DATA BOOK B

Cross Section Survey Data

THE STUDY ON THE NATIONWIDE FLOOD RISK ASSESSMENT AND THE FLOOD MITIGATION PLAN FOR THE SELECTED AREAS IN THE REPUBLIC OF THE PHILIPPINES

FINAL REPORT
VOLUME IV

DATA BOOK B
CROSS SECTION SURVEY DATA

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B.1

Ilog-Hilabangan River

1. CONTROL POINT SURVEY

1.1 Existing Control Point

A. Description

BM SP 23A is in the province of Negros Occidental, town of Kabankalan, barrio Talubanggi, along the National Highway, at the west approach of the Talubanggi steel bridge, 2.75 m. NW of the centerline of the bridge, on top center of the west R. C. endpost of the bridge railing (the endpost is 0.53 m. x 0.31 m. on top), 3.80 m. NE of the west end of the railing. Mark is a top remaining portion of the old brass rod formerly designated SP-23 and is about 50 mm. below the surface of the endpost. Putty around has been chiseled.

ELEVATION = 10.373 m.

B. Photographs

BM SP 23A

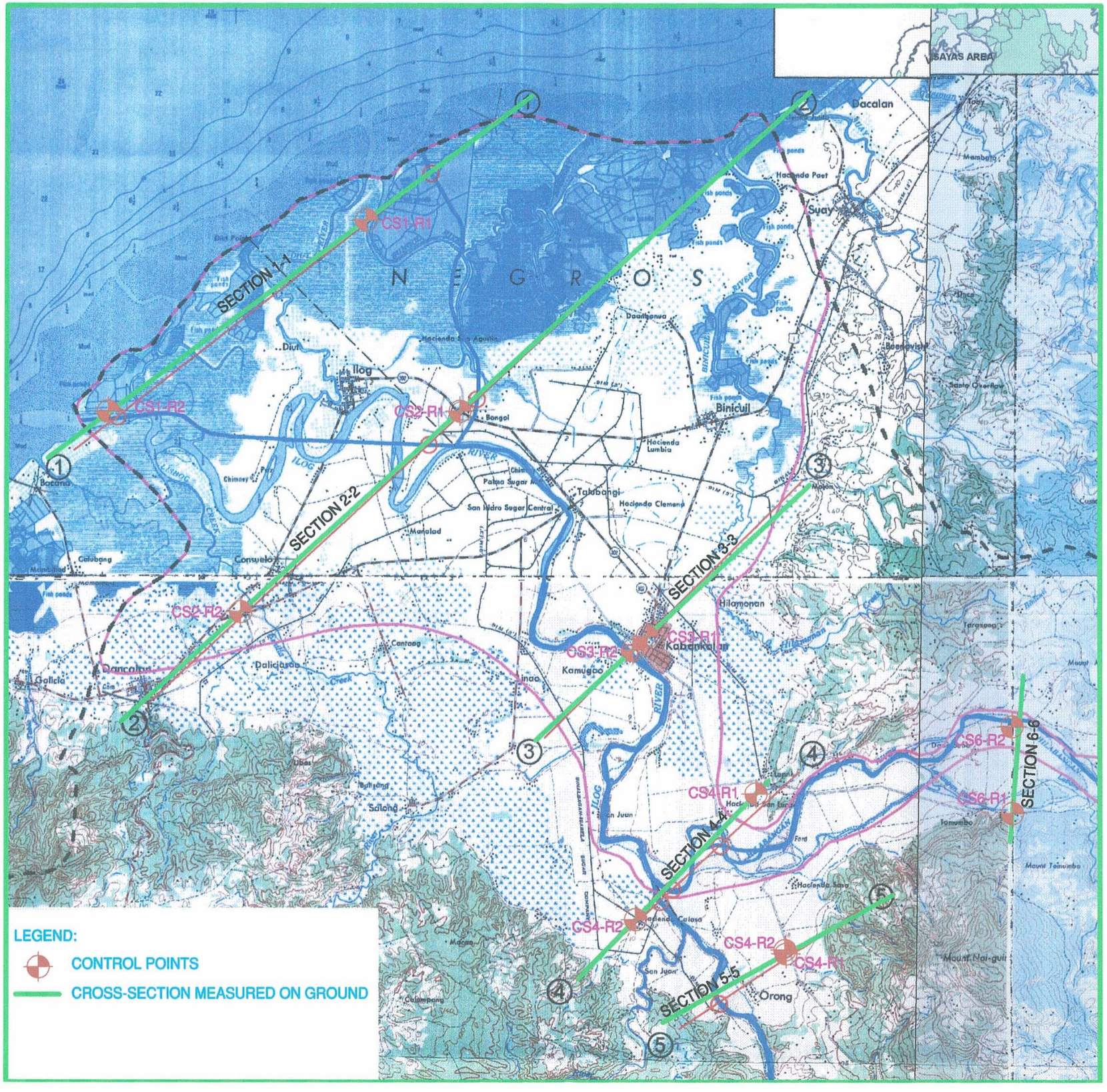
1.2 Established Control Points

A. TABULATION OF CONTROL POINTS
(ILOG-HILABANGAN RIVER)

CONTROL POINTS	GEO. COORDINATES (PRS 92)	ELEVATION (m.)	DESCRIPTION
CS1-R1	10-03-09.419	1.826	Hub with concrete nail embed on edge of dirt road.
	122-46-11.495		
CS1-R2	10-01-27.944	0.732	Hub with concrete nail embed on top of embankment of fishpond
	122-43-54.246		approximately 20m. From river bank.
CS2-R1	10-01-27.668	6.277	Concrete nail embeded of edge of road.
	122-47-02.456		
CS2-R2	9-59-40.804	2.259	Hub with concrete nail embed on top of embankment .
	122-45-04.181		
CS3-R1	9-59-27.800	9.845	Located along National Road, intersection of Cordova st. and Guanzon st.
	122-48-43.700		infront of emergency rescue unit. Concrete nail with paint-mark CS3-R1
CS3-R2	9-59-20.776	8.797	Located at Dike of Ilog River, rightside facing down stream.
	122-48-36.075		Concrete nail with paint-mark CS3-R2
CS4-R1	9-58-04.152	16.788	Concrete nail embeded of edge of road.
	122-49-42.611		
CS4-R2	9-56-57.131	12.147	Concrete nail embeded of edge of road.
	122-48-37.544		
CS5-R1	9-56-38.767	14.263	Concrete nail with white paint marked with cirlce
	122-49-58.791		embeded of edge of road.
CS5-R2	9-56-40.764	13.743	Concrete nail with white paint marked with cirlce
	122-49-58.269		embeded of edge of road.
CS6-R1	9-57-53.889	29.257	Hub with concrete nail embed on edge of river.
	122-52-01.125		
CS6-R2	9-58-39.986	26.146	Hub with concrete nail embed on top of embankment .
	122-52-00.860		

2 Survey Result

2.1 Location Plan of Cross Sections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NEGROS
SECTION 1-1
SECTION 2-2
SECTION 3-3
SECTION 4-4
SECTION 5-5
SECTION 6-6
CS1-R1
CS1-R2
CS2-R1
CS2-R2
CS3-R1
CS3-R2
CS4-R1
CS4-R2
CS6-R1
CS6-R2
Dacalan
Suay
Hacienda Paet
Binicuil
Ilog
Bacana
Bongel
Hacienda Lumbia
Takbangi
Hacienda Clemena
San Isidro Sugar Central
Marcelad
Consuelo
Calubang
Dancalan
Galicia
Dalicisan
Inao
Kamugao
Hilamonan
Kabankalan
Salong
Orong
Tomumbo
Mount Tomumbo
Mount Nai-gui
Hacienda Celaya
Hacienda Sara
Daantonwa
Buenavista
Mansilingan
Molon
LEGEND:
CONTROL POINTS
CROSS-SECTION MEASURED ON GROUND

2.2 Cross Section Plans

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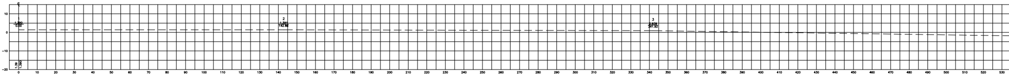
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100
110
120
130
140
150
160
170
180
190
200
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220
230
240
250
260
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280
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300
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320
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340
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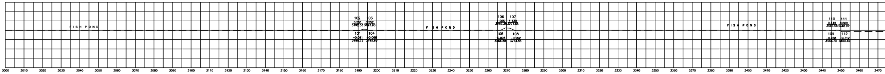
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3050
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3070
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3090
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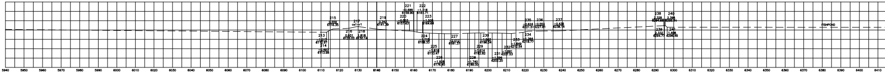
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226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
FISHPOND
5940
5950
5960
5970
5980
5990
6000
6010
6020
6030
6040
6050
6060
6070
6080
6090
6100
6110
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6130
6140
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6400
6410

SURVEYED BY:

DMI CONSULTANTS
#1 WINDSOR COR. WINSTON STREETS, EAST FAIRVIEW
QUEZON CITY
TELEFAX NO.: 430–32–04

DIONISIO M. INES
GEODETIC ENGINEER
PTR NO: A–8494397 DATE : 01–10–07
LIC. NO: 3270 DATE : 07–17–79

DATE SURVEYED : AUG 2007	
CADD BY: RCS	DATE :
DATA PREPARED BY: RC	DATE :
CHECKED BY: EM	DATE :

SUBMITTED TO :

CTI ENGINEERING INTERNATIONAL CO., LTD.

PROJECT TITLE :

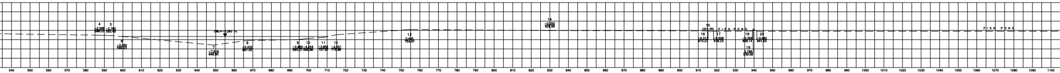
THE RIVER CROSS-SECTIONAL SURVEY
FOR THE STUDY ON
THE NATIONWIDE FLOOD RISK ASSESSMENT AND
THE FLOOD MITIGATION PLAN FOR THE SELECTED AREAS IN
THE REPUBLIC OF THE PHILIPPINES

CONTENTS :

CROSS-SECTION PLAN
HILABANGAN RIVER

LOCATION : NEGROS OCCIDENTAL

SCALE: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707.91
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13
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14
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15
CS1−R2
FISH POND
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918.23
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939.14
19
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939.58
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941.54
FISH POND
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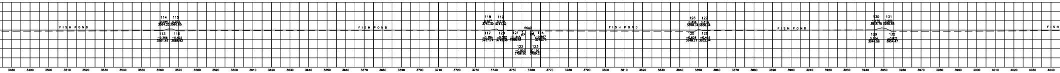
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FISH POND
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3740.42
119
0.019
3741.32
117
−0.154
3737.74
120
−0.322
3742.38
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ROAD
ER
ER
124
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FISH POND
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3848.21
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FISH POND
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3948.78
131
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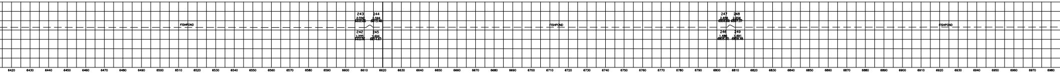
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2.656
6806.86
248
2.856
6807.37
246
1.489
6805.40
249
1.491
6809.46
FISHPOND
6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980

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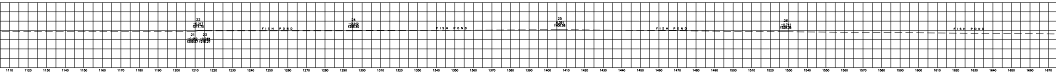
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25
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1406.56
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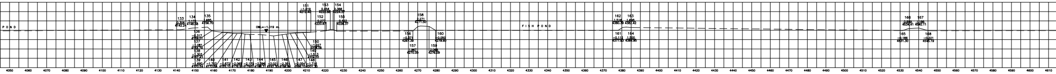
1528.38
FISH POND
1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670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4175.10
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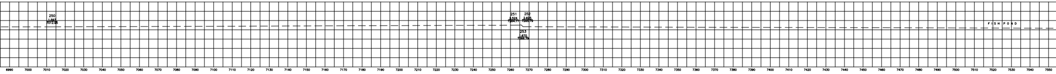
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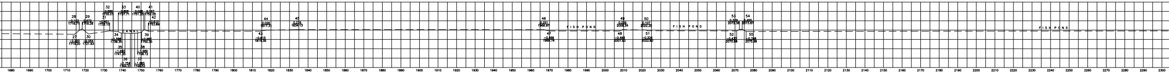
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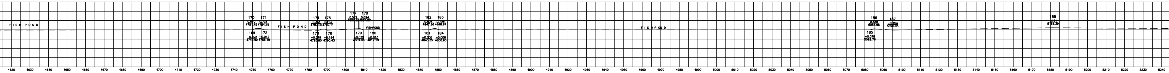
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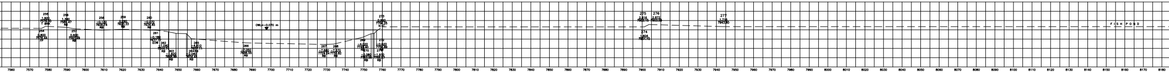
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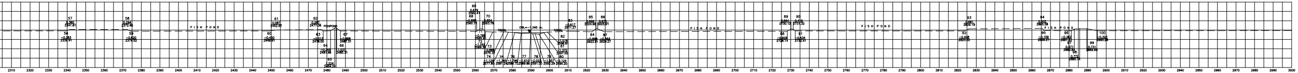
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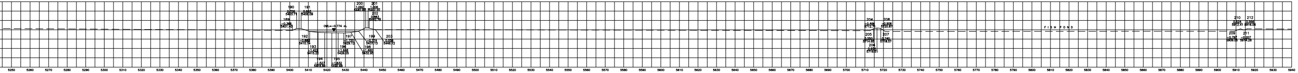
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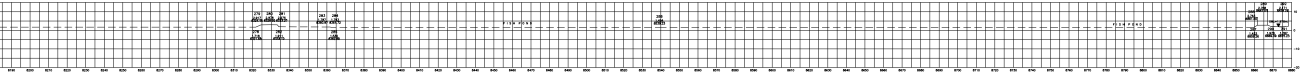
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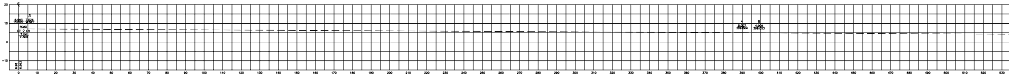
SECTION 2–2



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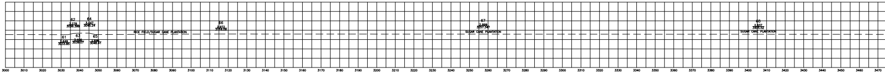

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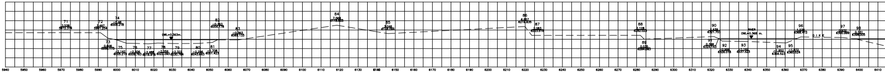

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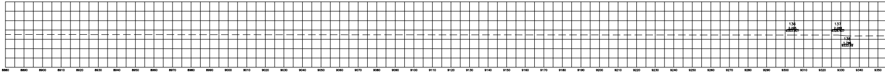

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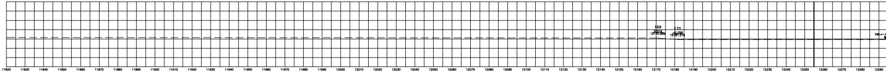

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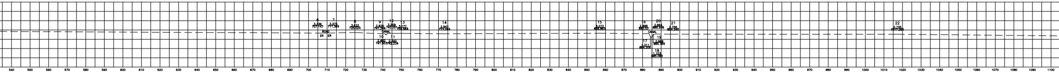
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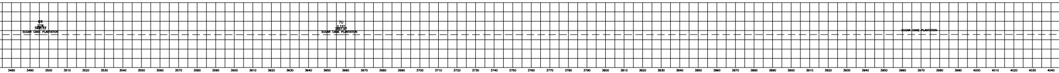
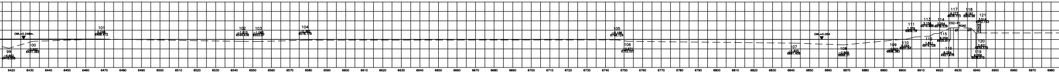
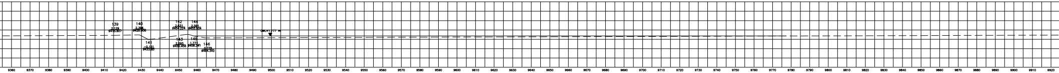
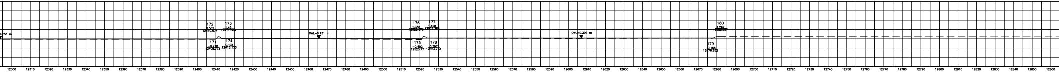
1100


SUGAR CANE PLANTATION
3480
4040


OWL=0.246m.
OWL=0.054
CS2-R1
ROAD
ER
FENCE
6420
6980

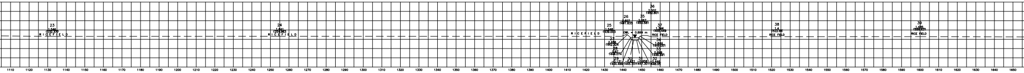



OWL=0.131 m
OWL=0.397 m
12300
12860

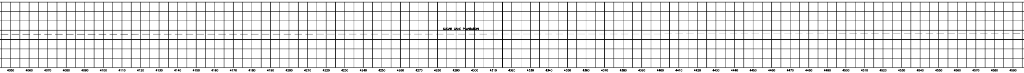
SHEET NO.

2

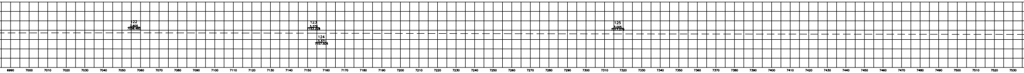
5



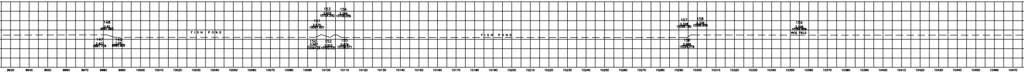
23
1.546
1137.377
RICEFIELD
24
1.541
1254.963
RICEFIELD
RICEFIELD
25
1.548
1439.003
26
1.697
1441.633
27
2.456
1442.324
28
0.87
1444.074
29
-0.131
1444.499
30
-0.421
1445.201
31
-0.656
1447.301
32
-0.446
1448.05
33
0.899
1448.491
34
1.644
1449.051
35
2.057
1450.581
36
2.002
1452.801
37
1.344
1455.449
OWL = 0.899 m
RICE FIELD
38
1.4
1522.86
RICE FIELD
39
1.456
1599.651
RICE FIELD
1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650



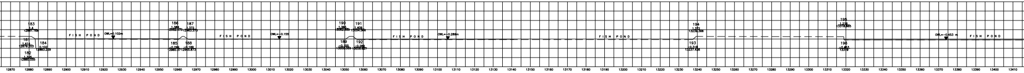
SUGAR CANE PLANTATION
4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420 4430 4440 4450 4460 4470 4480 4490 4500 4510 4520 4530 4540 4550 4560 4570 4580 4590



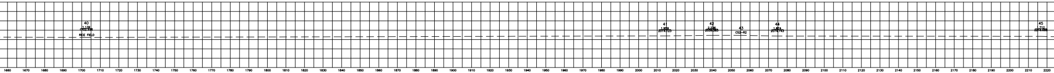
122
1.605
7056.480
123
3.172
7153.939
124
3.311
7157.504
125
1.005
7317.079
6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530

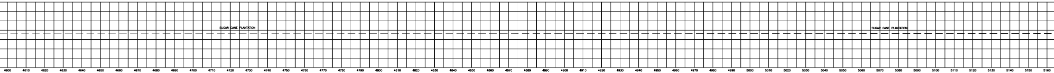


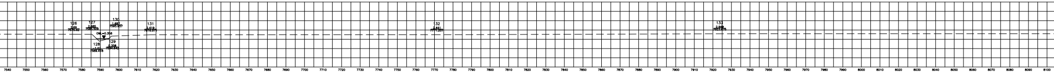
148
2.42
9981.985
147
2.422
9981.124
149
1.04
9985.939
FISH POND
153
2.676
10104.542
154
2.344
10108.058
151
2.675
10097.407
150
0.987
10094.56
152
1.003
10102.033
155
0.979
10108.071
FISH POND
157
2.326
10296.192
158
1.339
10296.859
156
0.988
10294.518
159
1.256
10352.858
RICE FIELD
9930 9940 9950 9960 9970 9980 9990 10000 10010 10020 10030 10040 10050 10060 10070 10080 10090 10100 10110 10120 10130 10140 10150 10160 10170 10180 10190 10200 10210 10220 10230 10240 10250 10260 10270 10280 10290 10300 10310 10320 10330 10340 10350 10360 10370 10380 10390 10400 10410 10420 10430 10440 10450 10460 10470

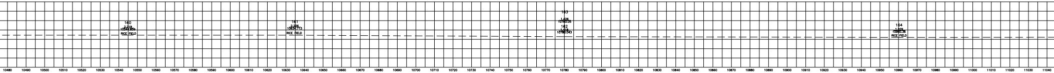


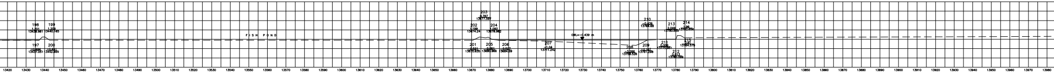
183
1.4
12881.166
181
1.414
12879.203
182
1.346
12880.055
184
0.102
12883.229
FISH POND
OWL=0.102m
186
1.389
12962.773
187
1.372
12963.373
185
-0.299
12960.37
188
-0.199
12965.873
FISH POND
OWL=-0.155
190
1.360
13052.489
191
1.409
13054.366
189
-0.155
13050.369
192
-0.289
13056.927
FISH POND
OWL=-0.289m
FISH POND
194
1.372
13238.366
193
-0.318
13237.436
195
1.278
13318.865
196
-0.453
13319
OWL=-0.453 m
FISH POND
12870 12880 12890 12900 12910 12920 12930 12940 12950 12960 12970 12980 12990 13000 13010 13020 13030 13040 13050 13060 13070 13080 13090 13100 13110 13120 13130 13140 13150 13160 13170 13180 13190 13200 13210 13220 13230 13240 13250 13260 13270 13280 13290 13300 13310 13320 13330 13340 13350 13360 13370 13380 13390 13400 13410

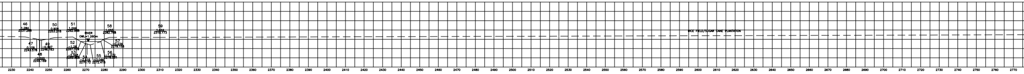

40
1.139
1702.448
RICE FIELD
41
1.959
2014.723
42
2.236
2039.263
43
CS2–R2
44
1.874
2074.743
45
1.712
2216.888
1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200 2210 2220

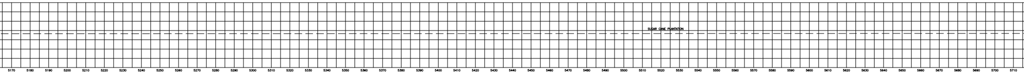

SUGAR CANE PLANTATION
SUGAR CANE PLANTATION
4600 4610 4620 4630 4640 4650 4660 4670 4680 4690 4700 4710 4720 4730 4740 4750 4760 4770 4780 4790 4800 4810 4820 4830 4840 4850 4860 4870 4880 4890 4900 4910 4920 4930 4940 4950 4960 4970 4980 4990 5000 5010 5020 5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160

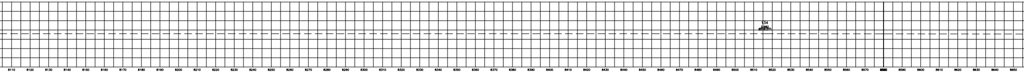

126
2.69
7575.62
127
2.685
7585.529
130
1.687
7595.857
OWL=-0.358
128
-1.03
7589.418
129
0.358
7594.642
131
2.419
7618.971
132
2.441
7771.207
133
2.949
7923.675
7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100

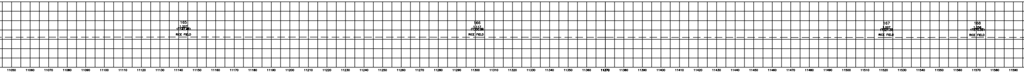

160
2.219
10542.859
RICE FIELD
161
2.226
10635.713
RICE FIELD
163
1.426
10780.05
162
1.418
10780.043
164
1.929
10960.56
RICE FIELD
10480 10490 10500 10510 10520 10530 10540 10550 10560 10570 10580 10590 10600 10610 10620 10630 10640 10650 10660 10670 10680 10690 10700 10710 10720 10730 10740 10750 10760 10770 10780 10790 10800 10810 10820 10830 10840 10850 10860 10870 10880 10890 10900 10910 10920 10930 10940 10950 10960 10970 10980 10990 11000 11010 11020 11030 11040

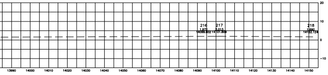

198
1.201
13438.661
199
1.209
13440.165
197
-0.494
13437.051
200
-0.491
13442.884
FISH POND
203
6.787
13677.597
202
1.199
13674.24
204
1.092
13678.982
201
-0.491
13670.835
205
0.481
13680.966
206
-0.487
13684.89
207
-1.04
13711.242
OWL=-0.439 m
210
-0.439
13764.68
208
-1.266
13758.526
209
-2.167
13761.298
213
2.049
13780.885
214
1.96
13782.656
211
0.006
13775.881
215
0.81
13784.579
212
0.013
13780.099
13420 13430 13440 13450 13460 13470 13480 13490 13500 13510 13520 13530 13540 13550 13560 13570 13580 13590 13600 13610 13620 13630 13640 13650 13660 13670 13680 13690 13700 13710 13720 13730 13740 13750 13760 13770 13780 13790 13800 13810 13820 13830 13840 13850 13860 13870 13880 13890 13900 13910 13920 13930 13940 13950 13960 13970 13980

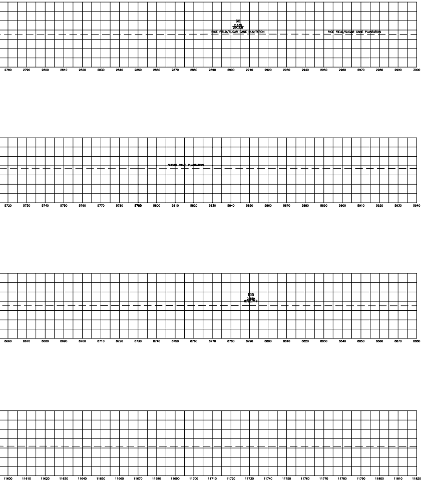

46
1.284
2237.284
47
0.109
2243.578
48
-0.206
2245.189
49
-0.497
2246.163
50
0.909
2253.218
51
1.244
2262.988
52
-1.26
2267.378
53
-2.347
2269.880
54
-2.516
2270.72
55
-3.046
2272.418
56
-1.272
2276.281
57
-0.214
2279.158
58
1.059
2282.788
59
1.034
2310.173
RIVER
OWL=+1.260m
RICE FIELD/SUGAR CANE PLANTATION
2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390 2400 2410 2420 2430 2440 2450 2460 2470 2480 2490 2500 2510 2520 2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730 2740 2750 2760 2770


SUGAR CANE PLANTATION
5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510 5520 5530 5540 5550 5560 5570 5580 5590 5600 5610 5620 5630 5640 5650 5660 5670 5680 5690 5700 5710

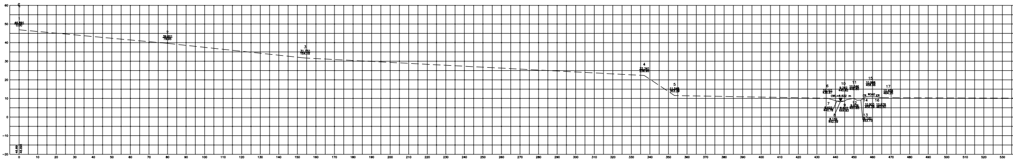

134
2.982
8516.011
8110 8120 8130 8140 8150 8160 8170 8180 8190 8200 8210 8220 8230 8240 8250 8260 8270 8280 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400 8410 8420 8430 8440 8450 8460 8470 8480 8490 8500 8510 8520 8530 8540 8550 8560 8570 8580 8590 8600 8610 8620 8630 8640 8650


165
1.207
11142.461
RICE FIELD
166
1.117
11300.86
RICE FIELD
167
1.007
11521.36
RICE FIELD
168
1.266
11570.361
RICE FIELD
11050 11060 11070 11080 11090 11100 11110 11120 11130 11140 11150 11160 11170 11180 11190 11200 11210 11220 11230 11240 11250 11260 11270 11280 11290 11300 11310 11320 11330 11340 11350 11360 11370 11380 11390 11400 11410 11420 11430 11440 11450 11460 11470 11480 11490 11500 11510 11520 11530 11540 11550 11560 11570 11580 11590


216
1.972
14089.802
217
2.013
14101.808
218
1.692
14152.124
20
10
0
-10
13990 14000 14010 14020 14030 14040 14050 14060 14070 14080 14090 14100 14110 14120 14130 14140 14150

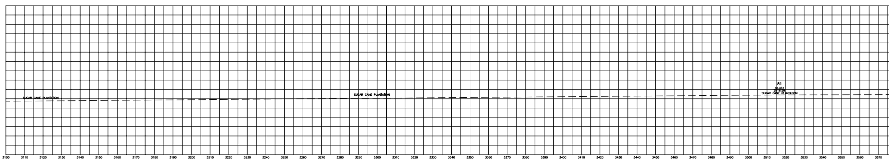

63
2.835
2903.8
RICE FIELD/SUGAR CANE PLANTATION
RICE FIELD/SUGAR CANE PLANTATION
2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000
SUGAR CANE PLANTATION
5720 5730 5740 5750 5760 5770 5780 5790 5800 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940
135
2.859
8790.717
8660 8670 8680 8690 8700 8710 8720 8730 8740 8750 8760 8770 8780 8790 8800 8810 8820 8830 8840 8850 8860 8870 8880
11600 11610 11620 11630 11640 11650 11660 11670 11680 11690 11700 11710 11720 11730 11740 11750 11760 11770 11780 11790 11800 11810 11820

SECTION 4–4



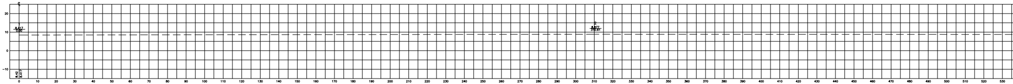
DWL=8.622 m
ROAD
ER

CONTINUATION OF SECTION 4–4

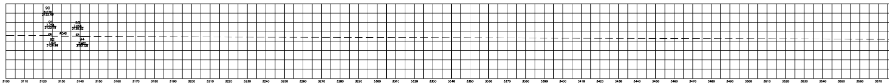


SUGAR CANE PLANTATION
SUGAR CANE PLANTATION
81
SUGAR CANE PLANTATION

SECTION 3–3



CONTINUATION OF SECTION 3–3



90
91
92
93
94
ER
ROAD
ER

SURVEYED BY:

DMI CONSULTANTS
#1 WINDSOR COR. WINSTON STREETS, EAST FAIRVIEW
QUEZON CITY
TELEFAX NO.: 430-32-04

DIONISIO M. INES
GEODETIC ENGINEER
PTR NO: A-8494397 DATE : 01-10-07
LIC. NO: 3270 DATE : 07-17-79

DATE SURVEYED : AUG 2007	
CADD BY: RCS	DATE :
DATA PREPARED BY: RC	DATE :
CHECKED BY: EM	DATE :

SUBMITTED TO :

CTI ENGINEERING INTERNATIONAL CO., LTD.

PROJECT TITLE :

THE RIVER CROSS-SECTIONAL SURVEY
FOR THE STUDY ON
THE NATIONWIDE FLOOD RISK ASSESSMENT AND
THE FLOOD MITIGATION PLAN FOR THE SELECTED AREAS IN
THE REPUBLIC OF THE PHILIPPINES

CONTENTS :

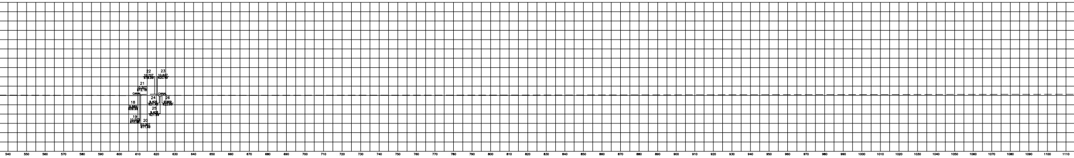
CROSS-SECTION PLAN
HILABANGAN RIVER

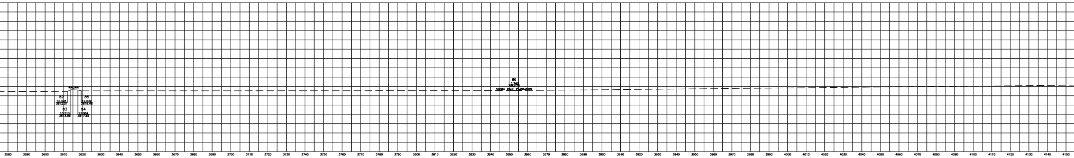
LOCATION : NEGROS OCCIDENTAL

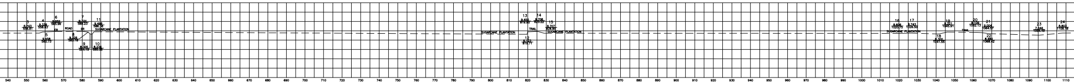
SCALE:

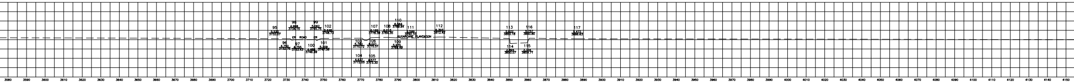
SHEET NO.

3 / 5


22
10.707
618.99
23
10.637
620.49
21
10.507
612.18
CANAL
CANAL
18
9.889
609.99
24
9.405
621.49
26
9.989
622.89
25
9.408
621.39
19
10.023
610.98
20
10.087
611.39
540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110


RAILWAY
82
12.318
3612.01
85
12.639
3619.46
83
13.213
3613.86
84
13.084
3617.66
86
12.760
SUGAR CANE PLANTATION
3580 3590 3600 3610 3620 3630 3640 3650 3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760 3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870 3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980 3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150


3
8.743
556.81
4
9.338
558.63
6
9.659
565.96
7
9.734
580.23
11
9.488
586.38
ER
ROAD
ER
SUGARCANE PLANTATION
5
8.458
560.73
8
9.128
583.16
9
8.305
584.19
10
8.216
585.86
13
9.460
819.90
14
9.706
825.22
15
8.707
828.85
TRAIL
SUGARCANE PLANTATION
SUGARCANE PLANTATION
12
8.123
819.71
16
8.606
1020.75
17
8.743
1026.50
SUGARCANE PLANTATION
19
9.321
1045.91
20
9.109
1062.13
21
9.004
1064.57
TRAIL
18
8.300
1041.55
22
8.484
1068.42
23
7.846
24
8.803
1108.18
540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110


95
5.520
3732.07
98
4.928
3734.15
99
5.062
3745.75
102
5.648
3748.73
ER
ROAD
ER
96
4.750
97
4.755
3733.43
100
3746.39
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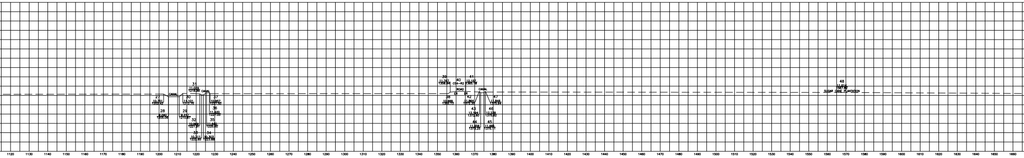
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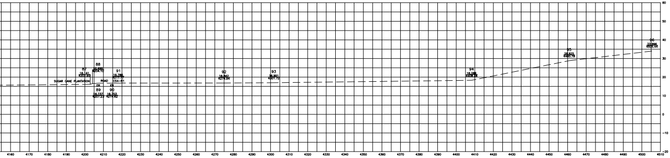
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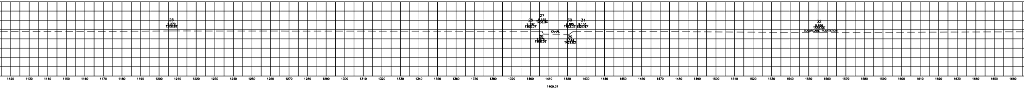
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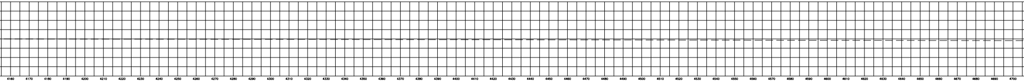
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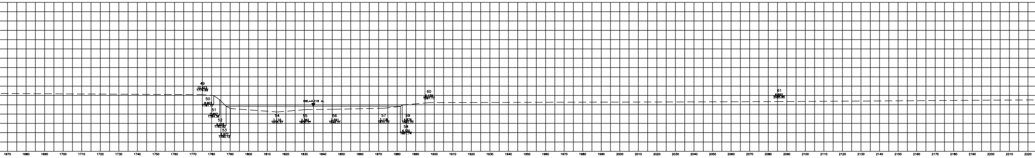
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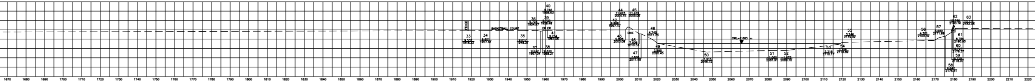
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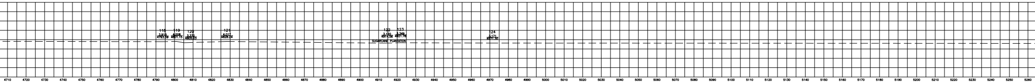
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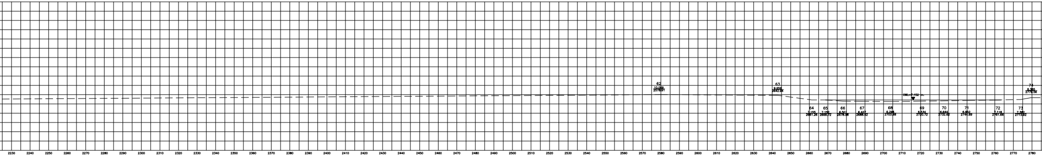
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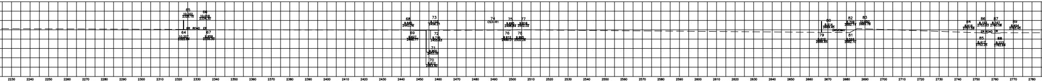
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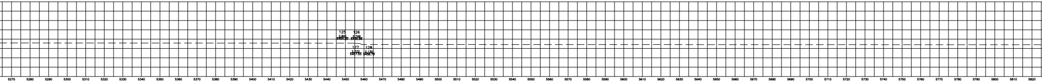
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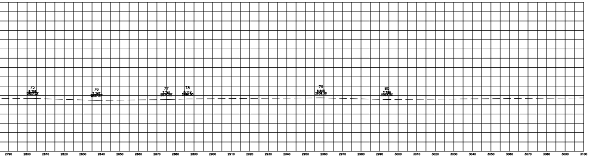
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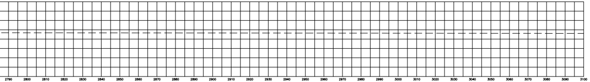
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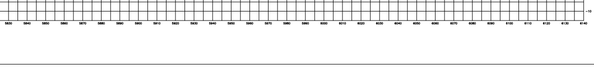
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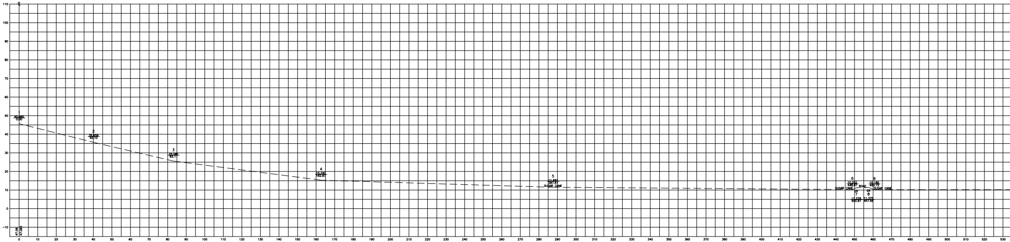
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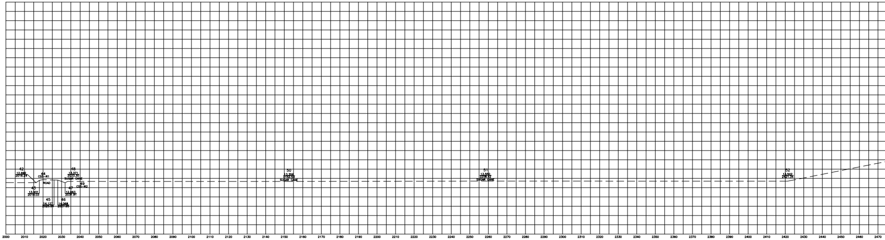
CONTINUATION OF SECTION 5–5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SURVEYED BY:

DMI CONSULTANTS
#1 WINDSOR COR. WINSTON STREETS, EAST FAIRVIEW
QUEZON CITY
TELEFAX NO.: 430–32–04

DIONISIO M. INES
GEODETIC ENGINEER
PTR NO: A–8494397 DATE : 01–10–07
LIC. NO: 3270 DATE : 07–17–79

DATE SURVEYED : AUG 2007
CADD BY: RCS DATE :
DATA PREPARED BY: RC DATE :
CHECKED BY: EM DATE :

SUBMITTED TO :

CTI ENGINEERING INTERNATIONAL CO., LTD.

PROJECT TITLE :

THE RIVER CROSS-SECTIONAL SURVEY
FOR THE STUDY ON
THE NATIONWIDE FLOOD RISK ASSESSMENT AND
THE FLOOD MITIGATION PLAN FOR THE SELECTED AREAS IN
THE REPUBLIC OF THE PHILIPPINES

CONTENTS :

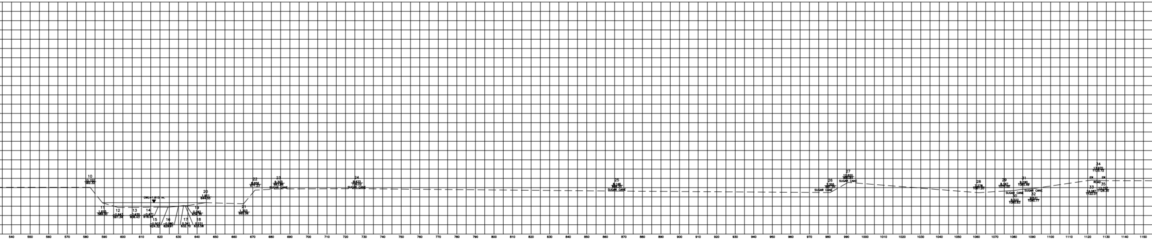
CROSS-SECTION PLAN
HILABANGAN RIVER

LOCATION : NEGROS OCCIDENTAL

SCALE:

SHEET NO.

4
5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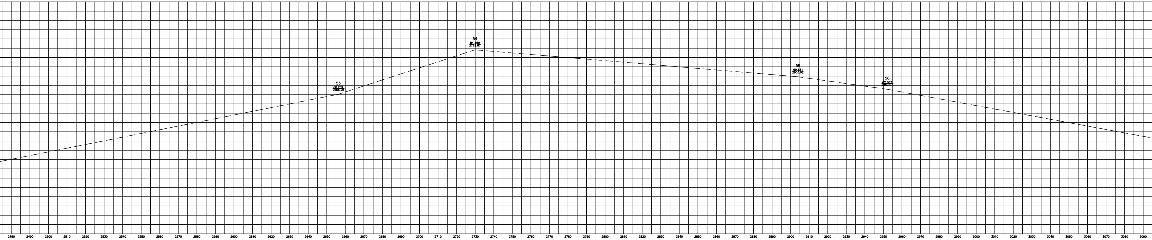
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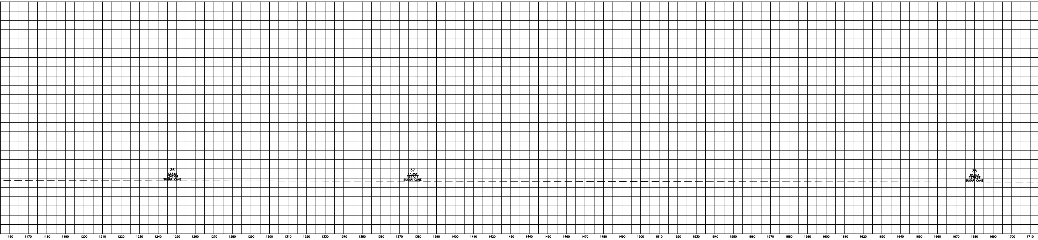
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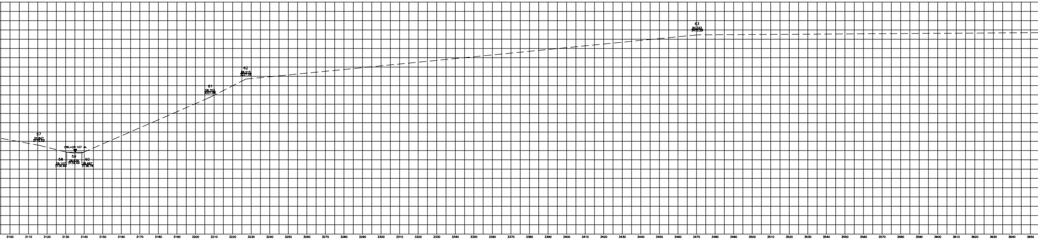
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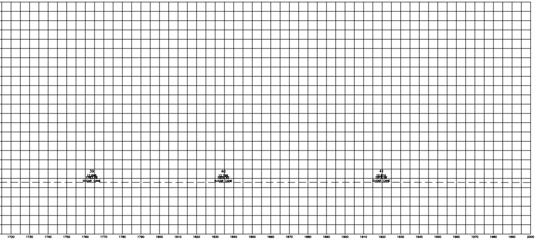
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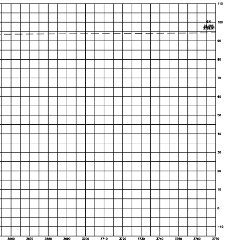
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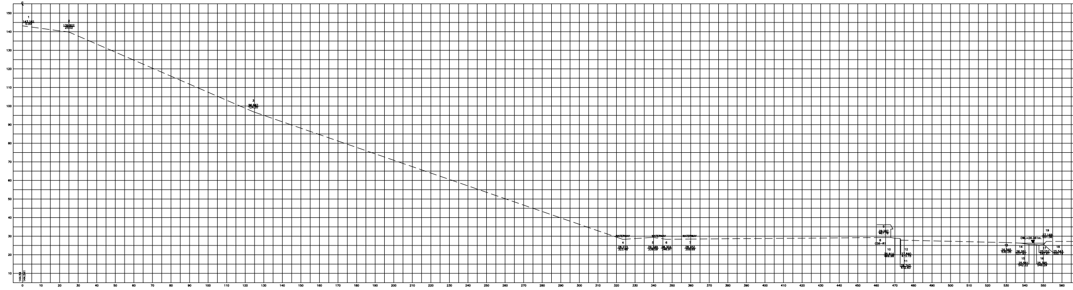
SECTION 6-6



SURVEYED BY:

DMI CONSULTANTS
#1 WINDSOR COR. WINSTON STREETS, EAST FAIRVIEW
QUEZON CITY
TELEFAX NO.: 430-32-04

DIONISIO M. INES
GEODETIC ENGINEER
PTR NO: A-8494397 DATE : 01-10-07
LIC. NO: 3270 DATE : 07-17-79

DATE SURVEYED : AUG 2007	
CADD BY: RCS	DATE :
DATA PREPARED BY: RC	DATE :
CHECKED BY: EM	DATE :

SUBMITTED TO :

CTI ENGINEERING INTERNATIONAL CO., LTD.

PROJECT TITLE :

THE RIVER CROSS-SECTIONAL SURVEY
FOR THE STUDY ON
THE NATIONWIDE FLOOD RISK ASSESSMENT AND
THE FLOOD MITIGATION PLAN FOR THE SELECTED AREAS IN
THE REPUBLIC OF THE PHILIPPINES

CONTENTS :

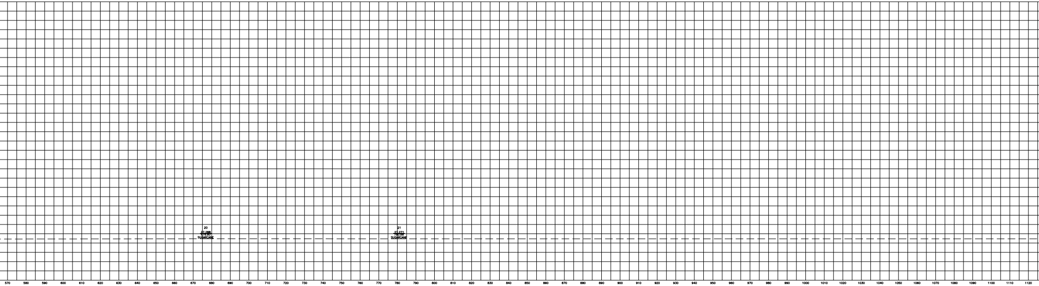
CROSS-SECTION PLAN
HILABANGAN RIVER

LOCATION : NEGROS OCCIDENTAL

SCALE:

SHEET NO.

5 / 5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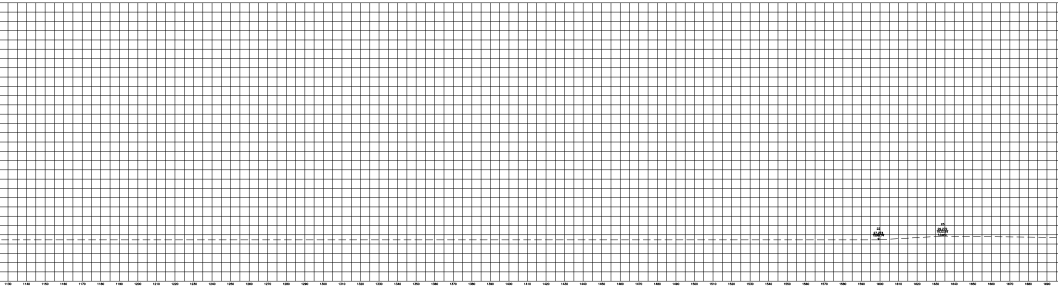
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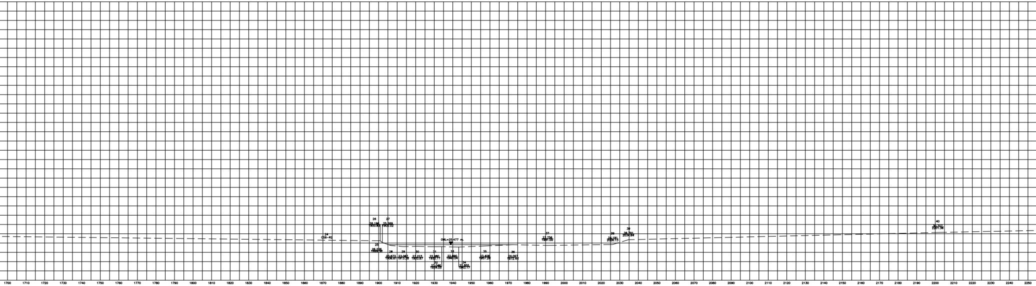
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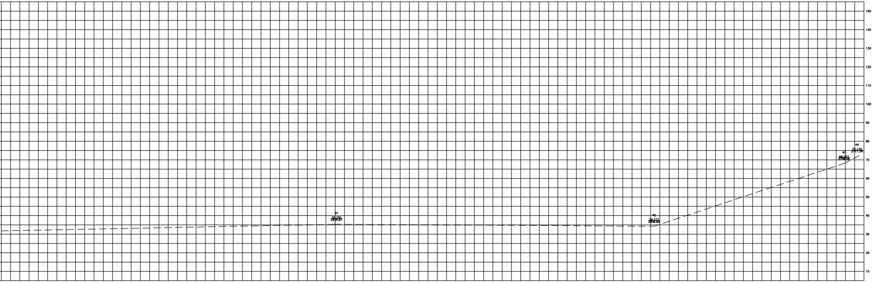

2.3 Tabulation of Coordinates of Cross Section Points

ILOG-HILABANGAN RIVER
CROSS-SECTION 1-1

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1107897.239	469856.723	1107451.289	470028.336	10-01-10.132	122-43-30.155	10-01-05.98 N	122-43-35.44 E	1.390	
2	142.86	1107982.567	469971.301	1107536.602	470142.866	10-01-12.913	122-43-33.915			1.391	
3	341.92	1108101.460	470130.949	1107655.446	470302.445	10-01-16.787	122-43-39.154			0.939	
4	588.03	1108248.410	470328.379	1107802.361	470499.793	10-01-21.576	122-43-45.633			-2.598	bank
5	593.49	1108251.671	470332.758	1107805.612	470504.179	10-01-21.682	122-43-45.777			-2.785	r.bank
6	599.43	1108255.217	470337.519	1107809.140	470508.930	10-01-21.797	122-43-45.933			-3.260	eow
7	648.90	1108284.765	470377.195	1107838.683	470548.619	10-01-22.760	122-43-47.236			-7.918	r.bed
8	667.05	1108295.605	470391.751	1107849.543	470563.148	10-01-23.114	122-43-47.713			-5.432	r.bed
9	694.37	1108311.925	470413.663	1107865.833	470585.048	10-01-23.645	122-43-48.432			-4.984	r.bed
10	699.86	1108315.203	470418.065	1107869.115	470589.465	10-01-23.752	122-43-48.577			-4.244	eow
11	707.91	1108320.014	470424.525	1107873.932	470595.922	10-01-23.909	122-43-48.789			-3.852	bank
12	714.86	1108324.167	470430.102	1107878.073	470601.496	10-01-24.044	122-43-48.972			-2.351	
13	754.41	1108347.789	470461.822	1107901.695	470633.205	10-01-24.814	122-43-50.013			0.465	
14	829.99	1108393.212	470522.231	1107947.099	470693.575	10-01-26.294	122-43-51.995			-0.050	mud/nipa
15	915.23	1108427.764	470532.985	1107981.640	470704.350	10-01-27.419	122-43-52.348			-0.313	fp/bank
16	915.23	1108443.841	470590.797	1107997.717	470762.138	10-01-27.944	122-43-54.246			0.732	**CS1-R2**
17	918.23	1108445.634	470593.205	1107999.496	470764.545	10-01-28.002	122-43-54.325			-0.506	fp/eow
18	939.14	1108458.127	470609.981	1108012.012	470781.297	10-01-28.410	122-43-54.875			-0.356	fp/eow
19	939.58	1108458.384	470610.326	1108012.258	470781.632	10-01-28.418	122-43-54.886			0.788	fp/bank
20	941.54	1108459.556	470611.900	1108013.424	470783.216	10-01-28.456	122-43-54.938			-0.462	fp/eow
21	1209.57	1108619.652	470826.870	1108173.471	470998.104	10-01-33.673	122-44-01.993			-0.452	fp/eow
22	1211.70	1108620.923	470828.577	1108174.729	470999.810	10-01-33.714	122-44-02.049			-0.217	fp/bank
23	1215.27	1108623.054	470831.437	1108176.876	471002.673	10-01-33.784	122-44-02.143			-0.249	fp/eow
24	1295.40	1108670.915	470895.705	1108224.734	471066.911	10-01-35.344	122-44-04.252			-0.242	fp/eow
25	1406.56	1108737.354	470984.823	1108291.122	471156.002	10-01-37.508	122-44-07.177			0.391	
26	1528.36	1108810.104	471082.510	1108363.861	471253.652	10-01-39.879	122-44-10.383			-0.741	
27	1714.20	1108921.103	471231.558	1108474.825	471402.655	10-01-43.496	122-44-15.275			-2.220	
28	1716.71	1108922.602	471233.573	1108476.328	471404.665	10-01-43.545	122-44-15.341			-0.143	
29	1718.28	1108923.544	471234.837	1108477.279	471405.914	10-01-43.576	122-44-15.382			0.672	
30	1721.63	1108925.545	471237.523	1108479.273	471408.594	10-01-43.641	122-44-15.470			-2.054	ec
31	1733.10	1108932.396	471246.723	1108486.115	471417.793	10-01-43.864	122-44-15.772			-0.451	
32	1735.01	1108933.532	471248.249	1108487.250	471419.316	10-01-43.901	122-44-15.822			-0.586	
33	1737.71	1108935.148	471250.418	1108488.876	471421.478	10-01-43.954	122-44-15.893			-0.855	
34	1739.35	1108936.125	471251.730	1108489.858	471422.818	10-01-43.986	122-44-15.937			-1.586	
35	1741.35	1108937.321	471253.336	1108491.054	471424.402	10-01-44.025	122-44-15.989			-1.690	
36	1744.22	1108939.037	471255.641	1108492.741	471426.717	10-01-44.080	122-44-16.065			-1.754	
37	1746.52	1108940.409	471257.482	1108494.122	471428.545	10-01-44.125	122-44-16.125			-1.665	
38	1748.12	1108941.364	471258.766	1108495.073	471429.824	10-01-44.156	122-44-16.167			-1.689	
39	1750.30	1108942.667	471260.515	1108496.392	471431.590	10-01-44.199	122-44-16.225			-0.987	ec
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41	1752.05	1108943.711	471261.917	1108497.435	471432.991	10-01-44.233	122-44-16.271			0.167	
42	1753.89	1108944.809	471263.391	1108498.540	471434.453	10-01-44.269	122-44-16.319			-0.610	
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44	1817.31	1108982.691	471314.259	1108536.397	471485.319	10-01-45.503	122-44-17.989			0.026	
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74	2577.80	1109436.917	471924.190	1108990.478	472094.993	10-02-00.304	122-44-38.006			-1.129	r. bed
75	2581.24	1109438.976	471926.954	1108992.533	472097.765	10-02-00.371	122-44-38.097			-1.345	eow
76	2584.72	1109441.053	471929.743	1108994.620	472100.567	10-02-00.439	122-44-38.189			-1.796	r. bed
77	2589.86	1109444.123	471933.866	1108997.687	472104.678	10-02-00.539	122-44-38.324			-1.610	r. bed
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79	2592.29	1109445.575	471935.816	1108999.129	472106.628	10-02-00.586	122-44-38.388			-1.957	r. bed
80	2594.20	1109446.717	471937.349	1109000.265	472108.151	10-02-00.623	122-44-38.438			-2.124	r. bed
81	2597.00	1109448.390	471939.596	1109001.952	472110.404	10-02-00.678	122-44-38.512			-1.372	eow
82	2598.81	1109449.468	471941.044	1109003.026	472111.866	10-02-00.713	122-44-38.560			-1.076	ec
83	2611.27	1109456.913	471951.041	1109010.450	472121.856	10-02-00.955	122-44-38.888			-0.617	
84	2622.91	1109463.862	471960.371	1109017.414	472131.176	10-02-01.182	122-44-39.194			-0.899	
85	2624.96	1109465.085	471962.014	1109018.641	472132.821	10-02-01.222	122-44-39.248			0.669	
86	2625.91	1109465.658	471962.782	1109019.194	472133.583	10-02-01.240	122-44-39.273			0.675	
87	2629.27	1109467.662	471965.474	1109021.219	472136.263	10-02-01.306	122-44-39.361			-0.844	
88	2728.14	1109526.718	472044.774	1109080.246	472215.543	10-02-03.230	122-44-41.964			-0.629	
89	2730.12	1109527.896	472046.355	1109081.412	472217.127	10-02-03.268	122-44-42.016			0.564	
90	2731.32	1109528.615	472047.322	1109082.148	472218.102	10-02-03.292	122-44-42.048			0.415	
91	2732.41	1109529.269	472048.199	1109082.792	472218.954	10-02-03.313	122-44-42.076			-0.434	
92	2823.50	1109583.672	472121.252	1109137.187	472291.991	10-02-05.086	122-44-44.474			-0.448	
93	2826.19	1109585.281	472123.412	1109138.782	472294.153	10-02-05.138	122-44-44.545			0.681	
94	2865.58	1109608.809	472155.005	1109162.314	472325.737	10-02-05.905	122-44-45.582			0.932	
95	2866.27	1109609.220	472155.557	1109162.713	472326.286	10-02-05.918	122-44-45.600			-0.159	
96	2881.22	1109618.149	472167.546	1109171.640	472338.286	10-02-06.209	122-44-45.994			-0.383	
97	2882.84	1109619.116	472168.845	1109172.622	472339.565	10-02-06.241	122-44-46.036			0.571	
98	2885.74	1109620.847	472171.170	1109174.340	472341.880	10-02-06.297	122-44-46.112			0.772	
99	2889.60	1109623.153	472174.266	1109176.641	472344.986	10-02-06.372	122-44-46.214			0.731	
100	2895.28	1109626.548	472178.825	1109180.047	472349.555	10-02-06.483	122-44-46.364			-0.322	
101	3190.73	1109803.011	472415.778	1109356.456	472586.419	10-02-12.233	122-44-54.141			-0.091	
102	3192.53	1109804.086	472417.222	1109357.529	472587.850	10-02-12.268	122-44-54.188			0.551	
103	3193.90	1109804.909	472418.327	1109358.358	472588.947	10-02-12.295	122-44-54.224			0.552	
104	3195.83	1109806.061	472419.874	1109359.493	472590.500	10-02-12.332	122-44-54.275			-0.066	
105	3266.58	1109848.317	472476.614	1109401.739	472647.211	10-02-13.709	122-44-56.137			-0.005	
106	3269.38	1109849.992	472478.863	1109403.427	472649.464	10-02-13.764	122-44-56.211			1.265	
107	3271.64	1109851.342	472480.676	1109404.776	472651.292	10-02-13.808	122-44-56.271			1.130	
108	3274.86	1109853.266	472483.260	1109406.679	472653.850	10-02-13.870	122-44-56.355			-0.252	
109	3446.70	1109955.902	472621.078	1109509.304	472791.636	10-02-17.215	122-45-00.879			-0.238	
110	3447.56	1109956.413	472621.765	1109509.794	472792.306	10-02-17.231	122-45-00.901			0.149	
111	3448.97	1109957.258	472622.900	1109510.653	472793.463	10-02-17.259	122-45-00.939			0.069	
112	3450.42	1109958.122	472624.059	1109511.512	472794.621	10-02-17.287	122-45-00.977			-0.712	
113	3561.46	1110024.445	472713.118	1109577.812	472883.645	10-02-19.448	122-45-03.900			-0.356	
114	3564.22	1110026.091	472715.328	1109579.469	472885.838	10-02-19.502	122-45-03.972			0.594	
115	3566.65	1110027.547	472717.282	1109580.911	472887.787	10-02-19.549	122-45-04.036			0.571	
116	3568.93	1110028.905	472719.106	1109582.261	472889.614	10-02-19.593	122-45-04.096			-0.422	
117	3737.74	1110129.735	472854.500	1109683.077	473024.962	10-02-22.879	122-45-08.540			-0.154	
118	3740.42	1110131.336	472856.650	1109684.672	473027.125	10-02-22.931	122-45-08.611			0.487	
119	3741.62	1110132.053	472857.612	1109685.378	473028.069	10-02-22.954	122-45-08.642			0.619	
120	3742.38	1110132.506	472858.221	1109685.838	473028.678	10-02-22.969	122-45-08.662			-0.322	

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
121	3755.38	1110140.271	472868.648	1109693.600	473039.094	10-02-23.222	122-45-09.004			-0.445	
122	3756.80	1110141.120	472869.787	1109694.459	473040.251	10-02-23.250	122-45-09.042			-0.055	er
123	3759.53	1110142.750	472871.977	1109696.085	473042.444	10-02-23.303	122-45-09.114			0.192	r1f/er
124	3760.73	1110143.467	472872.939	1109696.791	473043.388	10-02-23.326	122-45-09.145			-0.467	
125	3848.21	1110195.719	472943.103	1109749.040	473113.529	10-02-25.029	122-45-11.448			-0.634	
126	3850.04	1110196.812	472944.571	1109750.114	473114.991	10-02-25.064	122-45-11.496			0.334	
127	3850.64	1110197.167	472945.047	1109750.482	473115.478	10-02-25.076	122-45-11.512			0.313	
128	3852.44	1110198.244	472946.493	1109751.556	473116.910	10-02-25.111	122-45-11.559			-0.401	
129	3944.56	1110253.266	473020.376	1109806.566	473190.766	10-02-26.904	122-45-13.984			0.104	
130	3948.76	1110255.771	473023.740	1109809.051	473194.146	10-02-26.985	122-45-14.095			1.175	
131	3950.85	1110257.023	473025.421	1109810.309	473195.821	10-02-27.026	122-45-14.150			0.926	
132	3954.47	1110259.184	473028.323	1109812.487	473198.715	10-02-27.097	122-45-14.245			-0.871	
133	4142.24	1110371.335	473178.918	1109924.594	473349.258	10-02-30.751	122-45-19.188			0.306	fp
134	4148.58	1110375.121	473184.002	1109928.368	473354.345	10-02-30.874	122-45-19.355			1.174	
135	4156.70	1110379.974	473190.519	1109933.216	473360.862	10-02-31.032	122-45-19.569			1.685	tbank
136	4159.01	1110381.356	473192.374	1109934.596	473362.720	10-02-31.077	122-45-19.630			-0.317	rbed/ec
137	4164.74	1110384.773	473196.963	1109938.033	473367.288	10-02-31.189	122-45-19.780			-1.081	eow
138	4167.43	1110386.379	473199.120	1109939.628	473369.451	10-02-31.241	122-45-19.851			-1.303	rbed
139	4170.54	1110388.240	473201.619	1109941.500	473371.948	10-02-31.302	122-45-19.933			-1.690	rbed
140	4172.58	1110389.460	473203.257	1109942.727	473373.593	10-02-31.342	122-45-19.987			-1.753	rbed
141	4175.10	1110390.966	473205.279	1109944.230	473375.603	10-02-31.391	122-45-20.053			-1.672	rbed
142	4176.91	1110392.047	473206.730	1109945.304	473377.065	10-02-31.426	122-45-20.101			-2.065	rbed
143	4179.51	1110393.597	473208.812	1109945.304	473377.065	10-02-31.476	122-45-20.169			-2.170	rbed
144	4186.31	1110397.656	473214.262	1109950.919	473384.587	10-02-31.609	122-45-20.348			-2.396	rbed
145	4192.30	1110401.234	473219.066	1109954.478	473389.399	10-02-31.725	122-45-20.506			-3.021	rbed
146	4196.86	1110403.960	473222.727	1109957.210	473393.050	10-02-31.814	122-45-20.626			-2.351	rbed
147	4199.10	1110405.297	473224.523	1109958.560	473394.850	10-02-31.858	122-45-20.685			-2.054	rbed
148	4201.30	1110406.613	473226.290	1109959.850	473396.620	10-02-31.900	122-45-20.743			-1.716	rbed
149	4204.02	1110408.234	473228.467	1109961.470	473398.780	10-02-31.953	122-45-20.814			-1.513	rbed
150	4208.06	1110410.647	473231.706	1109963.900	473402.040	10-02-32.032	122-45-20.921			-1.227	rbed
151	4212.40	1110413.239	473235.187	1109966.470	473405.510	10-02-32.116	122-45-21.035			-1.019	eow
152	4220.67	1110418.183	473241.826	1109971.410	473412.150	10-02-32.277	122-45-21.253			-0.277	
153	4222.88	1110419.504	473243.599	1109972.730	473413.920	10-02-32.320	122-45-21.311			0.454	tbank
154	4224.37	1110420.389	473244.788	1109973.620	473415.100	10-02-32.349	122-45-21.350			0.388	
155	4226.37	1110421.585	473246.393	1109974.820	473416.720	10-02-32.388	122-45-21.403			-0.493	
156	4267.39	1110446.084	473279.291	1109999.330	473449.580	10-02-33.187	122-45-22.482			-0.371	
157	4270.00	1110447.643	473281.384	1110000.870	473451.680	10-02-33.237	122-45-22.551			1.967	
158	4271.50	1110448.539	473282.587	1110001.760	473452.900	10-02-33.266	122-45-22.591			2.271	
159	4276.09	1110451.280	473286.268	1110004.520	473456.550	10-02-33.356	122-45-22.711			2.068	
160	4279.60	1110453.380	473289.088	1110006.600	473459.390	10-02-33.424	122-45-22.804			-0.050	
161	4377.93	1110512.112	473367.953	1110065.330	473538.210	10-02-35.338	122-45-25.392			-0.112	
162	4380.39	1110513.578	473369.921	1110066.800	473540.190	10-02-35.386	122-45-25.457			1.516	
163	4382.42	1110514.792	473371.551	1110068.000	473541.830	10-02-35.425	122-45-25.511			1.698	
164	4384.95	1110516.304	473373.582	1110069.500	473543.840	10-02-35.474	122-45-25.577			1.500	
165	4531.30	1110603.713	473490.954	1110156.910	473661.190	10-02-38.323	122-45-29.430			-0.186	
166	4534.41	1110605.575	473493.454	1110158.750	473663.680	10-02-38.383	122-45-29.512			0.899	
167	4540.11	1110608.981	473498.027	1110162.160	473668.250	10-02-38.494	122-45-29.662			1.188	
168	4545.19	1110612.011	473502.096	1110165.190	473672.300	10-02-38.593	122-45-29.795			-0.221	
169	4749.92	1110734.295	473666.298	1110287.430	473836.460	10-02-42.577	122-45-35.185			-0.028	
170	4751.45	1110735.209	473667.525	1110288.350	473837.670	10-02-42.607	122-45-35.225			0.640	
171	4754.19	1110736.845	473669.722	1110289.980	473839.870	10-02-42.660	122-45-35.297			0.733	
172	4756.19	1110738.040	473671.327	1110291.170	473841.480	10-02-42.699	122-45-35.350			-0.012	
173	4785.80	1110755.724	473695.073	1110308.840	473865.210	10-02-43.275	122-45-36.129			-0.249	f
174	4787.00	1110756.443	473696.038	1110309.580	473866.180	10-02-43.299	122-45-36.161			0.351	
175	4789.11	1110757.699	473697.725	1110310.840	473867.860	10-02-43.340	122-45-36.216			0.413	
176	4790.43	1110758.490	473698.788	1110311.640	473868.920	10-02-43.366	122-45-36.251			-0.194	
177	4807.02	1110768.400	473712.094	1110321.520	473882.230	10-02-43.688	122-45-36.688			0.579	
178	4807.87	1110768.907	473712.774	1110322.040	473882.900	10-02-43.705	122-45-36.710			0.694	
179	4809.96	1110770.157	473714.454	1110323.300	473884.570	10-02-43.746	122-45-36.765			-0.079	
180	4812.29	1110766.999	473719.704	1110320.130	473889.840	10-02-43.643	122-45-36.938			-0.013	fpond
181	4845.35	1110791.294	473742.835	1110344.400	473912.960	10-02-44.434	122-45-37.697			-0.008	
182	4847.26	1110792.437	473744.370	1110345.570	473914.480	10-02-44.472	122-45-37.747			0.604	
183	4848.67	1110793.279	473745.501	1110346.400	473915.610	10-02-44.499	122-45-37.784			0.756	
184	4850.60	1110794.427	473747.043	1110347.530	473917.160	10-02-44.536	122-45-37.835			-0.006	fp
185	5082.76	1110933.095	473933.245	1110486.180	474103.300	10-02-49.055	122-45-43.947			-0.078	fp
186	5084.96	1110934.409	473935.009	1110487.470	474105.070	10-02-49.097	122-45-44.005			0.538	er
187	5095.03	1110940.422	473943.084	1110493.490	474113.140	10-02-49.293	122-45-44.270			-0.154	
188	5181.39	1110992.007	474012.351	1110545.060	474182.360	10-02-50.974	122-45-46.543			1.131	
189	5401.40	1111123.412	474188.801	1110676.440	474358.760	10-02-55.256	122-45-52.335			-0.366	fpond bed
190	5403.71	1111124.790	474190.653	1110677.790	474360.610	10-02-55.300	122-45-52.396			0.706	
191	5406.09	1111126.212	474192.561	1110679.230	474362.500	10-02-55.347	122-45-52.458			0.663	
192	5410.74	1111128.995	474196.297	1110681.990	474366.250	10-02-55.437	122-45-52.581			-0.882	ec
193	5415.22	1111131.671	474199.891	1110684.690	474369.840	10-02-55.525	122-45-52.699			-1.422	rbed
194	5418.86	1111133.839	474202.804	1110686.840	474372.740	10-02-55.595	122-45-52.794			-1.527	rbed
195	5422.68	1111136.121	474205.867	1110689.140	474375.810	10-02-55.670	122-45-52.895			-1.632	rbed
196	5426.05	1111138.134	474208.570	1110691.140	474378.520	10-02-55.735	122-45-52.984			-1.648	rbed
197	5429.12	1111139.968	474211.033	1110692.980	474380.990	10-02-55.795	122-45-53.065			-1.720	rbed
198	5432.95	1111142.255	474214.104	1110695.280	474384.030	10-02-55.870	122-45-53.165			-1.460	rbed
199	5437.13	1111144.756	474217.462	1110697.760	474387.410	10-02-55.951	122-45-53.276			-0.774	eow
200	5440.92	1111147.016	474220.496	1110700.040	474390.430	10-02-56.025	122-45-53.375			1.092	
201	5442.20	1111147.784	474221.528	1110700.800	474391.470	10-02-56.050	122-45-53.409			1.006	
202	5442.79	1111148.136	474221.998	1110701.140	474391.950	10-02-56.061	122-45-53.425			0.883	
203	5446.12	1111150.127	474224.674	1110703.130	474394.600	10-02-56.126	122-45-53.512			0.059	fpond bed
204	5712.71	1111309.355	474438.480	1110862.310	474608.330	10-03-01.314	122-46-00.530			-0.466	fpond
205	5714.65	1111310.513	474440.034	1110863.480	474609.880	10-03-01.352	122-46-00.581			0.550	
206	5716.51	1111311.628	474441.532	1110864.580	474611.380	10-03-01.388	122-46-00.630			0.934	
207	5718.57	1111312.855	474443.178	1110865.810	474613.020	10-03-01.428	122-46-00.684			0.740	
208	5720.87	1111314.229	474445.023	1110867.190	474614.880	10-03-01.473	122-46-00.745			-0.906	fpond
209	5909.05	1111426.632	474595.953	1110979.550	474765.750	10-03-05.135	122-46-05.699			-0.797	bed
210	5912.41	1111428.634	474598.642	1110981.540	474768.430	10-03-05.200	122-46-05.787			0.524	
211	5914.26	1111429.740	474600.128	1110982.650	474769.920	10-03-05.236	122-46-05.836			-0.207	bed
212	5916.06	1111430.815	474601.570	1110983.720	474771.350	10-03-05.271	122-46-05.883			0.556	
213	6112.97	1111548.432	474759.503	1111101.300	474929.230	10-03-09.103	122-46-11.067			-1.217	fpond
214	6113.98	1111549.035	474760.313	1111101.910	474930.050	10-03-09.123	122-46-11.094			-0.497	fpond
215	6116.35	1111550.453	474762.211	1111103.320	474931.940	10-03-09.169	122-46-11.156			0.559	
216	6125.02	1111555.629	474769.167	1111108.510	474938.910	10-03-09.338	122-46-11.385			0.931	
217	6129.22	1107981.640	470704.350	1111110.990	474942.260	10-03-09.419	122-46-11.495			1.826	**CS1-R1**
218	6130.14	1111558.687	474773.274	1111111.580	474942.990	10-03-09.438	122-46-11.519			1.818	
219	6141.39	1111565.401	474782.289	1111118.270	474952.000	10-03-09.656	122-46-11.815			0.342	
220	6157.63	1111575.107	474795.321	1111127.990	474965.040	10-03-09.973	122-46-12.243			-0.503	
221	6159.90	1111576.463	474797.142	1111129.340	474966.870	10-03-10.017	122-46-12.303			-0.699	
222	6161.71	1111577.544	474798.593	1111130.420	474968.300	10-03-10.052	122-46-12.350			-1.116	
223	6164.64	1111579.294	474800.943	1111132.160	474970.670	10-03-10.109	122-46-12.428			-1.500	
224	6168.33	1111581.498	474803.903	1111134.370	474973.630	10-03-10.181	122-46-12.525			-1.715	rbed
225	6173.47	1111584.568	474808.025	1111137.440	474977.740	10-03-10.281	122-46-12.660			-1.816	rbed
226	6176.45	1111586.343	474810.407	1111139.220	474980.110	10-03-10.339	122-46-12.738			-1.926	rbed
227	6181.37	1111589.281	474814.354	1111142.140	474984.070	10-03-10.434	122-46-12.868			-2.012	
228	6189.00	1111593.842	474820.477	1111146.710	474990.190	10-03-10.583	122-46-13.069			-1.740	
229	6192.82	1111596.124	474823.542	1111148.980	474993.240	10-03-10.657	122-46-13.169			-1.614	
230	6196.04	1111598.048	474826.125	1111150.910	474995.830	10-03-10.720	122-46-13.254			-1.563	
231	6202.20	1111601.728	474831.066	1111154.590	475000.760	10-03-10.840	122-46-13.416			-1.596	
232	6207.53	1111604.911	474835.342	1111157.780	475005.060	10-03-10.944	122-46-13.557			-1.691	
233	6212.54	1111607.903	474839.358	1111160.760	475009.080	10-03-11.041	122-46-13.689			-1.849	
234	6218.77	1111611.622	474844.353	1111164.470	475014.070	10-03-11.162	122-46-13.853			-1.264	rbed
235	6221.51	1111613.262	474846.554	1111166.130	475016.260	10-03-11.216	122-46-13.925			-0.624	rbank
236	6227.81	1111617.025	474851.607	1111169.870	475021.320	10-03-11.338	122-46-14.091			-0.554	
237	6238.14	1111623.195	474859.892	1111176.040	475029.600	10-03-11.539	122-46-14.363			-0.436	
238	6294.66	1111656.945	474905.225	1111209.790	475074.920	10-03-12.639	122-46-15.851			2.328	
239	6294.77	1111657.013	474905.316	1111209.850	475075.010	10-03-12.641	122-46-15.854			2.332	fp/bank
240	6295.44	1111657.410	474905.849	1111210.250	475075.530	10-03-12.654	122-46-15.871			2.394	fp/bank

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
241	6296.46	1111658.020	474906.669	1111210.870	475076.350	10-03-12.674	122-46-15.898			1.498	fp/eow
242	6611.06	1111845.923	475158.982	1111398.710	475328.560	10-03-18.796	122-46-24.180			1.395	fp/eow
243	6612.66	1111846.881	475160.270	1111399.660	475329.840	10-03-18.827	122-46-24.222			2.592	fp/bank
244	6613.46	1111847.360	475160.913	1111400.150	475330.480	10-03-18.843	122-46-24.243			2.594	fp/bank
245	6614.67	1111848.080	475161.879	1111400.850	475331.460	10-03-18.866	122-46-24.275			1.494	fp/eow
246	6805.60	1111962.122	475315.015	1111514.870	475484.540	10-03-22.582	122-46-29.302			1.480	fp/eow
247	6806.66	1111962.755	475315.863	1111515.490	475485.400	10-03-22.602	122-46-29.330			2.656	fp/bank
248	6807.37	1111963.177	475316.430	1111515.920	475485.950	10-03-22.616	122-46-29.348			2.656	fp/bank
249	6809.46	1111964.427	475318.109	1111517.170	475487.620	10-03-22.657	122-46-29.403			1.491	fp/eow
250	7012.95	1112085.967	475481.312	1111638.680	475650.760	10-03-26.617	122-46-34.760			1.597	fp/eow
251	7264.77	1112236.377	475683.282	1111789.030	475852.660	10-03-31.517	122-46-41.390			2.524	fp/bank
252	7265.79	1112236.987	475684.101	1111789.640	475853.480	10-03-31.537	122-46-41.417			2.625	fp/bank
253	7266.79	1112237.584	475684.902	1111790.260	475854.270	10-03-31.557	122-46-41.443			1.670	fp/eow
254	7576.44	1112408.389	475943.786	1111960.991	476113.075	10-03-37.122	122-46-49.942			0.800	fp
255	7578.60	1112423.824	475934.984	1111976.413	476104.258	10-03-37.624	122-46-49.652			1.920	t bnk
256	7589.47	1112430.317	475943.703	1111982.918	476112.998	10-03-37.836	122-46-49.939			1.380	rb
257	7593.99	1112433.017	475947.327	1111985.619	476116.622	10-03-37.924	122-46-50.058			0.600	rb
258	7608.74	1112441.824	475959.154	1111994.425	476128.437	10-03-38.211	122-46-50.446			-0.130	rb
259	7620.33	1112448.744	475968.446	1112001.329	476137.725	10-03-38.436	122-46-50.751			0.290	rb
260	7634.45	1112457.181	475979.775	1112009.767	476149.053	10-03-38.711	122-46-51.123			-0.070	rb
261	7637.77	1112459.162	475982.436	1112011.761	476151.703	10-03-38.776	122-46-51.210			-0.180	eow
262	7644.74	1112463.329	475988.030	1112015.904	476157.306	10-03-38.911	122-46-51.394			-1.040	rb
263	7648.88	1112465.801	475991.350	1112018.389	476160.625	10-03-38.992	122-46-51.503			-1.920	rb
264	7654.46	1112469.134	475995.826	1112021.703	476165.102	10-03-39.100	122-46-51.650			-2.040	rb
265	7657.11	1112470.717	475997.952	1112023.298	476167.203	10-03-39.152	122-46-51.719			-4.810	rb
266	7686.55	1112488.301	476021.563	1112040.880	476190.803	10-03-39.725	122-46-52.494			-7.050	rb
267	7729.24	1112513.798	476055.800	1112066.379	476225.032	10-03-40.556	122-46-53.618			-7.860	rb
268	7733.82	1112516.535	476059.475	1112069.110	476228.716	10-03-40.645	122-46-53.739			-7.670	rb
269	7749.40	1112525.841	476071.971	1112078.407	476241.202	10-03-40.948	122-46-54.149			-4.020	rb
270	7753.98	1112528.576	476075.644	1112081.138	476244.886	10-03-41.037	122-46-54.270			-2.080	rb
271	7755.57	1112529.526	476076.919	1112082.089	476246.135	10-03-41.068	122-46-54.311			-1.910	rb
272	7756.89	1112530.314	476077.978	1112082.887	476247.201	10-03-41.094	122-46-54.346			-0.620	rb
273	7759.07	1112531.617	476079.726	1112084.175	476248.967	10-03-41.136	122-46-54.404			0.990	n-c/t.bank
274	7901.10	1112616.445	476193.633	1112170.210	476362.830	10-03-43.900	122-46-58.143			1.604	fp/eow
275	7903.15	1112617.669	476195.277	1112170.210	476364.470	10-03-43.940	122-46-58.197			2.616	fp/bank
276	7903.59	1112617.935	476195.634	1112170.460	476364.810	10-03-43.948	122-46-58.208			2.872	fp/bank
277	7943.80	1112641.949	476227.880	1112194.480	476397.060	10-03-44.731	122-46-59.267			1.716	eow
278	8321.68	1112867.651	476530.951	1112420.110	476700.020	10-03-52.084	122-47-09.216			1.718	eow
279	8324.45	1112869.307	476533.174	1112421.760	476702.240	10-03-52.138	122-47-09.289			2.917	bank
280	8328.92	1112871.974	476536.756	1112424.430	476705.810	10-03-52.225	122-47-09.406			2.978	
281	8333.27	1112874.577	476540.251	1112427.040	476709.310	10-03-52.310	122-47-09.521			2.975	bank
282	8334.12	1112875.080	476540.927	1112427.530	476709.980	10-03-52.326	122-47-09.543			1.911	eow
283	8360.97	1112891.123	476562.468	1112443.580	476731.510	10-03-52.849	122-47-10.250			1.787	bank
284	8361.72	1112891.566	476563.063	1112444.010	476732.120	10-03-52.863	122-47-10.270			1.793	bank
285	8362.66	1112892.128	476563.818	1112444.560	476732.880	10-03-52.881	122-47-10.295			1.530	eow
286	8539.23	1112997.591	476705.433	1112549.990	476874.420	10-03-56.317	122-47-14.943			1.494	
287	8859.26	1113188.739	476962.105	1112741.100	477131.000	10-04-02.545	122-47-23.369			1.433	eow
288	8861.60	1113190.136	476963.981	1112742.480	477132.890	10-04-02.590	122-47-23.431			2.763	bank
289	8867.03	1113193.384	476968.343	1112745.730	477137.240	10-04-02.696	122-47-23.574			2.788	bank
290	8869.09	1113194.611	476969.989	1112746.960	477138.880	10-04-02.736	122-47-23.628			1.978	eow
291	8875.23	1113198.277	476974.913	1112750.610	477143.790	10-04-02.855	122-47-23.789			1.787	eow
292	8878.24	1113200.077	476977.330	1112752.420	477146.220	10-04-02.914	122-47-23.869	10-03-58.75 N	122-47-29.15 E	2.171	bank

ILOG-HILABANGAN RIVER
CROSS-SECTION 2-2

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1103766.591	471198.823	1103322.163	471370.055	9-58-55.712	122-44-14.334	10 38 14.248 N	124 51 41.439 E	6.983	er
2	2.37	1103768.186	471200.575	1103323.759	471371.822	9-58-55.764	122-44-14.392			7.040	
3	4.36	1103769.527	471202.048	1103325.109	471373.285	9-58-55.808	122-44-14.440			7.024	er
4	389.86	1104029.054	471487.106	1103584.547	471658.235	9-59-04.263	122-44-23.793			5.007	
5	399.05	1104035.240	471493.900	1103590.745	471665.029	9-59-04.465	122-44-24.016			4.909	
6	707.15	1104242.654	471721.719	1103798.082	471892.762	9-59-11.222	122-44-31.491			3.336	er
7	711.36	1104245.493	471724.837	1103800.905	471895.869	9-59-11.314	122-44-31.593			3.374	er
8	725.02	1104254.689	471734.938	1103810.110	471905.984	9-59-11.614	122-44-31.925			3.633	
9	741.36	1104265.689	471747.021	1103821.096	471918.048	9-59-11.972	122-44-32.321			2.926	canal
10	741.50	1104265.783	471747.123	1103821.188	471918.170	9-59-11.975	122-44-32.325			2.482	canal
11	742.23	1104266.275	471747.664	1103821.679	471918.688	9-59-11.991	122-44-32.342			2.492	canal
12	742.35	1104266.354	471747.751	1103821.771	471918.779	9-59-11.994	122-44-32.345			3.259	canal
13	750.66	1104271.950	471753.897	1103827.355	471924.933	9-59-12.176	122-44-32.547			3.177	
14	773.26	1104287.165	471770.609	1103842.575	471941.628	9-59-12.672	122-44-33.095			2.947	
15	856.86	1104343.446	471832.426	1103898.851	472003.412	9-59-14.506	122-44-35.123			3.273	
16	883.53	1104361.398	471852.145	1103916.771	472023.124	9-59-15.090	122-44-35.770			2.998	bank
17	884.21	1104361.853	471852.645	1103917.231	472023.642	9-59-15.105	122-44-35.787			1.311	rb
18	885.06	1104362.430	471853.278	1103917.814	472024.281	9-59-15.124	122-44-35.808			1.103	
19	885.76	1104362.902	471853.797	1103918.275	472024.799	9-59-15.139	122-44-35.825			2.669	rb
20	886.95	1104363.698	471854.671	1103919.072	472025.652	9-59-15.165	122-44-35.853			2.864	bank
21	894.34	1104368.679	471860.142	1103924.074	472031.136	9-59-15.328	122-44-36.033			2.756	
22	1017.26	1104451.430	471951.033	1104006.801	472121.984	9-59-18.024	122-44-39.015			2.735	
23	1132.38	1104528.926	472036.154	1104084.250	472207.073	9-59-20.548	122-44-41.808			1.546	rice field
24	1254.96	1104611.453	472126.799	1104166.763	472297.676	9-59-23.237	122-44-44.782			1.641	rf
25	1439.00	1104735.352	472262.887	1104290.608	472433.733	9-59-27.273	122-44-49.248			1.548	rf
26	1441.63	1104737.122	472264.831	1104292.388	472435.652	9-59-27.331	122-44-49.311			2.607	bank
27	1442.32	1104737.587	472265.342	1104292.849	472436.170	9-59-27.346	122-44-49.328			2.456	bank
28	1444.07	1104738.766	472266.636	1104294.015	472437.480	9-59-27.384	122-44-49.371			0.870	bank
29	1444.50	1104739.051	472266.950	1104294.321	472437.785	9-59-27.394	122-44-49.381			-0.131	rb
30	1445.70	1104739.861	472267.839	1104295.119	472438.668	9-59-27.420	122-44-49.410			-0.621	rb
31	1447.30	1104740.938	472269.022	1104296.193	472439.856	9-59-27.455	122-44-49.449			-0.656	rb
32	1448.05	1104741.442	472269.576	1104296.715	472440.405	9-59-27.472	122-44-49.467			-0.446	rb
33	1448.49	1104741.739	472269.902	1104296.991	472440.740	9-59-27.481	122-44-49.478			0.899	eow
34	1449.05	1104742.116	472270.316	1104297.390	472441.136	9-59-27.494	122-44-49.491			1.644	
35	1450.58	1104743.146	472271.448	1104298.403	472442.263	9-59-27.527	122-44-49.528			2.057	
36	1452.80	1104744.641	472273.089	1104299.906	472443.908	9-59-27.576	122-44-49.582			2.002	
37	1455.45	1104746.424	472275.047	1104301.686	472445.888	9-59-27.634	122-44-49.647			1.344	rice field
38	1522.86	1104791.805	472324.894	1104347.039	472495.698	9-59-29.112	122-44-51.282			1.400	rice field
39	1599.63	1104843.489	472381.662	1104398.713	472552.454	9-59-30.796	122-44-53.145			1.435	
40	1702.44	1104912.705	472457.687	1104467.909	472628.433	9-59-33.051	122-44-55.639			1.139	
41	2014.12	1105122.532	472688.156	1104677.676	472858.835	9-59-39.887	122-45-03.202			1.959	
42	2039.38	1105139.538	472706.834	1104694.676	472877.509	9-59-40.441	122-45-03.815			2.236	
43	2055.16	1105150.693	472718.012	1104705.816	472888.660	9-59-40.804	122-45-04.181			2.259	**CS2-R2**
44	2074.74	1105163.343	472732.981	1104718.457	472903.617	9-59-41.216	122-45-04.672			1.874	
45	2216.69	1105258.903	472837.942	1104813.982	473008.565	9-59-44.329	122-45-08.117			1.712	
46	2237.28	1105272.768	472853.171	1104827.852	473023.767	9-59-44.781	122-45-08.616			1.284	
47	2243.58	1105277.005	472857.826	1104832.087	473028.428	9-59-44.919	122-45-08.769			0.109	
48	2245.17	1105278.076	472859.002	1104833.161	473029.616	9-59-44.954	122-45-08.808			-0.555	
49	2246.16	1105278.745	472859.737	1104833.836	473030.347	9-59-44.976	122-45-08.832			-0.497	
50	2253.22	1105283.495	472864.954	1104838.592	473035.556	9-59-45.131	122-45-09.003			0.909	
51	2262.99	1105290.072	472872.178	1104845.159	473042.776	9-59-45.345	122-45-09.240			1.244	bank
52	2267.38	1105293.028	472875.424	1104848.105	473046.006	9-59-45.441	122-45-09.346			-1.260	eow
53	2269.86	1105294.697	472877.258	1104849.762	473047.864	9-59-45.495	122-45-09.407			-2.343	rb
54	2270.72	1105295.278	472877.895	1104850.345	473048.504	9-59-45.514	122-45-09.428			-2.516	rb
55	2272.42	1105296.421	472879.151	1104851.511	473049.753	9-59-45.552	122-45-09.469			-3.046	rb
56	2278.09	1105300.240	472883.346	1104855.316	473053.926	9-59-45.676	122-45-09.606			-1.272	rb
57	2279.16	1105300.958	472884.135	1104856.022	473054.718	9-59-45.699	122-45-09.632			-0.234	
58	2282.79	1105303.402	472886.819	1104858.477	473057.399	9-59-45.779	122-45-09.720			1.055	bank
59	2310.17	1105321.838	472907.069	1104876.919	473077.657	9-59-46.380	122-45-10.385			1.034	
60	2903.80	1105721.478	473346.023	1105276.422	473516.423	9-59-59.399	122-45-24.788			2.835	rice field/sugar plantation
61	3033.85	1105809.030	473442.188	1105363.939	473612.565	10-00-02.251	122-45-27.944			2.649	rice field
62	3036.40	1105810.746	473444.073	1105365.658	473614.454	10-00-02.307	122-45-28.006			3.278	
63	3039.07	1105812.544	473446.048	1105367.468	473616.434	10-00-02.366	122-45-28.071			3.406	
64	3045.24	1105816.698	473450.611	1105371.611	473620.973	10-00-02.501	122-45-28.220			3.447	
65	3048.41	1105818.832	473452.955	1105373.728	473623.318	10-00-02.570	122-45-28.297			2.696	rice field
66	3116.09	1105864.395	473503.000	1105419.298	473673.338	10-00-04.055	122-45-29.939			2.972	rice field/sugar plantation
67	3257.35	1105959.491	473607.452	1105514.364	473777.765	10-00-07.153	122-45-33.367			2.899	sugar plantation
68	3405.52	1106059.244	473717.018	1105614.065	473887.278	10-00-10.402	122-45-36.962			2.837	sugar plantation
69	3495.53	1106119.840	473783.575	1105674.641	473953.809	10-00-12.376	122-45-39.146			2.780	sugar plantation
70	3657.47	1106228.861	473903.321	1105783.640	474073.526	10-00-15.928	122-45-43.076			2.737	sugar plantation
71	5972.37	1107787.293	475615.065	1107341.558	475784.611	10-01-06.695	122-46-39.249			3.538	
72	5991.25	1107800.004	475629.026	1107354.263	475798.561	10-01-07.109	122-46-39.707			3.497	
73	5995.17	1107802.642	475631.924	1107356.902	475801.455	10-01-07.195	122-46-39.802			0.608	
74	6000.22	1107806.409	475635.318	1107360.677	475804.837	10-01-07.318	122-46-39.913			-0.460	eow
75	6005.22	1107809.776	475639.015	1107364.022	475808.553	10-01-07.427	122-46-40.035			-2.142	rb
76	6009.76	1107812.465	475642.713	1107366.723	475812.238	10-01-07.515	122-46-40.156			-2.206	rb
77	6016.91	1107817.649	475647.663	1107371.909	475817.173	10-01-07.684	122-46-40.318			-2.488	rb
78	6022.09	1107820.766	475651.830	1107375.008	475821.345	10-01-07.785	122-46-40.455			-2.059	rb
79	6030.76	1107826.973	475657.904	1107381.208	475827.407	10-01-07.987	122-46-40.654			-2.322	rb
80	6043.66	1107835.287	475667.780	1107389.524	475837.306	10-01-08.258	122-46-40.979			-2.256	rb
81	6051.42	1107840.511	475673.518	1107394.741	475843.033	10-01-08.428	122-46-41.167			-1.708	rb
82	6054.18	1107842.365	475675.555	1107396.613	475845.073	10-01-08.489	122-46-41.234			-0.363	eow
83	6065.13	1107849.740	475683.655	1107403.978	475853.176	10-01-08.729	122-46-41.500			-0.363	bank
84	6118.50	1107885.670	475723.120	1107439.884	475892.621	10-01-09.899	122-46-42.795			7.568	
85	6146.09	1107904.245	475743.522	1107458.481	475912.998	10-01-10.505	122-46-43.464			3.048	
86	6219.84	1107953.890	475798.048	1107508.104	475967.520	10-01-12.122	122-46-45.254			6.857	
87	6223.52	1107956.368	475800.769	1107510.559	475970.231	10-01-12.202	122-46-45.343			2.083	
88	6282.02	1107995.754	475844.034	1107549.933	476013.484	10-01-13.485	122-46-46.763			2.128	
89	6284.08	1107997.144	475845.555	1107551.345	476015.007	10-01-13.531	122-46-46.813			0.035	
90	6321.70	1108022.471	475873.372	1107576.663	476042.816	10-01-14.356	122-46-47.726			1.439	bank
91	6324.14	1108024.114	475875.176	1107578.289	476044.613	10-01-14.409	122-46-47.785			0.368	eow
92	6326.02	1108025.374	475876.562	1107579.547	476045.984	10-01-14.450	122-46-47.830			-0.986	rb
93	6337.52	1108033.121	475885.071	1107587.312	476054.512	10-01-14.703	122-46-48.110			-1.142	rb
94	6356.52	1108045.909	475899.123	1107600.078	476068.554	10-01-15.119	122-46-48.571			-1.852	rb
95	6360.52	1108048.602	475902.081	1107602.779	476071.509	10-01-15.207	122-46-48.668			-1.972	rb
96	6368.41	1108053.927	475907.902	1107608.088	476077.326	10-01-15.380	122-46-48.859			1.238	dike
97	6391.00	1108069.119	475924.616	1107623.279	476094.018	10-01-15.875	122-46-49.407			0.932	rb
98	6398.01	1108073.836	475929.796	1107628.005	476099.196	10-01-16.029	122-46-49.577			0.131	eow
99	6418.51	1108087.639	475944.958	1107641.815	476114.365	10-01-16.479	122-46-50.075			-4.662	rb
100	6431.39	1108096.313	475954.485	1107650.469	476123.898	10-01-16.761	122-46-50.388			-0.962	rb
101	6468.41	1108121.235	475981.858	1107675.388	476151.251	10-01-17.573	122-46-51.286			0.248	eow
102	6544.44	1108172.415	476038.074	1107726.546	476207.448	10-01-19.240	122-46-53.131			-1.015	rb
103	6553.07	1108178.233	476044.453	1107732.377	476213.814	10-01-19.430	122-46-53.340			-1.083	rb
104	6578.18	1108195.132	476063.025	1107749.256	476232.394	10-01-19.980	122-46-53.950			-0.363	rb
105	6746.12	1108308.195	476187.211	1107862.283	476356.514	10-01-23.663	122-46-58.025			-0.188	eow
106	6752.02	1108312.165	476191.572	1107866.242	476360.869	10-01-23.792	122-46-58.168			-0.971	rb
107	6841.41	1108372.343	476257.669	1107926.423	476426.965	10-01-25.753	122-47-00.338			-1.925	rb
108	6868.31	1108390.453	476277.561	1107944.529	476446.854	10-01-26.343	122-47-00.991			-2.869	rb
109	6898.38	1108410.698	476299.798	1107964.753	476469.058	10-01-27.002	122-47-01.720			-0.021	rb
110	6901.54	1108412.824	476302.133	1107966.871	476471.404	10-01-27.071	122-47-01.797			0.054	eow
111	6906.79	1108416.370	476306.003	1107970.431	476475.272	10-01-27.187	122-47-01.924			1.379	rb
112	6914.73	1108421.702	476311.884	1107975.740	476481.150	10-01-27.360	122-47-02.117			1.811	dike
113	6916.99	1108423.237	476313.544	1107977.275	476482.795	10-01-27.410	122-47-02.171			3.158	
114	6919.54	1108424.941	476315.442	1107978.993	476484.714	10-01-27.466	122-47-02.234			3.254	
115	6925.92	1108429.235	476320.158	1107983.290	476489.435	10-01-27.606	122-47-02.389			6.259	dike
116	6927.48	1108430.286	476321.312	1107984.333	476490.562	10-01-27.640	122-47-02.426			6.254	dike
117	6928.72	1108431.134	476322.217	1107985.192	476491.476	10-01-27.668	122-47-02.456			6.277	**CS2-R1**
118	6934.98	1108435.336	476326.859	1107989.397	476496.106	10-01-27.805	122-47-02.608			6.181	er
119	6936.92	1108436.642	476328.294	1107990.686	476497.568	10-01-27.847	122-47-02.656			6.056	riprap
120	6939.52	1108438.405	476330.204	1107992.466	476499.456	10-01-27.905	122-47-02.718			3.431	dike

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
121	6942.15	1108440.165	476332.164	1107994.215	476501.436	10-01-27.962	122-47-02.783			3.514	bamboo fence
122	7056.48	1108517.135	476416.706	1108071.152	476585.928	10-01-30.469	122-47-05.557			3.605	
123	7153.23	1108582.264	476488.242	1108136.275	476657.444	10-01-32.591	122-47-07.905			3.379	
124	7157.50	1108585.143	476491.404	1108139.129	476660.612	10-01-32.684	122-47-08.009			3.371	er
125	7317.08	1108692.572	476609.401	1108246.541	476778.546	10-01-36.184	122-47-11.881			3.005	
126	7575.62	1108866.626	476800.578	1108420.519	476969.639	10-01-41.853	122-47-18.155			2.690	
127	7585.51	1108873.283	476807.890	1108427.179	476976.949	10-01-42.070	122-47-18.395			2.685	bank
128	7589.42	1108875.915	476810.781	1108429.818	476979.843	10-01-42.156	122-47-18.490			-1.030	bed
129	7594.64	1108879.432	476814.643	1108433.348	476983.711	10-01-42.271	122-47-18.617			0.358	eow
130	7595.96	1108880.317	476815.616	1108434.207	476984.686	10-01-42.299	122-47-18.649			1.687	bank
131	7616.97	1108894.464	476831.154	1108448.355	477000.219	10-01-42.760	122-47-19.159			2.419	
132	7771.21	1108998.298	476945.204	1108552.147	477114.222	10-01-46.142	122-47-22.902			2.441	
133	7923.68	1109100.942	477057.945	1108654.773	477226.915	10-01-49.486	122-47-26.602			2.949	
134	8516.01	1109499.713	477495.945	1109053.404	477664.767	10-02-02.475	122-47-40.978			2.982	
135	8790.72	1109684.650	477699.075	1109238.282	477867.790	10-02-08.499	122-47-47.644			2.659	
136	9303.91	1110030.138	478078.551	1109583.672	478247.122	10-02-19.753	122-48-00.099			2.295	
137	9328.41	1110046.631	478096.667	1109600.153	478265.243	10-02-20.290	122-48-00.694			2.289	bank
138	9333.49	1110050.053	478100.426	1109603.560	478268.989	10-02-20.401	122-48-00.817			1.796	bank
139	9415.81	1110105.470	478161.295	1109658.956	478329.840	10-02-22.206	122-48-02.815			2.129	bank
140	9428.91	1110114.289	478170.981	1109667.795	478339.525	10-02-22.494	122-48-03.133			2.396	bank
141	9433.85	1110117.617	478174.637	1109671.110	478343.180	10-02-22.602	122-48-03.253			-0.161	rb
142	9454.22	1110131.334	478189.702	1109684.829	478358.255	10-02-23.049	122-48-03.748			2.631	
143	9455.46	1110131.831	478190.915	1109685.319	478359.443	10-02-23.065	122-48-03.787			2.595	bank
144	9455.50	1110132.195	478190.648	1109685.688	478359.199	10-02-23.077	122-48-03.779			2.591	bank
145	9458.34	1110134.105	478192.746	1109687.591	478361.270	10-02-23.139	122-48-03.847			1.777	eow
146	9464.34	1110138.145	478197.184	1109691.642	478365.717	10-02-23.271	122-48-03.993			0.779	rb
147	9981.12	1110486.052	478579.316	1110039.432	478747.719	10-02-34.603	122-48-16.536			2.427	bank
148	9981.97	1110486.618	478579.938	1110039.984	478748.328	10-02-34.621	122-48-16.556			2.420	bank
149	9985.94	1110489.293	478582.876	1110042.654	478751.252	10-02-34.708	122-48-16.652			1.040	eow
150	10094.25	1110562.213	478662.969	1110115.546	478831.318	10-02-37.083	122-48-19.281			0.987	
151	10097.41	1110564.335	478665.301	1110117.694	478833.663	10-02-37.153	122-48-19.358			2.575	bank
152	10102.03	1110567.450	478668.722	1110120.794	478837.074	10-02-37.254	122-48-19.470			1.003	eow
153	10104.54	1110569.139	478670.577	1110122.482	478838.932	10-02-37.309	122-48-19.531			2.425	
154	10106.06	1110570.159	478671.698	1110123.495	478840.058	10-02-37.342	122-48-19.568			2.344	bank
155	10108.07	1110571.515	478673.186	1110124.845	478841.551	10-02-37.386	122-48-19.617			0.979	eow
156	10294.52	1110697.034	478811.054	1110250.342	478979.359	10-02-41.475	122-48-24.142			0.968	eow
157	10296.19	1110698.161	478812.291	1110251.477	478980.577	10-02-41.512	122-48-24.182			2.328	bank
158	10296.66	1110698.475	478812.637	1110251.784	478980.943	10-02-41.522	122-48-24.194			2.339	bank
159	10354.86	1110737.656	478855.672	1110290.946	479023.945	10-02-42.798	122-48-25.606			2.228	ricefield
160	10544.86	1110865.568	478996.167	1110418.807	479164.401	10-02-46.964	122-48-30.218			2.219	ricefield
161	10634.71	1110926.059	479062.609	1110479.300	479230.822	10-02-48.935	122-48-32.399			2.226	ricefield
162	10780.04	1111023.923	479170.048	1110577.114	479338.204	10-02-52.122	122-48-35.925			1.418	
163	10780.05	1111023.902	479170.078	1110577.083	479338.234	10-02-52.121	122-48-35.926			1.426	
164	10960.36	1111145.290	479303.407	1110698.438	479471.502	10-02-56.075	122-48-40.302			1.029	ricefield
165	11142.46	1111267.883	479438.061	1110820.990	479606.108	10-03-00.068	122-48-44.722			1.207	ricefield
166	11300.86	1111374.520	479555.188	1110927.614	479723.202	10-03-03.542	122-48-48.567			1.117	ricefield
167	11521.36	1111522.964	479718.236	1111076.010	479886.189	10-03-08.377	122-48-53.919			1.007	ricefield
168	11570.36	1111555.953	479754.469	1111108.974	479922.398	10-03-09.451	122-48-55.108			1.056	ricefield
169	12170.96	1111960.283	480198.576	1111513.162	480366.341	10-03-22.620	122-49-09.686			0.514	bank
170	12181.52	1111967.392	480206.385	1111520.282	480374.137	10-03-22.852	122-49-09.942			-0.258	eow
171	12409.77	1112121.059	480375.169	1111673.899	480542.874	10-03-27.857	122-49-15.483			-0.278	eow
172	12410.67	1112121.666	480375.835	1111674.513	480543.514	10-03-27.877	122-49-15.504			0.582	bank
173	12411.36	1112122.130	480376.344	1111674.973	480544.031	10-03-27.892	122-49-15.521			1.430	bank
174	12413.17	1112123.348	480377.683	1111676.170	480545.371	10-03-27.931	122-49-15.565			0.131	eow
175	12520.77	1112195.784	480457.245	1111748.605	480624.912	10-03-30.291	122-49-18.177			-0.402	eow
176	12522.08	1112196.726	480458.157	1111749.526	480625.826	10-03-30.321	122-49-18.207			1.388	bank
177	12522.27	1112196.793	480458.352	1111749.618	480626.009	10-03-30.324	122-49-18.213			1.428	bank
178	12523.77	1112197.806	480459.465	1111750.631	480627.135	10-03-30.357	122-49-18.250			0.397	eow
179	12676.65	1112300.726	480572.511	1111853.514	480740.113	10-03-33.709	122-49-21.960			-0.155	eow
180	12680.09	1112303.039	480575.051	1111855.816	480742.671	10-03-33.784	122-49-22.044			1.267	
181	12879.20	1112437.087	480722.286	1111989.821	480889.845	10-03-38.150	122-49-26.877			1.414	
182	12880.06	1112437.661	480722.916	1111990.404	480890.484	10-03-38.169	122-49-26.898			1.345	
183	12881.17	1112438.410	480723.739	1111991.141	480891.306	10-03-38.193	122-49-26.925			1.400	bank
184	12883.23	1112439.798	480725.264	1111992.522	480892.829	10-03-38.238	122-49-26.975			0.102	eow
185	12960.37	1112491.730	480782.305	1112044.455	480949.835	10-03-39.930	122-49-28.847			-0.299	eow
186	12962.47	1112493.146	480783.860	1112045.867	480951.388	10-03-39.976	122-49-28.898			1.389	bank
187	12963.37	1112493.752	480784.525	1112046.450	480952.058	10-03-39.995	122-49-28.920			1.372	bank
188	12965.87	1112495.435	480786.374	1112048.138	480953.915	10-03-40.050	122-49-28.981			-0.199	eow
189	13050.37	1112552.319	480848.854	1112105.012	481016.372	10-03-41.903	122-49-31.032			-0.155	eow
190	13052.47	1112553.733	480850.407	1112106.424	481017.925	10-03-41.949	122-49-31.083			1.365	bank
191	13054.37	1112555.010	480851.810	1112107.713	481019.325	10-03-41.991	122-49-31.129			1.409	bank
192	13056.63	1112556.532	480853.481	1112109.217	481021.000	10-03-42.040	122-49-31.184			-0.289	eow
193	13237.44	1112678.256	480987.180	1112230.916	481154.621	10-03-46.005	122-49-35.572			-0.318	eow
194	13239.37	1112679.555	480988.607	1112232.205	481156.053	10-03-46.047	122-49-35.619			1.372	bank
195	13318.87	1112733.075	481047.392	1112285.704	481214.824	10-03-47.790	122-49-37.549			1.216	bank
196	13319.00	1112733.243	481047.422	1112285.888	481214.854	10-03-47.796	122-49-37.550			-0.453	eow
197	13437.05	1112812.640	481134.784	1112365.261	481302.188	10-03-50.382	122-49-40.418			-0.494	eow
198	13438.66	1112813.724	481135.975	1112366.335	481303.376	10-03-50.417	122-49-40.457			1.201	bank
199	13440.17	1112814.736	481137.087	1112367.348	481304.472	10-03-50.450	122-49-40.493			1.209	bank
200	13442.66	1112816.419	481138.935	1112369.036	481306.330	10-03-50.505	122-49-40.554			-0.491	eow
201	13670.63	1112969.892	481307.506	1112522.443	481474.845	10-03-55.503	122-49-46.088			-0.521	eow
202	13674.24	1112972.319	481310.172	1112524.867	481477.495	10-03-55.582	122-49-46.175			1.199	bank
203	13677.60	1112974.579	481312.655	1112527.139	481479.992	10-03-55.656	122-49-46.257			0.787	
204	13678.98	1112975.512	481313.679	1112528.060	481480.997	10-03-55.686	122-49-46.290			1.092	bank
205	13680.97	1112976.848	481315.146	1112529.410	481482.489	10-03-55.730	122-49-46.339			-0.051	bbank
206	13684.69	1112979.355	481317.899	1112531.896	481485.229	10-03-55.811	122-49-46.429			-0.527	eow
207	13711.24	1112997.230	481337.533	1112549.791	481504.840	10-03-56.394	122-49-47.073			-1.040	rb
208	13758.53	1113029.062	481372.497	1112581.589	481539.797	10-03-57.430	122-49-48.221			-3.266	rb
209	13761.30	1113030.928	481374.547	1112583.462	481541.868	10-03-57.491	122-49-48.289			-2.187	rb
210	13764.68	1113033.205	481377.047	1112585.733	481544.365	10-03-57.565	122-49-48.371			-0.439	eow
211	13775.96	1113040.800	481385.389	1112593.345	481552.678	10-03-57.813	122-49-48.644			0.006	bank
212	13780.10	1113043.586	481388.449	1112596.107	481555.753	10-03-57.903	122-49-48.745			0.013	bank
213	13780.86	1113044.095	481389.008	1112596.629	481556.301	10-03-57.920	122-49-48.763			2.049	
214	13782.66	1113045.307	481390.340	1112597.826	481557.641	10-03-57.959	122-49-48.807			1.960	bank
215	13784.58	1113046.602	481391.762	1112599.146	481559.072	10-03-58.002	122-49-48.854			0.810	eow
216	14099.80	1113258.815	481624.852	1112811.271	481792.050	10-04-04.913	122-49-56.505			1.972	
217	14101.81	1113260.164	481626.334	1112812.621	481793.542	10-04-04.957	122-49-56.554			2.013	
218	14152.12	1113294.039	481663.542	1112846.477	481830.722	10-04-06.060	122-49-57.775	10-04-01.90 N	122-50-03.05 E	1.692	

ILOG-HILABANGAN RIVER
CROSS-SECTION 3-3

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1103048.673	477573.361	1102604.695	477742.321	9-58-32.490	122-47-43.651	9-58-28.35 N	122-47-48.94 E	8.417	
2	310.61	1103259.958	477801.041	1102815.909	477969.904	9-58-39.372	122-47-51.122			8.877	
3	556.81	1103427.432	477981.504	1102983.327	478150.299	9-58-44.827	122-47-57.044			8.743	
4	558.63	1103428.672	477982.841	1102984.585	478151.639	9-58-44.868	122-47-57.088			9.338	
5	560.73	1103430.096	477984.375	1102985.997	478153.193	9-58-44.914	122-47-57.139			9.458	
6	565.96	1103433.656	477988.210	1102989.557	478157.001	9-58-45.030	122-47-57.264			9.659	er
7	580.23	1103443.361	477998.669	1102999.256	478167.479	9-58-45.346	122-47-57.608			9.734	er
8	583.18	1103445.372	478000.836	1103001.281	478169.642	9-58-45.412	122-47-57.679			9.326	t.canal
9	584.19	1103446.059	478001.575	1103001.957	478170.373	9-58-45.434	122-47-57.703			8.305	b.canal
10	585.36	1103446.852	478002.430	1103002.754	478171.226	9-58-45.460	122-47-57.731			8.236	b.canal
11	586.36	1103447.532	478003.163	1103003.430	478171.957	9-58-45.482	122-47-57.755			9.488	sugarcane plantation
12	819.71	1103606.240	478174.233	1103162.072	478342.968	9-58-50.651	122-48-03.369			8.123	sugarcane plantation
13	819.90	1103606.387	478174.355	1103162.225	478343.090	9-58-50.656	122-48-03.373			9.450	trail
14	825.22	1103609.985	478178.269	1103165.816	478346.989	9-58-50.773	122-48-03.501			9.706	trail
15	828.85	1103612.455	478180.931	1103168.302	478349.670	9-58-50.854	122-48-03.589			8.707	sugarcane plantation
16	1020.75	1103742.991	478321.590	1103298.801	478490.279	9-58-55.106	122-48-08.205			8.606	sugarcane plantation
17	1026.50	1103746.902	478325.804	1103302.699	478494.483	9-58-55.233	122-48-08.343			8.743	sugarcane plantation
18	1041.55	1103757.140	478336.836	1103312.919	478505.510	9-58-55.566	122-48-08.705			8.300	canal
19	1045.91	1103760.108	478340.034	1103315.896	478508.708	9-58-55.663	122-48-08.810			9.321	trail/
20	1062.13	1103771.145	478351.927	1103326.945	478520.588	9-58-56.023	122-48-09.200			9.109	trail/
21	1064.57	1103772.798	478353.709	1103328.571	478522.385	9-58-56.076	122-48-09.259			9.004	t.canal
22	1068.42	1103775.418	478356.531	1103331.211	478525.188	9-58-56.162	122-48-09.351			8.484	b.canal
23	1095.49	1103793.833	478376.374	1103331.211	478525.188	9-58-56.762	122-48-10.002			7.646	t.canal
24	1108.18	1103802.469	478385.680	1103358.250	478554.339	9-58-57.043	122-48-10.308			8.803	b.canal
25	1206.69	1103869.476	478457.884	1103425.218	478626.501	9-58-59.225	122-48-12.677			9.270	
26	1405.07	1104004.434	478603.279	1103560.138	478771.861	9-59-03.621	122-48-17.449			9.137	
27	1406.34	1104005.289	478604.229	1103560.997	478772.805	9-59-03.649	122-48-17.480			9.195	t.canal
28	1406.99	1104005.727	478604.701	1103561.427	478773.262	9-59-03.663	122-48-17.495			7.578	b.canal
29	1409.37	1104015.281	478614.997	1103571.002	478783.557	9-59-03.975	122-48-17.833			7.514	b.canal
30	1423.33	1104016.846	478616.683	1103572.568	478785.233	9-59-04.026	122-48-17.888			9.185	t.canal
31	1423.97	1104017.279	478617.149	1103572.997	478785.720	9-59-04.040	122-48-17.904			9.103	
32	1555.56	1104106.802	478713.591	1103662.494	478882.128	9-59-06.956	122-48-21.069			8.486	sugarcane plantation
33	1918.33	1104353.559	478979.508	1103909.163	479147.925	9-59-14.993	122-48-29.795			9.537	chb fence
34	1927.61	1104359.871	478986.310	1103915.455	479154.718	9-59-15.198	122-48-30.018			9.601	egde of bball court
35	1948.31	1104373.954	479001.484	1103929.542	479169.887	9-59-15.657	122-48-30.516			9.617	egde of bball court
36	1954.97	1104378.489	479006.370	1103934.085	479174.791	9-59-15.805	122-48-30.677			9.723	t.canal
37	1957.34	1104380.099	479008.104	1103935.681	479176.527	9-59-15.857	122-48-30.734			9.232	b.canal
38	1958.21	1104380.692	479008.744	1103936.264	479177.167	9-59-15.876	122-48-30.755			9.330	b.canal
39	1958.48	1104380.871	479008.936	1103936.448	479177.350	9-59-15.882	122-48-30.761			9.735	t.canal/er
40	1958.63	1104379.397	479010.512	1103934.973	479178.932	9-59-15.834	122-48-30.813			9.746	
41	1961.06	1104382.630	479010.830	1103938.228	479179.238	9-59-15.940	122-48-30.823			9.734	er
42	1997.37	1104407.332	479037.449	1103962.905	479205.860	9-59-16.744	122-48-31.697			9.888	
43	2003.08	1104411.212	479041.629	1103966.802	479210.034	9-59-16.871	122-48-31.834			9.898	b.dike
44	2004.15	1104411.942	479042.420	1103967.508	479210.825	9-59-16.894	122-48-31.860			11.423	t.dike
45	2005.06	1104412.559	479043.082	1103968.122	479211.465	9-59-16.914	122-48-31.881			11.419	t.dike
46	2010.53	1104416.283	479047.095	1103971.867	479215.486	9-59-17.036	122-48-32.013			7.836	
47	2011.48	1104416.929	479047.792	1103972.511	479216.186	9-59-17.057	122-48-32.036			7.838	
48	2017.78	1104421.209	479052.402	1103976.777	479220.786	9-59-17.196	122-48-32.187			4.745	
49	2020.45	1104423.032	479054.365	1103978.619	479222.766	9-59-17.256	122-48-32.252			2.685	eow
50	2046.72	1104440.900	479073.619	1103996.481	479242.017	9-59-17.838	122-48-32.884			-1.915	r.bed
51	2081.91	1104464.836	479099.414	1104020.390	479267.786	9-59-18.617	122-48-33.730			-1.065	r.bed
52	2089.70	1104470.134	479105.123	1104025.700	479273.482	9-59-18.790	122-48-33.917			-1.073	r.bed
53	2118.17	1104489.502	479125.994	1104045.067	479294.347	9-59-19.421	122-48-34.602			2.216	r.bed
54	2119.89	1104490.674	479127.256	1104046.233	479295.626	9-59-19.459	122-48-34.644			3.308	eow
55	2119.92	1104490.693	479127.275	1104046.233	479295.626	9-59-19.459	122-48-34.644			3.246	
56	2169.39	1104524.341	479163.535	1104079.871	479331.873	9-59-20.555	122-48-35.834			4.301	
57	2171.89	1104526.045	479165.371	1104081.590	479333.731	9-59-20.611	122-48-35.895			5.689	
58	2175.51	1104528.507	479168.025	1104084.046	479336.381	9-59-20.691	122-48-35.982			6.647	
59	2178.97	1104530.859	479170.558	1104086.409	479338.910	9-59-20.768	122-48-36.065			8.759	
60	2179.37	1104531.132	479170.852	1104086.654	479339.214	9-59-20.776	122-48-36.075			8.797	**CS3-R2**
61	2180.00	1104531.561	479171.315	1104087.084	479339.671	9-59-20.790	122-48-36.090			8.756	toe riprap
62	2180.76	1104532.074	479171.867	1104087.606	479340.219	9-59-20.807	122-48-36.108			10.746	t.riprap
63	2183.08	1104533.657	479173.572	1104089.202	479341.925	9-59-20.859	122-48-36.164			10.771	
64	2322.84	1104628.722	479276.010	1104184.224	479444.331	9-59-23.955	122-48-39.526			10.207	fence
65	2325.15	1104630.293	479277.703	1104185.790	479446.006	9-59-24.006	122-48-39.581			10.022	er
66	2334.30	1104636.533	479284.403	1104192.020	479452.707	9-59-24.209	122-48-39.801			10.018	er
67	2336.30	1104637.884	479285.882	1104193.401	479454.200	9-59-24.254	122-48-39.850			9.959	gate/driveway
68	2443.76	1104710.981	479364.648	1104266.449	479532.908	9-59-26.634	122-48-42.434			9.845	
69	2448.77	1104714.389	479368.321	1104269.855	479536.593	9-59-26.745	122-48-42.555			9.627	t. gutter
70	2453.40	1104717.537	479371.713	1104273.017	479539.974	9-59-26.848	122-48-42.666			9.612	driveway
71	2453.59	1104717.668	479371.854	1104273.140	479540.126	9-59-26.852	122-48-42.671			9.900	t. gutter
72	2455.83	1104719.187	479373.491	1104274.674	479541.771	9-59-26.902	122-48-42.725			9.715	t. gutter
73	2456.21	1104719.448	479373.773	1104274.920	479542.045	9-59-26.910	122-48-42.734			9.733	er
74	2496.37	1104746.769	479403.212	1104302.236	479571.469	9-59-27.800	122-48-43.700			9.845	**CS3-R1**
75	2498.84	1104748.433	479405.026	1104303.893	479573.297	9-59-27.854	122-48-43.760			9.695	er
76	2499.01	1104748.548	479405.152	1104304.016	479573.419	9-59-27.858	122-48-43.764			9.912	
77	2502.02	1104750.587	479407.374	1104306.041	479575.642	9-59-27.924	122-48-43.837			9.916	
78	2502.26	1104750.748	479407.550	1104306.196	479575.795	9-59-27.930	122-48-43.842			9.995	
79	2666.65	1104862.600	479528.025	1104418.038	479696.231	9-59-31.573	122-48-47.796			8.612	fence
80	2669.45	1104864.503	479530.076	1104419.941	479698.272	9-59-31.635	122-48-47.863			8.614	driveway
81	2682.10	1104873.110	479539.351	1104428.534	479707.562	9-59-31.915	122-48-48.168			8.524	er
82	2682.14	1104873.136	479539.378	1104428.565	479707.592	9-59-31.916	122-48-48.169			8.709	
83	2685.78	1104875.609	479542.044	1104431.020	479710.242	9-59-31.996	122-48-48.256			10.650	fence
84	2751.59	1104920.378	479590.284	1104475.801	479758.459	9-59-33.455	122-48-49.839			8.416	
85	2752.25	1104920.827	479590.768	1104476.230	479758.947	9-59-33.469	122-48-49.855			8.417	
86	2753.63	1104921.764	479591.778	1104477.182	479759.952	9-59-33.500	122-48-49.888			8.153	er
87	2760.58	1104926.494	479596.874	1104481.908	479765.069	9-59-33.654	122-48-50.056			8.167	er
88	2762.64	1104927.896	479598.385	1104483.290	479766.561	9-59-33.699	122-48-50.105			8.223	t.shoulder
89	2763.45	1104928.442	479598.974	1104483.842	479767.171	9-59-33.717	122-48-50.125			8.454	
90	3122.49	1105172.677	479862.149	1104728.001	480030.214	9-59-41.672	122-48-58.761			8.039	
91	3123.78	1105173.553	479863.094	1104728.891	480031.159	9-59-41.701	122-48-58.792			7.754	er
92	3124.98	1105174.371	479863.976	1104729.689	480032.042	9-59-41.727	122-48-58.821			7.631	
93	3138.62	1105183.652	479873.976	1104738.989	480042.063	9-59-42.030	122-48-59.150			7.654	er
94	3141.08	1105185.325	479875.778	1104740.646	480043.860	9-59-42.084	122-48-59.209			7.485	driveway
95	3732.07	1105587.337	480308.968	1105142.538	480476.887	9-59-55.178	122-49-13.426			5.520	b.canal
96	3732.75	1105587.801	480309.468	1105142.998	480477.375	9-59-55.193	122-49-13.442			4.750	canal
97	3733.43	1105588.264	480309.966	1105143.459	480477.862	9-59-55.208	122-49-13.458			4.755	
98	3734.15	1105588.750	480310.490	1105143.950	480478.410	9-59-55.224	122-49-13.476			4.998	er
99	3745.75	1105596.643	480318.995	1105151.838	480486.908	9-59-55.481	122-49-13.755			5.062	er
100	3746.39	1105597.080	480319.466	1105152.268	480487.365	9-59-55.495	122-49-13.770			4.488	b.canal
101	3747.56	1105597.872	480320.319	1105153.066	480488.218	9-59-55.521	122-49-13.798			5.209	b.canal
102	3748.73	1105598.670	480321.179	1105153.864	480489.071	9-59-55.547	122-49-13.826			5.648	t.bank
103	3770.72	1105613.626	480337.294	1105168.811	480505.183	9-59-56.034	122-49-14.355			5.760	t.bank
104	3772.05	1105614.534	480338.274	1105169.701	480506.158	9-59-56.063	122-49-14.387			4.637	b.canal
105	3773.30	1105615.384	480339.189	1105170.561	480507.071	9-59-56.091	122-49-14.417			4.577	b.canal
106	3775.51	1105616.884	480340.806	1105172.065	480508.686	9-59-56.140	122-49-14.470			6.021	t.bank
107	3778.39	1105618.842	480342.915	1105174.029	480510.818	9-59-56.204	122-49-14.540			6.169	
108	3784.35	1105622.899	480347.287	1105178.080	480515.173	9-59-56.336	122-49-14.683			6.213	
109	3789.49	1105626.397	480351.056	1105181.579	480518.950	9-59-56.450	122-49-14.807			5.975	
110	3789.84	1105626.635	480351.312	1105181.825	480519.194	9-59-56.458	122-49-14.815			6.564	
111	3792.10	1105628.169	480352.966	1105183.360	480520.869	9-59-56.508	122-49-14.870			5.599	sugarcane plantation
112	3812.42	1105641.995	480367.864	1105197.171	480535.763	9-59-56.958	122-49-15.359			6.393	
113	3850.18	1105667.681	480395.542	1105222.831	480563.419	9-59-57.794	122-49-16.267			5.622	t.bank
114	3850.57	1105667.943	480395.824	1105223.107	480563.693	9-59-57.803	122-49-16.276			2.894	b.creek
115	3859.71	1105674.160	480402.524	1105229.307	480570.393	9-59-58.005	122-49-16.496			3.334	b.creek
116	3860.80	1105674.905	480403.326	1105230.074	480571.185	9-59-58.030	122-49-16.522			5.757	t.bank
117	3886.63	1105692.471	480422.254	1105247.631	480590.130	9-59-58.602	122-49-17.144			5.472	t.bank
118	4793.59	1106309.426	481087.055	1105864.384	481254.649	10-00-18.696	122-49-38.962			3.918	
119	4801.15	1106314.566	481092.594	1105869.510	481260.192	10-00-18.863	122-49-39.144			4.008	
120	4805.23	1106317.338	481095.581	1105872.273	481263.177	10-00-18.953	122-49-39.242			3.372	
121	4828.24	1106332.994	481112.451	1105887.926	481280.050	10-00-19.463	122-49-39.796			4.017	
122	4914.56	1106391.710	481175.720	1105946.644	481343.279	10-00-21.376	122-49-41.872			3.120	sugarcane plantation
123	4921.78	1106396.620	481181.011	1105951.555	481348.578	10-00-21.536	122-49-42.046			3.349	
124	4971.30	1106430.304	481217.308	1105985.226	481384.852	10-00-22.633	122-49-43.237			3.171	
125	5454.20	1106758.795	481571.273	1106313.590	481738.694	10-00-33.331	122-49-54.855			2.841	
126	5455.96	1106759.991	481572.562	1106314.787	481739.973	10-00-33.370	122-49-54.897			2.749	
127	5457.55	1106761.071	481573.726	1106315.861	481741.131	10-00-33.405	122-49-54.935			2.722	rail road
128	5458.79	1106761.919	481574.640	1106316.721	481742.044	10-00-33.433	122-49-54.965			2.130	rail road
129	5835.34	1107018.061	481850.645	1106572.773	482017.944	10-00-41.775	122-50-04.024			2.015	rf
130	5920.21	1107075.791	481912.853	1106630.478	482080.135	10-00-43.655	122-50-06.066			1.999	rf
131	5982.86	1107118.406	481958.772	1106673.082	482126.031	10-00-45.043	122-50-07.573			1.990	trail
132	5985.87	1107120.458	481960.984	1106675.139	482128.254	10-00-45.110	122-50-07.646			2.307	
133	5991.18	1107124.071	481964.877	1106678.761	482132.153	10-00-45.228	122-50-07.774			2.403	trail
134	5992.40	1107124.902	481965.772	1106679.589	482133.036	10-00-45.255	122-50-07.803			2.123	
135	6079.23	1107183.966	482029.416	1106738.615	482196.657	10-00-47.178	122-50-09.892			3.226	rf
136	6136.18	1107222.705	482071.160	1106777.351	482238.381	10-00-48.440	122-50-11.262	10-00-44.30 N	122-50-16.54 E	3.243	sugarcane plantation

ILOG-HILABANGAN RIVER
CROSS-SECTION 4-4

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1099138.844	478269.426	1098696.289	478438.247	9-56-25.235	122-48-06.582	9-56-21.11 N	122-48-11.87 E	46.891	
2	79.95	1099196.415	478324.903	1098753.839	478493.696	9-56-27.110	122-48-08.402			39.601	
3	154.18	1099249.862	478376.407	1098807.276	478545.185	9-56-28.851	122-48-10.092			31.732	
4	336.95	1099381.472	478503.230	1098938.858	478671.957	9-56-33.138	122-48-14.253			22.341	
5	353.29	1099393.243	478514.573	1098950.614	478683.321	9-56-33.521	122-48-14.626			11.546	bot.
6	435.67	1099452.563	478571.736	1099009.914	478740.446	9-56-35.453	122-48-16.501			10.121	bank
7	440.78	1099456.241	478575.280	1099013.597	478743.980	9-56-35.573	122-48-16.617			8.622	eow
8	442.59	1099457.545	478576.537	1099014.886	478745.259	9-56-35.615	122-48-16.659			8.159	center line
9	444.93	1099459.227	478578.157	1099016.574	478746.874	9-56-35.670	122-48-16.712			8.603	eow
10	445.82	1099459.873	478578.780	1099017.219	478747.483	9-56-35.691	122-48-16.732			9.262	bank
11	449.80	1099462.737	478581.540	1099020.073	478750.256	9-56-35.784	122-48-16.823			10.046	bank
12	451.65	1099464.068	478582.822	1099021.424	478751.535	9-56-35.828	122-48-16.865			9.039	
13	453.73	1099465.568	478584.268	1099022.928	478752.967	9-56-35.877	122-48-16.912			9.120	
14	456.29	1099467.408	478586.041	1099024.769	478754.734	9-56-35.937	122-48-16.970			10.903	er
15	458.96	1099469.333	478587.896	1099026.672	478756.593	9-56-35.999	122-48-17.031			10.988	
16	462.50	1099471.880	478590.351	1099029.220	478759.061	9-56-36.082	122-48-17.112			10.878	er
17	464.25	1099473.139	478591.564	1099030.478	478760.279	9-56-36.123	122-48-17.152			10.459	
18	609.99	1099578.104	478692.668	1099135.419	478861.336	9-56-39.542	122-48-20.469			9.889	top canal
19	610.98	1099578.824	478693.358	1099136.125	478862.037	9-56-39.565	122-48-20.492			10.003	bot. canal
20	611.49	1099579.184	478693.708	1099136.493	478862.372	9-56-39.577	122-48-20.503			10.007	bot. canal
21	612.18	1099579.585	478694.299	1099136.892	478862.950	9-56-39.590	122-48-20.522			10.507	top canal
22	618.99	1099584.585	478698.912	1099141.895	478867.581	9-56-39.753	122-48-20.674			10.707	
23	620.49	1099585.666	478699.954	1099142.970	478868.617	9-56-39.788	122-48-20.708			10.627	top canal
24	621.49	1099586.386	478700.648	1099143.706	478869.318	9-56-39.812	122-48-20.731			9.405	bot. canal
25	621.99	1099586.745	478700.994	1099144.044	478869.653	9-56-39.823	122-48-20.742			9.408	bot. canal
26	622.99	1099587.466	478701.689	1099144.781	478870.354	9-56-39.847	122-48-20.765			9.989	top canal
27	1202.42	1100004.709	479103.750	1099561.877	479272.259	9-56-53.436	122-48-33.957			10.751	top canal
28	1205.06	1100006.609	479105.581	1099563.780	479274.087	9-56-53.498	122-48-34.017			9.290	bot. canal
29	1210.87	1100010.793	479109.612	1099567.955	479278.108	9-56-53.634	122-48-34.149			9.317	bot. canal
30	1212.75	1100012.145	479110.916	1099569.305	479279.418	9-56-53.678	122-48-34.192			11.101	top canal
31	1218.99	1100016.638	479115.246	1099573.817	479283.744	9-56-53.825	122-48-34.334			11.029	
32	1221.91	1100018.738	479117.270	1099575.904	479285.755	9-56-53.893	122-48-34.400			10.869	top canal
33	1222.85	1100019.416	479117.923	1099576.579	479286.425	9-56-53.915	122-48-34.422			10.311	bot. canal
34	1223.88	1100020.157	479118.637	1099577.316	479287.126	9-56-53.939	122-48-34.445			10.303	bot. canal
35	1225.60	1100021.399	479119.834	1099578.575	479288.345	9-56-53.980	122-48-34.485			11.440	top canal
36	1227.05	1100022.439	479120.836	1099579.587	479289.320	9-56-54.013	122-48-34.517			11.420	top canal
37	1227.50	1100022.766	479121.151	1099579.925	479289.655	9-56-54.024	122-48-34.528			10.957	
38	1355.73	1100115.102	479210.128	1099672.222	479378.583	9-56-57.031	122-48-37.447			10.999	
39	1356.84	1100115.904	479210.902	1099673.050	479379.375	9-56-57.058	122-48-37.473			11.767	bank
40	1359.99	1100118.171	479213.092	1099675.291	479381.538	9-56-57.131	122-48-37.544			12.147	**CS-4-R-2**
41	1365.18	1100121.908	479216.688	1099679.036	479385.133	9-56-57.253	122-48-37.662			12.157	er
42	1372.35	1100127.071	479221.662	1099684.192	479390.129	9-56-57.421	122-48-37.826			11.864	
43	1372.60	1100127.252	479221.838	1099684.376	479390.282	9-56-57.427	122-48-37.831			12.194	top canal
44	1373.25	1100127.715	479222.284	1099684.837	479390.739	9-56-57.442	122-48-37.846			11.456	bot. canal
45	1375.11	1100129.054	479223.575	1099686.187	479392.018	9-56-57.486	122-48-37.888			11.485	bot. canal
46	1375.82	1100129.571	479224.071	1099686.709	479392.536	9-56-57.503	122-48-37.905			12.238	top canal
47	1375.94	1100129.656	479224.154	1099686.771	479392.597	9-56-57.505	122-48-37.907			11.846	
48	1567.82	1100267.867	479357.256	1099824.955	479525.669	9-57-02.007	122-48-42.275			11.614	sugarcane plantation
49	1774.99	1100417.041	479501.005	1099974.067	479669.341	9-57-06.865	122-48-46.991			10.423	
50	1781.17	1100421.494	479505.295	1099978.518	479673.637	9-57-07.010	122-48-47.132			9.901	top bank
51	1784.36	1100423.792	479507.511	1099980.820	479675.861	9-57-07.085	122-48-47.205			7.657	
52	1787.82	1100426.283	479509.911	1099983.306	479678.268	9-57-07.166	122-48-47.284			4.218	eow
53	1790.12	1100427.940	479511.507	1099984.963	479679.852	9-57-07.220	122-48-47.336			2.977	rb
54	1815.37	1100446.121	479529.028	1100003.134	479697.369	9-57-07.812	122-48-47.911			1.116	rb
55	1830.37	1100456.923	479539.436	1100013.939	479707.757	9-57-08.164	122-48-48.252			2.382	rb
56	1846.31	1100468.401	479550.497	1100025.418	479718.816	9-57-08.538	122-48-48.615			2.591	rb
57	1872.70	1100487.401	479568.805	1100044.418	479737.125	9-57-09.157	122-48-49.216			3.118	rb
58	1881.74	1100493.915	479575.083	1100050.925	479743.401	9-57-09.369	122-48-49.422			4.130	eow
59	1882.70	1100494.606	479575.748	1100051.600	479744.071	9-57-09.391	122-48-49.444			4.876	top bank
60	1897.17	1100505.026	479585.789	1100062.036	479754.094	9-57-09.731	122-48-49.773			6.139	
61	2085.85	1100640.887	479716.711	1100197.859	479884.970	9-57-14.156	122-48-54.069			6.692	
62	2578.91	1100995.900	480058.880	1100552.748	480227.021	9-57-25.718	122-49-05.297			10.009	
63	2642.94	1101041.999	480103.303	1100598.821	480271.407	9-57-27.219	122-49-06.754			9.656	
64	2661.26	1101055.193	480116.017	1100612.019	480284.110	9-57-27.649	122-49-07.171			7.155	bank
65	2668.72	1101060.566	480121.196	1100617.391	480289.289	9-57-27.824	122-49-07.341			7.152	eow
66	2678.08	1101067.308	480127.693	1100624.113	480295.808	9-57-28.043	122-49-07.555			6.501	rb
67	2688.42	1101074.754	480134.868	1100631.572	480302.967	9-57-28.286	122-49-07.790			6.427	rb
68	2703.68	1101085.743	480145.457	1100642.561	480313.538	9-57-28.644	122-49-08.137			6.294	rb
69	2720.72	1101098.012	480157.280	1100654.808	480325.358	9-57-29.043	122-49-08.525			6.534	rb
70	2732.62	1101106.581	480165.537	1100663.372	480333.613	9-57-29.322	122-49-08.796			6.644	rb
71	2744.69	1101115.269	480173.910	1100672.058	480341.991	9-57-29.605	122-49-09.071			6.852	rb
72	2761.66	1101127.493	480185.688	1100684.275	480353.780	9-57-30.003	122-49-09.458			7.118	eow
73	2773.92	1101136.318	480194.193	1100693.115	480362.280	9-57-30.291	122-49-09.737			7.382	
74	2779.56	1101140.376	480198.104	1100697.166	480366.179	9-57-30.423	122-49-09.865			8.385	
75	2802.93	1101157.205	480214.319	1100713.987	480382.386	9-57-30.971	122-49-10.397			8.399	
76	2837.37	1101182.005	480238.218	1100738.789	480406.269	9-57-31.779	122-49-11.181			7.347	
77	2875.02	1101209.119	480264.346	1100765.892	480432.407	9-57-32.662	122-49-12.039			7.761	
78	2886.50	1101217.384	480272.310	1100774.149	480440.358	9-57-32.931	122-49-12.300			8.112	
79	2958.36	1101269.129	480322.175	1100825.870	480490.196	9-57-34.616	122-49-13.936			8.695	
80	2993.94	1101294.748	480346.861	1100851.500	480514.871	9-57-35.451	122-49-14.746			7.788	
81	3516.59	1101671.114	480709.507	1101227.728	480877.381	9-57-47.708	122-49-26.646			12.031	sugarcane plantation
82	3612.01	1101739.824	480775.717	1101296.424	480943.576	9-57-49.946	122-49-28.819			12.328	bot. railway
83	3613.86	1101741.158	480777.004	1101297.744	480944.855	9-57-49.989	122-49-28.861			13.213	top railway
84	3617.66	1101743.891	480779.638	1101300.476	480947.475	9-57-50.078	122-49-28.947			13.084	top railway
85	3619.46	1101745.192	480780.891	1101301.796	480948.724	9-57-50.121	122-49-28.988			12.639	bot. railway
86	3852.61	1101913.079	480942.672	1101469.607	481110.449	9-57-55.588	122-49-34.297			12.760	sugarcane plantation
87	4202.90	1102165.331	481185.713	1101721.769	481353.414	9-58-03.803	122-49-42.273			16.141	sugarcane plantation
88	4204.10	1102166.194	481186.544	1101722.629	481354.237	9-58-03.831	122-49-42.300			16.499	
89	4207.23	1102168.451	481188.720	1101724.900	481356.400	9-58-03.905	122-49-42.371			16.737	er
90	4214.62	1102173.768	481193.844	1101730.211	481361.517	9-58-04.078	122-49-42.539			16.753	er
91	4217.77	1102176.045	481196.038	1101732.482	481363.711	9-58-04.152	122-49-42.611			16.788	**CS-4-R-1**
92	4274.94	1102217.205	481235.700	1101773.645	481403.372	9-58-05.493	122-49-43.913			16.842	
93	4301.72	1102236.493	481254.287	1101792.922	481421.953	9-58-06.121	122-49-44.523			16.991	
94	4408.28	1102313.223	481328.226	1101869.630	481495.853	9-58-08.620	122-49-46.949			18.288	
95	4460.79	1102351.035	481364.663	1101907.416	481532.286	9-58-09.851	122-49-48.145			28.825	
96	4505.44	1102383.184	481395.644	1101939.555	481563.265	9-58-10.898	122-49-49.162	9-58-06.77 N	122-49-54.45 E	33.996	

ILOG-HILABANGAN RIVER
CROSS-SECTION 5-5

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1098574.697	479920.321	1098132.415	480088.559	9-56-06.903	122-49-00.791	9-56-02.78 N	122-49-06.08 E	45.685	
2	40.10	1098594.112	479955.405	1098151.805	480123.647	9-56-07.535	122-49-01.943			35.659	
3	83.11	1098614.941	479993.043	1098172.637	480161.263	9-56-08.214	122-49-03.178			25.581	
4	162.67	1098653.461	480062.648	1098211.142	480230.829	9-56-09.469	122-49-05.462			15.292	
5	287.61	1098713.960	480171.970	1098271.615	480340.112	9-56-11.440	122-49-09.050			11.491	
6	448.87	1098792.040	480313.060	1098349.669	480481.163	9-56-13.984	122-49-13.681			10.252	
7	450.97	1098793.056	480314.896	1098350.681	480482.990	9-56-14.017	122-49-13.741			11.229	er
8	457.58	1098796.261	480320.686	1098353.903	480488.777	9-56-14.122	122-49-13.931			11.375	er
9	460.72	1098797.781	480323.432	1098355.406	480491.519	9-56-14.171	122-49-14.021			10.185	
10	582.32	1098856.659	480429.825	1098414.284	480597.877	9-56-16.090	122-49-17.513			10.152	t.bnk
11	589.00	1098859.893	480435.668	1098417.506	480603.725	9-56-16.195	122-49-17.705			1.815	bottom
12	597.34	1098863.934	480442.971	1098421.556	480611.035	9-56-16.327	122-49-17.945			-0.643	rb
13	606.43	1098868.331	480450.917	1098425.943	480618.954	9-56-16.470	122-49-18.205			-0.635	rb
14	618.94	1098874.390	480461.864	1098432.018	480629.919	9-56-16.668	122-49-18.565			-0.471	rb
15	624.32	1098876.996	480466.575	1098434.596	480634.609	9-56-16.752	122-49-18.719			-0.503	rb
16	629.91	1098879.702	480471.464	1098437.326	480639.513	9-56-16.841	122-49-18.880			-0.080	rb
17	632.70	1098881.051	480473.902	1098438.676	480641.950	9-56-16.885	122-49-18.960			0.341	rb
18	633.58	1098881.480	480474.677	1098439.106	480642.711	9-56-16.899	122-49-18.985			0.231	rb
19	634.35	1098881.851	480475.348	1098439.474	480643.381	9-56-16.911	122-49-19.007			0.242	bottom
20	644.55	1098886.793	480484.277	1098444.414	480652.305	9-56-17.072	122-49-19.300			1.911	eow
21	665.06	1098896.724	480502.222	1098454.324	480670.245	9-56-17.395	122-49-19.889			1.303	rb
22	671.23	1098899.708	480507.615	1098457.300	480675.636	9-56-17.492	122-49-20.066			8.656	t.bnk
23	683.88	1098905.834	480518.684	1098463.437	480686.722	9-56-17.692	122-49-20.430			9.303	
24	726.02	1098926.241	480555.560	1098483.840	480723.576	9-56-18.357	122-49-21.640			9.433	
25	866.20	1098994.115	480678.207	1098551.678	480846.168	9-56-20.568	122-49-25.665			8.146	
26	981.20	1099049.798	480778.827	1098607.366	480946.738	9-56-22.383	122-49-28.967			7.355	
27	990.84	1099054.467	480787.263	1098612.030	480955.175	9-56-22.535	122-49-29.244			12.820	
28	1061.20	1099088.534	480848.823	1098646.087	481016.729	9-56-23.645	122-49-31.265			7.278	er
29	1075.00	1099095.216	480860.897	1098652.776	481028.790	9-56-23.863	122-49-31.661			8.167	er
30	1080.63	1099097.944	480865.825	1098655.476	481033.724	9-56-23.951	122-49-31.823			8.522	er
31	1085.49	1099100.294	480870.072	1098657.839	481037.958	9-56-24.028	122-49-31.962			9.190	er
32	1090.77	1099102.852	480874.695	1098660.385	481042.588	9-56-24.111	122-49-32.114			9.531	er
33	1122.01	1099117.979	480902.030	1098675.512	481069.908	9-56-24.604	122-49-33.011			14.087	
34	1125.72	1099119.774	480905.272	1098677.322	481073.136	9-56-24.663	122-49-33.117			13.970	er
35	1128.35	1099121.047	480907.575	1098678.580	481075.451	9-56-24.704	122-49-33.193			13.757	er
36	1247.64	1099178.810	481011.950	1098736.324	481179.797	9-56-26.586	122-49-36.619			13.512	er
37	1377.11	1099241.501	481125.231	1098799.009	481293.037	9-56-28.629	122-49-40.337			13.351	er
38	1679.91	1099388.116	481390.168	1098945.582	481557.860	9-56-33.406	122-49-49.032			12.893	sugarcane plantation
39	1763.48	1099428.582	481463.289	1098986.022	481630.957	9-56-34.724	122-49-51.432			12.846	sugarcane plantation
40	1834.40	1099462.921	481525.341	1099020.357	481692.997	9-56-35.843	122-49-53.469			12.796	sugarcane plantation
41	1919.48	1099504.118	481599.782	1099061.534	481767.403	9-56-37.185	122-49-55.912			12.914	sugarcane plantation
42	2016.24	1099550.967	481684.438	1099108.388	481852.011	9-56-38.712	122-49-58.690			12.692	bottom
43	2018.03	1099551.837	481686.011	1099109.247	481853.595	9-56-38.740	122-49-58.742			13.931	topshlder
44	2019.72	1099552.658	481687.493	1099110.076	481855.087	9-56-38.767	122-49-58.791			14.263	**CS-5-R-1**
45	2025.94	1099555.666	481692.929	1099113.083	481860.509	9-56-38.865	122-49-58.969			14.127	er
46	2027.95	1099556.638	481694.684	1099114.034	481862.275	9-56-38.896	122-49-59.027			14.068	topshlder
47	2031.91	1099558.555	481698.150	1099115.967	481865.717	9-56-38.959	122-49-59.140			12.663	bottom
48	2033.30	1099559.228	481699.364	1099116.642	481866.935	9-56-38.981	122-49-59.180			13.371	sugarcane plantation
49	2035.56	1099614.041	481671.619	1099171.411	481839.222	9-56-40.764	122-49-58.269			13.743	**CS-5-R-2**
50	2152.53	1099616.962	481803.690	1099174.358	481971.218	9-56-40.862	122-50-02.604			13.356	sugarcane plantation
51	2258.42	1099668.234	481896.338	1099225.600	482063.836	9-56-42.532	122-50-05.645			13.550	sugarcane plantation
52	2421.34	1099747.121	482038.887	1099304.458	482206.341	9-56-45.102	122-50-10.324			13.502	
53	2656.25	1099860.863	482244.417	1099418.174	482411.798	9-56-48.808	122-50-17.070			60.209	
54	2729.87	1099896.511	482308.833	1099453.799	482476.182	9-56-49.969	122-50-19.184			84.159	
55	2903.92	1099980.790	482461.124	1099538.059	482628.431	9-56-52.715	122-50-24.183			69.631	
56	2952.07	1100004.100	482503.246	1099561.380	482670.521	9-56-53.475	122-50-25.565			62.887	
57	3115.53	1100083.251	482646.271	1099640.485	482813.480	9-56-56.053	122-50-30.259			32.847	
58	3130.60	1100090.545	482659.451	1099647.788	482826.667	9-56-56.291	122-50-30.692			29.107	eow
59	3134.44	1100092.406	482662.815	1099649.660	482830.017	9-56-56.352	122-50-30.802			28.639	cl.waterway
60	3138.76	1100094.497	482666.593	1099651.747	482833.794	9-56-56.420	122-50-30.926			28.687	eow
61	3207.84	1100127.948	482727.038	1099685.163	482894.218	9-56-57.509	122-50-32.910			58.703	
62	3227.09	1100137.267	482743.878	1099694.491	482911.060	9-56-57.813	122-50-33.463			68.515	
63	3470.29	1100255.028	482956.672	1099812.231	483123.791	9-57-01.650	122-50-40.448			92.333	
64	3769.91	1100400.102	483218.819	1099957.252	483385.828	9-57-06.376	122-50-49.052	9-57-02.25 N	122-50-54.34 E	94.285	

ILOG-HILABANGAN RIVER
CROSS-SECTION 6-6

POINTS	CUMULATIVE	GRID COORDINATES (PRS 92)		GRID COORDINATES (UTM 51N)		GEO. COORDINATES (PRS92)		GEO. COORDINATES (WGS 84)		ELEVATIONS	DESCRIPTION
	LENGTH (m)	NORTHING	EASTING	NORTHING	EASTING	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	(m., AMSL)	
1	0.00	1101398.156	485378.194	1100955.010	485544.400	9-57-38.894	122-51-59.934	9-57-34.77 N	122-52-05.22 E	143.161	
2	25.02	1101423.100	485380.169	1100979.940	485546.360	9-57-39.706	122-51-59.998			139.802	
3	124.35	1101522.113	485388.010	1101078.920	485554.190	9-57-42.929	122-52-00.254			96.942	
4	323.48	1101720.628	485403.731	1101277.360	485569.920	9-57-49.391	122-52-00.768			28.273	waterway
5	339.59	1101736.689	485405.003	1101293.420	485571.170	9-57-49.914	122-52-00.809			29.349	
6	346.91	1101743.987	485405.581	1101300.700	485571.750	9-57-50.151	122-52-00.828			28.304	waterway
7	359.69	1101756.728	485406.589	1101313.440	485572.760	9-57-50.566	122-52-00.861			28.452	waterway
8	462.09	1101858.815	485414.676	1101415.490	485580.840	9-57-53.889	122-52-01.125			29.257	**CS-6-R-1**
9	467.78	1101864.479	485415.123	1101421.170	485581.300	9-57-54.074	122-52-01.140			29.287	hse
10	469.98	1101866.673	485415.296	1101423.350	485581.480	9-57-54.145	122-52-01.146			28.914	
11	472.83	1101869.506	485415.520	1101426.180	485581.690	9-57-54.237	122-52-01.153			28.743	er
12	473.15	1101869.831	485415.547	1101426.510	485581.720	9-57-54.248	122-52-01.154			27.840	
13	530.05	1101926.548	485420.038	1101483.200	485586.220	9-57-56.094	122-52-01.301			26.565	tb
14	537.93	1101934.411	485420.660	1101491.060	485586.830	9-57-56.350	122-52-01.321			26.261	eow
15	542.22	1101938.684	485420.999	1101495.330	485587.170	9-57-56.489	122-52-01.332			25.561	rb
16	546.29	1101942.743	485421.320	1101499.390	485587.470	9-57-56.621	122-52-01.342			25.395	rb
17	547.61	1101944.057	485421.424	1101500.710	485587.600	9-57-56.664	122-52-01.346			25.252	rb
18	550.19	1101946.626	485421.628	1101503.290	485587.810	9-57-56.748	122-52-01.353			25.543	
19	551.56	1101947.997	485421.736	1101504.640	485587.900	9-57-56.792	122-52-01.356			27.149	tb
20	676.80	1102072.839	485431.622	1101629.440	485597.780	9-58-00.856	122-52-01.679			27.288	sugarcane plantation
21	780.88	1102176.597	485439.840	1101733.170	485605.980	9-58-04.234	122-52-01.947			27.271	sugarcane plantation
22	1599.14	1102992.303	485504.437	1102548.590	485670.560	9-58-30.787	122-52-04.058			27.274	
23	1633.64	1103026.700	485507.161	1102582.950	485673.280	9-58-31.906	122-52-04.147			29.272	t.bank
24	1873.23	1103274.951	485407.170	1102831.130	485573.300	9-58-39.986	122-52-00.860			26.146	**CS-6-R-2**
25	1899.38	1103291.608	485528.140	1102847.790	485694.230	9-58-40.530	122-52-04.832			26.236	
26	1900.83	1103293.055	485528.254	1102849.230	485694.350	9-58-40.577	122-52-04.836			26.196	t.bank
27	1902.02	1103294.236	485528.347	1102850.400	485694.450	9-58-40.615	122-52-04.839			25.269	sl
28	1906.61	1103298.818	485528.710	1102854.970	485694.810	9-58-40.764	122-52-04.851			23.673	eow
29	1913.28	1103305.466	485529.236	1102861.640	485695.330	9-58-40.981	122-52-04.868			23.067	rb
30	1920.87	1103313.031	485529.836	1102869.190	485695.910	9-58-41.227	122-52-04.887			23.223	rb
31	1930.11	1103322.242	485530.565	1102878.410	485696.650	9-58-41.527	122-52-04.911			22.980	rb
32	1934.05	1103326.165	485530.876	1102882.340	485696.950	9-58-41.655	122-52-04.921			23.046	rb
33	1940.04	1103332.141	485531.349	1102888.290	485697.440	9-58-41.849	122-52-04.937			22.890	rb
34	1943.17	1103335.265	485531.596	1102891.430	485697.690	9-58-41.951	122-52-04.945			22.855	rb
35	1957.28	1103349.328	485532.710	1102905.490	485698.790	9-58-42.409	122-52-04.981			23.408	rb
36	1972.44	1103364.441	485533.907	1102920.570	485699.980	9-58-42.900	122-52-05.020			24.097	eow
37	1991.00	1103382.943	485535.372	1102939.090	485701.450	9-58-43.503	122-52-05.068			23.756	
38	2026.13	1103417.960	485538.145	1102974.090	485704.230	9-58-44.643	122-52-05.159			24.191	
39	2034.64	1103426.443	485538.817	1102982.570	485704.910	9-58-44.919	122-52-05.181			26.791	b.bank
40	2201.36	1103592.650	485551.979	1103148.710	485718.060	9-58-50.329	122-52-05.611			30.707	sugarcane plantation
41	2435.67	1103826.222	485570.476	1103382.190	485736.540	9-58-57.932	122-52-06.215			35.330	ricefield
42	2606.84	1103996.864	485583.989	1103552.780	485750.050	9-59-03.487	122-52-06.657			34.273	
43	2709.24	1104098.939	485592.073	1103654.820	485758.130	9-59-06.810	122-52-06.921			68.073	
44	2717.34	1104107.012	485592.712	1103662.900	485758.740	9-59-07.073	122-52-06.941	9-59-02.94 N	122-52-12.23 E	72.174	

LEGEND

er = edge of road
rb = river bed
tb = top of river bank
eow = edge of water
hse = house
rf = rice field