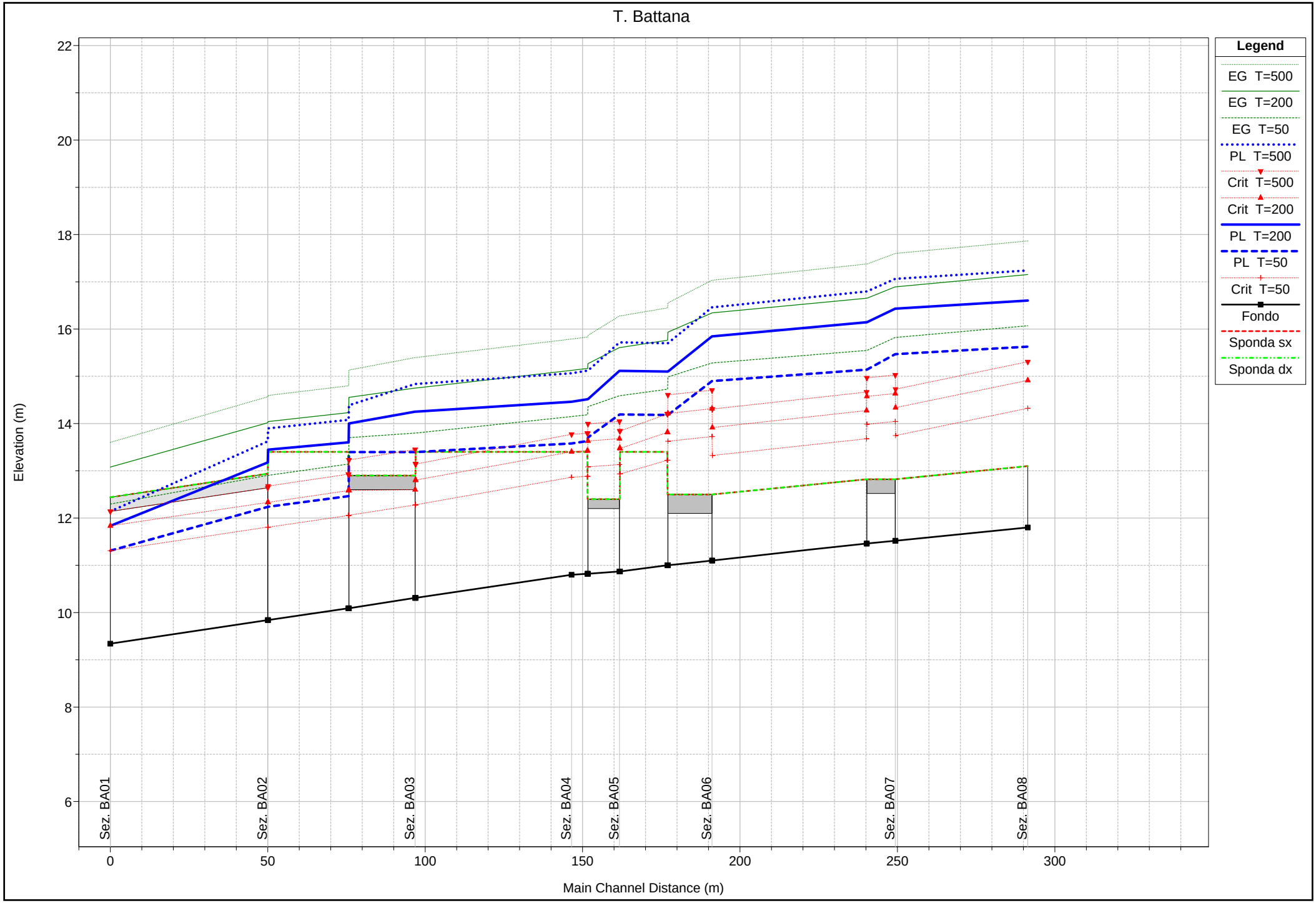
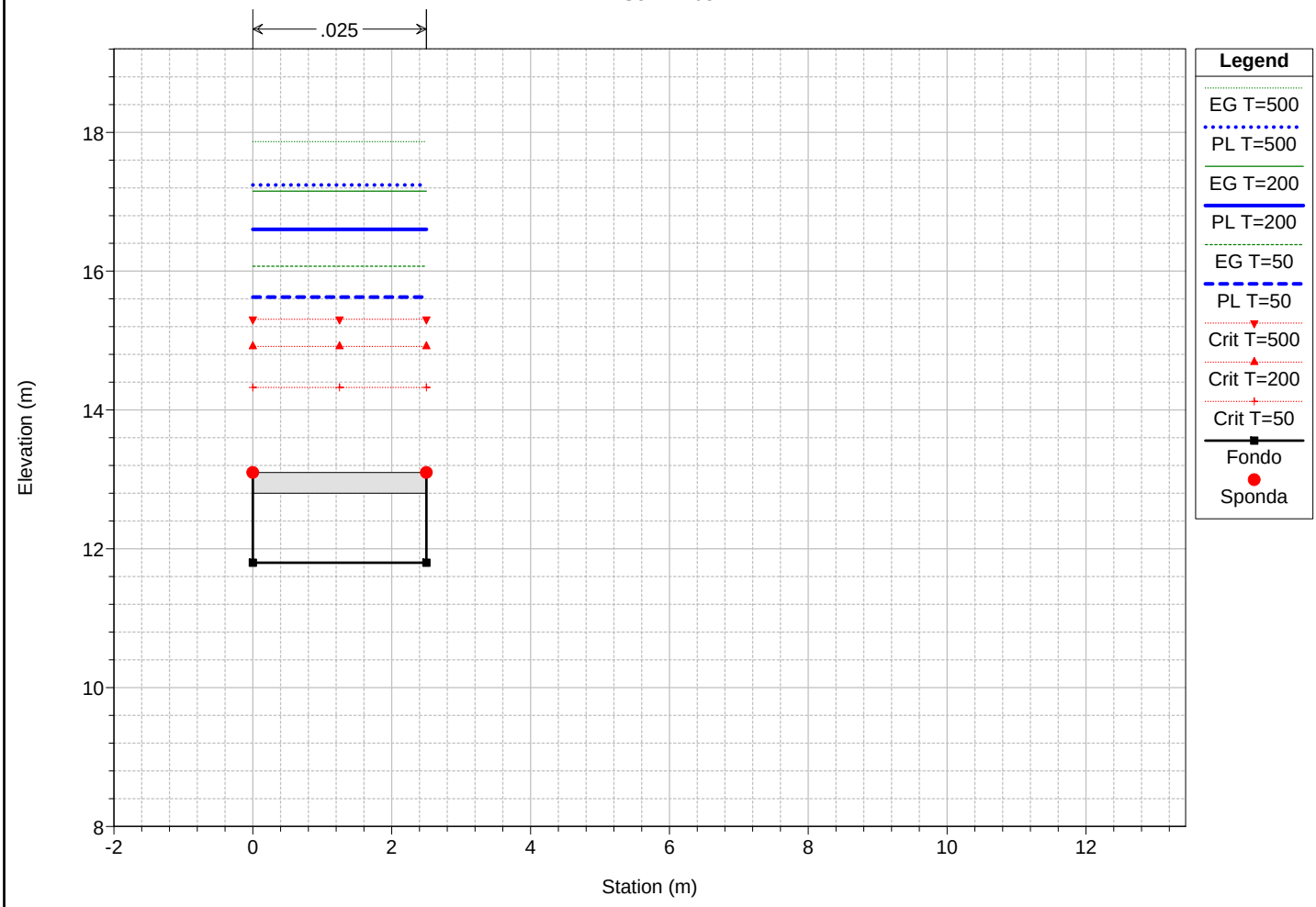


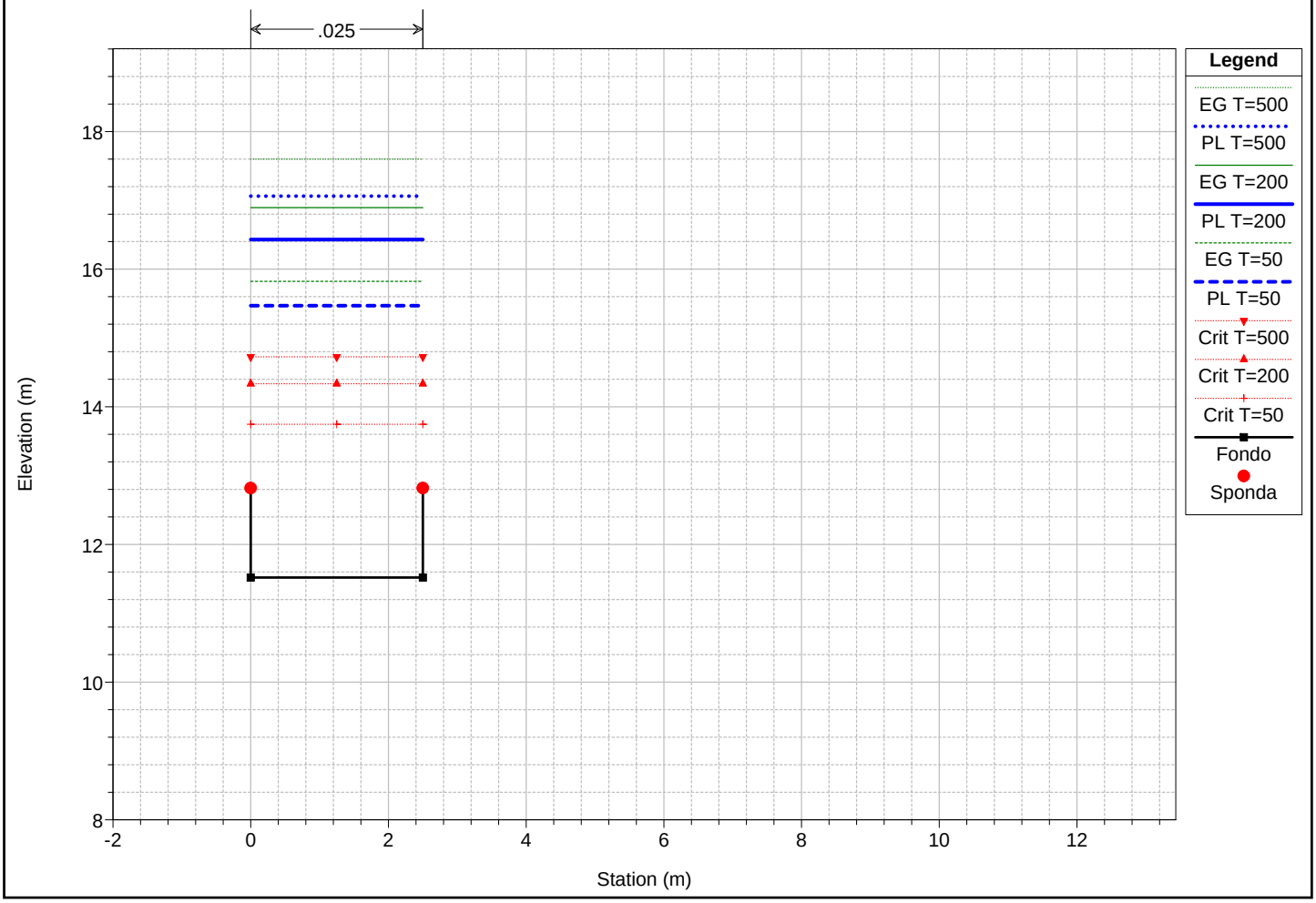
1 cm Horiz. = 15 m 1 cm Vert. = 1 m

T. Battana

Sez. BA08



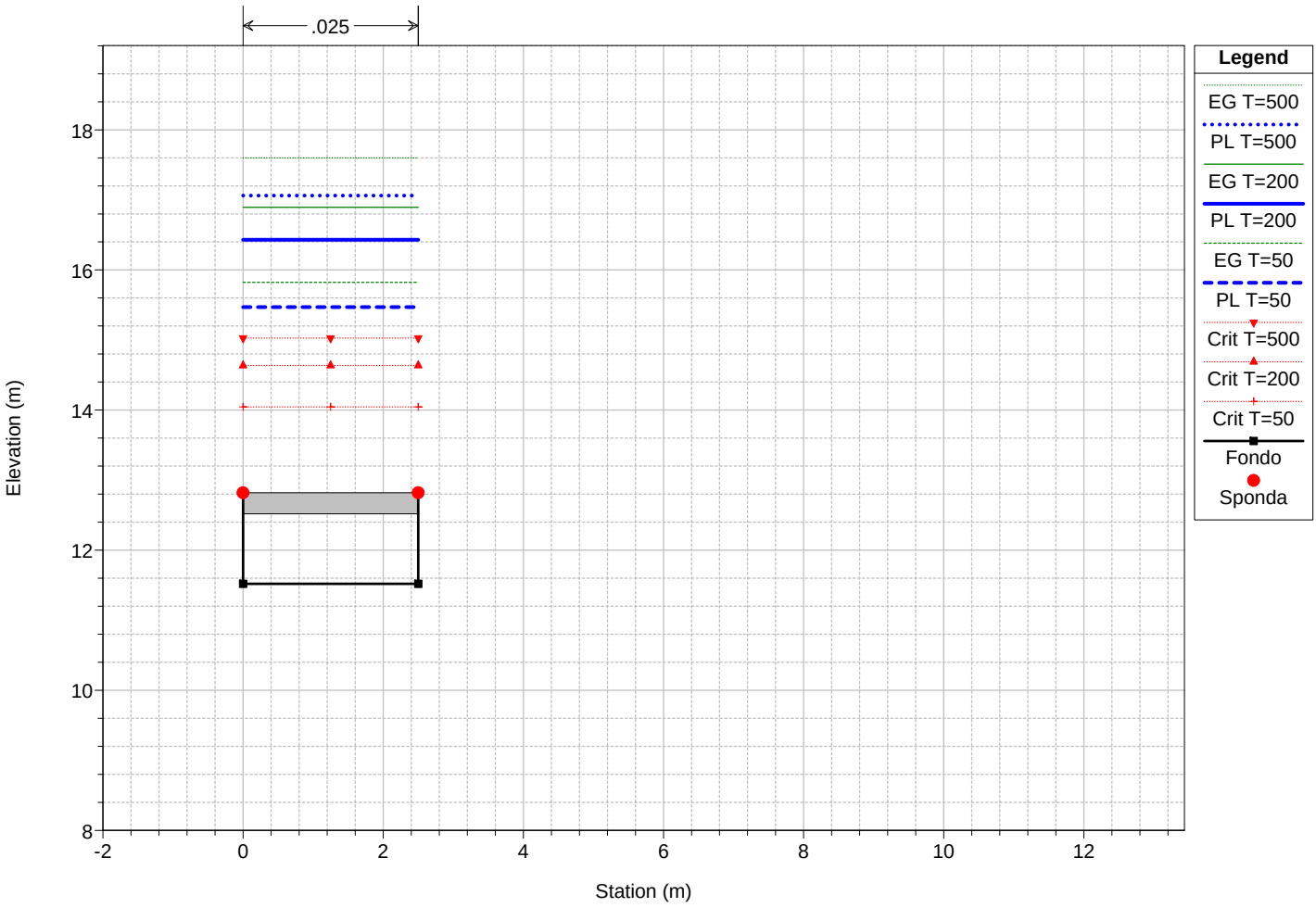
T. Battana



1 cm Horiz. = 1 m 1 cm Vert. = 1 m

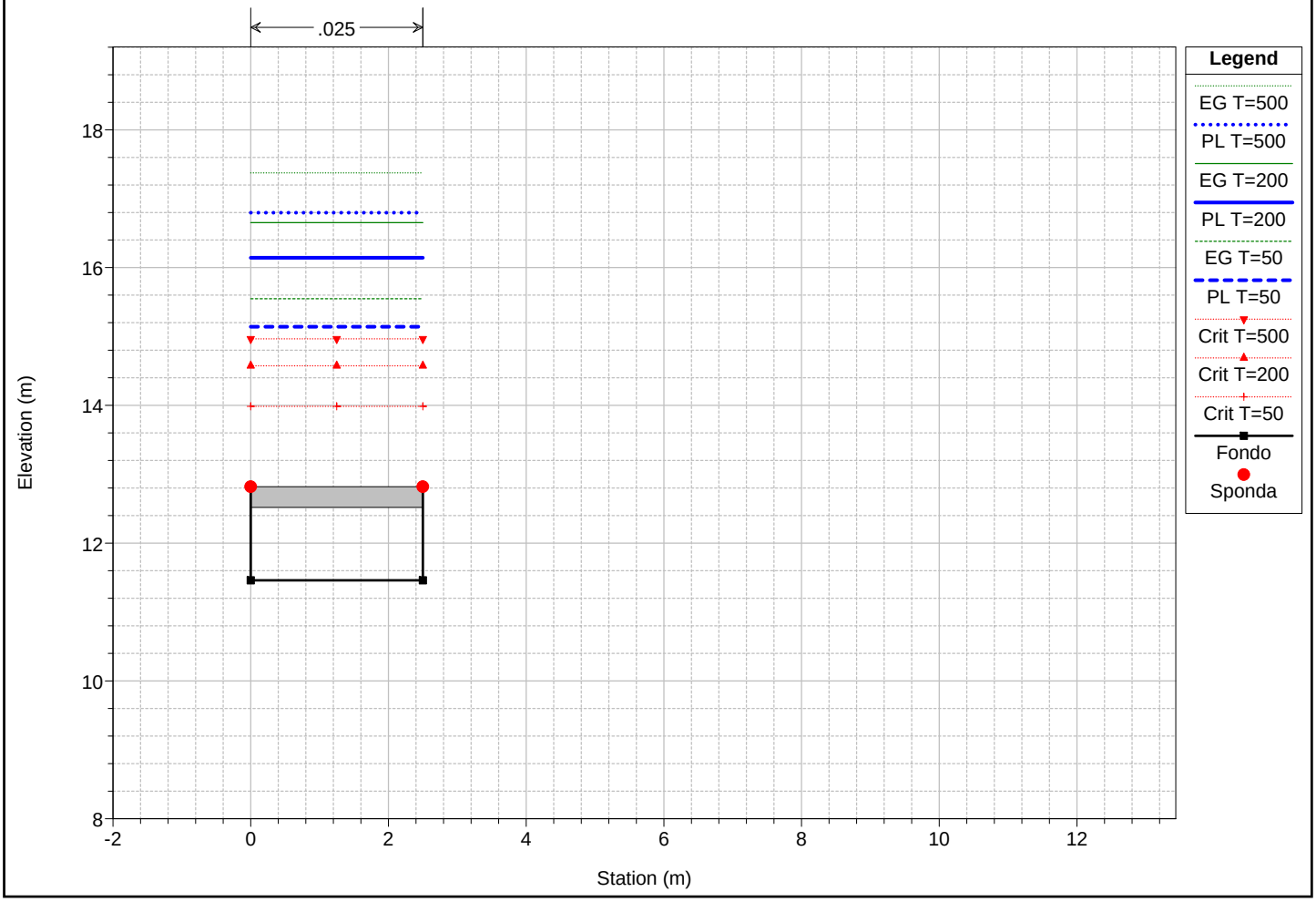
T. Battana

Sez. BA07



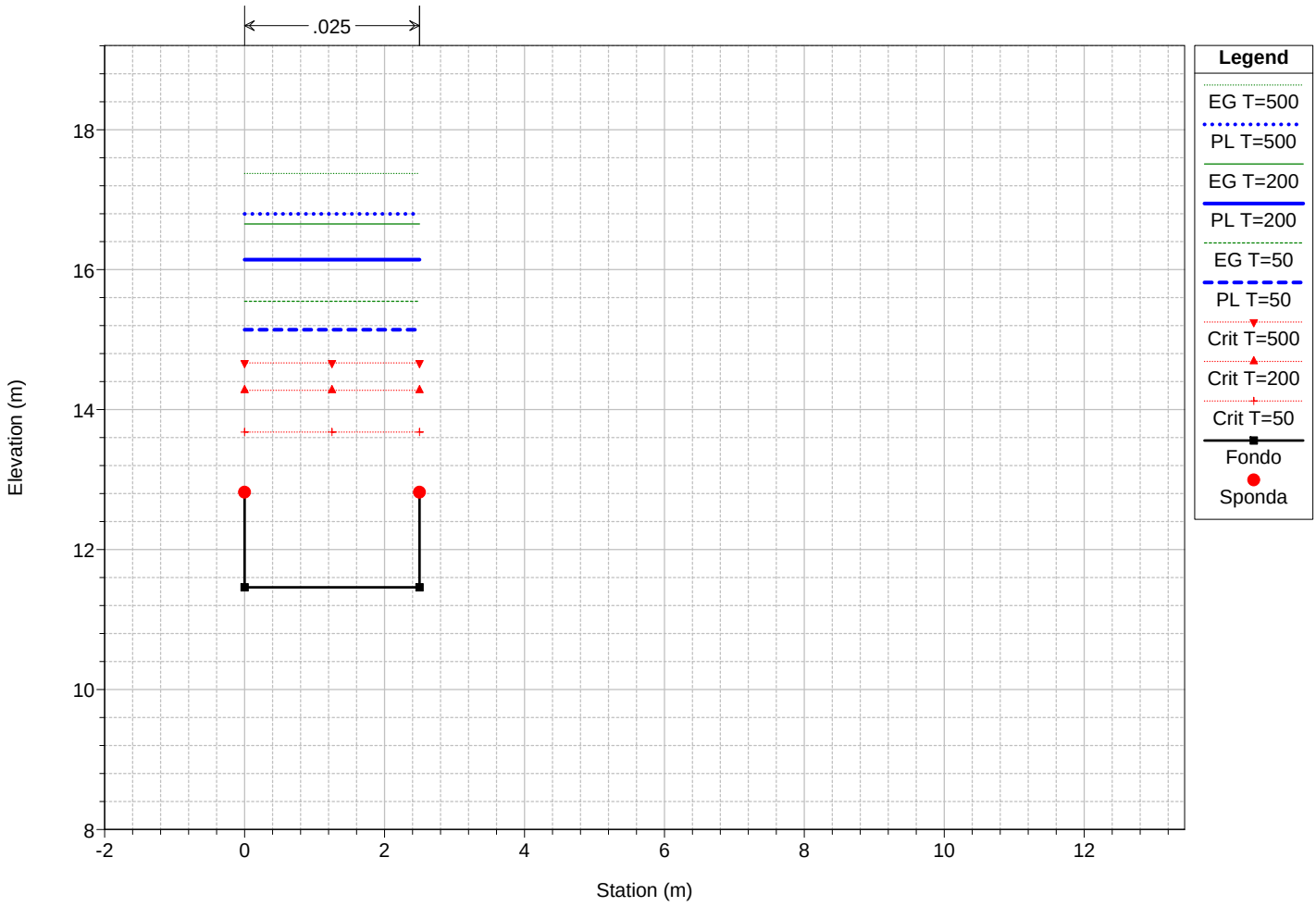
T. Battana

Sez. BA07

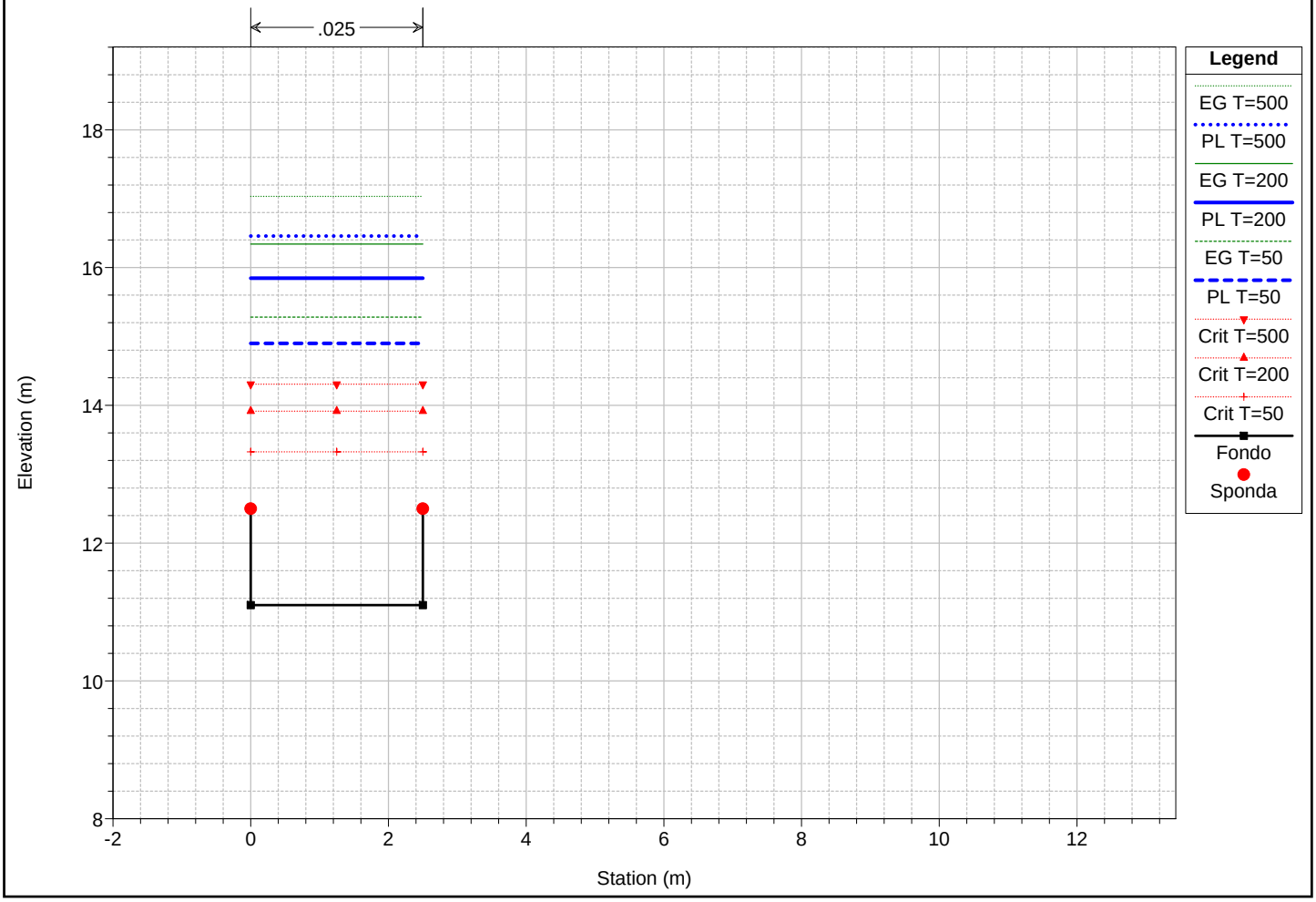


1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana



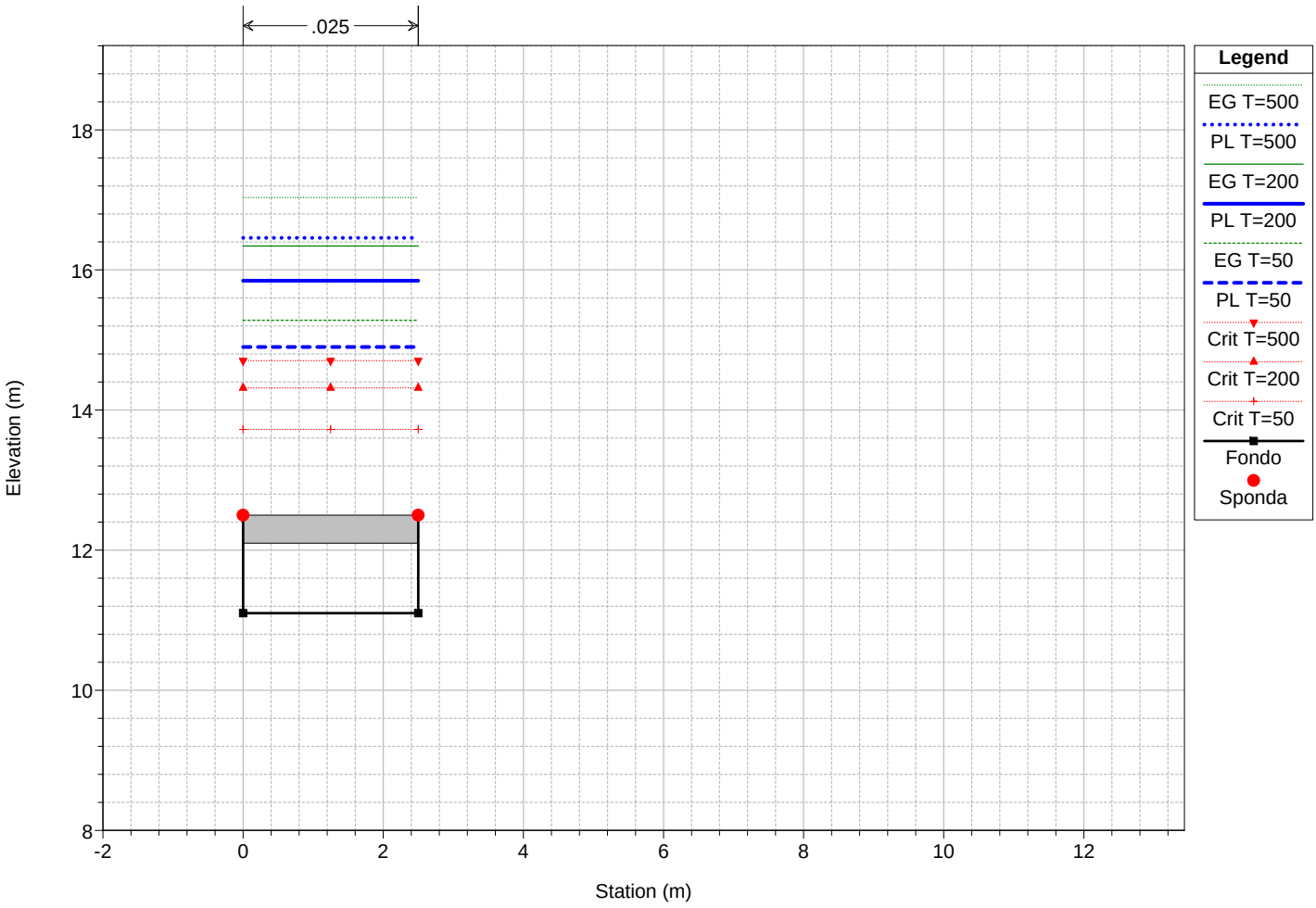
T. Battana



1 cm Horiz. = 1 m 1 cm Vert. = 1 m

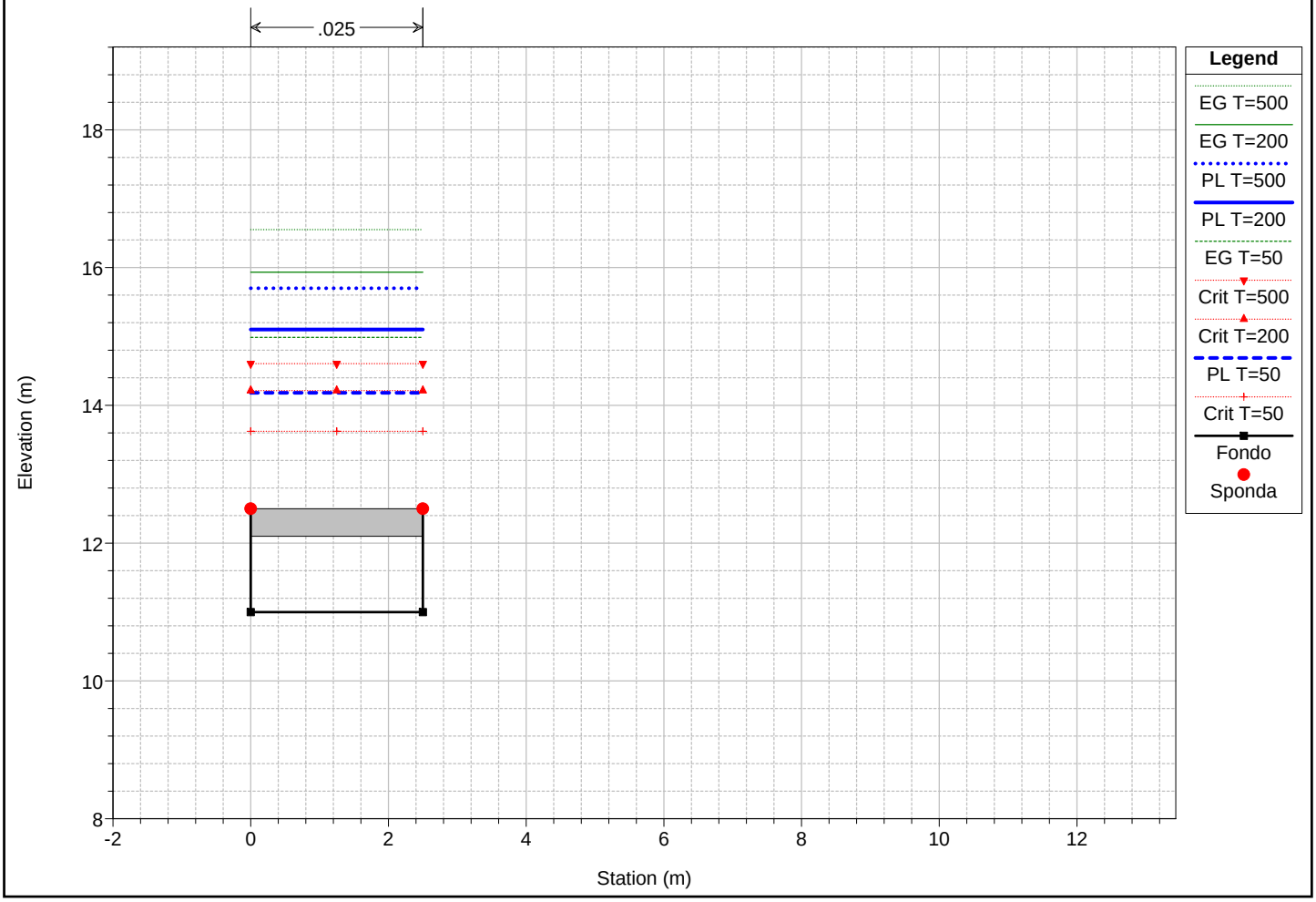
T. Battana

Sez. BA06



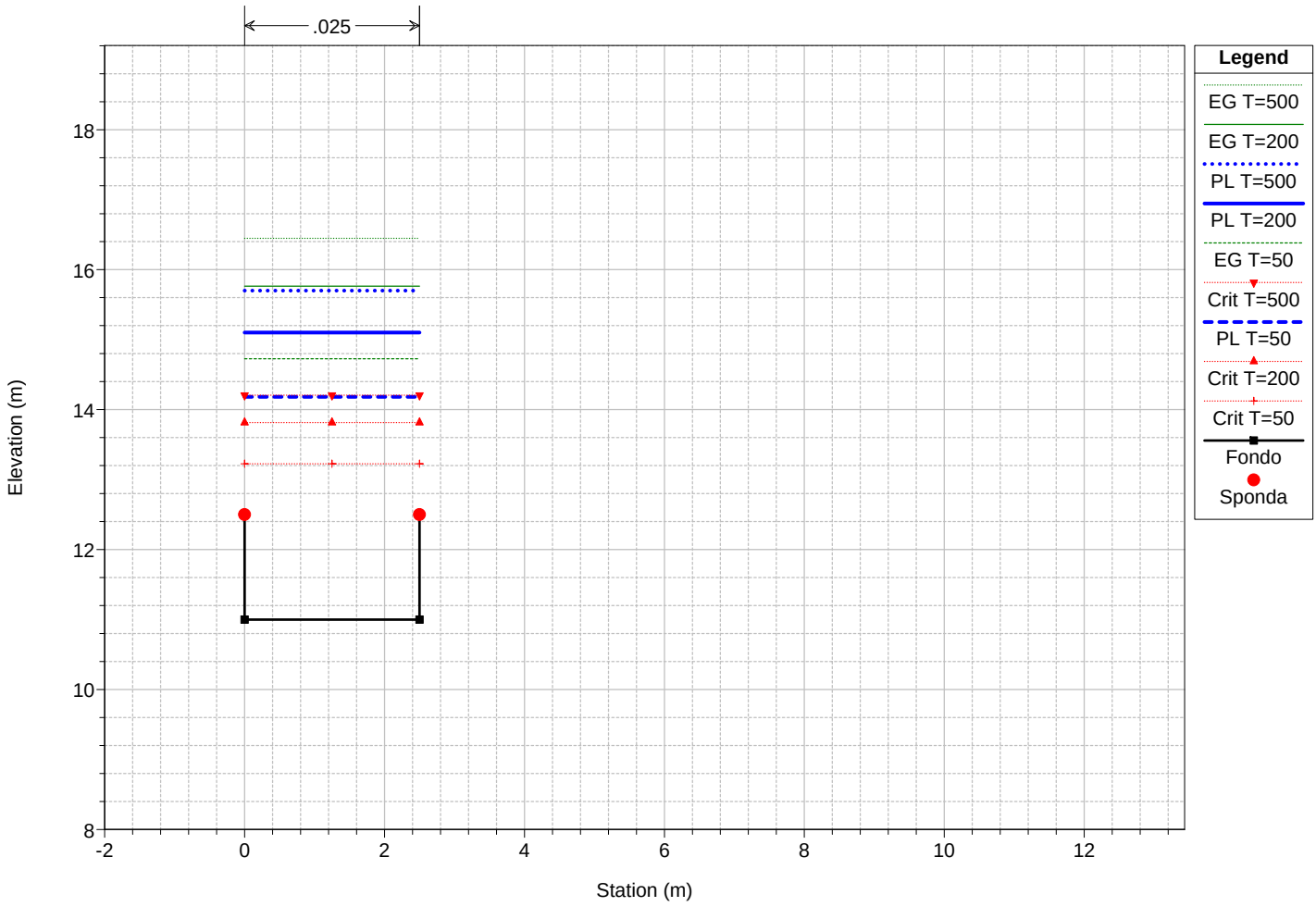
T. Battana

Sez. BA06

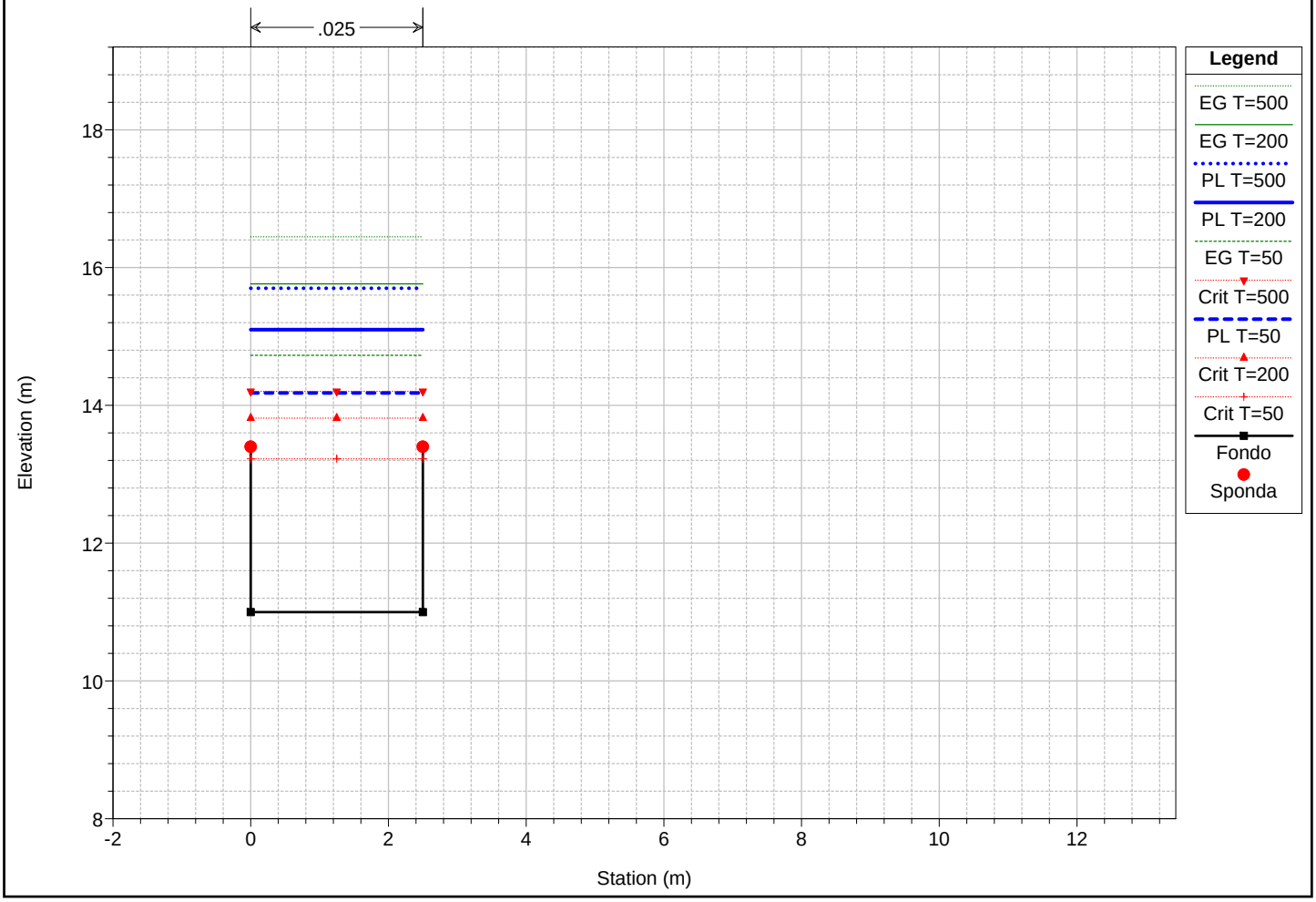


1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana

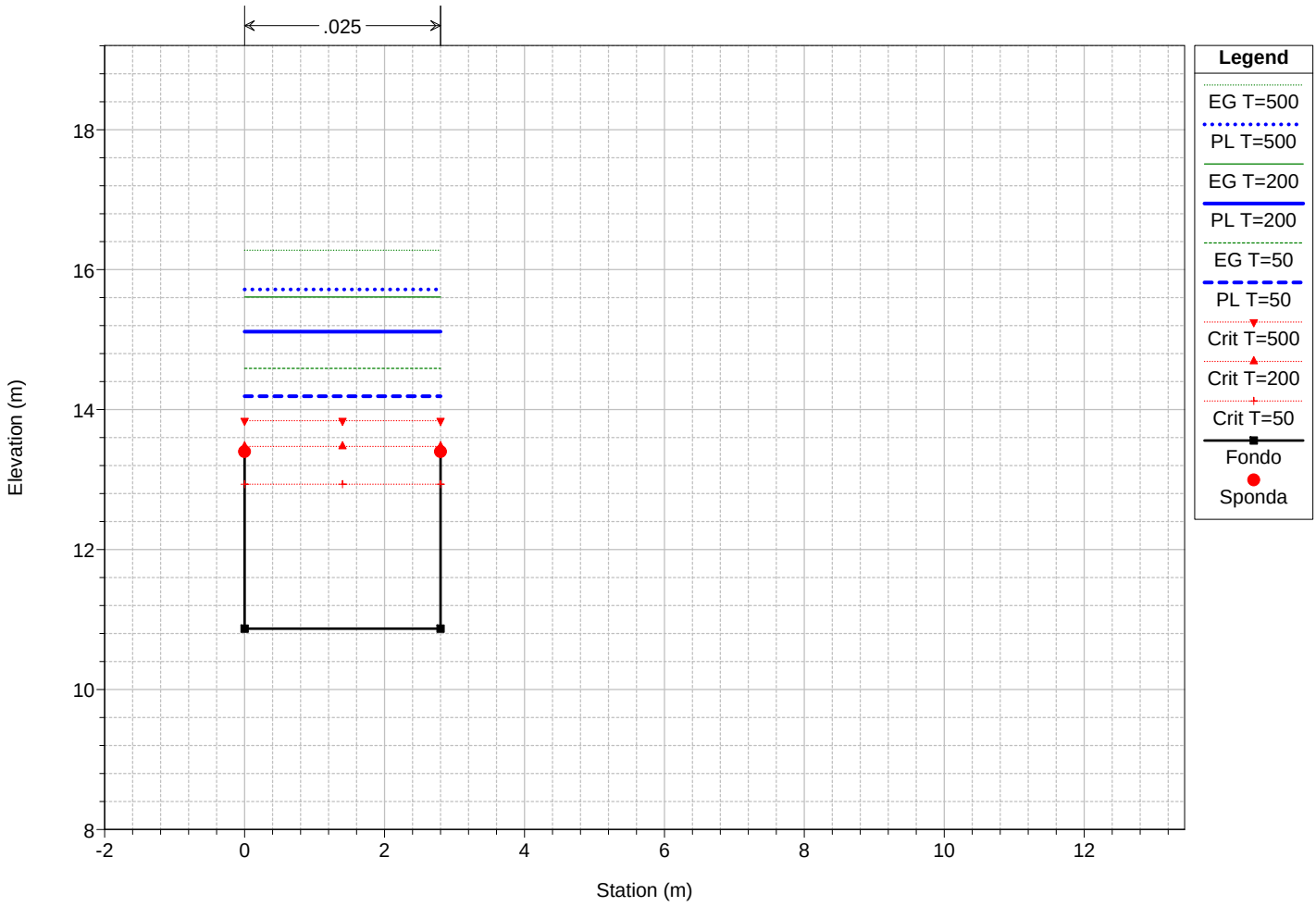


T. Battana

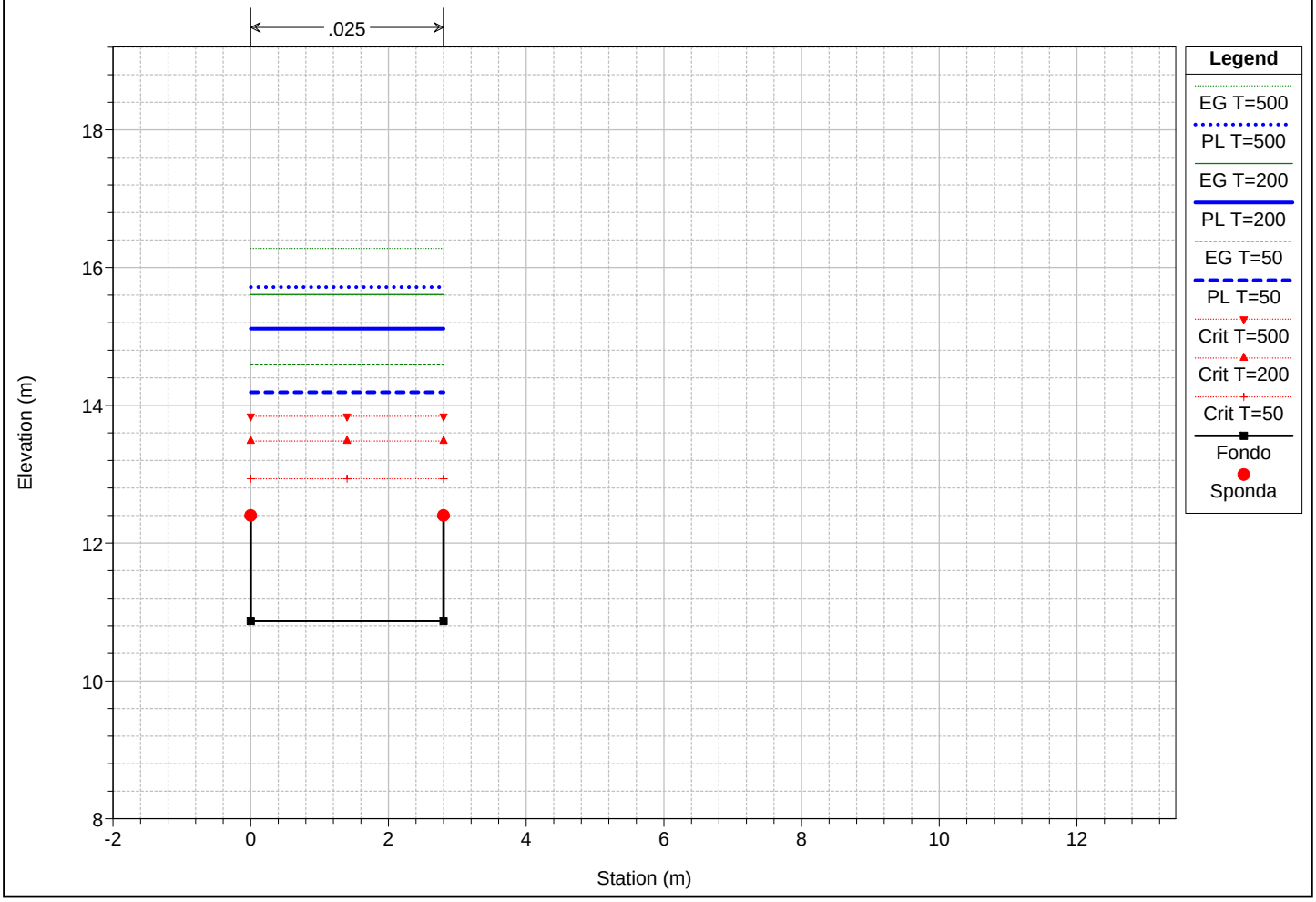


1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana



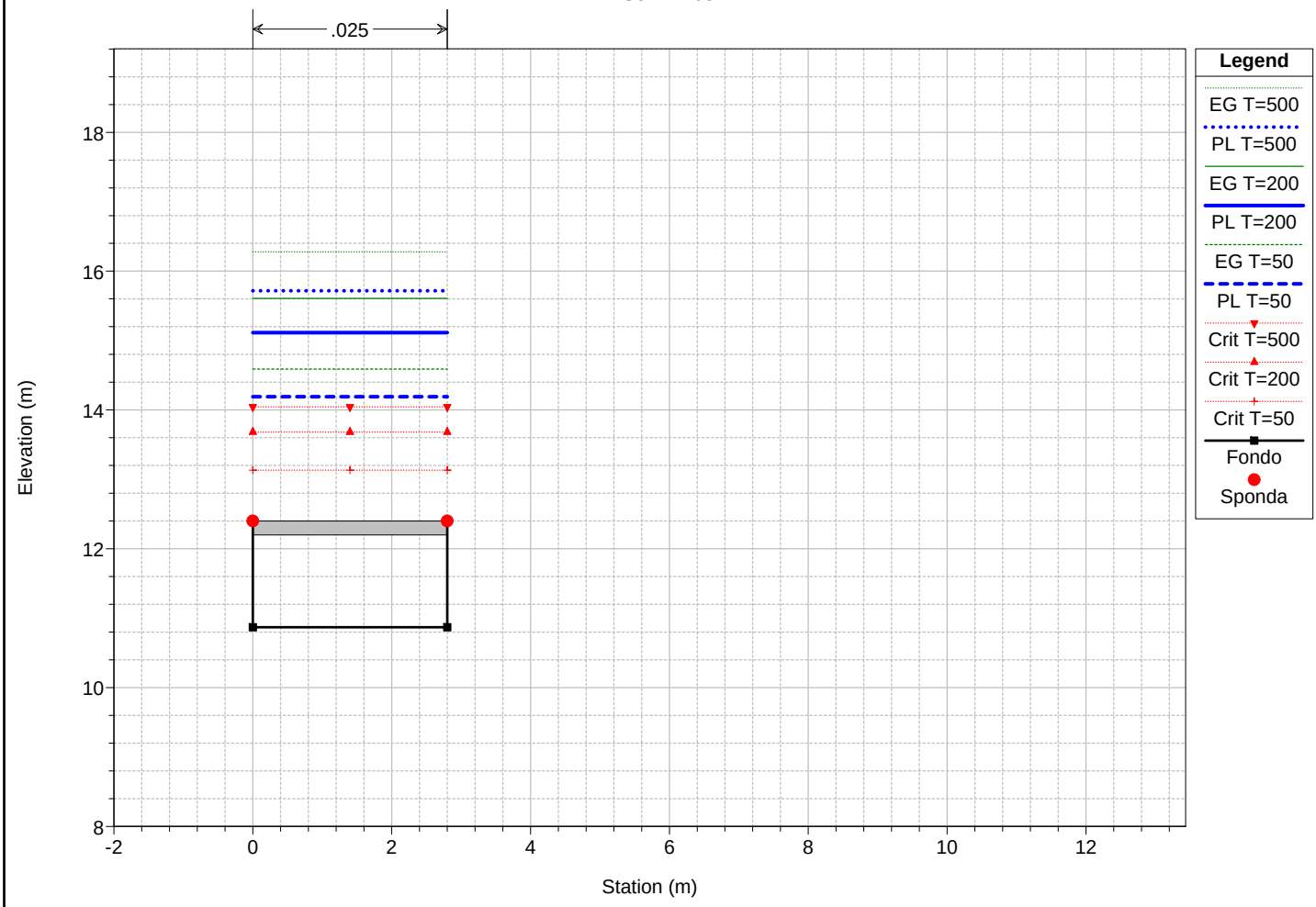
T. Battana



1 cm Horiz. = 1 m 1 cm Vert. = 1 m

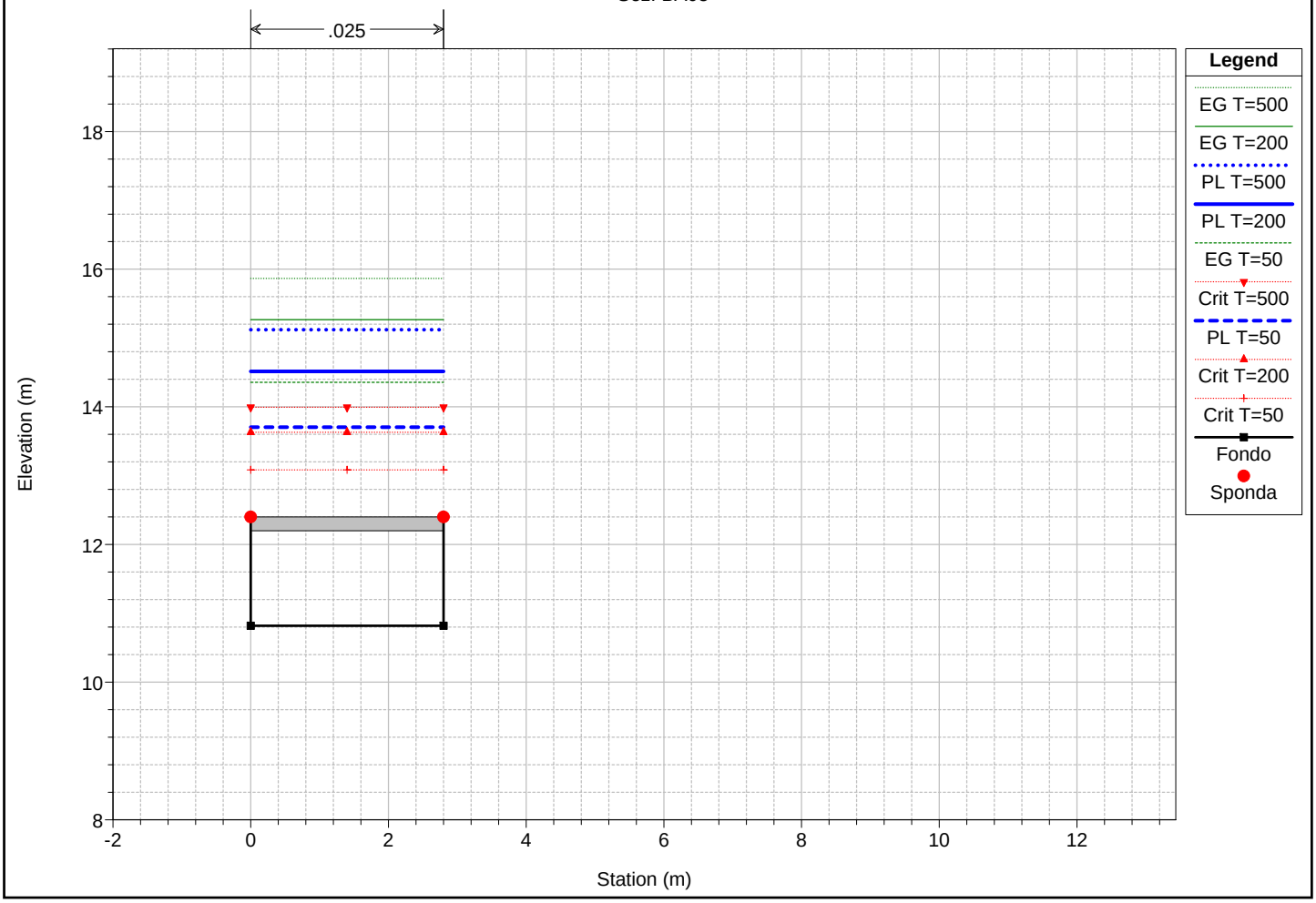
T. Battana

Sez. BA05



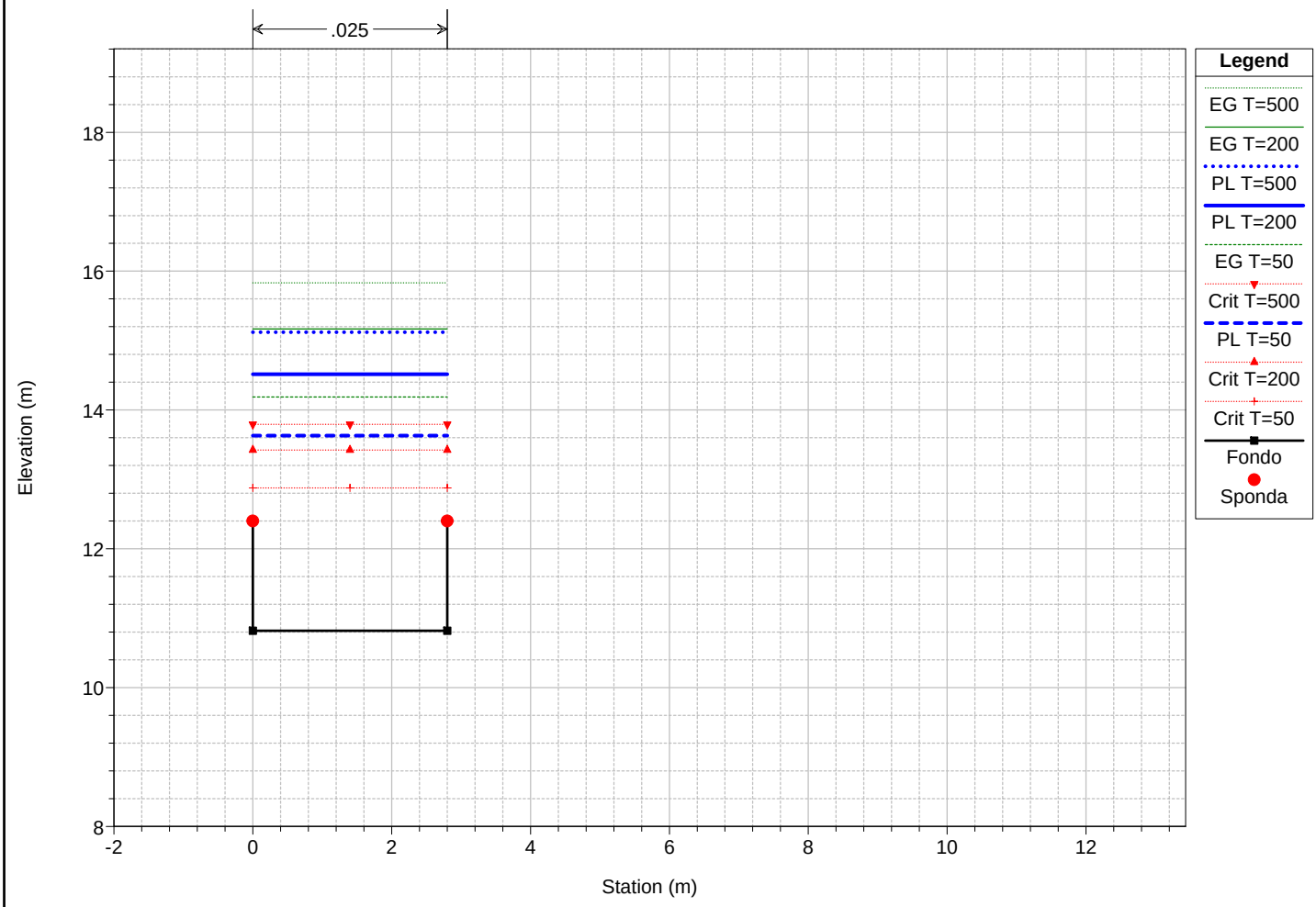
T. Battana

Sez. BA05

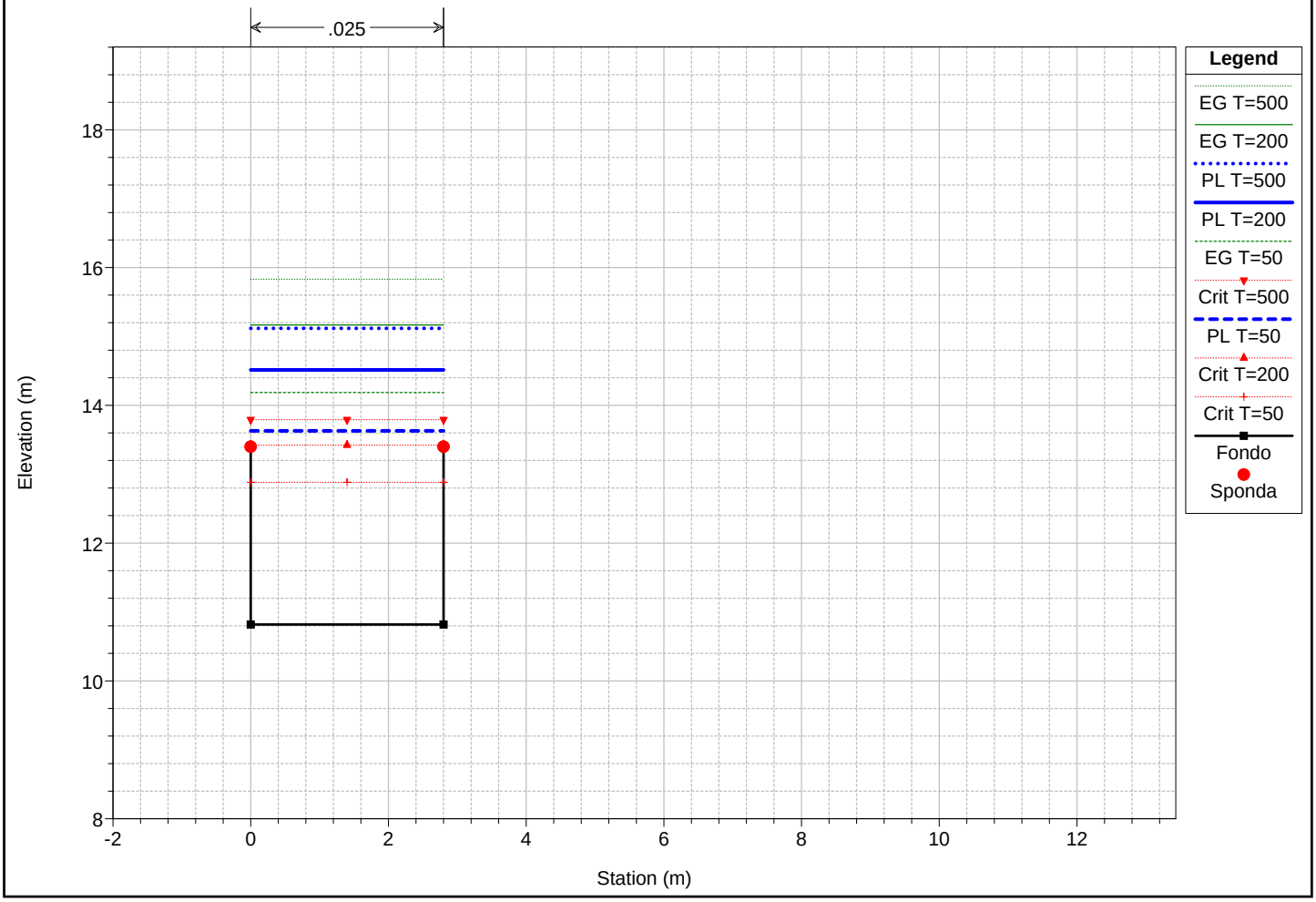


1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana



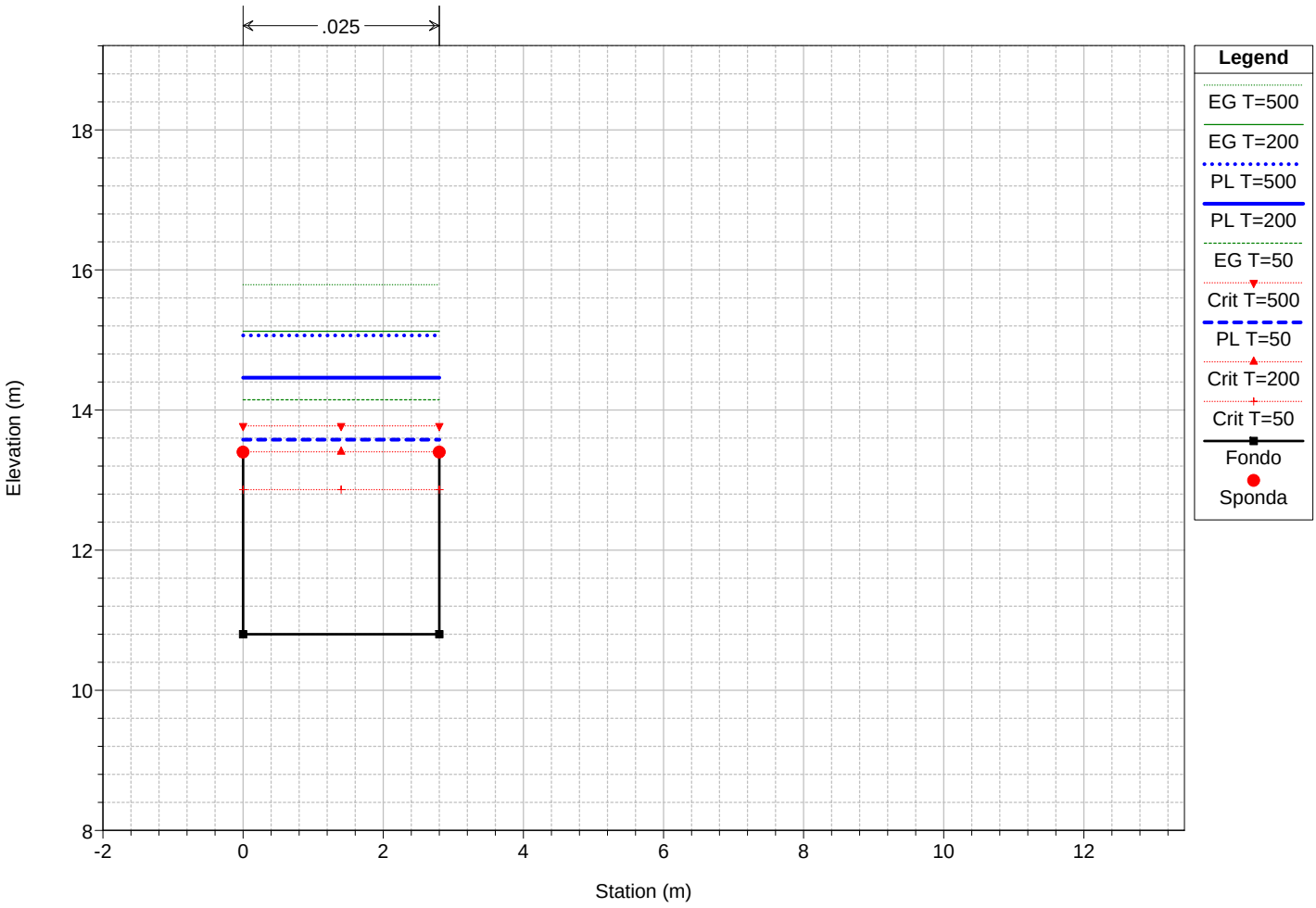
T. Battana



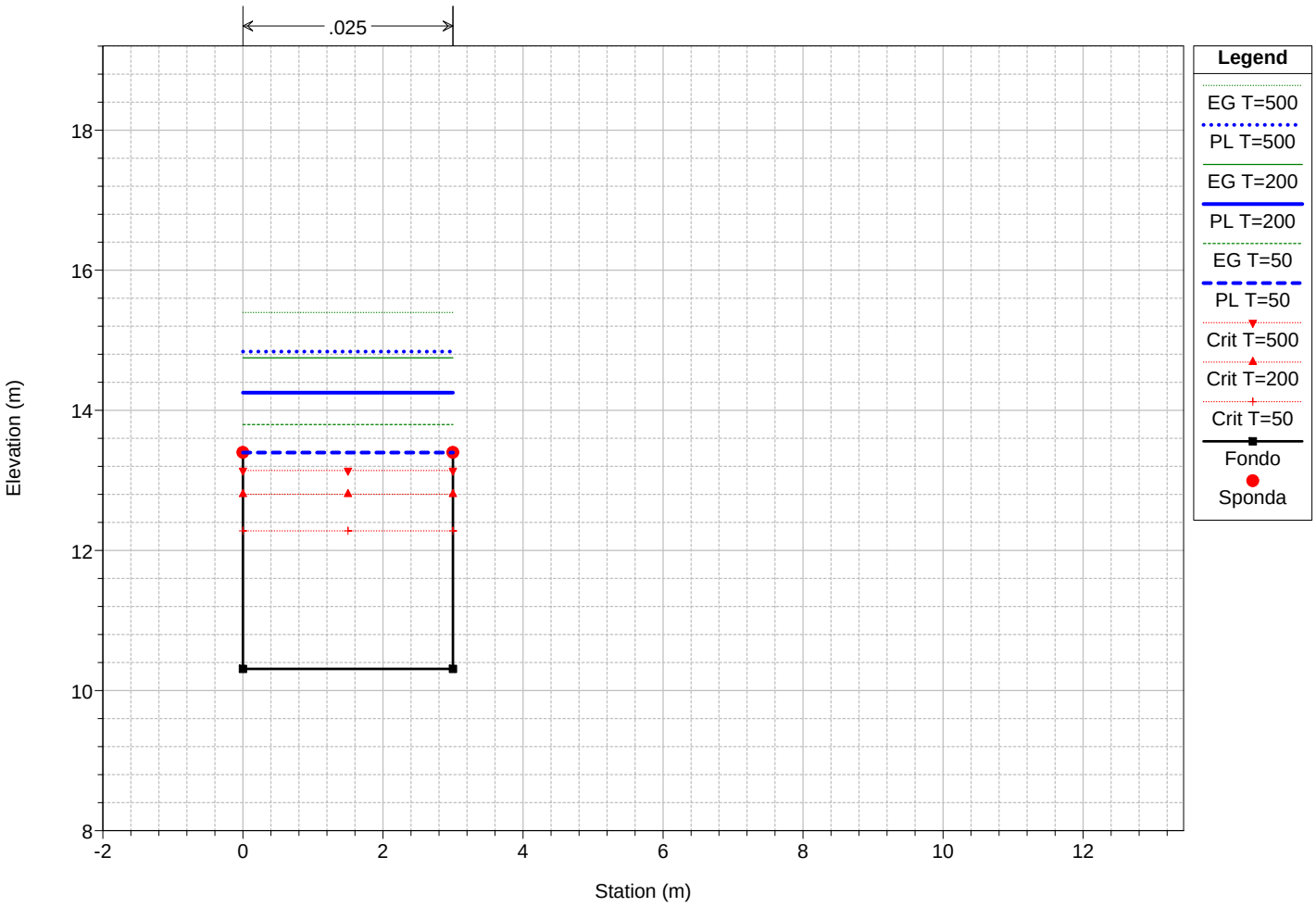
1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana

Sez. BA04

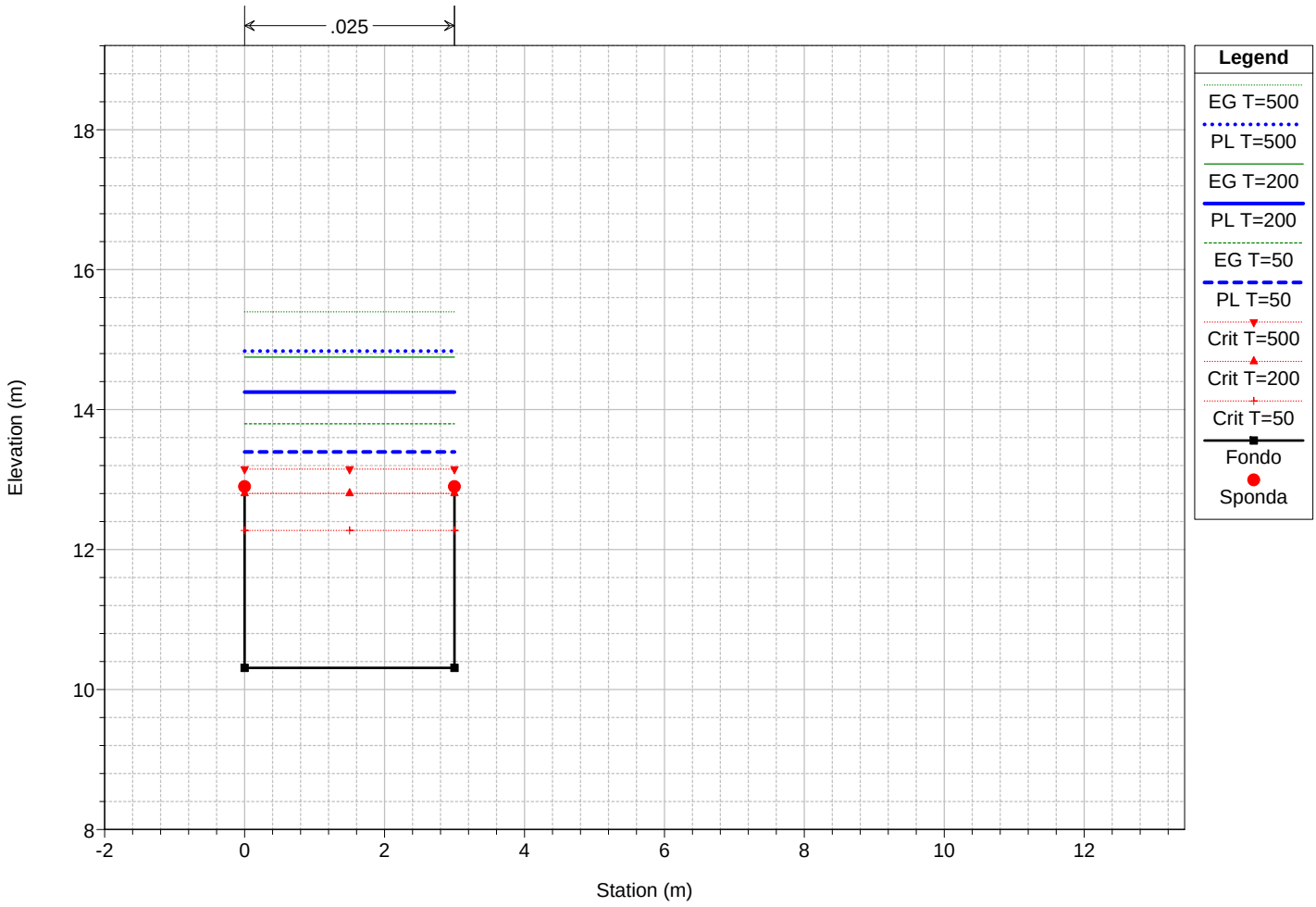


T. Battana



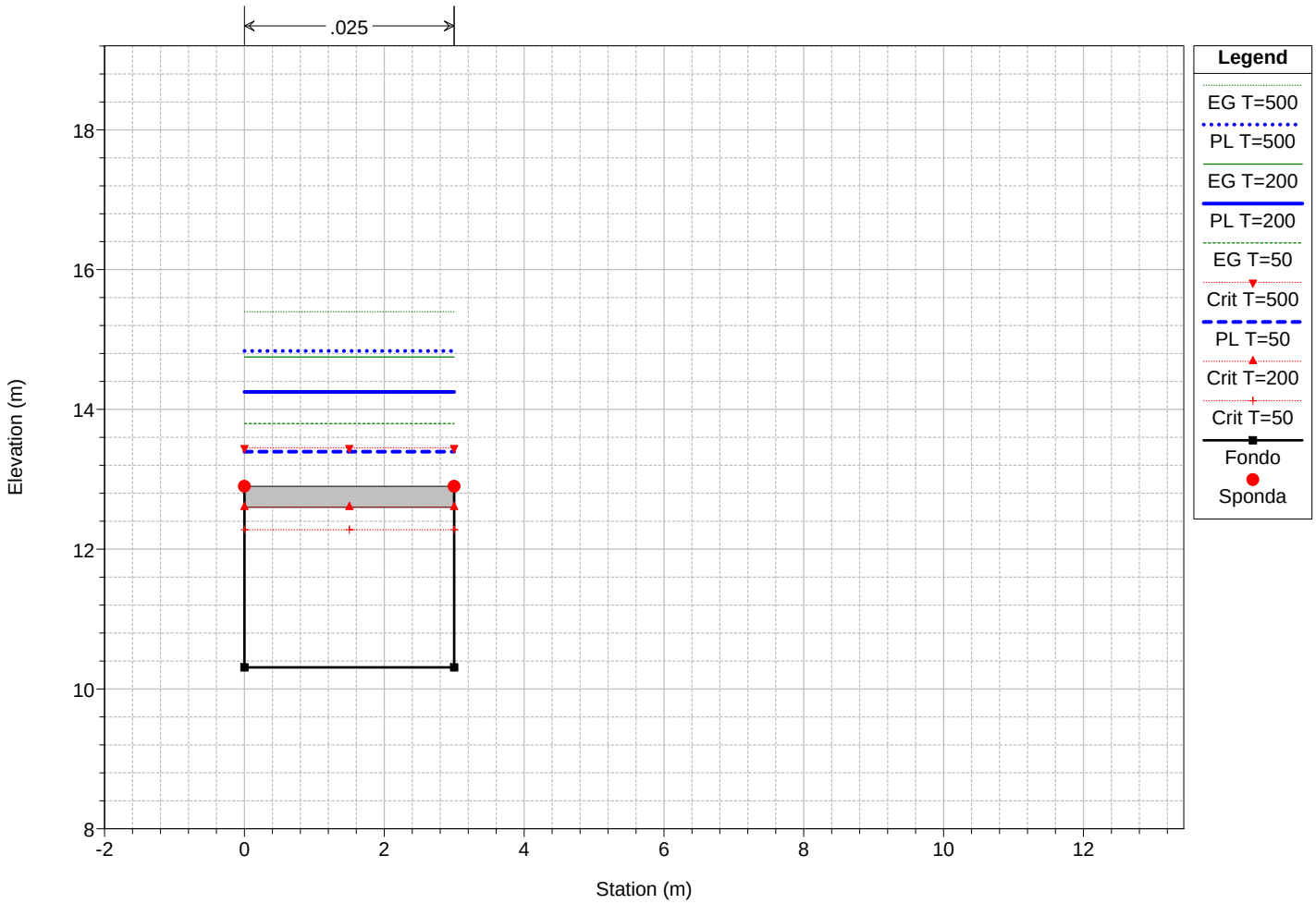
1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana



T. Battana

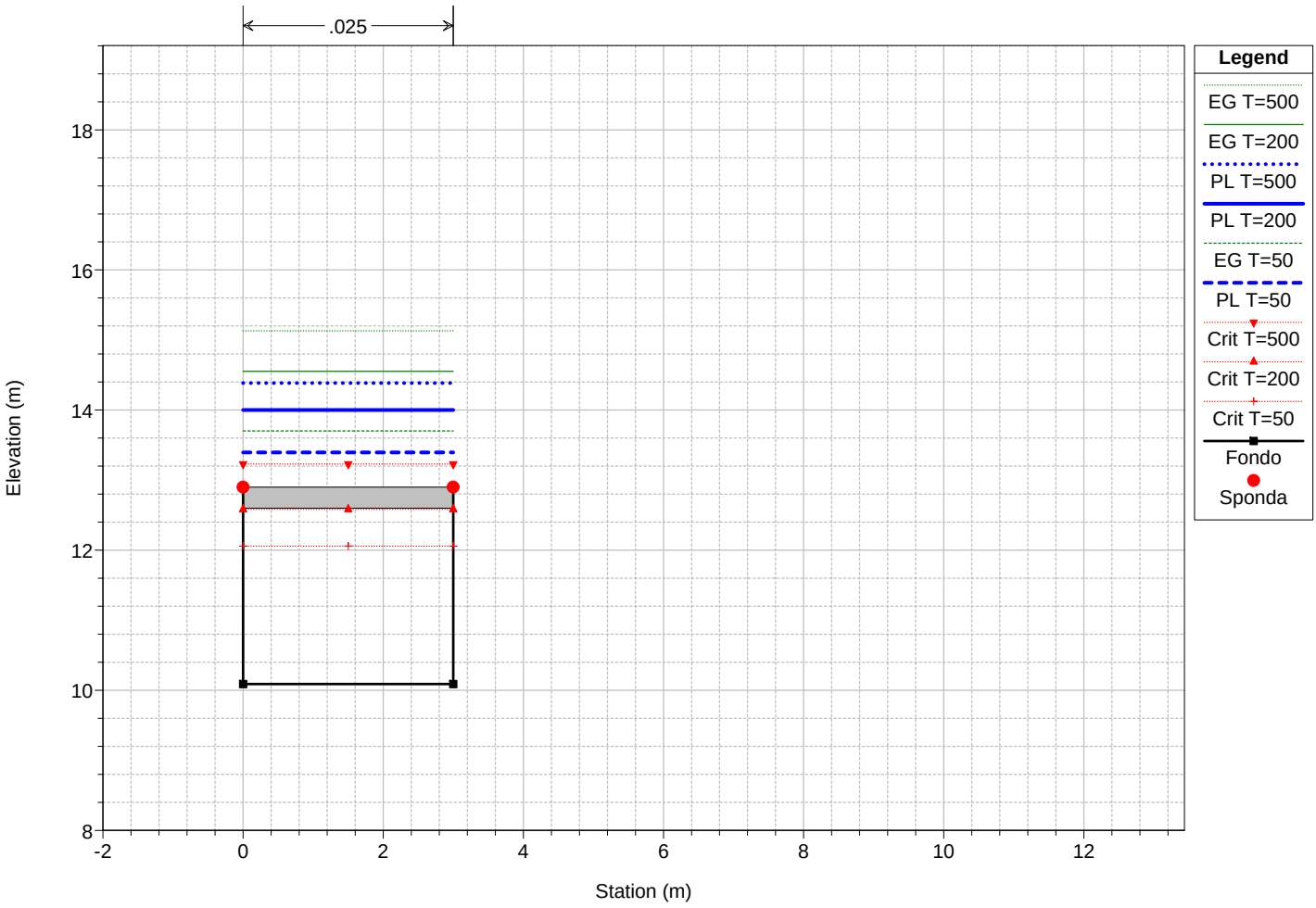
Sez. BA03



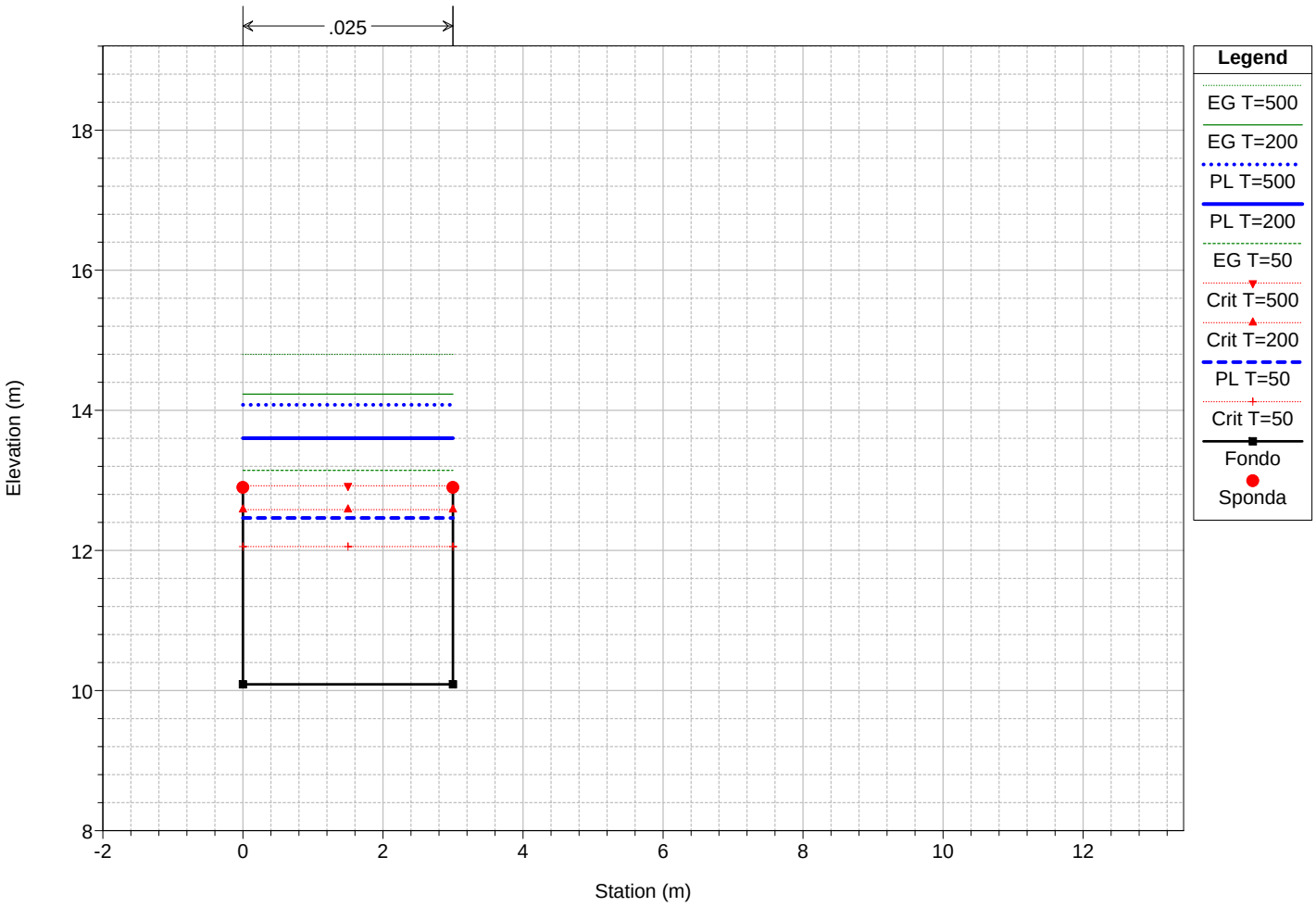
1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana

Sez. BA03

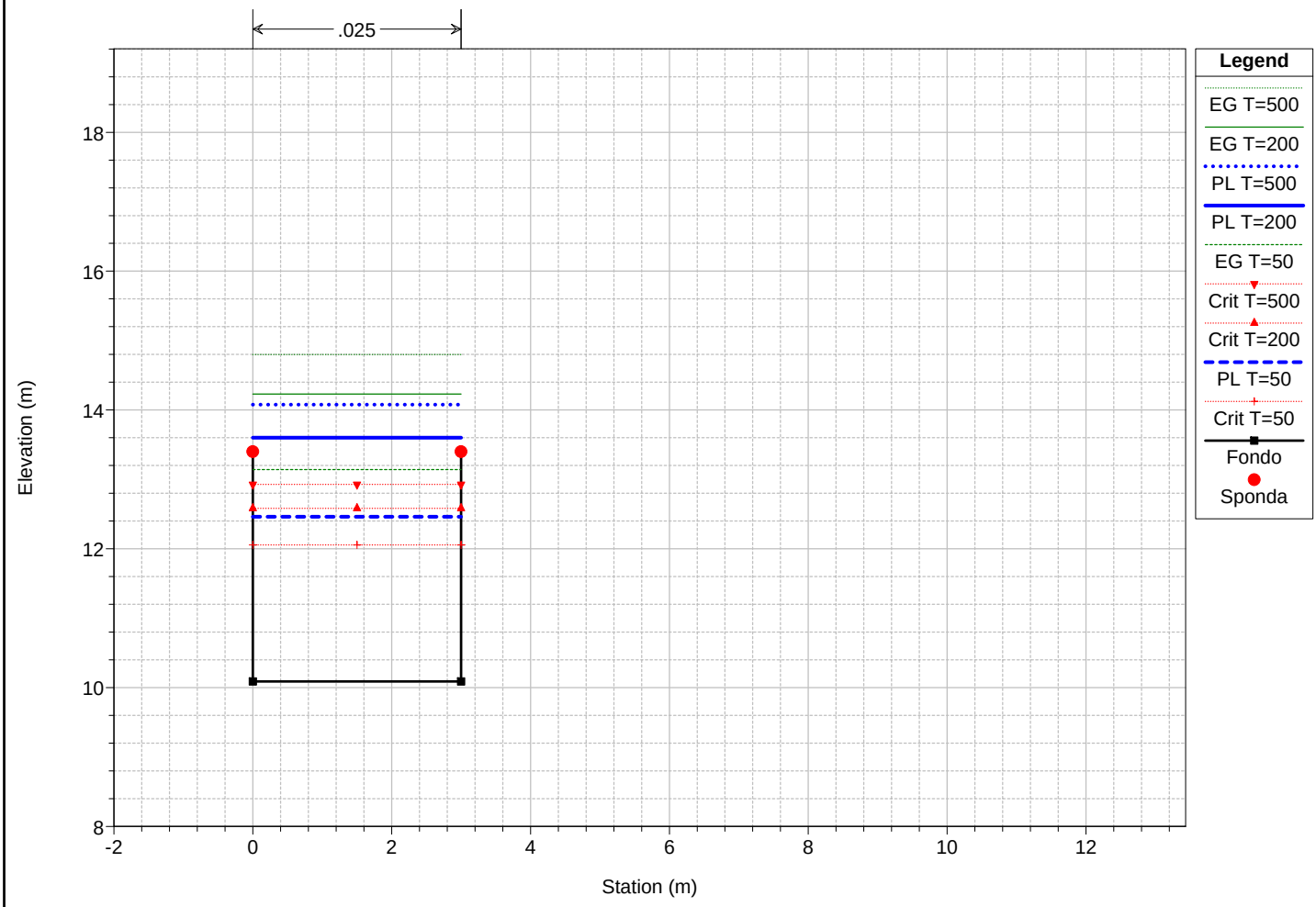


T. Battana

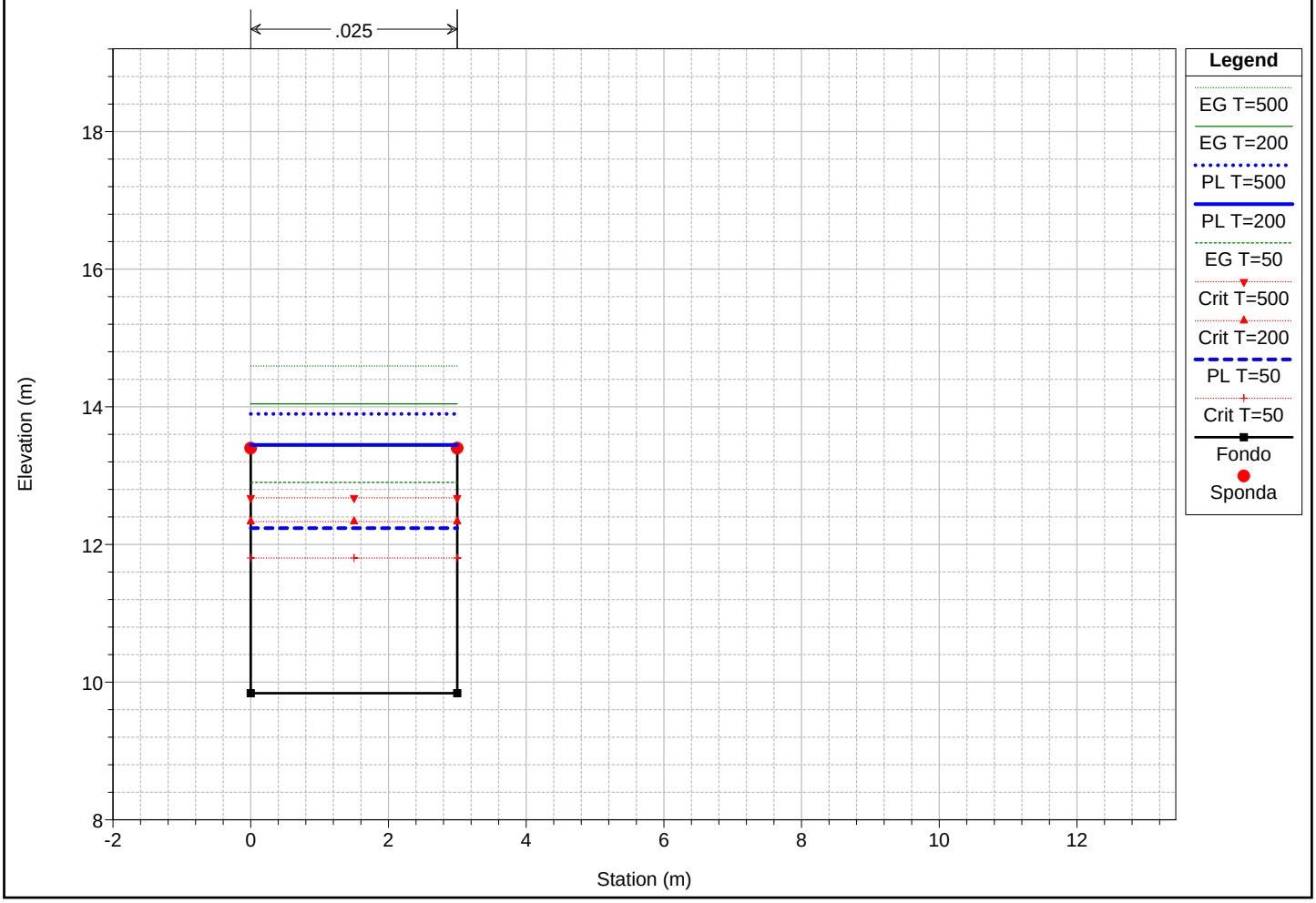


1 cm Horiz. = 1 m 1 cm Vert. = 1 m

T. Battana



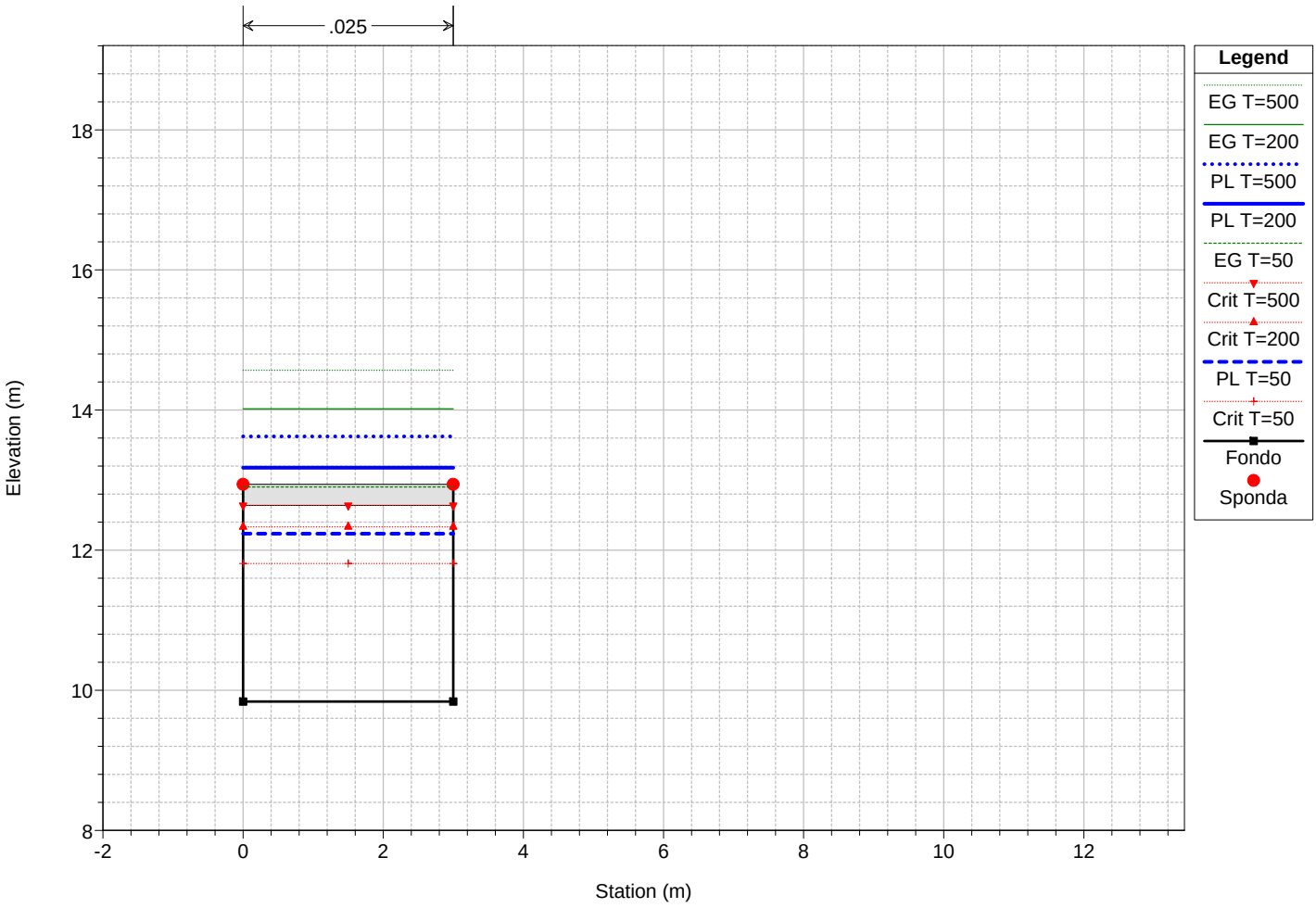
T. Battana



1 cm Horiz. = 1 m 1 cm Vert. = 1 m

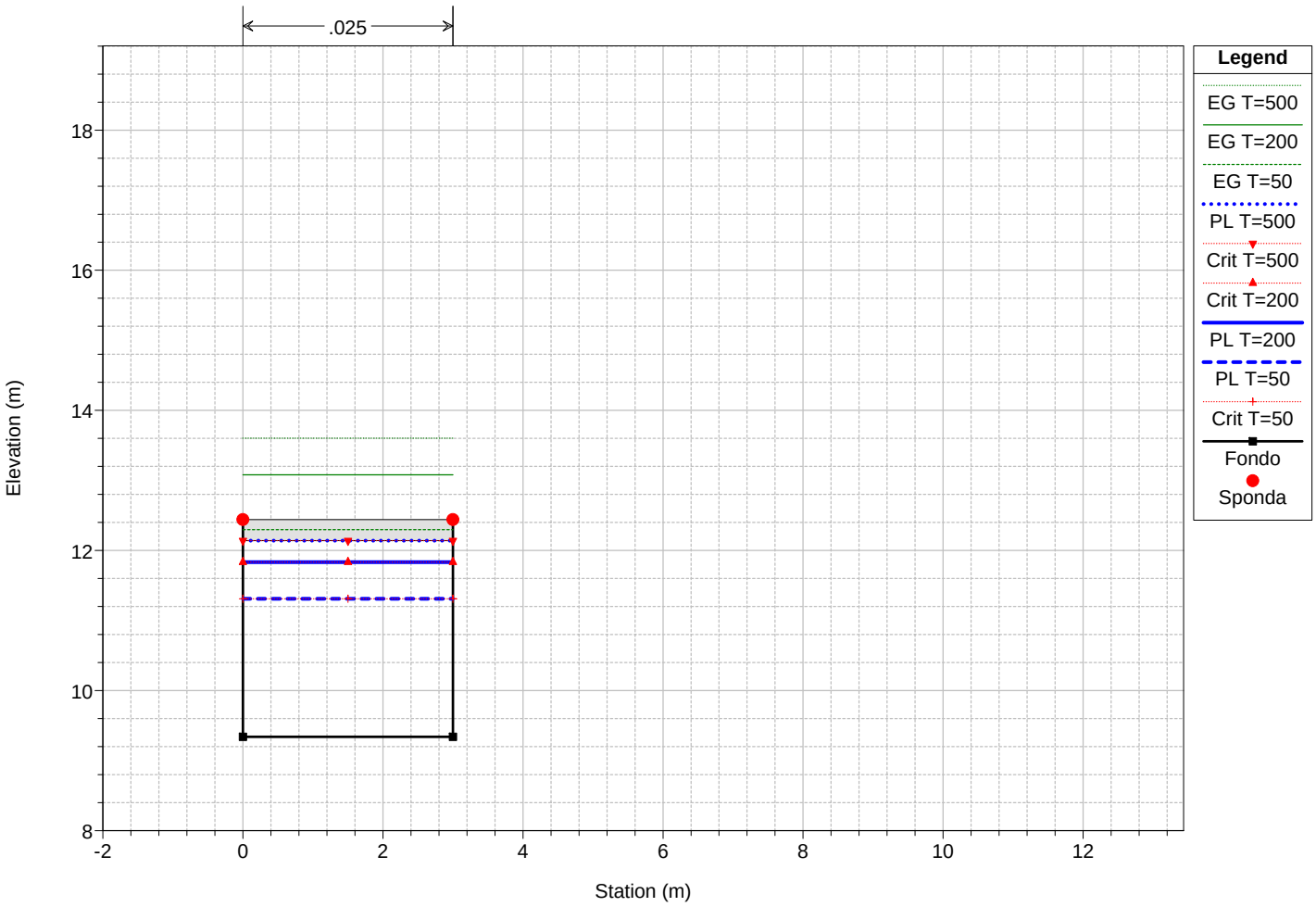
T. Battana

Sez. BA02



T. Battana

Sez. BA01



1 cm Horiz. = 1 m 1 cm Vert. = 1 m

HEC-RAS Plan: Pb River: T. Battana Reach: Via S. Vittoria

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Via S. Vittoria	8.1	T=50	26.00	11.80	15.63	12.80	-2.83	12.80	-2.83	14.32	16.07	0.006000	2.95	8.82	2.50	0.48
Via S. Vittoria	8.1	T=200	37.00	11.80	16.60	12.80	-3.80	12.80	-3.80	14.91	17.15	0.005385	3.29	11.26	2.50	0.48
Via S. Vittoria	8.1	T=500	45.00	11.80	17.24	12.80	-4.44	12.80	-4.44	15.31	17.87	0.005120	3.50	12.85	2.50	0.48
Via S. Vittoria	7.2	T=50	26.00	11.52	15.47	12.82	-2.65	12.82	-2.65	13.75	15.82	0.004644	2.63	9.87	2.50	0.42
Via S. Vittoria	7.2	T=200	37.00	11.52	16.43	12.82	-3.61	12.82	-3.61	14.34	16.89	0.005703	3.01	12.28	2.50	0.43
Via S. Vittoria	7.2	T=500	45.00	11.52	17.06	12.82	-4.24	12.82	-4.24	14.73	17.60	0.006421	3.25	13.86	2.50	0.44
Via S. Vittoria	7.11		Bridge													
Via S. Vittoria	7.1	T=50	26.00	11.46	15.14	12.82	-2.32	12.82	-2.32	13.68	15.55	0.005472	2.83	9.20	2.50	0.47
Via S. Vittoria	7.1	T=200	37.00	11.46	16.14	12.82	-3.32	12.82	-3.32	14.28	16.65	0.006353	3.16	11.71	2.50	0.47
Via S. Vittoria	7.1	T=500	45.00	11.46	16.80	12.82	-3.98	12.82	-3.98	14.67	17.38	0.006993	3.37	13.34	2.50	0.47
Via S. Vittoria	6.2	T=50	26.00	11.10	14.90	12.50	-2.40	12.50	-2.40	13.33	15.28	0.005079	2.74	9.50	2.50	0.45
Via S. Vittoria	6.2	T=200	37.00	11.10	15.85	12.50	-3.35	12.50	-3.35	13.92	16.34	0.006164	3.12	11.87	2.50	0.46
Via S. Vittoria	6.2	T=500	45.00	11.10	16.46	12.50	-3.96	12.50	-3.96	14.31	17.03	0.006927	3.36	13.40	2.50	0.46
Via S. Vittoria	6.11		Bridge													
Via S. Vittoria	6.1	T=50	26.00	11.00	14.18	12.50	-1.68	12.50	-1.68	13.23	14.73	0.007711	3.27	7.96	2.50	0.58
Via S. Vittoria	6.1	T=200	37.00	11.00	15.10	12.50	-2.60	12.50	-2.60	13.81	15.76	0.008620	3.61	10.25	2.50	0.57
Via S. Vittoria	6.1	T=500	45.00	11.00	15.70	12.50	-3.20	12.50	-3.20	14.21	16.45	0.009321	3.83	11.75	2.50	0.56
Via S. Vittoria	6.0	T=50	26.00	11.00	14.18	13.40	-0.78	13.40	-0.78	13.22	14.73	0.007716	3.27	7.95	2.50	0.59
Via S. Vittoria	6.0	T=200	37.00	11.00	15.10	13.40	-1.70	13.40	-1.70	13.81	15.76	0.008626	3.61	10.25	2.50	0.57
Via S. Vittoria	6.0	T=500	45.00	11.00	15.70	13.40	-2.30	13.40	-2.30	14.20	16.45	0.009326	3.83	11.75	2.50	0.56
Via S. Vittoria	5.3	T=50	26.00	10.87	14.19	13.40	-0.79	13.40	-0.79	12.93	14.59	0.004986	2.80	9.30	2.80	0.49
Via S. Vittoria	5.3	T=200	37.00	10.87	15.12	13.40	-1.72	13.40	-1.72	13.47	15.61	0.005656	3.11	11.89	2.80	0.48
Via S. Vittoria	5.3	T=500	45.00	10.87	15.72	13.40	-2.32	13.40	-2.32	13.84	16.28	0.006151	3.32	13.57	2.80	0.48
Via S. Vittoria	5.2	T=50	26.00	10.87	14.19	12.40	-1.79	12.40	-1.79	12.93	14.59	0.004988	2.80	9.30	2.80	0.49
Via S. Vittoria	5.2	T=200	37.00	10.87	15.11	12.40	-2.71	12.40	-2.71	13.48	15.61	0.005658	3.11	11.88	2.80	0.48
Via S. Vittoria	5.2	T=500	45.00	10.87	15.72	12.40	-3.32	12.40	-3.32	13.84	16.28	0.006154	3.32	13.57	2.80	0.48
Via S. Vittoria	5.11		Bridge													
Via S. Vittoria	5.1	T=50	26.00	10.82	13.63	12.40	-1.23	12.40	-1.23	12.88	14.19	0.007465	3.30	7.87	2.80	0.63
Via S. Vittoria	5.1	T=200	37.00	10.82	14.52	12.40	-2.12	12.40	-2.12	13.42	15.17	0.007834	3.58	10.35	2.80	0.59
Via S. Vittoria	5.1	T=500	45.00	10.82	15.12	12.40	-2.72	12.40	-2.72	13.79	15.83	0.008120	3.74	12.04	2.80	0.58
Via S. Vittoria	5.0	T=50	26.00	10.82	13.63	13.40	-0.23	13.40	-0.23	12.88	14.19	0.007472	3.30	7.87	2.80	0.63
Via S. Vittoria	5.0	T=200	37.00	10.82	14.51	13.40	-1.11	13.40	-1.11	13.42	15.17	0.007839	3.58	10.34	2.80	0.59
Via S. Vittoria	5.0	T=500	45.00	10.82	15.12	13.40	-1.72	13.40	-1.72	13.79	15.83	0.008125	3.74	12.04	2.80	0.58
Via S. Vittoria	4	T=50	26.00	10.80	13.58	13.40	-0.18	13.40	-0.18	12.86	14.15	0.007683	3.34	7.78	2.80	0.64
Via S. Vittoria	4	T=200	37.00	10.80	14.46	13.40	-1.06	13.40	-1.06	13.40	15.13	0.008003	3.61	10.25	2.80	0.60
Via S. Vittoria	4	T=500	45.00	10.80	15.07	13.40	-1.67	13.40	-1.67	13.77	15.79	0.008273	3.77	11.94	2.80	0.58

HEC-RAS Plan: Pb River: T. Battana Reach: Via S. Vittoria (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Via S. Vittoria	3.3	T=50	26.00	10.31	13.40	13.40	0.00	13.40	0.00	12.28	13.80	0.004865	2.81	9.26	3.00	0.51
Via S. Vittoria	3.3	T=200	37.00	10.31	14.25	13.40	-0.85	13.40	-0.85	12.80	14.75	0.005475	3.13	11.83	3.00	0.50
Via S. Vittoria	3.3	T=500	45.00	10.31	14.84	13.40	-1.44	13.40	-1.44	13.14	15.40	0.005847	3.31	13.59	3.00	0.50
Via S. Vittoria	3.2	T=50	26.00	10.31	13.40	12.90	-0.50	12.90	-0.50	12.27	13.80	0.004868	2.81	9.26	3.00	0.51
Via S. Vittoria	3.2	T=200	37.00	10.31	14.25	12.90	-1.35	12.90	-1.35	12.80	14.75	0.005478	3.13	11.83	3.00	0.50
Via S. Vittoria	3.2	T=500	45.00	10.31	14.84	12.90	-1.94	12.90	-1.94	13.15	15.40	0.005850	3.31	13.58	3.00	0.50
Via S. Vittoria	3.11		Bridge													
Via S. Vittoria	3.1	T=50	26.00	10.09	12.46	12.90	0.44	12.90	0.44	12.05	13.14	0.009320	3.65	7.12	3.00	0.76
Via S. Vittoria	3.1	T=200	37.00	10.09	13.60	12.90	-0.70	12.90	-0.70	12.58	14.23	0.007210	3.51	10.54	3.00	0.60
Via S. Vittoria	3.1	T=500	45.00	10.09	14.08	12.90	-1.18	12.90	-1.18	12.92	14.80	0.007880	3.76	11.97	3.00	0.60
Via S. Vittoria	3.0	T=50	26.00	10.09	12.46	13.40	0.94	13.40	0.94	12.05	13.14	0.009334	3.65	7.12	3.00	0.76
Via S. Vittoria	3.0	T=200	37.00	10.09	13.60	13.40	-0.20	13.40	-0.20	12.58	14.23	0.007215	3.51	10.53	3.00	0.60
Via S. Vittoria	3.0	T=500	45.00	10.09	14.08	13.40	-0.68	13.40	-0.68	12.93	14.80	0.007885	3.76	11.96	3.00	0.60
Via S. Vittoria	2.1	T=50	26.00	9.84	12.24	13.40	1.16	13.40	1.16	11.80	12.90	0.009088	3.61	7.19	3.00	0.75
Via S. Vittoria	2.1	T=200	37.00	9.84	13.45	13.40	-0.05	13.40	-0.05	12.33	14.04	0.006766	3.42	10.82	3.00	0.57
Via S. Vittoria	2.1	T=500	45.00	9.84	13.90	13.40	-0.50	13.40	-0.50	12.68	14.59	0.007564	3.70	12.17	3.00	0.59
Via S. Vittoria	2.0	T=50	26.00	9.84	12.24	12.64	0.40	12.64	0.40	11.81	12.90	0.009103	3.62	7.19	3.00	0.75
Via S. Vittoria	2.0	T=200	37.00	9.84	13.18	12.64	-0.54	12.64	-0.54	12.33	14.02	0.019331	4.06	9.11	3.00	0.71
Via S. Vittoria	2.0	T=500	45.00	9.84	13.62	12.64	-0.98	12.64	-0.98	12.64	14.57	0.018089	4.31	10.45	3.00	0.71
Via S. Vittoria	1	T=50	26.00	9.34	11.31	12.14	0.83	12.14	0.83	11.31	12.30	0.014991	4.40	5.91	3.00	1.00
Via S. Vittoria	1	T=200	37.00	9.34	11.83	12.14	0.31	12.14	0.31	11.83	13.08	0.016679	4.95	7.48	3.00	1.00
Via S. Vittoria	1	T=500	45.00	9.34	12.14	12.14	0.00	12.14	0.00	12.14	13.60	0.018491	5.36	8.40	3.00	1.02

Plan: Pb T. Battana Via S. Vittoria RS: 7.11 Profile: T=50

E.G. US. (m)	15.82	Element	Inside BR US	Inside BR DS
W.S. US. (m)	15.47	E.G. Elev (m)	15.82	15.55
Q Total (m3/s)	26.00	W.S. Elev (m)	15.47	15.14
Q Bridge (m3/s)	7.32	Crit W.S. (m)	14.04	13.99
Q Weir (m3/s)	18.68	Max Chl Dpth (m)	3.95	3.68
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.77	Froude # Chl	0.46	0.51
Weir Max Depth (m)	3.00	Specif Force (m3)	24.95	23.23
Min El Weir Flow (m)	12.82	Hydr Depth (m)		
Min El Prs (m)	12.52	W.P. Total (m)	9.50	9.62
Delta EG (m)	0.28	Conv. Total (m3/s)		
Delta WS (m)	0.33	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	2.93	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 7.11 Profile: T=200

E.G. US. (m)	16.89	Element	Inside BR US	Inside BR DS
W.S. US. (m)	16.43	E.G. Elev (m)	16.89	16.65
Q Total (m3/s)	37.00	W.S. Elev (m)	16.43	16.14
Q Bridge (m3/s)	7.69	Crit W.S. (m)	14.64	14.58
Q Weir (m3/s)	29.31	Max Chl Dpth (m)	4.91	4.68
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.82	Froude # Chl	0.46	0.50
Weir Max Depth (m)	4.07	Specif Force (m3)	39.43	37.54
Min El Weir Flow (m)	12.82	Hydr Depth (m)		
Min El Prs (m)	12.52	W.P. Total (m)	9.50	9.62
Delta EG (m)	0.24	Conv. Total (m3/s)		
Delta WS (m)	0.29	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	3.07	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 7.11 Profile: T=500

E.G. US. (m)	17.60	Element	Inside BR US	Inside BR DS
W.S. US. (m)	17.06	E.G. Elev (m)	17.60	17.38
Q Total (m3/s)	45.00	W.S. Elev (m)	17.06	16.80
Q Bridge (m3/s)	7.94	Crit W.S. (m)	15.03	14.97
Q Weir (m3/s)	37.06	Max Chl Dpth (m)	5.54	5.34
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.84	Froude # Chl	0.47	0.49
Weir Max Depth (m)	4.78	Specif Force (m3)	50.85	48.89
Min El Weir Flow (m)	12.82	Hydr Depth (m)		
Min El Prs (m)	12.52	W.P. Total (m)	9.50	9.62
Delta EG (m)	0.22	Conv. Total (m3/s)		
Delta WS (m)	0.27	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	3.18	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 6.11 Profile: T=50

E.G. US. (m)	15.28	Element	Inside BR US	Inside BR DS
W.S. US. (m)	14.90	E.G. Elev (m)	15.28	14.99
Q Total (m3/s)	26.00	W.S. Elev (m)	14.90	14.18
Q Bridge (m3/s)	9.29	Crit W.S. (m)	13.72	13.62
Q Weir (m3/s)	16.71	Max Chl Dpth (m)	3.80	3.18
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.60	Froude # Chl	0.50	0.67
Weir Max Depth (m)	2.78	Specif Force (m3)	23.56	20.68
Min El Weir Flow (m)	12.50	Hydr Depth (m)		
Min El Prs (m)	12.10	W.P. Total (m)	9.50	9.70
Delta EG (m)	0.56	Conv. Total (m3/s)		
Delta WS (m)	0.72	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	3.72	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 6.11 Profile: T=200

E.G. US. (m)	16.34	Element	Inside BR US	Inside BR DS
W.S. US. (m)	15.85	E.G. Elev (m)	16.34	15.93
Q Total (m3/s)	37.00	W.S. Elev (m)	15.85	15.10
Q Bridge (m3/s)	9.87	Crit W.S. (m)	14.32	14.21
Q Weir (m3/s)	27.13	Max Chl Dpth (m)	4.75	4.10
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.68	Froude # Chl	0.50	0.63
Weir Max Depth (m)	3.84	Specif Force (m3)	37.45	33.30
Min El Weir Flow (m)	12.50	Hydr Depth (m)		
Min El Prs (m)	12.10	W.P. Total (m)	9.50	9.70
Delta EG (m)	0.58	Conv. Total (m3/s)		
Delta WS (m)	0.75	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	3.95	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 6.11 Profile: T=500

E.G. US. (m)	17.03	Element	Inside BR US	Inside BR DS
W.S. US. (m)	16.46	E.G. Elev (m)	17.03	16.55
Q Total (m3/s)	45.00	W.S. Elev (m)	16.46	15.70
Q Bridge (m3/s)	10.22	Crit W.S. (m)	14.71	14.61
Q Weir (m3/s)	34.78	Max Chl Dpth (m)	5.36	4.70
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.50	Flow Area (m2)		
Weir Submerg	0.71	Froude # Chl	0.50	0.62
Weir Max Depth (m)	4.53	Specif Force (m3)	48.38	43.41
Min El Weir Flow (m)	12.50	Hydr Depth (m)		
Min El Prs (m)	12.10	W.P. Total (m)	9.50	9.70
Delta EG (m)	0.59	Conv. Total (m3/s)		
Delta WS (m)	0.76	Top Width (m)	2.50	2.50
BR Open Area (m2)	2.50	Frctn Loss (m)		
BR Open Vel (m/s)	4.09	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 5.11 Profile: T=50

E.G. US. (m)	14.59	Element	Inside BR US	Inside BR DS
W.S. US. (m)	14.19	E.G. Elev (m)	14.59	14.36
Q Total (m3/s)	26.00	W.S. Elev (m)	14.19	13.70
Q Bridge (m3/s)	12.93	Crit W.S. (m)	13.13	13.08
Q Weir (m3/s)	13.07	Max Chl Dpth (m)	3.32	2.88
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.80	Flow Area (m2)		
Weir Submerg	0.56	Froude # Chl	0.52	0.65
Weir Max Depth (m)	2.19	Specif Force (m3)	22.26	20.03
Min El Weir Flow (m)	12.40	Hydr Depth (m)		
Min El Prs (m)	12.20	W.P. Total (m)	11.06	11.16
Delta EG (m)	0.40	Conv. Total (m3/s)		
Delta WS (m)	0.56	Top Width (m)	2.80	2.80
BR Open Area (m2)	3.72	Frctn Loss (m)		
BR Open Vel (m/s)	3.47	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 5.11 Profile: T=200

E.G. US. (m)	15.61	Element	Inside BR US	Inside BR DS
W.S. US. (m)	15.11	E.G. Elev (m)	15.61	15.27
Q Total (m3/s)	37.00	W.S. Elev (m)	15.11	14.52
Q Bridge (m3/s)	13.80	Crit W.S. (m)	13.68	13.63
Q Weir (m3/s)	23.20	Max Chl Dpth (m)	4.24	3.70
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.80	Flow Area (m2)		
Weir Submerg	0.66	Froude # Chl	0.51	0.63
Weir Max Depth (m)	3.21	Specif Force (m3)	35.96	32.13
Min El Weir Flow (m)	12.40	Hydr Depth (m)		
Min El Prs (m)	12.20	W.P. Total (m)	11.06	11.16
Delta EG (m)	0.44	Conv. Total (m3/s)		
Delta WS (m)	0.60	Top Width (m)	2.80	2.80
BR Open Area (m2)	3.72	Frctn Loss (m)		
BR Open Vel (m/s)	3.71	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 5.11 Profile: T=500

E.G. US. (m)	16.28	Element	Inside BR US	Inside BR DS
W.S. US. (m)	15.72	E.G. Elev (m)	16.28	15.87
Q Total (m3/s)	45.00	W.S. Elev (m)	15.72	15.12
Q Bridge (m3/s)	14.20	Crit W.S. (m)	14.05	13.99
Q Weir (m3/s)	30.80	Max Chl Dpth (m)	4.85	4.30
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	2.80	Flow Area (m2)		
Weir Submerg	0.70	Froude # Chl	0.50	0.60
Weir Max Depth (m)	3.88	Specif Force (m3)	46.84	42.28
Min El Weir Flow (m)	12.40	Hydr Depth (m)		
Min El Prs (m)	12.20	W.P. Total (m)	11.06	11.16
Delta EG (m)	0.45	Conv. Total (m3/s)		
Delta WS (m)	0.60	Top Width (m)	2.80	2.80
BR Open Area (m2)	3.72	Frctn Loss (m)		
BR Open Vel (m/s)	3.81	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 3.11 Profile: T=50

E.G. US. (m)	13.80	Element	Inside BR US	Inside BR DS
W.S. US. (m)	13.40	E.G. Elev (m)	13.80	13.70
Q Total (m3/s)	26.00	W.S. Elev (m)	13.40	13.40
Q Bridge (m3/s)	22.31	Crit W.S. (m)	12.28	12.06
Q Weir (m3/s)	3.69	Max Chl Dpth (m)	3.09	3.31
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	3.00	Flow Area (m2)		
Weir Submerg	0.00	Froude # Chl	0.57	0.51
Weir Max Depth (m)	0.90	Specif Force (m3)	21.94	23.45
Min El Weir Flow (m)	12.90	Hydr Depth (m)		
Min El Prs (m)	12.60	W.P. Total (m)	13.58	14.02
Delta EG (m)	0.65	Conv. Total (m3/s)		
Delta WS (m)	0.93	Top Width (m)	3.00	3.00
BR Open Area (m2)	6.87	Frctn Loss (m)		
BR Open Vel (m/s)	3.25	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 3.11 Profile: T=200

E.G. US. (m)	14.75	Element	Inside BR US	Inside BR DS
W.S. US. (m)	14.25	E.G. Elev (m)	14.75	14.55
Q Total (m3/s)	37.00	W.S. Elev (m)	14.25	14.00
Q Bridge (m3/s)	26.10	Crit W.S. (m)	12.60	12.58
Q Weir (m3/s)	10.90	Max Chl Dpth (m)	3.94	3.91
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	3.00	Flow Area (m2)		
Weir Submerg	0.38	Froude # Chl	0.54	0.55
Weir Max Depth (m)	1.85	Specif Force (m3)	34.72	34.70
Min El Weir Flow (m)	12.90	Hydr Depth (m)		
Min El Prs (m)	12.60	W.P. Total (m)	13.58	14.02
Delta EG (m)	0.52	Conv. Total (m3/s)		
Delta WS (m)	0.65	Top Width (m)	3.00	3.00
BR Open Area (m2)	6.87	Frctn Loss (m)		
BR Open Vel (m/s)	3.80	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

Plan: Pb T. Battana Via S. Vittoria RS: 3.11 Profile: T=500

E.G. US. (m)	15.40	Element	Inside BR US	Inside BR DS
W.S. US. (m)	14.84	E.G. Elev (m)	15.40	15.13
Q Total (m3/s)	45.00	W.S. Elev (m)	14.84	14.39
Q Bridge (m3/s)	27.97	Crit W.S. (m)	13.45	13.23
Q Weir (m3/s)	17.03	Max Chl Dpth (m)	4.53	4.30
Weir Sta Lft (m)	0.00	Vel Total (m/s)	0.00	0.00
Weir Sta Rgt (m)	3.00	Flow Area (m2)		
Weir Submerg	0.47	Froude # Chl	0.53	0.58
Weir Max Depth (m)	2.50	Specif Force (m3)	45.14	43.43
Min El Weir Flow (m)	12.90	Hydr Depth (m)		
Min El Prs (m)	12.60	W.P. Total (m)	13.58	14.02
Delta EG (m)	0.60	Conv. Total (m3/s)		
Delta WS (m)	0.76	Top Width (m)	3.00	3.00
BR Open Area (m2)	6.87	Frctn Loss (m)		
BR Open Vel (m/s)	4.07	C & E Loss (m)		
Coef of Q		Shear Total (N/m2)		
Br Sel Method	Press/Weir	Power Total (N/m s)	0.00	0.00

SCHEDA VERIFICA IDRAULICA DI TIPO PUNTUALE

Bacino:	T. Gromolo
Sottobacino:	Rio Battana
Corso d'acqua:	**Rio Battana**
Località:	Via per S. Vittoria
Codice opera:	GRBA06TB02
Descrizione:	Imbocco tombinatura
Sezione di riferimento:	**BA09**

Calcolo delle condizioni critiche

Periodo di ritorno [anni]	T =	50	200	500
Larghezza di calcolo [m]	B=	2,50	2,50	2,50
Numero pile	np=	0	0	0
Spessore pile [m]	sp=	0,00	0,00	0,00
Larghezza netta [m]	Bo=	2,50	2,50	2,50
Portata [mc/s]	Q=	26	37	45
Rapporto di restringimento	r =	1,00	1,00	1,00
Numero di Froude limite	FL=	1,00	1,00	1,00
Coefficiente di forma delle pile	K=	1,000	1,000	1,000
Altezza pelo libero [m]	Y=	2,23	2,82	3,21
Area [mq]	A=	5,56	7,04	8,02
Perimetro bagnato [m]	P=	6,95	8,13	8,92
Raggio idraulico [m]	R=	0,80	0,87	0,90
Velocità media [m/s]	V=	4,67	5,26	5,61
Carico specifico [m]	E=	3,34	4,22	4,81
Numero di Froude	Fr=	1,00	1,00	1,00
Luce libera media [m]	H=	1,10	1,10	1,10
Franco [m]	f=	-1,13	-1,72	-2,11
Verificata		NO	NO	NO

SCHEDA VERIFICA IDRAULICA DI TIPO PUNTUALE

Bacino:	T. Gromolo
Sottobacino:	Rio Battana
Corso d'acqua:	**Rio Battana**
Località:	Via per S. Vittoria
Codice opera:	GRBA07PT05
Descrizione:	Ponte in c.a.
Sezione di riferimento:	**BA10**

Calcolo delle condizioni critiche

Periodo di ritorno [anni]	T =	50	200	500
Larghezza di calcolo [m]	B=	2,40	2,40	2,40
Numero pile	np=	0	0	0
Spessore pile [m]	sp=	0,00	0,00	0,00
Larghezza netta [m]	Bo=	2,40	2,40	2,40
Portata [mc/s]	Q=	26	37	45
Rapporto di restringimento	r =	1,00	1,00	1,00
Numero di Froude limite	FL=	1,00	1,00	1,00
Coefficiente di forma delle pile	K=	1,000	1,000	1,000
Altezza pelo libero [m]	Y=	2,29	2,89	3,30
Area [mq]	A=	5,49	6,94	7,91
Perimetro bagnato [m]	P=	6,97	8,19	8,99
Raggio idraulico [m]	R=	0,79	0,85	0,88
Velocità media [m/s]	V=	4,74	5,33	5,69
Carico specifico [m]	E=	3,43	4,34	4,95
Numero di Froude	Fr=	1,00	1,00	1,00
Luce libera media [m]	H=	1,10	1,10	1,10
Franco [m]	f=	-1,19	-1,79	-2,20
Verificata		NO	NO	NO

SCHEDA VERIFICA IDRAULICA DI TIPO PUNTUALE

Bacino:	T. Gromolo
Sottobacino:	Rio Battana
Corso d'acqua:	**Rio Battana**
Località:	Casa del Lavoratore
Codice opera:	GRBA09PT06
Descrizione:	Passerella metallica
Sezione di riferimento:	**BA11**

Calcolo delle condizioni critiche

Periodo di ritorno [anni]	T =	50	200	500
Larghezza di calcolo [m]	B=	3,45	3,45	3,45
Numero pile	np=	0	0	0
Spessore pile [m]	sp=	0,00	0,00	0,00
Larghezza netta [m]	Bo=	3,45	3,45	3,45
Portata [mc/s]	Q=	26	37	45
Rapporto di restringimento	r =	1,00	1,00	1,00
Numero di Froude limite	FL=	1,00	1,00	1,00
Coefficiente di forma delle pile	K=	1,000	1,000	1,000
Altezza pelo libero [m]	Y=	1,80	2,27	2,59
Area [mq]	A=	6,19	7,84	8,93
Perimetro bagnato [m]	P=	7,04	7,99	8,63
Raggio idraulico [m]	R=	0,88	0,98	1,04
Velocità media [m/s]	V=	4,20	4,72	5,04
Carico specifico [m]	E=	2,69	3,41	3,88
Numero di Froude	Fr=	1,00	1,00	1,00
Luce libera media [m]	H=	1,00	1,00	1,00
Franco [m]	f=	-0,80	-1,27	-1,59
Verificata		NO	NO	NO

SCHEDA VERIFICA IDRAULICA DI TIPO PUNTUALE

Bacino:	T. Gromolo
Sottobacino:	Rio Battana
Corso d'acqua:	**Rio Battana**
Località:	Casa del Lavoratore
Codice opera:	GRBA10PT07
Descrizione:	Ponte in c.a.
Sezione di riferimento:	**BA12**

Calcolo delle condizioni critiche

Periodo di ritorno [anni]	T =	50	200	500
Larghezza di calcolo [m]	B=	4,05	4,05	4,05
Numero pile	np=	0	0	0
Spessore pile [m]	sp=	0,00	0,00	0,00
Larghezza netta [m]	Bo=	4,05	4,05	4,05
Portata [mc/s]	Q=	26	37	45
Rapporto di restringimento	r =	1,00	1,00	1,00
Numero di Froude limite	FL=	1,00	1,00	1,00
Coefficiente di forma delle pile	K=	1,000	1,000	1,000
Altezza pelo libero [m]	Y=	1,61	2,04	2,33
Area [mq]	A=	6,53	8,27	9,42
Perimetro bagnato [m]	P=	7,28	8,13	8,70
Raggio idraulico [m]	R=	0,90	1,02	1,08
Velocità media [m/s]	V=	3,98	4,48	4,78
Carico specifico [m]	E=	2,42	3,06	3,49
Numero di Froude	Fr=	1,00	1,00	1,00
Luce libera media [m]	H=	1,80	1,80	1,80
Franco [m]	f=	0,19	-0,24	-0,53
Verificata		NO	NO	NO