



PROJETO CONSTRUÇÃO ESTRADA DO PARAÍSO

CONTEÚDO:

LEVANTAMENTO - NOTAS DE SERVIÇO TERRAPLENAGEM

LEVANTAMENTO - ELEMENTOS GEOMÉTRICOS

LEVANTAMENTO - RESUMO GERAL DISTRIBUIÇÃO DE MATERIAIS

LEVANTAMENTO - CÁLCULO DISTRIBUIÇÃO DE MASSA

LEVANTAMENTO - CÁLCULO VOLUME GEOMÉTRICO

LEVANTAMENTO - CÁLCULO VOLUME POR INTERVALO

LEVANTAMENTO - NOTAS DE SERVIÇO DESMATAMENTO





LEVANTAMENTO - NOTAS DE SERVIÇO TERRAPLENAGEM





Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
0+0.000			-6.072	819.210	99.97	-5.710	818.849	-3.00	819.020	819.020	0.000	5.710	818.849	-3.00			
1+0.000			-6.241	818.854	99.98	-5.710	818.323	-3.00	818.494	818.525	-0.031	5.710	818.323	-3.00	5.851	818.463	99.93
2+0.000			-5.752	817.769	-66.90	-5.710	817.797	-3.00	817.968	818.052	-0.083	5.710	817.797	-3.00	5.974	818.061	99.96
3+0.000			-5.980	817.541	99.96	-5.710	817.271	-3.00	817.443	817.403	0.040	5.710	817.271	-3.00	5.834	817.188	-66.75
4+0.000		PCV	-5.880	816.632	-66.73	-5.710	816.745	-3.00	816.917	816.872	0.044	5.710	816.745	-3.00	5.721	816.738	-67.54
5+0.000			-5.761	816.268	99.80	-5.710	816.218	-3.00	816.389	816.583	-0.194	5.710	816.218	-3.00	5.838	816.345	99.92
6+0.000						-5.710	815.546	-3.00	815.717	815.636	0.081	5.710	815.546	-3.00	5.761	815.597	99.80
7+0.000			-6.583	814.061	-66.68	-5.710	814.643	-3.00	814.815	814.159	0.655	5.710	814.643	-3.00	6.155	814.347	-66.69
8+0.000		PTV	-6.489	812.991	-66.68	-5.710	813.510	-3.00	813.681	813.083	0.598	5.710	813.510	-3.00	6.257	813.145	-66.68
9+0.000			-6.219	811.809	-66.69	-5.710	812.148	-3.00	812.319	811.961	0.359	5.710	812.148	-3.00	6.123	811.873	-66.69
10+0.000			-5.760	810.666	-66.87	-5.710	810.699	-3.00	810.870	810.396	0.474	5.710	810.699	-3.00	6.009	810.500	-66.70
11+0.000			-5.862	809.401	99.93	-5.710	809.250	-3.00	809.421	809.557	-0.135	5.710	809.250	-3.00	6.194	809.734	99.98
12+0.000			-6.093	807.546	-66.69	-5.710	807.801	-3.00	807.972	807.614	0.359	5.710	807.801	-3.00	5.988	808.078	99.96
13+0.000			-6.274	805.975	-66.68	-5.710	806.352	-3.00	806.523	806.113	0.411	5.710	806.352	-3.00	5.725	806.367	99.35
14+0.000			-6.075	804.659	-66.69	-5.710	804.903	-3.00	805.074	804.977	0.097	5.710	804.903	-3.00	5.922	805.115	99.95
15+0.000			-6.053	803.797	99.97	-5.710	803.454	-3.00	803.625	804.105	-0.480	5.710	803.454	-3.00	6.129	803.872	99.98
16+0.000			-5.821	802.115	99.91	-5.710	802.005	-3.00	802.176	802.247	-0.071	5.710	802.005	-3.00	5.910	802.205	99.95
17+0.000			-5.739	800.585	99.66	-5.710	800.556	-3.00	800.727	800.565	0.162	5.710	800.556	-3.00	5.969	800.814	99.96
18+0.000			-5.766	799.069	-66.85	-5.710	799.107	-3.00	799.278	799.005	0.273	5.710	799.107	-3.00	5.758	799.074	-66.87
19+0.000			-5.962	797.910	99.96	-5.710	797.657	-3.00	797.829	797.822	0.006	5.710	797.657	-3.00	5.821	797.768	99.91
20+0.000			-5.858	796.357	99.93	-5.710	796.208	-3.00	796.380	796.184	0.195	5.710	796.208	-3.00	6.235	795.858	-66.69
21+0.000			-5.722	794.752	-67.53	-5.710	794.759	-3.00	794.931	794.450	0.481	5.710	794.759	-3.00			
22+0.000			-5.845	793.220	-66.74	-5.710	793.310	-3.00	793.482	792.516	0.966	5.710	793.310	-3.00	6.598	792.718	-66.68
23+0.000			-6.015	791.658	-66.70	-5.710	791.861	-3.00	792.033	791.016	1.017	5.710	791.941	-1.61	6.784	791.225	-66.68
23+8.025	TS		-6.060	791.046	-66.70	-5.710	791.280	-3.00	791.451	790.424	1.027	5.710	791.451	0.00	6.854	790.688	-66.68
24+0.000			-6.234	790.155	-66.69	-5.855	790.408	-3.00	790.584	789.614	0.969	5.743	790.721	2.39	7.142	789.788	-66.67
25+0.000			-6.732	788.327	-66.68	-6.107	788.744	-6.39	789.134	788.042	1.092	5.786	789.504	6.39	7.559	788.323	-66.67
25+8.025	SC		-6.718	787.600	-66.68	-6.010	788.072	-8.00	788.553	787.743	0.810	6.010	789.034	8.00	8.011	787.700	-66.67
26+0.000			-6.952	786.576	-66.68	-6.010	787.205	-8.00	787.685	786.872	0.813	6.010	788.166	8.00	8.345	786.609	-66.67
26+13.107			-6.531	785.907	-66.69	-6.010	786.255	-8.00	786.736	785.930	0.806	6.010	787.217	8.00	8.554	785.521	-66.67
27+0.000			-6.120	785.682	-66.76	-6.010	785.756	-8.00	786.236	785.445	0.792	6.010	786.717	8.00	8.818	784.845	-66.67
27+18.188	CS		-6.618	784.033	-66.68	-6.010	784.438	-8.00	784.919	784.100	0.818	6.010	785.399	8.00	9.071	783.358	-66.67
28+0.000		PCV	-6.517	784.016	-66.69	-6.054	784.325	-7.64	784.787	783.965	0.823	5.936	785.241	7.64	8.980	783.211	-66.67
29+0.000			-6.206	782.888	-66.70	-5.869	783.113	-3.64	783.327	782.374	0.952	5.823	783.538	3.64	8.981	781.433	-66.67
29+18.188	ST		-7.412	780.605	-66.67	-5.710	781.740	-3.00	781.911	780.933	0.978	5.710	781.911	0.00	7.834	780.495	-66.67



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
30+0.000			-7.464	780.424	-66.67	-5.710	781.593	-3.00	781.765	780.792	0.973	5.710	781.744	-0.36	7.788	780.359	-66.67
31+0.000			-7.722	778.570	-66.67	-5.710	779.911	-3.00	780.083	779.152	0.931	5.710	779.911	-3.00	7.808	778.513	-66.67
32+0.000		PTV	-7.219	777.104	-66.67	-5.710	778.109	-3.00	778.281	777.451	0.829	5.710	778.109	-3.00	7.565	776.873	-66.67
33+0.000			-6.966	775.361	-66.67	-5.710	776.199	-3.00	776.370	775.688	0.683	5.710	776.199	-3.00	7.067	775.294	-66.67
34+0.000			-6.813	773.534	-66.68	-5.710	774.270	-3.00	774.441	773.792	0.649	5.710	774.270	-3.00	6.645	773.646	-66.68
35+0.000			-6.525	771.797	-66.68	-5.710	772.340	-3.00	772.512	772.019	0.492	5.710	772.340	-3.00	6.487	771.822	-66.68
36+0.000		PCV	-6.520	769.871	-66.68	-5.710	770.411	-3.00	770.582	770.210	0.372	5.710	770.411	-3.00	6.915	769.608	-66.67
37+0.000			-6.443	768.098	-66.68	-5.710	768.587	-1.34	768.663	768.343	0.320	5.710	768.492	-3.00	6.872	767.717	-66.68
37+18.939	PC		-6.816	766.438	-66.68	-5.710	767.175	1.16	767.109	766.733	0.376	5.710	766.940	-2.96	6.626	766.329	-66.68
38+0.000			-6.958	766.343	-66.68	-5.810	767.108	1.30	767.033	766.649	0.384	5.810	766.861	-2.96	6.716	766.257	-66.68
39+0.000			-6.817	765.317	-66.68	-5.810	765.988	3.00	765.814	765.442	0.373	5.810	765.640	-3.00	6.744	765.017	-66.68
39+9.117			-6.759	764.937	-66.68	-5.810	765.569	3.00	765.395	765.032	0.363	5.810	765.221	-3.00	6.728	764.609	-66.68
40+0.000			-6.565	764.678	-66.68	-5.810	765.182	3.00	765.007	764.767	0.240	5.810	764.833	-3.00	6.403	764.438	-66.68
40+19.295	PT		-6.049	764.459	-66.70	-5.710	764.686	1.16	764.619	764.524	0.096	5.710	764.450	-2.96	6.530	763.904	-66.68
41+0.000			-6.043	764.452	-66.70	-5.710	764.673	1.07	764.613	764.522	0.091	5.710	764.443	-2.96	6.554	763.880	-66.68
42+0.000			-7.125	763.597	-66.67	-5.710	764.540	-1.57	764.630	764.683	-0.053	5.710	764.458	-3.00	6.297	764.067	-66.68
43+0.000			-5.768	764.946	99.83	-5.710	764.888	-3.00	765.059	765.008	0.050	5.710	764.955	-1.81	7.197	763.964	-66.67
43+9.069	TS		-5.716	765.224	98.25	-5.710	765.218	-3.00	765.389	765.260	0.129	5.710	765.389	0.00	5.738	765.370	-67.02
44+0.000			-5.944	765.690	-66.87	-5.894	765.723	-3.00	765.900	765.756	0.144	5.743	766.026	2.19	6.177	765.736	-66.69
45+0.000		PTV	-7.268	767.801	99.99	-6.235	766.767	-6.19	767.153	767.087	0.066	5.792	767.511	6.19	5.821	767.540	99.65
45+9.069	SC		-6.934	768.154	99.99	-6.110	767.330	-8.00	767.819	767.835	-0.016	6.110	768.308	8.00	6.433	768.631	99.97
46+0.000			-6.420	768.444	99.97	-6.110	768.134	-8.00	768.622	768.778	-0.156	6.110	769.111	8.00	6.128	769.129	99.44
47+0.000			-6.366	769.859	99.96	-6.110	769.603	-8.00	770.092	770.513	-0.421	6.110	770.581	8.00	6.143	770.614	99.70
48+0.000			-6.906	771.869	99.99	-6.110	771.072	-8.00	771.561	772.268	-0.706	6.110	772.050	8.00	6.519	772.459	99.98
48+9.104			-7.253	772.885	99.99	-6.110	771.741	-8.00	772.230	773.267	-1.036	6.110	772.719	8.00	6.675	773.284	99.98
49+0.000			-7.656	774.088	99.99	-6.110	772.542	-8.00	773.031	774.002	-0.971	6.110	773.519	8.00	6.593	774.003	99.98
50+0.000			-6.989	774.890	99.99	-6.110	774.011	-8.00	774.500	774.973	-0.473	6.110	774.989	8.00	7.206	776.085	99.99
51+0.000			-6.786	776.157	99.99	-6.110	775.481	-8.00	775.970	776.870	-0.900	6.110	776.458	8.00	8.462	778.811	100.00
51+9.139	CS	PCV	-7.135	777.177	99.99	-6.110	776.152	-8.00	776.641	776.512	0.129	6.110	777.130	8.00	7.598	778.618	99.99
52+0.000			-7.137	777.992	99.99	-6.213	777.068	-5.83	777.430	777.305	0.125	5.778	777.767	5.83	7.043	779.031	99.99
53+0.000			-6.653	779.407	99.99	-5.872	778.627	-3.00	778.803	778.909	-0.106	5.729	778.907	1.83	6.865	780.043	99.99
53+9.139	ST		-6.425	779.937	99.99	-5.710	779.223	-3.00	779.394	779.785	-0.391	5.710	779.394	0.00	7.126	780.810	99.99
54+0.000			-6.804	780.991	99.99	-5.710	779.897	-3.00	780.068	780.124	-0.055	5.710	779.944	-2.17	7.413	781.647	99.99
55+0.000		PTV	-6.928	782.274	99.99	-5.710	781.056	-3.00	781.227	781.042	0.185	5.710	781.056	-3.00	7.549	782.895	99.99
56+0.000			-6.938	783.345	99.99	-5.710	782.117	-3.00	782.288	782.203	0.085	5.710	782.117	-3.00	7.418	783.825	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
57+0.000			-6.873	784.322	99.99	-5.710	783.159	-3.00	783.331	783.291	0.039	5.710	783.159	-3.00	7.565	785.014	99.99
58+0.000			-6.762	785.254	99.99	-5.710	784.202	-3.00	784.373	784.293	0.079	5.710	784.202	-3.00	7.159	785.650	99.99
59+0.000			-6.638	786.172	99.99	-5.710	785.244	-3.00	785.415	785.318	0.098	5.710	785.244	-3.00	6.678	786.212	99.99
60+0.000			-6.724	787.300	99.99	-5.710	786.286	-3.00	786.457	786.224	0.234	5.710	786.286	-3.00	6.811	787.387	99.99
61+0.000			-6.211	787.829	99.98	-5.710	787.328	-3.00	787.500	787.319	0.181	5.710	787.328	-3.00	6.617	788.235	99.99
62+0.000			-5.994	788.196	-66.70	-5.710	788.385	-2.75	788.542	788.344	0.198	5.710	788.371	-3.00	6.521	789.181	99.99
62+13.728	TS		-6.217	788.919	-66.69	-5.710	789.257	0.00	789.257	789.013	0.245	5.710	789.086	-3.00	6.266	789.642	99.98
63+0.000			-6.446	789.169	-66.68	-5.716	789.656	1.25	789.584	789.213	0.371	5.798	789.410	-3.00	5.825	789.392	-67.04
64+0.000			-6.807	790.238	-66.68	-5.770	790.930	5.25	790.626	790.168	0.458	6.039	790.309	-5.25	6.720	790.989	99.99
64+13.728	SC		-7.330	790.943	-66.67	-6.010	791.823	8.00	791.342	790.924	0.418	6.010	790.861	-8.00	6.587	791.438	99.98
65+0.000			-7.136	791.399	-66.68	-6.010	792.149	8.00	791.669	791.265	0.404	6.010	791.188	-8.00	6.968	792.146	99.99
66+0.000			-7.158	792.426	-66.68	-6.010	793.192	8.00	792.711	792.383	0.328	6.010	792.230	-8.00	7.300	793.520	99.99
67+0.000			-7.159	793.467	-66.68	-6.010	794.234	8.00	793.753	793.344	0.409	6.010	793.272	-8.00	7.005	794.267	99.99
67+6.017			-7.229	793.734	-66.67	-6.010	794.547	8.00	794.067	793.607	0.459	6.010	793.586	-8.00	6.969	794.545	99.99
68+0.000			-7.167	794.505	-66.68	-6.010	795.276	8.00	794.795	794.240	0.555	6.010	794.314	-8.00	6.705	795.009	99.99
69+0.000			-7.672	795.210	-66.67	-6.010	796.318	8.00	795.838	795.126	0.711	6.010	795.357	-8.00	6.852	796.199	99.99
69+18.305	CS		-6.405	797.009	-66.69	-6.010	797.272	8.00	796.791	796.089	0.702	6.010	796.311	-8.00	6.374	796.675	99.97
70+0.000			-6.279	797.110	-66.70	-5.941	797.335	7.66	796.880	796.173	0.707	6.051	796.416	-7.66	6.516	796.881	99.98
71+0.000			-5.905	798.082	-66.79	-5.825	798.135	3.66	797.922	797.325	0.597	5.869	797.707	-3.66	6.236	798.075	99.97
71+18.305	ST		-5.864	799.030	99.94	-5.710	798.876	0.00	798.876	798.395	0.481	5.710	798.705	-3.00	5.954	798.949	99.96
72+0.000			-5.973	799.208	99.96	-5.710	798.945	-0.34	798.964	798.496	0.468	5.710	798.793	-3.00	6.135	799.218	99.98
73+0.000			-6.573	800.698	99.99	-5.710	799.835	-3.00	800.006	799.621	0.385	5.710	799.835	-3.00	6.224	800.349	99.98
74+0.000			-6.395	801.562	99.99	-5.710	800.877	-3.00	801.049	800.822	0.227	5.710	800.877	-3.00	6.316	801.483	99.98
75+0.000			-6.474	802.683	99.99	-5.710	801.920	-3.00	802.091	801.969	0.122	5.710	801.920	-3.00	6.777	802.987	99.99
76+0.000			-6.790	804.041	99.99	-5.710	802.962	-3.00	803.133	803.166	-0.033	5.710	802.962	-3.00	6.862	804.113	99.99
77+0.000			-7.066	805.360	99.99	-5.710	804.004	-3.00	804.175	804.412	-0.237	5.710	804.004	-3.00	7.199	805.493	99.99
78+0.000			-7.210	806.546	99.99	-5.710	805.046	-3.00	805.218	805.969	-0.752	5.710	805.046	-3.00	7.244	806.580	99.99
79+0.000			-7.251	807.630	99.99	-5.710	806.089	-3.00	806.260	807.838	-1.578	5.710	806.089	-3.00	6.996	807.374	99.99
80+0.000			-7.112	808.533	99.99	-5.710	807.131	-3.00	807.302	808.149	-0.847	5.710	807.131	-3.00	6.831	808.251	99.99
81+0.000			-6.715	809.178	99.99	-5.710	808.173	-3.00	808.344	808.716	-0.372	5.710	808.173	-3.00	7.013	809.476	99.99
82+0.000			-7.078	810.583	99.99	-5.710	809.215	-3.00	809.387	809.508	-0.121	5.710	809.215	-3.00	7.011	810.516	99.99
83+0.000			-6.903	811.451	99.99	-5.710	810.258	-3.00	810.429	810.533	-0.104	5.710	810.258	-3.00	7.024	811.571	99.99
84+0.000			-7.074	812.664	99.99	-5.710	811.300	-3.00	811.471	811.557	-0.086	5.710	811.300	-3.00	7.022	812.612	99.99
85+0.000			-7.270	813.901	99.99	-5.710	812.342	-3.00	812.513	812.707	-0.193	5.710	812.342	-3.00	7.020	813.652	99.99
86+0.000			-7.039	814.713	99.99	-5.710	813.384	-3.00	813.556	813.825	-0.269	5.710	813.384	-3.00	7.115	814.789	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
87+0.000			-6.636	815.353	99.99	-5.710	814.426	-3.00	814.598	814.962	-0.365	5.710	814.426	-3.00	7.100	815.817	99.99
88+0.000			-6.707	816.466	99.99	-5.710	815.469	-3.00	815.640	816.058	-0.417	5.710	815.469	-3.00	7.143	816.902	99.99
89+0.000			-7.317	818.118	99.99	-5.710	816.511	-3.00	816.682	817.481	-0.799	5.710	816.511	-3.00	7.272	818.073	99.99
90+0.000			-7.031	818.874	99.99	-5.710	817.553	-3.00	817.724	818.789	-1.065	5.710	817.553	-3.00	7.021	818.865	99.99
91+0.000			-6.622	819.508	99.99	-5.710	818.595	-3.00	818.767	819.334	-0.567	5.710	818.595	-3.00	6.816	819.702	99.99
92+0.000			-5.860	819.937	99.93	-5.710	819.787	-0.38	819.809	819.965	-0.156	5.710	819.638	-3.00	6.665	820.593	99.99
92+8.275	PC					-5.710	820.286	0.80	820.240	820.295	-0.055	5.710	820.092	-2.60	6.510	820.891	99.99
93+0.000		PCV	-5.861	820.892	-66.73	-5.710	820.993	2.48	820.851	820.794	0.057	5.710	820.710	-2.48	6.336	821.335	99.98
94+0.000			-6.006	821.866	-66.70	-5.710	822.063	3.00	821.892	821.629	0.262	5.710	821.720	-3.00	6.268	822.279	99.98
95+0.000			-6.110	822.776	-66.69	-5.710	823.043	3.00	822.871	822.452	0.420	5.710	822.700	-3.00	5.814	822.631	-66.76
95+4.613			-6.125	822.979	-66.69	-5.710	823.256	3.00	823.085	822.641	0.444	5.710	822.913	-3.00	5.807	822.849	-66.77
96+0.000			-5.837	824.059	99.92	-5.710	823.933	3.00	823.761	824.143	-0.382	5.710	823.590	-3.00	5.965	823.844	99.96
97+0.000			-5.787	824.681	-66.80	-5.710	824.732	3.00	824.561	824.541	0.020	5.710	824.390	-3.00	5.765	824.444	99.82
98+0.000			-6.427	824.846	-66.68	-5.710	825.324	0.94	825.271	824.639	0.632	5.710	825.126	-2.53	6.269	824.754	-66.68
98+0.950	PT		-6.429	824.869	-66.68	-5.710	825.348	0.80	825.202	824.648	0.655	5.710	825.154	-2.60	6.284	824.771	-66.68
99+0.000			-6.457	825.283	-66.68	-5.710	825.781	-1.92	825.891	824.987	0.904	5.710	825.720	-3.00	6.418	825.248	-66.68
100+0.000			-6.471	825.742	-66.68	-5.710	826.250	-3.00	826.421	825.445	0.976	5.710	826.250	-3.00	6.406	825.786	-66.68
101+0.000			-6.064	826.453	-66.69	-5.710	826.690	-3.00	826.861	825.938	0.923	5.710	826.690	-3.00	6.287	826.305	-66.68
102+0.000			-5.829	826.960	-66.75	-5.710	827.040	-3.00	827.211	826.407	0.804	5.710	827.040	-3.00	5.972	826.865	-66.70
103+0.000		PTV	-5.776	827.256	-66.82	-5.710	827.300	-3.00	827.471	826.845	0.626	5.710	827.300	-3.00	5.750	827.340	99.75
104+0.000			-6.072	827.833	99.97	-5.710	827.471	-3.00	827.642	827.381	0.261	5.710	827.471	-3.00	5.742	827.449	-66.98
105+0.000			-5.916	827.810	99.95	-5.710	827.605	-3.00	827.776	827.689	0.087	5.710	827.605	-3.00	6.038	827.932	99.97
106+0.000			-6.282	828.310	99.98	-5.710	827.738	-3.00	827.910	828.195	-0.285	5.710	827.738	-3.00	6.289	828.317	99.98
107+0.000			-6.297	828.459	99.98	-5.710	827.872	-3.00	828.044	828.599	-0.556	5.710	827.872	-3.00	6.482	828.644	99.99
108+0.000			-6.326	828.622	99.98	-5.710	828.006	-3.00	828.177	828.488	-0.311	5.710	828.006	-3.00	6.111	828.407	99.98
109+0.000			-6.301	828.731	99.98	-5.710	828.140	-3.00	828.311	828.632	-0.321	5.710	828.140	-3.00	6.045	828.475	99.97
110+0.000			-6.359	828.923	99.98	-5.710	828.274	-3.00	828.445	828.754	-0.309	5.710	828.274	-3.00	5.939	828.502	99.96
111+0.000			-6.195	828.892	99.98	-5.710	828.408	-3.00	828.579	828.591	-0.012	5.710	828.496	-1.45	5.832	828.618	99.92
111+19.800	PC		-6.087	828.919	99.97	-5.710	828.542	-2.96	828.711	828.945	-0.234	5.710	828.778	1.16	6.083	829.151	99.97
112+0.000			-6.187	828.918	99.97	-5.810	828.541	-2.96	828.713	828.951	-0.238	5.810	828.782	1.19	6.188	829.160	99.97
113+0.000			-6.209	829.071	99.97	-5.810	828.672	-3.00	828.847	828.940	-0.093	5.810	829.021	3.00	5.856	829.067	99.78
114+0.000			-6.261	829.257	99.98	-5.810	828.806	-3.00	828.980	829.051	-0.070	5.810	829.155	3.00	6.021	829.014	-66.71
114+14.051			-6.076	829.166	99.96	-5.810	828.900	-3.00	829.075	829.203	-0.128	5.810	829.249	3.00	5.884	829.199	-66.80
115+0.000		PCV	-6.024	829.154	99.95	-5.810	828.940	-3.00	829.114	829.267	-0.153	5.810	829.289	3.00	5.819	829.282	-67.76
116+0.000			-6.140	829.413	99.97	-5.810	829.083	-3.00	829.257	829.436	-0.179	5.810	829.432	3.00	6.112	829.733	99.97



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
117+0.000			-6.013	829.452	99.95	-5.810	829.250	-2.92	829.419	829.573	-0.154	5.810	829.550	2.25	6.088	829.828	99.96
117+8.303	PT		-5.848	829.461	99.93	-5.710	829.323	-2.96	829.492	829.641	-0.149	5.710	829.558	1.16	5.912	829.760	99.95
118+0.000			-5.853	829.572	99.93	-5.710	829.429	-3.00	829.600	829.765	-0.165	5.710	829.579	-0.38	6.206	830.075	99.98
119+0.000			-5.972	829.891	99.96	-5.710	829.629	-3.00	829.801	830.152	-0.351	5.710	829.629	-3.00	6.379	830.299	99.99
120+0.000			-6.074	830.212	99.97	-5.710	829.848	-3.00	830.020	830.272	-0.252	5.710	829.848	-3.00	6.357	830.495	99.98
121+0.000			-6.185	830.561	99.98	-5.710	830.087	-3.00	830.258	830.436	-0.178	5.710	830.087	-3.00	6.173	830.549	99.98
122+0.000			-6.183	830.817	99.98	-5.710	830.344	-3.00	830.515	830.477	0.038	5.710	830.344	-3.00	6.312	830.945	99.98
123+0.000			-6.175	831.085	99.98	-5.710	830.620	-3.00	830.792	830.824	-0.032	5.710	830.620	-3.00	6.306	831.217	99.98
124+0.000			-6.310	831.516	99.98	-5.710	830.916	-3.00	831.087	831.149	-0.062	5.710	830.916	-3.00	6.417	831.623	99.99
125+0.000			-6.195	831.715	99.98	-5.710	831.230	-3.00	831.401	831.533	-0.132	5.710	831.230	-3.00	6.426	831.946	99.99
126+0.000			-6.399	832.252	99.99	-5.710	831.564	-3.00	831.735	831.881	-0.146	5.710	831.564	-3.00	6.453	832.307	99.99
127+0.000			-6.306	832.512	99.98	-5.710	831.916	-3.00	832.087	832.194	-0.106	5.710	831.916	-3.00	6.479	832.685	99.99
128+0.000		PTV	-6.390	832.967	99.99	-5.710	832.288	-3.00	832.459	832.515	-0.056	5.710	832.288	-3.00	6.479	833.057	99.99
129+0.000			-6.489	833.457	99.99	-5.710	832.678	-3.00	832.849	833.053	-0.204	5.710	832.678	-3.00	6.623	833.591	99.99
130+0.000			-6.597	833.963	99.99	-5.710	833.076	-3.00	833.247	833.163	0.084	5.710	833.076	-3.00	6.633	833.999	99.99
131+0.000			-6.660	834.423	99.99	-5.710	833.473	-3.00	833.645	833.564	0.081	5.710	833.473	-3.00	6.672	834.435	99.99
132+0.000			-6.336	834.497	99.98	-5.710	833.871	-3.00	834.042	833.950	0.092	5.710	833.990	-0.92	6.650	834.930	99.99
132+5.156	TS		-6.371	834.635	99.98	-5.710	833.974	-3.00	834.145	834.046	0.099	5.710	834.145	0.00	6.630	835.065	99.99
133+0.000			-6.799	835.248	99.99	-5.816	834.266	-3.00	834.440	834.375	0.065	5.752	834.592	2.63	6.458	835.298	99.99
134+0.000			-7.176	835.675	99.99	-5.970	834.469	-6.18	834.838	834.836	0.002	5.796	835.196	6.18	6.336	835.736	99.98
134+5.156	SC		-7.132	835.743	99.99	-5.910	834.521	-7.10	834.940	834.932	0.009	5.910	835.360	7.10	6.396	835.846	99.98
134+14.249			-7.349	836.141	99.99	-5.910	834.701	-7.10	835.121	835.117	0.004	5.910	835.541	7.10	6.401	836.032	99.98
135+0.000			-7.416	836.321	99.99	-5.910	834.816	-7.10	835.235	835.238	-0.003	5.910	835.655	7.10	6.413	836.158	99.98
135+3.342	CS		-7.446	836.418	99.99	-5.910	834.882	-7.10	835.302	835.308	-0.006	5.910	835.721	7.10	6.420	836.232	99.98
136+0.000			-7.266	836.774	99.99	-5.881	835.389	-4.14	835.633	835.746	-0.113	5.771	835.872	4.14	6.448	836.550	99.99
137+0.000			-6.872	836.989	99.99	-5.742	835.858	-3.00	836.031	836.576	-0.545	5.711	836.065	0.59	6.432	836.785	99.99
137+3.342	ST		-6.673	836.889	99.99	-5.710	835.926	-3.00	836.097	836.330	-0.233	5.710	836.097	0.00	6.458	836.845	99.99
138+0.000			-6.743	837.290	99.99	-5.710	836.257	-3.00	836.428	836.575	-0.147	5.710	836.260	-2.96	6.721	837.270	99.99
139+0.000			-6.980	838.071	99.99	-5.710	836.801	-0.43	836.826	837.082	-0.256	5.710	836.655	-3.00	6.601	837.546	99.99
139+2.281	TS		-6.962	838.123	99.99	-5.710	836.871	0.00	836.871	837.145	-0.274	5.710	836.700	-3.00	6.583	837.573	99.99
140+0.000			-6.759	838.400	99.99	-5.777	837.418	3.37	837.224	837.377	-0.153	5.820	837.028	-3.37	6.669	837.877	99.99
141+0.000			-5.996	838.193	99.93	-5.843	838.040	7.17	837.621	838.129	-0.508	5.953	837.195	-7.17	6.746	837.988	99.99
141+2.281	SC		-5.943	838.149	99.70	-5.910	838.116	7.60	837.667	838.025	-0.359	5.910	837.218	-7.60	6.685	837.993	99.99
142+0.000		PCV	-6.057	838.370	-66.73	-5.910	838.468	7.60	838.019	837.864	0.155	5.910	837.570	-7.60	6.413	838.073	99.98
143+0.000			-6.197	838.649	-66.70	-5.910	838.841	7.60	838.391	838.019	0.373	5.910	837.942	-7.60	5.929	837.961	99.48



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
143+13.695			-6.432	838.701	-66.69	-5.910	839.049	7.60	838.600	838.137	0.463	5.910	838.151	-7.60	6.013	838.082	-66.76
144+0.000			-6.587	838.681	-66.68	-5.910	839.132	7.60	838.683	838.168	0.516	5.910	838.234	-7.60	6.057	838.136	-66.73
145+0.000			-6.968	838.636	-66.68	-5.910	839.341	7.60	838.892	838.263	0.629	5.910	838.443	-7.60	6.324	838.167	-66.69
146+0.000			-7.107	838.670	-66.68	-5.910	839.468	7.60	839.019	838.415	0.604	5.910	838.570	-7.60	6.422	838.228	-66.69
146+5.110	CS		-7.014	838.751	-66.68	-5.910	839.487	7.60	839.038	838.451	0.587	5.910	838.589	-7.60	6.365	838.286	-66.69
147+0.000			-6.731	838.679	-66.68	-5.744	839.337	4.77	839.063	838.558	0.505	5.924	838.780	-4.77	6.290	838.537	-66.69
148+0.000			-6.414	838.610	-66.68	-5.709	839.080	0.97	839.024	838.692	0.332	5.762	838.852	-3.00	6.206	838.556	-66.69
148+5.110	ST		-6.298	838.609	-66.68	-5.710	839.001	0.00	839.001	838.698	0.303	5.710	838.830	-3.00	6.099	838.571	-66.69
149+0.000			-5.763	838.794	99.81	-5.710	838.742	-2.83	838.903	838.503	0.400	5.710	838.732	-3.00	5.723	838.723	-67.43
150+0.000			-5.975	838.793	99.96	-5.710	838.528	-3.00	838.700	838.420	0.280	5.710	838.528	-3.00	5.717	838.535	98.47
151+0.000			-5.948	838.480	99.96	-5.710	838.242	-3.00	838.414	838.221	0.193	5.710	838.242	-3.00	5.905	838.437	99.95
152+0.000			-5.820	837.983	99.91	-5.710	837.873	-3.00	838.045	837.936	0.109	5.710	837.873	-3.00	6.120	838.283	99.98
153+0.000			-5.885	837.597	99.94	-5.710	837.422	-3.00	837.593	837.504	0.090	5.710	837.422	-3.00	5.967	837.679	99.96
154+0.000			-5.991	837.169	99.96	-5.710	836.888	-3.00	837.059	837.039	0.020	5.710	836.888	-3.00	6.050	837.228	99.97
155+0.000			-6.051	836.612	99.97	-5.710	836.272	-3.00	836.443	836.541	-0.098	5.710	836.272	-3.00	6.269	836.831	99.98
156+0.000			-6.423	836.285	99.99	-5.710	835.573	-3.00	835.744	835.852	-0.108	5.710	835.573	-3.00	6.505	836.368	99.99
157+0.000			-6.870	835.951	99.99	-5.710	834.791	-3.00	834.962	834.887	0.075	5.710	834.791	-3.00	5.765	834.754	-66.85
157+9.782			-6.665	835.334	99.99	-5.710	834.379	-3.00	834.550	834.212	0.338	5.710	834.379	-3.00	5.948	834.220	-66.71
158+0.000		PTV	-6.407	834.624	99.99	-5.710	833.927	-3.00	834.098	833.664	0.434	5.710	833.927	-3.00	5.754	833.897	-66.89
159+0.000			-6.166	833.444	99.98	-5.710	832.988	-3.00	833.159	832.893	0.266	5.710	832.988	-3.00	6.438	833.716	99.99
160+0.000			-6.087	832.413	99.97	-5.710	832.036	-3.00	832.207	832.116	0.091	5.710	832.036	-3.00	6.416	832.741	99.99
161+0.000		PCV	-6.075	831.449	99.97	-5.710	831.083	-3.00	831.255	831.240	0.015	5.710	831.083	-3.00	6.497	831.870	99.99
162+0.000			-5.874	830.301	99.94	-5.710	830.137	-3.00	830.309	830.393	-0.085	5.710	830.137	-3.00	6.605	831.032	99.99
163+0.000			-5.857	829.478	99.93	-5.710	829.331	-3.00	829.502	829.403	0.099	5.710	829.331	-3.00	6.591	830.212	99.99
164+0.000			-5.809	828.819	99.90	-5.710	828.720	-3.00	828.892	828.986	-0.095	5.710	828.720	-3.00	6.401	829.411	99.99
165+0.000		PTV	-5.748	828.343	99.74	-5.710	828.305	-3.00	828.476	828.432	0.045	5.710	828.305	-3.00	6.392	828.987	99.99
166+0.000			-5.735	828.103	99.60	-5.710	828.079	-3.00	828.250	828.357	-0.107	5.710	828.079	-3.00	6.370	828.738	99.98
167+0.000			-5.806	827.843	-66.77	-5.710	827.908	-3.00	828.079	828.170	-0.092	5.710	827.908	-3.00	6.232	828.430	99.98
168+0.000						-5.710	827.736	-3.00	827.908	827.864	0.044	5.710	827.799	-1.90	5.952	828.041	99.96
168+10.720	TS		-5.923	827.858	99.95	-5.710	827.645	-3.00	827.816	827.758	0.058	5.710	827.816	0.00			
169+0.000		PCV	-5.809	827.581	99.46	-5.791	827.563	-3.00	827.737	827.687	0.049	5.721	827.831	1.65	5.810	827.920	99.89
170+0.000			-6.330	827.558	99.97	-5.961	827.189	-5.20	827.499	827.394	0.104	5.749	827.798	5.20	6.045	827.601	-66.70
170+10.720	SC		-7.366	828.312	99.99	-5.910	826.856	-7.10	827.275	827.720	-0.444	5.910	827.695	7.10	6.009	827.794	99.90
171+0.000			-7.894	828.590	99.99	-5.910	826.606	-7.10	827.026	827.379	-0.353	5.910	827.445	7.10	5.943	827.423	-66.97
171+8.156			-8.265	828.698	100.00	-5.910	826.343	-7.10	826.763	826.891	-0.128	5.910	827.183	7.10	6.146	827.025	-66.71



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
172+0.000			-7.923	827.903	100.00	-5.910	825.890	-7.10	826.309	826.342	-0.033	5.910	826.729	7.10	6.142	826.960	99.96
172+5.591	CS		-6.956	826.692	99.99	-5.910	825.646	-7.10	826.066	826.063	0.002	5.910	826.485	7.10	6.082	826.657	99.94
173+0.000		PCV	-6.665	825.827	99.99	-5.919	825.081	-4.54	825.350	825.324	0.026	5.755	825.611	4.54	5.758	825.609	-70.41
174+0.000			-6.632	824.914	99.99	-5.763	824.045	-3.00	824.218	824.264	-0.046	5.713	824.275	0.99	6.045	824.606	99.97
174+5.591	ST		-6.656	824.685	99.99	-5.710	823.740	-3.00	823.911	823.962	-0.051	5.710	823.911	0.00	6.212	824.413	99.98
175+0.000			-6.734	824.017	99.99	-5.710	822.993	-3.00	823.164	823.178	-0.014	5.710	823.018	-2.56	6.442	823.750	99.99
176+0.000			-6.687	823.035	99.99	-5.710	822.058	-3.00	822.230	822.176	0.054	5.710	822.058	-3.00	6.209	822.557	99.98
177+0.000			-6.472	822.005	99.99	-5.710	821.243	-3.00	821.415	821.378	0.037	5.710	821.243	-3.00	6.212	821.745	99.98
178+0.000			-6.336	821.174	99.98	-5.710	820.548	-3.00	820.719	820.705	0.014	5.710	820.548	-3.00	6.329	821.167	99.98
179+0.000			-6.135	820.397	99.98	-5.710	819.972	-3.00	820.144	820.091	0.052	5.710	819.972	-3.00	6.178	820.440	99.98
180+0.000			-5.993	819.799	99.96	-5.710	819.516	-3.00	819.688	819.648	0.039	5.710	819.516	-3.00	6.041	819.847	99.97
181+0.000			-5.721	819.172	-67.57	-5.710	819.180	-3.00	819.351	819.385	-0.034	5.710	819.328	-0.41	5.808	819.426	99.90
181+2.061	TS		-5.769	819.112	-66.84	-5.710	819.152	-3.00	819.323	819.365	-0.042	5.710	819.323	0.00	5.770	819.383	99.83
182+0.000			-5.954	818.867	-66.79	-5.870	818.924	-3.59	819.134	819.161	-0.027	5.819	819.343	3.59	6.061	819.181	-66.71
183+0.000			-6.154	818.673	99.90	-6.059	818.577	-7.59	819.037	818.964	0.073	5.927	819.487	7.59	6.816	818.894	-66.68
183+2.061	SC		-6.047	818.590	99.73	-6.010	818.553	-8.00	819.034	818.947	0.086	6.010	819.515	8.00	6.966	818.877	-66.68
184+0.000			-6.188	818.460	-66.72	-6.010	818.578	-8.00	819.059	818.887	0.172	6.010	819.540	8.00	6.739	819.054	-66.68
184+0.196		PTV	-6.186	818.462	-66.72	-6.010	818.579	-8.00	819.060	818.888	0.172	6.010	819.541	8.00	6.736	819.057	-66.68
184+18.332	CS		-6.095	818.753	99.88	-6.010	818.669	-8.00	819.150	819.059	0.091	6.010	819.630	8.00	6.555	819.267	-66.69
185+0.000			-6.389	819.030	99.97	-6.051	818.692	-7.70	819.158	819.076	0.082	5.942	819.615	7.70	6.358	819.338	-66.69
186+0.000			-5.908	819.056	99.75	-5.869	819.017	-4.11	819.258	819.340	-0.082	5.826	819.497	4.11	6.108	819.309	-66.70
186+18.332	ST		-6.388	818.851	-66.68	-5.710	819.303	-0.82	819.349	819.088	0.261	5.710	819.396	0.82	5.983	819.214	-66.70
187+0.000			-6.458	818.829	-66.68	-5.710	819.328	-0.52	819.358	819.100	0.258	5.710	819.387	0.52	6.120	819.114	-66.69
187+7.448	TS		-6.770	818.735	-66.68	-5.710	819.442	0.82	819.395	819.146	0.249	5.710	819.348	-0.82	6.066	819.111	-66.69
188+0.000			-7.306	818.596	-66.67	-5.748	819.634	3.07	819.458	819.065	0.393	5.859	819.278	-3.07	6.489	818.858	-66.68
189+0.000			-7.469	818.827	-66.67	-5.794	819.944	6.66	819.558	818.909	0.648	6.108	819.151	-6.66	7.085	818.499	-66.68
189+7.448	SC		-7.598	819.017	-66.67	-6.010	820.076	8.00	819.595	819.180	0.415	6.010	819.114	-8.00	6.578	818.736	-66.68
190+0.000			-7.027	819.460	-66.68	-6.010	820.138	8.00	819.658	819.390	0.268	6.010	819.177	-8.00	6.599	819.766	99.98
191+0.000			-6.091	820.320	99.88	-6.010	820.238	8.00	819.758	819.817	-0.059	6.010	819.277	-8.00	7.215	820.481	99.99
191+14.142			-6.365	820.664	99.97	-6.010	820.309	8.00	819.828	820.074	-0.246	6.010	819.347	-8.00	7.217	820.555	99.99
192+0.000			-6.402	820.730	99.97	-6.010	820.338	8.00	819.857	820.171	-0.313	6.010	819.377	-8.00	7.101	820.467	99.99
193+0.000			-6.342	820.770	99.97	-6.010	820.438	8.00	819.957	820.462	-0.505	6.010	819.477	-8.00	7.268	820.734	99.99
194+0.000			-6.317	820.845	99.97	-6.010	820.538	8.00	820.057	821.488	-1.430	6.010	819.577	-8.00	8.068	821.635	100.00
194+0.836	CS		-6.319	820.851	99.97	-6.010	820.542	8.00	820.062	821.506	-1.445	6.010	819.581	-8.00	8.091	821.662	100.00
195+0.000			-6.388	820.946	99.98	-5.842	820.401	4.17	820.157	820.882	-0.725	5.889	819.912	-4.17	7.604	821.627	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo					Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
196+0.000			-6.876	821.433	99.99	-5.710	820.267	0.17	820.257	821.045	-0.787	5.722	820.086	-3.00	7.408	821.772	99.99
196+0.836	ST		-6.893	821.444	99.99	-5.710	820.261	0.00	820.261	821.053	-0.791	5.710	820.090	-3.00	7.382	821.762	99.99
197+0.000			-7.097	821.572	99.99	-5.710	820.186	-3.00	820.357	821.106	-0.749	5.710	820.186	-3.00	7.123	821.599	99.99
198+0.000			-6.915	821.490	99.99	-5.710	820.286	-3.00	820.457	821.026	-0.569	5.710	820.286	-3.00	6.980	821.556	99.99
199+0.000			-6.661	821.337	99.99	-5.710	820.386	-3.00	820.557	820.898	-0.341	5.710	820.386	-3.00	6.841	821.517	99.99
200+0.000			-5.890	820.666	99.94	-5.710	820.486	-3.00	820.657	820.728	-0.071	5.710	820.486	-3.00	6.420	821.195	99.99
201+0.000			-5.890	820.466	-66.72	-5.710	820.586	-3.00	820.757	820.493	0.264	5.710	820.586	-3.00	5.904	820.779	99.95
202+0.000			-6.222	820.344	-66.69	-5.710	820.686	-3.00	820.857	820.170	0.687	5.710	820.686	-3.00	5.944	820.529	-66.71
203+0.000			-7.009	819.919	-66.67	-5.710	820.786	-3.00	820.957	819.783	1.174	5.710	820.786	-3.00	6.444	820.296	-66.68
204+0.000			-7.579	819.639	-66.67	-5.710	820.885	-3.00	821.057	819.497	1.560	5.710	820.885	-3.00	7.635	819.602	-66.67
205+0.000			-7.998	819.460	-66.67	-5.710	820.985	-3.00	821.157	819.368	1.789	5.710	820.985	-3.00	8.397	819.194	-66.67
206+0.000			-8.241	819.398	-66.67	-5.710	821.085	-3.00	821.257	819.303	1.954	5.710	821.085	-3.00	8.945	818.929	-66.67
207+0.000			-8.121	819.578	-66.67	-5.710	821.185	-3.00	821.357	819.329	2.027	5.710	821.185	-3.00	9.094	818.929	-66.67
208+0.000			-8.238	819.600	-66.67	-5.710	821.285	-3.00	821.457	819.388	2.069	5.710	821.285	-3.00	8.865	819.182	-66.67
209+0.000			-8.402	819.590	-66.67	-5.710	821.385	-3.00	821.557	819.433	2.124	5.710	821.385	-3.00	8.796	819.328	-66.67
210+0.000			-8.122	819.877	-66.67	-5.710	821.485	-3.00	821.656	819.474	2.183	5.710	821.485	-3.00	8.668	819.513	-66.67
211+0.000			-7.808	820.187	-66.67	-5.710	821.585	-3.00	821.756	819.568	2.188	5.710	821.585	-3.00	8.530	819.705	-66.67
212+0.000			-7.864	820.249	-66.67	-5.710	821.685	-3.00	821.856	819.706	2.151	5.710	821.685	-3.00	8.295	819.961	-66.67
213+0.000			-7.583	820.536	-66.67	-5.710	821.785	-3.00	821.956	819.886	2.071	5.710	821.785	-3.00	8.052	820.224	-66.67
214+0.000			-7.163	820.916	-66.67	-5.710	821.885	-3.00	822.056	820.108	1.948	5.710	821.885	-3.00	7.831	820.471	-66.67
215+0.000			-7.120	821.069	-66.67	-5.710	822.009	-2.57	822.156	820.334	1.822	5.710	821.985	-3.00	7.414	820.849	-66.67
215+12.863	TS		-7.383	821.105	-66.67	-5.710	822.220	0.00	822.220	820.483	1.737	5.710	822.049	-3.00	7.418	820.911	-66.67
216+0.000			-7.486	821.166	-66.67	-5.729	822.338	1.43	822.256	820.568	1.688	5.903	822.079	-3.00	7.857	820.777	-66.67
217+0.000			-7.823	821.342	-66.67	-5.828	822.672	5.43	822.356	820.797	1.559	6.386	822.010	-5.43	7.614	821.190	-66.67
217+12.863	SC		-8.604	821.396	-66.67	-6.310	822.925	8.00	822.420	820.956	1.464	6.310	821.916	-8.00	7.334	821.233	-66.68
218+0.000			-8.539	821.475	-66.67	-6.310	822.961	8.00	822.456	821.056	1.400	6.310	821.951	-8.00	7.382	821.236	-66.68
219+0.000			-8.327	821.716	-66.67	-6.310	823.061	8.00	822.556	821.057	1.499	6.310	822.051	-8.00	6.729	821.772	-66.69
220+0.000			-8.412	821.759	-66.67	-6.310	823.161	8.00	822.656	821.220	1.436	6.310	822.151	-8.00	6.546	821.993	-66.71
220+1.875		PCV	-8.391	821.782	-66.67	-6.310	823.170	8.00	822.665	821.239	1.426	6.310	822.160	-8.00	6.524	822.018	-66.71
221+0.000			-8.235	821.962	-66.67	-6.310	823.246	8.00	822.741	821.796	0.945	6.310	822.236	-8.00			
222+0.000			-8.022	822.147	-66.67	-6.310	823.288	8.00	822.783	821.688	1.096	6.310	822.279	-8.00	6.488	822.457	99.94
222+10.887	CS		-7.809	822.294	-66.67	-6.310	823.293	8.00	822.789	821.871	0.918	6.310	822.284	-8.00	6.336	822.266	-67.05
223+0.000			-6.896	822.444	-66.68	-5.847	823.144	6.18	822.783	821.969	0.814	6.475	822.383	-6.18	6.823	822.731	99.97
224+0.000			-6.214	822.565	-66.69	-5.764	822.865	2.18	822.740	822.223	0.516	5.979	822.560	-3.00	6.106	822.687	99.92
224+10.887	ST		-5.766	822.754	99.82	-5.710	822.698	0.00	822.698	822.277	0.421	5.710	822.527	-3.00	5.952	822.768	99.96



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
225+0.000			-6.019	822.858	99.97	-5.710	822.549	-1.82	822.653	822.303	0.350	5.710	822.482	-3.00	6.026	822.797	99.97
226+0.000			-5.825	822.467	99.91	-5.710	822.352	-3.00	822.524	822.232	0.292	5.710	822.352	-3.00	5.981	822.623	99.96
227+0.000			-5.921	822.391	99.95	-5.710	822.180	-3.00	822.351	822.010	0.342	5.710	822.180	-3.00	6.050	822.520	99.97
228+0.000			-5.740	821.945	-67.01	-5.710	821.965	-3.00	822.136	822.120	0.016	5.710	821.965	-3.00	5.922	822.176	99.95
229+0.000			-5.971	821.967	99.96	-5.710	821.706	-3.00	821.877	821.443	0.435	5.710	821.706	-3.00	6.332	822.328	99.98
230+0.000			-5.753	821.376	-66.90	-5.710	821.405	-3.00	821.576	821.172	0.404	5.710	821.405	-3.00	6.077	821.771	99.97
231+0.000		PTV	-5.923	821.273	99.95	-5.710	821.060	-3.00	821.231	820.768	0.463	5.710	821.060	-3.00	6.232	821.582	99.98
232+0.000			-5.770	820.738	99.83	-5.710	820.678	-3.00	820.849	820.308	0.541	5.710	820.678	-3.00	5.899	820.867	99.95
233+0.000			-5.811	820.222	-66.77	-5.710	820.290	-3.00	820.461	819.846	0.615	5.710	820.290	-3.00	5.849	820.428	99.93
234+0.000			-6.425	819.558	-66.68	-5.710	820.035	-0.66	820.073	819.356	0.717	5.710	819.901	-3.00	6.042	820.233	99.97
234+4.327	TS		-6.480	819.475	-66.68	-5.710	819.989	0.00	819.989	819.176	0.813	5.710	819.817	-3.00	5.965	820.072	99.96
235+0.000			-6.590	819.273	-66.68	-5.766	819.822	2.39	819.684	818.863	0.821	5.811	819.510	-3.00	5.919	819.619	99.91
236+0.000			-6.617	819.087	-66.68	-5.828	819.613	5.44	819.296	818.566	0.730	5.948	818.973	-5.44	6.317	819.342	99.97
236+4.327	SC		-6.723	819.031	-66.68	-5.910	819.573	6.10	819.212	818.470	0.742	5.910	818.852	-6.10	6.109	819.051	99.95
237+0.000			-6.616	818.798	-66.68	-5.910	819.269	6.10	818.908	818.221	0.687	5.910	818.548	-6.10	5.946	818.524	-66.95
238+0.000			-6.519	818.474	-66.68	-5.910	818.880	6.10	818.520	818.112	0.408	5.910	818.159	-6.10			
238+2.502		PCV	-6.500	818.438	-66.68	-5.910	818.832	6.10	818.471	817.945	0.527	5.910	818.111	-6.10	6.022	818.036	-66.76
239+0.000			-6.290	818.240	-66.69	-5.910	818.493	6.10	818.133	817.751	0.382	5.910	817.772	-6.10	6.030	817.892	99.92
240+0.000			-6.441	817.827	-66.69	-5.910	818.181	6.10	817.820	817.586	0.234	5.910	817.460	-6.10	6.231	817.781	99.97
240+0.677	CS		-6.424	817.830	-66.69	-5.910	818.172	6.10	817.812	817.580	0.231	5.910	817.451	-6.10	6.237	817.778	99.97
241+0.000			-6.165	817.571	-66.69	-5.804	817.813	3.15	817.630	817.419	0.211	5.823	817.446	-3.15	5.853	817.476	99.67
242+0.000			-7.542	819.398	99.99	-5.711	817.567	0.10	817.561	817.295	0.266	5.716	817.390	-3.00	5.987	817.209	-66.70
242+0.677	ST	PTV	-7.718	819.569	100.00	-5.710	817.561	0.00	817.561	817.291	0.270	5.710	817.390	-3.00	5.996	817.199	-66.70
243+0.000			-6.322	818.057	99.98	-5.710	817.446	-2.95	817.614	817.280	0.333	5.710	817.443	-3.00	5.798	817.384	-66.78
244+0.000			-5.824	817.657	99.91	-5.710	817.543	-3.00	817.714	817.318	0.396	5.710	817.543	-3.00	6.207	817.211	-66.69
245+0.000			-5.765	817.697	99.82	-5.710	817.643	-3.00	817.814	817.184	0.630	5.710	817.643	-3.00	6.014	817.440	-66.70
246+0.000			-5.766	817.798	99.82	-5.710	817.743	-3.00	817.914	817.349	0.565	5.710	817.743	-3.00	6.209	817.410	-66.69
247+0.000			-5.958	817.678	-66.71	-5.710	817.843	-3.00	818.014	817.600	0.414	5.710	817.843	-3.00	6.305	817.446	-66.68
248+0.000			-5.917	818.150	99.95	-5.710	817.943	-3.00	818.114	817.588	0.526	5.710	817.943	-3.00	6.372	817.501	-66.68
249+0.000			-5.765	818.006	-66.85	-5.710	818.043	-3.00	818.214	817.944	0.270	5.710	818.043	-3.00	6.383	817.594	-66.68
250+0.000			-5.736	818.169	99.61	-5.710	818.143	-3.00	818.314	817.732	0.582	5.710	818.143	-3.00	6.393	817.688	-66.68
251+0.000			-5.763	818.296	99.81	-5.710	818.243	-3.00	818.415	817.830	0.584	5.710	818.243	-3.00	6.449	817.751	-66.68
252+0.000		PCV	-6.018	818.138	-66.70	-5.710	818.343	-3.00	818.515	817.743	0.772	5.710	818.343	-3.00	6.590	817.757	-66.68
253+0.000			-6.288	818.055	-66.68	-5.710	818.440	-3.00	818.611	817.744	0.867	5.710	818.440	-3.00	6.366	818.003	-66.68
254+0.000			-6.070	818.217	-66.69	-5.710	818.457	-3.00	818.628	817.819	0.810	5.710	818.457	-3.00	6.600	817.864	-66.68



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
255+0.000			-6.239	818.009	-66.69	-5.710	818.362	-3.00	818.533	817.563	0.971	5.710	818.362	-3.00	6.767	817.658	-66.68
256+0.000		PTV	-5.985	817.972	-66.70	-5.710	818.155	-3.00	818.326	817.381	0.946	5.710	818.155	-3.00	6.852	817.393	-66.68
257+0.000			-5.780	817.909	99.86	-5.710	817.839	-3.00	818.010	817.161	0.849	5.710	817.839	-3.00	6.764	817.136	-66.68
258+0.000			-5.840	817.404	-66.74	-5.710	817.491	-3.00	817.662	816.850	0.812	5.710	817.491	-3.00	6.343	817.068	-66.68
259+0.000			-6.039	817.032	-66.70	-5.710	817.251	-1.10	817.314	816.560	0.753	5.710	817.142	-3.00	6.435	816.659	-66.68
259+6.188	TS		-6.026	816.995	-66.70	-5.710	817.206	0.00	817.206	816.490	0.716	5.710	817.035	-3.00	6.034	817.358	99.97
260+0.000			-5.980	816.949	-66.71	-5.744	817.106	2.45	816.966	816.341	0.625	5.813	816.791	-3.00	6.567	816.289	-66.68
261+0.000		PCV	-6.725	816.336	-66.68	-5.782	816.964	6.00	816.617	816.188	0.429	5.973	816.259	-6.00	6.435	815.951	-66.69
261+6.188	SC		-6.989	816.210	-66.68	-5.910	816.929	7.10	816.510	816.065	0.445	5.910	816.090	-7.10	6.255	815.860	-66.70
261+14.425			-7.029	816.045	-66.68	-5.910	816.791	7.10	816.371	815.993	0.378	5.910	815.952	-7.10	6.129	815.806	-66.71
262+0.000			-7.057	815.938	-66.68	-5.910	816.702	7.10	816.282	815.953	0.330	5.910	815.863	-7.10	6.033	815.781	-66.75
262+2.662	CS		-7.081	815.880	-66.68	-5.910	816.661	7.10	816.241	815.931	0.310	5.910	815.822	-7.10	5.988	815.769	-66.79
263+0.000			-6.577	815.692	-66.68	-5.777	816.226	4.02	815.993	815.739	0.255	5.868	815.757	-4.02	5.947	815.835	99.87
264+0.000			-5.726	815.767	-67.31	-5.711	815.778	0.47	815.751	815.542	0.208	5.736	815.579	-3.00	6.330	816.173	99.98
264+2.662	ST		-5.732	815.744	99.54	-5.710	815.722	0.00	815.722	815.522	0.201	5.710	815.551	-3.00	6.297	816.138	99.98
265+0.000			-5.803	815.322	-66.77	-5.710	815.384	-3.00	815.556	815.365	0.190	5.710	815.384	-3.00	6.327	816.001	99.98
266+0.000			-5.876	815.125	-66.73	-5.710	815.236	-3.00	815.407	815.259	0.149	5.710	815.236	-3.00	6.349	815.875	99.98
267+0.000			-5.819	815.243	99.91	-5.710	815.135	-3.00	815.306	815.156	0.150	5.710	815.135	-3.00	5.921	815.346	99.95
268+0.000			-6.927	814.269	-66.67	-5.710	815.080	-3.00	815.252	815.028	0.224	5.710	815.080	-3.00	6.276	815.646	99.98
269+0.000			-5.999	814.881	-66.70	-5.710	815.073	-3.00	815.245	814.927	0.318	5.710	815.073	-3.00	6.212	815.575	99.98
270+0.000			-6.018	814.907	-66.70	-5.710	815.113	-3.00	815.284	814.966	0.318	5.710	815.113	-3.00	6.252	815.655	99.98
271+0.000			-6.204	814.870	-66.69	-5.710	815.200	-3.00	815.371	815.063	0.308	5.710	815.200	-3.00	6.067	815.556	99.97
272+0.000			-5.944	815.567	99.96	-5.710	815.333	-3.00	815.505	815.168	0.337	5.710	815.333	-3.00	6.456	816.079	99.99
273+0.000			-5.796	815.600	99.88	-5.710	815.514	-3.00	815.685	815.318	0.368	5.710	815.514	-3.00	6.150	815.954	99.98
274+0.000			-5.926	815.958	99.95	-5.710	815.742	-3.00	815.913	815.460	0.453	5.710	815.865	-0.83	5.904	815.736	-66.72
274+4.169	TS	PTV	-5.931	816.016	99.95	-5.710	815.795	-3.00	815.966	815.532	0.435	5.710	815.966	0.00	5.903	815.838	-66.72
275+0.000			-6.312	816.327	99.97	-5.973	815.989	-3.17	816.178	815.783	0.395	5.841	816.363	3.17	6.403	816.925	99.98
276+0.000			-6.981	816.645	99.98	-6.328	815.992	-7.17	816.445	816.182	0.264	5.976	816.873	7.17	5.999	816.858	-67.10
276+4.169	SC		-6.909	816.703	99.99	-6.210	816.004	-8.00	816.501	816.245	0.256	6.210	816.998	8.00	6.361	816.897	-66.73
277+0.000			-6.956	816.962	99.99	-6.210	816.216	-8.00	816.713	816.512	0.200	6.210	817.209	8.00	6.717	816.871	-66.69
278+0.000		PCV	-6.951	817.224	99.99	-6.210	816.483	-8.00	816.980	817.003	-0.023	6.210	817.477	8.00	6.311	817.410	-66.77
278+16.964			-6.930	817.430	99.99	-6.210	816.710	-8.00	817.207	817.128	0.079	6.210	817.703	8.00	6.353	817.608	-66.74
279+0.000			-6.916	817.454	99.99	-6.210	816.748	-8.00	817.245	817.184	0.061	6.210	817.742	8.00	6.351	817.648	-66.74
280+0.000			-6.870	817.616	99.98	-6.210	816.956	-8.00	817.453	817.557	-0.105	6.210	817.949	8.00	6.488	817.764	-66.70
281+0.000			-6.677	817.550	99.98	-6.210	817.082	-8.00	817.579	817.394	0.186	6.210	818.076	8.00	6.984	817.560	-66.68



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Lado Esquerdo						Eixo			Lado Direito					
			Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
281+9.760	CS		-6.579	817.484	99.97	-6.210	817.115	-8.00	817.612	817.201	0.411	6.210	818.109	8.00	6.776	817.731	-66.68
282+0.000			-6.609	817.534	99.96	-6.324	817.249	-5.95	817.625	817.117	0.508	5.825	817.972	5.95	6.240	817.695	-66.69
283+0.000			-5.948	817.447	99.70	-5.914	817.413	-3.00	817.591	817.099	0.492	5.748	817.703	1.95	6.074	817.485	-66.70
283+9.760	ST		-5.734	817.357	-67.08	-5.710	817.373	-3.00	817.545	817.029	0.516	5.710	817.545	0.00	5.994	817.355	-66.70
284+0.000			-5.752	817.277	-66.91	-5.710	817.304	-3.00	817.476	816.966	0.510	5.710	817.359	-2.05	5.909	817.226	-66.72
285+0.000			-5.843	817.020	-66.74	-5.710	817.109	-3.00	817.280	816.774	0.506	5.710	817.109	-3.00	5.841	817.021	-66.74
286+0.000			-5.862	816.731	-66.73	-5.710	816.832	-3.00	817.003	816.630	0.374	5.710	816.889	-2.01	5.815	816.819	-66.76
286+10.054	TS		-5.861	816.562	-66.73	-5.710	816.663	-3.00	816.834	816.537	0.298	5.710	816.834	0.00	5.949	816.675	-66.71
287+0.000			-5.997	816.391	-66.75	-5.879	816.470	-3.00	816.646	816.414	0.232	5.739	816.761	1.99	5.988	816.595	-66.71
288+0.000			-6.797	816.421	99.98	-6.213	815.837	-5.99	816.209	815.840	0.368	5.796	816.556	5.99	6.028	816.401	-66.71
288+10.054	SC		-7.053	816.412	99.99	-6.110	815.469	-8.00	815.958	816.021	-0.063	6.110	816.447	8.00	6.673	816.071	-66.68
289+0.000			-7.257	816.348	99.99	-6.110	815.202	-8.00	815.690	815.265	0.426	6.110	816.179	8.00	6.576	815.869	-66.69
290+0.000		PTV	-7.434	815.927	99.99	-6.110	814.603	-8.00	815.091	814.953	0.139	6.110	815.580	8.00	6.266	815.476	-66.73
290+18.190			-7.649	815.527	99.99	-6.110	813.989	-8.00	814.478	814.308	0.169	6.110	814.966	8.00	6.135	814.950	-67.07
291+0.000			-7.669	815.484	99.99	-6.110	813.925	-8.00	814.414	814.253	0.162	6.110	814.903	8.00	6.146	814.879	-66.95
292+0.000			-7.660	814.775	99.99	-6.110	813.225	-8.00	813.714	813.627	0.087	6.110	814.203	8.00	6.296	814.389	99.95
293+0.000			-7.790	814.205	99.99	-6.110	812.525	-8.00	813.014	813.062	-0.048	6.110	813.503	8.00	6.484	813.877	99.97
293+6.326	CS		-7.828	814.022	99.99	-6.110	812.304	-8.00	812.793	812.870	-0.077	6.110	813.281	8.00	6.948	814.120	99.99
294+0.000			-7.741	813.589	99.99	-6.143	811.990	-5.27	812.314	812.346	-0.033	5.796	812.619	5.27	6.803	813.626	99.99
295+0.000			-6.805	812.418	99.99	-5.826	811.439	-3.00	811.614	811.491	0.123	5.720	811.686	1.27	6.682	812.648	99.99
295+6.326	ST		-6.754	812.265	99.99	-5.710	811.221	-3.00	811.392	811.210	0.183	5.710	811.392	0.00	6.630	812.312	99.99
296+0.000			-6.785	811.817	99.99	-5.710	810.742	-3.00	810.914	810.653	0.261	5.710	810.757	-2.73	6.579	811.626	99.99
297+0.000		PCV	-6.890	811.222	99.99	-5.710	810.042	-3.00	810.213	810.216	-0.003	5.710	810.042	-3.00	7.043	811.375	99.99
298+0.000			-6.898	810.551	99.99	-5.710	809.364	-3.00	809.535	809.323	0.212	5.710	809.364	-3.00	6.859	810.512	99.99
299+0.000			-6.595	809.705	99.99	-5.710	808.819	-3.00	808.991	808.890	0.101	5.710	808.819	-3.00	6.969	810.078	99.99
300+0.000			-6.279	808.994	99.98	-5.710	808.425	-3.00	808.596	808.523	0.073	5.710	808.425	-3.00	6.494	809.208	99.99
301+0.000		PTV	-5.861	808.331	99.93	-5.710	808.181	-3.00	808.352	808.181	0.171	5.710	808.181	-3.00	6.105	808.575	99.97
302+0.000			-6.021	808.375	99.97	-5.710	808.065	-3.00	808.236	807.919	0.316	5.710	808.065	-3.00	6.015	807.861	-66.70
303+0.000			-5.824	808.079	99.91	-5.710	807.964	-3.00	808.136	807.635	0.501	5.710	807.964	-3.00	6.096	807.707	-66.69
304+0.000			-6.355	807.434	-66.68	-5.710	807.864	-3.00	808.036	807.452	0.583	5.710	807.864	-3.00	6.172	807.556	-66.69
305+0.000			-6.171	807.457	-66.69	-5.710	807.764	-3.00	807.935	807.288	0.648	5.710	807.764	-3.00	6.273	807.389	-66.68
306+0.000			-7.075	806.754	-66.67	-5.710	807.664	-3.00	807.835	807.173	0.662	5.710	807.664	-3.00	6.194	807.342	-66.69
307+0.000			-6.943	806.742	-66.67	-5.710	807.564	-3.00	807.735	807.040	0.696	5.710	807.564	-3.00	6.149	807.271	-66.69
308+0.000			-6.698	806.805	-66.68	-5.710	807.464	-3.00	807.635	807.084	0.551	5.710	807.464	-3.00	6.099	807.204	-66.69
309+0.000			-6.029	807.151	-66.70	-5.710	807.364	-3.00	807.535	807.112	0.423	5.710	807.364	-3.00	5.740	807.394	99.67



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
310+0.000		PCV	-5.848	807.401	99.93	-5.710	807.264	-3.00	807.435	807.196	0.239	5.710	807.264	-3.00	5.782	807.216	-66.81
311+0.000			-6.057	807.546	99.97	-5.710	807.199	-3.00	807.370	807.340	0.030	5.710	807.199	-3.00	6.247	807.736	99.98
312+0.000			-6.770	808.311	99.99	-5.710	807.250	-3.00	807.422	807.450	-0.028	5.710	807.250	-3.00	6.174	807.714	99.98
313+0.000			-6.683	808.395	99.99	-5.710	807.421	-3.00	807.593	807.667	-0.074	5.710	807.421	-3.00	6.887	808.598	99.99
314+0.000		PTV	-6.695	808.697	99.99	-5.710	807.712	-3.00	807.883	808.047	-0.164	5.710	807.712	-3.00	6.897	808.899	99.99
315+0.000			-6.629	809.005	99.99	-5.710	808.086	-3.00	808.258	808.233	0.025	5.710	808.086	-3.00	6.843	809.219	99.99
316+0.000			-6.686	809.440	99.99	-5.710	808.464	-3.00	808.635	808.598	0.037	5.710	808.464	-3.00	6.801	809.555	99.99
317+0.000			-6.673	809.804	99.99	-5.710	808.842	-3.00	809.013	809.195	-0.182	5.710	808.842	-3.00	6.779	809.910	99.99
318+0.000			-6.830	810.340	99.99	-5.710	809.220	-3.00	809.391	809.260	0.131	5.710	809.220	-3.00	6.888	810.398	99.99
319+0.000			-6.769	810.656	99.99	-5.710	809.597	-3.00	809.769	809.649	0.119	5.710	809.597	-3.00	6.854	810.742	99.99
320+0.000			-6.553	810.818	99.99	-5.710	809.975	-3.00	810.146	810.041	0.105	5.710	809.975	-3.00	6.700	810.965	99.99
321+0.000			-6.737	811.380	99.99	-5.710	810.353	-3.00	810.524	810.408	0.116	5.710	810.353	-3.00	6.757	811.400	99.99
322+0.000			-6.844	811.865	99.99	-5.710	810.731	-3.00	810.902	810.766	0.136	5.710	810.731	-3.00	6.606	811.627	99.99
323+0.000			-6.804	812.202	99.99	-5.710	811.108	-3.00	811.280	811.079	0.201	5.710	811.108	-3.00	6.522	811.920	99.99
324+0.000			-6.628	812.404	99.99	-5.710	811.486	-3.00	811.657	811.471	0.187	5.710	811.486	-3.00	6.588	812.364	99.99
325+0.000			-6.770	812.924	99.99	-5.710	811.864	-3.00	812.035	811.865	0.170	5.710	811.864	-3.00	6.554	812.708	99.99
326+0.000			-6.671	813.203	99.99	-5.710	812.241	-3.00	812.413	812.239	0.174	5.710	812.241	-3.00	6.511	813.042	99.99
326+17.131	TS		-6.312	813.338	99.98	-5.710	812.736	0.00	812.736	812.550	0.186	5.710	812.565	-3.00	6.671	813.526	99.99
327+0.000		PCV	-6.242	813.355	99.98	-5.709	812.822	0.55	812.790	812.603	0.188	5.740	812.618	-3.00	6.706	813.584	99.99
328+0.000			-5.818	813.441	99.80	-5.767	813.390	4.35	813.139	812.949	0.190	5.880	812.884	-4.35	6.935	813.939	99.99
328+17.131	SC		-6.261	813.563	-66.70	-5.910	813.797	7.60	813.348	813.148	0.200	5.910	812.899	-7.60	7.005	813.994	99.99
329+0.000			-6.325	813.547	-66.69	-5.910	813.823	7.60	813.374	813.174	0.201	5.910	812.925	-7.60	6.991	814.006	99.99
329+15.892			-6.122	813.783	-66.71	-5.910	813.925	7.60	813.475	813.374	0.101	5.910	813.026	-7.60	6.766	813.882	99.99
330+0.000			-6.396	813.614	-66.69	-5.910	813.938	7.60	813.489	813.446	0.043	5.910	813.040	-7.60	6.705	813.835	99.99
330+14.652	CS		-6.370	813.640	-66.69	-5.910	813.947	7.60	813.497	813.459	0.039	5.910	813.048	-7.60	6.347	813.485	99.98
331+0.000		PTV	-6.180	813.597	-66.69	-5.778	813.865	6.58	813.484	813.384	0.100	5.985	813.090	-6.58	6.579	813.685	99.98
332+0.000			-5.937	813.420	-66.72	-5.745	813.549	2.78	813.389	813.076	0.313	5.821	813.214	-3.00	6.434	813.827	99.98
332+14.652	ST		-5.880	813.201	-66.73	-5.710	813.314	0.00	813.314	812.814	0.500	5.710	813.143	-3.00	6.303	813.736	99.98
333+0.000			-5.787	813.178	-66.80	-5.710	813.229	-1.02	813.287	812.855	0.432	5.710	813.116	-3.00	6.296	813.702	99.98
334+0.000			-5.967	813.271	99.96	-5.710	813.014	-3.00	813.186	812.597	0.588	5.710	813.014	-3.00	6.056	813.360	99.97
335+0.000			-5.761	812.879	-66.86	-5.710	812.913	-3.00	813.084	812.336	0.748	5.710	812.913	-3.00	5.994	813.197	99.96
336+0.000			-5.930	812.665	-66.71	-5.710	812.811	-3.00	812.983	812.732	0.251	5.710	812.811	-3.00	5.927	812.666	-66.71
337+0.000			-6.344	812.287	-66.68	-5.710	812.710	-3.00	812.881	811.825	1.056	5.710	812.710	-3.00	6.088	812.458	-66.69
338+0.000			-6.668	811.969	-66.68	-5.710	812.608	-3.00	812.780	811.644	1.136	5.710	812.608	-3.00	6.106	812.344	-66.69
339+0.000			-6.824	811.764	-66.68	-5.710	812.507	-3.00	812.678	811.478	1.200	5.710	812.507	-3.00	6.313	812.105	-66.68



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
340+0.000			-7.097	811.480	-66.67	-5.710	812.405	-3.00	812.577	811.331	1.245	5.710	812.405	-3.00	6.396	811.948	-66.68
341+0.000			-7.177	811.326	-66.67	-5.710	812.304	-3.00	812.475	811.262	1.213	5.710	812.304	-3.00	6.406	811.840	-66.68
342+0.000			-8.776	810.158	-66.67	-5.710	812.202	-3.00	812.374	811.094	1.279	5.710	812.202	-3.00	6.563	811.634	-66.68
343+0.000			-8.000	810.574	-66.67	-5.710	812.101	-3.00	812.272	811.198	1.074	5.710	812.101	-3.00	6.732	811.419	-66.68
344+0.000			-7.343	810.911	-66.67	-5.710	811.999	-3.00	812.171	811.080	1.091	5.710	811.999	-3.00	6.869	811.226	-66.68
345+0.000			-6.960	811.065	-66.67	-5.710	811.898	-3.00	812.069	811.109	0.960	5.710	811.898	-3.00	6.511	811.364	-66.68
346+0.000			-6.451	811.302	-66.68	-5.710	811.796	-3.00	811.968	811.184	0.784	5.710	811.796	-3.00	6.419	811.323	-66.68
347+0.000			-6.810	810.961	-66.68	-5.710	811.695	-3.00	811.866	810.894	0.972	5.710	811.695	-3.00	5.963	811.526	-66.71
348+0.000		PCV	-5.925	811.450	-66.71	-5.710	811.593	-3.00	811.765	811.325	0.440	5.710	811.593	-3.00	5.770	811.654	99.83
349+0.000			-6.086	811.869	99.97	-5.710	811.493	-3.00	811.665	811.421	0.243	5.710	811.493	-3.00	6.197	811.981	99.98
350+0.000			-5.946	811.699	99.96	-5.710	811.463	-3.00	811.635	811.543	0.091	5.710	811.463	-3.00	6.504	812.257	99.99
351+0.000			-6.327	812.158	99.98	-5.710	811.541	-3.00	811.712	811.707	0.005	5.710	811.541	-3.00	6.528	812.359	99.99
352+0.000		PTV	-6.414	812.429	99.99	-5.710	811.725	-3.00	811.897	811.975	-0.078	5.710	811.725	-3.00	6.275	812.290	99.98
353+0.000			-6.503	812.809	99.99	-5.710	812.016	-3.00	812.188	812.158	0.029	5.710	812.016	-3.00	6.352	812.658	99.98
354+0.000			-6.173	812.808	99.98	-5.710	812.345	-3.00	812.516	812.377	0.139	5.710	812.345	-3.00	6.439	813.074	99.99
355+0.000			-6.246	813.209	99.98	-5.710	812.673	-3.00	812.844	812.635	0.209	5.710	812.673	-3.00	6.216	813.179	99.98
356+0.000			-6.095	813.386	99.97	-5.710	813.001	-3.00	813.173	812.928	0.244	5.710	813.001	-3.00	6.209	813.500	99.98
357+0.000			-5.730	813.316	-67.17	-5.710	813.330	-3.00	813.501	813.212	0.288	5.710	813.330	-3.00	6.201	813.820	99.98
358+0.000			-6.312	814.260	99.98	-5.710	813.658	-3.00	813.829	813.461	0.369	5.710	813.658	-3.00	6.173	814.121	99.98
359+0.000			-5.881	813.872	-66.73	-5.710	813.986	-3.00	814.157	813.802	0.356	5.710	813.986	-3.00	6.252	814.529	99.98
360+0.000			-6.034	814.638	99.97	-5.710	814.315	-3.00	814.486	814.164	0.322	5.710	814.315	-3.00	6.178	814.783	99.98
361+0.000			-5.879	814.811	99.94	-5.710	814.643	-3.00	814.814	814.487	0.327	5.710	814.643	-3.00	6.014	814.946	99.97
362+0.000			-5.990	815.251	99.96	-5.710	814.971	-3.00	815.142	814.788	0.355	5.710	814.971	-3.00	5.933	815.194	99.96
363+0.000			-5.859	815.449	99.93	-5.710	815.299	-3.00	815.471	815.031	0.440	5.710	815.299	-3.00	5.838	815.427	99.92
364+0.000			-5.736	815.610	-67.05	-5.710	815.628	-3.00	815.799	815.252	0.547	5.710	815.628	-3.00	5.735	815.652	99.59
365+0.000			-5.895	815.833	-66.72	-5.710	815.956	-3.00	816.127	815.494	0.634	5.710	815.956	-3.00	5.729	815.975	99.48
366+0.000			-6.358	815.852	-66.68	-5.710	816.284	-3.00	816.456	815.674	0.781	5.710	816.284	-3.00	6.364	815.848	-66.68
367+0.000			-6.646	815.989	-66.68	-5.710	816.613	-3.00	816.784	815.924	0.861	5.710	816.613	-3.00	6.751	815.919	-66.68
368+0.000			-6.938	816.122	-66.67	-5.710	816.941	-3.00	817.112	816.016	1.097	5.710	816.941	-3.00	6.954	816.112	-66.67
369+0.000			-6.996	816.412	-66.67	-5.710	817.269	-3.00	817.441	816.301	1.139	5.710	817.269	-3.00	7.031	816.388	-66.67
370+0.000			-7.231	816.584	-66.67	-5.710	817.598	-3.00	817.769	816.510	1.259	5.710	817.598	-3.00	6.974	816.755	-66.67
371+0.000			-6.811	817.192	-66.68	-5.710	817.926	-3.00	818.097	816.982	1.116	5.710	817.926	-3.00	6.902	817.131	-66.68
372+0.000			-6.637	817.636	-66.68	-5.710	818.254	-3.00	818.426	817.158	1.267	5.710	818.254	-3.00	6.598	817.662	-66.68
373+0.000			-6.331	818.169	-66.68	-5.710	818.583	-3.00	818.754	817.610	1.144	5.710	818.583	-3.00	6.365	818.146	-66.68
374+0.000						-5.710	818.911	-3.00	819.082	817.997	1.086	5.710	818.911	-3.00	6.055	818.681	-66.70



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
375+0.000			-5.894	819.423	99.95	-5.710	819.239	-3.00	819.411	818.638	0.773	5.710	819.239	-3.00	5.801	819.179	-66.78
376+0.000			-5.935	819.417	-66.71	-5.710	819.568	-3.00	819.739	819.089	0.650	5.710	819.568	-3.00	5.877	819.735	99.94
377+0.000			-5.989	820.175	99.96	-5.710	819.896	-3.00	820.067	819.614	0.454	5.710	819.896	-3.00	6.049	820.235	99.97
378+0.000			-6.230	820.744	99.98	-5.710	820.224	-3.00	820.396	820.299	0.096	5.710	820.224	-3.00	6.239	820.753	99.98
379+0.000			-6.206	821.048	99.98	-5.710	820.553	-3.00	820.724	820.620	0.104	5.710	820.553	-3.00	6.313	821.156	99.98
380+0.000		PCV	-6.218	821.420	99.98	-5.710	820.912	-2.45	821.052	821.113	-0.060	5.710	820.881	-3.00	6.198	821.369	99.98
380+12.246	TS		-6.049	821.587	99.97	-5.710	821.249	0.00	821.249	821.383	-0.134	5.710	821.078	-3.00	6.078	821.446	99.97
381+0.000			-5.964	821.664	99.95	-5.743	821.443	1.55	821.354	821.546	-0.192	5.945	821.176	-3.00	6.292	821.522	99.97
382+0.000			-5.954	821.808	-66.78	-5.866	821.867	5.55	821.541	821.644	-0.103	6.500	821.181	-5.55	6.856	821.536	99.97
382+12.246	SC		-6.778	821.863	-66.69	-6.410	822.109	8.00	821.596	821.743	-0.147	6.410	821.083	-8.00	6.930	821.603	99.98
383+0.000			-6.814	821.850	-66.69	-6.410	822.120	8.00	821.607	821.625	-0.018	6.410	821.094	-8.00	6.900	821.584	99.98
384+0.000			-7.028	821.651	-66.68	-6.410	822.064	8.00	821.551	821.379	0.172	6.410	821.038	-8.00	7.068	821.696	99.98
384+1.045			-7.039	821.638	-66.68	-6.410	822.057	8.00	821.545	821.371	0.174	6.410	821.032	-8.00	6.951	821.572	99.98
385+0.000			-7.140	821.399	-66.68	-6.410	821.886	8.00	821.373	821.149	0.224	6.410	820.860	-8.00	6.487	820.809	-66.80
385+9.844	CS		-7.148	821.261	-66.68	-6.410	821.754	8.00	821.241	820.950	0.291	6.410	820.728	-8.00	6.481	820.680	-66.81
386+0.000			-6.333	821.120	-66.69	-5.876	821.424	5.97	821.074	821.121	-0.048	6.559	820.682	-5.97	6.718	820.841	99.94
387+0.000			-5.792	820.749	-67.06	-5.766	820.766	1.97	820.653	820.222	0.430	5.995	820.473	-3.00	6.035	820.446	-66.91
387+9.844	ST	PTV	-5.741	820.432	99.68	-5.710	820.401	0.00	820.401	819.994	0.406	5.710	820.229	-3.00	5.894	820.413	99.95
388+0.000			-5.818	820.104	99.91	-5.710	819.996	-2.03	820.111	820.153	-0.041	5.710	819.940	-3.00	6.010	820.240	99.97
389+0.000			-5.964	819.610	99.96	-5.710	819.356	-3.00	819.527	819.282	0.245	5.710	819.356	-3.00	6.222	819.869	99.98
390+0.000			-5.929	818.991	99.95	-5.710	818.772	-3.00	818.943	818.692	0.252	5.710	818.772	-3.00	6.341	819.403	99.98
391+0.000			-6.041	818.519	99.97	-5.710	818.188	-3.00	818.359	818.113	0.246	5.710	818.188	-3.00	6.297	818.775	99.98
392+0.000			-5.954	817.848	99.96	-5.710	817.604	-3.00	817.775	817.558	0.217	5.710	817.604	-3.00	6.308	818.202	99.98
393+0.000			-5.735	817.044	99.59	-5.710	817.020	-3.00	817.191	817.155	0.036	5.710	817.020	-3.00	6.328	817.638	99.98
394+0.000			-5.885	816.611	99.94	-5.710	816.436	-3.00	816.607	816.377	0.230	5.710	816.436	-3.00	6.315	817.041	99.98
395+0.000			-6.066	816.208	99.97	-5.710	815.852	-3.00	816.023	815.718	0.305	5.710	815.852	-3.00	6.480	816.622	99.99
396+0.000			-6.366	815.924	99.98	-5.710	815.268	-3.00	815.439	815.103	0.336	5.710	815.268	-3.00	6.509	816.067	99.99
397+0.000			-5.862	814.836	99.93	-5.710	814.684	-3.00	814.855	814.415	0.440	5.710	814.684	-3.00	6.464	815.438	99.99
398+0.000			-5.744	814.077	-66.96	-5.710	814.100	-3.00	814.271	813.731	0.540	5.710	814.100	-3.00	6.322	814.711	99.98
399+0.000			-6.199	814.005	99.98	-5.710	813.516	-3.00	813.687	813.199	0.488	5.710	813.516	-3.00	6.039	813.844	99.97
400+0.000		PCV	-5.827	813.049	99.91	-5.710	812.932	-3.00	813.103	812.721	0.382	5.710	812.932	-3.00	5.766	812.988	99.82
401+0.000			-5.865	812.530	99.94	-5.710	812.375	-3.00	812.546	812.405	0.141	5.710	812.375	-3.00	5.796	812.461	99.88
402+0.000			-6.034	812.355	99.97	-5.710	812.030	-3.00	812.201	812.058	0.143	5.710	812.088	-1.98	5.803	812.026	-66.77
402+9.912	TS		-6.028	812.269	99.97	-5.710	811.951	-3.00	812.122	811.973	0.150	5.710	812.122	0.00	6.232	811.774	-66.69
403+0.000			-6.161	812.249	99.97	-5.840	811.929	-3.00	812.104	812.007	0.097	5.731	812.220	2.02	6.365	811.796	-66.68



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
404+0.000			-6.510	812.300	99.98	-6.096	811.887	-6.02	812.253	812.262	-0.008	5.769	812.601	6.02	6.508	812.108	-66.68
404+9.912	SC	PTV	-6.593	812.521	99.98	-6.010	811.938	-8.00	812.419	812.402	0.017	6.010	812.900	8.00	6.911	812.299	-66.68
405+0.000			-6.892	813.024	99.99	-6.010	812.142	-8.00	812.623	812.511	0.112	6.010	813.104	8.00	6.531	812.756	-66.69
406+0.000			-6.800	813.336	99.99	-6.010	812.546	-8.00	813.027	812.883	0.144	6.010	813.508	8.00	6.637	813.090	-66.68
407+0.000			-7.054	813.995	99.99	-6.010	812.950	-8.00	813.431	813.494	-0.062	6.010	813.912	8.00	6.096	813.855	-66.78
407+6.673			-6.970	814.045	99.99	-6.010	813.085	-8.00	813.566	813.749	-0.183	6.010	814.047	8.00	6.134	814.170	99.92
408+0.000			-6.997	814.342	99.99	-6.010	813.355	-8.00	813.835	814.181	-0.345	6.010	814.316	8.00	6.280	814.586	99.96
409+0.000			-7.222	814.970	99.99	-6.010	813.759	-8.00	814.240	814.641	-0.401	6.010	814.720	8.00	6.325	815.036	99.97
410+0.000			-6.666	814.819	99.98	-6.010	814.163	-8.00	814.644	814.670	-0.026	6.010	815.125	8.00	6.558	814.759	-66.68
410+3.434	CS		-6.583	814.805	99.98	-6.010	814.232	-8.00	814.713	814.655	0.058	6.010	815.194	8.00	6.699	814.735	-66.68
411+0.000			-6.116	814.914	99.93	-5.970	814.768	-4.69	815.048	814.685	0.363	5.798	815.320	4.69	7.155	814.415	-66.67
412+0.000			-5.779	815.266	-67.18	-5.760	815.279	-3.00	815.452	814.983	0.469	5.711	815.491	0.69	6.880	814.712	-66.68
412+3.434	ST		-5.744	815.327	-66.96	-5.710	815.350	-3.00	815.522	815.063	0.458	5.710	815.522	0.00	6.648	814.896	-66.68
413+0.000			-5.720	815.678	-67.70	-5.710	815.685	-3.00	815.856	815.392	0.464	5.710	815.685	-3.00	5.910	815.551	-66.72
414+0.000			-6.033	815.874	-66.70	-5.710	816.089	-3.00	816.261	815.643	0.618	5.710	816.089	-3.00	6.305	815.693	-66.68
415+0.000		PCV	-5.953	816.332	-66.71	-5.710	816.493	-3.00	816.665	816.252	0.413	5.710	816.493	-3.00	6.100	816.233	-66.69
416+0.000			-6.216	817.402	99.98	-5.710	816.896	-3.00	817.067	817.061	0.006	5.710	816.896	-3.00	6.477	817.663	99.99
417+0.000			-6.455	817.893	99.99	-5.710	817.147	-3.00	817.319	817.774	-0.455	5.710	817.147	-3.00	7.911	819.348	100.00
417+17.022	TS		-6.472	818.097	99.99	-5.710	817.335	0.00	817.335	817.999	-0.664	5.710	817.164	-3.00	8.589	820.043	100.00
418+0.000			-6.402	818.045	99.99	-5.711	817.354	0.60	817.320	817.966	-0.646	5.753	817.147	-3.00	8.588	819.981	100.00
419+0.000			-6.061	817.594	99.96	-5.805	817.338	4.60	817.071	817.595	-0.524	5.957	816.797	-4.60	8.602	819.442	100.00
419+17.022	SC	PTV	-6.321	816.935	-66.70	-6.010	817.143	8.00	816.662	816.918	-0.256	6.010	816.181	-8.00	8.276	818.448	100.00
420+0.000			-6.313	816.853	-66.70	-6.010	817.055	8.00	816.574	816.720	-0.146	6.010	816.093	-8.00	8.322	818.405	100.00
420+8.986			-6.454	816.491	-66.69	-6.010	816.787	8.00	816.306	816.140	0.166	6.010	815.825	-8.00	8.550	818.365	100.00
421+0.000			-7.127	815.714	-66.68	-6.010	816.459	8.00	815.978	815.376	0.601	6.010	815.497	-8.00	7.816	817.303	99.99
421+0.949	CS		-7.194	815.641	-66.68	-6.010	816.430	8.00	815.949	815.308	0.642	6.010	815.469	-8.00	7.700	817.159	99.99
422+0.000			-7.909	814.247	-66.67	-5.840	815.626	4.19	815.382	813.990	1.392	5.893	815.135	-4.19	6.345	814.833	-66.69
423+0.000			-8.632	812.849	-66.67	-5.710	814.797	0.19	814.786	813.004	1.782	5.724	814.614	-3.00	7.185	813.640	-66.67
423+0.949	ST		-8.649	812.798	-66.67	-5.710	814.758	0.00	814.758	812.958	1.800	5.710	814.586	-3.00	7.256	813.555	-66.67
424+0.000			-8.717	812.014	-66.67	-5.710	814.019	-3.00	814.190	811.959	2.230	5.710	814.019	-3.00	8.377	812.241	-66.67
425+0.000			-8.898	811.297	-66.67	-5.710	813.423	-3.00	813.594	811.218	2.375	5.710	813.423	-3.00	8.481	811.575	-66.67
426+0.000			-9.380	810.380	-66.67	-5.710	812.827	-3.00	812.998	810.541	2.457	5.710	812.827	-3.00	8.570	810.920	-66.67
426+16.719	TS		-10.208	809.501	-66.67	-5.710	812.500	0.00	812.500	809.984	2.516	5.710	812.328	-3.00	8.617	810.391	-66.67
427+0.000			-10.284	809.391	-66.67	-5.711	812.439	0.66	812.402	809.890	2.512	5.758	812.229	-3.00	8.653	810.299	-66.67
428+0.000			-10.152	809.175	-66.67	-5.800	812.076	4.66	811.806	809.364	2.442	5.966	811.528	-4.66	8.901	809.571	-66.67



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Lado Esquerdo						Eixo			Lado Direito					
			Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
428+16.719	SC		-11.130	808.375	-66.67	-6.010	811.789	8.00	811.308	809.033	2.275	6.010	810.827	-8.00	9.081	808.779	-66.67
429+0.000			-10.750	808.531	-66.67	-6.010	811.691	8.00	811.210	808.990	2.220	6.010	810.729	-8.00	9.035	808.713	-66.67
429+12.002			-10.040	808.646	-66.67	-6.010	811.333	8.00	810.852	808.839	2.013	6.010	810.372	-8.00	8.985	808.388	-66.67
430+0.000			-9.766	808.591	-66.67	-6.010	811.095	8.00	810.614	808.723	1.891	6.010	810.133	-8.00	8.694	808.344	-66.67
430+7.286	CS		-9.421	808.604	-66.67	-6.010	810.878	8.00	810.397	808.703	1.694	6.010	809.916	-8.00	8.289	808.397	-66.67
431+0.000			-8.397	808.578	-66.67	-5.765	810.333	5.46	810.018	808.504	1.514	6.059	809.687	-5.46	7.968	808.415	-66.67
432+0.000			-7.524	808.301	-66.67	-5.718	809.505	1.46	809.422	808.349	1.073	5.810	809.248	-3.00	6.925	808.505	-66.68
432+7.286	ST		-6.988	808.353	-66.67	-5.710	809.205	0.00	809.205	808.321	0.884	5.710	809.034	-3.00	6.455	808.537	-66.68
433+0.000			-6.011	808.480	-66.70	-5.710	808.681	-2.54	808.826	808.265	0.561	5.710	808.655	-3.00	5.903	808.526	-66.72
434+0.000			-6.152	808.501	99.98	-5.710	808.059	-3.00	808.230	808.085	0.145	5.710	808.059	-3.00	5.947	808.296	99.96
435+0.000			-6.737	808.490	99.99	-5.710	807.463	-3.00	807.634	808.223	-0.588	5.710	807.463	-3.00	6.592	808.345	99.99
436+0.000			-7.495	808.652	99.99	-5.710	806.867	-3.00	807.038	808.118	-1.080	5.710	806.867	-3.00	7.110	808.267	99.99
437+0.000			-8.299	808.860	100.00	-5.710	806.271	-3.00	806.442	807.992	-1.550	5.710	806.271	-3.00	7.429	807.989	99.99
438+0.000			-8.389	808.354	100.00	-5.710	805.675	-3.00	805.846	807.845	-1.999	5.710	805.675	-3.00	7.734	807.699	100.00
439+0.000			-8.586	807.955	100.00	-5.710	805.079	-3.00	805.250	807.471	-2.221	5.710	805.079	-3.00	8.097	807.466	100.00
440+0.000			-8.667	807.440	100.00	-5.710	804.483	-3.00	804.654	806.919	-2.264	5.710	804.483	-3.00	8.359	807.132	100.00
441+0.000			-8.075	806.252	100.00	-5.710	803.887	-3.00	804.058	806.336	-2.278	5.710	803.887	-3.00	8.480	806.657	100.00
442+0.000			-8.323	805.904	100.00	-5.710	803.291	-3.00	803.462	805.676	-2.213	5.710	803.291	-3.00	8.434	806.015	100.00
443+0.000			-7.967	804.953	100.00	-5.710	802.695	-3.00	802.866	804.817	-1.950	5.710	802.695	-3.00	8.317	805.302	100.00
444+0.000			-7.940	804.330	100.00	-5.710	802.099	-3.00	802.271	804.144	-1.873	5.710	802.099	-3.00	8.420	804.809	100.00
445+0.000			-7.961	803.754	100.00	-5.710	801.503	-3.00	801.675	803.637	-1.962	5.710	801.503	-3.00	8.365	804.158	100.00
445+2.657			-7.896	803.610	100.00	-5.710	801.424	-3.00	801.595	803.555	-1.960	5.710	801.424	-3.00	8.365	804.079	100.00
446+0.000			-8.042	803.239	100.00	-5.710	800.907	-3.00	801.079	803.057	-1.979	5.710	800.907	-3.00	8.131	803.329	100.00
447+0.000			-8.008	802.609	100.00	-5.710	800.311	-3.00	800.483	802.531	-2.048	5.710	800.311	-3.00	7.993	802.594	100.00
448+0.000			-8.191	802.196	100.00	-5.710	799.715	-3.00	799.887	801.939	-2.053	5.710	799.715	-3.00	8.037	802.042	100.00
449+0.000			-7.843	801.252	100.00	-5.710	799.119	-3.00	799.291	801.253	-1.963	5.710	799.119	-3.00	8.097	801.507	100.00
450+0.000			-7.344	800.158	99.99	-5.710	798.523	-3.00	798.695	800.234	-1.539	5.710	798.523	-3.00	8.012	800.826	100.00
451+0.000			-7.215	799.432	99.99	-5.710	797.927	-3.00	798.099	799.023	-0.924	5.710	797.927	-3.00	7.794	800.011	100.00
452+0.000			-6.787	798.409	99.99	-5.710	797.331	-3.00	797.503	797.996	-0.493	5.710	797.331	-3.00	7.303	798.924	99.99
453+0.000			-6.661	797.686	99.99	-5.710	796.736	-3.00	796.907	797.181	-0.274	5.710	796.736	-3.00	6.986	798.012	99.99
454+0.000			-6.501	796.930	99.99	-5.710	796.140	-3.00	796.311	796.487	-0.176	5.710	796.140	-3.00	6.979	797.409	99.99
455+0.000			-6.502	796.336	99.99	-5.710	795.544	-3.00	795.715	795.841	-0.126	5.710	795.544	-3.00	6.855	796.689	99.99
456+0.000			-6.431	795.668	99.99	-5.710	794.948	-3.00	795.119	795.183	-0.064	5.710	794.948	-3.00	6.638	795.875	99.99
457+0.000			-6.513	795.155	99.99	-5.710	794.352	-3.00	794.523	794.541	-0.018	5.710	794.352	-3.00	6.500	795.141	99.99
458+0.000		PCV	-6.402	794.447	99.99	-5.710	793.756	-3.00	793.927	793.794	0.133	5.710	793.756	-3.00	6.385	794.431	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
459+0.000			-6.248	793.710	99.98	-5.710	793.172	-3.00	793.344	793.199	0.145	5.710	793.172	-3.00	6.470	793.932	99.99
460+0.000			-6.023	792.942	99.97	-5.710	792.629	-3.00	792.800	792.679	0.121	5.710	792.629	-3.00	6.348	793.267	99.98
461+0.000			-5.909	792.326	99.95	-5.710	792.127	-3.00	792.298	792.185	0.113	5.710	792.127	-3.00	6.188	792.604	99.98
462+0.000			-5.972	791.927	99.96	-5.710	791.665	-3.00	791.837	791.837	-0.001	5.710	791.665	-3.00	6.391	792.347	99.99
463+0.000			-6.021	791.556	99.97	-5.710	791.245	-3.00	791.416	791.385	0.031	5.710	791.245	-3.00	6.451	791.986	99.99
464+0.000			-6.093	791.249	99.97	-5.710	790.866	-3.00	791.037	791.087	-0.050	5.710	790.866	-3.00	6.530	791.686	99.99
465+0.000			-6.320	791.138	99.98	-5.710	790.528	-3.00	790.699	791.010	-0.311	5.710	790.528	-3.00	6.594	791.412	99.99
466+0.000			-6.083	790.604	99.97	-5.710	790.231	-3.00	790.402	790.541	-0.139	5.710	790.231	-3.00	6.814	791.335	99.99
467+0.000			-6.192	790.456	99.98	-5.710	789.975	-3.00	790.146	790.075	0.071	5.710	789.975	-3.00	6.996	791.261	99.99
468+0.000			-5.727	789.748	-67.24	-5.710	789.760	-3.00	789.931	789.934	-0.003	5.710	789.760	-3.00	7.346	791.395	99.99
469+0.000			-5.835	789.502	-66.75	-5.710	789.586	-3.00	789.757	789.722	0.035	5.710	789.586	-3.00	6.431	790.306	99.99
470+0.000			-6.006	789.256	-66.70	-5.710	789.453	-3.00	789.624	789.198	0.426	5.710	789.453	-3.00	5.875	789.618	99.94
470+15.058	TS		-6.196	789.056	-66.69	-5.710	789.380	-3.00	789.551	789.159	0.393	5.710	789.551	0.00	5.834	789.468	-66.75
471+0.000			-6.330	788.993	-66.68	-5.781	789.359	-3.00	789.532	789.165	0.368	5.713	789.589	0.99	5.891	789.470	-66.72
472+0.000			-6.790	788.662	-66.68	-6.010	789.182	-4.99	789.482	788.776	0.706	5.780	789.770	4.99	6.754	789.121	-66.68
472+15.058	SC		-6.215	789.195	99.95	-6.010	788.990	-8.00	789.470	788.768	0.703	6.010	789.951	8.00	7.137	789.200	-66.68
473+0.000			-6.207	789.188	99.95	-6.010	788.991	-8.00	789.472	788.797	0.675	6.010	789.953	8.00	7.438	789.000	-66.67
474+0.000			-6.256	789.268	99.96	-6.010	789.022	-8.00	789.503	789.064	0.439	6.010	789.984	8.00	6.842	789.429	-66.68
474+9.798			-6.334	789.376	99.97	-6.010	789.053	-8.00	789.533	789.239	0.294	6.010	790.014	8.00	6.871	789.440	-66.68
475+0.000			-6.433	789.518	99.98	-6.010	789.095	-8.00	789.575	789.387	0.189	6.010	790.056	8.00	6.836	789.506	-66.68
476+0.000			-6.595	789.793	99.98	-6.010	789.208	-8.00	789.689	789.559	0.130	6.010	790.170	8.00	6.031	790.190	99.52
476+4.539	CS		-6.619	789.849	99.98	-6.010	789.239	-8.00	789.720	789.572	0.149	6.010	790.201	8.00	6.125	790.316	99.91
477+0.000		PTV	-6.381	789.930	99.97	-6.000	789.549	-4.91	789.843	789.669	0.174	5.785	790.127	4.91	6.172	790.515	99.97
478+0.000			-6.243	790.333	99.98	-5.775	789.865	-3.00	790.038	789.910	0.128	5.713	790.090	0.91	6.215	790.593	99.98
478+4.539	ST		-6.162	790.367	99.98	-5.710	789.915	-3.00	790.086	789.972	0.115	5.710	790.086	0.00	6.276	790.652	99.98
479+0.000			-6.185	790.553	99.98	-5.710	790.078	-3.00	790.249	790.170	0.079	5.710	790.078	-3.00	6.434	790.802	99.99
480+0.000			-6.238	790.816	99.98	-5.710	790.288	-3.00	790.460	790.362	0.097	5.710	790.288	-3.00	6.391	790.969	99.99
481+0.000			-6.306	791.095	99.98	-5.710	790.499	-3.00	790.670	790.443	0.227	5.710	790.499	-3.00	6.289	791.078	99.98
482+0.000			-6.192	791.191	99.98	-5.710	790.709	-3.00	790.881	790.576	0.305	5.710	790.709	-3.00	5.936	790.935	99.96
483+0.000			-6.033	791.243	99.97	-5.710	790.920	-3.00	791.091	790.797	0.294	5.710	790.920	-3.00	5.830	791.040	99.92
484+0.000			-6.044	791.464	99.97	-5.710	791.131	-3.00	791.302	790.980	0.322	5.710	791.131	-3.00	5.990	791.411	99.96
485+0.000			-6.139	791.770	99.98	-5.710	791.341	-3.00	791.512	791.136	0.376	5.710	791.341	-3.00	6.140	791.771	99.98
486+0.000			-5.997	791.839	99.97	-5.710	791.552	-3.00	791.723	791.386	0.337	5.710	791.552	-3.00	6.291	792.132	99.98
487+0.000			-5.923	791.975	99.95	-5.710	791.762	-3.00	791.934	791.610	0.324	5.710	791.762	-3.00	6.484	792.536	99.99
488+0.000			-5.955	792.218	99.96	-5.710	791.973	-3.00	792.144	791.891	0.253	5.710	791.973	-3.00	6.545	792.808	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
489+0.000			-5.999	792.473	99.97	-5.710	792.183	-3.00	792.355	792.213	0.142	5.710	792.183	-3.00	6.624	793.097	99.99
490+0.000			-6.172	792.856	99.98	-5.710	792.394	-3.00	792.565	792.513	0.053	5.710	792.394	-3.00	6.811	793.495	99.99
491+0.000			-6.443	793.338	99.99	-5.710	792.605	-3.00	792.776	792.851	-0.075	5.710	792.760	-0.27	6.804	793.854	99.99
491+1.371	TS		-6.466	793.375	99.99	-5.710	792.619	-3.00	792.790	792.880	-0.090	5.710	792.790	0.00	6.798	793.879	99.99
492+0.000			-6.944	793.845	99.99	-5.867	792.768	-3.73	792.987	793.293	-0.306	5.832	793.204	3.73	6.920	794.292	99.99
493+0.000			-7.580	794.266	99.99	-6.044	792.730	-7.73	793.197	793.884	-0.687	5.953	793.657	7.73	5.992	793.696	99.75
493+1.371	SC		-7.569	794.289	99.99	-6.010	792.731	-8.00	793.212	793.928	-0.717	6.010	793.692	8.00	6.058	793.660	-66.88
494+0.000			-7.664	794.581	99.99	-6.010	792.927	-8.00	793.408	794.246	-0.838	6.010	793.888	8.00	6.216	794.094	99.95
495+0.000			-7.529	794.656	99.99	-6.010	793.137	-8.00	793.618	795.124	-1.506	6.010	794.099	8.00	6.549	794.638	99.98
496+0.000			-7.587	794.925	99.99	-6.010	793.348	-8.00	793.829	795.249	-1.420	6.010	794.310	8.00	6.410	794.710	99.98
496+15.220			-7.529	795.027	99.99	-6.010	793.508	-8.00	793.989	795.359	-1.370	6.010	794.470	8.00	6.429	794.888	99.98
497+0.000			-7.478	795.027	99.99	-6.010	793.559	-8.00	794.039	795.396	-1.357	6.010	794.520	8.00	6.436	794.946	99.98
498+0.000			-7.366	795.125	99.99	-6.010	793.769	-8.00	794.250	795.510	-1.260	6.010	794.731	8.00	6.655	795.376	99.98
499+0.000		PCV	-7.212	795.181	99.99	-6.010	793.980	-8.00	794.461	795.295	-0.834	6.010	794.941	8.00	6.508	795.440	99.98
500+0.000			-7.006	795.177	99.99	-6.010	794.181	-8.00	794.662	794.778	-0.116	6.010	795.143	8.00	6.039	795.123	-67.01
500+9.070	CS		-6.876	795.120	99.99	-6.010	794.254	-8.00	794.735	794.796	-0.061	6.010	795.216	8.00	6.091	795.296	99.88
501+0.000			-6.524	794.889	99.98	-6.085	794.451	-5.81	794.805	794.711	0.093	5.765	795.140	5.81	5.915	795.290	99.93
502+0.000			-5.846	794.696	-67.29	-5.830	794.707	-3.00	794.882	794.614	0.268	5.725	794.986	1.81	5.796	795.057	99.86
502+9.070	ST		-5.735	794.707	-67.07	-5.710	794.724	-3.00	794.895	794.537	0.358	5.710	794.895	0.00	5.731	794.916	99.52
503+0.000			-6.024	794.512	-66.70	-5.710	794.721	-3.00	794.893	794.332	0.561	5.710	794.768	-2.19	5.957	794.603	-66.71
504+0.000			-6.471	794.159	-66.68	-5.710	794.666	-3.00	794.838	794.364	0.474	5.710	794.666	-3.00	5.940	794.513	-66.71
505+0.000			-6.651	793.918	-66.68	-5.710	794.545	-3.00	794.717	793.457	1.260	5.710	794.545	-3.00	6.381	794.098	-66.68
506+0.000			-6.741	793.671	-66.68	-5.710	794.358	-3.00	794.530	793.061	1.469	5.710	794.358	-3.00	6.514	793.822	-66.68
507+0.000			-6.898	793.314	-66.68	-5.710	794.106	-3.00	794.277	792.693	1.583	5.710	794.106	-3.00	6.805	793.375	-66.68
508+0.000			-7.112	792.852	-66.67	-5.710	793.787	-3.00	793.958	792.474	1.484	5.710	793.787	-3.00	6.973	792.945	-66.67
509+0.000			-7.039	792.515	-66.67	-5.710	793.402	-3.00	793.573	792.477	1.096	5.710	793.402	-3.00	7.072	792.494	-66.67
510+0.000			-7.315	791.881	-66.67	-5.710	792.951	-3.00	793.122	791.728	1.394	5.710	792.951	-3.00	7.163	791.982	-66.67
511+0.000			-7.407	791.302	-66.67	-5.710	792.434	-3.00	792.605	790.775	1.830	5.710	792.434	-3.00	6.952	791.606	-66.67
512+0.000		PTV	-7.129	790.905	-66.67	-5.710	791.851	-3.00	792.022	790.241	1.782	5.710	791.851	-3.00	6.920	791.045	-66.67
513+0.000			-6.870	790.429	-66.68	-5.710	791.203	-3.00	791.374	789.806	1.568	5.710	791.203	-3.00	6.707	790.538	-66.68
514+0.000			-6.660	789.892	-66.68	-5.710	790.526	-3.00	790.697	789.475	1.222	5.710	790.526	-3.00	6.468	790.020	-66.68
515+0.000			-6.250	789.489	-66.69	-5.710	789.849	-3.00	790.020	789.377	0.643	5.710	789.849	-3.00	6.267	789.478	-66.68
516+0.000			-5.911	789.038	-66.72	-5.710	789.172	-3.00	789.344	788.909	0.435	5.710	789.172	-3.00	5.948	789.013	-66.71
516+18.308	TS					-5.710	788.553	-3.00	788.724	788.094	0.630	5.710	788.724	0.00	5.913	788.589	-66.72
517+0.000			-5.746	788.506	99.13	-5.735	788.495	-3.00	788.667	788.014	0.653	5.710	788.686	0.34	5.930	788.540	-66.71



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
518+0.000			-5.926	787.728	-67.92	-5.918	787.733	-4.34	787.990	787.455	0.535	5.826	788.243	4.34	6.283	787.938	-66.69
518+18.308	SC		-6.304	787.183	99.97	-6.010	786.890	-8.00	787.371	787.048	0.323	6.010	787.851	8.00	6.625	787.441	-66.68
519+0.000			-6.353	787.176	99.97	-6.010	786.833	-8.00	787.313	787.014	0.299	6.010	787.794	8.00	6.649	787.368	-66.68
520+0.000			-6.911	787.057	99.99	-6.010	786.156	-8.00	786.637	786.792	-0.156	6.010	787.117	8.00	6.395	786.861	-66.69
520+6.624			-6.628	786.550	99.98	-6.010	785.932	-8.00	786.412	786.757	-0.345	6.010	786.893	8.00	6.518	786.554	-66.69
521+0.000			-6.709	786.178	99.99	-6.010	785.479	-8.00	785.960	786.032	-0.073	6.010	786.441	8.00	6.806	785.910	-66.68
521+14.940	CS		-6.669	785.633	99.98	-6.010	784.974	-8.00	785.454	785.354	0.100	6.010	785.935	8.00	6.965	785.299	-66.68
522+0.000			-6.735	785.493	99.98	-6.099	784.857	-6.99	785.283	785.142	0.141	5.839	785.691	6.99	6.780	785.064	-66.68
523+0.000			-5.980	784.357	-66.76	-5.870	784.430	-3.00	784.606	784.433	0.173	5.774	784.779	2.99	6.427	784.343	-66.68
523+14.940	ST		-6.127	784.347	99.98	-5.710	783.930	-3.00	784.101	783.859	0.242	5.710	784.101	0.00	6.310	783.701	-66.68
524+0.000			-6.262	784.310	99.98	-5.710	783.758	-3.00	783.930	783.653	0.276	5.710	783.872	-1.01	6.326	783.461	-66.68
525+0.000			-5.790	783.161	99.87	-5.710	783.082	-3.00	783.253	782.815	0.438	5.710	783.082	-3.00	6.491	782.561	-66.68
526+0.000			-5.771	782.364	-66.83	-5.710	782.405	-3.00	782.576	781.975	0.601	5.710	782.405	-3.00	6.436	781.921	-66.68
527+0.000		PCV	-6.384	781.279	-66.68	-5.710	781.728	-3.00	781.899	781.012	0.887	5.710	781.728	-3.00	7.119	780.789	-66.67
528+0.000			-6.379	780.606	-66.68	-5.710	781.052	-3.00	781.224	780.143	1.080	5.710	781.052	-3.00	7.399	779.927	-66.67
529+0.000			-6.167	780.168	-66.69	-5.710	780.473	-3.00	780.644	779.724	0.920	5.710	780.473	-3.00	7.105	779.543	-66.67
530+0.000			-6.826	779.307	-66.68	-5.710	780.051	-3.00	780.222	779.062	1.161	5.710	780.051	-3.00	7.252	779.023	-66.67
531+0.000			-7.220	778.912	-66.67	-5.710	779.919	-0.71	779.959	778.606	1.353	5.710	779.788	-3.00	7.633	778.506	-66.67
531+3.723	TS		-7.345	778.838	-66.67	-5.710	779.928	0.00	779.928	778.560	1.368	5.710	779.756	-3.00	7.788	778.371	-66.67
532+0.000			-8.046	778.508	-66.67	-5.761	780.032	3.09	779.854	778.507	1.347	5.822	779.674	-3.09	7.554	778.519	-66.67
533+0.000			-8.055	778.810	-66.67	-5.809	780.308	6.89	779.907	778.476	1.431	5.971	779.496	-6.89	8.091	778.082	-66.67
533+3.723	SC		-8.214	778.848	-66.67	-5.910	780.384	7.60	779.935	778.291	1.644	5.910	779.485	-7.60	7.692	778.297	-66.67
534+0.000			-8.162	779.066	-66.67	-5.910	780.568	7.60	780.119	778.690	1.429	5.910	779.669	-7.60	7.768	778.431	-66.67
535+0.000			-8.555	779.174	-66.67	-5.910	780.937	7.60	780.488	779.003	1.486	5.910	780.039	-7.60	7.371	779.065	-66.67
536+0.000			-8.444	779.776	-66.67	-5.910	781.465	7.60	781.016	779.765	1.251	5.910	780.567	-7.60	7.063	779.798	-66.68
537+0.000		PTV	-8.645	780.328	-66.67	-5.910	782.151	7.60	781.702	780.751	0.951	5.910	781.253	-7.60	6.845	780.629	-66.68
538+0.000			-9.069	780.879	-66.67	-5.910	782.985	7.60	782.536	782.048	0.487	5.910	782.087	-7.60	6.436	781.736	-66.69
539+0.000			-7.406	782.854	-66.67	-5.910	783.851	7.60	783.402	783.041	0.361	5.910	782.953	-7.60	6.022	782.878	-66.76
540+0.000			-8.247	783.159	-66.67	-5.910	784.717	7.60	784.268	783.937	0.331	5.910	783.819	-7.60	5.969	783.877	99.83
541+0.000			-7.583	784.468	-66.67	-5.910	785.583	7.60	785.134	784.564	0.570	5.910	784.685	-7.60	6.013	784.788	99.90
541+19.734			-7.082	785.656	-66.68	-5.910	786.437	7.60	785.988	785.403	0.585	5.910	785.539	-7.60	6.378	786.007	99.98
542+0.000			-7.064	785.680	-66.68	-5.910	786.449	7.60	786.000	785.418	0.582	5.910	785.551	-7.60	6.385	786.025	99.98
543+0.000			-6.059	787.215	-66.73	-5.910	787.315	7.60	786.866	786.448	0.417	5.910	786.417	-7.60	5.961	786.382	-66.86
544+0.000			-6.151	788.421	99.96	-5.910	788.181	7.60	787.732	787.432	0.300	5.910	787.282	-7.60	6.102	787.154	-66.72
545+0.000		PCV	-6.028	788.968	-66.75	-5.910	789.047	7.60	788.598	788.445	0.153	5.910	788.148	-7.60	6.378	788.617	99.98



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo					Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
546+0.000			-6.261	789.669	-66.70	-5.910	789.903	7.60	789.454	789.660	-0.206	5.910	789.005	-7.60	6.837	789.932	99.99
547+0.000			-6.607	791.322	99.99	-5.910	790.625	7.60	790.176	790.863	-0.687	5.910	789.727	-7.60	7.797	791.613	99.99
548+0.000			-6.987	792.249	99.99	-5.910	791.172	7.60	790.723	792.087	-1.363	5.910	790.274	-7.60	8.393	792.757	100.00
549+0.000			-5.915	791.542	-68.56	-5.910	791.546	7.60	791.097	792.082	-0.985	5.910	790.648	-7.60	8.189	792.926	100.00
550+0.000			-6.090	791.625	-66.72	-5.910	791.745	7.60	791.296	791.667	-0.371	5.910	790.847	-7.60	7.757	792.694	99.99
550+15.745	CS		-5.917	791.775	-68.07	-5.910	791.780	7.60	791.331	791.904	-0.573	5.910	790.881	-7.60	7.718	792.690	99.99
551+0.000			-5.955	791.872	99.94	-5.798	791.715	6.79	791.321	791.971	-0.650	5.976	790.915	-6.79	7.760	792.699	99.99
552+0.000			-6.823	792.413	99.99	-5.755	791.345	2.99	791.172	792.330	-1.157	5.822	790.998	-3.00	7.428	792.604	99.99
552+15.745	ST		-7.293	792.515	99.99	-5.710	790.933	0.00	790.933	792.236	-1.303	5.710	790.761	-3.00	7.516	792.568	99.99
553+0.000			-7.349	792.442	99.99	-5.710	790.803	-0.81	790.849	792.159	-1.310	5.710	790.678	-3.00	7.618	792.586	99.99
554+0.000			-7.152	791.623	99.99	-5.710	790.181	-3.00	790.352	791.384	-1.032	5.710	790.181	-3.00	7.522	791.993	99.99
555+0.000			-6.335	790.135	99.98	-5.710	789.510	-3.00	789.681	789.826	-0.145	5.710	789.656	-0.44	6.420	790.366	99.99
555+2.207	TS		-6.245	789.960	99.98	-5.710	789.425	-3.00	789.596	789.661	-0.064	5.710	789.596	0.00	6.231	790.118	99.98
556+0.000		PTV	-6.050	788.807	99.94	-5.870	788.627	-3.56	788.836	788.464	0.372	5.816	789.043	3.56	5.959	788.948	-66.74
557+0.000			-6.513	787.834	99.98	-6.062	787.383	-7.56	787.841	787.339	0.501	5.922	788.289	7.56	6.528	787.885	-66.68
557+2.207	SC		-6.490	787.728	99.98	-6.010	787.248	-8.00	787.729	787.225	0.504	6.010	788.210	8.00	6.684	787.761	-66.68
558+0.000			-6.600	786.935	99.98	-6.010	786.346	-8.00	786.827	786.354	0.472	6.010	787.307	8.00	6.802	786.780	-66.68
558+7.970			-6.660	786.592	99.98	-6.010	785.942	-8.00	786.422	785.964	0.458	6.010	786.903	8.00	6.602	786.508	-66.68
559+0.000			-6.706	786.028	99.99	-6.010	785.331	-8.00	785.812	785.415	0.397	6.010	786.293	8.00	6.573	785.918	-66.68
559+13.733	CS		-6.796	785.421	99.99	-6.010	784.635	-8.00	785.116	784.794	0.322	6.010	785.597	8.00	6.598	785.205	-66.68
560+0.000			-6.976	785.256	99.99	-6.106	784.386	-6.75	784.798	784.548	0.250	5.814	785.190	6.75	6.188	784.941	-66.69
561+0.000		PCV	-6.632	784.374	99.99	-5.865	783.608	-3.00	783.784	783.649	0.135	5.760	783.942	2.75	6.356	784.538	99.98
561+13.733	ST		-6.501	783.731	99.99	-5.710	782.940	-3.00	783.111	783.082	0.030	5.710	783.111	0.00	6.614	784.015	99.99
562+0.000			-6.464	783.429	99.99	-5.710	782.675	-3.00	782.847	782.846	0.001	5.710	782.775	-1.25	6.698	783.763	99.99
563+0.000			-6.077	782.398	99.97	-5.710	782.031	-3.00	782.203	782.238	-0.035	5.710	782.031	-3.00	6.523	782.844	99.99
564+0.000			-5.933	781.997	99.96	-5.710	781.774	-1.58	781.864	781.784	0.080	5.710	781.693	-3.00	6.095	782.078	99.97
564+7.914	TS		-5.747	781.852	99.73	-5.710	781.815	0.00	781.815	781.636	0.179	5.710	781.644	-3.00	5.821	781.754	99.91
565+0.000		PTV	-6.460	781.493	-66.68	-5.744	781.971	2.42	781.832	781.469	0.363	5.856	781.656	-3.00	6.038	781.535	-66.72
566+0.000			-7.793	781.062	-66.67	-5.788	782.399	6.42	782.028	781.351	0.676	6.107	781.636	-6.42	6.668	781.262	-66.68
566+7.914	SC		-7.922	781.317	-66.67	-6.010	782.591	8.00	782.110	781.371	0.739	6.010	781.629	-8.00	6.287	781.444	-66.70
567+0.000			-6.968	782.079	-66.68	-6.010	782.717	8.00	782.236	781.511	0.725	6.010	781.755	-8.00	6.406	781.491	-66.69
567+10.581			-6.475	782.517	-66.69	-6.010	782.827	8.00	782.347	781.633	0.714	6.010	781.866	-8.00	6.465	781.562	-66.69
568+0.000			-6.185	782.809	-66.72	-6.010	782.926	8.00	782.445	781.861	0.584	6.010	781.964	-8.00	6.144	781.875	-66.74
568+13.249	CS		-6.080	783.017	-66.81	-6.010	783.064	8.00	782.583	782.075	0.508	6.010	782.102	-8.00	6.126	782.218	99.91
569+0.000			-5.905	782.997	-66.77	-5.805	783.064	7.08	782.653	782.253	0.400	6.108	782.221	-7.08	6.209	782.323	99.90



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo								Eixo			Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
570+0.000			-7.002	784.359	99.99	-5.755	783.112	4.35	782.862	782.870	-0.008	5.863	782.607	-4.35	6.033	782.777	99.94
570+13.249	ST	PCV	-7.472	784.906	99.99	-5.710	783.145	2.54	783.000	783.241	-0.241	5.710	782.855	-2.54	6.000	783.145	99.97
571+0.000			-7.426	784.878	99.99	-5.710	783.162	1.61	783.070	783.414	-0.344	5.710	782.978	-1.61	6.049	783.317	99.97
571+19.856	PC		-7.826	785.187	100.00	-5.710	783.071	-1.10	783.134	783.626	-0.492	5.710	783.196	1.10	6.103	783.589	99.97
572+0.000			-7.832	785.191	100.00	-5.710	783.069	-1.12	783.133	783.626	-0.493	5.810	783.198	1.12	6.186	783.574	99.97
573+0.000			-7.684	784.619	99.99	-5.810	782.745	-3.00	782.919	783.237	-0.318	5.810	783.094	3.00	6.005	783.288	99.95
574+0.000		PTV	-6.653	783.098	99.99	-5.810	782.255	-3.00	782.429	782.360	0.069	5.810	782.603	3.00	6.037	782.452	-66.71
575+0.000			-7.153	782.831	99.99	-5.810	781.488	-3.00	781.662	781.019	0.643	5.810	781.836	3.00	6.145	781.613	-66.70
576+0.000			-6.628	781.408	99.99	-5.810	780.590	-3.00	780.764	779.958	0.806	5.810	780.938	3.00	6.416	780.534	-66.68
577+0.000			-5.952	779.833	99.93	-5.810	779.692	-3.00	779.866	779.101	0.765	5.810	780.040	3.00	6.525	779.564	-66.68
577+18.935			-5.903	778.780	-66.77	-5.810	778.842	-3.00	779.016	778.440	0.576	5.810	779.190	3.00	6.399	778.797	-66.68
578+0.000			-5.955	778.697	-66.74	-5.810	778.794	-3.00	778.968	778.402	0.566	5.810	779.142	3.00	6.372	778.767	-66.68
579+0.000			-6.074	777.720	-66.70	-5.810	777.896	-3.00	778.070	777.694	0.377	5.810	778.245	3.00	6.118	778.039	-66.70
580+0.000			-5.976	777.164	99.94	-5.810	776.998	-3.00	777.172	777.093	0.079	5.810	777.347	3.00	6.092	777.158	-66.70
581+0.000			-6.826	777.116	99.99	-5.810	776.100	-3.00	776.274	776.542	-0.268	5.810	776.449	3.00	5.830	776.435	-67.16
582+0.000			-7.058	776.450	99.99	-5.810	775.202	-3.00	775.377	775.431	-0.054	5.810	775.551	3.00	5.910	775.650	99.90
583+0.000			-6.239	774.733	99.98	-5.810	774.304	-3.00	774.479	774.244	0.235	5.810	774.653	3.00	6.543	774.164	-66.68
583+18.014	PT		-5.738	773.631	-67.03	-5.710	773.650	-0.35	773.670	773.095	0.575	5.710	773.690	0.35	6.558	773.124	-66.68
584+0.000			-5.739	773.564	-67.01	-5.710	773.583	0.04	773.581	772.970	0.611	5.710	773.578	-0.04	6.694	772.922	-66.68
584+1.148	TS		-5.945	773.387	-66.71	-5.710	773.544	0.26	773.529	772.897	0.632	5.710	773.514	-0.26	6.773	772.806	-66.68
585+0.000		PCV	-6.443	772.506	-66.68	-5.836	772.911	3.91	772.683	771.724	0.958	5.867	772.453	-3.91	7.203	771.562	-66.67
586+0.000			-7.523	771.245	-66.67	-5.962	772.285	7.78	771.822	770.761	1.060	6.039	771.352	-7.78	6.964	770.736	-66.68
586+1.148	SC		-7.695	771.139	-66.67	-6.010	772.262	8.00	771.782	770.712	1.069	6.010	771.301	-8.00	6.936	770.683	-66.68
587+0.000			-8.823	769.953	-66.67	-6.010	771.829	8.00	771.348	770.105	1.244	6.010	770.867	-8.00	7.327	769.989	-66.67
587+13.131			-9.368	769.537	-66.67	-6.010	771.776	8.00	771.295	770.189	1.106	6.010	770.814	-8.00	7.100	770.088	-66.68
588+0.000			-9.342	769.608	-66.67	-6.010	771.830	8.00	771.349	770.327	1.022	6.010	770.868	-8.00	7.060	770.168	-66.68
589+0.000			-8.467	770.668	-66.67	-6.010	772.306	8.00	771.825	771.044	0.781	6.010	771.344	-8.00	6.827	770.800	-66.68
589+5.115	CS	PTV	-8.291	770.983	-66.67	-6.010	772.504	8.00	772.023	771.304	0.719	6.010	771.542	-8.00	6.774	771.033	-66.68
590+0.000		PCV	-6.762	772.373	-66.68	-5.779	773.029	5.02	772.739	772.100	0.639	6.014	772.437	-5.02	6.255	772.276	-66.71
591+0.000			-6.195	774.273	99.98	-5.713	773.791	1.02	773.732	773.468	0.264	5.783	773.559	-3.00	6.150	773.314	-66.69
591+5.115	ST		-6.314	774.571	99.98	-5.710	773.967	0.00	773.967	773.801	0.165	5.710	773.795	-3.00	6.056	773.565	-66.70
592+0.000			-6.520	775.206	99.99	-5.710	774.396	-2.98	774.566	774.615	-0.049	5.710	774.395	-3.00	5.897	774.581	99.95
593+0.000			-6.392	775.688	99.99	-5.710	775.006	-3.00	775.178	775.308	-0.130	5.710	775.006	-3.00	6.040	775.336	99.97
594+0.000		PTV	-6.400	776.085	99.99	-5.710	775.396	-3.00	775.567	775.766	-0.200	5.710	775.396	-3.00	6.011	775.696	99.97
595+0.000			-6.259	776.119	99.98	-5.710	775.570	-3.00	775.741	775.931	-0.190	5.710	775.570	-3.00	6.384	776.244	99.99



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo					Lado Direito					
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
596+0.000			-5.947	775.919	99.96	-5.710	775.683	-3.00	775.854	775.854	0.000	5.710	775.683	-3.00	6.235	776.208	99.98
597+0.000		PCV	-6.060	776.145	99.97	-5.710	775.795	-3.00	775.966	775.860	0.107	5.710	775.795	-3.00	5.785	775.745	-66.80
598+0.000			-6.171	776.392	99.98	-5.710	775.932	-3.00	776.103	776.014	0.089	5.710	775.932	-3.00	5.844	776.066	99.93
599+0.000			-6.137	776.650	99.98	-5.710	776.223	-3.00	776.394	776.314	0.080	5.710	776.341	-0.94	5.741	776.320	-66.99
599+4.943	TS		-6.143	776.755	99.98	-5.710	776.322	-3.00	776.493	776.418	0.075	5.710	776.493	0.00	5.726	776.483	-67.30
600+0.000			-6.347	777.211	99.98	-5.821	776.685	-3.00	776.860	776.900	-0.040	5.749	777.025	2.86	5.954	776.887	-66.72
601+0.000			-6.717	777.837	99.99	-5.982	777.102	-6.66	777.500	777.694	-0.194	5.785	777.886	6.66	5.997	777.744	-66.71
601+4.943	SC	PTV	-6.664	777.990	99.99	-5.910	777.236	-7.60	777.685	777.868	-0.183	5.910	778.135	7.60	6.146	777.977	-66.71
602+0.000			-6.524	778.455	99.98	-5.910	777.842	-7.60	778.291	778.608	-0.318	5.910	778.740	7.60	6.433	778.391	-66.69
602+14.418			-6.822	779.338	99.99	-5.910	778.426	-7.60	778.875	778.967	-0.092	5.910	779.324	7.60	6.048	779.463	99.93
603+0.000			-6.967	779.709	99.99	-5.910	778.652	-7.60	779.101	779.179	-0.078	5.910	779.550	7.60	6.078	779.718	99.94
604+0.000			-7.444	780.997	99.99	-5.910	779.462	-7.60	779.912	779.977	-0.066	5.910	780.361	7.60	6.208	780.162	-66.70
604+3.894	CS		-7.532	781.242	99.99	-5.910	779.620	-7.60	780.069	780.157	-0.088	5.910	780.518	7.60	6.388	780.199	-66.69
605+0.000			-7.438	781.990	99.99	-5.902	780.454	-4.54	780.722	780.885	-0.163	5.755	780.983	4.54	5.997	780.822	-66.71
606+0.000			-6.826	782.435	99.99	-5.750	781.360	-3.00	781.532	781.849	-0.317	5.709	781.574	0.74	6.225	782.091	99.98
606+3.894	ST		-6.593	782.401	99.99	-5.710	781.519	-3.00	781.690	782.060	-0.370	5.710	781.690	0.00	6.501	782.480	99.99
607+0.000		PCV	-6.798	783.259	99.99	-5.710	782.171	-3.00	782.342	782.582	-0.239	5.710	782.171	-3.00	6.812	783.273	99.99
608+0.000		PCV	-5.837	783.108	99.92	-5.710	782.981	-3.00	783.153	783.036	0.117	5.710	782.981	-3.00	6.252	783.524	99.98
609+0.000			-6.117	784.168	99.98	-5.710	783.761	-2.49	783.903	783.820	0.083	5.710	783.732	-3.00	5.766	783.788	99.82
610+0.000			-6.145	784.977	99.98	-5.710	784.542	0.15	784.534	784.290	0.244	5.710	784.363	-2.99	5.767	784.420	99.82
610+7.672	PC		-6.107	785.207	99.97	-5.710	784.810	1.16	784.744	784.526	0.218	5.710	784.575	-2.96	5.867	784.732	99.94
611+0.000		PTV	-6.038	785.055	-66.71	-5.810	785.207	2.79	785.045	784.797	0.248	5.810	784.876	-2.90	5.942	785.008	99.92
612+0.000		PTV	-6.054	785.447	-66.71	-5.810	785.610	3.00	785.436	785.132	0.305	5.810	785.262	-3.00	6.024	785.476	99.95
612+5.194			-5.968	785.591	-66.73	-5.810	785.697	3.00	785.522	785.221	0.301	5.810	785.348	-3.00	6.107	785.645	99.97
613+0.000			-6.010	785.808	-66.72	-5.810	785.942	3.00	785.768	785.468	0.300	5.810	785.593	-3.00	6.110	785.893	99.97
614+0.000			-6.174	785.944	-66.69	-5.810	786.187	1.52	786.099	785.788	0.311	5.810	785.928	-2.95	6.164	786.281	99.97
614+2.716	PT		-6.065	785.974	-66.69	-5.710	786.210	1.16	786.144	785.836	0.308	5.710	785.975	-2.96	6.055	786.320	99.97
615+0.000			-5.732	786.388	99.54	-5.710	786.367	-1.12	786.430	786.262	0.168	5.710	786.259	-3.00	6.049	786.598	99.97
616+0.000			-6.286	787.166	99.98	-5.710	786.591	-3.00	786.762	786.696	0.066	5.710	786.591	-3.00	6.075	786.956	99.97
617+0.000			-6.436	787.648	99.99	-5.710	786.922	-3.00	787.093	787.355	-0.262	5.710	786.922	-3.00	6.350	787.562	99.98
618+0.000			-7.071	788.614	99.99	-5.710	787.253	-3.00	787.425	787.954	-0.529	5.710	787.253	-3.00	6.402	787.945	99.99
618+19.223	TS		-6.706	788.568	99.99	-5.710	787.572	-3.00	787.743	788.239	-0.495	5.710	787.743	0.00	6.585	788.618	99.99
619+0.000			-6.704	788.567	99.99	-5.721	787.584	-3.00	787.756	788.250	-0.494	5.710	787.765	0.16	6.580	788.635	99.99
620+0.000			-6.567	788.522	99.99	-5.887	787.843	-4.16	788.087	788.448	-0.360	5.844	788.330	4.16	6.429	788.916	99.98
620+19.223	SC		-6.510	788.425	99.98	-6.010	787.925	-8.00	788.406	788.493	-0.087	6.010	788.887	8.00	6.393	789.270	99.97



Nota de Serviço de Terraplanagem - ESTRADA PARAISO - EST.: 0+0,000 a 639+13,172																	
Estaca	Lado Esquerdo						Eixo			Lado Direito							
	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Offset			Borda Plataforma			Cota Projeto	Cota Terreno	Cota Vermelha	Borda Plataforma			Offset		
			Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)				Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
621+0.000		PCV	-6.480	788.408	99.98	-6.010	787.938	-8.00	788.419	788.535	-0.116	6.010	788.900	8.00	6.399	789.289	99.97
621+18.320			-6.401	788.765	99.97	-6.010	788.375	-8.00	788.855	788.791	0.064	6.010	789.336	8.00	6.354	789.680	99.97
622+0.000			-6.398	788.815	99.97	-6.010	788.428	-8.00	788.909	788.828	0.081	6.010	789.390	8.00	6.324	789.703	99.97
622+17.416	CS		-6.216	789.319	99.95	-6.010	789.113	-8.00	789.593	789.222	0.371	6.010	790.074	8.00	6.611	789.674	-66.68
623+0.000			-6.156	789.349	99.89	-6.068	789.261	-7.48	789.716	789.290	0.425	5.909	790.158	7.48	6.730	789.611	-66.68
624+0.000			-7.144	789.786	-66.67	-5.871	790.635	-3.48	790.839	789.986	0.854	5.810	791.042	3.48	6.847	790.350	-66.68
624+17.416	ST		-7.018	791.033	-66.67	-5.710	791.905	-3.00	792.076	790.873	1.203	5.710	792.076	0.00	6.733	791.394	-66.68
625+0.000		PTV	-6.737	791.424	-66.68	-5.710	792.109	-3.00	792.280	791.062	1.218	5.710	792.250	-0.52	6.760	791.550	-66.68
626+0.000			-6.261	793.340	-66.68	-5.710	793.708	-3.00	793.879	792.930	0.949	5.710	793.708	-3.00	6.632	793.093	-66.68
627+0.000			-5.723	795.298	-67.44	-5.710	795.307	-3.00	795.478	795.071	0.407	5.710	795.307	-3.00	6.044	795.641	99.97
628+0.000			-5.792	796.988	99.88	-5.710	796.906	-3.00	797.077	797.102	-0.024	5.710	796.906	-3.00	5.814	796.836	-66.76
629+0.000			-6.362	799.157	99.98	-5.710	798.505	-3.00	798.676	798.907	-0.231	5.710	798.505	-3.00	5.976	798.771	99.96
630+0.000			-6.326	800.720	99.98	-5.710	800.104	-3.00	800.276	800.508	-0.232	5.710	800.257	-0.32	5.738	800.285	99.64
630+1.582	TS	PCV	-6.260	800.780	99.98	-5.710	800.231	-3.00	800.402	800.627	-0.225	5.710	800.402	0.00	5.722	800.394	-67.48
631+0.000			-6.562	802.134	99.98	-6.078	801.650	-3.68	801.874	802.068	-0.194	5.984	802.094	3.68	6.703	801.615	-66.68
632+0.000			-7.631	803.717	99.99	-6.495	802.581	-7.68	803.080	803.138	-0.058	6.255	803.561	7.68	6.812	803.189	-66.68
632+1.582	SC		-7.610	803.831	99.99	-6.410	802.632	-8.00	803.145	803.224	-0.079	6.410	803.658	8.00	6.834	803.375	-66.69
633+0.000			-7.684	804.333	99.99	-6.410	803.059	-8.00	803.572	804.847	-1.275	6.410	804.085	8.00	6.785	803.835	-66.69
633+3.433			-7.620	804.282	99.99	-6.410	803.072	-8.00	803.585	804.770	-1.185	6.410	804.098	8.00	6.766	803.860	-66.69
634+0.000			-7.258	803.686	99.99	-6.410	802.838	-8.00	803.351	803.160	0.191	6.410	803.864	8.00	6.896	803.540	-66.69
634+5.283	CS	PTV	-7.165	803.415	99.99	-6.410	802.660	-8.00	803.173	803.103	0.071	6.410	803.686	8.00	7.131	803.205	-66.68
635+0.000			-6.898	802.571	99.98	-6.419	802.092	-5.06	802.417	802.614	-0.198	5.863	802.713	5.06	6.160	802.516	-66.70
636+0.000			-6.585	801.685	99.99	-5.884	800.984	-3.00	801.161	801.689	-0.529	5.719	801.221	1.06	5.807	801.310	99.89
636+5.283	ST		-6.425	801.373	99.99	-5.710	800.658	-3.00	800.829	801.459	-0.630	5.710	800.829	0.00	5.974	801.093	99.96
637+0.000			-7.275	801.298	99.99	-5.710	799.734	-3.00	799.905	800.534	-0.629	5.710	799.737	-2.94	6.191	800.217	99.98
638+0.000			-7.263	800.031	99.99	-5.710	798.478	-3.00	798.649	799.194	-0.545	5.710	798.478	-3.00	6.147	798.914	99.98
639+0.000			-7.076	798.587	99.99	-5.710	797.222	-3.00	797.393	797.707	-0.314	5.710	797.222	-3.00	6.114	797.625	99.98
639+13.172			-6.546	797.231	99.99	-5.710	796.395	-3.00	796.566	796.566	0.000	5.710	796.395	-3.00	6.051	796.735	99.97



LEVANTAMENTO - ELEMENTOS GEOMÉTRICOS



ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO

Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
T-1	113° 47' 59,29"	-	-	-	-	-	468,025	-	0+0,000	23+8,025	N	-	7982693,061	7982504,193
											E	-	200834,577	201262,802
S-1	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	23+8,025	25+8,025	N	-	7982504,193	7982504,193
											E	-	201262,802	201262,802
C-1	12° 29' 46"	-	25,181	-	-	230,000	50,163	12° 29' 46,35"	25+8,025	27+18,188	N	7982477,672	7982489,123	7982478,229
											E	201322,933	201299,840	201348,704
S-2	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	27+18,188	29+18,188	N	-	7982478,229	7982478,229
											E	-	201348,704	201348,704
T-2	91° 20' 20,79"	-	-	-	-	-	160,750	-	29+18,188	37+18,939	N	-	7982476,136	7982472,379
											E	-	201388,636	201549,342
C-2	2° 52' 55"	-	30,185	-	-	1200,000	60,357	2° 52' 54,53"	37+18,939	40+19,295	N	7982471,674	7982472,379	7982469,452
											E	201579,518	201549,342	201609,621
T-3	94° 13' 15,33"	-	-	-	-	-	49,774	-	40+19,295	43+9,069	N	-	7982469,452	7982465,789
											E	-	201609,621	201659,260
S-3	6° 44' 26"	40,000	-	26,686	13,351	-	40,000	-	43+9,069	45+9,069	N	-	7982465,789	7982465,789
											E	-	201659,260	201659,260
C-3	40° 28' 04"	-	62,662	-	-	170,000	120,070	40° 28' 04,02"	45+9,069	51+9,139	N	7982457,934	7982464,412	7982509,892
											E	201765,685	201699,212	201807,651
S-4	6° 44' 26"	40,000	-	26,686	13,351	-	40,000	-	51+9,139	53+9,139	N	-	7982509,892	7982509,892
											E	-	201807,651	201807,651
T-4	40° 16' 18,41"	-	-	-	-	-	184,589	-	53+9,139	62+13,728	N	-	7982539,356	7982680,195
											E	-	201834,667	201953,988
S-5	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	62+13,728	64+13,728	N	-	7982680,195	7982680,195
											E	-	201953,988	201953,988
C-4	26° 03' 05"	-	53,208	-	-	230,000	104,577	26° 03' 05,23"	64+13,728	69+18,305	N	7982752,569	7982709,942	7982764,454
											E	202015,304	201980,709	202068,901
S-6	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	69+18,305	71+18,305	N	-	7982764,454	7982764,454
											E	-	202068,901	202068,901
T-5	76° 17' 15,78"	-	-	-	-	-	409,969	-	71+18,305	92+8,275	N	-	7982775,054	7982872,236
											E	-	202107,457	202505,741
C-5	3° 13' 40"	-	56,353	-	-	2000,000	112,676	3° 13' 40,50"	92+8,275	98+0,950	N	7982885,594	7982872,236	7982895,848
											E	202560,488	202505,741	202615,900
T-6	79° 30' 56,28"	-	-	-	-	-	278,850	-	98+0,950	111+19,800	N	-	7982895,848	7982946,590
											E	-	202615,900	202890,094
C-6	5° 10' 50"	-	54,288	-	-	1200,000	108,503	5° 10' 50,27"	111+19,800	117+8,303	N	7982956,469	7982946,590	7982971,127
											E	202943,476	202890,094	202995,748
T-7	74° 20' 06,01"	-	-	-	-	-	296,853	-	117+8,303	132+5,156	N	-	7982971,127	7983051,281
											E	-	202995,748	203281,575
S-7	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	132+5,156	134+5,156	N	-	7983051,281	7983051,281
											E	-	203281,575	203281,575
C-7	2° 58' 37"	-	9,095	-	-	350,000	18,185	2° 58' 37,10"	134+5,156	135+3,342	N	7983064,559	7983062,812	7983069,158
											E	203328,922	203319,871	203336,911
S-8	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	135+3,342	137+3,342	N	-	7983069,158	7983069,158
											E	-	203336,911	203336,911

ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO

Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
T-8	64° 48' 35,79"	-	-	-	-	-	38,939	-	137+3,342	139+2,281	N	-	7983085,488	7983102,061
											E	-	203373,419	203408,655
S-9	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	139+2,281	141+2,281	N	-	7983102,061	7983102,061
											E	-	203408,655	203408,655
C-8	19° 38' 20"	-	51,924	-	-	300,000	102,829	19° 38' 20,27"	141+2,281	146+5,110	N	7983141,579	7983118,275	7983138,764
											E	203492,672	203445,213	203545,468
S-10	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	146+5,110	148+5,110	N	-	7983138,764	7983138,764
											E	-	203545,468	203545,468
T-9	92° 05' 18,03"	-	-	-	-	-	184,672	-	148+5,110	157+9,782	N	-	7983138,195	7983131,466
											E	-	203585,456	203770,005
T-10	93° 07' 40,76"	-	-	-	-	-	220,938	-	157+9,782	168+10,720	N	-	7983131,466	7983119,410
											E	-	203770,005	203990,614
S-11	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	168+10,720	170+10,720	N	-	7983119,410	7983119,410
											E	-	203990,614	203990,614
C-9	5° 42' 30"	-	17,450	-	-	350,000	34,871	5° 42' 30,45"	170+10,720	172+5,591	N	7983116,267	7983117,989	7983119,813
											E	204048,126	204030,583	204065,392
S-12	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	172+5,591	174+5,591	N	-	7983119,813	7983119,813
											E	-	204065,392	204065,392
T-11	80° 52' 17,19"	-	-	-	-	-	136,470	-	174+5,591	181+2,061	N	-	7983125,405	7983147,056
											E	-	204104,993	204239,735
S-13	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	181+2,061	183+2,061	N	-	7983147,056	7983147,056
											E	-	204239,735	204239,735
C-10	9° 02' 08"	-	18,173	-	-	230,000	36,271	9° 02' 07,63"	183+2,061	184+18,332	N	7983156,342	7983154,541	7983166,115
											E	204297,525	204279,014	204313,349
S-14	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	184+18,332	186+18,332	N	-	7983166,115	7983166,115
											E	-	204313,349	204313,349
T-12	61° 52' 17,42"	-	-	-	-	-	9,116	-	186+18,332	187+7,448	N	-	7983183,937	7983188,235
											E	-	204349,144	204357,184
S-15	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	187+7,448	189+7,448	N	-	7983188,235	7983188,235
											E	-	204357,184	204357,184
C-11	23° 15' 51"	-	47,346	-	-	230,000	93,388	23° 15' 51,00"	189+7,448	194+0,836	N	7983230,057	7983206,057	7983224,570
											E	204435,417	204392,980	204483,861
S-16	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	194+0,836	196+0,836	N	-	7983224,570	7983224,570
											E	-	204483,861	204483,861
T-13	95° 06' 00,56"	-	-	-	-	-	392,027	-	196+0,836	215+12,863	N	-	7983222,171	7983187,321
											E	-	204523,776	204914,251
S-17	9° 32' 57"	40,000	-	26,706	13,369	-	40,000	-	215+12,863	217+12,863	N	-	7983187,321	7983187,321
											E	-	204914,251	204914,251
C-12	46° 48' 09"	-	51,932	-	-	120,000	98,023	46° 48' 09,34"	217+12,863	222+10,887	N	7983178,598	7983181,566	7983122,814
											E	205011,985	204953,785	205028,846
S-18	9° 32' 57"	40,000	-	26,706	13,369	-	40,000	-	222+10,887	224+10,887	N	-	7983122,814	7983122,814
											E	-	205028,846	205028,846
T-14	161° 00' 04,84"	-	-	-	-	-	193,441	-	224+10,887	234+4,327	N	-	7983085,820	7982902,917
											E	-	205043,929	205106,903

ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO

Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
S-19	2° 32' 47"	40,000	-	26,669	13,336	-	40,000	-	234+4,327	236+4,327	N	-	7982902,917	7982902,917
											E	-	205106,903	205106,903
C-13	9° 43' 16"	-	38,267	-	-	450,000	76,350	9° 43' 16,18"	236+4,327	240+0,677	N	7982828,675	7982864,911	7982790,208
											E	205132,464	205119,362	205134,685
S-20	2° 32' 47"	40,000	-	26,669	13,336	-	40,000	-	240+0,677	242+0,677	N	-	7982790,208	7982790,208
											E	-	205134,685	205134,685
T-15	175° 48' 55,67"	-	-	-	-	-	345,511	-	242+0,677	259+6,188	N	-	7982750,365	7982405,775
											E	-	205138,194	205163,405
S-21	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	259+6,188	261+6,188	N	-	7982405,775	7982405,775
											E	-	205163,405	205163,405
C-14	2° 41' 49"	-	8,239	-	-	350,000	16,474	2° 41' 48,63"	261+6,188	262+2,662	N	7982357,592	7982365,839	7982349,367
											E	205166,931	205165,564	205165,438
S-22	3° 16' 27"	40,000	-	26,671	13,337	-	40,000	-	262+2,662	264+2,662	N	-	7982349,367	7982349,367
											E	-	205165,438	205165,438
T-16	185° 03' 37,42"	-	-	-	-	-	201,506	-	264+2,662	274+4,169	N	-	7982309,469	7982108,748
											E	-	205162,669	205144,895
S-23	7° 38' 22"	40,000	-	26,692	13,356	-	40,000	-	274+4,169	276+4,169	N	-	7982108,748	7982108,748
											E	-	205144,895	205144,895
C-15	40° 19' 58"	-	55,089	-	-	150,000	105,591	40° 19' 57,92"	276+4,169	281+9,760	N	7982009,807	7982068,818	7981973,437
											E	205136,134	205143,142	205183,130
S-24	7° 38' 22"	40,000	-	26,692	13,356	-	40,000	-	281+9,760	283+9,760	N	-	7981973,437	7981973,437
											E	-	205183,130	205183,130
T-17	129° 26' 55,55"	-	-	-	-	-	60,294	-	283+9,760	286+10,054	N	-	7981946,696	7981908,385
											E	-	205212,834	205259,393
S-25	6° 21' 58"	40,000	-	26,684	13,349	-	40,000	-	286+10,054	288+10,054	N	-	7981908,385	7981908,385
											E	-	205259,393	205259,393
C-16	30° 38' 39"	-	49,317	-	-	180,000	96,272	30° 38' 39,46"	288+10,054	293+6,326	N	7981850,103	7981884,144	7981855,126
											E	205330,224	205291,183	205381,778
S-26	6° 21' 58"	40,000	-	26,684	13,349	-	40,000	-	293+6,326	295+6,326	N	-	7981855,126	7981855,126
											E	-	205381,778	205381,778
T-18	86° 04' 19,47"	-	-	-	-	-	630,805	-	295+6,326	326+17,131	N	-	7981856,386	7981899,598
											E	-	205421,736	206051,059
S-27	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	326+17,131	328+17,131	N	-	7981899,598	7981899,598
											E	-	206051,059	206051,059
C-17	7° 09' 58"	-	18,785	-	-	300,000	37,521	7° 09' 57,86"	328+17,131	330+14,652	N	7981903,639	7981901,450	7981899,177
											E	206109,925	206091,009	206128,437
S-28	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	330+14,652	332+14,652	N	-	7981899,177	7981899,177
											E	-	206128,437	206128,437
T-19	100° 52' 39,31"	-	-	-	-	-	957,594	-	332+14,652	380+12,246	N	-	7981892,505	7981711,796
											E	-	206167,868	207108,257
S-29	10° 25' 03"	40,000	-	26,713	13,375	-	40,000	-	380+12,246	382+12,246	N	-	7981711,796	7981711,796
											E	-	207108,257	207108,257
C-18	30° 00' 04"	-	29,476	-	-	110,000	57,598	30° 00' 04,41"	382+12,246	385+9,844	N	7981698,107	7981701,897	7981668,190
											E	207179,493	207146,952	207192,846

ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO

Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
S-30	10° 25' 03"	40,000	-	26,713	13,375	-	40,000	-	385+9,844	387+9,844	N	-	7981668,190	7981668,190
											E	-	207192,846	207192,846
T-20	151° 42' 49,11"	-	-	-	-	-	300,068	-	387+9,844	402+9,912	N	-	7981634,229	7981369,992
											E	-	207213,868	207356,064
S-31	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	402+9,912	404+9,912	N	-	7981369,992	7981369,992
											E	-	207356,064	207356,064
C-19	28° 16' 47"	-	57,942	-	-	230,000	113,522	28° 16' 47,10"	404+9,912	410+3,434	N	7981282,075	7981335,344	7981259,294
											E	207403,376	207376,025	207458,754
S-32	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	410+3,434	412+3,434	N	-	7981259,294	7981259,294
											E	-	207458,754	207458,754
T-21	113° 28' 09,87"	-	-	-	-	-	113,588	-	412+3,434	417+17,022	N	-	7981242,313	7981197,075
											E	-	207494,956	207599,147
S-33	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	417+17,022	419+17,022	N	-	7981197,075	7981197,075
											E	-	207599,147	207599,147
C-20	5° 57' 37"	-	11,974	-	-	230,000	23,926	5° 57' 37,30"	419+17,022	421+0,949	N	7981176,283	7981180,094	7981167,622
											E	207647,034	207635,349	207655,755
S-34	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	421+0,949	423+0,949	N	-	7981167,622	7981167,622
											E	-	207655,755	207655,755
T-22	129° 23' 39,30"	-	-	-	-	-	75,770	-	423+0,949	426+16,719	N	-	7981143,151	7981095,063
											E	-	207687,379	207745,934
S-35	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	426+16,719	428+16,719	N	-	7981095,063	7981095,063
											E	-	207745,934	207745,934
C-21	7° 36' 52"	-	15,306	-	-	230,000	30,566	7° 36' 52,04"	428+16,719	430+7,286	N	7981059,775	7981068,800	7981046,036
											E	207788,904	207776,087	207796,452
S-36	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	430+7,286	432+7,286	N	-	7981046,036	7981046,036
											E	-	207796,452	207796,452
T-23	146° 58' 23,49"	-	-	-	-	-	255,372	-	432+7,286	445+2,657	N	-	7981013,157	7980799,049
											E	-	207819,209	207958,394
T-24	145° 47' 21,58"	-	-	-	-	-	512,400	-	445+2,657	470+15,058	N	-	7980799,049	7980375,306
											E	-	207958,394	208246,485
S-37	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	470+15,058	472+15,058	N	-	7980375,306	7980375,306
											E	-	208246,485	208246,485
C-22	17° 18' 31"	-	35,007	-	-	230,000	69,481	17° 18' 30,82"	472+15,058	476+4,539	N	7980312,569	7980342,904	7980296,452
											E	208289,138	208269,916	208321,230
S-38	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	476+4,539	478+4,539	N	-	7980296,452	7980296,452
											E	-	208321,230	208321,230
T-25	118° 30' 58,62"	-	-	-	-	-	256,832	-	478+4,539	491+1,371	N	-	7980276,351	7980153,737
											E	-	208355,798	208581,472
S-39	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	491+1,371	493+1,371	N	-	7980153,737	7980153,737
											E	-	208581,472	208581,472
C-23	36° 47' 37"	-	76,497	-	-	230,000	147,699	36° 47' 36,90"	493+1,371	500+9,070	N	7980096,663	7980135,674	7980122,675
											E	208686,518	208617,146	208761,737
S-40	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	500+9,070	502+9,070	N	-	7980122,675	7980122,675
											E	-	208761,737	208761,737

ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO

Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
T-26	71° 45' 29,58"	-	-	-	-	-	289,238	-	502+9,070	516+18,308	N	-	7980134,086	7980224,625
											E	-	208800,060	209074,762
S-41	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	516+18,308	518+18,308	N	-	7980224,625	7980224,625
											E	-	209074,762	209074,762
C-24	14° 06' 28"	-	28,460	-	-	230,000	56,632	14° 06' 28,15"	518+18,308	521+14,940	N	7980246,254	7980238,237	7980266,719
											E	209140,386	209112,361	209161,144
S-42	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	521+14,940	523+14,940	N	-	7980266,719	7980266,719
											E	-	209161,144	209161,144
T-27	47° 41' 09,29"	-	-	-	-	-	148,783	-	523+14,940	531+3,723	N	-	7980292,770	7980392,930
											E	-	209191,481	209301,501
S-43	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	531+3,723	533+3,723	N	-	7980392,930	7980392,930
											E	-	209301,501	209301,501
C-25	67° 13' 52"	-	199,437	-	-	300,000	352,022	67° 13' 52,37"	533+3,723	550+15,745	N	7980561,112	7980419,188	7980447,439
											E	209486,240	209331,664	209662,632
S-44	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	550+15,745	552+15,745	N	-	7980447,439	7980447,439
											E	-	209662,632	209662,632
T-36	122° 33' 23,63"	-	-	-	-	-	46,462	-	552+15,745	555+2,207	N	-	7980426,672	7980401,669
											E	-	209696,810	209735,970
S-45	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	555+2,207	557+2,207	N	-	7980401,669	7980401,669
											E	-	209735,970	209735,970
C-26	12° 50' 09"	-	25,871	-	-	230,000	51,526	12° 50' 08,72"	557+2,207	559+13,733	N	7980365,921	7980381,137	7980362,579
											E	209791,962	209770,283	209818,236
S-46	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	559+13,733	561+13,733	N	-	7980362,579	7980362,579
											E	-	209818,236	209818,236
T-28	99° 45' 22,78"	-	-	-	-	-	54,181	-	561+13,733	564+7,914	N	-	7980354,664	7980345,483
											E	-	209857,431	209910,828
S-47	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	564+7,914	566+7,914	N	-	7980345,483	7980345,483
											E	-	209910,828	209910,828
C-27	11° 17' 37"	-	22,741	-	-	230,000	45,335	11° 17' 36,68"	566+7,914	568+13,249	N	7980334,771	7980337,568	7980321,801
											E	209973,127	209950,023	209992,450
S-48	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	568+13,249	570+13,249	N	-	7980321,801	7980321,801
											E	-	209992,450	209992,450
T-29	121° 00' 51,59"	-	-	-	-	-	26,607	-	570+13,249	571+19,856	N	-	7980302,200	7980288,491
											E	-	210027,303	210050,106
C-28	11° 22' 16"	-	119,471	-	-	1200,000	238,158	11° 22' 16,29"	571+19,856	583+18,014	N	7980226,933	7980288,491	7980186,771
											E	210152,498	210050,106	210265,016
T-30	109° 38' 35,30"	-	-	-	-	-	3,134	-	583+18,014	584+1,148	N	-	7980186,771	7980185,718
											E	-	210265,016	210267,968
S-49	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	584+1,148	586+1,148	N	-	7980185,718	7980185,718
											E	-	210267,968	210267,968
C-29	15° 56' 06"	-	32,192	-	-	230,000	63,968	15° 56' 06,30"	586+1,148	589+5,115	N	7980161,195	7980171,190	7980136,844
											E	210336,672	210305,222	210358,943
S-50	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	589+5,115	591+5,115	N	-	7980136,844	7980136,844
											E	-	210358,943	210358,943



ELEMENTOS GEOMÉTRICOS - ESTRADA PARAÍSO														
Nº	DEFLEXÃO/AZIMUTE	LC (m)	TT (m)	TL (m)	TC (m)	R (m)	D/L (m)	AC	TE-PC	ET-PT	PONTO	PI	TE-PC	ET-PT
T-31	135° 32' 33,74"	-	-	-	-	-	159,828	-	591+5,115	599+4,943	N	-	7980109,126	7979995,045
											E	-	210387,764	210499,703
S-51	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	599+4,943	601+4,943	N	-	7979995,045	7979995,045
											E	-	210499,703	210499,703
C-30	11° 15' 32"	-	29,571	-	-	300,000	58,951	11° 15' 31,79"	601+4,943	604+3,894	N	7979945,108	7979967,130	7979932,457
											E	210548,704	210528,340	210575,899
S-52	3° 49' 11"	40,000	-	26,673	13,339	-	40,000	-	604+3,894	606+3,894	N	-	7979932,457	7979932,457
											E	-	210575,899	210575,899
T-32	116° 38' 39,98"	-	-	-	-	-	83,778	-	606+3,894	610+7,672	N	-	7979913,733	7979876,162
											E	-	210611,237	210686,118
C-31	3° 34' 59"	-	37,534	-	-	1200,000	75,044	3° 34' 59,18"	610+7,672	614+2,716	N	7979859,330	7979876,162	7979840,434
											E	210719,667	210686,118	210752,098
T-33	120° 13' 39,16"	-	-	-	-	-	96,507	-	614+2,716	618+19,223	N	-	7979840,434	7979791,849
											E	-	210752,098	210835,483
S-53	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	618+19,223	620+19,223	N	-	7979791,849	7979791,849
											E	-	210835,483	210835,483
C-32	9° 30' 52"	-	19,141	-	-	230,000	38,194	9° 30' 52,19"	620+19,223	622+17,416	N	7979761,883	7979772,728	7979759,375
											E	210886,912	210870,601	210906,338
S-54	4° 58' 56"	40,000	-	26,677	13,343	-	40,000	-	622+17,416	624+17,416	N	-	7979759,375	7979759,375
											E	-	210906,338	210906,338
T-34	100° 44' 54,82"	-	-	-	-	-	104,166	-	624+17,416	630+1,582	N	-	7979750,782	7979731,355
											E	-	210945,390	211047,729
S-55	11° 27' 33"	40,000	-	26,723	13,384	-	40,000	-	630+1,582	632+1,582	N	-	7979731,355	7979731,355
											E	-	211047,729	211047,729
C-33	25° 02' 19"	-	22,205	-	-	100,000	43,701	25° 02' 18,89"	632+1,582	634+5,283	N	7979719,280	7979726,538	7979736,459
											E	211111,340	211087,366	211129,569
S-56	11° 27' 33"	40,000	-	26,723	13,384	-	40,000	-	634+5,283	636+5,283	N	-	7979736,459	7979736,459
											E	-	211129,569	211129,569
T-35	52° 47' 30,01"	-	-	-	-	-	67,889	-	636+5,283	639+13,172	N	-	7979758,434	7979799,487
											E	-	211162,908	211216,977



LEVANTAMENTO - RESUMO GERAL DISTRIBUIÇÃO DE MATERIAIS





PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO															REVISÃO:1	
Est.: 0+0,00 a 639+13,172 - Extensão: 12,79 km															DATA	
RESUMO GERAL DE DISTRIBUIÇÃO DE MATERIAIS															jul/24	
ITEM	TRANSPORTE		DISTRIBUIÇÃO POR FAIXA DE DISTÂNCIA DE TRANSPORTE (m³)										BOTA-FORA (m³)	ATERRO (m³)		
	INTERVALOS	COMP. LATERAL	1ª CAT.	2ª CAT.	3ª CAT.	EMPRÉST.	REMOÇÃO MATERIAL ROCHOSO	REMOÇÃO MATERIAL MOLE	CAIXA DE ESPERA	TOTAL	% VOL. POR FAIXA	% VOL. ACUM. POR FAIXA		VOL. ATERRO P.I.	VOL. ATERRO P.N.	TOTAL
1	0	4.765,31	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4.765,31	8%	8%	0,00	819,23	3.397,86	4.217,09
2	0 - 50	0,00	41,06	0,00	0,00	8.000,00	0,00	0,00	0,00	8.041,06	13%	20%	0,00	2.752,91	4.363,07	7.115,98
3	51 - 200	0,00	2.072,38	0,00	0,00	4.000,00	0,00	0,00	0,00	6.072,38	10%	30%	0,00	4.409,82	963,97	5.373,79
4	201 - 400	0,00	1.632,50	0,00	0,00	0,00	0,00	0,00	0,00	1.632,50	3%	32%	0,00	1.097,60	347,09	1.444,69
5	401 - 600	0,00	8.537,32	0,00	0,00	9.332,91	0,00	0,00	0,00	17.870,23	28%	61%	0,00	10.412,17	5.402,19	15.814,36
6	601 - 800	0,00	3.708,53	0,00	0,00	3.954,77	0,00	0,00	0,00	7.663,30	12%	73%	0,00	3.682,32	3.099,36	6.781,68
7	801 - 1000	0,00	907,06	0,00	0,00	0,00	0,00	0,00	0,00	907,06	1%	74%	0,00	802,70	0,00	802,70
8	1001 - 1200	0,00	3.960,40	0,00	0,00	1.479,72	0,00	0,00	0,00	5.440,12	9%	83%	0,00	4.296,26	518,01	4.814,27
9	1201 - 1400	0,00	384,38	0,00	0,00	0,00	0,00	0,00	0,00	384,38	1%	84%	0,00	227,91	112,25	340,16
10	1401 - 1601	0,00	7.317,59	0,00	0,00	0,00	0,00	0,00	0,00	7.317,59	12%	95%	0,00	1.831,20	4.644,55	6.475,74
11	1601 - 1800	0,00	0,00	0,00	0,00	1.744,77	0,00	0,00	0,00	1.744,77	3%	98%	0,00	3,05	1.540,99	1.544,05
12	1801 - 2000	0,00	1.335,71	0,00	0,00	0,00	0,00	0,00	0,00	1.335,71	2%	100%	0,00	1.182,04	0,00	1.182,04
13	2001 - 2500	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0%	100%	0,00	0,00	0,00	0,00
14	2501 - 3000	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0%	100%	0,00	0,00	0,00	0,00
15	3001 - 5000	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0%	100%	0,00	0,00	0,00	0,00
TOTAL		4.765,31	29.896,93	0,00	0,00	28.512,18	0,00	0,00	0,00	63.174,42	100%	100%	0,00	31.517,23	24.389,34	55.906,57
PERCENTUAL		7,54%	47,32%	0,00%	0,00%	45,13%	0,00%	0,00%	0,00%	100,00%			0,00%	56,37%	43,63%	100,00%
PARÂMETROS GEOTÉCNICOS PARA SELEÇÃO DOS MATERIAIS										C.B.R (%)		EXPANSÃO	VOLUME TOTAL DE ATERRO COMPACTADO (m³)			55.906,57
MATERIAIS INDICADOS PARA UTILIZAÇÃO NO CORPO DE ATERRO										>2	<4	VOLUME				
MATERIAIS INDICADOS PARA CAMADA FINAL DO ATERRO										>9	<2	VOLUME DE ATERRO DA PISTA COMPACTADO A P.N. (m³)			24.389,34	
MATERIAIS SATISFATÓRIOS COMO SUB-LEITO										>9	<2	VOLUME TRANSPORTADO DESTINADO A BOTA-FORA (m³)			0,00	
MATERIAIS NÃO ADEQUADO PARA TERRAPLENAGEM (BOTA FORA)										<1	>4	VOLUME TOTAL DE ATERRO COMPACTADO A P.N. (m³)			24.389,34	
CORPO DE ATERROS										P.N.		VOLUME DE ATERRO COMPACTADO A P.I. (m³)			31.517,23	
ACABAMENTO DE TERRAPLENAGEM										P.I.		VOLUME DE SUBLEITO DE ATERRO COMPACTADO A P.I. (m³)			29.450,75	
ESCAVAÇÃO MÉDIA POR KM (m³/km)										4.939,36		VOLUME TOTAL DE ATERRO COMPACTADO A P.I. (m³)			60.967,98	
FATOR DE COMPACTAÇÃO										1,13		VOLUME MÉDIO DE ATERRO POR KM (m³/km)			4.371,12	



LEVANTAMENTO - CÁLCULO DISTRIBUIÇÃO DE MASSA





PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO															REVISÃO: 1									
Est.: 0+0,00 a 639+13,172															DATA									
QUADRO DA DISTRIBUIÇÃO DE MASSA															jul/24									
ORDEM	ORIGEM DO MATERIAL ESCAVADO										D.M.T. (m)	MOMENTO (m3xkm)	DESTINO DO MATERIAL ESCAVADO											
	LOCALIZAÇÃO				O-Especificação	ESCAVAÇÃO TIPO	1ª Categoria	2ª Categoria	3ª Categoria	TOTAL USADO			TOTAL	LOCALIZAÇÃO				D -ESPECIFICAÇÃO	UTILIZAÇÃO					
	ESTACA INICIAL		ESTACA FINAL											DIST. EIXO "a" (m)	ESTACA INICIAL		ESTACA FINAL			DIST. EIXO "a" (m)				
Inteira	Fração	Inteira	Fração			Inteira	Fração	Inteira	Fração															
1	1	+	0,000	7	+	0,000	0,00	Compensação Lateral	CL 01	28,91	0,00	0,00	0,00	0,00	0,00	1,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
2	11	+	0,000	21	+	0,000	0,00	Compensação Lateral	CL 02	102,58	0,00	0,00	0,00	102,58	102,58	1,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
3	42	+	0,000	47	+	0,000	0,00	Compensação Lateral	CL 03	62,23	0,00	0,00	0,00	62,23	62,23	1,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
4	1	+	0,000	6	+	0,000	0,00	Corte	Corte 01	96,76	0,00	0,00	0,00	96,76	96,76	1,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
5	15	+	0,000	16	+	0,000	0,00	Corte	Corte 02	98,47	0,00	0,00	0,00	98,47	98,47	1,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
6	47	+	0,000	60	+	0,000	0,00	Corte	Corte 03	1628,82	0,00	0,00	0,00	1628,82	1657,15	590,00	+	0,000	47,00	+	0,000	0,00	Corpo	Aterro 01
7	47	+	0,000	60	+	0,000	0,00	Corte	Corte 03	28,33	0,00	0,00	0,00	28,33	0,00	590,00	+	0,000	47,00	+	0,000	0,00	Camada Final	Aterro 01
8	75	+	0,000	92	+	0,000	0,00	Corte	Corte 04	2574,96	0,00	0,00	0,00	2574,96	2574,96	1190,00	+	0,000	47,00	+	0,000	0,00	Camada Final	Aterro 01
9	97	+	0,000	97	+	0,000	0,00	Corte	Corte 05	34,57	0,00	0,00	0,00	34,57	34,57	1460,00	+	0,000	47,00	+	0,000	0,00	Camada Final	Aterro 01
10	106	+	0,000	142	+	0,000	0,00	Corte	Corte 06	720,96	0,00	0,00	0,00	720,96	2199,07	2000,00	+	0,000	47,00	+	0,000	0,00	Camada Final	Aterro 01
11	50	+	0,000	78	+	0,000	0,00	Compensação Lateral	CL 04	198,69	0,00	0,00	0,00	198,69	470,48	0,00	+	0,000	50,00	+	0,000	0,00	Corpo	Aterro 02
12	50	+	0,000	78	+	0,000	0,00	Compensação Lateral	CL 04	271,79	0,00	0,00	0,00	271,79	0,00	0,00	+	0,000	50,00	+	0,000	0,00	Camada Final	Aterro 02
13	106	+	0,000	142	+	0,000	0,00	Corte	Corte 06	1312,27	0,00	0,00	0,00	1312,27	0,00	1200,00	+	0,000	78,00	+	0,000	0,00	Camada Final	Aterro 02
14	82	+	0,000	86	+	0,000	0,00	Compensação Lateral	CL 05	8,14	0,00	0,00	0,00	8,14	8,14	0,00	+	0,000	82,00	+	0,000	0,00	Camada Final	Aterro 03
15	92	+	0,000	98	+	0,000	0,00	Compensação Lateral	CL 06	46,89	0,00	0,00	0,00	46,89	46,89	0,00	+	0,000	92,00	+	0,000	0,00	Corpo	Aterro 04
16	103	+	0,000	106	+	0,000	0,00	Compensação Lateral	CL 07	28,72	0,00	0,00	0,00	28,72	28,72	0,00	+	0,000	92,00	+	0,000	0,00	Corpo	Aterro 04
17	106	+	0,000	142	+	0,000	0,00	Corte	Corte 06	165,84	0,00	0,00	0,00	165,84	0,00	500,00	+	0,000	82,92	+	0,000	0,00	Corpo	Aterro 04
18	156	+	0,000	157	+	0,000	0,00	Corte	Corte 07	73,18	0,00	0,00	0,00	73,18	73,18	1150,00	+	0,000	84,15	+	0,000	0,00	Corpo	Aterro 04
19	161	+	0,000	167	+	0,000	0,00	Corte	Corte 08	126,84	0,00	0,00	0,00	126,84	240,15	1300,00	+	0,000	92,00	+	0,000	0,00	Corpo	Aterro 04
20	161	+	0,000	167	+	0,000	0,00	Corte	Corte 08	113,31	0,00	0,00	0,00	113,31	0,00	1300,00	+	0,000	147,30	+	0,000	0,00	Camada Final	Aterro 04
21	171	+	0,000	180	+	0,000	0,00	Corte	Corte 09	379,10	0,00	0,00	0,00	379,10	379,10	1530,00	+	0,000	92,00	+	0,000	0,00	Camada Final	Aterro 04
22	191	+	0,000	200	+	0,000	0,00	Corte	Corte 10	614,75	0,00	0,00	0,00	614,75	1705,33	1930,00	+	0,000	92,00	+	0,000	0,00	Camada Final	Aterro 04
23	111	+	0,000	119	+	0,000	0,00	Compensação Lateral	CL 08	30,69	0,00	0,00	0,00	30,69	30,69	0,00	+	0,000	111,00	+	0,000	0,00	Camada Final	Aterro 05
24	122	+	0,000	124	+	0,000	0,00	Compensação Lateral	CL 09	3,41	0,00	0,00	0,00	3,41	3,41	0,00	+	0,000	122,00	+	0,000	0,00	Camada Final	Aterro 06
25	129	+	0,000	143	+	0,000	0,00	Compensação Lateral	CL 10	148,25	0,00	0,00	0,00	148,25	148,25	0,00	+	0,000	129,00	+	0,000	0,00	Corpo	Aterro 07
26	149	+	0,000	187	+	0,000	0,00	Compensação Lateral	CL 11	155,04	0,00	0,00	0,00	155,04	309,82	0,00	+	0,000	129,00	+	0,000	0,00	Corpo	Aterro 07
27	149	+	0,000	187	+	0,000	0,00	Compensação Lateral	CL 11	154,78	0,00	0,00	0,00	154,78	0,00	0,00	+	0,000	129,00	+	0,000	0,00	Camada Final	Aterro 07
28	190	+	0,000	192	+	0,000	0,00	Compensação Lateral	CL 12	45,13	0,00	0,00	0,00	45,13	45,13	0,00	+	0,000	129,00	+	0,000	0,00	Camada Final	Aterro 07
29	191	+	0,000	200	+	0,000	0,00	Corte	Corte 10	1090,58	0,00	0,00	0,00	1090,58	0,00	700,00	+	0,000	129,00	+	0,000	0,00	Camada Final	Aterro 07
30	215	+	0,000	225	+	0,000	0,00	Empréstimo Lateral	EL 01	967,54	0,00	0,00	0,00	967,54	4000,00	1190,00	+	0,000	129,00	+	0,000	0,00	Camada Final	Aterro 07
31	201	+	0,000	202	+	0,000	0,00	Compensação Lateral	CL 13	24,07	0,00	0,00	0,00	24,07	24,07	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08
32	222	+	0,000	252	+	0,000	0,00	Compensação Lateral	CL 14	221,53	0,00	0,00	0,00	221,53	221,53	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08
33	257	+	0,000	260	+	0,000	0,00	Compensação Lateral	CL 15	2,90	0,00	0,00	0,00	2,90	2,90	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08
34	263	+	0,000	284	+	0,000	0,00	Compensação Lateral	CL 16	228,24	0,00	0,00	0,00	228,24	228,24	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08
35	288	+	0,000	304	+	0,000	0,00	Compensação Lateral	CL 17	320,06	0,00	0,00	0,00	320,06	320,06	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08
36	309	+	0,000	312	+	0,000	0,00	Compensação Lateral	CL 18	26,32	0,00	0,00	0,00	26,32	26,32	0,00	+	0,000	201,00	+	0,000	0,00	Corpo	Aterro 08



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO															REVISÃO: 1											
Est.: 0+0,00 a 639+13,172															DATA											
QUADRO DA DISTRIBUIÇÃO DE MASSA															jul/24											
ORDEM	ORIGEM DO MATERIAL ESCAVADO										D.M.T. (m)	MOMENTO (m3xkm)	DESTINO DO MATERIAL ESCAVADO													
	LOCALIZAÇÃO				O-Especificação	ESCAVAÇÃO TIPO	1ª Categoria	2ª Categoria	3ª Categoria	TOTAL USADO			TOTAL	LOCALIZAÇÃO				D -ESPECIFICAÇÃO	UTILIZAÇÃO							
	ESTACA INICIAL		ESTACA FINAL											DIST. EIXO "a" (m)	Inteira	Fração	Inteira			Fração	Inteira	Fração	Inteira	Fração		
	Inteira	Fração	Inteira	Fração																						
37	215	+	0,000	225	+	0,000	0,00	Empréstimo Lateral	EL 01	3032,46	0,00	0,00	0,00	3032,46	0,00	730,00	2.213,69	201,00	+	0,000	312,00	+	0,000	0,00	Corpo	Aterro 08
38	245	+	0,000	265	+	0,000	0,00	Empréstimo Lateral	EL 02	4930,27	0,00	0,00	0,00	4930,27	8000,00	30,00	147,91	201,00	+	0,000	312,00	+	0,000	0,00	Corpo	Aterro 08
39	245	+	0,000	265	+	0,000	0,00	Empréstimo Lateral	EL 02	3069,73	0,00	0,00	0,00	3069,73	0,00	30,00	92,09	201,00	+	0,000	312,00	+	0,000	0,00	Camada Final	Aterro 08
40	278	+	0,000	280	+	0,000	0,00	Corte	Corte 11	46,68	0,00	0,00	0,00	46,68	46,68	450,00	21,01	201,00	+	0,000	312,00	+	0,000	0,00	Camada Final	Aterro 08
41	291	+	0,000	295	+	0,000	0,00	Corte	Corte 12	295,93	0,00	0,00	0,00	295,93	295,93	730,00	216,03	201,00	+	0,000	312,00	+	0,000	0,00	Camada Final	Aterro 08
42	275	+	0,000	295	+	0,000	0,00	Empréstimo Lateral	EL 03	6255,23	0,00	0,00	0,00	6255,23	8000,00	570,00	3.565,48	201,00	+	0,000	312,00	+	0,000	0,00	Camada Final	Aterro 08
43	315	+	0,000	336	+	0,000	0,00	Compensação Lateral	CL 19	416,12	0,00	0,00	0,00	416,12	416,12	0,00	0,00	315,00	+	0,000	417,00	+	0,000	0,00	Corpo	Aterro 09
44	348	+	0,000	366	+	0,000	0,00	Compensação Lateral	CL 20	180,13	0,00	0,00	0,00	180,13	180,13	0,00	0,00	315,00	+	0,000	417,00	+	0,000	0,00	Corpo	Aterro 09
45	375	+	0,000	412	+	0,000	0,00	Compensação Lateral	CL 21	553,60	0,00	0,00	0,00	553,60	553,60	0,00	0,00	315,00	+	0,000	417,00	+	0,000	0,00	Corpo	Aterro 09
46	275	+	0,000	295	+	0,000	0,00	Empréstimo Lateral	EL 03	1741,32	0,00	0,00	0,00	1741,32	0,00	1620,00	2.820,94	315,00	+	0,000	417,00	+	0,000	0,00	Corpo	Aterro 09
47	275	+	0,000	295	+	0,000	0,00	Empréstimo Lateral	EL 03	3,45	0,00	0,00	0,00	3,45	0,00	1620,00	5,59	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
48	297	+	0,000	301	+	0,000	0,00	Corte	Corte 13	144,23	0,00	0,00	0,00	144,23	144,23	1340,00	193,27	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
49	311	+	0,000	330	+	0,000	0,00	Corte	Corte 14	702,78	0,00	0,00	0,00	702,78	702,78	910,00	639,53	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
50	350	+	0,000	355	+	0,000	0,00	Corte	Corte 15	173,74	0,00	0,00	0,00	173,74	173,74	270,00	46,91	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
51	355	+	0,000	365	+	0,000	0,00	Empréstimo Lateral	EL 04	4000,00	0,00	0,00	0,00	4000,00	4000,00	120,00	480,00	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
52	379	+	0,000	383	+	0,000	0,00	Corte	Corte 16	162,63	0,00	0,00	0,00	162,63	162,63	300,00	48,79	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
53	394	+	0,000	394	+	0,000	0,00	Corte	Corte 17	6,49	0,00	0,00	0,00	6,49	6,49	560,00	3,64	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
54	395	+	0,000	405	+	0,000	0,00	Empréstimo Lateral	EL 05	922,32	0,00	0,00	0,00	922,32	4000,00	680,00	627,17	315,00	+	0,000	417,00	+	0,000	0,00	Camada Final	Aterro 09
55	416	+	0,000	417	+	0,000	0,00	Compensação Lateral	CL 22	29,22	0,00	0,00	0,00	29,22	29,22	0,00	0,00	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
56	420	+	0,000	422	+	0,000	0,00	Compensação Lateral	CL 23	97,27	0,00	0,00	0,00	97,27	97,27	0,00	0,00	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
57	434	+	0,000	435	+	0,000	0,00	Compensação Lateral	CL 24	19,69	0,00	0,00	0,00	19,69	19,69	0,00	0,00	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
58	395	+	0,000	405	+	0,000	0,00	Empréstimo Lateral	EL 05	3077,68	0,00	0,00	0,00	3077,68	0,00	550,00	1.692,73	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
59	407	+	0,000	410	+	0,000	0,00	Corte	Corte 18	392,21	0,00	0,00	0,00	392,21	392,21	380,00	149,04	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
60	417	+	0,000	421	+	0,000	0,00	Corte	Corte 19	864,57	0,00	0,00	0,00	864,57	864,57	170,00	146,98	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
61	435	+	0,000	469	+	0,000	0,00	Corte	Corte 20	1135,37	0,00	0,00	0,00	1135,37	10426,32	490,00	556,33	420,00	+	0,000	435,00	+	0,000	0,00	Corpo	Aterro 10
62	435	+	0,000	469	+	0,000	0,00	Corte	Corte 20	1577,85	0,00	0,00	0,00	1577,85	0,00	490,00	773,15	420,00	+	0,000	435,00	+	0,000	0,00	Camada Final	Aterro 10
63	457	+	0,000	464	+	0,000	0,00	Compensação Lateral	CL 25	49,00	0,00	0,00	0,00	49,00	49,00	0,00	0,00	457,00	+	0,000	464,00	+	0,000	0,00	Camada Final	Aterro 11
64	467	+	0,000	494	+	0,000	0,00	Compensação Lateral	CL 26	68,25	0,00	0,00	0,00	68,25	359,14	0,00	0,00	467,00	+	0,000	494,00	+	0,000	0,00	Corpo	Aterro 12
65	467	+	0,000	494	+	0,000	0,00	Compensação Lateral	CL 26	359,14	0,00	0,00	0,00	359,14	0,00	0,00	0,00	467,00	+	0,000	494,00	+	0,000	0,00	Camada Final	Aterro 12
66	435	+	0,000	469	+	0,000	0,00	Corte	Corte 20	809,18	0,00	0,00	0,00	809,18	0,00	570,00	461,23	467,00	+	0,000	494,00	+	0,000	0,00	Camada Final	Aterro 12
67	500	+	0,000	503	+	0,000	0,00	Compensação Lateral	CL 27	51,77	0,00	0,00	0,00	51,77	51,77	0,00	0,00	500,00	+	0,000	546,00	+	0,000	0,00	Corpo	Aterro 13
68	518	+	0,000	525	+	0,000	0,00	Compensação Lateral	CL 28	60,70	0,00	0,00	0,00	60,70	60,70	0,00	0,00	500,00	+	0,000	546,00	+	0,000	0,00	Corpo	Aterro 13
69	539	+	0,000	546	+	0,000	0,00	Compensação Lateral	CL 29	57,22	0,00	0,00	0,00	57,22	57,22	0,00	0,00	500,00	+	0,000	546,00	+	0,000	0,00	Corpo	Aterro 13
70	435	+	0,000	469	+	0,000	0,00	Corte	Corte 20	5248,34	0,00	0,00	0,00	5248,34	0,00	1420,00	7.452,64	500,00	+	0,000	546,00	+	0,000	0,00	Corpo	Aterro 13
71	435	+	0,000	469	+	0,000	0,00	Corte	Corte 20	1655,59	0,00	0,00	0,00	1655,59	0,00	1420,00	2.350,94	500,00	+	0,000	546,00	+	0,000	0,00	Camada Final	Aterro 13
72	478	+	0,000	480	+	0,000	0,00	Corte	Corte 21	46,57	0,00	0,00	0,00	46,57	46,57	880,00	40,98	500,00	+	0,000	546,00	+	0,000	0,00	Camada Final	Aterro 13



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO																	REVISÃO: 1								
Est.: 0+0,00 a 639+13,172																	DATA								
QUADRO DA DISTRIBUIÇÃO DE MASSA																	jul/24								
ORDEM	ORIGEM DO MATERIAL ESCAVADO											D.M.T. (m)	MOMENTO (m3xkm)	DESTINO DO MATERIAL ESCAVADO											
	LOCALIZAÇÃO					O-Especificação	ESCAVAÇÃO TIPO	1ª Categoria	2ª Categoria	3ª Categoria	TOTAL USADO			TOTAL	LOCALIZAÇÃO				D -ESPECIFICAÇÃO	UTILIZAÇÃO					
	ESTACA INICIAL		ESTACA FINAL		DIST. EIXO "a" (m)										Inteira	Fração	Inteira	Fração			ESTACA INICIAL	ESTACA FINAL	DIST. EIXO "a" (m)	Inteira	Fração
	Inteira	Fração	Inteira	Fração																					
73	489	+	0,000	501	+	0,000	0,00	Corte	Corte 22	2280,07	0,00	0,00	2280,07	2326,63	560,00	1.276,84	500,00	+	0,000	546,00	+	0,000	0,00	Camada Final	Aterro 13
74	521	+	0,000	521	+	0,000	0,00	Corte	Corte 23	41,06	0,00	0,00	41,06	41,06	40,00	1,64	500,00	+	0,000	546,00	+	0,000	0,00	Camada Final	Aterro 13
75	545	+	0,000	554	+	0,000	0,00	Corte	Corte 24	656,89	0,00	0,00	656,89	2317,96	530,00	348,15	500,00	+	0,000	546,00	+	0,000	0,00	Camada Final	Aterro 13
76	549	+	0,000	550	+	0,000	0,00	Compensação Lateral	CL 30	1,55	0,00	0,00	1,55	1,55	0,00	0,00	549,00	+	0,000	550,00	+	0,000	0,00	Camada Final	Aterro 14
77	554	+	0,000	564	+	0,000	0,00	Compensação Lateral	CL 31	193,66	0,00	0,00	193,66	193,66	0,00	0,00	554,00	+	0,000	616,00	+	0,000	0,00	Corpo	Aterro 15
78	568	+	0,000	583	+	0,000	0,00	Compensação Lateral	CL 32	138,08	0,00	0,00	138,08	138,08	0,00	0,00	554,00	+	0,000	616,00	+	0,000	0,00	Corpo	Aterro 15
79	589	+	0,000	616	+	0,000	0,00	Compensação Lateral	CL 33	220,12	0,00	0,00	220,12	220,12	0,00	0,00	554,00	+	0,000	616,00	+	0,000	0,00	Corpo	Aterro 15
80	545	+	0,000	554	+	0,000	0,00	Corte	Corte 24	469,82	0,00	0,00	469,82	0,00	710,00	333,57	554,00	+	0,000	616,00	+	0,000	0,00	Corpo	Aterro 15
81	520	+	0,000	530	+	0,000	0,00	Empréstimo Lateral	EL 06	512,18	0,00	0,00	512,18	4000,00	1200,00	614,61	554,00	+	0,000	616,00	+	0,000	0,00	Corpo	Aterro 15
82	545	+	0,000	554	+	0,000	0,00	Corte	Corte 24	1191,25	0,00	0,00	1191,25	0,00	710,00	845,78	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
83	561	+	0,000	563	+	0,000	0,00	Corte	Corte 25	105,03	0,00	0,00	105,03	105,03	460,00	48,31	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
84	570	+	0,000	573	+	0,000	0,00	Corte	Corte 26	365,85	0,00	0,00	365,85	365,85	270,00	98,78	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
85	580	+	0,000	581	+	0,000	0,00	Corte	Corte 27	79,01	0,00	0,00	79,01	79,01	90,00	7,11	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
86	592	+	0,000	597	+	0,000	0,00	Corte	Corte 28	206,27	0,00	0,00	206,27	206,27	190,00	39,19	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
87	600	+	0,000	607	+	0,000	0,00	Corte	Corte 29	538,08	0,00	0,00	538,08	538,08	370,00	199,09	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
88	615	+	0,000	621	+	0,000	0,00	Corte	Corte 30	41,36	0,00	0,00	41,36	660,95	660,00	27,30	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
89	615	+	0,000	621	+	0,000	0,00	Corte	Corte 30	619,60	0,00	0,00	619,60	0,00	660,00	408,93	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
90	628	+	0,000	639	+	0,000	0,00	Corte	Corte 31	157,71	0,00	0,00	157,71	981,77	970,00	152,98	554,00	+	0,000	616,00	+	0,000	0,00	Camada Final	Aterro 15
91	621	+	0,000	635	+	0,000	0,00	Compensação Lateral	CL 34	159,33	0,00	0,00	159,33	159,33	0,00	0,00	621,00	+	0,000	635,00	+	0,000	0,00	Corpo	Aterro 16
92	628	+	0,000	639	+	0,000	0,00	Corte	Corte 31	126,24	0,00	0,00	126,24	0,00	110,00	13,89	621,00	+	0,000	635,00	+	0,000	0,00	Corpo	Aterro 16
93	628	+	0,000	639	+	0,000	0,00	Corte	Corte 31	697,82	0,00	0,00	697,82	0,00	110,00	76,76	621,00	+	0,000	635,00	+	0,000	0,00	Camada Final	Aterro 16
94	639	+	0,000	639	+	0,000	0,00	Compensação Lateral	CL 35	2,11	0,00	0,00	2,11	2,11	0,00	0,00	639,00	+	0,000	639,00	+	0,000	0,00	Camada Final	Aterro 17
										63.174,42				63.174,42		40.564,97		+			+				



LEVANTAMENTO - CÁLCULO VOLUME GEOMÉTRICO



VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
-	-	0+0,000		1,07	-	-	0,01	-	-	-	-	-
1,00	-	1+0,000		2,00	30,77	30,77	-	0,13	30,77	0,13	0,13	30,64
2,00	-	2+0,000		1,25	32,56	32,56	0,01	0,10	63,33	0,23	0,23	63,10
3,00	-	3+0,000		0,46	17,14	17,14	0,72	7,29	80,47	7,52	7,52	72,95
4,00	-	4+0,000		0,12	5,86	5,86	0,66	13,74	86,33	21,26	21,26	65,07
5,00	-	5+0,000		1,81	19,35	19,35	-	6,58	105,68	27,84	27,84	77,84
6,00	-	6+0,000		0,09	19,05	19,05	0,54	5,47	124,73	33,31	33,31	91,43
7,00	-	7+0,000		-	0,94	0,94	6,85	73,89	125,67	107,20	107,20	18,47
8,00	-	8+0,000		-	-	-	7,72	145,62	125,67	252,82	252,82	- 127,14
9,00	-	9+0,000		-	-	-	4,43	121,42	125,67	374,24	374,24	- 248,57
10,00	-	10+0,000		-	-	-	3,98	84,01	125,67	458,25	458,25	- 332,58
11,00	-	11+0,000		2,66	26,57	26,57	-	39,75	152,24	498,00	498,00	- 345,76
12,00	-	12+0,000		0,28	29,42	29,42	2,84	28,41	181,66	526,41	526,41	- 344,75
13,00	-	13+0,000		-	2,85	2,85	4,36	72,03	184,51	598,44	598,44	- 413,93
14,00	-	14+0,000		0,12	1,18	1,18	1,18	55,45	185,69	653,89	653,89	- 468,20
15,00	-	15+0,000		5,10	52,22	52,22	-	11,84	237,91	665,73	665,73	- 427,82
16,00	-	16+0,000		0,86	59,63	59,63	-	-	297,54	665,73	665,73	- 368,19
17,00	-	17+0,000		0,48	13,35	13,35	1,20	11,98	310,88	677,71	677,71	- 366,83
18,00	-	18+0,000		-	4,77	4,77	3,02	42,22	315,66	719,93	719,93	- 404,28
19,00	-	19+0,000		0,26	2,59	2,59	0,24	32,63	318,25	752,57	752,57	- 434,32
20,00	-	20+0,000		0,29	5,53	5,53	1,74	19,79	323,77	772,36	772,36	- 448,58
21,00	-	21+0,000		-	2,94	2,94	4,26	60,03	326,71	832,39	832,39	- 505,68
22,00	-	22+0,000		-	-	-	10,41	146,76	326,71	979,14	979,14	- 652,43
23,00	-	23+0,000		-	-	-	12,40	228,13	326,71	1,207,27	1,207,27	- 880,56
23,00	8,03	23+8,025		-	-	-	13,16	102,55	326,71	1,309,82	1,309,82	- 983,12
24,00	-	24+0,000		-	-	-	9,51	135,70	326,71	1,445,53	1,445,53	-1,118,82
25,00	-	25+0,000		-	-	-	14,23	237,89	326,71	1,683,41	1,683,41	-1,356,71
25,00	8,03	25+8,025		-	-	-	12,37	107,09	326,71	1,790,50	1,790,50	-1,463,80
26,00	-	26+0,000		-	-	-	12,69	150,81	326,71	1,941,31	1,941,31	-1,614,61
26,00	13,11	26+13,107		-	-	-	12,19	164,16	326,71	2,105,47	2,105,47	-1,778,76
27,00	-	27+0,000		-	-	-	12,00	84,20	326,71	2,189,67	2,189,67	-1,862,96
27,00	18,19	27+18,188		-	-	-	14,05	239,43	326,71	2,429,11	2,429,11	-2,102,40
28,00	-	28+0,000		-	-	-	13,85	25,28	326,71	2,454,38	2,454,38	-2,127,67
29,00	-	29+0,000		-	-	-	14,05	280,71	326,71	2,735,09	2,735,09	-2,408,38
29,00	18,19	29+18,188		-	-	-	13,59	251,67	326,71	2,986,76	2,986,76	-2,660,05
30,00	-	30+0,000		-	-	-	13,45	24,50	326,71	3,011,26	3,011,26	-2,684,55
31,00	-	31+0,000		-	-	-	12,87	263,23	326,71	3,274,49	3,274,49	-2,947,78
32,00	-	32+0,000		-	-	-	11,56	244,28	326,71	3,518,78	3,518,78	-3,192,07
33,00	-	33+0,000		-	-	-	8,52	200,78	326,71	3,719,56	3,719,56	-3,392,85
34,00	-	34+0,000		-	-	-	7,75	162,66	326,71	3,882,23	3,882,23	-3,555,52
35,00	-	35+0,000		-	-	-	5,64	133,86	326,71	4,016,09	4,016,09	-3,689,38

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
36,00	-	36+0,000		-	-	-	5,36	109,95	326,71	4,126,04	4,126,04	-3,799,33
37,00	-	37+0,000		-	-	-	5,07	104,24	326,71	4,230,28	4,230,28	-3,903,57
37,00	18,94	37+18,939		-	-	-	5,76	102,50	326,71	4,332,78	4,332,78	-4,006,07
38,00	-	38+0,000		-	-	-	6,00	6,24	326,71	4,339,02	4,339,02	-4,012,31
39,00	-	39+0,000		-	-	-	6,05	120,51	326,71	4,459,52	4,459,52	-4,132,81
39,00	9,12	39+9,117		-	-	-	5,86	54,30	326,71	4,513,82	4,513,82	-4,187,11
40,00	-	40+0,000		-	-	-	3,95	53,41	326,71	4,567,23	4,567,23	-4,240,52
40,00	19,30	40+19,295		-	-	-	2,32	60,49	326,71	4,627,72	4,627,72	-4,301,01
41,00	-	41+0,000		-	-	-	2,27	1,62	326,71	4,629,34	4,629,34	-4,302,63
42,00	-	42+0,000		0,33	3,27	3,27	0,66	29,29	329,98	4,658,63	4,658,63	-4,328,65
43,00	-	43+0,000		0,49	8,16	8,16	0,38	10,38	338,14	4,669,01	4,669,01	-4,330,87
43,00	9,07	43+9,069		-	2,22	2,22	1,00	6,26	340,36	4,675,27	4,675,27	-4,334,91
44,00	-	44+0,000		-	-	-	1,96	16,19	340,36	4,691,45	4,691,45	-4,351,09
45,00	-	45+0,000		1,43	14,01	14,01	1,28	32,49	354,37	4,723,95	4,723,95	-4,369,58
45,00	9,07	45+9,069		1,59	13,28	13,28	1,94	14,75	367,65	4,738,69	4,738,69	-4,371,04
46,00	-	46+0,000		1,23	15,03	15,03	0,54	13,81	382,68	4,752,50	4,752,50	-4,369,82
47,00	-	47+0,000		4,11	53,13	53,13	-	5,54	435,80	4,758,04	4,758,04	-4,322,24
48,00	-	48+0,000		8,11	121,89	121,89	-	-	557,69	4,758,04	4,758,04	-4,200,35
48,00	9,10	48+9,104		11,42	88,48	88,48	-	-	646,17	4,758,04	4,758,04	-4,111,87
49,00	-	49+0,000		12,96	131,75	131,75	-	-	777,92	4,758,04	4,758,04	-3,980,12
50,00	-	50+0,000		9,50	223,34	223,34	0,06	0,61	1,001,26	4,758,65	4,758,65	-3,757,38
51,00	-	51+0,000		15,42	251,08	251,08	-	0,61	1,252,35	4,759,26	4,759,26	-3,506,91
51,00	9,14	51+9,139		11,97	126,60	126,60	0,08	0,38	1,378,95	4,759,64	4,759,64	-3,280,69
52,00	-	52+0,000		8,30	110,94	110,94	0,12	1,08	1,489,89	4,760,72	4,760,72	-3,270,83
53,00	-	53+0,000		7,12	154,81	154,81	0,04	1,52	1,644,70	4,762,24	4,762,24	-3,117,54
53,00	9,14	53+9,139		6,79	63,58	63,58	0,02	0,25	1,708,28	4,762,49	4,762,49	-3,054,21
54,00	-	54+0,000		7,38	76,96	76,96	-	0,10	1,785,24	4,762,59	4,762,59	-2,977,35
55,00	-	55+0,000		3,51	108,90	108,90	1,99	19,89	1,894,14	4,782,48	4,782,48	-2,888,34
56,00	-	56+0,000		3,65	71,61	71,61	1,50	34,87	1,965,75	4,817,34	4,817,34	-2,851,60
57,00	-	57+0,000		3,02	66,69	66,69	1,17	26,68	2,032,44	4,844,03	4,844,03	-2,811,59
58,00	-	58+0,000		5,27	82,92	82,92	0,67	18,45	2,115,35	4,862,48	4,862,48	-2,747,12
59,00	-	59+0,000		1,89	71,61	71,61	1,56	22,31	2,186,96	4,884,79	4,884,79	-2,697,83
60,00	-	60+0,000		2,45	43,38	43,38	2,07	36,31	2,230,34	4,921,10	4,921,10	-2,690,75
61,00	-	61+0,000		1,34	37,90	37,90	2,24	43,14	2,268,24	4,964,23	4,964,23	-2,695,99
62,00	-	62+0,000		0,42	17,58	17,58	3,15	53,87	2,285,82	5,018,10	5,018,10	-2,732,28
62,00	13,73	62+13,728		1,10	10,41	10,41	3,08	42,77	2,296,23	5,060,87	5,060,87	-2,764,64
63,00	-	63+0,000		-	3,44	3,44	5,17	25,88	2,299,67	5,086,75	5,086,75	-2,787,08
64,00	-	64+0,000		0,14	1,35	1,35	7,02	122,19	2,301,03	5,208,94	5,208,94	-2,907,91
64,00	13,73	64+13,728		0,22	2,37	2,37	6,81	95,51	2,303,40	5,304,45	5,304,45	-3,001,05
65,00	-	65+0,000		0,52	2,24	2,24	6,35	41,62	2,305,64	5,346,06	5,346,06	-3,040,43
66,00	-	66+0,000		1,44	19,08	19,08	4,67	111,12	2,324,71	5,457,19	5,457,19	-3,132,47

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
67,00	-	67+0,000		1,04	24,17	24,17	5,94	107,09	2,348,88	5,564,28	5,564,28	-3,215,40
67,00	6,02	67+6,017		0,99	5,94	5,94	6,30	37,16	2,354,82	5,601,45	5,601,45	-3,246,63
68,00	-	68+0,000		0,74	11,74	11,74	6,28	88,75	2,366,55	5,690,20	5,690,20	-3,323,64
69,00	-	69+0,000		1,16	18,52	18,52	8,28	146,98	2,385,07	5,837,18	5,837,18	-3,452,11
69,00	18,31	69+18,305		0,29	12,98	12,98	6,90	140,08	2,398,05	5,977,26	5,977,26	-3,579,21
70,00	-	70+0,000		0,48	0,66	0,66	6,58	11,41	2,398,70	5,988,67	5,988,67	-3,589,97
71,00	-	71+0,000		0,41	8,80	8,80	5,23	118,72	2,407,51	6,107,39	6,107,39	-3,699,88
71,00	18,31	71+18,305		0,39	7,28	7,28	3,62	81,10	2,414,79	6,188,49	6,188,49	-3,773,70
72,00	-	72+0,000		0,66	0,89	0,89	3,30	5,86	2,415,68	6,194,36	6,194,36	-3,778,68
73,00	-	73+0,000		1,50	21,61	21,61	2,38	56,84	2,437,29	6,251,19	6,251,19	-3,813,91
74,00	-	74+0,000		1,21	27,03	27,03	1,45	38,28	2,464,31	6,289,47	6,289,47	-3,825,16
75,00	-	75+0,000		2,49	36,93	36,93	1,10	25,52	2,501,24	6,314,99	6,314,99	-3,813,75
76,00	-	76+0,000		2,28	47,63	47,63	0,48	15,82	2,548,87	6,330,81	6,330,81	-3,781,94
77,00	-	77+0,000		6,92	91,92	91,92	-	4,83	2,640,79	6,335,63	6,335,63	-3,694,84
78,00	-	78+0,000		12,79	197,11	197,11	-	0,05	2,837,90	6,335,68	6,335,68	-3,497,79
79,00	-	79+0,000		20,50	332,98	332,98	-	-	3,170,88	6,335,68	6,335,68	-3,164,80
80,00	-	80+0,000		12,08	325,79	325,79	-	-	3,496,67	6,335,68	6,335,68	-2,839,01
81,00	-	81+0,000		5,78	178,56	178,56	-	-	3,675,23	6,335,68	6,335,68	-2,660,46
82,00	-	82+0,000		3,04	88,23	88,23	0,09	0,92	3,763,45	6,336,60	6,336,60	-2,573,14
83,00	-	83+0,000		5,11	81,50	81,50	0,10	1,87	3,844,95	6,338,46	6,338,46	-2,493,51
84,00	-	84+0,000		2,17	72,74	72,74	0,17	2,67	3,917,69	6,341,13	6,341,13	-2,423,44
85,00	-	85+0,000		3,76	59,29	59,29	-	1,73	3,976,99	6,342,86	6,342,86	-2,365,88
86,00	-	86+0,000		4,95	87,12	87,12	-	0,01	4,064,11	6,342,87	6,342,87	-2,278,77
87,00	-	87+0,000		5,71	106,63	106,63	-	-	4,170,73	6,342,87	6,342,87	-2,172,14
88,00	-	88+0,000		8,04	137,52	137,52	-	-	4,308,25	6,342,87	6,342,87	-2,034,62
89,00	-	89+0,000		13,98	220,14	220,14	-	-	4,528,39	6,342,87	6,342,87	-1,814,48
90,00	-	90+0,000		13,75	277,26	277,26	-	-	4,805,65	6,342,87	6,342,87	-1,537,22
91,00	-	91+0,000		7,19	209,42	209,42	-	-	5,015,07	6,342,87	6,342,87	-1,327,80
92,00	-	92+0,000		1,42	86,09	86,09	0,14	1,36	5,101,17	6,344,24	6,344,24	-1,243,07
92,00	8,28	92+8,275		0,38	7,43	7,43	0,77	3,75	5,108,60	6,347,99	6,347,99	-1,239,39
93,00	-	93+0,000		0,14	3,03	3,03	2,22	17,53	5,111,63	6,365,51	6,365,51	-1,253,88
94,00	-	94+0,000		0,10	2,43	2,43	4,15	63,69	5,114,06	6,429,20	6,429,20	-1,315,14
95,00	-	95+0,000		-	1,04	1,04	5,76	99,10	5,115,11	6,528,30	6,528,30	-1,413,19
95,00	4,61	95+4,613		-	-	-	6,01	27,15	5,115,11	6,555,46	6,555,46	-1,440,35
96,00	-	96+0,000		3,57	27,44	27,44	-	46,26	5,142,55	6,601,72	6,601,72	-1,459,17
97,00	-	97+0,000		0,14	37,11	37,11	0,22	2,25	5,179,66	6,603,97	6,603,97	-1,424,31
98,00	-	98+0,000		-	1,44	1,44	7,63	78,58	5,181,10	6,682,55	6,682,55	-1,501,45
98,00	0,95	98+0,950		-	-	-	7,94	7,40	5,181,10	6,689,95	6,689,95	-1,508,85
99,00	-	99+0,000		-	-	-	11,22	182,49	5,181,10	6,872,44	6,872,44	-1,691,34
100,00	-	100+0,000		-	-	-	10,38	215,94	5,181,10	7,088,38	7,088,38	-1,907,28
101,00	-	101+0,000		-	-	-	10,61	209,87	5,181,10	7,298,25	7,298,25	-2,117,15

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
102,00	-	102+0,000		-	-	-	6,81	174,24	5,181,10	7,472,49	7,472,49	-2,291,39
103,00	-	103+0,000		0,01	0,06	0,06	6,06	128,74	5,181,16	7,601,23	7,601,23	-2,420,08
104,00	-	104+0,000		0,71	7,14	7,14	2,15	82,15	5,188,30	7,683,38	7,683,38	-2,495,08
105,00	-	105+0,000		0,97	16,76	16,76	0,42	25,75	5,205,06	7,709,13	7,709,13	-2,504,06
106,00	-	106+0,000		4,72	56,88	56,88	-	4,21	5,261,94	7,713,34	7,713,34	-2,451,40
107,00	-	107+0,000		6,94	116,65	116,65	-	-	5,378,59	7,713,34	7,713,34	-2,334,75
108,00	-	108+0,000		4,80	117,45	117,45	-	-	5,496,04	7,713,34	7,713,34	-2,217,30
109,00	-	109+0,000		4,81	96,06	96,06	-	-	5,592,10	7,713,34	7,713,34	-2,121,24
110,00	-	110+0,000		4,31	91,18	91,18	-	-	5,683,28	7,713,34	7,713,34	-2,030,06
111,00	-	111+0,000		2,24	65,54	65,54	0,06	0,62	5,748,82	7,713,95	7,713,95	-1,965,13
111,00	19,80	111+19,800		3,43	56,14	56,14	-	0,61	5,804,97	7,714,56	7,714,56	-1,909,59
112,00	-	112+0,000		3,54	0,70	0,70	-	-	5,805,66	7,714,56	7,714,56	-1,908,90
113,00	-	113+0,000		1,90	54,37	54,37	0,01	0,05	5,860,03	7,714,62	7,714,62	-1,854,58
114,00	-	114+0,000		1,72	36,16	36,16	0,39	4,00	5,896,19	7,718,62	7,718,62	-1,822,43
114,00	14,05	114+14,051		1,18	20,36	20,36	0,40	5,59	5,916,55	7,724,21	7,724,21	-1,807,66
115,00	-	115+0,000		1,07	6,71	6,71	0,37	2,30	5,923,26	7,726,51	7,726,51	-1,803,25
116,00	-	116+0,000		1,19	22,67	22,67	0,26	6,29	5,945,93	7,732,80	7,732,80	-1,786,87
117,00	-	117+0,000		1,03	22,25	22,25	0,20	4,61	5,968,18	7,737,41	7,737,41	-1,769,23
117,00	8,30	117+8,303		1,00	8,45	8,45	0,15	1,46	5,976,63	7,738,88	7,738,88	-1,762,25
118,00	-	118+0,000		1,34	13,73	13,73	0,05	1,15	5,990,36	7,740,03	7,740,03	-1,749,67
119,00	-	119+0,000		3,99	53,31	53,31	-	0,48	6,043,67	7,740,51	7,740,51	-1,696,85
120,00	-	120+0,000		3,61	75,94	75,94	-	-	6,119,61	7,740,51	7,740,51	-1,620,91
121,00	-	121+0,000		3,48	70,82	70,82	-	-	6,190,43	7,740,51	7,740,51	-1,550,09
122,00	-	122+0,000		2,50	59,73	59,73	0,04	0,40	6,250,16	7,740,92	7,740,92	-1,490,76
123,00	-	123+0,000		1,32	38,14	38,14	0,11	1,51	6,288,30	7,742,43	7,742,43	-1,454,13
124,00	-	124+0,000		2,24	35,58	35,58	-	1,11	6,323,88	7,743,54	7,743,54	-1,419,66
125,00	-	125+0,000		2,05	42,89	42,89	-	-	6,366,77	7,743,54	7,743,54	-1,376,78
126,00	-	126+0,000		4,75	67,94	67,94	-	-	6,434,70	7,743,54	7,743,54	-1,308,84
127,00	-	127+0,000		2,20	69,47	69,47	-	-	6,504,18	7,743,54	7,743,54	-1,239,37
128,00	-	128+0,000		2,81	50,14	50,14	-	-	6,554,32	7,743,54	7,743,54	-1,189,23
129,00	-	129+0,000		4,03	68,46	68,46	0,01	0,12	6,622,78	7,743,66	7,743,66	-1,120,88
130,00	-	130+0,000		2,33	63,65	63,65	0,63	6,39	6,686,43	7,750,05	7,750,05	-1,063,62
131,00	-	131+0,000		2,23	45,59	45,59	0,81	14,42	6,732,01	7,764,47	7,764,47	-1,032,46
132,00	-	132+0,000		1,85	40,75	40,75	0,99	18,01	6,772,76	7,782,49	7,782,49	-1,009,73
132,00	5,16	132+5,156		2,02	9,98	9,98	1,00	5,12	6,782,74	7,787,60	7,787,60	-1,004,87
133,00	-	133+0,000		1,88	28,93	28,93	1,08	15,39	6,811,67	7,803,00	7,803,00	-991,33
134,00	-	134+0,000		3,73	56,04	56,04	-	10,80	6,867,71	7,813,80	7,813,80	-946,09
134,00	5,16	134+5,156		2,84	16,93	16,93	0,64	1,67	6,884,64	7,815,47	7,815,47	-930,83
134,00	14,25	134+14,249		2,96	26,19	26,19	0,75	6,40	6,910,83	7,821,87	7,821,87	-911,04
135,00	-	135+0,000		3,30	18,01	18,01	0,78	4,42	6,928,83	7,826,29	7,826,29	-897,45
135,00	3,34	135+3,342		3,60	11,54	11,54	0,81	2,66	6,940,38	7,828,95	7,828,95	-888,57

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO													
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)	
136,00	-	136+0,000		4,28	65,13	65,13	0,75	13,08	7,005,50	7,842,03	7,842,03	-	836,52
137,00	-	137+0,000		8,30	125,58	125,58	-	7,52	7,131,09	7,849,54	7,849,54	-	718,46
137,00	3,34	137+3,342		5,82	23,59	23,59	-	-	7,154,68	7,849,54	7,849,54	-	694,87
138,00	-	138+0,000		4,01	81,92	81,92	0,02	0,14	7,236,59	7,849,68	7,849,68	-	613,09
139,00	-	139+0,000		6,39	104,04	104,04	-	0,16	7,340,63	7,849,84	7,849,84	-	509,21
139,00	2,28	139+2,281		6,41	14,60	14,60	-	-	7,355,23	7,849,84	7,849,84	-	494,61
140,00	-	140+0,000		3,55	88,20	88,20	0,02	0,18	7,443,43	7,850,02	7,850,02	-	406,59
141,00	-	141+0,000		5,50	90,34	90,34	-	0,25	7,533,77	7,850,27	7,850,27	-	316,50
141,00	2,28	141+2,281		4,58	11,49	11,49	0,17	0,20	7,545,26	7,850,47	7,850,47	-	305,21
142,00	-	142+0,000		0,31	42,89	42,89	2,25	21,55	7,588,15	7,872,03	7,872,03	-	283,88
143,00	-	143+0,000		-	3,07	3,07	4,42	66,82	7,591,23	7,938,85	7,938,85	-	347,62
143,00	13,70	143+13,695		-	-	-	4,67	62,26	7,591,23	8,001,10	8,001,10	-	409,88
144,00	-	144+0,000		-	-	-	5,51	32,05	7,591,23	8,033,16	8,033,16	-	441,93
145,00	-	145+0,000		-	-	-	8,92	144,41	7,591,23	8,177,57	8,177,57	-	586,34
146,00	-	146+0,000		-	-	-	9,43	184,03	7,591,23	8,361,59	8,361,59	-	770,37
146,00	5,11	146+5,110		-	-	-	9,19	47,59	7,591,23	8,409,18	8,409,18	-	817,95
147,00	-	147+0,000		-	-	-	6,37	116,23	7,591,23	8,525,42	8,525,42	-	934,19
148,00	-	148+0,000		-	-	-	5,58	119,56	7,591,23	8,644,97	8,644,97	-	-1,053,74
148,00	5,11	148+5,110		-	-	-	4,98	26,98	7,591,23	8,671,96	8,671,96	-	-1,080,73
149,00	-	149+0,000		0,03	0,20	0,20	1,90	51,24	7,591,42	8,723,20	8,723,20	-	-1,131,78
150,00	-	150+0,000		0,06	0,86	0,86	3,77	56,64	7,592,28	8,779,84	8,779,84	-	-1,187,56
151,00	-	151+0,000		0,18	2,36	2,36	2,93	66,92	7,594,65	8,846,76	8,846,76	-	-1,252,12
152,00	-	152+0,000		0,44	6,16	6,16	1,39	43,18	7,600,80	8,889,94	8,889,94	-	-1,289,14
153,00	-	153+0,000		0,12	5,60	5,60	1,84	32,36	7,606,40	8,922,31	8,922,31	-	-1,315,90
154,00	-	154+0,000		0,28	4,05	4,05	1,14	29,81	7,610,46	8,952,11	8,952,11	-	-1,341,65
155,00	-	155+0,000		0,93	12,15	12,15	0,41	15,47	7,622,60	8,967,58	8,967,58	-	-1,344,98
156,00	-	156+0,000		2,94	38,67	38,67	0,02	4,31	7,661,27	8,971,90	8,971,90	-	-1,310,62
157,00	-	157+0,000		2,20	51,41	51,41	1,05	10,65	7,712,68	8,982,55	8,982,55	-	-1,269,87
157,00	9,78	157+9,782		1,19	16,61	16,61	2,94	19,48	7,729,29	9,002,03	9,002,03	-	-1,272,75
158,00	-	158+0,000		0,69	9,71	9,71	3,45	32,56	7,739,00	9,034,59	9,034,59	-	-1,295,59
159,00	-	159+0,000		0,29	9,86	9,86	3,23	66,78	7,748,86	9,101,38	9,101,38	-	-1,352,51
160,00	-	160+0,000		1,27	15,69	15,69	0,55	37,76	7,764,56	9,139,13	9,139,13	-	-1,374,58
161,00	-	161+0,000		2,29	35,68	35,68	0,02	5,72	7,800,23	9,144,85	9,144,85	-	-1,344,62
162,00	-	162+0,000		2,86	51,58	51,58	-	0,22	7,851,81	9,145,08	9,145,08	-	-1,293,27
163,00	-	163+0,000		1,64	45,07	45,07	0,33	3,29	7,896,88	9,148,37	9,148,37	-	-1,251,49
164,00	-	164+0,000		3,05	46,91	46,91	-	3,29	7,943,79	9,151,66	9,151,66	-	-1,207,87
165,00	-	165+0,000		1,72	47,67	47,67	0,14	1,39	7,991,46	9,153,05	9,153,05	-	-1,161,59
166,00	-	166+0,000		1,04	27,60	27,60	0,36	4,98	8,019,06	9,158,02	9,158,02	-	-1,138,96
167,00	-	167+0,000		0,86	19,02	19,02	0,71	10,65	8,038,08	9,168,67	9,168,67	-	-1,130,59
168,00	-	168+0,000		0,73	15,95	15,95	0,93	16,33	8,054,03	9,185,01	9,185,01	-	-1,130,97
168,00	10,72	168+10,720		0,09	4,44	4,44	1,23	11,58	8,058,48	9,196,58	9,196,58	-	-1,138,11

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
169,00	-	169+0,000		0,06	0,70	0,70	1,23	11,43	8,059,17	9,208,01	9,208,01	-1,148,84
170,00	-	170+0,000		0,77	8,25	8,25	1,34	25,67	8,067,42	9,233,68	9,233,68	-1,166,26
170,00	10,72	170+10,720		7,90	46,13	46,13	-	7,19	8,113,55	9,240,87	9,240,87	-1,127,32
171,00	-	171+0,000		10,23	83,24	83,24	-	0,02	8,196,79	9,240,89	9,240,89	-1,044,10
171,00	8,16	171+8,156		10,30	82,61	82,61	0,15	0,64	8,279,39	9,241,52	9,241,52	- 962,13
172,00	-	172+0,000		6,17	96,16	96,16	0,29	2,61	8,375,56	9,244,13	9,244,13	- 868,58
172,00	5,59	172+5,591		2,81	25,12	25,12	0,55	2,34	8,400,68	9,246,48	9,246,48	- 845,79
173,00	-	173+0,000		0,62	24,44	24,44	1,87	17,58	8,425,12	9,264,05	9,264,05	- 838,94
174,00	-	174+0,000		1,31	19,12	19,12	0,87	27,51	8,444,24	9,291,56	9,291,56	- 847,33
174,00	5,59	174+5,591		1,89	8,94	8,94	0,70	4,38	8,453,18	9,295,94	9,295,94	- 842,76
175,00	-	175+0,000		1,19	22,17	22,17	0,63	9,54	8,475,35	9,305,48	9,305,48	- 830,13
176,00	-	176+0,000		0,98	21,64	21,64	0,94	15,70	8,496,99	9,321,18	9,321,18	- 824,19
177,00	-	177+0,000		1,06	20,43	20,43	0,52	14,62	8,517,42	9,335,80	9,335,80	- 818,38
178,00	-	178+0,000		1,20	22,66	22,66	0,15	6,70	8,540,08	9,342,50	9,342,50	- 802,42
179,00	-	179+0,000		0,78	19,79	19,79	0,39	5,40	8,559,87	9,347,89	9,347,89	- 788,02
180,00	-	180+0,000		0,53	13,05	13,05	0,43	8,22	8,572,92	9,356,12	9,356,12	- 783,19
181,00	-	181+0,000		0,15	6,75	6,75	0,44	8,70	8,579,68	9,364,81	9,364,81	- 785,14
181,00	2,06	181+2,061		0,14	0,30	0,30	0,50	0,96	8,579,98	9,365,78	9,365,78	- 785,80
182,00	-	182+0,000		0,07	1,92	1,92	1,14	14,65	8,581,90	9,380,43	9,380,43	- 798,53
183,00	-	183+0,000		0,08	1,46	1,46	2,37	35,37	8,583,36	9,415,80	9,415,80	- 832,44
183,00	2,06	183+2,061		0,04	0,12	0,12	2,66	5,18	8,583,48	9,420,98	9,420,98	- 837,50
184,00	-	184+0,000		-	0,32	0,32	2,38	45,71	8,583,80	9,466,69	9,466,69	- 882,90
184,00	0,20	184+0,196		-	-	-	2,40	0,47	8,583,80	9,467,16	9,467,16	- 883,37
184,00	18,33	184+18,332		-	0,03	0,03	2,46	44,42	8,583,83	9,511,58	9,511,58	- 927,75
185,00	-	185+0,000		0,06	0,05	0,05	2,09	3,80	8,583,88	9,515,38	9,515,38	- 931,50
186,00	-	186+0,000		0,47	5,27	5,27	0,96	30,69	8,589,16	9,546,07	9,546,07	- 956,92
186,00	18,33	186+18,332		-	4,32	4,32	3,32	39,22	8,593,47	9,585,29	9,585,29	- 991,82
187,00	-	187+0,000		-	-	-	3,51	5,70	8,593,47	9,590,99	9,590,99	- 997,52
187,00	7,45	187+7,448		-	-	-	3,98	27,90	8,593,47	9,618,89	9,618,89	-1,025,42
188,00	-	188+0,000		-	-	-	6,65	66,69	8,593,47	9,685,59	9,685,59	-1,092,11
189,00	-	189+0,000		-	-	-	9,31	160,04	8,593,47	9,845,63	9,845,63	-1,252,15
189,00	7,45	189+7,448		-	-	-	7,33	62,25	8,593,47	9,907,87	9,907,87	-1,314,40
190,00	-	190+0,000		1,01	6,20	6,20	3,41	67,89	8,599,67	9,975,77	9,975,77	-1,376,09
191,00	-	191+0,000		4,91	58,17	58,17	-	34,42	8,657,85	10,010,18	10,010,18	-1,352,34
191,00	14,14	191+14,142		7,45	86,33	86,33	-	0,03	8,744,17	10,010,21	10,010,21	-1,266,04
192,00	-	192+0,000		7,33	42,91	42,91	-	-	8,787,09	10,010,21	10,010,21	-1,223,12
193,00	-	193+0,000		8,73	159,43	159,43	-	-	8,946,51	10,010,21	10,010,21	-1,063,70
194,00	-	194+0,000		18,57	270,73	270,73	-	-	9,217,24	10,010,21	10,010,21	- 792,97
194,00	0,84	194+0,836		18,27	15,41	15,41	-	-	9,232,65	10,010,21	10,010,21	- 777,56
195,00	-	195+0,000		10,70	275,91	275,91	-	-	9,508,56	10,010,21	10,010,21	- 501,65
196,00	-	196+0,000		10,97	216,42	216,42	-	-	9,724,98	10,010,21	10,010,21	- 285,23

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
196,00	0,84	196+0,836		10,97	9,17	9,17	-	-	9,734,15	10,010,21	10,010,21	- 276,06
197,00	-	197+0,000		10,41	204,83	204,83	-	-	9,938,99	10,010,21	10,010,21	- 71,23
198,00	-	198+0,000		9,23	196,39	196,39	-	-	10,135,38	10,010,21	10,010,21	125,17
199,00	-	199+0,000		4,67	138,96	138,96	-	-	10,274,34	10,010,21	10,010,21	264,13
200,00	-	200+0,000		2,30	69,60	69,60	-	-	10,343,95	10,010,21	10,010,21	333,73
201,00	-	201+0,000		0,06	23,51	23,51	2,83	28,31	10,367,46	10,038,52	10,038,52	328,94
202,00	-	202+0,000		-	0,56	0,56	7,75	105,79	10,368,01	10,144,31	10,144,31	223,70
203,00	-	203+0,000		-	-	-	13,38	211,27	10,368,01	10,355,58	10,355,58	12,43
204,00	-	204+0,000		-	-	-	19,29	326,63	10,368,01	10,682,22	10,682,22	- 314,20
205,00	-	205+0,000		-	-	-	23,56	428,48	10,368,01	11,110,70	11,110,70	- 742,68
206,00	-	206+0,000		-	-	-	26,57	501,35	10,368,01	11,612,04	11,612,04	-1,244,03
207,00	-	207+0,000		-	-	-	26,70	532,67	10,368,01	12,144,71	12,144,71	-1,776,70
208,00	-	208+0,000		-	-	-	28,02	547,13	10,368,01	12,691,84	12,691,84	-2,323,83
209,00	-	209+0,000		-	-	-	27,39	554,07	10,368,01	13,245,91	13,245,91	-2,877,89
210,00	-	210+0,000		-	-	-	28,26	556,49	10,368,01	13,802,40	13,802,40	-3,434,38
211,00	-	211+0,000		-	-	-	26,47	547,27	10,368,01	14,349,67	14,349,67	-3,981,65
212,00	-	212+0,000		-	-	-	26,02	524,88	10,368,01	14,874,55	14,874,55	-4,506,54
213,00	-	213+0,000		-	-	-	25,20	512,19	10,368,01	15,386,74	15,386,74	-5,018,73
214,00	-	214+0,000		-	-	-	21,24	464,39	10,368,01	15,851,13	15,851,13	-5,483,12
215,00	-	215+0,000		-	-	-	21,27	425,15	10,368,01	16,276,28	16,276,28	-5,908,27
215,00	12,86	215+12,863		-	-	-	21,19	273,15	10,368,01	16,549,43	16,549,43	-6,181,42
216,00	-	216+0,000		-	-	-	20,56	148,98	10,368,01	16,698,41	16,698,41	-6,330,40
217,00	-	217+0,000		-	-	-	19,27	398,15	10,368,01	17,096,56	17,096,56	-6,728,55
217,00	12,86	217+12,863		-	-	-	20,22	254,71	10,368,01	17,351,28	17,351,28	-6,983,26
218,00	-	218+0,000		-	-	-	19,98	144,05	10,368,01	17,495,33	17,495,33	-7,127,31
219,00	-	219+0,000		-	-	-	19,19	394,99	10,368,01	17,890,31	17,890,31	-7,522,30
220,00	-	220+0,000		-	-	-	16,66	363,36	10,368,01	18,253,68	18,253,68	-7,885,66
220,00	1,88	220+1,875		-	-	-	16,56	31,14	10,368,01	18,284,82	18,284,82	-7,916,81
221,00	-	221+0,000		-	-	-	12,23	265,51	10,368,01	18,550,33	18,550,33	-8,182,32
222,00	-	222+0,000		0,13	1,27	1,27	14,47	271,53	10,369,28	18,821,86	18,821,86	-8,452,58
222,00	10,89	222+10,887		-	0,69	0,69	12,53	148,57	10,369,97	18,970,43	18,970,43	-8,600,45
223,00	-	223+0,000		0,32	1,41	1,41	10,37	105,03	10,371,38	19,075,46	19,075,46	-8,704,08
224,00	-	224+0,000		0,01	3,26	3,26	5,55	159,46	10,374,64	19,234,92	19,234,92	-8,860,28
224,00	10,89	224+10,887		0,07	0,42	0,42	3,43	48,88	10,375,06	19,283,80	19,283,80	-8,908,74
225,00	-	225+0,000		0,73	3,61	3,61	2,17	25,53	10,378,67	19,309,33	19,309,33	-8,930,66
226,00	-	226+0,000		0,30	10,26	10,26	2,01	41,87	10,388,93	19,351,20	19,351,20	-8,962,27
227,00	-	227+0,000		0,29	5,88	5,88	3,07	50,83	10,394,81	19,402,03	19,402,03	-9,007,22
228,00	-	228+0,000		0,70	9,86	9,86	0,03	31,02	10,404,67	19,433,05	19,433,05	-9,028,38
229,00	-	229+0,000		0,66	13,60	13,60	3,12	31,51	10,418,27	19,464,56	19,464,56	-9,046,29
230,00	-	230+0,000		0,05	7,15	7,15	4,51	76,24	10,425,42	19,540,80	19,540,80	-9,115,37
231,00	-	231+0,000		0,54	5,93	5,93	3,27	77,79	10,431,35	19,618,59	19,618,59	-9,187,23

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
232,00	-	232+0,000		0,05	5,89	5,89	4,58	78,57	10,437,24	19,697,16	19,697,16	-9,259,92
233,00	-	233+0,000		0,01	0,60	0,60	6,33	109,15	10,437,84	19,806,30	19,806,30	-9,368,46
234,00	-	234+0,000		0,06	0,67	0,67	7,24	135,72	10,438,51	19,942,02	19,942,02	-9,503,51
234,00	4,33	234+4,327		0,03	0,19	0,19	8,13	33,26	10,438,70	19,975,29	19,975,29	-9,536,59
235,00	-	235+0,000		0,01	0,31	0,31	9,29	136,50	10,439,01	20,111,79	20,111,79	-9,672,78
236,00	-	236+0,000		0,56	5,63	5,63	5,46	147,74	10,444,65	20,259,53	20,259,53	-9,814,88
236,00	4,33	236+4,327		0,03	1,28	1,28	8,97	31,22	10,445,92	20,290,75	20,290,75	-9,844,83
237,00	-	237+0,000		-	0,22	0,22	7,98	133,04	10,446,15	20,423,79	20,423,79	-9,977,64
238,00	-	238+0,000		-	-	-	4,84	128,32	10,446,15	20,552,11	20,552,11	-10,105,96
238,00	2,50	238+2,502		-	-	-	5,97	13,51	10,446,15	20,565,62	20,565,62	-10,119,48
239,00	-	239+0,000		0,04	0,31	0,31	4,62	92,70	10,446,46	20,658,33	20,658,33	-10,211,87
240,00	-	240+0,000		0,16	1,95	1,95	2,95	75,85	10,448,40	20,734,18	20,734,18	-10,285,78
240,00	0,68	240+0,677		0,17	0,11	0,11	2,99	2,01	10,448,51	20,736,19	20,736,19	-10,287,68
241,00	-	241+0,000		0,01	1,68	1,68	2,61	54,18	10,450,19	20,790,37	20,790,37	-10,340,18
242,00	-	242+0,000		5,59	56,01	56,01	2,98	55,95	10,506,20	20,846,32	20,846,32	-10,340,12
242,00	0,68	242+0,677		5,64	3,80	3,80	3,07	2,05	10,510,00	20,848,36	20,848,36	-10,338,36
243,00	-	243+0,000		0,35	57,87	57,87	2,70	55,72	10,567,87	20,904,09	20,904,09	-10,336,21
244,00	-	244+0,000		0,01	3,61	3,61	4,28	69,75	10,571,48	20,973,83	20,973,83	-10,402,35
245,00	-	245+0,000		0,05	0,64	0,64	6,41	106,84	10,572,12	21,080,67	21,080,67	-10,508,55
246,00	-	246+0,000		0,01	0,59	0,59	5,90	123,10	10,572,71	21,203,76	21,203,76	-10,631,05
247,00	-	247+0,000		-	0,11	0,11	4,56	104,60	10,572,82	21,308,36	21,308,36	-10,735,55
248,00	-	248+0,000		0,38	3,83	3,83	4,25	88,06	10,576,65	21,396,42	21,396,42	-10,819,77
249,00	-	249+0,000		0,11	4,90	4,90	3,25	74,98	10,581,55	21,471,40	21,471,40	-10,889,85
250,00	-	250+0,000		0,18	2,83	2,83	4,56	78,09	10,584,38	21,549,49	21,549,49	-10,965,11
251,00	-	251+0,000		0,17	3,46	3,46	5,80	103,64	10,587,84	21,653,13	21,653,13	-11,065,29
252,00	-	252+0,000		-	1,70	1,70	6,99	127,93	10,589,54	21,781,06	21,781,06	-11,191,52
253,00	-	253+0,000		-	-	-	9,51	164,93	10,589,54	21,945,99	21,945,99	-11,356,44
254,00	-	254+0,000		-	-	-	8,49	179,92	10,589,54	22,125,91	22,125,91	-11,536,37
255,00	-	255+0,000		-	-	-	11,47	199,57	10,589,54	22,325,48	22,325,48	-11,735,94
256,00	-	256+0,000		-	-	-	11,49	229,60	10,589,54	22,555,08	22,555,08	-11,965,54
257,00	-	257+0,000		0,01	0,14	0,14	8,20	196,86	10,589,68	22,751,94	22,751,94	-12,162,26
258,00	-	258+0,000		-	0,14	0,14	6,55	147,47	10,589,82	22,899,41	22,899,41	-12,309,59
259,00	-	259+0,000		-	-	-	8,63	151,86	10,589,82	23,051,27	23,051,27	-12,461,45
259,00	6,19	259+6,188		0,26	0,81	0,81	5,72	44,43	10,590,63	23,095,69	23,095,69	-12,505,06
260,00	-	260+0,000		-	1,81	1,81	7,23	89,46	10,592,45	23,185,15	23,185,15	-12,592,71
261,00	-	261+0,000		-	-	-	6,76	139,94	10,592,45	23,325,09	23,325,09	-12,732,64
261,00	6,19	261+6,188		-	-	-	6,78	41,88	10,592,45	23,366,97	23,366,97	-12,774,52
261,00	14,43	261+14,425		-	-	-	6,14	53,48	10,592,45	23,420,45	23,420,45	-12,828,00
262,00	-	262+0,000		-	-	-	5,79	33,27	10,592,45	23,453,71	23,453,71	-12,861,26
262,00	2,66	262+2,662		-	-	-	5,60	15,16	10,592,45	23,468,87	23,468,87	-12,876,43
263,00	-	263+0,000		0,01	0,06	0,06	3,80	81,79	10,592,51	23,550,66	23,550,66	-12,958,15

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
264,00	-	264+0,000		0,30	3,05	3,05	2,43	62,36	10,595,56	23,613,02	23,613,02	-13,017,46
264,00	2,66	264+2,662		0,33	0,84	0,84	2,25	6,23	10,596,40	23,619,25	23,619,25	-13,022,85
265,00	-	265+0,000		0,56	7,72	7,72	1,20	29,94	10,604,12	23,649,19	23,649,19	-13,045,07
266,00	-	266+0,000		0,48	10,33	10,33	1,39	25,91	10,614,45	23,675,10	23,675,10	-13,060,65
267,00	-	267+0,000		0,16	6,35	6,35	1,26	26,49	10,620,80	23,701,59	23,701,59	-13,080,79
268,00	-	268+0,000		0,27	4,30	4,30	3,17	44,24	10,625,09	23,745,83	23,745,83	-13,120,73
269,00	-	269+0,000		0,42	6,93	6,93	2,82	59,85	10,632,02	23,805,68	23,805,68	-13,173,66
270,00	-	270+0,000		0,77	11,93	11,93	2,22	50,37	10,643,95	23,856,05	23,856,05	-13,212,10
271,00	-	271+0,000		0,13	9,00	9,00	3,31	55,24	10,652,95	23,911,29	23,911,29	-13,258,34
272,00	-	272+0,000		0,50	6,28	6,28	3,20	65,06	10,659,23	23,976,34	23,976,34	-13,317,12
273,00	-	273+0,000		0,14	6,44	6,44	3,67	68,71	10,665,67	24,045,06	24,045,06	-13,379,39
274,00	-	274+0,000		0,12	2,59	2,59	3,86	75,33	10,668,25	24,120,39	24,120,39	-13,452,13
274,00	4,17	274+4,169		0,27	0,81	0,81	2,23	12,70	10,669,06	24,133,09	24,133,09	-13,464,02
275,00	-	275+0,000		0,59	6,80	6,80	3,76	47,45	10,675,86	24,180,54	24,180,54	-13,504,67
276,00	-	276+0,000		1,66	22,05	22,05	3,17	69,61	10,697,92	24,250,14	24,250,14	-13,552,23
276,00	4,17	276+4,169		1,52	6,41	6,41	3,49	14,07	10,704,33	24,264,21	24,264,21	-13,559,89
277,00	-	277+0,000		2,12	27,85	27,85	1,67	41,36	10,732,17	24,305,57	24,305,57	-13,573,40
278,00	-	278+0,000		2,00	39,78	39,78	0,43	21,14	10,771,95	24,326,71	24,326,71	-13,554,76
278,00	16,96	278+16,964		1,39	27,73	27,73	0,75	10,06	10,799,69	24,336,77	24,336,77	-13,537,09
279,00	-	279+0,000		1,36	4,02	4,02	0,66	2,15	10,803,71	24,338,92	24,338,92	-13,535,21
280,00	-	280+0,000		1,59	28,50	28,50	0,70	13,86	10,832,21	24,352,78	24,352,78	-13,520,57
281,00	-	281+0,000		0,59	21,06	21,06	3,06	38,67	10,853,28	24,391,45	24,391,45	-13,538,18
281,00	9,76	281+9,760		0,67	5,93	5,93	4,97	39,95	10,859,21	24,431,40	24,431,40	-13,572,19
282,00	-	282+0,000		0,32	4,93	4,93	5,34	53,37	10,864,13	24,484,77	24,484,77	-13,620,63
283,00	-	283+0,000		0,01	3,20	3,20	5,63	110,13	10,867,33	24,594,90	24,594,90	-13,727,57
283,00	9,76	283+9,760		-	0,03	0,03	5,81	55,81	10,867,36	24,650,70	24,650,70	-13,783,34
284,00	-	284+0,000		-	-	-	5,48	57,78	10,867,36	24,708,48	24,708,48	-13,841,12
285,00	-	285+0,000		-	-	-	5,68	111,52	10,867,36	24,820,01	24,820,01	-13,952,64
286,00	-	286+0,000		-	-	-	4,72	103,93	10,867,36	24,923,93	24,923,93	-14,056,57
286,00	10,05	286+10,054		-	-	-	4,33	45,51	10,867,36	24,969,44	24,969,44	-14,102,08
287,00	-	287+0,000		-	-	-	3,87	40,80	10,867,36	25,010,24	25,010,24	-14,142,88
288,00	-	288+0,000		0,30	2,99	2,99	3,88	77,54	10,870,35	25,087,78	25,087,78	-14,217,43
288,00	10,05	288+10,054		2,92	15,86	15,86	2,13	30,42	10,886,21	25,118,21	25,118,21	-14,231,99
289,00	-	289+0,000		1,10	19,48	19,48	3,81	29,98	10,905,69	25,148,19	25,148,19	-14,242,50
290,00	-	290+0,000		2,78	37,59	37,59	1,63	54,95	10,943,28	25,203,14	25,203,14	-14,259,85
290,00	18,19	290+18,190		3,98	59,57	59,57	0,93	23,34	11,002,85	25,226,48	25,226,48	-14,223,63
291,00	-	291+0,000		4,15	7,36	7,36	0,84	1,61	11,010,21	25,228,08	25,228,08	-14,217,88
292,00	-	292+0,000		5,25	91,41	91,41	0,33	11,76	11,101,62	25,239,84	25,239,84	-14,138,23
293,00	-	293+0,000		4,09	91,03	91,03	0,18	5,14	11,192,65	25,244,99	25,244,99	-14,052,34
293,00	6,33	293+6,326		5,20	28,60	28,60	1,03	3,92	11,221,25	25,248,90	25,248,90	-14,027,65
294,00	-	294+0,000		4,85	67,38	67,38	1,22	15,65	11,288,63	25,264,55	25,264,55	-13,975,93

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
295,00	-	295+0,000		1,01	58,12	58,12	2,14	33,75	11,346,75	25,298,30	25,298,30	-13,951,56
295,00	6,33	295+6,326		1,47	7,84	7,84	2,06	13,29	11,354,59	25,311,59	25,311,59	-13,957,00
296,00	-	296+0,000		2,49	27,08	27,08	1,82	26,50	11,381,66	25,338,09	25,338,09	-13,956,42
297,00	-	297+0,000		3,32	58,14	58,14	0,27	20,91	11,439,81	25,358,99	25,358,99	-13,919,19
298,00	-	298+0,000		2,82	61,46	61,46	1,25	15,26	11,501,27	25,374,25	25,374,25	-13,872,99
299,00	-	299+0,000		2,55	53,69	53,69	0,58	18,33	11,554,95	25,392,58	25,392,58	-13,837,63
300,00	-	300+0,000		1,52	40,71	40,71	0,37	9,52	11,595,67	25,402,10	25,402,10	-13,806,44
301,00	-	301+0,000		0,43	19,55	19,55	1,13	15,02	11,615,21	25,417,12	25,417,12	-13,801,91
302,00	-	302+0,000		0,37	7,95	7,95	2,70	38,29	11,623,16	25,455,41	25,455,41	-13,832,25
303,00	-	303+0,000		0,04	4,03	4,03	4,47	71,65	11,627,19	25,527,06	25,527,06	-13,899,87
304,00	-	304+0,000		-	0,38	0,38	6,10	105,62	11,627,56	25,632,67	25,632,67	-14,005,11
305,00	-	305+0,000		-	-	-	6,46	125,53	11,627,56	25,758,20	25,758,20	-14,130,64
306,00	-	306+0,000		-	-	-	7,30	137,61	11,627,56	25,895,81	25,895,81	-14,268,24
307,00	-	307+0,000		-	-	-	7,01	143,16	11,627,56	26,038,97	26,038,97	-14,411,41
308,00	-	308+0,000		-	-	-	5,53	125,43	11,627,56	26,164,40	26,164,40	-14,536,83
309,00	-	309+0,000		-	0,01	0,01	4,07	96,05	11,627,58	26,260,45	26,260,45	-14,632,87
310,00	-	310+0,000		0,27	2,75	2,75	1,86	59,30	11,630,33	26,319,75	26,319,75	-14,689,41
311,00	-	311+0,000		2,10	23,73	23,73	0,11	19,70	11,654,07	26,339,45	26,339,45	-14,685,38
312,00	-	312+0,000		4,18	62,83	62,83	-	1,15	11,716,89	26,340,60	26,340,60	-14,623,70
313,00	-	313+0,000		5,21	93,95	93,95	-	-	11,810,84	26,340,60	26,340,60	-14,529,76
314,00	-	314+0,000		4,90	101,11	101,11	-	-	11,911,95	26,340,60	26,340,60	-14,428,65
315,00	-	315+0,000		4,05	89,46	89,46	0,02	0,24	12,001,41	26,340,84	26,340,84	-14,339,43
316,00	-	316+0,000		3,52	75,68	75,68	0,13	1,55	12,077,09	26,342,38	26,342,38	-14,265,29
317,00	-	317+0,000		4,51	80,29	80,29	0,03	1,59	12,157,38	26,343,97	26,343,97	-14,186,59
318,00	-	318+0,000		2,28	67,92	67,92	0,81	8,38	12,225,29	26,352,35	26,352,35	-14,127,05
319,00	-	319+0,000		1,88	41,60	41,60	0,93	17,36	12,266,89	26,369,70	26,369,70	-14,102,81
320,00	-	320+0,000		1,27	31,48	31,48	1,02	19,41	12,298,37	26,389,11	26,389,11	-14,090,74
321,00	-	321+0,000		3,29	45,62	45,62	0,83	18,45	12,343,99	26,407,56	26,407,56	-14,063,57
322,00	-	322+0,000		1,92	52,09	52,09	0,99	18,24	12,396,08	26,425,81	26,425,81	-14,029,72
323,00	-	323+0,000		1,80	37,14	37,14	1,25	22,47	12,433,23	26,448,28	26,448,28	-14,015,05
324,00	-	324+0,000		1,52	33,13	33,13	1,27	25,26	12,466,36	26,473,54	26,473,54	-14,007,18
325,00	-	325+0,000		1,57	30,84	30,84	1,22	24,99	12,497,20	26,498,53	26,498,53	-14,001,33
326,00	-	326+0,000		1,72	32,82	32,82	1,13	23,60	12,530,02	26,522,12	26,522,12	-13,992,10
326,00	17,13	326+17,131		1,66	28,88	28,88	1,42	21,86	12,558,90	26,543,98	26,543,98	-13,985,08
327,00	-	327+0,000		1,65	4,74	4,74	1,48	4,15	12,563,65	26,548,14	26,548,14	-13,984,49
328,00	-	328+0,000		1,66	32,96	32,96	1,79	32,64	12,596,61	26,580,78	26,580,78	-13,984,17
328,00	17,13	328+17,131		2,72	36,97	36,97	1,81	30,92	12,633,58	26,611,70	26,611,70	-13,978,12
329,00	-	329+0,000		2,80	7,91	7,91	2,20	5,75	12,641,49	26,617,45	26,617,45	-13,975,96
329,00	15,89	329+15,892		2,58	42,03	42,03	0,57	22,19	12,683,51	26,639,64	26,639,64	-13,956,13
330,00	-	330+0,000		2,58	10,59	10,59	0,90	3,03	12,694,10	26,642,67	26,642,67	-13,948,56
330,00	14,65	330+14,652		0,81	24,45	24,45	1,47	17,60	12,718,55	26,660,26	26,660,26	-13,941,71

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
331,00	-	331+0,000		1,09	5,09	5,09	1,74	8,58	12,723,64	26,668,84	26,668,84	-13,945,21
332,00	-	332+0,000		0,82	18,91	18,91	3,24	49,98	12,742,54	26,718,83	26,718,83	-13,976,28
332,00	14,65	332+14,652		0,71	11,21	11,21	3,79	51,47	12,753,76	26,770,30	26,770,30	-14,016,54
333,00	-	333+0,000		0,66	3,66	3,66	4,14	21,19	12,757,41	26,791,48	26,791,48	-14,034,07
334,00	-	334+0,000		0,41	10,68	10,68	3,94	80,78	12,768,10	26,872,26	26,872,26	-14,104,17
335,00	-	335+0,000		0,03	4,39	4,39	5,92	98,60	12,772,48	26,970,86	26,970,86	-14,198,37
336,00	-	336+0,000		-	0,30	0,30	3,11	90,32	12,772,78	27,061,18	27,061,18	-14,288,40
337,00	-	337+0,000		-	-	-	11,29	144,01	12,772,78	27,205,19	27,205,19	-14,432,41
338,00	-	338+0,000		-	-	-	12,42	237,03	12,772,78	27,442,21	27,442,21	-14,669,43
339,00	-	339+0,000		-	-	-	13,68	260,92	12,772,78	27,703,13	27,703,13	-14,930,35
340,00	-	340+0,000		-	-	-	14,18	278,57	12,772,78	27,981,70	27,981,70	-15,208,92
341,00	-	341+0,000		-	-	-	14,48	286,63	12,772,78	28,268,33	28,268,33	-15,495,55
342,00	-	342+0,000		-	-	-	14,39	288,76	12,772,78	28,557,09	28,557,09	-15,784,31
343,00	-	343+0,000		-	-	-	15,07	294,67	12,772,78	28,851,76	28,851,76	-16,078,98
344,00	-	344+0,000		-	-	-	14,43	295,06	12,772,78	29,146,82	29,146,82	-16,374,04
345,00	-	345+0,000		-	-	-	10,53	249,66	12,772,78	29,396,48	29,396,48	-16,623,70
346,00	-	346+0,000		-	-	-	9,18	197,16	12,772,78	29,593,63	29,593,63	-16,820,85
347,00	-	347+0,000		-	-	-	9,15	183,35	12,772,78	29,776,98	29,776,98	-17,004,20
348,00	-	348+0,000		-	0,05	0,05	4,40	135,51	12,772,83	29,912,49	29,912,49	-17,139,66
349,00	-	349+0,000		0,94	9,49	9,49	1,20	56,00	12,782,32	29,968,49	29,968,49	-17,186,17
350,00	-	350+0,000		1,06	20,07	20,07	0,32	15,18	12,802,39	29,983,67	29,983,67	-17,181,27
351,00	-	351+0,000		3,47	45,36	45,36	-	3,17	12,847,76	29,986,84	29,986,84	-17,139,08
352,00	-	352+0,000		2,96	64,34	64,34	-	0,01	12,912,10	29,986,84	29,986,84	-17,074,75
353,00	-	353+0,000		1,54	45,02	45,02	0,13	1,30	12,957,12	29,988,15	29,988,15	-17,031,03
354,00	-	354+0,000		1,27	28,15	28,15	0,91	10,44	12,985,27	29,998,59	29,998,59	-17,013,32
355,00	-	355+0,000		1,39	26,62	26,62	1,02	19,30	13,011,88	30,017,89	30,017,89	-17,006,00
356,00	-	356+0,000		0,45	18,41	18,41	2,06	30,79	13,030,29	30,048,68	30,048,68	-17,018,39
357,00	-	357+0,000		0,38	8,29	8,29	2,42	44,86	13,038,58	30,093,54	30,093,54	-17,054,96
358,00	-	358+0,000		1,11	14,88	14,88	2,22	46,47	13,053,46	30,140,00	30,140,00	-17,086,54
359,00	-	359+0,000		1,16	22,74	22,74	2,74	49,64	13,076,20	30,189,64	30,189,64	-17,113,44
360,00	-	360+0,000		0,87	20,36	20,36	1,94	46,76	13,096,56	30,236,40	30,236,40	-17,139,83
361,00	-	361+0,000		0,16	10,30	10,30	3,28	52,17	13,106,87	30,288,56	30,288,56	-17,181,70
362,00	-	362+0,000		0,70	8,60	8,60	2,36	56,43	13,115,46	30,345,00	30,345,00	-17,229,53
363,00	-	363+0,000		0,17	8,73	8,73	3,14	55,01	13,124,19	30,400,01	30,400,01	-17,275,82
364,00	-	364+0,000		0,02	1,89	1,89	3,70	68,37	13,126,08	30,468,38	30,468,38	-17,342,30
365,00	-	365+0,000		0,02	0,38	0,38	4,44	81,38	13,126,46	30,549,76	30,549,76	-17,423,30
366,00	-	366+0,000		-	0,19	0,19	7,51	119,54	13,126,65	30,669,30	30,669,30	-17,542,65
367,00	-	367+0,000		-	-	-	8,85	163,64	13,126,65	30,832,94	30,832,94	-17,706,29
368,00	-	368+0,000		-	-	-	11,27	201,20	13,126,65	31,034,14	31,034,14	-17,907,49
369,00	-	369+0,000		-	-	-	11,74	230,12	13,126,65	31,264,26	31,264,26	-18,137,61
370,00	-	370+0,000		-	-	-	13,46	252,00	13,126,65	31,516,26	31,516,26	-18,389,61

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
371,00	-	371+0,000		-	-	-	11,77	252,28	13,126,65	31,768,54	31,768,54	-18,641,89
372,00	-	372+0,000		-	-	-	13,14	249,06	13,126,65	32,017,60	32,017,60	-18,890,95
373,00	-	373+0,000		-	-	-	9,67	228,03	13,126,65	32,245,63	32,245,63	-19,118,98
374,00	-	374+0,000		-	-	-	8,34	180,10	13,126,65	32,425,73	32,425,73	-19,299,08
375,00	-	375+0,000		0,04	0,36	0,36	6,23	145,78	13,127,01	32,571,51	32,571,51	-19,444,50
376,00	-	376+0,000		0,11	1,42	1,42	5,19	114,28	13,128,44	32,685,79	32,685,79	-19,557,35
377,00	-	377+0,000		0,48	5,91	5,91	3,60	87,98	13,134,35	32,773,77	32,773,77	-19,639,42
378,00	-	378+0,000		1,08	15,66	15,66	0,50	41,00	13,150,01	32,814,77	32,814,77	-19,664,76
379,00	-	379+0,000		1,06	21,42	21,42	0,29	7,82	13,171,42	32,822,59	32,822,59	-19,651,17
380,00	-	380+0,000		2,89	39,48	39,48	-	2,87	13,210,90	32,825,46	32,825,46	-19,614,56
380,00	12,25	380+12,246		2,54	33,20	33,20	-	-	13,244,10	32,825,46	32,825,46	-19,581,36
381,00	-	381+0,000		2,57	19,79	19,79	-	-	13,263,89	32,825,46	32,825,46	-19,561,56
382,00	-	382+0,000		1,52	40,64	40,64	0,20	2,01	13,304,54	32,827,46	32,827,46	-19,522,93
382,00	12,25	382+12,246		2,13	21,73	21,73	0,56	4,80	13,326,27	32,832,26	32,832,26	-19,505,99
383,00	-	383+0,000		1,53	13,70	13,70	1,10	6,69	13,339,97	32,838,95	32,838,95	-19,498,98
384,00	-	384+0,000		0,59	20,32	20,32	2,23	34,20	13,360,29	32,873,15	32,873,15	-19,512,86
384,00	1,05	384+1,045		0,42	0,53	0,53	2,29	2,36	13,360,82	32,875,51	32,875,51	-19,514,69
385,00	-	385+0,000		-	3,77	3,77	3,59	56,65	13,364,59	32,932,17	32,932,17	-19,567,58
385,00	9,84	385+9,844		-	-	-	4,04	37,99	13,364,59	32,970,16	32,970,16	-19,605,57
386,00	-	386+0,000		0,93	4,58	4,58	1,25	27,24	13,369,17	32,997,40	32,997,40	-19,628,23
387,00	-	387+0,000		-	9,14	9,14	2,68	39,47	13,378,31	33,036,87	33,036,87	-19,658,56
387,00	9,84	387+9,844		0,24	1,20	1,20	3,01	27,98	13,379,50	33,064,85	33,064,85	-19,685,35
388,00	-	388+0,000		1,28	7,73	7,73	-	15,26	13,387,23	33,080,11	33,080,11	-19,692,88
389,00	-	389+0,000		0,53	18,14	18,14	2,21	22,13	13,405,37	33,102,24	33,102,24	-19,696,87
390,00	-	390+0,000		0,90	14,37	14,37	2,24	44,58	13,419,75	33,146,82	33,146,82	-19,727,07
391,00	-	391+0,000		1,25	21,54	21,54	1,72	39,65	13,441,29	33,186,47	33,186,47	-19,745,18
392,00	-	392+0,000		1,29	25,38	25,38	1,63	33,51	13,466,67	33,219,97	33,219,97	-19,753,30
393,00	-	393+0,000		1,51	27,94	27,94	0,99	26,20	13,494,61	33,246,17	33,246,17	-19,751,56
394,00	-	394+0,000		1,49	30,02	30,02	1,09	20,82	13,524,63	33,266,99	33,266,99	-19,742,36
395,00	-	395+0,000		1,37	28,63	28,63	2,73	38,25	13,553,26	33,305,24	33,305,24	-19,751,98
396,00	-	396+0,000		1,43	27,98	27,98	2,30	50,35	13,581,24	33,355,59	33,355,59	-19,774,35
397,00	-	397+0,000		1,03	24,57	24,57	3,57	58,74	13,605,81	33,414,33	33,414,33	-19,808,52
398,00	-	398+0,000		0,59	16,17	16,17	4,37	79,46	13,621,99	33,493,79	33,493,79	-19,871,80
399,00	-	399+0,000		1,20	17,90	17,90	2,63	70,03	13,639,89	33,563,81	33,563,81	-19,923,93
400,00	-	400+0,000		0,16	13,63	13,63	2,81	54,45	13,653,51	33,618,26	33,618,26	-19,964,75
401,00	-	401+0,000		0,41	5,78	5,78	0,68	34,90	13,659,29	33,653,16	33,653,16	-19,993,87
402,00	-	402+0,000		0,95	13,68	13,68	0,92	15,98	13,672,97	33,669,14	33,669,14	-19,996,17
402,00	9,91	402+9,912		0,65	7,96	7,96	1,60	12,52	13,680,93	33,681,67	33,681,67	-20,000,74
403,00	-	403+0,000		0,52	5,92	5,92	1,73	16,79	13,686,85	33,698,46	33,698,46	-20,011,61
404,00	-	404+0,000		1,70	22,03	22,03	1,57	33,21	13,708,88	33,731,66	33,731,66	-20,022,79
404,00	9,91	404+9,912		1,59	16,03	16,03	2,32	19,57	13,724,91	33,751,24	33,751,24	-20,026,33

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
405,00	-	405+0,000		2,04	17,92	17,92	2,39	24,19	13,742,83	33,775,43	33,775,43	-20,032,59
406,00	-	406+0,000		2,47	44,15	44,15	1,51	39,66	13,786,99	33,815,08	33,815,08	-20,028,10
407,00	-	407+0,000		5,02	73,51	73,51	0,31	18,45	13,860,49	33,833,53	33,833,53	-19,973,04
407,00	6,67	407+6,673		6,86	39,04	39,04	-	1,05	13,899,53	33,834,58	33,834,58	-19,935,05
408,00	-	408+0,000		8,40	100,60	100,60	-	-	14,000,13	33,834,58	33,834,58	-19,834,45
409,00	-	409+0,000		5,67	139,32	139,32	0,04	0,43	14,139,45	33,835,01	33,835,01	-19,695,56
410,00	-	410+0,000		2,19	77,55	77,55	1,29	13,53	14,217,01	33,848,55	33,848,55	-19,631,54
410,00	3,43	410+3,434		1,75	6,76	6,76	1,81	5,33	14,223,77	33,853,87	33,853,87	-19,630,11
411,00	-	411+0,000		0,20	15,87	15,87	4,10	49,54	14,239,63	33,903,41	33,903,41	-19,663,78
412,00	-	412+0,000		-	1,96	1,96	5,14	92,71	14,241,59	33,996,12	33,996,12	-19,754,53
412,00	3,43	412+3,434		-	-	-	4,66	16,83	14,241,59	34,012,95	34,012,95	-19,771,36
413,00	-	413+0,000		-	-	-	3,80	70,08	14,241,59	34,083,03	34,083,03	-19,841,43
414,00	-	414+0,000		-	-	-	5,85	96,49	14,241,59	34,179,51	34,179,51	-19,937,92
415,00	-	415+0,000		-	-	-	3,63	94,79	14,241,59	34,274,30	34,274,30	-20,032,71
416,00	-	416+0,000		2,89	28,91	28,91	0,03	36,58	14,270,50	34,310,88	34,310,88	-20,040,38
417,00	-	417+0,000		11,08	139,73	139,73	-	0,27	14,410,23	34,311,15	34,311,15	-19,900,92
417,00	17,02	417+17,022		14,57	218,36	218,36	-	-	14,628,59	34,311,15	34,311,15	-19,682,56
418,00	-	418+0,000		13,98	42,50	42,50	-	-	14,671,10	34,311,15	34,311,15	-19,640,05
419,00	-	419+0,000		11,81	256,86	256,86	-	-	14,927,95	34,311,15	34,311,15	-19,383,19
419,00	17,02	419+17,022		7,32	160,78	160,78	0,29	2,49	15,088,74	34,313,64	34,313,64	-19,224,90
420,00	-	420+0,000		6,65	20,80	20,80	0,34	0,93	15,109,53	34,314,57	34,314,57	-19,205,04
420,00	8,99	420+8,986		5,70	54,18	54,18	1,90	10,17	15,163,72	34,324,74	34,324,74	-19,161,03
421,00	-	421+0,000		2,64	44,78	44,78	7,31	51,11	15,208,50	34,375,86	34,375,86	-19,167,36
421,00	0,95	421+0,949		2,33	2,36	2,36	7,80	7,17	15,210,86	34,383,02	34,383,02	-19,172,17
422,00	-	422+0,000		-	21,80	21,80	17,30	239,90	15,232,66	34,622,93	34,622,93	-19,390,27
423,00	-	423+0,000		-	-	-	23,78	411,11	15,232,66	35,034,03	35,034,03	-19,801,37
423,00	0,95	423+0,949		-	-	-	23,79	22,57	15,232,66	35,056,60	35,056,60	-19,823,94
424,00	-	424+0,000		-	-	-	30,42	516,39	15,232,66	35,572,99	35,572,99	-20,340,33
425,00	-	425+0,000		-	-	-	32,12	625,37	15,232,66	36,198,36	36,198,36	-20,965,70
426,00	-	426+0,000		-	-	-	33,37	654,94	15,232,66	36,853,30	36,853,30	-21,620,64
426,00	16,72	426+16,719		-	-	-	34,77	569,66	15,232,66	37,422,96	37,422,96	-22,190,30
427,00	-	427+0,000		-	-	-	34,98	114,42	15,232,66	37,537,38	37,537,38	-22,304,72
428,00	-	428+0,000		-	-	-	35,02	700,63	15,232,66	38,238,01	38,238,01	-23,005,35
428,00	16,72	428+16,719		-	-	-	36,47	599,64	15,232,66	38,837,64	38,837,64	-23,604,98
429,00	-	429+0,000		-	-	-	35,25	117,66	15,232,66	38,955,30	38,955,30	-23,722,64
429,00	12,00	429+12,002		-	-	-	31,51	402,66	15,232,66	39,357,96	39,357,96	-24,125,30
430,00	-	430+0,000		-	-	-	27,17	235,64	15,232,66	39,593,60	39,593,60	-24,360,93
430,00	7,29	430+7,286		-	-	-	24,87	190,33	15,232,66	39,783,92	39,783,92	-24,551,26
431,00	-	431+0,000		-	-	-	20,96	292,29	15,232,66	40,076,21	40,076,21	-24,843,55
432,00	-	432+0,000		-	-	-	13,73	347,38	15,232,66	40,423,60	40,423,60	-25,190,93
432,00	7,29	432+7,286		-	-	-	10,30	87,52	15,232,66	40,511,12	40,511,12	-25,278,46

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
433,00	-	433+0,000		-	-	-	5,72	101,84	15,232,66	40,612,96	40,612,96	-25,380,30
434,00	-	434+0,000		1,56	15,62	15,62	0,36	60,83	15,248,28	40,673,79	40,673,79	-25,425,51
435,00	-	435+0,000		8,14	97,01	97,01	-	3,60	15,345,29	40,677,39	40,677,39	-25,332,10
436,00	-	436+0,000		16,02	241,59	241,59	-	-	15,586,88	40,677,39	40,677,39	-25,090,51
437,00	-	437+0,000		23,53	395,47	395,47	-	-	15,982,35	40,677,39	40,677,39	-24,695,04
438,00	-	438+0,000		29,86	533,83	533,83	-	-	16,516,18	40,677,39	40,677,39	-24,161,21
439,00	-	439+0,000		33,74	635,99	635,99	-	-	17,152,17	40,677,39	40,677,39	-23,525,22
440,00	-	440+0,000		36,02	697,62	697,62	-	-	17,849,79	40,677,39	40,677,39	-22,827,60
441,00	-	441+0,000		34,31	703,27	703,27	-	-	18,553,06	40,677,39	40,677,39	-22,124,33
442,00	-	442+0,000		32,77	670,77	670,77	-	-	19,223,83	40,677,39	40,677,39	-21,453,56
443,00	-	443+0,000		30,19	629,62	629,62	-	-	19,853,45	40,677,39	40,677,39	-20,823,94
444,00	-	444+0,000		29,31	595,02	595,02	-	-	20,448,48	40,677,39	40,677,39	-20,228,91
445,00	-	445+0,000		29,09	583,98	583,98	-	-	21,032,45	40,677,39	40,677,39	-19,644,94
445,00	2,66	445+2,657		28,73	76,82	76,82	-	-	21,109,27	40,677,39	40,677,39	-19,568,12
446,00	-	446+0,000		29,83	507,90	507,90	-	-	21,617,17	40,677,39	40,677,39	-19,060,22
447,00	-	447+0,000		30,14	599,72	599,72	-	-	22,216,89	40,677,39	40,677,39	-18,460,50
448,00	-	448+0,000		30,11	602,49	602,49	-	-	22,819,38	40,677,39	40,677,39	-17,858,01
449,00	-	449+0,000		28,02	581,24	581,24	-	-	23,400,62	40,677,39	40,677,39	-17,276,77
450,00	-	450+0,000		22,88	508,98	508,98	-	-	23,909,60	40,677,39	40,677,39	-16,767,79
451,00	-	451+0,000		17,15	400,28	400,28	-	-	24,309,89	40,677,39	40,677,39	-16,367,50
452,00	-	452+0,000		9,53	266,83	266,83	-	-	24,576,72	40,677,39	40,677,39	-16,100,67
453,00	-	453+0,000		5,28	148,15	148,15	-	-	24,724,87	40,677,39	40,677,39	-15,952,51
454,00	-	454+0,000		4,63	99,07	99,07	-	-	24,823,95	40,677,39	40,677,39	-15,853,44
455,00	-	455+0,000		3,59	82,12	82,12	-	-	24,906,07	40,677,39	40,677,39	-15,771,32
456,00	-	456+0,000		2,38	59,67	59,67	-	-	24,965,74	40,677,39	40,677,39	-15,711,65
457,00	-	457+0,000		2,27	46,48	46,48	0,01	0,13	25,012,22	40,677,52	40,677,52	-15,665,30
458,00	-	458+0,000		1,70	39,67	39,67	0,63	6,39	25,051,89	40,683,91	40,683,91	-15,632,02
459,00	-	459+0,000		2,41	41,14	41,14	0,59	12,14	25,093,03	40,696,05	40,696,05	-15,603,02
460,00	-	460+0,000		2,09	45,01	45,01	0,50	10,90	25,138,04	40,706,94	40,706,94	-15,568,90
461,00	-	461+0,000		1,76	38,51	38,51	0,38	8,78	25,176,55	40,715,72	40,715,72	-15,539,17
462,00	-	462+0,000		2,24	40,05	40,05	-	3,76	25,216,60	40,719,48	40,719,48	-15,502,87
463,00	-	463+0,000		2,35	45,94	45,94	0,06	0,63	25,262,54	40,720,11	40,720,11	-15,457,57
464,00	-	464+0,000		2,75	51,01	51,01	-	0,63	25,313,56	40,720,74	40,720,74	-15,407,18
465,00	-	465+0,000		5,45	81,95	81,95	-	-	25,395,51	40,720,74	40,720,74	-15,325,23
466,00	-	466+0,000		4,06	95,06	95,06	-	-	25,490,57	40,720,74	40,720,74	-15,230,17
467,00	-	467+0,000		4,28	83,45	83,45	0,10	0,96	25,574,01	40,721,70	40,721,70	-15,147,69
468,00	-	468+0,000		6,06	103,40	103,40	0,79	8,90	25,677,41	40,730,60	40,730,60	-15,053,18
469,00	-	469+0,000		2,29	83,49	83,49	1,16	19,53	25,760,91	40,750,13	40,750,13	-14,989,22
470,00	-	470+0,000		0,36	26,57	26,57	2,15	33,08	25,787,47	40,783,21	40,783,21	-14,995,73
470,00	15,06	470+15,058		-	2,73	2,73	3,67	43,78	25,790,21	40,826,98	40,826,98	-15,036,78
471,00	-	471+0,000		-	-	-	4,44	20,03	25,790,21	40,847,01	40,847,01	-15,056,81

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
472,00	-	472+0,000		-	-	-	7,82	122,59	25,790,21	40,969,61	40,969,61	-15,179,40
472,00	15,06	472+15,058		0,44	3,23	3,23	6,27	106,41	25,793,44	41,076,02	41,076,02	-15,282,58
473,00	-	473+0,000		0,61	2,54	2,54	6,92	32,94	25,795,98	41,108,95	41,108,95	-15,312,98
474,00	-	474+0,000		0,54	11,24	11,24	4,48	115,26	25,807,22	41,224,22	41,224,22	-15,417,00
474,00	9,80	474+9,798		0,58	5,36	5,36	4,02	42,03	25,812,58	41,266,25	41,266,25	-15,453,67
475,00	-	475+0,000		0,52	5,52	5,52	3,57	39,11	25,818,09	41,305,35	41,305,35	-15,487,26
476,00	-	476+0,000		0,51	10,05	10,05	1,42	50,40	25,828,15	41,355,76	41,355,76	-15,527,61
476,00	4,54	476+4,539		0,72	2,74	2,74	1,17	5,93	25,830,89	41,361,69	41,361,69	-15,530,80
477,00	-	477+0,000		1,24	15,19	15,19	0,74	14,85	25,846,09	41,376,54	41,376,54	-15,530,45
478,00	-	478+0,000		1,48	27,29	27,29	0,66	14,05	25,873,38	41,390,59	41,390,59	-15,517,21
478,00	4,54	478+4,539		1,57	6,92	6,92	0,62	2,92	25,880,30	41,393,51	41,393,51	-15,513,21
479,00	-	479+0,000		1,75	25,65	25,65	0,49	8,62	25,905,95	41,402,13	41,402,13	-15,496,18
480,00	-	480+0,000		1,38	31,25	31,25	0,89	13,83	25,937,19	41,415,96	41,415,96	-15,478,77
481,00	-	481+0,000		1,00	23,74	23,74	1,76	26,53	25,960,94	41,442,49	41,442,49	-15,481,56
482,00	-	482+0,000		0,44	14,40	14,40	2,33	40,92	25,975,34	41,483,41	41,483,41	-15,508,07
483,00	-	483+0,000		0,22	6,60	6,60	2,58	49,10	25,981,94	41,532,51	41,532,51	-15,550,57
484,00	-	484+0,000		0,28	5,00	5,00	2,51	50,89	25,986,94	41,583,40	41,583,40	-15,596,46
485,00	-	485+0,000		0,82	11,02	11,02	2,60	51,09	25,997,96	41,634,49	41,634,49	-15,636,52
486,00	-	486+0,000		1,59	24,12	24,12	2,48	50,75	26,022,08	41,685,24	41,685,24	-15,663,16
487,00	-	487+0,000		1,80	33,89	33,89	2,31	47,88	26,055,98	41,733,12	41,733,12	-15,677,14
488,00	-	488+0,000		1,21	30,04	30,04	1,69	39,98	26,086,02	41,773,10	41,773,10	-15,687,09
489,00	-	489+0,000		2,11	33,13	33,13	0,91	25,99	26,119,15	41,799,09	41,799,09	-15,679,94
490,00	-	490+0,000		2,81	49,16	49,16	0,26	11,67	26,168,31	41,810,76	41,810,76	-15,642,45
491,00	-	491+0,000		4,43	72,42	72,42	-	2,59	26,240,73	41,813,35	41,813,35	-15,572,62
491,00	1,37	491+1,371		4,71	6,27	6,27	-	-	26,246,99	41,813,35	41,813,35	-15,566,36
492,00	-	492+0,000		5,64	96,41	96,41	-	0,05	26,343,40	41,813,40	41,813,40	-15,470,00
493,00	-	493+0,000		9,88	154,15	154,15	0,07	0,73	26,497,55	41,814,13	41,814,13	-15,316,58
493,00	1,37	493+1,371		10,15	13,73	13,73	0,08	0,11	26,511,28	41,814,23	41,814,23	-15,302,95
494,00	-	494+0,000		13,39	216,91	216,91	-	0,81	26,728,19	41,815,04	41,815,04	-15,086,85
495,00	-	495+0,000		15,14	283,04	283,04	-	-	27,011,23	41,815,04	41,815,04	-14,803,81
496,00	-	496+0,000		17,49	324,42	324,42	-	-	27,335,65	41,815,04	41,815,04	-14,479,39
496,00	15,22	496+15,220		17,37	264,21	264,21	-	-	27,599,86	41,815,04	41,815,04	-14,215,18
497,00	-	497+0,000		16,90	81,59	81,59	-	-	27,681,45	41,815,04	41,815,04	-14,133,59
498,00	-	498+0,000		15,17	319,48	319,48	-	-	28,000,93	41,815,04	41,815,04	-13,814,11
499,00	-	499+0,000		11,48	265,32	265,32	-	-	28,266,25	41,815,04	41,815,04	-13,548,79
500,00	-	500+0,000		4,60	159,35	159,35	0,75	7,66	28,425,59	41,822,70	41,822,70	-13,397,11
500,00	9,07	500+9,070		3,92	37,94	37,94	1,13	8,68	28,463,54	41,831,38	41,831,38	-13,367,85
501,00	-	501+0,000		1,58	29,64	29,64	1,22	12,98	28,493,18	41,844,36	41,844,36	-13,351,19
502,00	-	502+0,000		0,18	17,54	17,54	1,57	27,87	28,510,72	41,872,24	41,872,24	-13,361,52
502,00	9,07	502+9,070		0,03	0,94	0,94	3,22	21,70	28,511,66	41,893,94	41,893,94	-13,382,28
503,00	-	503+0,000		-	0,16	0,16	4,69	43,23	28,511,82	41,937,17	41,937,17	-13,425,34

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
504,00	-	504+0,000		-	-	-	4,90	95,90	28,511,82	42,033,06	42,033,06	-13,521,24
505,00	-	505+0,000		-	-	-	11,46	163,59	28,511,82	42,196,66	42,196,66	-13,684,83
506,00	-	506+0,000		-	-	-	15,34	267,99	28,511,82	42,464,64	42,464,64	-13,952,82
507,00	-	507+0,000		-	-	-	16,39	317,22	28,511,82	42,781,86	42,781,86	-14,270,04
508,00	-	508+0,000		-	-	-	17,09	334,80	28,511,82	43,116,66	43,116,66	-14,604,84
509,00	-	509+0,000		-	-	-	12,58	296,69	28,511,82	43,413,35	43,413,35	-14,901,52
510,00	-	510+0,000		-	-	-	16,24	288,11	28,511,82	43,701,45	43,701,45	-15,189,63
511,00	-	511+0,000		-	-	-	20,29	365,30	28,511,82	44,066,75	44,066,75	-15,554,93
512,00	-	512+0,000		-	-	-	19,23	395,21	28,511,82	44,461,97	44,461,97	-15,950,14
513,00	-	513+0,000		-	-	-	17,28	365,05	28,511,82	44,827,01	44,827,01	-16,315,19
514,00	-	514+0,000		-	-	-	12,22	294,94	28,511,82	45,121,95	45,121,95	-16,610,13
515,00	-	515+0,000		-	-	-	7,34	195,54	28,511,82	45,317,50	45,317,50	-16,805,67
516,00	-	516+0,000		-	-	-	3,93	112,72	28,511,82	45,430,22	45,430,22	-16,918,39
516,00	18,31	516+18,308		-	-	-	4,94	81,24	28,511,83	45,511,45	45,511,45	-16,999,63
517,00	-	517+0,000		-	-	-	5,20	8,58	28,511,83	45,520,04	45,520,04	-17,008,21
518,00	-	518+0,000		-	0,03	0,03	5,71	109,25	28,511,86	45,629,28	45,629,28	-17,117,42
518,00	18,31	518+18,308		0,17	1,54	1,54	4,44	93,43	28,513,40	45,722,71	45,722,71	-17,209,31
519,00	-	519+0,000		0,23	0,34	0,34	4,07	7,20	28,513,74	45,729,91	45,729,91	-17,216,17
520,00	-	520+0,000		2,66	28,40	28,40	0,24	43,55	28,542,14	45,773,46	45,773,46	-17,231,32
520,00	6,62	520+6,624		3,72	20,87	20,87	0,48	2,45	28,563,01	45,775,91	45,775,91	-17,212,90
521,00	-	521+0,000		2,10	38,43	38,43	1,52	13,69	28,601,43	45,789,60	45,789,60	-17,188,17
521,00	14,94	521+14,940		0,71	20,55	20,55	2,78	32,72	28,621,98	45,822,32	45,822,32	-17,200,33
522,00	-	522+0,000		0,35	2,61	2,61	2,94	14,64	28,624,60	45,836,96	45,836,96	-17,212,36
523,00	-	523+0,000		-	3,47	3,47	3,34	62,96	28,628,07	45,899,91	45,899,91	-17,271,84
523,00	14,94	523+14,940		0,46	3,42	3,42	2,86	46,27	28,631,49	45,946,18	45,946,18	-17,314,69
524,00	-	524+0,000		0,32	1,97	1,97	3,47	16,02	28,633,46	45,962,20	45,962,20	-17,328,74
525,00	-	525+0,000		0,01	3,24	3,24	5,36	88,32	28,636,70	46,050,51	46,050,51	-17,413,81
526,00	-	526+0,000		-	0,05	0,05	7,02	123,81	28,636,75	46,174,32	46,174,32	-17,537,58
527,00	-	527+0,000		-	-	-	10,24	172,66	28,636,75	46,346,99	46,346,99	-17,710,24
528,00	-	528+0,000		-	-	-	12,00	222,47	28,636,75	46,569,45	46,569,45	-17,932,70
529,00	-	529+0,000		-	-	-	10,57	225,77	28,636,75	46,795,22	46,795,22	-18,158,47
530,00	-	530+0,000		-	-	-	14,09	246,68	28,636,75	47,041,90	47,041,90	-18,405,15
531,00	-	531+0,000		-	-	-	16,36	304,58	28,636,75	47,346,49	47,346,49	-18,709,74
531,00	3,72	531+3,723		-	-	-	17,04	62,19	28,636,75	47,408,67	47,408,67	-18,771,92
532,00	-	532+0,000		-	-	-	18,11	286,05	28,636,75	47,694,72	47,694,72	-19,057,97
533,00	-	533+0,000		-	-	-	25,60	436,85	28,636,75	48,131,57	48,131,57	-19,494,82
533,00	3,72	533+3,723		-	-	-	20,88	86,53	28,636,75	48,218,10	48,218,10	-19,581,35
534,00	-	534+0,000		-	-	-	19,37	328,11	28,636,75	48,546,21	48,546,21	-19,909,46
535,00	-	535+0,000		-	-	-	19,62	391,09	28,636,75	48,937,30	48,937,30	-20,300,55
536,00	-	536+0,000		-	-	-	17,66	374,58	28,636,75	49,311,88	49,311,88	-20,675,13
537,00	-	537+0,000		-	-	-	15,57	334,36	28,636,75	49,646,25	49,646,25	-21,009,50

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
538,00	-	538+0,000		-	-	-	9,47	252,43	28,636,75	49,898,67	49,898,67	-21,261,93
539,00	-	539+0,000		-	-	-	5,30	149,11	28,636,75	50,047,78	50,047,78	-21,411,03
540,00	-	540+0,000		0,05	0,46	0,46	6,97	124,15	28,637,21	50,171,93	50,171,93	-21,534,72
541,00	-	541+0,000		0,08	1,29	1,29	7,82	149,63	28,638,50	50,321,56	50,321,56	-21,683,06
541,00	19,73	541+19,734		0,55	6,10	6,10	7,84	155,76	28,644,60	50,477,32	50,477,32	-21,832,72
542,00	-	542+0,000		0,54	0,14	0,14	7,82	2,08	28,644,74	50,479,40	50,479,40	-21,834,65
543,00	-	543+0,000		-	5,34	5,34	5,41	133,01	28,650,08	50,612,41	50,612,41	-21,962,33
544,00	-	544+0,000		0,19	1,91	1,91	3,54	89,89	28,651,99	50,702,30	50,702,30	-22,050,31
545,00	-	545+0,000		0,22	4,03	4,03	2,72	62,95	28,656,02	50,765,25	50,765,25	-22,109,23
546,00	-	546+0,000		3,66	38,34	38,34	0,30	30,49	28,694,36	50,795,75	50,795,75	-22,101,38
547,00	-	547+0,000		14,68	182,03	182,03	-	3,09	28,876,39	50,798,83	50,798,83	-21,922,44
548,00	-	548+0,000		23,11	375,62	375,62	-	-	29,252,01	50,798,83	50,798,83	-21,546,82
549,00	-	549+0,000		13,16	359,91	359,91	-	-	29,611,92	50,798,83	50,798,83	-21,186,91
550,00	-	550+0,000		7,50	204,19	204,19	0,07	0,68	29,816,11	50,799,51	50,799,51	-20,983,40
550,00	15,75	550+15,745		8,05	121,12	121,12	0,02	0,66	29,937,23	50,800,17	50,800,17	-20,862,94
551,00	-	551+0,000		9,00	36,28	36,28	-	0,03	29,973,52	50,800,21	50,800,21	-20,826,69
552,00	-	552+0,000		13,76	226,97	226,97	-	-	30,200,48	50,800,21	50,800,21	-20,599,72
552,00	15,75	552+15,745		18,23	251,90	251,90	-	-	30,452,38	50,800,21	50,800,21	-20,347,83
553,00	-	553+0,000		18,75	78,69	78,69	-	-	30,531,07	50,800,21	50,800,21	-19,929,14
554,00	-	554+0,000		13,90	326,50	326,50	-	-	30,857,57	50,800,21	50,800,21	-19,942,64
555,00	-	555+0,000		1,86	157,52	157,52	0,14	1,43	31,015,09	50,801,64	50,801,64	-19,786,55
555,00	2,21	555+2,207		1,04	3,19	3,19	0,38	0,57	31,018,28	50,802,21	50,802,21	-19,783,93
556,00	-	556+0,000		0,20	11,04	11,04	4,38	42,31	31,029,32	50,844,52	50,844,52	-19,815,20
557,00	-	557+0,000		0,73	9,15	9,15	5,78	102,15	31,038,47	50,946,67	50,946,67	-19,908,20
557,00	2,21	557+2,207		0,77	1,65	1,65	5,94	12,94	31,040,12	50,959,61	50,959,61	-19,919,49
558,00	-	558+0,000		1,29	17,89	17,89	4,76	96,16	31,058,01	51,055,77	51,055,77	-19,997,75
558,00	7,97	558+7,970		1,78	11,96	11,96	3,81	34,50	31,069,97	51,090,26	51,090,26	-20,020,29
559,00	-	559+0,000		2,04	22,46	22,46	2,62	39,06	31,092,43	51,129,32	51,129,32	-20,036,88
559,00	13,73	559+13,733		2,48	30,38	30,38	3,27	40,94	31,122,81	51,170,25	51,170,25	-20,047,44
560,00	-	560+0,000		2,10	14,07	14,07	2,28	17,62	31,136,88	51,187,87	51,187,87	-20,050,99
561,00	-	561+0,000		1,32	33,87	33,87	1,51	38,17	31,170,76	51,226,04	51,226,04	-20,055,28
561,00	13,73	561+13,733		2,15	23,82	23,82	0,43	13,31	31,194,58	51,239,35	51,239,35	-20,044,77
562,00	-	562+0,000		2,52	14,62	14,62	0,15	1,82	31,209,20	51,241,17	51,241,17	-20,031,97
563,00	-	563+0,000		2,64	51,65	51,65	-	1,50	31,260,85	51,242,67	51,242,67	-19,981,82
564,00	-	564+0,000		1,35	39,98	39,98	0,55	5,53	31,300,83	51,248,19	51,248,19	-19,947,36
564,00	7,91	564+7,914		0,60	7,72	7,72	1,38	7,64	31,308,56	51,255,83	51,255,83	-19,947,28
565,00	-	565+0,000		-	3,62	3,62	4,10	33,08	31,312,17	51,288,92	51,288,92	-19,976,74
566,00	-	566+0,000		-	-	-	9,23	133,83	31,312,17	51,422,75	51,422,75	-20,110,57
566,00	7,91	566+7,914		-	-	-	10,04	76,81	31,312,17	51,499,55	51,499,55	-20,187,38
567,00	-	567+0,000		-	-	-	9,34	117,87	31,312,17	51,617,43	51,617,43	-20,305,25
567,00	10,58	567+10,581		-	-	-	8,58	95,15	31,312,17	51,712,58	51,712,58	-20,400,40

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
568,00	-	568+0,000		-	-	-	6,69	72,14	31,312,17	51,784,72	51,784,72	-20,472,54
568,00	13,25	568+13,249		0,03	0,19	0,19	5,19	79,03	31,312,36	51,863,74	51,863,74	-20,551,38
569,00	-	569+0,000		0,05	0,25	0,25	4,02	31,23	31,312,61	51,894,98	51,894,98	-20,582,36
570,00	-	570+0,000		0,91	9,61	9,61	0,51	45,43	31,322,23	51,940,40	51,940,40	-20,618,18
570,00	13,25	570+13,249		3,44	28,81	28,81	-	3,38	31,351,04	51,943,79	51,943,79	-20,592,75
571,00	-	571+0,000		4,61	27,18	27,18	-	-	31,378,22	51,943,79	51,943,79	-20,565,57
571,00	19,86	571+19,856		8,00	125,17	125,17	-	-	31,503,39	51,943,79	51,943,79	-20,440,40
572,00	-	572+0,000		8,06	1,16	1,16	-	-	31,504,54	51,943,79	51,943,79	-20,439,25
573,00	-	573+0,000		4,95	130,08	130,08	0,16	1,61	31,634,62	51,945,40	51,945,40	-20,310,78
574,00	-	574+0,000		2,82	77,74	77,74	1,49	16,51	31,712,36	51,961,91	51,961,91	-20,249,55
575,00	-	575+0,000		0,68	35,01	35,01	7,25	87,41	31,747,37	52,049,32	52,049,32	-20,301,95
576,00	-	576+0,000		0,50	11,82	11,82	8,96	162,14	31,759,19	52,211,45	52,211,45	-20,452,27
577,00	-	577+0,000		0,01	5,16	5,16	8,57	175,29	31,764,34	52,386,74	52,386,74	-20,622,40
577,00	18,94	577+18,935		-	0,12	0,12	7,14	148,66	31,764,46	52,535,40	52,535,40	-20,770,94
578,00	-	578+0,000		-	-	-	7,02	7,54	31,764,46	52,542,94	52,542,94	-20,778,48
579,00	-	579+0,000		-	-	-	4,30	113,24	31,764,46	52,656,19	52,656,19	-20,891,72
580,00	-	580+0,000		0,03	0,33	0,33	1,89	61,86	31,764,79	52,718,05	52,718,05	-20,953,25
581,00	-	581+0,000		4,86	48,94	48,94	0,22	21,04	31,813,73	52,739,09	52,739,09	-20,925,35
582,00	-	582+0,000		1,58	64,40	64,40	0,72	9,34	31,878,13	52,748,42	52,748,42	-20,870,29
583,00	-	583+0,000		0,06	16,41	16,41	4,29	50,09	31,894,54	52,798,51	52,798,51	-20,903,96
583,00	18,01	583+18,014		-	0,56	0,56	7,80	108,90	31,895,10	52,907,41	52,907,41	-21,012,30
584,00	-	584+0,000		-	-	-	8,19	15,88	31,895,10	52,923,28	52,923,28	-21,028,18
584,00	1,15	584+1,148		-	-	-	8,46	9,55	31,895,10	52,932,84	52,932,84	-21,037,73
585,00	-	585+0,000		-	-	-	11,89	191,65	31,895,10	53,124,48	53,124,48	-21,229,38
586,00	-	586+0,000		-	-	-	13,13	249,87	31,895,10	53,374,35	53,374,35	-21,479,25
586,00	1,15	586+1,148		-	-	-	13,27	15,15	31,895,10	53,389,50	53,389,50	-21,494,40
587,00	-	587+0,000		-	-	-	17,33	289,37	31,895,10	53,678,87	53,678,87	-21,783,77
587,00	13,13	587+13,131		-	-	-	16,50	223,48	31,895,10	53,902,35	53,902,35	-22,007,24
588,00	-	588+0,000		-	-	-	16,27	113,42	31,895,10	54,015,77	54,015,77	-22,120,66
589,00	-	589+0,000		-	-	-	13,85	303,55	31,895,10	54,319,31	54,319,31	-22,424,21
589,00	5,12	589+5,115		-	-	-	11,93	66,39	31,895,10	54,385,71	54,385,71	-22,490,60
590,00	-	590+0,000		-	0,02	0,02	6,51	137,76	31,895,13	54,523,47	54,523,47	-22,628,34
591,00	-	591+0,000		0,43	4,39	4,39	3,53	100,43	31,899,51	54,623,90	54,623,90	-22,724,38
591,00	5,12	591+5,115		0,47	2,30	2,30	2,52	15,47	31,901,81	54,639,36	54,639,36	-22,737,55
592,00	-	592+0,000		1,07	11,42	11,42	0,37	21,48	31,913,23	54,660,84	54,660,84	-22,747,61
593,00	-	593+0,000		2,21	32,75	32,75	-	3,70	31,945,98	54,664,54	54,664,54	-22,718,56
594,00	-	594+0,000		3,33	55,36	55,36	-	0,01	32,001,34	54,664,55	54,664,55	-22,663,21
595,00	-	595+0,000		3,12	64,50	64,50	-	0,01	32,065,84	54,664,56	54,664,56	-22,598,72
596,00	-	596+0,000		1,22	43,39	43,39	-	-	32,109,23	54,664,56	54,664,56	-22,555,33
597,00	-	597+0,000		0,64	18,59	18,59	0,64	6,36	32,127,82	54,670,92	54,670,92	-22,543,10
598,00	-	598+0,000		0,88	15,17	15,17	0,44	10,71	32,142,99	54,681,63	54,681,63	-22,538,64

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
599,00	-	599+0,000		0,43	13,03	13,03	0,98	14,12	32,156,02	54,695,75	54,695,75	-22,539,73
599,00	4,94	599+4,943		0,54	2,38	2,38	1,02	4,94	32,158,41	54,700,68	54,700,68	-22,542,28
600,00	-	600+0,000		1,44	14,89	14,89	1,35	17,84	32,173,30	54,718,52	54,718,52	-22,545,22
601,00	-	601+0,000		3,28	46,82	46,82	0,55	19,19	32,220,12	54,737,71	54,737,71	-22,517,59
601,00	4,94	601+4,943		3,28	16,21	16,21	0,76	3,24	32,236,33	54,740,95	54,740,95	-22,504,62
602,00	-	602+0,000		3,83	53,03	53,03	0,59	10,29	32,289,36	54,751,24	54,751,24	-22,461,88
602,00	14,42	602+14,418		4,35	58,40	58,40	0,01	4,40	32,347,75	54,755,64	54,755,64	-22,407,88
603,00	-	603+0,000		4,73	25,07	25,07	0,01	0,07	32,372,82	54,755,71	54,755,71	-22,382,89
604,00	-	604+0,000		5,48	100,74	100,74	0,38	3,95	32,473,56	54,759,66	54,759,66	-22,286,10
604,00	3,89	604+3,894		5,78	21,91	21,91	0,42	1,56	32,495,46	54,761,21	54,761,21	-22,265,75
605,00	-	605+0,000		3,35	72,64	72,64	0,20	5,11	32,568,10	54,766,32	54,766,32	-22,198,22
606,00	-	606+0,000		3,31	66,37	66,37	0,01	2,11	32,634,48	54,768,43	54,768,43	-22,133,95
606,00	3,89	606+3,894		3,60	13,45	13,45	-	0,01	32,647,92	54,768,44	54,768,44	-22,120,52
607,00	-	607+0,000		5,22	71,06	71,06	0,05	0,42	32,718,99	54,768,86	54,768,86	-22,049,88
608,00	-	608+0,000		0,78	60,06	60,06	0,90	9,54	32,779,05	54,778,41	54,778,41	-21,999,36
609,00	-	609+0,000		0,99	17,72	17,72	0,80	17,06	32,796,77	54,795,46	54,795,46	-21,998,69
610,00	-	610+0,000		0,67	16,58	16,58	2,07	28,69	32,813,35	54,824,15	54,824,15	-22,010,80
610,00	7,67	610+7,672		0,67	5,15	5,15	1,67	14,33	32,818,50	54,838,48	54,838,48	-22,019,99
611,00	-	611+0,000		0,09	4,70	4,70	2,87	27,95	32,823,20	54,866,44	54,866,44	-22,043,24
612,00	-	612+0,000		0,11	2,05	2,05	3,37	62,33	32,825,24	54,928,76	54,928,76	-22,103,52
612,00	5,19	612+5,194		0,11	0,58	0,58	3,10	16,80	32,825,82	54,945,56	54,945,56	-22,119,74
613,00	-	613+0,000		0,38	3,64	3,64	2,24	39,51	32,829,46	54,985,07	54,985,07	-22,155,60
614,00	-	614+0,000		0,38	7,63	7,63	2,39	46,25	32,837,09	55,031,32	55,031,32	-22,194,23
614,00	2,72	614+2,716		0,32	0,95	0,95	2,31	6,38	32,838,04	55,037,69	55,037,69	-22,199,65
615,00	-	615+0,000		0,41	6,29	6,29	1,21	30,38	32,844,33	55,068,07	55,068,07	-22,223,74
616,00	-	616+0,000		1,80	22,06	22,06	0,07	12,79	32,866,39	55,080,86	55,080,86	-22,214,47
617,00	-	617+0,000		4,95	67,49	67,49	-	0,69	32,933,87	55,081,55	55,081,55	-22,147,68
618,00	-	618+0,000		8,42	133,73	133,73	-	-	33,067,60	55,081,55	55,081,55	-22,013,95
618,00	19,22	618+19,223		8,32	160,92	160,92	-	-	33,228,52	55,081,55	55,081,55	-21,853,03
619,00	-	619+0,000		8,29	6,45	6,45	-	-	33,234,98	55,081,55	55,081,55	-21,846,58
620,00	-	620+0,000		5,87	141,38	141,38	-	-	33,376,36	55,081,55	55,081,55	-21,705,20
620,00	19,22	620+19,223		3,99	94,35	94,35	-	-	33,470,71	55,081,55	55,081,55	-21,610,85
621,00	-	621+0,000		4,04	3,12	3,12	-	-	33,473,83	55,081,55	55,081,55	-21,607,73
621,00	18,32	621+18,320		1,81	53,43	53,43	0,78	7,20	33,527,26	55,088,75	55,088,75	-21,561,49
622,00	-	622+0,000		1,69	2,95	2,95	0,86	1,38	33,530,21	55,090,14	55,090,14	-21,559,93
622,00	17,42	622+17,416		0,65	20,29	20,29	3,72	40,19	33,550,50	55,130,32	55,130,32	-21,579,82
623,00	-	623+0,000		0,58	1,59	1,59	4,28	10,34	33,552,08	55,140,66	55,140,66	-21,588,57
624,00	-	624+0,000		0,02	5,89	5,89	8,73	130,42	33,557,97	55,271,07	55,271,07	-21,713,10
624,00	17,42	624+17,416		-	0,17	0,17	12,18	182,10	33,558,14	55,453,18	55,453,18	-21,895,04
625,00	-	625+0,000		-	-	-	12,60	32,02	33,558,14	55,485,20	55,485,20	-21,927,06
626,00	-	626+0,000		-	-	-	8,87	214,74	33,558,14	55,699,94	55,699,94	-22,141,80

VOLUME GEOMÉTRICO RODOVIA MUNICIPAL DO PARAÍSO												
Estaca			Semi Distância (m)	Área de Corte (m ²)	Volume de Corte (m ³)	Vol. Reuso (m ³)	Área de Aterro (m ²)	Volume Aterro (m ³)	Vol. Acum. Corte (m ³)	Vol. Reuso Acum. (m ³)	Vol. Acum. Aterro (m ³)	Dif. Vol. Acum. (m ³)
627,00	-	627+0,000		0,29	2,89	2,89	2,71	115,84	33,561,03	55,815,77	55,815,77	-22,254,75
628,00	-	628+0,000		0,28	5,65	5,65	0,87	35,89	33,566,68	55,851,67	55,851,67	-22,284,99
629,00	-	629+0,000		2,81	30,86	30,86	-	8,75	33,597,54	55,860,42	55,860,42	-22,262,88
630,00	-	630+0,000		2,33	51,38	51,38	0,25	2,53	33,648,92	55,862,95	55,862,95	-22,214,02
630,00	1,58	630+1,582		2,16	3,55	3,55	0,28	0,42	33,652,47	55,863,37	55,863,37	-22,210,90
631,00	-	631+0,000		2,06	38,59	38,59	0,53	7,60	33,691,06	55,870,97	55,870,97	-22,179,90
632,00	-	632+0,000		6,12	79,47	79,47	1,03	16,18	33,770,54	55,887,15	55,887,15	-22,116,62
632,00	1,58	632+1,582		6,71	10,15	10,15	1,03	1,63	33,780,68	55,888,78	55,888,78	-22,108,10
633,00	-	633+0,000		11,37	161,01	161,01	0,69	16,65	33,941,70	55,905,43	55,905,43	-21,963,73
633,00	3,43	633+3,433		10,86	37,14	37,14	0,79	2,68	33,978,84	55,908,11	55,908,11	-21,929,27
634,00	-	634+0,000		3,42	114,61	114,61	1,43	19,06	34,093,44	55,927,17	55,927,17	-21,833,73
634,00	5,28	634+5,283		2,56	15,03	15,03	1,40	7,73	34,108,47	55,934,91	55,934,91	-21,826,43
635,00	-	635+0,000		1,79	30,98	30,98	0,35	13,33	34,139,45	55,948,24	55,948,24	-21,808,79
636,00	-	636+0,000		5,94	76,71	76,71	-	3,58	34,216,17	55,951,82	55,951,82	-21,735,65
636,00	5,28	636+5,283		7,18	34,68	34,68	-	-	34,250,84	55,951,82	55,951,82	-21,700,98
637,00	-	637+0,000		8,21	113,29	113,29	-	-	34,364,13	55,951,82	55,951,82	-21,587,69
638,00	-	638+0,000		6,48	146,95	146,95	-	-	34,511,09	55,951,82	55,951,82	-21,440,73
639,00	-	639+0,000		4,54	110,24	110,24	-	-	34,621,33	55,951,82	55,951,82	-21,330,49
639,00	13,17	639+13,172		1,90	42,40	42,40	0,28	1,87	34,663,73	55,953,69	55,953,69	-21,289,96



LEVANTAMENTO - CÁLCULO VOLUME POR INTERVALO





PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO							Fator Empolamento		REVISÃO: 1	
Est.: 0+0,00 a 639+13,172									DATA	
VOLUMES DE EMPRÉSTIMO LATERAL							1,13		jul/24	
Est. Inicial	Est. Final	LADO	Extensão (m)	Largura (m)	Profund. (m)	Volume m³	Volume Transporte m³	Descrição	Dist. Para eixo da via m	
215 + 0,00	225 + 0,00	LE	200,00	20,00	1,13	4.520,00	4.000,00	EL 01	25	
245 + 0,00	265 + 0,00	LE	400,00	20,00	1,13	9.040,00	8.000,00	EL 02	25	
275 + 0,00	295 + 0,00	LE	400,00	20,00	1,13	9.040,00	8.000,00	EL 03	25	
355 + 0,00	365 + 0,00	LE	200,00	20,00	1,13	4.520,00	4.000,00	EL 04	25	
395 + 0,00	405 + 0,00	LE	200,00	20,00	1,13	4.520,00	4.000,00	EL 05	25	
520 + 0,00	530 + 0,00	LD	200,00	20,00	1,13	4.520,00	4.000,00	EL 06	25	
TOTAL						36.160,00	32.000,00			



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO							REVISÃO: 1			
Est.: 0+0,00 a 639+13,172							DATA			
VOLUMES DE COMPENSAÇÃO LATERAL POR INTERVALO E CLASSIFICAÇÃO							jul/24			
VOLUMES DE CORTE POR INTERVALO				CLASSIFICAÇÃO			DESCRIÇÃO			
ESTACA INICIAL	ESTACA FINAL		VOLUMES m³	1º	2º	3º				
1	+	0,000	7	+	0,000	28,91	100%	0%	0%	CL 01
11	+	0,000	21	+	0,000	102,58	100%	0%	0%	CL 02
42	+	0,000	47	+	0,000	62,23	100%	0%	0%	CL 03
50	+	0,000	78	+	0,000	470,48	100%	0%	0%	CL 04
82	+	0,000	86	+	0,000	8,14	100%	0%	0%	CL 05
92	+	0,000	98	+	0,000	46,89	100%	0%	0%	CL 06
103	+	0,000	106	+	0,000	28,72	100%	0%	0%	CL 07
111	+	0,000	119	+	0,000	30,69	100%	0%	0%	CL 08
122	+	0,000	124	+	0,000	3,41	100%	0%	0%	CL 09
129	+	0,000	143	+	0,000	148,25	100%	0%	0%	CL 10
149	+	0,000	187	+	0,000	309,82	100%	0%	0%	CL 11
190	+	0,000	192	+	0,000	45,13	100%	0%	0%	CL 12
201	+	0,000	202	+	0,000	24,07	100%	0%	0%	CL 13
222	+	0,000	252	+	0,000	221,53	100%	0%	0%	CL 14
257	+	0,000	260	+	0,000	2,90	100%	0%	0%	CL 15
263	+	0,000	284	+	0,000	228,24	100%	0%	0%	CL 16
288	+	0,000	304	+	0,000	320,06	100%	0%	0%	CL 17
309	+	0,000	312	+	0,000	26,32	100%	0%	0%	CL 18
315	+	0,000	336	+	0,000	416,12	100%	0%	0%	CL 19
348	+	0,000	366	+	0,000	180,13	100%	0%	0%	CL 20
375	+	0,000	412	+	0,000	553,60	100%	0%	0%	CL 21
416	+	0,000	417	+	0,000	29,22	100%	0%	0%	CL 22
420	+	0,000	422	+	0,000	97,27	100%	0%	0%	CL 23
434	+	0,000	435	+	0,000	19,69	100%	0%	0%	CL 24
457	+	0,000	464	+	0,000	49,00	100%	0%	0%	CL 25
467	+	0,000	494	+	0,000	359,14	100%	0%	0%	CL 26
500	+	0,000	503	+	0,000	51,77	100%	0%	0%	CL 27



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REDES SOCIAIS:



518	+	0,000	525	+	0,000	60,70	100%	0%	0%	CL 28
539	+	0,000	546	+	0,000	57,22	100%	0%	0%	CL 29
549	+	0,000	550	+	0,000	1,55	100%	0%	0%	CL 30
554	+	0,000	564	+	0,000	193,66	100%	0%	0%	CL 31
568	+	0,000	583	+	0,000	138,08	100%	0%	0%	CL 32
589	+	0,000	616	+	0,000	220,12	100%	0%	0%	CL 33
621	+	0,000	635	+	0,000	159,33	100%	0%	0%	CL 34
639	+	0,000	639	+	0,000	2,11	100%	0%	0%	CL 35
TOTAL						4.697,06				



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO							REVISÃO: 1	
Est.: 0+0,00 a 639+13,172							DATA	
VOLUMES DE CORTE POR INTERVALO E CLASSIFICAÇÃO							jul/24	
VOLUMES DE CORTE POR INTERVALO				CLASSIFICAÇÃO %			DESCRIÇÃO	
ESTACA INICIAL	ESTACA FINAL	VOLUMES m³	1º	2º	3º			
1 + 0,000	6 + 0,000	96,76	100,00%	0,00%	0,00%	Corte 01		
15 + 0,000	16 + 0,000	98,47	100,00%	0,00%	0,00%	Corte 02		
47 + 0,000	60 + 0,000	1.657,15	100,00%	0,00%	0,00%	Corte 03		
75 + 0,000	92 + 0,000	2.574,96	100,00%	0,00%	0,00%	Corte 04		
97 + 0,000	97 + 0,000	34,57	100,00%	0,00%	0,00%	Corte 05		
106 + 0,000	142 + 0,000	2.199,07	100,00%	0,00%	0,00%	Corte 06		
156 + 0,000	157 + 0,000	73,18	100,00%	0,00%	0,00%	Corte 07		
161 + 0,000	167 + 0,000	240,15	100,00%	0,00%	0,00%	Corte 08		
171 + 0,000	180 + 0,000	379,10	100,00%	0,00%	0,00%	Corte 09		
191 + 0,000	200 + 0,000	1.705,33	100,00%	0,00%	0,00%	Corte 10		
278 + 0,000	280 + 0,000	46,68	100,00%	0,00%	0,00%	Corte 11		
291 + 0,000	295 + 0,000	295,93	100,00%	0,00%	0,00%	Corte 12		
297 + 0,000	301 + 0,000	144,23	100,00%	0,00%	0,00%	Corte 13		
311 + 0,000	330 + 0,000	702,78	100,00%	0,00%	0,00%	Corte 14		
350 + 0,000	355 + 0,000	173,74	100,00%	0,00%	0,00%	Corte 15		
379 + 0,000	383 + 0,000	162,63	100,00%	0,00%	0,00%	Corte 16		
394 + 0,000	394 + 0,000	6,49	100,00%	0,00%	0,00%	Corte 17		
407 + 0,000	410 + 0,000	392,21	100,00%	0,00%	0,00%	Corte 18		
417 + 0,000	421 + 0,000	864,57	100,00%	0,00%	0,00%	Corte 19		
435 + 0,000	469 + 0,000	10.426,32	100,00%	0,00%	0,00%	Corte 20		
478 + 0,000	480 + 0,000	46,57	100,00%	0,00%	0,00%	Corte 21		
489 + 0,000	501 + 0,000	2.326,63	100,00%	0,00%	0,00%	Corte 22		
521 + 0,000	521 + 0,000	41,06	100,00%	0,00%	0,00%	Corte 23		
545 + 0,000	554 + 0,000	2.317,96	100,00%	0,00%	0,00%	Corte 24		
561 + 0,000	563 + 0,000	105,03	100,00%	0,00%	0,00%	Corte 25		
570 + 0,000	573 + 0,000	365,85	100,00%	0,00%	0,00%	Corte 26		
580 + 0,000	581 + 0,000	79,01	100,00%	0,00%	0,00%	Corte 27		



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REDES SOCIAIS:



592	+	0,000	597	+	0,000	206,27	100,00%	0,00%	0,00%	Corte 28
600	+	0,000	607	+	0,000	538,08	100,00%	0,00%	0,00%	Corte 29
615	+	0,000	621	+	0,000	660,95	100,00%	0,00%	0,00%	Corte 30
628	+	0,000	639	+	0,000	981,77	100,00%	0,00%	0,00%	Corte 31
TOTAL						29.943,50				



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										REVISÃO: 1
Est.: 0+0,00 a 639+13,172										DATA
VOLUMES DE ATERRO POR INTERVALO										jul/24
ESTACA INICIAL	ESTACA FINAL			VOLUMES m³	VOL. ATERRO COMPACTADO A PROCTOR INTERMEDIÁRIO	VOL. ATERRO COMP. A PROCTOR NORMAL m³	VOLUMES TRANSPORTE m³	VOLUMES DE TRANSPORTE ATERRO COMPACTADO A PROCTOR INTERMEDIÁRIO m³	VOLUMES DE TRANSPORTE ATERRO COMPACTADO A PROCTOR NORMAL m³	DESCRIÇÃO
1 + 0,000	47 + 0,000			4.758,04	2.972,40	1.785,64	5.376,59	3.358,81	2.017,77	Aterro 01
50 + 0,000	78 + 0,000			1.577,65	1.401,82	175,83	1.782,74	1.584,06	198,69	Aterro 02
82 + 0,000	86 + 0,000			7,20	7,20	0,00	8,14	8,14	0,00	Aterro 03
92 + 0,000	106 + 0,000			1.370,46	979,78	390,68	1.548,62	1.107,15	441,47	Aterro 04
111 + 0,000	119 + 0,000			27,16	27,16	0,00	30,69	30,69	0,00	Aterro 05
122 + 0,000	124 + 0,000			3,02	3,02	0,00	3,41	3,41	0,00	Aterro 06
129 + 0,000	192 + 0,000			2.266,66	1.998,26	268,40	2.561,33	2.258,03	303,29	Aterro 07
201 + 0,000	312 + 0,000			16.330,45	8.555,37	7.775,08	18.453,41	9.667,57	8.785,84	Aterro 08
315 + 0,000	417 + 0,000			7.970,63	5.412,07	2.558,56	9.006,81	6.115,64	2.891,17	Aterro 09
420 + 0,000	435 + 0,000			6.366,25	1.396,33	4.969,92	7.193,86	1.577,85	5.616,01	Aterro 10
457 + 0,000	464 + 0,000			43,36	43,36	0,00	49,00	49,00	0,00	Aterro 11
467 + 0,000	494 + 0,000			1.094,31	1.033,91	60,40	1.236,57	1.168,32	68,25	Aterro 12
500 + 0,000	546 + 0,000			8.936,46	4.141,75	4.794,71	10.098,20	4.680,18	5.418,02	Aterro 13
549 + 0,000	550 + 0,000			1,37	1,37	0,00	1,55	1,55	0,00	Aterro 14
554 + 0,000	616 + 0,000			4.281,42	2.924,02	1.357,40	4.838,00	3.304,14	1.533,86	Aterro 15
621 + 0,000	635 + 0,000			870,26	617,54	252,72	983,39	697,82	285,57	Aterro 16
639 + 0,000	639 + 0,000			1,87	1,87	0,00	2,11	2,11	0,00	Aterro 17
TOTAL				55.906,57	31.517,23	24.389,34	63.174,42	35.614,47	27.559,95	



LEVANTAMENTO - NOTAS DE SERVIÇO DESMATAMENTO





PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO											
Est.: 0+0,00 a 639+13,172											
Nota de Serviço Desmatamento											
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)		
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada	
0 + 0,000	20,00	Pista	6,072	5,710	5,710	5,710	157,82	157,82	114,20	114,20	
1 + 0,000	20,00	Pista	6,241	5,851	5,710	5,710	321,84	321,84	228,40	228,40	
2 + 0,000	20,00	Pista	5,752	5,974	5,710	5,710	314,52	314,52	228,40	228,40	
3 + 0,000	20,00	Pista	5,980	5,834	5,710	5,710	316,28	316,28	228,40	228,40	
4 + 0,000	20,00	Pista	5,880	5,721	5,710	5,710	312,02	312,02	228,40	228,40	
5 + 0,000	20,00	Pista	5,761	5,838	5,710	5,710	311,98	311,98	228,40	228,40	
6 + 0,000	20,00	Pista	5,710	5,761	5,710	5,710	309,42	621,40	228,40	456,80	
7 + 0,000	20,00	Pista	6,583	6,155	5,710	5,710	334,76	956,16	228,40	685,20	
8 + 0,000	20,00	Pista	6,489	6,257	5,710	5,710	334,92	1.291,08	228,40	913,60	
9 + 0,000	20,00	Pista	6,219	6,123	5,710	5,710	326,84	1.617,92	228,40	1.142,00	
10 + 0,000	20,00	Pista	5,760	6,009	5,710	5,710	315,38	1.933,30	228,40	1.370,40	
11 + 0,000	20,00	Pista	5,862	6,194	5,710	5,710	321,12	2.254,42	228,40	1.598,80	
12 + 0,000	20,00	Pista	6,093	5,988	5,710	5,710	321,62	2.576,04	228,40	1.827,20	
13 + 0,000	20,00	Pista	6,274	5,725	5,710	5,710	319,98	2.896,02	228,40	2.055,60	
14 + 0,000	20,00	Pista	6,075	5,922	5,710	5,710	319,94	3.215,96	228,40	2.284,00	
15 + 0,000	20,00	Pista	6,053	6,129	5,710	5,710	323,64	3.539,60	228,40	2.512,40	
16 + 0,000	20,00	Pista	5,821	5,910	5,710	5,710	314,62	3.854,22	228,40	2.740,80	
17 + 0,000	20,00	Pista	5,739	5,969	5,710	5,710	314,16	4.168,38	228,40	2.969,20	
18 + 0,000	20,00	Pista	5,766	5,758	5,710	5,710	310,48	4.478,86	228,40	3.197,60	
19 + 0,000	20,00	Pista	5,962	5,821	5,710	5,710	315,66	4.794,52	228,40	3.426,00	
20 + 0,000	20,00	Pista	5,858	6,235	5,710	5,710	321,86	5.116,38	228,40	3.654,40	
21 + 0,000	20,00	Pista	5,722	5,710	5,710	5,710	308,64	5.425,02	228,40	3.882,80	
22 + 0,000	20,00	Pista	5,845	6,598	5,710	5,710	328,86	5.753,88	228,40	4.111,20	
23 + 0,000	8,02	Pista	6,015	6,784	5,710	5,710	235,40	5.989,28	160,02	4.271,22	
23 + 8,025	11,98	Pista	6,060	6,854	5,710	5,710	169,14	6.158,42	114,20	4.385,42	
24 + 0,000	20,00	Pista	6,234	7,142	5,743	5,855	277,80	6.436,21	185,42	4.570,85	
25 + 0,000	8,02	Pista	6,732	7,559	5,786	6,107	256,30	6.692,52	166,65	4.737,50	
25 + 8,025	11,98	Pista	6,718	8,011	6,010	6,010	187,29	6.879,81	120,20	4.857,70	
26 + 0,000	13,11	Pista	6,952	8,345	6,010	6,010	242,00	7.121,81	150,74	5.008,44	
26 + 13,107	6,89	Pista	6,531	8,554	6,010	6,010	190,85	7.312,66	120,20	5.128,64	
27 + 0,000	18,19	Pista	6,120	8,818	6,010	6,010	237,49	7.550,15	150,74	5.279,38	
27 + 18,188	1,81	Pista	6,618	9,071	6,010	6,010	196,89	7.747,04	120,20	5.399,58	
28 + 0,000	20,00	Pista	6,517	8,980	5,936	6,054	212,63	7.959,68	130,76	5.530,34	
29 + 0,000	18,19	Pista	6,206	8,981	5,823	5,869	366,36	8.326,03	223,25	5.753,59	
29 + 18,188	1,81	Pista	7,412	7,834	5,710	5,710	192,46	8.518,49	114,20	5.867,79	
30 + 0,000	20,00	Pista	7,464	7,788	5,710	5,710	209,96	8.728,46	124,55	5.992,33	
31 + 0,000	20,00	Pista	7,722	7,808	5,710	5,710	390,60	9.119,06	228,40	6.220,73	
32 + 0,000	20,00	Pista	7,219	7,565	5,710	5,710	375,68	9.494,74	228,40	6.449,13	
33 + 0,000	20,00	Pista	6,966	7,067	5,710	5,710	360,66	9.855,40	228,40	6.677,53	
34 + 0,000	20,00	Pista	6,813	6,645	5,710	5,710	349,16	10.204,56	228,40	6.905,93	
35 + 0,000	20,00	Pista	6,525	6,487	5,710	5,710	340,24	10.544,80	228,40	7.134,33	
36 + 0,000	20,00	Pista	6,520	6,915	5,710	5,710	348,70	10.893,50	228,40	7.362,73	
37 + 0,000	18,94	Pista	6,443	6,872	5,710	5,710	337,11	11.230,61	222,34	7.585,07	
37 + 18,939	1,06	Pista	6,816	6,626	5,710	5,710	174,42	11.405,03	114,20	7.699,27	
38 + 0,000	20,00	Pista	6,958	6,716	5,810	5,810	186,12	11.591,15	122,36	7.821,64	



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO											
Est.: 0+0,00 a 639+13,172											
Nota de Serviço Desmatamento											
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)		
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada	
39 + 0,000	9,12	Pista	6,817	6,744	5,81	5,810	255,66	11.846,81	169,17	7.990,81	
39 + 9,117	10,88	Pista	6,759	6,728	5,81	5,810	174,87	12.021,68	116,20	8.107,01	
40 + 0,000	19,30	Pista	6,565	6,403	5,81	5,810	256,03	12.277,71	175,33	8.282,34	
40 + 19,295	0,71	Pista	6,049	6,530	5,71	5,710	165,79	12.443,50	114,20	8.396,54	
41 + 0,000	20,00	Pista	6,043	6,554	5,71	5,710	171,82	12.615,32	118,23	8.514,77	
42 + 0,000	20,00	Pista	7,125	6,297	5,71	5,710	348,44	12.963,76	228,40	8.743,17	
43 + 0,000	9,07	Pista	5,768	7,197	5,71	5,710	246,58	13.210,34	165,98	8.909,15	
43 + 9,069	10,93	Pista	5,716	5,738	5,71	5,710	154,54	13.364,88	114,20	9.023,35	
44 + 0,000	20,00	Pista	5,944	6,177	5,743	5,894	249,32	13.614,20	179,97	9.203,32	
45 + 0,000	9,07	Pista	7,268	5,821	5,792	6,235	248,38	13.862,58	174,81	9.378,13	
45 + 9,069	10,93	Pista	6,934	6,433	6,11	6,110	173,67	14.036,25	122,20	9.500,33	
46 + 0,000	20,00	Pista	6,420	6,128	6,11	6,110	255,92	14.292,17	188,99	9.689,32	
47 + 0,000	20,00	Pista	6,366	6,143	6,11	6,110	330,18	14.622,35	244,40	9.933,72	
48 + 0,000	9,10	Pista	6,906	6,519	6,11	6,110	253,57	14.875,92	177,83	10.111,54	
48 + 9,104	10,90	Pista	7,253	6,675	6,11	6,110	179,28	15.055,20	122,20	10.233,74	
49 + 0,000	20,00	Pista	7,656	6,593	6,11	6,110	281,91	15.337,11	188,77	10.422,52	
50 + 0,000	20,00	Pista	6,989	7,206	6,11	6,110	363,90	15.701,01	244,40	10.666,92	
51 + 0,000	9,14	Pista	6,786	8,462	6,11	6,110	280,43	15.981,44	178,04	10.844,96	
51 + 9,139	10,86	Pista	7,135	7,598	6,11	6,110	187,33	16.168,77	122,20	10.967,16	
52 + 0,000	20,00	Pista	7,137	7,043	5,778	6,213	280,53	16.449,30	185,03	11.152,19	
53 + 0,000	9,14	Pista	6,653	6,865	5,729	5,872	255,23	16.704,53	169,02	11.321,21	
53 + 9,139	10,86	Pista	6,425	7,126	5,71	5,710	175,51	16.880,04	114,20	11.435,41	
54 + 0,000	20,00	Pista	6,804	7,413	5,71	5,710	281,10	17.161,13	176,22	11.611,62	
55 + 0,000	20,00	Pista	6,928	7,549	5,71	5,710	369,54	17.530,67	228,40	11.840,02	
56 + 0,000	20,00	Pista	6,938	7,418	5,71	5,710	367,12	17.897,79	228,40	12.068,42	
57 + 0,000	20,00	Pista	6,873	7,565	5,71	5,710	368,76	18.266,55	228,40	12.296,82	
58 + 0,000	20,00	Pista	6,762	7,159	5,71	5,710	358,42	18.624,97	228,40	12.525,22	
59 + 0,000	20,00	Pista	6,638	6,678	5,71	5,710	346,32	18.971,29	228,40	12.753,62	
60 + 0,000	20,00	Pista	6,724	6,811	5,71	5,710	350,70	19.321,99	228,40	12.982,02	
61 + 0,000	20,00	Pista	6,211	6,617	5,71	5,710	336,56	19.658,55	228,40	13.210,42	
62 + 0,000	13,73	Pista	5,994	6,521	5,71	5,710	278,51	19.937,06	192,59	13.403,01	
62 + 13,728	6,27	Pista	6,217	6,266	5,71	5,710	164,83	20.101,89	114,20	13.517,21	
63 + 0,000	20,00	Pista	6,446	5,825	5,798	5,716	213,74	20.315,63	151,25	13.668,46	
64 + 0,000	13,73	Pista	6,807	6,720	6,039	5,770	295,58	20.611,20	199,15	13.867,60	
64 + 13,728	6,27	Pista	7,330	6,587	6,01	6,010	179,17	20.790,37	120,20	13.987,80	
65 + 0,000	20,00	Pista	7,136	6,968	6,01	6,010	237,81	21.028,19	157,89	14.145,70	
66 + 0,000	20,00	Pista	7,158	7,300	6,01	6,010	369,16	21.397,35	240,40	14.386,10	
67 + 0,000	6,02	Pista	7,159	7,005	6,01	6,010	236,29	21.633,64	156,36	14.542,46	
67 + 6,017	13,98	Pista	7,229	6,969	6,01	6,010	181,98	21.815,62	120,20	14.662,66	
68 + 0,000	20,00	Pista	7,167	6,705	6,01	6,010	303,67	22.119,29	204,24	14.866,90	
69 + 0,000	18,31	Pista	7,672	6,852	6,01	6,010	354,78	22.474,07	230,21	15.097,11	
69 + 18,305	1,69	Pista	6,405	6,374	6,01	6,010	167,79	22.641,86	120,20	15.217,31	
70 + 0,000	20,00	Pista	6,279	6,516	6,051	5,941	182,18	22.824,04	130,08	15.347,40	
71 + 0,000	18,31	Pista	5,905	6,236	5,869	5,825	309,14	23.133,18	223,97	15.571,36	
71 + 18,305	1,69	Pista	5,864	5,954	5,71	5,710	158,18	23.291,36	114,20	15.685,56	
72 + 0,000	20,00	Pista	5,973	6,135	5,71	5,710	174,73	23.466,09	123,88	15.809,44	
73 + 0,000	20,00	Pista	6,573	6,224	5,71	5,710	335,94	23.802,03	228,40	16.037,84	
74 + 0,000	20,00	Pista	6,395	6,316	5,71	5,710	334,22	24.136,25	228,40	16.266,24	



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
75 + 0,000	20,00	Pista	6,474	6,777	5,71	5,710	345,02	24.481,27	228,40	16.494,64
76 + 0,000	20,00	Pista	6,790	6,862	5,71	5,710	353,04	24.834,31	228,40	16.723,04
77 + 0,000	20,00	Pista	7,066	7,199	5,71	5,710	365,30	25.199,61	228,40	16.951,44
78 + 0,000	20,00	Pista	7,210	7,244	5,71	5,710	369,08	25.568,69	228,40	17.179,84
79 + 0,000	20,00	Pista	7,251	6,996	5,71	5,710	364,94	25.933,63	228,40	17.408,24
80 + 0,000	20,00	Pista	7,112	6,831	5,71	5,710	358,86	26.292,49	228,40	17.636,64
81 + 0,000	20,00	Pista	6,715	7,013	5,71	5,710	354,56	26.647,05	228,40	17.865,04
82 + 0,000	20,00	Pista	7,078	7,011	5,71	5,710	361,78	27.008,83	228,40	18.093,44
83 + 0,000	20,00	Pista	6,903	7,024	5,71	5,710	358,54	27.367,37	228,40	18.321,84
84 + 0,000	20,00	Pista	7,074	7,022	5,71	5,710	361,92	27.729,29	228,40	18.550,24
85 + 0,000	20,00	Pista	7,270	7,020	5,71	5,710	365,80	28.095,09	228,40	18.778,64
86 + 0,000	20,00	Pista	7,039	7,115	5,71	5,710	363,08	28.458,17	228,40	19.007,04
87 + 0,000	20,00	Pista	6,636	7,100	5,71	5,710	354,72	28.812,89	228,40	19.235,44
88 + 0,000	20,00	Pista	6,707	7,143	5,71	5,710	357,00	29.169,89	228,40	19.463,84
89 + 0,000	20,00	Pista	7,317	7,272	5,71	5,710	371,78	29.541,67	228,40	19.692,24
90 + 0,000	20,00	Pista	7,031	7,021	5,71	5,710	361,04	29.902,71	228,40	19.920,64
91 + 0,000	20,00	Pista	6,622	6,816	5,71	5,710	348,76	30.251,47	228,40	20.149,04
92 + 0,000	8,28	Pista	5,860	6,665	5,71	5,710	233,62	30.485,10	161,45	20.310,49
92 + 8,275	11,72	Pista	5,710	6,510	5,71	5,710	162,20	30.647,30	114,20	20.424,69
93 + 0,000	20,00	Pista	5,861	6,336	5,71	5,710	256,92	30.904,22	181,15	20.605,84
94 + 0,000	20,00	Pista	6,006	6,268	5,71	5,710	325,48	31.229,70	228,40	20.834,24
95 + 0,000	4,61	Pista	6,110	5,814	5,71	5,710	195,97	31.425,67	140,54	20.974,78
95 + 4,613	15,39	Pista	6,125	5,807	5,71	5,710	159,32	31.584,99	114,20	21.088,98
96 + 0,000	20,00	Pista	5,837	5,965	5,71	5,710	279,59	31.864,58	202,06	21.291,04
97 + 0,000	20,00	Pista	5,787	5,765	5,71	5,710	311,04	32.175,62	228,40	21.519,44
98 + 0,000	0,95	Pista	6,427	6,269	5,71	5,710	174,89	32.350,51	119,62	21.639,07
98 + 0,950	19,05	Pista	6,429	6,284	5,71	5,710	167,13	32.517,64	114,20	21.753,27
99 + 0,000	20,00	Pista	6,457	6,418	5,71	5,710	329,48	32.847,13	222,98	21.976,24
100 + 0,000	20,00	Pista	6,471	6,406	5,71	5,710	337,54	33.184,67	228,40	22.204,64
101 + 0,000	20,00	Pista	6,064	6,287	5,71	5,710	327,02	33.511,69	228,40	22.433,04
102 + 0,000	20,00	Pista	5,829	5,972	5,71	5,710	316,02	33.827,71	228,40	22.661,44
103 + 0,000	20,00	Pista	5,776	5,750	5,71	5,710	310,52	34.138,23	228,40	22.889,84
104 + 0,000	20,00	Pista	6,072	5,742	5,71	5,710	316,28	34.454,51	228,40	23.118,24
105 + 0,000	20,00	Pista	5,916	6,038	5,71	5,710	319,08	34.773,59	228,40	23.346,64
106 + 0,000	20,00	Pista	6,282	6,289	5,71	5,710	331,42	35.105,01	228,40	23.575,04
107 + 0,000	20,00	Pista	6,297	6,482	5,71	5,710	335,58	35.440,59	228,40	23.803,44
108 + 0,000	20,00	Pista	6,326	6,111	5,71	5,710	328,74	35.769,33	228,40	24.031,84
109 + 0,000	20,00	Pista	6,301	6,045	5,71	5,710	326,92	36.096,25	228,40	24.260,24
110 + 0,000	20,00	Pista	6,359	5,939	5,71	5,710	325,96	36.422,21	228,40	24.488,64
111 + 0,000	19,80	Pista	6,195	5,832	5,71	5,710	318,94	36.741,14	227,26	24.715,90
111 + 19,800	0,20	Pista	6,087	6,083	5,71	5,710	161,70	36.902,84	114,20	24.830,10
112 + 0,000	20,00	Pista	6,187	6,188	5,81	5,810	165,39	37.068,23	117,36	24.947,46
113 + 0,000	20,00	Pista	6,209	5,856	5,81	5,810	321,30	37.389,53	232,40	25.179,86
114 + 0,000	14,05	Pista	6,261	6,021	5,81	5,810	277,21	37.666,74	197,84	25.377,70
114 + 14,051	5,95	Pista	6,076	5,884	5,81	5,810	159,60	37.826,34	116,20	25.493,90
115 + 0,000	20,00	Pista	6,024	5,819	5,81	5,810	205,56	38.031,90	150,76	25.644,66
116 + 0,000	20,00	Pista	6,140	6,112	5,81	5,810	325,04	38.356,94	232,40	25.877,06
117 + 0,000	8,30	Pista	6,013	6,088	5,81	5,810	227,85	38.584,79	164,44	26.041,50



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
117 + 8,303	11,70	Pista	5,848	5,912	5,71	5,710	157,60	38.742,39	114,20	26.155,70
118 + 0,000	20,00	Pista	5,853	6,206	5,71	5,710	254,51	38.996,90	180,99	26.336,69
119 + 0,000	20,00	Pista	5,972	6,379	5,71	5,710	327,02	39.323,92	228,40	26.565,09
120 + 0,000	20,00	Pista	6,074	6,357	5,71	5,710	328,62	39.652,54	228,40	26.793,49
121 + 0,000	20,00	Pista	6,185	6,173	5,71	5,710	327,16	39.979,70	228,40	27.021,89
122 + 0,000	20,00	Pista	6,183	6,312	5,71	5,710	329,90	40.309,60	228,40	27.250,29
123 + 0,000	20,00	Pista	6,175	6,306	5,71	5,710	329,62	40.639,22	228,40	27.478,69
124 + 0,000	20,00	Pista	6,310	6,417	5,71	5,710	334,54	40.973,76	228,40	27.707,09
125 + 0,000	20,00	Pista	6,195	6,426	5,71	5,710	332,42	41.306,18	228,40	27.935,49
126 + 0,000	20,00	Pista	6,399	6,453	5,71	5,710	337,04	41.643,22	228,40	28.163,89
127 + 0,000	20,00	Pista	6,306	6,479	5,71	5,710	335,70	41.978,92	228,40	28.392,29
128 + 0,000	20,00	Pista	6,390	6,479	5,71	5,710	337,38	42.316,30	228,40	28.620,69
129 + 0,000	20,00	Pista	6,489	6,623	5,71	5,710	342,24	42.658,54	228,40	28.849,09
130 + 0,000	20,00	Pista	6,597	6,633	5,71	5,710	344,60	43.003,14	228,40	29.077,49
131 + 0,000	20,00	Pista	6,660	6,672	5,71	5,710	346,64	43.349,78	228,40	29.305,89
132 + 0,000	5,16	Pista	6,336	6,650	5,71	5,710	213,65	43.563,43	143,64	29.449,53
132 + 5,156	14,84	Pista	6,371	6,630	5,71	5,710	170,01	43.733,44	114,20	29.563,73
133 + 0,000	20,00	Pista	6,799	6,458	5,752	5,816	300,65	44.034,09	201,54	29.765,27
134 + 0,000	5,16	Pista	7,176	6,336	5,796	5,970	220,27	44.254,36	147,99	29.913,26
134 + 5,156	9,09	Pista	7,132	6,396	5,91	5,910	124,88	44.379,24	84,21	29.997,48
134 + 14,249	5,75	Pista	7,349	6,401	5,91	5,910	131,74	44.510,98	87,73	30.085,20
135 + 0,000	3,34	Pista	7,416	6,413	5,91	5,910	81,06	44.592,04	53,74	30.138,94
135 + 3,342	16,66	Pista	7,446	6,420	5,91	5,910	178,66	44.770,70	118,20	30.257,14
136 + 0,000	20,00	Pista	7,266	6,448	5,771	5,881	324,68	45.095,38	213,57	30.470,71
137 + 0,000	3,34	Pista	6,872	6,432	5,711	5,742	201,95	45.297,33	133,67	30.604,38
137 + 3,342	16,66	Pista	6,673	6,458	5,71	5,710	171,31	45.468,64	114,20	30.718,58
138 + 0,000	20,00	Pista	6,743	6,721	5,71	5,710	320,10	45.788,74	209,32	30.927,90
139 + 0,000	2,28	Pista	6,980	6,601	5,71	5,710	195,86	45.984,60	127,22	31.055,12
139 + 2,281	17,72	Pista	6,962	6,583	5,71	5,710	175,45	46.160,05	114,20	31.169,32
140 + 0,000	20,00	Pista	6,759	6,669	5,82	5,777	328,68	46.488,73	218,71	31.388,04
141 + 0,000	2,28	Pista	5,996	6,746	5,953	5,843	186,51	46.675,25	131,41	31.519,45
141 + 2,281	17,72	Pista	5,943	6,685	5,91	5,910	166,28	46.841,53	118,20	31.637,65
142 + 0,000	20,00	Pista	6,057	6,413	5,91	5,910	310,62	47.152,14	222,92	31.860,57
143 + 0,000	13,70	Pista	6,197	5,929	5,91	5,910	271,68	47.423,83	199,14	32.059,71
143 + 13,695	6,30	Pista	6,432	6,013	5,91	5,910	164,45	47.588,28	118,20	32.177,91
144 + 0,000	20,00	Pista	6,587	6,057	5,91	5,910	218,91	47.807,19	155,46	32.333,37
145 + 0,000	20,00	Pista	6,968	6,324	5,91	5,910	345,84	48.153,03	236,40	32.569,77
146 + 0,000	5,11	Pista	7,107	6,422	5,91	5,910	220,08	48.373,10	148,40	32.718,17
146 + 5,110	14,89	Pista	7,014	6,365	5,91	5,910	173,79	48.546,89	118,20	32.836,37
147 + 0,000	20,00	Pista	6,731	6,290	5,924	5,744	296,93	48.843,82	203,55	33.039,92
148 + 0,000	5,11	Pista	6,414	6,206	5,762	5,709	208,66	49.052,49	144,02	33.183,94
148 + 5,110	14,89	Pista	6,298	6,099	5,71	5,710	163,97	49.216,46	114,20	33.298,14
149 + 0,000	20,00	Pista	5,763	5,723	5,71	5,710	270,15	49.486,61	199,22	33.497,36
150 + 0,000	20,00	Pista	5,975	5,717	5,71	5,710	313,84	49.800,45	228,40	33.725,76
151 + 0,000	20,00	Pista	5,948	5,905	5,71	5,710	317,06	50.117,51	228,40	33.954,16
152 + 0,000	20,00	Pista	5,820	6,120	5,71	5,710	318,80	50.436,31	228,40	34.182,56
153 + 0,000	20,00	Pista	5,885	5,967	5,71	5,710	317,04	50.753,35	228,40	34.410,96
154 + 0,000	20,00	Pista	5,991	6,050	5,71	5,710	320,82	51.074,17	228,40	34.639,36



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
155 + 0,000	20,00	Pista	6,051	6,269	5,71	5,710	326,40	51.400,57	228,40	34.867,76
156 + 0,000	20,00	Pista	6,423	6,505	5,71	5,710	338,56	51.739,13	228,40	35.096,16
157 + 0,000	9,78	Pista	6,870	5,765	5,71	5,710	247,71	51.986,84	170,06	35.266,21
157 + 9,782	10,22	Pista	6,665	5,948	5,71	5,710	166,13	52.152,97	114,20	35.380,41
158 + 0,000	20,00	Pista	6,407	5,754	5,71	5,710	244,18	52.397,15	172,54	35.552,96
159 + 0,000	20,00	Pista	6,166	6,438	5,71	5,710	332,08	52.729,23	228,40	35.781,36
160 + 0,000	20,00	Pista	6,087	6,416	5,71	5,710	330,06	53.059,29	228,40	36.009,76
161 + 0,000	20,00	Pista	6,075	6,497	5,71	5,710	331,44	53.390,73	228,40	36.238,16
162 + 0,000	20,00	Pista	5,874	6,605	5,71	5,710	329,58	53.720,31	228,40	36.466,56
163 + 0,000	20,00	Pista	5,857	6,591	5,71	5,710	328,96	54.049,27	228,40	36.694,96
164 + 0,000	20,00	Pista	5,809	6,401	5,71	5,710	324,20	54.373,47	228,40	36.923,36
165 + 0,000	20,00	Pista	5,748	6,392	5,71	5,710	322,80	54.696,27	228,40	37.151,76
166 + 0,000	20,00	Pista	5,735	6,370	5,71	5,710	322,10	55.018,37	228,40	37.380,16
167 + 0,000	20,00	Pista	5,806	6,232	5,71	5,710	320,76	55.339,13	228,40	37.608,56
168 + 0,000	10,72	Pista	5,710	5,952	5,71	5,710	240,57	55.579,70	175,41	37.783,97
168 + 10,720	9,28	Pista	5,923	5,710	5,71	5,710	156,33	55.736,03	114,20	37.898,17
169 + 0,000	20,00	Pista	5,809	5,810	5,721	5,791	228,66	55.964,69	168,54	38.066,70
170 + 0,000	10,72	Pista	6,330	6,045	5,749	5,961	251,52	56.216,21	179,87	38.246,57
170 + 10,720	9,28	Pista	7,366	6,009	5,91	5,910	173,75	56.389,96	118,20	38.364,77
171 + 0,000	8,16	Pista	7,894	5,943	5,91	5,910	155,50	56.545,46	103,05	38.467,82
171 + 8,156	11,84	Pista	8,265	6,146	5,91	5,910	184,11	56.729,57	118,20	38.586,02
172 + 0,000	5,59	Pista	7,923	6,142	5,91	5,910	157,48	56.887,06	103,04	38.689,06
172 + 5,591	14,41	Pista	6,956	6,082	5,91	5,910	170,38	57.057,44	118,20	38.807,26
173 + 0,000	20,00	Pista	6,665	5,758	5,755	5,919	282,55	57.339,99	200,85	39.008,10
174 + 0,000	5,59	Pista	6,632	6,045	5,713	5,763	213,39	57.553,38	146,84	39.154,94
174 + 5,591	14,41	Pista	6,656	6,212	5,71	5,710	168,68	57.722,06	114,20	39.269,14
175 + 0,000	20,00	Pista	6,734	6,442	5,71	5,710	295,50	58.017,56	196,48	39.465,62
176 + 0,000	20,00	Pista	6,687	6,209	5,71	5,710	337,92	58.355,48	228,40	39.694,02
177 + 0,000	20,00	Pista	6,472	6,212	5,71	5,710	333,68	58.689,16	228,40	39.922,42
178 + 0,000	20,00	Pista	6,336	6,329	5,71	5,710	333,30	59.022,46	228,40	40.150,82
179 + 0,000	20,00	Pista	6,135	6,178	5,71	5,710	326,26	59.348,72	228,40	40.379,22
180 + 0,000	20,00	Pista	5,993	6,041	5,71	5,710	320,68	59.669,40	228,40	40.607,62
181 + 0,000	2,06	Pista	5,721	5,808	5,71	5,710	171,29	59.840,69	125,97	40.733,59
181 + 2,061	17,94	Pista	5,769	5,770	5,71	5,710	155,39	59.996,08	114,20	40.847,79
182 + 0,000	20,00	Pista	5,954	6,061	5,819	5,870	303,80	60.299,88	221,73	41.069,52
183 + 0,000	2,06	Pista	6,154	6,816	5,927	6,059	187,19	60.487,07	132,21	41.201,73
183 + 2,061	17,94	Pista	6,047	6,966	6,01	6,010	170,13	60.657,20	120,20	41.321,93
184 + 0,000	0,20	Pista	6,188	6,739	6,01	6,010	153,49	60.810,68	108,99	41.430,93
184 + 0,196	18,14	Pista	6,186	6,736	6,01	6,010	155,11	60.965,79	110,18	41.541,10
184 + 18,332	1,67	Pista	6,095	6,555	6,01	6,010	164,87	61.130,66	119,02	41.660,12
185 + 0,000	20,00	Pista	6,389	6,358	5,942	6,051	181,44	61.312,09	129,93	41.790,06
186 + 0,000	18,33	Pista	5,908	6,108	5,826	5,869	306,96	61.619,06	224,15	42.014,20
186 + 18,332	1,67	Pista	6,388	5,983	5,71	5,710	163,71	61.782,77	114,20	42.128,40
187 + 0,000	7,45	Pista	6,458	6,120	5,71	5,710	75,56	61.858,33	52,05	42.180,45
187 + 7,448	12,55	Pista	6,770	6,066	5,71	5,710	168,36	62.026,69	114,20	42.294,65
188 + 0,000	20,00	Pista	7,306	6,489	5,859	5,748	289,63	62.316,32	188,92	42.483,57
189 + 0,000	7,45	Pista	7,469	7,085	6,108	5,794	254,64	62.570,96	163,34	42.646,91
189 + 7,448	12,55	Pista	7,598	6,578	6,01	6,010	181,76	62.752,72	120,20	42.767,11



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
190 + 0,000	20,00	Pista	7,027	6,599	6,01	6,010	286,88	63.039,60	195,64	42.962,75
191 + 0,000	14,14	Pista	6,091	7,215	6,01	6,010	295,43	63.335,03	205,19	43.167,94
191 + 14,142	5,86	Pista	6,365	7,217	6,01	6,010	175,82	63.510,85	120,20	43.288,14
192 + 0,000	20,00	Pista	6,402	7,101	6,01	6,010	226,30	63.737,14	155,41	43.443,55
193 + 0,000	20,00	Pista	6,342	7,268	6,01	6,010	352,20	64.089,34	240,40	43.683,95
194 + 0,000	0,84	Pista	6,317	8,068	6,01	6,010	191,53	64.280,88	125,22	43.809,17
194 + 0,836	19,16	Pista	6,319	8,091	6,01	6,010	184,10	64.464,98	120,20	43.929,37
195 + 0,000	20,00	Pista	6,388	7,604	5,889	5,842	352,32	64.817,30	229,72	44.159,09
196 + 0,000	0,84	Pista	6,876	7,408	5,722	5,710	190,48	65.007,78	119,10	44.278,19
196 + 0,836	19,16	Pista	6,893	7,382	5,71	5,710	182,75	65.190,53	114,20	44.392,39
197 + 0,000	20,00	Pista	7,097	7,123	5,71	5,710	356,78	65.547,32	223,63	44.616,02
198 + 0,000	20,00	Pista	6,915	6,980	5,71	5,710	357,90	65.905,22	228,40	44.844,42
199 + 0,000	20,00	Pista	6,661	6,841	5,71	5,710	350,04	66.255,26	228,40	45.072,82
200 + 0,000	20,00	Pista	5,890	6,420	5,71	5,710	326,20	66.581,46	228,40	45.301,22
201 + 0,000	20,00	Pista	5,890	5,904	5,71	5,710	315,88	66.897,34	228,40	45.529,62
202 + 0,000	20,00	Pista	6,222	5,944	5,71	5,710	323,32	67.220,66	228,40	45.758,02
203 + 0,000	20,00	Pista	7,009	6,444	5,71	5,710	349,06	67.569,72	228,40	45.986,42
204 + 0,000	20,00	Pista	7,579	7,635	5,71	5,710	384,28	67.954,00	228,40	46.214,82
205 + 0,000	20,00	Pista	7,998	8,397	5,71	5,710	407,90	68.361,90	228,40	46.443,22
206 + 0,000	20,00	Pista	8,241	8,945	5,71	5,710	423,72	68.785,62	228,40	46.671,62
207 + 0,000	20,00	Pista	8,121	9,094	5,71	5,710	424,30	69.209,92	228,40	46.900,02
208 + 0,000	20,00	Pista	8,238	8,865	5,71	5,710	422,06	69.631,98	228,40	47.128,42
209 + 0,000	20,00	Pista	8,402	8,796	5,71	5,710	423,96	70.055,94	228,40	47.356,82
210 + 0,000	20,00	Pista	8,122	8,668	5,71	5,710	415,80	70.471,74	228,40	47.585,22
211 + 0,000	20,00	Pista	7,808	8,530	5,71	5,710	406,76	70.878,50	228,40	47.813,62
212 + 0,000	20,00	Pista	7,864	8,295	5,71	5,710	403,18	71.281,68	228,40	48.042,02
213 + 0,000	20,00	Pista	7,583	8,052	5,71	5,710	392,70	71.674,38	228,40	48.270,42
214 + 0,000	20,00	Pista	7,163	7,831	5,71	5,710	379,88	72.054,26	228,40	48.498,82
215 + 0,000	12,86	Pista	7,120	7,414	5,71	5,710	304,54	72.358,80	187,65	48.686,46
215 + 12,863	7,14	Pista	7,383	7,418	5,71	5,710	188,01	72.546,81	114,20	48.800,66
216 + 0,000	20,00	Pista	7,486	7,857	5,903	5,729	262,46	72.809,26	157,83	48.958,49
217 + 0,000	12,86	Pista	7,823	7,614	6,386	5,828	319,38	73.128,64	200,69	49.159,19
217 + 12,863	7,14	Pista	8,604	7,334	6,31	6,310	199,38	73.328,02	126,20	49.285,39
218 + 0,000	20,00	Pista	8,539	7,382	6,31	6,310	270,30	73.598,32	171,23	49.456,62
219 + 0,000	20,00	Pista	8,327	6,729	6,31	6,310	381,12	73.979,44	252,40	49.709,02
220 + 0,000	1,88	Pista	8,412	6,546	6,31	6,310	207,35	74.186,79	138,03	49.847,05
220 + 1,875	18,13	Pista	8,391	6,524	6,31	6,310	189,15	74.375,94	126,20	49.973,25
221 + 0,000	20,00	Pista	8,235	6,310	6,31	6,310	353,51	74.729,46	240,57	50.213,82
222 + 0,000	10,89	Pista	8,022	6,488	6,31	6,310	285,86	75.015,32	194,90	50.408,72
222 + 10,887	9,11	Pista	7,809	6,336	6,31	6,310	181,45	75.196,77	126,20	50.534,92
223 + 0,000	20,00	Pista	6,896	6,823	6,475	5,847	257,93	75.454,69	179,37	50.714,28
224 + 0,000	10,89	Pista	6,214	6,106	5,979	5,764	252,04	75.706,73	181,35	50.895,64
224 + 10,887	9,11	Pista	5,766	5,952	5,71	5,710	157,18	75.863,91	114,20	51.009,84
225 + 0,000	20,00	Pista	6,019	6,026	5,71	5,710	233,56	76.097,47	166,24	51.176,07
226 + 0,000	20,00	Pista	5,825	5,981	5,71	5,710	316,12	76.413,59	228,40	51.404,47
227 + 0,000	20,00	Pista	5,921	6,050	5,71	5,710	319,42	76.733,01	228,40	51.632,87
228 + 0,000	20,00	Pista	5,740	5,922	5,71	5,710	313,24	77.046,25	228,40	51.861,27
229 + 0,000	20,00	Pista	5,971	6,332	5,71	5,710	326,06	77.372,31	228,40	52.089,67



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
230 + 0,000	20,00	Pista	5,753	6,077	5,71	5,710	316,60	77.688,91	228,40	52.318,07
231 + 0,000	20,00	Pista	5,923	6,232	5,71	5,710	323,10	78.012,01	228,40	52.546,47
232 + 0,000	20,00	Pista	5,770	5,899	5,71	5,710	313,38	78.325,39	228,40	52.774,87
233 + 0,000	20,00	Pista	5,811	5,849	5,71	5,710	313,20	78.638,59	228,40	53.003,27
234 + 0,000	4,33	Pista	6,425	6,042	5,71	5,710	200,30	78.838,89	138,91	53.142,18
234 + 4,327	15,67	Pista	6,480	5,965	5,71	5,710	164,45	79.003,34	114,20	53.256,38
235 + 0,000	20,00	Pista	6,590	5,919	5,811	5,766	294,46	79.297,80	206,49	53.462,87
236 + 0,000	4,33	Pista	6,617	6,317	5,948	5,828	205,98	79.503,78	143,24	53.606,11
236 + 4,327	15,67	Pista	6,723	6,109	5,91	5,910	168,32	79.672,10	118,20	53.724,31
237 + 0,000	20,00	Pista	6,616	5,946	5,91	5,910	295,41	79.967,50	210,83	53.935,14
238 + 0,000	2,50	Pista	6,519	5,910	5,91	5,910	184,84	80.152,35	132,99	54.068,12
238 + 2,502	17,50	Pista	6,500	6,022	5,91	5,910	165,22	80.317,57	118,20	54.186,32
239 + 0,000	20,00	Pista	6,290	6,030	5,91	5,910	305,98	80.623,55	221,61	54.407,94
240 + 0,000	0,68	Pista	6,441	6,231	5,91	5,910	172,36	80.795,91	122,20	54.530,14
240 + 0,677	19,32	Pista	6,424	6,237	5,91	5,910	166,61	80.962,52	118,20	54.648,34
241 + 0,000	20,00	Pista	6,165	5,853	5,823	5,804	314,94	81.277,46	228,60	54.876,94
242 + 0,000	0,68	Pista	7,542	5,987	5,716	5,711	181,22	81.458,68	118,14	54.995,08
242 + 0,677	19,32	Pista	7,718	5,996	5,71	5,710	177,14	81.635,82	114,20	55.109,28
243 + 0,000	20,00	Pista	6,322	5,798	5,71	5,710	316,94	81.952,77	224,53	55.333,81
244 + 0,000	20,00	Pista	5,824	6,207	5,71	5,710	320,62	82.273,39	228,40	55.562,21
245 + 0,000	20,00	Pista	5,765	6,014	5,71	5,710	315,58	82.588,97	228,40	55.790,61
246 + 0,000	20,00	Pista	5,766	6,209	5,71	5,710	319,50	82.908,47	228,40	56.019,01
247 + 0,000	20,00	Pista	5,958	6,305	5,71	5,710	325,26	83.233,73	228,40	56.247,41
248 + 0,000	20,00	Pista	5,917	6,372	5,71	5,710	325,78	83.559,51	228,40	56.475,81
249 + 0,000	20,00	Pista	5,765	6,383	5,71	5,710	322,96	83.882,47	228,40	56.704,21
250 + 0,000	20,00	Pista	5,736	6,393	5,71	5,710	322,58	84.205,05	228,40	56.932,61
251 + 0,000	20,00	Pista	5,763	6,449	5,71	5,710	324,24	84.529,29	228,40	57.161,01
252 + 0,000	20,00	Pista	6,018	6,590	5,71	5,710	332,16	84.861,45	228,40	57.389,41
253 + 0,000	20,00	Pista	6,288	6,366	5,71	5,710	333,08	85.194,53	228,40	57.617,81
254 + 0,000	20,00	Pista	6,070	6,600	5,71	5,710	333,40	85.527,93	228,40	57.846,21
255 + 0,000	20,00	Pista	6,239	6,767	5,71	5,710	340,12	85.868,05	228,40	58.074,61
256 + 0,000	20,00	Pista	5,985	6,852	5,71	5,710	336,74	86.204,79	228,40	58.303,01
257 + 0,000	20,00	Pista	5,780	6,764	5,71	5,710	330,88	86.535,67	228,40	58.531,41
258 + 0,000	20,00	Pista	5,840	6,343	5,71	5,710	323,66	86.859,33	228,40	58.759,81
259 + 0,000	6,19	Pista	6,039	6,435	5,71	5,710	215,71	87.075,04	149,53	58.909,35
259 + 6,188	13,81	Pista	6,026	6,034	5,71	5,710	160,60	87.235,64	114,20	59.023,55
260 + 0,000	20,00	Pista	5,980	6,567	5,813	5,744	279,74	87.515,38	195,38	59.218,93
261 + 0,000	6,19	Pista	6,725	6,435	5,973	5,782	224,69	87.740,08	153,92	59.372,85
261 + 6,188	8,24	Pista	6,989	6,255	5,91	5,910	124,37	87.864,45	85,25	59.458,10
261 + 14,425	5,57	Pista	7,029	6,129	5,91	5,910	118,49	87.982,94	81,63	59.539,73
262 + 0,000	2,66	Pista	7,057	6,033	5,91	5,910	70,39	88.053,33	48,68	59.588,41
262 + 2,662	17,34	Pista	7,081	5,988	5,91	5,910	170,69	88.224,02	118,20	59.706,61
263 + 0,000	20,00	Pista	6,577	5,947	5,868	5,777	308,49	88.532,50	217,40	59.924,01
264 + 0,000	2,66	Pista	5,726	6,330	5,736	5,711	181,93	88.714,43	129,71	60.053,72
264 + 2,662	17,34	Pista	5,732	6,297	5,71	5,710	160,29	88.874,72	114,20	60.167,92
265 + 0,000	20,00	Pista	5,803	6,327	5,71	5,710	301,13	89.175,85	213,20	60.381,12
266 + 0,000	20,00	Pista	5,876	6,349	5,71	5,710	324,50	89.500,35	228,40	60.609,52
267 + 0,000	20,00	Pista	5,819	5,921	5,71	5,710	314,80	89.815,15	228,40	60.837,92



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
268 + 0,000	20,00	Pista	6,927	6,276	5,71	5,710	344,06	90.159,21	228,40	61.066,32
269 + 0,000	20,00	Pista	5,999	6,212	5,71	5,710	324,22	90.483,43	228,40	61.294,72
270 + 0,000	20,00	Pista	6,018	6,252	5,71	5,710	325,40	90.808,83	228,40	61.523,12
271 + 0,000	20,00	Pista	6,204	6,067	5,71	5,710	325,42	91.134,25	228,40	61.751,52
272 + 0,000	20,00	Pista	5,944	6,456	5,71	5,710	328,00	91.462,25	228,40	61.979,92
273 + 0,000	20,00	Pista	5,796	6,150	5,71	5,710	318,92	91.781,17	228,40	62.208,32
274 + 0,000	4,17	Pista	5,926	5,904	5,71	5,710	191,30	91.972,47	138,00	62.346,32
274 + 4,169	15,83	Pista	5,931	5,903	5,71	5,710	158,34	92.130,81	114,20	62.460,52
275 + 0,000	20,00	Pista	6,312	6,403	5,841	5,973	299,46	92.430,27	211,65	62.672,18
276 + 0,000	4,17	Pista	6,981	5,999	5,976	6,328	205,19	92.635,46	148,69	62.820,86
276 + 4,169	15,83	Pista	6,909	6,361	6,21	6,210	172,70	92.808,16	124,20	62.945,06
277 + 0,000	20,00	Pista	6,956	6,717	6,21	6,210	316,62	93.124,78	222,51	63.167,58
278 + 0,000	16,96	Pista	6,951	6,311	6,21	6,210	319,04	93.443,82	229,55	63.397,12
278 + 16,964	3,04	Pista	6,930	6,353	6,21	6,210	172,83	93.616,65	124,20	63.521,32
279 + 0,000	20,00	Pista	6,916	6,351	6,21	6,210	198,88	93.815,53	143,05	63.664,38
280 + 0,000	20,00	Pista	6,870	6,488	6,21	6,210	347,16	94.162,69	248,40	63.912,78
281 + 0,000	9,76	Pista	6,677	6,984	6,21	6,210	262,80	94.425,49	184,81	64.097,58
281 + 9,760	10,24	Pista	6,579	6,776	6,21	6,210	173,55	94.599,04	124,20	64.221,78
282 + 0,000	20,00	Pista	6,609	6,240	5,825	6,324	254,76	94.853,79	183,69	64.405,48
283 + 0,000	9,76	Pista	5,948	6,074	5,748	5,914	238,41	95.092,20	173,53	64.579,01
283 + 9,760	10,24	Pista	5,734	5,994	5,71	5,710	157,28	95.249,48	114,20	64.693,21
284 + 0,000	20,00	Pista	5,752	5,909	5,71	5,710	236,79	95.486,28	172,67	64.865,88
285 + 0,000	20,00	Pista	5,843	5,841	5,71	5,710	313,68	95.799,96	228,40	65.094,28
286 + 0,000	10,05	Pista	5,862	5,815	5,71	5,710	235,58	96.035,53	171,61	65.265,89
286 + 10,054	9,95	Pista	5,861	5,949	5,71	5,710	158,10	96.193,63	114,20	65.380,09
287 + 0,000	20,00	Pista	5,997	5,988	5,739	5,879	239,34	96.432,98	173,96	65.554,04
288 + 0,000	10,05	Pista	6,797	6,028	5,796	6,213	252,83	96.685,81	180,46	65.734,50
288 + 10,054	9,95	Pista	7,053	6,673	6,11	6,110	177,26	96.863,07	122,20	65.856,70
289 + 0,000	20,00	Pista	7,257	6,576	6,11	6,110	267,01	97.130,08	182,97	66.039,67
290 + 0,000	18,19	Pista	7,434	6,266	6,11	6,110	337,98	97.468,06	233,34	66.273,01
290 + 18,190	1,81	Pista	7,649	6,135	6,11	6,110	177,84	97.645,90	122,20	66.395,21
291 + 0,000	20,00	Pista	7,669	6,146	6,11	6,110	194,27	97.840,17	133,26	66.528,47
292 + 0,000	20,00	Pista	7,660	6,296	6,11	6,110	359,12	98.199,29	244,40	66.772,87
293 + 0,000	6,33	Pista	7,790	6,484	6,11	6,110	240,54	98.439,84	160,85	66.933,72
293 + 6,326	13,67	Pista	7,828	6,948	6,11	6,110	187,76	98.627,60	122,20	67.055,92
294 + 0,000	20,00	Pista	7,741	6,803	5,796	6,143	312,23	98.939,82	201,02	67.256,94
295 + 0,000	6,33	Pista	6,805	6,682	5,72	5,826	230,18	99.170,00	151,98	67.408,92
295 + 6,326	13,67	Pista	6,754	6,630	5,71	5,710	173,84	99.343,84	114,20	67.523,12
296 + 0,000	20,00	Pista	6,785	6,579	5,71	5,710	292,36	99.636,20	192,28	67.715,40
297 + 0,000	20,00	Pista	6,890	7,043	5,71	5,710	358,66	99.994,86	228,40	67.943,80
298 + 0,000	20,00	Pista	6,898	6,859	5,71	5,710	355,14	100.350,00	228,40	68.172,20
299 + 0,000	20,00	Pista	6,595	6,969	5,71	5,710	351,28	100.701,28	228,40	68.400,60
300 + 0,000	20,00	Pista	6,279	6,494	5,71	5,710	335,46	101.036,74	228,40	68.629,00
301 + 0,000	20,00	Pista	5,861	6,105	5,71	5,710	319,32	101.356,06	228,40	68.857,40
302 + 0,000	20,00	Pista	6,021	6,015	5,71	5,710	320,72	101.676,78	228,40	69.085,80
303 + 0,000	20,00	Pista	5,824	6,096	5,71	5,710	318,40	101.995,18	228,40	69.314,20
304 + 0,000	20,00	Pista	6,355	6,172	5,71	5,710	330,54	102.325,72	228,40	69.542,60
305 + 0,000	20,00	Pista	6,171	6,273	5,71	5,710	328,88	102.654,60	228,40	69.771,00

PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
306 + 0,000	20,00	Pista	7,075	6,194	5,71	5,710	345,38	102.999,98	228,40	69.999,40
307 + 0,000	20,00	Pista	6,943	6,149	5,71	5,710	341,84	103.341,82	228,40	70.227,80
308 + 0,000	20,00	Pista	6,698	6,099	5,71	5,710	335,94	103.677,76	228,40	70.456,20
309 + 0,000	20,00	Pista	6,029	5,740	5,71	5,710	315,38	103.993,14	228,40	70.684,60
310 + 0,000	20,00	Pista	5,848	5,782	5,71	5,710	312,60	104.305,74	228,40	70.913,00
311 + 0,000	20,00	Pista	6,057	6,247	5,71	5,710	326,08	104.631,82	228,40	71.141,40
312 + 0,000	20,00	Pista	6,770	6,174	5,71	5,710	338,88	104.970,70	228,40	71.369,80
313 + 0,000	20,00	Pista	6,683	6,887	5,71	5,710	351,40	105.322,10	228,40	71.598,20
314 + 0,000	20,00	Pista	6,695	6,897	5,71	5,710	351,84	105.673,94	228,40	71.826,60
315 + 0,000	20,00	Pista	6,629	6,843	5,71	5,710	349,44	106.023,38	228,40	72.055,00
316 + 0,000	20,00	Pista	6,686	6,801	5,71	5,710	349,74	106.373,12	228,40	72.283,40
317 + 0,000	20,00	Pista	6,673	6,779	5,71	5,710	349,04	106.722,16	228,40	72.511,80
318 + 0,000	20,00	Pista	6,830	6,888	5,71	5,710	354,36	107.076,52	228,40	72.740,20
319 + 0,000	20,00	Pista	6,769	6,854	5,71	5,710	352,46	107.428,98	228,40	72.968,60
320 + 0,000	20,00	Pista	6,553	6,700	5,71	5,710	345,06	107.774,04	228,40	73.197,00
321 + 0,000	20,00	Pista	6,737	6,757	5,71	5,710	349,88	108.123,92	228,40	73.425,40
322 + 0,000	20,00	Pista	6,844	6,606	5,71	5,710	349,00	108.472,92	228,40	73.653,80
323 + 0,000	20,00	Pista	6,804	6,522	5,71	5,710	346,52	108.819,44	228,40	73.882,20
324 + 0,000	20,00	Pista	6,628	6,588	5,71	5,710	344,32	109.163,76	228,40	74.110,60
325 + 0,000	20,00	Pista	6,770	6,554	5,71	5,710	346,48	109.510,24	228,40	74.339,00
326 + 0,000	17,13	Pista	6,671	6,511	5,71	5,710	318,99	109.829,23	212,02	74.551,02
326 + 17,131	2,87	Pista	6,312	6,671	5,71	5,710	169,83	109.999,06	114,20	74.665,22
327 + 0,000	20,00	Pista	6,242	6,706	5,74	5,709	193,79	110.192,85	130,91	74.796,13
328 + 0,000	17,13	Pista	5,818	6,935	5,88	5,767	311,03	110.503,88	216,23	75.012,36
328 + 17,131	2,87	Pista	6,261	7,005	5,91	5,910	172,66	110.676,54	118,20	75.130,56
329 + 0,000	15,89	Pista	6,325	6,991	5,91	5,910	162,43	110.838,97	110,88	75.241,44
329 + 15,892	4,11	Pista	6,122	6,766	5,91	5,910	168,88	111.007,85	118,20	75.359,64
330 + 0,000	14,65	Pista	6,396	6,705	5,91	5,910	160,41	111.168,26	110,87	75.470,51
330 + 14,652	5,35	Pista	6,370	6,347	5,91	5,910	167,17	111.335,43	118,20	75.588,71
331 + 0,000	20,00	Pista	6,180	6,579	5,985	5,778	212,40	111.547,84	149,08	75.737,80
332 + 0,000	14,65	Pista	5,937	6,434	5,821	5,745	283,64	111.831,48	200,39	75.938,19
332 + 14,652	5,35	Pista	5,880	6,303	5,71	5,710	161,83	111.993,31	114,20	76.052,39
333 + 0,000	20,00	Pista	5,787	6,296	5,71	5,710	203,84	112.197,15	144,74	76.197,13
334 + 0,000	20,00	Pista	5,967	6,056	5,71	5,710	320,46	112.517,61	228,40	76.425,53
335 + 0,000	20,00	Pista	5,761	5,994	5,71	5,710	315,10	112.832,71	228,40	76.653,93
336 + 0,000	20,00	Pista	5,930	5,927	5,71	5,710	317,14	113.149,85	228,40	76.882,33
337 + 0,000	20,00	Pista	6,344	6,088	5,71	5,710	328,64	113.478,49	228,40	77.110,73
338 + 0,000	20,00	Pista	6,668	6,106	5,71	5,710	335,48	113.813,97	228,40	77.339,13
339 + 0,000	20,00	Pista	6,824	6,313	5,71	5,710	342,74	114.156,71	228,40	77.567,53
340 + 0,000	20,00	Pista	7,097	6,396	5,71	5,710	349,86	114.506,57	228,40	77.795,93
341 + 0,000	20,00	Pista	7,177	6,406	5,71	5,710	351,66	114.858,23	228,40	78.024,33
342 + 0,000	20,00	Pista	8,776	6,563	5,71	5,710	386,78	115.245,01	228,40	78.252,73
343 + 0,000	20,00	Pista	8,000	6,732	5,71	5,710	374,64	115.619,65	228,40	78.481,13
344 + 0,000	20,00	Pista	7,343	6,869	5,71	5,710	364,24	115.983,89	228,40	78.709,53
345 + 0,000	20,00	Pista	6,960	6,511	5,71	5,710	349,42	116.333,31	228,40	78.937,93
346 + 0,000	20,00	Pista	6,451	6,419	5,71	5,710	337,40	116.670,71	228,40	79.166,33
347 + 0,000	20,00	Pista	6,810	5,963	5,71	5,710	335,46	117.006,17	228,40	79.394,73
348 + 0,000	20,00	Pista	5,925	5,770	5,71	5,710	313,90	117.320,07	228,40	79.623,13



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
349 + 0,000	20,00	Pista	6,086	6,197	5,71	5,710	325,66	117.645,73	228,40	79.851,53
350 + 0,000	20,00	Pista	5,946	6,504	5,71	5,710	329,00	117.974,73	228,40	80.079,93
351 + 0,000	20,00	Pista	6,327	6,528	5,71	5,710	337,10	118.311,83	228,40	80.308,33
352 + 0,000	20,00	Pista	6,414	6,275	5,71	5,710	333,78	118.645,61	228,40	80.536,73
353 + 0,000	20,00	Pista	6,503	6,352	5,71	5,710	337,10	118.982,71	228,40	80.765,13
354 + 0,000	20,00	Pista	6,173	6,439	5,71	5,710	332,24	119.314,95	228,40	80.993,53
355 + 0,000	20,00	Pista	6,246	6,216	5,71	5,710	329,24	119.644,19	228,40	81.221,93
356 + 0,000	20,00	Pista	6,095	6,209	5,71	5,710	326,08	119.970,27	228,40	81.450,33
357 + 0,000	20,00	Pista	5,730	6,201	5,71	5,710	318,62	120.288,89	228,40	81.678,73
358 + 0,000	20,00	Pista	6,312	6,173	5,71	5,710	329,70	120.618,59	228,40	81.907,13
359 + 0,000	20,00	Pista	5,881	6,252	5,71	5,710	322,66	120.941,25	228,40	82.135,53
360 + 0,000	20,00	Pista	6,034	6,178	5,71	5,710	324,24	121.265,49	228,40	82.363,93
361 + 0,000	20,00	Pista	5,879	6,014	5,71	5,710	317,86	121.583,35	228,40	82.592,33
362 + 0,000	20,00	Pista	5,990	5,933	5,71	5,710	318,46	121.901,81	228,40	82.820,73
363 + 0,000	20,00	Pista	5,859	5,838	5,71	5,710	313,94	122.215,75	228,40	83.049,13
364 + 0,000	20,00	Pista	5,736	5,735	5,71	5,710	309,42	122.525,17	228,40	83.277,53
365 + 0,000	20,00	Pista	5,895	5,729	5,71	5,710	312,48	122.837,65	228,40	83.505,93
366 + 0,000	20,00	Pista	6,358	6,364	5,71	5,710	334,44	123.172,09	228,40	83.734,33
367 + 0,000	20,00	Pista	6,646	6,751	5,71	5,710	347,94	123.520,03	228,40	83.962,73
368 + 0,000	20,00	Pista	6,938	6,954	5,71	5,710	357,84	123.877,87	228,40	84.191,13
369 + 0,000	20,00	Pista	6,996	7,031	5,71	5,710	360,54	124.238,41	228,40	84.419,53
370 + 0,000	20,00	Pista	7,231	6,974	5,71	5,710	364,10	124.602,51	228,40	84.647,93
371 + 0,000	20,00	Pista	6,811	6,902	5,71	5,710	354,26	124.956,77	228,40	84.876,33
372 + 0,000	20,00	Pista	6,637	6,598	5,71	5,710	344,70	125.301,47	228,40	85.104,73
373 + 0,000	20,00	Pista	6,331	6,365	5,71	5,710	333,92	125.635,39	228,40	85.333,13
374 + 0,000	20,00	Pista	5,710	6,055	5,71	5,710	315,30	125.950,69	228,40	85.561,53
375 + 0,000	20,00	Pista	5,894	5,801	5,71	5,710	313,90	126.264,59	228,40	85.789,93
376 + 0,000	20,00	Pista	5,935	5,877	5,71	5,710	316,24	126.580,83	228,40	86.018,33
377 + 0,000	20,00	Pista	5,989	6,049	5,71	5,710	320,76	126.901,59	228,40	86.246,73
378 + 0,000	20,00	Pista	6,230	6,239	5,71	5,710	329,38	127.230,97	228,40	86.475,13
379 + 0,000	20,00	Pista	6,206	6,313	5,71	5,710	330,38	127.561,35	228,40	86.703,53
380 + 0,000	12,25	Pista	6,218	6,198	5,71	5,710	264,68	127.826,02	184,12	86.887,65
380 + 12,246	7,75	Pista	6,049	6,078	5,71	5,710	161,27	127.987,29	114,20	87.001,85
381 + 0,000	20,00	Pista	5,964	6,292	5,945	5,743	225,58	128.212,88	162,19	87.164,05
382 + 0,000	12,25	Pista	5,954	6,856	6,5	5,866	271,03	128.483,90	199,38	87.363,42
382 + 12,246	7,75	Pista	6,778	6,930	6,41	6,410	177,08	128.660,98	128,20	87.491,62
383 + 0,000	20,00	Pista	6,814	6,900	6,41	6,410	245,82	128.906,80	177,90	87.669,53
384 + 0,000	1,05	Pista	7,028	7,068	6,41	6,410	190,42	129.097,22	134,90	87.804,42
384 + 1,045	18,95	Pista	7,039	6,951	6,41	6,410	179,90	129.277,12	128,20	87.932,62
385 + 0,000	9,84	Pista	7,140	6,487	6,41	6,410	253,82	129.530,94	184,60	88.117,23
385 + 9,844	10,16	Pista	7,148	6,481	6,41	6,410	176,29	129.707,23	128,20	88.245,43
386 + 0,000	20,00	Pista	6,333	6,718	6,559	5,876	257,09	129.964,32	187,49	88.432,92
387 + 0,000	9,84	Pista	5,792	6,035	5,995	5,766	236,17	130.200,49	175,50	88.608,42
387 + 9,844	10,16	Pista	5,741	5,894	5,71	5,710	156,35	130.356,84	114,20	88.722,62
388 + 0,000	20,00	Pista	5,818	6,010	5,71	5,710	238,65	130.595,50	172,19	88.894,81
389 + 0,000	20,00	Pista	5,964	6,222	5,71	5,710	323,72	130.919,22	228,40	89.123,21
390 + 0,000	20,00	Pista	5,929	6,341	5,71	5,710	325,40	131.244,62	228,40	89.351,61
391 + 0,000	20,00	Pista	6,041	6,297	5,71	5,710	326,76	131.571,38	228,40	89.580,01

PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
392 + 0,000	20,00	Pista	5,954	6,308	5,71	5,710	325,24	131.896,62	228,40	89.808,41
393 + 0,000	20,00	Pista	5,735	6,328	5,71	5,710	321,26	132.217,88	228,40	90.036,81
394 + 0,000	20,00	Pista	5,885	6,315	5,71	5,710	324,00	132.541,88	228,40	90.265,21
395 + 0,000	20,00	Pista	6,066	6,480	5,71	5,710	330,92	132.872,80	228,40	90.493,61
396 + 0,000	20,00	Pista	6,366	6,509	5,71	5,710	337,50	133.210,30	228,40	90.722,01
397 + 0,000	20,00	Pista	5,862	6,464	5,71	5,710	326,52	133.536,82	228,40	90.950,41
398 + 0,000	20,00	Pista	5,744	6,322	5,71	5,710	321,32	133.858,14	228,40	91.178,81
399 + 0,000	20,00	Pista	6,199	6,039	5,71	5,710	324,76	134.182,90	228,40	91.407,21
400 + 0,000	20,00	Pista	5,827	5,766	5,71	5,710	311,86	134.494,76	228,40	91.635,61
401 + 0,000	20,00	Pista	5,865	5,796	5,71	5,710	313,22	134.807,98	228,40	91.864,01
402 + 0,000	9,91	Pista	6,034	5,803	5,71	5,710	236,86	135.044,83	170,80	92.034,81
402 + 9,912	10,09	Pista	6,028	6,232	5,71	5,710	162,60	135.207,43	114,20	92.149,01
403 + 0,000	20,00	Pista	6,161	6,365	5,731	5,840	248,62	135.456,05	174,07	92.323,08
404 + 0,000	9,91	Pista	6,510	6,508	5,769	6,096	254,52	135.710,57	177,45	92.500,53
404 + 9,912	10,09	Pista	6,593	6,911	6,01	6,010	175,04	135.885,61	120,20	92.620,73
405 + 0,000	20,00	Pista	6,892	6,531	6,01	6,010	262,11	136.147,72	180,83	92.801,56
406 + 0,000	20,00	Pista	6,800	6,637	6,01	6,010	348,74	136.496,46	240,40	93.041,96
407 + 0,000	6,67	Pista	7,054	6,096	6,01	6,010	228,72	136.725,18	160,30	93.202,27
407 + 6,673	13,33	Pista	6,970	6,134	6,01	6,010	171,04	136.896,22	120,20	93.322,47
408 + 0,000	20,00	Pista	6,997	6,280	6,01	6,010	287,90	137.184,12	200,30	93.522,76
409 + 0,000	20,00	Pista	7,222	6,325	6,01	6,010	350,94	137.535,06	240,40	93.763,16
410 + 0,000	3,43	Pista	6,666	6,558	6,01	6,010	201,81	137.736,87	140,84	93.904,00
410 + 3,434	16,57	Pista	6,583	6,699	6,01	6,010	172,82	137.909,69	120,20	94.024,20
411 + 0,000	20,00	Pista	6,116	7,155	5,798	5,970	315,77	138.225,46	215,15	94.239,36
412 + 0,000	3,43	Pista	5,779	6,880	5,711	5,760	195,19	138.420,65	134,41	94.373,76
412 + 3,434	16,57	Pista	5,744	6,648	5,71	5,710	163,92	138.584,57	114,20	94.487,96
413 + 0,000	20,00	Pista	5,720	5,910	5,71	5,710	285,76	138.870,34	208,79	94.696,75
414 + 0,000	20,00	Pista	6,033	6,305	5,71	5,710	326,76	139.197,10	228,40	94.925,15
415 + 0,000	20,00	Pista	5,953	6,100	5,71	5,710	321,06	139.518,16	228,40	95.153,55
416 + 0,000	20,00	Pista	6,216	6,477	5,71	5,710	333,86	139.852,02	228,40	95.381,95
417 + 0,000	17,02	Pista	6,455	7,911	5,71	5,710	339,97	140.191,99	211,40	95.593,35
417 + 17,022	2,98	Pista	6,472	8,589	5,71	5,710	190,61	140.382,60	114,20	95.707,55
418 + 0,000	20,00	Pista	6,402	8,588	5,753	5,711	218,18	140.600,77	131,71	95.839,26
419 + 0,000	17,02	Pista	6,061	8,602	5,957	5,805	345,47	140.946,25	217,73	96.056,98
419 + 17,022	2,98	Pista	6,321	8,276	6,01	6,010	185,97	141.132,22	120,20	96.177,18
420 + 0,000	8,99	Pista	6,313	8,322	6,01	6,010	111,47	141.243,69	71,90	96.249,09
420 + 8,986	11,01	Pista	6,454	8,550	6,01	6,010	190,04	141.433,73	120,20	96.369,29
421 + 0,000	0,95	Pista	7,127	7,816	6,01	6,010	113,31	141.547,04	71,90	96.441,19
421 + 0,949	19,05	Pista	7,194	7,700	6,01	6,010	188,94	141.735,98	120,20	96.561,39
422 + 0,000	20,00	Pista	7,909	6,345	5,893	5,840	356,42	142.092,40	229,09	96.790,48
423 + 0,000	0,95	Pista	8,632	7,185	5,724	5,710	207,57	142.299,97	119,77	96.910,24
423 + 0,949	19,05	Pista	8,649	7,256	5,71	5,710	199,05	142.499,02	114,20	97.024,44
424 + 0,000	20,00	Pista	8,717	8,377	5,71	5,710	411,87	142.910,89	222,98	97.247,43
425 + 0,000	20,00	Pista	8,898	8,481	5,71	5,710	427,58	143.338,47	228,40	97.475,83
426 + 0,000	16,72	Pista	9,380	8,570	5,71	5,710	402,99	143.741,46	209,67	97.685,49
426 + 16,719	3,28	Pista	10,208	8,617	5,71	5,710	228,25	143.969,71	114,20	97.799,69
427 + 0,000	20,00	Pista	10,284	8,653	5,758	5,711	267,00	144.236,71	133,50	97.933,20
428 + 0,000	16,72	Pista	10,152	8,901	5,966	5,800	423,24	144.659,95	216,02	98.149,21

PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO											
Est.: 0+0,00 a 639+13,172											
Nota de Serviço Desmatamento											
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)		
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada	
428 + 16,719	3,28	Pista	11,130	9,081	6,01	6,010	242,11	144.902,06	120,20	98.269,41	
429 + 0,000	12,00	Pista	10,750	9,035	6,01	6,010	181,75	145.083,81	91,85	98.361,26	
429 + 12,002	8,00	Pista	10,040	8,985	6,01	6,010	230,25	145.314,06	120,20	98.481,46	
430 + 0,000	7,29	Pista	9,766	8,694	6,01	6,010	171,64	145.485,70	91,86	98.573,32	
430 + 7,286	12,71	Pista	9,421	8,289	6,01	6,010	217,10	145.702,80	120,20	98.693,52	
431 + 0,000	20,00	Pista	8,397	7,968	6,059	5,765	333,11	146.035,91	193,41	98.886,93	
432 + 0,000	7,29	Pista	7,524	6,925	5,81	5,718	251,70	146.287,61	157,28	99.044,20	
432 + 7,286	12,71	Pista	6,988	6,455	5,71	5,710	174,43	146.462,04	114,20	99.158,40	
433 + 0,000	20,00	Pista	6,011	5,903	5,71	5,710	260,31	146.722,35	186,80	99.345,20	
434 + 0,000	20,00	Pista	6,152	5,947	5,71	5,710	321,98	147.044,33	228,40	99.573,60	
435 + 0,000	20,00	Pista	6,737	6,592	5,71	5,710	346,58	147.390,91	228,40	99.802,00	
436 + 0,000	20,00	Pista	7,495	7,110	5,71	5,710	372,10	147.763,01	228,40	100.030,40	
437 + 0,000	20,00	Pista	8,299	7,429	5,71	5,710	394,56	148.157,57	228,40	100.258,80	
438 + 0,000	20,00	Pista	8,389	7,734	5,71	5,710	402,46	148.560,03	228,40	100.487,20	
439 + 0,000	20,00	Pista	8,586	8,097	5,71	5,710	413,66	148.973,69	228,40	100.715,60	
440 + 0,000	20,00	Pista	8,667	8,359	5,71	5,710	420,52	149.394,21	228,40	100.944,00	
441 + 0,000	20,00	Pista	8,075	8,480	5,71	5,710	411,10	149.805,31	228,40	101.172,40	
442 + 0,000	20,00	Pista	8,323	8,434	5,71	5,710	415,14	150.220,45	228,40	101.400,80	
443 + 0,000	20,00	Pista	7,967	8,317	5,71	5,710	405,68	150.626,13	228,40	101.629,20	
444 + 0,000	20,00	Pista	7,940	8,420	5,71	5,710	407,20	151.033,33	228,40	101.857,60	
445 + 0,000	2,66	Pista	7,961	8,365	5,71	5,710	230,26	151.263,59	129,37	101.986,97	
445 + 2,657	17,34	Pista	7,896	8,365	5,71	5,710	202,61	151.466,20	114,20	102.101,17	
446 + 0,000	20,00	Pista	8,042	8,131	5,71	5,710	376,66	151.842,86	213,23	102.314,40	
447 + 0,000	20,00	Pista	8,008	7,993	5,71	5,710	400,02	152.242,88	228,40	102.542,80	
448 + 0,000	20,00	Pista	8,191	8,037	5,71	5,710	404,56	152.647,44	228,40	102.771,20	
449 + 0,000	20,00	Pista	7,843	8,097	5,71	5,710	398,80	153.046,24	228,40	102.999,60	
450 + 0,000	20,00	Pista	7,344	8,012	5,71	5,710	387,12	153.433,36	228,40	103.228,00	
451 + 0,000	20,00	Pista	7,215	7,794	5,71	5,710	380,18	153.813,54	228,40	103.456,40	
452 + 0,000	20,00	Pista	6,787	7,303	5,71	5,710	361,80	154.175,34	228,40	103.684,80	
453 + 0,000	20,00	Pista	6,661	6,986	5,71	5,710	352,94	154.528,28	228,40	103.913,20	
454 + 0,000	20,00	Pista	6,501	6,979	5,71	5,710	349,60	154.877,88	228,40	104.141,60	
455 + 0,000	20,00	Pista	6,502	6,855	5,71	5,710	347,14	155.225,02	228,40	104.370,00	
456 + 0,000	20,00	Pista	6,431	6,638	5,71	5,710	341,38	155.566,40	228,40	104.598,40	
457 + 0,000	20,00	Pista	6,513	6,500	5,71	5,710	340,26	155.906,66	228,40	104.826,80	
458 + 0,000	20,00	Pista	6,402	6,385	5,71	5,710	335,74	156.242,40	228,40	105.055,20	
459 + 0,000	20,00	Pista	6,248	6,470	5,71	5,710	334,36	156.576,76	228,40	105.283,60	
460 + 0,000	20,00	Pista	6,023	6,348	5,71	5,710	327,42	156.904,18	228,40	105.512,00	
461 + 0,000	20,00	Pista	5,909	6,188	5,71	5,710	321,94	157.226,12	228,40	105.740,40	
462 + 0,000	20,00	Pista	5,972	6,391	5,71	5,710	327,26	157.553,38	228,40	105.968,80	
463 + 0,000	20,00	Pista	6,021	6,451	5,71	5,710	329,44	157.882,82	228,40	106.197,20	
464 + 0,000	20,00	Pista	6,093	6,530	5,71	5,710	332,46	158.215,28	228,40	106.425,60	
465 + 0,000	20,00	Pista	6,320	6,594	5,71	5,710	338,28	158.553,56	228,40	106.654,00	
466 + 0,000	20,00	Pista	6,083	6,814	5,71	5,710	337,94	158.891,50	228,40	106.882,40	
467 + 0,000	20,00	Pista	6,192	6,996	5,71	5,710	343,76	159.235,26	228,40	107.110,80	
468 + 0,000	20,00	Pista	5,727	7,346	5,71	5,710	341,46	159.576,72	228,40	107.339,20	
469 + 0,000	20,00	Pista	5,835	6,431	5,71	5,710	325,32	159.902,04	228,40	107.567,60	
470 + 0,000	15,06	Pista	6,006	5,875	5,71	5,710	278,38	160.180,42	200,18	107.767,78	
470 + 15,058	4,94	Pista	6,196	5,834	5,71	5,710	160,30	160.340,72	114,20	107.881,98	



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
471 + 0,000	20,00	Pista	6,330	5,891	5,713	5,781	202,29	160.543,01	143,34	108.025,32
472 + 0,000	15,06	Pista	6,790	6,754	5,78	6,010	307,53	160.850,54	206,67	108.231,99
472 + 15,058	4,94	Pista	6,215	7,137	6,01	6,010	173,52	161.024,06	120,20	108.352,19
473 + 0,000	20,00	Pista	6,207	7,438	6,01	6,010	220,05	161.244,11	149,90	108.502,09
474 + 0,000	9,80	Pista	6,256	6,842	6,01	6,010	254,74	161.498,85	179,09	108.681,18
474 + 9,798	10,20	Pista	6,334	6,871	6,01	6,010	172,05	161.670,90	120,20	108.801,38
475 + 0,000	20,00	Pista	6,433	6,836	6,01	6,010	260,78	161.931,68	181,51	108.982,89
476 + 0,000	4,54	Pista	6,595	6,031	6,01	6,010	203,99	162.135,68	147,48	109.130,37
476 + 4,539	15,46	Pista	6,619	6,125	6,01	6,010	167,44	162.303,12	120,20	109.250,57
477 + 0,000	20,00	Pista	6,381	6,172	5,785	6,000	293,49	162.596,61	208,95	109.459,52
478 + 0,000	4,54	Pista	6,243	6,215	5,713	5,775	201,93	162.798,54	140,95	109.600,48
478 + 4,539	15,46	Pista	6,162	6,276	5,71	5,710	164,38	162.962,92	114,20	109.714,68
479 + 0,000	20,00	Pista	6,185	6,434	5,71	5,710	294,66	163.257,58	202,48	109.917,16
480 + 0,000	20,00	Pista	6,238	6,391	5,71	5,710	332,58	163.590,16	228,40	110.145,56
481 + 0,000	20,00	Pista	6,306	6,289	5,71	5,710	331,90	163.922,06	228,40	110.373,96
482 + 0,000	20,00	Pista	6,192	5,936	5,71	5,710	322,56	164.244,62	228,40	110.602,36
483 + 0,000	20,00	Pista	6,033	5,830	5,71	5,710	317,26	164.561,88	228,40	110.830,76
484 + 0,000	20,00	Pista	6,044	5,990	5,71	5,710	320,68	164.882,56	228,40	111.059,16
485 + 0,000	20,00	Pista	6,139	6,140	5,71	5,710	325,58	165.208,14	228,40	111.287,56
486 + 0,000	20,00	Pista	5,997	6,291	5,71	5,710	325,76	165.533,90	228,40	111.515,96
487 + 0,000	20,00	Pista	5,923	6,484	5,71	5,710	328,14	165.862,04	228,40	111.744,36
488 + 0,000	20,00	Pista	5,955	6,545	5,71	5,710	330,00	166.192,04	228,40	111.972,76
489 + 0,000	20,00	Pista	5,999	6,624	5,71	5,710	332,46	166.524,50	228,40	112.201,16
490 + 0,000	20,00	Pista	6,172	6,811	5,71	5,710	339,66	166.864,16	228,40	112.429,56
491 + 0,000	1,37	Pista	6,443	6,804	5,71	5,710	184,29	167.048,46	122,03	112.551,59
491 + 1,371	18,63	Pista	6,466	6,798	5,71	5,710	172,64	167.221,10	114,20	112.665,79
492 + 0,000	20,00	Pista	6,944	6,920	5,832	5,867	345,03	167.566,13	225,96	112.891,75
493 + 0,000	1,37	Pista	7,580	5,992	5,953	6,044	187,77	167.753,90	128,19	113.019,94
493 + 1,371	18,63	Pista	7,569	6,058	6,01	6,010	176,27	167.930,17	120,20	113.140,14
494 + 0,000	20,00	Pista	7,664	6,216	6,01	6,010	345,34	168.275,51	232,16	113.372,30
495 + 0,000	20,00	Pista	7,529	6,549	6,01	6,010	361,56	168.637,07	240,40	113.612,70
496 + 0,000	15,22	Pista	7,587	6,410	6,01	6,010	316,93	168.954,00	211,67	113.824,37
496 + 15,220	4,78	Pista	7,529	6,429	6,01	6,010	179,58	169.133,58	120,20	113.944,57
497 + 0,000	20,00	Pista	7,478	6,436	6,01	6,010	221,95	169.355,53	148,93	114.093,50
498 + 0,000	20,00	Pista	7,366	6,655	6,01	6,010	360,42	169.715,95	240,40	114.333,90
499 + 0,000	20,00	Pista	7,212	6,508	6,01	6,010	354,40	170.070,35	240,40	114.574,30
500 + 0,000	9,07	Pista	7,006	6,039	6,01	6,010	247,75	170.318,10	174,71	114.749,01
500 + 9,070	10,93	Pista	6,876	6,091	6,01	6,010	169,67	170.487,77	120,20	114.869,21
501 + 0,000	20,00	Pista	6,524	5,915	5,765	6,085	254,23	170.742,00	183,26	115.052,47
502 + 0,000	9,07	Pista	5,846	5,796	5,725	5,830	227,36	170.969,36	167,95	115.220,42
502 + 9,070	10,93	Pista	5,735	5,731	5,71	5,710	154,66	171.124,02	114,20	115.334,62
503 + 0,000	20,00	Pista	6,024	5,957	5,71	5,710	247,15	171.371,16	176,61	115.511,24
504 + 0,000	20,00	Pista	6,471	5,940	5,71	5,710	328,22	171.699,38	228,40	115.739,64
505 + 0,000	20,00	Pista	6,651	6,381	5,71	5,710	340,64	172.040,02	228,40	115.968,04
506 + 0,000	20,00	Pista	6,741	6,514	5,71	5,710	345,10	172.385,12	228,40	116.196,44
507 + 0,000	20,00	Pista	6,898	6,805	5,71	5,710	354,06	172.739,18	228,40	116.424,84
508 + 0,000	20,00	Pista	7,112	6,973	5,71	5,710	361,70	173.100,88	228,40	116.653,24
509 + 0,000	20,00	Pista	7,039	7,072	5,71	5,710	362,22	173.463,10	228,40	116.881,64



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
510 + 0,000	20,00	Pista	7,315	7,163	5,71	5,710	369,56	173.832,66	228,40	117.110,04
511 + 0,000	20,00	Pista	7,407	6,952	5,71	5,710	367,18	174.199,84	228,40	117.338,44
512 + 0,000	20,00	Pista	7,129	6,920	5,71	5,710	360,98	174.560,82	228,40	117.566,84
513 + 0,000	20,00	Pista	6,870	6,707	5,71	5,710	351,54	174.912,36	228,40	117.795,24
514 + 0,000	20,00	Pista	6,660	6,468	5,71	5,710	342,56	175.254,92	228,40	118.023,64
515 + 0,000	20,00	Pista	6,250	6,267	5,71	5,710	330,34	175.585,26	228,40	118.252,04
516 + 0,000	18,31	Pista	5,911	5,948	5,71	5,710	303,76	175.889,03	218,74	118.470,77
516 + 18,308	1,69	Pista	5,710	5,913	5,71	5,710	156,23	176.045,26	114,20	118.584,97
517 + 0,000	20,00	Pista	5,746	5,930	5,71	5,735	170,02	176.215,28	124,13	118.709,11
518 + 0,000	18,31	Pista	5,926	6,283	5,826	5,918	310,47	176.525,75	224,94	118.934,05
518 + 18,308	1,69	Pista	6,304	6,625	6,01	6,010	169,29	176.695,04	120,20	119.054,25
519 + 0,000	20,00	Pista	6,353	6,649	6,01	6,010	184,40	176.879,44	130,37	119.184,62
520 + 0,000	6,62	Pista	6,911	6,395	6,01	6,010	230,38	177.109,82	160,01	119.344,63
520 + 6,624	13,38	Pista	6,628	6,518	6,01	6,010	171,46	177.281,28	120,20	119.464,83
521 + 0,000	14,94	Pista	6,709	6,806	6,01	6,010	247,98	177.529,25	170,18	119.635,01
521 + 14,940	5,06	Pista	6,669	6,965	6,01	6,010	176,34	177.705,59	120,20	119.755,21
522 + 0,000	20,00	Pista	6,735	6,780	5,839	6,099	219,46	177.925,06	149,58	119.904,79
523 + 0,000	14,94	Pista	5,980	6,427	5,774	5,870	286,63	178.211,69	203,42	120.108,21
523 + 14,940	5,06	Pista	6,127	6,310	5,71	5,710	164,37	178.376,06	114,20	120.222,41
524 + 0,000	20,00	Pista	6,262	6,326	5,71	5,710	207,85	178.583,90	143,09	120.365,51
525 + 0,000	20,00	Pista	5,790	6,491	5,71	5,710	325,62	178.909,52	228,40	120.593,91
526 + 0,000	20,00	Pista	5,771	6,436	5,71	5,710	324,14	179.233,66	228,40	120.822,31
527 + 0,000	20,00	Pista	6,384	7,119	5,71	5,710	350,06	179.583,72	228,40	121.050,71
528 + 0,000	20,00	Pista	6,379	7,399	5,71	5,710	355,56	179.939,28	228,40	121.279,11
529 + 0,000	20,00	Pista	6,167	7,105	5,71	5,710	345,44	180.284,72	228,40	121.507,51
530 + 0,000	20,00	Pista	6,826	7,252	5,71	5,710	361,56	180.646,28	228,40	121.735,91
531 + 0,000	3,72	Pista	7,220	7,633	5,71	5,710	223,62	180.869,91	135,46	121.871,36
531 + 3,723	16,28	Pista	7,345	7,788	5,71	5,710	191,33	181.061,24	114,20	121.985,56
532 + 0,000	20,00	Pista	8,046	7,554	5,822	5,761	355,51	181.416,75	210,10	122.195,66
533 + 0,000	3,72	Pista	8,055	8,091	5,971	5,809	238,96	181.655,72	139,73	122.335,39
533 + 3,723	16,28	Pista	8,214	7,692	5,91	5,910	199,06	181.854,78	118,20	122.453,59
534 + 0,000	20,00	Pista	8,162	7,768	5,91	5,910	361,50	182.216,28	214,40	122.667,99
535 + 0,000	20,00	Pista	8,555	7,371	5,91	5,910	398,52	182.614,80	236,40	122.904,39
536 + 0,000	20,00	Pista	8,444	7,063	5,91	5,910	390,14	183.004,94	236,40	123.140,79
537 + 0,000	20,00	Pista	8,645	6,845	5,91	5,910	389,80	183.394,74	236,40	123.377,19
538 + 0,000	20,00	Pista	9,069	6,436	5,91	5,910	390,10	183.784,84	236,40	123.613,59
539 + 0,000	20,00	Pista	7,406	6,022	5,91	5,910	348,56	184.133,40	236,40	123.849,99
540 + 0,000	20,00	Pista	8,247	5,969	5,91	5,910	364,32	184.497,72	236,40	124.086,39
541 + 0,000	19,73	Pista	7,583	6,013	5,91	5,910	349,58	184.847,30	234,83	124.321,22
541 + 19,734	0,27	Pista	7,082	6,378	5,91	5,910	174,60	185.021,90	118,20	124.439,42
542 + 0,000	20,00	Pista	7,064	6,385	5,91	5,910	176,81	185.198,71	119,77	124.559,19
543 + 0,000	20,00	Pista	6,059	5,961	5,91	5,910	320,40	185.519,11	236,40	124.795,59
544 + 0,000	20,00	Pista	6,151	6,102	5,91	5,910	325,06	185.844,17	236,40	125.031,99
545 + 0,000	20,00	Pista	6,028	6,378	5,91	5,910	328,12	186.172,29	236,40	125.268,39
546 + 0,000	20,00	Pista	6,261	6,837	5,91	5,910	341,96	186.514,25	236,40	125.504,79
547 + 0,000	20,00	Pista	6,607	7,797	5,91	5,910	368,08	186.882,33	236,40	125.741,19
548 + 0,000	20,00	Pista	6,987	8,393	5,91	5,910	387,60	187.269,93	236,40	125.977,59
549 + 0,000	20,00	Pista	5,915	8,189	5,91	5,910	362,08	187.632,01	236,40	126.213,99



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
550 + 0,000	15,75	Pista	6,090	7,757	5,91	5,910	318,97	187.950,98	211,25	126.425,24
550 + 15,745	4,25	Pista	5,917	7,718	5,91	5,910	176,35	188.127,33	118,20	126.543,44
551 + 0,000	20,00	Pista	5,955	7,760	5,976	5,798	214,84	188.342,17	142,79	126.686,23
552 + 0,000	15,75	Pista	6,823	7,428	5,822	5,755	326,19	188.668,36	206,91	126.893,14
552 + 15,745	4,25	Pista	7,293	7,516	5,71	5,710	188,09	188.856,45	114,20	127.007,34
553 + 0,000	20,00	Pista	7,349	7,618	5,71	5,710	230,02	189.086,47	138,50	127.145,84
554 + 0,000	20,00	Pista	7,152	7,522	5,71	5,710	373,48	189.459,95	228,40	127.374,24
555 + 0,000	2,21	Pista	6,335	6,420	5,71	5,710	186,04	189.645,99	126,80	127.501,04
555 + 2,207	17,79	Pista	6,245	6,231	5,71	5,710	164,76	189.810,75	114,20	127.615,24
556 + 0,000	20,00	Pista	6,050	5,959	5,816	5,870	302,51	190.113,26	220,82	127.836,06
557 + 0,000	2,21	Pista	6,513	6,528	5,922	6,062	189,21	190.302,48	133,06	127.969,13
557 + 2,207	17,79	Pista	6,490	6,684	6,01	6,010	171,74	190.474,22	120,20	128.089,33
558 + 0,000	7,97	Pista	6,600	6,802	6,01	6,010	224,16	190.698,38	154,84	128.244,16
558 + 7,970	12,03	Pista	6,660	6,602	6,01	6,010	172,62	190.871,00	120,20	128.364,36
559 + 0,000	13,73	Pista	6,706	6,573	6,01	6,010	222,58	191.093,58	154,84	128.519,20
559 + 13,733	6,27	Pista	6,796	6,598	6,01	6,010	173,94	191.267,52	120,20	128.639,40
560 + 0,000	20,00	Pista	6,976	6,188	5,814	6,106	225,42	191.492,94	156,55	128.795,95
561 + 0,000	13,73	Pista	6,632	6,356	5,76	5,865	286,53	191.779,47	196,07	128.992,02
561 + 13,733	6,27	Pista	6,501	6,614	5,71	5,710	171,15	191.950,62	114,20	129.106,22
562 + 0,000	20,00	Pista	6,464	6,698	5,71	5,710	225,40	192.176,02	149,98	129.256,21
563 + 0,000	20,00	Pista	6,077	6,523	5,71	5,710	332,00	192.508,02	228,40	129.484,61
564 + 0,000	7,91	Pista	5,933	6,095	5,71	5,710	223,70	192.731,72	159,39	129.644,00
564 + 7,914	12,09	Pista	5,747	5,821	5,71	5,710	155,68	192.887,40	114,20	129.758,20
565 + 0,000	20,00	Pista	6,460	6,038	5,856	5,744	264,68	193.152,08	186,10	129.944,29
566 + 0,000	7,91	Pista	7,793	6,668	6,107	5,788	257,66	193.409,74	166,02	130.110,31
566 + 7,914	12,09	Pista	7,922	6,287	6,01	6,010	182,09	193.591,83	120,20	130.230,51
567 + 0,000	10,58	Pista	6,968	6,406	6,01	6,010	196,91	193.788,74	136,23	130.366,74
567 + 10,581	9,42	Pista	6,475	6,465	6,01	6,010	169,40	193.958,14	120,20	130.486,94
568 + 0,000	13,25	Pista	6,185	6,144	6,01	6,010	185,07	194.143,21	136,23	130.623,18
568 + 13,249	6,75	Pista	6,080	6,126	6,01	6,010	162,06	194.305,27	120,20	130.743,38
569 + 0,000	20,00	Pista	5,905	6,209	6,108	5,805	215,53	194.520,80	159,34	130.902,72
570 + 0,000	13,25	Pista	7,002	6,033	5,863	5,755	283,20	194.804,00	193,14	131.095,86
570 + 13,249	6,75	Pista	7,472	6,000	5,71	5,710	174,72	194.978,72	114,20	131.210,06
571 + 0,000	19,86	Pista	7,426	6,049	5,71	5,710	232,48	195.211,20	151,93	131.361,99
571 + 19,856	0,14	Pista	7,826	6,103	5,71	5,710	179,29	195.390,49	114,20	131.476,19
572 + 0,000	20,00	Pista	7,832	6,186	5,81	5,710	181,48	195.571,97	116,03	131.592,22
573 + 0,000	20,00	Pista	7,684	6,005	5,81	5,810	353,78	195.925,75	232,40	131.824,62
574 + 0,000	20,00	Pista	6,653	6,037	5,81	5,810	333,80	196.259,55	232,40	132.057,02
575 + 0,000	20,00	Pista	7,153	6,145	5,81	5,810	345,96	196.605,51	232,40	132.289,42
576 + 0,000	20,00	Pista	6,628	6,416	5,81	5,810	340,88	196.946,39	232,40	132.521,82
577 + 0,000	18,93	Pista	5,952	6,525	5,81	5,810	320,77	197.267,15	226,21	132.748,03
577 + 18,935	1,07	Pista	5,903	6,399	5,81	5,810	163,02	197.430,17	116,20	132.864,23
578 + 0,000	20,00	Pista	5,955	6,372	5,81	5,810	171,96	197.602,14	122,39	132.986,62
579 + 0,000	20,00	Pista	6,074	6,118	5,81	5,810	323,84	197.925,98	232,40	133.219,02
580 + 0,000	20,00	Pista	5,976	6,092	5,81	5,810	321,36	198.247,34	232,40	133.451,42
581 + 0,000	20,00	Pista	6,826	5,830	5,81	5,810	333,12	198.580,46	232,40	133.683,82
582 + 0,000	20,00	Pista	7,058	5,910	5,81	5,810	339,36	198.919,82	232,40	133.916,22
583 + 0,000	18,01	Pista	6,239	6,543	5,81	5,810	318,98	199.238,79	220,86	134.137,08



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO										
Est.: 0+0,00 a 639+13,172										
Nota de Serviço Desmatamento										
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)	
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada
583 + 18,014	1,99	Pista	5,738	6,558	5,71	5,710	162,96	199.401,75	114,20	134.251,28
584 + 0,000	1,15	Pista	5,739	6,694	5,71	5,710	25,75	199.427,50	17,90	134.269,17
584 + 1,148	18,85	Pista	5,945	6,773	5,71	5,710	167,18	199.594,68	114,20	134.383,37
585 + 0,000	20,00	Pista	6,443	7,203	5,867	5,836	342,79	199.937,47	227,34	134.610,72
586 + 0,000	1,15	Pista	7,523	6,964	6,039	5,962	195,48	200.132,96	126,90	134.737,62
586 + 1,148	18,85	Pista	7,695	6,936	6,01	6,010	186,31	200.319,27	120,20	134.857,82
587 + 0,000	13,13	Pista	8,823	7,327	6,01	6,010	322,23	200.641,50	192,22	135.050,03
587 + 13,131	6,87	Pista	9,368	7,100	6,01	6,010	204,68	200.846,18	120,20	135.170,23
588 + 0,000	20,00	Pista	9,342	7,060	6,01	6,010	274,09	201.120,27	161,48	135.331,72
589 + 0,000	5,11	Pista	8,467	6,827	6,01	6,010	242,28	201.362,55	150,94	135.482,66
589 + 5,115	14,89	Pista	8,291	6,774	6,01	6,010	190,65	201.553,20	120,20	135.602,86
590 + 0,000	20,00	Pista	6,762	6,255	6,014	5,779	296,82	201.850,02	205,70	135.808,56
591 + 0,000	5,11	Pista	6,195	6,150	5,783	5,713	205,25	202.055,27	144,36	135.952,92
591 + 5,115	14,89	Pista	6,314	6,056	5,71	5,710	163,70	202.218,97	114,20	136.067,12
592 + 0,000	20,00	Pista	6,520	5,897	5,71	5,710	286,35	202.505,33	199,19	136.266,31
593 + 0,000	20,00	Pista	6,392	6,040	5,71	5,710	328,64	202.833,97	228,40	136.494,71
594 + 0,000	20,00	Pista	6,400	6,011	5,71	5,710	328,22	203.162,19	228,40	136.723,11
595 + 0,000	20,00	Pista	6,259	6,384	5,71	5,710	332,86	203.495,05	228,40	136.951,51
596 + 0,000	20,00	Pista	5,947	6,235	5,71	5,710	323,64	203.818,69	228,40	137.179,91
597 + 0,000	20,00	Pista	6,060	5,785	5,71	5,710	316,90	204.135,59	228,40	137.408,31
598 + 0,000	20,00	Pista	6,171	5,844	5,71	5,710	320,30	204.455,89	228,40	137.636,71
599 + 0,000	4,94	Pista	6,137	5,741	5,71	5,710	198,02	204.653,91	142,42	137.779,14
599 + 4,943	15,06	Pista	6,143	5,726	5,71	5,710	158,69	204.812,60	114,20	137.893,34
600 + 0,000	20,00	Pista	6,347	5,954	5,749	5,821	285,73	205.098,33	202,80	138.096,14
601 + 0,000	4,94	Pista	6,717	5,997	5,785	5,982	208,45	205.306,78	146,75	138.242,89
601 + 4,943	15,06	Pista	6,664	6,146	5,91	5,910	168,10	205.474,88	118,20	138.361,09
602 + 0,000	14,42	Pista	6,524	6,433	5,91	5,910	249,90	205.724,78	174,20	138.535,29
602 + 14,418	5,58	Pista	6,822	6,048	5,91	5,910	168,70	205.893,48	118,20	138.653,49
603 + 0,000	20,00	Pista	6,967	6,078	5,91	5,910	218,02	206.111,50	151,19	138.804,68
604 + 0,000	3,89	Pista	7,444	6,208	5,91	5,910	210,89	206.322,39	141,21	138.945,89
604 + 3,894	16,11	Pista	7,532	6,388	5,91	5,910	179,20	206.501,59	118,20	139.064,09
605 + 0,000	20,00	Pista	7,438	5,997	5,755	5,902	314,75	206.816,35	210,44	139.274,54
606 + 0,000	3,89	Pista	6,826	6,225	5,709	5,750	203,71	207.020,06	136,90	139.411,44
606 + 3,894	16,11	Pista	6,593	6,501	5,71	5,710	170,94	207.191,00	114,20	139.525,64
607 + 0,000	20,00	Pista	6,798	6,812	5,71	5,710	317,91	207.508,91	206,17	139.731,80
608 + 0,000	20,00	Pista	5,837	6,252	5,71	5,710	321,78	207.830,69	228,40	139.960,20
609 + 0,000	20,00	Pista	6,117	5,766	5,71	5,710	317,66	208.148,35	228,40	140.188,60
610 + 0,000	7,67	Pista	6,145	5,767	5,71	5,710	220,16	208.368,51	158,01	140.346,61
610 + 7,672	12,33	Pista	6,107	5,867	5,71	5,710	159,74	208.528,25	114,20	140.460,81
611 + 0,000	20,00	Pista	6,038	5,942	5,81	5,810	258,30	208.786,55	187,83	140.648,63
612 + 0,000	5,19	Pista	6,054	6,024	5,81	5,810	202,53	208.989,08	146,38	140.795,01
612 + 5,194	14,81	Pista	5,968	6,107	5,81	5,810	160,75	209.149,83	116,20	140.911,21
613 + 0,000	20,00	Pista	6,010	6,110	5,81	5,810	280,54	209.430,37	202,22	141.113,43
614 + 0,000	2,72	Pista	6,174	6,164	5,81	5,810	185,57	209.615,94	131,98	141.245,41
614 + 2,716	17,28	Pista	6,065	6,055	5,71	5,710	161,20	209.777,14	114,20	141.359,61
615 + 0,000	20,00	Pista	5,732	6,049	5,71	5,710	294,19	210.071,33	212,89	141.572,51
616 + 0,000	20,00	Pista	6,286	6,075	5,71	5,710	327,22	210.398,55	228,40	141.800,91
617 + 0,000	20,00	Pista	6,436	6,350	5,71	5,710	335,72	210.734,27	228,40	142.029,31



PROJETO EXECUTIVO DE TERRAPLENAGEM - RODOVIA MUNICIPAL DO PARAÍSO											
Est.: 0+0,00 a 639+13,172											
Nota de Serviço Desmatamento											
Estaca	Distância	Descrição	Afastamento - OFFSETS (m)		Pista		Desmatamento (m²)		Tratamento do subleito (m²)		
			Lado Esquerdo	Lado Direito	Lado Esquerdo	Lado Direito	Individual	Acumulada	Individual	Acumulada	
618 + 0,000	19,22	Pista	7,071	6,402	5,71	5,710	342,67	211.076,94	223,96	142.253,27	
618 + 19,223	0,78	Pista	6,706	6,585	5,71	5,710	172,91	211.249,85	114,20	142.367,47	
619 + 0,000	20,00	Pista	6,704	6,580	5,71	5,721	179,55	211.429,40	118,75	142.486,22	
620 + 0,000	19,22	Pista	6,567	6,429	5,844	5,887	333,32	211.762,72	230,06	142.716,28	
620 + 19,223	0,78	Pista	6,510	6,393	6,01	6,010	169,03	211.931,75	120,20	142.836,48	
621 + 0,000	18,32	Pista	6,480	6,399	6,01	6,010	161,17	212.092,92	114,77	142.951,26	
621 + 18,320	1,68	Pista	6,401	6,354	6,01	6,010	167,55	212.260,47	120,20	143.071,46	
622 + 0,000	17,42	Pista	6,398	6,324	6,01	6,010	159,66	212.420,13	114,77	143.186,22	
622 + 17,416	2,58	Pista	6,216	6,611	6,01	6,010	168,27	212.588,40	120,20	143.306,42	
623 + 0,000	20,00	Pista	6,156	6,730	5,909	6,068	190,68	212.779,08	135,24	143.441,67	
624 + 0,000	17,42	Pista	7,144	6,847	5,81	5,871	336,58	213.115,65	218,53	143.660,20	
624 + 17,416	2,58	Pista	7,018	6,733	5,71	5,710	177,51	213.293,16	114,20	143.774,40	
625 + 0,000	20,00	Pista	6,737	6,760	5,71	5,710	197,58	213.490,74	128,95	143.903,35	
626 + 0,000	20,00	Pista	6,261	6,632	5,71	5,710	337,86	213.828,60	228,40	144.131,75	
627 + 0,000	20,00	Pista	5,723	6,044	5,71	5,710	315,34	214.143,94	228,40	144.360,15	
628 + 0,000	20,00	Pista	5,792	5,814	5,71	5,710	312,12	214.456,06	228,40	144.588,55	
629 + 0,000	20,00	Pista	6,362	5,976	5,71	5,710	326,76	214.782,82	228,40	144.816,95	
630 + 0,000	1,58	Pista	6,326	5,738	5,71	5,710	173,35	214.956,16	123,23	144.940,18	
630 + 1,582	18,42	Pista	6,260	5,722	5,71	5,710	159,82	215.115,98	114,20	145.054,38	
631 + 0,000	20,00	Pista	6,562	6,703	5,984	6,078	331,64	215.447,63	231,70	145.286,08	
632 + 0,000	1,58	Pista	7,631	6,812	6,255	6,495	199,02	215.646,65	137,59	145.423,67	
632 + 1,582	18,42	Pista	7,610	6,834	6,41	6,410	184,44	215.831,09	128,20	145.551,87	
633 + 0,000	3,43	Pista	7,684	6,785	6,41	6,410	201,78	216.032,87	140,06	145.691,93	
633 + 3,433	16,57	Pista	7,620	6,766	6,41	6,410	183,86	216.216,73	128,20	145.820,13	
634 + 0,000	5,28	Pista	7,258	6,896	6,41	6,410	198,33	216.415,06	140,06	145.960,19	
634 + 5,283	14,72	Pista	7,165	7,131	6,41	6,410	182,96	216.598,02	128,20	146.088,39	
635 + 0,000	20,00	Pista	6,898	6,160	5,863	6,419	296,10	216.894,12	213,20	146.301,59	
636 + 0,000	5,28	Pista	6,585	5,807	5,719	5,884	207,22	217.101,34	146,68	146.448,27	
636 + 5,283	14,72	Pista	6,425	5,974	5,71	5,710	163,99	217.265,33	114,20	146.562,47	
637 + 0,000	20,00	Pista	7,275	6,191	5,71	5,710	303,18	217.568,52	198,23	146.760,70	
638 + 0,000	20,00	Pista	7,263	6,147	5,71	5,710	348,20	217.916,72	228,40	146.989,10	
639 + 0,000	13,17	Pista	7,076	6,114	5,71	5,710	285,11	218.201,83	189,41	147.178,51	
639 + 13,172	0,00	Pista	6,546	6,051	5,71	5,710	109,31	218.311,14	75,21	147.253,73	
Total até 0,15m (m²)								201.517,97	Total	147.253,73	
Total de 0,15 a 0,30m (und.)								16.793,16			