APPENDIX 11

TOPOGRAPHIC SURVEY RESULT

(1) TABLE OF COORDINATES AND CURVE ELEMENTS

(2) LOCATION OF TEMPORARY BENCH MARK

Road No.1

Grand Etang Road

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
BOP	1,332,842.260	427,848.010	0 + 0								ES	-	-		
				181 49 17	12.994										
1	1,332,855.247	427,848.423	0 + 12.994			12 35 59 L	25	2.760	5.498	0.152	ES	-	-	0 + 10.23	0 + 15.73
				169 12 55	92.951										
2	1,332,946.556	427,831.030	0 + 105.922			36 34 29 R	65	21.481	41.493	3.457	ES	-	-	0 + 84.44	0 + 125.93
				205 47 25	126.12										
3	1,333,060.113	427,885.902	0 + 230.573			68 45 32 R	55	37.630	66.004	11.641	ES	-	-	0 + 192.94	0 + 258.95
				274 32 57	134.855										
4	1,333,049.417	428,020.332	0 + 356.172			8 20 56 R	300	21.896	43.715	0.798	ES	-	-	0 + 334.28	0 + 377.99
				282 53 56	59.943										
5	1,333,036.036	428,078.762	0 + 416.037			59 48 51 L	55	31.635	57.417	8.449	ES	-	-	0 + 384.40	0 + 441.82
				223 5 3	88.913										
6	1,333,100.974	428,139.496	0 + 499.097			53 53 8 L	60	30.496	56.429	7.305	ES	-	-	0 + 468.60	0 + 525.03
				169 11 54	169.676										
7	1,333,267.644	428,107.697	0 + 664.209			40 34 44 R	100	36.970	70.824	6.615	ES	-	-	0 + 627.24	0 + 698.06
				209 46 39	130.391										
8	1,333,380.818	428,172.453	0 + 791.483			10 39 31 R	250	23.321	46.507	1.085	ES	-	-	0 + 768.16	0 + 814.67
				220 26 10	67.804										
9	1,333,432.426	428,216.431	0 + 859.153			10 42 51 R	100	9.377	18.700	0.439	ES	-	-	0 + 849.78	0 + 868.48
				231 9 1	114.271										
10	1,333,504.106	428,305.425	0 + 973.369			19 8 44 L	100	16.865	33.415	1.412	ES	-	-	0 + 956.50	0 + 989.92
				212 0 13	58.716										
11	1,333,553.898	428,336.543	1 + 31.771			9 9 0 L	100	8.002	15.970	0.320	ES	-	-	1 + 23.77	1 + 39.74
				202 51 16	76.794										
12	1,333,624.663	428,366.369	1 + 108.531			10 25 0 L	100	9.115	18.181	0.415	ES	-	-	1 + 99.42	1 + 117.60
				192 26 16	59.184										
13	1,333,682.458	428,379.116	1 + 167.665			23 54 17 L	100	21.169	41.722	2.216	ES	-	-	1 + 146.50	1 + 188.22
				168 31 59	55.07										
14	1,333,736.429	428,368.168	1 + 222.119			9 32 17 R	100	8.343	16.647	0.347	ES	-	-	1 + 213.78	1 + 230.42
				178 4 17	41.718										
15	1,333,778.123	428,366.764	1 + 263.798			7 54 12 L	100	6.908	13.794	0.238	ES	-	-	1 + 256.89	1 + 270.68
				170 10 2	106.447										
16	1,333,883.006	428,348.586	1 + 370.223			44 15 37 R	105	42.700	81.111	8.350	ES	-	-	1 + 327.52	1 + 408.63
				214 25 42	121.208										
17	1,333,982.983	428,417.114	1 + 487.141			15 22 25 R	100	13.497	26.832	0.907	ES	-	-	1 + 473.64	1 + 500.48
				229 48 5	62.33										
18	1,334,023.213	428,464.722	1 + 549.309			20 7 43 L	100	17.748	35.131	1.563	ES	-	-	1 + 531.56	1 + 566.69
				209 40 18	39.982										
19	1,334,057.952	428,484.514	1 + 588.925			1 55 7 R	500	8.372	16.743	0.070	ES	-	-	1 + 580.55	1 + 597.30
				211 35 30	64.713										
20	1,334,113.075	428,518.415	1 + 653.637			3 27 2 R	500	15.060	30.112	0.227	ES	-	-	1 + 638.58	1 + 668.69

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				215 2 32	62.188										
21	1,334,163.990	428,554.122	1 + 715.816			9 18 34 R	100	8.142	16.248	0.331	ES	-	-	1 + 707.67	1 + 723.92
				224 21 4	108.04										
22	1,334,241.246	428,629.648	1 + 823.820			19 40 13 R	125	21.670	42.914	1.864	ES	-	-	1 + 802.15	1 + 845.06
				244 1 18	76.602										
BOP	1,334,274.800	428,698.510	1 + 899.995			0 0 0 0	0	0.000	0.000	0.000	ES	-	-	1 + 900.00	1 + 900.00
				241 52 50	216.267										
23	1,334,376.729	428,889.250	2 + 116.262			15 47 8 L	100	13.863	27.551	0.956	ES	-	-	2 + 102.40	2 + 129.95
				226 5 42	284.257										
24	1,334,573.851	429,094.055	2 + 400.344			2 11 25 L	500	9.558	19.114	0.091	ES	-	-	2 + 390.79	2 + 409.90
				223 54 18	131.57										
25	1,334,668.646	429,185.294	2 + 531.911			13 49 5 L	150	18.176	36.176	1.097	ES	-	-	2 + 513.74	2 + 549.91
				210 5 12	89.633										
26	1,334,746.203	429,230.228	2 + 621.368			4 28 41 R	100	3.910	7.816	0.076	ES	-	-	2 + 617.46	2 + 625.27
				214 33 53	59.601										
27	1,334,795.284	429,264.042	2 + 680.965			2 49 53 R	500	12.357	24.709	0.153	ES	-	-	2 + 668.61	2 + 693.32
				217 23 47	78.423										
28	1,334,857.587	429,311.670	2 + 759.383			66 59 38 R	25	16.545	29.232	4.979	ES	-	-	2 + 742.84	2 + 772.07
				284 23 24	70.908										
29	1,334,839.965	429,380.353	2 + 826.432			89 44 58 L	23	22.900	36.028	9.456	ES	-	-	2 + 803.53	2 + 839.56
				194 38 24	72.42										
30	1,334,910.034	429,398.657	2 + 889.081			32 30 53 R	40	11.665	22.700	1.666	ES	-	-	2 + 877.42	2 + 900.12
				227 9 18	56.716										
31	1,334,948.602	429,440.241	2 + 945.167			54 52 1 L	35	18.168	33.516	4.435	ES	-	-	2 + 927.00	2 + 960.52
				172 17 17	69.437										
32	1,335,017.411	429,430.923	3 + 11.784			8 6 7 R	100	7.082	14.141	0.250	ES	-	-	3 + 4.70	3 + 18.84
				180 23 26	41.087										
33	1,335,058.497	429,431.203	3 + 52.848			111 48 33 R	13	19.204	25.369	10.191	ES	-	-	3 + 33.64	3 + 59.01
				292 11 59	53.994										
34	1,335,038.096	429,481.195	3 + 93.802			4 46 16 L	500	20.830	41.636	0.434	ES	-	-	3 + 72.97	3 + 348.87
				287 25 41	82.649										
35	1,335,013.342	429,560.050	3 + 176.427			27 45 19 L	30	7.412	14.533	0.902	ES	-	-	3 + 169.01	3 + 183.55
				259 40 21	33.362										
36	1,335,019.323	429,592.872	3 + 209.498			8 7 53 R	100	7.108	14.192	0.252	ES	-	-	3 + 202.39	3 + 216.58
				267 48 15	122.559										
37	1,335,024.019	429,715.341	3 + 332.033			13 19 27 R	200	23.360	46.510	1.360	ES	-	-	3 + 308.67	3 + 355.18
				281 7 46	40.419										
38	1,335,016.217	429,755.000	3 + 372.241			9 26 22 L	100	8.256	16.475	0.340	ES	-	-	3 + 363.98	3 + 380.46
				271 41 18	70.254										
39	1,335,014.147	429,825.223	3 + 442.458			6 31 8 L	100	5.695	11.378	0.162	ES	-	-	3 + 436.76	3 + 448.14

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
40	1,335,017.291	429,862.432	3 + 479.787	265 10 13	37.342	32 49 46 R	75	22.095	42.974	3.187	ES	-	-	3 + 457.69	3 + 500.67
41	1,334,980.365	429,931.881	3 + 557.228	297 59 58	78.656	35 17 13 L	70	22.264	43.111	3.455	ES	-	-	3 + 534.96	3 + 578.08
42	1,334,990.397	430,010.332	3 + 634.901	262 42 46	79.09	23 35 45 R	150	31.331	61.774	3.237	ES	-	-	3 + 603.57	3 + 665.34
43	1,334,976.071	430,059.299	3 + 685.033	286 18 27	51.02	11 25 59 R	100	10.010	19.954	0.500	ES	-	-	3 + 675.02	3 + 694.98
44	1,334,938.786	430,130.193	3 + 765.068	297 44 28	80.101	16 55 41 R	50	7.440	14.773	0.551	ES	-	-	3 + 757.63	3 + 772.40
45	1,334,896.044	430,173.431	3 + 825.757	314 40 10	60.798	19 17 52 L	100	17.002	33.681	1.435	ES	-	-	3 + 808.76	3 + 842.44
46	1,334,879.109	430,209.141	3 + 864.957	295 22 19	39.522	20 39 2 L	50	9.109	18.021	0.823	ES	-	-	3 + 855.85	3 + 873.87
BOP	1,334,877.850	430,224.330	3 + 880.000	274 44 18	15.241	0 0 0 0	0	0.000	0.000	0.000	ES	-	-	3 + 880.00	3 + 880.00
47	1,334,878.024	430,234.617	3 + 890.288	269 1 51	10.288	17 50 56 L	25	3.926	7.788	0.306	ES	-	-	3 + 886.36	3 + 894.15
48	1,334,895.684	430,286.515	3 + 945.044	251 12 27	54.82	54 0 12 L	20	10.191	18.851	2.447	ES	-	-	3 + 934.85	3 + 953.70
49	1,334,931.165	430,297.501	3 + 980.656	197 12 15	37.143	10 13 33 L	100	8.947	17.847	0.399	ES	-	-	3 + 971.71	3 + 989.56
50	1,334,969.523	430,302.195	4 + 19.252	186 58 36	38.644	95 6 30 R	17	18.587	28.219	8.189	ES	8	30	4 + 0.66	4 + 28.88
51	1,334,961.840	430,338.075	4 + 46.989	282 5 11	36.693	55 31 8 R	15	7.895	14.535	1.951	ES	8	30	4 + 39.09	4 + 53.63
52	1,334,938.755	430,347.588	4 + 70.702	337 36 15	24.968	25 45 49 R	15	3.430	6.745	0.387	ES	-	-	4 + 67.27	4 + 74.02
53	1,334,901.744	430,345.409	4 + 107.661	3 22 10	37.075	29 34 2 L	25	6.598	12.901	0.856	ES	-	-	4 + 101.06	4 + 113.96
54	1,334,856.118	430,367.858	4 + 158.217	333 48 6	50.85	40 45 55 L	35	13.004	24.902	2.338	ES	-	-	4 + 145.21	4 + 170.11
55	1,334,837.279	430,412.161	4 + 205.252	293 2 12	48.142	31 46 34 L	45	12.808	24.957	1.787	ES	-	-	4 + 192.44	4 + 217.40
56	1,334,842.442	430,445.741	4 + 238.567	261 15 33	33.975	49 8 14 R	20	9.143	17.152	1.991	ES	8	30	4 + 229.42	4 + 246.58
57	1,334,767.601	430,533.686	4 + 352.912	310 23 52	115.479	83 37 5 L	55	49.191	80.268	18.789	ES	-	-	4 + 303.72	4 + 383.99
58	1,334,830.661	430,600.790	4 + 426.881	226 46 46	92.084	18 13 11 R	25	4.009	7.950	0.319	ES	-	-	4 + 422.87	4 + 430.82

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES NORTHING	COORDINATES EASTING	PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
59	1,334,838.553	430,617.712	4 + 445.485	244 59 49	18.672	75 58 45 R	10	7.810	13.261	2.688	ES	8	30	4 + 437.68	4 + 450.94
60	1,334,820.876	430,632.036	4 + 465.878	320 58 53	22.752	21 52 48 L	55	10.631	21.003	1.018	ES	-	-	4 + 455.25	4 + 476.25
61	1,334,788.097	430,704.925	4 + 545.851	294 12 50	79.92	41 27 32 L	35	13.246	25.326	2.423	ES	-	-	4 + 532.61	4 + 557.93
62	1,334,808.386	430,753.879	4 + 597.677	247 29 18	52.992	52 54 7 R	25	12.438	23.083	2.923	ES	8	30	4 + 585.24	4 + 608.32
63	1,334,757.441	430,840.746	4 + 696.588	300 23 25	100.704	59 34 42 L	25	14.311	25.996	3.807	ES	-	-	4 + 682.28	4 + 708.27
64	1,334,775.827	430,873.661	4 + 731.663	240 48 46	37.702	18 16 8 R	25	4.020	7.971	0.321	ES	-	-	4 + 727.64	4 + 735.61
65	1,334,784.911	430,920.750	4 + 779.552	259 4 52	47.957	33 23 54 R	55	16.500	32.060	2.422	ES	-	-	4 + 763.05	4 + 795.11
66	1,334,758.150	430,985.422	4 + 848.602	292 28 46	69.99	72 33 3 L	37	27.155	46.851	8.895	ES	-	-	4 + 821.45	4 + 868.30
67	1,334,816.212	431,034.018	4 + 916.859	219 55 42	75.715	8 45 23 L	100	7.656	15.283	0.293	ES	-	-	4 + 909.20	4 + 924.49
68	1,334,861.202	431,061.235	4 + 969.411	211 10 20	52.582	33 27 22 L	30	9.016	17.518	1.326	ES	-	-	4 + 960.39	4 + 977.91
69	1,334,889.219	431,120.315	5 + 34.283	244 37 43	65.387	11 48 2 L	50	5.167	10.298	0.266	ES	-	-	5 + 29.12	5 + 39.41
70	1,334,897.834	431,156.005	5 + 70.961	256 25 45	36.715	72 59 42 R	20	14.798	25.480	4.879	ES	8	30	5 + 56.16	5 + 81.64
71	1,334,838.382	431,191.131	5 + 135.899	329 25 27	69.053	37 38 12 L	50	17.039	32.844	2.824	ES	-	-	5 + 118.86	5 + 151.70
72	1,334,821.936	431,232.276	5 + 178.974	291 47 13	44.31	50 18 12 L	30	14.086	26.339	3.142	ES	-	-	5 + 164.89	5 + 191.23
73	1,334,865.818	431,313.041	5 + 269.057	241 29 0	91.916	120 14 58 R	16	27.853	33.580	16.121	ES	-	-	5 + 241.20	5 + 274.78
74	1,334,801.664	431,311.101	5 + 311.115	1 43 55	64.183	5 25 12 L	100	4.733	9.460	0.112	ES	-	-	5 + 306.38	5 + 315.84
75	1,334,728.177	431,315.836	5 + 384.747	356 18 48	73.639	63 23 45 L	23	14.204	25.449	4.032	ES	-	-	5 + 370.54	5 + 395.99
76	1,334,699.493	431,383.685	5 + 455.451	292 55 1	73.663	27 32 1 L	70	17.151	33.639	2.070	ES	-	-	5 + 438.30	5 + 471.94
77	1,334,706.029	431,464.629	5 + 535.995	265 23 1	81.207	9 14 23 R	100	8.081	16.126	0.326	ES	-	-	5 + 527.91	5 + 544.04
78	1,334,703.449	431,496.531	5 + 567.966	274 37 25	32.006	31 25 46 R	35	9.848	19.199	1.359	ES	-	-	5 + 558.12	5 + 577.32

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				306 3 9	41.804										
79	1,334,678.846	431,530.329	5 + 609.273			42 3 26 L	30	11.533	22.021	2.141	ES	-	-	5 + 597.74	5 + 619.76
				263 59 44	38.525										
80	1,334,682.876	431,568.643	5 + 646.753			33 1 25 R	50	14.822	28.819	2.151	ES	-	-	5 + 631.93	5 + 660.75
				297 1 11	41.981										
81	1,334,663.804	431,606.042	5 + 687.909			29 58 24 R	50	13.385	26.157	1.761	ES	-	-	5 + 674.52	5 + 700.68
				326 59 32	95.415										
82	1,334,583.789	431,658.020	5 + 782.711			29 45 52 L	60	15.945	31.169	2.083	ES	-	-	5 + 766.77	5 + 797.94
				297 13 40	75.2										
83	1,334,549.383	431,724.887	5 + 857.190			41 19 57 R	40	15.088	28.856	2.751	ES	-	-	5 + 842.10	5 + 870.96
				338 33 42	39.097										
84	1,334,512.991	431,739.177	5 + 894.967			9 13 45 L	25	2.018	4.027	0.081	ES	-	-	5 + 892.95	5 + 896.98
				329 18 30	10.037										
EOP	1,334,504.360	431,744.300	5 + 905.000			L		0.000	0.000	0.000	ES	-	-	5 + 905.00	5 + 905.00
				318 34 27	49.818										
85	1,334,467.006	431,777.262	5 + 954.818			4 39 7 L	50	2.031	4.060	0.041	ES	-	-	5 + 952.79	5 + 956.85
				323 13 18	140.685										
86	1,334,354.323	431,861.493	6 + 95.501			53 13 18 L	110	55.110	102.178	13.033	ES	-	-	6 + 40.39	6 + 142.57
				270 0 0	151.343										
87	1,334,354.323	432,012.836	6 + 238.802			27 2 28 L	95	22.844	44.836	2.708	ES	-	-	6 + 215.96	6 + 260.79
				242 57 32	38.814										
88	1,334,371.969	432,047.407	6 + 276.765			61 26 3 R	20	11.883	21.445	3.264	ES	-	-	6 + 264.88	6 + 286.33
				304 23 37	78.263										
89	1,334,327.760	432,111.988	6 + 352.706			89 22 53 L	52	51.442	81.120	21.145	ES	-	-	6 + 301.26	6 + 382.38
				215 0 39	60.621										
90	1,334,377.411	432,146.768	6 + 391.564			26 15 22 R	25	5.831	11.456	0.671	ES	-	-	6 + 385.73	6 + 397.19
				241 16 4	29.672										
91	1,334,391.675	432,172.787	6 + 421.031			23 12 49 R	65	13.351	26.335	1.357	ES	-	-	6 + 407.68	6 + 434.02
				264 28 54	82.4										
92	1,334,399.599	432,254.805	6 + 503.065			104 7 35 R	17	21.809	30.895	10.652	ES	-	-	6 + 481.26	6 + 512.15
				8 36 27	83.145										
93	1,334,317.390	432,242.361	6 + 573.488			133 17 0 L	12	27.786	27.915	18.266	ES	8	30	6 + 545.70	6 + 573.62
				235 19 29	77.376										
94	1,334,361.411	432,305.994	6 + 623.207			26 22 53 R	125	29.297	57.555	3.387	ES	-	-	6 + 593.91	6 + 651.47
				261 42 21	128.314										
95	1,334,379.921	432,432.966	6 + 750.482			158 27 28 L	9.5	49.938	26.273	41.333	ES	8	30	6 + 700.54	6 + 726.82
				103 14 52	93.583										
96	1,334,401.367	432,341.873	6 + 770.463			80 0 56 R	20	16.787	27.931	6.111	ES	8	30	6 + 753.68	6 + 781.61
				183 15 46	76.709										
97	1,334,477.952	432,346.239	6 + 841.530			17 30 11 L	50	7.697	15.274	0.589	ES	-	-	6 + 833.83	6 + 849.11

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				165 45 38	82.94										
98	1,334,558.344	432,325.838	6 + 924.350			144 42 50 R	13.5	42.447	34.097	31.042	ES	8	30	6 + 881.90	6 + 916.00
				310 28 28	68.107										
99	1,334,514.135	432,377.647	6 + 941.661			88 19 49 L	20	19.425	30.833	7.881	ES	-	-	6 + 922.24	6 + 953.07
				222 8 43	54.957										
100	1,334,554.883	432,414.524	6 + 988.600			22 13 12 L	25	4.909	9.695	0.477	ES	-	-	6 + 983.69	6 + 993.39
				199 55 22	51.201										
101	1,334,603.020	432,431.971	7 + 39.678			28 50 43 L	35	9.001	17.621	1.139	ES	-	-	7 + 30.68	7 + 48.30
				171 4 46	26.499										
102	1,334,629.198	432,427.862	7 + 65.795			67 44 50 R	20	13.426	23.548	4.089	ES	8	30	7 + 52.37	7 + 76.02
				238 49 34	42.443										
103	1,334,651.168	432,464.176	7 + 105.034			11 0 44 R	50	4.820	9.610	0.232	ES	-	-	7 + 100.21	7 + 109.82
				249 50 20	39.975										
104	1,334,664.946	432,501.702	7 + 144.979			42 49 31 L	20	7.843	14.949	1.483	ES	-	-	7 + 137.14	7 + 152.09
				207 0 45	67.578										
105	1,334,725.152	432,532.395	7 + 211.820			38 43 27 L	40	14.056	27.035	2.398	ES	-	-	7 + 197.76	7 + 224.80
				168 17 19	57.95										
106	1,334,781.896	432,520.632	7 + 268.692			112 10 41 R	23	34.213	45.031	18.226	ES	8	30	7 + 234.48	7 + 279.51
				280 28 1	53.84										
107	1,334,772.115	432,573.576	7 + 299.136			65 9 37 L	15	9.586	17.059	2.801	ES	-	-	7 + 289.55	7 + 306.61
				215 18 23	29.695										
108	1,334,796.348	432,590.738	7 + 326.719			21 14 11 R	25	4.687	9.266	0.436	ES	-	-	7 + 322.03	7 + 331.30
				236 32 38	42.402										
109	1,334,819.724	432,626.114	7 + 369.013			77 31 1 R	15	12.845	21.647	4.518	ES	8	30	7 + 356.17	7 + 377.81
				314 3 35	42.404										
110	1,334,790.236	432,656.586	7 + 407.373			125 8 19 L	7.5	14.450	16.381	8.780	ES	-	-	7 + 392.92	7 + 409.30
				188 55 15	51.468										
111	1,334,841.081	432,664.567	7 + 446.322			18 55 22 R	25	4.166	8.257	0.345	ES	-	-	7 + 442.16	7 + 450.41
				207 50 40	80.343										
112	1,334,912.122	432,702.093	7 + 526.589			48 47 3 R	30	13.604	25.543	2.940	ES	8	30	7 + 512.99	7 + 538.53
				256 37 41	37.796										
113	1,334,920.863	432,738.864	7 + 562.721			16 2 41 R	50	7.047	14.002	0.494	ES	-	-	7 + 555.67	7 + 569.68
				272 40 24	101.781										
114	1,334,916.116	432,840.534	7 + 664.410			91 55 19 L	10.5	10.858	16.846	4.605	ES	-	-	7 + 653.55	7 + 670.40
				180 45 5	43.994										
115	1,334,960.106	432,841.111	7 + 703.533			9 42 15 R	50	4.244	8.468	0.180	ES	-	-	7 + 699.29	7 + 707.76
				190 27 14	34.17										
116	1,334,993.709	432,847.311	7 + 737.683			33 16 40 L	50	14.943	29.040	2.185	ES	-	-	7 + 722.74	7 + 751.78
				157 10 40	58.267										
117	1,335,047.414	432,824.711	7 + 795.105			74 34 10 R	35	26.648	45.552	8.990	ES	-	-	7 + 768.46	7 + 814.01

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
118	1,335,074.922	432,859.601	7 + 831.791	231 44 49	44.43	53 36 23 R	15	7.578	14.034	1.806	ES	-	-	7 + 824.21	7 + 838.25
119	1,335,062.040	432,906.518	7 + 879.322	285 21 12	48.653	18 55 40 R	35	5.834	11.562	0.483	ES	-	-	7 + 873.49	7 + 885.05
120	1,335,049.967	432,924.229	7 + 900.649	304 16 51	21.434	11 45 55 R	35	3.606	7.187	0.185	ES	-	-	7 + 897.04	7 + 904.23
121	1,335,009.332	432,963.405	7 + 957.068	316 2 50	56.444	109 42 43 L	25	35.513	47.871	18.430	ES	8	30	7 + 921.55	7 + 969.43
122	1,335,061.242	432,989.099	7 + 991.833	206 20 3	57.921	30 31 54 R	50	13.646	26.644	1.829	ES	-	-	7 + 978.19	8 + 4.83
123	1,335,120.036	433,080.552	8 + 100.395	236 51 59	109.211	22 54 38 L	25	5.066	9.997	0.508	ES	-	-	8 + 95.33	8 + 105.33
EOP	1,335,188.736	433,126.210	8 + 182.000	213 57 26	81.74			0.000	0.000	0.000	ES	-	-	8 + 182.00	8 + 182.00
124	1,335,222.513	433,152.320	8 + 224.690	217 42 16	42.692	10 4 0 R	50	4.404	8.785	0.194	ES	-	-	8 + 220.29	8 + 229.07
125	1,335,279.995	433,215.655	8 + 310.198	227 46 25	85.531	47 23 28 L	40	17.555	33.085	3.683	ES	-	-	8 + 292.64	8 + 325.73
126	1,335,325.222	433,215.956	8 + 353.401	180 22 53	45.228	25 39 27 R	50	11.386	22.390	1.280	ES	-	-	8 + 342.02	8 + 364.41
127	1,335,357.673	433,231.811	8 + 389.137	206 2 22	36.117	19 23 36 R	50	8.544	16.924	0.725	ES	-	-	8 + 380.59	8 + 397.52
128	1,335,398.532	433,273.293	8 + 447.199	225 26 1	58.226	21 27 2 R	50	9.470	18.719	0.889	ES	-	-	8 + 437.73	8 + 456.45
129	1,335,416.921	433,316.371	8 + 493.816	246 53 1	46.839	48 37 15 R	25	11.293	21.215	2.432	ES	-	-	8 + 482.52	8 + 503.74
130	1,335,402.071	433,347.497	8 + 526.931	295 30 20	34.487	3 1 22 L	200	5.277	10.551	0.070	ES	-	-	8 + 521.65	8 + 532.21
131	1,335,365.752	433,435.258	8 + 621.908	292 28 54	94.979	110 40 18 L	11	15.907	21.247	8.340	ES	8	30	8 + 606.00	8 + 627.25
132	1,335,410.139	433,436.661	8 + 655.750	181 48 38	44.409	88 40 12 R	15	14.656	23.214	5.971	ES	-	-	8 + 641.09	8 + 664.31
133	1,335,409.366	433,529.001	8 + 741.995	270 28 47	92.343	39 43 0 R	30	10.835	20.796	1.897	ES	-	-	8 + 731.16	8 + 751.96
134	1,335,382.820	433,560.417	8 + 782.250	310 11 50	41.13	17 20 52 R	100	15.256	30.278	1.157	ES	-	-	8 + 766.99	8 + 797.27
135	1,335,347.806	433,582.685	8 + 823.512	327 32 41	41.495	76 32 55 L	18	14.202	24.048	4.928	ES	-	-	8 + 809.31	8 + 833.36
136	1,335,364.090	433,629.966	8 + 869.162	250 59 45	50.007	27 27 39 R	40	9.773	19.171	1.177	ES	-	-	8 + 859.39	8 + 878.56

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
137	1,335,351.993	433,711.330	8 + 951.045	278 27 24	82.258	48 18 6 L	65	29.145	54.797	6.235	ES	-	-	8 + 921.90	8 + 976.70
138	1,335,400.610	433,769.589	9 + 23.431	230 9 18	75.88	77 48 29 R	29	23.403	39.382	8.266	ES	-	-	9 + 0.03	9 + 39.41
139	1,335,356.119	433,826.610	9 + 88.331	307 57 48	72.325	35 33 1 L	45	14.426	27.921	2.256	ES	-	-	9 + 73.91	9 + 101.83
140	1,335,354.486	433,865.373	9 + 126.197	272 24 44	38.797	15 36 41 L	50	6.854	13.624	0.468	ES	-	-	9 + 119.34	9 + 132.97
141	1,335,365.052	433,910.426	9 + 172.387	256 48 5	46.275	8 14 21 R	75	5.402	10.785	0.194	ES	-	-	9 + 166.99	9 + 177.77
142	1,335,368.639	433,951.770	9 + 213.867	265 2 29	41.499	21 11 28 R	35	6.547	12.945	0.607	ES	-	-	9 + 207.32	9 + 220.26
143	1,335,361.162	433,977.455	9 + 240.469	286 13 50	26.751	18 2 29 L	60	9.525	18.893	0.751	ES	-	-	9 + 230.94	9 + 249.84
144	1,335,363.265	434,044.019	9 + 306.908	268 11 26	66.597	70 5 40 L	20	14.029	24.468	4.430	ES	8	30	9 + 292.88	9 + 317.35
145	1,335,400.278	434,056.114	9 + 342.257	198 5 46	38.939	22 58 26 R	50	10.161	20.049	1.022	ES	-	-	9 + 332.10	9 + 352.14
146	1,335,434.764	434,086.165	9 + 387.726	221 4 8	45.742	41 11 28 R	30	11.274	21.568	2.048	ES	-	-	9 + 376.45	9 + 398.02
147	1,335,438.944	434,116.928	9 + 417.792	262 15 44	31.046	20 50 23 L	40	7.356	14.549	0.671	ES	-	-	9 + 410.44	9 + 424.99
148	1,335,460.393	434,156.302	9 + 462.467	241 25 14	44.637	13 16 36 R	50	5.819	11.586	0.337	ES	-	-	9 + 456.65	9 + 468.23
149	1,335,470.287	434,192.462	9 + 499.904	254 41 51	37.489	36 49 23 L	45	14.980	28.921	2.428	ES	-	-	9 + 484.92	9 + 513.84
150	1,335,508.865	434,222.467	9 + 547.738	217 52 30	48.873	7 15 47 L	100	6.347	12.676	0.201	ES	-	-	9 + 541.39	9 + 554.07
151	1,335,547.099	434,245.089	9 + 592.146	210 36 42	44.425	117 51 20 R	14.5	24.063	29.826	13.594	ES	-	-	9 + 568.08	9 + 597.91
152	1,335,493.187	434,278.168	9 + 637.097	328 28 4	63.251	96 55 23 L	17	19.189	28.758	8.636	ES	8	30	9 + 617.91	9 + 646.67
153	1,335,537.340	434,333.764	9 + 698.472	231 32 39	70.996	80 55 11 L	24	20.469	33.896	7.543	ES	8	30	9 + 678.00	9 + 711.90
154	1,335,599.899	434,298.549	9 + 763.219	150 37 28	71.789	137 29 46 R	14	35.997	33.597	24.624	ES	-	-	9 + 727.22	9 + 760.82
155	1,335,575.419	434,373.355	9 + 803.531	288 7 14	78.71	127 22 9 L	12	24.264	26.676	15.069	ES	8	30	9 + 779.27	9 + 805.94
156	1,335,696.352	434,331.126	9 + 909.774	160 45 4	128.094	150 2 35 R	20	74.753	52.375	57.383	ES	-	-	9 + 835.02	9 + 887.40

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES NORTHING	COORDINATES EASTING	PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
				310 47 40	110.156										
157	1,335,624.382	434,414.520	9 + 922.798			71 59 20 L	38	27.603	47.745	8.967	ES	-	-	9 + 895.20	9 + 942.94
				238 48 21	62.683										
158	1,335,656.848	434,468.140	9 + 978.020			50 48 38 R	33	15.673	29.265	3.533	ES	-	-	9 + 962.35	9 + 991.61
				289 37 5	39.371										
159	1,335,643.629	434,505.226	10 + 15.309			54 44 59 L	26	13.463	24.845	3.279	ES	8	30	10 + 1.85	10 + 26.69
				234 52 2	57.348										
160	1,335,676.631	434,552.126	10 + 70.577			35 55 9 R	50	16.207	31.345	2.561	ES	-	-	10 + 54.37	10 + 85.71
				270 47 14	52.625										
161	1,335,675.908	434,604.746	10 + 122.133			6 1 10 L	100	5.258	10.506	0.138	ES	-	-	10 + 116.88	10 + 127.38
				264 46 3	68.764										
162	1,335,682.179	434,673.223	10 + 190.887			52 39 59 L	30	14.849	27.576	3.474	ES	-	-	10 + 176.04	10 + 203.61
				212 6 7	39.281										
163	1,335,715.454	434,694.098	10 + 228.047			54 17 35 R	32	16.408	30.323	3.961	ES	8	30	10 + 211.64	10 + 241.96
				266 23 37	36.422										
164	1,335,717.745	434,730.448	10 + 261.976			40 32 56 L	38	14.037	26.893	2.510	ES	-	-	10 + 247.94	10 + 274.83
				225 50 36	22.049										
165	1,335,733.105	434,746.267	10 + 282.843			7 58 30 R	30	2.091	4.176	0.073	ES	-	-	10 + 280.75	10 + 284.93
				233 49 15	36.543										
166	1,335,754.677	434,775.764	10 + 319.380			4 7 31 L	50	1.801	3.600	0.032	ES	-	-	10 + 317.58	10 + 321.18
				229 41 42	54.926										
167	1,335,790.206	434,817.651	10 + 374.304			99 23 4 R	28	33.007	48.568	15.284	ES	8	30	10 + 341.30	10 + 389.87
				329 4 45	55.362										
168	1,335,742.712	434,846.099	10 + 412.220			23 47 16 L	40	8.425	16.607	0.878	ES	-	-	10 + 403.79	10 + 420.40
				305 17 31	35.421										
169	1,335,722.248	434,875.010	10 + 447.398			38 51 55 L	45	15.876	30.525	2.718	ES	-	-	10 + 431.52	10 + 462.05
				266 25 31	31.402										
170	1,335,724.206	434,906.351	10 + 477.573			13 38 20 R	40	4.783	9.522	0.285	ES	-	-	10 + 472.79	10 + 482.31
				280 3 58	23.109										
171	1,335,720.167	434,929.104	10 + 500.637			39 14 0 L	20	7.128	13.695	1.232	ES	8	30	10 + 493.51	10 + 507.20
				240 49 54	35.141										
172	1,335,737.294	434,959.789	10 + 535.216			78 30 32 R	25	20.429	34.256	7.285	ES	-	-	10 + 514.79	10 + 549.04
				319 20 24	43.916										
173	1,335,703.980	434,988.403	10 + 572.530			46 35 1 L	25	10.762	20.326	2.218	ES	8	30	10 + 561.77	10 + 582.09
				272 45 26	39.415										
174	1,335,702.084	435,027.772	10 + 610.746			81 42 40 R	19	16.433	27.096	6.120	ES	-	-	10 + 594.31	10 + 621.41
				354 28 5	88.027										
175	1,335,614.467	435,036.258	10 + 693.005			152 34 29 L	15.75	64.547	41.941	50.691	ES	8	30	10 + 628.46	10 + 670.40
				201 53 37	105.826										
176	1,335,712.661	435,075.719	10 + 711.677			5 8 2 R	200	8.966	17.921	0.201	ES	-	-	10 + 702.71	10 + 720.63
				207 1 39	109.058										

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
177	1,335,809.809	435,125.277	10 + 820.723												
				219 10 33	47.419	12 8 55 R	100	10.642	21.203	0.565	ES	-	-	10 + 810.08	10 + 831.29
178	1,335,846.569	435,155.232	10 + 868.063			4 17 49 R	200	7.503	14.999	0.141	ES	-	-	10 + 860.56	10 + 875.56
				223 28 20	30.712										
179	1,335,868.857	435,176.362	10 + 898.768			24 42 37 L	20	4.381	8.626	0.474	ES	-	-	10 + 894.39	10 + 903.01
				198 45 47	30.931										
180	1,335,898.144	435,186.311	10 + 929.562			92 56 27 R	14	14.738	22.710	6.327	ES	8	30	10 + 914.82	10 + 937.53
				291 42 13	43.461										
181	1,335,882.072	435,226.691	10 + 966.258			14 18 15 R	50	6.274	12.483	0.392	ES	-	-	10 + 959.98	10 + 972.47
				306 0 24	27.774										
182	1,335,865.744	435,249.159	10 + 993.966			8 33 1 L	100	7.475	14.923	0.279	ES	-	-	10 + 986.49	11 + 1.41
				297 27 34	18.364										
183	1,335,857.276	435,265.454	11 + 12.303			8 34 24 R	25	1.874	3.741	0.070	ES	-	-	11 + 10.43	11 + 14.17
				306 1 48	18.485										
184	1,335,846.403	435,280.403	11 + 30.781			16 15 7 L	100	14.278	28.365	1.014	ES	-	-	11 + 16.50	11 + 44.87
				289 46 42	49.674										
185	1,335,829.594	435,327.147	11 + 80.263			92 47 22 R	15	15.749	24.292	6.749	ES	8	30	11 + 64.51	11 + 88.81
				22 34 5	89.802										
186	1,335,746.669	435,292.683	11 + 162.860			148 21 5 L	11.25	39.692	29.129	30.006	ES	-	-	11 + 123.17	11 + 152.30
				234 12 60	93.161										
187	1,335,801.142	435,368.258	11 + 205.765			6 20 46 L	50	2.772	5.538	0.077	ES	-	-	11 + 202.99	11 + 208.53
				227 52 12	32.028										
188	1,335,822.627	435,392.011	11 + 237.787			35 8 53 R	30	9.502	18.403	1.469	ES	-	-	11 + 228.29	11 + 246.69
				263 1 3	46.115										
189	1,335,828.233	435,437.784	11 + 283.302			11 0 7 L	50	4.815	9.601	0.231	ES	-	-	11 + 278.49	11 + 288.09
				252 1 3	37.253										
190	1,335,839.734	435,473.217	11 + 320.526			62 6 58 R	18	10.840	19.514	3.012	ES	8	30	11 + 309.69	11 + 329.20
				314 7 58	38.736										
191	1,335,812.761	435,501.019	11 + 357.096			75 51 1 L	22	17.142	29.124	5.890	ES	-	-	11 + 339.95	11 + 369.08
				238 16 52	46.684										
192	1,335,837.305	435,540.730	11 + 398.620			34 41 38 R	40	12.495	24.221	1.906	ES	-	-	11 + 386.13	11 + 410.35
				272 58 34	44.993										
193	1,335,834.969	435,585.662	11 + 442.845			96 7 4 L	15	16.694	25.164	7.443	ES	-	-	11 + 426.15	11 + 451.31
				176 51 26	53.592										
194	1,335,888.480	435,582.724	11 + 488.213			42 11 27 R	20	7.716	14.727	1.437	ES	8	30	11 + 480.50	11 + 495.22
				219 2 53	24.911										
195	1,335,907.826	435,598.417	11 + 512.420			46 50 9 R	10	4.331	8.174	0.898	ES	8	30	11 + 508.09	11 + 516.26
				265 53 9	32.797										
196	1,335,910.179	435,631.129	11 + 544.729			67 22 5 L	27	17.996	31.746	5.448	ES	-	-	11 + 526.73	11 + 558.48
				198 31 4	49.727										
197	1,335,957.331	435,646.922	11 + 590.211			3 18 8 L	200	5.765	11.527	0.083	ES	-	-	11 + 584.45	11 + 595.97

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				195 12 52	104.054										
198	1,336,057.738	435,674.229	11 + 694.262			10 17 27 R	25	2.251	4.490	0.101	ES	-	-	11 + 692.01	11 + 696.50
				205 30 29	7.758										
EOP	1,336,064.740	435,677.570	11 + 702.000					0.000	0.000	0.000	ES	-	-	11 + 702.00	11 + 702.00

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
EOP	1,336,064.740	435,677.570	11 + 702.000	205 30 29	7.758			0.000	0.000	0.000	ES	-	-	11 + 702.00	11 + 702.00
199	1,336,078.465	435,684.117	11 + 717.207	205 30 6	15.207	28 0 57 R	50	12.474	24.448	1.532	ES	-	-	11 + 704.73	11 + 729.18
200	1,336,097.630	435,710.038	11 + 748.945	233 31 20	32.237	38 54 19 L	15	5.298	10.185	0.908	ES	8	30	11 + 743.65	11 + 753.83
201	1,336,165.334	435,727.694	11 + 818.503	194 36 58	69.958	35 54 22 R	15	4.860	9.400	0.768	ES	-	-	11 + 813.64	11 + 823.04
202	1,336,191.780	435,759.801	11 + 859.778	230 31 20	41.596	3 42 31 R	100	3.238	6.473	0.052	ES	-	-	11 + 856.54	11 + 863.01
203	1,336,207.027	435,780.966	11 + 885.861	234 13 53	26.085	7 34 57 L	50	3.313	6.617	0.110	ES	-	-	11 + 882.55	11 + 889.16
204	1,336,238.637	435,814.448	11 + 931.898	226 38 50	46.046	36 3 45 L	25	8.138	15.735	1.291	ES	-	-	11 + 923.76	11 + 939.49
205	1,336,262.981	435,818.998	11 + 956.123	190 35 12	24.766	35 39 45 R	25	8.042	15.561	1.262	ES	-	-	11 + 948.08	11 + 963.64
206	1,336,287.475	435,844.584	11 + 991.020	226 14 57	35.42	7 32 24 R	100	6.589	13.160	0.217	ES	-	-	11 + 984.43	11 + 997.59
207	1,336,303.244	435,866.120	12 + 17.693	233 47 16	26.692	25 30 34 L	50	11.318	22.261	1.265	ES	-	-	12 + 6.37	12 + 28.64
208	1,336,347.474	435,889.915	12 + 67.542	208 16 46	50.224	11 47 0 R	75	7.739	15.424	0.398	ES	-	-	12 + 59.80	12 + 75.23
209	1,336,387.985	435,923.983	12 + 120.419	220 3 45	52.932	29 18 30 R	35	9.152	17.903	1.177	ES	-	-	12 + 111.27	12 + 129.17
210	1,336,410.124	435,982.792	12 + 182.856	249 22 15	62.838	44 38 19 R	40	16.421	31.164	3.239	ES	-	-	12 + 166.44	12 + 197.60
211	1,336,387.567	436,033.434	12 + 236.617	294 0 33	55.439	66 55 31 L	22	14.541	25.697	4.371	ES	8	30	12 + 222.08	12 + 247.77
212	1,336,423.295	436,071.859	12 + 285.702	227 4 59	52.469	47 30 7 R	15	6.600	12.436	1.388	ES	-	-	12 + 279.10	12 + 291.54
213	1,336,420.366	436,108.372	12 + 321.567	274 35 11	36.63	13 21 11 L	100	11.706	23.305	0.683	ES	-	-	12 + 309.86	12 + 333.17
214	1,336,428.495	436,161.084	12 + 374.796	261 13 59	53.335	34 0 3 R	35	10.701	20.770	1.599	ES	-	-	12 + 364.09	12 + 384.86
215	1,336,410.556	436,199.148	12 + 416.243	295 14 2	42.079	65 19 52 L	20	12.823	22.805	3.758	ES	8	30	12 + 403.42	12 + 426.23
216	1,336,429.593	436,221.757	12 + 442.958	229 54 8	29.556	22 2 37 R	35	6.817	13.466	0.658	ES	-	-	12 + 436.14	12 + 449.61
217	1,336,441.031	436,256.845	12 + 479.695	251 56 42	36.905	84 8 11 R	17	15.344	24.964	5.900	ES	-	-	12 + 464.35	12 + 489.31

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				336 4 34	28.213										
218	1,336,415.242	436,268.286	12 + 502.184			15 34 41 R	20	2.736	5.438	0.186	ES	-	-	12 + 499.45	12 + 504.89
				351 39 53	48.736										
219	1,336,367.021	436,275.351	12 + 550.887			59 59 55 L	20	11.547	20.943	3.094	ES	8	30	12 + 539.34	12 + 560.28
				291 39 42	37.586										
220	1,336,353.147	436,310.283	12 + 586.323			70 36 10 L	23	16.286	28.342	5.182	ES	8	30	12 + 570.04	12 + 598.38
				221 3 31	57.374										
221	1,336,396.409	436,347.968	12 + 639.467			95 3 11 R	13	14.200	21.567	6.252	ES	-	-	12 + 625.27	12 + 646.83
				316 6 41	39.668										
222	1,336,367.821	436,375.468	12 + 672.301			113 51 35 L	8	12.286	15.898	6.661	ES	8	30	12 + 660.02	12 + 675.91
				202 15 9	75.143										
223	1,336,437.368	436,403.924	12 + 738.770			55 13 54 L	25	13.078	24.099	3.214	ES	8	30	12 + 725.69	12 + 749.79
				147 1 12	36.436										
224	1,336,467.933	436,384.090	12 + 773.149			27 23 3 R	30	7.309	14.338	0.877	ES	-	-	12 + 765.84	12 + 780.18
				174 24 18	91.756										
225	1,336,559.252	436,375.144	12 + 864.625			13 5 29 R	100	11.474	22.849	0.656	ES	-	-	12 + 853.15	12 + 876.00
				187 29 41	30.866										
226	1,336,589.854	436,379.170	12 + 895.391			36 33 16 R	25	8.257	15.950	1.328	ES	-	-	12 + 887.13	12 + 903.08
				224 3 2	65.641										
227	1,336,637.032	436,424.810	12 + 960.468					0.000	0.000	0.000	ES	-	-	12 + 960.47	12 + 960.47
				186 32 48	3.219										
228	1,336,640.230	436,425.177	12 + 963.687					0.000	0.000	0.000	ES	-	-	12 + 963.69	12 + 963.69
				229 36 6	20.977										
229	1,336,653.825	436,441.152	12 + 984.664			14 18 36 R	50	6.277	12.488	0.392	ES	-	-	12 + 978.39	12 + 990.88
				243 54 43	38.506										
230	1,336,670.758	436,475.735	13 + 23.105			16 6 59 L	50	7.079	14.064	0.499	ES	-	-	13 + 16.03	13 + 30.09
				227 47 41	18.984										
231	1,336,683.511	436,489.797	13 + 41.996			5 56 4 R	50	2.592	5.179	0.067	ES	-	-	13 + 39.40	13 + 44.58
				233 43 50	60.533										
232	1,336,719.321	436,538.601	13 + 102.524			2 19 9 L	200	4.048	8.095	0.041	ES	-	-	13 + 98.48	13 + 106.57
				231 24 40	60.159										
233	1,336,756.844	436,585.624	13 + 162.682			9 52 40 R	50	4.321	8.620	0.186	ES	-	-	13 + 158.36	13 + 166.98
				241 17 18	71.663										
234	1,336,791.271	436,648.476	13 + 234.324			32 55 48 L	25	7.389	14.368	1.069	ES	-	-	13 + 226.93	13 + 241.30
				208 21 28	41.897										
235	1,336,828.140	436,668.376	13 + 275.812			41 46 40 L	35	13.357	25.521	2.462	ES	-	-	13 + 262.45	13 + 287.97
				166 34 51	42.792										
236	1,336,869.764	436,658.445	13 + 317.409			19 3 36 L	35	5.876	11.643	0.490	ES	-	-	13 + 311.53	13 + 323.18
				147 31 15	40.591										
237	1,336,904.006	436,636.648	13 + 357.892			47 13 3 R	30	13.112	24.723	2.740	ES	8	30	13 + 344.78	13 + 369.50

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				194 44 19	34.008										
238	1,336,936.895	436,645.300	13 + 390.398			18 42 49 R	35	5.767	11.431	0.472	ES	-	-	13 + 384.63	13 + 396.06
				213 27 3	17.409										
239	1,336,951.420	436,654.896	13 + 407.705			7 5 39 R	50	3.099	6.191	0.096	ES	-	-	13 + 404.61	13 + 410.80
				220 32 48	27.329										
240	1,336,972.187	436,672.662	13 + 435.026			10 52 56 L	30	2.858	5.698	0.136	ES	-	-	13 + 432.17	13 + 437.87
				209 39 49	69.694										
241	1,337,032.747	436,707.154	13 + 504.703			17 28 47 R	75	11.530	22.881	0.881	ES	-	-	13 + 493.17	13 + 516.05
				227 8 39	95.673										
242	1,337,097.820	436,777.289	13 + 600.196			20 33 9 R	75	13.598	26.903	1.223	ES	-	-	13 + 586.60	13 + 613.50
				247 41 45	51.393										
243	1,337,117.325	436,824.837	13 + 651.297			19 35 55 R	75	12.954	25.655	1.110	ES	-	-	13 + 638.34	13 + 664.00
				267 17 42	48.207										
244	1,337,119.600	436,872.990	13 + 699.251			13 47 3 R	50	6.044	12.029	0.364	ES	-	-	13 + 693.21	13 + 705.24
				281 2 48	9.812										
EOP	1,337,117.720	436,882.620	13 + 709.005					0.000	0.000	0.000	ES	-	-	13 + 709.00	13 + 709.00
				281 5 44	17.719										
245	1,337,114.310	436,900.008	13 + 726.724			16 7 9 L	50	7.080	14.067	0.499	ES	-	-	13 + 719.64	13 + 733.71
				264 57 39	37.809										
246	1,337,117.631	436,937.671	13 + 764.439			38 4 37 R	30	10.352	19.937	1.736	ES	-	-	13 + 754.09	13 + 774.02
				303 2 9	37.214										
247	1,337,097.343	436,968.869	13 + 800.886			32 36 30 L	30	8.775	17.074	1.257	ES	-	-	13 + 792.11	13 + 809.18
				270 25 42	34.903										
248	1,337,097.082	437,003.771	13 + 835.312			35 19 14 R	30	9.551	18.494	1.464	ES	-	-	13 + 825.76	13 + 844.25
				305 45 2	27.425										
249	1,337,081.059	437,026.028	13 + 862.128			51 14 6 L	25	11.987	22.355	2.725	ES	-	-	13 + 850.14	13 + 872.50
				254 30 48	22.317										
250	1,337,087.018	437,047.535	13 + 882.826			20 45 59 R	30	5.497	10.873	0.499	ES	-	-	13 + 877.33	13 + 888.20
				275 16 47	19.279										
251	1,337,085.244	437,066.732	13 + 901.985			12 26 12 R	25	2.724	5.427	0.148	ES	-	-	13 + 899.26	13 + 904.69
				287 43 1	16.933										
252	1,337,080.091	437,082.862	13 + 918.896			93 8 6 L	12	12.675	19.506	5.455	ES	-	-	13 + 906.22	13 + 925.73
				194 34 57	18.092										
253	1,337,097.600	437,087.417	13 + 931.144			33 47 23 R	15	4.556	8.846	0.677	ES	8	30	13 + 926.59	13 + 935.43
				228 22 19	15.713										
254	1,337,108.038	437,099.162	13 + 946.591			21 40 8 R	25	4.785	9.455	0.454	ES	-	-	13 + 941.81	13 + 951.26
				250 2 24	45.925										
255	1,337,123.715	437,142.328	13 + 992.402			7 16 8 L	50	3.176	6.343	0.101	ES	-	-	13 + 989.23	13 + 995.57
				242 46 16	22.076										
256	1,337,133.816	437,161.958	14 + 14.469			16 3 10 L	25	3.525	7.004	0.247	ES	-	-	14 + 10.94	14 + 17.95

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				226 43 9	67.814										
257	1,337,180.308	437,211.327	14 + 82.237			33 11 57 R	40	11.924	23.177	1.740	ES	-	-	14 + 70.31	14 + 93.49
				259 55 3	33.307										
258	1,337,186.139	437,244.120	14 + 114.873			14 55 1 R	50	6.546	13.017	0.427	ES	-	-	14 + 108.33	14 + 121.34
				274 50 4	26.84										
259	1,337,183.877	437,270.865	14 + 141.690			62 44 28 R	18	10.975	19.711	3.082	ES	8	30	14 + 130.66	14 + 150.38
				337 34 36	49.926										
260	1,337,137.726	437,269.909	14 + 189.327			103 9 8 L	19	23.952	34.207	11.572	ES	-	-	14 + 165.38	14 + 199.58
				234 25 26	88.871										
261	1,337,189.430	437,362.192	14 + 264.501			2 9 16 R	200	3.761	7.520	0.035	ES	-	-	14 + 260.74	14 + 268.26
				236 34 36	46.983										
262	1,337,215.309	437,401.405	14 + 311.483			14 1 9 L	75	9.222	18.351	0.565	ES	-	-	14 + 302.26	14 + 320.61
				222 33 30	56.087										
263	1,337,256.622	437,439.339	14 + 367.478			40 28 24 L	50	18.433	35.320	3.289	ES	-	-	14 + 349.05	14 + 384.37
				182 5 11	55.954										
264	1,337,312.539	437,441.376	14 + 421.886			96 19 23 R	23	25.689	38.667	11.481	ES	8	30	14 + 396.20	14 + 434.86
				278 24 31	66.552										
265	1,337,302.807	437,507.213	14 + 475.726			53 23 43 L	45	22.630	41.937	5.370	ES	-	-	14 + 453.10	14 + 495.03
				225 0 47	49.953										
266	1,337,338.121	437,542.543	14 + 522.355			33 59 2 R	35	10.695	20.760	1.598	ES	-	-	14 + 511.66	14 + 532.42
				258 59 52	47.09										
267	1,337,347.108	437,588.767	14 + 568.814			54 8 31 L	27	13.799	25.514	3.322	ES	-	-	14 + 555.02	14 + 580.53
				204 51 15	51.869										
268	1,337,394.173	437,610.568	14 + 618.598			60 59 42 R	20	11.780	21.291	3.211	ES	-	-	14 + 606.82	14 + 628.11
				265 51 1	28.799										
269	1,337,396.257	437,639.291	14 + 645.129			9 28 41 R	50	4.145	8.271	0.172	ES	-	-	14 + 640.98	14 + 649.26
				275 19 44	43.457										
270	1,337,392.221	437,682.560	14 + 688.567			83 27 35 L	17	15.162	24.763	5.779	ES	-	-	14 + 673.41	14 + 698.17
				191 52 2	31.885										
271	1,337,423.425	437,689.117	14 + 714.891			13 51 44 R	50	6.078	12.097	0.368	ES	-	-	14 + 708.81	14 + 720.91
				205 43 49	125.979										
272	1,337,536.913	437,743.809	14 + 840.810			96 0 41 R	45	49.988	75.407	22.259	ES	-	-	14 + 790.82	14 + 866.23
				301 44 31	61.561										
273	1,337,504.526	437,796.162	14 + 877.803			28 18 19 L	35	8.826	17.291	1.096	ES	-	-	14 + 868.98	14 + 886.27
				273 26 11	59.912										
274	1,337,500.935	437,855.966	14 + 937.355			72 25 43 L	18	13.181	22.754	4.310	ES	-	-	14 + 924.17	14 + 946.93
				201 0 28	103.151										
275	1,337,597.230	437,892.945	15 + 36.898			70 20 38 R	25	17.617	30.693	5.584	ES	8	30	15 + 19.28	15 + 49.97
				271 21 7	161.159										
276	1,337,593.428	438,054.059	15 + 193.516			11 49 1 L	200	20.698	41.249	1.068	ES	-	-	15 + 172.82	15 + 214.07

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				259 32 4	55.582										
277	1,337,603.524	438,108.716	15 + 243.951			17 6 37 L	100	15.043	29.863	1.125	ES	-	-	15 + 233.91	15 + 263.77
				242 25 30	38.841										
278	1,337,621.504	438,143.145	15 + 287.568			20 8 11 R	100	17.755	35.145	1.564	ES	-	-	15 + 269.81	15 + 304.96
				262 33 37	92.56										
279	1,337,633.489	438,234.926	15 + 379.762			37 37 4 L	110	37.466	72.221	6.205	ES	-	-	15 + 342.30	15 + 414.52
				226 56 30	67.852										
280	1,337,681.515	438,282.857	15 + 444.903			9 56 0 R	25	2.173	4.334	0.094	ES	-	-	15 + 442.73	15 + 447.06
				234 52 34	105.775										
281	1,337,742.372	438,360.371	15 + 550.667			47 23 23 R	45	19.749	37.220	4.143	ES	-	-	15 + 530.92	15 + 568.14
				282 15 57	70.723										
282	1,337,727.347	438,438.480	15 + 619.112			3 36 4 R	200	6.287	12.570	0.099	ES	-	-	15 + 612.82	15 + 625.40
				285 52 1	58.953										
283	1,337,711.229	438,495.187	15 + 678.061			26 57 43 R	75	17.980	35.293	2.125	ES	-	-	15 + 660.08	15 + 695.37
				312 49 43	107.651										
284	1,337,638.047	438,574.137	15 + 785.046			11 27 59 R	200	20.080	40.025	1.005	ES	-	-	15 + 764.97	15 + 804.99
				324 17 43	172.241										
285	1,337,498.181	438,674.658	15 + 957.153			2 16 55 R	200	3.983	7.965	0.040	ES	-	-	15 + 953.17	15 + 961.13
				326 34 38	68.844										
286	1,337,440.722	438,712.578	16 + 25.996			3 51 39 R	200	6.741	13.477	0.114	ES	-	-	16 + 19.25	16 + 32.73
				330 26 15	46.822										
287	1,337,399.995	438,735.679	16 + 72.813			3 12 12 L	200	5.592	11.182	0.078	ES	-	-	16 + 67.22	16 + 78.40
				327 14 7	53.382										
288	1,337,355.106	438,764.569	16 + 126.192			29 59 34 R	85	22.770	44.495	2.997	ES	-	-	16 + 103.42	16 + 147.92
				357 13 38	104.414										
289	1,337,250.814	438,769.620	16 + 229.561			10 59 11 L	50	4.808	9.587	0.231	ES	-	-	16 + 224.75	16 + 234.34
				346 14 29	36.29										
290	1,337,215.565	438,778.251	16 + 265.822			16 47 0 R	50	7.376	14.646	0.541	ES	-	-	16 + 258.45	16 + 273.09
				3 1 26	47.087										
291	1,337,168.544	438,775.767	16 + 312.803			12 4 32 L	75	7.933	15.807	0.418	ES	-	-	16 + 304.87	16 + 320.68
				350 56 57	42.908										
292	1,337,126.170	438,782.517	16 + 355.652			32 47 36 R	75	22.069	42.926	3.180	ES	-	-	16 + 333.58	16 + 376.51
				23 44 32	63.948										
293	1,337,067.634	438,756.770	16 + 418.389			19 15 14 L	75	12.722	25.203	1.071	ES	-	-	16 + 405.67	16 + 430.87
				4 29 17	95.536										
294	1,336,972.391	438,749.294	16 + 513.685			29 11 38 L	75	19.532	38.215	2.502	ES	-	-	16 + 494.15	16 + 532.37
				335 17 40	50.582										
295	1,336,926.439	438,770.435	16 + 563.418			5 6 6 L	100	4.455	8.904	0.099	ES	-	-	16 + 558.96	16 + 567.87
				330 11 34	50.678										
296	1,336,882.466	438,795.626	16 + 614.090			41 52 26 L	50	19.130	36.542	3.535	ES	-	-	16 + 594.96	16 + 631.50

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
297	1,336,870.907	438,830.539	16 + 649.149	288 19 7	36.777	8 40 8 L	50	3.790	7.565	0.143	ES	-	-	16 + 645.36	16 + 652.92
298	1,336,850.632	438,949.774	16 + 770.081	279 39 1	120.947	4 21 11 R	400	15.202	30.390	0.289	ES	-	-	16 + 754.88	16 + 785.27
299	1,336,826.314	439,047.286	16 + 870.566	284 0 11	100.499	3 54 12 R	400	13.630	27.250	0.232	ES	-	-	16 + 856.94	16 + 884.19
300	1,336,747.061	439,292.560	17 + 128.315	287 54 24	257.76	35 21 29 R	65	20.718	40.112	3.222	ES	-	-	17 + 107.60	17 + 147.71
301	1,336,678.934	439,343.407	17 + 212.002	323 15 50	85.01	63 46 4 R	55	34.213	61.213	9.773	ES	-	-	17 + 177.79	17 + 239.00
EOP	1,336,605.700	439,306.040	17 + 287.004	27 1 57	82.216			0.000	0.000	0.000	ES	-	-	17 + 287.00	17 + 287.00
302	1,336,577.783	439,291.796	17 + 318.345	27 1 55	31.341	97 56 30 L	16	18.387	27.350	8.374	ES	8	30	17 + 299.96	17 + 327.31
303	1,336,562.585	439,335.710	17 + 355.392	289 5 24	46.47	8 5 47 R	50	3.539	7.065	0.125	ES	-	-	17 + 351.85	17 + 358.92
304	1,336,538.426	439,382.744	17 + 408.256	297 11 14	52.876	51 29 26 R	35	16.878	31.454	3.857	ES	-	-	17 + 391.38	17 + 422.83
305	1,336,480.373	439,394.368	17 + 465.158	348 40 38	59.205	35 4 26 L	50	15.800	30.608	2.437	ES	-	-	17 + 449.36	17 + 479.97
306	1,336,446.012	439,430.446	17 + 513.988	313 36 13	49.823	15 12 17 R	50	6.674	13.269	0.443	ES	-	-	17 + 507.31	17 + 520.58
307	1,336,394.795	439,461.454	17 + 573.781	328 48 30	59.872	51 29 59 L	55	26.529	49.436	6.064	ES	-	-	17 + 547.25	17 + 596.69
308	1,336,374.030	439,623.359	17 + 733.391	277 18 31	163.231	6 10 43 R	55	2.968	5.931	0.080	ES	-	-	17 + 730.42	17 + 736.35
309	1,336,367.187	439,651.891	17 + 762.726	283 29 13	29.341	4 1 20 L	55	1.931	3.861	0.034	ES	-	-	17 + 760.80	17 + 764.66
310	1,336,358.715	439,702.708	17 + 814.243	279 27 54	51.518	4 43 55 L	55	2.272	4.542	0.047	ES	-	-	17 + 811.97	17 + 816.51
311	1,336,353.950	439,760.156	17 + 871.885	274 43 57	57.645	13 32 54 L	55	6.533	13.005	0.387	ES	-	-	17 + 865.35	17 + 878.36
312	1,336,366.562	439,841.424	17 + 954.063	261 11 5	82.239	12 30 12 R	150	16.432	32.734	0.897	ES	-	-	17 + 937.63	17 + 970.36
313	1,336,361.823	439,914.928	18 + 27.590	273 41 20	73.657	9 55 49 R	150	13.031	25.997	0.565	ES	-	-	18 + 14.56	18 + 40.56
314	1,336,347.778	439,972.901	18 + 87.175	283 37 7	59.65	3 7 44 R	150	4.097	8.191	0.056	ES	-	-	18 + 83.08	18 + 91.27
315	1,336,285.186	440,180.906	18 + 304.391	286 44 51	217.218	88 2 13 R	20	19.326	30.731	7.812	ES	-	-	18 + 285.06	18 + 315.79

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
316	1,336,196.038	440,157.378	18 + 388.670	14 47 4	92.201	36 19 23 L	90	29.524	57.056	4.719	ES	-	-	18 + 359.15	18 + 416.20
317	1,336,128.607	440,183.992	18 + 459.172	338 27 42	72.493	49 56 47 R	30	13.972	26.152	3.094	ES	-	-	18 + 445.20	18 + 471.35
318	1,336,075.175	440,155.092	18 + 518.126	28 24 28	60.747	126 38 26 L	12	23.880	26.524	14.726	ES	8	30	18 + 494.25	18 + 520.77
319	1,336,087.920	440,243.178	18 + 585.892	261 46 2	89.003	10 35 8 L	100	9.264	18.475	0.428	ES	-	-	18 + 576.63	18 + 595.10
320	1,336,146.560	440,415.254	18 + 767.632	251 10 55	181.793	67 57 57 R	40	26.963	47.449	8.239	ES	-	-	18 + 740.67	18 + 788.12
321	1,336,083.195	440,470.050	18 + 844.927	319 8 52	83.772	16 17 45 L	150	21.476	42.662	1.530	ES	-	-	18 + 823.45	18 + 866.11
322	1,335,969.499	440,646.123	19 + 54.229	302 51 6	209.591	33 52 50 L	25	7.615	14.783	1.134	ES	-	-	19 + 46.61	19 + 61.40
323	1,335,970.171	440,683.565	19 + 91.230	268 58 18	37.448	30 42 25 L	35	9.610	18.758	1.295	ES	-	-	19 + 81.62	19 + 100.38
324	1,336,010.365	440,748.553	19 + 167.181	238 15 50	76.413	67 51 27 R	35	23.545	41.452	7.182	ES	-	-	19 + 143.64	19 + 185.09
325	1,335,965.434	440,810.120	19 + 237.763	306 7 18	76.219	30 16 38 L	60	16.233	31.706	2.157	ES	-	-	19 + 221.53	19 + 253.24
326	1,335,937.109	441,086.842	19 + 515.172	275 50 40	278.168	33 10 48 L	60	17.875	34.746	2.606	ES	-	-	19 + 497.30	19 + 532.04
327	1,335,974.560	441,159.292	19 + 595.724	242 39 52	81.557	43 2 48 R	50	19.719	37.565	3.748	ES	-	-	19 + 576.00	19 + 613.57
328	1,335,948.099	441,253.362	19 + 691.572	285 42 39	97.721	12 21 38 R	150	16.243	32.360	0.877	ES	-	-	19 + 675.33	19 + 707.69
329	1,335,921.178	441,303.841	19 + 748.655	298 4 17	57.209	4 1 28 R	150	5.270	10.536	0.093	ES	-	-	19 + 743.38	19 + 753.92
330	1,335,869.129	441,386.828	19 + 846.610	302 5 45	97.959	4 23 4 L	100	3.828	7.652	0.073	ES	-	-	19 + 842.78	19 + 850.43
331	1,335,845.845	441,431.155	19 + 896.676	297 42 43	50.07	14 24 44 R	100	12.644	25.154	0.796	ES	-	-	19 + 884.03	19 + 909.19
332	1,335,798.025	441,484.034	19 + 967.837	312 7 26	71.295	12 21 7 R	100	10.821	21.558	0.584	ES	-	-	19 + 957.02	19 + 978.57
333	1,335,706.759	441,549.192	20 + 79.893	324 28 32	112.139	15 38 55 L	175	24.048	47.796	1.645	ES	-	-	20 + 55.84	20 + 103.64
334	1,335,646.811	441,623.680	20 + 175.208	308 49 38	95.615	34 48 17 R	85	26.641	51.634	4.077	ES	-	-	20 + 148.57	20 + 200.20
335	1,335,564.126	441,647.965	20 + 259.738	343 37 56	86.178	35 50 15 L	100	32.335	62.548	5.098	ES	-	-	20 + 227.40	20 + 289.95

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				307 47 41	70.251										
336	1,335,521.074	441,703.478	20 + 327.866			23 51 41 L	50	10.565	20.823	1.104	ES	-	-	20 + 317.30	20 + 338.12
				283 56 7	21.443										
EOP	1,335,515.910	441,724.290	20 + 349.003					0.000	0.000	0.000	ES	-	-	20 + 349.00	20 + 349.00

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES NORTHING	COORDINATES EASTING	PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
BOP	1,332,842.260	427,848.010	0 + 0.000					0.000	0.000	0.000	ES	-	-	0 + 0.00	0 + 0.00
-1	1,332,835.547	427,847.798	0 + 6.714	1 48 32	6.716			0.000	0.000	0.000	ES	-	-	0 + 6.71	0 + 6.71
-2	1,332,798.020	427,816.076	0 + 55.852	40 12 30	49.138	48 18 31 R	40	17.938	33.726	3.838	ES	-	-	0 + 37.91	0 + 71.64
-3	1,332,796.584	427,760.605	0 + 109.191	88 31 2	55.49	36 1 58 L	50	16.262	31.445	2.578	ES	8	30	0 + 92.93	0 + 124.37
-4	1,332,763.473	427,717.477	0 + 162.484	52 29 7	54.372	26 43 7 R	50	11.874	23.316	1.391	ES	-	-	0 + 150.61	0 + 173.93
-5	1,332,757.814	427,687.806	0 + 192.258	79 12 7	30.206	14 0 16 R	50	6.141	12.221	0.376	ES	-	-	0 + 186.12	0 + 198.34
-6	1,332,760.412	427,641.443	0 + 238.633	93 12 26	46.436	20 26 29 R	85	15.326	30.325	1.371	ES	-	-	0 + 223.31	0 + 253.63
-7	1,332,772.037	427,614.897	0 + 267.287	113 38 58	28.98	14 5 56 L	50	6.183	12.304	0.381	ES	-	-	0 + 261.10	0 + 273.41
-8	1,332,782.482	427,552.808	0 + 330.186	99 32 57	62.961	44 3 54 L	75	30.351	57.681	5.909	ES	-	-	0 + 299.83	0 + 357.52
-9	1,332,712.120	427,450.489	0 + 451.341	55 29 5	124.177	9 35 52 R	200	16.791	33.503	0.704	ES	-	-	0 + 434.55	0 + 468.05
-10	1,332,686.187	427,394.667	0 + 512.814	65 4 55	61.552	3 3 36 L	200	5.342	10.681	0.071	ES	-	-	0 + 507.47	0 + 518.15
-11	1,332,654.637	427,335.274	0 + 580.064	62 1 21	67.253	26 43 27 R	100	23.753	46.642	2.782	ES	-	-	0 + 556.31	0 + 602.95
-12	1,332,652.677	427,245.736	0 + 668.759	88 44 46	89.559	74 27 48 R	20	15.198	25.993	5.119	ES	-	-	0 + 653.56	0 + 679.55
-13	1,332,713.093	427,227.507	0 + 727.461	163 12 37	63.106	31 5 30 L	25	6.955	13.566	0.949	ES	-	-	0 + 720.51	0 + 734.07
-14	1,332,734.392	427,203.950	0 + 758.876	132 7 6	31.758	29 35 51 L	50	13.209	25.829	1.715	ES	-	-	0 + 745.67	0 + 771.50
-15	1,332,746.475	427,149.540	0 + 814.022	102 31 14	55.736	15 28 45 L	50	6.795	13.508	0.460	ES	-	-	0 + 807.23	0 + 820.73
-16	1,332,744.597	427,113.221	0 + 850.307	87 2 24	36.368	14 55 45 L	25	3.276	6.514	0.214	ES	-	-	0 + 847.03	0 + 853.55
-17	1,332,727.462	427,060.132	0 + 906.056	72 6 43	55.786	27 36 20 R	75	18.426	36.136	2.230	ES	-	-	0 + 887.63	0 + 923.77
-18	1,332,747.435	426,943.502	- 1 + 23.668	99 43 4	118.328	30 23 26 L	125	33.951	66.302	4.529	ES	-	-	0 + 989.72	- 1 + 56.02
-19	1,332,722.193	426,876.606	- 1 + 93.569	69 19 37	71.5	8 51 4 R	125	9.674	19.310	0.374	ES	-	-	- 1 + 83.89	- 1 + 103.20
-20	1,332,716.860	426,851.128	- 1 + 119.561	78 10 40	26.03	8 20 19 L	125	9.112	18.192	0.332	ES	-	-	- 1 + 110.45	- 1 + 128.64
-21	1,332,685.192	426,764.875	- 1 + 211.411	69 50 21	91.883	43 44 0 R	77	30.902	58.773	5.969	ES	-	-	- 1 + 180.51	- 1 + 239.28

TABLE OF COORDINATES AND CURVE ELEMENTS

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				113 34 21	87.178										
-22	1,332,720.055	426,684.972	- 1 - 295.559			43 17 29 L	75	29.764	56.668	5.690	ES	-	-	- 1 - 265.80	- 1 - 322.46
				70 16 52	95.764										
EOP	1,332,687.744	426,594.824	- 1 - 388.464					0.000	0.000	0.000	ES	-	-	- 1 - 388.46	- 1 - 388.46

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road - 1)

No.	Elevation	Coordination		Remarks
		North	East	
1	46.12	1,333,591.080	428,347.150	
2	53.45	1,333,880.680	428,351.710	
3	59.17	1,333,985.110	428,414.830	
4	61.59	1,334,022.030	428,465.500	
5	74.74	1,334,158.020	428,546.780	
6	89.32	1,334,253.361	428,648.740	
7	99.35	1,334,323.067	428,795.284	
8	102.91	1,334,390.202	428,908.158	
9	116.94	1,334,568.720	429,085.512	
10	114.33	1,334,671.675	429,188.642	
11	116.68	1,334,765.049	429,240.664	
12	160.12	1,335,013.295	429,548.152	
13	173.94	1,335,024.891	429,724.308	
14	178.90	1,335,013.518	429,782.815	
15	185.91	1,335,009.899	429,865.865	
16	191.13	1,334,978.694	429,943.924	
17	194.03	1,334,989.400	430,021.828	
18	200.49	1,334,945.894	430,124.887	
19	211.28	1,334,880.881	430,198.738	
20	217.23	1,334,883.918	430,256.676	
21	221.97	1,334,895.656	430,288.916	
22	229.46	1,334,968.034	430,307.853	
23	232.87	1,334,955.333	430,344.103	
24	239.10	1,334,868.060	430,358.503	
25	243.30	1,334,840.365	430,400.116	
26	246.69	1,334,838.807	430,454.749	
27	252.16	1,334,784.227	430,523.399	
28	256.08	1,334,806.824	430,572.863	
29	260.82	1,334,839.741	430,611.514	
30	267.19	1,334,793.823	430,701.559	
31	272.56	1,334,807.894	430,769.243	
32	279.21	1,334,758.239	430,844.557	
33	279.21	1,334,758.239	430,844.557	
34	280.96	1,334,778.945	430,944.557	
35	279.60	1,334,793.547	431,011.902	
36	273.91	1,334,871.426	431,075.376	
37	273.36	1,334,897.489	431,155.209	
38	279.65	1,334,833.607	431,196.781	
39	285.08	1,334,823.920	431,238.583	
40	294.93	1,334,823.920	431,302.951	
41	303.39	1,334,799.602	431,313.941	
42	311.08	1,334,731.323	431,316.372	
43	323.26	1,334,701.232	431,374.684	
44	332.96	1,334,705.606	431,493.363	
45	338.65	1,334,684.051	431,530.662	
46	346.73	1,334,676.406	431,590.035	
47	351.86	1,334,642.471	431,623.098	
48	348.97	1,334,578.181	431,665.613	
49	348.57	1,334,553.945	431,719.918	
50	354.31	1,334,420.491	431,809.504	

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road – 2)

No.	Elevation	Coordination		Remarks
		North	East	
51	367.18	1,334,357.707	431,877.703	
52	386.66	1,334,353.343	432,003.343	
53	396.61	1,334,350.115	432,122.290	
54	401.69	1,334,391.059	432,169.419	
55	411.13	1,334,397.639	432,249.377	
56	419.38	1,334,348.468	432,249.778	
57	422.32	1,334,327.608	432,255.162	
58	432.37	1,334,346.513	432,319.757	
59	445.45	1,334,377.663	432,393.685	
60	446.68	1,334,394.886	432,383.465	
61	450.65	1,334,403.804	432,343.699	
62	459.11	1,334,468.720	432,343.286	
63	467.38	1,334,634.901	432,338.523	
64	475.10	1,334,521.988	432,386.390	
65	484.16	1,334,570.404	432,423.798	
66	492.75	1,334,625.875	432,433.074	
67	495.96	1,334,647.072	432,449.325	
68	504.24	1,334,666.905	432,504.960	
69	513.23	1,334,730.969	432,532.656	
70	516.78	1,334,768.591	432,526.681	
71	525.14	1,334,777.874	432,579.513	
72	529.27	1,334,811.100	432,605.833	
73	531.83	1,334,814.821	432,634.770	
74	536.44	1,334,795.639	432,655.930	
75	545.57	1,334,861.616	432,671.832	
76	551.63	1,334,913.094	432,703.873	
77	557.64	1,334,923.561	432,756.480	
78	569.32	1,334,918.321	432,840.506	
79	557.01	1,334,996.973	432,841.833	
80	579.44	1,335,053.110	432,831.966	
81	573.44	1,335,074.901	432,872.505	
82	561.74	1,335,023.542	432,958.478	
83	552.03	1,335,080.741	433,022.867	
84	542.98	1,335,119.773	433,083.064	
85	530.40	1,335,233.069	433,158.517	
86	531.89	1,335,272.882	433,209.912	
87	534.35	1,335,363.649	433,231.649	
88	538.76	1,335,416.210	433,310.570	
89	541.86	1,335,393.890	433,360.040	
90	541.24	1,335,367.860	433,422.580	
91	530.57	1,335,414.040	433,459.030	
92	524.50	1,335,407.010	433,535.790	
93	520.51	1,335,356.760	433,587.080	
94	513.81	1,335,362.650	433,655.960	
95	511.25	1,335,354.970	433,711.540	
96	508.87	1,335,395.130	433,775.760	
97	509.60	1,335,352.610	433,836.820	
98	509.72	1,335,365.210	433,939.350	
99	507.94	1,335,365.210	433,939.350	
100	498.59	1,335,433.360	434,094.540	

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road – 3)

No.	Elevation	Coordination		Remarks
		North	East	
101	486.31	1,335,473.531	434,197.691	
102	480.92	1,335,539.068	434,244.453	
103	476.49	1,335,495.257	434,275.911	
104	471.91	1,335,530.139	434,328.702	
105	466.32	1,335,589.236	434,316.687	
106	461.25	1,335,579.148	434,357.268	
107	453.40	1,335,630.839	434,411.503	
108	453.16	1,335,656.950	434,469.811	
109	453.35	1,335,646.751	434,514.107	
110	452.98	1,335,673.012	434,574.012	
111	446.60	1,335,680.463	434,665.339	
112	440.98	1,335,710.608	434,699.535	
113	425.06	1,335,780.052	434,810.275	
114	417.59	1,335,722.839	434,873.566	
115	411.63	1,335,724.984	434,928.049	
116	408.11	1,335,729.746	434,966.190	
117	405.67	1,335,702.068	434,989.668	
118	403.66	1,335,702.457	435,023.007	
119	399.48	1,335,663.046	435,037.538	
120	396.19	1,335,675.035	435,064.035	
121	389.84	1,335,742.089	435,089.212	
122	384.98	1,335,794.767	435,114.467	
123	381.06	1,335,831.213	435,145.005	
124	369.64	1,335,896.685	435,189.468	
125	365.15	1,335,876.265	435,238.265	
126	357.81	1,335,846.360	435,277.808	
127	351.23	1,335,829.651	435,324.671	
128	345.22	1,335,767.202	435,308.470	
129	336.86	1,335,790.541	435,357.105	
130	330.95	1,335,825.429	435,395.150	
131	320.07	1,335,839.457	435,475.667	
132	314.86	1,335,816.130	435,509.760	
133	311.14	1,335,838.100	435,475.667	
134	306.10	1,335,836.800	435,579.984	
135	297.43	1,335,895.241	435,583.977	
136	295.44	1,335,910.735	435,601.484	
137	291.67	1,335,912.033	435,627.960	
138	284.50	1,335,970.487	435,648.201	
139	279.11	1,336,055.780	435,670.860	
140	273.12	1,336,103.022	435,714.509	
141	266.18	1,336,168.632	435,729.196	
142	258.94	1,336,214.164	435,784.210	
143	255.63	1,336,236.627	435,814.901	
144	252.09	1,336,278.034	435,829.734	
145	245.96	1,336,310.370	435,873.127	
146	238.10	1,336,376.484	435,909.960	
147	231.34	1,336,409.632	435,970.468	
148	224.85	1,336,390.040	436,038.301	
149	218.37	1,336,418.527	436,075.971	
150	210.19	1,336,424.326	436,177.711	

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road - 4)

No.	Elevation	Coordination		Remarks
		North	East	
151	207.83	1,336,412.581	436,204.042	
152	203.62	1,336,441.769	436,249.969	
153	201.04	1,336,404.662	436,272.461	
154	198.43	1,336,364.328	436,277.135	
155	194.57	1,336,358.312	436,317.312	
156	191.83	1,336,392.150	436,353.271	
157	189.76	1,336,371.062	436,377.061	
158	178.90	1,336,440.565	436,402.565	
159	173.05	1,336,484.427	436,380.756	
160	162.58	1,336,581.534	436,374.901	
161	159.94	1,336,613.154	436,418.580	
162	161.78	1,336,633.092	436,418.604	
163	158.97	1,336,677.860	436,478.860	
164	156.63	1,336,718.340	436,534.317	
165	155.24	1,336,806.675	436,660.675	
166	154.10	1,336,863.515	436,664.042	
167	154.88	1,336,904.478	436,635.778	
168	155.36	1,336,957.730	436,656.946	
169	156.00	1,337,001.033	436,685.885	
170	157.17	1,337,076.690	436,749.960	
171	158.22	1,337,118.357	436,819.029	
172	157.87	1,337,119.736	436,889.597	
173	157.67	1,337,110.338	436,954.451	
174	157.17	1,337,093.955	436,995.466	
175	155.73	1,337,090.386	437,046.675	
176	155.73	1,337,090.158	437,080.290	
177	154.92	1,337,116.932	437,116.008	
178	154.52	1,337,134.042	437,166.054	
179	154.92	1,337,186.273	437,220.733	
180	154.07	1,337,181.257	437,274.428	
181	151.68	1,337,146.517	437,308.671	
182	150.62	1,337,195.633	437,377.298	
183	146.12	1,337,256.281	437,438.997	
184	143.03	1,337,256.222	437,449.985	
185	142.88	1,337,309.766	437,449.865	
186	140.88	1,337,308.735	437,515.533	
187	138.90	1,337,343.332	437,552.581	
188	136.66	1,337,376.926	437,598.426	
189	135.39	1,337,398.750	437,629.227	
190	133.82	1,337,395.642	437,682.920	
191	130.23	1,337,478.426	437,711.560	
192	124.54	1,337,518.513	437,750.320	
193	117.98	1,337,500.290	437,852.321	
194	106.11	1,337,595.827	437,895.910	
195	102.92	1,337,592.393	437,980.613	
196	103.68	1,337,595.948	438,080.226	
197	104.09	1,337,623.681	438,147.546	
198	102.44	1,337,635.781	438,231.563	
199	104.64	1,337,687.783	438,287.580	
200	96.78	1,337,741.850	438,375.313	

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road -- 5)

No.	Elevation	Coordination		Remarks
		North	East	
201	91.77	1,337,709.855	438,498.239	
202	82.46	1,337,550.352	438,640.775	
203	79.19	1,337,451.276	438,701.334	
204	76.61	1,337,415.611	438,722.769	
205	77.57	1,337,367.994	438,762.244	
206	78.55	1,337,240.831	438,769.250	
207	80.27	1,337,132.461	438,783.555	
208	79.53	1,337,044.886	438,752.007	
209	77.65	1,336,963.014	438,751.034	
210	78.35	1,336,881.100	438,798.953	
211	77.67	1,336,867.430	438,836.020	
212	68.58	1,336,859.909	438,913.114	
213	63.48	1,336,840.586	439,003.986	
214	60.87	1,336,809.908	439,109.393	
215	59.34	1,336,776.079	439,212.200	
216	59.78	1,336,740.536	439,298.402	
217	62.41	1,336,674.638	439,337.367	
218	68.46	1,336,583.798	432,293.928	
219	66.20	1,336,557.552	439,340.915	
220	62.42	1,336,538.427	439,380.988	
221	56.97	1,336,487.837	439,388.974	
222	54.52	1,336,392.680	439,472.929	
223	55.29	1,336,383.212	439,568.821	
224	51.52	1,336,365.909	439,648.294	
225	45.14	1,336,352.631	439,743.455	
226	41.44	1,336,367.748	439,826.346	
227	36.02	1,336,357.029	439,950.941	
228	37.24	1,336,332.811	440,035.722	
229	36.22	1,336,307.813	440,119.736	
230	36.22	1,336,282.517	440,179.070	
231	38.09	1,336,185.991	440,159.970	
232	41.12	1,336,128.911	440,183.696	
233	46.97	1,336,076.152	440,160.123	
234	54.17	1,336,085.943	440,246.058	
235	59.00	1,336,131.271	440,357.470	
236	62.54	1,336,140.264	440,424.536	
237	67.98	1,336,079.743	440,471.733	
238	66.64	1,336,031.648	440,554.722	
239	64.46	1,335,965.464	440,644.770	
240	65.91	1,335,975.840	440,700.846	
241	65.77	1,336,007.408	440,746.718	
242	62.77	1,335,967.481	440,802.900	
243	62.77	1,335,948.495	440,940.948	
244	55.36	1,335,936.504	441,083.991	
245	44.44	1,335,975.117	441,169.905	
246	36.18	1,335,942.578	441,269.860	
247	28.78	1,335,888.627	441,349.206	
248	20.09	1,335,852.433	441,425.390	
249	14.03	1,335,786.713	441,496.762	
250	13.47	1,335,774.647	441,493.885	

Table Location of Temporary Bench Mark (Road No. 1 Grand Etang Road - 6)

No.	Elevation	Coordination		Remarks
		North	East	
251	7.01	1,335,695.785	441,557.471	
252	4.55	1,335,641.778	441,625.192	
253	2.80	1,335,562.525	441,651.905	
254	1.80	1,335,512.653	441,711.204	

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
BOP	0 + 0						ES	-	-		
1	0 + 12.994	12 35 59 L	25	2.760	5.498	0.152	ES	-	-	0 + 10.23	0 + 15.73
2	0 + 105.922	36 34 29 R	65	21.481	41.493	3.457	ES	-	-	0 + 84.44	0 + 125.93
3	0 + 230.573	68 45 32 R	55	37.630	66.004	11.641	ES	-	-	0 + 192.94	0 + 258.95
4	0 + 356.172	8 20 56 R	300	21.896	43.715	0.798	ES	-	-	0 + 334.28	0 + 377.99
5	0 + 416.037	59 48 51 L	55	31.635	57.417	8.449	ES	-	-	0 + 384.40	0 + 441.82
6	0 + 499.097	53 53 8 L	60	30.496	56.429	7.305	ES	-	-	0 + 468.60	0 + 525.03
7	0 + 664.209	40 34 44 R	100	36.970	70.824	6.615	ES	-	-	0 + 627.24	0 + 698.06
8	0 + 791.483	10 39 31 R	250	23.321	46.507	1.085	ES	-	-	0 + 768.16	0 + 814.67
9	0 + 859.153	10 42 51 R	100	9.377	18.700	0.439	ES	-	-	0 + 849.78	0 + 868.48
10	0 + 973.369	19 8 44 L	100	16.865	33.415	1.412	ES	-	-	0 + 956.50	0 + 989.92
11	1 + 31.771	9 9 0 L	100	8.002	15.970	0.320	ES	-	-	1 + 23.77	1 + 39.74
12	1 + 108.531	10 25 0 L	100	9.115	18.181	0.415	ES	-	-	1 + 99.42	1 + 117.60
13	1 + 167.665	23 54 17 L	100	21.169	41.722	2.216	ES	-	-	1 + 146.50	1 + 188.22
14	1 + 222.119	9 32 17 R	100	8.343	16.647	0.347	ES	-	-	1 + 213.78	1 + 230.42
15	1 + 263.798	7 54 12 L	100	6.908	13.794	0.238	ES	-	-	1 + 256.89	1 + 270.68
16	1 + 370.223	44 15 37 R	105	42.700	81.111	8.350	ES	-	-	1 + 327.52	1 + 408.63
17	1 + 487.141	15 22 25 R	100	13.497	26.832	0.907	ES	-	-	1 + 473.64	1 + 500.48
18	1 + 549.309	20 7 43 L	100	17.748	35.131	1.563	ES	-	-	1 + 531.56	1 + 566.69
19	1 + 588.925	1 55 7 R	500	8.372	16.743	0.070	ES	-	-	1 + 580.55	1 + 597.30
20	1 + 653.637	3 27 2 R	500	15.060	30.112	0.227	ES	-	-	1 + 638.58	1 + 668.69

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
	4.508408	5.168	29.6	23.5	1.482407	OK
	1.716931	40.535	29.6	63.5	1.491448	OK
	2.034081	64.204	29.6	53.5	-0.42426	OK
	0.366826	43.496	29.6	298.5	0.286135	OK
	2.034081	55.852	29.6	53.5	0.579878	OK
	1.862173	55.018	29.6	58.5	0.591144	OK
	1.109788	69.761	29.6	98.5	-0.85156	OK
	0.440594	46.228	29.6	248.5	0.301986	OK
	1.109788	18.419	29.6	98.5	0.952162	OK
	1.109788	32.914	29.6	98.5	1.096031	OK
	1.109788	15.730	29.6	98.5	0.866998	OK
	1.109788	17.908	29.6	98.5	0.93738	OK
	1.109788	41.096	29.6	98.5	0.945088	OK
	1.109788	16.397	29.6	98.5	0.889841	OK
	1.109788	13.587	29.6	98.5	0.785947	OK
	1.056362	79.952	29.6	103.5	-1.8594	OK
	1.109788	26.430	29.6	98.5	1.097156	OK
	1.109788	34.604	29.6	98.5	1.078454	OK
	0.219683	16.693	29.6	498.5	0.177918	OK
	0.219683	30.021	29.6	498.5	0.219638	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
21	1 + 715.816	9 18 34 R	100	8.142	16.248	0.331	ES	-	-	1 + 707.67	1 + 723.92
22	1 + 823.820	19 40 13 R	125	21.670	42.914	1.864	ES	-	-	1 + 802.15	1 + 845.06
BOP	1 + 899.995	0 0 0 0	0	0.000	0.000	0.000	ES	-	-	1 + 900.00	1 + 900.00
23	2 + 116.262	15 47 8 L	100	13.863	27.551	0.956	ES	-	-	2 + 102.40	2 + 129.95
24	2 + 400.344	2 11 25 L	500	9.558	19.114	0.091	ES	-	-	2 + 390.79	2 + 409.90
25	2 + 531.911	13 49 5 L	150	18.176	36.176	1.097	ES	-	-	2 + 513.74	2 + 549.91
26	2 + 621.368	4 28 41 R	100	3.910	7.816	0.076	ES	-	-	2 + 617.46	2 + 625.27
27	2 + 680.965	2 49 53 R	500	12.357	24.709	0.153	ES	-	-	2 + 668.61	2 + 693.32
28	2 + 759.383	66 59 38 R	25	16.545	29.232	4.979	ES	-	-	2 + 742.84	2 + 772.07
29	2 + 826.432	89 44 58 L	23	22.900	36.028	9.456	ES	-	-	2 + 803.53	2 + 839.56
30	2 + 889.081	32 30 53 R	40	11.665	22.700	1.666	ES	-	-	2 + 877.42	2 + 900.12
31	2 + 945.167	54 52 1 L	35	18.168	33.516	4.435	ES	-	-	2 + 927.00	2 + 960.52
32	3 + 11.784	8 6 7 R	100	7.082	14.141	0.250	ES	-	-	3 + 4.70	3 + 18.84
33	3 + 52.848	111 48 33 R	13	19.204	25.369	10.191	ES	-	-	3 + 33.64	3 + 59.01
34	3 + 93.802	4 46 16 L	500	20.830	41.636	0.434	ES	-	-	3 + 72.97	3 + 348.87
35	3 + 176.427	27 45 19 L	30	7.412	14.533	0.902	ES	-	-	3 + 169.01	3 + 183.55
36	3 + 209.498	8 7 53 R	100	7.108	14.192	0.252	ES	-	-	3 + 202.39	3 + 216.58
37	3 + 332.033	13 19 27 R	200	23.360	46.510	1.360	ES	-	-	3 + 308.67	3 + 355.18
38	3 + 372.241	9 26 22 L	100	8.256	16.475	0.340	ES	-	-	3 + 363.98	3 + 380.46
39	3 + 442.458	6 31 8 L	100	5.695	11.378	0.162	ES	-	-	3 + 436.76	3 + 448.14

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
			V=20Km/h			
	1.109788	16.004	29.6	98.5	0.876521	OK
	0.885741	42.399	29.6	123.5	0.721923	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	1.109788	27.138	29.6	98.5	1.102171	OK
	0.219683	19.056	29.6	498.5	0.191815	OK
	0.736898	35.814	29.6	148.5	0.704607	OK
	1.109788	7.698	29.6	98.5	0.503031	OK
	0.219683	24.634	29.6	498.5	0.213502	OK
	4.508408	27.478	29.6	23.5	4.488632	OK
m	4.895954	33.678	29.6	21.5	4.825329	house widening
	2.809816	21.848	29.6	38.5	2.624515	OK
	3.216424	32.080	29.6	33.5	3.195929	OK
	1.109788	13.928	29.6	98.5	0.799642	OK
	8.279496	22.442	29.6	11.5	8.017393	OK
	0.219683	41.511	29.6	498.5	0.184134	OK
m	3.757222	13.806	29.6	28.5	2.726	ok
	1.109788	13.979	29.6	98.5	0.801647	OK
	0.551482	46.161	29.6	198.5	0.379677	OK
	1.109788	16.228	29.6	98.5	0.884144	OK
	1.109788	11.207	29.6	98.5	0.682233	OK

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
40	3 + 479.787	32 49 46 R	75	22.095	42.974	3.187	ES	-	-	3 + 457.69	3 + 500.67
41	3 + 557.228	35 17 13 L	70	22.264	43.111	3.455	ES	-	-	3 + 534.96	3 + 578.08
42	3 + 634.901	23 35 45 R	150	31.331	61.774	3.237	ES	-	-	3 + 603.57	3 + 665.34
43	3 + 685.033	11 25 59 R	100	10.010	19.954	0.500	ES	-	-	3 + 675.02	3 + 694.98
44	3 + 765.068	16 55 41 R	50	7.440	14.773	0.551	ES	-	-	3 + 757.63	3 + 772.40
45	3 + 825.757	19 17 52 L	100	17.002	33.681	1.435	ES	-	-	3 + 808.76	3 + 842.44
46	3 + 864.957	20 39 2 L	50	9.109	18.021	0.823	ES	-	-	3 + 855.85	3 + 873.87
BOP	3 + 880.000	0 0 0 0	0	0.000	0.000	0.000	ES	-	-	3 + 880.00	3 + 880.00
47	3 + 890.288	17 50 56 L	25	3.926	7.788	0.306	ES	-	-	3 + 886.36	3 + 894.15
48	3 + 945.044	54 0 12 L	20	10.191	18.851	2.447	ES	-	-	3 + 934.85	3 + 953.70
49	3 + 980.656	10 13 33 L	100	8.947	17.847	0.399	ES	-	-	3 + 971.71	3 + 989.56
50	4 + 10.252	95 6 30 R	17	18.587	28.219	8.189	ES	8	30	4 + 0.66	4 + 28.88
51	4 + 46.989	55 31 8 R	15	7.895	14.535	1.951	ES	8	30	4 + 39.09	4 + 53.63
52	4 + 70.702	25 45 49 R	15	3.430	6.745	0.387	ES	-	-	4 + 67.27	4 + 74.02
53	4 + 107.661	29 34 2 L	25	6.598	12.901	0.856	ES	-	-	4 + 101.06	4 + 113.96
54	4 + 158.217	40 45 55 L	35	13.004	24.902	2.338	ES	-	-	4 + 145.21	4 + 170.11
55	4 + 205.252	31 46 34 L	45	12.808	24.957	1.787	ES	-	-	4 + 192.44	4 + 217.40
56	4 + 238.567	49 8 14 R	20	9.143	17.152	1.991	ES	8	30	4 + 229.42	4 + 246.58
57	4 + 352.912	83 37 5 L	55	49.191	80.268	18.789	ES	-	-	4 + 303.72	4 + 383.99
58	4 + 426.881	18 13 11 R	25	4.009	7.950	0.319	ES	-	-	4 + 422.87	4 + 430.82

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
			V=20Km/h			
	1.48504	42.114	29.6	73.5	1.227581	OK
	1.592622	42.187	29.6	68.5	1.314608	OK
	0.736898	61.156	29.6	148.5	-0.08889	OK
	1.109788	19.655	29.6	98.5	0.985141	OK
	2.240676	14.329	29.6	48.5	1.652072	OK
	1.109788	33.176	29.6	98.5	1.093775	OK
	2.240676	17.480	29.6	48.5	1.871544	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	4.508408	7.321	29.6	23.5	2.012606	OK
	5.610926	17.437	29.6	18.5	4.777744	OK
	1.109788	17.580	29.6	98.5	0.927548	OK
m	6.545024	25.729	29.6	15.5	6.457293	Widening
m	7.331934	13.081	29.6	13.5	5.400574	Widening
m	7.331934	6.070	29.6	13.5	2.962516	ok
	4.508408	12.127	29.6	23.5	3.007211	OK
	3.216424	23.835	29.6	33.5	3.101481	OK
	2.493508	24.125	29.6	43.5	2.411184	OK
m	5.610926	15.866	29.6	18.5	4.530154	Widening
	2.034081	78.078	29.6	53.5	-2.53643	OK
m	4.508408	7.473	29.6	23.5	2.048088	ok

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
59	4 + 445.485	75 58 45 R	10	7.810	13.261	2.688	ES	8	30	4 + 437.68	4 + 450.94
60	4 + 465.878	21 52 48 L	55	10.631	21.003	1.018	ES	-	-	4 + 455.25	4 + 476.25
61	4 + 545.851	41 27 32 L	35	13.246	25.326	2.423	ES	-	-	4 + 532.61	4 + 557.93
62	4 + 597.677	52 54 7 R	25	12.438	23.083	2.923	ES	8	30	4 + 585.24	4 + 608.32
63	4 + 696.588	59 34 42 L	25	14.311	25.996	3.807	ES	-	-	4 + 682.28	4 + 708.27
64	4 + 731.663	18 16 8 R	25	4.020	7.971	0.321	ES	-	-	4 + 727.64	4 + 735.61
65	4 + 779.552	33 23 54 R	55	16.500	32.060	2.422	ES	-	-	4 + 763.05	4 + 795.11
66	4 + 848.602	72 33 3 L	37	27.155	46.851	8.895	ES	-	-	4 + 821.45	4 + 868.30
67	4 + 916.859	8 45 23 L	100	7.656	15.283	0.293	ES	-	-	4 + 909.20	4 + 924.49
68	4 + 969.411	33 27 22 L	30	9.016	17.518	1.326	ES	-	-	4 + 960.39	4 + 977.91
69	5 + 34.283	11 48 2 L	50	5.167	10.298	0.266	ES	-	-	5 + 29.12	5 + 39.41
70	5 + 70.961	72 59 42 R	20	14.798	25.480	4.879	ES	8	30	5 + 56.16	5 + 81.64
71	5 + 135.690	37 38 12 L	50	17.039	32.844	2.824	ES	-	-	5 + 118.66	5 + 151.70
72	5 + 178.974	50 18 12 L	30	14.086	26.339	3.142	ES	-	-	5 + 164.89	5 + 191.23
73	5 + 269.057	120 14 58 R	16	27.853	33.580	16.121	ES	-	-	5 + 241.20	5 + 274.78
74	5 + 311.115	5 25 12 L	100	4.733	9.460	0.112	ES	-	-	5 + 306.38	5 + 315.84
75	5 + 384.747	63 23 45 L	23	14.204	25.449	4.032	ES	-	-	5 + 370.54	5 + 395.99
76	5 + 455.451	27 32 1 L	70	17.151	33.639	2.070	ES	-	-	5 + 438.30	5 + 471.94
77	5 + 535.995	9 14 23 R	100	8.081	16.126	0.326	ES	-	-	5 + 527.91	5 + 544.04
78	5 + 567.966	31 25 46 R	35	9.848	19.199	1.359	ES	-	-	5 + 558.12	5 + 577.32

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
			V=20Km/h			
m	9.941235	11.272	29.6	8.5	7.441647	Widening
	2.034081	20.430	29.6	53.5	1.842385	OK
	3.216424	24.240	29.6	33.5	3.117244	OK
m	4.508408	21.698	29.6	23.5	4.220011	Widening
	4.508408	24.436	29.6	23.5	4.338019	OK
m	4.508408	7.493	29.6	23.5	2.052773	ok
	2.034081	31.186	29.6	53.5	2.028446	OK
	3.040645	44.952	29.6	35.5	2.33892	OK
	1.109788	15.054	29.6	98.5	0.84267	OK
m	3.757222	16.642	29.6	28.5	3.070963	ok
	2.240676	9.989	29.6	48.5	1.264918	OK
m	5.610926	23.569	29.6	18.5	5.421733	Widening
	2.240676	31.859	29.6	48.5	2.228195	OK
	3.757222	25.022	29.6	28.5	3.6751	OK
	6.919717	30.432	29.6	14.5	6.916696	OK
	1.109788	9.318	29.6	98.5	0.589638	OK
	4.895954	23.789	29.6	21.5	4.733813	OK
	1.592622	32.918	29.6	68.5	1.573074	OK
	1.109788	15.884	29.6	98.5	0.87238	OK
	3.216424	18.376	29.6	33.5	2.772109	OK

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
79	5 + 609.273	42 3 26 L	30	11.533	22.021	2.141	ES	-	-	5 + 597.74	5 + 619.76
80	5 + 646.753	33 1 25 R	50	14.822	28.819	2.151	ES	-	-	5 + 631.93	5 + 660.75
81	5 + 687.909	29 58 24 R	50	13.385	26.157	1.761	ES	-	-	5 + 674.52	5 + 700.68
82	5 + 782.711	29 45 52 L	60	15.945	31.169	2.083	ES	-	-	5 + 766.77	5 + 797.94
83	5 + 857.100	41 19 57 R	40	15.088	28.856	2.751	ES	-	-	5 + 842.10	5 + 870.96
84	5 + 894.967	9 13 45 L	25	2.018	4.027	0.081	ES	-	-	5 + 892.95	5 + 896.98
EOP	5 + 905.000	L		0.000	0.000	0.000	ES	-	-	5 + 905.00	5 + 905.00
85	5 + 954.818	4 39 7 L	50	2.031	4.060	0.041	ES	-	-	5 + 952.79	5 + 956.85
86	6 + 95.501	53 13 18 L	110	55.110	102.178	13.033	ES	-	-	6 + 40.39	6 + 142.57
87	6 + 238.802	27 2 28 L	95	22.844	44.836	2.708	ES	-	-	6 + 215.96	6 + 260.79
88	6 + 276.765	61 26 3 R	20	11.883	21.445	3.264	ES	-	-	6 + 264.88	6 + 286.33
89	6 + 352.706	89 22 53 L	52	51.442	81.120	21.145	ES	-	-	6 + 301.26	6 + 382.38
90	6 + 391.564	26 15 22 R	25	5.831	11.456	0.671	ES	-	-	6 + 385.73	6 + 397.19
91	6 + 421.031	23 12 49 R	65	13.351	26.335	1.357	ES	-	-	6 + 407.68	6 + 434.02
92	6 + 503.065	104 7 35 R	17	21.809	30.895	10.652	ES	-	-	6 + 481.26	6 + 512.15
93	6 + 573.488	133 17 0 L	12	27.786	27.915	18.266	ES	8	30	6 + 545.70	6 + 573.62
94	6 + 623.207	26 22 53 R	125	29.297	57.555	3.387	ES	-	-	6 + 593.91	6 + 651.47
95	6 + 750.482	158 27 28 L	9.5	49.938	26.273	41.333	ES	8	30	6 + 700.54	6 + 726.82
96	6 + 770.463	80 0 56 R	20	16.787	27.931	6.111	ES	8	30	6 + 753.68	6 + 781.61
97	6 + 841.530	17 30 11 L	50	7.697	15.274	0.589	ES	-	-	6 + 833.83	6 + 849.11

SIGHT DISTANCE JUDGE

Topogacy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
	3.757222	20.920	29.6	28.5	3.455392	OK
	2.240676	27.954	29.6	48.5	2.233992	OK
	2.240676	25.372	29.6	48.5	2.19635	OK
	1.862173	30.390	29.6	58.5	1.860883	OK
	2.809816	27.773	29.6	38.5	2.799712	OK
	4.508408	3.785	29.6	23.5	1.114604	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	2.240676	3.938	29.6	48.5	0.560706	OK
m	1.007837	100.785	29.6	108.5	-4.44941	OK
m	1.168893	44.128	29.6	93.5	0.892977	OK
	5.610926	19.836	29.6	18.5	5.089214	OK
m	2.153235	78.780	29.6	50.5	-2.69477	OK
	4.508408	10.769	29.6	23.5	2.7527	OK
	1.716931	25.727	29.6	63.5	1.688074	OK
	6.545024	28.169	29.6	15.5	6.535072	OK
m	8.813969	24.425	29.6	10.5	8.712188	Widening
	0.885741	56.865	29.6	123.5	0.147635	OK
m	10.20472	22.125	29.6	8	10.17662	Widening
m	5.610926	25.836	29.6	18.5	5.539748	Widening
	2.240676	14.816	29.6	48.5	1.689349	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
98	6 + 924.350	144 42 50 R	13.5	42.447	34.097	31.042	ES	8	30	6 + 881.90	6 + 916.00
99	6 + 941.661	88 19 49 L	20	19.425	30.833	7.881	ES	-	-	6 + 922.24	6 + 953.07
100	6 + 988.600	22 13 12 L	25	4.909	9.695	0.477	ES	-	-	6 + 983.69	6 + 993.39
101	7 + 39.678	28 50 43 L	35	9.001	17.621	1.139	ES	-	-	7 + 30.68	7 + 48.30
102	7 + 65.795	67 44 50 R	20	13.426	23.648	4.089	ES	8	30	7 + 52.37	7 + 76.02
103	7 + 105.034	11 0 44 R	50	4.820	9.610	0.232	ES	-	-	7 + 100.21	7 + 109.82
104	7 + 144.979	42 49 31 L	20	7.843	14.949	1.483	ES	-	-	7 + 137.14	7 + 152.09
105	7 + 211.820	38 43 27 L	40	14.056	27.035	2.398	ES	-	-	7 + 197.76	7 + 224.80
106	7 + 268.692	112 10 41 R	23	34.213	45.031	18.226	ES	8	30	7 + 234.48	7 + 279.51
107	7 + 299.136	65 9 37 L	15	9.586	17.059	2.801	ES	-	-	7 + 289.55	7 + 306.61
108	7 + 326.719	21 14 11 R	25	4.687	9.266	0.436	ES	-	-	7 + 322.03	7 + 331.30
109	7 + 369.013	77 31 1 R	16	12.845	21.647	4.518	ES	8	30	7 + 356.17	7 + 377.81
110	7 + 407.373	125 8 19 L	7.5	14.450	16.381	8.780	ES	-	-	7 + 392.92	7 + 409.30
111	7 + 446.322	18 55 22 R	25	4.166	8.257	0.345	ES	-	-	7 + 442.16	7 + 450.41
112	7 + 526.589	48 47 3 R	30	13.604	25.543	2.940	ES	8	30	7 + 512.99	7 + 538.53
113	7 + 562.721	16 2 41 R	50	7.047	14.002	0.494	ES	-	-	7 + 555.67	7 + 569.68
114	7 + 664.410	91 55 19 L	10.5	10.858	16.846	4.605	ES	-	-	7 + 653.55	7 + 670.40
115	7 + 703.533	9 42 15 R	50	4.244	8.468	0.180	ES	-	-	7 + 699.29	7 + 707.76
116	7 + 737.683	33 16 40 L	50	14.943	29.040	2.185	ES	-	-	7 + 722.74	7 + 751.78
117	7 + 795.105	74 34 10 R	35	26.648	45.552	8.990	ES	-	-	7 + 768.46	7 + 814.01

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
m	8.026869	30.309	29.6	12	8.025234	widening
	5.610926	28.521	29.6	18.5	5.605333	OK
	4.508408	9.114	29.6	23.5	2.414209	OK
	3.216424	16.865	29.6	33.5	2.641677	OK
m	5.610926	21.875	29.6	18.5	5.292941	Widening
	2.240676	9.322	29.6	48.5	1.196652	OK
	5.610926	13.828	29.6	18.5	4.156053	OK
	2.809816	26.021	29.6	38.5	2.770796	OK
m	4.895954	42.094	29.6	21.5	4.320501	widening
	7.331934	15.353	29.6	13.5	5.960218	OK
m	4.508408	8.710	29.6	23.5	2.327011	ok
m	6.919717	19.617	29.6	14.5	6.317757	Widening
	10.68452	13.104	29.6	6	10.5564	OK
m	4.508408	7.761	29.6	23.5	2.114641	ok
m	3.757222	24.266	29.6	28.5	3.645269	Widening
m	2.240676	13.582	29.6	48.5	1.592396	ok
	9.662234	14.439	29.6	9	8.19301	OK
m	2.240676	8.214	29.6	48.5	1.07824	ok
	2.240676	28.169	29.6	48.5	2.235627	OK
	3.216424	43.600	29.6	33.5	2.605896	OK

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
118	7 + 831.791	53 36 23 R	15	7.578	14.034	1.806	ES	-	-	7 + 824.21	7 + 838.25
119	7 + 879.322	18 55 40 R	35	5.834	11.562	0.483	ES	-	-	7 + 873.49	7 + 885.05
120	7 + 900.649	11 45 55 R	35	3.606	7.187	0.185	ES	-	-	7 + 897.04	7 + 904.23
121	7 + 957.068	109 42 43 L	25	35.513	47.871	18.430	ES	8	30	7 + 921.55	7 + 969.43
122	7 + 991.833	30 31 54 R	50	13.646	26.644	1.829	ES	-	-	7 + 978.19	8 + 4.83
123	8 + 100.395	22 54 38 L	25	5.066	9.997	0.508	ES	-	-	8 + 95.33	8 + 105.33
EOP	8 + 182.000			0.000	0.000	0.000	ES	-	-	8 + 182.00	8 + 182.00
124	8 + 224.690	10 4 0 R	50	4.404	8.785	0.194	ES	-	-	8 + 220.29	8 + 229.07
125	8 + 310.198	47 23 28 L	40	17.555	33.085	3.683	ES	-	-	8 + 292.64	8 + 325.73
126	8 + 353.401	25 39 27 R	50	11.386	22.390	1.280	ES	-	-	8 + 342.02	8 + 364.41
127	8 + 389.137	19 23 36 R	50	8.544	16.924	0.725	ES	-	-	8 + 380.59	8 + 397.52
128	8 + 447.199	21 27 2 R	50	9.470	18.719	0.889	ES	-	-	8 + 437.73	8 + 456.45
129	8 + 493.816	48 37 15 R	25	11.293	21.215	2.432	ES	-	-	8 + 482.52	8 + 503.74
130	8 + 526.931	3 1 22 L	200	5.277	10.551	0.070	ES	-	-	8 + 521.65	8 + 532.21
131	8 + 621.908	110 40 18 L	11	15.907	21.247	8.340	ES	8	30	8 + 606.00	8 + 627.25
132	8 + 655.750	88 40 12 R	15	14.656	23.214	5.971	ES	-	-	8 + 641.09	8 + 664.31
133	8 + 741.995	39 43 0 R	30	10.835	20.796	1.897	ES	-	-	8 + 731.16	8 + 751.96
134	8 + 782.250	17 20 52 R	100	15.256	30.278	1.157	ES	-	-	8 + 766.99	8 + 797.27
135	8 + 823.512	76 32 55 L	18	14.202	24.048	4.928	ES	-	-	8 + 809.31	8 + 833.36
136	8 + 869.162	27 27 39 R	40	9.773	19.171	1.177	ES	-	-	8 + 859.39	8 + 878.56

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
	7.331934	12.631	29.6	13.5	5.276389	OK
	3.216424	11.067	29.6	33.5	1.979624	OK
	3.216424	6.879	29.6	33.5	1.340765	OK
m	4.508408	44.999	29.6	23.5	3.676824	widening
	2.240676	25.845	29.6	48.5	2.205738	OK
m	4.508408	9.397	29.6	23.5	2.474326	ok
	-2.85592	0.000	29.6	-1.5	0	OK
	2.240676	8.521	29.6	48.5	1.111698	OK
m	2.809816	31.845	29.6	38.5	2.794776	OK
	2.240676	21.719	29.6	48.5	2.085629	OK
	2.240676	16.416	29.6	48.5	1.803197	OK
	2.240676	18.158	29.6	48.5	1.911976	OK
	4.508408	19.942	29.6	23.5	4.071795	OK
m	0.551482	10.472	29.6	198.5	0.32131	ok
m	9.377438	18.350	29.6	9.5	8.723269	Widening
	7.331934	20.892	29.6	13.5	6.886581	OK
m	3.757222	19.756	29.6	28.5	3.366754	ok
m	1.109788	29.823	29.6	98.5	1.109725	OK
	6.204316	22.044	29.6	16.5	5.886671	OK
m	2.809816	18.452	29.6	38.5	2.423173	ok

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
137	8 + 951.045	48 18 6 L	65	29.145	54.797	6.235	ES	-	-	8 + 921.90	8 + 976.70
138	9 + 23.431	77 48 29 R	29	23.403	39.382	8.266	ES	-	-	9 + 0.03	9 + 39.41
139	9 + 88.331	35 33 1 L	45	14.426	27.921	2.256	ES	-	-	9 + 73.91	9 + 101.83
140	9 + 126.197	15 36 41 L	50	6.854	13.624	0.468	ES	-	-	9 + 119.34	9 + 132.97
141	9 + 172.387	8 14 21 R	75	5.402	10.785	0.194	ES	-	-	9 + 166.99	9 + 177.77
142	9 + 213.867	21 11 28 R	35	6.547	12.945	0.607	ES	-	-	9 + 207.32	9 + 220.26
143	9 + 240.469	18 2 29 L	60	9.525	18.893	0.751	ES	-	-	9 + 230.94	9 + 249.84
144	9 + 306.908	70 5 40 L	20	14.029	24.468	4.430	ES	8	30	9 + 292.88	9 + 317.35
145	9 + 342.257	22 58 26 R	50	10.161	20.049	1.022	ES	-	-	9 + 332.10	9 + 352.14
146	9 + 387.726	41 11 28 R	30	11.274	21.568	2.048	ES	-	-	9 + 376.45	9 + 398.02
147	9 + 417.792	20 50 23 L	40	7.356	14.549	0.671	ES	-	-	9 + 410.44	9 + 424.99
148	9 + 462.467	13 16 36 R	50	5.819	11.586	0.337	ES	-	-	9 + 456.65	9 + 468.23
149	9 + 499.904	36 49 23 L	45	14.980	28.921	2.428	ES	-	-	9 + 484.92	9 + 513.84
150	9 + 547.738	7 15 47 L	100	6.347	12.676	0.201	ES	-	-	9 + 541.39	9 + 554.07
151	9 + 592.146	117 51 20 R	14.5	24.063	29.826	13.594	ES	-	-	9 + 568.08	9 + 597.91
152	9 + 637.097	96 55 23 L	17	19.189	28.758	8.636	ES	8	30	9 + 617.91	9 + 646.67
153	9 + 698.472	80 55 11 L	24	20.469	33.896	7.543	ES	8	30	9 + 678.00	9 + 711.90
154	9 + 763.219	137 29 46 R	14	35.997	33.597	24.624	ES	-	-	9 + 727.22	9 + 760.82
155	9 + 803.531	127 22 9 L	12	24.264	26.676	15.069	ES	8	30	9 + 779.27	9 + 805.94
156	9 + 909.774	150 2 35 R	20	74.753	52.375	57.383	ES	-	-	9 + 835.02	9 + 887.40

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	inside R	LC1<S	3.5
	1.716931	53.532	29.6	63.5	0.662292	OK
	3.887343	37.345	29.6	27.5	3.66747	OK
m	2.493508	26.090	29.6	43.5	2.474935	ok
m	2.240676	13.215	29.6	48.5	1.562054	ok
	1.48504	10.569	29.6	73.5	0.873468	OK
	3.216424	12.390	29.6	33.5	2.153421	OK
m	1.862173	18.421	29.6	58.5	1.599959	ok
m	5.610926	22.633	29.6	18.5	5.354984	Widening
	2.240676	19.447	29.6	48.5	1.982403	OK
	3.757222	20.489	29.6	28.5	3.423968	OK
m	2.809816	14.003	29.6	38.5	2.045321	ok
	2.240676	11.238	29.6	48.5	1.386472	OK
m	2.493508	27.957	29.6	43.5	2.486161	ok
m	1.109788	12.486	29.6	98.5	0.739774	ok
	7.553105	26.741	29.6	13	7.515037	OK
m	6.545024	26.220	29.6	15.5	6.486501	Widening
m	4.694563	31.777	29.6	22.5	4.674256	widening
	7.784708	29.997	29.6	12.5	7.784129	OK
m	8.813959	23.342	29.6	10.5	8.650124	Widening
	5.610926	48.447	29.6	18.5	4.615346	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
157	9 + 922.798	71 59 20 L	33	27.603	47.745	8.967	ES	-	-	9 + 895.20	9 + 942.94
158	9 + 978.020	50 48 38 R	33	15.673	29.265	3.533	ES	-	-	9 + 962.35	9 + 991.61
159	10 + 15.309	54 44 59 L	26	13.463	24.845	3.279	ES	8	30	10 + 1.85	10 + 26.69
160	10 + 70.577	35 55 9 R	50	16.207	31.345	2.561	ES	-	-	10 + 54.37	10 + 85.71
161	10 + 122.133	6 1 10 L	100	5.258	10.506	0.138	ES	-	-	10 + 116.88	10 + 127.38
162	10 + 190.887	52 39 59 L	30	14.849	27.576	3.474	ES	-	-	10 + 176.04	10 + 203.61
163	10 + 228.047	54 17 35 R	32	16.408	30.323	3.961	ES	8	30	10 + 211.64	10 + 241.96
164	10 + 261.976	40 32 56 L	38	14.037	26.893	2.510	ES	-	-	10 + 247.94	10 + 274.83
165	10 + 282.843	7 58 30 R	30	2.091	4.176	0.073	ES	-	-	10 + 280.75	10 + 284.93
166	10 + 319.380	4 7 31 L	50	1.801	3.600	0.032	ES	-	-	10 + 317.58	10 + 321.18
167	10 + 374.304	99 23 4 R	28	33.007	48.568	15.284	ES	8	30	10 + 341.30	10 + 389.87
168	10 + 412.220	23 47 16 L	40	8.425	16.607	0.878	ES	-	-	10 + 403.79	10 + 420.40
169	10 + 447.398	38 51 55 L	45	15.876	30.525	2.718	ES	-	-	10 + 431.52	10 + 462.05
170	10 + 477.573	13 38 20 R	40	4.783	9.522	0.285	ES	-	-	10 + 472.79	10 + 482.31
171	10 + 500.637	39 14 0 L	20	7.128	13.695	1.232	ES	8	30	10 + 493.51	10 + 507.20
172	10 + 535.216	78 30 32 R	25	20.429	34.256	7.285	ES	-	-	10 + 514.79	10 + 549.04
173	10 + 572.530	46 35 1 L	25	10.762	20.326	2.218	ES	8	30	10 + 561.77	10 + 582.09
174	10 + 610.746	81 42 40 R	19	16.433	27.096	6.120	ES	-	-	10 + 594.31	10 + 621.41
175	10 + 693.005	152 34 29 L	15.75	64.547	41.941	50.691	ES	8	30	10 + 628.46	10 + 670.40
176	10 + 711.677	5 8 2 R	200	8.966	17.921	0.201	ES	-	-	10 + 702.71	10 + 720.63

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
m	2.959662	45.860	29.6	36.5	2.190692	OK
	3.413335	27.935	29.6	31.5	3.403435	OK
m	4.33591	23.411	29.6	24.5	4.166394	Widening
	2.240676	30.405	29.6	48.5	2.239085	OK
	1.109788	10.348	29.6	98.5	0.641276	OK
	3.757222	26.197	29.6	28.5	3.71217	OK
m	3.520911	28.902	29.6	30.5	3.519136	Widening
	2.959662	25.831	29.6	36.5	2.914339	OK
m	3.757222	3.967	29.6	28.5	0.960239	ok
	2.240676	3.492	29.6	48.5	0.501265	OK
m	4.026518	45.967	29.6	26.5	3.116932	widening
	2.809816	15.984	29.6	38.5	2.22966	OK
m	2.493508	29.507	29.6	43.5	2.493485	ok
	2.809816	9.165	29.6	38.5	1.485632	OK
m	5.610926	12.668	29.6	18.5	3.916014	Widening
	4.508408	32.201	29.6	23.5	4.480139	OK
m	4.508408	19.106	29.6	23.5	3.989844	Widening
	5.894055	24.957	29.6	17.5	5.782221	OK
m	7.01912	37.947	29.6	14.25	6.817572	widening
	0.551482	17.786	29.6	198.5	0.463729	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
177	10 + 820.723	12 8 55 R	100	10.642	21.203	0.565	ES	-	-	10 + 810.08	10 + 831.29
178	10 + 868.063	4 17 49 R	200	7.503	14.999	0.141	ES	-	-	10 + 860.56	10 + 875.56
179	10 + 898.768	24 42 37 L	20	4.381	8.626	0.474	ES	-	-	10 + 894.39	10 + 903.01
180	10 + 929.562	92 56 27 R	14	14.738	22.710	6.327	ES	8	30	10 + 914.82	10 + 937.53
181	10 + 966.258	14 18 15 R	50	6.274	12.483	0.392	ES	-	-	10 + 959.98	10 + 972.47
182	10 + 993.966	8 33 1 L	100	7.475	14.923	0.279	ES	-	-	10 + 986.49	11 + 1.41
183	11 + 12.303	8 34 24 R	25	1.874	3.741	0.070	ES	-	-	11 + 10.43	11 + 14.17
184	11 + 30.781	16 15 7 L	100	14.278	28.365	1.014	ES	-	-	11 + 16.50	11 + 44.87
185	11 + 80.263	92 47 22 R	15	15.749	24.292	6.749	ES	8	30	11 + 64.51	11 + 88.81
186	11 + 162.860	148 21 5 L	11.25	39.692	29.129	30.006	ES	-	-	11 + 123.17	11 + 152.30
187	11 + 205.765	6 20 46 L	50	2.772	5.538	0.077	ES	-	-	11 + 202.99	11 + 208.53
188	11 + 237.787	35 8 53 R	30	9.502	18.403	1.469	ES	-	-	11 + 228.29	11 + 246.69
189	11 + 283.302	11 0 7 L	50	4.815	9.601	0.231	ES	-	-	11 + 278.49	11 + 288.09
190	11 + 320.526	62 6 58 R	18	10.840	19.514	3.012	ES	8	30	11 + 309.69	11 + 329.20
191	11 + 357.096	75 51 1 L	22	17.142	29.124	5.890	ES	-	-	11 + 339.95	11 + 369.08
192	11 + 398.620	34 41 38 R	40	12.495	24.221	1.906	ES	-	-	11 + 386.13	11 + 410.35
193	11 + 442.845	96 7 4 L	15	16.694	25.164	7.443	ES	-	-	11 + 426.15	11 + 451.31
194	11 + 488.213	42 11 27 R	20	7.716	14.727	1.437	ES	8	30	11 + 480.50	11 + 495.22
195	11 + 512.420	46 50 9 R	10	4.331	8.174	0.898	ES	8	30	11 + 508.09	11 + 516.26
196	11 + 544.729	67 22 5 L	27	17.996	31.746	5.448	ES	-	-	11 + 526.73	11 + 558.48
197	11 + 590.211	3 18 8 L	200	5.765	11.527	0.083	ES	-	-	11 + 584.45	11 + 595.97

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
m	1.109788	20.885	29.6	98.5	1.914116	ok
m	0.551482	14.887	29.6	198.5	0.415333	ok
	5.610926	7.979	29.6	18.5	2.741629	OK
m	7.784708	20.277	29.6	12.5	7.270728	Widening
m	2.240676	12.108	29.6	48.5	1.466262	ok
	1.109788	14.699	29.6	98.5	0.829467	OK
m	4.508408	3.516	29.6	23.5	1.040572	ok
	1.109788	27.940	29.6	98.5	1.106325	OK
m	7.331934	21.863	29.6	13.5	6.99045	Widening
	9.234976	25.245	29.6	9.75	9.186316	OK
	2.240676	5.372	29.6	48.5	0.744892	OK
m	3.757222	17.483	29.6	28.5	3.159406	ok
	2.240676	9.313	29.6	48.5	1.195747	OK
m	6.204316	17.888	29.6	16.5	5.386465	Widening
	5.114387	27.139	29.6	20.5	5.085711	OK
m	2.809816	23.313	29.6	38.5	2.688415	ok
	7.331934	22.647	29.6	13.5	7.062905	OK
m	5.610926	13.623	29.6	18.5	4.115097	Widening
m	9.941235	6.948	29.6	8.5	5.201442	Widening
	4.175684	29.983	29.6	25.5	4.175086	OK
	0.551482	11.440	29.6	198.5	0.344034	OK

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
198	11 + 694.262	10 17 27 R	25	2.251	4.490	0.101	ES	-	-	11 + 692.01	11 + 696.50
EOP	11 + 702.000			0.000	0.000	0.000	ES	-	-	11 + 702.00	11 + 702.00

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h V=20Km/h	Inside R	LC1<S	3.5
	4.508408	4.221	29.6	23.5	1.232749	OK
	-2.85592	0.000	29.6	-1.5	0	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
EOP	11 + 702.000			0.000	0.000	0.000	ES	-	-	11 + 702.00	11 + 702.00
199	11 + 717.207	28 0 57 R	50	12.474	24.448	1.532	ES	-	-	11 + 704.73	11 + 729.18
200	11 + 748.945	38 54 19 L	15	5.298	10.185	0.908	ES	8	30	11 + 743.65	11 + 753.83
201	11 + 818.503	35 54 22 R	15	4.860	9.400	0.768	ES	-	-	11 + 813.64	11 + 823.04
202	11 + 859.778	3 42 31 R	100	3.238	6.473	0.052	ES	-	-	11 + 856.54	11 + 863.01
203	11 + 885.861	7 34 57 L	50	3.313	6.617	0.110	ES	-	-	11 + 882.55	11 + 889.16
204	11 + 931.898	36 3 45 L	25	8.138	15.735	1.291	ES	-	-	11 + 923.76	11 + 939.49
205	11 + 956.123	35 39 45 R	25	8.042	15.561	1.262	ES	-	-	11 + 948.08	11 + 963.64
206	11 + 991.020	7 32 24 R	100	6.589	13.160	0.217	ES	-	-	11 + 984.43	11 + 997.59
207	12 + 17.693	25 30 34 L	50	11.318	22.261	1.265	ES	-	-	12 + 6.37	12 + 28.64
208	12 + 67.542	11 47 0 R	75	7.739	15.424	0.398	ES	-	-	12 + 59.80	12 + 75.23
209	12 + 120.419	29 18 30 R	35	9.152	17.903	1.177	ES	-	-	12 + 111.27	12 + 129.17
210	12 + 182.856	44 38 19 R	40	16.421	31.164	3.239	ES	-	-	12 + 166.44	12 + 197.60
211	12 + 236.617	66 55 31 L	22	14.541	25.697	4.371	ES	8	30	12 + 222.08	12 + 247.77
212	12 + 285.702	47 30 7 R	15	6.600	12.436	1.388	ES	-	-	12 + 279.10	12 + 291.54
213	12 + 321.567	13 21 11 L	100	11.706	23.305	0.683	ES	-	-	12 + 309.86	12 + 333.17
214	12 + 374.796	34 0 3 R	35	10.701	20.770	1.599	ES	-	-	12 + 364.09	12 + 384.86
215	12 + 416.243	65 19 52 L	20	12.823	22.805	3.758	ES	8	30	12 + 403.42	12 + 426.23
216	12 + 442.958	22 2 37 R	35	6.817	13.466	0.658	ES	-	-	12 + 436.14	12 + 449.61
217	12 + 479.695	84 8 11 R	17	15.344	24.964	5.900	ES	-	-	12 + 464.35	12 + 489.31

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	-2.85592	0.000	29.6	-1.5	0	OK
	2.240676	23.715	29.6	48.5	2.154532	OK
m	7.331934	9.167	29.6	13.5	4.173022	Widening
	7.331934	8.460	29.6	13.5	3.915368	OK
	1.109788	6.376	29.6	98.5	0.427328	OK
m	2.240676	6.418	29.6	48.5	0.872537	ok
	4.508408	14.791	29.6	23.5	3.446074	OK
	4.508408	14.627	29.6	23.5	3.421347	OK
	1.109788	12.962	29.6	98.5	0.760124	OK
m	2.240676	21.593	29.6	48.5	2.080625	ok
	1.48504	15.116	29.6	73.5	1.131628	OK
	3.216424	17.136	29.6	33.5	2.666318	OK
	2.809816	29.995	29.6	38.5	2.809347	OK
m	5.114387	23.945	29.6	20.5	4.95693	Widening
h	7.331934	11.192	29.6	13.5	4.850334	OK
m	1.109788	22.956	29.6	98.5	1.054226	ok
	3.216424	19.880	29.6	33.5	2.884853	OK
m	5.610926	21.094	29.6	18.5	5.221401	Widening
	3.216424	12.889	29.6	33.5	2.215391	OK
h	6.545024	22.761	29.6	15.5	6.284695	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
218	12 + 502.184	15 34 41 R	20	2.736	5.438	0.186	ES	-	-	12 + 499.45	12 + 504.89
219	12 + 550.887	59 59 55 L	20	11.547	20.943	3.094	ES	8	30	12 + 539.34	12 + 560.28
220	12 + 586.323	70 36 10 L	23	16.286	28.342	5.182	ES	8	30	12 + 570.04	12 + 598.38
221	12 + 639.467	95 3 11 R	13	14.200	21.567	6.252	ES	-	-	12 + 625.27	12 + 646.83
222	12 + 672.301	113 51 35 L	8	12.286	15.896	6.661	ES	8	30	12 + 660.02	12 + 675.91
223	12 + 738.770	55 13 54 L	25	13.078	24.099	3.214	ES	8	30	12 + 725.69	12 + 749.79
224	12 + 773.149	27 23 3 R	30	7.309	14.338	0.877	ES	-	-	12 + 765.84	12 + 780.18
225	12 + 864.625	13 5 29 R	100	11.474	22.849	0.656	ES	-	-	12 + 853.15	12 + 876.00
226	12 + 895.301	36 33 16 R	25	8.257	15.950	1.328	ES	-	-	12 + 887.13	12 + 903.08
227	12 + 960.468			0.000	0.000	0.000	ES	-	-	12 + 960.47	12 + 960.47
228	12 + 963.687			0.000	0.000	0.000	ES	-	-	12 + 963.69	12 + 963.69
229	12 + 984.664	14 18 36 R	50	6.277	12.488	0.392	ES	-	-	12 + 978.39	12 + 990.88
230	13 + 23.105	16 6 59 L	50	7.079	14.064	0.499	ES	-	-	13 + 16.03	13 + 30.09
231	13 + 41.996	5 56 4 R	50	2.592	5.179	0.067	ES	-	-	13 + 39.40	13 + 44.58
232	13 + 102.524	2 19 9 L	200	4.048	8.095	0.041	ES	-	-	13 + 98.48	13 + 106.57
233	13 + 162.682	9 52 40 R	50	4.321	8.620	0.186	ES	-	-	13 + 158.36	13 + 166.98
234	13 + 234.324	32 55 48 L	25	7.389	14.368	1.069	ES	-	-	13 + 226.93	13 + 241.30
235	13 + 275.812	41 46 40 L	35	13.357	25.521	2.462	ES	-	-	13 + 262.45	13 + 287.97
236	13 + 317.409	19 3 36 L	35	5.876	11.643	0.490	ES	-	-	13 + 311.53	13 + 323.18
237	13 + 357.892	47 13 3 R	30	13.112	24.723	2.740	ES	8	30	13 + 344.78	13 + 369.50

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	5.610926	5.030	29.6	18.5	1.835624	OK
m	5.610926	19.373	29.6	18.5	5.035188	Widening
m	4.895954	26.493	29.6	21.5	4.850961	Widening
	8.279496	19.078	29.6	11.5	7.614964	OK
m	10.7178	12.917	29.6	6.5	9.94339	Widening
m	4.508408	22.653	29.6	23.5	4.287242	Widening
	3.757222	13.621	29.6	28.5	2.701016	OK
	1.109788	22.506	29.6	98.5	1.046435	OK
	4.508408	14.993	29.6	23.5	3.476074	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	2.240676	12.113	29.6	48.5	1.466703	OK
	2.240676	13.642	29.6	48.5	1.597347	OK
	2.240676	5.023	29.6	48.5	0.701123	OK
	0.551482	8.035	29.6	198.5	0.258862	OK
	2.240676	8.361	29.6	48.5	1.094326	OK
	4.508408	13.506	29.6	23.5	3.244376	OK
	3.216424	24.427	29.6	33.5	3.124094	OK
	3.216424	11.144	29.6	33.5	1.990148	OK
m	3.757222	23.487	29.6	28.5	3.609525	Widening

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
238	13 + 390.398	18 42 49 R	35	5.767	11.431	0.472	ES	-	-	13 + 384.63	13 + 396.06
239	13 + 407.705	7 5 39 R	50	3.099	6.191	0.096	ES	-	-	13 + 404.61	13 + 410.80
240	13 + 435.026	10 52 56 L	30	2.858	5.698	0.136	ES	-	-	13 + 432.17	13 + 437.87
241	13 + 504.703	17 28 47 R	75	11.530	22.881	0.881	ES	-	-	13 + 493.17	13 + 516.05
242	13 + 600.196	20 33 9 R	75	13.598	26.903	1.223	ES	-	-	13 + 586.60	13 + 613.50
243	13 + 651.297	19 35 55 R	75	12.954	25.655	1.110	ES	-	-	13 + 638.34	13 + 664.00
244	13 + 699.251	13 47 3 R	50	6.044	12.029	0.364	ES	-	-	13 + 693.21	13 + 705.24
EOP	13 + 709.005			0.000	0.000	0.000	ES	-	-	13 + 709.00	13 + 709.00
245	13 + 726.724	16 7 9 L	50	7.080	14.067	0.499	ES	-	-	13 + 719.64	13 + 733.71
246	13 + 764.439	38 4 37 R	30	10.352	19.937	1.736	ES	-	-	13 + 754.09	13 + 774.02
247	13 + 800.886	32 36 30 L	30	8.775	17.074	1.257	ES	-	-	13 + 792.11	13 + 809.18
248	13 + 835.312	35 19 14 R	30	9.551	18.494	1.484	ES	-	-	13 + 825.76	13 + 844.25
249	13 + 862.128	51 14 6 L	25	11.987	22.355	2.725	ES	-	-	13 + 850.14	13 + 872.50
250	13 + 882.826	20 45 59 R	30	5.497	10.873	0.499	ES	-	-	13 + 877.33	13 + 888.20
251	13 + 901.985	12 26 12 R	25	2.724	5.427	0.148	ES	-	-	13 + 899.26	13 + 904.69
252	13 + 918.896	93 8 6 L	12	12.675	19.506	5.455	ES	-	-	13 + 906.22	13 + 925.73
253	13 + 931.144	33 47 23 R	15	4.556	8.846	0.677	ES	8	30	13 + 926.59	13 + 935.43
254	13 + 946.591	21 40 8 R	25	4.785	9.455	0.454	ES	-	-	13 + 941.81	13 + 951.26
255	13 + 992.402	7 16 8 L	50	3.176	6.343	0.101	ES	-	-	13 + 989.23	13 + 995.57
256	14 + 14.469	16 3 10 L	25	3.525	7.004	0.247	ES	-	-	14 + 10.94	14 + 17.95

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
m	3.216424	10.942	29.6	33.5	1.962481	ok
m	2.240676	6.005	29.6	48.5	0.822805	ok
	3.757222	5.413	29.6	28.5	1.275152	OK
	1.48504	22.423	29.6	73.5	1.398697	OK
	1.48504	26.365	29.6	73.5	1.467553	OK
	1.48504	25.141	29.6	73.5	1.451787	OK
	2.240676	11.668	29.6	48.5	1.426376	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	2.240676	13.645	29.6	48.5	1.597538	OK
	3.757222	18.940	29.6	28.5	3.297588	OK
	3.757222	16.220	29.6	28.5	3.024258	OK
m	3.757222	17.569	29.6	28.5	3.168068	ok
	4.508408	21.014	29.6	23.5	4.166131	OK
	3.757222	10.330	29.6	28.5	2.203264	OK
	4.508408	5.101	29.6	73.5	1.465104	OK
	8.813969	17.068	29.6	10.5	7.831572	OK
m	7.331934	7.962	29.6	13.5	3.726914	Widening
m	4.508408	8.888	29.6	23.5	2.36558	ok
	2.240676	6.153	29.6	48.5	0.840702	OK
	4.508408	6.584	29.6	23.5	1.837056	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
257	14 + 82.237	33 11 57 R	40	11.924	23.177	1.740	ES	-	-	14 + 70.31	14 + 93.49
258	14 + 114.873	14 55 1 R	50	6.546	13.017	0.427	ES	-	-	14 + 108.33	14 + 121.34
259	14 + 141.639	62 44 28 R	18	10.975	19.711	3.082	ES	8	30	14 + 130.66	14 + 150.38
260	14 + 189.327	103 9 8 L	19	23.952	34.207	11.572	ES	-	-	14 + 165.38	14 + 199.58
261	14 + 264.501	2 9 16 R	200	3.761	7.520	0.035	ES	-	-	14 + 260.74	14 + 268.26
262	14 + 311.483	14 1 9 L	75	9.222	18.351	0.565	ES	-	-	14 + 302.26	14 + 320.61
263	14 + 367.478	40 28 24 L	50	18.433	35.320	3.289	ES	-	-	14 + 349.05	14 + 384.37
264	14 + 421.886	96 19 23 R	23	25.689	38.667	11.481	ES	8	30	14 + 396.20	14 + 434.86
265	14 + 475.726	53 23 43 L	45	22.630	41.937	5.370	ES	-	-	14 + 453.10	14 + 495.03
266	14 + 522.355	33 59 2 R	35	10.695	20.760	1.598	ES	-	-	14 + 511.66	14 + 532.42
267	14 + 568.814	54 8 31 L	27	13.799	25.514	3.322	ES	-	-	14 + 555.02	14 + 580.53
268	14 + 618.598	60 59 42 R	20	11.780	21.291	3.211	ES	-	-	14 + 606.82	14 + 628.11
269	14 + 645.129	9 28 41 R	50	4.145	8.271	0.172	ES	-	-	14 + 640.98	14 + 649.26
270	14 + 688.567	83 27 35 L	17	15.162	24.763	5.779	ES	-	-	14 + 673.41	14 + 698.17
271	14 + 714.891	13 51 44 R	50	6.078	12.097	0.368	ES	-	-	14 + 708.81	14 + 720.91
272	14 + 840.810	96 0 41 R	45	49.988	75.407	22.259	ES	-	-	14 + 790.82	14 + 866.23
273	14 + 877.803	28 18 19 L	35	8.826	17.291	1.096	ES	-	-	14 + 868.98	14 + 886.27
274	14 + 937.355	72 25 43 L	18	13.181	22.754	4.310	ES	-	-	14 + 924.17	14 + 946.93
275	15 + 36.898	70 20 38 R	25	17.617	30.693	5.584	ES	8	30	15 + 19.28	15 + 49.97
276	15 + 193.516	11 49 1 L	200	20.698	41.249	1.068	ES	-	-	15 + 172.82	15 + 214.07

Topogepy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	2.609816	22.308	29.6	38.5	2.646061	OK
m	2.240676	12.627	29.6	48.5	1.511963	ok
m	6.204316	18.068	29.6	16.5	5.413571	Widening
	5.894055	31.506	29.6	17.5	5.877563	OK
	0.551482	7.464	29.6	198.5	0.24316	OK
	1.48504	17.984	29.6	73.5	1.258137	OK
	2.240676	34.260	29.6	48.5	2.187861	OK
m	4.895954	36.145	29.6	21.5	4.720755	widening
	2.493508	40.539	29.6	43.5	2.180265	OK
	3.216424	19.870	29.6	33.5	2.884166	OK
	4.175684	24.096	29.6	25.5	4.046028	OK
m	5.610926	19.694	29.6	18.5	5.072994	Widening
	2.240676	8.023	29.6	48.5	1.057121	OK
	6.545024	22.578	29.6	15.5	6.269464	OK
	2.240676	11.734	29.6	48.5	1.432428	OK
m	2.493508	72.894	29.6	43.5	-1.69211	OK
	3.216424	16.550	29.6	33.5	2.612239	OK
	6.204316	20.858	29.6	16.5	5.770023	OK
m	4.508408	28.852	29.6	23.5	4.505983	Widening
	0.551482	40.940	29.6	198.5	0.470866	OK

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
277	15 + 248.951	17 6 37 L	100	15.043	29.863	1.125	ES	-	-	15 + 233.91	15 + 263.77
278	15 + 287.568	20 8 11 R	100	17.755	35.145	1.564	ES	-	-	15 + 269.81	15 + 304.96
279	15 + 379.762	37 37 4 L	110	37.466	72.221	6.205	ES	-	-	15 + 342.30	15 + 414.52
280	15 + 444.903	9 56 0 R	25	2.173	4.334	0.094	ES	-	-	15 + 442.73	15 + 447.06
281	15 + 550.667	47 23 23 R	45	19.749	37.220	4.143	ES	-	-	15 + 530.92	15 + 568.14
282	15 + 619.112	3 36 4 R	200	6.287	12.570	0.099	ES	-	-	15 + 612.82	15 + 625.40
283	15 + 678.061	26 57 43 R	75	17.980	35.293	2.125	ES	-	-	15 + 660.08	15 + 695.37
284	15 + 785.046	11 27 59 R	200	20.080	40.025	1.005	ES	-	-	15 + 764.97	15 + 804.99
285	15 + 957.153	2 16 55 R	200	3.983	7.965	0.040	ES	-	-	15 + 953.17	15 + 961.13
286	16 + 25.996	3 51 39 R	200	6.741	13.477	0.114	ES	-	-	16 + 19.25	16 + 32.73
287	16 + 72.813	3 12 12 L	200	5.592	11.182	0.078	ES	-	-	16 + 67.22	16 + 78.40
288	16 + 126.192	29 59 34 R	85	22.770	44.495	2.997	ES	-	-	16 + 103.42	16 + 147.92
289	16 + 229.561	10 59 11 L	50	4.808	9.587	0.231	ES	-	-	16 + 224.75	16 + 234.34
290	16 + 265.822	16 47 0 R	50	7.376	14.646	0.541	ES	-	-	16 + 258.45	16 + 273.09
291	16 + 312.803	12 4 32 L	75	7.933	15.807	0.418	ES	-	-	16 + 304.87	16 + 320.68
292	16 + 355.652	32 47 36 R	75	22.069	42.926	3.180	ES	-	-	16 + 333.58	16 + 376.51
293	16 + 418.389	19 15 14 L	75	12.722	25.203	1.071	ES	-	-	16 + 405.67	16 + 430.87
294	16 + 513.685	29 11 38 L	75	19.532	38.215	2.502	ES	-	-	16 + 494.15	16 + 532.37
295	16 + 563.418	5 6 6 L	100	4.455	8.904	0.099	ES	-	-	16 + 558.96	16 + 567.87
296	16 + 614.090	41 52 26 L	50	19.130	36.542	3.535	ES	-	-	16 + 594.96	16 + 631.50

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	1.109788	29.415	29.6	98.5	1.109745	OK
	1.109788	34.617	29.6	98.5	1.078286	OK
	1.007837	71.236	29.6	108.5	-0.91802	OK
	4.508408	4.074	29.6	23.5	1.193201	OK
m	2.493508	35.979	29.6	43.5	2.38533	OK
	0.551482	12.476	29.6	198.5	0.367031	OK
m	1.48504	34.587	29.6	73.5	1.443798	OK
	0.551482	39.725	29.6	198.5	0.487197	OK
	0.551482	7.906	29.6	198.5	0.255349	OK
	0.551482	13.376	29.6	198.5	0.385917	OK
	0.551482	11.098	29.6	198.5	0.336127	OK
	1.308187	43.710	29.6	83.5	1.018296	OK
	2.240676	9.300	29.6	48.5	1.194376	OK
	2.240676	14.207	29.6	48.5	1.642495	OK
	1.48504	15.491	29.6	73.5	1.149758	OK
	1.48504	42.068	29.6	73.5	1.229469	OK
m	1.48504	24.699	29.6	73.5	1.444849	ok
	1.48504	37.450	29.6	73.5	1.383166	OK
	1.109788	8.771	29.6	98.5	0.561116	OK
m	2.240676	35.446	29.6	48.5	2.157813	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
297	16 + 649.149	8 40 8 L	50	3.790	7.565	0.143	ES	-	-	16 + 645.36	16 + 652.92
298	16 + 770.081	4 21 11 R	400	15.202	30.390	0.289	ES	-	-	16 + 754.88	16 + 785.27
299	16 + 870.566	3 54 12 R	400	13.630	27.250	0.232	ES	-	-	16 + 856.94	16 + 884.19
300	17 + 128.315	35 21 29 R	65	20.718	40.112	3.222	ES	-	-	17 + 107.60	17 + 147.71
301	17 + 212.002	63 46 4 R	55	34.213	61.213	9.773	ES	-	-	17 + 177.79	17 + 239.00
EOP	17 + 287.004			0.000	0.000	0.000	ES	-	-	17 + 287.00	17 + 287.00
302	17 + 318.345	97 56 30 L	16	18.387	27.350	8.374	ES	8	30	17 + 299.96	17 + 327.31
303	17 + 355.392	8 5 47 R	50	3.539	7.065	0.125	ES	-	-	17 + 351.85	17 + 358.92
304	17 + 408.256	51 29 26 R	35	16.878	31.454	3.857	ES	-	-	17 + 391.38	17 + 422.83
305	17 + 465.158	35 4 25 L	50	15.800	30.608	2.437	ES	-	-	17 + 449.36	17 + 479.97
306	17 + 513.988	15 12 17 R	50	6.674	13.269	0.443	ES	-	-	17 + 507.31	17 + 520.58
307	17 + 573.781	51 29 59 L	55	26.529	49.436	6.064	ES	-	-	17 + 547.25	17 + 596.69
308	17 + 733.391	6 10 43 R	55	2.968	5.931	0.080	ES	-	-	17 + 730.42	17 + 736.35
309	17 + 762.726	4 1 20 L	55	1.931	3.861	0.034	ES	-	-	17 + 760.80	17 + 764.66
310	17 + 814.243	4 43 55 L	55	2.272	4.542	0.047	ES	-	-	17 + 811.97	17 + 816.51
311	17 + 871.885	13 32 54 L	55	6.533	13.005	0.387	ES	-	-	17 + 865.35	17 + 878.36
312	17 + 954.063	12 30 12 R	150	16.432	32.734	0.897	ES	-	-	17 + 937.63	17 + 970.36
313	18 + 27.590	9 55 49 R	150	13.031	25.997	0.565	ES	-	-	18 + 14.56	18 + 40.56
314	18 + 87.175	3 7 44 R	150	4.097	8.191	0.056	ES	-	-	18 + 83.08	18 + 91.27
315	18 + 304.391	88 2 13 R	20	19.326	30.731	7.812	ES	-	-	18 + 285.06	18 + 315.79

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
m	2.240676	7.338	29.6	48.5	0.979974	ok
	0.274799	30.276	29.6	398.5	0.274656	OK
	0.274799	27.148	29.6	398.5	0.272915	OK
	1.716931	39.187	29.6	63.5	1.543257	OK
	2.034081	59.543	29.6	53.5	0.164064	OK
	-2.85592	0.000	29.6	-1.5	0	OK
m	6.919717	24.786	29.6	14.5	6.797218	Widening
	2.240676	6.853	29.6	48.5	0.923908	OK
m	3.216424	30.106	29.6	33.5	3.215563	OK
	2.240676	29.690	29.6	48.5	2.240656	OK
	2.240676	12.871	29.6	48.5	1.53294	OK
m	2.034081	48.088	29.6	53.5	1.296612	OK
	2.034081	5.769	29.6	53.5	0.719897	OK
	2.034081	3.756	29.6	53.5	0.486434	OK
	2.034081	4.418	29.6	53.5	0.565383	OK
	2.034081	12.651	29.6	53.5	1.373128	OK
	0.736898	32.406	29.6	148.5	0.730306	OK
	0.736898	25.737	29.6	148.5	0.724392	OK
	0.736898	8.109	29.6	148.5	0.348713	OK
	5.610926	28.426	29.6	18.5	5.604297	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
316	18 + 388.670	36 19 23 L	90	29.524	57.056	4.719	ES	-	-	18 + 359.15	18 + 416.20
317	18 + 459.172	49 56 47 R	30	13.972	26.152	3.094	ES	-	-	18 + 445.20	18 + 471.35
318	18 + 518.126	126 38 26 L	12	23.880	26.524	14.726	ES	8	30	18 + 494.25	18 + 520.77
319	18 + 585.892	10 35 8 L	100	9.264	18.475	0.428	ES	-	-	18 + 576.63	18 + 595.10
320	18 + 767.632	67 57 57 R	40	26.963	47.449	8.239	ES	-	-	18 + 740.67	18 + 788.12
321	18 + 844.927	16 17 45 L	150	21.476	42.662	1.530	ES	-	-	18 + 823.45	18 + 866.11
322	19 + 54.229	33 52 50 L	25	7.615	14.783	1.134	ES	-	-	19 + 46.61	19 + 61.40
323	19 + 91.230	30 42 25 L	35	9.610	18.758	1.295	ES	-	-	19 + 81.62	19 + 100.38
324	19 + 167.181	67 51 27 R	35	23.545	41.452	7.182	ES	-	-	19 + 143.64	19 + 185.09
325	19 + 237.763	30 16 38 L	60	16.233	31.706	2.157	ES	-	-	19 + 221.53	19 + 253.24
326	19 + 515.172	33 10 48 L	60	17.875	34.746	2.606	ES	-	-	19 + 497.30	19 + 532.04
327	19 + 595.724	43 2 48 R	50	19.719	37.565	3.748	ES	-	-	19 + 576.00	19 + 613.57
328	19 + 691.572	12 21 38 R	150	16.243	32.360	0.877	ES	-	-	19 + 675.33	19 + 707.69
329	19 + 748.655	4 1 28 R	150	5.270	10.536	0.093	ES	-	-	19 + 743.38	19 + 753.92
330	19 + 846.610	4 23 4 L	100	3.828	7.652	0.073	ES	-	-	19 + 842.78	19 + 850.43
331	19 + 896.676	14 24 44 R	100	12.644	25.154	0.796	ES	-	-	19 + 884.03	19 + 909.19
332	19 + 967.837	12 21 7 R	100	10.821	21.558	0.584	ES	-	-	19 + 957.02	19 + 978.57
333	20 + 79.893	15 38 55 L	175	24.048	47.796	1.645	ES	-	-	20 + 55.84	20 + 103.64
334	20 + 175.208	34 48 17 R	85	26.641	51.634	4.077	ES	-	-	20 + 148.57	20 + 200.20
335	20 + 259.738	35 50 15 L	100	32.335	62.548	5.098	ES	-	-	20 + 227.40	20 + 289.95

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	1.234633	56.105	29.6	88.5	0.278139	OK
	3.757222	24.844	29.6	28.5	3.668516	OK
m	8.813969	23.208	29.6	10.5	8.641152	Widening
	1.109788	18.198	29.6	98.5	0.945853	OK
m	2.809816	45.670	29.6	38.5	2.084574	OK
	0.736898	42.236	29.6	148.5	0.603609	OK
	4.508408	13.896	29.6	23.5	3.307535	OK
	3.216424	17.954	29.6	33.5	2.737378	OK
m	3.216424	39.675	29.6	33.5	2.89215	OK
	1.862173	30.914	29.6	58.5	1.85861	OK
	1.862173	33.877	29.6	58.5	1.824574	OK
m	2.240676	36.438	29.6	48.5	2.127564	OK
	0.736898	32.036	29.6	148.5	0.73103	OK
	0.736898	10.431	29.6	148.5	0.428115	OK
	1.109788	7.538	29.6	98.5	0.494059	OK
	1.109788	24.777	29.6	98.5	1.08053	OK
	1.109788	21.235	29.6	98.5	1.02165	OK
	0.630857	47.386	29.6	173.5	0.404579	OK
	1.308187	50.723	29.6	83.5	0.663278	OK
	1.109788	61.610	29.6	98.5	-0.14636	OK

P-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
336	20 + 327.866	23 51 41 L	50	10.565	20.823	1.104	ES	-	-	20 + 317.30	20 + 338.12
EOP	20 + 349.003			0.000	0.000	0.000	ES	-	-	20 + 349.00	20 + 349.00

SIGHT DISTANCE JUDGE

Topogapy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	2.240676	20.198	29.6	48.5	2.019478	OK
	-2.85592	0.000	29.6	-1.5	0	OK

SIGHT DISTANCE JUDGE

R-1(Grand Etang)

ES:Existing Superelevation

PI NO.	PI STATION	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
BOP	0 + 0.000			0.000	0.000	0.000	ES	-	-	0 + 0.00	0 + 0.00
-1	0 - 6.714			0.000	0.000	0.000	ES	-	-	0 - 6.71	0 - 6.71
-2	0 - 55.852	48 18 31 R	40	17.938	33.726	3.838	ES	-	-	0 - 37.91	0 - 71.64
-3	0 - 109.191	36 1 58 L	50	16.262	31.445	2.578	ES	8	30	0 - 92.93	0 - 124.37
-4	0 - 162.484	26 43 7 R	50	11.874	23.316	1.391	ES	-	-	0 - 150.61	0 - 173.93
-5	0 - 192.258	14 0 16 R	50	6.141	12.221	0.376	ES	-	-	0 - 186.12	0 - 198.34
-6	0 - 238.633	20 26 29 R	85	15.326	30.325	1.371	ES	-	-	0 - 223.31	0 - 253.63
-7	0 - 267.287	14 5 56 L	50	6.183	12.304	0.381	ES	-	-	0 - 261.10	0 - 273.41
-8	0 - 330.186	44 3 54 L	75	30.351	57.681	5.909	ES	-	-	0 - 299.83	0 - 357.52
-9	0 - 451.341	9 35 52 R	200	16.791	33.503	0.704	ES	-	-	0 - 434.55	0 - 468.05
-10	0 - 512.814	3 3 36 L	200	5.342	10.681	0.071	ES	-	-	0 - 507.47	0 - 518.15
-11	0 - 580.064	26 43 27 R	100	23.753	46.642	2.782	ES	-	-	0 - 556.31	0 - 602.95
-12	0 - 668.759	74 27 48 R	20	15.198	25.993	5.119	ES	-	-	0 - 653.56	0 - 679.55
-13	0 - 727.461	31 5 30 L	25	6.955	13.566	0.949	ES	-	-	0 - 720.51	0 - 734.07
-14	0 - 758.876	29 35 51 L	50	13.209	25.829	1.715	ES	-	-	0 - 745.67	0 - 771.50
-15	0 - 814.022	15 28 45 L	50	6.795	13.508	0.460	ES	-	-	0 - 807.23	0 - 820.73
-16	0 - 850.307	14 55 45 L	25	3.276	6.514	0.214	ES	-	-	0 - 847.03	0 - 853.55
-17	0 - 906.056	27 36 20 R	75	18.426	36.136	2.230	ES	-	-	0 - 887.63	0 - 923.77
-18	- 1 - 23.668	30 23 26 L	125	33.951	66.302	4.529	ES	-	-	0 - 989.72	- 1 - 56.02
-19	- 1 - 93.569	8 51 4 R	125	9.674	19.310	0.374	ES	-	-	- 1 - 83.89	- 1 - 103.20
-20	- 1 - 119.561	8 20 19 L	125	9.112	18.192	0.332	ES	-	-	- 1 - 110.45	- 1 - 128.64
-21	- 1 - 211.411	43 44 0 R	77	30.902	58.773	5.969	ES	-	-	- 1 - 180.51	- 1 - 239.28
-22	- 1 - 295.559	43 17 29 L	75	29.764	56.668	5.690	ES	-	-	- 1 - 265.80	- 1 - 322.46
EOP	- 1 - 388.464			0.000	0.000	0.000	ES	-	-	- 1 - 388.46	- 1 - 388.46

Topogasy	M	LC1	S	r1	Mt	Judge
Sight Ob.	LC1>=S	Inside Lane	V=30Km/h	Inside R	LC1<S	3.5
	-2.85592	0.000	29.6	-1.5	0	OK
	-2.85592	0.000	29.6	-1.5	0	OK
	2.809816	32.461	29.6	38.5	2.785435	OK
m	2.240676	30.501	29.6	48.5	2.238683	widening
	2.240676	22.617	29.6	48.5	2.119146	OK
	2.240676	11.855	29.6	48.5	1.443396	OK
	1.308187	29.790	29.6	83.5	1.308133	OK
	2.240676	11.934	29.6	48.5	1.450637	OK
	1.48504	56.527	29.6	73.5	0.316958	OK
	0.551482	33.251	29.6	198.5	0.543114	OK
	0.551482	10.601	29.6	198.5	0.324405	OK
	1.109788	45.943	29.6	98.5	0.778043	OK
	5.610926	24.043	29.6	18.5	5.451433	OK
	4.508408	12.752	29.6	23.5	3.117381	OK
House m	2.240676	25.054	29.6	48.5	2.189397	Widening
	2.240676	13.103	29.6	48.5	1.552656	OK
	4.508408	6.123	29.6	23.5	1.724126	OK
	1.48504	35.413	29.6	73.5	1.429061	OK
	0.885741	65.506	29.6	123.5	-0.3879	OK
	0.885741	19.078	29.6	123.5	0.774166	OK
	0.885741	17.974	29.6	123.5	0.749472	OK
	1.445957	57.628	29.6	75.5	0.212423	OK
	1.48504	55.535	29.6	73.5	0.399772	OK
	-2.85592	0.000	29.6	-1.5	0	OK

Road No.2

Morne Jaloux Road

TABLE OF COORDINATES AND CURVE ELEMENTS

R-2(Morne Jaloux)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
BOP	1,332,083.146	428,377.536	0 + 0												
				54 34 24	13.754										
1	1,332,075.173	428,366.328	0 + 13.754			24 7 38 R	25	5.343	10.527	0.565	ES	-	-	0 + 8.41	0 + 18.94
				78 41 56	40.068										
2	1,332,067.321	428,327.037	0 + 53.664			6 29 50 L	50	2.838	5.670	0.080	ES	-	-	0 + 50.83	0 + 56.50
				72 12 3	77.581										
3	1,332,043.606	428,253.170	0 + 131.238			2 30 12 R	100	2.185	4.369	0.024	ES	-	-	0 + 129.05	0 + 133.42
				74 42 16	30.667										
4	1,332,035.516	428,223.589	0 + 161.905			9 38 24 L	50	4.216	8.412	0.177	ES	-	-	0 + 157.69	0 + 166.10
				65 3 52	33.812										
5	1,332,021.261	428,192.929	0 + 195.697			21 17 53 L	50	9.402	18.586	0.876	ES	-	-	0 + 186.30	0 + 204.88
				43 45 58	29.129										
6	1,332,000.225	428,172.780	0 + 224.609			22 19 15 L	50	9.864	19.479	0.964	ES	-	-	0 + 214.74	0 + 234.22
				21 26 47	34.371										
7	1,331,968.234	428,160.213	0 + 258.729			15 53 46 L	50	6.981	13.872	0.485	ES	-	-	0 + 251.75	0 + 265.62
				5 32 59	43.128										
8	1,331,925.308	428,156.042	0 + 301.768			20 9 30 R	50	8.888	17.591	0.784	ES	-	-	0 + 292.88	0 + 310.47
				25 42 22	32.007										
9	1,331,896.469	428,142.159	0 + 333.591			11 45 25 L	50	5.148	10.260	0.264	ES	-	-	0 + 328.44	0 + 338.70
				13 57 5	34.761										
10	1,331,862.733	428,133.778	0 + 368.316			32 49 36 L	50	14.728	28.647	2.124	ES	-	-	0 + 353.59	0 + 382.23
				341 7 25	45.613										
11	1,331,819.573	428,148.535	0 + 413.119			130 25 41 L	8	17.325	18.211	11.083	ES	-	-	0 + 395.79	0 + 414.01
				210 41 41	42.700										
12	1,331,856.291	428,170.332	0 + 439.381			8 25 7 R	25	1.840	3.673	0.068	ES	-	-	0 + 437.54	0 + 441.21
				219 18 36	61.512										
13	1,331,903.885	428,209.301	0 + 500.887			19 19 35 R	25	4.257	8.433	0.360	ES	-	-	0 + 496.63	0 + 505.06
				238 7 51	26.274										
14	1,331,917.757	428,231.614	0 + 527.138			31 4 12 R	25	6.950	13.557	0.948	ES	-	-	0 + 520.19	0 + 533.75
				269 30 43	26.295										
15	1,331,917.981	428,257.908	0 + 553.091			16 45 16 R	25	3.682	7.311	0.270	ES	-	-	0 + 549.41	0 + 556.72
				286 15 53	36.033										
16	1,331,907.889	428,292.499	0 + 589.071			62 58 25 R	25	15.312	27.477	4.317	ES	-	-	0 + 573.76	0 + 601.24
				349 14 16	56.123										
17	1,331,852.753	428,302.979	0 + 642.048			26 57 37 L	50	11.986	23.527	1.416	ES	-	-	0 + 630.06	0 + 653.59
				322 16 43	59.428										
18	1,331,805.746	428,339.338	0 + 701.031			6 6 19 R	50	2.666	5.328	0.071	ES	-	-	0 + 698.36	0 + 703.69
				328 23 1	60.407										
19	1,331,754.305	428,371.005	0 + 761.433			9 5 14 R	50	3.973	7.930	0.158	ES	-	-	0 + 757.46	0 + 765.39
				337 28 12	32.571										
20	1,331,724.220	428,383.485	0 + 793.987			15 54 2 R	50	6.983	13.876	0.485	ES	-	-	0 + 787.00	0 + 800.88
				353 22 16	24.325										
21	1,331,700.058	428,386.293	0 + 818.222			15 28 58 R	50	6.797	13.511	0.460	ES	-	-	0 + 811.42	0 + 824.94
				8 51 15	33.446										
22	1,331,667.011	428,381.145	0 + 851.585			10 48 2 L	50	4.727	9.425	0.223	ES	-	-	0 + 846.86	0 + 856.28
				358 3 14	40.668										
23	1,331,626.366	428,382.526	0 + 892.225			4 57 55 R	50	2.168	4.333	0.047	ES	-	-	0 + 890.06	0 + 894.39
				3 1 8	103.808										
24	1,331,522.702	428,377.059	0 + 996.031			12 50 29 L	120	13.504	26.895	0.757	ES	-	-	0 + 982.53	1 + 9.42

TABLE OF COORDINATES AND CURVE ELEMENTS

R-2(Morne Jaloux)

ES:Existing Superelevation

PI NO.	COORDINATES NORTHING	COORDINATES EASTING	PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
				350 10 37	103.502										
25	1,331,420.717	428,394.717	1 + 99.420			14 3 44 R	50	6.167	12.272	0.379	ES	-	-	1 + 93.25	1 + 105.52
				4 14 22	35.063										
26	1,331,385.750	428,392.125	1 + 134.421			13 51 46 L	50	6.078	12.098	0.368	ES	-	-	1 + 128.34	1 + 140.44
				350 22 37	123.117										
27	1,331,264.365	428,412.706	1 + 257.479			19 14 12 L	50	8.473	16.787	0.713	ES	-	-	1 + 249.01	1 + 265.79
				331 8 27	40.590										
28	1,331,228.816	428,432.297	1 + 297.909			7 29 28 R	50	3.273	6.537	0.107	ES	-	-	1 + 294.64	1 + 301.17
				338 37 52	81.551										
29	1,331,152.871	428,462.012	1 + 379.451			21 53 24 R	70	13.537	26.744	1.297	ES	-	-	1 + 365.91	1 + 392.66
				0 31 18	50.299										
30	1,331,102.574	428,461.554	1 + 429.420			30 17 3 L	25	6.765	13.214	0.899	ES	-	-	1 + 422.65	1 + 435.87
				330 14 15	47.691										
31	1,331,061.174	428,485.228	1 + 476.795			28 6 13 L	75	18.772	36.788	2.313	ES	-	-	1 + 458.02	1 + 494.81
				302 8 0	52.559										
32	1,331,033.218	428,529.736	1 + 528.598			30 21 7 R	50	13.562	26.487	1.807	ES	-	-	1 + 515.04	1 + 541.52
				332 29 10	72.263										
33	1,330,969.128	428,563.119	1 + 600.224			13 22 18 R	50	5.861	11.669	0.342	ES	-	-	1 + 594.36	1 + 606.03
				345 51 24	37.275										
34	1,330,932.983	428,572.227	1 + 637.446			6 51 21 L	50	2.995	5.983	0.090	ES	-	-	1 + 634.45	1 + 640.43
				339 0 2	20.242										
35	1,330,914.085	428,579.481	1 + 657.681			4 44 54 L	50	2.073	4.144	0.043	ES	-	-	1 + 655.61	1 + 659.75
				334 15 12	23.856										
36	1,330,892.597	428,589.844	1 + 681.535			6 30 31 L	50	2.843	5.680	0.081	ES	-	-	1 + 678.69	1 + 684.37
				327 44 37	67.230										
37	1,330,835.743	428,625.725	1 + 748.758			6 14 5 L	25	1.362	2.720	0.037	ES	-	-	1 + 747.40	1 + 750.12
				321 30 38	52.859										
38	1,330,794.369	428,658.623	1 + 801.615			20 12 19 R	25	4.454	8.816	0.394	ES	-	-	1 + 797.16	1 + 805.98
				341 42 52	29.329										
39	1,330,766.521	428,667.825	1 + 830.851			18 17 6 R	25	4.023	7.978	0.322	ES	-	-	1 + 826.83	1 + 834.81
				0 0 0	15.533										
40	1,330,750.988	428,667.825	1 + 846.316			10 21 39 L	50	4.533	9.042	0.205	ES	-	-	1 + 841.78	1 + 850.82
				349 38 17	27.370										
41	1,330,724.064	428,672.748	1 + 873.662			10 9 16 L	30	2.665	5.317	0.118	ES	-	-	1 + 871.00	1 + 876.31
				339 29 7	31.788										
42	1,330,694.292	428,683.888	1 + 905.436			15 5 2 L	30	3.972	7.898	0.262	ES	-	-	1 + 901.46	1 + 909.36
				324 24 2	41.391										
43	1,330,660.637	428,707.982	1 + 946.780			8 43 53 L	25	1.909	3.810	0.073	ES	-	-	1 + 944.87	1 + 948.68
				333 7 59	43.189										
44	1,330,622.110	428,727.500	1 + 989.962					0.000	0.000	0.000				1 + 989.96	1 + 989.96
				270 0 0	0.530										
44'(BOP)	1,330,622.110	428,728.030	1 989.962					0.000	0.000	0.000					
				357 41 25	72.599										
45	1,330,549.570	428,730.956	2 + 62.561			9 57 4 L	50	4.353	8.684	0.189	ES	-	-	2 + 58.21	2 + 66.89
				347 11 31	75.895										
46	1,330,475.563	428,747.781	2 + 138.434			12 44 18 L	50	5.581	11.116	0.311	ES	-	-	2 + 132.85	2 + 143.97
				332 59 12	33.437										
47	1,330,445.774	428,762.968	2 + 171.825			29 4 12 L	80	20.742	40.589	2.645	ES	-	-	2 + 151.08	2 + 191.67
				303 55 1	44.424										
48	1,330,420.986	428,799.833	2 + 215.355			26 42 25 R	50	11.869	23.306	1.389	ES	-	-	2 + 203.49	2 + 226.79

TABLE OF COORDINATES AND CURVE ELEMENTS

R-2(Morne Jaloux)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				330 37 28	56.924										
49	1,330,371.381	428,827.756	2 + 271.848			14 1 1 L	50	6.147	12.232	0.376	ES	-	-	2 + 265.70	2 + 277.93
				316 36 25	23.805										
50	1,330,354.083	428,844.110	2 + 295.591			5 28 2 R	50	2.387	4.771	0.057	ES	-	-	2 + 293.20	2 + 297.98
				322 4 27	43.900										
51	1,330,319.454	428,871.093	2 + 339.488			9 0 34 R	300	23.635	47.173	0.930	ES	-	-	2 + 315.85	2 + 363.03
				331 5 9	166.622										
52	1,330,173.602	428,951.655	2 + 506.013			10 52 35 L	25	2.380	4.746	0.113	ES	-	-	2 + 503.63	2 + 508.38
				329 12 9	35.115										
53	1,330,143.439	428,969.634	2 + 541.426			27 11 31 R	55	13.302	26.102	1.586	ES	-	-	2 + 528.12	2 + 554.23
				2 53 6	23.027										
54	1,330,120.441	428,968.475	2 + 563.952			8 40 35 R	55	4.172	8.329	0.158	ES	-	-	2 + 559.78	2 + 568.11
				11 30 43	61.146										
55	1,330,060.525	428,956.272	2 + 625.082			25 40 13 L	55	12.531	24.642	1.409	ES	-	-	2 + 612.55	2 + 637.19
				345 38 53	37.934										
56	1,330,023.775	428,965.675	2 + 662.595			6 37 32 L	50	2.894	5.782	0.084	ES	-	-	2 + 659.70	2 + 665.48
				339 1 16	46.044										
57	1,329,980.783	428,982.160	2 + 708.639			7 49 57 L	50	3.423	6.835	0.117	ES	-	-	2 + 705.21	2 + 712.05
				331 49 21	72.329										
58	1,329,917.026	429,016.314	2 + 780.958			58 30 24 R	50	28.005	51.057	7.309	ES	-	-	2 + 752.95	2 + 804.01
				31 17 32	120.042										
59	1,329,814.447	428,953.964	2 + 896.046			15 29 36 R	50	6.802	13.520	0.461	ES	-	-	2 + 889.24	2 + 902.76
				46 9 41	29.271										
60	1,329,794.173	428,932.851	2 + 925.234			6 53 51 R	50	3.013	6.019	0.091	ES	-	-	2 + 922.22	2 + 928.24
				53 3 35	20.844										
61	1,329,781.646	428,916.191	2 + 946.071			21 5 9 R	20	3.722	7.360	0.343	ES	-	-	2 + 942.35	2 + 949.71
				74 8 47	16.290										
62	1,329,777.196	428,900.521	2 + 962.276			25 30 16 L	10	2.253	4.451	0.253	ES	-	-	2 + 960.01	2 + 964.46
				48 38 25	34.824										
63	1,329,754.185	428,874.383	2 + 997.025			45 32 40 L	60	25.187	47.694	5.072	ES	-	-	2 + 971.84	3 + 19.53
				3 5 47	52.261										
64	1,329,702.000	428,871.560	3 + 46.606			3 26 43 L	50	1.504	3.007	0.023	ES	-	-	3 + 45.10	3 + 48.11
				359 30 6	72.894										
65	1,329,629.109	428,872.194	3 + 119.498			5 21 42 R	300	14.047	28.074	0.329	ES	5.4	30	3 + 105.45	3 + 133.52
				4 23 29	60.206										
66	1,329,569.080	428,867.584	3 + 179.684			7 43 47 R	300	20.267	40.473	0.684	ES	5.4	30	3 + 159.42	3 + 199.89
				12 29 4	83.975										
67	1,329,487.091	428,849.431	3 + 263.597			78 55 2 L	20	16.462	27.547	5.904	ES	5.4	30	3 + 247.13	3 + 274.68
				293 48 22	59.102										
68	1,329,463.235	428,903.504	3 + 317.321			10 55 0 R	30	2.867	5.716	0.137	ES	5.4	30	3 + 314.45	3 + 320.17
				304 43 20	110.820										
69	1,329,400.112	428,994.590	3 + 428.124			46 0 41 R	30	12.738	24.092	2.592	ES	5.4	30	3 + 415.39	3 + 439.48
				350 43 53	23.252										
70	1,329,377.164	428,998.335	3 + 449.991			34 35 45 R	25	7.786	15.095	1.184	ES	5.4	30	3 + 442.21	3 + 457.30
				25 19 51	13.496										
71	1,329,364.966	428,992.561	3 + 463.011			48 44 11 R	5	2.265	4.253	0.489	ES	5.4	30	3 + 460.75	3 + 465.00
				74 4 7	17.578										
72	1,329,360.141	428,975.658	3 + 480.313			52 38 18 R	20	9.893	18.374	2.313	ES	5.4	30	3 + 470.42	3 + 488.79
				126 42 16	18.829										
73	1,329,371.395	428,960.562	3 + 497.730			7 21 50 L	20	1.287	2.570	0.041	ES	5.4	30	3 + 496.44	3 + 499.01

TABLE OF COORDINATES AND CURVE ELEMENTS

R-2(Morne Jaloux)

ES:Existing Superelevation

PI NO.	COORDINATES		PI STATION	AZIMUTH	DIST.	I	R	T	Lc	E	e(%)	W(m)	V(kph)	PC	PT
	NORTHING	EASTING													
				114 25 26	36.700										
74	1,329,386.570	428,927.146	3 + 534.562			22 0 42 L	50	9.724	19.209	0.937	ES	5.4	30	3 + 524.84	3 + 544.05
				87 30 36	30.612										
75	1,329,385.240	428,896.563	3 + 564.934			10 31 10 R	25	2.301	4.590	0.106	ES	5.4	30	3 + 562.63	3 + 567.22
				96 34 41	21.002										
76	1,329,387.646	428,875.699	3 + 585.923			16 39 26 R	25	3.660	7.268	0.266	ES	5.4	30	3 + 582.26	3 + 589.53
				113 14 0	31.505										
77	1,329,400.074	428,846.749	3 + 617.377			10 10 55 L	25	2.227	4.443	0.099	ES	5.4	30	3 + 615.15	3 + 619.59
				103 3 10	21.165										
78	1,329,404.854	428,826.131	3 + 638.530			9 28 43 L	25	2.073	4.136	0.086	ES	5.4	30	3 + 636.46	3 + 640.59
				93 34 27	18.511										
79	1,329,406.008	428,807.656	3 + 657.031			12 39 27 L	25	2.773	5.523	0.153	ES	5.4	30	3 + 654.26	3 + 659.78
				80 55 3	20.880										
80	1,329,402.712	428,787.038	3 + 677.889			28 53 41 L	25	6.441	12.608	0.816	ES	5.4	30	3 + 671.45	3 + 684.06
				52 1 15	26.785										
81	1,329,386.229	428,765.925	3 + 704.400			13 15 3 R	25	2.904	5.782	0.168	ES	5.4	30	3 + 701.50	3 + 707.28
				65 16 19	20.884										
82	1,329,377.493	428,746.956	3 + 725.258			18 58 49 R	25	4.179	8.282	0.347	ES	5.4	30	3 + 721.08	3 + 729.36
				84 15 14	23.043										
83	1,329,375.186	428,724.029	3 + 748.224			21 1 23 L	25	4.639	9.173	0.427	ES	5.4	30	3 + 743.59	3 + 752.76
				63 13 49	19.030										
84	1,329,366.615	428,707.039	3 + 767.149			16 15 37 R	25	3.571	7.095	0.254	ES	5.4	30	3 + 763.58	3 + 770.67
				79 29 21	39.759										
85	1,329,359.362	428,667.947	3 + 806.860			16 45 10 L	25	3.681	7.310	0.270	ES	5.4	30	3 + 803.18	3 + 810.49
				62 44 8	41.655										
86	1,329,340.280	428,630.920	3 + 848.462			9 39 26 R	100	8.448	16.855	0.356	ES	5.4	30	3 + 840.01	3 + 856.87
				72 23 24	40.855										
87	1,329,327.920	428,591.980	3 + 889.277			86 12 13 L	5	4.679	7.523	1.848	ES	5.4	30	3 + 884.60	3 + 892.12
				346 13 13	11.923										
88	1,329,316.340	428,594.820	3 + 899.364			96 22 21 L	5	5.589	8.410	2.499	ES	5.4	30	3 + 893.77	3 + 902.19
				249 49 20	44.501										
89	1,329,331.690	428,636.590	3 + 941.097			62 24 37 R	30	18.172	32.678	5.075	ES	5.4	30	3 + 922.92	3 + 955.60
				312 13 33	36.728										
90	1,329,307.007	428,663.787	3 + 974.158			16 50 8 R	30	4.440	8.815	0.327	ES	5.4	30	3 + 969.72	3 + 978.53
				329 3 50	60.580										
91	1,329,255.045	428,694.930	4 + 34.674			60 21 40 R	50	29.078	52.675	7.841	ES	5.4	30	4 + 5.60	4 + 58.27
				29 25 30	67.010										
92	1,329,196.679	428,662.009	4 + 96.203			8 43 10 L	50	3.812	7.609	0.145	ES	5.4	30	4 + 92.39	4 + 100.00
				24 20 40	44.100										
EPO	1,329,156.500	428,643.830	4 + 140.289												

Table Location of Temporary Bench Mark (Road No. 2 Morne Jaloux Road – 1)

No.	Elevation	Coordination		Remarks
		North	East	
1	129.06	1,332,083.15	428,377.54	BOP 0+000
2	130.00	1,332,079.04	428,382.34	
3	142.82	1,332,035.04	428,219.95	
4	147.39	1,332,013.27	428,181.98	
5	151.39	1,331,977.74	428,161.87	
6	158.09	1,331,926.23	428,157.83	
7	168.88	1,331,822.92	428,144.71	
8	178.55	1,331,892.56	428,195.93	
9	184.39	1,331,920.25	428,235.24	
10	190.79	1,331,909.88	428,288.34	
11	196.08	1,331,854.66	428,300.06	
12	200.86	1,331,803.38	428,338.26	
13	203.41	1,331,733.97	428,382.14	
14	206.51	1,331,651.01	428,384.55	
15	211.36	1,331,491.11	428,379.45	
16	212.57	1,331,431.63	428,396.57	
17	209.46	1,331,332.08	428,402.74	
18	204.35	1,331,281.40	428,407.45	
19	201.17	1,331,243.71	428,426.71	
20	198.94	1,331,196.30	428,446.92	
21	196.31	1,331,162.57	428,459.42	
22	188.74	1,331,113.10	428,459.77	
23	185.29	1,331,066.18	428,481.78	
24	187.51	1,331,025.76	428,535.75	
25	183.70	1,330,987.66	428,556.20	
26	175.98	1,330,918.36	428,575.39	
27	170.07	1,330,792.18	428,662.38	
28	164.70	1,330,708.62	428,675.04	
29	170.40	1,330,628.98	428,727.06	
30	163.60	1,330,566.35	428,727.16	
31	161.83	1,330,461.52	428,752.28	
32	166.49	1,330,415.17	428,800.91	
33	165.95	1,330,343.32	428,855.10	
34	175.02	1,330,184.56	428,942.34	
35	179.30	1,330,150.40	428,974.30	
36	170.81	1,330,048.69	428,957.35	
37	168.22	1,329,919.40	429,010.39	
38	166.91	1,329,849.40	428,978.10	
39	164.43	1,329,791.47	428,933.64	
40	159.98	1,329,767.70	428,881.25	
41	154.80	1,329,697.71	428,869.42	
42	145.33	1,329,616.90	428,874.20	
43	138.54	1,329,496.92	428,850.66	
44	140.26	1,329,456.43	428,911.79	
45	135.15	1,329,403.67	428,989.90	
46	132.61	1,329,378.55	428,999.13	
47	130.45	1,329,360.87	428,986.40	
48	118.68	1,329,389.44	428,876.96	
49	126.72	1,329,377.25	428,946.98	
50	108.70	1,329,407.66	428,801.74	

Table Location of Temporary Bench Mark (Road No. 2 Morne Jaloux Road -2)

No.	Elevation	Coordination		Remarks
		North	East	
51	102.10	1,329,382.37	428,762.63	
52	84.38	1,329,358.04	428,660.75	
53	80.13	1,329,318.19	428,590.47	
54	76.47	1,329,328.99	428,628.76	
55	73.01	1,329,317.38	428,655.52	
56	69.40	1,329,262.79	428,686.58	
57	67.58	1,329,232.13	428,683.21	
58	57.37	1,329,179.01	428,710.68	
59	58.25	1,329,156.50	428,643.83	EOP 4+140.289
60	56.70	1,329,242.82	428,655.06	