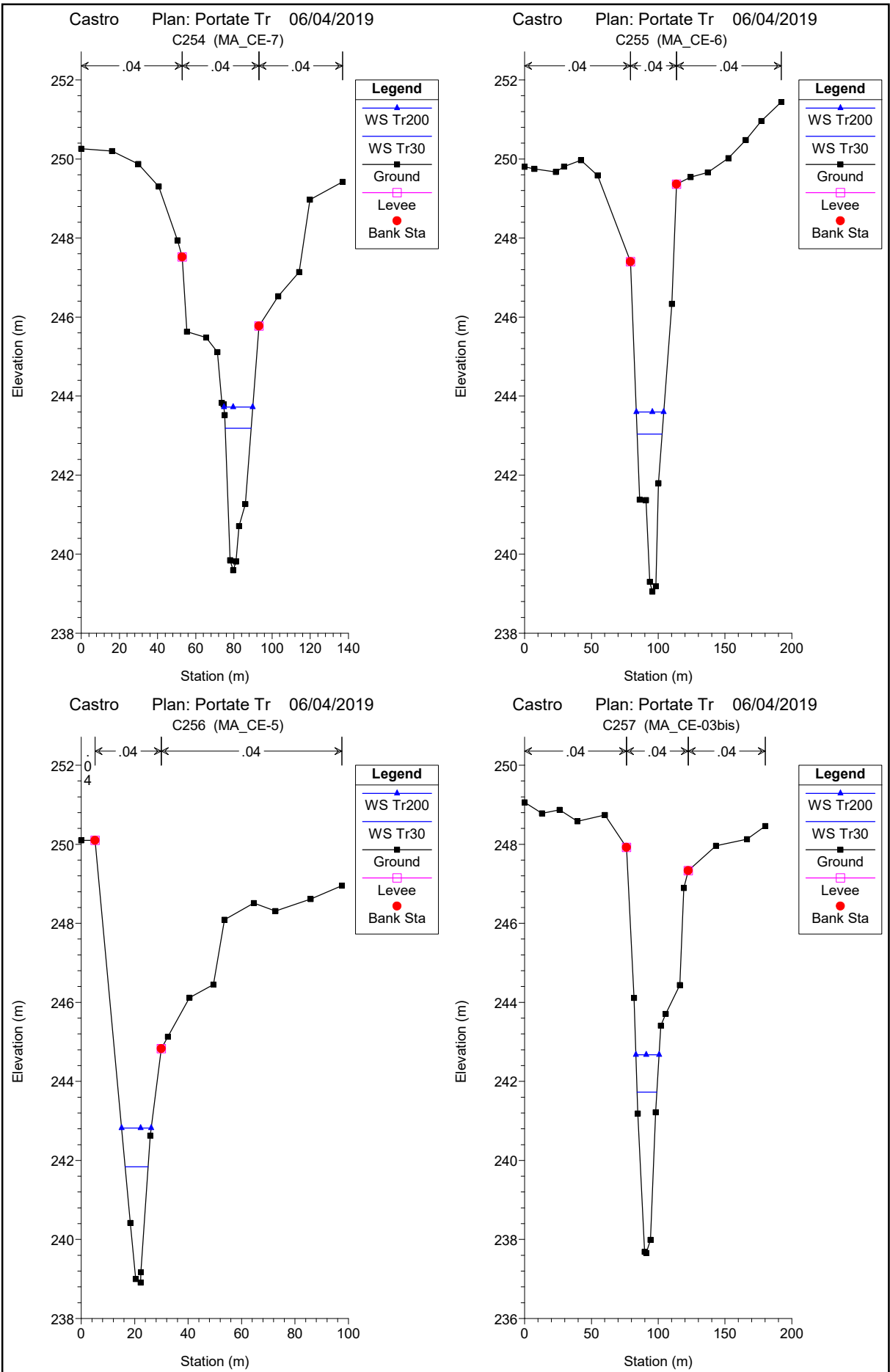


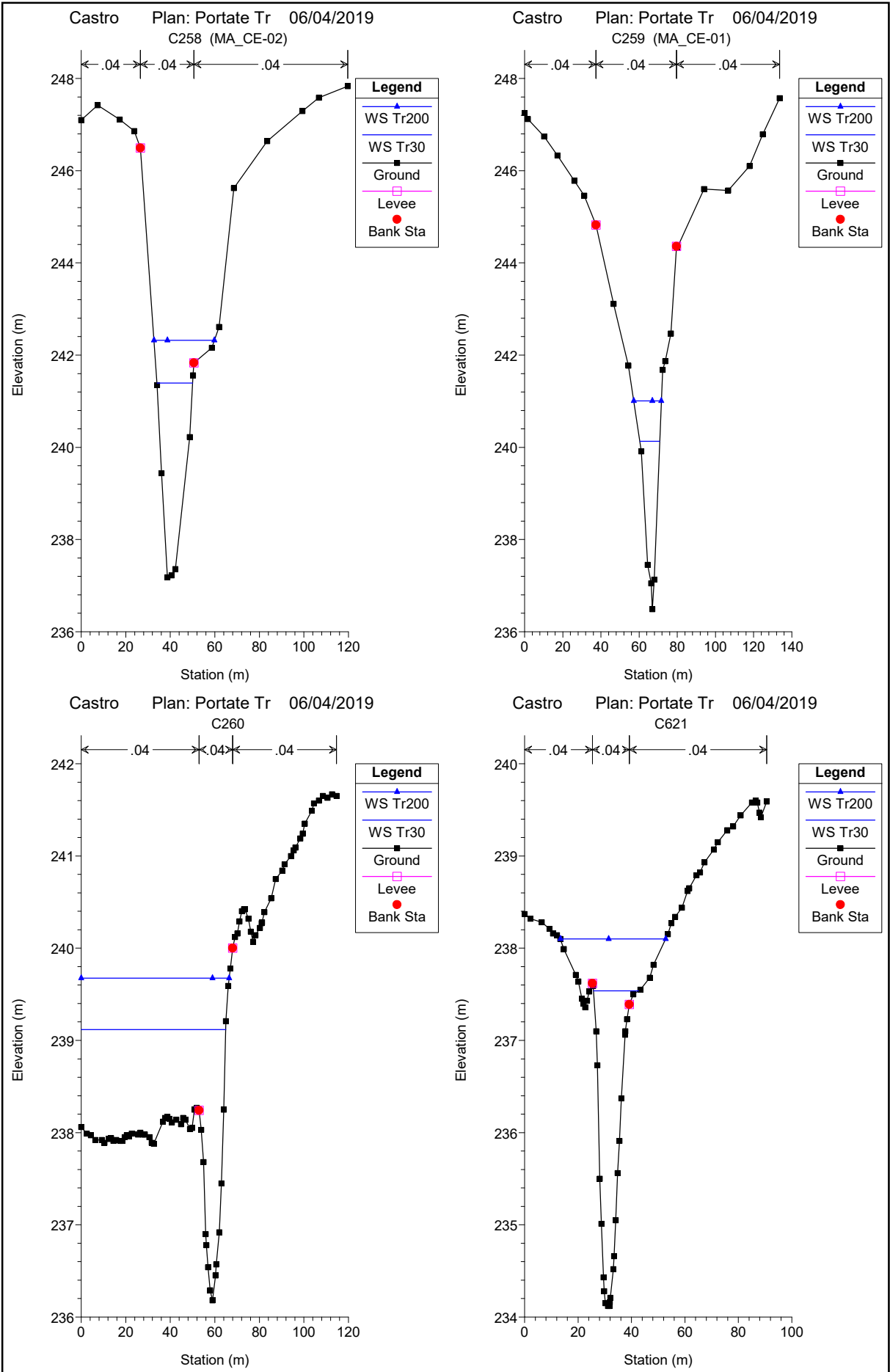


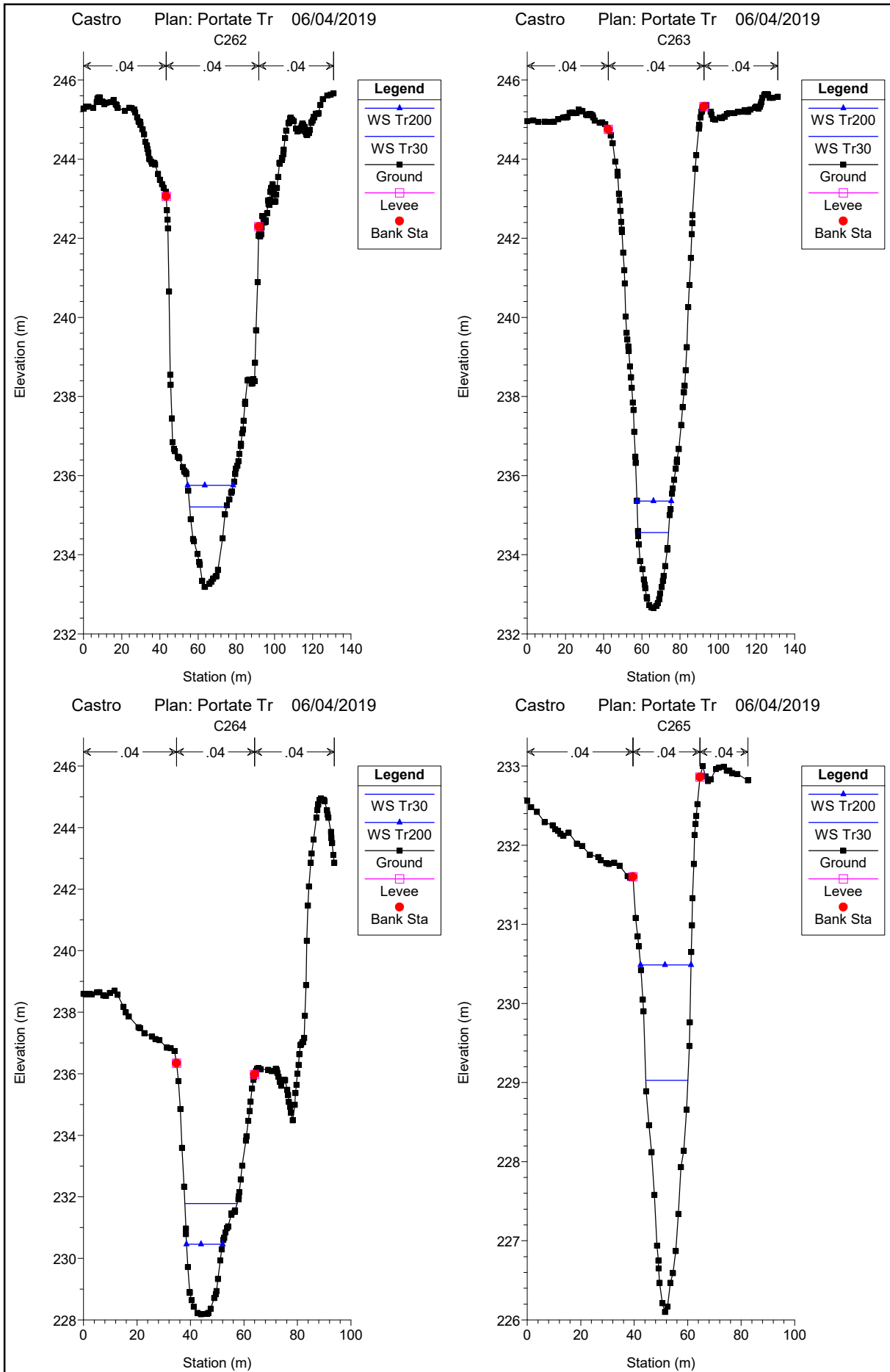


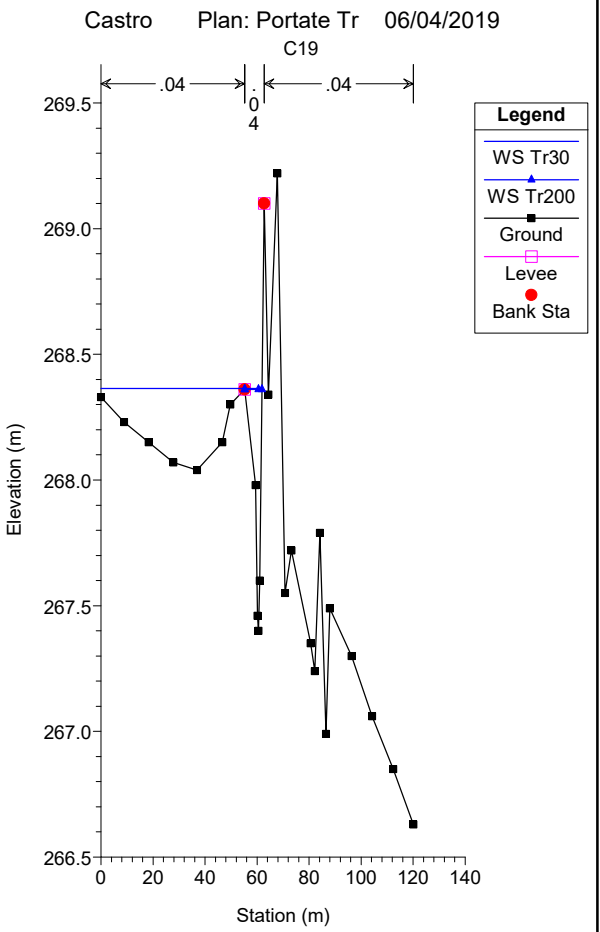
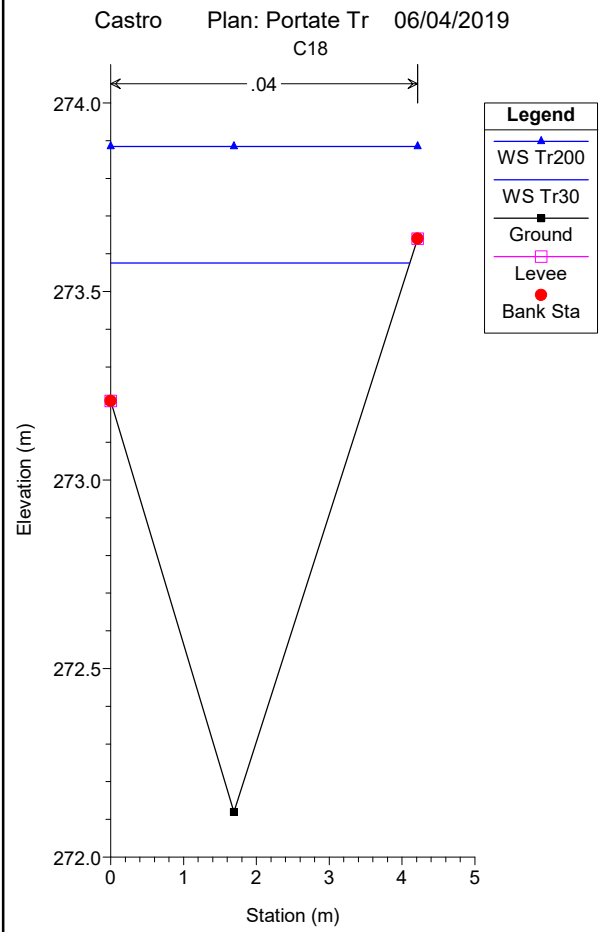
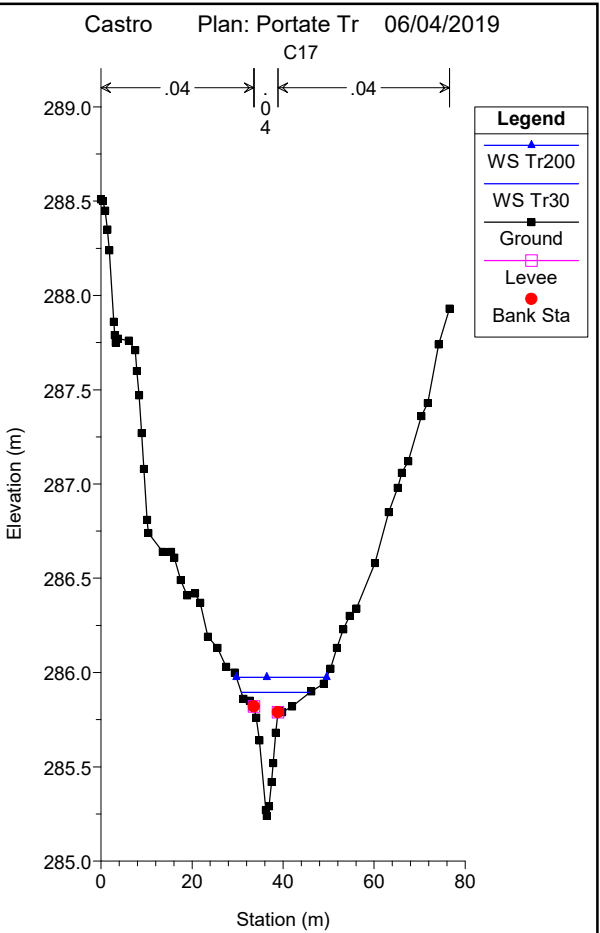
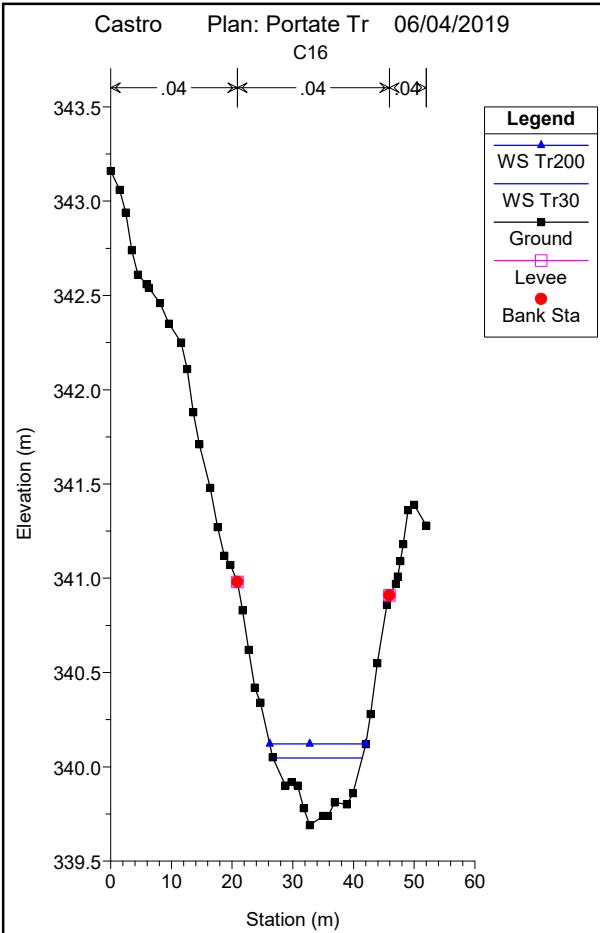


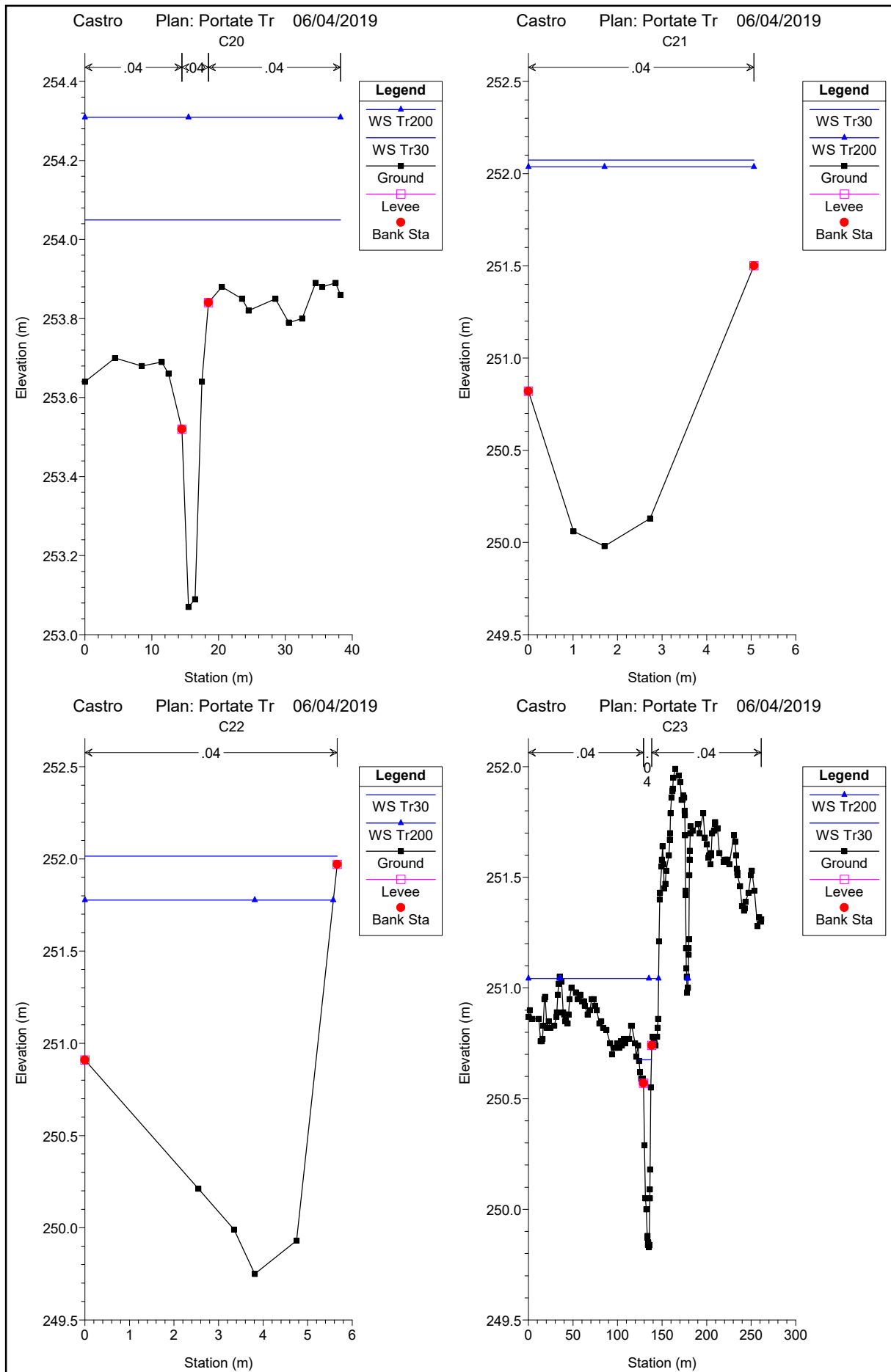


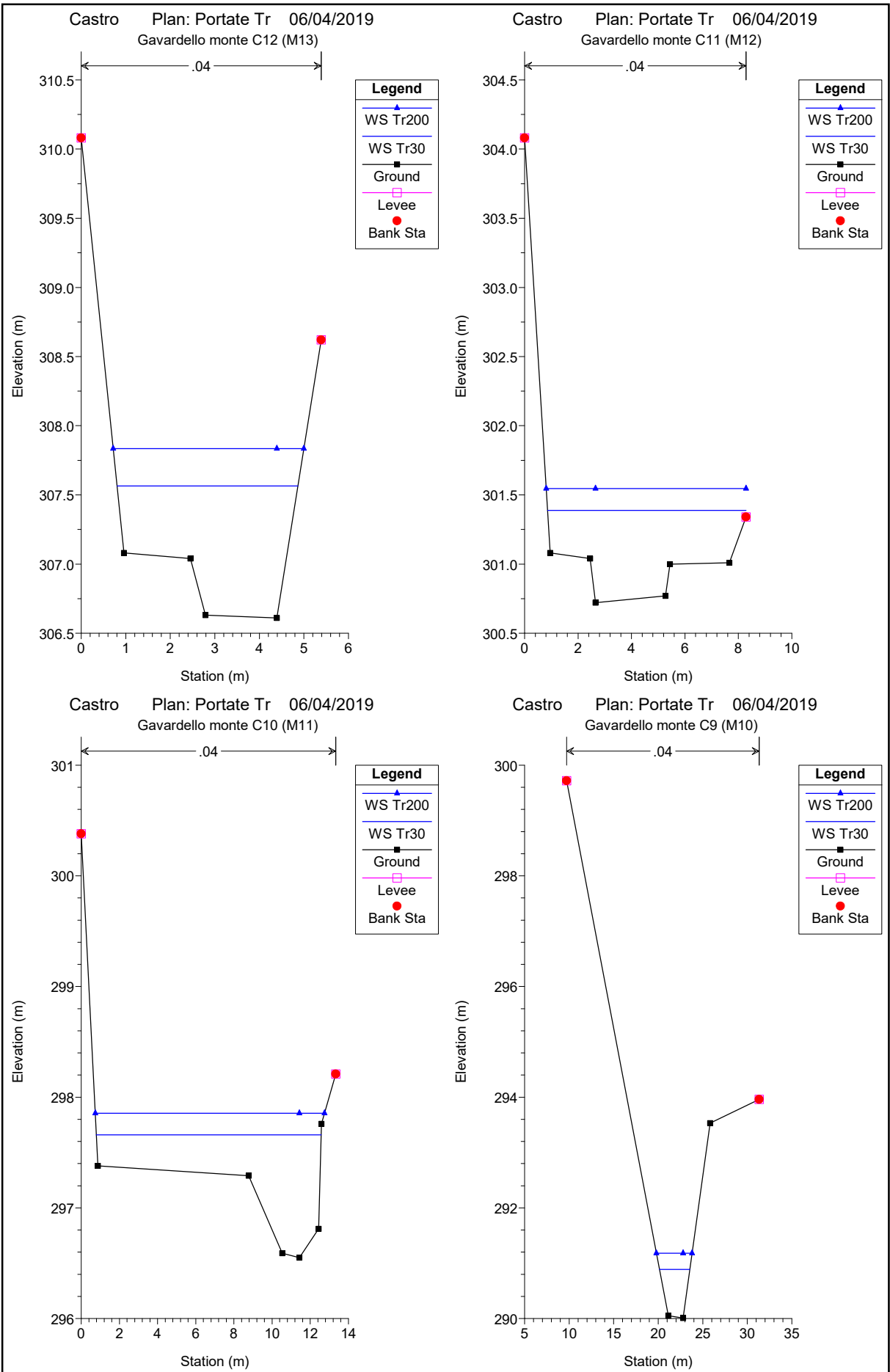


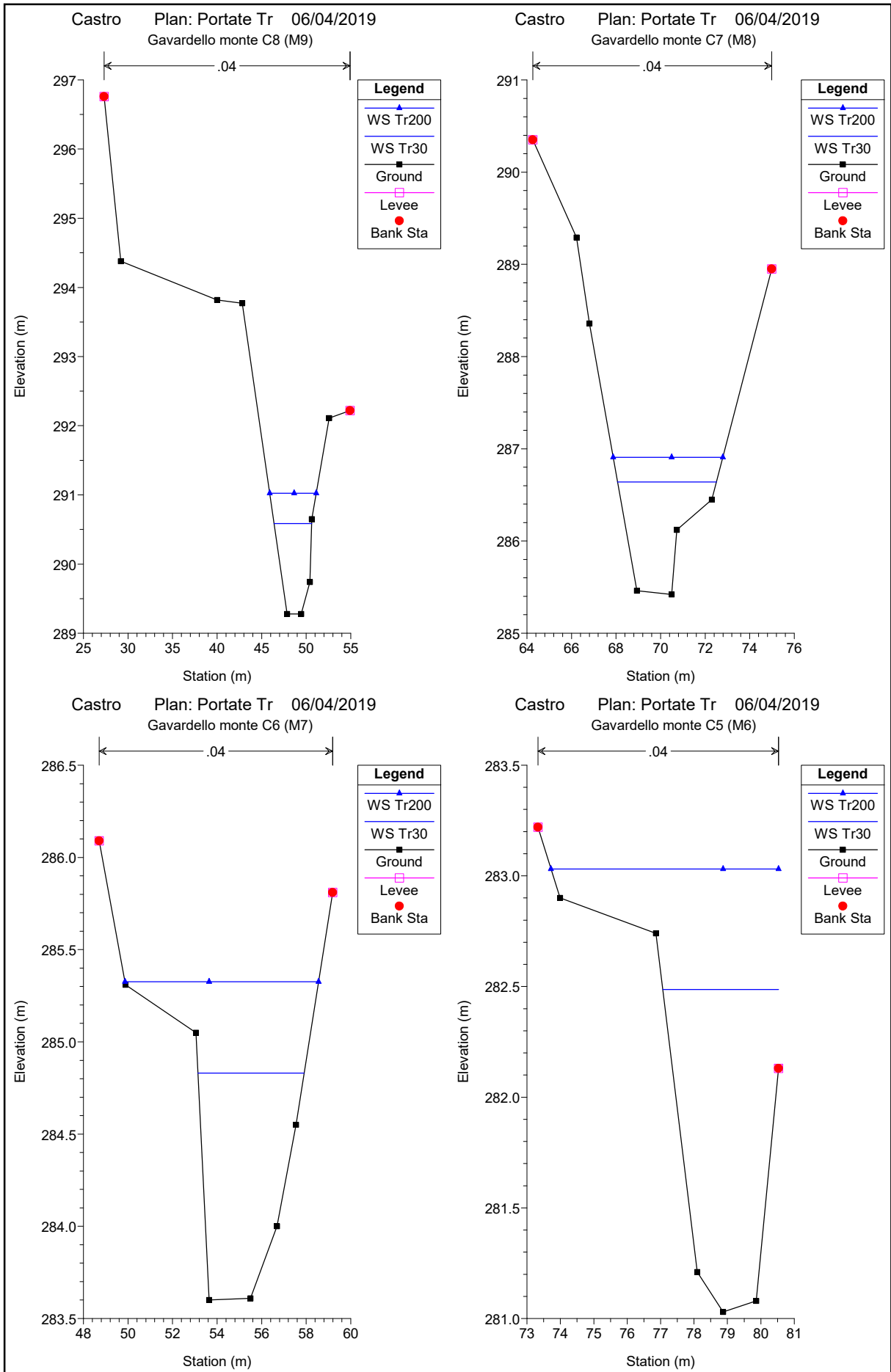


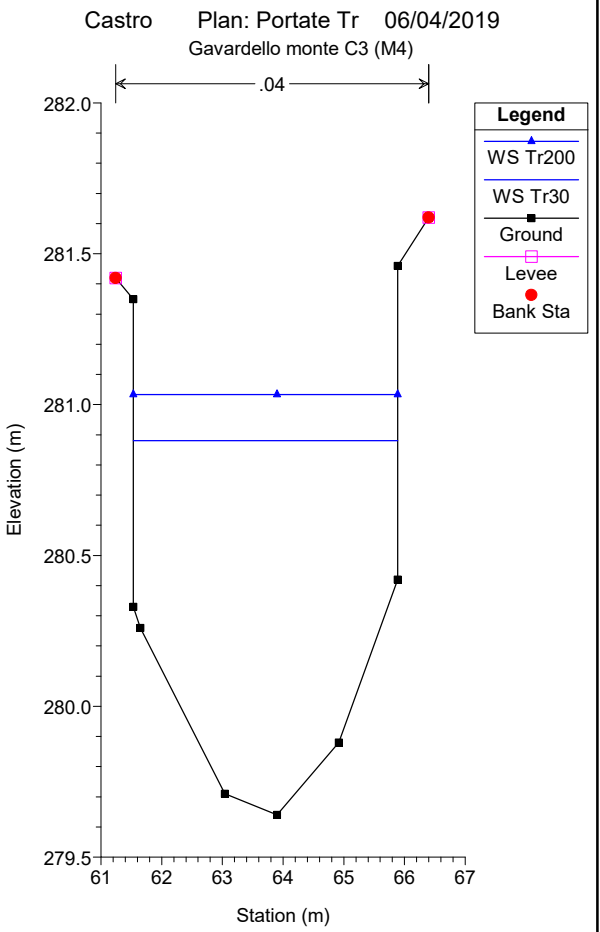
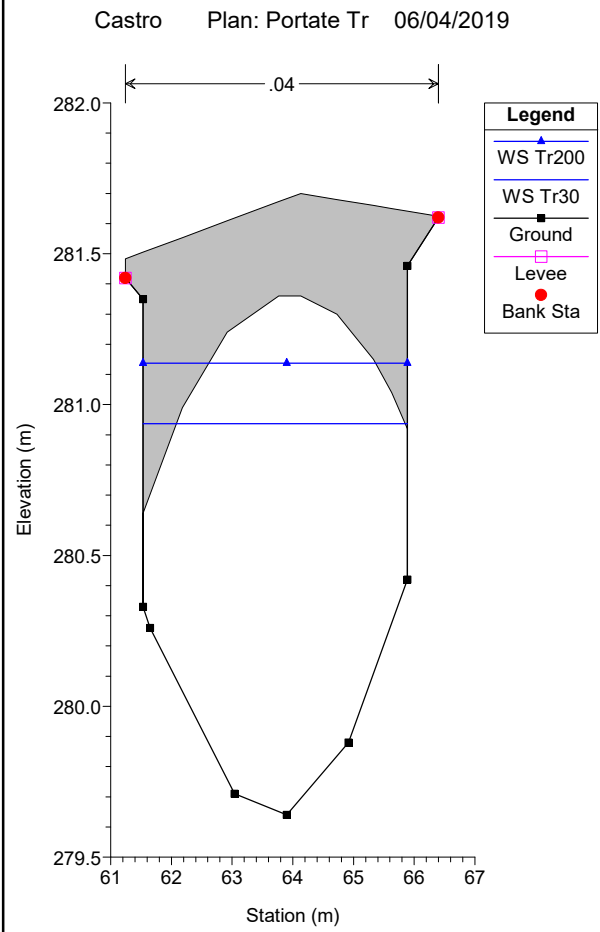
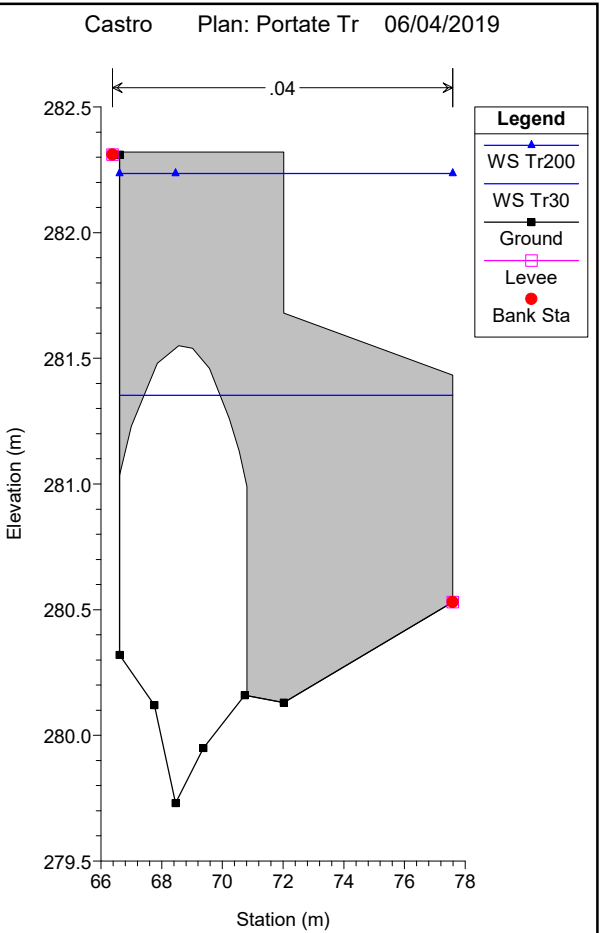
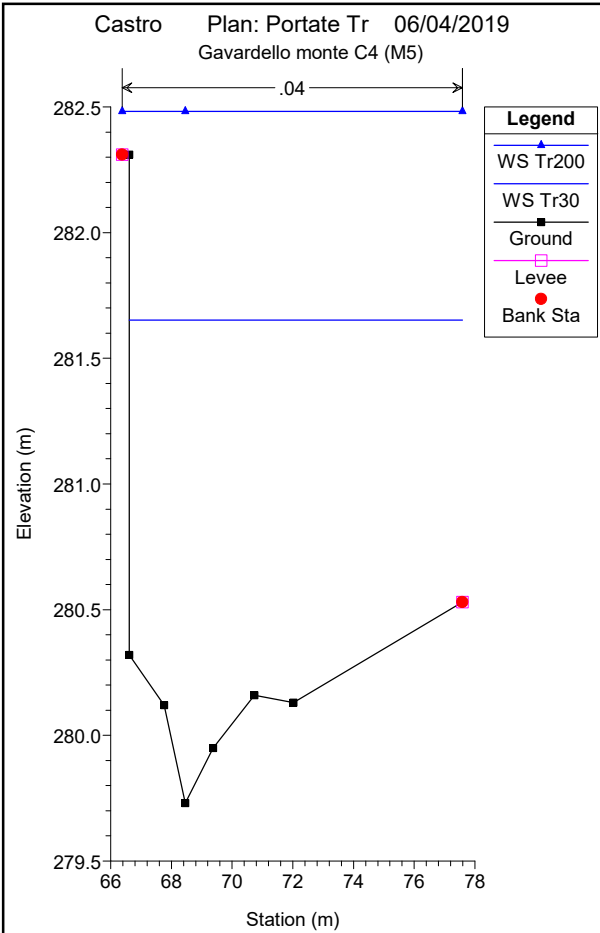


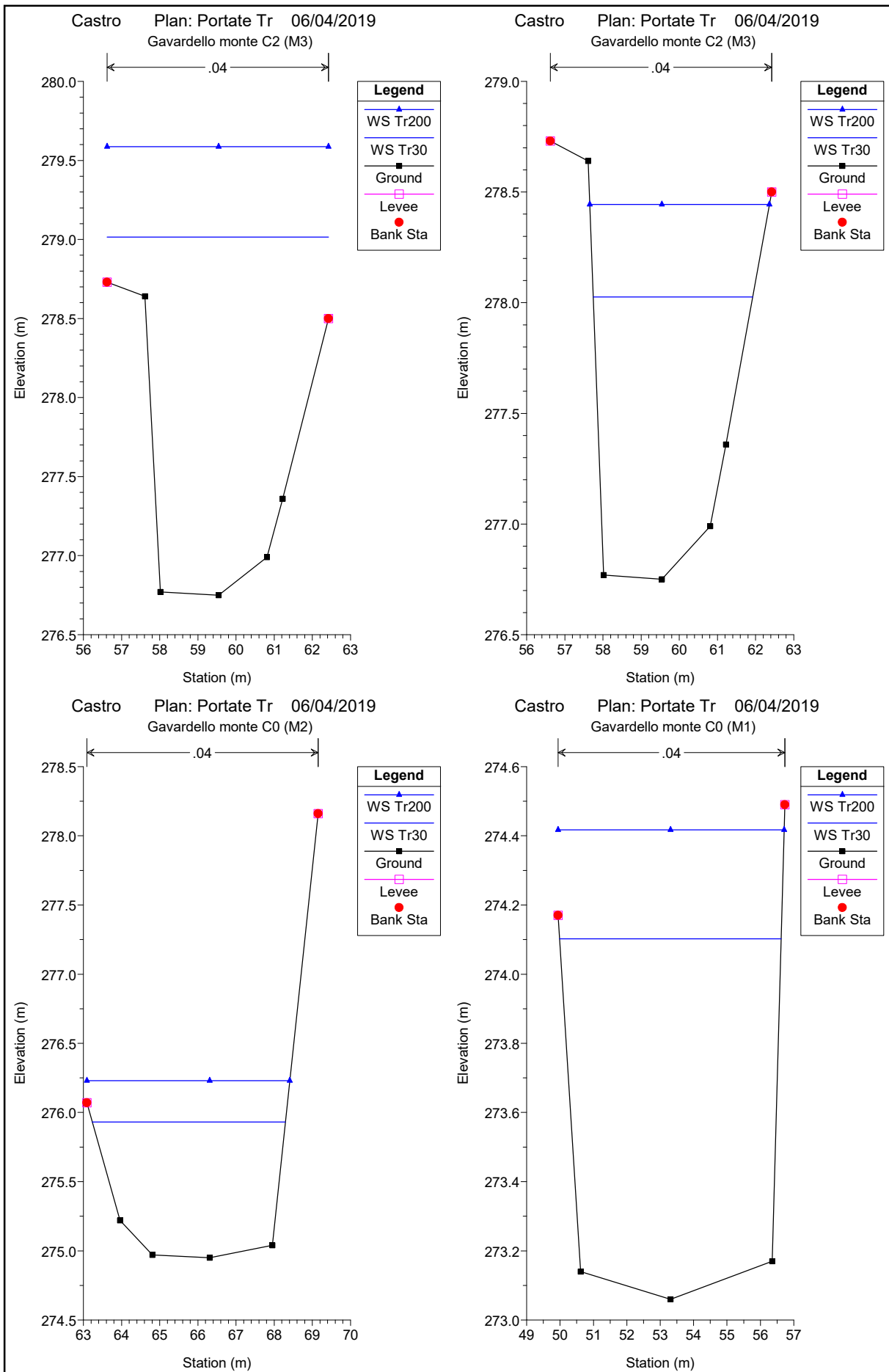


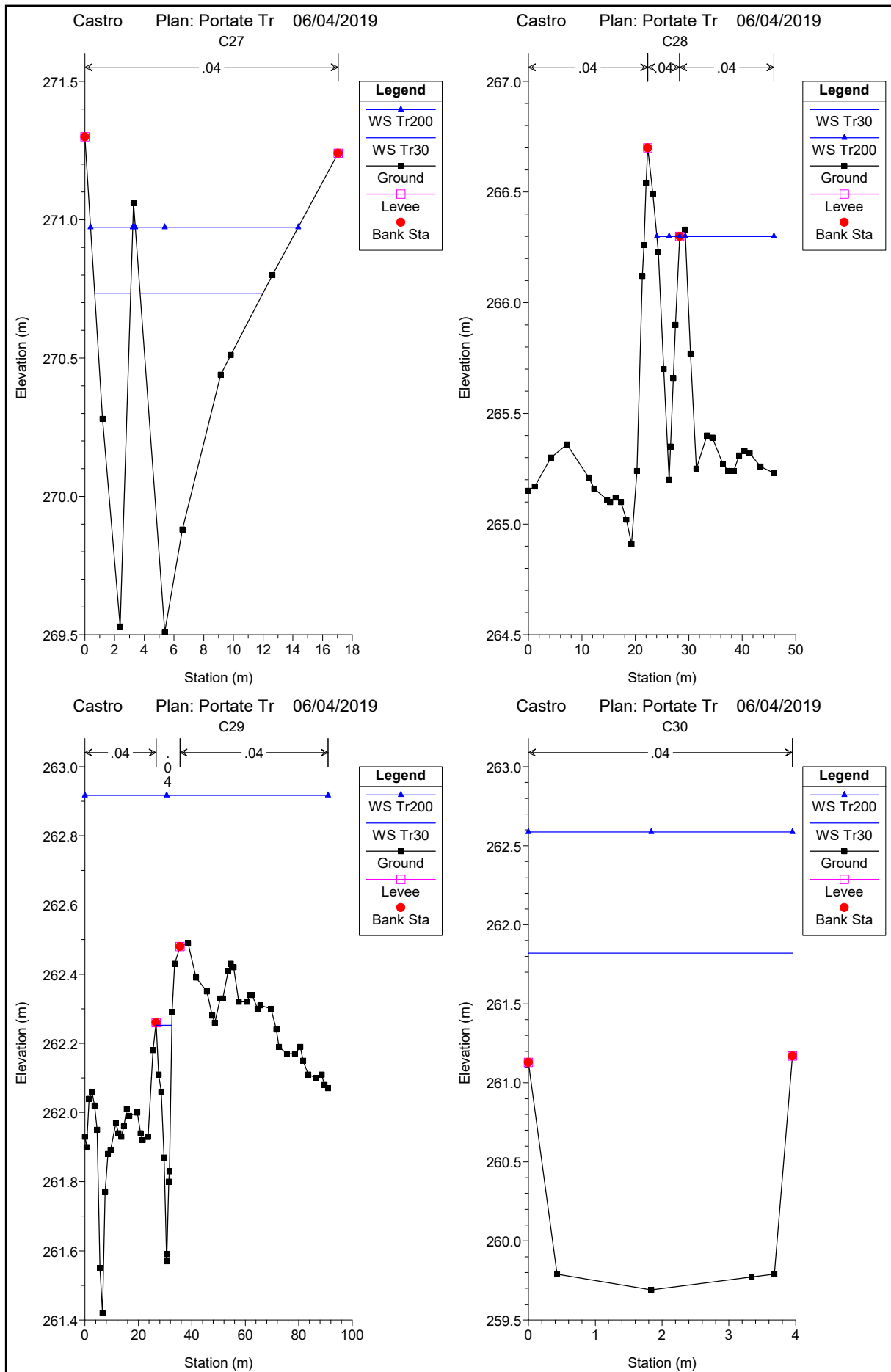


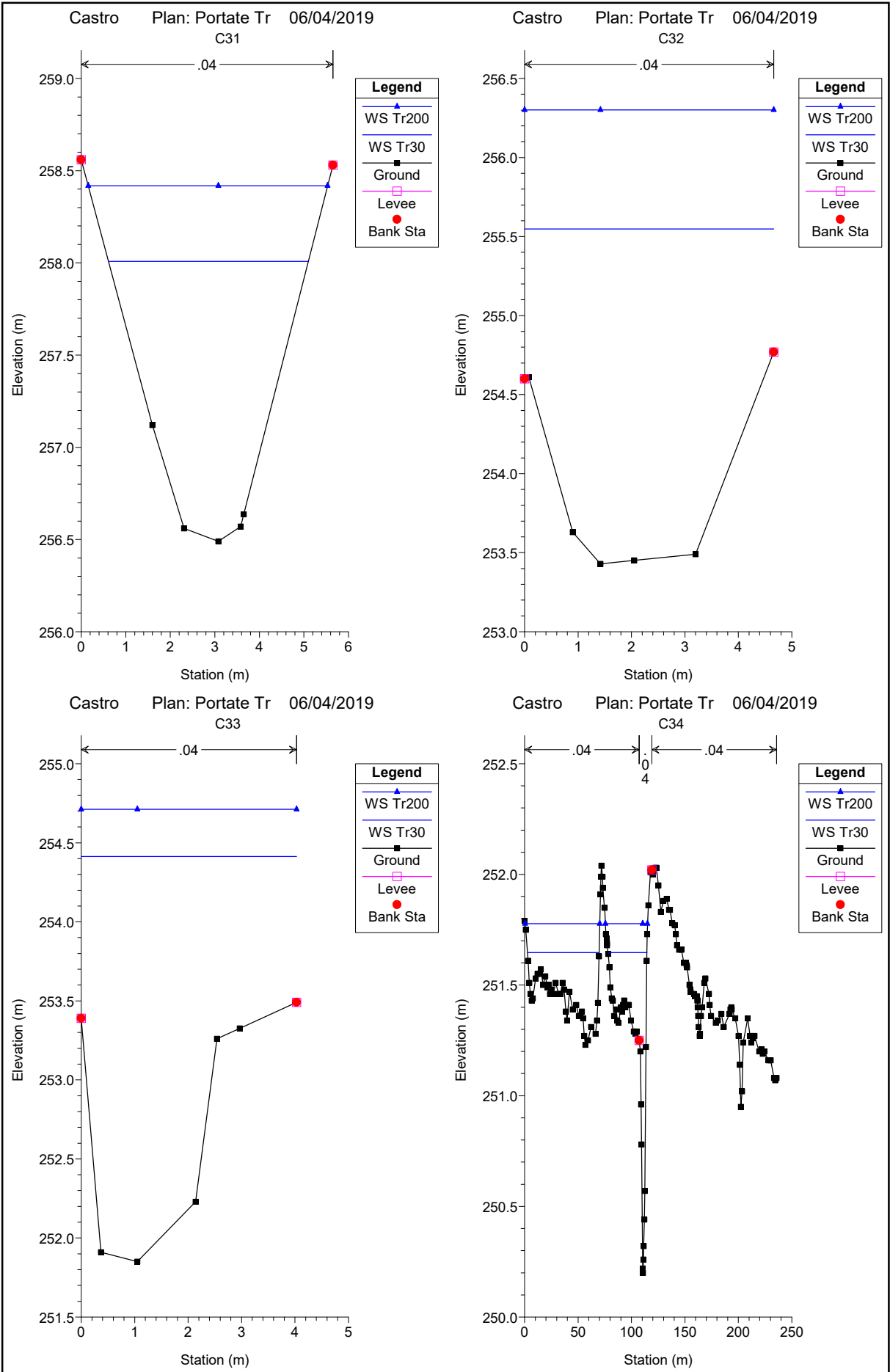


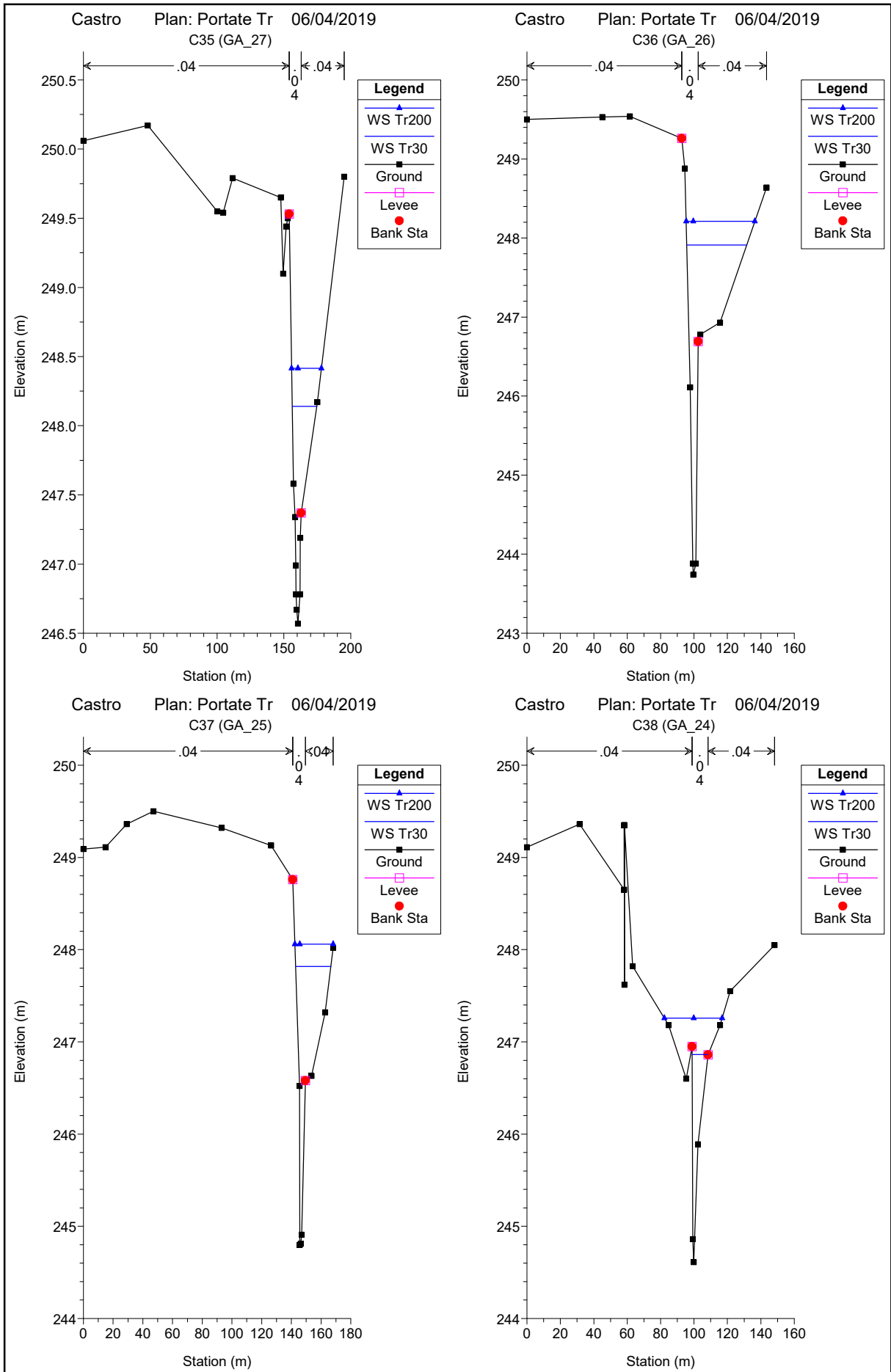


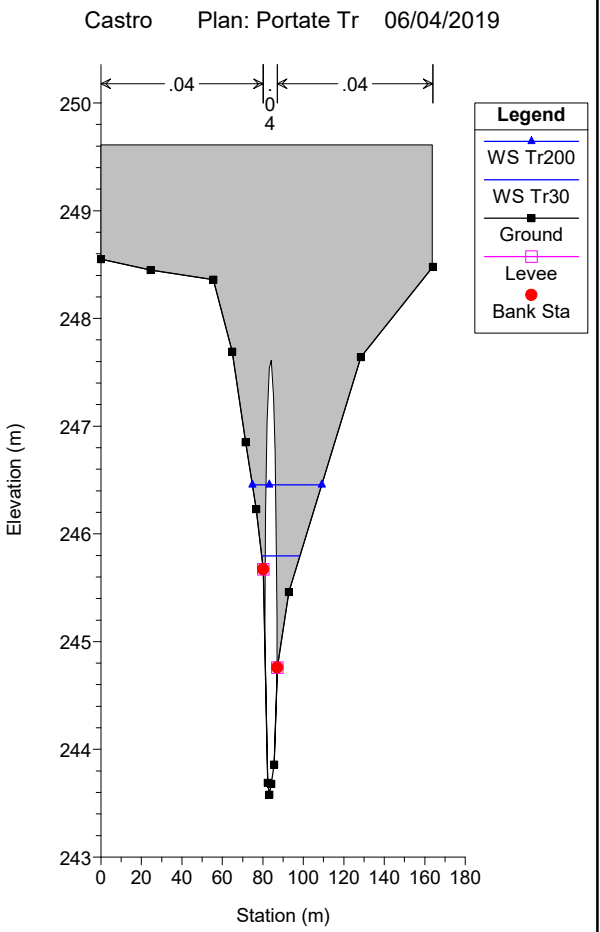
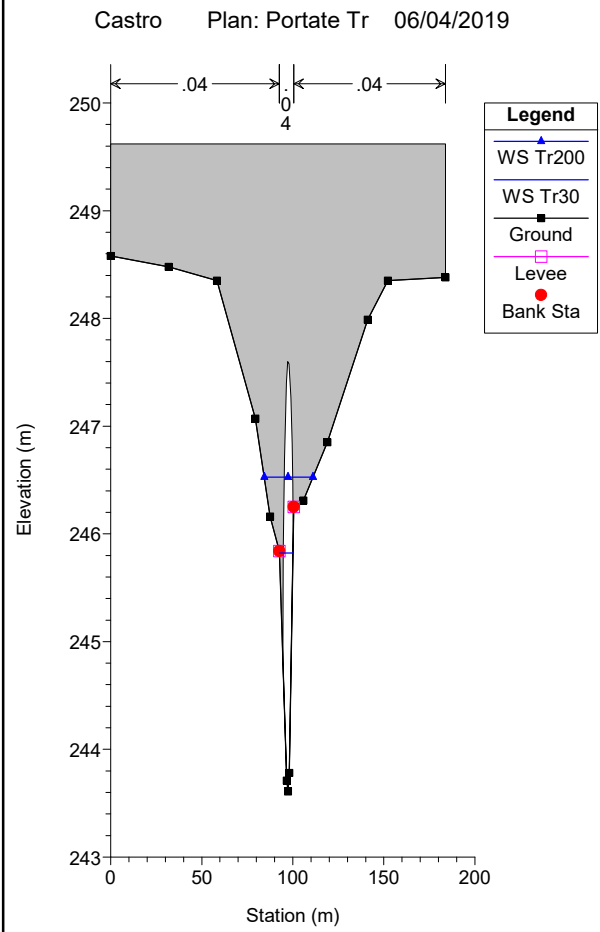
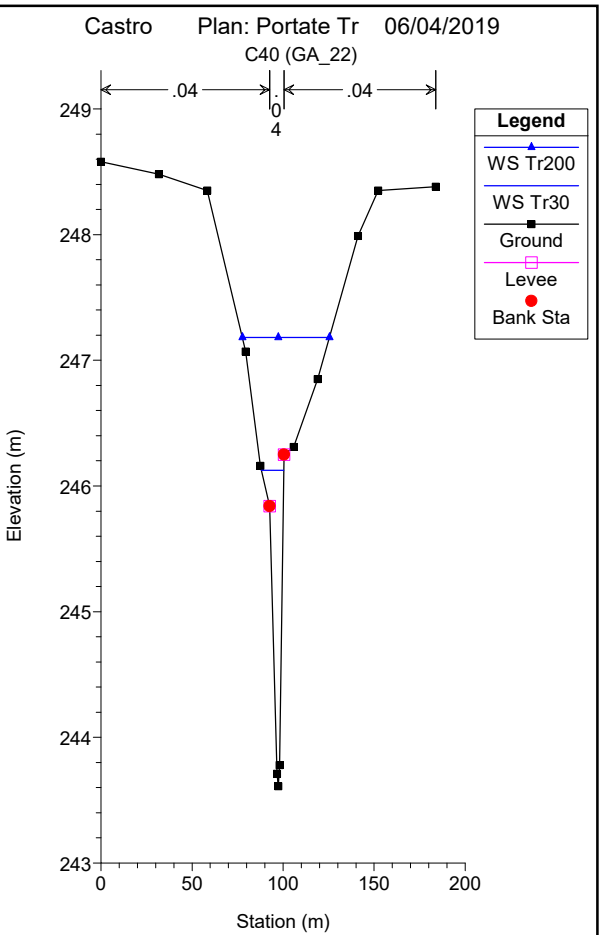
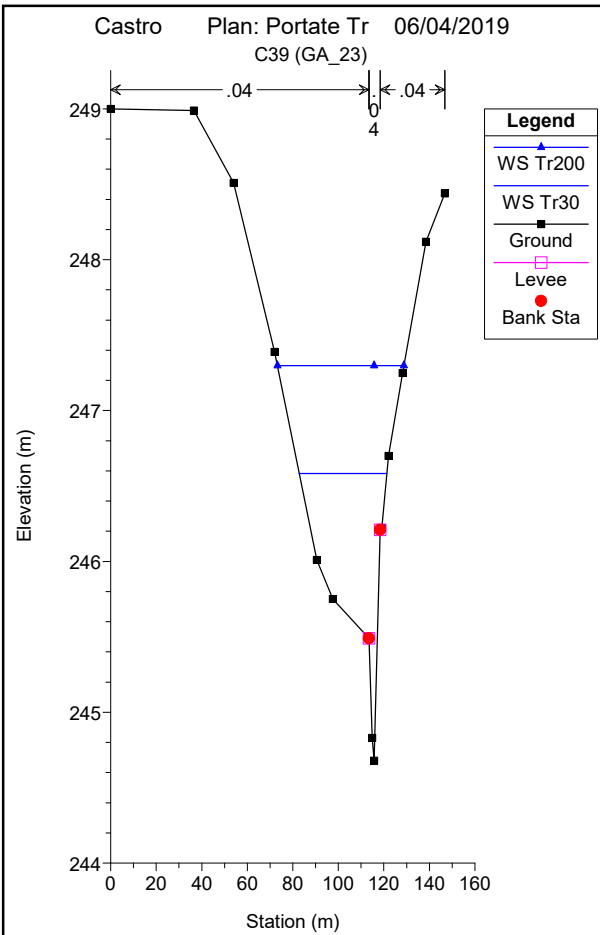


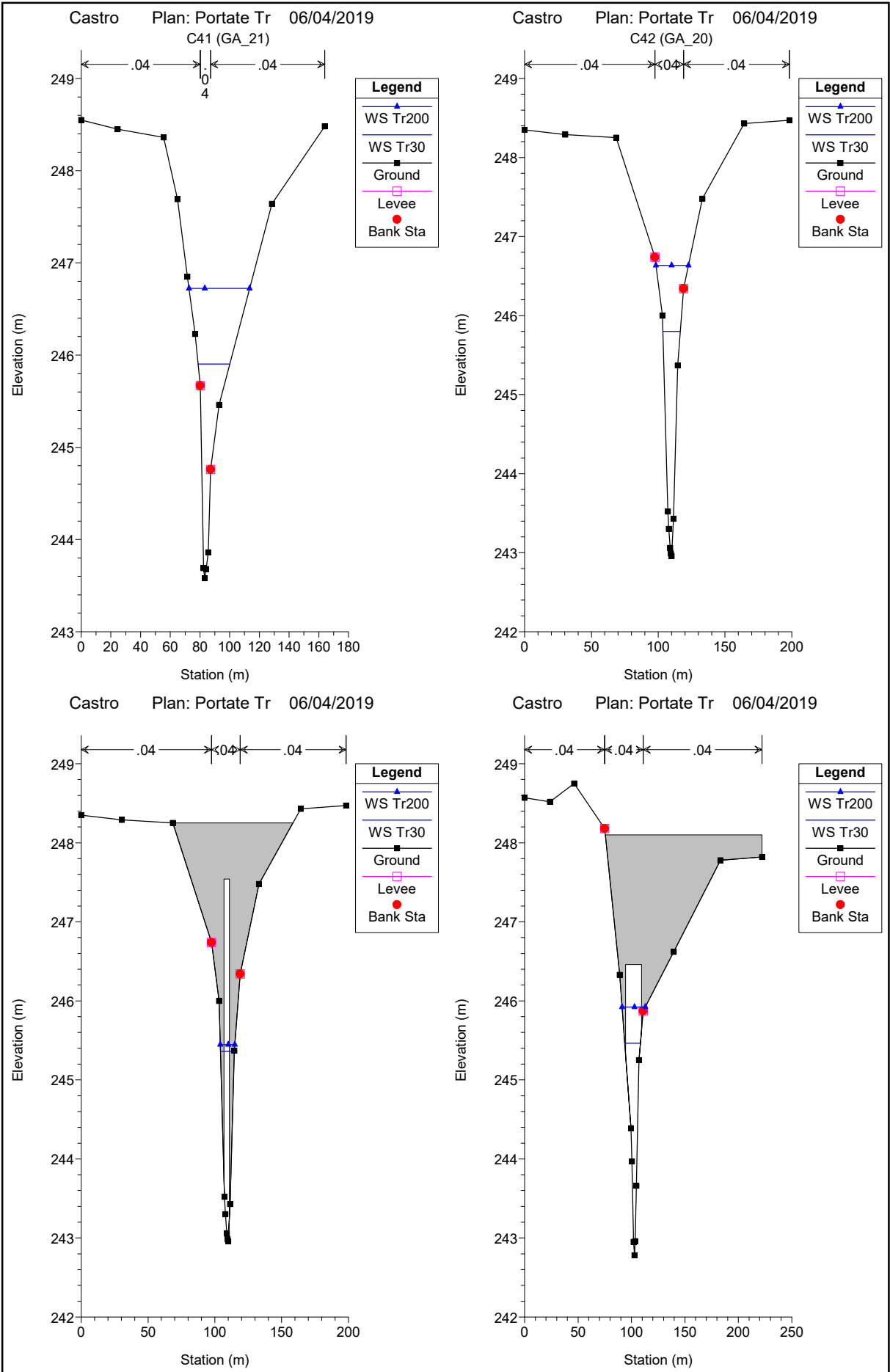


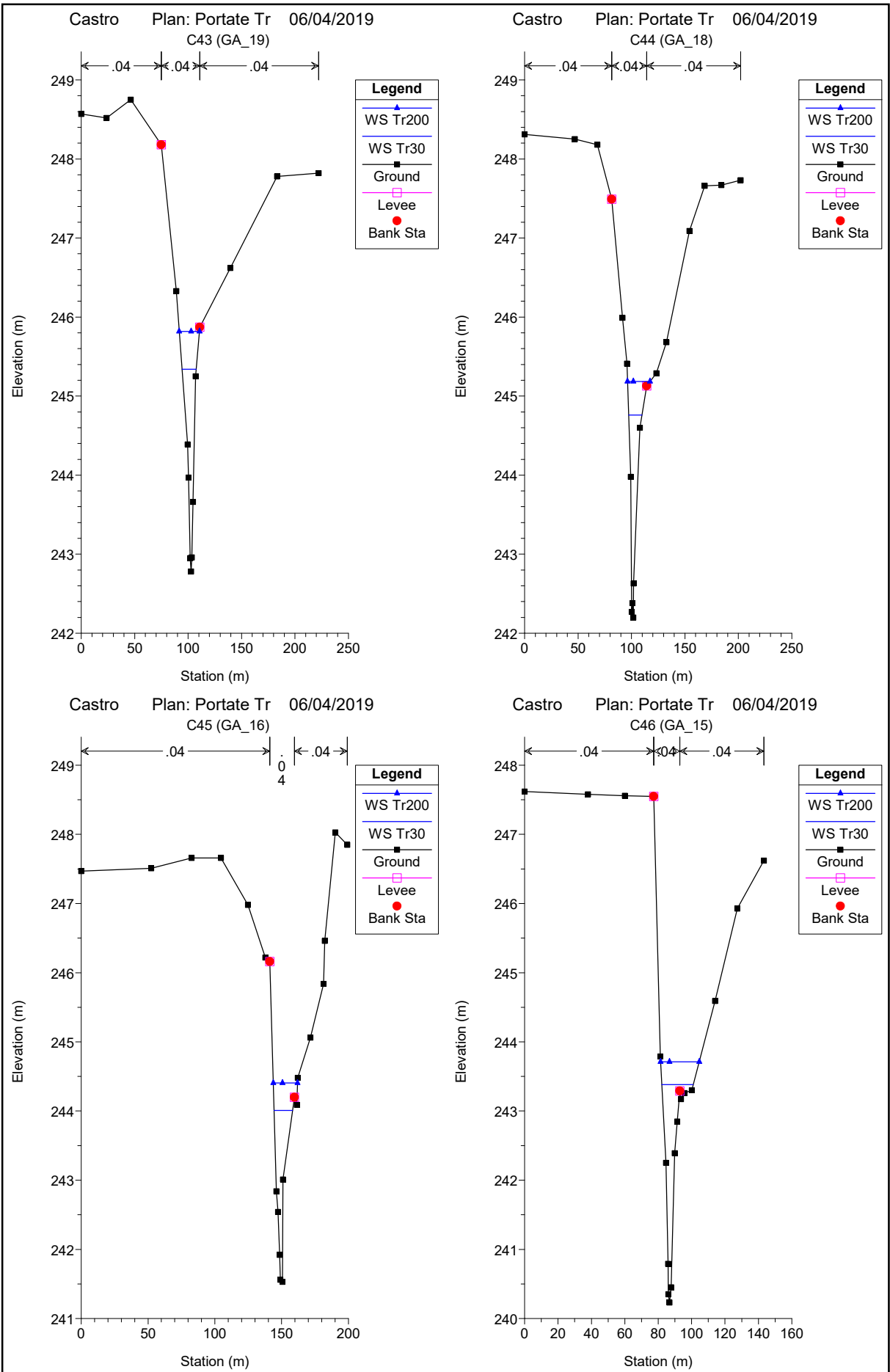


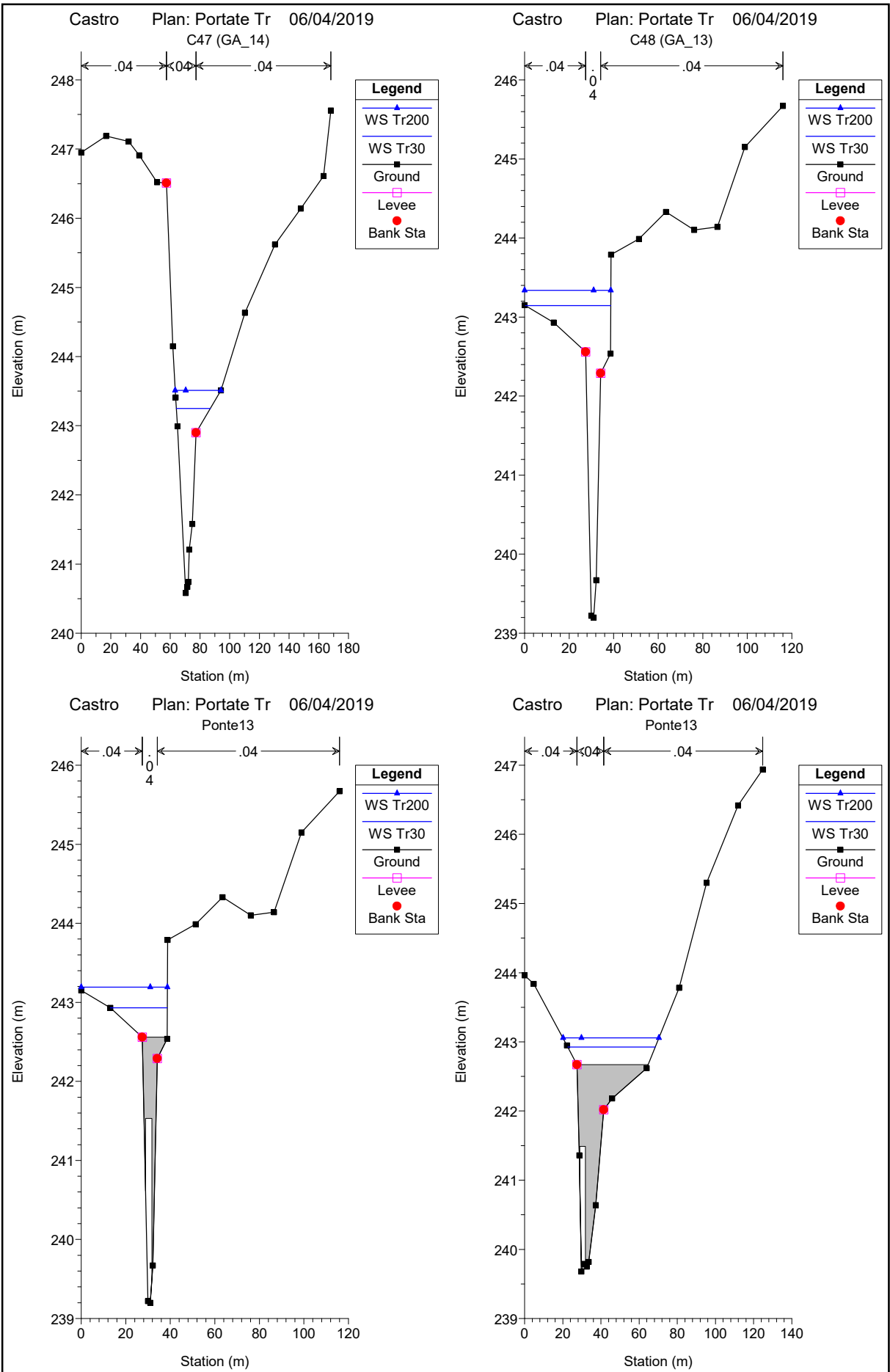


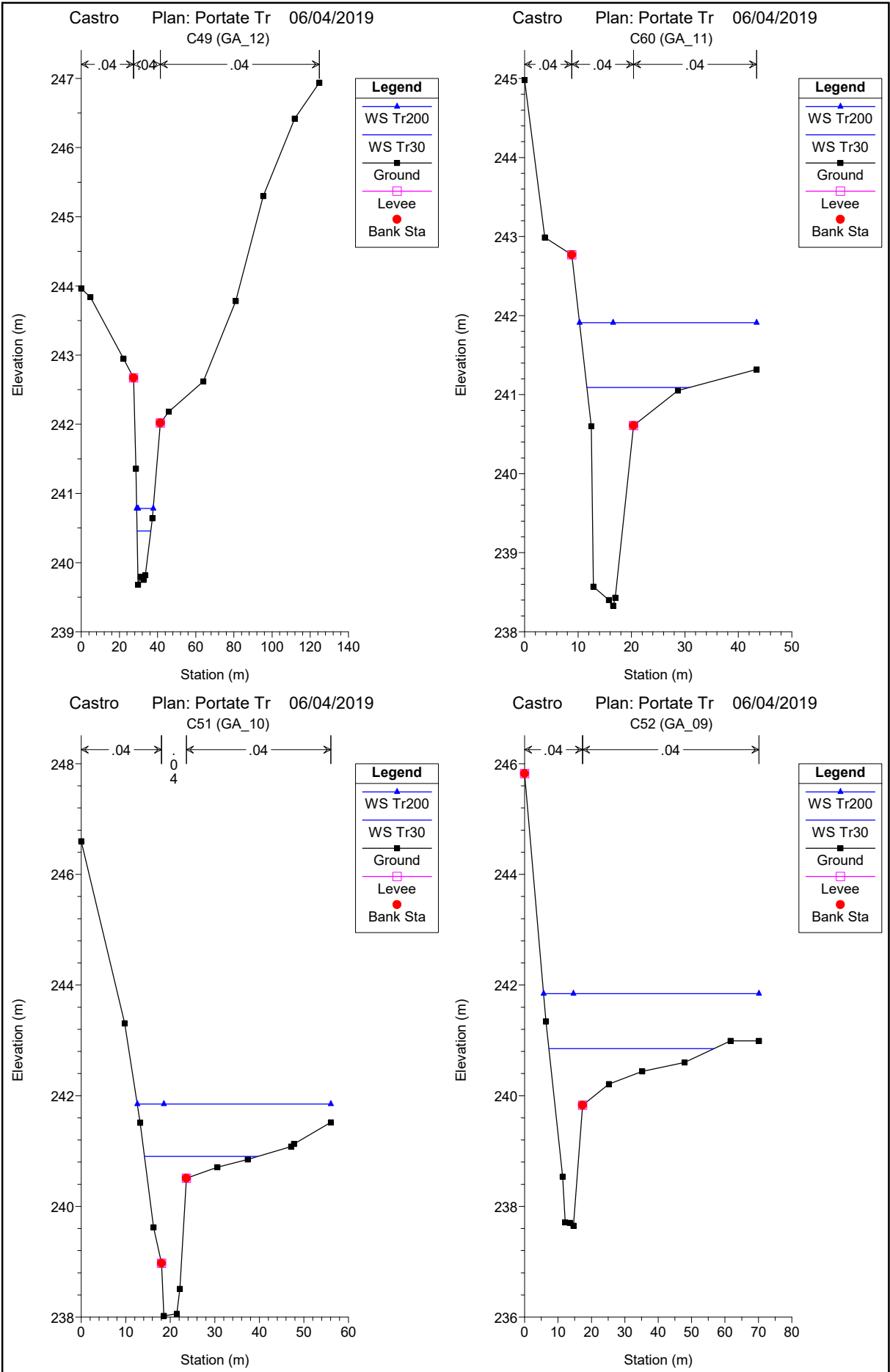


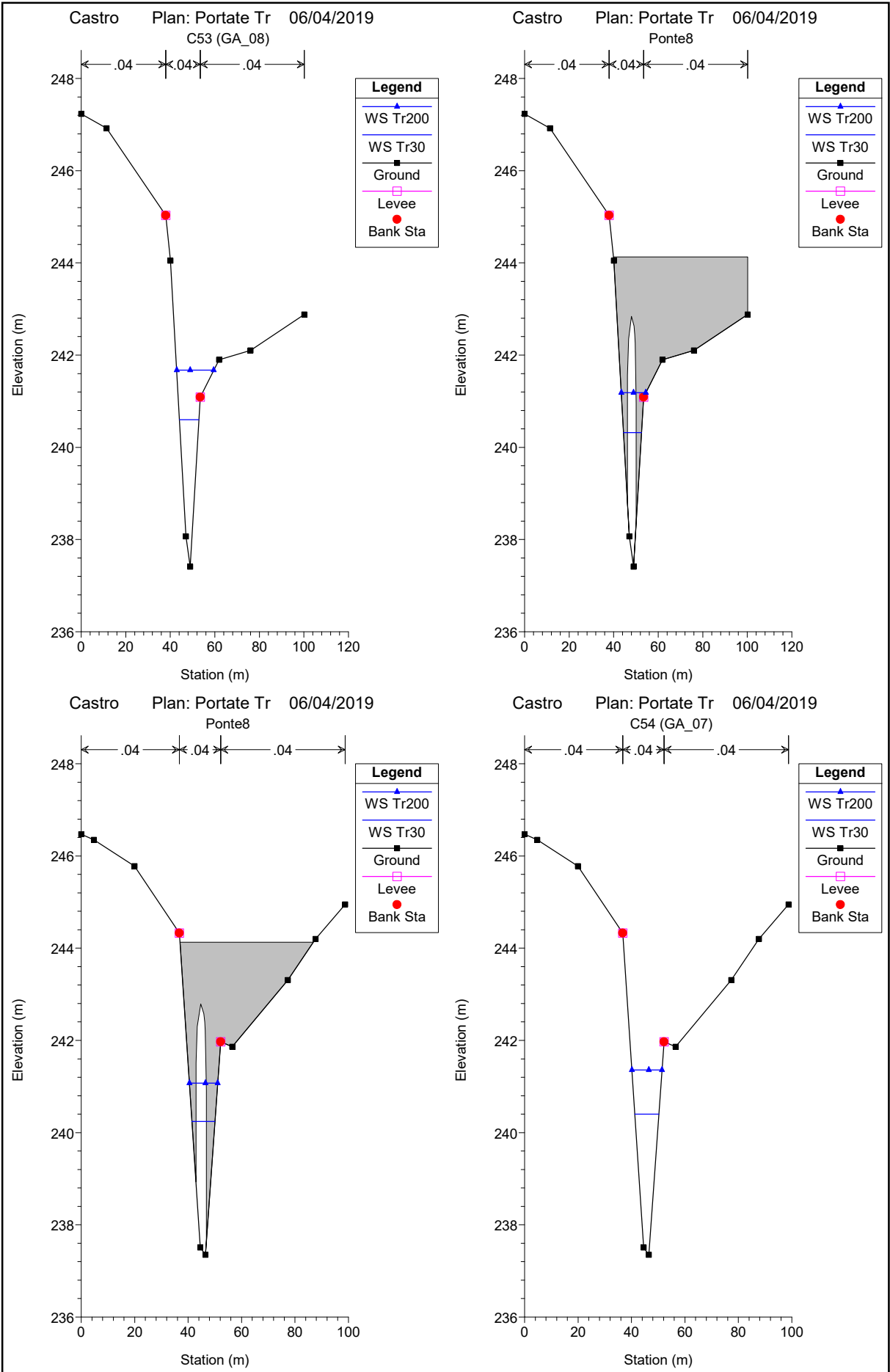


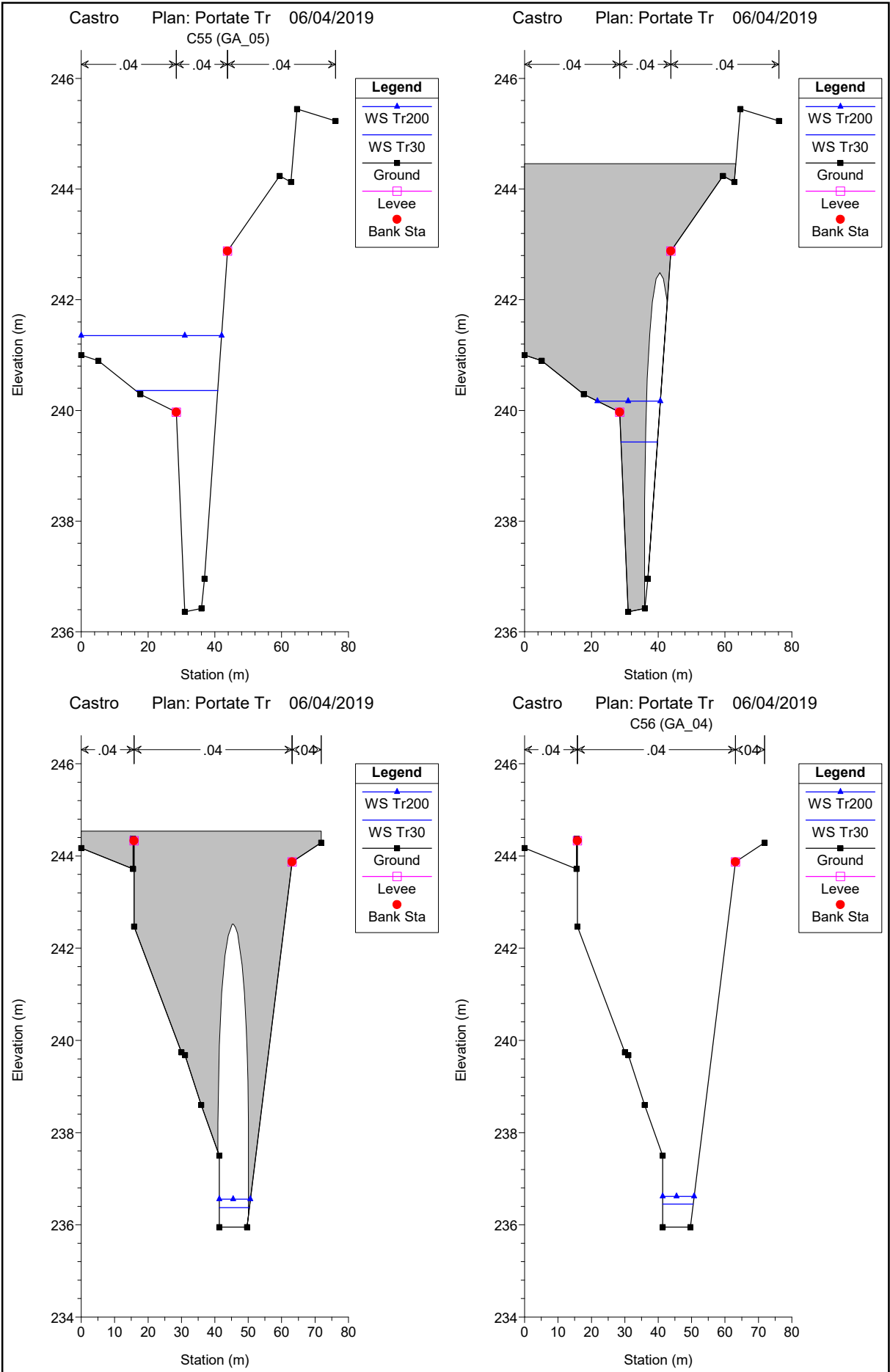


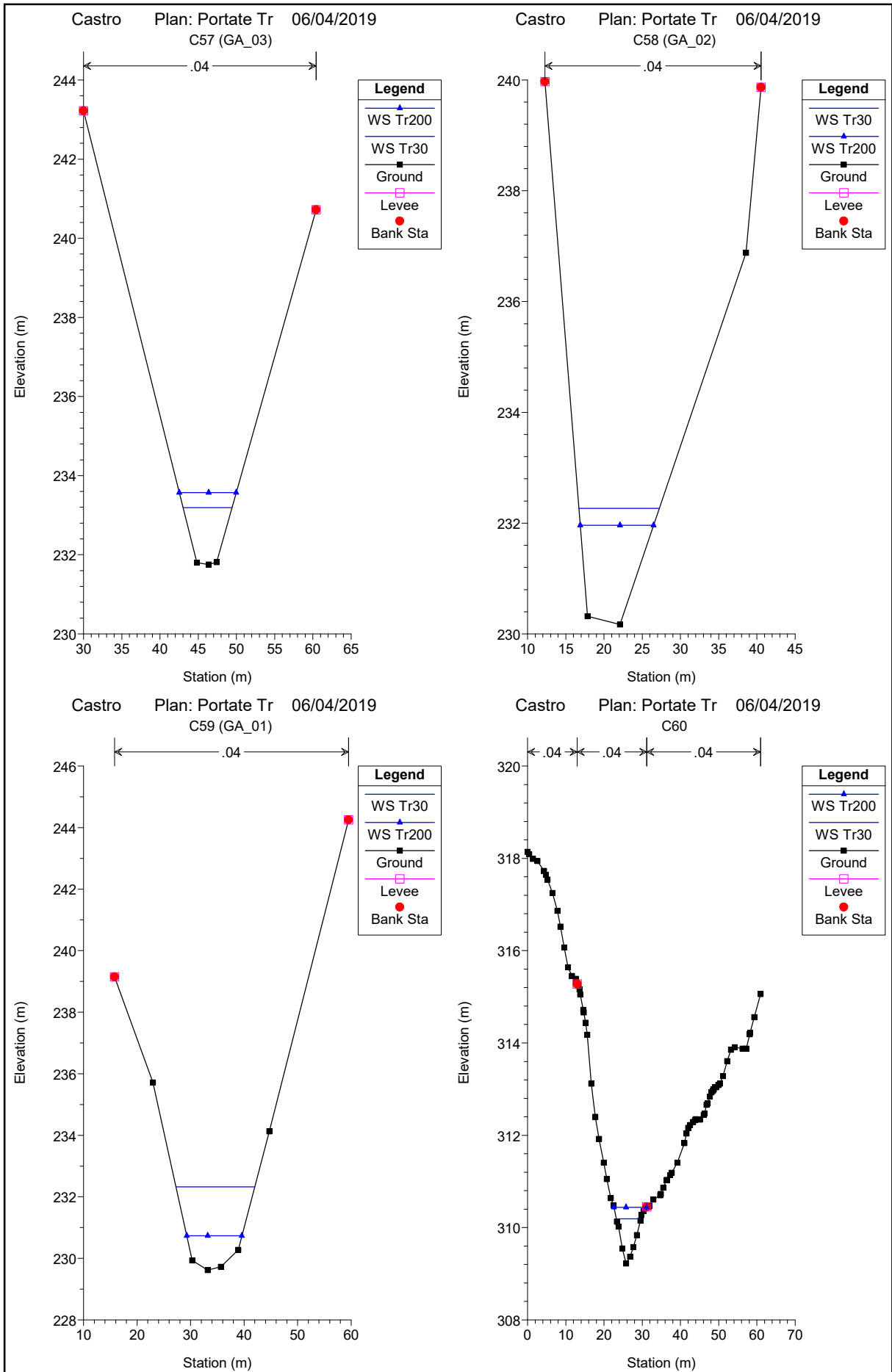


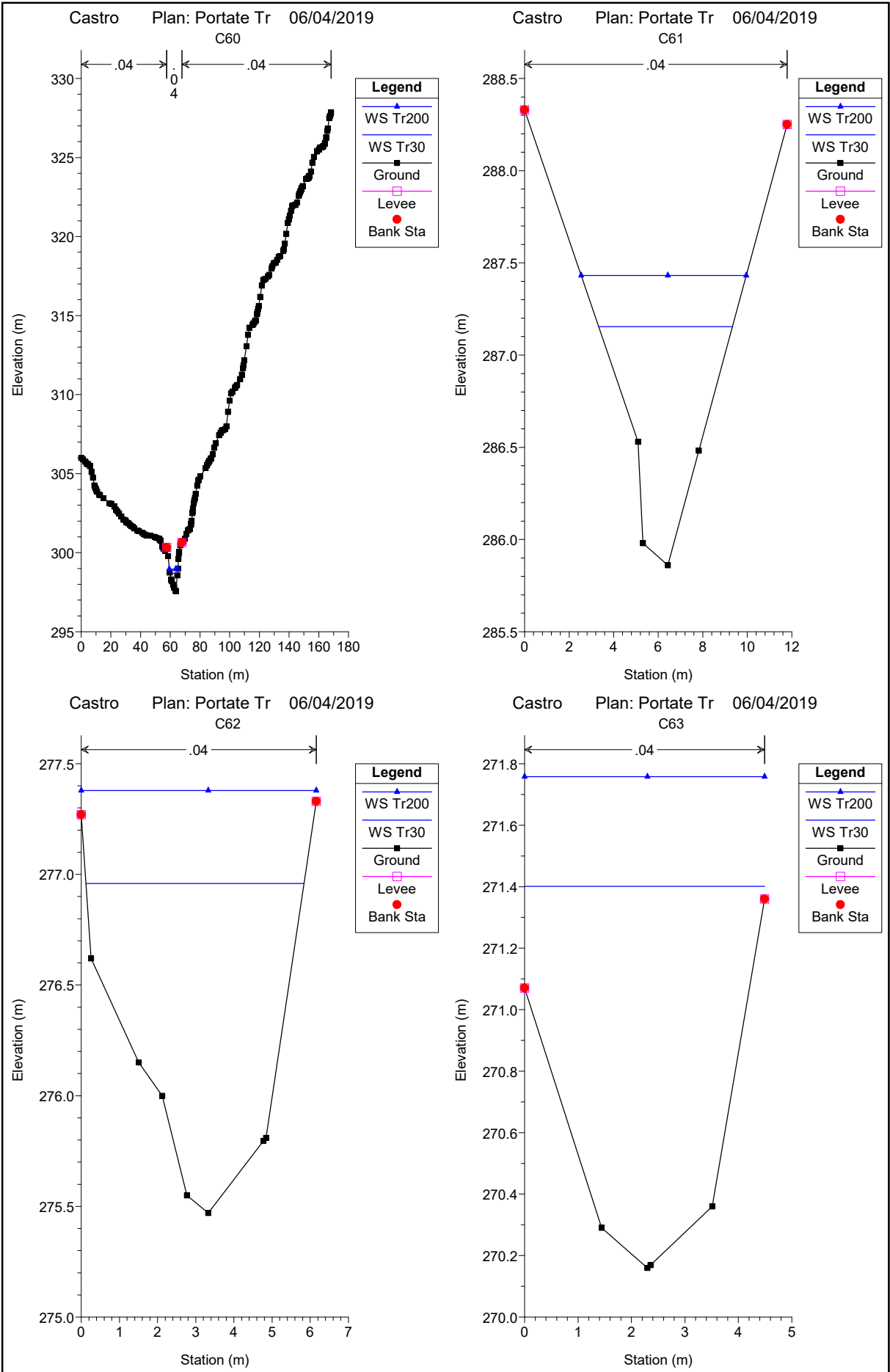


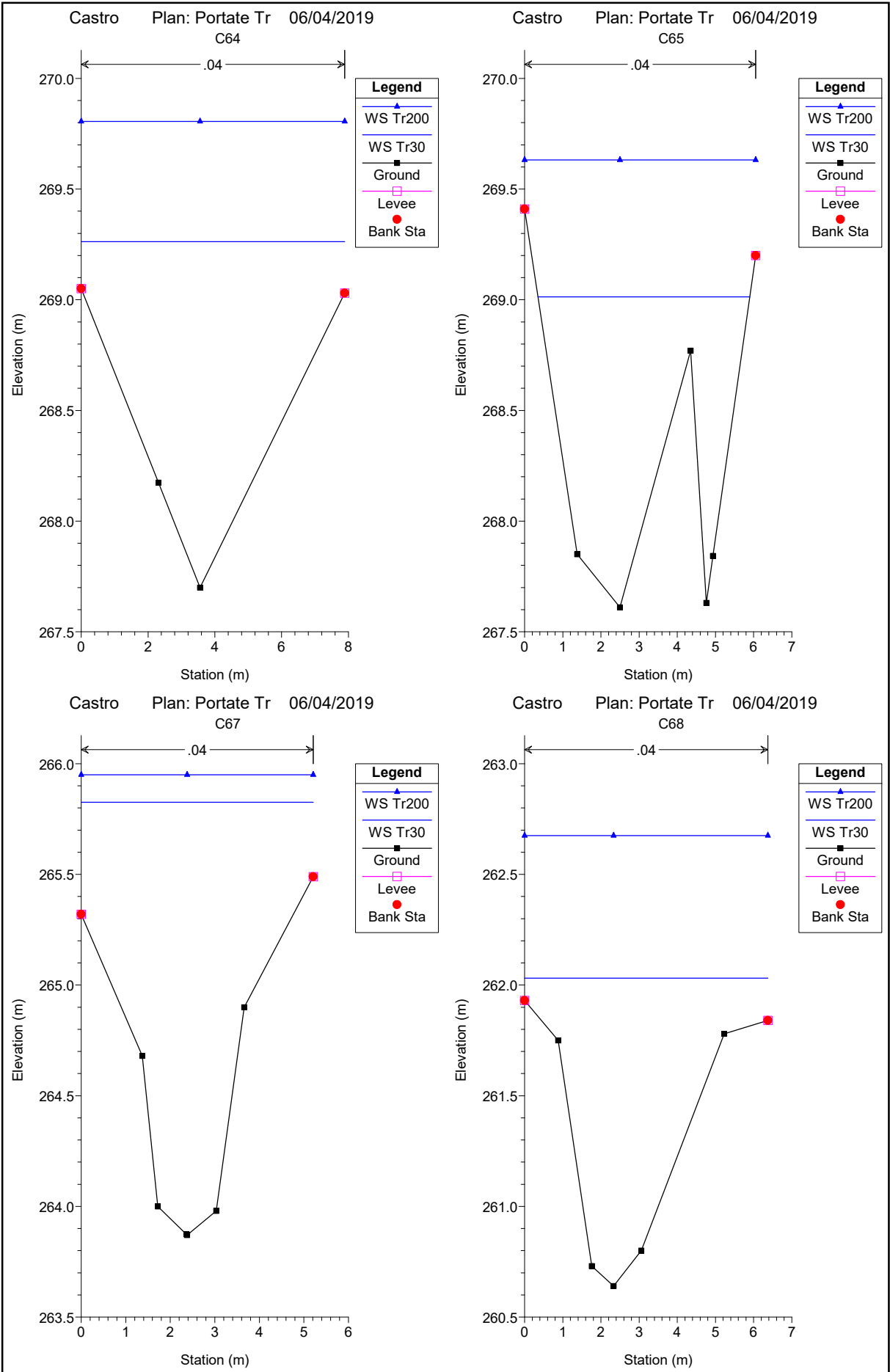


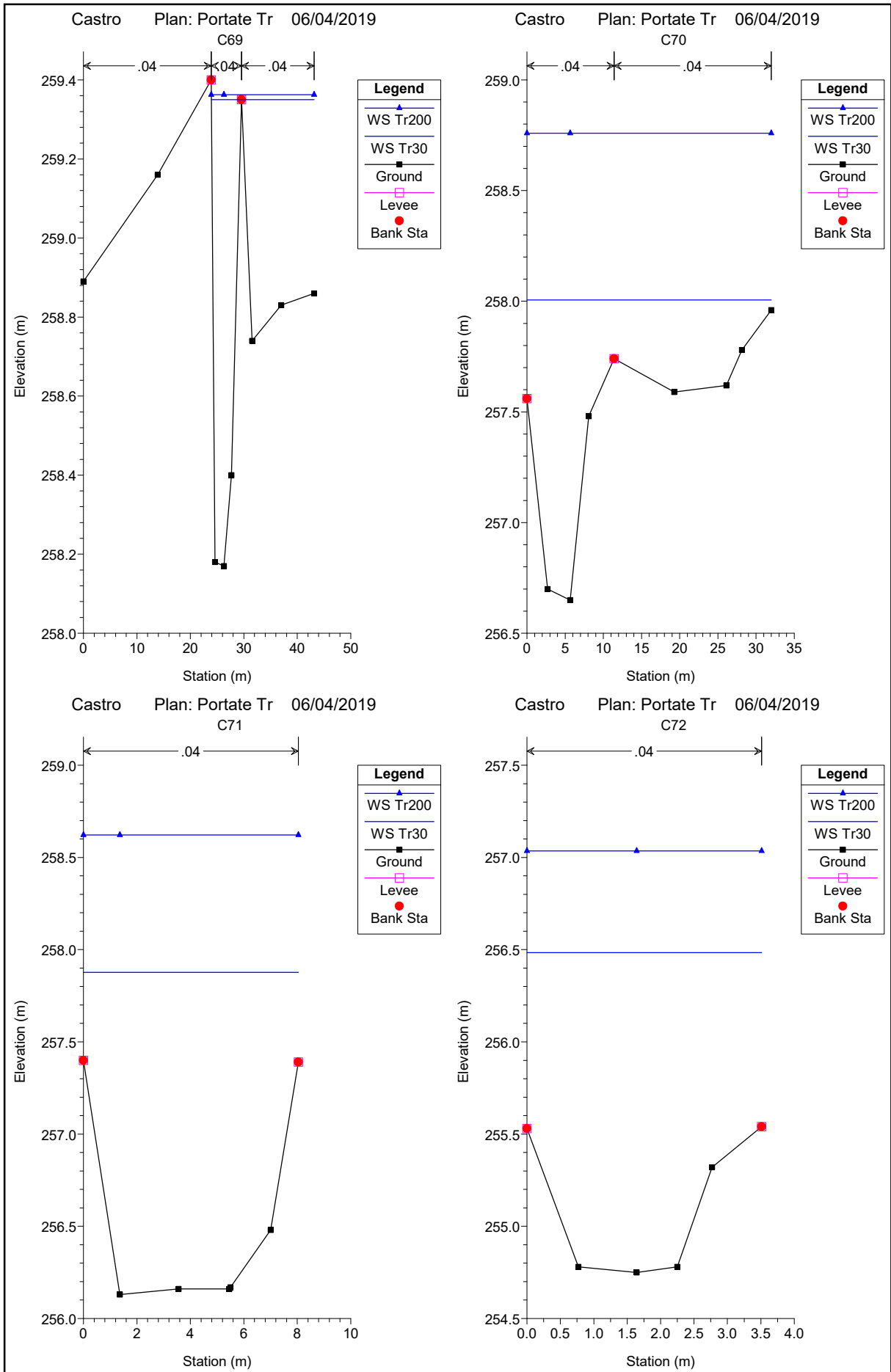


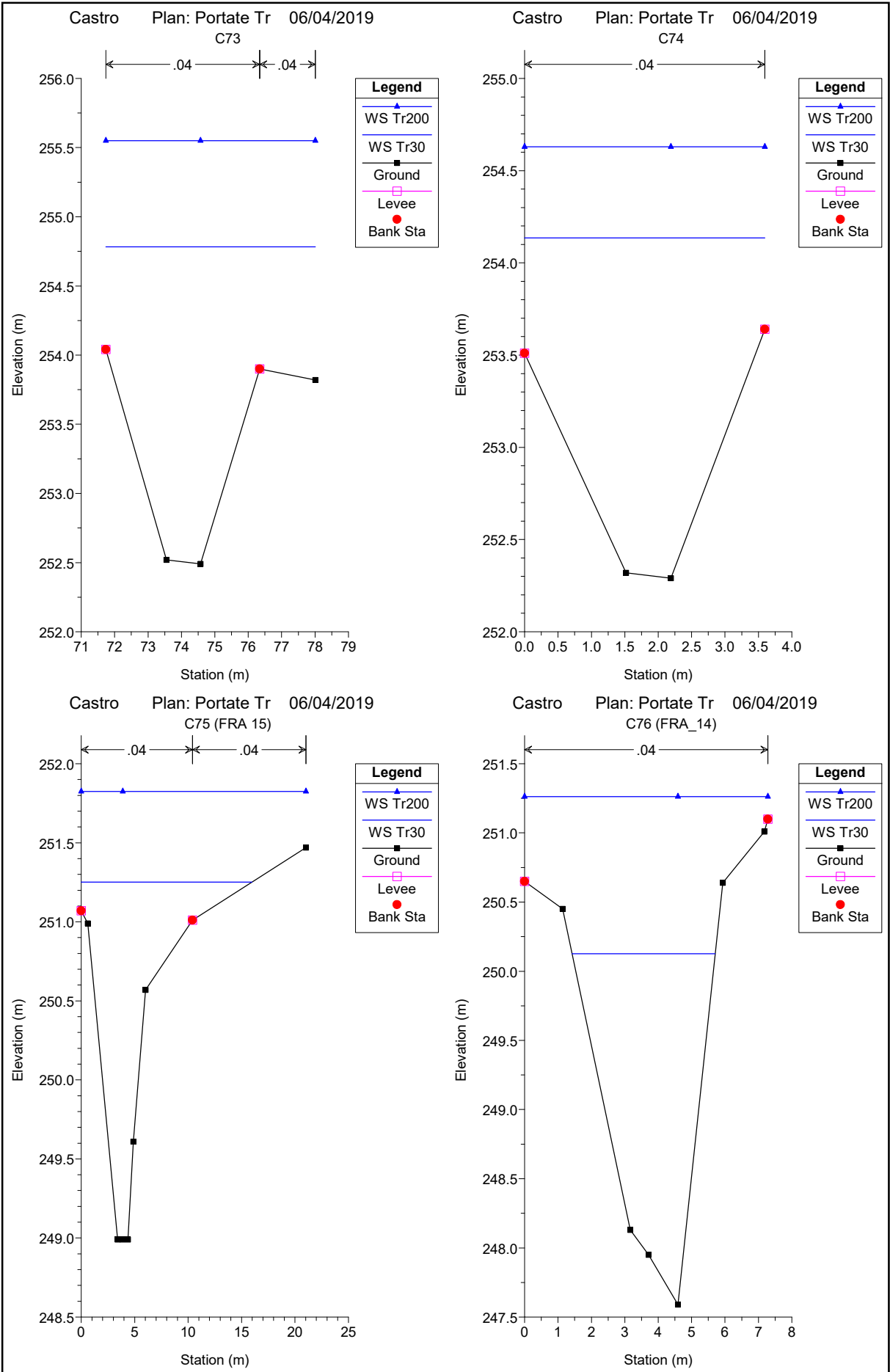


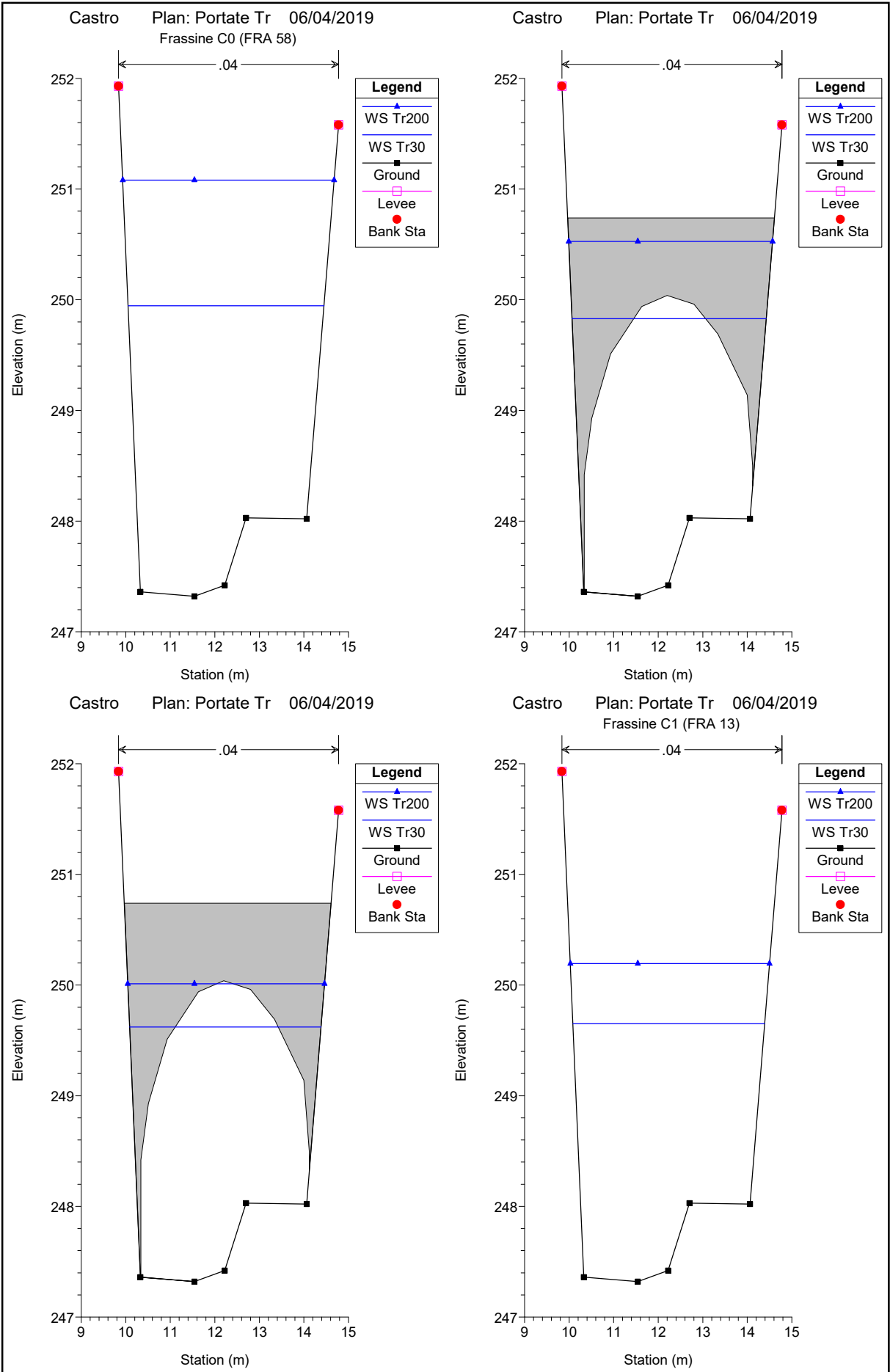


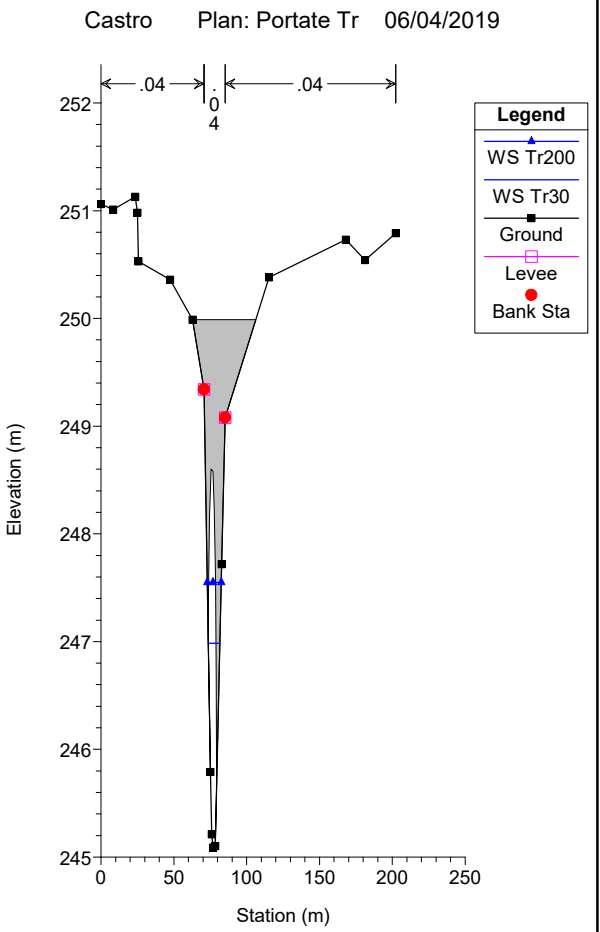
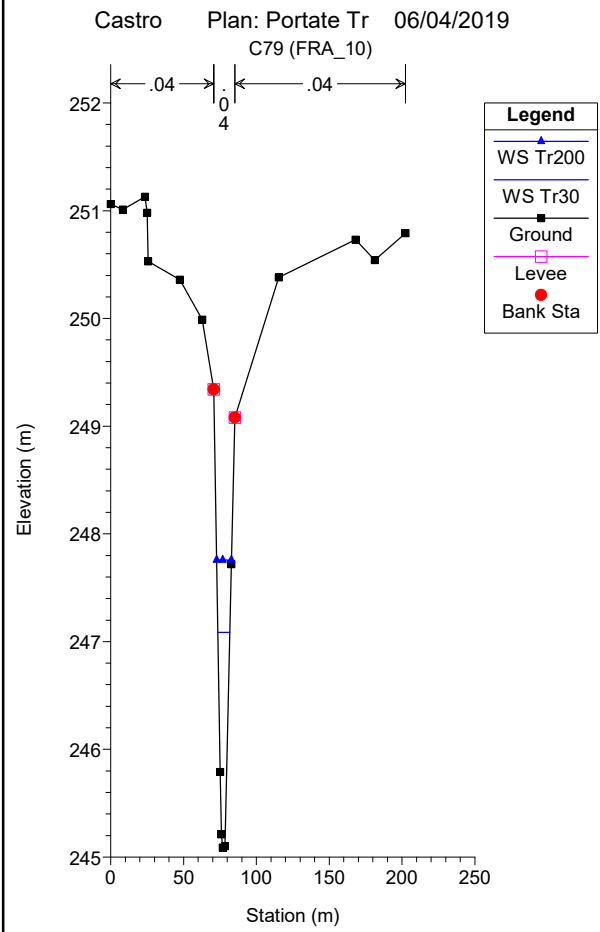
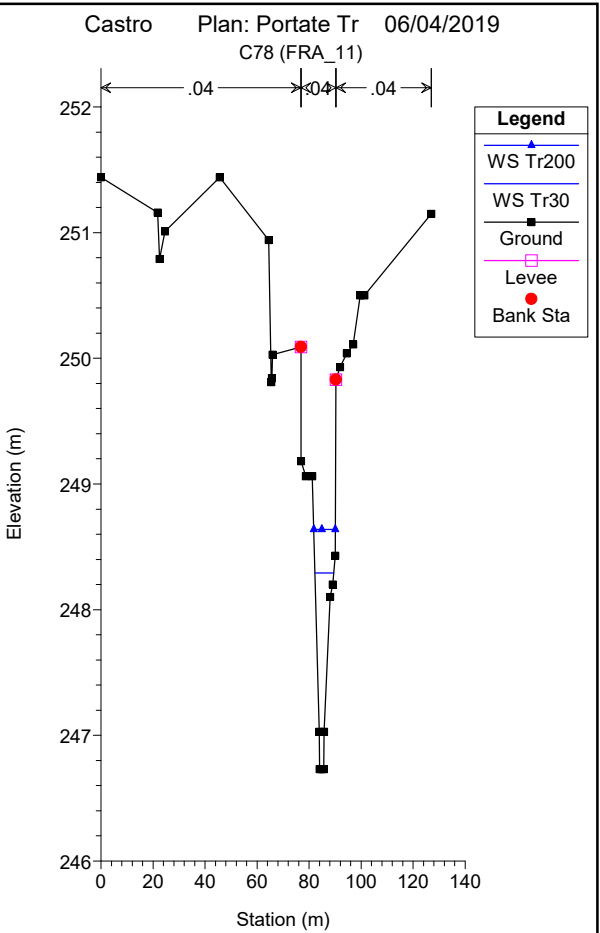
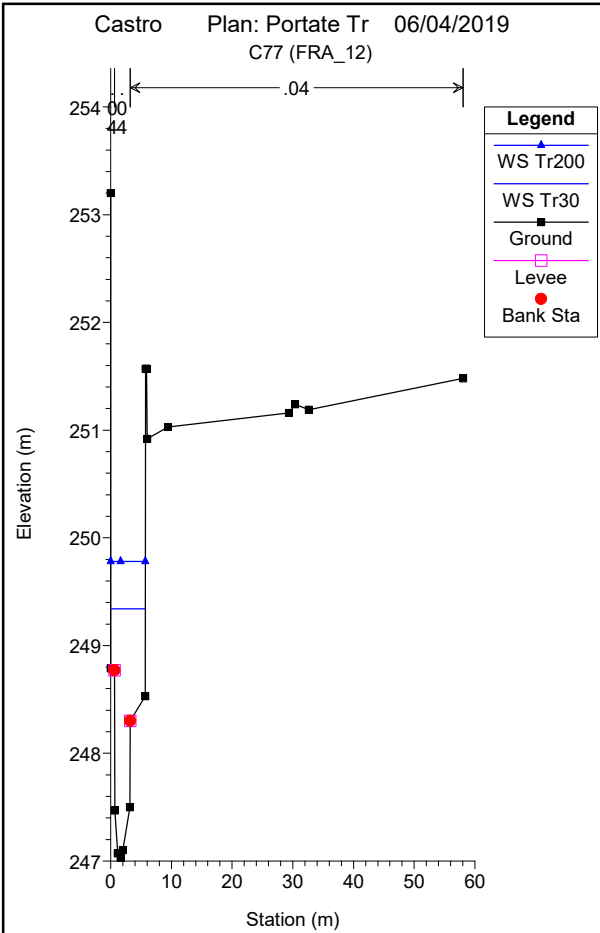


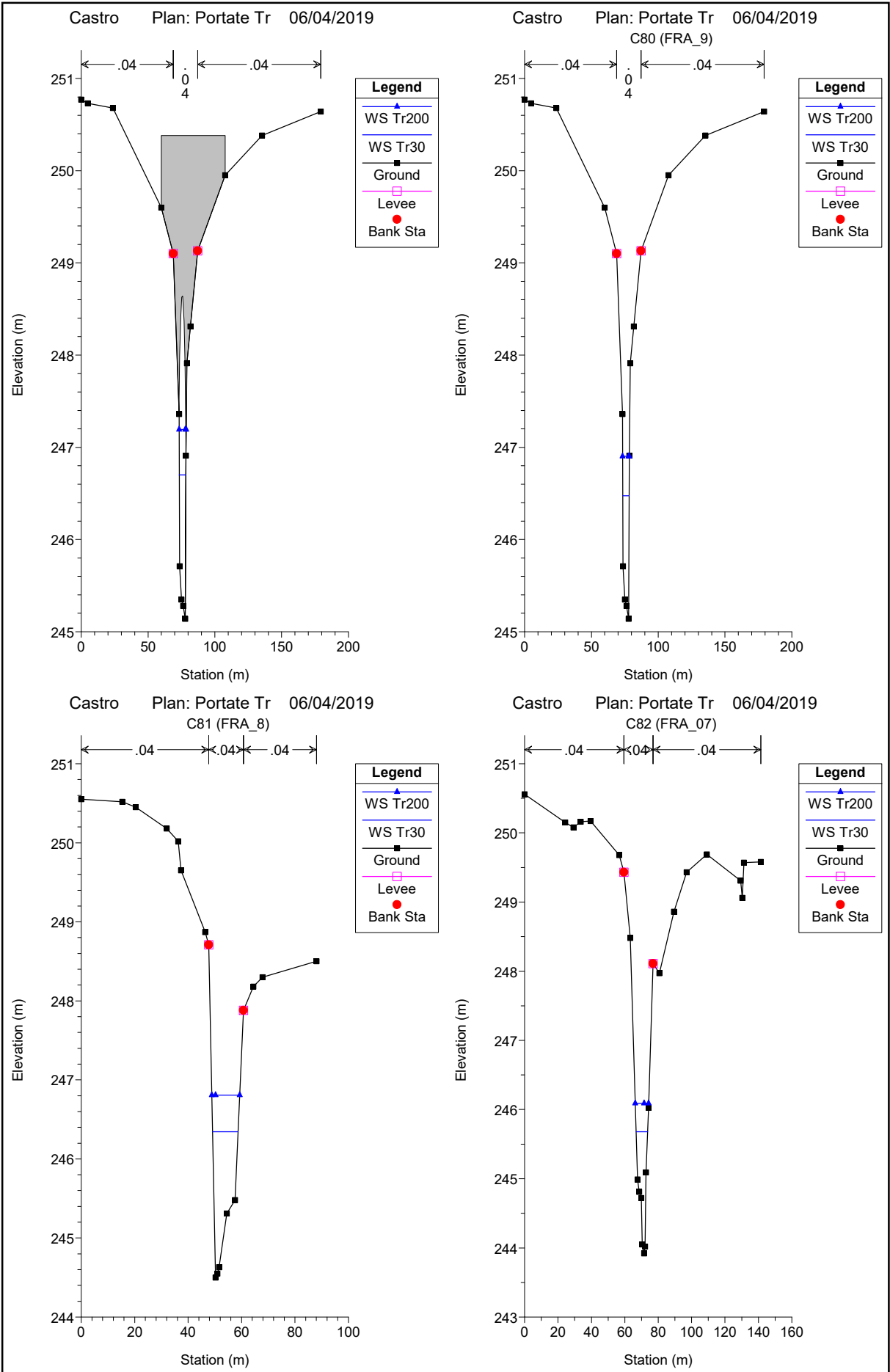


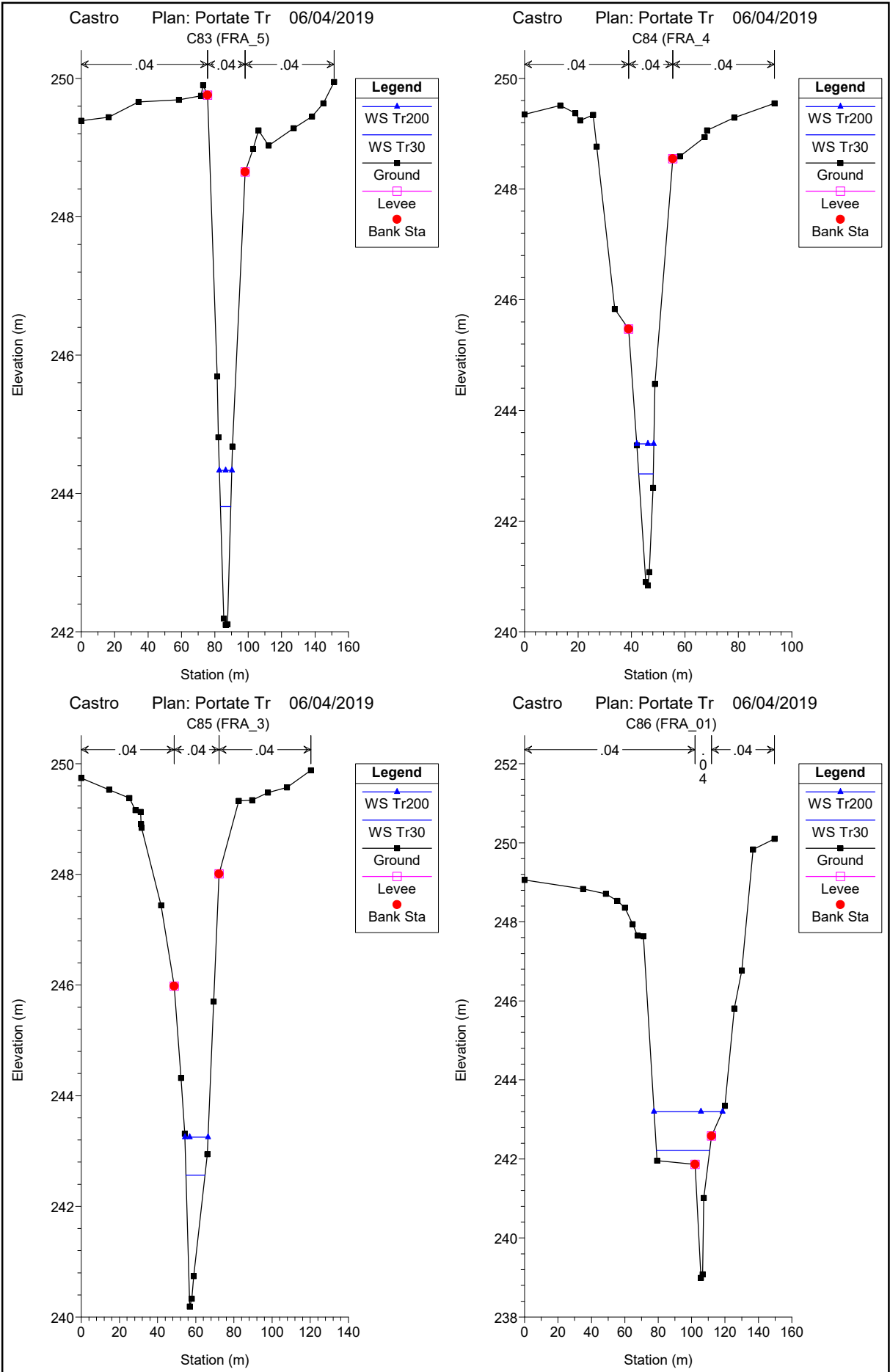


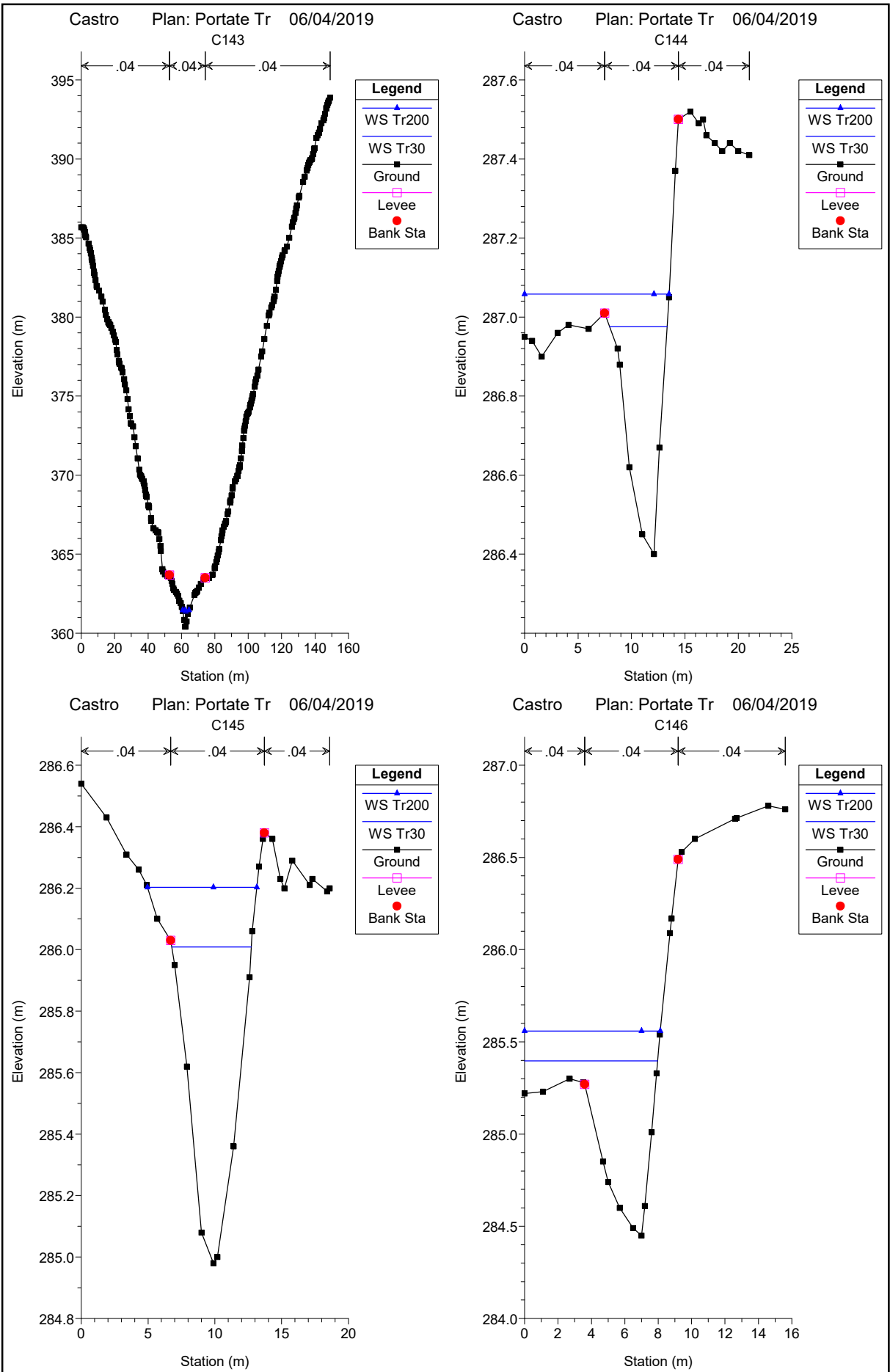


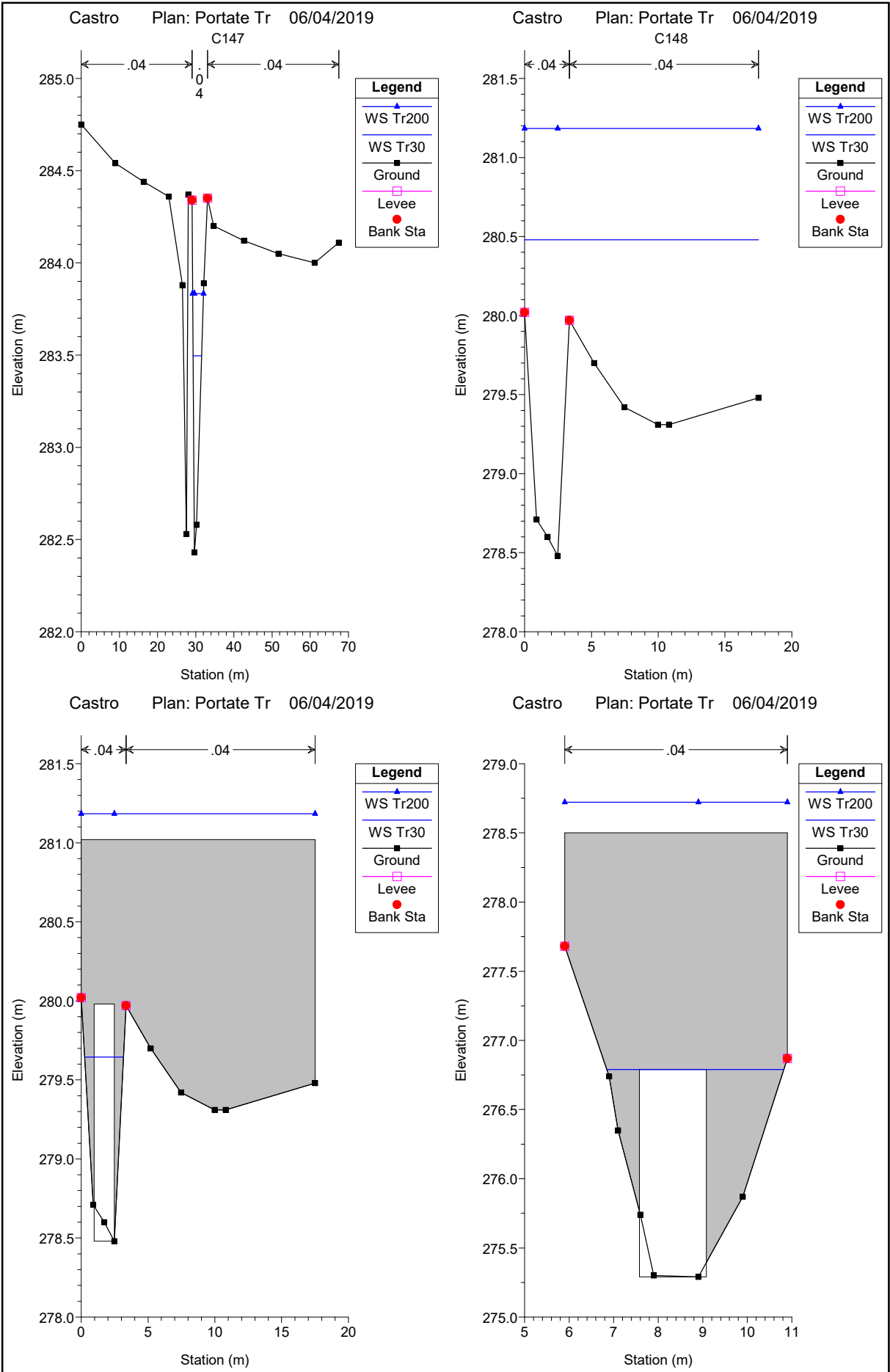


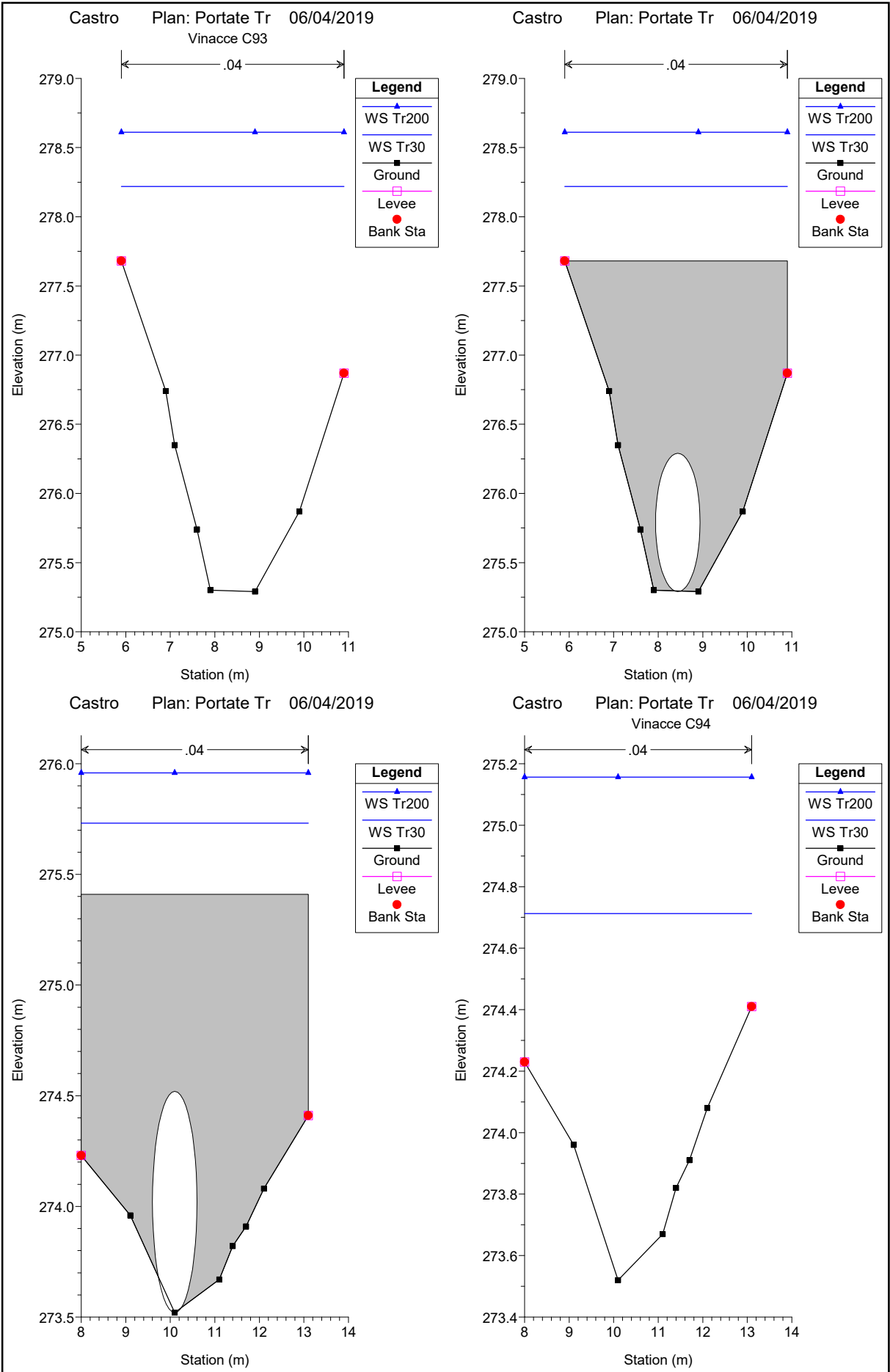


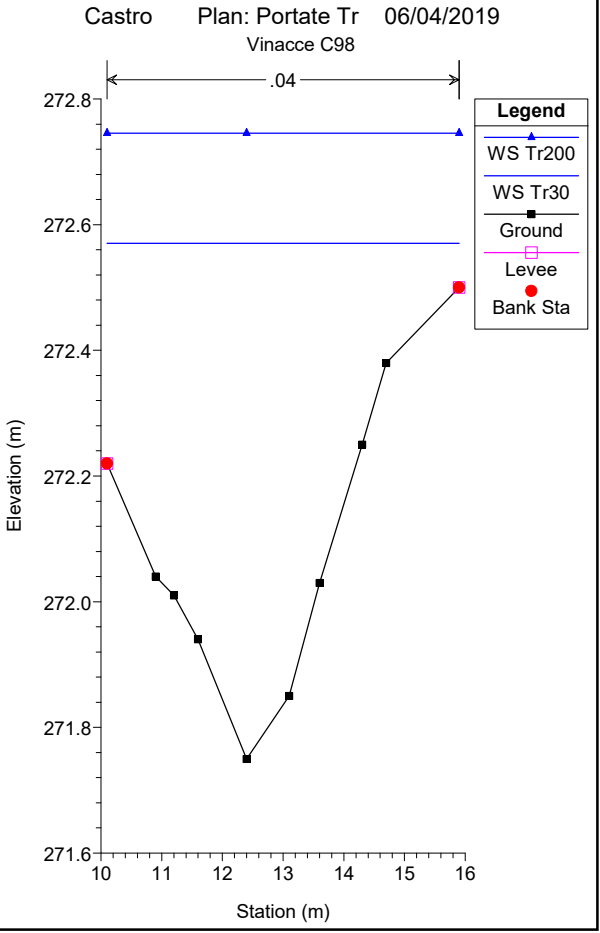
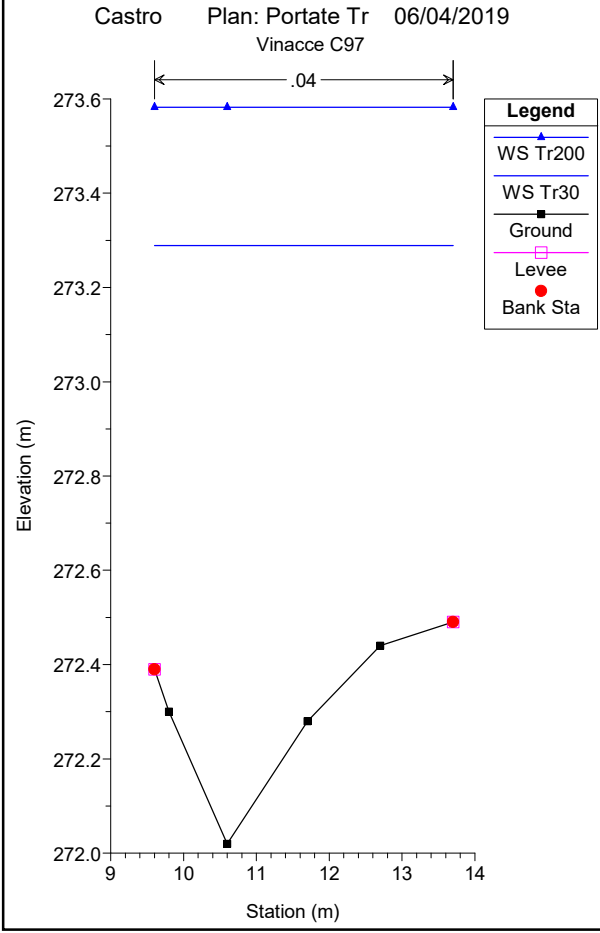
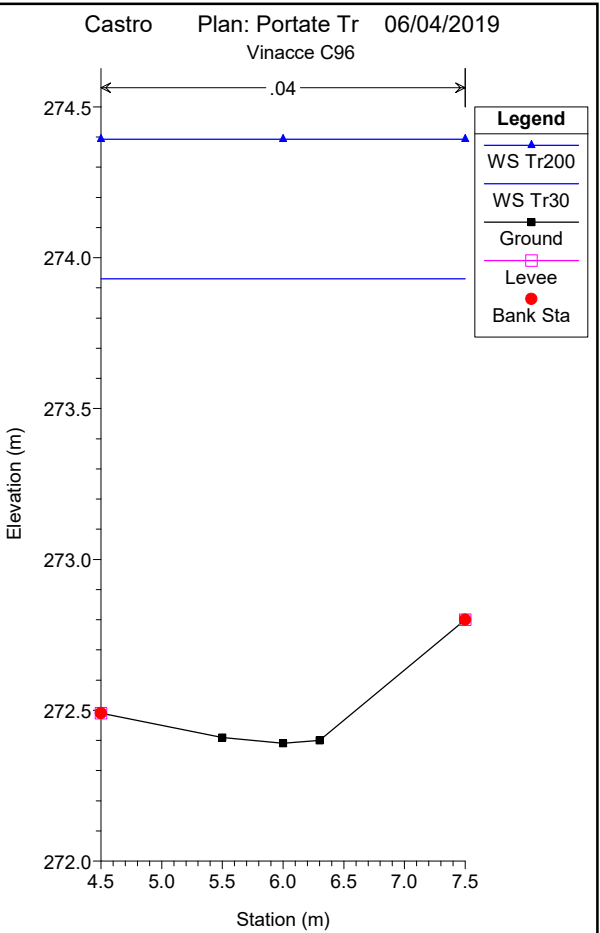
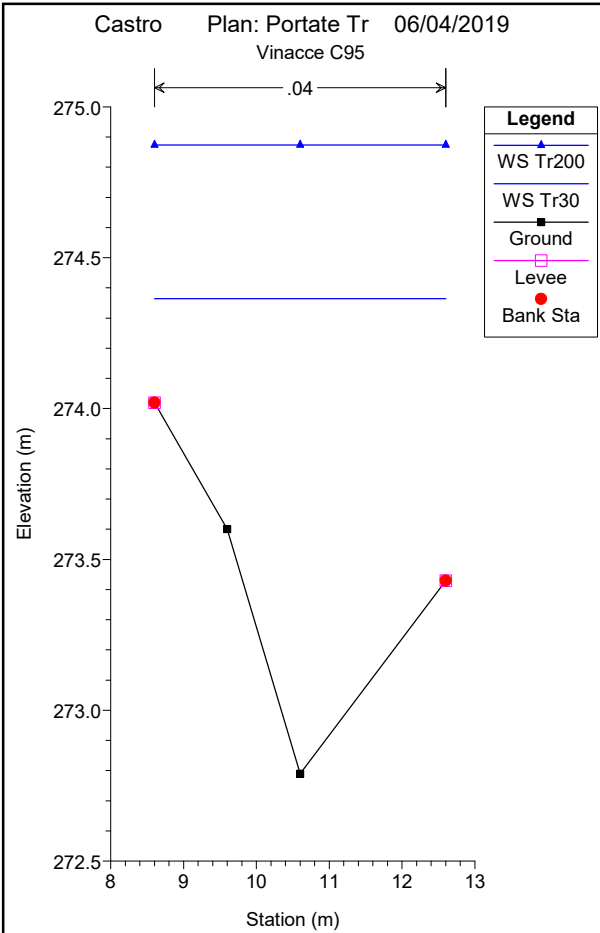


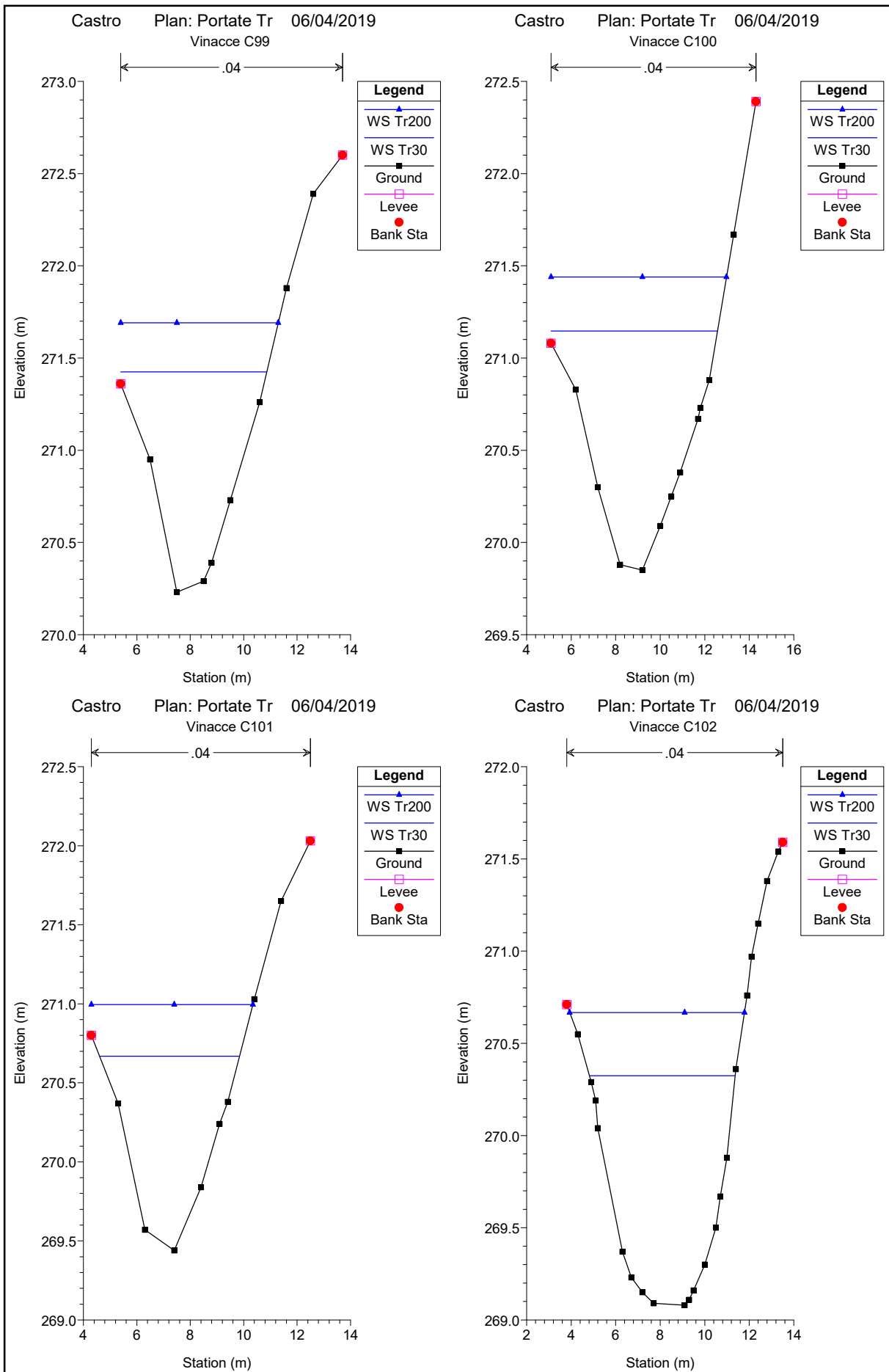




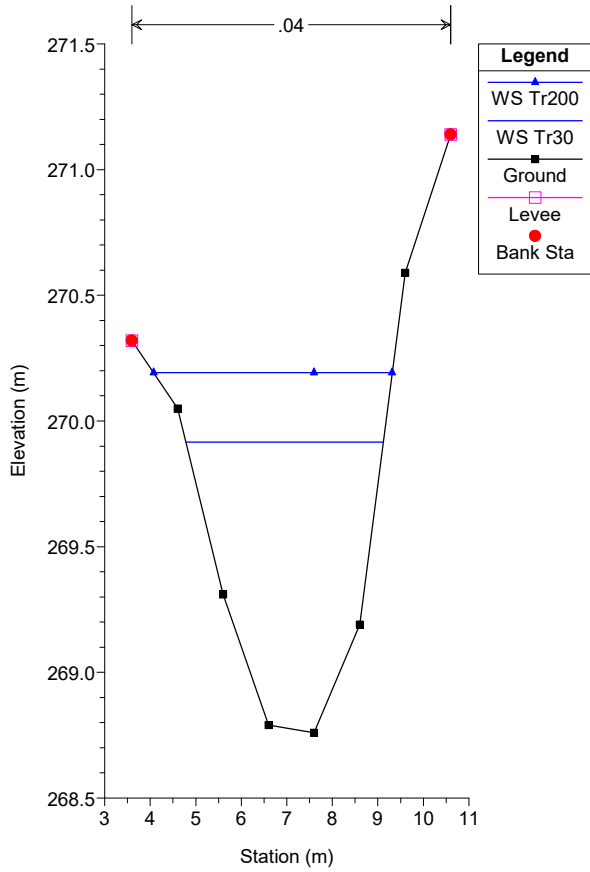




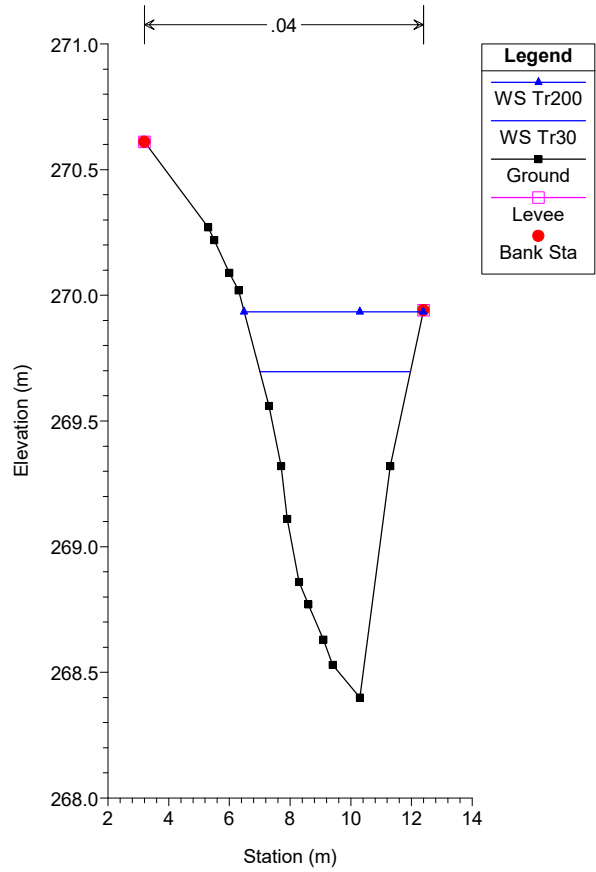




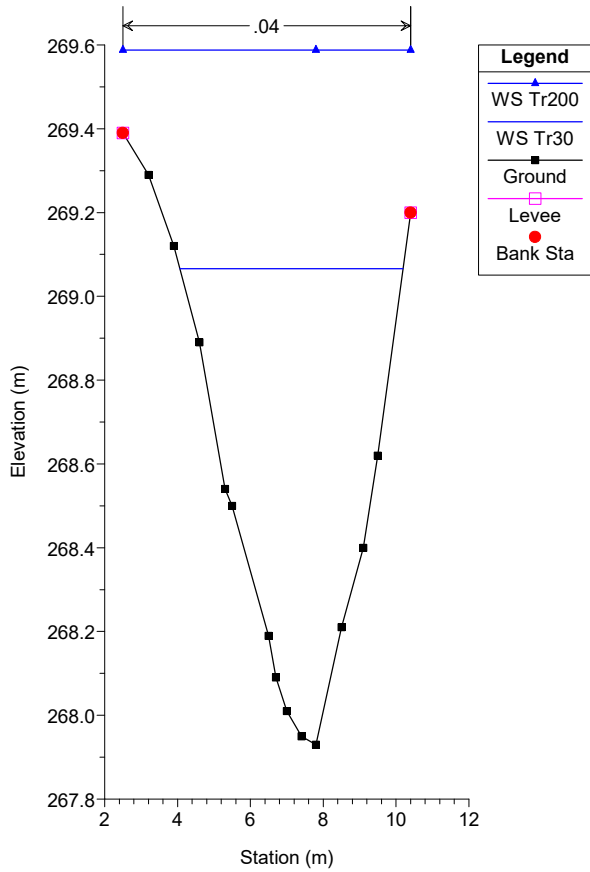
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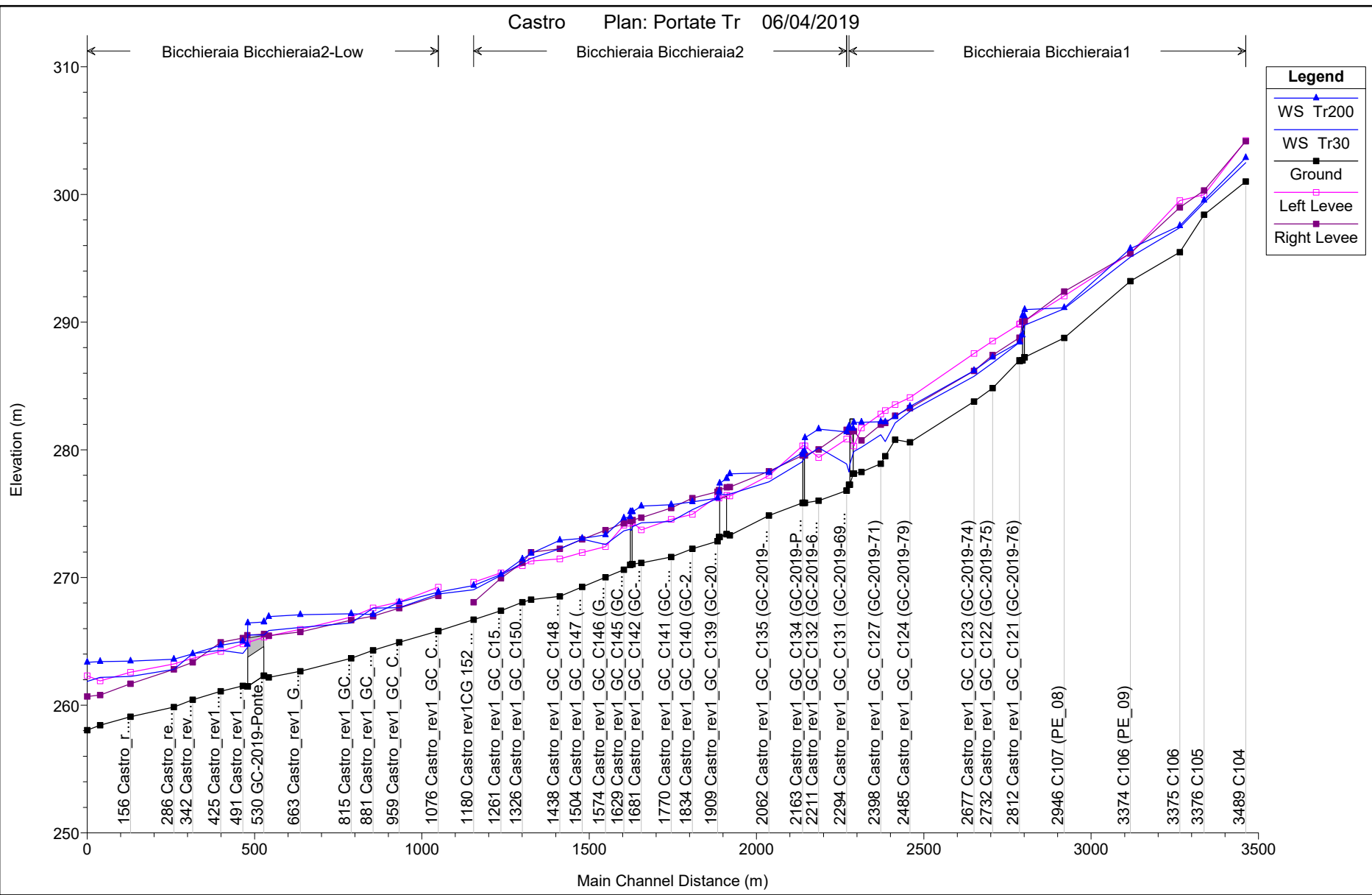
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Vinacce C104



Castro Plan: Portate Tr 06/04/2019
Vinacce C105

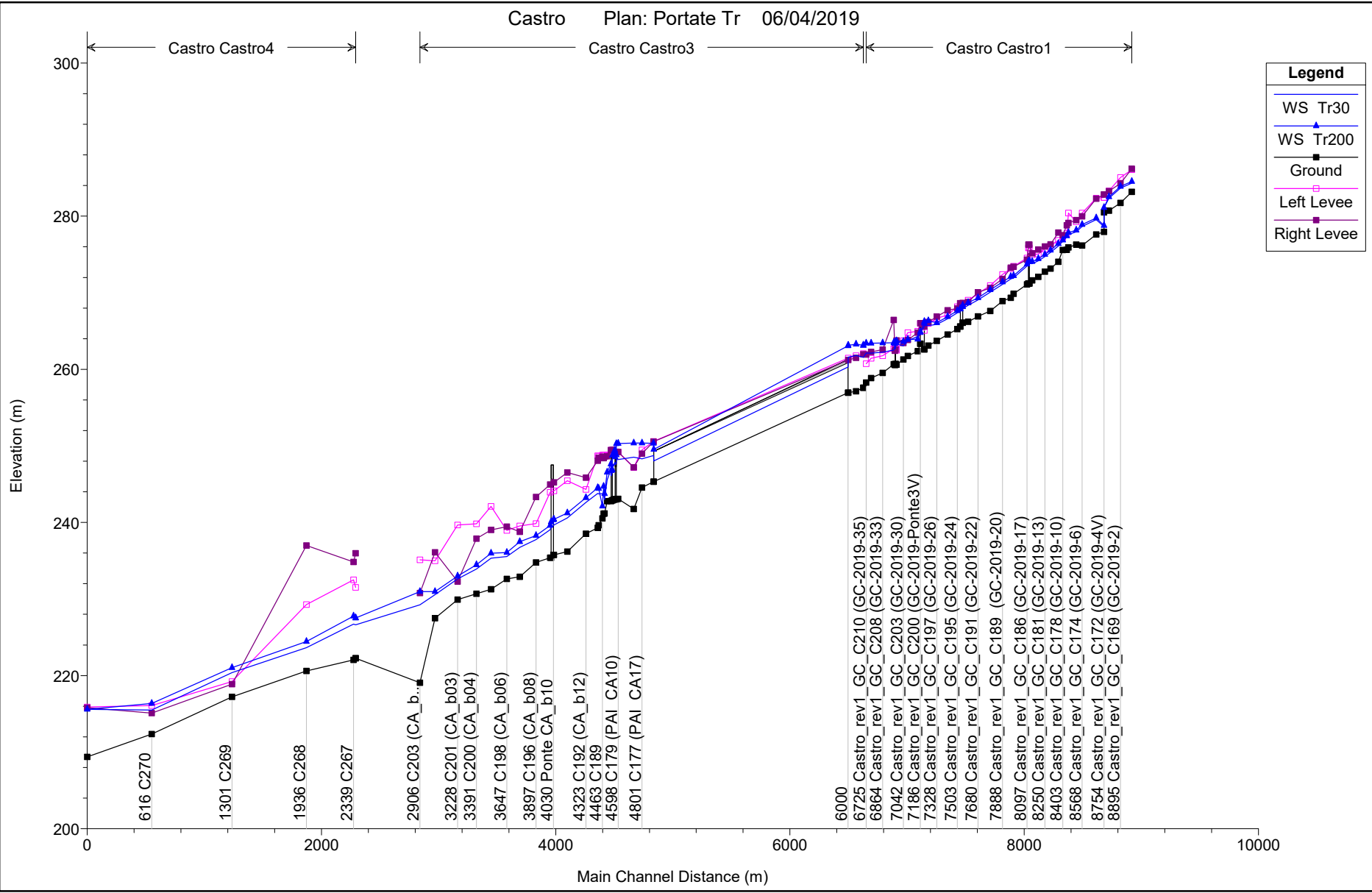


Castro Plan: Portate Tr 06/04/2019



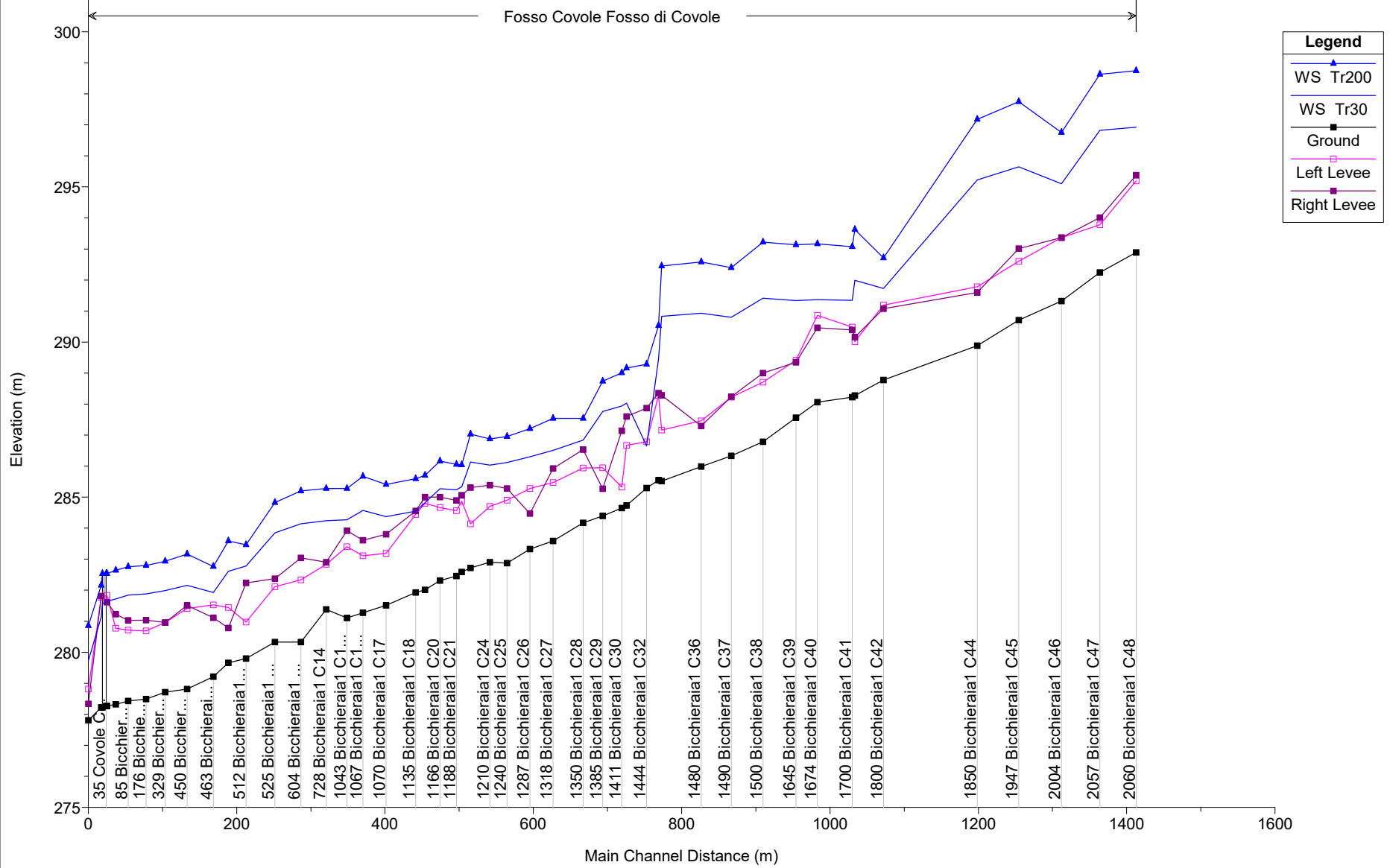
Legend	
WS Tr200	▲
WS Tr30	●
Ground	■
Left Levee	□
Right Levee	■

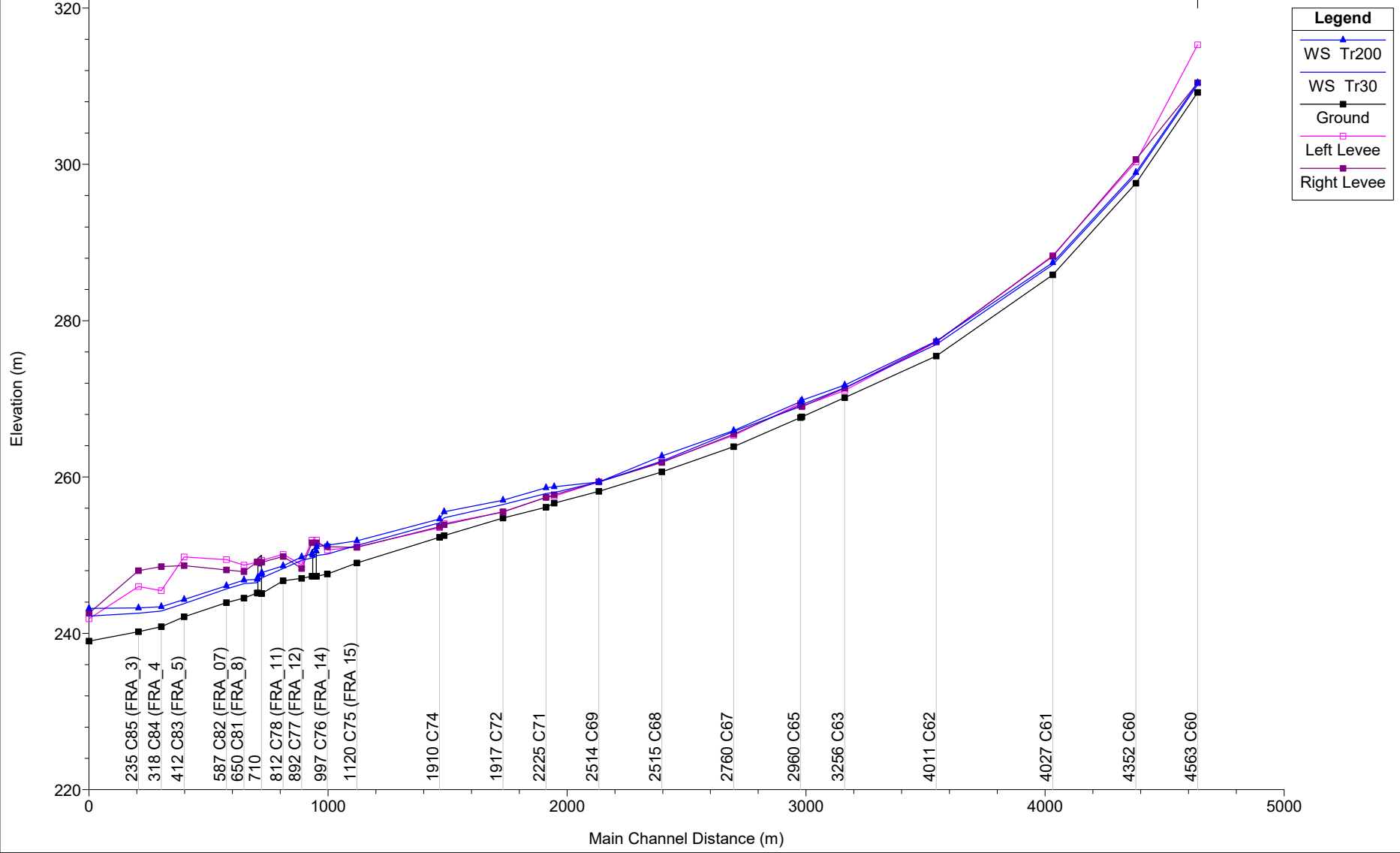
Castro Plan: Portate Tr 06/04/2019



Castro Plan: Portate Tr 06/04/2019

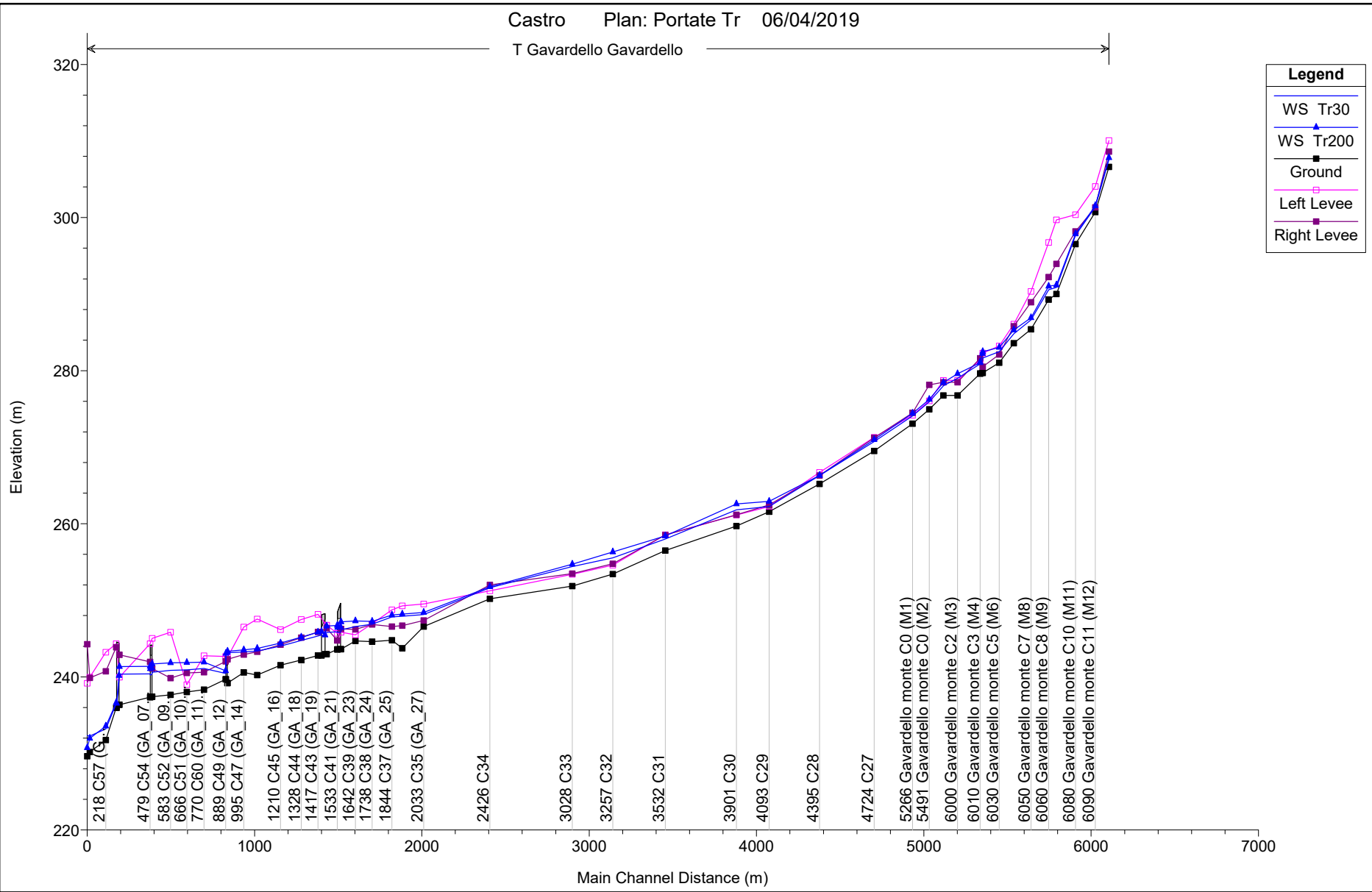
Fosso Covole Fosso di Covole





Castro Plan: Portate Tr 06/04/2019

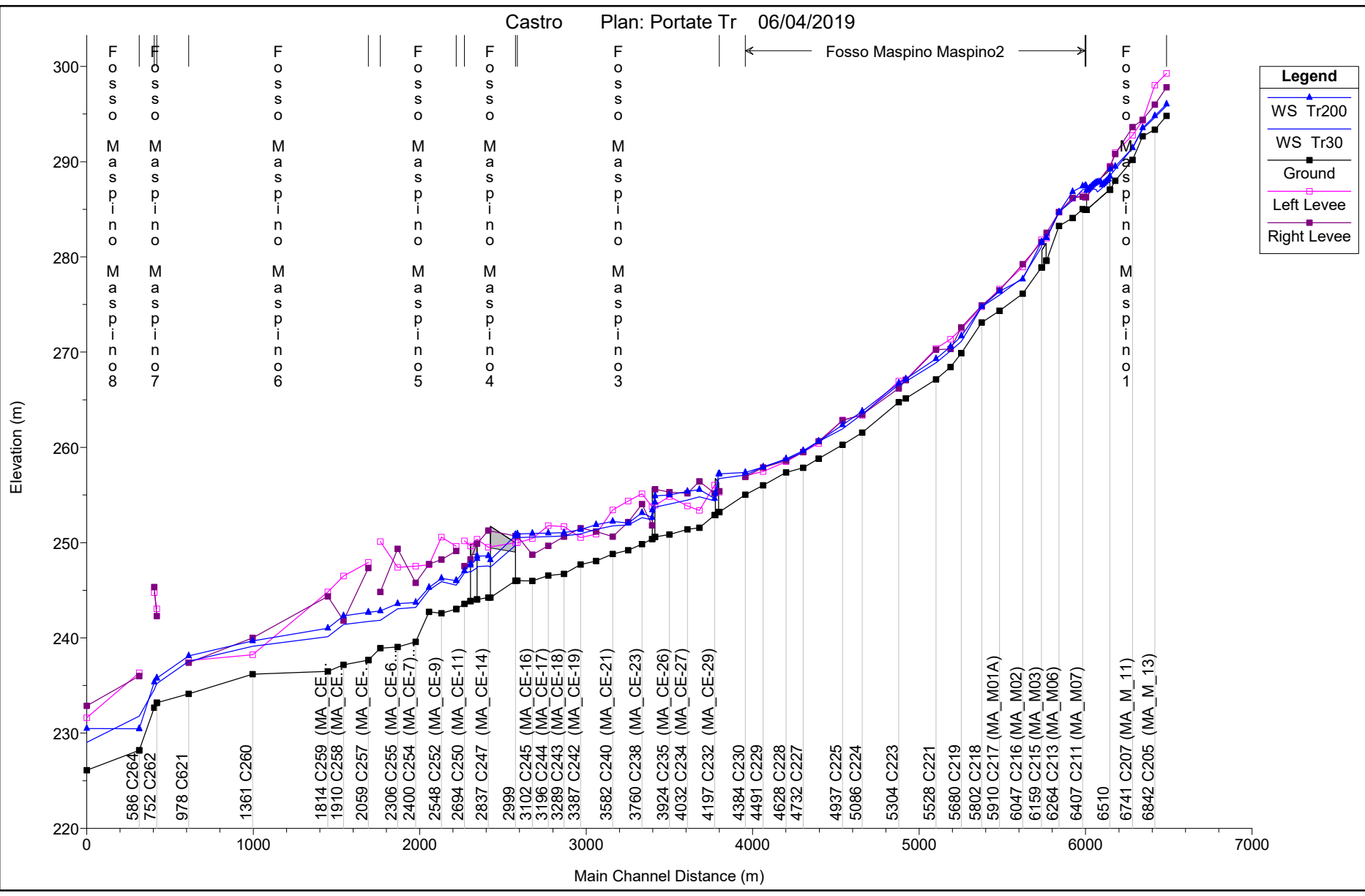
T Gavardello Gavardello



Legend

- WS Tr30
- WS Tr200
- Ground
- Left Levee
- Right Levee

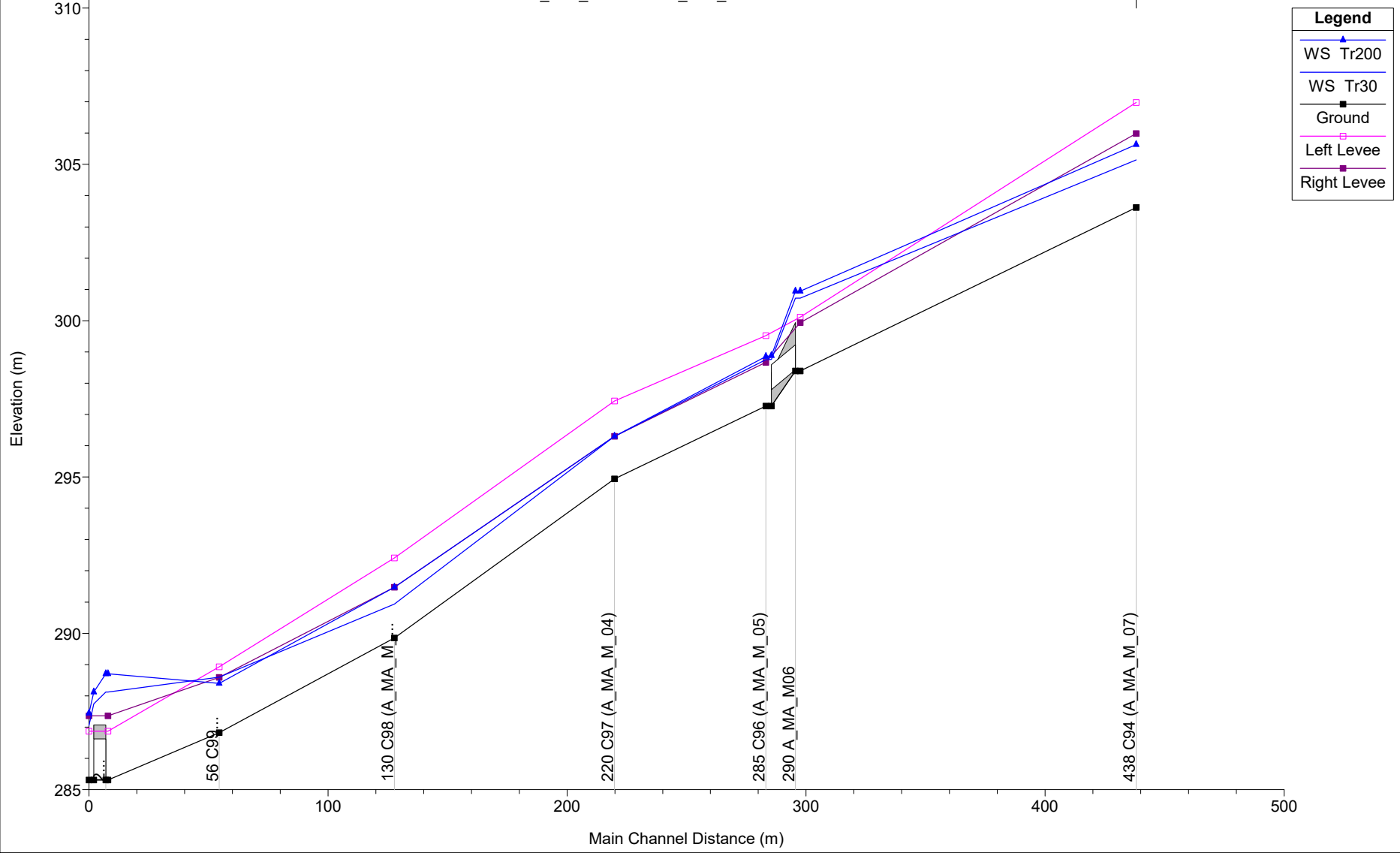
Castro Plan: Portate Tr 06/04/2019



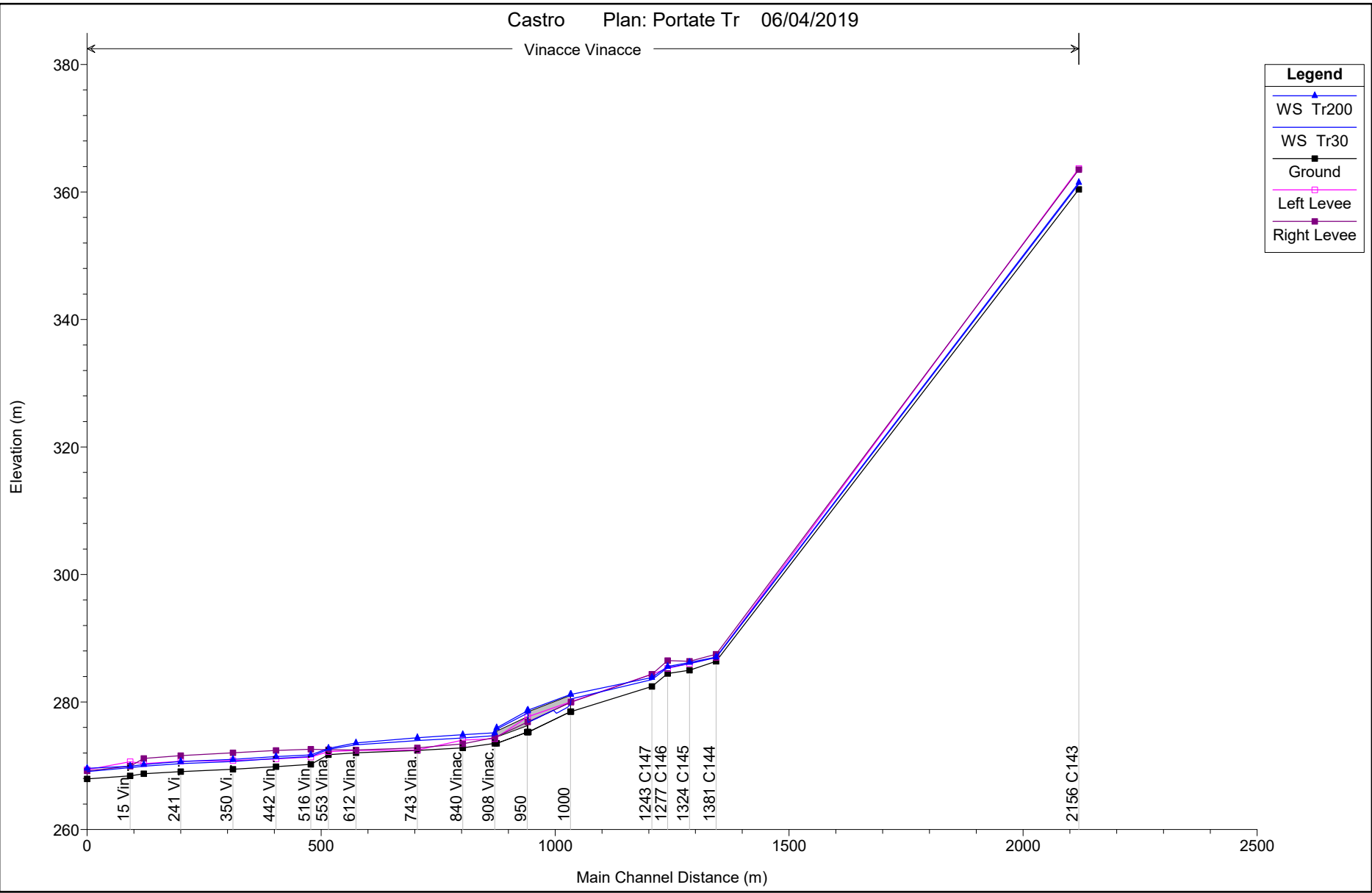
Legend

- WS Tr200
- WS Tr30
- Ground
- Left Levee
- Right Levee

Castro Plan: Portate Tr 06/04/2019
 Affluente_SX1_Ma Affluente_SX1_Ma



Vinacce Vinacce



HEC-RAS Plan: Portate Tr

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Vinacce	Vinacce	2156	Tr30	5.90	360.41	361.27	361.58	362.20	0.100028	4.27	1.38	3.00	2.01
Vinacce	Vinacce	2156	Tr200	9.50	360.41	361.46	361.82	362.59	0.100006	4.70	2.02	3.84	2.07
Vinacce	Vinacce	1381	Tr30	5.90	286.40	286.98	287.13	287.59	0.092529	3.46	1.70	5.37	1.96
Vinacce	Vinacce	1381	Tr200	9.50	286.40	287.06	287.24	287.72	0.093060	3.80	2.93	13.52	2.01
Vinacce	Vinacce	1324	Tr30	5.90	284.98	286.01	285.84	286.15	0.009444	1.65	3.57	5.95	0.68
Vinacce	Vinacce	1324	Tr200	9.50	284.98	286.20	286.05	286.40	0.010147	1.97	4.95	8.18	0.73
Vinacce	Vinacce	1277	Tr30	5.90	284.45	285.40	285.40	285.60	0.014913	2.05	3.18	7.96	0.84
Vinacce	Vinacce	1277	Tr200	9.50	284.45	285.56	285.56	285.82	0.015475	2.38	4.48	8.12	0.87
Vinacce	Vinacce	1243	Tr30	5.90	282.43	283.50	283.81	284.47	0.101158	4.36	1.35	2.25	1.79
Vinacce	Vinacce	1243	Tr200	9.50	282.43	283.83	284.14	284.77	0.071249	4.29	2.21	2.85	1.56
Vinacce	Vinacce	1071	Tr30	5.90	278.48	280.48	279.58	280.48	0.000161	0.30	19.37	17.51	0.08
Vinacce	Vinacce	1071	Tr200	9.50	278.48	281.18	279.89	281.19	0.000087	0.27	31.69	17.51	0.06
Vinacce	Vinacce	1000											
Vinacce	Vinacce	978	Tr30	5.90	275.29	278.22	276.32	278.24	0.000368	0.55	10.65	5.00	0.12
Vinacce	Vinacce	978	Tr200	9.50	275.29	278.61	276.61	278.64	0.000611	0.75	12.61	5.00	0.15
Vinacce	Vinacce	950											
Vinacce	Vinacce	908	Tr30	5.90	273.52	274.71	274.43	274.82	0.005840	1.45	4.07	5.10	0.52
Vinacce	Vinacce	908	Tr200	9.50	273.52	275.16	274.62	275.27	0.004154	1.50	6.33	5.10	0.43
Vinacce	Vinacce	840	Tr30	5.90	272.79	274.36	273.89	274.46	0.004680	1.39	4.23	4.00	0.43
Vinacce	Vinacce	840	Tr200	9.50	272.79	274.87	274.14	274.99	0.004068	1.52	6.27	4.00	0.39
Vinacce	Vinacce	743	Tr30	5.90	272.39	273.93	273.23	274.03	0.004319	1.37	4.30	3.00	0.37
Vinacce	Vinacce	743	Tr200	9.50	272.39	274.39	273.51	274.53	0.005399	1.67	5.69	3.00	0.39
Vinacce	Vinacce	612	Tr30	5.90	272.02	273.29	272.88	273.39	0.005403	1.44	4.10	4.10	0.46
Vinacce	Vinacce	612	Tr200	9.50	272.02	273.58	273.10	273.75	0.006735	1.79	5.30	4.10	0.50
Vinacce	Vinacce	553	Tr30	5.90	271.75	272.57	272.57	272.81	0.022636	2.15	2.75	5.80	1.00
Vinacce	Vinacce	553	Tr200	9.50	271.75	272.75	272.75	273.07	0.022065	2.52	3.76	5.80	1.00
Vinacce	Vinacce	516	Tr30	5.90	270.23	271.43	271.20	271.55	0.007762	1.58	3.72	5.47	0.61
Vinacce	Vinacce	516	Tr200	9.50	270.23	271.69	271.42	271.86	0.007582	1.82	5.23	5.89	0.62
Vinacce	Vinacce	442	Tr30	5.90	269.85	271.15	270.68	271.20	0.002844	1.05	5.62	7.47	0.39
Vinacce	Vinacce	442	Tr200	9.50	269.85	271.44	270.90	271.51	0.002729	1.21	7.86	7.88	0.39
Vinacce	Vinacce	350	Tr30	5.90	269.44	270.67	270.40	270.80	0.007424	1.59	3.72	5.24	0.60
Vinacce	Vinacce	350	Tr200	9.50	269.44	270.99	270.65	271.14	0.006241	1.70	5.59	6.05	0.56
Vinacce	Vinacce	241	Tr30	5.90	269.08	270.32	269.77	270.37	0.002093	1.00	5.92	6.55	0.33
Vinacce	Vinacce	241	Tr200	9.50	269.08	270.67	269.97	270.73	0.002189	1.13	8.38	7.85	0.35
Vinacce	Vinacce	20	Tr30	5.90	268.76	269.92	269.67	270.07	0.008477	1.74	3.38	4.34	0.63
Vinacce	Vinacce	20	Tr200	9.50	268.76	270.19	269.93	270.40	0.009651	2.03	4.68	5.24	0.69
Vinacce	Vinacce	15	Tr30	5.90	268.40	269.70	269.41	269.83	0.007489	1.61	3.67	4.97	0.60
Vinacce	Vinacce	15	Tr200	9.50	268.40	269.93	269.67	270.12	0.008895	1.91	4.97	5.90	0.67
Vinacce	Vinacce	10	Tr30	5.90	267.93	269.07	268.81	269.18	0.006638	1.47	4.03	6.13	0.58
Vinacce	Vinacce	10	Tr200	9.50	267.93	269.59	269.03	269.66	0.002833	1.21	7.84	7.90	0.39
Torrente Frassin	T.Frassine	4563	Tr30	11.60	309.22	310.19	310.38	310.78	0.045007	3.39	3.42	6.36	1.48
Torrente Frassin	T.Frassine	4563	Tr200	19.40	309.22	310.44	310.68	311.15	0.045047	3.72	5.22	8.50	1.52
Torrente Frassin	T.Frassine	4352	Tr30	11.60	297.57	298.70	298.88	299.35	0.043332	3.56	3.26	5.12	1.42
Torrente Frassin	T.Frassine	4352	Tr200	19.40	297.57	299.97	299.21	299.83	0.042350	4.12	4.71	5.71	1.45
Torrente Frassin	T.Frassine	4027	Tr30	11.60	285.86	287.15	287.22	287.58	0.026918	2.89	4.01	6.01	1.13
Torrente Frassin	T.Frassine	4027	Tr200	19.40	285.86	287.43	287.55	287.99	0.027635	3.30	5.87	7.41	1.19
Torrente Frassin	T.Frassine	4011	Tr30	11.60	275.47	276.96	276.74	277.19	0.009788	2.14	5.43	5.71	0.70
Torrente Frassin	T.Frassine	4011	Tr200	19.40	275.47	277.38	277.07	277.68	0.009251	2.44	7.94	6.16	0.69
Torrente Frassin	T.Frassine	3256	Tr30	11.60	270.16	271.40	271.40	271.84	0.021288	2.93	3.96	4.49	1.00
Torrente Frassin	T.Frassine	3256	Tr200	19.40	270.16	271.76	271.76	272.38	0.022560	3.49	5.56	4.49	1.00
Torrente Frassin	T.Frassine	2972	Tr30	11.60	267.70	269.26	268.96	269.40	0.005813	1.65	7.05	7.89	0.56
Torrente Frassin	T.Frassine	2972	Tr200	19.40	267.70	269.81	269.22	269.96	0.003900	1.71	11.33	7.89	0.46
Torrente Frassin	T.Frassine	2960	Tr30	11.60	267.61	269.01	268.93	269.33	0.019733	2.48	4.68	5.55	0.86
Torrente Frassin	T.Frassine	2960	Tr200	19.40	267.61	269.63	269.26	269.91	0.010035	2.33	8.34	6.05	0.63
Torrente Frassin	T.Frassine	2760	Tr30	11.60	263.87	265.83	265.47	266.02	0.007725	1.94	5.98	5.21	0.58
Torrente Frassin	T.Frassine	2760	Tr200	19.40	263.87	265.95	265.80	266.39	0.016059	2.93	6.63	5.21	0.83
Torrente Frassin	T.Frassine	2515	Tr30	11.60	260.64	262.03	262.03	262.38	0.021395	2.61	4.45	6.37	1.00
Torrente Frassin	T.Frassine	2515	Tr200	19.40	260.64	262.68	262.31	262.94	0.008391	2.27	8.55	6.37	0.63
Torrente Frassin	T.Frassine	2514	Tr30	16.30	258.17	259.35	259.35	259.46	0.006649	1.64	11.55	19.24	0.57
Torrente Frassin	T.Frassine	2514	Tr200	27.30	258.17	259.36	259.36	259.65	0.017494	2.69	11.78	19.25	0.93
Torrente Frassin	T.Frassine	2513	Tr30	16.30	256.65	258.01	257.73	258.07	0.003113	1.22	16.45	32.00	0.42
Torrente Frassin	T.Frassine	2513	Tr200	27.30	256.65	258.76	257.95	258.78	0.000562	0.75	40.56	32.00	0.19
Torrente Frassin	T.Frassine	2225	Tr30	16.30	256.13	257.88	257.11	257.97	0.002301	1.36	11.96	8.04	0.36
Torrente Frassin	T.Frassine	2225	Tr200	27.30	256.13	258.62	257.44	258.74	0.002011	1.52	17.96	8.04	0.32
Torrente Frassin	T.Frassine	1917	Tr30	16.30	254.75	256.48	256.33	257.01	0.020286	3.20	5.09	3.51	0.85
Torrente Frassin	T.Frassine	1917	Tr200	27.30	254.75	257.04	256.87	257.80	0.024374	3.88	7.03	3.51	0.88

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Torrente Frassin	T.Frassine	1916	Tr30	16.30	252.49	254.78	254.19	254.95	0.004183	1.85	9.39	6.27	0.45
Torrente Frassin	T.Frassine	1916	Tr200	27.30	252.49	255.55	254.56	255.75	0.003677	2.07	14.21	6.27	0.42
Torrente Frassin	T.Frassine	1910	Tr30	16.30	252.29	254.14	254.10	254.74	0.024243	3.45	4.73	3.60	0.96
Torrente Frassin	T.Frassine	1910	Tr200	27.30	252.29	254.63	254.63	255.53	0.029084	4.20	6.50	3.60	1.00
Torrente Frassin	T.Frassine	1120	Tr30	16.30	248.99	251.25	250.80	251.38	0.004901	1.57	10.84	15.97	0.51
Torrente Frassin	T.Frassine	1120	Tr200	27.30	248.99	251.82	251.20	251.91	0.002177	1.38	22.35	21.03	0.36
Torrente Frassin	T.Frassine	997	Tr30	16.30	247.59	250.13	249.70	250.46	0.011778	2.56	6.37	4.28	0.67
Torrente Frassin	T.Frassine	997	Tr200	27.30	247.59	251.26	250.26	251.48	0.005731	2.09	13.09	7.28	0.50
Torrente Frassin	T.Frassine	995	Tr30	16.30	247.32	249.95	248.88	250.10	0.004405	1.75	9.31	4.40	0.38
Torrente Frassin	T.Frassine	995	Tr200	27.30	247.32	251.08	249.38	251.26	0.003868	1.88	14.51	4.75	0.34
Torrente Frassin	T.Frassine	992		Bridge									
Torrente Frassin	T.Frassine	990	Tr30	16.30	247.32	249.65	248.88	249.86	0.006556	2.03	8.03	4.31	0.47
Torrente Frassin	T.Frassine	990	Tr200	27.30	247.32	250.19	249.38	250.54	0.009190	2.62	10.41	4.47	0.55
Torrente Frassin	T.Frassine	892	Tr30	16.30	247.03	249.34	248.90	249.57	0.006904	2.25	8.06	5.68	0.50
Torrente Frassin	T.Frassine	892	Tr200	27.30	247.03	249.78	249.30	250.15	0.008896	2.90	10.56	5.69	0.58
Torrente Frassin	T.Frassine	812	Tr30	16.30	246.73	248.29	248.29	248.69	0.020365	2.80	5.82	7.26	1.00
Torrente Frassin	T.Frassine	812	Tr200	27.30	246.73	248.64	248.64	249.16	0.019190	3.18	8.58	8.31	1.00
Torrente Frassin	T.Frassine	722	Tr30	16.30	245.09	247.09	246.38	247.21	0.003197	1.53	10.66	8.28	0.43
Torrente Frassin	T.Frassine	722	Tr200	27.30	245.09	247.76	246.78	247.89	0.002615	1.62	16.87	10.22	0.40
Torrente Frassin	T.Frassine	710		Bridge									
Torrente Frassin	T.Frassine	705	Tr30	16.30	245.14	246.48	246.46	246.99	0.022035	3.17	5.14	4.84	0.98
Torrente Frassin	T.Frassine	705	Tr200	27.30	245.14	246.90	246.90	247.63	0.023237	3.77	7.25	5.06	1.00
Torrente Frassin	T.Frassine	650	Tr30	16.30	244.50	246.34	245.82	246.46	0.003644	1.50	10.88	9.59	0.45
Torrente Frassin	T.Frassine	650	Tr200	27.30	244.50	246.81	246.13	246.96	0.003638	1.76	15.52	10.47	0.46
Torrente Frassin	T.Frassine	587	Tr30	16.30	243.92	245.68	245.52	245.98	0.012960	2.45	6.64	6.91	0.80
Torrente Frassin	T.Frassine	587	Tr200	27.30	243.92	246.09	245.91	246.49	0.012605	2.80	9.73	8.09	0.82
Torrente Frassin	T.Frassine	412	Tr30	16.30	242.10	243.81	243.50	244.08	0.008923	2.29	7.11	6.22	0.68
Torrente Frassin	T.Frassine	412	Tr200	27.30	242.10	244.33	243.93	244.67	0.008380	2.56	10.68	7.46	0.68
Torrente Frassin	T.Frassine	318	Tr30	16.30	240.84	242.85	242.56	243.16	0.010342	2.45	6.64	5.45	0.71
Torrente Frassin	T.Frassine	318	Tr200	27.30	240.84	243.40	243.02	243.79	0.010077	2.77	9.85	6.39	0.71
Torrente Frassin	T.Frassine	235	Tr30	16.30	240.19	242.57	241.78	242.66	0.002599	1.33	12.24	9.98	0.38
Torrente Frassin	T.Frassine	235	Tr200	27.30	240.19	243.25	242.17	243.35	0.001886	1.37	19.96	12.15	0.34
Torrente Frassin	T.Frassine	38	Tr30	16.30	238.99	242.21	240.93	242.26	0.001399	1.03	19.93	31.87	0.27
Torrente Frassin	T.Frassine	38	Tr200	27.30	238.99	243.20	241.53	243.21	0.000249	0.59	55.04	40.98	0.12
T Gavardello	Gavardello	6100	Tr30	12.90	306.61	307.56	307.90	308.67	0.080005	4.65	2.77	4.06	1.80
T Gavardello	Gavardello	6100	Tr200	21.20	306.61	307.83	308.30	309.34	0.080017	5.44	3.90	4.28	1.82
T Gavardello	Gavardello	6090	Tr30	12.90	300.72	301.39	301.61	302.14	0.075787	3.84	3.36	7.43	1.82
T Gavardello	Gavardello	6090	Tr200	21.20	300.72	301.55	301.87	302.66	0.079156	4.67	4.54	7.48	1.91
T Gavardello	Gavardello	6080	Tr30	12.90	296.55	297.66	297.66	297.91	0.021998	2.20	5.87	11.79	0.99
T Gavardello	Gavardello	6080	Tr200	21.20	296.55	297.85	297.85	298.20	0.020693	2.59	8.18	12.02	1.00
T Gavardello	Gavardello	6070	Tr30	12.90	290.01	290.89	291.41	292.68	0.132355	5.94	2.17	3.41	2.37
T Gavardello	Gavardello	6070	Tr200	21.20	290.01	291.18	291.82	293.33	0.117669	6.49	3.27	4.01	2.30
T Gavardello	Gavardello	6060	Tr30	12.90	289.28	290.58	290.58	291.08	0.022401	3.11	4.15	4.22	1.00
T Gavardello	Gavardello	6060	Tr200	21.20	289.28	291.03	291.03	291.62	0.021080	3.41	6.22	5.23	1.00
T Gavardello	Gavardello	6050	Tr30	12.90	285.42	286.64	286.89	287.46	0.057184	4.07	3.17	4.44	1.54
T Gavardello	Gavardello	6050	Tr200	21.20	285.42	286.91	287.27	288.08	0.059762	4.79	4.43	4.93	1.61
T Gavardello	Gavardello	6040	Tr30	12.90	283.60	284.83	284.83	285.28	0.021530	2.98	4.33	4.77	1.00
T Gavardello	Gavardello	6040	Tr200	21.20	283.60	285.33	285.33	285.75	0.020533	2.89	7.35	8.69	1.00
T Gavardello	Gavardello	6030	Tr30	12.90	281.03	282.49	282.54	283.10	0.028740	3.47	3.72	3.46	1.07
T Gavardello	Gavardello	6030	Tr200	21.20	281.03	283.03	283.11	283.61	0.029230	3.36	6.32	6.81	1.11
T Gavardello	Gavardello	6020	Tr30	12.90	279.73	281.65	280.72	281.69	0.000841	0.81	15.99	10.98	0.21
T Gavardello	Gavardello	6020	Tr200	21.20	279.73	282.48	280.92	282.52	0.000597	0.84	25.14	11.21	0.18
T Gavardello	Gavardello	6015		Bridge									
T Gavardello	Gavardello	6010	Tr30	12.90	279.64	280.88	280.88	281.36	0.022437	3.07	4.20	4.36	1.00
T Gavardello	Gavardello	6010	Tr200	21.20	279.64	281.03	281.26	282.00	0.039768	4.35	4.87	4.36	1.31
T Gavardello	Gavardello	6000	Tr30	12.90	276.75	279.02	278.03	279.12	0.003072	1.42	9.07	5.80	0.36
T Gavardello	Gavardello	6000	Tr200	21.20	276.75	279.59	278.44	279.74	0.003457	1.71	12.39	5.80	0.37
T Gavardello	Gavardello	5913	Tr30	12.90	276.75	278.03	278.03	278.52	0.023165	3.11	4.15	4.18	1.00
T Gavardello	Gavardello	5913	Tr200	21.20	276.75	278.44	278.44	279.08	0.022839	3.53	6.01	4.71	1.00
T Gavardello	Gavardello	5491	Tr30	12.90	274.95	275.93	275.99	276.43	0.026051	3.14	4.11	5.06	1.11
T Gavardello	Gavardello	5491	Tr200	21.20	274.95	276.23	276.34	276.94	0.027703	3.73	5.68	5.32	1.15
T Gavardello	Gavardello	5266	Tr30	12.90	273.06	274.10	273.90	274.33	0.009872	2.10	6.13	6.63	0.70
T Gavardello	Gavardello	5266	Tr200	21.20	273.06	274.42	274.19	274.75	0.011038	2.57	8.25	6.77	0.74
T Gavardello	Gavardello	4724	Tr30	12.90	269.51	270.73	270.73	271.00	0.023219	2.27	5.67	10.69	1.00
T Gavardello	Gavardello	4724	Tr200	21.20	269.51	270.97	270.97	271.28	0.021751	2.46	8.60	13.82	1.00

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
T Gavardello	Gavardello	4395	Tr30	12.90	265.20	266.30	266.30	266.33	0.001077	0.50	17.95	20.84	0.22
T Gavardello	Gavardello	4395	Tr200	21.20	265.20	266.30	266.30	266.37	0.002908	0.82	17.95	20.84	0.36
T Gavardello	Gavardello	4093	Tr30	12.90	261.57	262.25	262.26	264.89	0.420886	7.19	1.79	5.87	4.16
T Gavardello	Gavardello	4093	Tr200	21.20	261.57	262.92	262.29	262.92	0.000221	0.32	68.61	90.94	0.11
T Gavardello	Gavardello	3901	Tr30	12.90	259.69	261.82	260.88	261.96	0.004249	1.67	7.71	3.95	0.38
T Gavardello	Gavardello	3901	Tr200	21.20	259.69	262.59	261.30	262.79	0.004892	1.97	10.74	3.95	0.38
T Gavardello	Gavardello	3532	Tr30	12.90	256.49	258.01	258.01	258.48	0.021449	3.04	4.24	4.49	1.00
T Gavardello	Gavardello	3532	Tr200	21.20	256.49	258.42	258.42	259.00	0.020496	3.38	6.26	5.38	1.00
T Gavardello	Gavardello	3257	Tr30	12.90	253.43	255.55	254.73	255.68	0.003598	1.60	8.08	4.66	0.39
T Gavardello	Gavardello	3257	Tr200	21.20	253.43	256.30	255.10	256.47	0.003745	1.83	11.59	4.66	0.37
T Gavardello	Gavardello	3028	Tr30	12.90	251.85	254.41	253.65	254.58	0.005896	1.80	7.18	4.03	0.43
T Gavardello	Gavardello	3028	Tr200	21.20	251.85	254.71	254.05	255.04	0.010467	2.53	8.38	4.03	0.56
T Gavardello	Gavardello	2426	Tr30	25.80	250.20	251.65	251.62	251.71	0.005706	1.60	28.44	103.24	0.56
T Gavardello	Gavardello	2426	Tr200	42.40	250.20	251.78	251.69	251.84	0.005138	1.59	42.25	109.27	0.54
T Gavardello	Gavardello	2033	Tr30	25.80	246.57	248.14	248.14	248.45	0.012725	2.72	11.53	18.42	0.85
T Gavardello	Gavardello	2033	Tr200	42.40	246.57	248.42	248.42	248.78	0.012616	3.04	17.15	22.34	0.87
T Gavardello	Gavardello	1906	Tr30	25.80	243.74	247.91	245.96	247.94	0.000568	0.85	39.62	35.93	0.17
T Gavardello	Gavardello	1906	Tr200	42.40	243.74	248.21	246.64	248.25	0.000820	1.07	51.18	41.15	0.21
T Gavardello	Gavardello	1844	Tr30	25.80	244.80	247.82	247.15	247.88	0.001812	1.22	24.62	23.69	0.30
T Gavardello	Gavardello	1844	Tr200	42.40	244.80	248.06	247.46	248.16	0.002671	1.56	30.68	25.73	0.37
T Gavardello	Gavardello	1738	Tr30	25.80	244.61	246.86	246.86	247.32	0.021350	3.00	8.60	9.53	1.01
T Gavardello	Gavardello	1738	Tr200	42.40	244.61	247.26	247.26	247.57	0.010907	2.72	19.78	34.62	0.76
T Gavardello	Gavardello	1642	Tr30	25.80	244.68	246.58	246.12	246.63	0.001594	1.12	29.68	38.55	0.31
T Gavardello	Gavardello	1642	Tr200	42.40	244.68	247.30	246.29	247.32	0.000556	0.88	63.13	55.63	0.20
T Gavardello	Gavardello	1557	Tr30	25.80	243.61	246.12	245.60	246.37	0.005780	2.20	12.20	12.22	0.57
T Gavardello	Gavardello	1557	Tr200	42.40	243.61	247.18	246.20	247.25	0.001136	1.38	44.29	47.76	0.28
T Gavardello	Gavardello	1550		Bridge									
T Gavardello	Gavardello	1533	Tr30	25.80	243.58	245.90	245.27	246.03	0.002645	1.71	18.51	21.24	0.41
T Gavardello	Gavardello	1533	Tr200	42.40	243.58	246.72	245.72	246.79	0.001028	1.38	43.84	40.92	0.27
T Gavardello	Gavardello	1471	Tr30	25.80	242.96	245.80	244.62	245.88	0.001694	1.28	20.10	13.06	0.33
T Gavardello	Gavardello	1471	Tr200	42.40	242.96	246.64	245.06	246.71	0.001376	1.24	34.73	24.34	0.31
T Gavardello	Gavardello	1450		Bridge									
T Gavardello	Gavardello	1417	Tr30	25.80	242.78	245.34	244.78	245.50	0.004935	1.76	14.63	13.30	0.54
T Gavardello	Gavardello	1417	Tr200	42.40	242.78	245.82	245.21	246.00	0.005068	1.90	22.36	19.01	0.56
T Gavardello	Gavardello	1328	Tr30	25.80	242.20	244.76	244.21	244.94	0.006203	1.90	13.57	12.54	0.58
T Gavardello	Gavardello	1328	Tr200	42.40	242.20	245.19	244.71	245.41	0.006890	2.10	20.28	21.10	0.63
T Gavardello	Gavardello	1210	Tr30	25.80	241.53	244.01	243.56	244.18	0.006149	1.82	14.15	13.95	0.58
T Gavardello	Gavardello	1210	Tr200	42.40	241.53	244.41	243.97	244.62	0.005854	2.08	20.77	18.20	0.59
T Gavardello	Gavardello	1074	Tr30	25.80	240.23	243.38	242.48	243.52	0.003594	1.68	16.15	18.91	0.45
T Gavardello	Gavardello	1074	Tr200	42.40	240.23	243.71	243.06	243.91	0.004427	2.06	23.05	23.18	0.51
T Gavardello	Gavardello	995	Tr30	25.80	240.58	243.25	242.21	243.33	0.001507	1.23	22.23	22.96	0.32
T Gavardello	Gavardello	995	Tr200	42.40	240.58	243.51	242.60	243.64	0.002338	1.64	29.22	30.88	0.40
T Gavardello	Gavardello	899	Tr30	25.80	239.20	243.14	241.32	243.21	0.000969	1.18	28.62	38.31	0.23
T Gavardello	Gavardello	899	Tr200	42.40	239.20	243.34	241.92	243.44	0.001628	1.61	36.15	38.70	0.30
T Gavardello	Gavardello	895		Bridge									
T Gavardello	Gavardello	889	Tr30	25.80	239.68	240.46	241.03	242.79	0.188278	6.77	3.81	7.24	2.98
T Gavardello	Gavardello	889	Tr200	42.40	239.68	240.78	241.41	243.00	0.115630	6.59	6.43	8.71	2.45
T Gavardello	Gavardello	770	Tr30	25.80	238.33	241.09	239.89	241.20	0.002003	1.47	19.12	19.24	0.34
T Gavardello	Gavardello	770	Tr200	42.40	238.33	241.91	240.37	241.97	0.000933	1.18	44.30	33.15	0.24
T Gavardello	Gavardello	666	Tr30	25.80	238.02	240.80	239.73	241.01	0.001678	1.54	20.54	25.44	0.32
T Gavardello	Gavardello	666	Tr200	42.40	238.02	241.85	240.24	241.89	0.000541	1.09	56.60	43.43	0.19
T Gavardello	Gavardello	583	Tr30	25.80	237.65	240.85	239.41	240.89	0.000688	0.95	37.62	49.54	0.21
T Gavardello	Gavardello	583	Tr200	42.40	237.65	241.84	239.91	241.86	0.000160	0.55	99.29	64.47	0.11
T Gavardello	Gavardello	490	Tr30	25.80	237.41	240.60	239.55	240.74	0.002884	1.68	15.32	8.73	0.41
T Gavardello	Gavardello	490	Tr200	42.40	237.41	241.67	240.08	241.80	0.001709	1.61	27.64	16.62	0.33
T Gavardello	Gavardello	485		Bridge									
T Gavardello	Gavardello	479	Tr30	25.80	237.35	240.40	239.26	240.53	0.002468	1.59	16.20	8.98	0.38
T Gavardello	Gavardello	479	Tr200	42.40	237.35	241.36	239.79	241.49	0.001917	1.64	25.88	11.26	0.35
T Gavardello	Gavardello	301	Tr30	25.80	236.36	240.36	237.65	240.39	0.000276	0.72	38.05	24.60	0.14
T Gavardello	Gavardello	301	Tr200	42.40	236.36	241.35	238.09	241.38	0.000203	0.71	73.21	42.04	0.12
T Gavardello	Gavardello	290		Bridge									
T Gavardello	Gavardello	283	Tr30	25.80	235.95	236.45	236.91	238.27	0.168466	5.97	4.32	9.10	2.77
T Gavardello	Gavardello	283	Tr200	42.40	235.95	236.62	237.28	239.26	0.173911	7.21	5.88	9.39	2.91
T Gavardello	Gavardello	218	Tr30	25.80	231.75	233.19	233.42	234.05	0.032817	4.10	6.29	6.40	1.32

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
T Gavardello	Gavardello	218	Tr200	42.40	231.75	233.57	233.90	234.72	0.034321	4.75	8.93	7.45	1.39
T Gavardello	Gavardello	122	Tr30	25.80	230.17	232.27	231.54	232.42	0.003456	1.71	15.11	10.53	0.46
T Gavardello	Gavardello	122	Tr200	42.40	230.17	231.96	231.96	232.60	0.017485	3.53	12.02	9.60	1.01
T Gavardello	Gavardello	35	Tr30	25.80	229.62	232.32	230.79	232.36	0.000646	0.92	28.12	14.70	0.21
T Gavardello	Gavardello	35	Tr200	42.40	229.62	230.74	231.15	232.06	0.058734	5.10	8.31	10.28	1.81
River 2	Reach 2	1020	Tr30	10.50	253.07	254.05	253.96	254.10	0.004531	1.25	12.25	38.23	0.48
River 2	Reach 2	1020	Tr200	17.40	253.07	254.31	254.04	254.34	0.002008	1.03	22.18	38.23	0.34
River 2	Reach 2	393	Tr30	10.50	249.98	252.07	251.19	252.16	0.002459	1.30	8.08	5.06	0.33
River 2	Reach 2	393	Tr200	17.40	249.98	252.04	251.54	252.28	0.007217	2.21	7.89	5.06	0.56
River 2	Reach 2	392	Tr30	10.50	249.75	252.02	251.04	252.08	0.001798	1.14	9.24	5.66	0.28
River 2	Reach 2	392	Tr200	17.40	249.75	251.78	251.34	252.02	0.007666	2.20	7.91	5.57	0.59
River 2	Reach 2	100	Tr30	10.50	249.83	250.68	250.68	250.89	0.015543	2.08	5.31	13.90	0.89
River 2	Reach 2	100	Tr200	17.40	249.83	251.04	250.92	251.07	0.001624	0.93	36.08	146.56	0.31
River 1	Reach 1	2216	Tr30	9.30	339.69	340.05	340.19	340.52	0.120011	3.04	3.06	14.66	2.13
River 1	Reach 1	2216	Tr200	15.00	339.69	340.12	340.31	340.77	0.120031	3.57	4.20	15.80	2.21
River 1	Reach 1	1770	Tr30	9.30	285.24	285.89	286.11	286.81	0.120811	4.39	2.51	15.07	2.31
River 1	Reach 1	1770	Tr200	15.00	285.24	285.97	286.22	287.03	0.120939	5.01	3.94	19.80	2.39
River 1	Reach 1	1429	Tr30	9.30	272.12	273.58	273.58	273.98	0.023339	2.82	3.30	4.11	1.00
River 1	Reach 1	1429	Tr200	15.00	272.12	273.88	273.88	274.43	0.023656	3.26	4.60	4.21	1.00
River 1	Reach 1	1130	Tr30	9.30	267.40	268.36	268.36	268.39	0.005981	0.93	13.23	61.92	0.50
River 1	Reach 1	1130	Tr200	15.00	267.40	268.36	268.36	268.43	0.016445	1.53	13.01	61.91	0.82
Fosso Maspino	Maspino1	6911	Tr30	4.70	294.82	295.86	295.86	296.06	0.024175	1.99	2.36	5.86	1.00
Fosso Maspino	Maspino1	6911	Tr200	7.80	294.82	296.05	296.05	296.28	0.022776	2.12	3.68	8.11	1.00
Fosso Maspino	Maspino1	6842	Tr30	4.70	293.37	294.65	294.48	294.74	0.010614	1.31	3.58	7.99	0.63
Fosso Maspino	Maspino1	6842	Tr200	7.80	293.37	294.81	294.66	294.94	0.010850	1.58	4.94	8.46	0.66
Fosso Maspino	Maspino1	6769	Tr30	4.70	292.66	293.40	293.40	293.60	0.024091	1.94	2.43	6.35	1.00
Fosso Maspino	Maspino1	6769	Tr200	7.80	292.66	293.56	293.56	293.82	0.022195	2.25	3.46	6.71	1.00
Fosso Maspino	Maspino1	6741	Tr30	4.70	290.19	291.43	291.22	291.63	0.015499	2.01	2.34	3.28	0.76
Fosso Maspino	Maspino1	6741	Tr200	7.80	290.19	291.44	291.60	291.99	0.041161	3.28	2.38	3.35	1.24
Fosso Maspino	Maspino1	6603	Tr30	4.70	287.99	289.21	289.21	289.54	0.026914	2.53	1.85	2.82	1.00
Fosso Maspino	Maspino1	6603	Tr200	7.80	287.99	289.50	289.50	289.90	0.025334	2.80	2.79	3.49	1.00
Fosso Maspino	Maspino1	6573	Tr30	4.70	287.07	288.55	287.98	288.61	0.002916	1.10	4.27	4.81	0.37
Fosso Maspino	Maspino1	6573	Tr200	7.80	287.07	289.19	288.24	289.24	0.001563	0.99	7.91	6.49	0.29
Fosso Maspino	Maspino1	6510			Culvert								
Fosso Maspino	Maspino1	6500	Tr30	4.70	284.95	287.09	285.60	287.09	0.000018	0.14	50.83	66.05	0.03
Fosso Maspino	Maspino1	6500	Tr200	7.80	284.95	287.47	285.83	287.47	0.000014	0.14	75.68	66.05	0.03
Fosso Maspino	Maspino2	6425	Tr30	23.60	284.95	287.07	286.64	287.09	0.000494	0.72	49.82	66.05	0.17
Fosso Maspino	Maspino2	6425	Tr200	39.20	284.95	287.45	286.75	287.46	0.000383	0.72	74.58	66.05	0.16
Fosso Maspino	Maspino2	6407	Tr30	23.60	285.03	287.05	286.75	287.07	0.001396	0.90	35.45	57.29	0.23
Fosso Maspino	Maspino2	6407	Tr200	39.20	285.03	287.43	286.84	287.45	0.000813	0.79	57.22	57.29	0.18
Fosso Maspino	Maspino2	6330	Tr30	23.60	284.09	285.93	285.93	286.77	0.030814	4.05	5.83	3.47	1.00
Fosso Maspino	Maspino2	6330	Tr200	39.20	284.09	286.84	286.84	287.29	0.012217	3.26	14.73	14.61	0.65
Fosso Maspino	Maspino2	6264	Tr30	23.60	283.25	284.69	284.69	284.77	0.004893	1.52	20.68	42.18	0.50
Fosso Maspino	Maspino2	6264	Tr200	39.20	283.25	284.69	284.69	284.91	0.013346	2.51	20.77	42.73	0.83
Fosso Maspino	Maspino2	6189	Tr30	23.60	279.60	282.01	281.60	282.01	0.000137	0.31	83.00	85.06	0.09
Fosso Maspino	Maspino2	6189	Tr200	39.20	279.60	282.01	281.98	282.02	0.000377	0.52	83.14	85.14	0.14
Fosso Maspino	Maspino2	6185			Bridge								
Fosso Maspino	Maspino2	6159	Tr30	23.60	278.89	281.03	281.03	281.61	0.020098	3.36	7.03	6.07	1.00
Fosso Maspino	Maspino2	6159	Tr200	39.20	278.89	281.54	281.54	281.56	0.000995	0.80	57.00	67.85	0.23
Fosso Maspino	Maspino2	6047	Tr30	23.60	276.15	277.82	278.01	278.59	0.037232	3.89	6.06	6.73	1.31
Fosso Maspino	Maspino2	6047	Tr200	39.20	276.15	277.65	278.45	280.86	0.183617	7.93	4.94	6.32	2.86
Fosso Maspino	Maspino2	5910	Tr30	23.60	274.35	275.98	275.98	276.39	0.018007	2.84	8.30	9.98	1.00
Fosso Maspino	Maspino2	5910	Tr200	39.20	274.35	276.37	276.37	276.87	0.017138	3.11	12.61	12.80	1.00
Fosso Maspino	Maspino2	5802	Tr30	23.60	273.12	274.77	274.77	274.78	0.000812	0.52	51.73	99.87	0.20
Fosso Maspino	Maspino2	5802	Tr200	39.20	273.12	274.77	274.77	274.80	0.002239	0.86	51.73	99.87	0.33
Fosso Maspino	Maspino2	5680	Tr30	23.60	269.89	271.11	271.87	274.13	0.202082	7.69	3.07	4.54	2.99
Fosso Maspino	Maspino2	5680	Tr200	39.20	269.89	271.69	272.46	273.78	0.084019	6.40	6.13	6.07	2.03
Fosso Maspino	Maspino2	5615	Tr30	23.60	268.45	270.14	269.84	270.41	0.008071	2.30	10.26	9.02	0.69
Fosso Maspino	Maspino2	5615	Tr200	39.20	268.45	270.59	270.27	270.83	0.005997	2.33	20.08	27.25	0.61
Fosso Maspino	Maspino2	5528	Tr30	23.60	267.13	268.87	268.87	269.37	0.018231	3.13	7.54	7.44	0.99
Fosso Maspino	Maspino2	5528	Tr200	39.20	267.13	269.30	269.30	269.96	0.017409	3.58	10.96	8.35	1.00
Fosso Maspino	Maspino2	5347	Tr30	23.60	265.14	266.92	266.60	267.19	0.008135	2.29	10.29	9.12	0.69
Fosso Maspino	Maspino2	5347	Tr200	39.20	265.14	267.18	267.20	267.49	0.010196	2.62	18.41	39.55	0.78
Fosso Maspino	Maspino2	5304	Tr30	23.60	264.76	266.57	266.57	266.78	0.009993	2.27	13.61	31.49	0.74
Fosso Maspino	Maspino2	5304	Tr200	39.20	264.76	266.75	266.76	267.02	0.012028	2.71	20.08	43.67	0.83

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fosso Maspino	Maspino2	5086	Tr30	23.60	261.56	263.48	263.61	263.78	0.019937	2.80	13.07	58.78	1.00
Fosso Maspino	Maspino2	5086	Tr200	39.20	261.56	263.78	263.71	263.84	0.004150	1.57	45.15	142.96	0.48
Fosso Maspino	Maspino2	4937	Tr30	23.60	260.26	261.94	261.94	262.40	0.017811	3.00	7.87	8.55	1.00
Fosso Maspino	Maspino2	4937	Tr200	39.20	260.26	262.36	262.36	262.92	0.016620	3.31	11.85	10.55	1.00
Fosso Maspino	Maspino2	4824	Tr30	23.60	258.82	260.63	260.55	260.69	0.004531	1.40	25.68	81.25	0.50
Fosso Maspino	Maspino2	4824	Tr200	39.20	258.82	260.64	260.65	260.80	0.011630	2.24	26.49	81.54	0.80
Fosso Maspino	Maspino2	4732	Tr30	23.60	257.87	259.50	259.50	259.92	0.018216	2.94	9.27	22.29	0.99
Fosso Maspino	Maspino2	4732	Tr200	39.20	257.87	259.66	259.61	259.78	0.007159	2.04	32.98	99.28	0.64
Fosso Maspino	Maspino2	4628	Tr30	23.60	257.36	258.71	258.71	258.80	0.009226	1.86	22.30	105.66	0.70
Fosso Maspino	Maspino2	4628	Tr200	39.20	257.36	258.80	258.80	258.91	0.010053	2.10	32.28	120.84	0.74
Fosso Maspino	Maspino2	4491	Tr30	23.60	256.02	257.95	257.61	257.97	0.001209	0.94	40.38	91.17	0.27
Fosso Maspino	Maspino2	4491	Tr200	39.20	256.02	257.94	257.89	258.01	0.003459	1.58	39.83	90.78	0.46
Fosso Maspino	Maspino2	4384	Tr30	23.60	255.03	257.11	257.11	257.36	0.008499	2.38	12.85	40.05	0.68
Fosso Maspino	Maspino2	4384	Tr200	39.20	255.03	257.38	257.38	257.54	0.005624	2.21	31.08	84.74	0.57
Fosso Maspino	Maspino3	4205	Tr30	41.30	253.22	256.73	255.72	256.74	0.000325	0.67	103.39	159.35	0.15
Fosso Maspino	Maspino3	4205	Tr200	67.00	253.22	257.21	255.99	257.22	0.000170	0.56	180.36	159.35	0.11
Fosso Maspino	Maspino3	4200		Bridge									
Fosso Maspino	Maspino3	4197	Tr30	41.30	252.89	254.39	254.77	255.62	0.042816	4.91	8.42	8.36	1.56
Fosso Maspino	Maspino3	4197	Tr200	67.00	252.89	254.64	255.47	256.69	0.060423	6.35	10.55	9.13	1.89
Fosso Maspino	Maspino3	4105	Tr30	41.30	251.55	254.81	253.85	254.91	0.001867	1.50	33.86	33.24	0.35
Fosso Maspino	Maspino3	4105	Tr200	67.00	251.55	255.58	254.35	255.64	0.001134	1.30	69.72	66.93	0.29
Fosso Maspino	Maspino3	4032	Tr30	41.30	251.39	254.47	253.67	254.70	0.004119	2.19	20.71	18.06	0.50
Fosso Maspino	Maspino3	4032	Tr200	67.00	251.39	255.37	254.41	255.52	0.002112	1.90	43.79	37.34	0.38
Fosso Maspino	Maspino3	3924	Tr30	41.30	250.85	254.05	253.10	254.27	0.003785	2.06	20.01	10.58	0.48
Fosso Maspino	Maspino3	3924	Tr200	67.00	250.85	255.02	253.69	255.25	0.002887	2.12	32.07	19.23	0.44
Fosso Maspino	Maspino3	3838	Tr30	41.30	250.60	253.72	252.85	253.93	0.003955	2.01	20.56	12.03	0.49
Fosso Maspino	Maspino3	3838	Tr200	67.00	250.60	254.90	253.42	255.03	0.001660	1.71	45.91	38.40	0.34
Fosso Maspino	Maspino3	3830		Bridge									
Fosso Maspino	Maspino3	3820	Tr30	41.30	250.38	252.39	252.85	253.61	0.038233	5.03	9.03	11.26	1.45
Fosso Maspino	Maspino3	3820	Tr200	67.00	250.38	252.61	253.22	254.57	0.055417	6.53	11.99	16.04	1.77
Fosso Maspino	Maspino3	3760	Tr30	41.30	249.84	252.62	251.89	252.71	0.003443	1.35	30.50	33.04	0.45
Fosso Maspino	Maspino3	3760	Tr200	67.00	249.84	253.13	252.39	253.23	0.002214	1.41	47.64	34.80	0.38
Fosso Maspino	Maspino3	3675	Tr30	41.30	249.19	251.85	251.61	252.21	0.010591	2.68	15.40	12.25	0.76
Fosso Maspino	Maspino3	3675	Tr200	67.00	249.19	252.06	252.06	252.76	0.017408	3.70	18.13	12.95	1.00
Fosso Maspino	Maspino3	3582	Tr30	41.30	248.80	251.75	250.84	251.81	0.001639	1.34	42.37	49.89	0.32
Fosso Maspino	Maspino3	3582	Tr200	67.00	248.80	252.22	251.49	252.28	0.001209	1.29	68.76	59.98	0.28
Fosso Maspino	Maspino3	3483	Tr30	41.30	248.08	251.39	250.70	251.56	0.003783	1.84	23.49	23.66	0.47
Fosso Maspino	Maspino3	3483	Tr200	67.00	248.08	251.89	251.17	252.08	0.003146	2.03	39.30	38.59	0.45
Fosso Maspino	Maspino3	3387	Tr30	41.30	247.70	250.92	250.20	251.16	0.004664	2.19	19.98	16.96	0.52
Fosso Maspino	Maspino3	3387	Tr200	67.00	247.70	251.36	250.87	251.69	0.005420	2.64	28.55	22.46	0.58
Fosso Maspino	Maspino3	3289	Tr30	41.30	246.72	250.70	249.62	250.82	0.002247	1.54	26.93	19.58	0.37
Fosso Maspino	Maspino3	3289	Tr200	67.00	246.72	251.05	250.09	251.25	0.003142	2.01	36.63	32.50	0.45
Fosso Maspino	Maspino3	3196	Tr30	41.30	246.55	250.62	249.14	250.67	0.000882	1.12	47.36	51.60	0.24
Fosso Maspino	Maspino3	3196	Tr200	67.00	246.55	250.99	249.62	251.05	0.001009	1.30	68.59	59.67	0.26
Fosso Maspino	Maspino3	3102	Tr30	41.30	245.98	250.58	248.61	250.61	0.000414	0.85	75.31	113.56	0.17
Fosso Maspino	Maspino3	3102	Tr200	67.00	245.98	250.96	249.17	250.98	0.000367	0.88	118.54	113.56	0.16
Fosso Maspino	Maspino3	3008	Tr30	41.30	246.00	250.52	248.11	250.56	0.000562	0.97	51.52	56.22	0.19
Fosso Maspino	Maspino3	3008	Tr200	67.00	246.00	250.89	248.76	250.94	0.000656	1.13	87.44	128.77	0.21
Fosso Maspino	Maspino4	3000	Tr30	51.90	246.00	250.52	248.46	250.59	0.000880	1.22	51.82	56.56	0.24
Fosso Maspino	Maspino4	3000	Tr200	85.20	246.00	250.83	249.06	250.92	0.001243	1.53	79.65	128.77	0.28
Fosso Maspino	Maspino4	2999		Bridge									
Fosso Maspino	Maspino4	2837	Tr30	51.90	244.23	247.55	246.71	247.80	0.004287	2.20	23.57	12.77	0.52
Fosso Maspino	Maspino4	2837	Tr200	85.20	244.23	248.61	247.32	248.86	0.002989	2.19	38.97	16.30	0.45
Fosso Maspino	Maspino4	2769	Tr30	51.90	244.04	247.47	246.07	247.59	0.001688	1.51	34.48	17.69	0.34
Fosso Maspino	Maspino4	2769	Tr200	85.20	244.04	248.58	246.70	248.70	0.001155	1.52	55.95	20.82	0.30
Fosso Maspino	Maspino4	2740		Bridge									
Fosso Maspino	Maspino4	2729	Tr30	51.90	243.85	246.96	246.29	247.34	0.006491	2.72	19.11	9.80	0.62
Fosso Maspino	Maspino4	2729	Tr200	85.20	243.85	247.81	247.00	248.26	0.006237	2.99	28.54	12.44	0.63
Fosso Maspino	Maspino4	2694	Tr30	51.90	243.56	246.83	246.06	247.21	0.006666	2.75	18.89	9.31	0.62
Fosso Maspino	Maspino4	2694	Tr200	85.20	243.56	247.04	246.85	247.88	0.013875	4.08	20.90	9.91	0.90
Fosso Maspino	Maspino5	2636	Tr30	61.50	243.02	245.55	245.83	246.71	0.027308	4.78	12.85	8.62	1.25
Fosso Maspino	Maspino5	2636	Tr200	81.90	243.02	246.00	246.31	247.17	0.023182	4.78	17.12	10.17	1.18
Fosso Maspino	Maspino5	2548	Tr30	61.50	242.58	245.90	244.69	246.00	0.002113	1.45	42.40	28.01	0.38
Fosso Maspino	Maspino5	2548	Tr200	81.90	242.58	246.25	245.02	246.38	0.002070	1.54	53.19	31.80	0.38
Fosso Maspino	Maspino5	2481	Tr30	61.50	242.72	245.01	245.01	245.61	0.016733	3.44	17.90	14.91	1.00

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fosso Maspino	Maspino5	2481	Tr200	81.90	242.72	245.28	245.28	245.99	0.015999	3.71	22.07	15.75	1.00
Fosso Maspino	Maspino5	2400	Tr30	61.50	239.59	243.19	242.07	243.41	0.002998	2.06	29.79	13.54	0.44
Fosso Maspino	Maspino5	2400	Tr200	81.90	239.59	243.72	242.42	243.97	0.002898	2.19	37.40	15.11	0.44
Fosso Maspino	Maspino5	2306	Tr30	61.50	239.05	243.04	241.57	243.15	0.001482	1.49	41.36	18.63	0.32
Fosso Maspino	Maspino5	2306	Tr200	81.90	239.05	243.60	241.85	243.72	0.001371	1.57	52.27	20.49	0.31
Fosso Maspino	Maspino5	2203	Tr30	61.50	238.91	241.84	241.84	242.71	0.017672	4.12	14.92	8.63	1.00
Fosso Maspino	Maspino5	2203	Tr200	81.90	238.91	242.82	242.26	243.39	0.008409	3.34	24.55	11.12	0.72
Fosso Maspino	Maspino6	2059	Tr30	85.20	237.66	241.73	240.37	241.98	0.002841	2.24	38.11	14.89	0.45
Fosso Maspino	Maspino6	2059	Tr200	139.60	237.66	242.67	241.14	243.02	0.003102	2.62	53.38	17.43	0.48
Fosso Maspino	Maspino6	1910	Tr30	85.20	237.18	241.39	239.89	241.60	0.002150	2.01	42.47	15.94	0.39
Fosso Maspino	Maspino6	1910	Tr200	139.60	237.18	242.32	240.60	242.60	0.002317	2.37	60.95	27.10	0.42
Fosso Maspino	Maspino6	1814	Tr30	85.20	236.49	240.13	240.13	241.08	0.017038	4.31	19.76	10.43	1.00
Fosso Maspino	Maspino6	1814	Tr200	139.60	236.49	241.01	241.01	242.06	0.015753	4.55	30.66	14.47	1.00
Fosso Maspino	Maspino6	1361	Tr30	85.20	236.18	239.12	238.51	239.18	0.001248	1.30	82.17	64.90	0.29
Fosso Maspino	Maspino6	1361	Tr200	139.60	236.18	239.67	238.73	239.75	0.001075	1.32	118.58	66.44	0.28
Fosso Maspino	Maspino6	978	Tr30	85.20	234.12	237.54	237.10	238.10	0.009115	3.34	25.70	16.82	0.77
Fosso Maspino	Maspino6	978	Tr200	139.60	234.12	238.10	238.10	238.78	0.008692	3.82	43.38	39.37	0.78
Fosso Maspino	Maspino7	752	Tr30	93.60	233.19	235.21	235.21	235.88	0.014830	3.62	25.87	19.34	1.00
Fosso Maspino	Maspino7	752	Tr200	153.10	233.19	235.76	235.80	236.60	0.014959	4.06	37.70	23.82	1.03
Fosso Maspino	Maspino7	736	Tr30	93.60	232.66	234.56	234.77	235.57	0.023126	4.44	21.07	16.00	1.24
Fosso Maspino	Maspino7	736	Tr200	153.10	232.66	235.36	235.39	236.36	0.014453	4.43	34.57	18.02	1.02
Fosso Maspino	Maspino8	586	Tr30	113.20	228.18	231.78	230.69	232.11	0.003962	2.53	44.80	19.55	0.53
Fosso Maspino	Maspino8	586	Tr200	186.80	228.18	230.46	231.56	233.70	0.005714	7.96	23.45	13.52	1.93
Fosso Maspino	Maspino8	174	Tr30	113.20	226.10	229.03	229.03	229.90	0.014434	4.13	27.41	15.70	1.00
Fosso Maspino	Maspino8	174	Tr200	186.80	226.10	230.49	229.76	231.13	0.006136	3.56	52.49	18.88	0.68
Fosso Covole	Fosso di Covole	2060	Tr30	33.00	292.89	296.92	295.13	297.01	0.001273	1.33	24.76	8.44	0.25
Fosso Covole	Fosso di Covole	2060	Tr200	54.70	292.89	298.75	295.61	298.84	0.000957	1.36	40.18	8.44	0.20
Fosso Covole	Fosso di Covole	2057	Tr30	33.00	292.24	296.83	294.51	296.94	0.001655	1.48	22.29	5.88	0.24
Fosso Covole	Fosso di Covole	2057	Tr200	54.70	292.24	298.64	295.11	298.78	0.001731	1.66	32.92	5.88	0.22
Fosso Covole	Fosso di Covole	2004	Tr30	33.00	291.32	295.10	295.10	296.55	0.068483	5.33	6.19	2.14	1.00
Fosso Covole	Fosso di Covole	2004	Tr200	54.70	291.32	296.76	296.27	298.36	0.064575	5.61	9.75	2.14	0.84
Fosso Covole	Fosso di Covole	1947	Tr30	33.00	290.70	295.65	292.70	295.70	0.000500	0.96	34.47	8.40	0.15
Fosso Covole	Fosso di Covole	1947	Tr200	54.70	290.70	297.75	293.17	297.81	0.000479	1.05	52.08	8.40	0.13
Fosso Covole	Fosso di Covole	1850	Tr30	33.00	289.88	295.22	293.06	295.59	0.011236	2.69	12.28	2.62	0.40
Fosso Covole	Fosso di Covole	1850	Tr200	54.70	289.88	297.18	294.08	297.68	0.014057	3.14	17.40	2.62	0.39
Fosso Covole	Fosso di Covole	1800	Tr30	33.00	288.78	291.73	291.73	292.95	0.046269	4.89	6.74	2.77	1.00
Fosso Covole	Fosso di Covole	1800	Tr200	54.70	288.78	292.71	292.71	294.41	0.055460	5.78	9.46	2.77	1.00
Fosso Covole	Fosso di Covole	1732	Tr30	33.00	288.28	291.99	290.40	292.10	0.001666	1.48	22.37	8.00	0.28
Fosso Covole	Fosso di Covole	1732	Tr200	54.70	288.28	293.63	290.88	293.75	0.001334	1.54	35.45	8.00	0.23
Fosso Covole	Fosso di Covole	1700	Tr30	33.00	288.22	291.34	290.98	292.03	0.020732	3.67	9.00	3.91	0.77
Fosso Covole	Fosso di Covole	1700	Tr200	54.70	288.22	293.07	291.76	293.69	0.013754	3.47	15.75	3.91	0.55
Fosso Covole	Fosso di Covole	1674	Tr30	33.00	288.06	291.36	290.11	291.56	0.003393	1.96	16.86	6.85	0.40
Fosso Covole	Fosso di Covole	1674	Tr200	54.70	288.06	293.17	290.76	293.34	0.002191	1.87	29.21	6.85	0.29
Fosso Covole	Fosso di Covole	1645	Tr30	33.00	287.57	291.33	289.60	291.47	0.001993	1.61	20.55	6.65	0.29
Fosso Covole	Fosso di Covole	1645	Tr200	54.70	287.57	293.13	290.15	293.28	0.001686	1.68	32.52	6.65	0.24
Fosso Covole	Fosso di Covole	1500	Tr30	33.00	286.79	291.41	288.31	291.42	0.000079	0.45	73.76	19.95	0.07
Fosso Covole	Fosso di Covole	1500	Tr200	54.70	286.79	293.22	288.61	293.23	0.000068	0.50	109.84	19.95	0.07
Fosso Covole	Fosso di Covole	1490	Tr30	33.00	286.33	290.80	289.57	291.35	0.018354	3.30	9.99	2.69	0.55
Fosso Covole	Fosso di Covole	1490	Tr200	54.70	286.33	292.40	290.55	293.15	0.021865	3.83	14.30	2.69	0.53
Fosso Covole	Fosso di Covole	1480	Tr30	33.00	285.99	290.93	288.16	291.04	0.001915	1.51	21.84	4.93	0.23
Fosso Covole	Fosso di Covole	1480	Tr200	54.70	285.99	292.58	288.82	292.75	0.002449	1.82	30.00	4.93	0.24
Fosso Covole	Fosso di Covole	1470	Tr30	33.00	285.51	290.83	288.05	290.94	0.001855	1.50	22.07	5.04	0.23
Fosso Covole	Fosso di Covole	1470	Tr200	54.70	285.51	292.45	288.74	292.62	0.002370	1.81	30.27	5.04	0.24
Fosso Covole	Fosso di Covole	1459	Tr30	33.00	285.54	289.45	289.45	290.80	0.060214	5.14	6.42	2.37	1.00
Fosso Covole	Fosso di Covole	1459	Tr200	54.70	285.54	290.53	290.53	292.42	0.073480	6.09	8.98	2.37	1.00
Fosso Covole	Fosso di Covole	1444	Tr30	33.00	285.29	286.66	287.33	289.25	0.138438	7.14	4.62	6.15	2.63
Fosso Covole	Fosso di Covole	1444	Tr200	54.70	285.29	289.29	287.88	289.49	0.002744	2.01	27.27	9.30	0.37
Fosso Covole	Fosso di Covole	1417	Tr30	33.00	284.73	288.03	286.85	288.22	0.003449	1.93	17.12	6.90	0.39
Fosso Covole	Fosso di Covole	1417	Tr200	54.70	284.73	289.16	287.40	289.40	0.003456	2.20	24.91	6.90	0.37
Fosso Covole	Fosso di Covole	1411	Tr30	33.00	284.65	287.93	286.71	288.19	0.004800	2.23	14.83	5.40	0.43
Fosso Covole	Fosso di Covole	1411	Tr200	54.70	284.65	289.01	287.38	289.36	0.005670	2.65	20.62	5.40	0.43
Fosso Covole	Fosso di Covole	1385	Tr30	33.00	284.40	287.76	286.52	288.05	0.005815	2.38	13.86	4.69	0.44
Fosso Covole	Fosso di Covole	1385	Tr200	54.70	284.40	288.74	287.21	289.18	0.007831	2.96	18.45	4.69	0.48
Fosso Covole	Fosso di Covole	1350	Tr30	33.00	284.17	286.84	286.84	287.71	0.025938	4.12	8.00	4.60	1.00
Fosso Covole	Fosso di Covole	1350	Tr200	54.70	284.17	287.54	287.54	288.75	0.028948	4.88	11.21	4.60	1.00
Fosso Covole	Fosso di Covole	1318	Tr30	33.00	283.59	286.51	285.98	286.85	0.007633	2.59	12.74	6.82	0.61

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E. G. Elev (m)	E. G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fosso Covole	Fosso di Covole	1318	Tr200	54.70	283.59	287.54	286.52	287.93	0.006260	2.77	19.76	6.82	0.52
Fosso Covole	Fosso di Covole	1287	Tr30	33.00	283.32	286.30	285.34	286.63	0.006542	2.51	13.13	5.06	0.50
Fosso Covole	Fosso di Covole	1287	Tr200	54.70	283.32	287.21	286.00	287.69	0.008378	3.09	17.70	5.06	0.53
Fosso Covole	Fosso di Covole	1240	Tr30	33.00	282.87	286.12	285.12	286.42	0.006228	2.45	13.47	5.20	0.49
Fosso Covole	Fosso di Covole	1240	Tr200	54.70	282.87	286.95	285.77	287.44	0.008322	3.07	17.81	5.20	0.53
Fosso Covole	Fosso di Covole	1210	Tr30	33.00	282.90	286.03	285.13	286.28	0.004748	2.23	14.83	6.60	0.47
Fosso Covole	Fosso di Covole	1210	Tr200	54.70	282.90	286.88	285.70	287.25	0.005509	2.68	20.43	6.60	0.49
Fosso Covole	Fosso di Covole	1207	Tr30	33.00	282.72	286.13	284.51	286.18	0.000764	1.05	31.49	13.00	0.21
Fosso Covole	Fosso di Covole	1207	Tr200	54.70	282.72	287.03	284.90	287.12	0.000834	1.26	43.27	13.00	0.22
Fosso Covole	Fosso di Covole	1195	Tr30	33.00	282.59	285.33	285.33	286.09	0.023970	3.84	8.58	5.70	1.00
Fosso Covole	Fosso di Covole	1195	Tr200	54.70	282.59	286.04	285.94	287.00	0.022427	4.34	12.59	5.70	0.93
Fosso Covole	Fosso di Covole	1188	Tr30	33.00	282.46	285.24	284.75	285.75	0.012572	3.19	10.36	4.77	0.69
Fosso Covole	Fosso di Covole	1188	Tr200	54.70	282.46	286.05	285.44	286.80	0.015081	3.84	14.24	4.77	0.71
Fosso Covole	Fosso di Covole	1166	Tr30	33.00	282.31	285.27	284.28	285.51	0.004607	2.19	15.07	6.88	0.47
Fosso Covole	Fosso di Covole	1166	Tr200	54.70	282.31	286.16	284.93	286.50	0.005013	2.58	21.21	6.88	0.47
Fosso Covole	Fosso di Covole	1150	Tr30	33.00	282.01	284.81	284.53	285.34	0.012740	3.21	10.28	5.95	0.78
Fosso Covole	Fosso di Covole	1150	Tr200	54.70	282.01	285.70	285.14	286.33	0.011273	3.51	15.58	6.01	0.70
Fosso Covole	Fosso di Covole	1135	Tr30	33.00	281.93	284.55	284.42	285.15	0.015738	3.43	9.61	6.30	0.89
Fosso Covole	Fosso di Covole	1135	Tr200	54.70	281.93	285.59	285.00	286.18	0.010230	3.38	16.18	6.30	0.67
Fosso Covole	Fosso di Covole	1070	Tr30	33.00	281.51	284.37	283.59	284.68	0.006440	2.46	13.41	6.05	0.53
Fosso Covole	Fosso di Covole	1070	Tr200	54.70	281.51	285.41	284.19	285.80	0.006355	2.78	19.67	6.05	0.49
Fosso Covole	Fosso di Covole	1067	Tr30	33.00	281.27	284.57	283.11	284.58	0.000135	0.41	79.97	43.56	0.10
Fosso Covole	Fosso di Covole	1067	Tr200	54.70	281.27	285.67	283.27	285.68	0.000083	0.43	127.82	43.56	0.08
Fosso Covole	Fosso di Covole	1043	Tr30	33.00	281.11	284.27	283.36	284.55	0.005268	2.30	14.33	6.24	0.49
Fosso Covole	Fosso di Covole	1043	Tr200	54.70	281.11	285.28	283.97	285.64	0.005509	2.65	20.60	6.24	0.47
Fosso Covole	Fosso di Covole	728	Tr30	33.00	281.38	284.24	283.18	284.41	0.002835	1.79	18.39	8.16	0.38
Fosso Covole	Fosso di Covole	728	Tr200	54.70	281.38	285.28	283.65	285.49	0.002749	2.04	26.82	8.16	0.36
Fosso Covole	Fosso di Covole	604	Tr30	33.00	280.33	284.14	283.22	284.30	0.003336	1.75	18.86	9.44	0.40
Fosso Covole	Fosso di Covole	604	Tr200	54.70	280.33	285.20	283.65	285.39	0.002673	1.89	28.87	9.44	0.35
Fosso Covole	Fosso di Covole	525	Tr30	33.00	280.33	283.85	282.92	284.13	0.006003	2.37	13.91	5.76	0.49
Fosso Covole	Fosso di Covole	525	Tr200	54.70	280.33	284.83	283.53	285.22	0.006696	2.80	19.55	5.76	0.49
Fosso Covole	Fosso di Covole	512	Tr30	33.00	279.80	282.78	282.78	283.63	0.029430	4.09	8.06	4.75	1.00
Fosso Covole	Fosso di Covole	512	Tr200	54.70	279.80	283.46	283.46	284.66	0.031774	4.83	11.31	4.75	1.00
Fosso Covole	Fosso di Covole	506	Tr30	33.00	279.66	282.61	281.71	282.77	0.003201	1.78	18.49	9.33	0.40
Fosso Covole	Fosso di Covole	506	Tr200	54.70	279.66	283.59	282.15	283.79	0.002789	1.98	27.59	9.33	0.37
Fosso Covole	Fosso di Covole	463	Tr30	33.00	279.22	281.92	281.77	282.59	0.018574	3.62	9.11	5.17	0.87
Fosso Covole	Fosso di Covole	463	Tr200	54.70	279.22	282.76	282.42	283.61	0.017755	4.06	13.46	5.17	0.80
Fosso Covole	Fosso di Covole	450	Tr30	33.00	278.81	282.16	281.29	282.25	0.002134	1.37	24.14	14.76	0.34
Fosso Covole	Fosso di Covole	450	Tr200	54.70	278.81	283.17	281.64	283.27	0.001353	1.40	39.04	14.76	0.28
Fosso Covole	Fosso di Covole	329	Tr30	33.00	278.71	281.99	280.82	282.17	0.002972	1.87	17.62	7.25	0.38
Fosso Covole	Fosso di Covole	329	Tr200	54.70	278.71	282.94	281.36	283.19	0.003380	2.24	24.47	7.25	0.39
Fosso Covole	Fosso di Covole	176	Tr30	33.00	278.49	281.88	280.72	282.08	0.003599	1.99	16.60	6.79	0.41
Fosso Covole	Fosso di Covole	176	Tr200	54.70	278.49	282.80	281.31	283.09	0.004215	2.40	22.81	6.79	0.42
Fosso Covole	Fosso di Covole	85	Tr30	33.00	278.43	281.84	280.52	282.00	0.002487	1.75	18.87	7.56	0.35
Fosso Covole	Fosso di Covole	85	Tr200	54.70	278.43	282.76	281.09	282.99	0.002942	2.12	25.80	7.56	0.37
Fosso Covole	Fosso di Covole	61	Tr30	33.00	278.32	281.72	280.87	281.94	0.004218	2.06	16.05	7.85	0.46
Fosso Covole	Fosso di Covole	61	Tr200	54.70	278.32	282.64	281.38	282.92	0.004112	2.35	23.27	7.85	0.44
Fosso Covole	Fosso di Covole	39	Tr30	33.00	278.27	281.64	280.71	281.88	0.005081	2.17	15.23	7.04	0.47
Fosso Covole	Fosso di Covole	39	Tr200	54.70	278.27	282.54	281.29	282.86	0.005298	2.53	21.61	7.13	0.46
Fosso Covole	Fosso di Covole	35											
				Culvert									
Fosso Covole	Fosso di Covole	34	Tr30	33.00	278.22	281.13	281.13	281.79	0.022197	3.60	9.16	6.92	1.00
Fosso Covole	Fosso di Covole	34	Tr200	54.70	278.22	282.16	281.73	282.65	0.010110	3.11	17.59	6.92	0.70
Fosso Covole	Fosso di Covole	27	Tr30	33.00	277.81	279.73	280.06	281.16	0.049242	5.30	6.23	3.72	1.31
Fosso Covole	Fosso di Covole	27	Tr200	54.70	277.81	280.86	280.86	282.26	0.035695	5.24	10.44	3.72	1.00
Castro	Castro1	8992	Tr30	26.30	283.17	284.32	284.00	284.46	0.005267	1.68	15.65	16.51	0.55
Castro	Castro1	8992	Tr200	32.80	283.17	284.52	284.10	284.67	0.004364	1.72	19.10	16.72	0.51
Castro	Castro1	8895	Tr30	26.30	281.73	283.66	283.18	283.90	0.006187	2.17	12.09	8.67	0.59
Castro	Castro1	8895	Tr200	32.80	281.73	283.88	283.36	284.16	0.006332	2.33	14.08	9.14	0.60
Castro	Castro1	8797	Tr30	26.30	280.72	282.34	282.34	282.89	0.018723	3.29	7.99	7.22	1.00
Castro	Castro1	8797	Tr200	32.80	280.72	282.55	282.55	283.15	0.018125	3.44	9.54	7.87	1.00
Castro	Castro1	8755	Tr30	26.30	280.49	281.10	281.24	281.59	0.059607	3.11	8.46	22.81	1.63
Castro	Castro1	8755	Tr200	32.80	280.49	281.12	281.32	281.79	0.073914	3.61	9.09	23.00	1.83
Castro	Castro1	8754	Tr30	26.30	277.94	278.63	279.30	281.28	0.182642	7.21	3.65	5.44	2.81
Castro	Castro1	8754	Tr200	32.80	277.94	278.78	279.51	281.48	0.149324	7.27	4.51	5.49	2.56
Castro	Castro1	8688	Tr30	26.30	277.61	279.54	279.33	279.88	0.010325	2.56	10.28	9.08	0.77
Castro	Castro1	8688	Tr200	32.80	277.61	279.77	279.51	280.13	0.009320	2.64	12.44	9.63	0.74

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Castro	Castro1	8568	Tr30	26.30	276.18	278.65	278.07	278.89	0.006276	2.20	11.93	7.56	0.56
Castro	Castro1	8568	Tr200	32.80	276.18	278.90	278.26	279.18	0.006379	2.36	13.90	7.94	0.57
Castro	Castro1	8517	Tr30	26.30	276.28	277.95	277.79	278.42	0.013890	3.02	8.72	6.60	0.84
Castro	Castro1	8517	Tr200	32.80	276.28	278.18	278.00	278.70	0.013858	3.20	10.24	6.93	0.84
Castro	Castro1	8452	Tr30	26.30	275.91	277.62	277.09	277.83	0.004993	2.00	13.16	8.70	0.52
Castro	Castro1	8452	Tr200	32.80	275.91	277.87	277.24	278.11	0.004976	2.14	15.31	8.74	0.52
Castro	Castro1	8438	Tr30	26.30	275.61	277.28	277.04	277.70	0.012246	2.87	9.16	6.47	0.77
Castro	Castro1	8438	Tr200	32.80	275.61	277.43	277.25	277.96	0.014488	3.25	10.09	6.59	0.84
Castro	Castro1	8403	Tr30	26.30	275.57	276.72	276.72	277.19	0.017617	3.02	8.71	9.32	1.00
Castro	Castro1	8403	Tr200	32.80	275.57	276.88	276.88	277.41	0.017300	3.20	10.25	9.88	1.00
Castro	Castro1	8365	Tr30	26.30	274.06	276.11	275.59	276.35	0.006200	2.15	12.25	8.62	0.58
Castro	Castro1	8365	Tr200	32.80	274.06	276.41	275.77	276.66	0.005582	2.21	14.82	9.02	0.55
Castro	Castro1	8299	Tr30	26.30	273.14	275.28	274.98	275.75	0.013066	3.04	8.66	5.37	0.76
Castro	Castro1	8299	Tr200	32.80	273.14	275.55	275.22	276.08	0.013389	3.24	10.13	5.62	0.77
Castro	Castro1	8250	Tr30	26.30	272.77	274.73	274.38	275.14	0.011381	2.82	9.34	5.94	0.72
Castro	Castro1	8250	Tr200	32.80	272.77	275.00	274.60	275.46	0.011522	3.00	10.94	6.24	0.72
Castro	Castro1	8193	Tr30	26.30	272.08	274.17	273.76	274.53	0.009610	2.68	9.80	6.36	0.69
Castro	Castro1	8193	Tr200	32.80	272.08	274.44	273.99	274.85	0.009476	2.83	11.61	6.82	0.69
Castro	Castro1	8141	Tr30	26.30	271.63	273.81	273.23	274.09	0.006868	2.35	11.19	6.62	0.58
Castro	Castro1	8141	Tr200	32.80	271.63	274.07	273.44	274.40	0.007091	2.52	12.99	6.88	0.59
Castro	Castro1	8118	Tr30	26.30	271.22	273.81	273.07	273.94	0.002983	1.60	16.39	11.22	0.42
Castro	Castro1	8118	Tr200	32.80	271.22	274.11	273.26	274.25	0.002685	1.66	19.79	11.64	0.41
Castro	Castro1	8115		Bridge									
Castro	Castro1	8110	Tr30	26.30	271.22	273.78	273.07	273.92	0.003201	1.64	16.00	11.17	0.44
Castro	Castro1	8110	Tr200	32.80	271.22	274.08	273.26	274.22	0.002852	1.69	19.39	11.61	0.42
Castro	Castro1	8097	Tr30	30.40	271.08	273.48	273.18	273.83	0.009561	2.61	11.66	9.32	0.74
Castro	Castro1	8097	Tr200	39.60	271.08	273.73	273.45	274.13	0.009846	2.81	14.11	10.32	0.77
Castro	Castro1	7983	Tr30	30.40	269.85	271.95	271.87	272.46	0.015161	3.15	9.65	7.95	0.91
Castro	Castro1	7983	Tr200	39.60	269.85	272.25	272.13	272.79	0.013997	3.27	12.12	8.91	0.89
Castro	Castro1	7958	Tr30	30.40	269.33	271.82	271.38	272.13	0.007959	2.50	12.16	8.39	0.66
Castro	Castro1	7958	Tr200	39.60	269.33	272.11	271.65	272.48	0.008057	2.69	14.73	9.18	0.68
Castro	Castro1	7888	Tr30	30.40	268.90	271.10	270.80	271.49	0.010374	2.77	10.96	8.09	0.76
Castro	Castro1	7888	Tr200	39.60	268.90	271.40	271.09	271.83	0.010225	2.92	13.58	9.24	0.77
Castro	Castro1	7785	Tr30	30.40	267.61	270.09	269.70	270.46	0.009530	2.68	11.33	7.94	0.72
Castro	Castro1	7785	Tr200	39.60	267.61	270.40	270.01	270.81	0.009511	2.83	13.97	9.09	0.73
Castro	Castro1	7680	Tr30	30.40	266.91	269.06	268.77	269.43	0.010022	2.72	11.16	8.43	0.76
Castro	Castro1	7680	Tr200	39.60	266.91	269.35	269.04	269.76	0.010596	2.84	13.96	10.56	0.79
Castro	Castro1	7595	Tr30	30.40	266.22	268.35	267.98	268.66	0.007863	2.44	12.46	9.59	0.68
Castro	Castro1	7595	Tr200	39.60	266.22	268.69	268.24	269.00	0.007040	2.50	15.86	10.85	0.66
Castro	Castro1	7550	Tr30	30.40	266.07	267.93	267.65	268.27	0.009137	2.59	11.74	8.75	0.71
Castro	Castro1	7550	Tr200	39.60	266.07	268.36	267.86	268.68	0.007392	2.50	15.83	10.63	0.65
Castro	Castro1	7540		Bridge									
Castro	Castro1	7527	Tr30	30.40	265.58	267.64	267.37	267.98	0.009437	2.59	11.72	9.03	0.73
Castro	Castro1	7527	Tr200	39.60	265.58	267.90	267.59	268.30	0.009508	2.79	14.17	9.74	0.74
Castro	Castro1	7503	Tr30	30.40	265.26	267.38	267.11	267.74	0.009908	2.66	11.42	8.88	0.75
Castro	Castro1	7503	Tr200	39.60	265.26	267.64	267.35	268.06	0.010027	2.87	13.81	9.66	0.77
Castro	Castro1	7419	Tr30	30.40	264.56	266.59	266.31	266.94	0.009301	2.61	11.66	9.22	0.74
Castro	Castro1	7419	Tr200	39.60	264.56	266.88	266.55	267.26	0.008877	2.74	14.43	10.16	0.74
Castro	Castro1	7328	Tr30	30.40	263.71	265.86	265.45	266.17	0.007462	2.46	12.37	8.73	0.66
Castro	Castro1	7328	Tr200	39.60	263.71	266.09	265.70	266.48	0.008329	2.73	14.49	9.44	0.70
Castro	Castro1	7255	Tr30	30.40	263.09	265.73	264.64	265.85	0.002131	1.52	19.94	11.01	0.36
Castro	Castro1	7255	Tr200	39.60	263.09	266.33	264.89	266.34	0.000096	0.37	123.83	77.92	0.08
Castro	Castro1	7222	Tr30	30.40	262.61	265.70	264.31	265.78	0.001319	1.25	24.37	11.64	0.26
Castro	Castro1	7222	Tr200	39.60	262.61	266.24	264.50	266.32	0.001152	1.31	30.62	11.64	0.25
Castro	Castro1	7200		Bridge									
Castro	Castro1	7186	Tr30	30.40	263.34	264.68	264.79	265.34	0.023039	3.61	8.43	8.34	1.15
Castro	Castro1	7186	Tr200	39.60	263.34	264.80	265.03	265.69	0.027922	4.17	9.49	8.67	1.27
Castro	Castro1	7165	Tr30	30.40	262.37	264.31	264.00	264.65	0.008937	2.56	11.86	8.33	0.69
Castro	Castro1	7165	Tr200	39.60	262.37	263.94	264.21	264.99	0.038053	4.53	8.73	8.33	1.41
Castro	Castro1	7080	Tr30	30.40	261.76	263.74	263.45	263.92	0.007327	1.84	16.52	19.78	0.64
Castro	Castro1	7080	Tr200	39.60	261.76	263.91	263.63	264.06	0.006120	1.80	27.03	74.53	0.60
Castro	Castro1	7042	Tr30	30.40	261.28	263.07	262.96	263.51	0.014451	2.93	10.39	9.00	0.87
Castro	Castro1	7042	Tr200	39.60	261.28	263.62	263.18	263.83	0.005502	2.19	25.72	73.75	0.55
Castro	Castro1	6984	Tr30	30.40	260.62	263.30	262.26	263.32	0.000376	0.68	57.80	51.57	0.15
Castro	Castro1	6984	Tr200	39.60	260.62	263.72	262.65	263.74	0.000237	0.60	79.64	51.57	0.12

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E. G. Elev (m)	E. G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Castro	Castro1	6976	Tr30	30.40	260.70	263.16	262.19	263.30	0.002412	1.63	18.67	9.93	0.38
Castro	Castro1	6976	Tr200	39.60	260.70	263.57	262.40	263.72	0.002279	1.73	23.15	11.39	0.37
Castro	Castro1	6974		Culvert									
Castro	Castro1	6970	Tr30	30.40	260.57	263.04	262.09	263.17	0.002903	1.65	18.45	9.56	0.38
Castro	Castro1	6970	Tr200	39.60	260.57	263.36	262.30	263.53	0.003087	1.84	21.59	10.38	0.39
Castro	Castro1	6959	Tr30	30.40	260.67	262.51	262.42	263.07	0.016294	3.32	9.14	6.87	0.92
Castro	Castro1	6959	Tr200	39.60	260.67	263.46	262.71	263.47	0.000306	0.60	82.32	69.66	0.13
Castro	Castro1	6864	Tr30	30.40	259.53	262.23	261.44	262.32	0.003370	1.54	24.24	32.07	0.42
Castro	Castro1	6864	Tr200	39.60	259.53	263.43	262.08	263.44	0.000267	0.63	70.35	41.04	0.13
Castro	Castro1	6767	Tr30	30.40	258.86	262.12	260.74	262.16	0.000828	1.01	36.65	29.27	0.22
Castro	Castro1	6767	Tr200	39.60	258.86	263.41	261.08	263.43	0.000136	0.55	83.05	34.58	0.10
Castro	Castro1	6725	Tr30	30.40	258.27	262.11	260.15	262.13	0.000418	0.86	49.00	49.32	0.16
Castro	Castro1	6725	Tr200	39.60	258.27	263.41	260.43	263.42	0.000070	0.45	113.50	49.32	0.07
Castro	Castro3	6693	Tr30	125.30	257.60	261.56	260.70	262.03	0.005520	3.03	41.36	16.08	0.60
Castro	Castro3	6693	Tr200	179.80	257.60	263.12	261.33	263.38	0.001901	2.37	83.53	24.90	0.37
Castro	Castro3	6630	Tr30	125.30	257.14	261.82	260.76	261.85	0.000327	0.79	182.47	90.46	0.15
Castro	Castro3	6630	Tr200	179.80	257.14	263.27	261.30	263.29	0.000116	0.61	313.51	90.46	0.09
Castro	Castro3	6563	Tr30	125.30	256.95	261.58	260.60	261.78	0.002535	2.07	67.04	36.71	0.42
Castro	Castro3	6563	Tr200	179.80	256.95	263.14	261.01	263.26	0.000807	1.62	124.46	36.71	0.26
Castro	Castro3	6000		Bridge									
Castro	Castro3	4899	Tr30	125.30	245.33	248.74	247.15	248.89	0.001427	1.74	71.81	25.40	0.33
Castro	Castro3	4899	Tr200	179.80	245.33	250.35	247.55	250.47	0.000736	1.57	114.63	27.75	0.25
Castro	Castro3	4801	Tr30	125.30	244.55	248.32	247.52	248.65	0.004440	2.53	49.59	24.35	0.57
Castro	Castro3	4801	Tr200	179.80	244.55	250.35	248.01	250.40	0.000382	1.08	236.06	155.60	0.18
Castro	Castro3	4731	Tr30	135.80	241.77	248.51	245.09	248.53	0.000136	0.70	287.86	170.98	0.11
Castro	Castro3	4731	Tr200	195.60	241.77	250.38	245.68	250.38	0.000031	0.43	606.47	170.98	0.05
Castro	Castro3	4598	Tr30	135.80	243.07	248.21	246.04	248.46	0.002859	2.18	62.21	23.75	0.43
Castro	Castro3	4598	Tr200	195.60	243.07	250.30	246.78	250.37	0.000478	1.21	197.77	90.38	0.19
Castro	Castro3	4582	Tr30	135.80	243.03	248.21	245.72	248.41	0.001615	1.96	69.34	20.21	0.34
Castro	Castro3	4582	Tr200	195.60	243.03	250.29	246.35	250.36	0.000428	1.27	194.30	83.55	0.19
Castro	Castro3	4580		Bridge									
Castro	Castro3	4571	Tr30	135.80	243.01	247.85	245.72	248.09	0.002046	2.17	62.71	18.80	0.38
Castro	Castro3	4571	Tr200	195.60	243.01	249.40	246.35	249.57	0.001218	1.88	122.04	83.88	0.30
Castro	Castro3	4565	Tr30	135.80	243.01	247.73	246.24	248.07	0.003209	2.58	52.70	18.14	0.48
Castro	Castro3	4565	Tr200	195.60	243.01	249.32	246.86	249.56	0.001813	2.19	95.34	55.96	0.38
Castro	Castro3	4556	Tr30	135.80	242.92	247.36	246.06	247.99	0.006520	3.53	38.45	9.77	0.57
Castro	Castro3	4556	Tr200	195.60	242.92	248.82	246.85	249.49	0.006266	3.60	54.31	13.32	0.57
Castro	Castro3	4548	Tr30	135.80	242.90	247.30	246.02	247.94	0.006694	3.56	38.12	9.65	0.57
Castro	Castro3	4548	Tr200	195.60	242.90	248.76	246.80	249.44	0.006442	3.64	53.79	13.14	0.57
Castro	Castro3	4547		Bridge									
Castro	Castro3	4535	Tr30	135.80	242.81	246.93	245.52	247.25	0.002967	2.48	54.73	18.49	0.46
Castro	Castro3	4535	Tr200	195.60	242.81	247.64	246.11	248.06	0.003347	2.86	68.45	20.33	0.50
Castro	Castro3	4505	Tr30	135.80	242.78	245.56	245.56	246.94	0.020618	5.20	26.10	9.40	1.00
Castro	Castro3	4505	Tr200	195.60	242.78	246.56	246.56	247.77	0.017803	4.86	40.24	16.71	1.00
Castro	Castro3	4482	Tr30	135.80	241.16	243.00	243.91	246.07	0.065931	7.76	17.51	9.50	1.82
Castro	Castro3	4482	Tr200	195.60	241.16	243.74	244.67	246.98	0.051182	7.97	24.54	9.50	1.58
Castro	Castro3	4474	Tr30	135.80	241.13	243.70	243.90	245.30	0.025395	5.60	24.27	9.44	1.11
Castro	Castro3	4474	Tr200	195.60	241.13	244.71	244.91	246.19	0.022652	5.39	36.30	14.85	1.10
Castro	Castro3	4463	Tr30	135.80	240.54	243.77	242.57	244.13	0.004138	2.69	50.51	18.87	0.52
Castro	Castro3	4463	Tr200	195.60	240.54	242.12	243.13	245.57	0.074382	8.23	23.77	15.41	2.12
Castro	Castro3	4333	Tr30	135.80	239.65	243.74	242.03	243.99	0.002846	2.25	60.37	21.38	0.43
Castro	Castro3	4333	Tr200	195.60	239.65	244.45	242.68	244.78	0.003016	2.56	76.27	23.08	0.45
Castro	Castro3	4332	Tr30	135.80	239.31	243.79	241.63	243.95	0.001274	1.75	77.70	23.14	0.30
Castro	Castro3	4332	Tr200	195.60	239.31	244.51	242.13	244.73	0.001511	2.06	95.11	25.26	0.34
Castro	Castro3	4323	Tr30	135.80	238.52	242.62	242.62	243.56	0.016059	4.29	31.63	16.75	1.00
Castro	Castro3	4323	Tr200	195.60	238.52	243.23	243.23	244.30	0.015038	4.58	42.75	19.90	1.00
Castro	Castro3	4164	Tr30	135.80	236.18	240.59	239.75	240.86	0.003974	2.32	58.51	29.37	0.53
Castro	Castro3	4164	Tr200	195.60	236.18	241.24	240.19	241.55	0.003540	2.48	78.92	33.08	0.51
Castro	Castro3	4050	Tr30	135.80	235.77	239.68	239.01	240.23	0.007462	3.29	41.26	19.55	0.72
Castro	Castro3	4050	Tr200	195.60	235.77	240.42	239.78	240.98	0.006856	3.32	58.86	26.32	0.71
Castro	Castro3	4030		Bridge									
Castro	Castro3	4018	Tr30	135.80	235.40	239.04	238.96	239.92	0.013289	4.16	32.66	16.75	0.95
Castro	Castro3	4018	Tr200	195.60	235.40	239.61	239.58	240.67	0.013542	4.56	42.89	19.53	0.98
Castro	Castro3	3897	Tr30	135.80	234.79	237.75	237.53	238.47	0.010178	3.75	36.23	18.59	0.86

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Castro	Castro3	3897	Tr200	195.60	234.79	238.29	238.09	239.18	0.010375	4.18	46.83	20.59	0.88
Castro	Castro3	3758	Tr30	135.80	232.89	236.75	236.25	237.25	0.006822	3.14	43.23	21.15	0.70
Castro	Castro3	3758	Tr200	195.60	232.89	237.49	236.77	238.03	0.005654	3.26	59.94	23.95	0.66
Castro	Castro3	3647	Tr30	135.80	232.63	235.56	235.27	236.33	0.009786	3.88	34.96	15.70	0.83
Castro	Castro3	3647	Tr200	195.60	232.63	236.06	235.93	237.10	0.012116	4.51	43.38	18.25	0.93
Castro	Castro3	3512	Tr30	135.80	231.26	235.33	234.28	235.55	0.002675	2.07	65.55	30.57	0.45
Castro	Castro3	3512	Tr200	195.60	231.26	235.98	234.72	236.25	0.002448	2.27	86.18	32.51	0.45
Castro	Castro3	3391	Tr30	135.80	230.68	233.92	233.92	234.82	0.014723	4.22	32.19	17.64	1.00
Castro	Castro3	3391	Tr200	195.60	230.68	234.46	234.46	235.56	0.014018	4.63	42.21	19.20	1.00
Castro	Castro3	3228	Tr30	135.80	229.93	232.62	232.33	232.90	0.005490	2.58	59.92	44.83	0.62
Castro	Castro3	3228	Tr200	195.60	229.93	233.01	232.60	233.35	0.005168	2.82	77.46	45.60	0.62
Castro	Castro3	3035	Tr30	135.80	227.50	230.55	230.55	231.22	0.015207	3.61	37.57	28.09	1.00
Castro	Castro3	3035	Tr200	195.60	227.50	230.95	230.95	231.75	0.014320	3.97	49.29	30.59	1.00
Castro	Castro3	2906	Tr30	135.80	219.05	229.25	223.69	229.41	0.001322	1.80	75.52	13.76	0.25
Castro	Castro3	2906	Tr200	195.60	219.05	230.97	224.77	231.14	0.001280	1.85	106.49	32.58	0.26
Castro	Castro4	2357	Tr30	256.70	222.25	226.64	225.96	227.50	0.007075	4.13	62.22	19.22	0.73
Castro	Castro4	2357	Tr200	414.70	222.25	227.54	227.06	228.90	0.009091	5.17	80.18	20.82	0.84
Castro	Castro4	2339	Tr30	256.70	222.04	226.74	225.73	227.32	0.004522	3.39	75.74	23.84	0.61
Castro	Castro4	2339	Tr200	414.70	222.04	227.77	226.69	228.63	0.005124	4.09	101.39	25.77	0.66
Castro	Castro4	1936	Tr30	256.70	220.60	223.64	223.56	224.52	0.011674	4.16	61.67	31.24	0.95
Castro	Castro4	1936	Tr200	414.70	220.60	224.44	224.44	225.53	0.012509	4.64	89.47	40.72	1.00
Castro	Castro4	1301	Tr30	256.70	217.21	220.38	219.86	220.64	0.003473	2.65	118.84	68.63	0.53
Castro	Castro4	1301	Tr200	414.70	217.21	221.05	220.27	221.39	0.003292	3.02	166.40	72.86	0.54
Castro	Castro4	616	Tr30	256.70	212.37	215.49	215.49	216.52	0.012189	4.50	57.99	29.87	0.97
Castro	Castro4	616	Tr200	414.70	212.37	216.35	216.35	217.61	0.010356	5.04	86.07	36.51	0.93
Castro	Castro4	64	Tr30	256.70	209.38	215.60	212.26	215.65	0.000260	0.98	262.50	66.70	0.16
Castro	Castro4	64	Tr200	414.70	209.38	215.60	212.81	215.73	0.000679	1.58	262.50	66.70	0.25
Bicchieraia	Bicchieraia1	3489	Tr30	25.90	301.02	302.49	302.54	303.01	0.020008	3.17	8.16	9.02	1.07
Bicchieraia	Bicchieraia1	3489	Tr200	44.00	301.02	302.88	302.97	303.58	0.020015	3.70	11.89	10.32	1.10
Bicchieraia	Bicchieraia1	3376	Tr30	25.90	298.42	299.36	299.47	299.78	0.034204	2.86	9.05	18.47	1.31
Bicchieraia	Bicchieraia1	3376	Tr200	44.00	298.42	299.54	299.73	300.15	0.039292	3.47	12.69	21.58	1.44
Bicchieraia	Bicchieraia1	3375	Tr30	25.90	295.48	297.41	297.22	297.69	0.010277	2.36	10.97	11.04	0.76
Bicchieraia	Bicchieraia1	3375	Tr200	44.00	295.48	297.54	297.60	298.18	0.019957	3.52	12.49	11.25	1.07
Bicchieraia	Bicchieraia1	3374	Tr30	25.90	293.21	295.09	295.09	295.65	0.018834	3.33	7.78	6.88	1.00
Bicchieraia	Bicchieraia1	3374	Tr200	44.00	293.21	295.76	295.92	296.17	0.009301	3.02	20.42	71.96	0.75
Bicchieraia	Bicchieraia1	2946	Tr30	25.90	288.77	291.04	291.07	291.57	0.022527	3.21	8.06	8.13	1.03
Bicchieraia	Bicchieraia1	2946	Tr200	44.00	288.77	291.12	291.52	292.43	0.052330	5.07	8.67	8.27	1.58
Bicchieraia	Bicchieraia1	2828	Tr30	25.90	287.25	289.76	288.96	289.96	0.004253	1.94	13.36	7.21	0.45
Bicchieraia	Bicchieraia1	2828	Tr200	44.00	287.25	290.99	289.46	291.16	0.002210	1.87	24.58	9.84	0.35
Bicchieraia	Bicchieraia1	2825		Bridge									
Bicchieraia	Bicchieraia1	2821	Tr30	25.90	287.01	288.77	288.99	289.70	0.034878	4.27	6.07	5.47	1.29
Bicchieraia	Bicchieraia1	2821	Tr200	44.00	287.01	288.98	289.58	290.86	0.060679	6.07	7.25	5.65	1.71
Bicchieraia	Bicchieraia1	2814	Tr30	25.90	286.96	289.10	288.58	289.10	0.000192	0.40	75.22	74.43	0.11
Bicchieraia	Bicchieraia1	2814	Tr200	44.00	286.96	288.43	288.58	290.34	0.082128	6.12	7.20	8.21	2.09
Bicchieraia	Bicchieraia1	2812	Tr30	25.90	287.01	288.42	288.42	289.04	0.021822	3.49	7.42	6.00	1.00
Bicchieraia	Bicchieraia1	2812	Tr200	44.00	287.01	288.43	288.78	290.19	0.061065	5.87	7.50	6.00	1.68
Bicchieraia	Bicchieraia1	2732	Tr30	25.90	284.83	286.81	286.68	287.31	0.014593	3.13	8.28	6.31	0.87
Bicchieraia	Bicchieraia1	2732	Tr200	44.00	284.83	287.25	287.25	288.04	0.018455	3.92	11.23	7.15	1.00
Bicchieraia	Bicchieraia1	2677	Tr30	25.90	283.78	285.75	285.75	286.34	0.021048	3.40	7.62	6.53	1.01
Bicchieraia	Bicchieraia1	2677	Tr200	44.00	283.78	286.19	286.19	286.25	0.002814	1.44	43.25	66.73	0.37
Bicchieraia	Bicchieraia1	2485	Tr30	25.90	280.59	283.01	282.73	283.18	0.007599	1.85	14.02	16.27	0.64
Bicchieraia	Bicchieraia1	2485	Tr200	44.00	280.59	283.40	283.06	283.42	0.000365	0.48	74.82	52.47	0.15
Bicchieraia	Bicchieraia1	2440	Tr30	25.90	280.79	282.11	282.11	282.64	0.018955	3.23	8.02	7.50	1.00
Bicchieraia	Bicchieraia1	2440	Tr200	44.00	280.79	282.59	282.59	283.30	0.018167	3.73	11.78	8.24	1.00
Bicchieraia	Bicchieraia1	2412	Tr30	25.90	279.51	280.65	280.97	281.68	0.060363	4.49	5.76	8.72	1.76
Bicchieraia	Bicchieraia1	2412	Tr200	44.00	279.51	282.18	281.36	282.20	0.000406	0.69	72.98	51.78	0.15
Bicchieraia	Bicchieraia1	2398	Tr30	25.90	278.92	281.18	280.74	281.39	0.005933	2.02	12.82	9.50	0.56
Bicchieraia	Bicchieraia1	2398	Tr200	44.00	278.92	282.19	281.13	282.20	0.000094	0.34	126.66	67.38	0.07
Bicchieraia	Bicchieraia1	2341	Tr30	25.90	278.26	280.21	280.21	280.79	0.019063	3.40	7.62	6.48	1.00
Bicchieraia	Bicchieraia1	2341	Tr200	44.00	278.26	282.17	280.73	282.18	0.000310	0.67	75.06	53.05	0.15
Bicchieraia	Bicchieraia1	2318	Tr30	25.90	278.13	279.87	279.35	280.03	0.004238	1.79	14.49	11.56	0.51
Bicchieraia	Bicchieraia1	2318	Tr200	44.00	278.13	282.13	279.73	282.17	0.000422	0.92	47.93	15.22	0.17
Bicchieraia	Bicchieraia1	2310		Bridge									
Bicchieraia	Bicchieraia1	2304	Tr30	25.90	277.27	278.26	278.55	279.19	0.074454	4.27	6.07	11.97	1.91
Bicchieraia	Bicchieraia1	2304	Tr200	44.00	277.27	281.85	278.87	281.87	0.000204	0.68	65.19	21.83	0.12

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Bicchieraia	Bicchieraia2	2294	Tr30	71.40	276.80	278.90	279.44	280.64	0.043860	5.84	12.23	8.38	1.54
Bicchieraia	Bicchieraia2	2294	Tr200	119.00	276.80	281.41	280.23	281.83	0.004474	2.90	44.17	27.88	0.54
Bicchieraia	Bicchieraia2	2211	Tr30	71.40	276.02	280.16	279.18	280.20	0.000888	1.14	81.32	60.47	0.22
Bicchieraia	Bicchieraia2	2211	Tr200	119.00	276.02	281.63	279.82	281.65	0.000240	0.79	170.23	60.47	0.12
Bicchieraia	Bicchieraia2	2170	Tr30	71.40	275.85	279.38	278.88	280.05	0.010960	3.62	19.73	7.81	0.73
Bicchieraia	Bicchieraia2	2170	Tr200	119.00	275.85	280.93	279.79	281.57	0.006341	3.58	35.24	10.72	0.57
Bicchieraia	Bicchieraia2	2166		Bridge									
Bicchieraia	Bicchieraia2	2163	Tr30	71.40	275.85	279.07	278.88	279.94	0.015778	4.12	17.31	7.73	0.88
Bicchieraia	Bicchieraia2	2163	Tr200	119.00	275.85	279.79	279.79	281.16	0.019689	5.19	23.06	8.99	0.97
Bicchieraia	Bicchieraia2	2062	Tr30	71.40	274.85	277.50	277.50	278.33	0.016026	4.05	17.65	10.51	1.00
Bicchieraia	Bicchieraia2	2062	Tr200	119.00	274.85	278.20	278.32	279.27	0.016236	4.59	26.51	19.06	1.03
Bicchieraia	Bicchieraia2	1946	Tr30	71.40	273.31	276.53	275.75	276.97	0.006293	2.93	24.85	14.01	0.59
Bicchieraia	Bicchieraia2	1946	Tr200	119.00	273.31	278.12	276.72	278.22	0.001121	1.65	91.98	44.92	0.26
Bicchieraia	Bicchieraia2	1937	Tr30	71.40	273.39	276.50	275.60	276.91	0.005580	2.82	25.49	11.65	0.56
Bicchieraia	Bicchieraia2	1937	Tr200	119.00	273.39	277.74	276.35	278.17	0.003937	2.95	42.75	14.74	0.50
Bicchieraia	Bicchieraia2	1920		Culvert									
Bicchieraia	Bicchieraia2	1913	Tr30	71.40	273.17	276.25	275.38	276.67	0.005763	2.85	25.18	11.32	0.57
Bicchieraia	Bicchieraia2	1913	Tr200	119.00	273.17	276.74	276.13	277.51	0.009206	3.91	31.31	12.98	0.73
Bicchieraia	Bicchieraia2	1909	Tr30	71.40	272.84	276.20	275.33	276.64	0.006144	2.93	24.40	9.42	0.58
Bicchieraia	Bicchieraia2	1909	Tr200	119.00	272.84	276.22	276.14	277.42	0.016790	4.85	24.55	9.44	0.96
Bicchieraia	Bicchieraia2	1834	Tr30	71.40	272.25	275.31	275.31	275.98	0.012411	3.66	20.75	19.47	0.87
Bicchieraia	Bicchieraia2	1834	Tr200	119.00	272.25	275.92	275.92	276.37	0.007605	3.34	46.63	44.50	0.70
Bicchieraia	Bicchieraia2	1770	Tr30	71.40	271.60	274.40	274.40	275.22	0.017345	4.01	17.78	10.80	1.00
Bicchieraia	Bicchieraia2	1770	Tr200	119.00	271.60	275.71	275.01	275.75	0.000770	1.15	128.86	79.90	0.22
Bicchieraia	Bicchieraia2	1681	Tr30	71.40	271.14	274.29	273.67	274.56	0.004465	2.46	36.56	40.78	0.53
Bicchieraia	Bicchieraia2	1681	Tr200	119.00	271.14	275.59	274.49	275.67	0.000967	1.50	97.67	49.14	0.26
Bicchieraia	Bicchieraia2	1654	Tr30	71.40	271.05	273.99	273.42	274.40	0.006364	2.85	25.09	12.03	0.63
Bicchieraia	Bicchieraia2	1654	Tr200	119.00	271.05	275.15	274.07	275.59	0.004127	2.96	41.66	16.03	0.53
Bicchieraia	Bicchieraia2	1650		Culvert									
Bicchieraia	Bicchieraia2	1648	Tr30	71.40	270.99	273.78	273.36	274.26	0.007998	3.08	23.21	11.92	0.70
Bicchieraia	Bicchieraia2	1648	Tr200	119.00	270.99	274.76	274.01	275.33	0.006097	3.35	36.37	16.03	0.64
Bicchieraia	Bicchieraia2	1629	Tr30	71.40	270.61	273.65	272.97	274.11	0.006939	3.00	23.78	9.92	0.62
Bicchieraia	Bicchieraia2	1629	Tr200	119.00	270.61	274.66	273.71	275.21	0.006261	3.35	38.73	20.86	0.58
Bicchieraia	Bicchieraia2	1574	Tr30	71.40	270.01	272.58	272.58	273.50	0.016833	4.24	16.82	9.16	1.00
Bicchieraia	Bicchieraia2	1574	Tr200	119.00	270.01	273.35	273.35	274.60	0.017146	4.96	24.00	9.57	1.00
Bicchieraia	Bicchieraia2	1504	Tr30	71.40	269.27	273.01	271.97	273.04	0.000495	0.90	95.80	58.13	0.17
Bicchieraia	Bicchieraia2	1504	Tr200	119.00	269.27	273.06	272.88	273.14	0.001247	1.45	99.11	59.97	0.27
Bicchieraia	Bicchieraia2	1438	Tr30	71.40	268.53	272.24	271.77	272.85	0.010939	3.44	20.76	8.83	0.72
Bicchieraia	Bicchieraia2	1438	Tr200	119.00	268.53	272.92	272.26	273.04	0.001926	1.65	79.90	42.77	0.30
Bicchieraia	Bicchieraia2	1352	Tr30	71.40	268.26	271.49	270.95	271.96	0.008949	3.11	24.95	19.57	0.69
Bicchieraia	Bicchieraia2	1352	Tr200	119.00	268.26	271.89	271.89	272.63	0.012623	4.00	32.78	20.27	0.84
Bicchieraia	Bicchieraia2	1326	Tr30	71.40	268.07	271.14	271.14	271.69	0.011050	3.44	23.28	20.27	0.81
Bicchieraia	Bicchieraia2	1326	Tr200	119.00	268.07	271.44	271.44	271.93	0.009701	3.56	43.31	40.97	0.77
Bicchieraia	Bicchieraia2	1261	Tr30	71.40	267.40	270.16	270.16	270.52	0.009017	2.92	30.82	38.74	0.73
Bicchieraia	Bicchieraia2	1261	Tr200	119.00	267.40	270.24	270.36	271.04	0.019448	4.41	33.96	38.78	1.08
Bicchieraia	Bicchieraia2	1180	Tr30	71.40	266.69	269.04	268.87	269.17	0.004514	2.09	48.53	63.99	0.53
Bicchieraia	Bicchieraia2	1180	Tr200	119.00	266.69	269.38	269.08	269.53	0.004204	2.19	70.77	67.01	0.52
Bicchieraia	Bicchieraia2-Low	1076	Tr30	76.20	265.81	268.71	268.36	268.82	0.002575	1.76	57.70	60.24	0.41
Bicchieraia	Bicchieraia2-Low	1076	Tr200	125.50	265.81	268.85	268.56	269.07	0.004584	2.45	66.59	60.31	0.56
Bicchieraia	Bicchieraia2-Low	959	Tr30	76.20	264.92	267.65	267.65	268.19	0.013038	3.58	29.47	66.66	0.84
Bicchieraia	Bicchieraia2-Low	959	Tr200	125.50	264.92	268.06	268.06	268.37	0.007798	3.08	59.82	74.27	0.67
Bicchieraia	Bicchieraia2-Low	881	Tr30	76.20	264.29	267.61	266.97	267.67	0.001273	1.28	70.71	51.38	0.29
Bicchieraia	Bicchieraia2-Low	881	Tr200	125.50	264.29	267.11	267.16	267.58	0.012621	3.59	45.48	50.24	0.87
Bicchieraia	Bicchieraia2-Low	815	Tr30	76.20	263.67	266.44	266.44	267.37	0.017796	4.29	17.77	9.43	1.00
Bicchieraia	Bicchieraia2-Low	815	Tr200	125.50	263.67	267.15	266.68	267.22	0.001644	1.48	119.91	115.91	0.32
Bicchieraia	Bicchieraia2-Low	663	Tr30	76.20	262.65	266.09	265.38	266.13	0.000800	0.93	95.13	81.13	0.23
Bicchieraia	Bicchieraia2-Low	663	Tr200	125.50	262.65	267.09	265.90	267.11	0.000311	0.80	176.10	81.13	0.16
Bicchieraia	Bicchieraia2-Low	569	Tr30	76.20	262.18	265.84	264.63	266.00	0.002075	1.82	47.95	37.11	0.39
Bicchieraia	Bicchieraia2-Low	569	Tr200	125.50	262.18	266.94	265.30	267.06	0.001021	1.67	88.63	37.11	0.29
Bicchieraia	Bicchieraia2-Low	555	Tr30	76.20	262.31	265.50	264.64	265.92	0.006324	2.88	26.69	13.47	0.61
Bicchieraia	Bicchieraia2-Low	555	Tr200	125.50	262.31	266.50	265.61	266.99	0.004755	3.15	42.14	15.31	0.56
Bicchieraia	Bicchieraia2-Low	530		Culvert									
Bicchieraia	Bicchieraia2-Low	505	Tr30	76.20	261.48	264.50	264.00	265.06	0.008945	3.30	23.11	10.31	0.70
Bicchieraia	Bicchieraia2-Low	505	Tr200	125.50	261.48	264.75	264.75	265.97	0.017988	4.87	25.75	10.65	1.00
Bicchieraia	Bicchieraia2-Low	491	Tr30	76.20	261.52	264.06	264.06	264.87	0.015775	3.99	19.10	11.75	1.00

HEC-RAS Plan: Portate Tr (Continued)

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Bicchieraia	Bicchieraia2-Low	491	Tr200	125.50	261.52	265.01	265.01	265.47	0.007133	3.28	48.66	48.74	0.70
Bicchieraia	Bicchieraia2-Low	425	Tr30	76.20	261.09	264.29	263.83	264.37	0.001711	1.39	61.22	43.57	0.34
Bicchieraia	Bicchieraia2-Low	425	Tr200	125.50	261.09	264.68	264.20	264.81	0.002337	1.59	78.91	48.26	0.40
Bicchieraia	Bicchieraia2-Low	342	Tr30	76.20	260.43	264.03	263.24	264.19	0.002562	1.95	47.67	35.28	0.42
Bicchieraia	Bicchieraia2-Low	342	Tr200	125.50	260.43	264.02	263.89	264.46	0.007175	3.25	47.14	35.28	0.69
Bicchieraia	Bicchieraia2-Low	286	Tr30	76.20	259.86	262.81	262.81	263.81	0.017677	4.42	17.26	9.41	1.00
Bicchieraia	Bicchieraia2-Low	286	Tr200	125.50	259.86	263.60	263.60	264.05	0.007540	3.43	50.11	47.33	0.69
Bicchieraia	Bicchieraia2-Low	156	Tr30	76.20	259.10	262.25	262.06	262.43	0.004055	2.15	46.52	53.34	0.51
Bicchieraia	Bicchieraia2-Low	156	Tr200	125.50	259.10	263.44	262.33	263.49	0.006605	1.13	136.79	73.00	0.22
Bicchieraia	Bicchieraia2-Low	65	Tr30	76.20	258.44	262.18	261.01	262.24	0.000869	1.26	81.98	64.72	0.24
Bicchieraia	Bicchieraia2-Low	65	Tr200	125.50	258.44	263.41	261.70	263.45	0.000312	0.96	161.41	64.72	0.15
Bicchieraia	Bicchieraia2-Low	27	Tr30	76.20	258.05	261.86	260.98	262.16	0.003959	2.47	32.80	14.28	0.47
Bicchieraia	Bicchieraia2-Low	27	Tr200	125.50	258.05	263.36	261.62	263.42	0.000696	1.35	111.62	42.01	0.21
Affluente_SX1_Ma	Affluente_SX1_Ma	438	Tr30	14.20	303.62	305.14	305.28	305.92	0.037034	3.90	3.64	3.21	1.17
Affluente_SX1_Ma	Affluente_SX1_Ma	438	Tr200	23.50	303.62	305.63	305.81	306.63	0.037035	4.41	5.32	3.63	1.16
Affluente_SX1_Ma	Affluente_SX1_Ma	298	Tr30	14.20	298.39	300.72	300.31	300.80	0.002440	1.43	13.36	20.24	0.36
Affluente_SX1_Ma	Affluente_SX1_Ma	298	Tr200	23.50	298.39	300.94	300.60	301.06	0.003223	1.79	18.26	24.37	0.42
Affluente_SX1_Ma	Affluente_SX1_Ma	290											
Affluente_SX1_Ma	Affluente_SX1_Ma	285	Tr30	14.20	297.27	298.75	298.75	298.88	0.011494	2.03	10.35	31.24	0.68
Affluente_SX1_Ma	Affluente_SX1_Ma	285	Tr200	23.50	297.27	298.85	298.85	299.03	0.014361	2.40	13.53	31.27	0.77
Affluente_SX1_Ma	Affluente_SX1_Ma	220	Tr30	14.20	294.94	296.30	296.30	296.36	0.006289	1.27	13.65	34.63	0.49
Affluente_SX1_Ma	Affluente_SX1_Ma	220	Tr200	23.50	294.94	296.30	296.30	296.46	0.017225	2.10	13.65	34.63	0.81
Affluente_SX1_Ma	Affluente_SX1_Ma	130	Tr30	14.20	289.85	290.94	291.47	294.26	0.297414	8.08	1.76	3.16	3.46
Affluente_SX1_Ma	Affluente_SX1_Ma	130	Tr200	23.50	289.85	291.47	291.47	291.50	0.002858	1.03	34.62	97.82	0.36
Affluente_SX1_Ma	Affluente_SX1_Ma	56	Tr30	14.20	286.82	288.60	288.83	289.15	0.024109	3.29	4.34	9.41	1.01
Affluente_SX1_Ma	Affluente_SX1_Ma	56	Tr200	23.50	286.82	288.40	288.93	290.65	0.112386	6.65	3.53	3.61	2.15
Affluente_SX1_Ma	Affluente_SX1_Ma	30	Tr30	14.20	285.31	288.12	287.05	288.21	0.002261	1.36	10.46	5.47	0.31
Affluente_SX1_Ma	Affluente_SX1_Ma	30	Tr200	23.50	285.31	288.70	287.44	288.85	0.003021	1.72	13.65	5.47	0.35
Affluente_SX1_Ma	Affluente_SX1_Ma	25											
Affluente_SX1_Ma	Affluente_SX1_Ma	20	Tr30	14.20	285.31	287.05	287.05	287.52	0.021083	3.02	4.70	5.02	1.00
Affluente_SX1_Ma	Affluente_SX1_Ma	20	Tr200	23.50	285.31	287.44	287.44	288.06	0.021096	3.48	6.76	5.47	1.00
Affluente_DX4_Ma	Affluente_DX4_Ma	787	Tr30	8.40	241.51	242.31	242.31	242.58	0.020714	2.33	3.60	6.57	1.01
Affluente_DX4_Ma	Affluente_DX4_Ma	787	Tr200	13.50	241.51	242.93	242.54	243.05	0.004749	1.51	8.93	10.26	0.52
Affluente_DX4_Ma	Affluente_DX4_Ma	346	Tr30	8.40	237.85	239.38	238.79	239.40	0.000771	0.62	16.99	33.76	0.21
Affluente_DX4_Ma	Affluente_DX4_Ma	346	Tr200	13.50	237.85	239.67	238.98	239.69	0.000540	0.60	27.26	36.96	0.18
Affluente_DX3_Ma	Affluente_DX3_Ma	865	Tr30	8.50	253.14	254.25	254.15	254.31	0.005031	1.31	8.92	26.85	0.51
Affluente_DX3_Ma	Affluente_DX3_Ma	865	Tr200	13.20	253.14	254.33	254.26	254.41	0.005839	1.51	12.42	39.83	0.56
Affluente_DX3_Ma	Affluente_DX3_Ma	439	Tr30	8.50	250.41	251.44	251.44	251.54	0.008681	1.64	8.17	46.66	0.66
Affluente_DX3_Ma	Affluente_DX3_Ma	439	Tr200	13.20	250.41	251.54	251.54	251.62	0.007393	1.61	14.84	78.94	0.62
Affluente_DX3_Ma	Affluente_DX3_Ma	237	Tr30	8.50	249.41	250.20	249.95	250.23	0.003431	0.83	10.71	29.12	0.40
Affluente_DX3_Ma	Affluente_DX3_Ma	237	Tr200	13.20	249.41	250.31	250.07	250.35	0.003460	0.95	15.88	53.46	0.42
Affluente_DX3_Ma	Affluente_DX3_Ma	75	Tr30	8.50	248.48	248.91	248.91	249.05	0.024723	1.61	5.28	20.06	1.00
Affluente_DX3_Ma	Affluente_DX3_Ma	75	Tr200	13.20	248.48	249.01	249.01	249.18	0.022767	1.82	7.24	21.47	1.00
Affluente_DX1_Ma	Affluente_DX1_Ma	48	Tr30	4.90	254.26	256.74	255.25	256.75	0.000224	0.42	11.55	7.00	0.11
Affluente_DX1_Ma	Affluente_DX1_Ma	48	Tr200	7.80	254.26	257.22	255.48	257.23	0.000279	0.53	14.86	7.00	0.12
Affluente_DX1_Ma	Affluente_DX1_Ma	19	Tr30	4.90	254.06	256.75	254.85	256.75	0.000011	0.13	71.68	115.17	0.03
Affluente_DX1_Ma	Affluente_DX1_Ma	19	Tr200	7.80	254.06	257.22	255.04	257.23	0.000005	0.11	135.09	154.25	0.02