

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

Plan: Plan 03 RP_1 Alignment - (1) RS: 260 Profile: Tr=50 yr

E.G. Elev (m)	170.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.51	Wt. n-Val.		0.040	
W.S. Elev (m)	168.75	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	168.75	Flow Area (m2)		223.75	
E.G. Slope (m/m)	0.011299	Area (m2)		223.75	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	74.68	Top Width (m)		74.68	
Vel Total (m/s)	5.44	Avg. Vel. (m/s)		5.44	
Max Chl Dpth (m)	4.07	Hydr. Depth (m)		3.00	
Conv. Total (m3/s)	11450.4	Conv. (m3/s)		11450.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		76.40	
Min Ch El (m)	164.68	Shear (N/m2)		324.51	
Alpha	1.00	Stream Power (N/m s)		1765.23	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		69.33	
C & E Loss (m)	0.00	Cum SA (1000 m2)		17.84	

Plan: Plan 03 RP_1 Alignment - (1) RS: 260 Profile: Tr=100 yr

E.G. Elev (m)	170.58	Element	Left OB	Channel	Right OB
Vel Head (m)	1.61	Wt. n-Val.		0.040	
W.S. Elev (m)	168.97	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	168.97	Flow Area (m2)		240.62	
E.G. Slope (m/m)	0.011094	Area (m2)		240.62	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	75.49	Top Width (m)		75.49	
Vel Total (m/s)	5.61	Avg. Vel. (m/s)		5.61	
Max Chl Dpth (m)	4.29	Hydr. Depth (m)		3.19	
Conv. Total (m3/s)	12821.3	Conv. (m3/s)		12821.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		77.33	
Min Ch El (m)	164.68	Shear (N/m2)		338.54	
Alpha	1.00	Stream Power (N/m s)		1900.04	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		75.50	
C & E Loss (m)	0.00	Cum SA (1000 m2)		18.13	

Plan: Plan 03 RP_1 Alignment - (1) RS: 250 Profile: Tr=50 yr

E.G. Elev (m)	170.12	Element	Left OB	Channel	Right OB
Vel Head (m)	1.52	Wt. n-Val.		0.040	
W.S. Elev (m)	168.60	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	168.60	Flow Area (m2)		222.61	
E.G. Slope (m/m)	0.011270	Area (m2)		222.61	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	73.52	Top Width (m)		73.52	
Vel Total (m/s)	5.47	Avg. Vel. (m/s)		5.47	
Max Chl Dpth (m)	4.01	Hydr. Depth (m)		3.03	
Conv. Total (m3/s)	11465.1	Conv. (m3/s)		11465.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		75.29	
Min Ch El (m)	164.58	Shear (N/m2)		326.79	
Alpha	1.00	Stream Power (N/m s)		1786.73	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		67.10	
C & E Loss (m)	0.00	Cum SA (1000 m2)		17.10	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 250 Profile: Tr=100 yr

E.G. Elev (m)	170.44	Element	Left OB	Channel	Right OB
Vel Head (m)	1.62	Wt. n-Val.		0,040	
W.S. Elev (m)	168.82	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	168.82	Flow Area (m2)		239,35	
E.G. Slope (m/m)	0.011062	Area (m2)		239,35	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	74.24	Top Width (m)		74,24	
Vel Total (m/s)	5.64	Avg. Vel. (m/s)		5.64	
Max Chl Dpth (m)	4.24	Hydr. Depth (m)		3,22	
Conv. Total (m3/s)	12840,0	Conv. (m3/s)		12840,0	
Length Wtd. (m)	10,00	Wetted Per. (m)		76,14	
Min Ch El (m)	164.58	Shear (N/m2)		340,99	
Alpha	1,00	Stream Power (N/m s)		1923,94	
Frctn Loss (m)	0,11	Cum Volume (1000 m3)		73,10	
C & E Loss (m)	0,00	Cum SA (1000 m2)		17,38	

Plan: Plan 03 RP_1 Alignment - (1) RS: 240 Profile: Tr=50 yr

E.G. Elev (m)	169.95	Element	Left OB	Channel	Right OB
Vel Head (m)	1.53	Wt. n-Val.		0,040	
W.S. Elev (m)	168.42	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	168.42	Flow Area (m2)		222,12	
E.G. Slope (m/m)	0,011282	Area (m2)		222,12	
Q Total (m3/s)	1217,14	Flow (m3/s)		1217,14	
Top Width (m)	72.97	Top Width (m)		72,97	
Vel Total (m/s)	5.48	Avg. Vel. (m/s)		5,48	
Max Chl Dpth (m)	3,96	Hydr. Depth (m)		3,04	
Conv. Total (m3/s)	11458,8	Conv. (m3/s)		11458,8	
Length Wtd. (m)	10,00	Wetted Per. (m)		74,93	
Min Ch El (m)	164.46	Shear (N/m2)		327,97	
Alpha	1,00	Stream Power (N/m s)		1797,17	
Frctn Loss (m)	0,11	Cum Volume (1000 m3)		64,88	
C & E Loss (m)	0,00	Cum SA (1000 m2)		16,36	

Plan: Plan 03 RP_1 Alignment - (1) RS: 240 Profile: Tr=100 yr

E.G. Elev (m)	170.28	Element	Left OB	Channel	Right OB
Vel Head (m)	1.63	Wt. n-Val.		0,040	
W.S. Elev (m)	168.65	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	168.65	Flow Area (m2)		238,77	
E.G. Slope (m/m)	0,011070	Area (m2)		238,77	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	73.62	Top Width (m)		73,62	
Vel Total (m/s)	5.66	Avg. Vel. (m/s)		5,66	
Max Chl Dpth (m)	4,18	Hydr. Depth (m)		3,24	
Conv. Total (m3/s)	12835,2	Conv. (m3/s)		12835,2	
Length Wtd. (m)	10,00	Wetted Per. (m)		75,73	
Min Ch El (m)	164.46	Shear (N/m2)		342,28	
Alpha	1,00	Stream Power (N/m s)		1935,87	
Frctn Loss (m)	0,11	Cum Volume (1000 m3)		70,71	
C & E Loss (m)	0,00	Cum SA (1000 m2)		16,65	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 230 Profile: Tr=50 yr

E.G. Elev (m)	169.69	Element	Left OB	Channel	Right OB
Vel Head (m)	1.54	Wt. n-Val.		0.040	
W.S. Elev (m)	168.15	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	168.15	Flow Area (m2)		221.44	
E.G. Slope (m/m)	0.011250	Area (m2)		221.44	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.12	Top Width (m)		72.12	
Vel Total (m/s)	5.50	Avg. Vel. (m/s)		5.50	
Max Chl Dpth (m)	3.83	Hydr. Depth (m)		3.07	
Conv. Total (m3/s)	11475.4	Conv. (m3/s)		11475.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.20	
Min Ch El (m)	164.32	Shear (N/m2)		329.24	
Alpha	1.00	Stream Power (N/m s)		1809.70	
Frcn Loss (m)	0.10	Cum Volume (1000 m3)		62.66	
C & E Loss (m)	0.05	Cum SA (1000 m2)		15.64	

Plan: Plan 03 RP_1 Alignment - (1) RS: 230 Profile: Tr=100 yr

E.G. Elev (m)	170.02	Element	Left OB	Channel	Right OB
Vel Head (m)	1.64	Wt. n-Val.		0.040	
W.S. Elev (m)	168.38	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	168.38	Flow Area (m2)		237.95	
E.G. Slope (m/m)	0.011044	Area (m2)		237.95	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	72.71	Top Width (m)		72.71	
Vel Total (m/s)	5.68	Avg. Vel. (m/s)		5.68	
Max Chl Dpth (m)	4.06	Hydr. Depth (m)		3.27	
Conv. Total (m3/s)	12850.7	Conv. (m3/s)		12850.7	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.95	
Min Ch El (m)	164.32	Shear (N/m2)		343.84	
Alpha	1.00	Stream Power (N/m s)		1951.37	
Frcn Loss (m)	0.10	Cum Volume (1000 m3)		68.33	
C & E Loss (m)	0.06	Cum SA (1000 m2)		15.91	

Plan: Plan 03 RP_1 Alignment - (1) RS: 220 Profile: Tr=50 yr

E.G. Elev (m)	169.51	Element	Left OB	Channel	Right OB
Vel Head (m)	1.38	Wt. n-Val.		0.040	
W.S. Elev (m)	168.13	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	167.95	Flow Area (m2)		234.11	
E.G. Slope (m/m)	0.009355	Area (m2)		234.11	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.32	Top Width (m)		72.32	
Vel Total (m/s)	5.20	Avg. Vel. (m/s)		5.20	
Max Chl Dpth (m)	3.93	Hydr. Depth (m)		3.24	
Conv. Total (m3/s)	12584.0	Conv. (m3/s)		12584.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.25	
Min Ch El (m)	164.20	Shear (N/m2)		289.24	
Alpha	1.00	Stream Power (N/m s)		1503.79	
Frcn Loss (m)	0.09	Cum Volume (1000 m3)		60.38	
C & E Loss (m)	0.02	Cum SA (1000 m2)		14.92	

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

Plan: Plan 03 RP_1 Alignment - (1) RS: 220 Profile: Tr=100 yr

E.G. Elev (m)	169,85	Element	Left OB	Channel	Right OB
Vel Head (m)	1,45	Wt. n-Val.		0,040	
W.S. Elev (m)	168,39	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	168,17	Flow Area (m2)		252,95	
E.G. Slope (m/m)	0,009033	Area (m2)		252,95	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	72,99	Top Width (m)		72,99	
Vel Total (m/s)	5,34	Avg. Vel. (m/s)		5,34	
Max Chl Dpth (m)	4,19	Hydr. Depth (m)		3,47	
Conv. Total (m3/s)	14209,1	Conv. (m3/s)		14209,1	
Length Wtd. (m)	10,00	Wetted Per. (m)		75,10	
Min Ch El (m)	164,20	Shear (N/m2)		298,34	
Alpha	1,00	Stream Power (N/m s)		1592,77	
Frctn Loss (m)	0,09	Cum Volume (1000 m3)		65,87	
C & E Loss (m)	0,02	Cum SA (1000 m2)		15,19	

Plan: Plan 03 RP_1 Alignment - (1) RS: 210 Profile: Tr=50 yr

E.G. Elev (m)	169,40	Element	Left OB	Channel	Right OB
Vel Head (m)	1,30	Wt. n-Val.		0,040	
W.S. Elev (m)	168,10	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	167,82	Flow Area (m2)		241,17	
E.G. Slope (m/m)	0,008512	Area (m2)		241,17	
Q Total (m3/s)	1217,14	Flow (m3/s)		1217,14	
Top Width (m)	72,65	Top Width (m)		72,65	
Vel Total (m/s)	5,05	Avg. Vel. (m/s)		5,05	
Max Chl Dpth (m)	4,02	Hydr. Depth (m)		3,32	
Conv. Total (m3/s)	13192,7	Conv. (m3/s)		13192,7	
Length Wtd. (m)	10,00	Wetted Per. (m)		74,51	
Min Ch El (m)	164,08	Shear (N/m2)		270,16	
Alpha	1,00	Stream Power (N/m s)		1363,43	
Frctn Loss (m)	0,08	Cum Volume (1000 m3)		58,00	
C & E Loss (m)	0,02	Cum SA (1000 m2)		14,19	

Plan: Plan 03 RP_1 Alignment - (1) RS: 210 Profile: Tr=100 yr

E.G. Elev (m)	169,73	Element	Left OB	Channel	Right OB
Vel Head (m)	1,37	Wt. n-Val.		0,040	
W.S. Elev (m)	168,36	Reach Len. (m)	10,00	10,00	10,00
Crit W.S. (m)	168,05	Flow Area (m2)		260,50	
E.G. Slope (m/m)	0,008230	Area (m2)		260,50	
Q Total (m3/s)	1350,45	Flow (m3/s)		1350,45	
Top Width (m)	73,33	Top Width (m)		73,33	
Vel Total (m/s)	5,18	Avg. Vel. (m/s)		5,18	
Max Chl Dpth (m)	4,28	Hydr. Depth (m)		3,55	
Conv. Total (m3/s)	14885,9	Conv. (m3/s)		14885,9	
Length Wtd. (m)	10,00	Wetted Per. (m)		75,38	
Min Ch El (m)	164,08	Shear (N/m2)		278,91	
Alpha	1,00	Stream Power (N/m s)		1445,88	
Frctn Loss (m)	0,08	Cum Volume (1000 m3)		63,31	
C & E Loss (m)	0,03	Cum SA (1000 m2)		14,45	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 200 Profile: Tr=50 yr

E.G. Elev (m)	169.29	Element	Left OB	Channel	Right OB
Vel Head (m)	1.22	Wt. n-Val.		0.040	
W.S. Elev (m)	168.07	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		249.09	
E.G. Slope (m/m)	0.007684	Area (m2)		249.09	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	73.06	Top Width (m)		73.06	
Vel Total (m/s)	4.89	Avg. Vel. (m/s)		4.89	
Max Chl Dpth (m)	4.12	Hydr. Depth (m)		3.41	
Conv. Total (m3/s)	13885.3	Conv. (m3/s)		13885.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.81	
Min Ch El (m)	163.96	Shear (N/m2)		250.88	
Alpha	1.00	Stream Power (N/m s)		1225.86	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		55.55	
C & E Loss (m)	0.02	Cum SA (1000 m2)		13.46	

Plan: Plan 03 RP_1 Alignment - (1) RS: 200 Profile: Tr=100 yr

E.G. Elev (m)	169.63	Element	Left OB	Channel	Right OB
Vel Head (m)	1.29	Wt. n-Val.		0.040	
W.S. Elev (m)	168.34	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		268.86	
E.G. Slope (m/m)	0.007451	Area (m2)		268.86	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	73.78	Top Width (m)		73.78	
Vel Total (m/s)	5.02	Avg. Vel. (m/s)		5.02	
Max Chl Dpth (m)	4.39	Hydr. Depth (m)		3.64	
Conv. Total (m3/s)	15644.5	Conv. (m3/s)		15644.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		75.71	
Min Ch El (m)	163.96	Shear (N/m2)		259.47	
Alpha	1.00	Stream Power (N/m s)		1303.32	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		60.66	
C & E Loss (m)	0.02	Cum SA (1000 m2)		13.72	

Plan: Plan 03 RP_1 Alignment - (1) RS: 190 Profile: Tr=50 yr

E.G. Elev (m)	169.20	Element	Left OB	Channel	Right OB
Vel Head (m)	1.16	Wt. n-Val.		0.040	
W.S. Elev (m)	168.04	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		255.27	
E.G. Slope (m/m)	0.007062	Area (m2)		255.27	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.92	Top Width (m)		72.92	
Vel Total (m/s)	4.77	Avg. Vel. (m/s)		4.77	
Max Chl Dpth (m)	4.35	Hydr. Depth (m)		3.50	
Conv. Total (m3/s)	14483.4	Conv. (m3/s)		14483.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.67	
Min Ch El (m)	163.69	Shear (N/m2)		236.78	
Alpha	1.00	Stream Power (N/m s)		1128.96	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		53.03	
C & E Loss (m)	0.03	Cum SA (1000 m2)		12.73	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 190 Profile: Tr=100 yr

E.G. Elev (m)	169.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.23	Wt. n-Val.		0.040	
W.S. Elev (m)	168.31	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		275.35	
E.G. Slope (m/m)	0.006871	Area (m2)		275.35	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	73.71	Top Width (m)		73.71	
Vel Total (m/s)	4.90	Avg. Vel. (m/s)		4.90	
Max Chl Dpth (m)	4.62	Hydr. Depth (m)		3.74	
Conv. Total (m3/s)	16292.2	Conv. (m3/s)		16292.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		75.62	
Min Ch El (m)	163.69	Shear (N/m2)		245.33	
Alpha	1.00	Stream Power (N/m s)		1203.20	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		57.94	
C & E Loss (m)	0.02	Cum SA (1000 m2)		12.98	

Plan: Plan 03 RP_1 Alignment - (1) RS: 180 Profile: Tr=50 yr

E.G. Elev (m)	169.09	Element	Left OB	Channel	Right OB
Vel Head (m)	1.42	Wt. n-Val.		0.040	
W.S. Elev (m)	167.67	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	167.53	Flow Area (m2)		230.78	
E.G. Slope (m/m)	0.009606	Area (m2)		230.78	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	71.56	Top Width (m)		71.56	
Vel Total (m/s)	5.27	Avg. Vel. (m/s)		5.27	
Max Chl Dpth (m)	4.06	Hydr. Depth (m)		3.22	
Conv. Total (m3/s)	12418.4	Conv. (m3/s)		12418.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		73.08	
Min Ch El (m)	163.62	Shear (N/m2)		297.47	
Alpha	1.00	Stream Power (N/m s)		1568.84	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		50.60	
C & E Loss (m)	0.04	Cum SA (1000 m2)		12.01	

Plan: Plan 03 RP_1 Alignment - (1) RS: 180 Profile: Tr=100 yr

E.G. Elev (m)	169.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.39	Wt. n-Val.		0.040	
W.S. Elev (m)	168.06	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	167.75	Flow Area (m2)		258.36	
E.G. Slope (m/m)	0.008336	Area (m2)		258.36	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	72.81	Top Width (m)		72.81	
Vel Total (m/s)	5.23	Avg. Vel. (m/s)		5.23	
Max Chl Dpth (m)	4.44	Hydr. Depth (m)		3.55	
Conv. Total (m3/s)	14791.5	Conv. (m3/s)		14791.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.55	
Min Ch El (m)	163.62	Shear (N/m2)		283.29	
Alpha	1.00	Stream Power (N/m s)		1480.75	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		55.27	
C & E Loss (m)	0.04	Cum SA (1000 m2)		12.25	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 170 Profile: Tr=50 yr

E.G. Elev (m)	168.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.28	Wt. n-Val.		0.040	
W.S. Elev (m)	167.68	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	167.36	Flow Area (m2)		242.80	
E.G. Slope (m/m)	0.008318	Area (m2)		242.80	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.79	Top Width (m)		72.79	
Vel Total (m/s)	5.01	Avg. Vel. (m/s)		5.01	
Max Chl Dpth (m)	4.18	Hydr. Depth (m)		3.34	
Conv. Total (m3/s)	13345.3	Conv. (m3/s)		13345.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.48	
Min Ch El (m)	163.50	Shear (N/m2)		265.91	
Alpha	1.00	Stream Power (N/m s)		1333.00	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		48.23	
C & E Loss (m)	0.04	Cum SA (1000 m2)		11.29	

Plan: Plan 03 RP_1 Alignment - (1) RS: 170 Profile: Tr=100 yr

E.G. Elev (m)	169.33	Element	Left OB	Channel	Right OB
Vel Head (m)	1.26	Wt. n-Val.		0.040	
W.S. Elev (m)	168.07	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		271.83	
E.G. Slope (m/m)	0.007388	Area (m2)		271.83	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	75.50	Top Width (m)		75.50	
Vel Total (m/s)	4.97	Avg. Vel. (m/s)		4.97	
Max Chl Dpth (m)	4.57	Hydr. Depth (m)		3.60	
Conv. Total (m3/s)	15711.8	Conv. (m3/s)		15711.8	
Length Wtd. (m)	10.00	Wetted Per. (m)		77.32	
Min Ch El (m)	163.50	Shear (N/m2)		254.69	
Alpha	1.00	Stream Power (N/m s)		1265.28	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		52.62	
C & E Loss (m)	0.04	Cum SA (1000 m2)		11.51	

Plan: Plan 03 RP_1 Alignment - (1) RS: 160 Profile: Tr=50 yr

E.G. Elev (m)	168.84	Element	Left OB	Channel	Right OB
Vel Head (m)	1.14	Wt. n-Val.		0.040	
W.S. Elev (m)	167.71	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		257.94	
E.G. Slope (m/m)	0.007194	Area (m2)		257.94	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	75.90	Top Width (m)		75.90	
Vel Total (m/s)	4.72	Avg. Vel. (m/s)		4.72	
Max Chl Dpth (m)	4.37	Hydr. Depth (m)		3.40	
Conv. Total (m3/s)	14350.3	Conv. (m3/s)		14350.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		77.70	
Min Ch El (m)	163.33	Shear (N/m2)		234.19	
Alpha	1.00	Stream Power (N/m s)		1105.06	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		45.73	
C & E Loss (m)	0.02	Cum SA (1000 m2)		10.54	

Plan: Plan 03 RP_1 Alignment - (1) RS: 160 Profile: Tr=100 yr

E.G. Elev (m)	169.22	Element	Left OB	Channel	Right OB
Vel Head (m)	1.12	Wt. n-Val.		0.040	
W.S. Elev (m)	168.10	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		288.08	
E.G. Slope (m/m)	0.006367	Area (m2)		288.08	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	77.94	Top Width (m)		77.94	
Vel Total (m/s)	4.69	Avg. Vel. (m/s)		4.69	
Max Chi Dpth (m)	4.77	Hydr. Depth (m)		3.70	
Conv. Total (m3/s)	16924.5	Conv. (m3/s)		16924.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		79.97	
Min Ch El (m)	163.33	Shear (N/m2)		224.92	
Alpha	1.00	Stream Power (N/m s)		1054.39	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		49.82	
C & E Loss (m)	0.02	Cum SA (1000 m2)		10.74	

Plan: Plan 03 RP_1 Alignment - (1) RS: 150 Profile: Tr=50 yr

E.G. Elev (m)	168.75	Element	Left OB	Channel	Right OB
Vel Head (m)	1.06	Wt. n-Val.		0.040	
W.S. Elev (m)	167.69	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		266.48	
E.G. Slope (m/m)	0.006269	Area (m2)		266.48	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	73.85	Top Width (m)		73.85	
Vel Total (m/s)	4.57	Avg. Vel. (m/s)		4.57	
Max Chi Dpth (m)	4.54	Hydr. Depth (m)		3.61	
Conv. Total (m3/s)	15372.6	Conv. (m3/s)		15372.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		76.02	
Min Ch El (m)	163.15	Shear (N/m2)		215.49	
Alpha	1.00	Stream Power (N/m s)		984.24	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		43.11	
C & E Loss (m)	0.01	Cum SA (1000 m2)		9.80	

Plan: Plan 03 RP_1 Alignment - (1) RS: 150 Profile: Tr=100 yr

E.G. Elev (m)	169.14	Element	Left OB	Channel	Right OB
Vel Head (m)	1.07	Wt. n-Val.		0.040	
W.S. Elev (m)	168.08	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		295.41	
E.G. Slope (m/m)	0.005612	Area (m2)		295.41	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	75.06	Top Width (m)		75.06	
Vel Total (m/s)	4.57	Avg. Vel. (m/s)		4.57	
Max Chi Dpth (m)	4.92	Hydr. Depth (m)		3.94	
Conv. Total (m3/s)	18027.4	Conv. (m3/s)		18027.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		77.46	
Min Ch El (m)	163.15	Shear (N/m2)		209.87	
Alpha	1.00	Stream Power (N/m s)		959.41	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		46.90	
C & E Loss (m)	0.01	Cum SA (1000 m2)		9.97	

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Plan: Plan 03 RP_1 Alignment - (1) RS: 140 Profile: Tr=50 yr

E.G. Elev (m)	168.68	Element	Left OB	Channel	Right OB
Vel Head (m)	1.02	Wt. n-Val.		0.040	
W.S. Elev (m)	167.66	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)		Flow Area (m2)		272.36	
E.G. Slope (m/m)	0.005712	Area (m2)		272.36	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.47	Top Width (m)		72.47	
Vel Total (m/s)	4.47	Avg. Vel. (m/s)		4.47	
Max Chl Dpth (m)	4.65	Hydr. Depth (m)		3.76	
Conv. Total (m3/s)	16105.2	Conv. (m3/s)		16105.2	
Length Wld. (m)	10.00	Wetted Per. (m)		74.87	
Min Ch El (m)	163.01	Shear (N/m2)		203.75	
Alpha	1.00	Stream Power (N/m s)		910.52	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		40.41	
C & E Loss (m)	0.03	Cum SA (1000 m2)		9.06	

Plan: Plan 03 RP_1 Alignment - (1) RS: 140 Profile: Tr=100 yr

E.G. Elev (m)	169.08	Element	Left OB	Channel	Right OB
Vel Head (m)	1.03	Wt. n-Val.		0.040	
W.S. Elev (m)	168.05	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)		Flow Area (m2)		300.80	
E.G. Slope (m/m)	0.005182	Area (m2)		300.80	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	73.72	Top Width (m)		73.72	
Vel Total (m/s)	4.49	Avg. Vel. (m/s)		4.49	
Max Chl Dpth (m)	5.04	Hydr. Depth (m)		4.08	
Conv. Total (m3/s)	18759.9	Conv. (m3/s)		18759.9	
Length Wld. (m)	10.00	Wetted Per. (m)		76.34	
Min Ch El (m)	163.01	Shear (N/m2)		200.23	
Alpha	1.00	Stream Power (N/m s)		898.90	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		43.92	
C & E Loss (m)	0.03	Cum SA (1000 m2)		9.23	

Plan: Plan 03 RP_1 Alignment - (1) RS: 130 Profile: Tr=50 yr

E.G. Elev (m)	168.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.040	
W.S. Elev (m)	167.68	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)		Flow Area (m2)		286.15	
E.G. Slope (m/m)	0.004837	Area (m2)		286.15	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.45	Top Width (m)		72.45	
Vel Total (m/s)	4.25	Avg. Vel. (m/s)		4.25	
Max Chl Dpth (m)	4.72	Hydr. Depth (m)		3.95	
Conv. Total (m3/s)	17500.2	Conv. (m3/s)		17500.2	
Length Wld. (m)	10.00	Wetted Per. (m)		74.79	
Min Ch El (m)	162.95	Shear (N/m2)		181.50	
Alpha	1.00	Stream Power (N/m s)		771.99	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		37.62	
C & E Loss (m)	0.02	Cum SA (1000 m2)		8.34	



Plan: Plan 03 RP_1 Alignment - (1) RS: 130 Profile: Tr=100 yr

E.G. Elev (m)	169.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.		0.040	
W.S. Elev (m)	168.06	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		314.45	
E.G. Slope (m/m)	0.004455	Area (m2)		314.45	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	73.57	Top Width (m)		73.57	
Vel Total (m/s)	4.29	Avg. Vel. (m/s)		4.29	
Max Chl Dpth (m)	5.11	Hydr. Depth (m)		4.27	
Conv. Total (m3/s)	20233.1	Conv. (m3/s)		20233.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		76.16	
Min Ch El (m)	162.95	Shear (N/m2)		180.38	
Alpha	1.00	Stream Power (N/m s)		774.67	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		40.85	
C & E Loss (m)	0.02	Cum SA (1000 m2)		8.49	

Plan: Plan 03 RP_1 Alignment - (1) RS: 120 Profile: Tr=50 yr

E.G. Elev (m)	168.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.86	Wt. n-Val.		0.040	
W.S. Elev (m)	167.67	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		296.01	
E.G. Slope (m/m)	0.004316	Area (m2)		296.01	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	72.47	Top Width (m)		72.47	
Vel Total (m/s)	4.11	Avg. Vel. (m/s)		4.11	
Max Chl Dpth (m)	4.77	Hydr. Depth (m)		4.08	
Conv. Total (m3/s)	18527.7	Conv. (m3/s)		18527.7	
Length Wtd. (m)	10.00	Wetted Per. (m)		74.72	
Min Ch El (m)	162.90	Shear (N/m2)		167.66	
Alpha	1.00	Stream Power (N/m s)		689.37	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		34.71	
C & E Loss (m)	0.01	Cum SA (1000 m2)		7.61	

Plan: Plan 03 RP_1 Alignment - (1) RS: 120 Profile: Tr=100 yr

E.G. Elev (m)	168.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.040	
W.S. Elev (m)	168.06	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		324.38	
E.G. Slope (m/m)	0.004010	Area (m2)		324.38	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	73.56	Top Width (m)		73.56	
Vel Total (m/s)	4.16	Avg. Vel. (m/s)		4.16	
Max Chl Dpth (m)	5.16	Hydr. Depth (m)		4.41	
Conv. Total (m3/s)	21326.3	Conv. (m3/s)		21326.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		76.06	
Min Ch El (m)	162.90	Shear (N/m2)		167.70	
Alpha	1.00	Stream Power (N/m s)		698.15	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		37.65	
C & E Loss (m)	0.01	Cum SA (1000 m2)		7.76	

