

Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 380 Profile: Tr=50 yr

E.G. Elev (m)	172.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.80	Wt. n-Val.		0.040	
W.S. Elev (m)	171.68	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	171.02	Flow Area (m2)		306.35	
E.G. Slope (m/m)	0.006490	Area (m2)		306.35	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	106.25	Top Width (m)		106.25	
Vel Total (m/s)	3.97	Avg. Vel. (m/s)		3.97	
Max Chl Dpth (m)	4.34	Hydr. Depth (m)		2.88	
Conv. Total (m3/s)	15108.4	Conv. (m3/s)		15108.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		110.57	
Min Ch El (m)	167.33	Shear (N/m2)		176.34	
Alpha	1.00	Stream Power (N/m s)		700.58	
Frctn Loas (m)	0.09	Cum Volume (1000 m3)		98.95	
C & E Loss (m)	0.05	Cum SA (1000 m2)		28.73	

Plan: Plan 03 RP_1 Alignment - (1) RS: 380 Profile: Tr=100 yr

E.G. Elev (m)	172.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.82	Wt. n-Val.		0.040	
W.S. Elev (m)	171.95	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	171.27	Flow Area (m2)		336.52	
E.G. Slope (m/m)	0.006132	Area (m2)		336.52	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	110.19	Top Width (m)		110.19	
Vel Total (m/s)	4.01	Avg. Vel. (m/s)		4.01	
Max Chl Dpth (m)	4.62	Hydr. Depth (m)		3.05	
Conv. Total (m3/s)	17245.8	Conv. (m3/s)		17245.8	
Length Wtd. (m)	10.00	Wetted Per. (m)		114.66	
Min Ch El (m)	167.33	Shear (N/m2)		176.48	
Alpha	1.00	Stream Power (N/m s)		708.21	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		107.31	
C & E Loss (m)	0.06	Cum SA (1000 m2)		29.22	

Plan: Plan 03 RP_1 Alignment - (1) RS: 370 Profile: Tr=50 yr

E.G. Elev (m)	172.34	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.		0.040	
W.S. Elev (m)	170.99	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.99	Flow Area (m2)		236.27	
E.G. Slope (m/m)	0.011863	Area (m2)		236.27	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	87.54	Top Width (m)		87.54	
Vel Total (m/s)	5.15	Avg. Vel. (m/s)		5.15	
Max Chl Dpth (m)	3.86	Hydr. Depth (m)		2.70	
Conv. Total (m3/s)	11174.8	Conv. (m3/s)		11174.8	
Length Wtd. (m)	10.00	Wetted Per. (m)		90.80	
Min Ch El (m)	167.13	Shear (N/m2)		302.72	
Alpha	1.00	Stream Power (N/m s)		1559.45	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		96.23	
C & E Loss (m)	0.04	Cum SA (1000 m2)		27.76	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 370 Profile: Tr=100 yr

E.G. Elev (m)	172.63	Element	Left OB	Channel	Right OB
Vel Head (m)	1.45	Wt. n-Val.		0.040	
W.S. Elev (m)	171.18	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	171.18	Flow Area (m2)		253.48	
E.G. Slope (m/m)	0.011839	Area (m2)		253.48	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	89.17	Top Width (m)		89.17	
Vel Total (m/s)	5.33	Avg. Vel. (m/s)		5.33	
Max Chl Dpth (m)	4.05	Hydr. Depth (m)		2.84	
Conv. Total (m3/s)	12411.4	Conv. (m3/s)		12411.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		92.48	
Min Ch El (m)	167.13	Shear (N/m2)		318.22	
Alpha	1.00	Stream Power (N/m s)		1695.38	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		104.36	
C & E Loss (m)	0.06	Cum SA (1000 m2)		28.22	

Plan: Plan 03 RP_1 Alignment - (1) RS: 360 Profile: Tr=50 yr

E.G. Elev (m)	172.08	Element	Left OB	Channel	Right OB
Vel Head (m)	1.21	Wt. n-Val.		0.040	
W.S. Elev (m)	170.87	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.87	Flow Area (m2)		249.75	
E.G. Slope (m/m)	0.012120	Area (m2)		249.75	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	103.69	Top Width (m)		103.69	
Vel Total (m/s)	4.87	Avg. Vel. (m/s)		4.87	
Max Chl Dpth (m)	3.94	Hydr. Depth (m)		2.41	
Conv. Total (m3/s)	11055.7	Conv. (m3/s)		11055.7	
Length Wtd. (m)	10.00	Wetted Per. (m)		106.00	
Min Ch El (m)	166.93	Shear (N/m2)		280.05	
Alpha	1.00	Stream Power (N/m s)		1364.79	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		93.80	
C & E Loss (m)	0.01	Cum SA (1000 m2)		26.81	

Plan: Plan 03 RP_1 Alignment - (1) RS: 360 Profile: Tr=100 yr

E.G. Elev (m)	172.33	Element	Left OB	Channel	Right OB
Vel Head (m)	1.26	Wt. n-Val.		0.040	
W.S. Elev (m)	171.07	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	171.07	Flow Area (m2)		271.73	
E.G. Slope (m/m)	0.012067	Area (m2)		271.73	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	109.12	Top Width (m)		109.12	
Vel Total (m/s)	4.97	Avg. Vel. (m/s)		4.97	
Max Chl Dpth (m)	4.15	Hydr. Depth (m)		2.49	
Conv. Total (m3/s)	12293.6	Conv. (m3/s)		12293.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		111.62	
Min Ch El (m)	166.93	Shear (N/m2)		288.08	
Alpha	1.00	Stream Power (N/m s)		1431.73	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)		101.74	
C & E Loss (m)	0.00	Cum SA (1000 m2)		27.23	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 350 Profile: Tr=50 yr

E.G. Elev (m)	171.79	Element	Left OB	Channel	Right OB
Vel Head (m)	1.18	Wt. n-Val.		0.040	
W.S. Elev (m)	170.61	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.61	Flow Area (m2)		252.82	
E.G. Slope (m/m)	0.012065	Area (m2)		252.82	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	106.97	Top Width (m)		106.97	
Vel Total (m/s)	4.81	Avg. Vel. (m/s)		4.81	
Max Chl Dpth (m)	3.89	Hydr. Depth (m)		2.36	
Conv. Total (m3/s)	11081.1	Conv. (m3/s)		11081.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		108.91	
Min Ch El (m)	166.72	Shear (N/m2)		274.65	
Alpha	1.00	Stream Power (N/m s)		1322.24	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		91.29	
C & E Loss (m)	0.01	Cum SA (1000 m2)		25.75	

Plan: Plan 03 RP_1 Alignment - (1) RS: 350 Profile: Tr=100 yr

E.G. Elev (m)	172.05	Element	Left OB	Channel	Right OB
Vel Head (m)	1.27	Wt. n-Val.		0.040	
W.S. Elev (m)	170.78	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.78	Flow Area (m2)		270.56	
E.G. Slope (m/m)	0.011949	Area (m2)		270.56	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	107.50	Top Wdth (m)		107.50	
Vel Total (m/s)	4.99	Avg. Vel. (m/s)		4.99	
Max Chl Dpth (m)	4.06	Hydr. Depth (m)		2.52	
Conv. Total (m3/s)	12353.9	Conv. (m3/s)		12353.9	
Length Wtd. (m)	10.00	Wetted Per. (m)		109.61	
Min Ch El (m)	166.72	Shear (N/m2)		289.24	
Alpha	1.00	Stream Power (N/m s)		1443.69	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		99.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)		26.15	

Plan: Plan 03 RP_1 Alignment - (1) RS: 340 Profile: Tr=50 yr

E.G. Elev (m)	171.56	Element	Left OB	Channel	Right OB
Vel Head (m)	1.15	Wt. n-Val.		0.040	
W.S. Elev (m)	170.41	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.17	Flow Area (m2)		256.46	
E.G. Slope (m/m)	0.010211	Area (m2)		256.46	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	97.75	Top Width (m)		97.75	
Vel Total (m/s)	4.75	Avg. Vel. (m/s)		4.75	
Max Chl Dpth (m)	3.86	Hydr. Depth (m)		2.62	
Conv. Total (m3/s)	12045.3	Conv. (m3/s)		12045.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		99.59	
Min Ch El (m)	166.56	Shear (N/m2)		257.84	
Alpha	1.00	Stream Power (N/m s)		1223.70	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		88.74	
C & E Loss (m)	0.02	Cum SA (1000 m2)		24.73	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 340 Profile: Tr=100 yr

E.G. Elev (m)	171.83	Element	Left OB	Channel	Right OB
Vel Head (m)	1.21	Wt. n-Val.		0.040	
W.S. Elev (m)	170.62	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.49	Flow Area (m2)		276.86	
E.G. Slope (m/m)	0.010061	Area (m2)		276.86	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	100.01	Top Width (m)		100.01	
Vel Total (m/s)	4.88	Avg. Vel. (m/s)		4.88	
Max Chl Dpth (m)	4.06	Hydr. Depth (m)		2.77	
Conv. Total (m3/s)	13463.4	Conv. (m3/s)		13463.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		102.05	
Min Ch El (m)	166.56	Shear (N/m2)		267.66	
Alpha	1.00	Stream Power (N/m s)		1305.60	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		96.29	
C & E Loss (m)	0.01	Cum SA (1000 m2)		25.11	

Plan: Plan 03 RP_1 Alignment - (1) RS: 330 Profile: Tr=50 yr

E.G. Elev (m)	171.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.07	Wt. n-Val.		0.040	
W.S. Elev (m)	170.38	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		265.60	
E.G. Slope (m/m)	0.008127	Area (m2)		265.60	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	88.98	Top Width (m)		88.98	
Vel Total (m/s)	4.58	Avg. Vel. (m/s)		4.58	
Max Chl Dpth (m)	3.98	Hydr. Depth (m)		2.99	
Conv. Total (m3/s)	13501.6	Conv. (m3/s)		13501.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		91.60	
Min Ch El (m)	166.40	Shear (N/m2)		231.07	
Alpha	1.00	Stream Power (N/m s)		1058.91	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		86.13	
C & E Loss (m)	0.01	Cum SA (1000 m2)		23.80	

Plan: Plan 03 RP_1 Alignment - (1) RS: 330 Profile: Tr=100 yr

E.G. Elev (m)	171.73	Element	Left OB	Channel	Right OB
Vel Head (m)	1.18	Wt. n-Val.		0.040	
W.S. Elev (m)	170.55	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	170.24	Flow Area (m2)		281.23	
E.G. Slope (m/m)	0.008530	Area (m2)		281.23	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	91.02	Top Width (m)		91.02	
Vel Total (m/s)	4.80	Avg. Vel. (m/s)		4.80	
Max Chl Dpth (m)	4.16	Hydr. Depth (m)		3.09	
Conv. Total (m3/s)	14621.5	Conv. (m3/s)		14621.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		93.77	
Min Ch El (m)	166.40	Shear (N/m2)		250.89	
Alpha	1.00	Stream Power (N/m s)		1204.76	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		93.50	
C & E Loss (m)	0.01	Cum SA (1000 m2)		24.16	



Plan: Plan 03 RP_1 Alignment - (1) RS: 320 Profile: Tr=50 yr

E.G. Elev (m)	171,36	Element	Left OB	Channel	Right OB
Vel Head (m)	1.03	Wt. n-Val.		0,040	
W.S. Elev (m)	170,33	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	169,97	Flow Area (m2)		270,62	
E.G. Slope (m/m)	0,007896	Area (m2)		270,62	
Q Total (m3/s)	1217,14	Flow (m3/s)		1217,14	
Top Width (m)	90,62	Top Width (m)		90,62	
Vel Total (m/s)	4,50	Avg. Vel. (m/s)		4,50	
Max Chl Dpth (m)	4,09	Hydr. Depth (m)		2,99	
Conv. Total (m3/s)	13697,7	Conv. (m3/s)		13697,7	
Length Wtd. (m)	10,00	Wetted Per. (m)		93,94	
Min Ch El (m)	166,23	Shear (N/m2)		223,05	
Alpha	1,00	Stream Power (N/m s)		1003,19	
Frctn Loss (m)	0,10	Cum Volume (1000 m3)		83,45	
C & E Loss (m)	0,03	Cum SA (1000 m2)		22,90	

Plan: Plan 03 RP_1 Alignment - (1) RS: 320 Profile: Tr=100 yr

E.G. Elev (m)	171,63	Element	Left OB	Channel	Right OB
Vel Head (m)	1.14	WL n-Val.		0,040	
W.S. Elev (m)	170,50	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	170,16	Flow Area (m2)		286,11	
E.G. Slope (m/m)	0,008128	Area (m2)		286,11	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	90,92	Top Width (m)		90,92	
Vel Total (m/s)	4,72	Avg. Vel. (m/s)		4,72	
Max Chl Dpth (m)	4,26	Hydr. Depth (m)		3,15	
Conv. Total (m3/s)	14979,5	Conv. (m3/s)		14979,5	
Length Wtd. (m)	10,00	Wetted Per. (m)		94,40	
Min Ch El (m)	166,23	Shear (N/m2)		241,56	
Alpha	1,00	Stream Power (N/m s)		1140,16	
Frctn Loss (m)	0,10	Cum Volume (1000 m3)		90,66	
C & E Loss (m)	0,02	Cum SA (1000 m2)		23,25	

Plan: Plan 03 RP_1 Alignment - (1) RS: 310 Profile: Tr=50 yr

E.G. Elev (m)	171,24	Element	Left OB	Channel	Right OB
Vel Head (m)	1,30	WL n-Val.		0,040	
W.S. Elev (m)	169,94	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	169,94	Flow Area (m2)		241,21	
E.G. Slope (m/m)	0,012003	Area (m2)		241,21	
Q Total (m3/s)	1217,14	Flow (m3/s)		1217,14	
Top Width (m)	94,37	Top Width (m)		94,37	
Vel Total (m/s)	5,05	Avg. Vel. (m/s)		5,05	
Max Chl Dpth (m)	3,87	Hydr. Depth (m)		2,56	
Conv. Total (m3/s)	11109,7	Conv. (m3/s)		11109,7	
Length Wtd. (m)	10,00	Wetted Per. (m)		96,46	
Min Ch El (m)	166,07	Shear (N/m2)		294,34	
Alpha	1,00	Stream Power (N/m s)		1485,27	
Frctn Loss (m)	0,12	Cum Volume (1000 m3)		80,89	
C & E Loss (m)	0,00	Cum SA (1000 m2)		21,97	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 310 Profile: Tr=100 yr

E.G. Elev (m)	171,51	Element	Left OB	Channel	Right OB
Vel Head (m)	1,38	Wt. n-Val.		0,040	
W.S. Elev (m)	170,13	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	170,13	Flow Area (m2)		259,20	
E.G. Slope (m/m)	0,011778	Area (m2)		259,20	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	95,24	Top Width (m)		95,24	
Vel Total (m/s)	5,21	Avg. Vel. (m/s)		5,21	
Max Chl Dpth (m)	4,06	Hydr. Depth (m)		2,72	
Conv. Total (m3/s)	12443,4	Conv. (m3/s)		12443,4	
Length Wld. (m)	10,00	Wetted Per. (m)		97,41	
Min Ch El (m)	166,07	Shear (N/m2)		307,35	
Alpha	1,00	Stream Power (N/m s)		1601,33	
Frctn Loss (m)	0,12	Cum Volume (1000 m3)		87,93	
C & E Loss (m)	0,00	Cum SA (1000 m2)		22,31	

Plan: Plan 03 RP_1 Alignment - (1) RS: 300 Profile: Tr=50 yr

E.G. Elev (m)	171,09	Element	Left OB	Channel	Right OB
Vel Head (m)	1,31	Wt. n-Val.		0,040	
W.S. Elev (m)	169,78	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	169,78	Flow Area (m2)		240,28	
E.G. Slope (m/m)	0,011939	Area (m2)		240,28	
Q Total (m3/s)	1217,14	Flow (m3/s)		1217,14	
Top Width (m)	92,66	Top Width (m)		92,66	
Vel Total (m/s)	5,07	Avg. Vel. (m/s)		5,07	
Max Chl Dpth (m)	3,86	Hydr. Depth (m)		2,59	
Conv. Total (m3/s)	11139,4	Conv. (m3/s)		11139,4	
Length Wld. (m)	10,00	Wetted Per. (m)		95,15	
Min Ch El (m)	165,92	Shear (N/m2)		295,64	
Alpha	1,00	Stream Power (N/m s)		1497,56	
Frctn Loss (m)	0,12	Cum Volume (1000 m3)		78,49	
C & E Loss (m)	0,01	Cum SA (1000 m2)		21,04	

Plan: Plan 03 RP_1 Alignment - (1) RS: 300 Profile: Tr=100 yr

E.G. Elev (m)	171,37	Element	Left OB	Channel	Right OB
Vel Head (m)	1,39	WL n-Val.		0,040	
W.S. Elev (m)	169,98	Reach Len. (m)	10,00	10,00	10,00
Critl W.S. (m)	169,98	Flow Area (m2)		258,70	
E.G. Slope (m/m)	0,011713	Area (m2)		258,70	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	93,81	Top Width (m)		93,81	
Vel Total (m/s)	5,22	Avg. Vel. (m/s)		5,22	
Max Chl Dpth (m)	4,06	Hydr. Depth (m)		2,76	
Conv. Total (m3/s)	12477,8	Conv. (m3/s)		12477,8	
Length Wld. (m)	10,00	Wetted Per. (m)		96,53	
Min Ch El (m)	165,92	Shear (N/m2)		307,82	
Alpha	1,00	Stream Power (N/m s)		1606,89	
Frctn Loss (m)	0,12	Cum Volume (1000 m3)		85,34	
C & E Loss (m)	0,01	Cum SA (1000 m2)		21,37	



Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 290 Profile: Tr=50 yr

E.G. Elev (m)	170.85	Element	Left OB	Channel	Right OB
Vel Head (m)	1.43	Wt. n-Val.		0.040	
W.S. Elev (m)	169.42	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.42	Flow Area (m2)		230.05	
E.G. Slope (m/m)	0.011457	Area (m2)		230.05	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	81.11	Top Width (m)		81.11	
Vel Total (m/s)	5.29	Avg. Vel. (m/s)		5.29	
Max Chl Dpth (m)	3.64	Hydr. Depth (m)		2.84	
Conv. Total (m3/s)	11371.4	Conv. (m3/s)		11371.4	
Length Wld. (m)	10.00	Wetted Per. (m)		82.75	
Min Ch El (m)	165.78	Shear (N/m2)		312.34	
Alpha	1.00	Stream Power (N/m s)		1652.50	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		76.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)		20.17	

Plan: Plan 03 RP_1 Alignment - (1) RS: 290 Profile: Tr=100 yr

E.G. Elev (m)	171.15	Element	Left OB	Channel	Right OB
Vel Head (m)	1.53	Wt. n-Val.		0.040	
W.S. Elev (m)	169.62	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.62	Flow Area (m2)		246.56	
E.G. Slope (m/m)	0.011333	Area (m2)		246.56	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	81.75	Top Width (m)		81.75	
Vel Total (m/s)	5.48	Avg. Vel. (m/s)		5.48	
Max Chl Dpth (m)	3.84	Hydr. Depth (m)		3.02	
Conv. Total (m3/s)	12685.7	Conv. (m3/s)		12685.7	
Length Wld. (m)	10.00	Wetted Per. (m)		83.51	
Min Ch El (m)	165.78	Shear (N/m2)		328.11	
Alpha	1.00	Stream Power (N/m s)		1797.13	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		82.82	
C & E Loss (m)	0.00	Cum SA (1000 m2)		20.49	

Plan: Plan 03 RP_1 Alignment - (1) RS: 280 Profile: Tr=50 yr

E.G. Elev (m)	170.65	Element	Left OB	Channel	Right OB
Vel Head (m)	1.46	Wt. n-Val.		0.040	
W.S. Elev (m)	169.19	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.19	Flow Area (m2)		227.68	
E.G. Slope (m/m)	0.011391	Area (m2)		227.68	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	78.75	Top Width (m)		78.75	
Vel Total (m/s)	5.35	Avg. Vel. (m/s)		5.35	
Max Chl Dpth (m)	3.74	Hydr. Depth (m)		2.89	
Conv. Total (m3/s)	11403.9	Conv. (m3/s)		11403.9	
Length Wld. (m)	10.00	Wetted Per. (m)		80.28	
Min Ch El (m)	165.45	Shear (N/m2)		316.79	
Alpha	1.00	Stream Power (N/m s)		1693.55	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		73.84	
C & E Loss (m)	0.00	Cum SA (1000 m2)		19.37	

Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 280 Profile: Tr=100 yr

E.G. Elev (m)	170.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.54	Wt. n-Val.		0.040	
W.S. Elev (m)	169.41	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.41	Flow Area (m2)		245.35	
E.G. Slope (m/m)	0.011147	Area (m2)		245.35	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	79.78	Top Width (m)		79.78	
Vel Total (m/s)	5.50	Avg. Vel. (m/s)		5.50	
Max Chl Dpth (m)	3.97	Hydr. Depth (m)		3.08	
Conv. Total (m3/s)	12790.8	Conv. (m3/s)		12790.8	
Length Wld. (m)	10.00	Wetted Per. (m)		81.47	
Min Ch El (m)	165.45	Shear (N/m2)		329.19	
Alpha	1.00	Stream Power (N/m s)		1811.95	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		80.36	
C & E Loss (m)	0.00	Cum SA (1000 m2)		19.68	

Plan: Plan 03 RP_1 Alignment - (1) RS: 270 Profile: Tr=50 yr

E.G. Elev (m)	170.49	Element	Left OB	Channel	Right OB
Vel Head (m)	1.48	Wt. n-Val.		0.040	
W.S. Elev (m)	169.01	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.01	Flow Area (m2)		225.58	
E.G. Slope (m/m)	0.011315	Area (m2)		225.58	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	76.65	Top Width (m)		76.65	
Vel Total (m/s)	5.40	Avg. Vel. (m/s)		5.40	
Max Chl Dpth (m)	3.98	Hydr. Depth (m)		2.94	
Conv. Total (m3/s)	11442.1	Conv. (m3/s)		11442.1	
Length Wld. (m)	10.00	Wetted Per. (m)		78.05	
Min Ch El (m)	165.03	Shear (N/m2)		320.69	
Alpha	1.00	Stream Power (N/m s)		1730.35	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		71.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)		18.59	

Plan: Plan 03 RP_1 Alignment - (1) RS: 270 Profile: Tr=100 yr

E.G. Elev (m)	170.81	Element	Left OB	Channel	Right OB
Vel Head (m)	1.58	Wt. n-Val.		0.040	
W.S. Elev (m)	169.23	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	169.23	Flow Area (m2)		242.63	
E.G. Slope (m/m)	0.011099	Area (m2)		242.63	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	77.46	Top Width (m)		77.46	
Vel Total (m/s)	5.57	Avg. Vel. (m/s)		5.57	
Max Chl Dpth (m)	4.20	Hydr. Depth (m)		3.13	
Conv. Total (m3/s)	12818.4	Conv. (m3/s)		12818.4	
Length Wld. (m)	10.00	Wetted Per. (m)		78.98	
Min Ch El (m)	165.03	Shear (N/m2)		334.38	
Alpha	1.00	Stream Power (N/m s)		1861.13	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		77.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)		18.90	

